MTR Corporation Limited

Tung Chung Line Extension

Construction Noise Management Plan
(for Works Contract No. 1201)

(Condition 2.13 of EP-614/2022)

Verified by: Adi Lee

Position: Independent Environmental Checker

Date: 30 October 2023

MTR Corporation Limited

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Certified by: Edan Li

Position: Environmental Team Leader

Date: 30 October 2023

Tung Chung Line Extension
Works Contract No. 1201
Tung Chung West Station and Tunnels

Construction Noise Management Plan
(Pursuant to the Condition 2.13 of Environmental Permit – No. EP-614/2022)

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APPENDICES

1 INTRODUCTION

1.1 Project Description

1.1.1 Tung Chung Line Extension (hereafter referred to as "the Project") is an approximately 1.3km extension of the existing Tung Chung Line (TCL) with two new stations namely Tung Chung East Station (TCE) and Tung Chung West Station (TCW). This Project forms a complementary package of sustainable transport solution in support of the future land supply, housing developments and airport expansion plans at Lantau North.

1.1.2 Tung Chung West Station and Tunnels (Contract No. 1201), under the Project, consist of the construction work between Tung Chung Crescent (TCC), which is beside Tung Chung Station (TUC), and new proposed underground TCW station.

1.1.3 Scope of works of the Contract No. 1201 includes:

- Extending the existing Tung Chung Line from existing overrun tunnel of Tung Chung Station (TUC) to the new Tung Chung West (TCW) Station (in the form of a tunnel);
- Construction of a new TCW Station (underground) and overrun tunnel;
- Construction of the Emergency Access Point (EAP)/Emergency Egress Point (EEP) building;
- Station associated facilities (entrances, vent shaft structures, etc.); and
- Work sites / work areas, barging facility, etc.

1.1.4 The site layout plan for the project is shown in **Appendix A**. The detail construction work programme can refer to **Appendix B**.

1.2 Purpose of this Plan

1.2.1 Pursuant to the Environmental Permit (No. EP-614/2022), Part C, Special Condition, Clause 2.13, a Construction Noise Management Plan (CNMP) (hereafter referred to as "the Plan") developed by the Permit Holder (MTR Corporation Limited, MTRCL) shall be submitted no later than 2 months before commencement of the construction works of relevant Works Contract of the Project.

1.2.2 The purpose of this Plan is to identify the latest inventory of noise sources and assess the effectiveness of construction noise mitigation measures, including the use of quieter powered mechanical equipment, noise barriers and noise enclosures as recommended in the EIA report (No. AEIAR-235/2022). This Plan also review the practicality of the use of quieter construction equipment/methods, such as hydraulic crusher/ hand-held concrete crusher for demolition, diamond wire saw/ non-explosive chemical expansion agent for rock/concrete breaking, silent piling by Press-in method for sheet piles etc., when necessary.

1.2.3 There are 2 CNMPs (1 for Contract No.1201 and 1 for Contract No. 1202) under EP. This Plan will focus on works of Contract No. 1201 at TCW, EAP/EEP, TCC and barging facility. This Plan will cover the construction works from November 2023 until the completion of construction works (i.e. June 2029).

2 ENVIRONMENTAL LEGISLATION, POLICIES, PLANS, STANDARDS AND CRITERIA

2.1.1 The main legislative instrument to control construction noise and the subsidiary regulations include:

- Noise Control Ordinance (NCO) (Cap 400);
- Technical Memorandum (TM) on Noise from Construction Work other than Percussive Piling (GW-TM);
- TM on Noise from Percussive Piling (PP-TM);
- TM on Noise on Construction Work in Designated Area (DA-TM); and
- Environmental Impact Assessment Ordinance (EIAO) (Cap. 499) and EIAO-TM.

2.1.2 The NCO provides the statutory framework for noise control of construction work other than percussive piling using Powered Mechanical Equipment (PME) between the hours of 1900 to 0700 and at any time on Sundays and general holidays (i.e. restricted hours). Noise from construction activities in non-restricted hours is subject to the Criteria for evaluating noise impact stated in Table 1B of Annex 5 in the EIAO-TM. The noise criteria are 75dB(A) $L_{eq30mins}$ at the 1m from facades of dwellings and 70dB(A) $L_{eq30mins}$ at the 1m from facades of schools (65dB(A) during examination). The construction noise criteria are summarized in **Table 2.1**.

Table 2.1: Daytime Construction Noise Criteria

Uses	Noise Criteria in $L_{eq,30mins}$, dB(A)
Domestic Premises, Hotels and Hostels	75
Educational Institution	70
Educational Institution (during examination)	65

2.1.3 During restricted hours, the use of PME requires a Construction Noise Permit (CNP). The GW-TM details the procedures adopted by Environmental Protection Department (EPD) for assessing such application. The granting of a CNP is subject to conditions stated in the CNP and it may be revoked at any time for failure to comply with the permit conditions.

2.1.4 The use of Specified Powered Mechanical Equipment (SPME) and the undertaking of Prescribed Construction Work (PCW) during the restricted hours in a designated area are controlled by the DA-TM. The DA-TM details the procedures that should generally be adopted by the Noise Control Authority for assessing the use of SPME during restricted hours and for determining whether a CNP would be issued.

2.1.5 Maximum noise levels from construction activities during restricted hours at affected Noise Sensitive Receivers (NSRs) are controlled under the GW-TM and DA-TM and shall not exceed the specified Acceptable Noise Levels (ANLs). These ANLs are stipulated in accordance with the Area Sensitivity Ratings established for the NSRs, as summarized in **Table 2.2**.

Table 2.2: ANLs for Construction during Restricted Hours

Time Period	ANLs for Area Sensitivity Ratings[#1], dB(A)		
	A	B	C
All days during the evening (1900 to 2300 hours), and general holidays (including Sundays) during the day and evening (0700 to 2300 hours)	60 (45)	65 (50)	70 (55)
All days during the night-time (2300 to 0700 hours)	45 (30)	50 (35)	55 (40)

Remark:

1. Figures in brackets are ANLs for SPME construction work in designated areas.

2.1.6 Under the PP-TM, CNPs are also required for percussive piling involving the use of diesel, pneumatic and / or steam hammer. PP-TM specifies the permitted hours and other conditions for percussive piling. The acceptable noise levels of percussive piling for various types of NSR are summarized in **Table 2.3**.

Table 2.3: ANLs for Percussive Piling

NSR Window Type or Means of Ventilation	ANL, dB(A)
NSR (or part of NSR) with no window or other opening	100
NSR with central air conditioning system	90
NSR with windows or other openings but without central air conditioning system	85

2.1.7 Depending on the numbers and types of piling machines and the separation from NSRs, percussive piling may be restricted to 12, 5 or 3 hours per day. For NSRs that are particularly sensitive to noise, such as hospitals, medical clinics, educational institutions and courts of law, a further reduction of 10dB(A) shall be applied to the above ANLs.

3 CONSTRUCTION AIRBORNE NOISE (ABN) IMPACT ASSESSMENT

3.1 Construction ABN Impact Assessment Methodology

3.1.1 Construction noise assessment will be conducted based on the following procedures:

- Determine 300m from the boundary of the Project and from any works of the Project;
- Identify and locate representative NSRs that may be affected by the works;
- Obtain the construction method and work sequence for the construction period;
- Obtain the construction plant inventory for each corresponding construction work sequence;
- Determine the Sound Power Levels (SWLs) of the plant items according to the information stated in the GW-TM or other recognised sources of reference, where appropriate;
- Calculate the correction factors based on the distance between the NSRs and the notional noise source positions of the work sites;
- Apply corrections for façade, distance, barrier attenuation, acoustic reflection, where appropriate;
- Predict construction noise levels at the NSRs;
- Quantify the level of impact at the NSRs, in accordance with GW-TM;
- Predict the cumulative noise impacts for any concurrent construction works in the vicinity of the proposed work;
- For any exceedance of noise criteria, all practical mitigation measures such as alternative quieter construction methodology, quiet plant, silencer, enclosure, etc., shall be examined to alleviate the predicted noise impacts as much as practicable.

3.2 Noise Sensitive Receivers (NSRs)

3.2.1 To evaluate the construction noise impacts from the project, representative existing NSRs of the project have been identified and are summarized in **Table 3.1**. Residential premises and educational institutions closest to the construction site areas are identified as the representative NSRs. The locations of the NSRs are shown in **Appendix A**.

Table 3.1: Representative Noise Sensitive Receivers (NSRs)

Site Area	NSR ID	NSR Description	Uses
TCC & EAP/EEP	TCC-01a	Tung Chung Crescent Block 1	Residential
	TCC-03a	Tung Chung Crescent Block 3	
	TCC-05a	Tung Chung Crescent Block 5	
	TCC-07a	Tung Chung Crescent Block 7	
	TCC-09a	Tung Chung Crescent Block 9	
	ESHI-01a	Sunshine House International Pre-school (Tung Chung) [#1]	Educational Institution
TCW	MWC-01a	Ma Wan Chung	Residential
	YTE-01a	Yat Tung Estate Fuk Yat House	

TCW	YTE-02a	Yat Tung Estate Luk Yat House	Residential
	YTE-03a	Yat Tung Estate Ying Yat House	
	YTE-04a	Yat Tung Estate Yu Yat House	
	YTE-14a	Yat Tung Estate Chui Yat House	
	YTE-15a	Yat Tung Estate Yuet Yat House	
	YTE-16a	Yat Tung Estate Sui Yat House	
	MTE-01a	Mun Tung Estate Mun Wo House	
	HLP-01a	Ha Ling Pei Village	
	ETCCS-01a	Tung Chung Catholic School Primary Section	Educational Institution
Barging Facility	LED-06a	Le Bleu Deux Block 6	Residential
	LED-07a	Le Bleu Deux Block 7	
	A54-01a	Yu Nga Court	

Remark:

1. No examination will be conducted in ESHI-01a.

3.3 Identification of Construction Noise Impacts

3.3.1 Potential noise impacts are likely raised by the following key construction activities:

- Demolition of footbridge at Yu Tung Road
- Construction of the Tunnel Boring Machine (TBM) launching shaft/retrieval shaft near TCC;
- Underground TBM operation;
- Construction of the EAP/EEP at the artificial slope located West of Shun Tung Road;
- Construction of the underground TCW Station;
- Construction of the above-ground vent shaft structures and the station entrances at TCW Station;
- Establishment and operation of the barging facility at seawall of Tung Chung East

3.3.2 Respective list of Powered Mechanical Equipment (PME) and their detail Sound Power Level (SWL) calculation of key construction activities are listed in **Appendix C**. For PME not included in the GW-TM and the list of 'SWLs of other commonly used PME' by the EPD, their SWL values are made reference to other equipment in the list with similar operation noise and considered reasonable by Project Engineers.

3.3.3 The construction of the Project will be carried out concurrently with the project under Tung Chung New Town Extension (TCNTE). The cumulative noise impacts caused by concurrent projects under TCNTE were assessed in this CNMP. Details of the concurrent construction activities could refer to the approved EIA of TCNTE (No. AEIAR-196/2016).

3.4 Prediction and Evaluation of Noise Impacts

3.4.1 The Corrected Noise Level (CNL) and corresponding noise exceedance to the NSRs are listed in **Table 3.2**. Detail calculations for daytime activities are shown in **Appendix D**.

Table 3.2: Summary of Unmitigated CNL and Noise Exceedance of Each NSR

Site Area	NSR ID	NSR Description	Predicted Unmitigated Construction Noise Levels (Leq_{30min}), dB(A)	Noise Criteria, dB(A)	Max Noise Exceedance, dB(A)
TCC & EAP/ EEP	TCC-01a	Tung Chung Crescent Block 1	73 – 83	75	8
	TCC-03a	Tung Chung Crescent Block 3	74 – 83	75	8
	TCC-05a	Tung Chung Crescent Block 5	74 – 83	75	8
	TCC-07a	Tung Chung Crescent Block 7	73 – 82	75	7
	TCC-09a	Tung Chung Crescent Block 9	75 – 83	75	8
	ESHI-01a	Sunshine House International Pre-school (Tung Chung)	68 – 77	70	7
TCW	MWC-01a	Ma Wan Chung	74 – 85	75	10
	YTE-01a	Yat Tung Estate Fuk Yat House	75 – 89	75	14
	YTE-02a	Yat Tung Estate Luk Yat House	79 – 88	75	13
	YTE-03a	Yat Tung Estate Ying Yat House	74 – 87	75	12
	YTE-04a	Yat Tung Estate Yu Yat House	74 – 87	75	12
	YTE-14a	Yat Tung Estate Chui Yat House	78 – 86	75	11
	YTE-15a	Yat Tung Estate Yuet Yat House	75 – 87	75	12
	YTE-16a	Yat Tung Estate Sui Yat House	72 – 87	75	12
	MTE-01a	Mun Tung Estate Mun Wo House	64 – 71	75	0
	HLP-01a	Ha Ling Pei Village	65 – 72	75	0
	ETCCS-01a	Tung Chung Catholic School Primary Section	73 – 80	70	10
		Tung Chung Catholic School Primary Section (examination period)	73 – 79	65	14

Barging Facility	LED-06a	Le Bleu Deux Block 6	65 - 71	75	0
	LED-07a	Le Bleu Deux Block 7	65 - 71	75	0
	A54-01a	Yu Nga Court	65 - 72	75	0

3.5 Mitigation and Control Measures of Noise Impacts

3.5.1 To mitigate noise impacts during construction phases, the following mitigation and control measures have been considered:

- Multi-phase construction for D-wall Construction;
- Separation of major PMEs for D-wall Construction;
- Use of retractable noise barrier
- Use of noise enclosure and noise cover for TBM Launching Shaft/Retrieval Shaft and Slurry Treatment Plant (STP) near TCC
- Use of semi noise enclosure, noise barrier and noise cover for the mucking out location at the EAP/EEP near Shun Tung Road
- Use of quiet construction method

3.5.2 Detailed proposed noise mitigation/control measures are listed in **Appendix E**. The implementation schedule of the noise mitigation measures is summarised in **Appendix F**.

Multi-phase Construction for D-wall Construction

3.5.3 Construction noise impact during normal daytime working hours will be minimized by proactive planning of working sequences for multi-phase construction.

3.5.4 At TCW, D-wall construction will be executed in two phases. During phase 1, major PMEs will be operated at East of zone 1b, 1a and 2b and West of zone 2a, 3b and 3a. D-wall construction will also be conducted at of North and South of Entrance A (Ent A) as well as West of North Ventilation Shaft (NVS). In phase 2, major PMEs at zone 1b, 1a and 2b will start to be operated at West of their respective zones which is further away from Yat Tung Estate. In this case, major PMEs at zone 2a, 3b and 3a will be operated at East of their respective zones. D-wall construction will also be conducted at West of Ent A as well as North and South of NVS. This will avoid the major PMEs working at the same side at the same time to minimize the construction noise impact.

3.5.5 The zoning of the multi-phase construction is shown in **Appendix E1**. The multi-phase construction schedule will be adopted as far as practicable during the planning of the construction programme.

Separation of Major PMEs for D-wall Construction

3.5.6 There will be minimum 50m separation between major PMEs of different zones, such as trench cutter, hydraulic grab, concrete truck with crawler crane and drilling rig with crawler crane. Besides, trench cutter and hydraulic grab in the same zone of zone 3a or zone 3b will be separated by minimum 30m. This is to make sure the major noise sources will not be too close together to affect the same NSR.

Retractable Noise Barrier

3.5.7 Movable noise barrier that can be easily moved along with the PMEs is required for construction activities at TCW. Retractable noise barriers can be suitably designed for the required PMEs. The retractable noise barrier has the following features:

- At least 4kg/m^2 and lined with 50mm thick sound absorptive material, or equivalent performance;
- Quick and easy installation (can be done manually if site condition allows); and
- Wind-load relieving mechanism.

3.5.8 **Appendix E2** shows the details of the retractable noise barrier. Catalog of the retractable noise barrier is shown in **Figure E2.1**. Sample photos are shown in **Photo E2.1** to **E2.4**

a) Retractable Noise Barrier for D-wall Construction and H-pile Activity near Yat Tung Estate

3.5.9 As the work fronts of D-wall construction and H-pile activity are relatively close to the NSRs than other construction activities, retractable noise barriers of 9m high at zone 1a, 1b, 2a, 2b, 3a and 3b for D-wall construction and H-pile activity will be installed to mitigate the noise from critical PMEs such as trench cutter, hydraulic grab, drilling rig and concrete truck for the construction works near Yat Tung Estate. Localized noise barriers of 7m height at Entrance A and NVS for D-wall construction and H-pile activity will also be installed. At least 10dB(A) barrier effect will be provided by the noise barrier to NSRs at low levels which are blocked. Noise level lower than 75dB(A) will be received by the NSRs at high levels due to sufficient distance attenuation. The retractable noise barriers will first be installed in front of the first D-wall construction location, and extended along as the D-wall construction proceeds to other locations. Design of 9m high noise barrier is presented in **Figure E2.2** in **Appendix E2.**

3.5.10 **Figure E2.3** and **Figure E2.4** in **Appendix E2** show the schematic of noise barrier for D-wall construction.

b) Retractable Noise Barrier for NSR at Ma Wan Chung

3.5.11 As vent shaft structures and bar bending activities are very close to the residential area at Ma Wan Chung (MWC-01a), 4m high retractable noise barriers along the site boundary are proposed. The location and the section drawing of the noise barrier are shown in **Figure E2.5** in **Appendix E2**.

Noise Enclosure and Noise Cover at Ground Level for TBM Launching Shaft/Retrieval Shaft and Slurry Treatment Plant (STP) near TCC

3.5.12 For 24-hour TBM operation, noise enclosure and noise cover will be installed for the launching shaft/retrieval shaft to mitigate the noise impacts to NSRs. Correspondingly, PMEs in STP site at the opposite side of Shun Tung Road will be installed with individual noise enclosures (i.e. one noise enclosure for one PME). Due to possible door opening for noise enclosures during daytime, **10dB(A) barrier effect** is applied on the PMEs inside noise enclosures for daytime noise calculation, without line of sight from NSRs, as conservative approach. Sample drawings of the individual noise enclosures are shown in

Figure E2.6 in **Appendix E2**.

3.5.13 Detail information about noise enclosure and noise cover in TCC can be referred to "Plan on Noise Enclosure at Tung Chung Crescent". Detail noise enclosure and noise cover setup are shown in **Appendix E3**.

Semi Noise Enclosure, Noise Barrier and Noise Cover for the Mucking Out Location at the EAP/EEP near Shun Tung Road

3.5.14 For site clearance work at the EAP/EEP near Shun Tung Road, semi noise enclosure will be installed to screen the breaker head of the mini-robot mounted breaker from the NSRs. In addition, localized noise barriers will also be installed next to the mini-robot mounted breaker. Sample photo of the semi noise enclosure is shown in **Photo E2.5**.

3.5.15 Hydraulic rock drill and hydraulic breaker will be used under the Tung Chung Auxiliary Building (TCA) shaft at the EAP/EEP for rock excavation. A removable noise cover made of noise barrier mat with at least 4kg/m^2 surface density, or material with equivalent performance, will be installed at the shaft opening to screen the PME from the NSRs.

Quieter Construction Method

a) Quality Powered Mechanical Equipment (QPME)

3.5.16 **Table 3.3** shows the Powered Mechanical Equipment (PME) with QPME label to be adopted with their respective maximum permissible SWL.

