

Task Force on Harbourfront Developments on Hong Kong Island

For discussion
on 30 October 2012

TFHK/13/2012

Topical Study on the Proposed Boardwalk underneath the Island Eastern Corridor

PURPOSE

The purpose of this paper is to brief Members on the preliminary findings of the Topical Study on the Proposed Boardwalk underneath the Island Eastern Corridor (IEC) (the Study) and seek Members' views on the proposed scheme and the way forward.

BACKGROUND

2. In May 2009, the Planning Department commissioned the Hong Kong Island East Harbour-front Study (HKIEHS) to formulate a comprehensive plan for enhancing the Hong Kong Island East harbour-front, with a focus on improving connectivity and pedestrian accessibility to the harbourfront. A 3-stage Public Engagement (PE) Programme was also undertaken to solicit public views on the proposed enhancements of the Hong Kong Island East harbourfront areas and build consensus on such proposals. The HKIEHS was completed in late March 2012.

3. Among the various proposed harbourfront enhancement initiatives, a pedestrian boardwalk was proposed to be constructed underneath IEC from Oil Street to Hoi Yu Street to enhance connectivity along the North Point waterfront. The proposed alignment of the boardwalk under the HKIEHS is at **Annex A**. This proposal was well received by the public during the PE programme of HKIEHS. As there is a number of technical and interface issues to be addressed in taking forward the proposal, the Development Bureau has asked the Civil Engineering and Development Department (CEDD) to carry out a topical study to establish preliminary engineering feasibility of the proposed boardwalk under the existing IEC structure and to assess possible implications of the Protection of the Harbour Ordinance (PHO) on the proposal to facilitate further project planning and implementation.

Original Scheme under HKIEHS

4. According to the recommendations of the HKIEHS, a low-level pedestrian boardwalk resting on the existing pile caps of the IEC is proposed (See **Annex B**). The original scheme did not include a cycle track along the alignment. The boardwalk would rely on the foundation of IEC as structural

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support and did not require physical reclamation on the sea-bed. While most sections of the proposed boardwalk would be placed underneath IEC, a section at slip road C of IEC near Tong Shiu Road would need to be cantilevered outside the footprint of IEC due to insufficient headroom. It was also noted that the proposed boardwalk would affect the operation of the North Point Fireboat pier and marine access of some private developments such as K. Wah Centre and Kodak House, hence some raised mechanical bridges would need to be constructed at suitable locations of the boardwalk to allow access of vessels to the piers adjoining their marine frontage.

PROPOSED ENHANCEMENTS TO THE ORIGINAL SCHEME

Issues to be addressed

5. Stakeholders have been consulted under this Study, including the management of private residential estates, private pier operators, pedestrian and dangerous goods ferry operators, as well as Fire Services Department (FSD), with a view to accommodating their operation and safety concerns. The following limitations arising from the design of low-level boardwalk in the original scheme have been identified:

- (a) low-level boardwalk might hinder marine rescue access to the water areas between the boardwalk and the hinterland;
- (b) maintenance would be difficult for low level boardwalk due to presence of water spray and insufficient headroom for inspection and repair;
- (c) seawater would intrude the low level boardwalk under adverse weather and hence cause serviceability and safety problems;
- (d) the proposed design of low-level boardwalk would have impact on existing users of the water bodies in the vicinity and might have potential PHO implications.

Proposed enhancements

6. The total length of proposed boardwalk is 2km approximately with width varies from 3.5m to 8m. The proposed enhancements and revised alignment of the Scheme are highlighted below (see **Annex C** for the revised Scheme) -

- (a) Proposed level of boardwalk

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7. To address the technical limitations arising from the low-level design of the boardwalk, the Study has explored other options and proposed to raise the level of the boardwalk to about +9mPD and place at the seaward side of IEC structure (see **Annex D**). This would enable rescue boats, small sampans and pleasure crafts to pass underneath. At sections crossing the piers, in particular at the North Point Fireboat pier, the level of the boardwalk has to be raised further to allow passage of regular fire boats. In some particular areas near the slip roads of IEC, the level of the boardwalk has to be lowered to the level of existing pile caps (about +4mPD level) due to inadequate headroom.

(b) Proposed alignment (by sections)

(i) From Oil Street to Tong Shui Road

The alignment of the original scheme is largely maintained apart from raising the level of boardwalk to a mid-level configuration where headroom is adequate. The walkway is proposed to be built at the seaward side of the IEC columns. There is a need to lower the level of boardwalk and cantilever outside the IEC footprint at the slip roads, and new dolphins may be required to protect the IEC structure. Additional connection with the hinterland is not recommended due to the objection from the residents of Provident Centre to remove the existing boundary wall.

