

MTR Corporation Limited

Tung Chung Line Extension – Project Profile

April 2020

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Figure 1 Tung Chung Line Extension

1 BASIC INFORMATION

1.1 Project Title

1.1.1 Tung Chung Line (TCL) Extension (hereinafter referred to as “the Project”).

1.2 Purpose and Nature of the Project

1.2.1 The Railway Development Strategy 2014 (RDS-2014) announced by the Government of the Hong Kong Special Administrative Region included the conceptual scheme of Tung Chung West (TCW) Extension and a possible Tung Chung East (TCE) Station.

1.2.2 The proposed Tung Chung Line (TCL) Extension is an extension of the existing Tung Chung Line westward by 1.3km from its existing terminus, Tung Chung (TUC) Station, to a new station in Tung Chung West with an intermediate station, Tung Chung East Station, by diverting the existing TCL near the Tung Chung New Town Extension (East) (TCNTE (East)) reclamation.

1.2.3 The TCL Extension forms one complementary package of sustainable transport solution in support of the future land supply, housing developments and airport expansion plans at Lantau North.

1.3 Name of the Project Proponent

1.3.1 The project proponent is the MTR Corporation Limited.

1.4 Location and Scale of Project and History of Site

1.4.1 The Project is an approximately 1.3km extension of the existing Tung Chung Line (TCL) with two new stations namely Tung Chung East (TCE) Station and Tung Chung West (TCW) Station. The indicative locations of the proposed alignment and stations are shown in **Figure 1**.

1.4.2 The underground TCW Station and aboveground station facilities are proposed to be located at the existing rural area – west/south-west of Yat Tung Estate and around Yu Tung Road. The area is an open space and currently occupied by some temporary structures.

1.4.3 The Emergency Access Point (EAP) / Emergency Egress Point (EEP) building is proposed at hillside along Tung Chung Road North.

1.4.4 The at-grade TCE Station is proposed to be located approximately 2km east of the existing TUC Station at the south of the future TCNTE (East) new reclamation area. The station is bounded by the future roads in the reclamation area and the existing TCL and Airport Express Line (AEL).

1.4.5 The Project will be implemented by phases which involve the following key construction activities:

- Railway alignment extending from existing overrun of TUC to the new TCW Station and overrun tunnel as well as (EAP/EEP) building;
- A new TCE Station and realignment of a section of the existing TCL; and
- Stations associated facilities.

1.5 Number and Types of Designated Projects

- 1.5.1 The proposed TCL Extension and the associated railway stations are classified as a designated project (DP) under Schedule 2, Part I, Category A.2 “A railway and its associated stations” and A.7 “A road or railway tunnel more than 800 m in length between portals” of the EIAO.

1.6 Name and Telephone Number of Contact Persons

- 1.6.1 All queries regarding the Project can be addressed to:

Ms. Lisa Poon

MTR Corporation Limited

Tel.: 3127 6298

2 OUTLINE OF PLANNING AND IMPLEMENTATION PROGRAMME

2.1 Project Planning and Implementation

- 2.1.1 The Project will be implemented by engaging relevant professionals throughout the planning, design, construction and implementation stages.
- 2.1.2 The construction works will be carried out by qualified contractors to be appointed under various works contracts.

2.2 Project Programme

- 2.2.1 The Project will be implemented in phases. Construction of TCW and TCE sections will be tentatively from 2023 to 2029. This indicative implementation programme will be subject to review and government's directive.

2.3 Project Interface

- 2.3.1 Major committed projects on Lantau North that may have potential interface with the Project have been identified and listed below. Any cumulative impact from these concurrent projects including but not limited to the following during both construction and operational phases of the Project, will be addressed in the EIA as appropriate:

- SkyCity Development at the HKIA;
- Intermodal Transfer Terminal – Bonded Vehicular Bridge and Associated Roads;
- Improvement Works for Ma Wan Chung Pier;
- Siu Ho Wan Station and Siu Ho Wan Depot Replanning Works;
- Proposed Comprehensive Residential and Commercial Development atop Siu Ho Wan Depot;
- Tung Chung New Town Extension and its associated infrastructure
- Tuen Mun – Chek Lap Kok Link; and
- Hong Kong International Airport (HKIA) Three-Runway System (3RS).

