

ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 703 – BUILDINGS

Education – Primary

355EP – A 30-classroom primary school at Site KT2c, Development at Anderson Road, Kwun Tong

Members are invited to recommend to the Finance Committee the upgrading of **355EP** to Category A at an estimated cost of \$369.9 million in money-of-the-day prices.

PROBLEM

We need to construct a primary school at Site KT2c, Development at Anderson Road of Kwun Tong for the reprovisioning of Hong Kong Taoist Association Wun Tsuen School (WTS).

PROPOSAL

2. The Director of Architectural Services, with the support of the Secretary for Education, proposes to upgrade **355EP** to Category A at an estimated cost of \$369.9 million in money-of-the-day (MOD) prices for the construction of a primary school premises at Site KT2c, Development at Anderson Road of Kwun Tong for the reprovisioning of WTS.

PROJECT SCOPE AND NATURE

3. The proposed scope of works of the project includes the construction of a primary school with the following facilities —

/(a)

- (a) 30 classrooms;
- (b) six special rooms, including a music room, a visual arts room, a general studies room, a multi-purpose room, a computer assisted learning room and a language room;
- (c) four small group teaching rooms;
- (d) a guidance activity room;
- (e) two interview rooms;
- (f) a staff room and a staff common room;
- (g) a student activity centre;
- (h) a conference room;
- (i) a library;
- (j) an assembly hall;
- (k) multi-purpose areas;
- (l) a covered playground;
- (m) two basketball courts;
- (n) a running track¹; and
- (o) ancillary facilities including an accessible/fireman's lift, facilities for the disabled, a tuck shop-cum-central portioning area, stores and toilets, etc.

4. The proposed new school premises with a site area of about 7 170 square metres (m²) will meet the planning target of providing 2 m² of open space per student. Parking spaces for private cars, lay-bys for taxis/private cars and school buses will also be provided within the new school premises. The site and location plan, floor plans, sectional drawings, an artist's impression and the plan of barrier-free access for the project are at **Enclosures 1 to 5** respectively.

/5.

¹ A 35-metre running track will be provided to make optimal use of campus space.

5. We plan to commence the proposed works upon obtaining funding approval from the Finance Committee for target completion in around two and a half years.

JUSTIFICATION

6. At present, there are about 900 public sector schools in the territory. Their premises were built in different periods in accordance with the building standards at the time of construction, and facilities in the premises vary. While the standards have been changing over the years, existing school premises in operation are required to comply with the prevailing statutory requirements. As at July 2021, about 200 of them were built according to the prevailing standards.

7. It is the Government's plan to, based on the needs of individual schools, improve the physical conditions and facilities of school premises not built according to the prevailing standards, through reprovisioning or in-situ redevelopment projects. WTS, currently occupying a site area of about 1 800 m² at Upper Ngau Tau Kok Estate, Kowloon, was built in 1969. The school does not have general studies room, guidance activity room, assembly hall, and some of the existing facilities such as the covered playground, multi-purpose area, conference room, staff room and staff common room are undersized according to the prevailing standards. Due to site constraints, the school does not have the additional space required for infrastructure upgrading or in-situ redevelopment. Reprovisioning is considered the most effective way to upgrade the facilities of the school and improve the learning and teaching environment.

8. Upon completion of the proposed capital works project, WTS, which currently operates 24 classes, may operate up to 30 classes in the new school premises, subject to the actual enrolment and operational needs.

9. WTS shall cease to occupy and voluntarily relinquish possession of its existing school premises at Upper Ngau Tau Kok Estate, Kowloon upon reprovisioning. The Education Bureau (EDB) will handle the to-be-vacant school premises according to the established mechanism. EDB will assess the premises' suitability for school use having regard to factors including the size, location, physical conditions, etc., of the premises, as well as the educational needs and relevant policy measures. When the premises is confirmed no longer required by EDB for reallocation for school use, EDB will, in accordance with the Central Clearing House mechanism, inform the Planning Department (PlanD) and other relevant departments (such as the Housing Department) for PlanD's consideration of suitable alternative long-term uses.

/FINANCIAL

FINANCIAL IMPLICATIONS

10. We estimate the capital cost of the project to be \$369.9 million in MOD prices, broken down as follows –

| | | \$million (in MOD prices) |
|-------|---|--|
| (a) | Site works | 3.5 |
| (b) | Foundation | 10.0 |
| (c) | Building ² | 165.6 |
| (d) | Building services | 91.0 |
| (e) | Drainage | 10.0 |
| (f) | External works | 23.3 |
| (g) | Additional energy conservation, green and recycled features | 6.9 |
| (h) | Furniture and equipment (F&E) ³ | 2.7 |
| (i) | Consultants' fees for | 8.9 |
| | (i) contract administration | 8.0 |
| | (ii) management of resident site staff (RSS) | 0.9 |
| (j) | Remuneration of RSS | 14.5 |
| (k) | Contingencies | 33.5 |
| Total | | <u>369.9</u> |

/11.

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

³ The estimated cost of F&E is prepared with reference to the F&E reference list provided by EDB for a new 30-classroom primary school adopting the standard schedule of accommodation. The actual cost will be subject to a survey on the conditions of the existing F&E.

11. We propose engaging consultants to undertake contract administration and site supervision of the project. A detailed breakdown of the estimate for consultants' fees and RSS costs by man-months is at **Enclosure 6**. The construction floor area (CFA) of the project is about 10 667 m². The estimated construction unit cost, represented by the building and building services costs, is \$24,055 per m² of CFA in MOD prices. This unit cost is comparable to that of similar projects built by the Government.

