

ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 707 - NEW TOWNS AND URBAN AREA DEVELOPMENT
New Territories West Development
Civil Engineering - Land development
681CL – Formation, roads and drains in Area 54, Tuen Mun – phase 2

Members are invited to recommend to Finance
Committee -

- (a) the upgrading of part of **681CL**, entitled “Consultants’ fees and site investigation for site formation, roads and drains in Area 54, Tuen Mun – phase 2”, to Category A at an estimated cost of \$25.9 million in money-of-the-day prices; and
- (b) the retention of the remainder of **681CL** in Category B.

PROBLEM

The supply of formed land and infrastructural facilities in Area 54 of Tuen Mun is not adequate to support the planned housing developments in the area.

/PROPOSAL

PROPOSAL

2. The Director of Territory Development (DTD), with the support of the Secretary for Planning and Lands and the Secretary for Housing, proposes to upgrade part of **681CL** to Category A at an estimated cost of \$25.9 million in money-of-the-day (MOD) prices for site investigation and engagement of consultants to undertake detailed design of the site formation and infrastructural works for phase 2 development in Area 54, Tuen Mun.

PROJECT SCOPE AND NATURE

3. The scope of **681CL** comprises -
- (a) formation of about 18.8 hectares of land for housing and school development;
 - (b) construction of Roads D7, L54A and L54B, and a service road;
 - (c) construction of a vehicular underpass and three footbridges;
 - (d) associated footpaths, cycle tracks, road junction improvement works and widening of Tsing Lun Road and Tsz Tin Road;
 - (e) construction of box culverts and associated drainage works;
 - (f) construction of a sewage pumping station and associated sewers and rising mains;
 - (g) associated slope works and landscaping works;
 - (h) provision of noise mitigation measures; and
 - (i) reprovisioning of affected village houses including formation of 0.4 hectares of village resite area, associated access roads and erection of 17 small houses.

_____ A site plan showing details of the works is at Enclosure 1.

4. The part of the project we now propose to upgrade to Category A covers the following -

- (a) detailed design for the engineering works described in paragraphs 3(a) to 3(i) above;
- (b) associated site investigation works;
- (c) a land contamination assessment and a focused traffic noise impact assessment; and
- (d) preparation of tender documents and assessment of tenders.

JUSTIFICATION

5. We need to maintain a steady and sufficient supply of land for public housing development to meet housing demand in the long term. In October 1998, we completed the “Planning and development study of potential housing sites in Area 54, Tuen Mun” (P&D Study) which confirmed the feasibility of the proposed public housing development and associated government, institution or community facilities at Area 54. In accordance with the P&D Study, the first phase of residential development at Area 54¹ will accommodate 990 public housing flats with a population of 3 000 by 2007. The second phase development will accommodate 12 700 public housing flats with a population of 41 000 by 2008.

6. The Director of Housing aims to make available the public housing flats of the phase 2 development in mid 2008. The Director of Education aims to complete the construction of eight schools by March 2008 in order to meet the demands from the new residential developments. To ensure the timely supply of formed land with adequate infrastructural facilities for the housing and school development, we need to start the site formation and infrastructural works in January 2004 for completion in phases from March 2005 to June 2007. To tie in with this construction programme, we plan to start the detailed design work in October 2001 for completion in December 2003. We also plan to start the site investigation works in December 2001 for completion in August 2002.

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¹ We included **666CL** “Formation, roads and drains in Area 54, Tuen Mun - phase 1” in Category B in January 2000. In February 2000, we included an item under the block allocation Subhead 7100CX at an estimated cost of \$9.4 million in MOD prices to conduct site investigation and detailed design for phase 1 works. Infrastructural works for Phase 1 development are scheduled to commence in July 2002 for completion in January 2005.

7. As part of the design process, we need to carry out site investigation works to confirm soil properties and design parameters. Some areas in Tuen Mun Area 54 have been used as open storage areas and visible staining and apparent contamination were observed. To identify the extent of land contamination and recommend remedial measures, we will carry out a land contamination assessment in December 2001 for completion in August 2002. Besides, we also need to carry out a three-month focused traffic noise impact assessment in February 2002 to review the scope of the road noise mitigation measures to be implemented in connection with the construction and operation of the proposed Road D7.

8. Due to insufficient in-house resources, DTD proposes to engage consultants to supervise the site investigation works and to carry out the detailed design and tender preparation and assessment.

