



Silver Line Courthouse Station & East Tunnels Remediation Massachusetts Bay Transportation Authority

Location: South Boston, Massachusetts

Date: 2003

Structure: Bus and Railway Station and Tunnels

Length: 2,200 feet (670 meters)

Cross-Section: 20 feet and 8 inches (6.3 meters)

Geology: Fill and Silt; Marine Clay (Boston Blue Clay); Groundwater Table Above Tunnel Roof

Cost: Approximately \$94 Million

Client: J.F. White Contracting Company

Owner: Massachusetts Bay Transportation Authority (MBTA)



Figure 1. Leakages through a cracked concrete section.

Construction Support Services:

As a chief element of the MBTA's Silver Line providing service between Boston's Logan Airport and South Station, this project provided a new transit station and running tunnel segments. Station and tunnels were constructed using cut-and-cover construction techniques.

Gall Zeidler Consultants (GZ) provided the contractor with a leak detection and remediation grouting procedure for the waterproofing compartments at the station and east tunnels. The waterproofing system comprised two layers of geotextile with a PVC membrane in between, as well as a water-bar compartmentalization system.



Figure 2. Grouting of the roof port (control and grouting pipe) into the roof compartment..