



**Highways Department**

**Northern Metropolis Highway  
– Tin Shui Wai Section**

**Project Profile**



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**Figure**

FIGURE 1

Indicative Layout Plan for Northern Metropolis  
Highway – Tin Shui Wai Section

## **1. BASIC INFORMATION**

### **1.1 Project Title**

- 1.1.1 The title of the Project is “Northern Metropolis Highway – Tin Shui Wai Section” (hereafter referred to as the Project).

### **1.2 Purpose and Nature of the Project**

- 1.2.1 The Government promulgated the final report of the “Hong Kong 2030+: Towards a Planning Vision and Strategy Transcending 2030” in October 2021, in which the Northern Metropolis was set out. With the progressive population intakes of the development areas in the Northern Metropolis, it is foreseeable that the existing road network serving these development areas would become overloaded in the future and hence new major road projects are proposed under the “infrastructure-led” and “capacity-creating” approaches to ensure the planning of major transport infrastructure could cater for or even reserve transport and logistic capacity to drive long-term development.
- 1.2.2 Amongst the major transport infrastructure projects announced in the 2022 Policy Address, Northern Metropolis Highway (NMH) is a major road project to facilitate the “east-west” connectivity. NMH is to provide a new strategic route between Tin Shui Wai in the New Territories West and Heung Yuen Wai in the New Territories East, thereby enhancing the east-west connectivity of the Northern Metropolis and alleviating the potential traffic congestion at Yuen Long Highway, San Tin Highway and Fanling Highway.
- 1.2.3 According to the “Hong Kong Major Transport Infrastructure Development Blueprint” (the Blueprint) promulgated by the Government in 2023, the Government will take forward NMH. The Project forms part of the proposed NMH. Other parts of NMH include San Tin Section, Kwu Tung Section as well as the New Territories North (NTN) New Town Section.
- 1.2.4 Under the current development plan, with the progressive development of San Tin Technopole and the Ngau Tam Mei area, traffic congestion on San Tin Highway is anticipated during peak hours by 2036. Therefore, the San Tin Section of NMH is scheduled for commissioning in or before 2036. The remaining sections of NMH which include the Project are scheduled to complete in phases in about 3 to 4 years after the commissioning of the San Tin Section<sup>1</sup>.
- 1.2.5 The alignment of the Tin Shui Wai Section of NMH has been made with due consideration of a basket of factors, including traffic benefits, engineering feasibility, cost-effectiveness, environmental protection, impacts to the community and land, etc. Having reviewed different alignment options for the Tin Shui Wai Section of NMH based on the aforesaid criteria and consulted with relevant Government departments, the most appropriate and efficient alignment for Tin Shui Wai Section is identified. As compared with the original alignment proposed under the Blueprint<sup>2</sup> which would run

<sup>1</sup> NMH is a mega project and the need of each section of road may be different in relation to the commissioning schedules of the Northern Metropolis New Development Areas. The phased commissioning arrangement is considered more suitable taking into account the traffic needs, all the transport infrastructure projects in the pipeline, including the capacity, overall cost-effectiveness, allocation of public resources, engineering considerations and the required implementation timeframe etc.

<sup>2</sup> For the original alignment of Tin Shui Wai Section of NMH, please refer to Enclosure 1 to PWSC Paper No. PWSC(2024-25)20 “895TH - Northern Metropolis Highway” [See the link <https://www.legco.gov.hk/yr2025/english/fc/pwsc/papers/P24-20-e.pdf> ]

across Nam Sang Wai, the current alignment of the Tin Shui Wai Section of NMH already avoids encroachment onto the core areas of the Inner Deep Bay wetlands, Nam Sang Wai and Ramsar Site and only two short sections of the alignment run across Shan Pui River and Kam Tin River respectively to the south of Nam Sang Wai, thereby minimizing the potential impacts on the environment.

- 1.2.6 The objective of the Project is to enhance the connectivity along the Tin Shui Wai Section between the proposed interchange at Tin Wah Road and the interchange at San Tin Highway and Tsing Long Highway to alleviate the future traffic demands generated by the future developments in the concerned locations.

### **1.3 Name of Project Proponent**

- 1.3.1 The Project Proponent is Highways Department of the Government of Hong Kong Special Administrative Region (HKSAR).

### **1.4 Location and Scale of the Project and History of Site**

- 1.4.1 The location of the Project is shown on the Figure 1.
- 1.4.2 The alignment of the Tin Shui Wai Section starts from the proposed interchange at Tin Wah Road, then passing through Kai Shan (a conservation area zoned under the Approved Ping Shan Outline Zoning Plan (OZP) No. S/YL-PS/20) and Chu Wong Ling in form of tunnel. It traverses in the form of viaduct through the developed area in Yuen Long Industrial Estate (YLIE), crossing the Shan Pui River, and extends through the edge of the conservation area located on the south of Nam Sang Wai, zoned under approved Nam Sang Wai OZP No. S/YL-NSW/10. It then travels along the hilly terrain near Shan Pui Tsuen and Wong Uk Tsuen, and finally connects to the San Tin Section of NMH and the interchange of San Tin Highway and Tsing Long Highway.
- 1.4.3 The scope of the Project mainly comprises the following:
- (i) Construction of an approximately 5.5-kilometre (km) long dual three-lane carriageway, mainly in the form of at-grade road / tunnel / viaduct, from Tin Wah Road towards the San Tin Section of NMH at San Tin Highway (including 2 tunnel sections of approximately 300-metre (m) and 500 m in length respectively);
  - (ii) Construction of 3 interchanges (i.e., one at Tin Wah Road, one connecting to Wang Lok Street in the vicinity of YLIE, and one at the interchange of San Tin Highway and Tsing Long Highway); and
  - (iii) Associated junction modifications and slip roads required for the project, civil, geotechnical, landscape, road and drainage works, ancillary buildings, traffic control and surveillance system, toll collection facilities, electrical and mechanical installations, reprovisioning of facilities affected by the proposed works, environmental mitigation measures, satellite administration building / kiosk and ventilation building (if necessary), etc.
- 1.4.4 The proposed works components mentioned above are tentative and subject to review in next detailed design stage and during the course of the Environmental Impact Assessment (EIA) study. There may be refinement of the alignment of the Project, which will be subject to a variety of factors such as planning and engineering considerations, environmental impacts, traffic impacts, land resumption requirements, construction programme and cost, etc.

## **1.5 Number and Types of Designated Projects to be covered by the Project Profile**

- 1.5.1 The Project comprises the construction and operation of highways and the associated slip roads, which is classified as Designated Project (DP) under the following categories under Part I, Schedule 2 of the Environmental Impact Assessment Ordinance (EIAO), subject to more detailed design and planning at later stage:

Item A.1 A carriageway for motor vehicles that is an expressway, trunk road, primary distributor road or district distributor road;

Item I.1(b) A drainage channel or river training and diversion works located less than 300 m from the nearest boundary of existing or planned conservation area; and

Item Q.1 All projects involving earthworks, dredging works and other building works partly or wholly in an existing or gazetted proposed country park or special area, a conservation area, an existing or gazetted proposed marine park or marine reserve, a site of cultural heritage, and a site of special scientific interest.

