

ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 706 – HIGHWAYS

Transport – Footbridges and pedestrian tunnels

157TB – Centre Street escalator link (stage 1)

Members are invited to recommend to Finance Committee the upgrading of **157TB** to Category A at an estimated cost of \$60.7 million in money-of-the-day (MOD) prices for the construction of an escalator link in Centre Street.

PROBLEM

We need to construct an escalator link¹ along the section of Centre Street between Third Street and Bonham Road for improvement of the pedestrian environment of the area.

PROPOSAL

2. The Director of Highways, with the support of the Secretary for Transport and Housing, proposes to upgrade **157TB** to Category A at an estimated cost of \$60.7 million in MOD prices for the construction of an escalator link along the section of Centre Street between Third Street and Bonham Road.

/PROJECT.....

¹ The Transport Department is currently conducting a study on the establishment of an assessment system for the provision of hillside escalator links and elevator systems. The Panel on Transport (Transport Panel) of the Legislative Council (LegCo) will be briefed on the findings of the study on 22 May 2009.

PROJECT SCOPE AND NATURE

3. The scope of **157TB** comprises –
- (a) construction of a covered escalator link with four stairlifts² of a total length of about 85 metres (m) along Centre Street between Third Street and Bonham Road, including –
 - (i) three sections of one-way escalators of a total length of about 60 m between Third Street and Ying Wa Terrace; and
 - (ii) one section of two-way escalator of about 25 m long between Ying Wa Terrace and Bonham Road;
 - (b) installation of cover ranging from about 1.6 m to 2.0 m in width at the eastern footway of Centre Street between Third Street and Bonham Road;
 - (c) widening and improvement to existing footway on Central Street between Third Street and Bonham Road; and
 - (d) ancillary works including road, drainage, landscaping and electrical and mechanical (E&M) works.

A layout plan with cross sections of the proposed escalator link is at Enclosure.

4. We have substantially completed the detailed design for the project. We plan to commence the construction works in September 2009 for completion in April 2012.

/JUSTIFICATION.....

² A stairlift is an electrical lifting platform for transporting wheelchair users.

JUSTIFICATION

5. Centre Street connects Des Vouex Road West at the Sai Ying Pun waterfront to Bonham Road at the Mid-levels. The vicinity of Centre Street is a local hub with fresh food markets, shops, schools, community centres, health care facilities, etc. It is anticipated that the area will serve a residential population of about 40 600, a student population of about 4 500 and an employment population of about 18 400 in 2011.

6. The street is a steeply graded road with a level difference of about 27 m between Third Street and Bonham Road. The road section between Third Street and Ying Wah Terrace has a gradient ranging from 1:4 to 1:6 whilst the section between Ying Wah Terrace and Bonham Road has a gradient of 1:2 with staircase provided. The steep gradient has imposed difficulties to the pedestrians commuting along the street, in particular during adverse weather conditions.

7. With the implementation of the West Island Line (WIL)³ and redevelopment of the Sai Ying Pun area, it is anticipated that more pedestrian flow will be generated on Centre Street. The proposed escalator link will provide a safe and comfortable pedestrian link along the street. With the existing escalator in the Sai Ying Pun Market Complex, the completion of the proposed escalator link will form a continuous escalator system from Second Street to Bonham Road at the Mid-levels. The escalator link will also be connected to the pedestrian walkway of the Sai Ying Pun Station of the WIL to facilitate commuters. We expect that the proposed escalator link will boost the pedestrian flow of Centre Street from the current figure of about 12 000 two-way trips per day to about 14 000 in 2012. In conjunction with the construction of the escalator link, we will widen and improve the existing footway on both sides of the street to enhance the walking environment.

FINANCIAL IMPLICATIONS

8. We estimate the cost of the project to be \$60.7 million in MOD prices (please see paragraph 9 below), made up as follows –

/\$ million.....

