

Review of recent building and civil works that involved large-scale slope or rock cuttings

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Hong Kong Institution of Engineers
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Usual works involved large-scale rock or slope cuttings under Hong Kong's construction environment:

- Highway projects (new works or widening projects)
- Railway projects (crossing of rail track, tunneling, forming station in the form of cavern)
- Site formation projects under government strategic developments to form new land
- Site formation for private developments
- Other civil works of specific nature

What will be discussed in this talk:

Based on some major representing projects, the following issues will be highlighted in order to provide an overviews of this topic may cover:

- Extent of works that involved in various kind of cuttings
- General methods used in the cutting
- Layout and set-up to facilitate the cutting works
- General review of some major representing projects
- Landscaping and greening provision as part of the final touch up of these projects.

What is meant by large-scale

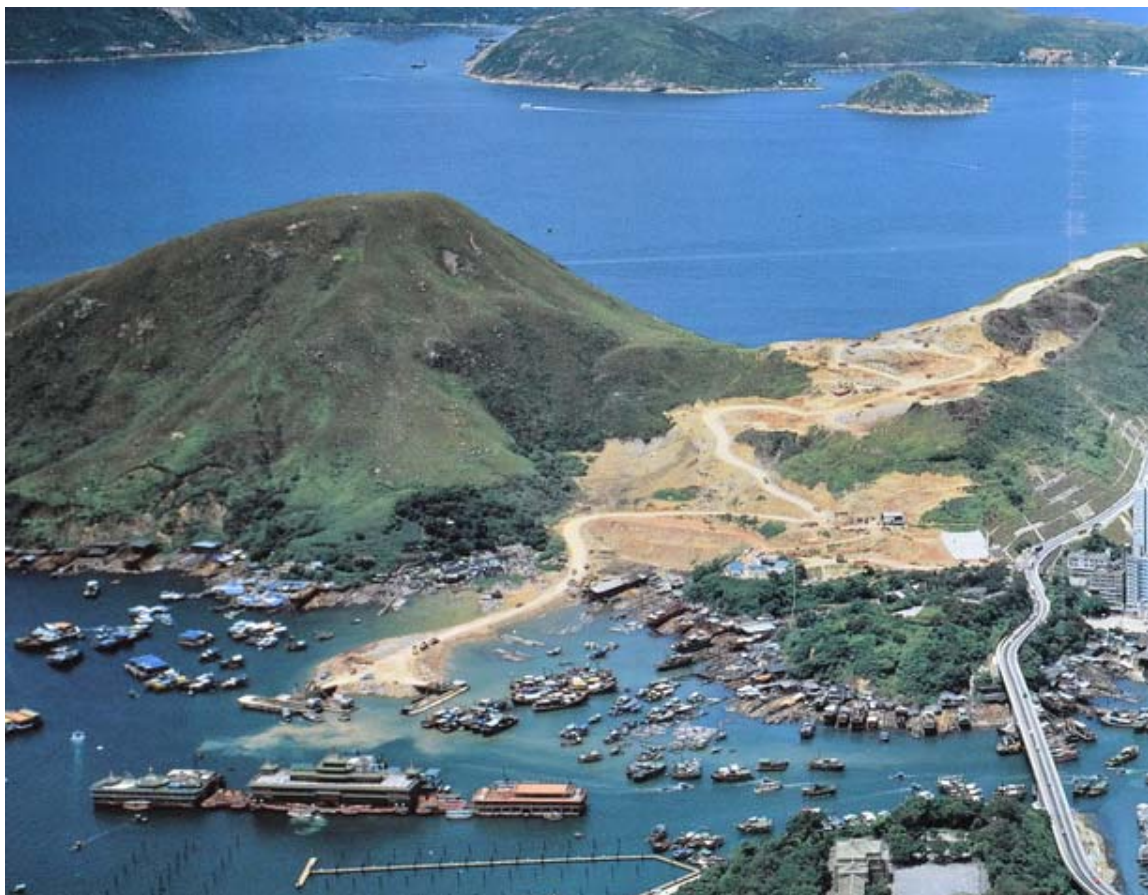
There is no specific definition on this. Anyhow, where cutting at least 100,000 m³ in volume or more, it can be regarded as large scale.

The projects to be referred to in this presentation include:

- Airport Core Projects
- Route 3 (Country Park Section)
- MTR Tseung Kwan O Line
- Castle Peak Road Improvement Projects
- Route 8 (various sections)
- MTR West Island Line
- MTR Kwun Tong Line extension

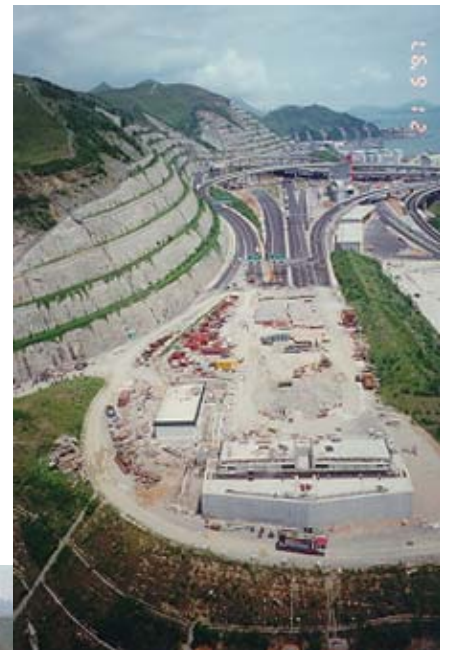


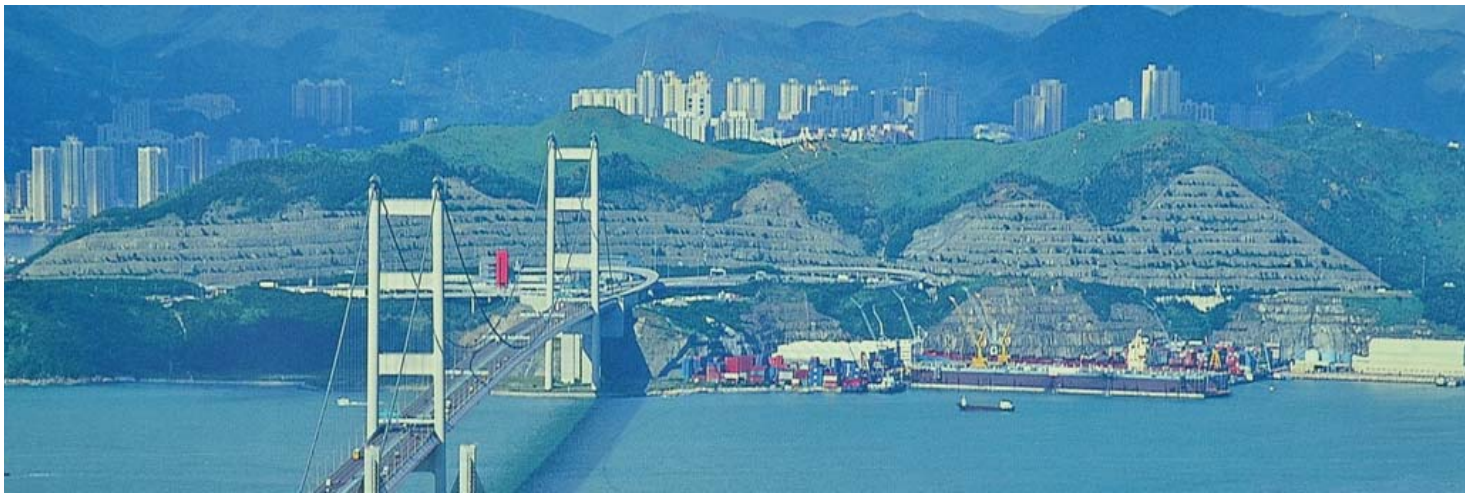
Large scale cutting in the 1790s – Tuen Mun Highway at Ting Kau

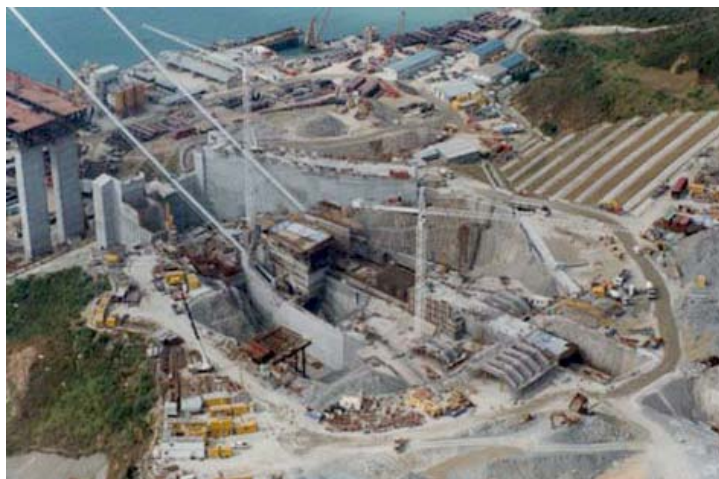


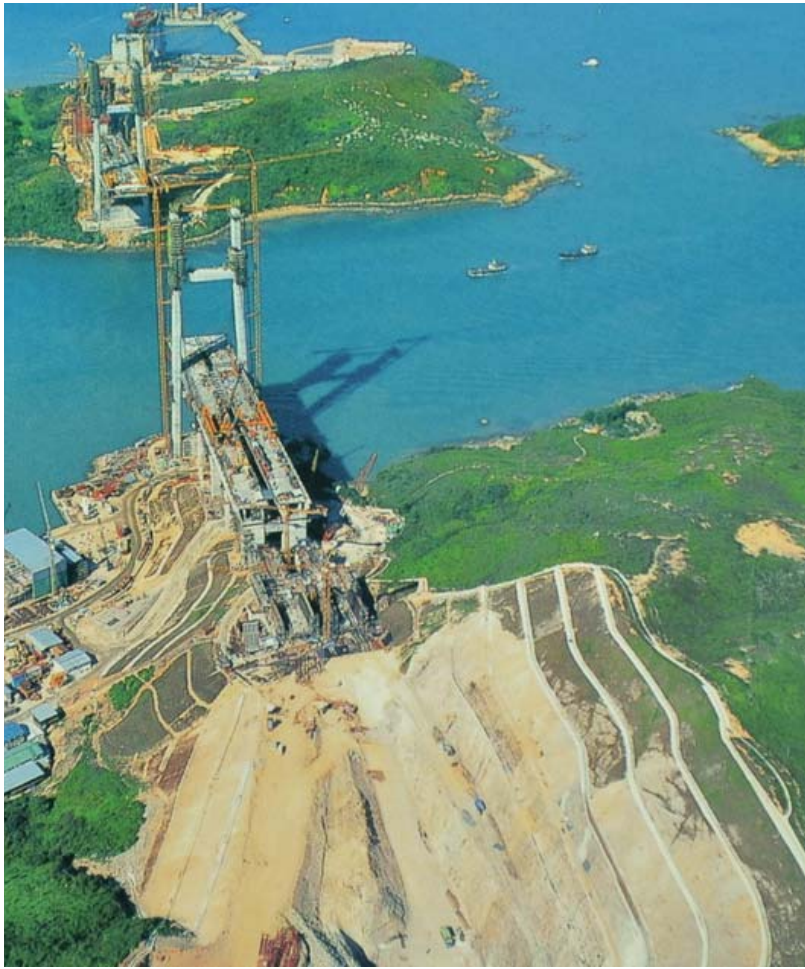
Formation of the Ip Lei Chau, Lee Tung Estate and

