# Appendix D

# Environmental Assessment

Prepared for

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# SECTION 16 PLANNING APPLICATION FOR SUBMISSION OF LAYOUT PLAN FOR PERMITTED 'FLAT' AND 'SOCIAL WELFARE FACILITY' USES AT TSUEN WAN INLAND LOT 5 AND LOT NO. 429 IN D.D. 399, TING KAU, TSUEN WAN

## ENVIRONMENTAL ASSESSMENT

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# 1. INTRODUCTION

## 1.1 Background and Objectives

1.1.1 The Subject Site falls in "Residential (Group B) 2" ("R(B)2") Zone at TWIL 5 and Lot No. 429 in D.D. 399, Ting Kau, Tsuen Wan according to the approved Tsuen Wan West Outline Zoning Plan ("OZP") No. S/TWW/21 gazetted under section 9(1)(a) of Town Planning Ordinance.

1.1.2 Ramboll Hong Kong Limited is commissioned by the Project Proponent to conduct the Environmental Assessment ("EA") to support the planning application. This EA report is prepared based upon the proposed master layout plan. Corresponding noise mitigation measures will be proposed, if it is required. The potential air quality impact assessment will be addressed by a separate assessment report.

## 1.2 Subject Site and its Environs

1.2.1 The Subject Site is located to the east of Tsing Long Highway (Toll Road) and south of Castle Peak Road (Ting Kau) as well as between Lido Beach and Ting Kau Beach. Figure 1.1 shows the location of the Subject Site and its environs.

## 1.3 Proposed Redevelopment

1.3.1 The development site area of Proposed Redevelopment is approximately 6,066 $m^2$ and consists of two residential blocks (Tower 1 and 2), a social welfare facility underneath Tower 1 and a car park at the basement. The Proposed Redevelopment will provide not more than 674 residential units. Appendix 1.1 shows the MLP of the Proposed Redevelopment.

## 1.4 Appraisal on Environmental Impact

Noise Impact

1.4.1 The major noise sources in the study area are from road traffic, such as Tsing Long Highway and Castle Peak Road. The predicted noise levels at NSRs facing the roads exceed the noise standard. Mitigation measures including acoustic window and acoustic balcony are proposed in order to reduce the road traffic noise impact and achieve a 100% compliance rate.

Air Quality

1.4.2 The quantitative air quality impacts are addressed in a separate assessment report.

Waste Management

1.4.3 The potential waste management issues in connection with the construction of the Proposed Redevelopment Site will be discussed in Section 3. Waste management Practices and mitigation measures will be recommended in order to alleviate the impacts, where necessary.

# 2. ROAD TRAFFIC NOISE IMPACT ASSESSMENT

## 2.1 Introduction

2.1.1 This road traffic noise impact assessment is prepared to address road traffic noise impact on the noise sensitive uses of the Proposed Redevelopment and to recommend mitigation measures where practicable to attenuate the impact.

## 2.2 Assessment Criteria

2.2.1 Noise standards are recommended in Chapter 9 "Environment" of the HKPSG for planning against possible noise impact from road traffic, railway and aircrafts. According to the standards and guidelines, the maximum allowed road traffic noise level, measured in terms of $L_{10(1\text{-hr.})}$, at typical facades of the Proposed Conversion with residential use is 70 dB(A) in terms of $L_{10(1\text{-hr.})}$.

2.2.2 For the Proposed Redevelopment, only dwellings will rely on openable window for ventilation purpose (i.e., residential units). For the Day Care Centre for the Elderly and clubhouse will be provided with air-conditioning system and will not be provided with any openable windows / openings for ventilation.

2.2.3 According to the guidelines, the criterion for road traffic noise impact on domestic premises (habitable rooms) is L10(1-hour) 70dB(A). This criterion applies to uses which rely on openable windows for ventilation.

## 2.3 Assessment Methodology

2.3.1 The assessment concerns the prediction of the maximum $L_{10(1\text{-hr.})}$ traffic noise level at noise sensitive receivers ("NSRs") of the Proposed Conversion due to the projected traffic flow on the adjacent major road networks for Year 2043, which is considered as the worst-case scenario within 15 years after the completion of the Proposed Conversion in Year 2028. The traffic flow was predicted by the traffic consultant, AECOM. The traffic forecast for Year 2043 includes information of the traffic volume and percentage of heavy vehicle of the adjacent major roads. The traffic forecast and Transport Department's no objection in principle is shown in Appendix 2.1.

2.3.2 The U.K. Department of Transport's procedure "Calculation of Road Traffic Noise" was applied to predict the $L_{10(1\text{-hr.})}$ noise level generated from road traffic at selected representative facades (NSRs) of the Proposed Conversion. It is checked that the a.m. peak traffic flow is higher than the p.m. one. Therefore, the a.m. peak traffic data is adopted in this assessment. The predicted noise levels were then compared with the recommended noise standards in HKPSG for assessing the impact.

## 2.4 Road Characteristic

2.4.1 The adjacent roads of the Subject Site, namely Tsing Long Highway (Toll Road), Castle Peak Road (Ting Kau and New Ting Kau) and Slip Road connecting Ting Kau Bridge and Tuen Mun Road (West) are considered as the dominant sources of road traffic noise to the NSRs. Other local roads in the study area, like access road to the Subject Site and Ting Yat Road, are also considered as sources of road traffic noise (refer to Appendix 2.1).

## 2.5 Noise Sensitive Receivers

2.5.1 The representative facades with openable windows were identified as NSRs in the assessment. Locations of NSRs are shown in Figure 2.1. The assessment points are taken at 1.2 m above the floors of the selected storey and 1m away from the facades of openable windows.

## 2.6 Road Traffic Impact Assessment Result (Base Case)

2.6.1 The assessment result for dwelling under base case scenario is presented in Appendix 2.2 and summarised below.

Table 2.1 Assessment Result under Base Case Scenario

| Scenario | Max Predicted Noise Level | Total Number of Exceedances | Compliance Rate |
|---|---|---|---|
| AM | 76 | 199 | 70% |

2.6.2 Based on the Traffic forecast data, the traffic peak flow at AM is larger than that PM. Hence, the AM traffic peak flow is considered to be the worst-case scenario. Noise mitigation measures are recommended for the Proposed Redevelopment based on the AM scenario to attenuate the road traffic noise impact.

## 2.7 Proposed Noise Mitigation Measures

2.7.1 Noise mitigation measures have been duly studied and applied where practicable.

a. Fixed Glazing with/without Maintenance Window

2.7.2 For those window façades that are not necessary for ventilation purpose yet exposed to road traffic noise, Fixed Glazing with/without Maintenance Window is proposed. The fixed glazing of not less than 8mm will be equipped with well gasketed maintenance window with a removable handle or key lock system to ensure the maintenance window remains locked except for cleaning and maintenance purpose.

b. Acoustic Window (Baffle Type) (AW(BT))-(NPE)

2.7.3 Innovative noise mitigation measures are being explored in recent years. Baffle type acoustic windows and acoustic doors have been adopted for numerous residential developments for attenuating road traffic noise. It is understood that Environmental Protection Department (EPD) has issued the Practice Note on Application of Innovative Noise Mitigation Designs in Planning Private Residential Developments against Road Traffic Noise Impact (hereafter referred as "EPD-PN") for mitigating road traffic noise impact.

2.7.4 The reference cases in EPD-PN have been made to adopt in first place for the Proposed Redevelopment. However, there are some major parameters cannot be followed (i.e. outer/inner opening is much larger than the EPD-PN, different number of outer openings, full height side wall near the outer opening cannot be provided at the window etc.), reference cases from other developments are therefore adopted.

2.7.5 Baffle type acoustic windows are proposed and the noise attenuation performance for AW(BT) –NPE is referenced to the redevelopment project of ex-North Point Estate (hereafter referred as "NPE"), which was previously proposed in the Approved EA report.

2.7.6 The AW(BT)) in NPE refers to the type of window that has an inner sliding panel behind the outer opening, both readily openable, for creating an air gap for the supply of fresh air with noise mitigation effect. It comprises two glazing: -

i. The outer window system with side hung openable window and

ii. The inner sliding panel.

2.7.7 The "designed setting" to reduce noise entering indoor area is achieved by placing the inner sliding panel behind the openable window, so that noise from outside cannot pass through the opening window and enter indoor area directly. As there is no gap at top and bottom of the sliding panel, direct transmission of sound energy into the habitable room is avoided. Instead, outdoor noise has to pass through the gap between the inner sliding panel and outer façade aside the opening window/door in order to enter indoor

area. The design allows natural ventilation through the aforementioned gap (although extent of natural ventilation may be inferior to the case without the inner sliding panel behind) and prevent most noise from entering indoor environment. According to the latest PNAP APP-130: "Lighting and Ventilation Requirements – Performance-based Approach", the proposed AW(BT) are considered complying with prescribed ventilation requirement if the net opening when the inner sliding panel is moved to another side with least obstruction to the openable window/door at the outer façade.

2.7.8 The sound reduction of acoustic window with MPA applied in bedroom of NPE reaches 6.8dB(A) (for bedroom of 6.8$m^2$, air gap of 100mm and overlapping length of 275mm). Since the area of the residential units proposed with AW(BT)-NPE ranges from around 4.1$m^2$ to 8.9$m^2$, room size correction would be applied if the dormitory size is smaller than reference case. The AW(BT) for dormitories would be optimized at later detailed design stage.

2.7.9 The outer opening size & room size also play a significant role in affecting the sound attenuation performance. The sound attenuation performance provided by AW(BT) increases with room size because of the longer reverberation time and lower reverberation effect in larger room. Due to the room size difference between the Proposed Redevelopment, the reference case, further adjustment is needed and is made by accounting the difference between the room size between the Proposed Redevelopment the reference case. As a conservative approach, the corrected noise level would not be greater than the reference case even the room size of the Proposed Redevelopment is larger than the reference case. Moreover, the outer opening size of the Proposed Redevelopment is larger than the reference case, similar approach to adjustment of room size is also adopted to the outer opening size. Appendix 2.4 shows the sound attenuation adjustment of AW(BT) adopted in the Proposed Redevelopment. In case, the noise reduction of the proposed AW(BT) is higher than the residual exceedance, it is assumed that the reduction is equal to the residual exceedance for conservative assessment approach.

2.7.10 For NSR T1TYP31 which the room area is 4.6$m^2$, it is noted that there would still have around 0.6 dB(A) exceedance after provision of the AW (BT) - NPE. In order to further mitigate these minor exceedances, additional sound absorption material (SAM) at the window frame (top and outer opening side of mullion) of acoustic window is proposed. According to the approved Acoustic Window (Baffle Type) Mock-up Test Report for proposed development at T.P.T.L. 225, Tai Po, the acoustic window having addition of SAM at top of frame behind the sliding panel and at one side of frame can offer an additional 0.9 - 1.1 dB(A) reduction. For conservatism, it is assumed that the SAM able to provide at least 0.6 dB(A) traffic noise reduction in this assessment. As such, the NSR T1TYP31 would comply with the standard after the provision of the above mitigation measure.

c. Acoustic Balcony (Baffle Type) (AB(BT))-(KT)

2.7.11 Again, the design parameter of AB(BT) in Proposed Redevelopment may not be able to follow the reference case of EPD-PN, in view of the room area is much larger than that for the EPD-PN which is for 8 $m^2$ room area only. The room area of the living room is around 13$m^2$, thus reference case from other developments is adopted. Below describes the reference AB(BT)-KT adopted at other approved project, such as Proposed Development at Kai Tak Area 1F1, proposed comprehensive development at Kai Tak Area 1F1, NKIL6568 etc. The project owner of the above-mentioned projects is the same. The noise attenuation performance provided by the AB(BT)-KT is obtained via laboratory testing which has been approved by EPD.

2.7.12 AB(BT)-KT comprises of an inner sliding glass panel. When the inner sliding glass panel is in closed condition and the outer sliding glass panel in open condition, an 100mm air gap is formed for the supply of fresh air and 375mm overlapping for noise mitigation effect. The design can enable natural ventilation through the gap between the outer

façade and inner sliding panel on one hand and prevent most noise from entering indoor environment on the other hand.

2.7.13 AB(BT)-KT is a typical combined balcony, with the A/C platform located at the adjacent side of the sliding door. Solid balustrades are adopted, surrounding the U.P. and balcony area.

2.7.14 A road traffic noise sound attenuation of the AB(BT)-KT for the living room with 11.2$m^2$ can reach 6.7 dB(A) noise reduction. The above noise attenuation performance is obtained via laboratory testing which has been approved by EPD.

2.7.15 Furthermore, the actual sound attenuation adopted at individual NSR would not be more than the residual exceedance estimated and the maximum sound attenuation mentioned above as a conservative approach.

## 2.8 Road Traffic Impact Assessment Result (Mitigated Case)

2.8.1 The predicted road traffic noise effects on the selected NSRs based on the noise mitigation measures discussed above were assessed and presented in Appendix 2.5. With the implementation of the above recommended mitigation measure, full compliance can be achieved for the residential towers. The compliance rate would be 100%.

## 2.9 Conclusion

2.9.1 Road traffic noise impact assessment has been carried out for the Proposed Redevelopment.

2.9.2 All practical and effective noise mitigation measures have been explored, which include podia building, building setback and orientation, acoustic window (baffle type), acoustic balcony (baffle type), and fixed glazing with/ without maintenance window.

2.9.3 After mitigation, no exceedance is found. No significant road traffic noise impact is anticipated for the Proposed Redevelopment. Figure 2.2 and Appendix 2.6 show the consolidated noise mitigation measures and schedule.

# 3. WASTE MANAGEMENT

## 3.1 Introduction

3.1.1 This section presents the management and disposal strategy of the wastes generated from the construction work and operational phase. The options for waste minimization, reuse, recycling, collection, transportation and disposal of wastes arising from the construction, demolition work and operational phase have been examined. Where appropriate, procedures for waste reduction and management are considered and environmental control measures for avoiding and minimising the potential impacts are recommended.

## 3.2 Legislation

3.2.1 The following legislations and guidelines are relevant to the handling, treatment and disposal of waste in HKSAR and references were made in assessing the potential impacts and their avoidance or mitigation:

- *Waste Disposal Ordinance (Cap. 354);*
- *Waste Disposal (Chemical Waste) (General) Regulation (Cap. 354C);*
- *Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 354N); and*
- *Practice Note for Authorized Persons and Registered Structural Engineers – Construction and Demolition Waste (PNAP ADV-19, also known as PN for AR&RSE No. 243)*

3.2.2 The following guidelines also relate to waste management and disposal:

- *Waste Disposal Plan for Hong Kong (1989);*
- *Hong Kong Planning Standards and Guidelines (HKPSG), Chapter 9 – Environment;*
- *WBTC No. 2/93, Public Dumps;*
- *WBTC No. 2/93B, Public Filling Facilities;*
- *WBTC No. 12/2000, Fill Management, Hong Kong SAR Government;*
- *WBTC No. 12/2002, Specification Facilitating the Use of Recycled Aggregates, Works Bureau, Hong Kong SAR Government;*
- *WBTC No. 32/92, The Use of Tropical Hard Wood on Construction Site;*
- *ETWB TC(W) No. 19/2005 Environmental Management on Construction Sites;*
- *DEVB TC(W) No. 2/2011, Encouraging the Use of Recycled and other Green Materials in Public Works Projects;*
- *DEVB TC(W) No. 6/2010, Trip Ticket System for Disposal of Construction & Demolition Materials, Development Bureau, Hong Kong SAR Government;*
- *DEVB TC(W) No. 8/2010, Enhanced Specification for Site Cleanliness and Tidiness, Works Bureau, Hong Kong SAR Government;*
- *DEVB TC(W) No. 9/2011, Enhanced Control Measures for Management of Public Fill;*
- *CEDD TC No. 3/2015, Management of Construction and Demolition Materials;*
- *ProPECC PN2/97, Handling of Asbestos Containing Materials in Buildings;*
- *Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes, EPD (1992); and*
- *Project Administration Handbook for Civil Engineering Works.*

## 3.3 Assessment Methodology

3.3.1 The assessment of the potential waste management implications during the construction and operation phases of the Project has been conducted in accordance with Annexes 7 and 15 of the EIAO-TM, including the following tasks:

- Estimation of the types and quantities of the wastes generated;
- Evaluation of opportunities for waste reduction and re-use;
- Identification of disposal options for each type of wastes;
- Assessment of potential environmental impacts arising from the wastes management with respect of potential hazards, air and odour emissions, noise, wastewater discharge, and public transport; and
- Assessment of the impacts caused by handling, collection, transportation and re-use /disposal of wastes.

3.3.2 Prior to considering the disposal options for various types of waste, opportunities for reducing waste generation, on-site or off-site reuse and recycling have been evaluated. Measures which can be taken in the planning and design phases (e.g. by modifying the design approach) and in the construction phase for maximizing waste reduction have been separately considered. Practices to promote segregation of waste materials are additionally considered for advancing the waste management efficiency.

3.3.3 After considering the opportunities for reducing waste generation and maximizing reuse, the types and quantities of the waste required to be disposed of have been estimated and the disposal options for each type of waste have been described. The disposal method recommended for each type of waste has been taken into account the result of the assessment. The impacts caused by handling (including stockpiling, labelling, packaging and storage), collection and reuse / disposal of waste have been addressed and appropriate mitigation measures have been proposed.

## 3.4 Identification and Evaluation of Potential Impact during Construction Stage

3.4.1 The construction activities to be carried out for the proposed Project would generate a variety of wastes that can be divided into distinct categories based on their composition and ultimate method of disposal. The identified waste types include:

- Construction and Demolition (C&D) materials (including those from site clearance);
- General refuse generated by the workforce; and
- Chemical and oily wastes due to maintenance of equipment.

C&D Materials

3.4.2 C&D materials comprise mainly of unwanted materials, including surplus materials arising from excavations that are generated from the works (e.g. site clearance, demolition works of substructure, site formation works, excavation work for basement). Inert soft C&D materials comprise of soil, sand, clay, slurry, etc., while hard C&D materials comprise of crushed concrete, asphalt, rock, etc. The amount of non-inert C&D materials generated during site clearance would be minor (as there is little vegetation at the Subject Site). C&D materials may comprise different types of materials, including:

- Inert C&D materials (also known as public fill, including soil, rock debris, rubble earth, concrete, etc.) do not decompose and are suitable to reuse as filling materials for land reclamation and site formation. Inert C&D materials could be reused on-site as filling materials. For those inert C&D materials that cannot be reused should be delivered to Public Fill Reception Facilities.
- Non-inert C&D materials (also known as C&D waste, including bamboo, timber, paper, metal, glass, plastic, packaging wastes, etc.). Non-inert C&D materials should be reused or recycled as far as possible. For those non-inert C&D materials

that cannot be reused or recycled, they should be disposed of at designated landfill sites as last resort.

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

3.4.4 Inert C&D materials should be re-used on-site (e.g for backfilling) if it is practical and/or delivered to public filling area or other CEDD designated public fill reception facilities. Non-inert C&D materials (i.e. C&D waste) should be re-used or recycled. For those that cannot be reused or recycled, they should be disposed of at designated landfill sites as last resort.

3.4.5 According to ETWB TC(W) 19/2005 on "Environmental Management on Construction Sites", waste management plan (WMP) becomes part of Environmental Management Plan (EMP) to be submitted to Architect/ Engineer for approval before construction works. The Project team will require the Contractor(s) to submit WMPs for approval. The WMPs will include appropriate mitigation measures to avoid, reduce, reuse and recycle C&D materials. It will ensure that the day-to-day operations on site comply with the approved WMPs. It will control the disposal of inert C&D materials and non-inert C&D materials to public fill reception facilities and landfills, respectively, through a trip-ticket system. It will require the Contractor(s) to separate public fill from C&D materials for disposal at appropriate facilities. It will record the disposal, reuse and recycling of C&D materials for monitoring purposes.

3.4.6 The Contractor(s) should be responsible for ensuring that all on-site wastes will be collected by approved waste collectors and appropriate measures should be undertaken to minimise adverse impacts to the surrounding environment, such as dust generation. The Contractor(s) must also ensure that all necessary waste disposal permits have been obtained before actions.

3.4.7 Prior to deliver of non-inert C&D materials, it is recommended that wood, steel, glass and other metals will be collected separately for re-use and/or recycling and inert C&D materials utilized as fill materials to minimize the quantity of waste to be delivered to the Public Fill Reception Facilities and landfill. The details are shown in Table 5.1.

3.4.8 All the soil generated from the underground work should be refill on site to form the site to the required level. Other C&D materials should be used on-site as far as practicable.

3.4.9 If the total quantity of C&D materials generated from the Project is estimated to be over 50,000 $m^3$, a Construction and Demolition Material Management Plan (C&DMMP) is required to be prepared at the feasibility study or preliminary design stage in accordance with Chapter 4 Clause 4.1.3 of Project Administration Handbook for Civil Engineering Works. The purpose of the C&DMMP is to actively seek to minimise generation of C&D materials and to reuse inert materials generated, including rock, as far as possible. The C&DMMP shall be signed off by a D1 officer. The C&DMMP has been prepared in accordance with the guidelines stipulated in Appendix 4.9 of Project Administration Handbook for Civil Engineering Works for separate submission.

Chemical Waste

3.4.10 Construction plant and equipment will require regular maintenance and servicing, which would generate waste such as solvents, lubrication oil and fuel, etc. Chemical wastes arising during the construction phase may pose serious environmental, health and safety hazards if not stored and disposed of in an appropriate manner.

3.4.11 It is difficult to quantify the amount of chemical wastes as it will solely depend on the contractor's on-site maintenance practice and the quantities of plant and vehicles utilized at the construction site. Nevertheless, it is anticipated that the quantity of

chemical waste such as lubrication oil and solvent produced from equipment maintenance would be small and less than hundred litres per month.

3.4.12 The contractor is required to register as a chemical waste producer if chemical wastes would be produced from the construction activities. The Waste Disposal Ordinance (Cap 354) and its subsidiary regulations in particular the Waste Disposal (Chemical Waste) (General) Regulation should be observed and complied with for control of chemical wastes.

3.4.13 Storage, handling, transportation and disposal of chemical waste should be arranged in accordance with the Code of Practice on the Packaging, Labelling and Storage of Chemical Waste published by the EPD. Chemical wastes such as wasted solvents, lubrication oil and fuel, etc. will need special handling and storage arrangements and should be collected by licensed collectors for subsequent disposal and appropriate treatment at licensed waste disposal facilities, for example the Chemical Waste Treatment Facility Centre (CWTC) in Tsing Yi. Mitigation and control requirements for chemical waste are provided in the "Recommended Pollution Control Clauses for Construction Contracts" available in EPD website mentioned the handling, storage and disposal of chemical wastes. With good management and site particles, adverse environmental impacts should not result.

General Refuse

3.4.14 The volume of general site wastes to be generated will depend on the Contractor's operating procedure and practices. In addition, during the construction phase, the workforce would generate general refuse, comprising food scraps, paper, empty containers etc. Rapid and effective collection of site wastes will be required to prevent waste materials being blown around by wind, flushed or leached into the environment, and odour nuisance. The amount of general refuse which is likely to arise will be largely dependent on the size of the workforce employed by the Contractor(s).

3.4.15 As no information regarding the number of workers on-site is available at this early project state, it has been assumed that about 80 workers in average will work on the Subject Site during site formation at any one time. Based on a generation rate of 0.65kg per worker per day, the daily arising of general refuse during site formation would be approximately 52kg/day.

3.4.16 Preliminary quantity estimation of construction waste involved and disposal method is summarised in the Table 5.1 below.

Table 3-1 Summary of Estimated Construction Waste and Disposal Method

| Waste Material Type | | Estimated Quantity Generated | Disposal Method |
|---|---|---|---|
| Inert C&D materials (Soil, rock debris, rubble earth, concrete etc.) | Demolition of Existing Building | ~ 132654.2 $m^3$ | To be reused or recycled on site or in other projects; and delivered to Public Fill Reception Facilities for other beneficial reuse |
| | Excavation of Basements | ~ 9011.3 $m^3$ | |
| | Construction of New Buildings/Structures | ~ 270.3 $m^3$ | |
| Non-inert C&D materials (Bamboo, timber, paper, metal, | Demolition of Existing Building and Excavation of Basements | ~6,938.7 $m^3$ | Disposed to NENT landfill. |

| Waste Material Type | | Estimated Quantity Generated | Disposal Method |
|---|---|---|---|
| glass, plastic, packaging wastes etc.) | Construction of New Buildings/Structures | ~108.1 $m^3$ | |
| Chemical Waste | - | Less than hundred litres /month (preliminary estimate) | To be collected by licensed chemical waste collector and delivered to CWTC |
| General Refuse | - | 52kg/day (preliminary estimate, assuming there are 80 workers at any one time with generation rate of 0.65kg per worker per day) | Recyclables to recyclers; Non-recyclables to landfill |

## 3.5 Mitigation Measures During Construction Phase

3.5.1 The mitigation measures for construction phase are recommended based on the waste management hierarchy principles. Recommendations of good site practices, waste reduction measures as well as the waste transportation, storage and collection are described in following sub-sections.

Good Site Practices

3.5.2 Appropriate waste handling, transportation and disposal methods for all waste arisings generated during the construction phase should be implemented to ensure that construction waste do not enter the nearby water sensitive receivers.

3.5.3 It is expected that significant impacts from waste management would not arise, provided that good site practices are strictly followed. Recommendations for good site practices during construction include:

- Nomination of approved personnel, such as a site manager, to be responsible for good site practices, and making arrangements for collection of all wastes generated at the site and effective disposal to appropriate facilities;
- Training of site personnel in proper waste management and chemical waste handling procedures;
- Provision of sufficient waste disposal points and regular collection for disposal;
- Appropriate measures to minimise windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers;
- Regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors.

3.5.4 In order to monitor the disposal of C&D material at landfills and public fill reception facilities, as appropriate, and to control fly tipping, a trip-ticket system should be included as one of the contractual requirements to be implemented by the Contractor. Reference shall be made to DEVB TCW No. 6/2010 for details.

Waste Reduction Measures

3.5.5 Good management and control can prevent the generation of significant amounts of waste. Waste reduction is best achieved at the planning and design stage, as well as by ensuring the implementation of good site practices. Recommendations to achieve waste reduction include:

- Segregation and storage of different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal;

- Separate labelled bins shall be provided to segregate aluminium cans from other general refuse generated by the work force, and to encourage collection of by individual collectors;
- Any unused chemicals or those with remaining functional capacity shall be recycled;
- Maximising the use of reusable steel formwork to reduce the amount of c&d material;
- Prior to disposal of non-inert c&d material, it is recommended that wood, steel and other metals shall be separated for re-use and / or recycling to minimise the quantity of waste to be disposed of to landfill;
- Proper storage and site practices to minimise the potential for damage or contamination of construction materials;
- Store construction materials carefully with good planning to minimise amount of waste generated and avoid unnecessary generation of waste; and
- Minimize over ordering of concrete, mortars and cement grout by careful check before ordering.

3.5.6 In addition to the above good site practices and waste reduction measures, specific mitigation measures are recommended for the identified waste to minimise environmental impacts during handling, transportation and disposal of these wastes.

General Refuse

3.5.7 Recycle bins will be provided onsite to collect recyclable wastes such as paper, metal (e.g. cans), plastic and glass. Recyclable wastes will be segregated from non-recyclable waste to be stored in enclosed bins or compaction units. A reputable waste collector should be employed by the contractor to remove general refuse from the site on a daily basis. Recyclable waste will be collected in appropriate frequency to ensure no over stacking of recyclable wastes. An enclosed and covered area is preferred to reduce the occurrence of 'wind blown' light material.

Construction and Demolition Material

3.5.8 The C&D material generated from site formation should be sorted on-site into inert C&D material (that is, public fill) and non-inert C&D material. In order to minimise the impact resulting from collection and transportation of C&D materials for off-site disposal, the excavated material comprising fill material should be reused on-site as backfilling material as far as practicable. Non-inert C&D material, such as wood, plastic, steel and other metals should be reused or recycled and, as a last resort, disposed of to landfill.

3.5.9 Suitable areas should be designated within the site for temporary stockpiling of C&D material and to facilitate the sorting process. Within stockpile areas, the following measures should be taken to control potential environmental impacts or nuisance:

- Covering material during heavy rainfall;
- Locating stockpiles to minimise potential air quality, water quality and visual impacts; and
- Minimising land intake of stockpile areas as far as possible.

