Interborough Express

INTERIM
REPORT

Feasibility Study and Alternatives Analysis

I
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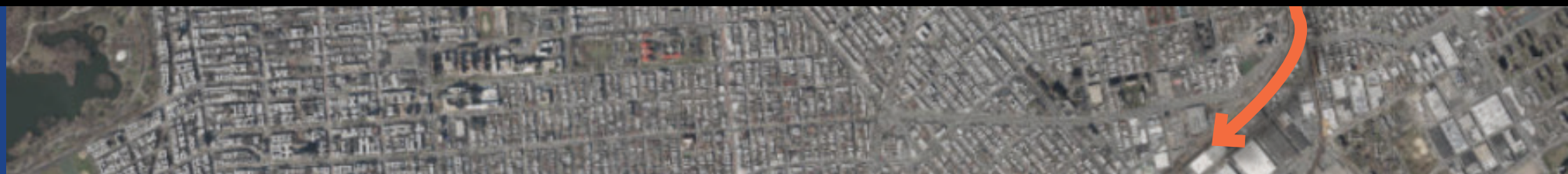
X

MTA

Introduction



INTRODUCTION

Snaking its way above and below street level, a 14-mile-long freight rail corridor runs through Brooklyn and Queens largely out of the public's sight. These tracks last provided passenger rail service in 1924. Today, the corridor is one of the few remaining freight rail links in New York City.

This study explores options for building a new transit line between Queens and Brooklyn along an existing freight rail corridor.

This freight corridor comprises two sequential freight rail lines, the Bay Ridge Branch and the Fremont Secondary (see map to the right). The right-of-way around these two lines presents a tantalizing opportunity to better connect some of Brooklyn's and Queens' most densely populated neighborhoods via a new transit link. MTA initiated this study to identify the feasibility of and options for building such a transit link, dubbed the **Interborough Express (IBX).** By utilizing an existing right-of-way, MTA could eliminate some of the costs and community disruption associated with new transit infrastructure.

New York City has long contended with limited direct rapid transit links between the outer boroughs. A new rapid transit line along this corridor would connect to 17 subway services, providing another rapid transit link between Queens and Brooklyn without going into Manhattan.

The Hell Gate Line between Queens and the Bronx is used by Amtrak, freight, and future MTA Metro-North Penn Station Access trains that will connect the Bronx to Manhattan, Westchester, and beyond. Given the anticipated frequent level of service for the Interborough Express, there is not enough space along the existing Hell Gate Line for the additional tracks to accommodate the IBX with the rail traffic levels of the other services.

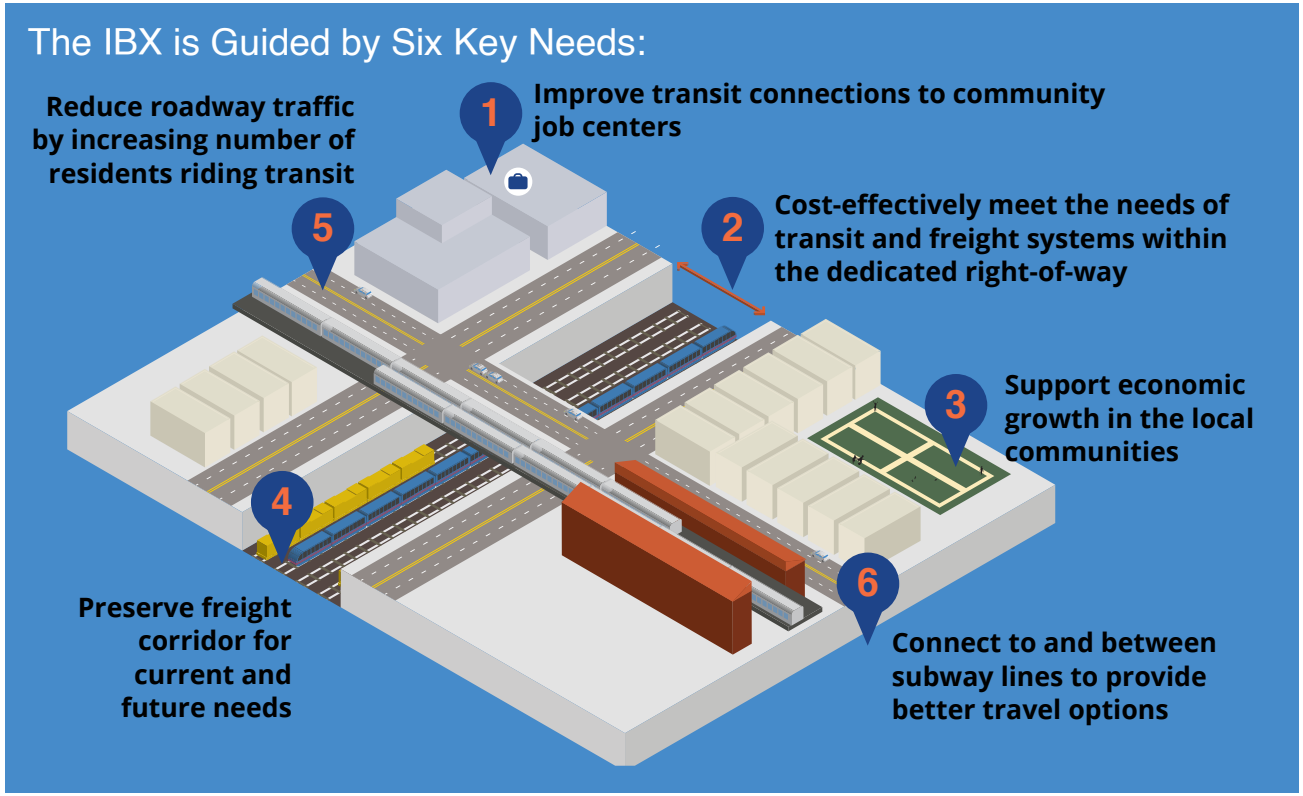
This document summarizes the results of MTA's yearlong study effort. The study team evaluated a wide range of solutions for the corridor, focusing on the three most promising design options ("alternatives").

Overview map of the existing freight rail corridor, subway connections, and the primary study area. Note that while most of the IBX corridor runs along the Bay Ridge Branch, a portion includes the Fremont Secondary.

STUDY BACKGROUND

As a starting point for this study, MTA evaluated current and anticipated transportation issues and needs along the IBX study area, defined as all land within a half-mile of the corridor. Six critical needs were identified that helped drive the study (illustrated on the right).

Based on the needs, the team defined five project goals. There are a wide variety of options for implementing transit along the Bay Ridge Branch, and defining clear goals helped the team evaluate and narrow down the options to the three most feasible solutions.