12. Subject to funding approval, we plan to phase the expenditure as follows –

| Year | \$ million (in MOD prices) |
|-----------|-------------------------------|
| 2021 – 22 | 16.7 |
| 2022 – 23 | 77.9 |
| 2023 – 24 | 99.1 |
| 2024 – 25 | 100.4 |
| 2025 – 26 | 61.0 |
| 2026 – 27 | 10.6 |
| 2027 – 28 | 4.2 |
| | <hr/> 369.9 <hr/> |

13. 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 2021 to 2028. We will deliver the construction works through a lump-sum contract because we can clearly define the scope of the works in advance. The contract will provide for price adjustment.

14. The cost of F&E for the project, estimated to be about \$2.7 million (in MOD prices), will be borne by the Government according to the existing policy. We estimate the annual recurrent expenditure arising from this project to be \$54.0 million upon full commissioning of the new school premises.

/15.

PUBLIC CONSULTATION

15. We consulted the Social Services and Youth Development Committee of the Kwun Tong District Council on 22 September 2020 on this reprovisioning project. The Committee supported the project.

16. We consulted the Legislative Council Panel on Education on 8 January 2021. The Panel supported the project and did not raise any objection to the submission of the funding proposal to the Public Works Subcommittee.

ENVIRONMENTAL IMPLICATIONS

17. The project is not a designated project under the Environmental Impact Assessment Ordinance (Cap. 499). We completed a Preliminary Environmental Review (PER) in July 2020. The PER recommended the installation of insulated windows for noise sensitive rooms exposed to traffic noise exceeding the limits set out in the Hong Kong Planning Standards and Guidelines, in addition to the standard provision of air-conditioning for all standard teaching facilities. With such mitigation measures in place, the project will not be exposed to long-term environmental impacts. We have included in the project estimates the cost to implement these mitigation measures.

18. During construction, we will control noise, dust and site run-off nuisances to within established standards and guidelines through the implementation of mitigation measures in the relevant contract. These measures include the use of silencers, mufflers, acoustic linings or shields and the building of barrier walls for noisy construction activities, frequent cleaning and watering of the site, and the provision of wheel-washing facilities to prevent dust nuisance.

/19.

19. At the planning and design stages, we have considered measures to reduce the generation of construction waste where possible (e.g. using metal site hoardings and signboards so that these materials can be recycled or reused in other projects). In addition, we will require the contractor to reuse inert construction waste (e.g. use of excavated materials for filling within the site) 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 facilities (PFRFs)⁴. We will encourage the contractor to maximise the use of recycled or recyclable inert construction waste, and the use of non-timber formwork to further reduce the generation of construction waste.

20. At the construction stage, we will require the contractor to submit a plan setting out the waste management measures for Government's approval, 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 at PFRFs and landfills respectively through a trip-ticket system.

21. We estimate that the project will generate in total about 19 630 tonnes of construction waste. Of these, we will reuse about 2 080 tonnes (10.6%) of inert construction waste on site and deliver 16 440 tonnes (83.7%) of inert construction waste to PFRFs for subsequent reuse. We will dispose of the remaining 1 110 tonnes (5.7%) of non-inert construction waste at landfills. The total cost for disposal of construction waste at PFRFs and landfill sites is estimated to be \$1.4 million for this project (based on a unit charge rate of \$71 per tonne for disposal at PFRFs and \$200 per tonne at landfills as stipulated in the Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 354N)).

HERITAGE IMPLICATIONS

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

/LAND

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

LAND ACQUISITION

23. This project does not require any land acquisition.

ENERGY CONSERVATION, GREEN AND RECYCLED FEATURES

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

- (a) heat recovery fresh air pre-conditioners in the air-conditioned space for heat energy reclaim of exhaust air;
- (b) photovoltaic system; and
- (c) light tubes.

25. For greening features, there will be landscaping, vertical greening and green roof at appropriate areas for environmental and amenity benefits.

26. For recycled features, we will adopt a rainwater harvesting system for landscape irrigation with a view to conserving water.

27. The total estimated additional cost for adoption of the above features is around \$6.9 million (including \$0.7 million for energy efficient features), which has been included in the cost estimate of this project. The energy efficient features will achieve 6.0% energy savings in the annual energy consumption with a payback period of about ten years.

