

AGS(HK) Site Visit to SCL MTR Contract 1111 Hung Hom North Approach Tunnels

By Lucy Wu

On a bright and sunny day shortly after the spring equinox, AGS(HK) held a site visit to SCL MTR Contract 1111 Hung Hom North Approach Tunnels.

The site visit kicked off with a presentation by the contractor, Gammon Kaden Joint Venture (GKJV). GKJV's project manager Alan Yan provided a presentation of the overall works to be constructed under the contract including an explanation of some difficult challenges arising from working in a highly urbanized area and immediately adjacent to a live MTR track. Constructing northern and eastern approach tunnels into the existing Hung Hom MTR station using the cut-and-cover method may appear to be a simple task. However, the complexity becomes quickly apparent with consideration of tunnel construction under Chatham Road, one of the busiest traffic thoroughfares in Hong Kong.

The excavation works involve major traffic diversions and the construction of temporary traffic decks prior to bulk excavation works. In addition to complex traffic diversions, a medley of utilities running in every possible configuration crisscross the works area, making utility diversion a major construction constraint. To facilitate the widening of the existing tracks for the northern approach tunnel, the project also requires pedestrian diversion along Oi Sen Path including extensive scaffolding works. The necessity to excavate so close to the live East Rail Line has introduced the need for precautionary measures such as pre-grouting works, the use of a closed-loop drilling method, and a trip-wire system to alert the MTR operations team of any unusual adverse movements of the MTR protection fence relative to the operating railway.

The site visit participants were led on a site walk and given an appreciation of the site constraints. Even mobilization of plant into the site is a challenge due to the density of the traffic and buildings around the works area. The participants were able to view the traffic diversion works in progress as well as the use of the closed-loop drilling rigs in action. The site staff also pointed out the trip-wire system as well as the ADSM system along the area near the East Rail tracks. As a group of more than 20 participants standing on the existing Oi Sen Path, we definitely got in the way of pedestrian activity and gained an additional appreciation of just how important this area is for the local community.

This site visit illustrated the difficulties of construction in a highly urbanized area. The success of such a project depends on a holistic design that makes room for technical feasibility, practical constructability, public safety, and community engagement. Big thanks to MTR and Gammon-Kaden JV for allowing AGS(HK) to visit this project.



Attendees enjoying the presentation



AGS(HK) Timothy Fung (right) presenting the souvenir to SK Chui (left) and Alan Yan (middle)



Participants seeing the close-loop drilling rig in action



Group photo