(ii) From Tong Shui Road to North Point Dangerous Goods Vehicular Pier

The original scheme under HKIEHS proposed a continuous boardwalk underneath IEC to link up the existing North Point Ferry Piers at the ground level and a 20m wide waterfront promenade (to be implemented by the developer(s) and managed by Leisure and Cultural Services Department) along the northern boundary of the Ex-North Point Estate site. The Ferry Piers and the adjoining IEC boardwalk would serve as the main activity area with provision of retail shops, cafes, seating benches, planting and art display as well as presenting an opportunity of integrating the existing fish market stalls at the western pier. The 20m wide waterfront promenade of the Ex-North Point Estate site would be used for recreational and leisure purposes.

Having regard to the possible PHO implication of this section of development under the original scheme, another option to link

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up the boardwalk with the proposed waterfront promenade at the ex-North Point Estate site has been explored under the Study. While this alternative option might be less attractive than the original scheme, it could reduce the risk of the project and also maintain the necessary connectivity along the waterfront and the boardwalk. The two options are shown in **Annex E**.

(iii) From North Point Dangerous Goods Vehicular Pier to Hoi Yu Street

There are several private piers, dangerous goods vehicle ferry pier and FSD pier in operation in this section. The original scheme proposed to include raised mechanical bridges to allow boats to pass through. FSD confirmed that the arrangement would not be feasible for the FSD pier from the operational angle given the frequent and urgent uses of the pier. To address the concerns, the level of the boardwalk in this particular section is proposed to be raised up to +9mPD or +13mPD to provide air draught for the boats to pass under.

OTHER ISSUES - PROVISION OF CYCLE TRACK

8. The HKIEHS only proposed a pedestrian boardwalk underneath IEC. At the 8th Task Force meeting held on 12 January 2012, Members requested that the technical feasibility of incorporating a cycle track into the boardwalk should also be explored in this Study.

9. This Study has confirmed that the IEC structure could bear additional loading of a cycle track, and worked out the possible alignment for a cycle track of 3.5m in width (see **Annex F**). However, due to insufficient headroom and further intrusion to the harbour water, a continuous cycle track alignment would not be feasible and cyclists would need to stop cycling at certain sections and share the use of the boardwalk with pedestrians.

PHO IMPLICATIONS

10. The PHO implications of the proposed boardwalk are still being studied and the Study is expected to be completed by end 2012. To satisfy the stringent requirements of the PHO, it is necessary to explore some key issues, including but not limited to (a) whether the construction of the proposed boardwalk involves reclamation; and if so, (b) whether there is an “overriding public need” for constructing the boardwalk. The PHO implications of incorporating a cycle track in the proposal would also need to

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be studied carefully.

WAY FORWARD

11. The recommended alignment is considered to be technically feasible but other design, implementation, management and maintenance issues still need to be addressed in subsequent stages of the project. Whether the PHO implications (with or without cycle track) are insurmountable has to be further examined before determining the way forward of the project.

