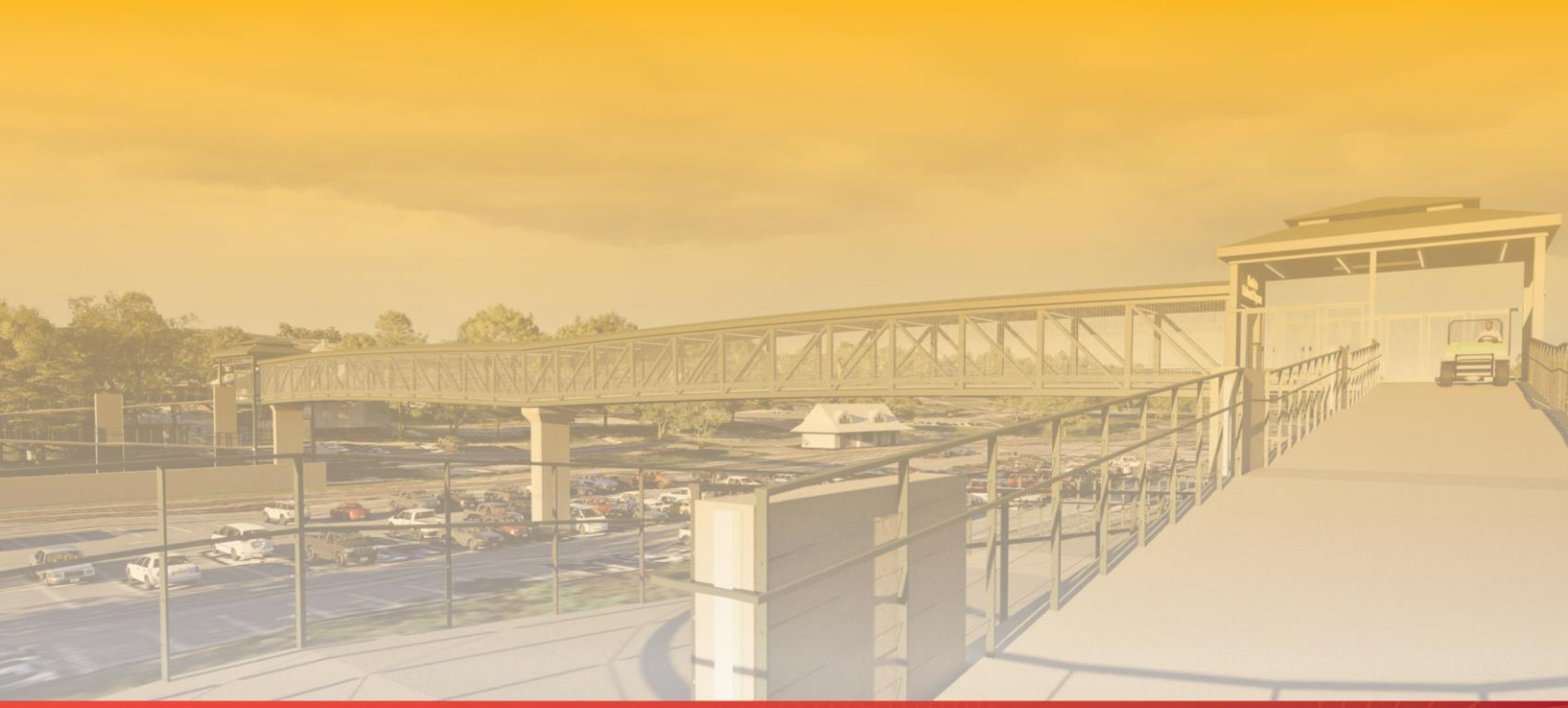

Brunswick Line Improvement Project

FRA CRISI Grant Application

FY 2023

Project Narrative

Amtrack Capitol Limited
Points of Rocks MD Photo
Mark Levisay from Ruckersville, VA, USA,
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MDOT MARYLAND DEPARTMENT OF TRANSPORTATION

MARYLAND TRANSIT ADMINISTRATION

Cover Page

Project Title	Brunswick Line Improvement Project
Project Applicant	Maryland Transit Administration (MTA)
Co-Applicants	None
Amount of CRISI Program Funding Requested under this NOFO	$8,800,000
Amount of Proposed Non-Federal Match	$2,200,000
Other Sources of Federal funding, if applicable	None
Source(s) of Proposed Non-Federal Match	City of Brunswick Maryland Department of Transportation
Total Project Cost	$11,000,000
Was a Federal grant application previously submitted for this project? If yes, please specify the program, funding year, and project title of the previous application, and identify any differences between the applications.	No
City(-ies), County(ies), State(s) Where the Project is Located	City of Brunswick, Frederick County, MD; Montgomery County, MD
Is the Project located in a Rural Area?	Brunswick, MD, the location of Brunswick Site Improvements, has an USDOT classification as a rural area. Silver Spring, the site of the Silver Spring Turnback, is not in a rural area.
Congressional District(s) Where the Project is Located	6th and 8th Congressional District of Maryland
Application Track(s) proposed to be funded by this NOFO	Track 2 – Project Development
Lifecycle Stage(s) proposed to be funded by this NOFO	**Project Development (NEPA) & Final Design**: Pedestrian / Bicycle/ Lightweight Emergency Vehicle Bridge **Project Development**: Center Island Platform; Brunswick Yard Maintenance Facility; Silver Spring Turnback
Current Lifecycle Stage and anticipated completion of current Lifecycle Stage?	**Pedestrian / Bicycle / Lightweight Emergency Vehicle Bridge** • Current: Project Development (30% Design) • Completion: 2024 **Center Island Platform, Brunswick Yard Maintenance Facility, Silver Spring Turnback** • Current: Project Planning • Completion: 2024

Cover Page Continued

Project Title	Brunswick Line Improvement Project
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 proposed interest.	CSX Transportation (ownership) City of Brunswick (ownership) National Park Service (ownership) Montgomery County (ownership) Maryland State Highway Administration (SHA) (easement)
Other impacted railroads	None
Tenant railroads, if applicable	Maryland Area Rail Commuter (MARC) Amtrak
If applicable, is a U.S.C. 22905-compliance Railroad Agreement executed or pending?	Pending, prior to construction activity.
Is the project currently programmed in any medium- or long-range planning document? If yes, specify.	The Brunswick Site Improvements are mentioned in the State Rail Plan.
Is the project located on a potential corridor selected for the Corridor Identification and Development Program?	No
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?	No
Is this a project eligible under 49 U.S.C. 22907(c)(11) that supports the development and implementation of measures to prevent trespassing and reduce associated injuries and fatalities?	Yes
If yes to the previous question, is this project located in a county with the most pedestrian trespasser casualties as identified in the Federal Railroad Administration's National Strategy to Prevent Trespassing on Railroad Property?	No
Is the application seeking consideration for funding under the Maglev Grants Program?	No

Project Summary

The Brunswick Line Improvement Project (the Project), includes preliminary engineering to 30% design, 100% final design, and NEPA documentation tasks for various project components:

- 100% design and NEPA for construction documentation for a pedestrian/bicycle/ lightweight emergency vehicle bridge;
- 30% design and NEPA for design of a center island platform for Brunswick station;
- 30% design and NEPA for design to support either an expanded or new layover and maintenance facility; and
- 30% design and NEPA for design for a turnback facility in the Silver Spring vicinity

The Project will address several challenges of current conditions, including (1) the presence of safety issues for two at-grade crossings in Brunswick; (2) the limitations on expanding commuter rail service with the availability of only two railroad tracks on CSX Transportation (CSXT) right-of-way between Martinsburg, WV, and Washington, DC; (3) insufficient condition of Maryland Area Rail Commuter's (MARC) Brunswick line assets; and (4) limited ability for MARC to conduct inspections and heavy maintenance of its vehicles on site at Brunswick. As shown in Figure 1, the Project components are located along the Brunswick Line in both Brunswick (rural designation) and Silver Spring, MD.

Figure 1: Brunswick Line Improvement Project Area Overview

Grant Funds, Sources and Uses of Project Funds

MTA is requesting $8.8 million to complete the $11 million Project that will include preliminary engineering (PE) efforts to achieve 30% design and NEPA for design documentation for the Center Island Platform, Brunswick Yard Maintenance Facility, and Silver Spring Turnback components; and 100% design level and documentation for NEPA approval for the Pedestrian / Bicycle / Lightweight Emergency Vehicle Bridge component.

Non-Federal Funding: As shown in the table below, MDOT and the City of Brunswick will combine to contribute $2,200,000 of the total costs associated with the project. Each task and component will be funded by a 20% non-Federal share and 80% CRISI funding share.

