

**For discussion
on 31 March 2025**

**Legislative Council Panel on Transport
Subcommittee on Matters Relating to Railways
Implementation of Railway Projects in the Northern Metropolis**

PURPOSE

This paper briefs Members on the implementation of railway projects in the Northern Metropolis, and seeks Members' views on the proposal of upgrading part of **69TR** "Hong Kong Section of Hong Kong–Shenzhen Western Rail Link (Hung Shui Kiu–Qianhai)" to Category A as **70TR** "Hong Kong Section of Hong Kong–Shenzhen Western Rail Link (Hung Shui Kiu–Qianhai)–Investigation and Design".

IMPLEMENTATION OF RAILWAY PROJECTS IN THE NORTHERN METROPOLIS

2. In planning for the long-term development needs of Hong Kong, the Government commenced the "Strategic Studies on Railways and Major Roads beyond 2030" ("the Strategic Studies") in December 2020 to conduct a comprehensive and objective analysis of the supply of and demand for major transport infrastructure in Hong Kong. After holistic consideration of the views received during the public consultation and the technical analysis conducted, the Government promulgated the "Hong Kong Major Transport Infrastructure Development Blueprint" ("the Blueprint") in December 2023, providing a planning framework for the city's future transport infrastructure development, and outlining the strategic railway and major road networks which can meet the transport and logistics demand up to 2046 and beyond.

3. The latest development of the railway projects in the Northern Metropolis under the Blueprint is set out in paragraphs 4 to 16 below.

Local Railway Projects

Hung Shui Kiu Station

4. The Hung Shui Kiu (“HSK”) Station locating between the Tin Shui Wai Station and the Siu Hong Station of the existing Tuen Ma Line (“TML”) will provide services to the residents of the Hung Shui Kiu / Ha Tsuen New Development Area (“HSK/HT NDA”) and the adjacent areas, providing a direct railway connection to and from HSK/HT NDA and supporting the sustainable growth in population and employment opportunities in the NDA. To expedite the implementation of the project, the MTR Corporation Limited (“MTRCL”) commenced advance works in April 2024, which have now been substantially completed, to create room on both sides of the TML viaduct for connection with the newly constructed station platforms in future. The main works of the HSK Station project also commenced in December 2024. The site formation works have been substantially completed and the associated foundation works will be carried out soon thereafter. The HSK Station project is expected to be completed in 2030.

Northern Link

5. Taking into account the pace of developments along the Northern Link (“NOL”), the NOL project is implemented in two phases. Phase 1 involves the construction of the Kwu Tung (“KTU”) Station above the tunnel structure of the existing Lok Ma Chau Spur Line of the East Rail Line. The construction works of the project commenced in September 2023 with target completion in 2027 to tie in with the intake of major new population of Kwu Tung North New Development Area. Excavation works for the station have been completed and the construction of the station structure is underway.

6. Phase 2 is the NOL Main Line, which would connect the Kam Sheung Road Station at TML and the KTU Station. To expedite the implementation of NOL Main Line, the Government has required the MTRCL to reserve budget for the detailed planning and design as well as part of the advance works for the NOL Main Line when signing the Project Agreement of the KTU Station. The detailed planning and design have been substantially completed and the advance works have also commenced. In addition, the gazettal procedures of the railway scheme is expected to be completed shortly. Our target is to complete the Main

Line works by 2034.

Cross-boundary Railway Projects

7. In accordance with the vision of jointly developing the “Greater Bay Area on the Rail”, the Hong Kong Special Administrative Region (“HKSAR”) Government and the Shenzhen Municipal People’s Government (“SZMPG”) established the “Task Force for Hong Kong-Shenzhen Co-operation on Cross-Boundary Railway Infrastructure” (“the Task Force”) in 2021 to jointly take forward two cross-boundary railway projects (i.e. the NOL Spur Line and the Hong Kong – Shenzhen Western Rail Link (Hung Shui Kiu – Qianhai) projects), with the aim to enhance infrastructure connectivity in the Greater Bay Area (“GBA”) by comprehensive integration of the railway networks of Hong Kong and Shenzhen, facilitating citizens’ convenient travel between the two places. The planning and construction of the cross-boundary railway projects are crucial initiatives in support of thorough implementation of the “Outline Development Plan for the Guangdong-Hong Kong-Macao Greater Bay Area”, promoting the development of an infrastructure network with sensible layout, full functionality, smooth connection, and high efficiency, facilitating further integration of the cities in the GBA and complementing the needs of the Northern Metropolis Development Strategy.

