Gall Zeidler Consultants
Geotechnics | Tunnel Design | Engineering

Gallery Place – Chinatown Station Passageway
Washington Metropolitan Transit Authority

Location: Washington, D.C.

Date: 2018 - Present

Structure: SEM Station Pedestrian Passageway

Length: ~162 ft (49 m)

Cross-Section: 24.7 ft height, 30.75 ft width (7.5 x 9.4 m)

Geology: Fill, alluvium, and Pleistocene terrace deposits of sand with silt and gravels

Cost: ~US $8 million

Client: Washington Metropolitan Transit Authority

Owner: Washington Metropolitan Transit Authority

Construction Feasibility Assessment Services:

In order to relieve capacity constraints and increase passengers' safety during peak travel periods at Gallery Place – Chinatown Station, Washington Metropolitan Area Transit Authority (WMATA) is considering the construction of a new diagonal passageway connecting the platform level of the Red Line with the mezzanine level above the Green and Yellow Line. The proposed passageway would provide improved passenger movement though the station aimed to alleviate platform overcrowding. Additionally, the passageway may also include emergency egress to the street via a stairway and a hatch opening at the sidewalk along G Street NW, which will be determined as the design progresses.

WMATA issued an open RFI to the engineering community to provide first order feasibility and constructability memoranda. Gall Zeidler Consultants (GZ) was one of five teams, selected from those who submitted initial feasibility memoranda, that was invited to prepare a more detailed follow-up submittal to elaborate construction methodologies for the proposed passageway, including considerations of instrumentation and monitoring, breaking in and out of to the platforms through the existing station structures, preliminary finite element calculations, risk management, and cost assessment.

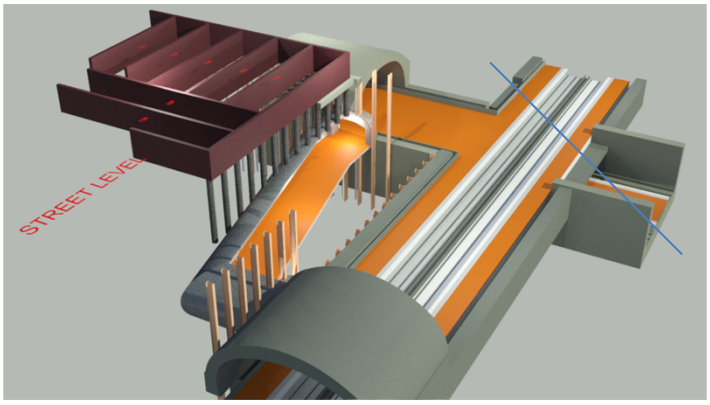

Figure 1. Isometric view of proposed passageway.

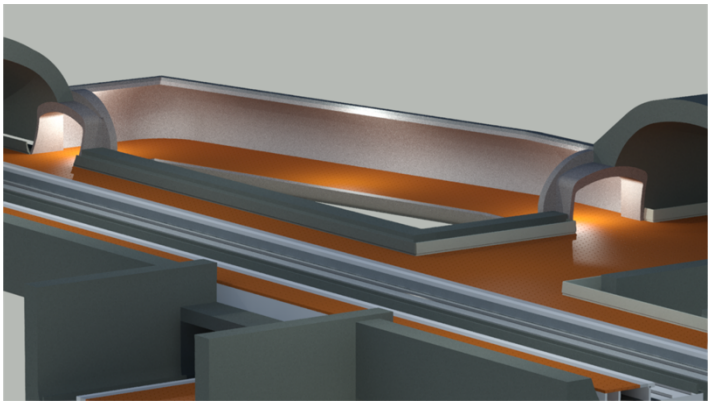

Figure 2. Overview of new pedestrian tunnel with connections to both platforms.