

For discussion
on 10 April 2024

PWSC(2024-25)1

ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 707 – NEW TOWNS AND URBAN AREA DEVELOPMENT

Civil Engineering – Land Development

787CL – Hung Shui Kiu/Ha Tsuen New Development Area Advance Works Phase 3

829CL – Hung Shui Kiu/Ha Tsuen New Development Area Stage 2 Works

HEAD 705 – CIVIL ENGINEERING

Civil Engineering – Multi-purpose

54CG – The District Cooling System for Hung Shui Kiu/Ha Tsuen New Development Area, Phase 1

HEAD 701 – LAND ACQUISITION

Civil Engineering – Land Acquisition

38CA – Special Ex-gratia Cash Allowance for the Second Phase development for the Hung Shui Kiu/Ha Tsuen New Development Area

Members are invited to recommend to the Finance Committee (FC) –

- (a) upgrading of the remaining parts of **787CL** and **829CL** to Category A for carrying out site formation and engineering infrastructure works to support the Second Phase development of Hung Shui Kiu/Ha Tsuen New Development Area (HSK/HT NDA) covering Advance Works Phase 3 under **787CL** and Stage 2 Works under

/829CL

829CL, at estimated costs of **\$5,674.8 million and \$20,272.0 million** in money-of-the-day (MOD) prices respectively;

- (b) upgrading of part of **54CG** to Category A, as **55CG** entitled “the District Cooling System (DCS) for HSK/HT NDA, Phase 1 (Stage 1 Works)” for carrying out the pipe laying works connecting to the DCS in HSK/HT NDA, Phase 1 to tie in with HSK/HT NDA Second Phase development, at an estimated cost of **\$3,216.3 million¹** in MOD prices; and
- (c) allocation of **\$20.4 million** to Subhead **38CA** under **Head 701 – Land Acquisition** to meet payment of Special Ex-gratia Cash Allowance (SEGCA) to eligible domestic households affected by the clearance for HSK/HT NDA Second Phase development.

PROBLEM

HSK/HT NDA is being implemented in three phases². We need to commence the construction works for the Second Phase development progressively from the first half of 2024. We also need to implement a DCS in the HSK/HT NDA and to set aside sufficient provision for payment of SEGCA to eligible households.

/PROPOSAL

¹ As compared with the submission considered by the Panel on Development in January 2024, the estimated cost has been revised downward from \$3,270.8 million to the present \$3,216.3 million based on returned tender prices.

² The three phases are:

First Phase	Second Phase	Remaining Phase
LegCo approved funding in June 2020 - Advance Works Phases 1 and 2 (845CL) and Stage 1 Works (796CL)	Funding application under this paper - Advance Works Phase 3 (787CL) and Stage 2 Works (829CL)	Item to be created – part of the area incorporated into development proposal of Lau Fau Shan, Tsim Bei Tsui and Pak Nai (Lau Fau Shan) now under public engagement.

PROPOSAL

2. The Director of Civil Engineering and Development, with the support of the Secretary for Development (SDEV), proposes to upgrade the remaining parts of **787CL** and **829CL** projects to Category A at estimated costs of **\$5,674.8 million** and **\$20,272.0 million** in MOD prices respectively, for carrying out site formation and engineering infrastructure works under Advance Works Phases 3 and Stage 2 Works respectively to support the Second Phase development of HSK/HT NDA.

3. The Director of Electrical and Mechanical Services, with the support of the Secretary for the Environment and Ecology, proposes to upgrade part of **54CG** project to Category A, as **55CG** entitled “The District Cooling System for Hung Shui Kiu/Ha Tsuen New Development Area, Phase 1 (Stage 1 Works)” at an estimated cost of **\$3,216.3 million** in MOD prices, for carrying out the pipe laying works connecting to the DCS in HSK/HT NDA, Phase 1 (Stage 1 Works) to tie in with HSK/HT NDA Second Phase development.

4. The Director of Lands, with the support of SDEV, proposes to inject an estimated total cost of **\$20.4 million** for **Subhead 38CA** under **Head 701 – Land Acquisition** to meet payment of SEGCA to eligible domestic households affected by the clearance for the Second Phase development of HSK/HT NDA.

OVERVIEW OF HSK/HT NDA

5. HSK/HT NDA is situated in the west of the Northern Metropolis and just a bay away from the Qianhai Shenzhen-Hong Kong Modern Service Industry Cooperation Zone (Qianhai Cooperation Zone) and Nanshan District in Shenzhen. HSK/HT NDA can work with the Qianhai Cooperation Zone and Nanshan District in such areas as finance, professional services and logistics services, promoting and deepening high-end economic cooperation. It can be transformed into a modern services centre and a hub for talents travelling frequently between the two places, serving the entire Greater Bay Area. HSK/HT NDA will make available at least 2 million square metres of commercial floor area, of which over 1 million square metres in the town centre area, for local, Mainland and international enterprises to provide high-end professional services. In addition, given the “East in East out,

/West

West in West out” strategy for cross-boundary freight traffic, HSK/HT which connects to the Shenzhen Bay Port is well placed to become a major modern logistics hub. Industrial sites of over 70 hectares have been reserved in HSK/HT and Yuen Long South, most of them can be developed into multi-storey buildings (MSBs) for modern industries. In respect of transportation infrastructure, HSK/HT NDA enjoys the advantages of being the intersection of three major railways, including the Tuen Ma Line, the Hong Kong-Shenzhen Western Railway (Hung Shui Kiu to Qianhai) under planning and the proposed Hong Kong Island West - Hung Shui Kiu Rail Link. Together with primary distributor roads and other roads connecting outside and within the area, HSK/HT NDA will become a future transportation hub.

6. The development area of HSK/HT NDA is about 441 hectares (ha), providing about 66 700 additional housing units for a new population of about 184 000³. In addition, the industrial and commercial land in the NDA will create about 6.4 million square metres gross floor area, providing about 150 000 employment opportunities. A wide range of Government, Institution or Community (GIC) facilities will be provided to support future residents living within and in the proximity to the NDA. To promote green mobility within the NDA, the Government will introduce Smart and Green Mass Transit System (SGMTS)⁴, as well as a comprehensive pedestrian and cycling network.

7. HSK/HT NDA is being implemented in three phases, viz. First Phase development, Second Phase development and Remaining Phase development. The phasing plan of HSK/HT NDA is at **Annex 1 to Enclosure 1**. Construction works for the First Phase development commenced in July 2020 with first population intake⁵ targeted in 2024. Subject to the FC’s funding approval, the
/Civil

³ This has not taken into account the plan to develop Lau Fau Shan as an extension of HSK/HT NDA. The development proposal of Lau Fau Shan was released in early March 2024 for a two-month public engagement.

⁴ “Smart and Green Mass Transit System” introduced in the Hong Kong Major Transport Infrastructure Development Blueprint announced in December 2023 was formerly known as “Green Transit System”. For SGMTS in HSK/HT NDA, we recommend to adopt Green Road-Based Mode (such as trackless tram or green bus system (e.g. articulated bus)) with no physical rail track, providing greater flexibility.

⁵ The first batch of housing units will be from a Dedicated Rehousing Estate for rehousing eligible households affected by Second Phase Development and other government clearance projects.

Civil Engineering and Development Department (CEDD) will commence construction works for the Second Phase development of HSK/HT NDA progressively from the first half of 2024, with population intake targeting to start from 2030, in conjunction with the commissioning of Tuen Ma Line Hung Shui Kiu Station.

8. Key figures of HSK/HT NDA Second Phase development are tabulated below:

Housing yield (public housing)	36 400 units ⁶ (25 300 units) ⁵
New population	98 500
Commercial and industrial floor areas	4 748 400 m ²
Development area	263 ha
Private land to be resumed and cleared	206 ha ⁷
Government land to be cleared	100 ha
No. of households to be cleared *	1 693
No. of business undertakings to be cleared *	364 ⁸
Active farmland to be affected *	10 ha
Programme for site formation and engineering infrastructure works	2024-2030

* Remarks: The no. of households and business undertakings to be cleared and active farmland to be affected are subject to further verification.

9. We consulted the Panel on Development on 23 January 2024. The Panel supported the submission of the funding applications to the Public Works Subcommittee for consideration.

/PROJECT

⁶ The figures are subject to adjustment in the detailed design.

⁷ About 206 ha of private land covering about 2 740 lots.

⁸ The business undertakings are mainly brownfield operations such as workshops, logistics, warehouses and open storage.

PROJECT SCOPE AND NATURE**Site Formation and Engineering Infrastructure Works for Second Phase Development (787CL and 829CL)**

10. The proposed works for the Second Phase development comprise:
- (i) site clearance and formation (including geotechnical works and land decontamination works) to supply land for development of public and private housing, industrial and commercial facilities, GIC facilities and open spaces, etc., and for construction of the road and infrastructure works;
 - (ii) construction of a primary distributor road underneath Kong Sham Western Highway, six district distributor roads and carriageways, associated footpaths, cycle tracks, vehicular accesses and facilities etc.;
 - (iii) other engineering infrastructure works including drainage, sewerage and water supply systems, river revitalisation works and associated riverside promenades etc.; and
 - (iv) implementation of the environmental monitoring and audit programme for the aforementioned works.

More details about the site formation and engineering infrastructure works under the Second Phase development are at **Enclosure 1**.

Works for DCS for HSK/HT NDA, Phase 1 (Stage 1 Works) (55CG)

11. DCS is a large-scale, centralised air-conditioning system which produces chilled water at central chiller plants for distribution to non-domestic user buildings for air-conditioning purpose. In line with the country's "dual carbon" goals, cities in Mainland such as Qianhai of Shenzhen, Sanya, Guangzhou, etc, have begun implementing DCS. DCS is an energy-efficient air-conditioning system, which brings about significant environmental benefits, in addition to savings in /electricity

electricity consumption, as compared with traditional air-cooled air-conditioning systems. As announced in the 2022 Policy Address, the Government will accelerate the incorporation of DCS in NDAs to reduce energy consumption. This major infrastructure supports Hong Kong in achieving low-carbon development and carbon neutrality by 2050. One of the visions and specific development goals of the Northern Metropolis Action Agenda 2023 is to develop the Northern Metropolis into a sustainable carbon-neutral community.

12. The entire Phase 1 of the DCS for HSK/HT NDA will be implemented in two stages. The scope of works comprises the construction of DCS plants and the associated facilities, chilled water pipe laying works and the connection facilities at non-domestic user buildings. This funding application, which is Phase 1 (Stage 1 works) of the DCS, covers pipe laying works to serve the non-domestic user buildings at the Second Phase development of HSK/HT NDA. To ensure better coordination and project interfaces between CEDD and Electrical and Mechanical Services Department (EMSD), EMSD will entrust CEDD to implement the DCS pipe laying works on new roads to be constructed in HSK/HT NDA. We plan to commence the pipe laying works in phases to dovetail with the overall development programme of HSK/HT NDA upon obtaining funding approval from the FC. Details about the works for DCS for HSK/HT NDA, Phase 1 (Stage 1 Works) are at **Enclosure 2**.

13. We will seek funding for the remainder of **54CG** (i.e. DCS Phase 1 (Stage 2 Works)) at an appropriate timing to dovetail with the next stage of development of HSK/HT NDA.

Special Ex-gratia Cash Allowance

14. Based on the ex-gratia compensation and rehousing arrangements as endorsed by the FC on 18 July 2018, eligible households residing in squatters to be cleared for development can choose to receive means-tested or non-means-tested rehousing options, or the Ex-gratia Allowance for Permitted Occupiers of Licensed Structures and Surveyed Squatters affected by Clearance (EGAPO). Previously, in July 2013, the Government introduced SEGCA for eligible households affected by government clearance exercises under the Kwu Tung North and Fanling North

NDA and HSK/HT NDA projects. Under the SEGCA arrangement, each eligible applicant⁹, regardless of the area occupied, may either receive the full SEGCA of \$600,000, or receive a reduced SEGCA up to \$500,000 if the applicant purchases a subsidised sale flat at a Dedicated Rehousing Estate (DRE) under the non-means-tested rehousing option¹⁰.

15. Taking into account that the SEGCA amount to which individual households affected by HSK/HT NDA are entitled may be higher than that under EGAPO, the FC on 18 July 2018¹¹ endorsed the retention of the SEGCA arrangement for HSK/HT NDA announced in July 2013 as an option in addition to the EGAPO where eligible households may opt for either one of the allowances. We propose to earmark funds for the relevant subhead (the creation of which was approved by the FC on 18 July 2018) to meet the payment of SEGCA arising from clearance for the Second Phase development.

FINANCIAL IMPLICATIONS

16. We estimate that the total costs in MOD prices of the construction of the proposed works are as follows –

/(a)

⁹ An applicant should meet the following conditions to be eligible for SEGCA –

- (a) the household should reside in an affected structure at the date of the freezing survey;
- (b) the affected structure should be a surveyed/licensed domestic structure not built on building land;
- (c) the household should be covered by the 1984/85 Squatter Occupancy Survey or can produce evidence proving that it has resided in the affected structure for at least the same duration; and
- (d) the household should fulfil the “no-domestic-property” requirement and other related requirements applicable to EGAPO.

¹⁰ The maximum amounts of the full or reduced SEGCA are payable only to those SEGCA applicants meeting in full the prescribed criteria. A lower amount may be payable for a case not fulfilling those criteria and considered under SDEV’s discretion. Alternatively, applicants who purchase subsidised sale flats at a DRE can choose to receive the reduced EGAPO, payable at five-sixth (i.e. about 83%) of the EGAPO amount to which they would have been entitled but had not opted for purchasing subsidised sale flat at a DRE.

¹¹ Please refer to LegCo submission FCR(2018-19)48.

\$ million
(in MOD prices)

(a) Site Formation and Infrastructure Works for Second Phase development		25,946.8
787CL – Advance Works Phase 3	5,674.8	
829CL – Stage 2 Works	20,272.0	
(b) 55CG – Works for DCS for HSK/HT NDA, Phase 1 (Stage 1 Works)		3,216.3
	Total	29,163.1

17. As regards the SEGCA for eligible households affected by the Second Phase development, we estimate that the maximum provision that would be required under Subhead **38CA** of **Head 701 – Land Acquisition** is **\$20.4 million**.

Development Bureau
Environment and Ecology Bureau
April 2024

**787CL – Hung Shui Kiu/Ha Tsuen New Development Area Advance Works
Phase 3**

829CL – Hung Shui Kiu/Ha Tsuen New Development Area Stage 2 Works

PROJECT SCOPE AND NATURE

**Site Formation and Engineering Infrastructure Works for the Second
Phase Development**

The proposed site formation and engineering infrastructure works for the Second Phase development of Hung Shui Kiu/Ha Tsuen New Development Area (HSK/HT NDA) under Advance Works Phase 3 and Stage 2 Works will be implemented under the remaining parts of 787CL and 829CL with details in ensuing paragraphs.

2. The proposed scope of **787CL** of the Second Phase development comprises –

- (a) site clearance and formation (including geotechnical works and land decontamination works) for about 54 hectares (ha) of the development area, to supply land for development of public housing and commercial facilities, Government, Institution or Community (GIC), open spaces, village resite and district cooling system (DCS), etc. and for construction of the road and infrastructure works in sub-paragraphs (b) and (c) below;
- (b) construction of a primary distributor road namely the Road P1 of about 3.2 kilometres (km) long underneath the Kong Sham Western Highway and carriageways of about 2.4 km long, associated cycle tracks of about 1.5 km long and footpaths, four vehicular bridges as slip roads connecting the proposed Road P1 to the existing Kong Sham Western Highway, two pedestrian footbridges and two cycle track cum pedestrian subways;

/(c)

- (c) other engineering infrastructure works including drainage system (which mainly include drains of about 4.7 km long and box culverts of about 2 km long); sewerage system (which mainly includes two sewage pumping stations, gravity sewers of about 4.9 km long and twin rising mains of about 3.2 km long); water supply systems (which mainly include fresh water mains of about 7.4 km long and flushing water mains of about 8.3 km long); about 0.5 ha in total for other open spaces; landscape works; as well as other associated works; and
- (d) implementation of environmental mitigation measures; and environmental monitoring and audit (EM&A) programme as well as construction supervision for the works mentioned in sub-paragraphs (a) to (c) above.

3. The proposed scope of **829CL** of the Second Phase development comprises –

- (a) site clearance and formation (including geotechnical works and land decontamination works) for about 209 ha of the development area, to supply land for development of public and private housing, industrial and commercial facilities, GIC, open spaces, effluent polishing plant (EPP), DCS and for construction of the road and infrastructure works in sub-paragraphs (b) and (c) below;
- (b) construction of six district distributor roads and carriageways of about 10.8 km long (including new roads, reconstruction / realignment of existing Ha Tsuen Road), associated cycle tracks of about 13.4 km long and footpaths, two cycle track cum pedestrian bridges, six pedestrian footbridges, one underpass and associated depressed roads, one cycle track cum pedestrian subway and one pedestrian subway;

/(c)

- (c) other engineering infrastructure works including drainage system (which mainly include drains of about 10.5 km long and box culverts of about 6.1 km long); sewerage system (which mainly includes two sewage pumping stations, gravity sewers of about 10.2 km long and twin rising mains of about 1.1 km long); water supply systems (which mainly include a fresh water service reservoir with a capacity of about 170 000 cubic metres, fresh water mains of about 23.1 km long and flushing water mains of about 18.4 km long); revitalisation of some sections of Tin Sam Channel with a total length of about 1.4 km and associated riverside promenades; a regional park of about 12 ha with flood storage lakes, a floodable district open space of about 8.8 ha and about 12.5 ha in total for other open spaces; landscape works; as well as other associated works; and
- (d) implementation of environmental mitigation measures; and EM&A programme as well as construction supervision for the works mentioned in sub-paragraphs (a) to (c) above.

4. Layout plans and artistic impressions for the Second Phase development are at **Annexes 2 to 24** to this Enclosure.

5. We plan to commence the construction works for the Second Phase development progressively from the first half of 2024 upon the funding approval by the Finance Committee (FC) for substantial completion of the works by 2030 (i.e. within about 7 years). To meet the works programme, the Civil Engineering and Development Department (CEDD) invited tenders for the construction works for the Second Phase development from June 2023 progressively, but the works contracts will only be awarded upon obtaining funding approval from the FC.

/JUSTIFICATION

JUSTIFICATION

6. HSK/HT NDA is situated in the west of the Northern Metropolis. Together with Yuen Long, Tin Shui Wai, Yuen Long South (YLS) NDA and Lau Fau Shan, the area is positioned as the High-end Professional Services and Logistics Hub and interplays with the Qianhai Cooperation Zone and Nanshan District. The development area of HSK/HT NDA¹ is about 441 ha, providing about 66 700 additional housing units for a new population of about 184 000. In addition to supplying housing units, the industrial and commercial land in the NDA will create about 6.4 million square metres gross floor area (GFA), providing about 150 000 employment opportunities.

7. The scope of Second Phase development is the largest among the three development phases. The 263 ha of land to be formed, which amounts to about 60% of the total development area of the NDA, will be used for subsequent developments including housing, industries, public and community facilities, open space, transport and other infrastructures, etc. The proposed primary/district distributor roads and local roads will run through the whole Second Phase development and will enhance the connectivity with its neighbourhood including Tin Shui Wai, Yuen Long New Town and Tuen Mun. The Tuen Ma Line Hung Shui Kiu Station will be commissioned in 2030 to tie in with the population intake. Other engineering infrastructures including drainage, sewerage and water supply systems will support the need of the whole NDA. Works under Second Phase development will also include construction of pedestrian and cycling networks, open space (some with flood retention facilities), revitalization of river channel, etc. for developing a livable and green community.

8. The Second Phase development is critically important to the smooth implementation of the whole HSK/HT NDA. Some sites to be formed will support the development of dedicated rehousing estates (DRE) and village resite houses to accommodate eligible squatter households and households meeting the Village Removal Terms respectively. Some sites will be proposed
/for

¹ This has not taken into account the plan to develop Lau Fau Shan as an extension of HSK/HT NDA. The development proposal of Lau Fau Shan covering part of the Remaining Phase development of HSK/HT NDA was released in early March 2024 for two-month public engagement.

for developing multi-storey buildings (MSBs) for modern industries which can help promote the development of relevant industries and relocate some brownfield operations affected by Government's development.

Providing Land for Housing

9. For better utilization of land and infrastructure to increase housing supply, the Town Planning Board in June last year approved increase in plot ratios (PRs) for nine public housing sites under Second Phase development (from PR 5.5 or 6 to PR 6.8); and for two other private housing sites, the PRs were increased from 6 to 6.5. As a result, the housing yield for Second Phase development was increased to 36 400 units² (about 55% of the housing supply of the NDA), of which about 70% will be for public housing and 30% for private housing. It is estimated that population intake will commence in 2030.

Providing Land for Industries

10. HSK/HT NDA is positioned as the High-end Professional Services and Logistics Hub, which will provide not less than two million square metres of commercial floor area, of which over one million square metres will be in the town centre area under the Second Phase development, for local, Mainland and international enterprises providing high-end professional services including finance, insurance, legal and accounting, etc. In addition, given the "East in East out, West in West out" strategy for cross-boundary freight traffic, HSK/HT NDA which connects to the Shenzhen Bay Port is well placed to become a major modern logistics hub. More than 60 ha of land has been reserved for logistics, port back-up and other uses in HSK/HT, most of them under the Second Phase development. Some of them can be developed by the private sector into MSBs to facilitate business upgrading and transformation and accommodate some of the brownfield operations affected by Government's clearance. The commercial and industrial sites to be made available under the Second Phase development will provide about 75% of the total economic floorspace, creating strong impetus for HSK/HT NDA to grow into a hub for professional services and modern logistics.

/Providing

² The figures may be subject to adjustment in the detailed design.

Providing Land for GIC Uses

11. The Second Phase development will also provide various types of GIC facilities. The facilities under planning at this stage, such as a joint-user government complex, magistrates' court, public market, sports centre, community hall and clinics, etc., are to support and serve the future residents of the NDA and nearby (including Tin Shui Wai), and an about 5 ha land is planned for self-financing post-secondary institution campus development. The implementation of the above projects will be subject to detailed studies and the approval of the required funding.

12. For developing a green and livable community, the Second Phase development will provide user-friendly pedestrian and cycling networks. Some sections of Tin Sam Channel will be revitalized and riverside promenades will be constructed to promote water-friendly culture and activities. A regional park of about 12 ha with flood storage lakes and a district open space of about 8.8 ha with flood retention function will create a green and naturalistic environment for public recreational use, and at the same time serve as flood attenuation facilities, the design of which has taken into account the impacts arising from climate change.

Providing Engineering Infrastructure Facilities

13. The Second Phase development involves the construction of roads and infrastructure facilities and site formation works, including the primary distributor road and district distributors, site formation for land for subsequent construction of Hung Shui Kiu Station and Smart and Green Mass Transit System, drainage system (including drains and box culverts) and sewerage system (including HSK EPP³, sewage pumping stations, gravity sewers and rising mains) to cater for demands arising from the NDA. Water supply systems including a fresh water service reservoir⁴, fresh water mains

/and

³ The implementation of the HSK EPP will be subject to detailed studies and the approval of required funding.

⁴ The flushing water service reservoir serving the proposed HSK/HT NDA and YLS NDA will be constructed under the YLS development project to tie in with the implementation programme of the reclamation plant to be provided under YLS NDA.

and flushing water mains to serve the HSK/HT NDA and YLS NDA will also be provided.

14. Apart from serving the Second Phase development, the provision of engineering infrastructures will bring improvements to existing communities in the neighbourhood. For example, the proposed Road L35 will be a new route for ingress/egress from Ha Tsuen, which will help re-distribute the traffic flow of Ping Ha Road and improve the connectivity of the existing villages within the NDA. In addition, if there are sewerage works near the villages, subject to technical feasibility, sewage manhole will be reserved for future connection by the village sewerage system to the public sewerage system. Besides, we will continue to closely liaise with the Drainages Services Department on the review of the flood protection need for the area, as well as any improvement works required.

FINANCIAL IMPLICATIONS

15. We estimate that the total costs in money-of-the-day (MOD) prices of the proposed works under Second Phase development are as follows –

	\$million (in MOD prices)
787CL – Hung Shui Kiu/Ha Tsuen New Development Area Advance Works Phase 3	
(a) Site clearance and formation works (including geotechnical works and land decontamination)	809.3
(b) Roadworks	1,544.3
i. At-grade roads	420.4
ii. Vehicular bridges and pedestrian footbridges	676.8
iii. Cycle track cum pedestrian subways and pedestrian subways	201.6
iv. Noise barriers	245.5
	/(c)

	\$million (in MOD prices)
(c) Other engineering infrastructure works	2,270.1
i. Drainage system (including drains and box culverts)	495.8
ii. Sewerage system (including sewage pumping stations, gravity sewers and rising mains)	908.4
iii. Water supply systems (including fresh water mains and flushing water mains)	562.6
iv. Landscaping and other associated works	303.3
(d) Environmental mitigation measures and EM&A programme	93.6
(e) Consultants' fees	38.8
(f) Remuneration of Resident Site Staff ("RSS")	403.3
(g) Contingencies	515.4
Sub-total	5,674.8

829CL – Hung Shui Kiu/Ha Tsuen New Development Area Stage 2 Works

(a) Site clearance and formation works (including geotechnical works and land decontamination)	3,107.3
(b) Roadworks	4,047.9
i. At-grade roads	717.6
ii. Cycle track cum pedestrian footbridges and pedestrian	870.6
	/footbridges

		\$million (in MOD prices)
	footbridges	
iii.	Underpass and associated depressed roads and cycle track cum pedestrian subways	2,069.7
iv.	Noise barriers	390.0
(c)	Other engineering infrastructure works	9,356.4
i.	Drainage system (including drains and box culverts)	1,847.3
ii.	Sewerage system (including sewage pumping stations, gravity sewers and rising mains)	971.2
iii.	Water supply systems (including a fresh water service reservoir, fresh water mains and flushing water mains)	1,948.6
iv.	A regional park with flood storage lakes and a floodable district open space	1,988.4
v.	Landscaping of open spaces	1,296.4
vi.	River revitalisation works and associated riverside promenades	493.5
vii.	Landscaping and other associated works	811.0
(d)	Environmental mitigation measures and EM&A programme	336.7
(e)	Consultants' fees	135.6
(f)	Remuneration of RSS	1,447.2
		/(g)

	\$million (in MOD prices)
(g) Contingencies	1,840.9
Sub-total	20,272.0
Total	25,946.8

16. A breakdown of the estimates for consultants' fees and RSS costs by man-months is at **Annex 25** to this Enclosure.

17. Subject to funding approval, we plan to phase the expenditure for the proposed works for the Second Phase development as follows –

**787CL – Hung Shui Kiu/Ha Tsuen New Development Area
Advance Works Phases 3**

Year	\$million (MOD)
2024 – 25	197.2
2025 – 26	343.8
2026 – 27	874.0
2027 – 28	1,254.9
2028 – 29	1,008.5
2029 – 30	933.5
2030 – 31	660.8
2031 – 32	263.1
2032 – 33	99.0

2033 – 34	40.0
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5,674.8

**829CL – Hung Shui Kiu/Ha Tsuen New Development Area
Stage 2 Works**

Year	\$million (MOD)
2024 – 25	702.0

Year	\$million (MOD)
2025 – 26	1,532.3
2026 – 27	3,123.3
2027 – 28	4,144.8
2028 – 29	3,589.5
2029 – 30	2,936.6
2030 – 31	1,948.7
2031 – 32	1,451.2
2032 – 33	567.5
2033 – 34	276.1

20,272.0

We have derived the MOD estimates on the basis of the Government's latest forecast of the trend rate of change in the prices of public sector building and construction output from 2024 to 2034.