Chemical Wastes

3.5.10 For those processes which would generate chemical waste, it may be possible to find alternatives to eliminate the use of chemicals, to reduce the generation quantities or to select a chemical type of less impact on environment, health and safety as far as possible.

3.5.11 If chemical wastes are produced at the construction site, the Contractor should register with EPD as a Chemical Waste Producer and to follow the guidelines stated in the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes. Good quality containers compatible with the chemical wastes should be used. Appropriate labels should be securely attached on each chemical waste container indicating the corresponding chemical characteristics of the chemical waste, such as explosives, flammable, oxidising, irritant, toxic, harmful, corrosive, etc. The Contractor shall use a licensed collector to transport, and disposal of the chemical wastes generated at the Chemical Waste Treatment Centre at Tsing Yi, or other licenced facility, in accordance with the Waste Disposal (Chemical Waste) (General) Regulation.

# 4. OVERALL CONCULSION

4.1.1 An environmental assessment has been conducted for the Proposed Redevelopment.

4.1.2 An assessment has been carried out for the Proposed Redevelopment. After considering the relevant constraints on the Proposed Redevelopment, all possible noise mitigation measures have been comprehensively studied and all practicable noise mitigation measures have been adopted. Full compliance of road traffic noise standard (i.e. L10(1-hr) 70 dB(A)) can be achieved.

4.1.3 With the implementation of the waste management measures, no significant impact is anticipated due to the waste generated during construction stages.

Figures

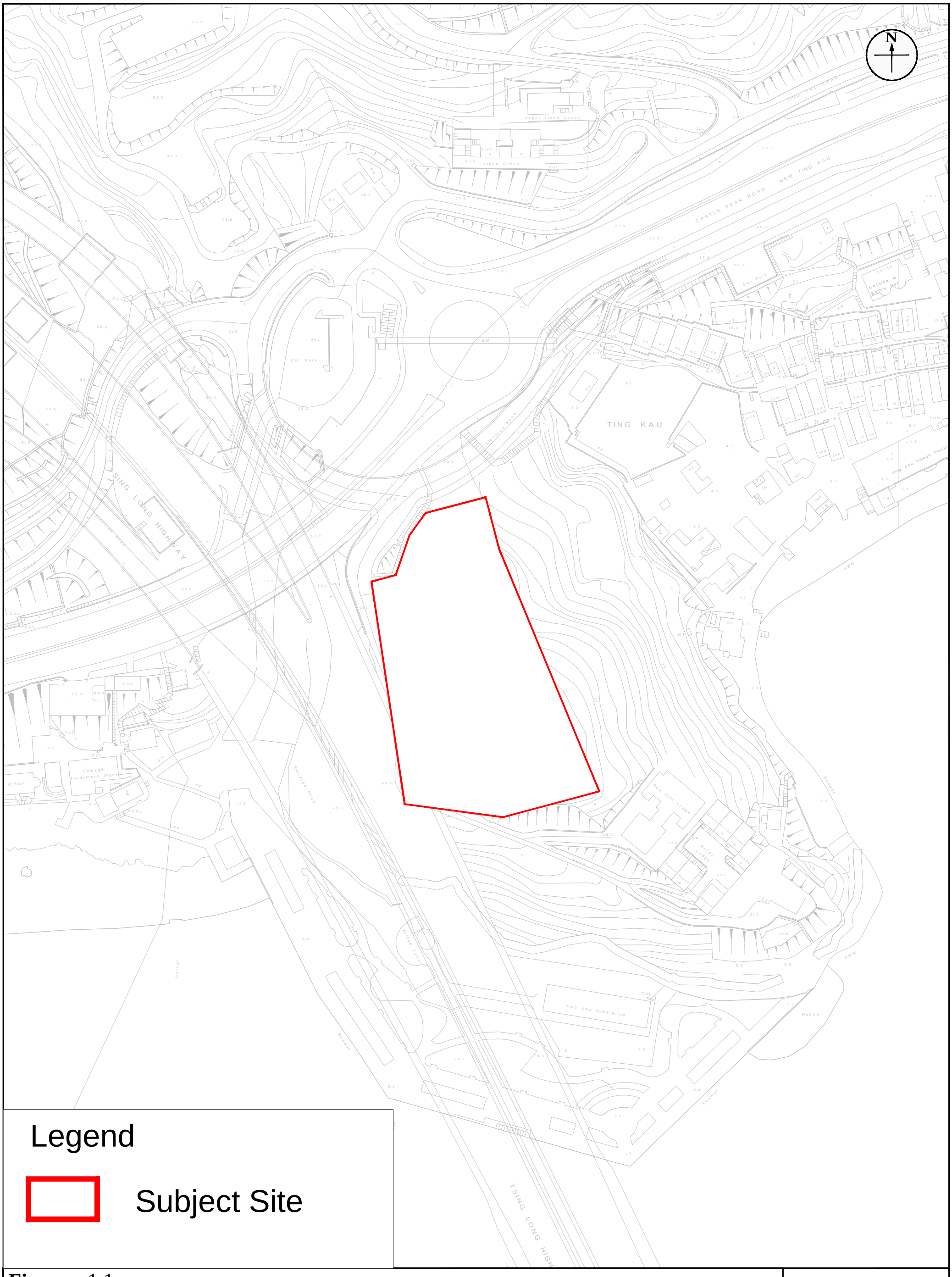



**Figure:** 1.1

**Title:** Location of Subject Site and Its Environs

Drawn by: KK

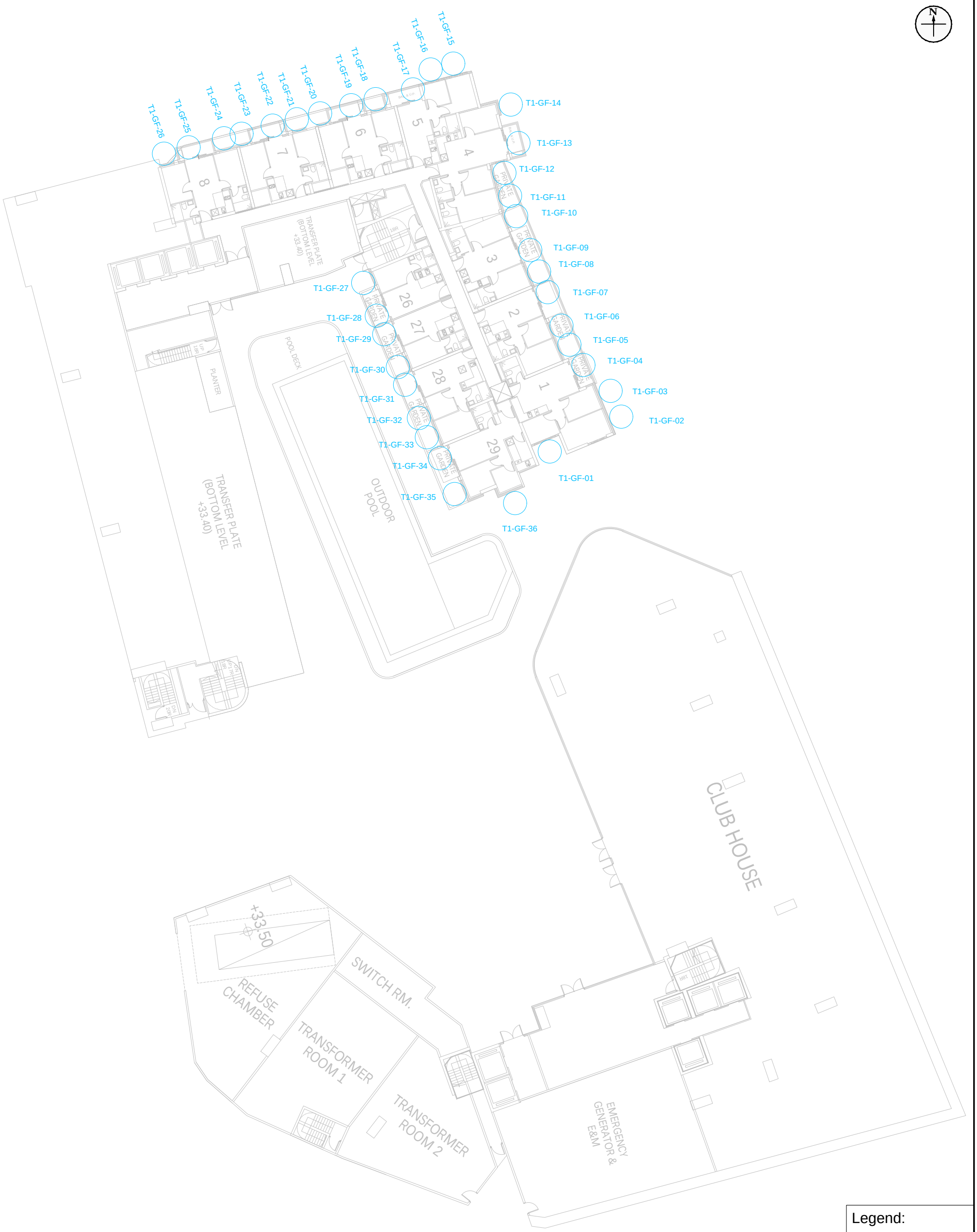
Checked by: TC

**Project:** Section 16 Planning Application For Submission of Layout Plan For Permitted 'Flat' and 'Social Welfare Facility' use at Tsuen Wan Inland Lot 5 and Lot No. 429 In D.D. 399, Ting Kau, Tsuen Wan

Rev.: 2.1

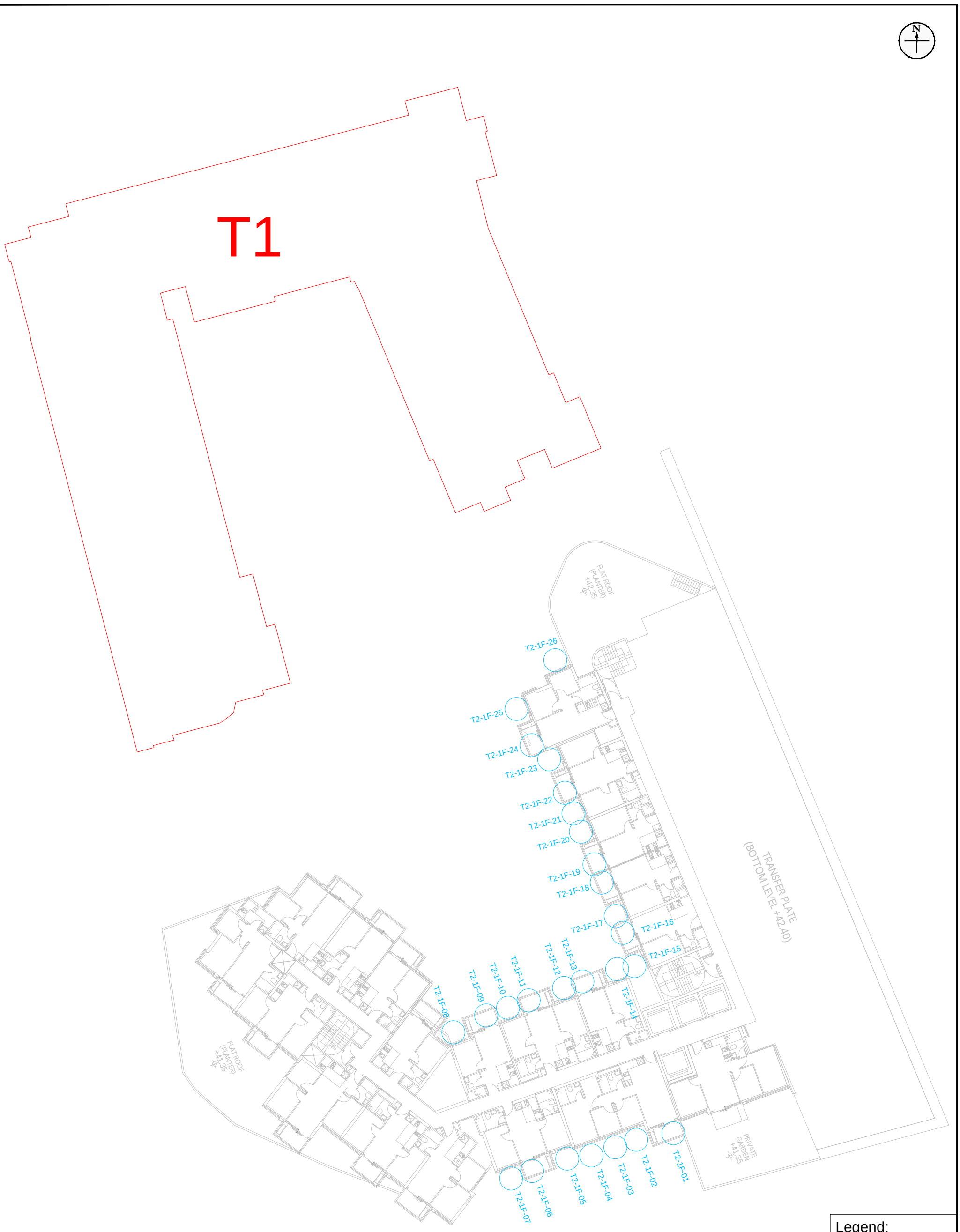
Date: Apr 2024

Q:\Projects\SHKTKBHSEI00\05 Assessments\02 Noise\02 Traffic\20240424\TNIA_240424.dxf

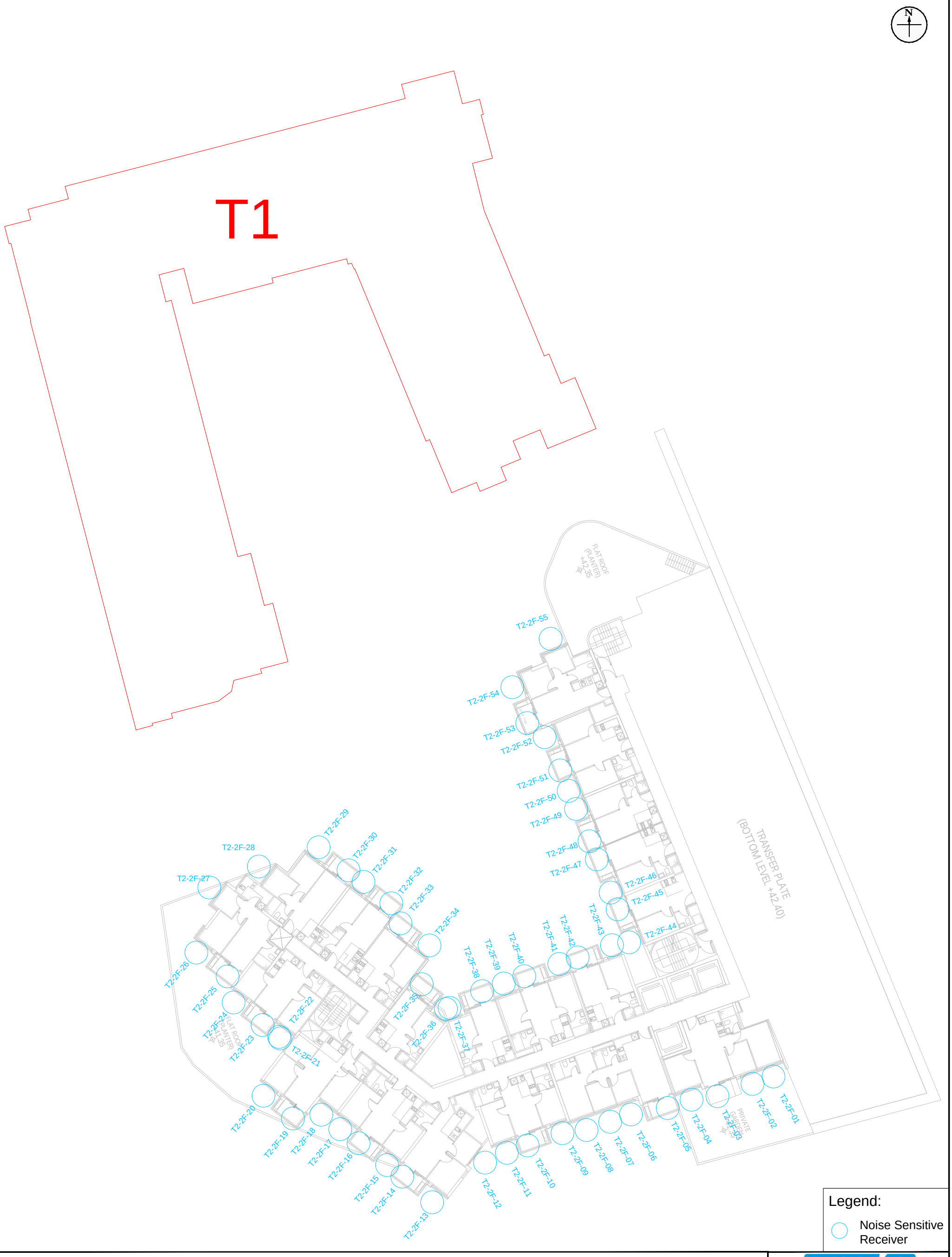



| | |
|---|---|
| **Figure:** 2.1a | RAMBOLL |
| **Title:** Location of Representative Noise Sensitive Receivers (T1-GF) | Drawn by: KK |
| | Checked by: TC |
| **Project:** Section 16 Planning Application For Proposed Redevelopment Royal View Hotel at Ting Kau, Tsuen Wan | Rev.: 2.1 |
| | Date: Jul 2024 |

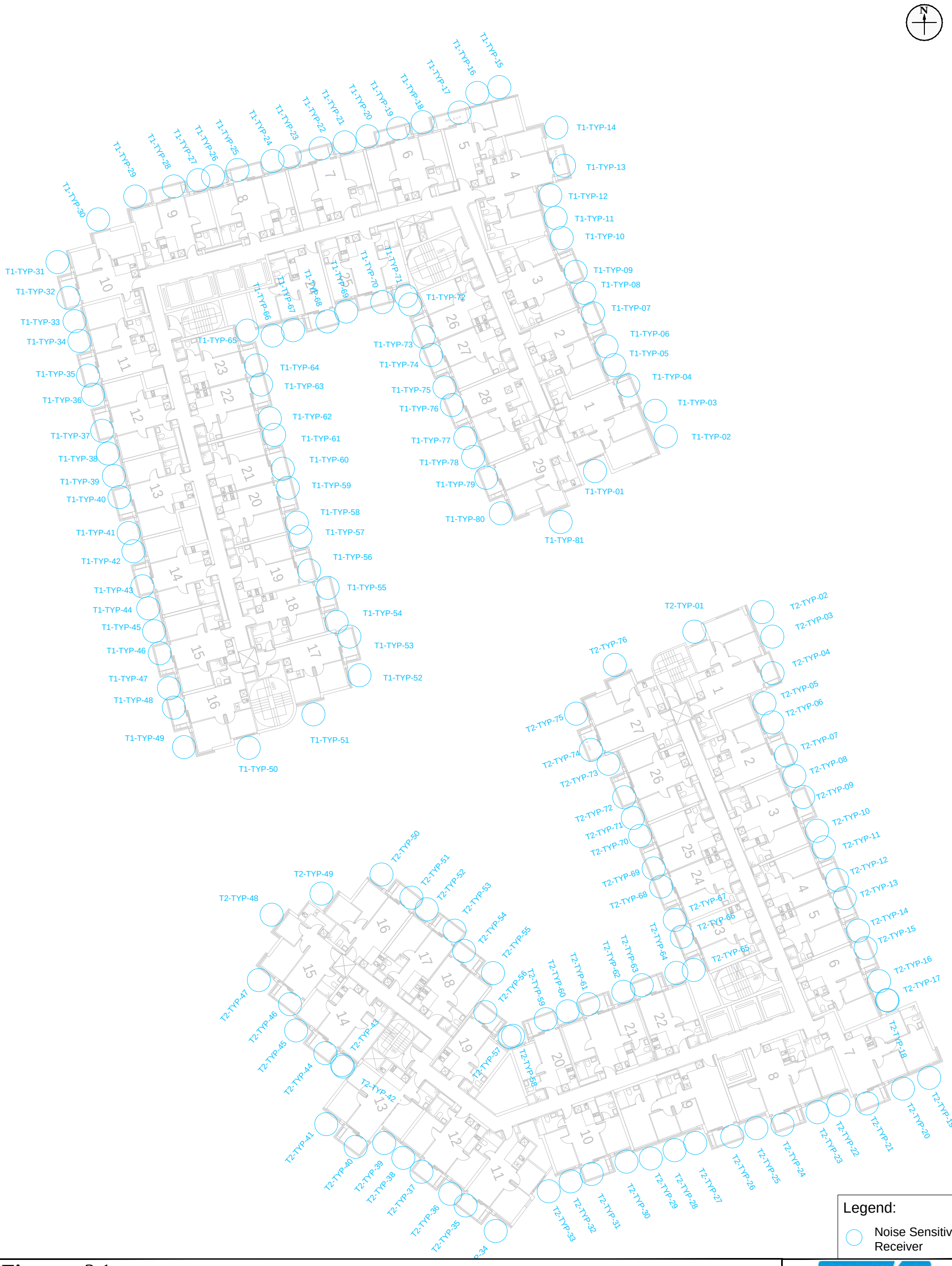

| | | |
|---|---|---|
| **Figure:** | 2.1b | RAMBOLL |
| **Title:** | Location of Representative Noise Sensitive Receivers (T1-1F) | Drawn by: KK<br>Checked by: TC |
| **Project:** | Section 16 Planning Application For Proposed Redevelopment Royal View Hotel at Ting Kau, Tsuen Wan | Rev.: 2.1<br>Date: Jul 2024 |




| | |
|---|---|
| **Figure:** 2.1c | RAMBOLL |
| **Title:** Location of Representative Noise Sensitive Receivers (T2-1F) | Drawn by: KK |
| | Checked by: TC |
| **Project:** Section 16 Planning Application For Proposed Redevelopment Royal View Hotel at Ting Kau, Tsuen Wan | Rev.: 2.1 |
| | Date: Jul 2024 |




| | |
|---|---|
| **Figure:** 2.1d | RAMBOLL |
| **Title:** Location of Representative Noise Sensitive Receivers (T2-2F) | Drawn by: KK |
| | Checked by: TC |
| **Project:** Section 16 Planning Application For Proposed Redevelopment Royal View Hotel at Ting Kau, Tsuen Wan | Rev.: 2.1 |
| | Date: Jul 2024 |




| | |
|---|---|
| **Figure:** 2.1e | RAMBOLL |
| **Title:** Location of Representative Noise Sensitive Receivers (T1& T2-TYP) | Drawn by: KK |
| | Checked by: TC |
| **Project:** Section 16 Planning Application For Proposed Redevelopment Royal View Hotel at Ting Kau, Tsuen Wan | Rev.: 2.1 |
| | Date: Jul 2024 |


| | |
|---|---|
| **Figure:** 2.1f | RAMBOLL |
| **Title:** Location of Representative Noise Sensitive Receivers (T1-13F& T2-12F) | Drawn by: KK |
| | Checked by: TC |
| **Project:** Section 16 Planning Application For Proposed Redevelopment Royal View Hotel at Ting Kau, Tsuen Wan | Rev.: 2.1 |
| | Date: Jul 2024 |


| | |
|---|---|
| **Figure:** 2.2 | RAMBOLL |
| **Title:** Location of Proposed Noise Mitigation Measures (T1& T2) | Drawn by: KK |
| | Checked by: TC |
| **Project:** Section 16 Planning Application For Proposed Redevelopment Royal View Hotel at Ting Kau, Tsuen Wan | Rev.: 2.1 |
| | Date: Jul 2024 |

# Appendix 1.1 Floor Plans, MLP and Section of Proposed Redevelopment

LEGEND

- APPLICATION SITE BOUNDARY
- DEVELOPMENT SITE BOUNDARY
- FOOTPATH / COVERED AREA
- CARPARK / DRIVEWAY
- RESIDENTIAL USE
- LANDSCAPE AREA
- PRIVATE FLAT ROOF / PRIVATE GARDEN


ABBREVIATION:

DE = DAY CARE CENTRE FOR THE ELDERLY

LMR = LIFT MACHINE ROOM

N

# INDICATIVE MASTER LAYOUT PLAN

PROPOSED REDEVELOPMENT AT ROYAL VIEW HOTEL AT TING KAU, N.T.

DATE : 23/07/2024

1 : 400 (A3)

ARCHI+

ARCHIPLUS INTERNATIONAL LIMITED

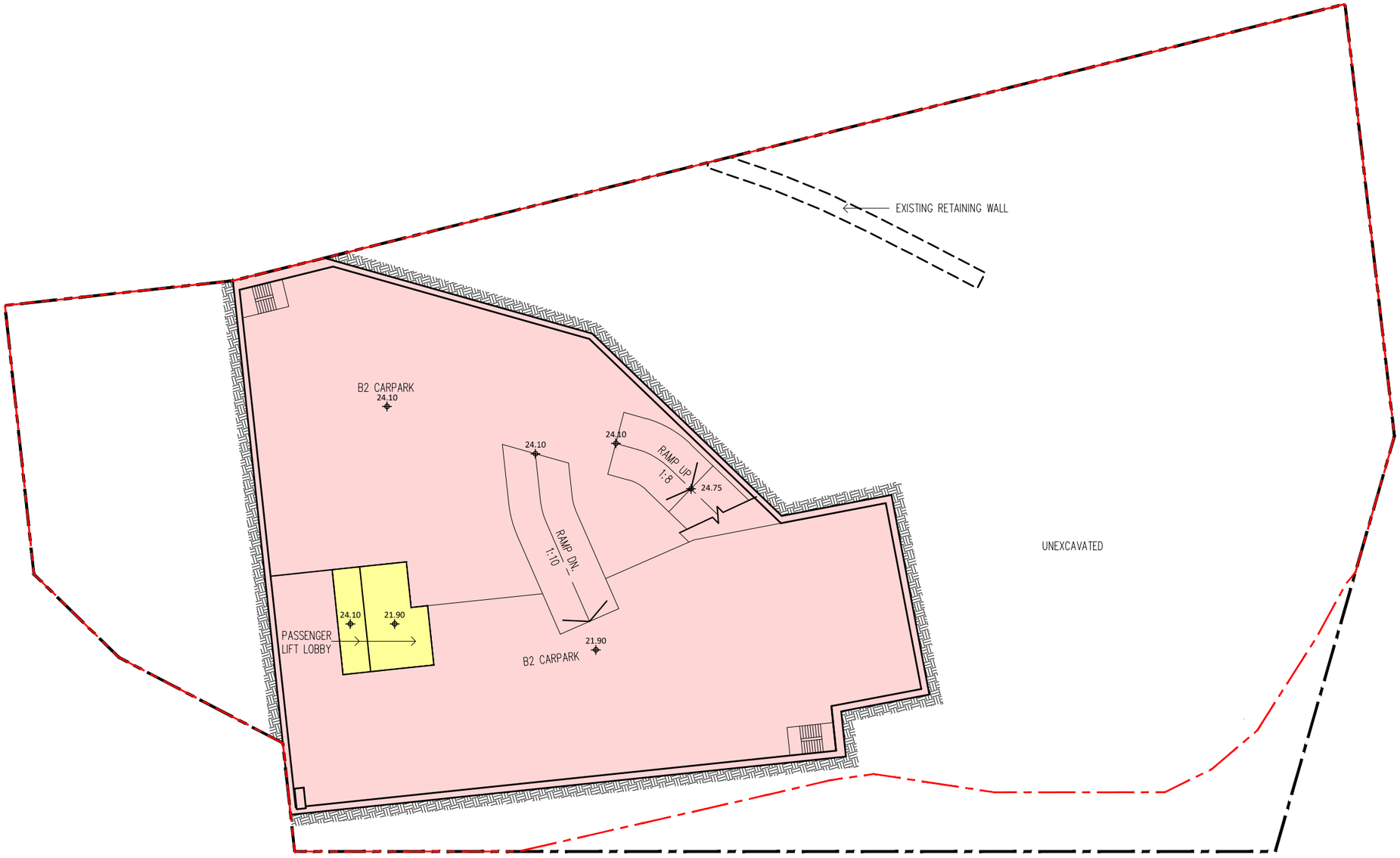
LEGEND

APPLICATION SITE BOUNDARY

DEVELOPMENT SITE BOUNDARY

CARPARK / DRIVEWAY

RESIDENTIAL USE




N

# INDICATIVE BASEMENT 2 FLOOR PLAN

PROPOSED REDEVELOPMENT AT ROYAL VIEW HOTEL AT TING KAU, N.T.

