

Appendix IV
Revised Noise Impact Assessment

Prepared by

Ramboll Hong Kong Limited

**PROPOSED FLAT WITH PERMITTED HOTEL, OFFICE AND
SHOP & SERVICES/EATING PLACE AT 43 - 49A HANKOW
ROAD IN TSIM SHA TSUI**

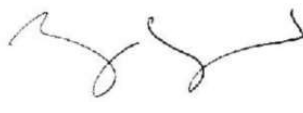
NOISE IMPACT ASSESSMENT

Date **04 July 2025**

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Environmental Consultant

Signed 

Approved by **Katie Yu**
Senior Manager

Signed 

Project Reference **NWDHKR43EI00**

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1. INTRODUCTION

1.1 Background

- 1.1.1 The Application Site at 43-49A Hankow Road, Tsim Sha Tsui, is zoned as "Commercial" ("C(6)") under the Draft Tsim Sha Tsui Outline Zoning Plan No. S/K1/29 ("the OZP") with a site area of about 1074.5 m² and maximum building height ("BH") of 110 metres above principal datum ("mPD") at the Application Site ("the Proposed Development").
- 1.1.2 A planning application for the Proposed Development under Section 16 of the Town Planning Ordinance (Application No. A/K1/269) was approved by the Town Planning Board on 12 January 2024. Since then, the type of use for the Proposed Development, layout plans and traffic forecast have undergone modifications. Hence, the fresh submission of a Noise Impact Assessment (NIA) is required to demonstrate that the latest development proposal would not be subject to adverse noise impact.
- 1.1.3 Ramboll Hong Kong Ltd. has been commissioned by the Applicant to conduct this NIA.

1.2 The Project Location

- 1.2.1 The Application Site is bounded by No. 51 Hankow Road Building to the north, Hankow Road to the east, Maxwell Centre to the south, Astoria Building to the west. **Figure 1.1** shows the location and the environ of the Application Site.

1.3 The Project Description

- 1.3.1 The Proposed Development consists of one single composite tower with retail, office, hotel, and residential use, with a proposed domestic plot ratio of about 3.4 and a proposed non-domestic plot ratio of about 8.6, providing 95 residential units. 3 storeys of Shop and Services/ Food and Beverage (F&B), 4 storeys of Office/ Shop/ F&B and 8 storeys of hotel are proposed under 11 residential floors.
- 1.3.2 The height of the tower is 110 mPD. The anticipated population intake year of the Proposed Development is expected to be in 2029. The master layout plan of the Proposed Development is shown in **Figure 1.2** with details shown in **Appendix 1.1**. Major development parameters are summarised as follows:

Table 1.1 Development Parameters for Proposed Development in Application Site

Building	Residential
Zoning under Draft OZP	"C(6)" under S/K1/29
Site Area, m²	~1075
No. of Residential Units	95
No. of Storey	G/F -7/F (non-noise sensitive uses, e.g. retails, commercials) 8/F -17/F (hotel) 18/F to 29/F (11 residential floors)
Top Level of Residential Floors / Building Height, mPD	110
Facilities	Retail, Shop & Services, F&B, Hotel , Office & Clubhouse
Anticipated Population Intake Year	2029

1.4 Scope

- 1.4.1 The scope of this NIA includes road traffic noise impact and fixed noise impact assessments for evaluating key potential noise impacts of the proposed development.

2. TRAFFIC NOISE IMPACT ASSESSMENT

2.1 Introduction

- 2.1.1 In this assessment, road traffic noise impact from roads within 300m radius on the Proposed Development has been assessed.

2.2 Assessment Criteria

- 2.2.1 Noise standards are recommended in Chapter 9 of the HKPSG for planning against possible road traffic noise impacts. For new residential use, as in the case of the proposed development within the Application Site, the standard for road traffic noise level expressed in terms of $L_{10}(1 \text{ hr})$ at the typical façades of the proposed development is recommended to be 70 dB(A).

2.3 Noise Sensitive Receivers for Road Traffic Noise Assessment

- 2.3.1 The residential units of the planned composite tower within the Application Site is a noise sensitive receiver (NSR) of road traffic noise impact. Representative assessment points have been assigned to all residential units within 18/F to 29/F of the planned composite tower. As the office and hotel will be provided with centralized air conditioning system and do not rely on openable windows for ventilation, they are not considered as NSRs for traffic noise impact assessment. The assessment area is provided in **Figure 2.1**. Noise assessment for residential floors is based on typical internal layout plan. Details of the representative NSRs selected for noise assessment are provided in **Figure 2.2** to **Figure 2.4** and **Table 2.1** below, respectively.

Table 2.1 Representative NSRs for Road Traffic Noise Assessment

NSR	Description	Level	No. of storeys
TN01-TN11	Residential	18/F	1
TN12-TN50	Residential	19-23/F, 25-29/F	10

2.4 Assessment Methodology

- 2.4.1 As discussed in **Section 2.2**, according to HKPSG, the standard for road traffic noise level expressed in terms of $L_{10}(1 \text{ hr})$ at the typical façades of the proposed development is recommended to be 70 dB(A). The assessment is based on the prediction of the maximum $L_{10}(1 \text{ hr})$ traffic noise level at NSRs of the proposed development due to the projected traffic on the adjacent road network for year 2044, which is considered as the maximum traffic projections within 15 years upon occupation of the Proposed Development in 2029. Traffic data was predicted by the project traffic consultant. Details of information on peak hour traffic volume and percentage of heavy vehicle of the road network within the 300m assessment area provided by the Project traffic consultant is presented in **Appendix 2.1**, which represents the worst-case scenario of the projected traffic flows.
- 2.4.2 The UK Department of Transport's procedures – "Calculation of Road Traffic Noise" (CRTN) has been used in the prediction of the road traffic noise at the representative NSRs of the proposed development within the Application Site. The existing topographic details, such as the existing houses and structures near the Application Site, have been considered in the assessment.

- 2.4.3 The noise prediction has been carried out using the *Road Noise Module 2.7.2 of Noise Map Enterprise Edition* software, which is a computerised model developed on the basis of the U.K. Department of Transport's CRTN procedures, and is acceptable to the EPD.

2.5 Prediction and Evaluation of Noise Impacts

- 2.5.1 As described in **Section 1.3**, the Proposed Development has used noise-tolerant uses at lower floors (e.g. retails, commercial uses) while residential floors are located from 18/F to 29/F which is substantially higher than the surrounding roads. The Proposed Development is also partially shielded by other surrounding existing buildings in the area. An assessment on the road traffic noise level at the representative NSRs based on the traffic flow data has been conducted. A summary of the predicted road traffic noise levels is provided in **Table 2.2**. The predicted road traffic noise levels at the representative NSRs in both AM and PM scenario show no exceedance of the traffic noise criterion of 70 dB(A). The detailed traffic noise assessment results are provided in **Appendix 2.2**.

Table 2.2 Summary of Predicted Unmitigated Road Traffic Noise Levels at Representative NSRs (AM and PM peaks)

NSR	Predicted Road Traffic Noise Level, L ₁₀ (1-hour), dB(A) (Unmitigated)	
	AM	PM
TN01	55	54
TN02	55	54
TN03	55	54
TN04	54	53
TN05	55	54
TN06	56	55
TN07	60	59
TN08	62	61
TN09	59	58
TN10	60	59
TN11	55	55
TN12	65 - 67	64 - 66
TN13	64 - 67	63 - 66
TN14	63 - 67	62 - 66
TN15	61 - 67	60 - 66
TN16	60 - 67	60 - 66
TN17	61 - 67	60 - 66
TN18	62 - 67	61 - 66
TN19	62 - 67	61 - 66
TN20	62 - 66	62 - 65
TN21	63 - 67	62 - 65
TN22	63 - 67	62 - 66
TN23	63 - 67	62 - 66
TN24	67	65 - 66
TN25	67	65 - 66
TN26	61 - 65	60 - 64

NSR	Predicted Road Traffic Noise Level, L ₁₀ (1-hour), dB(A) (Unmitigated)	
	AM	PM
TN27	62 - 66	61 - 64
TN28	55 - 62	54 - 60
TN29	60 - 63	59 - 61
TN30	54 - 61	54 - 60
TN31	56 - 61	55 - 60
TN32	62 - 66	61 - 65
TN33	62 - 66	61 - 65
TN34	63 - 66	62 - 65
TN35	64 - 66	62 - 65
TN36	67	66
TN37	67	66
TN38	67	66
TN39	67	66
TN40	67	66
TN41	67	66
TN42	67	66
TN43	67	66
TN44	67	66
TN45	67	66
TN46	67	65
TN47	67	65
TN48	55	54
TN49	56	55
TN50	66	65
Criterion	70	70

2.6 Conclusion

- 2.6.1 Noise impacts due to road traffic within 300m radius from the Application Site have been assessed. The predicted traffic noise levels at all representative NSRs within the Application Site would comply with the noise criterion of 70 dB(A). No adverse traffic noise impact on the proposed development is anticipated and mitigation measures are not required.

3. FIXED NOISE IMPACT ASSESSMENT

3.1 Introduction

- 3.1.1 In this assessment, potential noise impacts arising from the nearby fixed noise sources within 300m radius on the proposed development has been assessed by general acoustic principle and Technical Memorandum for the Assessment of Noise from Places Other Than Domestic Premises, Public Places or Construction Sites (IND-TM). Practicable environmental mitigation measures would be recommended, where necessary.

3.2 Government Legislation and Standards

Noise Control Ordinance (NCO)

- 3.2.1 The Noise Control Ordinance (NCO) provides the statutory framework for the control of fixed plant. The Technical Memorandum for the Assessment of Noise from Places other than Domestic Premises, Public Places or Construction Sites (IND-TM) sets the criteria, Acceptable Noise Level (ANL), for governing noise from existing fixed plant / industrial noise sources.

Hong Kong Planning Standards and Guidelines (HKPSG)

- 3.2.2 The NCO requires that noise impacts from existing fixed noise sources shall comply with the Acceptable Noise Levels (ANL) laid down in Table 2 of IND-TM, which is influenced by the Area Sensitivity Rating (ASR) determined by the type of area containing the NSR.
- 3.2.3 The Application Site is located in an urban area not affected by an Influencing Factor defined by the IND-TM. An ASR of "B" has been adopted to the residential units with 65 dB(A) as the noise criteria for day and evening time, and 55 dB(A) for night time. The ANL for ASRs "B" is depicted in **Table 3.1**.

Table 3.1 Relevant Noise Standard for Fixed Noise Sources

	Criteria in Relevant Time Periods	Acceptable Noise Level (ANL)
"B"	Day and Evening (07:00 – 23:00)	65 dB(A)
	Night (23:00 – 07:00)	55 dB(A)

- 3.2.4 The ASRs proposed in this NIA is intended for assessment only. Nothing in the NIA shall bind the Noise Control Authority in the context of enforcement against any of the fixed plant / industrial noise sources identified and assessed in the future under the NCO.
- 3.2.5 Since the observed fixed noise sources (**Section 3.3** refers) are existing uses, the ANL criteria is relevant and has been adopted.

3.3 Identification of Potential Noise Impacts

Fixed Noise Sources

- 3.3.1 Within 300m radius from the boundary of the Application Site, ventilation equipment, including chillers and Variable Refrigerant Volume (VRV) equipment have been identified as the potential fixed noise sources. The locations of the existing fixed noise sources are indicated in **Figure 3.1**. Since the Proposed Development is located at an existing developed area, some of the fixed sources are partially shielded by other

existing surrounding buildings. Site survey has been conducted to identify locations of fixed noise sources. The type and number of equipment adopted for the assessment were based on site observation. The noise assessment assumed all equipment will be operating simultaneously and continuously as a worst-case scenario. The sound power level (SWL) of noise sources was referenced from the relevant product catalogues. The details of the fixed noise sources are also presented in **Appendix 3.1**.

- 3.3.2 Centralised mechanical ventilation system will be provided to the proposed shop and services, F&B, office and hotel uses. The mechanical ventilation equipment will be housed in the plant rooms. The plant rooms and louvre will be designed in compliance with the requirement of the IND-TM and the HKPSG. Therefore, it is anticipated that the planned fixed noise sources will not cause adverse noise impact on the existing NSRs nearby.

3.4 Noise Sensitive Receivers for Fixed Noise Assessment

- 3.4.1 Representative assessment points have been assigned to the residential units of the Proposed Development overlooking the industrial noise sources. The NSRs are selected at 1m away from the façade of openable window for ventilation purpose. **As the office and hotel will be provided with centralized air conditioning system and do not rely on openable windows for ventilation, they are not considered as NSRs for fixed noise impact assessment.** The locations and details of the representative NSRs selected for assessment are provided in **Figure 3.2** and **Table 3.2** below, respectively.

Table 3.2 Representative NSRs for Fixed Noise Assessment

NSR	Description
N01	Residential
N02	Residential
N03	Residential
N04	Residential

3.5 Assessment Methodology

- 3.5.1 As all premises were not accessible, information such as types of noise source and SWL of noisy equipment were referenced from representative catalogues available in the market and with similar brand and model of equipment (**Appendix 3.1** refers), in order to represent the noise sources.
- 3.5.2 To predict the noise level at the future noise sensitive uses within the Proposed Development, the following correction factors have been accounted for:
- Distance correction: based on the separation distance between the identified noise sources and the NSR, the distance correction is projected based on standard acoustical principle for point source;
 - Although it is unlikely that all the identified fixed noise sources will be in operation simultaneously, to be conservative, it has been assumed that all the identified noise sources are in operation at the same time, which also represents a worst-case scenario. Noise sources are assumed to operate continuously instead of in occasion as observed onsite and all noise sources are regarded as point source;
 - Façade correction: a +3dB(A) correction is applied to account for noise reflection from façade.

- 3.5.3 Corrected Noise Level (CNL) at the representative NSRs of the proposed development can be calculated by applying the above corrections to the measured SWL of the noise sources in accordance with the following formula:

$$\text{CNL} = \text{SWL} + \text{C}_{\text{dist}} + \text{C}_{\text{fac}} + \text{C}_{\text{bar}}$$

Where,

CNL is the corrected noise level at the Assessment Point in dB(A)

SWL is the sound power level of the fixed plant in dB(A)

C_{dist} is the distance correction in dB(A) in accordance with the Technical Memorandum on Noise from Construction Works Other than Percussive Piling

C_{fac} is façade correction, +3 dB(A)

C_{bar} is screening correction, -5 dB(A) for partial screening and -10 dB(A) when there is no direct line of sight or for complete screening by structure.

3.6 Prediction and Evaluation of Noise Impacts

Fixed Noise Assessment Results

- 3.6.1 Based on the assumptions mentioned above and information of noise sources in **Section 3.3**, noise level estimation for the selected NSRs at the Application Site has been conducted. The predicted industrial noise levels at the representative NSRs are summarised in **Table 3.3**. The details are presented in **Appendix 3.2**.

Table 3.3 Predicted Unmitigated Fixed Noise Levels at Representative NSRs

NSR ^[1]	Predicted Unmitigated Noise Level, dB(A)	
	Day and Evening (07:00 – 23:00)	Night (23:00 – 07:00)
N01	57	50
N02	61	51
N03	63	50
N04	59	46
Criteria	65	55

Notes:

[1] The assessment only includes NSRs which rely on opened windows for ventilation.

- 3.6.2 Based on the proposed layout, the calculated industrial noise levels at all NSRs comply with the noise criteria. No adverse industrial noise impact is anticipated at the Application Site.

3.7 Conclusion

- 3.7.1 Noise impacts due to existing fixed noise sources within 300m radius of the Application Site have been examined. Based on the proposed layout, no adverse industrial noise impact on the proposed development is anticipated.

4. OVERALL CONCLUSION

- 4.1.1 The potential road traffic noise and fixed noise impacts that may affect the Proposed Development have been assessed.
- 4.1.2 Road traffic noise impact assessment revealed that the predicted noise levels at all representative NSRs within the Application Site would comply with the HKPSG recommended criterion of 70 dB(A) for L_{10} (1- hr). No adverse road traffic noise impact is thus anticipated. No mitigation measures are required.
- 4.1.3 Fixed noise sources in the vicinity of the proposed development have been identified. Assessment on fixed noise impact at representative noise sensitive receivers has been conducted. It is confirmed that the predicted fixed noise level at all NSRs comply with the requirement of relevant technical memorandum under Noise Control Ordinance.
- 4.1.4 It can be concluded that no adverse noise impact is anticipated in associated with Proposed Development.

Figures

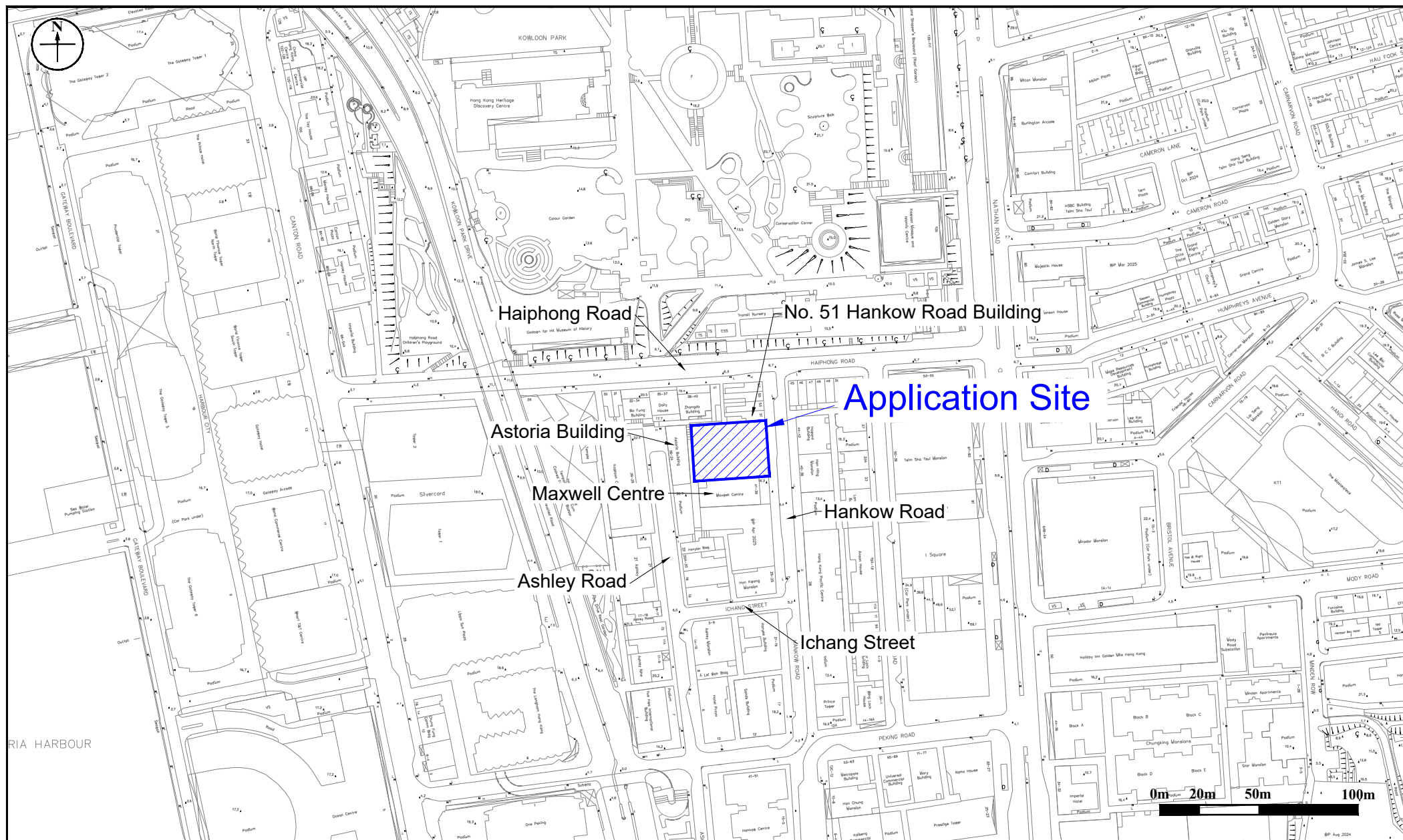


Figure: 1.1

Title: Application Site & Its Environ

Project: Proposed Flat with Permitted Hotel, Office and Shop & Services/Eating Place at 43 - 49A Hankow Road in Tsim Sha Tsui

RAMBOLL

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Checked by: KY

Rev.: 1.3

Date: May 2025

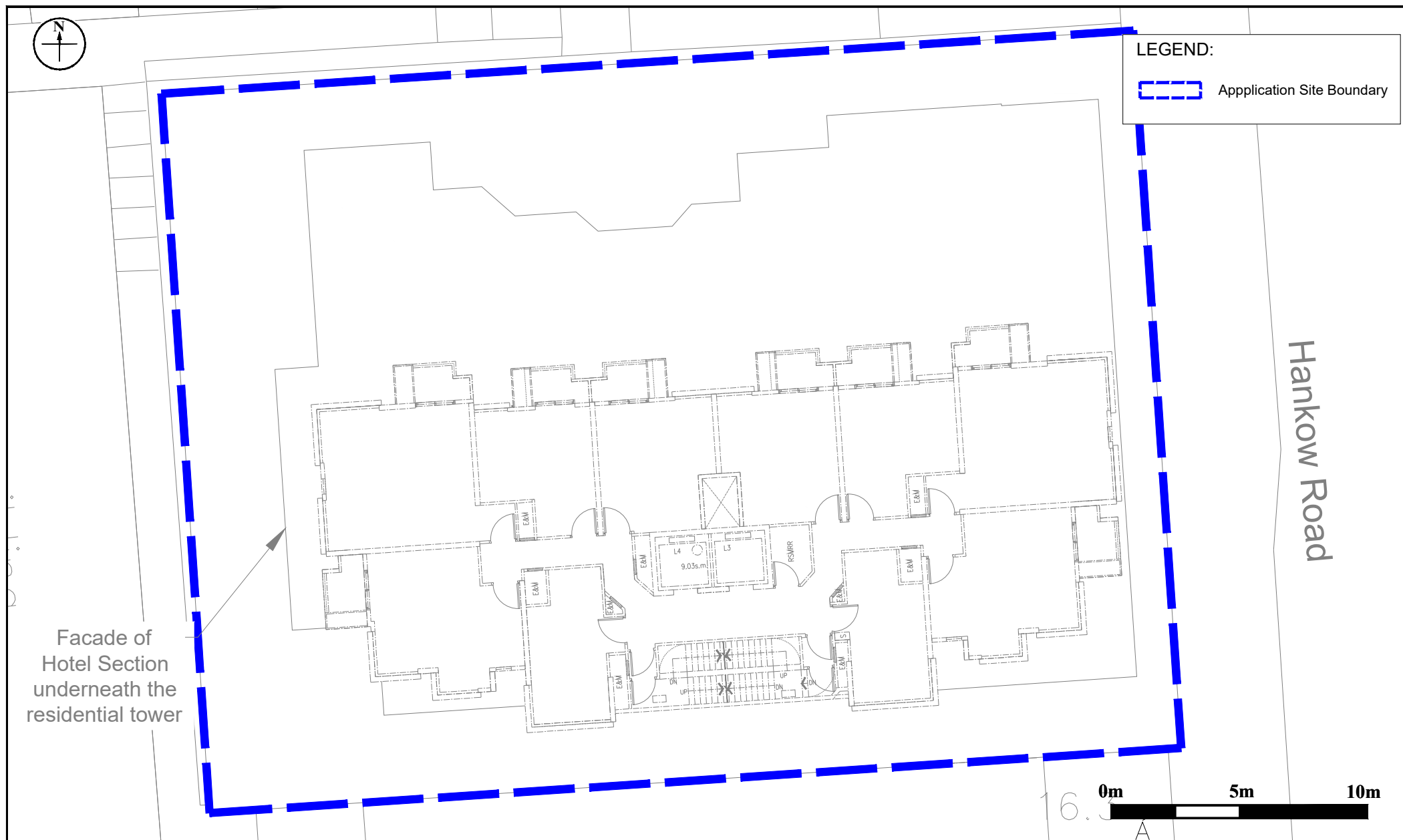


Figure: 1.2

Title: Master Layout Plan of Indicative Scheme

Project: Proposed Flat with Permitted Hotel, Office and Shop & Services/Eating Place at 43 - 49A Hankow Road in Tsim Sha Tsui

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Checked by: KY

Rev.: 2.0

Date: Jul 2025

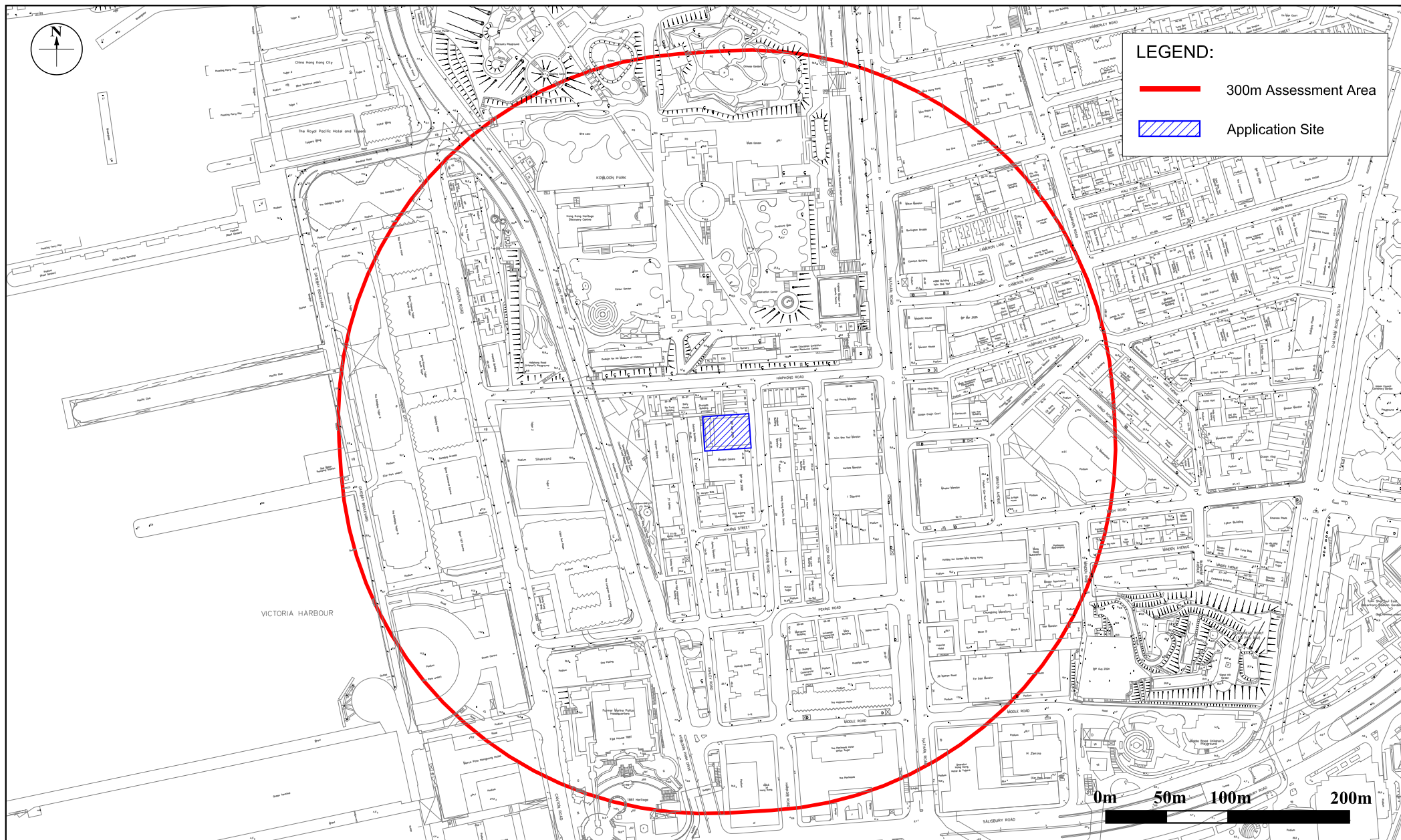


Figure: 2.1

Title: Traffic Noise Impact Assessment Area

Project: Proposed Flat with Permitted Hotel, Office and Shop & Services/Eating Place at 43 - 49A Hankow Road in Tsim Sha Tsui

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Checked by: KY

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Date: May 2025

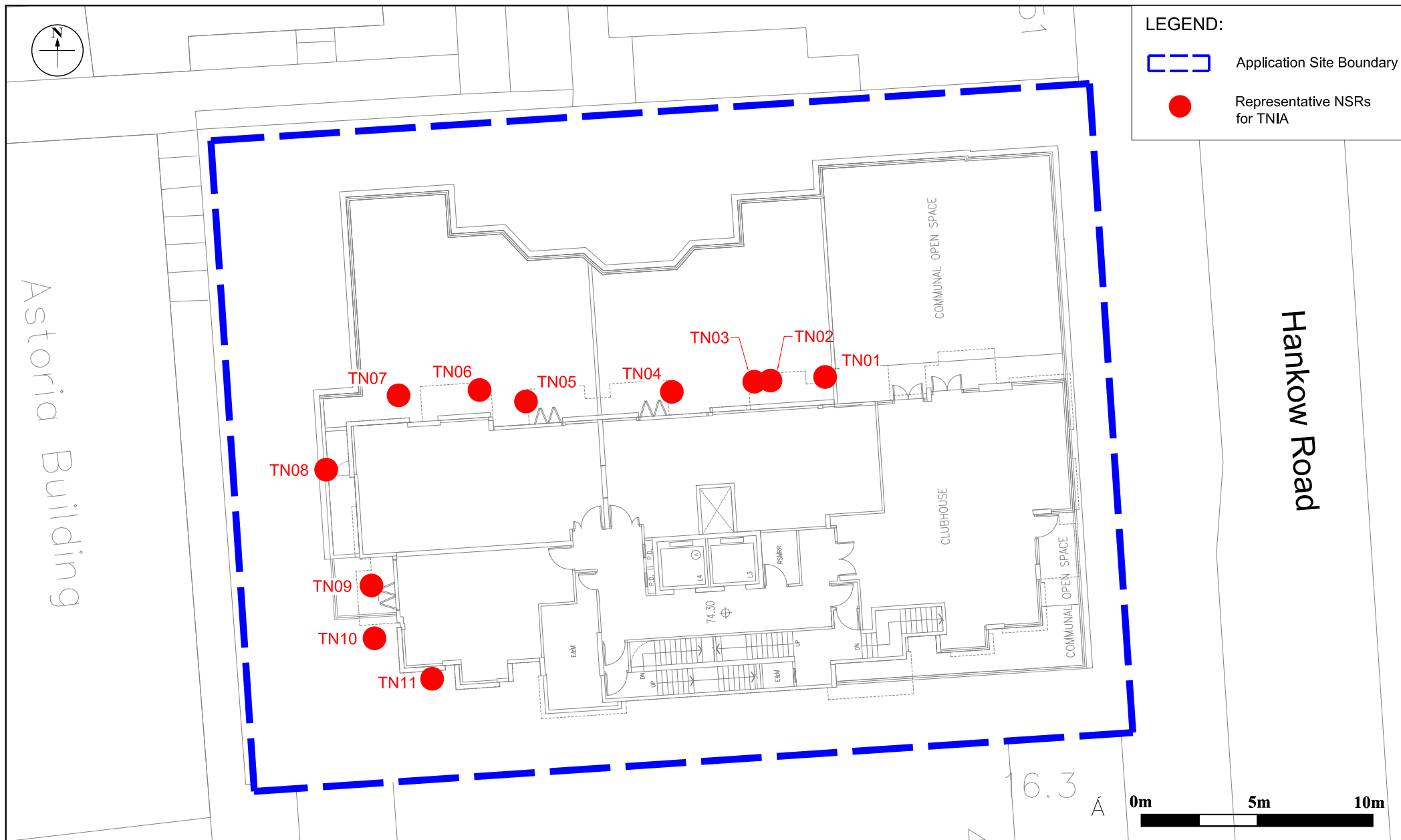


Figure: 2.2

Title: Representative Noise Sensitive Receivers for Traffic Noise Impact Assessment (18/F)

Project: Proposed Flat with Permitted Hotel, Office and Shop & Services/Eating Place at 43 - 49A Hankow Road in Tsim Sha Tsui

