

ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 711 – HOUSING

Recreation, Culture and Amenities – Open Spaces

407RO – District and local open spaces adjoining Choi Wan Road public housing development

Members are invited to recommend to Finance Committee the upgrading of the remaining part of **407RO** to Category A at an estimated cost of \$181.6 million in money-of-the-day (MOD) prices for the development of two district open spaces (DOS) and a local open space (LOS) adjoining Choi Wan Road public housing development.

PROBLEM

We need to provide more public open spaces in Choi Wan.

PROPOSAL

2. The Director of Civil Engineering and Development, with the support of the Secretary for Transport and Housing, proposes to upgrade the remaining part of **407RO** to Category A at an estimated cost of \$181.6 million in MOD prices for the development of two DOS and a LOS adjoining Choi Wan Road public housing development.

/PROJECT

PROJECT SCOPE AND NATURE

3. The scope of the project, which covers a total site area of about 40 860 square metres (m²), comprises –

(a) DOS Site A (13 640 m²)

- (i) a theme garden with sitting-out facilities including pergolas/pavilions for use as rain/sun shelters, and soft landscaping areas;
- (ii) a children play area;
- (iii) a fitness exercise area with fitness equipment for the elderly;
- (iv) a water feature;
- (v) a tai-chi area;
- (vi) slope greening; and
- (vii) ancillary facilities including two toilet blocks, a management office block and store rooms.

(b) DOS Site B (24 880 m²)¹

- (i) a theme garden with sitting-out facilities including pergolas/pavilions for use as rain/sun shelters, and soft landscaping areas;
- (ii) a fitness exercise area with fitness equipment for the elderly;
- (iii) children play areas;
- (iv) two shuttle lift towers and associated footbridges for barrier-free access;
- (v) slope greening; and
- (vi) ancillary facilities including a toilet block, a management office block and store rooms.

/(c)

¹ Greening to existing rock slope within the northern portion of DOS Site B will be implemented under a separate item, which is planned to commence construction in early 2010.

(c) LOS Site C (2 340 m²)

- (i) a landscaped garden with sitting-out areas, pergolas and soft landscaping works; and
- (ii) slope greening.

—— Site plans showing the proposed works are at Enclosures 1 to 4.

4. We plan to start the construction works in August 2008 for completion of the LOS and DOS by May 2009 and January 2010 respectively.

JUSTIFICATION

5. There is a need to provide new recreational facilities to cope with the proposed development at Choi Wan Road and Jordan Valley.

6. The areas near Choi Wan Road and Jordan Valley are being developed in phases for public housing, institution or community facilities and open spaces, with the population intake expected to start from 2008. Upon its completion in 2011, the population arising from the development will reach about 35 200. The proposed DOS and LOS will provide a range of recreational facilities to cater for different needs of residents in the areas and in the vicinity.

7. Taking into account the spatial arrangement of the DOS and LOS in relation to the adjoining housing projects which are either under design or construction, it is considered desirable from both administrative and programming points of view to entrust the design and construction of the DOS and LOS to the Housing Authority (HA) for implementation by the Housing Department (HD). This arrangement will allow better co-ordination of the DOS and LOS and the adjoining public housing projects and ensure timely completion of the DOS and LOS for public use. Upon completion of the DOS and LOS, HD will hand over the facilities to the Leisure and Cultural Services Department for management and maintenance.

/FINANCIAL

FINANCIAL IMPLICATIONS

8. We estimate the capital cost of the project to be \$181.6 million in MOD prices (see paragraph 9 below), made up as follows –

	\$ million	
(a) Site formation	8.9	
(b) Buildings ²	27.9	
(c) Building services	13.9	
(d) Drainage and sewerage works	8.0	
(e) External works ³	79.6	
(f) Soft landscaping works	3.8	
(g) On-cost payable to Housing Authority ⁴	17.8	
(h) Furniture and Equipment ⁵	1.4	
(i) Contingencies	16.1	
Sub-total	177.4	(in September 2007 prices)
(j) Provision for price adjustment	4.2	
Total	181.6	(in MOD prices)

/9.

² Buildings include management offices, toilets and lift towers.

