

**Paper No. 7/2009
For discussion
on 18 March 2009**

**Sub-committee on Harbour Plan Review
Harbour-front Enhancement Committee**

**Hong Kong Section of the Guangzhou-Shenzhen-Hong Kong
Express Rail Link**

**Temporary Construction Facilities at Works Area at Harbour Fronts
and Sea Wall Modification at West Kowloon Seafront**

Purpose

This Paper aims to brief the Committee on the proposal of temporary barging points and construction facilities located at the seafront of West Kowloon Cultural District (WKCD), Nam Cheong and Rambler Channel for the construction of the Hong Kong Section of the Guangzhou-Shenzhen-Hong Kong Express Rail Link (XRL) Project and the seawall modifications at the West Kowloon Seafront.

Background

2. The XRL is an express rail link connecting Hong Kong, Shenzhen and Guangzhou. It provides intercity train services from Hong Kong to Futian and Longhua in Shenzhen, Humen in Dongguan and Shibi in Guangzhou as well as high speed long-haul train services between Hong Kong Kowloon and various major cities in the Mainland.

3. The XRL provides an approximately 26 kilometers long electrified double-track railway system from the terminus in West Kowloon to the boundary at Huanggang, where it will connect with the Mainland section. The proposed alignment is at **Annex 1**.

4. The railway scheme of XRL was gazetted on 28 November 2008 under the Railways Ordinance (Chapter 519). Works are expected to start in end 2009 and be completed by 2015.

5. The Corporation has been entrusted the design of the XRL project by Government. Upon authorization, construction contracts will be awarded for the construction of the railway.

The Proposal

Construction and Disposal Method of the XRL

6. The Terminus at West Kowloon (Annex 2) will be built on a 10-hectare land to the north of the WKCD and between the MTR Kowloon Station and Austin Station. There will be a 3-storey deep basement constructed up to about 30m below ground level. The terminus will be built by cut and cover method.

7. Each tunnel of the XRL will be about 8-9m in diameter. Either bored tunneling or drill-and-blast method will be applied for the construction of tunnels.

8. The majority of excavated materials from the Terminus excavation will be transported to nearby barging points for disposal by a combination of trucks or fully enclosed conveyor belt system. The estimated volume of the excavated materials will be about 4.83 million m³, which is equivalent to the capacity of about one million dump trucks.

9. This enormous spoil amount calls for the need of adequate barging facilities to transport spoil from the construction sites to disposal site by sea. To minimize traffic impact on West Kowloon, this will be handled by the proposed barging points to be located at the seafront of WKCD.

10. Excavated materials from the urban section tunnels will also be disposed by barge, through barging points at Nam Cheong and Rambler Channel.

Temporary construction facilities at West Kowloon seafront work areas

11. To minimize construction traffic flow of West Kowloon, batching plants and associated facilities will be erected within WKCD work areas during construction of the Terminus structure. The details are at as **Annex 3**.

12. 5 berths are proposed to be erected along the WKCD seafront for barging out of excavated materials of the Terminus during the construction period. In area of sloping seawall, cantilever type berths will be erected and no temporary foundation will be put into the harbour. These berths will not have any impact to the harbour with respect to the Protection of the Harbour Ordinance. **Annex 4** shows the location of barging facilities of the West Kowloon Seafront.

13. The excavated materials will be carried to the barging points by trucks or an elevated conveyor belt system. This arrangement could minimize traffic and environmental impact, as well as the nuisance to the adjacent community.

14. The conveyor system, if built, will be erected at about 10m above ground to maintain adequate clearance for manoeuvring of construction plants.

15. Due to the tremendous concrete volume required for the construction of the Terminus, 2 batching plants are also proposed to be erected in WKCD work areas to timely support the construction of the Terminus structure. The batching plants will be around 25m high and the height of other major supporting structures will be less than 10m.

Sea Water Intake/Outfall

16. To facilitate water cooling of the Terminus, 2 sea water intake / outfall cells are proposed to be incorporated into the existing sea wall.

17. The overall arrangement is shown in **Annex 5**.

Extent and Programme at West Kowloon seafront

18. The existing West Kowloon Waterfront Promenade will remain untouched throughout the XRL construction.

19. All works areas in the WKCD will be occupied tentatively from 2010 till the commencement of the construction works of the WKCD.

