

ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 703 – BUILDINGS

Environmental Hygiene – Burial grounds, columbaria and crematoria

22NB – Provision of Columbarium at Wo Hop Shek Cemetery – Phase 1

Members are invited to recommend to the Finance Committee the upgrading of **22NB** to Category A at an estimated cost of \$945.6 million in money-of-the-day prices for the provision of columbarium at Wo Hop Shek Cemetery – Phase 1.

PROBLEM

We need to provide additional columbaria to increase the supply of public niches for meeting the demand.

PROPOSAL

2. The Director of Architectural Services, with the support of the Secretary for Food and Health, proposes to upgrade **22NB** to Category A at an estimated cost of \$945.6 million in money-of-the-day (MOD) prices for the provision of columbarium at Wo Hop Shek Cemetery (WHSC) – Phase 1.

/PROJECT

PROJECT SCOPE AND NATURE

3. The proposed project is for the provision of columbarium facilities at Kiu Tau Road and the associated improvement measures as set out at paragraphs 4 and 5 below.

4. The scope of works includes the construction and provision of -

- (a) two 6-storey columbarium blocks at sites T3(a) and T3(b) at Kiu Tau Road to provide about 44 000 niches;
- (b) communal incense holders for individual floor, except for the second and third floors set aside for incense free niches;
- (c) communal eco-friendly joss paper burning facilities on the first floor of each columbarium block with exhaust air treatment facilities;
- (d) supporting facilities including passenger lifts, administration office, storerooms, public toilets, first aid room, closed-circuit television system-cum-command centre, public address system, computer kiosks to facilitate the public to search for the niche location of their ancestors and to disseminate promotional information on green burials;
- (e) a leisure area after demolition of the ex-staff quarters abutting Wo Ka Lau Road;
- (f) a pick-up/drop-off area (PDA) for accommodating public transport vehicles during the grave sweeping periods at the junction of Kiu Tau Road and Tai Wo Service Road West; and
- (g) road enhancement works at Kiu Tau Road to widen the existing footpath from 1.7 metres (m) to 3 m for the section between the PDA and the gate of WHSC.

The location plans, site plans, floor plans, sectional plans and artist's impressions of the two proposed columbarium blocks at sites T3(a) and T3(b) are at Enclosures 1 to 16. The site plans of the proposed PDA and leisure area are at Enclosures 17 and 18.

5. To cater for the anticipated increase in the number of visitors upon full development of columbarium at WHSC providing 104 000 niches, we propose the following works -

- (a) widening of the existing footbridge linking the MTR Fanling Station with Pak Wo Road from 5.5 m to 11 m;
- (b) extension of the existing bus layby at Pak Wo Road southbound from 34 m to 52 m;
- (c) widening of associated footpath adjacent to the footbridge approach along Pak Wo Road southbound and subway extension;
- (d) reprovisioning of two MTR retail kiosks and a store room¹ that would be affected by the footbridge widening and associated interface works with the existing MTR Fanling Station concourse; and
- (e) ancillary works including storm drains, retaining walls, slope works and landscaping works.

_____ The site plan of the footbridge widening and bus layby extension works at Pak Wo Road and an artist's impression are at Enclosures 19 and 20.

6. Subject to the funding approval by the Finance Committee, we plan to commence construction in late 2016 for completion by end-2019.

/JUSTIFICATION

¹ The reprovisioning works include civil engineering works for the structure, building services and associated works. The construction of the building services and associated works is proposed to be entrusted to MTR Corporation Limited.

JUSTIFICATION

7. With a growing and ageing population in Hong Kong, the number of deaths and cremations has been rising gradually. The estimated number of deaths and cremations in 2016 and 2035, as compared with the annual average number of deaths and cremations in the past few decades are set out below –

	Annual average	
	Number of deaths	Number of cremations
1975 to 1994 (actual)	26 000	14 000
1995 to 2015 (actual)	38 000	32 000
2016 to 2035 (projection)	57 000	54 000

With a rising demand for cremation service as depicted above, there is a rising need for niches.

8. To meet the demand for public niches, the Government announced in July 2010 that all districts would collectively share the responsibility of developing district-based columbarium facilities. The Government also identified a total of 24 potential sites in 18 districts for columbarium development. Whether the sites could eventually be used for columbarium facilities would depend on the results of traffic impact assessment (TIA), engineering feasibility study (if applicable), technical feasibility studies and consultation with the District Councils (DCs) concerned.

9. WHSC is the largest public cemetery in Hong Kong and is one of the 24 potential sites for columbarium development. It occupies an area of about 220 hectares. At present, about 66 000 niches, 113 000 urn burial spaces and 9 300 coffin burial spaces are provided in WHSC. Also, there are six coffin cremators and one bone cremator in the Wo Hop Shek Crematorium. With the increase in cremation rate over the past two decades, the demand for coffin burial in WHSC is declining. To better utilise land resources, some of the vacant land and unused coffin burial grounds would be used for niche development. To this end, the Food and Environmental Hygiene Department (FEHD) has identified a number of sites within WHSC for conversion into columbarium development, the locations of which are shown in the plan at Enclosure 1. Given the scale of the development, we originally planned to develop the sites in three phases as follows according to their geographical locations –

/(a)

- (a) Phase 1 (44 000 niches) : including sites T1, T2, T3(a) and T3(b);
- (b) Phase 2 (35 000 niches) : including sites T4, T5, T6 and T7; and
- (c) Phase 3 (25 000 niches) : including sites T8, T9 and two vacant plots.

10. Following the consultation exercise conducted in April 2012, FEHD had, in response to concerns raised by nearby villagers on visual impact, decided not to pursue the proposed development at sites T1 and T2. Only sites T3(a) and T3(b) would be developed under Phase 1. By developing multi-storey columbarium blocks, the number of niches to be provided in Phase 1 by end-2019 remains at 44 000.

11. A total of 104 000 new niches would be developed under the three phases. According to the TIA recommendation, we propose to widen the existing footbridge linking the MTR Fanling Station with Pak Wo Road and associated footpath, and extend the bus layby at Pak Wo Road to facilitate grave sweepers in taking shuttle buses at Pak Wo Road to commute between MTR Fanling Station and WHSC during Ching Ming and Chung Yeung periods. We also propose to provide a leisure area after demolition of the ex-staff quarters abutting Wo Ka Lau Road to provide a resting area for visitors.

FINANCIAL IMPLICATIONS

12. We estimate the capital cost of the project to be \$945.6 million in MOD prices (please see paragraph 14 below), broken down as follows –

	\$ million
(a) Site works	7.8
(b) Site formation and geotechnical works	62.2
(c) Piling	9.0
	/\$ million

		\$ million	
(d)	Building ²	212.1	
(e)	Building services	54.6	
(f)	Drainage	10.9	
(g)	External works	25.8	
(h)	Additional energy conservation, green and recycled features	7.9	
(i)	Pick-up/drop-off area	42.4	
(j)	Road enhancement works at Kiu Tau Road	48.0	
(k)	Leisure area and demolition of ex-staff quarters abutting Wo Ka Lau Road	31.3	
(l)	Widening of footbridge linking MTR Fanling Station and Pak Wo Road and associated works	134.0	
(m)	Furniture and equipment ³	0.4	
(n)	Consultants' fees for	27.0	
	(i) contract administration	24.5	
	(ii) management of resident site staff (RSS)	2.5	
(o)	Remuneration of RSS	20.0	
(p)	Contingencies	69.2	
	Sub-total	762.6	(in September 2015 prices)
(q)	Provision for price adjustment	183.0	
	Total	945.6	(in MOD prices)

/13.

² Building works comprise construction of substructure and superstructure of the building.

³ The estimated cost is based on an indicative list of furniture and equipment required.

13. While the construction of the footbridge widening and associated works will be supervised by in-house staff, we propose to engage consultants to undertake contract administration and site supervision for the columbarium project. A detailed breakdown of the estimate for consultants' fees and RSS costs by man-months is at Enclosure 21. The construction floor area (CFA) of columbarium blocks is about 10 084 m². The estimated construction unit cost, represented by the building and building services costs, is \$26,448 per m² of CFA in September 2015 prices. We consider this unit cost comparable to that of similar projects built by the Government.

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

Year	\$ million (Sept 2015)	Price adjustment factor	\$ million (MOD)
2016 – 2017	5.0	1.05775	5.3
2017 – 2018	120.0	1.12122	134.5
2018 – 2019	200.0	1.18849	237.7
2019 – 2020	285.0	1.25980	359.0
2020 – 2021	90.0	1.33539	120.2
2021 – 2022	50.0	1.40549	70.3
2022 – 2023	12.6	1.47577	18.6
	<hr/> 762.6 <hr/>		<hr/> 945.6 <hr/>

15. We have derived the MOD estimates 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 2016 to 2023. Subject to funding approval, we will deliver the works under two contracts. Works for the columbarium blocks and associated works would be delivered under a lump sum contract because we can clearly define the scope of works. The footbridge widening and associated works would be delivered under a re-measurement contract because the quantities of works may vary depending on actual ground conditions. Both contracts will provide for price adjustments.

16. We estimate the annual recurrent expenditure arising from the proposed works to be \$15.1 million, mainly comprising the costs of management and maintenance, as well as electricity charges.

17. The Government charges a uniform set of fees and charges for columbarium services, irrespective of the location of the columbarium and niches. When setting and reviewing the level of fees and charges for columbarium services, the Government would take into account, among other factors, the construction cost of the columbarium buildings and related costs, as well as the recurrent costs arising from the allocation, operation and maintenance of the niches.

PUBLIC CONSULTATION

18. We presented the findings of the TIA in respect of the three phases of the proposed columbarium developments at WHSC to the North District Council (NDC) on 12 April 2012. NDC members gave in-principle support to the development of Phase 1 of WHSC columbarium. They requested the Government to include the widening of the existing footbridge connecting the MTR Fanling Station and extending the bus layby at Pak Wo Road southbound in the Phase 1 works, which was recommended in the TIA, as measures to accommodate the anticipated increase in pedestrian flow associated with the Phase 1 development. The NDC also requested the provision of an amenity area at the vacant ex-staff quarters site in WHSC. The site is situated near the gate to the WHSC. The amenity area, when available, could provide a resting area benefitting all visitors to the cemetery. Their requests have subsequently been incorporated into the proposed works.

19. Following the completion of the conceptual and schematic designs for the two columbarium blocks and the footbridge widening and bus layby extension works, we consulted NDC on 12 February 2015 on the design aspect of the project and obtained members' support for the development of Phase 1 of the project.

20. We gazetted the footbridge widening works and associated road works under the Roads (Works, Use and Compensation) Ordinance (Cap. 370) on 8 and 15 May 2015. No objection was received. The authorisation notice was gazetted on 14 and 21 August 2015.

21. We consulted the Legislative Council Panel on Food Safety and Environmental Hygiene (the Panel) on 12 April 2016. Members of the Panel supported the project.

ENVIRONMENTAL IMPLICATIONS

22. This is not a designated project under the Environmental Impact Assessment (EIA) Ordinance (Cap. 499). We have completed a Preliminary Environmental Review (PER) for the project in August 2015 and agreed the findings with the Director of Environmental Protection. We undertake to provide the mitigation measures as recommended in the PER including frequent water suppression, use of quiet construction plant and erection of purpose-built noise barrier. We have included in the project estimate the cost for the implementation of the mitigation measures.

23. At the planning and design stages, we have considered measures to reduce the generation of construction waste where possible. In addition, we will require the contractor to reuse inert construction waste (e.g. excavated materials and rock fill) on site or in other suitable construction sites as far as possible, in order to minimise the disposal of inert construction waste at public fill reception facilities⁴. We will encourage the contractor to maximise the use of recycled/recyclable inert construction waste, and the use of non-timber formwork to further reduce the generation of construction waste.

/24.

⁴ Public fill reception facilities are specified in Schedule 4 of the Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 354N). Disposal of inert construction waste in public fill reception facilities requires a licence issued by the Director of Civil Engineering and Development.

24. At the construction stage, we will 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. Besides, we will control the disposal of inert and non-inert construction waste at public fill reception facilities and landfills respectively through a trip-ticket system.

