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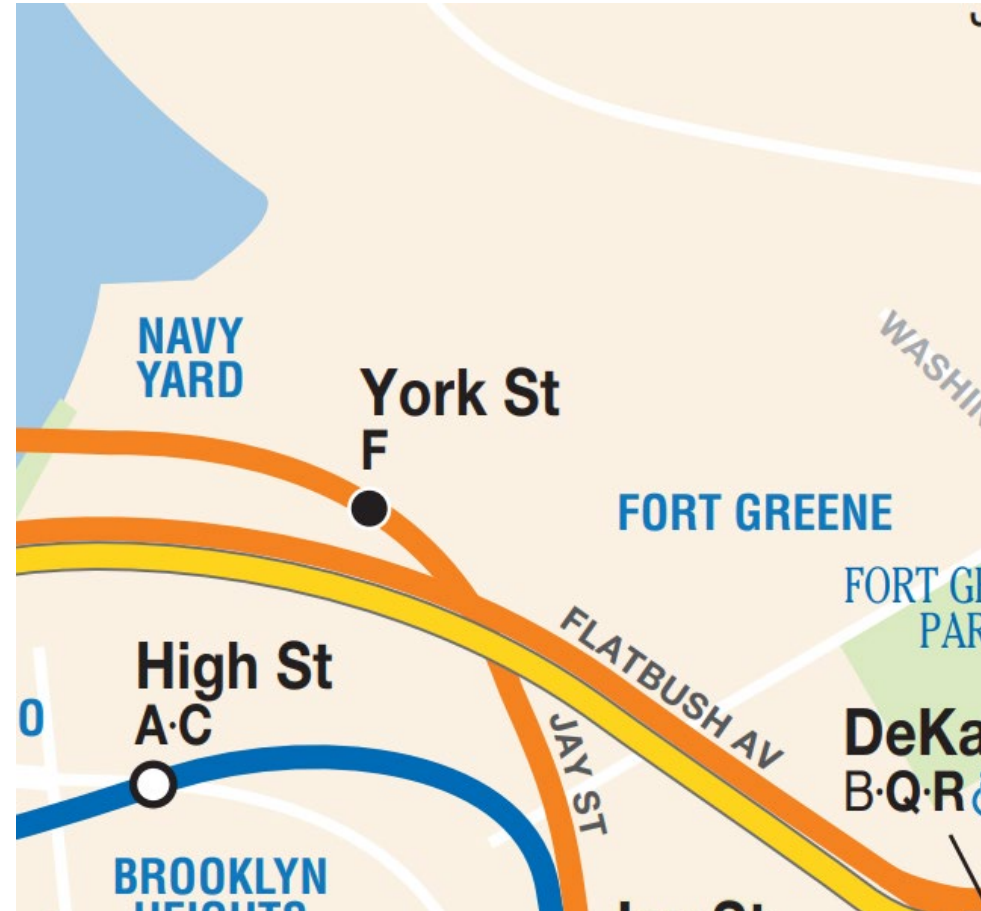


Construction &
Development

York Street Station
Constructability Study
June 16, 2022

Background

- York Street Station on the 6 Av **F** train
- Primary station serving DUMBO
- Significant ridership growth—from 4,100 in 2005 to 12,600 in 2019
- Ridership has been slow to recover from the pandemic
 - 7,365 daily rides in April 2022 (58% of pre-pandemic levels)



Current Conditions

- The station is not ADA accessible
- The station is accessed by a single entrance located at York Street & Jay Street
- Navigating from the street to the platform currently requires traversing:
 - A stairway from the street-level to the mezzanine
 - A mezzanine level containing a non-ADA ramp and stairs
 - A stairway to the north end of the island platform



Study Process

- Previous studies have looked at potential street entrance configurations but did not address the connection to the underground station.
- In 2021, MTA Construction & Development initiated a more detailed conceptual engineering and constructability study.
 - This study focused specifically on how to connect vertical circulation to the existing tunnel structure, addressing the critical constraining factor.

