

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

**HEAD 707 - NEW TOWNS AND URBAN AREA DEVELOPMENT**  
**Hong Kong Island and Islands Development**  
**Civil Engineering - Land development**  
**343CL – Central and Wan Chai reclamation - engineering works**  
**(remainder)**

Members are invited to recommend to Finance  
Committee –

- (a) the upgrading of part of **343CL**, entitled “Central reclamation phase III – consultants’ fees and site investigation”, to Category A at an estimated cost of \$35.7 million in money-of-the-day prices; and
- (b) the retention of the remainder of **343CL** in Category B, re-titled “Central reclamation phase III - engineering works”.

### **PROBLEM**

We need to implement the proposed Central reclamation phase III (CRIII) to provide land for the construction of the much needed Central-Wan Chai Bypass (CWB) and other infrastructural facilities. Before we proceed with construction, we need to carry out site investigation and detailed design works.

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## PROPOSAL

2. The Director of Territory Development (DTD), with the support of the Secretary for Planning and Lands and Secretary for Transport, proposes to upgrade part of **343CL** to Category A at an estimated cost of \$35.7 million in money-of-the-day (MOD) prices for site investigation and the engagement of consultants to carry out detailed design for CRIII.

## PROJECT SCOPE AND NATURE

3. The scope of **343CL** comprises –

- (a) reclamation of about 18 hectares (ha) of the seabed in front of the Star Ferry Pier from Central reclamation phase I to Lung King Street including construction of vertical and sloping seawalls;
- (b) construction of roads, public transport interchanges and associated services, stormwater culverts, drains and sewers;
- (c) construction of cooling water pumping systems for future developments and re-provisioning of the existing cooling water pumping systems;
- (d) re-provisioning of piers and public landing steps;
- (e) re-provisioning of the Government heliport and associated works;
- (f) hinterland drainage improvement works directly resulting from the reclamation;
- (g) landscaping works at roadside amenity area; and
- (h) implementation of an environmental monitoring and audit (EM&A) programme for works mentioned in paragraphs (a) to (g) above.

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

/(a) .....

- (a) site investigation works;
- (b) detailed design for the engineering works described in paragraphs 3(a) to 3(g) above;
- (c) preparation of tender documents and assessment of tenders for the engineering works described in paragraphs 3(a) to 3(g) above; and
- (d) EM&A programme at detailed design stage.

The approved Central District (Extension) Outline Zoning Plan (OZP) which covers the CRIII and the site plan is at Enclosure 1 and 2 respectively.

## JUSTIFICATION

5. We need to implement the proposed CRIII to provide the necessary land for the construction of the following transport infrastructure -

- (a) Central–Wan Chai Bypass (CWB);
- (b) Airport Railway extended overrun tunnel (AREOT);
- (c) North Hong Kong Island Line (NHKIL); and
- (d) Other supporting roads network.

6. The CWB is a strategic road linking the Rumsey Street Flyover with the Island Eastern Corridor that will form a parallel and complementary route to relieve the traffic burden of the existing Connaught Road Central/Harcourt Road/Gloucester Road of the Hong Kong Island. At present, traffic congestion regularly occurs along the north shore corridor during peak hours, with the volume to capacity (v/c) ratio<sup>1</sup> at Gloucester Road/Harcourt Road at about 1.1. We predict that without the CWB, the v/c ratio on the most critical section of Gloucester Road during the peak hours would exceed 1.4 in 2011. With the

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<sup>1</sup> The v/c ratio is a performance indicator for a road link. A v/c ratio equals to or less than 1.0 means that the road has sufficient capacity to cope with the volume of vehicular traffic under consideration and the resultant traffic will flow smoothly. A v/c ratio above 1.0 indicates the onset of mild congestion; above 1.2 indicates more serious congestion with traffic speeds progressively deteriorating with further increase in traffic.

completion of CWB, the v/c ratio could be reduced to 0.9 and the traffic congestion could be relieved. To avoid future grid-lock, we need to construct the CWB as soon as possible.

7. CRIII will also provide land for the construction of the AREOT. At present, both the MTRC Tung Chung Line (TCL) and Airport Express Line (AEL) are running on seven-car trains. There is also a short overrun tunnel of about 50 metres in length at Hong Kong Station to provide a buffer for train to stop in case a train overruns the platform. This existing overrun tunnel can only suit the operation of seven-car trains at frequency service of five minutes for TCL and 10 minutes for AEL. Since the projected patronage indicates that the TCL and AEL should run on eight-car and 10-car trains respectively in 2008, we need to extend the existing overrun tunnel by about 450 metres in 2008 in order to accommodate trains of full length as well as to allow turn back of trains. Upon the completion of AREOT, the Hong Kong Station could be put into full operation with frequency service of 2.25 minutes for TCL and 4.5 minutes for AEL.

