For information on 6 December 2024

Legislative Council Panel on Transport Subcommittee on Matters Relating to Railways

Progress Update on Railway Projects

This paper briefs Members on the latest development of railway projects under construction and the South Island Line (West).

LATEST DEVELOPMENT

Railway is the backbone of public transport system of Hong Kong. 2. A highly-efficient railway network with comprehensive coverage not only facilitates the daily commute of the public and address passenger demand, but also promotes further development of the community, new towns and new development areas (NDAs), facilitates the flow of people and goods, creates economic value and strengthens community ties. We are actively taking forward various local railway projects. The construction works of the Tung Chung Line (TCL) Extension, Oyster Bay (OYB) Station, Tuen Mun South (TMS) Extension, Northern Link (NOL) Phase 1 Kwu Tung (KTU) Station, and Hung Shui Kiu (HSK) Station have commenced for the progressive completion of these projects from 2027 onwards. Separately, construction works of NOL Main Line is planned to commence in 2025 for completion in 2034. Furthermore, we are pressing ahead with the preparatory work for the South Island Line (West) with a view to commencing construction as soon as possible to tie in with district development. The latest progress of the projects is set out below.

TCL Extension

3. The main function of TCL Extension is to provide rail services for the Tung Chung New Town Extension (TCNTE). The project comprises two major components, one being the construction of the Tung Chung East (TCE) Station on the Tung Chung East Reclamation as well as the construction of an approximately 1.2-kilometre long new railway track section and the realignment of the existing track section; the other being the westward extension of railway tunnel for about 1.3 kilometres from the existing Tung Chung Station with construction of the Tung Chung West (TCW) Station adjacent to Yat Tung Estate. The TCE Station will serve the NDAs in Tung Chung East reclamation area, while the TCW Station will serve Yat Tung Estate, Mun Tung Estate and other housing developments in the vicinity. TCL Extension will provide direct railway access to TCNTE in support of the sustainable growth in population and employment opportunities in that area. The main works of the project commenced in May 2023 with expected completion in The overall progress is on schedule. The railway scheme, photomontage and site photo for TCL Extension are shown in **Enclosure A**.

Enclosure A

- 4. Foundation works for TCW Station at the west of Yat Tung Estate are in progress and are expected to be completed in the second quarter of 2025, followed by the excavation works for the main station structure. Preparatory works for the underground tunnels connecting the existing TCL and the future TCW Station are also ongoing with the tunnel boring machine (TBM) transported from the Mainland to Hong Kong by sea in batches starting from October 2024 for assembly. Upon completion of the assembly, tunnel boring works are expected to commence in the first quarter of 2025.
- 5. Besides, the foundation and noise barrier works of the TCE Station have been completed, and the main station structure, tracks and associated connecting works are in progress. The project requires the diversion of the existing TCL tracks at Tung Chung East to cope with the operation of the TCE Station. The track diversion works include the construction of new track section, installation of overhead lines, modification of the existing signalling equipment, and installation of four turnouts on the operating TCL tracks to connect the two existing tracks, bound for Tung Chung Station and Hong Kong Station respectively, to the new track section. The first turnout installation process was completed in October 2024 successfully. The MTR

Corporation Limited (MTRCL) plans to complete the remaining three turnout installations in the next three years and will announce the details in due course.

OYB Station

- 6. The main function of the OYB Station is to provide rail services for the Siu Ho Wan Depot Site Development Project and to unleash the housing development potential of the Siu Ho Wan Depot site. The project will provide the OYB Station between Sunny Bay Station on the existing TCL and the TCE Station on TCL Extension, about 6 kilometres and about 3.3 kilometres from Sunny Bay Station and the TCE Station respectively and will re-align the existing tracks. The OYB Station is located within the Siu Ho Wan Depot site. It is necessary to divert some existing operating cables of the Siu Ho Wan Depot before the commencement of the foundation works for the new station, and to protect the operating Siu Ho Wan Depot during construction in order to maintain the safe operation of the railway.
- 7. The main works of the project commenced in December 2023. The MTRCL has completed the advance works such as diversion of existing cables, and is now carrying out ground investigation works for foundation, followed by station foundation works. The overall progress of the project is on schedule and the expected completion date is in 2030. The railway scheme, photomontage and site photo for the OYB Station are shown in **Enclosure B**.

