

## **Appendix 6**

### **Noise Impact Assessment**

**PROPOSED COMPOSITE “SOCIAL WELFARE FACILITY (RESIDENTIAL CARE HOME FOR THE ELDERLY)” (RCHE) AND “RESIDENTIAL INSTITUTION” (SENIOR HOSTEL) DEVELOPMENT ON A SITE CURRENTLY ZONED AS “GOVERNMENT, INSTITUTIONAL OR COMMUNITY” (G/IC) IN LOT NOS. 257 (PART), 258 RP (PART) AND ADJOINING GOVERNMENT LAND IN D.D. 122, PING SHAN, YUEN LONG**

**NOISE IMPACT ASSESSMENT**

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**Submitted to:**

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<b>Project:</b>	PROPOSED COMPOSITE “SOCIAL WELFARE FACILITY (RESIDENTIAL CARE HOME FOR THE ELDERLY)” (RCHE) AND “RESIDENTIAL INSTITUTION” (SENIOR HOSTEL) DEVELOPMENT ON A SITE CURRENTLY ZONED AS “GOVERNMENT, INSTITUTIONAL OR COMMUNITY” (G/IC) IN LOT NOS. 257 (PART), 258 RP (PART) AND ADJOINING GOVERNMENT LAND IN D.D. 122, PING SHAN, YUEN LONG				
	NOISE IMPACT ASSESSMENT				
<b>Report No.:</b>	RT23042-NIA-01				
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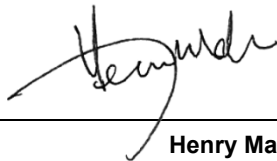

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## 1. INTRODUCTION

### 1.1. BACKGROUND

1.1.1. The Joint Great Properties Limited (the Project Proponent) is proposed to develop a composite social welfare facility for residential care home for the elderly (RCHE) and residential institution for senior hostel at Lot Nos. 257 (Part), 258 RP (Part) and adjoining government land in D.D. 122, Ping Shan, Yuen Long (hereafter refer to the Proposed Development).

1.1.2. BeeXergy Consulting Limited (BXG) was commissioned by DeSpace (International) Limited (Project's Planner) to conduct a Noise Impact Assessment for the Proposed Development to support the application under Section 16 of the Town Planning Ordinance. Latest architectural drawings of the Proposed Development and technical information of the Project Site were largely provided by the Project's Planner.

### 1.2. PROJECT SITE AND ITS ENVIRONS

1.2.1. The Application Site is approximately 3,300m<sup>2</sup> while the Project Site is approximately 2090m<sup>2</sup>. The Project Site is located at Ping Shan North, bounded by warehouse to the North, East, South and natural terrain approximately +30mPD to the West. **Figure 1.1** shows the location of Application Site, Project Site and its environs. 300m Assessment Area for noise impact assessment is also shown in **Figure 1.1**.

1.2.2. The Project Site is currently zoned as "Government, Institution or Community" and surrounded by "Green Belt" and "Village Type Development" under the Approved Ping Shan Outline Zoning Plan (OZP) No. S/YL-PS/20.

1.2.3. The Proposed Development is an 8-storey building consists of senior hostel, dormitory, rehabilitation area, activity rooms, offices, kitchen, laundry and carpark.

1.2.4. The construction of Proposed Development is targeted to commence in 2029 and tentatively to operate in 2029. Based on the latest development scheme, maximum 420 bed spaces of RCHE and 9 units of Senior Hostel can be provided in the Proposed Development. The Master Layout Plan provided by Project's Planner is enclosed in **Appendix 1.1**.

### 1.3. STRUCTURE OF THE REPORT

1.3.1. The scope of works for this assessment will cover the following:

- Section 2 Fixed Plant Noise Assessment
- Section 3 Road Traffic Noise Assessment
- Section 4 Railway Noise Assessment
- Section 5 Conclusion

## 2. FIXED NOISE ASSESSMENT

### 2.1. INTRODUCTION

2.1.1. This section identifies potential fixed noise impact from existing fixed noise sources nearby and planned fixed noise sources during operation of the Proposed Development. Practicable noise mitigation measures would be recommended to ensure the noise level would comply with relevant noise standard.

### 2.2. LEGISLATION AND STANDARDS

#### Noise Control Ordinance (NCO)

2.2.1. Fixed noise is controlled under the NCO and shall comply with the Acceptable Noise Levels (ANLs) as stated in Table 1 and 2 of the *Technical Memorandum for the Assessment of Noise from Places other than Domestic Premises, Public Places or Construction Sites* (IND-TM). The Area Sensitive Ratings and ANLs stated in IND-TM are listed in **Table 2.1** and **Table 2.2**.

**Table 2.1 Area Sensitivity Ratings stated in IND-TM**

	Not Affected	Indirectly Affected	Directly Affected
Rural area, including country parks or village type developments	A	B	B
Low density residential area consisting of low-rise or isolated high-rise developments	A	B	C
Urban Area	B	C	C
Area other than those above	B	B	C

**Table 2.2 ANLs stated in IND-TM**

Area Sensitivity Rating	A	B	C
Day (0700 to 1900 hours)	60	65	70
Evening (1900 to 2300 hours)			
Night (2300 to 0700 hours)	50	55	60

2.2.2. The Project Site is located at rural area with Long Tin Road (Primary Distributor with daily traffic flow over 30,000 vehicles according to the Annual Traffic Census 2021 published by Transportation Department) at approximately 80m to the East. In view of the Proposed Development will be directly affected by the Influencing Factors (IFs), Area Sensitivity Rating of “B” will be adopted for the fixed noise impact assessment. The ANLs adopted for fixed noise impact assessment are listed in **Table 2.3** below.

**Table 2.3 ANLs for Fixed Noise Impact Assessment under NCO**

Time Period	L <sub>Aeq, 30min</sub>
Day and Evening Time (0700-2300)	65dB(A)
Night Time (2300-0700)	55dB(A)

Hong Kong Planning Standards and Guidelines (HKPSG)

2.2.3. As mentioned in Section 4.2.13 in HKPSG Chapter 9, in order to plan for a better environment, the level of the intruding noise at the facade of the nearest sensitive use should be at least 5 dB(A) below the appropriate ANLs shown in **Table 2.3** or, in the case of the background being 5 dB(A) lower than the ANL, should not be higher than the background.

2.2.4. Background noise monitoring at BGN1 was conducted on 7 September 2023, covering both daytime, evening and night-time period. The location of background noise monitoring is shown in **Figure 2.1**. The background noise level is summarized in **Table 2.4** and noise standard established for fixed noise impact assessment is shown in **Table 2.5** below.

**Table 2.4 Background Noise Monitoring Results at BGN1**

Location ID	Description	Background Noise Level (L <sub>Aeq, 30min</sub> )		
		Daytime	Evening Time	Night Time
BGN1	Ping Shan No. 310 to 318	61.4dB(A)	59.7dB(A)	50.3dB(A)

**Table 2.5 Noise Standard Established for Fixed Plant Noise Impact Assessment**

Time Period	Noise Standard (L <sub>Aeq, 30min</sub> )	
	Existing Fixed Noise Source	Planned Noise Source
Day and Evening Time (0700-2300)	65dB(A)	59.7dB(A)
Night Time (2300-0700)	55dB(A)	50.0dB(A)

Notes:

- [i] The above standards apply to uses which rely on opened windows for ventilation.
- [ii] The above standards shall be viewed as the maximum permissible noise levels assessed at 1m from the external facade.
- [iii] Noise standards for planned noise source are established based on ANL-5 or background noise level whichever is lower.



### 2.3. IDENTIFICATION OF FIXED NOISE SOURCES

#### Existing Fixed Noise Sources

- 2.3.1. Site Survey on existing potential fixed noise sources has been conducted on 15 & 31 August 2023 and 7 September 2023. The Project Site is currently occupied by a warehouse (VANPAC Group Asia) for shop and wholesale of building material. As advised by Project Proponent, the warehouse located within the Project Site will be partially demolished and remain in operation. Based on the site observation, all the wholesale activities are located inside the building structures. No audible noise from the wholesale activities was observed during the daytime period and no wholesale activity is observed during night-time period. The only audible noise from the warehouse is the fixed noise generated from ventilation fans and emitted from louvers installed at 2/F of the warehouse. As such, quantitative fixed noised impact assessment will be conducted for the above-mentioned fixed noise source. Noise measurement was conducted during the operation of the concerned louvers and the results are summarized in **Table 2.6**.
- 2.3.2. Another warehouse (Hung Kit Transportation Limited, Lai Sun Warehousing & Logistics Limited and Dongguan Xuhong International Logistics Co. Ltd) for shop and wholesale of building material is located approximately 13m to the East of the Project Site. Based on site observation, all the wholesale activities are located inside the building structures. No audible noise from the wholesale activities was observed during the daytime period and no wholesale activity was observed during night-time period. Louvers are observed at 2/F of the warehouse but ventilation fans are not in operation during the site survey period. However, as a conservative approach, quantitative fixed noised impact assessment will be conducted for the above-mentioned fixed noise source. In view of the similar business nature, the noise measurement results from the warehouse (VANPAC Group Asia) will be adopted for quantitative fixed noise impact assessment.
- 2.3.3. An auto retail store (AUTOBEE ASM & VOLTEX HK DEALER) is located approximately 2m to the South of the Project Site. As advised by Project Proponent, the auto retail store located within the Project Site will be partially demolished and remain in operation. Based on site observation, no fixed noise source (i.e., transformer, louvers, chiller and ventilation system) is identified. All the retail activities are observed located inside the building structures. No audible noise from the warehouse is observed during the daytime period and no wholesale activity is observed during night-time period. In this connection, fixed noise impact assessment is considered not necessary for the auto retail store retail activities.
- 2.3.4. An auto trading store (KOBE Motors Trading Ltd.) is located approximately 12m to the North East of the Project Site. Based on site observation, vehicle cleaning operating

with the use of vacuum cleaner was observed and conducted at outdoor area during daytime period. No cleaning operation was observed during night-time period. As such, quantitative fixed noise impact assessment will be conducted for the above-mentioned fixed noise source. Noise measurement was conducted during the cleaning operation and the results are summarized in **Table 2.6**.

- 2.3.5. Tin Shui Wai West Rail Substation is located approximately 100m to the North of the Project Site. It was observed that transformers and its associated equipment were operating within the substation with audible noise during daytime and night-time period. As such, quantitative fixed noise impact assessment will be conducted for the above-mentioned fixed noise source. Noise measurement was conducted during the operation of transformers and its associated equipment. The results are summarized in **Table 2.6**.
- 2.3.6. Tin Shui Wai Light Rail Substation is located approximately 170m to the North East of the Project Site. The fixed noise impact for the substation has been assessed and presented in the approved Environmental Impact Assessment (EIA) AEIAR-026/1999 - Tin Shui Wai Phase 4 Rail Extension. According to Appendix 9 – Fixed Plant Noise Assessment in the approved AEIAR-026/1999, the predicted noise impact at noise sensitive receiver (N18 – Village House) located at 120m away from the substation will be within the specified noise limit without any screening correction and noise mitigation measures. In view of the Project Site is located at 170m away from the Tin Shui Wai Light Rail Substation, fixed noise impact from the substation is not anticipated and fixed noise impact assessment is considered not necessary. Extracted page of Appendix 9 of approved AEIAR-026/1999 is enclosed in **Appendix 2.1**.
- 2.3.7. The above-mentioned fixed noise sources are shown in **Figure 2.2**. Detail site survey record of the surrounding area is enclosed in **Appendix 2.2**.

**Table 2.6 SWL of Fixed Noise Sources Identified**

Identified Fixed Noise Source	SWL
Warehouse (VANPAC Group Asia)	82dB(A)
Warehouse (Hung Kit Transportation Limited, Lai Sun Warehousing & Logistics Limited and Dongguan Xuhong International Logistics Co. Ltd)	82dB(A)
Auto trading store (KOBE Motors Trading LTD)	85dB(A)
Tin Shui Wai West Rail Substation	84dB(A)
Notes: [i] SWLs are calculated based on on-site measured sound pressure level of fixed noise sources. [ii] Louvers are observed at 2/F of warehouse (Hung Kit Transportation Limited, Lai Sun Warehousing & Logistics Limited and Dongguan Xuhong International Logistics Co. Ltd) but not in operation during the	

site survey period. However, as a conservative approach, the SWL from the louvers of warehouse (VANPAC Group Asia) will be adopted for quantitative fixed noise impact assessment.

**Planned Fixed Noise Sources**

- 2.3.8. Based on the latest development scheme, the Electrical and Mechanical (E&M) equipment such as transformer, emergency generators and water pumps will be enclosed and / or installed within the building structure. It is anticipated that the noise impacts from these noise sources will be insignificant.
- 2.3.9. Split-type air conditioners and / or window-type air conditioners will be installed at the Proposed Development as far as practicable. The noise from the above-mentioned types of air conditioners is considered to be minimal.
- 2.3.10. Quieter equipment should be selected during procurement. Should any E&M equipment, cooling tower or any other fixed noise sources required to be installed at open space, the noise standard summarized in **Table 2.5** shall be followed to meet the HKPSG recommendation. Noise mitigation measures (e.g., acoustic louver and noise enclosure) shall be implemented to the fixed noise sources if deemed to be necessary.

**2.4. IDENTIFICATION OF NOISE SENSITIVE RECEIVERS**

- 2.4.1. Noise Sensitive Receivers (NSRs) likely to be subject to the highest fixed noise impacts within the Proposed Development are selected for the fixed noise impact assessment.
- 2.4.2. The selected NSRs for fixed noise impact assessment is summarized in **Table 2.7** and shown in **Figure 2.3**.

**Table 2.7 List of Selected NSRs for Fixed Noise Impact Assessment**

NSR ID	Description	Assessment Floor
FNIA_1F_01	Dormitory	1/F
FNIA_1F_02	Dormitory	1/F

## 2.5. ASSESSMENT METHODOLOGY

2.5.1. The methodology used for the quantitative fixed noise impact assessment is in accordance with the procedures outlined in the IND-TM and is presented below:

- Identify the types of fixed noise source;
- Assign SWLs to the identified fixed noise sources;
- Identify representative NSR that may be affected by fixed noise sources;
- Calculate the distance correction factors, using a conservative approach, based on the horizontal distance between the NSR and the noise sources;
- Calculate the corrected noise levels after taking into account other corrections such as potential screening effects, if any, by adopting standard acoustics principles;
- A 6dB(A) correction for tonality has been applied to all equipment as a conservative approach; and
- Present the results in terms of  $L_{Aeq, 30min}$  dB(A), as specified in the IND-TM.

## 2.6. ASSESSMENT RESULTS

2.6.1. Assessment results for each NSRs at day & evening-time and night-time periods are summarized in **Table 2.8**. Detailed calculations are shown in **Appendix 2.3**.

**Table 2.8 Fixed Noise Impact Assessment Results**

NSR ID	Daytime & Evening-time		Nighttime	
	Predicted Noise Level	Noise Standard	Predicted Noise Level	Noise Standard
FNIA_1F_01	52dB(A)	65dB(A)	45dB(A)	55dB(A)
FNIA_1F_02	52dB(A)	65dB(A)	45dB(A)	55dB(A)

2.6.2. Based on the results of fixed noise impact assessment, the predicted  $L_{Aeq, 30min}$  are below the ANL under NCO and HKPSG for all representative NSRs. Hence, adverse fixed noise impact is not anticipated.

### 3. TRAFFIC NOISE ASSESSMENT

#### 3.1. INTRODUCTION

3.1.1. This section presents the results of traffic noise impact assessment during operation of the Proposed Development. Practicable noise mitigation measures would be recommended to ensure the noise level would comply with relevant noise standard.

#### 3.2. LEGISLATION AND STANDARDS

3.2.1. Table 4.1 in HKPSG Chapter 9 listed the road traffic noise standard for planned developments and summarized in **Table 3.1** below:

**Table 3.1 Road Traffic Noise Standard in HKPSG**

Landuse	L <sub>10</sub> (1hr), dB(A)
All domestic premises including temporary housing accommodation	70
Hotels and hostels	
Office	
Educational institutions including kindergartens, child care centres and all others where unaided voice communication is required	65
Places of public worship and courts of law	
Hospitals, clinics, convalescences and residential care homes for the elderly (diagnostic rooms and wards)	55
Notes:	
[iii] The above standards apply to uses which rely on opened windows for ventilation.	
[iv] The above standards shall be viewed as the maximum permissible noise levels assessed at 1m from the external facade.	

3.2.2. The main purpose of the Proposed Development will be residential care home for the elderly for residential purpose while no diagnostic room and ward will be provided. As such, the noise standard of L<sub>10</sub> (1hr) 70dB(A) will be adopted for traffic noise impact assessment.

#### 3.3. IDENTIFICATION OF NOISE SENSITIVE RECEIVERS

3.3.1. NSRs likely to be subject to highest traffic noise impacts within the Proposed Development are selected for the traffic noise impact assessment. As confirmed with Project Planner, all assessment points were taken at 1.2m above the floor and 1m

away from the facade of openable windows for ventilation purpose. A total of 185 NSRs are selected for traffic noise impact assessment. The selected NSRs for traffic noise impact assessment are shown in **Figure 3.1**.

### 3.4. ASSESSMENT METHODOLOGY

- 3.4.1. The Proposed Development will subject to noise impact from the surrounding traffic. Road traffic noise prediction is carried out, following the procedures stipulated in the “*Calculation of Road Traffic Noise (CRTN)*” published by Department of Transport, UK and with reference to “*Road Traffic Noise Impact Assessment under the Environmental Impact Assessment Ordinance EIAO Guidance Note No. 12/2010 (GN12)*”.
- 3.4.2. Traffic noise is predicted based on the maximum traffic flow within 15 years upon commencement of operation of the Proposed Development. Road segments within 300m Assessment Area, road surfacing and all relevant structures / features that could have noise screening or reflective effects have been taken into consideration in the traffic noise impact assessment. The characteristics of the road segments including the road width, surface type and traffic flow have also been considered in the assessment.
- 3.4.3. The Proposed Development will tentatively operate in 2029 and as confirmed by the Traffic Consultant, Year 2044 has the maximum traffic projection within 15 years (from Year 2029 to 2044) upon commencement of operation of the Proposed Development. The peak hour traffic flow data and endorsement from Transport Department in Year 2044 is enclosed in **Appendix 3.1**.

### 3.5. ASSESSMENT RESULTS

- 3.5.1. Based on the traffic noise impact assessment results for un-mitigated scenario, the predicted traffic noise levels ranged from 44dB(A) to 72dB(A) during AM period and 43dB(A) to 72dB(A) during PM period. Summary of traffic noise impact assessment results for un-mitigated scenario is shown in **Table 3.2** and detail is enclosed in **Appendix 3.2**.

**Table 3.2 Summary of Predicted Traffic Noise Impact (Un-mitigated Scenario)**

	AM Period	PM Period
Total number of NSRs	185	185
Number of NSRs exceed the limit level	15	11
Compliance Rate	92%	94%

- 3.5.2. In view of the predicted traffic noise level exceeded noise standard, mitigation

measures are required to ensure the noise level would be comply with relevant noise standard.

- 3.5.3. With reference to two precedent cases on adoption of acoustic window (baffle type), three types of acoustic window (baffle type) with sound absorptive materials (SAM) are proposed to be installed at the affected NSRs. The locations of the proposed acoustic window (baffle type) are shown in **Figure 3.2**.
- 3.5.4. The proposed reference cases can provide noise reduction from 4.0dB(A) to 8.1dB(A) based on their corresponding room size. The noise reductions in the reference cases are adjusted to Relative Noise Reduction based on the actual room size of the affected NSRs.
- 3.5.5. With the room size correction, the Relative Noise Reduction for Type 1 Acoustic Windows (Baffle Type) will be 3.3dB(A) and proposed to adopt as noise reduction level.
- 3.5.6. Despite the Relative Noise Reductions can achieve maximum 7.7dB(A) for Type 2 Acoustic Windows (Baffle Type) and 8.1dB(A) for Type 3 Acoustic Windows (Baffle Type) after room size correction, the noise reduction for above-mentioned acoustic windows (baffle type) will be proposed as 3.3dB(A) as conservative approach.
- 3.5.7. Schedule of traffic noise mitigation measures is shown in **Table 3.3** and detail of proposed acoustic window (baffle type) is enclosed in **Appendix 3.3**.

**Table 3.3 Schedule of Traffic Noise Mitigation Measures**

Proposed Noise Mitigation Measures	Floor Level	Room	Location
Type 1 Acoustic Windows (Baffle Type)	4/F	Dormitory	TNIA_4F_01 TNIA_4F_02 TNIA_4F_05
Type 1 Acoustic Windows (Baffle Type)	5/F	Dormitory	TNIA_5F_01 TNIA_5F_02 TNIA_5F_05 TNIA_5F_08
Type 1 Acoustic Windows (Baffle Type)	6/F	Dormitory	TNIA_6F_01 TNIA_6F_02 TNIA_6F_05 TNIA_6F_08
Type 2 Acoustic Windows (Baffle Type)	7/F	Conference Room (1) Conference Room (2)	TNIA_7F_01 TNIA_7F_02

Type 3 Acoustic Windows (Baffle Type)	7/F	Superintendent's Office Assistant Superintendent's Office	TNIA_7F_03 TNIA_7F_04
Notes: [i] Detail of Proposed Acoustic Window (Baffle Type) refer to <b>Appendix 3.3</b> .			

3.5.8. With the implementation of proposed types of acoustic window (baffle type), the predicted traffic noise level at all NSRs will comply with the noise standard of  $L_{10(1hr)}$  70dB(A) and adverse traffic noise impact is not anticipated. Detail of traffic noise impact assessment results for mitigated scenario is enclosed in **Appendix 3.4**.



## 4. RAILWAY NOISE IMPACT ASSESSMENT

### 4.1. INTRODUCTION

- 4.1.1. This section identifies potential noise impact from railway during operation of the Proposed Development.
- 4.1.2. Tuen Ma Line (TML, previously known as West Rail Line) and Light Rail Transit (LRT) are located within 300m noise impact Assessment Area of the Proposed Development. The location of concerned TML and LRT is shown in **Figure 4.1**.
- 4.1.3. TML with a twin viaduct (TML\_NB\_1 to 5 and TML\_SB\_1 to 5 in **Figure 4.1**) is located approximately 185m to the North of the Project Site. The length of twin viaduct within the Assessment Area is approximately 580m with average elevation of +24.0mPD (Ranged from +23.5mPD to +24.4mPD). The twin viaduct is connected from / to the elevated Tin Shui Wai Station.
- 4.1.4. LRT is located approximately 220m to the Northwest of the Project Site. The LRT within in the Assessment Area are comprised of a section of viaduct (LRT\_NB\_1 to 2 and LRT\_SB\_1 to 2 in **Figure 4.1**) approximately 130m with average elevation of +11.9mPD (Ranged from +9.8mPD to +13.0mPD) crossing over Tin Fuk Road and a section of at-grade track (LRT\_NB\_3 and LRT\_SB\_3 in **Figure 4.1**) approximately 100m with elevation of +7.9mPD connected from / to Tin Shui Wai Stop underneath the Tin Shui Wai Station.

### 4.2. LEGISLATION AND STANDARDS

#### NCO

- 4.2.1. The operation of railway is subject to control under NCO and the ANLs as stated in Table 1 and 2 IND-TM shall be followed. As mentioned in **Section 2.2.2**, the Project Site is located at rural area and will be directly affected by the IFs, Area Sensitivity Rating of “B” will be adopted for the railway noise impact assessment. The ANLs adopted with reference to IND-TM are listed in **Table 4.1** below.

**Table 4.1 ANLs for Railway Noise Impact Assessment under NCO**

Time Period	$L_{Aeq, 30min}$
Day and Evening Time (0700-2300)	65dB(A)
Night Time (2300-0700)	55dB(A)

#### HKPSG

- 4.2.2. Table 4.1 in HKPSG Chapter 9 listed the railway noise standard for planned developments. The railway noise standard for in terms of  $L_{Max}$  and  $L_{Aeq, 24hr}$  are

summarized in **Table 4.2** below:

**Table 4.2 Noise Standard for Railway Noise Impact Assessment under HKPSG**

Parameter	Noise Standard
$L_{Max}$ , 2300-0700	85dB(A)
$L_{Aeq}$ , 24hr	65dB(A)
Notes: [i] The above standards apply to uses which rely on opened windows for ventilation. [ii] The above standards shall be viewed as the maximum permissible noise levels assessed at 1m from the external facade.	

EIA-149/BC – West Rail

- 4.2.3. The railway noise impact associated with the operation of concerned TML is documented in approved EIA-149/BC – West Rail<sup>1</sup> and governed by Further Environmental Permit FEP-24/004/1998/K - West Rail, Phase I<sup>2</sup>.
- 4.2.4. Under FEP-24/004/1998/K General Condition 2.21 (e) and 3.14 (e), the train length of TML shall reduce from 12 cars to 9 cars with increase in train frequency from 30 to 40 trains per hour during 0600 to 0700.
- 4.2.5. Under FEP-24/004/1998/K General Condition 5.3, the Permit Holder shall illustrate that the 9-car disc braked Electric Multiple Unit would meet the specification of maximum level ( $L_{Max}$ ) not exceeding 82.5dB(A) at 130kph measured at 25m from the at-grade ballasted tracks prior to the operation of the Project.
- 4.2.6. Under FEP-24/004/1998/K General Condition 5.14 and Table A of Schedule 1, a series of alternative noise mitigation measures shall be implemented. For the concerned TML, trackside panels and windshields (Figure 7 of FEP-24/004/1998/K) shall be installed along the parapet walls along viaducts while cranked noise barrier and plenum enhancement (Figure 9 and 10 of FEP-24/004/1998/K) shall be installed at the area of Tin Shui Wai Station.
- 4.2.7. Under FEP-24/004/1998/K General Condition 2.21 (f), 3.14 (f) and 6.1, the maximum train speed of TML shall be 130km/hr except for train speed between Tin Shui Wai and Siu Hong which shall reduce to 100km/h.
- 4.2.8. Extracted pages of FEP-24/004/1998/K are enclosed in **Appendix 4.1**.

AEIAR-026/1999 - Tin Shui Wai Phase 4 Rail Extension

<sup>1</sup> EIA-149/BC: <https://www.epd.gov.hk/eia/register/report-bc/eia149/eiar.pdf>

<sup>2</sup> FEP-24/004/1998/K: <https://www.epd.gov.hk/eia/register/permit/latest/vep6222022.htm>

- 4.2.9. The railway noise impact associated with the operation of concerned LRT is documented in approved AEIAR-026/1999 - Tin Shui Wai Phase 4 Rail Extension <sup>3</sup> and governed by Further Environmental Permit FEP-02/041/2000/B <sup>4</sup>.
- 4.2.10. Under FEP-02/041/2000/B General Condition 2.3 (a), the re-radiated noise from viaduct structure shall at least 10dB(A) below the noise criteria of 65dB(A)  $L_{max}$  at 25m, at 50km/h during operation.
- 4.2.11. Extracted pages of FEP-02/041/2000/B are enclosed in **Appendix 4.2**.

### 4.3. IDENTIFICATION OF NOISE SENSITIVE RECEIVERS

- 4.3.1. NSRs likely to be subject to the highest railway noise impacts within the Proposed Development are selected for the railway noise impact assessment.
- 4.3.2. In general, the façade facing South will not be selected as NSRs for railway noise impact assessment as they will not have direct line of sight to the concerned TML and LRT.
- 4.3.3. All assessment points are taken at 1.2m above the floor and 1m away from the facade of openable windows for ventilation purpose.
- 4.3.4. Railway noise impact from TML will be assessed for all NSRs while railway noise impact from LRT will not be assessed for NSRs to the East Side of Proposed Development as they will not have direct line to the LRT.
- 4.3.5. The selected NSRs are shown in **Figure 4.2** and scope of assessment is summarized in **Table 4.3**.

**Table 4.3 List of Selected NSRs for Railway Noise Impact Assessment**

NSR ID	Description	Assessment Floor	Scope of Assessment
RNIA_1F_01	Dormitory	1/F	TML only
RNIA_1F_02	Dormitory		
RNIA_1F_03	Dormitory		
RNIA_1F_04	Dormitory		
RNIA_1F_05	End of Life Care Room		TML and LRT
RNIA_1F_06	Dormitory		
RNIA_1F_07	Dormitory		

<sup>3</sup> AEIAR-026/1999: [https://www.epd.gov.hk/eia/register/report/eiareport/eia\\_03099/index1.htm](https://www.epd.gov.hk/eia/register/report/eiareport/eia_03099/index1.htm)

<sup>4</sup> FEP-02/041/2000/B: <https://www.epd.gov.hk/eia/register/permit/latest/fep0842007.htm>

RNIA_1F_08	Dormitory		
RNIA_2F-6F_01	Dormitory	2/F-6/F	TML only
RNIA_2F-6F_02	Dormitory		
RNIA_2F-6F_03	Dormitory		
RNIA_2F-6F_04	Dormitory		
RNIA_2F-6F_05	Dormitory		
RNIA_2F-6F_06	Dormitory		TML and LRT
RNIA_2F-6F_07	Dormitory		
RNIA_2F-6F_08	Dormitory		
RNIA_2F-6F_09	Dormitory		
RNIA_2F-6F_10	Dormitory		
RNIA_2F-6F_11	Dormitory		
RNIA_7F_01	Conference Room (1)	7/F	TML only
RNIA_7F_02	Conference Room (2)		
RNIA_7F_03	Superintendent's Office		
RNIA_7F_04	Assistant Superintendent's Office		

#### 4.4. ASSESSMENT METHODOLOGY, ASSUMPTIONS AND APPROACH

##### Assessment Methodology

- 4.4.1. The railway noise impact is predicted using the equations in “*Calculation of Railway Noise (1995)*” (CRN) and “*Transportation Noise Reference Book*” (TNRB). The reference Sound Exposures Level ( $SEL_{Ref}$ ) for TML and LRT are referenced from approved EIA AEIAR-203/2016 - Hung Shui Kiu New Development Area and AEIAR-026/1999 - Tin Shui Wai Phase 4 Rail Extension. The railway noise impact assessment methodologies are summarized in **Table 4.4** below.

**Table 4.4 Summary of Railway Noise Assessment Methodology**

Parameter	Assessment Methodology	
	TML	LRT
SEL	Northbound: 81.4dB(A) Southbound: 80.7dB(A) Measured at 25m for 8 cars, 130km/hr <sup>(1)</sup>	Both Northbound and Southbound: 70.9dB(A) <sup>(2)</sup> Calculated from L <sub>Max</sub>
L <sub>Max</sub>	Not exceed 82.5dB(A) measured at 25m for train speed at 130km/hr <sup>(3)</sup>	65dB(A) measured at 25m for 2-car trains (40m) at 50km/hr with ballast track in well maintained condition <sup>(4)</sup>
Correction for number of cars <sup>(5)</sup>	$10\log\frac{n_{Act}}{n_{Ref}}$	
	Where $n_{Act}$ = Actual number of cars, $n_{ref}$ = Reference number of cars during measurement	
Correction for train speed <sup>(5)</sup>	$20\log\frac{V_{Act}}{V_{Ref}}$	
	Where $V_{Act}$ = Actual Speed, $V_{ref}$ = Reference speed during measurement	
Distance Correction <sup>(5)</sup>	$10\log\frac{D_{Act}}{D_{Ref}}$	
	Where $D_{Act}$ = Actual Distance, $D_{ref}$ = Reference distance during measurement	
Correction for train frequency <sup>(5)</sup>	$10\log(N)$	
	Where $N$ = Number of trains in 30 minutes	
Time Correction <sup>(5)</sup>	$10\log\frac{1}{T}$	
	Where $T$ = Seconds in 30 minutes (1800s)	
Barrier Correction <sup>(5)</sup>	Refer to equation in Chart 6 CRTN	
View angle Correction <sup>(5)</sup>	$10\log\left[\frac{(\pi\theta)}{180} - \cos 2\alpha \sin \theta\right] - 5$	
	Where $\theta$ = View angle, $\alpha$ = Acute angle	

Track Deterioration Correction <sup>(5)</sup>	+3.0
Façade Correction <sup>(5)</sup>	+2.5
Air Absorption <sup>(5)</sup>	0.2 – 0.008d' Where d' = distance (m)
<p>Remark:</p> <ol style="list-style-type: none"> <li>1. Referenced from Table 4.35 of AEIAR-203/2016 - Hung Shui Kiu New Development Area.</li> <li>2. Calculated using equation in TNRB: <math display="block">SEL = L_{Max} + 10\log\left(\frac{L}{V}\right) + 10.5 - 10\log\left\{\left(\frac{4D}{4D^2 + 1}\right) + 2 \tan^{-1}\left(\frac{1}{2D}\right)\right\}</math> <p>Where L = Train Length (m), V = Train Speed (km/hr), d = Distance from track (m) and D = d/L</p> </li> <li>3. L<sub>Max</sub> of TML is governed by General Condition 5.3 of FEP-24/004/1998/K.</li> <li>4. Referenced from Table 6.6 of AEIAR-026/1999 - Tin Shui Wai Phase 4 Rail Extension.</li> <li>5. Referenced from equation in CRN.</li> </ol>	

### Assessment Assumptions

4.4.2. To demonstrate there will be no adverse railway noise impact during future operation of Proposed Development, the worst-case scenario with reference to approved EIAs, FEP conditions and latest information provided by Mass Transit Railway (MTR) as attached in **Appendix 4.1** is assumed to predict the railway noise impacts to the selected NSRs. The assumptions for worst-case scenario is summarized in **Table 4.5** below.

**Table 4.5 Summary of Assumption for Worst-case Scenario**

Parameter	Worst-case Scenario <sup>(1)</sup>	
	TML	LRT
Number of cars	9 <sup>(2)</sup>	2 <sup>(3)</sup>
Train Frequency	40 trains per hour <sup>(4)</sup> (20 trains per 30 minutes)	19 trains per hour <sup>(5)</sup> (10 trains per 30 minutes)
Train Speed <sup>(5)</sup>	130km/hr <sup>(6)</sup>	70km/hr <sup>(7)</sup>

Barrier Correction (8)	<u>Viaduct Section</u>
	1.2m height parapets located 1.2m away from the track at both sides of viaduct
	<u>At-grade Section (For LRT only)</u>
	No Parapet
<p>Remark:</p> <ol style="list-style-type: none"> <li>The worst-case scenario will be adopted during both day time and night time period.</li> <li>According to General Condition 2.21 (e), 3.14 (e) of FEP-24/004/1998/K, maximum 9 number of cars will be adopted to demonstrate the worst-case scenario.</li> <li>According to information provided by MTR, maximum 2 number of cars will be adopted to demonstrate the worst-case scenario.</li> <li>Despite information provided by MTR suggested that the future ultimate daily peak operation frequency of 0700-2300 is about 28 trans per hour, Condition 2.21 (e) and 3.14 (e) of FEP-24/004/1998/K allowed the train frequency increase from 30 to 40 trains per hour during 0600 to 0700. In view of the above, maximum train frequency of 40 trains per hour (20 trains per 30 minutes) will be adopted to demonstrate the worst-case scenario.</li> <li>According to information provided by MTR, maximum train frequency of 19 trains per hour (10 trains per 30 minutes) will be adopted to demonstrate the worst-case scenario.</li> <li>To demonstrate the worst-case scenario, the train speed will be assumed to be consistent at maximum speed (130km/hr for TML and 70km/hr for LRT) across the concerned railway section.</li> <li>To demonstrate the worst-case scenario, it is assumed that the parapets along viaduct section of TML and LRT will be the only barriers screening the rolling noise from the concerned railways while no parapets will be considered for at-grade section of LRT.</li> </ol>	

### Assessment Approach

- 4.4.3. The predicted rail noise level  $L_{Aeq, 30min}$  will be compare with the most stringent standard of  $L_{Aeq, 30min, 2300-0700}$  55dB(A) to demonstrate the Proposed Development will not be affected by the railway noise generated from TML and LRT.
- 4.4.4. In view of the worst-case scenario will be adopted both day time and night time period to compare the most stringent standard of  $L_{Aeq, 30min}$ , quantitative assessment for  $L_{Aeq, 24hr}$  will not be required in this railway noise impact assessment.
- 4.4.5. The  $L_{Max}$  of TML is governed by FEP-24/004/1998/K which limited the  $L_{Max}$  shall not exceed 82.5dB(A) at 130km/hr from 25m away while the measured  $L_{Max}$  of LRT is 65dB(A) at 50km/hr from 25m away according to AEIAR-026/1999. Given that the buffer distance of approximate 220m and 185m to the TML and LRT are allowed, the  $L_{Max}$  at the selected NSRs are expected to be lower than  $L_{Max, 2300-0700}$  standard, 85dB(A) established under HKPSG. Hence, no quantitative assessment will be required for  $L_{Max}$  in this railway noise impact assessment.

## 4.5. ASSESSMENT RESULTS

- 4.5.1. Based on the detail of predicted railway noise level in **Appendix 4.4**, the predicted

$L_{Aeq, 30min}$  under the worst-case scenario is ranged from 44dB(A) to 46dB(A) which are well below the most stringent standard of ANL for Railway Noise under NCO and HKPSG (i.e., 55dB(A)).

4.5.2. Nonetheless, factors likely to further minimize the railway noise impact below are not taken into consideration in the prediction of railway noise level:

- Alternative noise mitigation measures as mentioned in **Section 4.2.6** for TML;
- Reduction of speed when trains approaching station / stop; and
- Natural terrain located at West of Project Site which will block the line of sight of at-grade section of LRT.

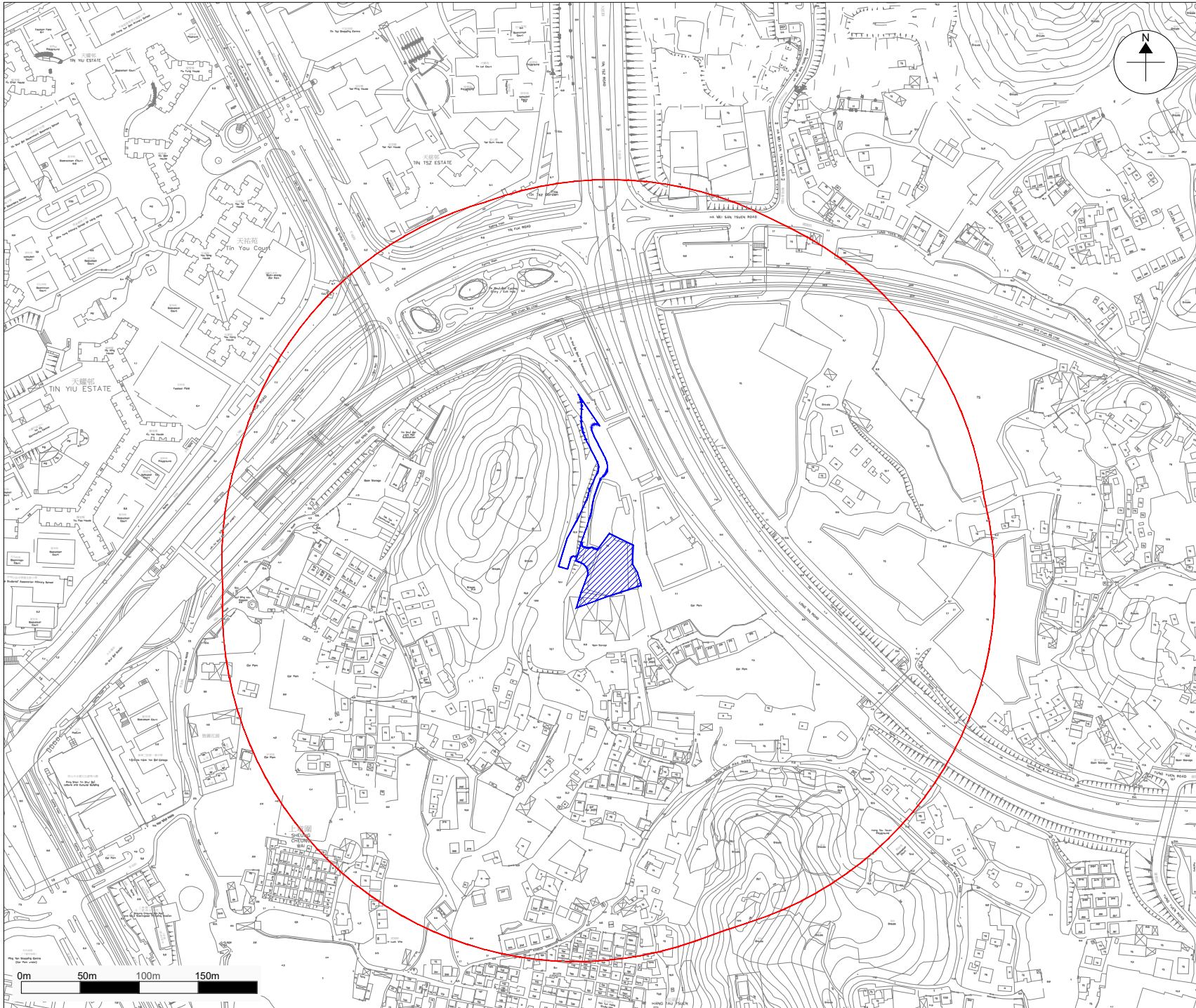
In view of the above, the railway noise level from TML and LRT in actual condition is expected to be lower than the predicted railway noise level. Hence, adverse railway noise impact is not anticipated.