## **1.6 Contact Person**

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## **2. OUTLINE OF PLANNING AND IMPLEMENTATION PROGRAMME**

### **2.1 Project Planning and Implementation**

- 2.1.1 The Project will be implemented under a Public Works Programme item. The Project Proponent has appointed consultants to undertake the Investigation study and preliminary design of the Project under Agreement CE4/2024 (HY). Subject to completion of detailed design, contractor(s) will be appointed to carry out the construction works.

### **2.2 Project Programme**

- 2.2.1 The EIA study for the Project is in the pipeline following the San Tin Section. The Project is expected to commission in about 3 to 4 years after the commissioning of the San Tin Section<sup>3</sup> to alleviate the potential traffic congestion at Yuen Long Highway as well as to support New Development Areas. The packaging and programme of the Project will be ascertained by the investigation study, taking into account other relevant technical studies.

### **2.3 Interactions with other Projects**

- 2.3.1 Major committed / planned projects that will potentially interface with the Project have been identified and are listed below. Any cumulative impact from the concurrent projects during both construction and operation phases of the Project will be addressed in the EIA stage as appropriate. The list below should be reviewed during the EIA stage to ensure the concurrent projects available with best available information are incorporated.
- Public Housing Development at Sha Po, Yuen Long
  - Site Formation and Infrastructure Works for Public Housing Development near Tin Tsz Road, Tin Shui Wai, and Remaining Phases of Public Housing Development at Wang Chau, Yuen Long
  - Public and private housing development at Ho Chau Road under Land Sharing Pilot Scheme Application
  - The proposed Nam Sang Wai Wetland Conservation Park and Hong Kong Wetland Park Expansion Area under the Development of Wetland Conservation Parks System
  - Northern Link
  - Yuen Long Barrage Scheme at Yuen Long Nullah
  - San Tin Section of NMH
  - Proposed Comprehensive Development with Wetland Enhancement at Nam Sang Wai and Lut Chau
  - Improvement of Yuen Long Town Nullah (Town Centre Section)
  - Proposed residential developments at Tung Shing Lei
  - Proposed residential developments at Chung Yip Road, Nam Sang Wai

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<sup>3</sup> The San Tin Section of NMH is scheduled for commissioning in or before 2036.



### 3. POSSIBLE IMPACT ON THE ENVIRONMENT

#### 3.1 General

3.1.1 Based on the preliminary study, the Project will involve the following construction works, including:

- Construction of tunnel by Drill & Blast / Drill & Break / Tunnel Boring Machine (TBM) methods (subject to further study);
- Construction of associated tunnel portals, ventilation buildings (if necessary), satellite administration building / kiosk and other ancillary facilities;
- Construction of viaducts / at-grade roads and road widening works; and
- Associated environmental protection and mitigation works, for example, noise enclosures / barriers (if necessary).

#### 3.2 Construction and Operation Environmental Impact

3.2.1 The potential environmental impacts associated with the Project during both construction and operation phases are discussed in the following paragraphs. Detailed impact assessments will be carried out during the EIA study.

##### Air Quality

3.2.2 The air quality impact assessment will follow the criteria and guidelines for evaluating and assessing air quality impact as stated in Section 1 of Annex 4 and Annex 12 of the Technical Memorandum on Environmental Impact Assessment Process (EIAO-TM) respectively.

3.2.3 During construction phase, the potential sources of air quality impact on the air sensitive receivers (ASRs) would be the dust emissions generated from construction activities, including site formation, excavation works, mucking out excavated rock and soil from tunnelling works, materials handling, backfilling, wind erosion of open sites and stockpiling area, movement of construction vehicles on unpaved roads, as well as exhaust emissions from construction machinery and construction vehicles. Cumulative impacts from other potential interfacing projects planned in vicinity of the Project will be identified and taken into account in the EIA study. Meanwhile, non-dredging method will be adopted in case it is inevitable to locate piles and piers within river (for details, please refer to **Section 3.2.9**) and hence, potential odour impact is not anticipated during construction phase.

3.2.4 During operation phase, potential air pollution sources associated with the Project will include vehicular emissions from the proposed open roads sections, tunnel portals and ventilation buildings (if necessary) of the NMH. Cumulative air quality impacts from the background concentration, vehicular emissions from neighbouring existing and planned road networks (e.g. San Tin Highway) and industrial emissions in vicinity of the Project will be identified and taken into account in the EIA study.

##### Noise

3.2.5 The noise impact assessment will follow the criteria and guidelines for evaluating and assessing noise impact as stated in Annex 5 and Annex 13 of the EIAO-TM. respectively. The EIAO Guidance Note No. 9/2023 "Preparation of Construction Noise Impact Assessment Under the EIAO", EIAO Guidance Note No. 12/2023 "Road Traffic Noise Impact Assessment Under the EIAO", and EIAO Guidance Note

No. 16/2023 "Preparation of Fixed Noise Sources Impact Assessment Under the EIAO" will also be taken into consideration.

- 3.2.6 During construction phase, the potential sources of noise impacts on the noise sensitive receivers (NSRs) would be associated with the use of powered mechanical equipment (PME) (e.g. breakers, excavators, lorries, mobile cranes, concrete truck mixers, concrete pokers and rollers) for construction activities. The key construction activities of the Project that would create noise impacts include tunnelling, piling for foundations, excavation and concreting, etc. Meanwhile, potential ground-borne noise impacts would be caused mainly by the TBM operation (if necessary) and using PME for rock breaking / drilling. A construction programme should be formulated so that no works will be required in restricted hours, i.e. between 7 p.m. and 7 a.m. or at any time on a general holiday (including Sunday), as far as practicable in the EIA study.
- 3.2.7 During operation phase, the potential sources of noise impact on the NSRs would be associated with the traffic using the new roads and fixed plants (e.g. ventilation buildings (if necessary) of the NMH). The cumulative noise impacts from neighbouring existing and planned road networks and other fixed noise sources associated with the Project will be identified and considered in the EIA study.

#### **Water Quality**

- 3.2.8 The water quality impact assessment will follow the criteria and guidelines for evaluating and assessing water quality impact as stated in Annexes 6 and 14 of the EIAO-TM respectively.
- 3.2.9 After comprehensive consideration of potential environmental impacts and other factors, the proposed Tin Shui Wai Section of NMH has been located far away from the core areas of the Inner Deep Bay wetlands, Nam Sang Wai and Ramsar Site to avoid encroachment onto these water sensitive receivers (WSRs) as much as possible, with a view to minimising potential water quality impacts. During construction phase, potential sources of water quality impacts would be associated with the construction site run-off, diversion of watercourse (if necessary) and wastewater generated by construction activities of the Project, which may cause blockage of existing drainage channel and the increase in the amounts of pollutants, such as suspended solids, in the nearby water system. Meanwhile, sewage effluents from construction workforce and the accidental spillage of chemical may also cause water pollution. Given that relatively short length of the tunnel sections and the tunnels would pass through shallow ground of existing hills, with proper implementation of mitigation measures as stipulated in **Section 5.2.5**, the impact due to potential infiltration / drawdown of groundwater would be considered minimal. In addition, when the proposed highway crossing Kam Tin River and Shan Pui River, there may possibly be construction of piles and foundation for the viaduct. The piles and piers will avoid encroaching on the riverbeds of Kam Tin River and Shan Pui River, and will be located at riverbank, or even away from riverbank as far as practicable. In view of the site constraints (e.g. the in-progress Yuen Long Barrage Scheme Project Works, the existing viaducts at Kam Tin River, CLP pylon, planned developments and the existing underground utilities, etc.) which may govern the piles and piers' location and span arrangement, where it is inevitable to locate the piles and piers within Kam Tin River and Shan Pui River, non-dredging method would be adopted. The excavation and removal of materials from pile shaft will be carried out within pile casing to minimise water quality impact.
- 3.2.10 During operation phase, potential sources of water quality impacts would be associated with the surface runoff from the new roads and wash-off from the buildings proposed under the Project, as well as sewage effluents generated from

the staffs working in the satellite administration building / kiosk. The satellite administrative building / kiosk and ventilation building proposed under the Project would be small-scale in nature with very limited workforce, and that the small-scale satellite administrative building / kiosk and ventilation building will be properly connected to the public sewerage system.