Table 3.3: Summary of Proposed QPME SWL

QPME Type to be Adopted	Maximum permissible SWL, dB(A)	Sample QPME Label
Crane, mobile (diesel) (for Hydraulic Grab)	109 [1]	EPD-13883
Crane, mobile (diesel)	101 [2]	EPD-13682
Excavator, wheeled/tracked	103 [3]	EPD-13929
Excavator, wheeled/tracked (telescopic)	105 [4]	EPD-06819
Breaker, hand-held	108 [5]	EPD-12120
Generator	95 [6]	EPD-13892
Air Compressor	101 [7]	EPD-13673

Remark:
The exact brand, model of QPMEs being adopted shall be based on the maximum permissible SWL. The following are the QPME being referenced:

1. Liebherr HS 8130.1 (EPD-13883)
2. Kobelco CKS900 (EPD-13682)
3. Hitachi ZX200-5A (EPD-13929)
4. Hitachi ZX330LC-5A (EPD-06819)
5. Milwaukee Tool K1528H (EPD-12120)
6. Airman SDG150S-3B1 (EPD-13892)
7. Atlas Copco XRHS1150CD (EPD-13673)

b) Electric Plants

3.5.17 Electric plants such as electrical mobile crane for trench cutter and hydraulic grab with SWL of 106dB(A) will also be considered to be used for D-wall construction at TCW, as

an alternate of the noisier diesel mobile crane with SWL of 109dB(A). Technical specification of electrical mobile crane is shown in **Figure E4.1** to **E4.3** of **Appendix E4**.

c) Tunnel Boring Machine (TBM)

3.5.18 **24-hour TBM operation**, which is relatively low noise impacts to NSRs compared to other excavation method such as Drill and Break (D&B), is planned to excavate tunnels between TCC and TCW. **The programme time needed is shortened** significantly. In order to comply with 24-hour TBM operation, a noise enclosure, which is discussed in Section 3.5.12, is also installed at the launching/retrieval shaft to further reduce the noise impacts from TBM Operation. CNP will be applied for 24-hour TBM operation.

d) Top-down Method for TCW Station Construction

3.5.19 Top-down construction method (**Figure E4.4** of **Appendix E4**) will be adopted for the station construction. Environmental impact such as noise and dust nuisance can be minimized significantly with the top slab constructed for bulk excavation in top-down method. Most of the noisy works, for example, excavation and rock breaking will be covered by the top slab. Appropriate noise mitigation measure will be additionally executed for the machinery on the surface. Tight working space in and around the TCW site is a site constraint and adopting the top-down method will **provide much needed working space** utilising the **top slab** as the **temporary working platform** for construction access whilst excavation down to formation level can **proceed underneath**.

e) Use of Mini-robot Mounted Breaker

3.5.20 Footbridge demolition at Yu Tung Road and site clearance at TCC and EAP/EEP are achieved by mini-robot mounted breaker (**Photo E4.1** of **Appendix E4**) for the initial breaking of hard surface, as an alternate of hydraulic excavator mounted breaker. In general, mini-robot mounted breaker has SWL of 115dB(A) which is 7dB(A) (refer to GW-TM) lower than hydraulic excavator mounted breaker and **can finish similar tasks**.

f) Use of Mini-robot mounted Hydraulic Crusher

3.5.21 Footbridge demolition at Yu Tung Road and site clearance at TCW, TCC and EAP/EEP are mainly achieved by mini-robot mounted hydraulic crusher, as an alternate of the mini-robot mounted breaker. The mini-robot mounted breaker is only required for initial breaking of hard surface at TCC and EAP/EEP. The principal of hydraulic crusher is to break the concrete with compression which **eliminates impact and percussive noise** like hydraulic breaker and **generates less dust**. In general, mini-robot mounted hydraulic crusher has SWL of 94dB(A) which is about 20dB(A) (refer to GW-TM) lower than mini-robot mounted breaker and **can finish similar tasks**.

g) Use of Hydraulic Splitter

3.5.22 Rock breaking works at TCW, TCC and EAP/EEP are achieved by hydraulic splitter, as an alternate of hydraulic breaker. In general, hydraulic splitter has SWL of 96dB(A) which is 26dB(A) (refer to GW-TM) lower than hydraulic breaker and **can finish similar tasks**.

h) Use of Wire Saw

3.5.23 Site clearance works at TCC are achieved by wire saw, as an alternate of hydraulic breaker. In general, wire saw has SWL of 101dB(A) which is 21dB(A) (refer to GW-TM) lower than hydraulic breaker and **can finish similar tasks**.

i) Use of Non-explosive Chemical Expansion Agent

3.5.24 Rock breaking works at TCW are achieved by non-explosive chemical expansion agent, which is a soundless chemical demolition agent to significantly reduce noise emission.

j) Use of Non-percussive Piling

3.5.25 Hydraulic press-in method, a silent piling construction method, is used at TCC instead of percussive piling. Non-percussive pile type (i.e. socketed steel H-pile) is used.

Good Site Practices

3.5.26 The following good site practices should be adopted to further alleviate noise impacts:

- Only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction programme;
- Machines and plant (such as trucks, cranes) that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum;
- Plant known to emit noise strongly in one direction, where possible, should be orientated so that the noise is directed away from nearby NSRs;
- Silencers or mufflers which available on construction equipment should be properly fit and maintained during the construction works;
- Spoil transportation routes should be directed away from NSRs as far as practicable;
- Mobile plant should be sited as far away from NSRs as possible and practicable;
- Material stockpiles, site office and other structures should be effectively utilised, where practicable, to screen noise from on-site construction activities;
- Noise monitoring at selected NSRs should be conducted as far as practicable;
- Designated unloading areas should be provided at barging point away from the NSR as far as possible;
- All practicable mitigation measures should be executed to minimize noise impact to the NSRs.

Other Noise Mitigation Measures

3.5.27 The following mitigation measures will also be adopted to reduce the noise impact:

- Noise mitigation measures will be implemented to reduce the noise from PMEs such as trench cutter and hydraulic grab to achieve 5dB(A) noise reduction (**Appendix E5**). The mitigation will include noise barriers (minimum 4kg/m^2 surface density) installed on three sides and the top surface of the engine box, acoustic

silencer installed at the exhaust, and the eco-silent mode system installed to reduce noise emission by reducing the engine speed;

- Drilling rig will be installed with acoustic plenum so that the SWL will achieve 100dB(A) (**Appendix E5**);
- PMEs such as air compressor, grout station and grout pump will be installed with a local enclosure to achieve 10dB(A) noise reduction. The enclosure shall comprise of 4 sides and the top surface, and shall be made of at least STC15 noise panels or alternative materials with equivalent acoustic performance;
- Euro V/VI concrete truck equipped with exhaust gas recirculation (EGR), that can reduce distinctive noise of diesel engine, will be used. SWL measurement will be conducted for concrete truck to verify a lower SWL;
- Retractable noise barrier for rock drill and hydraulic breaker;
- Retractable noise barrier for other activities where required.

3.6 Evaluation of Mitigated Noise Impacts

3.6.1 With the implementation of the above noise mitigation measures, the overall construction noise levels at NSRs could comply with the relevant noise criteria. The predicted mitigated construction noise levels at the NSRs are summarized in **Table 3.4**. Detail calculations of mitigated construction noise levels are shown in **Appendix G**.

Table 3.4: Summary of Mitigated CNL and Noise Exceedance of Each NSR

Site Area	NSR ID	NSR Description	Predicted Mitigated Construction Noise Levels (Leq_{30min}), dB(A)	Noise Criteria, dB(A)	Max Noise Exceedance, dB(A)
TCC & EAP/ EEP	TCC-01a	Tung Chung Crescent Block 1	66 – 74	75	0
	TCC-03a	Tung Chung Crescent Block 3	66 – 74	75	0
	TCC-05a	Tung Chung Crescent Block 5	66 – 74	75	0
	TCC-07a	Tung Chung Crescent Block 7	66 – 73	75	0
	TCC-09a	Tung Chung Crescent Block 9	67 – 75	75	0
	ESHI-01a	Sunshine House International Pre-school (Tung Chung)	61 – 68	70	0
TCW	MWC-01a	Ma Wan Chung	63 – 71	75	0
	YTE-01a	Yat Tung Estate Fuk Yat House	64 – 74	75	0
	YTE-02a	Yat Tung Estate Luk Yat House	66 – 73	75	0
	YTE-03a	Yat Tung Estate Ying Yat House	64 – 73	75	0
	YTE-04a	Yat Tung Estate Yu Yat House	65 – 73	75	0

Site Area	NSR ID	NSR Description	Predicted Mitigated Construction Noise Levels (Leq_{30min}), dB(A)	Noise Criteria, dB(A)	Max Noise Exceedance, dB(A)
TCW	YTE-14a	Yat Tung Estate Chui Yat House	64 – 72	75	0
	YTE-15a	Yat Tung Estate Yuet Yat House	63 – 72	75	0
	YTE-16a	Yat Tung Estate Sui Yat House	60 – 73	75	0
	MTE-01a	Mun Tung Estate Mun Wo House	54 – 62	75	0
	HLP-01a	Ha Ling Pei Village	53 – 64	75	0
	ETCCS-01a	Tung Chung Catholic School Primary Section	59 – 66	70	0
	ETCCS-01a	Tung Chung Catholic School Primary Section (examination period) #1	59 – 65	65	0
Barging Facility #2	LED-06a	Le Bleu Deux Block 6	65 - 71	75	0
	LED-07a	Le Bleu Deux Block 7	65 - 71	75	0
	A54-01a	Yu Nga Court	65 - 72	75	0

Remark:

1. During examination period (noise criteria: 65dB(A)), works at zone 3a and zone 3b in months with noise exceedance will not be operated. The predicted mitigated CNL is 59-65dB(A) and no noise exceedance is resulted, as shown in **Figure G1.12** in **Appendix G**.
2. No noise exceedance is happened under unmitigated scenario. Therefore, the result remains unchanged as shown in **Table 3.2**. Detail construction noise calculation at barging facility is shown in **Appendix D3**.

4 ENVIRONMENTAL MONITORING AND AUDIT DURING CONSTRUCTION STAGE

4.1 Environmental Monitoring and Audit

4.1.1 Environmental Monitoring and Audit (EM&A) Manual will serve as a guideline to set up for an EM&A programme to ensure compliance with the EIA study recommendations, to assess the effectiveness of the recommended mitigation measures and to identify any further need for additional mitigation measures or remedial actions.

4.1.2 The Environmental Team will be responsible for the setup, implementation and maintenance of the EM&A system. Mitigation measures will be immediately implemented once the construction noise level exceeds the limit and action levels under the EM&A Manual's requirement.

4.2 Site Inspection

4.2.1 Regular site inspections will be conducted in order to ensure that the effectiveness of implemented noise mitigation measures and construction noise levels generated are fully complied with requirements.