Enclosure B

TMS Extension

8. TMS Extension is approximately 2.4-kilometre long with the railway viaduct extended southward from the existing Tuen Ma Line (TML) Tuen Mun Station to provide a new Tuen Mun South Station near Tuen Mun Ferry Terminal and an intermediate station in Tuen Mun Area 16. The viaduct will run mainly along the Tuen Mun River, through the new intermediate station in Area 16, and across the Tuen Mun River Channel to connect to Tuen Mun South Station near Tuen Mun Ferry Terminal as the new terminal station. The project will improve railway services for the communities to the south of Tuen Mun town centre and connect to Tuen Mun Ferry Terminal, and will also unleash the potential of land in Area 16 for housing development. The

construction commenced in October 2023 with target completion in 2030. The overall progress is on schedule. The railway scheme, photomontage and site photo for TMS Extension are shown in **Enclosure C**.

Enclosure C

- Construction of the foundation works for the Area 16 Station and the railway viaduct at Wu Shan Recreation Playground has commenced. To facilitate the construction of the Area 16 Station, the existing Tuen Mun Swimming Pool (TMSP) in Area 16 needs to be relocated to the Tuen Mun Recreation and Sports Centre (TMRSC) (i.e. the former practice green of the Tuen Mun Golf Centre). The foundation works of the new Tuen Mun Swimming Pool have been completed and the main structural works are underway for expected completion of the reprovisioning works in 2026. The works of TMS Extension will also affect other community facilities, among which the Phase 1 reprovisioning of the Tuen Mun River (Eastern Bank) Garden (with pet garden) was completed and handed over to the relevant government department in October 2024 for opening to the public. reprovisioning works of the "Green@Tuen Mun" recycling station is in progress and upon completion of the reprovisioning, the existing "Green@Tuen Mun" recycling station will be demolished to make way for the construction of the Area 16 Station and the associated railway facilities.
- 10. Meanwhile, the decks of footbridges Siu Hei Bridge and Wu Yuet Bridge at Wu King Road were demolished smoothly in August and September 2024 respectively to make way for the construction of Tuen Mun South Station and associated entrances. The MTRCL will reprovision Siu Hei Bridge and install a permanent at-grade pedestrian crossing at the original location of Wu Yuet Footbridge as crossing facilities in the future.

NOL

11. Taking into account the timing of developments along NOL, the NOL project will be implemented in two phases. Phase 1 is the construction of KTU Station above the tunnel structure of the existing Lok Ma Chau Spur Line of the East Rail Line (ERL). The construction works of the project commenced in September 2023 for completion by 2027 to support the major new population intake of Kwu Tung North New Development Area (KTN NDA). A number of technical challenges are involved for the KTU Station

project as this is the first time where a new station is constructed on an operating railway tunnel. These challenges include carrying out construction works above the operating tunnel structure during day time and works inside the tunnel within limited time during non-traffic hours at night, which requires close coordination with the routine maintenance works of existing rail line. In addition, in light of the relatively high ground water level at the works site, the project team has adopted various precise 24-hour monitoring systems and automatic drainage system to maintain the ground water level, with a view to maintaining the stability of the tunnel structure to ensure the safe operation of ERL. The excavation works of the station have been completed and the construction of the station structure is underway. The railway scheme, photomontage and progress photo are shown in **Enclosure D**.

Enclosure D

12. Phase 2 of NOL is the construction of the Main Line, which will be an underground railway link connecting TML Kam Sheung Road Station and Kwu Tung Station. It is about 10.7 kilometres with three intermediate stations at Au Tau, Ngau Tam Mei and San Tin. Passengers can transfer to the TML and ERL at Kam Sheung Road Station and Kwu Tung Station respectively. Upon completion, NOL will form a railway loop linking up the New Territories and Kowloon, which will improve the railway connection between the Northern Metropolis and urban areas, serve the KTN NDA and San Tin Technopole, and also unleash the development potential of land around Au Tau, Ngau Tam Mei and San Tin, driving the developments in these areas. The railway scheme of NOL Main Line is shown in **Enclosure D**.

