

LEGISLATIVE COUNCIL BRIEF

NORTHERN LINK AND HONG KONG SECTION OF GUANGZHOU – SHENZHEN – HONG KONG EXPRESS RAIL LINK

INTRODUCTION

At the meeting of the Executive Council on 17 January 2006, the Council ADVISED and the Chief Executive ORDERED that –

- (a) the proposed Northern Link (NOL) should be proceeded with;
- (b) the Hong Kong section of the Guangzhou – Shenzhen – Hong Kong Express Rail Link (ERL) should be proceeded with to link up with the Guangdong section of the ERL;
- (c) the Hong Kong section of the ERL should share tracks with the existing West Rail (WR), the proposed NOL and the Kowloon Southern Link (KSL) now under construction, with a terminus at West Kowloon (alignment shown as “Shared Corridor Option” in **Annex A**);
- (d) the NOL and the Hong Kong section of the ERL should be implemented as one combined project;
- (e) the Kowloon-Canton Railway Corporation (KCRC) should be asked to proceed with further planning of the combined project;
- (f) negotiation with the KCRC on the scope, costs and implementation programme of the combined project should commence; and

- (g) the KCRC should be asked to undertake necessary protection works in the KSL project now under construction to preserve the technical feasibility of the Hong Kong section of the ERL.

2. Background information on the NOL and the ERL is set out at **Annex B**.

B

JUSTIFICATIONS

Construction of NOL

3. Currently, cross-boundary travellers in the western part of the New Territories rely mainly on road-based transport for commuting to the boundary for their onward journey to the Mainland. With the completion of the Spur Line by early 2007, there will be an additional rail boundary crossing at Lok Ma Chau to relieve the existing congestion at the Lo Wu rail boundary crossing. However, without the NOL, access to the Lok Ma Chau Terminus from the western side of the territory will continue to be mainly road-based.

4. The proposed NOL runs from the existing WR Kam Sheung Road Station to the Spur Line Lok Ma Chau Station due to be completed by early 2007. Provisions will be made to allow the addition of three intermediate stations at San Tin, Ngau Tam Mei and Au Tau of Yuen Long to tie in with future development of the planned New Development Areas (NDAs) in those areas (the development of the NDAs is being reviewed in the Hong Kong 2030 Planning Study). The proposed NOL will intersect with the Spur Line at a new Chau Tau Station, as shown in **Annex A**, such that NOL passengers can use the Spur Line to interchange with the East Rail (ER) for travelling to stations on the ER. This arrangement will obviate the need for passengers to travel on the NOL all the way to Lok Ma Chau before they can switch to the Spur Line.

5. The NOL is the missing part of the railway loop serving the Kowloon Peninsula and the New Territories. When completed, rail passengers can

interchange with ease between the WR and the ER at the northern part of the New Territories. They can travel furthest from the ER Lo Wu Station and the Ma On Shan Rail Wu Kai Sha Station on the east to the Lok Ma Chau Station and WR Tuen Mun Station on the west. The NOL will provide a faster and more convenient rail service for cross-boundary passengers travelling through Lok Ma Chau, particularly those in the western part of the territory, via the WR corridor. Moreover, the NOL will boost the daily WR patronage, thereby achieving better utilisation of the existing rail network. The KCRC will fund the project with its own finances and has not requested for the Government's financial support.

6. The local community of western New Territories and the Legislative Council have long been strongly demanding the early provision of the NOL. The Legislative Council has passed a motion urging Government to expedite the implementation of the NOL so that the public can have direct access to the Lok Ma Chau boundary crossing through the WR.

Construction of Hong Kong section of ERL

C 7. The Mainland has already embarked on a strategic railway plan, as shown in **Annex C**, to build a national high-speed rail network covering the major cities. The national network will operate at maximum train speeds in the range of 250-350km/h. In this network, there are two dedicated passenger lines that are of more strategic importance, with services extending to the Guangdong Province. They are the Beijing - Guangzhou Passenger Line (BGL) with further extension to Shenzhen and the Hangzhou-Fuzhou-Shenzhen Passenger Line (HFS). Their termini will be built at Shibi of Guangzhou and Longhua of Shenzhen respectively. Construction of the section of the BGL between Wuhan and Guangzhou, as part of the initial phase of implementing the national high-speed rail network, has started since 2004 for completion by 2009.