Table 1 Project Budget

Task #	Task Name/Project Component	Cost	Percentage of Total Cost
1	**Preliminary Engineering (30% Design)**	**$7,650,000**	**70%**
	Component 2 – Center Island Platform	$2,040,000	19%
	Component 3 – Brunswick Yard Maintenance Facility	$3,060,000	28%
	Component 4 – Silver Spring Turnback	$2,550,000	23%
2	**NEPA for Design Documentation**	**$1,350,000**	**12%**
	Component 2 – Center Island Platform	$360,000	3%
	Component 3 – Brunswick Yard Maintenance Facility	$540,000	5%
	Component 4 – Silver Spring Turnback	$450,000	4%
3	**100% Design** Component 1 – Pedestrian / Bicycle / Lightweight Emergency Vehicle Bridge	**$1,700,000**	**15%**
4	**NEPA Documentation** Component 1 – Pedestrian / Bicycle / Emergency Vehicle Bridge	**$300,000**	**3%**
	Total Project Cost	$11,000,000	
	Federal Funds Received from Previous Grant	$0	0%
	Federal Funding Requested in this Application (CRISI Program Request)	$8,800,000	80%
	Non-Federal Funding State: Maryland Department of Transportation Local: City of Brunswick	$2,200,000 ($1,800,000) ($400,000)	20% (16.4%) (3.6%)
	Portion of Total Project Costs Spent in a Rural Area	$8,000,000	73%
	Pending Federal Funding Requests	$0	0%

Project Scalability

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

- **Brunswick Site Improvements (Components 1, 2, and 3)**
  CRISI Award: $6,400,000; Non-Federal Match: $1,600,000
  One scaled-down scenario would seek partial award funding for 100% design and full NEPA for construction approval for the Pedestrian / Bicycle / Lightweight Emergency Vehicle Bridge (Component 1) as well as 30% design and NEPA for design documentation for the Center Island Platform (Component 2) and Brunswick Yard Maintenance Facility (Component 3).
- **Pedestrian / Bicycle / Lightweight Emergency Vehicle Bridge & Center Island Platform (Components 1 and 2)**
  CRISI Award: $3,520,000; Non-Federal Match: $880,000
  A second scaled-down scenario would seek 100% design and full NEPA approval for the Pedestrian / Bicycle / Lightweight Emergency Vehicle Bridge (Component 1) and 30% design and NEPA for design documentation for the Center Island Platform (Component 2), which would be required to inform the final design of the bridge.

Applicant Eligibility Criteria

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

Project Eligibility Criteria

The Project meets FRA's project eligibility requirements for the CRISI program as it is a capital project that will be necessary to address both congestion and safety challenges impacting rail service and is a project that will enhance multimodal connections.

Improving safety and congestion:

- The Project's Pedestrian / Bicycle / Lightweight Emergency Vehicle Bridge component will provide a safer and more efficient connection to across the existing rails and to the MARC Brunswick station, obviating a need for pedestrians to use at-grade crossings of freight rail tracks along South Maple Avenue where conflicts with freight and passenger rail traffic occur.
- The Brunswick Station Center Island Platform will separate MARC passenger trains serving the station from CSX freight traffic.
- The Silver Spring Turnback is an enabling component of the Project that will lay the foundation for MTA to plan for a third track along the MARC Brunswick Line, which can enhance safety and alleviate congestion along the rail corridor by separating future MARC trains terminating at Silver Spring from CSX freight traffic.

Enhancing multimodal connections:

The Silver Spring Turnback contributes to this multimodal connection and service integration as an enabling component that can provide the potential for enhanced freight rail operations along the CSXT's Cumberland and Metropolitan Subdivisions and greater commuter rail service along the Brunswick Line between Martinsburg, WV, and Silver Spring, MD. The Project will provide the enabling infrastructure investments to support a potential third track to be used by commuter rail service. If additional track capacity could be provided, track space currently used by MARC commuter rail trains could be transferred to the third track, freeing space to be used for freight rail traffic and providing freight service the capacity to replace freight truck trips with train trips. With the infrastructure in place to terminate more eastbound MARC commuter rail trips at Silver Spring, passengers could connect from commuter rail to adjacent transportation systems, including the Washington Metropolitan Area Transit Authority (WMATA)'s Metrorail Red Line; MTA's Purple Line light rail transit (LRT); and local, commuter, and intercity bus service from the Paul S. Sarbanes Transit Center in Silver Spring.

Planning Documentation: State and regional long-range planning publications highlight several goals and initiatives that are consistent with the Project, including:

- **The 2022 Maryland State Rail Plan**, which identifies MTA initiatives that will improve safety, efficiency, and reliable service. MTA initiatives to achieve this include generally improving MARC station access and the need to eliminate at-grade pedestrian track crossings along the Brunswick Line, which are relevant to the Pedestrian / Bicycle / Lightweight Emergency Vehicle Bridge and Center Island Platform components. Additionally, new MARC service and improved frequencies are partially based on providing additional track capacity and maintenance capacity.
- **The State Rail Plan**, which indicates that MTA's siting considerations for a new or expanded maintenance facility include the potential purchase of the existing, CSXT-owned Brunswick Yard Maintenance Facility as an approach towards improving maintenance capacity.
- **The 2019 MARC Cornerstone Plan**, which describes the acquisition of the Brunswick Yard Maintenance Facility for expanded storage and maintenance activity as a necessary capital investment to increase MARC service.
- **Visualize 2045,** the long-range transportation plan published by the National Capital Region (NCR) Transportation Planning Board (TPB), which lists increasing trip capacity and frequency along all MARC commuter rail lines, including the Brunswick Line, as a major transit project.
- **The 2023 MARC Brunswick Line Expansion Study Technical Report** published by MTA, which reiterates the necessity of the Silver Spring Turnback and station platform reconfigurations systemwide, as they would be enabling infrastructure investments to prepare for additional track capacity and facilitate the separation of freight and passenger rail traffic.

Detailed Project Description

The Brunswick Line Improvement Project is comprised of four components, with Components 1 through 3 as part of Brunswick Site Improvements and Component 4 comprising the Silver Spring Turnback:

Brunswick Site Improvements

Component 1: Pedestrian / Bicycle / Lightweight Emergency Vehicle Bridge – *100% design and NEPA documentation of a Pedestrian / Bicycle / Lightweight Emergency Vehicle Bridge that spans both sides of the CSXT railroad tracks, enabling pedestrians, cyclists, and lightweight utility vehicles to access either side of the MARC Brunswick station without needing to traverse at-grade crossings on South Maple Avenue.*

Exploration of a new pedestrian, bicycle, and lightweight emergency vehicle bridge crossing the CSXT tracks at MARC Brunswick station was detailed in a Feasibility Report from October 2022 and a subsequent Alternatives Analysis report from January 2024. The preferred alternative indicated in the Alternatives Analysis is under development for 30% design plans and is based on a concept option that would feature a bridge crossing over the railroad tracks at South Maryland Avenue, between Burkittsville Road (MD Route 17) and South Maple Avenue. Ramp entries to the bridge's north may be aligned with either South Maryland Avenue or closer to South Maple Avenue, with the latter design consideration potentially creating opportunities to expand trailhead parking for visitors to the Chesapeake and Ohio (C&O) Canal National Historic Park. The bridge itself would be 16 feet wide and have 23 feet of minimum vertical clearance above the tracks. The ramps will meet ADA requirements and connect pedestrians, cyclists, and lightweight utility vehicles to either side of the MARC Brunswick station, allowing passengers to board and alight commuter rail trains in either the eastbound or westbound directions of travel without traversing at-grade crossings along South Maple Avenue. The bridge would enable first responders to use lightweight utility vehicles to cross the bridge in cases of emergency water rescues.

Component 2: Center Island Platform – *30% Design and NEPA for design documentation for the redesign the existing Brunswick station's westbound platform to a center island configuration.*

The MARC Brunswick station's westbound platform would be redesigned as a new center island platform configuration, consolidating the MARC train access to this one single platform instead of the current configuration of three separate platforms and also creating space for a potential third track along the MARC Brunswick Line. The platform would transform from low-level boarding to high-level boarding, improving accessibility by enabling people using assistive devices and bikes to roll between the platform and the train car. The platform will include a canopy where only limited shelters exist today, providing improved protection for passengers from the elements. The Center Island Platform design will be in tandem the 100% design of the Pedestrian / Bicycle / Lightweight Emergency Vehicle Bridge by informing the location of footings for the bridge.

Component 3: Brunswick Yard Maintenance Facility – *30% Design and NEPA for design documentation for the expansion of the existing Brunswick Yard Maintenance Facility owned by*

CSXT, or design for a new layover and maintenance facility located at the site of a lumber supplies store (84 Lumber).

The Brunswick Yard design will be based on a suitable site for purchase that can accommodate space for a new rail yard and coach maintenance building, with features such as a sand delivery system, windshield maintenance platform, inspection pit lengthening, and shop lighting. MTA's present contract agreement with CSXT to use the CSXT-owned Brunswick Yard limits the types of inspections, maintenance, and repairs that MTA can conduct on its MARC vehicles. MTA currently conducts heavier maintenance of its MARC rolling stock at the MARC Riverside Heavy Maintenance Facility in Baltimore City and Martin State Airport in Baltimore County. A site near the MARC Brunswick station, such as the CSXT-owned Brunswick Yard or 84 Lumber store, would be used for the storage and full maintenance capabilities of MARC vehicles.