Project Goals

1. **Improve transit service** for residents and workers in the primary study area (the area within a half-mile buffer of the freight line) taking trips throughout Brooklyn and Queens.
2. **Provide cost-effective transit service improvements.**
3. **Support economic development** along the corridor by promoting transit-oriented development and opportunities for public-private investment, while reflecting existing community character and land use patterns.
4. **Maximize the use of the rail corridor itself** for transit while preserving the freight operations for current and future needs.
5. **Improve transit access** to employment centers within and adjacent to the primary study area in order to increase the relatively low transit share of work trips to the area.

CORRIDOR BACKGROUND

History

The Bay Ridge Branch opened in 1876 as part of the New York and Manhattan Beach Railway. The line started primarily as a passenger railroad, but declining ridership forced the end of passenger service in 1924. Since then, it has served as one of the few dedicated freight rail lines on Long Island.

Today, the corridor is divided into two parts. The northern portion in Queens, known as the Fremont Secondary, is owned by CSX and is used by freight trains traveling from Long Island to the Bronx and New England. The southern portion of the corridor, the Bay Ridge Branch, is owned by Long Island Rail Road (LIRR) and operated by the New York & Atlantic Railway. It serves several freight customers, Brooklyn port facilities, and a car float to New Jersey. The corridor sees on average one round-trip freight train per day.

Previous and Ongoing Studies

Previous studies have looked at restoring passenger service on the Bay Ridge Branch and Fremont Secondary. The Regional Plan Association's Third and Fourth Regional Plans envisioned using the corridor as part of a new passenger rail line linking Brooklyn, Queens, and the Bronx, dubbed the Triboro RX.[1]

The Bay Ridge Branch is also a critical piece of the Port Authority of New York and New Jersey's Cross-Harbor Freight Program, which envisions a freight rail tunnel linking the Bay Ridge Branch to Jersey City, NJ. The tunnel would save freight trains from making an up-to-280-mile detour to cross the Hudson River. The project is in a Tier II Environmental Impact Study as of 2021.[2] If built, freight traffic on the Bay Ridge Branch could grow to over 21 trains per day.

1 **"The Fourth Regional Plan."** Regional Plan Association, 2017. Note that, as discussed in the introduction, this IBX study does not propose extending the IBX to the Bronx due to a lack of capacity across the Hell Gate Bridge.

2 **"Cross Harbor Freight Program."** Port Authority of New York and New Jersey.

Kouwenhoven Station (now East New York Station), c. 1905.

New York & Atlantic Railway train at Atlantic Avenue crossing, 2000.

Triboro RX Proposal, RPA Fourth Regional Plan.

1876: Line opens as part of the New York and Manhattan Beach Railway.

1906-15: Line placed in trenches and viaducts to eliminate grade crossings.

1918: New York Connecting Rail completed, linking the Bay Ridge Branch to the mainland via Hell Gate Bridge.

1924: Passenger service ends due to declining tourist traffic to Manhattan Beach. Line devoted to freight.

1996: The Regional Plan Association (RPA) first proposes a new circumferential passenger transit service along the Bay Ridge Branch.

1997: New York & Atlantic Railway takes over freight operations along the line. (Today the railroad operates a single daily round-trip freight train with plans for a second).

2000: First feasibility study for Cross-Harbor Rail Tunnel connecting Bay Ridge Branch to New Jersey.

2008: Port Authority takes over operations of car float ferrying trains from the Bay Ridge Branch to New Jersey. (Traffic on the car float service has grown five-fold since 2008).

2014: Initial Environmental Impact Statement for Cross-Harbor Freight Program projects 21 additional freight trains a day on the Bay Ridge Branch.

2017: The RPA's Fourth Regional Plan envisions the Bay Ridge Branch as part of its flagship Triboro RX subway line.

2020: MTA initiates this feasibility study.

The IBX's northern terminal would be adjacent to the Jackson Heights–Roosevelt Avenue/74th Street Station, which is among the busiest subway stations in Queens.

The IBX would serve a diverse study area with significant transportation needs:

7 in 10 people of color

1 in 2 zero-car households

3 in 10 households below 150% of the poverty line

1 in 4 residents with limited English fluency

Population in the study area, defined as a half-mile buffer around the corridor. (US Census, 2019)

STUDY AREA CHARACTERISTICS

Context

Running from Bay Ridge in Brooklyn to the melting pot of Woodside in Queens, the IBX would wind its way through some of New York City's most diverse neighborhoods. In such dense, walkable neighborhoods, transit is the norm.

The IBX is significant for two reasons: its potential to access areas currently served by existing subway routes, and its potential to connect areas in Brooklyn and Queens that lack direct rapid transit connections to each other and to transit links to the Long Island suburbs.

The project study area intersects with 17 of the city's 22 subway lines, which would provide access to Manhattan and other parts of New York City.[3] The IBX's northern terminus would be adjacent to Jackson Heights–Roosevelt Avenue/74th Street Station, which is among the busiest subway stations in Queens,[4] and within walking distance to the Woodside LIRR Station, which provides connections to points east on Long Island and to Penn Station. The corridor also crosses the East New York LIRR Station. The IBX could bring much-needed transit service to residents of underserved areas such as East Flatbush or Maspeth, and to areas served by only one line, such as Middle Village or Canarsie.

New York City also lacks high-frequency transit that connects the outer boroughs. While the B82–Select Bus Service runs roughly parallel to the southern part of the IBX, it does not follow the corridor north of Canarsie. For example, a Bushwick resident working in Midwood would have to transfer subways in Manhattan or take three different trains to avoid leaving Brooklyn; the IBX would afford her a one-seat ride.

The IBX would intersect with all but five of the city's 22 subway lines and would link dozens of neighborhoods within Brooklyn and Queens that currently lack high-frequency transit connections.

3 **17 of 26 lines if counting the three shuttles and the Staten Island Railway.**

4 **Data as of 2019. "Facts and Figures: Annual Subway Ridership 2014–2019."** Metropolitan Transportation Authority, 2020.

Jobs and Population

The area along the Bay Ridge Branch is expected to add tens of thousands of new residents and jobs over the next 25 years.[5] Since the Great Recession, the outer boroughs accounted for 48 percent of the city's total job growth; Manhattan's share of private sector employment has declined from 64 percent in 1990 to 59 percent in 2018.[6] Improved transit infrastructure would help these neighborhoods better absorb and accommodate new residents and jobs.

population		jobs	
900k	**941k**	**260k**	**275k**
2020	*2045*	*2020*	*2045*

Figures for the study area, defined as a half-mile buffer around the corridor. (US Census, 2019)

Travel Patterns

The existing rail transit network in the study area is focused on linking Brooklyn and Queens to Manhattan, but the majority of commute trips today are contained within Brooklyn and Queens. Around 86,000 and 27,000 commute trips from the study area remain within Brooklyn and Queens, respectively. Another 16,000 trips occur between the two boroughs, for a total of approximately 129,000 trips. This is higher than the 85,000 trips that cross the East River to Manhattan.[7]