8. The ERL, which will link Hong Kong to Shibi (New Guangzhou Station) through Longhua (New Shenzhen Station), will form part of the national high-speed rail network. By means of this new intercity rail corridor,

the journey time between Guangzhou and Hong Kong will be reduced from 100 minutes as at present using the KCRC's Guangzhou - Hong Kong Through Train service on the ER to within one hour. Moreover, through this link, Hong Kong will become a node in the national rail network, and accessibility between Hong Kong and the major Mainland cities such as Beijing, Shanghai and Chongqing will be significantly improved. In addition, by interchanging with the HFS at Longhua or the BGL at Shibi, ERL passengers can gain access, via the national rail network, to Pan-Pearl River Delta (PRD) cities. Works for the section of the ERL between Shibi and Longhua in the Mainland have commenced in December 2005 for completion in 2010. The timetable for building the section in the Mainland between Longhua and the boundary will be firmed up in conjunction with that of the Hong Kong section.

9. Other than connecting with the BGL and the HFS, the ERL also has the prospect of linking up with the Rapid Transit System (RTS) of the PRD area. The PRD area has been among the fastest growing economic areas in the Mainland. There are plans to link up cities in the PRD area through the RTS. The main framework of the RTS network consists of a centre at Guangzhou and two main axles linking Guangzhou with Zhuhai and Shenzhen with some feeder lines connecting to other PRD cities. It is anticipated that the RTS network with rails totalling about 390km will be completed by 2010. The total length of the RTS will be extended to about 600km by 2020. According to the current plan, the RTS network will radiate from Shibi Station to other major PRD cities like Foshan, Zhaoqing, Dongguan, Jiangmen and Zhuhai. Through interchange with this RTS network, the ERL will provide fast and convenient rail services to the various major PRD cities, and will help promote Hong Kong as the gateway to the PRD and the Pan-PRD areas.

Hong Kong section of ERL to share tracks with WR, NOL and KSL

10. As we explained to the Subcommittee on matters relating to railways of the Legislative Council Panel on Transport on 12 December 2005, there are two options for the Hong Kong section of the ERL: building a dedicated rail track running from its West Kowloon Terminus to the boundary (Dedicated

Corridor Option) or using the existing WR rail track from ERL's West Kowloon Terminus up to the existing WR Kam Sheung Road Station, the rail track of the NOL and a new rail track to make connection with the Mainland section of the ERL (Shared Corridor Option). The two options are shown at **Annex A**. According to the estimates of the KCRC, the capital cost of the NOL and the Hong Kong section of the ERL under the Dedicated Corridor Option would be about one and a half times of that of the combined project under the Shared Corridor Option. The difference would be a significant sum of several billion dollars. A comparison of the estimated economic performance and other details of the two options is set out below -

	Shared Corridor Option (NOL + ERL on shared tracks)	Dedicated Corridor Option (NOL + ERL on separate tracks)
Economic Internal Rate of Return (EIRR) in real terms	17%	15%
Earliest Completion date	2013	2014/2015
Journey Time (minutes)		
(a) between West Kowloon and the boundary	25	13
(b) between West Kowloon and Guangzhou	60	48

11. According to the assessment of the KCRC, the Hong Kong section of the ERL would not be financially viable based on fare revenue alone. The KCRC has requested for the Government's financial support. The capital cost of the Shared Corridor Option is significantly lower than that of the Dedicated Corridor Option, and will result in a much lower funding gap required to be borne by Government. Moreover, the Dedicated Corridor Option will involve construction of a long tunnel of about 30km, which will be among the longest railway tunnels in the world. The risks associated with such tunnelling works and with rail operation within such a tunnel are very high, necessitating the imposition of very stringent fire prevention and ventilation requirements. The annual operating cost of the Dedicated

Corridor Option would also be significantly higher than that of the Shared Corridor Option.

12. In the light of the above, we will pursue the proposed NOL and the Hong Kong section of the ERL as a combined project under the Shared Corridor Option. In arriving at this recommendation, we have also taken into due account the following considerations –

- (a) Train Width: The platform configurations of all the WR stations are designed for train cars with a width of no more than 3.1m, which is smaller than the current standard of some train cars used in the Mainland. The State Ministry of Railways (MOR) is well aware of this, and has undertaken to consider applying this as a given constraint in designing the Mainland section of the ERL and deploying suitable train cars for ERL services connecting to Hong Kong. In fact, the train type currently recommended to the MOR for ERL through train is of a width of no more than 3.1m.