25. We estimate that the proposed works will generate in total about 65 180 tonnes of construction waste. Of these, we will reuse about 26 670 tonnes (40.9%) of inert construction waste on site and deliver 31 110 tonnes (47.7%) of inert construction waste to public fill reception facilities for subsequent reuse. We will dispose of the remaining 7 400 tonnes (11.4%) 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 \$1.8 million for this project (based on a unit charge rate of \$27 per tonne for disposal at public fill reception facilities and \$125 per tonne at landfills as stipulated in the Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 354N)).

HERITAGE IMPLICATIONS

26. The proposed works will not affect any heritage site, i.e. all declared monuments, proposed monuments, graded historic sites and buildings, sites of archaeological interest and government historic sites identified by the Antiquities and Monuments Office.

LAND ACQUISITION

27. The proposed works do not require any land acquisition but clearance works are required. Ex-gratia allowance (EGA) will be paid to the affected cultivators under the current EGA policy. The cost of land clearance is about \$0.2 million which will be charged to **Head 701 – Land Acquisition**. A breakdown of the clearance costs is at Enclosure 22.

ENERGY CONSERVATION, GREEN AND RECYCLED FEATURES

28. This project will adopt various forms of energy efficient features and renewable energy technologies, in particular -

- (a) demand control of lighting by daylight sensor;
- (b) lift regeneration power system; and
- (c) solar powered light fittings.

29. For greening features, we will provide greening on rooftop and suitably incorporate vertical greening on the retaining wall at pavement level, as well as other landscape features and slope greening in appropriate areas of the site for environmental and amenity benefits.

30. For recycled features, we will adopt a rainwater harvesting system for irrigation purpose.

31. The total estimated additional cost for adoption of the above energy conservation measures is around \$7.9 million (including \$0.2 million for energy efficient features), which has been included in the cost estimate of this project. The energy efficient features will achieve 5.0% energy savings in the annual energy consumption with a payback period of about 5.6 years.

TRAFFIC IMPLICATIONS

32. The completed TIA concluded that, with the implementation of suitable traffic improvement measures, the additional traffic and pedestrian volume arising from the proposed columbarium developments during the Ching Ming and Chung Yeung festive periods should be manageable and would not adversely affect the performance of the key roads in the vicinity. Taking into account the TIA findings, we propose to develop Phase 1 with the traffic improvement measures set out in paragraphs 4(f), 4(g) and 5(a) to (c) above. After the proposed project is commissioned, FEHD will work closely with the Hong Kong Police Force and other relevant departments to ensure that effective traffic and crowd control measures are implemented during the grave sweeping seasons.

BACKGROUND INFORMATION

33. We upgraded **22NB** to Category B in 2012. We engaged consultants to render design services and carry out site investigation, topographical and utilities survey and PER, at a total cost of about \$29.5 million. The services and works by the consultants are funded under block allocation **Subhead 3100GX** “Project feasibility studies, minor investigations and consultants’ fees for items in Category D of the Public Works Programme”.

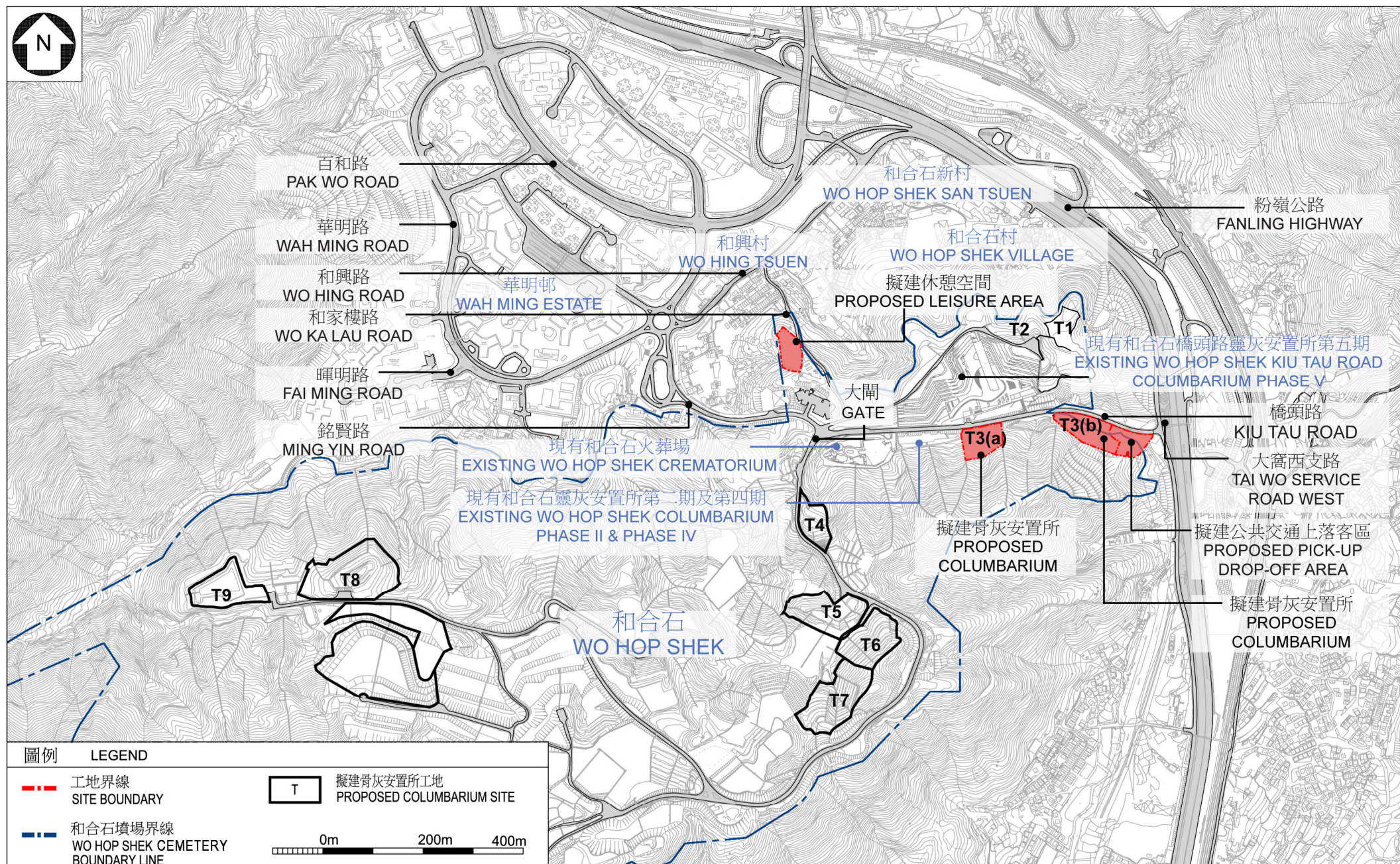
34. Of the 988 trees within the project boundary, 347 trees will be preserved. The proposed works will involve the removal of 641 trees, including 627 trees to be felled and 14 trees to be transplanted elsewhere. All trees to be removed are not important trees⁵. We will incorporate planting proposals as part of the project, including the planting of about 673 trees, 6 800 shrubs, 19 100 groundcovers, and 0.3 hectares of grassed area.

35. We estimate that the proposed works will create about 260 jobs (225 for labourers and 35 for professional or technical staff) providing a total employment of 7 350 man-months.

Food and Health Bureau
May 2016

⁵ “Important trees” refer to trees in the Register of Old and Valuable Trees, or any other trees that meet one or more of the following criteria –

- (a) trees of 100 years old or above;
- (b) trees of cultural, historical or memorable significance e.g. Fung Shui tree, tree as landmark of monastery or heritage monument, and trees in memory of an important person or event;
- (c) trees of precious or rare species;
- (d) trees of 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) trees with trunk diameter equal or exceeding 1.0 metre (m) (measured at 1.3 m above ground level), or with height/canopy spread equal or exceeding 25 m.

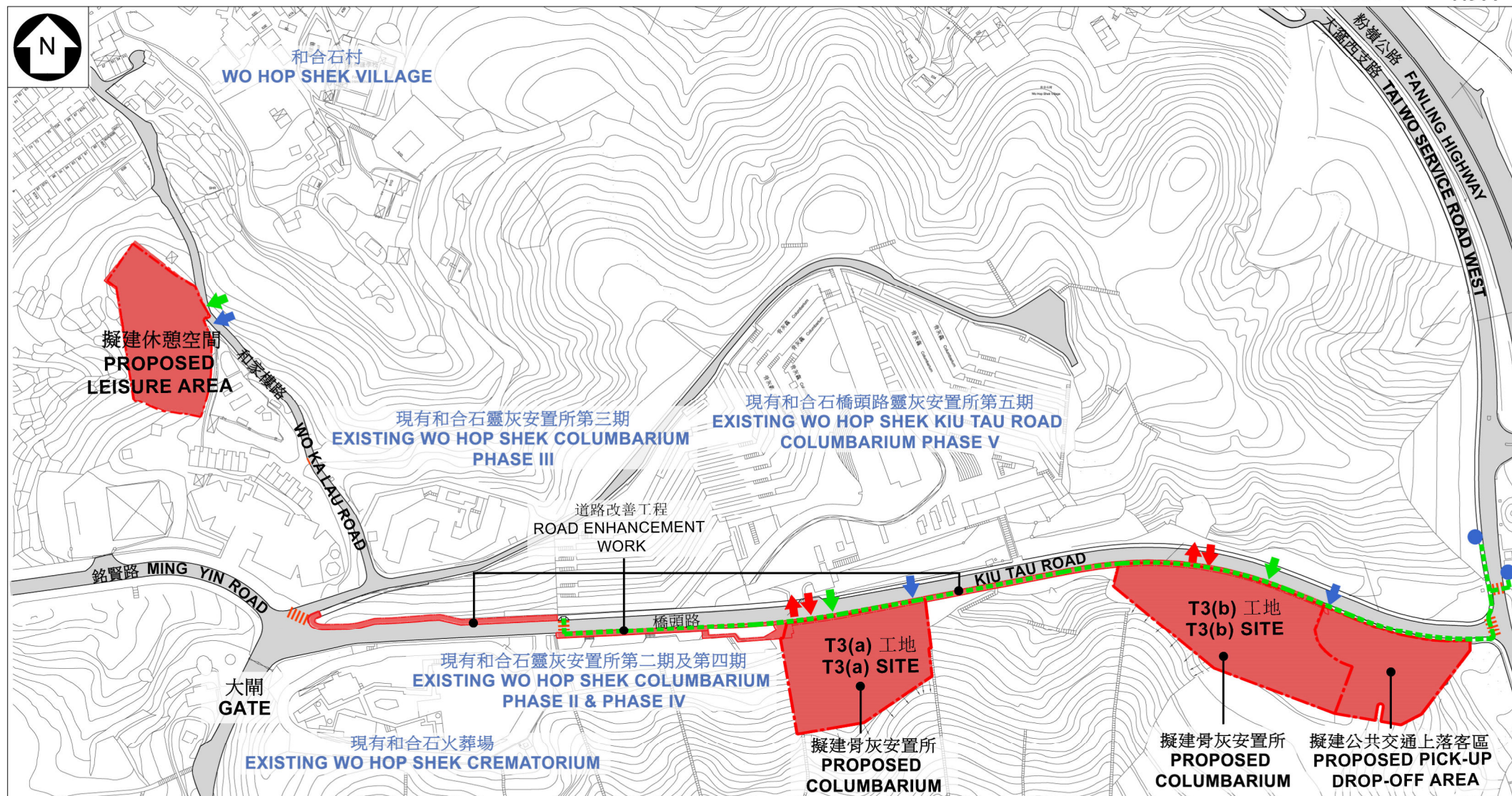


位置圖 1
LOCATION PLAN 1

22NB
在和合石墳場興建骨灰安置所設施工程第一期
PROVISION OF COLUMBARIUM AT WO HOP SHEK CEMETERY - PHASE 1



