

1. Background and Purpose and Need

1.1 INTRODUCTION

The Metropolitan Transportation Authority (MTA) is proposing the Penn Station Access (PSA) Project, which would provide one-seat passenger rail service to Penn Station New York (PSNY) on Manhattan’s west side for Metro North Railroad’s (Metro-North) New Haven Line (NHL) customers (Proposed Project). MTA Construction and Development (MTACD)—the successor to MTA Capital Construction—would plan, design, and construct the Proposed Project and related public outreach, and Metro-North would operate and maintain the service. The Proposed Project would provide new rail service from New Haven, Connecticut (CT) to PSNY in Manhattan by following Amtrak’s Hell Gate Line (HGL) on the Northeast Corridor (NEC) through the eastern Bronx and western Queens. The Proposed Project would make infrastructure improvements on the HGL beginning in southeastern Westchester County—where NHL trains would divert onto the HGL at Shell Interlocking¹—and extending to Harold Interlocking in Queens, joining MTA Long Island Rail Road (LIRR) Main line. As part of the Proposed Project, four new Metro-North stations would be constructed in the eastern Bronx at Hunts Point, Parkchester-Van Nest, Morris Park, and Co-op City. Figure 1-1 depicts the Proposed Project’s construction area and service area, and shows the relationship between the HGL, Metro-North, and LIRR systems.

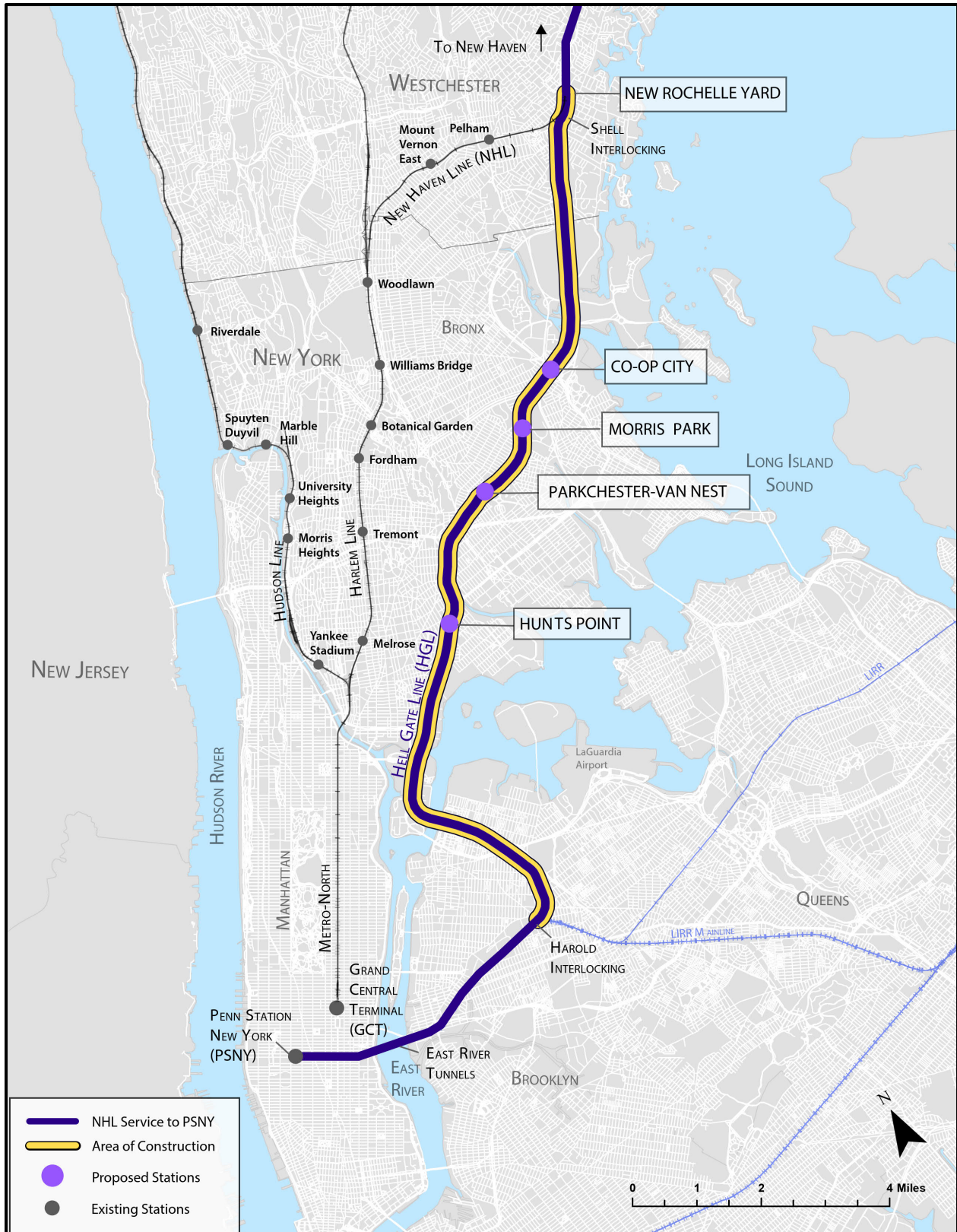
The proposed Metro-North service to PSNY would begin operations after the LIRR East Side Access (ESA) project service to Grand Central Terminal (GCT) is initiated. The Amended Full Funding Grant Agreement (August 2016) between MTA and Federal Transit Administration (FTA) projects ESA service to begin December 2023. MTA is taking steps to accelerate the schedule and is planning for ESA service to begin in 2022. The ESA project will result in the availability of approximately 102 station slots per day (i.e., time slots at a platform) vacated by LIRR and available for Metro-North use at PSNY. ESA service will phase in over time from a reduced opening day service level. PSA service would similarly phase in as space becomes available at PSNY. In addition, the ESA project will address a long-recognized operational constraint at Harold Interlocking. Currently, access to and from Amtrak’s HGL requires routings through Harold Interlocking that necessitate merging and diverging from routes that LIRR train traffic also uses. The ESA project will eliminate this constraint by providing grade-separated routes for Amtrak and (should the proposed PSA service be implemented) Metro-North traffic on the HGL, better accommodating all train movements, including Metro-North NHL service into PSNY. MTA—including MTACD, Metro-North, and LIRR—and Amtrak are committed to accommodating Metro-North service in PSNY after ESA service is initiated, as outlined in a Memorandum of Understanding (MOU) between Amtrak, MTA, and Metro-North (Appendix E, “Agency Correspondence and Public Involvement”) that is further discussed below and in Chapter 22, “Public Participation and Agency Coordination.”