Silver Spring Turnback

Component 4: Silver Spring Turnback – *30% Design and NEPA for design documentation for a turnback track adjacent to the MARC Silver Spring station, including 1,000 feet of track length and an 800-foot platform*.

A Feasibility Study scheduled for completion in February 2025 to prepare concepts for a turnback track facility near the MARC Silver Spring station and the MTA Purple Line. The Silver Spring Turnback would consist of a siding track extending to the Georgetown Junction Interlocking approximately ¾ miles northwest of Silver Spring station and an 800-foot platform connecting to the station. Speed options for turnback maneuvers would aim for the most optimal speed to gain CSXT approval, with considerations of using bumping posts and positive train control (PTC) as factors. The station platform would include canopies and benches to improve the comfort of passengers, and pedestrian connections to the Paul Sarbanes Transit Center.

Current Challenges

1. Restoring MTA's assets to a state of good repair

Challenge: MTA's 10-Year Capital Needs Inventory (CNI) & Prioritization document from 2022 and asset management data indicate MTA's MARC assets that are overdue or otherwise prioritized for investment. MTA asset management data shows that the platform and shelter structures of the MARC Brunswick station are in imminent need of replacement. The CNI also lists the acquisition and expansion of the coach maintenance facility at the Brunswick Yard to be fourth and fifth5th highest priority enhancement projects for the MARC system – and the highest enhancement project that is unfunded for design or construction.

Outcome: Returning the Brunswick station platform and shelters to a state of good repair and enhancing the Brunswick Yard coach maintenance facility to serve heavier maintenance of MARC rolling stock will assist in restoring more efficient and reliable services to the Brunswick line.

Performance Measure:

1. Number of MTA's MARC Brunswick line assets that restore to a state of good repair.

2. Maintaining safe movement of pedestrian, bicycle, lightweight emergency vehicle, and rail traffic

Challenge: Current access conditions to the MARC Brunswick station are factored by the presence of two adjacent at-grade highway-rail grade crossings on South Maple Avenue (U.S. DOT Crossing Inventory Numbers 928608Y and 140608S). The station is bisected by two sets of CSXT railroad tracks, such that three tracks (one main and two yard tracks) run parallel to and along the station's westbound platform whereas two tracks (one main and one yard track) run parallel to and along the station's eastbound platform, with the commuter rail parking lot situated between the tracks. As displayed in Figure 2, the westbound platform (yellow) is north of the railroad tracks and the eastbound platform (red) is south of the railroad tracks. As a result, passengers walking between the station and the City of Brunswick community to the north must cross both at-grade crossings to board or alight trains from the eastbound direction. Both sets of tracks are often blocked by stopped freight trains, forcing pedestrians and vehicles to wait long periods of time for trains to clear the at-grade crossings. Blockages commonly spur pedestrians and cyclists to risk injury or death by attempting to climb through or under parked train cars to reach other sides of the at-grade crossings. Anecdotal observations have included parents passing children between train cars and cyclists sliding bikes under train cars.

Figure 2: Aerial View of Brunswick Station Platforms

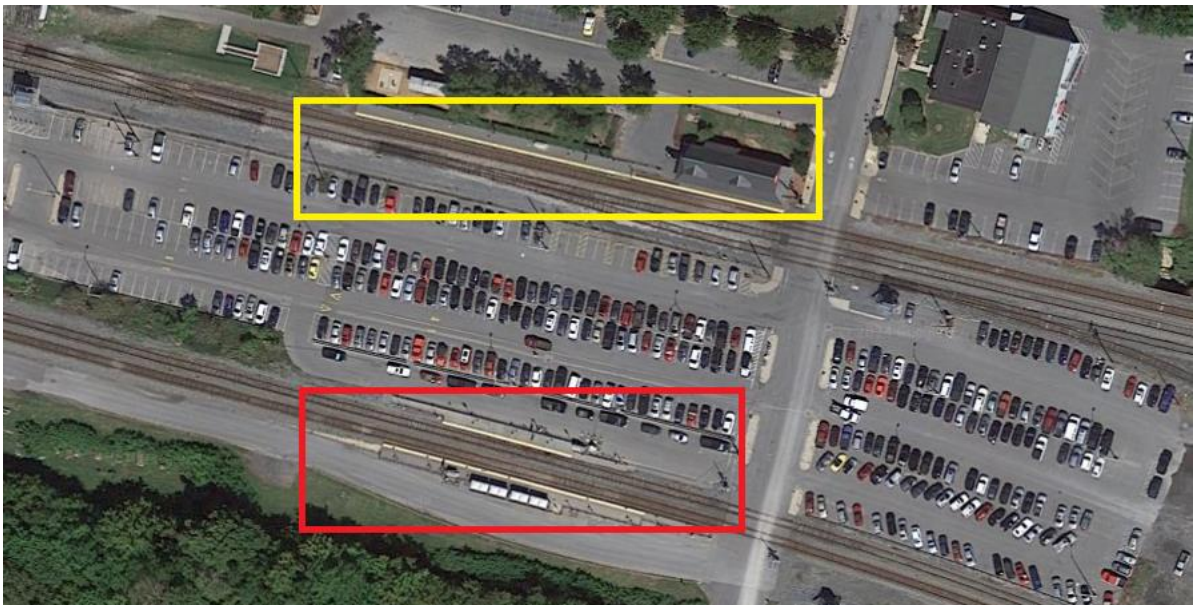


Figure 3: Local news coverage of crash at crossing 928608Y in 2022 (link)

For the northernmost at-grade crossing (U.S. DOT Crossing Inventory Number 9286087), two incidents have been reported to the Federal Railroad Administration (FRA). Table 1 below presents a summary detailing both incidents. As depicted in Figure above, the most recent of the two incidents involved a six-car Amtrak Capitol Limited passenger train that was travelling 40 mph and truck and dragged it into the historic Brunswick Station building.

Table 2: Reported Accident/Incident Cases along South Maple Avenue

Date	U.S. DOT Crossing Inventory #	Description of Event	Consequences
8/3/2022	928608Y	A six-car Amtrak passenger train struck an unoccupied passenger car parked in the crossing	$5,000 in property damage to the passenger car
11/14/2016	928608Y	A two-locomotive, 17-car CSX freight train traveling 15 mph struck a passenger car moving 5 mph in the railroad tracks	$6,500 in property damage to the passenger car

Additionally, emergency response times during water rescues can be impacted by train blockages of the at-grade crossings, which stymie first responders from accessing riverside recreational points south of the railroad tracks such as the C&O Canal National Historical Park, a public boat ramp, and the Brunswick Family Campground. Based on the Feasibility Report that explored solutions to improve the existing at-grade crossings, upon a train blockage during an emergency

at Brunswick's riverside facilities, first responders would be required to complete a 4.7-mile detour to the next nearest rail crossing on a road that has access to the C&O Canal towpath and travel an additional 3.1 miles to double back to Brunswick, resulting in a total detour length of 7.8 miles. Table 2 provides a summary of Priority 1 and 2 emergency calls (requiring immediate medical attention) south of the railroad tracks since 2022.

Table 3: Emergency Calls Since 2022 South of Railroad Tracks

Event Date	Call Description	Priority	Service Type	Location
5/12/2022	Injured Person	2	EMS	Brunswick Family Campground
5/30/2022	Swift Water Rescue	1	EMS	Brunswick Family Campground
7/30/2022	Electrical Hazard	1	Fire	Brunswick Family Campground
8/3/2022	Chest Pain	1	EMS	South Maple Avenue/Railroad (2nd Crossing)
4/22/2023	Trouble Breathing	2	EMS	C&O Canal Towpath
7/27/2023	Inland Water Rescue	1	EMS	C&O Canal Towpath

Lastly, the CSX railroad tracks on which the vast majority of the MARC Brunswick Line travels comprise the Cumberland and Metropolitan Subdivisions. Between Martinsburg, WV, and the Brentwood Yard in Washington, DC, just north of Union Station, CSX, MARC, and Amtrak trains share the same two tracks. Because of the lack of system redundancy and ability for different rail carriers to bypass one another along this rail segment, freight, intercity passenger, and commuter rail traffic must coordinate with each other to avoid conflicts.

Outcome: The Pedestrian / Bicycle / Lightweight Emergency Vehicle Bridge component of the Project provides an alternative for passengers to access the MARC Brunswick station without negotiating risky behaviors during situations in which the at-grade crossings may be blocked. The bridge enhances access to the station, providing a pathway to both platforms in both directions of the station without making any contact with the railroad tracks, therefore eliminating pedestrian and rail conflict points. The availability of a grade separation comprises an infrastructure modification that is directly related to strategies of the FRA's Trespassing and Suicide Prevention Toolkit. The option to avoid rail traffic to access either the station or riverside recreational facilities may reduce the likelihood of trespassing incidents resulting in serious injury or death. Lastly, the bridge will be designed to accommodate lightweight utility vehicles for first responders to cross between the City of Brunswick and riverside recreational areas in cases of emergency water rescues and any other emergencies. The presence of the bridge would enhance the possibility that, during train blockages, first responders can increase the probability of successful medical intervention.