Forming the Tsing Ma Concourse as part
of the Lantau-Fixed Link, one of the
Airport Core Projects in the 1990s









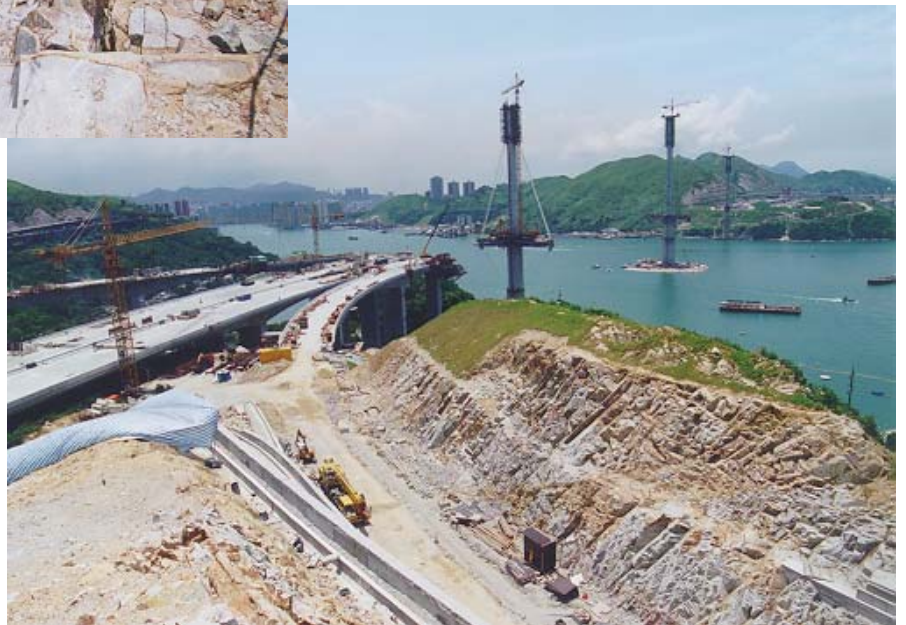


Major slope cutting for the forming of the North Lautau Expressway as viewed in 1995



Route 3, Country Park Section
(1996 – 2001, Ting Kau)











Portal of the
Tai Lam Tunnel

Forming the
vehicular pass
make use of blasting
in benches













Mass Transit Railway
Tseung Kwan O Line
(1997 – 2013, Ting Kau)

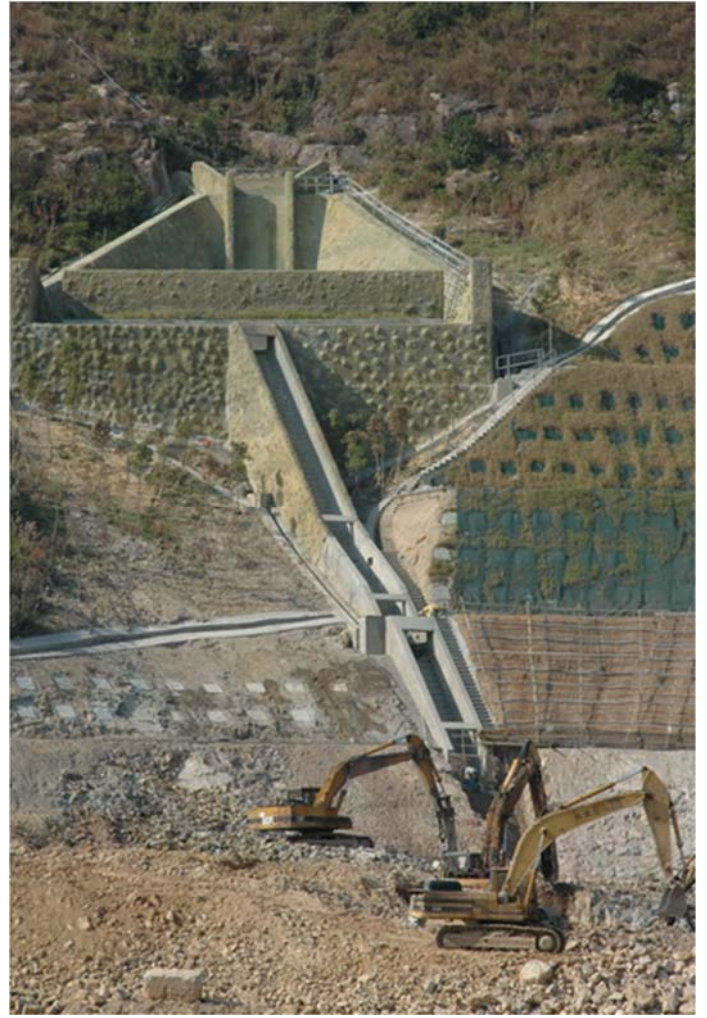
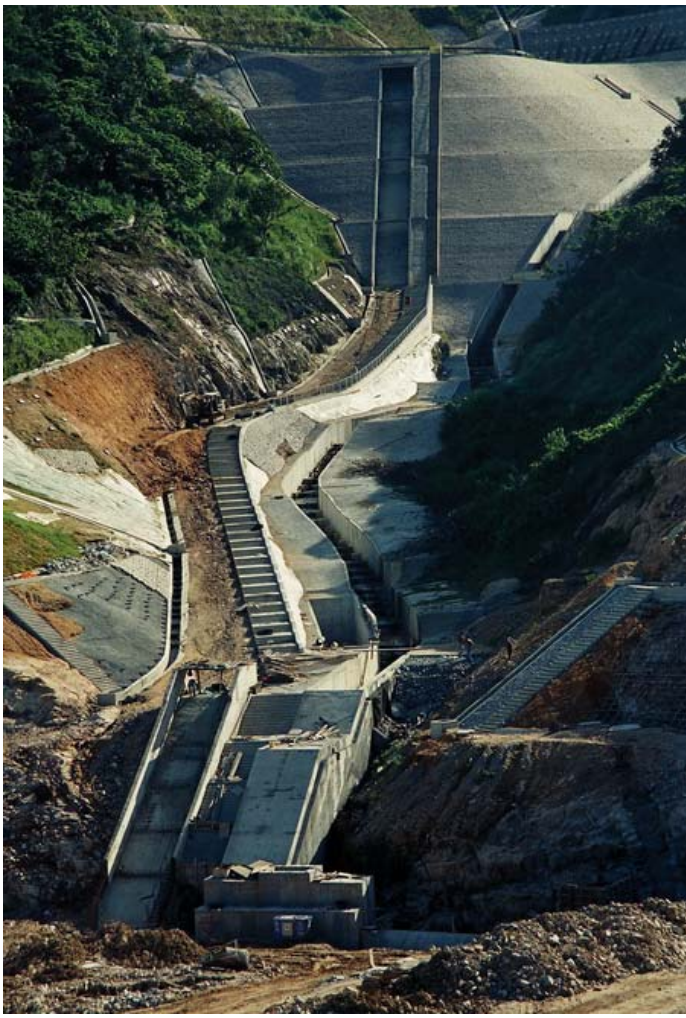










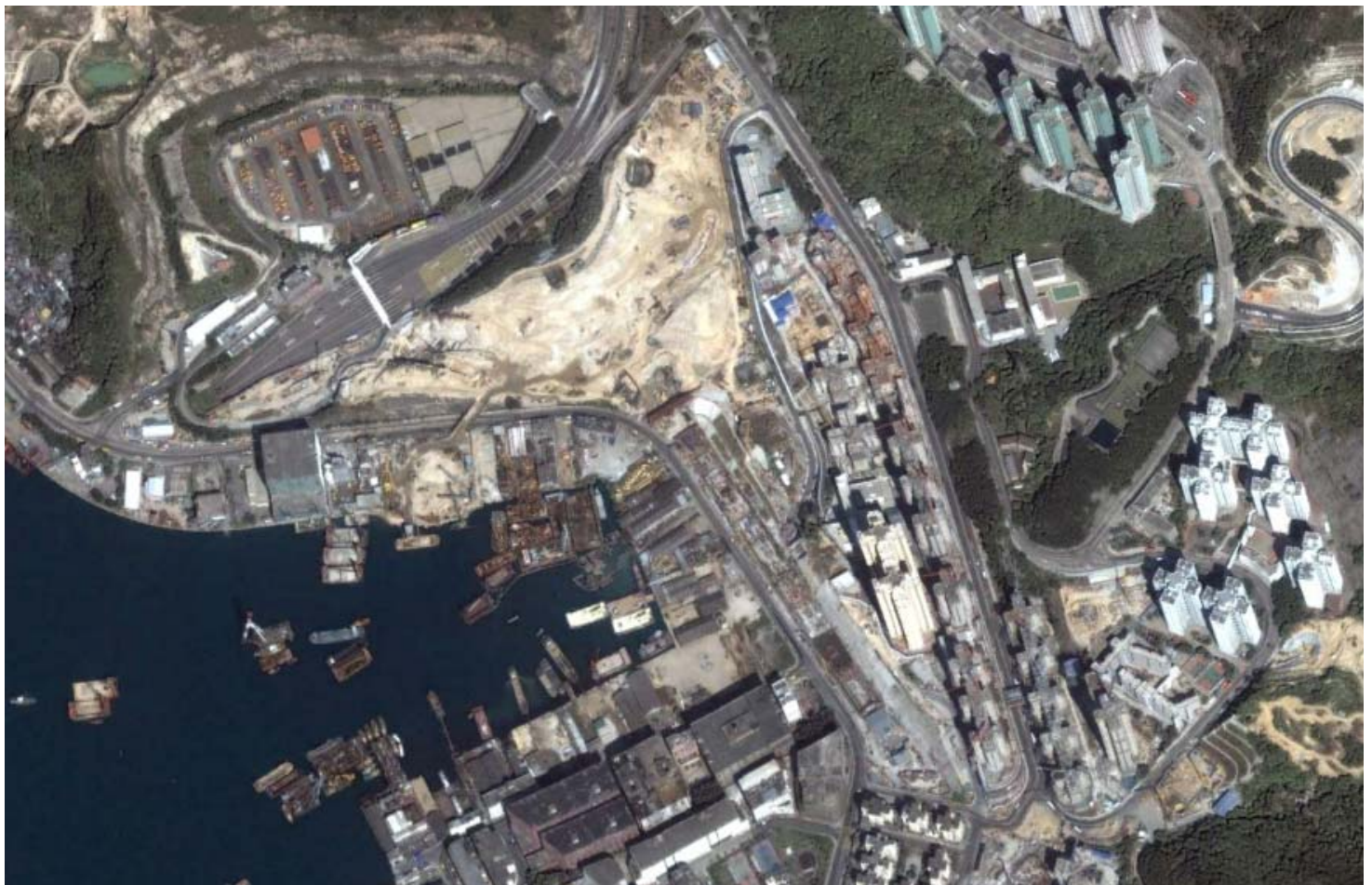
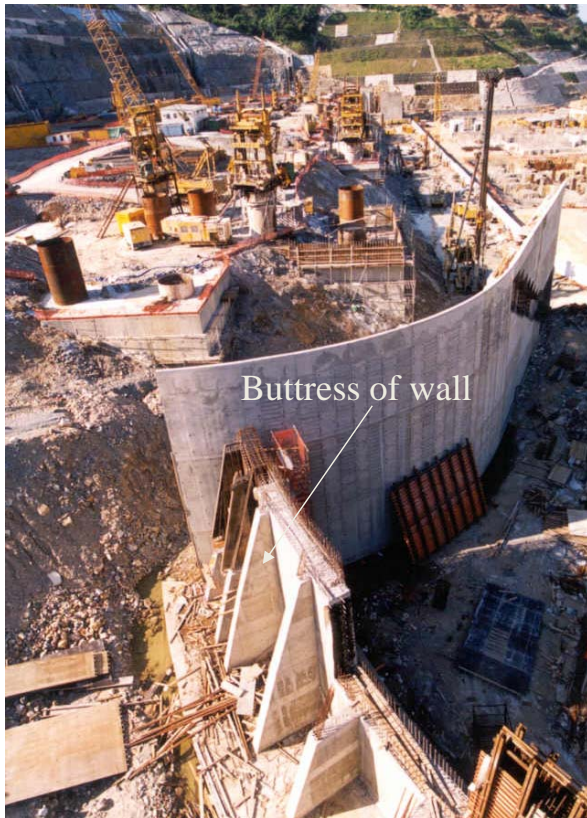