ADVICE SOUGHT

12. Members are invited to note the progress of the Study and comment on the proposed enhancements of the scheme.

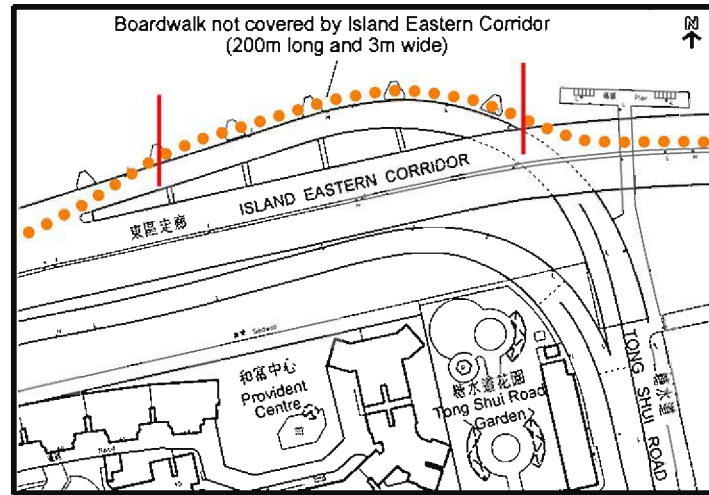
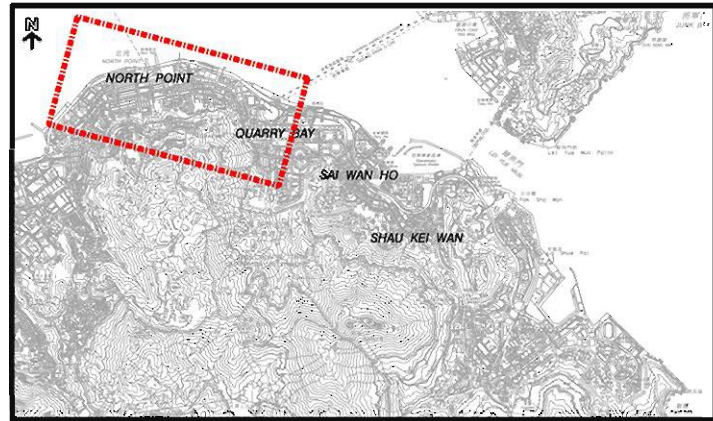
**Civil Engineering and Development Department
October 2012**

ATTACHMENTS

- Annex A** - Proposed alignment of the boardwalk under HKIEHS
- Annex B** - Section of Original Scheme under HKIEHS
- Annex C** - Revised Scheme under the Study
- Annex D** - Section of Revised Scheme under the Study
- Annex E** - Options at North Point Ferry Piers
- Annex F** - Proposed Alignment of the Cycle Track under the Study

Annex A

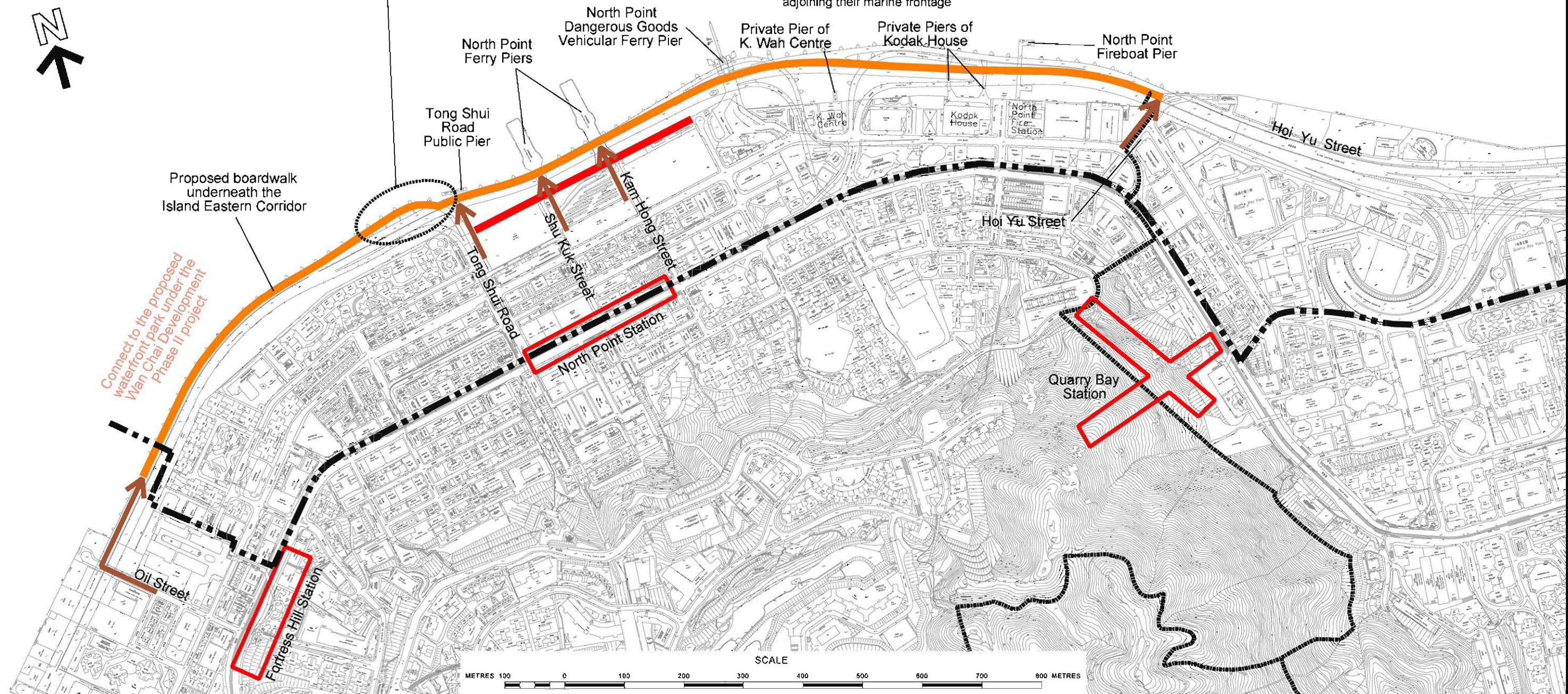
(Proposed alignment of the boardwalk under HKIEHS)