## 5. CONCLUSION

- 5.1.1. The Project Proponent is proposed to develop a composite social welfare facility for RCHE and residential institution for senior hostel has been proposed at Lot Nos. 257 (Part), 258 RP (Part) and adjoining government land in D.D. 122, Ping Shan, Yuen Long.
- 5.1.2. Fixed noise impact has been identified and assessed in this noise impact assessment. No adverse fixed noise impact is anticipated.
- 5.1.3. Traffic noise impact has been identified and assessed based on the maximum traffic flow within 15 years upon commencement of operation of the Proposed Development. With the implementation of noise mitigation measures (i.e., Acoustic Windows (Baffle Type)), no adverse traffic noise impact is anticipated.
- 5.1.4. Railway noise impact has been identified and assessed based on the information in approved EIA, enforced EP and information provided by MTR. No adverse railway noise impact is anticipated.

**FIGURE 1.1**  
**LOCATION OF PROJECT SITE AND ITS**  
**ENVIRONS WITH 300M ASSESSMENT AREA**



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LEGEND:

- APPLICATION SITE
- PROJECT SITE
- 300M ASSESSMENT AREA

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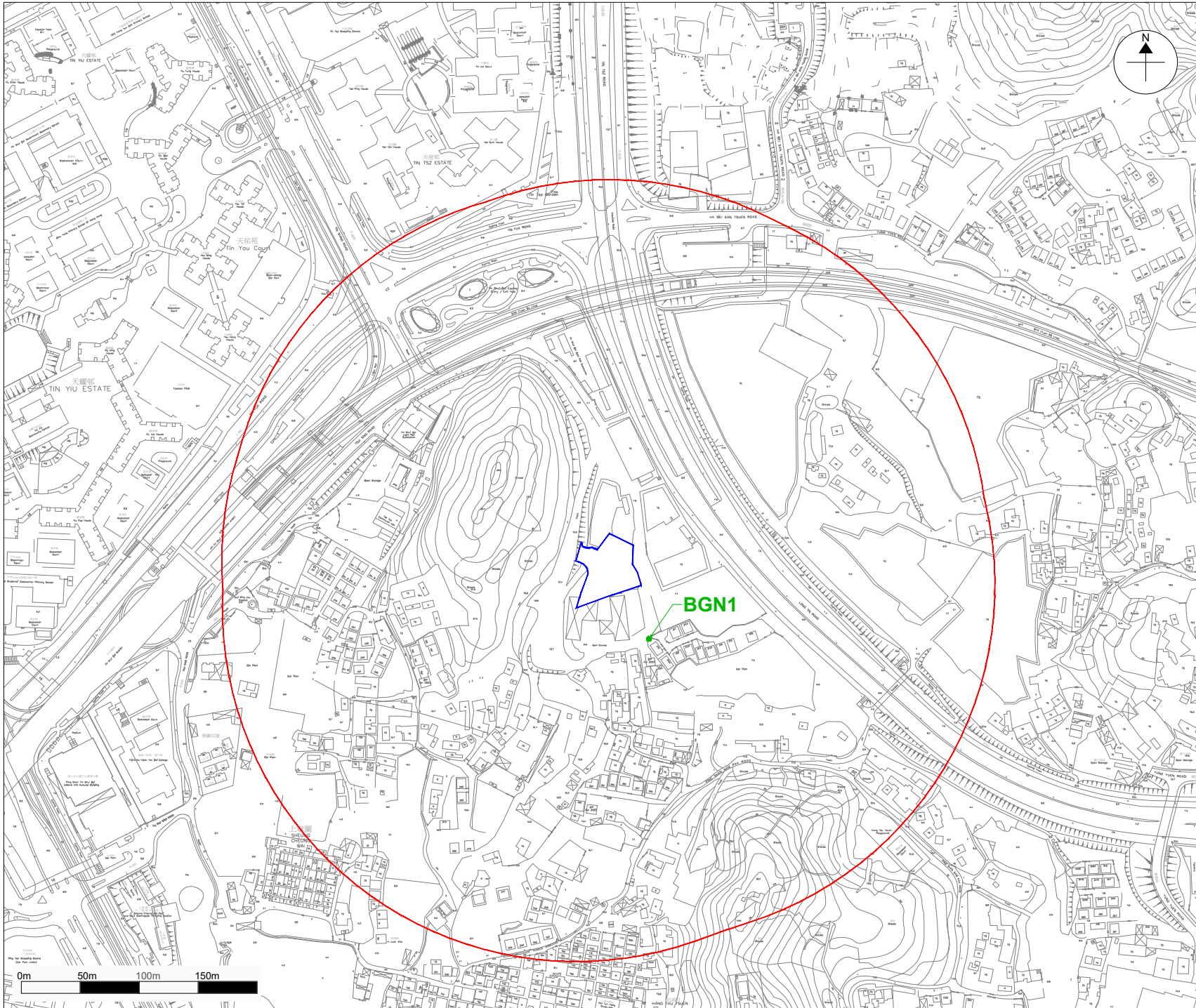
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 PROPOSED COMPOSITE "SOCIAL WELFARE FACILITY (RESIDENTIAL CARE HOME FOR THE ELDERLY)" (RCHE) AND "RESIDENTIAL INSTITUTION" (SENIOR HOSTEL) DEVELOPMENT ON A SITE CURRENTLY ZONED AS "GOVERNMENT, INSTITUTIONAL OR COMMUNITY" (GIC) IN LOT NOS. 257 (PART), 258 RP (PART) AND ADJOINING GOVERNMENT LAND IN D.D. 122, PING SHAN, YUEN LONG

Figure Title  
 Location of Project Site and Its Environs with 300m Assessment Area

Figure No.	Rev.
Figure 1.1	0



**FIGURE 2.1**  
**LOCATION OF BACKGROUND NOISE**  
**MONITORING STATION**



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LEGEND:

- PROJECT SITE
- 300M ASSESSMENT AREA
- BACKGROUND NOISE MONITORING STATION
- BGN1

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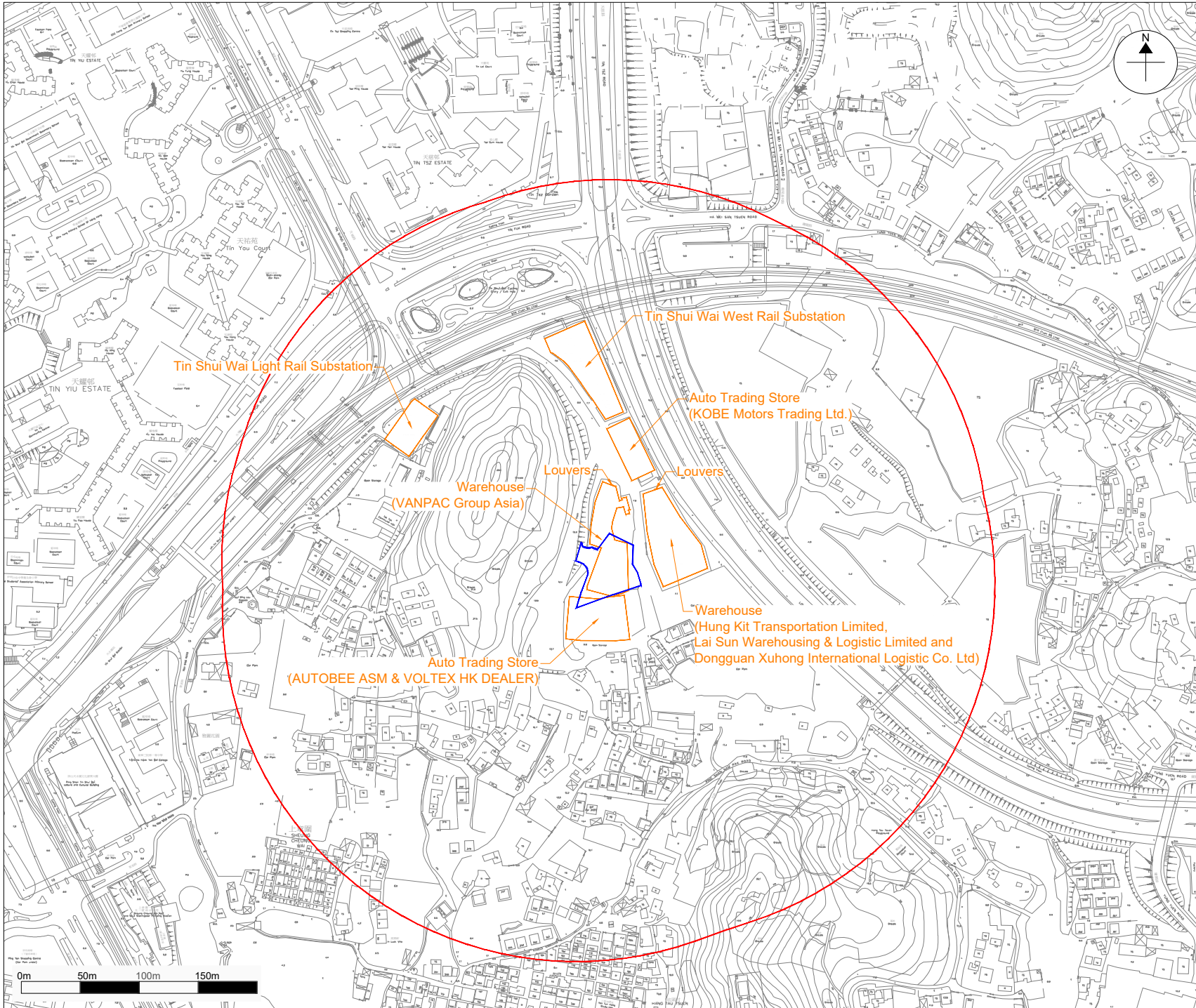
Project Title  
 PROPOSED COMPOSITE "SOCIAL WELFARE FACILITY (RESIDENTIAL CARE HOME FOR THE ELDERLY)" (RCHE) AND "RESIDENTIAL INSTITUTION" (SENIOR HOSTEL) DEVELOPMENT ON A SITE CURRENTLY ZONED AS "GOVERNMENT, INSTITUTIONAL OR COMMUNITY" (GIC) IN LOT NOS. 257 (PART), 258 RP (PART) AND ADJOINING GOVERNMENT LAND IN D.D. 122, PING SHAN, YUEN LONG

Figure Title  
 Background Noise Monitoring Station

Figure No.	Rev.
Figure 2.1	0



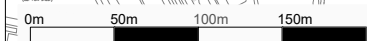
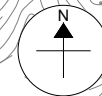
**FIGURE 2.2**  
**LOCATION OF IDENTIFIED FIXED NOISE**  
**SOURCES**



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LEGEND:

- PROJECT SITE
- 300M ASSESSMENT AREA
- IDENTIFIED FIXED NOISE SOURCE



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Figure Title  
 Identified Fixed Noise Sources

Figure No.	Rev.
Figure 2.2	0

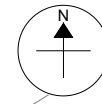


**FIGURE 2.3**  
**SELECTED NSRS FOR FIXED NOISE IMPACT**  
**ASSESSMENT**



LEGEND:

- PROJECT SITE
- SELECTED NSRS FOR FIXED NOISE IMPACT ASSESSMENT
- FNIA\_1F\_01
- FNIA\_1F\_02



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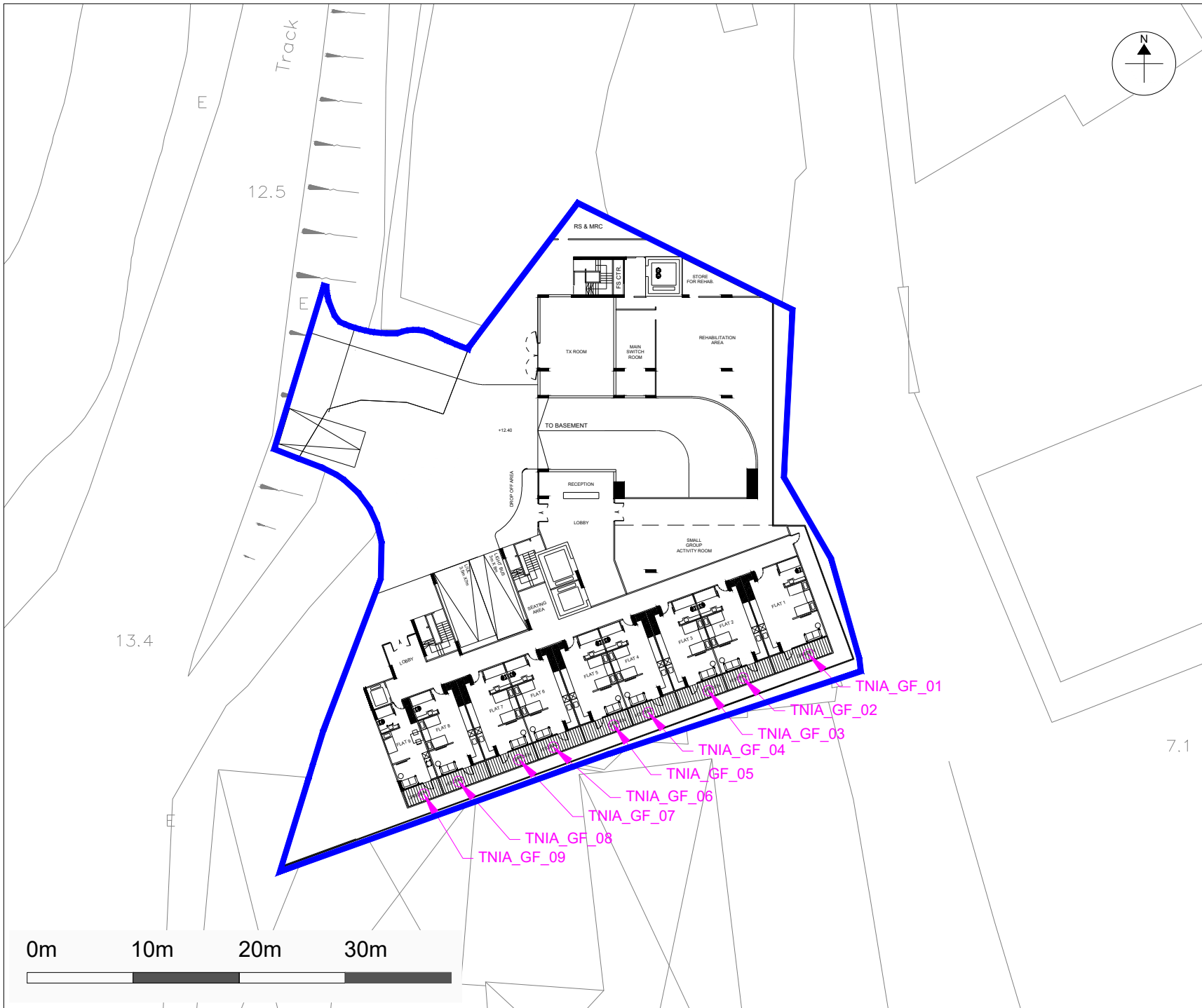
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 PROPOSED COMPOSITE "SOCIAL WELFARE FACILITY (RESIDENTIAL CARE HOME FOR THE ELDERLY)" (RCHE) AND "RESIDENTIAL INSTITUTION" (SENIOR HOSTEL) DEVELOPMENT ON A SITE CURRENTLY ZONED AS "GOVERNMENT, INSTITUTIONAL OR COMMUNITY" (GIC) IN LOT NOS. 257 (PART), 258 RP (PART) AND ADJOINING GOVERNMENT LAND IN D.D. 122, PING SHAN, YUEN LONG

Figure Title  
 Selected NSRs for Fixed Noise Impact Assessment (1/F)

Figure No.	Rev.
Figure 2.3	0



**FIGURE 3.1**  
**SELECTED NSRS FOR TRAFFIC NOISE**  
**IMPACT ASSESSMENT**



LEGEND:

- PROJECT SITE
- SELECTED NSRS FOR TRAFFIC NOISE IMPACT ASSESSMENT
- TNIA\_GF\_01

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Figure Title  
 Selected NSRs for Traffic Noise Impact Assessment (G/F)

Figure No.	Rev.
Figure 3.1a	0

LEGEND:

- PROJECT SITE
- SELECTED NSRS FOR TRAFFIC NOISE IMPACT ASSESSMENT

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Project Title  
 PROPOSED COMPOSITE "SOCIAL WELFARE FACILITY (RESIDENTIAL CARE HOME FOR THE ELDERLY)" (RCHE) AND "RESIDENTIAL INSTITUTION" (SENIOR HOSTEL) DEVELOPMENT ON A SITE CURRENTLY ZONED AS "GOVERNMENT, INSTITUTIONAL OR COMMUNITY" (GIC) IN LOT NOS. 257 (PART), 258 RP (PART) AND ADJOINING GOVERNMENT LAND IN D.D. 122, PING SHAN, YUEN LONG

Figure Title  
 Selected NSRs for Traffic Noise Impact Assessment (1/F)

Figure No.	Rev.
Figure 3.1b	0



LEGEND:

- PROJECT SITE
- SELECTED NSRS FOR TRAFFIC NOISE IMPACT ASSESSMENT

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Project Title  
 PROPOSED COMPOSITE "SOCIAL WELFARE FACILITY (RESIDENTIAL CARE HOME FOR THE ELDERLY)" (RCHE) AND "RESIDENTIAL INSTITUTION" (SENIOR HOSTEL) DEVELOPMENT ON A SITE CURRENTLY ZONED AS "GOVERNMENT, INSTITUTIONAL OR COMMUNITY" (GIC) IN LOT NOS. 257 (PART), 258 RP (PART) AND ADJOINING GOVERNMENT LAND IN D.D. 122, PING SHAN, YUEN LONG

Figure Title  
 Selected NSRs for Traffic Noise Impact Assessment (2/F-6/F)

Figure No.	Rev.
Figure 3.1c	0



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LEGEND:

- PROJECT SITE
- SELECTED NSRS FOR TRAFFIC NOISE IMPACT ASSESSMENT

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Project Title  
 PROPOSED COMPOSITE "SOCIAL WELFARE FACILITY (RESIDENTIAL CARE HOME FOR THE ELDERLY)" (RCHE) AND "RESIDENTIAL INSTITUTION" (SENIOR HOSTEL) DEVELOPMENT ON A SITE CURRENTLY ZONED AS "GOVERNMENT, INSTITUTIONAL OR COMMUNITY" (GIC) IN LOT NOS. 257 (PART), 258 RP (PART) AND ADJOINING GOVERNMENT LAND IN D.D. 122, PING SHAN, YUEN LONG

Figure Title  
 Selected NSRs for Traffic Noise Impact Assessment (7/F)

Figure No.	Rev.
Figure 3.1d	0



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**FIGURE 3.2**  
**PROPOSED ACOUSTIC WINDOW (BAFFLE**  
**TYPE)**

LEGEND:

- PROJECT SITE
- SELECTED NSRS FOR TRAFFIC NOISE IMPACT ASSESSMENT  
TNIA\_GF\_01
- TYPE 1 ACOUSTIC WINDOW (BAFFLE TYPE)

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Project Title  
 PROPOSED COMPOSITE "SOCIAL WELFARE FACILITY (RESIDENTIAL CARE HOME FOR THE ELDERLY)" (RCHE) AND "RESIDENTIAL INSTITUTION" (SENIOR HOSTEL) DEVELOPMENT ON A SITE CURRENTLY ZONED AS "GOVERNMENT, INSTITUTIONAL OR COMMUNITY" (GIC) IN LOT NOS. 257 (PART), 258 RP (PART) AND ADJOINING GOVERNMENT LAND IN D.D. 122, PING SHAN, YUEN LONG

Figure Title  
 Proposed Acoustic Windows (Baffle Type) at 4/F

Figure No.	Rev.
Figure 3.2a	0





LEGEND:

- PROJECT SITE
- SELECTED NSRS FOR TRAFFIC NOISE IMPACT ASSESSMENT  
TNIA\_GF\_01
- TYPE 1 ACOUSTIC WINDOW (BAFFLE TYPE)

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Date	20230911	20230911	20230911

Project Title  
 PROPOSED COMPOSITE "SOCIAL WELFARE FACILITY (RESIDENTIAL CARE HOME FOR THE ELDERLY)" (RCHE) AND "RESIDENTIAL INSTITUTION" (SENIOR HOSTEL) DEVELOPMENT ON A SITE CURRENTLY ZONED AS "GOVERNMENT, INSTITUTIONAL OR COMMUNITY" (GIC) IN LOT NOS. 257 (PART), 258 RP (PART) AND ADJOINING GOVERNMENT LAND IN D.D. 122, PING SHAN, YUEN LONG

Figure Title  
 Proposed Acoustic Windows (Baffle Type) at 5/F and 6/F

Figure No.	Rev.
Figure 3.2b	0





**LEGEND:**

- PROJECT SITE
- SELECTED NSRS FOR TRAFFIC NOISE IMPACT ASSESSMENT
- TYPE 2 ACOUSTIC WINDOW (BAFFLE TYPE)
- TYPE 3 ACOUSTIC WINDOW (BAFFLE TYPE)

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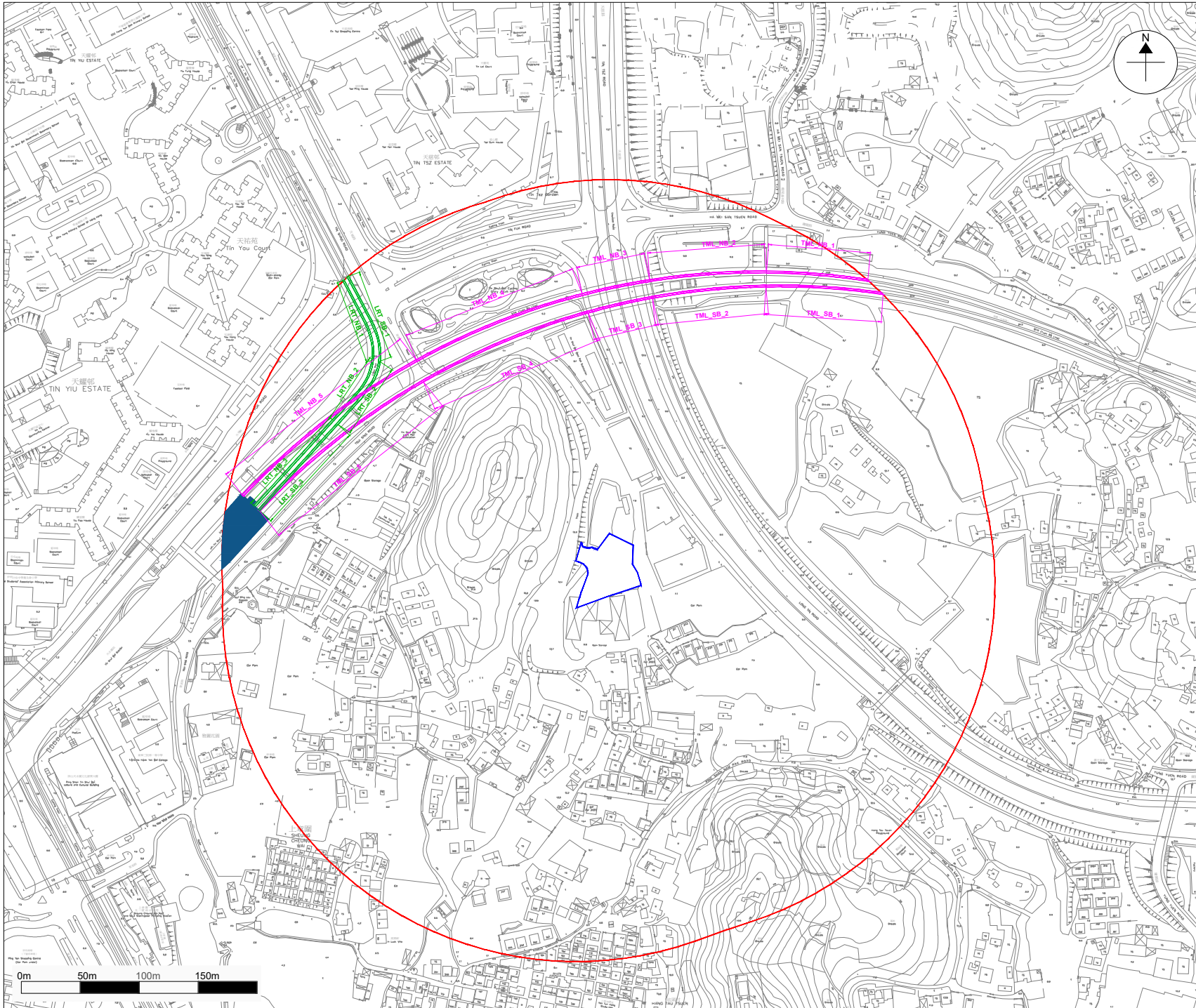
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Figure Title  
 Proposed Acoustic Windows (Baffle Type) at 7/F

Figure No.	Rev.
Figure 3.2c	0



**FIGURE 4.1**  
**LOCATION OF CONCERNED TML AND LRT**



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LEGEND:

- PROJECT SITE
- 300M ASSESSMENT AREA
- TML
- LRT
- TIN SHUI WAI STATION

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Project Title  
 PROPOSED COMPOSITE "SOCIAL WELFARE FACILITY (RESIDENTIAL CARE HOME FOR THE ELDERLY)" (RCHE) AND "RESIDENTIAL INSTITUTION" (SENIOR HOSTEL) DEVELOPMENT ON A SITE CURRENTLY ZONED AS "GOVERNMENT, INSTITUTIONAL OR COMMUNITY" (GIC) IN LOT NOS. 257 (PART), 258 RP (PART) AND ADJOINING GOVERNMENT LAND IN D.D. 122, PING SHAN, YUEN LONG

Figure Title  
 Location of Concerned TML and LRT

Figure No.	Rev.
Figure 4.1	0



**FIGURE 4.2**  
**LOCATION OF SELECTED NSRS FOR RAILWAY**  
**NOISE IMPACT ASSESSMENT**



LEGEND:

- PROJECT SITE
- SELECTED NSRS FOR RAILWAY NOISE IMPACT ASSESSMENT

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Initial	KCC	ZC	HM
Date	20230906	20230906	20230906

Project Title  
 PROPOSED COMPOSITE "SOCIAL WELFARE FACILITY (RESIDENTIAL CARE HOME FOR THE ELDERLY)" (RCHE) AND "RESIDENTIAL INSTITUTION" (SENIOR HOSTEL) DEVELOPMENT ON A SITE CURRENTLY ZONED AS "GOVERNMENT, INSTITUTIONAL OR COMMUNITY" (GIC) IN LOT NOS. 257 (PART), 258 RP (PART) AND ADJOINING GOVERNMENT LAND IN D.D. 122, PING SHAN, YUEN LONG

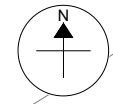
Figure Title  
 Selected NSRs for Railway Noise Impact Assessment (2/F-6/F)

Figure No.	Rev.
Figure 4.2b	0



BeeXergy Consulting Limited





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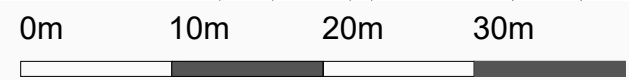
- LEGEND:**
- PROJECT SITE
  - SELECTED NSRS FOR RAILWAY NOISE IMPACT ASSESSMENT
  - RNIA\_1F\_01

	Prepared	Checked	Approved
Initial	KCC	ZC	HM
Date	20230906	20230906	20230906

Project Title  
 PROPOSED COMPOSITE "SOCIAL WELFARE FACILITY (RESIDENTIAL CARE HOME FOR THE ELDERLY)" (RCHE) AND "RESIDENTIAL INSTITUTION" (SENIOR HOSTEL) DEVELOPMENT ON A SITE CURRENTLY ZONED AS "GOVERNMENT, INSTITUTIONAL OR COMMUNITY" (GIC) IN LOT NOS. 257 (PART), 258 RP (PART) AND ADJOINING GOVERNMENT LAND IN D.D. 122, PING SHAN, YUEN LONG

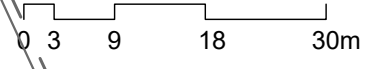
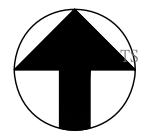
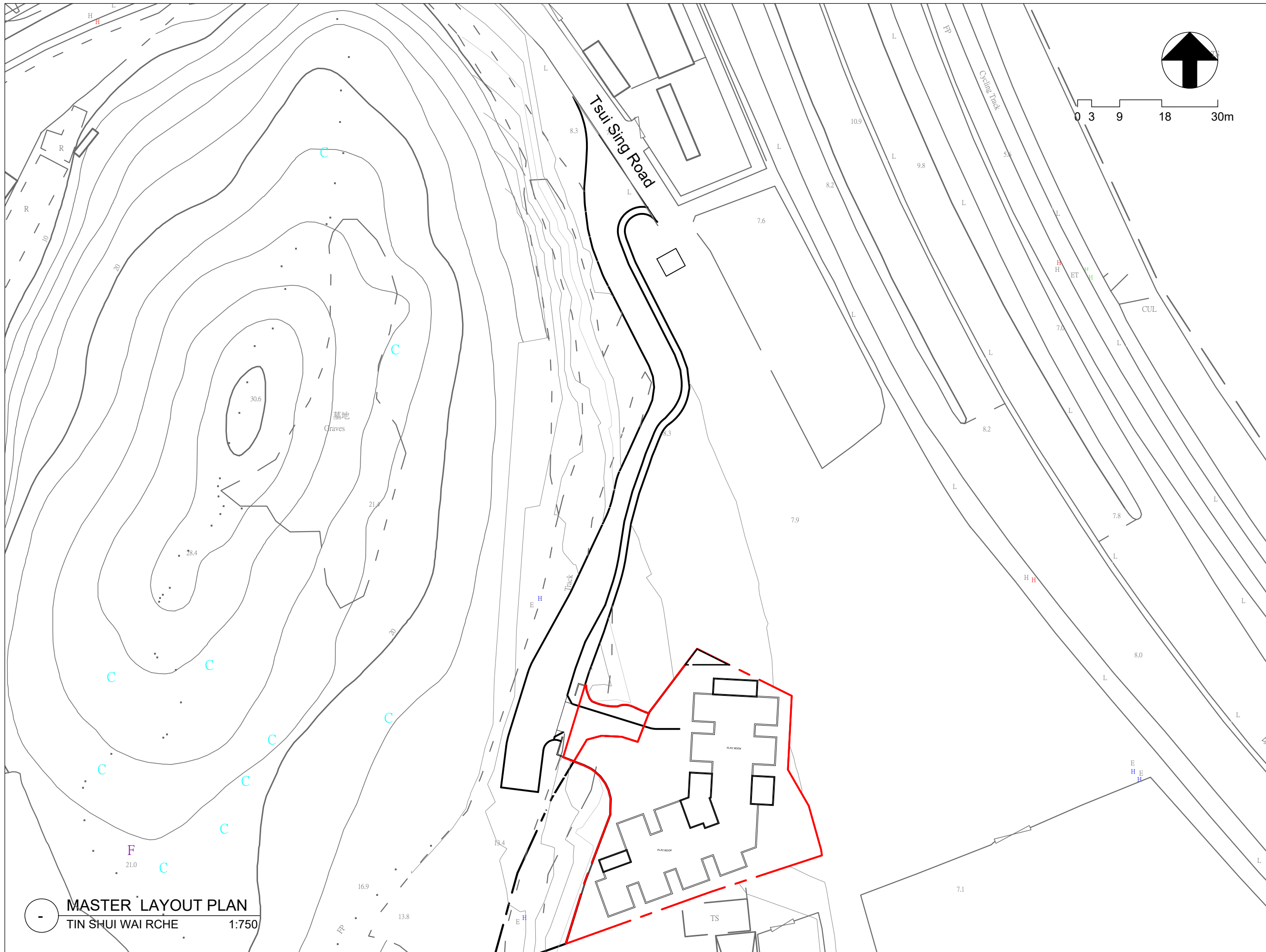
Figure Title  
 Selected NSRs for Railway Noise Impact Assessment (7/F)

Figure No.	Rev.
Figure 4.2c	0





# APPENDIX 1.1 MASTER LAYOUT PLAN



PROJECT NO. **HK-A22001**  
項目編號:

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Revision 修正版	Description 內容	Date 日期
△	DESIGN	20220317
△	DESIGN	20220320
△	DESIGN	20220402
△	DESIGN	20220406
△	SUBMISSION	20221012
△	DESIGN	20230702
△	DESIGN	20230720
△	DESIGN	20230809
△	DESIGN	20230818

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■ Tel 電話: 2493 3626

ARCHITECT 建築師:

**MINOR CREATIVE**

■ E-mail 電郵: [info@minorcreative.com](mailto:info@minorcreative.com)

PROJECT NAME  
項目名稱:

PROPOSED COMPOSITE "SOCIAL WELFARE FACILITY (RESIDENTIAL CARE HOME FOR THE ELDERLY)" (RCHE) AND "RESIDENTIAL INSTITUTION" (SENIOR HOSTEL) DEVELOPMENT ON A SITE CURRENTLY ZONED AS "GOVERNMENT, INSTITUTIONAL OR COMMUNITY" (G/I/C) IN LOT NOS. 257 (PART), 258 RP (PART) AND ADJOINING GOVERNMENT LAND IN D.D. 122, PING SHAN, YUEN LONG

DRAWING TITLE  
圖紙名稱:

**MASTER LAYOUT PLAN**

DESIGN IN CHARGE  
設計負責人:  
**KL**

DWG NO.  
圖紙編號:

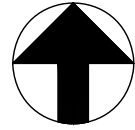
**P-000**

SCALE  
比例: **1:750@A3**

DATE  
日期: **20230818**

**MASTER LAYOUT PLAN**  
**TIN SHUI WAI RCHE** 1:750

GFA of CARPARK = 1468.5sq.m.



0 1 6 10m



**B/F LAYOUT PLAN**  
TIN SHUI WAI RCHE 1:250

PROJECT NO. **HK-A22001**  
項目編號:

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△	DESIGN	20220402
△	DESIGN	20220406
△	SUBMISSION	20221012
△	DESIGN	20230702
△	DESIGN	20230720
△	DESIGN	20230809
△	DESIGN	20230818

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CREATIVE 創意

E-mail 電郵: [info@minorcreative.com](mailto:info@minorcreative.com)

PROJECT NAME  
項目名稱:

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DRAWING TITLE  
圖紙名稱:

**B/F LAYOUT PLAN**

DESIGN IN CHARGE  
設計負責人:

KL

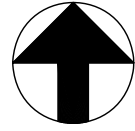
DWG NO.  
圖紙編號:

P-100

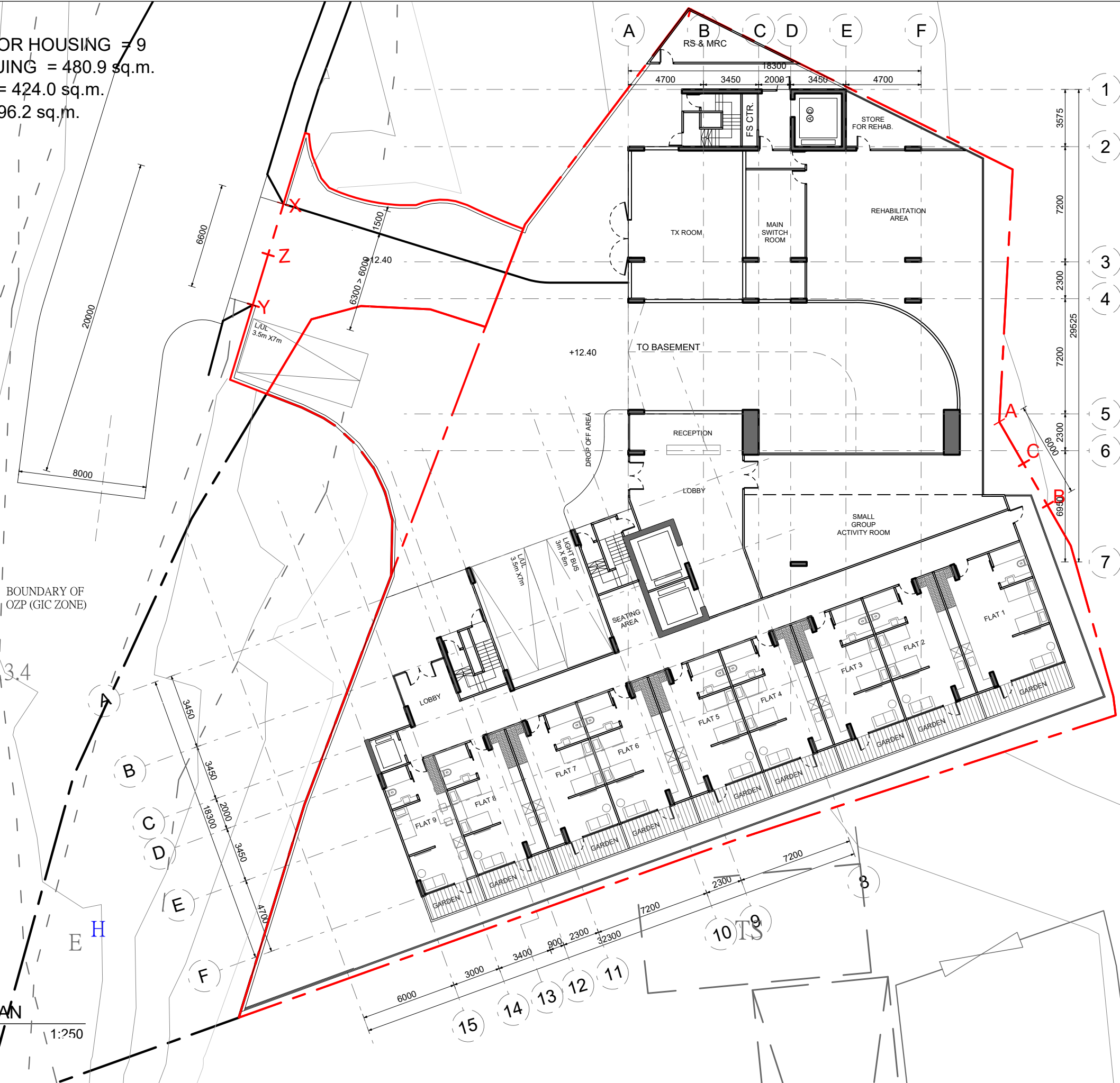
SCALE  
比例: 1:250@A3

DATE  
日期: 20230818

No. of FLATS IN SENIOR HOUSING = 9  
 GFA of SENIOR HOUSING = 480.9 sq.m.  
 GFA of G/F for RCHE = 424.0 sq.m.  
 GFA of CARPARK = 196.2 sq.m.



0 1 6 10m



G/F LAYOUT PLAN  
 TIN SHUI WAI RCHE  
 1:250

PROJECT NO. HK-A22001  
 項目編號:

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△	DESIGN	20230818
△		
△		
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MINOR CREATIVE

E-mail 電郵: info@minorcreative.com

PROJECT NAME  
 項目名稱:

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DRAWING TITLE  
 圖紙名稱:

G/F LAYOUT PLAN

DESIGN IN CHARGE  
 設計負責人:

KL

DWG NO.  
 圖紙編號:

P-101

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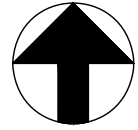
DATE  
 日期:

20230809





GFA of 7/F for RCHE = 1002.8 sq.m.