¹ An interlocking is an arrangement of track and signals that enables the switching of trains between tracks. The interlocking tracks and signals are interconnected so that conflicting train movements through the interlocking are prevented by making it impossible to signal a train to proceed unless the route to be used by the train through the interlocking is proven to be safe. Shell Interlocking (also known as CP 216 on Metro-North) connects the HGL to Metro-North’s New Haven Line in New Rochelle, and Harold Interlocking connects the HGL to the LIRR Main line tracks in Queens.



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Figure 1-1 Proposed Project



Source: WSP, 2021



The 2020-2024 MTA Capital Plan identifies the capital budget for the Proposed Project as \$1.583 billion. Amtrak would maintain track infrastructure and MTA would make financial contributions to Amtrak in accordance with Section 212 of the Passenger Rail Investment and Improvement Act. PSNY is maintained through a joint facility agreement between Amtrak and LIRR. MTA expects to apply FTA formula or Congestion Mitigation and Air Quality funds to the Proposed Project. In addition, MTA would receive \$30 million from the Federal Railroad Administration’s (FRA) FY 2019 Federal-State Partnership for State of Good Repair Grant Program to replace the 210 catenary structures on the Hell Gate Line that have exceeded their useful life. Although MTA has experienced a significant loss of revenue as a result of the COVID-19 pandemic that may change priorities in the future, at this time these are the expected funding sources, along with local funds, that MTA will use to implement the Proposed Project. MTA may seek other federal funds for the Proposed Project; therefore, the Proposed Project is being evaluated in accordance with FTA’s procedures for new transit projects.