Bascule bridges could be constructed at appropriate locations of the boardwalk to allow access of the vessels to the existing piers adjoining their marine frontage

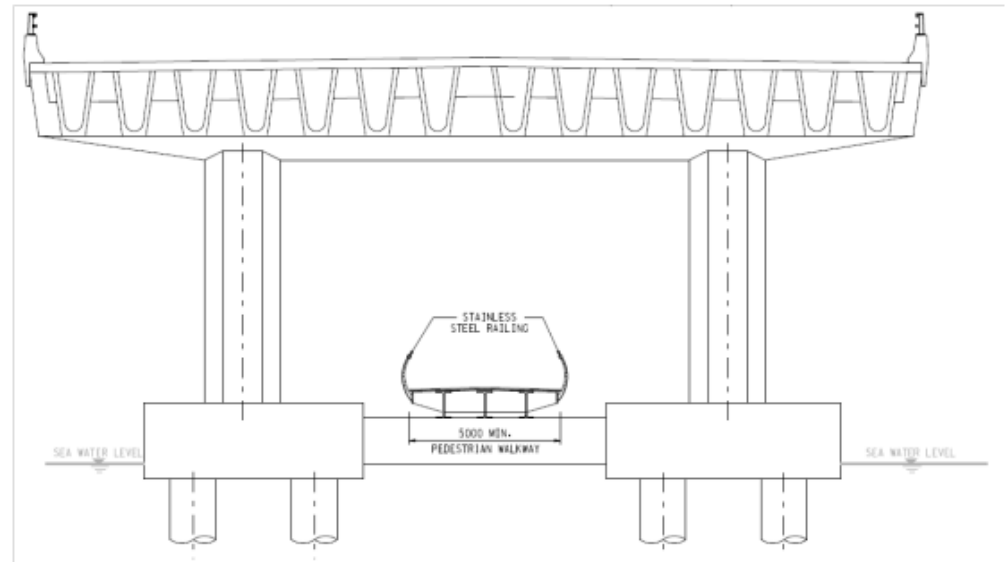
Legend

- Study Area Boundary
- OZP Boundary
- Existing MTR Station
- Extent of the Boardwalk
- Proposed 20m wide Waterfront Promenade of the ex-North Point Estate Site
- ← Connection Point between the Hinterland & the Boardwalk



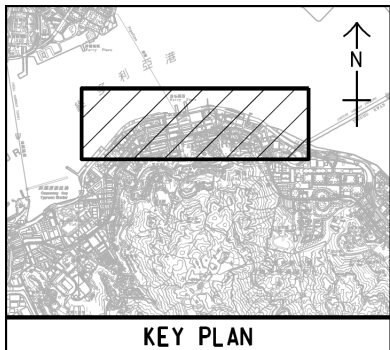
Annex B

(Section of Original Scheme under HKIEHS)



Annex C

(Revised Scheme under the Study)



KEY PLAN

LEGEND:

— EXTENT OF RECLAMATION UNDER WDI1 CONTRACT

■ PROPOSED BOARDWALK

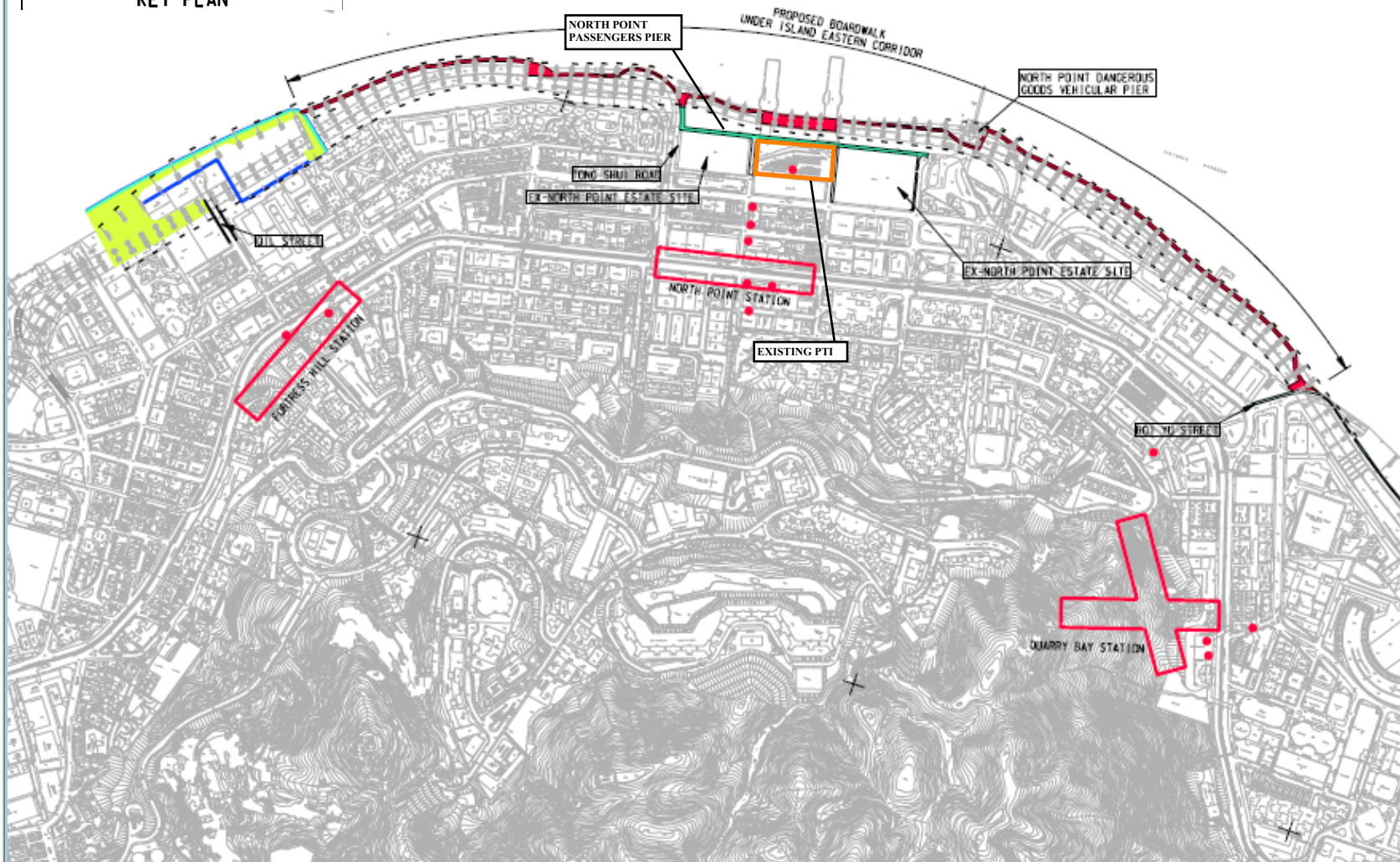
■ PROPOSED PROMENADE

■ EXISTING PROMENADE/WALKWAY

■ OPEN AREA

□ MTR STATION

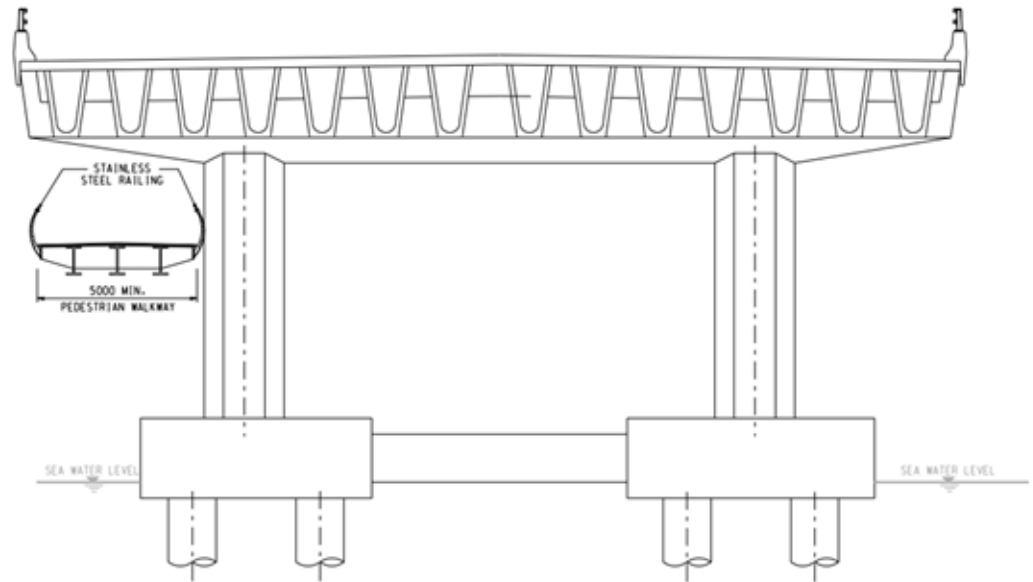