18. In view of the high cost of the Second Phase development, we have set out in more details in ensuing paragraphs the cost estimate and measures taken at the design and procurement stage to keep the cost down. Excluding the 10% project contingency, three works categories altogether account for 90% of the total costs as follows – site clearance and formation works (17%); roadworks (24%); and other engineering infrastructure works (49%). Details are summarised as follows –

Overall cost and works categories

Overall cost and works categories	Unit costs in Second Phase development (787CL and 829CL) (\$)
Overall development cost	9,900 per m ²
Site clearance and formation works	1,500 per m ²
Roadworks	341,000 per m
Other engineering infrastructures	4,400 per m ²

Individual key items

Individual key items	Unit costs in Second Phase development (\$)
Roadworks	
- at-grade roads	76,900 per m
- footbridges	1,160,000 per m
Other engineering infrastructure works	
- drainage systems	
• drains	38,000 per m
• box culverts	33,000 per m ²
- sewerage systems	
• sewage pumping stations	10,000 per m ³ /day

/gravity

• gravity sewer and rising mains	17,000 per m
- water supply systems	
• fresh/flushing water mains	27,500 per m
- open spaces	10,200 per m ²

19. The unit costs for other projects of a similar scale and nature (i.e. site formation and engineering infrastructure works) and projects with a similar works value approved in the past few years⁵ are provided at **Annex 26** for Members' information.

20. To optimise our design for cost containment, CEDD has made reference to good design practices in various projects in the detailed design stage. For example, in the design of the regional park with flood storage lakes and floodable district open spaces, we have also collaborated with academic institutions in arriving at an economic design.

21. CEDD will deliver Advance Works Phase 3 and Stage 2 Works under 7 works contracts using the New Engineering Contract ("NEC")⁶ form with provision for price adjustment. A mechanism for sharing project savings or overspending is included in the contract terms, and a common goal is established for the contracting parties to control costs. This mechanism promotes joint cooperation between the two parties to actively manage project risks to lower the project costs.

/22.

⁵ Relevant projects include the approved funding applications for the first phase development of Yuen Long South development in 2022, first phase development of Lok Ma Chau Loop in 2020, first phase development of HSK/HT NDA in 2020, first phase development of Tung Chung New Town Extension in 2020 and first phase development of Kwu Tung North and Fanling North New Development Area in 2019; as well as other engineering infrastructure works contracts including PWP Nos. 332CL, 201TB, 409DS, 355WF, 356WF and 765CL.

⁶ New Engineering Contract is a suite of contracts developed by the Institution of Civil Engineers, United Kingdom. It is a contract form that emphasizes cooperation, mutual trust and collaborative risk management between contracting parties.

22. We estimate that the annual recurrent expenditure arising from the Advance Works Phase 3 are about **\$82.33 million** and from the Stage 2 Works are about **\$275.12 million**, mainly covering the operational, management and maintenance expenses for the roadworks, waterworks, drainages and sewerages etc. under the Second Phase development.

AFFECTED HOUSEHOLDS AND BUSINESS UNDERTAKINGS

23. The site formation and engineering infrastructure works for the Second Phase development have been designed to minimize land resumption and clearance. We will need to resume and clear 206 ha private land and 100 ha government land. Based on the pre-clearance survey (PCS), there are 1 693 households and 364 business undertakings to be affected. In November 2022, the Lands Department (LandsD) issued notification letters to the affected households and business undertakings to inform them of their expected departure dates and the compensation and rehousing arrangements for their reference and early preparation for departure. In accordance with the latest works programme, it is expected that they would need to depart from mid-2024 to the third quarter of 2025 in batches. The first batch will involve 274 households and 27 business undertakings. LandsD and the Compensation and Rehousing Service Team it has engaged will liaise with the affected households and business undertakings, and provide updated information as necessary. Notices will be posted on site three months before the actual departure date of the affected households and business undertakings in accordance with applicable procedures.

24. LandsD has already commenced the eligibility screening procedures by actively engaging the first batch of clearerees. LandsD will continue to liaise with other affected persons and will expedite the disbursement of compensation and arrangement of rehousing to those eligible as far as possible.

/25.

25. Among the 364 business operators to be affected, 263 involve brownfield operations including warehouse, construction, recycling, vehicle repair, workshops, carparks, etc., covering a total area of 86 ha. Where the programme of development permits, we will arrange brownfield operations to depart by phases so that they could continue to operate until relevant sites are required for works. At the same time, the Government will continue to assist brownfield operators who wishes to relocate elsewhere in the following ways –

- (a) LandsD will reach out to affected operators at the soonest possible juncture, and offer appropriate assistance;
- (b) providing early monetary compensation to allow affected operators to plan ahead for departure. In May 2022, we have enhanced the arrangements for the Ex-gratia Allowance (EGA) for Open-air/Outdoor Business Undertakings, including relaxing the eligibility criteria concerning the operation duration (from seven years preceding the PCS to two years preceding the PCS, and removing the payment ceiling of not exceeding 5 000 square metres for open areas that could be taken into account in calculating the EGA amount). Affected operators may apply for early disbursement of EGAs after LandsD posts the land resumption notice, without having to wait until the departure date;
- (c) the revised Guidelines for Application for Open Storage (OS) and Port Back-up (“PBU”) Uses under Section 16 of the Town Planning Ordinance were promulgated in April 2023 by the Town Planning Board with a view to, among others, expanding the areas under Category 2⁷ by 320 ha where planning permission may be given for OS/PBU uses, 135ha of which were not occupied at the time of identification;

/(d)

⁷ The Guidelines classify the rural areas into four categories (Category 1 to Category 4), and set out the criteria for assessing planning applications for OS/PBU uses.

- (d) identifying more government land suitable for letting specifically to affected brownfield operators by way of short-term tenancy through restricted tender. Up to February 2024, 15 sites have been let under this arrangement;
- (e) setting up a dedicated multi-disciplinary team to coordinate different departments to assist brownfield operators seeking relocating in planning applications and obtaining relevant approvals from other departments. As at December 2023, we have assisted more than 20 business undertakings affected by government projects (including HSK/HT, Kwu Tung North/Fanling North NDA and YLS NDA) in obtaining planning approvals for relocation of their operations (including those in logistics, vehicle repairing and construction industries), involving a total of around 20 ha of relocation sites; and
- (f) developing MSBs, where developer/owner would be requested to hand over no less than 30% of the floor space to the Government for leasing to brownfield operators affected by government projects at concessionary rent, so as to allow displaced brownfield operations to adapt to an MSB setting and preferably upgrade their operations. The first such site near Yuen Long InnoPark has been put up for tender in March this year.

PUBLIC CONSULTATION

26. HSK/HT NDA project went through a three-stage Community Engagement Programme between 2010 and 2015. Public views were gathered through public forums, community workshops, briefing sessions, focus group meetings and written submissions. The public generally supported HSK/HT NDA to provide land to meet the housing and economic development needs of Hong Kong in the medium-to-long term.

27. The draft Hung Shui Kiu and Ha Tsuen Outline Zoning Plan (OZP) was gazetted on 26 May 2017. During the statutory planning process, a total of 117 representations and 338 comments were received. After giving consideration to the representations and comments, the Town Planning Board decided not to amend the draft OZP. On 16 October 2018, the Chief Executive in Council (CE in C) approved the draft OZP.

28. Consultations with the Yuen Long District Council, the District Facilities Management and Environmental Hygiene Committee of the Tuen Mun District Council, the Ha Tsuen Rural Committee, the Tuen Mun Rural Committee and the Ping Shan Heung Rural Committee on the proposed works under Second Phase development were conducted from June to August 2022. All of them expressed in-principle support.

29. The proposed road works under the Roads (Works, Use and Compensation) Ordinance (Cap. 370) and the proposed sewerage works under Cap. 370 as applied by the Water Pollution Control (Sewerage) Regulation (Cap. 358AL) under the Second Phase development were gazetted on 30 September 2022 and 7 October 2022. A total of 124 objections and 9 objections were received against the proposed road and sewerage works respectively during the statutory objection period. These objections were mainly related to land resumption, clearance, compensation and rehousing arrangement, the overall planning of the NDA, the design of the proposed works and the potential impacts during the construction and operation stages. Eight objections against the proposed road works were unconditionally withdrawn, while others remained unresolved. Upon considering all the unresolved objections, the CE in C authorised the proposed road and sewerage works on 19 December 2023.

30. We consulted the Panel on Development on 23 January 2024. The Panel supported the submission of the funding applications to the Public Works Subcommittee for consideration.

ENVIRONMENTAL IMPLICATIONS

31. The works under HSK/HT NDA is a Designated Project (DP) under Schedule 3 of the Environmental Impact Assessment Ordinance (EIAO) (Cap. 499). The Environmental Impact Assessment (EIA) report⁸ for HSK/HT NDA was approved with conditions under the EIAO in December 2016. Some of the proposed works for HSK/HT NDA Second Phase development, namely the proposed Road P1 and associated slip roads connecting Kong Sham Western Highway and six district distributor roads are DPs under Schedule 2 of the EIAO with Environmental Permits (EPs) for their construction and operation issued in February 2017.

32. In view of the proposed intensification for the Second Phase development of HSK/HT NDA as mentioned in paragraph 9 above, an Environmental Review (ER) was carried out to confirm the environmental acceptability of the proposed intensification, whilst the findings and conclusions of the approved EIA report remain valid.

33. For those DP works under the Second Phase development, it is concluded in the EIA report that the construction of these works would be environmentally acceptable with no adverse impact with the implementation of the mitigation measures. We will implement the approved environmental mitigation measures and EM&A programme recommended in the approved EIA report, and comply with the relevant conditions under the EPs for the construction of these works to control the environmental impacts to within the established standards and guidelines. For short-term environmental impacts caused during construction, we will incorporate requirements into the works contracts to require the contractors to implement the recommended EM&A programme and environmental mitigation measures. These mitigation measures mainly include use of quiet powered mechanical equipment and movable noise barriers or enclosures to minimise the construction noise impact, regular watering of works sites and provision of wheel-washing facilities to minimise dust generation, and use of temporary drains to collect site run-off for

/on-site

⁸ The EIA report was prepared under the Planning and Engineering Study of Hung Shui Kiu New Development Area which is a Designated Project under Schedule 3 of the EIAO.

on-site treatment before discharge. We have included the cost of these mitigation measures as well as the EM&A programme in the project estimate.

34. At the planning and design stages, we have considered the proposed works for the Second Phase development and their construction sequences to reduce generation of construction waste where possible. In addition, we will require the contractors to reuse inert construction waste (e.g. excavated soil) 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 facilities⁹. We will encourage the contractors to maximise the use of recycled or recyclable inert construction waste, and the use of non-timber formwork to further reduce the generation of construction waste.

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

36. We estimate that the proposed works for the Second Phase development will generate in total about 11 000 000 tonnes of construction waste. Of these, we will reuse about 4 000 000 tonnes (36%) of inert construction waste on site, temporarily stockpile about 2 600 000 tonnes (24%) of inert construction waste at the public fill reception facilities for subsequent reuse in the Remaining Phase development of HSK/HT NDA, and deliver about 2 865 000 tonnes (26%) of inert construction waste to public fill reception facilities for disposal. We will dispose the remaining about 1 535 000 tonnes (14%) of non-inert construction waste at landfills. The total cost for disposal

/of

⁹ Public fill reception facilities (“PFRF”) are specified in Schedule 4 of the Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 354N). Disposal of inert construction waste in PFRF requires a licence issued by the Director of Civil Engineering and Development.

of construction waste at public fill reception facilities and landfills is estimated to be \$1,035.73 million for the proposed works for the Second Phase development, based on a unit charge rate of \$87 per tonne for delivery to public fill reception facilities and \$365 per tonne at landfills as stipulated in the Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 354N) and the Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Amendment of Schedules) Notice 2023).

TRAFFIC IMPLICATIONS

37. Based on the Traffic and Transport Impact Assessment conducted under the “Hung Shui Kiu New Development Area Planning and Engineering Study” (HSK NDA P&E Study) and a recent traffic review which covered assessments of different development stages of HSK/HT NDA, the traffic and transport impact due to the proposed works for the Second Phase development would be acceptable.

38. Temporary traffic arrangements (TTAs) associated with the proposed works for the Second Phase development will be implemented during construction to facilitate implementation of the proposed works. We will establish a Traffic Management Liaison Group comprising representatives of the CEDD, the Transport Department, the Hong Kong Police Force and other stakeholders to discuss, scrutinise and review the TTAs proposed by the contractors with a view to minimising traffic impact arising from the proposed works. In addition, we will set up a telephone hotline to respond to public enquiries or complaints.

HERITAGE IMPLICATIONS

39. We have completed a cultural heritage impact assessment under the EIA for HSK/HT NDA. It concluded that the Second Phase development would not affect any declared monuments, proposed monuments, graded historic sites/ buildings/ structures, sites, buildings/ structures in the new list of proposed grading items, or Government historic sites identified by the Antiquities and Monuments Office. As part of the Second Phase development

/will

will be executed within the Tseung Kong Wai Site of Archaeological Interest and Tung Tau Tsuen Site of Archaeological Interest, we will implement mitigation measures as recommended by the approved EIA report accordingly.

LAND ACQUISITION

40. The cost of land resumption and clearance for Second Phase development, including payment to eligible land owners, business undertakings and domestic occupiers of squatters (excluding SEGCA), estimated at about **\$33,718.88 million** will be charged to **Head 701 – Land Acquisition**. A breakdown of which is at **Annex 27** to this Enclosure. The annual cashflow will be sought separately according to established procedures together with other block allocation subheads under the Capital Works Reserve Fund. As regards the SEGCA for eligible households affected by the Second Phase development, we estimate that the maximum provision required under Subhead **38CA of Head 701 – Land Acquisition** is **\$20.4 million**.

BACKGROUND INFORMATION

Site Formation and Engineering Infrastructure Works for the Second Phase Development

41. On 26 June 2020, the FC approved the upgrading of the part of **787CL** to Category A as **845CL**, entitled “Hung Shui Kiu/Ha Tsuen New Development Area advance works phases 1 and 2 – site formation and engineering infrastructure and phase 3 – detailed design and site investigation” at an approved project estimate of \$495.9 million in MOD prices, of which \$279.0 million was for the site formation and engineering infrastructure works for Advance Works Phase 1 & 2 and \$216.9 million was for the detailed design and site investigation for Advance Works Phase 3 under the Second Phase development. On the same date, the FC approved the upgrading of the part of **829CL** to Category A as **846CL**, entitled “Hung Shui Kiu/Ha Tsuen New Development Area stage 2 works – detailed design and site investigation” at an approved project estimate of \$395.6 million in MOD prices for the detailed design and site investigation works for the Stage 2 Works under the Second Phase development of HSK/HT NDA. We have substantially completed the detailed design of the proposed works for the Second Phase development.

42. Of the 7 815 trees within the project boundary of the Second Phase development, 844 trees will be preserved. For the remaining 6 971 trees, 6 905 trees will be felled and 27 trees be replanted within the project site under the proposed site formation and infrastructure works. Besides, 39 trees of particular interest¹⁰ will be affected during the implementation of the project. A summary of trees of particular interest⁹ affected is provided at **Annex 28** to this Enclosure. We will incorporate planting proposals as part of the project, including estimated quantities of 3 734 trees, 490 000 shrubs and 49 980 square metre of new grassed area.

43. We estimate that the proposed works for the Advance Works Phase 3 under **787CL** will create about 670 jobs (530 for labourers and 140 for professional or technical staff), providing a total employment of about 48 850 man-months.

44. We estimate that the proposed works for the Stage 2 Works under **829CL** will create about 2 290 jobs (1 820 for labourers and 470 for professional or technical staff), providing a total employment of about 166 970 man-months.

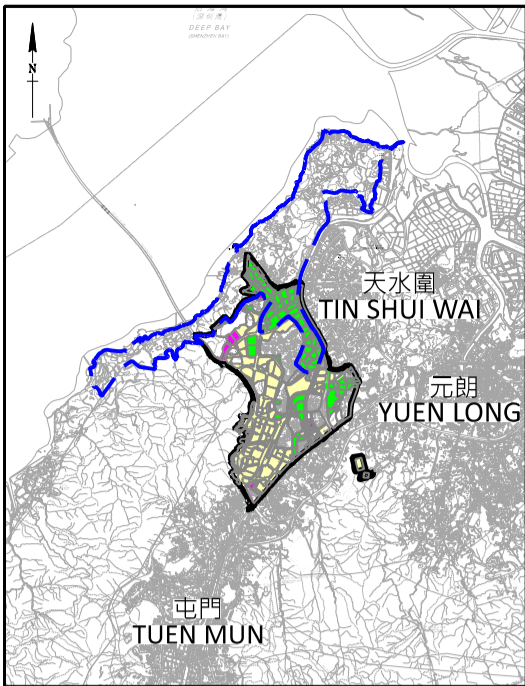
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¹⁰ Trees of particular interest shall be defined in full as below –

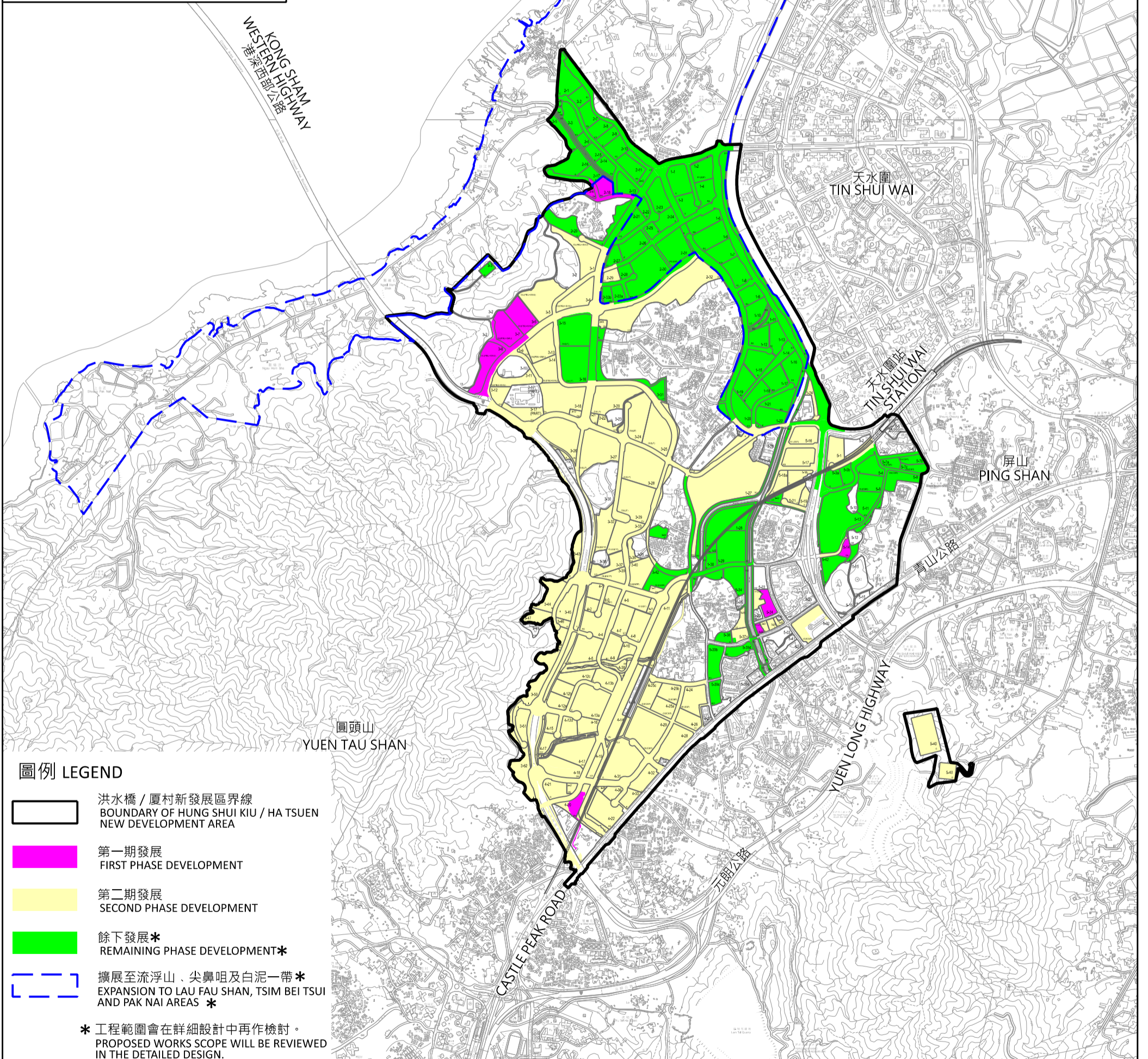
- Trees of particular interest are defined in paragraph 13.3 of the Guidelines for Tree Risk Assessment and Management Arrangement promulgated by the Development Bureau. Examples of trees of particular interest are listed as follows:
- (a) Old Valuable Trees (“OVT”) and trees that are potentially registerable in the Register of OVTs;
 - (b) Trees of 100 years old or above;
 - (c) Trees with trunk diameter equal to or exceeding 1.0 m (measured at 1.3 m above ground level), or with height/canopy spread equal to or exceeding 25 m;
 - (d) Stonewall trees or trees of outstanding form (taking account of overall tree sizes, shape and any special features);
 - (e) 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;
 - (f) Endangered plant species protected under the Protection of Endangered Species of Animals and Plants Ordinance (Cap. 586);
 - (g) Tree species listed in the Forestry Regulations (Cap. 96A) under the Forests and Countryside Ordinance (Cap. 96);
 - (h) Well-known Fung Shui trees;
 - (i) Landmark trees with evidential records to support the historical or cultural significance of the trees;
 - (j) Trees which may arouse widespread public concerns; and
 - (k) Trees which may be subject to strong local objections on removal.

Change of Scope for 486CL “Yuen Long – Tuen Mun corridor: site formation works for area 12 (part) and 13 in Hung Shui Kiu”

45. **486CL, “Yuen Long – Tuen Mun corridor: site formation works for area 12 (part) and 13 in Hung Shui Kiu”**, which was upgraded to Category A and approved by FC in June 1997, covered the development of two sites (Area 12 (Part b) and Area 13) located within the boundary of the current HSK/HT NDA. The layout plan of **486CL** is provided at **Annex 29** to this Enclosure. Over the years, Area 13 was formed and developed into the existing Hung Fuk Estate and a cul-de-sac was constructed at the southern end of Hung Yuen Road. The development of the site of Area 12 (Part b), however, was held in abeyance as there was a conceptual planning for a more comprehensive study for the Hung Shui Kiu area in the 2000s. Under the HSK NDA P&E Study, the site of Area 12 (Part b) together with the land occupied by the existing light rail facilities were grouped as Planning Area 12, and planned for residential development which incorporated light rail facilities in a comprehensive manner. Relevant use was shown in the OZP approved on 26 October 2018. The site formation and engineering infrastructure works of Planning Area 12 (Part b) has now been included in the current funding application as part of the Advance Works Phase 3 works under **787CL** to support the Second Phase development. Due to the overlapping in scope of **486CL** and **787CL**, the scope of **486CL** will be revised to exclude the works within Area 12 (Part b).



位置圖
LOCATION PLAN

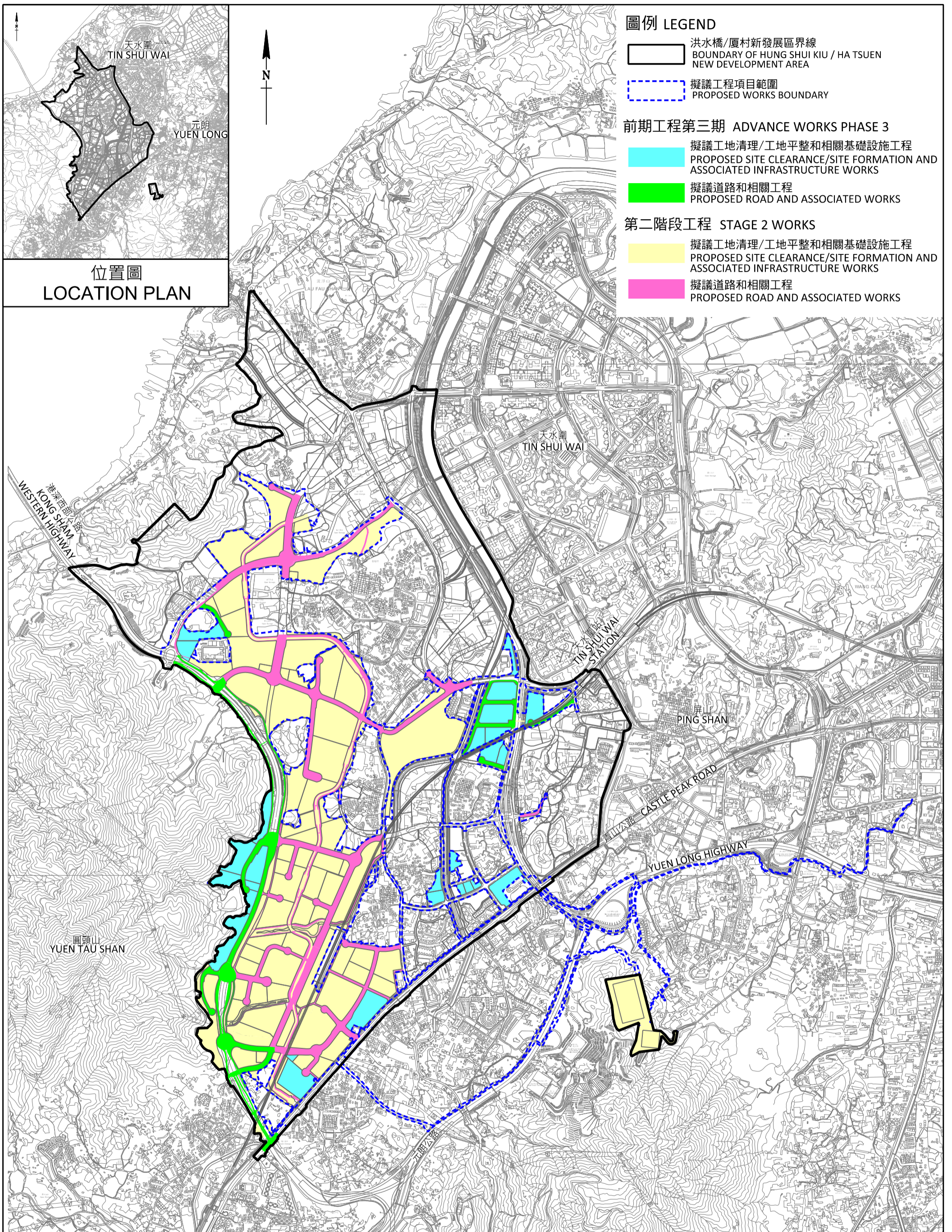


圖例 LEGEND

-  洪水橋 / 厦村新發展區界線
BOUNDARY OF HUNG SHUI KIU / HA TSUEN NEW DEVELOPMENT AREA
 -  第一期發展
FIRST PHASE DEVELOPMENT
 -  第二期發展
SECOND PHASE DEVELOPMENT
 -  餘下發展*
REMAINING PHASE DEVELOPMENT*
 -  擴展至流浮山、尖鼻咀及白泥一帶*
EXPANSION TO LAU FAU SHAN, TSIM BEI TSUI AND PAK NAI AREAS *
- * 工程範圍會在詳細設計中再作檢討。
PROPOSED WORKS SCOPE WILL BE REVIEWED IN THE DETAILED DESIGN.