Construction History & Constraints

- Deep station (approximately 80' below the surface)
- Originally constructed along with the Rutgers Tube that goes under the East River, with the same tunneling method involving the installation of cast iron rings
 - This complicates construction and limits how an additional entrance can be added without undermining the structural integrity of the station or requiring a comprehensive station reconstruction



The tunnel under construction

Construction History & Constraints

- The Manhattan Bridge has six underpinning piers directly on the platform and many more in the vicinity



Manhattan Bridge underpinning piers on the platform



Manhattan Bridge & piers above the station

Constructability Study Findings

- **Connecting a new entrance is possible but extremely expensive**
 - A second entrance was planned during the original construction of the station but never built. It is possible to take advantage of the provisions made to construct a second entrance
 - An ADA-only project is also possible, adding step-free access without constructing a full new entrance
 - Either project would be complex and expensive due to the existing conditions of the station

Rough Order of Magnitude Cost Estimate

Full Additional Entrance:	\$420M- \$450M
ADA-only:	\$230M- \$260M

Platform Stairs

- Along most of the platform, columns are spaced 15' apart
 - This does not provide enough space to add a staircase with enough headroom for a person walking up the stairs
 - Moving the columns would require essentially reconstructing the station
- At two locations near the center of the platform, however, columns are spaced at 17.5' instead of 15' apart
 - This provides sufficient space and is a viable location for a staircase
- Construction of passageways to the additional stairs is possible using standard mining techniques

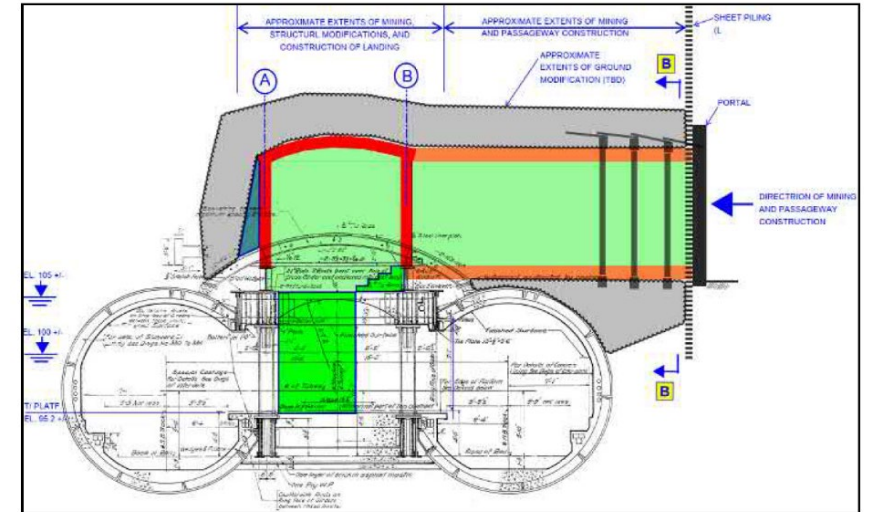
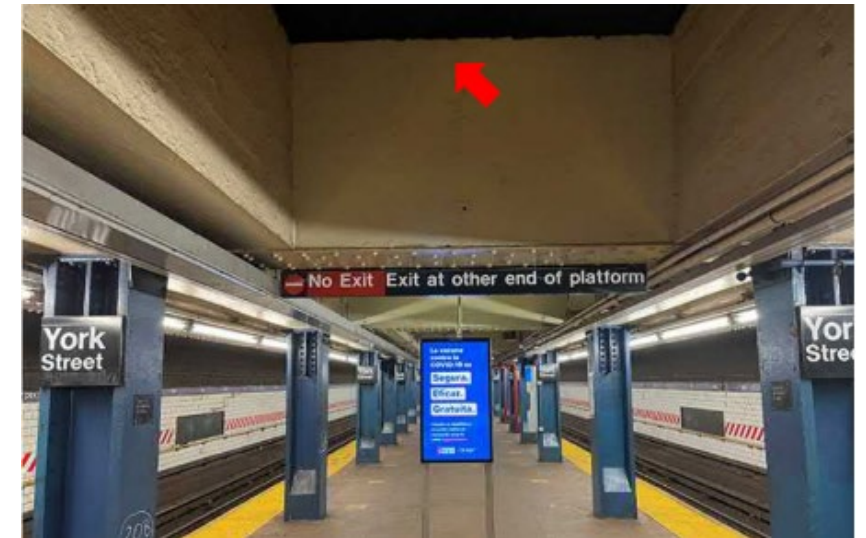