Temporary construction facilities at Nam Cheong and Rambler Channel seafront work areas

20. The spoil generated from the tunnel sections will be transported by trucks to the nearest barging points along the alignment, for onward disposal by sea.

21. Within urban area, 2 barging point locations at Rambler Channel and Nam Cheong have been identified.

22. 3 berths will be erected along Nam Cheong seafront for barging out of excavated materials through elevated conveyor during construction period. Details are at **Annex 6**.

23. 2 berths will be erected along seafront of Rambler Channel for barging out of excavated materials during construction period. Please refer to **Annex 7** for details.

Conclusion

24. Members are requested to note that the proposal described above has been taken into account of the Harbour Planning Principles/Guidelines and will not have any impact on harbour front enhancement.

Advice Sought

25. The Committee is requested to advise and endorse on-
- (a) the proposed seawater intake/outfall modifications at West Kowloon Seafront; and
 - (b) the proposed temporary barging, construction facilities and the associated works areas at the seafront of WKCD, Nam Cheong and Rambler Channel to support the construction of XRL.

MTR Corporation Limited
March 2009

Guangzhou-Shenzhen-HK Express Rail Link



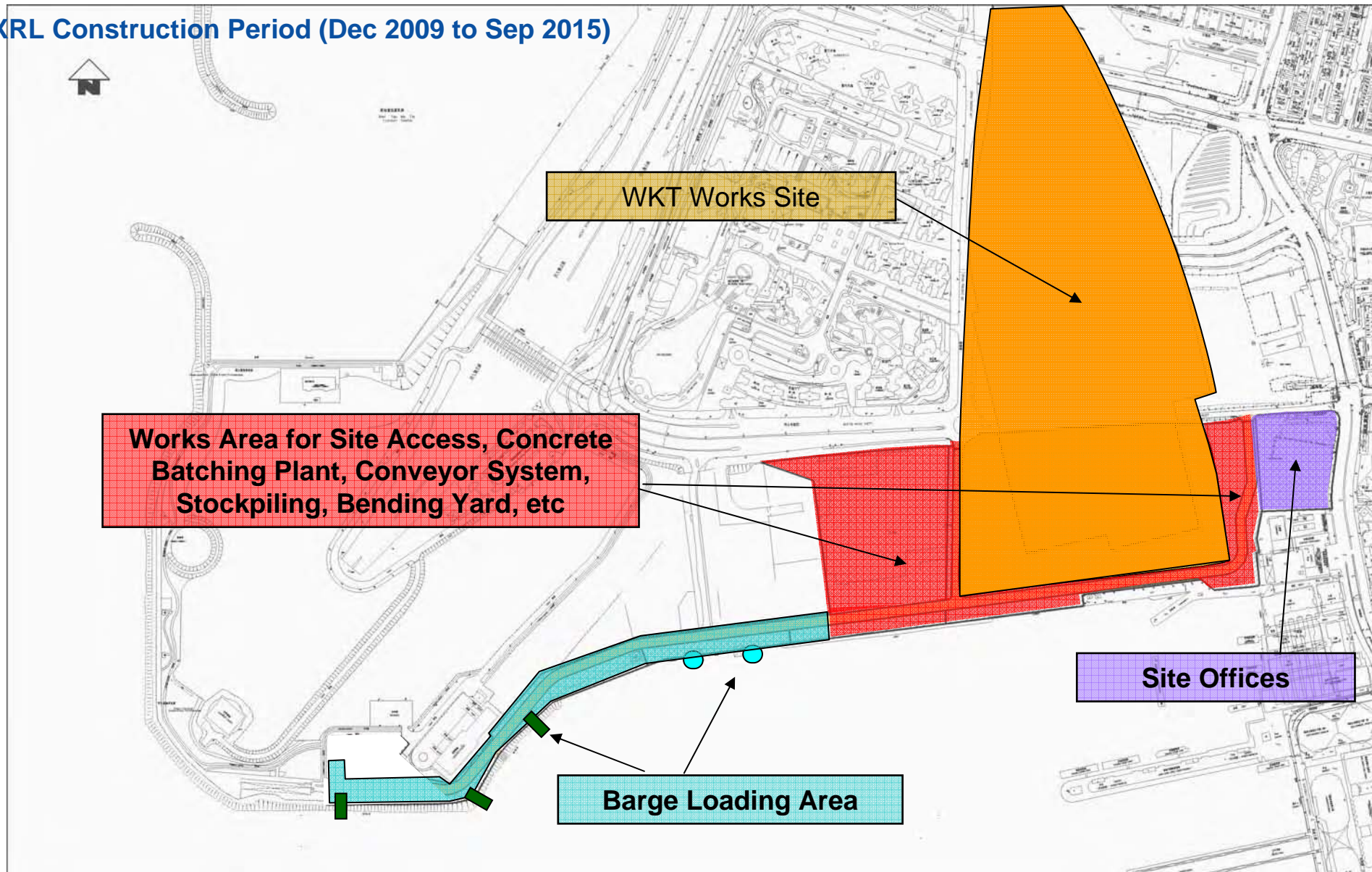
West Kowloon Terminus



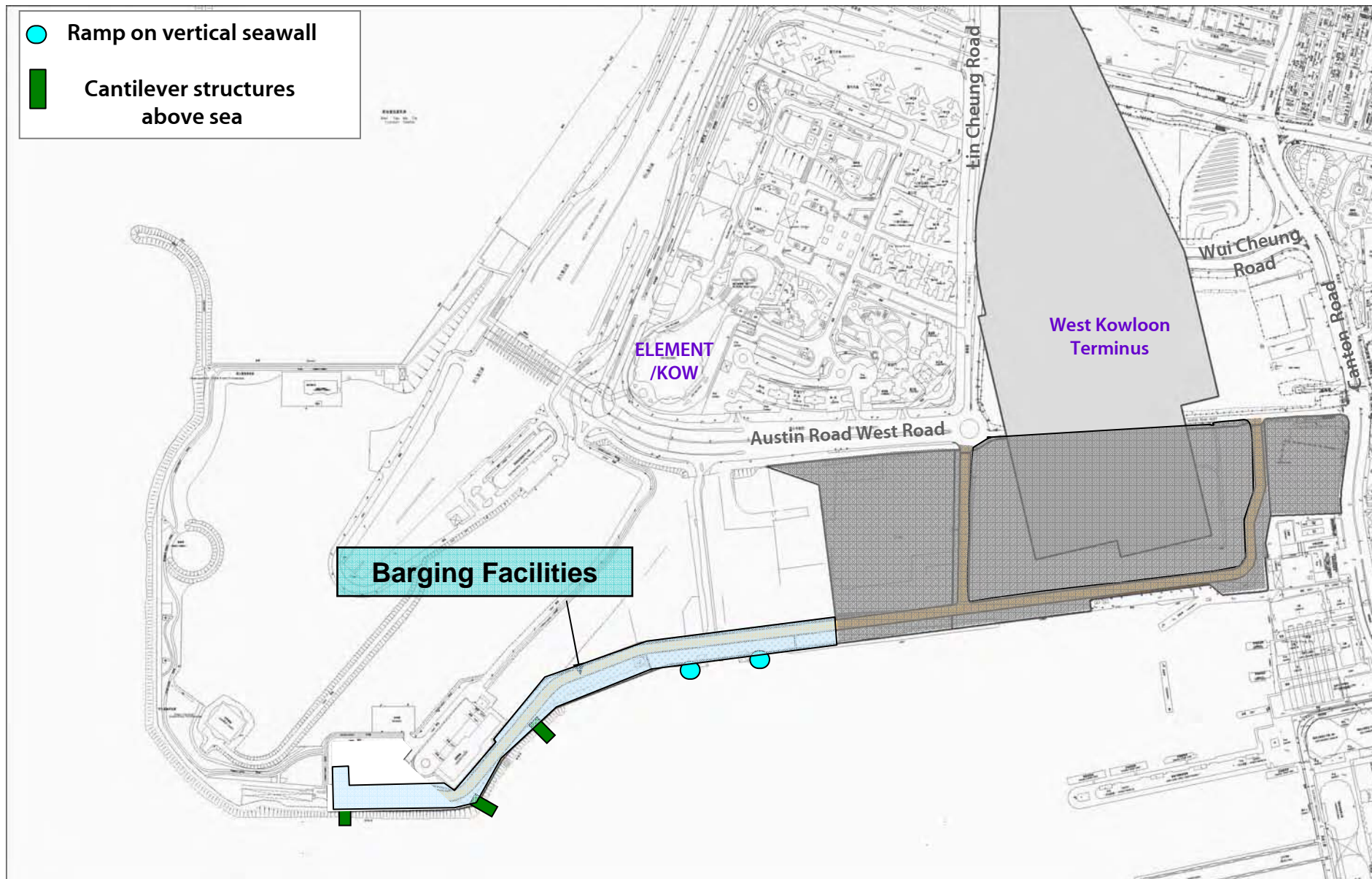
Works Areas along West Kowloon Seafront

Annex 3

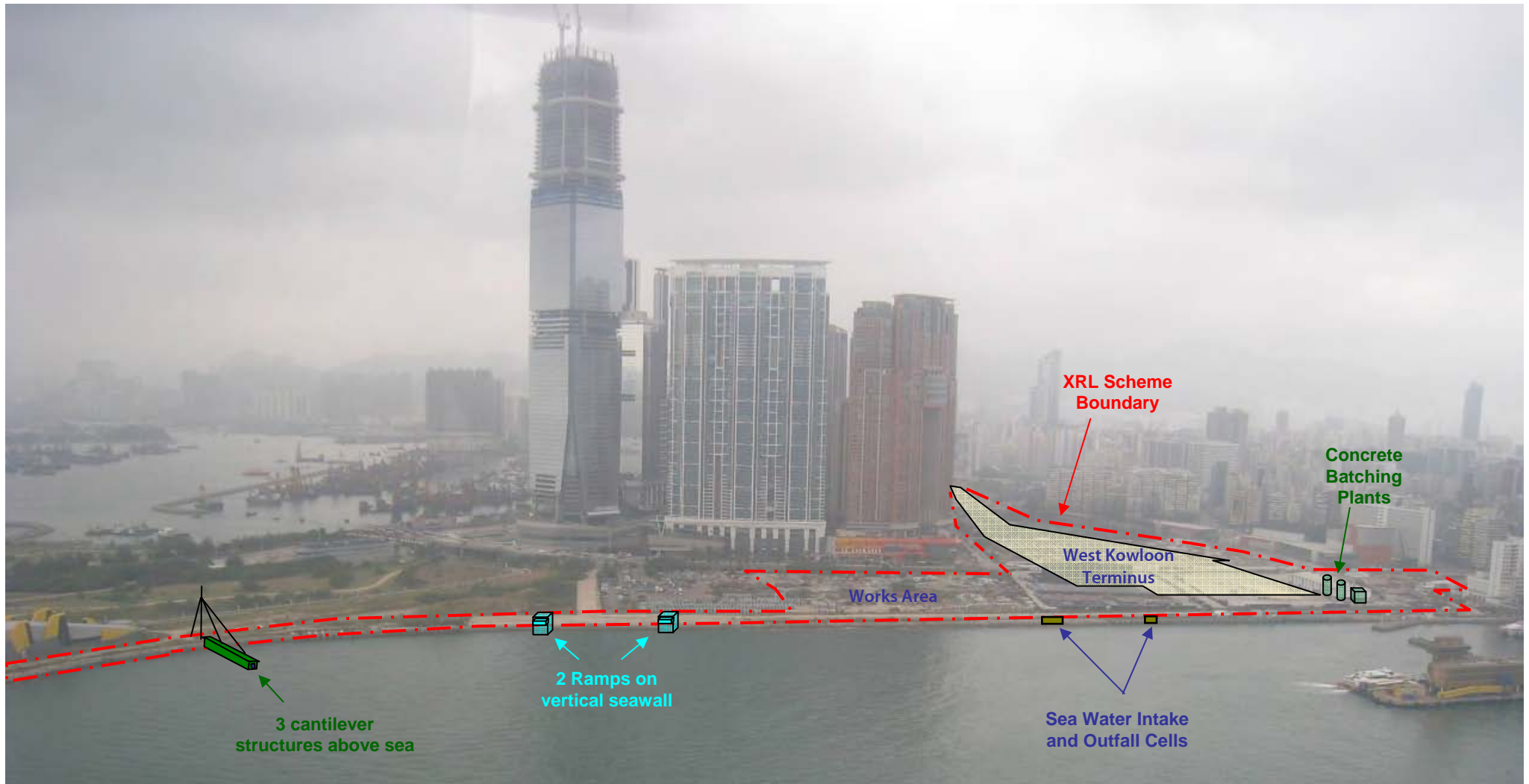
XRL Construction Period (Dec 2009 to Sep 2015)



