

For information

Legislative Council Panel on Transport

749TH – Road L18A in Area 18, Tuen Mun

PURPOSE

This paper informs Members of our proposal to upgrade **749TH**, Road L18A in Area 18, Tuen Mun, to Category A in order to carry out the proposed construction works.

PROJECT SCOPE

2. The scope of **749TH** comprises –
 - (a) construction of an approximately 400-metre (m) long and 10.3-m wide single two-lane carriageway (one traffic lane in each direction) with a 3.5-m wide footpath on each side including an about 160-m long elevated structure over Wong Chu Road (the proposed Road L18A);
 - (b) reconstruction of sections of existing footpaths and carriageway along Tin Hau Road and Yip Wong Road and the associated traffic signals;
 - (c) ancillary works including the construction of retaining walls, slopeworks, drainage works, waterworks, amenity and landscaping works, and the demolition of an existing temporary access road; and
 - (d) implementation of environmental mitigation measures during the construction period.

A site plan showing the proposed works is at **Enclosure 1**.

3. We plan to commence the construction works in April 2007 for completion in April 2009.

JUSTIFICATION

4. There are two existing developments, namely Hoh Fuk Tong Primary School (the School) and CLP Power Hong Kong Limited's San Shek Wan Substation (the Substation), and one planned residential development in the northern part of Tuen Mun Area 18. While the School is served by a temporary access road from Lung Mun Oasis, the Substation is connected by a temporary access road linking up Wong Chu Road, which will be closed upon the opening of Road L18A.

5. This project seeks to provide a permanent road access for the northern part of Tuen Mun Area 18. The new road will serve the existing developments and act as an essential access for the future residential development in this area. It is estimated that upon the completion of the planned residential development in 2010 or 2011, about 1,000 households with a population of about 3,000 will be using this new permanent road.

6. A single two lane road will be adequate for the existing and planned developments in the northern part of Tuen Mun Area 18 as revealed from the findings of traffic review. It is also envisaged that the nearby roads, such as Yip Wong Road and Tin Hau Road will continue to operate well within their capacity during peak hours upon the opening of the new access.

FINANCIAL IMPLICATIONS

7. We estimate the cost of the project to be \$66.6 million in money-of-the-day (MOD) prices as follows -

	\$ million
(a) Roadworks	6.7
(b) Elevated road structure and foundation	29.6

	\$ million
(c) Associated footpaths, retaining walls and slope works	9.6
(d) Associated drainage works and waterworks	3.5
(e) Associated amenity and landscaping works	2.6
(f) Environmental mitigation measures	1.3
(g) Consultants' fees	5.7
(i) construction stage	0.5
(ii) resident site staff costs	5.2
(h) Contingencies	5.9
Sub-total	64.9 (in September 2006 prices)
(i) Provision for price adjustment	1.7
Total	66.6 (in MOD prices)

— A breakdown by man-months of the estimate for consultants' fees under item (g) is at **Enclosure 2**.

8. We estimate the annual recurrent expenditure upon the completion of the project to be about \$374,200.

PUBLIC CONSULTATION

9. We consulted the Traffic and Transport Committee of Tuen Mun District Council (the Committee) on 13 September 2002. We

consulted the Committee again on 13 January 2006 on the proposed works. Members supported the project subject to the Administration's undertaking to construct a one-way connection road from Road D4 to Road L18A¹.

10. We gazetted the proposed works under Roads (Works, Use and Compensation) Ordinance (the Ordinance) on 4 May 2006 and received no objection. The Permanent Secretary for the Environment, Transport and Works (Transport) authorised the proposed works under the delegated authority of the Ordinance on 7 August 2006. The notice of authorization was gazetted on 18 August 2006.

ENVIRONMENTAL IMPLICATIONS

11. The project is not a designated project under the Environmental Impact Assessment Ordinance. We conducted a Preliminary Environmental Review (PER) for the project. The PER indicated that the project would not cause any long-term environmental impacts. The PER also indicated that short-term noise, dust, site run-off and waste impacts during construction would be anticipated. We will implement environmental mitigation measures for this project at an estimated cost of \$1.3 million. We have included this cost in the project estimate.

