Attachment 3: Replacement Pages of Environmental Assessment

TABLES

Table 1 Noise Limit for Daytime Construction Activities
Table 2 Identified Fixed Noise Sources in the Surrounding
Table 3 Estimated Quantities of Waste during Construction Phase

FIGURES

Figure 1 Location of the Subject Site and its Environs
Figure 2 200m Study Area from Subject Site Boundary for Chimney Stack Emission Study
Figure 3 Buffer Separation between Kerb Side of Road Carriageway and Nearest Air Sensitive Uses in the Subject Site
Figure 4 Location of Representative Noise Sensitive Receivers for Road Traffic Noise Impact Assessment
Figure 5 Proposed Noise Mitigation Measures for Road Traffic Noise Impact Assessment
Figure 6 Identified Fixed Noise Sources and Locations of Representative Noise Sensitive Receivers for Fixed Noise Impact Assessment

APPENDICES

Appendix 1 Proposed Master Layout Plan
Appendix 2 Traffic Forecast for Year 2049 Provided by Project Traffic Consultant
Appendix 3 Predicted Traffic Road Noise Level (L_{10}(1-hr)) at Selected NSRs under Base Case and Mitigated Case
Appendix 4 Detailed Fixed Noise Impact Assessment
Appendix 5 Reference Catalogue of Fixed Noise Source

away from Pok Fu Lam Road. The clubhouse will be provided with central air conditioning system so that it would not rely on openable window for ventilation purpose. The tentative completion year is revised to 2034 based on the latest proposal.

1.3.3 **Appendix 1** shows the latest development scheme.

1.4 Appraisal of Environmental Impact

1.4.1 As discussed, there is no industrial use in the surrounding so that industrial/residential interfacing problem will not be a concern.

1.4.2 Pok Fu Lam Road is a primary distributor according to Annual Traffic Census so that considerable traffic flow is anticipated. Corresponding traffic noise and vehicular emission impacts are major concerns.

1.4.3 Beside road traffic, Queen Mary Hospital (QMH) is found to the further north of the Subject Site. The horizontal separation distance been the main block of the hospital and the nearest Subject Site boundary is over 200m.

1.4.4 The noise environment of the Subject Site and immediate surrounding is dominated by road traffic. Nearest fixed noise sources were identified at about 140m away from the Subject Site. All fixed noise sources identified were at the rooftop of the building and the elevation is higher than the proposed development. The development will likely be equipped with facilities such as VRV to provide central air conditioning to the future clubhouse facilities. There will be exhaust fan installation for car park and E&M room. Potential fixed noise impact due to the proposed installation to future noise sensitive uses of the proposed development and existing/planned noise sensitive uses in the surrounding will be fully addressed. These potentially noisy facilities will be designed so that they will meet relevant standard stipulated in the HKPSG. No unacceptable fixed noise impact due to the operation of the Proposed Development is anticipated.

1.5 Organisation of this Report

1.5.1 Based on discussion above, this report is prepared and organised to contain the following chapters to address individual environmental impacts:

Chapter 2	Environmental Air quality impact
Chapter 3	Environmental Noise impact
Chapter 4	Construction Waste Disposal

3.1.10 The predicted road traffic noise level (L_{10}(1-hr)) under base case scenario for the proposed development (without any noise mitigation measures) is presented in **Appendix 3**.

3.1.11 According to the assessment result, the highest predicted noise level is L_{10}(1hr) 78 dB(A) at rear side of the room facing Pok Fu Lam Road. There are 38 out of 135 flat units with exceedance, equivalent to compliance level of about 72 %.

Recommended Noise Mitigation Measures and Predicted Road Traffic Noise Level under Mitigated Scenario

Fixed Glazing and Fixed Glazing with Maintenance Window

3.1.12 As discussed, single-aspect building design is adopted. It means that the glazing (if any) facing Pok Fu Lam Road directly will not be adopted as prescribed window opening. These locations are either equipped with fixed glazing (i.e. no opening) for all floors, or fixed glazing with maintenance window. Furthermore, window pane of the fixed glazing or fixed glazing with maintenance window will be of at least 8mm with noise insulation performance of Sound Transmission Class (STC) 34 or above.

3.1.13 If the fixed glazing is equipped with maintenance window, the maintenance window will be provided with a removable handle or key lock system to ensure the maintenance window remains locked except for cleaning and maintenance purpose. The maintenance window will be opened for maintenance only but not for ventilation purpose and this will be clearly stated in the Deed of Mutual Covenant (DMC) and sales brochure so that future buyer/occupants can be well informed on this matter.

Vertical Acoustic Fin

3.1.14 In order to further reduce the view angle between the noise sensitive receivers and the major carriageways and in turn road traffic noise impact, full-height vertical fin with depth 1 m is recommended at strategic locations as shown in **Figure 5**. The vertical acoustic fin will be provided from the lowest floor to the top floor. The noise reduction effect provided by vertical fin is determined using CRTN methodology taking into account the view angle correction but would not be higher than 3 dB(A) as a conservative approach.

3.1.15 The proposed mitigation measures (fixed glazing with maintenance window, and vertical acoustic fin) are shown in **Figure 5**. With the mitigation measures in place, the predicted noise level at all NSRs would be within the acceptable standard. Full compliance of the road traffic noise standard can be achieved. The predicted road traffic noise level (L_{10}(1-hr)) under scenario with mitigation measures for the proposed development is presented in **Appendix 3**.

3.2 Construction Noise Impact

3.2.1 During the construction phase of the Proposed Development and associated works, major noise impacts would arise from operation of Powered Mechanical Equipment (PME), and construction-related traffic.

Construction Noise Criteria

3.2.2 Construction noise is controlled under the Noise Control Ordinance (NCO) which prohibits the use of powered mechanical equipment (PME) during the restricted hours (7 p.m. to 7 a.m. on normal weekdays and any time on a public holiday, including Sunday) without a valid Construction Noise Permit (CNP) from the Authority. The criteria and procedures for issuing such a permit are specified in the "Technical Memorandum on Noise From Construction Works Other than Percussive Piling" (TM1). While there is no planned construction works to be carried out during the restricted

hours, TM1 should be followed in case there is any need to carry out works in such time period in future.

3.2.3 With effect from 1 November 96, the use of specified powered mechanical equipment (SPME) for carrying out construction work other than percussive piling and/ or the carrying out of prescribed construction work (PCW) within a designated area are also brought under control. The relevant technical details are provided in the "Technical Memorandum on Noise from Construction Work in Designated Areas" (TM2).

3.2.4 For construction works other than percussive piling, although TM1 does not provide control over daytime construction activities, noise limits as shown in below Table are set out in the "Practice Note for Professional Persons Environmental Consultative Committee" (ProPECC) PN/1 issued in 2024.

Table 1 Noise Limit for Daytime Construction Activities

NSR	0700 to 1900 Hours on Any Day Not Being a Sunday or General Holiday, Leq (30 min)*, dB(A)
All domestic premises Temporary housing accommodation Hostels Convalescences homes Homes for the aged	75
Places of public worship Courts of law Hospitals and medical clinics	70
Educational institutions (including kindergartens and nurseries)	70 (65 during examination)

**Notes: Leq(30min) is a standard measure of noise level which means the continuous equivalent noise level over a 30 minute interval.*

Representative Noise Sensitive Receivers

3.2.5 The nearest air/noise sensitive receiver is a cluster of residential building along Pok Fu Lam Road (Radcliffe and Dor Fook Mansion) minimum 20m away to the northeast. On the other hand, the nearest school development is Caritas Wu Cheng-chung Secondary School over 125m to the northwest.

3.2.6 Sufficient noise mitigation measures should be introduced in the development to alleviate potential noise impacts on any NSR. The Contractor(s) will be required under the contract to ensure regular maintenance of all plant and equipment, and that noise generation at source would be minimized and practicable noise mitigation measures would be in use. The Contractor(s) will be required to adopt quiet type construction plants (e.g. EPD's quality powered mechanical equipment (QPME) inventory), wherever practicable. Movable noise barriers will also be erected around noisy plants in order to minimize noise generation at source. With these measures in place noise generation due to construction activities would be minimized.

3.2.7 The following general noise mitigation measures are recommended for implementation:

- Application of properly designed silencers, mufflers, acoustically dampened panels and acoustic sheds or shields, etc.;

- Use of electric-powered equipment where applicable instead of diesel-powered or pneumatic-powered equipment;
- Erecting noise enclosures/ movable noise barriers around noisy plants;
- Only well-maintained plants should be operated on-site;
- Plants should be serviced regularly during the construction programme;
- Noisy activities can be scheduled to minimize exposure of nearby NSRs to high levels of construction noise. For example, noisy activities can be scheduled for midday or at times coinciding with periods of high background noise;
- Noisy equipment such as emergency generators shall always be sited as far away as possible from noise sensitive receivers;
- Location of noise emitting plants at maximum possible distances from sensitive receivers;
- Contractual clauses for construction works; and
- Schedule of noisy operations during non-restricted hours where possible.

3.2.8 The above-mentioned noise mitigation measures will be included in the contractual clauses for implementation by the contractor(s) during the construction stage for construction of the proposed development. With these measures in place, construction noise due to the Proposed Development can be minimized, and no significant noise impact is anticipated.

3.3 Fixed Noise Impact Assessment

Impact due to Surrounding Fixed Noise Sources

Identification of Fixed Noise Sources

3.3.1 Based on onsite observation along the periphery of the Application Site, no noticeable noise from any fixed noise sources can be identified. According to further review including referencing to aerial photos in the surrounding, some noise sources have been identified at surrounding building as tabulated below and shown in **Table 2**.

Table 2 Identified Fixed Noise Sources in the Surrounding

Building	Type of Noise Sources	Elevation	Separation from Nearest Site Boundary
Queen Marry Hospital – Wing E	Chillers (1 nos.)	~195mPD	~220m
Queen Marry Hospital – Professorial Block	Chillers (4 nos.)	~178mPD	~190m
Queen Marry Hospital – New Clinical Building	Chillers (3 nos.) VRVs (2 nos.) Equipment substantially shielded by building structure	~177mPD	~140m
HKU Hong Kong Jockey Club Building for Interdisciplinary Research	VRVs (1 nos.) Chillers (1 nos.) Cooling towers (3 nos.)	~170mPD	~205m
HKU Academic Building	Cooling towers (4 nos.)	~172mPD	~170m

HKU Li Ka Shing Faculty of Medicine Laboratory Block	Chillers (2 nos.) Cooling towers (8 nos.)	~160mPD	~245m

3.3.2 All identified fixed noise sources are located at rooftop of buildings and direct noise measurement is not possible. Since direct measurement is not practicable possible, the noise strength of the identified noise sources has been assumed based on reference equipment catalogue model of similar scale.

3.3.3 The elevations of all identified fixed noise sources are in fact higher than the proposed development and already substantially shielded by its building structure.

3.3.4 Most noise sources are air conditioning systems, educational buildings/ offices or similar uses are expected to operate during day and evening time only and not occupied during night time so that no operation of their noise sources is assumed. Night time operation is anticipated for the noise sources at hospital building rooftops.

Assessment Criteria

3.3.5 According to the Technical Memorandum for the Assessment of Noise from Places other than Domestics Premises, Public Places or Construction Sites ("IND-TM") issued under the Noise Control Ordinance, the proposed development is situated in type "(iv) Area other than those above". Area Sensitivity Rating "B" is adopted assuming that it is not affected by any influencing factor. Respectively standards during day & evening time and night time are Leq(30min) 65dB(A) and 55 dB(A).

Noise Sensitive Receivers

3.3.6 As the identified noise sources are located generally on south west side of the Application Site, representative NSRs are selected at the south and west façades of towers of the proposed development nearest to the noise sources (see **Figure 6**).

Assessment Methodology

3.3.7 Standard acoustic principles were adopted for prediction of cumulative fixed noise impact. In accordance with the IND-TM, a barrier correction of -10dB(A) is applied where the line of sight from the representative NSR would be completely blocked by building structure or barriers. A façade correction of +3dB(A) is also adopted. Tonality of 3dB(A) is also assumed for all fixed noise sources as a conservative assessment approach.

3.3.8 Prediction of the fixed noise level can be represented by the formula below:

$$SPL_{NSR} = SWL_{source} + Corr_{dist} + Corr_{bar} + Corr_{fac} + Corr_{ton}$$

where

SPL_{NSR} = Predicted Noise Level at Selected Representative NSR

SWL_{source} = Derived Sound Power Level of the Fixed Noise Source

$Corr_{dist}$ = Distance Correction (20 x Log (Horizontal Distance between NSR and Source))

$Corr_{bar}$ = Barrier Correction (-10dB(A) when line of sight is totally blocked)

$Corr_{fac}$ = Façade Correction (+3dB(A))

$Corr_{ton}$ = Tonality Correction (+3dB(A), where applicable)

Assessment Results

3.3.9 According to the assessment results in **Appendix 4**, the predicted noise levels at all selected NSRs would comply with relevant standards. No adverse fixed noise impact on the proposed development is anticipated.

Impact due to Future Fixed Noise Sources of the Proposed Development

3.3.10 The Proposed Development will inevitably contain noisy facilities such as ventilation system for carpark, fan system and HVAC for clubhouse. However, in this early planning stage, building services consultant/contractor has not been engaged and there is absence of any detail regarding potential noisy facilities. Moreover, by nature of the project, it is fully compatible with the surrounding and no excessive fixed noise sources will be equipped. In all circumstances, the requirement under HKPSG is fully observed (i.e. acceptable noise level minus 5 decibels). In future detailed design of the project, same requirement will be imposed so that the relevant noise standard will be met by various means such as selection of quiet equipment, use of shielding device, acoustic louvers, silencers, semi/full-enclosure. Planning approval condition to require noise impact assessment is expected. Upon availability of details of fixed noise sources, the assessment of fixed noise impact can be conducted with respect to the said planning approval condition. With abundance of direct noise mitigation measures to control and suppressed the generated noise level, no adverse noise impact due to operation of potentially noisy facilities of the Proposed Development on the proposed residential uses and any other surrounding noise sensitive uses is anticipated.

3.4 Conclusion

3.4.1 The proposed development at the Subject Site is likely affected by road traffic noise. In addition to single-aspect building design, fixed glazing, fixed glazing with maintenance window, and vertical acoustic fin are recommended. All NSRs of the proposed development would be within the standard stipulated under HKPSG after mitigations.

3.4.2 Best management practice will be adopted for the construction of the Proposed Development so that no significant noise impact is anticipated.

3.4.3 The potential noise impact from fixed sources has been assessed. According to the assessment results, the Proposed Development would not be subject to adverse fixed noise impact.

3.4.4 Potentially noisy facilities of the proposed development will be designed so that they will meet relevant standard stipulated in the HKPSG. No unacceptable fixed noise impact due to the operation of the Proposed Development is anticipated.

4. CONSTRUCTION WASTE DISPOSAL

Legislation

4.1.1 The principal legislation controlling waste materials in Hong Kong is the Waste Disposal Ordinance (WDO) (Cap. 354) and its subsidiary regulations.

Construction Waste Impact

4.1.2 Construction activities for the Proposed Development will generate waste materials requiring appropriate management and disposal. Likely range of waste types includes:

- Waste from demolition of existing building and site clearance;
- Excavated C&D materials ;
- Inert and non-inert C&D materials (including waste timber formwork);
- General refuse generated by the workforce;
- Chemical and oily wastes due to maintenance of equipment; and
- Asbestos containing materials

Waste Management Strategy

4.1.3 The general waste management strategy is to avoid waste generation in the first place. If that is unavoidable, source reduction and segregation should be exercised as far as practicable and at the same time, recycling and reuse should be adopted to salvage as much as possible all the recyclable and reusable materials.

Construction Waste Disposal Measures

4.1.4 On-site sorting of construction wastes will be recommended. On-site sorting can be achieved by avoiding the generation of "mixed waste" through good site control.

4.1.5 Waste generated by construction activities should be sorted into inert C&D materials and non-inert C&D materials. The inert C&D materials which comprise soil, rock, concrete, brick, cement plaster/mortar, inert building debris, aggregates and asphalt shall be reused in earth filling, reclamation or site formation works. The non-inert C&D materials which comprises metal, timber, paper, glass, junk and general garbage shall be reused or recycled and, as the last resort, disposal of at landfills.

4.1.6 It is estimated that about 61240m^3 of inert C&D material and 7030m^3 of non-inert C&D material will be generated during the course of construction (including demolition). Adequate areas for sorting and storage of segregated materials should be provided onsite. Construction wastes shall be sorted, with the inert C&D materials broken up into small pieces. Where possible, the C&D materials will be reused onsite (e.g. backfilling). Residual C&D material will be delivered to public fill reception facility, and the non-inert C&D materials should be disposed of at landfill.

4.1.7 Chemical and oily wastes generated from the construction activities, vehicle and plant maintenance and oil interceptors should be disposed of as chemical waste in strict compliance with the Waste Disposal (Chemical Waste) (General) Regulation.

4.1.8 Asbestos was widely used in the construction industry prior to the early 1980s for fireproofing, thermal and electrical insulation as well as in sound absorption materials. However, asbestos is currently recognized as hazardous materials, due to its etiological effects on human respiratory system.

4.1.9 Asbestos containing material (ACM) may be present in the buildings within the Application Site. Thus, ACM which may be disturbed during demolition activities, should be removed and disposed of in a proper manner prior to the demolition work, so as to

avoid the release of harmful asbestos fibres to environment and minimise potential hazard.

4.1.10 All ACM if confirmed to be present within the existing premises must be removed and disposed of in accordance with the Air Pollution Control Ordinance (APCO) and WDO prior to the demolition works. A Registered Asbestos Consultant and Registered Asbestos Laboratory shall be engaged to conduct investigation for the presence of ACM. An Asbestos Investigation report, an Asbestos Abatement Plan (AAP) (if required) and a notification of commencement of asbestos abatement works should be provided afterwards. As required under Cap. 311 APCO, the owner of premises shall give not less than 28 days' written notice to the Authority before the commencement of asbestos abatement work. Also, the removal of ACM should be carried out by a Registered Asbestos Contractor according to the approved AAP under the supervision of a Registered Asbestos Consultant. Asbestos control in accordance with the requirement under APCO will be followed. The asbestos waste generated shall be disposed by a licenced collector in compliance with the WDO.

4.1.11 Waste disposal from construction site is subject to control under the Waste Disposal Ordinance.

4.1.12 To estimate the general refuse generated during construction phase, an assumption of 50 workers per day with 0.65kg per worker per day has been made.