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Date: May 2025

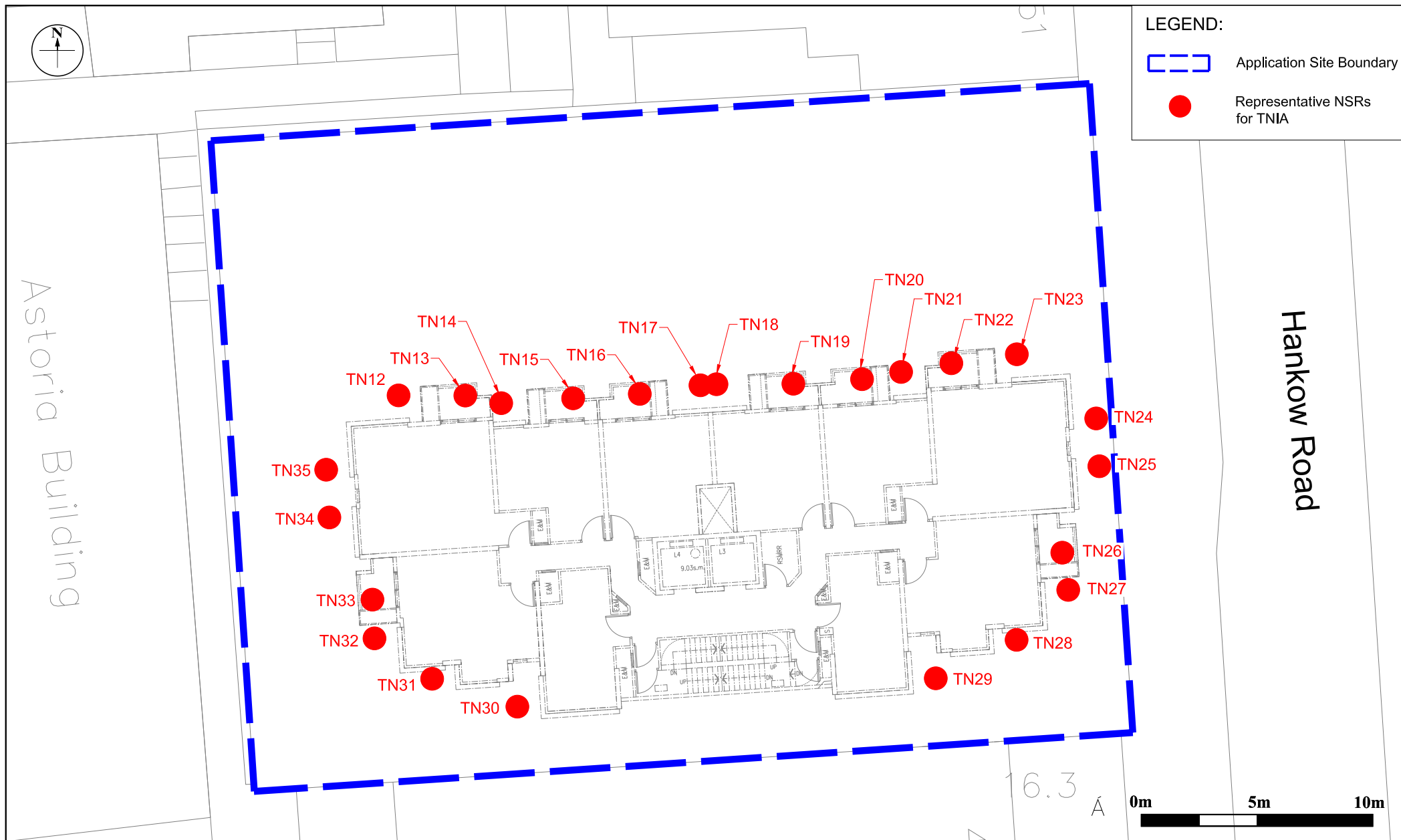


Figure: 2.3

Title: Representative Noise Sensitive Receivers for Traffic Noise Impact Assessment (19-28/F)

Project: Proposed Flat with Permitted Hotel, Office and Shop & Services/Eating Place at 43 - 49A Hankow Road in Tsim Sha Tsui

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Date: May 2025

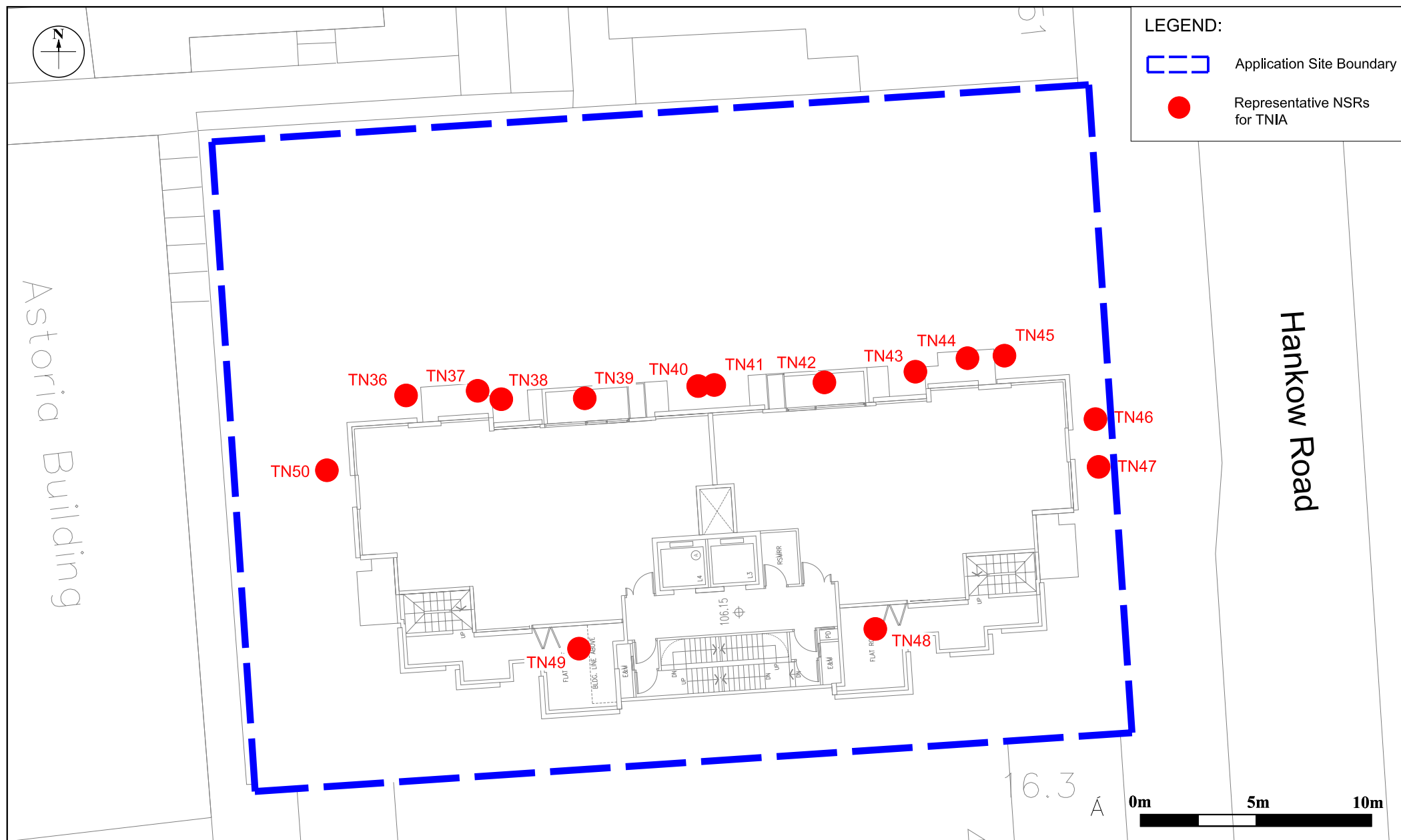


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Title: Representative Noise Sensitive Receivers for Traffic Noise Impact Assessment (29/F)

Project: Proposed Flat with Permitted Hotel, Office and Shop & Services/Eating Place at 43 - 49A Hankow Road in Tsim Sha Tsui

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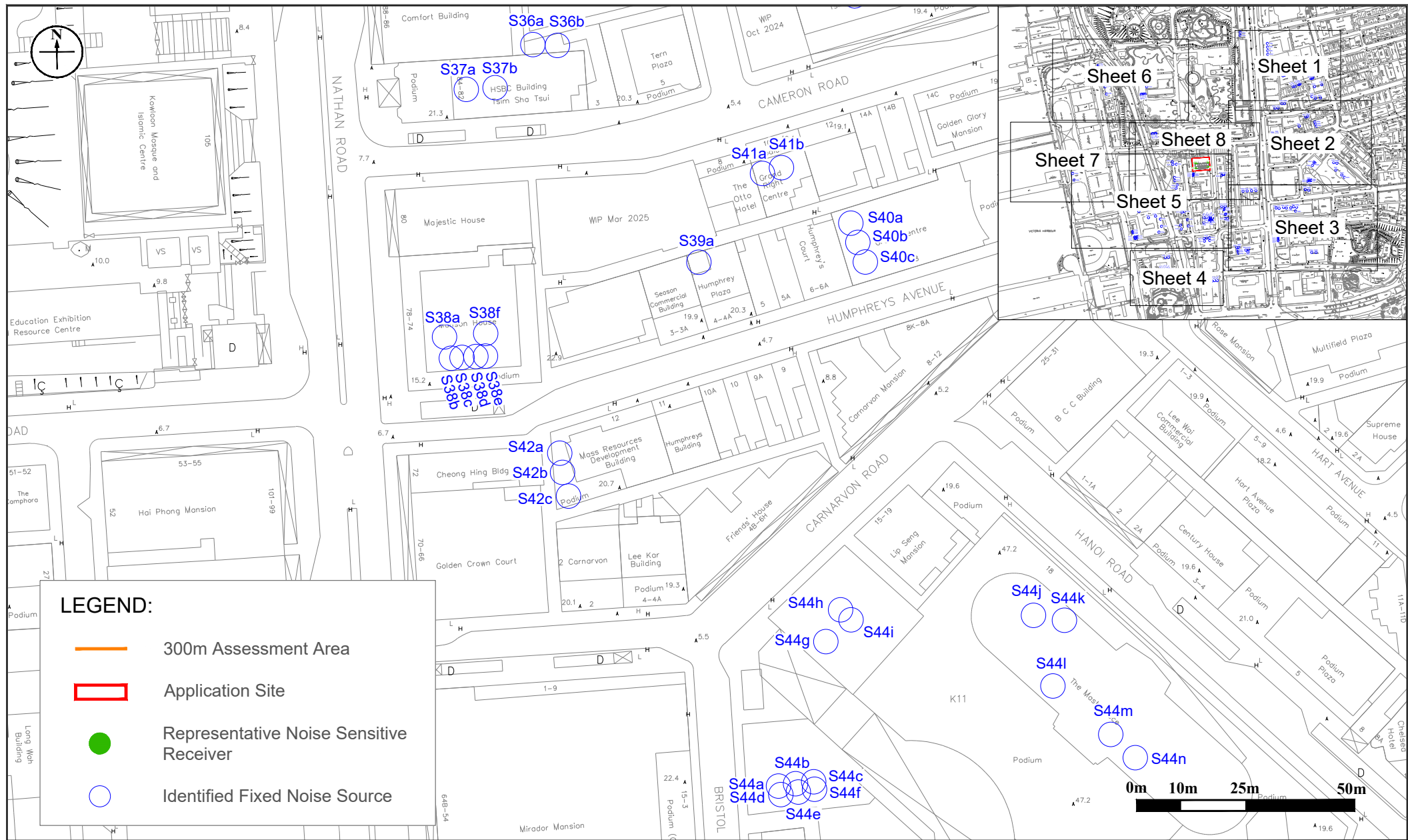
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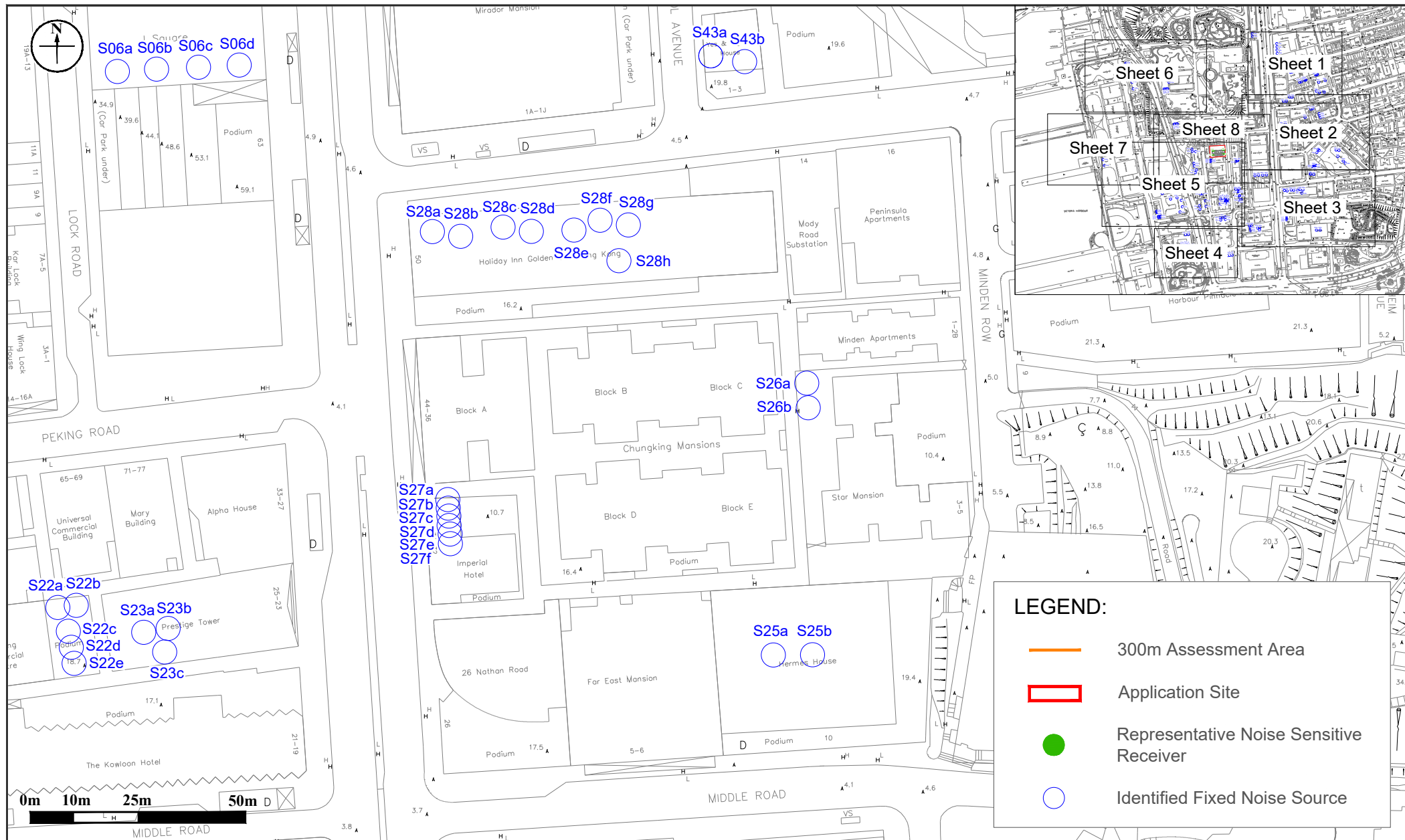
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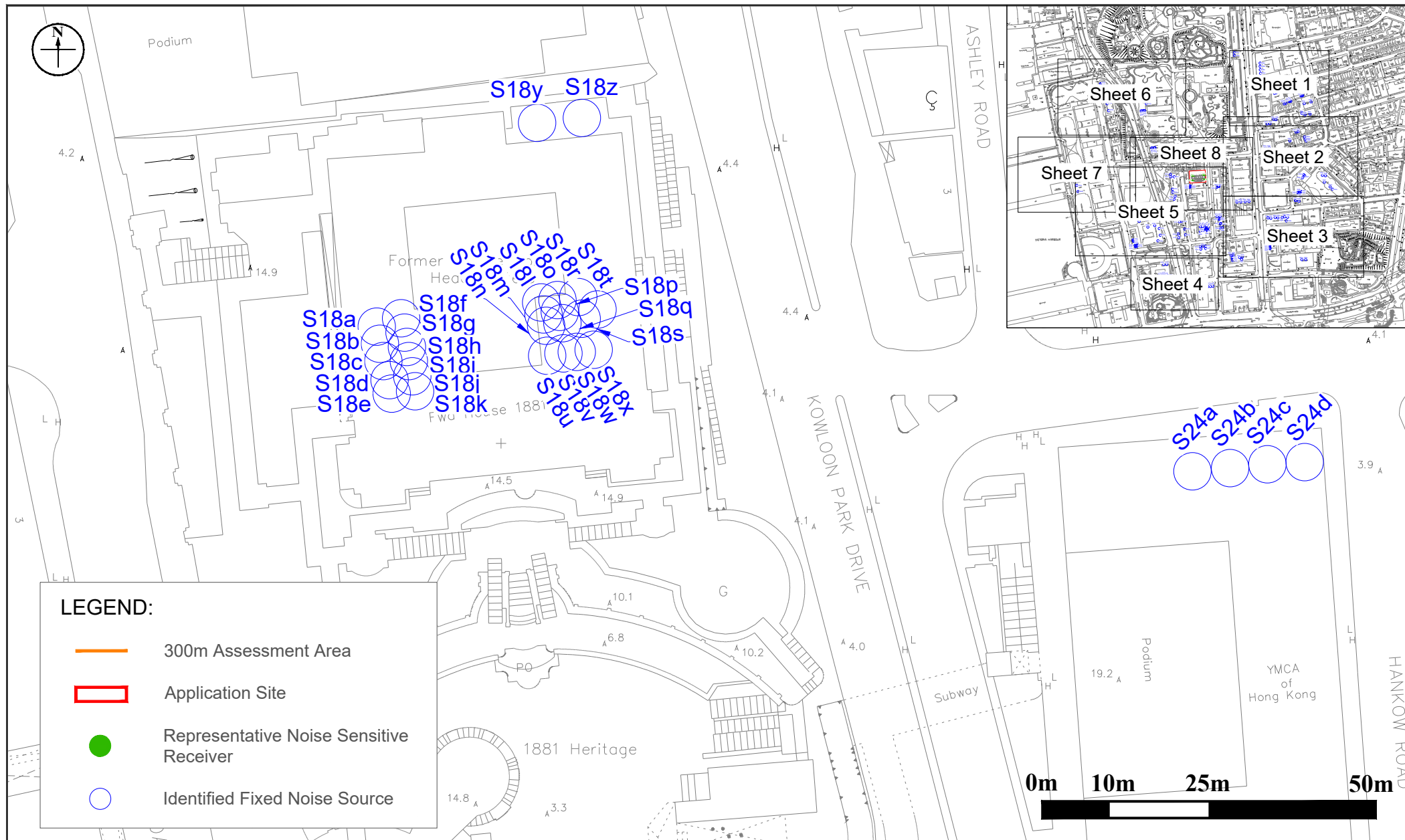


Figure: 3.1

Title: Location of Fixed Noise Sources (Sheet 4 of 8)

Project: Proposed Flat with Permitted Hotel, Office and Shop & Services/Eating Place at 43 - 49A Hankow Road in Tsim Sha Tsui

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Figure: 3.1

Title: Location of Fixed Noise Sources (Sheet 5 of 8)

Project: Proposed Flat with Permitted Hotel, Office and Shop & Services/Eating Place at 43 - 49A Hankow Road in Tsim Sha Tsui



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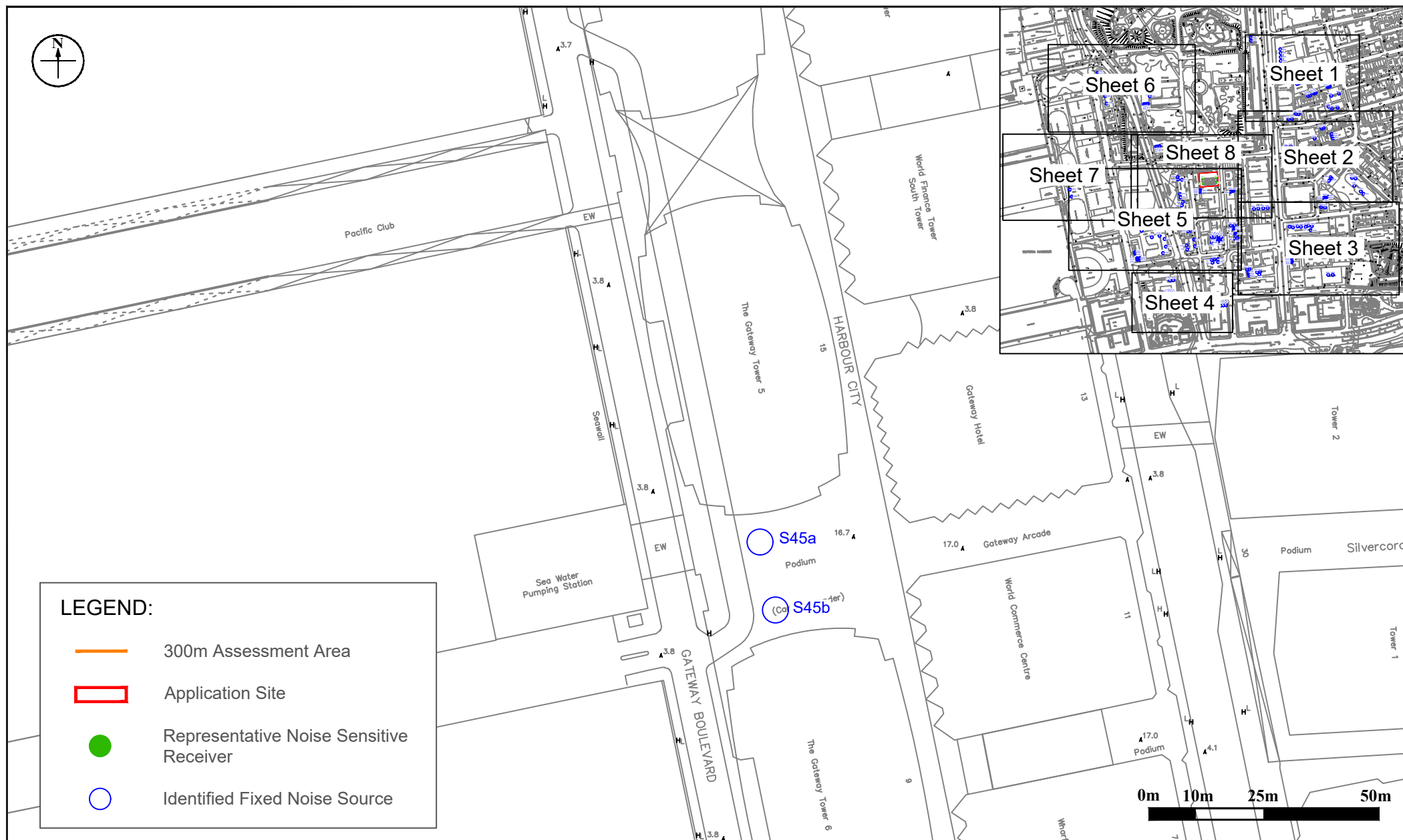


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Title: Location of Fixed Noise Sources (Sheet 7 of 8)

Project: Proposed Flat with Permitted Hotel, Office and Shop & Services/Eating Place at 43 - 49A Hankow Road in Tsim Sha Tsui

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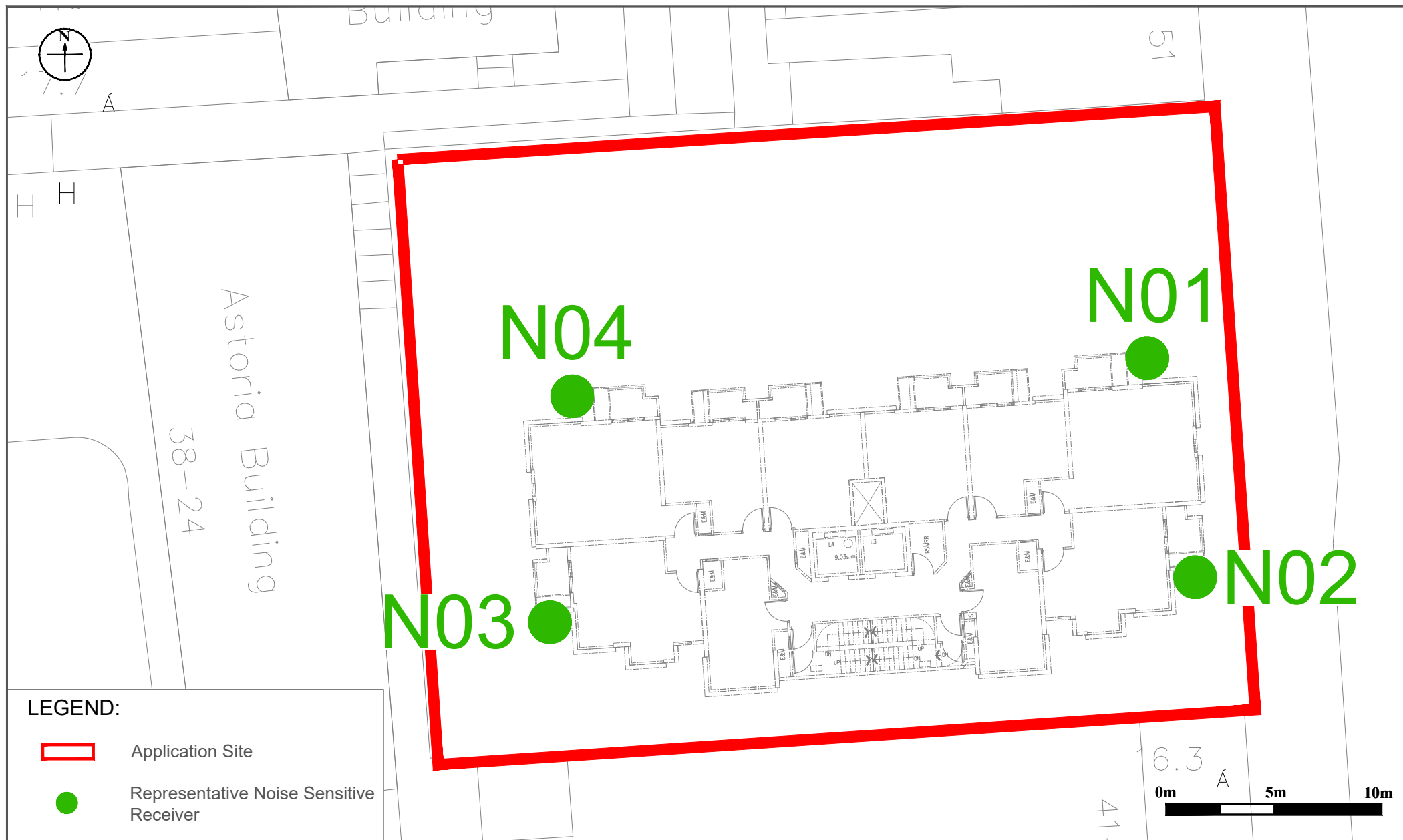


Figure: 3.2

Title: Location of Representative Noise Sensitive Receivers for Fixed Noise Source Impact Assessment

Project: Proposed Flat with Permitted Hotel, Office and Shop & Services/Eating Place at 43 - 49A Hankow Road in Tsim Sha Tsui

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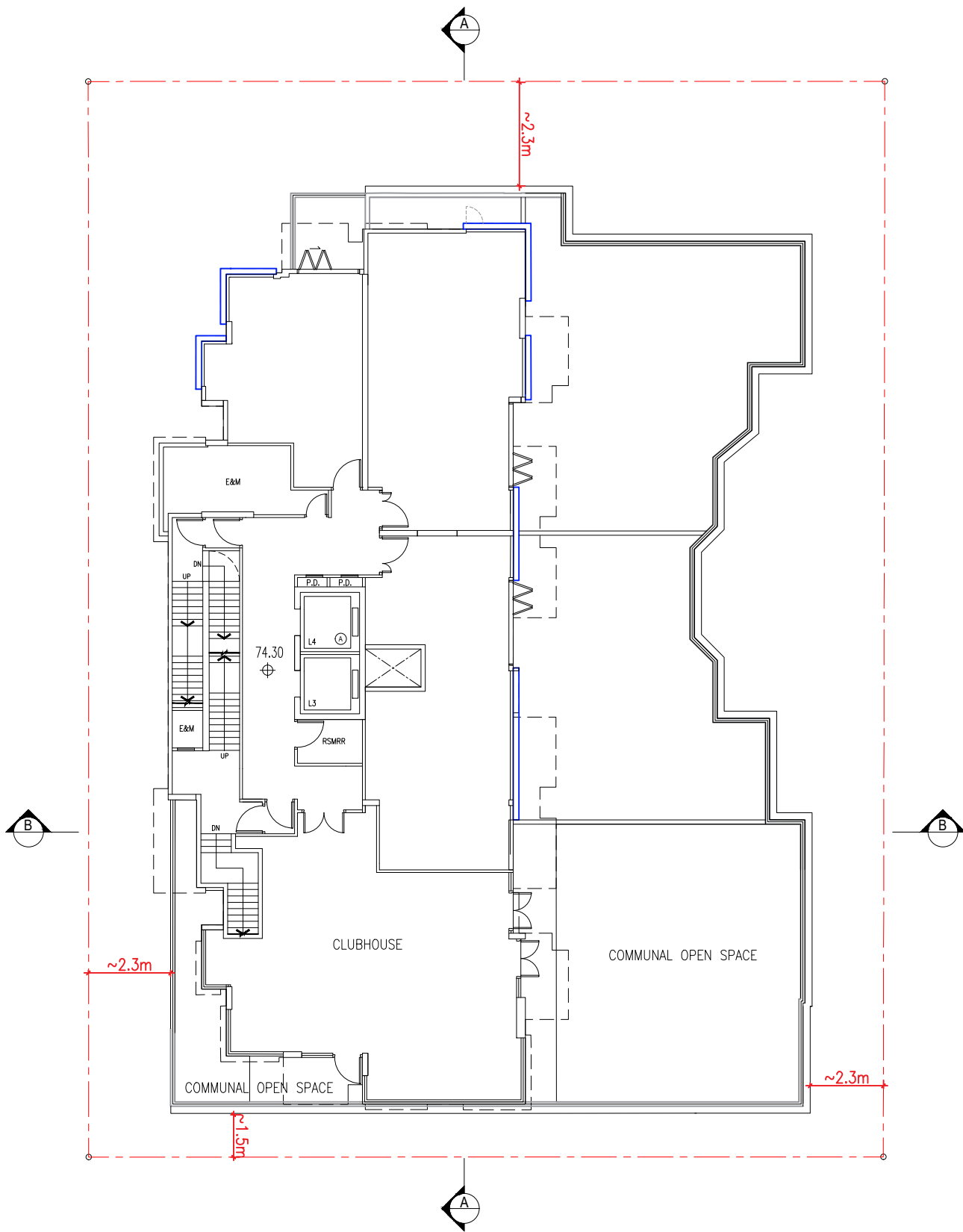
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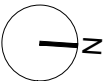
Appendices

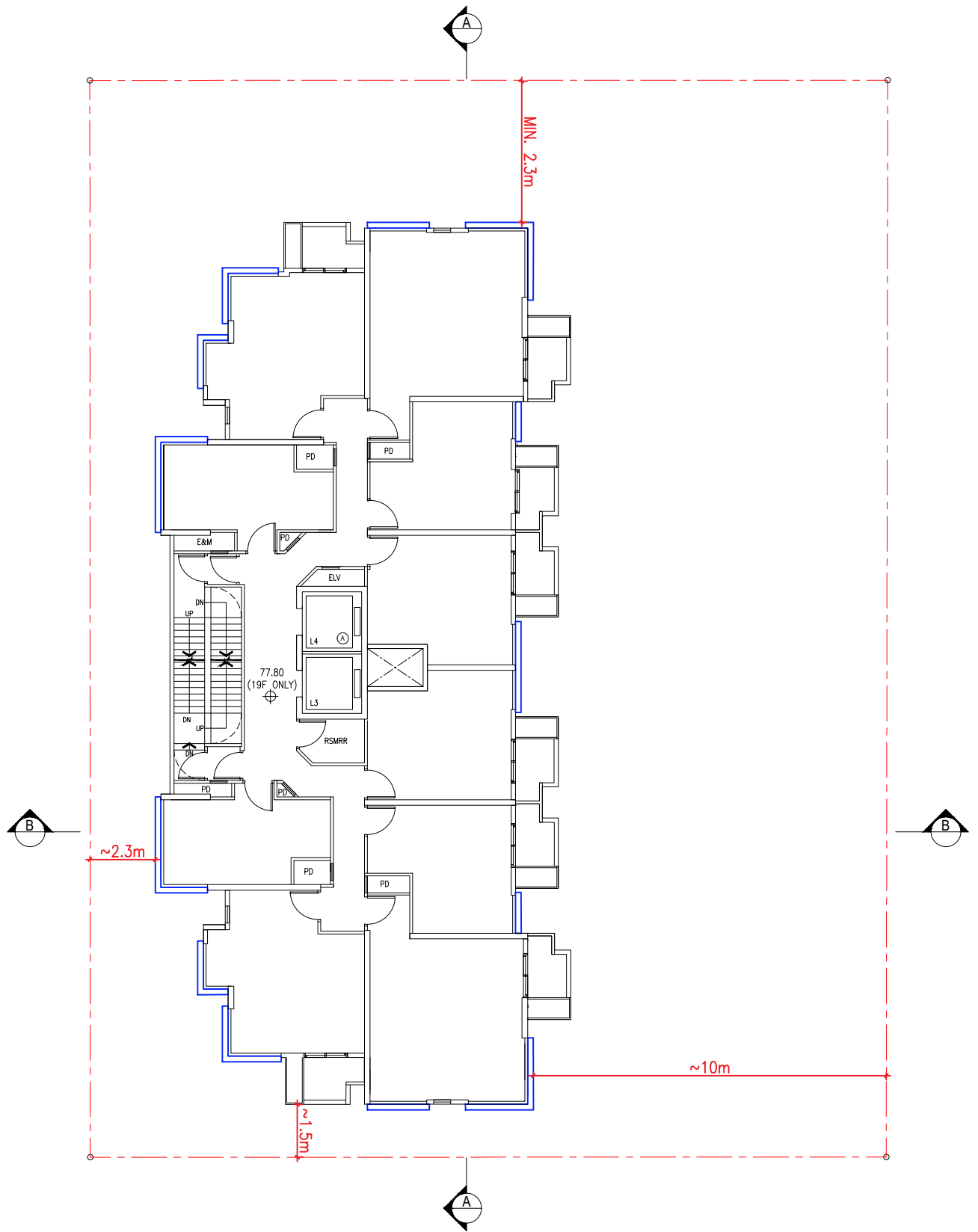
Appendix 1.1

Detailed Layout of the Proposed Development



18F
FLAT

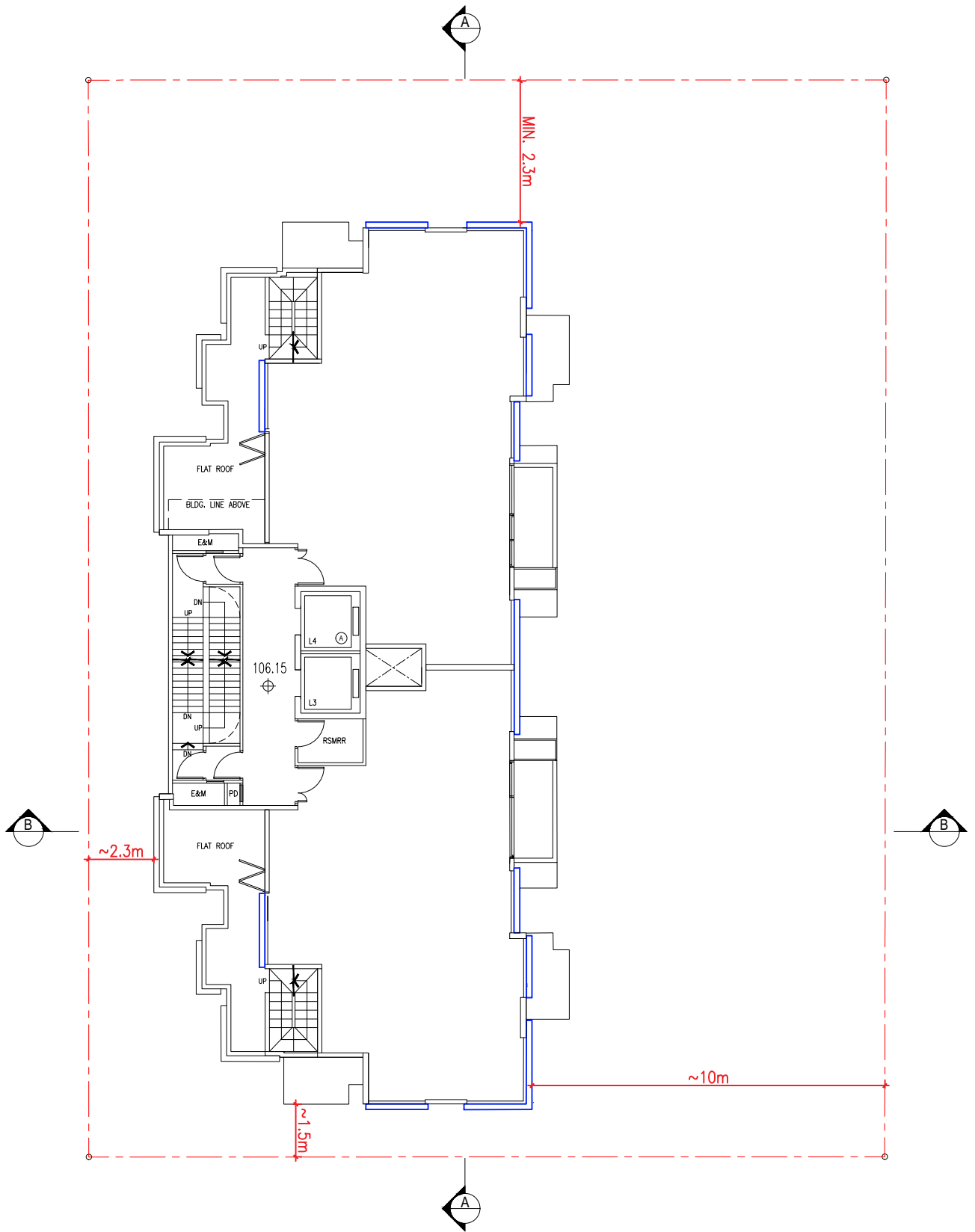




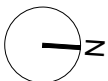
19F - 28F

FLAT (EXCLUDE 24F)

