

ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 705 – CIVIL ENGINEERING

Civil Engineering – Land development

758CL – Site formation and associated infrastructural works for development of columbarium, crematorium and related facilities at Sandy Ridge Cemetery

Members are invited to recommend to Finance
Committee –

- (a) the upgrading of part of **758CL**, entitled “Site formation and associated infrastructural works for development of columbarium, crematorium and related facilities at Sandy Ridge Cemetery – detailed design and site investigation”, to Category A at an estimated cost of \$66.4 million in money-of-the-day prices; and
- (b) the retention of the remainder of **758CL** in Category B.

PROBLEM

We need to take forward the proposed development of columbarium, crematorium and related facilities (C&C facilities) at the Sandy Ridge Cemetery in the North New Territories.

/PROPOSAL

PROPOSAL

2. The Director of Civil Engineering and Development, with the support of the Secretary for Food and Health, proposes to upgrade part of **758CL** to Category A at an estimated cost of \$66.4 million in money-of-the-day (MOD) prices to engage consultants to undertake detailed design and site investigation works of the site formation and associated infrastructural works for the proposed development of C&C facilities at the Sandy Ridge Cemetery.

PROJECT SCOPE AND NATURE

3. The part of **758CL** that we propose to upgrade to Category A comprises –

- (a) detailed design of the works described in (i) to (iii) below, including review of the impact assessments on traffic, drainage, sewerage and geotechnical aspects –
 - (i) site formation of about 10 hectares of land for development of C&C facilities at the Sandy Ridge Cemetery;
 - (ii) associated environmental mitigation measures, landscaping works, geotechnical works, drainage and sewerage works, waterworks, roadworks including tunnel, viaducts and ancillary works to existing road network in North District, and other utility services, etc.; and
 - (iii) a pedestrian walkway between Lo Wu Mass Transit Railway Station and the columbarium facilities at the Sandy Ridge Cemetery and associated works;
- (b) environmental impact assessment (EIA);
- (c) associated site investigation works including supervision; and
- (d) preparation of tender documents and assessment of tenders for the works described in item (a)(i) to (iii) above.

/A

A layout plan of the proposed site formation and associated infrastructural works for the development of C&C facilities at the Sandy Ridge Cemetery is at Enclosure 1.

4. We will retain the remaining part of **758CL** in Category B, which covers mainly construction of the site formation and associated infrastructural works described in item (a)(i) to (iii) of paragraph 3 above. Funding for these works will be sought in phases to dovetail with the implementation programme of the project.

5. Subject to approval of the Finance Committee (FC), we plan to engage consultants in July 2013 to carry out the proposed detailed design and to supervise site investigation works for completion by September 2016.

JUSTIFICATION

6. To increase the supply of public niches, the Government has been promoting the district-based columbarium development scheme. We have identified 24 potential sites in 18 districts for columbarium development. Providing at least 200 000 niches, the Sandy Ridge Cemetery is the largest among the 24 potential sites.

7. In March 2011, we engaged consultants to conduct a feasibility study on the site formation and associated infrastructural works for the development of columbarium facilities, a crematorium, a funeral parlour and a visitor service centre at the Sandy Ridge Cemetery. The study was completed in September 2012. The consultants recommended to commence the site formation works by phases with the handover of the formed land in 2019 at the earliest to suit the construction of building works of the C&C facilities for completion in 2022. We have formulated the layout plan of the site formation and associated infrastructural works for the C&C development. The next step is to carry out the detailed design and site investigation works based on the layout plan.

FINANCIAL IMPLICATIONS

8. We estimate the cost of the proposed detailed design and site investigation works to be \$66.4 million in MOD prices (please see paragraph 9 below), broken down as follows –

/(a)

	\$ million	
(a) Consultants' fees	46.2	
(i) detailed design	34.0	
(ii) environmental impact assessment	8.0	
(iii) supervision of site investigation works	0.8	
(iv) preparation of tender documents and assessment of tenders	3.4	
(b) Site investigation works	5.0	
(c) Contingencies	5.1	
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Sub-total	56.3	(in September 2012 prices)
(d) Provision for price adjustment	10.1	
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Total	66.4	(in MOD prices)
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Taking into account the multi-disciplinary nature of the project and competing demands for in-house resources, we propose to employ consultants to undertake the proposed detailed design and supervise site investigation works. A breakdown of the estimate for consultants' fees by man-months is at Enclosure 2.