3 POSSIBLE IMPACT ON THE ENVIRONMENT

3.1 Environmental Impacts from the Project

- 3.1.1 For the construction in TCW and its associated facilities, the underground TCW Station and the tunnel portal connecting the existing TUC overrun will be constructed by cut-and-cover method. The overrun of TCW Station would be constructed by mine tunnel or cut-and-cover method. The above-ground EAP/EEP at the hillside along Tung Chung Road North will be constructed by mechanical excavation and drill and blast method. The TCW extension consists of an underground tunnel. The tunnel between the proposed TCW Station and the tunnel portal at the hill of Shun Tung Road is tentatively planned to be constructed by Tunnel Boring Machine (TBM) underneath Ma Wan Chung and Rocky Lion Hill.
- 3.1.2 For the construction in TCE, the proposed works involve construction works for at-grade TCE Station and its associated facilities, realignment of the existing rail track and provision of noise mitigation measures along the existing and realigned rail track. With consideration of safe railway operation of the existing TCL, track realignment works would be conducted in phases. Detail logistic arrangement and works sequence for the realignment works will be developed during the preliminary design study which will be conducted in parallel with the EIA study.
- 3.1.3 Temporary/offsite works areas and works sites, including a potential barging point at Tung Chung Waterfront Road, may be required for the provision of site office, workshops, temporary storage of construction materials, utility or temporary access to support the construction of the Project. Subject to the need of barging point operation, dredging/leveling works at the seafront area near the barging point to lower the seabed level may be required.
- 3.1.4 The potential impacts arising from the construction and the operation of the Project are discussed in **Section 3.2 to 3.11**. All the prevailing statutory requirements will be considered in the EIA to assess the possible environment impacts.

3.2 Air Quality

Construction Phase

- 3.2.1 Dust generated from construction activities such as site clearance, excavation, backfilling, wind erosion of exposed area, temporary storage and handling of spoil, superstructure works and potential operation of barging point, etc. at works areas of the Project will be controlled by implementing suitable practices and mitigation measures (see Section 5). Potential impact on existing and planned air sensitive receivers (ASRs) will be controlled to within relevant standards.

Operational Phase

- 3.2.2 Trains to be operated on the Project will be electrically powered so there will be no dust and gaseous emissions. Tunnel ventilation exhausts and smoke extraction facilities will be carefully positioned to minimise air quality impacts. Air quality impact during the operational phase of the proposed railway is envisaged to be minor.

3.3 Noise

Construction Phase

- 3.3.1 A considerable amount of aboveground construction works will be necessary to construct the Project. Construction noise generated from the use of Powered Mechanical Equipment during site clearance, piling, excavation, backfilling, construction of aboveground structures and the operation of barging point etc. at works areas of the Project will be mitigated by suitable practices and precautionary measures (see Section 5). Potential impact on existing and planned noise sensitive receivers (NSRs) in the vicinity of construction sites will be controlled to within relevant standards.
- 3.3.2 Construction of bored tunnel by tunnel boring machine (TBM) and mining will potentially generate groundborne construction noise to existing and planned NSRs. Potential impact on existing and planned NSRs will be assessed and suitable practices and precautionary measures will be adopted to control noise impact to within relevant standards.

Operational Phase

- 3.3.3 Potential airborne railway noise impact to existing and planned NSRs at Tung Chung New Town Development may arise due to cumulative railway noise from operations of the TCL and AEL. Realignment of the existing TCL track will be required and the detail logistic arrangement and works sequence will be determined in the preliminary design. Appropriate noise mitigation measures will be identified to minimize the noise impact to both existing and planned NSRs as necessary.
- 3.3.4 Groundborne railway noise assessment will be carried out to assess the potential impacts from railway operation and to identify the mitigation measures required. With the implementation of mitigation measures, no adverse impact is expected.
- 3.3.5 There will be potential fixed plant noise impact from stationary noise sources including ventilation systems for stations and tunnels. Fixed plant noise assessment will be conducted to identify mitigation measures required to control the noise impact to within relevant standards.

3.4 Water Quality

Construction Phase

- 3.4.1 Water quality impact from construction activities including potential marine dredging and levelling works for barging point operation, site surface runoff and groundwater generated from construction works, sewage from workforce, and accidental spillage of chemicals are anticipated in this Project.

Operational Phase

- 3.4.2 Surface runoff from tracks may contain oil and grease as well as suspended solids. Wastewater from operation includes air conditioning systems and sewage generated from stations are anticipated in this Project.