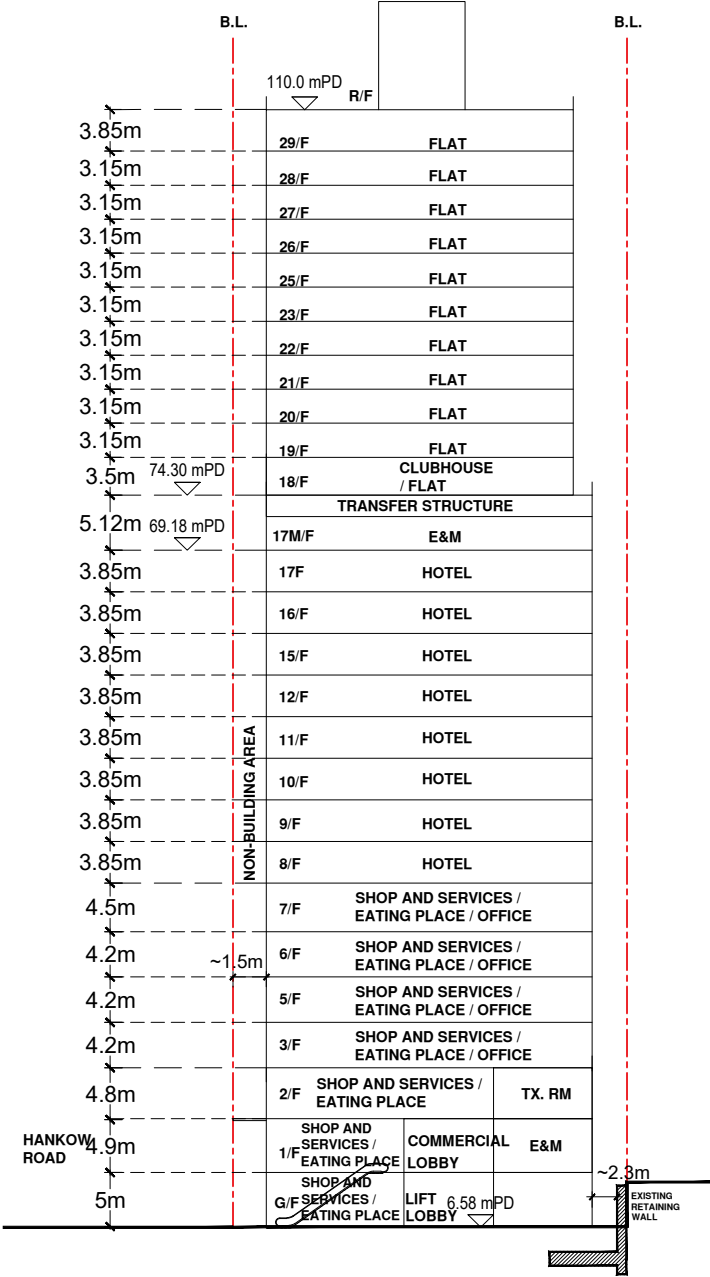




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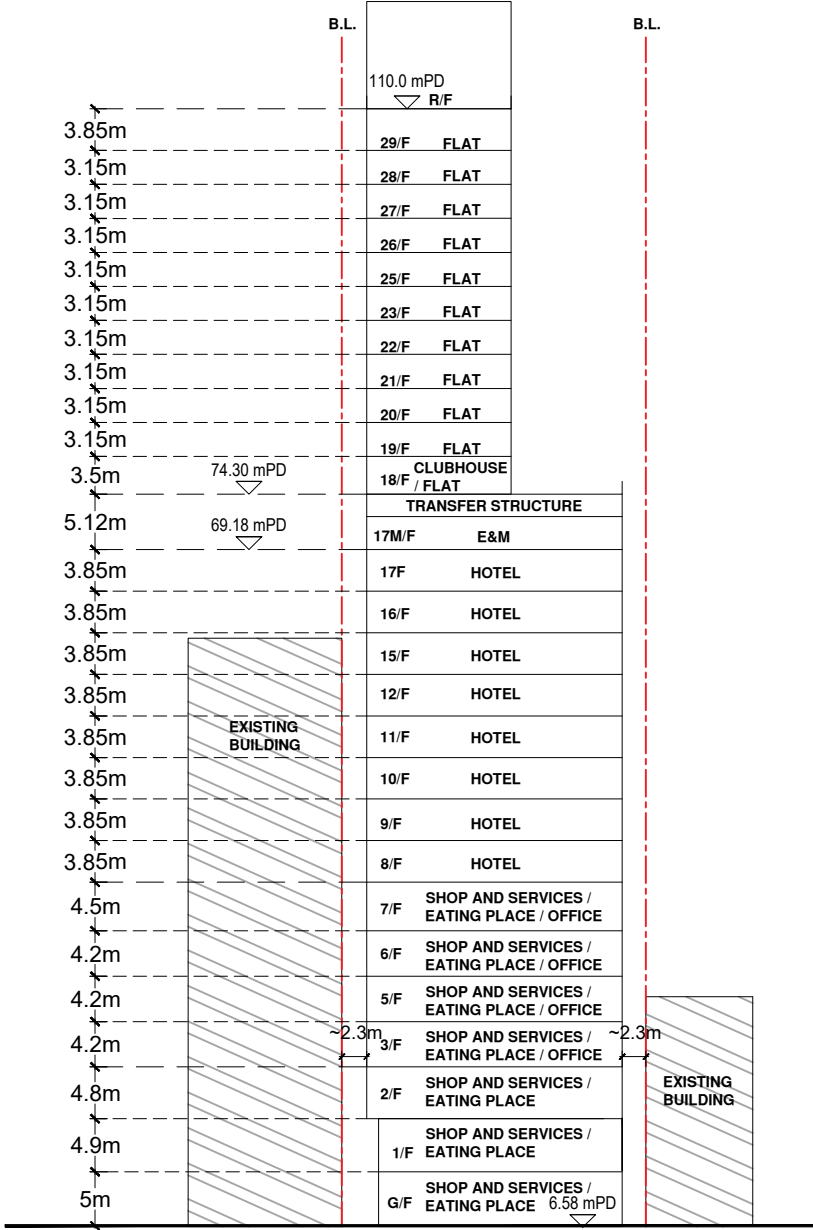


2025.05.27



SECTION A-A

2025.05.27



SECTION B-B

Appendix 2.1

Traffic Forecast

Katie Yu

From: Ming Yeung KWAN <mingyeungkwan@td.gov.hk>
Sent: 17 July 2025 11:42
To: Jason Leung WY
Cc: Damon Wong; Vincent Ka Lok CHOW
Subject: RE: Section 16 Planning Application (A/K1/271) for Proposed Flat with Permitted Hotel, Office and Shop & Services/Eating Place at 43 – 49A Hankow Road in Tsim Sha Tsui - Traffic Forecast for Environmental Assessment Study
Attachments: 20250626 RtC (Traffic)_to TD_DRAFT.pdf; 20250704 Technical Note (2nd Issue)_DRAFT.pdf

Dear Jason,

I have no further comment from traffic engineering viewpoint on the revised technical note, which is for environmental assessment purpose.

Best Regards,
Sunny KWAN
EK/YT, TEK
Transport Department
Tel.: 2399 2511

From: "Jason Leung WY" <jason-wy.leung@arup.com>
To: "Ming Yeung KWAN" <mingyeungkwan@td.gov.hk>
Cc: "Damon Wong" <Damon.Wong@arup.com>
Date: 08/07/2025 05:26 PM
Subject: RE: Section 16 Planning Application (A/K1/271) for Proposed Flat with Permitted Hotel, Office and Shop & Services/Eating Place at 43 – 49A Hankow Road in Tsim Sha Tsui - Traffic Forecast for Environmental Assessment Study

Dear Sunny,

Please find attached the draft R-t-C document and revised technical note for your review and consideration. For easy reference, the updated sections of the technical note have been highlighted.

Should you have any queries or require further information, please feel free to contact us. Thank you.

Regards,
Jason Leung
Planner | Transport Consulting

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arup.com

From: Ming Yeung KWAN <mingyeungkwan@td.gov.hk>

Sent: Thursday, 26 June 2025 2:54 pm

To: Jason Leung WY <jason-wy.leung@arup.com>

Cc: Damon Wong <Damon.Wong@arup.com>; Vincent Ka Lok CHOW <vincentklchow@td.gov.hk>

Subject: Re: Section 16 Planning Application (A/K1/271) for Proposed Flat with Permitted Hotel, Office and Shop & Services/Eating Place at 43 – 49A Hankow Road in Tsim Sha Tsui - Traffic Forecast for Environmental Assessment Study [Filed 26 Jun 2025 15:13]

Dear Jason,

I refer to your email below on 9.6.2025 enclosing the Traffic Forecast for Environmental Assessment Study. Please find our comments below:-

1. Section 2.3.2 – please include the traffic count for weekend peak hours;
2. Section 3.2.5 - Please provide estimation of growth rate beyond year 2031;
3. Section 3.3.1 – please specify the average flat size for the residential;
4. Section 3.3.2 – the adopted trip rates are significantly lower than the referenced values in TPDM Volume 1 Chapter 3. Please provide details of the survey and more references of nearby hotels.
5. Section 3.4.1 – Please confirm with PlanD for a complete list of planned development.
6. Noted that this technical note only outlines the methodology adopted for traffic forecast for supporting the Environmental Assessment Study, our comments on the TIA report, if any, will be provided separately.

Best Regards,
Sunny KWAN
EK/YT, TEK
Transport Department
Tel.: 2399 2511

From: "Jason Leung WY" <jason-wy.leung@arup.com>

To: "Ming Yeung KWAN" <mingyeungkwan@td.gov.hk>

Cc: "Damon Wong" <Damon.Wong@arup.com>

Date: 09/06/2025 02:29 PM

Subject: Section 16 Planning Application (A/K1/271) for Proposed Flat with Permitted Hotel, Office and Shop & Services/Eating Place at 43 – 49A Hankow Road in Tsim Sha Tsui - Traffic Forecast for Environmental Assessment Study

Dear Sunny,

We refer to the captioned Planning Application at 43 – 49A Hankow Road in Tsim Sha Tsui.

We are pleased to submit herewith a technical note outlining the methodology adopted for the traffic forecasts, and the traffic forecast data for the design year 2044 (i.e. 15 years after the tentative completion year of the proposed development), in support of the Environmental Assessment Study for your kind consideration and approval.

For further details, please refer to the enclosed explanatory letter, which has been issued to your office by post.

Should you have any queries, please feel free to contact me at 2268 3098. Thank you very much.

Regards,

Jason Leung

Planner | Transport Consulting

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Electronic mail messages entering and leaving Arup business systems are scanned for viruses and acceptability of content.

Year 2044 Traffic Forecast Data

Link ID	Respective Road ID in the model	Road Name	Design Speed (Km / Hour)	AM Peak			PM Peak		
				Total (Veh / Hour)	LV%	HV%	Total (Veh / Hour)	LV%	HV%
1001	Rd03	Granville Road (WB)	50	165	89%	11%	255	97%	3%
1002	Rd09	Carnarvon Road (NB)	50	795	84%	16%	1000	97%	3%
1003	Rd10	Carnarvon Road (SB)	50	200	93%	7%	165	99%	1%
1004	Rd11	Carnarvon Road (NB)	50	135	83%	17%	155	95%	5%
1005	Rd07	Cameron Lane (Two-way)	50	40	92%	8%	30	100%	0%
1006	Rd06	Cameron Road (EB)	50	290	83%	17%	280	98%	2%
1007	Rd08	Cameron Road (EB)	50	290	81%	19%	285	98%	2%
1008	Rd13	Humphreys Avenue	50	385	83%	17%	400	94%	6%
1009	Rd14	Prat Avenue (WB)	50	285	90%	10%	280	96%	4%
1010	Rd15	Carnarvon Road (WB)	50	170	83%	17%	130	96%	4%
1011	Rd17	Carnarvon Road (WB)	50	415	75%	25%	415	90%	10%
1012	Rd18	Carnarvon Road (WB)	50	175	84%	16%	225	97%	3%
1013	Rd16	Hanoi Road	50	250	70%	30%	290	87%	13%
1014	Rd19	Bristol Avenue	50	240	68%	32%	190	81%	19%
1015	Rd22	Mody Road	50	525	80%	20%	650	90%	10%
1016	Rd21	Mody Road	50	490	79%	21%	555	90%	10%
1017	Rd20	Mody Road	50	250	89%	11%	365	95%	5%
1018	Rd23	Minden Row	50	35	94%	6%	95	89%	11%
1019	Rd01	Nathan Road (SB)	50	815	71%	29%	875	87%	13%
1020	Rd02	Nathan Road (NB)	50	235	58%	42%	355	50%	50%
1021	Rd04	Nathan Road (SB)	50	940	73%	27%	1070	88%	12%
1022	Rd12	Nathan Road (SB)	50	650	69%	31%	795	85%	15%
1023	Rd05	Nathan Road (NB)	50	195	49%	51%	295	41%	59%
1024	Rd24	Nathan Road (SB)	50	650	69%	31%	795	85%	15%
1025	Rd26	Nathan Road (SB)	50	825	72%	28%	1020	88%	12%
1026	Rd27	Nathan Road (SB)	50	575	65%	35%	655	84%	16%
1027	Rd25	Nathan Road (NB)	50	135	33%	67%	220	24%	76%
1028	Rd34	Nathan Road (SB)	50	575	65%	35%	655	84%	16%
1029	Rd30	Nathan Road (SB)	50	785	65%	35%	915	83%	17%
1030	Rd28	Nathan Road (NB)	50	265	53%	47%	395	48%	52%
1031	Rd31	Nathan Road (NB)	50	525	65%	35%	710	66%	34%
1032	Rd39	Haiphong Road	50	445	83%	17%	470	94%	6%
1033	Rd40	Haiphong Road	50	665	81%	19%	700	93%	7%
1034	Rd41	Haiphong Road	50	295	79%	21%	360	96%	4%
1035	Rd38	Lock Road	50	205	76%	24%	260	87%	13%
1036	Rd42	Hankow Road (NB)	50	365	82%	18%	345	90%	10%
1037	Rd45	Hankow Road (NB)	50	260	80%	20%	195	88%	12%
1038	Rd35	Hankow Road (SB)	50	350	74%	26%	435	84%	16%
1039	Rd33	Hankow Road (NB)	50	70	63%	37%	55	48%	52%
1040	Rd44	Ashley Road (Two-way)	50	55	74%	26%	95	89%	11%
1041	Rd46	Ashley Road (NB)	50	125	86%	14%	130	95%	5%
1042	Rd48	Ashley Road (SB)	50	110	80%	20%	85	83%	17%
1043	Rd43	Ichang Road	50	110	87%	13%	145	93%	7%
1044	Rd36	Peking Road (WB)	50	145	73%	27%	175	80%	20%
1045	Rd37	Peking Road (WB)	50	350	74%	26%	435	84%	16%
1046	Rd47	Peking Road (EB)	50	260	80%	20%	195	88%	12%
1047	Rd49	Peking Road (EB)	50	495	81%	19%	415	89%	11%
1048	Rd61	Peking Road (EB)	50	255	87%	13%	295	95%	5%
1049	Rd29	Middle Road (WB)	50	210	66%	34%	260	80%	20%
1050	Rd32	Middle Road (WB)	50	260	78%	22%	315	89%	11%
1051	Rd50	Middle Road (WB)	50	705	75%	25%	915	86%	14%
1052	Rd55	Kowloon Park Drive (SB)	50	1305	81%	19%	1210	90%	10%
1053	Rd57	Kowloon Park Drive (NB)	50	1210	84%	16%	1580	93%	7%
1054	Rd58	Kowloon Park Drive (NB)	50	495	77%	23%	615	85%	15%
1055	Rd56	Kowloon Park Drive (NB)	50	1705	82%	18%	2195	91%	9%
1056	Rd53	Kowloon Park Drive (SB)	50	1065	81%	19%	1020	90%	10%
1057	Rd54	Kowloon Park Drive (NB)	50	1710	81%	19%	2125	90%	10%
1058	Rd51	Kowloon Park Drive (SB)	50	1405	78%	22%	1390	87%	13%
1059	Rd52	Kowloon Park Drive (NB)	50	1340	81%	19%	1580	90%	10%
1060	Rd59	Canton Road (SB)	50	1375	88%	12%	1530	93%	7%
1061	Rd60	Canton Road (SB)	50	1080	90%	10%	1170	92%	8%
1062	Rd62	Canton Road (SB)	50	825	91%	9%	875	91%	9%

300m Study Area for NIA



Appendix 2.2

Traffic Noise Impact Assessment Results

NSR Information					Year 2044 Design Traffic Flow	Mitigation Measures Required [Y/N]
					With Development	
NAP ID	NAP Description	Floor	mPD	Criteria	Noise Level (dB(A))	
TN01	Planned NSRs at 18/F facing Haipong Road	18/F	75.5	70	55	N
TN02	Planned NSRs at 18/F facing Haipong Road	18/F	75.5	70	55	N
TN03	Planned NSRs at 18/F facing Haipong Road	18/F	75.5	70	55	N
TN04	Planned NSRs at 18/F facing Haipong Road	18/F	75.5	70	54	N
TN05	Planned NSRs at 18/F facing Haipong Road	18/F	75.5	70	55	N
TN06	Planned NSRs at 18/F facing Haipong Road	18/F	75.5	70	56	N
TN07	Planned NSRs at 18/F facing Haipong Road	18/F	75.5	70	60	N
TN08	Planned NSRs at 18/F facing Kowloon Park Drive	18/F	75.5	70	62	N
TN09	Planned NSRs at 18/F facing Kowloon Park Drive	18/F	75.5	70	59	N
TN10	Planned NSRs at 18/F facing Kowloon Park Drive	18/F	75.5	70	60	N
TN11	Planned NSRs at 18/F facing Kowloon Park Drive	18/F	75.5	70	55	N
TN12	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	19/F	79.0	70	65	N
TN12	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	20/F	82.2	70	65	N
TN12	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	21/F	85.3	70	66	N
TN12	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	22/F	88.5	70	66	N
TN12	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	23/F	91.6	70	66	N
TN12	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	25/F	94.8	70	67	N
TN12	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	26/F	97.9	70	67	N
TN12	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	27/F	101.1	70	67	N
TN12	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	28/F	104.2	70	67	N
TN13	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	19/F	79.0	70	64	N
TN13	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	20/F	82.2	70	65	N
TN13	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	21/F	85.3	70	66	N
TN13	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	22/F	88.5	70	66	N
TN13	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	23/F	91.6	70	66	N
TN13	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	25/F	94.8	70	67	N
TN13	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	26/F	97.9	70	67	N
TN13	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	27/F	101.1	70	67	N
TN13	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	28/F	104.2	70	67	N
TN14	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	19/F	79.0	70	63	N
TN14	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	20/F	82.2	70	65	N
TN14	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	21/F	85.3	70	66	N
TN14	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	22/F	88.5	70	66	N
TN14	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	23/F	91.6	70	66	N
TN14	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	25/F	94.8	70	66	N
TN14	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	26/F	97.9	70	67	N
TN14	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	27/F	101.1	70	67	N
TN14	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	28/F	104.2	70	67	N
TN15	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	19/F	79.0	70	61	N
TN15	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	20/F	82.2	70	64	N
TN15	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	21/F	85.3	70	65	N
TN15	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	22/F	88.5	70	66	N
TN15	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	23/F	91.6	70	66	N
TN15	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	25/F	94.8	70	66	N
TN15	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	26/F	97.9	70	67	N
TN15	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	27/F	101.1	70	67	N
TN15	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	28/F	104.2	70	67	N
TN16	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	19/F	79.0	70	60	N
TN16	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	20/F	82.2	70	64	N
TN16	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	21/F	85.3	70	65	N
TN16	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	22/F	88.5	70	66	N
TN16	Planned NSRs at 19-23/F and 25-2					

NSR Information					Year 2044 Design Traffic	Mitigation Measures Required [Y/N]
					Flow	
NAP ID	NAP Description	Floor	mPD	Criteria	With Development	
					Noise Level (dB(A))	
TN22	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	20/F	82.2	70	64	N
TN22	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	21/F	85.3	70	64	N
TN22	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	22/F	88.5	70	65	N
TN22	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	23/F	91.6	70	65	N
TN22	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	25/F	94.8	70	66	N
TN22	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	26/F	97.9	70	66	N
TN22	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	27/F	101.1	70	66	N
TN22	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	28/F	104.2	70	67	N
TN23	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	19/F	79.0	70	63	N
TN23	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	20/F	82.2	70	65	N
TN23	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	21/F	85.3	70	65	N
TN23	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	22/F	88.5	70	66	N
TN23	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	23/F	91.6	70	66	N
TN23	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	25/F	94.8	70	66	N
TN23	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	26/F	97.9	70	67	N
TN23	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	27/F	101.1	70	67	N
TN23	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	28/F	104.2	70	67	N
TN24	Planned NSRs at 19-23/F and 25-28/F facing Hankow Road	19/F	79.0	70	67	N
TN24	Planned NSRs at 19-23/F and 25-28/F facing Hankow Road	20/F	82.2	70	67	N
TN24	Planned NSRs at 19-23/F and 25-28/F facing Hankow Road	21/F	85.3	70	67	N
TN24	Planned NSRs at 19-23/F and 25-28/F facing Hankow Road	22/F	88.5	70	67	N
TN24	Planned NSRs at 19-23/F and 25-28/F facing Hankow Road	23/F	91.6	70	67	N
TN24	Planned NSRs at 19-23/F and 25-28/F facing Hankow Road	25/F	94.8	70	67	N
TN24	Planned NSRs at 19-23/F and 25-28/F facing Hankow Road	26/F	97.9	70	67	N
TN24	Planned NSRs at 19-23/F and 25-28/F facing Hankow Road	27/F	101.1	70	67	N
TN24	Planned NSRs at 19-23/F and 25-28/F facing Hankow Road	28/F	104.2	70	67	N
TN25	Planned NSRs at 19-23/F and 25-28/F facing Hankow Road	19/F	79.0	70	67	N
TN25	Planned NSRs at 19-23/F and 25-28/F facing Hankow Road	20/F	82.2	70	67	N
TN25	Planned NSRs at 19-23/F and 25-28/F facing Hankow Road	21/F	85.3	70	67	N
TN25	Planned NSRs at 19-23/F and 25-28/F facing Hankow Road	22/F	88.5	70	67	N
TN25	Planned NSRs at 19-23/F and 25-28/F facing Hankow Road	23/F	91.6	70	67	N
TN25	Planned NSRs at 19-23/F and 25-28/F facing Hankow Road	25/F	94.8	70	67	N
TN25	Planned NSRs at 19-23/F and 25-28/F facing Hankow Road	26/F	97.9	70	67	N
TN25	Planned NSRs at 19-23/F and 25-28/F facing Hankow Road	27/F	101.1	70	67	N
TN25	Planned NSRs at 19-23/F and 25-28/F facing Hankow Road	28/F	104.2	70	67	N
TN26	Planned NSRs at 19-23/F and 25-28/F facing Hankow Road	19/F	79.0	70	61	N
TN26	Planned NSRs at 19-23/F and 25-28/F facing Hankow Road	20/F	82.2	70	63	N
TN26	Planned NSRs at 19-23/F and 25-28/F facing Hankow Road	21/F	85.3	70	63	N
TN26	Planned NSRs at 19-23/F and 25-28/F facing Hankow Road	22/F	88.5	70	64	N
TN26	Planned NSRs at 19-23/F and 25-28/F facing Hankow Road	23/F	91.6	70	64	N
TN26	Planned NSRs at 19-23/F and 25-28/F facing Hankow Road	25/F	94.8	70	64	N
TN26	Planned NSRs at 19-23/F and 25-28/F facing Hankow Road	26/F	97.9	70	65	N
TN26	Planned NSRs at 19-23/F and 25-28/F facing Hankow Road	27/F	101.1	70	65	N
TN26	Planned NSRs at 19-23/F and 25-28/F facing Hankow Road	28/F	104.2	70	65	N
TN27	Planned NSRs at 19-23/F and 25-28/F facing Hankow Road	19/F	79.0	70	62	N
TN27	Planned NSRs at 19-23/F and 25-28/F facing Hankow Road	20/F	82.2	70	64	N
TN27	Planned NSRs at 19-23/F and 25-28/F facing Hankow Road	21/F	85.3	70	64	N
TN27	Planned NSRs at 19-23/F and 25-28/F facing Hankow Road	22/F	88.5	70	65	N
TN27	Planned NSRs at 19-23/F and 25-28/F facing Hankow Road	23/F	91.6	70	65	N
TN27	Planned NSRs at 19-23/F and 25-28/F facing Hankow Road	25/F	94.8	70	65	N</

Predicted Road Traffic Noise Levels at Representative NSRs For AM Peak Hour

NSR Information					Year 2044 Design Traffic Flow	Mitigation Measures Required [Y/N]
					With Development	
NAP ID	NAP Description	Floor	mPD	Criteria	Noise Level (dB(A))	
TN33	Planned NSRs at 19-23/F and 25-28/F facing Kowloon Park Drive	23/F	91.6	70	65	N
TN33	Planned NSRs at 19-23/F and 25-28/F facing Kowloon Park Drive	25/F	94.8	70	65	N
TN33	Planned NSRs at 19-23/F and 25-28/F facing Kowloon Park Drive	26/F	97.9	70	65	N
TN33	Planned NSRs at 19-23/F and 25-28/F facing Kowloon Park Drive	27/F	101.1	70	65	N
TN33	Planned NSRs at 19-23/F and 25-28/F facing Kowloon Park Drive	28/F	104.2	70	66	N
TN34	Planned NSRs at 19-23/F and 25-28/F facing Kowloon Park Drive	19/F	79.0	70	63	N
TN34	Planned NSRs at 19-23/F and 25-28/F facing Kowloon Park Drive	20/F	82.2	70	64	N
TN34	Planned NSRs at 19-23/F and 25-28/F facing Kowloon Park Drive	21/F	85.3	70	64	N
TN34	Planned NSRs at 19-23/F and 25-28/F facing Kowloon Park Drive	22/F	88.5	70	65	N
TN34	Planned NSRs at 19-23/F and 25-28/F facing Kowloon Park Drive	23/F	91.6	70	65	N
TN34	Planned NSRs at 19-23/F and 25-28/F facing Kowloon Park Drive	25/F	94.8	70	65	N
TN34	Planned NSRs at 19-23/F and 25-28/F facing Kowloon Park Drive	26/F	97.9	70	66	N
TN34	Planned NSRs at 19-23/F and 25-28/F facing Kowloon Park Drive	27/F	101.1	70	66	N
TN34	Planned NSRs at 19-23/F and 25-28/F facing Kowloon Park Drive	28/F	104.2	70	66	N
TN35	Planned NSRs at 19-23/F and 25-28/F facing Kowloon Park Drive	19/F	79.0	70	64	N
TN35	Planned NSRs at 19-23/F and 25-28/F facing Kowloon Park Drive	20/F	82.2	70	64	N
TN35	Planned NSRs at 19-23/F and 25-28/F facing Kowloon Park Drive	21/F	85.3	70	65	N
TN35	Planned NSRs at 19-23/F and 25-28/F facing Kowloon Park Drive	22/F	88.5	70	65	N
TN35	Planned NSRs at 19-23/F and 25-28/F facing Kowloon Park Drive	23/F	91.6	70	65	N
TN35	Planned NSRs at 19-23/F and 25-28/F facing Kowloon Park Drive	25/F	94.8	70	66	N
TN35	Planned NSRs at 19-23/F and 25-28/F facing Kowloon Park Drive	26/F	97.9	70	66	N
TN35	Planned NSRs at 19-23/F and 25-28/F facing Kowloon Park Drive	27/F	101.1	70	66	N
TN35	Planned NSRs at 19-23/F and 25-28/F facing Kowloon Park Drive	28/F	104.2	70	66	N
TN36	Planned NSRs at 29/F facing Haipong Road	29/F	107.4	70	67	N
TN37	Planned NSRs at 29/F facing Haipong Road	29/F	107.4	70	67	N
TN38	Planned NSRs at 29/F facing Haipong Road	29/F	107.4	70	67	N
TN39	Planned NSRs at 29/F facing Haipong Road	29/F	107.4	70	67	N
TN40	Planned NSRs at 29/F facing Haipong Road	29/F	107.4	70	67	N
TN41	Planned NSRs at 29/F facing Haipong Road	29/F	107.4	70	67	N
TN42	Planned NSRs at 29/F facing Haipong Road	29/F	107.4	70	67	N
TN43	Planned NSRs at 29/F facing Haipong Road	29/F	107.4	70	67	N
TN44	Planned NSRs at 29/F facing Haipong Road	29/F	107.4	70	67	N
TN45	Planned NSRs at 29/F facing Haipong Road	29/F	107.4	70	67	N
TN46	Planned NSRs at 29/F facing Hankow Road	29/F	107.4	70	67	N
TN47	Planned NSRs at 29/F facing Hankow Road	29/F	107.4	70	67	N
TN48	Planned NSRs at 29/F facing Maxwell Centre	29/F	107.4	70	55	N
TN49	Planned NSRs at 29/F facing Maxwell Centre	29/F	107.4	70	56	N
TN50	Planned NSRs at 29/F facing Kowloon Park Drive	29/F	107.4	70	66	N

