

ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 707 - NEW TOWNS AND URBAN AREA DEVELOPMENT
New Territories East Development
Civil Engineering - Land development
475CL - Sha Tin New Town, stage II - detailed design and site
investigation for Road T3

Members are invited to recommend to Finance Committee to increase the approved project estimate of **475CL** from \$51 million by \$29.1 million to \$80.1 million in money-of-the-day prices.

PROBLEM

The approved project estimate of **475CL** is insufficient for the works under the project.

PROPOSAL

2. The Director of Territory Development (DTD), with the support of the Secretary for Transport, proposes to increase the approved project estimate of **475CL** from \$51 million by \$29.1 million to \$80.1 million in money-of-the-day (MOD) prices.

PROJECT SCOPE AND NATURE

3. The proposed Road T3 is a strategic road linking Route 9 Sha Tin section with Ma On Shan, Tai Po and North District. It comprises approximately two kilometres of dual two-lane elevated road, with slip roads leading to and from Mei Tin Road and Tai Po Road. Without Road T3, traffic using Route 9 would

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have to use the local road network in Sha Tin and would lead to traffic congestion. This would substantially undermine the function of Route 9.

4. We upgraded **475CL** to Category A in July 1996 at an approved project estimate of \$51 million (MOD), to enable site investigation works and consultancy services at the pre-contract stage to be undertaken for the detailed design, preparation of tender documents and assessment of tenders for Road T3. Site plans are at Enclosures 1 and 2.

JUSTIFICATION

5. We prepared the cost estimate of **475CL** in early 1996 on the basis of the highway layout proposed in the Traffic and Transport Review for Road T3 completed in September 1994 and the result of the Environmental Impact Assessment Study completed in 1996.

6. Transport Department then completed the Sha Tin and Ma On Shan District Traffic Study in March 1996, which recommended additional road works to be carried out in Tai Wai to improve traffic circulation in the area. As the detailed design of Road T3 proceeded, we found that some of the proposed additional road works in the Mei Tin Road corridor, recommended by the above District Traffic Study, should better be constructed in conjunction with Road T3 and should form part of the Road T3 project in order to avoid future interface problems and abortive works, and to minimize traffic impact on the public. In this connection, we incorporated the design of the road works at the Mei Tin Road corridor into the detailed design of Road T3. The works incorporated include -

- (a) a second road bridge over the Shing Mun river channel at Heung Fan Liu;
- (b) a footbridge across Mei Tin Road near Mei Lam Estate;
- (c) a slip road extension to Chik Wan Street with associated pedestrian subway; and
- (d) an extension of the footbridge adjoining the Kowloon-Canton Railway Tai Wai Station.

7. During the course of the detailed design for Road T3, we also identified the following additional items of work that should be included in the Road T3 project -

/ (a)

- (a) construction of an underpass underneath Road T3 at its connection to Tai Po Road for the proposed Route 9;
- (b) construction of an elevated road linking Tai Po Road (Sha Tin Heights) and Lower Shing Mun Road to improve fire engine response time to this section of Tai Po Road;
- (c) stabilization of some natural and man-made slopes along Tai Po Road (Sha Tin Heights) required by local widening works to improve traffic safety in the light of increased traffic capacity brought about by Road T3; and
- (d) reconstruction of the westbound carriageway of the Tai Po Road Bridge over the existing railway tracks to improve the structural form of the T3 viaduct for enhancing its long-term serviceability.

8. The increased amount of works for the Road T3 project has resulted in corresponding increases in the site investigation works and consultants' fees for detailed design. Following a review of the financial position of the project, DTD considers it necessary to increase the approved project estimate of **475CL** from \$51 million by \$29.1 million to \$80.1 million in MOD prices in order to complete the works. A breakdown of the proposed increase of \$29.1 million is as follows -

Factor	Amount in MOD Prices (\$ million)	% of total increased amount
(a) Site investigation works	3.1	10.7
(b) Consultants' fees	27.6	94.8
(c) Contingencies	(1.6)	(5.5)
Total	29.1	100

9. A comparison of the cost breakdowns of the approved project estimate and the revised project estimate in MOD prices is at Enclosure 3.