3.5 Waste Management

Construction Phase

- 3.5.1 Solid waste generated from construction activities includes construction and demolition (C&D) materials, chemical waste, general refuse etc. Since the Project is located close to the coastline, sediment may also be generated due to excavation works and potential marine dredging. Good site practices will be implemented to avoid or minimise potential environmental impacts associated with handling, collection and disposal of wastes.

Operational Phase

- 3.5.2 Municipal solid waste, including food waste, paper, plastic and office waste will be generated during the operation of the proposed railway.

3.6 Land Contamination

- 3.6.1 A desktop review has identified that the area at Yat Tung Estate near Yu Tung Road within the Project scheme may give rise to land contamination as it was previously occupied by various temporary uses such as abandoned containers. Site appraisal will be conducted to identify potential location(s) of land contamination. Site investigation plan, if required, will be formulated in accordance with EPD's guidance notes to facilitate further studies in the detailed design and implementation stages.

3.7 Ecology

Construction Phase

- 3.7.1 Ecologically sensitive areas located near the TCW Station, the EAP/EEP and the underground railway include Tung Chung Bay, Tung Chung Ecologically Important Stream, Wong Lung Hang Ecologically Important Stream, Tai Ho Wan, Lantau North (Extension) Country Park and the Brothers Marine Park. Potential terrestrial ecological impact on TCW areas arising from the Project includes direct habitat loss and habitat fragmentation, disturbance to wildlife and vegetation, temporary habitat loss and habitat degradation. Potential marine ecological impact may arise from the Project due to the potential marine dredging works for barging point operation. Potential ecological impacts associated with the construction of the Project will be mitigated with implementation of good site practices.

Operational Phase

- 3.7.2 As the TCW extension is an underground railway, the footprint of the aboveground structures such as TCW Station facilities and EAP/EEP are limited, and TCE Station and associated at-grade tracks are on urbanized and future reclaimed land, disturbance to wildlife due to increase in human activities is expected to be insignificant.

3.8 Fisheries

Construction Phase

- 3.8.1 Construction phase impacts that may arise due to the potential marine dredging works include temporary impacts on fisheries resources/production and fishing activities. Due to the short-term and small-scale of the dredging works, such impacts are considered to be insignificant.

Operational Phase

- 3.8.2 Impact on fisheries is not anticipated during the operation of the Project.

3.9 Cultural Heritage

Construction Phase

- 3.9.1 A desktop review has identified that Ma Wan Chung Site of Archaeological Interest (SAI), Sha Tsui Tau SAI, Fu Tei Wan Kiln (relocated to Tung Chung) SAI, Tung Chung Game Board Carving SAI, and some of the topographic features such as low hills and valley edge identified with archaeological potential in the TCNTE EIA Report, and declared monuments include Tung Chung Fort and Tung Chung Battery are located within or in the proximity of the Project area. Potential impacts on archaeological and cultural heritage resources during the construction phase may arise due to activities associated with plant operation, temporary and permanent land take, mechanical excavation, drill and blast construction, change of setting of the site and potential vibration impact from tunneling works.
- 3.9.2 For the part of the tunnel along Ma Wan Chung which would fall within the sea area, the concerned works area within the sea area is located wholly within the MAI study area of the TCNTE EIA Report. A marine archaeological review and a diver survey were conducted in that MAI. According to the result of the MAI, marine archaeological resource was not identified and thus no further action or mitigation is required.
- 3.9.3 For the marine dredging works that may be conducted at the seafront area near the barging point, the concerned marine dredging works area is located wholly within the area of marine geophysical surveys reviewed in the Hong Kong - Zhuhai - Macao Bridge Hong Kong Link Road (HZMBHKL) EIA Report. 26 anomalies were identified and investigated by a diver survey in the MAI. According to the findings of the diver survey of the EIA Report, nothing of cultural heritage significance was identified and there is no need for any further investigation or mitigation measures. Moreover, all anomalies mentioned in the HZMBHKL EIA Report are outside the marine dredging works near the barging point.

Operational Phase

- 3.9.4 Potential vibration impact may arise from operation of the proposed railway at SAIs and cultural heritage resources within / in the vicinity of the Project area and will be included in the cultural heritage impact assessment

3.10 Landscape and Visual

Construction Phase

- 3.10.1 Whilst the majority of the proposed alignment will be underground, there will be

some aboveground structures that may impact the physical landscape and visual amenity of surrounding areas. Potential landscape impacts will result from permanent loss of trees and natural vegetation at secondary woodland located in the vicinity of EAP/EEP along Tung Chung Road North and plantation at TCE and TCW.

