

For discussion
on 28 April 1999

PWSC(1999-2000)9

ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 706 - HIGHWAYS

Transport - Roads

39TR - West Rail (phase 1) - essential public infrastructure works for Sham Shui Po section

Members are invited to recommend to Finance Committee the upgrading of **39TR** to Category A at an estimated cost of \$731.9 million in money-of-the-day prices for the construction of the essential public infrastructure works for the West Rail (phase 1) Sham Shui Po section.

PROBLEM

The existing road network and transport interchange facilities around the future Yen Chow Street Station and Mei Foo Station of the West Rail (phase 1) is insufficient to cope with the future traffic demand upon the commissioning of the West Rail (phase 1) in 2003.

PROPOSAL

2. The Director of Highways (DH_y), with the support of the Secretary for Transport, proposes to upgrade **39TR** to Category A at an estimated cost of \$731.9 million in money-of-the-day (MOD) prices for the construction of the essential public infrastructure works (EPIW) for the Sham Shui Po section of the Kowloon-Canton Railway Corporation (KCRC)'s West Rail (phase 1) project.

/PROJECT

PROJECT SCOPE AND NATURE

3. The scope of **39TR** comprises -

(a) **Yen Chow Street (YCS) Station sub-section**

- (i) construction of an at-grade public transport interchange (PTI) to serve the YCS Station of the West Rail (phase 1);
- (ii) construction of a 3-kilometre long three-lane southbound carriageway of Road P1 (including a 1.6 kilometres long elevated road section) between Road D3 and Hoi Fai Road, with slip roads connecting to Yen Chow Street West, Tonkin Street West, Hing Wah Street West and Road D3;
- (iii) reconstruction of the road junction of Sham Mong Road/Yen Chow Street West;
- (iv) realignment and widening of about 500 metres of the Road P1 northbound carriageway between Tonkin Street West and Yen Chow Street West, from three-lanes to four-lanes;

(b) **Mei Foo (MEF) Station sub-section**

- (i) construction of two bus lay-bys, a signalised at-grade pedestrian crossing, a pedestrian access ramp and a staircase at Lai King Hill Road immediately north of MEF Station;
- (ii) widening of about 150 metres of Lai Wan Road beneath the Kwai Chung Road to a 10 metre-wide carriageway, with additional space for accommodating a kerbside taxi stand, lay-by for general vehicles and a mini-roundabout at the junction with Broadway; and

/(c)

- (c) associated road reconstruction, drainage, noise mitigation measures, street lighting, slope and landscaping works for the Sham Shui Po section.

JUSTIFICATIONS

4. In December 1997 and February 1998, the KCRC completed the West Rail Southern Area and Central Area Technical Studies respectively which established the need to provide a package of EPIW, as described in paragraph 3 above, to tie in with the commissioning of the YCS Station and the MEF Station of the West Rail (phase 1) in 2003.

Yen Chow Street Station sub-section

5. We need to build a PTI with associated vehicular and pedestrian access to the YCS Station to facilitate convenient interchange with other modes of transport for commuters. This PTI will include a bus station with 6 bays, 2 green minibus stands, a taxi stand and a landing area for general vehicles.

6. We need to build the southbound carriageway of Road P1 to enhance connections with the West Kowloon Highway and local developed areas. The West Rail (phase 1) project however requires part of the Road P1 southbound carriageway, which overlaps with the YCS Station and the rail tracks, to be built as an elevated link. As a result, we need to construct slip roads connecting the elevated link to Yen Chow Street West, Tonkin Street West, Hing Wah Street West and the Road D3. We also need to re-construct the junction of Sham Mong Road/Yen Chow Street to raise it to a higher level. In addition, we will need to lay low noise road surfacing on the proposed carriageway to reduce the traffic noise impact on adjacent residential developments.

7. To accommodate the future passenger platform for interchange with the Tung Chung Line of Airport Railway and cope with the anticipated increase in traffic demand upon the commissioning of the West Rail (phase 1), we need to realign a 500 metres section of the Road P1 northbound carriageway and widen the road from three-lanes to four-lanes.

/Mei Foo

Mei Foo Station sub-section

8. In anticipation of the increasing demand for bus services at Lai King Hill Road (the western access of the MEF Station) upon the commissioning of the railway, we propose to form bus lay-bys at both directions of the Lai King Hill Road to serve the MEF Station. We also need to provide a signalised pedestrian crossing across the road, a staircase and a pedestrian access ramp for connection with an existing footbridge from Lai King Hill Road to reach the MEF Station.

9. In order to facilitate convenient interchange with other modes of transport for commuters, we need to widen about 150 metres of the end section of Lai Wan Road (the eastern access of the MEF Station) to provide a 10-metre wide carriageway, with additional space for accommodating a kerbside taxi stand and lay-bys for general vehicles. We will also form a mini-roundabout at its junction with Broadway to facilitate U-turning movements of vehicles.

10. We intend to entrust **39TR** to KCRC for implementation in conjunction with the Sham Shui Po section of 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 package for related works in the same area. Past experience indicates that this arrangement could result in savings up to 10% of the estimated engineering cost.