0 1 6 10m



7/F LAYOUT PLAN  
TIN SHUI WAI RCHE 1:250

PROJECT NO. HK-A22001  
項目編號:

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△	DESIGN	20230818
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DRAWING TITLE  
圖紙名稱:

7/F LAYOUT PLAN

DESIGN IN CHARGE  
設計負責人:

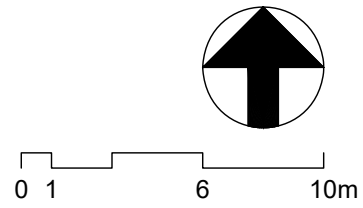
KL

DWG NO.  
圖紙編號:

P-104

SCALE  
比例: 1:250@A3

DATE  
日期: 20230718



R/F LAYOUT PLAN  
TIN SHUI WAI RCHE 1:250

PROJECT NO. HK-A22001  
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DRAWING TITLE  
圖紙名稱:

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設計負責人:

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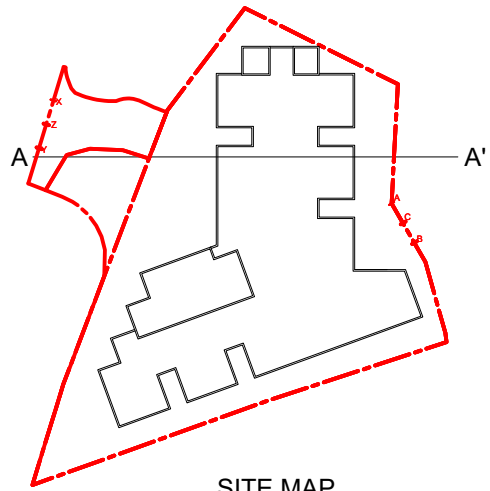
DWG NO.  
圖紙編號:

P-105

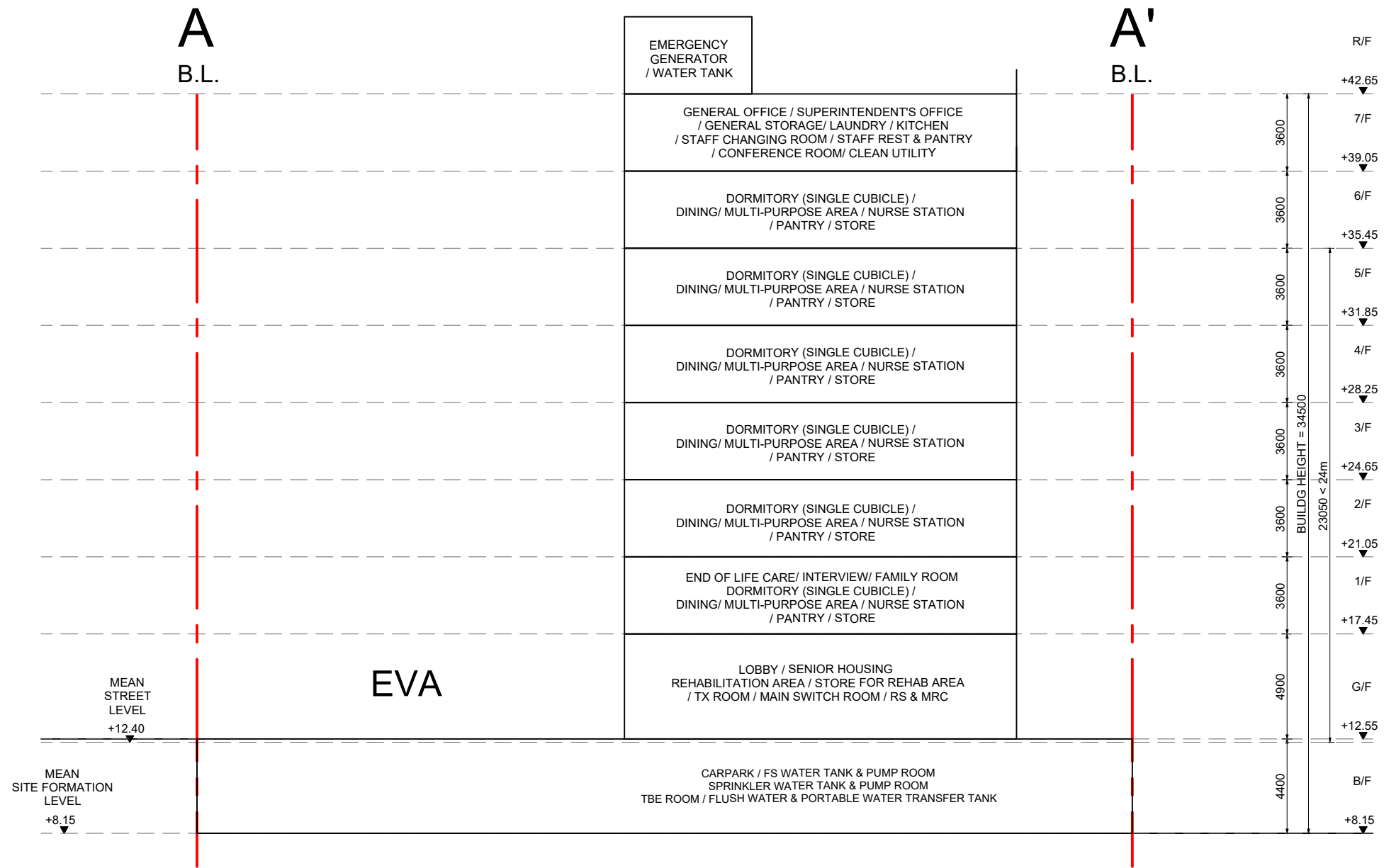
SCALE  
比例: 1:250@A3

DATE  
日期: 20230818





SITE MAP



**SCHEMATIC SECTION AA'**  
TIN SHUI WAI RCHE 1:250

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PROJECT NAME  
項目名稱:  
PROPOSED COMPOSITE "SOCIAL WELFARE FACILITY (RESIDENTIAL CARE HOME FOR THE ELDERLY)" (RCHE) AND "RESIDENTIAL INSTITUTION" (SENIOR HOSTEL) DEVELOPMENT ON A SITE CURRENTLY ZONED AS "GOVERNMENT, INSTITUTIONAL OR COMMUNITY" (G/I/C) IN LOT NOS. 257 (PART), 258 RP (PART) AND ADJOINING GOVERNMENT LAND IN D.D. 122, PING SHAN, YUEN LONG

DRAWING TITLE  
圖紙名稱:  
**SCHEMATIC SECTION AA'**

DESIGN IN CHARGE 設計負責人: <b>KL</b>	DWG NO. 圖紙編號: <b>S-101</b>
---	----------------------------------

SCALE  
比例: **1:250@A3**

DATE  
日期: **20230818**

**APPENDIX 2.1**  
**EXTRACTED PAGES OF AEIAR-026/1999**  
**APPENDIX 9**

## APPENDIX 9 – Fixed Plant Noise Assessment

**Project :** LRT Alteration EIA  
**Title :** Assessment of Fixed Plant Noise Impacts  
**Date :** 09-Sep-99


**Prediction of Transformer Noise Impacts - LRT Phase 4 Extensions**

Measured Data			NSR	Dist m	No of TX	Correction					SPL dB(A)
SPL dB(A)	Dist m	No of TX				Dist dB(A)	No of TX dB(A)	Tonality dB(A)	Screening dB(A)	Façade dB(A)	
66	2	2	N10	140	4	-37	3	3	0	3	38
66	2	2	N18	120	4	-36	3	3	0	3	39

Noise source - Rectifier Station R14  
 N10 - Yau Hong House (see dwg GSA021/03/D02/002)  
 N18 - Village house (see dwg GSA021/03/D01/002)

**APPENDIX 2.2**  
**SITE SURVEY RECORD ON FIXED NOISE**  
**SOURCES**


**SITE SURVEY RECORD (FIXED NOISE SOURCE)**

<b>Survey Date</b>	15 and 31 August 2023, 6 September 2023
<b>Nature of Premise</b>	Warehouse (VANPAC Group Asia)
<b>Fixed Noise Source(s)</b>	Louvers
<b>Photo Record</b>	
	
<b>Measured Sound Pressure Level of Fixed Noise Source(s)</b>	
58.5dB(A) at 6m	

### SITE SURVEY RECORD (FIXED NOISE SOURCE)

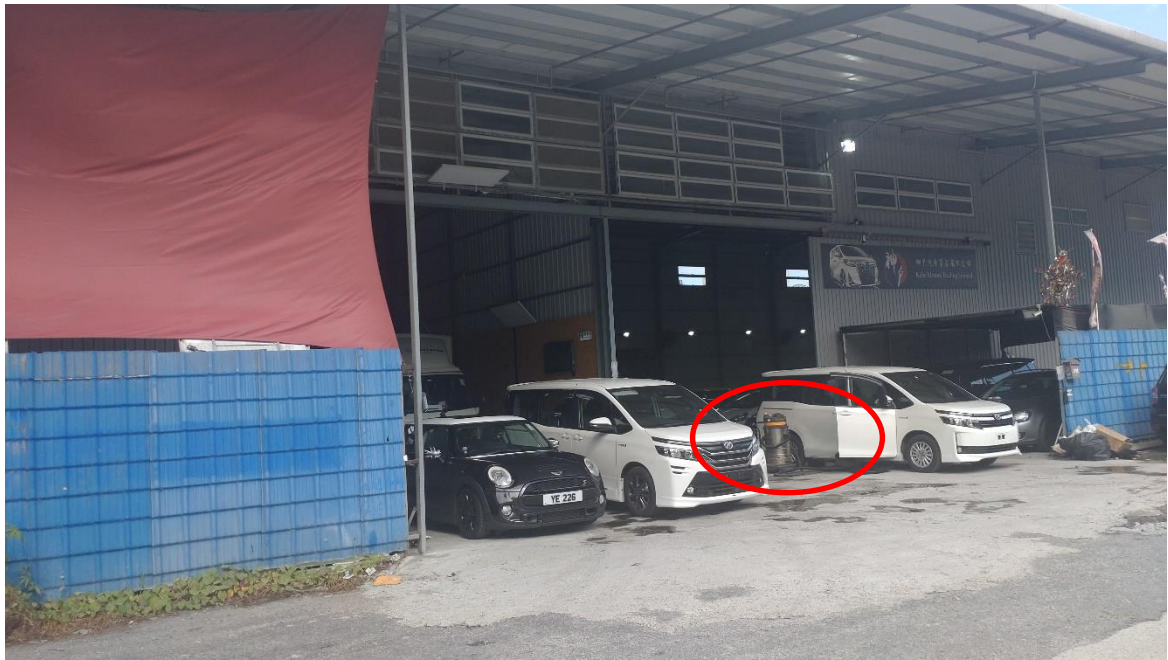
<b>Survey Date</b>	15 and 31 August 2023, 6 September 2023
<b>Nature of Premise</b>	Warehouse (Hung Kit Transportation Limited, Lai Sun Warehousing & Logistics Limited and Dongguan Xuhong International Logistics Co. Ltd)
<b>Fixed Noise Source(s)</b>	Louvers
<b>Photo Record</b>	
	
<b>Measured Sound Pressure Level of Fixed Noise Source(s)</b>	
Not in operation during the site survey and measured sound pressure level of louver from warehouse (VANPAC Group Asia) will be adopted for fixed noise impact assessment (58.5dB(A) at 6m).	

**SITE SURVEY RECORD (FIXED NOISE SOURCE)**


<b>Survey Date</b>	15 and 31 August 2023, 6 September 2023
<b>Nature of Premise</b>	Auto Retail Store (AUTOBEE ASM & VOLTEX HK DEALER)
<b>Fixed Noise Source(s)</b>	N/A
<b>Photo Record</b>	
	
<b>Measured Sound Pressure Level of Fixed Noise Source(s)</b>	
N/A	




SITE SURVEY RECORD (FIXED NOISE SOURCE)

<b>Survey Date</b>	15 and 31 August 2023, 6 September 2023
<b>Nature of Premise</b>	Auto Trading store (KOBE Motors Trading Ltd.)
<b>Fixed Noise Source(s)</b>	Vehicle Cleaning Operation
<b>Photo Record</b>	
	
<b>Measured Sound Pressure Level of Fixed Noise Source(s)</b>	
67.2dB(A) at 3m	

**SITE SURVEY RECORD (FIXED NOISE SOURCE)**

<b>Survey Date</b>	15 and 31 August 2023, 6 September 2023
<b>Nature of Premise</b>	Tin Shui Wai West Rail Substation
<b>Fixed Noise Source(s)</b>	Transformer Operation
<b>Photo Record</b>	
	
<b>Measured Sound Pressure Level of Fixed Noise Source(s)</b>	
58.3dB(A) at 8m	

**SITE SURVEY RECORD (FIXED NOISE SOURCE)**

<b>Survey Date</b>	15 and 31 August 2023, 6 September 2023
<b>Nature of Premise</b>	Tin Shui Wai Light Rail Substation
<b>Fixed Noise Source(s)</b>	Transformer Operation
<b>Photo Record</b>	
	
<b>Measured Sound Pressure Level of Fixed Noise Source(s)</b>	
N/A	

**APPENDIX 2.3**  
**DETAILED CALCULATION FOR FIXED NOISE**  
**IMPACT ASSESSMENT**

**Appendix 2.3 - Detailed Calculation for Fixed Noise Impact Assessment**

<b>Title:</b>	Assessment of Existing Fixed Plant Noise Impacts
<b>NSR ID:</b>	FNIA_1F_01
<b>NSR floor (F)</b>	1
<b>ASR</b>	B

Noise Source ID	Description	Operation		SWL, dB(A)	Horizontal Distance, m	Correction, dB(A)				Predicted Daytime SPL, dB(A)	Predicted Night-time SPL, dB(A)	Remark
		Daytime	Night-time			Distance	Directivity	Tonality	Façade			
1	Warehouse (VANPAC Group Asia)	Y	N	82	53	-42	-10	6	3	39	-	Lower facing opposite to NSR
2	Warehouse (Hung Kit Transportation Limited, Lai Sun Warehousing & Logistics Limited and Dongguan Xuhong International Logistics Co. Ltd)	Y	N	82	55	-43	-10	6	3	38	-	1. Lower facing opposite to NSR 2. SWL reference to Warehouse (VANPAC Group Asia)
3	Auto trading store (KOBE Motors Trading LTD)	Y	N	85	56	-43	-	6	3	51	-	
4	Tin Shui Wai West Rail Substation	Y	Y	84	102	-48	-	6	3	45	45	
<b>Total SPL</b>										52	45	
<b>Criteria ANL</b>										65	55	
<b>Exceedance</b>										-	-	

Remarks:

- [1] SWLs are calculated based on on-site measured sound pressure level of fixed noise sources using Type 1 sound level meter. Measurement equipment used: Cirrus CR171B Sound Level Meter.
- [2] The maximum measured SPL was adopted for conservative assessment and no correction for background noise level was conducted.
- [3] For conservative approach, distance correction was calculated based on the shortest horizontal distance between the NSR and the noise sources.
- [4] A -10dB directivity correction has been applied to NSR with no direct line of sight to the source/opening which is located on the other side of the building or completely blocked by other building(s).
- [5] A 6dB(A) correction for tonality has been applied to all equipment as a conservative approach.

**Appendix 2.3 - Detailed Calculation for Fixed Noise Impact Assessment**

<b>Title:</b>	Assessment of Existing Fixed Plant Noise Impacts
<b>NSR ID:</b>	FNIA_1F_02
<b>NSR floor (F)</b>	1
<b>ASR</b>	B

Noise Source ID	Description	Operation		SWL, dB(A)	Horizontal Distance, m	Correction, dB(A)				Predicted Daytime SPL, dB(A)	Predicted Night-time SPL, dB(A)	Remark
		Daytime	Night-time			Distance	Directivity	Tonality	Façade			
1	Warehouse (VANPAC Group Asia)	Y	N	82	49	-42	-10	6	3	39	-	Lower facing opposite to NSR
2	Warehouse (Hung Kit Transportation Limited, Lai Sun Warehousing & Logistics Limited and Dongguan Xuhong International Logistics Co. Ltd)	Y	N	82	60	-44	-10	6	3	37	-	1. Lower facing opposite to NSR 2. SWL reference to Warehouse (VANPAC Group Asia)
3	Auto trading store (KOBE Motors Trading LTD)	Y	N	85	57	-43	-	6	3	51	-	
4	Tin Shui Wai West Rail Substation	Y	Y	84	103	-48	-	6	3	45	45	
<b>Total SPL</b>										52	45	
<b>Criteria ANL</b>										65	55	
<b>Exceedance</b>										-	-	

Remarks:

- [1] SWLs are calculated based on on-site measured sound pressure level of fixed noise sources using Type 1 sound level meter. Measurement equipment used: Cirrus CR171B Sound Level Meter.
- [2] The maximum measured SPL was adopted for conservative assessment and no correction for background noise level was conducted.
- [3] For conservative approach, distance correction was calculated based on the shortest horizontal distance between the NSR and the noise sources.
- [4] A -10dB directivity correction has been applied to NSR with no direct line of sight to the source/opening which is located on the other side of the building or completely blocked by other building(s).
- [5] A 6dB(A) correction for tonality has been applied to all equipment as a conservative approach.

**APPENDIX 3.1**  
**TRANSPORTATION DEPARTMENT ENDORSED**  
**TRAFFIC DATA**

Link No.	Road Name	Speed	Direction	Year 2044			
				AM Peak		PM Peak	
				Traffic Flow (veh/hr)	HV%	Traffic Flow (veh/hr)	HV%
1	Tin Tsz Road	50	EB	80	12%	30	23%
2	Ha Mei San Tsuen Road	50	EB	420	17%	360	23%
3	Ha Mei San Tsuen Road	50	WB	180	30%	120	12%
4	Tin Tsz Road	50	SB	520	10%	220	11%
5	Long Tin Road	70	SB	860	30%	580	19%
6	Long Tin Road	70	SB	1130	16%	770	10%
7	Long Tin Road	70	SB	1990	22%	1350	10%
8	Long Tin Road	70	NB	690	17%	1160	10%
9	Tin Tsz Road	70	NB	140	10%	80	10%
10	Long Tin Road	70	NB	920	20%	1120	23%
11	Long Tin Road	70	NB	1610	18%	2280	15%
12	Tin Fuk Road	50	EB	1000	28%	670	18%
13	Tin Fuk Road	50	WB	1280	18%	1140	21%
14	Tin Shing Road	50	EB	490	24%	350	19%
15	Tin Shing Road	50	SB	740	25%	490	18%
16	Tin Shing Road	50	NB	640	14%	510	15%
17	Tin Shing Road	50	SB	160	11%	240	14%
18	Tin Shing Road	50	NB	250	15%	160	10%
19	Tin Fuk Road	50	EB	420	36%	340	27%
20	Tin Fuk Road	50	WB	850	11%	690	14%
21	Tsui Sing Road	50	SB	50	30%	90	30%
22	Tsui Sing Road	50	WB	110	22%	50	10%
23	Tsui Sing Road	50	EB	140	13%	110	10%
24	Tsui Sing Road	50	WB	110	27%	150	10%
25	Ping Shan Heritage Trail	50	2-way	50	10%	50	10%
26	Tsui Sing Road	50	EB	50	10%	50	10%
27	Tsui Sing Road	50	WB	50	10%	50	10%
28	Ping Shan Heritage Trail	50	SB	50	10%	50	10%
29	Ping Shan Heritage Trail	50	NB	50	10%	50	10%
30	Ping Shan Nam Pak Road	50	2-way	50	10%	50	10%
31	Long Tin Road	70	WB	710	21%	880	23%
32	Long Tin Road	70	EB	210	12%	240	29%
33	Tin Fuk Road	50	EB	520	36%	430	27%
34	Tin Fuk Road	50	EB	100	27%	90	30%



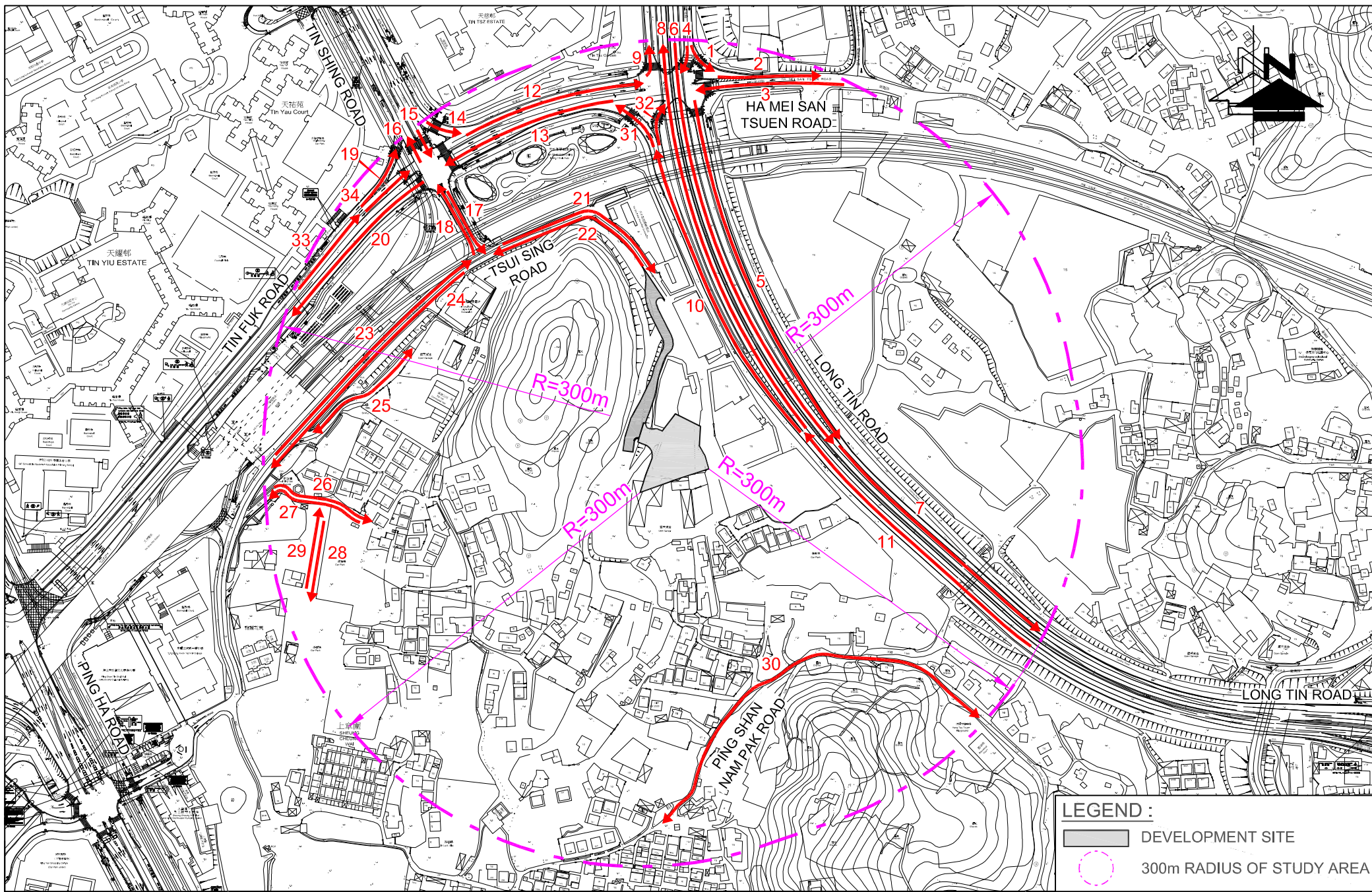


FIGURE NO.: <b>1</b>		PROJECT TITLE: RCHE and Senior Hostel in GIC in Ping Shan, Tin Shui Wai, Yuen Long
PROJECT NO.: 23061HK		DRAWING TITLE: <b>INDEX PLAN FOR TNIA (300m)</b>
SCALE: 1 : 4000 @A4	DATE: 11 SEP 2023	

**LEGEND :**

- DEVELOPMENT SITE
- 300m RADIUS OF STUDY AREA



**CTA Consultants Limited**  
志達顧問有限公司

**APPENDIX 3.2**  
**DETAIL OF TRAFFIC NOISE IMPACT**  
**ASSESSMENT RESULTS (UN-MITIGATED**  
**SCENARIO)**

Appendix 3.2 - Detail of Traffic Noise Impact Assessment Results (Un-mitigated Scenario)

NSR ID	Coordinates		Assessment Level mPD	Assessment Floor	Description	Limit Level L10, 1hr dB(A)	Un-mitigated Scenario			
	X	Y					AM Period		PM Period	
							L10, 1hr dB(A)	Noise Mitigation Required	L10, 1hr dB(A)	Noise Mitigation Required
TNIA_GF_01	819016.4	834398.2	13.8	G/F	Senior Housing Flat 1	70	62	No	61	No
TNIA_GF_02	819010.2	834395.9	13.8	G/F	Senior Housing Flat 2	70	62	No	61	No
TNIA_GF_03	819007.0	834394.7	13.8	G/F	Senior Housing Flat 3	70	62	No	61	No
TNIA_GF_04	819001.3	834392.7	13.8	G/F	Senior Housing Flat 4	70	62	No	61	No
TNIA_GF_05	818998.0	834391.5	13.8	G/F	Senior Housing Flat 5	70	62	No	61	No
TNIA_GF_06	818992.3	834389.4	13.8	G/F	Senior Housing Flat 6	70	61	No	60	No
TNIA_GF_07	818989.1	834388.2	13.8	G/F	Senior Housing Flat 7	70	61	No	60	No
TNIA_GF_08	818983.4	834386.2	13.8	G/F	Senior Housing Flat 8	70	61	No	60	No
TNIA_GF_09	818980.1	834385.0	13.8	G/F	Senior Housing Flat 9	70	61	No	60	No
TNIA_1F_01	819007.1	834433.1	18.6	1/F	Dormitory	70	66	No	65	No
TNIA_1F_02	819010.1	834428.5	18.6	1/F	Dormitory	70	67	No	66	No
TNIA_1F_03	819007.1	834423.9	18.6	1/F	Dormitory	70	63	No	62	No
TNIA_1F_04	819007.1	834423.6	18.6	1/F	Dormitory	70	63	No	62	No
TNIA_1F_05	819010.2	834419.0	18.6	1/F	Dormitory	70	66	No	65	No
TNIA_1F_06	819007.1	834414.4	18.6	1/F	Dormitory	70	62	No	61	No
TNIA_1F_07	819007.1	834414.1	18.6	1/F	Dormitory	70	63	No	61	No
TNIA_1F_08	819010.2	834409.5	18.6	1/F	Dormitory	70	66	No	65	No
TNIA_1F_09	819016.0	834398.0	18.6	1/F	Dining / Multi-purpose Area	70	65	No	64	No
TNIA_1F_10	819010.8	834396.2	18.6	1/F	Dining / Multi-purpose Area	70	64	No	63	No
TNIA_1F_11	819005.7	834394.3	18.6	1/F	Dining / Multi-purpose Area	70	64	No	63	No
TNIA_1F_12	819001.6	834392.8	18.6	1/F	Dormitory	70	63	No	63	No
TNIA_1F_13	818999.6	834392.1	18.6	1/F	Dormitory	70	63	No	62	No
TNIA_1F_14	818994.3	834393.4	18.6	1/F	Dormitory	70	44	No	43	No
TNIA_1F_15	818994.0	834393.3	18.6	1/F	Dormitory	70	44	No	43	No
TNIA_1F_16	818990.7	834388.8	18.6	1/F	Dormitory	70	43	No	42	No
TNIA_1F_17	818985.3	834390.1	18.6	1/F	Dormitory	70	44	No	43	No
TNIA_1F_18	818985.1	834390.0	18.6	1/F	Dormitory	70	44	No	43	No
TNIA_1F_19	818981.8	834385.6	18.6	1/F	Dormitory	70	62	No	61	No
TNIA_1F_20	818976.3	834386.9	18.6	1/F	Dormitory	70	48	No	48	No
TNIA_1F_21	818974.9	834390.6	18.6	1/F	Dormitory	70	55	No	55	No
TNIA_1F_22	818985.0	834408.3	18.6	1/F	End of Life Care Room	70	58	No	57	No
TNIA_1F_23	818989.9	834419.0	18.6	1/F	Dormitory	70	58	No	57	No
TNIA_1F_24	818992.9	834423.6	18.6	1/F	Dormitory	70	49	No	48	No
TNIA_1F_25	818992.9	834423.9	18.6	1/F	Dormitory	70	48	No	47	No
TNIA_1F_26	818989.9	834428.5	18.6	1/F	Dormitory	70	60	No	59	No
TNIA_1F_27	818992.9	834433.1	18.6	1/F	Dormitory	70	61	No	60	No
TNIA_2F_01	819007.1	834433.1	22.2	2/F	Dormitory	70	68	No	67	No
TNIA_2F_02	819010.2	834428.5	22.2	2/F	Dormitory	70	69	No	68	No
TNIA_2F_03	819007.1	834423.9	22.2	2/F	Dormitory	70	66	No	65	No
TNIA_2F_04	819007.1	834423.6	22.2	2/F	Dormitory	70	66	No	65	No
TNIA_2F_05	819010.2	834419.0	22.2	2/F	Dormitory	70	69	No	68	No
TNIA_2F_06	819007.1	834414.4	22.2	2/F	Dormitory	70	66	No	65	No
TNIA_2F_07	819007.1	834414.1	22.2	2/F	Dormitory	70	66	No	65	No
TNIA_2F_08	819010.2	834409.5	22.2	2/F	Dormitory	70	68	No	67	No
TNIA_2F_09	819016.0	834398.0	22.2	2/F	Dining / Multi-purpose Area	70	67	No	66	No
TNIA_2F_10	819010.8	834396.2	22.2	2/F	Dining / Multi-purpose Area	70	66	No	65	No
TNIA_2F_11	819005.7	834394.3	22.2	2/F	Dining / Multi-purpose Area	70	65	No	64	No
TNIA_2F_12	819001.6	834392.8	22.2	2/F	Sick Room / Isolation Room	70	65	No	64	No
TNIA_2F_13	818999.6	834392.1	22.2	2/F	Dormitory	70	65	No	64	No
TNIA_2F_14	818994.3	834393.4	22.2	2/F	Dormitory	70	45	No	44	No
TNIA_2F_15	818994.0	834393.3	22.2	2/F	Dormitory	70	45	No	44	No
TNIA_2F_16	818990.7	834388.8	22.2	2/F	Dormitory	70	64	No	63	No
TNIA_2F_17	818985.3	834390.1	22.2	2/F	Dormitory	70	45	No	44	No
TNIA_2F_18	818985.1	834390.0	22.2	2/F	Dormitory	70	45	No	44	No
TNIA_2F_19	818981.8	834385.6	22.2	2/F	Dormitory	70	63	No	62	No
TNIA_2F_20	818976.3	834386.9	22.2	2/F	Dormitory	70	49	No	48	No
TNIA_2F_21	818974.9	834390.6	22.2	2/F	Dormitory	70	56	No	56	No
TNIA_2F_22	818980.5	834403.4	22.2	2/F	Dormitory	70	56	No	56	No
TNIA_2F_23	818983.8	834407.9	22.2	2/F	Dormitory	70	60	No	59	No
TNIA_2F_24	818989.9	834419.0	22.2	2/F	Dormitory	70	60	No	59	No
TNIA_2F_25	818992.9	834423.6	22.2	2/F	Dormitory	70	51	No	49	No
TNIA_2F_26	818992.9	834423.9	22.2	2/F	Dormitory	70	51	No	49	No
TNIA_2F_27	818989.9	834428.5	22.2	2/F	Dormitory	70	62	No	61	No
TNIA_2F_28	818992.9	834433.1	22.2	2/F	Dormitory	70	63	No	62	No
TNIA_3F_01	819007.1	834433.1	25.8	3/F	Dormitory	70	70	No	69	No
TNIA_3F_02	819010.2	834428.5	25.8	3/F	Dormitory	70	70	No	70	No
TNIA_3F_03	819007.1	834423.9	25.8	3/F	Dormitory	70	68	No	67	No
TNIA_3F_04	819007.1	834423.6	25.8	3/F	Dormitory	70	68	No	67	No
TNIA_3F_05	819010.2	834419.0	25.8	3/F	Dormitory	70	70	No	69	No
TNIA_3F_06	819007.1	834414.4	25.8	3/F	Dormitory	70	67	No	66	No

Appendix 3.2 - Detail of Traffic Noise Impact Assessment Results (Un-mitigated Scenario)

NSR ID	Coordinates		Assessment Level mPD	Assessment Floor	Description	Limit Level L10, 1hr dB(A)	Un-mitigated Scenario			
	X	Y					AM Period		PM Period	
							L10, 1hr dB(A)	Noise Mitigation Required	L10, 1hr dB(A)	Noise Mitigation Required
TNIA 3F 07	819007.1	834414.1	25.8	3/F	Dormitory	70	67	No	66	No
TNIA 3F 08	819010.2	834409.5	25.8	3/F	Dormitory	70	69	No	69	No
TNIA 3F 09	819016.0	834398.0	25.8	3/F	Dining / Multi-purpose Area	70	68	No	67	No
TNIA 3F 10	819010.8	834396.2	25.8	3/F	Dining / Multi-purpose Area	70	67	No	66	No
TNIA 3F 11	819005.7	834394.3	25.8	3/F	Dining / Multi-purpose Area	70	66	No	65	No
TNIA 3F 12	819001.6	834392.8	25.8	3/F	Sick Room / Isolation Room	70	66	No	65	No
TNIA 3F 13	818999.6	834392.1	25.8	3/F	Dormitory	70	66	No	65	No
TNIA 3F 14	818994.3	834393.4	25.8	3/F	Dormitory	70	47	No	45	No
TNIA 3F 15	818994.0	834393.3	25.8	3/F	Dormitory	70	47	No	46	No
TNIA 3F 16	818990.7	834388.8	25.8	3/F	Dormitory	70	65	No	64	No
TNIA 3F 17	818985.3	834390.1	25.8	3/F	Dormitory	70	47	No	46	No
TNIA 3F 18	818985.1	834390.0	25.8	3/F	Dormitory	70	48	No	46	No
TNIA 3F 19	818981.8	834385.6	25.8	3/F	Dormitory	70	64	No	63	No
TNIA 3F 20	818976.3	834386.9	25.8	3/F	Dormitory	70	50	No	49	No
TNIA 3F 21	818974.9	834390.6	25.8	3/F	Dormitory	70	58	No	57	No
TNIA 3F 22	818980.5	834403.4	25.8	3/F	Dormitory	70	58	No	57	No
TNIA 3F 23	818983.8	834407.9	25.8	3/F	Dormitory	70	61	No	61	No
TNIA 3F 24	818989.9	834419.0	25.8	3/F	Dormitory	70	61	No	60	No
TNIA 3F 25	818992.9	834423.6	25.8	3/F	Dormitory	70	53	No	52	No
TNIA 3F 26	818992.9	834423.9	25.8	3/F	Dormitory	70	53	No	52	No
TNIA 3F 27	818989.9	834428.5	25.8	3/F	Dormitory	70	63	No	62	No
TNIA 3F 28	818992.9	834433.1	25.8	3/F	Dormitory	70	64	No	63	No
TNIA 4F 01	819007.1	834433.1	29.4	4/F	Dormitory	70	71	Yes	70	No
TNIA 4F 02	819010.2	834428.5	29.4	4/F	Dormitory	70	71	Yes	71	Yes
TNIA 4F 03	819007.1	834423.9	29.4	4/F	Dormitory	70	68	No	68	No
TNIA 4F 04	819007.1	834423.6	29.4	4/F	Dormitory	70	68	No	67	No
TNIA 4F 05	819010.2	834419.0	29.4	4/F	Dormitory	70	71	Yes	70	No
TNIA 4F 06	819007.1	834414.4	29.4	4/F	Dormitory	70	68	No	67	No
TNIA 4F 07	819007.1	834414.1	29.4	4/F	Dormitory	70	68	No	67	No
TNIA 4F 08	819010.2	834409.5	29.4	4/F	Dormitory	70	70	No	69	No
TNIA 4F 09	819016.0	834398.0	29.4	4/F	Dining / Multi-purpose Area	70	69	No	68	No
TNIA 4F 10	819010.8	834396.2	29.4	4/F	Dining / Multi-purpose Area	70	68	No	67	No
TNIA 4F 11	819005.7	834394.3	29.4	4/F	Dining / Multi-purpose Area	70	67	No	66	No
TNIA 4F 12	819001.6	834392.8	29.4	4/F	Sick Room / Isolation Room	70	67	No	66	No
TNIA 4F 13	818999.6	834392.1	29.4	4/F	Dormitory	70	67	No	66	No
TNIA 4F 14	818994.3	834393.4	29.4	4/F	Dormitory	70	48	No	46	No
TNIA 4F 15	818994.0	834393.3	29.4	4/F	Dormitory	70	48	No	47	No
TNIA 4F 16	818990.7	834388.8	29.4	4/F	Dormitory	70	66	No	65	No
TNIA 4F 17	818985.3	834390.1	29.4	4/F	Dormitory	70	49	No	47	No
TNIA 4F 18	818985.1	834390.0	29.4	4/F	Dormitory	70	49	No	47	No
TNIA 4F 19	818981.8	834385.6	29.4	4/F	Dormitory	70	65	No	64	No
TNIA 4F 20	818976.3	834386.9	29.4	4/F	Dormitory	70	51	No	50	No
TNIA 4F 21	818974.9	834390.6	29.4	4/F	Dormitory	70	59	No	58	No
TNIA 4F 22	818980.5	834403.4	29.4	4/F	Dormitory	70	59	No	58	No
TNIA 4F 23	818983.8	834407.9	29.4	4/F	Dormitory	70	62	No	62	No
TNIA 4F 24	818989.9	834419.0	29.4	4/F	Dormitory	70	61	No	61	No
TNIA 4F 25	818992.9	834423.6	29.4	4/F	Dormitory	70	54	No	53	No
TNIA 4F 26	818992.9	834423.9	29.4	4/F	Dormitory	70	54	No	53	No
TNIA 4F 27	818989.9	834428.5	29.4	4/F	Dormitory	70	64	No	63	No
TNIA 4F 28	818992.9	834433.1	29.4	4/F	Dormitory	70	65	No	64	No
TNIA 5F 01	819007.1	834433.1	33.0	5/F	Dormitory	70	72	Yes	71	Yes
TNIA 5F 02	819010.2	834428.5	33.0	5/F	Dormitory	70	72	Yes	71	Yes
TNIA 5F 03	819007.1	834423.9	33.0	5/F	Dormitory	70	69	No	68	No
TNIA 5F 04	819007.1	834423.6	33.0	5/F	Dormitory	70	69	No	68	No
TNIA 5F 05	819010.2	834419.0	33.0	5/F	Dormitory	70	71	Yes	71	Yes
TNIA 5F 06	819007.1	834414.4	33.0	5/F	Dormitory	70	68	No	68	No
TNIA 5F 07	819007.1	834414.1	33.0	5/F	Dormitory	70	69	No	68	No
TNIA 5F 08	819010.2	834409.5	33.0	5/F	Dormitory	70	71	Yes	70	No
TNIA 5F 09	819016.0	834398.0	33.0	5/F	Dining / Multi-purpose Area	70	69	No	68	No
TNIA 5F 10	819010.8	834396.2	33.0	5/F	Dining / Multi-purpose Area	70	68	No	67	No
TNIA 5F 11	819005.7	834394.3	33.0	5/F	Dining / Multi-purpose Area	70	67	No	67	No
TNIA 5F 12	819001.6	834392.8	33.0	5/F	Sick Room / Isolation Room	70	67	No	66	No
TNIA 5F 13	818999.6	834392.1	33.0	5/F	Dormitory	70	67	No	66	No
TNIA 5F 14	818994.3	834393.4	33.0	5/F	Dormitory	70	49	No	47	No
TNIA 5F 15	818994.0	834393.3	33.0	5/F	Dormitory	70	49	No	48	No
TNIA 5F 16	818990.7	834388.8	33.0	5/F	Dormitory	70	66	No	65	No
TNIA 5F 17	818985.3	834390.1	33.0	5/F	Dormitory	70	50	No	48	No
TNIA 5F 18	818985.1	834390.0	33.0	5/F	Dormitory	70	50	No	48	No
TNIA 5F 19	818981.8	834385.6	33.0	5/F	Dormitory	70	66	No	65	No
TNIA 5F 20	818976.3	834386.9	33.0	5/F	Dormitory	70	51	No	50	No

