

ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 707 - NEW TOWNS AND URBAN AREA DEVELOPMENT

New Territories East Development

Civil Engineering – Land development

324CL - Tseung Kwan O development, phase 3 - remaining engineering works

Members are invited to recommend to Finance Committee the upgrading of the remaining part of **324CL**, entitled “Tseung Kwan O development, phase 3 – remaining reclamation in the town centre extension, stage 2 and associated main drainage works”, to Category A at an estimated cost of \$544.3 million in money-of-the-day prices.

PROBLEM

We need to provide land for housing developments as well as roads, open space and government/institution/community (G/IC) facilities to support development in the Tseung Kwan O (TKO) town centre extension.

PROPOSAL

2. The Director of Territory Development (DTD), with the support of the Secretary for Planning and Lands, proposes to upgrade the remaining part of **324CL** to Category A at an estimated cost of \$544.3 million in money-of-the-day (MOD) prices for carrying out the remaining reclamation in the TKO town centre extension and the associated main drainage works.

/PROJECT

PROJECT SCOPE AND NATURE

3. The scope of the proposed project comprises -
- (a) reclamation of 20 hectares of seabed;
 - (b) construction of a 90-metre sloping seawall;
 - (c) construction of a 430-metre single cell box culvert, a 400-metre 7-cell box culvert, and a 140-metre 8-cell box culvert;
 - (d) construction of a pump house; and
 - (e) environmental mitigation measures and an environmental monitoring and audit programme.

A site plan is at Enclosure 1.

JUSTIFICATION

4. We have completed most of the reclamation of the TKO Town Centre extension. The remaining reclamation to be completed under this project will provide 20 hectares of land in Areas 67, 68 and 72 for housing development, essential supporting engineering infrastructure, open space and G/IC facilities. Planned developments in Area 67 include three schools, two residential developments, open space, roads and drains. One of the roads will serve a proposed private sector participation scheme (PSPS) housing site on part of Area 67 that is already reclaimed. This PSPS site, to accommodate about 3 600 flats with a population of 11 500 by 2007 can only be tendered for development after the remainder of Area 67 is reclaimed. TKO Area 67 (south) is planned for a private development of 3 190 flats with a population of 7 200 by 2008. Area 68 is to be developed as part of a waterfront promenade.

5. Developments in Area 72 are planned to include 2 schools, a clinic, a police station, a fire station, an ambulance depot, an indoor recreation centre, a refuse collection point, a lorry park and associated roads and services. The schools and clinic are to serve the adjacent housing development in Tiu Keng Leng area while the other facilities will serve the entire new town. Upon full development, the Tiu Keng Leng area will accommodate about 28 230 flats with a population of about 81 900. In accordance with the Public Housing Development Programme, the development at Tiu Keng Leng will take in population from 2000 to 2007. We need to reclaim Area 72 immediately so that the essential schools /and

and other facilities can be built to match the population growth of Tiu Keng Leng and the development of the new town as a whole.

6. In association with the proposed reclamation works, we need to extend the existing main box culvert to discharge storm water from the hinterland to the sea. As part of the proposed box culvert will be submerged under water, we need to construct a pump house to facilitate future desilting operations.

7. It is the Government's policy to maximise the use of public fill in land formation and reclamation so as to minimise the disposal of inert construction and demolition (C&D) material¹ at the landfills. We propose to make use of the TKO town centre extension as a public filling area², to provide about 2.2 million cubic metres of public filling capacity.

FINANCIAL IMPLICATIONS

8. We estimate the capital cost of the project to be \$544.3 million in MOD prices (see paragraph 9 below), made up as follows -

	\$ million
(a) Reclamation	68.5
(b) Seawall	10.0
(c) Box culverts	285.0
(d) Pump house and associated maintenance facilities for box culverts	28.0
(e) Environmental monitoring and audit	3.0
	/(f)

¹ The inert portion of C&D material (also referred to as public fill) comprises earth, broken rock, concrete and building debris (e.g. bricks and plaster) which does not decompose or cause any bad odour. Using public fill for reclamation not only helps conserve natural resources, but also conserves valuable landfill space designed for disposing of municipal solid waste.