Appendix A
Site Layout of Construction Site

Figure A: Overall Site Layout of TCW, TC, EAP/EEP and Barging Facility

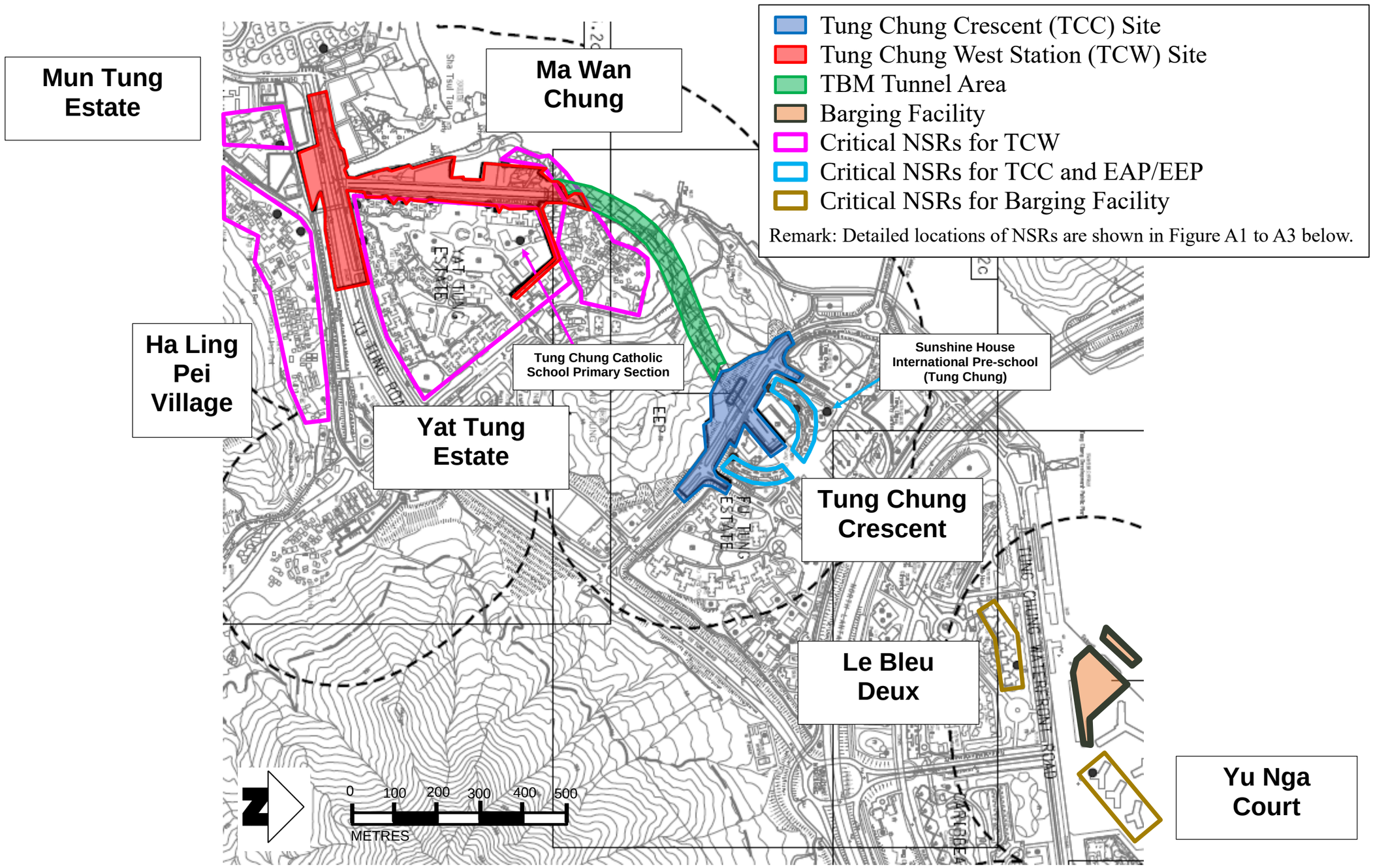


Figure A1: Site Layout of TCW

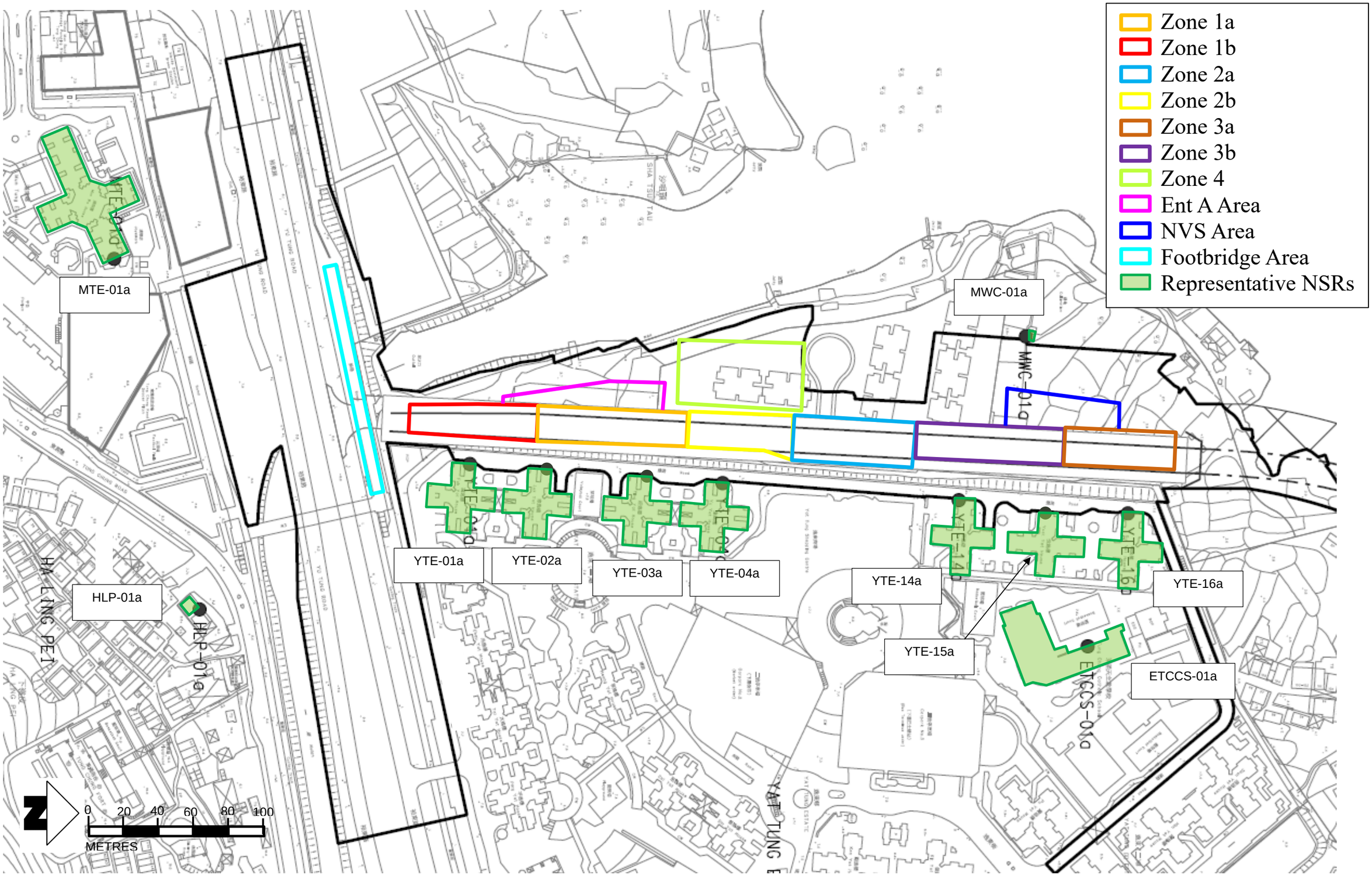


Figure A2: Site Layout of TCC and EAP/EEP

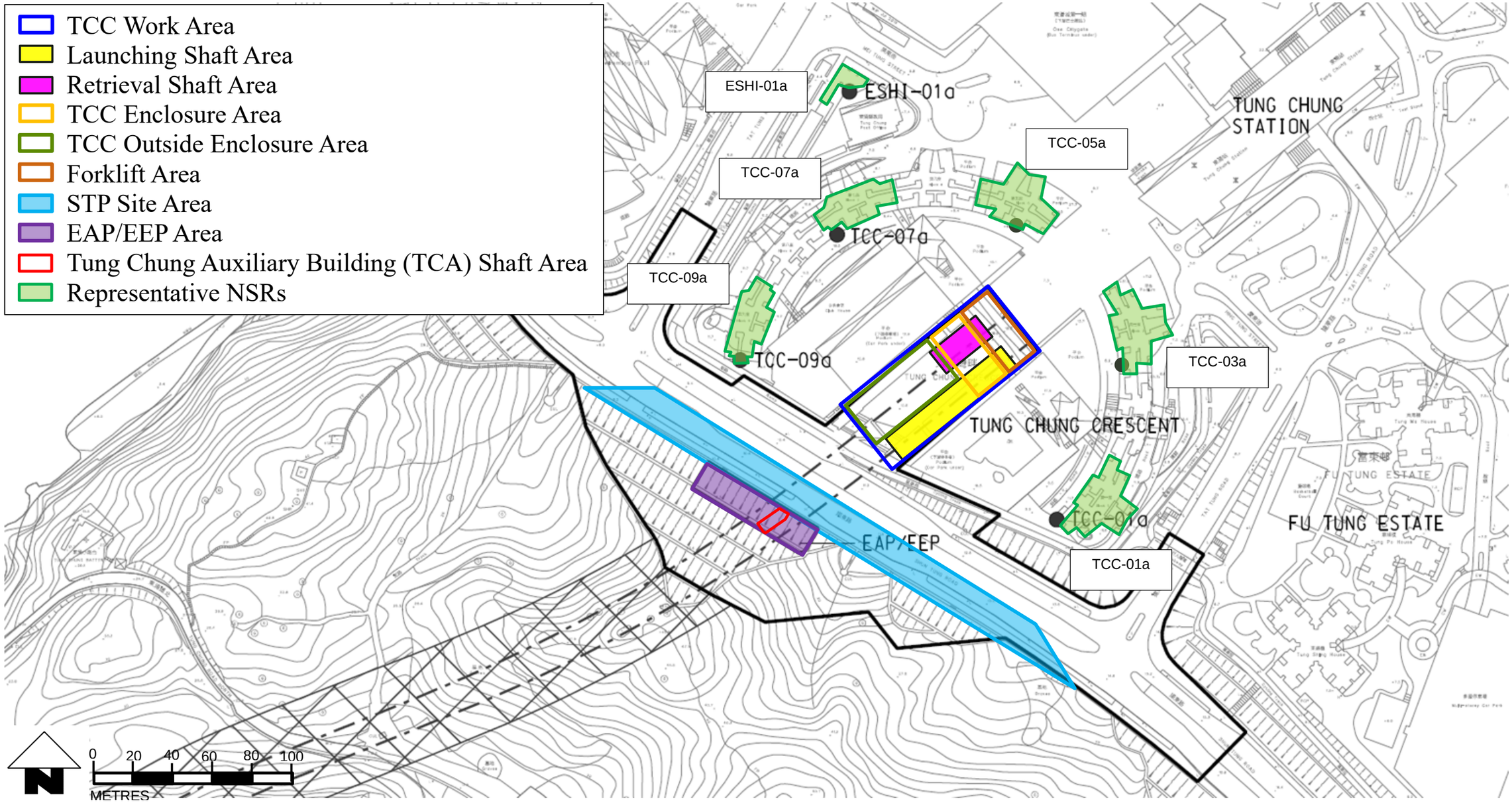
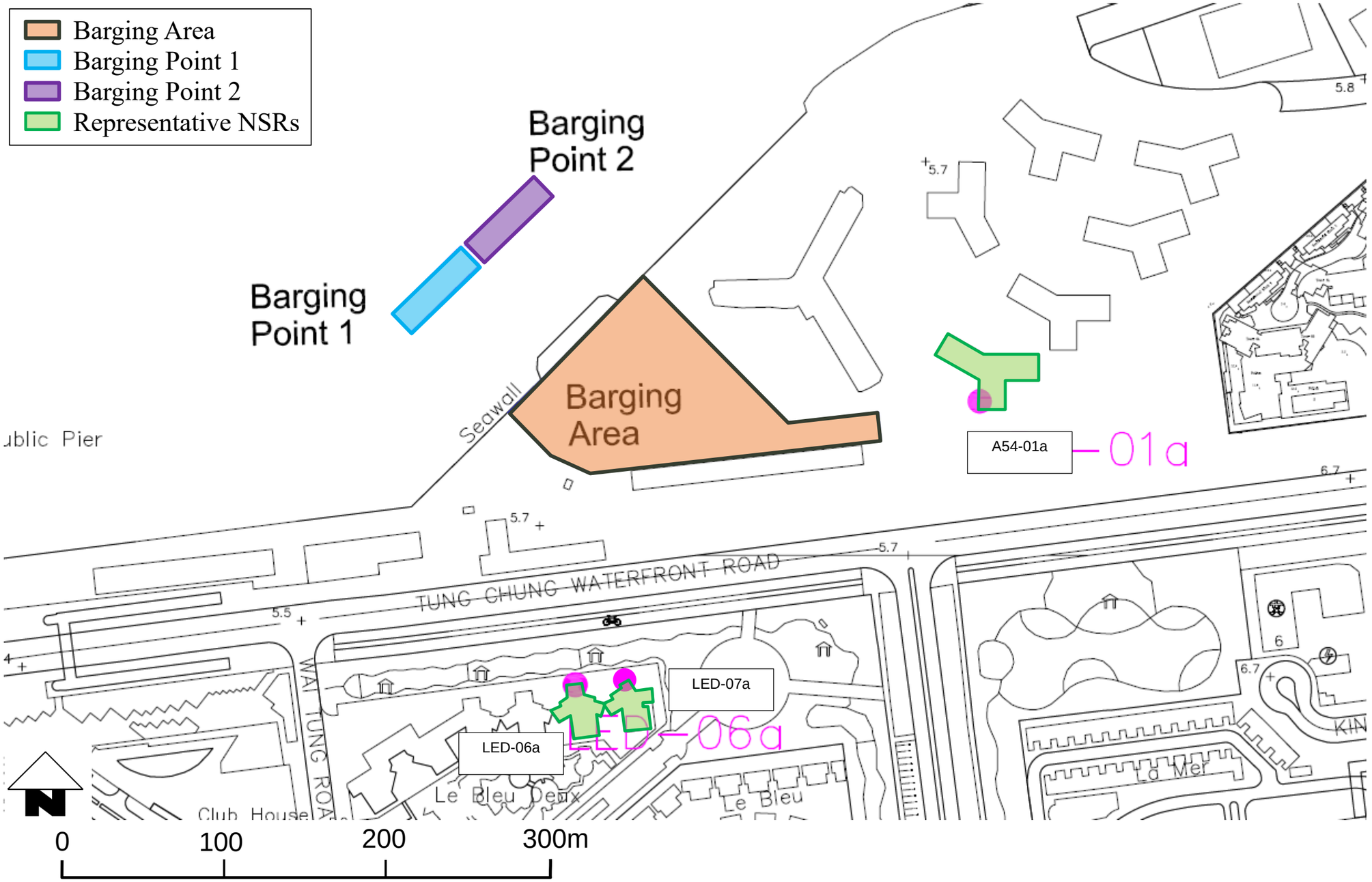


Figure A3: Site Layout of Barging Facility



Appendix B
Construction Work Programme

Figure B1: Construction Work Programme of TCW

Figure B2: Construction Work Programme of TCC and EAP/EEP

Construction Activities	months	Works Zone
Tung Chung Crescent		
Site Clearance	1	TCC Work Area
Pipe Pile Activity / Curtain Wall Grouting	2	Launching Shaft
	3	Retrieval Shaft
Constrcution/Demolition of Noise Enclosure	10	TCC Work Area
Excavation + Lifting+ Dewatering (Drill/Split/Break)	12	TCC Enclosure
Slurry Treatment Plant (STP) Site Set Up Assembly / Disassembly	6	STP Site
Tunnel Boring Machine (TBM) Assembly / Maintanance (inside enclosure)	8	TCC Enclosure
Tunnel Boring Machine (TBM) Assembly / Maintanance (outside enclosure) Group 1	8	TCC Outside Enclosure
Tunnel Boring Machine (TBM) Assembly / Maintanance (outside enclosure) Group 2	8	Forklift Area
Tunnel Boring Machine (TBM) Operation (exclude STP)	14	TCC Enclosure
Tunnel Boring Machine (TBM) Operation (only STP)	14	STP Site
Site Reinstatement	18	TCC Work Area
Slab Work	13	TCC Work Area
EAP/EEP		
Site Clearance	3	EAP/EEP
Excavation + Lifting+ Dewatering (Drill/Split/Break)	12	TCA Shaft
Slope (Rock) + Lifting+ Dewatering / Tie Back Anchor	6	EAP/EEP
Building Works	13	EAP/EEP
Building Services (BS) Work / Test & Comissioning	26	EAP/EEP

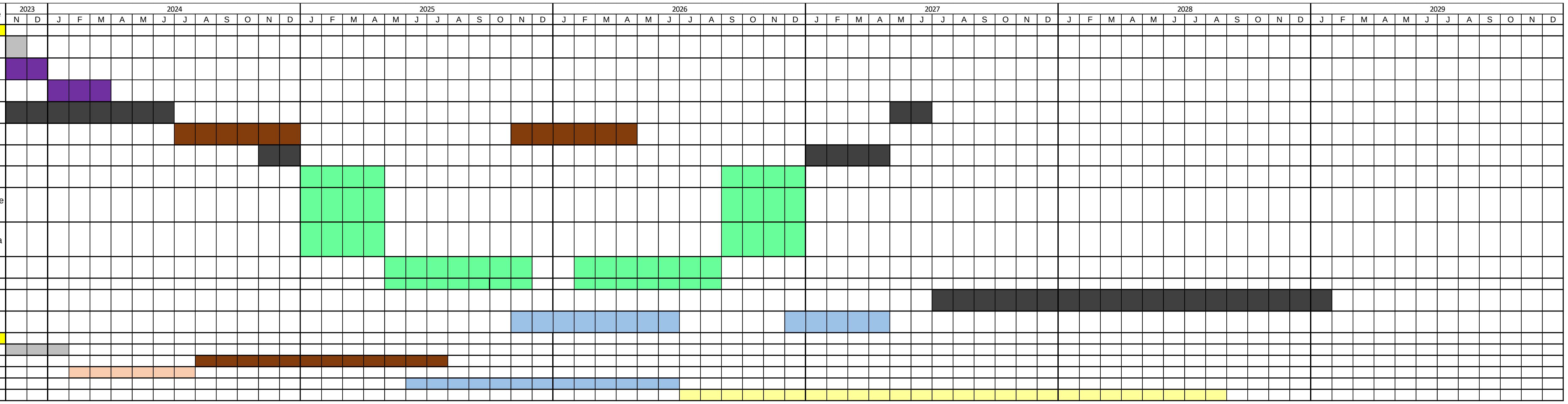
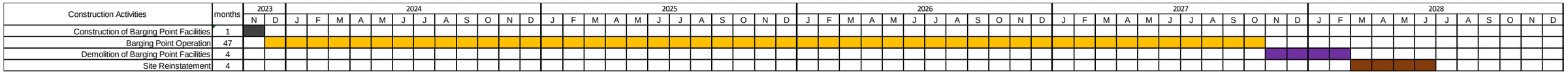


Figure B3: Construction Work Programme of Barging Facility



Appendix C
List of PMEs

Table C1: List of PMEs of TCW

Construction Activities	Equipment (for calculation)	ID Code	SWL, dB(A)	On Time, %	Before Mitigation				Proposed Noise Mitigation	Mitigated SWL	Barrier effect	After Mitigation			
					Qty	Sub-SWL	Group SWL	Max SWL				Qty	Sub-SWL	Group SWL	Max SWL
Tung Chung West															
Site Clearance	Excavator, wheeled/tracked	CNP 081	112	90	2	115	115	116	QPME, Noise Barrier	103	-10	2	96	100	101
	Concrete Crusher, mini-robot mounted [#1]	-	94	50	1	91						1	91		
	Dump truck, gross vehicle weight ≦ 38 tonne [#1]	-	105	70	2	106			Noise Barrier		-10	2	96		
Pre-treatment Works	Drill Rig, rotary type (diesel) [#1]	-	110	90	3	114	116		Acoustic Plenum, Noise Barrier	100	-10	3	94	101	
	Grout mixer [#1]	-	90	50	3	92						3	92		
	Generator, standard	CNP 101	108	90	1	108			QPME	95		1	95		
	Grout Pump [#1]	-	105	50	3	107			Noise Enclosure		-10	3	97		
Pre-treatment for Retaining Wall	Drill Rig, rotary type (diesel) [#1]	-	110	90	3	114	-	116	Acoustic Plenum, Noise Barrier	100	-10	3	94	-	101
	Grout mixer [#1]	-	90	50	3	92						3	92		
	Generator, standard	CNP 101	108	90	1	108			QPME	95		1	95		
	Grout Pump [#1]	-	105	50	3	107			Noise Enclosure		-10	3	97		
Footbridge Demolition (breaking)	Breaker, mini-robot mounted [#1]	-	115	70	1	113	113	113	Noise Barrier		-10	1	103	103	103
Footbridge Demolition (excavation)	Lorry, with grab, gross vehicle weight ≦ 38 tonne [#1]	-	105	50	1	102	111					1	102	102	
	Excavator, wheeled/tracked	CNP 081	112	70	1	110			QPME, Noise Barrier	103	-10	1	91		
Footbridge Demolition (grabbing)	Concrete Crusher, mini robot mounted [#1]	-	94	70	1	92	92					1	92	92	

Remark:

1. SWL of Concrete Crusher, mini-robot mounted, Dump Truck, gross vehicle weight ≤ 38 tonne, Drill Rig, rotary type (diesel), Grout Mixer, Grout Pump, Breaker, mini-robot mounted and Lorry, with Grab, gross vehicle weight ≤ 38 tonne are referenced from the list of 'SWLs of other commonly used PME' by the EPD:
https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf

Construction Activities	Equipment (for calculation)	ID Code	SWL, dB(A)	On Time, %	Before Mitigation				Proposed Noise Mitigation	Mitigated SWL	Barrier effect	After Mitigation			
					Qty	Sub-SWL	Group SWL	Max SWL				Qty	Sub-SWL	Group SWL	Max SWL
D-wall Construction with Trench Cutter (Diesel)	Crane, mobile (diesel) (Trench Cutter)	CNP 048	112	90	1	112	112	112	Quieter Mode [#1], Noise Barrier	107	-10	1	97	97	97
	Water Pump (electric)	CNP 281	88	90	1	88						1	88		
	Water pump, Submersible (electric)	CNP 283	85	90	1	85						1	85		
D-wall Construction with Trench Cutter (Electric)	Trench Cutter (Electric) [#2]	-	106	90	1	106	110		Quieter Mode [#1], Noise Barrier	101	-10	1	91	94	
	Water Pump (electric)	CNP 281	88	90	1	88						1	88		
	Water pump, Submersible (electric)	CNP 283	85	90	1	85						1	85		
	Generator, standard	CNP 101	108	90	1	108			QPME, Noise Barrier	95	-10	1	85		
D-wall Construction with Hydraulic Grab	Crane, mobile (diesel) (Hydraulic Grab) [#3]	CNP 048	112	90	1	112	112	114	Quieter Mode [#1], QPME, Noise Barrier	104	-10	1	94	95	97
	Water Pump (electric)	CNP 281	88	90	1	88						1	88		
	Water pump, Submersible (electric)	CNP 283	85	90	1	85						1	85		
D-wall Construction with Mechanical Grab	Mechanical Grab (Diesel) [#4]	-	109	90	1	109	109		Quieter Mode [#1], Noise Barrier	104	-10	1	94	95	
	Water Pump (electric)	CNP 281	88	90	1	88						1	88		
	Water pump, Submersible (electric)	CNP 283	85	90	1	85						1	85		
D-wall Construction with Grab (support)	Dump truck, gross vehicle weight ≦ 38 tonne [#5]	-	105	50	1	102	102		Noise Barrier		-10	1	92	92	
D-wall Construction - Concreting	Concrete Lorry Mixer	CNP 044	109	100	2	112	114		Euro V/VI with EGR[#6], Noise Barrier	102	-10	2	95	97	
	Crane, mobile (diesel)	CNP 048	112	50	1	109			QPME, Noise Barrier	101	-10	1	88		
	Generator, silenced, 75dB(A) at 7m	CNP 102	100	90	1	100			Noise Enclosure		-10	1	90		
	Water Pump (electric)	CNP 281	88	90	1	88						1	88		
	Water pump, Submersible (electric)	CNP 283	85	90	1	85						1	85		
H-pile Activity Excavation + Lifting	Crane, mobile (diesel)	CNP 048	112	70	2	113	116	116	QPME, Noise Barrier	101	-10	2	92	101	101
	Drill Rig, rotary type (diesel) [#5]	-	110	90	1	110			Acoustic Plenum, Noise Barrier	100	-10	1	90		
	Air Compressor, air flow > 30m3/min	CNP 003	104	70	2	105			Noise Enclosure		-10	2	95		
	Generator, standard	CNP 101	108	90	1	108			QPME	95		1	95		
	Welding Machine (electric) [#7]	-	95	70	1	93						1	93		
H-pile Activity Grouting	Grout mixer [#5]	-	90	50	1	87	109					1	87	98	
	Generator, standard	CNP 101	108	90	1	108			QPME	95		1	95		
	Grout Pump [#5]	-	105	50	2	105			Noise Enclosure		-10	2	95		

Remark:

1. 'Quieter Mode' for Trench Cutter and Hydraulic/Mechanical Grab refers to the installation of engine box barrier, exhaust silencer and eco-silent mode system, which could provide at least 5dB(A) SWL reduction (to be verified by SWL measurement).

2. SWL of Trench Cutter (electric) is referenced from the catalogue presented in Figure E4.1 to E4.3 in Appendix E4.

3. Crane, mobile (diesel) with QPME label (109dB(A) SWL) will be used for Hydraulic Grab, as listed in Table 3.3. A further 5dB(A) SWL reduction will be provided by the 'Quiet Mode'.

4. SWL of Mechanical Grab is referenced from its guaranteed SWL in the manufacturer's declaration of conformity.

5. SWL of Dump Truck, gross vehicle weight ≤ 38 tonne, Drill Rig, rotary type (diesel), Grout Mixer and Grout Pump are referenced from the list of 'SWLs of other commonly used PME' by the EPD.

6. SWL of Concrete Lorry Mixer (Euro V/VI with Exhaust Gas Recirculation) is referenced from SWL measurement reports from Central Kowloon Route – Central Tunnel project. SWL Measurement will be conducted to verify the SWL of 102dB(A).

7. SWL of Welding Machine (electric) is referenced from Air Blower (electric) from the list of 'SWLs of other commonly used PME' by the EPD.

Construction Activities	Equipment (for calculation)	ID Code	SWL, dB(A)	On Time, %	Before Mitigation				Proposed Noise Mitigation	Mitigated SWL	Barrier effect	After Mitigation			
					Qty	Sub-SWL	Group SWL	Max SWL				Qty	Sub-SWL	Group SWL	Max SWL
Excavation + Lifting Work + Dewatering Group 1	Excavator, wheeled/tracked (telescopic)	CNP 081	112	80	1	111	118	118	QPME, Noise Barrier	105	-10	1	94	100	102
	Crane, mobile (diesel)	CNP 048	112	70	2	113			QPME, Noise Barrier	101	-10	2	92		
	Excavator, wheeled/tracked	CNP 081	112	80	2	114			QPME, Below Top Slab #4	103	-10	2	95		
	Welding Machine (electric) #1	-	95	90	2	98			Below Top Slab #4		-10	2	88		
	Dump truck, gross vehicle weight ≦ 38 tonne #2	-	105	50	1	102			Noise Barrier		-10	1	92		
	Water Pump (electric)	CNP 281	88	90	1	88						1	88		
	Water pump, Submersible (electric)	CNP 283	85	90	1	85						1	85		
Excavation + Lifting Work + Dewatering Group 2	Excavator, wheeled/tracked	CNP 081	112	80	4	117	118		QPME, Below Top Slab #4	103	-10	4	98	100	
	Crane, mobile (diesel)	CNP 048	112	70	1	110			QPME, Noise Barrier	101	-10	1	89		
	Welding Machine (electric) #1	-	95	90	2	98			Below Top Slab #4		-10	2	88		
	Dump truck, gross vehicle weight ≦ 38 tonne #2	-	105	50	1	102			Noise Barrier		-10	1	92		
	Water Pump (electric)	CNP 281	88	90	1	88						1	88		
	Water pump, Submersible (electric)	CNP 283	85	90	1	85						1	85		
Excavation + Lifting Work + Dewatering Group 3	Excavator, wheeled/tracked (telescopic)	CNP 081	112	80	1	111	118		QPME, Noise Barrier	105	-10	1	94	100	
	Excavator, wheeled/tracked	CNP 081	112	80	3	116			QPME, Below Top Slab #4	103	-10	3	97		
	Crane, mobile (diesel)	CNP 048	112	70	1	110			QPME, Noise Barrier	101	-10	1	89		
	Welding Machine (electric) #1	-	95	90	2	98			Below Top Slab #4		-10	2	88		
	Dump truck, gross vehicle weight ≦ 38 tonne #2	-	105	50	1	102			Noise Barrier		-10	1	92		
	Water Pump (electric)	CNP 281	88	90	1	88						1	88		
	Water pump, Submersible (electric)	CNP 283	85	90	1	85						1	85		
Excavation + Lifting Work + Dewatering (Breaking)	Excavator, wheeled/tracked (telescopic)	CNP 081	112	80	1	111	118		QPME, Noise Barrier	105	-10	1	94	102	
	Crane, mobile (diesel)	CNP 048	112	70	2	113			QPME, Noise Barrier	101	-10	2	92		
	Breaker, mini-robot mounted #2	-	115	70	1	113			Below Concourse Slab #5		-15	1	98		
	Rock Splitter #3	-	96	70	1	94			Below Concourse Slab #5		-15	1	79		
	Welding Machine (electric) #1	-	95	90	2	98			Below Top Slab #4		-10	2	88		
	Dump truck, gross vehicle weight ≦ 38 tonne #2	-	105	50	1	102			Noise Barrier		-10	1	92		
	Water Pump (electric)	CNP 281	88	90	1	88						1	88		
	Water pump, Submersible (electric)	CNP 283	85	90	1	85						1	85		

Remark:

1. SWL of Welding Machine (electric) is referenced from Air Blower (electric) from the list of 'SWLs of other commonly used PME' by the EPD.

2. SWL of Dump Truck, gross vehicle weight ≤ 38 tonne and Breaker, mini-robot mounted are referenced from the list of 'SWLs of other commonly used PME' by the EPD.