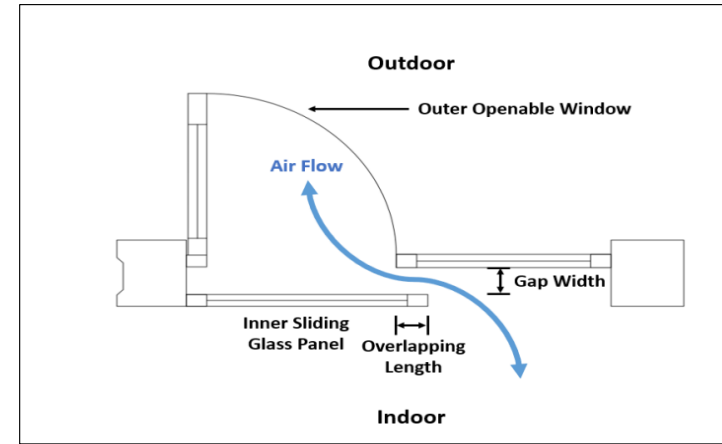
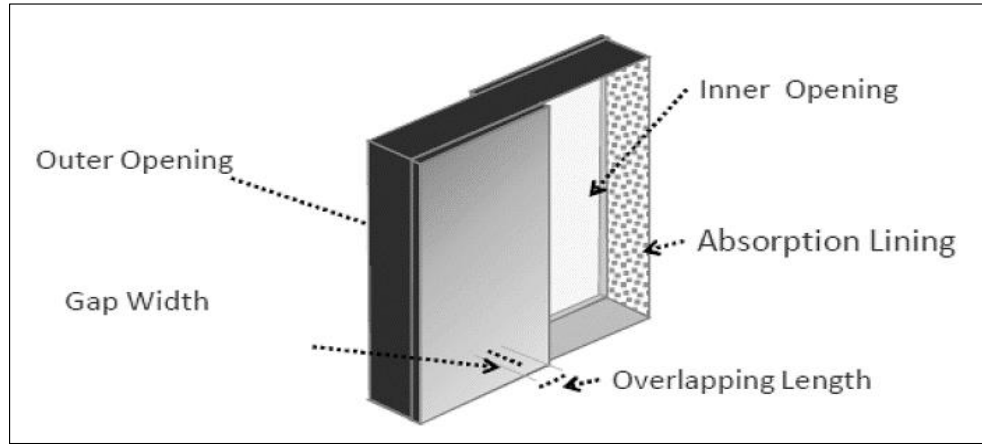
Appendix 3.2 - Detail of Traffic Noise Impact Assessment Results (Un-mitigated Scenario)

NSR ID	Coordinates		Assessment Level	Assessment Floor	Description	Limit Level	Un-mitigated Scenario			
	X	Y					mPD	AM Period		PM Period
			L10, 1hr dB(A)	Noise Mitigation Required	L10, 1hr dB(A)	Noise Mitigation Required				
TNIA 5F 21	818974.9	834390.6	33.0	5/F	Dormitory	70	59	No	59	No
TNIA 5F 22	818980.5	834403.4	33.0	5/F	Dormitory	70	59	No	59	No
TNIA 5F 23	818983.8	834407.9	33.0	5/F	Dormitory	70	63	No	62	No
TNIA 5F 24	818989.9	834419.0	33.0	5/F	Dormitory	70	62	No	61	No
TNIA 5F 25	818992.9	834423.6	33.0	5/F	Dormitory	70	55	No	53	No
TNIA 5F 26	818992.9	834423.9	33.0	5/F	Dormitory	70	55	No	53	No
TNIA 5F 27	818989.9	834428.5	33.0	5/F	Dormitory	70	64	No	64	No
TNIA 5F 28	818992.9	834433.1	33.0	5/F	Dormitory	70	65	No	65	No
TNIA 6F 01	819007.1	834433.1	36.6	6/F	Dormitory	70	72	Yes	71	Yes
TNIA 6F 02	819010.2	834428.5	36.6	6/F	Dormitory	70	72	Yes	72	Yes
TNIA 6F 03	819007.1	834423.9	36.6	6/F	Dormitory	70	69	No	68	No
TNIA 6F 04	819007.1	834423.6	36.6	6/F	Dormitory	70	69	No	68	No
TNIA 6F 05	819010.2	834419.0	36.6	6/F	Dormitory	70	72	Yes	71	Yes
TNIA 6F 06	819007.1	834414.4	36.6	6/F	Dormitory	70	69	No	68	No
TNIA 6F 07	819007.1	834414.1	36.6	6/F	Dormitory	70	69	No	68	No
TNIA 6F 08	819010.2	834409.5	36.6	6/F	Dormitory	70	71	Yes	71	Yes
TNIA 6F 09	819016.0	834398.0	36.6	6/F	Dining / Multi-purpose Area	70	69	No	68	No
TNIA 6F 10	819010.8	834396.2	36.6	6/F	Dining / Multi-purpose Area	70	68	No	67	No
TNIA 6F 11	819005.7	834394.3	36.6	6/F	Dining / Multi-purpose Area	70	68	No	67	No
TNIA 6F 12	819001.6	834392.8	36.6	6/F	Sick Room / Isolation Room	70	67	No	66	No
TNIA 6F 13	818999.6	834392.1	36.6	6/F	Dormitory	70	67	No	66	No
TNIA 6F 14	818994.3	834393.4	36.6	6/F	Dormitory	70	50	No	49	No
TNIA 6F 15	818994.0	834393.3	36.6	6/F	Dormitory	70	51	No	49	No
TNIA 6F 16	818990.7	834388.8	36.6	6/F	Dormitory	70	67	No	66	No
TNIA 6F 17	818985.3	834390.1	36.6	6/F	Dormitory	70	51	No	49	No
TNIA 6F 18	818985.1	834390.0	36.6	6/F	Dormitory	70	51	No	49	No
TNIA 6F 19	818981.8	834385.6	36.6	6/F	Dormitory	70	66	No	65	No
TNIA 6F 20	818976.3	834386.9	36.6	6/F	Dormitory	70	53	No	51	No
TNIA 6F 21	818974.9	834390.6	36.6	6/F	Dormitory	70	60	No	59	No
TNIA 6F 22	818980.5	834403.4	36.6	6/F	Dormitory	70	60	No	60	No
TNIA 6F 23	818983.8	834407.9	36.6	6/F	Dormitory	70	63	No	63	No
TNIA 6F 24	818989.9	834419.0	36.6	6/F	Dormitory	70	62	No	62	No
TNIA 6F 25	818992.9	834423.6	36.6	6/F	Dormitory	70	56	No	54	No
TNIA 6F 26	818992.9	834423.9	36.6	6/F	Dormitory	70	56	No	54	No
TNIA 6F 27	818989.9	834428.5	36.6	6/F	Dormitory	70	65	No	64	No
TNIA 6F 28	818992.9	834433.1	36.6	6/F	Dormitory	70	66	No	65	No
TNIA 7F 1	819010.2	834421.1	40.2	7/F	Conference Room (1)	70	72	Yes	72	Yes
TNIA 7F 2	819010.2	834416.9	40.2	7/F	Conference Room (2)	70	72	Yes	71	Yes
TNIA 7F 3	819010.2	834411.6	40.2	7/F	Superintendent's Office	70	72	Yes	71	Yes
TNIA 7F 4	819010.2	834407.4	40.2	7/F	Assistant Superintendent's Office	70	71	Yes	70	No
TNIA 7F 5	819010.2	834398.0	40.2	7/F	General Office	70	70	No	69	No
TNIA 7F 6	819010.8	834396.2	40.2	7/F	General Office	70	69	No	68	No
TNIA 7F 7	819005.7	834394.3	40.2	7/F	General Office	70	68	No	67	No
TNIA 7F 8	818983.7	834386.3	40.2	7/F	Sleep-in Room	70	67	No	66	No
TNIA 7F 9	818979.8	834384.9	40.2	7/F	Sleep-in Room	70	66	No	65	No

Summary of Overall Results	Un-mitigated Scenario	
	AM Period	PM Period
Total Number of NSRs	185	185
Number of NSRs exceed Limit Level	15	11
Compliance Rate	92%	94%

**APPENDIX 3.3**  
**DETAIL OF PROPOSED ACOUSTIC WINDOW**  
**(BAFFLE TYPE)**

Appendix 3.3 - Detail of Proposed Acoustic Window (Baffle Type)



Proposed Noise Mitigation Measures <sup>(a), (b), (c)</sup>	Reference Case Room Size <sup>(c)</sup>	Outer Opening	Gap Width	Overlapping Length	With SAM Lining	Reference Case Noise Reduction <sup>3</sup>	NSR ID	Room Size	Relative Noise Reduction	Proposed Noise Reduction <sup>(d)</sup>
	m <sup>2</sup>					dB(A)		m <sup>2</sup>		
Type 1 Acoustic Windows (Baffle Type)	60.1 to 68.2	5.3	100	250	Yes	4.0	TNIA_4F_01	57.7	3.3	3.3
Type 1 Acoustic Windows (Baffle Type)	60.1 to 68.2	5.3	100	250	Yes	4.0	TNIA_4F_02	57.7	3.3	3.3
Type 1 Acoustic Windows (Baffle Type)	60.1 to 68.2	5.3	100	250	Yes	4.0	TNIA_4F_05	57.7	3.3	3.3
Type 1 Acoustic Windows (Baffle Type)	60.1 to 68.2	5.3	100	250	Yes	4.0	TNIA_5F_01	57.7	3.3	3.3
Type 1 Acoustic Windows (Baffle Type)	60.1 to 68.2	5.3	100	250	Yes	4.0	TNIA_5F_02	57.7	3.3	3.3
Type 1 Acoustic Windows (Baffle Type)	60.1 to 68.2	5.3	100	250	Yes	4.0	TNIA_5F_05	57.7	3.3	3.3
Type 1 Acoustic Windows (Baffle Type)	60.1 to 68.2	5.3	100	250	Yes	4.0	TNIA_5F_08	57.7	3.3	3.3
Type 1 Acoustic Windows (Baffle Type)	60.1 to 68.2	5.3	100	250	Yes	4.0	TNIA_6F_01	57.7	3.3	3.3
Type 1 Acoustic Windows (Baffle Type)	60.1 to 68.2	5.3	100	250	Yes	4.0	TNIA_6F_02	57.7	3.3	3.3
Type 1 Acoustic Windows (Baffle Type)	60.1 to 68.2	5.3	100	250	Yes	4.0	TNIA_6F_05	57.7	3.3	3.3
Type 1 Acoustic Windows (Baffle Type)	60.1 to 68.2	5.3	100	250	Yes	4.0	TNIA_6F_08	57.7	3.3	3.3
Type 2 Acoustic Windows (Baffle Type)	23.3	1.4	175	340	Yes	8.1	TNIA_7F_1	29.3	8.1	3.3
Type 2 Acoustic Windows (Baffle Type)	23.3	1.4	175	340	Yes	8.1	TNIA_7F_2	29.3	8.1	3.3
Type 3 Acoustic Windows (Baffle Type)	9.8	1.2	175	340	Yes	7.1	TNIA_7F_3	9.5	7.0	3.3
Type 3 Acoustic Windows (Baffle Type)	9.8	1.2	175	340	Yes	7.1	TNIA_7F_4	9.5	7.0	3.3

Note:

- (a) Type 1 Acoustic Window (Baffle Type) refers to precedent case of residential development at Lung Kui Road, Beacon Hill.
- (b) Type 2 and 3 Acoustic Window (Baffle Type) refers to precedent case of San Po Kong Public Housing.
- (c) For conservative approach, Maximum Room Size in Reference Case will be adopted to calculate the Relative Noise Reduction.
- (d) For conservative approach, the proposed noise reduction for all acoustic window (baffle type) will be 3.3dB(A) only.

**APPENDIX 3.4**  
**DETAIL OF TRAFFIC NOISE IMPACT**  
**ASSESSMENT RESULTS (MITIGATED**  
**SCENARIO)**



Appendix 3.4 - Detail of Traffic Noise Impact Assessment Results (Mitigated Scenario)

NSR ID	Coordinates		Assessment Level	Assessment Floor	Description	Limit Level	Mitigated Scenario					
	X	Y					mPD	L10, 1hr dB(A)	Acoustic Windows (Baffle Type)	AM Period		
			L10, 1hr dB(A)	Exceedance of Limit Level	Acoustic Windows (Baffle Type)	L10, 1hr dB(A)				Exceedance of Limit Level		
TNIA_GF_01	819016.4	834398.2	13.8	G/F	Senior Housing Flat 1	70	-	62	No	-	61	No
TNIA_GF_02	819010.2	834395.9	13.8	G/F	Senior Housing Flat 2	70	-	62	No	-	61	No
TNIA_GF_03	819007.0	834394.7	13.8	G/F	Senior Housing Flat 3	70	-	62	No	-	61	No
TNIA_GF_04	819001.3	834392.7	13.8	G/F	Senior Housing Flat 4	70	-	62	No	-	61	No
TNIA_GF_05	818998.0	834391.5	13.8	G/F	Senior Housing Flat 5	70	-	62	No	-	61	No
TNIA_GF_06	818992.3	834389.4	13.8	G/F	Senior Housing Flat 6	70	-	61	No	-	60	No
TNIA_GF_07	818989.1	834388.2	13.8	G/F	Senior Housing Flat 7	70	-	61	No	-	60	No
TNIA_GF_08	818983.4	834386.2	13.8	G/F	Senior Housing Flat 8	70	-	61	No	-	60	No
TNIA_GF_09	818980.1	834385.0	13.8	G/F	Senior Housing Flat 9	70	-	61	No	-	60	No
TNIA_1F_01	819007.1	834433.1	18.6	1/F	Dormitory	70	-	66	No	-	65	No
TNIA_1F_02	819010.1	834428.5	18.6	1/F	Dormitory	70	-	67	No	-	66	No
TNIA_1F_03	819007.1	834423.9	18.6	1/F	Dormitory	70	-	63	No	-	62	No
TNIA_1F_04	819007.1	834423.6	18.6	1/F	Dormitory	70	-	63	No	-	62	No
TNIA_1F_05	819010.2	834419.0	18.6	1/F	Dormitory	70	-	66	No	-	65	No
TNIA_1F_06	819007.1	834414.4	18.6	1/F	Dormitory	70	-	62	No	-	61	No
TNIA_1F_07	819007.1	834414.1	18.6	1/F	Dormitory	70	-	63	No	-	61	No
TNIA_1F_08	819010.2	834409.5	18.6	1/F	Dormitory	70	-	66	No	-	65	No
TNIA_1F_09	819016.0	834398.0	18.6	1/F	Dining / Multi-purpose Area	70	-	65	No	-	64	No
TNIA_1F_10	819010.8	834396.2	18.6	1/F	Dining / Multi-purpose Area	70	-	64	No	-	63	No
TNIA_1F_11	819005.7	834394.3	18.6	1/F	Dining / Multi-purpose Area	70	-	64	No	-	63	No
TNIA_1F_12	819001.6	834392.8	18.6	1/F	Dormitory	70	-	63	No	-	63	No
TNIA_1F_13	818999.6	834392.1	18.6	1/F	Dormitory	70	-	63	No	-	62	No
TNIA_1F_14	818994.3	834393.4	18.6	1/F	Dormitory	70	-	44	No	-	43	No
TNIA_1F_15	818994.0	834393.3	18.6	1/F	Dormitory	70	-	44	No	-	43	No
TNIA_1F_16	818990.7	834388.8	18.6	1/F	Dormitory	70	-	63	No	-	62	No
TNIA_1F_17	818985.3	834390.1	18.6	1/F	Dormitory	70	-	44	No	-	43	No
TNIA_1F_18	818985.1	834390.0	18.6	1/F	Dormitory	70	-	44	No	-	43	No
TNIA_1F_19	818981.8	834385.6	18.6	1/F	Dormitory	70	-	62	No	-	61	No
TNIA_1F_20	818976.3	834386.9	18.6	1/F	Dormitory	70	-	48	No	-	48	No
TNIA_1F_21	818974.9	834390.6	18.6	1/F	Dormitory	70	-	55	No	-	55	No
TNIA_1F_22	818985.0	834408.3	18.6	1/F	End of Life Care Room	70	-	58	No	-	57	No
TNIA_1F_23	818989.9	834419.0	18.6	1/F	Dormitory	70	-	58	No	-	57	No
TNIA_1F_24	818992.9	834423.6	18.6	1/F	Dormitory	70	-	49	No	-	48	No
TNIA_1F_25	818992.9	834423.9	18.6	1/F	Dormitory	70	-	48	No	-	47	No
TNIA_1F_26	818989.9	834428.5	18.6	1/F	Dormitory	70	-	60	No	-	59	No
TNIA_1F_27	818992.9	834433.1	18.6	1/F	Dormitory	70	-	61	No	-	60	No
TNIA_2F_01	819007.1	834433.1	22.2	2/F	Dormitory	70	-	68	No	-	67	No
TNIA_2F_02	819010.2	834428.5	22.2	2/F	Dormitory	70	-	69	No	-	68	No
TNIA_2F_03	819007.1	834423.9	22.2	2/F	Dormitory	70	-	66	No	-	65	No
TNIA_2F_04	819007.1	834423.6	22.2	2/F	Dormitory	70	-	66	No	-	65	No
TNIA_2F_05	819010.2	834419.0	22.2	2/F	Dormitory	70	-	69	No	-	68	No
TNIA_2F_06	819007.1	834414.4	22.2	2/F	Dormitory	70	-	66	No	-	65	No
TNIA_2F_07	819007.1	834414.1	22.2	2/F	Dormitory	70	-	66	No	-	65	No
TNIA_2F_08	819010.2	834409.5	22.2	2/F	Dormitory	70	-	68	No	-	67	No
TNIA_2F_09	819016.0	834398.0	22.2	2/F	Dining / Multi-purpose Area	70	-	67	No	-	66	No
TNIA_2F_10	819010.8	834396.2	22.2	2/F	Dining / Multi-purpose Area	70	-	66	No	-	65	No
TNIA_2F_11	819005.7	834394.3	22.2	2/F	Dining / Multi-purpose Area	70	-	65	No	-	64	No
TNIA_2F_12	819001.6	834392.8	22.2	2/F	Sick Room / Isolation Room	70	-	65	No	-	64	No
TNIA_2F_13	818999.6	834392.1	22.2	2/F	Dormitory	70	-	65	No	-	64	No
TNIA_2F_14	818994.3	834393.4	22.2	2/F	Dormitory	70	-	45	No	-	44	No
TNIA_2F_15	818994.0	834393.3	22.2	2/F	Dormitory	70	-	45	No	-	44	No
TNIA_2F_16	818990.7	834388.8	22.2	2/F	Dormitory	70	-	64	No	-	63	No
TNIA_2F_17	818985.3	834390.1	22.2	2/F	Dormitory	70	-	45	No	-	44	No
TNIA_2F_18	818985.1	834390.0	22.2	2/F	Dormitory	70	-	45	No	-	44	No
TNIA_2F_19	818981.8	834385.6	22.2	2/F	Dormitory	70	-	63	No	-	62	No
TNIA_2F_20	818976.3	834386.9	22.2	2/F	Dormitory	70	-	49	No	-	48	No
TNIA_2F_21	818974.9	834390.6	22.2	2/F	Dormitory	70	-	56	No	-	56	No
TNIA_2F_22	818980.5	834403.4	22.2	2/F	Dormitory	70	-	56	No	-	56	No
TNIA_2F_23	818983.8	834407.9	22.2	2/F	Dormitory	70	-	60	No	-	59	No
TNIA_2F_24	818989.9	834419.0	22.2	2/F	Dormitory	70	-	60	No	-	59	No
TNIA_2F_25	818992.9	834423.6	22.2	2/F	Dormitory	70	-	51	No	-	49	No
TNIA_2F_26	818992.9	834423.9	22.2	2/F	Dormitory	70	-	51	No	-	49	No
TNIA_2F_27	818989.9	834428.5	22.2	2/F	Dormitory	70	-	62	No	-	61	No
TNIA_2F_28	818992.9	834433.1	22.2	2/F	Dormitory	70	-	63	No	-	62	No
TNIA_3F_01	819007.1	834433.1	25.8	3/F	Dormitory	70	-	70	No	-	69	No
TNIA_3F_02	819010.2	834428.5	25.8	3/F	Dormitory	70	-	70	No	-	70	No
TNIA_3F_03	819007.1	834423.9	25.8	3/F	Dormitory	70	-	68	No	-	67	No
TNIA_3F_04	819007.1	834423.6	25.8	3/F	Dormitory	70	-	68	No	-	67	No
TNIA_3F_05	819010.2	834419.0	25.8	3/F	Dormitory	70	-	70	No	-	69	No
TNIA_3F_06	819007.1	834414.4	25.8	3/F	Dormitory	70	-	67	No	-	66	No

Appendix 3.4 - Detail of Traffic Noise Impact Assessment Results (Mitigated Scenario)

NSR ID	Coordinates		Assessment Level	Assessment Floor	Description	Limit Level	Mitigated Scenario						
	X	Y					mPD	L10, 1hr dB(A)	Acoustic Windows (Baffle Type)	AM Period			PM Period
			L10, 1hr dB(A)	Exceedance of Limit Level	Acoustic Windows (Baffle Type)	L10, 1hr dB(A)				Exceedance of Limit Level			
TNIA 3F 07	819007.1	834414.1	25.8	3/F	Dormitory	70	-	-	67	No	-	66	No
TNIA 3F 08	819010.2	834409.5	25.8	3/F	Dormitory	70	-	-	69	No	-	69	No
TNIA 3F 09	819016.0	834398.0	25.8	3/F	Dining / Multi-purpose Area	70	-	-	68	No	-	67	No
TNIA 3F 10	819010.8	834396.2	25.8	3/F	Dining / Multi-purpose Area	70	-	-	67	No	-	66	No
TNIA 3F 11	819005.7	834394.3	25.8	3/F	Dining / Multi-purpose Area	70	-	-	66	No	-	65	No
TNIA 3F 12	819001.6	834392.8	25.8	3/F	Sick Room / Isolation Room	70	-	-	66	No	-	65	No
TNIA 3F 13	818999.6	834392.1	25.8	3/F	Dormitory	70	-	-	66	No	-	65	No
TNIA 3F 14	818994.3	834393.4	25.8	3/F	Dormitory	70	-	-	47	No	-	45	No
TNIA 3F 15	818994.0	834393.3	25.8	3/F	Dormitory	70	-	-	47	No	-	46	No
TNIA 3F 16	818990.7	834388.8	25.8	3/F	Dormitory	70	-	-	65	No	-	64	No
TNIA 3F 17	818985.3	834390.1	25.8	3/F	Dormitory	70	-	-	47	No	-	46	No
TNIA 3F 18	818985.1	834390.0	25.8	3/F	Dormitory	70	-	-	48	No	-	46	No
TNIA 3F 19	818981.8	834385.6	25.8	3/F	Dormitory	70	-	-	64	No	-	63	No
TNIA 3F 20	818976.3	834386.9	25.8	3/F	Dormitory	70	-	-	50	No	-	49	No
TNIA 3F 21	818974.9	834390.6	25.8	3/F	Dormitory	70	-	-	58	No	-	57	No
TNIA 3F 22	818980.5	834403.4	25.8	3/F	Dormitory	70	-	-	58	No	-	57	No
TNIA 3F 23	818983.8	834407.9	25.8	3/F	Dormitory	70	-	-	61	No	-	61	No
TNIA 3F 24	818989.9	834419.0	25.8	3/F	Dormitory	70	-	-	61	No	-	60	No
TNIA 3F 25	818992.9	834423.6	25.8	3/F	Dormitory	70	-	-	53	No	-	52	No
TNIA 3F 26	818992.9	834423.9	25.8	3/F	Dormitory	70	-	-	53	No	-	52	No
TNIA 3F 27	818989.9	834428.5	25.8	3/F	Dormitory	70	-	-	63	No	-	62	No
TNIA 3F 28	818992.9	834433.1	25.8	3/F	Dormitory	70	-	-	64	No	-	63	No
TNIA 4F 01	819007.1	834433.1	29.4	4/F	Dormitory	70	Type 1	-	68	No	Type 1	67	No
TNIA 4F 02	819010.2	834428.5	29.4	4/F	Dormitory	70	Type 1	-	68	No	Type 1	67	No
TNIA 4F 03	819007.1	834423.9	29.4	4/F	Dormitory	70	-	-	68	No	-	68	No
TNIA 4F 04	819007.1	834423.6	29.4	4/F	Dormitory	70	-	-	68	No	-	67	No
TNIA 4F 05	819010.2	834419.0	29.4	4/F	Dormitory	70	Type 1	-	67	No	Type 1	67	No
TNIA 4F 06	819007.1	834414.4	29.4	4/F	Dormitory	70	-	-	68	No	-	67	No
TNIA 4F 07	819007.1	834414.1	29.4	4/F	Dormitory	70	-	-	68	No	-	67	No
TNIA 4F 08	819010.2	834409.5	29.4	4/F	Dormitory	70	-	-	70	No	-	69	No
TNIA 4F 09	819016.0	834398.0	29.4	4/F	Dining / Multi-purpose Area	70	-	-	69	No	-	68	No
TNIA 4F 10	819010.8	834396.2	29.4	4/F	Dining / Multi-purpose Area	70	-	-	68	No	-	67	No
TNIA 4F 11	819005.7	834394.3	29.4	4/F	Dining / Multi-purpose Area	70	-	-	67	No	-	66	No
TNIA 4F 12	819001.6	834392.8	29.4	4/F	Sick Room / Isolation Room	70	-	-	67	No	-	66	No
TNIA 4F 13	818999.6	834392.1	29.4	4/F	Dormitory	70	-	-	67	No	-	66	No
TNIA 4F 14	818994.3	834393.4	29.4	4/F	Dormitory	70	-	-	48	No	-	46	No
TNIA 4F 15	818994.0	834393.3	29.4	4/F	Dormitory	70	-	-	48	No	-	47	No
TNIA 4F 16	818990.7	834388.8	29.4	4/F	Dormitory	70	-	-	66	No	-	65	No
TNIA 4F 17	818985.3	834390.1	29.4	4/F	Dormitory	70	-	-	49	No	-	47	No
TNIA 4F 18	818985.1	834390.0	29.4	4/F	Dormitory	70	-	-	49	No	-	47	No
TNIA 4F 19	818981.8	834385.6	29.4	4/F	Dormitory	70	-	-	65	No	-	64	No
TNIA 4F 20	818976.3	834386.9	29.4	4/F	Dormitory	70	-	-	51	No	-	50	No
TNIA 4F 21	818974.9	834390.6	29.4	4/F	Dormitory	70	-	-	59	No	-	58	No
TNIA 4F 22	818980.5	834403.4	29.4	4/F	Dormitory	70	-	-	59	No	-	58	No
TNIA 4F 23	818983.8	834407.9	29.4	4/F	Dormitory	70	-	-	62	No	-	62	No
TNIA 4F 24	818989.9	834419.0	29.4	4/F	Dormitory	70	-	-	61	No	-	61	No
TNIA 4F 25	818992.9	834423.6	29.4	4/F	Dormitory	70	-	-	54	No	-	53	No
TNIA 4F 26	818992.9	834423.9	29.4	4/F	Dormitory	70	-	-	54	No	-	53	No
TNIA 4F 27	818989.9	834428.5	29.4	4/F	Dormitory	70	-	-	64	No	-	63	No
TNIA 4F 28	818992.9	834433.1	29.4	4/F	Dormitory	70	-	-	65	No	-	64	No
TNIA 5F 01	819007.1	834433.1	33.0	5/F	Dormitory	70	Type 1	-	68	No	Type 1	68	No
TNIA 5F 02	819010.2	834428.5	33.0	5/F	Dormitory	70	Type 1	-	69	No	Type 1	68	No
TNIA 5F 03	819007.1	834423.9	33.0	5/F	Dormitory	70	-	-	69	No	-	68	No
TNIA 5F 04	819007.1	834423.6	33.0	5/F	Dormitory	70	-	-	69	No	-	68	No
TNIA 5F 05	819010.2	834419.0	33.0	5/F	Dormitory	70	Type 1	-	68	No	Type 1	67	No
TNIA 5F 06	819007.1	834414.4	33.0	5/F	Dormitory	70	-	-	68	No	-	68	No
TNIA 5F 07	819007.1	834414.1	33.0	5/F	Dormitory	70	-	-	69	No	-	68	No
TNIA 5F 08	819010.2	834409.5	33.0	5/F	Dormitory	70	Type 1	-	68	No	Type 1	67	No
TNIA 5F 09	819016.0	834398.0	33.0	5/F	Dining / Multi-purpose Area	70	-	-	69	No	-	68	No
TNIA 5F 10	819010.8	834396.2	33.0	5/F	Dining / Multi-purpose Area	70	-	-	68	No	-	67	No
TNIA 5F 11	819005.7	834394.3	33.0	5/F	Dining / Multi-purpose Area	70	-	-	67	No	-	67	No
TNIA 5F 12	819001.6	834392.8	33.0	5/F	Sick Room / Isolation Room	70	-	-	67	No	-	66	No
TNIA 5F 13	818999.6	834392.1	33.0	5/F	Dormitory	70	-	-	67	No	-	66	No
TNIA 5F 14	818994.3	834393.4	33.0	5/F	Dormitory	70	-	-	49	No	-	47	No
TNIA 5F 15	818994.0	834393.3	33.0	5/F	Dormitory	70	-	-	49	No	-	48	No
TNIA 5F 16	818990.7	834388.8	33.0	5/F	Dormitory	70	-	-	66	No	-	65	No
TNIA 5F 17	818985.3	834390.1	33.0	5/F	Dormitory	70	-	-	50	No	-	48	No
TNIA 5F 18	818985.1	834390.0	33.0	5/F	Dormitory	70	-	-	50	No	-	48	No
TNIA 5F 19	818981.8	834385.6	33.0	5/F	Dormitory	70	-	-	66	No	-	65	No
TNIA 5F 20	818976.3	834386.9	33.0	5/F	Dormitory	70	-	-	51	No	-	50	No

Appendix 3.4 - Detail of Traffic Noise Impact Assessment Results (Mitigated Scenario)

NSR ID	Coordinates		Assessment Level	Assessment Floor	Description	Limit Level	Mitigated Scenario					
	X	Y					mPD	L10, 1hr dB(A)	Acoustic Windows (Baffle Type)	AM Period		Acoustic Windows (Baffle Type)
			Exceedance of Limit Level	L10, 1hr dB(A)	Exceedance of Limit Level	L10, 1hr dB(A)				Exceedance of Limit Level		
TNIA 5F 21	818974.9	834390.6	33.0	5/F	Dormitory	70	-	59	No	-	59	No
TNIA 5F 22	818980.5	834403.4	33.0	5/F	Dormitory	70	-	59	No	-	59	No
TNIA 5F 23	818983.8	834407.9	33.0	5/F	Dormitory	70	-	63	No	-	62	No
TNIA 5F 24	818989.9	834419.0	33.0	5/F	Dormitory	70	-	62	No	-	61	No
TNIA 5F 25	818992.9	834423.6	33.0	5/F	Dormitory	70	-	55	No	-	53	No
TNIA 5F 26	818992.9	834423.9	33.0	5/F	Dormitory	70	-	55	No	-	53	No
TNIA 5F 27	818989.9	834428.5	33.0	5/F	Dormitory	70	-	64	No	-	64	No
TNIA 5F 28	818992.9	834433.1	33.0	5/F	Dormitory	70	-	65	No	-	65	No
TNIA 6F 01	819007.1	834433.1	36.6	6/F	Dormitory	70	Type 1	69	No	Type 1	68	No
TNIA 6F 02	819010.2	834428.5	36.6	6/F	Dormitory	70	Type 1	69	No	Type 1	68	No
TNIA 6F 03	819007.1	834423.9	36.6	6/F	Dormitory	70	-	69	No	-	68	No
TNIA 6F 04	819007.1	834423.6	36.6	6/F	Dormitory	70	-	69	No	-	68	No
TNIA 6F 05	819010.2	834419.0	36.6	6/F	Dormitory	70	Type 1	69	No	Type 1	68	No
TNIA 6F 06	819007.1	834414.4	36.6	6/F	Dormitory	70	-	69	No	-	68	No
TNIA 6F 07	819007.1	834414.1	36.6	6/F	Dormitory	70	-	69	No	-	68	No
TNIA 6F 08	819010.2	834409.5	36.6	6/F	Dormitory	70	Type 1	68	No	Type 1	67	No
TNIA 6F 09	819016.0	834398.0	36.6	6/F	Dining / Multi-purpose Area	70	-	69	No	-	68	No
TNIA 6F 10	819010.8	834396.2	36.6	6/F	Dining / Multi-purpose Area	70	-	68	No	-	67	No
TNIA 6F 11	819005.7	834394.3	36.6	6/F	Dining / Multi-purpose Area	70	-	68	No	-	67	No
TNIA 6F 12	819001.6	834392.8	36.6	6/F	Sick Room / Isolation Room	70	-	67	No	-	66	No
TNIA 6F 13	818999.6	834392.1	36.6	6/F	Dormitory	70	-	67	No	-	66	No
TNIA 6F 14	818994.3	834393.4	36.6	6/F	Dormitory	70	-	50	No	-	49	No
TNIA 6F 15	818994.0	834393.3	36.6	6/F	Dormitory	70	-	51	No	-	49	No
TNIA 6F 16	818990.7	834388.8	36.6	6/F	Dormitory	70	-	67	No	-	66	No
TNIA 6F 17	818985.3	834390.1	36.6	6/F	Dormitory	70	-	51	No	-	49	No
TNIA 6F 18	818985.1	834390.0	36.6	6/F	Dormitory	70	-	51	No	-	49	No
TNIA 6F 19	818981.8	834385.6	36.6	6/F	Dormitory	70	-	66	No	-	65	No
TNIA 6F 20	818976.3	834386.9	36.6	6/F	Dormitory	70	-	53	No	-	51	No
TNIA 6F 21	818974.9	834390.6	36.6	6/F	Dormitory	70	-	60	No	-	59	No
TNIA 6F 22	818980.5	834403.4	36.6	6/F	Dormitory	70	-	60	No	-	60	No
TNIA 6F 23	818983.8	834407.9	36.6	6/F	Dormitory	70	-	63	No	-	63	No
TNIA 6F 24	818989.9	834419.0	36.6	6/F	Dormitory	70	-	62	No	-	62	No
TNIA 6F 25	818992.9	834423.6	36.6	6/F	Dormitory	70	-	56	No	-	54	No
TNIA 6F 26	818992.9	834423.9	36.6	6/F	Dormitory	70	-	56	No	-	54	No
TNIA 6F 27	818989.9	834428.5	36.6	6/F	Dormitory	70	-	65	No	-	64	No
TNIA 6F 28	818992.9	834433.1	36.6	6/F	Dormitory	70	-	66	No	-	65	No
TNIA 7F 1	819010.2	834421.1	40.2	7/F	Conference Room (1)	70	Type 2	69	No	Type 2	68	No
TNIA 7F 2	819010.2	834416.9	40.2	7/F	Conference Room (2)	70	Type 2	69	No	Type 2	68	No
TNIA 7F 3	819010.2	834411.6	40.2	7/F	Superintendent's Office	70	Type 3	68	No	Type 3	68	No
TNIA 7F 4	819010.2	834407.4	40.2	7/F	Assistant Superintendent's Office	70	Type 3	67	No	Type 3	66	No
TNIA 7F 5	819010.2	834398.0	40.2	7/F	General Office	70	-	70	No	-	69	No
TNIA 7F 6	819010.8	834396.2	40.2	7/F	General Office	70	-	69	No	-	68	No
TNIA 7F 7	819005.7	834394.3	40.2	7/F	General Office	70	-	68	No	-	67	No
TNIA 7F 8	818983.7	834386.3	40.2	7/F	Sleep-in Room	70	-	67	No	-	66	No
TNIA 7F 9	818979.8	834384.9	40.2	7/F	Sleep-in Room	70	-	66	No	-	65	No

Summary of Overall Results	Un-mitigated Scenario	
	AM Period	PM Period
Total Number of NSRs	185	185
Number of NSRs exceed Limit Level	0	0
Compliance Rate	100%	100%

**APPENDIX 4.1**  
**EXTRACTED PAGES OF FEP-24/004/1998/K**

**ENVIRONMENTAL IMPACT ASSESSMENT ORDINANCE**  
**(CHAPTER 499)**  
**SECTIONS 10 AND 13**  
 環境影響評估條例  
 (第499章)  
 第10條及13條

**FURTHER ENVIRONMENTAL PERMIT TO CONSTRUCT AND OPERATE**  
**A DESIGNATED PROJECT**  
 建造及營辦指定工程項目的新的環境許可證

**PART A (MAIN PERMIT)****A部 (許可證主要部分)**

Pursuant to Sections 10 and 12 of the Environmental Impact Assessment Ordinance (EIAO), the Director of Environmental Protection (the Director) granted the Further Environmental Permit (No. FEP-24/004/1998/J) to the MTR Corporation Limited (hereinafter referred to as the “Permit Holder”) on 21 October 2013. Pursuant to Section 13 of the EIAO, the Director amends the Further Environmental Permit (No. FEP-24/004/1998/J) based on the Application No. VEP-622/2022. The amendments, described below, are incorporated into this Further Environmental Permit (No. FEP-24/004/1998/K). This Further Environmental Permit as amended is for the construction and operation of the designated project described in [Part B](#) subject to the conditions specified in [Part C](#). The issue of this Further Environmental Permit is based on the documents, approvals or permissions described below:

根據《環境影響評估條例》(環評條例) 第10條及12條的規定，環境保護署署長(署長)於2013年10月21日將新的環境許可證(編號：FEP-24/004/1998/J)批予香港鐵路有限公司(下稱“許可證持有人”)。根據環評條例第13條的規定，署長因應更改環境許可證的申請編號：VEP-622/2022修訂環境許可證(編號：FEP-24/004/1998/J)。以下修訂已包含在本新的環境許可證內(編號：FEP-24/004/1998/K)。本經修訂的新的環境許可證作為建造及營辦[B部](#)所說明的指定工程項目，但須遵守[C部](#)所列明的條件。本新的環境許可證的發出，乃以下表所列的文件、批准或許可作為根據：

<b>Application No.</b> 申請書編號：	VEP-622/2022
<b>Documents in the Register :</b> 登記冊上的文件：	<p>(a) West Rail - Final Assessment Report West Kowloon to Tuen Mun Centre - Environmental Impact Assessment, its Technical Annexes, and Final Landscape Design Strategy, Report Vol.1 (Register No. EIA-149/1998) [Hereafter referred to as the EIA report]</p> <p>(b) Application documents submitted by Permit Holder including all attachments on 19 August 1998 (Application No. AEP-004/1998)</p> <p>(c) Environmental Permit issued on 16 September 1998 (Permit No. EP- 004/1998)</p> <p>(d) Application documents for Variation of an Environmental Permit including all attachments by Permit Holder submitted on 21 July 2000. (Application No. VEP-020/2000)</p> <p>(e) Environmental Permit issued on 18 August 2000 (Permit No. VEP- 020/2000/A/EP-004)</p>

(II) The Application for Variation No. VEP-078/2002 with respect to  
更改環境許可證申請書編號 VEP-078/2002就

- (b) revision of location of noise barriers at West Rail Depot;  
更改位於西鐵車廠的隔音屏障的位置；

(III) The Application for Variation No. VEP-067/2002 with respect to  
更改環境許可證申請書編號 VEP-067/2002就

- (c) revision of the 86m long full noise enclosure at Tuen Mun Station to semi-noise enclosure; and provide additional enclosure on the north of this enclosure;  
位於屯門站86米長全密封的隔音罩修改至半密封的隔音罩；及在隔音罩北面提供額外的隔音罩；

(IV) The Application for Variation No. VEP-062/2002 with respect to  
更改環境許可證申請書編號 VEP-062/2002就

- (d) increase in the elevation of viaduct by approximately 8m at Yick Yuen;  
增加位於亦園的高架鐵路的高度約8米；

(V) The Application for Variation No. VEP-045/2001 with respect to  
更改環境許可證申請書編號 VEP-045/2001就

- (e) reduction of train length from 12 cars to 9 cars with increase in train frequency from 30 to 40 trains per hour during 0600 to 0700;

時期間增加列車班次，由每小時 30 班增至每小時 40 班；

- (f) reduction of train speed between Tin Shui Wai and Siu Hong from 130km/h to 100km/h;

減低天水圍至兆康一段的車速，由每小時 130公里減至每小時100 公里；

- (g) revised locations of noise enclosure and additional height noise barriers at the north of Kam Sheung Road Station, near Pok Oi Hospital, the west of Long Ping Station, the west of Tin Shui Wai Station, Tin Sam Tsuen to Lam Tei and Tuen Mun;

在錦上路站北面近博愛醫院、朗屏站西面、天水圍站西面、田心村至藍地和屯門更改隔音罩的位置，並加高隔音屏障；

(VI) The Application for Variation No. VEP-020/2000  
更改環境許可證申請書編號 VEP-020/2000就

- (h) the construction method for the Tsing Tsuen Tunnel;

青荃隧道的建造方法；

- (i) the revised alignment in Tsuen Wan;

(II) The Application for Variation No. VEP-078/2002 with respect to

更改環境許可證申請書編號 VEP-078/2002就

(b) revision of location of noise barriers at West Rail Depot;

更改位於西鐵車廠的隔音屏障的位置；

(III) The Application for Variation No. VEP-067/2002 with respect to

更改環境許可證申請書編號 VEP-067/2002就

(c) revision of the 86m long full noise enclosure at Tuen Mun Station to semi-noise enclosure; and provide additional enclosure on the north of this enclosure;

位於屯門站86米長全密封的 隔音罩修改至半 密封的 隔音罩；及 在 隔音罩北面提供額外的 隔音罩；

(IV) The Application for Variation No. VEP-062/2002 with respect to

更改環境許可證申請書編號VEP-062/2002就

(d) increase in the elevation of viaduct by approximately 8m at Yick Yuen;

增加位於亦園的高架鐵路的高度約8米；

(V) The Application for Variation No. VEP-045/2001 with respect to

更改環境許可證申請書編號 VEP-045/2001就

(e) reduction of train length from 12 cars to 9 cars with increase in train frequency from 30 to 40 trains per hour during 0600 to 0700;

縮減火車的長度，由12節車廂減至9節車廂，並在上午6時至7時期間增加列車班次，由每小時30班增至每小時40班；

(f) reduction of train speed between Tin Shui Wai and Siu Hong from 130km/h to 100km/h;

減低天水圍至兆康一段的車速，由每小時130公里減至每小時100公里；

(g) revised locations of noise enclosure and additional height noise barriers at the north of Kam Sheung Road Station, near Pok Oi Hospital, the west of Long Ping Station, the west of Tin Shui Wai Station, Tin Sam Tsuen to Lam Tei and Tuen Mun;

在錦上路站北面近博愛醫院、朗屏站西面、天水圍站西面、田心村至藍地和屯門更改隔音罩的位置，並加高隔音屏障；

(VI) The Application for Variation No. VEP-020/2000

更改環境許可證申請書編號 VEP-020/2000就

(h) the construction method for the Tsing Tsuen Tunnel;

青荃隧道的建造方法；

按照上述第 2 及第 3 條，經批准的提交文件或存放的提交文件內說明的各項設計或營運措施，必須完全執行。

- 5.2 In accordance with the information and recommendations contained in the EIA Report [ref: register no EIA 149/1998], the information contained in the Application for Variation No. VEP-020/2000, Environmental Permit No. VEP-020/2000/A/EP-004, Application for Variation No. VEP-045/2001, Environmental Permit No. EP-004/1998/B, Application for Variation No. VEP-062/2002, Environmental Permit No. EP-004/1998/C, Application for Variation No. VEP-067/2002, Environmental Permit No. EP-004/1998/D, Application for Variation No. VEP-078/2002, Environmental Permit No. EP-004/1998/E, Application for Variation No. VEP-084/2003, Environmental Permit No. EP-004/1998/F, Application for Variation No. VEP-122/2003 and any approved supplementary information arising therefrom, the Permit Holder shall submit an Operational Environmental Monitoring and Audit (EM&A) Manual for the approval by the Director prior to the commissioning of the project. The Operational EM&A Manual shall satisfy the requirements as prescribed in section 10, SCHEDULE 4 of the Environmental Impact Assessment Ordinance and Annex 21 of the Technical Memorandum on Environmental Impact Assessment Process. The Operational EM&A Manual shall be certified by the Environmental Manager and verified by the Independent Environmental Checker before submission to the Director. In particular, the requirements on landfill gas hazard monitoring, maintenance, precautionary and emergency measures, with reference to [Annex E](#), shall be included. (See Note 6).