The Center Island Platform and Silver Spring Turnback would create infrastructural prerequisites that could allow for expanded track capacity along the MARC Brunswick Line. The Project

anticipates the possibility that MTA may pursue a third track along the Brunswick Line since those components would reserve space for a third track alignment. The Project contributes to a framework that would permit separation of freight and rail traffic, since a third track, if pursued, could add system redundancy and allow trains to bypass one another when schedules or train speeds of different carriers have overlaps.

Performance Measures:

1. Reduction in reported incidents along South Maple Avenue documented under U.S. DOT Crossing Inventory Numbers 928608Y and 140608S after the construction of Pedestrian / Bicycle / Lightweight Emergency Vehicle Bridge;
2. Reduction in complaints of blocked trains as tracked by FRA's blocked crossing database; and
3. Improvement in EMS response times to riverside emergency calls during train blockages.

3. Providing infrastructural foundation for future demand

Challenge: Except for the Frederick Branch, which connects from Point of Rocks, MD, to Frederick, MD, and the tracks between Brentwood Yard and Union Station in Washington, DC, that connect to Amtrak's Northeast Corridor route, MTA's MARC Brunswick Line is along the CSX's Cumberland and Metropolitan Subdivision tracks. Because MARC is a tenant railroad to CSXT right-of-way, MTA must coordinate with CSX freight traffic and passenger rail traffic on Amtrak's Capitol Limited route to share two tracks. Based on timetable information from April 2024, 12 MARC trains stop at Brunswick station and 18 MARC trains stop at Silver Spring station on a typical weekday, with half of all trips occurring in the eastbound direction towards Union Station during the morning (approximately 4:50 AM and 8:50 AM) and the other half occurring in the westbound direction towards Brunswick (approximately 3:40 PM and 8:50 PM) in the evening. However, MTA maintains agreements with CSXT to operate MARC trains on the two main tracks, including arrangements for scheduling, the span of service, and train frequencies. Therefore, MTA has limited control over the track space on which it operates. The 2019 MARC Cornerstone Plan's long-term goal for Brunswick Line service, includes additional train capacity and frequency, such as by increasing midday service and adding reverse commute service and weekend service. The presence of two tracks shared between three rail carriers limits growth in service across all forms of rail traffic.

Outcome: The Project proactively addresses the logistical constraints of just two main tracks by fitting space for a potential third track at existing station locations. The MARC Brunswick Line Expansion Study Technical Report (January 2023) identifies station improvements with track and platform reconfigurations systemwide and a turnback facility at Silver Spring station as enabling infrastructure investments that would add track capacity. The Project directly helps to fulfill those investment goals through the Center Island Platform and Silver Spring Turnback components of the Project. The Center Island Platform would create space for a third main track to extend along the Brunswick Line and support long-term separation of MARC traffic from freight and intercity passenger rail traffic, while empowering MTA to more autonomy over its track conditions, maintenance, and service. Supporting a third track along the Brunswick Line would allow CSXT

freight trains to bypass commuter rail traffic, restoring freight rail service capacity on one of the main tracks. With more potential to use the CSXT right-of-way for freight rail service, freight train trips can replace freight truck trips that add congestion to interstate highways.

Similarly, data from the U.S. Census' Longitudinal Employer-Household Dynamics (LEHD) program, and as reported in the MARC Brunswick Line Expansion Study Technical Report, showed that 399,313 of survey respondents originating from points west of Washington, DC, (between Cumberland, MD, and Silver Spring, MD) also commute to destinations between Cumberland, MD, and Silver Spring, MD; whereas 388,322 survey respondents from those same points west of Washington, DC, commute to Washington, DC. Because a substantial proportion of commuters travel between western Maryland and Silver Spring, the investment of the Silver Spring Turnback would support the potential for greater track capacity along the route of a predominant trip pattern. Some eastbound MARC Brunswick Line trains could terminate at Silver Spring rather than complete a full trip to Union Station, and instead use the turnback facility to reverse directions.

Performance Measures:

1. Improvement of on-time MARC trips from Brunswick and Silver Spring stations;
2. Improvement of on-time freight operations and/or reduction in MARC train delays due to freight train interference;
3. Reduction in congestion and greenhouse gas emissions by mode shifts such as auto commuters moving to commuter rail due to improved service performance and/or from freight truck trips on interstate highways moving to freight rail due to improved efficiency.

4. Expanding maintenance capabilities to optimize operational efficiency

Challenge: Under existing contract agreements with CSXT to share storage and maintenance space of the CSXT-owned Brunswick Yard, located immediately east of the MARC Brunswick station, MTA has limited range for the types of inspections, maintenance, and repairs it can conduct on its MARC vehicles. Due to these limitations, MTA must cycle its MARC equipment such that heavy maintenance is performed at the MARC Riverside Heavy Maintenance Facility, which is 85 directional miles from Brunswick station, or Martin State Airport, which is 101 directional miles from Brunswick station. MTA makes an effort to plan these trips into existing scheduled service. However, at least two to three times a year, but as much as once per month depending on the condition of the railcars, MTA must conduct a special emergency equipment move outside of regularly scheduled trips. These special moves incur cost and are susceptible to higher safety risk as both the crew and the public are not used to MARC train movements outside of normal commuting hours. Performing heavy maintenance at the Riverside Heavy Maintenance Facility and Martin State Airport introduces more unnecessary rail traffic onto tracks owned by both CSXT and Amtrak, and it hinders MTA's ability to efficiently return vehicles to service efficiency.

Outcome: MTA is investigating site considerations and design options in advance of potentially acquiring and expanding the existing Brunswick Yard Maintenance Facility from CSXT or acquiring the site of the 84 Lumber store (½ mile west of Brunswick station) to develop a new layover yard and maintenance facility. By having more autonomy over how MTA can use maintenance and storage space on the Brunswick Line, MTA would be able to provide more

centralized maintenance of its rail vehicles, service a greater number of trains while minimizing non-revenue miles, and more quickly return its MARC trains to service on the Brunswick line. Concurrently, MTA would not need to negotiate storage space and maintenance equipment with CSXT, disentangling freight rail maintenance needs from commuter rail needs.

Performance Measures:

1. Number of MARC trains that no longer need to go to the MARC Riverside Heavy Maintenance Facility or Martin State Airport facility for maintenance; and
2. Number of 'special moves' of MARC equipment outside of previously scheduled and negotiated times on tracks owned by CSXT and Amtrak.

Current and Proposed Railroad Operations in Project Area

The MARC Brunswick Line is part of a vital, multimodal transportation network that links predominantly rural communities of western Maryland and eastern West Virginia to major employment, goods, and services centers of the mid-Atlantic region. As a tenant railroad of CSXT's Metropolitan and Cumberland Subdivisions, the MARC Brunswick Line shares track right-of-way with freight and intercity passenger rail services. The Metropolitan and Cumberland Subdivisions are Class I railroads and segments of CSXT's larger Central Division system, which bridge freight movement between the midwestern United States and the mid-Atlantic. Because the Port of Baltimore is in Maryland and is among the United States' busiest ports, and because CSX's Keystone, Cumberland, and Metropolitan Subdivisions transport high volumes of commodities and finished products that channel to the Port of Baltimore, the State of Maryland is a major hub for facilitating global trade. Intercity passenger rail service is provided by Amtrak, which operates one train in each direction per day along its Capitol Limited route with service between Chicago and Washington, D.C., via Pittsburgh and Cleveland. The Project is a proactive step towards achieving long-term separation of freight and intercity passenger rail service from commuter rail.

The MARC commuter rail system is a multi-state operation serving Maryland, West Virginia, and Washington, DC, with 42 stations along 202 directional miles of track. The Brunswick Line has 19 stations along 88 directional miles of track, including the Frederick Branch. Prior to the COVID-19 pandemic, in 2019, the Brunswick Line averaged 7,095 boardings per weekday, making it the second busiest of MARC's three lines (Penn, Camden, and Brunswick). Daily weekday boardings on the Brunswick Line rebounded from 2,374 in 2022 to 3,051 in 2023, the most since the onset of the COVID-19 pandemic and anticipated to continue increasing in 2024.

Expected Users and Beneficiaries

The Project will positively impact the following beneficiaries:

CSXT (Freight Service): The Brunswick Line Improvement Project will improve operational flexibility for freight service by ensuring that MTA can perform its maintenance and storage functions in a separate venue from CSXT, and by providing foundational infrastructure in place to advance the goal of developing a third track along the Brunswick Line to allow trains to bypass one another and alleviate congestion. MTA's agreements with CSXT could be progressively narrowed in scope as MTA gains more ownership of the tracks it operates and the selected venue

for MARC vehicle maintenance and storage, providing CSXT the certitude to optimize its own operations by having fewer potential schedule conflicts with MARC trains.