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

		\$ million	
(f)	Environmental mitigation measures	1.0	
(g)	Consultants' fees for	40.0	
	(i) construction stage	5.0	
	(ii) resident site staff costs	35.0	
(h)	Contingencies	43.5	
	Sub-total	479.0	(at December 1998 prices)
(i)	Provision for price adjustment	65.3	
	Total	544.3	(in MOD prices)

Owing to insufficient in-house resources, DTD proposes to employ consultants to carry out the construction supervision. A breakdown by man months of the estimate for the consultants' fees is at Enclosure 2.

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

Year	\$ million (Dec 1998)	Price adjustment factor	\$ million (MOD)
2000 – 2001	83.4	1.05814	88.2
2001 – 2002	199.5	1.11104	221.7
2002 – 2003	131.7	1.16660	153.6
2003 – 2004	32.2	1.22493	39.4
2004 - 2005	32.2	1.28617	41.4
	479.0		544.3

10. 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 2000 to 2005. We will tender the proposed works under a standard remeasurement contract because the quantities of dredging and filling may vary according to the actual ground conditions. The contract will provide for price adjustments because the contract period will exceed 21 months.

11. We estimate the annually recurrent expenditure to be \$1.007 million.

PUBLIC CONSULTATION

12. We consulted the Sai Kung Provisional District Board in April 1998 on the draft TKO Outline Zoning Plan (OZP) which encompasses the works under **324CL**. Members supported the proposed works.

13. We gazetted the OZP in May 1998 and received no objection related to the proposed works. The Chief Executive in Council (CE in C) approved the OZP on 9 February 1999.

14. We gazetted the proposed reclamation works under the Foreshore and Seabed (Reclamations) Ordinance on 1 August 1997. We received one objection from the property developer of Tseung Kwan O Town Lot 55 on the impact of the reclamation on his property development. Upon clarifications on the scope of the reclamation, the objector withdrew the objection. The CE in C authorised the reclamation works without modification on 6 February 1998.

15. The Planning, Lands and Works Panel was consulted on 9 December 1999. Members supported the proposed works.

ENVIRONMENTAL IMPLICATIONS

16. The proposed stage 2 of the remaining reclamation in the town centre extension forms an integral part of the overall TKO New Town reclamation, the environmental impacts of which have been addressed in an Environmental Impact Assessment study completed in May 1990 as part of the TKO Feasibility Study of Opportunities for Further Development. The Director of Environmental Protection also completed an Environmental Review in February 1997 which reaffirmed that the proposed works would not have long-term adverse

/environmental

environmental impacts and standard pollution control measures³ would be sufficient to mitigate the short-term construction impacts. We have included the cost of these mitigation measures and environmental monitoring and audit in the project estimate and will incorporate these requirements into the contract for implementation.

17. We have considered in the planning and design stages for the reclamation works ways of minimizing the generation of C&D material and maximizing the use of public fill generated from other projects. About 2.2 million cubic metres of public fill will be used in the reclamation and about 200 cubic metres of decomposable C&D waste will be disposed of at landfills. The contractor will be required to submit, under the contract a waste management plan setting out waste avoidance and reduction measures including the allocation of an area for waste segregation on site to facilitate use/recycling of C&D material. The Engineer for the contract will ensure that the day-to-day operations on site comply with the waste management plan. We shall also encourage the contractor to use steel instead of timber in formwork and temporary works to further minimize the generation of C&D material. A trip-ticket system will be implemented to record and monitor the disposal, use and recycling of C&D material produced.

LAND ACQUISITION

18. The proposed works do not require any land acquisition.

BACKGROUND INFORMATION

19. In December 1991, we upgraded **324CL** to Category B for the engineering works of TKO development phase 3. The original scope of **324CL** comprised of –

- (a) site formation works, roads and drains at Pak Shing Kok;
- (b) town centre extension – reclamation and main drainage extension;
- (c) provision of a finger pier and a breakwater;

/(d)

³ The standard pollution control measures include wheel washing facilities, silt curtain and refuse containment boom and other procedures as recommended in Environmental Protection Department's Recommended Pollution Control Clauses.