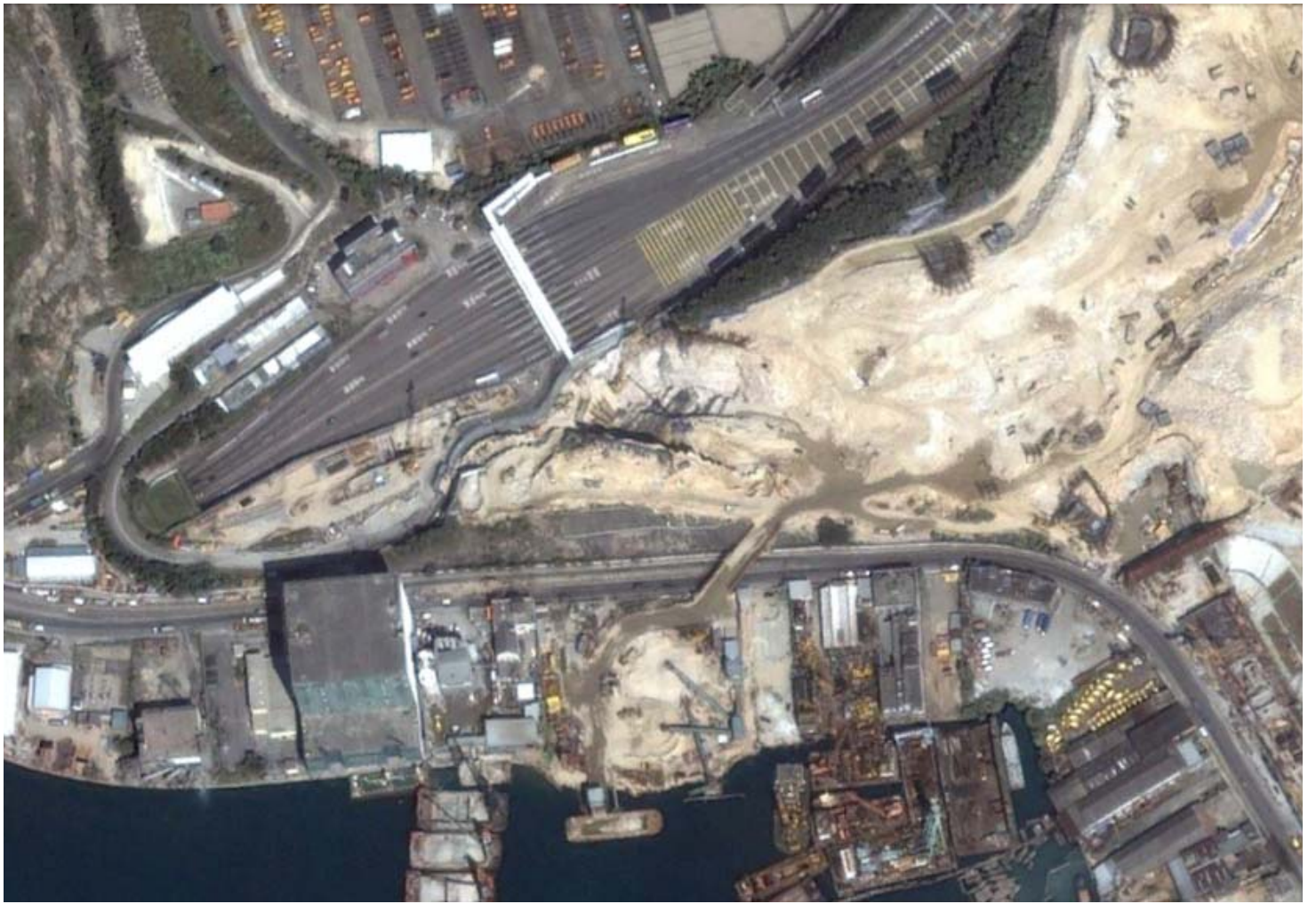




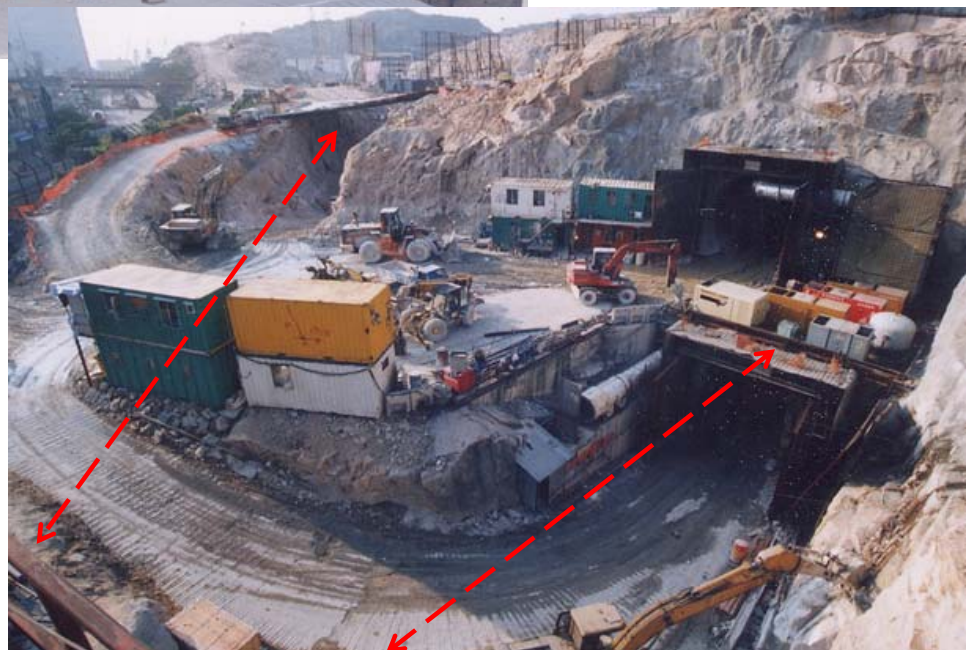


Construction of RC cantilever/gravity mixed type retaining wall and finally formed a terrace to construct buildings









Junction between the
joining to Kwun Tong Line
and approach to the
Eastern Harbor Crossing



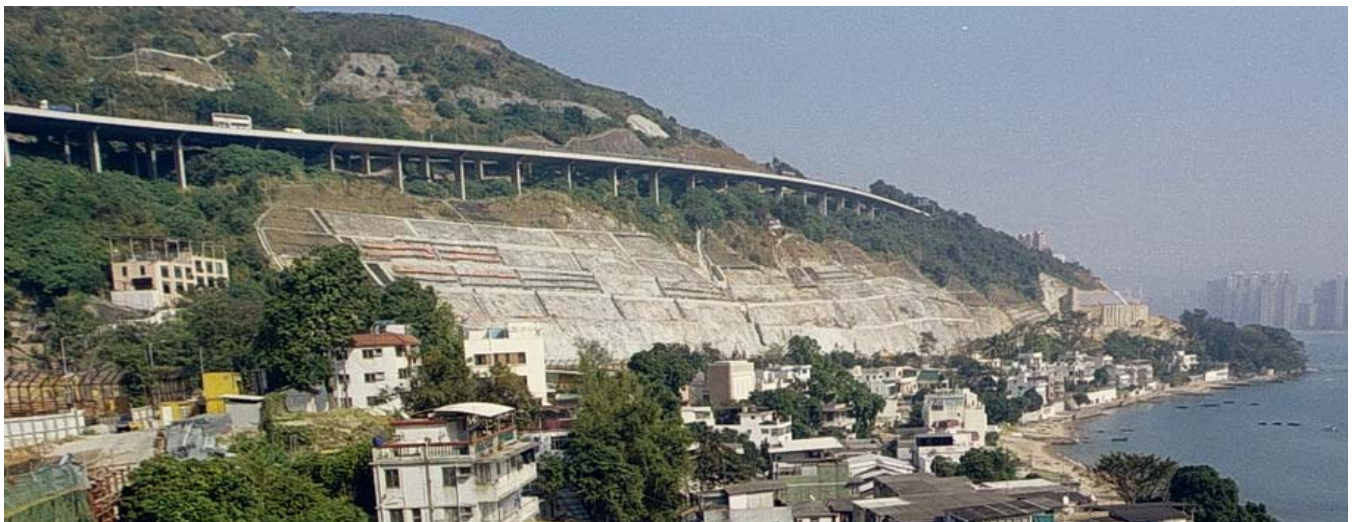
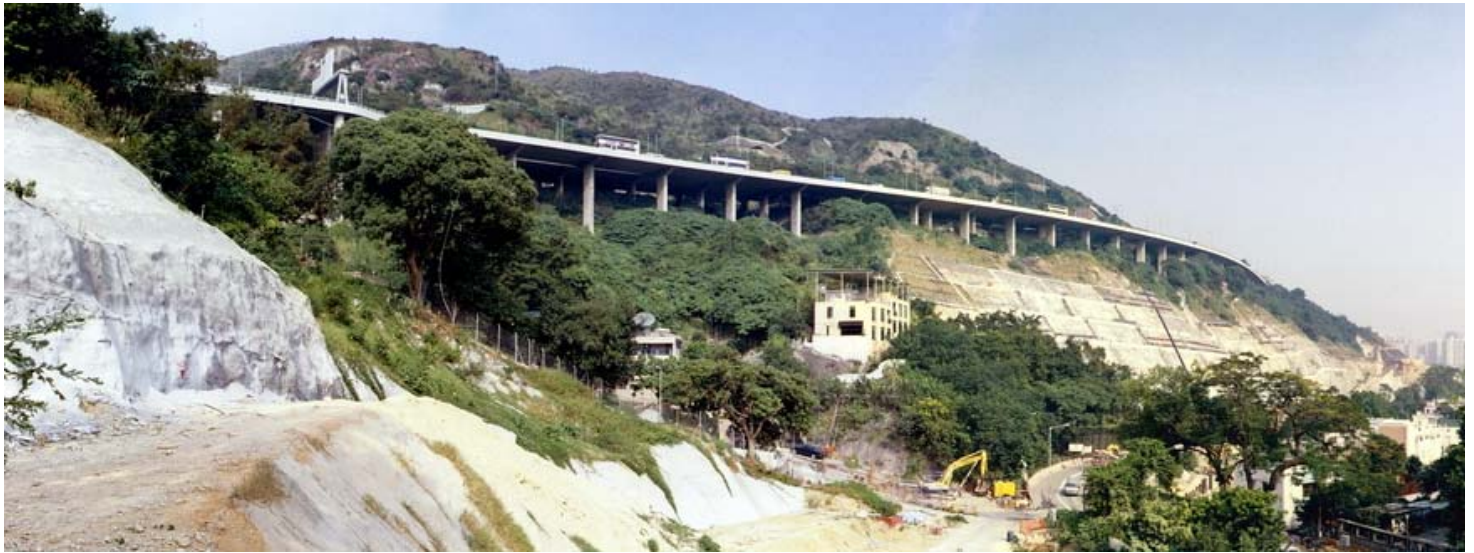