DATE : 23/07/2024

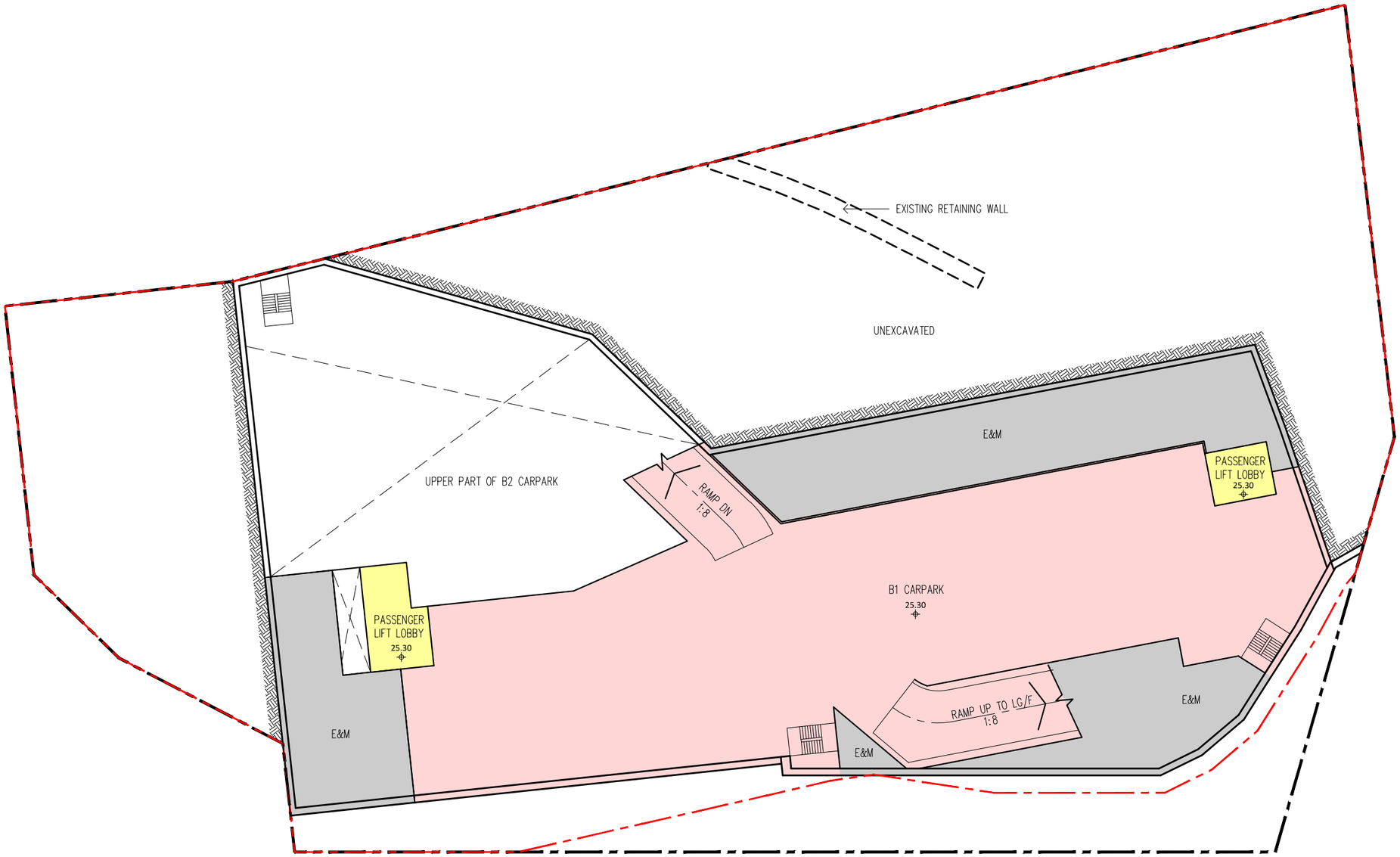
1 : 400 (A3)

ARCHI+

ARCHIPLUS INTERNATIONAL LIMITED

LEGEND

- APPLICATION SITE BOUNDARY
- DEVELOPMENT SITE BOUNDARY
- CARPARK / DRIVEWAY
- RESIDENTIAL USE
- VOID/LIGHT WELL
- E&M AREA




N

# INDICATIVE BASEMENT 1 FLOOR PLAN

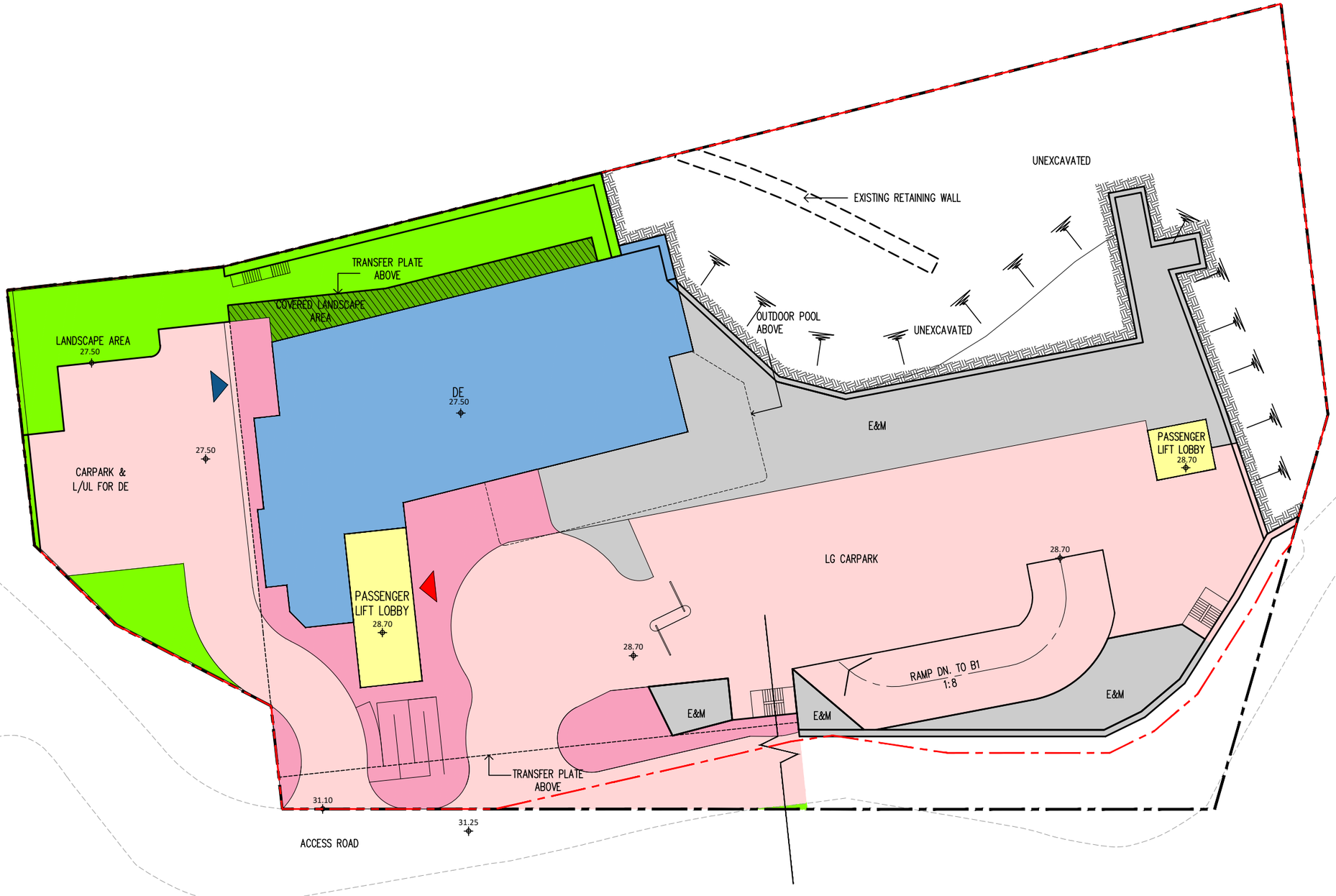
PROPOSED REDEVELOPMENT AT ROYAL VIEW HOTEL AT TING KAU, N.T.

DATE : 23/07/2024
1 : 400 (A3)

ARCHI+
ARCHIPLUS INTERNATIONAL LIMITED

LEGEND

- APPLICATION SITE BOUNDARY
- DEVELOPMENT SITE BOUNDARY
- CARPARK / DRIVEWAY
- FOOTPATH / COVERED AREA
- DAY CARE CENTRE FOR THE ELDERLY (DE)
- RESIDENTIAL USE
- E&M AREA
- LANDSCAPE AREA
- COVERED LANDSCAPE AREA
- ENTRANCE TO RESIDENTIAL UNITS
- ENTRANCE TO DE




N

# INDICATIVE LOWER GROUND FLOOR PLAN

PROPOSED REDEVELOPMENT AT ROYAL VIEW HOTEL AT TING KAU, N.T.

DATE : 23/07/2024
1 : 400 (A3)

ARCHI+
ARCHIPLUS INTERNATIONAL LIMITED

LEGEND

- APPLICATION SITE BOUNDARY
- DEVELOPMENT SITE BOUNDARY
- CARPARK / DRIVEWAY
- FOOTPATH / COVERED AREA
- CLUB HOUSE
- RESIDENTIAL USE
- E&M AREA
- TRANSFER PLATE
- LANDSCAPE AREA
- PRIVATE GARDEN
- ENTRANCE TO RESIDENTIAL UNITS
- ENTRANCE TO CLUB HOUSE


N

# INDICATIVE GROUND FLOOR PLAN

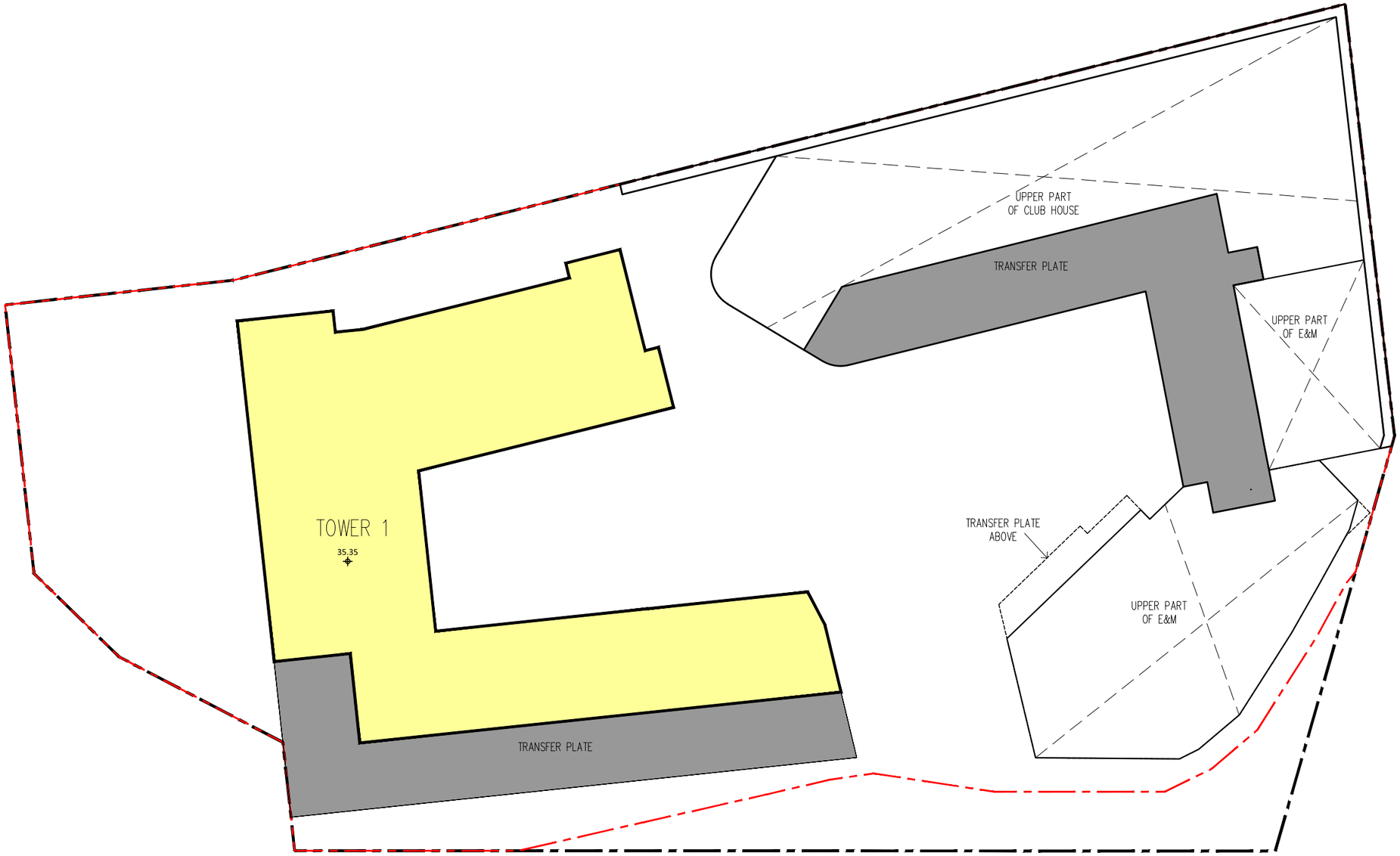
PROPOSED REDEVELOPMENT AT ROYAL VIEW HOTEL AT TING KAU, N.T.

DATE : 23/07/2024
1 : 400 (A3)

ARCHI+
ARCHIPLUS INTERNATIONAL LIMITED

LEGEND

- APPLICATION SITE BOUNDARY
- DEVELOPMENT SITE BOUNDARY
- RESIDENTIAL USE
- TRANSFER PLATE
- VOID/LIGHT WELL




N

# INDICATIVE T1 1st. & T2 UPPER PART OF CLUB HOUSE FLOOR PLAN

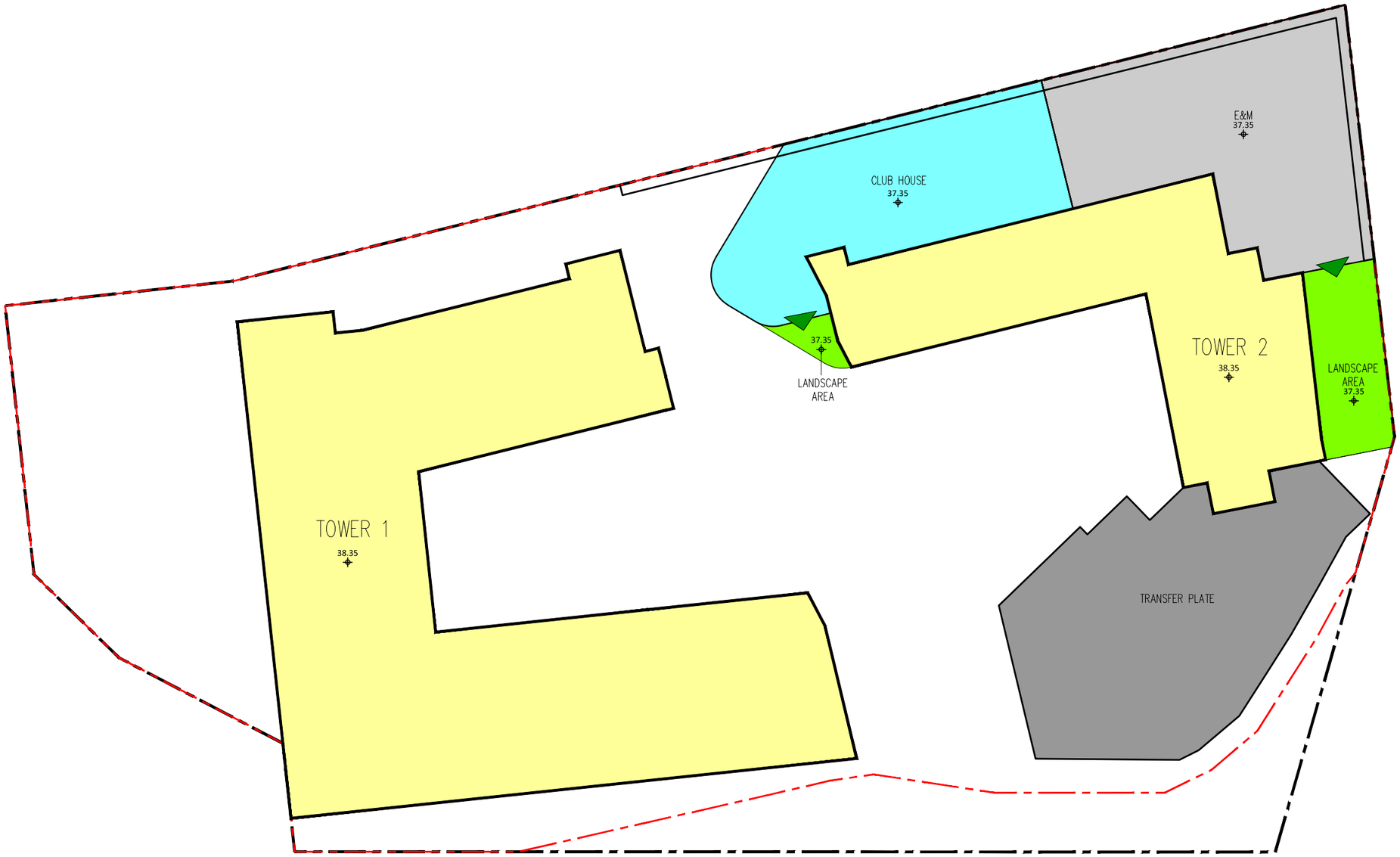
PROPOSED REDEVELOPMENT AT ROYAL VIEW HOTEL AT TING KAU, N.T.

DATE : 23/07/2024
1 : 400 (A3)

ARCHI+
ARCHIPLUS INTERNATIONAL LIMITED

LEGEND

- APPLICATION SITE BOUNDARY
- DEVELOPMENT SITE BOUNDARY
- RESIDENTIAL USE
- CLUB HOUSE
- E&M AREA
- TRANSFER PLATE
- LANDSCAPE AREA
- ACCESS TO LANDSCAPE AREA




N

# INDICATIVE T1 2nd. & T2 1st. FLOOR PLAN

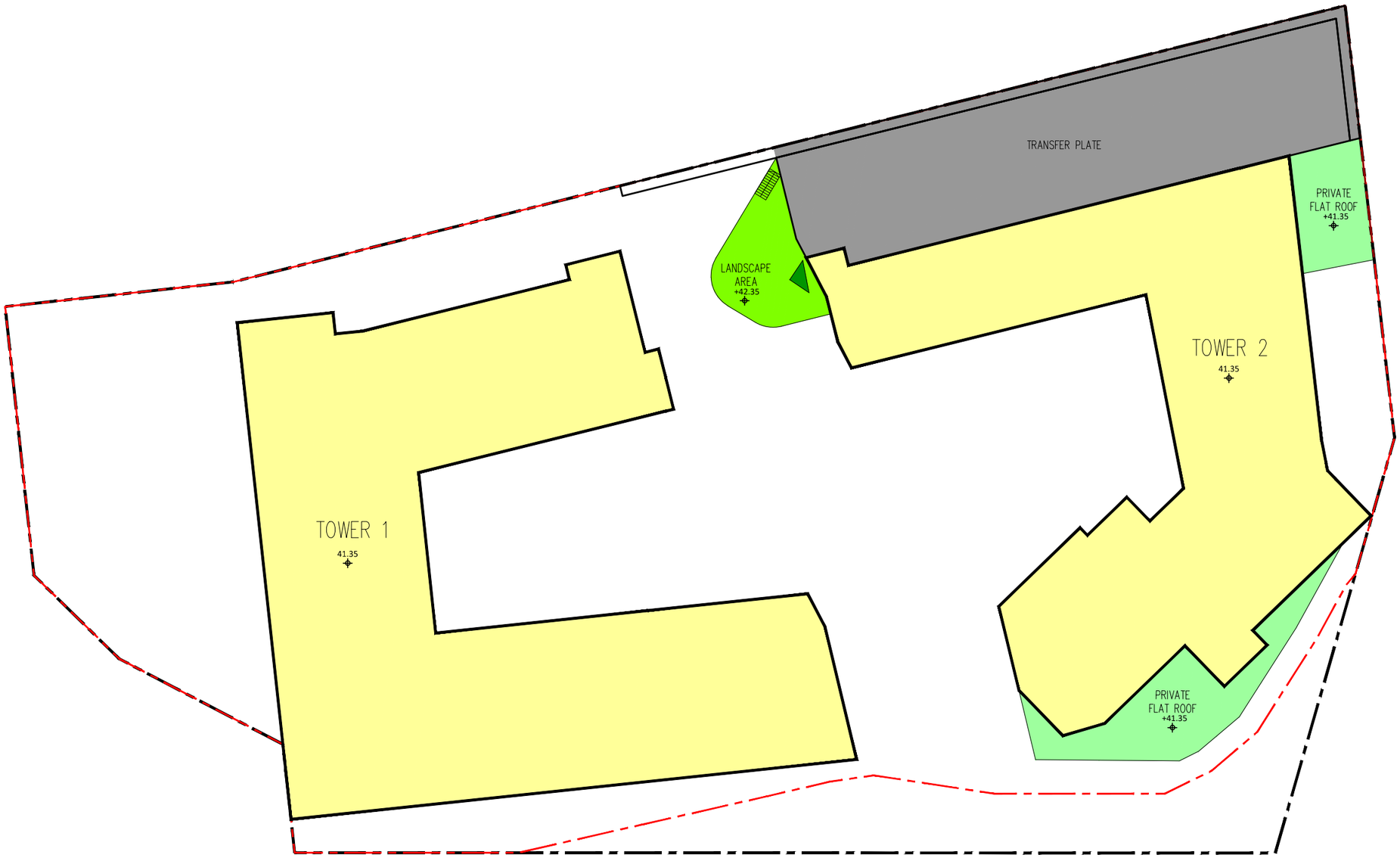
PROPOSED REDEVELOPMENT AT ROYAL VIEW HOTEL AT TING KAU, N.T.

DATE : 23/07/2024
1 : 400 (A3)

ARCHI+
ARCHIPLUS INTERNATIONAL LIMITED

LEGEND

- APPLICATION SITE BOUNDARY
- DEVELOPMENT SITE BOUNDARY
- RESIDENTIAL USE
- TRANSFER PLATE
- PRIVATE FLAT ROOF
- LANDSCAPE AREA
- ACCESS TO LANDSCAPE AREA




# INDICATIVE T1 3rd. & T2 2nd. FLOOR PLAN

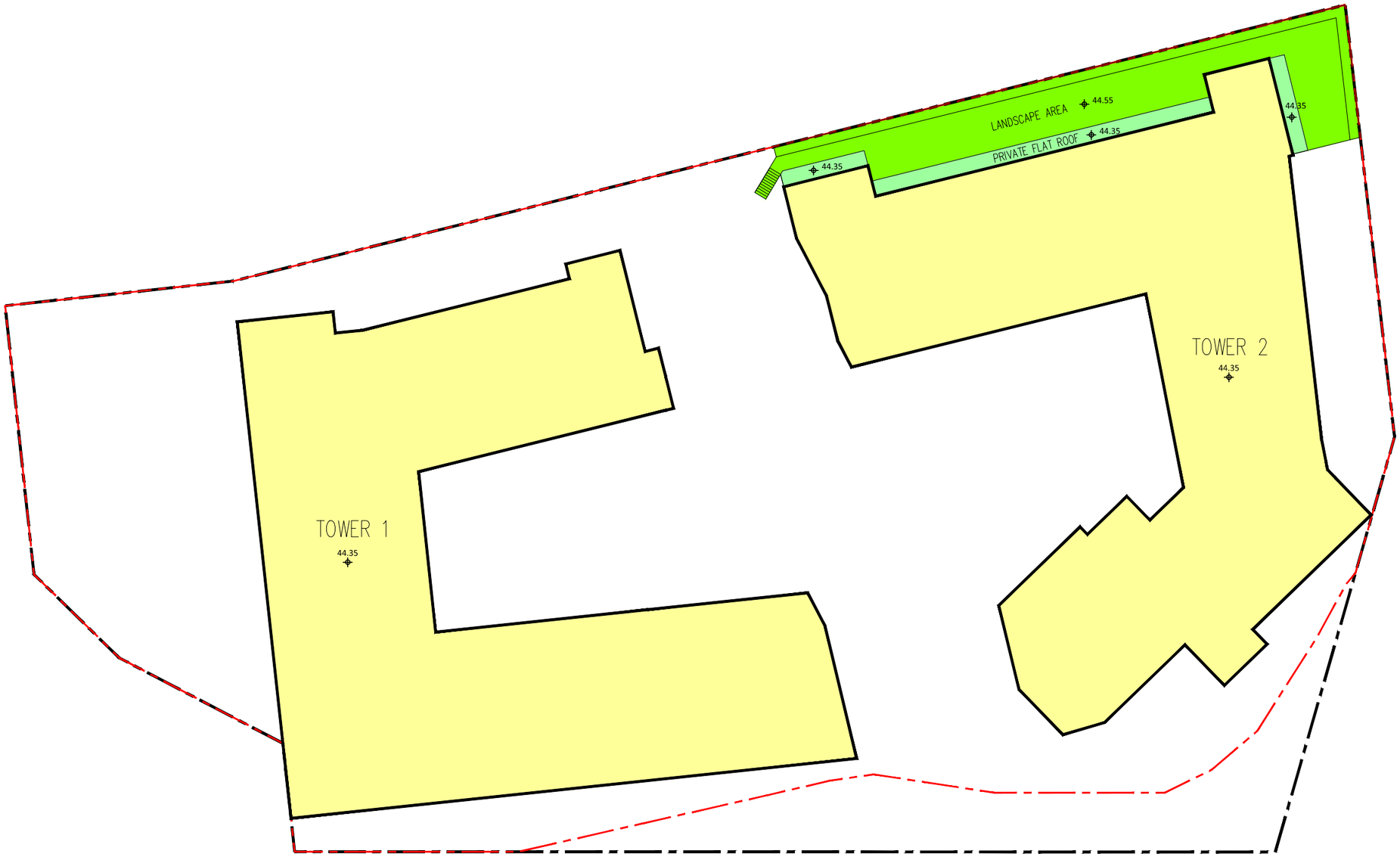
PROPOSED REDEVELOPMENT AT ROYAL VIEW HOTEL AT TING KAU, N.T.

DATE : 23/07/2024
1 : 400 (A3)

ARCHI+
ARCHIPLUS INTERNATIONAL LIMITED

LEGEND

- APPLICATION SITE BOUNDARY
- DEVELOPMENT SITE BOUNDARY
- RESIDENTIAL USE
- PRIVATE FLAT ROOF
- LANDSCAPE AREA




# INDICATIVE T1 4th. & T2 3rd. FLOOR PLAN

PROPOSED REDEVELOPMENT AT ROYAL VIEW HOTEL AT TING KAU, N.T.