- (d) town centre extension - roads, drains, sewers, ferry and public piers, and landscaping;
- (e) construction of Road P2 from Road D1 to Western Coast Road;
- (f) construction of the Western Coast Road;
- (g) construction of a cross-bay bridge and a flyover at the P2/D9 road junction;
- (h) dualling of Hang Hau Road;
- (i) provision of a flyover at Road P2/D1 roundabout;
- (j) provision of a flyover at Road P2/D4 junction;
- (k) construction of superstructure of a flyover at Road P2/D8 junction;
- (l) connection of Road D6 from Road P1 to Road D3; and
- (m) extension of Road D6 to Area 137.

A location plan of the above works related to **324CL** is at Enclosure 3.

20. Since 1991, we have revised the layout plan for Tseung Kwan O New Town to accommodate a higher population intake. To facilitate the implementation of the revised layout plan, we have decided to take forward the works covered in paragraphs 19(a), 19(c) to 19(j), part of 19(k), and 19(l) above as separate public works programme items. Thus, the revised scope of **324CL** covers only paragraphs 19(b), remaining part of 19(k), and 19(m) above.

21. Finance Committee has already approved the upgrading to Category A of most of the works under the revised scope of **324CL**, as detailed below -

Upgrade to Cat. A		Project	Start date	Completion date
June 1993	413CL	TKO development, phase 3, reclamation (part) of the town centre extension (part of the works described in paragraph 19(b) above)	June 1994	March 1999

/July

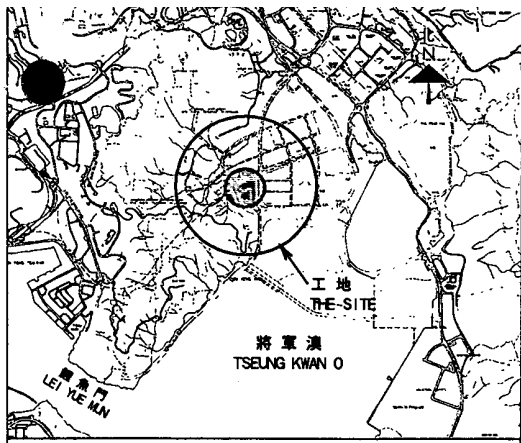
Upgrade to Cat. A	Project	Start date	Completion date
July 1995	456CL TKO development, engineering infrastructure at Town Centre North (part of the works described in paragraph 19(k) above)	Dec 1995	Nov 1999
July 1996	474CL TKO development, phase 3, remaining reclamation in the town centre extension, stage 1 (part of the works described in paragraph 19(b) above)	Dec 1996	Dec 1999
Nov 1996	698TH TKO development, phase 3 - extension of Road D6 to area 137 (works described in paragraph 19(m) above)	Aug 1997	Oct 1999
June 1997	481CL TKO development, phase 3 - remaining reclamation in the town centre extension, stage 2 : site investigation and consultants' fees (part of the works described in paragraph 19(b) above)	July 1997	Feb 2000

The remaining reclamation and main drainage works which we now propose to upgrade to Category A are the only outstanding works under the revised project **324CL**.