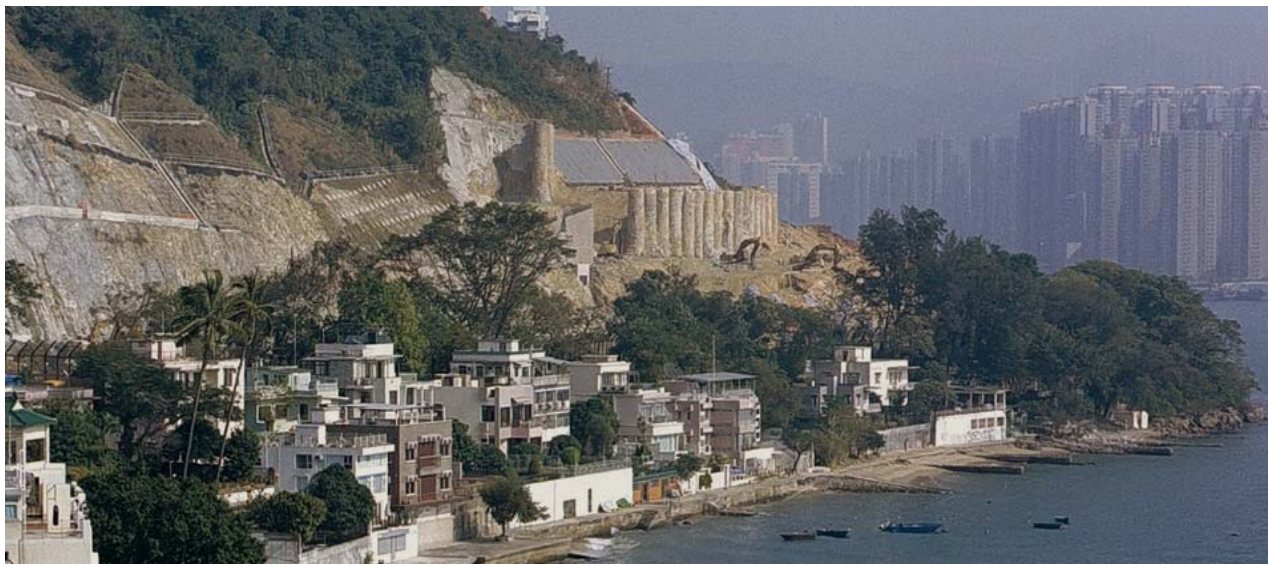
Cutting to join into the tunnel alignment inside the Eastern Harbor Crossing



The completed station structure of Yau Tong before the opening

Castle Peak Improvement Project (2001 – 2007)



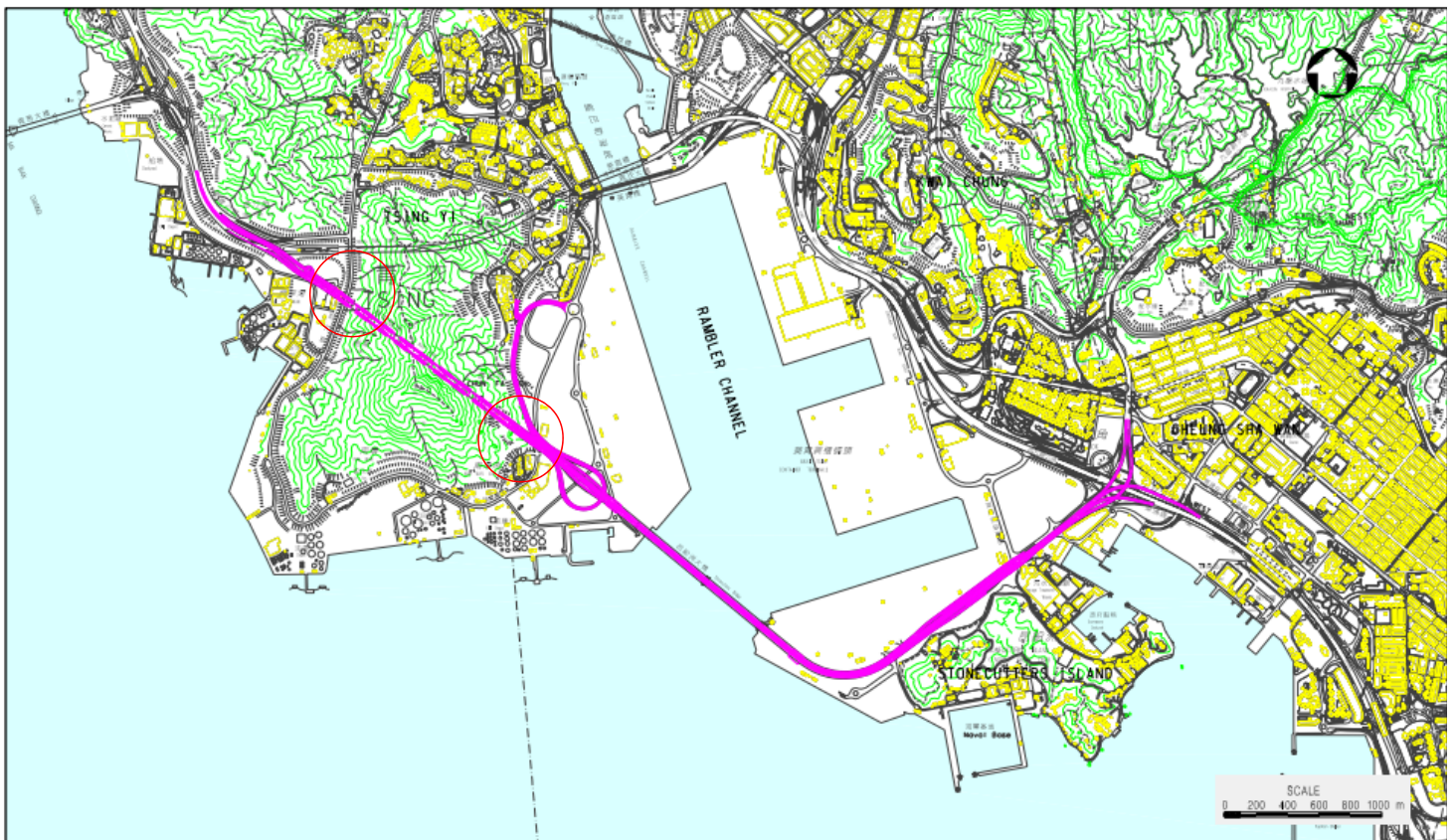




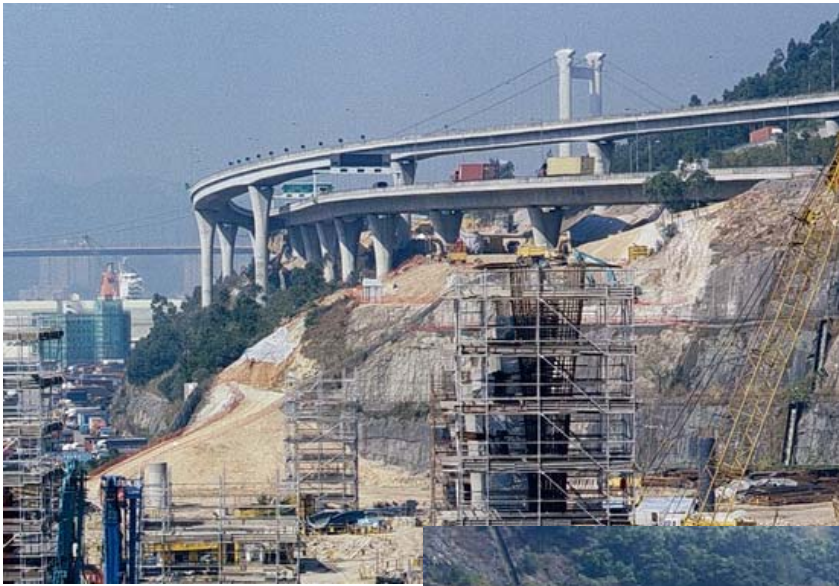




Route 8, various sections (2002 – 2009)