4.1.13 **Table 3** presents the estimation of waste generated during construction phase.

Table 3 Estimated Quantities of Waste during Construction Phase

Waste Material	Estimated Waste Generation	Proposed Disposal Method and Destination
Inert C&D Material	~61240 m^3	~0.5% (i.e. 306m^3) would be reused and the remaining (i.e. 99.5% or ~60934m^3) would be delivered offsite to public fill reception facilities
Non-Inert C&D Material	~7030 m^3	Disposal to landfill
General Refuse	~30 kg per day	Recyclables to recyclers; Non-recyclables to landfill
Chemical Waste	Anticipated to be limited (around some hundred litres at most)	To be collected by licensed chemical waste collectors and deliver to Chemical Waste Treatment Centre
Asbestos Containing Materials	TBC (Subject to further investigation by the asbestos specialist)	Disposal to landfill

5. OVERALL CONCLUSION

5.1.1 An environmental assessment has been conducted to address potential environmental noise, air quality impact, and construction waste disposal based on the proposed development scheme.

Air Quality

5.1.2 As confirmed in field survey, there is no chimney identified within 200m from the Subject Site so that the buffer separation requirement can be well met. Similarly, the air sensitive uses in the MLP can meet the buffer separation requirement with respect to nearest carriageways. There is no fluff, odour and other air pollutant emission identified in the surrounding. Therefore, it is envisaged that the proposed development at the Subject Site would not be subject to significant air quality impact.

5.1.3 Best management practice will be adopted during construction of the project. Necessary mitigation measures as stated above and in "Recommended Pollution Control Clauses for Construction Contracts" where applicable will be applied so that emission during construction stage should be kept to an acceptable level.

Noise

5.1.4 The proposed development at the Subject Site is likely affected by road traffic noise. In addition to single-aspect building design, fixed glazing, fixed glazing with maintenance window, and vertical acoustic fin are recommended. All NSRs of the proposed development would be within the standard stipulated under HKPSG after mitigations.

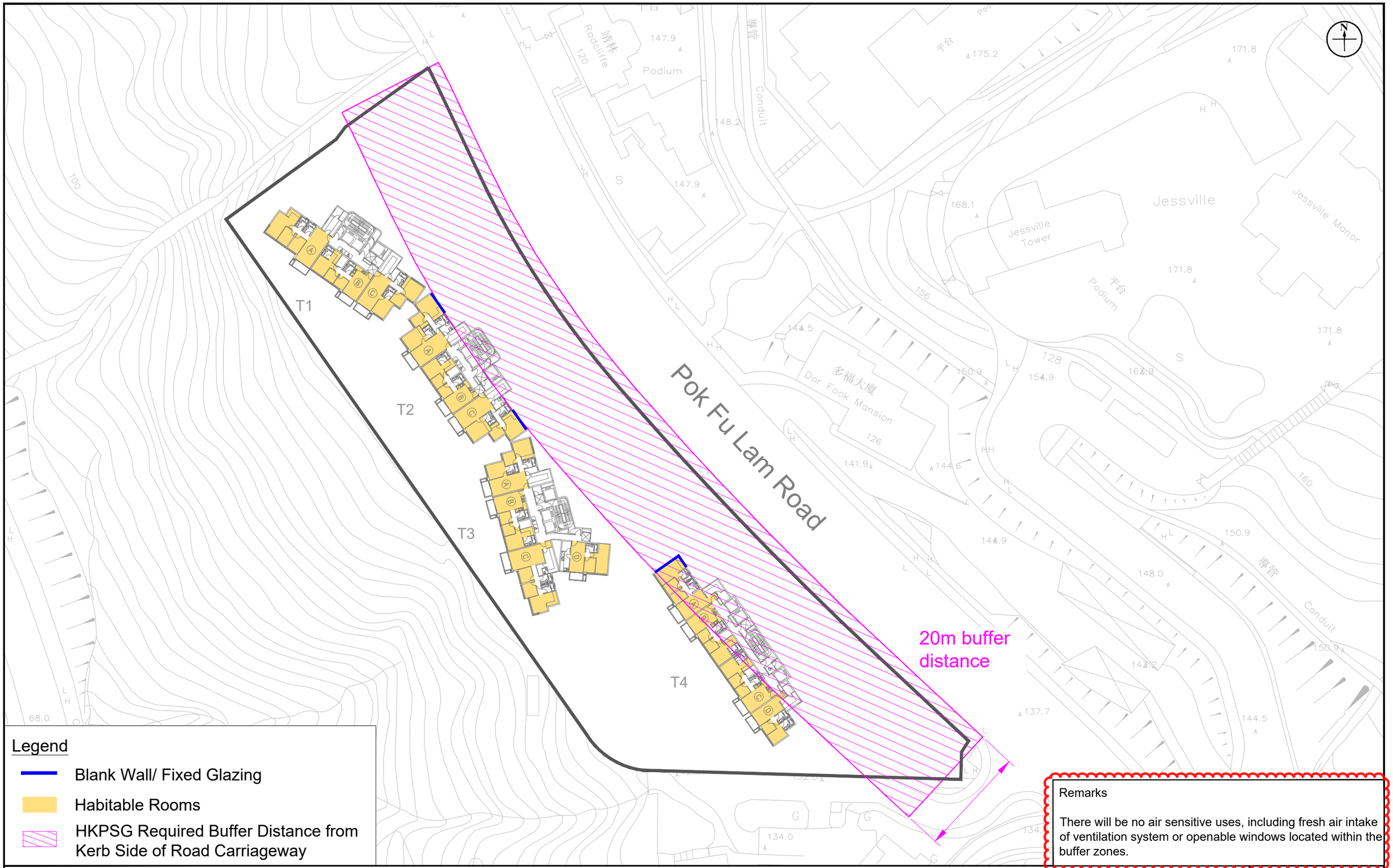
5.1.5 Best management practice will be adopted for the construction of the Proposed Development so that no significant noise impact is anticipated.

5.1.6 The potential noise impact from fixed sources has been assessed. According to the assessment results, the Proposed Development would not be subject to adverse fixed noise impact.

5.1.7 Potentially noisy facilities of the proposed development will be designed so that they will meet relevant standard stipulated in the HKPSG. No unacceptable fixed noise impact due to the operation of the Proposed Development is anticipated.

Construction Waste Disposal

5.1.8 Best management practice will be adopted for the construction of the Proposed Development. C&D materials generation will be minimised and reused where possible, and recycled. No significant waste management implications is anticipated during the construction phase.



Remarks

There will be no air sensitive uses, including fresh air intake of ventilation system or openable windows located within the buffer zones.

Figure: 3a

Title: Buffer Separation between Kerb Side of Road Carriageway and Nearest Air Sensitive Uses in the Subject Site

Project: Section 16 Application - Layout Plan Submission and Proposed Minor Relaxation of Building Height Restriction for Permitted Flat Use At 131 Pok Fu Lam Road, Hong Kong, RBL 136RP

RAMBOLL

Drawn by:	AL
Checked by:	CC
Rev.:	2.2
Date:	Jun 2024

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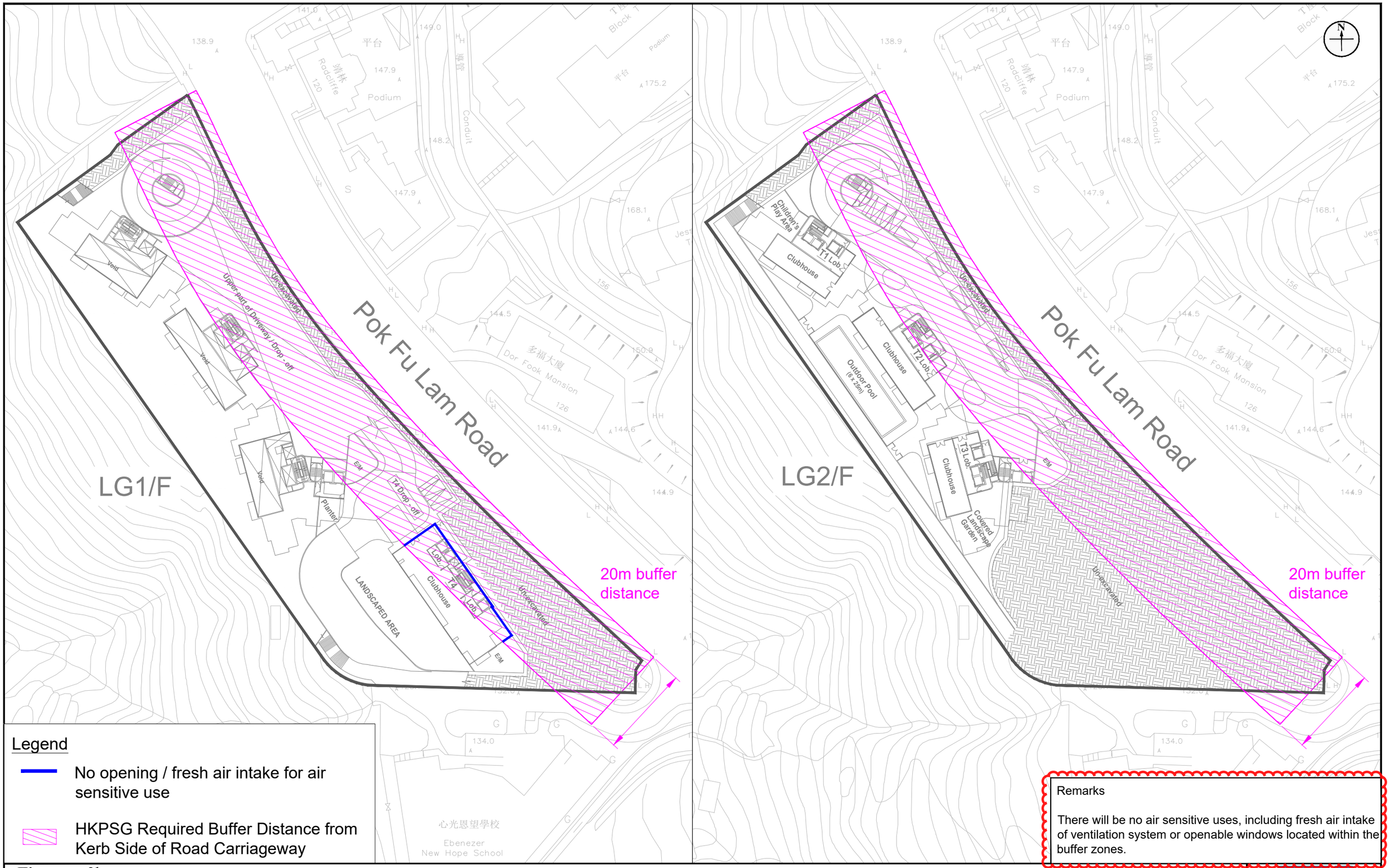

Figure: 3b

Title: Buffer Separation between Kerb Side of Road Carriageway and Nearest Air Sensitive Uses in the Subject Site

RAMBOLL

Drawn by:	AL
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Rev.:	2.2
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Project: Section 16 Application - Layout Plan Submission and Proposed Minor Relaxation of Building Height Restriction for Permitted Flat Use At 131 Pok Fu Lam Road, Hong Kong, RBL 136RP

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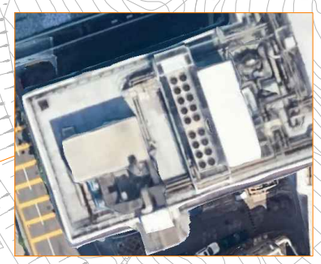

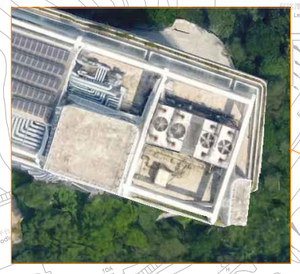

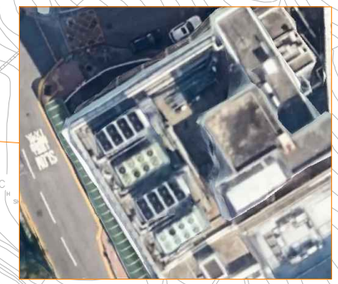

QMH-01

QMH-02
QMH-03
QMH-04
QMH-05

QMH-06
QMH-07
QMH-08
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QMH-10

HKU-05
HKU-06

HKU-07
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HKU-17
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HKU-19

F01

F02

Legend

- Representative NSRs
- Cooling Tower
- Chiller
- VRV

Figure: 6	RAMBOLL
Title: Identified Fixed Noise Sources and Locations of Representative Noise Sensitive Receivers for Fixed Noise Impact Assessment	Drawn by: AL Checked by: CC
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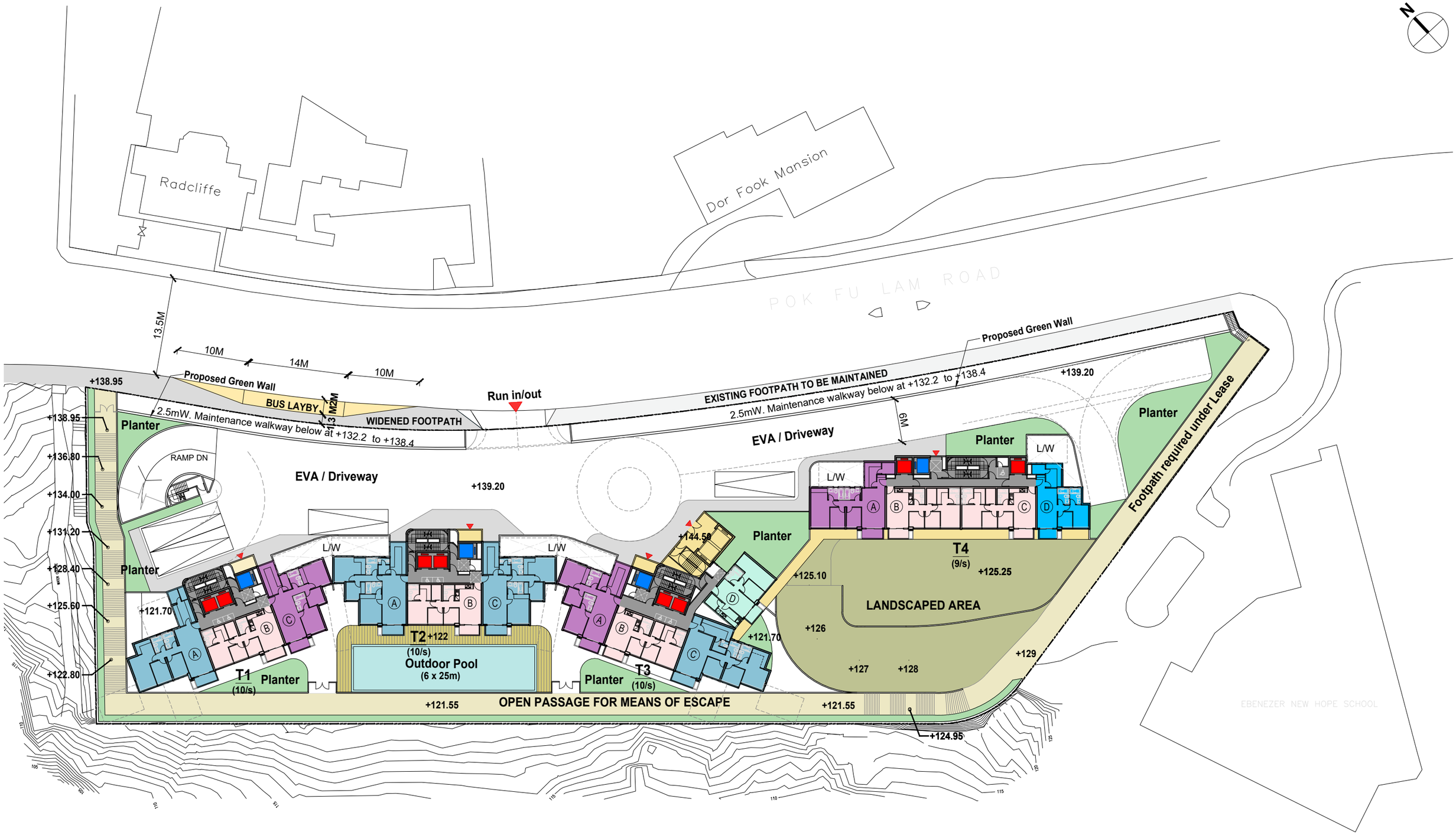
Appendix 1 Proposed Master Layout Plan



Floor	Nos. of Carpark
LG2/F	8
LG1/F	2
B3/F	44
B2/F	33
B1/F	25
Total	112

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PROJECT TITLE
PROPOSED RESIDENTIAL RE-DEVELOPMENT AT NO. 131 POK FU LAM ROAD, POK FU LAM, HONG KONG, RBL 136 RP

DRAWING TITLE
LAYOUT PLAN - UG/F
SCHEME 12 (traffic option 1a)

DRAWING NO.	SCALE	REV. NO.	DATE / REVISION NO.	APPROVAL BY
A-06	1:500	-	JUN 2024	DATE OF APPROVAL

Floor	Nos. of Carpark
LG2/F	8
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Total	112

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PROJECT TITLE
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DRAWING TITLE
LAYOUT PLAN - B1/F
SCHEME 12 (traffic option 1a)

