

**For discussion
on 16 June 2023**

Legislative Council Panel on Transport

806TH– Dualling of Hiram’s Highway from Marina Cove to Sai Kung Town

PURPOSE

This paper seeks Members’ views on the funding application for upgrading **806TH** “Dualling of Hiram’s Highway from Marina Cove to Sai Kung Town” (the Project) to Category A.

PROJECT SCOPE AND NATURE

2. The proposed scope of works under the Project comprises –
 - (a) widening of two sections of Hiram’s Highway of approximately 3.5 kilometres (km) in total length between Marina Cove and Pak Sha Wan, and between Pak Sha Wan and Sai Kung Town from the existing single two-lane carriageway to a dual two-lane carriageway;
 - (b) widening of the Pak Sha Wan section of Hiram’s Highway of approximately 100 metres (m) in length from the existing single two-lane carriageway to a single four-lane carriageway;
 - (c) widening of a section of Po Tung Road of approximately 400m in length between Yau Ma Po Street and Fuk Man Road from the existing single two-lane carriageway to a dual two-lane carriageway;
 - (d) improvement of a section of Po Tung Road and Tai Mong Tsai Road of approximately 600m in total length between Fuk Man Road and Wai Man Road to a single two-lane carriageway in accordance with current standards;
 - (e) construction of a subway across Hiram’s Highway with associated lifts in Pak Sha Wan; and
 - (f) ancillary works including drainage, waterworks, slope stabilisation, public lighting, noise barriers, landscaping works as well as other associated works.

3. A layout plan and cross sections of the Project are at **Enclosure**. We plan to commence the design and construction contract¹ of the Project upon obtaining funding approval from the Finance Committee (FC) and expect to substantially complete the works in about eight years.

JUSTIFICATIONS

4. Hiram's Highway is the only major road connecting Sai Kung to East Kowloon and Tseung Kwan O. At present, the volume/capacity (v/c) ratio² of the section of Hiram's Highway between Marina Cove and Sai Kung Town and Po Tung Road during peak hours on weekdays and weekends ranges from 1.0 to 1.2, indicating that the traffic volume of the concerned road sections is already operating over their design capacities. Based on the traffic impact assessment, the continued traffic growth will lead to further congestion on the concerned roads. The v/c ratio is expected to reach around 1.5 during peak hours on weekdays and weekends in 2037. Nevertheless, it is anticipated that the v/c ratio of the aforementioned road sections will decrease to 0.54 with the implementation of the Project.

5. The section of Hiram's Highway between Marina Cove and Sai Kung Town and Po Tung Road are single two-lane carriageways, with one Sai Kung bound lane and one Kowloon bound lane. In case of any unexpected incidents such as traffic accidents or emergency maintenance works, which require temporary closure of one of the lanes, both Sai Kung bound and Kowloon bound traffic can only use the remaining lane, resulting in serious traffic congestion.

6. Therefore, we propose providing one additional lane for each of the Sai Kung bound and Kowloon bound for the section of Hiram's Highway between Marina Cove and Sai Kung Town and Po Tung Road to relieve the existing traffic congestion, cope with the anticipated traffic growth and enhance the resilience of the concerned roads to unexpected incidents. In light of the road widening works,

¹ As the Project is multi-faceted and due to the presence of village houses and shops along both sides of the road, there is limited space for works area. In addition, the number of existing lanes and the vehicular access on both sides of the road will need to be maintained during construction, which involves complicated temporary traffic arrangement and will also increase the construction difficulty, and thus require higher level of construction technical requirements. Therefore, we will engage the contractor to carry out the detailed design in such a way that the design would be complementary with the previous experience, construction technology and resources (such as construction plant) of the contractor to facilitate smooth implementation of the Project.

² Volume/capacity (v/c) ratio is an indicator of the performance of a road. A v/c ratio equal to or less than 1.0 means that a road has sufficient capacity to cope with the volume of vehicular traffic and the traffic flow will be smooth. A v/c ratio above 1.0 indicates the onset of congestion. A v/c ratio above 1.2 indicates more serious congestion with traffic speeds deteriorating progressively as a result of further increase in traffic.

we will re-provision the affected sitting-out areas, public toilets and refuse collection points, etc.