- (b) Impact on WR Service: There will be spare capacity available from the WR corridor to accommodate the ERL trains in the short to medium term up to 2030. Without the introduction of ERL trains on the WR, the WR will run at three-minute headway during the peak period by 2016. With the introduction of ERL trains on the WR tracks, the headway for the WR trains during the peak period would have to be shortened to slightly over two minutes to allow use of the train path thus spared for the ERL trains. As a result, our assessment is that, with the introduction of the ERL trains on the WR tracks, the waiting time of WR passengers would in fact be slightly shortened by nearly a minute during 70% of the peak period if the next train calling at their platform is a WR train. For the other 30% of the peak period, the waiting time of WR passengers would increase by one to two minutes if the next train calling at their platform is an ERL train. As regards the off-peak period by 2016 when WR trains will be running at five-minute headway, the WR passengers will not be affected, as there will be sufficient time in-between two WR services for adding a regular ERL train service. However, introducing a long-haul ERL

train service with a destination beyond Guangzhou in-between two WR train services will require a longer window due to operational reasons. As a result, the waiting time for the WR passengers will be increased by one to two minutes. To avoid undue disruption to WR services, long-haul ERL trains will only be run during the off-peak period of the WR.

- (c) Train Speed: As mentioned in paragraph 7 above, the maximum speed of the trains of the new national railway network will be 250-350km/h. For the Mainland section of the ERL, although a maximum train speed of 250km/h could be achieved for certain straighter stretches of the rail between Longhua and Shibi, the section between Longhua and the boundary, which would be largely in tunnel, has been designed to allow a maximum train speed of 200km/h. As for the Hong Kong section of the ERL, if we pursued the Dedicated Corridor Option, we would have the option of upgrading the design of the dedicated tunnel to allow use by trains of a maximum speed of 200km/h to match that of the Mainland section between Longhua and the boundary. However, the estimated capital cost would be increased substantially by a few billion dollars, with a corresponding funding gap increase. The tunnel would have to be bigger to cater for the significantly stronger air drag between the body of the higher-speed train and the tunnel wall. Even then, while the maximum train speed would be increased by 40km/h, the journey time could only be reduced by two minutes, from 13 to 11 minutes. Spending a few billion dollars more to save two minutes can hardly be justified. Besides, the Shared Corridor Option would already achieve the intended objective of the ERL to shorten the travelling time by train between Hong Kong and Guangzhou to an hour.
- (d) Optimal Flexibility: Pursuing the Shared Corridor Option does not mean that we should give up the Dedicated Corridor Option altogether. As and when the WR approaches its capacity in the longer term, which according to our current forecast will be beyond 2030, and the WR has to operate at more intensive frequencies, we could then consider constructing a dedicated track between the West

Kowloon Terminus and the boundary for the exclusive use by ERL trains. Pursuing the Shared Corridor Option now would provide us with this optimal flexibility. The fact is that any forecast of rail passenger demand beyond 2030 will unlikely be accurate. Therefore, it would only be prudent to start with the Shared Corridor Option.

D

13. As regards the terminus of the Hong Kong section of the ERL, we will locate it at West Kowloon, at the location marked yellow as shown in **Annex D**. The terminus will be at the heart of Kowloon's business and tourist areas. The terminus will also serve as Hong Kong's second Mass Transportation Centre for cross-boundary passengers in addition to the existing one at Hung Hom. Also, it will have convenient interchanges with the domestic railway network via the KSL due to be completed by 2009 and the existing MTR Tung Chung Line. In addition, convenient connection to the Airport Express Line will enable ERL passengers to commute to Hong Kong International Airport with ease.

14. We have considered the option of locating the terminus closer to the boundary, such as at Kam Sheung Road. However, this option will not achieve the main objective of the ERL of providing an intercity express rail link. We have also considered the option of locating it at Hung Hom. However, as the tunnel alignment from the West Kowloon Station to Hung Hom would have to go through very tight curves, the train speed would have to be kept low for operational reasons. Locating the terminus at Hung Hom would also increase the journey time between Hong Kong and Guangzhou by five minutes and therefore fail to achieve the target journey time of 60 minutes or less. Furthermore, the development scale and level of services of the Hung Hom Station are very limited. Its location is "off-centre" and it also lacks the space and flexibility to be fully expanded to become a major transportation hub.