12. We have considered suitable measures, such as the use of steel parapets on the flyover and gully former for drainage inlet to reduce the use of formwork materials, in the planning and design stages to reduce the generation of construction and demolition (C&D) materials where possible. We will require the contractor to reuse the excavated material as filling material on site or in other suitable construction sites as far as possible, in order to minimise the disposal of C&D materials to public fill reception facilities. We will encourage the contractor to maximise the use of recycled or recyclable C&D materials, as well as the use of non-timber formwork to further minimise the generation of construction waste.

13. We will also require the contractor to submit a waste management plan (WMP) for approval. The WMP will include appropriate mitigation measures to minimise, reduce, reuse and recycle C&D materials. We will ensure that the day-to-day operations on site comply with the

¹ Road D4 is an existing road between Lung Mun Oasis and Glorious Garden. The Commissioner for Transport and Director of Highways will arrange for the implementation of the one-way connection road from Road D4 to Road L18A to tie in with the completion of Road L18A.

approved WMP. We will control the disposal of public fill and C&D waste to designated public filling facilities and landfills through a trip ticket system. We will require the contractor to separate public fill from C&D waste for disposal at appropriate facilities. We will record the disposal, reuse and recycling of C&D materials for monitoring purposes.

14. The proposed construction works will involve the removal of 33 trees including 28 to be felled and 5 to be transplanted. All trees to be removed are not important trees². We will incorporate planting proposals as part of the project, including the estimated quantities of 100 trees, 9,375 shrubs, 205 climbers, 1,065 square meters of woodland tree and shrub mix.

15. We estimate that the project will generate about 28,000 tonnes of C&D materials. Of these, we will reuse about 13,000 tonnes (46.4 %) on site, about 12,000 tonnes (42.9 %) as fill in public fill reception facilities³ and dispose of about 3,000 tonnes (10.7 %) at landfills. The notional cost of accommodating C&D materials at public fill reception facilities and landfill sites is estimated to be \$699,000 for this project (based on an unit cost of \$27/tonne for disposal at public fill reception facilities and \$125/tonne⁴ at landfills).

LAND ACQUISITION

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

² Important trees refer to trees on the Register of Old and Valuable Trees, and any other trees which meet one or more of the following criteria -

- (a) over 100 years old;
- (b) cultural, historical or memorable significance e.g. Wishing tree, Fung Shui tree, tree as landmark of monastery or heritage monument, and trees in memory of an important person or event;
- (c) precious or rare species;
- (d) outstanding form (taking account of overall tree sizes, shape and any special features) e.g. trees with curtain like aerial roots, trees growing in unusual habitat; or
- (e) with trunks diameter exceeding one metre (measured at one metre above ground level).

³ Public fill reception facilities are specified in Schedule 4 of the Waste Disposal (Charges for Disposal of Construction Waste) Regulation. Disposal of public fill in public fill reception facilities requires a licence issued by the Director of Civil Engineering and Development.

⁴ This estimate has taken into account the cost for developing, operating and restoring the landfills after they are filled and the aftercare required. It does not include the land opportunity cost for existing landfill sites (which is estimated at \$90/m³), nor the cost to provide new landfills (which is likely to be more expensive) when the existing ones are filled. The notional cost estimate is for reference only and does not form part of this project estimate.

THE WAY FORWARD

17. We intend to submit the project to the Public Works Sub-Committee and Finance Committee of the Legislative Council on 19 December 2006 and 12 January 2007 respectively for upgrading the project to Category A. Subject to funding approval, we plan to start the proposed construction works in April 2007 for completion in April 2009.