Enclosure D

- 13. The statutory environmental impact assessment procedures for the NOL Main Line project have been completed, and the Director of Environmental Protection approved the environmental impact assessment report and issued the Environmental Permit in February 2024. Separately, the railway scheme of NOL Main Line was gazetted under the Railways Ordinance (Cap. 519) in October 2023, with two amendments gazetted in May 2024 and August 2024 respectively in light of enhanced project design and implementation progress of developments along the proposed railway.
- 14. According to the latest progress of the detailed planning and design and associated statutory processes of the project, we target to commence the construction works of NOL Main Line next year for completion by 2034. MTRCL has already commenced the advance works in order to expedite

project implementation. We will continue to monitor the implementation progress of the project closely, and to consider and review the feasibility of different implementation plans with a view to advancing the implementation. At the same time, we are actively following up on the implementation of NOL Spur Line project with Shenzhen authorities and the MTRCL. The alignment of the proposed NOL Spur Line starts from the San Tin Station of the NOL Main Line, passing through Chau Tau and the Hong Kong – Shenzhen Innovation and Technology Park in the Lok Ma Chau Loop, and connects to the new Huanggang Port in Shenzhen. The project will provide another option for residents and tourists travelling to and from the Greater Bay Area. We are working to reach a consensus with the Shenzhen authorities on the implementation arrangement of the project within this year, for MTRCL to commence detailed planning and design of the project in early 2025.

HSK Station

15. The HSK Station will be located between Tin Shui Wai Station and Siu Hong Station of the existing TML, serving the residents of the Hung Shui Kiu / Ha Tsuen New Development Area (HSK/HT NDA) and the adjacent area, by providing a direct railway connection to and from HSK/HT NDA. The HSK Station will support the sustainable growth in population and employment opportunities in the NDA. The railway scheme, photomontage and site photo for HSK Station are shown in **Enclosure E**.

Enclosure E

16. The railway scheme of the HSK Station was gazetted and authorised under the Railways Ordinance (Cap. 519) in February 2023 and March 2024 respectively. To expedite project implementation, MTRCL commenced the advance works in April 2024, including the relocation of part of the facilities, modification of the existing evacuation walkway along the trackside, erection of temporary fences, and the removal of parapet walls of both sides of the viaduct, so as to make room for the connection with the new station platform on both sides. Following the signing of project agreement between the Government and the MTRCL in September 2024, MTRCL is carrying out the tendering process for the construction contract. The main works are about to begin and are expected to be completed in 2030.

SIL(W)

- 17. The Hong Kong Major Transport Infrastructure Development Blueprint which was promulgated in end 2023 mentioned that given the hilly terrains and constrained by the climbing capability of heavy rail, some sections of SIL(W) have to be built deep underground. The transport benefit and cost effectiveness are both unsatisfactory. In view of this, we have explored suitable alternative transit systems which could meet the transport demand along the alignment as well as improve the technical feasibility and overall cost effectiveness of the project. After examining the technical aspects such as carrying capacity, climbing capability, route flexibility, infrastructure, and operational equipment requirements of various non-heavy rail transport systems in the market, we consider that it is technically feasible to adopt smart and green mass transit system to take forward SIL(W) as an alternative to the original heavy rail scheme.
- 18. The preliminary alignment of the proposed SIL(W) will be about 7.5 kilometres long, and will provide a convenient transport service connecting the western and southern parts of Hong Kong Island, facilitating the public to go to the South Island Line (East) Wong Chuk Hang Station and Island Line HKU Station, passing through areas around Aberdeen, Wah Fu, Cyberport and Pok Fu Lam and serving about 130,000 residents and 50,000 employments. After the commissioning of SIL(W), the journey time from Wong Chuk Hang to the University of Hong Kong is estimated to be about 20 minutes. Passengers can interchange with South Island Line (East) and Island Line at Wong Chuk Hang and the University of Hong Kong for travelling to other areas. The proposed SIL(W) will form a transit loop with the South Island Line (East) and Island Line. The layout plan of the preliminary alignment is shown in **Enclosure F**.

