Chinatown Rose Pak Station (USA)
Water Leak Mitigation

Country	USA
Type	Subway, Metro
Client	SFMTA (San Francisco Municipal Transportation Agency)
Main Contractor	Renesco Inc.
Execution of the work	Renesco Inc.
Designer	Gall Zeidler Consultant
Construction Period	2025

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Project Description

The Chinatown Rose Pak Station, serving as the northern terminus, is situated under Stockton Street at Washington Street. It is the deepest station in San Francisco's Municipal system, extending approximately 100 ft (30 meters) below street level. The station consists of two main structures: a headhouse 143ft (43m) deep, 182ft (55m) long and 70ft (21m) wide, connected to a 2x 1'000ft (2x 300m) long platform/station cavern, 57ft (17m) wide, 49ft (15m) high connected via a crosscut cavern with a width of 52ft (16m) and a height of 59ft (18m). It was constructed as part of the Phase 2 of the Central Subway - Third Street Light Rail Project, using the Sequential Excavation Method (SEM). The construction began in 2010, with the Chinatown–Rose Park Station officially opening for service in January 2023.

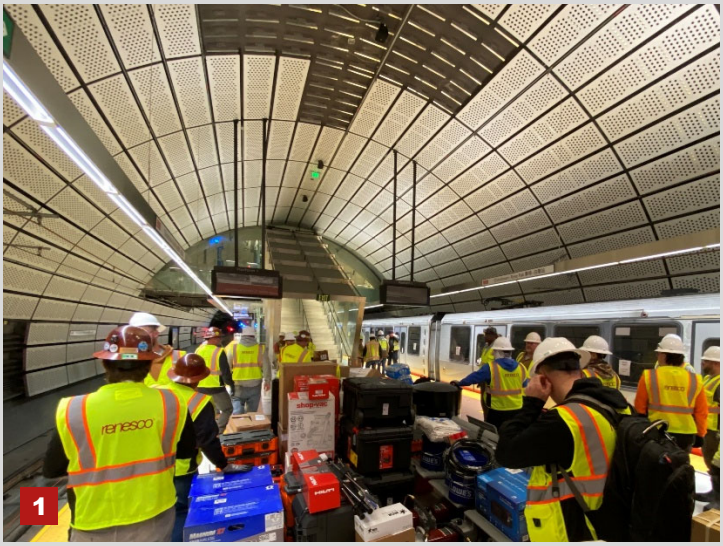
Scope of Service

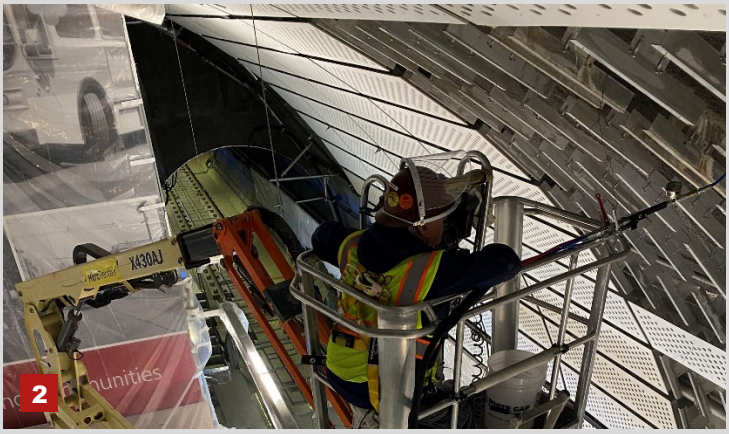
Water leak mitigation including an extensive investigation & injection/grouting program across the entire structure (headhouse and platform cavern) with different sealing systems (fully bonded, loose-laid) to reduce water infiltration. Part of the service was also the contact grouting of the inner concrete shell, as well as to remove, protect, store, and reinstall the concrete cladding.

Different injection products, type of equipment and techniques were adopted during the rehabilitation works:

- Polyurethane/acrylate crack injections with airless and membrane pumps via mechanical packers.
- Acrylate curtain injections
- Cement suspension (with superplasticizer and shrinkage compensating admixtures) contact grouting (void filling) with turbo-mixer and injector.
- Membrane compartment injection with acrylate resin.

Renesco performed as the prime contractor including the supervision & management of supporting subcontractors under a tough time schedule consisting of 24/7 operations during system wide closures, night & weekend shifts, etc.





1. Mobilization via metro train
2. Platform cavern compartment injections via acylate
3. Grouting equipment & operation on rails