Operational Phase

- 3.10.2 Major visual resources in the vicinity of the Project include but not limited to the residents of Yat Tung Estate, Ma Wan Chung Village, Tung Chung Areas 56, 99 and 100 at TCNTE (East) reclamation, Tung Chung New Town Development, and Tung Chung Crescent, travelers of North Lantau Highway, hikers of Por Kai Shan, commercial development at Tung Chung New Town Development, etc. Whilst the majority of the proposed alignment will be underground, potential impact upon visual sensitive receivers (VSRs) during the operation phase may arise from the new aboveground structures including the at-grade section of the alignment, station structure and EAP/EEP building. Visual impact to VSRs would be mitigated by proper architectural and landscape design.

3.11 Hazard to Life

- 3.11.1 There are no Potentially Hazardous Installations (PHI) or dangerous goods (DG) stores near the site areas at Tung Chung East and Tung Chung West. Explosives may be required for possible drill and blast works at the EAP/EEP area for shaft and adit excavation works. There will be no overnight storage of explosives under this Project. The hazards associated with the transportation and use of explosives will be subjected to close control in accordance with the requirements of Mines Division of the Civil Engineering and Development Department.

4 MAJOR ELEMENTS OF THE SURROUNDING ENVIRONMENT

4.1 General

- 4.1.1 The TCW Station is proposed to be located at the existing rural area – west/south-west of Yat Tung Estate and around Yu Tung Road, which respects the railway reserve in the approved OZP.
- 4.1.2 The TCE Station is proposed to be located mostly on the new TCNTE (East) reclamation by the CEDD. The station is bounded by the proposed Road P1 in the north and the existing TCL and AEL in the south.
- 4.1.3 Environmental sensitive receivers have been identified based on existing and committed developments in the vicinity, with details provided in the following sections. Any other sensitive receivers to be identified during the EIA study will also be considered.

4.2 Air Quality

- 4.2.1 Air Sensitive Receiver (ASR) is defined in Annex 12 of the TM-EIAO as “domestic premises, hotel, hostel, hospital, clinic, nursery, temporary housing accommodation, school, educational institution, office, factory, shop, shopping centre, place of public worship, library, court of law, sports stadium or performing arts centre”, as well as “any other premises or place with which, in terms of duration or number of people affected, has a similar sensitivity to the air pollutants as the aforelisted premises and places”.
- 4.2.2 ASRs that may be affected by construction of the Project will be included in the air quality impact assessment. Potential existing and planned ASRs are domestic premises including Mun Tung Estate, Ha Ling Pei Village, Yat Tung Estate, Caribbean Coast, Coastal Skyline, Le Bleu Deux, Tung Chung Areas 56, 99 and 100 at TCNTE (East) reclamation, Ma Wan Chung Village and Tung Chung Crescent, etc., school, educational institution including Tung Chung Catholic School, office and shopping centre, place of public worship, playground at Tung Chung West area and Tung Chung New Town Development area.

4.3 Noise

- 4.3.1 Noise Sensitive Receiver (NSR) is defined in Annex 13 of the TM-EIAO as “domestic premises, educational institution, hospital, medical clinic, homes for the aged, convalescent homes, place of public worship, library, court of law, performing arts centre, auditoria, amphitheatre, hostel and Country Park”.
- 4.3.2 Sources of noise impact will include the construction of the proposed aboveground structures and tunnels, railway noise and fixed plant noise induced from operation of the proposed stations. Major potential existing and planned NSRs are Lantau North (Extension) Country Park, educational institution including Tung Chung Catholic School, domestic premises including Tung Chung Areas 56, 99 and 100 at TCNTE (East) reclamation, Tung Chung Crescent, Ma Wan Chung Village, Mun Tung Estate, Ha Ling Pei Village, Yat Tung Estate, Caribbean Coast, Coastal Skyline, Le Bleu Deux and Tung Chung New Town Development will be included in the noise impact assessment.

4.4 Water Quality

- 4.4.1 TCL Extension is located within the North Western Water Control Zone. Major Water Sensitive Receivers (WSRs) in the vicinity include Tung Chung Bay, Estuary of Tung Chung Ecologically Important Stream, Wong Lung Hang Ecologically Important Stream, Tai Ho Wan Inlet and the Brothers Marine Park. Potential water quality impact on these WSRs will be assessed.