DATE : 23/07/2024
1 : 400 (A3)

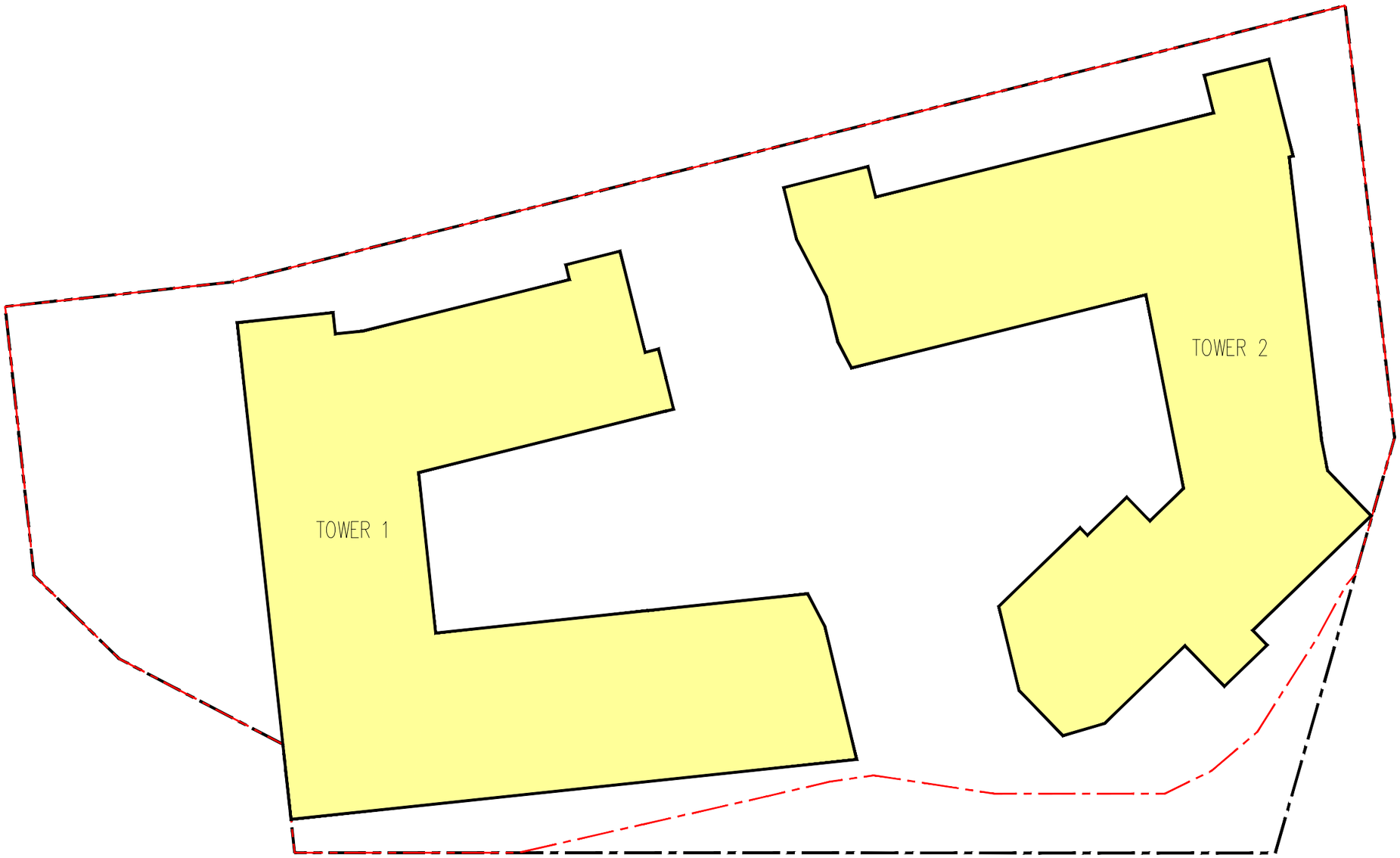
ARCHI+
ARCHIPLUS INTERNATIONAL LIMITED

LEGEND

APPLICATION SITE BOUNDARY

DEVELOPMENT SITE BOUNDARY

RESIDENTIAL USE




N

# INDICATIVE TYPICAL FLOOR PLAN

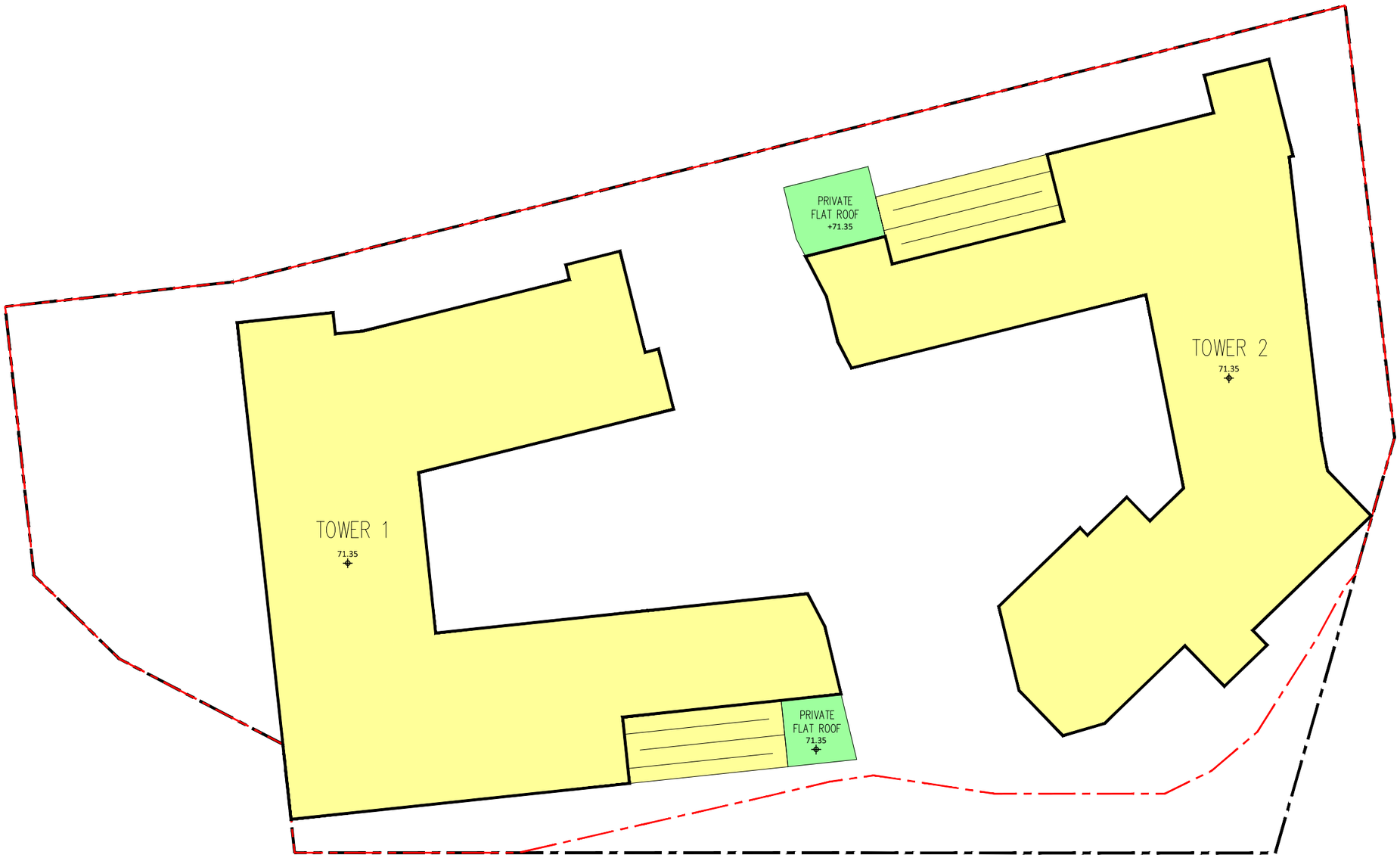
PROPOSED REDEVELOPMENT AT ROYAL VIEW HOTEL AT TING KAU, N.T.

DATE : 23/07/2024
1 : 400 (A3)

ARCHI+
ARCHIPLUS INTERNATIONAL LIMITED

LEGEND

- APPLICATION SITE BOUNDARY
- DEVELOPMENT SITE BOUNDARY
- RESIDENTIAL USE
- PRIVATE FLAT ROOF




N

# INDICATIVE T1 13th. & T2 12th. FLOOR PLAN

PROPOSED REDEVELOPMENT AT ROYAL VIEW HOTEL AT TING KAU, N.T.

DATE : 23/07/2024
1 : 400 (A3)

ARCHI+
ARCHIPLUS INTERNATIONAL LIMITED

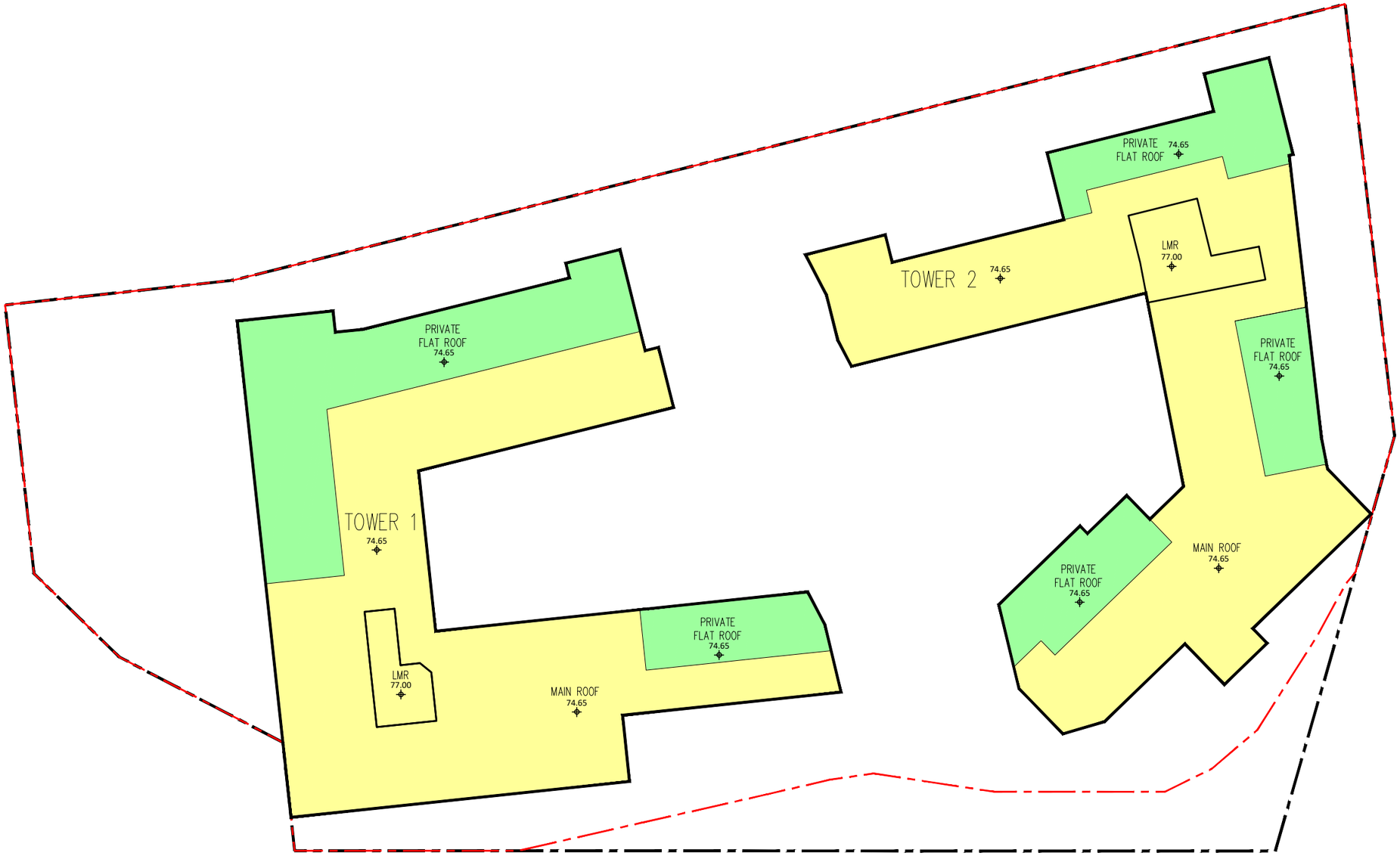
LEGEND

APPLICATION SITE BOUNDARY

DEVELOPMENT SITE BOUNDARY

RESIDENTIAL USE

PRIVATE FLAT ROOF




ABBREVIATION:

LMR = LIFT MACHINE ROOM

N

# INDICATIVE ROOF FLOOR PLAN

PROPOSED REDEVELOPMENT AT ROYAL VIEW HOTEL AT TING KAU, N.T.

DATE : 23/07/2024

1 : 400 (A3)

ARCHI+

ARCHIPLUS INTERNATIONAL LIMITED

LEGEND

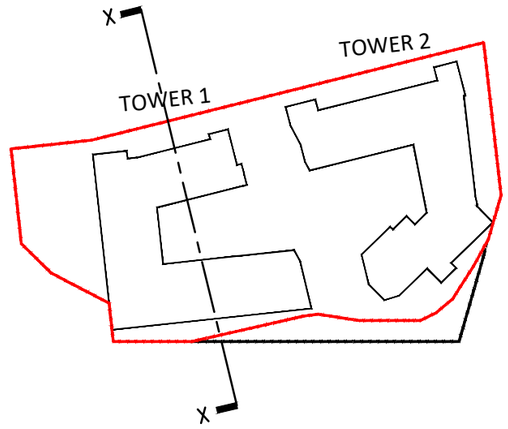
APPLICATION SITE BOUNDARY

DEVELOPMENT SITE BOUNDARY

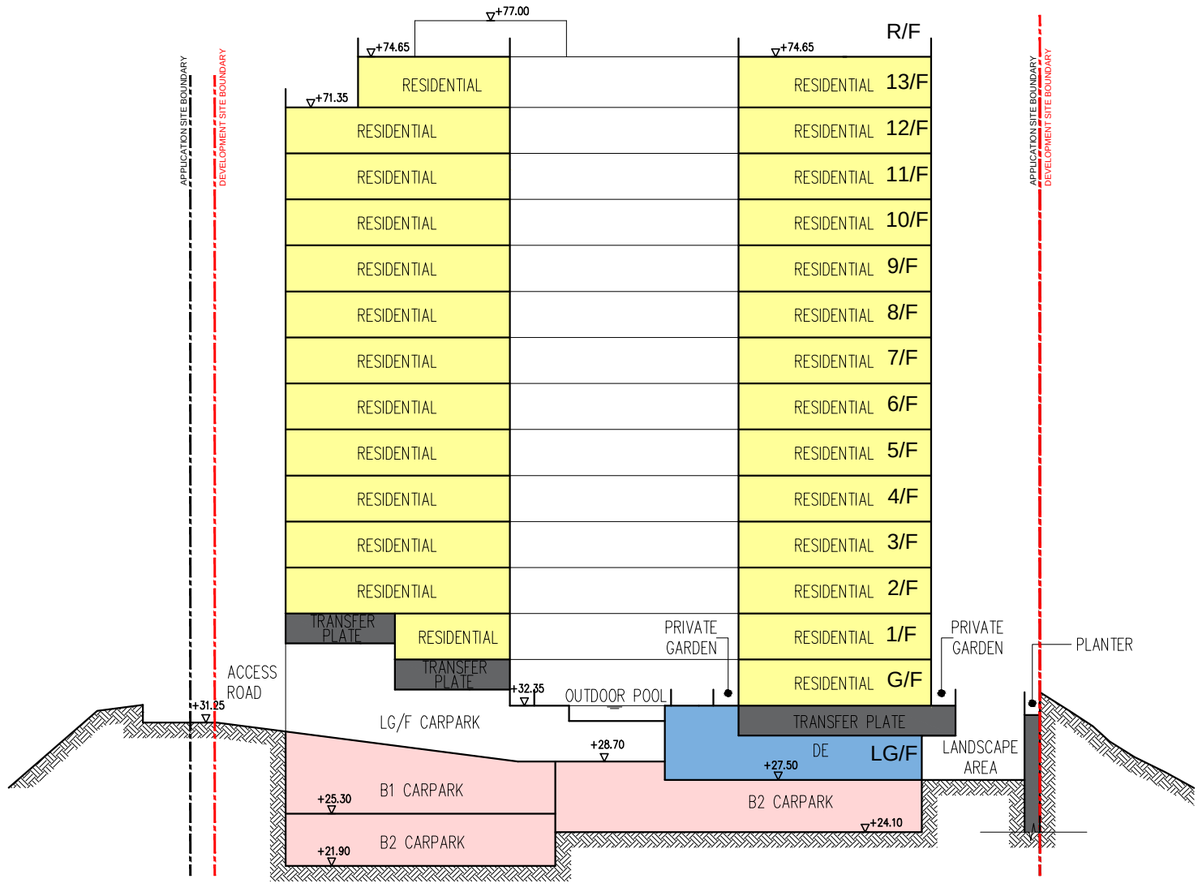
RESIDENTIAL USE

DAY CARE CENTRE FOR THE ELDERLY (DE)

CARPARK / DRIVEWAY




TOWER 1
14 STOREYS RESIDENTIAL FLOOR




# INDICATIVE SITE SECTION X-X

PROPOSED REDEVELOPMENT AT ROYAL VIEW HOTEL AT TING KAU, N.T.

DATE : 23/07/2024
1 : 400 (A3)

ARCHI+
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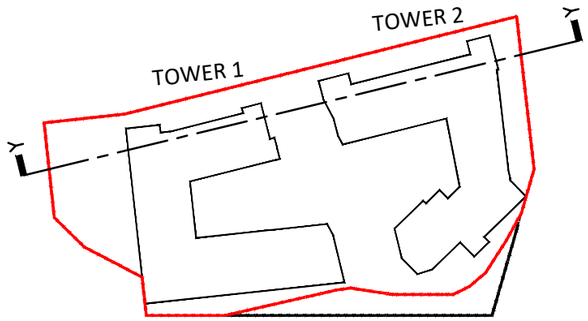
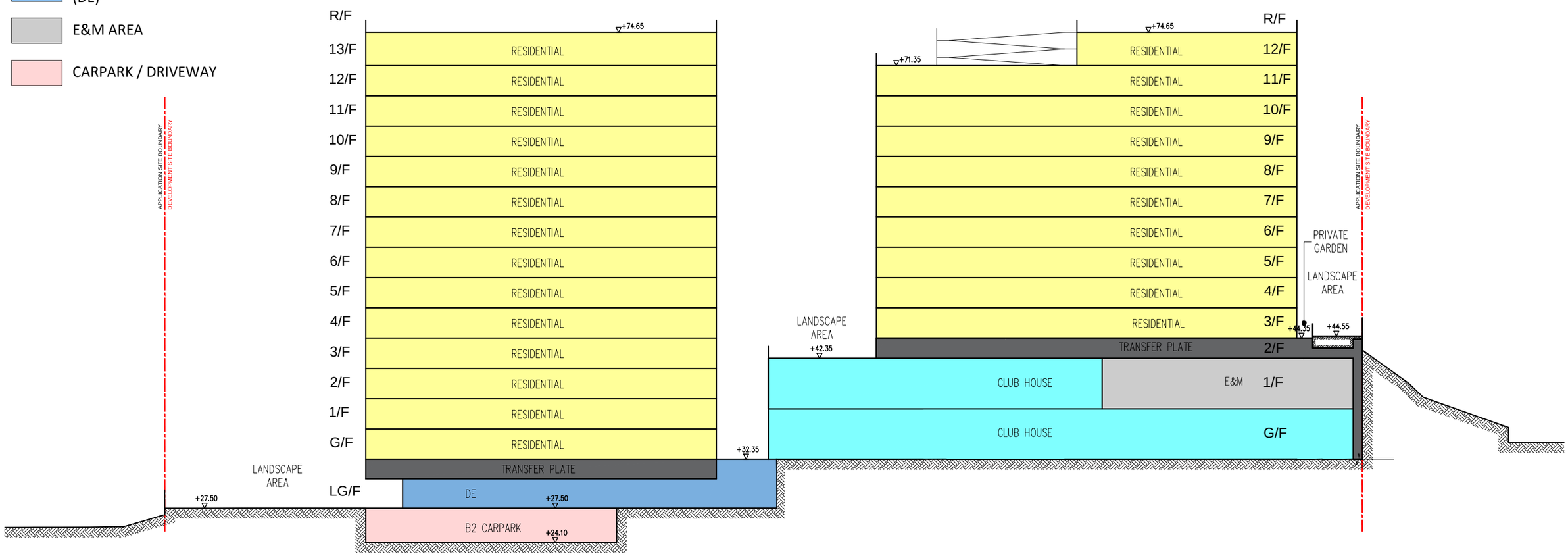



LEGEND

- APPLICATION SITE BOUNDARY
- DEVELOPMENT SITE BOUNDARY
- RESIDENTIAL USE
- CLUB HOUSE
- DAY CARE CENTRE FOR THE ELDERLY (DE)
- E&M AREA
- CARPARK / DRIVEWAY

TOWER 1
14 STOREYS RESIDENTIAL FLOOR

TOWER 2
12 STOREYS RESIDENTIAL FLOOR




# INDICATIVE SITE SECTION Y-Y

PROPOSED REDEVELOPMENT AT ROYAL VIEW HOTEL AT TING KAU, N.T.

DATE : 23/07/2024
1 : 400 (A3)

ARCHI+
ARCHIPLUS INTERNATIONAL LIMITED

# Appendix 2.1 Traffic Forecast of Year 2043

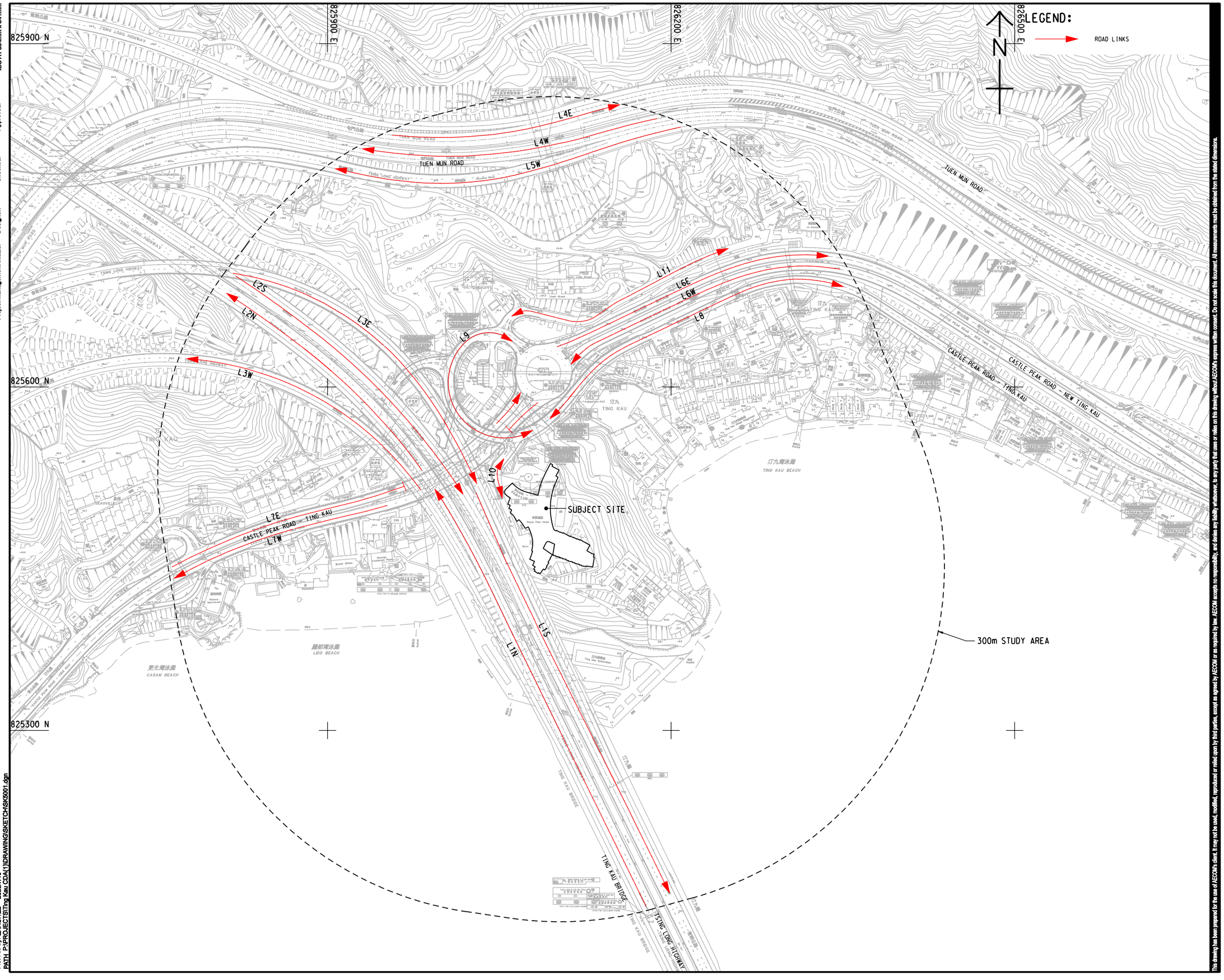
ISO A1 594mm x 841mm

Approved:

Checked:

Designer:

Project Management Initials:




Plot File by: ZHAOHO2 2020/7/15
PATH: P:\PROJECTS\Ting Kau CDA(7)\DRAWINGS\SKETCH\SK5001.dgn



AECOM

**PROJECT**
項目

**CLIENT**
業主

**CONSULTANT**
工程顧問公司

AECOM Asia Company Ltd.
www.aecom.com

**SUB-CONSULTANTS**
分判工程顧問公司

**ISSUE/REVISION**
修訂

| I/R 修訂 | DATE 日期 | DESCRIPTION 內容摘要 | CHK. 核對 |
|---|---|---|---|
| | | | |

**STATUS**
階段

**SCALE** 比例
A1 1 : 1500

**DIMENSION UNIT** 尺寸單位
METRES

**KEY PLAN**
索引圖

**PROJECT NO.** 項目編號

**CONTRACT NO.** 合約編號

**SHEET TITLE**
圖紙名稱
INDEX PLAN FOR
ROAD LINKS

**SHEET NUMBER**
圖紙編號
DRAWING NO. 1

**TING KAU CDA(1) - TRAFFIC FORECAST FOR NOISE IMPACT ASSESSMENT**

| Index | Road Link | Direction | Year 2043 Design Scenario | | | |
|---|---|---|---|---|---|---|
| | | | Traffic Flows | | HV% | |
| | | | AM | PM | AM | PM |
| L1N | Tsing Long Highway | NB | 3050 | 4915 | 39% | 34% |
| L1S | Tsing Long Highway | SB | 6085 | 3765 | 37% | 26% |
| L2N | Tsing Long Highway | NB | 890 | 2020 | 37% | 34% |
| L2S | Tsing Long Highway | SB | 2570 | 1235 | 36% | 28% |
| L3E | Slip Road from Tuen Mun Road (West) to Ting Kau Bridge | EB | 3515 | 2530 | 37% | 25% |
| L3W | Slip Road from Ting Kau Bridge to Tuen Mun Road (West) | WB | 2160 | 2895 | 39% | 33% |
| L4E | Tuen Mun Road | EB | 5445 | 3330 | 29% | 35% |
| L4W | Tuen Mun Road | WB | 2485 | 3315 | 37% | 30% |
| L5W | Slip Road from Tuen Mun Road (East) to Tai Lam Tunnel | WB | 1190 | 1795 | 39% | 40% |
| L6E | Castle Peak Road - New Ting Kau | EB | 647 | 375 | 35% | 30% |
| L6W | Castle Peak Road - New Ting Kau | WB | 498 | 530 | 35% | 20% |
| L7E | Castle Peak Road - New Ting Kau | EB | 569 | 353 | 39% | 31% |
| L7W | Castle Peak Road - New Ting Kau | WB | 559 | 528 | 36% | 21% |
| L8 | Castle Peak Road - Ting Kau | Two-way | 119 | 125 | 26% | 27% |
| L9 | Castle Peak Road - Ting Kau (Flyover) | Two-way | 251 | 226 | 20% | 18% |
| L10 | Access Road to Subject Site | Two-way | 143 | 104 | 9% | 10% |
| L11 | Ting Yat Road | Two-way | 15 | 26 | 23% | 22% |