● MTR ENTRANCE/EXIT POINTS/MAJOR PTI



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JOB No.	60247569	FIGURE No.	Figure 5
		REV	

Annex D

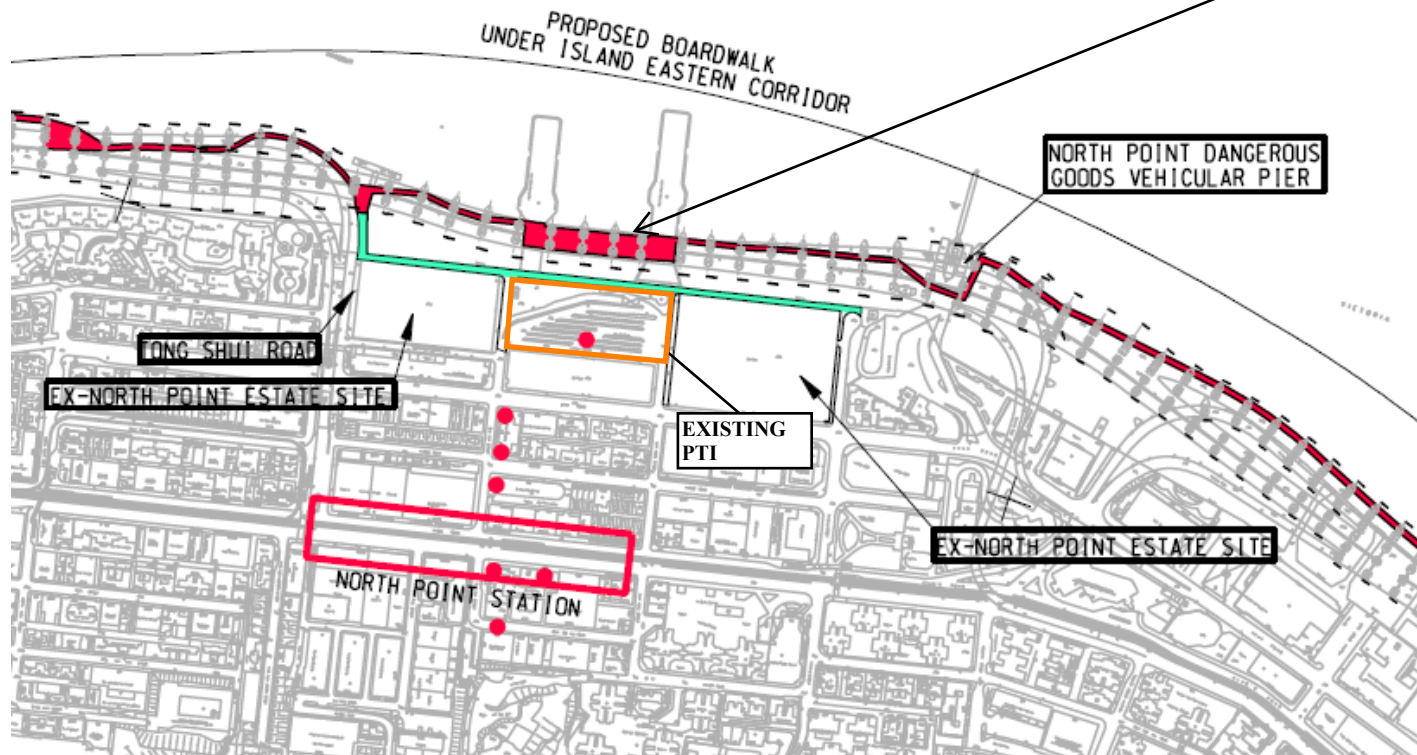
(Section of Revised Scheme under the Study)