4.5 Ecology

- 4.5.1 Ecological sensitive receivers located in the vicinity including Tung Chung Bay, Tung Chung Ecologically Important Stream, Wong Lung Hang Ecologically Important Stream, Tai Ho Wan, the Brothers Marine Park, Lantau North (Extension) Country Park, secondary woodland near to the proposed EAP/EEP along Tung Chung Road North and plantation at TCW will be included in the ecological impact assessment.

4.6 Fisheries

- 4.6.1 The marine dredging area is moderately to highly used by fishing vessels and with moderate fisheries production according to Port Survey 2016/17 from AFCD. However, as the marine dredging area will be near seafront only, the number of fishing vessels potentially being affected may be much lower. The Northeast Lantau spawning ground of commercial fisheries resources is about 3 km away from the dredging site and there are no nursery areas of commercial fisheries resources or fish culture zones nearby. Potential fisheries impact will be included in the EIA study.

4.7 Cultural Heritage

- 4.7.1 Impact on Ma Wan Chung SAI, Sha Tsui Tau SAI, Fu Tei Wan Kiln (relocated to Tung Chung) SAI and Tung Chung Game Board Carving SAI, Tung Chung Battery, Tung Chung Fort and some of the topographic features such as low hills and valley edge located within or in the proximity of the Project area that have been identified with archaeological potential in the TCNTE EIA Report will be assessed in the archaeological impact assessment.
- 4.7.2 Declared monuments with potential historic, archaeological or cultural importance in the vicinity such as Tung Chung Battery and Tung Chung Fort will be included in the assessment.

4.8 Landscape and Visual

- 4.8.1 Major landscape and visual resources in the vicinity include the secondary woodland and plantation at Tung Chung Road North, Lantau North (Extension) Country Park and the open sea to the north at Lantau Island.
- 4.8.2 Representative visually sensitive receivers within the visual envelope including residents of Yat Tung Estate, Mun Tung Estate, Ha Ling Pei Village, Ma Wan Chung Village, Tung Chung Areas 56, 99 and 100 at TCNTE (East) reclamation, Tung Chung New Town Development, Tung Chung Crescent, hikers at the country trails such as Por Kai Shan, travellers at nearby road including North Lantau Highway and AEL, commercial development at Tung Chung New Town Development, etc. will be included in the visual impact assessment.

5 ENVIRONMENTAL PROTECTION MEASURES TO BE INCORPORATED IN THE DESIGN AND ANY FURTHER ENVIRONMENTAL IMPLICATIONS

5.1 Mitigation Measures For The Project

5.1.1 Practicable and effective mitigation measures will be adopted for construction and operation of the Project, as necessary, to ensure compliance of relevant environmental standards. Possible key measures to be adopted, subject to studies, are listed below.

5.2 Air Quality

Construction Phase

5.2.1 Dust mitigation measures as stipulated in the Air Pollution Control (Construction Dust) Regulation (Cap. 311R) will be implemented to control fugitive dust emission. Possible key measures include:

- Regular watering on exposed and unpaved surface, particularly during dry weather;
- Frequent watering for particularly dusty construction areas and areas close to ASRs;
- Minimise temporary storage of stockpiles on site;
- Cover excavated or stockpile of dusty material by impervious sheeting or spraying with water to maintain the entire surface wet;
- Wheel washing facilities at the exit points of the site; and
- Where a site boundary adjoins a road, street, service lane or other area accessible to the public, hoarding of not less than 2.4 m high from ground level shall be provided as far as practicable along the entire length of that portion of the site boundary except for a site entrance or exit.

5.2.2 Cover dusty materials on vehicles leaving the site. Requirements stipulated in the Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation will also be followed to control potential emissions from non-road mobile machinery during the construction phase where appropriate.

Operation Phase

5.2.3 As air quality impact from operation of the proposed railway is envisaged to be minor, mitigation measures are not required.

5.3 Noise

Construction Phase

5.3.1 Possible key measures to reduce construction noise impact include:

- Quiet plants, silencers or mufflers on construction equipment;
- Movable and temporary barriers to screen particular items of plant or noisy operations;
- Noise screening structures or purpose-built noise barriers along the site boundary;

- Good site practices such as locate noisy equipment and activities at farthest practicable distance, schedule noisy activities to minimise noise exposure, proper maintenance of construction plant, devise quiet methods of working, and regular noise monitoring; and
- Proper planning of construction vehicle travelling route.