³ The West Island Line is an extension of the existing Island Line from Sheung Wan Station to Kennedy Town. The Administration is planning to seek funding approval for this project from the Finance Committee (FC) of the LegCo in mid-2009.

		\$ million	
(a)	Escalators and stairlifts	41.1	
(b)	Footway cover	2.1	
(c)	Footway widening and improvement works	0.3	
(d)	Road, drainage and landscaping works	6.8	
(e)	Electrical and Mechanical Services Trading Fund (EMSTF) ⁴	1.2	
(f)	Contingencies	5.0	
	Sub-total	56.5	(in September 2008 prices)
(g)	Provision for price adjustment	4.2	
	Total	60.7	(in MOD prices)

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

Year	\$ million (in Sept 2008 prices)	Price adjustment factor	\$ million (in MOD prices)
2009 – 10	5.1	1.03500	5.3
2010 – 11	14.5	1.05570	15.3
2011 – 12	24.5	1.07681	26.4

/Year.....

⁴ Upon its establishment from 1 August 1996 under the Trading Fund Ordinance, the EMSTF charges government departments for design and technical consultancy services for E&M installations. The services rendered for this project include carrying out the design and site supervision on all E&M installations and providing technical advice to the Government on all E&M works and their impacts on the project.

Year	\$ million (in Sept 2008 prices)	Price adjustment factor	\$ million (in MOD prices)
2012 – 13	7.2	1.09835	7.9
2013 – 14	5.2	1.12032	5.8
	56.5		60.7

10. We have derived the MOD estimate on the basis of the Government's latest forecast of the trend rate of change in the prices of public sector building and construction output for the period 2009 to 2014. We will tender the proposed works under a lump sum contract since the quantities of the majority part of the proposed works are unlikely to change during construction. We will allow for price adjustment in the contract.

11. We estimate the annual recurrent expenditure of the proposed works to be \$1.3 million.

PUBLIC CONSULTATION

12. We consulted the Traffic and Transport Committee of the Central and Western District Council on 21 February 2008. Members supported the implementation of the project.

13. Local consultation was conducted for the project which was well received by the public in general, except some shop owners nearby indicated concerns on the impacts of the project on their properties. Their concerns are covered in the objections to the gazetted scheme of the proposed works as set out in paragraph 14 below.

14. We gazetted the proposed works under the Roads (Works, Use and Compensation) Ordinance (Cap. 370) (the Ordinance) on 30 May 2008 and received three objections. All of them remained unresolved. Details of the unresolved objections⁵ are as follows –

- (a) all of the three objectors were the owners of shops near the proposed escalator link. They were concerned about the potential reduction in pedestrian flow of the footway fronting their properties resulting from the construction of the proposed escalator link. We explained that the proposed escalator link was expected to attract more pedestrians to commute along Centre Street. We also advised the objectors that they were eligible to submit claims to the Administration under the Ordinance for consideration;
- (b) Objectors Nos. 1 and 2 expressed the view that the section of the escalator link between Third Street and Cheung On Lane was unnecessary as the gradient of that road section was not sufficiently steep and the length of the concerned escalator link section was short. Objector No. 1 also opined that the escalator link should be located at the western side of Centre Street. We explained to the objectors that the concerned section of the escalator link was required as the road section there had a gradient of 1:5 and the proposed location of the escalator link at the eastern side of Centre Street could provide better connection with the existing escalator in the Sai Ying Pun Market Complex;
- (c) Objectors Nos. 1 and 3 were concerned about the potential visual and environmental impacts of the project to their properties. We advised that the escalator link had adopted designs that would minimise the visual and environmental impacts; and

/(d)

⁵ Under the Ordinance, an objection that is withdrawn unconditionally is treated as if the objector has not lodged the objection. An objection which is not withdrawn or withdrawn with conditions is treated as an unresolved objection and will be submitted to the Chief Executive-in-Council for consideration.