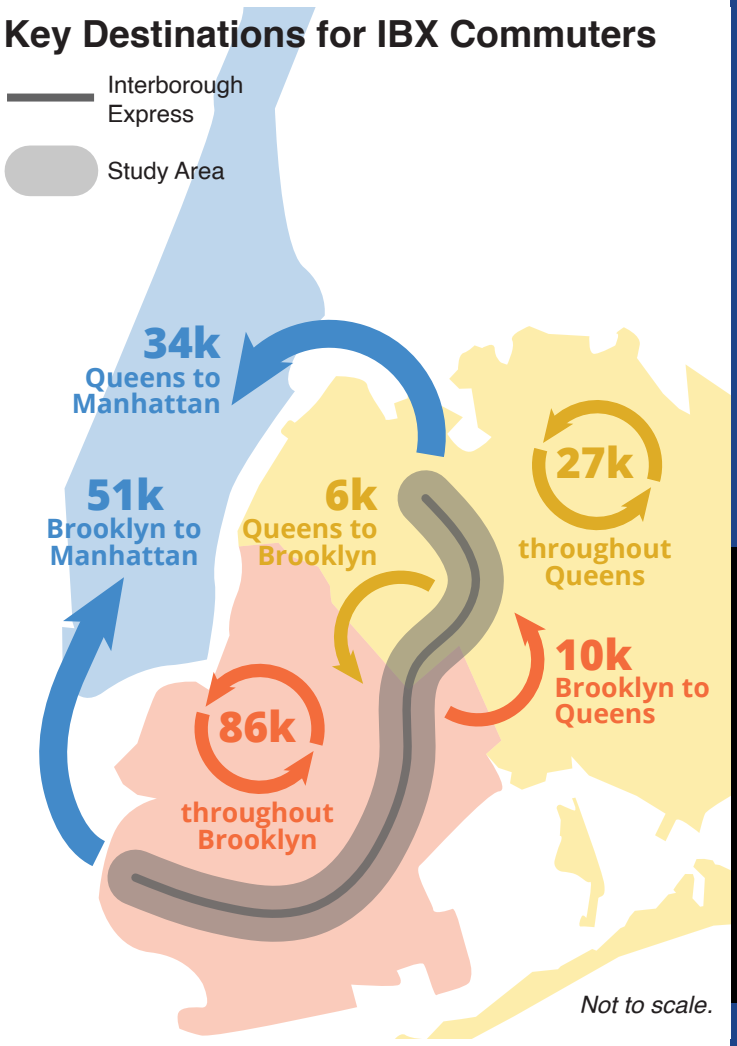
Poor transit links between the outer boroughs result in increased car usage. Approximately half of commutes between Brooklyn and Queens in the study area occur by car, compared to fewer than 15 percent of commutes between the study area and Manhattan. The IBX could help reduce car commutes while redirecting outer borough trips from overburdened Manhattan-bound subway lines.

5 **NYMTC 2010-2050 Total Population/Employment.** 2050 County Level Forecast Data, February 2016.

6 **Latter data refers to the period between 2009 and 2018. "New York City Employment Trends."** Office of the New York State Comptroller, April 2019.

7 **Bureau of Transportation Statistics.** Census Transportation Planning Package, 2012-2016.

Above: The B82-SBS on East 15th Street. **Below:** Travel flows between the study area and Manhattan, Brooklyn, and Queens.

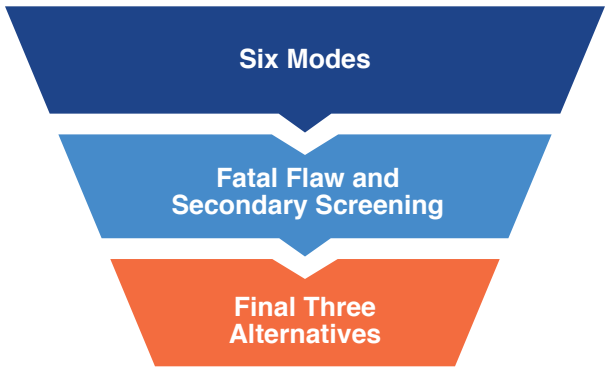


Alternatives

DEVELOPING AND SCREENING ALTERNATIVES

To evaluate the feasibility of transit along the Bay Ridge Branch and Fremont Secondary, MTA had to first identify alternatives for transit service along the corridor. The IBX could take many different forms depending on factors such as operating mode, service frequency, station locations, relationship with existing freight tracks, and more. MTA identified six potential modes (listed on the right) and screened them through a "fatal flaw" analysis and secondary screening, resulting in three alternatives. These remaining three alternatives underwent more detailed planning and design assessments, allowing the team to estimate costs, ridership, and travel times for each. The final three alternatives are presented in this chapter in more detail. Note that this study does not assume that MTA or its operating agencies would be the operator of any of these modal options.

Narrowing Down Alternatives



Modes Evaluated

a. Conventional Rail
Conventional Rail would be provided by FRA-compliant railcars providing transit-level service. The study team looked at four options: diesel or electric trains that either share tracks with the freight railroad or operate on two dedicated tracks.

b. Diesel Multiple Units (DMUs)
DMU service is similar to Conventional Rail but uses FRA-compliant vehicles closer in size to Light Rail that are propelled by onboard diesel engines. MTA evaluated two options that either share tracks with the freight railroad or operate on two dedicated tracks.

c. Heavy Rail
This option would build a new heavy rail transit line along the corridor. Due to federal regulations, this service would have to operate on dedicated tracks fully separated from freight traffic.

d. Automated Guideway Transit
This option would build a fully automated rail line, similar to the JFK AirTrain. This option would require dedicated tracks.

e. Light Rail Transit (LRT)
Light Rail Transit utilizes trams that can operate both in their own right-of-way and on streets. Within the region, these are similar in format to the NJ Transit Hudson-Bergen Light Rail lines. The study team looked at two LRT options: LRT running alongside freight tracks or above freight tracks on a viaduct.

f. Bus Rapid Transit (BRT)
Bus Rapid Transit describes bus service that mimics Light Rail by operating in its own dedicated right-of-way separated from car traffic (except at street crossings). The study team looked at two BRT options: BRT running alongside freight tracks or above freight tracks on a viaduct.

Images at right from top to bottom: Conventional Rail Train, DMU, Heavy Rail, Automated Guideway Transit, Light Rail, Bus Rapid Transit.

ENGINEERING CHALLENGES

The IBX faces several engineering and design challenges. As part of the screening process, MTA eliminated several initial design options for infeasibility given engineering or other obstacles. While not an exhaustive list of engineering constraints, some of the critical issues that drove the screening of alternatives include:

Buckeye Pipeline

The LIRR leases a portion of the Bay Ridge Branch right-of-way for an aviation fuel pipeline serving LaGuardia and JFK Airports. The pipeline is buried below ground, but requires access points for maintenance and repair.

Roadway Crossings

Several alternatives would have to operate partially on a viaduct over the existing freight tracks. Any elevated segments would need to navigate roadway crossings. Options such as LRT and BRT can cross roads "at grade" (street level). Other options would require additional tunnels or taller viaducts to avoid grade crossings.