圖則名稱 drawing title

洪水橋 / 厦村新發展區各期發展示意圖
HUNG SHUI KIU / HA TSUEN NEW DEVELOPMENT AREA PHASING PLAN



圖例 LEGEND

- 洪水橋/厦村新發展區界線
BOUNDARY OF HUNG SHUI KIU / HA TSUEN NEW DEVELOPMENT AREA
- 擬議工程項目範圍
PROPOSED WORKS BOUNDARY

前期工程第三期 ADVANCE WORKS PHASE 3

- 擬議工地清理/工地平整和相關基礎設施工程
PROPOSED SITE CLEARANCE/SITE FORMATION AND ASSOCIATED INFRASTRUCTURE WORKS
- 擬議道路和相關工程
PROPOSED ROAD AND ASSOCIATED WORKS

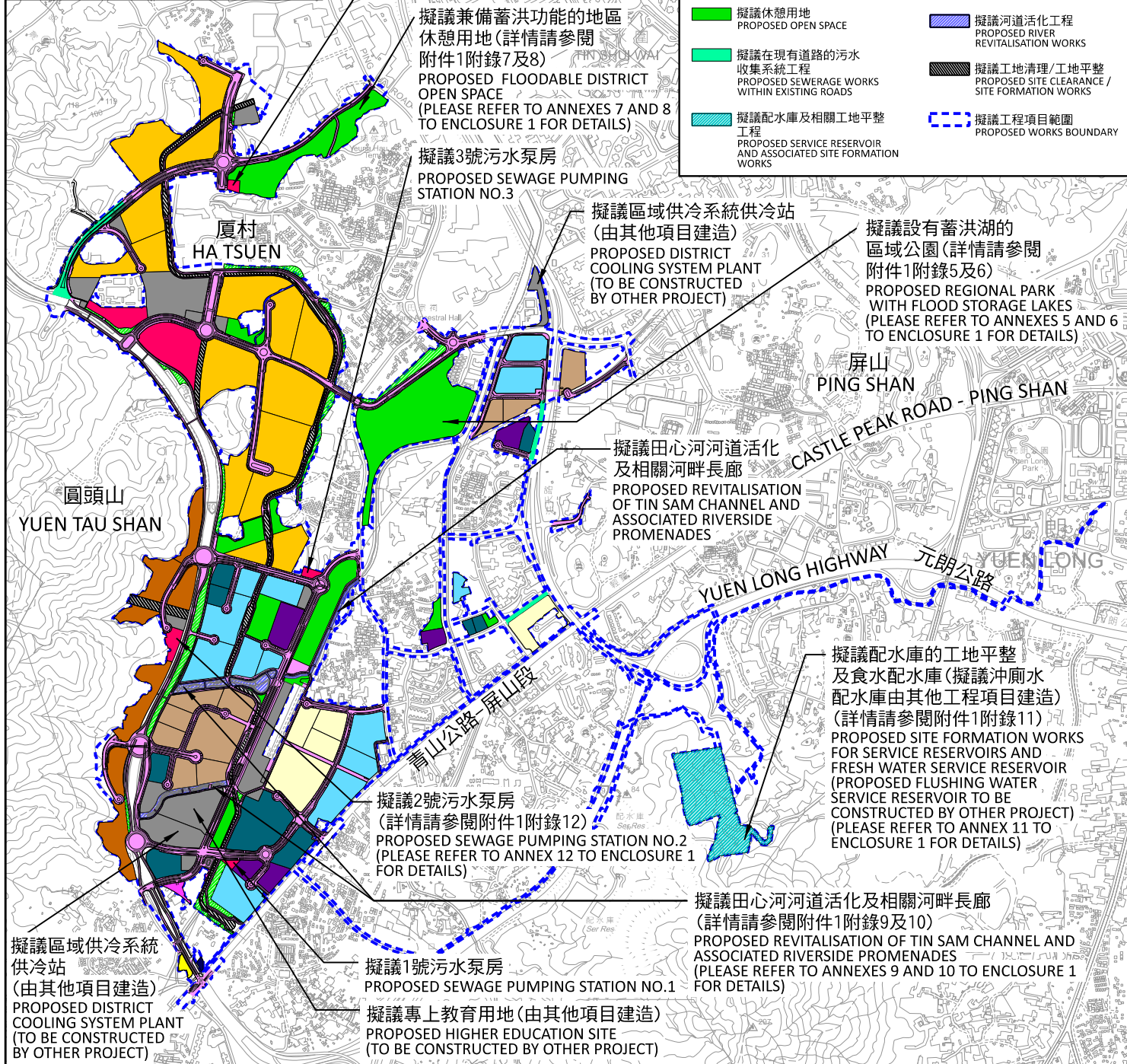
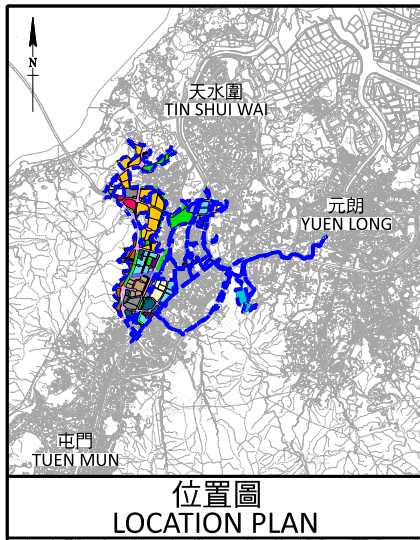
第二階段工程 STAGE 2 WORKS

- 擬議工地清理/工地平整和相關基礎設施工程
PROPOSED SITE CLEARANCE/SITE FORMATION AND ASSOCIATED INFRASTRUCTURE WORKS
- 擬議道路和相關工程
PROPOSED ROAD AND ASSOCIATED WORKS

位置圖
LOCATION PLAN

圖則名稱 drawing title

工務工程計劃項目第787CL號及829CL號
洪水橋 / 厦村新發展區前期工程第三期及第二階段工程
PWP Item Nos. 787CL & 829CL
HUNG SHUI KIU / HA TSUEN NEW DEVELOPMENT AREA ADVANCE WORKS PHASE 3 AND STAGE 2 WORKS



圖則名稱 drawing title

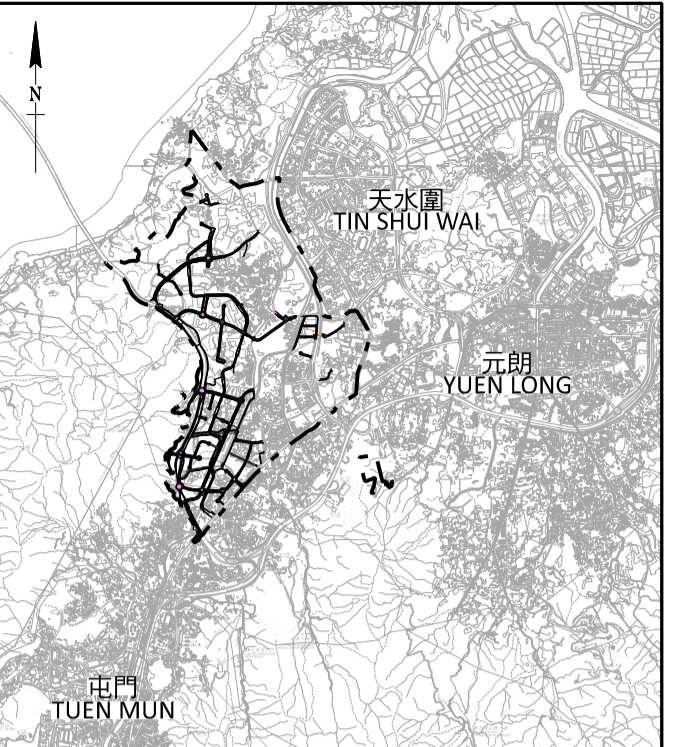
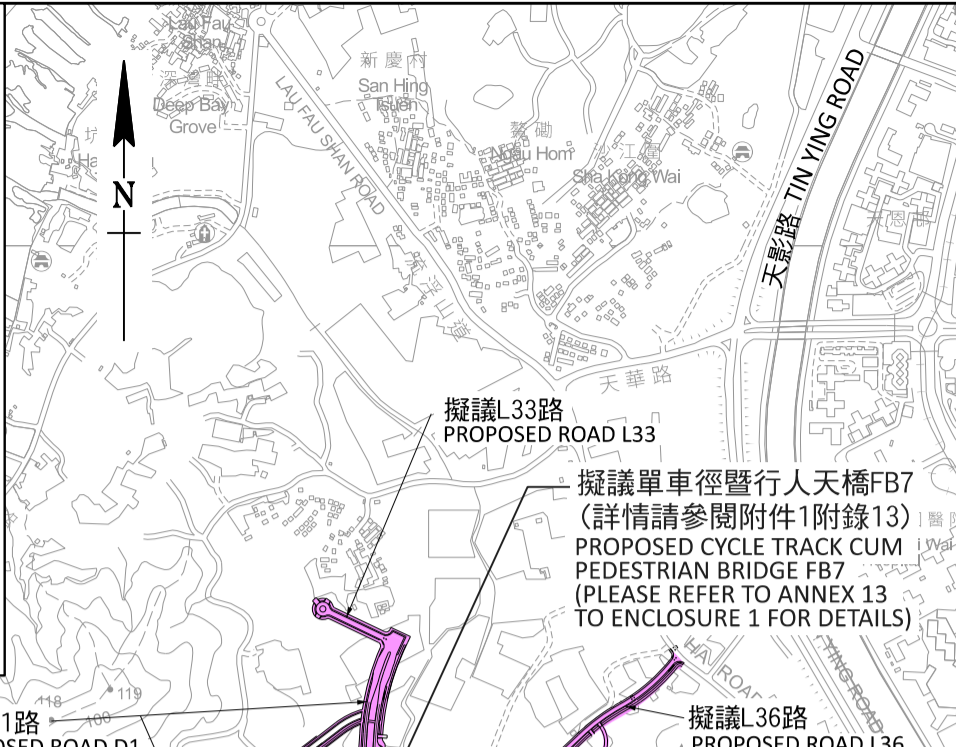
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洪水橋 / 厦村新發展區前期工程第三期及第二階段工程

PWP Item Nos. 787CL & 829CL

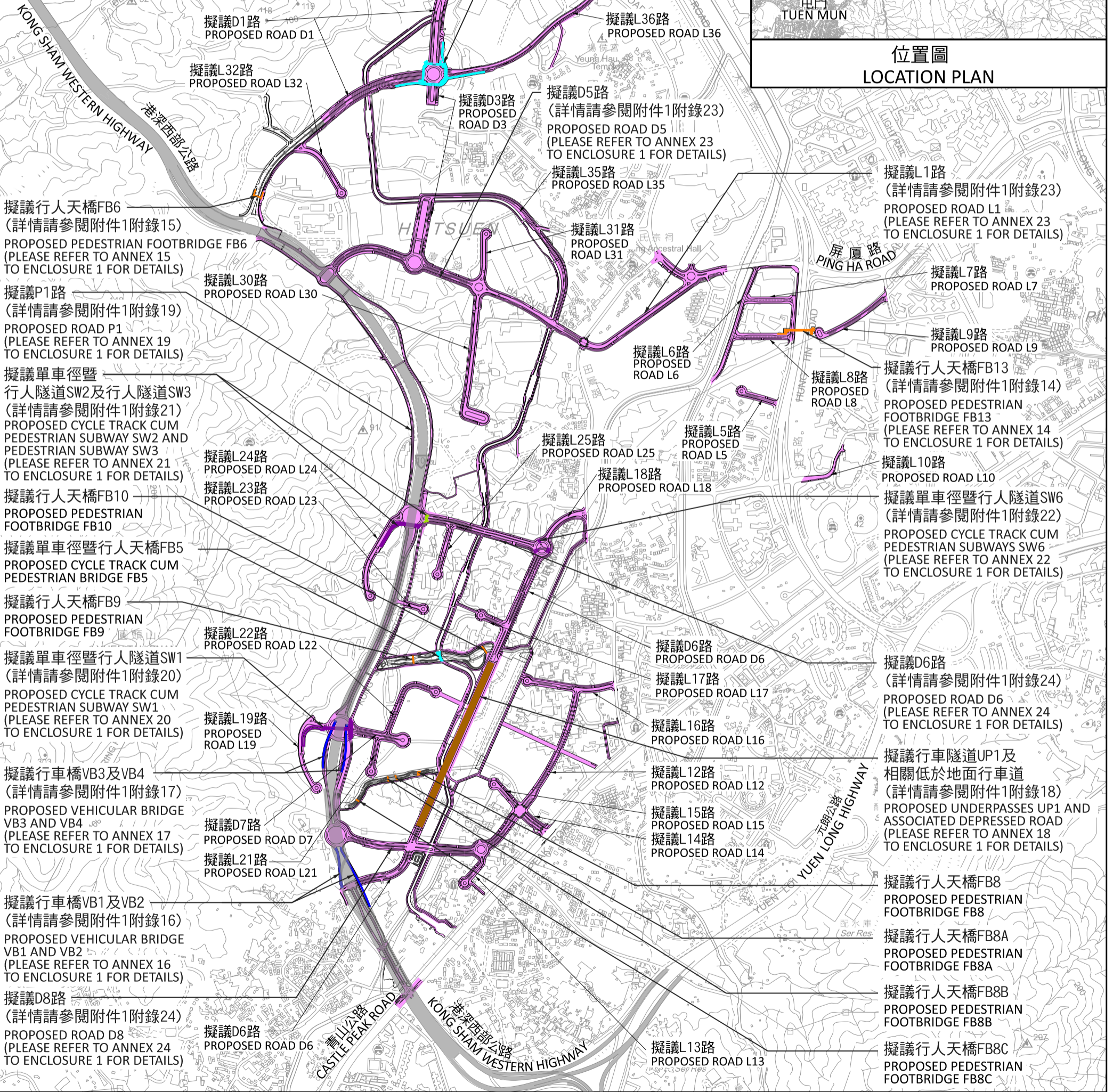
HUNG SHUI KIU / HA TSUEN NEW DEVELOPMENT AREA ADVANCE WORKS PHASE 3 AND STAGE 2 WORKS

圖例 LEGEND

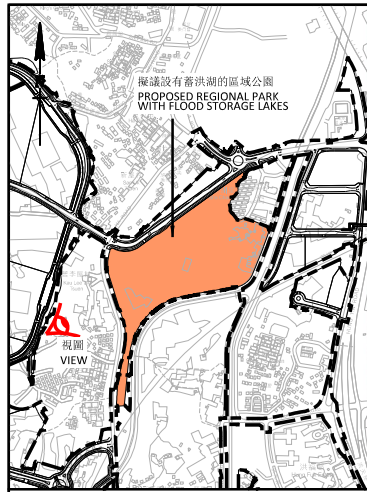
- 擬議道路和相關工程
PROPOSED ROAD AND ASSOCIATED WORKS
- 擬議行人天橋
PROPOSED PEDESTRIAN FOOTBRIDGE
- 擬議行人隧道
PROPOSED PEDESTRIAN SUBWAY
- 擬議行車橋
PROPOSED VEHICULAR BRIDGE
- 擬議行車隧道及相關低於地面行車道
PROPOSED UNDERPASSES AND ASSOCIATED DEPRESSED ROAD
- 擬議單車徑暨行人天橋
PROPOSED CYCLE TRACK CUM PEDESTRIAN BRIDGE
- 擬議單車徑暨行人隧道
PROPOSED CYCLE TRACK CUM PEDESTRIAN SUBWAY



位置圖
LOCATION PLAN



圖則名稱 drawing title
 工務工程計劃項目第787CL號及第829CL號
 洪水橋 / 厦村新發展區前期工程第三期及第二階段工程 - 道路平面圖
 PWP Item Nos. 787CL & 829CL
 HUNG SHUI KIU / HA TSUEN NEW DEVELOPMENT AREA ADVANCE WORKS PHASE 3 AND STAGE 2 WORKS
 - ROAD LAYOUT PLAN



索引圖 KEY PLAN

擬議康樂及體育設施
(由其他工程項目建造)
PROPOSED RECREATIONAL AND SPORTS
FACILITIES (TO BE CONSTRUCTED BY
OTHER PROJECT)

擬議蓄洪湖
PROPOSED FLOOD STORAGE LAKES

圖例：LEGEND:

- 擬議工程項目範圍
PROPOSED WORKS BOUNDARY
- 擬議設有蓄洪湖的區域公園
PROPOSED REGIONAL PARK WITH
FLOOD STORAGE LAKES
- ▲ 構思圖視角
VIEW ANGLE OF THE ARTISTIC
IMPRESSION

備註：REMARK:
所有構思圖及剖面圖只作示意用途。
ALL ARTISTIC IMPRESSIONS AND SECTIONS ARE
INDICATIVE ONLY.

擬議L1路
PROPOSED ROAD L1

現有港鐵屯馬綫
EXISTING MTR TUEN MA LINE

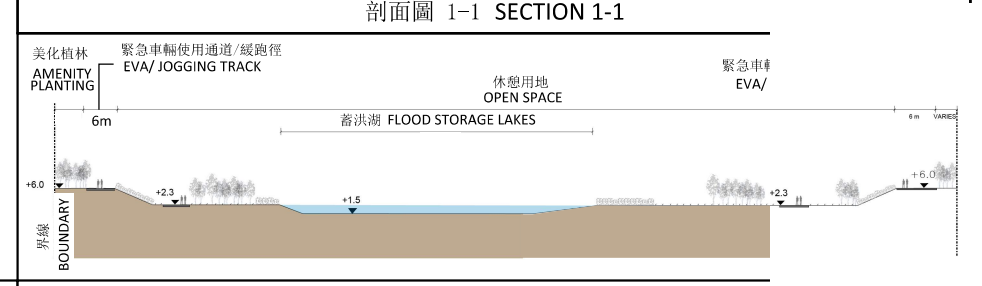
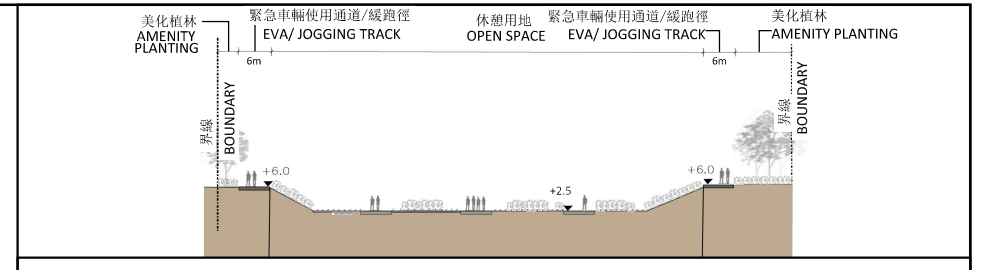
現有田廈路
EXISTING TIN HA ROAD



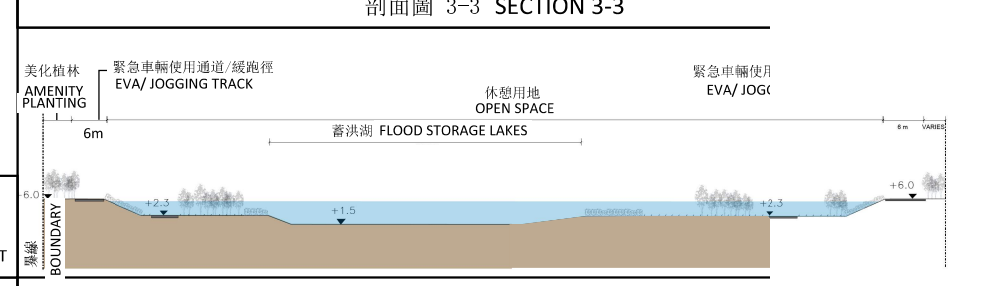
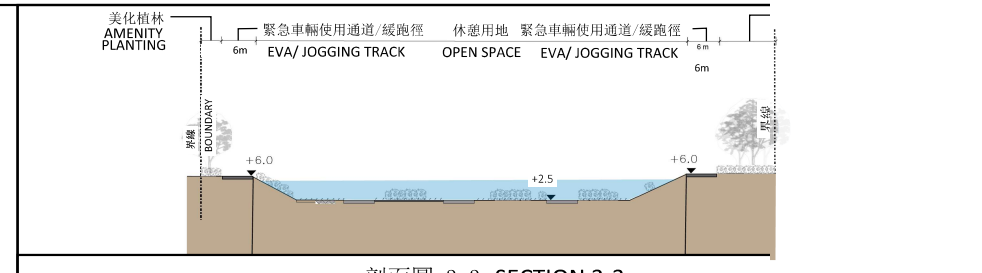
視圖 VIEW

圖則名稱 DRAWING TITLE

工務工程計劃項目第787CL號及829CL號 - 洪水橋/厦村新發展區前期工程第三期及第二階段工程
擬議設有蓄洪湖的區域公園構思圖
PWP ITEM NOS. 787CL & 829CL - HUNG SHUI KIU/HA TSUEN NEW DEVELOPMENT AREA ADVANCE WORKS PHASE 3 AND STAGE 2 WORKS
ARTISTIC IMPRESSION OF PROPOSED REGIONAL PARK WITH FLOOD STORAGE LAKES