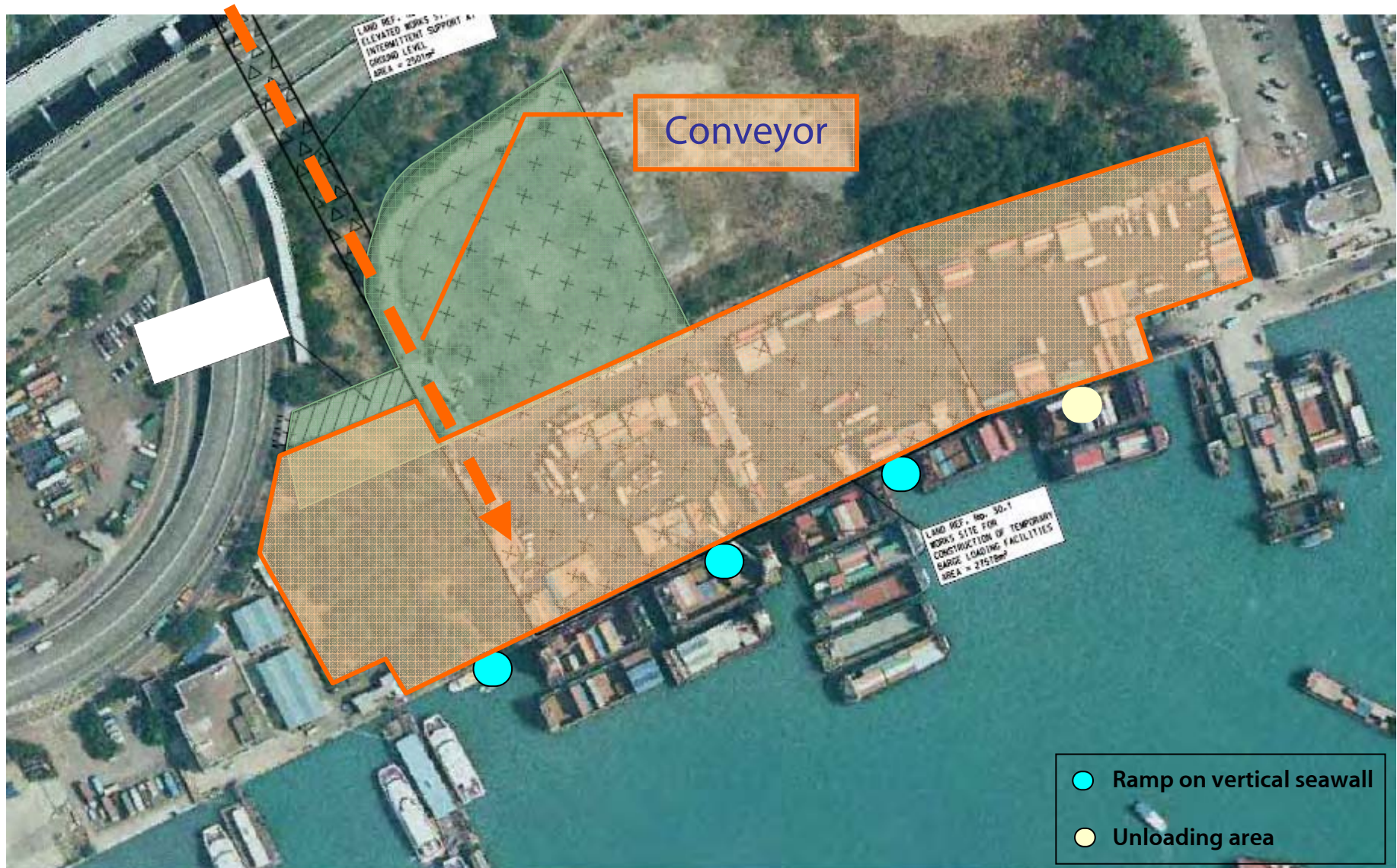
Barging Facilities along West Kowloon Seafront



Overview of Construction Facilities at West Kowloon Seafront



Barging Facilities at Nam Cheong



Barging Facilities at Rambler Channel