3. SWL of Rock Splitter is referenced from SWL measurement report from Inter-reservoirs Transfer Scheme project.

4. Excavator, wheeled/tracked and Welding Machine (electric) will be operated below the top slab.

5. Breaker, mini-robot mounted and Rock Splitter will be operated below the top slab and the concourse slab. At least -15dB(A) noise reduction could be provided by the top slab and the concourse slab, which could be verified by Insertion Loss (IL) measurement. Barrier effect of -15dB(A) is referenced from IL measurement report from MTR Shatin to Central Link Contract 1128 project.

Construction Activities	Equipment (for calculation)	ID Code	SWL, dB(A)	On Time, %	Before Mitigation				Proposed Noise Mitigation	Mitigated SWL	Barrier effect	After Mitigation			
					Qty	Sub-SWL	Group SWL	Max SWL				Qty	Sub-SWL	Group SWL	Max SWL
D-wall Test / Capping Beam with Top Slab	Concrete Pump, stationary/lorry mounted	CNP 047	109	100	1	109	-	114	Noise Enclosure		-10	1	99	-	103
	Concrete Lorry Mixer	CNP 044	109	100	1	109			Euro V/VI with EGR[#1], Noise Barrier	102	-10	1	92		
	Bar Bender and Cutter (electric)	CNP 021	90	70	1	88						1	88		
	Poker, vibratory, hand-held	CNP 170	113	50	1	110			Poker, vibratory, [#2] hand-held (electric)	102		1	99		
Pump Test	Water pump, Submersible (electric)	CNP 283	85	90	10	95	-	95				10	95	-	95
Tunnel Boring Machine (TBM) Operation	Tunnel Boring Machine (TBM) [#3]	-	108	70	1	106	-	109	Below Top Slab		-10	1	96	-	99
	Multi-Service Vehicle (MSV) [#3]	-	107	70	1	105			Below Top Slab		-10	1	95		
	Hydraulic Jack [#4]	-	100	70	1	98			Below Top Slab		-10	1	88		
Slab Work	Concrete Pump, stationary/lorry mounted	CNP 047	109	50	1	106	-	115	Noise Enclosure		-10	1	96	103	103
	Concrete Lorry Mixer	CNP 044	109	100	1	109			Euro V/VI with EGR [#1]	102		1	102		
	Bar Bender and Cutter (electric)	CNP 021	90	70	1	88						1	88		
	Crane, mobile (diesel)	CNP 048	112	70	1	110			QPME, Noise Barrier	101	-10	1	89		
	Poker, vibratory, hand-held	CNP 170	113	60	1	111			Poker, vibratory, [#2] hand-held (electric), Noise Barrier	102	-10	1	90		
Over Track Exhaust (OTE) Precast Work	Concrete Lorry Mixer	CNP 044	109	100	1	109	-	113	Euro V/VI with EGR[#1], Noise Barrier	102	-10	1	92	96	96
	Forklift, LPG, output power ≦ 32kW, speed ≦ 10km/hr [#2]	-	104	50	1	101			Noise Barrier		-10	1	91		
	Crane, mobile (diesel)	CNP 048	112	70	1	110			QPME, Noise Barrier	101	-10	1	89		
Precast Work	Forklift, LPG, output power ≦ 32kW, speed ≦ 10km/hr [#2]	-	104	50	1	101	-	111	Noise Barrier		-10	1	91	93	93
	Crane, mobile (diesel)	CNP 048	112	70	1	110			QPME, Noise Barrier	101	-10	1	89		
Bar Bending	Bar Bender and Cutter (electric)	CNP 021	90	70	5	95	-	111	Noise Barrier		-10	5	85	94	94
	Crane, mobile (diesel)	CNP 048	112	70	1	110			QPME, Noise Barrier	101	-10	1	89		
	Lorry, with crane, gross vehicle weight ≦ 38 tonne [#2]	-	105	50	1	102			Noise Barrier		-10	1	92		

Remark:

1. SWL of Concrete Lorry Mixer (Euro V/VI with Exhaust Gas Recirculation) is referenced from SWL measurement reports from Central Kowloon Route – Central Tunnel project. SWL Measurement will be conducted to verify the SWL of 102dB(A).

2. SWL of Poker, vibratory, hand-held (electric), Forklift, LPG, output power ≤ 32kW, speed ≤ 10km/hr and Lorry, with crane, gross vehicle weight ≤ 38 tonne are referenced from the list of 'SWLs of other commonly used PME' by the EPD.

3. SWL of TBM and MSV are referenced from SWL measurement reports from Tuen Mun – Chek Lap Kok Link project.

4. SWL of Hydraulic Jack is referenced from Power Pack (diesel) from the list of 'SWLs of other commonly used PME' by the EPD.

Construction Activities	Equipment (for calculation)	ID Code	SWL, dB(A)	On Time, %	Before Mitigation				Proposed Noise Mitigation	Mitigated SWL	Barrier effect	After Mitigation			
					Qty	Sub-SWL	Group SWL	Max SWL				Qty	Sub-SWL	Group SWL	Max SWL
Architectural Builders Works and Finishes (ABWF) / Building Services (BS) / Site Reinstatement / Test & Comissioning	Excavator, wheeled/tracked	CNP 081	112	50	1	109	-	117	QPME, Noise Barrier	103	-10	1	90	102	102
	Crane, mobile (diesel)	CNP 048	112	70	1	110			QPME, Noise Barrier	101	-10	1	89		
	Lorry [#1]	CNP 141	112	30	1	107			Lorry, gross vehicle weight ≦ 38 tonne [#2]	105		1	100		
	Breaker, hand-held, mass > 35kg	CNP 026	114	50	2	114			QPME, Noise Barrier	108	-10	2	98		
D-wall Construction Supporting Group	Desander (BE250) [#3]	-	104	90	5	111	-	117	Noise Barrier		-10	5	101	-	109
	Desander (GS500) [#3]	-	106	90	2	109			Noise Barrier		-10	2	99		
	Crane, mobile (diesel)	CNP 048	112	70	1	110			QPME	101		1	99		
	Generator, Silenced, 75dB(A) at 7m	CNP 102	100	90	2	103						2	103		
	Soil Pump (Booster Pump for Desander) [#2]	-	103	90	2	106			Noise Barrier		-10	2	96		
	Soil Pump (Mission Pump) [#2]	-	103	90	6	110			Noise Barrier		-10	6	100		
	Excavator, wheeled/tracked	CNP 081	112	50	1	109			QPME	103		1	100		
	Dump truck, gross vehicle weight ≦ 38 tonne [#2]	-	105	50	1	102						1	102		
	Wastewater Treatment Plant (electric) [#4]	-	90	90	1	90						1	90		
Excavation Supporting Group	Generator, Silenced, 75dB(A) at 7m	CNP 102	100	90	1	100	-	103				1	100	-	103
	Power pack (diesel) [#2]	-	100	90	1	100						1	100		
	Wastewater Treatment Plant (electric) [#4]	-	90	90	1	90						1	90		

Remark:

1. Lorry in ABWF / BS / Site Reinstatement / Test & Comissioning Group has 30% on time as it is only used to deliver construction material into the site. Once entered the site, the engine of the lorry will be switched off.
2. SWL of Lorry, gross vehicle weight ≤ 38 tonne, Soil Pump, Dump Truck, gross vehicle weight ≤ 38 tonne and Power Pack (diesel) are referenced from the list of 'SWLs of other commonly used PME' by the EPD.
3. SWL of Desander (BE250) and Desander (GS500) are referenced from the manufacturer's declaration of conformity.
4. SWL of Wastewater Treatment Plant (electric) is referenced from Agitator (electric) from the list of 'SWLs of other commonly used PME' by the EPD.

Table C2: List of PMEs of TCC

Construction Activities	Equipment (for calculation)	ID Code	SWL, dB(A)	On Time, %	Before Mitigation				Proposed Noise Mitigation	Mitigated SWL	Barrier effect	After Mitigation			
					Qty	Sub-SWL	Group SWL	Max SWL				Qty	Sub-SWL	Group SWL	Max SWL
Tung Chung Crescent															
Site Clearance	Excavator, wheeled/tracked	CNP 081	112	70	2	113	-	116	QPME	103		2	104	-	114
	Breaker, mini-robot mounted [#1]	-	115	50	1	112						1	112		
	Silent Piler [#2]	-	94	50	1	91						1	91		
	Rock Splitter [#3]	-	96	50	1	93						1	93		
	Concrete Crusher, mini-robot mounted [#1]	-	94	50	1	91						1	91		
	Saw, wire [#1]	-	101	50	1	98						1	98		
	Lorry, with grab, gross vehicle weight ≦ 38 tonne [#1]	-	105	70	1	103						1	103		
	Dump truck, gross vehicle weight ≦ 38 tonne [#1]	-	105	50	1	102						1	102		
Pipe Pile Excavation	Crane, mobile (diesel)	CNP 048	112	50	2	112	118	118	QPME	101		2	101	109	109
	Dump truck, gross vehicle weight ≦ 38 tonne [#1]	-	105	50	1	102						1	102		
	Lorry	CNP 141	112	50	1	109			Lorry, gross vehicle weight ≦ 38 tonne [#1]	105		1	102		
	Drill Rig, rotary type (diesel) [#1]	-	110	90	3	114			Acoustic Plenum	100		3	104		
	Air Compressor, air flow > 30m^3/min	CNP 003	104	90	6	111			QPME, Individual Enclosure	101	-10	6	98		
	Wastewater Treatment Plant (electric) [#4]	-	90	90	1	90						1	90		
Pipe Pile Lifting + Welding	Crane, mobile (diesel)	CNP 048	112	50	2	112	113		QPME	101		2	101	103	
	Generator, standard	CNP 101	108	90	1	108			QPME	95		1	95		
	Welding Machine (electric) [#5]	-	95	90	2	98						2	98		
	Wastewater Treatment Plant (electric) [#4]	-	90	90	1	90						1	90		
Pipe Pile Grouting	Grout mixer [#1]	-	90	50	1	87	109					1	87	103	
	Generator, standard	CNP 101	108	90	1	108			QPME	95		1	95		
	Grout Pump [#1]	-	105	50	1	102						1	102		
	Wastewater Treatment Plant (electric) [#4]	-	90	90	1	90						1	90		
Curtain Wall Grouting	Grout mixer [#1]	-	90	50	1	87	114					1	87	106	
	Generator, standard	CNP 101	108	90	1	108			QPME	95		1	95		
	Grout Pump [#1]	-	105	50	1	102						1	102		
	Drill Rig, rotary type (diesel) [#1]	-	110	90	2	113			Acoustic Plenum	100		2	103		
	Wastewater Treatment Plant (electric) [#4]	-	90	90	1	90						1	90		

Remark:

1. SWL of Breaker, mini-robot mounted, Concrete Crusher, mini-robot mounted, Saw, wire, Lorry, with Grab, gross vehicle weight ≤ 38 tonne, Dump Truck, gross vehicle weight ≤ 38 tonne, Drill Rig, rotary type (diesel), Grout Mixer, Grout Pump and Lorry, gross vehicle weight ≤ 38 tonne are referenced from the list of 'SWLs of other commonly used PME' by the EPD.

2. SWL of Silent Piler is based on the measured sound pressure level of 69dB(A) at 7m as referenced from the EPD website:
https://www.epd.gov.hk/epd/misc/construction_noise/contents/index.php/en/home2/quieter-construction-equipment/item/27-press-in-method.html

3. SWL of Rock Splitter is referenced from SWL measurement report from Inter-reservoirs Transfer Scheme project.

4. SWL of Wastewater Treatment Plant (electric) is referenced from Agitator (electric) from the list of 'SWLs of other commonly used PME' by the EPD.

5. SWL of Welding Machine (electric) is referenced from Air Blower (electric) from the list of 'SWLs of other commonly used PME' by the EPD.

Construction Activities	Equipment (for calculation)	ID Code	SWL, dB(A)	On Time, %	Before Mitigation				Proposed Noise Mitigation	Mitigated SWL	Barrier effect	After Mitigation			
					Qty	Sub-SWL	Group SWL	Max SWL				Qty	Sub-SWL	Group SWL	Max SWL
Constrcution/Demolition of Noise Enclosure	Crane, mobile (diesel)	CNP 048	112	70	2	113	-	115	QPME	101		2	102	-	109
	Impact Wrench [#1]	-	109	50	1	106						1	106		
	Drill/Grinder, hand-held (electric)	CNP 065	98	50	1	95						1	95		
	Lorry	CNP 141	112	50	1	109			Lorry, gross vehicle weight ≦ 38 tonne [#4]	105		1	102		
	Scissor Platform (electric) [#2]	-	95	70	2	96						2	96		
	Welding Machine (electric) [#3]	-	95	70	1	93						1	93		
Excavation + Lifting + Dewatering	Excavator, wheeled/tracked	CNP 081	112	50	3	114	115	121	Noise Enclosure		-10	3	104	105	111
	Crane, mobile (diesel)	CNP 048	112	50	1	109			Noise Enclosure		-10	1	99		
	Dump truck, gross vehicle weight ≦ 38 tonne [#4]	-	105	50	1	102			Noise Enclosure		-10	1	92		
	Water Pump (electric)	CNP 281	88	50	1	85			Noise Enclosure		-10	1	75		
	Water pump, Submersible (electric)	CNP 283	85	50	1	82			Noise Enclosure		-10	1	72		
	Wastewater Treatment Plant (electric) [#5]	-	90	90	1	90			Noise Enclosure		-10	1	80		
Excavation (Rock) + Lifting + Dewatering + Drilling	Excavator, wheeled/tracked	CNP 081	112	50	2	112	121		Noise Enclosure		-10	2	102	111	
	Crane, mobile (diesel)	CNP 048	112	50	1	109			Noise Enclosure		-10	1	99		
	Dump truck, gross vehicle weight ≦ 38 tonne [#4]	-	105	50	1	102			Noise Enclosure		-10	1	92		
	Rock Drill, crawler mounted (hydraulic)	CNP 182	123	50	1	120			Noise Enclosure		-10	1	110		
	Water Pump (electric)	CNP 281	88	50	1	85			Noise Enclosure		-10	1	75		
	Water pump, Submersible (electric)	CNP 283	85	50	1	82			Noise Enclosure		-10	1	72		
	Wastewater Treatment Plant (electric) [#5]	-	90	90	1	90			Noise Enclosure		-10	1	80		
Excavation (Rock) + Lifting + Dewatering + Splitting	Excavator, wheeled/tracked	CNP 081	112	50	2	112	114		Noise Enclosure		-10	2	102	104	
	Crane, mobile (diesel)	CNP 048	112	50	1	109			Noise Enclosure		-10	1	99		
	Dump truck, gross vehicle weight ≦ 38 tonne [#4]	-	105	50	1	102			Noise Enclosure		-10	1	92		
	Rock Splitter [#6]	-	96	50	1	93			Noise Enclosure		-10	1	83		
	Water Pump (electric)	CNP 281	88	50	1	85			Noise Enclosure		-10	1	75		
	Water pump, Submersible (electric)	CNP 283	85	50	1	82			Noise Enclosure		-10	1	72		
	Wastewater Treatment Plant (electric) [#5]	-	90	90	1	90			Noise Enclosure		-10	1	80		
Excavation (Rock) + Lifting + Dewatering + Breaking	Excavator, wheeled/tracked	CNP 081	112	50	2	112	120		Noise Enclosure		-10	2	102	110	
	Crane, mobile (diesel)	CNP 048	112	50	1	109			Noise Enclosure		-10	1	99		
	Dump truck, gross vehicle weight ≦ 38 tonne [#4]	-	105	50	1	102			Noise Enclosure		-10	1	92		
	Breaker, excavator mounted (hydraulic)	CNP 028	122	50	1	119			Noise Enclosure		-10	1	109		
	Water Pump (electric)	CNP 281	88	50	1	85			Noise Enclosure		-10	1	75		
	Water pump, Submersible (electric)	CNP 283	85	50	1	82			Noise Enclosure		-10	1	72		
	Wastewater Treatment Plant (electric) [#5]	-	90	90	1	90			Noise Enclosure		-10	1	80		

Remark:

1. SWL of Impact Wrench is referenced from SWL measurement report from MTR Express Rail Line Contract 820 project.
2. SWL of Scissor Platform (electric) is referenced from Hoist, passenger/material (electric) from the GW-TM.
3. SWL of Welding Machine (electric) is referenced from Air Blower (electric) from the list of 'SWLs of other commonly used PME' by the EPD.
4. SWL of Dump Truck, gross vehicle weight ≤ 38 tonne and Lorry, gross vehicle weight ≤ 38 tonne are referenced from the list of 'SWLs of other commonly used PME' by the EPD.
5. SWL of Wastewater Treatment Plant (electric) is referenced from Agitator (electric) from the list of 'SWLs of other commonly used PME' by the EPD.
6. SWL of Rock Splitter is referenced from SWL measurement report from Inter-reservoirs Transfer Scheme project.

Construction Activities	Equipment (for calculation)	ID Code	SWL, dB(A)	On Time, %	Before Mitigation				Proposed Noise Mitigation	Mitigated SWL	Barrier effect	After Mitigation			
					Qty	Sub-SWL	Group SWL	Max SWL				Qty	Sub-SWL	Group SWL	Max SWL
Slurry Treatment Plant (STP) Site Set Up Assembly/Disassembly Group 1	Torque Wrench [#1]	-	112	60	1	110	113	114	Individual Enclosure		-10	1	100	108	109
	Saw , circular, w ood	CNP 201	108	60	1	106						1	106		
	Drill/Grinder, hand-held (electric)	CNP 065	98	60	1	96						1	96		
	Impact Wrench [#1]	-	109	60	1	107			Individual Enclosure		-10	1	97		
	Grout Mixer [#2]	-	90	60	1	88						1	88		
Slurry Treatment Plant (STP) Site Set Up Assembly/Disassembly Group 2	Saw , circular, w ood	CNP 201	108	60	1	106	114					1	106	109	
	Drill/Grinder, hand-held (electric)	CNP 065	98	60	1	96						1	96		
	Breaker, hand-held, mass > 35kg	CNP 026	114	60	1	112			QPME	108		1	106		
	Impact Wrench [#1]	-	109	60	1	107			Individual Enclosure		-10	1	97		
	Grout Mixer [#2]	-	90	60	1	88						1	88		
Tunnel Boring Machine (TBM) Assembly / Maintanance (inside enclosure)	Impact Wrench [#1]	-	109	50	1	106	-	116	Noise Enclosure		-10	1	96	-	106
	Saw , circular, w ood	CNP 201	108	50	1	105			Noise Enclosure		-10	1	95		
	Drill/Grinder, hand-held (electric)	CNP 065	98	50	1	95			Noise Enclosure		-10	1	85		
	Breaker, hand-held, mass > 35kg	CNP 026	114	50	1	111			Noise Enclosure		-10	1	101		
	Torque Wrench [#1]	-	112	50	1	109			Noise Enclosure		-10	1	99		
	Poker, vibratory, hand-held (electric) [#2]	-	102	50	1	99			Noise Enclosure		-10	1	89		
	Grout Mixer [#2]	-	90	50	1	87			Noise Enclosure		-10	1	77		
	Ventilation Fan	CNP 241	108	100	1	108			Noise Enclosure		-10	1	98		
	Air Compressor, air flow > 30m^3/min	CNP 003	104	100	1	104			Noise Enclosure		-10	1	94		
	Crane, tow er (electric)	CNP 049	95	75	1	94			Noise Enclosure		-10	1	84		
	Scissor Platform [#3]	-	95	50	1	92			Noise Enclosure		-10	1	82		
	Water Pump (electric)	CNP 281	88	100	1	88			Noise Enclosure		-10	1	78		
	Air Blow er (electric) [#2]	-	95	100	1	95			Noise Enclosure		-10	1	85		
	Welding Machine (electric) [#4]	-	95	100	1	95			Noise Enclosure		-10	1	85		
Tunnel Boring Machine (TBM) Assembly / Maintanance (outside enclosure) Group 1	Crane, mobile (diesel)	CNP 048	112	90	1	112	-	115	QPME	101		1	101	-	113
	Tractor [#5]	CNP 222	118	30	1	113						1	113		
	Forklift, LPG, output pow er ≦ 32kW, speed ≦ 10km/hr [#2]	-	104	50	1	101						1	101		
Tunnel Boring Machine (TBM) Assembly / Maintanance (outside enclosure) Group 2	Forklift, LPG, output pow er ≦ 32kW, speed ≦ 10km/hr [#2]	-	104	50	1	101	-	101				1	101	-	101

Remark:

1. SWL of Torque Wrench and Impact Wrench are referenced from SWL measurement reports from MTR Express Rail Line Contract 820 project.