依據環評報告 [登記冊檔案 :EIA 149/1998] 所載的資料及建議，編號 VEP-020/2000 之更改環境許可證申請書，環境許可證編號 VEP-020/2000/A/EP-004，編號 VEP-045/2001 之更改環境許可證申請書，環境許可證編號 EP-004/1998/B，編號 VEP-062/2002 之更改環境許可證申請書，環境許可證編號 EP-004/1998/C，編號 VEP-067/2002 之更改環境許可證申請書，環境許可證編號 EP-004/1998/D，編號 VEP-078/2002 之更改環境許可證申請書，環境許可證編號 EP-004/1998/E，編號 VEP-084/2003 之更改環境許可證申請書，環境許可證編號 EP-004/1998/F，編號 VEP-0122/2003 之更改環境許可證申請書的資料和任何已批核的附加資料所載資料及建議，許可證持有人須在工程項目投入運作前，向署長提交營運的環境監察及審核手冊，以待批准。該手冊須符合環境評估條例附表 4 第 10 條載列的規定，以及環境影響評估程序的技術備忘錄附件 21 的規定。該手冊在提交署長前，須由環境經理證明，並由獨立環境查核人核證。該手冊尤須包括參照 [附件 E](#) 而就堆填區沼氣危險監測、保養、預防及緊急應變措施所訂定的規定。(見註 6)

- 5.3 Prior to the operation of the Project, the Permit Holder shall submit to the satisfaction of the Director a proposal for performance test(s) to illustrate that the 9-car disc braked Electric Multiple Unit train would meet the specification of maximum level (Lmax) not exceeding 82.5dB(A) at 130kph measured at 25m from the at-grade ballasted tracks. The performance test proposal shall be certified by the Environmental Manager and verified by the Independent Environmental Checker.

許可證持有人在營辦工程項目前，須向署長提交令其滿意的效能測試建議，以說明當 9 卡碟形制動電氣化列車在地面上的鋪道碴路軌上以時速 130 公里行駛時，在 25 米距離，測量所得的噪音量會符合不超過 82.5 分貝 (A) 的最高聲級規格。該效能測試建議須由環境經理證明，並由獨立環境查核人核證。

- 5.4 Prior to the operation of the Project, the Permit Holder shall submit to the satisfaction of the Director a report on performance test of the disc braked Electric Multiple Unit train on the basis of condition 5.3. The performance test report shall be certified by the Environmental Manager and verified by the Independent Environmental Checker.

許可證持有人在營辦工程項目前，須向署長提交以第 5.3 項條件為基礎關於碟形制動電氣化列車效能測試的報告，並令署長滿意。效能測試報告須由環境經理證明，並由獨立環境查核人核證。

- 5.5 For the Southern Section, the railway shall be fully contained in a box structure and covered by a landscaped earth mound in accordance with the information and recommendations contained in the EIA Report [ref: register no EIA 149/1998].

南段的鐵路須依據環評報告 [登記冊檔案 :EIA 149/1998] 所載的資料及建議，完全藏於箱形構築物內，再以景觀美化的土墩覆蓋。



- 5.10 Ventilation intakes for Kam Tin Station and the shops and offices there should be located at as high a level as reasonably practicable and should be substantially enclosed.

錦田站及該處店舖和寫字樓的通風入口，應在合理可行的情況下盡量設於較高位置，並應盡量圍封。

- 5.11 Before operation of the Project, the Permit Holder shall carry out an audit to confirm that all the agreed environmental measures for the Project's operation have been fully implemented. The audit shall cover all measures recommended in the EIA Report [ref: register no EIA 149/1998], described in submissions approved, or deposited with the Director under section 2, section 3, and section 5 of this Permit. The result of the audit shall be documented in an Audit Report and submitted to the Director prior to operation of the Project. The audit Report shall be certified by the Environmental Manager and verified by the Independent Environmental Checker as conforming to the findings and recommendations of the EIA Report [ref: register no EIA 149/1998], the information contained in the Application for Variation No. VEP-020/2000, Environmental Permit No. VEP-020/2000/A/EP-004, Application for Variation No. VEP-045/2001, Environmental Permit No. EP-004/1998/B, Application for Variation No. VEP-062/2002, Environmental Permit No. EP-004/1998/C, Application for Variation No. VEP-067/2002, Environmental Permit No. EP-004/1998/D, Application for Variation No. VEP-078/2002, Environmental Permit No. EP-004/1998/E, Application for Variation No. VEP-084/2003 and any submissions approved or deposited with the Director. (See Note 6).

許可證持有人須在營辦工程項目前進行審核，以確定已完全執行各項為營辦工程項目而同意的環境措施。審核須包括環評報告 [登記冊檔案 :EIA 149/1998]建議的各項措施，以及按照本許可證第 2、3 及 5 條經批准提交的文件或向署長存放的文件所載明的各項措施。審核結果須記錄於審核報告內，並在營辦工程項目前提交給署長。審核報告須由環境經理證明，並由獨立環境查核人核證，以確定符合環評報告 [登記冊檔案 :EIA 149/1998]，編號 VEP-020/2000 之更改環境許可證申請書的資料，環境許可證編號 VEP-020/2000/A/EP-004，編號 VEP-045/2001 之更改環境許可證申請書，環境許可證編號 EP-004/1998/B，編號 VEP-062/2002 之更改環境許可證申請書，環境許可證編號 EP-004/1998/C，編號 VEP-067/2002 之更改環境許可證申請書，環境許可證編號 EP-004/1998/D，編號 VEP-078/2002 之更改環境許可證申請書，環境許可證編號 EP-004/1998/E，編號 VEP-084/2003 之更改環境許可證申請書的資料和任何已批核的附加資料的結果及建議。

- 5.12 All finalised submissions, as required under this part of the Permit, shall be released to the public by depositing copies in the Environmental Impact Assessment Ordinance Register Office or any other places or by any other means as specified by the Director for public inspection. For this purpose, the Permit Holder shall provide sufficient copies of submissions.

所有按本許可證本部規定提交的文件定稿，須公開給公眾人士知道，方法是將有關文件副本存放於環境影響評估條例登記冊辦事處或署長所指定的任何地方或任何方法，以供公眾查閱。因此，許可證持有人須提交足夠數量的文件副本。

- 5.13 Five sets of as-built drawings of scale 1 to 1000 with an explanatory statement showing the alignment and mitigation measures covered by this Permit, shall be deposited to the Director within three months after the completion of construction of each of the Southern, Central, Northern and Western sections.

須於南段、中段、北段及西段每項建造工程竣工 3 個月內，向署長存放 5 套 1:1000 比例的竣工圖連同解釋說明，示明本許可證涵蓋的路線及緩解措施。

- 5.14 All measures specified in [Table A of Schedule 1](#) shall be implemented in accordance with the information contained in the Application for Variation No. VEP-122/2003, and the details and the time frame specified in the [Schedule 1](#) of this Permit.

[附表1表A](#)列明的各項措施，須按照更改環境許可證申請書編號 VEP-122/2003 內載的資料及本許可證 [附表1](#) 列明的詳情及時間表執行。

- 5.15 All measures specified in [Schedule 2](#) shall be implemented in accordance with the information contained in the Application for Variation No. VEP-622/2022, and the details and the time frame specified in the [Schedule 2](#) of this Permit.

[附表2](#)列明的各項措施，須按照更改環境許可證申請書編號VEP-622/2022內載的資料及本許可證  
[附表2](#)列明的詳情及時間表執行。

## 6. **Environmental Mitigation Measures during Operation Period**

### 營辦期間的環境緩解措施

- 6.1 **The maximum train speed shall be 130km/hr except for train speed between Tin Shui Wai and Siu Hong which is reduced to 100km/hr.** Prior to any increase in train frequency, train length and speed with respect to the initial start-up, a noise assessment report shall be submitted and obtain approval from the Director. The noise assessment is to evaluate the adequacy of noise mitigation measures and develop enhancement programmes. Before its submission to the Director, the noise assessment report shall be certified by the Environmental Manager and verified by the Independent Environmental Checker. All measures recommended in the approved noise assessment report Plan shall be fully implemented in accordance with the requirements and time schedules set out in the report.

**列車的最高時速為130公里。如以最初通車的情況作基準擬增加列車班次、列車長度或速度，之前須向署長提交噪音評估報告，以待批准。噪音評估作用是評估噪音緩解措施是否足夠，並制訂改善計劃。噪音評估報告提交予署長前，須由環境經理證明，並由獨立環境查核人核證。經批准的噪音評估報告計劃所列舉的各項建議措施，須完全按報告載列的規定及時間表執行。**

- 6.2 In line with the commitment made by the Permit Holder, the multi-plenum system should be designed to provide the flexibility for future enhancement so that edge wall barrier heights can be incrementally extended for increased noise attenuation from 1.2 m upto full enclosure. This is to provide greater flexibility in the long term land use planning of areas through which the Project passes and will facilitate, as yet uncommitted, developments, to be considered in much closer proximity to the railway than would otherwise be the case.

為符合許可證持有人作出的承諾，多重充氣空間系統的設計應該具備彈性，可供將來增大，使圍牆屏障的高度可以由1.2米逐步提高，以至全面圍封，從而提高消減噪音的效能。這樣可為工程項目所經過的地區的長遠土地用途規劃，提供較大的彈性，並使未承諾的發展項目有較大可能獲考慮在較貼近鐵路的地方興建。

- 6.3 In accordance with the information and recommendations contained in the EIA Report [ref: register no EIA 149/1998] and [Annex F](#), measures to mitigate the water quality impact during operation shall be implemented.

營辦期間水質影響的緩解措施，須按照環評報告 [登記冊檔案 :EIA 149/1998]及[附件F](#)的資料及建議執行。

- 6.4 Before public sewerage becomes available in Hung Shui Kiu and Kam Tin, waste water and sewage arising from the proposed HSK Station, Kam Tin Station, KCRC Head Quarter and West Rail Depot (WRD) shall be collected at holding tanks and transported to Yuen Long Sewage Treatment Works or any sewage treatment facilities as agreed with Drainage Services Department by road tanker for off-site treatment. Once public sewerage is available in Hung Shui Kiu and Kam Tin, waste water and sewage arising from the proposed HSK Station, Kam Tin Station, KCRC Head Quarter Building and WRD shall be redirected to discharge directly to the public sewer. Waste water and sewage arising from uses other than the four above, including stations, railway premises, depots and ancillary uses, shall be conveyed to public sewer after any pre-treatment.

在洪水橋及錦田提供公共排污設備前，建議中的洪水橋站、錦田站、九廣鐵路總部及西鐵車廠所排出的廢水及污水，須收集在貯存池，再以車輛運往元朗污水處理廠或其他渠務署同意的污水處理設施作場外處理。洪水橋及錦田設有公共排污設備後，建議中的洪水橋站、錦田站、九廣鐵路總部大樓及西鐵車廠所排出的廢水及污水，須改道直接排入公共污水渠。除上述4處以外，其他用地 (包括車站、鐵路範圍、車廠及輔助用途)所排出的廢水及污水，須經預處理後引入公共污水渠。

- 6.5 The Permit Holder shall fully implement the EM&A requirements as set out in the Operational Manual approved under condition 5.2. Any changes to the EM&A arrangement shall be justified by the

設置衛生設備及排水系統時，須參考有關須經由環境保護署評論的排水渠圖則事宜的《專業人士環保事務諮詢委員會專業守則 5/93》。

### Schedule 1. Alternative Noise Mitigation Measures at Different Locations of the Project

附表1. 工程項目各處地點的替代消減噪音措施

Table A

The Permit Holder shall complete the measures specified in the following table to a large extent before the operation of the Project. Any outstanding details shall be completed no later than 2 weeks after the operation of the Project.

Locations	Alternatives
Kam Sheung Road Station	(a) Windshields shall be extended above the top of the parapet walls as shown in <a href="#">Figure 7</a> ; and (b) Trackside panels shall be installed above the parapet walls as shown in <a href="#">Figure 7</a>
Yuen Long Station	<u>Down track (track from Tuen Mun to Kowloon)</u> (a) All rail/track sections within the station to be fully enclosed  <u>Up track (track from Kowloon to Tuen Mun)</u> (a) Windshields shall be extended above the top of the parapet walls as shown in <a href="#">Figure 5</a> ; (b) Trackside panels shall be installed with the lower part incorporated with the absorptive lining as shown in <a href="#">Figure 5</a> ; and (c) Acoustic louvers to be implemented for all openings on the outboard side at the location as shown in <a href="#">Figure 6</a>
Long Ping Station	(a) Windshields shall be extended above the top of the parapet walls as shown in <a href="#">Figure 7</a> ; (b) Trackside panels shall be installed above the parapet walls as shown in <a href="#">Figure 7</a> ; (c) Uptrack section to be fully enclosed at the location as shown in <a href="#">Figure 8</a> , except the vertical gap between the enclosure and the plant room at the back of the station; (d) 2m high barrier above the top of the parapet walls extending from the noise enclosure to be implemented at the location as shown in <a href="#">Figure 8</a> ; and (e) Plenum enhancement along the up and down tracks to be implemented as shown in <a href="#">Figure 9</a> and at the location as shown in <a href="#">Figure 8</a>
Tin Shui Wai Station	(a) Windshields shall be extended above the top of the parapet walls as shown in <a href="#">Figure 7</a> ; (b) Trackside panels shall be installed above the parapet walls as shown in <a href="#">Figure 7</a> ; and (c) Plenum enhancement along the down track to be implemented as shown in <a href="#">Figure 9</a> and at the location as shown in <a href="#">Figure 10</a>
Siu Hong Station	(a) All rail/track sections within the station to be fully enclosed
Tuen Mun Station	(a) All rail/track sections within the station to be fully enclosed

Viaduct Section	(a) Plenum enhancement along the up and down tracks at the locations as shown in <a href="#">Figure 11</a> and <a href="#">Figure 12</a>
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## 表A

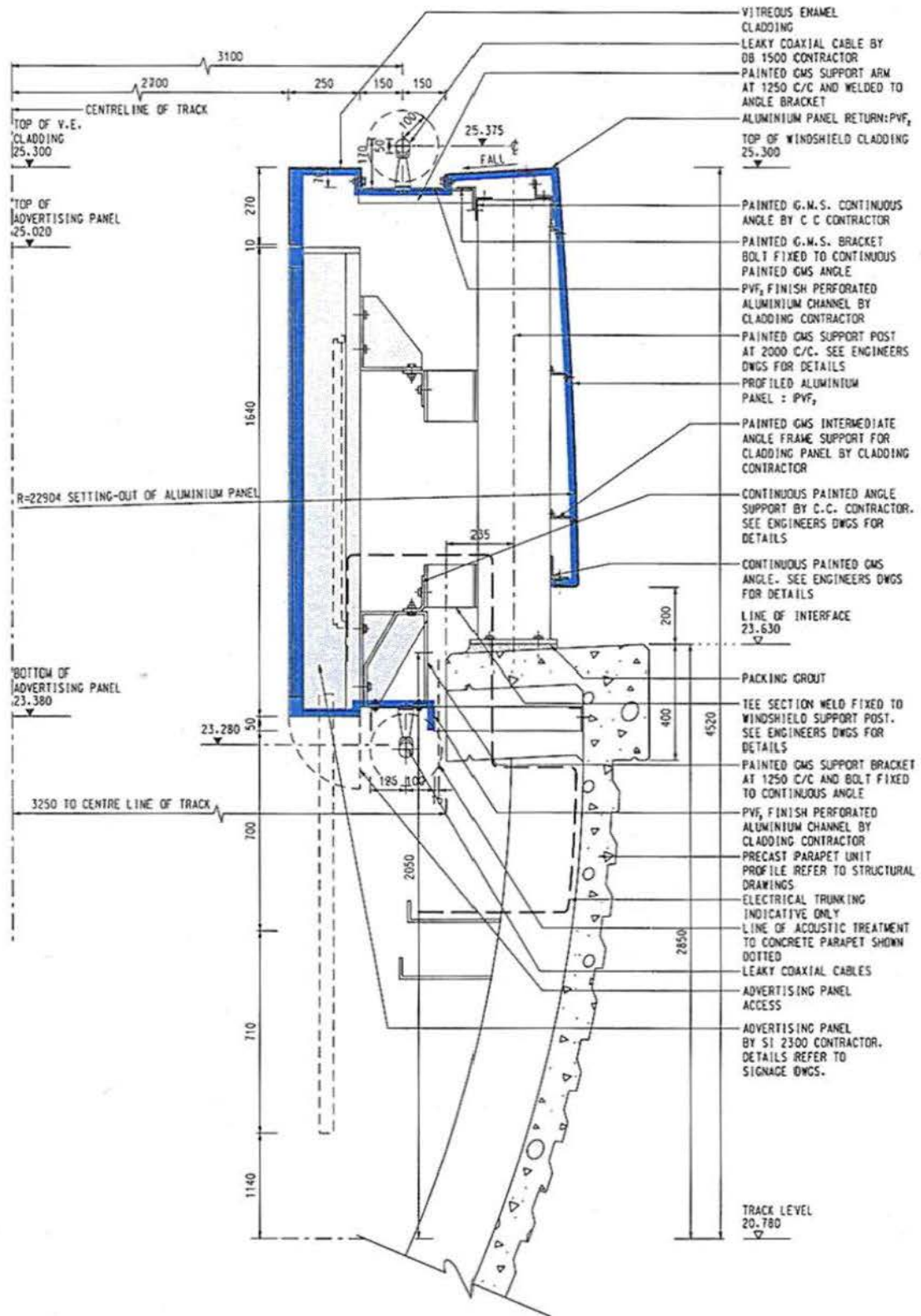
許可證持有人須在營辦工程項目前，在很大程度上完成下表訂明的措施，並須在營辦工程項目後2個星期內完成餘下部分。

地點	替代措施
錦上路站	(a) 風擋須延伸至圖7所示的護牆頂上；以及 (b) 須在圖7所示的護牆上安裝路軌旁板
元朗站	下行路軌(屯門至九龍) (a) 車站內的全部鐵路 / 路軌均須完全密封  上行路軌(九龍至屯門) (a) 風擋須延伸至圖5所示的護牆頂上； (b) 須按圖5所示安裝路軌旁板，而旁板的下部分須設有吸音墊；以及 (c) 須在圖6所示位置外側的所有孔口安裝隔音百葉板窗
朗屏站	(a) 風擋須延伸至圖7所示的護牆頂上； (b) 須在圖7所示的護牆上安裝路軌旁板； (c) 圖8所示位置的上行路段須完全密封，車站後面隔音罩與機房之間的垂直縫隙則除外； (d) 按圖8所示位置，由隔音罩開始在護牆頂上設置2米高的隔音屏障；以及 (e) 按圖9所示及在圖8所示位置，沿上下行路軌進行隔音氣室改善工程
天水圍站	(a) 風擋須延伸至圖7所示的護牆頂上； (b) 須在圖7所示的護牆上安裝路軌旁板；以及 (c) 按圖9所示及在圖10所示位置，沿下行路軌進行隔音氣室改善工程
兆康站	(a) 車站內的全部鐵路 / 路軌均須完全密封
屯門站	(a) 車站內的全部鐵路 / 路軌均須完全密封
高架路段	(a) 在圖11及12所示位置，沿上下行路軌進行隔音氣室改善工程

## Table B

The Permit Holder shall fully implement the measure specified in the following table within 6 months after the operation of the Project.

Locations	Alternatives
Tin Shui Wai Station	2m high cranked noise barrier above the top of the parapet walls at the down track section to be implemented at the location as shown in <a href="#">Figure 10</a> and <a href="#">Figure 15</a>

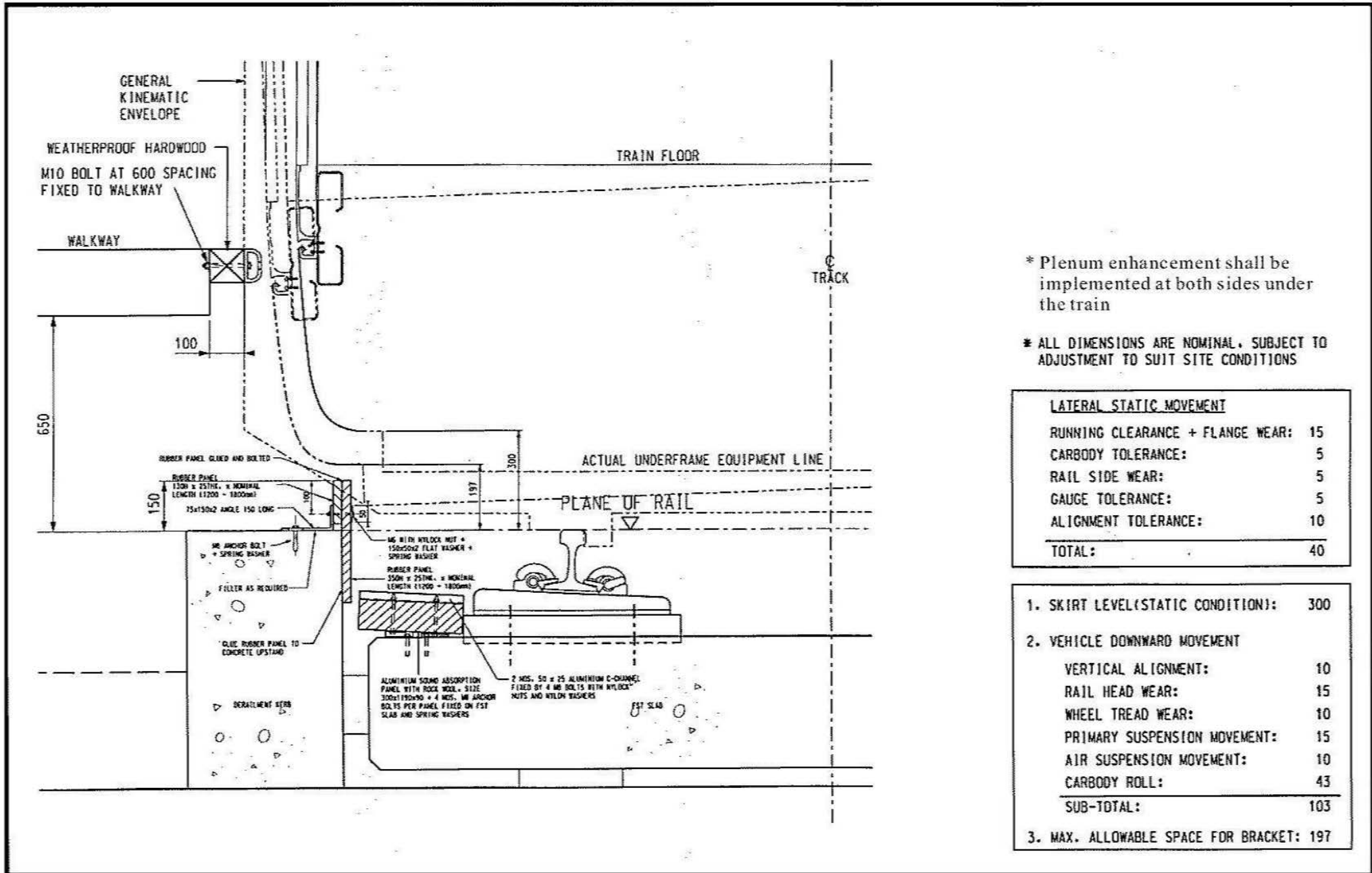


\* All dimensions are nominal, subject to adjustment to suit site condition

TYPICAL SECTION  
 SCALE 1 : 10



**Figure 7 - Trackside Panels and Windshields at the Kam Sheung Road Station, Long Ping Station and Tin Shui Wai Station**  
 圖七—錦上路站，朗屏站及天水圍站的路軌旁板及風擋



\* Plenum enhancement shall be implemented at both sides under the train

\* ALL DIMENSIONS ARE NOMINAL. SUBJECT TO ADJUSTMENT TO SUIT SITE CONDITIONS

LATERAL STATIC MOVEMENT	
RUNNING CLEARANCE + FLANGE WEAR:	15
CARBODY TOLERANCE:	5
RAIL SIDE WEAR:	5
GAUGE TOLERANCE:	5
ALIGNMENT TOLERANCE:	10
<b>TOTAL:</b>	<b>40</b>

1. SKIRT LEVEL (STATIC CONDITION):	300
2. VEHICLE DOWNWARD MOVEMENT	
VERTICAL ALIGNMENT:	10
RAIL HEAD WEAR:	15
WHEEL TREAD WEAR:	10
PRIMARY SUSPENSION MOVEMENT:	15
AIR SUSPENSION MOVEMENT:	10
CARBODY ROLL:	43
<b>SUB-TOTAL:</b>	<b>103</b>
3. MAX. ALLOWABLE SPACE FOR BRACKET:	197

Figure 9 - Additional Noise Mitigation Measure on the Viaducts

圖九—高架橋的附加噪音緩減設施

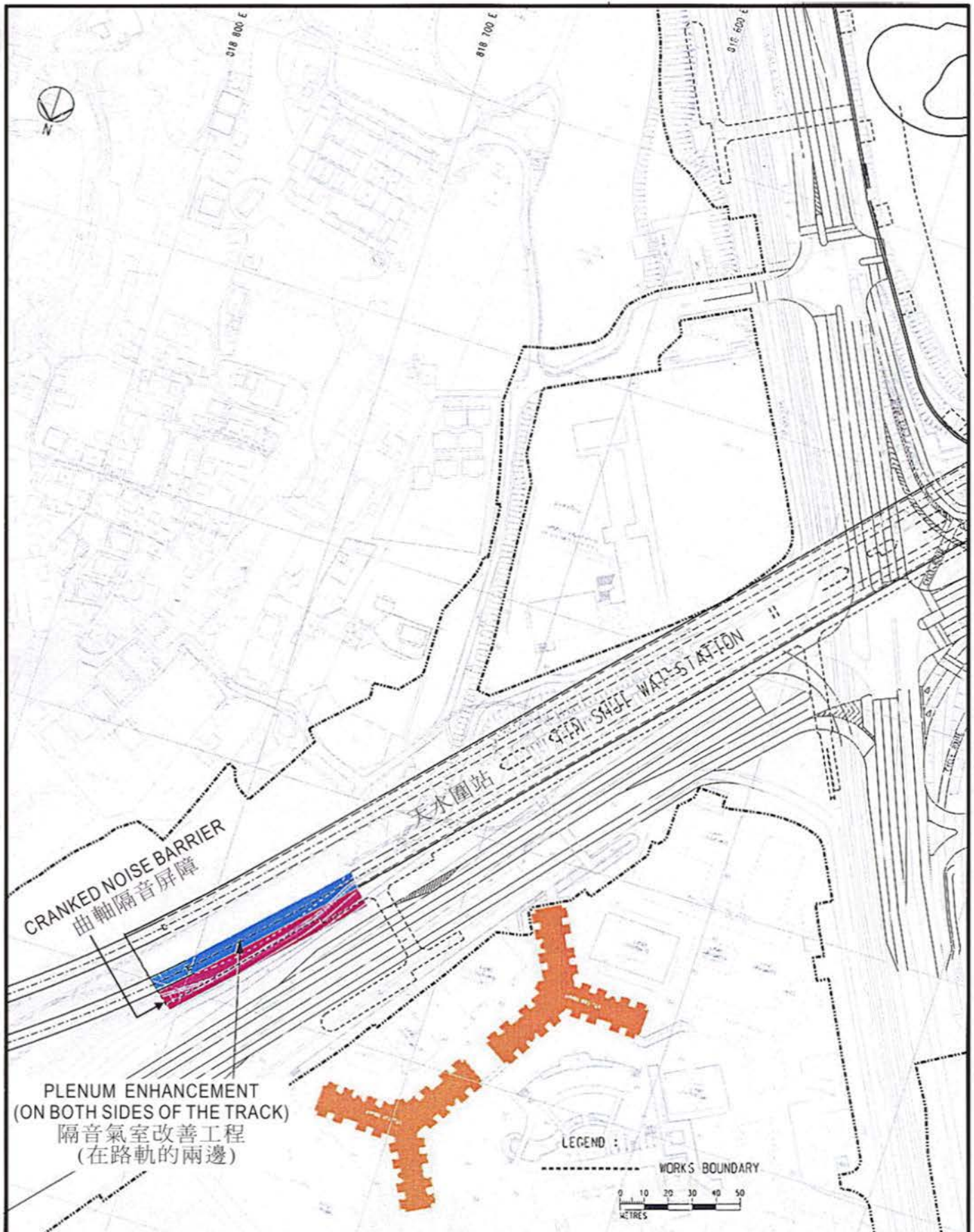


Figure 10 - Cranked Noise Barrier and Plenum Enhancement at the Tin Shui Wai Station

圖十一天水圍站的曲軸隔音屏障及隔音氣室的改善工程

**APPENDIX 4.2**  
**EXTRACTED PAGES OF FEP-02/041/2000/B**



**ENVIRONMENTAL IMPACT ASSESSMENT ORDINANCE**  
**(CHAPTER 499)**  
**SECTION 10 & 12**  
 環境影響評估條例  
 (第499章)  
 第10及12條

**ENVIRONMENTAL PERMIT TO OPERATE A DESIGNATED PROJECT**  
 營辦指定工程項目的環境許可證

**PART A (MAIN PERMIT)**

## A部 (許可證主要部分)

Pursuant to Sections 10 and 12 of the Environmental Impact Assessment Ordinance (EIAO), the Director of Environmental Protection (the Director) grants this environmental permit to the MTR Corporation Limited (hereinafter referred to as the “Permit Holder”) to operate the designated project described in Part B subject to the conditions specified in Part C. The issue of this environmental permit is based on the documents, approvals or permissions described below :

根據《環境影響評估條例》(環評條例)第10及12條的規定，環境保護署署長(署長)將本環境許可證批予香港鐵路有限公司(下稱“許可證持有人”)以營辦B部所說明的指定工程項目，但須遵守C部所列明的條件。本環境許可證是依據下列文件、批准或許可而簽發：

The issue of this Further Environmental Permit is based on the documents, approvals or permissions described below:

本新的環境許可證的發出，乃以下表所列的文件、批准或許可作為根據： -

<b>Application No.</b> 申請書編號	FEP-084/2007
<b>Document in the Register :</b> 登記冊上的文件：	<p>(1) Tin Shui Wai Phase 4 Rail Extension:          Ÿ Final Environmental Impact Assessment Report (November 1999)          Ÿ Final Environmental Impact Assessment Report – Appendices (November 1999)          Ÿ Executive Summary (November 1999)          Ÿ Final Environmental Monitoring and Audit Manual (EM&amp;A Manual) (November 1999)          (Register No. AEIAR-026/1999) [hereinafter referred to as the “EIA Report”]</p> <p>(2) The Director’s letter of approval of the EIA Report dated 6 January 2000 (ref: (13) in Annex (16) to EP2/N6/A/06 Pt.3)</p> <p>(3) Application for Environmental Permit submitted on 23 September 1999 (Application No. AEP-038/1999)</p>

- (4) Environmental Permit No. EP-041/2000 issued on 21 January 2000.
  - (5) Application documents for Variation of Environmental Permit submitted on 9 September 2002 (Application No. VEP-074/2002)
  - (6) Environmental Permit No. EP-041/2000/A issued on 4 October 2002
  - (7) Application document for Variation of Environmental Permit submitted on 23 October 2003 (Application No. VEP-118/2003)
  - (8) Environmental Permit No. EP-041/2000/B issued on 3 November 2003
  - (9) Application document for Further Environmental Permit submitted on 28 November 2007 (Application No. FEP-084/2007)
- (1) 天水圍第四期輕鐵支線:  
 ÿ 最終環境影響評估報告(1999年11月)  
 ÿ 最終環境影響評估報告 - 附錄(1999年11月)  
 ÿ 行政摘要(1999年11月)及  
 ÿ 最終環境監察及審核手冊(1999年11月)  
 (登記冊編號: AEIAR-026/1999) [下稱“環評報告”]
  - (2) 署長於2000年1月6日發出該環評報告的批准信  
 (檔案編號 (13) in Annex (16) to EP2/N6/A/06 Pt.3)
  - (3) 於1999年9月23日提交的环境許可證申請文件(申請書編號 AEP-038/1999)
  - (4) 於2000年1月21日簽發的环境許可證編號 EP-041/2000
  - (5) 於2002年9月9日提交的更改环境許可證申請文件(申請編號VEP-074/2002)
  - (6) 於2002年10月4日簽發的环境許可證編號EP-041/2000/A
  - (7) 於2003年10月23日提交的更改环境許可證申請文件(申請書編號VEP-118/2003)
  - (8) 於2003年11月3日簽發的环境許可證編號EP-041/2000/B
  - (9) 於2007年11月18日提交的新的环境許可證申請文件(申請書編號FEP-084/2007)

21 December 2007

Date  
日期

(WONG Hon-meng)  
Principal Environmental Protection Officer (Strategic  
Assessment)  
for Director of Environmental Protection  
環境保護署署長  
(首席環境保護主任(策略評估) 黃漢明 代行)

## **PART B (DESCRIPTIONS OF DESIGNATED PROJECT)**

### **B部 (指定工程項目的說明)**

Hereunder is the description of the designated project mentioned in [Part A](#) of this environmental permit:

下列為本環境許可證A部所提及的指定工程項目的說明:

<b>Title of Designated Project</b> 指定工程項目的名稱	Tin Shui Wai Phase 4 Rail Extension [This designated project is hereinafter referred to as “the Project”] 天水圍第四期輕鐵支線 [這指定工程項目下稱“工程項目”]
<b>Nature of Designated Project</b> 指定工程項目的性質	Railway and its associated stops 鐵路及其相聯車站
<b>Location of Designated Project</b> 指定工程項目的地點	The location of the Project is in Tin Shui Wai as shown in <a href="#">Figure 1</a> of this Environmental Permit. 工程項目的地點位於天水圍如環境許可證的圖一所示
<b>Scale and Scope of Designated Project(s)</b> 指定工程項目的規模和範圍	Operation of a 1.5km at-grade light rail extension and 5 associated stops 營運1.5公里之地面輕鐵支線及5個相聯車站

## **PART C (PERMIT CONDITIONS)**

### **C部 (許可證條件)**

#### **1. General Conditions**

##### 一般條件

- 1.1 The Permit Holder shall ensure full compliance with all conditions of this environmental permit (the Permit). Any non-compliance may constitute a contravention of the Environmental Impact Assessment Ordinance (Cap.499) and shall be definite ground for enforcement action or permit cancellation where applicable.

許可證持有人必須確保完全符合本環境許可證（下稱許可證）規定的全部條件。如有不符合本許可證的情況，可能構成違反「環境影響評估條例（第499章）」的規定，並可按適用情況作為採取執法行動或取銷其許可證的確切理由。

### 2.3 The operation of the Project shall meet the following specifications

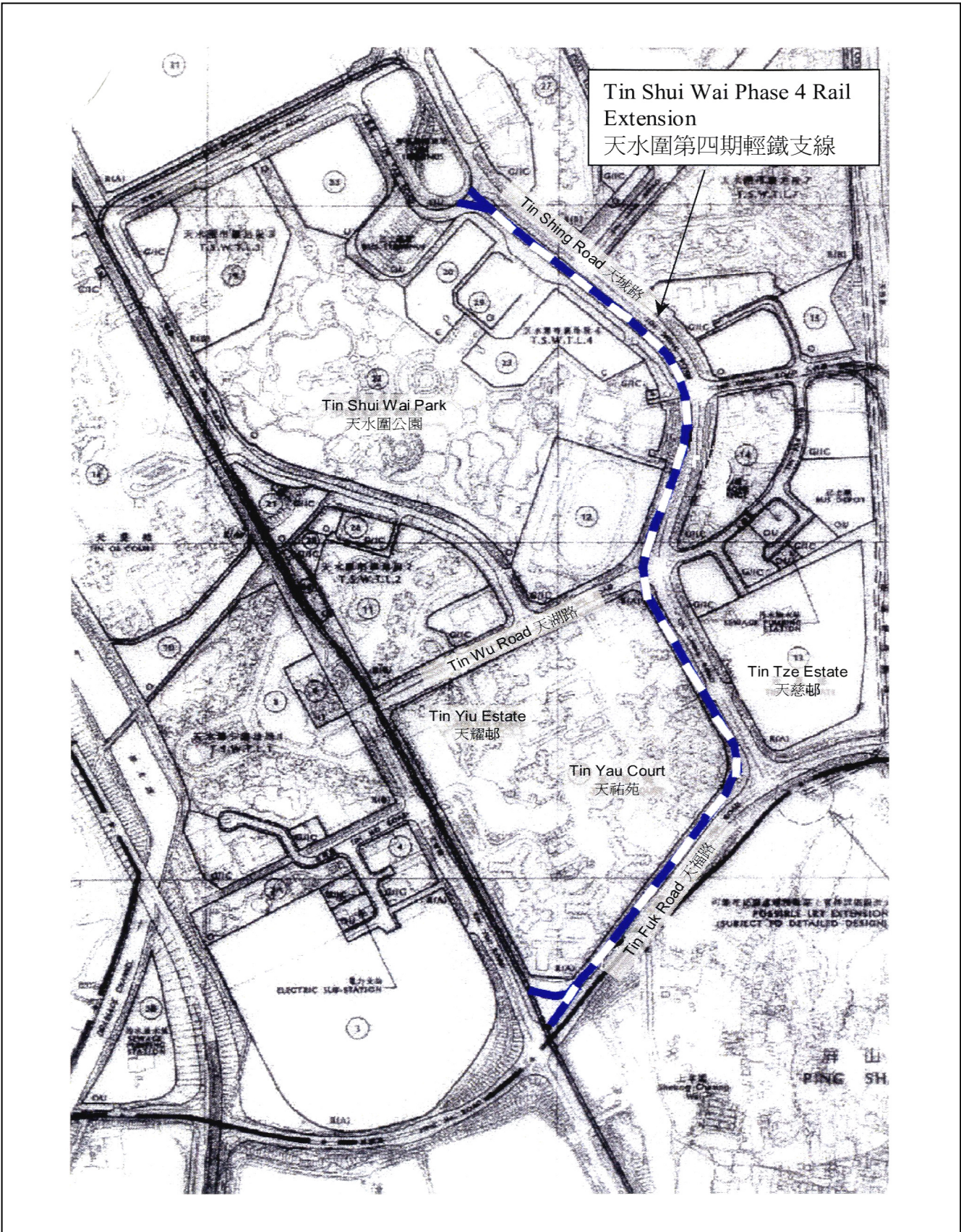
本工程項目的營辦須滿足下列規定：


- (a) re-radiated noise from viaduct structure is at least 10dB(A) below the noise criteria of 65dB(A)  $L_{max}$  at 25m, at 50kph; and  
高架結構的再輻射噪音最少比25m，50kph條件下65dB(A) $L_{max}$ 噪音標準低10dB(A)；以及
  - (b) noise level at 2m from the transformer bays in the rectifier will be less than 66dB(A).  
整流站內距變壓器位2米處的噪音水平少於66dB(A)。
- 2.4 Measures described in [Appendix A](#) to mitigate environmental impacts from run-off and drainage shall be implemented throughout the operation period.  
許可證持有人須實施附錄A規定的措施，以減輕營運期間，徑流及排水的影響。
- 2.5 Any change to the design or measures relevant to the operation of the Project shall be justified and certified by the IEC with at least 7 years experience in environmental monitoring and auditing or environmental management before submission to the Director for approval.  
對於有關工程項目運作期間的設計或措施所作的任何變更應在提交署長申請審批前，須由具有七年環境監察與審核或環境管理經驗的獨立環境查核人提出充分理由，並由獨立環境查核人認證。

#### Notes:

註：

1. This Permit consists of three parts, namely, [Part A](#) (Main Permit), [Part B](#) (Description of Designated Project) and [Part C](#) (Permit Conditions). Any person relying on this permit should obtain independent legal advice on the legal implications under the Ordinance, and the following notes are for general information only.  
本許可證共有3部，即A部(許可證主要部分)；B部(指定工程項目的說明)及C部(許可證條件)。任何援引本許可證的人士須就條例的法律含意徵詢獨立法律意見，下述註解只供一般參考之用。
2. If there is a breach of any conditions of this Permit, the Director or his authorized officer may, with the consent of the Secretary for the Environment, order the cessation of associated work until the remedial action is taken in respect of the resultant environmental damage, and in that case the Permit Holder shall not carry out any associated works without the permission of the Director or his authorized officer.  
如違反本許可證的任何條件，署長或獲授權人員在徵得環境局局長的同意後，可勒令停止相關工程，直至許可證持有人為所造成的環境損害採取補救行動為止。在此情況下，許可證持有人在未經署長或獲其授權人員同意，不得進行任何相關工程。
3. The Permit Holder may apply under Section 13 of the Environmental Impact Assessment Ordinance (the “Ordinance”) to the Director for a variation of the conditions of this Permit. The Permit Holder shall replace the original permit displayed on the Project site by the amended permit.