FINANCIAL IMPLICATIONS

9. We estimate the capital cost of the project to be \$25.9 million in MOD prices (see paragraph 10 below), made up as follows -

	\$million
(a) Site investigation works	6.0
(b) Consultants' fees for	16.0
(i) detailed design including land contamination assessment (estimated to cost \$1 million) and focused traffic noise impact assessment (estimated to cost \$0.5 million)	14.1
(ii) preparation of tender documents and assessment of tenders	1.3
(iii) supervision of site investigation	0.6

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(c) Contingencies	2.2	
Sub-total	24.2	(in September 2000 prices)
(d) Provision for price adjustment	1.7	
Total	25.9	(in MOD prices)

_____ A breakdown by man-months of the estimate for the consultants' fees is at Enclosure 2.

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

Year	\$ million (Sept. 2000)	Price adjustment factor	\$ million (MOD)
2001 - 2002	1.5	1.02550	1.5
2002 - 2003	14.0	1.05627	14.8
2003 - 2004	6.5	1.08795	7.1
2004 - 2005	2.2	1.12059	2.5
	24.2		25.9

11. We have derived the MOD estimate on the basis of the Government's latest forecast of trend labour and construction prices for the period from 2001 to 2005. We will award the proposed consultancy on a lump sum basis with provision for price adjustments as the consultancy period will exceed 12 months. We will tender the site investigation works under a standard remeasurement contract because the quantities of works involved may vary depending on the actual ground conditions. The contract for the site investigation works will not provide for price adjustments as the contract period will not exceed 21 months.

12. The proposed site investigation works and consultancy have no recurrent financial implications.

/PUBLIC

PUBLIC CONSULTATION

13. We consulted the Tuen Mun Rural Committee (TMRC) and the then Tuen Mun Provisional District Board (TMPDB) on the housing development proposals for Area 54 on a number of occasions since December 1998. We presented the Area 54 Master Layout Plan to the TMRC and TMPDB on 11 August 1999 and 13 August 1999 respectively. The TMPDB raised no objection to the proposed development. However, the TMRC expressed concern regarding the reduction of land zoned "Village Type Development" in the area, which would affect the availability of additional land for building small houses for the four indigenous villages nearby, namely, Kei Lun Wai, Tsz Tin Tsuen, Siu Hang Tsuen and Po Tong Ha. To address this concern, we rezoned an area of 3.4 hectares at the north of Po Tong Ha and Tsz Tin Tsuen from "Green Belt" to "Village Type Development" in December 2000. According to assessment by the Lands Department, the rezoned area will be sufficient to meet the small house demand from these four villages in the next ten years.

14. At the LegCo Education Panel meeting on 15 January 2001, the Administration undertook to explore the possibility of advancing the availability of reserved school sites as far as practicable. The schools to be constructed in Area 54, Tuen Mun will meet the education demand arising from the new population intake and help meet the shortfall of school sites in the district.

15. We circulated an information paper on this project to the LegCo Panel on Planning, Lands and Works in March 2001. The Panel had not raised any comment to the project.

ENVIRONMENTAL IMPLICATIONS

16. The proposed consultancy for detailed design and site investigation works will not cause any adverse environmental implications. Road D7 and the sewage pumping station under **681CL** are designated projects under Schedule 2 of the EIA Ordinance and environmental permits are required for the construction and operation of these projects.

17. DTD's consultants completed an EIA report in April 1999 as part of the P&D Study and the Advisory Council on the Environment endorsed the report in August 1999. In September 1999, the EIA report for the project was approved under the EIA Ordinance. The EIA report concluded that the environmental impact of the project can be controlled to within the criteria under the EIA Ordinance and the Technical Memorandum on EIA Process. We will incorporate into the detailed design and works contract all the mitigation measures

/recommended

recommended in the EIA report. The key measures identified in the EIA report for implementation under the phase 2 development include provision of semi-enclosures and 1-metre to 5-metre road-side barriers for the mitigation of traffic noise impacts, planting of 0.8 hectares of trees along the road side, and other mitigation measures to minimize construction impacts.

18. We estimate that about 10 cubic metres of construction and demolition (C&D) materials will be generated from the proposed site investigation works. All C&D materials will be reused as fill in public filling areas². We will require the consultants to fully consider measures to minimize the generation of C&D materials and to reuse or recycle C&D materials as much as possible in the future implementation of the construction works.