KSL Protection Works

15. As the ERL rail tracks at West Kowloon would need to go underneath the KSL tunnel, which is now under construction, it is necessary to

incorporate protection works into the KSL works contracts. Such protection works would ensure that, upon completion of the KSL project, the normal train operations in the KSL tunnel would not be adversely affected by the construction of the ERL. Therefore, we will request the KCRC to undertake the protection works as part of the works for the KSL.

Other Relevant Issue

Impact on Business of Non-rail Public Transport Operators

16. The project will impact on the parallel routes of road-based public transport modes, especially those operating in the western parts of the New Territories. We will carry out a study to assess the level of the impact and devise, as appropriate, plans to reorganise their routes to achieve a balanced public transport network to serve both cross-boundary and domestic passengers.

FINANCIAL AND CIVIL SERVICE IMPLICATIONS OF THE COMBINED PROJECT

17. As mentioned in paragraph 11 above, the combined project will not be financially viable without the Government's financial support. We will negotiate with the KCRC on the detailed cost of the combined project as well as the funding support arrangement.

18. Apart from Lands Department, all bureaux/departments concerned will absorb the additional workload arising from the implementation of the combined project within their existing provision and staffing establishments. For Lands Department, resources have already been secured.

ECONOMIC IMPLICATIONS OF THE COMBINED PROJECT

19. Land transport has been a dominant transport mode for cross-boundary movements, with the various land control points accounting for over 90% of the passenger flows between Hong Kong and the Mainland in

the first eleven months of 2005. As the cross-boundary traffic flows for travelling and working are expected to become brisker in the years ahead, the NOL and the Hong Kong section of the ERL projects would meet the rising demand for efficient and reliable cross-boundary transportation.

20. The proposed NOL with the Hong Kong section sharing tracks with the existing WR would enhance efficiency in resource allocation and effectiveness in capacity utilisation. It would make better use of the currently under-utilised WR. By adopting the Shared Corridor Option, we would also avoid under-utilisation of a dedicated rail at the early years of its operation. By postponing heavy capital investment in the Hong Kong section of the ERL to some later years subject to transport need, there will be savings in interest cost of capital. The higher utilisation rate of the WR should have positive impact on fare levels of the WR and the financial position of the KCRC.

21. In the proposal submitted in August 2005, the KCRC estimates that the combined project would generate an Economic Internal Rate of Return of 17% per annum in real terms. This includes time saving to cross-boundary passengers and road users, operating cost saving for operators, and safety benefits.

22. Apart from the economic benefits mentioned above, the implementation of the combined project would stimulate economic activities across the boundary and help enhance the economic integration of Hong Kong with the Pearl River Delta areas.

ENVIRONMENTAL IMPLICATIONS

23. A Strategic Environmental Assessment (SEA) for the Second Railway Development Study was completed in 2000. The SEA has concluded that rail is a more environmentally friendly form of mass transportation than road based alternatives, and that the promotion of rail would assist in achieving a sustainable transportation system.

24. A technical study conducted by the KCRC in July 2005 indicates that the project would give rise to potential environmental impacts including noise, air, water, waste, ecological, hazard, cultural heritage, landscape and visual impacts. Amongst these impacts, the construction and operational noise impact would be the major concerns. Also, as the proposed alignment may pass through sensitive habitats and water catchment zones, ecological and water quality impacts would have to be addressed. The viaduct sections passing through flat and rural areas may also cause landscape and visual intrusions.

25. However, the combined project is a designated project under Schedule 2 of the Environmental Impact Assessment (EIA) Ordinance. Environmental permits are required for the construction and operation of the project. The KCRC would conduct an EIA study under the EIA Ordinance to address all potential environmental issues, and assess and evaluate the environmental acceptability of the combined project. Considerations would be given to alternative alignments, best practicable construction methods and suitable mitigation measures to avoid the adverse impacts to the maximum practicable extent. Under the EIA Ordinance, the public and the Advisory Council on the Environment will be consulted on the findings of the EIA study.

26. As regards the additional protection works to be implemented in the KSL project, the statutory requirements under the EIA Ordinance would be fully complied with before commencement of the works.