<p>Project Title - Tin Shui Wai Phase 4 Rail Extension                  工程名稱 - 天水圍第四期輕鐵支線</p>	<p>Environmental Permit No. : FEP-02/041/2000/B                  環境許可證編號 : FEP-02/041/2000/B</p>	
<p>Figure 1 - Location Plan                  圖 1 - 地點圖</p>		

## **APPENDIX 4.3**

# **INFORMATION PROVIDED BY MTR**

BeeXergy Consulting Limited,  
Unit 2001-05, APEC Plaza,  
49 Hoi Yuen Road,  
Kwun Tong, Kowloon, Hong Kong

Our ref: T&ESD/E&IC/ES/EnvE/L1199

Date: 21 AUG 2023

Attention: Ms. Zoe Chan

**By Post and Fax**  
**(Fax no.: 3568 4704)**

Dear Ms. Chan,

**Re: Proposed Composite “Social Welfare Facility (Residential Care Home For The Elderly)” (RCHE) And “Residential Institution” (Senior Hostel) Development On A Site Currently Zoned As “Government, Institutional Or Community” (GIC) In Lot Nos. 257 (Part), 258 RP (Part) And Adjoining Government Land In D.D. 122, Ping Shan, Yuen Long**

We refer to your letter (ref.: W23042\_20230720\_L\_0001a) dated 20 July 2023 requesting operational information regarding Tuen Ma Line (TML) and Light Rail (LRT).

Operating Hours

The daily operating hours for TML and LRT at the concerned section are from approximately 05:30 to 01:15 hours and 05:11 to 01:30 hours respectively.

Number of Car

There are currently 8 cars per train for the operation condition of TML. However, according to the latest Environmental Permit (EP) for West Rail, the ultimate maximum train cars would be 9 cars.

For LRT, the arrangement of single or coupled-set vehicles will vary depending on the traffic needs and is subject to change without prior notification. For environmental assessment purposes, you may wish to work on the assumption that all vehicles are in couple-set where appropriate.

Operational Information for TML (between Tin Shui Wai Station and Long Ping Station)

- The future ultimate daily peak operating train frequency during the period of 07:00-23:00 hours is about 28 trains per hour per direction.
- For the future ultimate daily peak operating train frequency during the period of 23:00-07:00 hours, please refer to the latest EP for West Rail available via EPD website.
- There are currently about 260 train trips per direction in one-day operation for TML, including non-passenger trains.

Our ref: T&ESD/E&IC/ES/EnvE/L1199  
Date : 21 AUG 2023

Operational Information for LRT (between Tin Shui Wai Stop and Tin Tsz Stop - Route 705, 706 and 751)

- The current peak train frequency during the period of 07:00-23:00 and 23:00-07:00 hours is about 19 trains per hour per direction and 16 trains per hour per direction respectively.
- The current train frequency for both directions in one-day operation is about 617 trains, including non-passenger trains.

Please note that the Light Rail service frequencies are subject to change without prior notification due to future patronage growth. As such, please consider allowing a buffer on the assessment assumptions when estimating future possible environmental impacts.

Speed Profile

For track section between Tin Shui Wai Station (TIS) and Long Ping Station (LOP) of TML, the current maximum train speed is about 95 km/h for up track (i.e. from LOP to TIS) and about 100 km/h for down track (i.e. from TIS to LOP). However, please note that the latest EP for West Rail has considered a maximum operating speed of 130 km/hr to cater for potential speed increment in the future.

For LRT, the current maximum train speed for the track section between Tin Shui Wai Stop and Tin Tsz Stop is about 70 km/h.

Please be reminded that any information that may come to your knowledge or come into your possession from MTR Corporation Limited shall only be used solely as reference for this captioned project. Further distribution and/or publication of the above information for purposes not connected with the captioned project are strictly prohibited without the prior consent of MTR Corporation Limited. Please also note that any such information is subject to change without prior notification.

Should you have any additional enquiries, please feel free to contact our Lead Environmental Manager, Ms. Catherine Leung at 2993 4127.

Yours sincerely,



HK Chan  
Chief of Operations Engineering Service & Innovation



## **APPENDIX 4.4**

### **DETAIL OF PREDICT RAILWAY NOISE LEVEL**

**Appendix 4.4 - Detail of Predicted Railway Noise Level (Summary)**

NSR ID	Description	X	Y	Assessment Level		ANL	Limit Level						Adopted Limit Level	Predicted Noise Level		Exceedance of L <sub>Aeq, 30min</sub>
				Floor	mPD		IND-TM			HRPSG				L <sub>Aeq, 30min</sub> Worst Case Scenario	L <sub>Aeq, 30min</sub> Worst Case Scenario	
							L <sub>Aeq, 30min</sub>		L <sub>max</sub>	L <sub>Aeq, 24hr</sub>		L <sub>max</sub>				
							Day & Evening Time	Night Time		Night Time	Whole Day					
RNIA_1F_01	Dormitory	819007.1	834433.1	1/F	+18.65	B	65	55	85	65	85	55	44	No		
RNIA_1F_02	Dormitory	819010.1	834428.5	1/F	+18.65	B	65	55	85	65	85	55	44	No		
RNIA_1F_03	Dormitory	819010.2	834419.0	1/F	+18.65	B	65	55	85	65	85	55	44	No		
RNIA_1F_04	Dormitory	819010.2	834409.5	1/F	+18.65	B	65	55	85	65	85	55	44	No		
RNIA_1F_05	End of Life Care Room	818985.0	834408.3	1/F	+18.65	B	65	55	85	65	85	55	45	No		
RNIA_1F_06	Dormitory	818989.9	834419.0	1/F	+18.65	B	65	55	85	65	85	55	45	No		
RNIA_1F_07	Dormitory	818989.9	834428.5	1/F	+18.65	B	65	55	85	65	85	55	46	No		
RNIA_1F_08	Dormitory	818992.9	834433.1	1/F	+18.65	B	65	55	85	65	85	55	46	No		
RNIA_2F_01	Dormitory	819007.1	834433.1	2/F	+22.25	B	65	55	85	65	85	55	44	No		
RNIA_2F_02	Dormitory	819010.2	834428.5	2/F	+22.25	B	65	55	85	65	85	55	44	No		
RNIA_2F_03	Dormitory	819010.2	834419.0	2/F	+22.25	B	65	55	85	65	85	55	44	No		
RNIA_2F_04	Dormitory	819010.2	834409.5	2/F	+22.25	B	65	55	85	65	85	55	44	No		
RNIA_2F_05	Dormitory	818976.3	834386.9	2/F	+22.25	B	65	55	85	65	85	55	45	No		
RNIA_2F_06	Dormitory	818974.9	834390.6	2/F	+22.25	B	65	55	85	65	85	55	45	No		
RNIA_2F_07	Dormitory	818980.5	834403.4	2/F	+22.25	B	65	55	85	65	85	55	45	No		
RNIA_2F_08	Dormitory	818983.8	834407.9	2/F	+22.25	B	65	55	85	65	85	55	45	No		
RNIA_2F_09	Dormitory	818989.9	834419.0	2/F	+22.25	B	65	55	85	65	85	55	46	No		
RNIA_2F_10	Dormitory	818989.9	834428.5	2/F	+22.25	B	65	55	85	65	85	55	46	No		
RNIA_2F_11	Dormitory	818992.9	834433.1	2/F	+22.25	B	65	55	85	65	85	55	46	No		
RNIA_3F_01	Dormitory	819007.1	834433.1	3/F	+25.85	B	65	55	85	65	85	55	45	No		
RNIA_3F_02	Dormitory	819010.2	834428.5	3/F	+25.85	B	65	55	85	65	85	55	44	No		
RNIA_3F_03	Dormitory	819010.2	834419.0	3/F	+25.85	B	65	55	85	65	85	55	44	No		
RNIA_3F_04	Dormitory	819010.2	834409.5	3/F	+25.85	B	65	55	85	65	85	55	44	No		
RNIA_3F_05	Dormitory	818976.3	834386.9	3/F	+25.85	B	65	55	85	65	85	55	45	No		
RNIA_3F_06	Dormitory	818974.9	834390.6	3/F	+25.85	B	65	55	85	65	85	55	45	No		
RNIA_3F_07	Dormitory	818980.5	834403.4	3/F	+25.85	B	65	55	85	65	85	55	45	No		
RNIA_3F_08	Dormitory	818983.8	834407.9	3/F	+25.85	B	65	55	85	65	85	55	46	No		
RNIA_3F_09	Dormitory	818989.9	834419.0	3/F	+25.85	B	65	55	85	65	85	55	46	No		
RNIA_3F_10	Dormitory	818989.9	834428.5	3/F	+25.85	B	65	55	85	65	85	55	46	No		
RNIA_3F_11	Dormitory	818992.9	834433.1	3/F	+25.85	B	65	55	85	65	85	55	46	No		
RNIA_4F_01	Dormitory	819007.1	834433.1	4/F	+29.45	B	65	55	85	65	85	55	45	No		
RNIA_4F_02	Dormitory	819010.2	834428.5	4/F	+29.45	B	65	55	85	65	85	55	44	No		
RNIA_4F_03	Dormitory	819010.2	834419.0	4/F	+29.45	B	65	55	85	65	85	55	44	No		
RNIA_4F_04	Dormitory	819010.2	834409.5	4/F	+29.45	B	65	55	85	65	85	55	44	No		
RNIA_4F_05	Dormitory	818976.3	834386.9	4/F	+29.45	B	65	55	85	65	85	55	45	No		
RNIA_4F_06	Dormitory	818974.9	834390.6	4/F	+29.45	B	65	55	85	65	85	55	45	No		
RNIA_4F_07	Dormitory	818980.5	834403.4	4/F	+29.45	B	65	55	85	65	85	55	46	No		
RNIA_4F_08	Dormitory	818983.8	834407.9	4/F	+29.45	B	65	55	85	65	85	55	46	No		
RNIA_4F_09	Dormitory	818989.9	834419.0	4/F	+29.45	B	65	55	85	65	85	55	46	No		
RNIA_4F_10	Dormitory	818989.9	834428.5	4/F	+29.45	B	65	55	85	65	85	55	46	No		
RNIA_4F_11	Dormitory	818992.9	834433.1	4/F	+29.45	B	65	55	85	65	85	55	46	No		
RNIA_5F_01	Dormitory	819007.1	834433.1	5/F	+33.05	B	65	55	85	65	85	55	45	No		
RNIA_5F_02	Dormitory	819010.2	834428.5	5/F	+33.05	B	65	55	85	65	85	55	45	No		
RNIA_5F_03	Dormitory	819010.2	834419.0	5/F	+33.05	B	65	55	85	65	85	55	44	No		
RNIA_5F_04	Dormitory	819010.2	834409.5	5/F	+33.05	B	65	55	85	65	85	55	44	No		
RNIA_5F_05	Dormitory	818976.3	834386.9	5/F	+33.05	B	65	55	85	65	85	55	45	No		
RNIA_5F_06	Dormitory	818974.9	834390.6	5/F	+33.05	B	65	55	85	65	85	55	46	No		
RNIA_5F_07	Dormitory	818980.5	834403.4	5/F	+33.05	B	65	55	85	65	85	55	46	No		
RNIA_5F_08	Dormitory	818983.8	834407.9	5/F	+33.05	B	65	55	85	65	85	55	46	No		
RNIA_5F_09	Dormitory	818989.9	834419.0	5/F	+33.05	B	65	55	85	65	85	55	46	No		
RNIA_5F_10	Dormitory	818989.9	834428.5	5/F	+33.05	B	65	55	85	65	85	55	46	No		
RNIA_5F_11	Dormitory	818992.9	834433.1	5/F	+33.05	B	65	55	85	65	85	55	46	No		
RNIA_6F_01	Dormitory	819007.1	834433.1	6/F	+36.65	B	65	55	85	65	85	55	45	No		
RNIA_6F_02	Dormitory	819010.2	834428.5	6/F	+36.65	B	65	55	85	65	85	55	45	No		
RNIA_6F_03	Dormitory	819010.2	834419.0	6/F	+36.65	B	65	55	85	65	85	55	44	No		
RNIA_6F_04	Dormitory	819010.2	834409.5	6/F	+36.65	B	65	55	85	65	85	55	44	No		
RNIA_6F_05	Dormitory	818976.3	834386.9	6/F	+36.65	B	65	55	85	65	85	55	45	No		
RNIA_6F_06	Dormitory	818974.9	834390.6	6/F	+36.65	B	65	55	85	65	85	55	46	No		
RNIA_6F_07	Dormitory	818980.5	834403.4	6/F	+36.65	B	65	55	85	65	85	55	46	No		
RNIA_6F_08	Dormitory	818983.8	834407.9	6/F	+36.65	B	65	55	85	65	85	55	46	No		
RNIA_6F_09	Dormitory	818989.9	834419.0	6/F	+36.65	B	65	55	85	65	85	55	46	No		
RNIA_6F_10	Dormitory	818989.9	834428.5	6/F	+36.65	B	65	55	85	65	85	55	46	No		
RNIA_6F_11	Dormitory	818992.9	834433.1	6/F	+36.65	B	65	55	85	65	85	55	46	No		
RNIA_7F_01	Conference Room (1)	819010.2	834421.1	7/F	+40.25	B	65	55	85	65	85	55	46	No		
RNIA_7F_02	Conference Room (2)	819010.2	834416.9	7/F	+40.25	B	65	55	85	65	85	55	44	No		
RNIA_7F_03	Superintendent's Office	819010.2	834411.6	7/F	+40.25	B	65	55	85	65	85	55	44	No		
RNIA_7F_04	Assistant Superintendent's Office	819010.2	834407.4	7/F	+40.25	B	65	55	85	65	85	55	44	No		

**Remark:**

1. Location of concerned railway refers to Figure 4.1 of Noise Impact Assessment.
2. Scope of assessment for representative NSRs refers to Table 4.3 of Noise Impact Assessment.
3. Assessment methodology, assumptions and approach refers to Section 4.4 of Noise Impact Assessment.

**Result Summary of Railway Noise Impact Assessment Results**

Maximum of Predicted LAeq, 30min	46 dB(A)
Minimum of Predicted LAeq, 30min	44 dB(A)
Total Number of NSRs	67 Number
Number of NSRs exceeded the Adopted LAeq, 30min	0 Number
Compliance Rate	100 %

Appendix 4.4 - Detail of Predicted Railway Noise Level at 1/f

Monitoring Condition	Data	Unit
Train Length	8	Cars
Train Speed	130	km/hr
Monitoring Distance	25	m
SEL (North Bound)	81.4	(dB(A))
SEL (South Bound)	80.7	(dB(A))

Monitoring Condition	Data	Unit
Train Length	2	Cars
Train Speed	70	km/hr
Monitoring Distance	25	m
SEL	70.9	(dB(A))

Operation Detail (Worst Case Scenario)	Data	Unit
Train Length	8	Cars
Train Speed	130	km/hr
Train Frequency	40	Trains/Hour
Train Frequency	20	Trains/30min

Operation Detail (Worst Case Scenario)	Data	Unit
Train Length	2	Cars
Train Speed	70	km/hr
Train Frequency	10	Trains/Hour
Train Frequency	10	Trains/30min

SEL <sub>100</sub> (8 Cars, 130km/hr, measured 25m)	Data	Unit
SEL <sub>100</sub> (North Bound)	81.9	(dB(A))
SEL <sub>100</sub> (South Bound)	81.2	(dB(A))

SEL <sub>100</sub> (2 Cars, 70km/hr, measured 25m)	Data	Unit
SEL <sub>100</sub>	71.0	(dB(A))

NSR ID	RNSA_17_01											
	Description											
Assessment Floor	1/f											
Track	TML											
Track ID	Unit	TML_NB_1	TML_NB_2	TML_NB_3	TML_NB_4	TML_NB_5	TML_SB_1	TML_SB_2	TML_SB_3	TML_SB_4	TML_SB_5	
SEL <sub>100</sub>	(dB(A))	81.9	81.9	81.9	81.9	81.9	81.2	81.2	81.2	81.2	81.2	
Train Frequency Correction	(dB(A))	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	
Time Correction (30min)	(dB(A))	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	
Track Disorientation Correction	(dB(A))	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	
Facade Correction	(dB(A))	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	
Barrier Correction	(dB(A))	-15.9	-15.9	-15.9	-15.9	-15.9	-15.9	-15.9	-15.9	-15.9	-15.9	
Distance Correction	(dB(A))	-10.5	-9.8	-9.4	-9.1	-10.3	-10.4	-9.5	-9.1	-8.9	-10.1	
Air Absorption	(dB(A))	-2.0	-1.7	-1.5	-1.5	-1.5	-2.0	-1.6	-1.4	-1.4	-1.8	
View Angle Correction	(dB(A))	-0.2	-0.8	-0.9	-0.9	-0.4	-0.0	-0.9	-0.8	-0.6	-0.6	
L <sub>100, min</sub>	(dB(A))	30.3	33.8	33.1	37.3	34.3	30.0	33.2	33.0	37.4	33.8	
Noting Noise Overall (L <sub>100, min</sub> )	(dB(A))	44										

NSR ID	RNSA_17_02											
	Description											
Assessment Floor	1/f											
Track	TML											
Track ID	Unit	TML_NB_1	TML_NB_2	TML_NB_3	TML_NB_4	TML_NB_5	TML_SB_1	TML_SB_2	TML_SB_3	TML_SB_4	TML_SB_5	
SEL <sub>100</sub>	(dB(A))	81.9	81.9	81.9	81.9	81.9	81.2	81.2	81.2	81.2	81.2	
Train Frequency Correction	(dB(A))	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	
Time Correction (30min)	(dB(A))	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	
Track Disorientation Correction	(dB(A))	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	
Facade Correction	(dB(A))	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	
Barrier Correction	(dB(A))	-15.9	-15.9	-15.9	-15.9	-15.9	-15.9	-15.9	-15.9	-15.9	-15.9	
Distance Correction	(dB(A))	-10.5	-9.8	-9.4	-9.1	-10.4	-10.4	-9.6	-9.2	-9.0	-10.1	
Air Absorption	(dB(A))	-2.0	-1.7	-1.5	-1.5	-1.5	-2.0	-1.6	-1.4	-1.4	-1.8	
View Angle Correction	(dB(A))	-0.1	-0.7	-0.8	-0.8	-0.4	-0.0	-0.9	-0.8	-0.7	-0.6	
L <sub>100, min</sub>	(dB(A))	30.4	33.7	32.9	37.1	34.2	30.0	33.2	32.8	37.1	33.7	
Noting Noise Overall (L <sub>100, min</sub> )	(dB(A))	44										

NSR ID	RNSA_17_03											
	Description											
Assessment Floor	1/f											
Track	TML											
Track ID	Unit	TML_NB_1	TML_NB_2	TML_NB_3	TML_NB_4	TML_NB_5	TML_SB_1	TML_SB_2	TML_SB_3	TML_SB_4	TML_SB_5	
SEL <sub>100</sub>	(dB(A))	81.9	81.9	81.9	81.9	81.9	81.2	81.2	81.2	81.2	81.2	
Train Frequency Correction	(dB(A))	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	
Time Correction (30min)	(dB(A))	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	
Track Disorientation Correction	(dB(A))	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	
Facade Correction	(dB(A))	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	
Barrier Correction	(dB(A))	-15.9	-15.9	-15.9	-15.9	-15.9	-15.9	-15.9	-15.9	-15.9	-15.9	
Distance Correction	(dB(A))	-10.5	-10.0	-9.6	-9.5	-10.4	-10.5	-9.6	-9.4	-9.2	-10.1	
Air Absorption	(dB(A))	-2.0	-1.8	-1.6	-1.6	-2.0	-1.6	-1.7	-1.5	-1.5	-1.9	
View Angle Correction	(dB(A))	-0.1	-0.8	-0.8	-0.8	-0.3	-0.0	-0.9	-0.8	-0.8	-0.4	
L <sub>100, min</sub>	(dB(A))	30.2	33.4	32.5	36.7	34.3	29.9	32.8	32.3	36.8	33.8	
Noting Noise Overall (L <sub>100, min</sub> )	(dB(A))	44										

NSR ID	RNSA_17_04											
	Description											
Assessment Floor	1/f											
Track	TML											
Track ID	Unit	TML_NB_1	TML_NB_2	TML_NB_3	TML_NB_4	TML_NB_5	TML_SB_1	TML_SB_2	TML_SB_3	TML_SB_4	TML_SB_5	
SEL <sub>100</sub>	(dB(A))	81.9	81.9	81.9	81.9	81.9	81.2	81.2	81.2	81.2	81.2	
Train Frequency Correction	(dB(A))	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	
Time Correction (30min)	(dB(A))	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	
Track Disorientation Correction	(dB(A))	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	
Facade Correction	(dB(A))	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	
Barrier Correction	(dB(A))	-15.9	-15.9	-15.9	-15.9	-15.9	-15.9	-15.9	-15.9	-15.9	-15.9	
Distance Correction	(dB(A))	-10.7	-10.1	-9.8	-9.7	-10.5	-10.6	-9.9	-9.1	-9.4	-10.2	
Air Absorption	(dB(A))	-2.2	-1.9	-1.7	-1.7	-2.0	-1.7	-1.8	-1.6	-1.5	-1.9	
View Angle Correction	(dB(A))	-0.1	-0.7	-0.8	-0.7	-0.2	-0.0	-0.9	-0.8	-0.9	-0.3	
L <sub>100, min</sub>	(dB(A))	30.1	33.0	32.1	36.4	34.3	29.8	32.5	31.9	36.4	33.8	
Noting Noise Overall (L <sub>100, min</sub> )	(dB(A))	44										

NSR ID	RNSA_17_05																	
	Description																	
Assessment Floor	End of Life Care Room																	
Track	1/f																	
Track ID	Unit	TML_NB_1	TML_NB_2	TML_NB_3	TML_NB_4	TML_NB_5	TML_SB_1	TML_SB_2	TML_SB_3	TML_SB_4	TML_SB_5	LRT_NB_1	LRT_NB_2	LRT_NB_3	LRT_SB_1	LRT_SB_2	LRT_SB_3	
SEL <sub>100</sub>	(dB(A))	81.9	81.9	81.9	81.9	81.9	81.2	81.2	81.2	81.2	81.2	73.8	73.8	73.8	73.8	73.8	73.8	
Train Frequency Correction	(dB(A))	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+10.0	+10.0	+10.0	+10.0	+10.0	+10.0	
Time Correction (30min)	(dB(A))	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-20.6	-20.6	-20.6	-20.6	-20.6	-20.6	
Track Disorientation Correction	(dB(A))	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	
Facade Correction	(dB(A))	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	
Barrier Correction	(dB(A))	-15.9	-15.9	-15.9	-15.9	-15.9	-15.9	-15.9	-15.9	-15.9	-15.9	-15.5	-15.5	-15.5	-15.5	-15.5	-15.5	
Distance Correction	(dB(A))	-11.0	-10.3	-9.8	-9.4	-10.1	-10.6	-10.1	-9.6	-9.4	-10.4	-10.7	-10.1	-10.4	-10.4	-10.7	-10.1	
Air Absorption	(dB(A))	-2.3	-1.9	-1.7	-1.6	-1.9	-2.2	-1.8	-1.6	-1.5	-1.7	-2.2	-1.9	-2.0	-2.1	-1.8	-2.0	
View Angle Correction	(dB(A))	-0.8	-0.7	-0.7	-0.7	-0.4	-0.6	-0.6	-0.6	-0.6	-0.7	-0.9	-0.8	-0.7	-0.9	-0.8	-0.7	
L <sub>100, min</sub>	(dB(A))	29.0	32.2	31.7	36.9	35.4	28.6	31.6	31.5	30.9	35.0	6.5	20.9	36.9	6.3	21.3	37.0	
Noting Noise Overall (L <sub>100, min</sub> )	(dB(A))	40																

NSR ID	RNSA_17_06																	
	Description																	
Assessment Floor	1/f																	
Track	TML																	
Track ID	Unit	TML_NB_1	TML_NB_2	TML_NB_3	TML_NB_4	TML_NB_5	TML_SB_1	TML_SB_2	TML_SB_3	TML_SB_4	TML_SB_5	LRT_NB_1	LRT_NB_2	LRT_NB_3	LRT_SB_1	LRT_SB_2	LRT_SB_3	
SEL <sub>100</sub>	(dB(A))	81.9	81.9	81.9	81.9	81.9	81.2	81.2	81.2	81.2	81.2	73.8	73.8	73.8	73.8	73.8	73.8	
Train Frequency Correction	(dB(A))	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+10.0	+10.0	+10.0	+10.0	+10.0	+10.0	
Time Correction (30min)	(dB(A))	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-20.6	-20.6	-20.6	-20.6	-20.6	-20.6	
Track Disorientation Correction	(dB(A))	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	
Facade Correction	(dB(A))	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	
Barrier Correction	(dB(A))	-15.9	-15.9	-15.9	-15.9	-15.9	-15.9	-15.9	-15.9	-15.9	-15.9	-15.5	-15.5	-15.5	-15.5	-15.5	-15.5	
Distance Correction	(dB(A))	-10.9	-10.2	-9.6	-9.4	-10.1	-10.7	-10.1	-9.6	-9.4	-10.6	-10.9	-10.1	-10.4	-10.4	-10.6	-10.1	
Air Absorption	(dB(A))	-2.2	-1.8	-1.6	-1.5	-1.8	-2.2	-1.8	-1.6	-1.4	-1.7	-2.1	-1.9	-2.0	-2.1	-1.8	-2.0	
View Angle Correction	(dB(A))	-0.7	-0.7	-0.7	-0.7	-0.4	-0.5	-0.5	-0.5	-0.5	-0.6	-0.9	-0.8	-0.7	-0.9	-0.8	-0.7	
L <sub>100, min</sub>	(dB(A))	29.4	32.7	32.3	37.9	35.2	29.0	32.1	32.0	31.4	35.8	6.7	21.0	36.6	6.6	21.4	36.7	
Noting Noise Overall (L <sub>100, min</sub> )	(dB(A))	40																

NSR ID	RNSA_17_07																
	Description																
Assessment Floor	1/f																
Track	TML																
Track ID	Unit	TML_NB_1	TML_NB_2	TML_NB_3	TML_NB_4	TML_NB_5	TML_SB_1	TML_SB_2	TML_SB_3	TML_SB_4	TML_SB_5	LRT_NB_1	LRT_NB_2	LRT_NB_3	LRT_SB_1	LRT_SB_2	LRT_SB_3
SEL <sub>100</sub>	(dB(A))	81.9	81.9	81.9	81.9	81.9	81.2	81.2	81.2	81.2	81.2	73.8	73.8	73.8			

Appendix 4.4 - Detail of Predicted Railway Noise Level at 2/F

Monitoring Condition	Data	Unit
Train Length	8	Cars
Train Speed	130	km/hr
Monitoring Distance	25	m
SEL (North Bound)	81.4	(dB(A))
SEL (South Bound)	80.7	(dB(A))

Monitoring Condition	Data	Unit
Train Length	2	Cars
Train Speed	70	km/hr
Monitoring Distance	25	m
SEL	70.9	(dB(A))

Operation Detail (Worst Case Scenario)	Data	Unit
Train Length	8	Cars
Train Speed	130	km/hr
Train Frequency	40	Trains/Hour
Train Frequency	20	Trains/30min

Operation Detail (Worst Case Scenario)	Data	Unit
Train Length	2	Cars
Train Speed	70	km/hr
Train Frequency	10	Trains/Hour
Train Frequency	10	Trains/30min

SEL <sub>hour</sub> (8 Cars, 130km/hr, measured 25m)	Data	Unit
SEL <sub>hour</sub> (North Bound)	81.9	(dB(A))
SEL <sub>hour</sub> (South Bound)	81.2	(dB(A))

SEL <sub>hour</sub> (2 Cars, 70km/hr, measured 25m)	Data	Unit
SEL <sub>hour</sub>	70.9	(dB(A))

NSR ID	Description											
	2/F											
Assessment Floor												
Track												
Track ID	Unit	TML_NB_1	TML_NB_2	TML_NB_3	TML_NB_4	TML_NB_5	TML_SB_1	TML_SB_2	TML_SB_3	TML_SB_4	TML_SB_5	
SE <sub>hour</sub>	(dB(A))	81.9	81.9	81.9	81.9	81.9	81.2	81.2	81.2	81.2	81.2	
Train Frequency Correction	(dB(A))	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	
Time Correction (30min)	(dB(A))	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	
Track Orientation Correction	(dB(A))	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	
Facade Correction	(dB(A))	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	
Barrier Correction	(dB(A))	-15.8	-15.8	-15.8	-15.8	-15.8	-15.8	-15.8	-15.8	-15.8	-15.8	
Distance Correction	(dB(A))	-10.5	-9.8	-9.4	-9.1	-10.3	-10.4	-9.5	-9.1	-8.9	-10.1	
Air Absorption	(dB(A))	-2.0	-1.7	-1.5	-1.5	-1.5	-2.0	-1.6	-1.4	-1.4	-1.8	
View Angle Correction	(dB(A))	-0.2	-0.8	-0.9	-0.9	-0.4	-0.0	-0.9	-0.8	-0.6	-0.6	
L <sub>hour, max</sub>	(dB(A))	30.4	33.9	33.3	37.5	34.5	30.1	33.3	33.1	37.5	33.9	
Noting Noise Overall (L <sub>hour, max</sub> )	(dB(A))	44										

NSR ID	Description											
	2/F											
Assessment Floor												
Track												
Track ID	Unit	TML_NB_1	TML_NB_2	TML_NB_3	TML_NB_4	TML_NB_5	TML_SB_1	TML_SB_2	TML_SB_3	TML_SB_4	TML_SB_5	
SE <sub>hour</sub>	(dB(A))	81.9	81.9	81.9	81.9	81.9	81.2	81.2	81.2	81.2	81.2	
Train Frequency Correction	(dB(A))	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	
Time Correction (30min)	(dB(A))	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	
Track Orientation Correction	(dB(A))	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	
Facade Correction	(dB(A))	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	
Barrier Correction	(dB(A))	-15.8	-15.8	-15.8	-15.8	-15.8	-15.8	-15.8	-15.8	-15.8	-15.8	
Distance Correction	(dB(A))	-10.5	-9.8	-9.5	-9.4	-10.4	-10.4	-9.6	-9.2	-9.0	-10.1	
Air Absorption	(dB(A))	-2.0	-1.7	-1.5	-1.5	-1.5	-2.0	-1.6	-1.4	-1.4	-1.8	
View Angle Correction	(dB(A))	-0.1	-0.7	-0.0	-0.0	-0.4	-0.0	-0.9	-0.8	-0.7	-0.6	
L <sub>hour, max</sub>	(dB(A))	30.5	33.8	33.1	37.2	34.3	30.1	33.3	32.9	37.3	33.8	
Noting Noise Overall (L <sub>hour, max</sub> )	(dB(A))	44										

NSR ID	Description											
	2/F											
Assessment Floor												
Track												
Track ID	Unit	TML_NB_1	TML_NB_2	TML_NB_3	TML_NB_4	TML_NB_5	TML_SB_1	TML_SB_2	TML_SB_3	TML_SB_4	TML_SB_5	
SE <sub>hour</sub>	(dB(A))	81.9	81.9	81.9	81.9	81.9	81.2	81.2	81.2	81.2	81.2	
Train Frequency Correction	(dB(A))	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	
Time Correction (30min)	(dB(A))	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	
Track Orientation Correction	(dB(A))	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	
Facade Correction	(dB(A))	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	
Barrier Correction	(dB(A))	-15.8	-15.8	-15.8	-15.8	-15.8	-15.8	-15.8	-15.8	-15.8	-15.8	
Distance Correction	(dB(A))	-10.5	-10.0	-9.6	-9.5	-10.4	-10.5	-9.6	-9.4	-9.2	-10.1	
Air Absorption	(dB(A))	-2.0	-1.8	-1.5	-1.5	-1.5	-2.0	-1.7	-1.5	-1.5	-1.8	
View Angle Correction	(dB(A))	-0.1	-0.8	-0.2	-0.1	-0.3	-0.0	-0.9	-0.8	-0.8	-0.4	
L <sub>hour, max</sub>	(dB(A))	30.3	33.5	32.6	36.9	34.4	30.0	32.9	32.5	36.9	33.9	
Noting Noise Overall (L <sub>hour, max</sub> )	(dB(A))	44										

NSR ID	Description											
	2/F											
Assessment Floor												
Track												
Track ID	Unit	TML_NB_1	TML_NB_2	TML_NB_3	TML_NB_4	TML_NB_5	TML_SB_1	TML_SB_2	TML_SB_3	TML_SB_4	TML_SB_5	
SE <sub>hour</sub>	(dB(A))	81.9	81.9	81.9	81.9	81.9	81.2	81.2	81.2	81.2	81.2	
Train Frequency Correction	(dB(A))	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	
Time Correction (30min)	(dB(A))	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	
Track Orientation Correction	(dB(A))	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	
Facade Correction	(dB(A))	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	
Barrier Correction	(dB(A))	-15.8	-15.8	-15.8	-15.8	-15.8	-15.8	-15.8	-15.8	-15.8	-15.8	
Distance Correction	(dB(A))	-10.7	-10.1	-9.8	-9.7	-10.5	-10.6	-9.8	-9.1	-8.4	-10.2	
Air Absorption	(dB(A))	-2.2	-1.9	-1.7	-1.7	-1.7	-2.0	-1.7	-1.5	-1.5	-1.9	
View Angle Correction	(dB(A))	-0.1	-0.7	-0.3	-0.2	-0.2	-0.0	-0.9	-0.8	-0.9	-0.3	
L <sub>hour, max</sub>	(dB(A))	30.1	33.1	32.2	36.5	34.4	29.9	32.6	32.0	36.6	33.9	
Noting Noise Overall (L <sub>hour, max</sub> )	(dB(A))	44										

NSR ID	Description																	
	2/F																	
Assessment Floor																		
Track																		
Track ID	Unit	TML_NB_1	TML_NB_2	TML_NB_3	TML_NB_4	TML_NB_5	TML_SB_1	TML_SB_2	TML_SB_3	TML_SB_4	TML_SB_5	LRT_NB_1	LRT_NB_2	LRT_NB_3	LRT_SB_1	LRT_SB_2	LRT_SB_3	
SE <sub>hour</sub>	(dB(A))	81.9	81.9	81.9	81.9	81.9	81.2	81.2	81.2	81.2	81.2	73.8	73.8	73.8	73.8	73.8	73.8	
Train Frequency Correction	(dB(A))	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+10.0	+10.0	+10.0	+10.0	+10.0	+10.0	
Time Correction (30min)	(dB(A))	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-20.6	-20.6	-20.6	-20.6	-20.6	-20.6	
Track Orientation Correction	(dB(A))	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	
Facade Correction	(dB(A))	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	
Barrier Correction	(dB(A))	-15.8	-15.8	-15.8	-15.8	-15.8	-15.8	-15.8	-15.8	-15.8	-15.8	-15.4	-15.4	-15.4	-15.4	-15.4	-15.4	
Distance Correction	(dB(A))	-11.3	-10.7	-10.2	-9.8	-10.2	-11.2	-10.5	-10.0	-9.9	-9.6	-10.0	-10.2	-10.4	-10.4	-10.2	-10.2	
Air Absorption	(dB(A))	-2.5	-2.1	-1.9	-1.7	-1.9	-2.4	-2.0	-1.8	-1.6	-1.6	-1.8	-2.2	-1.9	-2.0	-1.9	-2.0	
View Angle Correction	(dB(A))	-0.9	-0.9	-0.1	-0.3	-0.3	-0.7	-0.1	-0.1	-0.1	-0.0	-0.3	-22.3	-8.5	-7.1	-22.4	-8.2	-7.1
L <sub>hour, max</sub>	(dB(A))	28.5	31.4	30.8	36.2	35.7	28.1	30.8	30.5	30.2	30.4	5.9	20.6	37.2	5.6	21.0	37.4	
Noting Noise Overall (L <sub>hour, max</sub> )	(dB(A))	46																

NSR ID	Description																	
	2/F																	
Assessment Floor																		
Track																		
Track ID	Unit	TML_NB_1	TML_NB_2	TML_NB_3	TML_NB_4	TML_NB_5	TML_SB_1	TML_SB_2	TML_SB_3	TML_SB_4	TML_SB_5	LRT_NB_1	LRT_NB_2	LRT_NB_3	LRT_SB_1	LRT_SB_2	LRT_SB_3	
SE <sub>hour</sub>	(dB(A))	81.9	81.9	81.9	81.9	81.9	81.2	81.2	81.2	81.2	81.2	73.8	73.8	73.8	73.8	73.8	73.8	
Train Frequency Correction	(dB(A))	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+10.0	+10.0	+10.0	+10.0	+10.0	+10.0	
Time Correction (30min)	(dB(A))	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-20.6	-20.6	-20.6	-20.6	-20.6	-20.6	
Track Orientation Correction	(dB(A))	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	
Facade Correction	(dB(A))	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	
Barrier Correction	(dB(A))	-15.8	-15.8	-15.8	-15.8	-15.8	-15.8	-15.8	-15.8	-15.8	-15.8	-15.4	-15.4	-15.4	-15.4	-15.4	-15.4	
Distance Correction	(dB(A))	-11.2	-10.6	-10.2	-9.8	-10.1	-10.6	-10.4	-9.9	-9.6	-9.9	-10.0	-10.2	-10.4	-10.4	-10.2	-10.1	
Air Absorption	(dB(A))	-2.5	-2.1	-1.9	-1.7	-1.9	-2.0	-1.8	-1.6	-1.6	-1.7	-2.0	-1.9	-2.0	-1.9	-1.9	-1.9	
View Angle Correction	(dB(A))	-10.0	-7.9	-0.1	-0.2	-0.3	-0.8	-0.2	-0.1	-0.0	-0.3	-22.1	-8.5	-7.1	-22.4	-8.2	-7.1	
L <sub>hour, max</sub>	(dB(A))	28.5	31.5	31.0	36.4	35.6	28.1	30.8	30.6	30.4	30.5	6.2	20.8	37.3	6.0	21.2	37.5	
Noting Noise Overall (L <sub>hour, max</sub> )	(dB(A))	46																