Amtrak (Intercity Passenger Rail Service): Amtrak's Capitol Limited route provides long-distance passenger rail service between Chicago and Washington, DC, and includes other station stops in Indiana, Ohio, Pennsylvania, West Virginia, and Maryland. In fiscal year 2023, the Capitol Limited route carried 126,309 passengers, providing an important alternative to aviation or private vehicles that commonly complete long-distance travel between the midwestern region of the United States and the mid-Atlantic region. Along the MARC Brunswick Line, Amtrak has station stops at Martinsburg, WV, (station code MRB), Harpers Ferry, WV, (station code HFY), and Rockville, MD (station code RKV). The Project will help to free space on one of the main tracks of the Cumberland and Metropolitan Subdivisions, allowing Amtrak to bypass MARC trains and to ultimately consider expanding or optimizing their service with the certainty of reduced competition with commuter rail.

MARC (Commuter Rail Service): Maryland's 203-mile, 43-station commuter rail system serves as a major means of commuting and operates on three 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, W,V via Brunswick, MD, and Silver Spring, MD. MARC operates 57 trains per day Monday through Friday, 18 trains on Saturdays, and 12 trains on Sundays over the three lines, and ranks as the 12th largest commuter rail system in the nation based on ridership. The Project will allow MTA to continue planning efforts to improve train capacity and frequency on the Brunswick Line, such as potentially increasing midday service, adding reverse commute service, and adding weekend service. With the Brunswick Yard, MTA could consolidate heavy maintenance of its rolling stock and would not need to negotiate storage space and maintenance equipment with CSXT or fragment storage and maintenance between the CSX Brunswick Yard Maintenance Facility, the MARC Riverside Heavy Maintenance Facility, or Martin State Airport.

City of Brunswick: The Project's Brunswick Site Improvements would benefit the residents and visitors of the City of Brunswick. By creating a safer pathway to traverse between the historic downtown area and riverside recreational opportunities including the Brunswick Family Campground, the Brunswick boat ramp, and the C&O Canal towpath. Presently, many recreational users avoid visiting the C&O Canal towpath and boat ramp from Brunswick because of concerns of becoming stuck at crossings during train blockages. The Pedestrian / Bicycle / Lightweight Emergency Vehicle Bridge may reduce the likelihood of trespassing incidents resulting from pedestrians or cyclists attempting to cross through blocked at-grade crossings for lack of a safer alternative. The option to cross the railroad tracks with a bridge could also help persuade recreational users to return to Brunswick. Pedestrians will be able to avoid direct interactions with train traffic to reach either side of the railroad tracks. In combination with the Center Island Platform, the Pedestrian / Bicycle / Lightweight Emergency Vehicle Bridge will also facilitate station access for rail passengers. The design of the bridge ramps may create an opportunity to utilize parking space within Railroad Square, positioned on the north side of the tracks, as trailhead

parking for the C&O Canal to limit the use of the MARC commuter rail parking lot between the tracks. The Pedestrian / Bicycle / Lightweight Emergency Vehicle Bridge and Center Island Platform will also better harmonize Brunswick station with Frederick County services, including the Brunswick/Jefferson Shuttle that stops at Brunswick station and connects passengers to the Frederick Transit Center in downtown Frederick, MD. The Eastern Panhandle Transit Authority (EPTA), a West Virginia-based transit agency, provides a connecting bus from Brunswick station that support links to Berkeley and Jefferson Counties in West Virginia, which would further benefit from improved station access investments by the Project.

Downtown Silver Spring: By supporting rail service on the MARC Brunswick Line between Martinsburg, WV, and Silver Spring, the provision of the Silver Spring Turnback would provide benefits for downtown Silver Spring, since more frequent trips stopping at MARC Silver Spring station could facilitate the transfer from commuter rail to other transit services. MARC Silver Spring station is within ¼-mile walking distance from a plethora of transit services that define Silver Spring as a regional multimodal hub, including heavy rail rapid transit on WMATA's Metrorail Red Line; MTA's Purple Line (a future 16-mile LRT system), and the Paul S. Sarbanes Transit Center that supports local bus service, a shuttle service for the University of Maryland, and shuttle service to the U.S. Food and Drug Administration's White Oak campus.

Grade Crossing Information

The Project includes improvements at MARC Brunswick station that are adjacent to two at-grade highway-rail grade crossings on South Maple Avenue (U.S. DOT Crossing Inventory Numbers 928608Y and 140608S). The Pedestrian / Bicycle / Lightweight Emergency Vehicle Bridge component of the Project will not eliminate or otherwise modify the at-grade crossing but will provide a safer alternative for pedestrians to cross either side of the railroad tracks.

Table 4: Grade Crossing Information for the Brunswick Line Improvement Project

U.S. DOT Grade Crossing Inventory #	Proposed Improvement	Rail Operators	Railroad Owner	Latitude Coordinates	Longitude Coordinates
928608Y	New separated alternative provided for pedestrians, bicycles, and emergency vehicles.	CSXT, MTA (MARC), Amtrak	CSXT	39.31193	-77.62722
140608S	New separated alternative provided for pedestrians, bicycles, and emergency vehicles.	CSXT, MTA (MARC), Amtrak	CSXT	39.31136	-77.62735

PTC Information

MTA is a tenant to CSXT within the Cumberland and Metropolitan Subdivisions and has previously completed a Positive Train Control Implementation Plan (PTCIP). The Silver Spring Turnback component would comprise new siding track and would comply with MARC's existing PTCIP.

Trespassing Injury and Fatality Prevention and Reduction

The Project's Pedestrian / Bicycle / Lightweight Emergency Vehicle Bridge component will manifest as an overpass grade separation that is consistent with infrastructure modifications recommended by the FRA's Trespassing and Suicide Prevention Toolkit. The existing at-grade crossings on South Maple Avenue (U.S. DOT Crossing Inventory Numbers 928608Y and 140608S) are commonly blocked by long stacks of freight car trains for extended periods, causing vehicles to queue behind the railroad tracks and creating incentives for pedestrians to find shorter routes. The at-grade crossings provide the only direct pathway between downtown Brunswick, the MARC commuter rail parking lot, the eastern platform of Brunswick station, and recreational opportunities along the Potomac River. Because of this, pedestrians commonly rationalize that forgoing waiting for the blockage to clear and instead trespassing through parked train cars during blockages can be completed without harm to their personal health and is worth the time savings. The bridge would minimize the incentive to trespass during blockages and can be a substantial method to minimize the risks of trains striking pedestrians or cyclists.