2. SWL of Grout Mixer, Poker, vibratory, hand-held (electric), Air Blower (electric) and Forklift, LPG, output power ≤ 32kW, speed ≤ 10km/hr are referenced from the list of 'SWLs of other commonly used PME' by the EPD.

3. SWL of Scissor Platform (electric) is referenced from Hoist, passenger/material (electric) from the GW-TM.

4. SWL of Welding Machine (electric) is referenced from Air Blower (electric) from the list of 'SWLs of other commonly used PME' by the EPD.

5. Tractor in TBM Assembly / Maintenance (outside enclosure) Group has 30% on time as it is only used to deliver construction material into the site. Once entered the site, the tractor will not operate. The remaining works are mostly completed by the mobile crane.

Construction Activities	Equipment (for calculation)	ID Code	SWL, dB(A)	On Time, %	Before Mitigation				Proposed Noise Mitigation	Mitigated SWL	Barrier effect	After Mitigation			
					Qty	Sub-SWL	Group SWL	Max SWL				Qty	Sub-SWL	Group SWL	Max SWL
Tunnel Boring Machine (TBM) Operation (exclude STP)	Ventilation Fan	CNP 241	108	100	1	108	-	118	Noise Enclosure		-10	1	98	-	108
	Air Compressor, air flow > 30m^3/min	CNP 003	104	100	1	104			Noise Enclosure		-10	1	94		
	Crane, tower (electric)	CNP 049	95	75	1	94			Noise Enclosure		-10	1	84		
	Scissor Platform [#1]	-	95	50	1	92			Noise Enclosure		-10	1	82		
	Water Pump (electric)	CNP 281	88	100	1	88			Noise Enclosure		-10	1	78		
	Forklift, LPG, output power ≦ 32kW, speed ≦ 10km/hr [#2]	-	104	50	1	101			Noise Enclosure		-10	1	91		
	Tractor	CNP 222	118	75	1	117			Noise Enclosure		-10	1	107		
	Multi-Service Vehicle (MSV) [#3]	-	107	75	1	106			Noise Enclosure		-10	1	96		
	Tunnel Boring Machine (TBM) [#3]	-	108	100	1	108			Noise Enclosure		-10	1	98		
Tunnel Boring Machine (TBM) Operation (only STP)	Forklift, LPG, output power ≦ 32kW, speed ≦ 10km/hr [#2]	-	104	50	1	101	-	115				1	101	-	107
	Dump truck, gross vehicle weight ≦ 38 tonne [#2]	-	105	50	1	102						1	102		
	Slurry Treatment Plant (STP) [#4]	-	97	100	1	97						1	97		
	Concrete Mixer (electric)	CNP 045	96	75	1	95			Individual Enclosure		-10	1	85		
	Grout Pump [#2]	-	105	75	3	109			Individual Enclosure		-10	3	99		
	Filter Press [#4]	-	93	75	2	95			Individual Enclosure		-10	2	85		
	Chiller Plant [#5]	-	104	100	1	104			Individual Enclosure		-10	1	94		
	Wastewater Treatment Plant (electric) [#6]	-	90	75	2	92			Individual Enclosure		-10	2	82		
	Batching Plant	CNP 022	108	75	1	107			Individual Enclosure		-10	1	97		
	Generator, standard	CNP 101	108	100	1	108			QPME, Individual Enclosure	95	-10	1	85		
	Agitator (electric) [#2]	-	90	100	2	93			Individual Enclosure		-10	2	83		
	Air Compressor, air flow > 30m3/min	CNP 003	104	100	2	107			Individual Enclosure		-10	2	97		
	Conveyor Belt	CNP 041	90	75	2	92						2	92		
Site Reinstatement	Excavator, wheeled/tracked	CNP 081	112	50	1	109	-	117	QPME	103		1	100	-	109
	Crane, mobile (diesel)	CNP 048	112	50	1	109			QPME	101		1	98		
	Lorry	CNP 141	112	50	1	109			Lorry, gross vehicle weight ≦ 38 tonne [#2]	105		1	102		
	Concrete Lorry Mixer	CNP 044	109	100	1	109			Euro V/VI with EGR [#7]	102		1	102		
	Poker, vibratory, hand-held	CNP 170	113	50	1	110			Poker, vibratory, hand-held (electric) [#2]	102		1	99		
	Power Rammer (petrol)	CNP 169	108	50	1	105						1	105		

Remark:

1. SWL of Scissor Platform (electric) is referenced from Hoist, passenger/material (electric) from the GW-TM.

2. SWL of Forklift, LPG, output power ≤ 32kW, speed ≤ 10km/hr, Dump Truck, gross vehicle weight ≤ 38 tonne, Grout Pump, Agitator (electric), Lorry, gross vehicle weight ≤ 38 tonne and Poker, vibratory, hand-held (electric) are referenced from the list of 'SWLs of other commonly used PME' by the EPD.

3. SWL of TBM and MSV are referenced from SWL measurement reports from Tuen Mun – Chek Lap Kok Link project.

4. SWL of STP and Filter Press are referenced from SWL measurement reports from Trunk Road T2 project.

5. SWL of Chiller Plant is referenced from Air Compressor, air flow > 30m^3/min from the GW-TM.

6. SWL of Wastewater Treatment Plant (electric) is referenced from Agitator (electric) from the list of 'SWLs of other commonly used PME' by the EPD.

7. SWL of Concrete Lorry Mixer (Euro V/VI with Exhaust Gas Recirculation) is referenced from SWL measurement reports from Central Kowloon Route – Central Tunnel project. SWL Measurement will be conducted to verify the SWL of 102dB(A).

Construction Activities	Equipment (for calculation)	ID Code	SWL, dB(A)	On Time, %	Before Mitigation				Proposed Noise Mitigation	Mitigated SWL	Barrier effect	After Mitigation			
					Qty	Sub-SWL	Group SWL	Max SWL				Qty	Sub-SWL	Group SWL	Max SWL
Slab Work	Generator, standard	CNP 101	108	90	1	108	-	115	QPME	95		1	95	-	107
	Bar Bender and Cutter (electric)	CNP 021	90	60	1	88						1	88		
	Ventilation Fan	CNP 241	108	50	1	105			Individual Enclosure		-10	1	95		
	Concrete Lorry Mixer	CNP 044	109	100	2	112			Euro V/VI with EGR [#1]	102		2	105		
	Concrete Pump, stationary/lorry mounted	CNP 047	109	100	1	109			Individual Enclosure		-10	1	99		

Remark:

1. SWL of Concrete Lorry Mixer (Euro V/VI with Exhaust Gas Recirculation) is referenced from SWL measurement reports from Central Kowloon Route – Central Tunnel project. SWL Measurement will be conducted to verify the SWL of 102dB(A).

Table C3: List of PMEs of EAP/EEP

Construction Activities	Equipment (for calculation)	ID Code	SWL, dB(A)	On Time, %	Before Mitigation				Proposed Noise Mitigation	Mitigated SWL	Barrier effect	After Mitigation			
					Qty	Sub-SWL	Group SWL	Max SWL				Qty	Sub-SWL	Group SWL	Max SWL
EAP/EEP															
Site Clearance	Excavator, wheeled/tracked	CNP 081	112	90	1	112	-	118	QPME	103		1	103	-	110
	Lorry, with grab, gross vehicle weight ≦ 38 tonne [#1]	-	105	90	1	105						1	105		
	Breaker, mini-robot mounted [#1]	-	115	60	2	116			Semi Enclosure, Noise Barrier		-10	2	106		
	Rock Splitter [#2]	-	96	50	1	93						1	93		
	Concrete Crusher, mini-robot mounted [#1]	-	94	50	1	91						1	91		
	Dump truck, gross vehicle weight ≦ 38 tonne [#1]	-	105	50	1	102						1	102		

Remark:

1. SWL of Lorry, with Grab, gross vehicle weight ≤ 38 tonne, Breaker, mini-robot mounted, Concrete Crusher, mini-robot mounted and Dump Truck, gross vehicle weight ≤ 38 tonne are referenced from the list of 'SWLs of other commonly used PME' by the EPD.

2. SWL of Rock Splitter is referenced from SWL measurement report from Inter-reservoirs Transfer Scheme project.

Construction Activities	Equipment (for calculation)	ID Code	SWL, dB(A)	On Time, %	Before Mitigation				Proposed Noise Mitigation	Mitigated SWL	Barrier effect	After Mitigation			
					Qty	Sub-SWL	Group SWL	Max SWL				Qty	Sub-SWL	Group SWL	Max SWL
Excavation + Lifting + Dewatering	Excavator, wheeled/tracked (telescopic)	CNP 081	112	50	2	112	114	121	QPME	105		2	105	107	112
	Crane, mobile (diesel)	CNP 048	112	50	1	109			QPME	101		1	98		
	Dump truck, gross vehicle weight ≦ 38 tonne [#1]	-	105	50	1	102						1	102		
	Water Pump (electric)	CNP 281	88	50	1	85						1	85		
	Water pump, Submersible (electric)	CNP 283	85	50	1	82						1	82		
	Wastewater Treatment Plant (electric) [#2]	-	90	90	1	90						1	90		
Excavation (Rock) + Lifting + Dewatering + Drilling	Excavator, wheeled/tracked (telescopic)	CNP 081	112	50	2	112	121		QPME	105		2	105	112	
	Crane, mobile (diesel)	CNP 048	112	50	1	109			QPME	101		1	98		
	Dump truck, gross vehicle weight ≦ 38 tonne [#1]	-	105	50	1	102						1	102		
	Rock Drill, crawler mounted (hydraulic)	CNP 182	123	50	1	120			Noise Cover		-10	1	110		
	Water Pump (electric)	CNP 281	88	50	1	85						1	85		
	Water pump, Submersible (electric)	CNP 283	85	50	1	82						1	82		
	Wastewater Treatment Plant (electric) [#2]	-	90	90	1	90						1	90		
Excavation (Rock) + Lifting + Dewatering + Splitting	Excavator, wheeled/tracked (telescopic)	CNP 081	112	50	2	112	114		QPME	105		2	105	108	
	Crane, mobile (diesel)	CNP 048	112	50	1	109			QPME	101		1	98		
	Dump truck, gross vehicle weight ≦ 38 tonne [#1]	-	105	50	1	102						1	102		
	Rock Splitter [#3]	-	96	50	1	93						1	93		
	Water Pump (electric)	CNP 281	88	50	1	85						1	85		
	Water pump, Submersible (electric)	CNP 283	85	50	1	82						1	82		
	Wastewater Treatment Plant (electric) [#2]	-	90	90	1	90						1	90		
Excavation (Rock) + Lifting + Dewatering + Breaking	Excavator, wheeled/tracked (telescopic)	CNP 081	112	50	2	112	120		QPME	105		2	105	111	
	Crane, mobile (diesel)	CNP 048	112	50	1	109			QPME	101		1	98		
	Dump truck, gross vehicle weight ≦ 38 tonne [#1]	-	105	50	1	102						1	102		
	Breaker, excavator mounted (hydraulic)	CNP 028	122	50	1	119			Noise Cover		-10	1	109		
	Water Pump (electric)	CNP 281	88	50	1	85						1	85		
	Water pump, Submersible (electric)	CNP 283	85	50	1	82						1	82		
	Wastewater Treatment Plant (electric) [#2]	-	90	90	1	90						1	90		

Remark:

1. SWL of Dump Truck, gross vehicle weight ≤ 38 tonne is referenced from the list of 'SWLs of other commonly used PME' by the EPD.

2. SWL of Wastewater Treatment Plant (electric) is referenced from Agitator (electric) from the list of 'SWLs of other commonly used PME' by the EPD.

3. SWL of Rock Splitter is referenced from SWL measurement report from Inter-reservoirs Transfer Scheme project.

Construction Activities	Equipment (for calculation)	ID Code	SWL, dB(A)	On Time, %	Before Mitigation				Proposed Noise Mitigation	Mitigated SWL	Barrier effect	After Mitigation			
					Qty	Sub-SWL	Group SWL	Max SWL				Qty	Sub-SWL	Group SWL	Max SWL
Tie Back Anchor	Drill Rig, rotary type (diesel) [#1]	-	110	90	1	110	113	122	Acoustic Plenum	100		1	100	102	113
	Air Compressor, air flow > 30m3/min	CNP 003	104	90	1	104			Noise Enclousre		-10	1	94		
	Grout Mixer [#1]	-	90	90	1	90			Noise Enclousre		-10	1	80		
	Grout Pump [#1]	-	105	90	1	105			Noise Enclousre		-10	1	95		
	Generator, standard	CNP 101	108	90	1	108			QPME	95		1	95		
Slope (Rock) + Lifting + Dew atering + Drilling	Excavator, w heeled/tracked	CNP 081	112	50	2	112	121		QPME	103		2	103	112	
	Crane, mobile (diesel)	CNP 048	112	50	1	109			QPME	101		1	98		
	Dump truck, gross vehicle w eight ≦ 38 tonne [#1]	-	105	50	1	102						1	102		
	Rock Drill, craw ler mounted (hydraulic)	CNP 182	123	50	1	120			Noise Cover		-10	1	110		
	Water Pump (electric)	CNP 281	88	50	1	85						1	85		
	Water pump, Submersible (electric)	CNP 283	85	50	1	82						1	82		
	Wastew ater Treatment Plant (electric) [#2]	-	90	90	1	90						1	90		
Slope (Rock) + Lifting + Dew atering + Splitting	Excavator, w heeled/tracked	CNP 081	112	50	2	112	114		QPME	103		2	103	107	
	Crane, mobile (diesel)	CNP 048	112	50	1	109			QPME	101		1	98		
	Dump truck, gross vehicle w eight ≦ 38 tonne [#1]	-	105	50	1	102						1	102		
	Rock Splitter [#3]	-	96	50	1	93						1	93		
	Water Pump (electric)	CNP 281	88	50	1	85						1	85		
	Water pump, Submersible (electric)	CNP 283	85	50	1	82						1	82		
	Wastew ater Treatment Plant (electric) [#2]	-	90	90	1	90						1	90		
Slope (Rock) + Lifting + Dew atering + Breaking	Excavator, w heeled/tracked	CNP 081	112	50	2	112	122		QPME	103		2	103	113	
	Crane, mobile (diesel)	CNP 048	112	50	1	109			QPME	101		1	98		
	Dump truck, gross vehicle w eight ≦ 38 tonne [#1]	-	105	50	1	102						1	102		
	Breaker, excavator mounted (hydraulic)	CNP 028	122	90	1	122			Noise Cover		-10	1	112		
	Water Pump (electric)	CNP 281	88	50	1	85						1	85		
	Water pump, Submersible (electric)	CNP 283	85	50	1	82						1	82		
	Wastew ater Treatment Plant (electric) [#2]	-	90	90	1	90						1	90		

Remark:

1. SWL of Drill Rig, rotary type (diesel), Grout Mixer, Grout Pump and Dump Truck, gross vehicle weight ≤ 38 tonne are referenced from the list of 'SWLs of other commonly used PME' by the EPD.

2. SWL of Wastewater Treatment Plant (electric) is referenced from Agitator (electric) from the list of 'SWLs of other commonly used PME' by the EPD.

3. SWL of Rock Splitter is referenced from SWL measurement report from Inter-reservoirs Transfer Scheme project.

Construction Activities	Equipment (for calculation)	ID Code	SWL, dB(A)	On Time, %	Before Mitigation				Proposed Noise Mitigation	Mitigated SWL	Barrier effect	After Mitigation			
					Qty	Sub-SWL	Group SWL	Max SWL				Qty	Sub-SWL	Group SWL	Max SWL
Building Works	Lorry, gross vehicle weight ≦ 38 tonne [#1]	-	105	50	1	102	-	114				1	102	-	111
	Scissor Platform (electric) [#2]	-	95	50	1	92						1	92		
	Loader, wheeled/tracked	CNP 081	112	50	1	109						1	109		
	Crane, tower (electric)	CNP 049	95	50	1	92						1	92		
	Concrete Lorry Mixer	CNP 044	109	100	1	109			Euro V/VI with EGR [#3]	102		1	102		
	Concrete Pump, stationary/lorry mounted	CNP 047	109	100	1	109			Noise Enclosure		-10	1	99		
	Water Pump (electric)	CNP 281	88	50	1	85						1	85		
	Water pump, Submersible (electric)	CNP 283	85	50	1	82						1	82		
	Wastewater Treatment Plant (electric) [#4]	-	90	90	1	90						1	90		
Building Services (BS) Work / Test & Comissioning	Crane, tower (electric)	CNP 049	95	50	1	92	-	112				1	92	-	104
	Concrete Lorry Mixer	CNP 044	109	100	1	109			Euro V/VI with EGR [#3]	102		1	102		
	Concrete Pump, stationary/lorry mounted	CNP 047	109	100	1	109			Noise Enclosure		-10	1	99		

Remark:

1. SWL of Lorry, gross vehicle weight ≤ 38 tonne is referenced from the list of 'SWLs of other commonly used PME' by the EPD.

2. SWL of Scissor Platform (electric) is referenced from Hoist, passenger/material (electric) from the GW-TM.

3. SWL of Concrete Lorry Mixer (Euro V/VI with Exhaust Gas Recirculation) is referenced from SWL measurement reports from Central Kowloon Route – Central Tunnel project. SWL Measurement will be conducted to verify the SWL of 102dB(A).

4. SWL of Wastewater Treatment Plant (electric) is referenced from Agitator (electric) from the list of 'SWLs of other commonly used PME' by the EPD.

Table C4: List of PMEs of Barging Facility

Construction Activities	Equipment (for calculation)	ID Code	SWL, dB(A)	On Time, %	Before Mitigation				Proposed Noise Mitigation	Mitigated SWL	Barrier effect	After Mitigation			
					Qty	Sub-SWL	Group SWL	Max SWL				Qty	Sub-SWL	Group SWL	Max SWL
Barging Facility															
Construction of Barging Point Facilities	Generator, super silenced, 70dB(A) at 7m	CNP 103	95	100	1	95	-	120				1	95	-	120
	Crane, mobile (diesel)	CNP 048	112	100	1	112						1	112		
	Excavator, wheeled/tracked	CNP 081	112	100	1	112						1	112		
	Drill, percussive, hand-held (electric)	CNP 064	103	100	2	106						2	106		
	Poker, vibratory, hand-held	CNP 170	113	100	2	116						2	116		
	Concrete Lorry Mixer	CNP 044	109	100	1	109						1	109		
	Derrick Barge (Barging Point 1)	CNP 061	104	100	1	104						1	104		
	Tug Boat (Barging Point 1)	CNP 221	110	100	1	110						1	110		
	Derrick Barge (Barging Point 2)	CNP 061	104	100	1	104						1	104		
	Tug Boat (Barging Point 2)	CNP 221	110	100	1	110						1	110		
Barging Point Operation 1	Generator, super silenced, 70dB(A) at 7m	CNP 103	95	100	2	98	-	116				2	98	-	116
	Derrick Barge (Barging Point 1)	CNP 061	104	100	3	109						3	109		
	Tug Boat (Barging Point 1)	CNP 221	110	100	1	110						1	110		
	Derrick Barge (Barging Point 2)	CNP 061	104	100	3	109						3	109		
	Tug Boat (Barging Point 2)	CNP 221	110	100	1	110						1	110		
Demolition of Barging Point Facilities	Generator, super silenced, 70dB(A) at 7m	CNP 103	95	100	1	95	-	117				1	95	-	117
	Crane, mobile (diesel)	CNP 048	112	100	1	112						1	112		
	Excavator, wheeled/tracked	CNP 081	112	100	1	112						1	112		
	Drill, percussive, hand-held (electric)	CNP 064	103	100	2	106						2	106		
	Tug Boat	CNP 221	110	100	1	110						1	110		
Site Reinstatement	Generator, super silenced, 70dB(A) at 7m	CNP 103	95	100	1	95	-	116				1	95	-	116
	Crane, mobile (diesel)	CNP 048	112	100	1	112						1	112		
	Excavator, wheeled/tracked	CNP 081	112	100	1	112						1	112		
	Drill, percussive, hand-held (electric)	CNP 064	103	100	2	106						2	106		

Construction Activities	Equipment (for calculation)	ID Code	SWL, dB(A)	% Util	Before Mitigation							Proposed Noise Mitigation	Mitigated SWL	Barrier effect	After Mitigation			
					Qty	Sub-SWL	Const	Speed Corr at 20kph	Angle Corr at 180deg	Group SWL	Max SWL				Qty	Sub-SWL	Group SWL	Max SWL
Barging Point Operation 2	Dump truck, gross vehicle weight ≦ 38 tonne	-	105	100	132	126	-33	-13	0	-	80				-	-	-	-

Remark:
1. Based on BS5228-1:2009 F2.5 Method for mobile plant using a regular well-defined route (e.g. haul roads), for Dump Truck,
Leq = Lw -33 + 10log(Qty) – 10log(speed) – 10log(dist) + 10log(angle/180) + C_{facade}
Distance correction (-10log(distance)) and C_{facade} will be calculated in Appendix D3.