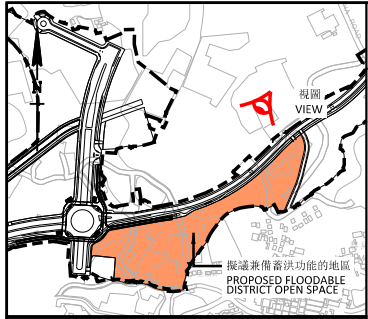


日常操作使用 NORMAL STAGE



圖例: LEGEND:
 擬議蓄洪範圍
 PROPOSED FLOOD EXTENT

PHASE 3 AND STAGE 2 WORKS



索引圖 KEY PLAN



視圖 VIEW

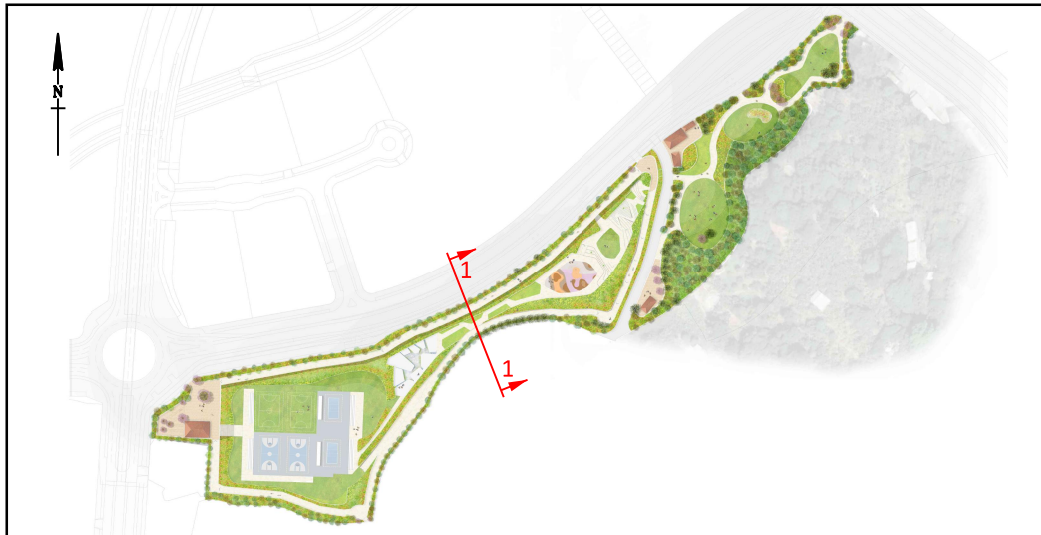
圖則名稱 DRAWING TITLE

工務工程計劃項目第787CL號及829CL號 - 洪水橋/厦村新發展區前期工程第三期及第二階段工程

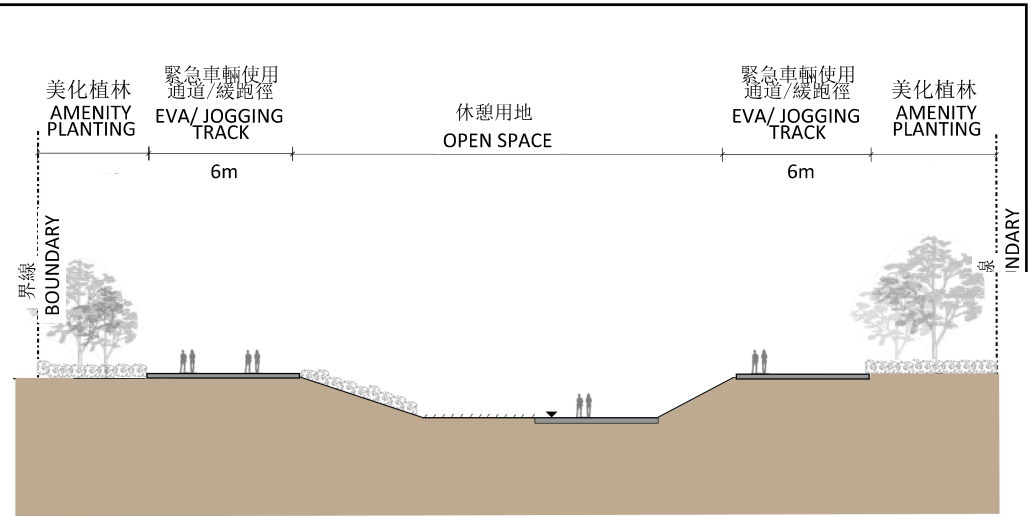
擬議兼備蓄洪功能的地區休憩用地構思圖

PWP ITEM NOS. 787CL & 829CL - HUNG SHUI KIU/HA TSUEN NEW DEVELOPMENT AREA ADVANCE WORKS PHASE 3 AND STAGE 2 WORKS

ARTISTIC IMPRESSION OF PROPOSED FLOODABLE DISTRICT OPEN SPACE

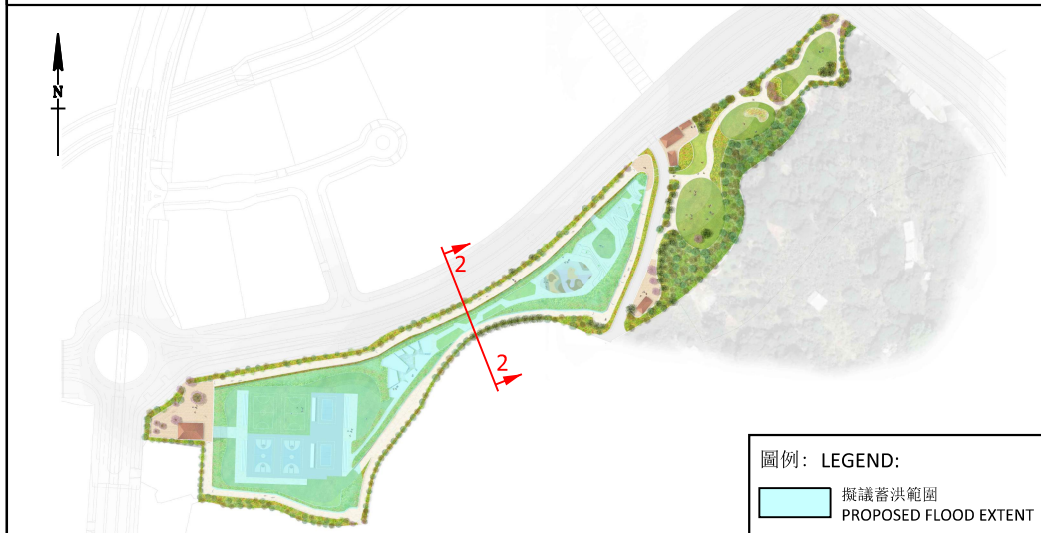


平面圖 PLAN



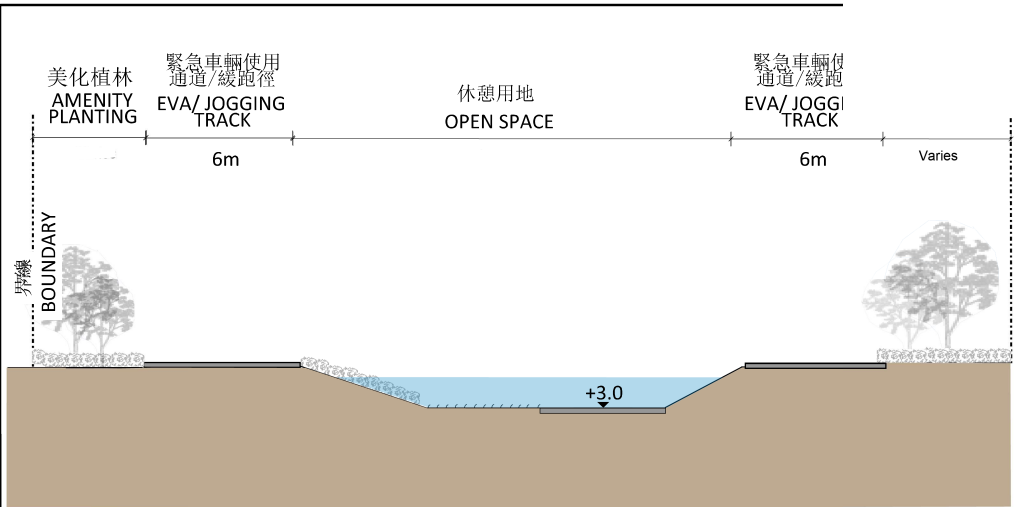
剖面圖 1-1 SECTION 1-1

日常操作使用 NORMAL STAGE



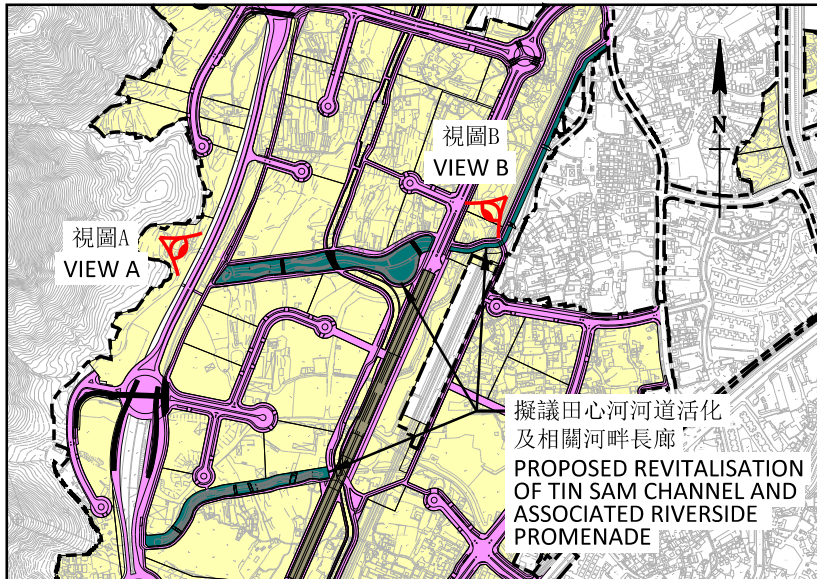
平面圖 PLAN

圖例: LEGEND:
 擬議蓄洪範圍
 PROPOSED FLOOD EXTENT



剖面圖 2-2 SECTION 2-2

圖則名稱 DRAWING TITLE
 工務工程計劃項目第787CL號及829CL號
 擬議兼備蓄洪功能的地區休憩用地平面
 PWP ITEM NOS. 787CL & 829CL - HUN
 LAYOUT PLANS AND SECTIONS OF PRC



索引圖 KEY PLAN



視圖A VIEW A

圖例：LEGEND:

-  擬議工程項目範圍
PROPOSED WORKS BOUNDARY
-  擬議道路和相關工程
PROPOSED ROADWORKS AND ASSOCIATED WORKS
-  擬議工地清理及工地平整和相關基礎設施工程
PROPOSED SITE CLEARANCE / SITE FORMATION AND ASSOCIATED INFRASTRUCTURE WORKS
-  擬議田心河道活化及相關河畔長廊
PROPOSED REVITALISATION OF TIN SAM CHANNEL AND ASSOCIATED RIVERSIDE PROMENADE
-  構思圖視角
VIEW ANGLE OF THE ARTISTIC IMPRESSION

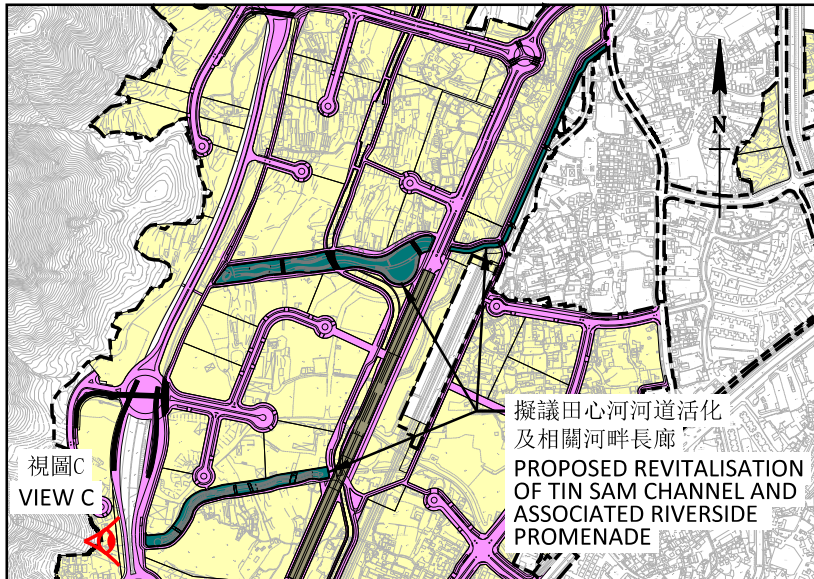
備註：REMARK:

所有構思圖及剖面圖只作示意用途。
ALL ARTISTIC IMPRESSIONS AND SECTIONS ARE INDICATIVE ONLY.



圖則名稱 DRAWING TITLE

工務工程計劃項目第787CL號及829CL號 - 洪水
PWP ITEM NOS. 787CL & 829CL - HUNG SHUI
LAYOUT PLAN AND ARTISTIC IMPRESSION OF
ASSOCIATED RIVERSIDE PROMENADE



索引圖 KEY PLAN

圖例：LEGEND:

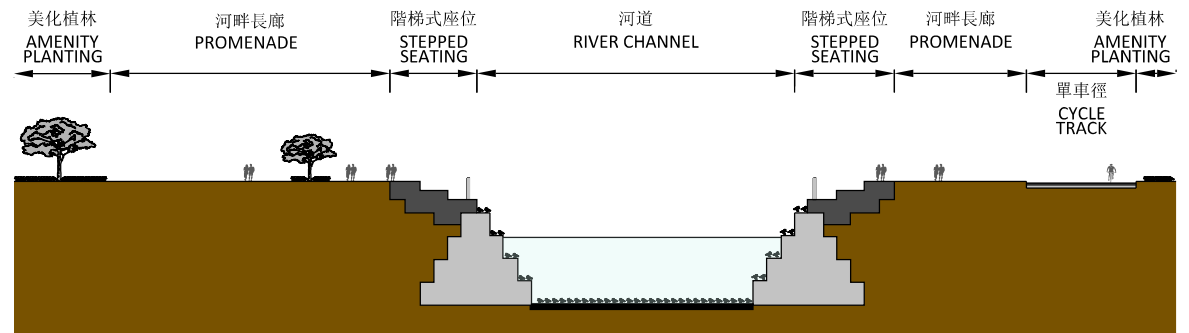
-  擬議工程項目範圍
PROPOSED WORKS BOUNDARY
-  擬議道路和相關工程
PROPOSED ROADWORKS AND ASSOCIATED WORKS
-  擬議工地清理及工地平整和相關基礎設施工程
PROPOSED SITE CLEARANCE / SITE FORMATION AND ASSOCIATED INFRASTRUCTURE WORKS
-  擬議田心河河道活化及相關河畔長廊
PROPOSED REVITALISATION OF TIN SAM CHANNEL AND ASSOCIATED RIVERSIDE PROMENADE
-  構思圖視角
VIEW ANGLE OF THE ARTISTIC IMPRESSION

備註：REMARK:

所有構思圖及剖面圖只作示意用途。
ALL ARTISTIC IMPRESSIONS AND SECTIONS ARE INDICATIVE ONLY.



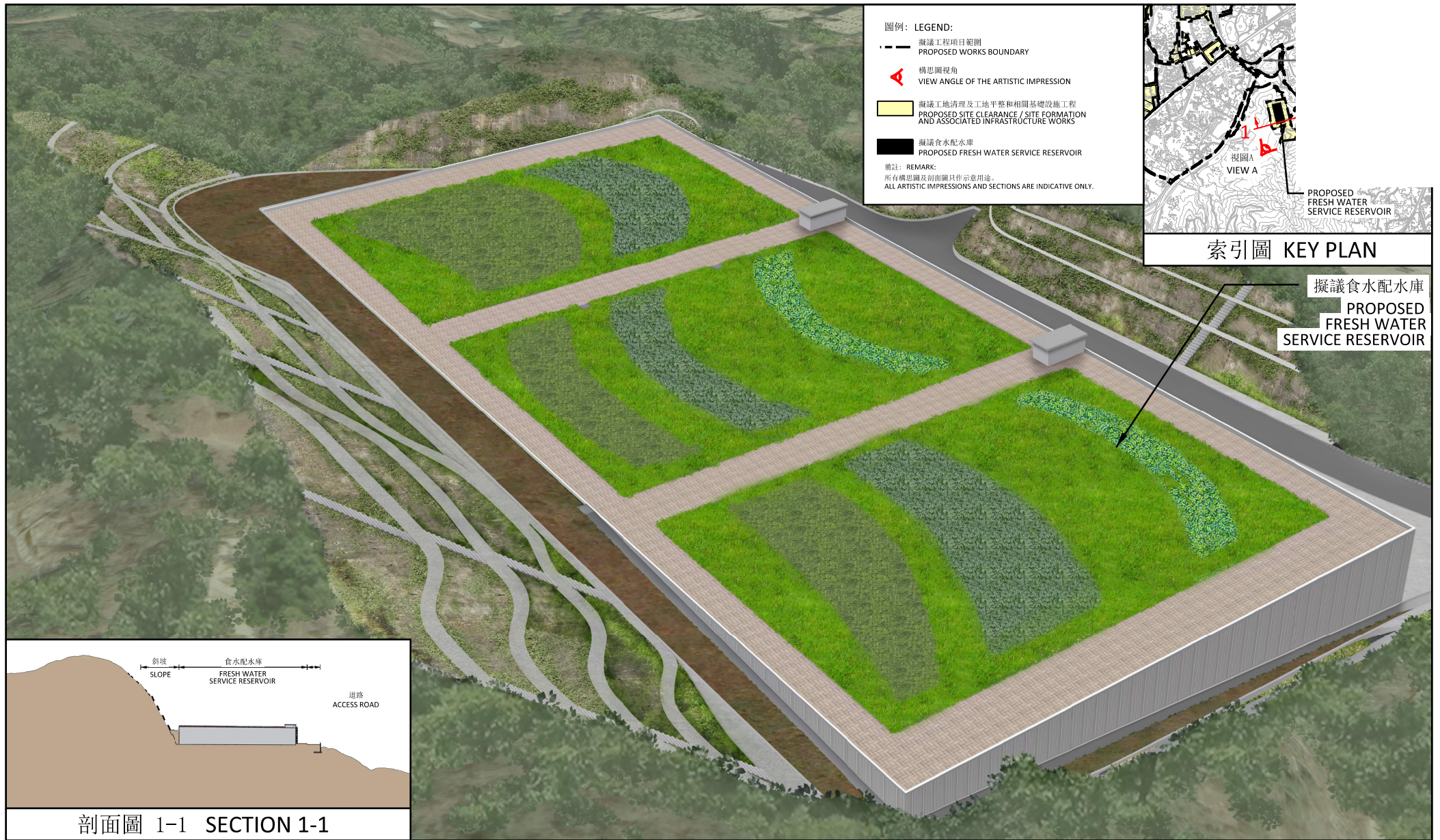
視圖C VIEW C



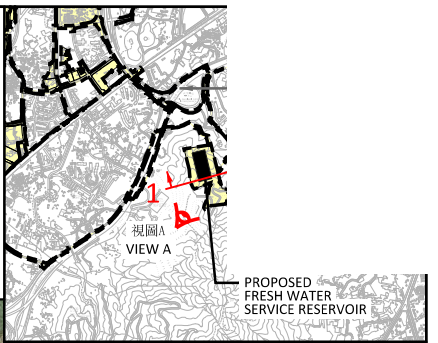
典型剖面圖 TYPICAL SECTION

圖則名稱 DRAWING TITLE

工務工程計劃項目第787CL號及829CL號 - 洪水橋/厦村新發展區前期工程第三期及第二階段工程擬議田心河河道活化及相關河畔長廊平面圖、剖面圖及構思圖
PWP ITEM NOS. 787CL & 829CL - HUNG SHUI KIU/HA TSUEN NEW DEVELOPMENT AREA ADVANCE WORKS PHASE 3 AND STAGE 2 WORKS LAYOUT PLAN, SECTION AND ARTISTIC IMPRESSION OF PROPOSED REVITALISATION OF TIN SAM CHANNEL AND ASSOCIATED RIVERSIDE PROMENADE

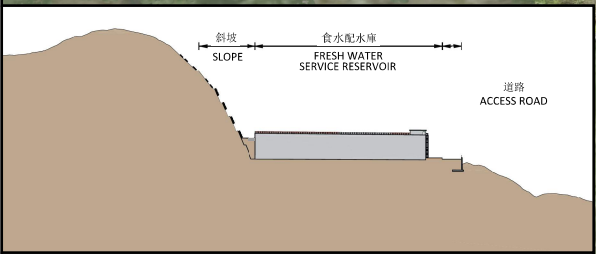


圖例: LEGEND:
 - - - 擬議工程項目範圍
 PROPOSED WORKS BOUNDARY
 構思圖視角
 VIEW ANGLE OF THE ARTISTIC IMPRESSION
 擬議工地清理及工地平整和相關基礎設施工程
 PROPOSED SITE CLEARANCE / SITE FORMATION
 AND ASSOCIATED INFRASTRUCTURE WORKS
 擬議食水配水庫
 PROPOSED FRESH WATER SERVICE RESERVOIR
 備註: REMARK:
 所有構思圖及剖面圖只作示意用途。
 ALL ARTISTIC IMPRESSIONS AND SECTIONS ARE INDICATIVE ONLY.



索引圖 KEY PLAN

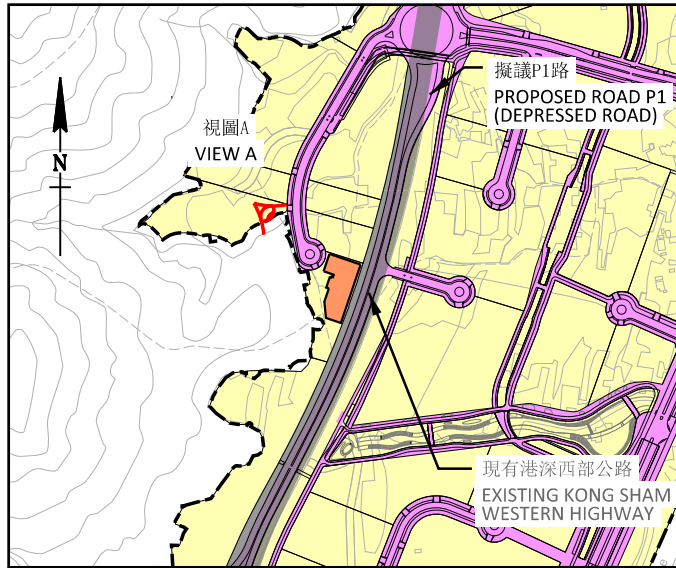
擬議食水配水庫
 PROPOSED
 FRESH WATER
 SERVICE RESERVOIR



剖面圖 1-1 SECTION 1-1

視圖A VIEW A

圖則名稱 DRAWING TITLE
 工務工程計劃項目第787CL號及829CL號 - 洪水橋/厦村新發展區前期工程第三期及第二階段工程
 擬議食水配水庫剖面圖及構思圖
 PWP ITEM NOS. 787CL & 829CL - HUNG SHUI KIU/HA TSUEN NEW DEVELOPMENT AREA ADVANCE WORKS PHASE 3 AND STAGE 2 WORKS
 SECTION AND ARTISTIC IMPRESSION OF PROPOSED FRESH WATER SERVICE RESERVOIR



索引圖 KEY PLAN



平面圖 PLAN VIEW



視圖A VIEW A

圖例: LEGEND:

- 擬議工程項目範圍
PROPOSED WORKS BOUNDARY
- 擬議工地清理及工地平整和相關基礎設施工程
PROPOSED SITE CLEARANCE / SITE FORMATION AND ASSOCIATED INFRASTRUCTURE WORKS
- 擬議道路和相關工程
PROPOSED ROADWORKS AND ASSOCIATED WORKS
- 構思圖視角
VIEW ANGLE OF THE ARTISTIC IMPRESSION
- 擬議2號污水泵房
PROPOSED SEWAGE PUMPING STATION NO.2

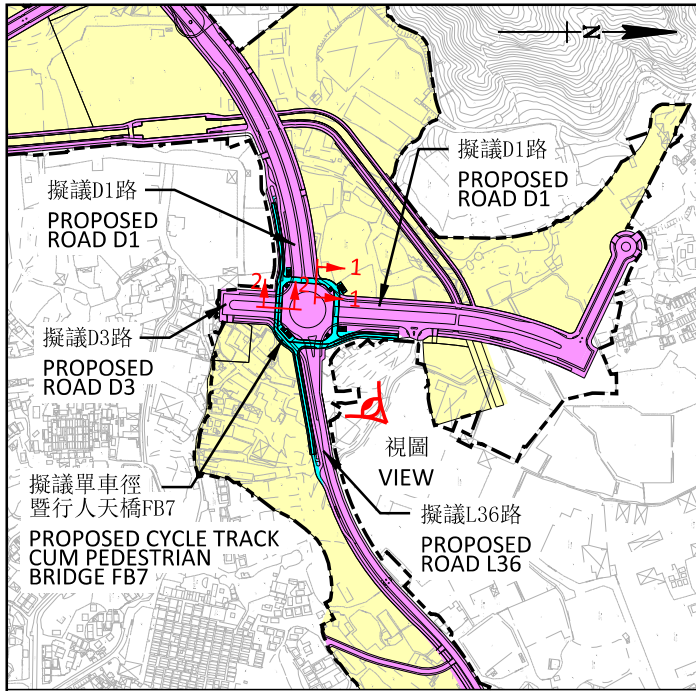
備註:
所有構思圖只作示意用途。

REMARK:
ALL ARTISTIC IMPRESSIONS ARE INDICATIVE ONLY.

圖則名稱 DRAWING TITLE

工務工程計劃項目第787CL號及829CL號 - 洪水橋/厦村新發展區前期工程第三期及第二階段工程
擬議2號污水泵房平面圖及構思圖

PWP ITEM NOS. 787CL & 829CL - HUNG SHUI KIU/HA TSUEN NEW DEVELOPMENT AREA ADVANCE WORKS PHASE 3 AND STAGE 2 WORKS
LAYOUT PLAN AND ARTISTIC IMPRESSION OF PROPOSED SEWAGE PUMPING STATION NO.2



索引圖 KEY PLAN

圖例: LEGEND:

- 擬議工程項目範圍
PROPOSED WORKS BOUNDARY
- █ 擬議道路和相關工程
PROPOSED ROADWORKS AND ASSOCIATED WORKS
- █ 擬議工地清理及工地平整和相關基礎設施工程
PROPOSED SITE CLEARANCE / SITE FORMATION AND ASSOCIATED INFRASTRUCTURE WORKS
- █ 擬議單車徑暨行人天橋
PROPOSED CYCLE TRACK CUM PEDESTRIAN FOOTBRIDGE
- ↗ 構思圖視角
VIEW ANGLE OF THE ARTISTIC IMPRESSION

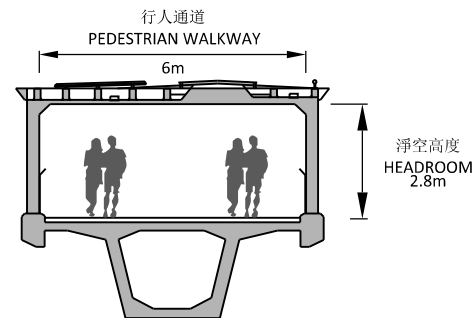
備註: REMARK:

所有構思圖及剖面圖只作示意用途。
ALL ARTISTIC IMPRESSIONS AND SECTIONS ARE INDICATIVE ONLY.

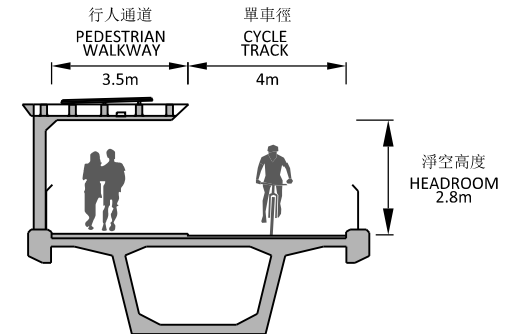
圖則名稱 DRAWING TITLE



擬議單車徑暨行人天橋FB7 PROPOSED CYCLE TRACK CUM PEDESTRIAN BRIDGE FB7

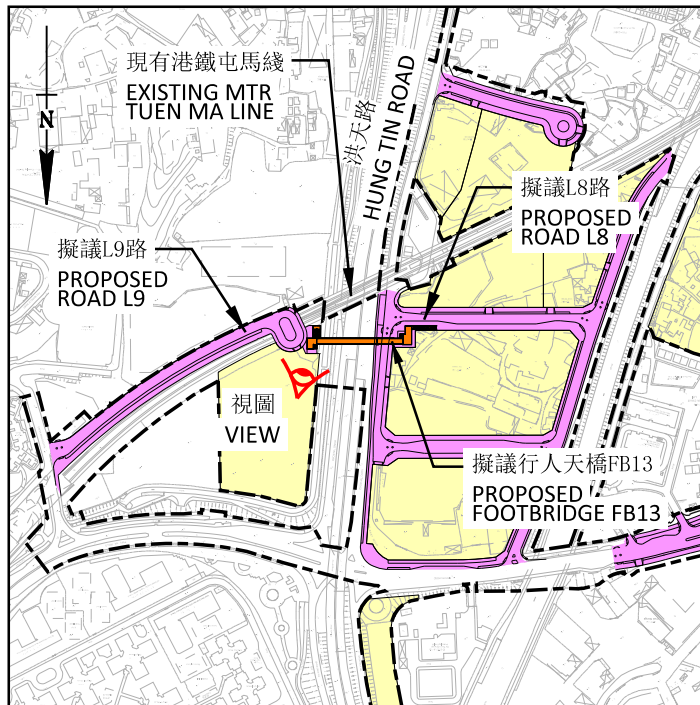


剖面圖 1-1 SECTION 1-1

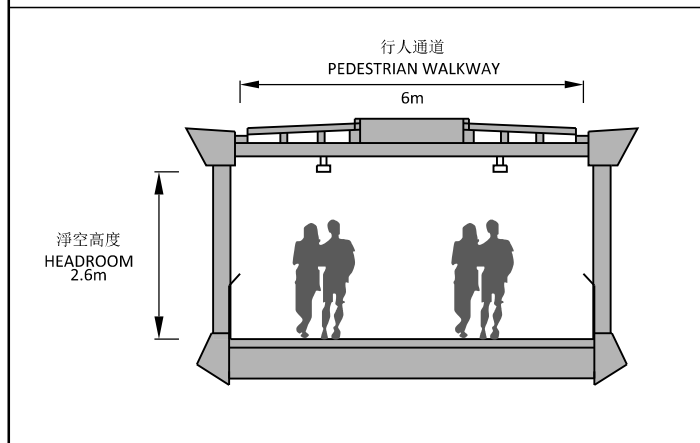


剖面圖 2-2 SECTION 2-2

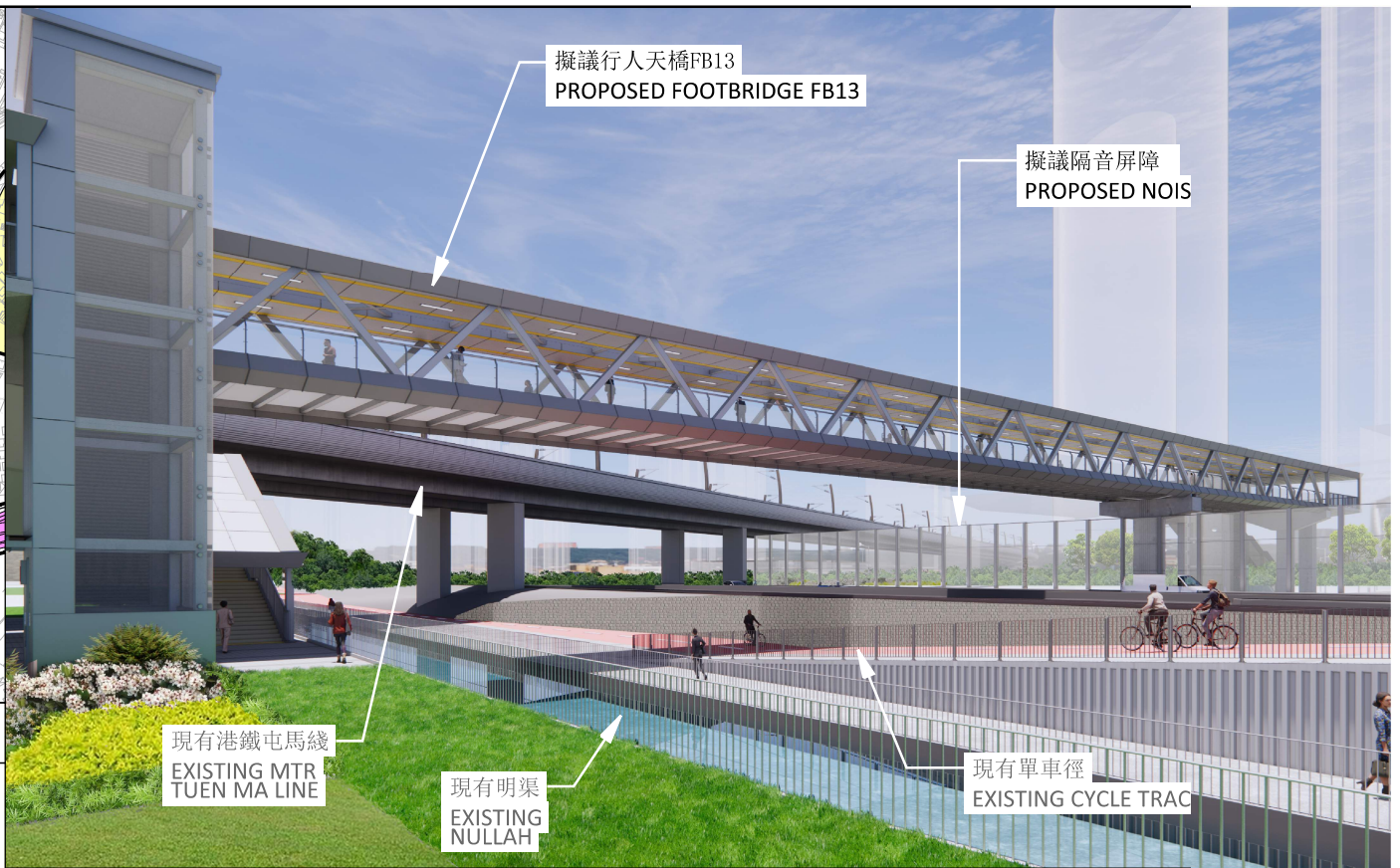
工務工程計劃項目第787CL號及829CL號 - 洪水橋/厦村新發展區前期工程第三期及第二階段工程擬議單車徑暨行人天橋FB7平面圖、剖面圖及構思圖
PWP ITEM NOS. 787CL & 829CL - HUNG SHUI KIU/HA TSUEN NEW DEVELOPMENT AREA ADVANCE WORKS PHASE 3 AND STAGE 2 WORKS
LAYOUT PLAN, SECTIONS AND ARTISTIC IMPRESSION OF PROPOSED CYCLE TRACK CUM PEDESTRIAN BRIDGE FB7