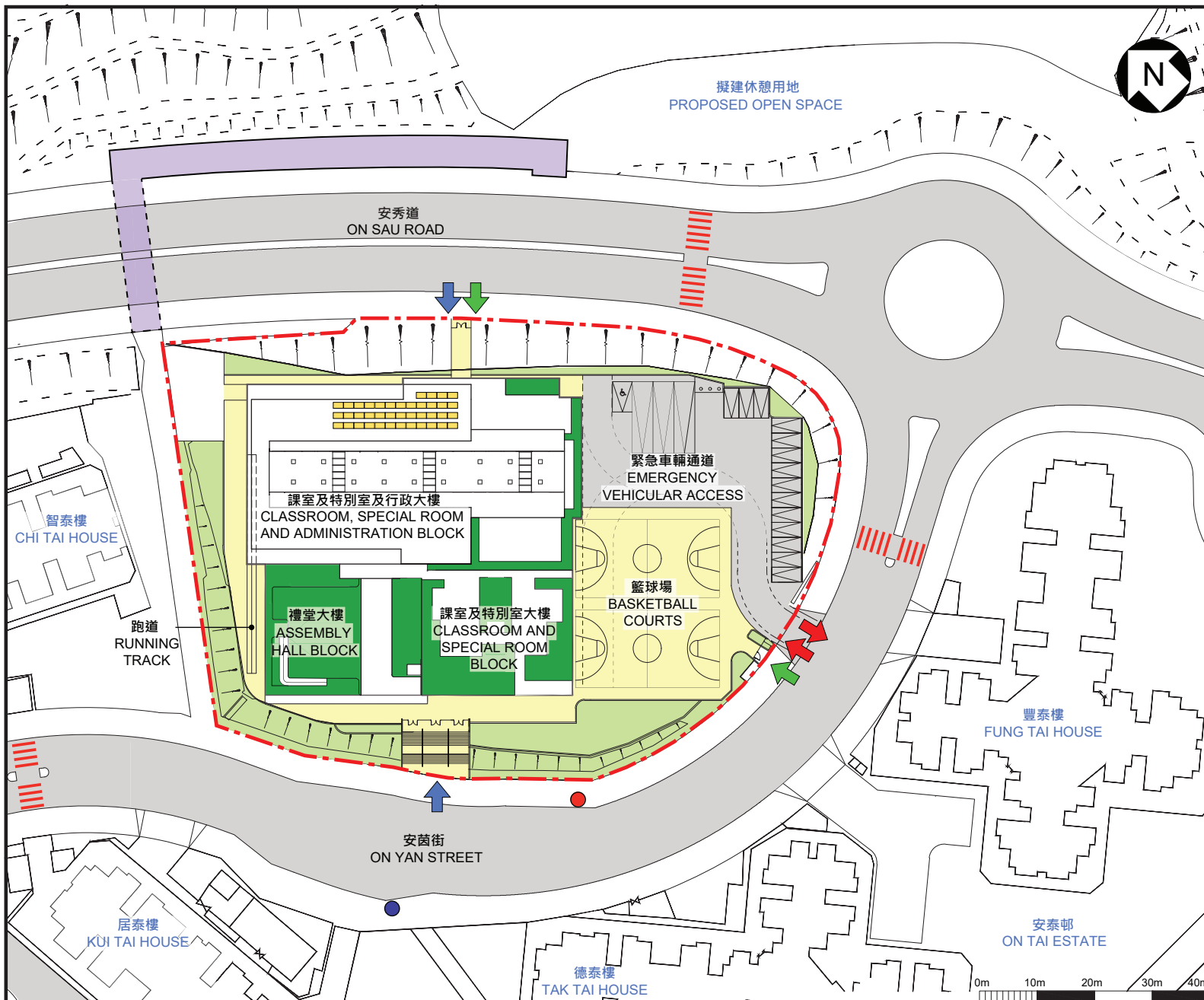
BACKGROUND INFORMATION

28. We upgraded **355EP** to Category B in September 2014. We engaged a term contractor to undertake ground investigation, and consultants to undertake various services at a total cost of about \$14.0 million. The services and works provided by the term contractor and consultants were funded under block allocation **Subhead 3100GX** “Project feasibility studies, minor investigations and consultants’ fees for items in Category D of the Public Works Programme”. The term contractor and consultants have completed all the above consultancy services and works except the assessment of tenders which is in progress.

29. There is no tree within the project boundary. The proposed works will not involve any tree removal proposal. We will incorporate planting proposals as part of the project, including the planting of about 13 trees, 2 580 bamboos, 20 900 shrubs, 1 140 climbers, 4 600 groundcovers, and 288 m² of grassed area.

30. We estimate that the proposed works will create about 120 jobs (105 for labourers and 15 for professional or technical staff) providing a total employment of 2 470 man-months.