6711TH - ROUTE 8 BETWEEN TSING YI AND CHEUNG SHA WAN

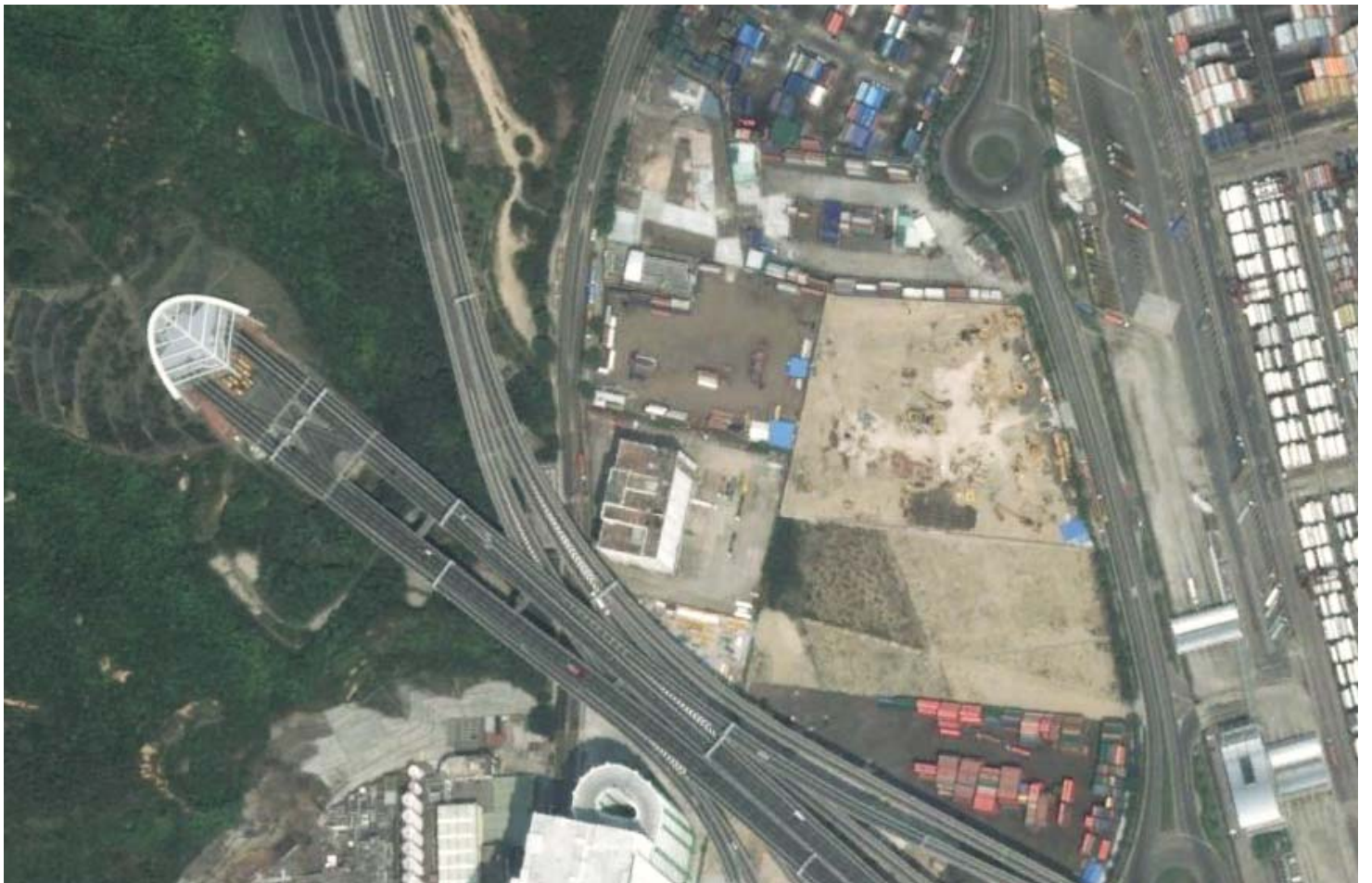






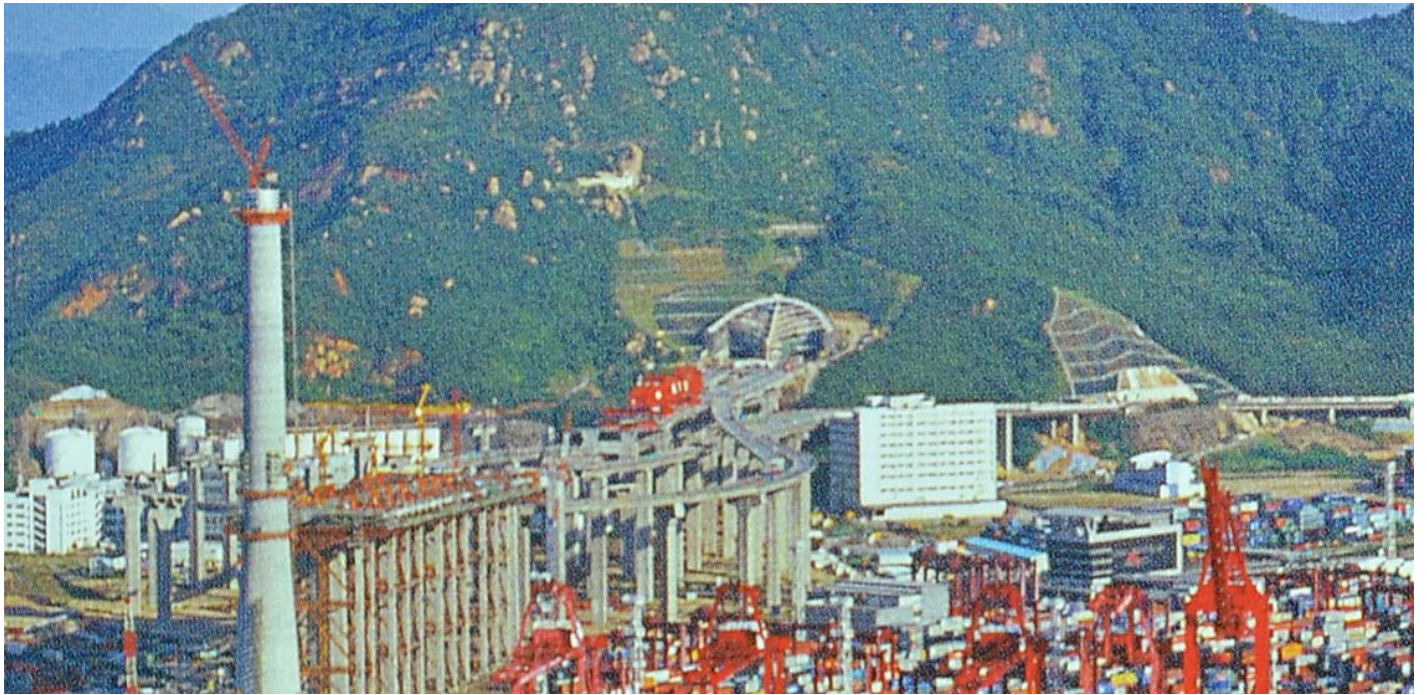
Route 8 Nam Wan Tunnel portal and the interchange at CT9, Tsing Yi