FINANCIAL IMPLICATIONS

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

Year	\$ million (Sept 2000)	Price adjustment factor	\$ million (MOD)
Up to 31 March 2000 ¹	50.1	-	50.1
2000 - 2001 ²	0.7	1.00000	0.7
2001 - 2002	24.1	1.02550	24.7
2002 - 2003	4.4	1.05627	4.6
	79.3		80.1

11. We have derived the MOD estimate on the basis of the Government's forecasts of trend labour and construction prices for the period 2000 to 2003.

12. The proposed consultancy has no recurrent financial implications.

PUBLIC CONSULTATION

13. As the proposed increase in the estimated cost is in respect of the consultancy fees and site investigations for Road T3, we have not carried out any further public consultation.

14. We will consult the LegCo Panel on Transport on the project on 15 February 2001.

/ **ENVIRONMENTAL**

¹ This is the actual expenditure up to 31 March 2000.

² The amount of \$0.7 million will be incurred before 31 March 2001.

ENVIRONMENTAL IMPLICATIONS

15. The proposed increase in the approved project estimate for the consultancy and site investigations does not result in any environmental implications. As for the project itself, it is a designated project under Schedule 2 of the Environmental Impact Assessment (EIA) Ordinance. The environmental impact of the project, including the additional road works, has been adequately assessed in an updated EIA report, approved in March 1998 and placed on the Register established under the EIA Ordinance. We shall implement all of the measures recommended by the updated EIA report. The key measures are noise barriers, enclosures, and quiet road surfacing, to control the traffic noise impact to within established standards. Before construction of the project, we shall apply for the environmental permit, covering the latest scope of works, as required by the EIA Ordinance.

16. The consultancy and site investigation will generate a minimal quantity of construction and demolition (C&D) material. We shall require the consultant to plan and design the works to minimise the generation of C&D material during the construction phase and to reuse/recycle C&DM as much as possible.