Education Bureau
September 2021



位置圖 LOCATION PLAN

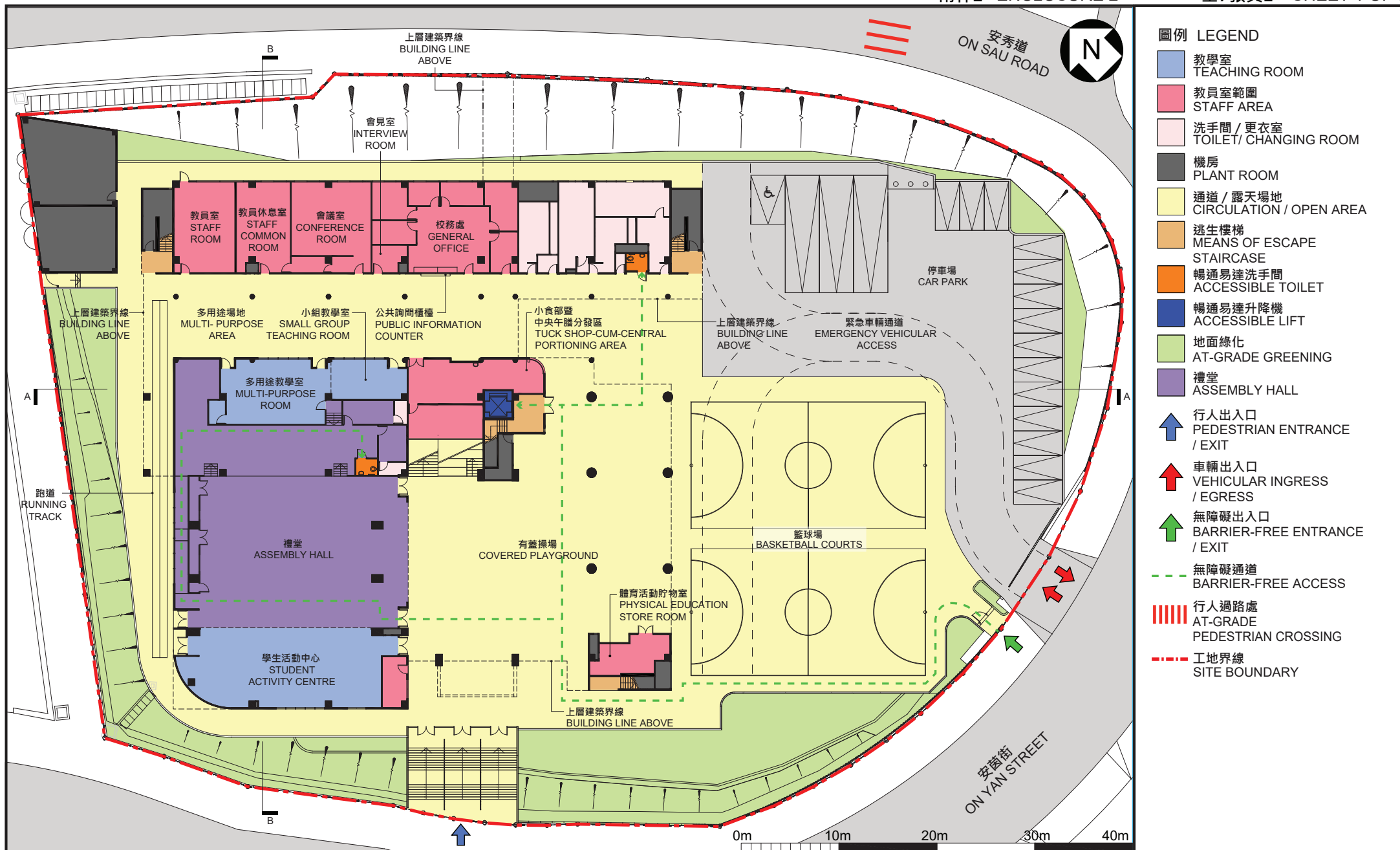
0m 50m 100m 150m 200m

圖例 LEGEND

- 行人出入口 PEDESTRIAN ENTRANCE / EXIT
- 車輛出入口 VEHICULAR INGRESS / EGRESS
- 無障礙出入口 BARRIER-FREE ENTRANCE / EXIT
- 地面綠化 AT-GRADE GREENING
- 天台綠化 LANDSCAPED ROOF
- 通道 / 露天場地 CIRCULATION / OPEN AREA
- 太陽能光伏板 PHOTOVOLTAIC PANEL
- 導光管 LIGHT TUBE
- 行人隧道 TUNNEL
- 行人過路處 AT-GRADE PEDESTRIAN CROSSING
- 工地界線 SITE BOUNDARY
- 小巴站 MINIBUS STOP
- 巴士站 BUS STOP

工地平面圖
SITE PLAN

355EP
觀塘安達臣道發展區(地盤KT2C)1所設有30間課室的小學
A 30-CLASSROOM PRIMARY SCHOOL AT SITE KT2C, DEVELOPMENT
AT ANDERSON ROAD, KWUN TONG



地下平面圖
GROUND FLOOR PLAN

355EP
觀塘安達臣道發展區(地盤KT2C)1所設有30間課室的小學
A 30-CLASSROOM PRIMARY SCHOOL AT SITE KT2C, DEVELOPMENT
AT ANDERSON ROAD, KWUN TONG