8. To strengthen the coordination between the two sides, the two governments have established the following two teams under the framework of the Task Force to take forward the next stage of work in close collaboration –

- (a) “Office for Implementing Cross-Boundary Railway Projects” which is responsible for taking forward the feasibility study, investigation, design, construction, and operation of the railway projects; and
- (b) “Legal Group” which is responsible for the discussion and clarification of laws and regulations of the two places regarding investment, construction and implementation mode, and the specific arrangements of establishing Hong Kong’s jurisdiction in the Mainland, etc.

9. In taking forward the cross-boundary railway projects, it is necessary to carefully address the differences in the design standards as well as construction practices between the two places. These differences bring about challenges as

well as new opportunities. As projects jointly implemented by Hong Kong and Shenzhen, cross-boundary railways provide opportunities for both parties to draw on each other's strengths and experiences in taking forward railway projects, so as to further enhance the efficiency and quality of railway development and strive for excellence. At the same time, we will embrace innovative mindset to continuously explore different implementation approaches with the goal to reduce construction cost and compress construction time, including flexibly leveraging market resources, introducing new materials and innovative construction technologies, as well as drawing reference from the Mainland and overseas practices and experience. Taking into account the local circumstances and legal framework, we are actively exploring ways to utilise Mainland approaches and capabilities in the construction of cross-boundary railway projects, including the adoption of Mainland design standards and construction specifications¹ in addition to Hong Kong standards and specifications, as well as facilitating Mainland contractors and sub-contractors to register as contractors and obtain certification for construction plant and materials according to statutory requirements² in Hong Kong.

NOL Spur Line

10. 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 an additional option for residents and tourists travelling to and from the GBA. We are actively following up with Shenzhen authorities on the implementation arrangement of NOL Spur Line through the Task Force, and plan to commence the detailed planning and design this year. While the planning of the NOL Spur Line is still at an earlier stage as compared to the progress of the Main Line, we will demonstrate the spirit of breaking new ground and strive to take forward the two projects simultaneously such that both projects could benefit from certain synergies (such as bundling part of the NOL Main Line and Spur Line works in inviting tenders). Coupled with innovative thinking and use of market resources

¹ The Building Authority may, in accordance with relevant legislation, approve exemption of railway projects from the provisions of the Buildings Ordinance on conditions as he may specify, and the relevant conditions so specified may include standards and specifications that shall be complied with.

² Under the existing regime, Mainland contractors and subcontractors meeting the registration requirements, including relevant past project experiences, technical capabilities, financial conditions, etc., are eligible to apply for registration in Hong Kong and participate in the construction projects in Hong Kong after approval.

as mentioned above, we would seek to enhance the cost efficiency of the projects and complete the NOL Spur Line at an early juncture. Our target is to advance the commissioning of the NOL Spur Line to tie in with that of the NOL Main Line. We are actively discussing with the MTRCL for commissioning together by 2034 or earlier.

Hong Kong – Shenzhen Western Rail Link (Hung Shui Kiu – Qianhai)

11. The Strategic Studies pointed out that Hong Kong can leverage the “Plan for Comprehensive Deepening Reform and Opening Up of the Qianhai Shenzhen - Hong Kong Modern Service Industry Cooperation Zone”³, to upgrade the HSK/HT NDA as a central business district in the New Territories North, and to promote high-end economic cooperation and development in financial and professional services, modern logistics and technology services. In the “Northern Metropolis Action Agenda” promulgated by the Government in October 2023, it is also proposed that the HSK/HT NDA, which is situated just across the bay from the Qianhai Cooperation Zone in Shenzhen, be positioned as the “High-end Professional Services and Logistics Hub” among the four major zones of the Northern Metropolis. This zone can promote and deepen high-end economic co-operation with the Qianhai Cooperation Zone and the Nanshan District in the areas of financial, professional and logistics services, etc., developing into a centre of modern service industries which radiate to the entire GBA and act as the focal point for service talents travelling frequently between the two places.