³ External works include paving, planters, fencing, pavilions/ pergolas, play/fitness equipment, water feature, footbridges and slope greening.

⁴ We will pay on-costs to the Housing Authority for the entrusted works at 12.5% of the estimated construction cost.

⁵ The cost estimate was prepared by making reference to the furniture and equipment provided in existing/planned facilities of similar scale (e.g. office furniture, tools and equipment, portable signage etc.).

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

Year	\$ million (Sept 2007)	Price adjustment factor	\$ million (MOD)
2008 – 2009	20.0	1.00750	20.2
2009 – 2010	70.0	1.01758	71.2
2010 – 2011	65.0	1.02775	66.8
2011 – 2012	15.0	1.03803	15.6
2012 – 2013	7.4	1.05619	7.8
	<hr/> 177.4 <hr/>		<hr/> 181.6 <hr/>

10. We have derived the MOD estimates 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 from 2008 to 2013. HA will tender the proposed works through a lump-sum package because the scope of works can be clearly defined. The proposed DOS and LOS works will not be subject to price adjustment because the construction period will not exceed 21 months.

11. We estimate the annual recurrent expenditure arising from this project to be about \$4.1 million.

PUBLIC CONSULTATION

12. We consulted the Kwun Tong District Council (KTDC) and the Culture, Recreation and Sports Committee of KTDC on 19 January 2006 and 24 July 2007 respectively. Members of KTDC and the Committee had no objection to the project.

13. We consulted the Housing Panel of the Legislative Council at its meeting on 7 January 2008. Members did not raise any objection to the proposed works.

/ENVIRONMENTAL

ENVIRONMENTAL IMPLICATIONS

14. The project is not a designated project under the Environmental Impact Assessment Ordinance (Cap. 499) and will not cause any long-term environmental impact. We have included in the project estimate the cost to implement suitable mitigation measures to control short-term environmental impact. The DOS Site B is located within the 250-metre consultation zone of the restored Jordan Valley Landfill. We will undertake precautionary landfill gas measures in the design and construction stages.

15. HD will specify in the relevant contract the requirement for the contractor to implement mitigation measures to control noise, dust, and site run-off nuisances during construction to within the level specified under the established standards and guidelines. These include the use of silencers, mufflers, acoustic lining or shields for noisy construction activities, frequent cleaning and watering of the site, and the provision of wheel-washing facilities.

16. We have considered the design of the levels and layout of the proposed open spaces in the planning and design stages to reduce the generation of construction waste where possible. In addition, we will require the contractor to reuse suitable excavated 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 facilities⁶. 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.

17. 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.

/18.

⁶ 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.

18. We estimate that the project will generate in total about 21 740 tonnes of construction waste. Of these, we will reuse about 4 890 tonnes (22.5%) of inert construction waste on site and deliver about 15 350 tonnes (70.6%) of inert construction waste to other projects or public fill reception facilities for subsequent reuse. In addition, we will dispose of about 1 500 tonnes (6.9%) 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 about \$600,000 for this project (based on a unit cost of \$27/tonne for disposal at public fill reception facilities and \$125/tonne⁷ at landfills).

19. This project has adopted various forms of energy efficient features, including -

- (a) provision of T5 energy efficient fluorescent tubes with lighting control;
- (b) utilisation of natural light and ventilation in the toilet blocks; and
- (c) installation of solar-powered lamp posts in selected locations.

20. The total estimated additional cost for adoption of the energy efficient features is around \$90,000. The energy efficient features will contribute to about 20% energy savings in the annual energy consumption for the management office and toilet blocks.

21. For greening features, we will provide roof top greening to the building blocks as a further means to enhance energy efficiency.

22. For recycled features, we will adopt a grey water recycling system for flushing and irrigation purposes.

/ **HERITAGE**

⁷ 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.

HERITAGE IMPLICATIONS

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

LAND ACQUISITION

24. The project does not require any land acquisition.

BACKGROUND INFORMATION

25. We upgraded **407RO** to Category B in December 2005 which covers DOS and LOS projects at Kwai Chung, Sau Mau Ping and Choi Wan Road.