一樓平面圖
FIRST FLOOR PLAN

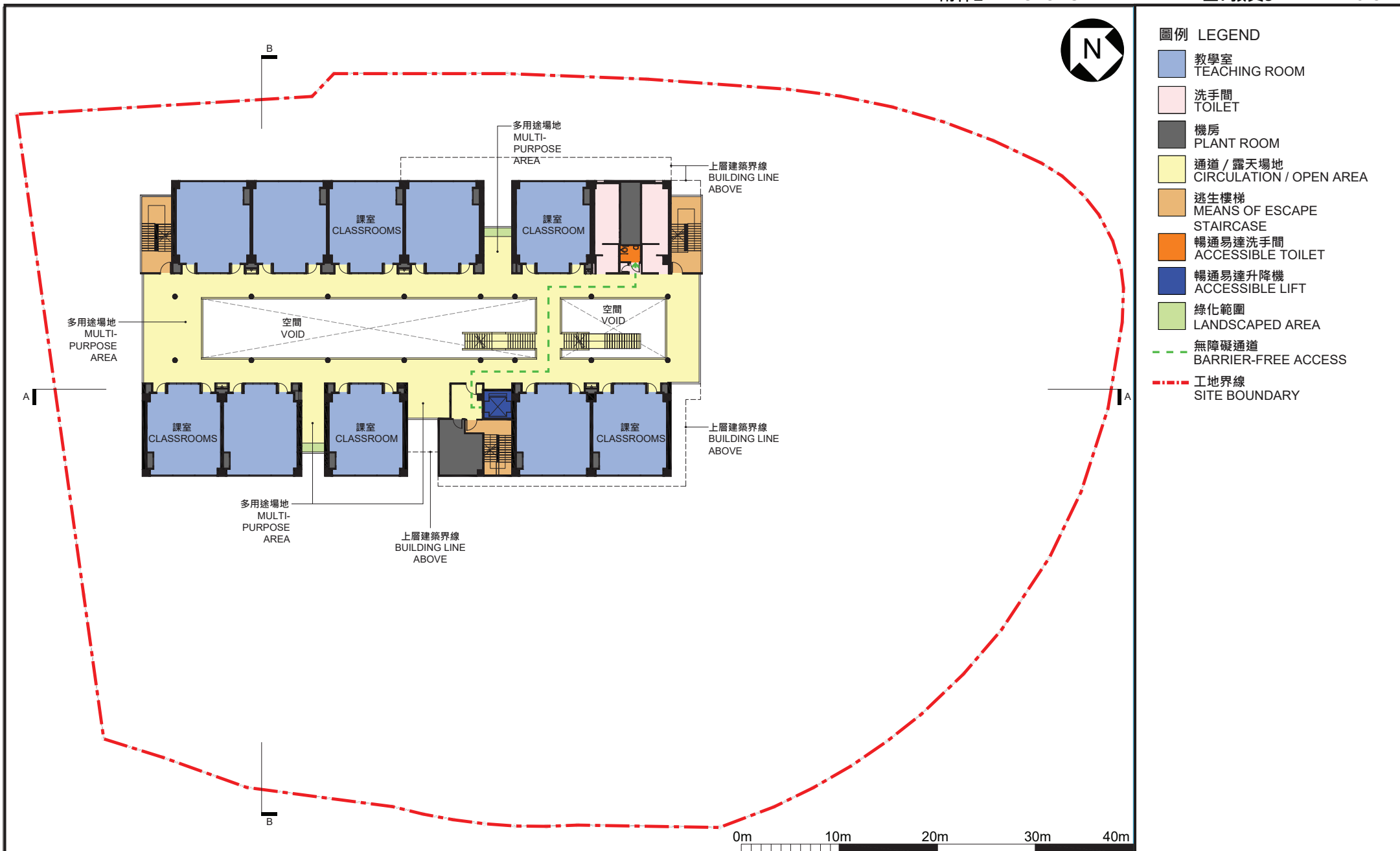
355EP
觀塘安達臣道發展區(地盤KT2C)1所設有30間課室的小學
A 30-CLASSROOM PRIMARY SCHOOL AT SITE KT2C, DEVELOPMENT
AT ANDERSON ROAD, KWUN TONG





