

No. 7 Subway (Flushing) Access Improvements at Grand Central Station MTA / NYCT

Location: New York, New York

Date: 2018 - Present

Structure: Pedestrian Tunnel with Station Cavern Opening Frame

Length: Approximately 85 ft (26 m)

Cross-Section: 173 ft² (16 m²)

Geology: Schist, schistose gneiss, and gneiss

Cost: --

Client: Parsons

Owner: Metropolitan Transportation Authority / New York City Transit (MTA / NYCT)

staging areas, as well as, developing safe procedures for supporting and bracing through the station arch, muck removal and delivery of materials.

Upon commencement of construction, GZ will provide site-support services for NYCT.

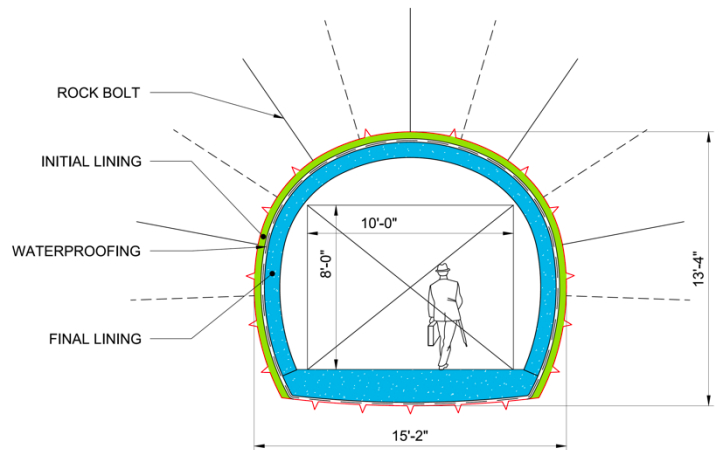


Figure 1. SEM Passageway Schematic Cross Section.

Design Services and Site-Support:

To relieve projected congestion and overcapacity due to increased ridership between the Lexington Avenue Line and the Flushing Line at Grand Central Station, NYCT will implement a series of packages to improve access and passenger circulation for the interchange, including widening of existing stairways and the construction of a new passageway that will break in the existing Flushing Line station cavern arch. The new passageway will extend east from the existing Flushing Line mezzanine parallel with the station cavern and will turn north to break through the arch of the station cavern where the new 7-foot wide stairway will provide access to the station platform.

Tunnel design and construction for the passageway will follow the principles of the Sequential Excavation Method (SEM). It is currently envisioned that tunneling for the passageway will be undertaken from the oblique wall across from the pair of existing escalators rising from the Flushing Line mezzanine to the Lexington Line mezzanine level.

Gall Zeidler Consultants (GZ) is providing detailed design services for the planned SEM passageway and connection to the existing station cavern. To limit disruption to the Flushing Line service, GZ is providing an innovative design solution with the implementation of a protective canopy above the eastbound track to allow for safe train operations during construction. As part of the design development, GZ is responsible for establishing a comprehensive instrumentation and monitoring program, identifying construction

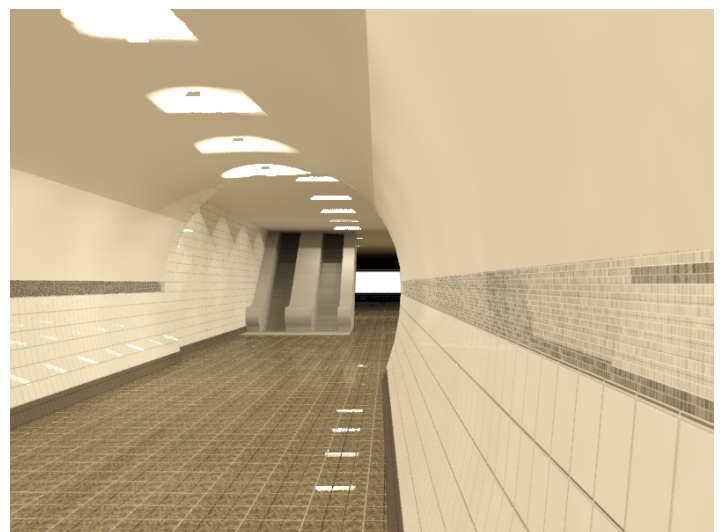


Figure 2. Rendering of Proposed SEM Passageway.