索引圖 KEY PLAN



擬議行人天橋典型剖面圖
TYPICAL SECTION OF PROPOSED FOOTBRIDGE



擬議行人天橋FB13 PROPOSED FOOTBRIDGE FB13

視圖 VIEW

圖例: LEGEND:

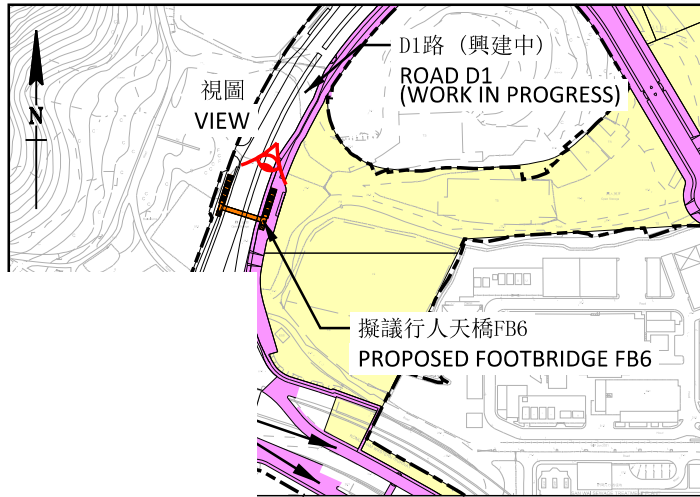
- 擬議工程項目範圍
PROPOSED WORKS BOUNDARY
- 擬議道路和相關工程
PROPOSED ROADWORKS AND ASSOCIATED WORKS
- 擬議工地清理及工地平整和相關基礎設施工程
PROPOSED SITE CLEARANCE / SITE FORMATION AND ASSOCIATED INFRASTRUCTURE WORKS
- 擬議行人天橋
PROPOSED FOOTBRIDGE
- ◁ 構思圖視角
VIEW ANGLE OF THE ARTISTIC IMPRESSION

備註: REMARK:

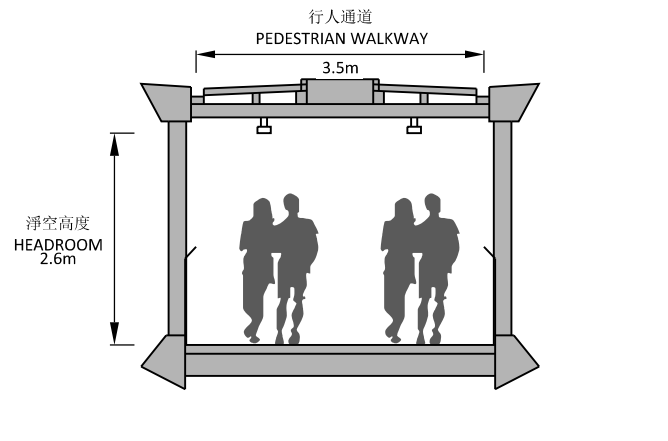
所有構思圖及剖面圖只作示意用途。 ALL ARTISTIC IMPRESSIONS AND SECTIONS ARE INDICATIVE ONLY.

圖則名稱 DRAWING TITLE

工務工程計劃項目第787CL號及829CL號 - 洪水橋/厦村新發展區前期工程第三期及第二階段工程擬議行人天橋FB13平面圖、剖面圖及構思圖
PWP ITEM NOS. 787CL & 829CL - HUNG SHUI KIU/HA TSUEN NEW DEVELOPMENT AREA ADVANCE WORKS PHASE 3 AND STAGE 2 WORKS LAYOUT PLAN, SECTION AND ARTISTIC IMPRESSION OF PROPOSED FOOTBRIDGE FB13



索引圖 KEY PLAN



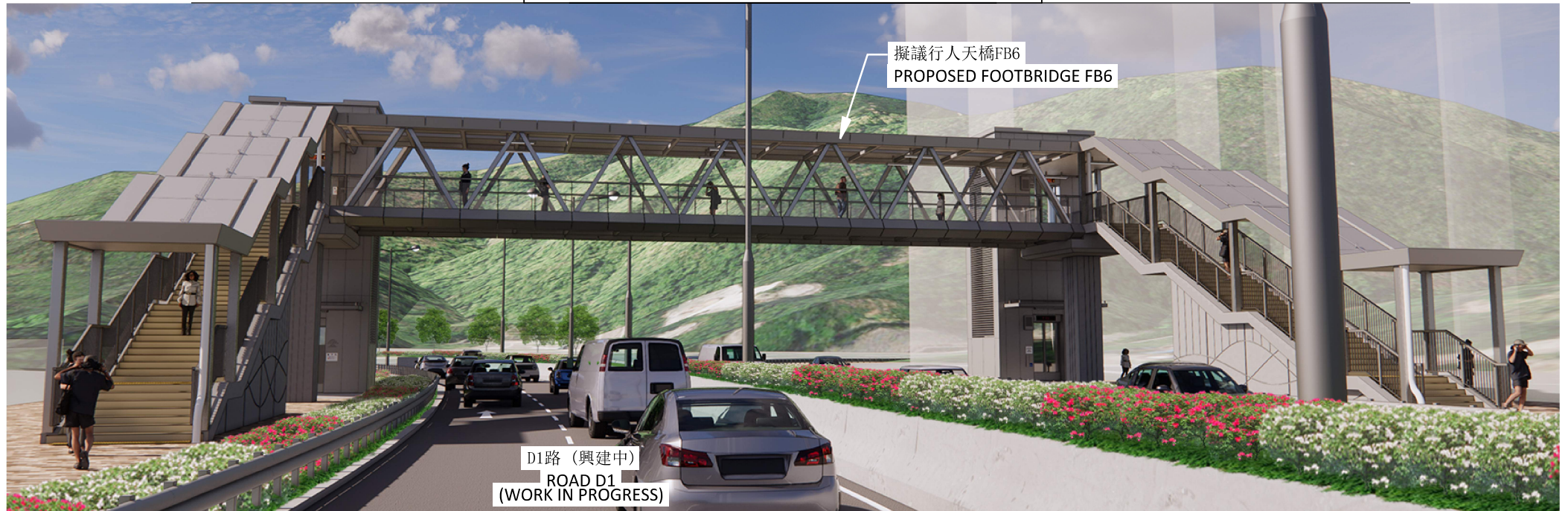
擬議行人天橋典型剖面圖
TYPICAL SECTION OF PROPOSED FOOTBRIDGE

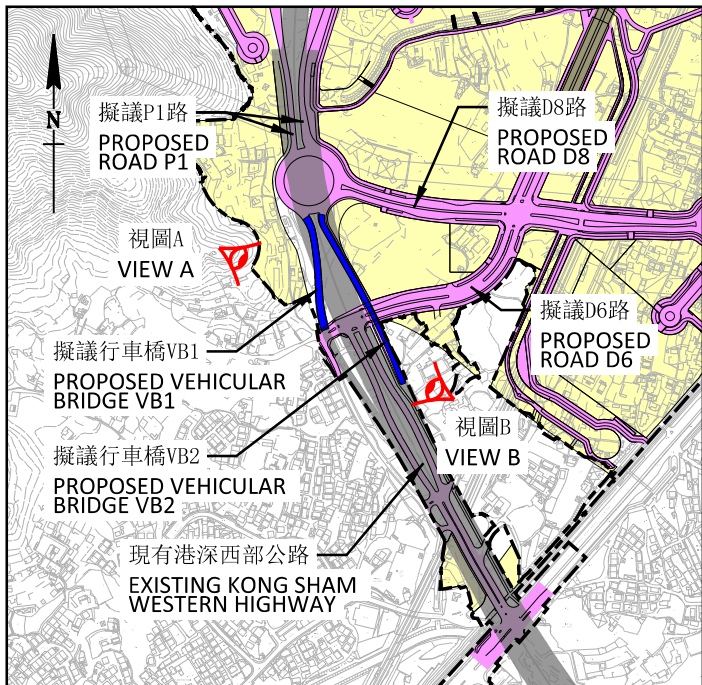
圖例: LEGEND:

- 擬議工程項目範圍
PROPOSED WORKS BOUNDARY
- █ 擬議道路和相關工程
PROPOSED ROADWORKS AND ASSOCIATED WORKS
- █ 擬議工地清理及工地平整和相關基礎
PROPOSED SITE CLEARANCE / SITE AND ASSOCIATED INFRASTRUCTURE
- █ 擬議行人天橋
PROPOSED FOOTBRIDGE
- ◁ 構思圖視角
VIEW ANGLE OF THE ARTISTIC IMPRESSION

備註: REMARK:

所有構思圖及剖面圖只作示意用途。
ALL ARTISTIC IMPRESSIONS AND SECTIONS ARE FOR INFORMATION ONLY.





擬議行車橋VB1 PROPOSED VEHICULAR BRIDGE VB1 視圖A VIEW A

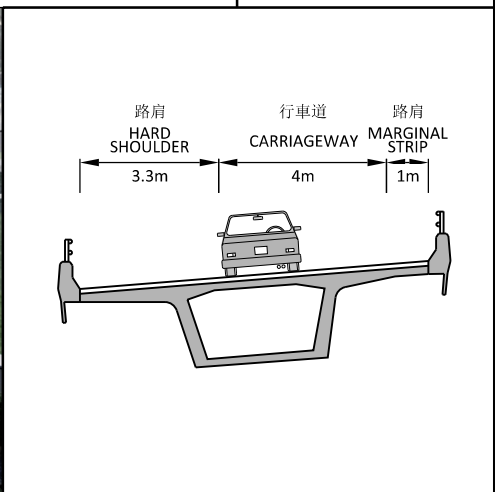
索引圖 KEY PLAN

- 圖例: LEGEND:
- 擬議工程項目範圍
PROPOSED WORKS BOUNDARY
 - 擬議道路和相關工程
PROPOSED ROADWORKS AND ASSOCIATED WORKS
 - 擬議工地清理及工地平整和相關基礎設施工程
PROPOSED SITE CLEARANCE / SITE FORMATION AND ASSOCIATED INFRASTRUCTURE WORKS
 - 擬議行車橋
PROPOSED VEHICULAR BRIDGES
 - 構思圖視角
VIEW ANGLE OF THE ARTISTIC IMPRESSION

備註: REMARK:
 所有構思圖及剖面圖只作示意用途。
 ALL ARTISTIC IMPRESSIONS AND SECTIONS ARE INDICATIVE ONLY.

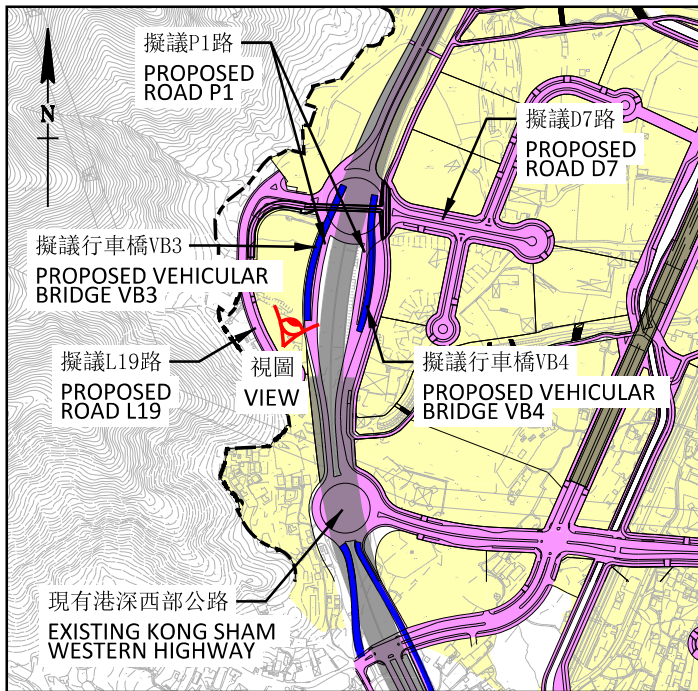


擬議行車橋VB2 PROPOSED VEHICULAR BRIDGE VB2 視圖B VIEW B



擬議行車橋典型剖面圖
 TYPICAL SECTION OF PROPOSED VEHICULAR BRIDGES

圖則名稱 DRAWING TITLE
 工務工程計劃項目第787CL號及829CL號 - 洪水橋/厦村新發展區前期工程第三期及第二階段工程擬議行車橋VB1及VB2平面圖、剖面圖及構思圖
 PWP ITEM NOS. 787CL & 829CL - HUNG SHUI KIU/HA TSUEN NEW DEVELOPMENT AREA ADVANCE WORKS PHASE 3 AND STAGE 2 WORKS LAYOUT PLAN, SECTION AND ARTISTIC IMPRESSION OF PROPOSED VEHICULAR BRIDGES VB1 AND VB2



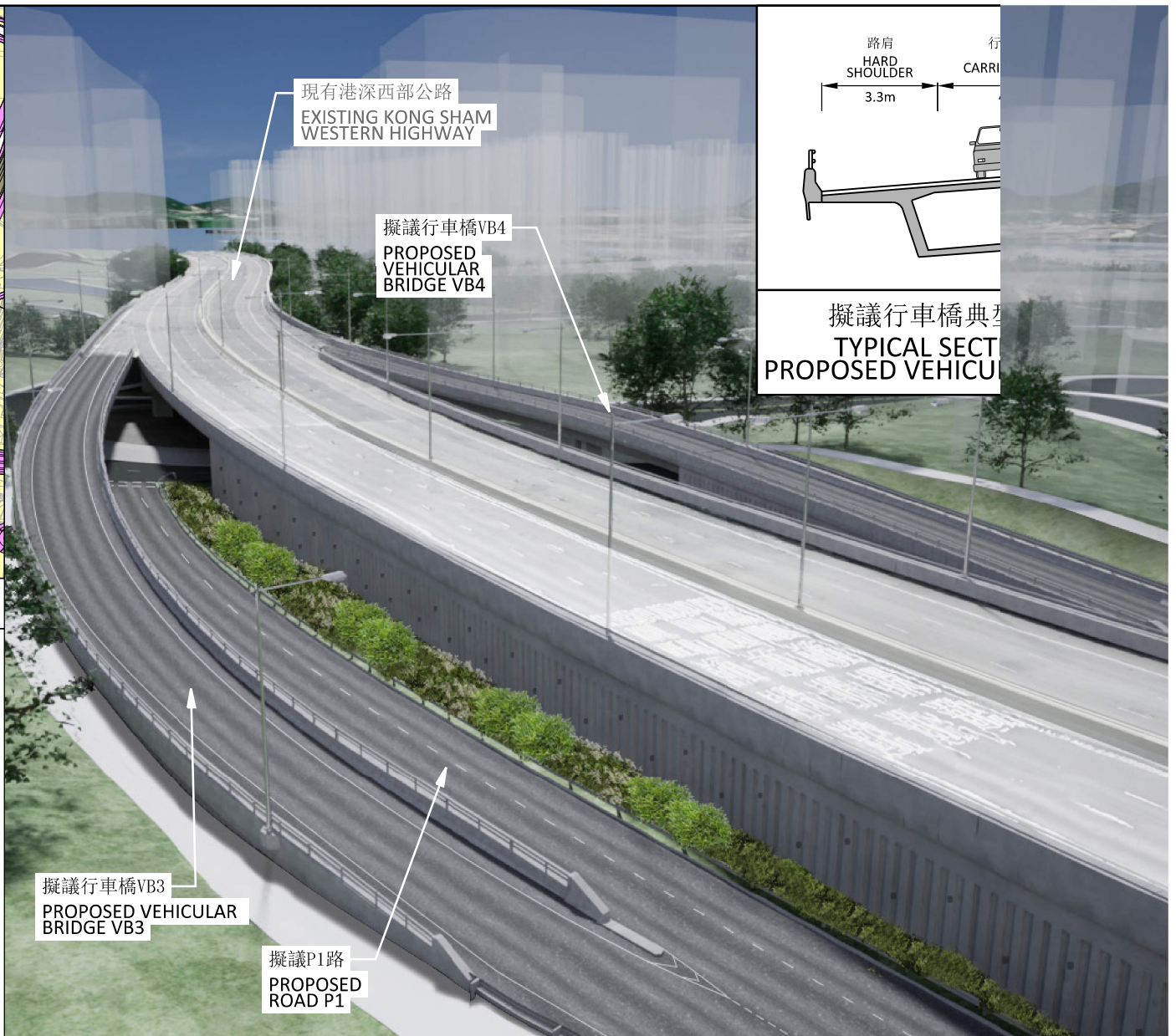
索引圖 KEY PLAN

圖例: LEGEND:

- 擬議工程項目範圍
PROPOSED WORKS BOUNDARY
- 擬議道路和相關工程
PROPOSED ROADWORKS AND ASSOCIATED WORKS
- 擬議工地清理及工地平整和相關基礎設施工程
PROPOSED SITE CLEARANCE / SITE FORMATION AND ASSOCIATED INFRASTRUCTURE WORKS
- 擬議行車橋
PROPOSED VEHICULAR BRIDGES
- ◀ 構思圖視角
VIEW ANGLE OF THE ARTISTIC IMPRESSION

備註: REMARK:

所有構思圖及剖面圖只作示意用途。
 ALL ARTISTIC IMPRESSIONS AND SECTIONS ARE INDICATIVE ONLY.

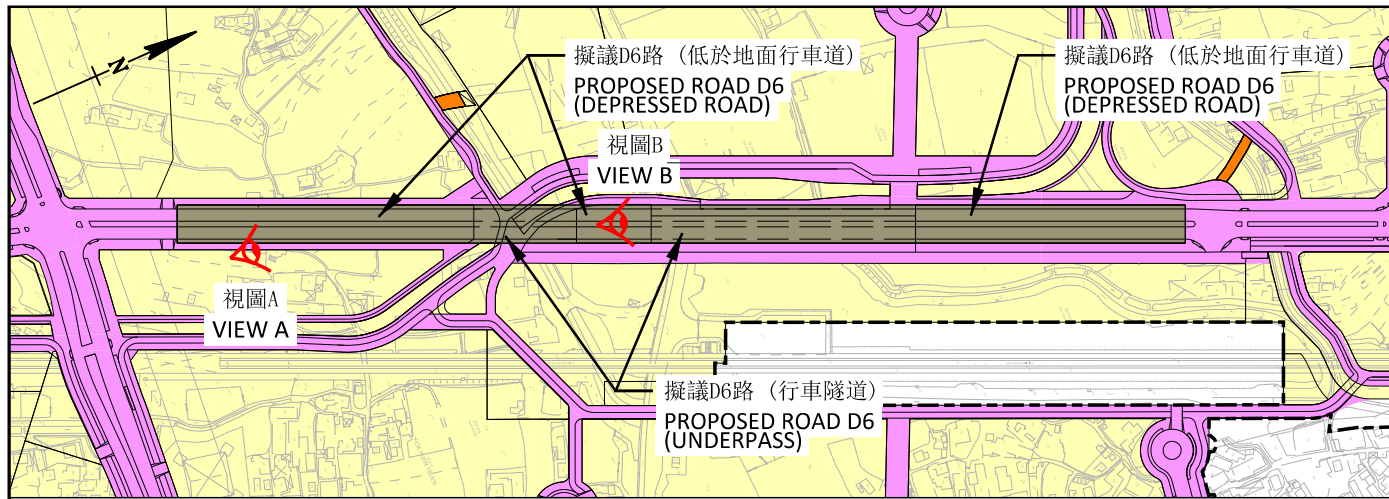


擬議行車橋VB3及VB4

PROPOSED VEHICULAR BRIDGES VB3 AND VB4

圖則名稱 DRAWING TITLE

工務工程計劃項目第787CL號及829CL號 - 洪水橋/厦村新發展區前期工程第三期及第二階段工程擬議行車橋VB3及VB4平面圖、剖面圖及構思圖
 PWP ITEM NOS. 787CL & 829CL - HUNG SHUI KIU/HA TSUEN NEW DEVELOPMENT AREA ADVANCE WORKS PHASE 3 AND STAGE 2 WORKS LAYOUT PLAN, SECTION AND ARTISTIC IMPRESSION OF PROPOSED VEHICULAR BRIDGES VB3 AND VB4



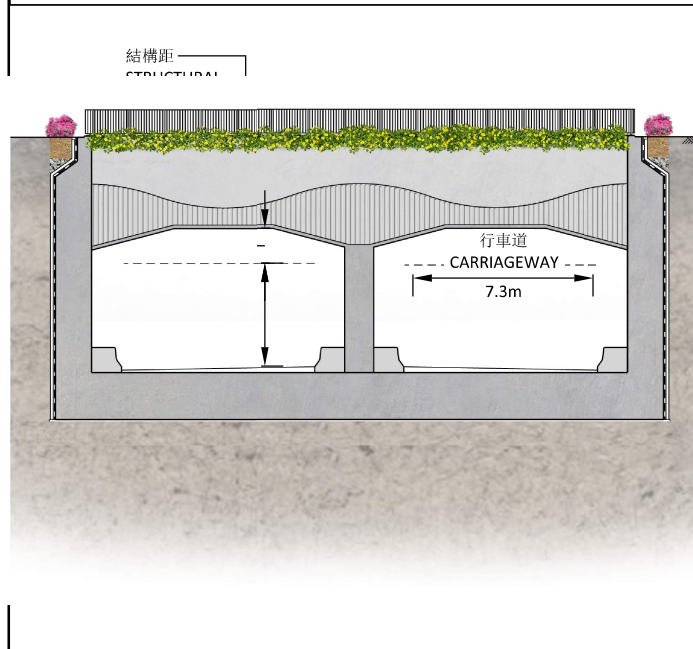
索引圖 KEY PLAN

圖例: LEGEND:

- 擬議工程項目範圍
PROPOSED WORKS BOUNDARY
- █ 擬議道路和相關工程
PROPOSED ROADWORKS AND ASSOCIATED WORKS
- █ 擬議工地清理及工地平整和相關基礎設施工程
PROPOSED SITE CLEARANCE / SITE FORMATION AND ASSOCIATED INFRASTRUCTURE WORKS
- █ 擬議行車隧道及相關低於地面行車道
PROPOSED UNDERPASS AND ASSOCIATED DEPRESSED ROAD
- 👁️ 構思圖視角
VIEW ANGLE OF THE ARTISTIC IMPRESSION

備註: REMARK:

所有構思圖及剖面圖只作示意用途。
ALL ARTISTIC IMPRESSIONS AND SECTIONS ARE



擬議行車隧道典型剖面圖
TYPICAL SECTION OF PROPOSED UNDERPASS



視圖A
VIEW A

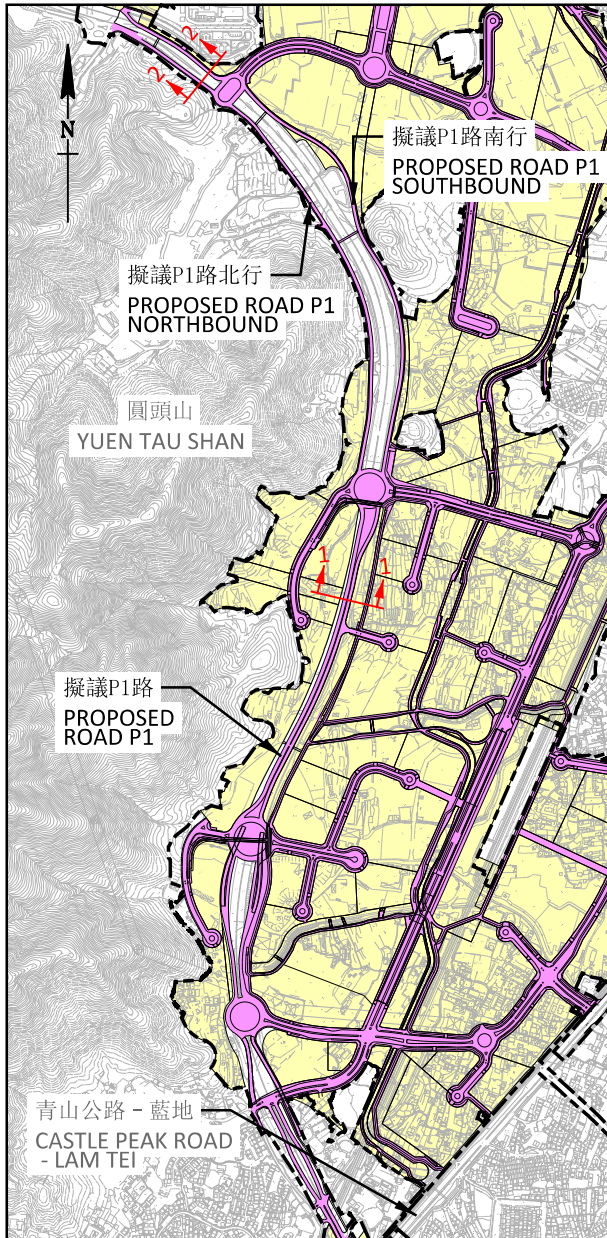


視圖B
VIEW B

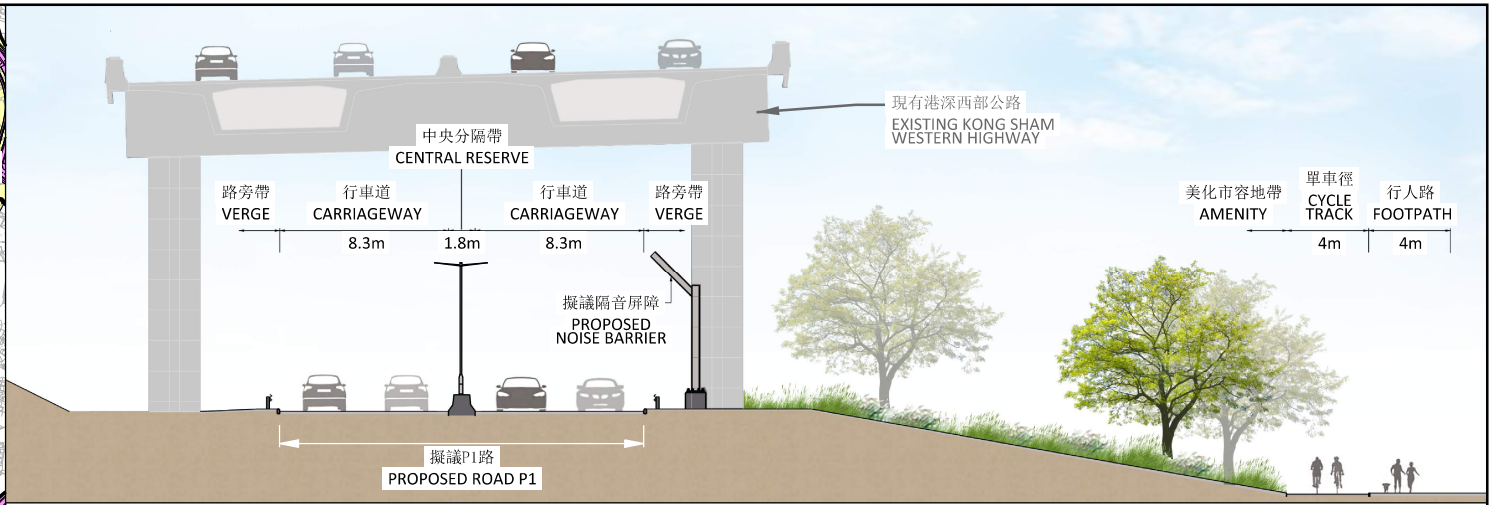
圖則名稱 DRAWING TITLE

工務工程計劃項目第787CL號及829CL號 - 洪水橋/厦村新發展區前期工程第三期及第二階段工程
擬議D6路(行車隧道及相關低於地面行車道)平面圖、剖面圖及構思圖

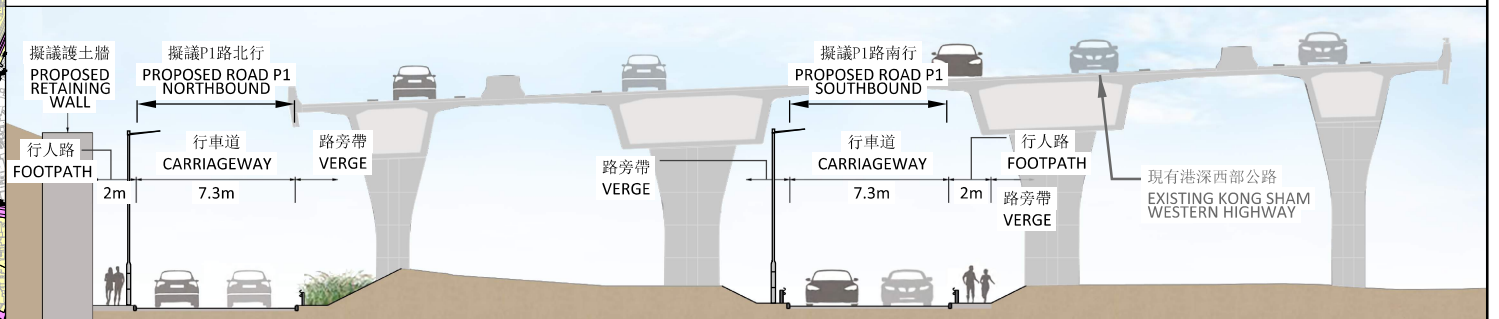
PWP ITEM NOS. 787CL & 829CL - HUNG SHUI KIU/HA TSUEN NEW DEVELOPMENT AREA ADVANCE WORKS PHASE 3 AND STAGE 2 WORKS
LAYOUT PLAN, SECTION AND ARTISTIC IMPRESSION OF PROPOSED ROAD D6 (UNDERPASS AND ASSOCIATED DEPRESSED ROAD)



索引圖 KEY PLAN



剖面圖 1-1 SECTION 1-1



剖面圖 2-2 SECTION 2-2

圖例: LEGEND:

--- 擬議工程項目範圍
PROPOSED WORKS BOUNDARY

■ 擬議道路和相關工程
PROPOSED ROADWORKS AND ASSOCIATED WORKS

■ 擬議工地清理及工地平整和相關基礎設施工程
PROPOSED SITE CLEARANCE / SITE FORMATION AND ASSOCIATED INFRASTRUCTURE WORKS

備註: REMARK:

所有構思圖及剖面圖只作示意用途。 ALL ARTISTIC IMPRESSIONS AND SECTIONS ARE INDICATIVE ONLY.

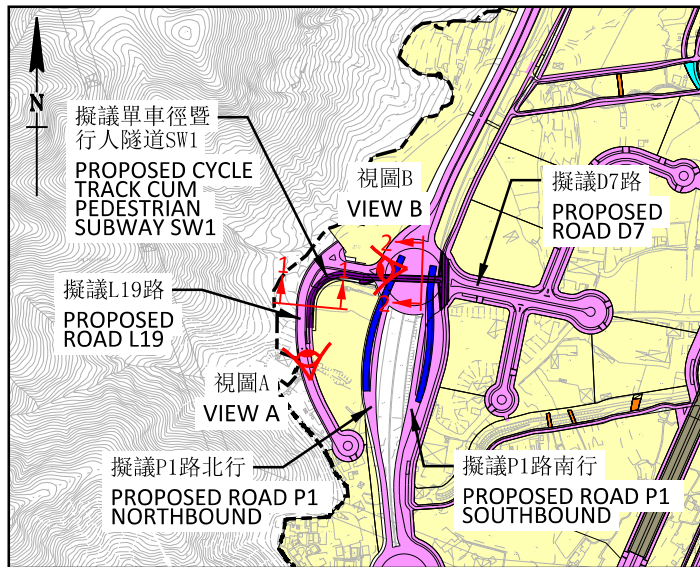
圖則名稱 DRAWING TITLE

工務工程計劃項目第787CL號及829CL號 - 洪水橋/厦村新發展區前期工程第三期及第二階段工程

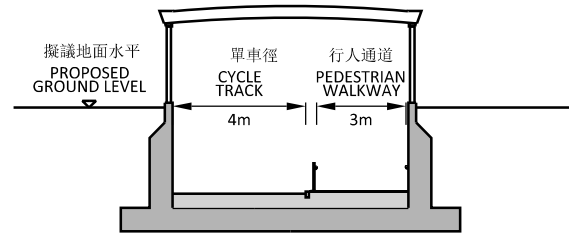
擬議P1路平面圖及剖面圖

PWP ITEM NOS. 787CL & 829CL - HUNG SHUI KIU/HA TSUEN NEW DEVELOPMENT AREA ADVANCE WORKS PHASE 3 AND STAGE 2 WORKS

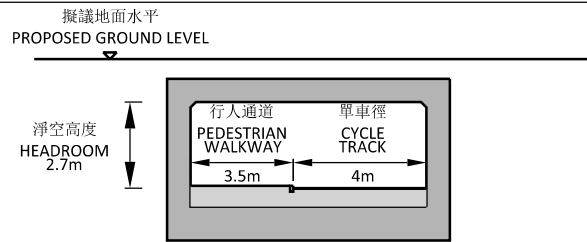
LAYOUT PLAN AND SECTIONS OF PROPOSED ROAD P1



索引圖 KEY PLAN



剖面圖 1-1 SECTION 1-1



剖面圖 2-2 SECTION 2-2

圖例: LEGEND:

- 擬議工程項目範圍
PROPOSED WORKS BOUNDARY
- █ 擬議道路和相關工程
PROPOSED ROADWORKS AND ASSOCIATED WORKS
- █ 擬議工地清理及工地平整和相關基礎設施工程
PROPOSED SITE CLEARANCE / SITE FORMATION AND ASSOCIATED INFRASTRUCTURE WORKS
- █ 擬議單車徑暨行人隧道
PROPOSED CYCLE TRACK CUM PEDESTRIAN SUBWAY
- 👁 構思圖視角
VIEW ANGLE OF THE ARTISTIC IMPRESSION

備註: REMARK:

所有構思圖及剖面圖只作示意用途。
ALL ARTISTIC IMPRESSIONS AND SECTIONS ARE INDICATIVE ONLY.



視圖A VIEW A

擬議單車徑暨行人隧道SW1

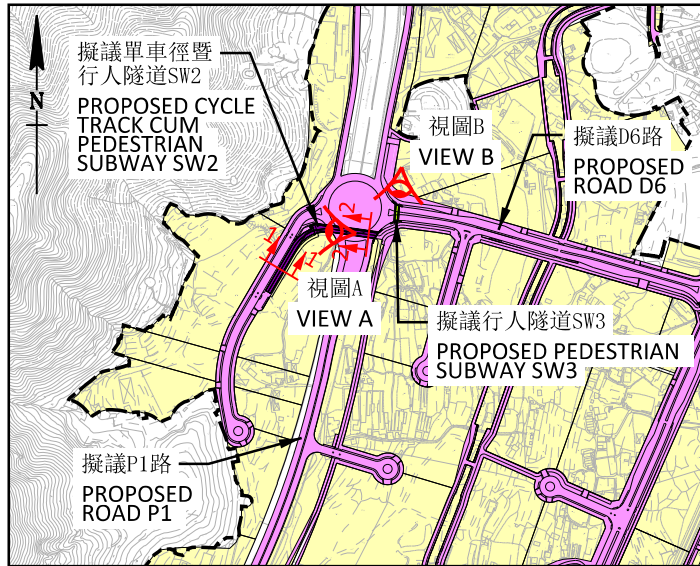
PROPOSED CYCLE TRACK CUM PEDESTRIAN SUBWAY SW1



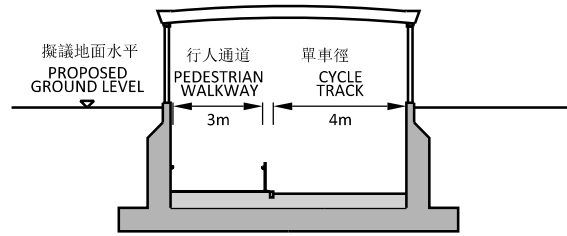
視圖B VIEW B

圖則名稱 DRAWING TITLE

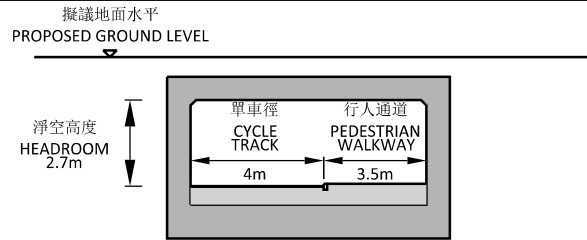
工務工程計劃項目第787CL號及829CL號 - 洪水橋/厦村新發展區前期工程第三期及第二階段工程擬議單車徑暨行人隧道SW1平面圖、剖面圖及構思圖
PWP ITEM NOS. 787CL & 829CL - HUNG SHUI KIU/HA TSUEN NEW DEVELOPMENT AREA ADVANCE WORKS PHASE 3 AND STAGE 2 WORKS
LAYOUT PLAN, SECTIONS AND ARTISTIC IMPRESSION OF PROPOSED CYCLE TRACK CUM PEDESTRIAN SUBWAY SW1



索引圖 KEY PLAN



剖面圖 1-1 SECTION 1-1



剖面圖 2-2 SECTION 2-2

圖例: LEGEND:

- 擬議工程項目範圍
PROPOSED WORKS BOUNDARY
- 擬議道路和相關工程
PROPOSED ROADWORKS AND ASSOCIATED WORKS
- 擬議工地清理及工地平整和相關基礎設施工程
PROPOSED SITE CLEARANCE / SITE FORMATION AND ASSOCIATED INFRASTRUCTURE WORKS
- 擬議單車徑暨行人隧道
PROPOSED CYCLE TRACK CUM PEDESTRIAN SUBWAY
- 擬議行人隧道
PROPOSED PEDESTRIAN SUBWAY
- ⦿ 構思圖視角
VIEW ANGLE OF THE ARTISTIC IMPRESSION

備註: REMARK:

所有構思圖及剖面圖只作示意用途。
ALL ARTISTIC IMPRESSIONS AND SECTIONS ARE INDICATIVE ONLY.



擬議單車徑暨行人隧道SW2
PROPOSED CYCLE TRACK CUM PEDESTRIAN SUBWAY SW2

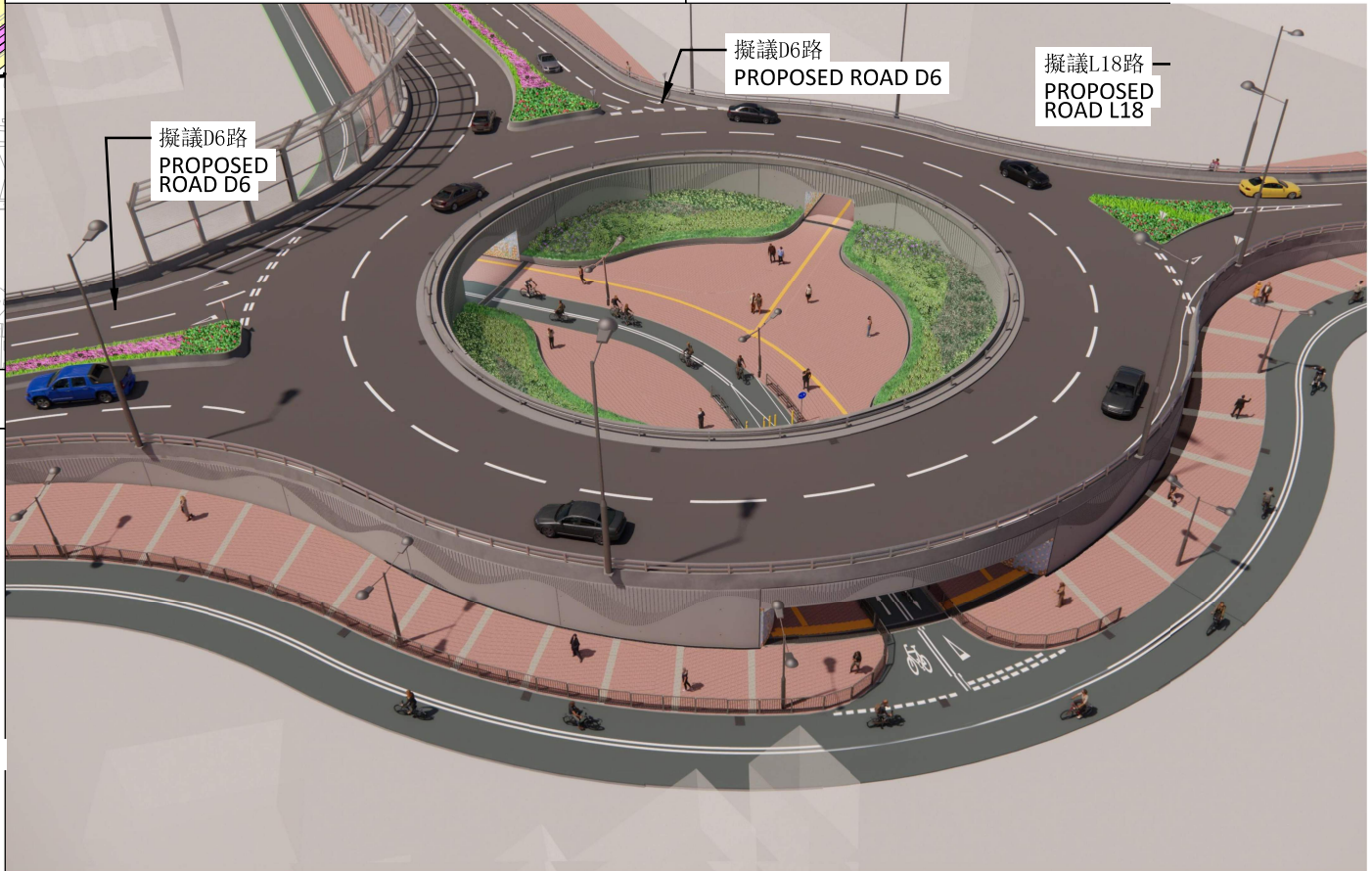
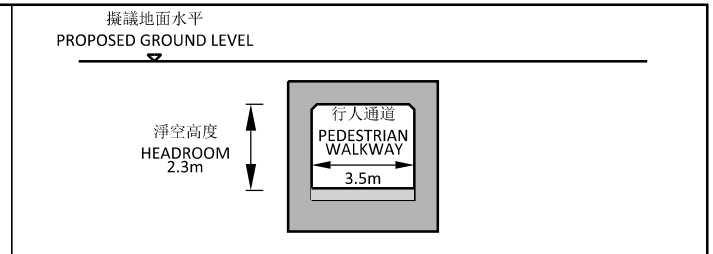
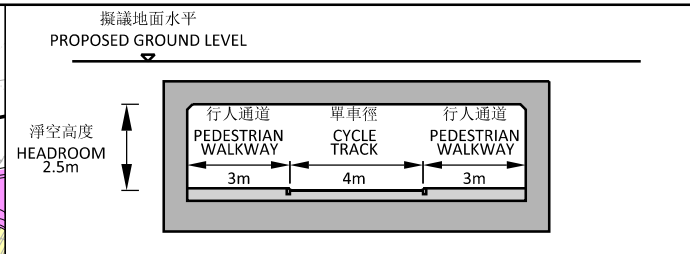
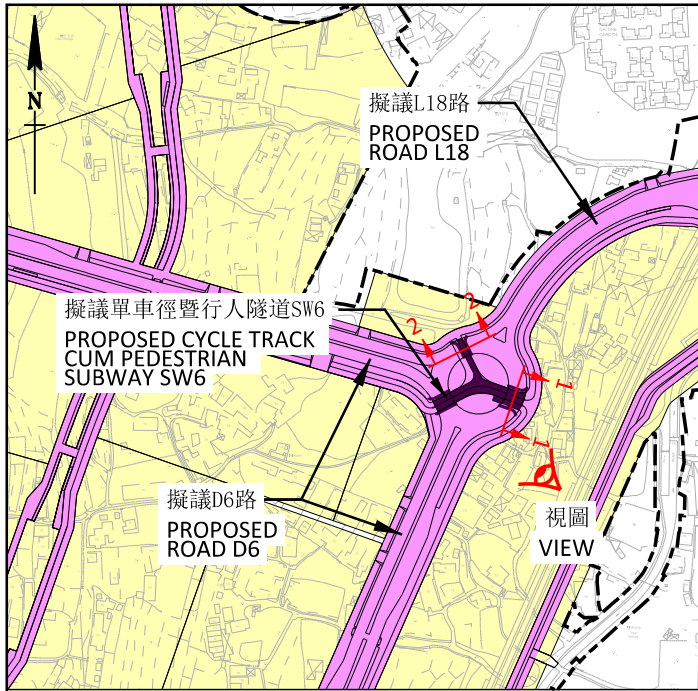


視圖A
VIEW A
擬議行人隧道SW3
PROPOSED PEDESTRIAN SUBWAY SW3

視圖B
VIEW B

圖則名稱 DRAWING TITLE

工務工程計劃項目第787CL號及829CL號 -
洪水橋/廈村新發展區前期工程第三期及第二階段工程擬議單車徑暨行人隧道SW2及行人隧道SW3平面圖、剖面圖及構思圖
PWP ITEM NOS. 787CL & 829CL - HUNG SHUI KIU/HA TSUEN NEW DEVELOPMENT AREA ADVANCE WORKS PHASE 3 AND STAGE 2 WORKS
LAYOUT PLAN, SECTIONS AND ARTISTIC IMPRESSION OF PROPOSED CYCLE TRACK CUM PEDESTRIAN SUBWAY SW2 AND
PEDESTRIAN SUBWAY SW3



圖例: LEGEND:

- 擬議工程項目範圍
PROPOSED WORKS BOUNDARY
- 擬議道路和相關工程
PROPOSED ROADWORKS AND ASSOCIATED WORKS
- 擬議工地清理及工地平整和相關基礎設施工程
PROPOSED SITE CLEARANCE / SITE FORMATION AND ASSOCIATED INFRASTRUCTURE WORKS
- 擬議單車徑暨行人隧道
PROPOSED CYCLE TRACK CUM PEDESTRIAN SUBWAY
- 構思圖視角
VIEW ANGLE OF THE ARTISTIC IMPRESSION

備註: REMARK:

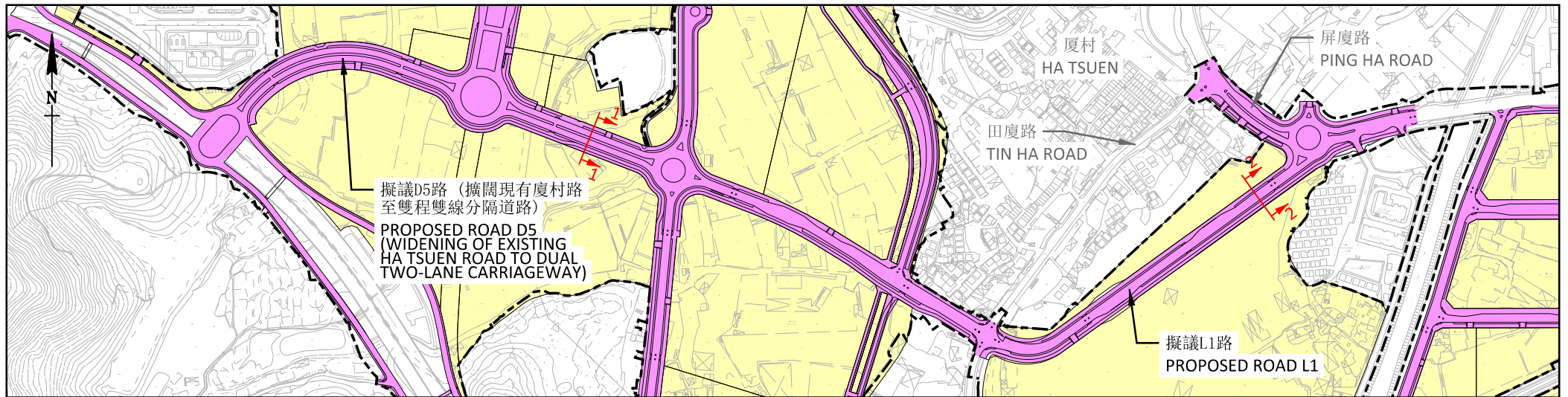
所有構思圖及剖面圖只作示意用途。
ALL ARTISTIC IMPRESSIONS AND SECTIONS ARE INDICATIVE ONLY.

擬議單車徑暨行人隧道SW6
PROPOSED CYCLE TRACK CUM PEDESTRIAN SUBWAY SW6

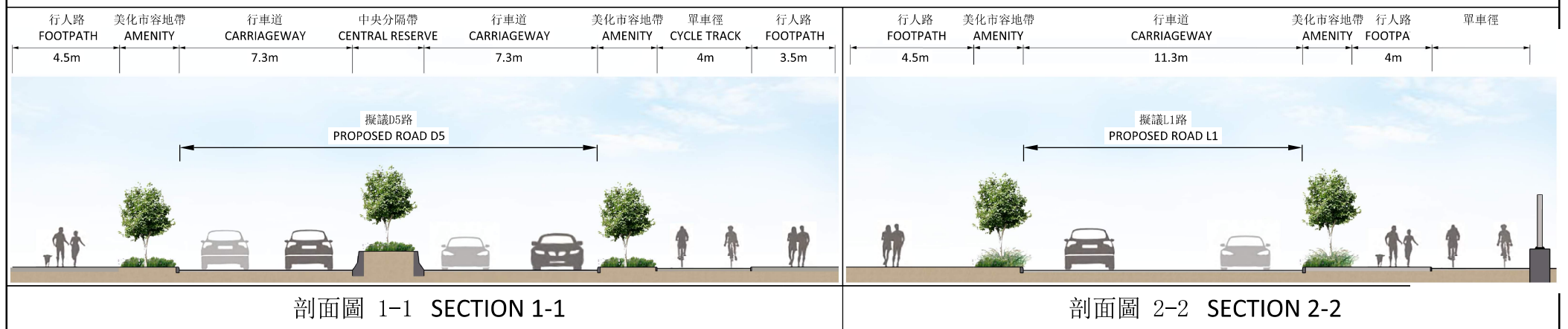
視圖
VIEW

圖則名稱 DRAWING TITLE

工務工程計劃項目第787CL號及829CL號 - 洪水橋/厦村新發展區前期工程第三期及第二階段工程擬議單車徑暨行人隧道SW6平面圖、剖面圖及構思圖
PWP ITEM NOS. 787CL & 829CL - HUNG SHUI KIU/HA TSUEN NEW DEVELOPMENT AREA ADVANCE WORKS PHASE 3 AND STAGE 2 WORKS
LAYOUT PLAN, SECTIONS AND ARTISTIC IMPRESSION OF PROPOSED CYCLE TRACK CUM PEDESTRIAN SUBWAY SW6



索引圖 KEY PLAN



圖例： LEGEND:

- 擬議工程項目範圍
PROPOSED WORKS BOUNDARY
- 擬議工地清理及工地平整和相關基礎設施工程
PROPOSED SITE CLEARANCE / SITE FORMATION AND ASSOCIATED INFRASTRUCTURE WORKS
- 擬議道路和相關工程
PROPOSED ROADWORKS AND ASSOCIATED WORKS

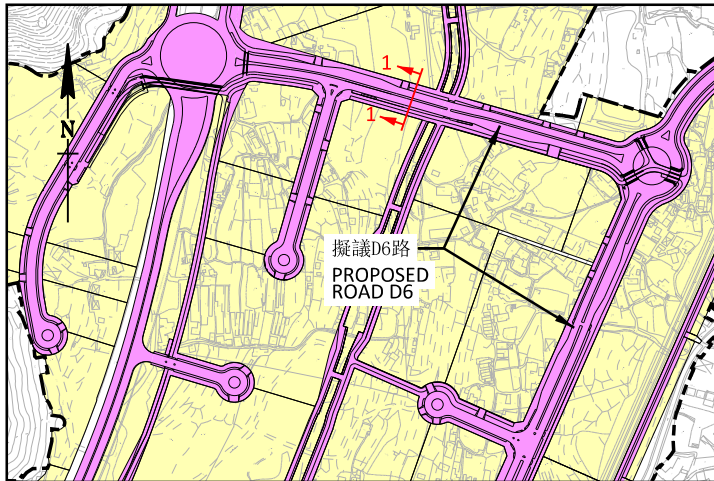
備註：REMARK:

所有構思圖及剖面圖只作示意用途。 ALL ARTISTIC IMPRESSIONS AND SECTIONS ARE INDICATIVE ONLY.