ARCHITECTURAL
SERVICES
DEPARTMENT 建築署



圖例 LEGEND

- | | | | |
|----------------------------------|--|--------------------------------------|--------------------------------|
| --- 工地界線
SITE BOUNDARY | ← 無障礙出入口
BARRIER-FREE ENTRANCE / EXIT | ← 車輛出入口
VEHICULAR INGRESS/ EGRESS | ≡ 行人過路處
PEDESTRIAN CROSSING |
| --- 無障礙通道
BARRIER-FREE ACCESS | ← 行人出入口
PEDESTRIAN ENTRANCE / EXIT | ● 現有巴士站
EXISTING BUS STOP | |

30m 0m 60m 120m

位置圖 2
LOCATION PLAN 2

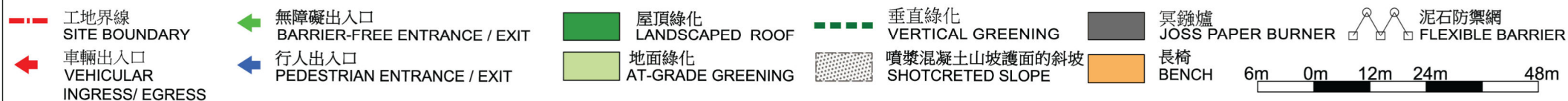
22NB
在和合石墳場興建骨灰安置所設施工程第一期
PROVISION OF COLUMBARIUM AT WO HOP SHEK CEMETERY - PHASE 1



ARCHITECTURAL
SERVICES
DEPARTMENT 建築署



圖例 LEGEND

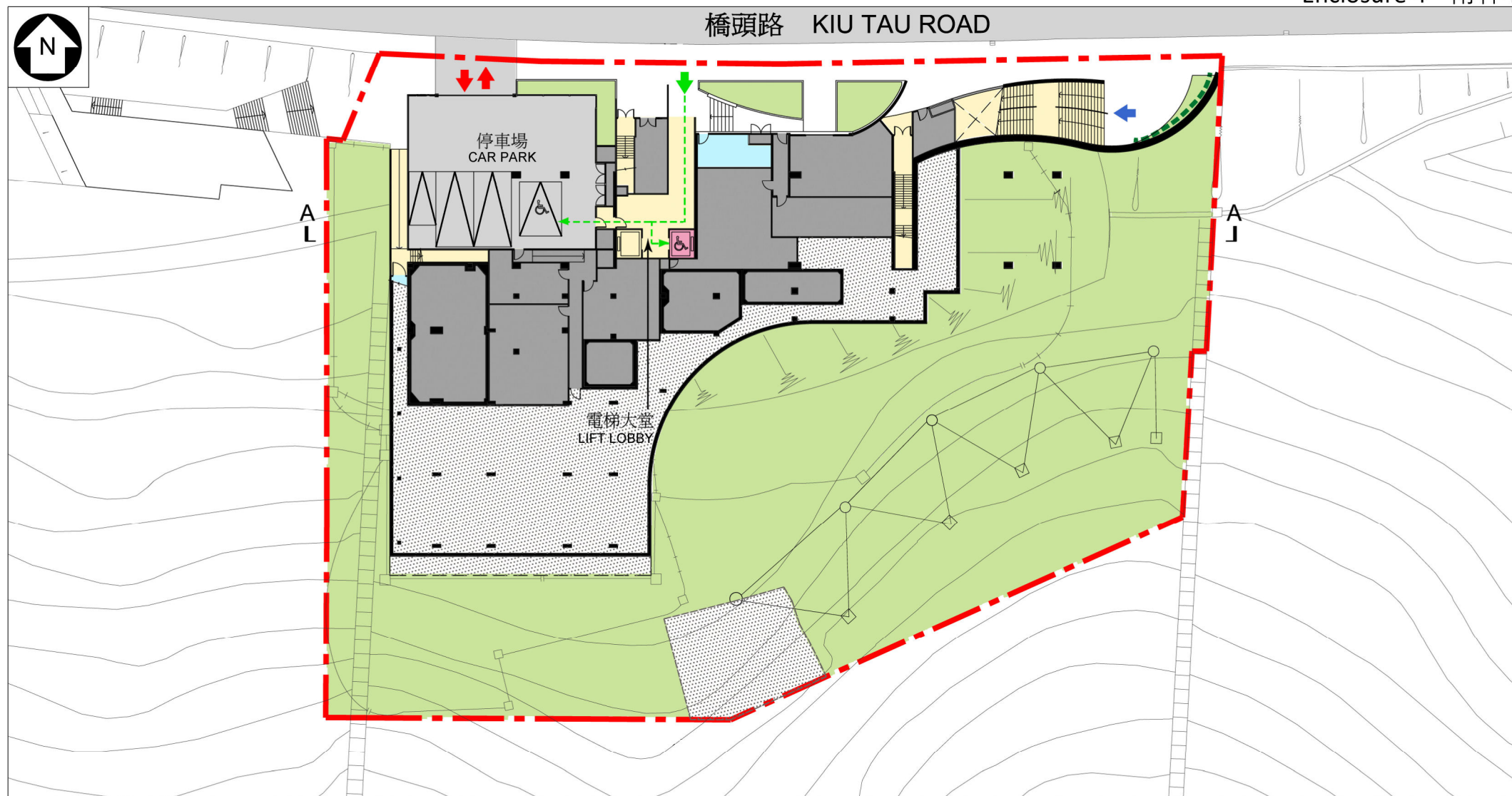


T3(a) 骨灰安置所工地平面圖
T3(a) COLUMBARIUM SITE
PLAN

22NB
在和合石墳場興建骨灰安置所設施工程第一期
PROVISION OF COLUMBARIUM AT WO HOP SHEK CEMETERY - PHASE 1



ARCHITECTURAL
SERVICES
DEPARTMENT 建築署



圖例 LEGEND

工地界線
SITE BOUNDARY

無障礙出入口
BARRIER-FREE
ENTRANCE / EXIT

行人出入口
PEDESTRIAN
ENTRANCE / EXIT

車輛出入口
VEHICULAR
INGRESS/ EGRESS

骨灰安置所範圍
COLUMBARIUM
AREA

地面綠化
AT-GRADE GREENING

機電房
PLANT ROOM

噴漿混凝土山坡護面的斜坡
SHOTCRETED SLOPE

暢通易達升降機
ACCESSIBLE LIFT

職員範圍
STAFF AREA

泥石防禦網
FLEXIBLE BARRIER

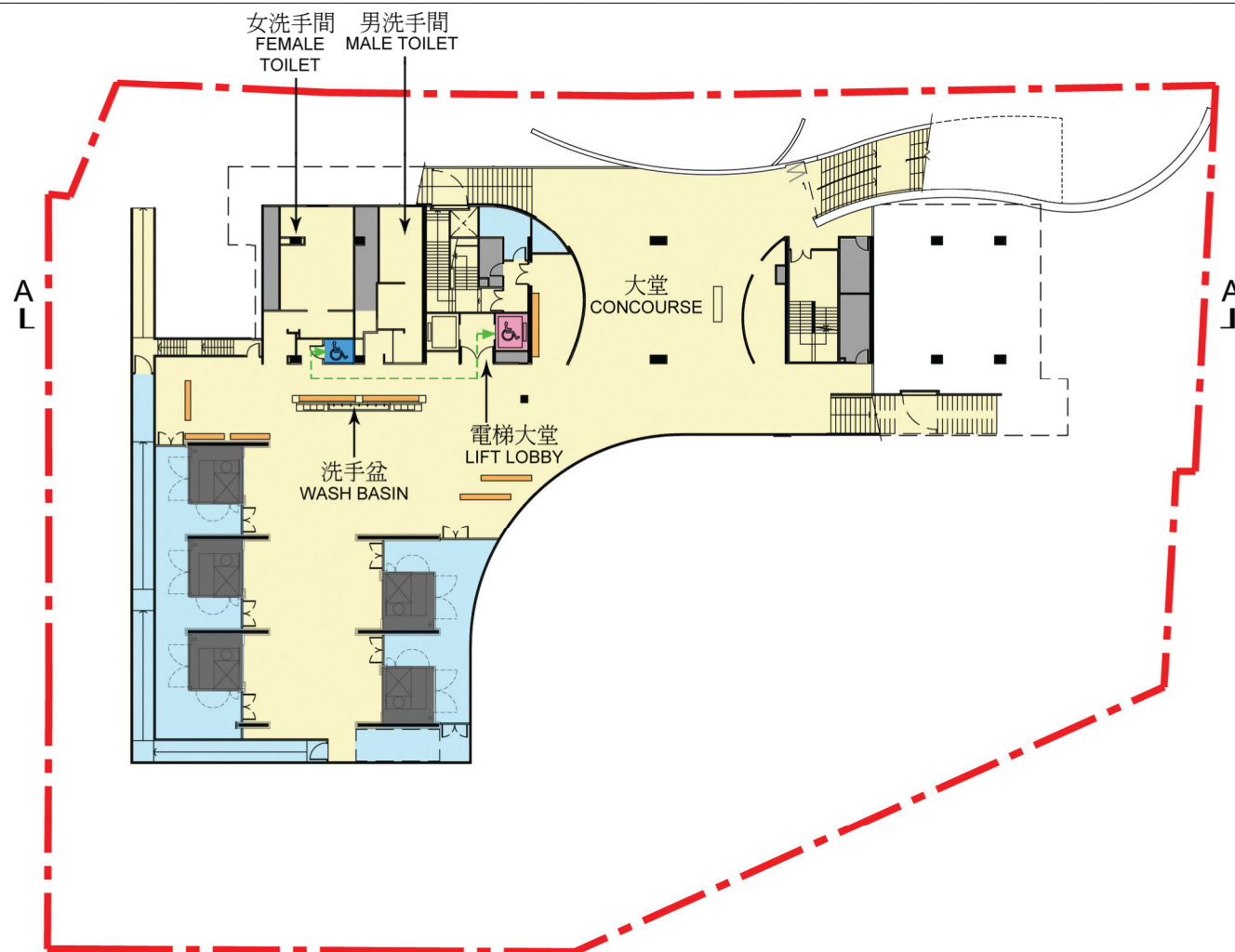
垂直綠化
VERTICAL
GREENING

T3(a) 骨灰安置所地下平面圖
T3(a) COLUMBARIUM
G/F FLOOR PLAN

22NB
在和合石墳場興建骨灰安置所設施工程第一期
PROVISION OF COLUMBARIUM AT WO HOP SHEK CEMETERY - PHASE 1



ARCHITECTURAL
SERVICES
DEPARTMENT 建築署



圖例 LEGEND

--- 工地界線 SITE BOUNDARY	█ 骨灰安置所範圍 COLUMBARIUM AREA	█ 暢通易達升降機 ACCESSIBLE LIFT	█ 職員範圍 STAFF AREA	█ 冥鑪 JOSS PAPER BURNER
--- 無障礙通道 BARRIER-FREE ACCESS	█ 機電房 PLANT ROOM	█ 暢通易達洗手間 ACCESSIBLE TOILET	█ 長椅 BENCH	