As part of those procedures, FTA must make a determination about the Proposed Project’s potential environmental impacts in accordance with the National Environmental Policy Act of 1969 (NEPA) before approving funds for the Proposed Project’s design, construction, and related activities. This Environmental Assessment (EA) has been prepared to meet FTA and the Federal Highway Administration’s (FHWA) Environmental Impact and Related Procedures (23 C.F.R. Part 771) and the Council on Environmental Quality (CEQ) regulations implementing NEPA (40 C.F.R. 1500) environmental review requirements. The EA has also been prepared to meet 6 NYCRR Part 617 State Environmental Quality Review Act (SEQRA) requirements. Because the Notice of Intent for the Proposed Project was released in 1999, FTA and MTA are applying the CEQ NEPA regulations that were in effect prior to the September 14, 2020, regulatory update. The FRA was consulted by FTA as a cooperating agency in the NEPA process and steward of the Northeast Corridor (NEC) and may rely on this EA for NEPA compliance for provision of the Federal-State Partnership State of Good Repair Grant Program and/or other grant funding toward the Proposed Project. This EA has also been prepared in accordance with other applicable federal laws including, but not limited to the following:

- Section 7 of the Endangered Species Act of 1973
- Clean Water Act
- Section 106 of the National Historic Preservation Act of 1966 (NHPA)
- Section 4(f) of the U.S. Department of Transportation (USDOT) Act of 1966
- Executive Order 12898, “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations”
- Executive Order 11990, “Protection of Wetlands”
- Executive Order 11988, “Floodplain Management”

1.2 PROJECT BACKGROUND

Metro-North operates three main lines east of the Hudson River: the Hudson Line, the Harlem Line, and the NHL. While all three lines provide service to GCT on Manhattan’s east side, no service is provided to PSNY on the west side. As discussed below, bringing Metro-North service to PSNY has been planned for many years.

1.2.1 Project Conception and Initial Alternatives

In the mid-1990s, a precursor to the Proposed Project was conceived as an element of then-New York State Governor George E. Pataki's comprehensive, regional transportation initiative.² Metro-North service to PSNY was a key component of the strategy to better integrate and expand the existing rail network and thereby enhance travel to and through the Manhattan central business district. Simultaneously, the New York Metropolitan Transportation Council identified potential PSA service in their 2005–2030 Regional Transportation Plan, which identified transportation trends, issues, and needs and defined long-range goals for the region's transportation system.

In 1999, Metro-North initiated the PSA Major Investment Study/Draft Environmental Impact Statement (EIS) to evaluate options for improving access between PSNY and the Harlem Line, Hudson Line, and NHL. FTA published a Notice of Intent to prepare a Major Investment Study/Draft EIS in the *Federal Register* in September 1999, and the Final Scoping Document was issued in November 2000.³ The Major Investment Study (similar to an Alternatives Analysis) included development and evaluation of a long list of multimodal alternatives including rail, bus, and ferry. As part of the Major Investment Study, MTA also considered and screened over 20 potential new station locations. The PSA Comparative Screening Results Report (2002)⁴ recommended the following for further consideration:

- NHL service via Amtrak's HGL with three new Metro-North stations in the eastern Bronx
- Hudson Line service via Amtrak's Empire Connection with two new Metro-North stations in Manhattan, one each in midtown and upper Manhattan

Between 2002 and 2009, Metro-North continued PSA project planning and environmental review. In 2007, based on meetings with FTA and various project stakeholders, Metro-North and FTA agreed that a NEPA EA would be appropriate because the environmental analyses that had been conducted to date found that no significant adverse impacts would result from the project. The PSA project planning effort included coordination and operational planning with the current rail operators in PSNY—Amtrak, LIRR, and New Jersey Transit (NJ TRANSIT)—to understand the operational opportunities for and issues related to bringing Metro-North service into PSNY.

As discussed below, constraints identified through the operational planning and regional coordination efforts eliminated the second alternative—Hudson Line service via Amtrak's Empire Connection—from further consideration as part of the Proposed Project at this time.

1.2.2 Project Refinement: Hudson Line Service via Amtrak Empire Connection Eliminated from Further Review

Existing physical and related operational constraints make Hudson Line service to PSNY via Amtrak's Empire Connection along Manhattan's west side problematic for the foreseeable future. The Empire Connection at the Empire Tunnel has a physical constraint where a single-track tunnel runs beneath the West Side Yard near West 37th Street, and connects only to PSNY Tracks 1–8, which are primarily NJ TRANSIT tracks with some Amtrak usage. A short single-track segment also exists where the track joins the Hudson Line (which includes the single-track Spuyten Duyvil moveable bridge crossing the Harlem River) at the uptown neighborhood of Inwood.