Enclosure F

19. The proposed smart and green mass transit system is a transit system of medium carrying capacity mainly running on dedicated elevated viaducts, which will be completely separated from and not affected by existing road traffic. Due to the hilly terrains, a section of the alignment from Queen Mary Hospital to the University of Hong Kong is preliminarily proposed to adopt tunnel form. We will continue to assess the financial arrangement of the project, including refining the alignment and enhancing cost-effectiveness, with a view to commencing detailed planning and design in 2025 and striving

for commencing advance construction works in 2027 to tally with the timetable for new population intake of the Wah Fu Estate Redevelopment. During the detailed planning and design stage, we will review the construction scheme and implementation timeframe of the project, duly consider views and suggestions from Members and the public, and continue to explore and review different methods to enhance the speed as well as efficiency of the project so as to expedite project implementation.

Other Projects

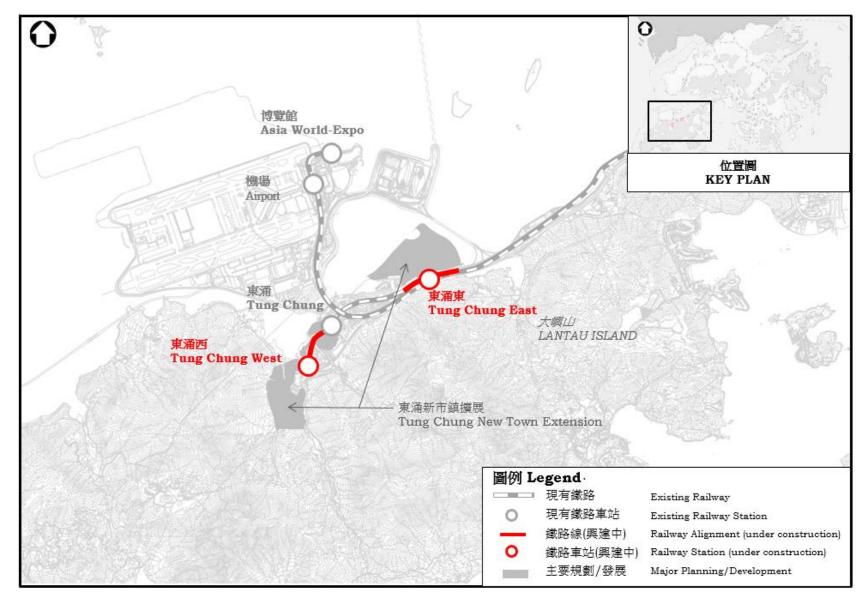
20. At the same time, the Government is also actively taking forward the planning of other railway projects, one of which is the East Rail Line Science Park / Pak Shek Kok Station. The Government is assessing the project, together with MTRCL, with a view to unleashing the development potential of areas near the station. MTRCL is carrying out detailed technical assessments on the land development and construction scheme of the station. Preliminary results revealed that the construction works of the new railway station would be complicated and substantial supporting infrastructure is involved. MTRCL will carry out in-depth study and enhance the cost effectiveness of the project, and continue the discussion with the Government. We are working towards the target of promulgating the development proposal within this year after taking into consideration the assessment, and commence the town planning and other statutory procedures timely after public consultation. The construction works will commence upon the completion of the associated procedures for target commissioning of the station by 2033.