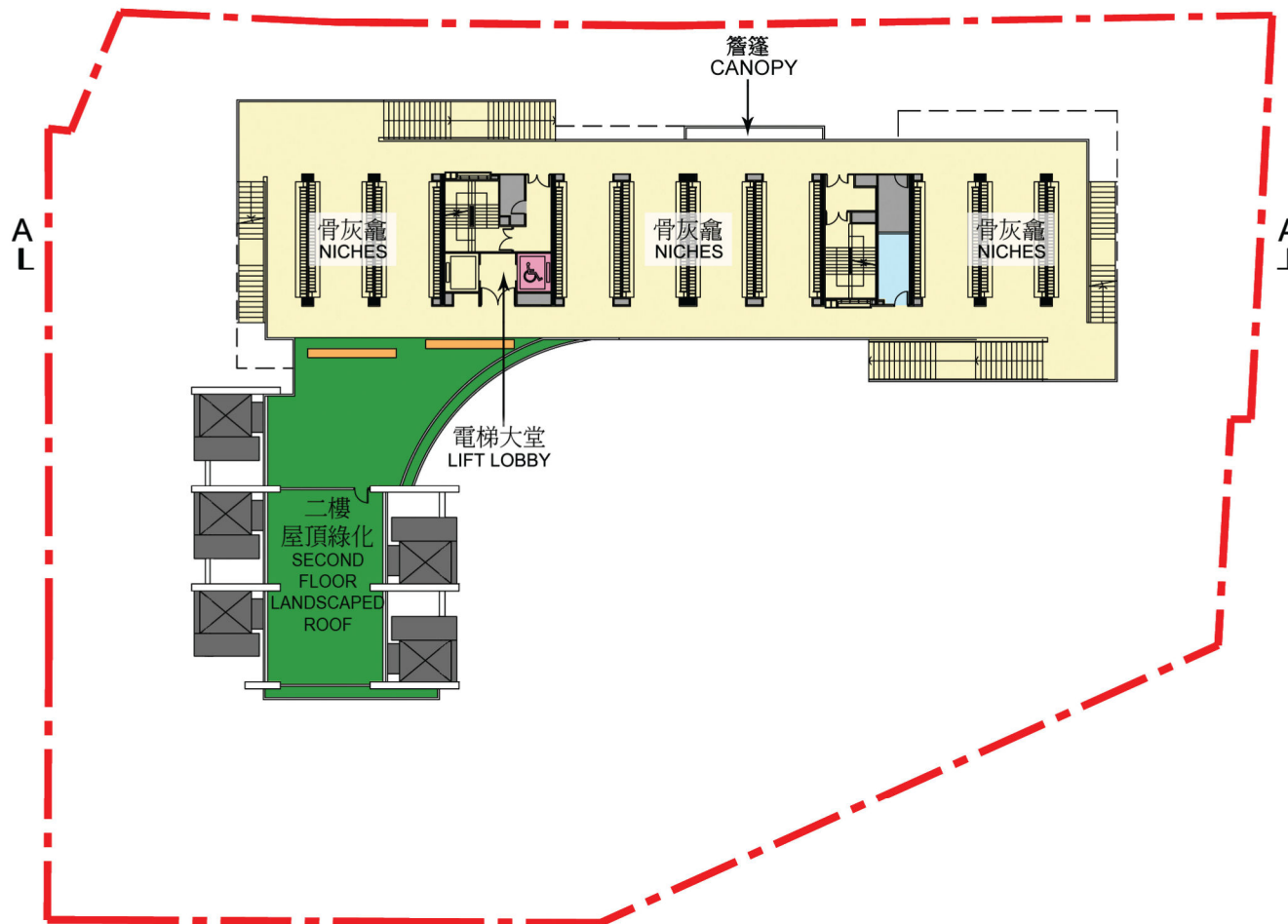
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T3(a) 骨灰安置所一樓平面圖
T3(a) COLUMBARIUM
1/F FLOOR PLAN

22NB
在和合石墳場興建骨灰安置所設施工程第一期
PROVISION OF COLUMBARIUM AT WO HOP SHEK CEMETERY - PHASE 1



ARCHITECTURAL
SERVICES
DEPARTMENT 建築署



圖例 LEGEND

工地界線 SITE BOUNDARY	冥鑪 JOSS PAPER BURNER	骨灰安置所範圍 COLUMBARIUM AREA	長椅 BENCH
屋頂綠化 LANDSCAPED ROOF	機電房 PLANT ROOM	暢通易達升降機 ACCESSIBLE LIFT	職員範圍 STAFF AREA

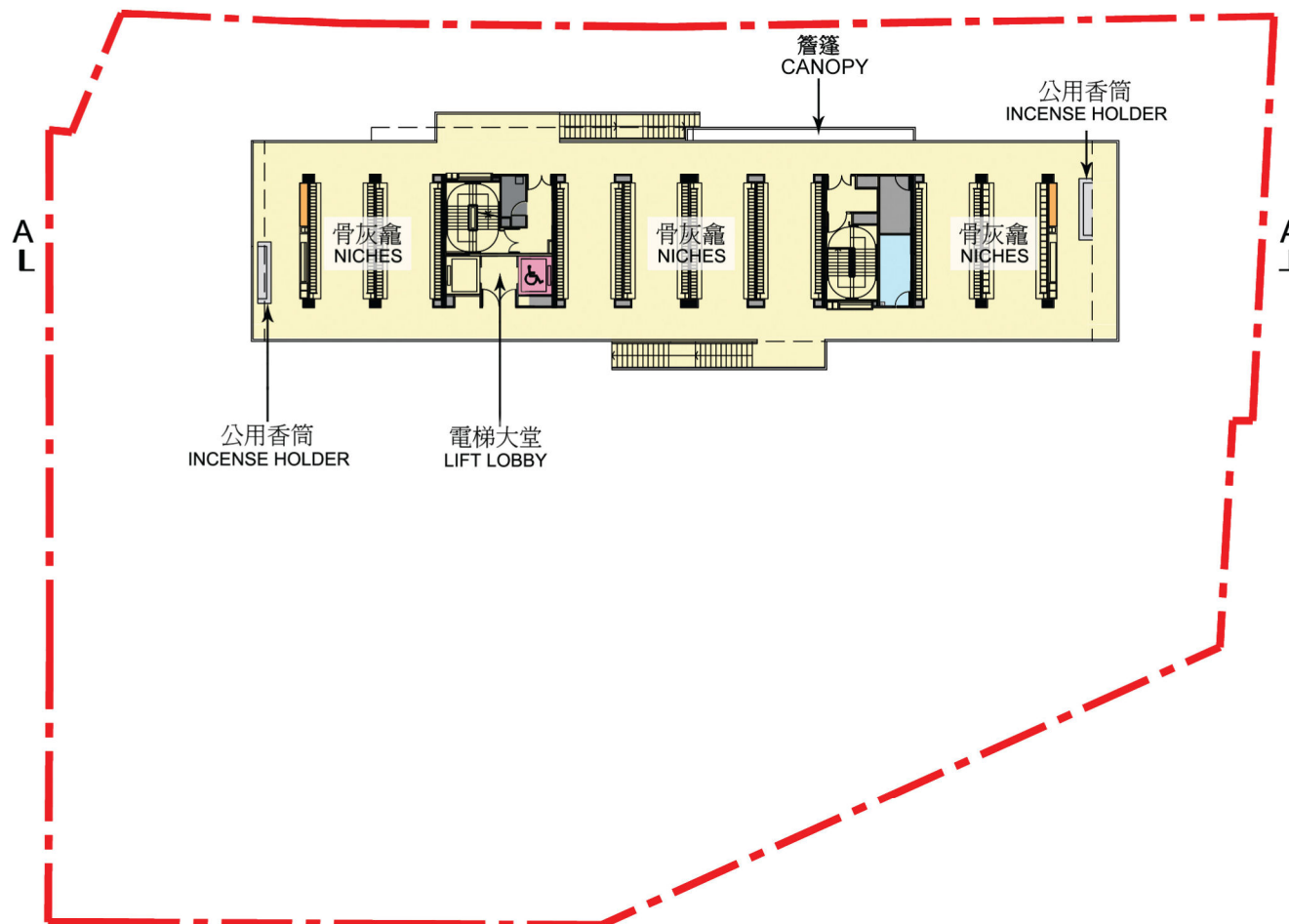
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T3(a) 骨灰安置所
二樓及三樓平面圖
T3(a) COLUMBARIUM
2/F & 3/F FLOOR PLAN

22NB
在和合石墳場興建骨灰安置所設施工程第一期
PROVISION OF COLUMBARIUM AT WO HOP SHEK CEMETERY - PHASE 1



ARCHITECTURAL
SERVICES
DEPARTMENT 建築署



圖例 LEGEND

	工地界線 SITE BOUNDARY		骨灰安置所範圍 COLUMBARIUM AREA		暢通易達升降機 ACCESSIBLE LIFT
	機電房 PLANT ROOM		職員範圍 STAFF AREA		長椅 BENCH

5m 0m 5m 10m 20m

T3(a) 骨灰安置所四樓及五樓
平面圖

T3(a) COLUMBARIUM
4/F & 5/F FLOOR PLAN

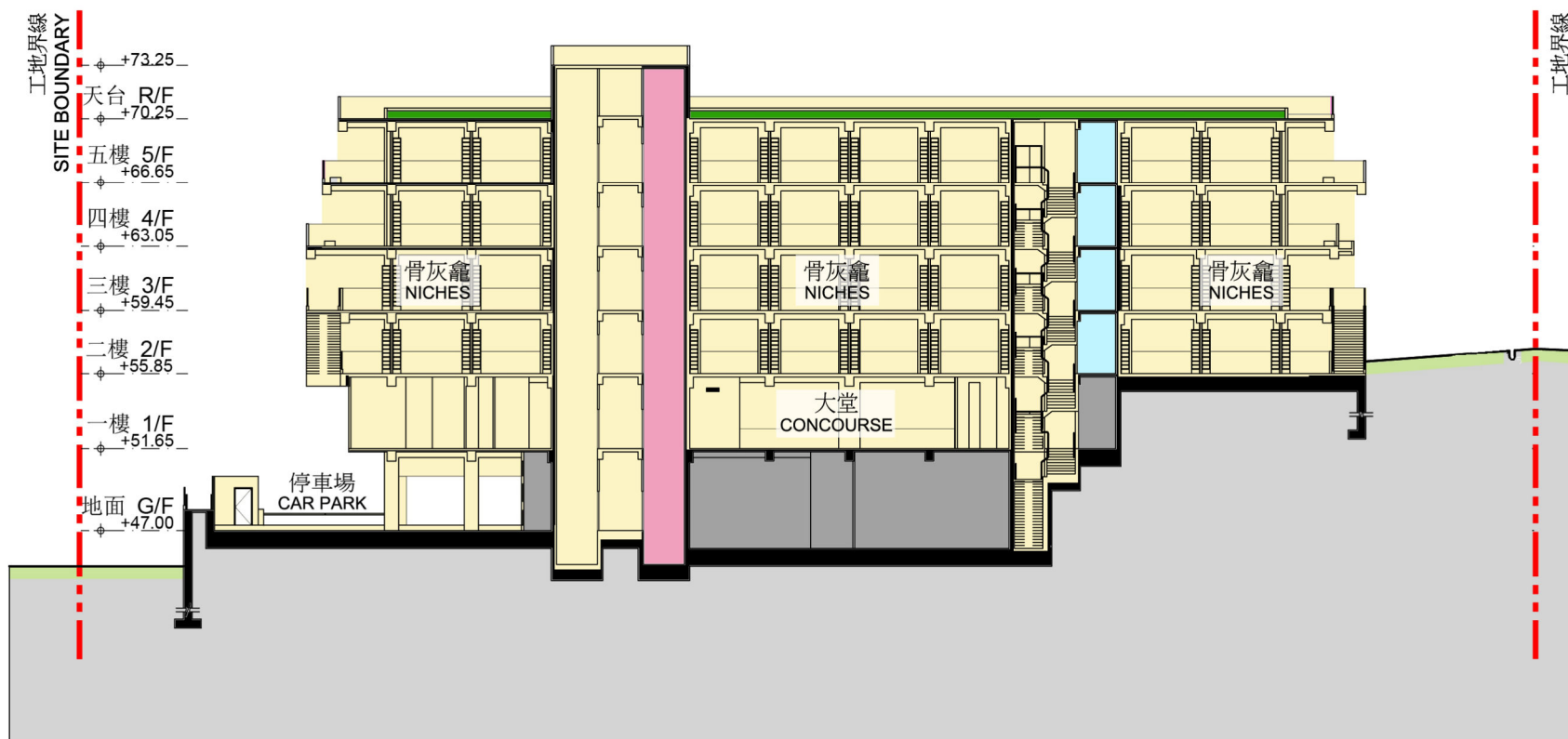
22NB

在和合石墳場興建骨灰安置所設施工程第一期

PROVISION OF COLUMBARIUM AT WO HOP SHEK CEMETERY - PHASE 1



ARCHITECTURAL
SERVICES
DEPARTMENT 建築署



圖例 LEGEND

--- 工地界線 SITE BOUNDARY	地面綠化 AT-GRADE GREENING	暢通易達升降機 ACCESSIBLE LIFT	職員範圍 STAFF AREA
骨灰安置所範圍 COLUMBARIUM AREA	機電房 PLANT ROOM	屋頂綠化 LANDSCAPED ROOF	