7. Furthermore, we will enhance the design of the abovementioned roads, including the construction of a new subway near Pak Sha Wan to facilitate pedestrians crossing the widened Hiram's Highway; improvement of road curvature to provide better sight-lines for road users, thereby enhancing road safety; widening most of the footpaths to 2m in width and provision of additional bus bays along the roads; and provision of noise barriers to mitigate the noise impact on nearby residents, etc. We will also improve a section of Po Tung Road and Tai Mong Tsai Road between Fuk Man Road and Wai Man Road to a single two-lane carriageway in accordance with current standards, and carry out replacement works of the associated watermains and drainage/sewerage laying works to improve the relevant infrastructures.

FINANCIAL IMPLICATIONS

8. The preliminary estimate of the capital cost of the Project is about \$3,208.90 million in money-of-the-day (MOD) prices.

PUBLIC CONSULTATION

9. The Highways Department (HyD) has consulted Sai Kung District Council (SKDC) and major stakeholders along Hiram's Highway, Po Tung Road and Tai Mong Tsai Road on multiple occasions since 2013 to collect the public's views on the Project. Successive SKDC had appealed to and requested the Government to improve the concerned road sections of Hiram's Highway for many years. In this regard, HyD has conducted a number of consultation activities, including local consultation sessions and public forums to explain the latest road scheme of the Project, and listen to public's views as well as their concerns. In the course of formulating the proposed road scheme, HyD has taken into account the views expressed by major stakeholders and optimised the design of the proposed road works as far as practicable, with a view to better responding to the public's needs and minimising the impact on the residents. HyD consulted SKDC on the Project on 6 November 2018 and 2 July 2019 respectively, and obtained the support of SKDC.

10. The scheme and plan of the Project were gazetted under the Roads (Works, Use and Compensation) Ordinance (Cap. 370) ("Ordinance") on 3 and 10 January 2020 respectively. The views received during the statutory period were mainly related to the necessity of the proposed works/diverging views over the design/potential impact during the construction; the impact of the proposed works on the environment/cultural heritage and rural character; involvement of partial land resumption and clearance of land; and insufficient consultation. HyD has

provided written responses to the comments and arranged meetings with the objectors to explain the objective and details of the Project. In response to the comments, HyD has further revised the scope of works and the road scheme to optimise the alignment and design of the scheme to reduce the extent of land to be resumed and cleared, as well as the impact on the affected persons. An amendment scheme was gazetted on 20 and 27 November 2020 accordingly.

11. The road scheme as well as the amendment scheme were then submitted to the Chief Executive-in-Council for consideration. Having considered the respective views, the Chief Executive-in-Council authorised the Project in accordance with the Ordinance. The relevant authorisation notice of the Project was gazetted on 29 October and 5 November 2021 respectively.

12. HyD has consulted the Advisory Committee on the Appearance of Bridges and Associated Structures (ACABAS)³ on the preliminary aesthetic designs of the noise barriers, subway and retaining walls of the Project. HyD will further consult ACABAS upon completion of the detailed design of the Project.

ENVIRONMENTAL IMPLICATIONS

13. The Project is not a designated project under Schedule 2 of the Environmental Impact Assessment Ordinance (Cap. 499). Nevertheless, HyD has completed an Environmental Review on the Project. Based on the review result, with the implementation of appropriate mitigation measures (e.g. provision of noise barriers and low-noise road surfacing materials), the Project will not cause adverse impact on the environment.

14. To minimise the impact on the environment during construction, HyD will implement suitable mitigation measures, including the adoption of quiet powered mechanical equipment, movable temporary noise barriers, regular water spraying at works sites and provision of wheel-washing facilities to minimise the noise impact and dust generation during construction. The cost of implementing such measures has been included in the project estimates.