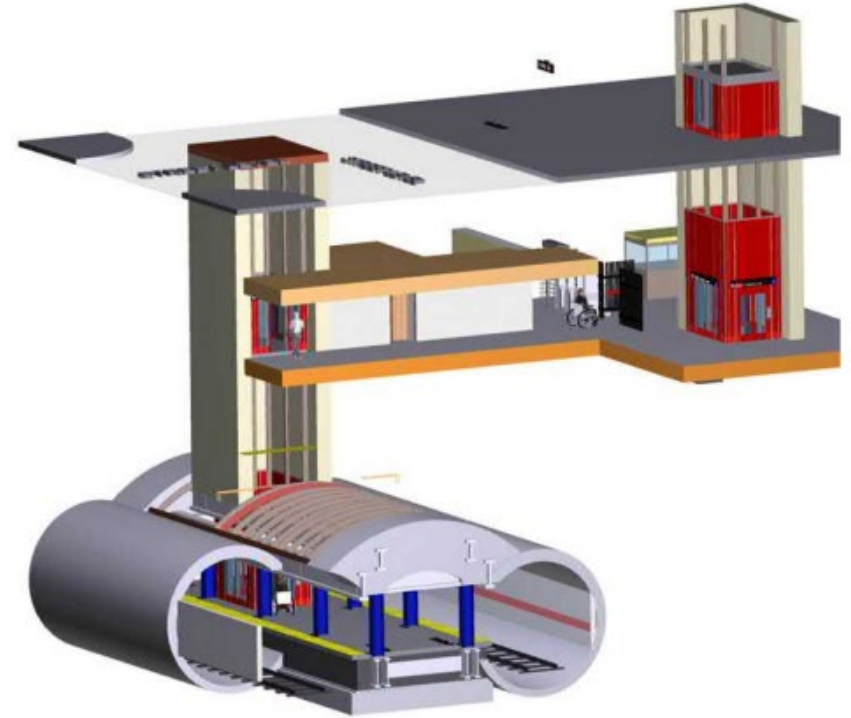
Diagram showing the construction of the passageway tunnel



The roof condition at the portion of the platform where an additional stair could be constructed