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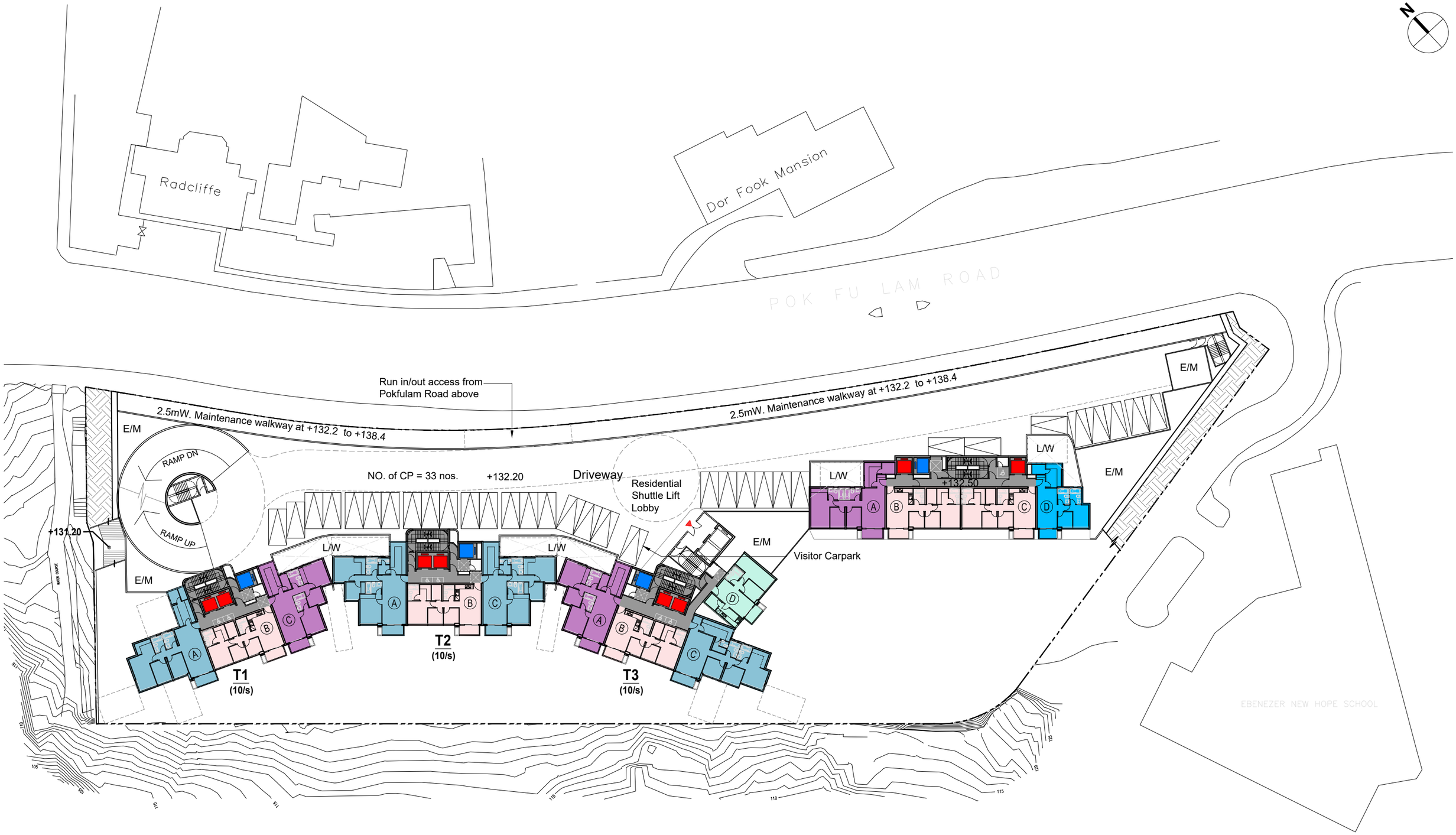

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DRAWING TITLE
LAYOUT PLAN - B2/F
SCHEME 12 (traffic option 1a)

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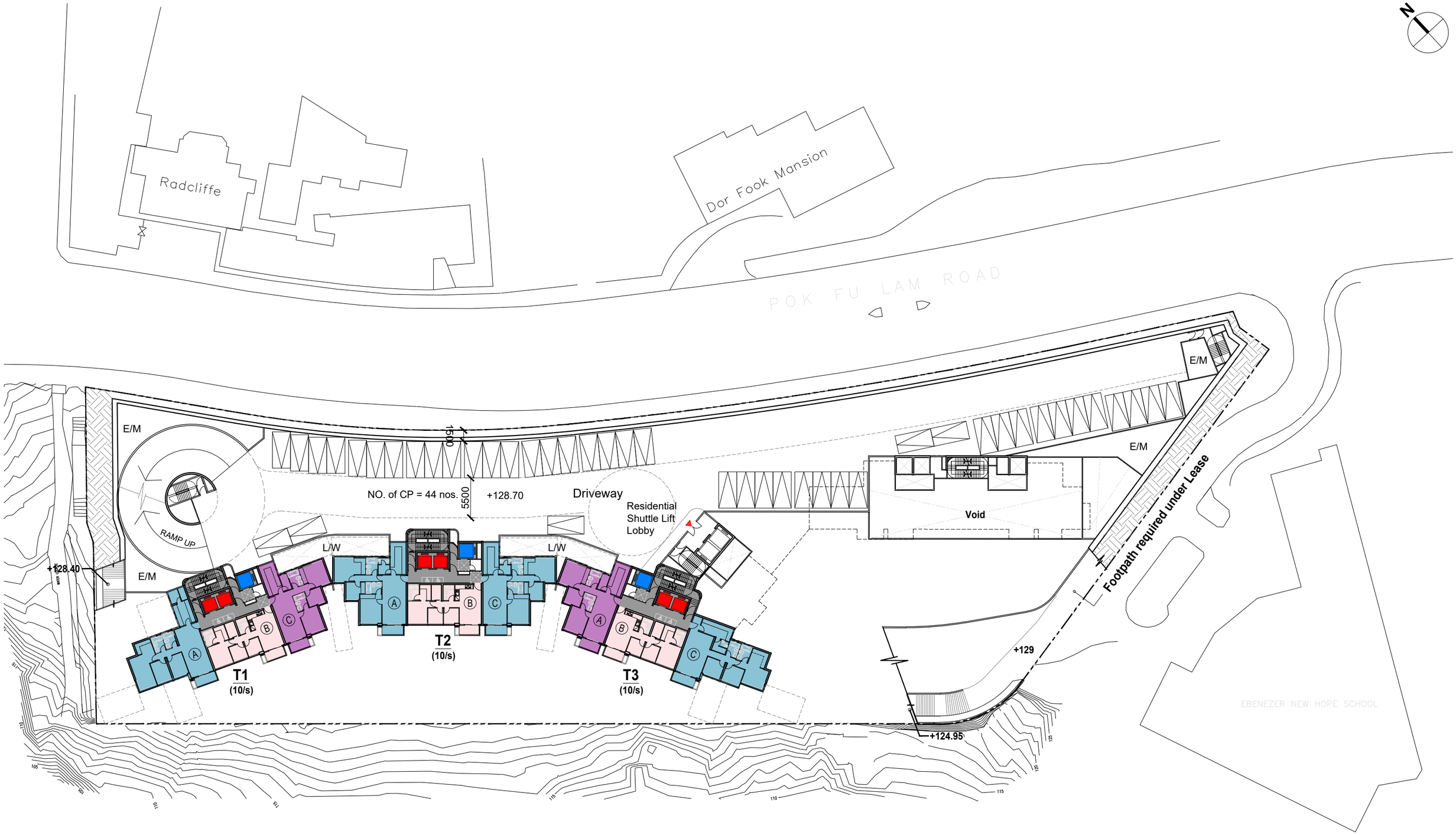

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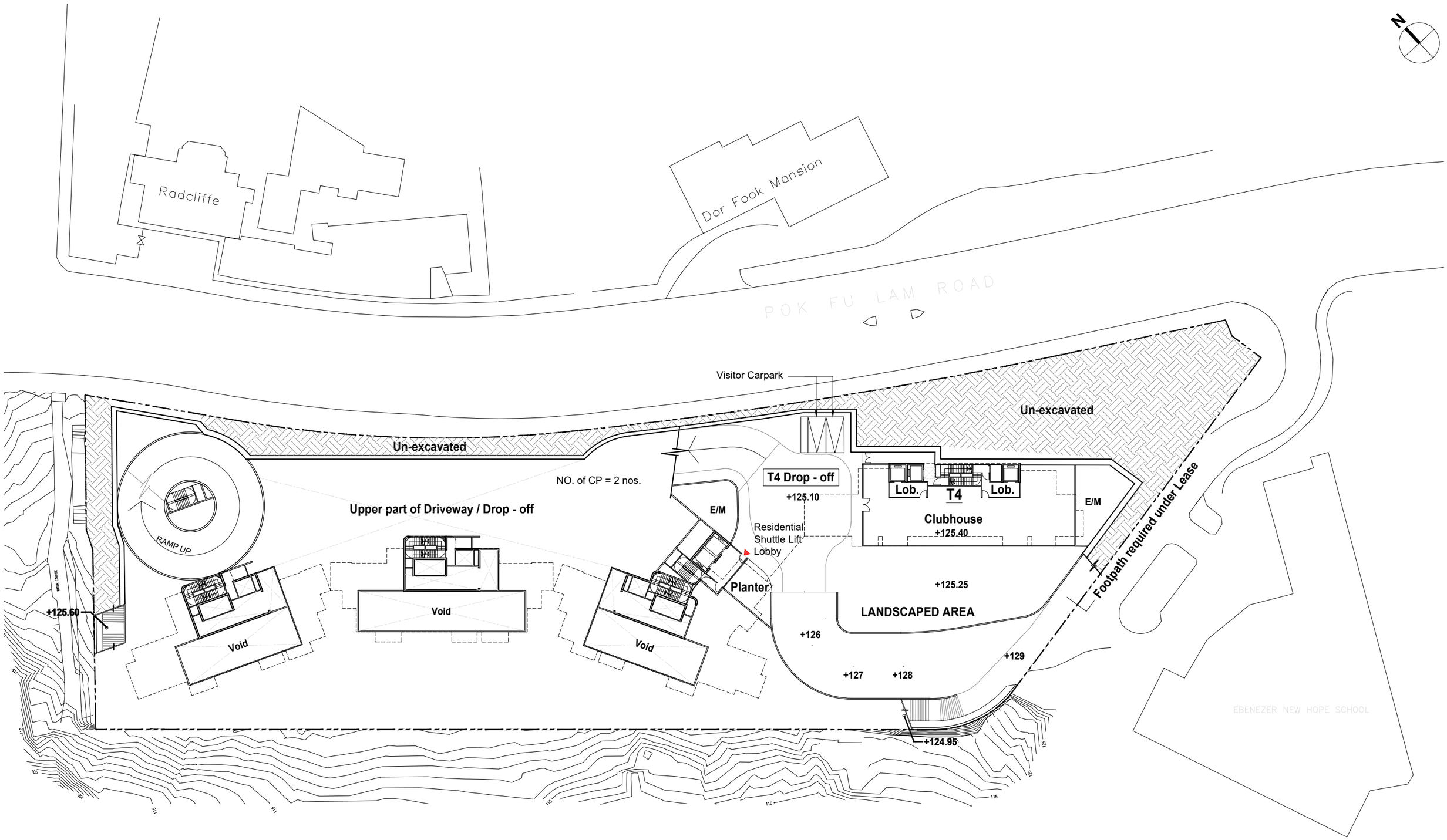
LAYOUT PLAN - B3/F
SCHEME 12 (traffic option 1a)

DRAWING NO.	SCALE	REV. NO.	DATE / REVISION NO.	APPROVAL BY
A-03	1:500	-	JUN 2024	DATE OF APPROVAL



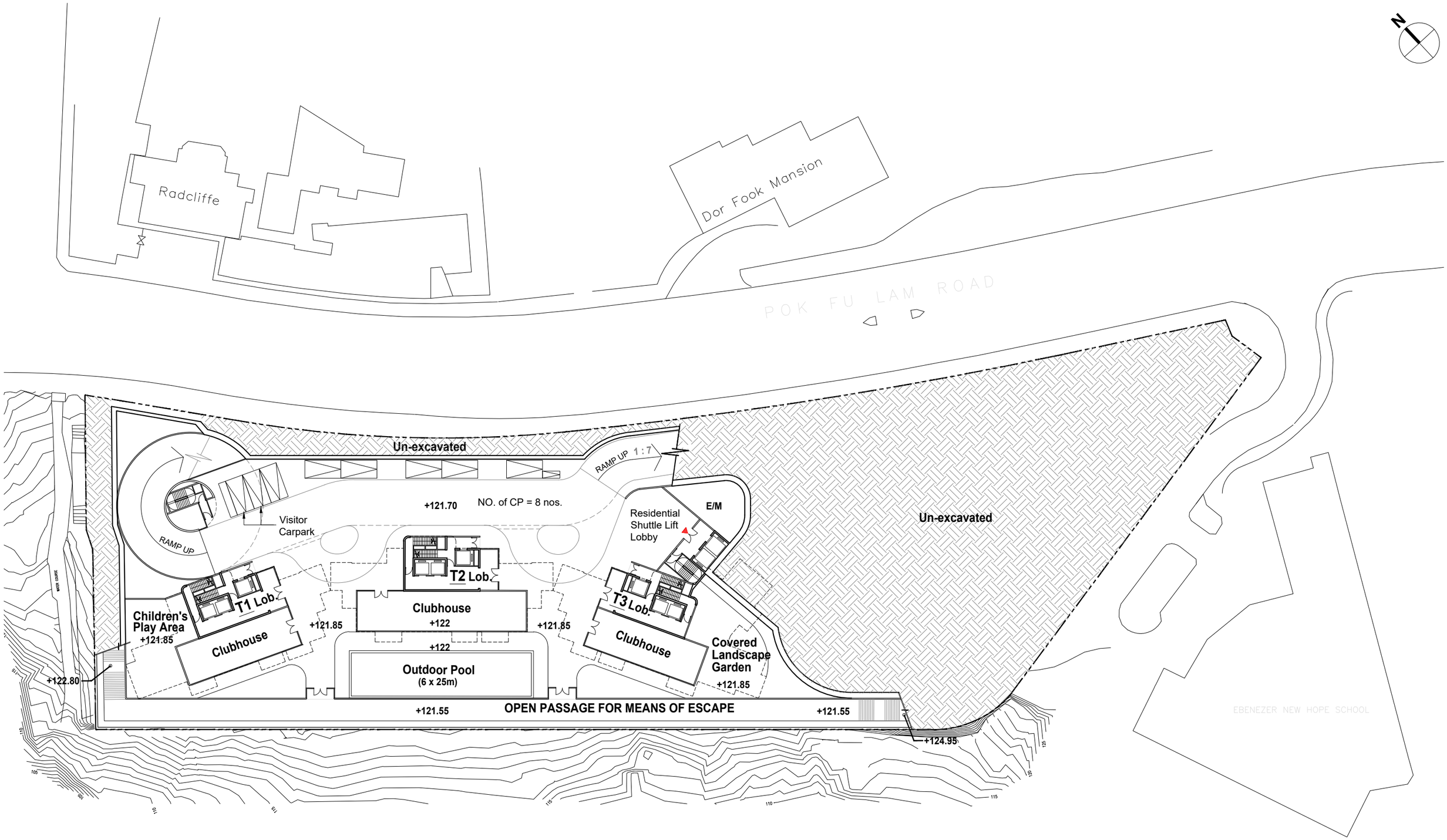
Floor	Nos. of Carpark
LG2/F	8
LG1/F	2
B3/F	44
B2/F	33
B1/F	25
Total	112

Handi Architects Limited
UNIT 2010, 20/F, TOWER 1, GRAND CENTURY PLACE, 193 PRINCE EDWARD ROAD WEST, KOWLOON
T: 2547 1267
F: 2875 1467

PROJECT TITLE
PROPOSED RESIDENTIAL RE-DEVELOPMENT AT NO. 131 POK FU LAM ROAD, POK FU LAM, HONG KONG, RBL 136 RP

DRAWING TITLE
LAYOUT PLAN - LG1/F
SCHEME 12 (traffic option 1a)

DRAWING NO.	SCALE	REV. NO.	DATE / REVISION NO.	APPROVAL BY
A-02	1:500	-	JUN 2024	DATE OF APPROVAL



Floor	Nos. of Carpark
LG2/F	8
LG1/F	2
B3/F	44
B2/F	33
B1/F	25
Total	112

Handi Architects Limited
UNIT 2010, 20/F, TOWER 1, GRAND CENTURY PLACE, 193 PRINCE EDWARD ROAD WEST, KOWLOON
T: 2547 1267
F: 2875 1467

PROJECT TITLE
PROPOSED RESIDENTIAL RE-DEVELOPMENT AT NO. 131 POK FU LAM ROAD, POK FU LAM, HONG KONG, RBL 136 RP

DRAWING TITLE
LAYOUT PLAN - LG2/F
SCHEME 12 (traffic option 1a)

DRAWING NO.	SCALE	REV. NO.	DATE / REVISION NO.	APPROVAL BY
A-01	1:500	-	JUN 2024	DATE OF APPROVAL

LEGEND
- FIXED GLAZING (1-10/F)
- ACOUSTIC FIN (2-10/F)

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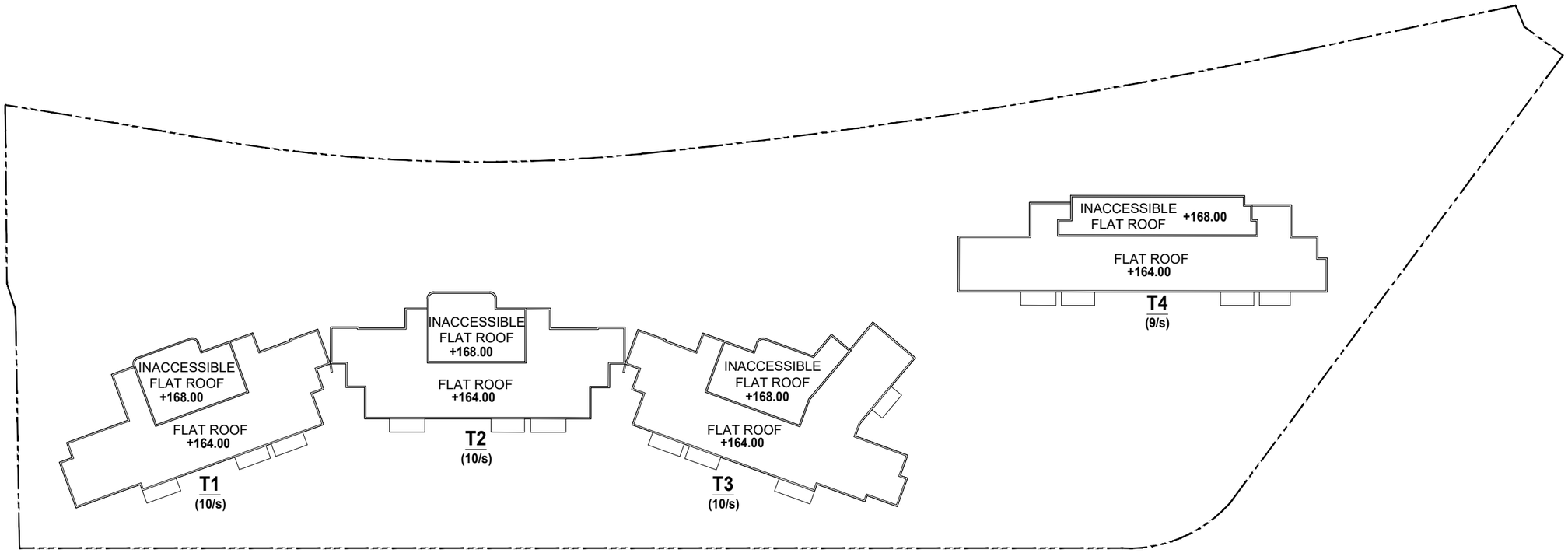
PROJECT TITLE
PROPOSED RESIDENTIAL RE-DEVELOPMENT AT NO. 131 POK FU LAM ROAD, POK FU LAM, HONG KONG, RBL 136 RP