Operational Phase

5.3.2 Possible key measures to reduce operational noise impact include:

- Prediction of maximum allowable sound power levels of the future fixed plant source for compliance of stipulated noise criteria;
- Provision of appropriate purpose-built noise barriers; and
- Provision of appropriate trackform design for compliance of stipulated noise criteria.

5.4 Water Quality

Construction Phase

5.4.1 Possible key measures to control water quality impact include:

- Good site practice in accordance with the *ProPECC PN 1/94 Construction Site Drainage and Recommended Pollution Control Clauses for Construction Contracts, and Environment, Transport and Works Bureau Technical Circular (Works) (TCW) No. 5/2005 Protection of Natural Stream / Rivers from Adverse Impact arising from Construction Works*;
- Collection of construction runoffs for treatment by properly maintained silt trap and oil interceptor to remove oil, lubricants, grease, silt, grit and debris etc. to ensure compliance of *Water Pollution Control Ordinance (Cap. 358)*;
- Cover open stockpiles of materials with tarpaulin or similar fabric during rainstorms;
- Mobile toilets or other appropriate means to store sewage before disposal through licensed collection agent or discharging to communal sewerage system;
- Employ a licensed chemical waste collector for the collection and disposal/treatment of the contaminated water in accordance with the *Waste Disposal (Chemical Waste) (General) Regulation (Cap. 354C)*; and
- Select appropriate construction methods for marine dredging, if necessary, to minimise the mobilisation of sediment during construction and implementation of stringent site sediment control and mitigation measures, such as silt curtain, to minimise the elevation of suspended solids.

Operational Phase

5.4.2 Possible key measures to control water quality impact include:

- Surface runoff will be diverted through sedimentation basins and oil interceptors prior to discharge into public drainage system
- Wastewater from operation including air conditioning systems and sewage generated from stations will be properly collected for treatment and disposal; and

- Proper maintenance of sand/silt and oil/grease traps to prevent ingress of pollutants to the stormwater drainage system.

5.5 Waste Management

- 5.5.1 Possible key measures to reduce the quantities of C&D materials, chemical waste, general refuse etc. for offsite disposal and to handle the sediment include:

C&D Materials, Chemical Waste and General Refuse

- Sorting and reuse on site as far as practicable;
- Handle by registered and licensed waste hauliers under *Waste Disposal Ordinance (Cap. 354)* and *Waste Disposal (Chemical Waste) (General) Regulation (Cap. 354C)*;
- Nomination of an approved person for waste management;
- Separate chemical wastes for handling and treatment at licensed facilities;
- Proper record system for wastes generated, recycled and disposed of;
- Ticket-trip system in accordance with *Development Bureau Technical Circular No. 6/2010 Trip Ticket System for Disposal of Construction & Demolition Materials*;
- Waste Management Plan in accordance with *ETWB TCW No. 19/2005 Environmental Management on Construction Sites*;
- Segregate different types of waste for storage;
- Recycle unused chemicals with remaining functional capacity;
- Use of non-timber form work; and
- Proper storage and site practices.

Sediment

- Handle in accordance with *ETWB TCW No. 34/2002 Management of Dredged/Excavated Sediment*;
- Cover contaminated sediments with tarpaulin for stockpiling and transportation; and
- Properly designed and maintained construction plant and equipment to minimise release of silt, sediments, contaminants or other pollutants.

5.6 Land Contamination

- 5.6.1 Site appraisal will be carried out during the EIA stage to identify any areas of potential soil or groundwater contamination within the Project site. Site investigation and land contamination assessment will be conducted prior to the construction works at the concerned area if necessary. Based on the findings of site investigation, remediation strategy and appropriate remediation options will be detailed in a Remediation Action Plan (RAP) and completed in accordance with the prevailing guidelines prior to development of the concerned Site.

5.7 Ecology

- 5.7.1 Due consideration will be given to avoid potential direct and indirect impact on

ecological resources and the Brothers Marine Park as far as practicable. Good site practices and mitigation measures proposed will help to minimise indirect potential impacts on the general environment.

- 5.7.2 In the event that important ecological resource is identified during the baseline survey, mitigation measures will be formulated such as translocation of important species, confining works in specific area/season, alternative design/construction methods etc.