# Appendix 2.2 Road Traffic Noise Impact Assessment Result (Base Case)

Predicted Road Traffic Noise (L10, dB(A)) at Representative Noise Assessment Points (NAPs) (AM Peak)
Base Case

| T1_GF | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Floor | mPD | T1GF01 | T1GF02 | T1GF03 | T1GF04 | T1GF05 | T1GF06 | T1GF07 | T1GF08 | T1GF09 | T1GF10 | T1GF11 | T1GF12 | T1GF13 | T1GF14 | T1GF15 | T1GF16 | T1GF17 | T1GF18 | T1GF19 | T1GF20 |
| | 32.35 | 52 | 68 | 69 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 67 | 63 | 71 | 72 | 75 | 75 | 75 | 75 | 75 | 75 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Max | | 52 | 68 | 69 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 67 | 63 | 71 | 72 | 75 | 75 | 75 | 75 | 75 | 75 |
| Exceedance | | 0 | | | | 0 | | | 0 | | | 1 | | | | 1 | | | 1 | | |

| T1_GF | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Floor | mPD | T1GF21 | T1GF22 | T1GF23 | T1GF24 | T1GF25 | T1GF26 | T1GF27 | T1GF28 | T1GF29 | T1GF30 | T1GF31 | T1GF32 | T1GF33 | T1GF34 | T1GF35 | T1GF36 | | | | |
| | 32.35 | 75 | 75 | 75 | 75 | 76 | 76 | 52 | 53 | 53 | 53 | 53 | 54 | 54 | 55 | 56 | 56 | | | | |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Max | | 75 | 75 | 75 | 75 | 76 | 76 | 52 | 53 | 53 | 53 | 53 | 54 | 54 | 55 | 56 | 56 | | | | |
| Exceedance | | 1 | | | 1 | | | 0 | | 0 | | 0 | | | 0 | | | | | | |

| T1_1F | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Floor | mPD | T11F01 | T11F02 | T11F03 | T11F04 | T11F05 | T11F06 | T11F07 | T11F08 | T11F09 | T11F10 | T11F11 | T11F12 | T11F13 | T11F14 | T11F15 | T11F16 | T11F17 | T11F18 | T11F19 | T11F20 |
| | 35.35 | 53 | 68 | 69 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 67 | 63 | 71 | 72 | 75 | 75 | 75 | 75 | 75 | 75 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Max | | 53 | 68 | 69 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 67 | 63 | 71 | 72 | 75 | 75 | 75 | 75 | 75 | 75 |
| Exceedance | | 0 | | | | 0 | | | 0 | | | 1 | | | | 1 | | | 1 | | |

| T1_1F | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Floor | mPD | T11F21 | T11F22 | T11F23 | T11F24 | T11F25 | T11F26 | T11F27 | T11F28 | T11F29 | T11F30 | T11F31 | T11F32 | T11F33 | T11F34 | T11F35 | T11F36 | T11F37 | T11F38 | T11F39 | |
| | 35.35 | 75 | 75 | 75 | 75 | 76 | 76 | 58 | 55 | 52 | 51 | 52 | 52 | 52 | 52 | 51 | 52 | 52 | 51 | 52 | |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Max | | 75 | 75 | 75 | 75 | 76 | 76 | 58 | 55 | 52 | 51 | 52 | 52 | 52 | 52 | 51 | 52 | 52 | 51 | 52 | |
| Exceedance | | 1 | | | 1 | | | 0 | | | 0 | | 0 | | 0 | | 0 | | 0 | | |

| T1_1F | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Floor | mPD | T11F40 | T11F41 | T11F42 | T11F43 | T11F44 | T11F45 | T11F46 | T11F47 | T11F48 | T11F49 | T11F50 | T11F51 | T11F52 | T11F53 | T11F54 | T11F55 | | | | |
| | 35.35 | 52 | 52 | 52 | 52 | 52 | 53 | 53 | 53 | 54 | 54 | 54 | 55 | 55 | 56 | 56 | 57 | | | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Max | | 52 | 52 | 52 | 52 | 52 | 53 | 53 | 53 | 54 | 54 | 54 | 55 | 55 | 56 | 56 | 57 | | | | |
| Exceedance | | 0 | | | 0 | | | 0 | | 0 | | | 0 | | | 0 | | | | | |

Predicted Road Traffic Noise (L10, dB(A)) at Representative Noise Assessment Points (NAPs) (AM Peak)

Base Case

| T1_TYP | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Floor | mPD | T1TYP01 | T1TYP02 | T1TYP03 | T1TYP04 | T1TYP05 | T1TYP06 | T1TYP07 | T1TYP08 | T1TYP09 | T1TYP10 | T1TYP11 | T1TYP12 | T1TYP13 | T1TYP14 | T1TYP15 | T1TYP16 | T1TYP17 | T1TYP18 | T1TYP19 | T1TYP20 |
| 2 | 38.35 | 53 | 68 | 69 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 67 | 63 | 71 | 72 | 75 | 75 | 75 | 75 | 75 | 75 |
| 3 | 41.35 | 54 | 68 | 69 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 67 | 63 | 71 | 72 | 75 | 75 | 75 | 75 | 75 | 75 |
| 4 | 44.35 | 54 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 67 | 63 | 71 | 72 | 74 | 75 | 74 | 75 | 75 | 75 |
| 5 | 47.35 | 55 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 67 | 63 | 71 | 72 | 74 | 75 | 74 | 75 | 75 | 75 |
| 6 | 50.35 | 56 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 67 | 63 | 71 | 72 | 74 | 74 | 74 | 74 | 75 | 75 |
| 7 | 53.35 | 57 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 67 | 63 | 71 | 72 | 74 | 74 | 74 | 74 | 74 | 75 |
| 8 | 56.35 | 59 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 67 | 63 | 70 | 72 | 74 | 74 | 74 | 74 | 74 | 74 |
| 9 | 59.35 | 60 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 67 | 63 | 70 | 72 | 74 | 74 | 74 | 74 | 74 | 74 |
| 10 | 62.35 | 62 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 67 | 63 | 70 | 72 | 74 | 74 | 74 | 74 | 74 | 74 |
| 11 | 65.35 | 65 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 67 | 64 | 70 | 72 | 74 | 74 | 74 | 74 | 74 | 74 |
| 12 | 68.35 | 67 | 69 | 69 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 64 | 71 | 72 | 74 | 74 | 74 | 74 | 74 | 74 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| Max | | 67 | 69 | 69 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 64 | 71 | 72 | 75 | 75 | 75 | 75 | 75 | 75 |
| Exceedance | | 0 | | | | 0 | | | 0 | | | 11 | | | | 11 | | | 11 | | |

| T1_TYP | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Floor | mPD | T1TYP21 | T1TYP22 | T1TYP23 | T1TYP24 | T1TYP25 | T1TYP26 | T1TYP27 | T1TYP28 | T1TYP29 | T1TYP30 | T1TYP31 | T1TYP32 | T1TYP33 | T1TYP34 | T1TYP35 | T1TYP36 | T1TYP37 | T1TYP38 | | |
| 2 | 38.35 | 75 | 75 | 75 | 75 | 75 | 76 | 76 | 76 | 76 | 75 | 76 | 75 | 74 | 74 | 73 | 73 | 73 | 72 | | |
| 3 | 41.35 | 75 | 75 | 75 | 75 | 75 | 76 | 76 | 76 | 76 | 76 | 76 | 75 | 74 | 74 | 73 | 73 | 73 | 72 | | |
| 4 | 44.35 | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 76 | 76 | 76 | 76 | 74 | 74 | 74 | 73 | 73 | 72 | 72 | | |
| 5 | 47.35 | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 76 | 76 | 76 | 74 | 74 | 73 | 73 | 73 | 72 | 72 | | |
| 6 | 50.35 | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 76 | 76 | 74 | 74 | 73 | 73 | 73 | 72 | 72 | | |
| 7 | 53.35 | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 74 | 73 | 73 | 73 | 73 | 72 | 72 | | |
| 8 | 56.35 | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 74 | 73 | 73 | 73 | 72 | 72 | 72 | | |
| 9 | 59.35 | 74 | 74 | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 74 | 73 | 73 | 73 | 72 | 72 | 72 | | |
| 10 | 62.35 | 74 | 74 | 74 | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 74 | 73 | 73 | 73 | 73 | 72 | 72 | | |
| 11 | 65.35 | 74 | 74 | 74 | 74 | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 74 | 73 | 73 | 73 | 73 | 72 | 72 | | |
| 12 | 68.35 | 74 | 74 | 74 | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 74 | 74 | 73 | 73 | 73 | 73 | 73 | | |
| | | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | | |
| Max | | 75 | 75 | 75 | 75 | 75 | 76 | 76 | 76 | 76 | 76 | 76 | 75 | 74 | 74 | 73 | 73 | 73 | 73 | | |
| Exceedance | | 11 | | | 11 | | | 11 | | | 11 | | | 11 | | | 11 | | | | |

Predicted Road Traffic Noise (L10, dB(A)) at Representative Noise Assessment Points (NAPs) (AM Peak)

Base Case

| T1_TYP | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Floor | mPD | T1TYP39 | T1TYP40 | T1TYP41 | T1TYP42 | T1TYP43 | T1TYP44 | T1TYP45 | T1TYP46 | T1TYP47 | T1TYP48 | T1TYP49 | T1TYP50 | T1TYP51 | T1TYP52 | T1TYP53 | T1TYP54 | T1TYP55 | T1TYP56 | T1TYP57 |
| 2 | 38.35 | 72 | 72 | 72 | 71 | 71 | 71 | 71 | 71 | 70 | 70 | 70 | 59 | 58 | 55 | 52 | 52 | 52 | 52 | 52 |
| 3 | 41.35 | 72 | 72 | 72 | 71 | 71 | 71 | 71 | 71 | 71 | 70 | 70 | 60 | 59 | 56 | 52 | 52 | 52 | 52 | 52 |
| 4 | 44.35 | 72 | 72 | 72 | 71 | 71 | 71 | 71 | 71 | 71 | 70 | 70 | 60 | 59 | 56 | 53 | 53 | 53 | 53 | 53 |
| 5 | 47.35 | 72 | 72 | 72 | 71 | 71 | 71 | 71 | 71 | 71 | 70 | 70 | 60 | 60 | 57 | 53 | 53 | 53 | 53 | 53 |
| 6 | 50.35 | 72 | 72 | 72 | 71 | 71 | 71 | 71 | 71 | 71 | 70 | 70 | 61 | 61 | 57 | 54 | 54 | 54 | 54 | 54 |
| 7 | 53.35 | 72 | 72 | 72 | 71 | 71 | 71 | 71 | 71 | 71 | 71 | 70 | 62 | 61 | 58 | 55 | 55 | 55 | 55 | 55 |
| 8 | 56.35 | 72 | 72 | 72 | 71 | 71 | 71 | 71 | 71 | 71 | 71 | 70 | 63 | 62 | 59 | 56 | 56 | 56 | 56 | 56 |
| 9 | 59.35 | 72 | 72 | 72 | 72 | 71 | 71 | 71 | 71 | 71 | 71 | 71 | 64 | 63 | 61 | 57 | 57 | 57 | 57 | 57 |
| 10 | 62.35 | 72 | 72 | 72 | 72 | 72 | 71 | 71 | 71 | 71 | 71 | 71 | 65 | 65 | 62 | 58 | 58 | 58 | 58 | 58 |
| 11 | 65.35 | 72 | 72 | 72 | 72 | 72 | 72 | 72 | 72 | 71 | 71 | 71 | 66 | 66 | 64 | 60 | 60 | 60 | 60 | 60 |
| 12 | 68.35 | 73 | 73 | 72 | 72 | 72 | 72 | 72 | 72 | 72 | 72 | 72 | 68 | 68 | 66 | 63 | 62 | 63 | 62 | 62 |
| | | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 10 | 6 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Max | | 73 | 73 | 72 | 72 | 72 | 72 | 72 | 72 | 72 | 72 | 72 | 68 | 68 | 66 | 63 | 62 | 63 | 62 | 62 |
| Exceedance | | 11 | | | 11 | | | 11 | | | 6 | | | 0 | | | 0 | | 0 | |

| T1_TYP | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Floor | mPD | T1TYP58 | T1TYP59 | T1TYP60 | T1TYP61 | T1TYP62 | T1TYP63 | T1TYP64 | T1TYP65 | T1TYP66 | T1TYP67 | T1TYP68 | T1TYP69 | T1TYP70 | T1TYP71 | T1TYP72 | T1TYP73 | T1TYP74 | T1TYP75 | |
| 2 | 38.35 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 53 | 53 | 53 | 53 | 53 | 54 | 54 | 54 | |
| 3 | 41.35 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 53 | 53 | 53 | 53 | 54 | 54 | 54 | 55 | 55 | 55 | |
| 4 | 44.35 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 54 | 54 | 54 | 55 | 55 | 55 | 56 | 56 | |
| 5 | 47.35 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 54 | 54 | 54 | 54 | 55 | 56 | 56 | 56 | 57 | 57 | |
| 6 | 50.35 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 55 | 55 | 55 | 56 | 57 | 57 | 57 | 58 | 58 | |
| 7 | 53.35 | 55 | 55 | 55 | 55 | 54 | 54 | 55 | 55 | 55 | 55 | 56 | 56 | 57 | 58 | 58 | 59 | 59 | 59 | |
| 8 | 56.35 | 56 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 56 | 57 | 57 | 58 | 59 | 59 | 59 | 60 | 60 | 61 | |
| 9 | 59.35 | 57 | 57 | 56 | 57 | 56 | 56 | 56 | 57 | 57 | 58 | 59 | 59 | 60 | 61 | 61 | 62 | 62 | 62 | |
| 10 | 62.35 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 59 | 60 | 61 | 61 | 62 | 63 | 63 | 64 | 64 | 64 | |
| 11 | 65.35 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 61 | 62 | 63 | 64 | 65 | 65 | 65 | 66 | 66 | 67 | |
| 12 | 68.35 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 64 | 65 | 66 | 67 | 68 | 68 | 68 | 69 | 69 | 69 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Max | | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 64 | 65 | 66 | 67 | 68 | 68 | 68 | 69 | 69 | 69 | |
| Exceedance | | 0 | | 0 | | 0 | | 0 | | 0 | | | 0 | | | 0 | | 0 | | |

Predicted Road Traffic Noise (L10, dB(A)) at Representative Noise Assessment Points (NAPs) (AM Peak)

Base Case

| T1_TYP | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Floor | mPD | T1TYP76 | T1TYP77 | T1TYP78 | T1TYP79 | T1TYP80 | T1TYP81 | | | | | | | | | | | | | | |
| 2 | 38.35 | 55 | 55 | 56 | 56 | 57 | 57 | | | | | | | | | | | | | | |
| 3 | 41.35 | 55 | 56 | 56 | 57 | 57 | 58 | | | | | | | | | | | | | | |
| 4 | 44.35 | 56 | 57 | 57 | 58 | 58 | 59 | | | | | | | | | | | | | | |
| 5 | 47.35 | 57 | 58 | 58 | 59 | 59 | 60 | | | | | | | | | | | | | | |
| 6 | 50.35 | 58 | 59 | 59 | 60 | 60 | 60 | | | | | | | | | | | | | | |
| 7 | 53.35 | 60 | 60 | 60 | 61 | 61 | 61 | | | | | | | | | | | | | | |
| 8 | 56.35 | 61 | 61 | 62 | 62 | 62 | 63 | | | | | | | | | | | | | | |
| 9 | 59.35 | 63 | 63 | 63 | 63 | 64 | 64 | | | | | | | | | | | | | | |
| 10 | 62.35 | 64 | 65 | 65 | 65 | 66 | 66 | | | | | | | | | | | | | | |
| 11 | 65.35 | 67 | 67 | 67 | 67 | 68 | 68 | | | | | | | | | | | | | | |
| 12 | 68.35 | 70 | 70 | 70 | 70 | 70 | 70 | | | | | | | | | | | | | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | |
| Max | | 70 | 70 | 70 | 70 | 70 | 70 | | | | | | | | | | | | | | |
| Exceedance | | 0 | | | 0 | | | | | | | | | | | | | | | | |

Predicted Road Traffic Noise (L10, dB(A)) at Representative Noise Assessment Points (NAPs) (AM Peak)

Base Case

| T1_13F | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Floor | mPD | T113F01 | T113F02 | T113F03 | T113F04 | T113F05 | T113F06 | T113F07 | T113F08 | T113F09 | T113F10 | T113F11 | T113F12 | T113F13 | T113F14 | T113F15 | T113F16 | T113F17 | T113F18 | T113F19 | T113F20 |
| | 71.65 | 69 | 70 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 66 | 71 | 72 | 74 | 74 | 74 | 74 | 74 | 75 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Max | | 69 | 70 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 66 | 71 | 72 | 74 | 74 | 74 | 74 | 74 | 75 |
| Exceedance | | 0 | | | | 0 | | | 0 | | | 1 | | | | 1 | | | 1 | | |

| T1_13F | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Floor | mPD | T113F21 | T113F22 | T113F23 | T113F24 | T113F25 | T113F26 | T113F27 | T113F28 | T113F29 | T113F30 | T113F31 | T113F32 | T113F33 | T113F34 | T113F35 | T113F36 | T113F37 | T113F38 | | |
| | 71.65 | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 74 | 74 | 74 | 74 | 74 | 73 | 73 | | |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| Max | | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 74 | 74 | 74 | 74 | 74 | 73 | 73 | | |
| Exceedance | | 1 | | | 1 | | | 1 | | | 1 | | | 1 | | | 1 | | | | |

| T1_13F | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Floor | mPD | T113F39 | T113F40 | T113F41 | T113F42 | T113F43 | T113F44 | T113F45 | T113F46 | T113F47 | T113F48 | T113F49 | T113F50 | T113F51 | T113F52 | T113F53 | T113F54 | T113F55 | T113F56 | | |
| | 71.65 | 73 | 73 | 73 | 71 | 70 | 68 | 67 | 67 | 66 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | | |
| | | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Max | | 73 | 73 | 73 | 71 | 70 | 68 | 67 | 67 | 66 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | | |
| Exceedance | | 1 | | | 1 | | | 0 | | | 0 | | | 0 | | | 0 | | | | |

| T1_13F | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Floor | mPD | T113F57 | T113F58 | T113F59 | T113F60 | T113F61 | T113F62 | T113F63 | T113F64 | T113F65 | T113F66 | T113F67 | T113F68 | T113F69 | T113F70 | T113F71 | T113F72 | | | | |
| | 71.65 | 69 | 70 | 71 | 71 | 71 | 71 | 71 | 72 | 72 | 72 | 72 | 72 | 72 | 73 | 73 | 72 | | | | |
| | | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | | |
| Max | | 69 | 70 | 71 | 71 | 71 | 71 | 71 | 72 | 72 | 72 | 72 | 72 | 72 | 73 | 73 | 72 | | | | |
| Exceedance | | 1 | | | 1 | | | 1 | | 1 | | | 1 | | | 1 | | | | | |

| | |
|---|---|
| No. of Units: | 377 |
| No. of Units with Exceedance: | 165 |
| Compliance Level: | 56% |
| Max. Noise Level: | 76 |

Noted:

Noise level exceed stardand of 70 dB(A)

Predicted Road Traffic Noise (L10, dB(A)) at Representative Noise Assessment Points (NAPs) (AM Peak)
Base Case

| T2_1F | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Floor | mPD | T21F01 | T21F02 | T21F03 | T21F04 | T21F05 | T21F06 | T21F07 | T21F08 | T21F09 | T21F10 | T21F11 | T21F12 | T21F13 | T21F14 | T21F15 | T21F16 | T21F17 | T21F18 | T21F19 | T21F20 |
| | 38.35 | 61 | 61 | 61 | 61 | 60 | 60 | 60 | 52 | 53 | 54 | 56 | 58 | 58 | 59 | 59 | 61 | 61 | 62 | 63 | 63 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Max | | 61 | 61 | 61 | 61 | 60 | 60 | 60 | 52 | 53 | 54 | 56 | 58 | 58 | 59 | 59 | 61 | 61 | 62 | 63 | 63 |
| Exceedance | | 0 | | | | 0 | | | 0 | | | 0 | | 0 | | 0 | | 0 | | 0 | |

| T2_1F | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Floor | mPD | T21F21 | T21F22 | T21F23 | T21F24 | T21F25 | T21F26 | | | | | | | | | | | | | | |
| | 38.35 | 62 | 62 | 61 | 60 | 59 | 58 | | | | | | | | | | | | | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | |
| Max | | 62 | 62 | 61 | 60 | 59 | 58 | | | | | | | | | | | | | | |
| Exceedance | | 0 | | | 0 | | | | | | | | | | | | | | | | |

| T2_2F | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Floor | mPD | T22F01 | T22F02 | T22F03 | T22F04 | T22F05 | T22F06 | T22F07 | T22F08 | T22F09 | T22F10 | T22F11 | T22F12 | T22F13 | T22F14 | T22F15 | T22F16 | T22F17 | | | |
| | 41.35 | 63 | 63 | 62 | 62 | 62 | 62 | 61 | 61 | 61 | 60 | 60 | 59 | 65 | 65 | 65 | 64 | 64 | | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Max | | 63 | 63 | 62 | 62 | 62 | 62 | 61 | 61 | 61 | 60 | 60 | 59 | 65 | 65 | 65 | 64 | 64 | | | |
| Exceedance | | 0 | | | | 0 | | | | 0 | | | 0 | | | 0 | | | | | |

| T2_2F | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Floor | mPD | T22F18 | T22F19 | T22F20 | T22F21 | T22F22 | T22F23 | T22F24 | T22F25 | T22F26 | T22F27 | T22F28 | T22F29 | T22F30 | T22F31 | T22F32 | T22F33 | T22F34 | T22F35 | T22F36 | |
| | 41.35 | 60 | 65 | 65 | 64 | 64 | 64 | 66 | 66 | 68 | 68 | 67 | 66 | 61 | 59 | 57 | 54 | 53 | 52 | 52 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Max | | 60 | 65 | 65 | 64 | 64 | 64 | 66 | 66 | 68 | 68 | 67 | 66 | 61 | 59 | 57 | 54 | 53 | 52 | 52 | |
| Exceedance | | 0 | | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | |

| T2_2F | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Floor | mPD | T22F37 | T22F38 | T22F39 | T22F40 | T22F41 | T22F42 | T22F43 | T22F44 | T22F45 | T22F46 | T22F47 | T22F48 | T22F49 | T22F50 | T22F51 | T22F52 | T22F53 | T22F54 | T22F55 | |
| | 41.35 | 52 | 53 | 55 | 56 | 58 | 59 | 59 | 60 | 61 | 61 | 63 | 63 | 63 | 63 | 62 | 61 | 61 | 60 | 60 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Max | | 52 | 53 | 55 | 56 | 58 | 59 | 59 | 60 | 61 | 61 | 63 | 63 | 63 | 63 | 62 | 61 | 61 | 60 | 60 | |
| Exceedance | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | | |

Predicted Road Traffic Noise (L10, dB(A)) at Representative Noise Assessment Points (NAPs) (AM Peak)

Base Case

| | | T2_TYP | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Floor | mPD | T2TYP01 | T2TYP02 | T2TYP03 | T2TYP04 | T2TYP05 | T2TYP06 | T2TYP07 | T2TYP08 | T2TYP09 | T2TYP10 | T2TYP11 | T2TYP12 | T2TYP13 | T2TYP14 | T2TYP15 | T2TYP16 | T2TYP17 | | | |
| 3 | 44.35 | 66 | 67 | 67 | 66 | 62 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 63 | 63 | 63 | 63 | 63 | | | |
| 4 | 47.35 | 66 | 67 | 67 | 66 | 62 | 64 | 65 | 65 | 65 | 65 | 65 | 64 | 64 | 64 | 64 | 64 | 64 | | | |
| 5 | 50.35 | 66 | 67 | 67 | 66 | 62 | 64 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 64 | 64 | 64 | 64 | | | |
| 6 | 53.35 | 66 | 67 | 67 | 66 | 62 | 64 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 64 | 64 | | | |
| 7 | 56.35 | 67 | 67 | 67 | 66 | 62 | 64 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 64 | 64 | | | |
| 8 | 59.35 | 67 | 67 | 67 | 66 | 62 | 64 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 64 | | | |
| 9 | 62.35 | 68 | 67 | 67 | 66 | 63 | 64 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | | | |
| 10 | 65.35 | 69 | 67 | 67 | 66 | 63 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | | | |
| 11 | 68.35 | 69 | 68 | 67 | 66 | 64 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Max | | 69 | 68 | 67 | 66 | 64 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | | | |
| Exceedance | | 0 | | | | 0 | | | 0 | | | 0 | | 0 | | | 0 | | | | |

| | | T2_TYP | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Floor | mPD | T2TYP18 | T2TYP19 | T2TYP20 | T2TYP21 | T2TYP22 | T2TYP23 | T2TYP24 | T2TYP25 | T2TYP26 | T2TYP27 | T2TYP28 | T2TYP29 | T2TYP30 | T2TYP31 | T2TYP32 | T2TYP33 | T2TYP34 | T2TYP35 | | |
| 3 | 44.35 | 63 | 64 | 64 | 64 | 63 | 63 | 63 | 63 | 63 | 62 | 62 | 62 | 62 | 61 | 61 | 60 | 66 | 66 | | |
| 4 | 47.35 | 64 | 65 | 64 | 64 | 64 | 64 | 64 | 64 | 63 | 63 | 63 | 63 | 62 | 62 | 61 | 61 | 66 | 66 | | |
| 5 | 50.35 | 64 | 66 | 65 | 65 | 65 | 65 | 65 | 64 | 64 | 64 | 64 | 63 | 63 | 62 | 62 | 61 | 67 | 67 | | |
| 6 | 53.35 | 64 | 66 | 66 | 66 | 66 | 66 | 65 | 65 | 65 | 65 | 65 | 64 | 64 | 63 | 63 | 62 | 67 | 67 | | |
| 7 | 56.35 | 64 | 67 | 67 | 67 | 67 | 67 | 66 | 66 | 66 | 66 | 65 | 65 | 65 | 64 | 64 | 63 | 68 | 67 | | |
| 8 | 59.35 | 64 | 68 | 68 | 68 | 68 | 68 | 67 | 67 | 67 | 67 | 67 | 66 | 66 | 65 | 65 | 64 | 68 | 68 | | |
| 9 | 62.35 | 65 | 70 | 69 | 69 | 69 | 69 | 69 | 69 | 68 | 68 | 68 | 68 | 67 | 67 | 66 | 66 | 69 | 69 | | |
| 10 | 65.35 | 65 | 71 | 71 | 71 | 71 | 71 | 70 | 70 | 70 | 70 | 69 | 69 | 69 | 68 | 68 | 67 | 71 | 70 | | |
| 11 | 68.35 | 65 | 72 | 72 | 72 | 72 | 72 | 72 | 72 | 72 | 72 | 72 | 71 | 71 | 70 | 70 | 69 | 72 | 72 | | |
| | | 0 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 2 | 1 | | |
| Max | | 65 | 72 | 72 | 72 | 72 | 72 | 72 | 72 | 72 | 72 | 72 | 71 | 71 | 70 | 70 | 69 | 72 | 72 | | |
| Exceedance | | 2 | | | | 2 | | | 1 | | | | | 1 | | | 2 | | | | |

| | | T2_TYP | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Floor | mPD | T2TYP36 | T2TYP37 | T2TYP38 | T2TYP39 | T2TYP40 | T2TYP41 | T2TYP42 | T2TYP43 | T2TYP44 | T2TYP45 | T2TYP46 | T2TYP47 | T2TYP48 | T2TYP49 | T2TYP50 | T2TYP51 | T2TYP52 | T2TYP53 | T2TYP54 | T2TYP55 |
| 3 | 44.35 | 66 | 65 | 65 | 61 | 67 | 68 | 67 | 67 | 67 | 68 | 67 | 69 | 69 | 67 | 66 | 61 | 60 | 58 | 55 | 54 |
| 4 | 47.35 | 66 | 66 | 65 | 61 | 67 | 68 | 67 | 67 | 67 | 68 | 68 | 69 | 69 | 68 | 67 | 62 | 61 | 59 | 56 | 54 |
| 5 | 50.35 | 67 | 66 | 66 | 62 | 67 | 68 | 67 | 67 | 68 | 68 | 68 | 69 | 69 | 68 | 67 | 62 | 61 | 59 | 57 | 55 |
| 6 | 53.35 | 67 | 67 | 66 | 63 | 68 | 68 | 67 | 67 | 68 | 68 | 68 | 69 | 69 | 68 | 67 | 62 | 61 | 60 | 58 | 56 |
| 7 | 56.35 | 67 | 67 | 67 | 64 | 68 | 69 | 68 | 68 | 68 | 69 | 68 | 69 | 69 | 68 | 67 | 63 | 62 | 60 | 58 | 57 |
| 8 | 59.35 | 68 | 68 | 67 | 64 | 68 | 69 | 68 | 68 | 68 | 69 | 69 | 70 | 69 | 68 | 67 | 63 | 62 | 61 | 59 | 58 |
| 9 | 62.35 | 69 | 68 | 68 | 66 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 70 | 70 | 69 | 68 | 64 | 63 | 62 | 60 | 60 |
| 10 | 65.35 | 70 | 70 | 69 | 67 | 70 | 70 | 69 | 69 | 70 | 70 | 70 | 71 | 70 | 69 | 69 | 65 | 64 | 63 | 62 | 62 |
| 11 | 68.35 | 72 | 71 | 71 | 69 | 71 | 71 | 71 | 71 | 71 | 71 | 71 | 71 | 71 | 70 | 70 | 66 | 66 | 65 | 64 | 64 |
| | | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Max | | 72 | 71 | 71 | 69 | 71 | 71 | 71 | 71 | 71 | 71 | 71 | 71 | 71 | 70 | 70 | 66 | 66 | 65 | 64 | 64 |
| Exceedance | | 1 | | | 1 | | | | 1 | | | 2 | | | 0 | | | 0 | | 0 | |

| | | T2_TYP | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Floor | mPD | T2TYP56 | T2TYP57 | T2TYP58 | T2TYP59 | T2TYP60 | T2TYP61 | T2TYP62 | T2TYP63 | T2TYP64 | T2TYP65 | T2TYP66 | T2TYP67 | T2TYP68 | T2TYP69 | T2TYP70 | T2TYP71 | T2TYP72 | T2TYP73 | T2TYP74 | T2TYP75 | T2TYP76 |
| 3 | 44.35 | 53 | 53 | 53 | 54 | 55 | 57 | 58 | 59 | 60 | 60 | 61 | 62 | 63 | 63 | 63 | 63 | 63 | 62 | 61 | 61 | 64 |
| 4 | 47.35 | 53 | 53 | 53 | 54 | 56 | 57 | 59 | 59 | 60 | 60 | 62 | 62 | 63 | 63 | 64 | 63 | 63 | 62 | 62 | 61 | 64 |
| 5 | 50.35 | 54 | 54 | 54 | 55 | 57 | 58 | 59 | 60 | 61 | 61 | 62 | 62 | 64 | 64 | 64 | 64 | 63 | 63 | 63 | 62 | 65 |
| 6 | 53.35 | 54 | 55 | 54 | 56 | 57 | 59 | 60 | 61 | 61 | 61 | 63 | 63 | 64 | 64 | 65 | 64 | 64 | 64 | 63 | 63 | 65 |
| 7 | 56.35 | 55 | 55 | 56 | 57 | 58 | 59 | 61 | 61 | 62 | 62 | 63 | 64 | 65 | 65 | 65 | 65 | 65 | 64 | 64 | 64 | 66 |
| 8 | 59.35 | 56 | 57 | 57 | 59 | 60 | 61 | 62 | 62 | 63 | 63 | 64 | 65 | 65 | 66 | 66 | 66 | 66 | 65 | 65 | 65 | 66 |
| 9 | 62.35 | 58 | 58 | 58 | 60 | 61 | 62 | 63 | 64 | 64 | 65 | 65 | 66 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 |
| 10 | 65.35 | 60 | 60 | 60 | 62 | 63 | 64 | 65 | 65 | 66 | 66 | 67 | 67 | 68 | 68 | 69 | 69 | 69 | 69 | 68 | 68 | 69 |
| 11 | 68.35 | 62 | 63 | 63 | 65 | 66 | 67 | 68 | 68 | 69 | 69 | 70 | 70 | 70 | 71 | 71 | 71 | 71 | 71 | 71 | 71 | 70 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |
| Max | | 62 | 63 | 63 | 65 | 66 | 67 | 68 | 68 | 69 | 69 | 70 | 70 | 70 | 71 | 71 | 71 | 71 | 71 | 71 | 71 | 70 |
| Exceedance | | 0 | | | 0 | | | 0 | | 0 | | | 0 | | | 1 | | | 1 | | | 1 | |