WAY FORWARD

21. Members are invited to note the latest development of the above projects.

Transport and Logistics Bureau Highways Department

November 2024



附件 A- 東涌線延線鐵路走線平面圖

Enclosure A – Railway Alignment of Tung Chung Line Extension

附件 A, 頁 2/2 (Enclosure A, Sheet 2 of 2)

東涌線延線構想圖及施工進展

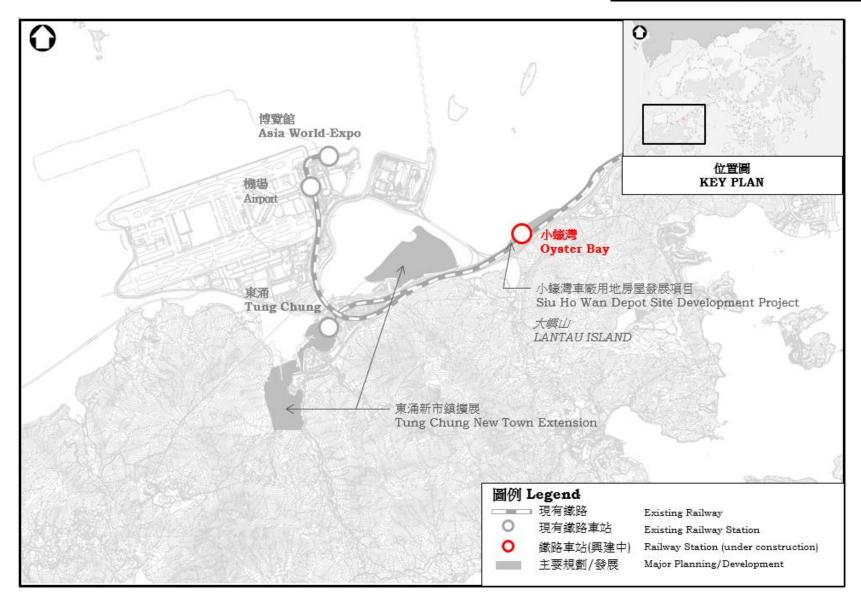
Photomontage and Progress Photo of Tung Chung Line Extension



