

**ITEM FOR PUBLIC WORKS
SUBCOMMITTEE
OF FINANCE COMMITTEE**

HEAD 706 - HIGHWAYS

Transport - Roads

**37TR - West Rail (phase 1) - essential public infrastructure works for the
Yuen Long section**

Members are invited to recommend to Finance Committee-

- (a) the upgrading of part of **37TR**, entitled “West Rail (phase 1) - essential public infrastructure works for the Yuen Long section” to Category A at an estimated cost of \$685.1 million in money-of-the-day prices; and
- (b) the retention of the remainder of **37TR** in Category B, retitled “West Rail (phase 1) - essential public infrastructure works for the Yuen Long section - remaining works”.

PROBLEM

The existing road network and transport interchange facilities around the Yuen Long Station, the Long Ping Station and the Tin Shui Wai Station of the West Rail (phase 1) will be insufficient to cope with the future traffic demand upon the commissioning of the West Rail (phase 1) in 2003.

/PROPOSAL

PROPOSAL

2. The Director of Highways (DH_y), with the support of the Secretary for Transport, proposes to upgrade part of **37TR** to Category A at an estimated cost of \$685.1 million in money-of-the-day (MOD) prices for the construction of the essential public infrastructure works (EPIW) for the Yuen Long section of the Kowloon-Canton Railway Corporation (KCRC)'s West Rail (phase 1) project.

PROJECT SCOPE AND NATURE

3. The proposed scope of **37TR** comprises -

(a) **Yuen Long (YUL) Station sub-section**

- (i) construction of public transport interchange (PTI) facilities at at-grade level to serve the YUL Station;
- (ii) construction of a 500-metre long new access road, with footpath and cycle tracks, alongside the northern boundary of YUL Station (comprising a 300-metre long, 11-metre wide two/three-lane one-way road and a 200-metre long, 7.3-metre to 11-metre wide two/three-lane two-way road);
- (iii) widening of a section of Long Yat Road (east of the Sun Yuen Long Centre) from a 7.3-metre wide two-lane one-way road to a 18-metre wide five-lane two-way road (3 southbound and 2 northbound lanes) and modification of the road junction of Long Yat Road/Castle Peak Road;
- (iv) construction of a 31-metre long, 4-metre wide footbridge over the access road in item (ii) above;
- (v) construction of a 55-metre long, 4-metre wide footbridge over Castle Peak Road, connecting the PTI facilities with existing footbridges;

/(b)

(b) Long Ping (LOP) Station sub-section

- (i) construction of public transport interchange (PTI) facilities at at-grade level to serve the LOP Station;
- (ii) realignment of the relevant sections of Long Yip Street, On Lok Road, Wang Tat Road and Ma Wang Road between Fung Chi Road and Wang Chau Road with the provision of a footpath and a cycle track;
- (iii) construction of a 7.3-metre wide two-lane one-way access road with footpath linking the LOP Station and its northern PTI facilities with Long Yip Street and Wang Yip Street West/Wang Yip Street South;
- (iv) modification of the road junction of Wang Lok Street/Long Yip Street;

(c) Tin Shui Wai (TIS) Station sub-section

- (i) construction of public transport interchange (PTI) facilities at at-grade level to serve the TIS Station;
- (ii) realignment of Tin Fuk Road and Ping Ha Road and reconfiguration of the Tin Fuk Road/ Ping Ha Road junction;
- (iii) construction of new signalised junctions at the ingress and egress of the associated PTI;
- (iv) construction of a 38-metre long, 6-metre wide footbridge (with an escalator and a lift) over the existing Tin Fuk Road and another 38-metre long, 6-metre wide footbridge over the existing Ping Ha Road to the TIS Station and the associated PTI; and

/(d)

- (d) environmental mitigation measures for item 3(a)(ii), item 3(a)(iii) and item 3(c)(ii) above.

4. We now propose to upgrade to Category A the items mentioned in the above paragraph except item 3(a)(iii) and the environmental mitigation measures related to it. As we are still finalizing their detailed design, we therefore need to retain these items in Category B now for upgrading to Category A at a later date.

JUSTIFICATIONS

5. In December 1997, KCRC completed the West Rail Western Area Technical Study which established the need to provide a package of EPIW, as described in paragraph 3 above, to tie in with the commissioning of the YUL, the LOP and the TIS Stations of the West Rail (phase 1) in 2003.