NSR Information					Year 2044 Design Traffic Flow	Mitigation Measures Required [Y/N]
					With Development	
NAP ID	NAP Description	Floor	mPD	Criteria	Noise Level (dB(A))	
TN01	Planned NSRs at 18/F facing Haipong Road	18/F	75.5	70	54	N
TN02	Planned NSRs at 18/F facing Haipong Road	18/F	75.5	70	54	N
TN03	Planned NSRs at 18/F facing Haipong Road	18/F	75.5	70	54	N
TN04	Planned NSRs at 18/F facing Haipong Road	18/F	75.5	70	53	N
TN05	Planned NSRs at 18/F facing Haipong Road	18/F	75.5	70	54	N
TN06	Planned NSRs at 18/F facing Haipong Road	18/F	75.5	70	55	N
TN07	Planned NSRs at 18/F facing Haipong Road	18/F	75.5	70	59	N
TN08	Planned NSRs at 18/F facing Kowloon Park Drive	18/F	75.5	70	61	N
TN09	Planned NSRs at 18/F facing Kowloon Park Drive	18/F	75.5	70	58	N
TN10	Planned NSRs at 18/F facing Kowloon Park Drive	18/F	75.5	70	59	N
TN11	Planned NSRs at 18/F facing Kowloon Park Drive	18/F	75.5	70	55	N
TN12	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	19/F	79.0	70	64	N
TN12	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	20/F	82.2	70	64	N
TN12	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	21/F	85.3	70	65	N
TN12	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	22/F	88.5	70	65	N
TN12	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	23/F	91.6	70	65	N
TN12	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	25/F	94.8	70	66	N
TN12	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	26/F	97.9	70	66	N
TN12	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	27/F	101.1	70	66	N
TN12	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	28/F	104.2	70	66	N
TN13	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	19/F	79.0	70	63	N
TN13	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	20/F	82.2	70	64	N
TN13	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	21/F	85.3	70	64	N
TN13	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	22/F	88.5	70	65	N
TN13	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	23/F	91.6	70	65	N
TN13	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	25/F	94.8	70	66	N
TN13	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	26/F	97.9	70	66	N
TN13	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	27/F	101.1	70	66	N
TN13	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	28/F	104.2	70	66	N
TN14	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	19/F	79.0	70	62	N
TN14	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	20/F	82.2	70	64	N
TN14	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	21/F	85.3	70	64	N
TN14	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	22/F	88.5	70	65	N
TN14	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	23/F	91.6	70	65	N
TN14	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	25/F	94.8	70	65	N
TN14	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	26/F	97.9	70	66	N
TN14	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	27/F	101.1	70	66	N
TN14	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	28/F	104.2	70	66	N
TN15	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	19/F	79.0	70	60	N
TN15	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	20/F	82.2	70	63	N
TN15	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	21/F	85.3	70	64	N
TN15	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	22/F	88.5	70	65	N
TN15	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	23/F	91.6	70	65	N
TN15	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	25/F	94.8	70	65	N
TN15	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	26/F	97.9	70	65	N
TN15	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	27/F	101.1	70	66	N
TN15	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	28/F	104.2	70	66	N
TN16	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	19/F	79.0	70	60	N
TN16	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	20/F	82.2	70	63	N
TN16	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	21/F	85.3	70	64	N
TN16	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	22/F	88.5	70	65	N
TN16	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	23/F	91.6	70	65	N
TN16	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road					

NSR Information					Year 2044 Design Traffic		Mitigation Measures Required [Y/N]
					Flow	With Development	
NAP ID	NAP Description	Floor	mPD	Criteria	Noise Level (dB(A))		
TN22	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	20/F	82.2	70	63	N	
TN22	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	21/F	85.3	70	64	N	
TN22	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	22/F	88.5	70	64	N	
TN22	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	23/F	91.6	70	64	N	
TN22	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	25/F	94.8	70	65	N	
TN22	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	26/F	97.9	70	65	N	
TN22	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	27/F	101.1	70	65	N	
TN22	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	28/F	104.2	70	66	N	
TN23	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	19/F	79.0	70	62	N	
TN23	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	20/F	82.2	70	64	N	
TN23	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	21/F	85.3	70	64	N	
TN23	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	22/F	88.5	70	65	N	
TN23	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	23/F	91.6	70	65	N	
TN23	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	25/F	94.8	70	65	N	
TN23	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	26/F	97.9	70	66	N	
TN23	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	27/F	101.1	70	66	N	
TN23	Planned NSRs at 19-23/F and 25-28/F facing Haipong Road	28/F	104.2	70	66	N	
TN24	Planned NSRs at 19-23/F and 25-28/F facing Hankow Road	19/F	79.0	70	66	N	
TN24	Planned NSRs at 19-23/F and 25-28/F facing Hankow Road	20/F	82.2	70	66	N	
TN24	Planned NSRs at 19-23/F and 25-28/F facing Hankow Road	21/F	85.3	70	65	N	
TN24	Planned NSRs at 19-23/F and 25-28/F facing Hankow Road	22/F	88.5	70	65	N	
TN24	Planned NSRs at 19-23/F and 25-28/F facing Hankow Road	23/F	91.6	70	65	N	
TN24	Planned NSRs at 19-23/F and 25-28/F facing Hankow Road	25/F	94.8	70	65	N	
TN24	Planned NSRs at 19-23/F and 25-28/F facing Hankow Road	26/F	97.9	70	65	N	
TN24	Planned NSRs at 19-23/F and 25-28/F facing Hankow Road	27/F	101.1	70	65	N	
TN24	Planned NSRs at 19-23/F and 25-28/F facing Hankow Road	28/F	104.2	70	65	N	
TN25	Planned NSRs at 19-23/F and 25-28/F facing Hankow Road	19/F	79.0	70	66	N	
TN25	Planned NSRs at 19-23/F and 25-28/F facing Hankow Road	20/F	82.2	70	65	N	
TN25	Planned NSRs at 19-23/F and 25-28/F facing Hankow Road	21/F	85.3	70	65	N	
TN25	Planned NSRs at 19-23/F and 25-28/F facing Hankow Road	22/F	88.5	70	65	N	
TN25	Planned NSRs at 19-23/F and 25-28/F facing Hankow Road	23/F	91.6	70	65	N	
TN25	Planned NSRs at 19-23/F and 25-28/F facing Hankow Road	25/F	94.8	70	65	N	
TN25	Planned NSRs at 19-23/F and 25-28/F facing Hankow Road	26/F	97.9	70	65	N	
TN25	Planned NSRs at 19-23/F and 25-28/F facing Hankow Road	27/F	101.1	70	65	N	
TN25	Planned NSRs at 19-23/F and 25-28/F facing Hankow Road	28/F	104.2	70	65	N	
TN26	Planned NSRs at 19-23/F and 25-28/F facing Hankow Road	19/F	79.0	70	60	N	
TN26	Planned NSRs at 19-23/F and 25-28/F facing Hankow Road	20/F	82.2	70	62	N	
TN26	Planned NSRs at 19-23/F and 25-28/F facing Hankow Road	21/F	85.3	70	62	N	
TN26	Planned NSRs at 19-23/F and 25-28/F facing Hankow Road	22/F	88.5	70	63	N	
TN26	Planned NSRs at 19-23/F and 25-28/F facing Hankow Road	23/F	91.6	70	63	N	
TN26	Planned NSRs at 19-23/F and 25-28/F facing Hankow Road	25/F	94.8	70	63	N	
TN26	Planned NSRs at 19-23/F and 25-28/F facing Hankow Road	26/F	97.9	70	63	N	
TN26	Planned NSRs at 19-23/F and 25-28/F facing Hankow Road	27/F	101.1	70	64	N	
TN26	Planned NSRs at 19-23/F and 25-28/F facing Hankow Road	28/F	104.2	70	64	N	
TN27	Planned NSRs at 19-23/F and 25-28/F facing Hankow Road	19/F	79.0	70	61	N	
TN27	Planned NSRs at 19-23/F and 25-28/F facing Hankow Road	20/F	82.2	70	63	N	
TN27	Planned NSRs at 19-23/F and 25-28/F facing Hankow Road	21/F	85.3	70	63	N	
TN27	Planned NSRs at 19-23/F and 25-28/F facing Hankow Road	22/F	88.5	70	64	N	
TN27	Planned NSRs at 19-23/F and 25-28/F facing Hankow Road	23/F	91.6	70	64	N	
TN27	Planned NSRs at 19-23/F and 25-28/F facing Hankow Road	25/F	94.8	70	64	N	
TN27	Planned NSRs at 19-23/F and 25-28/F facing Hankow Road	26/F	97.9	70	64	N	
TN27	Planned NSRs at 1						

Predicted Road Traffic Noise Levels at Representative NSRs For PM Peak Hour

NSR Information					Year 2044 Design Traffic Flow	Mitigation Measures Required [Y/N]
					With Development	
NAP ID	NAP Description	Floor	mPD	Criteria	Noise Level (dB(A))	
TN33	Planned NSRs at 19-23/F and 25-28/F facing Kowloon Park Drive	23/F	91.6	70	64	N
TN33	Planned NSRs at 19-23/F and 25-28/F facing Kowloon Park Drive	25/F	94.8	70	64	N
TN33	Planned NSRs at 19-23/F and 25-28/F facing Kowloon Park Drive	26/F	97.9	70	64	N
TN33	Planned NSRs at 19-23/F and 25-28/F facing Kowloon Park Drive	27/F	101.1	70	64	N
TN33	Planned NSRs at 19-23/F and 25-28/F facing Kowloon Park Drive	28/F	104.2	70	65	N
TN34	Planned NSRs at 19-23/F and 25-28/F facing Kowloon Park Drive	19/F	79.0	70	62	N
TN34	Planned NSRs at 19-23/F and 25-28/F facing Kowloon Park Drive	20/F	82.2	70	63	N
TN34	Planned NSRs at 19-23/F and 25-28/F facing Kowloon Park Drive	21/F	85.3	70	63	N
TN34	Planned NSRs at 19-23/F and 25-28/F facing Kowloon Park Drive	22/F	88.5	70	64	N
TN34	Planned NSRs at 19-23/F and 25-28/F facing Kowloon Park Drive	23/F	91.6	70	64	N
TN34	Planned NSRs at 19-23/F and 25-28/F facing Kowloon Park Drive	25/F	94.8	70	64	N
TN34	Planned NSRs at 19-23/F and 25-28/F facing Kowloon Park Drive	26/F	97.9	70	64	N
TN34	Planned NSRs at 19-23/F and 25-28/F facing Kowloon Park Drive	27/F	101.1	70	65	N
TN34	Planned NSRs at 19-23/F and 25-28/F facing Kowloon Park Drive	28/F	104.2	70	65	N
TN35	Planned NSRs at 19-23/F and 25-28/F facing Kowloon Park Drive	19/F	79.0	70	62	N
TN35	Planned NSRs at 19-23/F and 25-28/F facing Kowloon Park Drive	20/F	82.2	70	63	N
TN35	Planned NSRs at 19-23/F and 25-28/F facing Kowloon Park Drive	21/F	85.3	70	63	N
TN35	Planned NSRs at 19-23/F and 25-28/F facing Kowloon Park Drive	22/F	88.5	70	64	N
TN35	Planned NSRs at 19-23/F and 25-28/F facing Kowloon Park Drive	23/F	91.6	70	64	N
TN35	Planned NSRs at 19-23/F and 25-28/F facing Kowloon Park Drive	25/F	94.8	70	64	N
TN35	Planned NSRs at 19-23/F and 25-28/F facing Kowloon Park Drive	26/F	97.9	70	65	N
TN35	Planned NSRs at 19-23/F and 25-28/F facing Kowloon Park Drive	27/F	101.1	70	65	N
TN35	Planned NSRs at 19-23/F and 25-28/F facing Kowloon Park Drive	28/F	104.2	70	65	N
TN36	Planned NSRs at 29/F facing Haipong Road	29/F	107.4	70	66	N
TN37	Planned NSRs at 29/F facing Haipong Road	29/F	107.4	70	66	N
TN38	Planned NSRs at 29/F facing Haipong Road	29/F	107.4	70	66	N
TN39	Planned NSRs at 29/F facing Haipong Road	29/F	107.4	70	66	N
TN40	Planned NSRs at 29/F facing Haipong Road	29/F	107.4	70	66	N
TN41	Planned NSRs at 29/F facing Haipong Road	29/F	107.4	70	66	N
TN42	Planned NSRs at 29/F facing Haipong Road	29/F	107.4	70	66	N
TN43	Planned NSRs at 29/F facing Haipong Road	29/F	107.4	70	66	N
TN44	Planned NSRs at 29/F facing Haipong Road	29/F	107.4	70	66	N
TN45	Planned NSRs at 29/F facing Haipong Road	29/F	107.4	70	66	N
TN46	Planned NSRs at 29/F facing Hankow Road	29/F	107.4	70	65	N
TN47	Planned NSRs at 29/F facing Hankow Road	29/F	107.4	70	65	N
TN48	Planned NSRs at 29/F facing Maxwell Centre	29/F	107.4	70	54	N
TN49	Planned NSRs at 29/F facing Maxwell Centre	29/F	107.4	70	55	N
TN50	Planned NSRs at 29/F facing Kowloon Park Drive	29/F	107.4	70	65	N

Appendix 3.1

Inventory of Potential Fixed Noise Sources

Noise Source ID	Description of Noise Sources	Sources		SWL, dB(A), L _{eq} (30 min)				Source Location			Directivity Factor (Q)	No. of Plant
		Nature of Business	Existing/ Planned	Daytime & Evening Time (0700-2300)	Ref	Nighttime (2300-0700)	Ref	X	Y	Z, mPD		
S01a	Chiller at Roof of Kowloon Centre	Commercial Building	Existing	85	[1]	OFF	[1]	835578	817649	75.5	2	1
S01b	Chiller at Roof of Kowloon Centre	Commercial Building	Existing	85	[1]	OFF	[1]	835579	817643	75.5	2	1
S01c	Chiller at Roof of Kowloon Centre	Commercial Building	Existing	87	[2]	OFF	[2]	835587	817643	75.5	2	1
S01d	Chiller at Roof of Kowloon Centre	Commercial Building	Existing	85	[1]	OFF	[1]	835583	817614	75.5	2	1
S01e	Chiller at Roof of Kowloon Centre	Commercial Building	Existing	85	[1]	OFF	[1]	835584	817607	75.5	2	1
S02a	Chiller at Podium of Godown for HK Museum of History	Godown	Existing	80	[3]	OFF	[3]	835542	817712	75.5	2	1
S02b	Chiller at Podium of Godown for HK Museum of History	Godown	Existing	80	[3]	OFF	[3]	835540	817711	75.5	2	1
S02c	Chiller at Podium of Godown for HK Museum of History	Godown	Existing	80	[3]	OFF	[3]	835536	817711	75.5	2	1
S02d	Chiller at Podium of Godown for HK Museum of History	Godown	Existing	80	[3]	OFF	[3]	835534	817711	75.5	2	1
S03a	Chiller at Roof of Health Education Exhibition and Resources Centre	GIC	Existing	78	[4]	OFF	[4]	835673	817710	75.5	2	1
S03b	Chiller at Roof of Health Education Exhibition and Resources Centre	GIC	Existing	78	[4]	OFF	[4]	835667	817709	75.5	2	1
S03c	Chiller at Roof of Health Education Exhibition and Resources Centre	GIC	Existing	78	[4]	OFF	[4]	835661	817709	75.5	2	1
S03d	Chiller at Roof of Health Education Exhibition and Resources Centre	GIC	Existing	78	[4]	OFF	[4]	835656	817709	75.5	2	1
S03e	Chiller at Roof of Health Education Exhibition and Resources Centre	GIC	Existing	78	[4]	OFF	[4]	835650	817708	75.5	2	1
S03f	Chiller at Roof of Health Education Exhibition and Resources Centre	GIC	Existing	78	[4]	OFF	[4]	835673	817706	75.5	2	1
S03g	Chiller at Roof of Health Education Exhibition and Resources Centre	GIC	Existing	78	[4]	OFF	[4]	835667	817705	75.5	2	1
S03h	Chiller at Roof of Health Education Exhibition and Resources Centre	GIC	Existing	78	[4]	OFF	[4]	835662	817705	75.5	2	1
S03i	Chiller at Roof of Health Education Exhibition and Resources Centre	GIC	Existing	78	[4]	OFF	[4]	835656	817705	75.5	2	1
S03j	Chiller at Roof of Health Education Exhibition and Resources Centre	GIC	Existing	78	[4]	OFF	[4]	835650	817704	75.5	2	1
S04a	Chiller at Podium at Maxwell Centre	Commercial Building	Existing	78	[4]	OFF	[4]	835624	817622	9.5	2	1
S04b	Chiller at Podium at Maxwell Centre	Commercial Building	Existing	78	[4]	OFF	[4]	835624	817620	9.5	2	1
S04c	Chiller at Podium at Maxwell Centre	Commercial Building	Existing	78	[4]	OFF	[4]	835624	817618	9.5	2	1
S04d	Chiller at Podium at Maxwell Centre	Commercial Building	Existing	82	[5]	OFF	[5]	835626	817621	12.5	2	1
S04e	Chiller at Podium at Maxwell Centre	Commercial Building	Existing	82	[5]	OFF	[5]	835626	817619	12.5	2	1
S05a	Chiller at Podium at Han Hing Mansion	Mixed-used Building	Existing	80	[3]	OFF	[3]	835688	817619	13.4	2	1
S05b	Chiller at Podium at Han Hing Mansion	Mixed-used Building	Existing	80	[3]	OFF	[3]	835691	817620	13.4	2	1
S05c	Chiller at Podium at Han Hing Mansion	Mixed-used Building	Existing	80	[3]	OFF	[3]	835693	817620	13.4	2	1
S06a	Chiller at Roof of ISQUARE	Mixed Commercial Use	Existing	84	[10]	OFF	[10]	835735	817583	75.5	2	1
S06b	Chiller at Roof of ISQUARE	Mixed Commercial Use	Existing	84	[10]	OFF	[10]	835745	817584	75.5	2	1
S06c	Chiller at Roof of ISQUARE	Mixed Commercial Use	Existing	84	[10]	OFF	[10]	835754	817584	75.5	2	1
S06d	Chiller at Roof of ISQUARE	Mixed Commercial Use	Existing	84	[10]	OFF	[10]	835764	817585	75.5	2	1
S7a	Chiller at Roof of Hong Kong Pacific Centre	Commercial Building	Existing	83	[7]	OFF	[7]	835688	817549	75.5	2	1
S7b	Chiller at Roof of Hong Kong Pacific Centre	Commercial Building	Existing	83	[7]	OFF	[7]	835696	817550	75.5	2	1
S7c	Chiller at Podium of Hong Kong Pacific Centre	Commercial Building	Existing	80	[3]	OFF	[3]	835695	817545	13.4	2	1
S7d	Chiller at Podium of Hong Kong Pacific Centre	Commercial Building	Existing	80	[3]	OFF	[3]	835693	817543	13.4	2	1
S7e	Chiller at Podium of Hong Kong Pacific Centre	Commercial Building	Existing	80	[3]	OFF	[3]	835695	817543	13.4	2	1
S7f	Chiller at Podium of Hong Kong Pacific Centre	Commercial Building	Existing	80	[3]	OFF	[3]	835698	817532	13.4	2	1
S7g	Chiller at Podium of Hong Kong Pacific Centre	Commercial Building	Existing	80	[3]	OFF	[3]	835696	817532	13.4	2	1
S8a	Chiller at Roof of Prince Tower	Commercial Building	Existing	87	[8]	OFF	[8]	835695	817522	75.5	2	1
S8b	Chiller at Roof of Prince Tower	Commercial Building	Existing	87	[8]	OFF	[8]	835701	817523	75.5	2	1
S9a	Chiller at Roof of Sands Building	Commercial Building	Existing	87	[8]	OFF	[8]	835658	817523	75.5	2	1
S9b	Chiller at Roof of Sands Building	Commercial Building	Existing	86	[9]	OFF	[9]	835654	817525	75.5	2	1
S9c	Chiller at Roof of Sands Building	Commercial Building	Existing	86	[9]	OFF	[9]	835649	817525	75.5	2	1
S9d	Chiller at Roof of Sands Building	Commercial Building	Existing	84	[9]	OFF	[9]	835649	817514	75.5	2	1
S9e	Chiller at Podium of Sands Building	Commercial Building	Existing	84	[9]	OFF	[9]	835662	817526	19.2	2	1
S9f	Chiller at Podium of Sands Building	Commercial Building	Existing	84	[9]	OFF	[9]	835668	817524	19.2	2	1
S9g	Chiller at Podium of Sands Building	Commercial Building	Existing	84	[9]	OFF	[9]	835663	817523	19.2	2	1
S9h	Chiller at Podium of Sands Building	Commercial Building	Existing	78	[4]	OFF	[4]	835663	817520	19.2	2	1
S9i	Chiller at Podium of Sands Building	Commercial Building	Existing	78	[4]	OFF	[4]	835663	817517	19.2	2	1
S9j	Chiller at Podium of Sands Building	Commercial Building	Existing	80	[3]	OFF	[3]	835665	817520	19.2	2	1
S10a	Chiller at Roof of Yue Hwa International Building	Commercial Building	Existing	85	[1]	OFF	[1]	835597	817508	75.5	2	1
S10b	Chiller at Roof of Yue Hwa International Building	Commercial Building	Existing	85	[1]	OFF	[1]	835598	817500	75.5	2	1
S10c	Chiller at Podium of Yue Hwa International Building	Commercial Building	Existing	84	[9]	OFF	[9]	835614	817506	16.2	2	1
S10d	Chiller at Podium of Yue Hwa International Building	Commercial Building	Existing	84	[9]	OFF	[9]	835612	817520	16.2	2	1
S11a	Chiller at Roof of Ashley Nine	Commercial Building	Existing	85	[1]	OFF	[1]	835600	817537	75.5	2	1
S11b	Chiller at Roof of Ashley Nine	Commercial Building	Existing	85	[1]	OFF	[1]	835605	817538	75.5	2	1
S12a	Chiller at Roof of MTR Emergency Access Point	Emergency Access Point	Existing	80	[3]	OFF	[3]	835414	817863	75.5	2	1
S12b	Chiller at Roof of MTR Emergency Access Point	Emergency Access Point	Existing	80	[3]	OFF	[3]	835414	817860	75.5	2	1
S12c	Chiller at Roof of MTR Emergency Access Point	Emergency Access Point	Existing	80	[3]	OFF	[3]	835415	817858	75.5	2	1
S13a	Chiller at Roof of The Toy House	Commercial Building	Existing	78	[4]	OFF	[4]	835429	817815	75.5	2	1
S13b	Chiller at Roof of The Toy House	Commercial Building	Existing	78	[4]	OFF	[4]	835433	817799	75.5	2	1
S14a	Chiller at Roof of Lippo Sun Plaza	Commercial Building	Existing	80	[3]	OFF	[3]	835504	817538	75.5	2	6
S14b	Chiller at Roof of Lippo Sun Plaza	Commercial Building	Existing	80	[3]	OFF	[3]	835524	817543	75.5	2	6

Noise Source ID	Description of Noise Sources	Sources		SWL, dB(A), L _{eq} (30 min)				Source Location			Directivity Factor (Q)	No. of Plant
		Nature of Business	Existing/ Planned	Daytime & Evening Time (0700-2300)	Ref	Nighttime (2300-0700)	Ref	X	Y	Z, mPD		
S15a	Chiller at Roof of The Langham Hong Kong	Hotel	Existing	89	^[11]	89	^[11]	835525	817525	75.5	2	1
S15b	Chiller at Roof of The Langham Hong Kong	Hotel	Existing	89	^[11]	89	^[11]	835541	817528	75.5	2	1
S15c	Chiller at Roof of The Langham Hong Kong	Hotel	Existing	83	^[12]	83	^[12]	835552	817521	75.5	2	1
S15d	Chiller at Roof of The Langham Hong Kong	Hotel	Existing	83	^[12]	83	^[12]	835555	817505	75.5	2	1
S15e	Chiller at Roof of The Langham Hong Kong	Hotel	Existing	83	^[12]	83	^[12]	835549	817492	75.5	2	1
S16a	Chiller at Roof of 4-8 Canton Road	Commercial Building	Existing	78	^[4]	OFF	^[4]	835491	817494	75.5	2	1
S16b	Chiller at Roof of 4-8 Canton Road	Commercial Building	Existing	78	^[4]	OFF	^[4]	835491	817492	75.5	2	1
S16c	Chiller at Roof of 4-8 Canton Road	Commercial Building	Existing	78	^[4]	OFF	^[4]	835492	817491	75.5	2	1
S17a	Chiller at Roof of Pacific Star Building	Commercial Building	Existing	78	^[4]	OFF	^[4]	835495	817482	75.5	2	1
S17b	Chiller at Roof of Pacific Star Building	Commercial Building	Existing	78	^[4]	OFF	^[4]	835496	817480	75.5	2	1
S17c	Chiller at Roof of Pacific Star Building	Commercial Building	Existing	78	^[4]	OFF	^[4]	835496	817478	75.5	2	1
S17d	Chiller at Roof of Pacific Star Building	Commercial Building	Existing	83	^[12]	OFF	^[4]	835500	817482	75.5	2	1
S17e	Chiller at Roof of Pacific Star Building	Commercial Building	Existing	83	^[12]	OFF	^[4]	835501	817479	75.5	2	1
S18a	Chiller at Roof of FWD 1881 House	Mixed Commercial Use	Existing	78	^[4]	78	^[4]	835539	817405	75.5	2	1
S18b	Chiller at Roof of FWD 1881 House	Mixed Commercial Use	Existing	80	^[3]	80	^[3]	835540	817403	75.5	2	1
S18c	Chiller at Roof of FWD 1881 House	Mixed Commercial Use	Existing	78	^[4]	78	^[4]	835540	817400	75.5	2	1
S18d	Chiller at Roof of FWD 1881 House	Mixed Commercial Use	Existing	80	^[3]	80	^[3]	835541	817397	75.5	2	1
S18e	Chiller at Roof of FWD 1881 House	Mixed Commercial Use	Existing	78	^[4]	78	^[4]	835542	817395	75.5	2	1
S18f	Chiller at Roof of FWD 1881 House	Mixed Commercial Use	Existing	80	^[3]	80	^[3]	835543	817407	75.5	2	1
S18g	Chiller at Roof of FWD 1881 House	Mixed Commercial Use	Existing	78	^[4]	78	^[4]	835543	817405	75.5	2	1
S18h	Chiller at Roof of FWD 1881 House	Mixed Commercial Use	Existing	80	^[3]	80	^[3]	835544	817402	75.5	2	1
S18i	Chiller at Roof of FWD 1881 House	Mixed Commercial Use	Existing	80	^[3]	80	^[3]	835544	817400	75.5	2	1
S18j	Chiller at Roof of FWD 1881 House	Mixed Commercial Use	Existing	80	^[3]	80	^[3]	835545	817398	75.5	2	1
S18k	Chiller at Roof of FWD 1881 House	Mixed Commercial Use	Existing	80	^[3]	80	^[3]	835545	817396	75.5	2	1
S18l	Chiller at Roof of FWD 1881 House	Mixed Commercial Use	Existing	80	^[3]	80	^[3]	835563	817409	75.5	2	1
S18m	Chiller at Roof of FWD 1881 House	Mixed Commercial Use	Existing	78	^[4]	78	^[4]	835564	817407	75.5	2	1
S18n	Chiller at Roof of FWD 1881 House	Mixed Commercial Use	Existing	80	^[3]	80	^[3]	835564	817405	75.5	2	1
S18o	Chiller at Roof of FWD 1881 House	Mixed Commercial Use	Existing	80	^[3]	80	^[3]	835566	817409	75.5	2	1
S18p	Chiller at Roof of FWD 1881 House	Mixed Commercial Use	Existing	78	^[4]	78	^[4]	835566	817409	75.5	2	1
S18q	Chiller at Roof of FWD 1881 House	Mixed Commercial Use	Existing	80	^[3]	80	^[3]	835566	817408	75.5	2	1
S18r	Chiller at Roof of FWD 1881 House	Mixed Commercial Use	Existing	78	^[4]	78	^[4]	835567	817406	75.5	2	1
S18s	Chiller at Roof of FWD 1881 House	Mixed Commercial Use	Existing	78	^[4]	78	^[4]	835569	817410	75.5	2	1
S18t	Chiller at Roof of FWD 1881 House	Mixed Commercial Use	Existing	80	^[3]	80	^[3]	835569	817406	75.5	2	3
S18u	Chiller at Roof of FWD 1881 House	Mixed Commercial Use	Existing	80	^[3]	80	^[3]	835572	817408	75.5	2	3
S18v	Chiller at Roof of FWD 1881 House	Mixed Commercial Use	Existing	80	^[3]	80	^[3]	835564	817401	75.5	2	3
S18w	Chiller at Roof of FWD 1881 House	Mixed Commercial Use	Existing	80	^[3]	80	^[3]	835567	817401	75.5	2	3
S18x	Chiller at Roof of FWD 1881 House	Mixed Commercial Use	Existing	80	^[3]	80	^[3]	835569	817401	75.5	2	3
S18y	Chiller at Podium of FWD 1881 House	Mixed Commercial Use	Existing	85	^[1]	85	^[1]	835571	817402	75.5	2	1
S18z	Chiller at Podium of FWD 1881 House	Mixed Commercial Use	Existing	85	^[1]	85	^[1]	835563	817436	75.5	2	1
S19a	Chiller at Roof of Hong Kong Heritage Discovery Centre	GIC	Existing	85	^[1]	OFF	^[1]	835569	817437	75.5	2	1
S19b	Chiller at Roof of Hong Kong Heritage Discovery Centre	GIC	Existing	85	^[1]	OFF	^[1]	835511	817835	75.5	2	1
S19c	Chiller at Roof of Hong Kong Heritage Discovery Centre	GIC	Existing	85	^[1]	OFF	^[1]	835522	817815	75.5	2	1
S19d	Chiller at Roof of Hong Kong Heritage Discovery Centre	GIC	Existing	80	^[3]	OFF	^[3]	835518	817799	75.5	2	1
S19e	Chiller at Roof of Hong Kong Heritage Discovery Centre	GIC	Existing	80	^[3]	OFF	^[3]	835515	817799	75.5	2	1
S19f	Chiller at Roof of Hong Kong Heritage Discovery Centre	GIC	Existing	80	^[3]	OFF	^[3]	835512	817799	75.5	2	1
S19g	Chiller at Roof of Hong Kong Heritage Discovery Centre	GIC	Existing	80	^[3]	OFF	^[3]	835509	817799	75.5	2	1
S20a	Chiller at Roof of Park Lane Shopper's Boulevard	Retail	Existing	87	^[2]	OFF	^[2]	835729	817936	75.5	2	1
S20b	Chiller at Roof of Park Lane Shopper's Boulevard	Retail	Existing	87	^[2]	OFF	^[2]	835729	817929	75.5	2	1
S21a	Cooling Tower at Roof of Hankow Centre	Mixed-used Building	Existing	95	^[13]	OFF	^[13]	835661	817480	75.5	2	1
S21b	Cooling Tower at Roof of Hankow Centre	Mixed-used Building	Existing	95	^[13]	OFF	^[13]	835662	817474	75.5	2	1
S21c	Cooling Tower at Roof of Hankow Centre	Mixed-used Building	Existing	95	^[13]	OFF	^[13]	835650	817472	75.5	2	1
S21d	Cooling Tower at Roof of Hankow Centre	Mixed-used Building	Existing	95	^[13]	OFF	^[13]	835649	817478	75.5	2	1
S21e	Cooling Tower at Roof of Hankow Centre	Mixed-used Building	Existing	95	^[13]	OFF	^[13]	835655	817479	75.5	2	1
S22a	Chiller at Podium of Kai Seng Commercial Building	Commercial Building	Existing	82	^[5]	OFF	^[5]	835722	817459	75.5	2	1
S22b	Chiller at Podium of Kai Seng Commercial Building	Commercial Building	Existing	82	^[5]	OFF	^[4]	835726	817459	75.5	2	1
S22c	Chiller at Podium of Kai Seng Commercial Building	Commercial Building	Existing	97	^[14]	OFF	^[4]	835724	817453	75.5	2	1
S22d	Chiller at Podium of Kai Seng Commercial Building	Commercial Building	Existing	97	^[14]	OFF	^[4]	835725	817449	75.5	2	1
S22e	Chiller at Podium of Kai Seng Commercial Building	Commercial Building	Existing	87	^[8]	OFF	^[4]	835725	817446	75.5	2	1