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

Year	\$ million (Sept 2012)	Price adjustment factor	\$ million (MOD)
2013 – 2014	7.5	1.06250	8.0
2014 – 2015	20.5	1.12625	23.1
2015 – 2016	16.0	1.19383	19.1
2016 – 2017	6.0	1.26545	7.6
2017 – 2018	3.8	1.34138	5.1
2018 – 2019	2.5	1.41180	3.5
	<hr/>		<hr/>
	56.3		66.4
	<hr/>		<hr/>

/10.

10. We have derived the MOD estimate on the basis of the Government's latest set of assumptions on the trend rate of change in the prices of public sector building and construction output for the period from 2013 to 2019. We will engage consultants to undertake the proposed detailed design on a lump-sum basis with provision for price adjustment as the duration of the consultancy will exceed 12 months. We will deliver the site investigation works under a standard re-measurement contract because the quantity of works involved may vary depending on actual ground conditions. The contract for site investigation works will also provide for price adjustment.

11. The proposed detailed design and site investigation works will not give rise to any recurrent consequences.

PUBLIC CONSULTATION

12. We consulted the Ta Kwu Ling District Rural Committee on 4 October 2012. There was concern about possible impact on the existing graves at the Sandy Ridge Cemetery and the traffic impact on the existing roads near the Cemetery. We consulted the North District Council on 11 October 2012. Whilst members raised no objection to proceeding with the proposed detailed design and site investigation works, they registered concerns about the traffic impact on the existing roads in the North District. We will review the traffic impact assessment and propose mitigation measures in the detailed design to alleviate the impact on the traffic. We will also consult the relevant stakeholders at the detailed design stage.

13. We consulted the Legislative Council Panel on Food Safety and Environmental Hygiene on the proposed detailed design and site investigation works on 11 December 2012. Members supported the proposal.

ENVIRONMENTAL IMPLICATIONS

14. The proposed detailed design and site investigation works are not a designated project under the EIAO. The proposed site investigation works will only generate very little construction waste.

15. The site formation and associated infrastructural works will include designated projects under Schedule 2 of the Environmental Impact Assessment Ordinance (EIAO) (Cap. 499), such as road bridges and widening of a district distributor road, etc. which require environmental permits prior to construction and operation. We will conduct an EIA to address the environmental impact and propose mitigation measures if necessary. We have included \$8.0 million (in September 2012 prices) in the cost estimate for conducting the EIA. We will require the consultants to fully consider measures to minimise the generation of construction waste and to reuse/recycle construction waste as much as possible in implementing the construction works in future.

HERITAGE IMPLICATIONS

16. The proposed detailed design and site investigation works will not affect any heritage site, i.e. declared monuments, proposed monuments, graded historic sites/buildings, sites of archaeological interest and Government historic sites identified by the Antiquities and Monuments Office.