LAND ACQUISITION

19. The proposed site investigation works and consultancy do not require any land acquisition.

BACKGROUND INFORMATION

20. We included **681CL** in Category B in December 2000.

21. We plan to start the proposed detailed design work of the phase 2 development of Area 54 in October 2001 for completion in December 2003, and the associated site investigation works in December 2001 for completion in August 2002. We intend to commence the construction works of phase 2 in January 2004 for completion in phases in June 2007.

22. We estimate that the proposed site investigation and detailed design works will create some 30 jobs comprising 18 professional/technical staff, and 12 labourers, totalling 330 man-months.

Planning and Lands Bureau
April 2001

² A public filling area is a designated part of a development project that accepts public fill for reclamation purposes. Disposal of public fill in a public filling area requires a licence issued by the Director of Civil Engineering.



備註 Notes:

圖例 Legend

- 邊境工程範圍 LIMIT OF PHASE 1 WORKS
- 邊境工程範圍 LIMIT OF PHASE 2 WORKS
- 路口改善工程 JUNCTION IMPROVEMENT WORKS
- 行人天橋 FOOTBRIDGE
- 排水渠 DRAINAGE CHANNEL
- 邊形溝渠 BOX CULVERT
- 污水渠 RISING MAIN
- 污水抽水站 SEWAGE PUMPING STATION
- Ⓜ 政府、機構及社區用地 GOVERNMENT INSTITUTION & COMMUNITY SITE
- Ⓝ 學校用地 SCHOOL SITE
- G/C 政府、機構及社區用地 GOVERNMENT INSTITUTION & COMMUNITY SITE
- RIA 公共房屋用地 PUBLIC HOUSING SITE
- V 現有村落 EXISTING VILLAGE
- VEA 鄉村擴展區 VILLAGE EXTENSION AREA
- VR 鄉村保留區 VILLAGE RESERVE AREA

編號 no.	日期 date	描述 description	設計 drafter
修訂 REVISION			
姓名 name	簽署 initial	日期 date	
繪圖 drawn	Y.F. WONG	SIGNED	12.01.01
校對 checked	S.M.L.M.	SIGNED	13.01.01
核准 approved			
SIGNED		13.01.01	
总工程师 CIVIL engineer		日期 date	
工程編號 project no.	661 CL		
繪圖編號 file no.	-		
合約編號 contract no.	-		
合約 contract			
圖則名稱 drawing title			
屯門第54區的土庫、道路及渠務工程 FORMATION, ROADS AND DRAINS IN AREA 54 TUEN MUN - PHASE 2			
圖則編號 drawing no.		比例 scale	
NTW 1348		1:10 000	
辦事處 office			
新界西拓展處 NEW TERRITORIES WEST DEVELOPMENT OFFICE			
拓展署 TERRITORY DEVELOPMENT DEPARTMENT			

二〇〇一年至二〇〇二年度工務小組委員會文件 PWSC SUBMISSION 2001 - 2002

Enclosure 2 to PWSC(2001-02)11

681CL – Formation, roads and drains in Area 54, Tuen Mun – phase 2

Breakdown of the estimate for consultants' fees

Consultants' staff costs			Estimated man- months	Average MPS* salary point	Multiplier factor	Estimated Fees (\$ million)
(a)	Detailed design including land contamination assessment and focused traffic noise impact assessment	Professional	66.0	38	2.4	9.1
		Technical	110.0	14	2.4	5.0
(b)	Preparation of tender documents and assessment of tenders	Professional	5.5	38	2.4	0.8
		Technical	11.0	14	2.4	0.5
(c)	Supervision of site investigation	Professional	3.0	38	1.7	0.3
		Technical	9.0	14	1.7	0.3
Total consultants' staff costs						16.0

* MPS = Master Pay Scale

Notes

1. A multiplier factor of 2.4 is applied to the average MPS point to arrive at the full staff costs including the consultants' overheads and profit, as the staff will be employed in the consultants' offices. A multiplier factor of 1.7 is applied to the average MPS point in the case of resident site staff supplied by the consultants. (At 1.4.2000, MPS pt. 38 = \$57,525 p.m. and MPS pt. 14 = \$19,055 p.m.)
2. The figures given above are based on estimates prepared by the Director of Territory Development. We will only know the actual man-months and fees when we have selected the consultants through the usual competitive lump sum fee bid system.