26. In June 2006, we upgraded part of **407RO** to Category A as **413RO** “District open space adjoining Kwai Chung Estate” at an estimated cost of \$37.6 million. Construction works for **413RO**, which were entrusted to HA, commenced in August 2006 and were substantially completed in December 2007.

27. In December 2006, we upgraded part of **407RO** to Category A as **418RO** “District open space adjoining Sau Mau Ping public housing development” at an estimated cost of \$66.2 million. Construction works for **418RO**, which were also entrusted to HA, commenced in March 2007 for completion by December 2008.

28. We carried out site investigation and topographical survey for the proposed DOS and LOS adjoining Sau Mau Ping and Choi Wan Road public housing development at an estimated cost of \$2.9 million under the block allocation **Subhead B100HX** “Minor housing development related works, studies and investigations for items in Category D of the Public Works Programme”. Such works were completed in December 2007.

/29.

29. The DOS and LOS sites were newly formed under **564CL** “Development near Choi Wan Road and Jordan Valley”. Existing vegetation was only identified on the slope at the southern part of DOS Site B opposite to Choi Ha Estate, which will not be affected by the proposed works. We will incorporate in the project a planting proposal, involving about 800 trees and 12 000 shrubs.

30. We estimate that the proposed works will create about 168 jobs (156 for labourers and another 12 for professional/technical staff) providing a total employment of 2 400 man-months.

Transport and Housing Bureau
January 2008

註釋 NOTES :

圖例 LEGEND:

- 休憩用地範圍
DOS BOUNDARY
-  蔭棚連座椅
PERCOLA WITH SEATS
-  種植地帶
PLANTING AREA
-  鋪砌地帶
PAVED AREA
-  涼亭
PAVILION
-  附屬設施
ANCILLARY FACILITIES
-  兒童遊樂處 / 長者健身站
CHILDREN'S PLAY AREA / ELDERLY FITNESS AREA
-  腳底按摩
FOOT MASSAGE
-  綠化斜坡
SLOPE GREENING
-  樹木
TREE PLANTING
-  遮蔭樹木
SHADE TREE
-  棕櫚樹
PALM PLANTING
-  樹窩
TREE PIT
-  入口處
ENTRANCE
-  地圖
LOCATION MAP

編制日期 no. 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

繪圖 drawn Y.Y. WOO SIGNED 21.01.08

描摹 traced

核對 checked K.M. LAM SIGNED 21.01.08

核准 approved

SIGNED BY T.Y. LAU

SENIOR ENGINEER/6

日期 date : 21.01.2008

合約編號 contract no.

檔案編號 file no.

工務計劃編號 pwp no. 407RD

圖則名稱 drawing title

毗鄰彩雲道公共房屋發展

項目的地區及鄰舍休憩用地 -

地區休憩用地 A - 平面圖

DISTRICT AND LOCAL OPEN SPACES

ADJOINING CHOI WAN ROAD

PUBLIC HOUSING DEVELOPMENT -

DISTRICT OPEN SPACE SITE A -

SITE PLAN

圖則編號 drawing no.