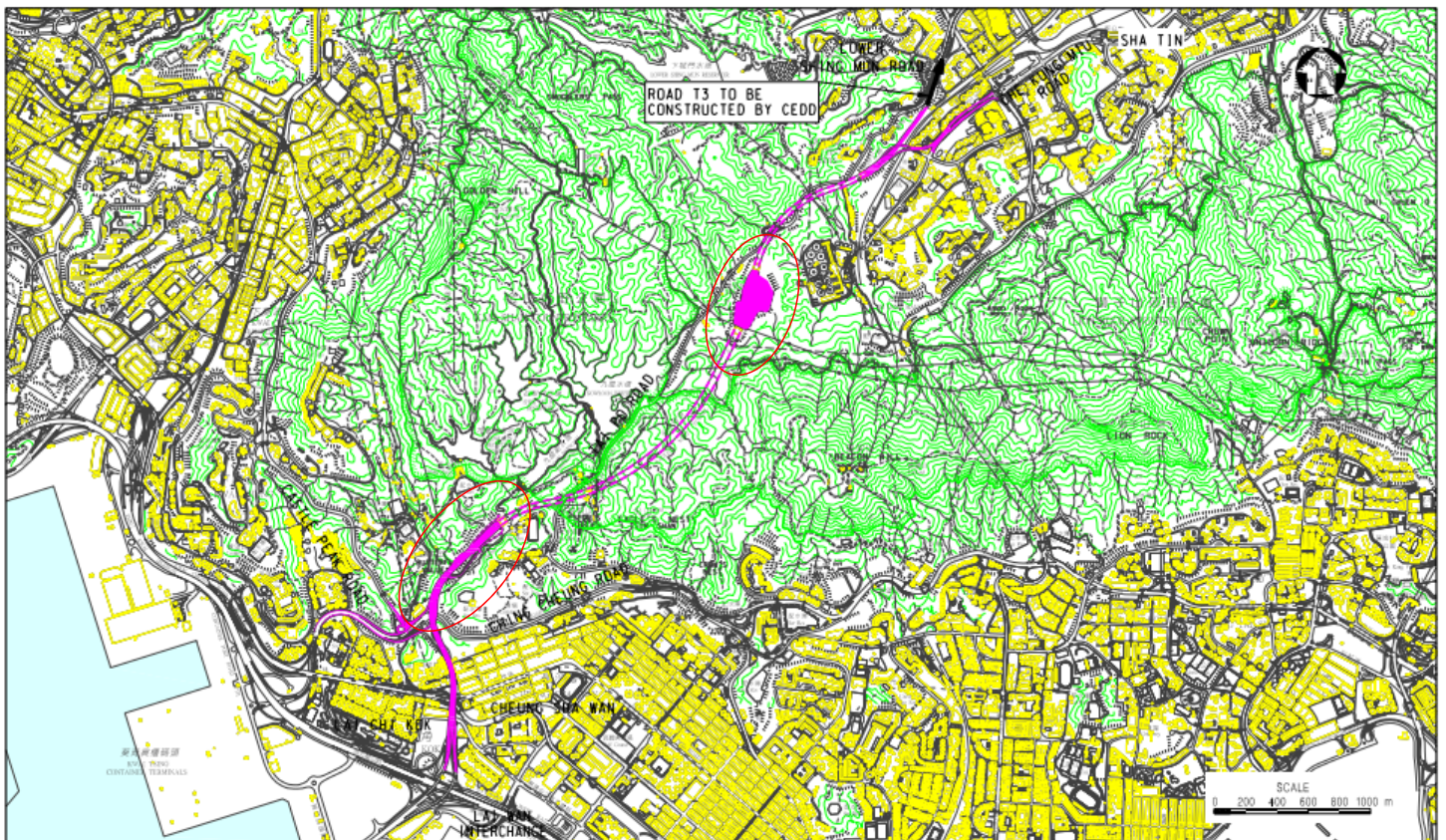




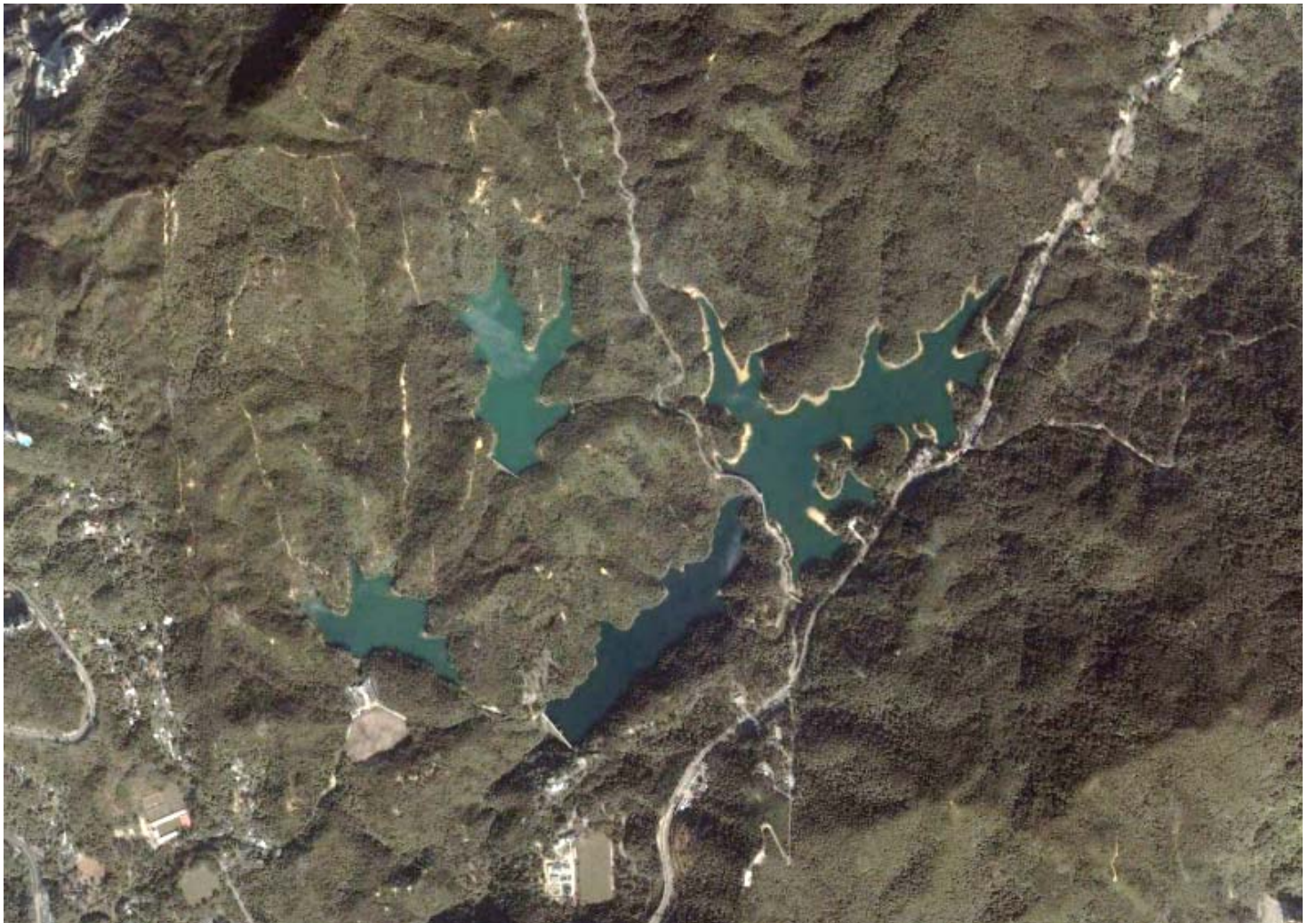


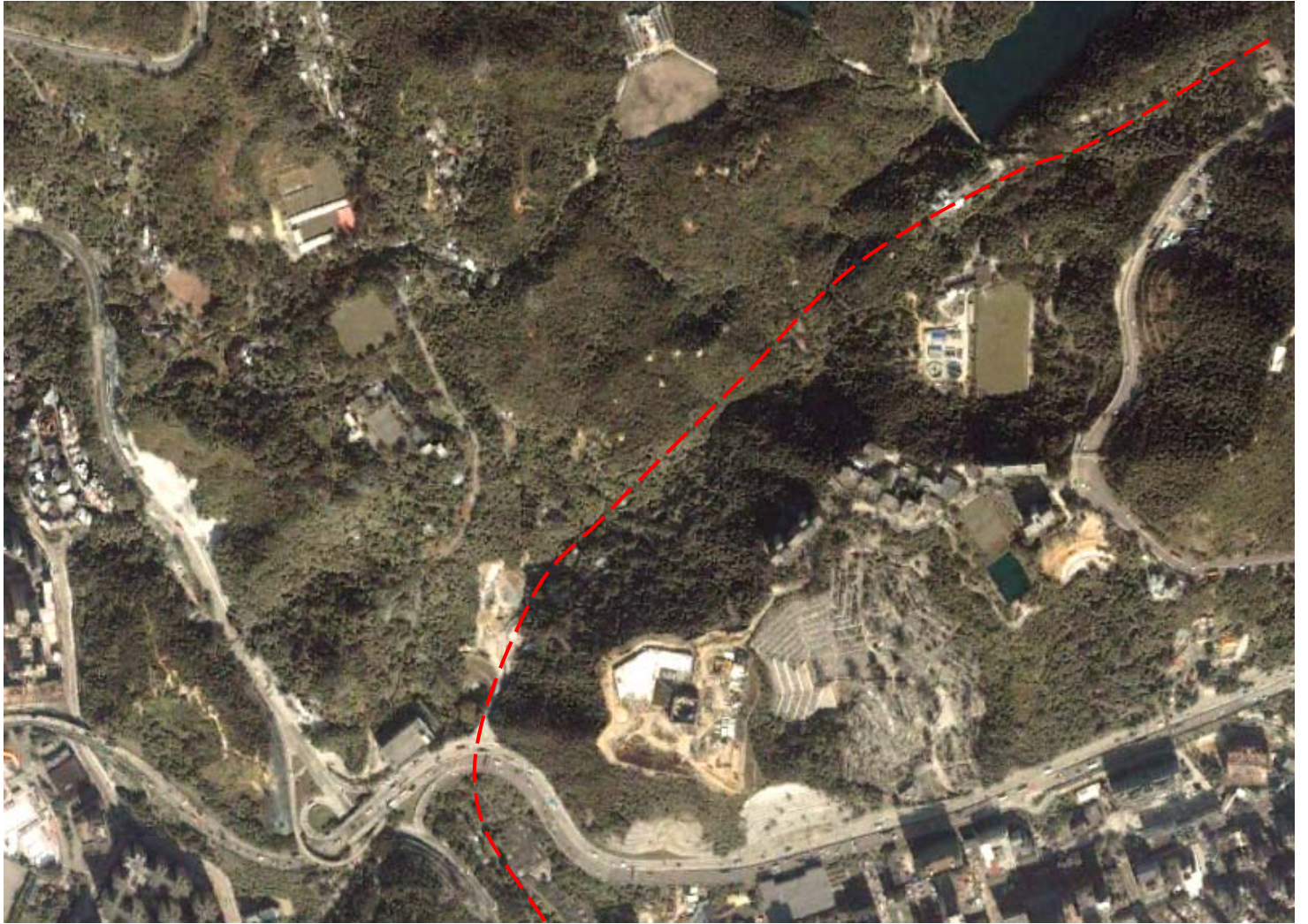






6694TH - ROUTE 8 BETWEEN CHEUNG SHA WAN AND SHA TIN







Interchange at the junction of Ching Cheung Road and Butterfly Valley Road



→ Locations where significant amount of slope cutting being done to facilitate the passing of the elevated carriageway



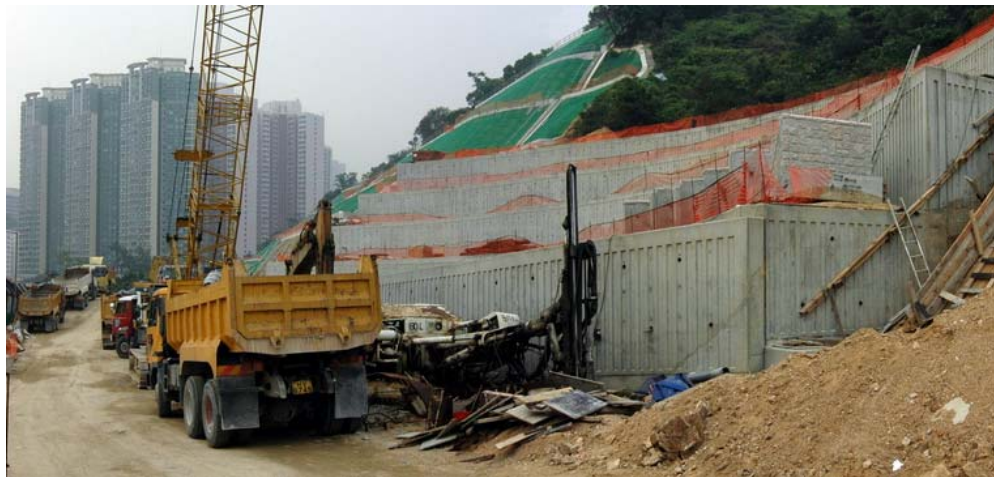




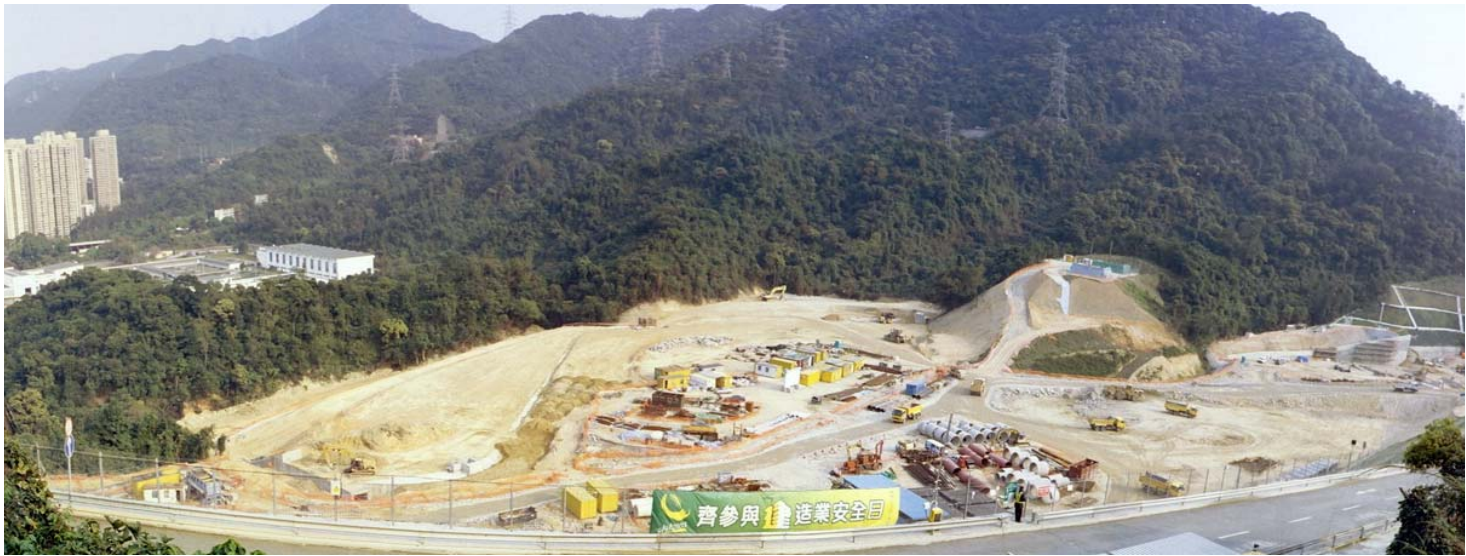




Other cutting forming
land for the slip road
(CC Road near Mei Foo)