LAND ACQUISITION

17. The proposed detailed design and site investigation works will not require any land clearance or acquisition.

BACKGROUND INFORMATION

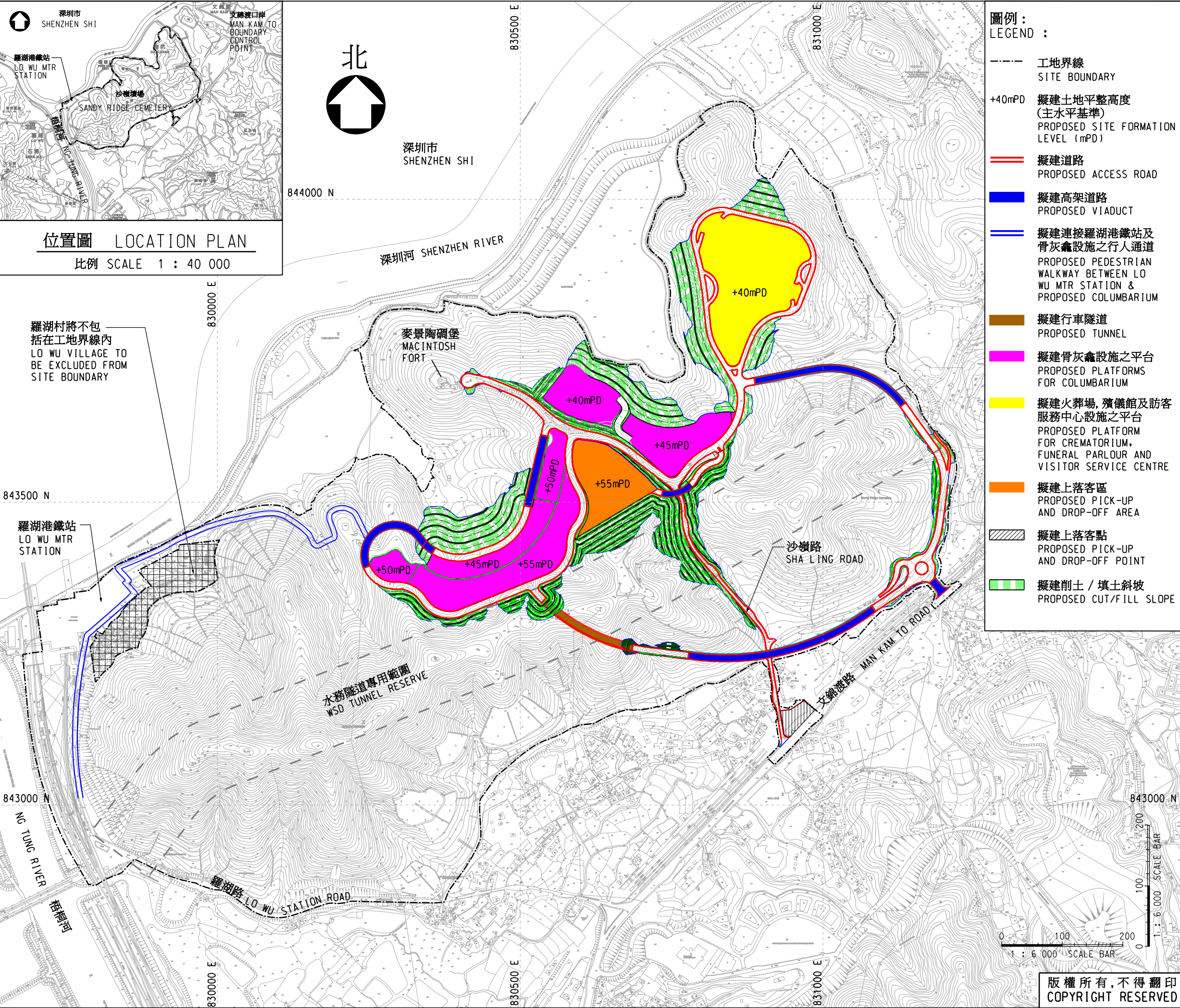
18. In March 2011, we engaged consultants to undertake the feasibility study on the site formation and associated infrastructural works for development of C&C facilities at the Sandy Ridge Cemetery at an estimated cost of \$8.0 million chargeable to **Head 139** "Government Secretariat: Food and Health Bureau (Food Branch)". We completed the study in September 2012 and upgraded **758CL** to Category B in the same month.

19. The proposed detailed design and site investigation works will not directly involve any tree removal or planting proposals. We will require the consultants to take into consideration the need for tree preservation and planting proposal during the detailed design stage.

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20. We estimate that the proposed detailed design and site investigation works will create about 27 jobs (three for labourers and another 24 for professional/technical staff), providing a total employment of 840 man-months.