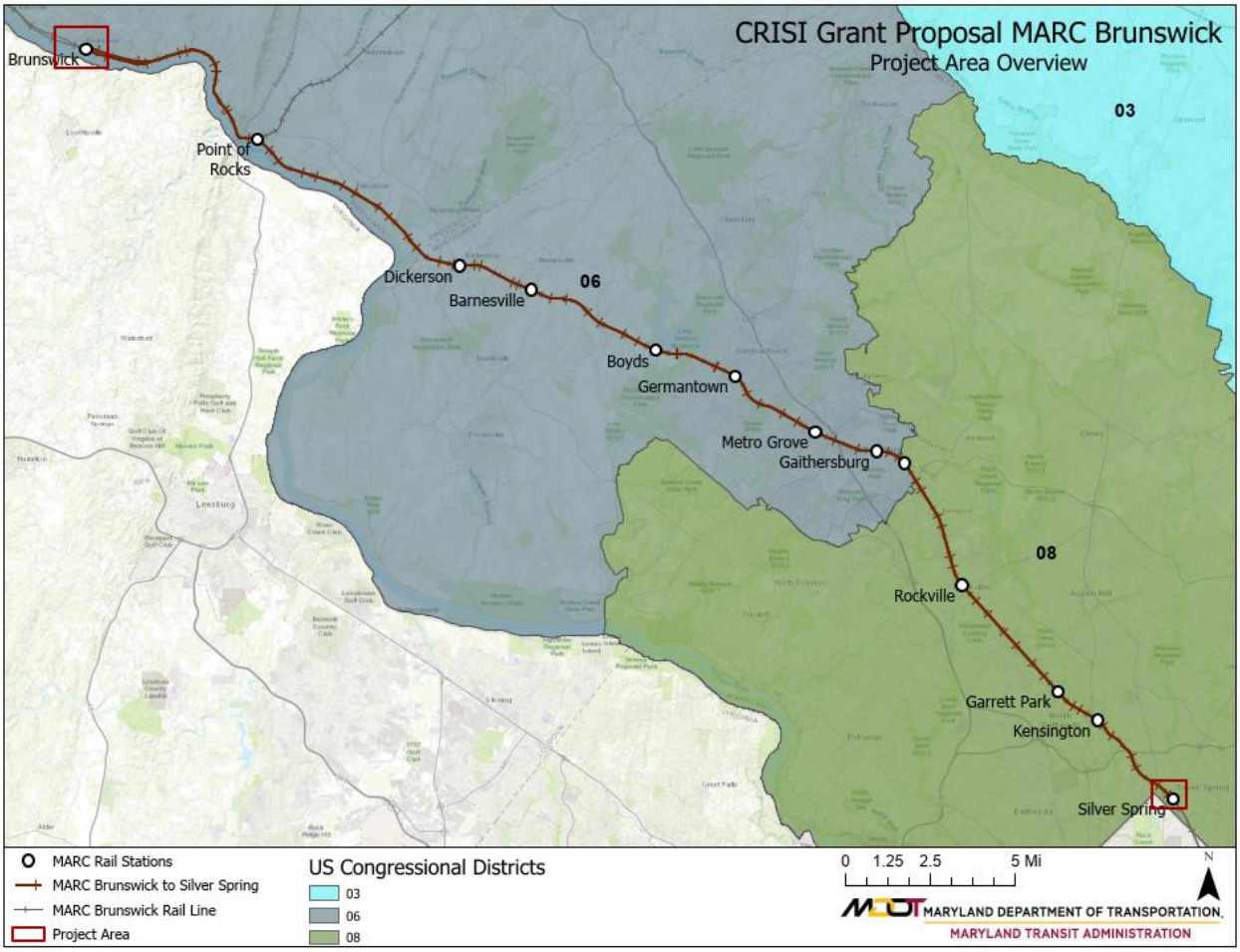
Project Location

The Brunswick Site Improvements components of the Project (Components 1 through 3) are located in the City of Brunswick, which is within Frederick County in the State of Maryland. The Silver Spring turnback facility component of the Project is in Montgomery County in the State of Maryland. As displayed in the below map, the Brunswick Site Improvements are located within the Sixth Congressional District and the Silver Spring turnback facility component is located within the Eighth Congressional District. As MTA continues the Feasibility Study of the Silver Spring Turnback, there is a potential for the specific location of the turnback to change, although the turnback facility is anticipated to be in Montgomery County, MD. The table below provides coordinate points based on spatial reference from the World Geodetic System 1984 (WGS84).

Table 5: Project Component Location (Latitude-Longitude)

Project Component	Latitude	Longitude
Component 1: Pedestrian/Bicycle/Lightweight Emergency Vehicle Bridge	39.31201° N	-77.62888° W
Component 2: Center Island Platform	39.31209° N	-77.62777° W
Component 3: Brunswick Yard Maintenance Facility	39.31091° N	-77.62402° W
Component 4: Silver Spring Turnback	38.99290° N	-77.03017° W

Figure 4: Brunswick Line Improvements Overview Map



Evaluation and Selection Criteria

Evaluation Criteria

PROJECT READINESS

The Project is an output of coordination between MTA, the City of Brunswick, CSXT, and other key stakeholders. The letters of support and funding commitments for this Project demonstrate broad support for its progress and are included as attachments.

Lifecycle Stages: The Center Island Platform, Brunswick Yard Maintenance Facility, and Silver Spring Turnback components of the Project are completing their Project Planning Lifecycle Stages and prepared to advance to the Project Development Lifecycle Stage. NEPA has not yet begun for the project elements and is included as part of the grant-funded project scope. Within one month of award announcement, MTA Environmental Planning staff will submit the request for NEPA for design. Based on completed research and site visits, MTA does not anticipate any fatal flaws to the project. The preliminary engineering and final design process will inform the development of

technical documents in support of a subsequent request for NEPA for construction, which will occur later when the agency has information regarding availability of construction funding.

The 30% preliminary engineering design of the Pedestrian / Bicycle / Lightweight Emergency Vehicle Bridge component will be completed by October 2024 and previous pre-NEPA efforts have included a Feasibility Report (October 2022) and the Alternatives Analysis for Brunswick Pedestrian Crossing Project (January 2024). Funding requested for this CRISI program would be used to advance the Pedestrian / Bicycle / Lightweight Emergency Vehicle Bridge component to continue NEPA activities through full NEPA approval as part of the Project Development Lifecycle Stage and to complete 100% design for the Final Design Lifecycle Stage. The Center Island Platform component is catalyzed by the MARC Brunswick Line Expansion Study Technical Report's recommended initiative to reconfigure station platform across the Brunswick Line. Funding requested for this CRISI program would be used to advance the Center Island Platform component to 30% preliminary engineering design and pursue NEPA for design activities. The Brunswick Yard component of the Project to advance 30% preliminary engineering design and NEPA for design activities for a new or expanded maintenance facility is consistent with the State Rail Plan's initiative to improve MTA's maintenance capabilities. The Silver Spring Turnback is undergoing a Feasibility Study that will conclude February 2025 and funding requested for this CRISI program would be used to advance the proposed additional track space to 30% preliminary engineering design and pursue NEPA for design activities.

Funding requested through the CRISI program will enable MTA to pursue NEPA activities, which will position the Project for required NEPA approval for design. NEPA activities are expected to include ongoing data gathering and due diligence efforts including: alternatives analysis and screening criteria, floodplain mapping, wetland and forest stand delineations, threatened and endangered species surveys, topographic surveys, geotechnical investigations, and identification of historic and cultural resources. The findings would be corresponded with the Maryland Department of Natural Resources, Maryland Fish and Wildlife Conservation Office, and the National Register of Historic Properties (NRHP) and Maryland Historical Trust for compliance with the National Historic Preservation Act, and other foreseeable impacts that will require review for NEPA approval.

The requested funding through this CRISI program will allow MTA to seek full NEPA approval for the Pedestrian / Bicycle / Lightweight Emergency Vehicle Bridge component. MTA will prepare an environmental assessment (EA) in accordance with FRA's Environmental Procedures. The EA for the bridge component of the Project would be scoped to determine the key issues, potential effects, and necessary studies in accordance with FRA's Environmental Procedures. The EA would be prepared in coordination with FRA to include, but not be limited to, the following: definition of this Project component and existing conditions, identification of the purpose of and need for the bridge component, identification and analysis of build alternatives and a no-action alternative, and an analysis of existing conditions in comparison to the impacts of the proposed action. MTA will submit a Draft EA to the FRA for review and comment. MTA will address FRA comments and produce a Final Environmental Assessment for FRA for review and approval. If determined appropriate in consultation with FRA, 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, 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.

Right-of-Way: The limits of the Brunswick Site Improvements of the Project are expected to impact the right-of-way of entities including CSXT, the City of Brunswick, and the National Park Service. The railroad tracks are owned by CSXT and the Pedestrian / Bicycle / Lightweight Emergency Vehicle Bridge requires coordination with CSXT to ensure adequate vertical clearances and the horizontal clearance of the bridge's ramps, footings, abutments, and piers. The C&O Canal National Historical Park is part of the National Park Service, in terms of potential coordination required for the Pedestrian / Bicycle / Lightweight Emergency Vehicle Bridge's ramp or ramp tower. The Brunswick station and platform are owned by the City of Brunswick and modifications of the Center Island Platform will require coordination with the City. The Brunswick Yard component, if newly built at the 84 Lumber site or modified through a purchase agreement with CSXT over the existing Brunswick Yard Maintenance Facility, will require coordination with CSXT so that any yard tracks that tie back into CSXT right-of-way meet CSXT requirements.

The silver Spring Turnback would potentially encroach existing CSXT, WMATA, and Montgomery County right-of-way; Maryland State Highway Administration (SHA) easements; and privately-owned property that is adjacent on either side of the railroad tracks. Encroachment agreements or right-of-way acquisitions needed to complete the project would require coordination with the respective real property owners. MTA anticipates that an agreement with CSXT, the host railroad, required by 49 U.S.C. 22905(c)(1) will be executed prior to Project-related construction impacting CSXT right-of-way.

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 being met. MTA has the legal, financial, technical capacity, and past performance experience to carry out the Brunswick Line Improvement 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. MTA is supported by the Maryland Transportation 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.

Statement of Work: MTA prepared a Scope of Work commensurate with FRA and program standards to deliver the intended project scope outcomes and progress the Project Development Lifecycle. More information can be found in Attachment 2: SOW including the specific tasks, sub tasks and deliverables.

Technical Qualifications and Key Personnel: The MTA team has the 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 staff have experience with property and right-of-way acquisition, NEPA, and design and implementation of large capital facilities projects

such as the design and construction of the Wedge Yard in Washington, DC; the purchase of the Riverside Maintenance and Layover Facility from CSXT; and, as part of the Camden Station Replacement Project, design and construction of a new commuter rail station located adjacent to CSXT-owned railway in downtown Baltimore. MTA will lead the preliminary engineering design and NEPA for design activities of the Brunswick Line Improvement Project in close coordination with CSXT. MTA will be responsible for overseeing the work.