- (d) Objector No. 3 was concerned about the potential noise impact of the operation of the stairlifts of the escalator link to pedestrian flow. He was also concerned that the close proximity of the proposed escalator link to the buildings would reduce the space available for installation of advertisement signs and air conditioners at the buildings. The objector also expressed concern on the potential height restriction on the re-development of his property resulting from the proposed works. We explained to the objector that the stairlifts would only be used occasionally. According to the Transport Department (TD), there was no evidence on the reduction in pedestrian flow resulting from the operational sound of the stairlifts. We also advised him that a clearance of about 0.6 m between the escalator link cover and the adjacent structures would be maintained. In addition, we explained that the proposed escalator link works would not result in any height restrictions on the re-development of his property.

15. Despite our explanations, the objectors maintained their objections. Having considered the unresolved objections, the Chief Executive-in-Council authorised the proposed works without modifications under the Ordinance on 10 March 2009. The notice of authorization was gazetted on 3 April 2009.

16. We consulted the Advisory Committee on the Appearance of Bridges and Associated Structures⁶ on the aesthetic design of the escalator link on 15 January 2008. The Committee accepted the proposed aesthetic design.

17. We circulated an information paper on the construction of the escalator link to the Transport Panel of the LegCo on 20 April 2009. Members did not raise any objection to the proposal in paragraph 3 above.

/ENVIRONMENTAL

⁶ The Advisory Committee on the Appearance of Bridges and Associated Structures which comprises representatives of the Hong Kong Institute of Architects, the Hong Kong Institution of Engineers, the Hong Kong Institute of Planners, an academic institution, Architectural Services Department, Highways Department, Housing Department and Civil Engineering and Development Department, is responsible for vetting the design of bridges and other structures associated with the public highway system, including noise barriers and semi-enclosures, from the aesthetic and visual impact points of view.

ENVIRONMENTAL IMPLICATIONS

18. The project will not result in long-term environmental impact. We will include in the construction contract the requirement for implementing suitable mitigation measures to control the short-term environmental impacts during the construction of the escalator link. These measures include the control of construction noise, dust and site run-off nuisances in accordance with the established standards. We estimate the cost of implementing the mitigation measures to be about \$0.15 million. We have included this cost in the project estimate.

19. We have considered measures in the planning and detailed design stages to reduce the generation of construction waste where possible. Such measures include reducing the size of the foundations of the structures in order to minimise the quantity of construction waste generated from excavation. In addition, we will require the contractor to reuse inert construction waste (e.g. excavated soil as filling materials) on site or in other suitable construction sites as far as possible, in order to minimise the disposal of inert construction waste to public fill reception facilities⁷. We will encourage the contractor to maximise the use of recycled or recyclable inert construction waste, as well as the use of non-timber formwork to further minimise the generation of construction waste.

20. We will also require the contractor to submit for approval a plan setting out the waste management measures, which will include appropriate mitigation means to avoid, reduce, reuse and recycle inert construction waste. We will ensure that the day-to-day operations on site comply with the approved plan. We will require the contractor to separate the inert portion from non-inert construction waste on site for disposal at appropriate facilities. We will control the disposal of inert construction waste and non-inert construction waste to public fill reception facilities and landfills respectively through a trip-ticket system.

/21.

⁷ Public fill reception facilities are specified in Schedule 4 of the Waste Disposal (Charges for Disposal of Construction Waste) Regulation. Disposal of inert construction waste in public fill reception facilities requires a licence issued by the Director of Civil Engineering and Development.

21. We estimate that the project will generate in total about 1 500 tonnes of construction waste. Of these, we will reuse 400 tonnes (27%) of inert construction waste on site and deliver 1 000 tonnes (67%) of inert construction waste to public fill reception facilities for subsequent reuse. In addition, we will dispose of 100 tonnes (6%) of non-inert construction waste at landfills. The total cost for accommodating construction waste at public fill reception facilities and landfill sites is estimated to be \$39,500 for this project (based on a unit cost of \$27/tonne for disposal at public fill reception facilities and \$125/tonne⁸ at landfills).