比例 scale

LW 8385

1:1200

辦事處 office

土木工程處 土地工程處

LAND WORKS DIVISION

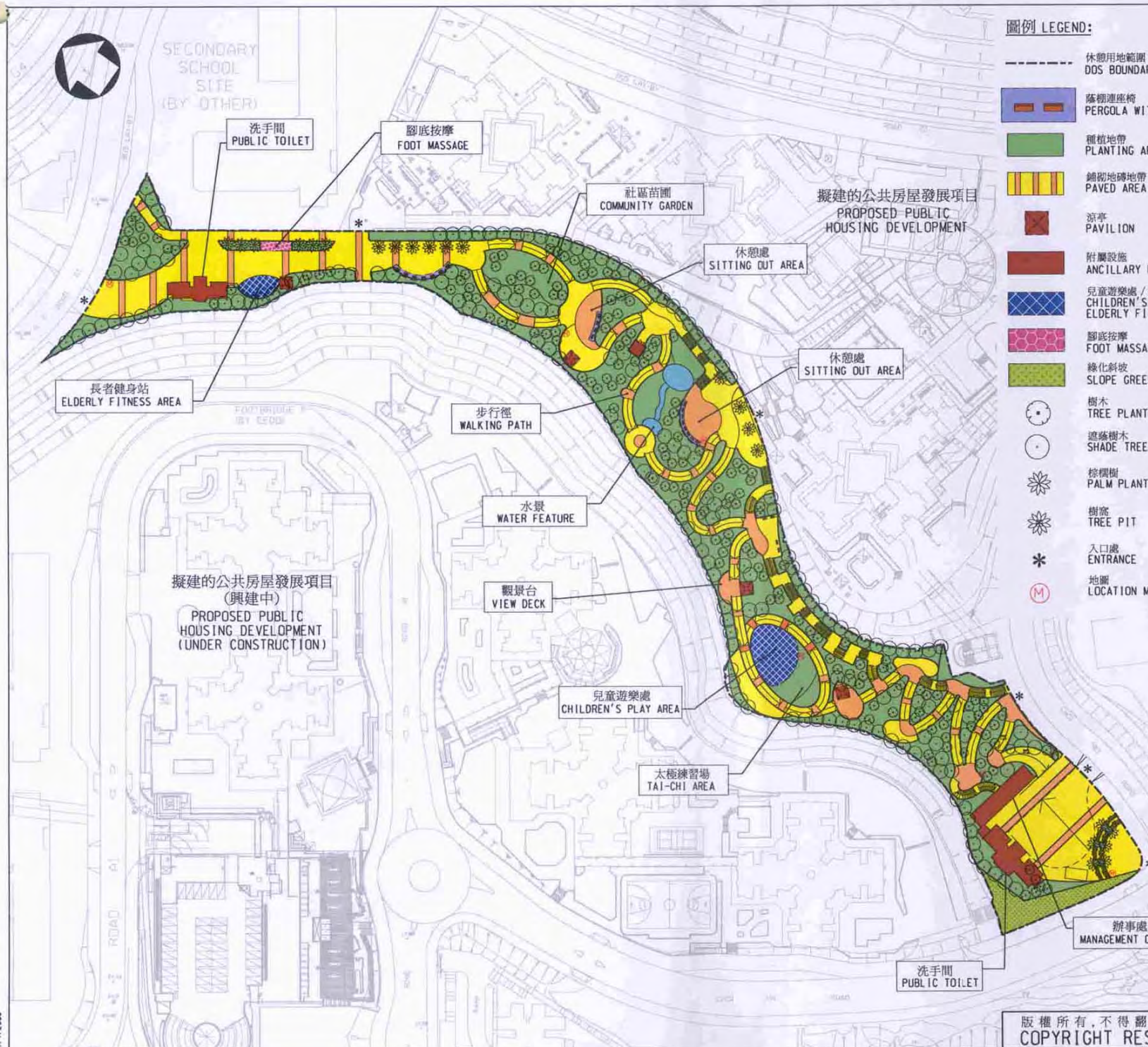
CIVIL ENGINEERING OFFICE

土木工程拓展署

CEDD CIVIL ENGINEERING AND

DEVELOPMENT DEPARTMENT

A3 420 x 297



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註釋 NOTES :

圖例 LEGEND:

- 休憩用地範圍
DOS BOUNDARY
- 蔭棚連座椅
PERGOLA WITH SEATS
- 種植地帶
PLANTING AREA
- 綠化斜坡
SLOPE GREENING
- 鋪砌地磚地帶
PAVED AREA
- 附屬設施
ANCILLARY FACILITIES
- 兒童遊樂處 / 長者健身站
CHILDREN'S PLAY AREA / ELDERLY FITNESS AREA
- 行人天橋
FOOTBRIDGE
- 岩石展覽
GEOLOGY EXHIBIT
- 棋藝設施
CHESS TABLE & SEAT
- 樹木
TREE PLANTING
- 遮蔭樹木
SHADE TREE
- 樹窩
TREE PIT
- 入口處
ENTRANCE
- 地圖
LOCATION MAP