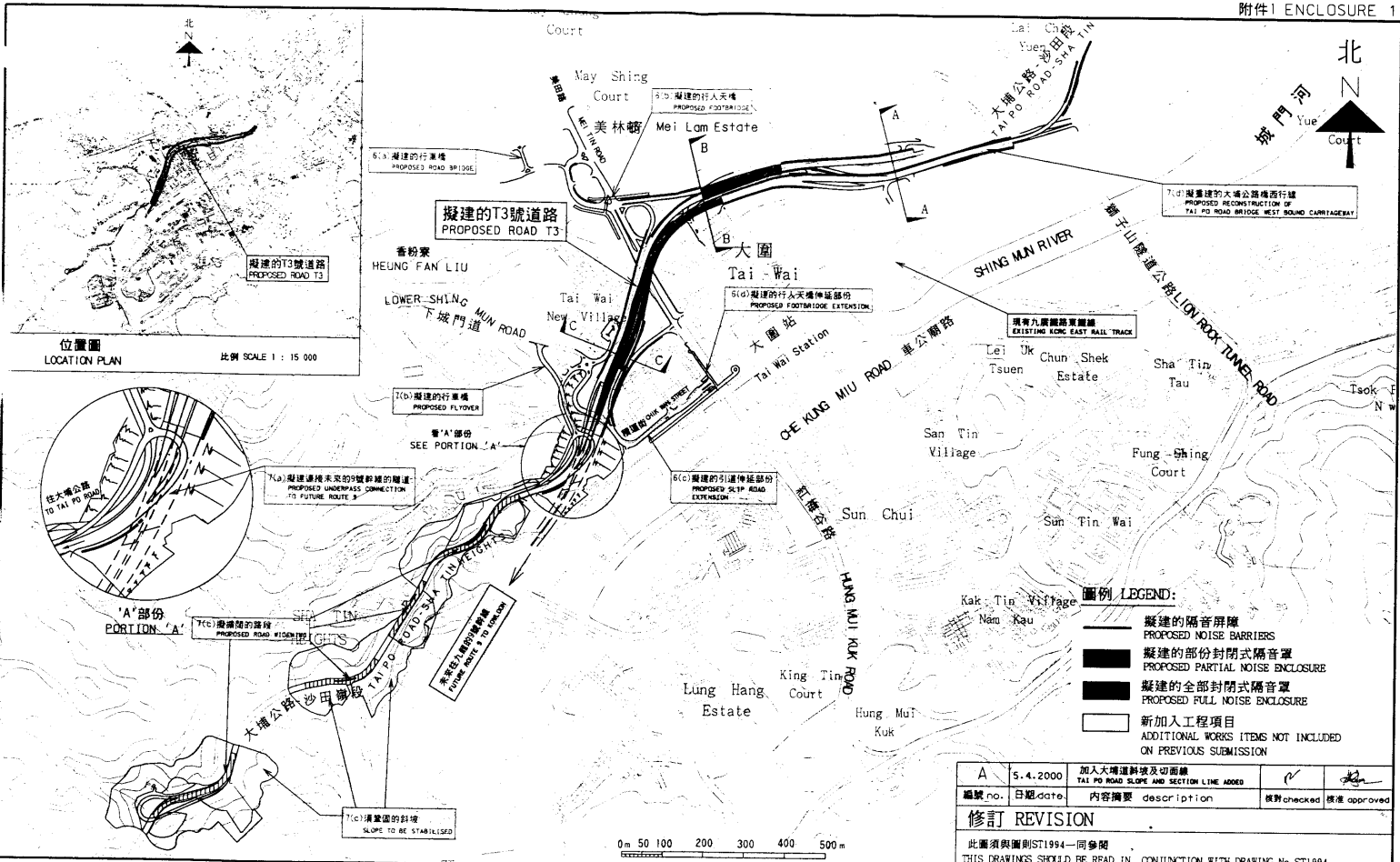
LAND ACQUISITION

17. The proposed increase in the approved project estimate does not require any land acquisition.

BACKGROUND INFORMATION

18. We started the consultancy for detailed design and site investigation in August 1996 and aimed to complete the works in August 1999. The completion date was extended to September 2002 due to the additional works mentioned in paragraphs 6 and 7 above. We plan to start the construction works in October 2002 for completion in June 2007.

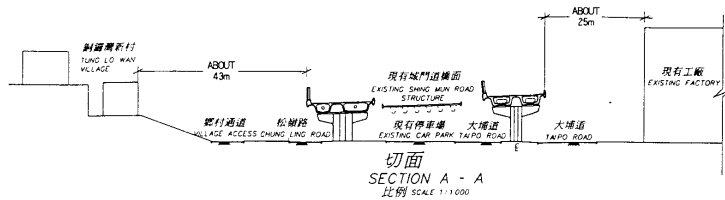
19. We estimate that the remaining site investigation and design works will provide some 25 jobs comprising 20 professional/technical staff and 5 labourers, totalling 490 man-months.



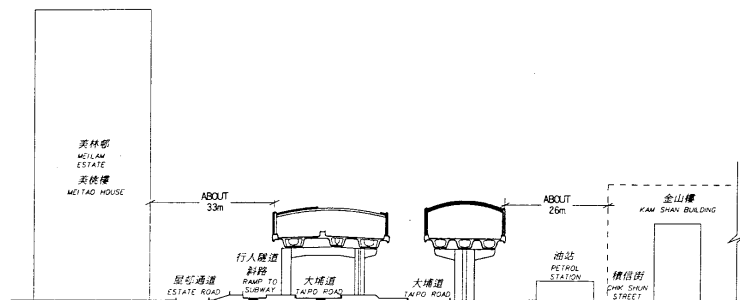
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編號 no.	日期 date	內容摘要 description	核對 checked	核准 approved
修訂 REVISION				
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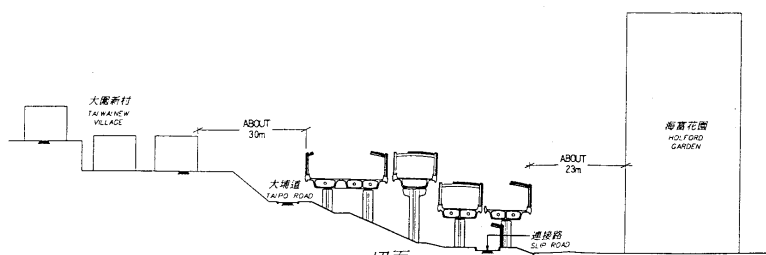
圖則名稱 drawing title		繪圖 drawn		簽署 initial		日期 date		比例		辦事處 office	
沙田新市鎮 - 第II階段工程 - T3號道路的詳細設計和地盤勘察 SHA TIN NEW TOWN - STAGE II - DETAILED DESIGN AND SITE INVESTIGATION FOR ROAD T3		M K LEE		[Signature]		25.1.2000		As Shown		新界東拓展處 NT EAST DEVELOPMENT OFFICE	
		核對 checked		簽署 initial		日期 date		圖則編號		拓展署 TERRITORY DEVELOPMENT DEPARTMENT	
		J WONG		[Signature]		28.1.2000		ST1992A			
		核准 approved		簽署 initial		日期 date					
		W TSUI		[Signature]		28.1.2000					