DRAWING TITLE
LAYOUT PLAN - TYPICAL FLOOR
SCHEME 12 (traffic option 1a)

DRAWING NO.	SCALE	REV. NO.	DATE / REVISION NO.	APPROVAL BY
A-07	1:500	-	JUN 2024	DATE OF APPROVAL

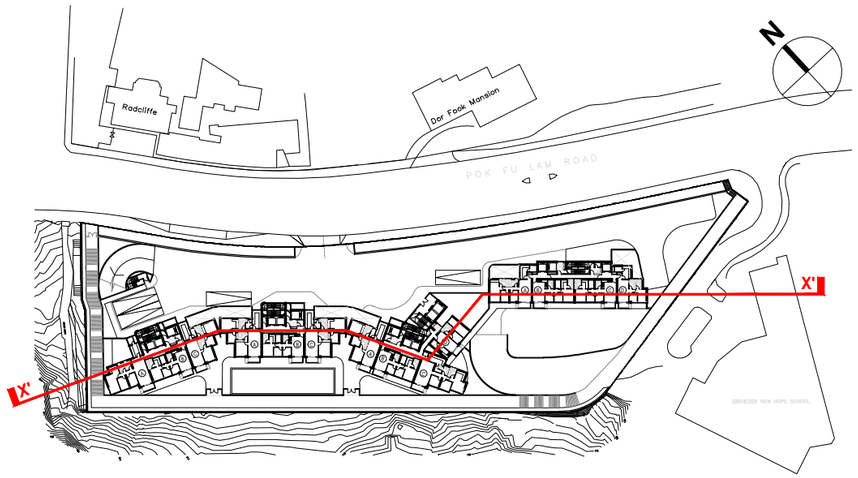


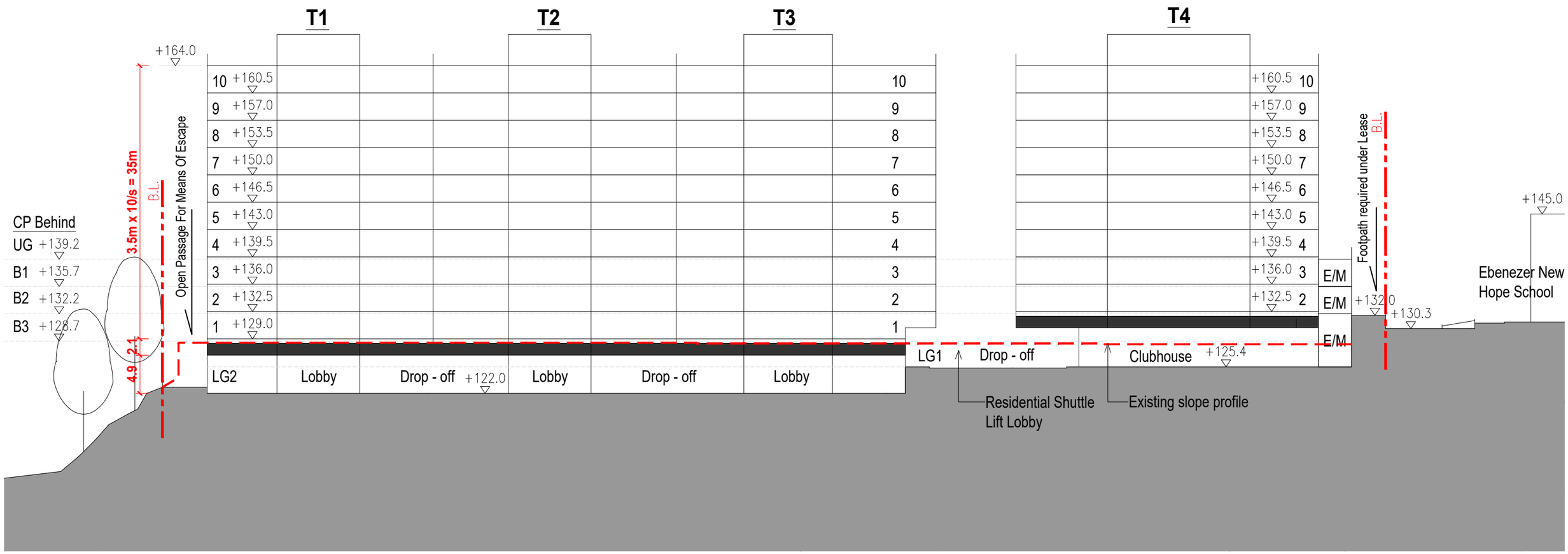
Handi Architects Limited
UNIT 2010, 20/F, TOWER 1, GRAND CENTURY PLACE, 193 PRINCE EDWARD ROAD WEST, KOWLOON
T: 2547 1267
F: 2875 1467

PROJECT TITLE
PROPOSED RESIDENTIAL RE-DEVELOPMENT AT NO. 131 POK FU LAM ROAD, POK FU LAM, HONG KONG, RBL 136 RP

DRAWING TITLE
LAYOUT PLAN - ROOF FLOOR
SCHEME 12 (traffic option 1a)

DRAWING NO.	SCALE	REV. NO.	DATE / REVISION NO.	APPROVAL BY
A-08	1:500	-	JUN 2024	DATE OF APPROVAL



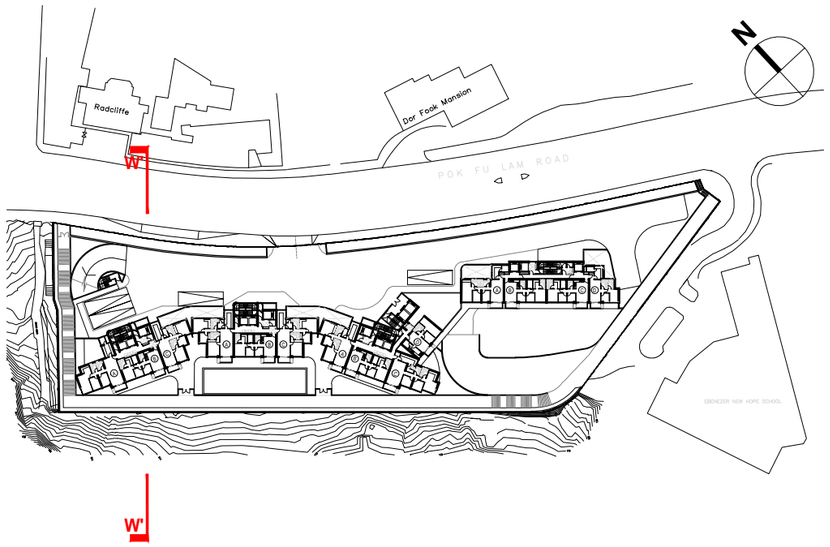


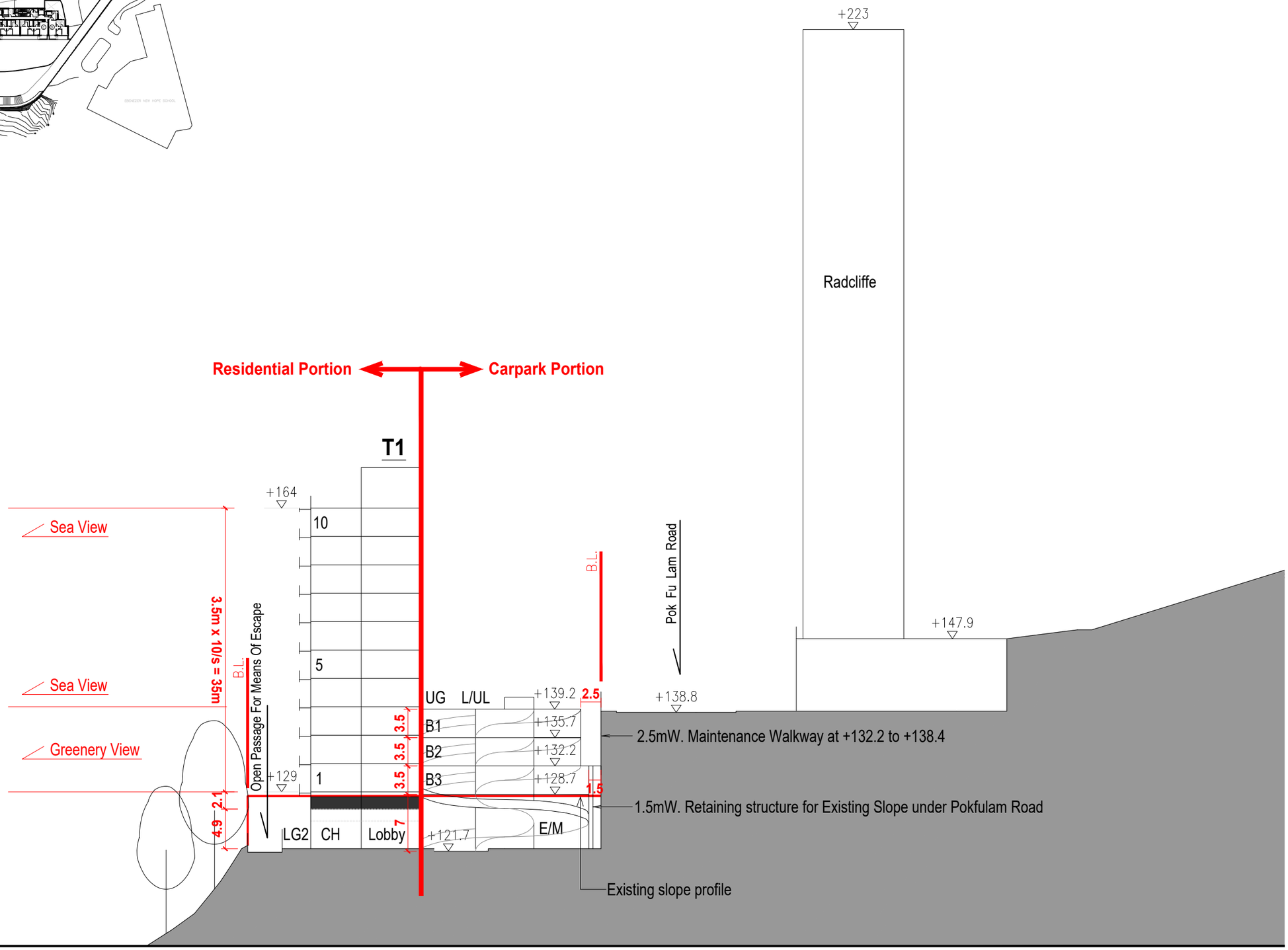
Handi Architects Limited
UNIT 2010, 20/F, TOWER 1, GRAND CENTURY PLACE, 193 PRINCE EDWARD ROAD WEST, KOWLOON
T: 2547 1267
F: 2875 1467

PROJECT TITLE
PROPOSED RESIDENTIAL RE-DEVELOPMENT AT NO. 131 POK FU LAM ROAD, POK FU LAM, HONG KONG, RBL 136 RP

DRAWING TITLE
SECTION X-X'
SCHEME 12 (traffic option 1a)

DRAWING NO.	SCALE	REV. NO.	DATE / REVISION NO.	APPROVAL BY
	1:500	-	JUN 2024	DATE OF APPROVAL



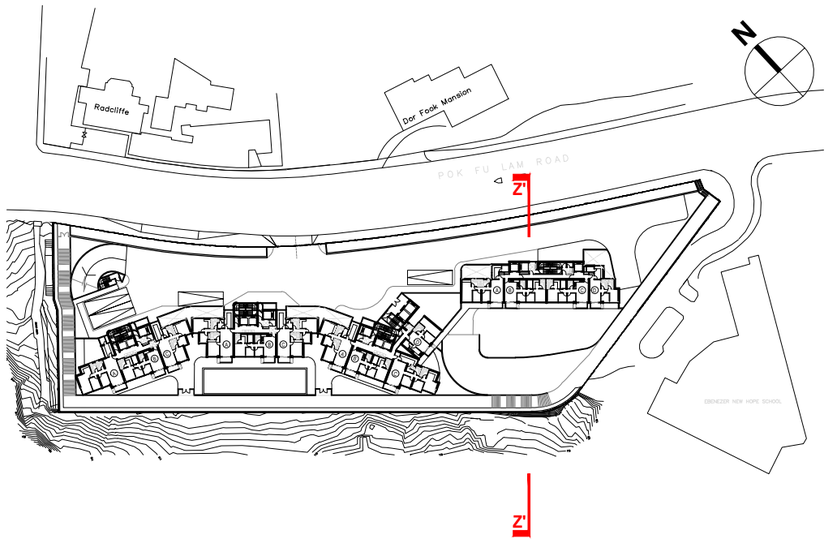


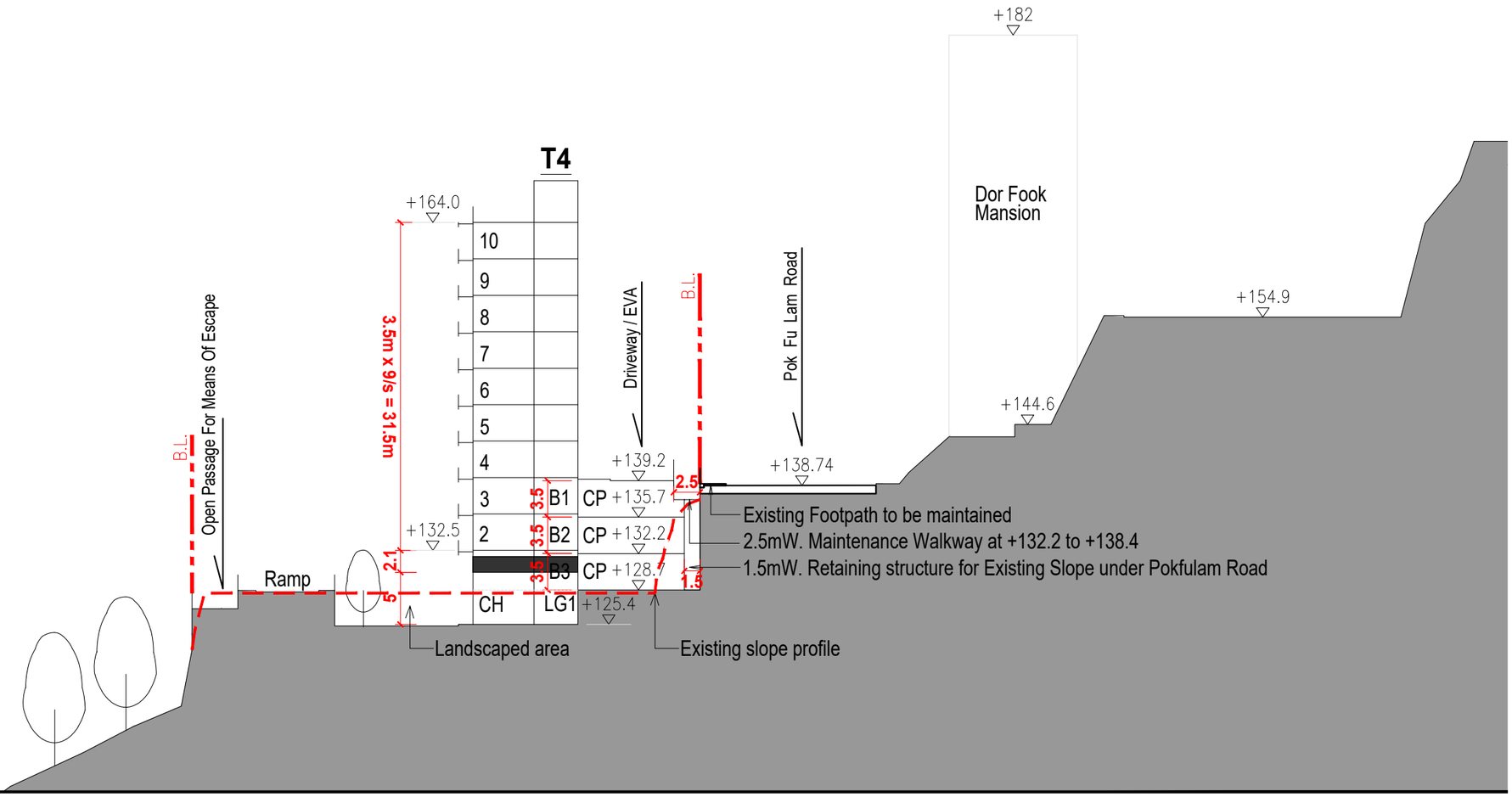
Handi Architects Limited
UNIT 2010, 20/F, TOWER 1, GRAND CENTURY PLACE, 193 PRINCE EDWARD ROAD WEST, KOWLOON
T: 2547 1267
F: 2875 1467

PROJECT TITLE
PROPOSED RESIDENTIAL RE-DEVELOPMENT AT NO. 131 POK FU LAM ROAD, POK FU LAM, HONG KONG, RBL 136 RP

DRAWING TITLE
SECTION W-W'
SCHEME 12 (traffic option 1a)

DRAWING NO.	SCALE	REV. NO.	DATE / REVISION NO.	APPROVAL BY
	1:500	-	JUN 2024	DATE OF APPROVAL





Handi Architects Limited
UNIT 2010, 20/F, TOWER 1, GRAND CENTURY PLACE, 193 PRINCE EDWARD ROAD WEST, KOWLOON
T: 2547 1267
F: 2875 1467

PROJECT TITLE
PROPOSED RESIDENTIAL RE-DEVELOPMENT AT NO. 131 POK FU LAM ROAD, POK FU LAM, HONG KONG, RBL 136 RP

DRAWING TITLE
SECTION Z-Z'
SCHEME 12 (traffic option 1a)