Right-of-Way Width

Much of the Bay Ridge Branch and Fremont Secondary operate within trenches below street level or along embankments above street level. Many parts of the corridor are currently only wide enough for two tracks (including the currently-active freight track). Construction may require expansion of viaducts, rebuilding several street bridges, and removing encroaching structures on adjacent properties.

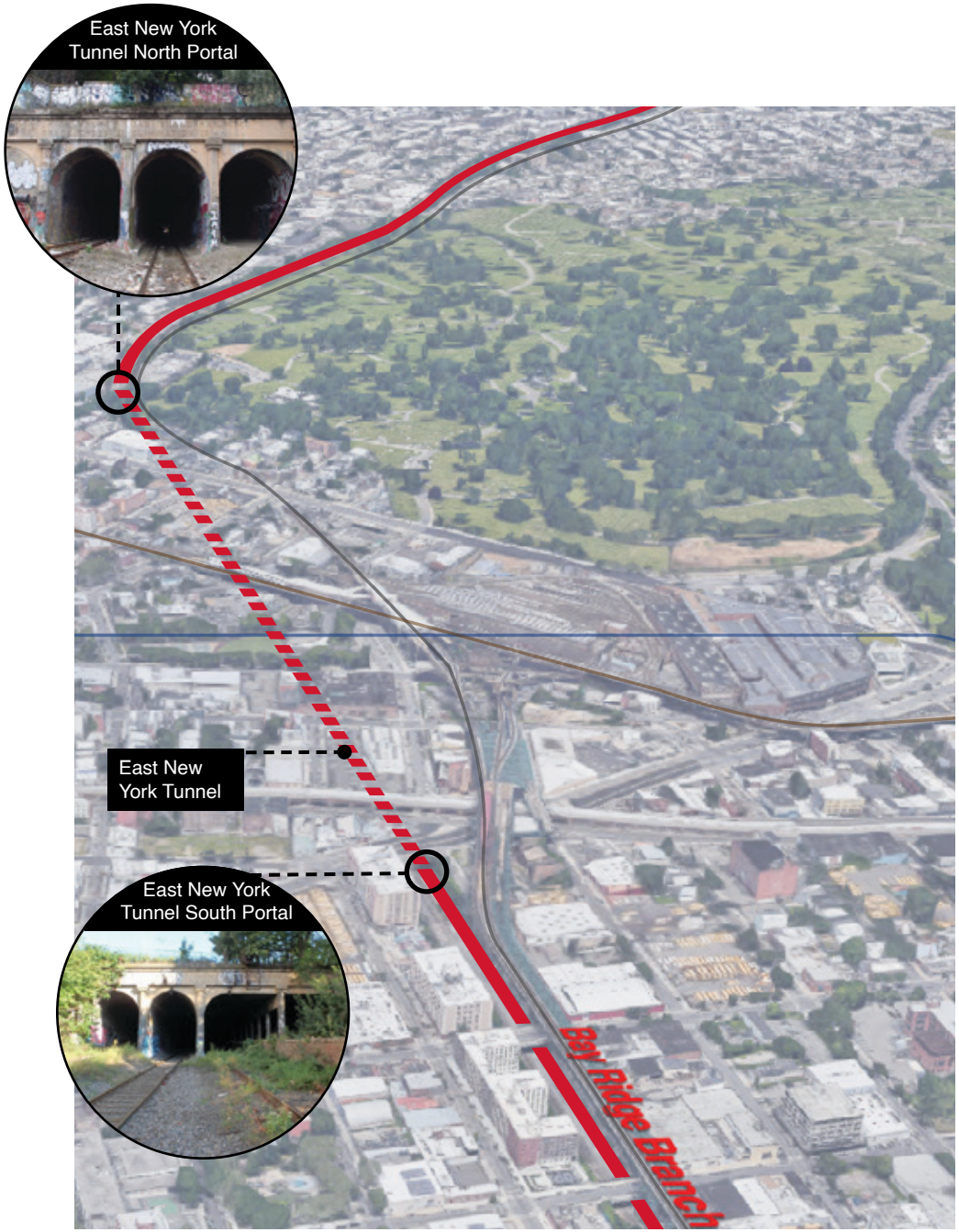
Vertical Clearance

The Bay Ridge Branch weaves over and under roadway underpasses, other rail lines, and subways. Any recommendations would need to provide sufficient clearance. Additionally, some air rights above the right-of-way have been sold or leased for private development. In some cases, clearance issues would require the construction of costly viaducts or tunnels.

Maintenance of Freight Service

Since the IBX follows an active freight railroad, any transit service would either have to be fully separated from freight traffic or comply with Federal Railroad Administration (FRA) guidelines. While Conventional Rail trains and DMUs are allowed to run on the same tracks as freight trains, the other modes are not FRA-compliant. Any alternative would also have to maintain at least one, and preferably two, dedicated freight tracks in operation, as well as preserve existing branches and storage tracks.

Above: Illustrations of right-of-way constraints along the Bay Ridge Branch.



Above: The portion of the Bay Ridge Branch through East New York exemplifies many of the engineering challenges facing the IBX.

Integration with Other Modes

The IBX crosses several bus, Conventional Rail, and subway lines. The design of the IBX must allow for easy transfers to and from these modes. Any option operating above or below street level would require passengers to navigate stairs or elevators to access connecting routes. Broadway Junction is an especially challenging location due to the Bay Ridge Branch running in a tunnel deep underneath the subway station complex.

Environmental Impacts

Any feasible IBX alternative needs to minimize environmental impacts from construction and operations. Containing construction within the existing right-of-way and relying on cleaner and quieter electric vehicles are both ways to ensure the project does not negatively impact surrounding neighborhoods.

Maintaining Freight Capacity and the East New York Tunnel

While most of the corridor only has one active freight track, the IBX alternatives would need to preserve space for two freight tracks to accommodate future growth in freight traffic on the corridor. The only point where that is not feasible is the East New York Tunnel, which does not have enough width for more than one freight track alongside the IBX. Barring the construction of an additional tunnel, this location could be a choke point for future freight traffic.

OVERVIEW OF FINAL ALTERNATIVES

After the secondary screening, MTA identified three final alternatives for the IBX. All alternatives follow the 14-mile-long IBX corridor, with Conventional Rail and Light Rail trains running every 5 minutes and BRT's smaller capacity requiring a peak frequency of 2.5 minutes. The Conventional Rail and Light Rail alternatives would require a new dedicated storage and maintenance yard to be built alongside the line; the BRT alternative could be served out of an existing MTA bus depot.

Conventional Rail (CR)

The final Conventional Rail alternative calls for two dedicated passenger rail tracks, running largely alongside the existing freight rail line. The line would use FRA-compliant electrical multiple units (EMUs). Unlike Conventional Rail elsewhere in the region, trains would be configured similarly to subway cars, allowing for faster boarding and alighting as well as more standing room on trains, and trains would operate at transit-level frequencies.