15. During the planning and design stages, HyD has considered the alignment, design and construction procedures of the proposed works with a view to reducing the generation of construction waste where possible. In addition, HyD

³ The membership of ACABAS comprises representatives of the Hong Kong Institute of Architects, the Hong Kong Institution of Engineers, the Hong Kong Institute of Planners, Architectural Services Department, HyD, Housing Department, Civil Engineering and Development Department, and a representative from the architecture or relevant faculty of a local academic institution. It is responsible for vetting the design of bridges and other structures associated with the public highway system from the aesthetic and visual impact points of view.

will require the contractor to reuse inert construction waste (e.g. use of excavated materials for backfilling) on site or in other suitable construction sites as far as possible in order to minimise the disposal of inert construction waste at public fill reception facilities⁴. HyD will encourage the contractor to maximise the recycling of or the use of recyclable inert construction waste, and the use of non-timber formwork to further reduce the generation of construction waste.

16. At the construction stage, HyD will require the contractor to submit for approval a plan setting out the waste management measures which shall include appropriate mitigation measures to avoid and reduce the generation of inert construction waste, and to reuse and recycle such waste. HyD will ensure that the day-to-day operations on site comply with the approved plan and will require the contractor to separate the inert portion from non-inert portion of construction waste for disposal at appropriate facilities. HyD will control the disposal of inert construction waste and non-inert construction waste at public fill reception facilities and landfills respectively through a trip-ticket system.

17. HyD estimates that the Project will generate in total about 365 000 tonnes of construction waste. Of these, about 158 000 tonnes (43%) of inert construction waste will be reused on site while about 162 000 tonnes (45%) of inert construction waste will be delivered to public fill reception facilities for subsequent reuse. The remaining about 45 000 tonnes (12%) of non-inert construction waste will be disposed at landfills. The total cost of disposal of construction waste at public fill reception facilities and landfill sites is estimated to be about \$20.5 million for the Project (based on a unit charge rate of \$71 per tonne for disposal at public fill reception facilities and \$200 per tonne at landfills as stipulated in the Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 354N)).

HERITAGE IMPLICATIONS

18. The Project will not affect any heritage site, i.e. all declared monuments, proposed monuments, graded historic sites / buildings / structures, sites of archaeological interest, all sites/ buildings / structures in the new list of proposed grading items; and Government historic sites identified by the Antiquities and Monuments Office.

⁴ Public fill reception facilities are specified in Schedule 4 of the Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 354N). Disposal of inert construction waste in public fill reception facilities requires a licence issued by the Director of Civil Engineering and Development.

TREE IMPLICATIONS

19. There are about 2 270 trees within the project boundary, among which about 100 trees will be preserved. In order to make way for carrying out the proposed road widening works, the Project will require the transplanting of about 25 trees to other locations within the project boundary (among which 8 are trees of particular interest⁵). The remaining of about 2 145 trees were assessed to be unsuitable for transplanting according to the tree survey and will be felled (among which 12 are trees of particular interest, including 10 *Aquilaria sinensis* and 2 *Ormosia pachycarpa*). HyD will incorporate planting proposals into the Project so that the number of the trees to be planted will be similar to that affected by the Project.

LAND ACQUISITION

20. The Project requires the resumption of about 11 830 square metres (m²) of private land and clearance of about 178 070 m² of government land. The cost of land resumption and clearance of land is estimated to be about \$359.44 million and will be charged to **Head 701 – Land Acquisition**.

TRAFFIC IMPLICATIONS

21. The Project will maintain the existing number of traffic lanes and the access points on both sides of the road during construction, and will not cause significant traffic impact. To facilitate the construction works, HyD will implement temporary traffic arrangements (TTA) and set up a traffic management

⁵ Trees of particular interest are defined in paragraph 2.6.1 of the Guidelines for Tree Risk Assessment and Management Arrangement promulgated by the Development Bureau. Examples of trees of particular interest are listed as follows -