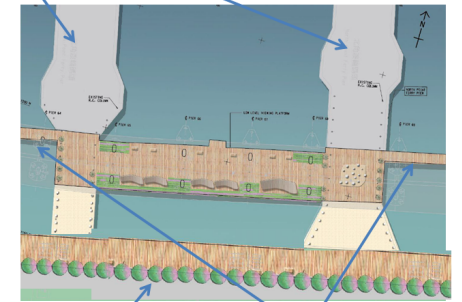
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Annex E

(Options at North Point Ferry Piers)



North Point Passengers Ferry Piers (北角渡輪碼頭)

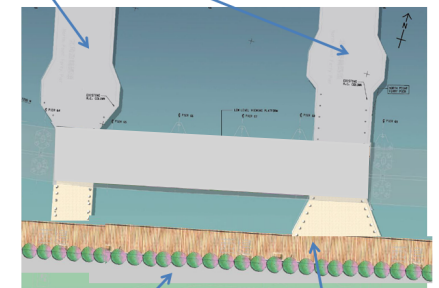


Ex-North Point Estate Site (前北角郵用地)

New Boardwalk

(Option 1): New boardwalk joining North Point Ferry Piers (北角渡輪碼頭)

North Point Passengers Ferry Piers (北角渡輪碼頭)



Ex-North Point Estate Site (前北角郵用地)

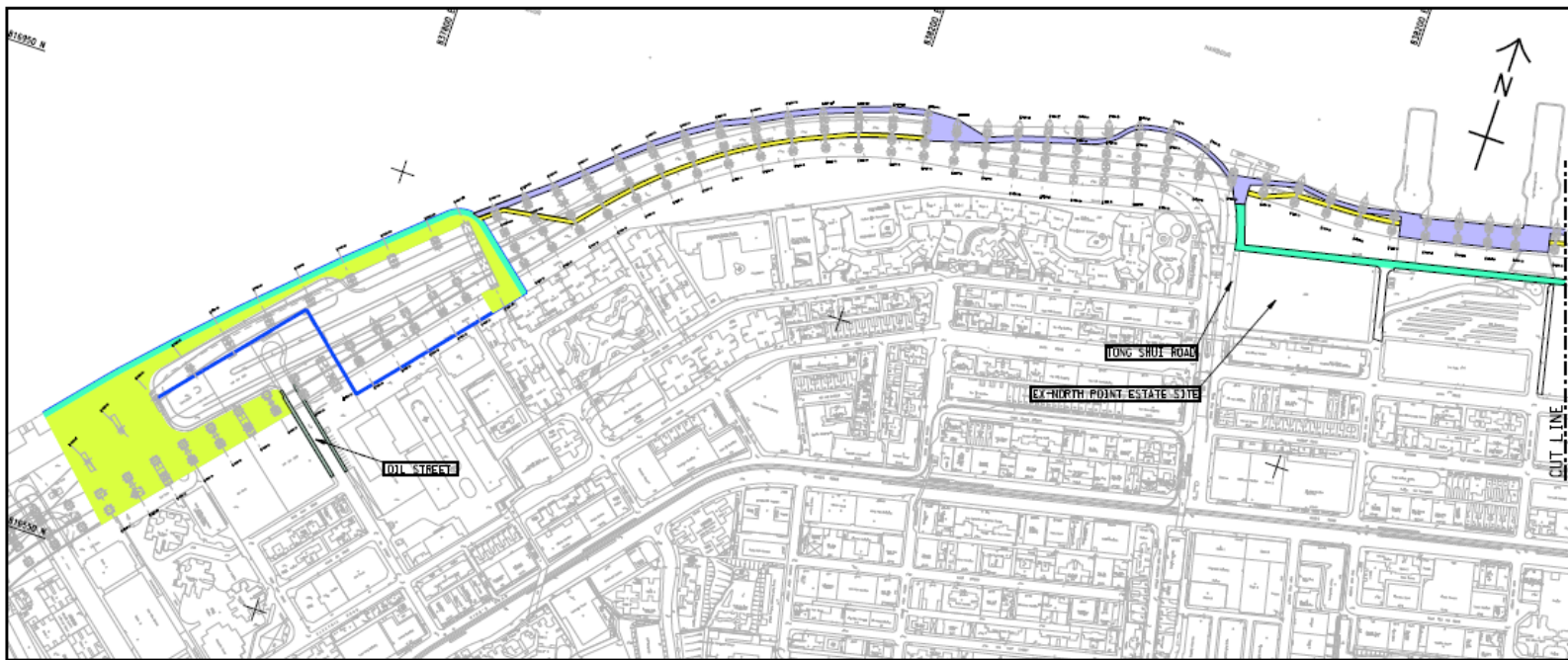
New Waterfront Promenade

(Option 2): New waterfront promenade fronting ex-North Point Estate (前北角郵用地)