### **Ecology**

- 3.2.11 The evaluation and assessment of terrestrial and aquatic ecological impact will follow the criteria and guidelines as stated in Annexes 8 and 16 of the EIAO-TM respectively. The EIAO Guidance Note No. 10/2023 "Methodologies for Terrestrial and Freshwater Ecological Baseline Surveys", EIAO Guidance Note No. 7/2023 "Ecological Baseline Survey for Ecological Assessment", EIAO Guidance Note No. 6/2010 "Some Observations on Ecological Assessment from the Environmental Impact Assessment Ordinance Perspective" will also be taken into consideration.
- 3.2.12 Ecological resources are identified in vicinity of the proposed Tin Shui Wai Section of NMH. These ecological resources include sites of conservation importance, sensitive habitats, species of conservation importance, and other ecological resources, as presented in **Section 4.1.6**. After comprehensive consideration of potential environmental impacts and other factors, the proposed Tin Shui Wai Section has been refined to avoid encroachment onto areas with high ecological values as much as possible, with only two short sections of the alignment running across Shan Pui River and Kam Tin River respectively to the south of Nam Sang Wai, in order to minimise potential impacts on habitats and potential disturbance to the adjacent natural environment.
- 3.2.13 The proposed alignment will pass through Chu Wong Ling and Kai Shan in form of tunnel, which will minimize the impacts on natural habitats as far as practicable. However, during construction phase, there may be potential impacts on habitats and ecological resources along the proposed alignment such as potential construction-related disturbances. Relevant impacts will be addressed comprehensively during EIA study stage.
- 3.2.14 No habitat loss is anticipated during operation phase. However, the presence of viaducts or road structures may still have some potential ecological impacts, such as potential flight line obstruction. Relevant impacts will be assessed comprehensively during EIA study stage.

### **Fisheries**

- 3.2.15 The fisheries assessment will follow the criteria and guidelines for evaluating and assessing fisheries impact as stated in Annexes 9 and 17 of the EIAO-TM respectively. The EIAO Guidance Note No. 15/2023 "Methodologies for Fisheries Baseline Surveys" in relation to fishponds will also be taken into consideration.
- 3.2.16 Key fisheries resources include both active and inactive fishponds along the proposed Tin Shui Wai Section of NMH alignment. Some abandoned fishponds are also observed nearby. The site boundary of the proposed Tin Shui Wai Section of NMH alignment may cover some fishponds. The foundation location of the proposed viaducts can be designed to avoid permanent encroachment onto fishponds as far as practicable such that only the superstructure (both mainline and slip roads) will span over the fishponds. Other potential indirect impacts may arise from the potential impact of water quality due to site runoff, risk of groundwater drawdown, shading effect, and potential impact on bund stability and pond accessibility during construction and operation phases. Relevant impacts will be assessed comprehensively during EIA study stage.

### **Landscape and Visual**

- 3.2.17 The evaluation and assessment of landscape and visual impacts will follow the criteria and guidelines as stated in Section 1 of Annex 10 and Annex 18 of the EIAO-TM respectively. The EIAO Guidance Note No. 8/2023 “Preparation of Landscape and Visual Impact Assessment under the EIAO” will also be taken into consideration.
- 3.2.18 The major landscape and visual impacts of the Project would be associated with the proposed at-grade / elevated roads sections, associated tunnel portals, and satellite administration building / kiosk and ventilating buildings (if necessary). Landscape with distinctive character / resources, such as “Wetland” and “Conservation Area” zones, are found within the assessment area of the Project.
- 3.2.19 During construction phase, potential landscape impacts would be anticipated from construction sites, associated slope works and retaining walls of the Project and temporary working areas, etc. Potential impacts on landscape resources, including impact on hillside vegetation, impact on vegetation in existing villages, impact on roadside amenity, and disturbance on watercourses and ponds, would also be anticipated. The extent of landscape impacts will be further assessed during the EIA study.
- 3.2.20 During operation phase, there would be potential landscape impacts due to the affected existing vegetation. The aboveground structures of the Project (e.g. open roads, interchange, viaducts, associated slope works and retaining walls, tunnel portals, and ventilation buildings (if necessary), etc.) may also lead to potential changes in the visual quality experience for the public viewers by the nearby road users, hikers, and other recreational users. The extent of these changes will be further assessed during the EIA study.

### **Cultural Heritage**

- 3.2.21 The evaluation and assessment of cultural heritage impacts will follow the criteria and guidelines as stated in Section 2 of Annex 10 and Section 2 of Annex 19 of the EIAO-TM respectively.
- 3.2.22 One (1) declared monument and twelve (12) graded historic buildings (check list below) identified by the Antiquities and Monuments Office (AMO) are located within 300 m of the Project:
- I Shing Temple (Declared Monument);
  - Pun Uk (Grade 1);
  - Yu Yuen (Grade 2);
  - No. 40 Fuk Hing Tseun (Grade 3);
  - No. 41 Fuk Hing Tsuen (Grade 3);
  - Lau Village House (63 Tung Shing Lei) (Grade 3);
  - Lau Village House (65 Tung Shing Lei) (Grade 3);
  - Lau Village House (66 Tung Shing Lei) (Grade 3);
  - Lau Village House (67 Tung Shing Lei) (Grade 3);
  - Lau Village House (Hak Sut Tong) (Grade 3);
  - No. 158 Shan Pui (Grade 3);
  - No. 191-197 Shan Pui (Grade 3); and
  - No. 223-236 Shan Pui (Grade 3).

Neither proposed monument nor Government historic site identified by AMO is located within 300 m of the Project.

- 3.2.23 No Site of Archaeological Interest (SAI) is located within 300 m of the Project. During construction phase, no direct impacts on SAI arising from at-grade construction activities are anticipated.
- 3.2.24 On the other hand, direct impact on built heritage would not be anticipated during construction phase. Indirect impact due to ground-borne vibration would be anticipated on built heritage located in close vicinity of the Project. This EIA study should include impact assessment to the cultural heritage resources and recommend appropriate measures to mitigate any potential impact(s).
- 3.2.25 During operation phase, no potential impacts on built heritage and archaeological heritage are anticipated, subject to further review and findings under the EIA study.