Noise Source ID	Description of Noise Sources	Sources		SWL, dB(A), L _{eq} (30 min)				Source Location			Directivity Factor (Q)	No. of Plant
		Nature of Business	Existing/ Planned	Daytime & Evening Time (0700-2300)	Ref	Nighttime (2300-0700)	Ref	X	Y	Z, mPD		
S23a	Cooling Tower at Roof of Prestige Tower	Commercial Building	Existing	95	^[13]	OFF	^[13]	835742	817453	75.5	2	1
S23b	Cooling Tower at Roof of Prestige Tower	Commercial Building	Existing	95	^[13]	OFF	^[13]	835747	817454	75.5	2	1
S23c	Cooling Tower at Roof of Prestige Tower	Commercial Building	Existing	95	^[13]	OFF	^[13]	835746	817448	75.5	2	1
S24a	Chiller at Roof of The Salisbury YMCA Of Hong Kong	Hotel	Existing	84	^[10]	84	^[10]	835661	817384	75.5	2	1
S24b	Chiller at Roof of The Salisbury YMCA Of Hong Kong	Hotel	Existing	84	^[10]	84	^[10]	835667	817384	75.5	2	1
S24c	Chiller at Roof of The Salisbury YMCA Of Hong Kong	Hotel	Existing	84	^[10]	84	^[10]	835672	817385	75.5	2	1
S24d	Chiller at Roof of The Salisbury YMCA Of Hong Kong	Hotel	Existing	84	^[10]	84	^[10]	835678	817385	75.5	2	1
S25a	Chiller at Rooftop of Hermes House	Commercial Building	Existing	87	^[8]	OFF	^[8]	835888	817447	75.5	2	1
S25b	Chiller at Rooftop of Hermes House	Commercial Building	Existing	87	^[8]	OFF	^[8]	835897	817448	75.5	2	1
S26a	Chiller at Podium of Star Mansion	Mixed-used Building	Existing	84	^[10]	OFF	^[10]	835896	817511	75.5	2	1
S26b	Chiller at Podium of Star Mansion	Mixed-used Building	Existing	84	^[10]	OFF	^[10]	835896	817505	75.5	2	1
S27a	Chiller at Roof of Imperial Hotel	Hotel	Existing	80	^[3]	80	^[3]	835812	817484	75.5	2	1
S27b	Chiller at Roof of Imperial Hotel	Hotel	Existing	80	^[3]	80	^[3]	835812	817482	75.5	2	1
S27c	Chiller at Roof of Imperial Hotel	Hotel	Existing	80	^[3]	80	^[3]	835813	817480	75.5	2	1
S27d	Chiller at Roof of Imperial Hotel	Hotel	Existing	80	^[3]	80	^[3]	835813	817478	75.5	2	1
S27e	Chiller at Roof of Imperial Hotel	Hotel	Existing	80	^[3]	80	^[3]	835813	817476	75.5	2	1
S27f	Chiller at Roof of Imperial Hotel	Hotel	Existing	80	^[3]	80	^[3]	835813	817473	75.5	2	1
S28a	Chiller at Roof of Holiday Inn Golden Mile Hong Kong	Hotel	Existing	87	^[2]	87	^[2]	835809	817546	75.5	2	1
S28b	Chiller at Roof of Holiday Inn Golden Mile Hong Kong	Hotel	Existing	87	^[2]	87	^[2]	835815	817545	75.5	2	1
S28c	Chiller at Roof of Holiday Inn Golden Mile Hong Kong	Hotel	Existing	87	^[2]	87	^[2]	835825	817547	75.5	2	1
S28d	Chiller at Roof of Holiday Inn Golden Mile Hong Kong	Hotel	Existing	87	^[2]	87	^[2]	835832	817546	75.5	2	1
S28e	Cooling Tower at Roof of Holiday Inn Golden Mile Hong Kong	Hotel	Existing	95	^[13]	95	^[13]	835842	817546	75.5	2	1
S28f	Cooling Tower at Roof of Holiday Inn Golden Mile Hong Kong	Hotel	Existing	95	^[13]	95	^[13]	835848	817549	75.5	2	1
S28g	Cooling Tower at Roof of Holiday Inn Golden Mile Hong Kong	Hotel	Existing	95	^[13]	95	^[13]	835854	817548	75.5	2	1
S28h	Cooling Tower at Roof of Holiday Inn Golden Mile Hong Kong	Hotel	Existing	95	^[13]	95	^[13]	835852	817539	75.5	2	1
S29a	Chiller at Roof at The Mira Hong Kong	Retail & Hotel	Existing	84	^[10]	84	^[10]	835790	817911	75.5	2	1
S29b	Chiller at Roof at The Mira Hong Kong	Retail & Hotel	Existing	84	^[10]	84	^[10]	835790	817904	75.5	2	1
S29c	Chiller at Roof at The Mira Hong Kong	Retail & Hotel	Existing	84	^[10]	84	^[10]	835790	817896	75.5	2	1
S29d	Chiller at Roof at The Mira Hong Kong	Retail & Hotel	Existing	84	^[10]	84	^[10]	835791	817887	75.5	2	1
S30a	Chiller at Roof at The One	Retail	Existing	83	^[7]	OFF	^[7]	835803	817865	75.5	2	1
S30b	Chiller at Roof at The One	Retail	Existing	83	^[7]	OFF	^[7]	835813	817867	75.5	2	1
S30c	Chiller at Roof at The One	Retail	Existing	83	^[7]	OFF	^[7]	835822	817870	75.5	2	1
S30d	Chiller at Roof at The One	Retail	Existing	83	^[7]	OFF	^[7]	835829	817875	75.5	2	1
S30e	Chiller at Roof at The One	Retail	Existing	83	^[7]	OFF	^[7]	835833	817870	75.5	2	1
S31a	Cooling Tower at Roof of Albion Plaza	Commercial Building	Existing	95	^[13]	OFF	^[13]	835824	817840	75.5	2	1
S31b	Cooling Tower at Roof of Albion Plaza	Commercial Building	Existing	95	^[13]	OFF	^[13]	835828	817841	75.5	2	1
S31c	Cooling Tower at Roof of Albion Plaza	Commercial Building	Existing	95	^[13]	OFF	^[13]	835834	817843	75.5	2	1
S31d	Cooling Tower at Roof of Albion Plaza	Commercial Building	Existing	95	^[13]	OFF	^[13]	835838	817845	75.5	2	1
S32a	Chiller at Podium of Granville Building	Mixed-used Building	Existing	80	^[3]	OFF	^[3]	835886	817834	75.5	2	1
S32b	Chiller at Podium of Granville Building	Mixed-used Building	Existing	80	^[3]	OFF	^[3]	835889	817834	75.5	2	1
S32c	Chiller at Podium of Granville Building	Mixed-used Building	Existing	80	^[3]	OFF	^[3]	835891	817835	75.5	2	1
S33a	Chiller at Roof of Carnarvon Plaza	Commercial Building	Existing	84	^[10]	OFF	^[10]	835894	817816	75.5	2	1
S33b	Chiller at Roof of Carnarvon Plaza	Commercial Building	Existing	84	^[10]	OFF	^[10]	835910	817820	75.5	2	1
S34a	Chiller at Podium of 5-8 Cameron Lane	Commercial Building	Existing	78	^[4]	OFF	^[4]	835862	817822	75.5	2	1
S34b	Chiller at Podium of 5-8 Cameron Lane	Commercial Building	Existing	80	^[3]	OFF	^[3]	835860	817821	75.5	2	1
S34c	Chiller at Podium of 5-8 Cameron Lane	Commercial Building	Existing	80	^[3]	OFF	^[3]	835859	817821	75.5	2	1
S34d	Chiller at Podium of 5-8 Cameron Lane	Commercial Building	Existing	78	^[4]	OFF	^[4]	835851	817817	75.5	2	1
S34e	Chiller at Podium of 5-8 Cameron Lane	Commercial Building	Existing	78	^[4]	OFF	^[4]	835847	817816	75.5	2	1
S35a	Chiller at Roof of Hang Seng Tsim Sha Tsui Building	Commercial Building	Existing	89	^[15]	OFF	^[15]	835889	817793	75.5	2	1
S35b	Chiller at Roof of Hang Seng Tsim Sha Tsui Building	Commercial Building	Existing	80	^[3]	OFF	^[3]	835896	817789	75.5	2	1
S35c	Chiller at Roof of Hang Seng Tsim Sha Tsui Building	Commercial Building	Existing	80	^[3]	OFF	^[3]	835907	817791	75.5	2	1
S36a	Chiller at Podium of Tern Plaza	Commercial Building	Existing	80	^[3]	OFF	^[3]	835822	817778	75.5	2	1
S36b	Chiller at Podium of Tern Plaza	Commercial Building	Existing	80	^[3]	OFF	^[3]	835827	817778	75.5	2	1
S37a	Chiller at Roof of HSBC Building Tsim Sha Tsui	Commercial Building	Existing	89	^[16]	OFF	^[16]	835807	817768	75.5	2	1
S37b	Chiller at Roof of HSBC Building Tsim Sha Tsui	Commercial Building	Existing	89	^[16]	OFF	^[16]	835813	817768	75.5	2	1

Noise Source ID	Description of Noise Sources	Sources		SWL, dB(A), L _{eq} (30 min)				Source Location			Directivity Factor (Q)	No. of Plant
		Nature of Business	Existing/ Planned	Daytime & Evening Time (0700-2300)	Ref	Nighttime (2300-0700)	Ref	X	Y	Z, mPD		
S38a	Chiller at Roof of Manson House	Commercial Building	Existing	85	^[1]	85	^[1]	835801	817711	75.5	2	1
S38b	Chiller at Roof of Manson House	Commercial Building	Existing	85	^[1]	85	^[1]	835803	817706	75.5	2	1
S38c	Chiller at Roof of Manson House	Commercial Building	Existing	84	^[9]	84	^[9]	835806	817706	75.5	2	1
S38d	Chiller at Roof of Manson House	Commercial Building	Existing	84	^[9]	84	^[9]	835809	817706	75.5	2	1
S38e	Chiller at Roof of Manson House	Commercial Building	Existing	84	^[9]	84	^[9]	835811	817707	75.5	2	1
S38f	Chiller at Roof of Manson House	Commercial Building	Existing	84	^[9]	84	^[9]	835811	817712	75.5	2	1
S39a	Chiller at Podium of Humphrey Plaza	Commercial Building	Existing	78	^[4]	OFF	^[4]	835860	817728	75.5	2	1
S40a	Chiller at Roof of Grand Centre	Commercial Building	Existing	83	^[7]	OFF	^[7]	835895	817737	75.5	2	1
S40b	Chiller at Roof of Grand Centre	Commercial Building	Existing	83	^[7]	OFF	^[7]	835897	817733	75.5	2	1
S40c	Chiller at Roof of Grand Centre	Commercial Building	Existing	84	^[10]	OFF	^[10]	835898	817728	75.5	2	1
S41a	Chiller at Roof of Grand Right Centre	Commercial Building	Existing	84	^[9]	OFF	^[9]	835875	817749	75.5	2	1
S41b	Chiller at Roof of Grand Right Centre	Commercial Building	Existing	82	^[5]	OFF	^[5]	835879	817750	75.5	2	1
S42a	Chiller at Podium of More Resources Development Building	Commercial Building	Existing	85	^[1]	OFF	^[1]	835828	817684	75.5	2	1
S42b	Chiller at Podium of More Resources Development Building	Commercial Building	Existing	85	^[1]	OFF	^[1]	835829	817680	75.5	2	1
S42c	Chiller at Podium of More Resources Development Building	Commercial Building	Existing	85	^[1]	OFF	^[1]	835830	817674	75.5	2	1
S43a	Chiller at Roof of Yes & Right House	Commercial Building	Existing	87	^[2]	OFF	^[2]	835874	817587	75.5	2	1
S43b	Chiller at Roof of Yes & Right House	Commercial Building	Existing	87	^[2]	OFF	^[2]	835881	817586	75.5	2	1
S44a	Chiller at Podium of K11 the Piazza	Mixed Commercial Use	Existing	82	^[5]	82	^[5]	835878	817608	75.5	2	1
S44b	Chiller at Podium of K11 the Piazza	Mixed Commercial Use	Existing	84	^[9]	84	^[9]	835882	817608	75.5	2	1
S44c	Chiller at Podium of K11 the Piazza	Mixed Commercial Use	Existing	84	^[9]	84	^[9]	835886	817609	75.5	2	1
S44d	Chiller at Podium of K11 the Piazza	Mixed Commercial Use	Existing	82	^[5]	82	^[5]	835879	817606	75.5	2	1
S44e	Chiller at Podium of K11 the Piazza	Mixed Commercial Use	Existing	84	^[9]	84	^[9]	835883	817606	75.5	2	1
S44f	Chiller at Podium of K11 the Piazza	Mixed Commercial Use	Existing	84	^[9]	84	^[9]	835887	817607	75.5	2	1
S44g	Chiller at Podium of K11 the Piazza	Mixed Commercial Use	Existing	78	^[4]	78	^[4]	835889	817641	75.5	2	1
S44h	Chiller at Podium of K11 the Piazza	Mixed Commercial Use	Existing	80	^[3]	80	^[3]	835893	817648	75.5	2	1
S44i	Chiller at Roof of K11 the Piazza	Mixed Commercial Use	Existing	78	^[4]	78	^[4]	835895	817646	75.5	2	1
S44j	Chiller at Roof of K11 the Piazza	Mixed Commercial Use	Existing	84	^[10]	84	^[10]	835937	817647	75.5	2	1
S44k	Chiller at Roof of K11 the Piazza	Mixed Commercial Use	Existing	80	^[3]	80	^[3]	835944	817646	75.5	2	1
S44l	Chiller at Roof of K11 the Piazza	Mixed Commercial Use	Existing	84	^[10]	84	^[10]	835941	817631	75.5	2	1
S44m	Chiller at Roof of K11 the Piazza	Mixed Commercial Use	Existing	84	^[10]	84	^[10]	835955	817619	75.5	2	1
S44n	Chiller at Roof of K11 the Piazza	Mixed Commercial Use	Existing	84	^[10]	84	^[10]	835960	817614	75.5	2	1
S45a	Chiller at Podium of The Gateway Tower	Mixed Commercial Use	Existing	83	^[12]	OFF	^[12]	835357	817623	75.5	2	1
S45b	Chiller at Podium of The Gateway Tower	Mixed Commercial Use	Existing	82	^[17]	OFF	^[17]	835361	817608	75.5	2	1
S46a	Chiller at Roof of 21 Ashley	Mixed Commercial Use	Existing	87	^[2]	OFF	^[2]	835589	817597	75.5	2	1
S46b	Chiller at Roof of 21 Ashley	Mixed Commercial Use	Existing	87	^[2]	OFF	^[2]	835587	817590	75.5	2	1
S46c	Chiller at Roof of 21 Ashley	Mixed Commercial Use	Existing	87	^[2]	OFF	^[2]	835592	817570	75.5	2	1

Notes:

- ^[1] From Catalog (McQuay MCS135.1)
^[2] From Catalog (McQuay MCS185.1)
^[3] From Catalog (Carrier 30RB 040)
^[4] From Catalog (York YLCA 0040 T-TP)
^[5] From Catalog (McQuay MCS050.1)
^[6] From Catalog (McQuay MCS150.1)
^[7] From Catalog (York YCAE065 SME53)
^[8] From Catalog (McQuay MCS200.2)
^[9] From Catalog (McQuay MCS070.1)
^[10] From Catalog (Carrier 30RBSY 039)
^[11] From Catalog (McQuay MCS310.2)
^[12] From Catalog (York YLCA 0080 T-TP)
^[13] From Catalog (Ryowo FT-250)
^[14] From Catalog (Trane RTAC 300)
^[15] From Catalog (McQuay MCS235.2)
^[16] From Catalog (McQuay MCS350.2)
^[17] From Catalog (York YLCA 0100 T-TP)

**Catalogue of
York YLCA 0040 T-TP,
York YLCA 0080 T-TP &
York YLCA 0100 T-TP**

ECOFRIO v2

Air cooled chiller / heat pump

YLCA / YLHA 0040 to 0150

A complete range from 39.6 kW up to 151 kW



The **YORK YLCA/YLHA** air-cooled chillers and heat pumps represents the right solution for any kind of installation.

With thousands of units installed all around Europe and Africa, used for different applications and in different climate conditions are one of the most flexible and reliable scroll type chillers in the market.

The standard product configuration and the different options and accessories selectable by the customer make these units ideal where a compact, and high performance unit is required.

Features

YLCA/YLHA 0040 to 0080

- 2 capacity steps (1 for size 40)
- LWT & RWT Control
- Plate heat exchanger
- Condenser fins (blue fin)
- Pressostatic LAK (-18°C)

YLCA/YLHA 0100 to 0150

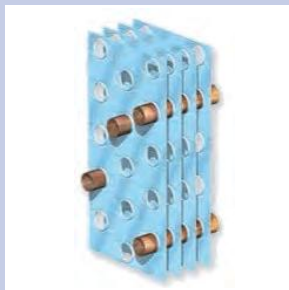
- Same features as YLCA/YLHA 40 to 80
- 4 capacity steps
- High efficiency at full and partial load
- Reduced noise levels
- 1/4 turn lock for easy access

Options / Accessories

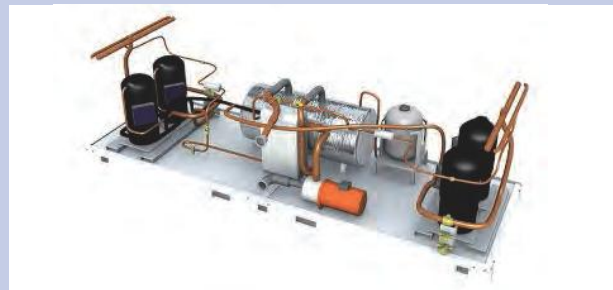
- Unit without pack
- BMS Communication (Carel and Modbus protocol)
- Remote control
- Remote terminal
- Water filter (unit without Hydro Pack)
- Flow switch (unit without Hydro Pack)
- Low noise version
- Dual pump version
- Antivibration mountings
- Condenser protection grille



Low noise version with special insulation in the compressor chamber.



Special coating on the condenser fins for improved corrosion protection.



Pump built-in for space saving and easy installation.

ECOFRIO v2

YLCA / YLHA 0040 to 0150

Technical features

Re

S03a-S03j
S04a-S04c,
S09h-S09i,
S13a-S13b,
S16a-S16c,
S17a-S17c,
S18a,S18c, S18e, S18g, S18m, S18p, S18r, S18s,
S34a, S34d-S34e,
S39a,
S44g, S44i

Model			YLCA / YLHA									
			0040 T-TP	0050 T-TP	0060 T-TP	0080 T-TP	0100 T-TP	0120 T-TP	0150 T-TP			
Performance	Cooling capacity c/o units (1)	kW	39.3	51.8	60.1	77	100.3	118.3	150.5			
	Total Input Power (1) (3)	kW	13.69	18.3	20.03	27.11	34.47	40.4	54.14			
	EER (1)		2.87	2.83	3	2.84	2.91	2.93	2.78			
	ESEER (1)		3.15	3.18	3.3	3.15	3.74	3.83	3.66			
	Cooling capacity h/p units (1)	kW	37.6	51.2	60.1	71.7	95.4	113.4	144.5			
	Heating capacity h/p units (1)	kW	38.8	52.8	60	75.2	104.6	120	150.5			
	Total Input Power cool/heat mode (1) kW		13.48 / 12.81	17.65 / 18.21	20.03 / 20.2	26.46 / 26.86	36.14 / 37.76	43.69 / 40	51.06 / 53.94			
	EER / COP (1)		2.79 / 3.03	2.93 / 2.9	3 / 2.97	2.71 / 2.8	2.64 / 2.77	2.6 / 2.8	2.83 / 2.79			
	ESEER (1)		3.15	3.18	3.29	2.91	3.39	3.43	3.73			
	Capacity steps	%	0 / 100	0-50-100			0-25-50-75-100					
Compressor	Sound power level STD / LN	dB(A)	78 / 73	81 / 76	87 / 77	83 / 79	82 / 78	82 / 78	84 / 80			
	Type					Scroll						
	Quantity		1	2			4					
Air side heat exchanger	Fans quantity		2			3	4					
	Working ambient temp. cool. / heat. mode		-18°C ~ -46°C / -10°C ~ -20°C									
Water side heat exchanger	Type		Single Plate Heat Exchanger				Double Plate Heat Exchanger					
	Unit water volume (2)	Litres	131	188	194	285	193	195	214			
	Pump Type		M									
	Nominal water flow	l/h	6 820	8 960	10 400	S15c-S15e S17d-S17e S45a						
	Available pressure (1) (2)	kPa	105	108	158	176	202	186				
	Pressure drop (1) (3)	kPa	75	39	50	59	33	27				
	Working range water leaving temperature cooling / heating (4)											
	Water connections (2)	inch	1 1/4"	2"			2 1/2"					
Dimensions & Weight	Height / Width / Depth	mm	1573/1500/822		1600 / 1011 / 2104		1600/1118/2944		2190 / 1101 / 3416	2263/1101/3770		
	Weight without pack / pack c/o	kg	340 / 380		524 / 580		555 / 611		715 / 785	1 124 / 1 220	1 190 / 1 286	1 415 / 1 503
	Weight without pack / pack h/p	kg	337 / 397		537 / 593		568 / 624		735 / 805	1 154 / 1 250	1 220 / 1 316	1 445 / 1 703
Electrical features	Voltage / Phases / Frequency	V/ph/hz	400 / 3 / 50+N+E									
	Maximum Unit current	A	33	46.2	49.2	70.5	80	108	120			

YLCA: Cooling only units models. YLHA: Air to water heat pump models.

(1) net values at Eurovent nominal conditions (2) version P with hydro kit with filter (3) version without hydro kit (4) below 6°C with glycol

Nominal conditions: Cooling capacities in kW given for 7°C water leaving temperature Δt 5°C and 35°C ambient temperature

Heating capacities in kW given for 45°C water leaving temperature and 7°C ambient temperature

Compatibility table / Codes

Model	0040 TP	0050 TP	0060 TP	0080 TP	0100 TP	0120 TP	0150 TP
YLCA Cooling only unit (Pack included)	S668554084	S668525182	S668526182	S668528182	S668521182	S668551156	S668551507
YLHA Heat pump unit (Pack included)	S668654084	S668625182	S668626182	S668628182	S668621182	S668651156	S668651506
Model	0040 T	0050 T	0060 T	0080 T	0100 T	0120 T	0150 T
YLCA Cooling only unit (without Pack)	S668554080	S668525180	S668526180	S668528180	S668521180	S668551154	S668551503
YLHA Heat pump unit (without Pack)	S668654080	S668625180	S668626180	S668628180	S668621180	S668651154	S668651504

Use this unit code when a factory fitted option is NOT required

Accessories (Supplied loose)

AVM mounting	S613029002	S613026080	S613028180	S613021580
Mechanical flow switch			S611992021	
Water Filter *	S611300150	S611300170		S611300190
Remote control			S613802011	
Remote terminal		S613802231		-
Cable for remote connection of the terminal		-		S613802241
B.M.S. Communication		S613802041		S613802051

Model	0040 TP	0050 TP	0060 TP	0080 TP	0100 TP	0120 TP	0150 TP
YLCA Cooling only unit (Pack included)	S668000226	S668000247	S668000251	S668000255	S668000259	S668000107	S668000111
YLHA Heat pump unit (Pack included)	S668000228	S668000248	S668000252	S668000256	S668000260	S668000131	S668000135
Model	0040 T	0050 T	0060 T	0080 T	0100 T	0120 T	0150 T
YLCA Cooling only unit (without Pack)	S668000038	S668000245	S668000249	S668000253	S668000257	S668000105	S668000109
YLHA Heat pump unit (without Pack)	S668000039	S668000246	S668000250	S668000254	S668000258	S668000129	S668000133

Use this unit code when a factory fitted option is required

Options (Factory fitted)

Low Noise version	S613990550	S613990650	S613990850	S613991050	S613991285	S613991584
Softstart	S606744692	S606744693			S606744694	
Dual pumps **	-	S613990540	S613990640	S613990840	S613991040	S613991286
Condenser protection grille	S613995090	S613995091	S613995092	S613995093		S613995094

* included with unit version "P" only for unit without pack. Filter size: 2" for YLCA 40-50-60-80 and 2 1/2" for YLHA 100-120-150.

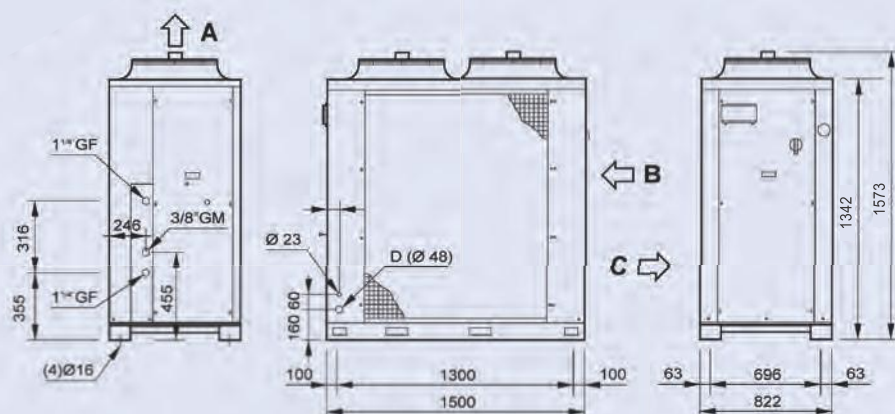
** Dual pump option has to be ordered with units with hydrokit.



Manufacturer reserves the rights to change specifications without prior notice.

Dimensions and hydraulic connections

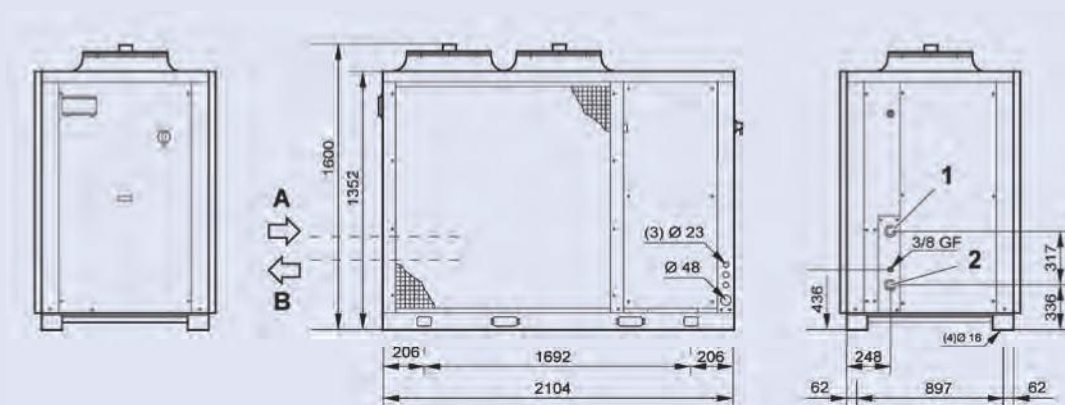
YLCA-YLHA 0040 T-TP



All dimensions in mm. Drawings not a scale.

Unit	A	B	C
YLCA/YLHA 0040	Air outlet	Water inlet	Water outlet

YLCA-YLHA 0050 and 0060 T-TP



All dimensions in mm. Drawings not a scale.

Unit	A	B	1	2
YLCA/YLHA 0050-0060	Water inlet	Water outlet	2" GF (Inlet)	2" GF (Outlet)

Catalogue of
McQuay MCS135.1 ,
McQuay MCS150.1 &
McQuay MCS185.1

Air Cooled Single Screw Chiller

Models: MCS050.1-380.2F
Cooling Capacity: 161kW-1370kW
Refrigerant: R22/R407C





Air Cooled Single

S01a-S01b, S01d-S01e
S10a-S10b,
S11a-S11b,
S18y-S18z
S19a-S19c
S38a-S38b
S42a-S42c

S9b-S09c

S01c,
S20a-S20b
S28a-S28d
S43a-S43b
S46a-S46c

Model			MCS120.1	MCS135.1	MCS150.1	MCS170.1	MCS185.1
*1 Normal cooling capacity	kW		422	455	525	625	654
	USRT		120	129	149	178	186
	kcal/h		362,900	391,300	451,500	537,500	562,400
	Btu/h		1,440,700	1,553,400	1,792,400	2,133,800	2,232,800
Casing/Color			Paintable Galvanized Steel Plate / Ivory White				
Capacity Steps			0.25 ~ 100%				
Power Supply			380~400V/3~50Hz				
Compressor	Type		Semi-hermetic Single-screw				
	No. × Model		1×3221	1×4221	1×4222	1×4223	1×4223
	Motor Input	kW	120	126	149	182	170
Refrigerant Oil	Model		LPT68				
	Charge	L	18	16	16	16	16
Evaporator	Type		High-efficiency Shell and Tube				
	Flow Rate	L/min.	1210	1304	1505	1792	1875
	Pressure Drop	kPa	37	37	37	32	46
Condenser	Type		Cross Fin Coil				
	Rows × Stages		3×44	3×44	3×44	3×44	3×44
	Fit Pitch	mm	1.8	1.8	1.8	1.8	1.8
	Face Area	m ²	16.09	16.09	20.12	20.12	24.14
Fan	Type		Propeller (Direct Drive)				
	No.		8	8	10	10	12
	Air Flow Rate	m ³ /min.	2,933	2,933	3,667	3,667	4,400
		cfm	103,547	103,547	129,433	129,433	155,320
Refrigerant	Motor Input	kW	16	16	20	20	24
	Type		R22				
	No. of Circuits		1	1	1	1	1
Control			Electronic Expansion Valve				
Water Piping Connection		inch	8				
Compressor Acoustic Insulation Material			Polyurethane Foaming				
Unit Input		kW	136	142	169	202	194
Unit Dimensions	D	mm	4100	4100	5000	5000	5900
	W	mm	2260	2260	2260	2260	2260
	H	mm	2360	2360	2360	2360	2360
Weight		kg	4290	4290	4795	4795	5370
Operation Weight		kg	4440	4440	4975	4975	5560
Standard Accessories			Unit Operation Instructions, Conformity Certificate, Warranty Application Form, Spring Damper, Water Flow Switch.				

Notes:

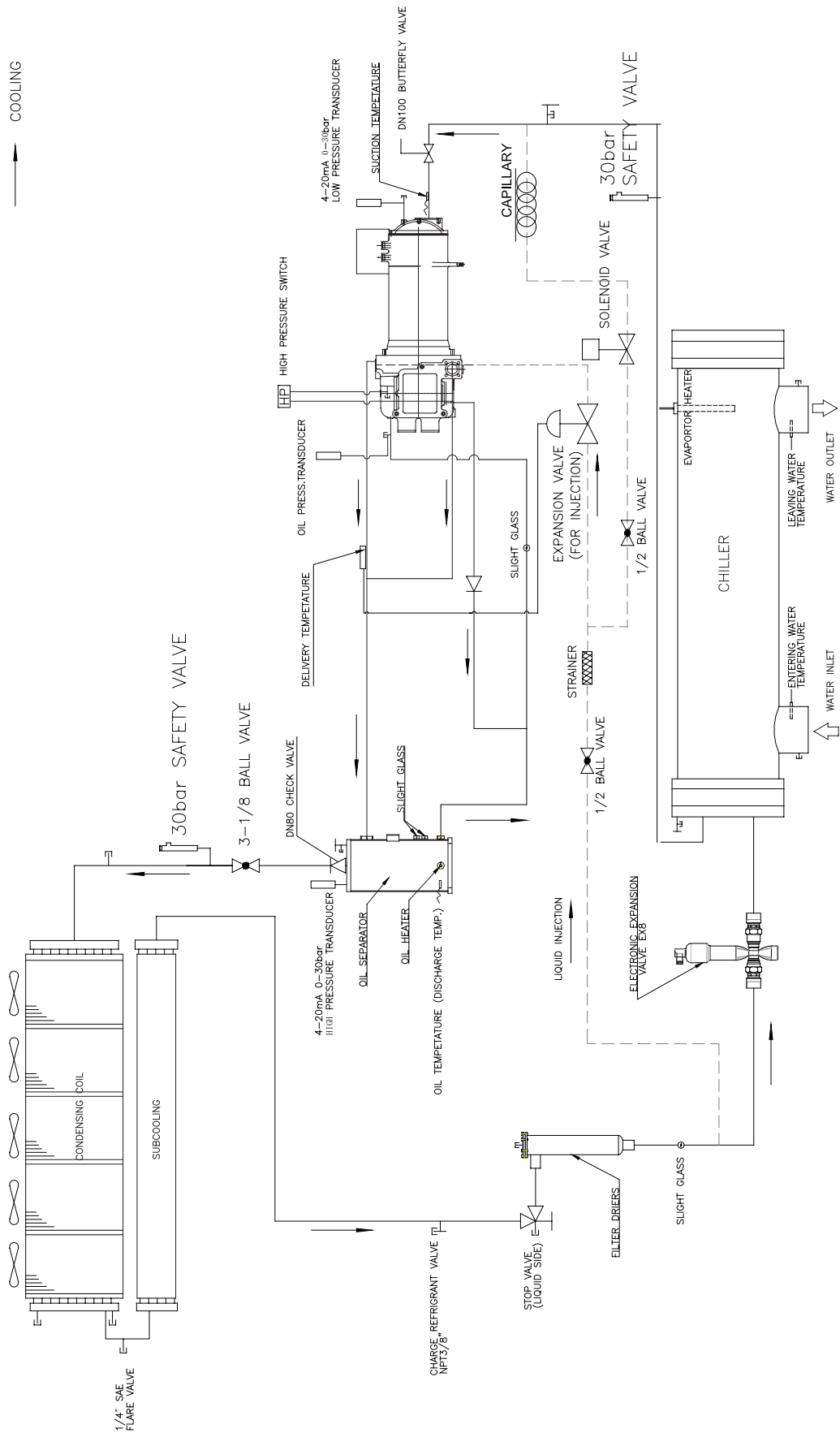
- *1. Cooling capacity is based on the following conditions:
Entering chilled water temp. 12°C, Leaving chilled water temp. 7°C, ambient temp. 35°C DB
- The following safety devices are equipped as standard.
 - High pressure (pressure switch)
 - Low pressure (pressure sensor)
 - Compressor thermal
 - Condensation fan thermal
 - High discharge temperature on the compressor
 - Phase monitor
 - Star/Delta transition failed
 - Low-pressure ratio
 - High oil pressure drop
 - Low oil pressure
 - Freeze protection
 - Load stepless adjust
 - Trouble record

Conversion Formulae

kcal/h=kW×860
Btu/h=kW×3414
cfm=m³/min×35.3



MCS135.1~185.1,MCS260.2~380.2F





11. Sound Level

11.1 ST Overall Sound Level and Octave Band Level

Model	Hz	Octave band level								Overall dBA
		63	125	250	500	1000	2000	4000	8000	
MCS050.1FST		46.4	65.5	71.6	76.2	75.3	71.3	64.9	56.4	74.0
MCS060.1FST		43.5	56.6	63.3	69.4	70.0	65.6	60.2	56.0	74.0
MCS070.1FST		53.7	64.6	70.3	71.0	69.7	65.2	57.4	49.3	76.0
MCS080.1FST		48.0	63.6	69.2	71.0	69.6	68.0	61.4	53.9	76.0
MCS100.1FST		53.9	66.4	72.4	71.2	70.9	65.5	59.6	53.3	77.0
MCS120.1FST		40.5	58.2	65.8	71.8	73.5	68.2	60.6	54.1	77.0
MCS135.1FST		46.5	58.5	68.3	71.0	72.8	69.4	62.3	54.9	77.0
MCS150.1FST		51.9	69.1	72.4	72.9	72.2	64.5	57.4	50.6	78.0
MCS170.1FST		51.8	66.7	69.9	73.3	73.6	68.2	60.3	51.4	78.0
MCS185.1FST		46.7	65.2	70.8	74.6	74.0	69.5	62.0	52.1	79.0
MCS200.2FST		45.8	65.9	69.8	73.6	74.1	71.7	63.0	56.7	79.0
MCS220.2FST		49.3	66.7	71.7	74.3	75.2	72.2	65.5	58.5	80.0
MCS235.2FST		54.2	66.6	75.0	74.0	74.5	70.1	63.7	57.2	80.5
MCS260.2FST		46.4	65.5	71.6	76.2	75.3	71.3	64.9	56.4	80.5
MCS285.2FST		53.7	68.1	73.3	77.3	76.5	72.9	67.0	59.1	81.0
MCS310.2FST		58.8	68.1	71.9	74.9	76.6	73.7	66.9	60.0	81.0
MCS330.2FST		46.4	65.5	71.6	76.2	75.3	71.3	64.9	56.4	81.0
MCS350.2FST		45.4	60.5	72.1	76.0	75.5	71.6	65.4	56.8	81.0
MCS380.2FST		54.6	67.6	73.2	76.6	76.6	72.7	66.4	59.2	81.5

Notes:

Average sound pressure level is according to ISO 3744, semispheric free field conditions.