8. According to the findings of the Second Railway Development Study, the NHKIL is required to relieve the MTRC Island Line, and also to relieve the MTRC Tsuen Wan Line Nathan Road corridor by providing alternative direct link for travellers from North West New Territories and Tseung Kwan O areas to Hong Kong Island. As this rail line is proposed to run along the northern coast of Hong Kong Island, we have to provide land for NHKIL to link up with the Hong Kong Station. In addition, it will interface with a number of culvert extensions and roads. We have to investigate the details of advance works for NHKIL in the course of the detailed design for CRIII in order to minimize abortive works in future.

9. Moreover, the new roads on CRIII will link up and enhance the existing road network in Central and Wan Chai as shown on the CRIII road layout at Enclosure 2. Before the completion of the CRIII, traffic generated from the completed Central reclamation phase I (CRI) and Central reclamation phase II (CRII) has to route through the existing already congested roads and junctions in Central. The existing reserve capacity<sup>2</sup> at the junction of Harcourt Road and Cotton Tree Drive is -11%. The road network in Central will be seriously overloaded when all the major developments on CRI are completed by 2006. The

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<sup>2</sup> The reserve capacity is a performance indicator for a signalised road junction. A reserve capacity equals to or greater than 0 means that the road junction has sufficient capacity to cope with the volume of vehicular traffic under consideration and the resultant traffic will flow smoothly. A reserve capacity below 0 indicates that the junction is overloaded, thus resulting in traffic queues and longer delay time.

junctions along Man Yiu Street on CRI and Connaught Road Central will be operating over their capacities. Traffic gridlock situations will likely occur if there is any traffic accident or incident such as vehicle breakdown or loss of critical road space due to road works. To alleviate the congestion arising from developments on CRI and CRII, we need to complete the surface roads on CRIII by 2006 to divert traffic away from those critical junctions so that the reserve capacity at the junction of Harcourt Road and Cotton Tree Drive could be improved.

10. To meet the target of completing the AREOT in 2008, CRIII surface roads in 2006 and facilitate the earlier commencement of the construction of CWB, we need to start the construction of the engineering works for CRIII mentioned in paragraph 3 above in May 2002 for completion in 2006. In this regard, the proposed site investigation, detailed design and preparation of tender documents should start in May 2000 for completion in April 2002.

11. Due to insufficient in-house resources, DTD proposes to engage consultants to supervise the site investigation works, to formulate an EM&A programme and to carry out detailed design, preparation of tender documents and assessment of tenders.

## FINANCIAL IMPLICATIONS

12. We estimate the cost of the site investigation and detailed design for the project to be \$35.7 million in MOD prices (see paragraph 13 below), made up as follows –

	<b>\$ million</b>
(a) Site investigation works	3.5
(b) Consultants' fees	27.4
(i) detailed design	22.6
(ii) preparation of tender documents and assessment of tenders	4.0
(iii) EM&A programme	0.5

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(iv)	Supervision of site investigation	0.3	
(c)	Contingencies	3.1	
	Sub-total	34.0	(in December 1999 prices)
(d)	Provision for price adjustment	1.7	
	Total	35.7	(in MOD prices)

A breakdown by man months of the estimate for consultants' fees is at Enclosure 3.

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

Year	\$ million (Dec 1999)	Price adjustment factor	\$ million (MOD)
2000 – 2001	5.1	1.00000	5.1
2001 – 2002	22.4	1.04500	23.4
2002 – 2003	6.5	1.10770	7.2
	<u>34.0</u>		<u>35.7</u>

14. We have derived the MOD estimate on the basis of the Government's latest forecast of trend labour and construction prices for the period between 2000 and 2003. We will award the consultancy for the proposed design works on a lump-sum basis with provision for inflation 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 actual ground conditions. This contract will not provide for price adjustments as the contract period will not exceed 21 months.

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

## **PUBLIC CONSULTATION**

16. We exhibited the draft Central District (Extension) OZP for public inspection under the Town Planning Ordinance on 29 May 1998. During the two-month exhibition period, a total of 70 objections had been received. Most of these objections were against the scale of the proposed reclamation. After giving consideration to the objection, the Town Planning Board (TPB) agreed to reconsider the reclamation proposal and requested the Government to undertake a study to determine the minimum practicable reclamation option.