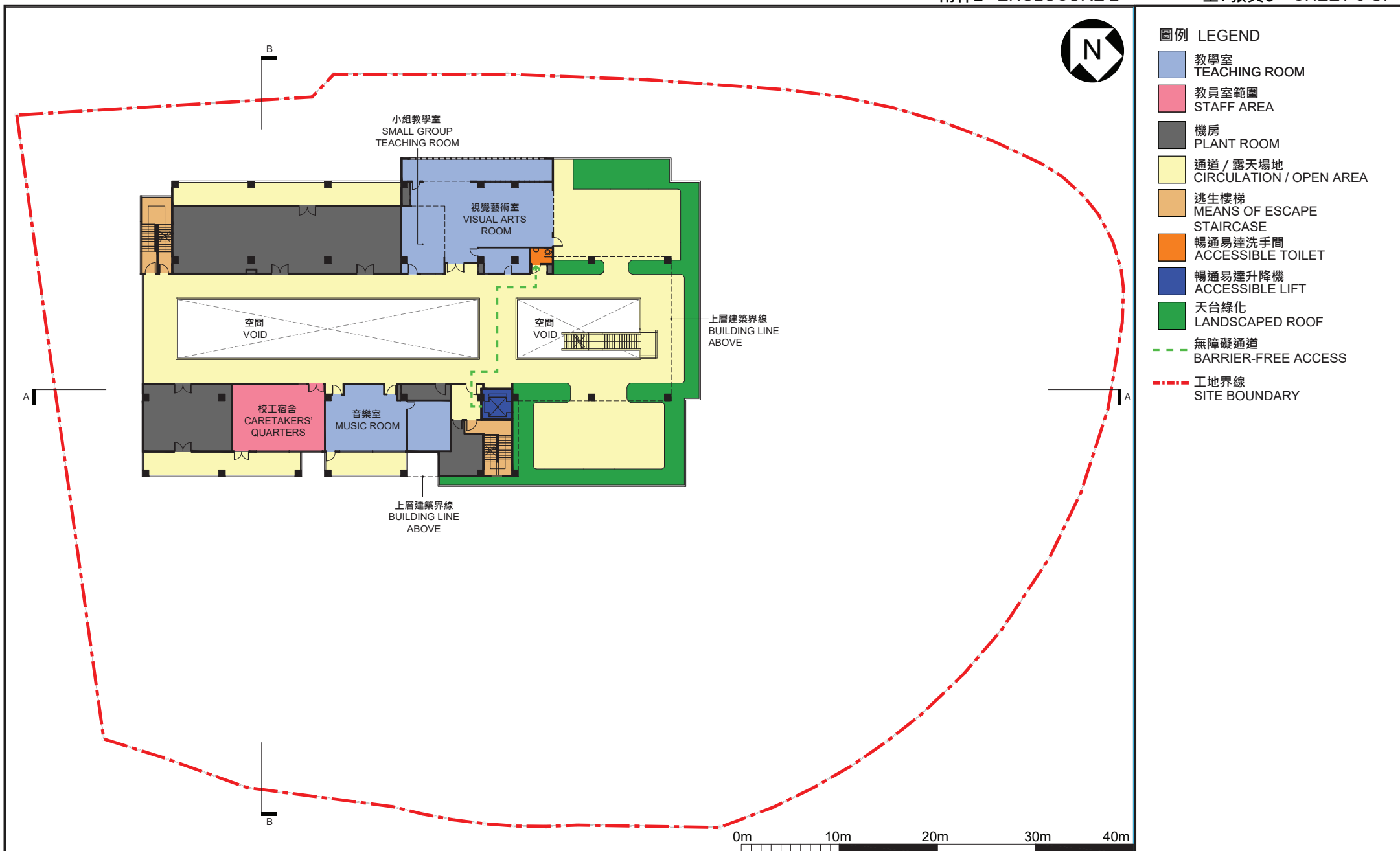
三樓平面圖
THIRD FLOOR PLAN

355EP
觀塘安達臣道發展區(地盤KT2C)1所設有30間課室的小學
A 30-CLASSROOM PRIMARY SCHOOL AT SITE KT2C, DEVELOPMENT
AT ANDERSON ROAD, KWUN TONG



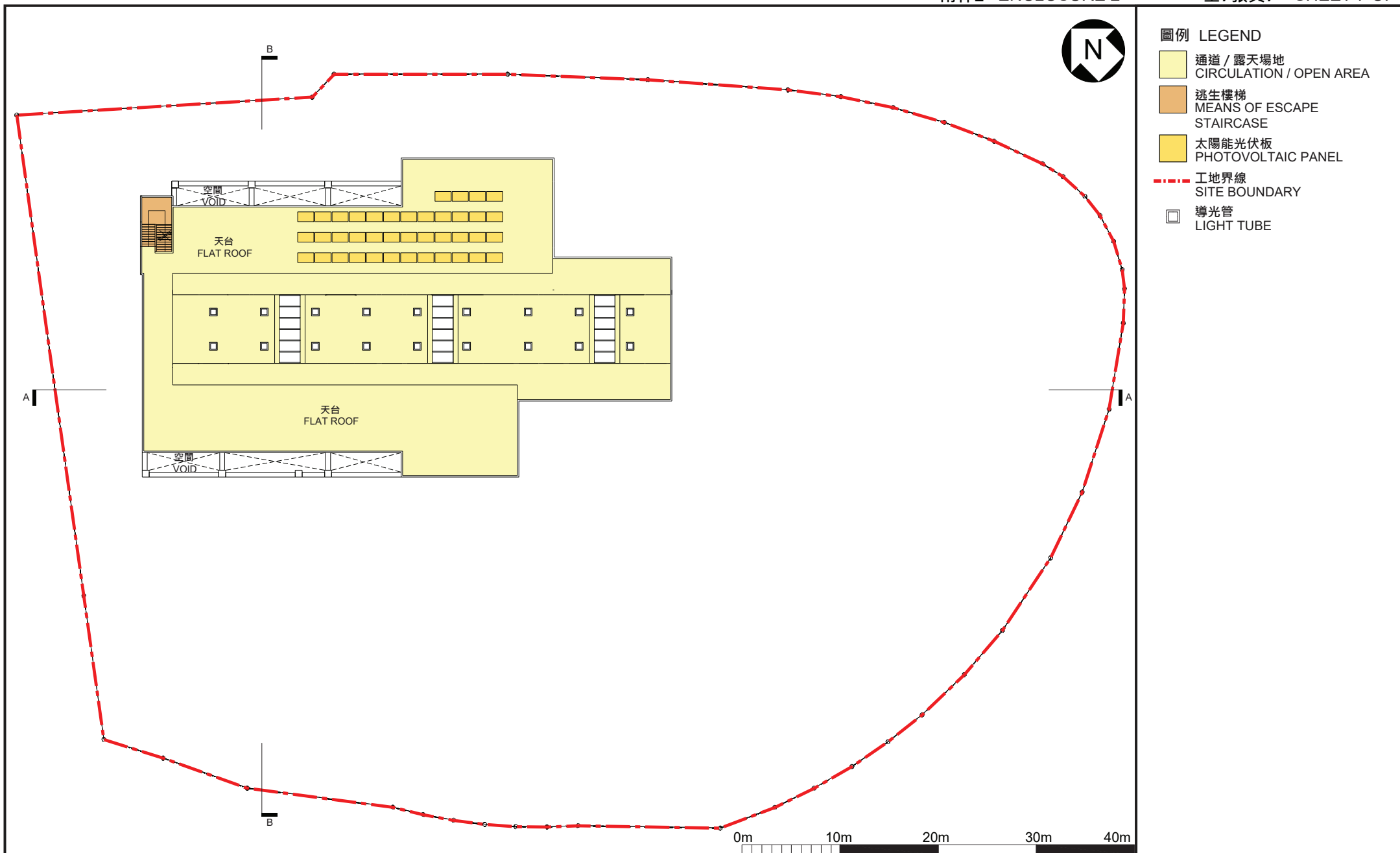
四樓平面圖
FOURTH FLOOR PLAN

355EP
觀塘安達臣道發展區(地盤KT2C)1所設有30間課室的小學
A 30-CLASSROOM PRIMARY SCHOOL AT SITE KT2C, DEVELOPMENT
AT ANDERSON ROAD, KWUN TONG