4m 0m 4m 8m 16m

T3(a) 骨灰安置所 A-A 剖面圖
T3(a) COLUMBARIUM
SECTION A-A

22NB
在和合石墳場興建骨灰安置所設施工程第一期
PROVISION OF COLUMBARIUM AT WO HOP SHEK CEMETERY - PHASE 1



ARCHITECTURAL
SERVICES
DEPARTMENT 建築署

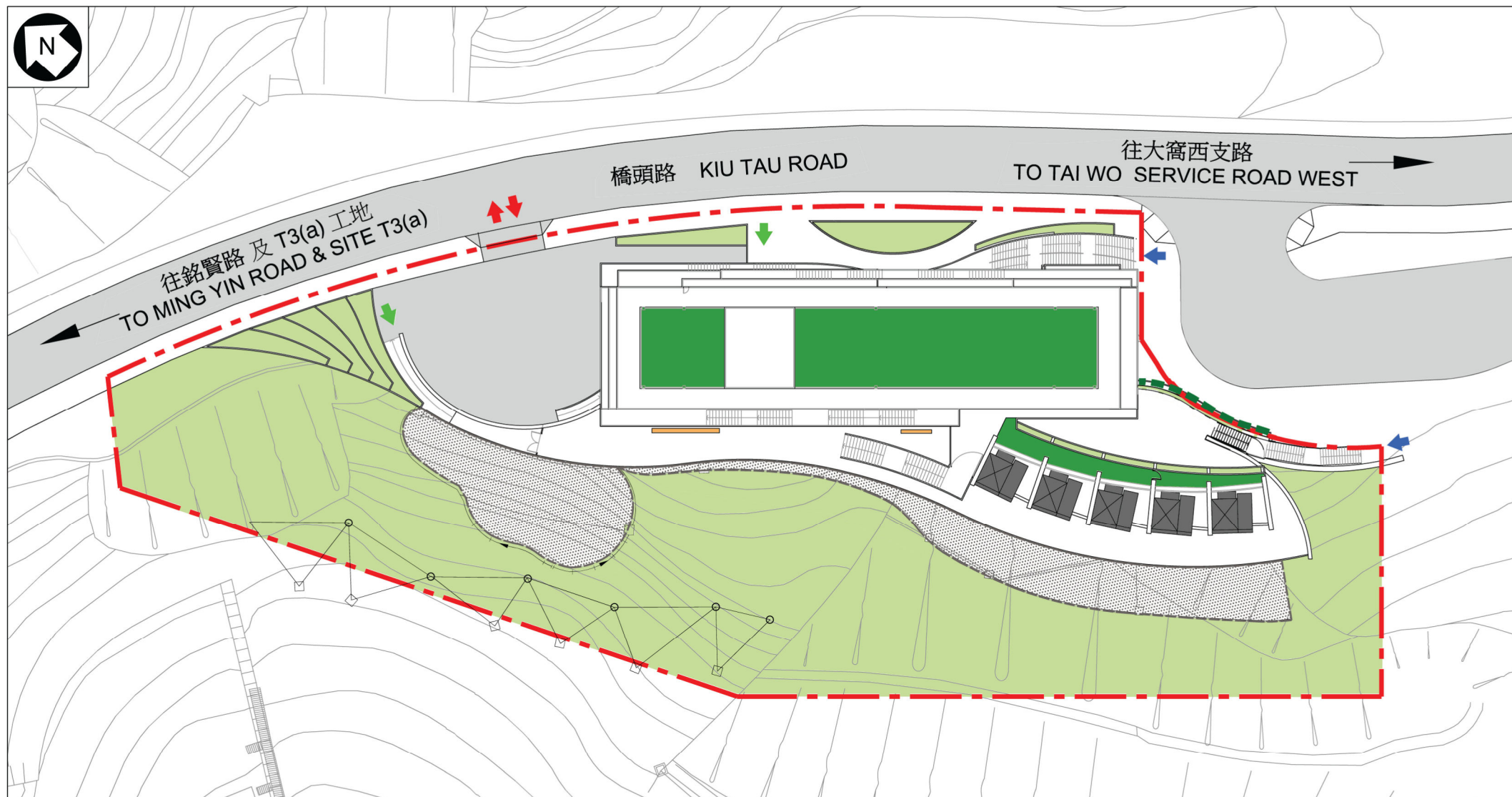


從北面望向T3(a)骨灰安置所的構思圖
T3(a) COLUMBARIUM PERSPECTIVE
VIEW FROM NORTHERN DIRECTION
(ARTIST'S IMPRESSION)

22NB
在和合石墳場興建骨灰安置所設施工程第一期
PROVISION OF COLUMBARIUM AT WO HOP SHEK CEMETERY - PHASE 1



ARCHITECTURAL
SERVICES
DEPARTMENT 建築署



圖例 LEGEND

--- 工地界線 SITE BOUNDARY	← 無障礙出入口 BARRIER-FREE ENTRANCE / EXIT	■ 屋頂綠化 LANDSCAPED ROOF	--- 垂直綠化 VERTICAL GREENING	■ 冥鏹爐 JOSS PAPER BURNER	○ 泥石防禦網 FLEXIBLE BARRIER
↔ 車輛出入口 VEHICULAR INGRESS/ EGRESS	↔ 行人出入口 PEDESTRIAN ENTRANCE / EXIT	■ 地面綠化 AT-GRADE GREENING	■ 噴漿混凝土山坡護面的斜坡 SHOTCRETED SLOPE	■ 長椅 BENCH	

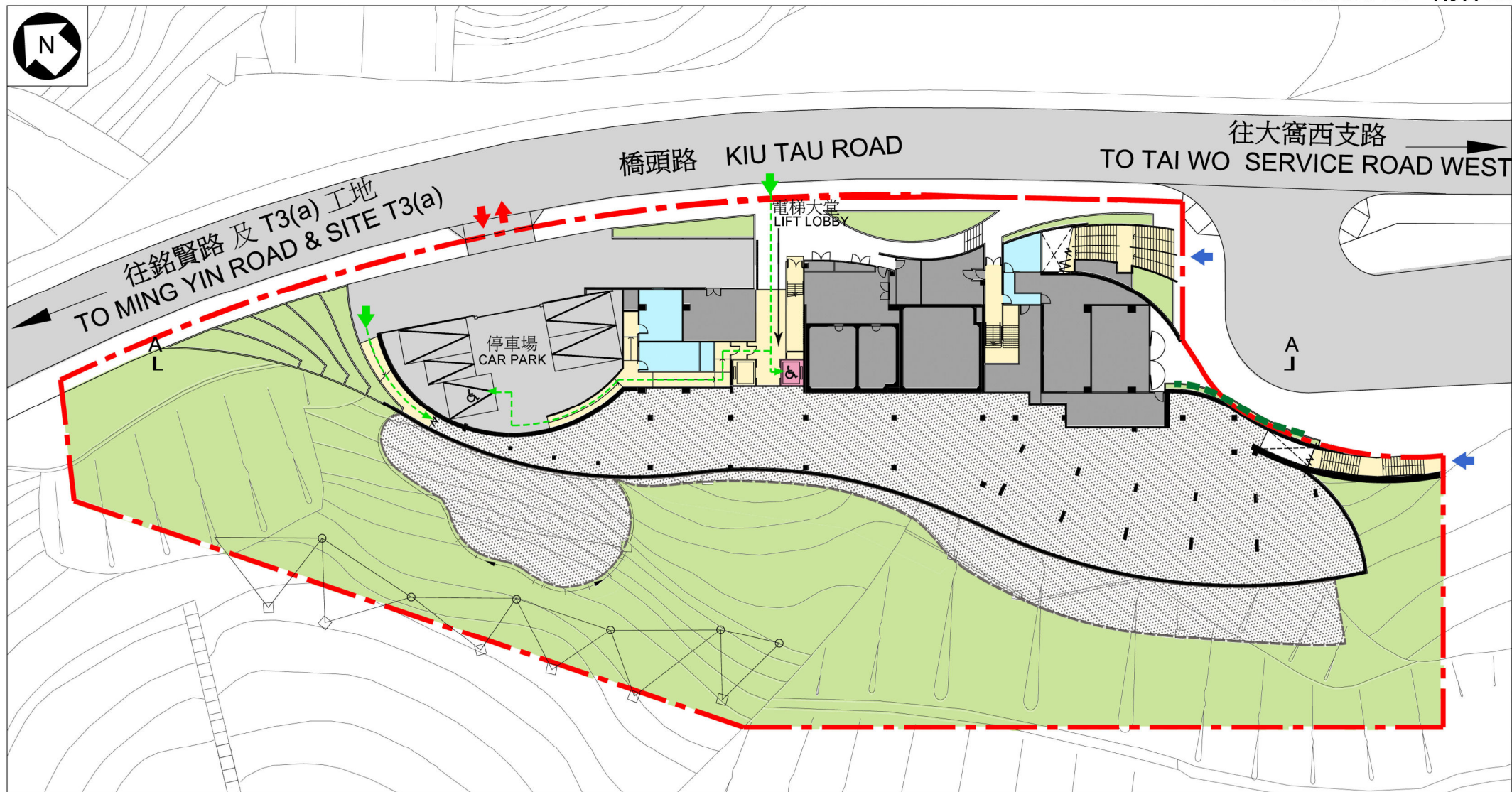
6m 0m 12m 24m 48m

T3(b) 骨灰安置所工地平面圖
T3(b) COLUMBARIUM SITE
PLAN

22NB
在和合石墳場興建骨灰安置所設施工程第一期
PROVISION OF COLUMBARIUM AT WO HOP SHEK CEMETERY - PHASE 1



ARCHITECTURAL
SERVICES
DEPARTMENT 建築署



圖例 LEGEND

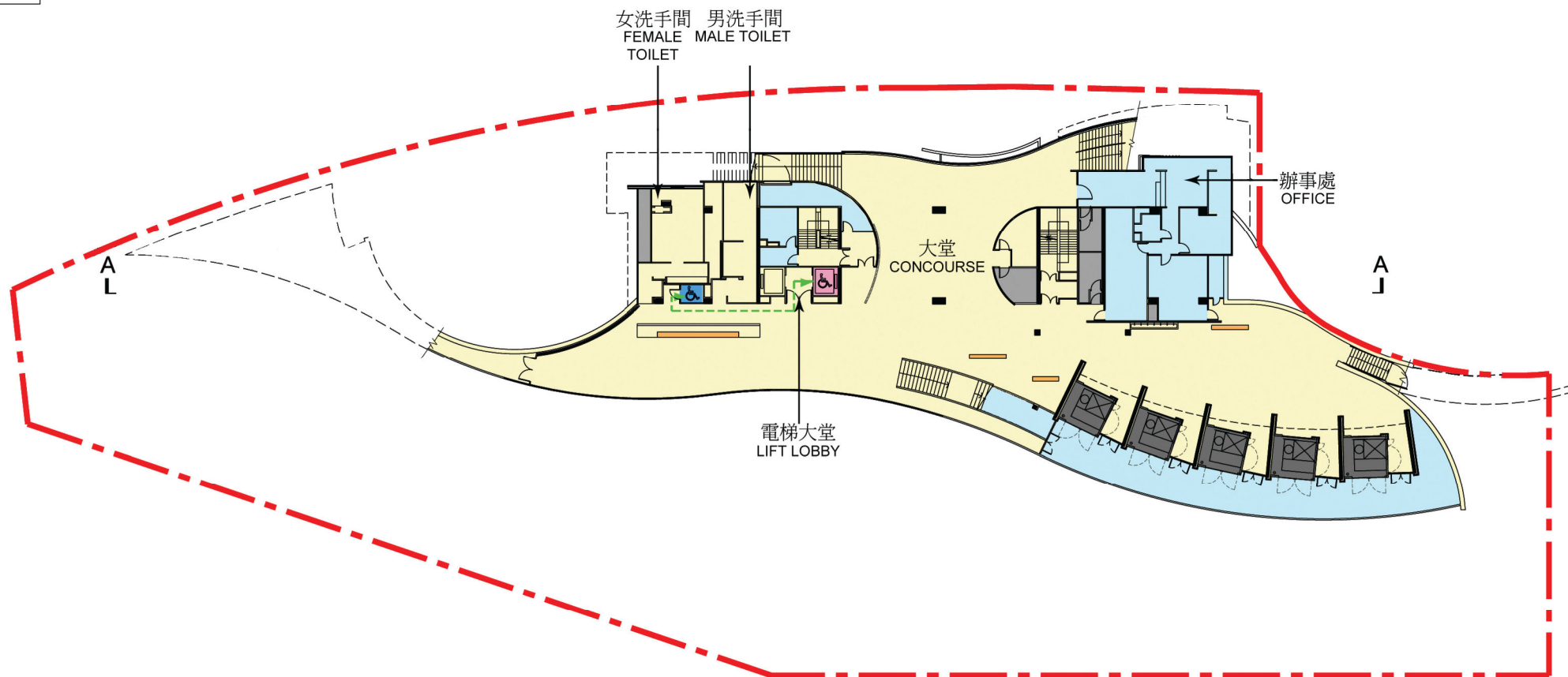
--- 工地界線 SITE BOUNDARY	➡ 無障礙出入口 BARRIER-FREE ENTRANCE / EXIT	➡ 車輛出入口 VEHICULAR INGRESS/ EGRESS	■ 地面綠化 AT-GRADE GREENING	■ 噴漿混凝土山坡護面的斜坡 SHOTCRETED SLOPE	■ 職員範圍 STAFF AREA	■ 泥石防禦網 FLEXIBLE BARRIER
--- 無障礙通道 BARRIER-FREE ACCESS	➡ 行人出入口 PEDESTRIAN ENTRANCE / EXIT	■ 骨灰安置所範圍 COLUMBARIUM AREA	■ 機電房 PLANT ROOM	■ 暢通易達升降機 ACCESSIBLE LIFT	--- 垂直綠化 VERTICAL GREENING	5.5m 0m 5.5m 11m 22m