Sound pressure levels are referred to units furnished without hydronic kit.

Measuring location is at 1m from the unit in semispheric free field (rif. 2×10^{-5} Pa).

**Catalogue of
McQuay MCS200.2 &
McQuay MCS235.2**

Air Cooled Single Screw Chiller/ Heat Pump

Models: MCS050.1-380.2F
MHS050.1-380.2F
Cooling Capacity: 169kW-1370kW
Heating Capacity: 179kW-1439kW
Refrigerant: R22/R407C





S08a-S08b
S09a
S25a-S25b

S35a

Model		MCS200.2	MCS220.2	MCS235.2	MCS260.2	MCS285.2
*1 Normal cooling capacity	kW	695	755	811	917	965
	USRT	198	215	231	261	274
	kcal/h	597,500	649,000	697,100	788,400	829,900
	Btu/h	2,372,000	2,576,300	2,767,400	3,129,800	3,294,500
Casing/Color		Paintable Galvanized Steel Plate / Ivory White				
Capacity Steps		0,12.5 ~ 100%				
Power Supply		380~400V/3~50Hz				
Compressor	Type	Semi-hermetic Single-screw				
	No. × Model	2×3220	1×3220 1×3221	2×3221	2×4221	1×4221 1×4222
	Motor Input kW	216	235	253	270	295
Refrigerant Oil	Model	RL68H				
	Charge L	18×2	18×2	18×2	16×2	16×2
Evaporator	Type	High-efficiency Shell and Tube				
	Flow Rate L/min.	1992	2163	2324	2628	2766
	Pressure Drop kPa	55	41	53	63	78
Condenser	Type	Cross Fin Coil				
	Rows × Stages	3×44	3×44	3×44	3×44	3×44
	Fit Pitch mm	1.8	1.8	1.8	1.8	1.8
	Face Area m ²	28.16	30.18	32.19	32.19	34.20
Fan	Type	Propeller (Direct Drive)				
	Qty.	14	15	16	16	17
	Air Flow Rate	m ³ /min.	5,133	5,500	5,867	6,233
		cfm	181,207	194,150	207,093	220,037
	Motor Input kW	28	30	32	32	34
Refrigerant	Type	R407C				
	No. of Circuits	2	2	2	2	2
	Control	Electronic Expansion Valve				
Water Piping Connection inch		8				
Compressor Acoustic Insulation Material		Polyurethane Foaming				
Unit Input kW		244	265	285	302	329
Unit Dimensions	D mm	7300	8200	8200	8200	9100
	W mm	2260	2260	2260	2260	2260
	H mm	2360	2360	2360	2360	2360
Weight kg		7085	7665	8160	8200	8620
Operation Weight kg		7275	7855	8350	8400	8820
Standard Accessories		Unit Operation Instructions, Conformity Certificate, Warranty Application Form, Spring Damper, Water Flow Switch.				

Notes:

- *1. Cooling capacity is based on the following conditions:
Entering chilled water temp. 12°C, Leaving chilled water temp. 7°C, ambient temp. 35°C DB
- The following safety devices are equipped as standard.
 - High pressure (pressure switch)
 - Low pressure (pressure sensor)
 - Compressor thermal
 - Condensation fan thermal
 - High discharge temperature on the compressor
 - Phase monitor
 - Star/Delta transition failed
 - Low-pressure ratio
 - High oil pressure drop
 - Low oil pressure
 - Freeze protection
 - Load stepless adjust
 - Trouble record

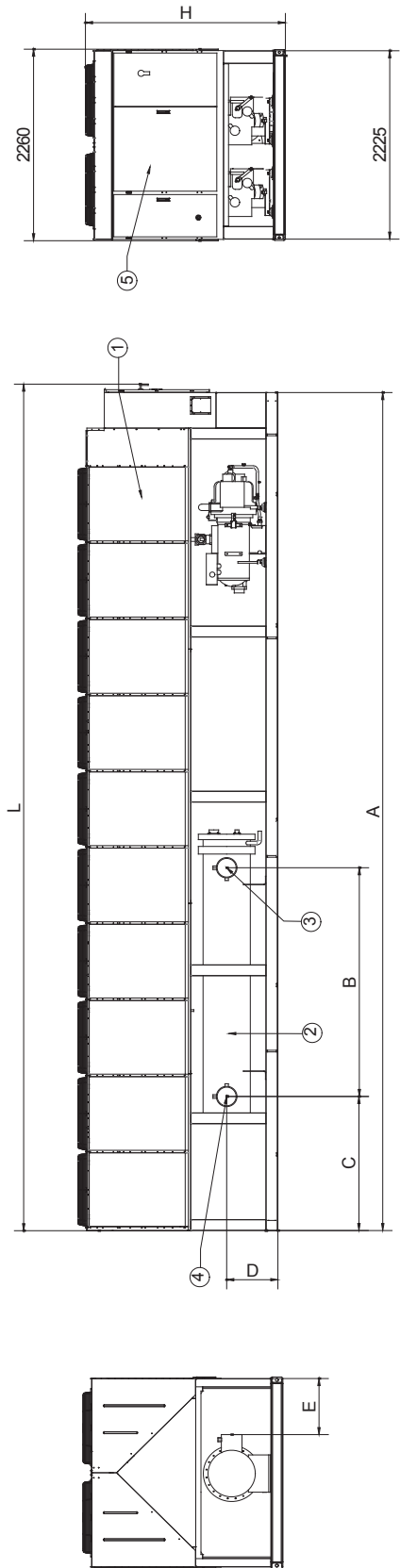
Conversion Formulae

kcal/h=kW×860
Btu/h=kW×3414
cfm=m³/min×35.3



MCS200~380 / MHS200~380

Note: Fans No could be found from the technical param eters.



1	Condensor
2	Evaporator
3	Evaporator water outlet
4	Evaporator water inlet
5	Control box
6	Fans

MODEL	Dimension/mm						Water connections
	A	B	C	D	E	H	L
MCS(MHS)200.2F	7200	1800	450	532	702	2330	7340
MCS(MHS)220/235/260.2F	8100	1800	565	597	662	2330	8240
MCS(MHS)285/310.2F	9000	2000	1390	597	662	2330	9140
MCS(MHS)330/350/380.2F	9900	2702	1585	597	662	2330	10040

unit: mm



11. Sound Level

11.1 ST Overall Sound Level and Octave Band Level

Model MHS/MCS	Hz	Octave band level								Overall dBA
		63	125	250	500	1000	2000	4000	8000	
050.1FST		46.4	65.5	71.6	76.2	75.3	71.3	64.9	56.4	74.0
060.1FST		43.5	56.6	63.3	69.4	70.0	65.6	60.2	56.0	74.0
070.1FST		53.7	64.6	70.3	71.0	69.7	65.2	57.4	49.3	76.0
080.1FST		48.0	63.6	69.2	71.0	69.6	68.0	61.4	53.9	76.0
100.1FST		53.9	66.4	72.4	71.2	70.9	65.5	59.6	53.3	77.0
120.1FST		40.5	58.2	65.8	71.8	73.5	68.2	60.6	54.1	77.0
135.1FST		46.5	58.5	68.3	71.0	72.8	69.4	62.3	54.9	77.0
150.1FST		51.9	69.1	72.4	72.9	72.2	64.5	57.4	50.6	78.0
170.1FST		51.8	66.7	69.9	73.3	73.6	68.2	60.3	51.4	78.0
185.1FST		46.7	65.2	70.8	74.6	74.0	69.5	62.0	52.1	79.0
200.2FST		45.8	65.9	69.8	73.6	74.1	71.7	63.0	56.7	79.0
220.2FST		49.3	66.7	71.7	74.3	75.2	72.2	65.5	58.5	80.0
235.2FST		54.2	66.6	75.0	74.0	74.5	70.1	63.7	57.2	80.5
260.2FST		46.4	65.5	71.6	76.2	75.3	71.3	64.9	56.4	80.5
285.2FST		53.7	68.1	73.3	77.3	76.5	72.9	67.0	59.1	81.0
310.2FST		58.8	68.1	71.9	74.9	76.6	73.7	66.9	60.0	81.0
330.2FST		46.4	65.5	71.6	76.2	75.3	71.3	64.9	56.4	81.0
350.2FST		45.4	60.5	72.1	76.0	75.5	71.6	65.4	56.8	81.0
380.2FST		54.6	67.6	73.2	76.6	76.6	72.7	66.4	59.2	81.5

Notes:

Average sound pressure level is according to ISO 3744, semispheric free field conditions.

Sound pressure levels are referred to units furnished without hydraulic kit.

Measuring location is at 1m from the unit in semispheric free field (rif. 2×10^{-5} Pa).

**Catalogue of
McQuay MCS050.1 &
McQuay MCS070.1**

Air Cooled Single Screw Chiller

Models: MCS050.1-380.2F
Cooling Capacity: 161kW-1370kW
Refrigerant: R22/R407C





S04d-S04e
S22a-S22b
S41b
S44a, S44d

S09d-S09g
S10c-S10d
S38c-S38f
S41a
S44b-S44c, S44e-S44f

3.2 MCS050.1FST~MCS350.2FST[R407C]

Model		MCS050.1	MCS060.1	MCS070.1	MCS080.1	MCS100.1
*1 Normal cooling capacity	kW	164	198	232	270	347
	USRT	47	56	66	77	99
	kcal/h	141,100	170,100	199,200	232,400	298,800
	Btu/h	560,100	675,400	790,700	922,500	1,186,000
Casing / Color		Paintable Galvanized Steel Plate / Ivory White				
Capacity Steps		0.25 ~ 100%				
Power Supply		380~400V/3~50Hz				
Compressor	Type	Semi-hermetic Single-screw				
	No. × Model	1×3118	1×3120	1×3121	1×3122	1×3220
	Motor Input kW	53	66	75	89	108
Refrigerant Oil	Model	RL68H				
	Charge L	13	13	13	13	18
Evaporator	Type	High-efficiency Shell and Tube				
	Flow Rate L/min.	470	567	664	775	996
	Pressure Drop kPa	18	24	18	28	31
Condenser	Type	Cross Fin Coil				
	Rows × Stages	3×44	3×44	3×44	3×44	3×44
	Fit Pitch mm	1.8	1.8	1.8	1.8	1.8
	Face Area m ²	9.57	9.57	12.07	12.07	16.09
Fan	Type	Propeller (Direct Drive)				
	Qty.	4	4	6	6	8
Fan	Air Flow Rate m ³ /min.	1,407	1,407	2,200	2,200	2,933
	cfm	51,773	51,773	77,660	77,660	103,547
	Motor Input kW	8	8	12	12	16
Refrigerant	Type	R407C				
	No. of Circuits	1	1	1	1	1
	Control	Electronic Expansion Valve				
Water Piping Connection inch		5				
Compressor Acoustic Insulation Material		Polyurethane Foaming				
Unit Input kW		61	74	87	101	124
Unit Dimensions	D mm	2975	2975	3200	3200	4100
	W mm	2260	2260	2260	2260	2260
	H mm	2285	2285	2285	2285	2360
Weight kg		2350	2360	2870	2880	4050
Operation Weight kg		2500	2510	3020	3030	4200
Standard Accessories		Unit Operation Instructions, Conformity Certificate, Warranty Application Form, Spring Damper, Water Flow Switch.				

Notes:

- Cooling capacity is based on the following conditions:
Entering chilled water temp. 12°C, Leaving chilled water temp. 7°C, ambient temp. 35°C DB
- The following safety devices are equipped as standard.
 - High pressure (pressure switch)
 - Low pressure (pressure sensor)
 - Compressor thermal
 - Condensation fan thermal
 - High discharge temperature on the compressor
 - Phase monitor
 - Star/Delta transition failed
 - Low-pressure ratio
 - High oil pressure drop
 - Low oil pressure
 - Freeze protection
 - Load stepless adjust
 - Trouble record

Conversion Formulae	
kcal/h=kW×860	
Btu/h=kW×3414	
cfm=m ³ /min×35.3	



11. Sound Level

11.1 ST Overall Sound Level and Octave Band Level

Model	Hz	Octave band level								Overall dBA
		63	125	250	500	1000	2000	4000	8000	
MCS050.1FST		46.4	65.5	71.6	76.2	75.3	71.3	64.9	56.4	74.0
MCS060.1FST		43.5	56.6	63.3	69.4	70.0	65.6	60.2	56.0	74.0
MCS070.1FST		53.7	64.6	70.3	71.0	69.7	65.2	57.4	49.3	76.0
MCS080.1FST		48.0	63.6	69.2	71.0	69.6	68.0	61.4	53.9	76.0
MCS100.1FST		53.9	66.4	72.4	71.2	70.9	65.5	59.6	53.3	77.0
MCS120.1FST		40.5	58.2	65.8	71.8	73.5	68.2	60.6	54.1	77.0
MCS135.1FST		46.5	58.5	68.3	71.0	72.8	69.4	62.3	54.9	77.0
MCS150.1FST		51.9	69.1	72.4	72.9	72.2	64.5	57.4	50.6	78.0
MCS170.1FST		51.8	66.7	69.9	73.3	73.6	68.2	60.3	51.4	78.0
MCS185.1FST		46.7	65.2	70.8	74.6	74.0	69.5	62.0	52.1	79.0
MCS200.2FST		45.8	65.9	69.8	73.6	74.1	71.7	63.0	56.7	79.0
MCS220.2FST		49.3	66.7	71.7	74.3	75.2	72.2	65.5	58.5	80.0
MCS235.2FST		54.2	66.6	75.0	74.0	74.5	70.1	63.7	57.2	80.5
MCS260.2FST		46.4	65.5	71.6	76.2	75.3	71.3	64.9	56.4	80.5
MCS285.2FST		53.7	68.1	73.3	77.3	76.5	72.9	67.0	59.1	81.0
MCS310.2FST		58.8	68.1	71.9	74.9	76.6	73.7	66.9	60.0	81.0
MCS330.2FST		46.4	65.5	71.6	76.2	75.3	71.3	64.9	56.4	81.0
MCS350.2FST		45.4	60.5	72.1	76.0	75.5	71.6	65.4	56.8	81.0
MCS380.2FST		54.6	67.6	73.2	76.6	76.6	72.7	66.4	59.2	81.5

Notes:

Average sound pressure level is according to ISO 3744, semispheric free field conditions.

Sound pressure levels are referred to units furnished without hydronic kit.

Measuring location is at 1m from the unit in semispheric free field (rif. 2×10^{-5} Pa).

**Catalogue of
Carrier 30RBSY 039**

30RBSY

Nominal cooling capacity 40-153 kW



COOLING

AQUASNAP.

The AquaSnap liquid chiller was designed for commercial (air conditioning of offices, hotels etc.) or industrial (low-temperature process units etc.) applications.

Compact design

High static available pressure

Quiet operation

Variable speed fans

Variable water flow (optional)

It integrates the latest technological innovations:

- Non-ozone depleting refrigerant R410A
- All-aluminium microchannel heat exchangers
- Scroll compressors
- Low-noise fans made of a composite material
- Auto-adaptive microprocessor control
- Electronic expansion valve
- Variable-speed pump (option)

The AquaSnap can be equipped with a hydronic module integrated into the unit chassis, limiting the installation to straightforward operations like connection of the power supply and the chilled water supply and return piping.

Physical data

S06a-S06d
S24a-S24d
S26a-S26b
S29a-S29d
S33a-S33b
S40c
S44j, S44l-S44n



30RBSY		039	045	050	060	070	080	090	100	120	140	160
Cooling												
Air conditioning application as per EN14511-3:2013† - standard unit												
Condition 1:												
Nominal cooling capacity	kW	39,6	44,0	51,2	58,1	66,2	77,7	86,7	97,1	114,4	132,8	153,4
ESEER	kW/ kW	3,81	3,95	3,94	3,85	3,68	3,68	3,82	3,87	3,83	3,74	3,88
EER	kW/ kW	2,87	2,76	2,65	2,67	2,65	2,61	2,69	2,70	2,65	2,63	2,56
Eurovent class cooling												
	A	B	B	B	B	B	B	B	B	B	B	B
Condition 2:												
Nominal cooling capacity	kW	53,0	58,9	68,5	80,8	83,6	97,0	114,3	126,5	150,8	168,9	191,7
EER	kW/ kW	3,44	3,33	3,11	3,32	2,89	2,96	3,13	3,06	3,09	2,91	2,91
Air conditioning application†† - standard unit												
Condition 1:												
Nominal cooling capacity	kW	39,9	44,4	51,6	58,6	66,8	78,4	87,2	97,7	115,1	133,6	154,4
ESEER	kW/ kW	3,28	3,46	3,56	3,54	3,31	3,39	3,26	3,35	3,41	3,40	3,61
EER	kW/ kW	2,69	2,63	2,56	2,59	2,55	2,54	2,55	2,58	2,56	2,52	2,48
Condition 2:												
Nominal cooling capacity	kW	53,5	59,4	69,3	81,7	84,3	97,9	115,3	127,4	152,1	170,3	193,4
EER	kW/ kW	3,31	3,23	3,06	3,29	2,82	2,92	3,02	2,97	3,03	2,83	2,86
Sound levels												
Standard unit - for 160 Pa external static pressure												
Sound power level at discharge*	dB(A)	84	84	84	84	87	87	87	87	87	90	90
Sound power level radiated*	dB(A)	84	84	84	84	87	87	87	87	87	90	90
Sound pressure level at 10 m**	dB(A)	53	53	53	53	55	55	56	56	56	58	58
Dimensions												
If two values are shown the first one is for standard units and the second one for units with option 23B												
Length	mm	2142/2307	2142/2307	2142/2307	2142/2307	2142/2307	2142/2307	2273	2273	2273	2273	2273
Width	mm	1132/1297	1132/1297	1132/1297	1132/1297	1132/1297	1132/1297	2122	2122	2122	2122	2122
Height	mm	1371	1371	1371	1371	1371	1371	1371	1371	1371	1371	1371
Operating weight with MCHE coil***												
Standard unit without hydronic module	kg	436	443	449	464	461	480	771	780	793	901	932
Standard unit with hydronic module												
Single high-pressure pump	kg	466	473	479	494	491	510	803	812	829	940	971
Dual high-pressure pump	kg	491	499	504	520	517	536	848	857	877	977	1008
Compressors												
Hermetic scroll compressors, 48,3 r/s												
Circuit A		2	2	2	2	2	2	3	3	3	2	2
Circuit B		-	-	-	-	-	-	-	-	-	2	2
No of control stages		2	2	2	2	2	2	3	3	3	4	4
Refrigerant charge with MCHE coil***												
R-410A												
Circuit A	kg	4,7	4,5	6,3	6,7	6,2	7,3	9,5	10,8	11,4	6,3	8
Circuit B	kg	-	-	-	-	-	-	-	-	-	6,3	8
Capacity control												
Touch Pilot Junior												
Minimum capacity	%	50	50	50	50	50	50	33	33	33	25	25
Condensers												
All-aluminium microchannel heat exchanger (MCHE)												
Fans												
Axial Flying Bird IV with rotating shroud												
Quantity		1	1	1	1	1	1	2	2	2	2	2
Maximum total air flow	l/s	3885	3883	3687	3908	4982	5267	6940	6936	7370	9958	10534
Maximum rotation speed	r/s	16	16	16	18	18	18	16	16	16	16	16
Evaporator												
Direct expansion, plate heat exchanger												
Water volume	l	2,6	3,0	3,3	4,0	4,8	5,6	8,7	9,9	11,3	12,4	14,7
Without hydronic module (option)												
Max. water-side operating pressure without hydronic module	kPa	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
With hydronic module (option)												
Single or dual pump (as selected)												
Expansion tank volume	l	12	12	12	12	12	12	35	35	35	35	35
Expansion tank pressure****	bar	1	1	1	1	1	1	1,5	1,5	1,5	1,5	1,5
Max. water-side operating pressure	kPa	400	400	400	400	400	400	400	400	400	400	400
Water connections with/without hydronic module												
Pump, Victaulic screen filter, safety valve, expansion tank, purge valves (water + air), pressure sensors												
Diameter	in	2	2	2	2	2	2	2	2	2	2	2
Outside diameter	mm	60,3	60,3	60,3	60,3	60,3	60,3	60,3	60,3	60,3	60,3	60,3
Chassis paint colour												
Colour code: RAL7035												

† Eurovent-certified performances in accordance with standard EN14511-3:2013.

†† Gross performances, not in accordance with EN14511-3:2013. These performances do not take into account the correction for the proportional heating capacity and power input generated by the water pump to overcome the internal pressure drop in the heat exchanger.

Condition 1: cooling mode conditions: evaporator water entering/leaving temperature 12°C/7°C, outside air temperature 35°C, evaporator fouling factor 0 m².K/W

Condition 2: cooling mode conditions: evaporator water entering/leaving temperature 23°C/18°C, outside air temperature 35°C, evaporator fouling factor 0 m².K/W

* In dB ref=10-12 W, (A) weighting. Declared dualnumber noise emission values in accordance with ISO 4871 (with an associated uncertainty of +/-3dB(A)). Measured in accordance with ISO 9614-1 and certified by Eurovent.

** In dB ref 20µPa, (A) weighting. Declared dualnumber noise emission values in accordance with ISO 4871 (with an associated uncertainty of +/-3dB(A)). For information, calculated from the sound power level Lw(A).

*** Weight shown is a guideline only. Please refer to the unit nameplate.

**** When delivered, the standard pre-inflation of the tank is not necessarily the optimal value for the system. To permit changing the water volume, change the inflation pressure to a pressure that is close to the static head of the system. Fill the system with water (purging the air) to a pressure value that is 10 to 20 kPa higher than the pressure in the tank

Eurovent certified data

**Catalogue of
Carrier 30RB 040**

30RB

Nominal cooling capacity 16-40 kW

COOLING



AQUASNAP

**Easy and fast
installation**

**Hydronic module
available**

**Economical
operation**

Superior reliability

The AquaSnap liquid chiller range was designed for commercial applications such as the air conditioning of offices and hotels, etc.

The new AquaSnap units integrate the latest technological innovations:

- Non-ozone depleting refrigerant R410A
- Scroll compressors
- Low-noise fans
- Auto-adaptive microprocessor control

The AquaSnap units are equipped with a hydronic module integrated into the unit chassis, limiting the installation to straightforward operations like connection of the power supply and the water supply and return piping.

Physical data

S02a-S02d
S05a-S05c
S07c-S07g
S09j
S12a-S12c
S14a-S14b
S18b, S18d, S18f, S18h-S18l,
S18n-S18o, S18q, S18t-S18x
S19d-S19g
S27a-S27f
S32a-S32c
S34b-S34c
S35b-S35c
S36a-S36b
S44h, S44k



30RB								040	
Cooling									
Full load performances*	C1	Nominal capacity	kW	1				41.4	
	C1	EER	kW/kW	3				2.96	
	C1	Eurovent Energy Class		E				B	
	C2	Nominal capacity	kW	22.7	29.5	38.6	45.8	56.9	
	C2	EER	kW/kW	3.80	3.86	4.01	4.11	3.52	
Seasonal Efficiency*		ESEER	kW/kW	3.46	3.47	3.44	3.62	3.29	
Sound Power Level Standard Unit			dB(A)	72	74	78	78	80	
Operating weight†									
Standard unit (with hydronic module)			kg	189	208	255	280	291	
Standard unit (without hydronic module)			kg	173	193	237	262	273	
Refrigerant			R-410A						
Compressor			One hermetic scroll compressor						
Control			Pro-Dialog+						
Fans			%	Two twin-speed axial fans, 3 blades			One twin-speed axial fan, 7 blades		
Air flow				2212	2212	3530	3530	3530	
Evaporator			Plate heat exchanger						
Condenser			Copper tubes and aluminium fins						
Unit with hydronic module Pump			One single-speed pump, screen filter, expansion tank, flow switch, pressure gauge, automatic air purge valve, safety valve						
Entering water connection			in	1-1/41	1-1/41	1-1/4	1-1/4	1-1/4	
Leaving water connection			in	1	1	1-1/4	1-1/4	1-1/4	
Nominal operating current			A	1.30	1,4	2,4	2,6	2,8	
Dimensions									
Length			mm	1136	1136	1002	1002	1002	
Depth			mm	584	584	824	824	824	
Height			mm	1579	1579	1790	1790	1790	

C1 Cooling mode conditions: Evaporator Water heat exchanger, entering/leaving temperature 12°C/7°C, fouling factor 0 m² K/W. Condenser Water heat exchanger, entering/leaving temperature 30°C/35°C, fouling factor 0 m² K/W.

C2 Cooling mode conditions: Evaporator Water heat exchanger, entering/leaving temperature 23°C/18°C, fouling factor 0 m² K/W. Condenser Water heat exchanger, entering/leaving temperature 30°C/35°C, fouling factor 0 m² K/W.

* In accordance with standard EN14511-3:2013

† Weight shown is a guideline only. The dimensions shown are for the standard unit.

Eurovent certified data

Electrical data

30RB		580	630	810	880	1150
Power circuit						
Nominal power supply ± 6%	V-ph-Hz	400-3-50 ± 10%				
Control circuit supply		24 V via internal transformer				
Maximum start-up current (Un)*	A	75	95	118	118	176
Maximum operating power input**	kW	7.8	9.1	11	13.8	17.5
Nominal unit operating current draw***	A	8	12	16	17	25

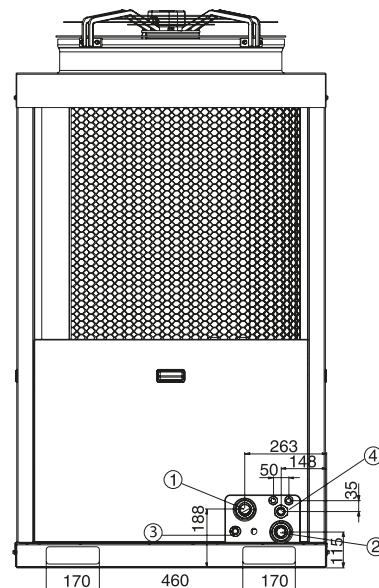
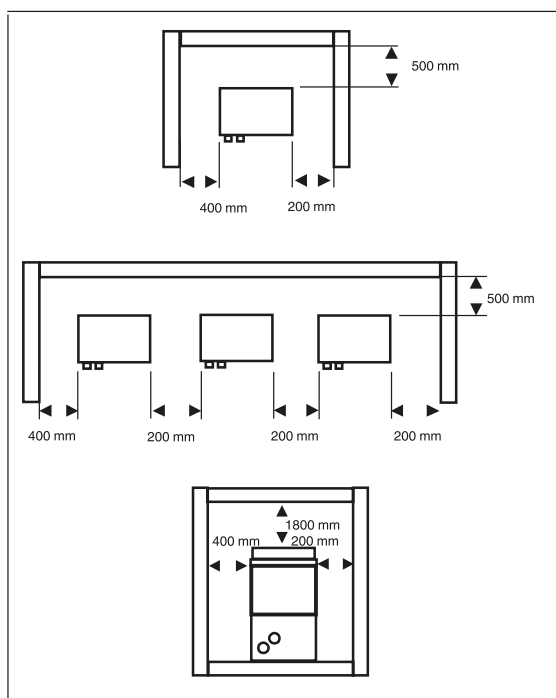
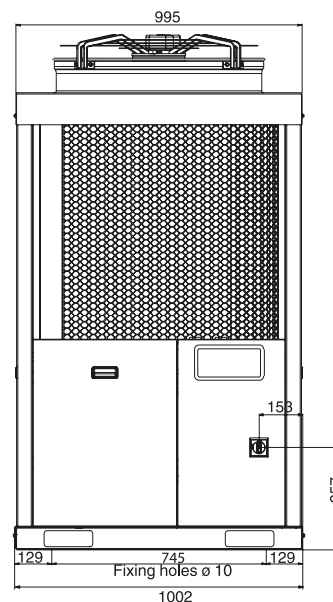
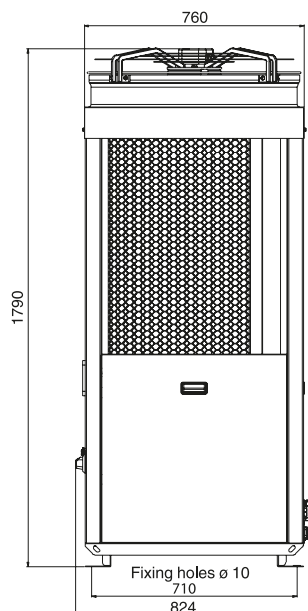
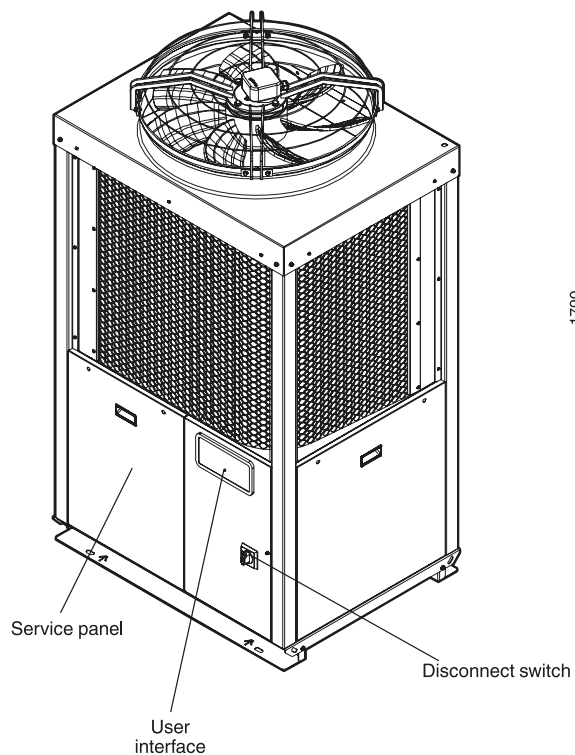
* Maximum instantaneous start-up current (locked rotor current of the compressor).

** Power input, compressors and fans, at the unit operating limits (saturated suction temperature 10°C, saturated condensing temperature 65°C) and nominal voltage of 400 V (data given on the unit nameplate).

*** Standardised Eurovent conditions: water heat exchanger entering/leaving water temperature 12°C/7°C, outside air temperature 35°C.

Dimensions/clearances

30RB 026-040



Legend

All dimensions are in mm

1. Water inlet
2. Water outlet
3. Water fill kit connection (option)
4. Power connections

COOLING

HEATING

AIR TREATMENT

CONTROLS

**Catalogue of
McQuay MCS310.2 &
McQuay MCS350.2**

Air Cooled Single Screw Chiller

Models: MCS050.1-380.2F
Cooling Capacity: 161kW-1370kW
Refrigerant: R22/R407C





S15a-S15b

S37a-S37b

Model			MCS310.2	MCS330.2	MCS350.2	
*1 Normal cooling capacity			kW	1033	1255	
			USRT	294	319	
			kcal/h	888,000	965,200	1,078,900
			Btu/h	3,525,100	3,831,500	4,282,900
Casing/Color			Paintable Galvanized Steel Plate / Ivory White			
Capacity Steps			0,12.5 ~ 100%			
Power Supply			380~400V/3~50Hz			
Compressor	Type		Semi-hermetic Single-screw			
	No. × Model		2×4222	1×4222 1×4223	2×4223	
	Motor Input	kW	326	356	386	
Refrigerant Oil	Model		RL68H			
	Charge	L	16×2	16×2	16×2	
Evaporator	Type		High-efficiency Shell and Tube			
	Flow Rate	L/min.	2960	3217	3596	
	Pressure Drop	kPa	74	87	95	
Condenser	Type		Cross Fin coil			
	Rows × Stages		3×44	3×44	3×44	
	Fit Pitch	mm	1.8	1.8	1.8	
	Face Area	m ²	36.21	38.22	40.23	
Fan	Type		Propeller (Direct Drive)			
	Qty.		18	19	20	
	Air Flow Rate	m ³ /min.	6,600	6,967	7,333	
		cfm	232,980	245,923	258,867	
	Motor Input		kW	36	38	40
Refrigerant	Type		R407C			
	No. of Circuits		2	2	2	
	Control		Electronic Expansion Valve			
Water Piping Connection		inch	8			
Compressor Acoustic Insulation Material			Polyurethane Foaming			
Unit Input		kW	362	394	426	
Unit Dimensions	D	mm	9100	10000	10000	
	W	mm	2260	2260	2260	
	H	mm	2360	2360	2360	
Weight		kg	8660	9405	9460	
Operation Weight		kg	8860	9605	9660	
Standard Accessories			Unit Operation Instructions, Conformity Certificate, Warranty Application Form, Spring Damper, Water Flow Switch.			