**Waste Management**

- 3.2.26 The evaluation and assessment of waste management implications will follow the criteria and guidelines as stated in Annexes 7 and 15 of the EIAO-TM respectively.
- 3.2.27 During construction phase, the main activities that would generate waste include excavation, tunnelling, and demolition and construction of structures. Typical waste generated from the above activities include the inert and non-inert construction and demolition (C&D) materials, excavated sediment, chemical waste from the maintenance of the plants, and equipment and general refuse from the construction workforce.
- 3.2.28 During operation phase, the amount of waste generated would be limited, comprising mainly the general refuse from the workforce and chemical wastes from the operation and maintenance of the Tin Shui Wai Section. Under the Waste Disposal Ordinance (WDO) (Cap. 354), wastes generated shall be handled and disposed of following the established practices, guidelines and requirements. No adverse waste management implications are anticipated with the recommended mitigation measures implemented.

**Land Contamination**

- 3.2.29 The evaluation and assessment of potential land contamination issues will follow the guidelines as stated in Sections 3.1 and 3.2 of Annex 19 of the EIAO-TM.
- 3.2.30 Potential land contamination sources in the vicinity of the Project would include construction material storage, container storage, warehouse, and vehicle maintenance workshop at Wang Chau Area. Relevant potential land contamination issue will be assessed comprehensively during EIA study stage.

**Hazard to Life**

- 3.2.31 The hazard to life assessment will follow the criteria stated in Section 2 of Annex 4 of the EIAO-TM.
- 3.2.32 The tunnels of the proposed Tin Shui Wai Section of NMH passing through Kai Shan and Chu Wong Ling would be constructed by the Drill & Blast / Drill & Break method / TBM method (subject to further study). If the Drill & Blast method is adopted, controlled blasting operations by explosives would be taken place. It is anticipated that there would not be any new depot within the site boundary of the Project for the storage of explosives. A quantitative risk assessment would be conducted to assess the hazards due to the transport and use of explosives and to ensure appropriate safety measures, if required, to be strictly implemented to safeguard the wellbeing of nearby populations. There are vehicle inspection / maintenance workshops and construction equipment supplier located near the portals of the proposed tunnel section near YLIE. It might be expected to have some dangerous goods (DGs)

storage (such as diesel oil and solvents) for their operation. Nevertheless, the impact of blasting works for tunnelling works under the Project, including the potential cumulative impact associated with DGs storage within the YLIE (if any) would be evaluated and assessed in the quantitative risk assessment in the EIA study stage in case blasting is required for this tunnel section.



## 4. MAJOR ELEMENTS OF THE SURROUNDING ENVIRONMENT

### 4.1 Existing and Planned Sensitive Receivers

- 4.1.1 The major existing and planned sensitive receivers that may be affected by the Project have been identified and listed out in the following paragraphs. The listed receivers are subject to further review in the EIA study.

#### **Air Quality**

- 4.1.2 The major source of pollutant emissions in the surrounding environment of the Project is vehicular emission induced by the existing and planned road networks (e.g. Tin Wah Road, Yuen Long Highway, and San Tin Highway). Emissions from industrial operations (e.g. YLIE) would also be considered.

- 4.1.3 Key potential air sensitive receivers (ASRs) that may be affected by the Project include:

- Tin Yip Road Park;
- Wetland Seasons Park;
- QESOSA Tong Kwok Wah Secondary School;
- Chiu Yang Por Yen Primary School;
- Tin Ching Estate;
- Man Kwan Pak Kau College;
- Maywood Court;
- Lynwood Court;
- Kenswood Court;
- Dragon Park;
- Tin Pak Road Park;
- The Hong Kong Management Association K S Lo College;
- Water Supplies Department Tin Shui Wai Building;
- Proposed public housing development near Tin Tsz Road;
- Village type houses at Fung Ka Wai;
- Village type houses at Shing Uk Tsuen;
- Proposed public housing development at Wang Chau;
- Yuen Long Industrial Estate;
- Fu Ting Garden;
- Fuk Lai Garden;
- Village type houses at Wang Chau Fuk Hing Tsuen;
- Village type houses at Wang Chau Sai Tau Wai;
- Village type houses at Wang Chau Tung Tau Wai;
- Village type houses at Wang Chau Yeung Uk Tsuen;
- Village type houses at Tung Tau Wai San Tsuen;
- Village type houses at Shan Pui Chung Hau Tsuen;
- Twin Regency;
- Wang Fu Court;
- The Parcville;
- Village type houses at Shan Pui Hung Tin Tsuen;

- Village type houses at Tung Tau Yuen;
- Village type houses at Tung Tau Tsuen;
- Village type houses at Tsoi Uk Tsuen;
- Village type houses at Ying Lung Wai;
- Village type houses at Tai Wai Tsuen;
- Prestige;
- Grand Yoho;
- Sun Yuen Long Centre;
- Village type houses at Chung Hau Yu Man San Tsuen;
- Village type houses at Shan Pui Tsuen;
- Village type houses at Shan Pin Tsuen;
- Village type houses at Wong Uk Tsuen;
- Village type houses at Small Traders New Village;
- Village type houses at Tung Shing Lei;
- AFCD Au Tau Fisheries Office;
- Park Yoho Venezia;
- Crescent Green;
- Koon Chun Hing Kee Soy & Sauce Factory Ltd.;
- Village type houses at Sha Po Tsuen;
- Village type houses at Mo Fan Heung;
- Planned residential developments at Sha Po; and
- Planned residential developments at Nam Sang Wai and Tung Shing Lei.

### **Noise**

4.1.4 Key potential noise sensitive receivers (NSRs) that may be affected by the Project include:

- QESOSA Tong Kwok Wah Secondary School;
- Chiu Yang Por Yen Primary School;
- Man Kwan Pak Kau College;
- Maywood Court;
- Kenswood Court;
- Village type houses at Shing Uk Tsuen;
- Proposed public housing development at Wang Chau;
- Village type houses at Wang Chau Sai Tau Wai;
- Village type houses at Wang Chau Tung Tau Wai;
- I Shing Temple;
- Fu Ting Garden;
- Fuk Lai Garden;
- Village type houses at Wang Chau Fuk Hing Tsuen;
- Village type houses at Tung Tau Wai San Tsuen;
- The Parcville;
- Village type houses at San Pui Chung Hau Tsuen;
- Village type houses at Chung Hau Yu Man San Tsuen;



- Village type houses at Shan Pui Tsuen;
- Village type houses at Shan Pin Tsuen;
- Village type houses at Shan Pui Hung Tin Tsuen;
- Village type houses at Tung Tau Yuen;
- Village type houses at Tung Tau Tsuen;
- Village type houses at Tsoi Uk Tsuen;
- Village type houses at Ying Lung Wai;
- Village type houses at Tau Wai Tsuen;
- Village type houses at Wong Uk Tsuen;
- Village type houses at Small Traders New Village;
- Prestige;
- Pok Oi Hospital Jockey Club Care and Attention Home;
- Chinese Rhenish Church – Yuen Long;
- Village type houses at Tung Shing Lei;
- Park Yoho Venezia;
- Village type houses at Sha Po Tsuen;
- Village type houses at Mo Fan Heung;
- Planned residential developments at Sha Po; and
- Planned residential developments at Nam Sang Wai and Tung Shing Lei.