NSR ID	Description																
	2/F																
Assessment Floor																	
Track																	
Track ID	Unit	TML_NB_1	TML_NB_2	TML_NB_3	TML_NB_4	TML_NB_5	TML_SB_1	TML_SB_2	TML_SB_3	TML_SB_4	TML_SB_5	LRT_NB_1	LRT_NB_2	LRT_NB_3	LRT_SB_1	LRT_SB_2	LRT_SB_3
SE <sub>hour</sub>	(dB(A))	81.9	81.9	81.9	81.9	81.9	81.2	81.2	81.2	81.2	81.2	73.8	73.8	73.8	73.8	73.8	73.8
Train Frequency Correction	(dB(A))	+13.0	+13.0	+13.0	+13.0												

Appendix 4.4 - Detail of Predicted Railway Noise Level at 2/F

TML

Monitoring Condition	Data	Unit
Train Length	8	Cars
Train Speed	130	km/hr
Monitoring Distance	25	m
SEL (North Bound)	81.4	dB(A)
SEL (South Bound)	80.7	dB(A)

Operation Detail (Worst Case Scenario)	Data	Unit
Train Length	8	Cars
Train Speed	130	km/hr
Train Frequency	40	Train/Hour
Train Frequency	30	Train/30min

SEL <sub>100</sub> (9 Cars, 130km/hr, measured 25m)	Data	Unit
SEL <sub>100</sub> (North Bound)	81.9	dB(A)
SEL <sub>100</sub> (South Bound)	81.2	dB(A)

LRT

Monitoring Condition	Data	Unit
Train Length	2	Cars
Train Speed	90	km/hr
Monitoring Distance	25	m
L <sub>100</sub>	65	dB(A)
SEL	70.9	dB(A)

Operation Detail (Worst Case Scenario)	Data	Unit
Train Length	2	Cars
Train Speed	70	km/hr
Train Frequency	10	Train/Hour
Train Frequency	10	Train/30min

SEL <sub>100</sub> (2 Cars, 70km/hr, measured 25m)	Data	Unit
SEL <sub>100</sub>	71.0	dB(A)

NSR ID	NSR# 27_09																
	Description																
	Assessment Floor																
Track	2/F																
Track ID	TML																
SEL <sub>100</sub>	Unit	TML_NB_1	TML_NB_2	TML_NB_3	TML_NB_4	TML_NB_5	TML_SB_1	TML_SB_2	TML_SB_3	TML_SB_4	TML_SB_5	LRT_NB_1	LRT_NB_2	LRT_NB_3	LRT_SB_1	LRT_SB_2	LRT_SB_3
Train Frequency Correction	dB(A)	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+10.0	+10.0	+10.0	+10.0	+10.0	+10.0
Time Correction (30min)	dB(A)	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6
Track Obstruction Correction	dB(A)	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0
Facade Correction	dB(A)	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5
Barrier Correction	dB(A)	-15.8	-15.8	-15.8	-15.8	-15.8	-15.8	-15.8	-15.8	-15.8	-15.8	-15.4	-15.4	-15.4	-15.4	-15.4	-15.4
Distance Correction	dB(A)	-10.8	-10.1	-9.6	-9.4	-10.1	-10.7	-9.9	-9.4	-10.0	-9.9	-10.6	-10.1	-10.4	-10.6	-10.0	-10.4
Air Absorption	dB(A)	-2.2	-1.8	-1.6	-1.5	-1.8	-2.2	-1.8	-1.5	-1.6	-1.7	-2.1	-1.9	-2.0	-2.1	-1.8	-2.0
View Angle Correction	dB(A)	-0.7	-7.3	-8.4	-3.9	-4.8	-9.5	-7.5	-8.3	-3.6	-4.9	-18.8	-8.3	-7.7	-18.8	-8.0	-7.7
L <sub>100, min</sub>	dB(A)	29.5	32.8	32.4	37.3	35.5	29.1	32.2	32.2	37.4	34.9	9.8	21.1	36.6	9.7	21.5	36.7
Noting Noise Overall (L <sub>100, min</sub> )	dB(A)	46															

NSR ID	NSR# 27_10																
	Description																
	Assessment Floor																
Track	2/F																
Track ID	TML																
SEL <sub>100</sub>	Unit	TML_NB_1	TML_NB_2	TML_NB_3	TML_NB_4	TML_NB_5	TML_SB_1	TML_SB_2	TML_SB_3	TML_SB_4	TML_SB_5	LRT_NB_1	LRT_NB_2	LRT_NB_3	LRT_SB_1	LRT_SB_2	LRT_SB_3
Train Frequency Correction	dB(A)	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+10.0	+10.0	+10.0	+10.0	+10.0	+10.0
Time Correction (30min)	dB(A)	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6
Track Obstruction Correction	dB(A)	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0
Facade Correction	dB(A)	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5
Barrier Correction	dB(A)	-15.8	-15.8	-15.8	-15.8	-15.8	-15.8	-15.8	-15.8	-15.8	-15.8	-15.4	-15.4	-15.4	-15.4	-15.4	-15.4
Distance Correction	dB(A)	-10.7	-10.9	-11.1	-11.1	-10.1	-10.6	-9.7	-9.2	-9.8	-9.8	-10.5	-10.0	-10.4	-10.5	-9.9	-10.3
Air Absorption	dB(A)	-2.1	-1.8	-1.6	-1.5	-1.8	-2.1	-1.7	-1.5	-1.6	-1.7	-2.1	-1.9	-2.0	-2.0	-1.8	-2.0
View Angle Correction	dB(A)	-0.7	-7.2	-8.2	-3.7	-4.9	-9.5	-7.5	-8.1	-3.4	-5.1	-18.0	-8.3	-7.9	-18.1	-7.9	-7.9
L <sub>100, min</sub>	dB(A)	29.6	33.1	32.8	37.7	35.1	29.2	32.5	32.5	37.8	34.8	10.7	21.2	36.9	10.6	21.8	36.6
Noting Noise Overall (L <sub>100, min</sub> )	dB(A)	46															

NSR ID	NSR# 27_11																
	Description																
	Assessment Floor																
Track	2/F																
Track ID	TML																
SEL <sub>100</sub>	Unit	TML_NB_1	TML_NB_2	TML_NB_3	TML_NB_4	TML_NB_5	TML_SB_1	TML_SB_2	TML_SB_3	TML_SB_4	TML_SB_5	LRT_NB_1	LRT_NB_2	LRT_NB_3	LRT_SB_1	LRT_SB_2	LRT_SB_3
Train Frequency Correction	dB(A)	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+10.0	+10.0	+10.0	+10.0	+10.0	+10.0
Time Correction (30min)	dB(A)	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6
Track Obstruction Correction	dB(A)	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0
Facade Correction	dB(A)	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5
Barrier Correction	dB(A)	-15.8	-15.8	-15.8	-15.8	-15.8	-15.8	-15.8	-15.8	-15.8	-15.8	-15.4	-15.4	-15.4	-15.4	-15.4	-15.4
Distance Correction	dB(A)	-10.5	-10.8	-11.0	-11.0	-10.1	-10.6	-9.7	-9.2	-9.8	-9.8	-10.5	-10.0	-10.4	-10.5	-9.9	-10.3
Air Absorption	dB(A)	-2.1	-1.7	-1.5	-1.4	-1.8	-2.1	-1.6	-1.4	-1.3	-1.7	-2.1	-1.8	-2.0	-2.0	-1.8	-2.0
View Angle Correction	dB(A)	-0.6	-7.1	-8.1	-3.7	-5.1	-9.5	-7.3	-8.0	-3.4	-5.2	-17.5	-8.2	-8.0	-17.6	-7.9	-8.0
L <sub>100, min</sub>	dB(A)	29.6	33.4	33.1	37.9	35.1	29.4	32.8	32.8	37.9	34.6	11.2	21.3	36.9	11.1	21.7	36.4
Noting Noise Overall (L <sub>100, min</sub> )	dB(A)	46															



Appendix 4.4 - Detail of Predicted Railway Noise Level at 3/F

TML

Monitoring Condition	Data	Unit
Train Length	8	Cars
Train Speed	130	km/hr
Monitoring Distance	25	m
SEL (North Bound)	81.4	dB(A)
SEL (South Bound)	80.7	dB(A)

Operation Detail (Worst Case Scenario)	Data	Unit
Train Length	8	Cars
Train Speed	130	km/hr
Train Frequency	40	Train/Hour
Train Frequency	30	Train/30min

SEL <sub>100</sub> (9 Cars, 130km/hr, measured 25m)	Data	Unit
SEL <sub>100</sub> (North Bound)	81.9	dB(A)
SEL <sub>100</sub> (South Bound)	81.2	dB(A)

LRT

Monitoring Condition	Data	Unit
Train Length	2	Cars
Train Speed	90	km/hr
Monitoring Distance	25	m
L <sub>10</sub>	65	dB(A)
SEL	70.9	dB(A)

Operation Detail (Worst Case Scenario)	Data	Unit
Train Length	2	Cars
Train Speed	90	km/hr
Train Frequency	10	Train/Hour
Train Frequency	10	Train/30min

SEL <sub>100</sub> (2 Cars, 90km/hr, measured 25m)	Data	Unit
SEL <sub>100</sub>	71.0	dB(A)

NSR ID	RMA 37 09																		
	Description																		
Assessment Floor	3/F																		
	Track																		
Track ID	Unit	TML															LRT		
		TML_NB_1	TML_NB_2	TML_NB_3	TML_NB_4	TML_NB_5	TML_SB_1	TML_SB_2	TML_SB_3	TML_SB_4	TML_SB_5	LRT_NB_1	LRT_NB_2	LRT_NB_3	LRT_SB_1	LRT_SB_2	LRT_SB_3		
SEL <sub>100</sub>	dB(A)	81.9	81.9	81.9	81.9	81.9	81.2	81.2	81.2	81.2	81.2	81.2	71.8	71.8	71.8	71.8	71.8		
Train Frequency Correction	dB(A)	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+10.0	+10.0	+10.0	+10.0	+10.0		
Time Correction (30min)	dB(A)	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6		
Track Obstruction Correction	dB(A)	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0		
Facade Correction	dB(A)	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5		
Barrier Correction	dB(A)	-15.7	-15.7	-15.7	-15.7	-15.7	-15.7	-15.7	-15.7	-15.7	-15.7	-15.7	-15.3	-15.3	-15.3	-15.3	-15.3		
Distance Correction	dB(A)	-10.8	-10.1	-9.6	-9.4	-10.1	-10.7	-9.9	-9.4	-10.0	-9.9	-10.6	-10.1	-10.4	-10.6	-10.0	-10.4		
Air Absorption	dB(A)	-2.2	-1.8	-1.6	-1.5	-1.8	-2.2	-1.8	-1.5	-1.4	-1.7	-2.1	-1.9	-2.0	-2.1	-1.8	-2.0		
View Angle Correction	dB(A)	-0.7	-7.3	-8.4	-3.9	-4.8	-9.5	-7.5	-8.3	-3.6	-4.9	-18.8	-8.3	-7.7	-18.8	-8.0	-7.7		
L <sub>10</sub> , min	dB(A)	29.6	32.9	32.5	37.5	35.4	29.2	32.3	32.3	32.3	37.6	35.0	9.9	21.2	36.6	9.8	21.6		
Noting Noise Overall (L <sub>10</sub> , min)	dB(A)																		

NSR ID	RMA 37 09																		
	Description																		
Assessment Floor	3/F																		
	Track																		
Track ID	Unit	TML															LRT		
		TML_NB_1	TML_NB_2	TML_NB_3	TML_NB_4	TML_NB_5	TML_SB_1	TML_SB_2	TML_SB_3	TML_SB_4	TML_SB_5	LRT_NB_1	LRT_NB_2	LRT_NB_3	LRT_SB_1	LRT_SB_2	LRT_SB_3		
SEL <sub>100</sub>	dB(A)	81.9	81.9	81.9	81.9	81.9	81.2	81.2	81.2	81.2	81.2	81.2	71.8	71.8	71.8	71.8	71.8		
Train Frequency Correction	dB(A)	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+10.0	+10.0	+10.0	+10.0	+10.0		
Time Correction (30min)	dB(A)	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6		
Track Obstruction Correction	dB(A)	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0		
Facade Correction	dB(A)	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5		
Barrier Correction	dB(A)	-15.7	-15.7	-15.7	-15.7	-15.7	-15.7	-15.7	-15.7	-15.7	-15.7	-15.7	-15.3	-15.3	-15.3	-15.3	-15.3		
Distance Correction	dB(A)	-10.7	-10.9	-9.6	-9.2	-10.1	-10.6	-9.7	-9.2	-9.8	-9.8	-10.5	-10.0	-10.4	-10.5	-9.9	-10.3		
Air Absorption	dB(A)	-2.1	-1.8	-1.6	-1.5	-1.8	-2.1	-1.7	-1.5	-1.4	-1.7	-2.1	-1.9	-2.0	-2.1	-1.8	-2.0		
View Angle Correction	dB(A)	-0.7	-7.2	-8.2	-3.7	-4.9	-9.5	-7.5	-8.1	-3.4	-5.1	-18.0	-8.3	-7.9	-18.1	-7.9	-7.9		
L <sub>10</sub> , min	dB(A)	29.7	33.3	32.0	37.0	35.4	29.2	32.6	32.7	32.7	38.0	34.9	10.8	21.4	36.9	10.7	21.9		
Noting Noise Overall (L <sub>10</sub> , min)	dB(A)																		

NSR ID	RMA 37 11																		
	Description																		
Assessment Floor	3/F																		
	Track																		
Track ID	Unit	TML															LRT		
		TML_NB_1	TML_NB_2	TML_NB_3	TML_NB_4	TML_NB_5	TML_SB_1	TML_SB_2	TML_SB_3	TML_SB_4	TML_SB_5	LRT_NB_1	LRT_NB_2	LRT_NB_3	LRT_SB_1	LRT_SB_2	LRT_SB_3		
SEL <sub>100</sub>	dB(A)	81.9	81.9	81.9	81.9	81.9	81.2	81.2	81.2	81.2	81.2	81.2	71.8	71.8	71.8	71.8	71.8		
Train Frequency Correction	dB(A)	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+10.0	+10.0	+10.0	+10.0	+10.0		
Time Correction (30min)	dB(A)	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6		
Track Obstruction Correction	dB(A)	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0		
Facade Correction	dB(A)	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5		
Barrier Correction	dB(A)	-15.7	-15.7	-15.7	-15.7	-15.7	-15.7	-15.7	-15.7	-15.7	-15.7	-15.7	-15.3	-15.3	-15.3	-15.3	-15.3		
Distance Correction	dB(A)	-10.5	-10.8	-9.4	-9.1	-10.1	-10.5	-9.6	-9.1	-9.7	-9.8	-10.5	-10.0	-10.4	-10.5	-9.9	-10.3		
Air Absorption	dB(A)	-2.1	-1.7	-1.5	-1.4	-1.8	-2.1	-1.6	-1.4	-1.3	-1.7	-2.1	-1.8	-2.0	-2.0	-1.8	-2.0		
View Angle Correction	dB(A)	-0.6	-7.1	-8.1	-3.7	-5.1	-9.5	-7.3	-8.0	-3.4	-5.2	-17.5	-8.7	-8.0	-17.6	-7.9	-8.0		
L <sub>10</sub> , min	dB(A)	29.9	33.5	32.2	38.0	35.2	29.5	32.9	32.9	32.9	38.1	34.8	11.9	21.4	36.9	11.2	21.9		
Noting Noise Overall (L <sub>10</sub> , min)	dB(A)																		

Appendix 4.4 - Detail of Predicted Railway Noise Level at 4/F

Monitoring Condition	Data	Unit
Train Length	8	Cars
Train Speed	130	km/hr
Monitoring Distance	25	m
SEL (North Bound)	81.4	(dB(A))
SEL (South Bound)	80.7	(dB(A))

Monitoring Condition	Data	Unit
Train Length	2	Cars
Train Speed	70	km/hr
Monitoring Distance	25	m
SEL	70.9	(dB(A))

Operation Detail (Worst Case Scenario)	Data	Unit
Train Length	8	Cars
Train Speed	130	km/hr
Train Frequency	40	Trains/hour
Train Frequency	20	Trains/30min

Operation Detail (Worst Case Scenario)	Data	Unit
Train Length	2	Cars
Train Speed	70	km/hr
Train Frequency	10	Trains/hour
Train Frequency	10	Trains/30min

SEL <sub>hour</sub> (8 Cars, 130km/hr, measured 25m)	Data	Unit
SEL <sub>hour</sub> (North Bound)	81.9	(dB(A))
SEL <sub>hour</sub> (South Bound)	81.2	(dB(A))

SEL <sub>hour</sub> (2 Cars, 70km/hr, measured 25m)	Data	Unit
SEL <sub>hour</sub>	70.9	(dB(A))

NSR ID	RMA 4F 01											
	Description											
Assessment Floor	4/F											
Track	TML											
Track ID	Unit	TML_NB_1	TML_NB_2	TML_NB_3	TML_NB_4	TML_NB_5	TML_SB_1	TML_SB_2	TML_SB_3	TML_SB_4	TML_SB_5	
SEL <sub>hour</sub>	(dB(A))	81.9	81.9	81.9	81.9	81.9	81.2	81.2	81.2	81.2	81.2	
Train Frequency Correction	(dB(A))	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	
Time Correction (30min)	(dB(A))	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	
Track Separation Correction	(dB(A))	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	
Facade Correction	(dB(A))	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	
Barrier Correction	(dB(A))	-15.6	-15.6	-15.6	-15.6	-15.6	-15.6	-15.6	-15.6	-15.6	-15.6	
Distance Correction	(dB(A))	-10.5	-9.8	-9.4	-9.1	-10.3	-10.4	-9.5	-9.1	-8.9	-10.0	
Air Absorption	(dB(A))	-2.0	-1.7	-1.5	-1.5	-1.5	-2.0	-1.6	-1.4	-1.4	-1.8	
View Angle Correction	(dB(A))	-0.2	-0.8	-0.9	-0.9	-0.4	-0.0	-0.9	-0.8	-0.6	-0.6	
L <sub>hour, max</sub>	(dB(A))	30.6	34.1	33.5	37.7	34.7	30.3	33.6	33.4	37.8	34.1	
Noting Noise Overall (L <sub>hour, max</sub> )	(dB(A))	45										

NSR ID	RMA 4F 02											
	Description											
Assessment Floor	4/F											
Track	TML											
Track ID	Unit	TML_NB_1	TML_NB_2	TML_NB_3	TML_NB_4	TML_NB_5	TML_SB_1	TML_SB_2	TML_SB_3	TML_SB_4	TML_SB_5	
SEL <sub>hour</sub>	(dB(A))	81.9	81.9	81.9	81.9	81.9	81.2	81.2	81.2	81.2	81.2	
Train Frequency Correction	(dB(A))	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	
Time Correction (30min)	(dB(A))	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	
Track Separation Correction	(dB(A))	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	
Facade Correction	(dB(A))	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	
Barrier Correction	(dB(A))	-15.6	-15.6	-15.6	-15.6	-15.6	-15.6	-15.6	-15.6	-15.6	-15.6	
Distance Correction	(dB(A))	-10.5	-9.8	-9.4	-9.1	-10.4	-10.4	-9.5	-9.1	-8.9	-10.0	
Air Absorption	(dB(A))	-2.0	-1.7	-1.5	-1.5	-1.5	-2.0	-1.6	-1.4	-1.4	-1.8	
View Angle Correction	(dB(A))	-0.1	-0.7	-0.0	-0.0	-0.4	-0.0	-0.9	-0.8	-0.7	-0.6	
L <sub>hour, max</sub>	(dB(A))	30.7	34.0	33.5	37.5	34.5	30.3	33.5	33.2	37.5	34.0	
Noting Noise Overall (L <sub>hour, max</sub> )	(dB(A))	44										

NSR ID	RMA 4F 03											
	Description											
Assessment Floor	4/F											
Track	TML											
Track ID	Unit	TML_NB_1	TML_NB_2	TML_NB_3	TML_NB_4	TML_NB_5	TML_SB_1	TML_SB_2	TML_SB_3	TML_SB_4	TML_SB_5	
SEL <sub>hour</sub>	(dB(A))	81.9	81.9	81.9	81.9	81.9	81.2	81.2	81.2	81.2	81.2	
Train Frequency Correction	(dB(A))	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	
Time Correction (30min)	(dB(A))	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	
Track Separation Correction	(dB(A))	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	
Facade Correction	(dB(A))	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	
Barrier Correction	(dB(A))	-15.6	-15.6	-15.6	-15.6	-15.6	-15.6	-15.6	-15.6	-15.6	-15.6	
Distance Correction	(dB(A))	-10.5	-10.0	-9.6	-9.5	-10.4	-10.5	-9.6	-9.4	-9.2	-10.0	
Air Absorption	(dB(A))	-2.1	-1.8	-1.6	-1.6	-2.0	-1.6	-1.7	-1.5	-1.5	-1.9	
View Angle Correction	(dB(A))	-0.1	-0.8	-0.2	-0.1	-0.3	-0.8	-0.0	-0.8	-0.8	-0.4	
L <sub>hour, max</sub>	(dB(A))	30.5	33.7	32.9	37.1	34.6	30.2	33.2	32.7	37.2	34.1	
Noting Noise Overall (L <sub>hour, max</sub> )	(dB(A))	44										

NSR ID	RMA 4F 04											
	Description											
Assessment Floor	4/F											
Track	TML											
Track ID	Unit	TML_NB_1	TML_NB_2	TML_NB_3	TML_NB_4	TML_NB_5	TML_SB_1	TML_SB_2	TML_SB_3	TML_SB_4	TML_SB_5	
SEL <sub>hour</sub>	(dB(A))	81.9	81.9	81.9	81.9	81.9	81.2	81.2	81.2	81.2	81.2	
Train Frequency Correction	(dB(A))	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	
Time Correction (30min)	(dB(A))	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	
Track Separation Correction	(dB(A))	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	
Facade Correction	(dB(A))	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	
Barrier Correction	(dB(A))	-15.6	-15.6	-15.6	-15.6	-15.6	-15.6	-15.6	-15.6	-15.6	-15.6	
Distance Correction	(dB(A))	-10.7	-10.1	-9.8	-9.7	-10.5	-10.6	-9.9	-9.1	-8.4	-10.2	
Air Absorption	(dB(A))	-2.2	-1.9	-1.7	-1.7	-2.0	-2.1	-1.8	-1.6	-1.5	-1.9	
View Angle Correction	(dB(A))	-0.1	-0.0	-0.3	-0.2	-0.2	-0.8	-0.1	-0.3	-0.3	-0.3	
L <sub>hour, max</sub>	(dB(A))	30.3	33.3	32.4	36.0	34.6	30.1	32.8	32.3	36.8	34.1	
Noting Noise Overall (L <sub>hour, max</sub> )	(dB(A))	44										

NSR ID	RMA 4F 05																	
	Description																	
Assessment Floor	4/F																	
Track	TML																	
Track ID	Unit	TML_NB_1	TML_NB_2	TML_NB_3	TML_NB_4	TML_NB_5	TML_SB_1	TML_SB_2	TML_SB_3	TML_SB_4	TML_SB_5	LRT_NB_1	LRT_NB_2	LRT_NB_3	LRT_SB_1	LRT_SB_2	LRT_SB_3	
SEL <sub>hour</sub>	(dB(A))	81.9	81.9	81.9	81.9	81.9	81.2	81.2	81.2	81.2	81.2	73.8	73.8	73.8	73.8	73.8	73.8	
Train Frequency Correction	(dB(A))	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+10.0	+10.0	+10.0	+10.0	+10.0	+10.0	
Time Correction (30min)	(dB(A))	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-16.6	-16.6	-16.6	-16.6	-16.6	-16.6	
Track Separation Correction	(dB(A))	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	
Facade Correction	(dB(A))	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	
Barrier Correction	(dB(A))	-15.6	-15.6	-15.6	-15.6	-15.6	-15.6	-15.6	-15.6	-15.6	-15.6	-15.6	-15.3	-15.2	-15.0	-15.2	-15.2	
Distance Correction	(dB(A))	-11.3	-10.7	-10.2	-9.8	-10.3	-11.2	-10.5	-10.0	-10.4	-10.0	-10.0	-10.0	-10.2	-10.4	-10.0	-10.2	
Air Absorption	(dB(A))	-2.5	-2.1	-1.9	-1.7	-1.9	-2.4	-2.0	-1.8	-1.6	-1.6	-1.8	-2.2	-1.9	-2.0	-1.9	-2.0	
View Angle Correction	(dB(A))	-0.9	-0.9	-0.1	-0.3	-0.3	-0.7	-0.1	-0.1	-0.0	-0.0	-0.3	-0.5	-0.1	-0.2	-0.2	-0.1	
L <sub>hour, max</sub>	(dB(A))	29.0	31.6	31.0	36.5	35.9	28.3	31.0	30.7	30.5	30.6	6.1	20.8	37.2	33.8	21.2	37.4	
Noting Noise Overall (L <sub>hour, max</sub> )	(dB(A))	46																

NSR ID	RMA 4F 06																	
	Description																	
Assessment Floor	4/F																	
Track	TML																	
Track ID	Unit	TML_NB_1	TML_NB_2	TML_NB_3	TML_NB_4	TML_NB_5	TML_SB_1	TML_SB_2	TML_SB_3	TML_SB_4	TML_SB_5	LRT_NB_1	LRT_NB_2	LRT_NB_3	LRT_SB_1	LRT_SB_2	LRT_SB_3	
SEL <sub>hour</sub>	(dB(A))	81.9	81.9	81.9	81.9	81.9	81.2	81.2	81.2	81.2	81.2	73.8	73.8	73.8	73.8	73.8	73.8	
Train Frequency Correction	(dB(A))	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+10.0	+10.0	+10.0	+10.0	+10.0	+10.0	
Time Correction (30min)	(dB(A))	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-16.6	-16.6	-16.6	-16.6	-16.6	-16.6	
Track Separation Correction	(dB(A))	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	
Facade Correction	(dB(A))	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	
Barrier Correction	(dB(A))	-15.6	-15.6	-15.6	-15.6	-15.6	-15.6	-15.6	-15.6	-15.6	-15.6	-15.2	-15.2	-15.0	-15.2	-15.2	-15.0	
Distance Correction	(dB(A))	-11.2	-10.6	-10.2	-9.8	-10.3	-11.0	-10.4	-9.9	-10.4	-10.0	-10.0	-10.0	-10.2	-10.4	-10.0	-10.2	
Air Absorption	(dB(A))	-2.5	-2.1	-1.9	-1.7	-1.9	-2.0	-2.0	-1.8	-1.6	-1.6	-1.7	-1.9	-2.0	-1.9	-2.0	-1.9	
View Angle Correction	(dB(A))	-1.0	-0.9	-0.1	-0.2	-0.2	-0.8	-0.2	-0.1	-0.0	-0.0	-0.3	-0.5	-0.1	-0.2	-0.2	-0.1	
L <sub>hour, max</sub>	(dB(A))	29.0	31.7	31.0	36.6	36.0	28.4	31.0	30.8	30.7	30.7	6.4	21.1	37.3	33.1	21.4	37.5	
Noting Noise Overall (L <sub>hour, max</sub> )	(dB(A))	46																

NSR ID	RMA 4F 07																
	Description																
Assessment Floor	4/F																
Track	TML																
Track ID	Unit	TML_NB_1	TML_NB_2	TML_NB_3	TML_NB_4	TML_NB_5	TML_SB_1	TML_SB_2	TML_SB_3	TML_SB_4	TML_SB_5	LRT_NB_1	LRT_NB_2	LRT_NB_3	LRT_SB_1	LRT_SB_2	LRT_SB_3
SEL <sub>hour</sub>	(dB(A))	81.9	81.9	81.9	81.9	81.9	81.2	81.2	81.2	81.2	81.2	73.8	73.8	73.8	73.8		



Appendix 4.4 - Detail of Predicted Railway Noise Level at 4/F

TML

Monitoring Condition	Data	Unit
Train Length	8	Cars
Train Speed	130	km/hr
Monitoring Distance	25	m
SEL (North Bound)	81.4	dB(A)
SEL (South Bound)	80.7	dB(A)

Operation Detail (Worst Case Scenario)	Data	Unit
Train Length	8	Cars
Train Speed	130	km/hr
Train Frequency	40	Train/Hour
Train Frequency	30	Train/30min

SEL <sub>100</sub> (9 Cars, 130km/hr, measured 25m)	Data	Unit
SEL <sub>100</sub> (North Bound)	81.9	dB(A)
SEL <sub>100</sub> (South Bound)	81.2	dB(A)

LRT

Monitoring Condition	Data	Unit
Train Length	2	Cars
Train Speed	90	km/hr
Monitoring Distance	25	m
L <sub>100</sub>	65	dB(A)
SEL	70.9	dB(A)

Operation Detail (Worst Case Scenario)	Data	Unit
Train Length	2	Cars
Train Speed	70	km/hr
Train Frequency	10	Train/Hour
Train Frequency	10	Train/30min

SEL <sub>100</sub> (2 Cars, 70km/hr, measured 25m)	Data	Unit
SEL <sub>100</sub>	71.0	dB(A)

NSR ID	DBA_4F_09																
	Description																
Assessment Floor	4/F																
	Track	TML										LRT					
Unit		TML_NB_1	TML_NB_2	TML_NB_3	TML_NB_4	TML_NB_5	TML_SB_1	TML_SB_2	TML_SB_3	TML_SB_4	TML_SB_5	LRT_NB_1	LRT_NB_2	LRT_NB_3	LRT_SB_1	LRT_SB_2	LRT_SB_3
SEL <sub>100</sub>	dB(A)	81.9	81.9	81.9	81.9	81.9	81.2	81.2	81.2	81.2	81.2	71.8	71.8	71.8	71.8	71.8	71.8
Train Frequency Correction	dB(A)	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+10.0	+10.0	+10.0	+10.0	+10.0	+10.0	+10.0
Time Correction (30min)	dB(A)	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6
Track Obstruction Correction	dB(A)	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0
Facade Correction	dB(A)	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5
Barrier Correction	dB(A)	+5.6	+5.6	+5.6	+5.6	+5.6	+5.6	+5.6	+5.6	+5.6	+5.6	+5.6	+5.6	+5.6	+5.6	+5.6	+5.6
Distance Correction	dB(A)	-10.8	-10.1	-9.6	-9.4	-10.1	-10.7	-9.9	-9.4	-9.0	-8.9	-10.7	-10.1	-10.4	-10.6	-10.0	-10.4
Air Absorption	dB(A)	-2.2	-1.8	-1.6	-1.5	-1.5	-2.2	-1.8	-1.5	-1.4	-1.7	-2.1	-1.9	-2.0	-2.1	-1.8	-2.0
View Angle Correction	dB(A)	-0.7	-7.3	-4.4	-3.9	-4.8	-9.5	-7.5	-8.3	-3.6	-4.9	-18.8	-8.3	-7.7	-18.8	-8.0	-7.7
L <sub>100, min</sub>	dB(A)	29.7	33.1	32.6	37.6	35.5	29.3	32.4	32.4	37.7	35.1	10.0	21.3	36.6	9.9	21.8	36.7
Noting Noise Overall (L <sub>100, min</sub> )	dB(A)																

NSR ID	DBA_4F_10																
	Description																
Assessment Floor	4/F																
	Track	TML										LRT					
Unit		TML_NB_1	TML_NB_2	TML_NB_3	TML_NB_4	TML_NB_5	TML_SB_1	TML_SB_2	TML_SB_3	TML_SB_4	TML_SB_5	LRT_NB_1	LRT_NB_2	LRT_NB_3	LRT_SB_1	LRT_SB_2	LRT_SB_3
SEL <sub>100</sub>	dB(A)	81.9	81.9	81.9	81.9	81.9	81.2	81.2	81.2	81.2	81.2	71.8	71.8	71.8	71.8	71.8	71.8
Train Frequency Correction	dB(A)	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+10.0	+10.0	+10.0	+10.0	+10.0	+10.0	+10.0
Time Correction (30min)	dB(A)	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6
Track Obstruction Correction	dB(A)	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0
Facade Correction	dB(A)	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5
Barrier Correction	dB(A)	+5.6	+5.6	+5.6	+5.6	+5.6	+5.6	+5.6	+5.6	+5.6	+5.6	+5.6	+5.6	+5.6	+5.6	+5.6	+5.6
Distance Correction	dB(A)	-10.7	-10.9	-10.1	-10.1	-10.1	-10.6	-9.7	-9.2	-8.8	-8.8	-10.4	-10.0	-10.4	-10.5	-9.9	-10.3
Air Absorption	dB(A)	-2.1	-1.8	-1.6	-1.5	-1.5	-2.1	-1.7	-1.5	-1.4	-1.7	-2.1	-1.9	-2.0	-2.1	-1.8	-2.0
View Angle Correction	dB(A)	-0.7	-7.2	-4.2	-3.7	-4.9	-9.5	-7.5	-8.1	-3.4	-4.1	-18.0	-8.3	-7.9	-18.1	-7.9	-7.9
L <sub>100, min</sub>	dB(A)	29.8	33.4	33.1	38.0	35.5	29.4	32.7	32.9	38.1	35.1	10.0	21.6	36.9	10.8	22.0	36.6
Noting Noise Overall (L <sub>100, min</sub> )	dB(A)																

NSR ID	DBA_4F_11																
	Description																
Assessment Floor	4/F																
	Track	TML										LRT					
Unit		TML_NB_1	TML_NB_2	TML_NB_3	TML_NB_4	TML_NB_5	TML_SB_1	TML_SB_2	TML_SB_3	TML_SB_4	TML_SB_5	LRT_NB_1	LRT_NB_2	LRT_NB_3	LRT_SB_1	LRT_SB_2	LRT_SB_3
SEL <sub>100</sub>	dB(A)	81.9	81.9	81.9	81.9	81.9	81.2	81.2	81.2	81.2	81.2	71.8	71.8	71.8	71.8	71.8	71.8
Train Frequency Correction	dB(A)	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+10.0	+10.0	+10.0	+10.0	+10.0	+10.0	+10.0
Time Correction (30min)	dB(A)	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6
Track Obstruction Correction	dB(A)	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0
Facade Correction	dB(A)	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5
Barrier Correction	dB(A)	+5.6	+5.6	+5.6	+5.6	+5.6	+5.6	+5.6	+5.6	+5.6	+5.6	+5.6	+5.6	+5.6	+5.6	+5.6	+5.6
Distance Correction	dB(A)	-10.5	-9.8	-9.4	-9.1	-10.1	-10.5	-9.6	-9.1	-8.7	-8.8	-10.5	-10.0	-10.4	-10.5	-9.9	-10.3
Air Absorption	dB(A)	-2.1	-1.7	-1.5	-1.4	-1.4	-2.1	-1.6	-1.4	-1.3	-1.7	-2.1	-1.8	-2.0	-2.0	-1.8	-2.0
View Angle Correction	dB(A)	-0.6	-7.1	-4.1	-3.7	-5.1	-9.5	-7.3	-8.0	-3.4	-4.2	-17.5	-8.2	-8.0	-17.6	-7.9	-8.0
L <sub>100, min</sub>	dB(A)	30.0	33.6	33.4	38.1	35.2	29.6	33.0	33.2	38.2	34.9	11.4	21.5	36.3	11.3	22.0	36.4
Noting Noise Overall (L <sub>100, min</sub> )	dB(A)																

Appendix 4.4 - Detail of Predicted Railway Noise Level at 5/F

Monitoring Condition	Data	Unit
Train Length	8	Cars
Train Speed	130	km/hr
Monitoring Distance	25	m
SEL (North Bound)	81.4	(dB(A))
SEL (South Bound)	80.7	(dB(A))

Monitoring Condition	Data	Unit
Train Length	2	Cars
Train Speed	70	km/hr
Monitoring Distance	25	m
SEL	70.9	(dB(A))

Operation Detail (Worst Case Scenario)	Data	Unit
Train Length	8	Cars
Train Speed	130	km/hr
Train Frequency	40	Trains/hour
Train Frequency	20	Trains/30min

Operation Detail (Worst Case Scenario)	Data	Unit
Train Length	2	Cars
Train Speed	70	km/hr
Train Frequency	10	Trains/hour
Train Frequency	10	Trains/30min

SEL <sub>50</sub> (8 Cars, 130km/hr, measured 25m)	Data	Unit
SEL <sub>50</sub> (North Bound)	81.9	(dB(A))
SEL <sub>50</sub> (South Bound)	81.2	(dB(A))

SEL <sub>50</sub> (2 Cars, 70km/hr, measured 25m)	Data	Unit
SEL <sub>50</sub>	70.9	(dB(A))

NSR ID	RNSA_SF_01											
	Description											
Assessment Floor	5/F											
Track	TML											
Track ID	Unit	TML_NB_1	TML_NB_2	TML_NB_3	TML_NB_4	TML_NB_5	TML_SB_1	TML_SB_2	TML_SB_3	TML_SB_4	TML_SB_5	
SEL <sub>50</sub>	(dB(A))	81.9	81.9	81.9	81.9	81.9	81.2	81.2	81.2	81.2	81.2	
Train Frequency Correction	(dB(A))	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	
Time Correction (30min)	(dB(A))	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	
Track Separation Correction	(dB(A))	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	
Facade Correction	(dB(A))	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	
Barrier Correction	(dB(A))	-15.5	-15.4	-15.4	-15.4	-15.4	-15.5	-15.4	-15.4	-15.4	-15.4	
Distance Correction	(dB(A))	-10.5	-9.8	-9.4	-9.3	-10.3	-10.4	-9.5	-9.1	-8.9	-10.0	
Air Absorption	(dB(A))	-2.0	-1.7	-1.5	-1.5	-1.5	-2.0	-1.6	-1.4	-1.4	-1.8	
View Angle Correction	(dB(A))	-0.2	-0.8	-0.9	-0.9	-0.4	-0.0	-0.9	-0.8	-0.6	-0.6	
L <sub>50, 5min</sub>	(dB(A))	30.7	34.3	33.7	37.9	34.8	30.4	33.7	33.5	38.0	34.3	
Noting Noise Overall (L <sub>50, 5min</sub> )	(dB(A))	45										

NSR ID	RNSA_SF_02											
	Description											
Assessment Floor	5/F											
Track	TML											
Track ID	Unit	TML_NB_1	TML_NB_2	TML_NB_3	TML_NB_4	TML_NB_5	TML_SB_1	TML_SB_2	TML_SB_3	TML_SB_4	TML_SB_5	
SEL <sub>50</sub>	(dB(A))	81.9	81.9	81.9	81.9	81.9	81.2	81.2	81.2	81.2	81.2	
Train Frequency Correction	(dB(A))	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	
Time Correction (30min)	(dB(A))	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	
Track Separation Correction	(dB(A))	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	
Facade Correction	(dB(A))	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	
Barrier Correction	(dB(A))	-15.5	-15.4	-15.4	-15.4	-15.4	-15.5	-15.4	-15.4	-15.4	-15.4	
Distance Correction	(dB(A))	-10.5	-9.8	-9.4	-9.4	-10.4	-10.4	-9.5	-9.1	-8.9	-10.0	
Air Absorption	(dB(A))	-2.0	-1.7	-1.5	-1.5	-1.5	-2.0	-1.6	-1.4	-1.4	-1.8	
View Angle Correction	(dB(A))	-0.1	-0.7	-0.8	-0.8	-0.4	-0.0	-0.9	-0.8	-0.7	-0.6	
L <sub>50, 5min</sub>	(dB(A))	30.8	34.2	33.5	37.6	34.7	30.5	33.7	33.3	37.7	34.2	
Noting Noise Overall (L <sub>50, 5min</sub> )	(dB(A))	45										

NSR ID	RNSA_SF_03											
	Description											
Assessment Floor	5/F											
Track	TML											
Track ID	Unit	TML_NB_1	TML_NB_2	TML_NB_3	TML_NB_4	TML_NB_5	TML_SB_1	TML_SB_2	TML_SB_3	TML_SB_4	TML_SB_5	
SEL <sub>50</sub>	(dB(A))	81.9	81.9	81.9	81.9	81.9	81.2	81.2	81.2	81.2	81.2	
Train Frequency Correction	(dB(A))	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	
Time Correction (30min)	(dB(A))	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	
Track Separation Correction	(dB(A))	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	
Facade Correction	(dB(A))	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	
Barrier Correction	(dB(A))	-15.5	-15.4	-15.4	-15.4	-15.4	-15.5	-15.4	-15.4	-15.4	-15.4	
Distance Correction	(dB(A))	-10.5	-9.8	-9.4	-9.4	-10.4	-10.4	-9.5	-9.1	-8.9	-10.0	
Air Absorption	(dB(A))	-2.0	-1.7	-1.5	-1.5	-1.5	-2.0	-1.6	-1.4	-1.4	-1.8	
View Angle Correction	(dB(A))	-0.1	-0.7	-0.8	-0.8	-0.4	-0.0	-0.9	-0.8	-0.7	-0.6	
L <sub>50, 5min</sub>	(dB(A))	30.6	33.8	33.0	37.2	34.7	30.3	33.3	32.9	37.3	34.2	
Noting Noise Overall (L <sub>50, 5min</sub> )	(dB(A))	44										