SUSTAINABILITY IMPLICATIONS

27. According to a preliminary sustainability assessment, the combined project should enable more commuters to switch from road transport to rail, and help improve mobility and air quality in the long term. However, various potential environmental and ecological problems have been identified in the sustainability assessment. They include the noise impacts during construction and operation, air pollution from works sites, waste generated from tunnel excavation and the negative impact on the natural habitat. As

mentioned in paragraph 25, these issues would be addressed carefully and appropriate mitigation measures would be worked out in the EIA study and during the detailed project planning process.

PUBLICITY

28. A press release announcing the Executive Council's decision will be issued.

SUBJECT OFFICER

29. The subject officer is Mr CHAN Chi-yan, Henry, Principal Assistant Secretary for the Environment, Transport and Works (Transport) (Tel. 2189 2187).

Environment, Transport and Works Bureau
February 2006

LEGISLATIVE COUNCIL BRIEF ANNEXES

NORTHERN LINK AND HONG KONG SECTION OF GUANGZHOU – SHENZHEN – HONG KONG EXPRESS RAIL LINK

- Annex A - ALIGNMENT OF HONG KONG SECTION OF THE ERL
- Annex B - BACKGROUND INFORMATION ON NOL AND ERL
- Annex C - MAINLAND'S PLANNED NETWORK OF DEDICATED PASSENGER LINES
- Annex D - PROPOSED ERL TERMINUS AT WEST KOWLOON



擬建專用隧道至邊境
PROPOSED DEDICATED TUNNEL
TO BOUNDARY

北環線
NORTHERN LINK

西鐵
WEST RAIL

共用通道方案
SHARED CORRIDOR OPTION

九龍南線
KOWLOON SOUTHERN LINK

專用通道方案
DEDICATED CORRIDOR OPTION

- 圖例:
Legend:
- 北環線
NORTHERN LINK
 - 西鐵
WEST RAIL
 - 九龍南線
KOWLOON SOUTHERN LINK
 - ■ ■ ■ 共用通道方案
SHARED CORRIDOR OPTION
 - ■ ■ ■ 專用通道方案
DEDICATED CORRIDOR OPTION

廣深港高速鐵路香港段的線路方案示意圖
ALIGNMENT OF HONG KONG SECTION OF THE ERL

BACKGROUND INFORMATION ON NOL AND ERL

I

The NOL and the ERL (then called the Regional Express Link (REL)) were short-listed in the Railway Development Strategy 2000 (RDS 2000) for implementation. The layout of the NOL and the REL recommended in RDS 2000 are shown in **Enclosure I**. The completion window of the NOL envisaged in RDS 2000 is between 2011 and 2016, while that of the REL would be subject to the growth in cross-boundary rail passenger demand.

2. Since 2002, we have conducted an investigative study jointly with the State Ministry of Railways (MOR) on the feasibility of an express rail linking Guangzhou, Shenzhen and Hong Kong with a view to shortening the journey time between Guangzhou and Hong Kong from 100 minutes as at present to within one hour. The REL envisaged in RDS 2000 has now become the Hong Kong section of the ERL.

II

3. The investigative study on the ERL has been substantially completed, and both sides have agreed to pursue the ERL alignment as shown in **Enclosure II**. The Mainland section of the ERL will start from Shibi in Panyu of Guangzhou, and pass through Humen of Dongguan and then Longhua in Shenzhen before crossing the boundary underground from Huanggang to Lok Ma Chau. After crossing the boundary at Shenzhen River and running southwards through a short section of tunnel, the ERL will share tracks with the proposed NOL, the WR and the KSL before bifurcating to a terminus station located at West Kowloon. The alignment of the Hong Kong section of the ERL is shown in **Annex A**. A comparison of the key features of both sections of the ERL is set out in the table below.

	ERL	
	Mainland section	Hong Kong section
Approximate Length (km)	110	30
Number of stations	3 (Shibi, Humen & Longhua)	1 (West Kowloon)
Approximate journey time (minutes)	35	25

It is acknowledged in the joint investigative study that the Mainland section (between Longhua and Shibi Stations) might commence construction before the Hong Kong section. Furthermore, provisions have already been made in the planning of the Mainland section to allow for future connection to the Hong Kong section of the ERL. According to the agreed assumptions with the MOR, the planned ERL services will be :

- (a) four trains each direction per hour from West Kowloon to Longhua;
- (b) one non-stop train each direction per hour from West Kowloon to Shibi;
- (c) one train each direction per hour from West Kowloon to Shibi with an intermediate stop at Humen; and
- (d) seven pairs of long-haul trains daily between West Kowloon and cities outside Guangdong Province including Beijing and Shanghai.