HERITAGE IMPLICATIONS

22. This project will not affect any heritage site, i.e. all declared monuments, proposed monuments, graded historic sites/buildings, site of archaeological interests and Government historic sites identified by the Antiquities and Monuments Office.

LAND ACQUISITION

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

BACKGROUND INFORMATION

24. We upgraded **157TB** to Category B in October 2005. In September 2007, we carried out site investigation works for **157TB** under **Subhead 6100TX** “Highway works, studies and investigations for items in Category D of the Public Works Programme”. We completed the site investigation works in March 2008.

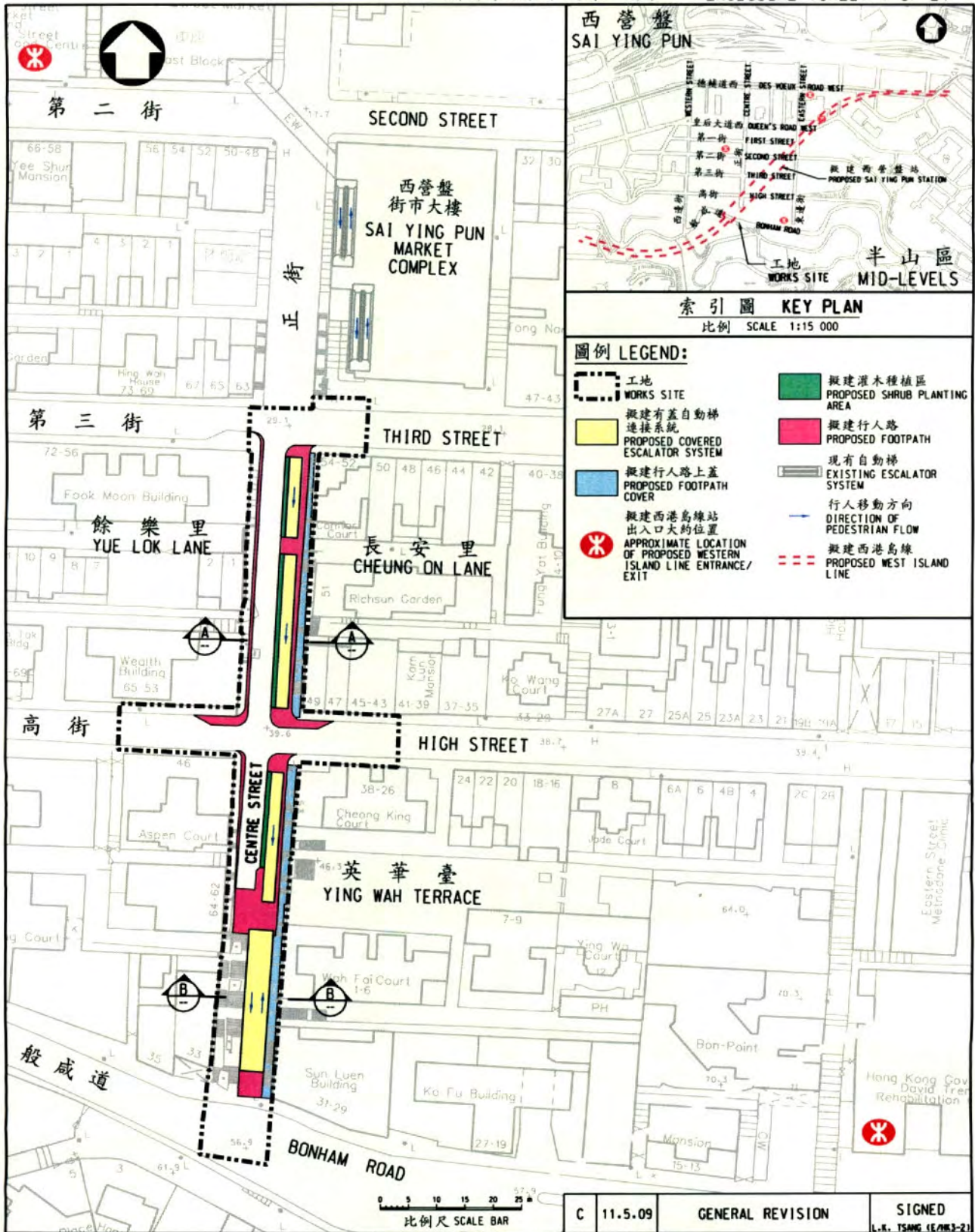
25. The proposed works will not involve any tree removal. We will incorporate a planting proposal of about 330 shrubs as part of the project.