擬建的公共房屋發展項目
PROPOSED PUBLIC HOUSING DEVELOPMENT

岩石展覽
GEOLOGY EXHIBITS

兒童遊樂處
CHILDREN'S PLAY AREA

長者健身站
ELDERLY FITNESS AREA

行人天橋
FOOTBRIDGE

升降機 2
LIFT TOWER 2

洗手間
PUBLIC TOILET

設有座椅的草地
LAWN WITH SEATS

休憩處
SITTING OUT AREA

蔭棚
PERGOLA

休憩處
SITTING OUT AREA

行人天橋
FOOTBRIDGE

辦事處 / 升降機 1
MANAGEMENT OFFICE / LIFT TOWER 1

編號 no.	日期 date	內容摘要 description	核對 checked	核准 approved
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修訂 REVISION

	姓名 name	簽署 initial	日期 date
設計 designed			
繪圖 drawn	Y.Y. WOO	SIGNED	21.01.08
描摹 traced			
核對 checked	K.M. LAM	SIGNED	21.01.08

核准 approved

SIGNED BY T.Y. LAU
SENIOR ENGINEER/6

日期 date : 21.01.2008

合約編號 contract no.

檔案編號 file no.

工務計劃編號 dwp no. 407R0

圖則名稱 drawing title

毗鄰彩雲道公共房屋發展
項目的地區及鄰舍休憩用地 -
地區休憩用地 B - 平面圖

DISTRICT AND LOCAL OPEN SPACES
ADJOINING CHOI WAN ROAD
PUBLIC HOUSING DEVELOPMENT -
DISTRICT OPEN SPACE SITE B -
SITE PLAN

圖則編號 drawing no.

LW 8386

比例 scale

1:1000

辦事處 office

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



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DEVELOPMENT DEPARTMENT

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註釋 NOTES :

編號 no.	日期 date	內容摘要 description	核對 checked	核准 approved
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核准 approved

SIGNED BY T.Y. LAU
SENIOR ENGINEER/6

日期 date : 21.01.2008

合約編號 contract no.

檔案編號 file no.

工務計劃編號 pwp no. 407R0

圖則名稱 drawing title

毗鄰彩雲道公共房屋發展
項目的地區及鄰舍休憩用地 -
鄰舍休憩用地 C - 平面圖

DISTRICT AND LOCAL OPEN SPACES
ADJOINING CHOI WAN ROAD
PUBLIC HOUSING DEVELOPMENT -
LOCAL OPEN SPACE SITE C -
SITE PLAN

圖則編號 drawing no.

LW 8387

比例 scale

1:400

辦事處 Office

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



土木工程拓展署
CIVIL ENGINEERING AND
DEVELOPMENT DEPARTMENT

棋藝設施
CHESS PLAY

有蓋行人道
PROPOSED
COVERED WALKWAY
(在其他工程合約內進行)
(UNDER CONSTRUCTION BY OTHER)

安全柱
BOLLARDS

行人天橋
PROPOSED FOOTBRIDGE
(在其他工程合約內進行)
(UNDER CONSTRUCTION BY OTHER)

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圖例 LEGEND:

- 休憩用地範圍
LOS BOUNDARY
- 圍欄
FENCING
- 蔭棚連座椅
PERGOLA WITH SEATS
- 座椅
BENCHES
- 種植地帶
PLANTING AREA
- 鋪砌地磚地帶
PAVED AREA WITH PATTERN
- 綠化斜坡
SLOPE GREENING
- 有蓋行人道 / 行人天橋
(在其他工程合約內進行)
COVERED WALKWAY/FOOTBRIDGE
(UNDER CONSTRUCTION BY OTHER)
- 棋藝設施
CHESS TABLE & SEAT
- 樹木
TREE PLANTING
- 遮蔭樹木
SHADE TREE
- 450毫米高花牆圍欄
450mm H. PLANTER WALL
- 水錶
WATER METER
- 鎖閘
LOCKABLE GATE
- 入口處
ENTRANCE
- 地圖
LOCATION MAP

休憩處
SITTING OUT AREA

花園
AMENITY PLANTERS

蔭棚連座椅
PERGOLA WITH SEATS