

ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 706 - HIGHWAYS

Transport - Roads

48TR - East Rail Extension - essential public infrastructure works for Hung Hom to Tsim Sha Tsui Extension

Members are invited to recommend to Finance Committee the upgrading of **48TR**, entitled "East Rail Extension - essential public infrastructure works for Hung Hom to Tsim Sha Tsui Extension", to Category A at an estimated cost of \$1,146.4 million in money-of-the-day prices.

PROBLEM

The pedestrian facilities in Tsim Sha Tsui are inadequate to cope with the additional pedestrian flows generated upon the commissioning of the East Tsim Sha Tsui Station (ETS Station) of the East Rail Extension from Hung Hom to Tsim Sha Tsui (TST Extension) in mid 2004.

PROPOSAL

2. The Director of Highways (DH_y), with the support of the Secretary for Transport, proposes to upgrade **48TR** to Category A at an estimated cost of \$1,146.4 million in money-of-the-day (MOD) prices for the construction of the essential public infrastructure works (EPIW) for the ETS Station.

PROJECT SCOPE AND NATURE

3. The proposed scope of **48TR** comprises -

/ (a)

- (a) construction of a 400-metre long and 6.7-metre wide subway along Mody Road and a 160-metre long and 5.15-metre wide subway along Blenheim Avenue and under Signal Hill (Interchange Subway);
- (b) construction of a 210-metre long and 5.8-metre wide subway along Middle Road (Middle Road Subway);
- (c) installation of five sections of travelators of a total length of 330 metres in the subways along Mody Road, Blenheim Avenue and under Signal Hill;
- (d) installation of lifts, escalators, ventilation facilities and associated electrical and mechanical equipment inside the proposed subways;
- (e) associated road reconstruction, traffic engineering, drainage, water works and landscaping works;
- (f) provision of indirect technical remedies (including provision of air-conditioners and window glazing) to some 381 dwellings to alleviate noise impact during construction; and
- (g) reprovisioning of affected facilities of the existing MTR Tsim Sha Tsui (TST) Station including staff accommodation, ventilation facilities, plant rooms, and control and communication system.

A site plan is at Enclosure 1.

4. The Kowloon-Canton Railway Corporation (KCRC) commenced construction of TST Extension in December 2000. Subject to funding approval, we plan to commence construction of **48TR** at the end of February 2001 for completion in August 2004 to tie in with the commissioning of TST Extension.

JUSTIFICATION

5. In June 1998, KCRC submitted a proposal for the planning and implementation of TST Extension and the Ma On Shan to Tai Wai Rail Link (MOS Rail) which included a package of EPIW to tie in with the commissioning of TST

/ Extension

Extension in 2004. The TST Extension is essential to the smooth operation of MOS Rail by providing a second point of interchange between East Rail and MTR system. It comprises a 1.1-kilometre rail extension from the existing KCR Hung Hom Station and a new ETS Station.

6. The commissioning of TST Extension will generate additional pedestrian flows of both interchange and non-interchange passengers. As the current on-street pedestrian facilities in Tsim Sha Tsui are inadequate to handle these pedestrian flows, we propose to build a subway network comprising sections below Mody Road, Blenheim Avenue and Signal Hill, and Middle Road. The proposed subway system will serve as a segregated and direct pedestrian route between the ETS Station and the existing MTR TST Station, and will link up the ETS Station with the area west of Nathan Road. In addition, the subway network will improve connectivity between Central Tsim Sha Tsui, Tsim Sha Tsui East and the area south of Salisbury Road. Its presence is important to the overall pedestrian flow in the area.

7. We will provide travelators within the Interchange Subway to bring more comfort and convenience to interchange passengers, and thus to enhance the effectiveness of the interchange. It will take about six minutes to travel by travelators from one station to another.

8. To alleviate noise impact during the construction of the subway network in accordance with the approved Environmental Impact Assessment Report, we will install indirect technical remedies including provision of air-conditioners and window glazing for some 381 dwellings along Mody Road, Blenheim Avenue and Middle Road.