FINANCIAL IMPLICATIONS

11. We estimate the cost of this project to be \$731.9 million in MOD prices (see paragraph 12 below), made up as follows -

	\$ million
(a) PTI to serve the YCS Station	63.1
(b) Road P1 southbound carriageway and associated slip roads package	336.7
(c) Reconstruction of junction of Sham Mong Road/Yen Chow Street West	47.5

/(d)

(d) Widening of Road P1 northbound carriageway	42.8	
(e) Improvements at Lai King Hill Road	13.2	
(f) Modifications to Lai Wan Road	5.6	
(g) On-cost ¹ payable to the KCRC	84.0	
(h) Contingencies	59.3	
Sub-total	652.2	(at December 1998 prices)
(i) Provision for price adjustment	79.7	
Total	731.9	(in MOD prices)

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

Year	\$ million (Dec 1998)	Price adjustment factor	\$ million (MOD)
1999 - 2000	14.4	1.02625	14.8
2000 - 2001	110.6	1.06217	117.5
2001 - 2002	209.6	1.09934	230.4
2002 - 2003	178.0	1.13782	202.5

/2003

¹ An on-cost at 16.5% of the project base cost (i.e. items (a) to (f) in paragraph 11) will be payable to KCRC for undertaking the technical studies, design and construction supervision of EPIW under 39TR.

2003 - 2004	82.3	1.17765	96.9
2004 - 2005	57.3	1.21886	69.8
	<u>652.2</u>		<u>731.9</u>

13. We have derived the MOD estimate on the basis of the Government's latest forecast of trend labour and construction prices over the period between 1999 and 2005. The KCRC will tender the works under lump sum contracts without price fluctuation.

14. We estimate the additional annually recurrent expenditure arising from the proposed works to be \$9.3 million.

PUBLIC CONSULTATION

15. DHy and the KCRC consulted the Sham Shui Po Provisional District Board on 27 November 1997 and 26 March 1998 on the EPIW under **39TR** together with the West Rail (phase 1) project. The proposed EPIW did not receive any adverse comments but Members expressed concerns on the potential environmental impacts to be caused by the additional traffic arising from the future operation of the West Rail (phase 1). The KCRC has conducted an analysis of the potential environmental impact over the areas in Sham Shui Po, Mei Foo and Lai King Hill Road. KCRC's analysis confirmed that the YCS will not cause significant impact on the existing road network and that the design of the EPIWs and the YCS has already taken into account this concern. The analysis further confirmed that the effects on noise and air quality caused by the operation of West Rail could be controlled to levels within stipulated standards.

16. We gazetted the EPIW under **39TR** together with the West Rail (phase 1) project under the Railways Ordinance on 3 October 1997. We received no objection to the EPIW.

/ENVIRONMENTAL

ENVIRONMENTAL IMPLICATIONS

17. Road construction and widening works at Road P1, as described in paragraph 3 above, constitute 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. The EIA study, completed in June 1997, concluded that the environmental impact of the project can be controlled within established criteria and guidelines. In January 1998, the Advisory Council on the Environment endorsed the EIA report. Low road noise surfacing will be laid at the proposed Road P1 and Sham Mong Road alongside the adjacent residential developments. We estimate the cost of implementing the noise mitigation measures to be \$7.8 million. We have included this cost in the overall project estimate.

18. For short term construction impact, we will control the noise, dust and site runoff nuisances to comply with established guidelines and standards through the implementation of environmental pollution control measures and environmental monitoring and audit programme in the contract.

LAND ACQUISITION

19. The proposed EPIW under **39TR** does not require any land resumption. However, modification works at Lai Wan Road to the south of Kwai Chung Road, as described in paragraph 3(b)(ii) above, requires the surrender of the portion of Lai Wan Road to the south of Kwai Chung Road which is a private road to Government under the lease conditions of the land disposal. The private road was surrendered to the Government without compensation on 14 January 1999.