T3(b) 骨灰安置所地下平面圖
T3(b) COLUMBARIUM
G/F FLOOR PLAN

22NB
在和合石墳場興建骨灰安置所設施工程第一期
PROVISION OF COLUMBARIUM AT WO HOP SHEK CEMETERY - PHASE 1



ARCHITECTURAL
SERVICES
DEPARTMENT 建築署



圖例 LEGEND

--- 工地界線 SITE BOUNDARY	■ 骨灰安置所範圍 COLUMBARIUM AREA	■ 暢通易達升降機 ACCESSIBLE LIFT	■ 職員範圍 STAFF AREA	■ 冥鑪 JOSS PAPER BURNER
--- 無障礙通道 BARRIER-FREE ACCESS	■ 機電房 PLANT ROOM	■ 暢通易達洗手間 ACCESSIBLE TOILET	■ 長椅 BENCH	

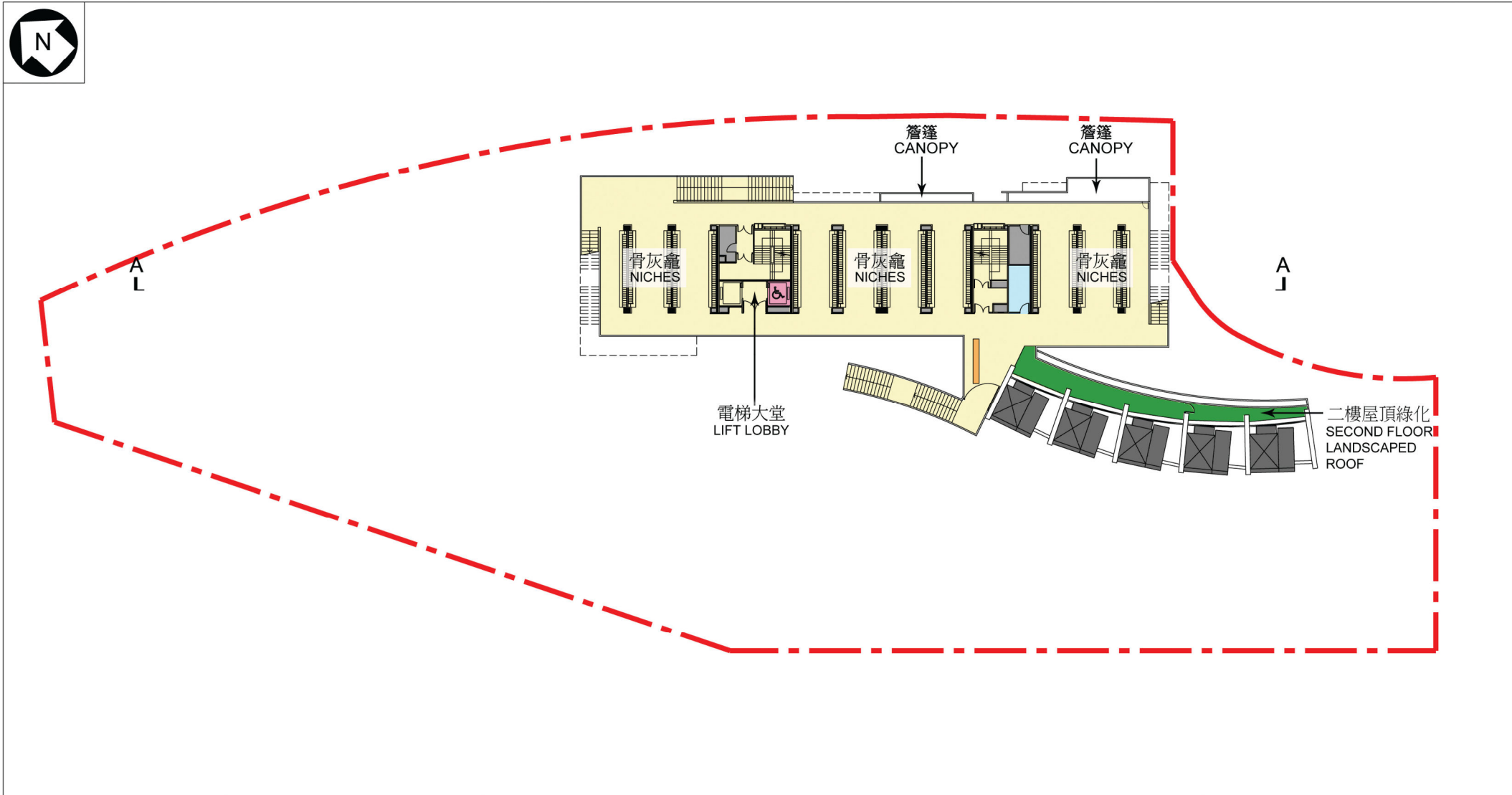
5.5m 0m 5.5m 11m 22m

T3(b) 骨灰安置所一樓平面圖
T3(b) COLUMBARIUM
1/F FLOOR PLAN

22NB
在和合石墳場興建骨灰安置所設施工程第一期
PROVISION OF COLUMBARIUM AT WO HOP SHEK CEMETERY - PHASE 1



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圖例 LEGEND

工地界線 SITE BOUNDARY	骨灰安置所範圍 COLUMBARIUM AREA	長椅 BENCH	冥鑪爐 JOSS PAPER BURNER
屋頂綠化 LANDSCAPED ROOF	機電房 PLANT ROOM	暢通易達升降機 ACCESSIBLE LIFT	職員範圍 STAFF AREA

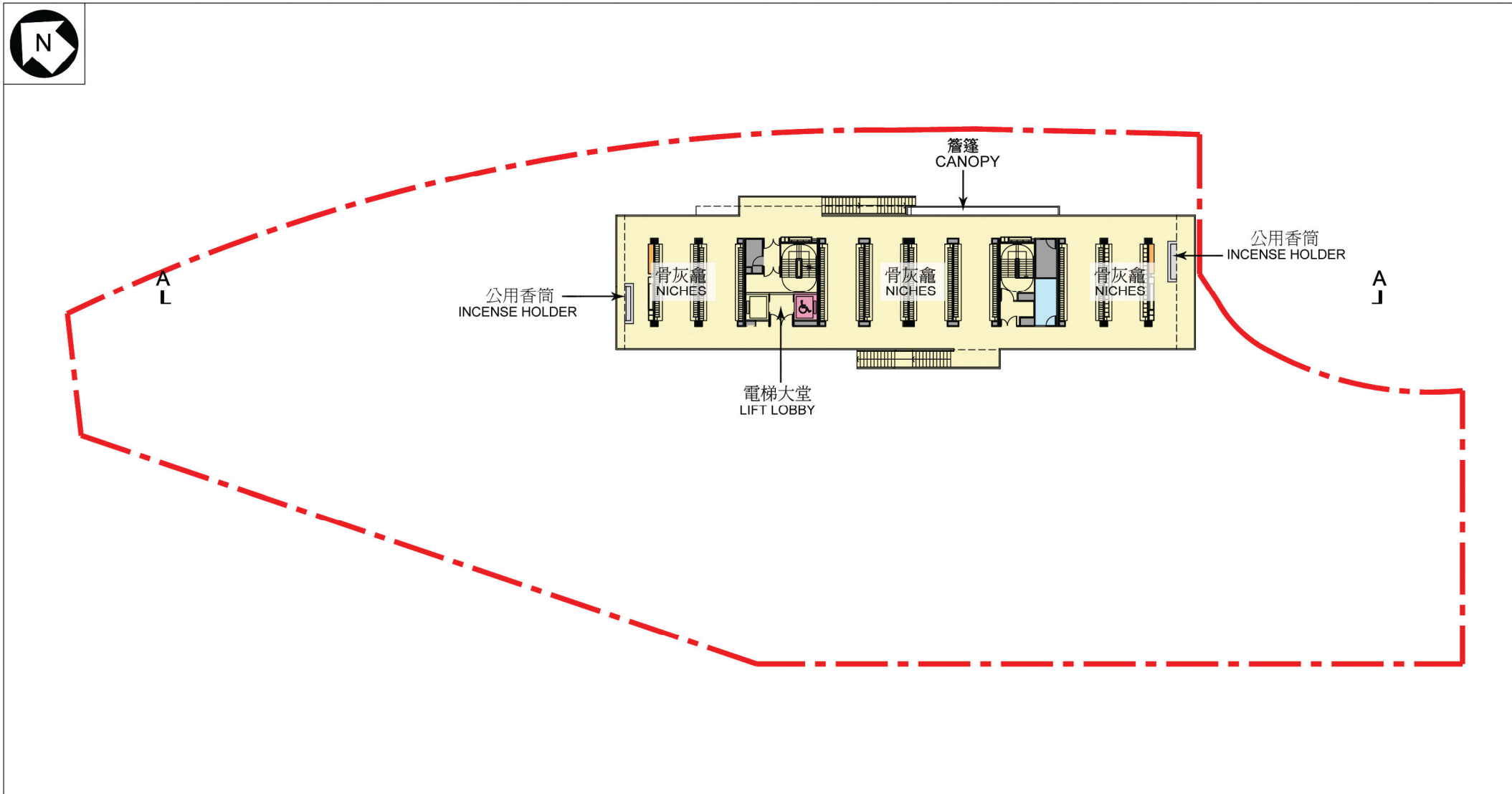
5.5m 0m 5.5m 11m 22m

T3(b) 骨灰安置所
二樓及三樓平面圖
T3(b) COLUMBARIUM
2/F & 3/F FLOOR PLAN

22NB
在和合石墳場興建骨灰安置所設施工程第一期
PROVISION OF COLUMBARIUM AT WO HOP SHEK CEMETERY - PHASE 1



ARCHITECTURAL
SERVICES
DEPARTMENT 建築署



圖例 LEGEND

工地界線 SITE BOUNDARY	骨灰安置所範圍 COLUMBARIUM AREA	暢通易達升降機 ACCESSIBLE LIFT
機電房 PLANT ROOM	職員範圍 STAFF AREA	長椅 BENCH