YUL Station sub-section

6. We need to build PTI facilities with associated vehicular, cycle and pedestrian access to the YUL Station to facilitate convenient interchange with other modes of transport for commuters. The PTI facilities will include two bus stations with a total of 15 bays, 2 green minibus stands for 8 vehicles, 3 taxi stands with a capacity for 20 taxis, and a loading/unloading area for 8 general vehicles.

7. YUL Station will be built as an elevated structure and located immediately north of the existing Long Yat Road which, at present, carries eastbound vehicular traffic linking between two sections of Castle Peak Road. The West Rail (phase 1) project requires a section of Long Yat Road adjoining the northern boundary of the Sun Yuen Long Centre to be built as a dedicated route for buses and green minibuses to the western part of the PTI underneath the YUL Station. As a result, this section of Long Yat Road will no longer be a through route for general vehicles. In order to maintain the eastbound vehicular traffic linking between two sections of Castle Peak Road and provide vehicular access to the Kau Hui area, the Sun Yuen Long Centre and the eastern part of the PTI

/underneath ..

underneath the YUL Station, we need to construct a new access road alongside the northern boundary of the YUL Station. The proposed new access road will eventually be connected to the access roads proposed under the Kau Hui Development¹ project.

8. To facilitate residents of Kau Hui and Yuen Long Town to access the YUL Station on foot, we will construct two footbridges over the new access road alongside the northern boundary of the YUL Station and the existing Castle Peak Road respectively.

LOP Station sub-section

9. We need to build PTI facilities with associated vehicular, cycle and pedestrian access to the station to facilitate convenient interchange with other modes of transport for commuters. The LOP Station will be built as an elevated structure. Physical site constraints preclude the provision of adequate transport interchange facilities directly below or along the boundary of the station. As a result, these facilities will have to be located on two separate ground level sites at the southern and northern ends of the LOP Station. The PTI facilities will include a bus station with 5 bays, 6 green minibus stands for 40 vehicles, 4 taxi stands with a capacity for 24 taxis and a loading/unloading area for 4 general vehicles.

10. Constrained by the layout of the existing roads and nullah, we need to re-align the existing Long Yip Street/On Lok Road and Wang Tat Road/Ma Wang Road so that the re-aligned westbound carriageway running under the LOP Station between the columns supporting the station and the re-aligned eastbound carriageway running to the north of the station columns will provide vehicular access to the PTI on the northern and southern part of the LOP Station. The re-aligned road work also includes the reconstruction of existing footpath and cycle track.

11. In order to facilitate the access from the Tung Tau Industrial area to the northern part of the PTI, we need to construct a new vehicular access road

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¹ In February 1995, the Director of Territory Development has included **278CL** - Kau Hui Development, Engineering Works, Area 16, Yuen Long Phase 1 in Category B of Public Works Programme with an estimated cost of \$210.3 million in December 1998 prices. Construction of the works will start in early 2000 for completion in early 2002.

with footpath to connect the PTI facilities with Long Yip Street and Wang Yip Street West/Wang Yip Street South.

12. In order to provide vehicular access from Wang Lok Street to the southern part of the PTI, we need to re-construct the road junction of Wang Lok Street/Long Yip Street from an existing T-junction to a cross signalised junction.

TIS Station sub-section

13. We need to build PTI facilities with associated vehicular, cycle and pedestrian access to the station to facilitate convenient interchange with other modes of transport for commuters. The PTI facilities will include a bus station with 9 bays, 6 green minibus stands for 18 vehicles, 2 taxi stands with a capacity for 23 taxis and a loading/unloading area for 11 general vehicles.

14. We need to provide two footbridges, one over Tin Fuk Road and one over Ping Ha Road, to link the Tin Yiu Estate with the TIS Station and Ping Shan with the PTI respectively. Due to physical site constraints, we could not provide an access ramp to the footbridge crossing Tin Fuk Road. An escalator and a lift for the physically disabled will be provided instead.

15. Owing to the requirements of the station layout and the need for providing convenient access to the TIS Station and the PTI, we need to move the Tin Fuk Road/ Ping Ha Road/ Tin Yiu Road junction to the north and realign Tin Fuk Road and Ping Ha Road. We also need to realign the Tin Fuk Road/ Ping Ha Road/ Tin Yiu Road junction to provide weaving and turning lanes for the access to the PTI. Furthermore, we need to introduce two signalised junctions at the ingress and egress of the PTI.