#### **Water Quality**

4.1.5 Key potential WSRs that may be affected by the Project include:

- Shan Pui River;
- Kam Tin River;
- Nam Sang Wai;
- Hong Kong Wetland Park Special Area;
- Fishponds and wet agricultural land north of Yuen Long Industrial Estate;
- Ha Mei San Tsuen Floodwater Pond;
- Ponds and watercourses distributed along the proximity of alignment; and
- Ponds at Nam Sang Wai.

#### **Ecology**

4.1.6 Key ecological sensitive receivers nearby that may be affected by the Project include:

Sites of Conservation Importance:

- Mai Po Inner Deep Bay Ramsar Site, and “Ramsar Site” Priority Site for Enhanced Conservation
- “Deep Bay Wetland outside Ramsar Site” Priority Site for Enhanced Conservation;
- Hong Kong Wetland Park Special Area;
- Proposed Hong Kong Wetland Park Expansion Area;
- Proposed Nam Sang Wai Wetland Conservation Park; and
- “Conservation Area” gazetted under approved Ping Shan OZP No. S/YL-PS/20, approved Lau Fau Shan & Tsim Bei Tsui OZP No. S/YL-LFS/11 and

approved Nam Sang Wai OZP No. S/YL-NSW/10.

Other Ecologically Sensitive Resources:

- Inner Deep Bay and Shenzhen River Catchment Important Bird Area (IBA) as recognised under BirdLife International;
- Wooded habitats (e.g. woodland, mixed woodland, and shrubland);
- Agricultural land;
- Wetland habitats (e.g. pond, modified and / or natural watercourse (such as Kam Tin Main Drainage Channel, which is a foraging ground for a number of waterbirds of conservation importance), marsh / reedbed, and mangrove);
- Species of conservation importance recorded within Assessment Area (e.g. Great Cormorant);
- Firefly hotspot (Tin Shui Wai) and breeding ground of Hong Kong Bent-winged Firefly (Nam Sang Wai);
- Avifauna breeding and roosting sites (Shan Pui River Egret, Sha Po ardeid night roost, Ko Po Road ardeid night roost, Great Cormorant night roost in Nam Sang Wai, and occasional ardeid night roost at the confluence of Shan Pui River and Yuen Long Nullah) and flight lines;
- Butterfly hotspot at Kai Shan;
- Existing mitigation planting area (along Shan Pui River);
- Existing compensation wetland (including Sha Po Marsh and Yuen Long Bypass Floodway Engineered Wetland); and
- Proposed compensation wetland (e.g. Proposed Comprehensive Development with Wetland Enhancement at Nam Sang Wai and Lut Chau); and
- Proposed bat shelter at Pok Wai under Northern Link.

**Fisheries**

4.1.7 Potential fisheries sensitive receivers that may be affected by the Project include:

- Active and inactive fishponds near Fung Lok Wai and Nam Sang Wai within the Assessment Area which support fisheries resources (aquaculture activities and aquaculture production).

**Landscape and Visual**

4.1.8 Relevant visual resources and public viewing points / viewers will be identified as the Project proceeds with more details in the EIA study. Key potential landscape resources, visual resources and key public viewing points that may be affected by the Project include:

Key Landscape with Distinctive Character / Resources:

- Vegetation in Conservation Areas near Hong Kong Wetland Park;
- Vegetation in Conservation Area near Kai Shan; and
- Wetland Area near Fung Lok Wai, Nam Sang Wai, Shan Pui River, Kam Tin River, etc.

Key Visual Resources:

- Mountain backdrop from Kai Shan and Chu Wong Ling;
- Wetlands at Fung Lok Wai and Nam Sang Wai;
- River channels at Shan Pui River and Kam Tin River; and
- Hong Kong Wetland Park

Key Public Viewing Points:

- Hikers' view at Kai Shan;
- Hikers' view at Ho Hok Shan;
- View at Nam Sang Wai / along Nam Sang Wai Road;
- View along Shan Pui River / Wang Lok Street / Shan Pui Ho East Road;
- View along Kam Tin River;
- View at Chu Wong Ling;
- Visitors of open spaces including Tin Yip Road Park, Dragon Park and a planned open space at the junction of Wetland Park Road / Tin Wah Road etc.;
- View corridor(s) as indicated in the approved Tin Shui Wai OZP No. S/TSW/18 such as view(s) along Tin Wah Road; and
- View corridor(s) as indicated in the approved Hung Shui Kiu and Ha Tsuen OZP No. S/HSK/2 such as view(s) along Tin Lung Road / Dragon Park.

**Cultural Heritage**

4.1.9 One (1) declared monument and twelve (12) graded historic buildings are identified within 300 m of the Project:

- I Shing Temple (Declared Monument);
- Pun Uk (Grade 1);
- Yu Yuen (Grade 2);
- No. 40 Fuk Hing Tseun (Grade 3);
- No. 41 Fuk Hing Tsuen (Grade 3);
- Lau Village House (63 Tung Shing Lei) (Grade 3);
- Lau Village House (65 Tung Shing Lei) (Grade 3);
- Lau Village House (66 Tung Shing Lei) (Grade 3);
- Lau Village House (67 Tung Shing Lei) (Grade 3);
- Lau Village House (Hak Sut Tong) (Grade 3);
- No. 158 Shan Pui (Grade 3);
- No. 191-197 Shan Pui (Grade 3); and
- No. 223-236 Shan Pui (Grade 3).

4.1.10 No SAI, proposed monument, and Government historic site identified by the AMO is located within 300 m of the Project. Any other cultural heritage resources within and in the vicinity of the proposed alignment will be identified and assessed in the EIA study.

**Hazard to Life**

- 4.1.11 There are various types of sensitive receivers along the alignment of the Project including populated areas, some potential facilities possibly involving DGs storage, man-made slopes, retaining walls, natural boulders, and potentially unstable terrain etc. Charge weights per delay will be controlled during blasting operations to minimize the hazards in case that Drill & Blast method would be adopted for tunnel construction.

## **5. ENVIRONMENTAL PROTECTION MEASURES TO BE INCORPORATED IN THE DESIGN AND FURTHER ENVIRONMENTAL IMPLICATIONS**

### **5.1 General**

- 5.1.1 As compared with the original alignment proposed under the Blueprint which would run across Nam Sang Wai, the current alignment of the Tin Shui Wai Section of NMH already avoids encroachment on the core areas of the Inner Deep Bay wetlands, Nam Sang Wai and Ramsar Site and only two short sections of the alignment run across Shan Pui River and Kam Tin River respectively to the south of Nam Sang Wai, thereby minimizing the potential impacts on the environment. The EIA study will investigate those environmental impacts (both cumulative impacts and those arising from the Project) and propose the appropriate mitigation measures with the intention that the Project would be environmentally acceptable and cost-effective. The residual impacts, if any, would be confined to within the allowable limits. Subject to the findings of the EIA study, environmental monitoring and audit of potential impacts that may arise from implementation of the works will be provided during construction and operation phases. The following mitigation measures would also be incorporated in the design and construction of the Project.