12. At present, the rail links between Hong Kong and Shenzhen are concentrated around the Luohu and Futian areas in Shenzhen, while the connections to Qianhai Cooperation Zone and the western part of Shenzhen mainly rely on the Shenzhen Bay Bridge and Shenzhen Bay Port. With strong cross-boundary travel demand in the Northern Metropolis expected in future, the Hong Kong – Shenzhen Western Rail Link (Hung Shui Kiu – Qianhai) (“HSWRL”) will significantly improve the capacity and standard of the cross-

³ In September 2021, the Central Government promulgated the “Plan for Comprehensive Deepening Reform and Opening Up of the Qianhai Shenzhen-Hong Kong Modern Service Industry Cooperation Zone” (“Qianhai Plan”), which expands the total area of the Qianhai Shenzhen-Hong Kong Modern Service Industry Cooperation Zone (“Qianhai Cooperation Zone”) from approximately 15 square kilometres to approximately 120 square kilometres. It emphasises the promotion of high level opening-up of the Qianhai Cooperation Zone, the promotion of innovative development of modern service industries, and the expedited establishment of a system for modern services compatible with Hong Kong and international standards. The Qianhai Plan does not only enhance the functions of the Qianhai Cooperation Zone, but also foster the long-term development of different professional services sectors in Hong Kong.

boundary passenger service along the western development corridor between Hong Kong and Shenzhen.

13. Upon the commissioning of the proposed HSWRL, the travelling time from Hung Shui Kiu to Qianhai will only take approximately 15 minutes. As a strategic railway project which supports Hong Kong's deep integration into the development of the GBA, the HSWRL would join the railway networks in the western regions of Hong Kong and Shenzhen, contributing to the development of a quality living circle between Hong Kong and Shenzhen and enabling convenient cross-boundary commerce, work, living, study and travelling activities of the residents of the two places. In particular, the project will significantly enhance the connection between the Northern Metropolis in Hong Kong and the Guangzhou-Shenzhen innovation and technology corridor, which will give full play to the strengths of talents and resources in both Hong Kong and Shenzhen, as well as further promote and deepen economic cooperation and development in areas of finance, professional services, modern logistics, and technology services.

14. The Task Force completed the first stage and second stage studies for HSWRL in 2022 and 2024 respectively. Having comprehensively considered the overall layout of the GBA and the development needs of the two cities, including the development plan and implementation programme of the HSK/HT NDA and the Qianhai Cooperation Zone in Shenzhen, the studies have established the strategic value and necessity of the project, and also completed initial assessment of the planning, engineering feasibility, benefits, environmental impact, as well as construction and operation arrangements, etc. in relation to the railway scheme. The findings of the second stage study were deliberated and endorsed at the Task Force meeting held in November 2024. The major findings are highlighted as follows –

- (a) **Preliminary layout:** The project is approximately 18.1 km long (with about 7.3 km and 10.8 km for the Hong Kong section and Shenzhen sections respectively). The alignment will start from the west of Hung Shui Kiu Station under construction on the TML, passing through Ha Tsuen and Lau Fau Shan, crossing the Deep Bay and connecting to Qianhai via Shenzhen Bay Port. It is an underground railway line comprising five stations, with three stations on the Hong Kong side (located in Hung Shui Kiu, Ha Tsuen and Lau Fau Shan) and two stations on the Shenzhen side (located in Shenzhen Bay Port and

Qianhai). Taking into account the land planning and development of the two places along the alignment, the depot will be located at Ha Tsuen. Please refer to **Enclosure** for the preliminary alignment of the proposed HSWRL.