16. We intend to entrust **37TR** to KCRC for implementation in conjunction with the West Rail (phase 1) project in order to avoid interface problems between the two projects and to enable simultaneous completion of these works, by having one single contract for related works in the same area. Past experience also indicates that this arrangement could result in savings, by up to 10% of the estimated engineering cost.

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FINANCIAL IMPLICATIONS

17. We estimate the cost of this project to be \$685.1 million in MOD prices (see paragraph 18 below), made up as follows -

	\$ million
(a) YUL Station sub-section	
(i) Construction of PTI facilities	45.9
(ii) Construction of new access road at north of station	11.5
(iii) Construction of footbridge over the new access road in item (a)(ii) above	26.2
(iv) Construction of footbridge over Castle Peak Road	40.2
(b) LOP Station sub-section	
(i) Construction of PTI facilities	27.3
(ii) Realignment of Long Yip Street, On Lok Road, Wang Tat Road and Ma Wang Road	82.8
(iii) Construction of access road for north PTI facilities	7.6
(iv) Modification of Wang Lok Street/ Long Yip Street road junction	10.5

(c) TIS Station sub-section			
(i) Construction of PTI facilities	54.6		
(ii) Realignment and junction modification of Tin Fuk Road, Ping Ha Road	73.7		
(iii) Construction of two signalised junction at PTI	5.4		
(iv) Construction of footbridge over Tin Fuk Road	15.6		
(v) Construction of footbridge over Ping Ha Road	32.1		
(d) Environmental mitigation measures for item (a)(ii) above	4.0		
(e) Environmental mitigation measures for item (c)(ii) above	35.5		
(f) On-cost ² payable to KCRC	78.0		
(g) Contingencies	55.1		
		606.0	(at December 1998 prices)
(h) Provision for price adjustment	79.1		
		685.1	(in MOD prices)

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²

An on-cost at 16.5% of the project base cost, i.e. items (a) to (e) in paragraph 17 will be payable to KCRC for undertaking the technical studies, design and construction supervision of the EPIW under 37TR.

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

	\$ million (Dec 1998)	Price Adjustment Factor	\$ million (MOD)
1999 - 2000	13.3	1.02625	13.6
2000 - 2001	84.8	1.06217	90.1
2001 - 2002	105.6	1.09934	116.1
2002 - 2003	211.3	1.13782	240.4
2003 - 2004	191.0	1.17765	224.9
	<hr/> 606.0 <hr/>		<hr/> 685.1 <hr/>

19. We have derived the MOD estimate on the basis of Government's latest forecast of trend labour and construction prices over the period 1999 to 2004. KCRC will tender the works under lump sum contracts without price fluctuation.

20. We estimate the annually recurrent expenditure arising from the proposed works to be \$20.4 million.

PUBLIC CONSULTATION

21. Representatives of DHy and KCRC consulted the Yuen Long Provisional District Board on 26 February 1998, the Shap Pat Heung Rural Committee on 15 July 1997, the Ping Shan Rural Committee on 29 September 1997, the Ha Tsuen Rural Committee on 30 September 1997 and the Pat Heung Rural Committee on 17 January 1998 on the EPIW under 37TR together with the West Rail (phase 1) project. Members of the rural committees supported the project in principle. However, members expressed concern on the possible noise nuisance and traffic impact created by the proposed works during construction.

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We have addressed their concerns in the Environmental Impact Assessment (EIA) Study and Traffic Impact Assessment (TIA) Study. We will implement various environmental mitigation measures and traffic diversion schemes to minimise disruption during the construction stage.

22. We gazetted the EPIW under **37TR** together with the West Rail (phase 1) project under the Railways Ordinance on 3 October 1997. We received five objections against the proposed EPIW under **37TR**. Three objections related to the proposed new access road north of the YUL Station and the remaining two objections related to the proposed PTI north of the LOP Station. We met the objectors and explained to them the need for the proposed new access road and the proposed PTI at the YUL and LOP Stations respectively. However, the objectors maintained their objections. Having considered the above objections together with other objections to the railway scheme for West Rail (phase 1) not withdrawn, the Chief Executive-in-Council authorised the West Rail (phase 1) project together with the EPIW under **37TR** on 15 September 1998.