2. View angle of 180 degrees is assumed as conservative approach.

Appendix D
Detail Noise Calculation (Unmitigated)

Appendix D1
Detail Noise Calculation (Unmitigated)
TCW

Figure D1.1: Unmitigated Noise Assessment Results at Ma Wan Chung

| Construction Activities | months | Works Zone | SWL | Dist | Dist. Corr | Façade Corr | CNL | 2023 | | 2024 | | | | | | | | | | | 2025 | | | | | | | | | | | | 2026 | | | | | | | | | | | | 2027 | | | | | | | | | | | | 2028 | | | | | | | | | | | | 2029 | | | | | | | | | | | |
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Figure D1.2: Unmitigated Noise Assessment Results at Fuk Yat House

| Construction Activities | months | Works Zone | SWL | Dist | Dist. Corr | Façade Corr | CNL | 2023 | | 2024 | | | | | | | | | | | | 2025 | | | | | | | | | | | | 2026 | | | | | | | | | | | | 2027 | | | | | | | | | | | | 2028 | | | | | | | | | | | | 2029 | | | | | | | | | | | |
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Figure D1.3: Unmitigated Noise Assessment Results at Luk Yat House

| Construction Activities | months | Works Zone | SWL | Dist | Dist. Corr | Façade Corr | CNL | 2023 | | 2024 | | | | | | | | | | | 2025 | | | | | | | | | | | | 2026 | | | | | | | | | | | | 2027 | | | | | | | | | | | | 2028 | | | | | | | | | | | | 2029 | | | | | | | | | | | |
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Figure D1.4: Unmitigated Noise Assessment Results at Ying Yat House

| Construction Activities | months | Works Zone | SWL | Dist | Dist. Corr | Façade Corr | CNL | 2023 | | 2024 | | | | | | | | | | | 2025 | | | | | | | | | | | | 2026 | | | | | | | | | | | | 2027 | | | | | | | | | | | | 2028 | | | | | | | | | | | | 2029 | | | | | | | | | | | |
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Figure D1.5: Unmitigated Noise Assessment Results at Yu Yat House

| Construction Activities | months | Works Zone | SWL | Dist | Dist. Corr | Façade Corr | CNL | 2023 N | 2023 D | 2024 J | 2024 F | 2024 M | 2024 A | 2024 M | 2024 J | 2024 J | 2024 A | 2024 S | 2024 O | 2024 N | 2024 D | 2025 J | 2025 F | 2025 M | 2025 A | 2025 M | 2025 J | 2025 J | 2025 A | 2025 S | 2025 O | 2025 N | 2025 D | 2026 J | 2026 F | 2026 M | 2026 A | 2026 M | 2026 J | 2026 J | 2026 A | 2026 S | 2026 O | 2026 N | 2026 D | 2027 J | 2027 F | 2027 M | 2027 A | 2027 M | 2027 J | 2027 J | 2027 A | 2027 S | 2027 O | 2027 N | 2027 D | 2028 J | 2028 F | 2028 M | 2028 A | 2028 M | 2028 J | 2028 J | 2028 A | 2028 S | 2028 O | 2028 N | 2028 D | 2029 J | 2029 F | 2029 M | 2029 A | 2029 M | 2029 J | 2029 J | 2029 A | 2029 S | 2029 O | 2029 N | 2029 D |
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Figure D1.6: Unmitigated Noise Assessment Results at Chui Yat House

| Construction Activities | months | Works Zone | SWL | Dist | Dist. Corr | Façade Corr | CNL | 2023 N | 2023 D | 2024 J | 2024 F | 2024 M | 2024 A | 2024 M | 2024 J | 2024 J | 2024 A | 2024 S | 2024 O | 2024 N | 2024 D | 2025 J | 2025 F | 2025 M | 2025 A | 2025 M | 2025 J | 2025 J | 2025 A | 2025 S | 2025 O | 2025 N | 2025 D | 2026 J | 2026 F | 2026 M | 2026 A | 2026 M | 2026 J | 2026 J | 2026 A | 2026 S | 2026 O | 2026 N | 2026 D | 2027 J | 2027 F | 2027 M | 2027 A | 2027 M | 2027 J | 2027 J | 2027 A | 2027 S | 2027 O | 2027 N | 2027 D | 2028 J | 2028 F | 2028 M | 2028 A | 2028 M | 2028 J | 2028 J | 2028 A | 2028 S | 2028 O | 2028 N | 2028 D | 2029 J | 2029 F | 2029 M | 2029 A | 2029 M | 2029 J | 2029 J | 2029 A | 2029 S | 2029 O | 2029 N | 2029 D |
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Figure D1.7: Unmitigated Noise Assessment Results at Yuet Yat House

| Construction Activities | months | Works Zone | SWL | Dist | Dist. Corr | Façade Corr | CNL | 2023 | | 2024 | | | | | | | | | | | | 2025 | | | | | | | | | | | | 2026 | | | | | | | | | | | | 2027 | | | | | | | | | | | | 2028 | | | | | | | | | | | | 2029 | | | | | | | | | | | |
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Figure D1.8: Unmitigated Noise Assessment Results at Sui Yat House

| Construction Activities | months | Works Zone | SWL | Dist | Dist. Corr | Façade Corr | CNL | 2023 N | 2023 D | 2024 J | 2024 F | 2024 M | 2024 A | 2024 M | 2024 J | 2024 J | 2024 A | 2024 S | 2024 O | 2024 N | 2024 D | 2025 J | 2025 F | 2025 M | 2025 A | 2025 M | 2025 J | 2025 J | 2025 A | 2025 S | 2025 O | 2025 N | 2025 D | 2026 J | 2026 F | 2026 M | 2026 A | 2026 M | 2026 J | 2026 J | 2026 A | 2026 S | 2026 O | 2026 N | 2026 D | 2027 J | 2027 F | 2027 M | 2027 A | 2027 M | 2027 J | 2027 J | 2027 A | 2027 S | 2027 O | 2027 N | 2027 D | 2028 J | 2028 F | 2028 M | 2028 A | 2028 M | 2028 J | 2028 J | 2028 A | 2028 S | 2028 O | 2028 N | 2028 D | 2029 J | 2029 F | 2029 M | 2029 A | 2029 M | 2029 J | 2029 J | 2029 A | 2029 S | 2029 O | 2029 N | 2029 D |
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Figure D1.9: Unmitigated Noise Assessment Results at Mun Wo House

| Construction Activities | months | Works Zone | SWL | Dist | Dist. Corr | Façade Corr | CNL | 2023 N | 2023 D | 2024 J | 2024 F | 2024 M | 2024 A | 2024 M | 2024 J | 2024 J | 2024 A | 2024 S | 2024 O | 2024 N | 2024 D | 2025 J | 2025 F | 2025 M | 2025 A | 2025 M | 2025 J | 2025 J | 2025 A | 2025 S | 2025 O | 2025 N | 2025 D | 2026 J | 2026 F | 2026 M | 2026 A | 2026 M | 2026 J | 2026 J | 2026 A | 2026 S | 2026 O | 2026 N | 2026 D | 2027 J | 2027 F | 2027 M | 2027 A | 2027 M | 2027 J | 2027 J | 2027 A | 2027 S | 2027 O | 2027 N | 2027 D | 2028 J | 2028 F | 2028 M | 2028 A | 2028 M | 2028 J | 2028 J | 2028 A | 2028 S | 2028 O | 2028 N | 2028 D | 2029 J | 2029 F | 2029 M | 2029 A | 2029 M | 2029 J | 2029 J | 2029 A | 2029 S | 2029 O | 2029 N | 2029 D |
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Figure D1.10: Unmitigated Noise Assessment Results at Ha Ling Pei Village

| Construction Activities | months | Works Zone | SWL | Dist | Dist. Corr | Façade Corr | CNL | 2023 | | 2024 | | | | | | | | | | | | 2025 | | | | | | | | | | | | 2026 | | | | | | | | | | | | 2027 | | | | | | | | | | | | 2028 | | | | | | | | | | | | 2029 | | | | | | | | | | | |
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Figure D1.11: Unmitigated Noise Assessment Results at Tung Chung Catholic School Primary Section

| Construction Activities | months | Works Zone | SWL | Dist | Dist. Corr | Façade Corr | CNL | 2023 | | 2024 | | | | | | | | | | | 2025 | | | | | | | | | | | | 2026 | | | | | | | | | | | | 2027 | | | | | | | | | | | | 2028 | | | | | | | | | | | | 2029 | | | | | | | | | | | |
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Figure D1.12: Unmitigated Noise Assessment Results at Tung Chung Catholic School Primary Section (during examination period)

| Construction Activities | months | Works Zone | SWL | Dist | Dist. Corr | Façade Corr | CNL | 2023 N | 2023 D | 2024 J | 2024 F | 2024 M | 2024 A | 2024 M | 2024 J | 2024 J | 2024 A | 2024 S | 2024 O | 2024 N | 2024 D | 2025 J | 2025 F | 2025 M | 2025 A | 2025 M | 2025 J | 2025 J | 2025 A | 2025 S | 2025 O | 2025 N | 2025 D | 2026 J | 2026 F | 2026 M | 2026 A | 2026 M | 2026 J | 2026 J | 2026 A | 2026 S | 2026 O | 2026 N | 2026 D | 2027 J | 2027 F | 2027 M | 2027 A | 2027 M | 2027 J | 2027 J | 2027 A | 2027 S | 2027 O | 2027 N | 2027 D | 2028 J | 2028 F | 2028 M | 2028 A | 2028 M | 2028 J | 2028 J | 2028 A | 2028 S | 2028 O | 2028 N | 2028 D | 2029 J | 2029 F | 2029 M | 2029 A | 2029 M | 2029 J | 2029 J | 2029 A | 2029 S | 2029 O | 2029 N | 2029 D |
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Appendix D2

Detail Noise Calculation (Unmitigated)
TCC and EAP/EEP

Figure D2.1: Unmitigated Noise Assessment Results at Tung Chung Crescent Block 1

Construction Activities	months	Works Zone	SWL	Dist	Dist. Corr	Façade Corr	CNL
Tung Chung Crescent							
Site Clearance	1	TCC Work Area	116	78	-46	3	73
Pipe Pile Activity / Curtain Wall Grouting	2	Launching Shaft	118	73	-45	3	76
	3	Retrieval Shaft	118	88	-47	3	74
Constrcution/Demolition of Noise Enclosure	10	TCC Work Area	115	78	-46	3	72
Excavation + Lifting+ Dewatering (Drill/Split/Break)	12	TCC Enclosure	121	70	-45	3	79
STP Site Set Up Assembly/Disassembly	6	STP Site	114	53	-42	3	75
TBM Assembly / Maintanance (inside enclosure)	8	TCC Enclosure	116	70	-45	3	74
TBM Assembly / Maintanance (outside enclosure) Group 1	8	TCC Outside Enclosure	115	86	-47	3	71
TBM Assembly / Maintanance (outside enclosure) Group 2	8	Forklift Area	101	75	-46	3	58
TBM Operation (exclude STP)	14	TCC Enclosure	118	70	-45	3	76
TBM Operation (only STP)	14	STP Site	115	53	-42	3	76
Site Reinstatement	18	TCC Work Area	117	78	-46	3	74
Slab Work	13	TCC Work Area	115	78	-46	3	72
EAP/EEP							
Site Clearance	3	EAP/EEP	118	141	-51	3	70
Excavation + Lifting+ Dewatering (Drill/Split/Break)	12	TCA Shaft	121	140	-51	3	73
Slope (Rock) + Lifting+ Dewatering / Tie Back Anchor	6	EAP/EEP	122	141	-51	3	74
Building Works	13	EAP/EEP	114	141	-51	3	66
BS Work / Test & Comissioning	26	EAP/EEP	112	141	-51	3	64

Construction Activities	2023 N	2023 D	2024 J	F	M	A	M	J	J	A	S	O	N	D
Tung Chung Crescent														
Site Clearance	73													
Pipe Pile Activity / Curtain Wall Grouting	76	76												
			74	74	74									
Constrcution/Demolition of Noise Enclosure	72	72	72	72	72	72	72	72						
Excavation + Lifting+ Dewatering (Drill/Split/Break)									79	79	79	79	79	79
STP Site Set Up Assembly/Disassembly													75	75
TBM Assembly / Maintanance (inside enclosure)														
TBM Assembly / Maintanance (outside enclosure) Group 1														
TBM Assembly / Maintanance (outside enclosure) Group 2														
TBM Operation (exclude STP)														
TBM Operation (only STP)														
Site Reinstatement														
Slab Work														
EAP/EEP														
Site Clearance	70	70	70											
Excavation + Lifting+ Dewatering (Drill/Split/Break)										73	73	73	73	73
Slope (Rock) + Lifting+ Dewatering / Tie Back Anchor				74	74	74	74	74	74					
Building Works														
BS Work / Test & Comissioning														
Predicted CNL at Tung Chung Crescent Block 1	80	78	77	78	78	76	76	76	80	80	80	80	81	81
Noise Exceedance (Daytime Criteria: 75dB(A))	5	3	2	3	3	1	1	1	5	5	5	5	6	6

Construction Activities	2025 J	F	M	A	M	J	J	A	S	O	N	D	2026 J	F	M	A	M	J	J	A	S	O	N	D
Tung Chung Crescent																								
Site Clearance																								
Pipe Pile Activity / Curtain Wall Grouting																								
Constrcution/Demolition of Noise Enclosure																								
Excavation + Lifting+ Dewatering (Drill/Split/Break)											79	79	79	79	79	79								
STP Site Set Up Assembly/Disassembly																								
TBM Assembly / Maintanance (inside enclosure)	74	74	74	74																	74	74	74	74
TBM Assembly / Maintanance (outside enclosure) Group 1	71	71	71	71																	71	71	71	71
TBM Assembly / Maintanance (outside enclosure) Group 2	58	58	58	58																	58	58	58	58
TBM Operation (exclude STP)					76	76	76	76	76	76	76			76	76	76	76	76	76	76				
TBM Operation (only STP)					76	76	76	76	76	76	76			76	76	76	76	76	76	76				
Site Reinstatement																								
Slab Work											72	72	72	72	72	72	72	72						72
EAP/EEP																								
Site Clearance																								
Excavation + Lifting+ Dewatering (Drill/Split/Break)	73	73	73	73	73	73	73																	
Slope (Rock) + Lifting+ Dewatering / Tie Back Anchor																								
Building Works						66	66	66	66	66	66	66	66	66	66	66	66	66						
BS Work / Test & Comissioning																			64	64	64	64	64	64
Predicted CNL at Tung Chung Crescent Block 1	78	78	78	78	80	80	80	79	79	79	83	80	80	83	83	83	80	80	79	79	76	76	76	78
Noise Exceedance (Daytime Criteria: 75dB(A))	3	3	3	3	5	5	5	4	4	4	8	5	5	8	8	8	5	5	4	4	1	1	1	3

Construction Activities	2027 J	F	M	A	M	J	J	A	S	O	N	D	2028 J	F	M	A	M	J	J	A	S	O	N	D	2029 J	F	M	A	M	J	J	A	S	O	N	D
Tung Chung Crescent																																				
Site Clearance																																				
Pipe Pile Activity / Curtain Wall Grouting																																				
Constrcution/Demolition of Noise Enclosure					72	72																														
Excavation + Lifting+ Dewatering (Drill/Split/Break)																																				
STP Site Set Up Assembly/Disassembly	75	75	75	75																																
TBM Assembly / Maintanance (inside enclosure)																																				
TBM Assembly / Maintanance (outside enclosure) Group 1																																				
TBM Assembly / Maintanance (outside enclosure) Group 2																																				
TBM Operation (exclude STP)																																				
TBM Operation (only STP)																																				
Site Reinstatement							74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74											
Slab Work	72	72	72	72																																
EAP/EEP																																				
Site Clearance																																				
Excavation + Lifting+ Dewatering (Drill/Split/Break)																																				
Slope (Rock) + Lifting+ Dewatering / Tie Back Anchor																																				
Building Works																																				
BS Work / Test & Comissioning	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64																
Predicted CNL at Tung Chung Crescent Block 1	77	77	77	77	73	73	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74											
Noise Exceedance (Daytime Criteria: 75dB(A))	2	2	2	2																																

Remark:

Distance between NSR and Work Area is notional distance

Figure D2.2: Unmitigated Noise Assessment Results at Tung Chung Crescent Block 3

Construction Activities	months	Works Zone	SWL	Dist	Dist. Corr	Façade Corr	CNL	2023		2024											
								N	D	J	F	M	A	M	J	J	A	S	O	N	D
Tung Chung Crescent																					
Site Clearance	1	TCC Work Area	116	73	-45	3	74	74													
Pipe Pile Activity / Curtain Wall Grouting	2	Launching Shaft	118	72	-45	3	76	76	76												
	3	Retrieval Shaft	118	66	-44	3	77			77	77	77									
Constrcution/Demolition of Noise Enclosure	10	TCC Work Area	115	73	-45	3	73	73	73	73	73	73	73	73	73						
Excavation + Lifting+ Dewatering (Drill/Split/Break)	12	TCC Enclosure	121	63	-44	3	80									80	80	80	80	80	80
STP Site Set Up Assembly/Disassembly	6	STP Site	114	134	-51	3	66													66	66
TBM Assembly / Maintanance (inside enclosure)	8	TCC Enclosure	116	63	-44	3	75														
TBM Assembly / Maintanance (outside enclosure) Group 1	8	TCC Outside Enclosure	115	90	-47	3	71														
TBM Assembly / Maintanance (outside enclosure) Group 2	8	Forklift Area	101	49	-42	3	62														
TBM Operation (exclude STP)	14	TCC Enclosure	118	63	-44	3	77														
TBM Operation (only STP)	14	STP Site	115	134	-51	3	67														
Site Reinstatement	18	TCC Work Area	117	73	-45	3	75														
Slab Work	13	TCC Work Area	115	73	-45	3	73														
EAP/EEP																					
Site Clearance	3	EAP/EEP	118	189	-54	3	67	67	67	67											
Excavation + Lifting+ Dewatering (Drill/Split/Break)	12	TCA Shaft	121	183	-53	3	71										71	71	71	71	71
Slope (Rock) + Lifting+ Dewatering / Tie Back Anchor	6	EAP/EEP	122	189	-54	3	71				71	71	71	71	71	71					
Building Works	13	EAP/EEP	114	189	-54	3	63														
BS Work / Test & Comissioning	26	EAP/EEP	112	189	-54	3	61														
Predicted CNL at Tung Chung Crescent Block 3								80	78	79	79	79	75	75	75	81	80	80	80	81	81
Noise Exceedance (Daytime Criteria: 75dB(A))								5	3	4	4	4				6	5	5	5	6	6

Construction Activities	2025												2026											
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
Tung Chung Crescent																								
Site Clearance																								
Pipe Pile Activity / Curtain Wall Grouting (Launching Shaft)																								
Pipe Pile Activity / Curtain Wall Grouting (Retrieval Shaft)																								
Constrcution/Demolition of Noise Enclosure																								
Excavation + Lifting+ Dewatering (Drill/Split/Break)											80	80	80	80	80	80								
STP Site Set Up Assembly/Disassembly																								
TBM Assembly / Maintanance (inside enclosure)	75	75	75	75																	75	75	75	75
TBM Assembly / Maintanance (outside enclosure) Group 1	71	71	71	71																	71	71	71	71
TBM Assembly / Maintanance (outside enclosure) Group 2	62	62	62	62																	62	62	62	62
TBM Operation (exclude STP)					77	77	77	77	77	77	77			77	77	77	77	77	77	77				
TBM Operation (only STP)					67	67	67	67	67	67	67			67	67	67	67	67	67	67				
Site Reinstatement																								
Slab Work											73	73	73	73	73	73	73	73						73
EAP/EEP																								
Site Clearance																								
Excavation + Lifting+ Dewatering (Drill/Split/Break)	71	71	71	71	71	71	71																	
Slope (Rock) + Lifting+ Dewatering / Tie Back Anchor																								
Building Works						63	63	63	63	63	63	63	63	63	63	63	63	63						
BS Work / Test & Comissioning																			61	61	61	61	61	61
Predicted CNL at Tung Chung Crescent Block 3	78	78	78	78	79	79	79	78	78	78	83	81	81	83	83	83	79	79	78	78	77	77	77	78
Noise Exceedance (Daytime Criteria: 75dB(A))	3	3	3	3	4	4	4	3	3	3	8	6	6	8	8	8	4	4	3	3	2	2	2	3

