

# Alexandria Station Pedestrian Tunnel Virginia Railway Express

**Location:** Alexandria, Virginia

**Date:** 2013 - 2016

**Structure:** Pedestrian Walkway Tunnel

**Length:** 120 ft (36.5 m)

**Cross-Section:** 15 ft. (4.5 m) diameter

**Geology:** Fill (sand, gravel, cinders & wood fragments) overlying medium to stiff silty clays and fine sands.

**Cost:** n/a

**Client:** Gannett Fleming

**Owner:** Virginia Railway Express (VRE)

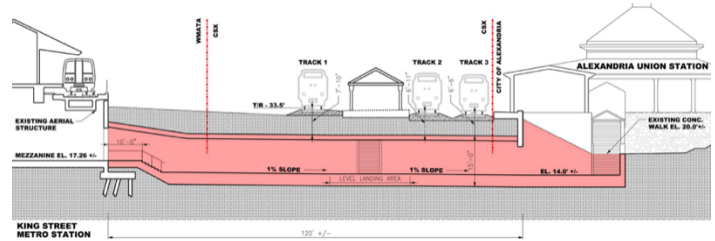


Figure 1. Proposed Alexandria Pedestrian Tunnel vertical alignment.



Figure 2. 3D rendering of Alexandria Station showing proposed pedestrian tunnel beneath the active rail lines.

## Feasibility Study and Cost Assessment Services:

The Virginia Railway Express (VRE) investigated the feasibility of the construction of a pedestrian tunnel between the Alexandria Union Station in Alexandria, Virginia and the King Street – Old Town Metro Station. Currently, Alexandria Union Station is being served by two tracks (Tracks 2 and 3), each with a side platform: Track 2 is served by the east platform and Track 3 is served by the west platform. The east platform is accessible by an at-grade pedestrian crossing of Tracks 2 and 3, as well as by an existing pedestrian tunnel, which is not ADA compliant. VRE desired to eliminate the at-grade pedestrian crossing of the tracks and proposed to construct an ADA-accessible tunnel.

Simultaneously, VRE desired to improve rail operations and flexibility at the station by modifying the east platform in order to allow passenger train operations on both sides of the platform. Currently, the platform does not have access to the eastern-most track (Track 1), and therefore this track cannot be used by passenger trains. Due to the volume of rail traffic, VRE only considered solutions that would not require tracks to be out of service during construction.

Gall Zeidler Consultants (GZ) conducted a feasibility study of the proposed pedestrian tunnel which included an assessment of construction methodologies and preliminary cost analysis for the project, developed and supervised the geotechnical investigation and testing program and developed a 60% design for the tunnel construction that included a Geotechnical Baseline Report (GBR).