² Master Links, 1996

³ http://web.mta.info/mta/planning/psas/pdf/Final_Scoping_Document_113000.pdf

⁴ http://web.mta.info/mta/planning/psas/pdf/comp_results.pdf

PSNY Tracks 1–4 and the Empire Connection are only partially electrified, which compounds this operational constraint and further limits operational flexibility. Therefore, meaningful PSA Hudson Line service would require a power upgrade—a substantial operational change by NJ TRANSIT and Amtrak—to effectively reduce service to those tracks, and/or significant infrastructure investments at PSNY to allow Metro-North trains to access LIRR PSNY tracks from the Empire Tunnel.

Based on these physical and operational constraints, operating Hudson Line service into PSNY will not be possible during peak hours for the foreseeable future. Therefore, Hudson Line service to PSNY is not included in the Proposed Project. However, Metro-North will continue to consider the introduction of Hudson Line service to PSNY as long-term planning and discussion of capacity improvements at PSNY occur. The Proposed Project would not preclude Hudson Line service to PSNY at some point in the future.

1.2.3 Project Refinements: Operation and Infrastructure

In 2012, Metro-North conducted outreach to the local communities that would be affected by the PSA project, with special attention paid to those communities in the Bronx where new stations were being planned along the HGL. Some of the meetings were conducted jointly with the New York City Department of City Planning (NYCDCP), which identified potential opportunities for transit-oriented development near the proposed stations. Based on input received from the local communities, Metro-North introduced a new station at Morris Park, bringing the Proposed Project total number of stations to four.

In 2015, Amtrak, MTA, Metro-North, and the LIRR—the parties that committed to work cooperatively to progress the conceptual planning of the project—executed a Planning Phase Agreement (see Appendix E, “Agency Correspondence and Public Involvement”). To that end, between 2015 and 2020, MTA conducted conceptual engineering and further operations analyses to identify and refine improvements along the HGL necessary to implement NHL service to PSNY. The engineering and operations analyses tested various infrastructure options within the railroad right-of-way (described in Chapter 2, “Project Alternatives”). Metro-North worked with Amtrak and consulted with CSX to refine these infrastructure options. On February 11, 2019, a Memorandum of Understanding (MOU) was executed among Amtrak, MTA/MTA Capital Construction, and Metro-North which established roles and responsibilities for how the parties will coordinate to fully design and construct the PSA project. Chapter 22, “Public Participation and Agency Correspondence” further discuss the MOU, which is also included in Appendix E.

In February 2019, MTA also engaged a General Engineering Consultant to prepare advanced conceptual designs and initial 30 percent design drawings for the Proposed Project. Final design for the Proposed Project, based on the 30 percent design drawings, is to be completed by a design-builder. MTA issued a request for qualifications in 2019, and identified three design-builder teams for further negotiations. The selected design-builder will be responsible for final design and construction of the Proposed Project that meets the specifications established by MTA, including any mitigation defined in this EA, complies with all applicable regulations, and incorporates measures to minimize impacts from construction on the local community. MTA will oversee the design-build process and have ultimate responsibility for project implementation.

The Design Phase Agreement between MTA Capital Construction and Amtrak, executed on August 14, 2019, describes the MTA’s responsibilities for preparing detailed Preliminary Design Phase plans, drawings, and specifications and Amtrak’s responsibilities regarding design review and engineering services in support of the Proposed Project’s preliminary design (see Appendix E). Additionally, Metro-North has been conducting quarterly Steering Committee meetings, and Operations, Ridership and Engineering/Power Working Group

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meetings with Metro-North, Amtrak, LIRR, and Connecticut Department of Transportation representatives to review project analyses.

1.3 PURPOSE AND NEED

1.3.1 Purpose

The Proposed Project's purpose is to provide improved rail access between PSNY and Manhattan's west side and southern Connecticut, Westchester County and the eastern Bronx, New York, and support economic development in those communities.

1.3.2 Project Needs

The Proposed Project is needed to:

- Substantially reduce travel times to and from Manhattan's west side by providing direct service to NHL customers.
- Introduce convenient, direct rail service to communities in the eastern Bronx currently underserved by mass transit.