- (b) **Provision of boundary control points:** The HSWRL will provide not only cross-boundary services but also local commuting functions within Hong Kong, meeting the domestic travelling demand of the HSK/HT NDA and the area in the vicinity of Lau Fau Shan, Tsim Bei Tsui and Pak Nai (collectively referred to as Lau Fau Shan area) within the Northern Metropolis. To enhance convenience of border crossing and travel experience, and fully leverage the attractiveness and efficiency of the cross-boundary railway, the two governments have agreed to establish co-location of the immigration and customs facilities in Shenzhen, with no immigration and custom facilities in Hong Kong. The two governments will further discuss the co-location arrangements and the demarcation of Hong Kong and the Mainland Port Areas having regard to actual operational needs, and conduct relevant consultations and legislative work in due course.
- (c) **Construction and operation arrangements:** To expedite the project implementation, the two governments agreed to take forward the next stage of work according to the “parallel construction, unified operation” approach, under which Hong Kong and Shenzhen will simultaneously carry out the design and construction of Hong Kong section and Shenzhen section respectively first, and subsequently engage a single operator for unified operation and procurement of railway systems for the entire line, so as to enhance the cost effectiveness as well as operational efficiency and flexibility of the project.
- (d) **Target commissioning:** Having considered various relevant factors including the project scale, the complexity of the works, the pace of developments along the railway alignment, and transport demand, the two governments aim to commission the Hong Kong and Shenzhen sections of the HSWRL simultaneously in 2035.

15. As HSWRL is a new independent railway line, the Government plans to implement the project through open tender. We will collect views from the

market to identify potential contractors/operators, conduct financial assessment and formulate the regulatory framework for operation, and assess the experiences, technologies, resources and financial capabilities of the tenderers with a view to selecting the most suitable contractor/operator.

16. In order to take forward the HSWRL in tandem with the Shenzhen side, we need to commence the investigation and design of the Hong Kong section within this year, including the financial assessment, collection of views from the market, preparation for tendering, preliminary design, and relevant impact assessments, etc. Members' views are sought on the funding application for investigation and design of the project as set out in paragraphs 17 to 36 below.

HONG KONG SECTION OF THE HONG KONG-SHENZHEN WESTERN RAIL LINK (HUNG SHUI KIU-QIANHAI)- INVESTIGATION AND DESIGN

17. We propose to upgrade part of **69TR** "Hong Kong Section of the Hong Kong – Shenzhen Western Rail Link (Hung Shui Kiu – Qianhai)" ("the Proposed Project") to Category A as **70TR** "Hong Kong Section of the Hong Kong – Shenzhen Western Rail Link (Hung Shui Kiu – Qianhai) – Investigation and Design" ("the Item") to carry out investigation and design for the Hong Kong section of HSWRL.

PROJECT SCOPE AND NATURE

18. The scope of the Proposed Project mainly comprises –

- (a) construction of an approximately 7.3-km long underground railway line (the alignment starts from the new station adjacent to the Hung Shui Kiu Station on the TML, passing through the two intermediate stations in Ha Tsuen and Lau Fau Shan, and crossing the Deep Bay to the boundary of Hong Kong and connecting with the Shenzhen section of the HSWRL) and a depot;
- (b) procurement of rolling stock and the associated railway facilities, including trackwork, train control, communication facilities, electrical and mechanical facilities and signaling system, etc.;

- (c) enabling works for property developments atop the proposed depot and stations; and
- (d) other associated works including road and drainage works, ancillary buildings, electrical and mechanical installations, demolition and reprovisioning of facilities affected by the Proposed Project, landscaping work and environmental mitigation measures, etc.

19. To complete the investigation and design required for the Proposed Project, the scope of the Item comprises –

- (a) invitation for expression of interest (“EOI”) for the Proposed Project from relevant contractors and operators in the market;
- (b) financial assessment and formulation of financing arrangements for the Proposed Project;
- (c) formulation of contract procurement arrangements, including preparation of contract terms and handling of associated legal matters, as well as providing assistance in the tendering process;
- (d) review of the alignment and station locations of the Proposed Project;
- (e) formulation of design standards and development of preliminary design⁴ for the Proposed Project as well as detailed design for the sub-sea railway tunnel section crossing the Deep Bay;
- (f) assessment of the impacts on environment, traffic, heritage, land acquisition and other aspects of the Proposed Project as well as formulation of associated mitigation measures;
- (g) gazettal of the Proposed Project;
- (h) formulation of technical details for the operation, management and maintenance to support the preparation of the relevant regulatory

⁴ To fully utilise the technical expertise and construction equipment of the contractors, the detailed design of the main works will be carried out by the contractors in the next stage.

framework; and

- (i) site investigation and the associated supervision work.