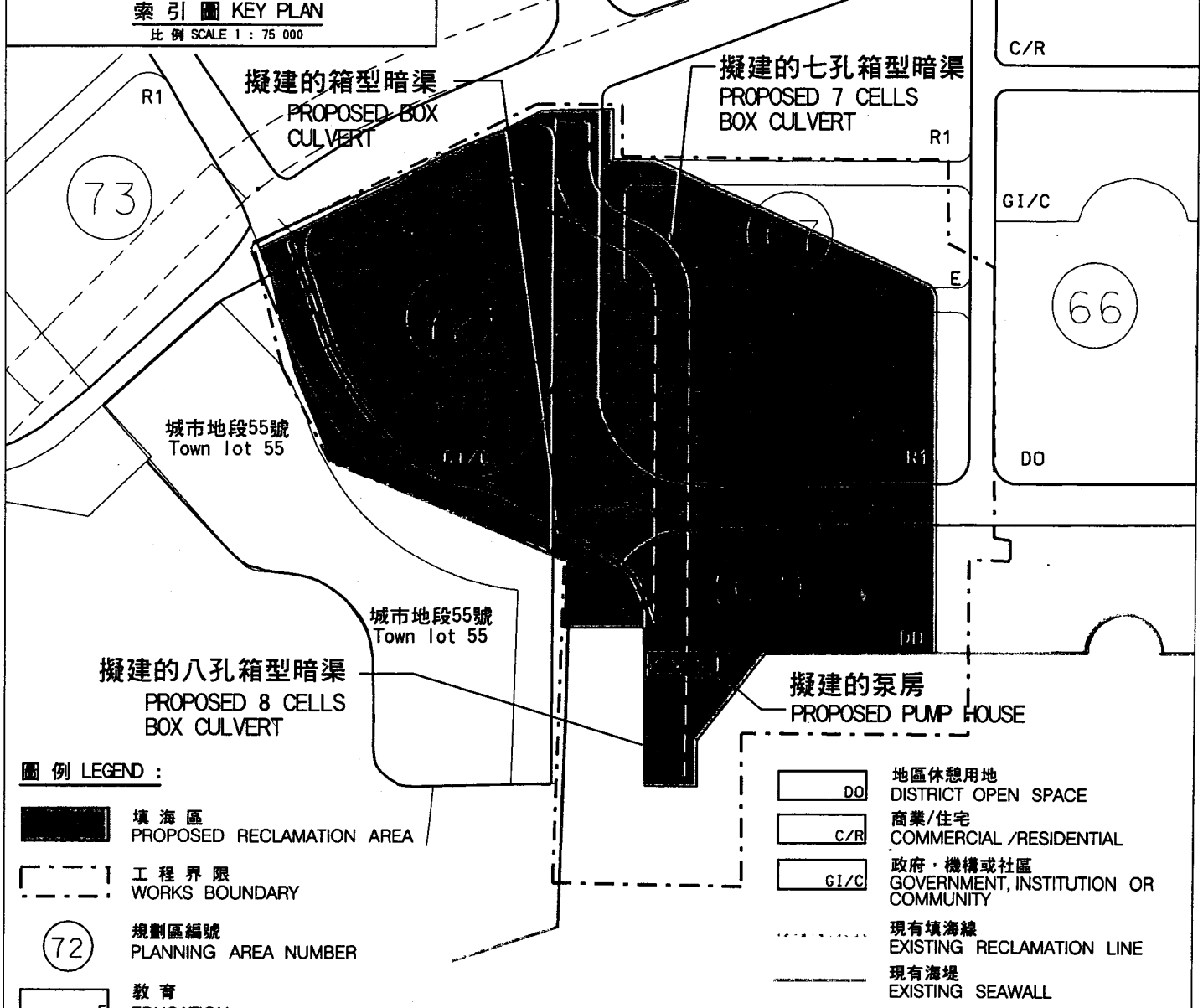
22. We employed consultants to carry out the site investigation and detailed design of the proposed works under **481CL** above in July 1997. The consultants have completed the detailed design and drawings. We plan to start the proposed works in March 2000 for completion in February 2003.

 Planning and Lands Bureau
 December 1999

(PWSC0208/WIN8)



索引圖 KEY PLAN
比例 SCALE 1 : 75 000



圖例 LEGEND :

- 填海區 PROPOSED RECLAMATION AREA
- 工程界限 WORKS BOUNDARY
- 規劃區編號 PLANNING AREA NUMBER
- 教育 EDUCATION
- 商業 COMMERCIAL
- 住宅發展密度第1區 RESIDENTIAL - ZONE 1

- 地區休憩用地 DISTRICT OPEN SPACE
- 商業/住宅 COMMERCIAL /RESIDENTIAL
- 政府、機構或社區 GOVERNMENT, INSTITUTION OR COMMUNITY
- 現有填海線 EXISTING RECLAMATION LINE
- 現有海堤 EXISTING SEAWALL

B	1.12.99	加入現有海堤 EXISTING SEAWALL ADDED	<i>SWF</i>	<i>LC</i>
A	26.11.99	加入城市地段55號及現有填海線 TOWN LOT 55 AND EXISTING RECLAMATION LINE ADDED	<i>SWF</i>	<i>LC</i>
編號 no.	日期 date	內容摘要 description	核對 checked	核准 approved
修訂 REVISION				