Notes:

- *1. Cooling capacity is based on the following conditions:
Entering chilled water temp. 12°C, Leaving chilled water temp. 7°C, ambient temp. 35°C DB
- The following safety devices are equipped as standard.
 - High pressure (pressure switch)
 - Low pressure (pressure sensor)
 - Compressor thermal
 - Condensation fan thermal
 - High discharge temperature on the compressor
 - Phase monitor
 - Star/Delta transition failed
 - Low-pressure ratio
 - High oil pressure drop
 - Low oil pressure
 - Freeze protection
 - Load stepless adjust
 - Trouble record

Conversion Formulae

kcal/h=kW×860
Btu/h=kW×3414
cfm=m³/min×35.3



11. Sound Level

11.1 ST Overall Sound Level and Octave Band Level

Model	Hz	Octave band level								Overall dBA
		63	125	250	500	1000	2000	4000	8000	
MCS050.1FST		46.4	65.5	71.6	76.2	75.3	71.3	64.9	56.4	74.0
MCS060.1FST		43.5	56.6	63.3	69.4	70.0	65.6	60.2	56.0	74.0
MCS070.1FST		53.7	64.6	70.3	71.0	69.7	65.2	57.4	49.3	76.0
MCS080.1FST		48.0	63.6	69.2	71.0	69.6	68.0	61.4	53.9	76.0
MCS100.1FST		53.9	66.4	72.4	71.2	70.9	65.5	59.6	53.3	77.0
MCS120.1FST		40.5	58.2	65.8	71.8	73.5	68.2	60.6	54.1	77.0
MCS135.1FST		46.5	58.5	68.3	71.0	72.8	69.4	62.3	54.9	77.0
MCS150.1FST		51.9	69.1	72.4	72.9	72.2	64.5	57.4	50.6	78.0
MCS170.1FST		51.8	66.7	69.9	73.3	73.6	68.2	60.3	51.4	78.0
MCS185.1FST		46.7	65.2	70.8	74.6	74.0	69.5	62.0	52.1	79.0
MCS200.2FST		45.8	65.9	69.8	73.6	74.1	71.7	63.0	56.7	79.0
MCS220.2FST		49.3	66.7	71.7	74.3	75.2	72.2	65.5	58.5	80.0
MCS235.2FST		54.2	66.6	75.0	74.0	74.5	70.1	63.7	57.2	80.5
MCS260.2FST		46.4	65.5	71.6	76.2	75.3	71.3	64.9	56.4	80.5
MCS285.2FST		53.7	68.1	73.3	77.3	76.5	72.9	67.0	59.1	81.0
MCS310.2FST		58.8	68.1	71.9	74.9	76.6	73.7	66.9	60.0	81.0
MCS330.2FST		46.4	65.5	71.6	76.2	75.3	71.3	64.9	56.4	81.0
MCS350.2FST		45.4	60.5	72.1	76.0	75.5	71.6	65.4	56.8	81.0
MCS380.2FST		54.6	67.6	73.2	76.6	76.6	72.7	66.4	59.2	81.5

Notes:

Average sound pressure level is according to ISO 3744, semispheric free field conditions.

Sound pressure levels are referred to units furnished without hydronic kit.

Measuring location is at 1m from the unit in semispheric free field (rif. 2×10^{-5} Pa).

**Catalogue of
York YCAE065 SME53**

YCAE

Modular air cooled scroll chiller / heat pump

YCAE 065R/S to 0100R/S (CE version)

A complete range from 64 kW up to 99 kW



NEW



Features

Up to 8 modules in one water system; each module can be operated separately. Built-in main water pipe makes it easy to install in the field

Ability to configure modular chillers to fit the space

Installation flexibility for modular chillers will allow you to use all the available space. Many different possible configurations (linear, parallel, star, etc).

Ability to add more modular chillers in the future

Buildings being constructed or occupied in phases do not need the full cooling/heating capacity at the start. Modular chillers allow you to stage the investment by combining modules to obtain the required capacity.

Ability to stock a few models and cover large range

Modular chillers are your solution. Limited numbers of module configurations allow the distribution channel to keep modules in stock.

Quick and easy module combination

Connecting the water piping and cables, installing the sensors and bringing power to the modular(s) makes installation quick and easy.

Full redundancy – Easy parts management

Modularity and the central controller allows you to decide the quantity of modules active at anytime. In the event of maintenance other modules in the system will continue to operate ensuring minimal capacity loss.

Small modules, small components, low noise

Modularity design is based on low capacity modules installed together. Components are carefully selected based on its performance, reliability and low sound attributes. When comparing modular systems with standard chillers, modular chillers provide a lower noise level.

Very easy and intuitive central controller

Modular units, which can manage up to 8 modules per system, are controlled with a single central controller. Central controller sequence enables the units to even out the run hours and prolong the life of the chiller.

Intelligent defrost – For heat pumps

For our air to water heat pumps, defrost must occur. The central controller optimizes the sequencing of the defrost cycle allowing only one module to defrost at a time. This allows the remaining modules to continue to provide heating.



Modular air cooled scroll chiller / heat pump

YCAE 065R/S to 0100R/S



S07a-S07b
S30a-S30e
S40a-S40b

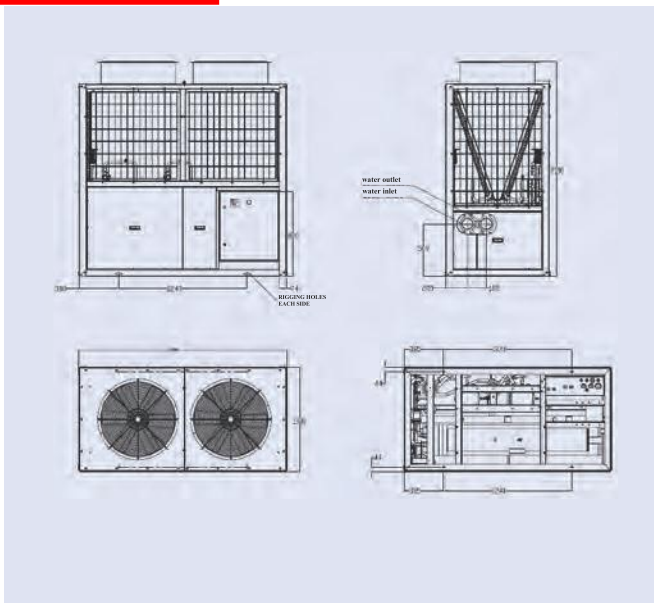
Technical features

Model		YCAE065SME53	YCAE065RME53	YCAE100SME53	YCAE100RME53
Cooling capacity	kW	64.1	64.1	99	99
Heating capacity	kW	-	70	-	103
EER / COP		3.05 / -	3.05 / 3.39	3.16 / -	3.16 / 3.2
ESEER		3.32	3.32	3.65	3.65
Refrigerant charge	kg	2 x 9	2 x 9	3 x 10.5	3 x 10.5
Sound power level	dB(A)	83	83	85	85
Capacity adjustment	%	0, 50, 100	0, 50, 100	0, 33, 66, 100	0, 33, 66, 100
Compressor	Type	Scroll	Scroll	Scroll	Scroll
	No.	2	2	3	3
Power input	Cooling	kW	21	31.3	31.3
	Heating	kW	-	-	33.9
	Power input	kW	0.9 x 2	0.9 x 3	0.9 x 3
Fan	Fan No.	2	2	3	3
	Air flow	m³/h	13000 x 2	13000 x 3	13000 x 3
Water-side heat exchanger	Water pressure drop	kPa	50	50	50
	Water pipe size	mm	114	89	89
	Pipe connection	Clamp	Clamp	Clamp	Clamp
	Water flow	m³/h	11.1	17.2	17.2
Max. operating Current	A	49.3	49.3	74	74
Dimensions	Length	mm	2000	2030	2030
	Width	mm	1000	1930	1930
	Height	mm	2100	2100	2100
Weight	Shipping weight	kg	800	1180	1240
	Operating weight	kg	880	920	1280

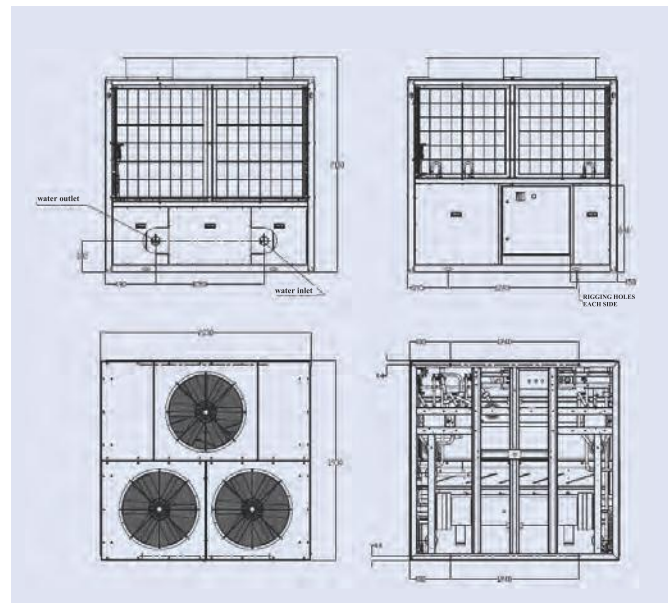
Nominal conditions: Cooling capacities in kW given for 7°C water leaving temperature Δt 5°C and 35°C ambient temperature
Heating capacities in kW given for 45°C water leaving temperature and 7°C ambient temperature

Dimensions and hydraulic connections

YCAE 065R/S



YCAE 100R/S



All dimensions in mm. Drawings not a scale.



Manufacturer reserves the rights to change specifications without prior notice.

**Catalogue of
Trane RTAC 300**



Air-cooled helical-rotary chillers Series R™

412 - 1451 kW

RTAC



Customer benefits

- Reliability: Trane helical-rotary compressor with only 3 moving parts
- Eurovent certified class A
- Ease of installation: wide choice of hydraulic modules
- Reliability: main components designed and manufactured by Trane
- Advanced Adaptive Control™ to keep chiller online in extreme operating conditions
- Optional remote monitoring by Trane Intelligent Services
- Single power supply connection
- Exact load matching

Main features

- Rental crash frame
- Integral hydraulic module (pumps)
- Compact design: reduced footprint and low profile design
- Falling film evaporator - high COP
- Two acoustic packages: SN and LN
- Wide operating map: airside and waterside
- Easy customized couple connections

S22c-S22d

Chiller model	RTAC 120	RTAC 200	RTAC 300	RTAC 400
Cooling capacity	412	737	1077	1451
Power input (kW)	135	232.90	370	498
Refrigerant type	R134a	13	R134a	R134a
Minimum chiller load (%)	30	17	13	10
Qty. of compressors	2	2	3	4
Number of refrigerant circuits	2	2	2	2
Power supply (V/Ph/Hz)	400/3/50	400/3/50	400/3/50	100/3/50
Max. amps (A)	390	562	844	1096
Starting amps (A)	410	594	813	1002
Length (mm)	5041	5960	10058	12244
Width (mm)	2260	2260	2250	2250
Height (mm)	2411	2381	2530	2530
Weight (kg)	4506	5590	9375	11929
Sound pressure level 10 m free field dB(A)	65	68	69	81

Cooling capacity and power input at Eurovent conditions:
12/7°C entering/leaving water temperature and 35°C ambient temperature according to EN 14-511

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**Catalogue of
Ryowo FT-250**



FRP COUNTER FLOW FT SERIES

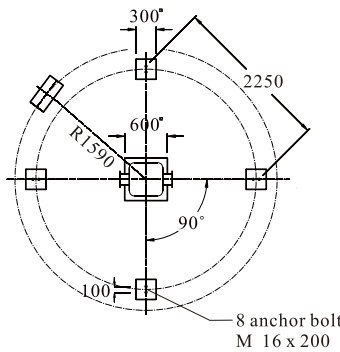
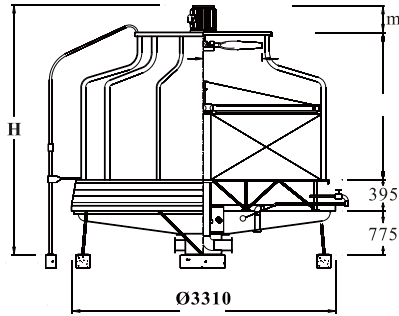
COOLING TOWER



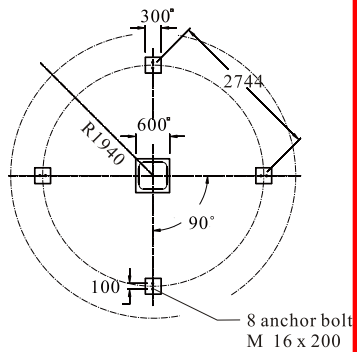
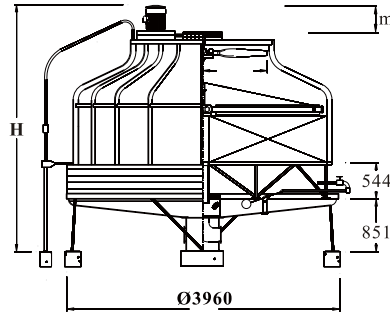
ITEM	MODEL			FT-8	FT-10	FT-15	FT-20	FT-25	FT-30	FT-40	FT-50	FT-60	FT-80	FT-100	FT-125	FT-150	FT-175	FT-200	FT-225	FT-250	FT-300	FT-350	FT-400	FT-500	FT-600	FT-700	FT-800	FT-1000												
Capacity	27 °C WB	Circulating water flow rate	m ³ / hr	6.2	7.8	11.7	15.6	19.5	23.4	31.2	39.1	46.9	62.5	78.1	97.7	117.2	136.7	156.2	175.8	195.3	234.4	273.4	312.5	390.6	468.7	546.8	625.0	781.2												
		Make-up water (Approx.)	m ³ / hr	0.1	0.1	0.2	0.2	0.3	0.3	0.4	0.6	0.7	0.9	1.1	1.4	1.7	2.0	2.2	2.5	2.8	3.4	3.9	4.5	5.6	6.7	7.8	8.9	11.2												
	28 °C WB	Circulating water flow rate	m ³ / hr	5.6	7.4	10.6	14.4	17.8	21.5	28.7	36.3	42.5	58.8	70.6	88.2	107.5	125.0	142.5	160.0	176.2	212.5	250.0	287.5	337.5	431.2	512.4	575.0	718.7												
		Make-up water (Approx.)	m ³ / hr	0.1	0.1	0.2	0.2	0.3	0.3	0.4	0.5	0.6	0.8	1.0	1.3	1.5	1.8	2.0	2.3	2.5	3.0	3.6	4.1	4.8	6.2	7.3	8.2	10.3												
	Air flow rate (Approx.)			m ³ / min	70	85	140	160	230	280	330	420	450	700	830	950	1150	1200	1250	1600	1750	2000	2200	2450	2700	3500	3750	5000	5400											
	Hot water temperature			°C	37																																			
Cold water temperature			°C	32																																				
Overall Dimension	Diameter (ϕ)		mm	920	920	1160	1160	1490	1660	1660	1890	2100	2100	2900	2900	2900	3310	3310	3960	3960	4360	4760	4760	5600	6600	6600	7600	7600												
	Height (H)		mm	1560	1700	1585	1835	1945	1885	2035	2110	2300	2475	2910	3110	3110	3300	3450	3920	3920	3990	4195	4255	4590	5310	5510	5660	5860												
	Height (w/o motor) (m)		mm	1390	1530	1395	1645	1760	1720	1785	1860	1980	2155	2590	2790	2790	2880	3030	3300	3300	3290	3495	3495	3830	4470	4670	4720	4940												
Material	Air inlet mesh			PVC																																				
	Basin			FRP																																				
	Casing			FRP																																				
	Eliminator			FRP																																				
	Fan			ABS Plastic									FRP										Aluminium alloy					FRP												
	Filler			PVC																																				
	Motor support			Steel (Hot-dip galvanized)																																				
	Sprinkler head			ABS Plastic										Aluminium alloy																										
	Sprinkler pipe			PVC pipe																																				
	Stand pipe			PVC pipe																																				
Structure			Steel (Hot-dip galvanized)																																					
Fan	TYPE			Axial-flow																																				
	Diameter		mm	550	640		770			930		1200			1500			1800						2400			3000			3400			3700							
	Speed		rpm	970									750								600						450			375			314							
	Driven type			Direct driven																				Belt driven					Gear driven											
Motor	TYPE			Totally enclosed fan cooled outdoor 3 phase induction motor																																				
	Power source			380V / 3 / 50Hz																																				
	Rated output		kw	0.18			0.37			0.75			1.5				2.2			3.7						5.5			7.5			11			15			22		
	No of pole		Pole	6									8					10						4																
Distribution System	TYPE			Automatic sprinkler system																																				
	Inlet dia		mm	40			50			80				100			125			150						200			250			300								
	Outlet dia			15			20			40									65						75			100			75			100						
	No of outlet			4									6			4								6			8			10										
Piping	Inlet		mm	40			50			80				100			125			150						200			250			300								
	Outlet		mm	40			50			80				100			125			150						200			250			300								
	Drain		mm	25											50									80			100													
	Overflow		mm	25											50									80			100													
	Float valve		mm	15									20					25						32			50			80										
	Manual make-up		mm	15											20					25						32			50			80								
Weight	Dry weight		Kg	56	65	75	85	105	130	150	180	250	270	500	540	580	870	900	1300	1350	1550	1720	2050	2450	3950	4050	4700	4900												
	Operating weight		Kg	140	150	200	210	290	370	390	550	840	860	1600	1640	1680	2170	2200	2700	2750	3350	3720	3950	6150	9350	9450	11900	12100												
Noise Level	Sound pressure level		dBA	45.5	47	48	50	52	54	58	59	58	59	61	61.5	62	62	62	63	63	64	64.5	61.5	62	65	66	73	74												

TOWER FOUNDATION

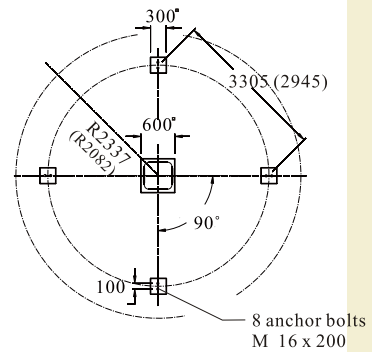
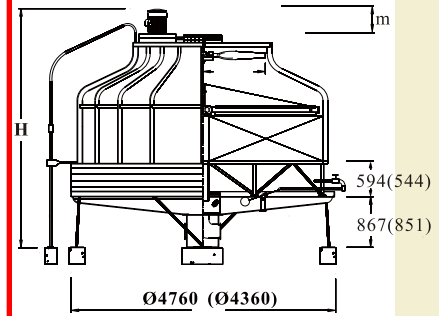
FT• FT/LN-175• 200



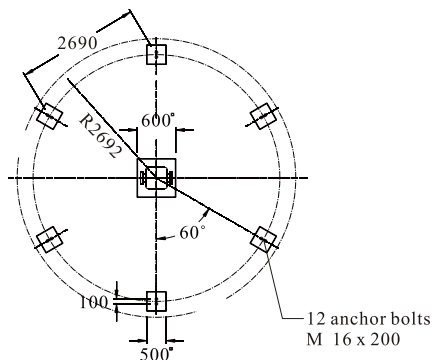
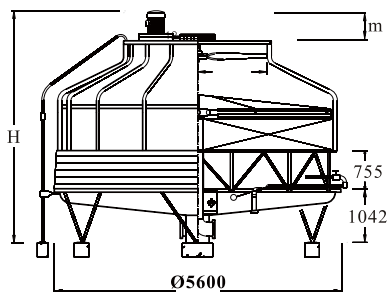
FT• FT/LN-225• 250



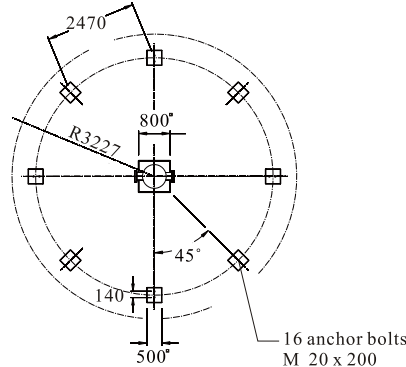
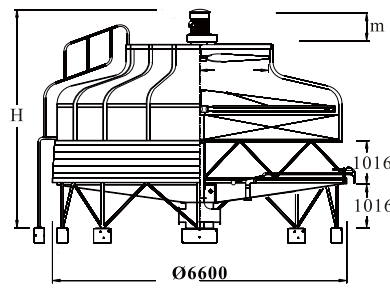
FT• FT/LN-(300)• 350• 400



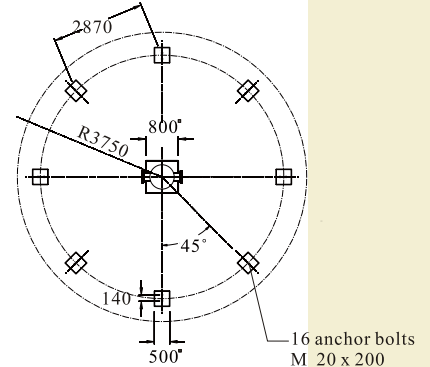
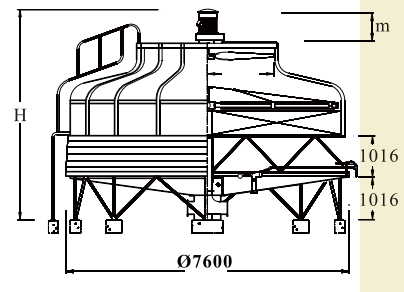
FT• FT/LN- 500



FT• FT/LN-600• 700



FT• FT/LN-800• 1000



Appendix 3.2

Fixed Noise Impact Assessment Results

Prediction of Fixed Noise Source Impact on Planned NSR																									
NSR Labels	Nature of Use	Existing/Planned Uses	Location			ASR	Noise Criteria (ANL), L _{eq} (30 min)		Noise Source ID	Description of Noise Sources	Source Location			Distance to NSR, d (m)	Correction for, dB(A)								Noise Impact at NSR, dB(A)		
			X	Y	Z, mPD		Daytime & Evening Time (0700-2300)	Nighttime (2300-0700)			X	Y	Z, mPD		Distance	No.	% on time (Daytime)	% on time (Night time)	Screening by Features ^[1]	Silencer	Tonality	Facade	Daytime & Evening Period	Night-time	
N01	Residential	Planned	835657	817647	75.5	B	65	55	S01a	Chiller at Roof of Kowloon Centre	835578	817649	75.5	79	-46.0	0	0	N.A.	0	0	3	3	45.0	N.A.	
									S01b	Chiller at Roof of Kowloon Centre	835579	817643	75.5	78	-45.9	0	0	N.A.	0	0	3	3	45.1	N.A.	
									S01c	Chiller at Roof of Kowloon Centre	835587	817643	75.5	70	-44.9	0	0	N.A.	0	0	3	3	48.1	N.A.	
									S02a	Chiller at Podium of Godown for HK Museum of History	835542	817712	75.5	132	-50.4	0	0	N.A.	-10	0	3	3	25.6	N.A.	
									S02b	Chiller at Podium of Godown for HK Museum of History	835540	817711	75.5	134	-50.5	0	0	N.A.	-10	0	3	3	25.5	N.A.	
									S02c	Chiller at Podium of Godown for HK Museum of History	835536	817711	75.5	138	-50.8	0	0	N.A.	-10	0	3	3	25.2	N.A.	
									S02d	Chiller at Podium of Godown for HK Museum of History	835534	817711	75.5	139	-50.8	0	0	N.A.	-10	0	3	3	25.2	N.A.	
									S03a	Chiller at Roof of Health Education Exhibition and Resources Centre	835673	817710	75.5	64	-44.2	0	0	N.A.	0	0	3	3	39.8	N.A.	
									S03b	Chiller at Roof of Health Education Exhibition and Resources Centre	835667	817709	75.5	63	-44.0	0	0	N.A.	0	0	3	3	40.0	N.A.	
									S03c	Chiller at Roof of Health Education Exhibition and Resources Centre	835661	817709	75.5	62	-43.8	0	0	N.A.	0	0	3	3	40.2	N.A.	
									S03d	Chiller at Roof of Health Education Exhibition and Resources Centre	835656	817709	75.5	62	-43.8	0	0	N.A.	0	0	3	3	40.2	N.A.	
									S03e	Chiller at Roof of Health Education Exhibition and Resources Centre	835650	817708	75.5	62	-43.8	0	0	N.A.	0	0	3	3	40.2	N.A.	
									S03f	Chiller at Roof of Health Education Exhibition and Resources Centre	835673	817706	75.5	60	-43.6	0	0	N.A.	0	0	3	3	40.4	N.A.	
									S03g	Chiller at Roof of Health Education Exhibition and Resources Centre	835667	817705	75.5	59	-43.4	0	0	N.A.	0	0	3	3	40.6	N.A.	
									S03h	Chiller at Roof of Health Education Exhibition and Resources Centre	835662	817705	75.5	58	-43.2	0	0	N.A.	0	0	3	3	40.8	N.A.	
									S03i	Chiller at Roof of Health Education Exhibition and Resources Centre	835656	817705	75.5	57	-43.2	0	0	N.A.	0	0	3	3	40.8	N.A.	
									S03j	Chiller at Roof of Health Education Exhibition and Resources Centre	835650	817704	75.5	57	-43.2	0	0	N.A.	0	0	3	3	40.8	N.A.	
									(2)	S05a	Chiller at Podium at Han Hing Mansion	835688	817619	13.4	44	-40.8	0	0	N.A.	-10	0	3	3	35.2	N.A.
									(2)	S05b	Chiller at Podium at Han Hing Mansion	835691	817620	13.4	45	-41.1	0	0	N.A.	-10	0	3	3	34.9	N.A.
									(2)	S05c	Chiller at Podium at Han Hing Mansion	835693	817620	13.4	46	-41.3	0	0	N.A.	-10	0	3	3	34.7	N.A.
										S06a	Chiller at Roof of ISQUARE	835735	817583	75.5	101	-48.1	0	0	N.A.	-5	0	3	3	36.9	N.A.
										S06b	Chiller at Roof of ISQUARE	835745	817584	75.5	108	-48.6	0	0	N.A.	-5	0	3	3	36.4	N.A.
										S06c	Chiller at Roof of ISQUARE	835754	817584	75.5	115	-49.2	0	0	N.A.	-5	0	3	3	35.8	N.A.
										S06d	Chiller at Roof of ISQUARE	835764	817585	75.5	123	-49.8	0	0	N.A.	-5	0	3	3	35.2	N.A.
										S12a	Chiller at Roof of MTR Emergency Access Point	835414	817863	75.5	325	-58.2	0	0	N.A.	0	0	3	3	27.8	N.A.
										S12b	Chiller at Roof of MTR Emergency Access Point	835414	817860	75.5	323	-58.2	0	0	N.A.	0	0	3	3	27.8	N.A.
										S12c	Chiller at Roof of MTR Emergency Access Point	835415	817858	75.5	321	-58.1	0	0	N.A.	0	0	3	3	27.9	N.A.
										S13a	Chiller at Roof of The Toy House	835429	817815	75.5	283	-57.0	0	0	N.A.	0	0	3	3	27.0	N.A.
										S13b	Chiller at Roof of The Toy House	835433	817799	75.5	271	-56.7	0	0	N.A.	0	0	3	3	27.3	N.A.
										S19a	Chiller at Roof of Hong Kong Heritage Discovery Centre	835569	817437	75.5	228	-55.2	0	0	N.A.	0	0	3	3	35.8	N.A.
										S19b	Chiller at Roof of Hong Kong Heritage Discovery Centre	835511	817835	75.5	238	-55.5	0	0	N.A.	0	0	3	3	35.5	N.A.
										S19c	Chiller at Roof of Hong Kong Heritage Discovery Centre	835522	817815	75.5	216	-54.7	0	0	N.A.	0	0	3	3	36.3	N.A.
										S19d	Chiller at Roof of Hong Kong Heritage Discovery Centre	835518	817799	75.5	206	-54.3	0	0	N.A.	0	0	3	3	31.7	N.A.
										S19e	Chiller at Roof of Hong Kong Heritage Discovery Centre	835515	817799	75.5	208	-54.4	0	0	N.A.	0	0	3	3	31.6	N.A.
										S19f	Chiller at Roof of Hong Kong Heritage Discovery Centre	835512	817799	75.5	210	-54.4	0	0	N.A.	0	0	3	3	31.6	N.A.
										S19g	Chiller at Roof of Hong Kong Heritage Discovery Centre	835509	817799	75.5	212	-54.5	0	0	N.A.	0	0	3	3	31.5	N.A.
										S20a	Chiller at Roof of Park Lane Shopper's Boulevard	835729	817936	75.5	297	-57.5	0	0	N.A.	0	0	3	3	35.5	N.A.
										S20b	Chiller at Roof of Park Lane Shopper's Boulevard	835729	817929	75.5	291	-57.3	0	0	N.A.	0	0	3	3	35.7	N.A.
										S25a	Chiller at Rooftop of Hermes House	835888	817447	75.5	305	-57.7	0	0	N.A.	-10	0	3	3	25.3	N.A.
										S25b	Chiller at Rooftop of Hermes House	835897	817448	75.5	312	-57.9	0	0	N.A.	-10	0	3	3	25.1	N.A.
										S26a	Chiller at Podium of Star Mansion	835896	817511	75.5	275	-56.8	0	0	N.A.	-10	0	3	3	23.2	N.A.
										S26b	Chiller at Podium of Star Mansion	835896	817505	75.5	278	-56.9	0	0	N.A.	-10	0	3	3	23.1	N.A.
										S27a	Chiller at Roof of Imperial Hotel	835812	817484	75.5	225	-55.1	0	0	0	-10	0	3	3	20.9	20.9
										S27b	Chiller at Roof of Imperial Hotel	835812	817482	75.5	227	-55.1	0	0	0	-10	0	3	3	20.9	20.9
										S27c	Chiller at Roof of Imperial Hotel	835813	817480	75.5	228	-55.2	0	0	0	-10	0	3	3	20.8	20.8
										S27d	Chiller at Roof of Imperial Hotel	835813	817478	75.5	230	-55.2	0	0	0	-10	0	3	3	20.8	20.8
										S27e	Chiller at Roof of Imperial Hotel	835813	817476	75.5	232	-55.3	0	0	0	-10	0	3	3	20.7	20.7
										S27f	Chiller at Roof of Imperial Hotel	835813	817473	75.5	233	-55.4	0	0	0	-10	0	3	3	20.6	20.6