DRAWING NO.	SCALE	REV. NO.	DATE / REVISION NO.	APPROVAL BY
	1:500	-	JUN 2024	DATE OF APPROVAL

Appendix 3 **Predicted Traffic Road Noise Level (L_{10}(1-hr)) at Selected NSRs under Base Case and Mitigated Case**

Predicted Road Traffic Noise at Selected Sensitive Receivers (PM)
Mitigated Scenario (Vertical Fin, and Fixed Glazing with Maintenance Window)

		Tower 1													
		Flat A					Flat B				Flat C				
Floor	mPD	T1-01	T1-02	T1-03	T1-04	T1-05	T1-06	T1-07	T1-08	T1-09	T1-10	T1-11	T1-12	T1-13	T1-14
1/F	130.2	FG	67	65	65	65	65	64	64	63	62	61	55	53	FG
2/F	133.7	FG	67	65	65	65	65	65	65	64	64	63	57	56	FG
3/F	137.2	FG	67	65	65	65	65	65	65	65	64	64	59	58	FG
4/F	140.7	FG	67	65	65	65	65	65	65	65	65	64	59	59	FG
5/F	144.2	FG	67	66	65	65	65	65	65	65	65	65	59	59	FG
6/F	147.7	FG	67	65	65	65	65	65	65	65	65	65	60	59	FG
7/F	151.2	FG	67	65	65	65	65	65	65	65	65	64	59	59	FG
8/F	154.7	FG	67	65	65	65	65	65	65	65	65	64	59	59	FG
9/F	158.2	FG	67	65	65	65	65	65	65	65	65	64	60	60	FG
10/F	161.7	FG	67	65	65	65	65	65	65	65	65	65	60	60	FG
Max.		0	67	66	65	65	65	65	65	65	65	65	60	60	0
Exceedance		0					0				0				

		Tower 2											
		Flat A				Flat B				Flat C			
Floor	mPD	T2-01	T2-02	T2-03	T2-04	T2-05	T2-06	T2-07	T2-08	T2-09	T2-10	T2-11	T2-12
1/F	130.2	51	58	61	61	60	60	60	60	60	60	56	53
2/F	133.7	53	59	62	62	62	62	62	62	62	62	58	56
3/F	137.2	56	61	64	64	63	63	63	63	63	63	59	57
4/F	140.7	58	62	64	64	64	64	64	64	63	63	60	58
5/F	144.2	59	63	64	64	64	64	64	64	64	64	60	59
6/F	147.7	59	63	64	64	64	64	64	64	64	64	60	59
7/F	151.2	59	63	64	64	64	64	64	64	64	64	60	59
8/F	154.7	59	63	64	64	64	64	64	64	64	64	61	59
9/F	158.2	59	63	64	64	64	64	64	64	64	64	61	59
10/F	161.7	60	63	64	64	64	64	64	64	64	64	61	60
Max.		60	63	64	64	64	64	64	64	64	64	61	60
Exceedance		0				0				0			

		Tower 3																
		Flat A					Flat B				Flat C					Flat D		
Floor	mPD	T3-01	T3-02	T3-03	T3-04	T3-05	T3-06	T3-07	T3-08	T3-09	T3-10	T3-11	T3-12	T3-13	T3-14	T3-15	T3-16	T3-17
1/F	130.2	FG	55	57	61	61	61	61	62	62	62	62	62	62	65	49	52	64
2/F	133.7	FG	56	58	62	62	62	62	62	62	63	63	63	63	65	50	53	65
3/F	137.2	FG	57	59	63	63	63	63	63	63	63	63	63	63	66	52	54	65
4/F	140.7	FG	58	61	63	63	63	63	63	63	63	63	64	64	66	56	57	65
5/F	144.2	FG	59	61	64	64	64	64	64	64	64	64	64	65	67	60	60	66
6/F	147.7	FG	60	62	64	64	64	64	64	64	64	64	65	65	67	61	61	66
7/F	151.2	FG	60	62	64	64	64	64	64	64	64	64	65	65	67	62	62	66
8/F	154.7	FG	60	62	64	64	64	64	64	64	64	64	65	65	67	62	62	66
9/F	158.2	FG	60	62	64	64	64	64	64	64	64	64	65	65	67	62	62	66
10/F	161.7	FG	61	62	64	64	64	64	64	64	64	64	65	65	67	62	63	66
Max.		0	61	62	64	64	64	64	64	64	64	64	65	65	67	62	63	66
Exceedance		0					0				0					0		

		Tower 4														
		Flat A				Flat B				Flat C				Flat D		
Floor	mPD	T4-01	T4-02	T4-03	T4-04	T4-05	T4-06	T4-07	T4-08	T4-09	T4-10	T4-11	T4-12	T4-13	T4-14	T4-15
2/F	133.7	67	61	58	55	55	55	56	56	56	56	56	56	56	56	64
3/F	137.2	67	61	58	57	58	58	58	57	57	57	57	57	57	57	64
4/F	140.7	67	62	59	59	60	60	60	60	60	60	60	60	60	60	65
5/F	144.2	67	62	61	62	62	62	62	62	62	63	63	63	63	64	67
6/F	147.7	67	63	62	62	62	62	63	63	63	63	63	63	64	65	67
7/F	151.2	67	63	62	62	62	62	63	63	63	63	63	63	64	65	67
8/F	154.7	66	63	62	62	62	63	63	63	63	63	63	63	64	65	67
9/F	158.2	66	63	62	62	62	63	63	63	63	63	63	64	64	65	67
10/F	161.7	66	63	62	63	63	63	63	63	63	63	64	64	64	65	67
Max.		67	63	62	63	63	63	63	63	63	63	64	64	64	65	67
Exceedance		0				0				0				0		

	PM
Total no. of Flats:	135
Total no. of Exceedance:	0
Compliance Level:	100%
Max. Noise Level:	67

Noted:
FG Fixed Glazing with Maintenance Window

Appendix 4 Detailed Fixed Noise Impact Assessment

Predicted Noise Level for Fixed Noise Impact Assessment - Base Case Scenario
Day/Evening Time

F01 NSR Coordinate: x = 831583.5 y = 814286.4 **54**

Source ID	Description	Industrial Noise Source Coordinate: x	y	SPL	Ref dist.	SWL	Horizontal distance from source to NSR (m)	Distance Corr.	Façade Corr.	Barrier Corr.	Tonality Corr.	Impulsive Corr.	ANL
QMH-01	Chiller (Ref - Daikin: EWAD-C-SS H14)	831562.4	814549.2	--	--	102.0	263.7	56.4	3.0	-10.0	3.0	0.0	41.6
QMH-02	Chiller (Ref - Daikin: EWAD-D-XS 470)	831560.4	814517.8	--	--	99.0	232.5	55.3	3.0	-10.0	3.0	0.0	39.7
QMH-03	Chiller (Ref - Daikin: EWAD-D-XS 470)	831562.6	814513.6	--	--	99.0	228.1	55.2	3.0	-10.0	3.0	0.0	39.8
QMH-04	Chiller (Ref - Daikin: EWAD-D-XS 470)	831564.7	814509.4	--	--	99.0	223.8	55.0	3.0	-10.0	3.0	0.0	40.0
QMH-05	Chiller (Ref - Daikin: EWAD-D-XS 470)	831566.6	814505.7	--	--	99.0	219.9	54.8	3.0	-10.0	3.0	0.0	40.2
QMH-06	Chiller (Ref - Daikin: EWAQ-F-XS 200)	831606.8	814470.5	--	--	93.0	185.6	53.4	3.0	-10.0	3.0	0.0	35.6
QMH-07	Chiller (Ref - Daikin: EWAQ-F-XS 200)	831609.3	814466.7	--	--	93.0	182.1	53.2	3.0	-10.0	3.0	0.0	35.8
QMH-08	VRV (Ref - Daikin: RUXYQ88BB)	831610.9	814471.2	66.0	1.0	74.0	186.8	53.4	3.0	-10.0	3.0	0.0	16.6
QMH-09	Chiller (Ref - Daikin: EWAQ-F-XS 200)	831614.0	814465.1	--	--	93.0	181.3	53.2	3.0	-10.0	3.0	0.0	35.8
QMH-10	VRV (Ref - Daikin: RUXYQ44BB)	831621.2	814462.1	63.0	1.0	71.0	179.7	53.1	3.0	-10.0	3.0	0.0	13.9
HKU-01	Cooling Tower (Ref - ryowo: FW-200)	831459.7	814435.4	64.0	3.6	83.1	193.7	53.7	3.0	-10.0	3.0	0.0	25.4
HKU-02	Cooling Tower (Ref - ryowo: FW-200)	831461.8	814434.8	64.0	3.6	83.1	191.9	53.7	3.0	-10.0	3.0	0.0	25.5
HKU-03	Cooling Tower (Ref - ryowo: FW-200)	831465.5	814433.5	64.0	3.6	83.1	188.6	53.5	3.0	-10.0	3.0	0.0	25.6
HKU-04	Cooling Tower (Ref - ryowo: FW-200)	831467.7	814432.7	64.0	3.6	83.1	186.6	53.4	3.0	0.0	3.0	0.0	35.7
HKU-05	VRV (Ref - Daikin: RUXYQ44BB)	831466.8	814495.1	63.0	1.0	71.0	239.1	55.6	3.0	0.0	3.0	0.0	21.4
HKU-06	Chiller (Ref - Daikin: EWAD-C-SS 970)	831473.6	814491.8	--	--	101.0	233.0	55.3	3.0	0.0	3.0	0.0	51.7
HKU-07	Cooling Tower (Ref - ryowo: FW-200)	831461.2	814483.5	64.0	3.6	83.1	231.9	55.3	3.0	0.0	3.0	0.0	33.8
HKU-08	Cooling Tower (Ref - ryowo: FW-200)	831464.2	814481.7	64.0	3.6	83.1	228.8	55.2	3.0	0.0	3.0	0.0	33.9
HKU-09	Cooling Tower (Ref - ryowo: FW-200)	831466.8	814480.5	64.0	3.6	83.1	226.4	55.1	3.0	0.0	3.0	0.0	34.0
HKU-10	Chiller (Ref - Daikin: EWAD-C-SS C15)	831317.2	814330.2	--	--	103.0	269.9	56.6	3.0	-10.0	3.0	0.0	42.4
HKU-11	Chiller (Ref - Daikin: EWAD-C-SS C15)	831324.6	814328.5	--	--	103.0	262.3	56.4	3.0	-10.0	3.0	0.0	42.6
HKU-12	Cooling Tower (Ref - ryowo: FW-750)	831314.3	814316.4	69.0	6.6	93.4	270.8	56.7	3.0	-10.0	3.0	0.0	32.8
HKU-13	Cooling Tower (Ref - ryowo: FW-750)	831311.6	814302.6	69.0	6.6	93.4	272.4	56.7	3.0	-10.0	3.0	0.0	32.7
HKU-14	Cooling Tower (Ref - ryowo: FW-750)	831308.7	814288.5	69.0	6.6	93.4	274.7	56.8	3.0	-10.0	3.0	0.0	32.6
HKU-15	Cooling Tower (Ref - ryowo: FW-750)	831305.9	814274.4	69.0	6.6	93.4	277.8	56.9	3.0	-10.0	3.0	0.0	32.5
HKU-16	Cooling Tower (Ref - ryowo: FW-750)	831322.1	814316.9	69.0	6.6	93.4	263.2	56.4	3.0	-10.0	3.0	0.0	33.0
HKU-17	Cooling Tower (Ref - ryowo: FW-750)	831319.3	814303.1	69.0	6.6	93.4	264.7	56.5	3.0	-10.0	3.0	0.0	33.0
HKU-18	Cooling Tower (Ref - ryowo: FW-750)	831316.5	814289.3	69.0	6.6	93.4	267.0	56.5	3.0	-10.0	3.0	0.0	32.9
HKU-19	Cooling Tower (Ref - ryowo: FW-750)	831313.7	814275.4	69.0	6.6	93.4	270.1	56.6	3.0	-10.0	3.0	0.0	32.8
									Noise standard:		**65**	**Overall**	**54**

Predicted Noise Level for Fixed Noise Impact Assessment - Base Case Scenario
Night Time

F01 NSR Coordinate: x = 831583.5 y = 814286.4 **48**

Source ID	Description	Industrial Noise Source Coordinate: x	y	SPL	Ref dist.	SWL	Horizontal distance from source to NSR (m)	Distance Corr.	Façade Corr.	Barrier Corr.	Tonality Corr.	Impulsive Corr.	ANL
QMH-01	Chiller (Ref - Daikin: EWAD-C-SS H14)	831562.4	814549.2	--	--	102.0	263.7	56.4	3.0	-10.0	3.0	0.0	41.6
QMH-02	Chiller (Ref - Daikin: EWAD-D-XS 470)	831560.4	814517.8	--	--	99.0	232.5	55.3	3.0	-10.0	3.0	0.0	39.7
QMH-03	Chiller (Ref - Daikin: EWAD-D-XS 470)	831562.6	814513.6	--	--	99.0	228.1	55.2	3.0	-10.0	3.0	0.0	39.8
QMH-04	Chiller (Ref - Daikin: EWAD-D-XS 470)	831564.7	814509.4	--	--	99.0	223.8	55.0	3.0	-10.0	3.0	0.0	40.0
QMH-05	Chiller (Ref - Daikin: EWAD-D-XS 470)	831566.6	814505.7	--	--	99.0	219.9	54.8	3.0	-10.0	3.0	0.0	40.2
QMH-06	Chiller (Ref - Daikin: EWAQ-F-XS 200)	831606.8	814470.5	--	--	93.0	185.6	53.4	3.0	-10.0	3.0	0.0	35.6
QMH-07	Chiller (Ref - Daikin: EWAQ-F-XS 200)	831609.3	814466.7	--	--	93.0	182.1	53.2	3.0	-10.0	3.0	0.0	35.8
QMH-08	VRV (Ref - Daikin: RUXYQ88BB)	831610.9	814471.2	66.0	1.0	74.0	186.8	53.4	3.0	-10.0	3.0	0.0	16.6
QMH-09	Chiller (Ref - Daikin: EWAQ-F-XS 200)	831614.0	814465.1	--	--	93.0	181.3	53.2	3.0	-10.0	3.0	0.0	35.8
QMH-10	VRV (Ref - Daikin: RUXYQ44BB)	831621.2	814462.1	63.0	1.0	71.0	179.7	53.1	3.0	-10.0	3.0	0.0	13.9
HKU-01	Cooling Tower (Ref - ryowo: FW-200)	831459.7	814435.4	64.0	3.6	0.0	193.7	53.7	3.0	-10.0	3.0	0.0	0.0
HKU-02	Cooling Tower (Ref - ryowo: FW-200)	831461.8	814434.8	64.0	3.6	0.0	191.9	53.7	3.0	-10.0	3.0	0.0	0.0
HKU-03	Cooling Tower (Ref - ryowo: FW-200)	831465.5	814433.5	64.0	3.6	0.0	188.6	53.5	3.0	-10.0	3.0	0.0	0.0
HKU-04	Cooling Tower (Ref - ryowo: FW-200)	831467.7	814432.7	64.0	3.6	0.0	186.6	53.4	3.0	0.0	3.0	0.0	0.0
HKU-05	VRV (Ref - Daikin: RUXYQ44BB)	831466.8	814495.1	63.0	1.0	0.0	239.1	55.6	3.0	0.0	3.0	0.0	0.0
HKU-06	Chiller (Ref - Daikin: EWAD-C-SS 970)	831473.6	814491.8	--	--	0.0	233.0	55.3	3.0	0.0	3.0	0.0	0.0
HKU-07	Cooling Tower (Ref - ryowo: FW-200)	831461.2	814483.5	64.0	3.6	0.0	231.9	55.3	3.0	0.0	3.0	0.0	0.0
HKU-08	Cooling Tower (Ref - ryowo: FW-200)	831464.2	814481.7	64.0	3.6	0.0	228.8	55.2	3.0	0.0	3.0	0.0	0.0
HKU-09	Cooling Tower (Ref - ryowo: FW-200)	831466.8	814480.5	64.0	3.6	0.0	226.4	55.1	3.0	0.0	3.0	0.0	0.0
HKU-10	Chiller (Ref - Daikin: EWAD-C-SS C15)	831317.2	814330.2	--	--	0.0	269.9	56.6	3.0	-10.0	3.0	0.0	0.0
HKU-11	Chiller (Ref - Daikin: EWAD-C-SS C15)	831324.6	814328.5	--	--	0.0	262.3	56.4	3.0	-10.0	3.0	0.0	0.0
HKU-12	Cooling Tower (Ref - ryowo: FW-750)	831314.3	814316.4	69.0	6.6	0.0	270.8	56.7	3.0	-10.0	3.0	0.0	0.0
HKU-13	Cooling Tower (Ref - ryowo: FW-750)	831311.6	814302.6	69.0	6.6	0.0	272.4	56.7	3.0	-10.0	3.0	0.0	0.0
HKU-14	Cooling Tower (Ref - ryowo: FW-750)	831308.7	814288.5	69.0	6.6	0.0	274.7	56.8	3.0	-10.0	3.0	0.0	0.0
HKU-15	Cooling Tower (Ref - ryowo: FW-750)	831305.9	814274.4	69.0	6.6	0.0	277.8	56.9	3.0	-10.0	3.0	0.0	0.0
HKU-16	Cooling Tower (Ref - ryowo: FW-750)	831322.1	814316.9	69.0	6.6	0.0	263.2	56.4	3.0	-10.0	3.0	0.0	0.0
HKU-17	Cooling Tower (Ref - ryowo: FW-750)	831319.3	814303.1	69.0	6.6	0.0	264.7	56.5	3.0	-10.0	3.0	0.0	0.0
HKU-18	Cooling Tower (Ref - ryowo: FW-750)	831316.5	814289.3	69.0	6.6	0.0	267.0	56.5	3.0	-10.0	3.0	0.0	0.0
HKU-19	Cooling Tower (Ref - ryowo: FW-750)	831313.7	814275.4	69.0	6.6	0.0	270.1	56.6	3.0	-10.0	3.0	0.0	0.0
									Noise standard:		**55**	**Overall**	**48**

Predicted Noise Level for Fixed Noise Impact Assessment - Base Case Scenario
Day/Evening Time