4. Upon the Government's invitation to submit a NOL project proposal, the KCRC started the feasibility study on the NOL in May 2004. During the course of the NOL study, we asked the KCRC in November 2004 to conduct a feasibility study on the option of using the NOL/WR/KSL corridor to form the Hong Kong section of the ERL as part of its NOL study. The KCRC submitted the NOL project proposal and the feasibility study on the ERL in June and July 2005 respectively. As those proposals were prepared on the basis that the two projects would be delivered on a standalone basis, we asked the KCRC to provide supplementary information about the transport, economic and financial performance for the case where the two projects are to be delivered on a combined basis. The KCRC submitted the supplementary information in August 2005.

- III
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5. In the KCRC's NOL project proposal as shown in **Enclosure III**, the alignment of the NOL generally assumes the one as shown in the RDS 2000, except that the link between San Tin and Kwu Tung providing a direct linkage between WR and ER will not be provided and that the linkage has been replaced by a new interchange station at Chau Tau. Also, the three stations along the NOL as proposed in the RDS 2000, namely, San Tin,

Ngau Tam Mei and Au Tau, would not be constructed until there is a firm programme for the development of those New Development Areas. However, provisions would be made to allow the construction of the stations at a later date.

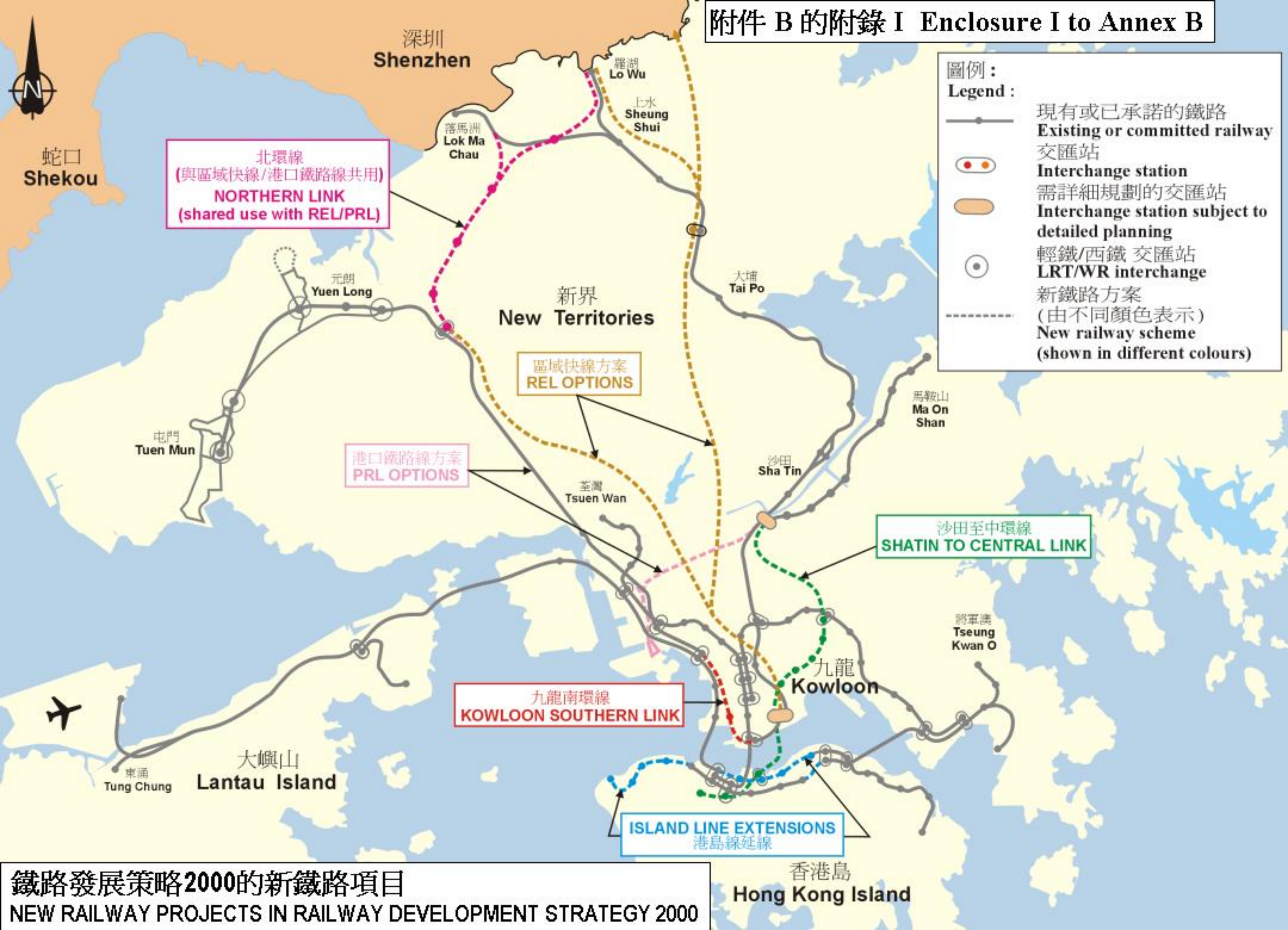
6. We consulted the Subcommittee on matters relating to railways of the Legislative Council Panel on Transport on the NOL and the Hong Kong section of the ERL on 12 December 2005. Legislative Council Members are fully supportive of the NOL and the Hong Kong section of the ERL, and have urged for their early implementation. Particularly for the Hong Kong section of the ERL, they have expressed the wish to see its early implementation to catch up with the completion of the Mainland section of the ERL.