Light Rail Transit (LRT)

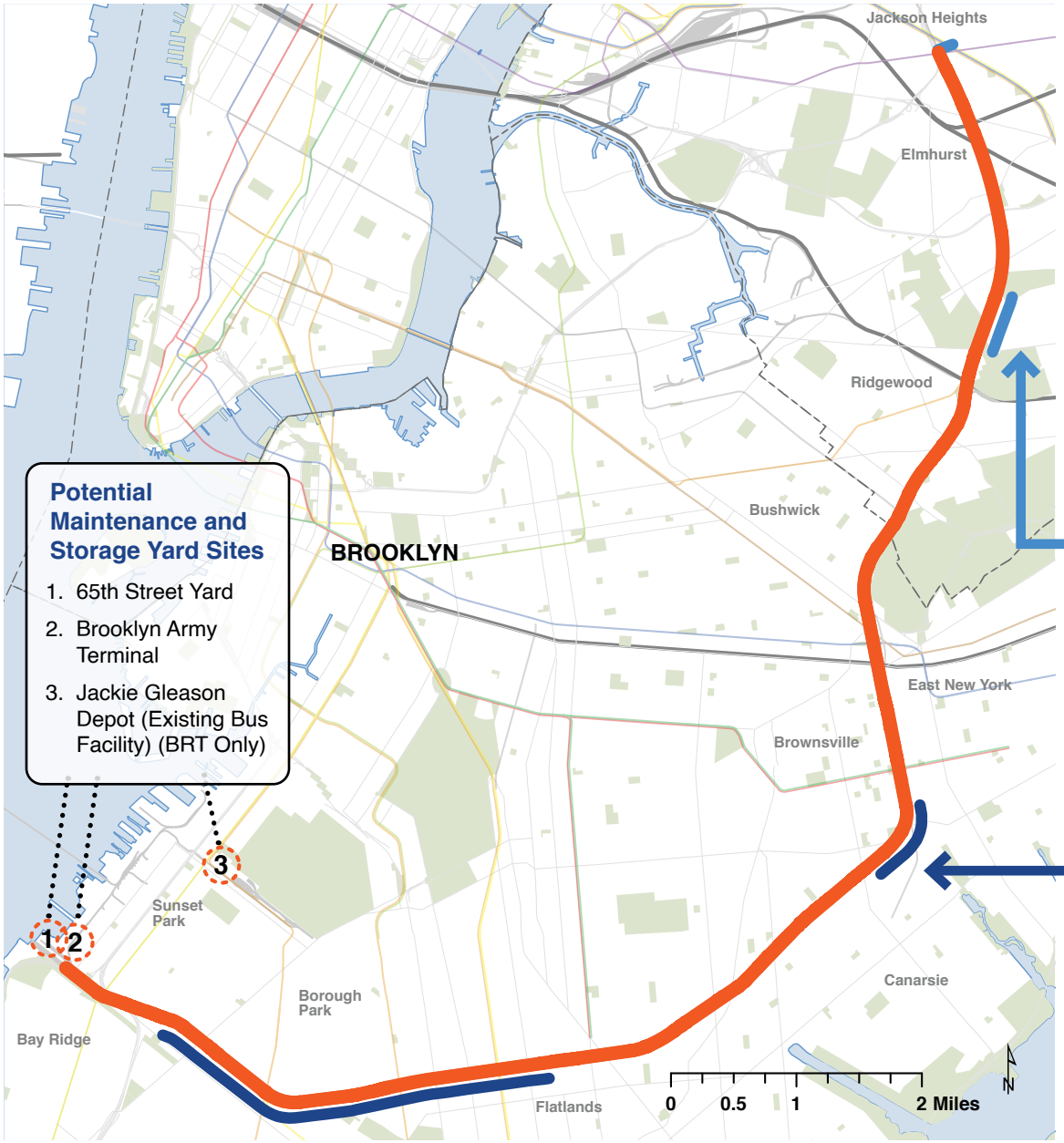
The Light Rail alternative envisions a two-track line that would be physically separated from freight traffic due to FRA regulations. Most of the line would run side-by-side with the freight tracks. Some parts would run on a viaduct above the freight tracks at street level. A short segment of the line would run on existing streets: a half-mile segment on Metropolitan Avenue, 69th Street, 69th Place, and Juniper Boulevard; and a 900-foot segment from the railroad cut to Jackson Heights Bus Terminal.

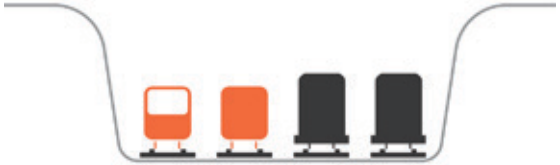
Bus Rapid Transit (BRT)

The final bus rapid transit alternative involves a dedicated busway fully separated from freight traffic. The busway would run either alongside existing freight tracks or on a viaduct, identical to the alignment of the proposed LRT alternative. Buses would be electrically powered. BRT would operate on the same short on-street segments as LRT. In order to provide the same operating capacity as the other two modes, buses would need to operate more frequently.

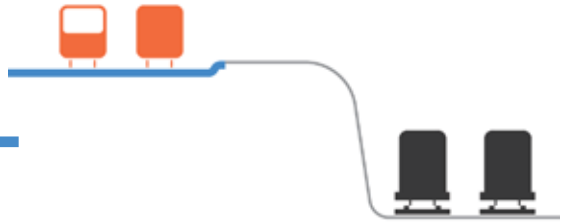
	Conven-tional Rail	Light Rail	Bus Rapid Transit
Length (Route Miles)	14 miles		
Number of Private Properties Affected	165	137	126
Train Consists or Buses Required	22	24	52
Peak Frequency	5 minutes		2.5 minutes
Annual Ridership Estimate (2040)	25.4 million	26.3 million	22.2 million
Percent of Line Operating in a Dedicated Right-of-Way	100%	94%	
Estimated Runtime (minutes)	45 minutes	39 minutes	41 minutes

Proposed Alignment:



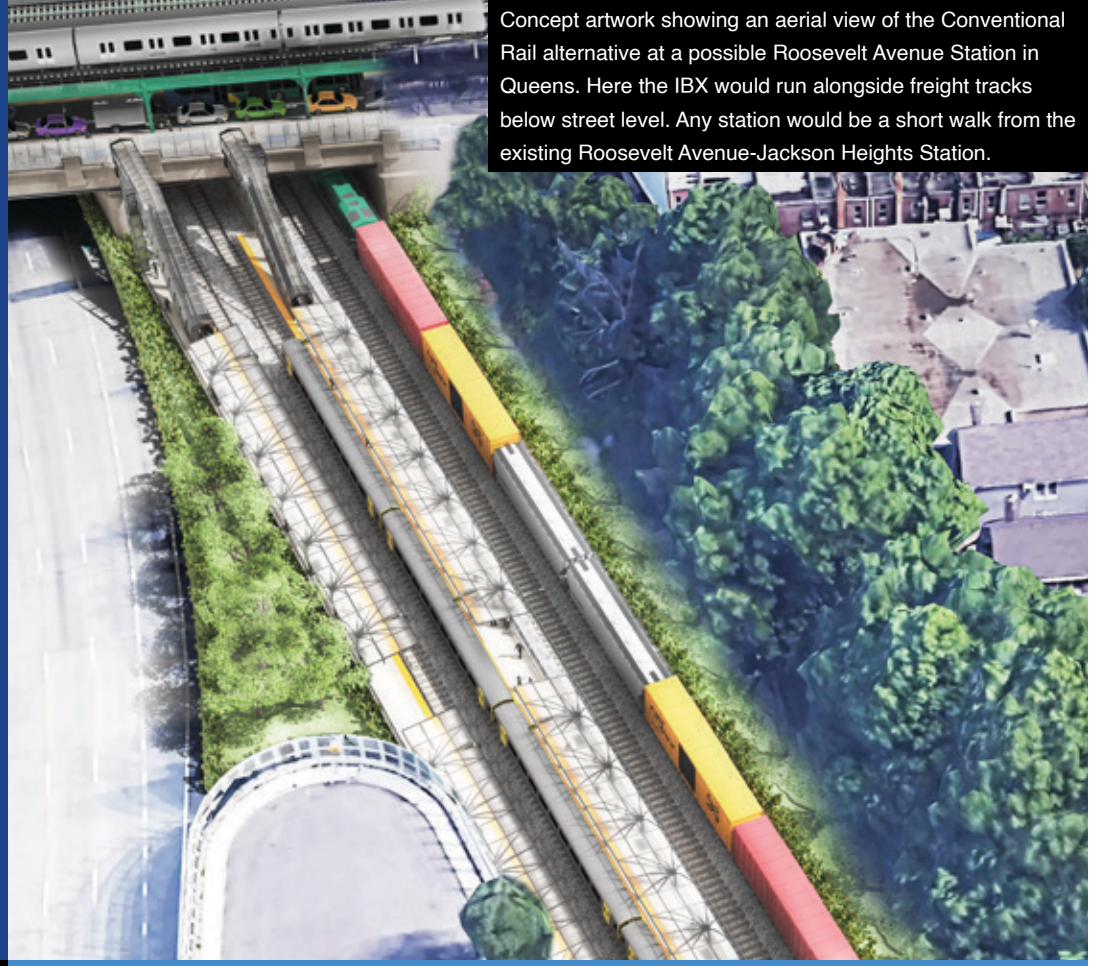


For the entirety of the CR alternative and the majority of the LRT and BRT alternatives, the line runs alongside the existing freight line.



In two segments of the LRT and BRT alternatives, the line runs on the existing parallel street(s).

In certain segments of the LRT and BRT alternatives, the line runs on an elevated guideway above the freight line.



Concept artwork showing an aerial view of the Conventional Rail alternative at a possible Roosevelt Avenue Station in Queens. Here the IBX would run alongside freight tracks below street level. Any station would be a short walk from the existing Roosevelt Avenue-Jackson Heights Station.

CONVENTIONAL RAIL ALTERNATIVE

The Conventional Rail alternative envisions a service that combines aspects of traditional Conventional Rail and subway service. Trains would be FRA-compliant, allowing passenger service to operate alongside freight tracks without physical barriers. The trains themselves would be configured similarly to MTA's subway cars, with closely-spaced doors and transverse seating. Service would operate as frequently as 5-minute peak headways.

Challenges

This alternative would have the longest runtime due to the use of heavier FRA-compliant vehicles requiring longer dwell times at stations. As much of the alignment would be above or below street level, passengers would need to navigate stairs and elevators to reach platforms (all stations would be built to be ADA-compliant). This alternative has the most construction complexity and would require the most private property acquisition.

Benefits

This alternative would have lower operating costs than the LRT option. Since the line would be built to federal railroad standards, trains could run through to connecting LIRR branches. Although potentially feasible, such options would likely be very complex and expensive.

Weekday Ridership	84,500
Average Runtime	45 minutes

A Different Kind of Conventional Rail

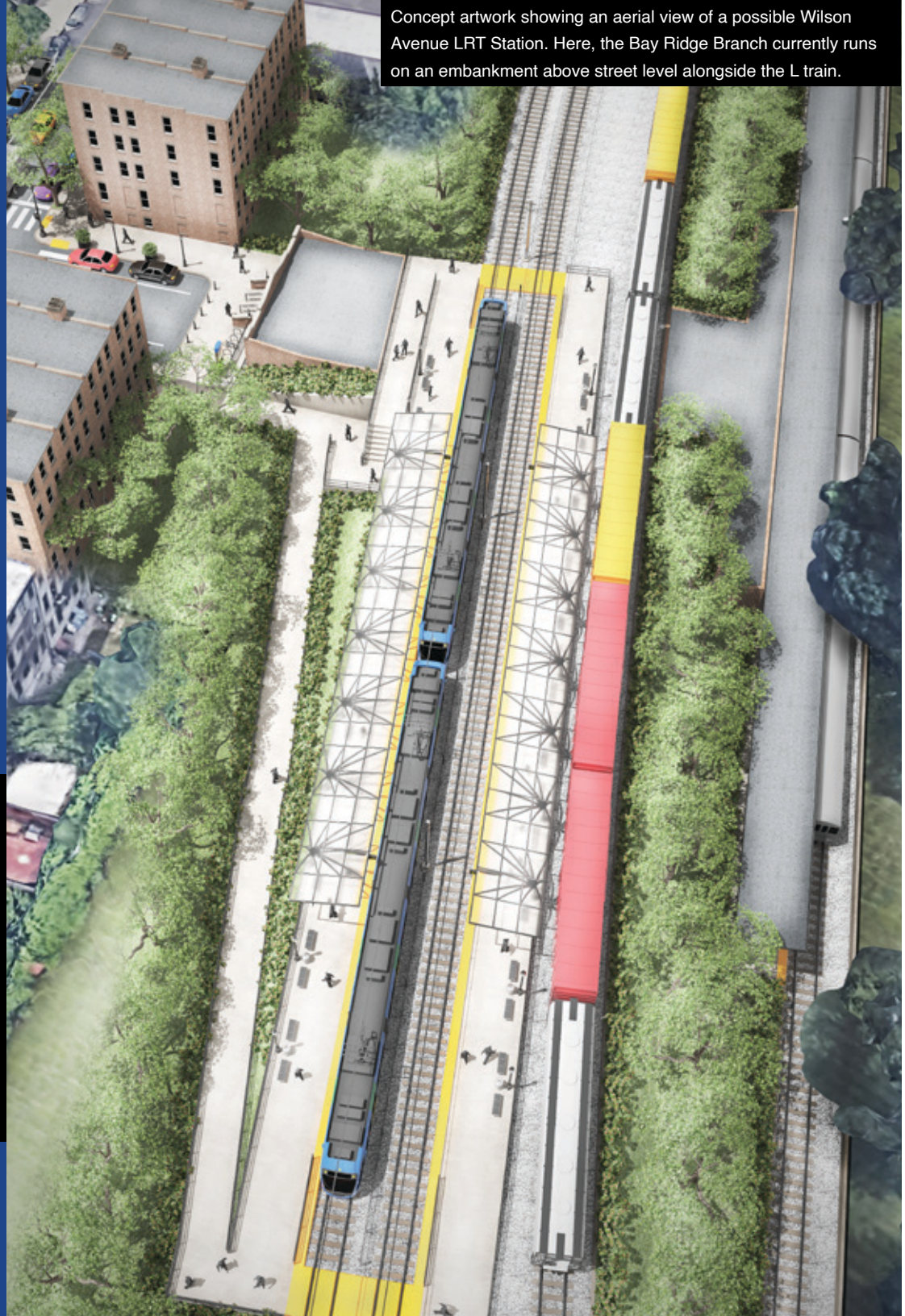
The Conventional Rail alternative involves the use of FRA-compliant vehicles that can operate in the same corridor as freight trains, but which offer service frequencies and train car interiors that more closely resemble the subway. Such hybrid systems operate in many places, such as London's Overground, Paris' RER, and Berlin's S-Bahn.