1.3.2.1 *Need to Provide Direct Transit Service for NHL Customers to Manhattan's West Side*

There is a need to improve access to the growing west side of Manhattan in order to reduce travel times from areas that do not have direct transit service to this area. Even before the recent rapid increase in commercial real estate development on Manhattan's far west side, Metro-North customers from southern Connecticut, and Westchester County and the eastern Bronx, New York, desired better transit service to the borough's west side. In 1995, Metro-North commissioned a study to explore the market potential for Metro-North service to PSNY. The study, conducted before the recent expansive development, revealed that there was demand from existing Metro-North riders whose destinations are on Manhattan's west side; approximately 10 percent of existing Metro-North riders would use Metro-North service to PSNY and approximately 8 percent traveling by personal vehicle would shift to Metro-North service.⁵

In 2005, the New York City Council approved a comprehensive rezoning of the Hudson Yards, and in 2009 the council extended the rezoning to include the overbuild of the Western Rail Yard. As a result, the far west midtown area of Manhattan, just west of PSNY, is undergoing a transformation. The Hudson Yards project is the largest real estate development project in the United States, with 18 million square feet (sf) of residential and commercial space, and 14 acres of public space.⁶ The full buildout will generate an estimated 11,148 direct new jobs in Hudson Yards, and cumulatively, the projected development will result in 225,941 jobs.⁷

According to 2016 data, the final destination of 9,500 AM peak-period (6 a.m. to 10 a.m.) inbound Metro-North NHL riders is the west side of Manhattan (West 21st to West 60th Streets, west of Seventh Avenue); in 2025 that number would grow to 13,620 without the Proposed Project, and 15,000 with the Proposed Project.⁸

⁵ http://web.mta.info/mta/planning/psas/pdf/Final_Scoping_Document_113000.pdf, page 18

⁶ <https://www.hudsonyardsnewyork.com/about/the-story/>

⁷ https://www1.nyc.gov/assets/planning/download/pdf/plans/hudson-yards/hy_exec_sum_t_fgeis_final.pdf, page ES-28

⁸ Appendix B, "Ridership Report"



Metro-North NHL commuters destined for the Manhattan's west side currently transfer from GCT to the subway, a cab, or other for-hire vehicle (e.g., Uber or Lyft), or walk about 1.2 miles. Direct service to PSNY for Metro-North NHL passengers would provide more convenient access by eliminating a transfer from the GCT to PSNY and would reduce travel time by 10 to 18 minutes.⁹

In addition, there is a need for service to improve regional transit connectivity by providing easier access to regional rail lines that operate out of PSNY for current Metro-North NHL riders, as well as future commuters in the eastern Bronx. LIRR, NJ TRANSIT, and Amtrak provide regional connectivity between New Jersey, Long Island, and the Northeast Corridor. Those services also provide connections to Port Authority Trans-Hudson service at the West 33rd Street terminal near PSNY.

1.3.2.2 *Need to Provide Rail Service to the Eastern Bronx*

There is a need for service to the underserved eastern Bronx from Manhattan's growing west side, Westchester County, NY, and Connecticut. Metro-North's Harlem Line serves central Bronx with six stations (Melrose, Tremont, Fordham, Botanical Garden, Williams Bridge and Woodlawn) and Metro-North's Hudson Line serves western Bronx with six stations (Yankees-East 153rd Street, Morris Heights, University Heights, Marble Hill, Spuyten Duyvil, and Riverdale), as shown in Figure 1-1. The No. 2 and No. 5 New York City Transit (NYCT) subway lines serve the central Bronx, and the No. 1 and No. 4, and B and D subway lines serve the western Bronx. The No. 6 subway line, which provides primarily local service to Manhattan, is the only subway line to serve the eastern Bronx.