9. Part of the works site of the subway works and the station works are at the same location and the mucking area for the excavated materials of the subway works will also be situated within the works site of the station works. With a view to improving the interface and coordination between the railway project and the subway works and ensuring the integration of the subway works with other related works, in particular the road works and temporary traffic diversion arrangements, we intend to entrust the Interchange Subway, the Middle Road Subway and other related works to KCRC for implementation in conjunction with the TST Extension project.

10. In addition to the above subway works, we also need to carry out reprovisioning works for affected station facilities within the existing MTR TST

Station such as staff accommodation, ventilation facilities, plant rooms, and control and communication systems to facilitate the connection with the Interchange Subway. We will entrust these works to MTR Corporation Limited (MTRCL) in order to minimize the impact on the normal operation of the TST Station and any inconvenience to passengers.

11. Without the proposed subway works, the additional pedestrian flow generated from TST Extension will overload the existing at-grade pedestrian facilities in Tsim Sha Tsui which will not only cause inconvenience to the public and tourists in the area, but will also create safety problems for pedestrians.

FINANCIAL IMPLICATIONS

12. We estimate the cost of the project to be \$1,146.4 million in MOD prices, made up as follows -

	\$ million
(a) Entrusted portion to KCRC	
(i) Interchange Subway	
Section along Mody Road	371.0
- Civil works	330.0
- Electrical and mechanical works	41.0
Section along Blenheim Avenue and under Signal Hill	66.8
- Civil works	53.8
- Electrical and mechanical works	13.0
(ii) Middle Road Subway	158.2
- Civil works	146.5
	/ Electrical

		\$ million	
	- Electrical and mechanical works	11.7	
	(iii) Associated roadworks, traffic engineering, drainage, water works, and landscaping works	40.0	
	(iv) Indirect technical remedies for mitigation of construction noise	12.0	
	(v) On cost ¹ payable to KCRC	106.9	
(b)	Reprovisioning works within existing MTR TST Station, to be carried out by MTRCL		
	(i) Reprovisioning works to existing MTR TST Station	173.0	
	(ii) On cost ² payable to MTRCL	28.6	
(c)	Contingencies	95.6	
	Sub-total	1,052.1	(at September 2000 prices)
(d)	Provision for price adjustment	94.3	
	Total	1,146.4	(in MOD prices)

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- 1 An on-cost at 16.5% of the project base cost (i.e. items (a)(i) to (a)(iv) in paragraph 12) will be payable to KCRC for undertaking design and construction supervision of the EPIW under **48TR**.
- 2 An on-cost at 16.5% of the reprovisioning works cost (i.e. item (b)(i) in paragraph 12) will be payable to MTRCL for undertaking design and construction supervision of the EPIW under **48TR**.

13. Subject to approval, we will phase the expenditure as follows -

Year	\$ million (Sep 2000)	Price adjustment factor	\$ million (MOD)
2000 - 2001	2.0	1.00000	2.0
2001 - 2002	90.0	1.02550	92.3
2002 - 2003	267.0	1.05627	282.0
2003 - 2004	325.0	1.08795	353.6
2004 - 2005	251.0	1.12059	281.3
2005 - 2006	117.1	1.15421	135.2
	1,052.1		1,146.4

14. We have derived the MOD estimate on the basis of Government's latest forecast of trend labour and construction prices for the period 2000 to 2006. The works for the proposed subways will be included under two lump sum contracts with remeasurement items without price fluctuation to be awarded by KCRC. The reprovisioning works within the existing MTR TST Station will be included under a lump sum contract with remeasurement items without price fluctuation to be awarded by MTRCL.