Predicted Road Traffic Noise (L10, dB(A)) at Representative Noise Assessment Points (NAPs) (AM Peak)
Base Case

| T2_12F | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Floor | mPD | T212F01 | T212F02 | T212F03 | T212F04 | T212F05 | T212F06 | T212F07 | T212F08 | T212F09 | T212F10 | T212F11 | T212F12 | T212F13 | T212F14 | T212F15 | T212F16 | T212F17 | T212F18 | T212F19 | |
| | 71.35 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 73 | 73 | 74 | 73 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| Max | | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 73 | 73 | 74 | 73 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | |
| Exceedance | | 0 | | 0 | | 0 | | | 1 | | | | 1 | | | | 1 | | | | |

| T2_12F | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Floor | mPD | T212F20 | T212F21 | T212F22 | T212F23 | T212F24 | T212F25 | T212F26 | T212F27 | T212F28 | T212F29 | T212F30 | T212F31 | T212F32 | T212F33 | T212F34 | T212F35 | T212F36 | T212F37 | T212F38 | |
| | 71.35 | 74 | 73 | 73 | 72 | 75 | 74 | 74 | 74 | 73 | 72 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| Max | | 74 | 73 | 73 | 72 | 75 | 74 | 74 | 74 | 73 | 72 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | |
| Exceedance | | 1 | | | 1 | | | 1 | | | 1 | | | | 1 | | | 1 | | | |

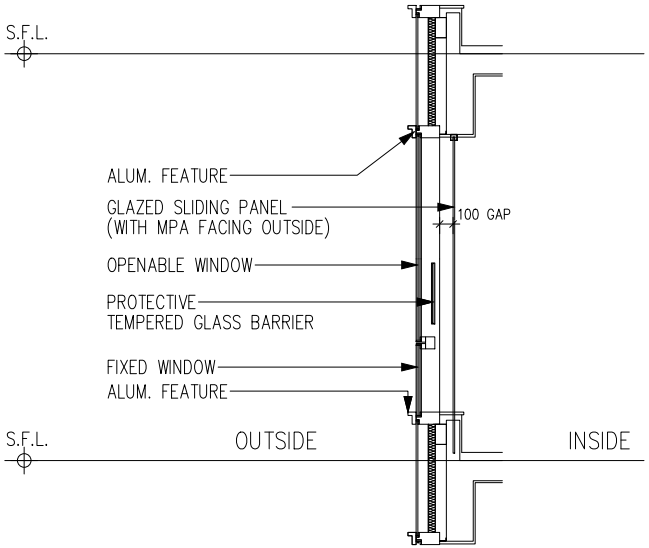
| T2_12F | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Floor | mPD | T212F39 | T212F40 | T212F41 | T212F42 | T212F43 | T212F44 | T212F45 | T212F46 | T212F47 | T212F48 | T212F49 | T212F50 | T212F51 | T212F52 | T212F53 | T212F54 | T212F55 | T212F56 | T212F57 | T212F58 |
| | 71.35 | 72 | 71 | 69 | 69 | 69 | 68 | 68 | 67 | 67 | 67 | 70 | 71 | 71 | 71 | 71 | 71 | 71 | 72 | 73 | 73 |
| | | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Max | | 72 | 71 | 69 | 69 | 69 | 68 | 68 | 67 | 67 | 67 | 70 | 71 | 71 | 71 | 71 | 71 | 71 | 72 | 73 | 73 |
| Exceedance | | 1 | | | 0 | | 0 | | 0 | | 1 | | | 1 | | 1 | | 1 | | 1 | |

| T2_12F | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Floor | mPD | T212F59 | T212F60 | T212F61 | T212F62 | T212F63 | T212F64 | T212F65 | T212F66 | | | | | | | | | | | | |
| | 71.35 | 73 | 73 | 74 | 73 | 73 | 73 | 73 | 72 | | | | | | | | | | | | |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | | | | | | | | | | |
| Max | | 73 | 73 | 74 | 73 | 73 | 73 | 73 | 72 | | | | | | | | | | | | |
| Exceedance | | 1 | | 1 | | | 1 | | | | | | | | | | | | | | |

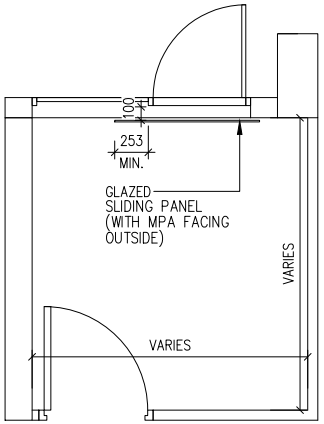
| | |
|---|---|
| No. of Units: | 297 |
| No. of Units with Exceedance: | 34 |
| Compliance Level: | 89% |
| Max. Noise Level: | 75 |

Noted:
Noise level exceed stardand of 70 dB(A)

Appendix 2.3 Indicative Design of AW(BT) & AD(BT) Adopted in the Proposed Redevelopment




TYPICAL SECTION



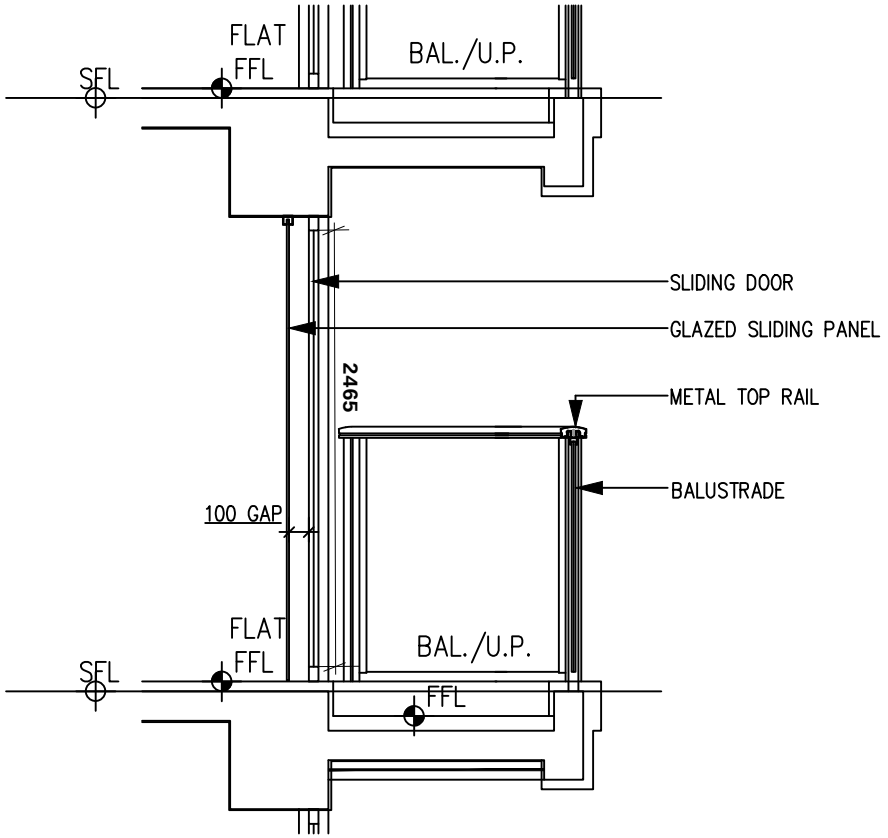

TYPICAL PLAN
AW1–NPE

Note:
The design is made reference to the reference case, it will be subject to further refinement at the detailed design stage.

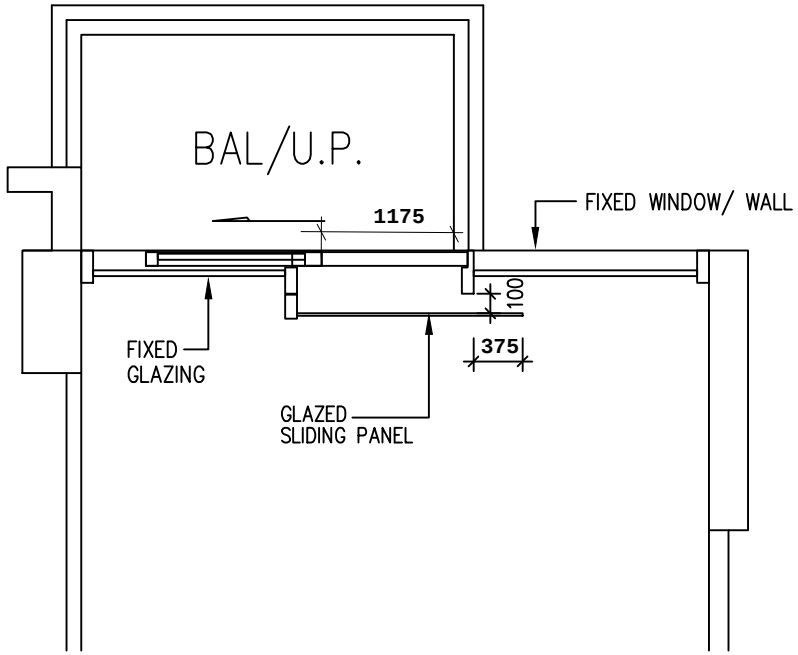
RAMBOLL

**Title:** Indicative Design of Acoustic Window (Baffle Type)- NPE

# AB-KT no MPA & SAM




TYPICAL SECTION




TYPICAL PLAN

Note:
The design is made reference to the reference case, it will be subject to further refinement at the detailed stage.

**Title:** Indicative Design of Acoustic Balcony (Baffle Type) - KT

RAMBOLL

Appendix 2.4 Sound Attenuation Adjustment of AW(BT) & AB(BT) Adopted in the Proposed Redevelopment

Adjustment of Sound Attenuation for Traffic Noise Impact Assessment

Reference Case

| Case ID | Acoustic Window/ Door System | SAM at 100mm gap | MPA | Air Gap, mm | Overlapping length (Mullion Included), mm | Room area (RAref), $m^2$ | Ref. sound attenuation, dB(A) |
|---|---|---|---|---|---|---|---|
| BAL | AB(BT)-KT | No | No | 100 | 100 | 11.2 | 6.7 |

| Case ID | Acoustic Window/ Door System | SAM at 100mm gap | MPA | Air Gap, mm | Overlapping length (Mullion Included), mm | Room area (RAref), $m^2$ | Ref. sound attenuation, dB(A) |
|---|---|---|---|---|---|---|---|
| W | AW(BT)-NPE | No | Yes | 100 | 253 | 6.8 | 6.8 |

| Proposed Development | | | | | | | Reference Case | | | | Proposed Development | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NSRs with Acoustic Window / Balcony (Baffle Type) | Tower | Room | Referred Case ID | Air Gap, mm | Overlapping length (Mullion Included), mm | Room area (RA), $m^2$ | Air Gap, mm | Overlapping length (Mullion Included), mm | Room area (RAref), $m^2$ | Ref. sound attenuation, dB(A) | Adjustment: 10xlog(RA/RA ref) | SAM | Adjusted sound attenuation, dB(A) |
| T1GF13 | N1 | LIV/DIN | BAL | 100 | 100 | 16.7 | 100 | 100 | 11.2 | 6.7 | 0.0 | | 6.7 |
| T1GF14 | N1 | BR1 | W | 100 | 253 | 6.4 | 100 | 253 | 6.8 | 6.8 | -0.3 | | 6.5 |
| T1GF15 | N1 | MBR | W | 100 | 253 | 7.2 | 100 | 253 | 6.8 | 6.8 | 0.0 | | 6.8 |
| T1GF16 | N1 | BR1 | W | 100 | 253 | 4.2 | 100 | 253 | 6.8 | 6.8 | -2.1 | | 4.7 |
| T1GF17 | N1 | LIV/DIN | BAL | 100 | 100 | 12.2 | 100 | 100 | 11.2 | 6.7 | 0.0 | | 6.7 |
| T1GF18 | N1 | BR1 | W | 100 | 253 | 5.9 | 100 | 253 | 6.8 | 6.8 | -0.6 | | 6.2 |
| T1GF19 | N1 | LIV/DIN | BAL | 100 | 100 | 12.2 | 100 | 100 | 11.2 | 6.7 | 0.0 | | 6.7 |
| T1GF20 | N1 | MBR | W | 100 | 253 | 7.6 | 100 | 253 | 6.8 | 6.8 | 0.0 | | 6.8 |
| T1GF21 | N1 | BR1 | W | 100 | 253 | 5.9 | 100 | 253 | 6.8 | 6.8 | -0.6 | | 6.2 |
| T1GF22 | N1 | LIV/DIN | BAL | 100 | 100 | 12.2 | 100 | 100 | 11.2 | 6.7 | 0.0 | | 6.7 |
| T1GF23 | N1 | MBR | W | 100 | 253 | 7.6 | 100 | 253 | 6.8 | 6.8 | 0.0 | | 6.8 |
| T1GF24 | N1 | BR1 | W | 100 | 253 | 5.9 | 100 | 253 | 6.8 | 6.8 | -0.6 | | 6.2 |
| T1GF25 | N1 | LIV/DIN | BAL | 100 | 100 | 12.2 | 100 | 100 | 11.2 | 6.7 | 0.0 | | 6.7 |
| T1GF26 | N1 | MBR | W | 100 | 253 | 7.6 | 100 | 253 | 6.8 | 6.8 | 0.0 | | 6.8 |
| T11F13 | N1 | LIV/DIN | BAL | 100 | 100 | 16.7 | 100 | 100 | 11.2 | 6.7 | 0.0 | | 6.7 |
| T11F14 | N1 | BR1 | W | 100 | 253 | 6.4 | 100 | 253 | 6.8 | 6.8 | -0.3 | | 6.5 |
| T11F15 | N1 | MBR | W | 100 | 253 | 7.2 | 100 | 253 | 6.8 | 6.8 | 0.0 | | 6.8 |
| T11F16 | N1 | BR1 | W | 100 | 253 | 4.2 | 100 | 253 | 6.8 | 6.8 | -2.1 | | 4.7 |
| T11F17 | N1 | LIV/DIN | BAL | 100 | 100 | 12.2 | 100 | 100 | 11.2 | 6.7 | 0.0 | | 6.7 |
| T11F18 | N1 | BR1 | W | 100 | 253 | 5.9 | 100 | 253 | 6.8 | 6.8 | -0.6 | | 6.2 |
| T11F19 | N1 | LIV/DIN | BAL | 100 | 100 | 12.2 | 100 | 100 | 11.2 | 6.7 | 0.0 | | 6.7 |
| T11F20 | N1 | MBR | W | 100 | 253 | 7.6 | 100 | 253 | 6.8 | 6.8 | 0.0 | | 6.8 |
| T11F21 | N1 | BR1 | W | 100 | 253 | 5.9 | 100 | 253 | 6.8 | 6.8 | -0.6 | | 6.2 |
| T11F22 | N1 | LIV/DIN | BAL | 100 | 100 | 12.2 | 100 | 100 | 11.2 | 6.7 | 0.0 | | 6.7 |
| T11F23 | N1 | MBR | W | 100 | 253 | 7.6 | 100 | 253 | 6.8 | 6.8 | 0.0 | | 6.8 |
| T11F24 | N1 | BR1 | W | 100 | 253 | 5.9 | 100 | 253 | 6.8 | 6.8 | -0.6 | | 6.2 |
| T11F25 | N1 | LIV/DIN | BAL | 100 | 100 | 12.2 | 100 | 100 | 11.2 | 6.7 | 0.0 | | 6.7 |
| T11F26 | N1 | MBR | W | 100 | 253 | 7.6 | 100 | 253 | 6.8 | 6.8 | 0.0 | | 6.8 |
| T1TYP13 | N1 | LIV/DIN | BAL | 100 | 100 | 16.7 | 100 | 100 | 11.2 | 6.7 | 0.0 | | 6.7 |
| T1TYP14 | N1 | BR1 | W | 100 | 253 | 6.4 | 100 | 253 | 6.8 | 6.8 | -0.3 | | 6.5 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| T1TYP15 | N1 | MBR | W | 100 | 253 | 7.2 | 100 | 253 | 6.8 | 6.8 | 0.0 | | 6.8 |
| T1TYP16 | N1 | BR1 | W | 100 | 253 | 4.2 | 100 | 253 | 6.8 | 6.8 | -2.1 | | 4.7 |
| T1TYP17 | N1 | LIV/DIN | BAL | 100 | 100 | 12.2 | 100 | 100 | 11.2 | 6.7 | 0.0 | | 6.7 |
| T1TYP18 | N1 | BR1 | W | 100 | 253 | 5.9 | 100 | 253 | 6.8 | 6.8 | -0.6 | | 6.2 |
| T1TYP19 | N1 | LIV/DIN | BAL | 100 | 100 | 12.2 | 100 | 100 | 11.2 | 6.7 | 0.0 | | 6.7 |
| T1TYP20 | N1 | MBR | W | 100 | 253 | 7.6 | 100 | 253 | 6.8 | 6.8 | 0.0 | | 6.8 |
| T1TYP21 | N1 | BR1 | W | 100 | 253 | 5.9 | 100 | 253 | 6.8 | 6.8 | -0.6 | | 6.2 |
| T1TYP22 | N1 | LIV/DIN | BAL | 100 | 100 | 12.2 | 100 | 100 | 11.2 | 6.7 | 0.0 | | 6.7 |
| T1TYP23 | N1 | MBR | W | 100 | 253 | 7.6 | 100 | 253 | 6.8 | 6.8 | 0.0 | | 6.8 |
| T1TYP24 | N1 | BR1 | W | 100 | 253 | 5.9 | 100 | 253 | 6.8 | 6.8 | -0.6 | | 6.2 |
| T1TYP25 | N1 | LIV/DIN | BAL | 100 | 100 | 12.2 | 100 | 100 | 11.2 | 6.7 | 0.0 | | 6.7 |
| T1TYP26 | N1 | MBR | W | 100 | 253 | 7.6 | 100 | 253 | 6.8 | 6.8 | 0.0 | | 6.8 |
| T1TYP27 | N1 | BR1 | W | 100 | 253 | 5.9 | 100 | 253 | 6.8 | 6.8 | -0.6 | | 6.2 |
| T1TYP28 | N1 | LIV/DIN | BAL | 100 | 100 | 12.2 | 100 | 100 | 11.2 | 6.7 | 0.0 | | 6.7 |
| T1TYP29 | N1 | MBR | W | 100 | 253 | 7.6 | 100 | 253 | 6.8 | 6.8 | 0.0 | | 6.8 |
| T1TYP30 | N1 | MBR | W | 100 | 253 | 8.1 | 100 | 253 | 6.8 | 6.8 | 0.0 | | 6.8 |
| T1TYP31 | N1 | BR1 | W | 100 | 253 | 4.6 | 100 | 253 | 6.8 | 6.8 | -1.7 | 0.6 | 5.7 |
| T1TYP32 | N1 | LIV/DIN | BAL | 100 | 100 | 12.1 | 100 | 100 | 11.2 | 6.7 | 0.0 | | 6.7 |
| T1TYP33 | N1 | MBR | W | 100 | 253 | 7.2 | 100 | 253 | 6.8 | 6.8 | 0.0 | | 6.8 |
| T1TYP34 | N1 | BR1 | W | 100 | 253 | 4.2 | 100 | 253 | 6.8 | 6.8 | -2.1 | | 4.7 |
| T1TYP35 | N1 | LIV/DIN | BAL | 100 | 100 | 13.5 | 100 | 100 | 11.2 | 6.7 | 0.0 | | 6.7 |
| T1TYP36 | N1 | MBR | W | 100 | 253 | 6.9 | 100 | 253 | 6.8 | 6.8 | 0.0 | | 6.8 |
| T1TYP37 | N1 | LIV/DIN | BAL | 100 | 100 | 12.0 | 100 | 100 | 11.2 | 6.7 | 0.0 | | 6.7 |
| T1TYP38 | N1 | BR1 | W | 100 | 253 | 6.7 | 100 | 253 | 6.8 | 6.8 | -0.1 | | 6.7 |
| T1TYP39 | N1 | MBR | W | 100 | 253 | 6.9 | 100 | 253 | 6.8 | 6.8 | 0.0 | | 6.8 |
| T1TYP40 | N1 | LIV/DIN | BAL | 100 | 100 | 12.0 | 100 | 100 | 11.2 | 6.7 | 0.0 | | 6.7 |
| T1TYP41 | N1 | BR1 | W | 100 | 253 | 6.7 | 100 | 253 | 6.8 | 6.8 | -0.1 | | 6.7 |
| T1TYP42 | N1 | MBR | W | 100 | 253 | 6.9 | 100 | 253 | 6.8 | 6.8 | 0.0 | | 6.8 |
| T1TYP43 | N1 | LIV/DIN | BAL | 100 | 100 | 12.0 | 100 | 100 | 11.2 | 6.7 | 0.0 | | 6.7 |
| T1TYP44 | N1 | BR1 | W | 100 | 253 | 6.7 | 100 | 253 | 6.8 | 6.8 | -0.1 | | 6.7 |
| T1TYP45 | N1 | MBR | W | 100 | 253 | 6.9 | 100 | 253 | 6.8 | 6.8 | 0.0 | | 6.8 |
| T1TYP46 | N1 | LIV/DIN | BAL | 100 | 100 | 12.0 | 100 | 100 | 11.2 | 6.7 | 0.0 | | 6.7 |
| T1TYP47 | N1 | BR1 | W | 100 | 253 | 6.7 | 100 | 253 | 6.8 | 6.8 | -0.1 | | 6.7 |
| T1TYP48 | N1 | LIV/DIN | BAL | 100 | 100 | 12.0 | 100 | 100 | 11.2 | 6.7 | 0.0 | | 6.7 |
| T1TYP49 | N1 | MBR | W | 100 | 253 | 7.4 | 100 | 253 | 6.8 | 6.8 | 0.0 | | 6.8 |
| T113F13 | N1 | LIV/DIN | BAL | 100 | 100 | 16.7 | 100 | 100 | 11.2 | 6.7 | 0.0 | | 6.7 |
| T113F14 | N1 | BR1 | W | 100 | 253 | 6.4 | 100 | 253 | 6.8 | 6.8 | -0.3 | | 6.5 |
| T113F15 | N1 | MBR | W | 100 | 253 | 7.2 | 100 | 253 | 6.8 | 6.8 | 0.0 | | 6.8 |
| T113F16 | N1 | BR1 | W | 100 | 253 | 4.2 | 100 | 253 | 6.8 | 6.8 | -2.1 | | 4.7 |
| T113F17 | N1 | LIV/DIN | BAL | 100 | 100 | 12.2 | 100 | 100 | 11.2 | 6.7 | 0.0 | | 6.7 |
| T113F18 | N1 | BR1 | W | 100 | 253 | 5.9 | 100 | 253 | 6.8 | 6.8 | -0.6 | | 6.2 |
| T113F19 | N1 | LIV/DIN | BAL | 100 | 100 | 12.2 | 100 | 100 | 11.2 | 6.7 | 0.0 | | 6.7 |
| T113F20 | N1 | MBR | W | 100 | 253 | 7.6 | 100 | 253 | 6.8 | 6.8 | 0.0 | | 6.8 |
| T113F21 | N1 | BR1 | W | 100 | 253 | 5.9 | 100 | 253 | 6.8 | 6.8 | -0.6 | | 6.2 |
| T113F22 | N1 | LIV/DIN | BAL | 100 | 100 | 12.2 | 100 | 100 | 11.2 | 6.7 | 0.0 | | 6.7 |
| T113F23 | N1 | MBR | W | 100 | 253 | 7.6 | 100 | 253 | 6.8 | 6.8 | 0.0 | | 6.8 |
| T113F24 | N1 | BR1 | W | 100 | 253 | 5.9 | 100 | 253 | 6.8 | 6.8 | -0.6 | | 6.2 |
| T113F25 | N1 | LIV/DIN | BAL | 100 | 100 | 12.2 | 100 | 100 | 11.2 | 6.7 | 0.0 | | 6.7 |
| T113F26 | N1 | MBR | W | 100 | 253 | 7.6 | 100 | 253 | 6.8 | 6.8 | 0.0 | | 6.8 |
| T113F27 | N1 | BR1 | W | 100 | 253 | 5.9 | 100 | 253 | 6.8 | 6.8 | -0.6 | | 6.2 |
| T113F28 | N1 | LIV/DIN | BAL | 100 | 100 | 12.2 | 100 | 100 | 11.2 | 6.7 | 0.0 | | 6.7 |
| T113F29 | N1 | MBR | W | 100 | 253 | 7.6 | 100 | 253 | 6.8 | 6.8 | 0.0 | | 6.8 |
| T113F30 | N1 | MBR | W | 100 | 253 | 8.1 | 100 | 253 | 6.8 | 6.8 | 0.0 | | 6.8 |
| T113F31 | N1 | BR1 | W | 100 | 253 | 4.6 | 100 | 253 | 6.8 | 6.8 | -1.7 | | 5.1 |
| T113F32 | N1 | LIV/DIN | BAL | 100 | 100 | 12.1 | 100 | 100 | 11.2 | 6.7 | 0.0 | | 6.7 |
| T113F33 | N1 | MBR | W | 100 | 253 | 7.2 | 100 | 253 | 6.8 | 6.8 | 0.0 | | 6.8 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| T113F34 | N1 | BR1 | W | 100 | 253 | 4.2 | 100 | 253 | 6.8 | 6.8 | -2.1 | | 4.7 |
| T113F35 | N1 | LIV/DIN | BAL | 100 | 100 | 13.5 | 100 | 100 | 11.2 | 6.7 | 0.0 | | 6.7 |
| T113F36 | N1 | MBR | W | 100 | 253 | 6.9 | 100 | 253 | 6.8 | 6.8 | 0.0 | | 6.8 |
| T113F37 | N1 | LIV/DIN | BAL | 100 | 100 | 12.0 | 100 | 100 | 11.2 | 6.7 | 0.0 | | 6.7 |
| T113F38 | N1 | BR1 | W | 100 | 253 | 6.7 | 100 | 253 | 6.8 | 6.8 | -0.1 | | 6.7 |
| T113F39 | N1 | MBR | W | 100 | 253 | 6.9 | 100 | 253 | 6.8 | 6.8 | 0.0 | | 6.8 |
| T113F40 | N1 | LIV/DIN | BAL | 100 | 100 | 12.0 | 100 | 100 | 11.2 | 6.7 | 0.0 | | 6.7 |
| T113F41 | N1 | BR1 | W | 100 | 253 | 6.7 | 100 | 253 | 6.8 | 6.8 | -0.1 | | 6.7 |
| T113F42 | N1 | MBR | W | 100 | 253 | 5.0 | 100 | 253 | 6.8 | 6.8 | -1.3 | | 5.5 |
| T113F59 | N1 | LIV/DIN | BAL | 100 | 100 | 12.2 | 100 | 100 | 11.2 | 6.7 | 0.0 | | 6.7 |
| T113F60 | N1 | MBR | W | 100 | 253 | 6.9 | 100 | 253 | 6.8 | 6.8 | 0.0 | | 6.8 |
| T113F61 | N1 | LIV/DIN | BAL | 100 | 100 | 12.0 | 100 | 100 | 11.2 | 6.7 | 0.0 | | 6.7 |
| T113F62 | N1 | BR1 | W | 100 | 253 | 6.7 | 100 | 253 | 6.8 | 6.8 | -0.1 | | 6.7 |
| T113F63 | N1 | MBR | W | 100 | 253 | 6.6 | 100 | 253 | 6.8 | 6.8 | -0.1 | | 6.7 |
| T113F60 | N1 | MBR | W | 100 | 253 | 6.9 | 100 | 253 | 6.8 | 6.8 | 0.0 | | 6.8 |
| T113F64 | N1 | LIV/DIN | BAL | 100 | 100 | 11.7 | 100 | 100 | 11.2 | 6.7 | 0.0 | | 6.7 |
| T113F65 | N1 | LIV/DIN | BAL | 100 | 100 | 11.7 | 100 | 100 | 11.2 | 6.7 | 0.0 | | 6.7 |
| T113F66 | N1 | MBR | W | 100 | 253 | 6.6 | 100 | 253 | 6.8 | 6.8 | -0.1 | | 6.7 |
| T113F67 | N1 | LIV/DIN | BAL | 100 | 100 | 11.7 | 100 | 100 | 11.2 | 6.7 | 0.0 | | 6.7 |
| T113F68 | N1 | BR1 | W | 100 | 253 | 4.6 | 100 | 253 | 6.8 | 6.8 | -1.7 | | 5.1 |
| T113F69 | N1 | MBR | W | 100 | 253 | 7.0 | 100 | 253 | 6.8 | 6.8 | 0.0 | | 6.8 |
| T113F70 | N1 | LIV/DIN | BAL | 100 | 100 | 15.7 | 100 | 100 | 11.2 | 6.7 | 0.0 | | 6.7 |
| T113F71 | N1 | MBR | W | 100 | 253 | 6.4 | 100 | 253 | 6.8 | 6.8 | -0.3 | | 6.5 |
| T113F72 | N1 | BR1 | W | 100 | 253 | 4.1 | 100 | 253 | 6.8 | 6.8 | -2.2 | | 4.6 |