- Old and Valuable Trees (OVTs) and trees that are potentially registrable in the Register of OVTs;
- Trees of 100 years old or above;
- Trees with trunk diameter equal to or exceeding 1 m (measured at 1.3 m above ground level), or with height/canopy spread equal to or exceeding 25 m;
- Stonewall trees or trees of outstanding form (taking account of overall tree sizes, shape and any special features);
- Rare tree species listed in “Rare and Precious Plants of Hong Kong” (<https://www.herbarium.gov.hk/en/publications/books/book2/index.html>) published by the Agriculture, Fisheries and Conservation Department;
- Endangered plant species protected under the Protection of Endangered Species of Animals and Plants Ordinance (Cap. 586);
- Tree species listed in the Forestry Regulations (Cap. 96A) under the Forests and Countryside Ordinance (Cap. 96);
- Well-known Fung Shui trees;
- Landmark trees with evidential records to support the historical or cultural significance of the trees;
- Trees which may arouse widespread public concerns; and
- Trees which may be subject to strong local objections on removal.

liaison group to discuss and vet the TTA. This group comprises representatives from the contractor, the Hong Kong Police Force, the Transport Department and other relevant government departments. HyD will specify requirements for implementing the TTA in the works contract to minimise the traffic impact during construction. HyD will also display publicity boards on site, providing details of the TTA and the anticipated completion dates of individual sections of works. In addition, HyD will set up a telephone hotline for public enquiries or complaints.