Private Sector Participation: The project's scope includes private sector participation. CSXT, a private freight rail operator, is participating in the Project by providing design standards and completing design reviews at key milestones.

Legal, Financial, and Technical Capacity: Proposed key personnel have the technical qualifications, experience, and resource capacity to complete 30% preliminary engineering design of the Center Island Platform, Brunswick Yard, and Silver Spring Turnback; full NEPA for construction approval and 100% design of the Pedestrian / Bicycle / Lightweight Emergency Vehicle Bridge; and NEPA for design documentation tasks for the Center Island Platform, Brunswick Yard, and Silver Spring Turnback components. The tasks and sub tasks outlined in the statement of work are appropriate to achieve the expected outcomes of the proposed Project.

- ***Legal Feasibility:*** As mentioned in the "Project Implementation and Management" section, 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. 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 documenting resolutions of risks. MTA will also hold recurrent meetings (monthly) with technical consultants to go over schedule and status of preliminary engineering and environmental work.
- ***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. MTA has already spent approximately $338,000 for developing 30% design plans of the Pedestrian / Bicycle / Lightweight Emergency Vehicle Bridge, $300,000 background planning associated with the Brunswick Yard site layout and rail yard, and $113,526 for planning and analysis related to the Silver Spring Turnback.
- ***Technical Capacity:*** MTA staff possess the technical qualifications and experience to lead and perform technical efforts and successfully execute the proposed Project within 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 State Code Chapter 227. The 2022 Maryland State Rail Plan identifies MTA initiatives that will improve safety, efficiency, and reliable service. MTA initiatives to achieve this include generally improving MARC station access and the need to eliminate at-grade pedestrian track crossings along the Brunswick Line, which are relevant to the Pedestrian / Bicycle / Lightweight Emergency Vehicle Bridge and Center Island Platform components. As part of the Brunswick Yard component of the Project, the State Rail Plan indicates that

MTA's siting considerations for a new or expanded maintenance facility will include potential purchase of the existing, CSXT-owned Brunswick Yard Maintenance Facility. Finally, in compliance with statutes in Section 4(f) of the U.S. Department of Transportation Act of 1966, NEPA activities will be oriented to identify park and recreation lands; rare, threatened, and endangered species; wildlife and waterfowl refuges; and historic sites such as bridges and buildings that may be impacted by the Project and would require NEPA approval.

Innovation: The Project will deploy innovative technology to minimize greenhouse gases and other environmental impacts through an approach based on a 2017 Executive Order by the Governor of Maryland that established a sustainable materials management (SMM) policy for Maryland. The SMM policy focuses on the lifecycle of materials during every step from extraction to the management of the materials' end-of-life stage to minimize environmental impacts.

PROJECT BENEFITS

The Brunswick Line Improvement Project provides capital improvements that will benefit the MARC commuter rail on the Brunswick Line, Amtrak's Capitol Limited route, and freight services on CSXT's Cumberland and Metropolitan Subdivisions as follows:

Effects on system service and performance: By gaining ownership of space in a centralized facility that is fitted to its maintenance and storage needs, MTA would have more autonomy and be able to conduct repairs more efficiently, service a greater number of trains while minimizing non-revenue miles, and more quickly return its MARC trains to service on the Brunswick line. MTA would not need to negotiate storage space and maintenance equipment with CSXT, which could also allow CSXT to use its maintenance facilities for the sole purpose of servicing its freight vehicles. Additionally, heavier maintenance currently performed at the MARC Riverside Heavy Maintenance Facility or Martin State Airport could instead begin closer to Brunswick station.

Effects on safety, competitiveness, reliability, trip or transit time, and resilience: The Pedestrian / Bicycle / Lightweight Emergency Vehicle Bridge component provides a grade separation that removes conflict points and is consistent with strategies of the FRA's Trespassing and Suicide Prevention Toolkit. The bridge would enable passengers to access platforms in either direction of Brunswick Station with less incentive to risk trespassing during periods of at-grade crossing blockages. By minimizing the probability of incidents due to pedestrian conflicts with rail traffic, the risk of serious injury or death can be reduced, and the risk of operational downtime for rail service due to incidents can also be reduced. The bridge will also allow EMS personnel to use lightweight utility vehicles on an alternative access for responding to emergency calls at riverside locations during train blockages. The Brunswick Yard will allow maintenance to be centralized and accomplish a wide range of inspection and repair needs without dispersing MARC rail vehicles between the Brunswick Yard Maintenance Facility and either the MARC Riverside Heavy Maintenance Facility or Martin State Airport. Consolidation of maintenance and storage will allow MARC rolling stock to return to service closer to the start of the Brunswick Line for next-day morning service.

Efficiencies from improved integration with other modes: The Project provides the foundational infrastructure to support an ultimate separation of commuter rail traffic from freight rail and long-distance, intercity passenger rail. The Pedestrian / Bicycle / Lightweight Emergency Vehicle Bridge will provide safer, more efficient connections to the eastbound and westbound platforms of Brunswick Station. The Center Island Platform and Silver Spring Turnback are direct considerations of the potential to provide a third track along the Brunswick Line that could be used so that freight trains can bypass commuter rail, and in turn maximize operations for rail carriers that traditionally use the Cumberland and Metropolitan Subdivisions.

Ability to meet existing or anticipated demand: Orienting the design of the Center Island Platform and Silver Spring Turnback to accommodate a third track along the Brunswick Line would help to disentangle commuter rail from coordinating its schedule, frequencies, and service capacity through agreements with CSXT. MTA would have more autonomy to provide future service capabilities such as increasing midday service and adding reverse commute service and weekend service. Similarly, freeing space on one of the main tracks of the Cumberland and Metropolitan Subdivisions could enable CSXT or Amtrak to consider expanding or optimizing their service with the certainty of reduced competition with commuter rail.

Selection Criteria

BENEFIT-COST ANALYSIS

The net benefits of the Project will maximize the use of the grant funds, as evidenced by the attached Benefit-Cost Analysis. The table below shows that the Project will have an overall benefit-cost ratio (BCR) of 1.84. Individual BCRs are also presented as part of the analysis.

Component	Discounted Benefits (3.1%)	Discounted Costs (3.1%)	Net Present Value (NPV)	Benefit-Cost Ratio (BCR)
Pedestrian/Bicycle/Lightweight Emergency Vehicle Bridge	$4.7	$6.6	-$2.0	0.70
Central Island Platform	$28.0	$43.7	-$15.7	0.64
Brunswick Yard Maintenance Facility	$48.0	$65.6	-$17.6	0.73
Silver Spring Turnback	$240.8	$58.5	$182.3	4.12
Total	**$321.4**	**$174.4**	**$147.0**	**1.84**

Note: Discounted Benefits, Discounted Costs, and Net Present Value are shown in millions of 2022 dollars.

For more detailed information, please refer to the corresponding BCA Model and BCA Report submitted as part of this application.

ADMINISTRATION PRIORITIES

The Project will address key Administration Priorities in the following capacities:

Safety: The Project will contribute towards making the MARC Brunswick Line, the CSXT Cumberland and Metropolitan Subdivisions, and adjacent at-grade crossings a safer system for transportation of people and goods. The Project's Pedestrian / Bicycle / Lightweight Emergency Vehicle Bridge is based on the use of grade separation design to obviate the potential for pedestrians to trespass through CSXT right-of-way during train blockages and reduce the risk of serious injury or death. According to blockage reports from citizens submitted to an online page

on the City of Brunswick website, there were 185 logged blockages between August 2021 and August 2022 with an average reported time of approximately 45 minutes. While recent accident/incident reports for the at-grade crossings along South Maple Avenue have fortunately been limited to property damage, the Project is a proactive approach to ensuring that future risks are minimized. The City of Brunswick is one of Maryland's fastest growing communities, having experienced a 32% increase in its residential population from 2010 to 2020. Additionally, MARC ridership along the Brunswick Line continues to recover from the COVID-19 pandemic and MTA continues to plan for expanded additional train capacity. These combined growth factors will necessitate the necessity of the Project to ensure the safe movement of Brunswick's residents and visitors by limiting pedestrian exposure to rail traffic.