Platform Elevator

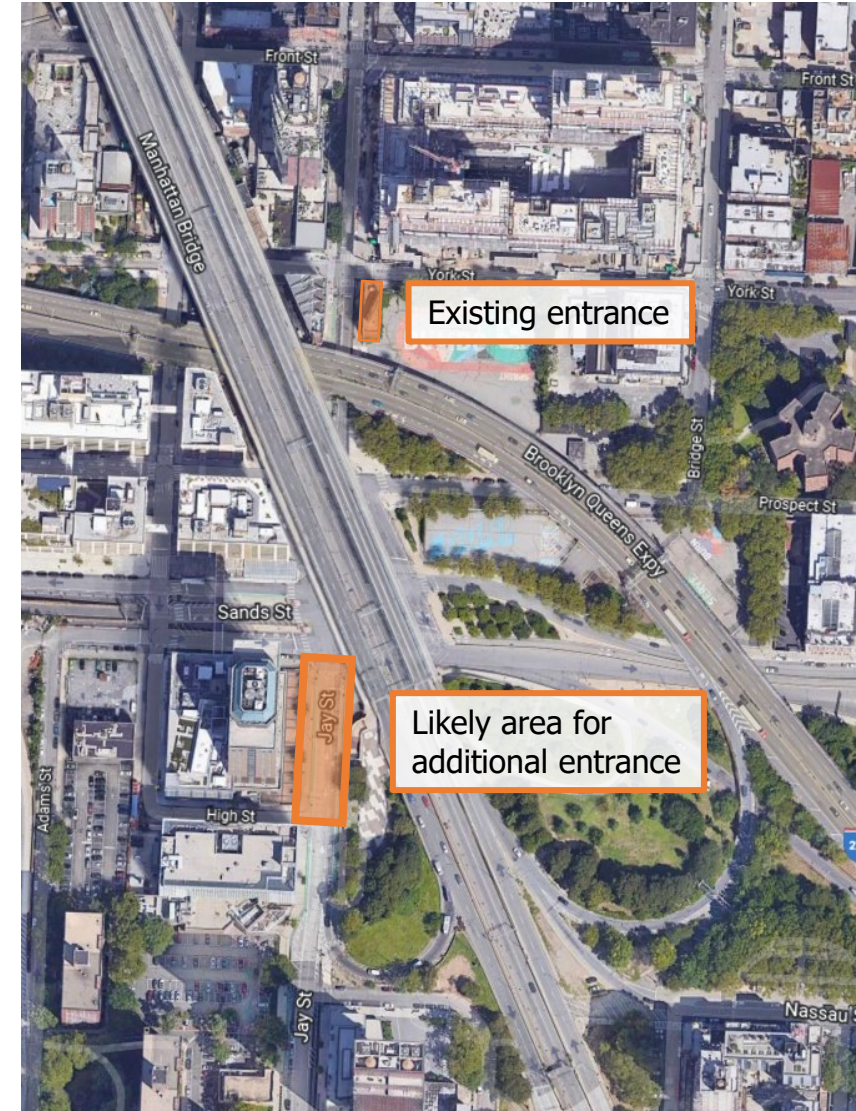
- Adding an ADA Platform Elevator is also possible
- There is sufficient space for the placement of an ADA-compliant elevator, even where the support columns are 15' apart
- Special consideration will be required in constructing the pit for the elevator below the platform, as it would penetrate the waterproof lining under the platform
- At the southern end of the platform, a larger capacity elevator could be used, including in a standalone ADA-only project



Generic view of ADA platform elevator and entrance configuration
(Note: Location and design are illustrative only)

Possible Location – Full Additional Entrance

- The platform stairway would be located below approximately the intersection of Jay St and Sands St
- For the connection from the mezzanine to the street, caissons that support the Manhattan Bridge overpass would restrict an entrance to the north
- As a result, the most likely location would be along Jay St between Sands St and High St




Possible Location - ADA Only

- Elevator and ADA-access could be achieved without a full additional entrance
- It would still require the construction of a new mezzanine, since the platform is in the middle of Jay Street
 - It is not possible to have one elevator straight from the street to platform; 2 elevators would be needed
- Location would be at south end of platform, allowing a larger capacity elevator to be used



Prioritizing Stations for ADA Upgrades

- Stations that receive ADA upgrades are outlined in the 5-Year Capital Program
- Criteria for prioritizing stations for ADA upgrades are public and include:
 - Coverage (stops between accessible stations)
 - Destinations
 - Ridership
 - Demographics
 - Transfers
 - Constructability and Cost
- York St is not part of the 2020-2024 Capital Program due to accessibility at the next station on the line (Jay St ) and other factors
- Community input is layered on all factors above in selecting stations

Next Steps

- The MTA remains committed to the long-term goal of systemwide accessibility
- The MTA is currently completing the Twenty-Year Needs Assessment ahead of the 2025-29 Capital planning process
 - This process will use a data-driven approach to comprehensively assess the MTA's long-term capital needs
 - This includes prioritizing stations for accessibility based on the data and criteria outlined above as well as stakeholder input
- York St will be considered – as will all stations – but is not high on most data-driven prioritization criteria
 - Under the current Capital Program, the average ADA project has a budget of \$79M. This project would be three times as expensive or more.