東涌東站構想圖 Photomontage of Tung Chung East Station



東涌東站施工進展 Progress Photo of Tung Chung East Station



附件 B - 小蠔灣站位置平面圖

Enclosure B – Location Plan of Oyster Bay Station

小蠔灣站構想圖及施工進展

Photomontage and Progress Photo of Oyster Bay Station



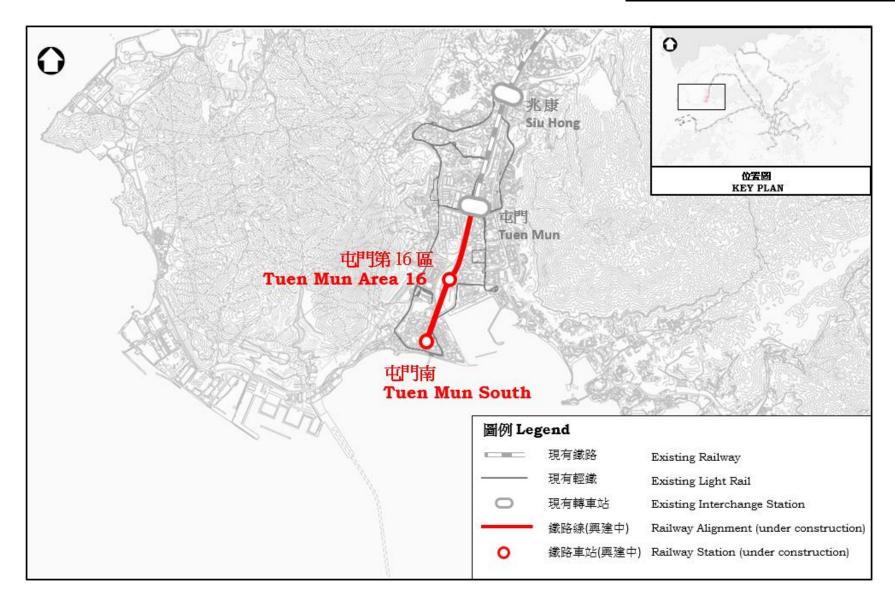
小蠔灣站構想圖

Photomontage of Oyster Bay Station



小蠔灣站施工進展

Progress Photo of Oyster Bay Station



附件 C - 屯門南延線鐵路走線平面圖

Enclosure C – Railway Alignment of Tuen Mun South Extension

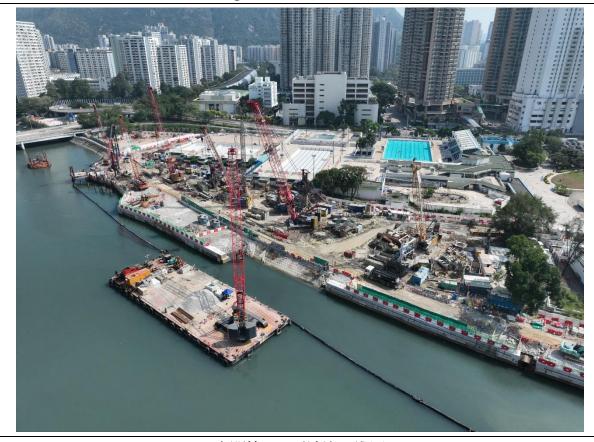
附件 C, 頁 2/2 (Enclosure C, Sheet 2 of 2)

屯門南延線構想圖及施工進展

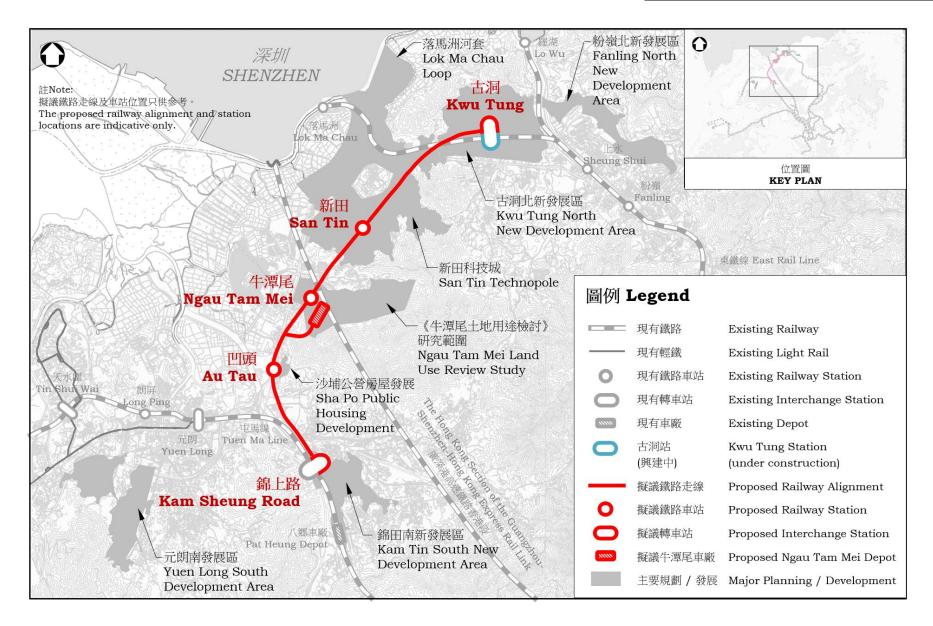
Photomontage and Progress Photo of Tuen Mun South Extension



屯門第 16 區站構想圖 Photomontage of Tuen Mun Area 16 Station



屯門第 16 區站施工進展 Progress Photo of Tuen Mun Area 16 Station



附件 D - 北環線鐵路走線平面圖

Enclosure D – Railway Alignment of Northern Link

附件 D, 頁 2/2 (Enclosure D, Sheet 2 of 2)