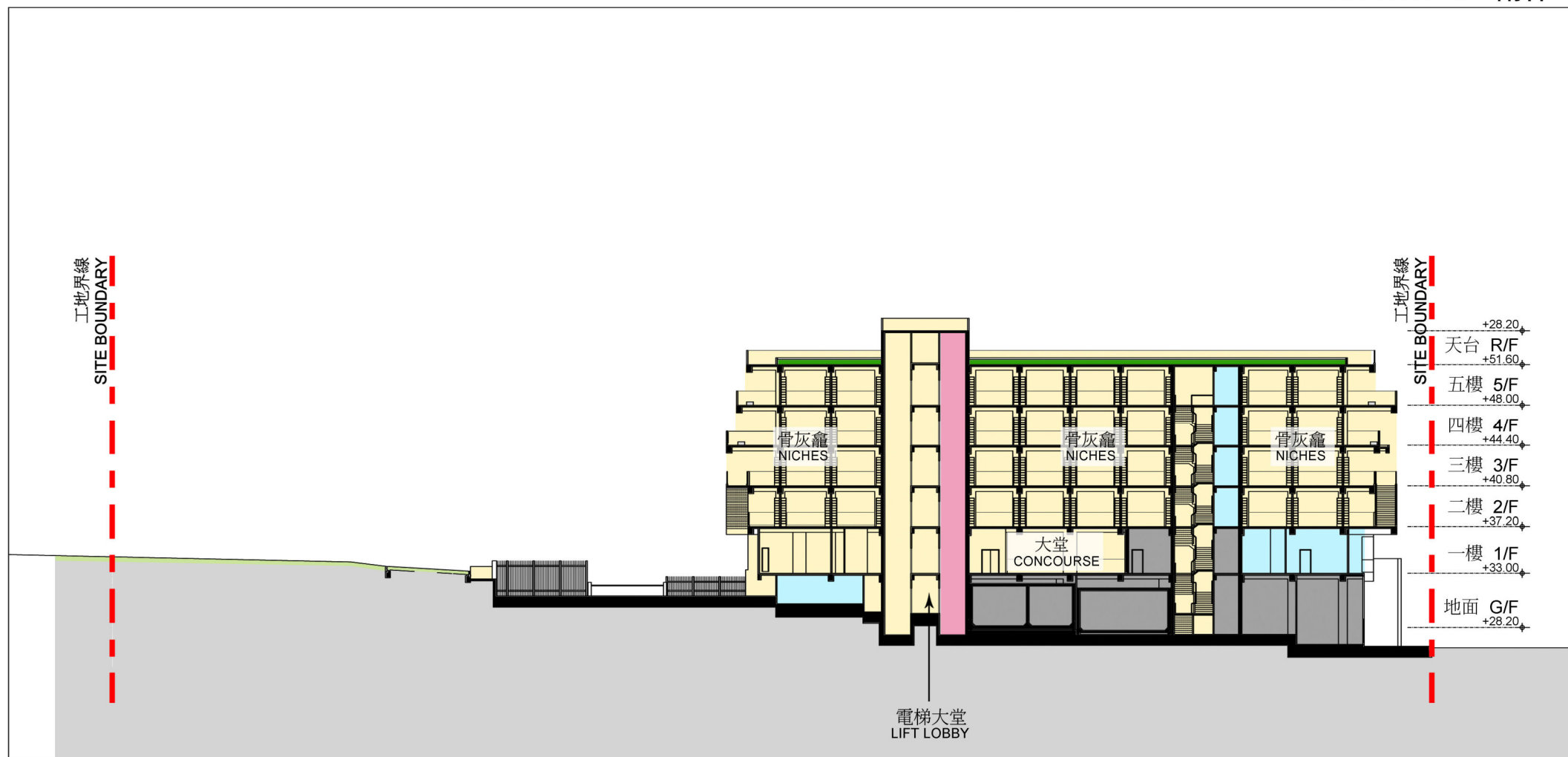
5.5m 0m 5.5m 11m 22m

T3(b) 骨灰安置所四樓及五樓
平面圖
T3(b) COLUMBARIUM
4/F & 5/F FLOOR PLAN

22NB
在和合石墳場興建骨灰安置所設施工程第一期
PROVISION OF COLUMBARIUM AT WO HOP SHEK CEMETERY - PHASE 1



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圖例 LEGEND

--- 工地界線 SITE BOUNDARY	地面綠化 AT-GRADE GREENING	暢通易達升降機 ACCESSIBLE LIFT	職員範圍 STAFF AREA
骨灰安置所範圍 COLUMBARIUM AREA	機電房 PLANT ROOM	屋頂綠化 LANDSCAPED ROOF	

4m 0m 4m 8m 16m

T3(b) 骨灰安置所 A-A 剖面圖
T3(b) COLUMBARIUM
SECTION A-A

22NB
在和合石墳場興建骨灰安置所設施工程第一期
PROVISION OF COLUMBARIUM AT WO HOP SHEK CEMETERY - PHASE 1



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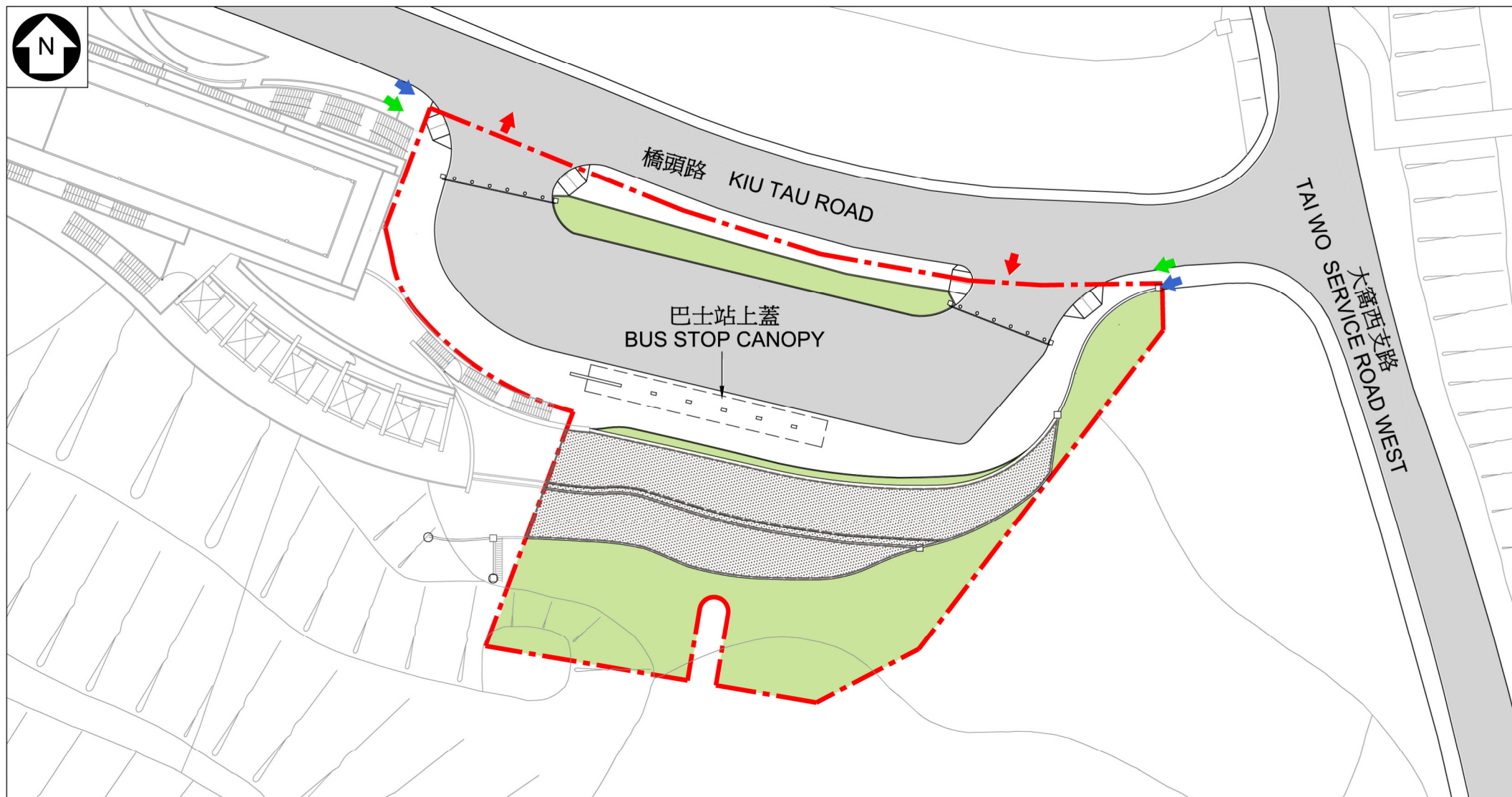


從北面望向T3(b)骨灰安置所的構思圖
T3(b) COLUMBARIUM PERSPECTIVE
VIEW FROM NORTHERN DIRECTION
(ARTIST'S IMPRESSION)

22NB
在和合石墳場興建骨灰安置所設施工程第一期
PROVISION OF COLUMBARIUM AT WO HOP SHEK CEMETERY - PHASE 1



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圖例 LEGEND

- | | | |
|---|--|------------------------------------|
| --- 工地界線
SITE BOUNDARY | ↗ 無障礙出入口
BARRIER-FREE ENTRANCE / EXIT | ■ 地面綠化
AT-GRADE GREENING |
| ↖ 車輛出入口
VEHICULAR
INGRESS/ EGRESS | ↘ 行人出入口
PEDESTRIAN ENTRANCE / EXIT | ▨ 噴漿混凝土山坡護面的斜坡
SHOTCRETED SLOPE |

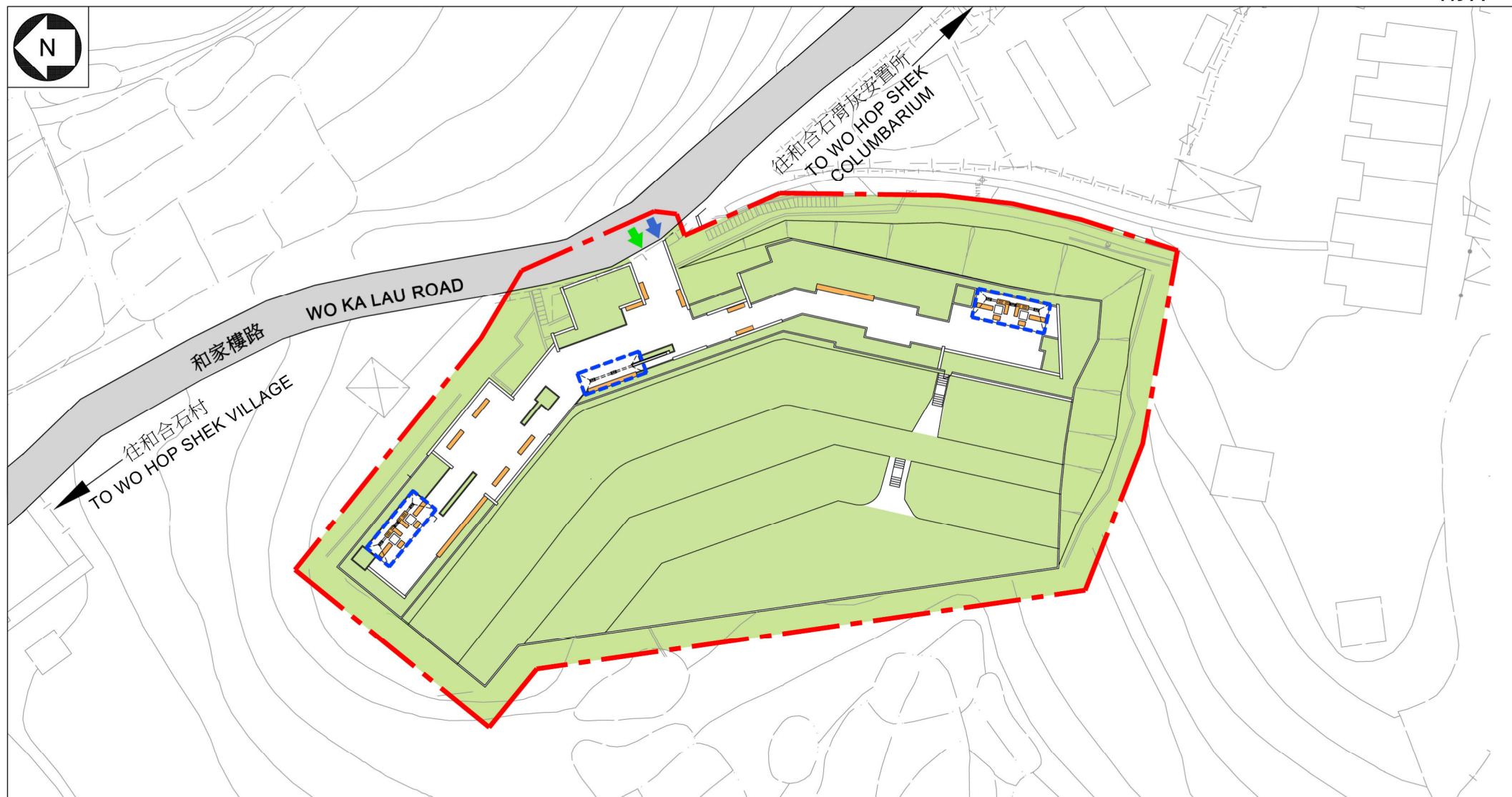
6m 0m 12m 24m 48m

公共交通上落客區工地平面圖
PICK-UP DROP-OFF AREA
SITE PLAN

22NB
在和合石墳場興建骨灰安置所設施工程第一期
PROVISION OF COLUMBARIUM AT WO HOP SHEK CEMETERY - PHASE 1