Construction Activities	2027												2028												2029											
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
Tung Chung Crescent																																				
Site Clearance																																				
Pipe Pile Activity / Curtain Wall Grouting (Launching Shaft)																																				
Pipe Pile Activity / Curtain Wall Grouting (Retrieval Shaft)																																				
Constrcution/Demolition of Noise Enclosure					73	73																														
Excavation + Lifting+ Dewatering (Drill/Split/Break)																																				
STP Site Set Up Assembly/Disassembly	66	66	66	66																																
TBM Assembly / Maintanance (inside enclosure)																																				
TBM Assembly / Maintanance (outside enclosure) Group 1																																				
TBM Assembly / Maintanance (outside enclosure) Group 2																																				
TBM Operation (exclude STP)																																				
TBM Operation (only STP)																																				
Site Reinstatement							75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75											
Slab Work	73	73	73	73																																
EAP/EEP																																				
Site Clearance																																				
Excavation + Lifting+ Dewatering (Drill/Split/Break)																																				
Slope (Rock) + Lifting+ Dewatering / Tie Back Anchor																																				
Building Works																																				
BS Work / Test & Comissioning	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61																
Predicted CNL at Tung Chung Crescent Block 3	74	74	74	74	74	74	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75											
Noise Exceedance (Daytime Criteria: 75dB(A))																																				

Remark:
Distance between NSR and Work Area is notional distance

Figure D2.3: Unmitigated Noise Assessment Results at Tung Chung Crescent Block 5

Construction Activities	months	Works Zone	SWL	Dist	Dist. Corr	Façade Corr	CNL	2023		2024											
								N	D	J	F	M	A	M	J	J	A	S	O	N	D
Tung Chung Crescent																					
Site Clearance	1	TCC Work Area	116	69	-45	3	74	74													
Pipe Pile Activity / Curtain Wall Grouting	2	Launching Shaft	118	79	-46	3	75	75	75												
	3	Retrieval Shaft	118	58	-43	3	78			78	78	78									
Constrcution/Demolition of Noise Enclosure	10	TCC Work Area	115	69	-45	3	73	73	73	73	73	73	73	73	73						
Excavation + Lifting+ Dewatering (Drill/Split/Break)	12	TCC Enclosure	121	59	-43	3	81									81	81	81	81	81	81
STP Site Set Up Assembly/Disassembly	6	STP Site	114	169	-53	3	64													64	64
TBM Assembly / Maintanance (inside enclosure)	8	TCC Enclosure	116	59	-43	3	76														
TBM Assembly / Maintanance (outside enclosure) Group 1	8	TCC Outside Enclosure	115	83	-46	3	72														
TBM Assembly / Maintanance (outside enclosure) Group 2	8	Forklift Area	101	43	-41	3	63														
TBM Operation (exclude STP)	14	TCC Enclosure	118	59	-43	3	78														
TBM Operation (only STP)	14	STP Site	115	169	-53	3	65														
Site Reinstatement	18	TCC Work Area	117	69	-45	3	75														
Slab Work	13	TCC Work Area	115	69	-45	3	73														
EAP/EEP																					
Site Clearance	3	EAP/EEP	118	182	-53	3	68	68	68	68											
Excavation + Lifting+ Dewatering (Drill/Split/Break)	12	TCA Shaft	121	187	-53	3	71										71	71	71	71	71
Slope (Rock) + Lifting+ Dewatering / Tie Back Anchor	6	EAP/EEP	122	182	-53	3	72				72	72	72	72	72	72					
Building Works	13	EAP/EEP	114	182	-53	3	64														
BS Work / Test & Comissioning	26	EAP/EEP	112	182	-53	3	62														
Predicted CNL at Tung Chung Crescent Block 5								79	78	80	80	80	76	76	76	82	81	81	81	81	81
Noise Exceedance (Daytime Criteria: 75dB(A))								4	3	5	5	5	1	1	1	7	6	6	6	6	6

Construction Activities	2025												2026											
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
Tung Chung Crescent																								
Site Clearance																								
Pipe Pile Activity / Curtain Wall Grouting (Launching Shaft)																								
Pipe Pile Activity / Curtain Wall Grouting (Retrieval Shaft)																								
Constrcution/Demolition of Noise Enclosure																								
Excavation + Lifting+ Dewatering (Drill/Split/Break)											81	81	81	81	81	81								
STP Site Set Up Assembly/Disassembly																								
TBM Assembly / Maintanance (inside enclosure)	76	76	76	76																	76	76	76	76
TBM Assembly / Maintanance (outside enclosure) Group 1	72	72	72	72																	72	72	72	72
TBM Assembly / Maintanance (outside enclosure) Group 2	63	63	63	63																	63	63	63	63
TBM Operation (exclude STP)					78	78	78	78	78	78	78			78	78	78	78	78	78	78				
TBM Operation (only STP)					65	65	65	65	65	65	65			65	65	65	65	65	65	65				
Site Reinstatement																								
Slab Work											73	73	73	73	73	73	73	73						73
EAP/EEP																								
Site Clearance																								
Excavation + Lifting+ Dewatering (Drill/Split/Break)	71	71	71	71	71	71	71																	
Slope (Rock) + Lifting+ Dewatering / Tie Back Anchor																								
Building Works						64	64	64	64	64	64	64	64	64	64	64	64	64						
BS Work / Test & Comissioning																			62	62	62	62	62	62
Predicted CNL at Tung Chung Crescent Block 5	78	78	78	78	79	79	79	79	79	79	83	82	82	83	83	83	80	80	79	79	78	78	78	79
Noise Exceedance (Daytime Criteria: 75dB(A))	3	3	3	3	4	4	4	4	4	4	8	7	7	8	8	8	5	5	4	4	3	3	3	4

Construction Activities	2027												2028												2029											
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
Tung Chung Crescent																																				
Site Clearance																																				
Pipe Pile Activity / Curtain Wall Grouting (Launching Shaft)																																				
Pipe Pile Activity / Curtain Wall Grouting (Retrieval Shaft)																																				
Constrcution/Demolition of Noise Enclosure					73	73																														
Excavation + Lifting+ Dewatering (Drill/Split/Break)																																				
STP Site Set Up Assembly/Disassembly	64	64	64	64																																
TBM Assembly / Maintanance (inside enclosure)																																				
TBM Assembly / Maintanance (outside enclosure) Group 1																																				
TBM Assembly / Maintanance (outside enclosure) Group 2																																				
TBM Operation (exclude STP)																																				
TBM Operation (only STP)																																				
Site Reinstatement							75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75											
Slab Work	73	73	73	73																																
EAP/EEP																																				
Site Clearance																																				
Excavation + Lifting+ Dewatering (Drill/Split/Break)																																				
Slope (Rock) + Lifting+ Dewatering / Tie Back Anchor																																				
Building Works																																				
BS Work / Test & Comissioning	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62																
Predicted CNL at Tung Chung Crescent Block 5	74	74	74	74	74	74	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75											
Noise Exceedance (Daytime Criteria: 75dB(A))																																				

Remark:

Distance between NSR and Work Area is notional distance

Figure D2.4: Unmitigated Noise Assessment Results at Tung Chung Crescent Block 7

Construction Activities	months	Works Zone	SWL	Dist	Dist. Corr	Façade Corr	CNL
Tung Chung Crescent							
Site Clearance	1	TCC Work Area	116	77	-46	3	73
Pipe Pile Activity / Curtain Wall Grouting	2	Launching Shaft	118	96	-48	3	73
	3	Retrieval Shaft	118	77	-46	3	75
Constrcution/Demolition of Noise Enclosure	10	TCC Work Area	115	77	-46	3	72
Excavation + Lifting+ Dewatering (Drill/Split/Break)	12	TCC Enclosure	121	73	-45	3	79
STP Site Set Up Assembly/Disassembly	6	STP Site	114	116	-49	3	68
TBM Assembly / Maintanance (inside enclosure)	8	TCC Enclosure	116	73	-45	3	74
TBM Assembly / Maintanance (outside enclosure) Group 1	8	TCC Outside Enclosure	115	78	-46	3	72
TBM Assembly / Maintanance (outside enclosure) Group 2	8	Forklift Area	101	74	-45	3	59
TBM Operation (exclude STP)	14	TCC Enclosure	118	73	-45	3	76
TBM Operation (only STP)	14	STP Site	115	116	-49	3	69
Site Reinstatement	18	TCC Work Area	117	77	-46	3	74
Slab Work	13	TCC Work Area	115	77	-46	3	72
EAP/EEP							
Site Clearance	3	EAP/EEP	118	137	-51	3	70
Excavation + Lifting+ Dewatering (Drill/Split/Break)	12	TCA Shaft	121	139	-51	3	73
Slope (Rock) + Lifting+ Dewatering / Tie Back Anchor	6	EAP/EEP	122	137	-51	3	74
Building Works	13	EAP/EEP	114	137	-51	3	66
BS Work / Test & Comissioning	26	EAP/EEP	112	137	-51	3	64

Construction Activities	2023 N	2023 D	2024 J	F	M	A	M	J	J	A	S	O	N	D
Tung Chung Crescent														
Site Clearance	73													
Pipe Pile Activity / Curtain Wall Grouting (Launching Shaft)	73	73												
Pipe Pile Activity / Curtain Wall Grouting (Retrieval Shaft)			75	75	75									
Constrcution/Demolition of Noise Enclosure	72	72	72	72	72	72	72	72						
Excavation + Lifting+ Dewatering (Drill/Split/Break)									79	79	79	79	79	79
STP Site Set Up Assembly/Disassembly													68	68
TBM Assembly / Maintanance (inside enclosure)														
TBM Assembly / Maintanance (outside enclosure) Group 1														
TBM Assembly / Maintanance (outside enclosure) Group 2														
TBM Operation (exclude STP)														
TBM Operation (only STP)														
Site Reinstatement														
Slab Work														
EAP/EEP														
Site Clearance	70	70	70											
Excavation + Lifting+ Dewatering (Drill/Split/Break)										73	73	73	73	73
Slope (Rock) + Lifting+ Dewatering / Tie Back Anchor				74	74	74	74	74	74					
Building Works														
BS Work / Test & Comissioning														
Predicted CNL at Tung Chung Crescent Block 7	78	77	78	79	79	76	76	76	80	80	80	80	80	80
Noise Exceedance (Daytime Criteria: 75dB(A))	3	2	3	4	4	1	1	1	5	5	5	5	5	5

Construction Activities	2025 J	F	M	A	M	J	J	A	S	O	N	D
Tung Chung Crescent												
Site Clearance												
Pipe Pile Activity / Curtain Wall Grouting (Launching Shaft)												
Pipe Pile Activity / Curtain Wall Grouting (Retrieval Shaft)												
Constrcution/Demolition of Noise Enclosure												
Excavation + Lifting+ Dewatering (Drill/Split/Break)											79	79
STP Site Set Up Assembly/Disassembly												
TBM Assembly / Maintanance (inside enclosure)	74	74	74	74								
TBM Assembly / Maintanance (outside enclosure) Group 1	72	72	72	72								
TBM Assembly / Maintanance (outside enclosure) Group 2	59	59	59	59								
TBM Operation (exclude STP)					76	76	76	76	76	76	76	
TBM Operation (only STP)					69	69	69	69	69	69	69	
Site Reinstatement												
Slab Work											72	72
EAP/EEP												
Site Clearance												
Excavation + Lifting+ Dewatering (Drill/Split/Break)	73	73	73	73	73	73	73					
Slope (Rock) + Lifting+ Dewatering / Tie Back Anchor												
Building Works						66	66	66	66	66	66	66
BS Work / Test & Comissioning												
Predicted CNL at Tung Chung Crescent Block 7	78	78	78	78	78	79	79	77	77	77	82	80
Noise Exceedance (Daytime Criteria: 75dB(A))	3	3	3	3	3	4	4	2	2	2	7	5

Construction Activities	2026 J	F	M	A	M	J	J	A	S	O	N	D
Tung Chung Crescent												
Site Clearance												
Pipe Pile Activity / Curtain Wall Grouting (Launching Shaft)												
Pipe Pile Activity / Curtain Wall Grouting (Retrieval Shaft)												
Constrcution/Demolition of Noise Enclosure												
Excavation + Lifting+ Dewatering (Drill/Split/Break)	79	79	79	79								
STP Site Set Up Assembly/Disassembly												
TBM Assembly / Maintanance (inside enclosure)									74	74	74	74
TBM Assembly / Maintanance (outside enclosure) Group 1									72	72	72	72
TBM Assembly / Maintanance (outside enclosure) Group 2									59	59	59	59
TBM Operation (exclude STP)		76	76	76	76	76	76	76				
TBM Operation (only STP)		69	69	69	69	69	69	69				
Site Reinstatement												
Slab Work	72	72	72	72	72	72						72
EAP/EEP												
Site Clearance												
Excavation + Lifting+ Dewatering (Drill/Split/Break)												
Slope (Rock) + Lifting+ Dewatering / Tie Back Anchor												
Building Works	66	66	66	66	66	66						
BS Work / Test & Comissioning							64	64	64	64	64	64
Predicted CNL at Tung Chung Crescent Block 7	80	82	82	82	79	79	77	77	77	77	77	78
Noise Exceedance (Daytime Criteria: 75dB(A))	5	7	7	7	4	4	2	2	2	2	2	3

Construction Activities	2027 J	F	M	A	M	J	J	A	S	O	N	D
Tung Chung Crescent												
Site Clearance												
Pipe Pile Activity / Curtain Wall Grouting (Launching Shaft)												
Pipe Pile Activity / Curtain Wall Grouting (Retrieval Shaft)												
Constrcution/Demolition of Noise Enclosure					72	72						
Excavation + Lifting+ Dewatering (Drill/Split/Break)												
STP Site Set Up Assembly/Disassembly	68	68	68	68								
TBM Assembly / Maintanance (inside enclosure)												
TBM Assembly / Maintanance (outside enclosure) Group 1												
TBM Assembly / Maintanance (outside enclosure) Group 2												
TBM Operation (exclude STP)												
TBM Operation (only STP)												
Site Reinstatement							74	74	74	74	74	74
Slab Work	72	72	72	72								
EAP/EEP												
Site Clearance												
Excavation + Lifting+ Dewatering (Drill/Split/Break)												
Slope (Rock) + Lifting+ Dewatering / Tie Back Anchor												
Building Works												
BS Work / Test & Comissioning	64	64	64	64	64	64	64	64	64	64	64	64
Predicted CNL at Tung Chung Crescent Block 7	74	74	74	74	73	73	74	74	74	74	74	74
Noise Exceedance (Daytime Criteria: 75dB(A))												

Construction Activities	2028 J	F	M	A	M	J	J	A	S	O	N	D
Tung Chung Crescent												
Site Clearance												
Pipe Pile Activity / Curtain Wall Grouting (Launching Shaft)												
Pipe Pile Activity / Curtain Wall Grouting (Retrieval Shaft)												
Constrcution/Demolition of Noise Enclosure												
Excavation + Lifting+ Dewatering (Drill/Split/Break)												
STP Site Set Up Assembly/Disassembly												
TBM Assembly / Maintanance (inside enclosure)												
TBM Assembly / Maintanance (outside enclosure) Group 1												
TBM Assembly / Maintanance (outside enclosure) Group 2												
TBM Operation (exclude STP)												
TBM Operation (only STP)												
Site Reinstatement	74	74	74	74	74	74	74	74	74	74	74	74
Slab Work												
EAP/EEP												
Site Clearance												
Excavation + Lifting+ Dewatering (Drill/Split/Break)												
Slope (Rock) + Lifting+ Dewatering / Tie Back Anchor												
Building Works												
BS Work / Test & Comissioning	64	64	64	64	64	64	64	64				
Predicted CNL at Tung Chung Crescent Block 7	74	74	74	74	74	74	74	74	74	74	74	74
Noise Exceedance (Daytime Criteria: 75dB(A))												

Construction Activities	2029 J	F	M	A	M	J	J	A	S	O	N	D
Tung Chung Crescent												
Site Clearance												
Pipe Pile Activity / Curtain Wall Grouting (Launching Shaft)												
Pipe Pile Activity / Curtain Wall Grouting (Retrieval Shaft)												
Constrcution/Demolition of Noise Enclosure												
Excavation + Lifting+ Dewatering (Drill/Split/Break)												
STP Site Set Up Assembly/Disassembly												
TBM Assembly / Maintanance (inside enclosure)												
TBM Assembly / Maintanance (outside enclosure) Group 1												
TBM Assembly / Maintanance (outside enclosure) Group 2												
TBM Operation (exclude STP)												
TBM Operation (only STP)												
Site Reinstatement	74											
Slab Work												
EAP/EEP												
Site Clearance												
Excavation + Lifting+ Dewatering (Drill/Split/Break)												
Slope (Rock) + Lifting+ Dewatering / Tie Back Anchor												
Building Works												
BS Work / Test & Comissioning												
Predicted CNL at Tung Chung Crescent Block 7	74											
Noise Exceedance (Daytime Criteria: 75dB(A))												

Remark:

Distance between NSR and Work Area is notional distance

Figure D2.5: Unmitigated Noise Assessment Results at Tung Chung Crescent Block 9

Construction Activities	months	Works Zone	SWL	Dist	Dist. Corr	Façade Corr	CNL
Tung Chung Crescent							
Site Clearance	1	TCC Work Area	116	70	-45	3	74
Pipe Pile Activity / Curtain Wall Grouting	2	Launching Shaft	118	87	-47	3	74
	3	Retrieval Shaft	118	94	-47	3	74
Constrcution/Demolition of Noise Enclosure	10	TCC Work Area	115	70	-45	3	73
Excavation + Lifting+ Dewatering (Drill/Split/Break)	12	TCC Enclosure	121	90	-47	3	77
STP Site Set Up Assembly/Disassembly	6	STP Site	114	38	-40	3	77
TBM Assembly / Maintanance (inside enclosure)	8	TCC Enclosure	116	90	-47	3	72
TBM Assembly / Maintanance (outside enclosure) Group 1	8	TCC Outside Enclosure	115	63	-44	3	74
TBM Assembly / Maintanance (outside enclosure) Group 2	8	Forklift Area	101	105	-48	3	56
TBM Operation (exclude STP)	14	TCC Enclosure	118	90	-47	3	74
TBM Operation (only STP)	14	STP Site	115	38	-40	3	78
Site Reinstatement	18	TCC Work Area	117	70	-45	3	75
Slab Work	13	TCC Work Area	115	70	-45	3	73
EAP/EEP							
Site Clearance	3	EAP/EEP	118	64	-44	3	77
Excavation + Lifting+ Dewatering (Drill/Split/Break)	12	TCA Shaft	121	74	-45	3	79
Slope (Rock) + Lifting+ Dewatering / Tie Back Anchor	6	EAP/EEP	122	64	-44	3	81
Building Works	13	EAP/EEP	114	64	-44	3	73
BS Work / Test & Comissioning	26	EAP/EEP	112	64	-44	3	71

Construction Activities	2023		2024											
	N	D	J	F	M	A	M	J	J	A	S	O	N	D
Tung Chung Crescent														
Site Clearance	74													
Pipe Pile Activity / Curtain Wall Grouting	74	74												
			74	74	74									
Constrcution/Demolition of Noise Enclosure	73	73	73	73	73	73	73	73						
Excavation + Lifting+ Dewatering (Drill/Split/Break)									77	77	77	77	77	77
STP Site Set Up Assembly/Disassembly													77	77
TBM Assembly / Maintanance (inside enclosure)														
TBM Assembly / Maintanance (outside enclosure) Group 1														
TBM Assembly / Maintanance (outside enclosure) Group 2														
TBM Operation (exclude STP)														
TBM Operation (only STP)														
Site Reinstatement														
Slab Work														
EAP/EEP														
Site Clearance	77	77	77											
Excavation + Lifting+ Dewatering (Drill/Split/Break)										79	79	79	79	79
Slope (Rock) + Lifting+ Dewatering / Tie Back Anchor				81	81	81	81	81	81					
Building Works														
BS Work / Test & Comissioning														
Predicted CNL at Tung Chung Crescent Block 9	81	80	80	83	83	82	82	82	83	81	81	81	82	82
Noise Exceedance (Daytime Criteria: 75dB(A))	6	5	5	8	8	7	7	7	8	6	6	6	7	7