17. Taking into account the public views and the Administration's minimum reclamation proposal, the TPB decided to propose amendments to the draft OZP to meet the objections by reducing the extent of the proposed reclamation and to revise the land use zonings and layout of the area. The LegCo Planning, Lands and Works (PLW) Panel was consulted on 10 June 1999 and Members warmly received the revised proposal. We exhibited the amended draft OZP covering the CRIII minimum option for public inspection on 16 July 1999. Three further objections were received but two of them were subsequently withdrawn. The remaining one was mainly concerned with the proposed relocation of the Star Ferry Pier. TPB recognised the historical significance and importance of the Star Ferry icon as one of the landmarks and major tourist attractions in the territory and agreed that its identity should be recreated in the new Central waterfront. The exact location and design would be subject to further investigation. The Chief Executive in Council approved the amended draft OZP on 22 February 2000.

18. We circulated an information note on the proposed works to the Members of PLW Panel on 29 March 2000.

## **ENVIRONMENTAL IMPLICATIONS**

19. CRIII is a designated project under the Environmental Impact Assessment (EIA) Ordinance and an environmental permit is required for the construction and operation of the works.

20. We are carrying out an EIA study for CRIII and will submit the EIA report under the EIA Ordinance for approval. The proposed site investigation works and consultancy services will have no environmental impacts.

21. The proposed site investigation works and consultancy services will generate only a very small quantity of construction and demolition material (C&DM). We will plan and design the works to minimise the generation of C&DM during construction and to reuse/recycle C&DM as much as possible.

## LAND ACQUISITION

22. The proposed site investigation and consultancy services do not require any land acquisition.

## BACKGROUND INFORMATION

23. We upgraded **343CL** to Category B in 1990 for the engineering works for Central and Wan Chai reclamation covering Central reclamation phases I, II & III, Wan Chai reclamation phase I and Wan Chai development phase II (WDII).

24. Finance Committee has already approved the upgrading to Category A of most of the works under **343CL**, as detailed below-

	<b>Upgrade to Cat. A</b>	<b>Project</b>
June 1990	<b>2353CL</b>	Central and Wan Chai reclamation, package I, phase I (now called Central reclamation phase I) – consultants' fees and site investigation
December 1990	<b>7170GG</b>	Reprovisioning of Tamar naval facilities to Stonecutters Island, phase I
July 1993	<b>2386CL</b>	Central reclamation phase I – engineering works
July 1994	<b>7444CL</b>	Central reclamation, phase II (Tamar basin reclamation)



25. Wan Chai reclamation phase I was funded by an item “Capital Subvention to the Hong Kong Trade Development Council for constructing an extension to the Hong Kong Convention and Exhibition Centre” under **Head 708** approved by Finance Committee in February 1994.

26. As we had not completed a preliminary project feasibility study (PPFS) for WDII to establish its feasibility, we retained only the engineering works for CRIII under **343CL** in Category B in July 1994. A separate public works programme item for WDII will be made upon completion of the PPFS.

27. We engaged consultants in February 1995 to undertake the study review, site investigation, design and construction services for the proposed CRIII works under Consultancy Agreement No. CE15/94. The site investigation and design for the original configuration were completed in 1997 at a cost of \$17.4 million and \$20.2 million respectively. In view of the large amount of objections to the excessive scale of the proposed reclamation in the OZP (see paragraph 16 above), we conducted a review study under Consultancy Agreement No. CE15/94 in July 1998 to determine the minimum practicable reclamation option. The review recommended a minimum option to reduce the reclamation scale from 32 ha to about 18 ha in November 1998.