Concept artwork showing a street-level view of the Conventional Rail alternative at a possible Roosevelt Avenue Station in Queens.

Potential Yard & Shop Locations

65th Street Yard or Brooklyn Army Terminal
(new facility, construction required)

Concept artwork showing a platform-level view of the Conventional Rail alternative at a possible Roosevelt Avenue Station in Queens.



Concept artwork showing an aerial view of a possible Wilson Avenue LRT Station. Here, the Bay Ridge Branch currently runs on an embankment above street level alongside the L train.

LIGHT RAIL ALTERNATIVE

This alternative consists of a two-track Light Rail Transit (LRT) line operating either alongside or above the existing freight rail corridor. LRT tracks alongside existing freight tracks would be separated by a barrier or a required buffer distance. LRT trains would be smaller than subway cars and would be able to operate both on the street and on dedicated tracks. Again, since Light Rail is not FRA-compliant, tracks would need to be physically separated from freight tracks for safety reasons.

Challenges

LRT is potentially the costliest of the three alternatives due to the need for full physical separation from freight tracks. A short segment of the line in Queens would need to operate on existing streets.

Benefits

LRT has the highest predicted ridership among the three alternatives. Smaller LRT vehicles are able to navigate tighter curves and steeper gradients, which in turn reduce the amount of private land that needs to be taken. Many stations could be at street level and would therefore not require stairs and elevators.

Weekday Ridership	87,800
Average Runtime	39 minutes

Concept artwork showing a street-level view of a possible Wilson Avenue LRT Station. The station would be adjacent to the Wilson Avenue Station on the L.

Potential Yard & Shop Locations

65th Street Yard or Brooklyn Army Terminal
(new facility, construction required)

Concept artwork showing a platform-level view of a possible Wilson Avenue LRT Station.

Concept artwork showing an aerial view of a possible Ocean Avenue BRT Station in Brooklyn. The line here would operate on a viaduct above the freight tracks and cross intersecting streets at grade.

BRT ALTERNATIVE

This alternative consists of a Bus Rapid Transit (BRT) line using electric buses. The buses would operate along a bus-only roadway built alongside and above the existing freight corridor. The line would feature stations similar to those proposed for the LRT alternative.

Challenges

This alternative has the lowest predicted ridership and slightly longer runtimes than the LRT alternative. A short segment of the line in Queens would need to operate on existing streets. BRT vehicles have a lower passenger capacity than the other alternatives. Additionally, a higher frequency of service (2.5 minutes) may be necessary to meet ridership needs, which may have traffic and service reliability impacts (new bus design technologies may address this issue in the future).

Benefits

This is the lowest-cost alternative to build, and it would require the smallest amount of private property acquisition. BRT would provide the most operational flexibility, since other bus routes could use portions of the corridor, and the corridor route could most easily operate on side streets where necessary. BRT has substantially lower operating costs than the other two alternatives, although the lower vehicle capacity could require operating buses more frequently than every 5 minutes, which would increase operating costs over current estimates. An additional benefit is that bus storage and maintenance could be located off the IBX, and bus routes could serve additional travel markets beyond the corridor.

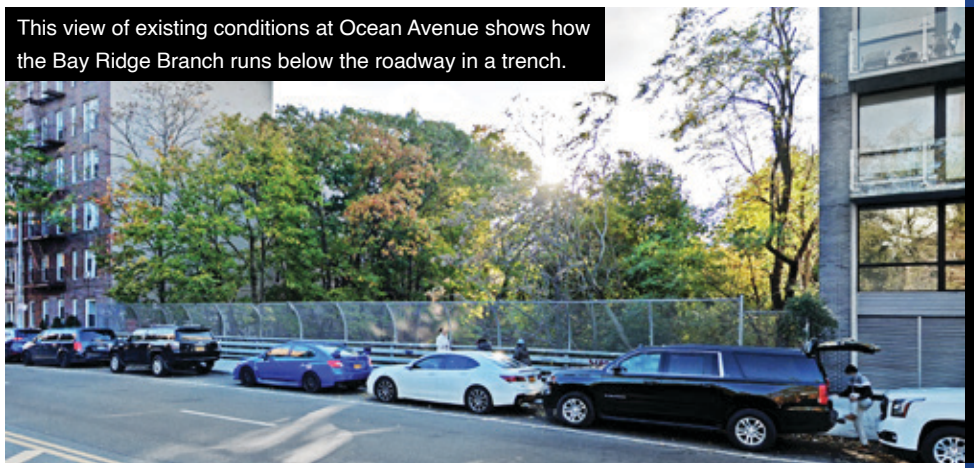
Weekday Ridership	74,000
Average Runtime	41 minutes

Concept artwork showing a street-level view of a possible Ocean Avenue BRT Station.

Potential Yard & Shop Locations

Jackie Gleason Depot (existing bus garage);
65th Street Yard or Brooklyn Army Terminal
(new facility, construction required)

This view of existing conditions at Ocean Avenue shows how the Bay Ridge Branch runs below the roadway in a trench.



Project Benefits

SIGNIFICANT RIDERSHIP DEMAND

Projected to transport nearly 88,000 passengers per day, the Light Rail alternative would see the highest ridership of the three alternatives, but all three would carry significant numbers of New Yorkers.

These estimates are about 1.5 to 2 percent of New York's pre-pandemic subway ridership numbers and 4 to 5 percent of pre-pandemic bus ridership. If built, the IBX would see higher daily ridership than nearly any new transit line built in the U.S. over the last two decades.