### **5.2 Measures to Minimize Environmental Impacts**

#### **Air Quality**

- 5.2.1 During construction phase, dust emissions from the related construction activities, such as excavation, mucking out of excavated rock and soil, materials handling, and exhaust emissions associated with construction machinery and construction vehicles etc., would be anticipated. Appropriate air quality control measures as stipulated in the Air Pollution Control (Construction Dust) Regulation along with good site practices will be implemented to control the air pollutant emissions. Subject to findings of EIA study, possible key mitigation measures, including but not limited to the following, will be considered if appropriate:
- Regular watering on all exposed and unpaved surface, excavation, and fill materials handling, particularly during dry weather;
  - Covering all excavated or stockpile of dusty materials by impervious sheeting or spraying with water to maintain the entire surface wet;
  - Provision of wheel washing facilities at construction site access;
  - Covering any dusty materials on vehicles before leaving the site;
  - Implementing speed control of vehicles on unpaved haul roads;
  - Erection of screen hoarding along the construction site boundary;
  - Following the Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation and Air Pollution Control (Fuel Restriction) Regulations (i.e. using liquid fuel with a sulphur content of less than 0.001% by weight) to control the exhaust emissions from construction equipment;
  - Connecting construction machinery to main electricity supply and avoiding the

use of diesel generators and diesel-powered machinery as far as practicable to minimize air quality impact arising from the construction machinery;

- Provision of blasting door at the portal of tunnel with air treatment system;
- The areas within 30 m of the blasting area should be wetted with water prior to blasting;
- Blasting should not be carried out when the strong wind signal or tropical cyclone warning signal No. 3 or higher is hoisted;
- Avoiding the use of exempted Non-road Mobile Machinery (NRMMs) as far as practicable;
- Deploying electrified NRMMs as far as practicable; and
- Planning the travelling route of construction vehicles on public roads as far as practicable in a way to minimise the air quality impact on ASRs.

5.2.2 During operation phase, the major source of air pollution will be the vehicular emissions from the NMH and associated slip roads. Besides, the vehicular emissions from the tunnel portals and ventilation buildings (if necessary) will also give rise to impacts on the air quality. Subject to findings of EIA study, possible key mitigation measures, including but not limited to the following, will be considered if appropriate:

- Provision of adequate buffer areas between the sources of emissions and the ASRs;
- Location and orientation of the ventilation buildings (if necessary) and tunnel portals to be away from the nearby ASRs;
- Alternative road alignment / tunnel portal exit of the Project for provision of sufficient buffer areas between the sources of emissions and the ASRs; and
- Other mitigation measures may be necessary subject to air quality assessment during the EIA stage.

### **Noise**

5.2.3 Subject to findings of EIA study, possible key measures to minimize construction noise impacts on nearby NSRs during construction phase would include:

- Use of quieter PME fitted with silencers / mufflers or alternative quieter construction methods;
- Provision of temporary / movable noise barriers and enclosures where practicable;
- Installation of temporary noise screening structures or barriers along the construction site boundary;
- Adoption of good site practices such as locating the noisy equipment and

activities as far away from nearby NSRs as practicable, providing proper maintenance of construction plants and limiting the use and number of equipment operating close to the NSRs;

- Proper planning of travelling route of the construction vehicles;
- Incorporating the noise control requirements stipulated in the "Recommended Pollution Control Clauses for Construction Contracts" of the Environmental Protection Department (EPD) into the construction works contract(s) for the Contractor to follow and implement relevant measures to minimising the construction noise impact; and
- Making reference to the ProPECC Note PN1/24 to plan and implement the Project, and the particular specifications shall be imposed in the construction contract(s) to avoid causing adverse construction noise impact on the nearby NSRs.

5.2.4 Subject to findings of EIA study, the following measures will be considered during operation phase to minimize noise impacts on nearby NSRs:

- Noise barriers / enclosures and low noise road surface materials will be provided for open road sections of the Project where necessary;
- Sound-absorbing materials may be required for tunnel portals where the NSRs are in their vicinity; and
- Suitable mitigation measures (e.g. proper orientation and location away from NSRs, silencers, acoustic louvres and acoustic enclosures, etc.) for the fixed plants of proposed facilities, including ventilation buildings (if necessary), satellite administration building / kiosk and other ancillary buildings (if necessary), should also be reviewed and considered in the EIA study.

### **Water Quality**

5.2.5 Subject to findings of EIA study, the following mitigation measures during construction phase will be adopted to prevent adverse impacts on nearby WSRs:

- Good site practice in accordance with the ProPECC PN 2/24 "Construction Site Drainage" and "Recommended Pollution Control Clauses for Construction Contracts" issued by EPD;
- Implementation of recommended pollution control clauses for construction contracts and guidelines under Environment, Transport and Works Bureau (ETWB) Technical Circular (Works) (TC(W)) No. 5/2005 "Protection of Natural Stream / Rivers from Adverse Impact arising from Construction Works");
- Construction surface runoffs should be properly collected by silt trap and oil interceptor to remove the oil, lubricants, grease, silt, grit and debris before being discharged to the public stormwater drainage system to ensure compliance with the Water Pollution Control Ordinance;
- Appropriate monitoring and mitigation measures should be developed for groundwater control (e.g. probing ahead and pre-grouting during tunnel

construction, and installation of waterproof lining after the formation of the tunnel) to minimize the potential groundwater drawdown / infiltration due to tunnel construction;

- Proper construction techniques should be employed to prevent sediment release during construction. Stringent site sediment control and mitigation measures should be implemented to prevent elevation of suspended solids;
- Flow diversion should be conducted prior to the construction works to prevent water from overflowing into the surrounding area;
- Flow diversion should be conducted in dry season as far as practicable, when the flow is low;
- Construction works at the existing ponds should be conducted only after dewatering of these ponds is fully completed;
- Water in existing ponds should be sampled and pre-treated (if required) before discharging; and
- Proper management of the drained water and sediment should be implemented to prevent their release into existing watercourses.

5.2.6 Subject to findings of EIA study, the following measures will be incorporated for the Project to minimize the water quality impacts on nearby WSRs during operation phase:

- Appropriate mitigation measures in accordance with the ProPECC PN1/23 “Drainage Plans subject to Comment by the Environmental Protection Department - Building (Standards of Sanitary Fittings, Plumbing, Drainage Works and Latrines) Regulations” issued by EPD;
- Adopting storm drainage system to collect the surface runoffs from the road by silt trap and oil interceptor to remove silt / grit and oil before discharging; and
- Adopting sewerage system to collect the wastewater generated from the Project and connecting the system to the existing sewerage network in the region.

### **Ecology**

5.2.7 Subject to findings of EIA study, the following mitigation measures during construction phase will be considered to avoid, minimize and compensate the ecological impacts:

- Avoid / minimize direct encroachment on sites of conservation importance and ecologically sensitive habitats;
- Avoid / minimize habitat fragmentation and unnecessary disturbance to the natural habitats;
- Establish buffer area and implement seasonal control on construction activities, where necessary;
- Adopt alternative design or construction methods where necessary;



- Carefully plan the placement of equipment and stockpile area in the designated area within existing disturbed lands;
- Compensation for unavoidable loss, if any, of important natural habitats;
- Translocation / transplantation of unavoidably affected species of conservation importance with low mobility;
- Maintaining flight lines by refining design;
- Maintaining animal movement corridor by inclusion of wildlife corridor / underpass; and
- Good site practices and mitigation measures aiming to reduce impacts from air, noise and water pollution, as well as to minimize the potential groundwater drawdown / infiltration due to tunnel construction (as stated in **Sections 5.2.1, 5.2.3 and 5.2.5**). These would also minimize potential impacts on the ecological resources.