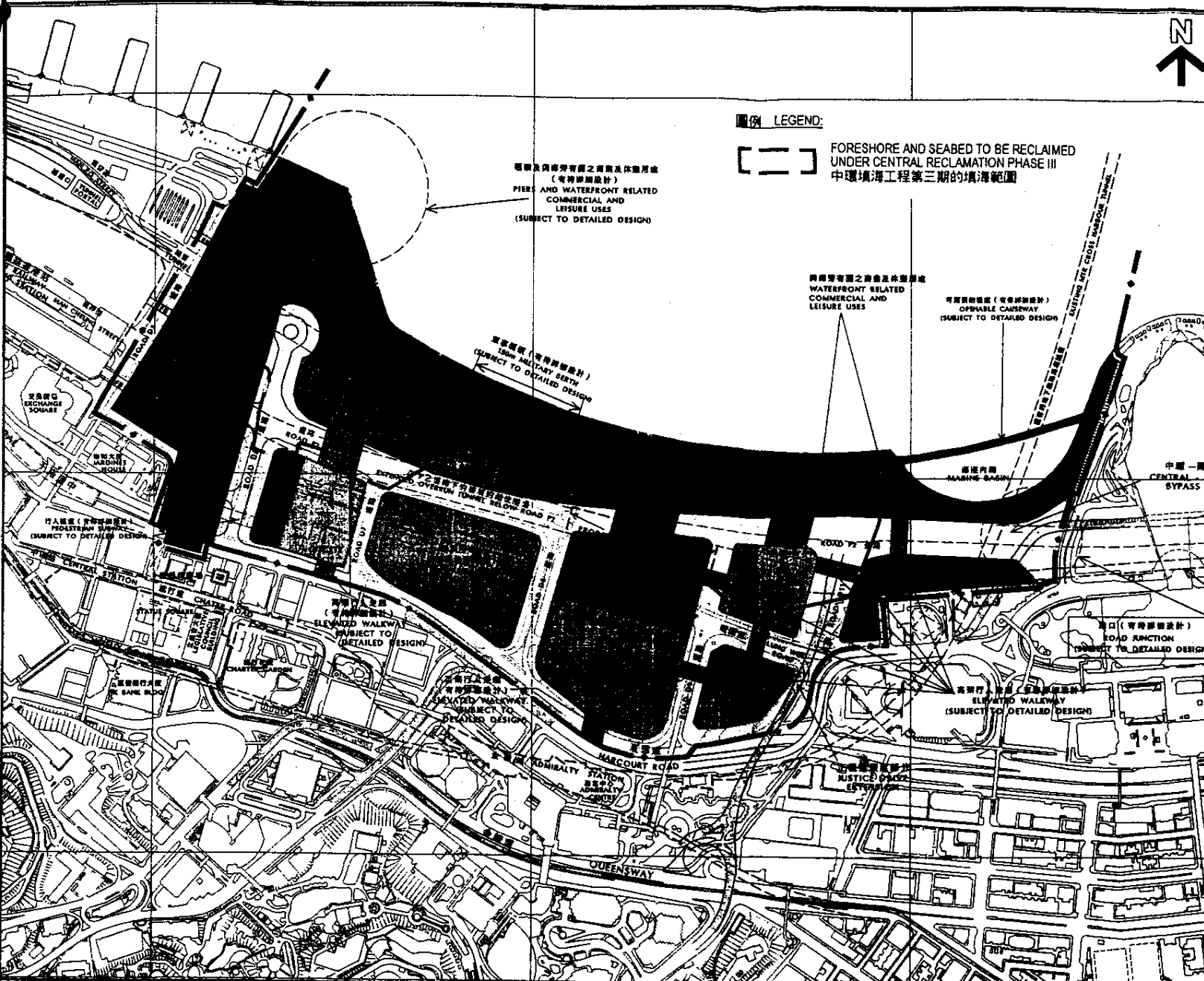
28. In January 1999, we commenced a comprehensive feasibility study to establish the engineering feasibility and to determine the land use for the CRIII minimum option under Consultancy Agreement No. CE15/94. We substantially completed the study in January 2000 and the EIA report is being finalised. Although the reclamation configuration of CRIII together with the infrastructure thereon have changed significantly, all the previous site investigation information and about 1/4 of the design are still applicable. However, we need to get additional site investigation information for the realigned seawall and revise the detailed design to meet the changes. We plan to start the proposed works in May 2000 for completion by April 2002 so that the proposed engineering works mentioned in paragraph 3 above can commence in May 2002 for completion in April 2006.

29. We estimate that the proposed site investigation and detailed design work will create some 20 new jobs comprising five professional/managerial staff, 10 technical/ancillary staff and five labourers.