古洞站施工進展

Progress Photo of Kwu Tung Station

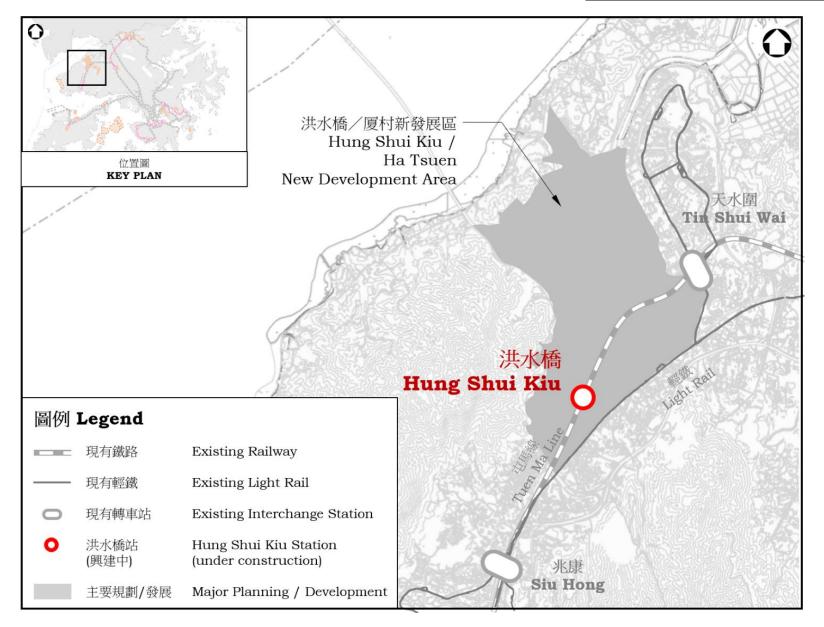


古洞站構想圖 Photomontage of Kwu Tung Station



古洞站:挖掘工程已經完成(鳥瞰圖)

Kwu Tung Station: Excavation completed (bird's eye view)



附件 E - 洪水橋站位置平面圖

Enclosure E – Location Plan of Hung Shui Kiu Station

附件 E, 頁 2/2 (Enclosure E, Sheet 2 of 2)

洪水橋站構想圖及施工進展

Photomontage and Progress Photo of Hung Shui Kiu Station

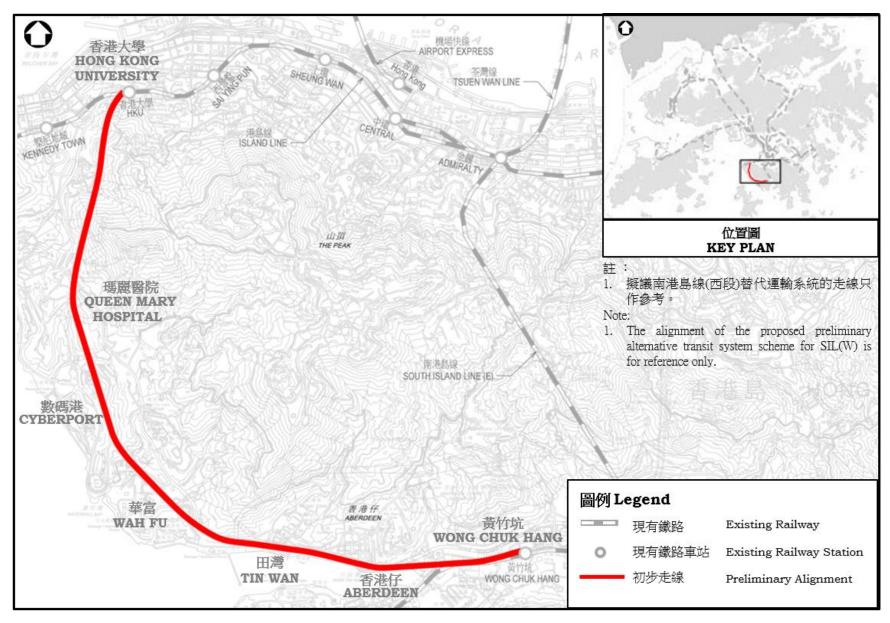


洪水橋站構想圖 Photomontage of Hung Shui Kiu Station



洪水橋站: 正進行車站的前期工程

Advance Works of Hung Shui Kiu Station in progress



附件 F - 南港島線(西段)的替代運輸系統初步擬議方案

Enclosure F – Preliminary Alternative Transit System Scheme for SIL(W)