20. In order to expedite the implementation of the Proposed Project, we have invited tenders for the investigation and design works in parallel. The estimated cost of the Item has reflected the returned tender prices. We plan to award the contract and commence the investigation and design works immediately upon obtaining funding approval from the Finance Committee (“FC”) of the Legislative Council (“LegCo”).

JUSTIFICATION

21. As mentioned above, the HSWRL is a strategic railway project which would enhance the connectivity of the infrastructure in the GBA by integrating the railway networks in the western regions of Hong Kong and Shenzhen. Given the cross-boundary nature of this railway project, we need to closely communicate and coordinate with the relevant Mainland authorities on different aspects of the HSWRL, including the financial arrangements, design standards, cross-boundary patronage forecast, technical details, operation and maintenance requirements of the two places, design of the boundary control points in Shenzhen, temporary arrangements for the existing cross-boundary traffic during the station construction in Shenzhen Bay Port, and a series of cross-boundary legal matters, such as contract procurement and design entrustment arrangements. Throughout the process, we also need to ensure that the Proposed Project will synergise with the future development of the Hung Shui Kiu / Ha Tsuen / Lau Fau Shan NDAs in the Northern Metropolis.

22. At the same time, the Government will endeavour to explore ways to combine Hong Kong’s flexibility and versatility with the Mainland’s strengths in infrastructure development. Through “dual innovation” in policy and technology, we aim to reduce the costs of the Proposed Project and explore ways to optimise and streamline procedures, harness market forces and embrace new technologies from the Mainland or overseas, thereby further enhancing the efficiency and quality of railway development.

23. Given the large scale and complex nature of the Proposed Project, we consider it necessary to invite views from relevant contractors and operators in

the market on the scheme, procurement and financial arrangements, etc. of the Proposed Project, with a view to ascertaining the market's interest and capability in the construction and operation of the Proposed Project, as well as enabling the formulation of more appropriate details and terms of the tender. We plan to invite relevant contractors and operators to submit EOI in the second half of 2025 and carry out various related tasks in parallel, including financial assessments, preparation of contract terms, review of alignment and station locations, preliminary design, site investigation, environmental impact assessment under the Environmental Impact Assessment Ordinance (Cap. 499), gazettal under the Railways Ordinance (Cap. 519), and the formulation of regulatory framework to govern future operations. Based on the outcome of the financial assessment and analysis of the EOI submissions, the Government will consider the financial arrangements and formulate appropriate financial arrangements⁵ for the Proposed Project, and discuss the suitable procurement arrangements with the Shenzhen side.

24. The alignment of the HSWRL crosses the Deep Bay, involving the construction of an approximately 5.4km-long subsea railway tunnel, amongst which the Hong Kong and Shenzhen sections are about 2.8 km and 2.6 km long respectively. Taking into account the engineering feasibility and cost-effectiveness, the two sides have agreed to construct the sub-sea railway tunnel by excavation from one direction, and that the HKSAR Government will first entrust the design of Hong Kong section of the sub-sea railway tunnel to SZMPG, so as to ensure the design compatibility of the two sections of the subsea railway tunnel. Both sides will further discuss the construction arrangements in the next stage. In this connection, we need to carry out the associated marine site investigations in the Deep Bay, including vertical boreholes, in-situ testing and laboratory testing to obtain the relevant geotechnical and geological information for the design of the Hong Kong section of the sub-sea railway tunnel.

25. Taking into account the scale and complexity of the HSWRL project, which involves several professional disciplines including financial and legal matters, cross-boundary railway operation, impact assessment related to railway works, etc, we need to form a team with relevant professional expertise and experience to implement the Item and supervise the associated site investigation works of the Hong Kong section, so as to complete the investigation and design

⁵ Including examination of the necessity and appropriate approach in providing financial support by the government, and the land valuation of the relevant property development sites in case the "Rail-plus-Property" model is to be adopted.

smoothly and expeditiously, including properly handling the technical, financial and operational issues related to the project.