5.8 Fisheries

- 5.8.1 Implementation of good site practices and mitigation measures for water quality are proposed to prevent elevation of suspended solids during dredging to minimize any indirect impacts on fisheries. Other required mitigation measures for fisheries, if any, will be identified during EIA stage and to be implemented during construction.

5.9 Cultural Heritage

- 5.9.1 Direct impact upon historical and cultural heritage resources will be avoided. If avoidance is not possible, mitigation measures such as physical relocation, rescue excavation, survey-cum-rescue excavation or further survey will be undertaken as recommended by the EIA Study.

5.10 Landscape and Visual

- 5.10.1 Possible key measures to reduce potential landscape and visual impacts include:

Construction Phase

- Minimise construction phase impact by optimising construction activities and extent of temporary works area and installation of site hoardings;
- Tree preservation in accordance with *Development Bureau Technical Circular (Works) (DEVB TC(W)) No. 7/2015 – Tree Preservation and Lands Administration Office Practice Note No. 7/2007 – Tree Preservation and Tree Removal Application for Building Development in Private Projects*;
- Compensatory planting and its maintenance party shall be determined for tree removal in accordance with *DEVB TC(W) No. 7/2015 – Tree Preservation and Lands Administration Office Practice Note No. 7/2007 – Tree Preservation and Tree Removal Application for Building Development in Private Projects*; and
- Reinstatement of temporarily disturbed landscape area to the satisfaction of relevant Government Departments.

Operational Phase

- Provision of aesthetic architectural design of aboveground structures and control of night-time glare.

5.11 Hazard to Life

- 5.11.1 Close liaison with the Mines Division of CEDD will be maintained and all relevant requirements including those of Dangerous Goods Ordinance will be incorporated. Safety precautions and control measures will be proposed and implemented to minimize potential hazards.

5.12 Severity, Distribution and Duration of Environmental Effects and Further Implications

5.12.1 Subject to the findings of assessments, effective control and mitigation measures will be identified to ensure the impacts will be at acceptable level. The possible severity, distribution and duration of environmental effects such as beneficial and adverse effects; short-term and long-term effects; secondary and induced effects; cumulative effects and trans-boundary effects from committed projects, and further implications will be considered and addressed in the EIA, where applicable.

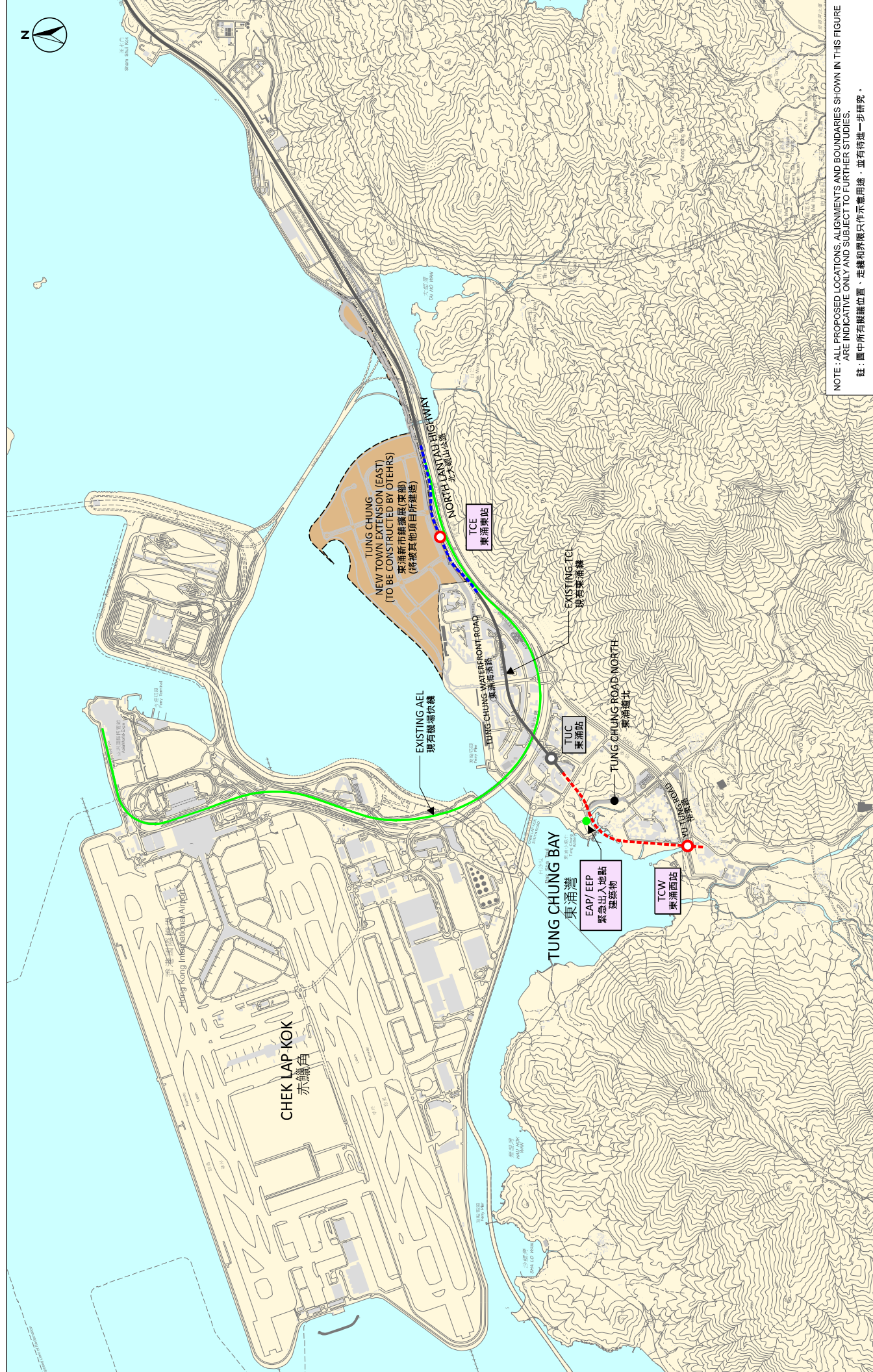
6 USE OF PREVIOUSLY APPROVED EIA REPORTS