ENVIRONMENTAL IMPLICATIONS

23. The road improvement works in paragraph 3(a)(ii), 3(a)(iii) and 3(c)(ii) constitute designated projects under Schedule 2 of the Environmental Impact Assessment Ordinance (Cap. 499). Environmental permits are required for the construction and operation of the project. KCRC prepared an EIA report and submitted it to the Director of Environmental Protection (DEP) on 19 May 1999. We will carry out public consultation with the Advisory Council on the Environment (ACE) and members of the public. We will implement all recommended mitigation measures identified in the approved EIA report or imposed as conditions for approval conditions. The recommended mitigation measures at the YUL Station include noise barriers for the new access road north of the Station with an estimated cost of \$4 million. At the TIS Station, the mitigation measures include noise barriers and low noise road surfacing for Ping Ha Road/Tin Fuk Road, low noise road surfacing for Tin Yiu Road, and noise insulation measures for adjacent schools at Ping Ha Road/Tin Fuk Road. We have included the estimated cost of \$35.5 million for these items in the project estimate.

24. For short-term construction impact at the YUL, LOP and TIS Stations, we will control the noise, dust and site runoff nuisances to comply with

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established standards through implementation of environmental pollution control measures and environmental monitoring and audit programme in the construction contract.

LAND ACQUISITION

25. The proposed EPIW mentioned in paragraph 3 above except items 3(a)(iii) and the associated mitigation measures in item 3(d) will occupy approximately 14 750 square metres of private land (comprising 32 lots) which have already been resumed under the West Rail (phase 1) project. The proposed works will also occupy approximately 132 260 square metres of government land. The land resumption will not affect any family in the Yuen Long and Tin Shui Wai areas but will affect 33 families with 91 persons in the Long Ping area. The Director of Housing will arrange rehousing for the affected eligible families in accordance with the current policy. The Director of Lands has already handed over most of the land required for the project to KCRC in May 1999.

26. The estimated cost of acquisition and clearance of the land occupied by the proposed works is about \$66 million. KCRC will bear this cost according to the West Rail Project Agreement established between the Administration and KCRC.

BACKGROUND INFORMATION

27. On 27 February 1998, Finance Committee (FC) approved an equity injection of \$29 billion from the Capital Investment Fund to KCRC for construction of the West Rail (phase 1). We also informed FC that the Government would need to carry out essential public infrastructure works in the order of \$3,135 million in December 1997 prices³ to enable West Rail to be open to the public.

28. Following authorisation by the Chief Executive-in-Council in September 1998, KCRC commenced construction of the West Rail (phase 1).

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³ This is the cost estimate of the EPIWs at the time of the FC submission. As most of the detailed design of the EPIWs have been finalised and some works have already been tendered, we now have an updated cost estimate of the works. The latest estimated cost of the EPIWs is \$3,119 million in MOD prices.