26. We will strive to complete the series of investigation works mentioned above within 25 months. Subject to the eventual financial arrangement, we aim to have the Proposed Project ready for tendering in 2027 so that the detailed design and construction works can promptly commence with a view to realising the common goal of the two governments to commission the HSWRL in 2035.

FINANCIAL IMPLICATIONS

27. We estimate the cost of the Item to be \$333.60 million in money-of-the-day prices, which includes the fee for (a) the investigation and design works (approximately \$163.20 million); (b) handling legal matters (approximately \$24.50 million); (c) design of sub-sea railway tunnel in the Deep Bay (approximately \$25.30 million); (d) site investigation works (approximately \$82.10 million); (e) the relevant supervision of the site investigation works (approximately \$8.20 million); and (f) contingencies (approximately \$30.30 million).

PUBLIC CONSULTATION

28. The Government conducted public consultations on the preliminary proposals of the Strategic Studies (including the HSWRL) between December 2022 and March 2023, including consultations with the LegCo, the Transport Advisory Committee, the Heung Yee Kuk, and the District Councils. Focus group meetings were held with professional bodies, academia, think tanks, and green groups, while two public forums were also organised to collect views from different sectors of the community. The public generally supported the implementation of the proposed HSWRL.

29. On 15 December 2023, the Government briefed the LegCo Panel on Transport on the “Hong Kong Major Transport Infrastructure Development Blueprint”, which included the HSWRL. Members generally supported the implementation of the proposed HSWRL.

30. After consulting the Subcommittee on Matters Relating to Railways, the Highways Department will consult Yuen Long District Council on the

investigation and design of the Hong Kong section of HSWRL. We will carry out the next phase of consultation on the Proposed Project when the preliminary results of the investigation and design are available.

ENVIRONMENTAL IMPLICATIONS

31. The Hong Kong section of the proposed HSWRL is a designated project under Schedule 2 of the Environmental Impact Assessment Ordinance (“EIAO”) (Chapter 499), which requires an environmental permit for its construction and operation. The Highways Department will conduct an environmental impact assessment (“EIA”) study in accordance with the requirements of the EIAO and make recommendations on suitable mitigation measures. Nevertheless, the investigation and design (including the associated site investigation works) are not designated projects and will not cause long-term adverse impact on the environment. We have included in the project estimates the cost of implementing suitable pollution control measures to mitigate short-term environmental impact arising from the site investigation works under the Item.

32. The Item including the associated site investigation works will only generate minimal construction waste. We will fully consider measures to minimise the generation of construction waste and to reuse or recycle construction waste as much as possible in the future implementation of the construction works.

HERITAGE IMPLICATIONS

33. The Item including the associated site investigation works will not affect any heritage site, i.e. all declared monuments, proposed monuments, graded historic sites / buildings / structures, sites of archaeological interest, all sites / buildings / structures in the new list of proposed grading items, and government historic sites identified by the Antiquities and Monuments Office. We will conduct heritage impact assessment for the implementation of the Proposed Project in the EIA study to be carried out under the Item.

LAND ACQUISITION

34. The Item including the associated site investigation works will not

require any land acquisition. The Item will examine the extent of land acquisition and/or clearance required for the implementation of the Proposed Project.

TREE IMPLICATIONS

35. The Item including the associated site investigation works will not directly involve any tree removal or planting proposals. The Item will examine the impact on trees during construction stage of the Proposed Project, the need for tree preservation, and tree planting proposals.