The population within a half-mile radius of the four proposed Bronx stations is over 130,000, with over 50,000 housing units and has over 97,000 employees, which represent approximately 17 percent of employment in Bronx County.¹⁰

The eastern Bronx has multiple significant employment centers and regional destinations near the Amtrak HGL (e.g., Jacobi Medical Center, Montefiore Medical Center-Einstein Hospital, Calvary Hospital, the Mall at Bay Plaza, and the expanded Hunts Point food distribution center). There is no convenient rail service serving northbound/reverse-peak commuters from the PSNY vicinity and the west side of Manhattan—as well as Westchester County/southern Connecticut commuters—to these employment opportunities. Additionally, convenient transit service does not serve northbound/reverse-peak eastern Bronx commuters destined to Westchester County or southern Connecticut. As shown in Table 1-1, for example, commuters travel about 95 minutes by transit to reach Stamford, CT, from Morris Park. The Proposed Project could save approximately 55 minutes for such a trip. Savings would also occur from Parkchester-Van Nest, where commuters travelling 85 minutes by transit to reach Stamford could expect to save about 43 minutes with the Proposed Project. The importance of improved accessibility for reverse commuters is evidenced by the 2,670 AM peak-period (6 a.m. to 10 a.m.) trips originating at the proposed Bronx stations and traveling outbound to Westchester County and southern Connecticut with the Proposed Project (Table 2-8).

⁹ <https://goo.gl/252Vnb>

¹⁰ 2012-2016 American Community Survey (ACS) 5-Year Estimates



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Table 1-1. Sample Travel Times from the Eastern Bronx

Origin	Destination	Current Travel Time (minutes)	Travel Time with Proposed Project (minutes)	Time Savings (minutes)
Hunts Point	PSNY	45	16	29
Hunts Point	Stamford (CT)	80	47	33
Hunts Point	Rye	90	30	60
Rye	Hunts Point	—	30	—
Stamford (CT)	Hunts Point	—	41	—
Parkchester-Van Nest	PSNY	60	20	40
Parkchester-Van Nest	Stamford (CT)	85	42	43
Parkchester-Van Nest	Rye	60	26	34
Rye	Parkchester-Van Nest	—	25	—
Stamford (CT)	Parkchester-Van Nest	—	37	—
Morris Park	PSNY	60	25	35
Morris Park	Stamford (CT)	95	40	55
Morris Park	Rye	70	24	46
Rye	Morris Park	—	23	—
Stamford (CT)	Morris Park	—	35	—
Co-op City	PSNY	75	25	50
Co-op City	Stamford (CT)	110	37	73
Co-op City	Rye	90	20	70
Rye	Co-op City	—	20	—
Stamford (CT)	Co-op City	—	32	—
Larchmont*	PSNY	—	38	—

Source: Metro-North 2020

*Requires a transfer.

— Indicates “Not Applicable.”

1.4 GOALS AND OBJECTIVES

Based on the identified needs, MTA, in consultation with FTA, defined the Proposed Project’s goals and objectives (Table 1-2).