7. In the Investigative Study, we considered whether it would be technically feasible and financially viable to use the other railway technology, such as magnetic levitation (Maglev), for the ERL. Since both the Mainland and Hong Kong sections of the ERL would be sharing tracks with the existing or planned railway lines, which are all using wheel-on-track technology, we would not be able to make use of the Maglev technology for the ERL. In addition, if the Maglev option were to be adopted, it would make the ERL project even less financially viable, as the project cost would increase significantly.

8. As the ERL will involve running of through train services and connection with the Rapid Transit System on the Mainland side, various technical, financial, operational, programming and interface issues would need to be addressed between the two sides. Apart from the usual forum that we have already set up with the MOR, we have recently formed a joint working group with the Shenzhen side to discuss the interface issues including the tunnel alignment crossing the boundary in Huanggang and the planning of the Longhua Station.

9. We will continue to cooperate with the Mainland side, involving the KCRC as required, in taking forward the combined project. If required,

other working groups at appropriate levels would be set up to deal with the different tasks.



北環線
(與區域快線/港口鐵路線共用)
NORTHERN LINK
(shared use with REL/PRL)

區域快線方案
REL OPTIONS

港口鐵路線方案
PRL OPTIONS

九龍南環線
KOWLOON SOUTHERN LINK

沙田至中環線
SHATIN TO CENTRAL LINK

ISLAND LINE EXTENSIONS
港島線延線

圖例：
Legend :

- 現有或已承諾的鐵路
Existing or committed railway
- 交匯站
Interchange station
- 需詳細規劃的交匯站
Interchange station subject to detailed planning
- 輕鐵/西鐵 交匯站
LRT/WR interchange
- 新鐵路方案
(由不同顏色表示)
New railway scheme
(shown in different colours)