ADVICE SOUGHT

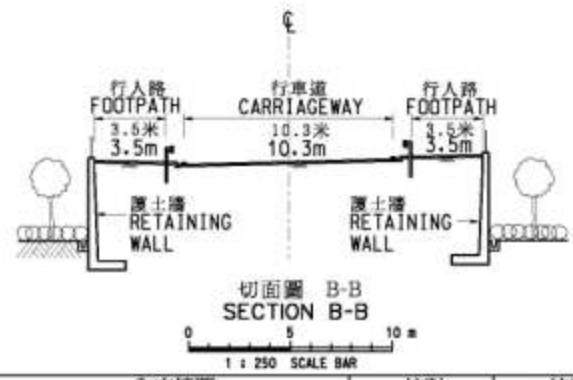
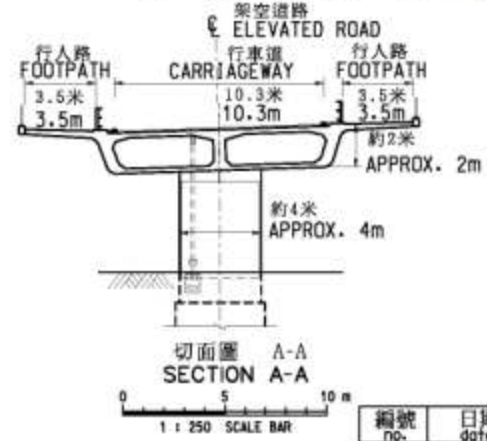
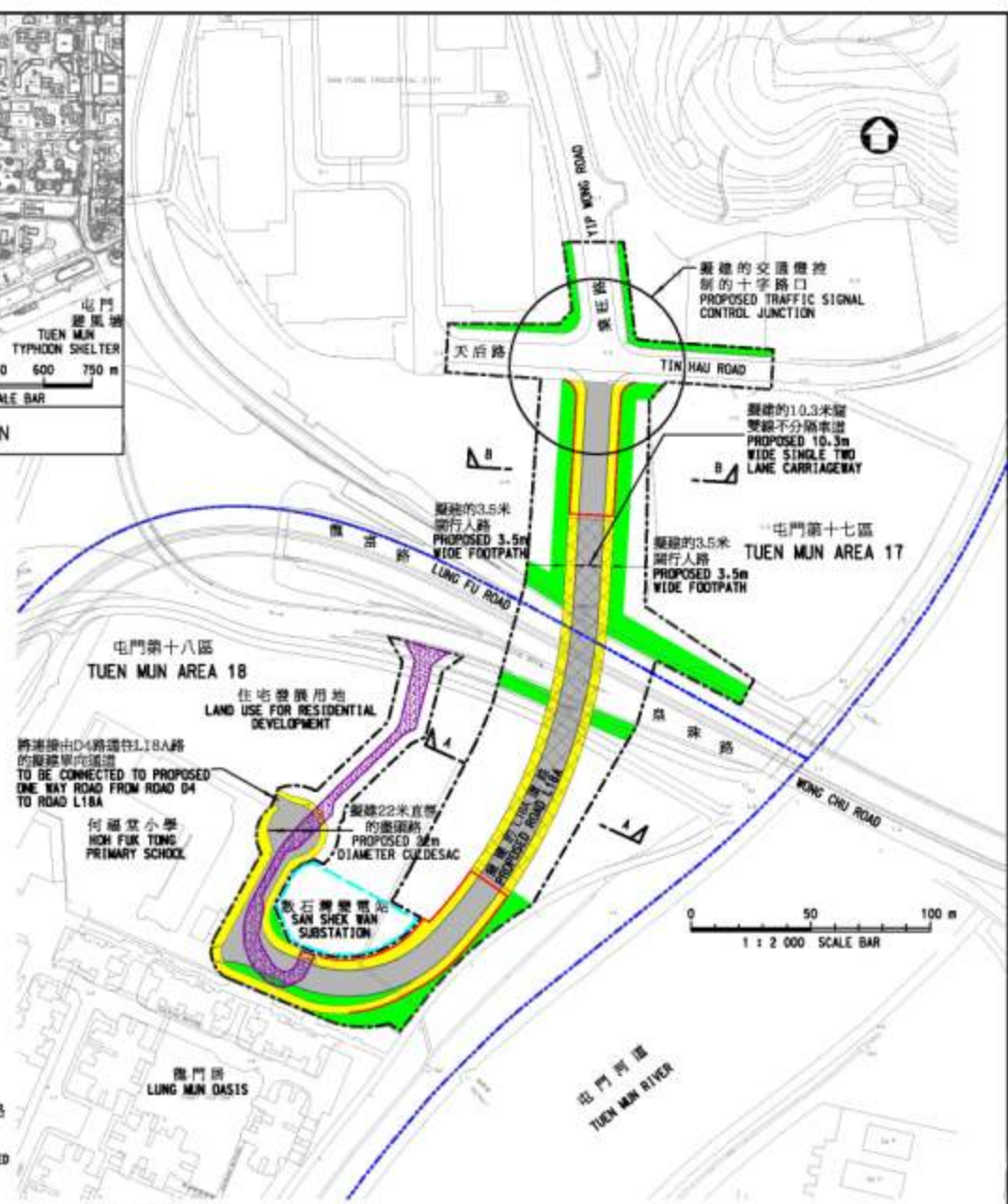
18. Members are invited to note the contents of this paper.