Food and Health Bureau
December 2012



圖例：LEGEND：

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工地界線
SITE BOUNDARY

+40mPD

擬建土地平整高度
(主水平基準)
PROPOSED SITE FORMATION
LEVEL (mPD)

擬建道路
PROPOSED ACCESS ROAD

擬建高架道路
PROPOSED VIADUCT

擬建連接羅湖港鐵站及
骨灰龕設施之行人通道
PROPOSED PEDESTRIAN
WALKWAY BETWEEN LO
WU MTR STATION &
PROPOSED COLUMBARIUM

擬建行車隧道
PROPOSED TUNNEL

擬建骨灰龕設施之平台
PROPOSED PLATFORMS
FOR COLUMBARIUM

擬建火葬場, 殯儀館及訪客
服務中心設施之平台
PROPOSED PLATFORM
FOR CREMATORIUM,
FUNERAL PARLOUR AND
VISITOR SERVICE CENTRE

擬建上落客區
PROPOSED PICK-UP
AND DROP-OFF AREA

擬建上落客點
PROPOSED PICK-UP
AND DROP-OFF POINT

擬建削土 / 填土斜坡
PROPOSED CUT/FILL SLOPE

註釋 NOTES：

編號 no.	日期 date	內容摘要 description	核對 checked	核准 approved
修訂 REVISION				
		姓名 name	簽署 initial	日期 date
設計 designed		S P YEUNG	SIGNED	27.12.12
繪圖 drawn		K S LEE	SIGNED	27.12.12
描摹 traced				
核對 checked		C T LAU	SIGNED	27.12.12

核准 approved

SIGNED
(C T LAU)
總工程師 CHIEF ENGINEER
日期 date : 27.12.12

工程名稱 project
沙嶺墳場興建骨灰龕、火葬場及有
關設施的土地平整及相關基建工程
SITE FORMATION AND ASSOCIATED
INFRASTRUCTURAL WORKS FOR
DEVELOPMENT OF COLUMBARIUM,
CREMATORIUM AND RELATED FACILITIES
AT SANDY RIDGE CEMETERY

圖則名稱 drawing title
沙嶺墳場興建骨灰龕、火葬場及有
關設施的土地平整及相關基建工程
平面圖
LAYOUT PLAN FOR SITE FORMATION AND
ASSOCIATED INFRASTRUCTURAL WORKS
FOR DEVELOPMENT OF COLUMBARIUM,
CREMATORIUM AND RELATED FACILITIES
AT SANDY RIDGE CEMETERY

圖則編號 drawing no.	比例 scale
LW8822	1 : 6000

辦事處 office
土木工程處 土地工程部
LAND WORKS DIVISION
CIVIL ENGINEERING OFFICE

CEDD
CIVIL ENGINEERING AND
DEVELOPMENT DEPARTMENT

土木工程拓展署
CIVIL ENGINEERING AND
DEVELOPMENT DEPARTMENT

**758CL (Part) – Site formation and associated infrastructural works for
development of columbarium, crematorium and
related facilities at Sandy Ridge Cemetery**

Breakdown of the estimate for consultants' fees (in September 2012 prices)

Consultants' staff costs (Note 1)		Estimated man- months	Average MPS* salary point	Multiplier (Note 2)	Estimated fee (\$million)
(i) Detailed design	Professional	168	38	2.0	22.1
	Technical	266	14	2.0	11.9
(ii) Environmental impact assessment	Professional	36	38	2.0	4.7
	Technical	74	14	2.0	3.3
(iii) Supervision of site investigation works	Professional	4	38	2.0	0.5
	Technical	7	14	2.0	0.3
(iv) Preparation of tender documents and assessment of tenders	Professional	17	38	2.0	2.2
	Technical	27	14	2.0	1.2
Total					46.2

* MPS = Master Pay Scale

Notes

1. The actual man-months and fees will only be known after we have selected the consultants through the usual competitive lump sum fee bidding system.
2. A multiplier of 2.0 is applied to the average MPS salary point to estimate the full staff costs including the consultants' overheads and profit as the staff will be employed in the consultants' offices. (As at now, MPS salary point 38 = \$65,695 per month and MPS salary point 14 = \$22,405 per month.)