15. We estimate the additional annual recurrent expenditure arising from the proposed works to be \$11.2 million.

PUBLIC CONSULTATION

16. We and KCRC consulted the Traffic and Transport Committee of the Yau Tsim Mong Provisional District Board in November 1998 and May 1999 and of the Yau Tsim Mong District Council in March and November 2000, and the Tsim Sha Tsui Area Committee in May 1999, March and November 2000 on the EPIW under **48TR** together with the TST Extension Project. Members supported the proposed EPIW under **48TR**. We also consulted the local residents and shop owners bordering the proposed subways in April 1999 and March 2000 on the proposed works including the indirect technical remedies. We did not receive any adverse comments.

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17. We gazetted the proposed works under **48TR** together with the TST Extension project under the Railways Ordinance on 30 April 1999. We also gazetted amendments on 15 October 1999 and on 3 March 2000 to include the extension of the Interchange Subway across Chatham Road South and the Middle Road Subway respectively.

18. For the EPIW under **48TR**, we received a total of 14 objections from eight objectors. These objections are summarised as follows -

- (a) Three objectors lodged a total of six objections, requesting to extend the Interchange Subway across Chatham Road South and to the centre of Tsim Sha Tsui East. We considered that the extension of the Subway across Chatham Road South would be beneficial to pedestrians in the area and accordingly modified the scheme. However, we did not consider that there was a need to further extend the Subway to the centre of Tsim Sha Tsui East as there are adequate at-grade pedestrian facilities available. The objectors maintained their objections.
- (b) MTRCL lodged three objections on the possible impacts on the MTR TST Station arising from the connection of the Interchange Subway to the Station. They also requested that a second subway link along Nathan Road be provided to their Station. We worked out with MTRCL the details for reprovisioning their affected Station facilities. However, we considered that there was insufficient justification for the second subway link. MTRCL maintained their objections.
- (c) Land Development Corporation lodged two objections on the possible impact on their proposed development plan and programme at the site between Bristol Avenue and Hanoi Road. Despite our commitment to keep close liaison and assume proper coordination with them so as to minimise any impacts on their proposed development, Land Development Corporation maintained their objections.
- (d) Three objectors raised concerns about the impact of the proposed subway entrances on their development and the

traffic and environmental disruptions arising from the subway construction. We explained that the subway design would incorporate measures to minimize any impact on their development. The objectors maintained their objections.

19. Having considered the 14 unwithdrawn objections to the EPIW together with other unwithdrawn objections to the TST Extension scheme, the Chief Executive in Council authorized the TST Extension scheme including the modified EPIW. The notice of authorization was gazetted on 27 October 2000.

20. At the meeting of the LegCo Panel on Transport on 15 December 2000, Members noted a paper on the EPIW for MOS Rail and TST Extension i.e. **47TR** and **48TR**, and that we would submit the EPIW to the PWSC meeting in January 2001 for consideration. The paper was discussed by the Subcommittee on matters related to the implementation of railway development projects of the LegCo Panel on Transport on 4 January 2001. The main points raised by Subcommittee Members on the EPIW of TST Extension are summarized as follows -

- (a) the feasibility of installing a pair of travelators along the Middle Road Subway and the Interchange Subway should be explored;
- (b) information on the services and facilities that will be provided to the disabled to facilitate their use of the subways should be provided;
- (c) Government should consider to construct a subway link from the Middle Road subway to the southern concourse of MTR Tsim Sha Tsui station;
- (d) the reasons for the on-cost level of 16.5% should be provided; and
- (e) a plan showing the entrances/exits of the subways should be provided and a forecast on the pedestrian flow in the subways and their vicinity should be prepared.

We will revert to Members on the above points before the PWSC meeting on 17 January 2001.

21. Subcommittee Members also made some comments on TST Extension project. These include -

- (a) a copy of the Environmental Impact Assessment Report and feasibility study report on TST Extension should be provided; and
- (b) monitoring mechanism for railway construction works should be reviewed and an independent panel be formed to assess claims for compensation;

We and KCRC are considering appropriate follow-up actions and will also revert to Members.