F02 NSR Coordinate: x = 831654.6 y = 814223.4 **49**

Source ID	Description	Industrial Noise Source Coordinate: x	y	SPL	Ref dist.	SWL	Horizontal distance from source to NSR (m)	Distance Corr.	Façade Corr.	Barrier Corr.	Tonality Corr.	Impulsive Corr.	ANL
QMH-01	Chiller (Ref - Daikin: EWAD-C-SS H14)	831562.4	814549.2	--	--	102.0	338.6	58.6	3.0	-10.0	3.0	0.0	39.4
QMH-02	Chiller (Ref - Daikin: EWAD-D-XS 470)	831560.4	814517.8	--	--	99.0	309.1	57.8	3.0	-10.0	3.0	0.0	37.2
QMH-03	Chiller (Ref - Daikin: EWAD-D-XS 470)	831562.6	814513.6	--	--	99.0	304.4	57.7	3.0	-10.0	3.0	0.0	37.3
QMH-04	Chiller (Ref - Daikin: EWAD-D-XS 470)	831564.7	814509.4	--	--	99.0	299.8	57.5	3.0	-10.0	3.0	0.0	37.5
QMH-05	Chiller (Ref - Daikin: EWAD-D-XS 470)	831566.6	814505.7	--	--	99.0	295.7	57.4	3.0	-10.0	3.0	0.0	37.6
QMH-06	Chiller (Ref - Daikin: EWAQ-F-XS 200)	831606.8	814470.5	--	--	93.0	251.7	56.0	3.0	-10.0	3.0	0.0	33.0
QMH-07	Chiller (Ref - Daikin: EWAQ-F-XS 200)	831609.3	814466.7	--	--	93.0	247.4	55.9	3.0	-10.0	3.0	0.0	33.1
QMH-08	VRV (Ref - Daikin: RUXYQ88BB)	831610.9	814471.2	66.0	1.0	74.0	251.6	56.0	3.0	-10.0	3.0	0.0	14.0
QMH-09	Chiller (Ref - Daikin: EWAQ-F-XS 200)	831614.0	814465.1	--	--	93.0	245.1	55.8	3.0	-10.0	3.0	0.0	33.2
QMH-10	VRV (Ref - Daikin: RUXYQ44BB)	831621.2	814462.1	63.0	1.0	71.0	241.0	55.6	3.0	-10.0	3.0	0.0	11.4
HKU-01	Cooling Tower (Ref - ryowo: FW-200)	831459.7	814435.4	64.0	3.6	83.1	288.0	57.2	3.0	-10.0	3.0	0.0	21.9
HKU-02	Cooling Tower (Ref - ryowo: FW-200)	831461.8	814434.8	64.0	3.6	83.1	286.1	57.1	3.0	-10.0	3.0	0.0	22.0
HKU-03	Cooling Tower (Ref - ryowo: FW-200)	831465.5	814433.5	64.0	3.6	83.1	282.7	57.0	3.0	-10.0	3.0	0.0	22.1
HKU-04	Cooling Tower (Ref - ryowo: FW-200)	831467.7	814432.7	64.0	3.6	83.1	280.6	57.0	3.0	-10.0	3.0	0.0	22.2
HKU-05	VRV (Ref - Daikin: RUXYQ44BB)	831466.8	814495.1	63.0	1.0	71.0	330.3	58.4	3.0	-10.0	3.0	0.0	8.6
HKU-06	Chiller (Ref - Daikin: EWAD-C-SS 970)	831473.6	814491.8	--	--	101.0	323.8	58.2	3.0	-10.0	3.0	0.0	38.8
HKU-07	Cooling Tower (Ref - ryowo: FW-200)	831461.2	814483.5	64.0	3.6	83.1	324.1	58.2	3.0	-10.0	3.0	0.0	20.9
HKU-08	Cooling Tower (Ref - ryowo: FW-200)	831464.2	814481.7	64.0	3.6	83.1	320.9	58.1	3.0	-10.0	3.0	0.0	21.0
HKU-09	Cooling Tower (Ref - ryowo: FW-200)	831466.8	814480.5	64.0	3.6	83.1	318.4	58.1	3.0	-10.0	3.0	0.0	21.1
HKU-10	Chiller (Ref - Daikin: EWAD-C-SS C15)	831317.2	814330.2	--	--	103.0	353.9	59.0	3.0	-10.0	3.0	0.0	40.0
HKU-11	Chiller (Ref - Daikin: EWAD-C-SS C15)	831324.6	814328.5	--	--	103.0	346.3	58.8	3.0	-10.0	3.0	0.0	40.2
HKU-12	Cooling Tower (Ref - ryowo: FW-750)	831314.3	814316.4	69.0	6.6	93.4	352.7	58.9	3.0	-10.0	3.0	0.0	30.5
HKU-13	Cooling Tower (Ref - ryowo: FW-750)	831311.6	814302.6	69.0	6.6	93.4	352.0	58.9	3.0	-10.0	3.0	0.0	30.5
HKU-14	Cooling Tower (Ref - ryowo: FW-750)	831308.7	814288.5	69.0	6.6	93.4	351.9	58.9	3.0	-10.0	3.0	0.0	30.5
HKU-15	Cooling Tower (Ref - ryowo: FW-750)	831305.9	814274.4	69.0	6.6	93.4	352.4	58.9	3.0	-10.0	3.0	0.0	30.5
HKU-16	Cooling Tower (Ref - ryowo: FW-750)	831322.1	814316.9	69.0	6.6	93.4	345.4	58.8	3.0	-10.0	3.0	0.0	30.7
HKU-17	Cooling Tower (Ref - ryowo: FW-750)	831319.3	814303.1	69.0	6.6	93.4	344.7	58.7	3.0	-10.0	3.0	0.0	30.7
HKU-18	Cooling Tower (Ref - ryowo: FW-750)	831316.5	814289.3	69.0	6.6	93.4	344.5	58.7	3.0	-10.0	3.0	0.0	30.7
HKU-19	Cooling Tower (Ref - ryowo: FW-750)	831313.7	814275.4	69.0	6.6	93.4	344.9	58.8	3.0	-10.0	3.0	0.0	30.7
									Noise standard:		**65**	**Overall**	**49**

Predicted Noise Level for Fixed Noise Impact Assessment - Base Case Scenario
Night Time

F02 NSR Coordinate: x = 831654.6 y = 814223.4 **46**

Source ID	Description	Industrial Noise Source Coordinate: x	y	SPL	Ref dist.	SWL	Horizontal distance from source to NSR (m)	Distance Corr.	Façade Corr.	Barrier Corr.	Tonality Corr.	Impulsive Corr.	ANL
QMH-01	Chiller (Ref - Daikin: EWAD-C-SS H14)	831562.4	814549.2	--	--	102.0	338.6	58.6	3.0	-10.0	3.0	0.0	39.4
QMH-02	Chiller (Ref - Daikin: EWAD-D-XS 470)	831560.4	814517.8	--	--	99.0	309.1	57.8	3.0	-10.0	3.0	0.0	37.2
QMH-03	Chiller (Ref - Daikin: EWAD-D-XS 470)	831562.6	814513.6	--	--	99.0	304.4	57.7	3.0	-10.0	3.0	0.0	37.3
QMH-04	Chiller (Ref - Daikin: EWAD-D-XS 470)	831564.7	814509.4	--	--	99.0	299.8	57.5	3.0	-10.0	3.0	0.0	37.5
QMH-05	Chiller (Ref - Daikin: EWAD-D-XS 470)	831566.6	814505.7	--	--	99.0	295.7	57.4	3.0	-10.0	3.0	0.0	37.6
QMH-06	Chiller (Ref - Daikin: EWAQ-F-XS 200)	831606.8	814470.5	--	--	93.0	251.7	56.0	3.0	-10.0	3.0	0.0	33.0
QMH-07	Chiller (Ref - Daikin: EWAQ-F-XS 200)	831609.3	814466.7	--	--	93.0	247.4	55.9	3.0	-10.0	3.0	0.0	33.1
QMH-08	VRV (Ref - Daikin: RUXYQ88BB)	831610.9	814471.2	66.0	1.0	74.0	251.6	56.0	3.0	-10.0	3.0	0.0	14.0
QMH-09	Chiller (Ref - Daikin: EWAQ-F-XS 200)	831614.0	814465.1	--	--	93.0	245.1	55.8	3.0	-10.0	3.0	0.0	33.2
QMH-10	VRV (Ref - Daikin: RUXYQ44BB)	831621.2	814462.1	63.0	1.0	71.0	241.0	55.6	3.0	-10.0	3.0	0.0	11.4
HKU-01	Cooling Tower (Ref - ryowo: FW-200)	831459.7	814435.4	64.0	3.6	0.0	288.0	57.2	3.0	-10.0	3.0	0.0	0.0
HKU-02	Cooling Tower (Ref - ryowo: FW-200)	831461.8	814434.8	64.0	3.6	0.0	286.1	57.1	3.0	-10.0	3.0	0.0	0.0
HKU-03	Cooling Tower (Ref - ryowo: FW-200)	831465.5	814433.5	64.0	3.6	0.0	282.7	57.0	3.0	-10.0	3.0	0.0	0.0
HKU-04	Cooling Tower (Ref - ryowo: FW-200)	831467.7	814432.7	64.0	3.6	0.0	280.6	57.0	3.0	-10.0	3.0	0.0	0.0
HKU-05	VRV (Ref - Daikin: RUXYQ44BB)	831466.8	814495.1	63.0	1.0	0.0	330.3	58.4	3.0	-10.0	3.0	0.0	0.0
HKU-06	Chiller (Ref - Daikin: EWAD-C-SS 970)	831473.6	814491.8	--	--	0.0	323.8	58.2	3.0	-10.0	3.0	0.0	0.0
HKU-07	Cooling Tower (Ref - ryowo: FW-200)	831461.2	814483.5	64.0	3.6	0.0	324.1	58.2	3.0	-10.0	3.0	0.0	0.0
HKU-08	Cooling Tower (Ref - ryowo: FW-200)	831464.2	814481.7	64.0	3.6	0.0	320.9	58.1	3.0	-10.0	3.0	0.0	0.0
HKU-09	Cooling Tower (Ref - ryowo: FW-200)	831466.8	814480.5	64.0	3.6	0.0	318.4	58.1	3.0	-10.0	3.0	0.0	0.0
HKU-10	Chiller (Ref - Daikin: EWAD-C-SS C15)	831317.2	814330.2	--	--	0.0	353.9	59.0	3.0	-10.0	3.0	0.0	0.0
HKU-11	Chiller (Ref - Daikin: EWAD-C-SS C15)	831324.6	814328.5	--	--	0.0	346.3	58.8	3.0	-10.0	3.0	0.0	0.0
HKU-12	Cooling Tower (Ref - ryowo: FW-750)	831314.3	814316.4	69.0	6.6	0.0	352.7	58.9	3.0	-10.0	3.0	0.0	0.0
HKU-13	Cooling Tower (Ref - ryowo: FW-750)	831311.6	814302.6	69.0	6.6	0.0	352.0	58.9	3.0	-10.0	3.0	0.0	0.0
HKU-14	Cooling Tower (Ref - ryowo: FW-750)	831308.7	814288.5	69.0	6.6	0.0	351.9	58.9	3.0	-10.0	3.0	0.0	0.0
HKU-15	Cooling Tower (Ref - ryowo: FW-750)	831305.9	814274.4	69.0	6.6	0.0	352.4	58.9	3.0	-10.0	3.0	0.0	0.0
HKU-16	Cooling Tower (Ref - ryowo: FW-750)	831322.1	814316.9	69.0	6.6	0.0	345.4	58.8	3.0	-10.0	3.0	0.0	0.0
HKU-17	Cooling Tower (Ref - ryowo: FW-750)	831319.3	814303.1	69.0	6.6	0.0	344.7	58.7	3.0	-10.0	3.0	0.0	0.0
HKU-18	Cooling Tower (Ref - ryowo: FW-750)	831316.5	814289.3	69.0	6.6	0.0	344.5	58.7	3.0	-10.0	3.0	0.0	0.0
HKU-19	Cooling Tower (Ref - ryowo: FW-750)	831313.7	814275.4	69.0	6.6	0.0	344.9	58.8	3.0	-10.0	3.0	0.0	0.0
									Noise standard:		**55**	**Overall**	**46**

Appendix 5 Reference Catalogue of Fixed Noise Source

DAIKIN

Applied catalogue

Chillers & air side

High performance and reliability for comfort and process applications

Air cooled multi-scroll chiller

High efficiency

Standard/low sound

› Reliable and efficient scroll compressors with **high EER values**
› A series of advantages thanks to the use of large-capacity scroll compressors: increased competitiveness, reduced weight, clearances around the unit
› **2 truly independent refrigerant circuits**
› Reduced footprint thanks to the **V-shaped frame** (EWAQ170-310/350F-XS/XL & EWAQ170-300/330F-XR)
› Large operation range: ambient temperatures up to 52°C and down to -18°C
› The unit can be equipped with a hydraulic module optimizing installation time, space and cost
› Ideal solution for a broad range of comfort and process applications
› MicroTech III controller with superior control logic and easy interface

EWAQ-F-XS 200

Cooling only				**EWAQ-F-XS/XL**	**170**	**200**	**220**	**250**	**310**	**320**	**350**	**360**	**400**	**430**	**450**	**520**	**610**	**680**
Cooling capacity	Nom.			kW	170	194	220	244	316		356		403	428	457	528	607	672
Power input	Cooling	Nom.		kW	54.8	62.2	70.6	78.3	102		115		130	137	146	170	198	219
Capacity control	Method				Step													
	Minimum capacity			%	25.0	21.0	25.0	22.0	23.0		25.0		21.0	20.0	25.0	17.0	14.0	17.0
EER					3.11	3.13	3.12		3.09				3.10	3.12		3.10	3.07	
ESEER					3.90	4.10	3.95	4.08	4.04	4.30	4.05	4.33	4.24	4.27	4.23	4.35	4.30	4.23
Dimensions	Unit	Height		mm			2,271			2,221	2,271			2,221				
		Width		mm			1,224			2,258	1,224			2,258				
		Depth		mm	4,413		5,313		6,213	3,210	6,213	3,210	4,110			5,010		5,910
Weight (XS)	Unit			kg	1,688	1,958	2,210	2,339	2,500	2,600	2,632	2,732	2,744	2,845	2,861	3,569	3,667	4,054
	Operation weight			kg	1,700	1,973	2,225	2,353	2,514		2,672	2,772	2,784	2,891	2,907	3,615	3,727	4,115
Weight (XL)	Unit			kg	1,909	2,193	2,457	2,592	2,761	2,861	2,900	3,000	3,017	3,124	3,141	3,923	4,026	4,434
	Operation weight			kg	1,921	2,207	2,472	2,607	2,776	2,876	2,940	3,040	3,057	3,170	3,187	3,970	4,087	4,494
Water heat exchanger	Type				Plate heat exchanger													
	Water volume			l	12		14				40			46			60	
	Water flow rate	Cooling	Nom.	l/s	8.2	9.3	10.5	11.7	15.1		17.0		19.3	20.5	21.8	25.3	29.0	32.2
	Water pressure drop	Cooling	Nom.	kPa	25	27	34	42	22		23		31	29	30	41	44	55
Air heat exchanger	Type				High efficiency fin and tube type with integral subcooler													
Compressor	Type				Scroll compressor													
	Quantity				4											6		
Fan	Type				Direct propeller													
	Quantity				4		5		6				8			10		12
	Air flow rate	Nom.		l/s	21,845	21,148	26,874	25,204	31,722		30,245		42,296	40,326		50,408		60,489
	Speed			rpm	900													
Sound power level (XS)	Cooling	Nom.		dBA	91	93	94	95	96				97	98			99	100
Sound power level (XL)	Cooling	Nom.		dBA	90	91	92		93				95				96	97
Sound pressure level (XS)	Cooling	Nom.		dBA	72	74	75	76		77	76	77	78		79	78	79	
Sound pressure level (XL)	Cooling	Nom.		dBA	71		73		74				75				76	
Operation range	Water side	Cooling	Min.~Max.	°CDB	-13~18													
	Air side	Cooling	Min.~Max.	°CDB	-18~52													
Refrigerant	Type / GWP				R-410A / 2,087.5													
	Circuits	Quantity			2													
Refrigerant charge	Per circuit			kg/TCO$_2$Eq	14.0 / 29.2	15.5 / 32.4	16.5 / 34.4	20.0 / 41.8	26.0 / 54.3				31.0 / 64.7			37.0 / 77.2	36.0 / 75.2	41.5 /86.6
Piping connections	Evaporator water inlet/outlet (OD)				3"													
Unit	Maximum starting current			A	281	338	353	408	480		509		629	643	657	642	768	818
	Nominal running current (RLA)	Cooling		A	110	117	128	141	181		202		229	240	254	300	343	379
	Maximum running current			A	138	149	164	180	229		258		294	308	322	391	433	482
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400													

Air cooled multi-scroll chiller

High efficiency

Reduced sound

EWAQ-F-XS/XL/XR

MicroTech III

Cooling only				EWAQ-F-XR	170	190	210	240	300	310	330	340	390	410	430	500	580	650
Cooling capacity	Nom.			kW	165	188	211	236	304		340		385	407	433	502	579	645
Power input	Cooling	Nom.		kW	53.0	61.2	68.7	77.3	101		117		128	136	146	170	200	219
Capacity control	Method				Step													
	Minimum capacity			%	25.0	21.0	25.0	22.0	23.0		25.0		21.0	20.0	25.0	17.0	14.0	17.0
EER					3.12	3.07	3.08	3.05	3.00		2.92		3.01	2.99	2.96		2.90	2.95
ESEER					4.53	4.64	4.51	4.60	4.53	4.68	4.44	4.63	4.68	4.64	4.54	4.82	4.69	4.65
Dimensions	Unit	Height		mm	2,271					2,221	2,271		2,221					
		Width		mm	1,224					2,258	1,224		2,258					
		Depth		mm	4,413		5,313		6,213	3,210	6,213	3,210	4,110			5,010		5,910
Weight	Unit			kg	2,004	2,303	2,580	2,722	2,900	3,000	3,045	3,145	3,168	3,280	3,298	4,120	4,228	4,655
	Operation weight			kg	2,017	2,317	2,594	2,736	2,914	3,014	3,085	3,185	3,208	3,326	3,344	4,166	4,288	4,716
Water heat exchanger	Type				Plate heat exchanger													
	Water volume			l	12			14			40			46			60	
	Water flow rate	Cooling	Nom.	l/s	7.9	9.0	10.1	11.3	14.5		16.3		18.4	19.5	20.7	24.0	27.7	30.9
	Water pressure drop	Cooling	Nom.	kPa	24	25	31	39	21				28	26	27	38	40	51
Air heat exchanger	Type				High efficiency fin and tube type with integral subcooler													
Compressor	Type				Scroll compressor													
	Quantity				4											6		
Fan	Type				Direct propeller													
	Quantity				4		5		6				8			10		12
	Air flow rate	Nom.		l/s	16,743	16,285	20,618	19,522	24,428		23,426		32,570	31,235		39,044		46,852
	Speed			rpm	705													
Sound power level	Cooling	Nom.		dBA	83	84	85	86	87				89		90	89	90	92
Sound pressure level	Cooling	Nom.		dBA	64	65	66	67		68	67	68	69	70		69	70	71
Operation range	Water side	Cooling	Min.~Max.	°CDB	-13~18													
	Air side	Cooling	Min.~Max.	°CDB	-18~52													
Refrigerant	Type / GWP				R-410A / 2,087.5													
	Circuits	Quantity			2													
Refrigerant charge	Per circuit			kg/TCO_2Eq	14.0 / 29.2	15.5 / 32.4	16.5 / 34.4	20.0 / 41.8	24.0 / 50.1	26.0 / 54.3			31.0 / 64.7			35.0 / 73.1	36.0 / 75.2	41.5 / 86.6
Piping connections	Evaporator water inlet/outlet (OD)				3"													
Unit	Maximum starting current			A	276	332	346	401	472		501		618	632	646	628	754	801
	Nominal running current (RLA)	Cooling		A	107	116	125	139	180		204		226	239	255	300	347	380
	Maximum running current			A	132	143	157	173	220		249		283	296	310	377	419	465
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400													