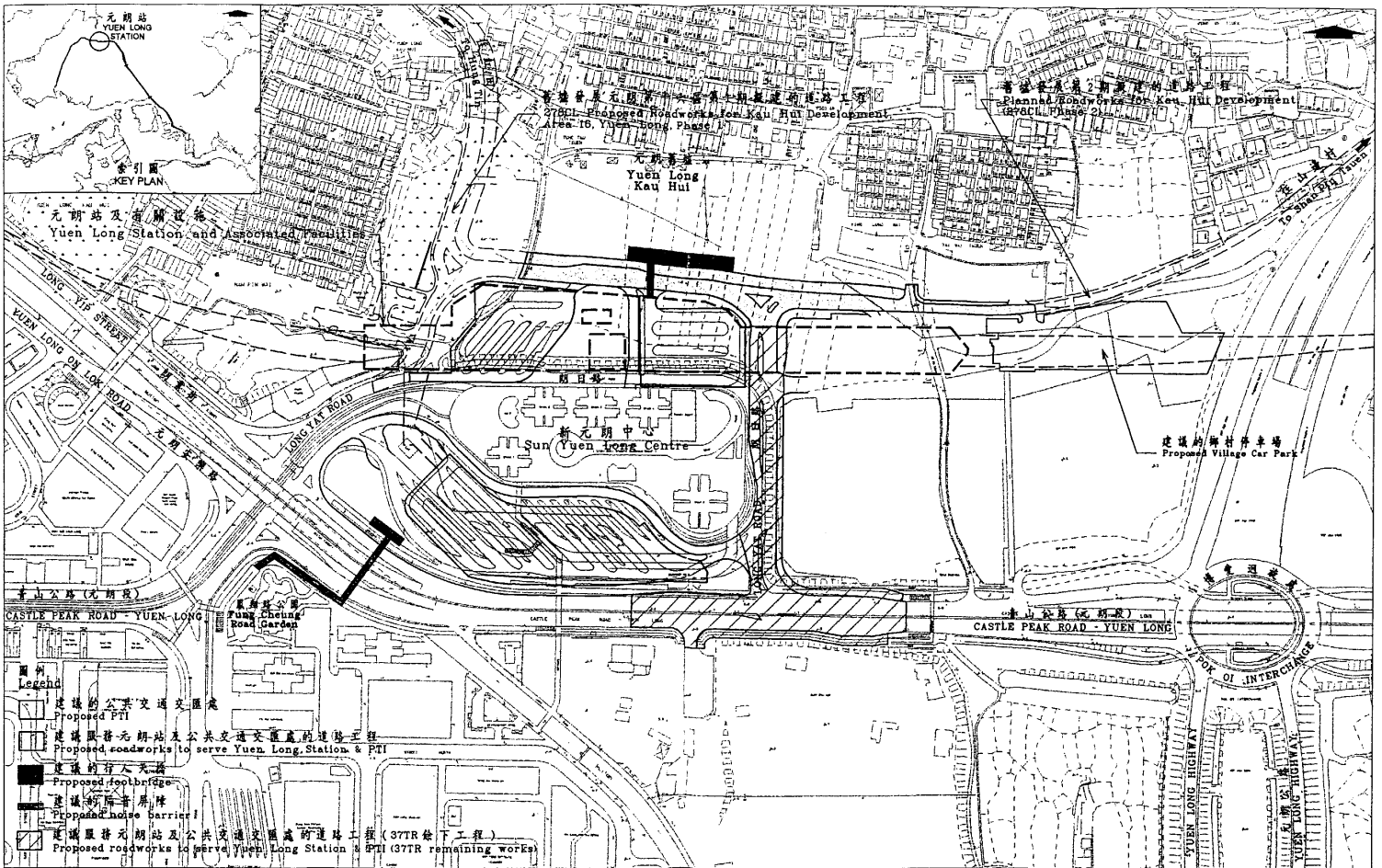
The first phase of West Rail will provide, by late 2003, a domestic passenger railway line serving Tuen Mun, Yuen Long, Tin Shui Wai, Kam Tin, Tsuen Wan West, Mei Foo and Sham Shui Po.

29. The Yuen Long Section of the West Rail (phase 1) includes the construction of the YUL, LOP and TIS Stations and railway tracks connecting the stations up to the TIS Station.

30. We included **37TR** in Category B in September 1998.


31. On 12 March 1999, FC approved the upgrading to Cat. A of **42TR** for the EPIW of the West Rail (phase 1) Tsuen Wan section. On 12 May 1999, the Public Works Subcommittee recommended to FC the upgrading to Cat. A of **39TR** and **40TR** for the EPIWs of the West Rail (phase 1) Sham Shui Po and Kam Tin sections respectively. We are also submitting the funding proposal of **38TR** for the EPIW of Tuen Mun section to this meeting for endorsement.