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Planning and Lands Bureau  
April 2000

(CL343-04.DOC)



圖例 LEGEND:

[ ] FORESHORE AND SEABED TO BE RECLAIMED UNDER CENTRAL RECLAMATION PHASE III 中環填海工程第三期的填海範圍

碼頭及與海岸有關之商業及休閒用途 (有待詳細設計) PIER AND WATERFRONT RELATED COMMERCIAL AND LEISURE USES (SUBJECT TO DETAILED DESIGN)

與海岸有關之商業及休閒用途 WATERFRONT RELATED COMMERCIAL AND LEISURE USES

可開閉的棧橋 (有待詳細設計) OPENABLE CAUSEWAY (SUBJECT TO DETAILED DESIGN)

單車徑 (有待詳細設計) BIKEWAY (SUBJECT TO DETAILED DESIGN)

中環一南行 中央旁道 CENTRAL BYPASS

圖例 NOTATION

ZONES	地帶
RESIDENTIAL	住宅
COMMERCIAL AND BUSINESS	商業及業務 (包括零售及辦公室)
INDUSTRIAL AND WAREHOUSING	工業、貨棧及堆棧
OFFICE	辦公室
RECREATION	康樂及休閒
COMMUNICATIONS	交通
RAILWAY	鐵路及車站 (地下)
ROAD	道路及橋樑
ROAD JUNCTION	道路交匯
MISCELLANEOUS	其他
BOUNDARY OF PLANNING DISTRICT	區劃界線

土地用途及面積一覽表 SCHEDULE OF USES AND AREAS

USES	大綱圖則所佔百分比 APPROXIMATE %		用途
	面積	% 百分比	
COMMERCIAL	6.00	6.00	商業
COMMERCIAL AND BUSINESS (包括零售及辦公室)	6.00	11.00	商業及業務 (包括零售及辦公室)
INDUSTRIAL AND WAREHOUSING	8.00	12.00	工業、貨棧及堆棧
OFFICE	10.00	10.00	辦公室
RECREATION	7.00	10.00	康樂及休閒
RESIDENTIAL	11.00	11.00	住宅
ROAD	1.00	2.00	道路及橋樑
TOTAL PLANNING DISTRICT AREA	100.00	100.00	區劃界線範圍

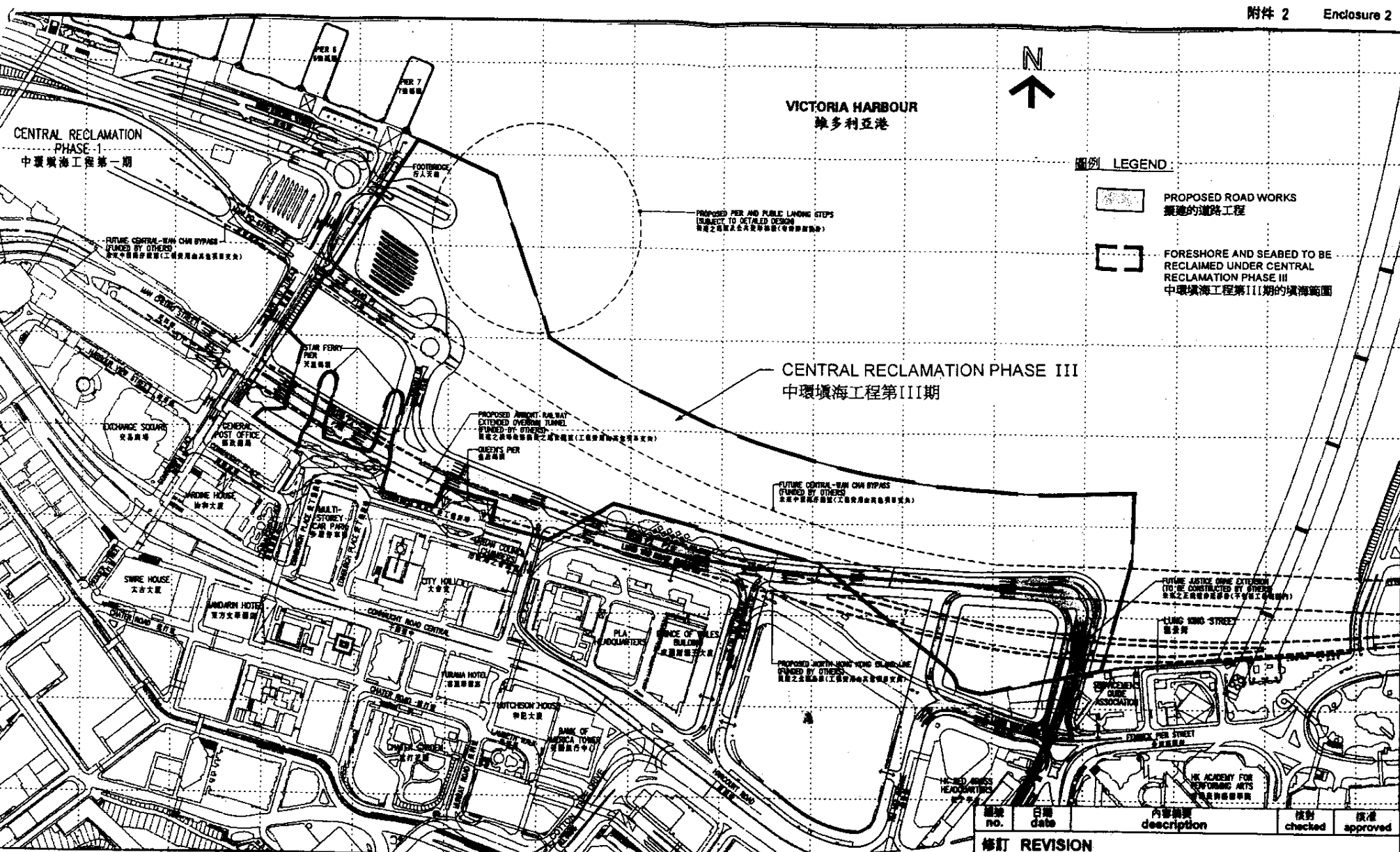
夾附的《註釋》屬這份圖則的一部分 THE ATTACHED NOTES ALSO FORM PART OF THIS PLAN