ENVIRONMENTAL IMPLICATIONS

22. The proposed EPIW together with the KCRC East Rail Extension for Hung Hom to Tsim Sha Tsui Extension is a designated project under Schedule 2 of the Environmental Impact Assessment (EIA) Ordinance and an environmental permit is required for the construction and operation of the project. In April 2000, the EIA report for the project was endorsed by the Advisory Council on the Environment (ACE) with conditions. These include (a) to set up a continuous noise monitoring mechanism at locations to be decided in consultation with the Director of Environmental Protection (DEP); (b) to make available to the public the results of the continuous noise monitoring mechanism through the KCRC's website; and (c) to activate remedial measures in the event that the noise levels exceed the worst case scenario predicted in the EIA Report. DEP approved the EIA report and issued the environmental permit under the EIA Ordinance in May 2000.

23. The EIA report concluded that the environmental impact of the project could be controlled to within the criteria under the EIA Ordinance and the Technical Memorandum on the EIA Process. We will implement the measures recommended in the approved EIA report and impose these as conditions in the environmental permit.

24. The approved EIA report identified construction noise as the key environmental concern for the proposed subways. KCRC has exhausted all possible direct noise mitigation measures including adoption of quieter plant and machinery and noise enclosures along the works site. Because of the need to maintain traffic flow as well as access for emergency vehicles during the construction period, direct mitigation measures such as enclosure or other noise

/ shielding

shielding measures were found not practicable. KCRC can only alleviate the residual noise impacts to some 381 dwellings along Mody Road, Blenheim Avenue and Middle Road by providing indirect technical remedies in the form of window insulation and air-conditioners on an exceptional basis. To ensure timely and effective implementation of the recommended mitigation measures, KCRC will formulate an Environmental Monitoring and Audit Programme, and will follow the procedures in the Programme to alleviate any construction noise impacts exceeding the worst case noise levels predicted in the EIA Report. KCRC will also make available the continuous noise monitoring results to the public through its website. We estimate the cost of implementing these noise mitigation measures to be \$12 million. We have included this cost in the overall project estimate.

25. During the planning and design stages, we considered ways of reducing the generation of construction and demolition (C&D) materials as far as practicable. We shall require the contractors to submit Waste Management Plans (WMPs) for approval within six weeks after the commencement of construction of the project. These will set out appropriate mitigation measures including the allocation of an area for waste segregation. We shall ensure that the day-to-day operations on site comply with the approved WMPs. We will also control the disposal of C&D materials in accordance with the approved WMPs. We estimate that about 88 000 cubic metres of construction and demolition (C&D) materials will be generated from the project. Of these, about 17 500 cubic metres (19.9%) will be re-used on site, 70 000 cubic metres (79.5%) of inert C&D material will be deposited in public filling areas and 500 cubic metres (0.6%) of C&D wastes will be disposed of at landfills. We will record the disposal, reuse and recycling of C&D materials for monitoring and auditing purposes.