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JOB No.	60247569	FIGURE No.	Figure 7
		REV	

Annex F

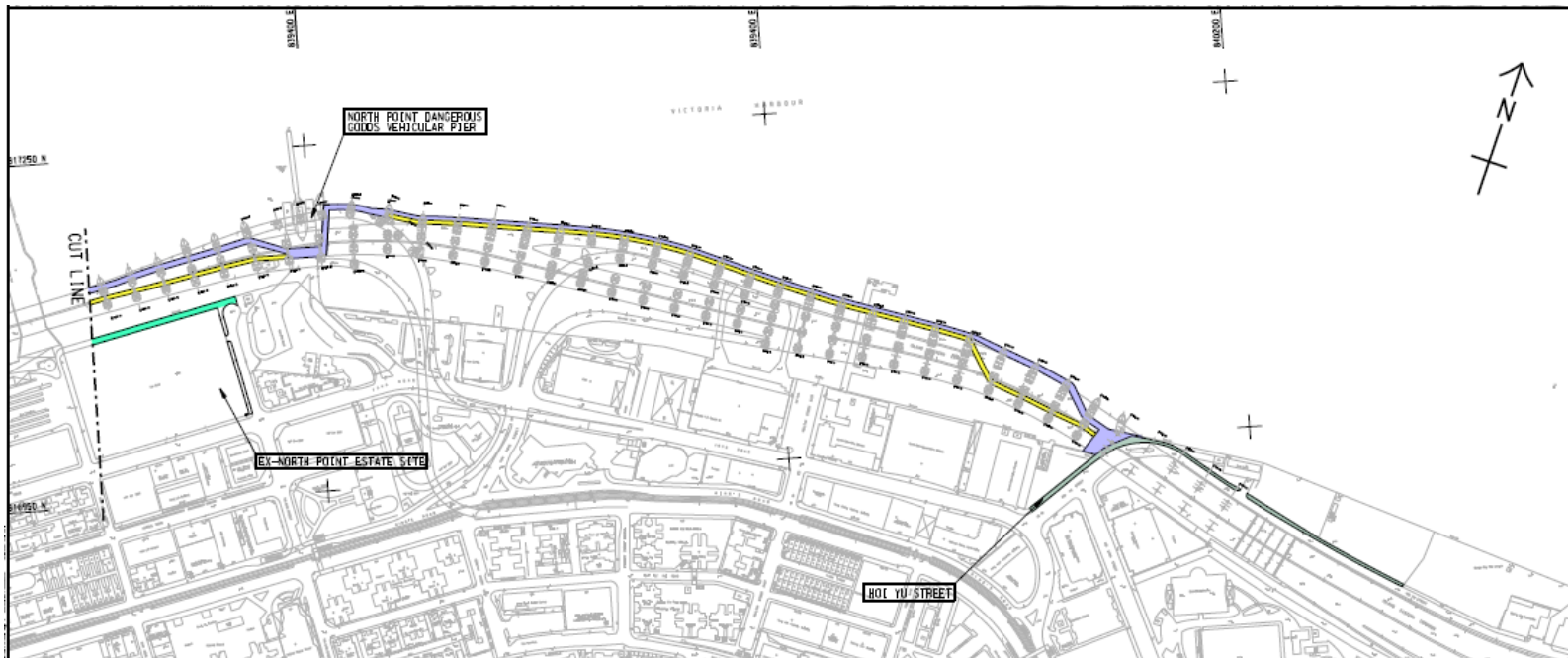
(Proposed Alignment of the Cycle Track under the Study)



KEY PLAN

LEGEND:

- EXTENT OF RECLAMATION UNDER WDII CONTRACT
- PROPOSED BOARDWALK UNDER IEC
- PROPOSED CYCLE TRACK UNDER IEC
- PROPOSED PROMENADE
- EXISTING PROMENADE/WALKWAY
- OPEN AREA



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