香港城市規劃委員會依據城市規劃條例擬備的中區(擴展部分)(港島規劃區第24區)分區計劃大綱圖  
 TOWN PLANNING ORDINANCE, HONG KONG TOWN PLANNING BOARD  
 HONG KONG PLANNING AREA No. 24 - CENTRAL DISTRICT (EXTENSION) - OUTLINE ZONING PLAN  
 SCALE 1:6 000 1:6萬

此圖則由香港城市規劃委員會編製  
 PREPARED BY THE PLANNING DEPARTMENT UNDER THE DIRECTION OF THE TOWN PLANNING BOARD

圖則編號 PLAN No. S/H24/2

此圖則經於2000年3月22日  
 APPROVED BY THE CHIEF EXECUTIVE IN COUNCIL UNDER SECTION 35(1) OF THE TOWN PLANNING ORDINANCE ON 22 FEBRUARY 2000.  
 此圖則經  
 CLARENCE TO THE EXECUTIVE COUNCIL



編號 no.	日期 date	內容描述 description	核對 checked	核准 approved
修訂 REVISION				


二零零零年至二零零一年度工務小組委員會文件  
PWSC Submission 2000/2001

工程項目 project title

中環填海工程第III期 - 顧問費及地盤勘测  
Central Reclamation Phase III - Consultants' fees and Site Investigation

繪圖 drawn	簽署 initial	日期 date	項目編號 item no.
W. T. Fung	<i>WTF</i>	9-3-2000	343CL
核對 checked	簽署 initial	日期 date	比例 scale
S. K. Keung	<i>SKK</i>	9-3-2000	1 : 4 000
核准 approved	簽署 initial	日期 date	圖則編號 drawing no.
K. F. Tang	<i>KFT</i>	9-3-2000	HKI-347

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港島及離島拓展處  
HONG KONG ISLAND AND ISLANDS DEVELOPMENT OFFICE



拓展署  
TERRITORY DEVELOPMENT DEPARTMENT

**Enclosure 3 to PWSC(2000-01)1**

**343CL – Central and Wan Chai reclamation - engineering works (remainder)**

**Breakdown of the estimate for consultants' fees**

<b>Consultants' staff costs</b>			<b>Estimated man months</b>	<b>Average MPS* salary point</b>	<b>Multiplier factor</b>	<b>Estimated fees (\$ million)</b>
(a)	Detailed design	Professional	95	40	2.4	14.3
		Technical	165	16	2.4	8.3
(b)	Preparation of tender documents and tender assessment	Professional	16	40	2.4	2.4
		Technical	32	16	2.4	1.6
(c)	EM&A programme	Professional	2	40	2.4	0.3
		Technical	4	16	2.4	0.2
(d)	Supervision of site investigation	Professional	2	40	1.7	0.2
		Technical	3	16	1.7	0.1
<b>Total consultants' staff costs</b>						27.4

\* 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 site staff supplied by the consultants. (At 1.4.99, 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. 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.