LAND ACQUISITION

26. The project does not require any resumption of private land.

BACKGROUND INFORMATION

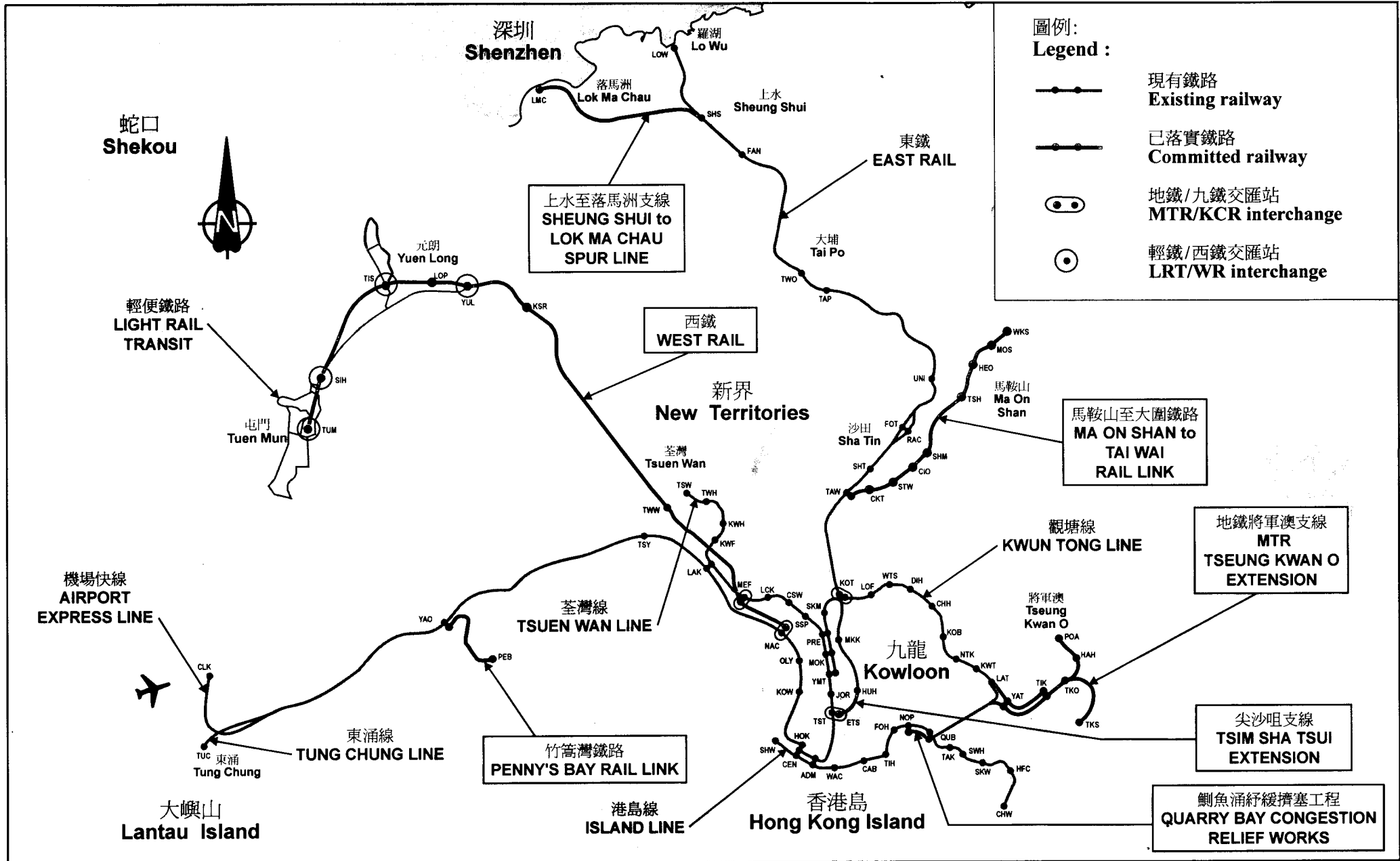
27. TST Extension is one of the priority railway projects recommended under the 1994 Railway Development Strategy.

28. On 26 May 2000, Finance Committee approved an equity injection of \$8.5 billion from the Capital Investment Fund to KCRC for construction of MOS Rail and TST Extension. We also informed Finance Committee that the Government would need to carry out EPIW in the order of \$1.8 billion in 1999 prices, including the pedestrian subways in Tsim Sha Tsui, which are necessary for the operation of both MOS Rail and TST Extension.