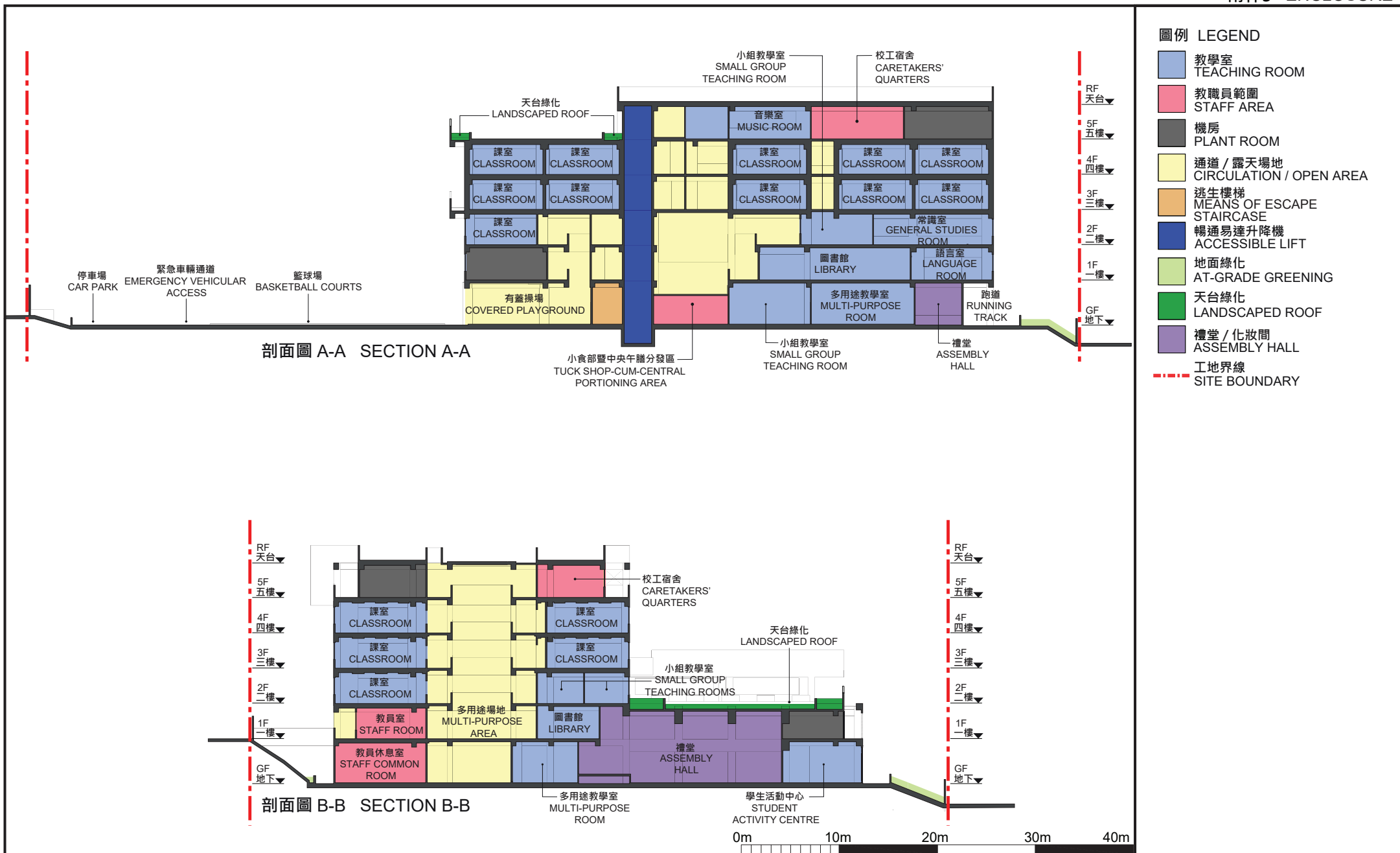
五樓平面圖
FIFTH FLOOR PLAN

355EP
觀塘安達臣道發展區(地盤KT2C)1所設有30間課室的小學
A 30-CLASSROOM PRIMARY SCHOOL AT SITE KT2C, DEVELOPMENT
AT ANDERSON ROAD, KWUN TONG



天台平面圖
ROOF FLOOR PLAN

355EP
觀塘安達臣道發展區(地盤KT2C)1所設有30間課室的小學
A 30-CLASSROOM PRIMARY SCHOOL AT SITE KT2C, DEVELOPMENT
AT ANDERSON ROAD, KWUN TONG



剖面圖
SECTIONS

355EP
觀塘安達臣道發展區(地盤KT2C)1所設有30間課室的小學
A 30-CLASSROOM PRIMARY SCHOOL AT SITE KT2C, DEVELOPMENT
AT ANDERSON ROAD, KWUN TONG