Adjustment of Sound Attenuation for Traffic Noise Impact Assessment

Reference Case

| Case ID | Acoustic Window/ Door System | SAM at 100mm gap | MPA | Air Gap, mm | Overlapping length (Mullion Included), mm | Room area (RAref), $m^2$ | Ref. sound attenuation, dB(A) |
|---|---|---|---|---|---|---|---|
| BAL | AB(BT)-KT | No | No | 100 | 275 | 11.2 | 6.7 |

| Case ID | Acoustic Window/ Door System | SAM at 100mm gap | MPA | Air Gap, mm | Overlapping length (Mullion Included), mm | Room area (RAref), $m^2$ | Ref. sound attenuation, dB(A) |
|---|---|---|---|---|---|---|---|
| W | AW(BT) -NPE | No | Yes | 100 | 253 | 6.8 | 6.8 |

| 1 | 1 | 2 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Proposed Development | | | | | | | | Reference Case | | | | Proposed Development | |
| NSRs with Acoustic Window / Balcony (Baffle Type) | Tower | Room | Referred Case ID | Air Gap, mm | Overlapping length (Mullion Included), mm | Room area (RA), $m^2$ | | Air Gap, mm | Overlapping length (Mullion Included), mm | Room area (RAref), $m^2$ | Ref. sound attenuation, dB(A) | Adjustment: 10xlog(RA/RAref) | Adjusted sound attenuation, dB(A) |
| T2TYP19 | N2 | MBR | W | 100 | 253 | 9.0 | | 100 | 253 | 6.8 | 6.8 | 0.0 | 6.8 |
| T2TYP20 | N2 | BR1 | W | 100 | 253 | 4.9 | | 100 | 253 | 6.8 | 6.8 | -1.4 | 5.4 |
| T2TYP21 | N2 | LIV/DIN | BAL | 100 | 275 | 18.0 | | 100 | 275 | 11.2 | 6.7 | 0.0 | 6.7 |
| T2TYP22 | N2 | MBR | W | 100 | 253 | 8.6 | | 100 | 253 | 6.8 | 6.8 | 0.0 | 6.8 |
| T2TYP23 | N2 | BR1 | W | 100 | 253 | 5.4 | | 100 | 253 | 6.8 | 6.8 | -1.0 | 5.8 |
| T2TYP24 | N2 | LIV/DIN | BAL | 100 | 275 | 16.0 | | 100 | 275 | 11.2 | 6.7 | 0.0 | 6.7 |
| T2TYP25 | N2 | BR1 | W | 100 | 253 | 7.5 | | 100 | 253 | 6.8 | 6.8 | 0.0 | 6.8 |
| T2TYP26 | N2 | LIV/DIN | BAL | 100 | 275 | 17.9 | | 100 | 275 | 11.2 | 6.7 | 0.0 | 6.7 |
| T2TYP27 | N2 | BR1 | W | 100 | 253 | 4.8 | | 100 | 253 | 6.8 | 6.8 | -1.5 | 5.3 |
| T2TYP28 | N2 | BR1 | W | 100 | 253 | 4.8 | | 100 | 253 | 6.8 | 6.8 | -1.5 | 5.3 |
| T2TYP29 | N2 | MBR | W | 100 | 253 | 9.0 | | 100 | 253 | 6.8 | 6.8 | 0.0 | 6.8 |
| T2TYP30 | N2 | BR1 | W | 100 | 253 | 6.0 | | 100 | 253 | 6.8 | 6.8 | -0.5 | 6.3 |
| T2TYP34 | N2 | MBR | W | 100 | 253 | 6.6 | | 100 | 253 | 6.8 | 6.8 | -0.1 | 6.7 |
| T2TYP35 | N2 | LIV/DIN | BAL | 100 | 275 | 14.5 | | 100 | 275 | 11.2 | 6.7 | 0.0 | 6.7 |
| T2TYP36 | N2 | BR1 | W | 100 | 253 | 6.2 | | 100 | 253 | 6.8 | 6.8 | -0.4 | 6.4 |
| T2TYP37 | N2 | LIV/DIN | BAL | 100 | 275 | 12.2 | | 100 | 275 | 11.2 | 6.7 | 0.0 | 6.7 |
| T2TYP38 | N2 | MBR | W | 100 | 253 | 6.8 | | 100 | 253 | 6.8 | 6.8 | 0.0 | 6.8 |
| T2TYP40 | N2 | LIV/DIN | BAL | 100 | 275 | 14.5 | | 100 | 275 | 11.2 | 6.7 | 0.0 | 6.7 |
| T2TYP41 | N2 | MBR | W | 100 | 253 | 6.6 | | 100 | 253 | 6.8 | 6.8 | -0.1 | 6.7 |
| T2TYP42 | N2 | BR1 | W | 100 | 253 | 4.4 | | 100 | 253 | 6.8 | 6.8 | -1.9 | 4.9 |
| T2TYP43 | N2 | MBR | W | 100 | 253 | 7.6 | | 100 | 253 | 6.8 | 6.8 | 0.0 | 6.8 |
| T2TYP44 | N2 | LIV/DIN | BAL | 100 | 275 | 12.0 | | 100 | 275 | 11.2 | 6.7 | 0.0 | 6.7 |
| T2TYP45 | N2 | BR1 | W | 100 | 253 | 5.8 | | 100 | 253 | 6.8 | 6.8 | -0.7 | 6.1 |
| T2TYP46 | N2 | LIV/DIN | BAL | 100 | 275 | 13.9 | | 100 | 275 | 11.2 | 6.7 | 0.0 | 6.7 |
| T2TYP47 | N2 | MBR | W | 100 | 253 | 7.8 | | 100 | 253 | 6.8 | 6.8 | 0.0 | 6.8 |
| T2TYP48 | N2 | BR1 | W | 100 | 253 | 4.2 | | 100 | 253 | 6.8 | 6.8 | -2.1 | 4.7 |
| T2TYP69 | N2 | LIV/DIN | BAL | 100 | 275 | 12.0 | | 100 | 275 | 11.2 | 6.7 | 0.0 | 6.7 |
| T2TYP70 | N2 | MBR | W | 100 | 253 | 7.6 | | 100 | 253 | 6.8 | 6.8 | 0.0 | 6.8 |
| T2TYP71 | N2 | MBR | W | 100 | 253 | 7.6 | | 100 | 253 | 6.8 | 6.8 | 0.0 | 6.8 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| T2TYP72 | N2 | LIV/DIN | BAL | 100 | 275 | 14.5 | 100 | 275 | 11.2 | 6.7 | 0.0 | 6.7 |
| T2TYP73 | N2 | BR1 | W | 100 | 253 | 6.2 | 100 | 253 | 6.8 | 6.8 | -0.4 | 6.4 |
| T2TYP74 | N2 | LIV/DIN | BAL | 100 | 275 | 15.1 | 100 | 275 | 11.2 | 6.7 | 0.0 | 6.7 |
| T2TYP75 | N2 | MBR | W | 100 | 253 | 6.5 | 100 | 253 | 6.8 | 6.8 | -0.2 | 6.6 |
| T212F09 | N2 | MBR | W | 100 | 253 | 9.0 | 100 | 253 | 6.8 | 6.8 | 0.0 | 6.8 |
| T212F10 | N2 | BR1 | W | 100 | 253 | 4.9 | 100 | 253 | 6.8 | 6.8 | -1.4 | 5.4 |
| T212F11 | N2 | LIV/DIN | BAL | 100 | 275 | 18.0 | 100 | 275 | 11.2 | 6.7 | 0.0 | 6.7 |
| T212F12 | N2 | MBR | W | 100 | 253 | 8.6 | 100 | 253 | 6.8 | 6.8 | 0.0 | 6.8 |
| T212F13 | N2 | BR1 | W | 100 | 253 | 5.4 | 100 | 253 | 6.8 | 6.8 | -1.0 | 5.8 |
| T212F14 | N2 | LIV/DIN | BAL | 100 | 275 | 16.0 | 100 | 275 | 11.2 | 6.7 | 0.0 | 6.7 |
| T212F15 | N2 | BR1 | W | 100 | 253 | 7.5 | 100 | 253 | 6.8 | 6.8 | 0.0 | 6.8 |
| T212F16 | N2 | LIV/DIN | BAL | 100 | 275 | 17.9 | 100 | 275 | 11.2 | 6.7 | 0.0 | 6.7 |
| T212F17 | N2 | BR1 | W | 100 | 253 | 4.8 | 100 | 253 | 6.8 | 6.8 | -1.5 | 5.3 |
| T212F18 | N2 | BR1 | W | 100 | 253 | 4.8 | 100 | 253 | 6.8 | 6.8 | -1.5 | 5.3 |
| T212F19 | N2 | MBR | W | 100 | 253 | 9.0 | 100 | 253 | 6.8 | 6.8 | 0.0 | 6.8 |
| T212F20 | N2 | BR1 | W | 100 | 253 | 6.0 | 100 | 253 | 6.8 | 6.8 | -0.5 | 6.3 |
| T212F21 | N2 | LIV/DIN | BAL | 100 | 275 | 12.0 | 100 | 275 | 11.2 | 6.7 | 0.0 | 6.7 |
| T212F22 | N2 | MBR | W | 100 | 253 | 6.9 | 100 | 253 | 6.8 | 6.8 | 0.0 | 6.8 |
| T212F23 | N2 | BR1 | W | 100 | 253 | 4.7 | 100 | 253 | 6.8 | 6.8 | -1.6 | 5.2 |
| T212F24 | N2 | MBR | W | 100 | 253 | 6.6 | 100 | 253 | 6.8 | 6.8 | -0.1 | 6.7 |
| T212F25 | N2 | LIV/DIN | BAL | 100 | 275 | 14.5 | 100 | 275 | 11.2 | 6.7 | 0.0 | 6.7 |
| T212F26 | N2 | BR1 | W | 100 | 253 | 6.2 | 100 | 253 | 6.8 | 6.8 | -0.4 | 6.4 |
| T212F27 | N2 | LIV/DIN | BAL | 100 | 275 | 12.2 | 100 | 275 | 11.2 | 6.7 | 0.0 | 6.7 |
| T212F28 | N2 | MBR | W | 100 | 253 | 6.8 | 100 | 253 | 6.8 | 6.8 | 0.0 | 6.8 |
| T212F29 | N2 | MBR | W | 100 | 253 | 6.8 | 100 | 253 | 6.8 | 6.8 | 0.0 | 6.8 |
| T212F30 | N2 | LIV/DIN | BAL | 100 | 275 | 14.5 | 100 | 275 | 11.2 | 6.7 | 0.0 | 6.7 |
| T212F31 | N2 | MBR | W | 100 | 253 | 6.6 | 100 | 253 | 6.8 | 6.8 | -0.1 | 6.7 |
| T212F32 | N2 | BR1 | W | 100 | 253 | 4.4 | 100 | 253 | 6.8 | 6.8 | -1.9 | 4.9 |
| T212F33 | N2 | MBR | W | 100 | 253 | 7.6 | 100 | 253 | 6.8 | 6.8 | 0.0 | 6.8 |
| T212F34 | N2 | LIV/DIN | BAL | 100 | 275 | 12.0 | 100 | 275 | 11.2 | 6.7 | 0.0 | 6.7 |
| T212F35 | N2 | BR1 | W | 100 | 253 | 5.8 | 100 | 253 | 6.8 | 6.8 | -0.7 | 6.1 |
| T212F36 | N2 | LIV/DIN | BAL | 100 | 275 | 13.9 | 100 | 275 | 11.2 | 6.7 | 0.0 | 6.7 |
| T212F37 | N2 | MBR | W | 100 | 253 | 7.8 | 100 | 253 | 6.8 | 6.8 | 0.0 | 6.8 |
| T212F38 | N2 | BR1 | W | 100 | 253 | 4.2 | 100 | 253 | 6.8 | 6.8 | -2.1 | 4.7 |
| T212F39 | N2 | BR1 | W | 100 | 253 | 4.9 | 100 | 253 | 6.8 | 6.8 | -1.4 | 5.4 |
| T212F40 | N2 | MBR | W | 100 | 253 | 6.5 | 100 | 253 | 6.8 | 6.8 | -0.2 | 6.6 |
| T212F50 | N2 | LIV/DIN | BAL | 100 | 275 | 15.1 | 100 | 275 | 11.2 | 6.7 | 0.0 | 6.7 |
| T212F51 | N2 | MBR | W | 100 | 253 | 6.7 | 100 | 253 | 6.8 | 6.8 | -0.1 | 6.7 |
| T212F52 | N2 | LIV/DIN | BAL | 100 | 275 | 12.2 | 100 | 275 | 11.2 | 6.7 | 0.0 | 6.7 |
| T212F53 | N2 | BR1 | W | 100 | 253 | 6.7 | 100 | 253 | 6.8 | 6.8 | -0.1 | 6.7 |
| T212F54 | N2 | LIV/DIN | BAL | 100 | 275 | 11.7 | 100 | 275 | 11.2 | 6.7 | 0.0 | 6.7 |
| T212F55 | N2 | MBR | W | 100 | 253 | 6.6 | 100 | 253 | 6.8 | 6.8 | -0.1 | 6.7 |
| T212F56 | N2 | LIV/DIN | BAL | 100 | 275 | 11.7 | 100 | 275 | 11.2 | 6.7 | 0.0 | 6.7 |
| T212F57 | N2 | MBR | W | 100 | 253 | 6.6 | 100 | 253 | 6.8 | 6.8 | -0.1 | 6.7 |
| T212F58 | N2 | LIV/DIN | BAL | 100 | 275 | 11.7 | 100 | 275 | 11.2 | 6.7 | 0.0 | 6.7 |
| T212F59 | N2 | LIV/DIN | BAL | 100 | 275 | 11.7 | 100 | 275 | 11.2 | 6.7 | 0.0 | 6.7 |
| T212F60 | N2 | MBR | W | 100 | 253 | 6.6 | 100 | 253 | 6.8 | 6.8 | -0.1 | 6.7 |
| T212F61 | N2 | MBR | W | 100 | 253 | 6.6 | 100 | 253 | 6.8 | 6.8 | -0.1 | 6.7 |
| T212F62 | N2 | LIV/DIN | BAL | 100 | 275 | 13.9 | 100 | 275 | 11.2 | 6.7 | 0.0 | 6.7 |
| T212F63 | N2 | BR1 | W | 100 | 253 | 6.6 | 100 | 253 | 6.8 | 6.8 | -0.1 | 6.7 |
| T212F64 | N2 | LIV/DIN | BAL | 100 | 275 | 15.1 | 100 | 275 | 11.2 | 6.7 | 0.0 | 6.7 |
| T212F65 | N2 | MBR | W | 100 | 253 | 6.6 | 100 | 253 | 6.8 | 6.8 | -0.1 | 6.7 |
| T212F66 | N2 | BR1 | W | 100 | 253 | 5.0 | 100 | 253 | 6.8 | 6.8 | -1.3 | 5.5 |

Appendix 2.5 Road Traffic Noise Impact Assessment Result (Mitigated Case)

Predicted Road Traffic Noise (L10, dB(A)) at Representative Noise Assessment Points (NAPs)
Mitigated Case

| T1_GF | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Floor | mPD | T1GF01 | T1GF02 | T1GF03 | T1GF04 | T1GF05 | T1GF06 | T1GF07 | T1GF08 | T1GF09 | T1GF10 | T1GF11 | T1GF12 | T1GF13 | T1GF14 | T1GF15 | T1GF16 | T1GF17 | T1GF18 | T1GF19 | T1GF20 |
| | 32.35 | 52 | 68 | 69 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 67 | 63 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Max | | 52 | 68 | 69 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 67 | 63 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 |
| Exceedance | | 0 | | | | 0 | | | 0 | | | 0 | | | | 0 | | | | 0 | |

| T1_GF | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Floor | mPD | T1GF21 | T1GF22 | T1GF23 | T1GF24 | T1GF25 | T1GF26 | T1GF27 | T1GF28 | T1GF29 | T1GF30 | T1GF31 | T1GF32 | T1GF33 | T1GF34 | T1GF35 | T1GF36 | | | | |
| | 32.35 | 70 | 70 | 70 | 70 | 70 | 70 | 52 | 53 | 53 | 53 | 53 | 54 | 54 | 55 | 56 | 56 | | | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Max | | 70 | 70 | 70 | 70 | 70 | 70 | 52 | 53 | 53 | 53 | 53 | 54 | 54 | 55 | 56 | 56 | | | | |
| Exceedance | | 0 | | | 0 | | | 0 | | 0 | | 0 | | 0 | | 0 | | | | | |

| T1_1F | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Floor | mPD | T11F01 | T11F02 | T11F03 | T11F04 | T11F05 | T11F06 | T11F07 | T11F08 | T11F09 | T11F10 | T11F11 | T11F12 | T11F13 | T11F14 | T11F15 | T11F16 | T11F17 | T11F18 | T11F19 | T11F20 |
| | 35.35 | 53 | 68 | 69 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 67 | 63 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Max | | 53 | 68 | 69 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 67 | 63 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 |
| Exceedance | | 0 | | | | 0 | | | 0 | | | 0 | | | | 0 | | | | 0 | |

| T1_1F | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Floor | mPD | T11F21 | T11F22 | T11F23 | T11F24 | T11F25 | T11F26 | T11F27 | T11F28 | T11F29 | T11F30 | T11F31 | T11F32 | T11F33 | T11F34 | T11F35 | T11F36 | T11F37 | T11F38 | T11F39 | |
| | 35.35 | 70 | 70 | 70 | 70 | 70 | 70 | 58 | 55 | 52 | 51 | 52 | 52 | 52 | 52 | 51 | 52 | 52 | 51 | 52 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Max | | 70 | 70 | 70 | 70 | 70 | 70 | 58 | 55 | 52 | 51 | 52 | 52 | 52 | 52 | 51 | 52 | 52 | 51 | 52 | |
| Exceedance | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | |

| T1_1F | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Floor | mPD | T11F40 | T11F41 | T11F42 | T11F43 | T11F44 | T11F45 | T11F46 | T11F47 | T11F48 | T11F49 | T11F50 | T11F51 | T11F52 | T11F53 | T11F54 | T11F55 | | | | |
| | 35.35 | 52 | 52 | 52 | 52 | 52 | 53 | 53 | 53 | 54 | 54 | 54 | 55 | 55 | 56 | 56 | 57 | | | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Max | | 52 | 52 | 52 | 52 | 52 | 53 | 53 | 53 | 54 | 54 | 54 | 55 | 55 | 56 | 56 | 57 | | | | |
| Exceedance | | 0 | | | 0 | | | 0 | | 0 | | | 0 | | | 0 | | | | | |

Predicted Road Traffic Noise (L10, dB(A)) at Representative Noise Assessment Points (NAPs)

Mitigated Case

| T1_TYP | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Floor | mPD | T1TYP01 | T1TYP02 | T1TYP03 | T1TYP04 | T1TYP05 | T1TYP06 | T1TYP07 | T1TYP08 | T1TYP09 | T1TYP10 | T1TYP11 | T1TYP12 | T1TYP13 | T1TYP14 | T1TYP15 | T1TYP16 | T1TYP17 | T1TYP18 | T1TYP19 | T1TYP20 |
| 2 | 38.35 | 53 | 68 | 69 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 67 | 63 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 |
| 3 | 41.35 | 54 | 68 | 69 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 67 | 63 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 |
| 4 | 44.35 | 54 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 67 | 63 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 |
| 5 | 47.35 | 55 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 67 | 63 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 |
| 6 | 50.35 | 56 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 67 | 63 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 |
| 7 | 53.35 | 57 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 67 | 63 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 |
| 8 | 56.35 | 59 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 67 | 63 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 |
| 9 | 59.35 | 60 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 67 | 63 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 |
| 10 | 62.35 | 62 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 67 | 63 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 |
| 11 | 65.35 | 65 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 67 | 64 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 |
| 12 | 68.35 | 67 | 69 | 69 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 64 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Max | | 67 | 69 | 69 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 64 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 |
| Exceedance | | 0 | | | | 0 | | | 0 | | | 0 | | | | 0 | | | 0 | | |

| T1_TYP | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Floor | mPD | T1TYP21 | T1TYP22 | T1TYP23 | T1TYP24 | T1TYP25 | T1TYP26 | T1TYP27 | T1TYP28 | T1TYP29 | T1TYP30 | T1TYP31 | T1TYP32 | T1TYP33 | T1TYP34 | T1TYP35 | T1TYP36 | T1TYP37 | T1TYP38 | | |
| 2 | 38.35 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | | |
| 3 | 41.35 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | | |
| 4 | 44.35 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | | |
| 5 | 47.35 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | | |
| 6 | 50.35 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | | |
| 7 | 53.35 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | | |
| 8 | 56.35 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | | |
| 9 | 59.35 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | | |
| 10 | 62.35 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | | |
| 11 | 65.35 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | | |
| 12 | 68.35 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Max | | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | | |
| Exceedance | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | | |

Predicted Road Traffic Noise (L10, dB(A)) at Representative Noise Assessment Points (NAPs)

Mitigated Case

| T1_TYP | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Floor | mPD | T1TYP39 | T1TYP40 | T1TYP41 | T1TYP42 | T1TYP43 | T1TYP44 | T1TYP45 | T1TYP46 | T1TYP47 | T1TYP48 | T1TYP49 | T1TYP50 | T1TYP51 | T1TYP52 | T1TYP53 | T1TYP54 | T1TYP55 | T1TYP56 | T1TYP57 | |
| 2 | 38.35 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 59 | 58 | 55 | 52 | 52 | 52 | 52 | 52 | |
| 3 | 41.35 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 60 | 59 | 56 | 52 | 52 | 52 | 52 | 52 | |
| 4 | 44.35 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 60 | 59 | 56 | 53 | 53 | 53 | 53 | 53 | |
| 5 | 47.35 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 60 | 60 | 57 | 53 | 53 | 53 | 53 | 53 | |
| 6 | 50.35 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 61 | 61 | 57 | 54 | 54 | 54 | 54 | 54 | |
| 7 | 53.35 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 62 | 61 | 58 | 55 | 55 | 55 | 55 | 55 | |
| 8 | 56.35 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 63 | 62 | 59 | 56 | 56 | 56 | 56 | 56 | |
| 9 | 59.35 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 64 | 63 | 61 | 57 | 57 | 57 | 57 | 57 | |
| 10 | 62.35 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 65 | 65 | 62 | 58 | 58 | 58 | 58 | 58 | |
| 11 | 65.35 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 66 | 66 | 64 | 60 | 60 | 60 | 60 | 60 | |
| 12 | 68.35 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 68 | 68 | 66 | 63 | 62 | 63 | 62 | 62 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Max | | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 68 | 68 | 66 | 63 | 62 | 63 | 62 | 62 | |
| Exceedance | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | |

| T1_TYP | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Floor | mPD | T1TYP58 | T1TYP59 | T1TYP60 | T1TYP61 | T1TYP62 | T1TYP63 | T1TYP64 | T1TYP65 | T1TYP66 | T1TYP67 | T1TYP68 | T1TYP69 | T1TYP70 | T1TYP71 | T1TYP72 | T1TYP73 | T1TYP74 | T1TYP75 | | |
| 2 | 38.35 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 53 | 53 | 53 | 53 | 53 | 54 | 54 | 54 | | |
| 3 | 41.35 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 53 | 53 | 53 | 53 | 54 | 54 | 54 | 55 | 55 | 55 | | |
| 4 | 44.35 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 54 | 54 | 54 | 55 | 55 | 55 | 56 | 56 | | |
| 5 | 47.35 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 54 | 54 | 54 | 54 | 55 | 56 | 56 | 56 | 57 | 57 | | |
| 6 | 50.35 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 55 | 55 | 55 | 56 | 57 | 57 | 57 | 58 | 58 | | |
| 7 | 53.35 | 55 | 55 | 55 | 55 | 54 | 54 | 55 | 55 | 55 | 55 | 56 | 56 | 57 | 58 | 58 | 59 | 59 | 59 | | |
| 8 | 56.35 | 56 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 56 | 57 | 57 | 58 | 59 | 59 | 59 | 60 | 60 | 61 | | |
| 9 | 59.35 | 57 | 57 | 56 | 57 | 56 | 56 | 56 | 57 | 57 | 58 | 59 | 59 | 60 | 61 | 61 | 62 | 62 | 62 | | |
| 10 | 62.35 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 59 | 60 | 61 | 61 | 62 | 63 | 63 | 64 | 64 | 64 | | |
| 11 | 65.35 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 61 | 62 | 63 | 64 | 65 | 65 | 65 | 66 | 66 | 67 | | |
| 12 | 68.35 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 64 | 65 | 66 | 67 | 68 | 68 | 68 | 69 | 69 | 69 | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Max | | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 64 | 65 | 66 | 67 | 68 | 68 | 68 | 69 | 69 | 69 | | |
| Exceedance | | 0 | | 0 | | 0 | | 0 | | 0 | | | 0 | | | 0 | | | 0 | | |