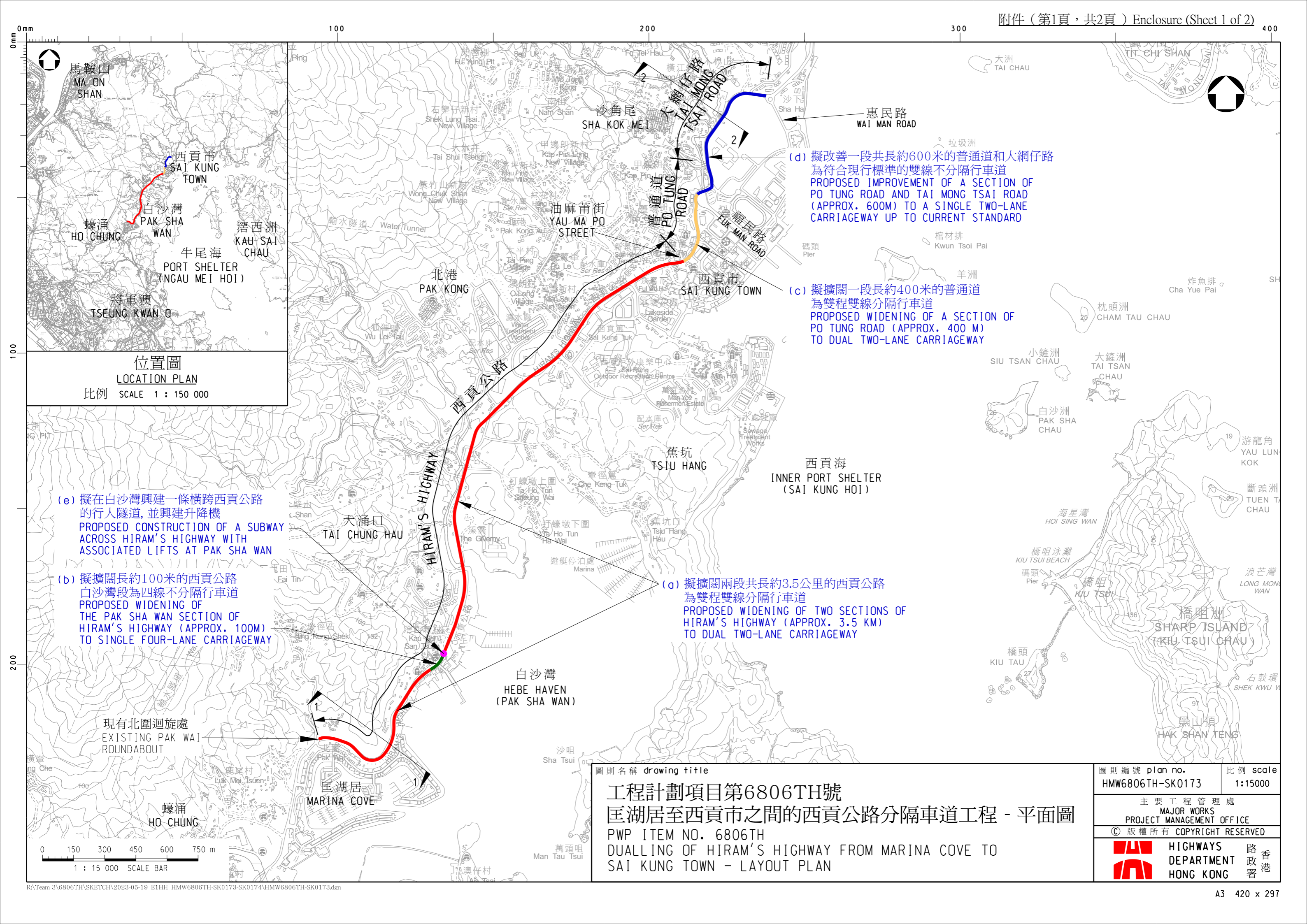
BACKGROUND

22. HyD commenced the site investigation and preparation of tender documents for the Project in April 2022, the cost of which was about \$27.7 million. It was funded by block allocation **Subhead 6100TX** “Highway works, studies and investigations for items in Category D of the Public Works Programme”. The site investigation helps finalise the scope and cost estimate of the Project for seeking funding approval from the FC.

WAY FORWARD

23. After consulting the Panel on Transport, we plan to submit the proposal for upgrading the project of **806TH** as mentioned in paragraph 2 above to Category A to the Public Works Subcommittee to seek its support, and to seek funding approval from the FC.

Transport and Logistics Bureau
Highways Department
June 2023



位置圖
LOCATION PLAN
比例 SCALE 1 : 150 000


(e) 擬在白沙灣興建一條橫跨西貢公路的行人隧道, 並興建升降機
PROPOSED CONSTRUCTION OF A SUBWAY ACROSS HIRAM'S HIGHWAY WITH ASSOCIATED LIFTS AT PAK SHA WAN

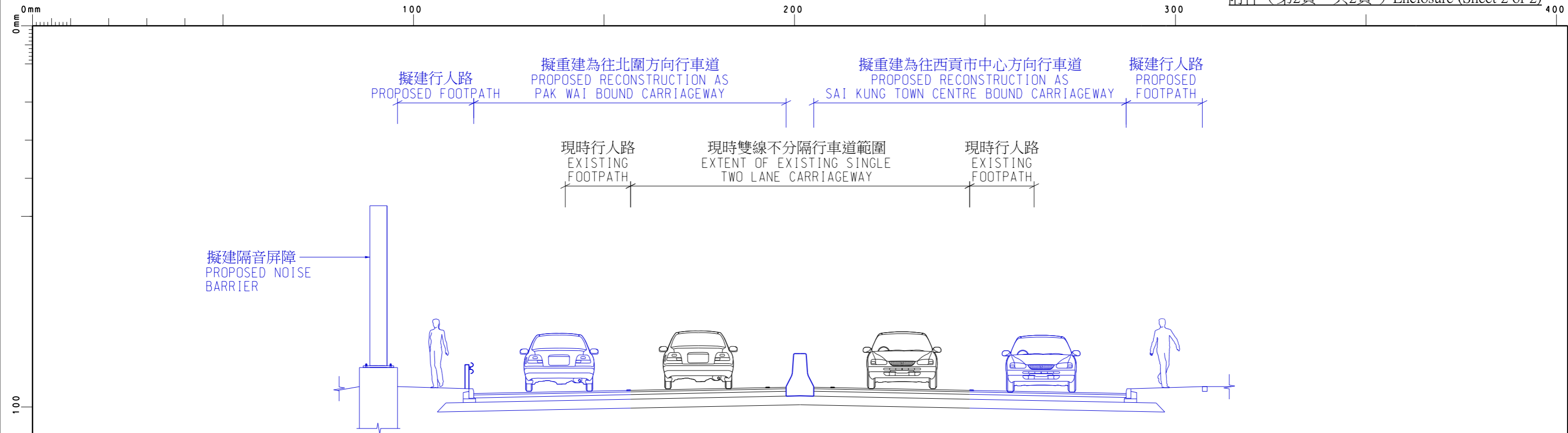
(b) 擬擴闊長約100米的西貢公路白沙灣段為四線不分隔行車道
PROPOSED WIDENING OF THE PAK SHA WAN SECTION OF HIRAM'S HIGHWAY (APPROX. 100M) TO SINGLE FOUR-LANE CARRIAGEWAY