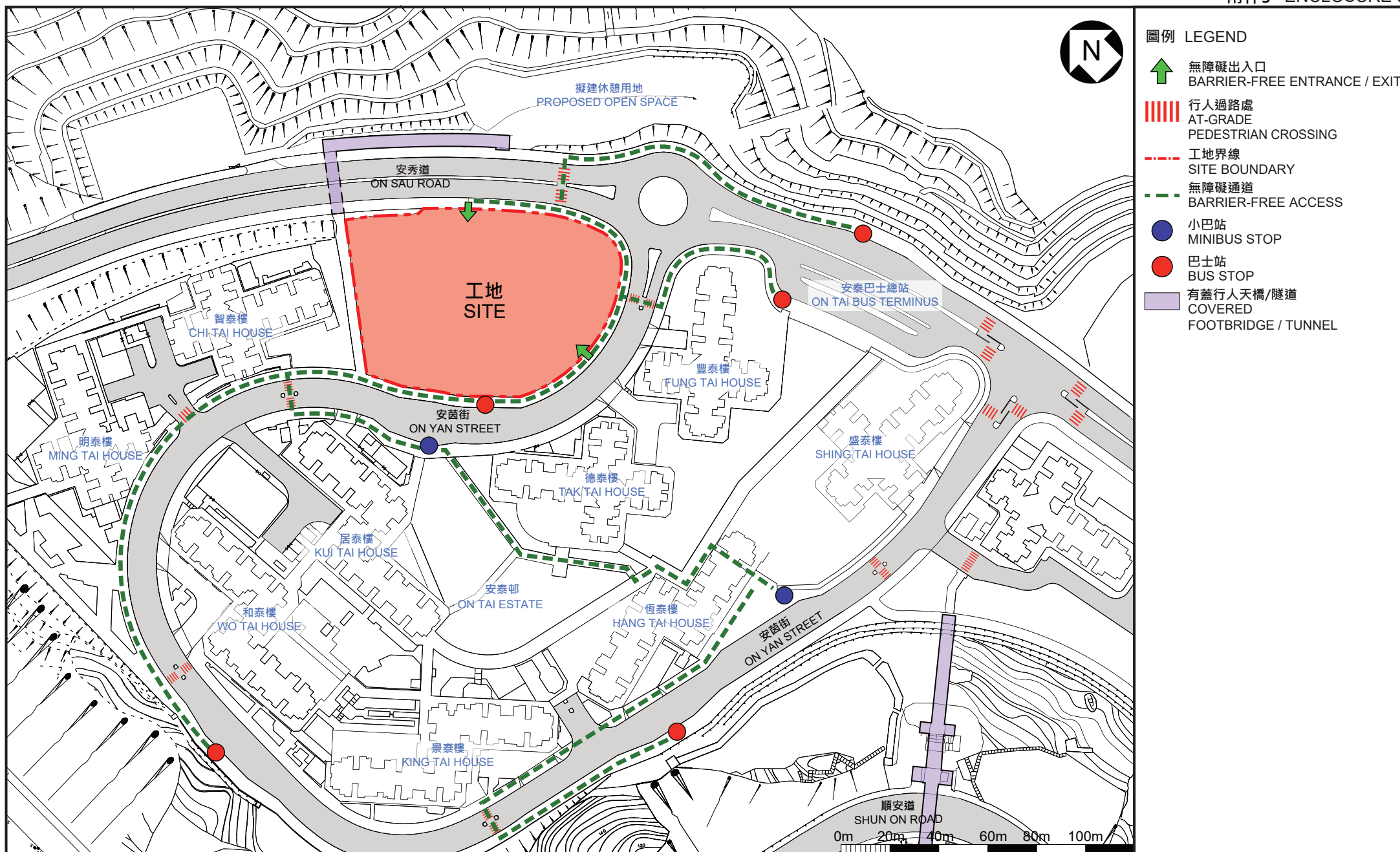
從南面望向小學的構思透視圖

PERSPECTIVE VIEW FROM SOUTHERN DIRECTION (ARTIST'S IMPRESSION)

構思圖
ARTIST'S IMPRESSION

355EP
觀塘安達臣道發展區(地盤KT2C)1所設有30間課室的小學
A 30-CLASSROOM PRIMARY SCHOOL AT SITE KT2C, DEVELOPMENT
AT ANDERSON ROAD, KWUN TONG

 ARCHITECTURAL
SERVICES
DEPARTMENT 建築署



無障礙通道平面圖
PLAN OF BARRIER-FREE
ACCESS

355EP
觀塘安達臣道發展區(地盤KT2C)1所設有30間課室的小學
A 30-CLASSROOM PRIMARY SCHOOL AT SITE KT2C, DEVELOPMENT
AT ANDERSON ROAD, KWUN TONG

**355EP – A 30-classroom primary school at Site KT2c,
Development at Anderson Road, Kwun Tong**

**Breakdown of the estimates for consultants' fees and resident site staff costs
(in September 2020 prices)**

| | | Estimated man- months | Average MPS* salary point | Multiplier (Note 1) | Estimated fee (\$ million) |
|--|--------------|-----------------------------|------------------------------------|------------------------|----------------------------------|
| (a) Consultants' fees for contract administration (Note 2) | Professional | – | – | – | 6.3 |
| | Technical | – | – | – | 0.5 |
| | | | | Sub-total | 6.8 # |
| (b) Resident site staff (RSS) costs (Note 3) | Professional | 20 | 38 | 1.6 | 2.7 |
| | Technical | 217 | 14 | 1.6 | 10.5 |
| | | | | Sub-total | 13.2 |
| Comprising - | | | | | |
| (i) Consultants' fees for management of RSS | | | | | 0.8 # |
| (ii) Remuneration of RSS | | | | | 12.4 # |
| | | | | Total | 20.0 |

* 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 = \$85,870 per month and MPS salary point 14 = \$30,235 per month).
2. The consultants' fees for contract administration are calculated in accordance with the existing consultancy agreement for the design and construction of **355EP**. The assignment will only be executed subject to Finance Committee's funding approval to upgrade the project to Category A.
3. The actual man-months and actual costs will only be known after completion of the construction works.

Remarks

The cost figures in this Enclosure are shown in constant prices to correlate with the MPS salary point of the same year. The cost figures marked with # are shown in money-of-the-day prices in paragraph 10 of the main paper.