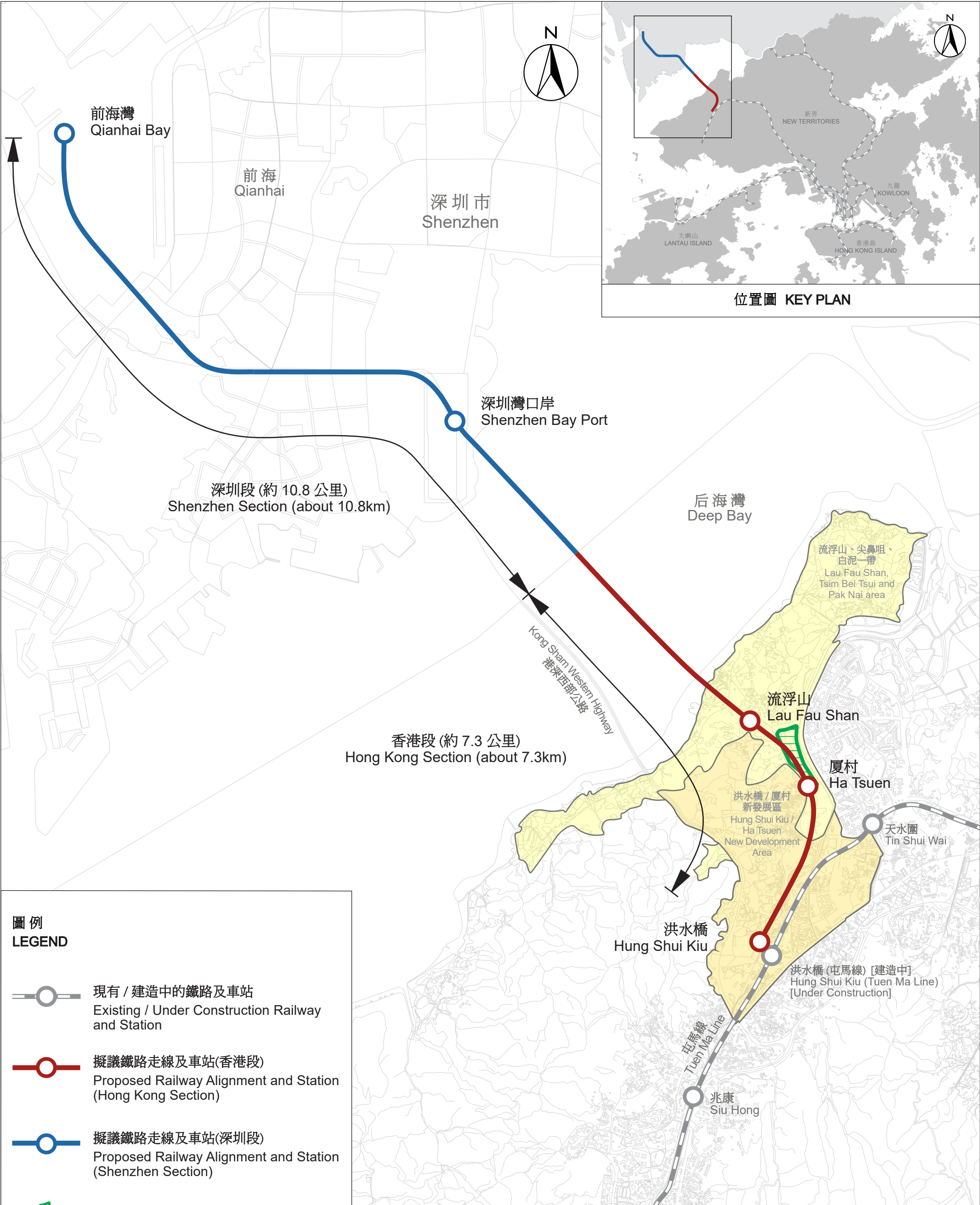
WAY FORWARD

36. After consulting the Subcommittee on Matters Relating to Railways and the District Council, we plan to seek the support of the LegCo Public Works Subcommittee, and make funding approval application to the FC to upgrade part of **69TR** to Category A as **70TR**.

COMMENTS SOUGHT

37. Members are welcome to provide comments on this paper.

Transport and Logistics Bureau
Highways Department
March 2025



圖則名稱 drawing title

工務計劃項目第69TR號 — 港深西部鐵路（洪水橋至前海）香港段 — 初步走線

PWP ITEM No. 69TR – Hong Kong Section of Hong Kong – Shenzhen Western Rail Link (Hung Shui Kiu – Qianhai) – Preliminary Alignment

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