BACKGROUND INFORMATION

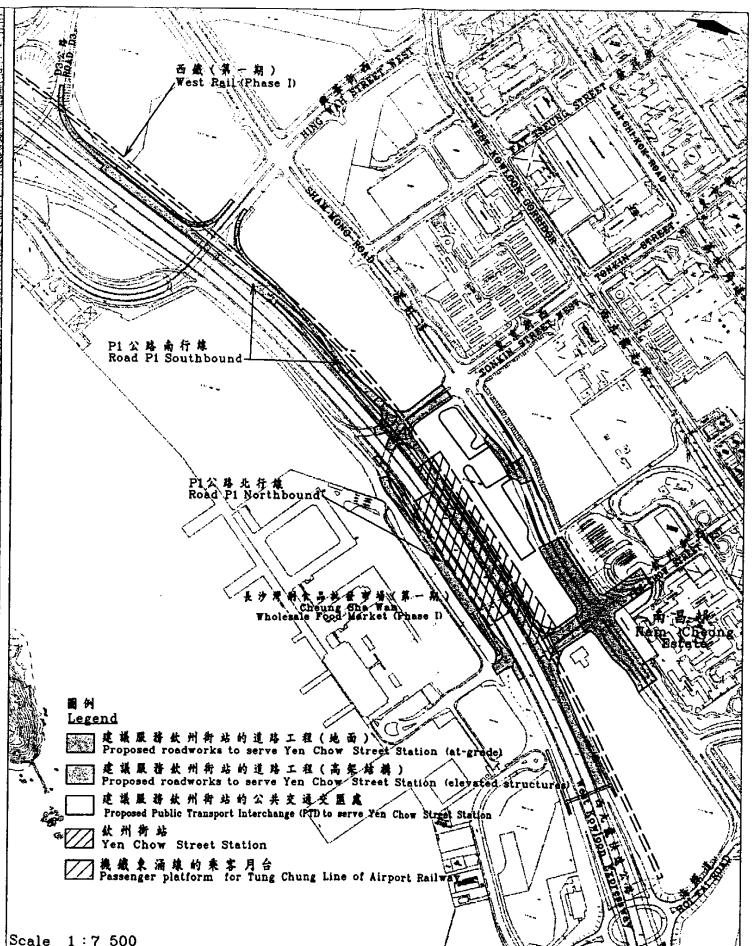
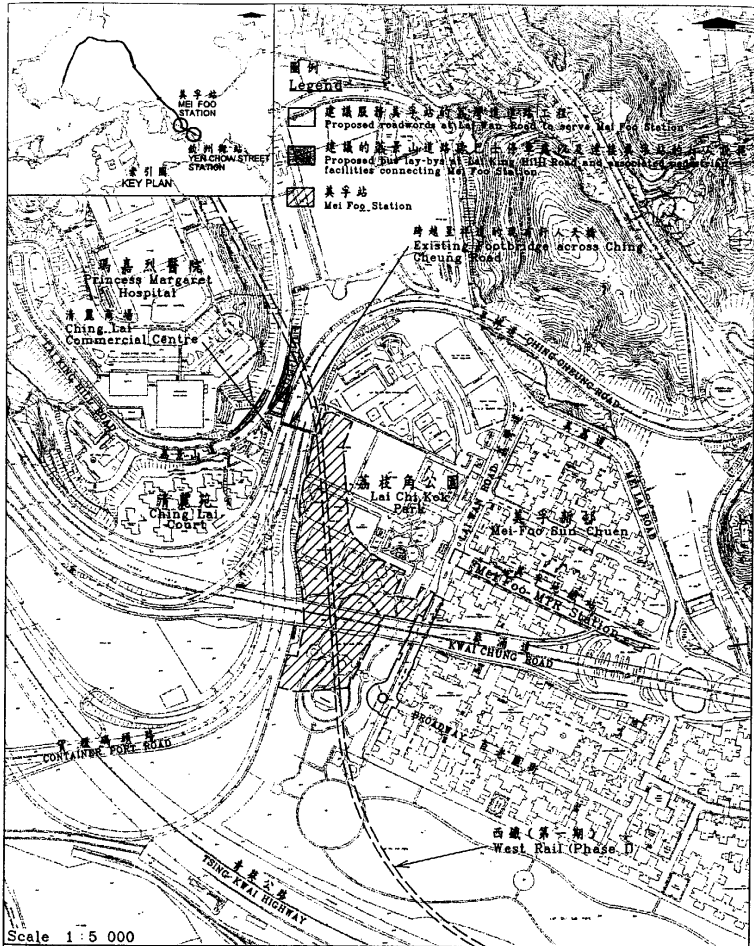
20. On 27 February 1998, Finance Committee (FC) approved an equity injection of \$29 billion from the Capital Investment Fund to the KCRC for construction of the West Rail (phase 1). We also informed FC at the meeting that the Government would need to carry out essential public infrastructure works in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

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


22. The Sham Shui Po section of the West Rail (phase 1) includes the construction of the YCS and MEF Stations and a section of railway tracks connecting the stations up to Ha Kwai Chung Tunnel.

23. 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. We are also submitting the funding proposal for **40TR** for the EPIW of Kam Tin section to this meeting for endorsement. In addition, we plan to upgrade **37TR** and **38TR** for the EPIWs of the West Rail (phase 1) Yuen Long and Tuen Mun sections respectively to Category A in June 1999.

24. We included **39TR** in Category B in September 1998. We plan to entrust the construction of **39TR** to the KCRC under the works contracts for the YCS and MEF Stations and the associated railway line in June 1999. We aim to start the essential public infrastructure works in September 1999 and complete most of the construction works by November 2003.



project no. 工程編號
39TR
九鐵西鐵(第一期)
深水埗段的主要公共基礎設施工程
KCRC West Rail (Phase I)
Essential Public Infrastructure Works for Sham Shui Po Section

drawn by K S YAU	date 29/3/99	drawing no. RW9711	scale AS SHOWN
approved by T G CHUNG	date 29/3/99	 路政署 HIGHWAYS DEPARTMENT	
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