Table 1-2. Proposed Project Goals and Objectives

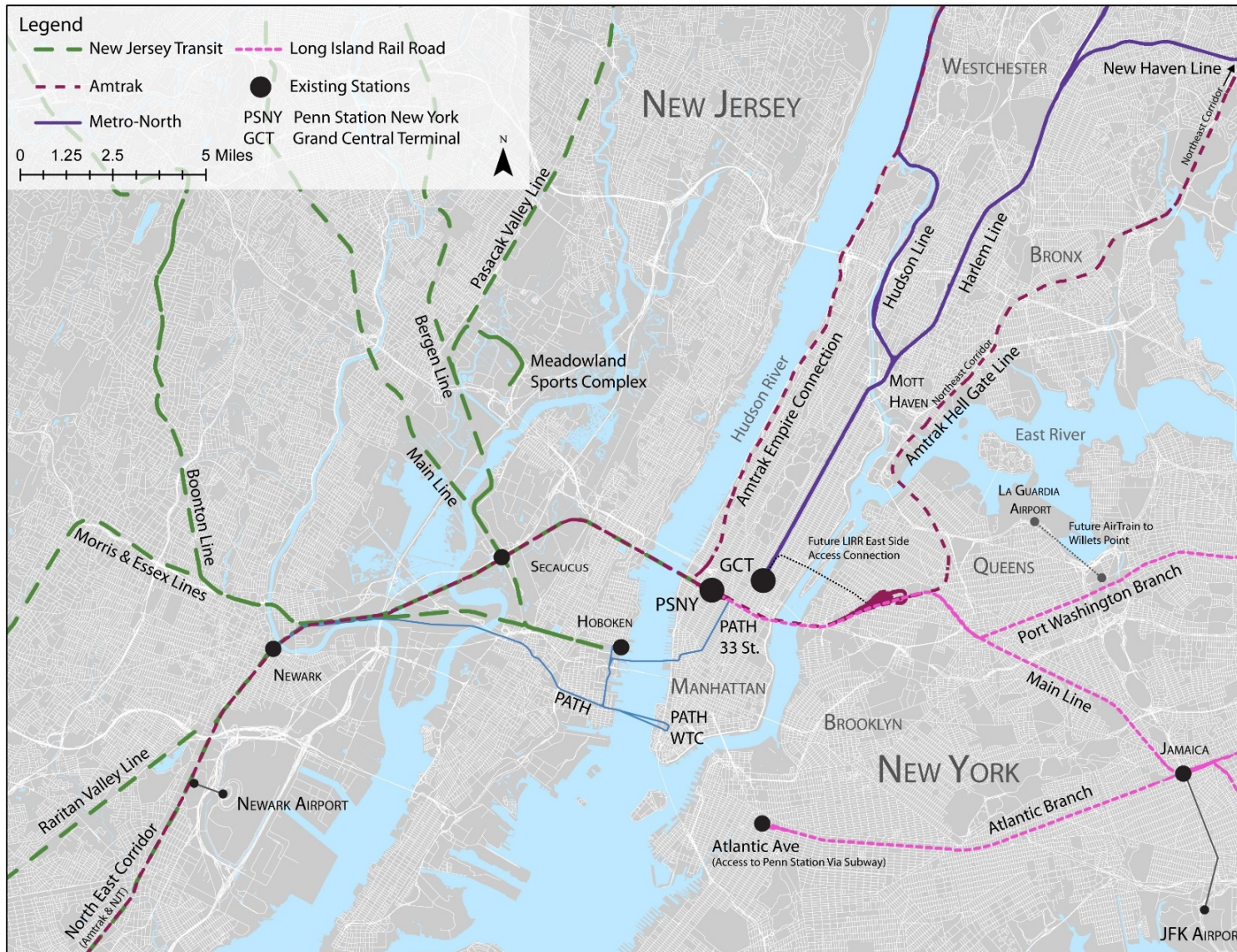
Goals	Objectives
GOAL 1: Provide service to Penn Station New York for Metro-North New Haven Line customers	<ul style="list-style-type: none"> • Reduce travel times between Manhattan’s west side and the eastern Bronx, Westchester County, and southern Connecticut. • Reduce the need for transfers between Metro-North New Haven Line service and other modes to facilitate a one-seat train ride to the west side of Manhattan. • Provide improved reverse (outbound) service from Penn Station New York and the Bronx to Metro-North New Haven Line service territory. • Attract new ridership to mass transit by shifting travel from personal vehicles.
GOAL 2: Provide Metro-North service to the eastern Bronx	<ul style="list-style-type: none"> • Construct new Metro-North stations in underserved areas in the eastern Bronx. • Attract new ridership for mass transit from the eastern Bronx.
GOAL 3: Provide connectivity and redundancy for Metro-North New Haven Line customers	<ul style="list-style-type: none"> • Improve mobility and regional connectivity. • Provide connections to regional rail services for Metro-North New Haven Line customers. • Provide increased flexibility for commutation between the Metro-North New Haven Line service territory and Manhattan destinations during service disruptions.
GOAL 4: Minimize adverse effects on existing and proposed Metro-North and Amtrak operations and the environment	<ul style="list-style-type: none"> • Maximize the use of existing rail infrastructure. • Be consistent with NEC FUTURE, a key component of the region’s transportation system. • Minimize acquisitions or displacement of private properties. • Identify transportation improvements for which construction and operations impacts could be reasonably and cost-effectively mitigated.

Source: WSP, 2019

Note: NEC FUTURE was an FRA-led program to work with stakeholders in the Northeast Corridor to determine the appropriate role for rail in the transportation system of the region. In 2017, the FRA released a Record of Decision selecting a program of rail investments, service, and performance objectives to grow the Northeast Corridor. The FRA’s NEC FUTURE program is a long-term vision meant to guide rail project implementation over the upcoming decades. For more information, see <https://www.fra.dot.gov/necfuture/>

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Figure 1-2. Regional Rail System



Source: WSP, 2019