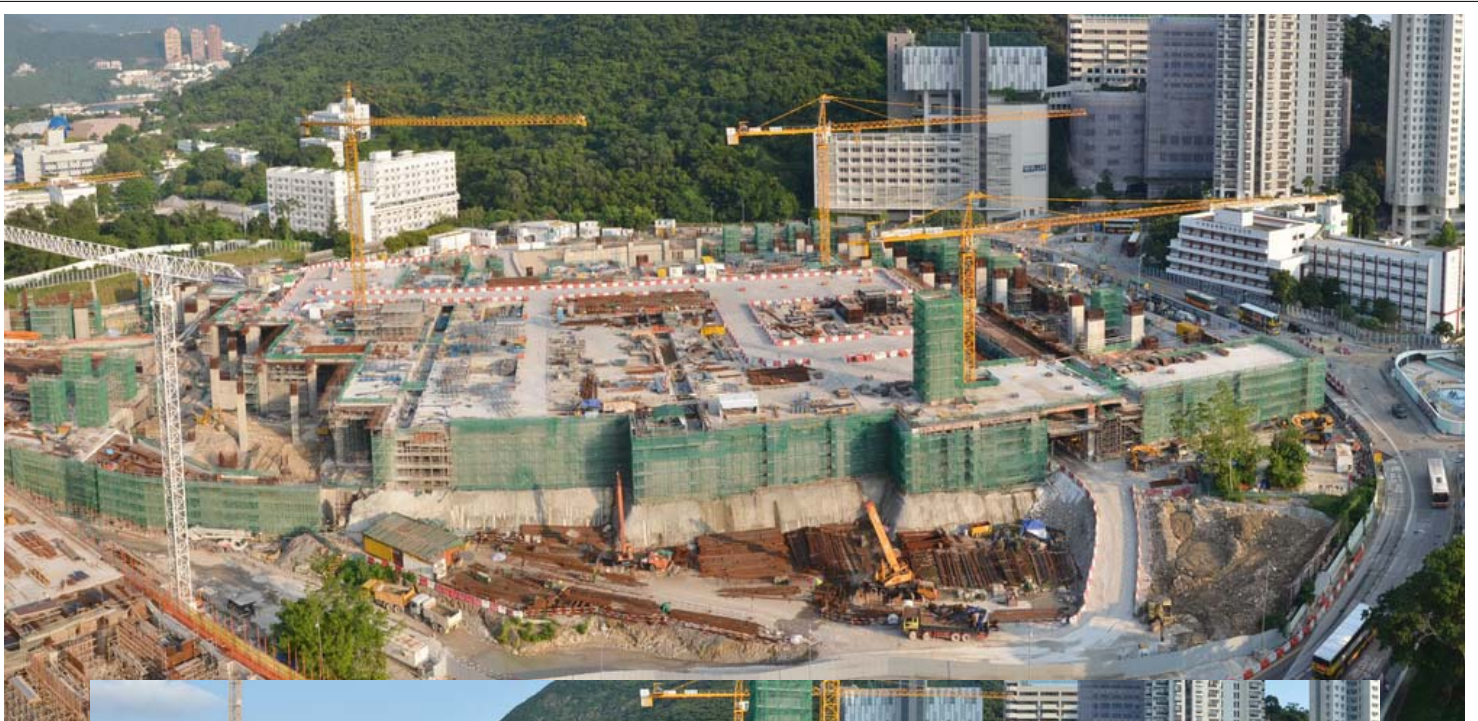


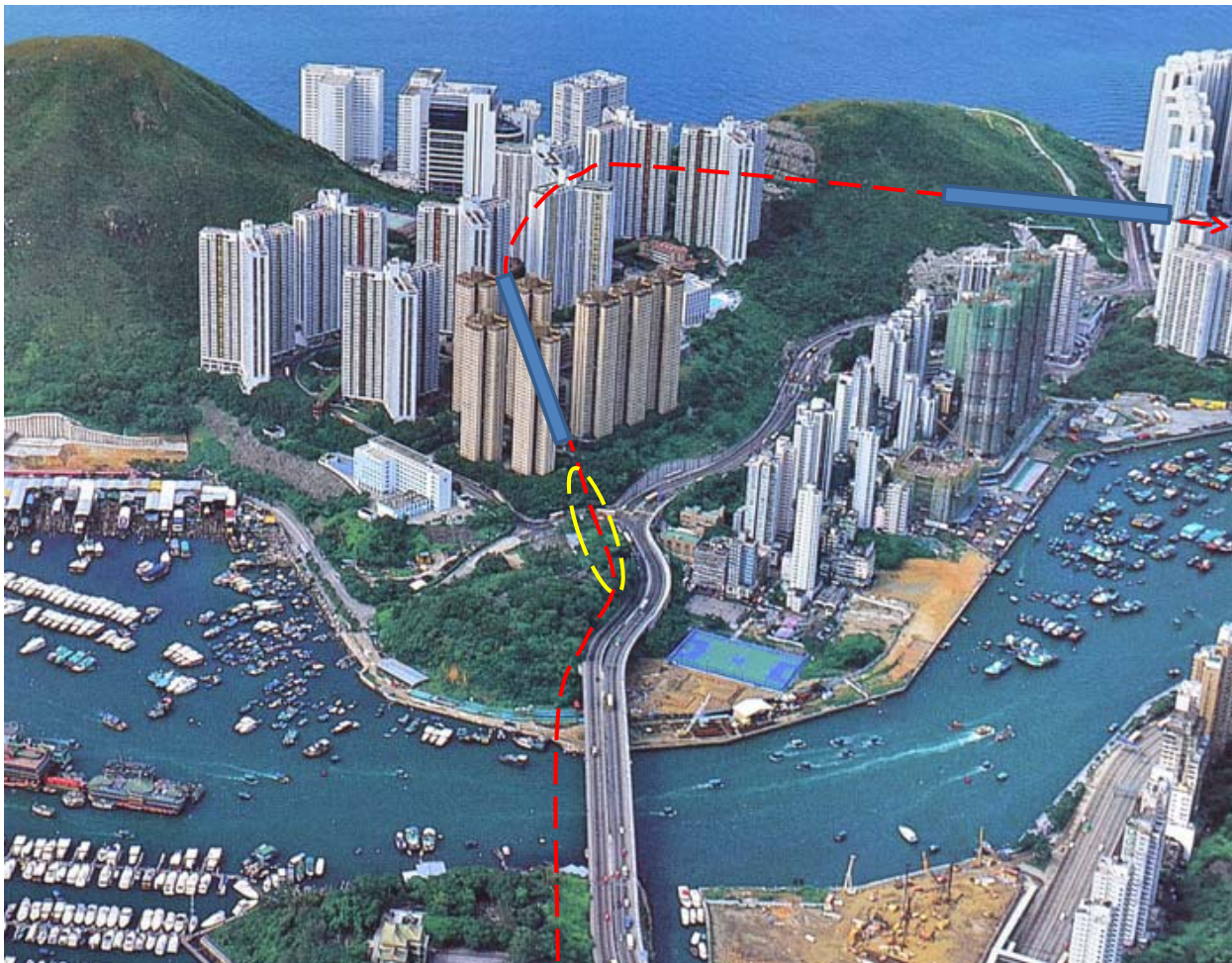
Mass Transit Railway South Island Line (2009 – 2014)