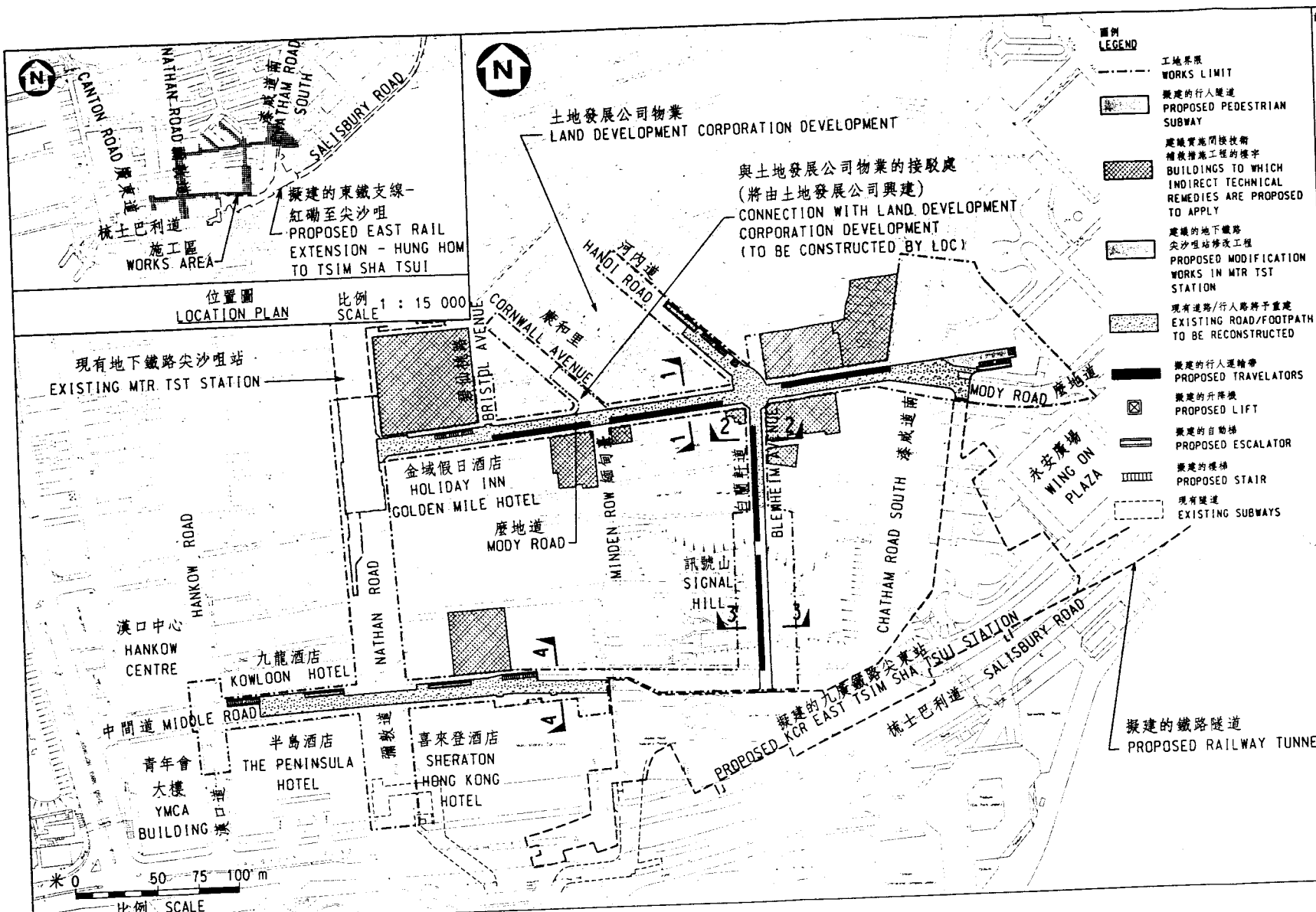
29. We included **48TR** in Category B of the Public Works Programme in January 2000.

30. We estimate that the project will create some 579 jobs totalling 18 330 man-months, comprising 149 professional/technical staff and 430 labourers during the construction period.

Transport Bureau
January 2001



現有及已落實鐵路網絡
EXISTING AND COMMITTED RAIL NETWORK



- 註解 NOTES:
- 所有量度單位皆為毫米。
ALL DIMENSIONS ARE IN MILLIMETRES.
 - 行人運輸帶的總闊度及淨闊度分別為2.25米及1.4米。
OVERALL WIDTH AND CLEAR WIDTH OF PROPOSED TRAVELATOR ARE 2.25m AND 1.4m RESPECTIVELY.