/26.

⁸ The 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.

26. We estimate that the proposed works will create about 44 jobs (six for professional/technical staff and 38 for labourers) providing a total employment of about 800 man-months.

Transport and Housing Bureau
May 2009

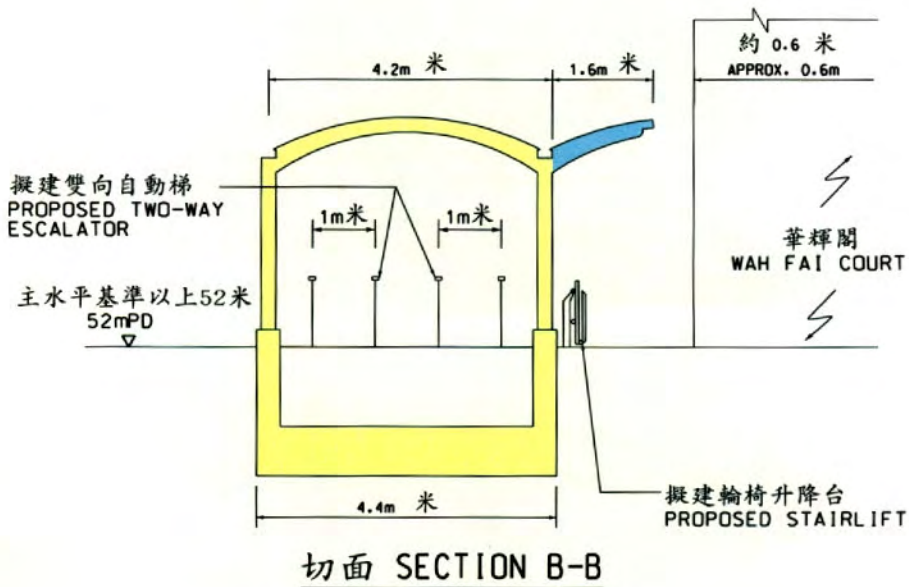
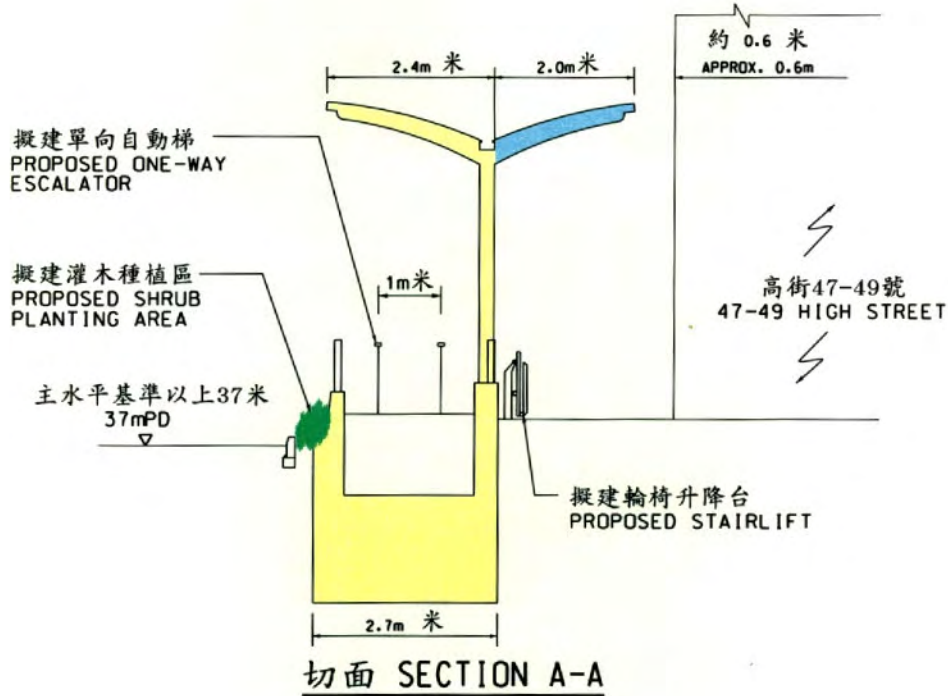