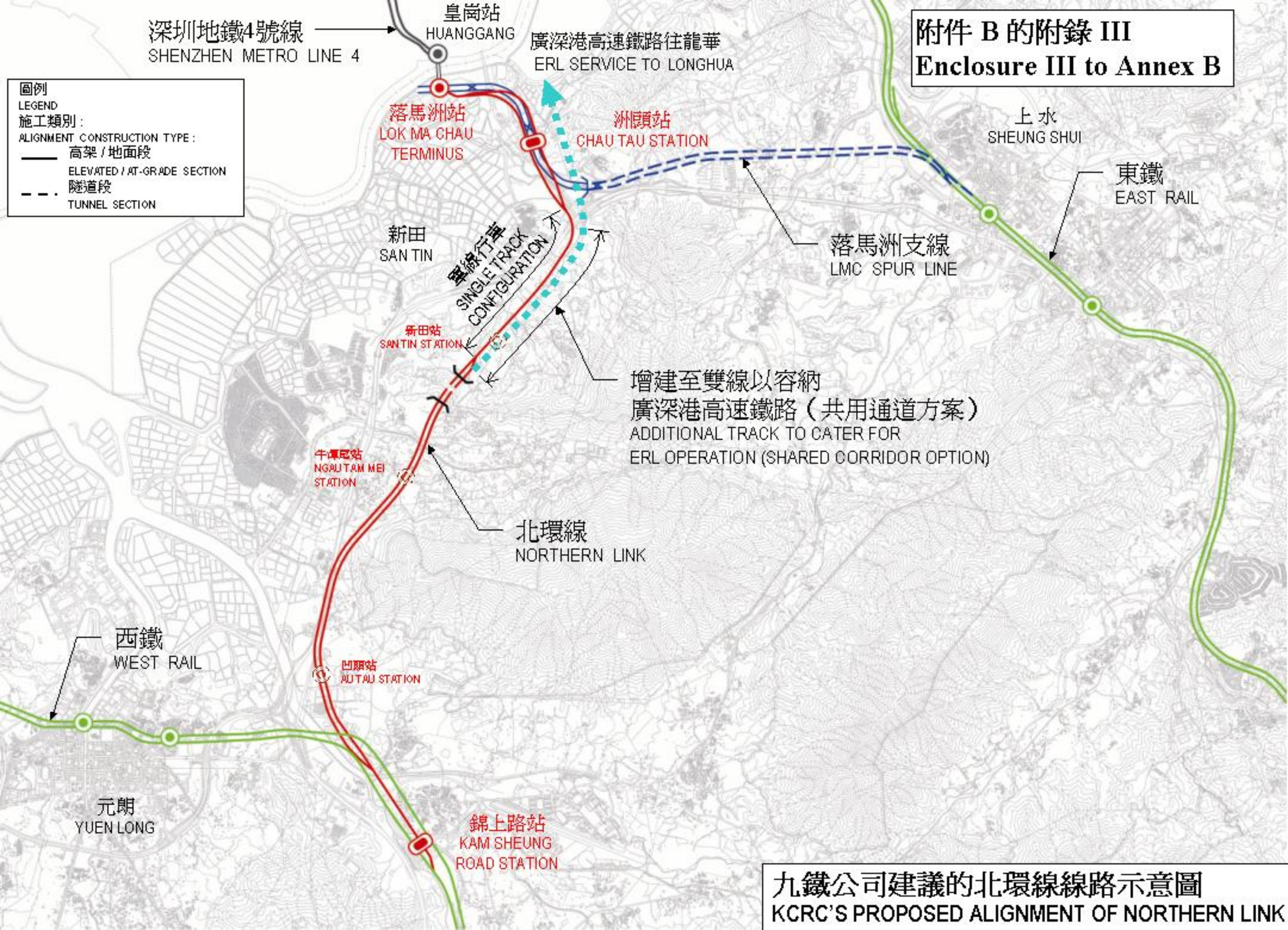


附件 B 的附錄 II
Enclosure II to Annex B

廣深港高速鐵路
GUANGZHOU-SHENZHEN-HONG KONG EXPRESS RAIL LINK

廣深港高速鐵路線路示意圖(石壁-龍華-西九龍)
ERL ALIGNMENT PLAN (SHIBI - LONGHUA - WEST KOWLOON)

圖例
LEGEND
施工類別：
ALIGNMENT CONSTRUCTION TYPE：
—— 高架 / 地面段
ELEVATED / AT-GRADE SECTION
- - - 隧道段
TUNNEL SECTION



九鐵公司建議的北環線線路示意圖
KCRC'S PROPOSED ALIGNMENT OF NORTHERN LINK



京廣客運專線
BEIJING-GUANGZHOU
PASSENGER LINE

杭福深客運專線
HANGZHOU-FUZHOU-SHENZHEN
PASSENGER LINE

內地規劃中的客運專線網絡
MAINLAND'S PLANNED NETWORK OF DEDICATED PASSENGER LINES



廣深港高速鐵路
ERL

機場快線/東涌線
AIRPORT EXPRESS LINE/
TUNG CHUNG LINE

九龍南線
KOWLOON SOUTHERN LINK

九龍站
KOWLOON STATION

西九龍站
WEST KOWLOON
TERMINUS

九龍西站
WEST KOWLOON STATION

(大約位置)
(approximate location only)

西九龍文娛藝術區
WEST KOWLOON
CULTURAL DISTRICT

建議以西九龍為廣深港高速鐵路的總站
PROPOSED ERL TERMINUS AT WEST KOWLOON