編號 no.	日期 date	內容 description	簽署 initial
C	12/12/00	STATION NAME REVISED	SIGNED BY Y.L.CHENG
B	24/11/00	RAILWAY TUNNEL AND DRAWING TITLE REVISED	SIGNED BY Y.L.CHENG
A	14/11/00	RAILWAY WORKS ADDED IN LOCATION PLAN	SIGNED BY Y.L.CHENG

修訂 REVISION	姓名 name	日期 date
測量 surveyed		
設計 designed	SIGNED BY Y.L.CHENG	19/7/00
繪圖 drawn	SIGNED BY H.K.TSANG	30/10/00
描摹 traced		
核對 checked	SIGNED BY Y.L.CHENG	8/11/00
核准 approved	SIGNED BY K.S.YEUNG	8/11/00

ORIGINAL SIGNED CHAN PUN KEI 8/11/00
 總工程師/鐵路(2) 日期
 CHIEF ENGINEER/RL(2) DATE

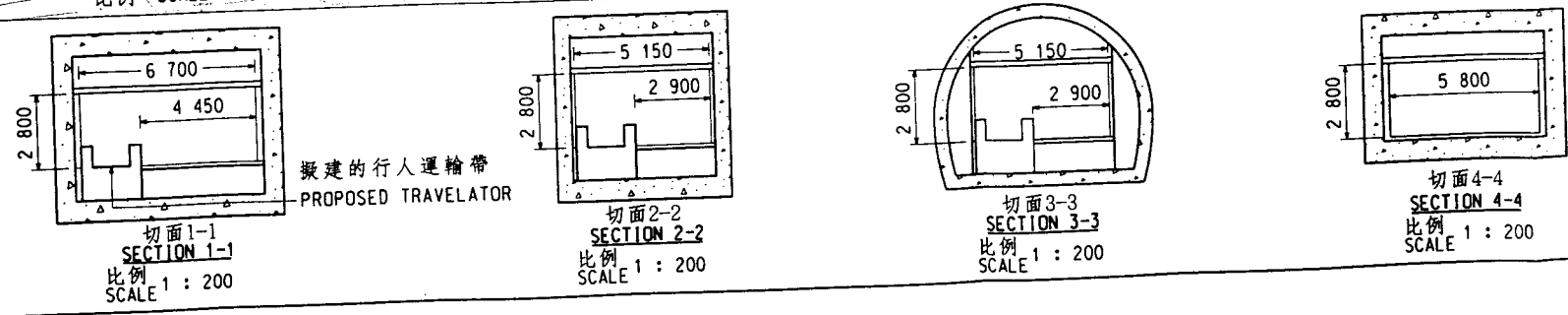
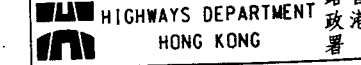
合約編號 contract no.
 檔案編號 file no.
 工程編號 project no.

圖別名稱 drawing title
 工務計劃項目48TR
 東鐵支線 -
 紅磡至尖沙咀支線
 主要基建工程
 PWP ITEM 48TR
 EAST RAIL EXTENSION -
 ESSENTIAL PUBLIC
 INFRASTRUCTURE WORKS FOR
 HUNG HOM TO TSIM SHA TSUI
 EXTENSION

圖號 drawing no.	比例 scale
RWTST01EP1P001C	1 : 2 500 OR AS SHOWN @ A3

參考編號 CAD Ref. RWTST01EP1P001C.DGN
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辦事處 office 鐵路拓展處
 RAILWAY DEVELOPMENT OFFICE



擬建的行人運輸帶
PROPOSED TRAVELATOR

切面1-1
SECTION 1-1
比例 SCALE 1 : 200

切面2-2
SECTION 2-2
比例 SCALE 1 : 200

切面3-3
SECTION 3-3
比例 SCALE 1 : 200

切面4-4
SECTION 4-4
比例 SCALE 1 : 200