Air cooled screw chiller

High efficiency

Standard sound

› 2 truly independent refrigerant circuits
› Stepless single-screw compressor
› Large operation range (ambient temperature down to -18°C)
› MicroTech III controller with superior control logic and easy interface

EWAD-D-XS 470

Cooling only				EWAD-D-XS	250	280	300	330	350	380	400	470	520	580	620
Cooling capacity	Nom.			kW	246	274	300	326	350	374	399	467	522	573	620
Power input	Cooling	Nom.		kW	80.1	88.2	95.4	105	114	121	129	152	169	183	196
Capacity control	Method				Stepless										
	Minimum capacity			%	12.5										
EER					3.07	3.11	3.15	3.10	3.06	3.08	3.10	3.07	3.09	3.12	3.16
ESEER					3.45	3.49	3.51	3.73	3.56	3.47	3.48	3.72	3.88	3.89	3.75
Dimensions	Unit	Height		mm	2,355								2,223		
		Width		mm	2,234										
		Depth		mm	3,138	4,040							4,940		
Weight	Unit			kg	2,905	3,285		3,235	3,240			3,510	4,670	4,685	
	Operation weight			kg	3,000	3,400						3,780	4,940		
Water heat exchanger	Type				Single pass shell & tube										
	Water volume			l	95	115		165	160			270	255		
	Water flow rate	Cooling	Nom.	l/s	11.8	13.1	14.4	15.6	16.7	17.9	19.1	22.4	25.0	27.4	29.7
	Water pressure drop	Cooling	Nom.	kPa	48	45	49	46	51	58	64	47	63	56	38
Air heat exchanger	Type				High efficiency fin and tube type with integral subcooler										
Compressor	Type				Single screw compressor								Asymmetric single screw compressor		
	Quantity				2										
Fan	Type				Direct propeller										
	Quantity				6	8							10		
	Air flow rate	Nom.		l/s	22,302	30,591	29,736			43,001	42,306	43,696	54,620		
	Speed			rpm	900							890			
Sound power level	Cooling	Nom.		dBA	97							99			
Sound pressure level	Cooling	Nom.		dBA	78							79			
Operation range	Water side	Cooling	Min.~Max.	°CDB	-15~15										
	Air side	Cooling	Min.~Max.	°CDB	-18~48										
Refrigerant	Type / GWP				R-134a / 1,430										
	Circuits	Quantity			2										
Refrigerant charge	Per circuit			kg/TCO_2Eq	29.0 / 41.5	33.0 / 47.2	35.0 / 50.1	38.0 / 54.3	35.0 / 50.1		39.0 / 55.8	42.0 / 60.1	45.0 / 64.4		50.0 / 71.5
Piping connections	Evaporator water inlet/outlet (OD)				4"								6"		
Unit	Maximum starting current			A	224	240		283	292	312		423	480	498	
	Nominal running current (RLA)	Cooling		A	132	145	158	172	185	203	213	253	283	305	324
	Maximum running current			A	178	199	216	227	239	268	283	328	365	387	410
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400										

Air cooled screw chiller

High efficiency

Reduced sound

EWAD-D-XS/XR

MicroTech III

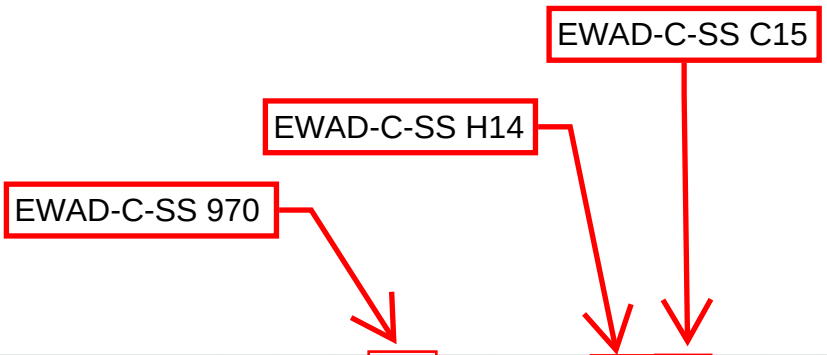
Cooling only				EWAD-D-XR	240	270	300	320	350	370	390	460	510	560	600
Cooling capacity	Nom.			kW	242	271	294	321	343	369	393	453	510	559	598
Power input	Cooling	Nom.		kW	81.6	88.0	96.3	107	117	121	129	154	169	185	200
Capacity control	Method				Stepless										
	Minimum capacity			%	12.5										
EER					2.96	3.07	3.06	3.00	2.94	3.06	3.05	2.95	3.01	3.02	2.99
ESEER					3.52	3.59	3.58	3.71	3.60	3.89	3.71	3.77	3.99		3.81
Dimensions	Unit	Height		mm	2,355							2,223			
		Width		mm	2,234										
		Depth		mm	3,138	4,040							4,940		
Weight	Unit			kg	3,005	3,385		3,335	3,340			3,610	4,770	4,785	
	Operation weight			kg	3,100	3,500						3,880	5,040		
Water heat exchanger	Type				Single pass shell & tube										
	Water volume			l	95	115		165	160			270		255	
	Water flow rate	Cooling	Nom.	l/s	11.6	13.0	14.1	15.4	16.4	17.7	18.8	21.7	24.4	26.8	28.6
	Water pressure drop	Cooling	Nom.	kPa	47	44	48	45	49	56		45	60	54	36
Air heat exchanger	Type				High efficiency fin and tube type with integral subcooler										
Compressor	Type				Single screw compressor								Asymmetric single screw compressor		
	Quantity				2										
Fan	Type				Direct propeller										
	Quantity				6	8							10		
	Air flow rate	Nom.		l/s	17,892	24,777	23,856			33,035	32,576	33,493	41,867		
	Speed			rpm	680					705					
Sound power level	Cooling	Nom.		dBA	92					93			94		
Sound pressure level	Cooling	Nom.		dBA	73					74					
Operation range	Water side	Cooling	Min.~Max.	°CDB	-15~15										
	Air side	Cooling	Min.~Max.	°CDB	-18~48										
Refrigerant	Type / GWP				R-134a / 1,430										
	Circuits	Quantity			2										
Refrigerant charge	Per circuit			kg/TCO$_2$Eq	30.0 / 42.9	31.0 / 44.3	38.0 / 54.3	39.0 / 55.8	40.0 / 57.2	39.0 / 55.8		34.0 / 48.6	45.0 / 64.4	47.0 / 67.2	50.0 / 71.5
Piping connections	Evaporator water inlet/outlet (OD)				4"							6"			
Unit	Maximum starting current			A	222	237		280	289	306		417	473	491	
	Nominal running current (RLA)	Cooling		A	134	144	160	175	188	200	213	256	283	308	330
	Maximum running current			A	173	193	210	222	233	257	272	317	351	373	396
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400										

Air cooled screw chiller

Standard efficiency

Standard/low sound

› Stepless single-screw compressor
› Large operation range (ambient temperature down to -18°C and up to 46°C)
› 2-3 truly independent refrigerant circuits
› DX shell and tube evaporator – one pass refrigerant side to minimize pressure drops
› Partial and total heat recovery option available
› Standard electronic expansion valve
› MicroTech III controller with superior control logic and easy interface



Cooling only				EWAD-C-SS/SL	650	740	830	910	970	C11	C12	C13	H14	C15	C16	C17	C18	C19	C20
Cooling capacity	Nom.			kW	645	741	829	908	962	1,059	1,146	1,315	1,412	1,532	1,615	1,706	1,797	1,870	1,917
Power input	Cooling	Nom.		kW	223	265	302	322	355	382	408	446	479	557	586	627	669	687	721
Capacity control	Method				Stepless														
	Minimum capacity			%	12.5										7.0				
EER					2.89	2.80	2.74	2.82	2.71	2.77	2.81	2.95		2.75	2.72	2.69	2.72	2.66	
ESEER					3.79	3.69	3.72	3.65	3.60	3.69	3.63	3.88	3.86	3.73	3.68	3.59	3.71	3.68	
Dimensions	Unit	Height		mm	2,540														
		Width		mm	2,285														
		Depth		mm	6,285					7,185	8,085	8,985		10,285	11,185			12,085	
Weight (SS)	Unit			kg	5,330	5,740	5,760	6,280	6,560	7,010	7,280	7,900		10,320	10,710	10,770	11,240	11,600	
	Operation weight			kg	5,610	5,990	6,010	6,530	6,810	7,250	7,520	8,280		10,730	11,110	11,260	12,110	12,480	
Weight (SL)	Unit			kg	5,920	6,030	6,050	6,570	6,850	7,300	7,570	8,190		10,770	11,150	11,210	11,680	12,040	
	Operation weight			kg	6,200	6,280	6,300	6,820	7,100	7,540	7,810	8,570		11,170	11,550	11,700	12,560	12,920	
Water heat exchanger	Type				Single pass shell & tube														
	Water flow rate	Cooling	Nom.	l/s	30.9	35.5	39.7	43.5	46.1	50.8	55.0	62.9	67.6	73.4	77.4	81.8	86.0	89.5	91.7
	Water pressure drop	Cooling	Nom.	kPa	73	54	53	62	69	64	74	54	58	62	68	75	36	39	40
	Water volume			l	266		251			243		386		408		474	850		
Air heat exchanger	Type				High efficiency fin and tube type														
Compressor	Type				Asymmetric single screw compressor														
	Quantity				2										3				
Fan	Type				Direct propeller														
	Quantity				10			12		14	16	18		20	22			24	
	Air flow rate	Nom.		l/s	53,442			64,131		74,819	85,508	96,196		106,885	117,573			128,262	
	Speed			rpm	900														
Sound power level (SS)	Cooling	Nom.		dBA	102	100		101		102					103		104		
Sound power level (SL)	Cooling	Nom.		dBA	96		98	97		98				99	100		101		
Sound pressure level (SS)	Cooling	Nom.		dBA	81	80				81							82		
Sound pressure level (SL)	Cooling	Nom.		dBA	76					77							78		
Operation range	Air side	Cooling	Min.~Max.	°CDB	-18~46														
	Water side	Cooling	Min.~Max.	°CDB	-8~15														
Refrigerant	Type / GWP				R-134a / 1,430														
	Circuits	Quantity			2										3				
Refrigerant charge	Per circuit			kg/TCO_2Eq	64.0 / 91.5			76.5 / 104.4	80.0 / 114.4	91.0 / 130.1	94.0 / 134.4	110.0 / 157.3	130.0 / 185.9	73.3 / 104.9	86.7 / 123.9			91.7 / 131.1	101.7 / 145.4
Piping connections	Evaporator water inlet/outlet (OD)				168.3mm								219.1mm				273mm		
Unit	Starting current	Max		A	604	649		915	962	1,017	1,021	1,068	1,081	1,312	1,363	1,367	1,410	1,456	1,470
	Running current	Cooling	Nom.	A	366	432	492	524	577	624	667	726	773	909	959.0	1,023	1,092	1,116	1,164
		Max		A	476	545	589	656	715	787	859	921	974	1,144	1,217	1,281	1,334	1,395	1,449
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400														

Air cooled screw chiller

Standard efficiency

Reduced sound

EWAD-C-SS/SL/SR

MicroTech III

Cooling only				EWAD-C-SR	620	720	790	880	920	C10	C11	C12	H14	C13	C14	C15	C16	C17	C18	C19
Cooling capacity	Nom.			kW	616	712	786	872	918	1,016	1,107	1,266	1,316	1,363	1,465	1,550	1,616	1,710	1,790	1,828
Power input	Cooling	Nom.		kW	226	276	317	334	373	398	422	461	499	522	582	609	654	706	722	762
Capacity control	Method				Stepless															
	Minimum capacity			%	12.5									7.0						
EER					2.74	2.59	2.48	2.61	2.46	2.55	2.63	2.75	2.63	2.61	2.52	2.54	2.47	2.42	2.48	2.40
ESEER					3.91	3.78	3.81	3.79	3.98	3.76	3.95	3.92	3.81	3.78	3.70	3.72	3.66	3.70	3.71	3.66
Dimensions	Unit	Height		mm	2,540															
		Width		mm	2,285															
		Depth		mm	6,285					7,185	8,085	8,985		10,285		11,185			12,085	
Weight	Unit			kg	5,920	6,030	6,050	6,570	6,850	7,300	7,570	8,190		10,750	10,770	11,150	11,210	11,680	12,040	
	Operation weight			kg	6,200	6,280	6,300	6,820	7,100	7,540	7,810	8,570		11,170		11,550	11,700	12,560	12,920	
Water heat exchanger	Type				Single pass shell & tube															
	Water flow rate	Cooling	Nom.	l/s	29.5	34.1	37.6	41.8	44.0	48.7	53.1	60.6	63.0	65.2	70.2	74.2	77.3	81.8	85.6	87.5
	Water pressure drop	Cooling	Nom.	kPa	43	50	48	58	63	60	69	50	54	45	57	63	46	33	36	37
	Water volume			l	266		251			243		386		421		408	474		850	
Air heat exchanger	Type				High efficiency fin and tube type															
Compressor	Type				Asymmetric single screw compressor															
	Quantity				2									3						
Fan	Type				Direct propeller															
	Quantity				10			12		14	16	18		20		22			24	
	Air flow rate	Nom.		l/s	41,007			49,208		57,410	65,611	73,812		82,014		90,215			98,417	
	Speed			rpm	700															
Sound power level	Cooling	Nom.		dBA	92			93		94				95				96		
Sound pressure level	Cooling	Nom.		dBA	71	72			73									74		
Operation range	Air side	Cooling	Min.~Max.	°CDB	-18~46															
	Water side	Cooling	Min.~Max.	°CDB	-8~15															
Refrigerant	Type / GWP				R-134a / 1,430															
	Circuits	Quantity			2									3						
Refrigerant charge	Per circuit			kg/TCO_2Eq	64.0 / 91.5			76.5 / 109.4	80.0 / 114.4	91.0 / 130.1	94.0 / 134.4	110.0 / 157.3		86.7 / 123.9				91.7 / 131.1	101.7 / 145.4	
Piping connections	Evaporator water inlet/outlet (OD)				168.3mm							219.1mm						273mm		
Unit	Starting current	Max		A	597	642		906	953	1,007	1,010	1,055	1,068	1,241	1,292	1,344	1,346	1,389	1,434	1,447
	Running current	Cooling	Nom.	A	371	450	518	548	609	654	694	755	811	857	954	1,002	1,075	1,158	1,179	1,238
		Max		A	462	531	575	639	698	767	837	895	949	1,052	1,116	1,186	1,250	1,303	1,362	1,415
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400															

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玻璃鋼矩形冷卻塔
COOLING TOWER

CROSS FLOW 橫流式 FW SERIES

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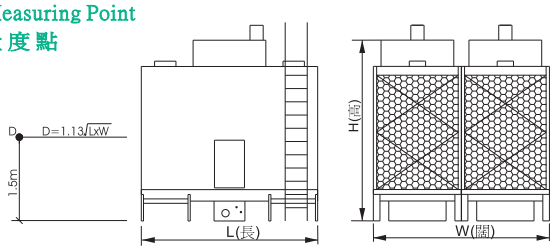
FW LOW NOISE TYPE SPECIFICATION