5.2.8 During operation phase, subject to findings of EIA study, appropriate measures, including but not limited to traffic noise and water quality control measures as stated in **Sections 5.2.4 and 5.2.6**, and control of direction / intensity of light not spilling into the sensitive areas, should be incorporated into the design of the Project to avoid / minimize the potential ecological impacts.

#### **Fisheries**

5.2.9 The site boundary of the proposed Tin Shui Wai Section of NMH alignment may cover some fishponds. The foundation location of the proposed viaducts should be designed to avoid permanent encroachment onto fishponds as far as practicable such that only the superstructure (both mainline and slip roads) will span over the fishponds. As there would be no filling of ponds, no direct loss of fishponds is expected. Hence, impact to fisheries resources is minimal.

5.2.10 Good site practices for the control of construction site runoff should be fully implemented to minimise impacts on the ponds in vicinity of the Project. Careful planning of works and adoption of good site practices would be recommended to minimize potential fisheries impacts, where appropriate.

#### **Landscape and Visual**

5.2.11 Mitigation measures to minimize landscape impact during both construction and operation phases and visual impact during operation phase should be comprehensively reviewed.

5.2.12 The following mitigation measures will be considered during construction phase subject to the investigation and the findings of EIA study:

- Tree preservation in accordance with Development Bureau (DEVB) TC(W) No. 4/2020 and TC(W) No. 5/2020;
- Implementation of good site practices for preservation and protection of the existing natural streams in accordance with ETWB TC(W) No. 5/2005;
- Minimize disturbance to Conservation Areas nearby;
- Minimize disturbance to Kam Tin River, Shan Pui River and watercourses

nearby;

- Erection of decorative screen hoarding or hoarding compatible with the surrounding areas;
- Management of construction activities and facilities; and
- Reinstatement of temporarily disturbed landscape areas.

5.2.13 The following mitigation measures will be considered during operation phase subject to the investigation and the findings of EIA study:

- Trees and shrubs will be planted to provide adequate greening, screening, and mitigation, and to minimize visual impact of the Project, where appropriate;
- Sensible locations of viaducts alignment, columns and tunnel portals to minimize impact on existing trees and adjoining existing, planned and potential developments;
- Tree transplanting and compensatory planting for compensation of the loss of existing vegetation (including trees and shrubs). In case loss of vegetation in woodland are unavoidable, compensation in native woodland mix will be provided to mitigate the impact and enhance the biodiversity;
- Aesthetically pleasing design and responsive design will be adopted for aboveground structures (e.g. tunnel portals and ventilation buildings (if necessary)). Buffer planting will be provided near portals to reduce their apparent size / scale and to visually screen and soften the structures to enhance the landscape and visual quality;
- Aesthetic design will be adopted for the road structures such as slip roads, viaducts and tunnel portals, and slope associated structures to alleviate the impacts. Road structures will be designed with considerations and suitable measures to minimize the visual impact of the road corridor. Submission to Advisory Committee on the Appearance of Bridges and Associated Structures (ACABAS) in respect of the aesthetic design of the structures associated with the public highway system in accordance with ETWB TC(W) No. 36/2004 will be made during preliminary design;
- In case the provision of noise mitigation measures is required, alternative design that would avoid or reduce the identified impacts on landscape; and / or visual amenity shall be first thoroughly examined before adopting other mitigation (e.g. noise barrier) or compensatory measures to alleviate the impacts; and
- The visual impact of noise mitigation measures, including noise barriers (if necessary), will be mitigated by appropriate design, which includes the use of transparent panels, appropriate colour selection of panels and supporting structures, and design of supporting structures, to incorporate a high level of quality and aesthetics.

### **Cultural Heritage**

- 5.2.14 A Cultural Heritage Impact Assessment, including the Built Heritage Impact Assessment and Archaeological Impact Assessment, will be carried out during the EIA stage to assess the potential impacts on cultural heritage during construction and operation phases. Impacts on cultural heritage resources should be avoided as far as practicable. If unavoidable, mitigation measures to minimise the impacts on cultural heritage will be proposed and implemented with prior agreement with the AMO.

### **Waste Management**

- 5.2.15 The waste management hierarchy aims to minimize the waste generation. During construction phase, standard waste management measures shall be implemented to manage the C&D waste generated from the construction works, including sorting and reusing the C&D materials (including excavated soil) on site or other concurrent projects as far as practicable, implementation of trip-ticket system in accordance with the requirements stipulated in DEVB TC(W) No. 6/2010 Trip Ticket System for Disposal of Construction & Demolition Materials. For chemical waste generated during construction stage, appropriate sorting, handling, storage and disposal by registered and licensed waste hauliers will be adopted in accordance with the Waste Disposal Ordinance (Cap. 354) and Waste Disposal (Chemical Waste) (General) Regulation (Cap. 354C). Subject to findings of EIA study, a material / waste management plan will be established prior to commencement of excavation and construction work to outline the methods that can be incorporated into the Project for waste minimization, including reuse, recycle, matching disposal with other projects, handling, storage, transportation and disposal of expected waste materials.
- 5.2.16 During operation phase, waste collectors shall be employed to remove general refuse and chemical waste, if any, generated from satellite administration building / kiosk / ventilation buildings (if necessary) on a regular basis. Reuse and removal of recyclables shall be encouraged. Collection bins for used aluminium cans, wastepaper, plastics, and glass bottles are recommended to be provided at the satellite administration building / kiosk. The recyclables shall be collected by a recycler on a regular basis.

### **Land Contamination**

- 5.2.17 Site appraisal should be carried out during the EIA study to identify if there are any potential soil / groundwater contaminations within the Project area and any associated works area. Site investigation and land contamination assessment should be conducted prior to the construction works at the concerned area. Based on the findings of site investigation and assessment, appropriate remediation strategies / options should be detailed in a Remediation Action Plan if contamination is identified. Upon completion of the remediation works, if any, a Remediation Report demonstrating that the clean-up works has been adequately carried out should be submitted to EPD for endorsement prior to commencement of any construction / development works.

### **Hazard to Life**

- 5.2.18 Potential hazards associated with the transport and use of explosives will be assessed. Close liaison with the Mines Division of Civil Engineering and Development Department will be maintained. Necessary safety precautions and control measures will be proposed during the EIA study.

### **5.3 Severity, Distribution and Duration of Environmental Effects**

- 5.3.1 Subject to the findings of assessments, effective control and mitigation measures would be identified to ensure the impacts are at acceptable levels. 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 transboundary effects, will be considered and addressed in the EIA study, where applicable.