圖例 LEGEND:

- 工地 WORKS SITE
- 擬建有蓋自動梯連接系統 PROPOSED COVERED ESCALATOR SYSTEM
- 擬建行人路上蓋 PROPOSED FOOTPATH COVER
- 擬建西港島線站出入口大約位置 APPROXIMATE LOCATION OF PROPOSED WESTERN ISLAND LINE ENTRANCE/EXIT
- 擬建灌木種植區 PROPOSED SHRUB PLANTING AREA
- 擬建行人路 PROPOSED FOOTPATH
- 現有自動梯 EXISTING ESCALATOR SYSTEM
- 行人移動方向 DIRECTION OF PEDESTRIAN FLOW
- 擬建西港島線 PROPOSED WEST ISLAND LINE

比例尺 SCALE BAR

圖則名稱 drawing title		圖則編號 drawing no.	
工務計劃項目第157TB號 正街自動扶梯連接系統 (第一期) - 平面圖 PWP Item No. 157TB CENTRE STREET ESCALATOR LINK (STAGE 1) - LAYOUT PLAN		HWDHY0906-SK0003-C	
設計 designed	職位 post	姓名 name	簽署 initial
繪畫 drawn	E/HK3-2	L.K. TSANG	SIGNED
核對 checked	TO/4-1	C.W. LEE	SIGNED
批核 approved	E/HK3-2	L.K. TSANG	SIGNED
辦事處 office	SE/HK3	K.C. WONG	SIGNED
日期 date		日期 date	
11.5.09		25.3.09	
GENERAL REVISION		SIGNED	
L.K. TSANG (E/HK3-2)		AS SHOWN	
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A4		AS SHOWN	
HIGHWAYS DEPARTMENT HONG KONG		路政署	



註釋 notes:

- 請參照圖則編號HWDHY0906-SK0003-B的圖例。
PLEASE REFER TO DRAWING No. HWDHY0906-SK0003-B FOR LEGEND.

		C	8.5.09	GENERAL REVISION	SIGNED L.K. TSANG (E/HK3-2)
圖則名稱 drawing title		職位 post	姓名 name	簽署 initial	日期 date
工務計劃項目第157TB號 正街自動扶梯連接系統 (第一期) - 切面圖 PWP Item No. 157TB CENTRE STREET ESCALATOR LINK (STAGE 1) - SECTIONAL VIEW		設計 designed	E/HK3-2	L.K. TSANG	SIGNED 25.3.09
		繪畫 drawn	TO/4-1	C.W. LEE	SIGNED 25.3.09
		核對 checked	E/HK3-2	L.K. TSANG	SIGNED 26.3.09
		批核 approved	SE/HK3	K.C. WONG	SIGNED 26.3.09
辦事處 office		工程 部 WORKS DIVISION			
圖則編號 drawing no.		HWDHY0906-SK0004-C			
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