Model 型號	Overall Dimension 外圍尺碼			Nominal Flow Rate 處理水量 (m³/hr)		Fan 風扇 Ø x Nos (mm)	Motor 馬達 kW x Nos	Piping 喉管						Weight 重量 (kg公斤)		Noise 噪音 SPL dB(A)
	L 長 (mm)	W 闊 (mm)	H 高 (mm)	28℃	27℃			Inlet 入水 (mm)	Outlet 出水 (mm)	Fv 浮波 (mm)	Mm 手動補充水 (mm)	Of 滿水 (mm)	Dr 排水 (mm)	Dry 淨重	Wet 運行重	
FW-125	4000	2000	4125	125	146	1600x1	2.2x1	100x2	150x1	25x1	25x1	50x1	50x1	1325	3140	61
FW-150	4000	2000	4125	150	176	1600x1	3.7x1	100x2	150x1	25x1	25x1	50x1	50x1	1335	3150	62
FW-175	4400	2300	4125	175	205	1800x1	3.7x1	100x2	150x1	25x1	25x1	50x1	50x1	1525	3650	63
FW-200	4400	2300	4125	200	234	1800x1	5.5x1	125x2	200x1	40x1	40x1	80x1	50x1	1570	3695	64
FW-225	4400	2600	4125	225	263	2000x1	5.5x1	125x2	200x1	40x1	40x1	80x1	50x1	1680	4040	64
FW-250	4400	2600	4125	250	293	2000x1	7.5x1	125x2	200x1	40x1	40x1	80x1	50x1	1690	4050	65
FW-300	4000	4000	4125	300	351	1600x2	3.7x2	100x4	200x1	40x1	40x1	80x1	50x1	2620	5805	65
FW-350	4400	4600	4125	350	410	1800x2	3.7x2	100x4	250x1	50x1	50x1	80x1	50x1	3000	6800	66
FW-400	4400	4600	4125	400	468	1800x2	5.5x2	125x4	250x1	50x1	50x1	80x1	50x1	3090	6890	66
FW-450	4400	5200	4125	450	527	2000x2	5.5x2	125x4	250x1	50x1	50x1	80x1	50x1	3310	7580	67
FW-500	4400	5200	4125	500	585	2000x2	7.5x2	125x4	250x1	50x1	50x1	80x1	50x1	3330	7600	68
FW-600	4400	6900	4125	600	702	1800x3	5.5x3	125x6	200x2	40x2	40x2	80x2	50x2	4660	10590	68
FW-675	4400	7800	4125	675	790	2000x3	5.5x3	125x6	200x2	40x2	40x2	80x2	50x2	4990	11625	69
FW-750	4400	7800	4125	750	878	2000x3	7.5x3	125x6	250x2	50x2	50x2	80x2	50x2	5020	11655	69
FW-800	4400	9200	4125	800	936	1800x4	5.5x4	125x8	250x2	50x2	50x2	80x2	50x2	6180	13785	70
FW-900	4400	10400	4125	900	1053	2000x4	5.5x4	125x8	250x2	50x2	50x2	80x2	50x2	6620	15165	71
FW-1000	4400	10400	4125	1000	1170	2000x4	7.5x4	125x8	250x2	50x2	50x2	80x2	50x2	6660	15205	71
FW-1250	4400	13000	4125	1250	1463	2000x5	7.5x5	125x10	250x3	40x3	40x3	80x3	50x3	8350	19255	73
FW-1500	4400	15600	4125	1500	1755	2000x6	7.5x6	125x12	250x3	40x3	40x3	80x3	50x3	9990	22805	74
FW-125SL	4000	2000	5125	125	146	1600x1	2.2x1	100x2	150x1	25x1	25x1	50x1	50x1	1375	3190	58
FW-150SL	4000	2000	5125	150	176	1600x1	3.7x1	100x2	200x1	25x1	25x1	50x1	50x1	1390	3205	58
FW-175SL	4400	2300	5125	175	205	1800x1	3.7x1	100x2	200x1	25x1	25x1	50x1	50x1	1590	3715	59
FW-200SL	4400	2300	5125	200	234	1800x1	5.5x1	125x2	200x1	40x1	40x1	80x1	50x1	1635	3760	60
FW-225SL	4400	2600	5125	225	263	2000x1	5.5x1	125x2	200x1	40x1	40x1	80x1	50x1	1750	4110	60
FW-250SL	4400	2600	5125	250	293	2000x1	7.5x1	125x2	200x1	40x1	40x1	80x1	50x1	1760	4120	61
FW-300SL	4000	4000	5125	300	351	1600x2	3.7x2	100x4	200x1	40x1	40x1	80x1	50x1	2730	5915	61
FW-350SL	4400	4600	5125	350	410	1800x2	3.7x2	100x4	250x1	50x1	50x1	80x1	50x1	3130	6930	61
FW-400SL	4400	4600	5125	400	468	1800x2	5.5x2	125x4	250x1	50x1	50x1	80x1	50x1	3220	7020	62
FW-450SL	4400	5200	5125	450	527	2000x2	5.5x2	125x4	250x1	50x1	50x1	80x1	50x1	3450	7720	62
FW-500SL	4400	5200	5125	500	585	2000x2	7.5x2	125x4	250x1	50x1	50x1	80x1	50x1	3470	7740	62
FW-600SL	4400	6900	5125	600	702	1800x3	5.5x3	125x6	200x2	40x2	40x2	80x2	50x2	4855	10780	63
FW-675SL	4400	7800	5125	675	790	2000x3	5.5x3	125x6	200x2	40x2	40x2	80x2	50x2	5200	11830	63
FW-750SL	4400	7800	5125	750	878	2000x3	7.5x3	125x6	250x2	50x2	50x2	80x2	50x2	5230	11860	64
FW-800SL	4400	9200	5125	800	936	1800x4	5.5x4	125x8	250x2	50x2	50x2	80x2	50x2	6440	14045	67
FW-900SL	4400	10400	5125	900	1053	2000x4	5.5x4	125x8	250x2	50x2	50x2	80x2	50x2	6900	15445	68
FW-1000SL	4400	10400	5125	1000	1170	2000x4	7.5x4	125x8	250x2	50x2	50x2	80x2	50x2	6940	15485	68
FW-1250SL	4400	13000	5125	1250	1463	2000x5	7.5x5	125x10	250x3	40x3	40x3	80x3	50x3	8700	19605	69
FW-1500SL	4400	15600	5125	1500	1755	2000x6	7.5x6	125x12	250x3	40x3	40x3	80x3	50x3	10410	23225	70

Note: Nominal cooling capacity is based on 1.0 m^3/hr/WT at 37°C hot water in, 32°C cold water out and 28°C ambient wet bulb.

備註： 標準冷卻性能爲 1.0 立方米/小時/噸 37°C入水溫，32°C出水溫，28°C室外濕球溫度設計

Noise Measuring Point
噪音量度點



GUARANTEE 保用

All components are guaranteed against defective material for a period of one (1) year. When return to RYOWO with transportation prepaid, all parts found by factory inspection to be defective will be repaired or replaced without charge, FOB HONG KONG or FOB SHENZHEN, PRC. No liability will be assumed for loss or damage resulting from misuse products.

菱和產品於正常運行使用下均可享有一年免費保用（於出廠之日起）。當損壞零件送回本公司或當地代理銷售商，經檢查證實符合上述條件，其維修或替換費用全免。

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DAIKIN

无限灵感
一气呵成

Sustainable Energy
Pure Air System

VRV X7 α

大金商用中央空调系统　L系列

室外机阵容

室外机																						
型号			RUXYQ8BB	RUXYQ10BB	RUXYQ12BB	RUXYQ14BB	RUXYQ16BB	RUXYQ18BB	RUXYQ20BB	RUXYQ22BB	RUXYQ24BB	RUXYQ26BB	RUXYQ28BB	RUXYQ30BB	RUXYQ32BB	RUXYQ34BB	RUXYQ36BB	RUXYQ38BB	RUXYQ40BB	RUXYQ42BB	RUXYQ44BB	RUXYQ46BB	RUXYQ48BB
匹数		HP	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48
组合方式			——	——	——	——	——	——	——	——	RUXYQ10BB RUXYQ14BB	RUXYQ12BB RUXYQ14BB	RUXYQ8BB RUXYQ20BB	RUXYQ8BB RUXYQ22BB	RUXYQ10BB RUXYQ22BB	RUXYQ12BB RUXYQ22BB	RUXYQ14BB RUXYQ22BB	RUXYQ18BB RUXYQ20BB	RUXYQ18BB RUXYQ22BB	RUXYQ20BB RUXYQ22BB	RUXYQ22BB RUXYQ22BB	RUXYQ10BB RUXYQ14BB RUXYQ22BB	RUXYQ12BB RUXYQ14BB RUXYQ22BB
电源			三相 380V 50Hz														三相 380V 50Hz					三相 380V 50Hz	
额定制冷容量*1		kW	22.4	28.0	33.5	40.0	45.0	50.4	56.5	61.5	68.0	73.5	78.9	83.9	89.5	95.0	101.5	106.9	111.9	118.0	123.0	129.5	135.0
额定制热容量*2		kW	25.0	31.5	37.5	45.0	50.0	56.5	63.0	69.0	76.5	82.5	88.0	94.0	100.5	106.5	114.0	119.5	125.5	132.0	138.0	145.5	151.5
额定耗电量	制冷	kW	4.70	6.71	8.10	9.88	11.80	12.80	14.70	17.30	16.6	18.0	19.4	22.0	24.0	25.4	27.2	27.5	30.1	32.0	34.6	33.9	35.3
	制热	kW	5.24	6.72	8.48	10.50	12.10	13.30	15.30	17.00	17.2	19.0	20.5	22.2	23.7	25.5	27.5	28.6	30.3	32.3	34.0	34.2	36.0
风扇风量		m^3/min	162	175	185	223	280	271	271	271	175+223	185+223	162+271	162+271	175+271	185+271	223+271	271+271	271+271	271+271	271+271	175+223+271	185+223+271
机器尺寸(H×W×D)		mm	1657×930×765			1657×1240×765					1657×930×765+1657×1240×765						1657×1240×765+1657×1240×765					1657×930×765 + 1657×1240×765 + 1657×1240×765	
运转音*3	正面运转音	dB(A)	53	54	56		57	58	59	60	58	59	60	61			62				63	62	63
	四面运转音	dB(A)	56	57	59		60	61	62	63	61	62	63	64			65				66	65	66
夜间静音运转		dB(A)	40														43					45	
室内/外机配管连接口管径*4	液管	mm	Φ9.5	Φ9.5	Φ12.7 ☆	Φ12.7	Φ12.7	Φ15.9 ☆	Φ15.9 ☆	Φ15.9 ☆	Φ15.9	Φ19.1	Φ19.1	Φ19.1	Φ19.1	Φ19.1	Φ19.1	Φ19.1	Φ19.1	Φ19.1	Φ19.1	Φ19.1	Φ19.1
	气管	mm	Φ19.1	Φ22.2 ☆	Φ25.4	Φ25.4	Φ28.6 ☆	Φ28.6	Φ28.6	Φ28.6	Φ28.6	Φ31.8	Φ31.8	Φ31.8	Φ31.8	Φ31.8	Φ38.1	Φ38.1	Φ38.1	Φ38.1	Φ38.1	Φ38.1	Φ38.1
室外机配管连接口管径*4	液管	mm	Φ9.5	Φ9.5	Φ9.5 ☆	Φ12.7	Φ12.7	Φ12.7 ☆	Φ12.7 ☆	Φ12.7 ☆							——					——	
	气管	mm	Φ19.1	Φ25.4 ☆	Φ25.4	Φ25.4	Φ25.4 ☆	Φ28.6	Φ28.6	Φ28.6							——					——	
重量		kg	189	196	196	250	280	300	300	300	446	446	489	489	496	496	550	600	600	600	600	746	746
冷媒	名称		R410A														R410A					R410A	
	自带填充量	kg	8.4	8.6	8.7	11.1	11.1	15.6	15.6	15.6	8.6+11.1	8.7+11.1	8.4+15.6	8.4+15.6	8.6+15.6	8.7+15.6	11.1+15.6	15.6+15.6				8.6+11.1+15.6	8.7+11.1+15.6
运转范围	制冷	℃DB	-15 ~ 54 ℃DB														-15~54℃DB					-15~54℃DB	
	制热	℃DB	-25 ~ 27 ℃DB														-25~27℃DB					-25~27℃DB	
最小线路电流*6	MCA	A	16.1	18.0	20.1	24.4	26	34.8	39.6	43.6	40.2	44	46.1	59.7	61.6	63.7	68	69.6	78.4	83.2	87.2	85.7	87.6
最大熔丝电流*6	MFA	A	20	20	25	32	32	40	50	50	50	50	63	80	80	80	80	80	100	100	100	100	100

室外机																						
型号			RUXYQ50BB	RUXYQ52BB	RUXYQ54BB	RUXYQ56BB	RUXYQ58BB	RUXYQ60BB	RUXYQ62BB	RUXYQ64BB	RUXYQ66BB	RUXYQ68BB	RUXYQ70BB	RUXYQ72BB	RUXYQ74BB	RUXYQ76BB	RUXYQ78BB	RUXYQ80BB	RUXYQ82BB	RUXYQ84BB	RUXYQ86BB	RUXYQ88BB
匹数		HP	50	52	54	56	58	60	62	64	66	68	70	72	74	76	78	80	82	84	86	88
组合方式			RUXYQ8BB RUXYQ20BB RUXYQ22BB	RUXYQ10BB RUXYQ20BB RUXYQ22BB	RUXYQ10BB RUXYQ22BB RUXYQ22BB	RUXYQ12BB RUXYQ22BB RUXYQ22BB	RUXYQ14BB RUXYQ22BB RUXYQ22BB	RUXYQ20BB RUXYQ20BB RUXYQ20BB	RUXYQ18BB RUXYQ22BB RUXYQ22BB	RUXYQ20BB RUXYQ22BB RUXYQ22BB	RUXYQ22BB RUXYQ22BB RUXYQ22BB	RUXYQ12BB RUXYQ12BB RUXYQ22BB RUXYQ22BB	RUXYQ12BB RUXYQ14BB RUXYQ22BB RUXYQ22BB	RUXYQ12BB RUXYQ16BB RUXYQ22BB RUXYQ22BB	RUXYQ12BB RUXYQ18BB RUXYQ22BB RUXYQ22BB	RUXYQ10BB RUXYQ22BB RUXYQ22BB RUXYQ22BB	RUXYQ12BB RUXYQ22BB RUXYQ22BB RUXYQ22BB	RUXYQ14BB RUXYQ22BB RUXYQ22BB RUXYQ22BB	RUXYQ16BB RUXYQ22BB RUXYQ22BB RUXYQ22BB	RUXYQ18BB RUXYQ22BB RUXYQ22BB RUXYQ22BB	RUXYQ20BB RUXYQ22BB RUXYQ22BB RUXYQ22BB	RUXYQ22BB RUXYQ22BB RUXYQ22BB RUXYQ22BB
电源			三相 380V 50Hz														三相 380V 50Hz						
额定制冷容量*1		kW	140.4	146.0	151.0	156.5	163.0	169.5	173.4	179.5	184.5	190.0	196.5	201.5	206.9	212.5	218.0	224.5	229.5	234.9	241.0	246.0
额定制热容量*2		kW	157.0	163.5	169.5	175.5	183.0	189.0	194.5	201.0	207.0	213.0	220.5	225.5	232.0	238.5	244.5	252.0	257.0	263.5	270.0	276.0
额定耗电量	制冷	kW	36.7	38.7	41.3	42.7	44.5	44.1	47.4	49.3	51.9	50.8	52.6	54.5	55.5	58.6	60.0	61.8	63.7	64.7	66.6	69.2
	制热	kW	37.5	39.0	40.7	42.5	44.5	45.9	47.3	49.3	51.0	51.0	53.0	54.6	55.8	57.7	59.5	61.5	63.1	64.3	66.3	68.0
风扇风量		m^3/min	162+271+271	175+271+271	175+271+271	185+271+271	223+271+271	271+271+271	271+271+271	271+271+271	271+271+271	185+185+271+271	185+223+271+271	185+280+271+271	185+271+271+271	175+271+271+271	185+271+271+271	223+271+271+271	280+271+271+271	271+271+271+271	271+271+271+271	271+271+271+271
机器尺寸(H×W×D)		mm	1657×930×765 + 1657×1240×765 + 1657×1240×765				1657×1240×765 + 1657×1240×765 + 1657×1240×765					1657×930×765 + 1657×930×765 + 1657×1240×765 + 1657×1240×765	1657×930×765 + 1657×1240×765 + 1657×1240×765 + 1657×1240×765					1657×1240×765 + 1657×1240×765 + 1657×1240×765 + 1657×1240×765				
运转音*3	正面运转音	dB(A)	63		64				65		66	65		66		65		66				
	四面运转音	dB(A)	66		67				68		69	68		69		68		69				
夜间静音运转		dB(A)	45									46										
室内/外机配管连接口管径*4	液管	mm	Φ19.1	Φ19.1	Φ19.1	Φ19.1	Φ19.1	Φ19.1	Φ19.1	Φ19.1	Φ19.1	Φ19.1	Φ19.1	Φ19.1	Φ19.1	Φ19.1	Φ19.1	Φ22.2	Φ22.2	Φ22.2	Φ22.2	Φ22.2
	气管	mm	Φ38.1	Φ38.1	Φ38.1	Φ41.3	Φ41.3	Φ41.3	Φ41.3	Φ41.3	Φ41.3	Φ44.5	Φ44.5	Φ44.5	Φ44.5	Φ44.5	Φ44.5	Φ44.5	Φ44.5	Φ44.5	Φ44.5	Φ44.5
室外机配管连接口管径*4	液管	mm	——									——					——						
	气管	mm	——									——					——						
重量		kg	789	796	796	796	850	900	900	900	900	992	1046	1076	1096	1096	1096	1150	1180	1200	1200	1200
冷媒	名称		R410A									R410A										
	自带填充量	kg	8.4+15.6+15.6	8.6+15.6+15.6	8.6+15.6+15.6	8.7+15.6+15.6	11.1+15.6+15.6	15.6+15.6+15.6				8.7+8.7+15.6+15.6	8.7+11.1+15.6+15.6		8.7+15.6+15.6+15.6	8.6+15.6+15.6+15.6	8.7+15.6+15.6+15.6	11.1+15.6+15.6+15.6		15.6+15.6+15.6+15.6		
运转范围*5	制冷	℃DB	-15~54℃DB									-15~54℃DB										
	制热	℃DB	-25~27℃DB									-25~27℃DB										
最小线路电流*6	MCA	A	89.7	101.2	105.2	107.3	111.6	113.2	122	126.8	130.8	127.4	131.7	133.3	142.1	148.8	150.9	155.2	156.8	165.6	170.4	174.4
最大熔丝电流*6	MFA	A	100	125	125	125	125	125	140	140	160	160	160	160	160	200	200	200	200	200	200	200

备注:
*1 室内温度: 27℃DB, 19℃WB / 室外温度: 35℃DB
*2 室内温度: 20℃DB / 室外温度: 7℃DB, 6℃WB
*3 四面运转音是按照 GB18837 要求进行四点测试得到的值，正面运转音为公司内部测量值，在实际安装状态下，因为周围噪音及反射的原因，一般高于样本登载值
*4 室内/外机配管连接口管径与室外机配管连接口管径不同时 (☆标识处)，要进行变径处理，以室内/外机配管连接口管径为主
*5 在-15 ~ -5℃DB进行制冷运转时，需满足以下条件
a. 室内机连接率不超过100%
b. 根据室内/室外温度的不同，必须开启的室内机最小额定制冷量如右表所示
*6 根据MCA来选择电气配管线规格，根据MFA来选择熔丝或空气开关

室外干球温度 A	室内湿球温度 B	最小开启室内机的额定制冷量 C
-15° CDB≤A<-5° CDB	17° CWB<B	C > 2.2kW
	14° CWB<B< 17° CWB	C > 2.8kW
	11° CWB<B< 14° CWB	C > 3.6kW
	8° CWB<B< 11° CWB	C > 5.6kW