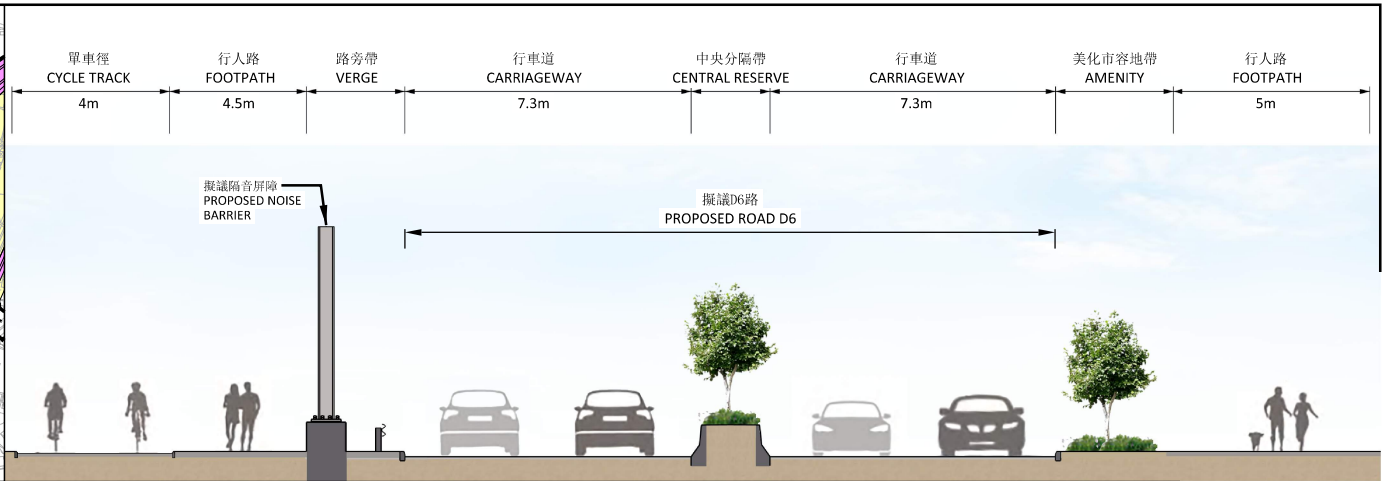
圖則名稱 DRAWING TITLE

工務工程計劃項目第787CL號及829CL號 - 洪水橋/廈村新發展區前期工程第三期及第二階段工程
擬議D5路及L1路(包括擴闊現有廈村路)平面圖及剖面圖

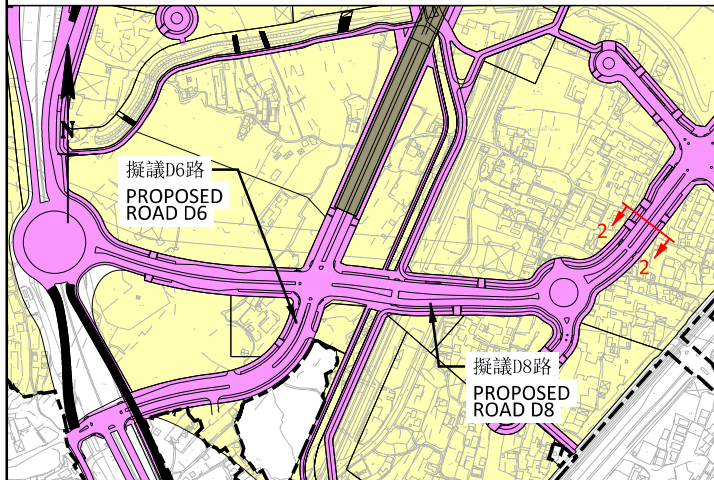
PWP ITEM NOS. 787CL & 829CL - HUNG SHUI KIU/HA TSUEN NEW DEVELOPMENT AREA ADVANCE WORKS PHASE 3 AND STAGE 2 WORKS
LAYOUT PLAN AND SECTIONS OF PROPOSED ROAD D5 AND ROAD L1 (INCLUDING WIDENING OF EXISTING HA TSUEN ROAD)



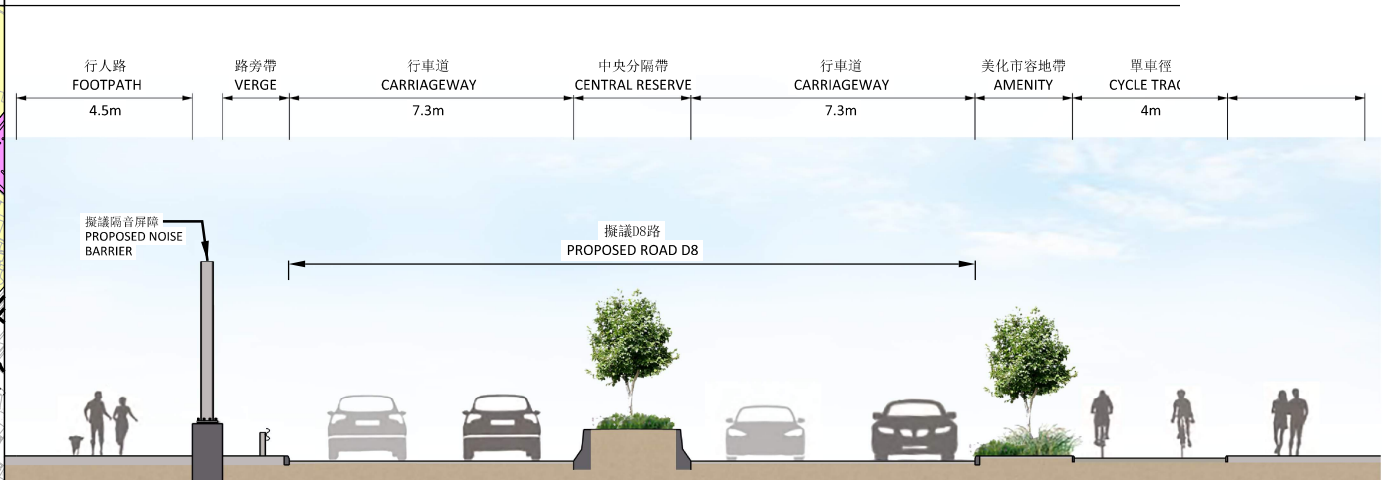
索引圖 KEY PLAN



剖面圖 1-1 SECTION 1-1



索引圖 KEY PLAN



剖面圖 2-2 SECTION 2-2

圖例: LEGEND:

----- 擬議工程項目範圍
PROPOSED WORKS BOUNDARY

PROPOSED SITE CLEARANCE / SITE FORMATION AND ASSOCIATED INFRASTRUCTURE WORKS

PROPOSED ROADWORKS AND ASSOCIATED WORKS

備註: REMARK:

所有構思圖及剖面圖只作示意用途。 ALL ARTISTIC IMPRESSIONS AND SECTIONS ARE INDICATIVE ONLY.

圖則名稱 DRAWING TITLE

工務工程計劃項目第787CL號及829CL號 - 洪水橋/厦村新發展區前期工程第三期及第二階段工程

擬議D6路及D8路平面圖及剖面圖

PWP ITEM NOS. 787CL & 829CL - HUNG SHUI KIU/HA TSUEN NEW DEVELOPMENT AREA ADVANCE WORKS PHASE 3 AND STAGE 2 WORKS

LAYOUT PLAN AND SECTIONS OF PROPOSED ROAD D6 AND ROAD D8

Annex 25 to Enclosure 1 to PWSC(2024-25)1

**787CL – Hung Shui Kiu/Ha Tsuen New Development Area
Advance Works Phase 3**

**Breakdown of the estimates for consultants' fees and resident site staff costs
(in September 2023 prices)**

		Estimated man-months	Average MPS* salary point	Multiplier (Note 1)	Estimated fee (\$ million)
(a) Consultants' fees for contract administration ^(Note 2)	Professional	-	-	-	7.4
	Technical	-	-	-	3.0
				Sub-total	<u>10.4#</u>
(b) Consultants' fees for environmental monitoring and audit programme ^(Note 3)	Professional	41	38	2.0	7.4
	Technical	62	14	2.0	4.0
				Sub-total	<u>11.4#</u>
(c) Resident site staff (RSS) costs ^(Note 3)	Professional	1 041	38	1.6	150.8
	Technical	3 666	14	1.6	190.2
				Sub-total	<u>341.0</u>
Comprising -					
(i) Consultants' fees for management of RSS				9.9#	
(ii) Remuneration of RSS				331.1#	
				Total	<u>362.8</u>

* MPS = Master Pay Scale

829CL – Hung Shui Kiu/Ha Tsuen New Development Area Stage 2 Works**Breakdown of the estimates for consultants' fees and resident site staff costs
(in September 2023 prices)**

		Estimated man-months	Average MPS* salary point	Multiplier (Note 1)	Estimated fee (\$ million)
(a) Consultants' fees for contract administration ^(Note 2)	Professional	-	-	-	24.4
	Technical	-	-	-	9.7
				Sub-total	<u>34.1#</u>
(b) Consultants' fees for environmental monitoring and audit programme ^(Note 3)	Professional	148	38	2.0	26.8
	Technical	223	14	2.0	14.5
				Sub-total	<u>41.3#</u>
(c) Resident site staff (RSS) costs ^(Note 3)	Professional	3 721	38	1.6	539.0
	Technical	13 105	14	1.6	680.0
				Sub-total	<u>1,219.0</u>
Comprising -					
(iii) Consultants' fees for management of RSS				35.5#	
(iv) Remuneration of RSS				1,183.5#	
				Total	<u>1,294.4</u>

* MPS = Master Pay Scale

Notes

1. A multiplier of 1.6 is applied to the average MPS point to estimate the cost of RSS supplied by the consultants. A multiplier of 2.0 is applied to the average MPS salary point to estimate the full staff cost including the consultants' overheads and profit for the staff employed in the consultants' offices (as at now, MPS point 14 = \$32,430 per month and MPS point 38 = \$90,540 per month).
2. The consultants' staff cost for contract administration is calculated in accordance with the existing consultancy agreement for the design and construction for advance works phase 3 and stage 2 works. The construction phase of the assignment will only be executed subject to Finance Committee's approval to upgrade **787CL** and **829CL** to Category A.
3. The actual man-months and actual costs will only be known after completion of the construction works.

Remarks

The cost figures in this Enclosure are shown in constant prices to correlate with the MPS salary point of the same year. The figures marked with # are shown in money-of-the-day prices in paragraph 15 of the Enclosure 1.

Unit costs for projects of a similar scale and nature / similar works value approved in the past few years

Overall cost and works categories

Overall cost and works categories	Unit costs in other projects of similar scale and nature (\$)
Overall development cost	9,600 – 16,500 per m ²
Site clearance and formation works	1,100 – 3,000 per m ²
Roadworks	304,000 – 417,000 per m
Other engineering infrastructures	3,800 – 6,600 per m ²

Individual key items

Individual key items	Unit costs in other projects (\$)
Roadworks	
- at-grade roads	62,600 – 99,000 per m
- footbridges	1,190,000 - 1,260,000 per m
Other engineering infrastructure works	
- drainage systems	
• drains	28,200 – 41,200 per m
• box culverts	34,600 – 39,300 per m ²
- sewerage systems	
• sewage pumping stations	7,000 – 10,400 per m ³ /day
• gravity sewer and rising mains	10,300 – 22,700 per m
- water supply systems	
• fresh/flushing water mains	22,700 – 30,800 per m
- open spaces	8,000 – 18,000 per m ²

Note

- The projects to which the above figures relate may be different in individual circumstances, with implications on costs.
- Relevant projects include the approved funding applications for the first phase development of Yuen Long South development in 2022, first phase development of Lok Ma Chau Loop in 2020, first phase development of HSK/HT NDA in 2020, first phase development of Tung Chung New Town Extension in 2020 and first phase

development of Kwu Tung North and Fanling North New Development Area in 2019; as well as other engineering infrastructure works contracts including PWP Nos. 332CL, 201TB, 409DS, 355WF, 356WF and 765CL.

Annex 27 to Enclosure 1 to PWSC(2024-25)1

**787CL – Hung Shui Kiu/Ha Tsuen New Development Area
Advance Works Phase 3**

**829CL – Hung Shui Kiu/Ha Tsuen New Development Area
Stage 2 Works**

		\$ million
(I)	Estimated cost for land acquisition	29,247.56
(II)	Estimated cost for land clearance	1,405.96
	(a) Ex-gratia allowances (EGAs) for domestic occupiers (e.g. EGA for permitted occupiers of licensed structures and surveyed squatters affected by clearance and domestic removal allowance, etc.); EGA for shops, workshops, godowns, slipways, schools, churches and ornamental fish breeding undertakings and EGA for open-air / outdoor business undertakings	740.55
	(b) Other clearance costs (e.g. crop compensation, disturbance allowance for cultivators, EGA for miscellaneous permanent improvements to farms, EGA for clearance of graves, urns (“Kam Taps”) and shrines and EGA for “Tun Fu” ceremonial fees, etc.)	665.41
(III)	Interest and Contingency Payment	3,065.36
Total		33,718.88

Note

The above estimated land acquisition cost is based on the prevailing ex-gratia compensation rates and the valuation as at October 2023.

787CL – Hung Shui Kiu/Ha Tsuen New Development Area Advance Works Phase 3

829CL – Hung Shui Kiu/Ha Tsuen New Development Area Stage 2 Works

Summary of “Trees of Particular Interest” Affected

Tree Ref no. ¹	Species		Measurements			Amenity Value ³	Form	Health Condition	Structural Condition	Suitability for Transplanting ⁴		Conservation Status ⁵	Recommendation (Retain / Transplant / Remove)	Maintenance department to provide comments on Tree Preservation and Removal Proposal		Additional Remarks
	Scientific Name	Chinese Name	Height (m)	DBH ² (mm)	Crown Spread (m)	(High / Medium / Low)	(Good / Average / Poor)			(High / Medium / Low)	Remarks			Before	After	
T024	<i>Aquilaria sinensis</i>	土沉香	5	95	3	High	Poor	Average	Poor	Medium	Existing tree is recommended to be transplanted as the proposed transplantation location has the same planting conditions as the existing location.	Protected under Protection of Endangered Species of Animals and Plants Ordinance (Cap. 586)	Transplant	Lands Department	Lands Department	N/A
T025	<i>Aquilaria sinensis</i>	土沉香	8	170	5	High	Poor	Average	Poor	Medium	Existing tree is recommended to be transplanted as the proposed transplantation location has the same planting conditions as the existing location.	Protected under Protection of Endangered Species of Animals and Plants Ordinance (Cap. 586)	Transplant	Lands Department	Lands Department	N/A
T030	<i>Aquilaria sinensis</i>	土沉香	7	160	2	High	Poor	Average	Poor	Medium	Existing tree is recommended to be transplanted as the proposed transplantation location has the same planting conditions as the existing location.	Protected under Protection of Endangered Species of Animals and Plants Ordinance (Cap. 586)	Transplant	Lands Department	Lands Department	N/A

Tree Ref no. ¹	Species		Measurements			Amenity Value ³	Form	Health Condition	Structural Condition	Suitability for Transplanting ⁴		Conservation Status ⁵	Recommendation	Maintenance department to provide comments on Tree Preservation and Removal Proposal		Additional Remarks
	Scientific Name	Chinese Name	Height (m)	DBH ² (mm)	Crown Spread (m)	(High / Medium / Low)	(Good / Average / Poor)			(High / Medium / Low)	Remarks			(Retain / Transplant / Remove)	Before	
T071	<i>Camellia oleifera</i>	油茶	6	140	2	Medium	Poor	Average	Poor	Low	Existing tree is recommended to be transplanted as the proposed transplantation location has the same planting conditions as the existing location.	Protected under Forestry Regulations (Cap. 96, section 3)	Transplant	Lands Department	Lands Department	N/A
T1071	<i>Ficus elastica</i>	印度榕	15	2960	Medium	Low	Poor	Average	Average	Low	Existing tree is recommended to be retained.	No	Retain	Leisure and Cultural Services Department	Leisure and Cultural Services Department	DBH over 1m
T1735	<i>Ficus elastica</i>	印度榕	14	1665	18	Low	Poor	Average	Poor	Low	The existing tree has a poor form and a poor structural condition. It is therefore not recommended to be transplanted.	No	Fell	Development Bureau	N/A	DBH over 1m
T1736	<i>Ficus microcarpa</i>	細葉榕	14	2800	24	Medium	Average	Average	Average	Low	In view of the large size of the existing tree, the formation of a sizable root ball as recommended in the "Guidelines on Tree Transplanting" is impractical. The tree is therefore not recommended to be transplanted.	No	Fell	Development Bureau	N/A	DBH over 1m

Tree Ref no. ¹	Species		Measurements			Amenity Value ³	Form	Health Condition	Structural Condition	Suitability for Transplanting ⁴		Conservation Status ⁵	Recommendation	Maintenance department to provide comments on Tree Preservation and Removal Proposal		Additional Remarks
	Scientific Name	Chinese Name	Height (m)	DBH ² (mm)	Crown Spread (m)	(High / Medium / Low)	(Good / Average / Poor)			(High / Medium / Low)	Remarks			Before	After	
T1737	<i>Ficus microcarpa</i>	細葉榕	12	1240	20	Medium	Average	Average	Poor	Low	Existing tree is recommended to be retained.	No	Retain	Leisure and Cultural Services Department	Leisure and Cultural Services Department	DBH over 1m
T2059	<i>Ficus microcarpa</i>	細葉榕	15	1800	34	High	Average	Average	Average	Low	In view of the large size of the existing tree, the formation of a sizable root ball as recommended in the "Guidelines on Tree Transplanting" is impractical. The tree is therefore not recommended to be transplanted.	No	Fell	Leisure and Cultural Services Department	N/A	DBH over 1m
T2060	<i>Eucalyptus camaldulensis</i>	赤桉	22	1375	18	High	Average	Average	Average	Low	The survival rate of transplanting the existing tree is low when compared with other species. The tree is therefore not recommended to be transplanted.	No	Fell	Leisure and Cultural Services Department	N/A	DBH over 1m
T2061	<i>Eucalyptus camaldulensis</i>	赤桉	24	1150	15	High	Average	Average	Average	Low	The survival rate of transplanting the existing tree is low when compared with other species. The tree is therefore not recommended to be transplanted.	No	Fell	Leisure and Cultural Services Department	N/A	DBH over 1m

Tree Ref no. ¹	Species		Measurements			Amenity Value ³	Form	Health Condition	Structural Condition	Suitability for Transplanting ⁴		Conservation Status ⁵	Recommendation (Retain / Transplant / Remove)	Maintenance department to provide comments on Tree Preservation and Removal Proposal		Additional Remarks
	Scientific Name	Chinese Name	Height (m)	DBH ² (mm)	Crown Spread (m)	(High / Medium / Low)	(Good / Average / Poor)			(High / Medium / Low)	Remarks			Before	After	
T2181	<i>Eucalyptus camaldulensis</i>	赤桉	20	1030	16	Medium	Poor	Poor	Average	Low	Existing tree is recommended to be retained.	No	Retain	Lands Department	Lands Department	DBH over 1m
T2935	<i>Aquilaria sinensis</i>	土沉香	13	210	6	Medium	Poor	Average	Poor	Low	Existing tree is recommended to be retained.	Protected under Protection of Endangered Species of Animals and Plants Ordinance (Cap. 586)	Retain	Leisure and Cultural Services Department	Leisure and Cultural Services Department	N/A
T2947	<i>Aquilaria sinensis</i>	土沉香	6	180	2	Medium	Poor	Poor	Poor	Low	The existing tree is located on a sloping ground, the formation of a sizable root ball as recommended in the "Guidelines on Tree Transplanting" is impractical. Also, the form, health and structural conditions of the existing tree are poor. The tree is therefore not recommended to be transplanted.	Protected under Protection of Endangered Species of Animals and Plants Ordinance (Cap. 586)	Fell	Leisure and Cultural Services Department	N/A	N/A

Tree Ref no. ¹	Species		Measurements			Amenity Value ³	Form	Health Condition	Structural Condition	Suitability for Transplanting ⁴		Conservation Status ⁵	Recommendation (Retain / Transplant / Remove)	Maintenance department to provide comments on Tree Preservation and Removal Proposal		Additional Remarks
	Scientific Name	Chinese Name	Height (m)	DBH ² (mm)	Crown Spread (m)	(High / Medium / Low)	(Good / Average / Poor)			(High / Medium / Low)	Remarks			Before	After	
T2951	<i>Aquilaria sinensis</i>	土沉香	5	170	3	Low	Poor	Average	Poor	Low	Existing tree is recommended to be retained.	Protected under Protection of Endangered Species of Animals and Plants Ordinance (Cap. 586)	Retain	Lands Department	Leisure and Cultural Services Department	N/A
T2955	<i>Aquilaria sinensis</i>	土沉香	3	120	3	Medium	Poor	Poor	Poor	Low	The existing tree is located on a sloping ground, the formation of a sizable root ball as recommended in the "Guidelines on Tree Transplanting" is impractical. Also, the form, health and structural conditions of the existing tree are poor. The tree is therefore not recommended to be transplanted.	Protected under Protection of Endangered Species of Animals and Plants Ordinance (Cap. 586)	Fell	Leisure and Cultural Services Department	N/A	N/A
T2961	<i>Aquilaria sinensis</i>	土沉香	6	170	4	Low	Poor	Average	Poor	Low	The existing tree has a poor form and a poor structural condition. It is therefore not recommended to be transplanted.	Protected under Protection of Endangered Species of Animals and Plants Ordinance (Cap. 586)	Fell	Leisure and Cultural Services Department	N/A	N/A

Tree Ref no. ¹	Species		Measurements			Amenity Value ³	Form	Health Condition	Structural Condition	Suitability for Transplanting ⁴		Conservation Status ⁵	Recommendation (Retain / Transplant / Remove)	Maintenance department to provide comments on Tree Preservation and Removal Proposal		Additional Remarks
	Scientific Name	Chinese Name	Height (m)	DBH ² (mm)	Crown Spread (m)	(High / Medium / Low)	(Good / Average / Poor)			(High / Medium / Low)	Remarks			Before	After	
T2963	<i>Aquilaria sinensis</i>	土沉香	6	100	4	Low	Poor	Average	Poor	Low	Existing tree is recommended to be retained.	Protected under Protection of Endangered Species of Animals and Plants Ordinance (Cap. 586)	Retain	Lands Department	Lands Department	N/A
T2967	<i>Aquilaria sinensis</i>	土沉香	5	150	3	Low	Poor	Average	Poor	Low	The existing tree is located on a sloping ground, the formation of a sizable root ball as recommended in the "Guidelines on Tree Transplanting" is impractical. Also, the existing tree has a poor form and a poor structural condition. The tree is therefore not recommended to be transplanted.	Protected under Protection of Endangered Species of Animals and Plants Ordinance (Cap. 586)	Fell	Leisure and Cultural Services Department	N/A	N/A
T2970	<i>Aquilaria sinensis</i>	土沉香	9	270	4	Low	Poor	Average	Poor	Low	The existing tree is located on a sloping ground, the formation of a sizable root ball as recommended in the "Guidelines on Tree Transplanting" is impractical. Also, the existing tree has a poor form and a poor structural condition. The tree is therefore not recommended to be transplanted.	Protected under Protection of Endangered Species of Animals and Plants Ordinance (Cap. 586)	Fell	Leisure and Cultural Services Department	N/A	N/A

Tree Ref no. ¹	Species		Measurements			Amenity Value ³	Form	Health Condition	Structural Condition	Suitability for Transplanting ⁴		Conservation Status ⁵	Recommendation	Maintenance department to provide comments on Tree Preservation and Removal Proposal		Additional Remarks
	Scientific Name	Chinese Name	Height (m)	DBH ² (mm)	Crown Spread (m)	(High / Medium / Low)	(Good / Average / Poor)			(High / Medium / Low)	Remarks			(Retain / Transplant / Remove)	Before	
T2987	<i>Ficus microcarpa</i>	細葉榕	10	1415	16	High	Poor	Average	Average	Low	Existing tree is recommended to be retained.	No	Retain	Lands Department	Lands Department	DBH over 1m
T3079	<i>Ficus microcarpa</i>	細葉榕	12	1500	14	Medium	Poor	Average	Poor	Low	The existing tree has a poor form and a poor structural condition. Also, there is a hoarding embedded into its trunk. The tree is therefore not recommended to be transplanted.	No	Fell	Development Bureau	N/A	DBH over 1m
T3104	<i>Ficus microcarpa</i>	細葉榕	10	1100	10	Medium	Poor	Average	Poor	Low	Existing tree is recommended to be retained.	No	Retain	Leisure and Cultural Services Department	Leisure and Cultural Services Department	DBH over 1m
T3390	<i>Ficus microcarpa</i>	細葉榕	8	1500	13	High	Good	Average	Average	Low	Existing tree is recommended to be retained.	No	Retain	Lands Department	Lands Department	DBH over 1m
T3393	<i>Ficus microcarpa</i>	細葉榕	8	1140	10	High	Good	Average	Average	Low	Existing tree is recommended to be retained.	No	Retain	Leisure and Cultural Services Department	Leisure and Cultural Services Department	DBH over 1m
T3394	<i>Ficus microcarpa</i>	細葉榕	8	1080	8	High	Good	Average	Average	Low	Existing tree is recommended to be retained.	No	Retain	Lands Department	Leisure and Cultural Services Department	DBH over 1m