6.1.1 Construction and operation of the existing Tung Chung Line was assessed in the Lantau and Airport Railway (LAR) Environmental Impact Study (EIA-029/BC), which was approved in 1994 before enactment of the EIAO.

6.1.2 The following EIA reports are also relevant and will be made reference to in the course of the EIA study for the Project:

EIAO Register No.	Project	Date of Approval	Relevance Environmental Aspect to the Project
AEIAR-214/2017	Siu Ho Wan Station and Siu Ho Wan Depot Replanning Works	29 Nov 2017	<ul style="list-style-type: none"> • Dust • Noise
AEIAR-213/2017	Proposed Comprehensive Residential and Commercial Development atop Siu Ho Wan Depot	29 Nov 2017	<ul style="list-style-type: none"> • Dust • Noise • Ecology
AEIAR-196/2016	Tung Chung New Town Extension	8 Apr 2016	<ul style="list-style-type: none"> • Dust • Noise • Cultural heritage • Ecology • Land contamination
AEIAR-185/2014	Expansion of Hong Kong International Airport into a Three-Runway System	7 Nov 2014	<ul style="list-style-type: none"> • Dust
AEIAR-146/2009	Tuen Mun – Chek Lap Kok Link	23 Oct 2009	<ul style="list-style-type: none"> • Dust
AEIAR-144/2009	Hong Kong - Zhuhai - Macao Bridge Hong Kong Link Road	23 Oct 2009	<ul style="list-style-type: none"> • Cultural heritage • Ecology

Figure



NOTE: ALL PROPOSED LOCATIONS, ALIGNMENTS AND BOUNDARIES SHOWN IN THIS FIGURE ARE INDICATIVE ONLY AND SUBJECT TO FURTHER STUDIES.
 註：圖中所有擬議位置、走線和界限只作參考用途，並有待進一步研究。

- LEGEND: 圖例
- PROPOSED TCW EXTENSION ALIGNMENT 擬議東涌西延伸走線
 - PROPOSED TCL REALIGNMENT 擬議東涌繞道重新調整走線
 - EXISTING AEL 現有機場快線
 - EXISTING RAILWAY STATION 現有鐵路車站
 - PROPOSED RAILWAY STATION 擬議鐵路車站
 - EXISTING TCL 現有東涌線
 - EXISTING TCE 現有東涌線
 - EXISTING AEL 現有機場快線
 - PROPOSED FAP/EEP BUILDING 擬議緊急出入地點建築物

TUNG CHUNG LINE EXTENSION
東涌綫延綫



Figure 1
圖 1