Conventional Rail	Light Rail	BRT
		
85k	88k	74k

Estimated Daily Ridership

Possible Stations with High Ridership

Ridership estimates for all three alternatives project the same four possible stations to have the highest weekday ridership:

- Utica Avenue (10,000-11,000)
- Roosevelt Avenue (8,000-10,000)
- East 16th Street (5,000-6,000)
- Flatbush Avenue (5,000)

All of these stations would be busy transit hubs, allowing IBX riders to connect to the subway, bus, and Long Island Rail Road.

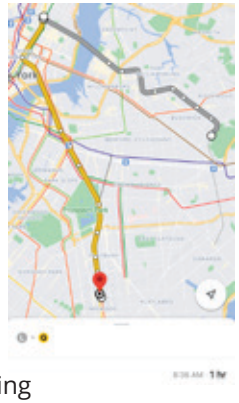
Between 74,000 and 85,000 passengers would use the new transit service daily, which would potentially save riders hundreds of hours of travel time a year by avoiding transfers or long routings. The project would also benefit new and existing residents in the neighborhoods adjacent to the corridor, a significant share of whom are minority and/or low-income, and the project would draw additional activity to developing commercial hubs.

Today

Getting from her home in East Bushwick to her office in Midwood can take Gina an hour. She's routed on a transfer through Union Square, even though she neither lives nor works in Manhattan!

Wilson Avenue Station (L)

Avenue J Station (Q)



She could have a slightly faster route... but that requires transferring to a third train or to an infrequent bus, reswiping her MetroCard, or walking to a station that's not right next to her home.

With the IBX

With a high-frequency transit line built along the IBX, Gina could have a one-seat ride from home to work, eliminating the time she currently spends transferring between trains and reducing her time waiting on the platform or in motion. That's:

30 *minutes per trip*

60 *minutes per day*

261 *hours per year*

That's a week and a half of travel time saved!

REDUCED TRAVEL TIME

Travel time estimates for the three alternatives are roughly similar. The Light Rail would take 39 minutes to run from end to end, the BRT would take 41 minutes, and the Conventional Rail would take 45 minutes.

Dwell time—the length of time that a vehicle spends in a station to allow passengers to board and alight—can be shorter for both Light Rail and BRT, at 30 seconds. Conventional Rail dwell time is 45 seconds, contributing to a longer runtime.

One of the most significant benefits of the IBX is that it would connect neighborhoods with poor existing transit links to each other. For example, today a resident of Midwood commuting to Broadway Junction has to take the Q to Atlantic Avenue-Barclays Center and then transfer to the LIRR, or take the Q to the Franklin Avenue Shuttle in order to connect to the A—either way, a trip of at least 40 minutes. The IBX could cut her travel time in half—on a one-seat ride.

End-to-End Runtimes

COMMUNITY DEVELOPMENT

New York is a city of neighborhoods and the IBX would connect many of these communities more effectively, improving access to jobs, housing, education, and recreation. This in turn would improve the chance for the success of current and future plans to strengthen these existing communities. These plans include:

- The **East New York Neighborhood Plan** encourages major commercial development and economic investment, complementing the industrial and manufacturing uses within the East New York Industrial Business Zone.
- New York State's **Vital Brooklyn Initiative** has invested $664 million in healthcare facilities in central Brooklyn, such as Brookdale, many of which are proximate to the IBX.
- NYC's **Sunset Park Vision Plan** involves significant commercial development near what would be the southern terminus of the IBX.
- Brooklyn College's **Facilities Master Plan** calls for significant development on its campus, which is adjacent to the IBX.
- The Department of City Planning's **Bushwick Neighborhood Plan,** updated in 2019, outlines multiple development goals in an area bordered on the east by the IBX.

MTA will collaborate with New York City and its planning and development agencies to proactively consider such economic development, healthcare, and housing opportunities in parallel with our transportation planning.

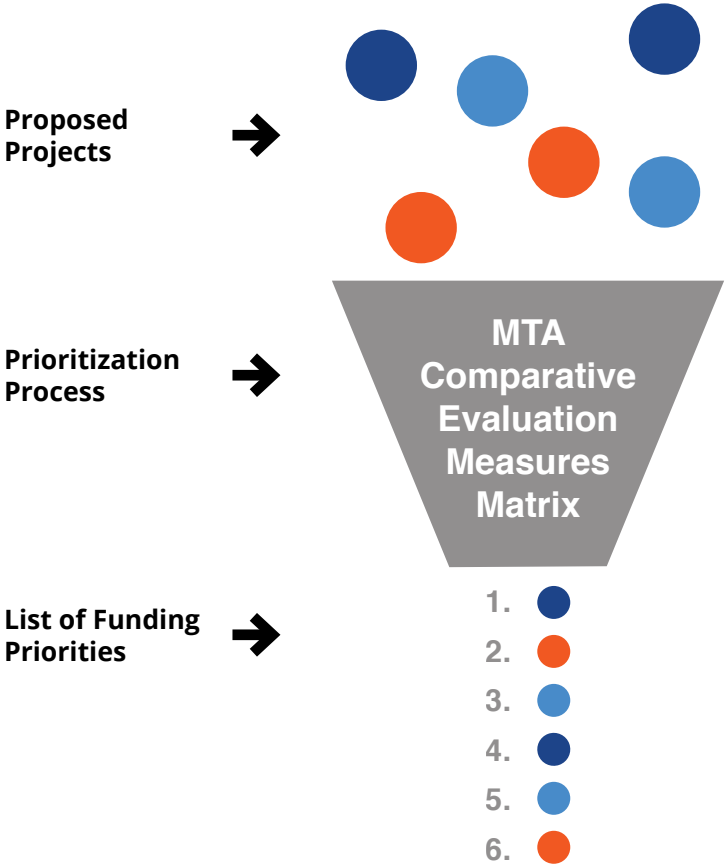
Top: Brooklyn Army Terminal, at the southern terminus of the IBX, is a major maritime and industrial hub. **Above:** Map snapshot of the East New York Industrial Business Zone. **Below**: Retail corridor in Jackson Heights, Queens.

NEXT STEPS

The IBX has the potential to be transformative, tangibly improving the daily lives of tens of thousands of New Yorkers. It is a rare opportunity to take advantage of an existing right-of-way to build a major new transit line. While the project is still costly and complex, even implementing smaller portions of the corridor can generate major benefits.

This study is merely the first step in potentially realizing the IBX. MTA's planning process involves preparation of a Twenty Year Needs Assessment for potential project inclusion in future capital programs. This assessment includes a comparative evaluation of costs, benefits, and issues.

If MTA moves forward with the IBX, there are still several steps before it selects its final desired alternative for this project. Station locations need to be finalized based on ridership and feasibility determinations. Lists of potentially affected properties for each remaining alternative need to be generated. Once the alternative is selected, the project has to undergo environmental review, design, and construction. Along the way, the project would require extensive public consultation. The final alignment and design may look very different from the alignment described in this study.



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Interborough Express

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Interim Report - Feasibility Study and Alternatives Analysis

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