Previous Wong Chuk Hang Estate

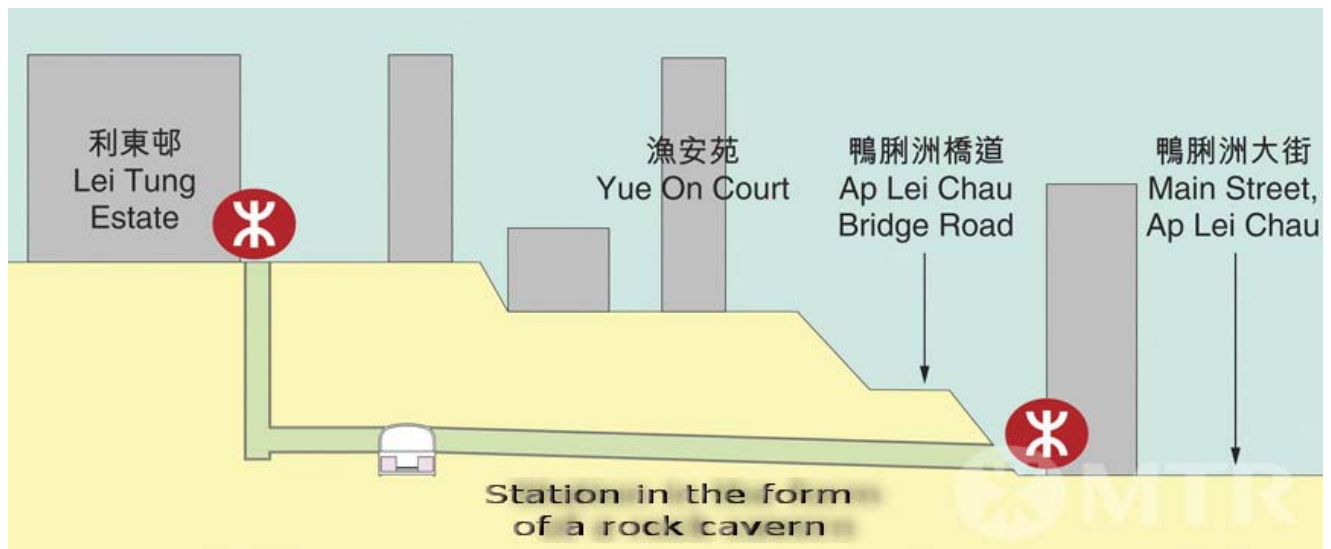






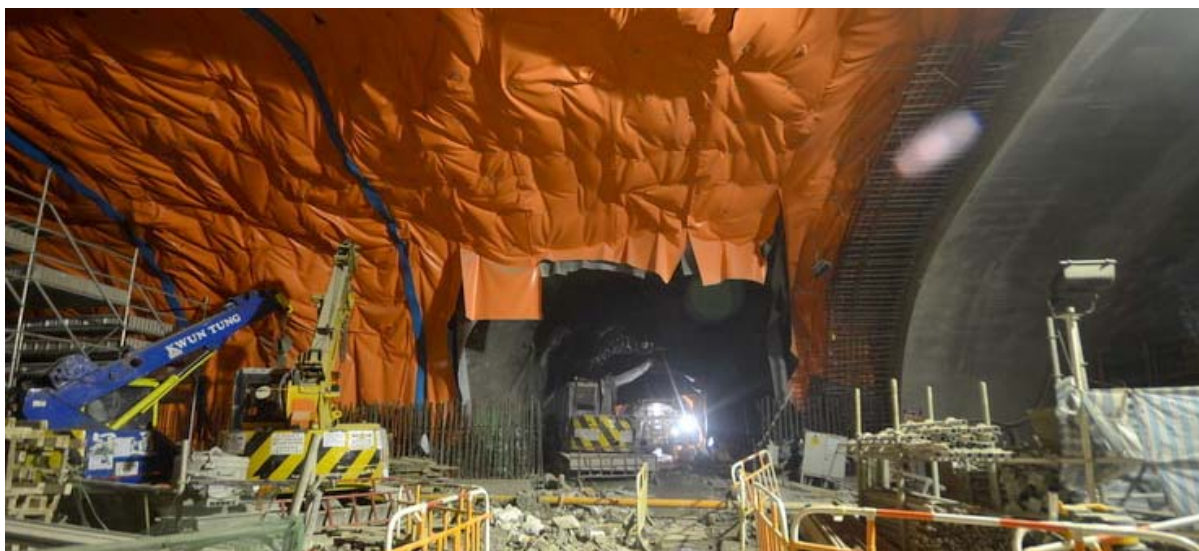
Lei Tung and South Horizons Station



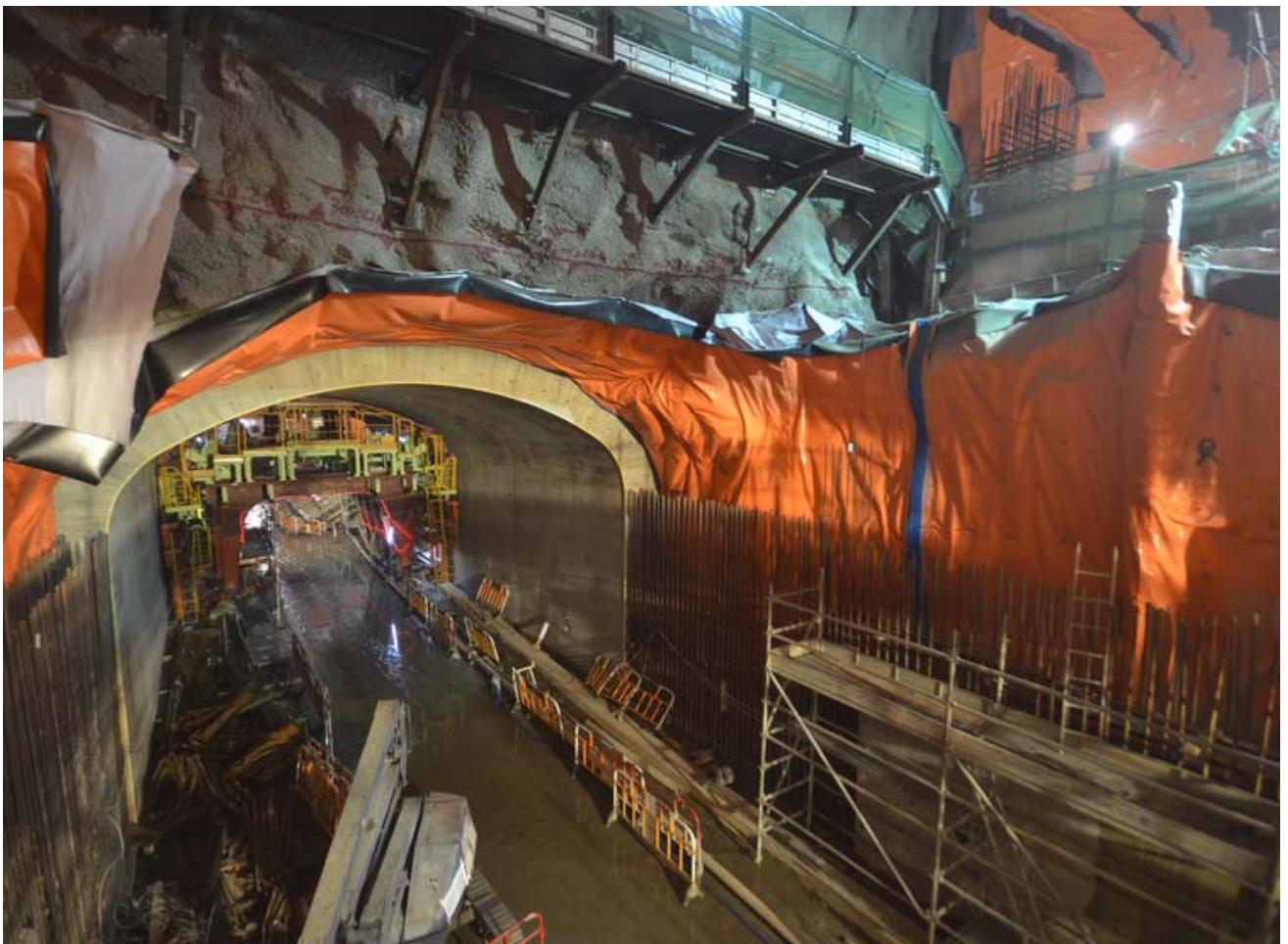


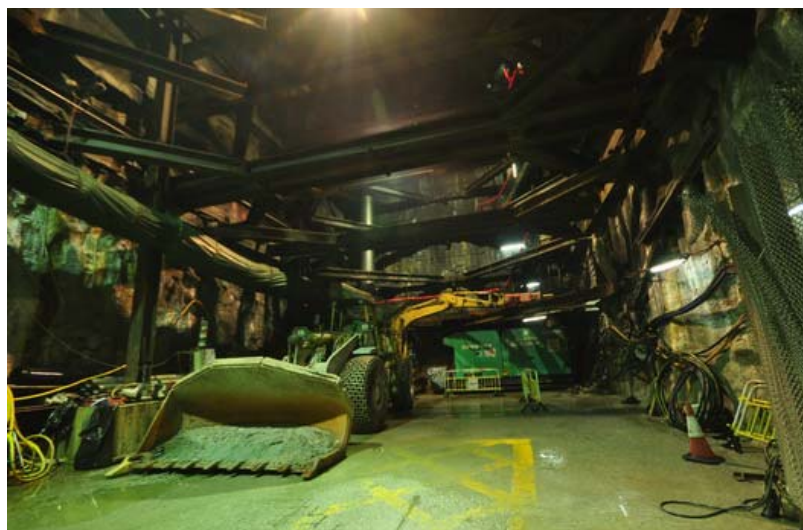
MTR West Island Line (2009 – 2014)













MTR Express Rail (2009 – 2015)



Aerial view of the Express Rail Terminal at West Kowloon in 2011



The terminus site (south) as seen in mid 2012

Express Rail Terminal Site at West Kowloon (November 2011)





Overview of site as in August 2012



Overview of site as in May 2013







MTR Kwun Tong Line Extension (2010 – 2015)





January 2012



August 2012

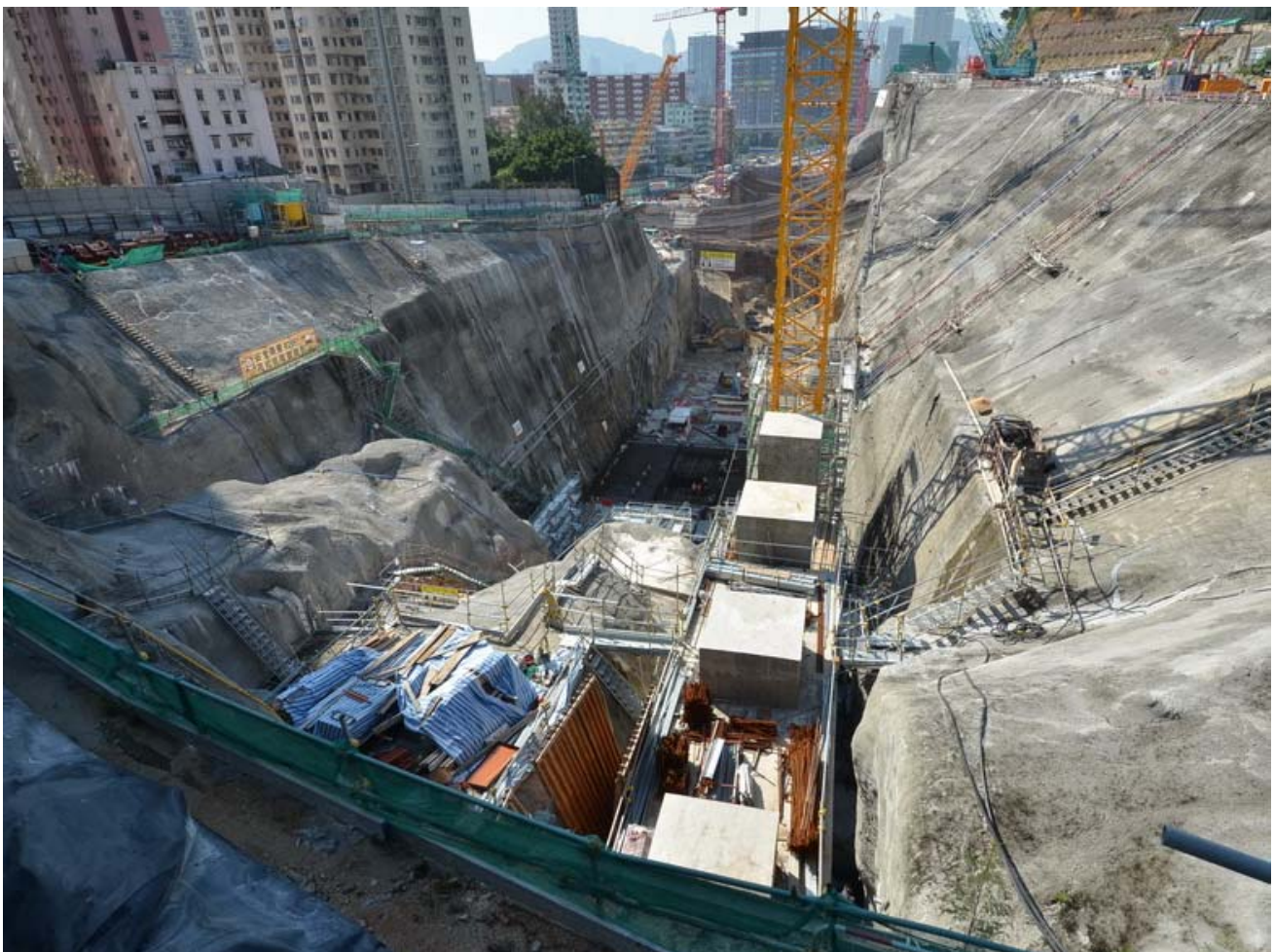


January 2013

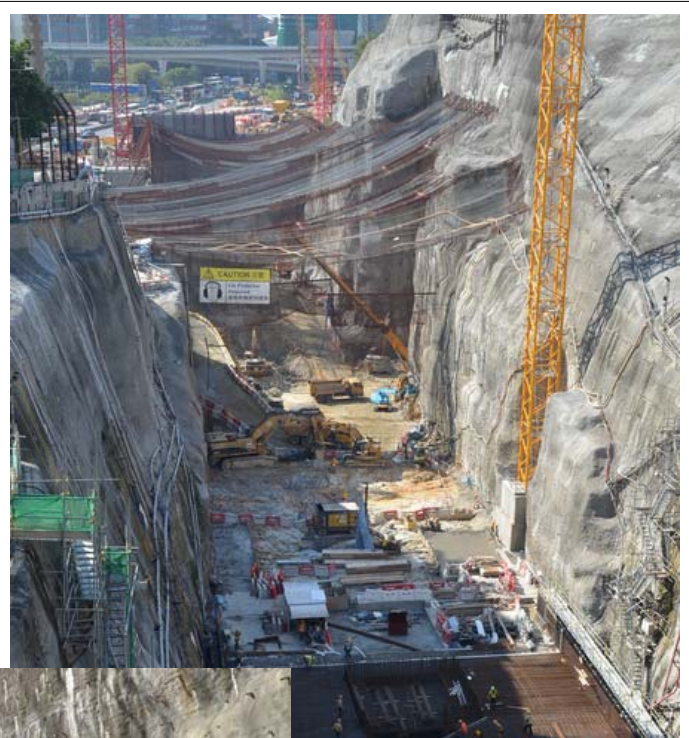


May 2013





November 2013





The SCL cutting across the Chatham Road Interchange