Environment, Transport and Works Bureau
November 2006



- 備忘 Notes:
- 所有座標參照香港1980大地基準，同時以米為量度單位。
ALL CO-ORDINATES REFER TO HONG KONG GEODETIC DATUM (1980) AND ARE IN METRES.
 - 除在其它方面指定外所有量度以米為單位。
ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE STATED.
 - 所有水平以米為單位並基於香港水平基準上。
ALL LEVELS ARE IN METRES ABOVE HONG KONG PRINCIPAL DATUM.

- 圖例 LEGEND:
- 工地區圍 LIMIT OF WORKS AREA
 - 擬建的擋土牆 PROPOSED RETAINING WALL
 - 規劃範圍界線 PLANNING SCHEME BOUNDARY
 - 電站範圍界線 ELECTRICITY SUBSTATION BOUNDARY
 - 行人路 FOOTPATH
 - 綠化範圍 PLANTING AREA
 - 行車路 CARRIAGEWAY
 - 架空道路 ELEVATED ROAD
 - 現有臨時行車道路將於L18A路通車後永久封閉及拆卸
EXISTING TEMPORARY ACCESS ROAD TO BE PERMANENTLY CLOSED AND DEMOLISHED AFTER OPENING OF ROAD L18A



二〇〇六年至二〇〇七年年度工務小組委員會文件
P.W.S.C. SUBMISSION 2006/2007

圖則名稱 drawing title
屯門第十八區L18A路
ROAD L18A IN AREA 18, TUEN MUN

編號 no.	日期 date	內容摘要 description	核對 checked	核准 approved
修訂 REVISION				
繪圖 drawn	簽署 initial	日期 date	項目編號 item no.	辦事處 office 新界西及北拓展處 NEW TERRITORIES NORTH AND WEST DEVELOPMENT OFFICE
P.K. SO	SIGNED	15.11.2006	749 TH	
核對 checked	簽署 initial	日期 date	比例 scale	土木工程拓展署 CEDD CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT
S.P. HO	SIGNED	16.11.2006	AS SHOWN	
核准 approved	簽署 initial	日期 date	圖則編號 drawing no.	
M.T. LAW	SIGNED	16.11.2006	NTW 1392	

749TH – Road L18A in Area 18, Tuen Mun

Breakdown of the estimates for consultants' fees

Consultants' staff costs		Estimated Man-months	Average MPS* salary point	Multiplier <small>(Note 1)</small>	Estimated fees (\$ million)
(a) Consultants' fees for construction stage <small>(Note 2)</small>					
(i) contract administration	Professional Technical	--	--	--	0.2 0.1
(ii) preparation of as-built drawings	Professional Technical	--	--	--	0.1 0.1
(b) Resident site staff costs <small>(Note 3)</small>	Professional Technical	28 98	38 14	1.6 1.6	2.4 2.8
				Total	<hr/> 5.7 <hr/>

* MPS = Master Pay Scale

Notes

1. A multiplier of 1.6 is applied to the average MPS point to estimate the cost of resident site staff supplied by the consultants. (As at 1 January 2006, MPS pt. 38 = \$54,255 per month and MPS pt. 14 = \$18,010 per month.)
2. The consultants' staff cost for the contract administration (including contract administration and preparation of as-built drawings) is calculated in accordance with the existing consultancy agreement No. CE 55/2001 (HY) "Design and Construction of Road L18A in Area 18, Tuen Mun". The construction phase of the assignment will only be executed subject to Finance Committee's approval to upgrade **749TH** to Category A.
3. We will only know the actual man-months and actual costs after completion of the construction works.