一九九九年至二〇〇〇年度工務小組委員會文件 P.W.S.C. SUBMISSION 1999 - 2000				項目編號 Item No. 324CL/B	
圖則名稱 drawing title		繪圖 drawn	簽署 initial	日期 date	比例 scale
將軍澳發展計劃 第3期餘下工程 TSEUNG KWAN O DEVELOPMENT, PHASE 3 - REMAINING ENGINEERING WORKS		M K LEE	<i>MKL</i>	22.9.99	1 : 5 000
		核對 checked	簽署 initial	日期 date	
		S W FUNG	<i>SWF</i>	24.9.99	圖則編號 drawing no.
		核准 approved	簽署 initial	日期 date	TK2267B
		K C LEUNG	<i>KCL</i>	24.9.99	
				辦事處 office 新界東拓展處 NT EAST DEVELOPMENT OFFICE	
				拓展署 TERRITORY DEVELOPMENT DEPARTMENT	

**324CL - Tseung Kwan O development, phase 3 -
remaining engineering works**

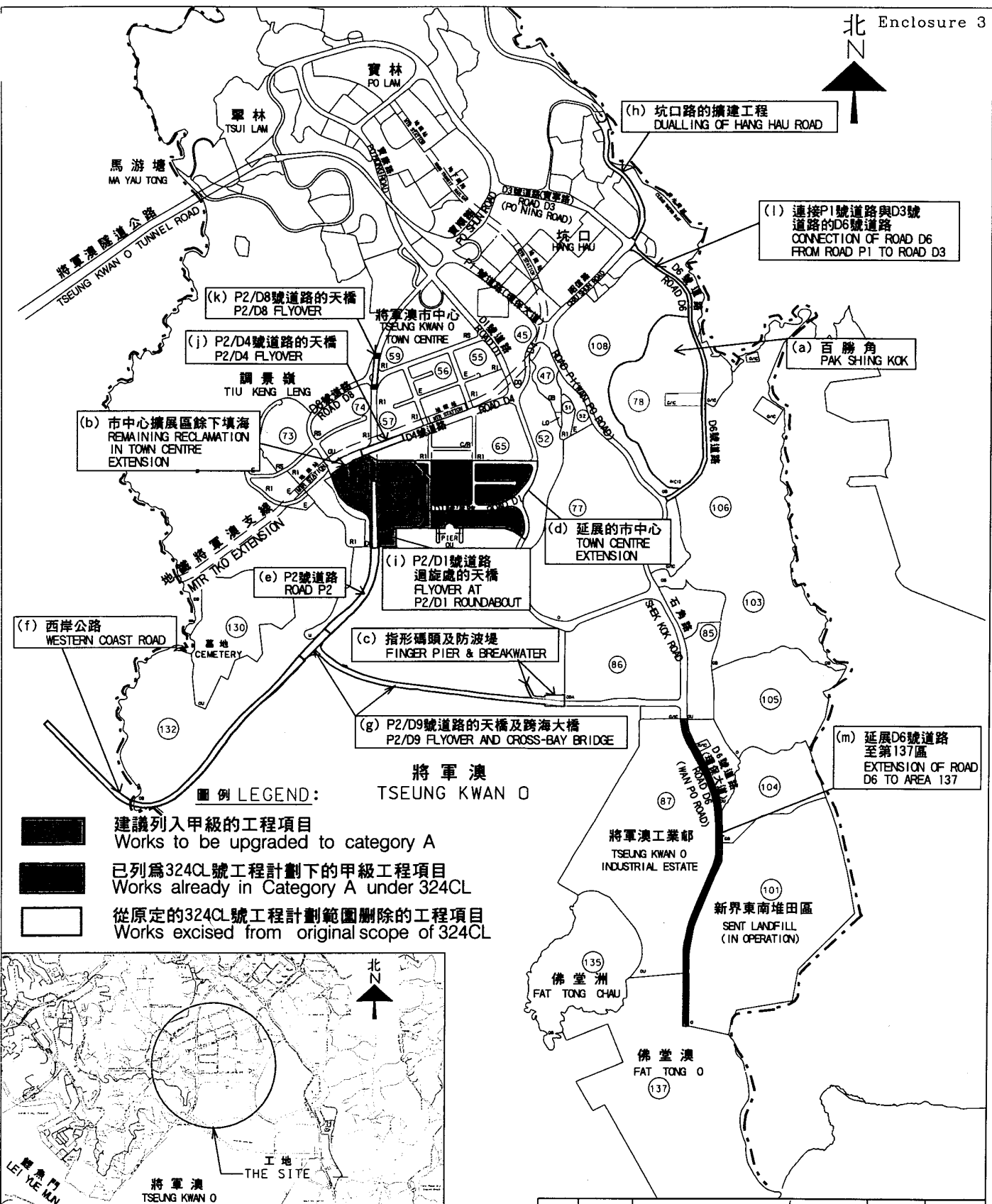
Breakdown of estimate for consultants' fees