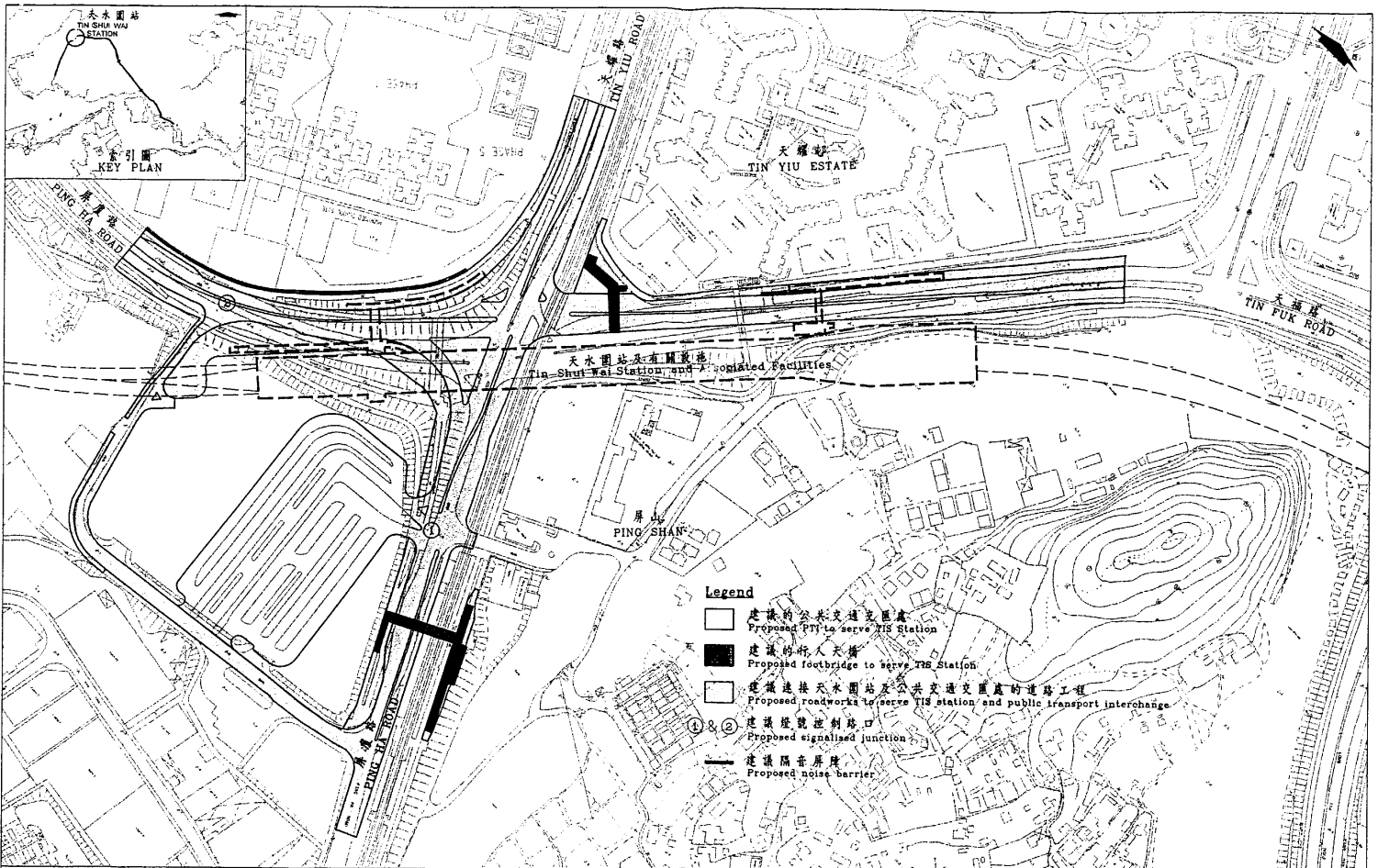
32. We plan to entrust the construction of **37TR** to KCRC under the same construction contract for the YUL Station, the LOP Station and the TIS Station. We plan to commence the works in July 1999 for completion by October 2003. As regards the remaining part of **37TR**, we plan to commence the construction in early 2000 for completion in 2003 to tie in with the commissioning of the YUL Station in 2003.




project no. 工程編號
 37TR
 九鐵西鐵(第一期)-
 元朗段的主要公共基礎設施工程
 KCRC West Rail (Phase I)-
 Essential Public Infrastructure Works for Yuen Long Section

drawn by K S YAU	date 31/5/99
approved by K M CHING	date 31/5/99
office 鐵路拓展處 RAILWAY DEVELOPMENT OFFICE	

drawing no. RW9713	scale 1 : 2 500 (at A3 size)
 路政署 HIGHWAYS DEPARTMENT	



project no. 工程編號
37TR
九鐵西鐵(第一期)
元朗段的主要公共基礎設施工程
KCRC West Rail (Phase I)
Essential Public Infrastructure Works for Yuen Long Section

drawn by K S YAU	date 9/6/99	drawing no. RW9715	scale 1:2 500 (at A3 size)
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office 鐵路拓展處 RAILWAY DEVELOPMENT OFFICE			