Predicted Road Traffic Noise (L10, dB(A)) at Representative Noise Assessment Points (NAPs)

Mitigated Case

| T1_TYP | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Floor | mPD | T1TYP76 | T1TYP77 | T1TYP78 | T1TYP79 | T1TYP80 | T1TYP81 | | | | | | | | | | | | | | |
| 2 | 38.35 | 55 | 55 | 56 | 56 | 57 | 57 | | | | | | | | | | | | | | |
| 3 | 41.35 | 55 | 56 | 56 | 57 | 57 | 58 | | | | | | | | | | | | | | |
| 4 | 44.35 | 56 | 57 | 57 | 58 | 58 | 59 | | | | | | | | | | | | | | |
| 5 | 47.35 | 57 | 58 | 58 | 59 | 59 | 60 | | | | | | | | | | | | | | |
| 6 | 50.35 | 58 | 59 | 59 | 60 | 60 | 60 | | | | | | | | | | | | | | |
| 7 | 53.35 | 60 | 60 | 60 | 61 | 61 | 61 | | | | | | | | | | | | | | |
| 8 | 56.35 | 61 | 61 | 62 | 62 | 62 | 63 | | | | | | | | | | | | | | |
| 9 | 59.35 | 63 | 63 | 63 | 63 | 64 | 64 | | | | | | | | | | | | | | |
| 10 | 62.35 | 64 | 65 | 65 | 65 | 66 | 66 | | | | | | | | | | | | | | |
| 11 | 65.35 | 67 | 67 | 67 | 67 | 68 | 68 | | | | | | | | | | | | | | |
| 12 | 68.35 | 70 | 70 | 70 | 70 | 70 | 70 | | | | | | | | | | | | | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | |
| Max | | 70 | 70 | 70 | 70 | 70 | 70 | | | | | | | | | | | | | | |
| Exceedance | | 0 | | | 0 | | | | | | | | | | | | | | | | |

Predicted Road Traffic Noise (L10, dB(A)) at Representative Noise Assessment Points (NAPs)

Mitigated Case

| T1_13F | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Floor | mPD | T113F01 | T113F02 | T113F03 | T113F04 | T113F05 | T113F06 | T113F07 | T113F08 | T113F09 | T113F10 | T113F11 | T113F12 | T113F13 | T113F14 | T113F15 | T113F16 | T113F17 | T113F18 | T113F19 | T113F20 |
| | 71.65 | 69 | 70 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 66 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Max | | 69 | 70 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 66 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 |
| Exceedance | | 0 | | | | 0 | | | 0 | | | 0 | | | | 0 | | | 0 | | |

| T1_13F | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Floor | mPD | T113F21 | T113F22 | T113F23 | T113F24 | T113F25 | T113F26 | T113F27 | T113F28 | T113F29 | T113F30 | T113F31 | T113F32 | T113F33 | T113F34 | T113F35 | T113F36 | T113F37 | T113F38 | | |
| | 71.65 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Max | | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | | |
| Exceedance | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | | |

| T1_13F | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Floor | mPD | T113F39 | T113F40 | T113F41 | T113F42 | T113F43 | T113F44 | T113F45 | T113F46 | T113F47 | T113F48 | T113F49 | T113F50 | T113F51 | T113F52 | T113F53 | T113F54 | T113F55 | T113F56 | | |
| | 71.65 | 70 | 70 | 70 | 70 | 70 | 68 | 67 | 67 | 66 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Max | | 70 | 70 | 70 | 70 | 70 | 68 | 67 | 67 | 66 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | | |
| Exceedance | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | | |

| T1_13F | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Floor | mPD | T113F57 | T113F58 | T113F59 | T113F60 | T113F61 | T113F62 | T113F63 | T113F64 | T113F65 | T113F66 | T113F67 | T113F68 | T113F69 | T113F70 | T113F71 | T113F72 | | | | |
| | 71.65 | 69 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | | | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Max | | 69 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | | | | |
| Exceedance | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | | | | | |

| | |
|---|---|
| No. of Units: | 378 |
| No. of Units with Exceedance: | 0 |
| Compliance Level: | 100% |
| Max. Noise Level: | 70 |

Noted:

| | |
|---|---|
| | Noise level exceed stardand of 70 dB(A) |
| | Acoustic Balcony (Baffle Type)-KT |
| | Acoustic Window (Baffle Type)-NPE |

Predicted Road Traffic Noise (L10, dB(A)) at Representative Noise Assessment Points (NAPs)
Mitigated Case

| T2_1F | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Floor | mPD | T21F01 | T21F02 | T21F03 | T21F04 | T21F05 | T21F06 | T21F07 | T21F08 | T21F09 | T21F10 | T21F11 | T21F12 | T21F13 | T21F14 | T21F15 | T21F16 | T21F17 | T21F18 | T21F19 | T21F20 |
| | 38.35 | 61 | 61 | 61 | 61 | 60 | 60 | 60 | 52 | 53 | 54 | 56 | 58 | 58 | 59 | 59 | 61 | 61 | 62 | 63 | 63 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Max | | 61 | 61 | 61 | 61 | 60 | 60 | 60 | 52 | 53 | 54 | 56 | 58 | 58 | 59 | 59 | 61 | 61 | 62 | 63 | 63 |
| Exceedance | | 0 | | | | 0 | | | 0 | | | 0 | | | 0 | | 0 | | | 0 | |

| T2_1F | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Floor | mPD | T21F21 | T21F22 | T21F23 | T21F24 | T21F25 | T21F26 | | | | | | | | | | | | | | |
| | 38.35 | 62 | 62 | 61 | 60 | 59 | 58 | | | | | | | | | | | | | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | |
| Max | | 62 | 62 | 61 | 60 | 59 | 58 | | | | | | | | | | | | | | |
| Exceedance | | 0 | | | 0 | | | | | | | | | | | | | | | | |

| T2_2F | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Floor | mPD | T22F01 | T22F02 | T22F03 | T22F04 | T22F05 | T22F06 | T22F07 | T22F08 | T22F09 | T22F10 | T22F11 | T22F12 | T22F13 | T22F14 | T22F15 | T22F16 | T22F17 | | | |
| | 41.35 | 63 | 63 | 62 | 62 | 62 | 62 | 61 | 61 | 61 | 60 | 60 | 59 | 65 | 65 | 65 | 64 | 64 | | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Max | | 63 | 63 | 62 | 62 | 62 | 62 | 61 | 61 | 61 | 60 | 60 | 59 | 65 | 65 | 65 | 64 | 64 | | | |
| Exceedance | | 0 | | | | 0 | | | | 0 | | | 0 | | | 0 | | | | | |

| T2_2F | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Floor | mPD | T22F18 | T22F19 | T22F20 | T22F21 | T22F22 | T22F23 | T22F24 | T22F25 | T22F26 | T22F27 | T22F28 | T22F29 | T22F30 | T22F31 | T22F32 | T22F33 | T22F34 | T22F35 | T22F36 | |
| | 41.35 | 60 | 65 | 65 | 64 | 64 | 64 | 66 | 66 | 68 | 68 | 67 | 66 | 61 | 59 | 57 | 54 | 53 | 52 | 52 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Max | | 60 | 65 | 65 | 64 | 64 | 64 | 66 | 66 | 68 | 68 | 67 | 66 | 61 | 59 | 57 | 54 | 53 | 52 | 52 | |
| Exceedance | | 0 | | | | 0 | | | 0 | | | 0 | | | 0 | | 0 | | 0 | | |

| T2_2F | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Floor | mPD | T22F37 | T22F38 | T22F39 | T22F40 | T22F41 | T22F42 | T22F43 | T22F44 | T22F45 | T22F46 | T22F47 | T22F48 | T22F49 | T22F50 | T22F51 | T22F52 | T22F53 | T22F54 | T22F55 | |
| | 41.35 | 52 | 53 | 55 | 56 | 58 | 59 | 59 | 60 | 61 | 61 | 63 | 63 | 63 | 63 | 62 | 61 | 61 | 60 | 60 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Max | | 52 | 53 | 55 | 56 | 58 | 59 | 59 | 60 | 61 | 61 | 63 | 63 | 63 | 63 | 62 | 61 | 61 | 60 | 60 | |
| Exceedance | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | | 0 | | |

Predicted Road Traffic Noise (L10, dB(A)) at Representative Noise Assessment Points (NAPs)
Mitigated Case

| T2_TYP | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Floor | mPD | T2TYP01 | T2TYP02 | T2TYP03 | T2TYP04 | T2TYP05 | T2TYP06 | T2TYP07 | T2TYP08 | T2TYP09 | T2TYP10 | T2TYP11 | T2TYP12 | T2TYP13 | T2TYP14 | T2TYP15 | T2TYP16 | T2TYP17 | | | |
| 3 | 44.35 | 66 | 67 | 67 | 66 | 62 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 63 | 63 | 63 | 63 | 63 | | | |
| 4 | 47.35 | 66 | 67 | 67 | 66 | 62 | 64 | 65 | 65 | 65 | 65 | 65 | 64 | 64 | 64 | 64 | 64 | 64 | | | |
| 5 | 50.35 | 66 | 67 | 67 | 66 | 62 | 64 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 64 | 64 | 64 | 64 | | | |
| 6 | 53.35 | 66 | 67 | 67 | 66 | 62 | 64 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 64 | 64 | | | |
| 7 | 56.35 | 67 | 67 | 67 | 66 | 62 | 64 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 64 | 64 | | | |
| 8 | 59.35 | 67 | 67 | 67 | 66 | 62 | 64 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 64 | | | |
| 9 | 62.35 | 68 | 67 | 67 | 66 | 63 | 64 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | | | |
| 10 | 65.35 | 69 | 67 | 67 | 66 | 63 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | | | |
| 11 | 68.35 | 69 | 68 | 67 | 66 | 64 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Max | | 69 | 68 | 67 | 66 | 64 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | | | |
| Exceedance | | 0 | | | | 0 | | | 0 | | | 0 | | 0 | | 0 | | | | | |

| T2_TYP | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Floor | mPD | T2TYP18 | T2TYP19 | T2TYP20 | T2TYP21 | T2TYP22 | T2TYP23 | T2TYP24 | T2TYP25 | T2TYP26 | T2TYP27 | T2TYP28 | T2TYP29 | T2TYP30 | T2TYP31 | T2TYP32 | T2TYP33 | T2TYP34 | T2TYP35 | | |
| 3 | 44.35 | 63 | 64 | 64 | 64 | 63 | 63 | 63 | 63 | 63 | 62 | 62 | 62 | 62 | 61 | 61 | 60 | 66 | 66 | | |
| 4 | 47.35 | 64 | 65 | 64 | 64 | 64 | 64 | 64 | 64 | 63 | 63 | 63 | 63 | 62 | 62 | 61 | 61 | 66 | 66 | | |
| 5 | 50.35 | 64 | 66 | 65 | 65 | 65 | 65 | 65 | 64 | 64 | 64 | 64 | 63 | 63 | 62 | 62 | 61 | 67 | 67 | | |
| 6 | 53.35 | 64 | 66 | 66 | 66 | 66 | 66 | 65 | 65 | 65 | 65 | 65 | 64 | 64 | 63 | 63 | 62 | 67 | 67 | | |
| 7 | 56.35 | 64 | 67 | 67 | 67 | 67 | 67 | 66 | 66 | 66 | 66 | 65 | 65 | 65 | 64 | 64 | 63 | 68 | 67 | | |
| 8 | 59.35 | 64 | 68 | 68 | 68 | 68 | 68 | 67 | 67 | 67 | 67 | 67 | 66 | 66 | 65 | 65 | 64 | 68 | 68 | | |
| 9 | 62.35 | 65 | 70 | 69 | 69 | 69 | 69 | 69 | 69 | 68 | 68 | 68 | 68 | 67 | 67 | 66 | 66 | 69 | 69 | | |
| 10 | 65.35 | 65 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 69 | 69 | 69 | 68 | 68 | 67 | 70 | 70 | | |
| 11 | 68.35 | 65 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 69 | 70 | 70 | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Max | | 65 | 70 | 69 | 69 | 69 | 69 | 70 | 70 | 70 | 70 | 69 | 69 | 69 | 70 | 70 | 69 | 69 | 70 | | |
| Exceedance | | 0 | | | | 0 | | | 0 | | | | 0 | | | 0 | | | | | |

| T2_TYP | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Floor | mPD | T2TYP36 | T2TYP37 | T2TYP38 | T2TYP39 | T2TYP40 | T2TYP41 | T2TYP42 | T2TYP43 | T2TYP44 | T2TYP45 | T2TYP46 | T2TYP47 | T2TYP48 | T2TYP49 | T2TYP50 | T2TYP51 | T2TYP52 | T2TYP53 | T2TYP54 | T2TYP55 |
| 3 | 44.35 | 66 | 65 | 65 | 61 | 67 | 68 | 67 | 67 | 67 | 68 | 67 | 69 | 69 | 67 | 66 | 61 | 60 | 58 | 55 | 54 |
| 4 | 47.35 | 66 | 66 | 65 | 61 | 67 | 68 | 67 | 67 | 67 | 68 | 68 | 69 | 69 | 68 | 67 | 62 | 61 | 59 | 56 | 54 |
| 5 | 50.35 | 67 | 66 | 66 | 62 | 67 | 68 | 67 | 67 | 68 | 68 | 68 | 69 | 69 | 68 | 67 | 62 | 61 | 59 | 57 | 55 |
| 6 | 53.35 | 67 | 67 | 66 | 63 | 68 | 68 | 67 | 67 | 68 | 68 | 68 | 69 | 69 | 68 | 67 | 62 | 61 | 60 | 58 | 56 |
| 7 | 56.35 | 67 | 67 | 67 | 64 | 68 | 69 | 68 | 68 | 68 | 69 | 68 | 69 | 69 | 68 | 67 | 63 | 62 | 60 | 58 | 57 |
| 8 | 59.35 | 68 | 68 | 67 | 64 | 68 | 69 | 68 | 68 | 68 | 69 | 69 | 70 | 69 | 68 | 67 | 63 | 62 | 61 | 59 | 58 |
| 9 | 62.35 | 69 | 68 | 68 | 66 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 70 | 70 | 69 | 68 | 64 | 63 | 62 | 60 | 60 |
| 10 | 65.35 | 70 | 70 | 69 | 67 | 70 | 70 | 69 | 69 | 70 | 70 | 70 | 70 | 70 | 69 | 69 | 65 | 64 | 63 | 62 | 62 |
| 11 | 68.35 | 70 | 70 | 70 | 69 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 66 | 66 | 65 | 64 | 64 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Max | | 70 | 70 | 69 | 69 | 70 | 70 | 69 | 69 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 66 | 66 | 65 | 64 | 64 |
| Exceedance | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | 0 | | |

Predicted Road Traffic Noise (L10, dB(A)) at Representative Noise Assessment Points (NAPs)
Mitigated Case

| T2_TYP | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Floor | mPD | T2TYP56 | T2TYP57 | T2TYP58 | T2TYP59 | T2TYP60 | T2TYP61 | T2TYP62 | T2TYP63 | T2TYP64 | T2TYP65 | T2TYP66 | T2TYP67 | T2TYP68 | T2TYP69 | T2TYP70 | T2TYP71 | T2TYP72 | T2TYP73 | T2TYP74 | T2TYP75 | T2TYP76 |
| 3 | 44.35 | 53 | 53 | 53 | 54 | 55 | 57 | 58 | 59 | 60 | 60 | 61 | 62 | 63 | 63 | 63 | 63 | 63 | 62 | 61 | 61 | 64 |
| 4 | 47.35 | 53 | 53 | 53 | 54 | 56 | 57 | 59 | 59 | 60 | 60 | 62 | 62 | 63 | 63 | 64 | 63 | 63 | 62 | 62 | 61 | 64 |
| 5 | 50.35 | 54 | 54 | 54 | 55 | 57 | 58 | 59 | 60 | 61 | 61 | 62 | 62 | 64 | 64 | 64 | 64 | 63 | 63 | 63 | 62 | 65 |
| 6 | 53.35 | 54 | 55 | 54 | 56 | 57 | 59 | 60 | 61 | 61 | 61 | 63 | 63 | 64 | 64 | 65 | 64 | 64 | 64 | 63 | 63 | 65 |
| 7 | 56.35 | 55 | 55 | 56 | 57 | 58 | 59 | 61 | 61 | 62 | 62 | 63 | 64 | 65 | 65 | 65 | 65 | 65 | 64 | 64 | 64 | 66 |
| 8 | 59.35 | 56 | 57 | 57 | 59 | 60 | 61 | 62 | 62 | 63 | 63 | 64 | 65 | 65 | 66 | 66 | 66 | 66 | 65 | 65 | 65 | 66 |
| 9 | 62.35 | 58 | 58 | 58 | 60 | 61 | 62 | 63 | 64 | 64 | 65 | 65 | 66 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 |
| 10 | 65.35 | 60 | 60 | 60 | 62 | 63 | 64 | 65 | 65 | 66 | 66 | 67 | 67 | 68 | 68 | 69 | 69 | 69 | 69 | 68 | 68 | 69 |
| 11 | 68.35 | 62 | 63 | 63 | 65 | 66 | 67 | 68 | 68 | 69 | 69 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Max | | 62 | 63 | 63 | 65 | 66 | 67 | 68 | 68 | 69 | 69 | 70 | 70 | 70 | 68 | 69 | 69 | 69 | 69 | 68 | 68 | 70 |
| Exceedance | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | |

| T2_12F | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Floor | mPD | T212F01 | T212F02 | T212F03 | T212F04 | T212F05 | T212F06 | T212F07 | T212F08 | T212F09 | T212F10 | T212F11 | T212F12 | T212F13 | T212F14 | T212F15 | T212F16 | T212F17 | T212F18 | T212F19 | |
| | 71.35 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Max | | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | |
| Exceedance | | 0 | | 0 | | 0 | | 0 | | 0 | | | 0 | | | 0 | | | | | |

| T2_12F | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Floor | mPD | T212F20 | T212F21 | T212F22 | T212F23 | T212F24 | T212F25 | T212F26 | T212F27 | T212F28 | T212F29 | T212F30 | T212F31 | T212F32 | T212F33 | T212F34 | T212F35 | T212F36 | T212F37 | T212F38 | |
| | 71.35 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Max | | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | |
| Exceedance | | 0 | | | 0 | | | 0 | | | 0 | | | | 0 | | | 0 | | | |

Predicted Road Traffic Noise (L10, dB(A)) at Representative Noise Assessment Points (NAPs)
Mitigated Case

| T2_12F | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Floor | mPD | T212F39 | T212F40 | T212F41 | T212F42 | T212F43 | T212F44 | T212F45 | T212F46 | T212F47 | T212F48 | T212F49 | T212F50 | T212F51 | T212F52 | T212F53 | T212F54 | T212F55 | T212F56 | T212F57 | T212F58 |
| | 71.35 | 70 | 70 | 69 | 69 | 69 | 68 | 68 | 67 | 67 | 67 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Max | | 70 | 70 | 69 | 69 | 69 | 68 | 68 | 67 | 67 | 67 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 |
| Exceedance | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | |

| T2_12F | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Floor | mPD | T212F59 | T212F60 | T212F61 | T212F62 | T212F63 | T212F64 | T212F65 | T212F66 | | | | | | | | | | | | |
| | 71.35 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | | | | | | | | | | | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | | | |
| Max | | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | | | | | | | | | | | | |
| Exceedance | | 0 | | | 0 | | | 0 | | | | | | | | | | | | | |

| | |
|---|---|
| No. of Units: | 297 |
| No. of Units with Exceedance: | 0 |
| Compliance Level: | 100% |
| Max. Noise Level: | 70 |

Noted:

| | |
|---|---|
| | Noise level exceed stardand of 70 dB(A) |
| | Acoustic Balcony (Baffle Type)-KT |
| | Acoustic Window (Baffle Type)-NPE |

Appendix 2.6 Proposed Overall Noise Mitigation Measures Schedule

Schedule of Noise Mitigation Measures

| NSR | Room | Floor | Noise Mitigation Measures |
|---|---|---|---|
| T2TYP19 | MBR | 10-11F | Acoustic Window (Baffle Type)-NPE |
| T2TYP20 | BR1 | 10-11F | Acoustic Window (Baffle Type)-NPE |
| T2TYP21 | LIV/DIN | 10-11F | Acoustic Balcony (Baffle Type)-KT |
| T2TYP22 | MBR | 10-11F | Acoustic Window (Baffle Type)-NPE |
| T2TYP23 | BR1 | 10-11F | Acoustic Window (Baffle Type)-NPE |
| T2TYP24 | LIV/DIN | 11F | Acoustic Balcony (Baffle Type)-KT |
| T2TYP25 | BR1 | 11F | Acoustic Window (Baffle Type)-NPE |
| T2TYP26 | LIV/DIN | 11F | Acoustic Balcony (Baffle Type)-KT |
| T2TYP27 | BR1 | 11F | Acoustic Window (Baffle Type)-NPE |
| T2TYP28 | BR1 | 11F | Acoustic Window (Baffle Type)-NPE |
| T2TYP29 | MBR | 11F | Acoustic Window (Baffle Type)-NPE |
| T2TYP30 | BR1 | 11F | Acoustic Window (Baffle Type)-NPE |
| T2TYP34 | MBR | 10-11F | Acoustic Window (Baffle Type)-NPE |
| T2TYP35 | LIV/DIN | 11F | Acoustic Balcony (Baffle Type)-KT |
| T2TYP36 | BR1 | 11F | Acoustic Window (Baffle Type)-NPE |
| T2TYP37 | LIV/DIN | 11F | Acoustic Balcony (Baffle Type)-KT |
| T2TYP38 | MBR | 11F | Acoustic Window (Baffle Type)-NPE |
| T2TYP40 | LIV/DIN | 11F | Acoustic Balcony (Baffle Type)-KT |
| T2TYP41 | MBR | 11F | Acoustic Window (Baffle Type)-NPE |
| T2TYP42 | BR1 | 11F | Acoustic Window (Baffle Type)-NPE |
| T2TYP43 | MBR | 11F | Acoustic Window (Baffle Type)-NPE |
| T2TYP44 | LIV/DIN | 11F | Acoustic Balcony (Baffle Type)-KT |
| T2TYP45 | BR1 | 11F | Acoustic Window (Baffle Type)-NPE |
| T2TYP46 | LIV/DIN | 11F | Acoustic Balcony (Baffle Type)-KT |
| T2TYP47 | MBR | 10-11F | Acoustic Window (Baffle Type)-NPE |
| T2TYP48 | BR1 | 11F | Acoustic Window (Baffle Type)-NPE |
| T2TYP69 | LIV/DIN | 11F | Acoustic Balcony (Baffle Type)-KT |
| T2TYP70 | MBR | 11F | Acoustic Window (Baffle Type)-NPE |
| T2TYP71 | MBR | 11F | Acoustic Window (Baffle Type)-NPE |
| T2TYP72 | LIV/DIN | 11F | Acoustic Balcony (Baffle Type)-KT |
| T2TYP73 | BR1 | 11F | Acoustic Window (Baffle Type)-NPE |
| T2TYP74 | LIV/DIN | 11F | Acoustic Balcony (Baffle Type)-KT |
| T2TYP75 | MBR | 11F | Acoustic Window (Baffle Type)-NPE |
| T212F09 | MBR | 12F | Acoustic Window (Baffle Type)-NPE |

| | | | |
|---|---|---|---|
| T212F10 | BR1 | 12F | Acoustic Window (Baffle Type)-NPE |
| T212F11 | LIV/DIN | 12F | Acoustic Balcony (Baffle Type)-KT |
| T212F12 | MBR | 12F | Acoustic Window (Baffle Type)-NPE |
| T212F13 | BR1 | 12F | Acoustic Window (Baffle Type)-NPE |
| T212F14 | LIV/DIN | 12F | Acoustic Balcony (Baffle Type)-KT |
| T212F15 | BR1 | 12F | Acoustic Window (Baffle Type)-NPE |
| T212F16 | LIV/DIN | 12F | Acoustic Balcony (Baffle Type)-KT |
| T212F17 | BR1 | 12F | Acoustic Window (Baffle Type)-NPE |
| T212F18 | BR1 | 12F | Acoustic Window (Baffle Type)-NPE |
| T212F19 | MBR | 12F | Acoustic Window (Baffle Type)-NPE |
| T212F20 | BR1 | 12F | Acoustic Window (Baffle Type)-NPE |
| T212F21 | LIV/DIN | 12F | Acoustic Balcony (Baffle Type)-KT |
| T212F22 | MBR | 12F | Acoustic Window (Baffle Type)-NPE |
| T212F23 | BR1 | 12F | Acoustic Window (Baffle Type)-NPE |
| T212F24 | MBR | 12F | Acoustic Window (Baffle Type)-NPE |
| T212F25 | LIV/DIN | 12F | Acoustic Balcony (Baffle Type)-KT |
| T212F26 | BR1 | 12F | Acoustic Window (Baffle Type)-NPE |
| T212F27 | LIV/DIN | 12F | Acoustic Balcony (Baffle Type)-KT |
| T212F28 | MBR | 12F | Acoustic Window (Baffle Type)-NPE |
| T212F29 | MBR | 12F | Acoustic Window (Baffle Type)-NPE |
| T212F30 | LIV/DIN | 12F | Acoustic Balcony (Baffle Type)-KT |
| T212F31 | MBR | 12F | Acoustic Window (Baffle Type)-NPE |
| T212F32 | BR1 | 12F | Acoustic Window (Baffle Type)-NPE |
| T212F33 | MBR | 12F | Acoustic Window (Baffle Type)-NPE |
| T212F34 | LIV/DIN | 12F | Acoustic Balcony (Baffle Type)-KT |
| T212F35 | BR1 | 12F | Acoustic Window (Baffle Type)-NPE |
| T212F36 | LIV/DIN | 12F | Acoustic Balcony (Baffle Type)-KT |
| T212F37 | MBR | 12F | Acoustic Window (Baffle Type)-NPE |
| T212F38 | BR1 | 12F | Acoustic Window (Baffle Type)-NPE |
| T212F39 | BR1 | 12F | Acoustic Window (Baffle Type)-NPE |
| T212F40 | MBR | 12F | Acoustic Window (Baffle Type)-NPE |
| T212F50 | LIV/DIN | 12F | Acoustic Balcony (Baffle Type)-KT |
| T212F51 | MBR | 12F | Acoustic Window (Baffle Type)-NPE |
| T212F52 | LIV/DIN | 12F | Acoustic Balcony (Baffle Type)-KT |
| T212F53 | BR1 | 12F | Acoustic Window (Baffle Type)-NPE |
| T212F54 | LIV/DIN | 12F | Acoustic Balcony (Baffle Type)-KT |
| T212F55 | MBR | 12F | Acoustic Window (Baffle Type)-NPE |
| T212F56 | LIV/DIN | 12F | Acoustic Balcony (Baffle Type)-KT |
| T212F57 | MBR | 12F | Acoustic Window (Baffle Type)-NPE |
| T212F58 | LIV/DIN | 12F | Acoustic Balcony (Baffle Type)-KT |
| T212F59 | LIV/DIN | 12F | Acoustic Balcony (Baffle Type)-KT |
| T212F60 | MBR | 12F | Acoustic Window (Baffle Type)-NPE |
| T212F61 | MBR | 12F | Acoustic Window (Baffle Type)-NPE |
| T212F62 | LIV/DIN | 12F | Acoustic Balcony (Baffle Type)-KT |
| T212F63 | BR1 | 12F | Acoustic Window (Baffle Type)-NPE |
| T212F64 | LIV/DIN | 12F | Acoustic Balcony (Baffle Type)-KT |
| T212F65 | MBR | 12F | Acoustic Window (Baffle Type)-NPE |

| | | | |
|---|---|---|---|
| T212F66 | BR1 | 12F | Acoustic Window (Baffle Type)-NPE |