(a) 擬擴闊兩段共長約3.5公里的西貢公路為雙程雙線分隔行車道
PROPOSED WIDENING OF TWO SECTIONS OF HIRAM'S HIGHWAY (APPROX. 3.5 KM) TO DUAL TWO-LANE CARRIAGEWAY

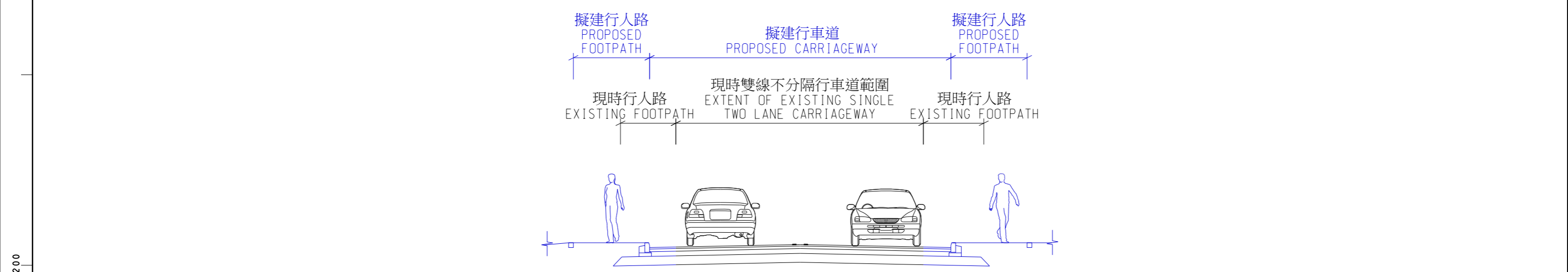
(d) 擬改善一段共長約600米的普通道和大網仔路為符合現行標準的雙線不分隔行車道
PROPOSED IMPROVEMENT OF A SECTION OF PO TUNG ROAD AND TAI MONG TSAI ROAD (APPROX. 600M) TO A SINGLE TWO-LANE CARRIAGEWAY UP TO CURRENT STANDARD

(c) 擬擴闊一段長約400米的普通道為雙程雙線分隔行車道
PROPOSED WIDENING OF A SECTION OF PO TUNG ROAD (APPROX. 400 M) TO DUAL TWO-LANE CARRIAGEWAY

圖則名稱 drawing title	圖則編號 plan no.	比例 scale
工程計劃項目第6806TH號 匡湖居至西貢市之間的西貢公路分隔車道工程 - 平面圖 PWP ITEM NO. 6806TH DUALLING OF HIRAM'S HIGHWAY FROM MARINA COVE TO SAI KUNG TOWN - LAYOUT PLAN	HMW6806TH-SK0173	1:15000
主要工程管理處 MAJOR WORKS PROJECT MANAGEMENT OFFICE		
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 HIGHWAYS DEPARTMENT HONG KONG		路政署



切面 SECTION 1-1



切面 SECTION 2-2

圖則名稱 drawing title

工程計劃項目第6806TH號
 匡湖居至西貢市之間的西貢公路分隔車道工程 - 切面圖
 PWP ITEM NO. 6806TH
 DUALLING OF HIRAM'S HIGHWAY FROM MARINA COVE TO
 SAI KUNG TOWN - SECTION

圖則編號 plan no. HMW6806TH-SK0174 比例 scale N.T.S

主要工程管理處
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 PROJECT MANAGEMENT OFFICE
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