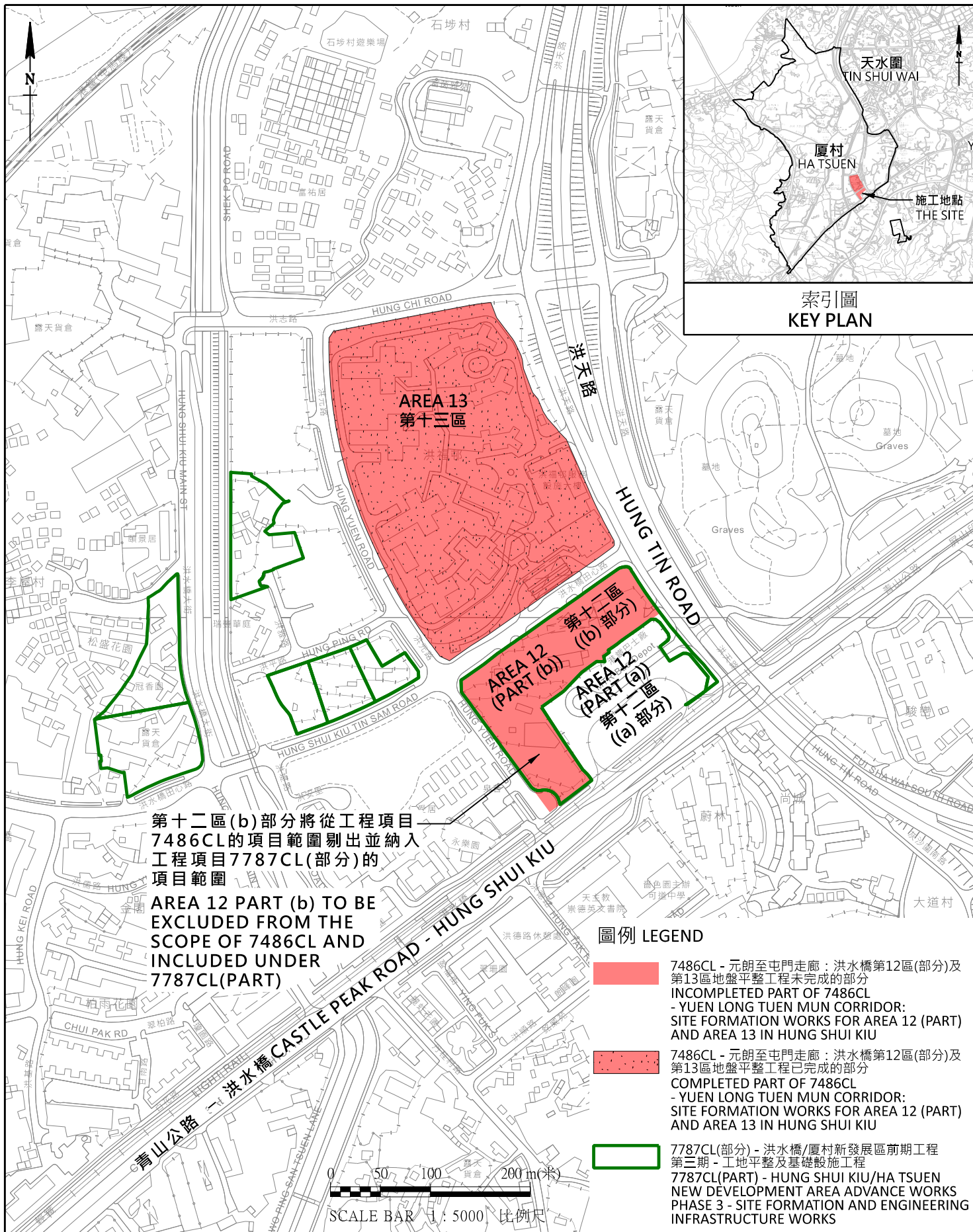
Tree Ref no. ¹	Species		Measurements			Amenity Value ³	Form	Health Condition	Structural Condition	Suitability for Transplanting ⁴		Conservation Status ⁵	Recommendation	Maintenance department to provide comments on Tree Preservation and Removal Proposal		Additional Remarks
	Scientific Name	Chinese Name	Height (m)	DBH ² (mm)	Crown Spread (m)	(High / Medium / Low)	(Good / Average / Poor)			(High / Medium / Low)	Remarks			(Retain / Transplant / Remove)	Before	
T3395	<i>Ficus microcarpa</i>	細葉榕	8	1150	8	High	Poor	Average	Average	Low	Existing tree is recommended to be retained.	No	Retain	Lands Department	Lands Department	DBH over 1m
T3396	<i>Ficus microcarpa</i>	細葉榕	8	1230	7	High	Good	Average	Average	Low	Existing tree is recommended to be retained.	No	Retain	Lands Department	Lands Department	DBH over 1m
T4253	<i>Ficus microcarpa</i>	細葉榕	14	1200	16	High	Average	Average	Average	Low	Existing tree is recommended to be retained.	No	Retain	Lands Department	Leisure and Cultural Services Department	DBH over 1m
T5928	<i>Aquilaria sinensis</i>	土沉香	8	110	5	High	Poor	Average	Poor	Low	The existing tree is located on a sloping ground, the formation of a sizable root ball as recommended in the "Guidelines on Tree Transplanting" is impractical. Also, the existing tree has a poor form and a poor structural condition. The tree is therefore not recommended to be transplanted.	Protected under Protection of Endangered Species of Animals and Plants Ordinance (Cap. 586)	Fell	Lands Department	N/A	N/A

Tree Ref no. ¹	Species		Measurements			Amenity Value ³	Form	Health Condition	Structural Condition	Suitability for Transplanting ⁴		Conservation Status ⁵	Recommendation (Retain / Transplant / Remove)	Maintenance department to provide comments on Tree Preservation and Removal Proposal		Additional Remarks
	Scientific Name	Chinese Name	Height (m)	DBH ² (mm)	Crown Spread (m)	(High / Medium / Low)	(Good / Average / Poor)			(High / Medium / Low)	Remarks			Before	After	
T7565	<i>Ficus elastica</i>	印度榕	15	1850	30	Medium	Average	Poor	Average	Low	The existing tree has a poor health condition and its root zone of the existing tree is covered by concrete. Also, the formation of a sizable root ball as recommended in the "Guidelines on Tree Transplanting" is impractical. The tree is therefore not recommended to be transplanted.	No	Fell	Food and Environmental Hygiene Department / Architectural Services Department	N/A	DBH over 1m
T7619	<i>Ficus elastica</i>	印度榕	10	1070	8	High	Poor	Average	Poor	Average	Existing tree is recommended to be retained.	No	Retain	Food and Environmental Hygiene Department / Architectural Services Department	Food and Environmental Hygiene Department / Architectural Services Department	DBH over 1m
T8247	<i>Ficus microcarpa</i>	細葉榕	12	1000	9	High	Poor	Average	Average	Low	Existing tree is recommended to be retained.	No	Retain	Leisure and Cultural Services Department	Leisure and Cultural Services Department	DBH over 1m
T8719	<i>Ficus microcarpa</i>	細葉榕	16	1690	28	High	Average	Average	Average	Low	Existing tree is recommended to be retained.	No	Retain	Lands Department	Leisure and Cultural Services Department	DBH over 1m

Tree Ref no. ¹	Species		Measurements			Amenity Value ³	Form	Health Condition	Structural Condition	Suitability for Transplanting ⁴		Conservation Status ⁵	Recommendation	Maintenance department to provide comments on Tree Preservation and Removal Proposal		Additional Remarks
	Scientific Name	Chinese Name	Height (m)	DBH ² (mm)	Crown Spread (m)	(High / Medium / Low)	(Good / Average / Poor)			(High / Medium / Low)	Remarks			(Retain / Transplant / Remove)	Before	
T8744	<i>Ficus elastica</i>	印度榕	15	1400	20	Medium	Poor	Average	Average	Low	The existing tree has a poor form. It is therefore not recommended to be transplanted.	No	Fell	Lands Department	N/A	DBH over 1m
T9364	<i>Ficus microcarpa</i>	細葉榕	12	1100	18	High	Average	Average	Average	Low	The existing tree is located on a sloping ground, the formation of a sizable root ball as recommended in the "Guidelines on Tree Transplanting" is impractical. It is therefore not recommended to be transplanted.	No	Fell	Leisure and Cultural Services Department	N/A	DBH over 1m
T10271	<i>Ficus microcarpa</i>	細葉榕	13	1560	10	Medium	Poor	Average	Average	Low	Existing tree is recommended to be retained.	No	Retain	Highways Department	Highways Department	DBH over 1m
T11659	<i>Ficus microcarpa</i>	細葉榕	13	1125	12	High	Average	Average	Average	Low	Existing tree is recommended to be retained.	No	Retain	Highways Department	Highways Department	DBH over 1m
T11660	<i>Ficus microcarpa</i>	細葉榕	13	1230	12	High	Average	Average	Average	Low	Existing tree is recommended to be retained.	No	Retain	Highways Department	Highways Department	DBH over 1m

Notes-

- 1 There are no trees within site boundary in the Register of Old and Valuable Trees.
- 2 DBH of a tree refers to its diameter at breast height (i.e. measurement at 1.3 m above ground level).
- 3 Amenity value of the tree is assessed by its functional values for shade, seasonal interest, screening, reduction of pollution and noise and also its fung shui significance, and classified into the following categories.
High (H): important trees which should be retained by adjusting the design layout accordingly.
Medium (M): trees that are desirable to be retained in order to create a pleasant environment, which includes healthy specimens of lesser importance than “High” trees.
Low (L): trees that are dead, dying or potentially hazardous and should be removed.
- 4 Assessment has taken into account conditions of an individual tree at the time of survey (including health, structure, age and root conditions), site conditions (including topography and accessibility), and intrinsic characters of tree species (survival rate after transplanting).
- 5 Conservation status is based on the rarity and protection status of the species under relevant ordinances in Hong Kong, such as
RPPHK – Species included in Agriculture, Fisheries and Conservation Department publication "Rare and Precious Plants of Hong Kong (2003)";
Cap. 586 – Native plants listed in Protection of Endangered Species of Animals and Plants Ordinance, Cap. 586;
Cap. 96 – Species listed in the Scheduled to the Forests and Countryside Ordinance, Cap 96; and
IUCN:VU – “Vulnerable” under IUCN Red List of Threatened Species.



圖則名稱 drawing title

修訂工程項目7486CL - 元朗至屯門走廊：
 洪水橋第12區(部分)及第13區地盤平整工程的項目範圍
 CHANGE OF SCOPE FOR 7486CL - YUEN LONG - TUEN MUN CORRIDOR:
 SITE FORMATION WORKS FOR AREA 12 (PART) AND AREA 13 IN HUNG SHUI KIU

**54CG - The District Cooling System for Hung Shui Kiu / Ha Tsuen
New Development Area, Phase 1**

PROJECT SCOPE AND NATURE

The entire Phase 1 of the district cooling system (DCS) for Hung Shui Kiu/Ha Tsuen New Development Area (HSK/HT NDA) will be implemented in two stages. The scope of works comprises the construction of DCS plants and the associated facilities, chilled water pipe laying works and the connection facilities at non-domestic user buildings. In this funding application, we propose to upgrade part of **54CG** (the DCS for HSK/HT NDA, Phase 1) to Category A as **55CG** entitled “the DCS for HSK/HT NDA, Phase 1 (Stage 1 Works)”. Stage 1 Works mainly covers laying of chilled water distribution pipes connecting DCS Phase 1 to provide chilled water to the user buildings in the Second Phase development of HSK/HT NDA for the purpose of air-conditioning. A layout plan showing the scope of pipe laying works under Stage 1 Works is at **Annex 1** to this Enclosure.

2. To dovetail with the programme of the Second Phase development of HSK/HT NDA, we plan to entrust the laying and supervision of part of the Phase 1 (Stage 1 Works) to the Civil Engineering and Development Department (CEDD) to allow coordinated installation of underground utilities and to minimise the need for subsequent road excavation or diversion of completed utility services along the new roads. The DCS pipe laying works along the existing roads will be undertaken by the Electrical and Mechanical Services Department (EMSD).

3. As parallel tendering has been invited for the concerned works contract, CEDD will immediately commence the pipe laying works along the new roads upon funding approval by the Finance Committee. EMSD will invite tender and commence the pipe laying works along existing roads within 2024. All DCS pipe laying works to cater for the demand of the Second Phase development of HSK/HT NDA are planned for completion by 2030.

JUSTIFICATIONS

4. In line with our country’s “dual carbon” goals, cities in Mainland such as Qianhai of Shenzhen, Sanya, Guangzhou, etc., have begun implementing DCS. DCS is an energy-efficient air-conditioning system, which brings about significant environmental benefits, in addition to savings in electricity

/consumption

consumption, as compared with traditional air-cooled air-conditioning systems. As announced in the 2022 Policy Address, the Government will accelerate the incorporation of DCS in NDAs to reduce energy consumption. This major infrastructure also supports Hong Kong in achieving low-carbon development and carbon neutrality by 2050. One of the visions and specific development goals of the Northern Metropolis Action Agenda 2023 is to develop the Northern Metropolis into a sustainable carbon-neutral community.

5. To ensure the cost effectiveness of implementing DCS for HSK/HT NDA, the Government has conducted technical feasibility study. The maximum annual saving in electricity consumption upon full commissioning of non-domestic buildings and full utilisation of the DCS facilities is estimated to be 106 million kilowatt-hour, with a corresponding reduction of about 77 000 tonnes of carbon dioxide emission per annum.

6. Apart from energy saving, the DCS will also bring about the following benefits to individual user buildings—

- (a) reduction in user buildings' upfront capital cost as installation of chiller plants and construction of the related plant rooms are not required at user buildings;
- (b) more flexible building designs for user buildings allowing provision of green roofs and photovoltaic panels;
- (c) reduced heat island effects arising from individual air-conditioning equipment;
- (d) less noise and vibration impacts arising from the operation of heat rejection equipment and chillers of air-conditioning plants in user buildings;
- (e) enhanced development potential of user buildings as part of air-conditioning plant rooms are not required; and
- (f) a more adaptable air-conditioning system as compared to individual air-conditioning systems. Individual buildings can adjust their cooling capacity to meet air-conditioning demands without having to carry out extensive modification or retrofitting works.

FINANCIAL IMPLICATIONS

7. The estimated capital cost of the proposed works is about \$3,216.3 million in money-of-the-day (MOD) prices, broken down as follows –

/(a)

	\$ million (in MOD prices)
(a) Pipe laying works ¹	2,478.6
(b) Ancillary works	130.5
(c) Environmental mitigation measures	33.1
(d) Consultants' fees	17.7
Made up of fees for –	
(i) contract administration	8.8
(ii) management of resident site staff (RSS)	8.9
(e) Remuneration of RSS	264.6
(f) Contingencies	291.8
Total	3,216.3

8. A detailed breakdown of the estimates for the consultants' fees and RSS costs by man-months is at **Annex 2** to this Enclosure

9. Subject to funding approval, we plan to phase the expenditure of the Stage 1 works as follows –

Year	\$ million (in MOD prices)
2024-25	15.0
2025-26	161.0
2026-27	202.0
2027-28	453.0
2028-29	637.0
2029-30	532.0

/Year

¹ Construct the chilled water pipes and associated accessories under Second Phase development of HSK/HT NDA.

Year	\$ million (in MOD prices)
2030-31	574.0
2031-32	295.0
2032-33	183.0
2033-34	119.0
2034-35	45.3
	<hr/> 3,216.3 <hr/>

10. The above estimated project cost is mainly contributed by chilled water pipe laying works² with a total length of about 45km. The unit cost for pipe laying works involved is around \$55,080 per metre³.

11. We have derived the MOD estimates on the basis of the Government's latest set of assumptions on the trend rate of change in the prices of public sector building and construction output for the period from 2024 to 2035. The contracts will provide for adjustments for price fluctuation as appropriate using the New Engineering Contract (NEC).

12. Following the practice of the existing DCS at the Kai Tak Development, private non-domestic developments will be required by their land lease for mandatory connection to the DCS, with the cost comparable to that of using individual water-cooled air-conditioning systems with cooling towers (WACS), which is one of the most cost-effective and energy efficient air-conditioning systems available in the current market. Our preliminary assessment shows that the proposed DCS in HSK/HT NDA is financially viable, with the capital and operating costs for the DCS recovered through charges collected from DCS consumers in 30 years upon commissioning of all DCS plants of HSK/HT NDA. In general, the estimated unit cost of air-conditioning provided by DCS is

/comparable

² Chilled water pipe laying works include the chilled water pipes, external insulation, water leakage detection system, valves and fittings, valve chambers, etc.

³ For information, the unit cost for chilled water pipe laying works for other DCS projects including the approved funding applications for the provision of an additional DCS in the next stage at the Kai Tak Development in 2019, DCS at Tung Chung New Town Extension (East) in 2020 as well as DCS at Kwu Tung North New Development Area in 2020 is \$43,650 – 61,710 per metre.

comparable to that of WACS. The financial viability and tariff level will be revisited when funding is sought for the remainder of **54CG** (the Stage 2 Works).

13. During the design phase of this project, we considered different construction methods and alignments for chilled water pipes. In order to optimise the design, we adopted cost effective design on alignment and invert level for pipe laying, taking into account the actual site conditions and traffic constraints.

PUBLIC CONSULTATION

14. We consulted the Yuen Long District Council and Tuen Mun District Council on 27 June and 3 July 2023 respectively. They have all indicated support to the provision of Phase 1 DCS at HSK/HT NDA.

15. We have consulted the Legislative Council Panel on Development on 23 January 2024. The Panel supported the submission of the proposal to the Public Works Subcommittee for consideration. On 27 March 2024, we have submitted supplementary information to the LegCo Secretariat.

ENVIRONMENTAL IMPLICATIONS

16. The project is not a designated project under the Environmental Impact Assessment (EIA) Ordinance (Cap. 499). We have conducted a Preliminary Environmental Review (PER) for the project. The PER concluded that the project would not cause long-term adverse environmental impacts with the implementation of the recommended environmental mitigation measures, which include acoustic louvres and silencers to mitigate operational fixed plant noise.

17. For mitigating short-term construction impacts, we will implement measures recommended in the PER to control noise, dust and site run-off nuisances, in order to comply with established standards and guidelines. These measures include the use of quality powered mechanical equipment, movable noise barriers, noise enclosure and acoustic mats for noisy construction activities, frequent cleansing and watering of the site, and provision of wheel-washing facilities. We will also carry out site inspections to ensure that these mitigation measures and good site practices are properly followed and implemented. We have already included in the project estimates the costs of implementing these mitigation measures.

18. At the planning and design stages, we have considered the piping alignment, design and construction method of the proposed works to avoid generating construction waste where possible. We will require the contractors to reuse inert construction waste (e.g. excavated soil) 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. We will encourage the contractor to maximise the use of recycled or recyclable inert construction waste, and the use of non-timber formwork to avoid generating construction waste.

19. At the construction stage, we will require the contractor to submit for approval a plan setting out the waste management measures, which will include appropriate mitigation means to avoid, reduce, reuse and recycle inert construction waste. We will ensure that the day-to-day operations on site comply with the approved plan. We will require the contractor to separate the inert and non-inert construction waste on site for disposal at appropriate facilities. We 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.

20. We estimate that the proposed works will generate about 423 990 tonnes of construction waste. Of these, we will reuse about 254 300 tonnes (60%) of inert construction waste on site and deliver about 150 250 tonnes (35%) of inert construction waste to public fill reception facilities for subsequent reuse. We will dispose of the remaining 19 440 tonnes (5%) of non-inert construction waste at landfills. The total cost for disposal of construction waste at public fill reception facilities and landfill sites is estimated to be about \$20.2 million for the proposed works (amount based on a unit charge rate of \$87 per tonne for disposal at public fill reception facilities and \$365 per tonne at landfills as stipulated in the Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 354N) and the Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Amendment of Schedules) Notice 2023)).

21. The Government will continue to take the lead in promoting green buildings. We aim to achieve the second highest rating under the BEAM Plus for the DCS plant building, and will incorporate green features and renewable energy systems.

/HERITAGE

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

HERITAGE IMPLICATIONS

22. The project will not affect any declared monuments, proposed monuments, graded historic sites/buildings / structures, sites of archaeological interest, sites, buildings / structures in the new list of proposed grading items, or government historic sites identified by the Antiquities and Monuments Office.

LAND ACQUISITION

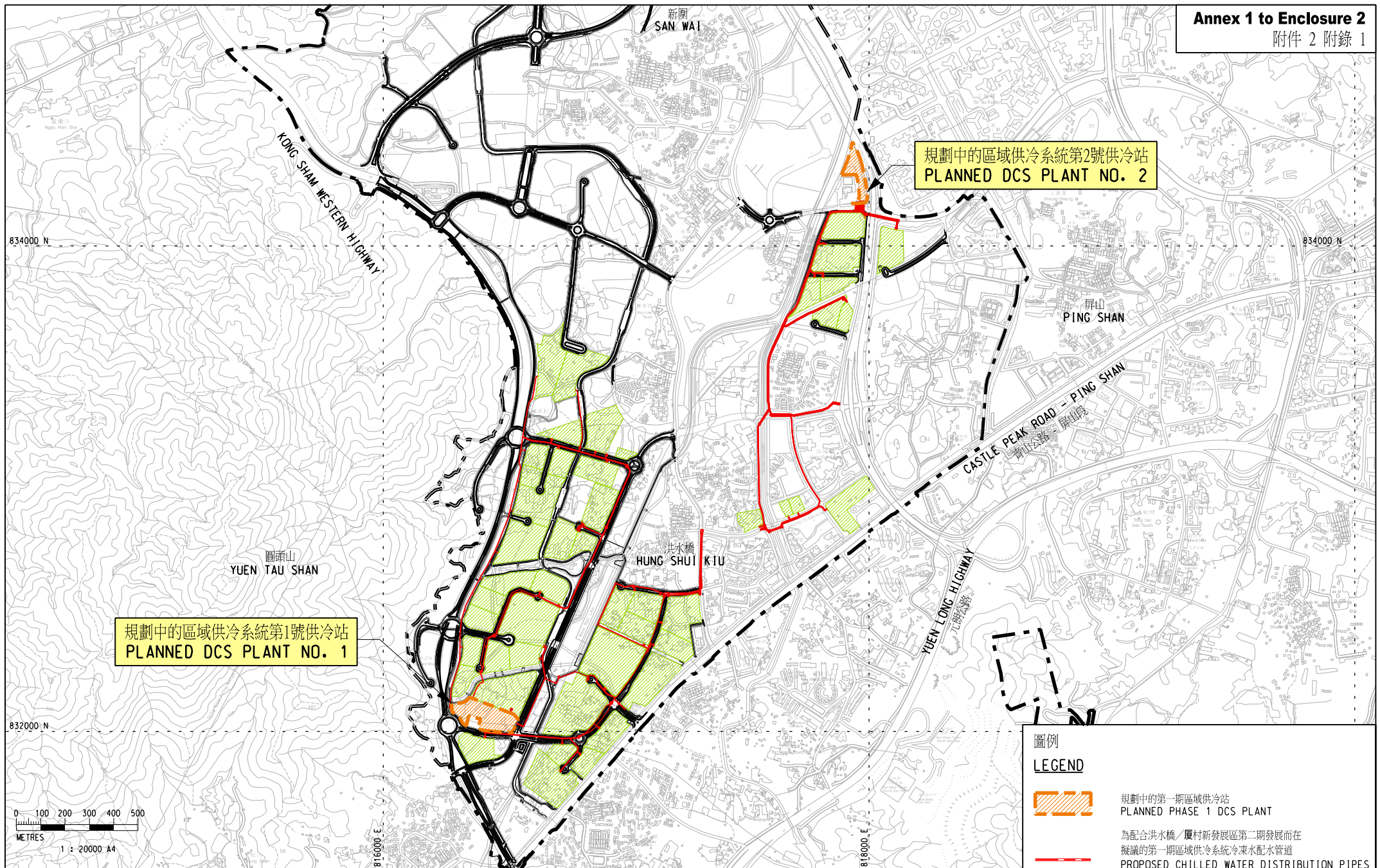
23. The private land covered under the proposed works will be resumed under HSK/HT NDA Second Phase Development main works and relevant ordinances. Therefore, the proposed works do not involve resumption of private land.

BACKGROUND INFORMATION

24. The proposed works will not involve tree preservation and removal proposals.

25. We estimate that the proposed project as a whole will create about 250 jobs (200 for labourers and another 50 for professional or technical staff) providing a total employment of 20 400 man-months.

26. CEDD invited tenders for the proposed works in parallel. Based on the returned tender prices, we have updated the project estimate to \$3,216.3 million in MOD prices. We consider that the latest project estimate reflects the prevailing market situation and should be adequate for the proposed works.






規劃中的區域供冷系統第1號供冷站
PLANNED DCS PLANT NO. 1

規劃中的區域供冷系統第2號供冷站
PLANNED DCS PLANT NO. 2

圖例

LEGEND

-  規劃中的第一期區域供冷站
 PLANNED PHASE 1 DCS PLANT
-  為配合洪水橋／厦村新發展區第二期發展而在擬議的第一期區域供冷系統冷凍水配水管道
 PROPOSED CHILLED WATER DISTRIBUTION PIPES CONNECTED TO PHASE 1 DCS TO MATCH WITH SECOND PHASE DEVELOPMENT OF HSK/HT NDA
-  洪水橋／厦村新發展區第二期發展的潛在區域供冷系統用戶
 POTENTIAL DCS CONSUMERS UNDER SECOND PHASE DEVELOPMENT OF HSK/HT NDA

工程項目編號54CG
 在洪水橋／厦村新發展區提供第一期區域供冷系統
PWP ITEM NO. 54CG
THE DISTRICT COOLING SYSTEM FOR HUNG SHUI KIU/ HA TSUEN NEW DEVELOPMENT AREA, PHASE 1

**54CG (Part) - The District Cooling System for Hung Shui Kiu /
Ha Tsuen New Development Area, Phase 1 (Stage 1 Works)**

**Breakdown of the estimates for consultants' fees and resident site staff costs
(in September 2023 prices)**

			Estimated man-months	Average MPS* salary point	Multiplier (Note 1)	Estimated fee (\$ million)
(a)	Consultants' fees for	Professional	-	-	-	4.2
	contract administration	Technical	-	-	-	2.6
	(Stage 1 Works) ^(Note 2)					
					Sub-total	<hr/> 6.8#
(b)	Resident site staff	Professional	678	38	1.6	98.2
	(RSS) costs (Stage 1	Technical	2 368	14	1.6	122.8
	Works) ^(Note 3)					
					Sub-total	<hr/> 221.0
	Comprising -					
	(i) Consultants' fees				6.9#	
	for management of					
	RSS					
	(ii) Remuneration of				214.1#	
	RSS					
					Total	<hr/> 227.8

* MPS = Master Pay Scale

Notes

1. A multiplier of 1.6 is applied to the average MPS point to estimate the cost of RSS supplied by the consultants. A multiplier of 2.0 is applied to the average MPS salary point to estimate the full staff cost including the consultants' overheads and profit for the staff employed in the consultants' offices (as at now, MPS point 14 = \$32,430 per month and MPS point 38 = \$90,540 per month).
2. The consultants' staff cost for contract administration is calculated in accordance with the existing consultancy agreement for the provision of contract administration. The construction phase of the assignment will only be executed subject to Finance Committee's approval to upgrade part of the 54CG to Category A.
3. The actual man-months and actual costs will only be known after completion of the construction works.

Remarks

The cost figures in this Annex are shown in constant prices to correlate with the MPS salary point of the same year. The figures marked with # are shown in money-of-the-day prices in paragraph 7 of the Enclosure 2.