Consultants' staff costs			Estimated man months	Average MPS* salary point	Multiplier factor	Estimated fees (\$ million)
(a) Consultants' fees for construction stage						
(i) contract administration	Professional		22	40	2.4	3.3
	Technical		14	16	2.4	0.7
(ii) preparation of as-built drawings	Professional		2	40	2.4	0.3
	Technical		14	16	2.4	0.7
(b) Resident site staff costs	Professional		140	40	1.7	14.9
	Technical		562	16	1.7	20.1
Total consultants' staff costs						40.0

* MPS = Master Pay Scale

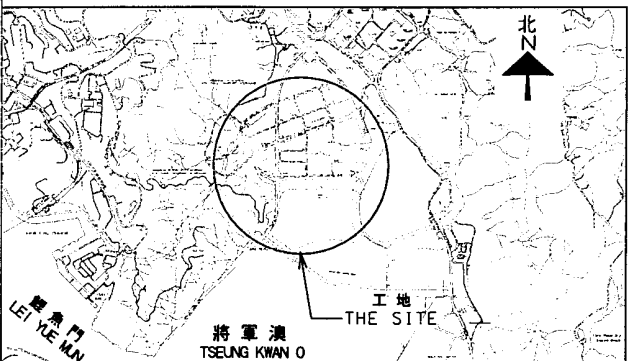
Notes

1. A multiplier factor of 2.4 is applied to the average MPS point to arrive at the full staff costs including the consultants' overhead and profit, as the staff will be employed in the consultants. 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 1.4.98, MPS pt. 40 = \$62,780 p.m. and MPS pt. 16 = \$21,010 p.m.)
2. The figures given above are based on estimates prepared by the Director of Territory Development. The consultancy works for this project have been included as part of the overall consultancy agreement for the Tseung Kwan O development.



圖例 LEGEND:

- 建議列入甲級的工程項目
Works to be upgraded to category A
- 已列為324CL號工程計劃下的甲級工程項目
Works already in Category A under 324CL
- 從原定的324CL號工程計劃範圍刪除的工程項目
Works excised from original scope of 324CL



索引圖 KEY PLAN
比例 SCALE 1 : 75 000

A	30.12.99	圖例修正 LEGEND AMENDED	<i>Y</i>	<i>W</i>
編號 no.	日期 date	內容摘要 description	核對 checked	核准 approved
修訂 REVISION				

一九九九年至二〇〇〇年度工務小組委員會文件 P. W. S. C. SUBMISSION 1999-2000				項目編號 ITEM No. 324CL/B	
圖則名稱 drawing title		繪圖 drawn	簽署 initial	日期 date	比例 scale
將軍澳發展計劃 第3期餘下工程 TSEUNG KWAN O DEVELOPMENT, PHASE 3 - REMAINING ENGINEERING WORKS		M K LEE	<i>MKL</i>	6.11.99	1:30 000
		核對 checked	簽署 initial	日期 date	
		S W FUNG	<i>SWF</i>	8.11.99	圖則編號 drawing no.
		核准 approved	簽署 initial	日期 date	1:30 000
		K C LEUNG	<i>KCL</i>	8.11.99	TK2269A
				辦事處 office 新界東拓展處 NT EAST DEVELOPMENT OFFICE	
				拓展署 TERRITORY DEVELOPMENT DEPARTMENT	