切面
SECTION A - A
比例 SCALE 1:1000

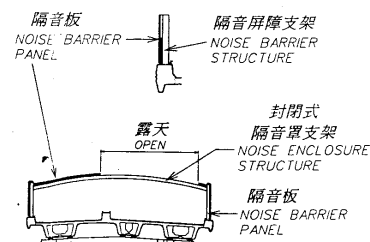


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SECTION B - B
比例 SCALE 1:1000



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SECTION C - C
比例 SCALE 1:1000

圖例
LEGEND



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二零零零年至二零零一年度工務小組委員會文件 P.W.S.C. SUBMISSION 2000-2001

圖則名稱 title
沙田新市鎮 -
第 II 階段工程 - T3 號道路的詳細設計和地盤礮察 - 切面圖
SHA TIN NEW TOWN -
STAGE II - DETAILED DESIGN AND SITE INVESTIGATION FOR ROAD T3 - SECTION PLAN

繪圖 drawn S K WONG	簽署 initial [Signature]	日期 date 5-4-2000	比例 scale 1 : 500	項目編號 ITEM No. 475CL
核對 checked T K LEE	簽署 initial [Signature]	日期 date 5-4-2000	圖則編號 drawing no. ST1994	辦事處 office 新界東拓展處 NT EAST DEVELOPMENT OFFICE
核准 approved W TSUI	簽署 initial [Signature]	日期 date 5-4-2000		拓展署 TERRITORY DEVELOPMENT DEPARTMENT

Enclosure 3 to PWSC(2000-01)95

475CL – Sha Tin New Town, stage II – detailed design and site investigation for Road T3

A comparison of the approved project estimate and the revised project estimate in MOD prices is as follows -

	Approved Estimate	Revised Estimate
	\$ million (MOD)	
(a) Site investigation	5.4	8.5
(b) Consultants' fees	41.0	68.6
(i) supervision of site investigation	0.5	0.8
(ii) detailed design	33.8	61.1
(iii) preparation of tender documents and assessment of tenders	6.7	6.7
(c) Contingencies	4.6	3.0
	Total	Total
	51.0	80.1

2. **As regards (a) (site investigation)**, the increase of \$3.1 million is for boreholes and laboratory testing for the additional road works, flyovers and footbridges.

3. **As regards (b) (consultants' fees)**, a total increase of \$27.6 million is sought, comprising -

- (a) \$0.3 million for additional site staff costs for the increased site investigation works mentioned in paragraph 2 above; and

- (b) \$27.3 million for additional manpower input for the detailed design for the additional road works, footbridges, flyovers and noise mitigation measures and slope works, made up as follows -

	\$ million
(i) road bridge at Heung Fan Liu	0.8
(ii) footbridge near Mei Lam Estate	1.4
(iii) slip road extension to Chik Wan Street	0.8
(iv) footbridge extension near Tai Wai Station	1.2
(v) Route 9 underpass	13.1
(vi) flyover link to Lower Shing Mun Road	1.5
(vii) slope stabilization at Tai Po Road (Sha Tin Heights)	5.7
(viii) reconstruction of west bound carriageway of Tai Po Road bridge over KCR tracks	2.8
Total	27.3

4. As regards (c) (contingencies), \$3.0 million is retained as the contingencies for the project.