Climate Change and Sustainability: The Project will contribute to a reduction in the transportation system's impacts on climate change and incorporates resiliency features to withstand extreme weather. The Project will include NEPA activities which will identify habitats for rare, threatened, and endangered species; wildlife and waterfowl refuges; and the presence of wetlands, floodplains, and forest canopy to minimize the Project's environmental impacts. The Project support features are consistent with the U.S. DOT Navigator Climate checklist, including:

- **Reducing Transportation Greenhouse Gas Emissions:** The Project will accelerate mode shifts based on more efficient travel methods that reduce greenhouse gas emissions. As an enabling infrastructure investment, the Project will support long-term separation of freight, intercity passenger, and commuter rail traffic. The new infrastructure would be designed for freight trains to bypass commuter rail trains, thereby optimizing freight logistics such that freight rail service can compete with freight truck trips. As a less carbon-intensive mode, freight rail trips that replace freight truck trips using freed capacity on the main tracks of CSXT's Cumberland and Metropolitan Subdivisions could contribute to a reduction in greenhouse gas emissions that are exacerbating climate change. The freed capacity of the main tracks could also enable Amtrak to consider expansion of its long-distance intercity passenger rail service to provide a less carbon-intensive mode over aviation and personal vehicles. Similarly, as an enabling investment, the Project would allow MTA to continue planning efforts based on a potential third track that could be used to expand MARC service. Additional commuter rail service on dedicated MTA-owned tracks would contribute to a mode shift in the Washington, DC, region by providing a viable alternative to replace long-distance, daily vehicle trips between West Virginia and Washington, DC, with public transportation trips.
- **Addressing Climate Resilience and Adaptation:** As design of the Project components advance, the Project will incorporate design elements that focus on resilience and adaptation of these capital improvements. The Brunswick Site Improvements of the Project are in Zone AE of the FEMA Flood Map, inferring that this area of the Project has a 1% annual risk of flooding, or a 26% risk over 30 years. As part of designing the Pedestrian / Bicycle / Lightweight Emergency Vehicle Bridge and Center Island Platform, the Project design will have the opportunity to limit the number of vehicle parking spaces in the MARC commuter rail parking lot and repurpose existing impervious surface to reduce flood risks.

The MTA has demonstrated leadership in pursuing emissions reduction and resiliency strategies. The Federal Transit Administration (FTA) announced MTA as one of three winners of the Sustainable Transit for a Healthy Planet Climate Challenge for MTA's production of a Climate Action Plan (CAP) to build strategies for reducing greenhouse gas emissions that will improve air quality, promote energy efficiency, and create adaptation and resiliency tools to prepare and protect transit assets from climate-related vulnerabilities.

Equity and Justice40: Based on the U.S. DOT Equitable Transportation Community (ETC) Explorer, the Project is immediately adjacent to Census tracts around Silver Spring station that are considered disadvantaged based on Climate and Disaster Risk Burdens, Environmental Burdens, and Social Vulnerability. The Project is within ¼ mile walking distance from Block 2 of Census Tract 7025 and Block 3 of Census Tract 7025. The two Census tracts meet the following thresholds for Environmental Burdens: high levels of ozone, diesel particulate matter, air toxics, and proximity to high volumes of traffic.

Disadvantage Components	Block 2 of Census Tract 7025	Block 3 of Census Tract 7025
Environmental Burden	• 77th percentile for ozone • 87th percentile for diesel PM • 72nd percentile for air toxics cancer risk • 86th percentile for high-volume road proximity	• 77th percentile for ozone • 87th percentile for diesel PM • 72nd percentile for air toxics cancer risk • 86th percentile for high-volume road proximity

The Silver Spring Turnback component of the Project will facilitate MTA's ability to continue planning efforts for a potential third track along the Brunswick Line and potential expansion of MARC commuter rail service. As an enabling project for a third track, the Project will help the long-term separation of freight rail from commuter rail. Allowing more freight trains to bypass commuter rail can be used to optimize freight service, replacing freight trucks with freight trains. Removal of roadway traffic from freight trucks can minimize roadway volume and the tailpipe emissions of greenhouse gases, ozone, diesel particulate matter, and air toxics created that have been identified as Environmental Burdens for Block 2 of Census Tract 7025 and Block 3 of Census Tract 7025 near the Project.

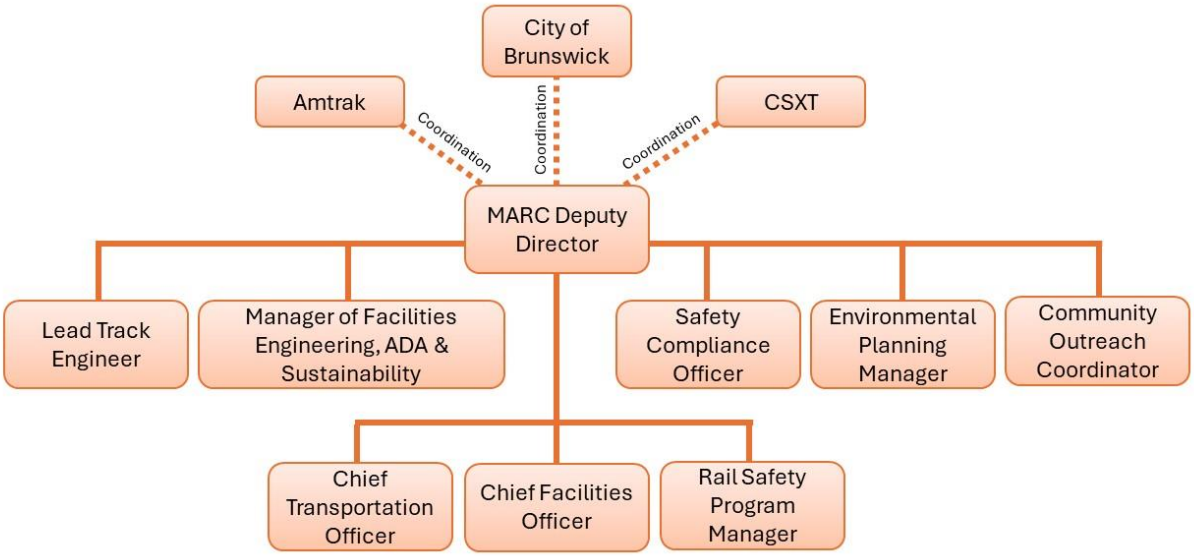
Workforce Development, Job Quality, and Wealth Creation: The Project will support subsequent workforce development opportunities during the future construction phase of the Project's new infrastructure. Fair contracting and subcontracting opportunities that open during the Project's construction phase will be available to small, women-owned, and minority-owned businesses. Bidding contractors that may be selected to construct the capital improvements must agree that they will build MTA's facilities in compliance with the Davis-Bacon Act on prevailing wage rates. A 2023 Executive Order by the Governor of Maryland also authorizes the use of project labor agreements (PLA) with community hiring provisions on construction projects with State investments greater than $5 million.

Project Implementation and Management

Team Organization

MTA will lead the design of the Brunswick Line Improvement Project in close coordination with CSXT and Amtrak. MTA has designated the MARC Deputy Director 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 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. There will also be coordination with CSXT, Amtrak, and the City of Brunswick on an ongoing basis. CSXT and the City of Brunswick will review design work at key milestones, beginning with concept revisions, and then 30%, 65%, 85%, and 100% design milestones. These reviews will be covered by the project budget.

Figure 5: Project Organizational Chart



Consultants, mechanical support, and transportation support personnel will supplement MTA personnel as required for the Project. As the grant recipient, MTA will coordinate with CSXT, Amtrak, City of Brunswick, the National Park Service, Montgomery County, the Maryland State Highway Administration (SHA), and all other involved stakeholders to ensure that federal grant regulatory standards are being met. Planning and preliminary engineering design for the Project's Pedestrian / Bicycle / Lightweight Emergency Vehicle Bridge component builds upon significant public engagement involving the participation of the City of Brunswick, residents and businesses of Brunswick, CSXT, and other stakeholders. MTA will continue the existing public engagement approach throughout the course of the Project, utilizing both in-person and virtual engagement methods that keep the public involved with the Project's progress while also seeking input on design aspects the impact both riders and the surrounding communities.

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 request recurrent (monthly) updates from technical consultants to review the schedule and status on preliminary engineering and NEPA work, 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 and master budget and schedule. The technical consultant will be required to update the schedule and budget monthly. 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 Maryland Department of Transportation's Office of Planning and Capital Programming, led by the Assistance Director of Rail and Intermodal Freight, will submit the required FRA progress reports, including FRA quarterly progress reports, Federal financial quarterly reports, and the final performance report.

Steps to Employ Small Businesses

MTA will utilize its Minority Disadvantaged Business Enterprise (M/DBE) Programs to facilitate the solicitation of fair contracting and subcontracting opportunities for small, women-owned and minority-owned businesses as part of the Project. MTA will include registered small, women-owned and minority-owned businesses in solicitation lists for contracted work. MTA will make the effort to divide project tasks into separate contracting or subcontracting opportunities as feasible to enhance the participation of these small businesses. As evidence of MTA's continued efforts to provide fair opportunity to M/DBE firms, MTA's M/DBE participation goal for fiscal years 2023 to 2025 is set to 30%.

Past Experience

As mentioned in the "Evaluation and Selection Criteria" section, the MTA team has the technical qualifications and experience to successfully complete the Project. As noted previously, MTA has demonstrated that it can deliver large rail construction projects within budget and on schedule and MTA staff have experience with property and right-of-way acquisition, NEPA, and design and implementation of large capital facilities projects. Additional examples include a 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 also has experience providing oversight of track infrastructure capital projects such as interlockings, undercutting, and other capital right-of-way improvements as part of oversight of joint venture projects with both Amtrak and CSXT on their respective rights-of-way.