Prediction of Fixed Noise Source Impact on Planned NSR

NSR Labels	Nature of Use	Existing/Planned Uses	Location			ASR	Noise Criteria (ANL), L _{eq} (30 min)		Noise Source ID	Description of Noise Sources	Source Location			Distance to NSR, d (m)	Correction for, dB(A)								Noise Impact at NSR, dB(A)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
			X	Y	Z, mPD		Daytime & Evening Time (0700-2300)	Nighttime (2300-0700)			X	Y	Z, mPD		Distance	No.	% on time (Daytime)	% on time (Night-time)	Screening by Features ⁽¹⁾	Silencer	Tonality	Facade	Daytime & Evening Period	Night-time																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
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Prediction of Fixed Noise Source Impact on Planned NSR																								
NSR Labels	Nature of Use	Existing/Planned Uses	Location			ASR	Noise Criteria (ANL), L _{eq} (30 min)		Noise Source ID	Description of Noise Sources	Source Location			Distance to NSR, d (m)	Correction for, dB(A)								Noise Impact at NSR, dB(A)	
			X	Y	Z, mPD		Daytime & Evening Time (0700-2300)	Nighttime (2300-0700)			X	Y	Z, mPD		Distance	No.	% on time (Daytime)	% on time (Night time)	Screening by Features ¹¹	Silencer	Tonality	Facade	Daytime & Evening Period	Night-time
									S32a	Chiller at Podium of Granville Building	835886	817834	75.5	300	-57.5	0	0	N.A.	-5	0	3	3	23.5	N.A.
									S32b	Chiller at Podium of Granville Building	835889	817834	75.5	302	-57.6	0	0	N.A.	-5	0	3	3	23.4	N.A.
									S32c	Chiller at Podium of Granville Building	835891	817835	75.5	304	-57.7	0	0	N.A.	-5	0	3	3	23.3	N.A.
									S33a	Chiller at Roof of Carnarvon Plaza	835894	817816	75.5	295	-57.4	0	0	N.A.	0	0	3	3	32.6	N.A.
									S33b	Chiller at Roof of Carnarvon Plaza	835910	817820	75.5	310	-57.8	0	0	N.A.	0	0	3	3	32.2	N.A.
									S34a	Chiller at Podium of 5-8 Cameron Lane	835862	817822	75.5	274	-56.7	0	0	N.A.	-5	0	3	3	22.3	N.A.
									S34b	Chiller at Podium of 5-8 Cameron Lane	835860	817821	75.5	272	-56.7	0	0	N.A.	-5	0	3	3	24.3	N.A.
									S34c	Chiller at Podium of 5-8 Cameron Lane	835859	817821	75.5	271	-56.7	0	0	N.A.	-5	0	3	3	24.3	N.A.
									S34d	Chiller at Podium of 5-8 Cameron Lane	835851	817817	75.5	262	-56.4	0	0	N.A.	-5	0	3	3	22.6	N.A.
									S34e	Chiller at Podium of 5-8 Cameron Lane	835847	817816	75.5	258	-56.2	0	0	N.A.	-5	0	3	3	22.8	N.A.
									S35a	Chiller at Roof of Hang Seng Tsim Sha Tsui Building	835889	817793	75.5	277	-56.9	0	0	N.A.	-10	0	3	3	27.6	N.A.
									S35b	Chiller at Roof of Hang Seng Tsim Sha Tsui Building	835896	817789	75.5	281	-57.0	0	0	N.A.	-10	0	3	3	19.0	N.A.
									S35c	Chiller at Roof of Hang Seng Tsim Sha Tsui Building	835907	817791	75.5	292	-57.3	0	0	N.A.	-10	0	3	3	18.7	N.A.
									S36a	Chiller at Podium of Tern Plaza	835822	817778	75.5	215	-54.6	0	0	N.A.	-10	0	3	3	21.4	N.A.
									S36b	Chiller at Podium of Tern Plaza	835827	817778	75.5	219	-54.8	0	0	N.A.	-10	0	3	3	21.2	N.A.
									S37a	Chiller at Roof of HSBC Building Tsim Sha Tsui	835807	817768	75.5	197	-53.9	0	0	N.A.	0	0	3	3	41.1	N.A.
									S37b	Chiller at Roof of HSBC Building Tsim Sha Tsui	835813	817768	75.5	202	-54.1	0	0	N.A.	0	0	3	3	40.9	N.A.
									S38a	Chiller at Roof of Mansion House	835801	817711	75.5	160	-52.1	0	0	0	-10	0	3	3	28.9	28.9
									S38b	Chiller at Roof of Mansion House	835803	817706	75.5	159	-52.0	0	0	0	-10	0	3	3	29.0	29.0
									S38c	Chiller at Roof of Mansion House	835806	817706	75.5	161	-52.2	0	0	0	-10	0	3	3	27.8	27.8
									S38d	Chiller at Roof of Mansion House	835809	817706	75.5	164	-52.3	0	0	0	-10	0	3	3	27.7	27.7
									S38e	Chiller at Roof of Mansion House	835811	817707	75.5	166	-52.4	0	0	0	-10	0	3	3	27.6	27.6
									S38f	Chiller at Roof of Mansion House	835811	817712	75.5	169	-52.5	0	0	0	-10	0	3	3	27.5	27.5
									S39a	Chiller at Podium of Humphrey Plaza	835860	817728	75.5	220	-54.9	0	0	N.A.	-10	0	3	3	19.1	N.A.
									S40a	Chiller at Roof of Grand Centre	835895	817737	75.5	256	-56.2	0	0	N.A.	-10	0	3	3	22.8	N.A.
									S40b	Chiller at Roof of Grand Centre	835897	817733	75.5	255	-56.1	0	0	N.A.	-10	0	3	3	22.9	N.A.
									S40c	Chiller at Roof of Grand Centre	835898	817728	75.5	255	-56.1	0	0	N.A.	-10	0	3	3	23.9	N.A.
									S41a	Chiller at Roof of Grand Right Centre	835875	817749	75.5	242	-55.7	0	0	N.A.	-10	0	3	3	24.3	N.A.
									S41b	Chiller at Roof of Grand Right Centre	835879	817750	75.5	247	-55.8	0	0	N.A.	-10	0	3	3	22.2	N.A.
									S42a	Chiller at Podium of More Resources Development Building	835828	817684	75.5	175	-52.9	0	0	N.A.	-10	0	3	3	28.1	N.A.
									S42b	Chiller at Podium of More Resources Development Building	835829	817680	75.5	174	-52.8	0	0	N.A.	-10	0	3	3	28.2	N.A.
									S42c	Chiller at Podium of More Resources Development Building	835830	817674	75.5	174	-52.8	0	0	N.A.	-10	0	3	3	28.2	N.A.
									S43a	Chiller at Roof of Yes & Right House	835874	817587	75.5	220	-54.8	0	0	N.A.	0	0	3	3	38.2	N.A.
									S43b	Chiller at Roof of Yes & Right House	835881	817586	75.5	228	-55.1	0	0	N.A.	0	0	3	3	37.9	N.A.
									S44a	Chiller at Podium of K11 the Piazza	835878	817608	75.5	221	-54.9	0	0	0	0	0	3	3	33.1	33.1
									S44b	Chiller at Podium of K11 the Piazza	835882	817608	75.5	225	-55.0	0	0	0	0	0	3	3	35.0	35.0
									S44c	Chiller at Podium of K11 the Piazza	835886	817609	75.5	229	-55.2	0	0	0	0	0	3	3	34.8	34.8
									S44d	Chiller at Podium of K11 the Piazza	835879	817606	75.5	221	-54.9	0	0	0	0	0	3	3	33.1	33.1
									S44e	Chiller at Podium of K11 the Piazza	835883	817606	75.5	225	-55.1	0	0	0	0	0	3	3	34.9	34.9
									S44f	Chiller at Podium of K11 the Piazza	835887	817607	75.5	229	-55.2	0	0	0	0	0	3	3	34.8	34.8
									S44g	Chiller at Podium of K11 the Piazza	835889	817641	75.5	230	-55.2	0	0	0	0	0	3	3	28.8	28.8
									S44h	Chiller at Podium of K11 the Piazza	835893	817648	75.5	233	-55.4	0	0	0	0	0	3	3	30.6	30.6
									S44i	Chiller at Roof of K11 the Piazza	835895	817646	75.5	236	-55.4	0	0	0	0	0	3	3	28.6	28.6
									S44j	Chiller at Roof of K11 the Piazza	835937	817647	75.5	278	-56.9	0	0	0	-10	0	3	3	23.1	23.1
									S44k	Chiller at Roof of K11 the Piazza	835944	817646	75.5	285	-57.1	0	0	0	-10	0	3	3	18.9	18.9
									S44l	Chiller at Roof of K11 the Piazza	835941	817631	75.5	282	-57.0	0	0	0	-10	0	3	3	23.0	23.0
									S44m	Chiller at Roof of K11 the Piazza	835955	817619	75.5	296	-57.4	0	0	0	-10	0	3	3	22.6	22.6
									S44n	Chiller at Roof of K11 the Piazza	835960	817614	75.5	302	-57.6	0	0	0	-10	0	3	3	22.4	22.4
									S46c	Chiller at Roof of 21 Ashley	835592	817570	75.5	95	-47.5	0	0	N.A.	-5	0	3	3	40.5	N.A.
Total =																								
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Prediction of Fixed Noise Source Impact on Planned NSR																								
NSR Labels	Nature of Use	Existing/Planned Uses	Location			ASR	Noise Criteria (ANL), L _{eq} (30 min)		Noise Source ID	Description of Noise Sources	Source Location			Distance to NSR, d (m)	Correction for, dB(A)								Noise Impact at NSR, dB(A)	
			X	Y	Z, mPD		Daytime & Evening Time (0700-2300)	Nighttime (2300-0700)			X	Y	Z, mPD		Distance	No.	% on time (Daytime)	% on time (Night time)	Screening by Features ¹¹	Silencer	Tonality	Facade	Daytime & Evening Period	Night-time
N03	Residential	Planned	835630	817635	75.5	B	65	55	S01a	Chiller at Roof of Kowloon Centre	835578	817649	75.5	53	-42.5	0	0	N.A.	0	0	3	3	48.5	N.A.
									S01b	Chiller at Roof of Kowloon Centre	835579	817643	75.5	51	-42.2	0	0	N.A.	0	0	3	3	48.8	N.A.
									S01c	Chiller at Roof of Kowloon Centre	835587	817643	75.5	43	-40.7	0	0	N.A.	0	0	3	3	52.3	N.A.
									S01d	Chiller at Roof of Kowloon Centre	835583	817614	75.5	51	-42.2	0	0	N.A.	0	0	3	3	48.8	N.A.
									S01e	Chiller at Roof of Kowloon Centre	835584	817607	75.5	53	-42.6	0	0	N.A.	0	0	3	3	48.4	N.A.
									S02a	Chiller at Podium of Godown for HK Museum of History	835542	817712	75.5	116	-49.3	0	0	N.A.	-10	0	3	3	26.7	N.A.
									S02b	Chiller at Podium of Godown for HK Museum of History	835540	817711	75.5	118	-49.4	0	0	N.A.	-10	0	3	3	26.6	N.A.
									S02c	Chiller at Podium of Godown for HK Museum of History	835536	817711	75.5	121	-49.7	0	0	N.A.	-10	0	3	3	26.3	N.A.
									S02d	Chiller at Podium of Godown for HK Museum of History	835534	817711	75.5	122	-49.7	0	0	N.A.	-10	0	3	3	26.3	N.A.
								(2)	S04a	Chiller at Podium at Maxwell Centre	835624	817622	9.5	17	-32.7	0	0	N.A.	0	0	3	3	51.3	N.A.
								(2)	S04b	Chiller at Podium at Maxwell Centre	835624	817620	9.5	19	-33.4	0	0	N.A.	0	0	3	3	50.6	N.A.
								(2)	S04c	Chiller at Podium at Maxwell Centre	835624	817618	9.5	20	-34.0	0	0	N.A.	0	0	3	3	50.0	N.A.
								(2)	S04d	Chiller at Podium at Maxwell Centre	835626	817621	12.5	19	-33.7	0	0	N.A.	0	0	3	3	54.3	N.A.
								(2)	S04e	Chiller at Podium at Maxwell Centre	835626	817619	12.5	21	-34.5	0	0	N.A.	-5	0	3	3	48.5	N.A.
									S7a	Chiller at Roof of Hong Kong Pacific Centre	835688	817549	75.5	104	-48.3	0	0	N.A.	0	0	3	3	40.7	N.A.
									S7b	Chiller at Roof of Hong Kong Pacific Centre	835696	817550	75.5	108	-48.7	0	0	N.A.	0	0	3	3	40.3	N.A.
								(2)	S7c	Chiller at Podium of Hong Kong Pacific Centre	835695	817545	13.4	112	-49.0	0	0	N.A.	-10	0	3	3	27.0	N.A.
								(2)	S7d	Chiller at Podium of Hong Kong Pacific Centre	835693	817543	13.4	113	-49.0	0	0	N.A.	-10	0	3	3	27.0	N.A.
								(2)	S7e	Chiller at Podium of Hong Kong Pacific Centre	835695	817543	13.4	114	-49.1	0	0	N.A.	-10	0	3	3	26.9	N.A.
								(2)	S7f	Chiller at Podium of Hong Kong Pacific Centre	835698	817532	13.4	124	-49.9	0	0	N.A.	-5	0	3	3	31.1	N.A.
								(2)	S7g	Chiller at Podium of Hong Kong Pacific Centre	835696	817532	13.4	123	-49.8	0	0	N.A.	-5	0	3	3	31.2	N.A.
									S8a	Chiller at Roof of Prince Tower	835695	817522	75.5	131	-50.3	0	0	N.A.	0	0	3	3	42.7	N.A.
									S8b	Chiller at Roof of Prince Tower	835701	817523	75.5	133	-50.5	0	0	N.A.	0	0	3	3	42.5	N.A.
									S9a	Chiller at Roof of Sands Building	835658	817523	75.5	115	-49.2	0	0	N.A.	0	0	3	3	43.8	N.A.
									S9b	Chiller at Roof of Sands Building	835654	817525	75.5	112	-49.0	0	0	N.A.	0	0	3	3	43.0	N.A.
									S9c	Chiller at Roof of Sands Building	835649	817525	75.5	112	-49.0	0	0	N.A.	0	0	3	3	43.0	N.A.
									S9d	Chiller at Roof of Sands Building	835649	817514	75.5	123	-49.8	0	0	N.A.	0	0	3	3	40.2	N.A.
								(2)	S9e	Chiller at Podium of Sands Building	835662	817526	19.2	127	-50.1	0	0	N.A.	-5	0	3	3	34.9	N.A.
								(2)	S9f	Chiller at Podium of Sands Building	835668	817524	19.2	130	-50.3	0	0	N.A.	-5	0	3	3	34.7	N.A.
								(2)	S9g	Chiller at Podium of Sands Building	835663	817523	19.2	130	-50.2	0	0	N.A.	-5	0	3	3	34.8	N.A.
								(2)	S9h	Chiller at Podium of Sands Building	835663	817520	19.2	133	-50.5	0	0	N.A.	-5	0	3	3	28.5	N.A.
								(2)	S9i	Chiller at Podium of Sands Building	835663	817517	19.2	135	-50.6	0	0	N.A.	-5	0	3	3	28.4	N.A.
								(2)	S9j	Chiller at Podium of Sands Building	835665	817520	19.2	133	-50.5	0	0	N.A.	-5	0	3	3	30.5	N.A.
									S10a	Chiller at Roof of Yue Hwa International Building	835597	817508	75.5	131	-50.3	0	0	N.A.	0	0	3	3	40.7	N.A.
									S10b	Chiller at Roof of Yue Hwa International Building	835598	817500	75.5	139	-50.9	0	0	N.A.	0	0	3	3	40.1	N.A.
								(2)	S10c	Chiller at Podium of Yue Hwa International Building	835614	817506	16.2	131	-50.3	0	0	N.A.	0	0	3	3	39.7	N.A.
								(2)	S10d	Chiller at Podium of Yue Hwa International Building	835612	817520	16.2	117	-49.4	0	0	N.A.	0	0	3	3	40.6	N.A.
									S11a	Chiller at Roof of Ashley Nine	835600	817537	75.5	102	-48.2	0	0	N.A.	0	0	3	3	42.8	N.A.
									S11b	Chiller at Roof of Ashley Nine	835605	817538	75.5	100	-48.0	0	0	N.A.	0	0	3	3	43.0	N.A.
									S12a	Chiller at Roof of MTR Emergency Access Point	835414	817863	75.5	314	-57.9	0	0	N.A.	0	0	3	3	28.1	N.A.
									S12b	Chiller at Roof of MTR Emergency Access Point	835414	817860	75.5	312	-57.9	0	0	N.A.	0	0	3	3	28.1	N.A.
									S12c	Chiller at Roof of MTR Emergency Access Point	835415	817858	75.5	309	-57.8	0	0	N.A.	0	0	3	3	28.2	N.A.
									S13a	Chiller at Roof of The Toy House	835429	817815	75.5	269	-56.6	0	0	N.A.	0	0	3	3	27.4	N.A.
									S13b	Chiller at Roof of The Toy House	835433	817799	75.5	256	-56.2	0	0	N.A.	0	0	3	3	27.8	N.A.
									S14a	Chiller at Roof of Lippo Sun Plaza	835504	817538	75.5	158	-52.0	8	0	N.A.	-10	0	3	3	39.6	N.A.
									S14b	Chiller at Roof of Lippo Sun Plaza	835524	817543	75.5	141	-51.0	8	0	N.A.	-10	0	3	3	40.6	N.A.
									S15a	Chiller at Roof of The Langham Hong Kong	835525	817525	75.5	152	-51.6	0	0	0	-10	0	3	3	33.4	33.4
									S15b	Chiller at Roof of The Langham Hong Kong	835541	817528	75.5	139	-50.9	0	0	0	-10	0	3	3	34.1	34.1
									S15c	Chiller at Roof of The Langham Hong Kong	835552	817521	75.5	138	-50.8	0	0	0	-10	0	3	3	28.2	28.2
									S15d	Chiller at Roof of The Langham Hong Kong	835555	817505	75.5	150	-51.5	0	0	0	-10	0	3	3	27.5	27.5
									S15e	Chiller at Roof of The Langham Hong Kong	835549	817492	75.5	164	-52.3	0	0	0	-10	0	3	3	26.7	26.7
									S16a	Chiller at Roof of 4-8 Canton Road	835491	817494	75.5	198	-53.9	0	0	N.A.	-10	0	3	3	20.1	N.A.
									S16b	Chiller at Roof of 4-8 Canton Road	835491	817492	75.5	199	-54.0	0	0	N.A.	-10	0	3	3	20.0	N.A.
									S16c	Chiller at Roof of 4-8 Canton Road	835492	817491	75.5	200	-54.0	0	0	N.A.	-10	0	3	3	20.0	N.A.
									S17a	Chiller at Roof of Pacific Star Building	835495	817482	75.5	204	-54.2	0	0	N.A.	-10	0	3	3	19.8	N.A.
									S17b	Chiller at Roof of Pacific Star Building	835496	817480	75.5	205	-54.2	0	0	N.A.	-10	0	3	3	19.8	N.A.
									S17c	Chiller at Roof of Pacific Star Building	835496	817478	75.5	206	-54.3	0	0	N.A.	-10	0	3	3	19.7	N.A.
									S17d	Chiller at Roof of Pacific Star Building	835500	817482	75.5	201	-54.0	0	0	N.A.	-10	0	3	3	25.0	N.A.
									S17e	Chiller at Roof of Pacific Star Building	835501	817479	75.5	202	-54.1	0	0	N.A.	-10	0	3	3	24.9	N.A.

Prediction of Fixed Noise Source Impact on Planned NSR																								
NSR Labels	Nature of Use	Existing/Planned Uses	Location			ASR	Noise Criteria (ANL), L _{eq} (30 min)		Noise Source ID	Description of Noise Sources	Source Location			Distance to NSR, d (m)	Correction for, dB(A)								Noise Impact at NSR, dB(A)	
			X	Y	Z, mPD		Daytime & Evening Time (0700-2300)	Nighttime (2300-0700)			X	Y	Z, mPD		Distance	No.	% on time (Daytime)	% on time (Night time)	Screening by Features ¹¹	Silencer	Tonality	Facade	Daytime & Evening Period	Night-time
N04	Residential	Planned	835631	817646	75.5	B	65	55	S01a	Chiller at Roof of Kowloon Centre	835578	817649	75.5	53	-42.5	0	0	N.A.	0	0	3	3	48.5	N.A.
									S01b	Chiller at Roof of Kowloon Centre	835579	817643	75.5	51	-42.2	0	0	N.A.	0	0	3	3	48.8	N.A.
									S01c	Chiller at Roof of Kowloon Centre	835587	817643	75.5	43	-40.7	0	0	N.A.	0	0	3	3	52.3	N.A.
									S01d	Chiller at Roof of Kowloon Centre	835583	817614	75.5	51	-42.2	0	0	N.A.	-5	0	3	3	43.8	N.A.
									S01e	Chiller at Roof of Kowloon Centre	835584	817607	75.5	53	-42.6	0	0	N.A.	-5	0	3	3	43.4	N.A.
									S02a	Chiller at Podium of Godown for HK Museum of History	835542	817712	75.5	116	-49.3	0	0	N.A.	-10	0	3	3	26.7	N.A.
									S02b	Chiller at Podium of Godown for HK Museum of History	835540	817711	75.5	118	-49.4	0	0	N.A.	-10	0	3	3	26.6	N.A.
									S02c	Chiller at Podium of Godown for HK Museum of History	835536	817711	75.5	121	-49.7	0	0	N.A.	-10	0	3	3	26.3	N.A.
									S02d	Chiller at Podium of Godown for HK Museum of History	835534	817711	75.5	122	-49.7	0	0	N.A.	-10	0	3	3	26.3	N.A.
									S03a	Chiller at Roof of Health Education Exhibition and Resources Centre	835673	817710	75.5	86	-46.7	0	0	N.A.	0	0	3	3	37.3	N.A.
									S03b	Chiller at Roof of Health Education Exhibition and Resources Centre	835667	817709	75.5	83	-46.4	0	0	N.A.	0	0	3	3	37.6	N.A.
									S03c	Chiller at Roof of Health Education Exhibition and Resources Centre	835661	817709	75.5	80	-46.1	0	0	N.A.	0	0	3	3	37.9	N.A.
									S03d	Chiller at Roof of Health Education Exhibition and Resources Centre	835656	817709	75.5	78	-45.9	0	0	N.A.	0	0	3	3	38.1	N.A.
									S03e	Chiller at Roof of Health Education Exhibition and Resources Centre	835650	817708	75.5	76	-45.6	0	0	N.A.	0	0	3	3	38.4	N.A.
									S03f	Chiller at Roof of Health Education Exhibition and Resources Centre	835673	817706	75.5	83	-46.4	0	0	N.A.	0	0	3	3	37.6	N.A.
									S03g	Chiller at Roof of Health Education Exhibition and Resources Centre	835667	817705	75.5	80	-46.0	0	0	N.A.	0	0	3	3	38.0	N.A.
									S03h	Chiller at Roof of Health Education Exhibition and Resources Centre	835662	817705	75.5	77	-45.7	0	0	N.A.	0	0	3	3	38.3	N.A.
									S03i	Chiller at Roof of Health Education Exhibition and Resources Centre	835656	817705	75.5	75	-45.4	0	0	N.A.	0	0	3	3	38.6	N.A.
									S03j	Chiller at Roof of Health Education Exhibition and Resources Centre	835650	817704	75.5	72	-45.2	0	0	N.A.	0	0	3	3	38.8	N.A.
									S12a	Chiller at Roof of MTR Emergency Access Point	835414	817863	75.5	314	-57.9	0	0	N.A.	0	0	3	3	28.1	N.A.
									S12b	Chiller at Roof of MTR Emergency Access Point	835414	817860	75.5	312	-57.9	0	0	N.A.	0	0	3	3	28.1	N.A.
									S12c	Chiller at Roof of MTR Emergency Access Point	835415	817858	75.5	309	-57.8	0	0	N.A.	0	0	3	3	28.2	N.A.
									S13a	Chiller at Roof of The Toy House	835429	817815	75.5	269	-56.6	0	0	N.A.	0	0	3	3	27.4	N.A.
									S13b	Chiller at Roof of The Toy House	835433	817799	75.5	256	-56.2	0	0	N.A.	0	0	3	3	27.8	N.A.
									S14a	Chiller at Roof of Lippo Sun Plaza	835504	817538	75.5	158	-52.0	8	0	N.A.	-5	0	3	3	44.6	N.A.
									S14b	Chiller at Roof of Lippo Sun Plaza	835524	817543	75.5	141	-51.0	8	0	N.A.	-5	0	3	3	45.6	N.A.
									S15a	Chiller at Roof of The Langham Hong Kong	835525	817525	75.5	152	-51.6	0	0	0	-10	0	3	3	33.4	33.4
									S15b	Chiller at Roof of The Langham Hong Kong	835541	817528	75.5	139	-50.9	0	0	0	-10	0	3	3	34.1	34.1
									S15c	Chiller at Roof of The Langham Hong Kong	835552	817521	75.5	138	-50.8	0	0	0	-10	0	3	3	28.2	28.2
									S15d	Chiller at Roof of The Langham Hong Kong	835555	817505	75.5	150	-51.5	0	0	0	-10	0	3	3	27.5	27.5
									S15e	Chiller at Roof of The Langham Hong Kong	835549	817492	75.5	164	-52.3	0	0	0	-10	0	3	3	26.7	26.7
									S16a	Chiller at Roof of 4-8 Canton Road	835491	817494	75.5	198	-53.9	0	0	N.A.	-10	0	3	3	20.1	N.A.
									S16b	Chiller at Roof of 4-8 Canton Road	835491	817492	75.5	199	-54.0	0	0	N.A.	-10	0	3	3	20.0	N.A.
									S16c	Chiller at Roof of 4-8 Canton Road	835492	817491	75.5	200	-54.0	0	0	N.A.	-10	0	3	3	20.0	N.A.
									S17a	Chiller at Roof of Pacific Star Building	835495	817482	75.5	204	-54.2	0	0	N.A.	-10	0	3	3	19.8	N.A.
									S17b	Chiller at Roof of Pacific Star Building	835496	817480	75.5	205	-54.2	0	0	N.A.	-10	0	3	3	19.8	N.A.
									S17c	Chiller at Roof of Pacific Star Building	835496	817478	75.5	206	-54.3	0	0	N.A.	-10	0	3	3	19.7	N.A.
									S17d	Chiller at Roof of Pacific Star Building	835500	817482	75.5	201	-54.0	0	0	N.A.	-10	0	3	3	25.0	N.A.
									S17e	Chiller at Roof of Pacific Star Building	835501	817479	75.5	202	-54.1	0	0	N.A.	-10	0	3	3	24.9	N.A.
									S19a	Chiller at Roof of Hong Kong Heritage Discovery Centre	835569	817437	75.5	207	-54.3	0	0	N.A.	0	0	3	3	36.7	N.A.
									S19b	Chiller at Roof of Hong Kong Heritage Discovery Centre	835511	817835	75.5	233	-55.3	0	0	N.A.	0	0	3	3	35.7	N.A.
									S19c	Chiller at Roof of Hong Kong Heritage Discovery Centre	835522	817815	75.5	210	-54.4	0	0	N.A.	0	0	3	3	36.6	N.A.
									S19d	Chiller at Roof of Hong Kong Heritage Discovery Centre	835518	817799	75.5	199	-54.0	0	0	N.A.	0	0	3	3	32.0	N.A.
									S19e	Chiller at Roof of Hong Kong Heritage Discovery Centre	835515	817799	75.5	200	-54.0	0	0	N.A.	0	0	3	3	32.0	N.A.
									S19f	Chiller at Roof of Hong Kong Heritage Discovery Centre	835512	817799	75.5	202	-54.1	0	0	N.A.	0	0	3	3	31.9	N.A.
									S19g	Chiller at Roof of Hong Kong Heritage Discovery Centre	835509	817799	75.5	203	-54.1	0	0	N.A.	0	0	3	3	31.9	N.A.
									S20a	Chiller at Roof of Park Lane Shopper's Boulevard	835729	817936	75.5	317	-58.0	0	0	N.A.	0	0	3	3	35.0	N.A.
									S20b	Chiller at Roof of Park Lane Shopper's Boulevard	835729	817929	75.5	311	-57.9	0	0	N.A.	0	0	3	3	35.1	N.A.

Prediction of Fixed Noise Source Impact on Planned NSR																									
NSR Labels	Nature of Use	Existing/Planned Uses	Location			ASR	Noise Criteria (ANL), L _{eq} (30 min)		Noise Source ID	Description of Noise Sources	Source Location			Distance to NSR, d (m)	Correction for, dB(A)								Noise Impact at NSR, dB(A)		
			X	Y	Z, mPD		Daytime & Evening Time (0700-2300)	Nighttime (2300-0700)			X	Y	Z, mPD		Distance	No.	% on time (Daytime)	% on time (Night time)	Screening by Features ^[1]	Silencer	Tonality	Facade	Daytime & Evening Period	Night-time	
										S29a	Chiller at Roof at The Mira Hong Kong	835790	817911	75.5	319	-58.1	0	0	0	0	0	3	3	31.9	31.9
										S29b	Chiller at Roof at The Mira Hong Kong	835790	817904	75.5	313	-57.9	0	0	0	0	0	3	3	32.1	32.1
										S29c	Chiller at Roof at The Mira Hong Kong	835790	817896	75.5	306	-57.7	0	0	0	0	0	3	3	32.3	32.3
										S29d	Chiller at Roof at The Mira Hong Kong	835791	817887	75.5	299	-57.5	0	0	0	-10	0	3	3	22.5	22.5
										S30a	Chiller at Roof at The One	835803	817865	75.5	288	-57.2	0	0	N.A.	-5	0	3	3	26.8	N.A.
										S30b	Chiller at Roof at The One	835813	817867	75.5	296	-57.4	0	0	N.A.	-5	0	3	3	26.6	N.A.
										S30c	Chiller at Roof at The One	835822	817870	75.5	303	-57.6	0	0	N.A.	-5	0	3	3	26.4	N.A.
										S30d	Chiller at Roof at The One	835829	817875	75.5	312	-57.9	0	0	N.A.	-5	0	3	3	26.1	N.A.
										S30e	Chiller at Roof at The One	835833	817870	75.5	310	-57.8	0	0	N.A.	-5	0	3	3	26.2	N.A.
										S31a	Cooling Tower at Roof of Albion Plaza	835824	817840	75.5	282	-57.0	0	0	N.A.	0	0	3	3	44.0	N.A.
										S31b	Cooling Tower at Roof of Albion Plaza	835828	817841	75.5	286	-57.1	0	0	N.A.	0	0	3	3	43.9	N.A.
										S31c	Cooling Tower at Roof of Albion Plaza	835834	817843	75.5	292	-57.3	0	0	N.A.	0	0	3	3	43.7	N.A.
										S31d	Cooling Tower at Roof of Albion Plaza	835838	817845	75.5	296	-57.4	0	0	N.A.	0	0	3	3	43.6	N.A.
										S32a	Chiller at Podium of Granville Building	835886	817834	75.5	325	-58.2	0	0	N.A.	-5	0	3	3	22.8	N.A.
										S32b	Chiller at Podium of Granville Building	835889	817834	75.5	327	-58.3	0	0	N.A.	-5	0	3	3	22.7	N.A.
										S32c	Chiller at Podium of Granville Building	835891	817835	75.5	329	-58.3	0	0	N.A.	-5	0	3	3	22.7	N.A.
										S33a	Chiller at Roof of Camarvon Plaza	835894	817816	75.5	320	-58.1	0	0	N.A.	0	0	3	3	31.9	N.A.
										S33b	Chiller at Roof of Camarvon Plaza	835910	817820	75.5	336	-58.5	0	0	N.A.	0	0	3	3	31.5	N.A.
										S34a	Chiller at Podium of 5-8 Cameron Lane	835862	817822	75.5	298	-57.5	0	0	N.A.	-5	0	3	3	21.5	N.A.
										S34b	Chiller at Podium of 5-8 Cameron Lane	835860	817821	75.5	296	-57.4	0	0	N.A.	-5	0	3	3	23.6	N.A.
										S34c	Chiller at Podium of 5-8 Cameron Lane	835859	817821	75.5	295	-57.4	0	0	N.A.	-5	0	3	3	23.6	N.A.
										S34d	Chiller at Podium of 5-8 Cameron Lane	835851	817817	75.5	286	-57.1	0	0	N.A.	-5	0	3	3	21.9	N.A.
										S34e	Chiller at Podium of 5-8 Cameron Lane	835847	817816	75.5	282	-57.0	0	0	N.A.	-5	0	3	3	22.0	N.A.
										S35a	Chiller at Roof of Hang Seng Tsim Sha Tsui Building	835889	817793	75.5	303	-57.6	0	0	N.A.	0	0	3	3	36.9	N.A.
										S35b	Chiller at Roof of Hang Seng Tsim Sha Tsui Building	835896	817789	75.5	308	-57.8	0	0	N.A.	0	0	3	3	28.2	N.A.
										S35c	Chiller at Roof of Hang Seng Tsim Sha Tsui Building	835907	817791	75.5	319	-58.1	0	0	N.A.	0	0	3	3	27.9	N.A.
										S36a	Chiller at Podium of Tern Plaza	835822	817778	75.5	240	-55.6	0	0	N.A.	-10	0	3	3	20.4	N.A.
										S36b	Chiller at Podium of Tern Plaza	835827	817778	75.5	244	-55.8	0	0	N.A.	-10	0	3	3	20.2	N.A.
										S37a	Chiller at Roof of HSBC Building Tsim Sha Tsui	835807	817768	75.5	221	-54.9	0	0	N.A.	0	0	3	3	40.1	N.A.
										S37b	Chiller at Roof of HSBC Building Tsim Sha Tsui	835813	817768	75.5	227	-55.1	0	0	N.A.	0	0	3	3	39.9	N.A.
										S38a	Chiller at Roof of Manson House	835801	817711	75.5	188	-53.5	0	0	0	0	0	3	3	37.5	37.5
										S38b	Chiller at Roof of Manson House	835803	817706	75.5	187	-53.5	0	0	0	0	0	3	3	37.5	37.5
										S38c	Chiller at Roof of Manson House	835806	817706	75.5	190	-53.6	0	0	0	0	0	3	3	36.4	36.4
										S38d	Chiller at Roof of Manson House	835809	817706	75.5	193	-53.7	0	0	0	0	0	3	3	36.3	36.3
										S38e	Chiller at Roof of Manson House	835811	817707	75.5	195	-53.8	0	0	0	0	0	3	3	36.2	36.2
										S38f	Chiller at Roof of Manson House	835811	817712	75.5	197	-53.9	0	0	0	0	0	3	3	36.1	36.1
										S39a	Chiller at Podium of Humphrey Plaza	835860	817728	75.5	248	-55.9	0	0	N.A.	-10	0	3	3	18.1	N.A.
										S40a	Chiller at Roof of Grand Centre	835895	817737	75.5	284	-57.1	0	0	N.A.	0	0	3	3	31.9	N.A.
										S40b	Chiller at Roof of Grand Centre	835897	817733	75.5	284	-57.1	0	0	N.A.	0	0	3	3	31.9	N.A.
										S40c	Chiller at Roof of Grand Centre	835898	817728	75.5	284	-57.1	0	0	N.A.	0	0	3	3	32.9	N.A.
										S41a	Chiller at Roof of Grand Right Centre	835875	817749	75.5	270	-56.6	0	0	N.A.	0	0	3	3	33.4	N.A.
										S41b	Chiller at Roof of Grand Right Centre	835879	817750	75.5	275	-56.8	0	0	N.A.	0	0	3	3	31.2	N.A.
										S42a	Chiller at Podium of More Resources Development Building	835828	817684	75.5	204	-54.2	0	0	N.A.	-10	0	3	3	26.8	N.A.
										S42b	Chiller at Podium of More Resources Development Building	835829	817680	75.5	204	-54.2	0	0	N.A.	-10	0	3	3	26.8	N.A.
										S42c	Chiller at Podium of More Resources Development Building	835830	817674	75.5	204	-54.2	0	0	N.A.	-10	0	3	3	26.8	N.A.
										S44h	Chiller at Podium of K11 the Piazza	835893	817648	75.5	263	-56.4	0	0	0	-10	0	3	3	19.6	19.6
										S44i	Chiller at Roof of K11 the Piazza	835895	817646	75.5	266	-56.5	0	0	0	-10	0	3	3	17.5	17.5
										S44j	Chiller at Roof of K11 the Piazza	835937	817647	75.5	308	-57.8	0	0	0	-10	0	3	3	22.2	22.2
										S44k	Chiller at Roof of K11 the Piazza	835944	817646	75.5	315	-58.0	0	0	0	-10	0	3	3	18.0	18.0
										S45a	Chiller at Podium of The Gateway Tower	835357	817623	75.5	273	-56.7	0	0	N.A.	0	0	3	3	32.3	N.A.
										S45b	Chiller at Podium of The Gateway Tower	835361	817608	75.5	270	-56.6	0	0	N.A.	0	0	3	3	31.4	N.A.
										S46a	Chiller at Roof of 21 Ashley	835589	817597	75.5	55	-42.9	0	0	N.A.	-10	0	3	3	40.1	N.A.
										S46b	Chiller at Roof of 21 Ashley	835587	817590	75.5	62	-43.9	0	0	N.A.	-10	0	3	3	39.1	N.A.
										S46c	Chiller at Roof of 21 Ashley	835592	817570	75.5	75	-45.5	0	0	N.A.	-10	0	3	3	37.5	N.A.
																		Total =	59	46					

Notes:

^[1] Screening by structures resulting in rough noise attenuation of 10 dB(A) for full screening and 5 dB(A) for partial screening.

^[2] Slant distance is applied for the noise sources at podium level near the Proposed Site.

^[3] It is considered that all noise sources on-site are steady, and will not generate sudden noise impulse. Impulsive noise correction are therefore not applicable in the calculation.