### **5.4 Further Implication**

- 5.4.1 Close co-ordination with relevant authorities, particularly EPD, and other interfacing projects will be necessary. Public consultation will be arranged once sufficient information is available.
- 5.4.2 The proposed alignment of the Tin Shui Wai Section of NMH already avoids encroachment onto areas with high ecological values as much as possible, in order to minimise potential impacts to habitats and potential disturbance to the adjacent natural environment. During both construction and operation phases, environmental monitoring and auditing will be conducted to ensure that the proposed mitigation measures are properly implemented.

## 6. USE OF PREVIOUSLY APPROVED EIA REPORTS

- 6.1.1 There is no previously approved EIA report under EIAO for the Project. Nonetheless, reference may be made to the following previously approved EIA reports and will be referred to in the subsequent EIA study:

<b>Register No.</b>	<b>Title</b>
AEIAR-026/1999	Tin Shui Wai Phase 4 Rail Extension
AEIAR-027/1999	Light Rail Transit (LRT) Extension in Tin Shui Wai Reserve Zone and Grade Separation of the LRT with Pui To Road and Tsing Lung Road in Tuen Mun
AEIAR-132/2009	Improvement to Pok Oi Interchange
AEIAR-220/2019	Yuen Long Effluent Polishing Plant
AEIAR-223/2020	Improvement of Yuen Long Town Nullah (Town Centre Section)
AEIAR-228/2021	Yuen Long Barrage Scheme
AEIAR-259/2024	Northern Link



## Figure

*Indicative Layout Plan For Northern Metropolis Highway  
– Tin Shui Wai Section*





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Plot File by: YangKO 8/21/2025  
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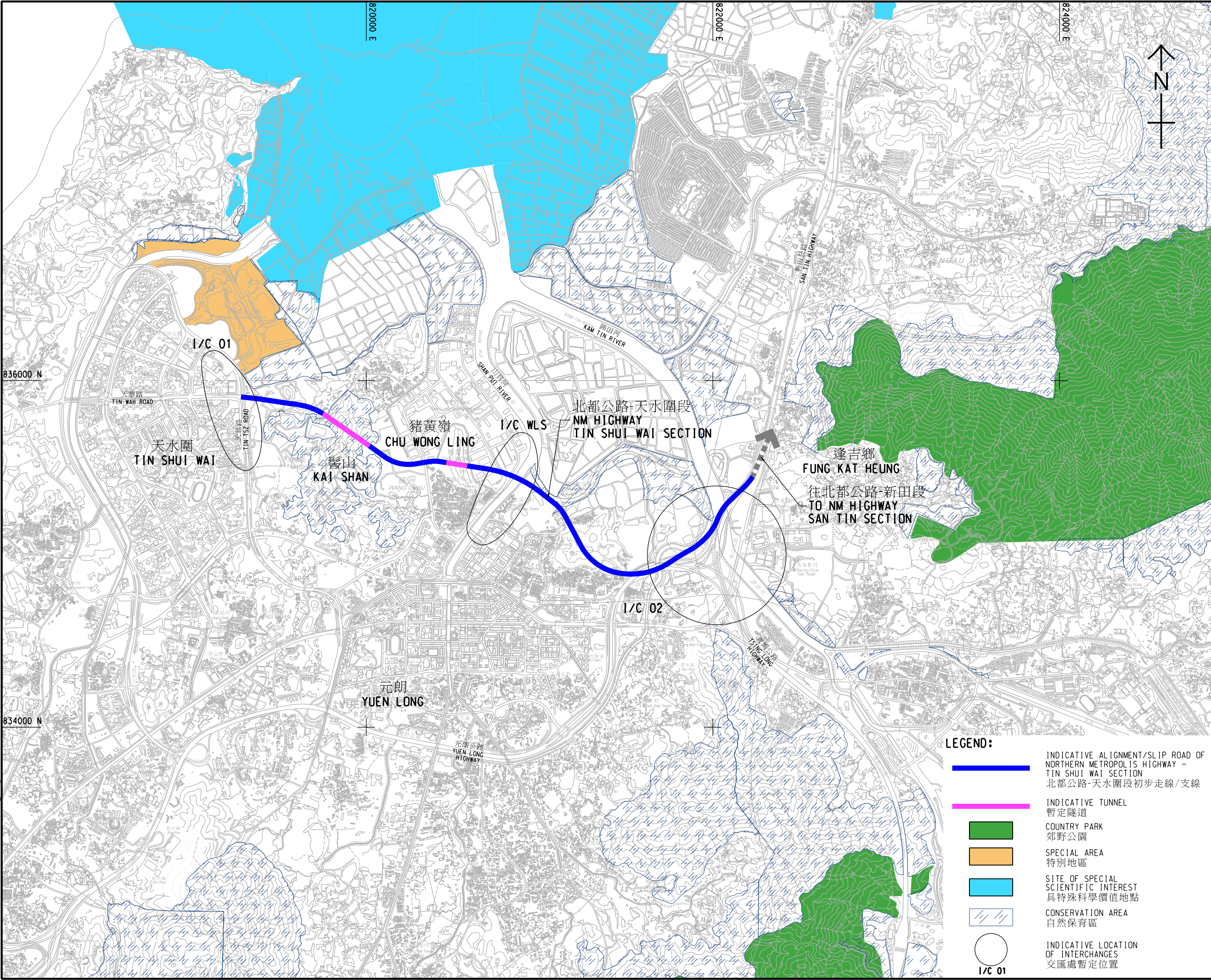
ISO A1 841mm x 594mm

Approved:

Checked:

Designer:

Project Management Initials:



**LEGEND:**

- INDICATIVE ALIGNMENT/SLIP ROAD OF NORTHERN METROPOLIS HIGHWAY - TIN SHUI WAI SECTION  
北都公路-天水圍段初步走線/支線
- INDICATIVE TUNNEL  
暫定隧道
- COUNTRY PARK  
郊野公園
- SPECIAL AREA  
特別地區
- SITE OF SPECIAL SCIENTIFIC INTEREST  
具特殊科學價值地點
- CONSERVATION AREA  
自然保育區
- INDICATIVE LOCATION OF INTERCHANGES  
交匯處暫定位置

I/C 01

PROJECT  
項目

NORTHERN METROPOLIS  
HIGHWAY -  
INVESTIGATION STAGE  
北都公路-勘察研究

CLIENT  
業主

路政署  
HIGHWAYS  
DEPARTMENT

CONSULTANT  
工程顧問公司

AECOM - ATKINSREALIS JOINT VENTURE

SUB-CONSULTANTS  
分判工程顧問公司

ISSUE/REVISION 修訂			
I/R 修訂	DATE 日期	DESCRIPTION 內容簡要	CHK. 校核

STATUS  
階段

SCALE  
比例  
A3 1 : 30000

DIMENSION UNIT  
尺寸單位  
METRES  
米

KEY PLAN  
索引圖

PROJECT NO.  
項目編號  
60750817/R30.1/FIGURE 1

AGREEMENT NO.  
協議編號  
CE 4/2024(HY)

SHEET TITLE  
圖紙名稱

INDICATIVE LAYOUT PLAN FOR  
NORTHERN METROPOLIS HIGHWAY -  
TIN SHUI WAI SECTION  
北都公路-天水圍段初步走線平面圖

SHEET NUMBER  
圖紙編號

60750817/R30.1/FIGURE 1  
60750817/R30.1/圖 1

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