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LEGEND

--- 工地界線
SITE BOUNDARY

➡ 無障礙出入口
BARRIER-FREE ENTRANCE / EXIT

➡ 行人出入口
PEDESTRIAN ENTRANCE / EXIT

▭ 避雨亭
PAVILION

■ 地面綠化
AT-GRADE GREENING

■ 長椅
BENCH

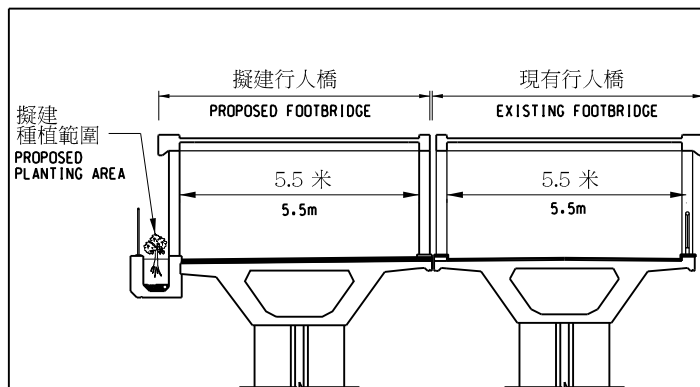
6m 0m 12m 24m

休憩空間平面圖
LEISURE AREA SITE PLAN

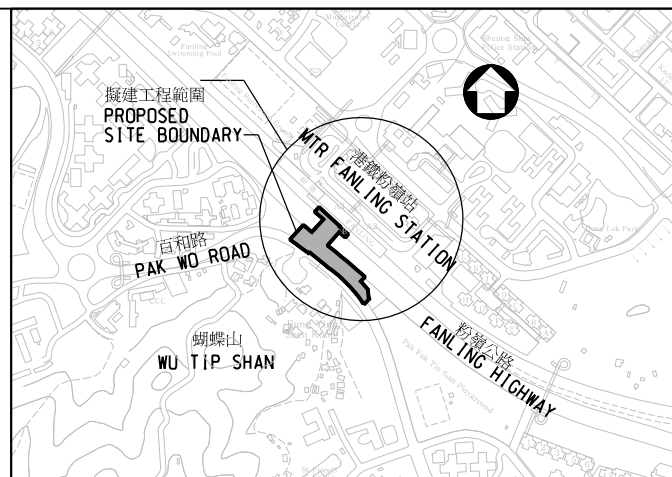
22NB
在和合石墳場興建骨灰安置所設施工程第一期
PROVISION OF COLUMBARIUM AT WO HOP SHEK CEMETERY - PHASE 1



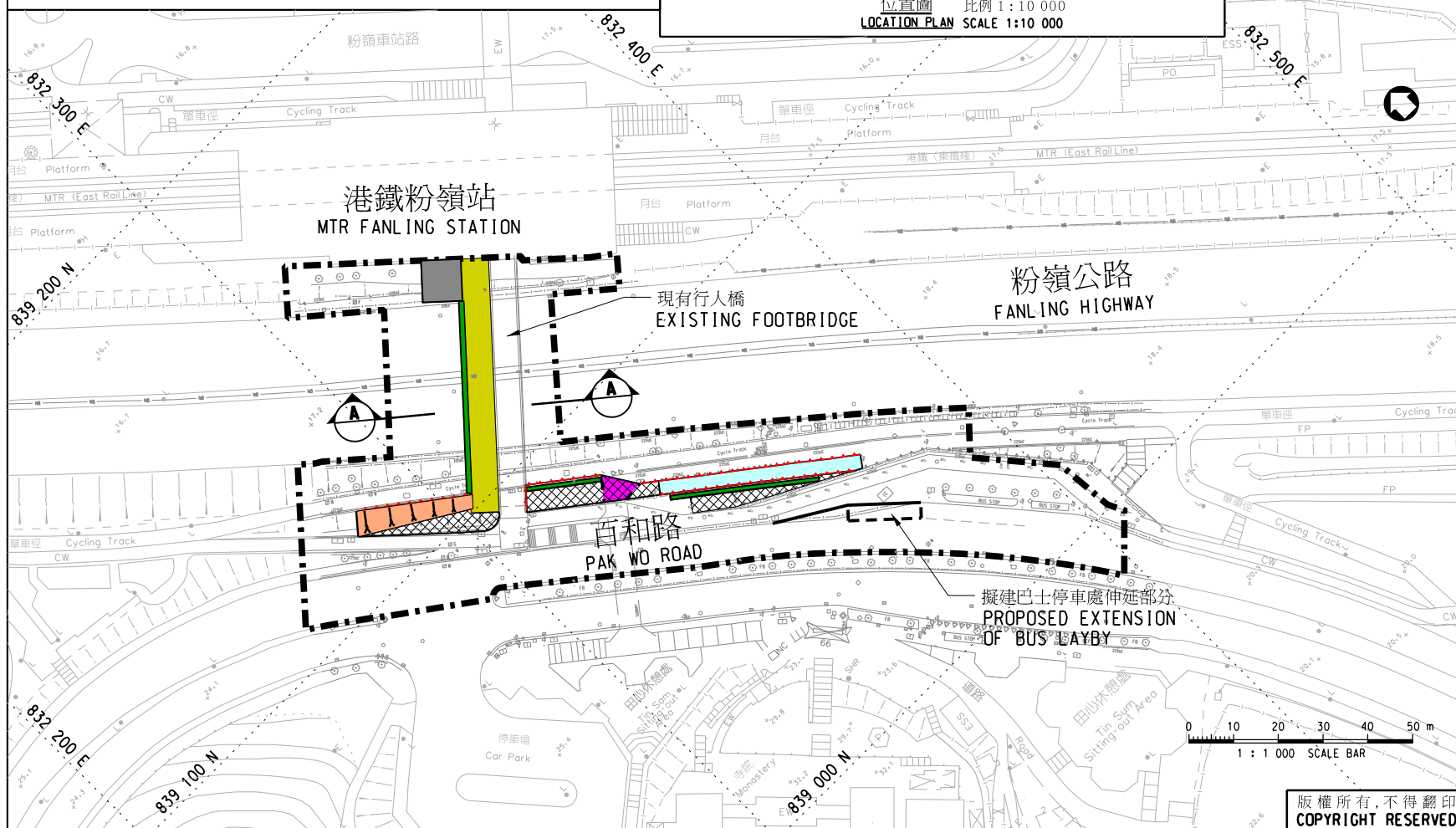
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切面 A - A
SECTION A-A
不依比例
NOT TO SCALE












位置圖 比例 1 : 10 000
LOCATION PLAN SCALE 1:10 000



註釋
NOTES :

圖例 :
LEGEND

- | | | | |
|---|--|---|------------------------------------|
|  | 擬建工地範圍
PROPOSED SITE BOUNDARY |  | 擬建斜路
PROPOSED RAMP |
|  | 擬建行人橋
PROPOSED FOOTBRIDGE |  | 擬建種植範圍
PROPOSED PLANTING AREA |
|  | 擬擴建行人路
PROPOSED WIDENING OF FOOTPATH |  | 擬建斜坡
PROPOSED SLOPE |
|  | 擬建港鐵站重置商舖及儲物室
PROPOSED REPROVISIONING OF
MTR RETAIL KIOSKS AND
STORE ROOM |  | 擬建擋土構築物
PROPOSED RETAINING WALL |
|  | 擬建隧道伸延部分
PROPOSED EXTENSION OF SURWAY | | |

B	09/05/2016	NOTES AMENDED	SIGNED	SIGNED
A	01/04/2016	TITLE REVISED	SIGNED	SIGNED
編號 no.	日期 date	內容摘要 description	核對 checked	核准 approved

修訂 REVISION

	姓名 <i>name</i>	簽署 <i>initial</i>	日期 <i>date</i>
設計 <i>designed</i>	H Y CHOW	SIGNED	11/03/2016
繪圖 <i>drawn</i>	L C WONG	SIGNED	11/03/2016
描摹 <i>traced</i>			
核對 <i>checked</i>	C T LAU	SIGNED	11/03/2016

核准 approved
ORIGINAL SIGNED

(WOO Tai-on, Gabriel)
Chief Engineer
日期 date : 11/03/2016

圖則名稱 **drawing title**

22NB
在和合石墳場興建骨灰安置所
設施工程第一期
擴闊行人天橋和延長百和路巴士
停車處工程的工地平面圖

22NB
PROVISION OF COLUMBARIUM AT
WO HOP SHEK CEMETERY -
PHASE 1
SITE PLAN OF FOOTBRIDGE
WIDENING AND BUS LAYBY
EXTENSION WORKS AT
PAK WO ROAD

圖則編號 drawing no.	比例 scale
LW 9488B	1 : 1000 或 圖示

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

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擬建擴闊行人天橋的構思圖
PROPOSED WIDENED FOOTBRIDGE
(ARTIST'S IMPRESSION)

22NB
在和合石墳場興建骨灰安置所設施工程第一期
PROVISION OF COLUMBARIUM AT WO HOP SHEK CEMETERY - PHASE 1

22NB – Provision of columbarium at Wo Hop Shek Cemetery – Phase 1

**Breakdown of the estimates for consultants' fees and resident site staff costs
(in September 2015 prices)**

		Estimated man-months	Average MPS[*] salary point	Multiplier (Note 1)	Estimated fee (\$ million)
(a) Consultants' fees for contract administration ^(Note 2)	Professional	—	—	—	18.2
	Technical	—	—	—	6.3
				Sub-total	<hr/> 24.5
(b) Resident site staff (RSS) costs ^(Note 3)	Professional	84	38	1.6	10.0
	Technical	306	14	1.6	12.5
				Sub-total	<hr/> 22.5
Comprising -					
(i) Consultants' fees for management of RSS				2.5	
(ii) Remuneration of RSS				20.0	
				Total	<hr/> 47.0

* MPS = Master Pay Scale

Notes

1. A multiplier of 1.6 is applied to the average MPS salary point to estimate the cost of RSS supplied by the consultants (as at now, MPS salary point 38 = \$74,210 per month and MPS salary point 14 = \$25,505 per month).
2. The consultants' fees for contract administration are calculated in accordance with the existing consultancy agreement for the design and construction of **22NB**. The assignment will only be executed subject to Finance Committee's funding approval to upgrade **22NB** to Category A.
3. The actual man-months and actual costs will only be known after completion of the construction works.

22NB – Provision of columbarium at Wo Hop Shek Cemetery – Phase 1

Breakdown of the land clearance cost (in September 2015 prices)

		\$ million
(I) Estimated land clearance cost		0.1
(a) Ex-gratia allowance of crop compensation	0.1	
(II) Contingency payment ^(Note 1)		0.1
(a) Contingency on the above cost	0.1	
	Total cost	0.2

Note

1. There is no grave, urn or shrine found on the subject site during our site inspections. Checking reveals that no Miscellaneous Permanent Improvement compensation is involved. Nevertheless, a contingency cost is reserved for the captioned clearance project.