NSR ID	RNSA_SF_04											
	Description											
Assessment Floor	5/F											
Track	TML											
Track ID	Unit	TML_NB_1	TML_NB_2	TML_NB_3	TML_NB_4	TML_NB_5	TML_SB_1	TML_SB_2	TML_SB_3	TML_SB_4	TML_SB_5	
SEL <sub>50</sub>	(dB(A))	81.9	81.9	81.9	81.9	81.9	81.2	81.2	81.2	81.2	81.2	
Train Frequency Correction	(dB(A))	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	
Time Correction (30min)	(dB(A))	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	
Track Separation Correction	(dB(A))	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	
Facade Correction	(dB(A))	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	
Barrier Correction	(dB(A))	-15.5	-15.4	-15.4	-15.4	-15.4	-15.5	-15.4	-15.4	-15.4	-15.4	
Distance Correction	(dB(A))	-10.5	-9.8	-9.4	-9.4	-10.4	-10.4	-9.5	-9.1	-8.9	-10.0	
Air Absorption	(dB(A))	-2.0	-1.7	-1.5	-1.5	-1.5	-2.0	-1.6	-1.4	-1.4	-1.8	
View Angle Correction	(dB(A))	-0.1	-0.7	-0.8	-0.8	-0.4	-0.0	-0.9	-0.8	-0.7	-0.6	
L <sub>50, 5min</sub>	(dB(A))	30.4	33.3	32.6	36.9	34.7	30.1	32.9	32.4	36.9	34.3	
Noting Noise Overall (L <sub>50, 5min</sub> )	(dB(A))	44										

NSR ID	RNSA_SF_05																	
	Description																	
Assessment Floor	5/F																	
Track	TML																	
Track ID	Unit	TML_NB_1	TML_NB_2	TML_NB_3	TML_NB_4	TML_NB_5	TML_SB_1	TML_SB_2	TML_SB_3	TML_SB_4	TML_SB_5	LRT_NB_1	LRT_NB_2	LRT_NB_3	LRT_SB_1	LRT_SB_2	LRT_SB_3	
SEL <sub>50</sub>	(dB(A))	81.9	81.9	81.9	81.9	81.9	81.2	81.2	81.2	81.2	81.2	73.8	73.8	73.8	73.8	73.8	73.8	
Train Frequency Correction	(dB(A))	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+10.0	+10.0	+10.0	+10.0	+10.0	+10.0	
Time Correction (30min)	(dB(A))	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-20.6	-20.6	-20.6	-20.6	-20.6	-20.6	
Track Separation Correction	(dB(A))	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	
Facade Correction	(dB(A))	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	
Barrier Correction	(dB(A))	-15.5	-15.4	-15.4	-15.4	-15.4	-15.5	-15.4	-15.4	-15.4	-15.4	-15.4	-15.2	-15.1	0.0	-15.1	-15.1	
Distance Correction	(dB(A))	-10.5	-9.8	-9.4	-9.4	-10.4	-10.4	-9.5	-9.1	-8.9	-10.0	-10.0	-10.3	-10.4	-10.0	-10.3	-10.3	
Air Absorption	(dB(A))	-2.0	-1.7	-1.5	-1.5	-1.5	-2.0	-1.6	-1.4	-1.4	-1.8	-1.8	-2.0	-1.9	-2.0	-1.9	-2.0	
View Angle Correction	(dB(A))	-0.9	-0.9	-0.9	-0.9	-0.9	-0.7	-0.8	-0.8	-0.8	-0.8	-0.3	-22.3	-8.5	-2.1	-22.4	-8.2	-7.1
L <sub>50, 5min</sub>	(dB(A))	28.7	31.7	31.3	36.6	36.0	28.4	31.1	30.8	30.6	30.7	6.3	20.9	37.2	5.9	21.4	37.4	
Noting Noise Overall (L <sub>50, 5min</sub> )	(dB(A))	45																

NSR ID	RNSA_SF_06																	
	Description																	
Assessment Floor	5/F																	
Track	TML																	
Track ID	Unit	TML_NB_1	TML_NB_2	TML_NB_3	TML_NB_4	TML_NB_5	TML_SB_1	TML_SB_2	TML_SB_3	TML_SB_4	TML_SB_5	LRT_NB_1	LRT_NB_2	LRT_NB_3	LRT_SB_1	LRT_SB_2	LRT_SB_3	
SEL <sub>50</sub>	(dB(A))	81.9	81.9	81.9	81.9	81.9	81.2	81.2	81.2	81.2	81.2	73.8	73.8	73.8	73.8	73.8	73.8	
Train Frequency Correction	(dB(A))	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+10.0	+10.0	+10.0	+10.0	+10.0	+10.0	
Time Correction (30min)	(dB(A))	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-20.6	-20.6	-20.6	-20.6	-20.6	-20.6	
Track Separation Correction	(dB(A))	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	
Facade Correction	(dB(A))	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	
Barrier Correction	(dB(A))	-15.5	-15.4	-15.4	-15.4	-15.4	-15.5	-15.4	-15.4	-15.4	-15.4	-15.4	-15.1	-15.1	0.0	-15.1	-15.0	
Distance Correction	(dB(A))	-10.5	-9.8	-9.4	-9.4	-10.4	-10.4	-9.5	-9.1	-8.9	-10.0	-10.0	-10.3	-10.4	-10.0	-10.3	-10.3	
Air Absorption	(dB(A))	-2.0	-1.7	-1.5	-1.5	-1.5	-2.0	-1.6	-1.4	-1.4	-1.8	-1.8	-2.0	-1.9	-2.0	-1.9	-2.0	
View Angle Correction	(dB(A))	-1.0	-0.9	-0.9	-0.9	-0.9	-0.8	-0.8	-0.8	-0.8	-0.8	-0.3	-22.1	-8.5	-2.1	-22.4	-8.2	-7.1
L <sub>50, 5min</sub>	(dB(A))	28.7	31.8	31.3	36.8	36.1	28.5	31.1	30.9	30.8	30.8	6.5	21.1	37.3	6.2	21.5	37.4	
Noting Noise Overall (L <sub>50, 5min</sub> )	(dB(A))	45																

NSR ID	RNSA_SF_07																
	Description																
Assessment Floor	5/F																
Track	TML																
Track ID	Unit	TML_NB_1	TML_NB_2	TML_NB_3	TML_NB_4	TML_NB_5	TML_SB_1	TML_SB_2	TML_SB_3	TML_SB_4	TML_SB_5	LRT_NB_1	LRT_NB_2	LRT_NB_3	LRT_SB_1	LRT_SB_2	LRT_SB_3
SEL <sub>50</sub>	(dB(A))	81.9	81.9	81.9	81.9	81.9	81.2	81.2	81.2	81.2							

Appendix 4.4 - Detail of Predicted Railway Noise Level at 5/F

TML

Monitoring Condition	Data	Unit
Train Length	8	Cars
Train Speed	130	km/hr
Monitoring Distance	25	m
SEL (North Bound)	81.4	dB(A)
SEL (South Bound)	80.7	dB(A)

Operation Detail (Worst Case Scenario)	Data	Unit
Train Length	8	Cars
Train Speed	130	km/hr
Train Frequency	40	Train/Hour
Train Frequency	30	Train/30min

SEL <sub>500</sub> (9 Cars, 130km/hr, measured 25m)	Data	Unit
SEL <sub>500</sub> (North Bound)	81.9	dB(A)
SEL <sub>500</sub> (South Bound)	81.2	dB(A)

LRT

Monitoring Condition	Data	Unit
Train Length	2	Cars
Train Speed	70	km/hr
Monitoring Distance	25	m
L <sub>500</sub>	65	dB(A)
SEL	70.9	dB(A)

Operation Detail (Worst Case Scenario)	Data	Unit
Train Length	2	Cars
Train Speed	70	km/hr
Train Frequency	10	Train/Hour
Train Frequency	10	Train/30min

SEL <sub>500</sub> (2 Cars, 70km/hr, measured 25m)	Data	Unit
SEL <sub>500</sub>	71.0	dB(A)

NSR ID	NSR# 57 09																
	Description																
	Assessment Floor																
Track	5/F																
Track ID	Unit	TML					S/F					LRT					
SEL <sub>500</sub>	dB(A)	81.9	81.9	81.9	81.9	81.9	81.2	81.2	81.2	81.2	81.2	81.2	73.8	73.8	73.8	73.8	73.8
Train Frequency Correction	dB(A)	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+10.0	+10.0	+10.0	+10.0	+10.0
Time Correction (30min)	dB(A)	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6
Track Obstruction Correction	dB(A)	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0
Facade Correction	dB(A)	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5
Barrier Correction	dB(A)	-15.5	-15.4	-15.4	-15.4	-15.4	-15.5	-15.4	-15.4	-15.4	-15.4	-15.4	-15.1	-15.0	-15.1	-15.0	-15.0
Distance Correction	dB(A)	-10.8	-10.1	-9.7	-9.4	-10.1	-10.7	-9.9	-9.4	-9.0	-8.9	-10.7	-10.1	-10.4	-10.6	-10.0	-10.4
Air Absorption	dB(A)	-2.2	-1.8	-1.6	-1.5	-1.5	-2.2	-1.8	-1.5	-1.4	-1.7	-2.1	-1.9	-2.0	-2.1	-1.8	-2.0
View Angle Correction	dB(A)	-0.7	-0.7	-0.7	-0.7	-0.7	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5
L <sub>500, min</sub>	dB(A)	29.7	33.2	32.8	37.7	35.6	29.4	32.6	32.5	37.8	35.2	30.1	21.4	36.6	30.0	21.9	36.7
Noting Noise Overall (L <sub>500, min</sub> )	dB(A)																

NSR ID	NSR# 57 10																
	Description																
	Assessment Floor																
Track	5/F																
Track ID	Unit	TML					S/F					LRT					
SEL <sub>500</sub>	dB(A)	81.9	81.9	81.9	81.9	81.9	81.2	81.2	81.2	81.2	81.2	81.2	73.8	73.8	73.8	73.8	73.8
Train Frequency Correction	dB(A)	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+10.0	+10.0	+10.0	+10.0	+10.0
Time Correction (30min)	dB(A)	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6
Track Obstruction Correction	dB(A)	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0
Facade Correction	dB(A)	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5
Barrier Correction	dB(A)	-15.5	-15.4	-15.4	-15.4	-15.4	-15.5	-15.4	-15.4	-15.4	-15.4	-15.4	-15.1	-15.0	-15.1	-15.0	-15.0
Distance Correction	dB(A)	-10.7	-10.0	-9.6	-9.2	-10.1	-10.6	-9.7	-9.2	-8.8	-8.8	-10.4	-10.0	-10.4	-10.5	-9.9	-10.3
Air Absorption	dB(A)	-2.1	-1.8	-1.6	-1.5	-1.5	-2.1	-1.7	-1.5	-1.4	-1.7	-2.1	-1.9	-2.0	-2.1	-1.8	-2.0
View Angle Correction	dB(A)	-0.7	-0.7	-0.7	-0.7	-0.7	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5
L <sub>500, min</sub>	dB(A)	29.9	33.3	32.9	38.1	35.6	29.5	32.9	32.9	38.0	35.3	30.2	21.7	36.9	30.0	22.1	36.6
Noting Noise Overall (L <sub>500, min</sub> )	dB(A)																

NSR ID	NSR# 57 11																
	Description																
	Assessment Floor																
Track	5/F																
Track ID	Unit	TML					S/F					LRT					
SEL <sub>500</sub>	dB(A)	81.9	81.9	81.9	81.9	81.9	81.2	81.2	81.2	81.2	81.2	81.2	73.8	73.8	73.8	73.8	73.8
Train Frequency Correction	dB(A)	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+10.0	+10.0	+10.0	+10.0	+10.0
Time Correction (30min)	dB(A)	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6
Track Obstruction Correction	dB(A)	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0
Facade Correction	dB(A)	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5
Barrier Correction	dB(A)	-15.5	-15.4	-15.4	-15.4	-15.4	-15.5	-15.4	-15.4	-15.4	-15.4	-15.4	-15.1	-15.0	-15.1	-15.0	-15.0
Distance Correction	dB(A)	-10.7	-10.0	-9.6	-9.2	-10.1	-10.6	-9.7	-9.2	-8.8	-8.8	-10.4	-10.0	-10.4	-10.5	-9.9	-10.3
Air Absorption	dB(A)	-2.1	-1.7	-1.5	-1.4	-1.4	-2.1	-1.6	-1.4	-1.3	-1.7	-2.1	-1.8	-2.0	-2.0	-1.8	-2.0
View Angle Correction	dB(A)	-0.6	-0.1	-0.1	-0.7	-0.1	-0.5	-0.3	-0.0	-0.4	-0.2	-1.5	-0.2	-0.0	-1.7	-0.9	-0.0
L <sub>500, min</sub>	dB(A)	30.1	33.7	33.5	38.3	35.4	29.7	33.1	32.9	38.4	35.0	31.5	21.7	36.9	31.5	22.1	36.4
Noting Noise Overall (L <sub>500, min</sub> )	dB(A)																

Appendix 4.4 - Detail of Predicted Railway Noise Level at 6/F

TML

Monitoring Condition	Data	Unit
Train Length	8	Cars
Train Speed	130	km/hr
Monitoring Distance	25	m
SEL (North Bound)	81.4	(dB(A))
SEL (South Bound)	80.7	(dB(A))

LRT

Monitoring Condition	Data	Unit
Train Length	2	Cars
Train Speed	70	km/hr
Monitoring Distance	25	m
SEL	70.9	(dB(A))

Operation Detail (Worst Case Scenario)	Data	Unit
Train Length	8	Cars
Train Speed	130	km/hr
Train Frequency	40	Trains/Hour
Train Frequency	20	Trains/30min

Operation Detail (Worst Case Scenario)	Data	Unit
Train Length	2	Cars
Train Speed	70	km/hr
Train Frequency	10	Trains/Hour
Train Frequency	10	Trains/30min

SEL <sub>100</sub> (8 Cars, 130km/hr, measured 25m)	Data	Unit
SEL <sub>100</sub> (North Bound)	81.9	(dB(A))
SEL <sub>100</sub> (South Bound)	81.2	(dB(A))

SEL <sub>100</sub> (2 Cars, 70km/hr, measured 25m)	Data	Unit
SEL <sub>100</sub>	70.9	(dB(A))

NSR ID	Description											
	6/F											
Assessment Floor	6/F											
Track	TML											
Track ID	Unit	TML_NB_1	TML_NB_2	TML_NB_3	TML_NB_4	TML_NB_5	TML_SB_1	TML_SB_2	TML_SB_3	TML_SB_4	TML_SB_5	
SEL <sub>100</sub>	(dB(A))	81.9	81.9	81.9	81.9	81.9	81.2	81.2	81.2	81.2	81.2	
Train Frequency Correction	(dB(A))	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	
Time Correction (30min)	(dB(A))	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	
Track Disorientation Correction	(dB(A))	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	
Facade Correction	(dB(A))	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	
Barrier Correction	(dB(A))	-15.4	-15.3	-15.3	-15.3	-15.3	-15.3	-15.3	-15.2	-15.2	-15.3	
Distance Correction	(dB(A))	-10.5	-9.8	-9.4	-9.3	-10.3	-10.4	-9.5	-9.1	-8.9	-10.0	
Air Absorption	(dB(A))	-2.0	-1.7	-1.5	-1.5	-1.5	-2.0	-1.6	-1.4	-1.4	-1.8	
View Angle Correction	(dB(A))	-0.2	-0.8	-0.9	-0.9	-0.4	-0.0	-0.9	-0.8	-0.6	-0.6	
L <sub>100, 1min</sub>	(dB(A))	30.8	34.4	33.8	38.0	34.0	30.5	33.8	33.7	38.1	34.4	
Noting Noise Overall (L <sub>100, 1min</sub> )	(dB(A))	45										

NSR ID	Description											
	6/F											
Assessment Floor	6/F											
Track	TML											
Track ID	Unit	TML_NB_1	TML_NB_2	TML_NB_3	TML_NB_4	TML_NB_5	TML_SB_1	TML_SB_2	TML_SB_3	TML_SB_4	TML_SB_5	
SEL <sub>100</sub>	(dB(A))	81.9	81.9	81.9	81.9	81.9	81.2	81.2	81.2	81.2	81.2	
Train Frequency Correction	(dB(A))	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	
Time Correction (30min)	(dB(A))	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	
Track Disorientation Correction	(dB(A))	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	
Facade Correction	(dB(A))	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	
Barrier Correction	(dB(A))	-15.4	-15.3	-15.3	-15.3	-15.3	-15.3	-15.3	-15.2	-15.2	-15.3	
Distance Correction	(dB(A))	-10.5	-9.8	-9.4	-9.4	-10.4	-10.4	-9.6	-9.2	-9.0	-10.1	
Air Absorption	(dB(A))	-2.0	-1.7	-1.5	-1.5	-1.5	-2.0	-1.6	-1.4	-1.4	-1.8	
View Angle Correction	(dB(A))	-0.1	-0.7	-0.8	-0.8	-0.4	-0.0	-0.9	-0.8	-0.7	-0.6	
L <sub>100, 1min</sub>	(dB(A))	30.9	34.3	33.6	37.7	34.8	30.6	33.8	33.5	37.8	34.3	
Noting Noise Overall (L <sub>100, 1min</sub> )	(dB(A))	45										

NSR ID	Description											
	6/F											
Assessment Floor	6/F											
Track	TML											
Track ID	Unit	TML_NB_1	TML_NB_2	TML_NB_3	TML_NB_4	TML_NB_5	TML_SB_1	TML_SB_2	TML_SB_3	TML_SB_4	TML_SB_5	
SEL <sub>100</sub>	(dB(A))	81.9	81.9	81.9	81.9	81.9	81.2	81.2	81.2	81.2	81.2	
Train Frequency Correction	(dB(A))	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	
Time Correction (30min)	(dB(A))	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	
Track Disorientation Correction	(dB(A))	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	
Facade Correction	(dB(A))	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	
Barrier Correction	(dB(A))	-15.4	-15.3	-15.3	-15.3	-15.4	-15.4	-15.3	-15.2	-15.2	-15.3	
Distance Correction	(dB(A))	-10.5	-10.0	-9.7	-9.5	-10.4	-10.5	-9.6	-9.4	-9.2	-10.2	
Air Absorption	(dB(A))	-2.1	-1.8	-1.6	-1.6	-2.0	-1.6	-1.7	-1.5	-1.5	-1.9	
View Angle Correction	(dB(A))	-0.1	-0.8	-0.8	-0.8	-0.3	-0.0	-0.9	-0.8	-0.8	-0.4	
L <sub>100, 1min</sub>	(dB(A))	30.7	33.9	33.1	37.4	34.8	30.4	33.4	33.0	37.5	34.3	
Noting Noise Overall (L <sub>100, 1min</sub> )	(dB(A))	44										

NSR ID	Description											
	6/F											
Assessment Floor	6/F											
Track	TML											
Track ID	Unit	TML_NB_1	TML_NB_2	TML_NB_3	TML_NB_4	TML_NB_5	TML_SB_1	TML_SB_2	TML_SB_3	TML_SB_4	TML_SB_5	
SEL <sub>100</sub>	(dB(A))	81.9	81.9	81.9	81.9	81.9	81.2	81.2	81.2	81.2	81.2	
Train Frequency Correction	(dB(A))	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	
Time Correction (30min)	(dB(A))	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	
Track Disorientation Correction	(dB(A))	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	
Facade Correction	(dB(A))	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	
Barrier Correction	(dB(A))	-15.4	-15.3	-15.3	-15.3	-15.4	-15.4	-15.3	-15.3	-15.3	-15.3	
Distance Correction	(dB(A))	-10.7	-10.1	-9.8	-9.7	-10.5	-10.6	-9.8	-9.4	-9.4	-10.3	
Air Absorption	(dB(A))	-2.2	-1.9	-1.7	-1.7	-2.0	-1.7	-1.8	-1.6	-1.6	-1.9	
View Angle Correction	(dB(A))	-0.1	-0.7	-0.7	-0.7	-0.2	-0.0	-0.9	-0.8	-0.8	-0.3	
L <sub>100, 1min</sub>	(dB(A))	30.5	33.6	32.7	37.0	34.8	30.2	33.1	32.5	37.1	34.4	
Noting Noise Overall (L <sub>100, 1min</sub> )	(dB(A))	44										

NSR ID	Description																	
	6/F																	
Assessment Floor	6/F																	
Track	TML																	
Track ID	Unit	TML_NB_1	TML_NB_2	TML_NB_3	TML_NB_4	TML_NB_5	TML_SB_1	TML_SB_2	TML_SB_3	TML_SB_4	TML_SB_5	LRT_NB_1	LRT_NB_2	LRT_NB_3	LRT_SB_1	LRT_SB_2	LRT_SB_3	
SEL <sub>100</sub>	(dB(A))	81.9	81.9	81.9	81.9	81.9	81.2	81.2	81.2	81.2	81.2	73.8	73.8	73.8	73.8	73.8	73.8	
Train Frequency Correction	(dB(A))	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+10.0	+10.0	+10.0	+10.0	+10.0	+10.0	
Time Correction (30min)	(dB(A))	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-20.6	-20.6	-20.6	-20.6	-20.6	-20.6	
Track Disorientation Correction	(dB(A))	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	
Facade Correction	(dB(A))	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	
Barrier Correction	(dB(A))	-15.4	-15.4	-15.3	-15.3	-15.3	-15.4	-15.4	-15.3	-15.3	-15.3	-15.1	-15.0	-15.0	-15.0	-14.9	-14.9	
Distance Correction	(dB(A))	-11.3	-10.7	-10.2	-9.8	-10.3	-11.2	-10.6	-10.0	-9.4	-9.0	-10.0	-10.2	-10.4	-10.4	-10.8	-10.2	
Air Absorption	(dB(A))	-2.5	-2.1	-1.9	-1.7	-1.9	-2.4	-2.0	-1.8	-1.6	-1.6	-2.2	-1.9	-2.0	-2.2	-1.9	-2.0	
View Angle Correction	(dB(A))	-0.9	-0.9	-0.9	-0.9	-0.9	-0.7	-0.8	-0.8	-0.8	-0.8	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	
L <sub>100, 1min</sub>	(dB(A))	29.8	33.8	33.3	36.9	36.1	28.5	31.2	30.9	30.8	30.8	6.3	21.0	21.2	6.0	21.5	21.4	
Noting Noise Overall (L <sub>100, 1min</sub> )	(dB(A))	45																

NSR ID	Description																	
	6/F																	
Assessment Floor	6/F																	
Track	TML																	
Track ID	Unit	TML_NB_1	TML_NB_2	TML_NB_3	TML_NB_4	TML_NB_5	TML_SB_1	TML_SB_2	TML_SB_3	TML_SB_4	TML_SB_5	LRT_NB_1	LRT_NB_2	LRT_NB_3	LRT_SB_1	LRT_SB_2	LRT_SB_3	
SEL <sub>100</sub>	(dB(A))	81.9	81.9	81.9	81.9	81.9	81.2	81.2	81.2	81.2	81.2	73.8	73.8	73.8	73.8	73.8	73.8	
Train Frequency Correction	(dB(A))	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+10.0	+10.0	+10.0	+10.0	+10.0	+10.0	
Time Correction (30min)	(dB(A))	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-20.6	-20.6	-20.6	-20.6	-20.6	-20.6	
Track Disorientation Correction	(dB(A))	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	
Facade Correction	(dB(A))	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	
Barrier Correction	(dB(A))	-15.4	-15.4	-15.3	-15.3	-15.3	-15.4	-15.4	-15.3	-15.3	-15.3	-15.1	-15.0	-15.0	-15.0	-14.9	-14.9	
Distance Correction	(dB(A))	-11.2	-10.6	-10.2	-9.8	-10.3	-11.2	-10.6	-10.0	-9.4	-9.0	-10.0	-10.2	-10.4	-10.4	-10.8	-10.2	
Air Absorption	(dB(A))	-2.5	-2.1	-1.9	-1.7	-1.9	-2.4	-2.0	-1.8	-1.6	-1.6	-2.2	-1.9	-2.0	-2.2	-1.9	-2.0	
View Angle Correction	(dB(A))	-1.0	-0.9	-0.9	-0.9	-0.9	-0.8	-0.8	-0.8	-0.8	-0.8	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	
L <sub>100, 1min</sub>	(dB(A))	29.8	33.8	33.3	36.9	36.2	28.6	31.2	31.1	30.9	30.9	6.6	21.1	21.3	6.3	21.6	21.4	
Noting Noise Overall (L <sub>100, 1min</sub> )	(dB(A))	46																

NSR ID	Description																
	6/F																
Assessment Floor	6/F																
Track	TML																
Track ID	Unit	TML_NB_1	TML_NB_2	TML_NB_3	TML_NB_4	TML_NB_5	TML_SB_1	TML_SB_2	TML_SB_3	TML_SB_4	TML_SB_5	LRT_NB_1	LRT_NB_2	LRT_NB_3	LRT_SB_1	LRT_SB_2	LRT_SB_3
SEL <sub>100</sub>	(dB(A))	81.9	81.9	81.9	81.9												

Appendix 4.4 - Detail of Predicted Railway Noise Level at 6/F

TML

Monitoring Condition	Data	Unit
Train Length	8	Cars
Train Speed	130	km/hr
Monitoring Distance	25	m
SEL (North Bound)	81.4	dB(A)
SEL (South Bound)	80.7	dB(A)

Operation Detail (Worst Case Scenario)	Data	Unit
Train Length	8	Cars
Train Speed	130	km/hr
Train Frequency	40	Train/Hour
Train Frequency	30	Train/30min

SEL <sub>100</sub> (9 Cars, 130km/hr, measured 25m)	Data	Unit
SEL <sub>100</sub> (North Bound)	81.9	dB(A)
SEL <sub>100</sub> (South Bound)	81.2	dB(A)

LRT

Monitoring Condition	Data	Unit
Train Length	2	Cars
Train Speed	90	km/hr
Monitoring Distance	25	m
SEL	65	dB(A)
SEL	70.9	dB(A)

Operation Detail (Worst Case Scenario)	Data	Unit
Train Length	2	Cars
Train Speed	70	km/hr
Train Frequency	10	Train/Hour
Train Frequency	10	Train/30min

SEL <sub>100</sub> (2 Cars, 70km/hr, measured 25m)	Data	Unit
SEL <sub>100</sub>	71.0	dB(A)

NSR ID	NSR# 07-09																		
	Description																		
	Assessment Floor																		
Track	6/F																		
Track ID	TML																		
Unit	Unit	TML_NB_1	TML_NB_2	TML_NB_3	TML_NB_4	TML_NB_5	TML_SB_1	TML_SB_2	TML_SB_3	TML_SB_4	TML_SB_5	LRT_NB_1	LRT_NB_2	LRT_NB_3	LRT_SB_1	LRT_SB_2	LRT_SB_3		
SEL <sub>100</sub>	dB(A)	81.9	81.9	81.9	81.9	81.9	81.2	81.2	81.2	81.2	81.2	81.2	73.8	73.8	73.8	73.8	73.8	73.8	
Train Frequency Correction	dB(A)	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+10.0	+10.0	+10.0	+10.0	+10.0	+10.0	+10.0	
Time Correction (30min)	dB(A)	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	
Track Obstruction Correction	dB(A)	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	
Facade Correction	dB(A)	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	
Barrier Correction	dB(A)	-15.4	-15.3	-15.3	-15.2	-15.3	-15.4	-15.3	-15.3	-15.3	-15.3	-14.9	0.0	-15.0	-14.9	0.0	-15.0	-14.9	0.0
Distance Correction	dB(A)	-10.8	-10.1	-9.7	-9.4	-10.1	-10.7	-9.9	-9.4	-10.0	-9.9	-10.7	-10.1	-10.4	-10.6	-10.0	-10.4	-10.6	-10.4
Air Absorption	dB(A)	-2.2	-1.8	-1.6	-1.5	-1.8	-2.2	-1.8	-1.5	-1.6	-1.7	-2.1	-1.9	-2.0	-2.1	-1.8	-2.0	-2.1	-1.8
View Angle Correction	dB(A)	-0.7	-0.7	-0.7	-0.7	-0.7	-0.5	-0.5	-0.5	-0.5	-0.5	-0.8	-0.8	-0.8	-0.7	-0.8	-0.8	-0.7	
L <sub>100, min</sub>	dB(A)	29.8	33.3	32.9	37.9	35.7	29.5	32.7	32.7	38.0	35.3	30.2	21.6	36.6	30.1	22.0	22.0	36.7	
Noting Noise Overall (L <sub>100, min</sub> )	dB(A)	46																	

NSR ID	NSR# 07-10																		
	Description																		
	Assessment Floor																		
Track	6/F																		
Track ID	TML																		
Unit	Unit	TML_NB_1	TML_NB_2	TML_NB_3	TML_NB_4	TML_NB_5	TML_SB_1	TML_SB_2	TML_SB_3	TML_SB_4	TML_SB_5	LRT_NB_1	LRT_NB_2	LRT_NB_3	LRT_SB_1	LRT_SB_2	LRT_SB_3		
SEL <sub>100</sub>	dB(A)	81.9	81.9	81.9	81.9	81.9	81.2	81.2	81.2	81.2	81.2	73.8	73.8	73.8	73.8	73.8	73.8	73.8	
Train Frequency Correction	dB(A)	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+10.0	+10.0	+10.0	+10.0	+10.0	+10.0	+10.0	
Time Correction (30min)	dB(A)	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	
Track Obstruction Correction	dB(A)	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	
Facade Correction	dB(A)	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	
Barrier Correction	dB(A)	-15.4	-15.3	-15.3	-15.2	-15.3	-15.4	-15.3	-15.3	-15.3	-15.3	-14.9	0.0	-15.0	-14.9	0.0	-15.0	-14.9	0.0
Distance Correction	dB(A)	-10.7	-10.0	-9.6	-9.3	-10.0	-10.6	-9.7	-9.2	-9.8	-9.8	-10.6	-10.0	-10.4	-10.6	-10.0	-10.4	-10.6	-10.3
Air Absorption	dB(A)	-2.1	-1.8	-1.6	-1.5	-1.8	-2.1	-1.7	-1.5	-1.6	-1.7	-2.1	-1.9	-2.0	-2.1	-1.8	-2.0	-2.1	-1.8
View Angle Correction	dB(A)	-0.7	-0.7	-0.7	-0.7	-0.7	-0.5	-0.5	-0.5	-0.5	-0.5	-0.8	-0.8	-0.8	-0.7	-0.8	-0.8	-0.7	
L <sub>100, min</sub>	dB(A)	30.0	33.6	33.3	38.3	35.7	29.6	32.0	32.0	38.4	35.7	31.1	21.8	36.9	31.0	22.2	22.2	36.6	
Noting Noise Overall (L <sub>100, min</sub> )	dB(A)	46																	

NSR ID	NSR# 07-11																		
	Description																		
	Assessment Floor																		
Track	6/F																		
Track ID	TML																		
Unit	Unit	TML_NB_1	TML_NB_2	TML_NB_3	TML_NB_4	TML_NB_5	TML_SB_1	TML_SB_2	TML_SB_3	TML_SB_4	TML_SB_5	LRT_NB_1	LRT_NB_2	LRT_NB_3	LRT_SB_1	LRT_SB_2	LRT_SB_3		
SEL <sub>100</sub>	dB(A)	81.9	81.9	81.9	81.9	81.9	81.2	81.2	81.2	81.2	81.2	73.8	73.8	73.8	73.8	73.8	73.8	73.8	
Train Frequency Correction	dB(A)	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+10.0	+10.0	+10.0	+10.0	+10.0	+10.0	+10.0	
Time Correction (30min)	dB(A)	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	
Track Obstruction Correction	dB(A)	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	
Facade Correction	dB(A)	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	
Barrier Correction	dB(A)	-15.4	-15.3	-15.3	-15.2	-15.3	-15.4	-15.3	-15.3	-15.3	-15.3	-14.9	0.0	-15.0	-14.9	0.0	-15.0	-14.9	0.0
Distance Correction	dB(A)	-10.7	-10.0	-9.6	-9.3	-10.0	-10.6	-9.7	-9.2	-9.8	-9.8	-10.6	-10.0	-10.4	-10.6	-10.0	-10.4	-10.6	-10.3
Air Absorption	dB(A)	-2.1	-1.7	-1.5	-1.4	-1.8	-2.1	-1.6	-1.4	-1.3	-1.7	-2.1	-1.8	-2.0	-2.0	-1.8	-2.0	-1.8	
View Angle Correction	dB(A)	-0.6	-0.6	-0.6	-0.6	-0.6	-0.5	-0.5	-0.5	-0.5	-0.5	-0.8	-0.8	-0.8	-0.7	-0.8	-0.8	-0.7	
L <sub>100, min</sub>	dB(A)	30.7	33.9	33.6	38.4	35.6	29.8	32.3	32.3	39.5	36.5	31.1	21.6	36.9	31.6	22.3	22.3	36.4	
Noting Noise Overall (L <sub>100, min</sub> )	dB(A)	46																	

Appendix 4.4 - Detail of Predicted Railway Noise Level at 7/F

TML

Monitoring Condition	Data	Unit
Train Length	8	Cars
Train Speed	130	km/hr
Monitoring Distance	25	m
SEL (North Bound)	81.4	dB(A)
SEL (South Bound)	80.7	dB(A)

Operation Detail (Worst Case Scenario)	Data	Unit
Train Length	130	Cars
Train Speed	130	km/hr
Train Frequency	40	Train/Hour
Train Frequency	30	Train/30min

SEL <sub>100</sub> (9 Cars, 130km/hr, measured 25m)	Data	Unit
SEL <sub>100</sub> (North Bound)	81.9	dB(A)
SEL <sub>100</sub> (South Bound)	81.2	dB(A)

LAT

Monitoring Condition	Data	Unit
Train Length	2	Cars
Train Speed	70	km/hr
Monitoring Distance	25	m
L <sub>10</sub>	65	dB(A)
SEL	70.9	dB(A)

Operation Detail (Worst Case Scenario)	Data	Unit
Train Length	2	Cars
Train Speed	70	km/hr
Train Frequency	10	Train/Hour
Train Frequency	10	Train/30min

SEL <sub>100</sub> (2 Cars, 70km/hr, measured 25m)	Data	Unit
SEL <sub>100</sub>	70.9	dB(A)

NSR ID	NSR 77 01											
	Conference Room (1)											
Description	7/F											
Assessment Floor	7/F											
Track	TML											
Track ID	Unit	TML_NB_1	TML_NB_2	TML_NB_3	TML_NB_4	TML_NB_5	TML_SB_1	TML_SB_2	TML_SB_3	TML_SB_4	TML_SB_5	
SEL <sub>100</sub>	dB(A)	81.9	81.9	81.9	81.9	81.9	81.2	81.2	81.2	81.2	81.2	
Train Frequency Correction	dB(A)	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	
Time Correction (30min)	dB(A)	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	
Track Obstruction Correction	dB(A)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Facade Correction	dB(A)	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	
Barrier Correction	dB(A)	-15.3	-15.2	-15.1	-15.1	-15.2	-15.3	-15.2	-15.1	-15.1	-15.2	
Distance Correction	dB(A)	-10.6	-10.0	-9.6	-9.5	-10.4	-10.5	-9.7	-9.3	-9.2	-10.2	
Air Absorption	dB(A)	-2.1	-1.8	-1.6	-1.6	-2.0	-2.0	-1.7	-1.5	-1.5	-1.9	
View Angle Correction	dB(A)	-0.1	-0.8	-0.1	-0.1	-0.3	-0.8	-0.0	-0.0	-0.8	-0.5	
L <sub>10</sub> , min	dB(A)	30.0	34.1	33.4	37.6	34.0	30.5	33.6	33.2	37.7	34.4	
Noting Noise Overall (L <sub>10</sub> , min)	dB(A)											45

NSR ID	NSR 77 02											
	Conference Room (2)											
Description	7/F											
Assessment Floor	7/F											
Track	TML											
Track ID	Unit	TML_NB_1	TML_NB_2	TML_NB_3	TML_NB_4	TML_NB_5	TML_SB_1	TML_SB_2	TML_SB_3	TML_SB_4	TML_SB_5	
SEL <sub>100</sub>	dB(A)	81.9	81.9	81.9	81.9	81.9	81.2	81.2	81.2	81.2	81.2	
Train Frequency Correction	dB(A)	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	
Time Correction (30min)	dB(A)	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	
Track Obstruction Correction	dB(A)	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	
Facade Correction	dB(A)	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	
Barrier Correction	dB(A)	-15.3	-15.2	-15.2	-15.1	-15.2	-15.3	-15.2	-15.1	-15.1	-15.2	
Distance Correction	dB(A)	-10.6	-10.0	-9.7	-9.6	-10.5	-10.6	-9.8	-9.4	-9.3	-10.2	
Air Absorption	dB(A)	-2.1	-1.8	-1.6	-1.6	-2.0	-2.0	-1.7	-1.5	-1.5	-1.9	
View Angle Correction	dB(A)	-0.1	-0.9	-0.2	-0.1	-0.3	-0.8	-0.0	-0.1	-0.8	-0.4	
L <sub>10</sub> , min	dB(A)	30.8	34.0	33.2	37.4	34.0	30.5	33.5	33.0	37.5	34.4	
Noting Noise Overall (L <sub>10</sub> , min)	dB(A)											44

NSR ID	NSR 77 03											
	Superintendent's Office											
Description	7/F											
Assessment Floor	7/F											
Track	TML											
Track ID	Unit	TML_NB_1	TML_NB_2	TML_NB_3	TML_NB_4	TML_NB_5	TML_SB_1	TML_SB_2	TML_SB_3	TML_SB_4	TML_SB_5	
SEL <sub>100</sub>	dB(A)	81.9	81.9	81.9	81.9	81.9	81.2	81.2	81.2	81.2	81.2	
Train Frequency Correction	dB(A)	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	
Time Correction (30min)	dB(A)	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	
Track Obstruction Correction	dB(A)	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	
Facade Correction	dB(A)	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	
Barrier Correction	dB(A)	-15.3	-15.2	-15.2	-15.1	-15.2	-15.3	-15.2	-15.1	-15.1	-15.2	
Distance Correction	dB(A)	-10.6	-10.0	-9.8	-9.7	-10.5	-10.6	-9.8	-9.4	-9.3	-10.2	
Air Absorption	dB(A)	-2.1	-1.8	-1.7	-1.7	-2.0	-2.1	-1.7	-1.5	-1.5	-1.9	
View Angle Correction	dB(A)	-0.1	-0.9	-0.3	-0.2	-0.2	-0.8	-0.1	-0.2	-0.8	-0.3	
L <sub>10</sub> , min	dB(A)	30.7	33.8	32.9	37.2	34.0	30.4	33.3	32.7	37.3	34.5	
Noting Noise Overall (L <sub>10</sub> , min)	dB(A)											44

NSR ID	NSR 77 04											
	Assistant Superintendent's Office											
Description	7/F											
Assessment Floor	7/F											
Track	TML											
Track ID	Unit	TML_NB_1	TML_NB_2	TML_NB_3	TML_NB_4	TML_NB_5	TML_SB_1	TML_SB_2	TML_SB_3	TML_SB_4	TML_SB_5	
SEL <sub>100</sub>	dB(A)	81.9	81.9	81.9	81.9	81.9	81.2	81.2	81.2	81.2	81.2	
Train Frequency Correction	dB(A)	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	+13.0	
Time Correction (30min)	dB(A)	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	-32.6	
Track Obstruction Correction	dB(A)	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	+3.0	
Facade Correction	dB(A)	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	+2.5	
Barrier Correction	dB(A)	-15.3	-15.2	-15.2	-15.1	-15.2	-15.3	-15.2	-15.1	-15.1	-15.2	
Distance Correction	dB(A)	-10.6	-10.0	-9.8	-9.7	-10.5	-10.6	-9.8	-9.4	-9.3	-10.2	
Air Absorption	dB(A)	-2.2	-1.9	-1.7	-1.7	-2.0	-2.1	-1.8	-1.6	-1.5	-1.9	
View Angle Correction	dB(A)	-0.1	-0.9	-0.4	-0.2	-0.2	-0.8	-0.1	-0.3	-0.8	-0.3	
L <sub>10</sub> , min	dB(A)	30.6	33.6	32.7	37.1	34.0	30.3	33.1	32.5	37.1	34.5	
Noting Noise Overall (L <sub>10</sub> , min)	dB(A)											44