Construction Activities	2025											
	J	F	M	A	M	J	J	A	S	O	N	D
Tung Chung Crescent												
Site Clearance												
Pipe Pile Activity / Curtain Wall Grouting												
Constrcution/Demolition of Noise Enclosure												
Excavation + Lifting+ Dewatering (Drill/Split/Break)											77	77
STP Site Set Up Assembly/Disassembly												
TBM Assembly / Maintanance (inside enclosure)	72	72	72	72								
TBM Assembly / Maintanance (outside enclosure) Group 1	74	74	74	74								
TBM Assembly / Maintanance (outside enclosure) Group 2	56	56	56	56								
TBM Operation (exclude STP)					74	74	74	74	74	74	74	
TBM Operation (only STP)					78	78	78	78	78	78	78	
Site Reinstatement												
Slab Work											73	73
EAP/EEP												
Site Clearance												
Excavation + Lifting+ Dewatering (Drill/Split/Break)	79	79	79	79	79	79	79					
Slope (Rock) + Lifting+ Dewatering / Tie Back Anchor												
Building Works						73	73	73	73	73	73	73
BS Work / Test & Comissioning												
Predicted CNL at Tung Chung Crescent Block 9	81	81	81	81	82	83	83	80	80	80	83	80
Noise Exceedance (Daytime Criteria: 75dB(A))	6	6	6	6	7	8	8	5	5	5	8	5

Construction Activities	2026											
	J	F	M	A	M	J	J	A	S	O	N	D
Tung Chung Crescent												
Site Clearance												
Pipe Pile Activity / Curtain Wall Grouting												
Constrcution/Demolition of Noise Enclosure												
Excavation + Lifting+ Dewatering (Drill/Split/Break)	77	77	77	77								
STP Site Set Up Assembly/Disassembly												
TBM Assembly / Maintanance (inside enclosure)									72	72	72	72
TBM Assembly / Maintanance (outside enclosure) Group 1									74	74	74	74
TBM Assembly / Maintanance (outside enclosure) Group 2									56	56	56	56
TBM Operation (exclude STP)		74	74	74	74	74	74	74				
TBM Operation (only STP)		78	78	78	78	78	78	78				
Site Reinstatement												
Slab Work	73	73	73	73	73	73						73
EAP/EEP												
Site Clearance												
Excavation + Lifting+ Dewatering (Drill/Split/Break)												
Slope (Rock) + Lifting+ Dewatering / Tie Back Anchor												
Building Works	73	73	73	73	73	73						
BS Work / Test & Comissioning							71	71	71	71	71	71
Predicted CNL at Tung Chung Crescent Block 9	80	83	83	83	81	81	80	80	77	77	77	79
Noise Exceedance (Daytime Criteria: 75dB(A))	5	8	8	8	6	6	5	5	2	2	2	4

Construction Activities	2027											
	J	F	M	A	M	J	J	A	S	O	N	D
Tung Chung Crescent												
Site Clearance												
Pipe Pile Activity / Curtain Wall Grouting												
Constrcution/Demolition of Noise Enclosure					73	73						
Excavation + Lifting+ Dewatering (Drill/Split/Break)												
STP Site Set Up Assembly/Disassembly	77	77	77	77								
TBM Assembly / Maintanance (inside enclosure)												
TBM Assembly / Maintanance (outside enclosure) Group 1												
TBM Assembly / Maintanance (outside enclosure) Group 2												
TBM Operation (exclude STP)												
TBM Operation (only STP)												
Site Reinstatement							75	75	75	75	75	75
Slab Work	73	73	73	73								
EAP/EEP												
Site Clearance												
Excavation + Lifting+ Dewatering (Drill/Split/Break)												
Slope (Rock) + Lifting+ Dewatering / Tie Back Anchor												
Building Works												
BS Work / Test & Comissioning	71	71	71	71	71	71	71	71	71	71	71	71
Predicted CNL at Tung Chung Crescent Block 9	79	79	79	79	75	75	76	76	76	76	76	76
Noise Exceedance (Daytime Criteria: 75dB(A))	4	4	4	4			1	1	1	1	1	1

Construction Activities	2028											
	J	F	M	A	M	J	J	A	S	O	N	D
Tung Chung Crescent												
Site Clearance												
Pipe Pile Activity / Curtain Wall Grouting												
Constrcution/Demolition of Noise Enclosure												
Excavation + Lifting+ Dewatering (Drill/Split/Break)												
STP Site Set Up Assembly/Disassembly												
TBM Assembly / Maintanance (inside enclosure)												
TBM Assembly / Maintanance (outside enclosure) Group 1												
TBM Assembly / Maintanance (outside enclosure) Group 2												
TBM Operation (exclude STP)												
TBM Operation (only STP)												
Site Reinstatement	75	75	75	75	75	75	75	75	75	75	75	75
Slab Work												
EAP/EEP												
Site Clearance												
Excavation + Lifting+ Dewatering (Drill/Split/Break)												
Slope (Rock) + Lifting+ Dewatering / Tie Back Anchor												
Building Works												
BS Work / Test & Comissioning	71	71	71	71	71	71	71	71				
Predicted CNL at Tung Chung Crescent Block 9	76	76	76	76	76	76	76	76	75	75	75	75
Noise Exceedance (Daytime Criteria: 75dB(A))	1	1	1	1	1	1	1	1				

Construction Activities	2029											
	J	F	M	A	M	J	J	A	S	O	N	D
Tung Chung Crescent												
Site Clearance												
Pipe Pile Activity / Curtain Wall Grouting												
Constrcution/Demolition of Noise Enclosure												
Excavation + Lifting+ Dewatering (Drill/Split/Break)												
STP Site Set Up Assembly/Disassembly												
TBM Assembly / Maintanance (inside enclosure)												
TBM Assembly / Maintanance (outside enclosure) Group 1												
TBM Assembly / Maintanance (outside enclosure) Group 2												
TBM Operation (exclude STP)												
TBM Operation (only STP)												
Site Reinstatement	75											
Slab Work												
EAP/EEP												
Site Clearance												
Excavation + Lifting+ Dewatering (Drill/Split/Break)												
Slope (Rock) + Lifting+ Dewatering / Tie Back Anchor												
Building Works												
BS Work / Test & Comissioning												
Predicted CNL at Tung Chung Crescent Block 9	75											
Noise Exceedance (Daytime Criteria: 75dB(A))												

Remark:
Distance between NSR and Work Area is notional distance

Figure D2.6: Unmitigated Noise Assessment Results at Sunshine House International Pre-School (Tung Chung)

Construction Activities	months	Works Zone	SWL	Dist	Dist. Corr	Façade Corr	CNL	2023		2024											
								N	D	J	F	M	A	M	J	J	A	S	O	N	D
Tung Chung Crescent																					
Site Clearance	1	TCC Work Area	116	137	-51	3	68	68													
Pipe Pile Activity / Curtain Wall Grouting	2	Launching Shaft	118	160	-52	3	69	69	69												
	3	Retrieval Shaft	118	137	-51	3	70			70	70	70									
Constrcution/Demolition of Noise Enclosure	10	TCC Work Area	115	137	-51	3	67	67	67	67	67	67	67	67	67						
Excavation + Lifting+ Dewatering (Drill/Split/Break)	12	TCC Enclosure	121	133	-50	3	74									74	74	74	74	74	74
STP Site Set Up Assembly/Disassembly	6	STP Site	114	170	-53	3	64													64	64
TBM Assembly / Maintanance (inside enclosure)	8	TCC Enclosure	116	133	-50	3	69														
TBM Assembly / Maintanance (outside enclosure) Group 1	8	TCC Outside Enclosure	115	138	-51	3	67														
TBM Assembly / Maintanance (outside enclosure) Group 2	8	Forklift Area	101	137	-51	3	53														
TBM Operation (exclude STP)	14	TCC Enclosure	118	133	-50	3	71														
TBM Operation (only STP)	14	STP Site	115	170	-53	3	65														
Site Reinstatement	18	TCC Work Area	117	137	-51	3	69														
Slab Work	13	TCC Work Area	115	137	-51	3	67														
EAP/EEP																					
Site Clearance	3	EAP/EEP	118	198	-54	3	67	67	67	67											
Excavation + Lifting+ Dewatering (Drill/Split/Break)	12	TCA Shaft	121	224	-55	3	69										69	69	69	69	69
Slope (Rock) + Lifting+ Dewatering / Tie Back Anchor	6	EAP/EEP	122	198	-54	3	71				71	71	71	71	71	71					
Building Works	13	EAP/EEP	114	198	-54	3	63														
BS Work / Test & Comissioning	26	EAP/EEP	112	198	-54	3	61														
Predicted CNL at Sunshine House International Pre-School (Tung Chung)								74	73	73	75	75	73	73	73	76	75	75	75	75	75
Noise Exceedance (Daytime Criteria: 70dB(A))								4	3	3	5	5	3	3	3	6	5	5	5	5	5

Construction Activities	Works Zone	2025											
		J	F	M	A	M	J	J	A	S	O	N	D
Tung Chung Crescent													
Site Clearance	TCC Work Area												
Pipe Pile Activity / Curtain Wall Grouting	Launching Shaft												
	Retrieval Shaft												
Constrcution/Demolition of Noise Enclosure	TCC Work Area												
Excavation + Lifting+ Dewatering (Drill/Split/Break)	TCC Enclosure											74	74
STP Site Set Up Assembly/Disassembly	STP Site												
TBM Assembly / Maintanance (inside enclosure)	TCC Enclosure	69	69	69	69								
TBM Assembly / Maintanance (outside enclosure) Group 1	TCC Outside Enclosure	67	67	67	67								
TBM Assembly / Maintanance (outside enclosure) Group 2	Forklift Area	53	53	53	53								
TBM Operation (exclude STP)	TCC Enclosure					71	71	71	71	71	71	71	
TBM Operation (only STP)	STP Site					65	65	65	65	65	65	65	
Site Reinstatement	TCC Work Area												
Slab Work	TCC Work Area											67	67
EAP/EEP													
Site Clearance	EAP/EEP												
Excavation + Lifting+ Dewatering (Drill/Split/Break)	TCA Shaft	69	69	69	69	69	69	69					
Slope (Rock) + Lifting+ Dewatering / Tie Back Anchor	EAP/EEP												
Building Works	EAP/EEP						63	63	63	63	63	63	63
BS Work / Test & Comissioning	EAP/EEP												
Predicted CNL at Sunshine House International Pre-School (Tung Chung)		73	73	73	73	74	74	74	73	73	73	77	75
Noise Exceedance (Daytime Criteria: 70dB(A))		3	3	3	3	4	4	4	3	3	3	7	5

Construction Activities	Works Zone	2026											
		J	F	M	A	M	J	J	A	S	O	N	D
Tung Chung Crescent													
Site Clearance	TCC Work Area												
Pipe Pile Activity / Curtain Wall Grouting	Launching Shaft												
	Retrieval Shaft												
Constrcution/Demolition of Noise Enclosure	TCC Work Area												
Excavation + Lifting+ Dewatering (Drill/Split/Break)	TCC Enclosure	74	74	74	74								
STP Site Set Up Assembly/Disassembly	STP Site												
TBM Assembly / Maintanance (inside enclosure)	TCC Enclosure									69	69	69	69
TBM Assembly / Maintanance (outside enclosure) Group 1	TCC Outside Enclosure									67	67	67	67
TBM Assembly / Maintanance (outside enclosure) Group 2	Forklift Area									53	53	53	53
TBM Operation (exclude STP)	TCC Enclosure		71	71	71	71	71	71	71				
TBM Operation (only STP)	STP Site		65	65	65	65	65	65	65				
Site Reinstatement	TCC Work Area												
Slab Work	TCC Work Area	67	67	67	67	67	67						67
EAP/EEP													
Site Clearance	EAP/EEP												
Excavation + Lifting+ Dewatering (Drill/Split/Break)	TCA Shaft												
Slope (Rock) + Lifting+ Dewatering / Tie Back Anchor	EAP/EEP												
Building Works	EAP/EEP	63	63	63	63	63	63						
BS Work / Test & Comissioning	EAP/EEP							61	61	61	61	61	61
Predicted CNL at Sunshine House International Pre-School (Tung Chung)		75	77	77	77	74	74	73	73	72	72	72	73
Noise Exceedance (Daytime Criteria: 70dB(A))		5	7	7	7	4	4	3	3	2	2	2	3

Construction Activities	Works Zone	2027											
		J	F	M	A	M	J	J	A	S	O	N	D
Tung Chung Crescent													
Site Clearance	TCC Work Area												
Pipe Pile Activity / Curtain Wall Grouting	Launching Shaft												
	Retrieval Shaft												
Constrcution/Demolition of Noise Enclosure	TCC Work Area					67	67						
Excavation + Lifting+ Dewatering (Drill/Split/Break)	TCC Enclosure												
STP Site Set Up Assembly/Disassembly	STP Site	64	64	64	64								
TBM Assembly / Maintanance (inside enclosure)	TCC Enclosure												
TBM Assembly / Maintanance (outside enclosure) Group 1	TCC Outside Enclosure												
TBM Assembly / Maintanance (outside enclosure) Group 2	Forklift Area												
TBM Operation (exclude STP)	TCC Enclosure												
TBM Operation (only STP)	STP Site												
Site Reinstatement	TCC Work Area							69	69	69	69	69	69
Slab Work	TCC Work Area	67	67	67	67								
EAP/EEP													
Site Clearance	EAP/EEP												
Excavation + Lifting+ Dewatering (Drill/Split/Break)	TCA Shaft												
Slope (Rock) + Lifting+ Dewatering / Tie Back Anchor	EAP/EEP												
Building Works	EAP/EEP												
BS Work / Test & Comissioning	EAP/EEP	61	61	61	61	61	61	61	61	61	61	61	61
Predicted CNL at Sunshine House International Pre-School (Tung Chung)		69	69	69	69	68	68	69	69	69	69	69	69
Noise Exceedance (Daytime Criteria: 70dB(A))													

Construction Activities	Works Zone	2028											
		J	F	M	A	M	J	J	A	S	O	N	D
Tung Chung Crescent													
Site Clearance	TCC Work Area												
Pipe Pile Activity / Curtain Wall Grouting	Launching Shaft												
	Retrieval Shaft												
Constrcution/Demolition of Noise Enclosure	TCC Work Area												
Excavation + Lifting+ Dewatering (Drill/Split/Break)	TCC Enclosure												
STP Site Set Up Assembly/Disassembly	STP Site												
TBM Assembly / Maintanance (inside enclosure)	TCC Enclosure												
TBM Assembly / Maintanance (outside enclosure) Group 1	TCC Outside Enclosure												
TBM Assembly / Maintanance (outside enclosure) Group 2	Forklift Area												
TBM Operation (exclude STP)	TCC Enclosure												
TBM Operation (only STP)	STP Site												
Site Reinstatement	TCC Work Area	69	69	69	69	69	69	69	69	69	69	69	69
Slab Work	TCC Work Area												
EAP/EEP													
Site Clearance	EAP/EEP												
Excavation + Lifting+ Dewatering (Drill/Split/Break)	TCA Shaft												
Slope (Rock) + Lifting+ Dewatering / Tie Back Anchor	EAP/EEP												
Building Works	EAP/EEP												
BS Work / Test & Comissioning	EAP/EEP	61	61	61	61	61	61	61	61				
Predicted CNL at Sunshine House International Pre-School (Tung Chung)		69	69	69	69	69	69	69	69	69	69	69	69
Noise Exceedance (Daytime Criteria: 70dB(A))													

Construction Activities	Works Zone	2029											
		J	F	M	A	M	J	J	A	S	O	N	D
Tung Chung Crescent													
Site Clearance	TCC Work Area												
Pipe Pile Activity / Curtain Wall Grouting	Launching Shaft												
	Retrieval Shaft												
Constrcution/Demolition of Noise Enclosure	TCC Work Area												
Excavation + Lifting+ Dewatering (Drill/Split/Break)	TCC Enclosure												
STP Site Set Up Assembly/Disassembly	STP Site												
TBM Assembly / Maintanance (inside enclosure)	TCC Enclosure												
TBM Assembly / Maintanance (outside enclosure) Group 1	TCC Outside Enclosure												
TBM Assembly / Maintanance (outside enclosure) Group 2	Forklift Area												
TBM Operation (exclude STP)	TCC Enclosure												
TBM Operation (only STP)	STP Site												
Site Reinstatement	TCC Work Area	69											
Slab Work	TCC Work Area												
EAP/EEP													
Site Clearance	EAP/EEP												
Excavation + Lifting+ Dewatering (Drill/Split/Break)	TCA Shaft												
Slope (Rock) + Lifting+ Dewatering / Tie Back Anchor	EAP/EEP												
Building Works	EAP/EEP												
BS Work / Test & Comissioning	EAP/EEP												
Predicted CNL at Sunshine House International Pre-School (Tung Chung)		69											
Noise Exceedance (Daytime Criteria: 70dB(A))													

Remark:
Distance between NSR and Work Area is notional distance

Appendix D3
Detail Noise Calculation (Unmitigated) Barging Facility

Location of Construction Site: Barging Facility
Working Period: Daytime

Daytime
Criteria: 75

Activity A: Construction of Barging Point Facilities

PME	ID Code	Work Area	Sound Power Level (SWL) of PME				Reflection Corr.	Façade Correction, dB(A)	NSR: Le Bleu Deux Block 6				Le Bleu Deux Block 7				Yu Nga Court			
			% Operating Time	SWL, dB(A)	Qty	Total SWL, dB(A)			Dist. to NSR (m)	Correction, dB(A) Dist.	Correction, dB(A) Barrier Effect	Corrected Noise Level, dB(A)	Dist. to NSR (m)	Correction, dB(A) Dist.	Correction, dB(A) Barrier Effect	Corrected Noise Level, dB(A)	Dist. to NSR (m)	Correction, dB(A) Dist.	Correction, dB(A) Barrier Effect	Corrected Noise Level, dB(A)
Generator, super silenced, 70dB(A) at 7m	CNP 103	Barging Area	100	95	1	95	0.0	3.0	157.7	-51.9	0.0	46.1	151.7	-51.6	0.0	46.4	137.0	-50.7	0.0	47.3
Crane, mobile (diesel)	CNP 048	Barging Area	100	112	1	112	0.0	3.0	157.7	-51.9	0.0	63.1	151.7	-51.6	0.0	63.4	137.0	-50.7	0.0	64.3
Excavator, wheeled/tracked	CNP 081	Barging Area	100	112	1	112	0.0	3.0	157.7	-51.9	0.0	63.1	151.7	-51.6	0.0	63.4	137.0	-50.7	0.0	64.3
Drill, percussive, hand-held (electric)	CNP 064	Barging Area	100	103	2	106	0.0	3.0	157.7	-51.9	0.0	57.1	151.7	-51.6	0.0	57.4	137.0	-50.7	0.0	58.3
Poker, vibratory, hand-held	CNP 170	Barging Area	100	113	2	116	0.0	3.0	157.7	-51.9	0.0	67.1	151.7	-51.6	0.0	67.4	137.0	-50.7	0.0	68.3
Concrete Lorry Mixer	CNP 044	Barging Area	100	109	1	109	0.0	3.0	157.7	-51.9	0.0	60.1	151.7	-51.6	0.0	60.4	137.0	-50.7	0.0	61.3
Derrick Barge (Barging Point 1)	CNP 061	BargingPoint 1	100	104	1	104	0.0	3.0	260.0	-56.3	0.0	50.7	278.0	-56.9	0.0	50.1	314.0	-57.9	0.0	49.1
Tug Boat (Barging Point 1)	CNP 221	BargingPoint 1	100	110	1	110	0.0	3.0	260.0	-56.3	0.0	56.7	278.0	-56.9	0.0	56.1	314.0	-57.9	0.0	55.1
Derrick Barge (Barging Point 2)	CNP 061	BargingPoint 2	100	104	1	104	0.0	3.0	290.0	-57.2	0.0	49.8	297.0	-57.4	0.0	49.6	278.0	-56.9	0.0	50.1
Tug Boat (Barging Point 2)	CNP 221	BargingPoint 2	100	110	1	110	0.0	3.0	290.0	-57.2	0.0	55.8	297.0	-57.4	0.0	55.6	278.0	-56.9	0.0	56.1
								PME CNL				70.7				71.0				71.8
								Daytime noise exceedance				0.0				0.0				0.0

Activity B1+B2: Barging Point Operation

PME	ID Code	Work Area	Sound Power Level (SWL) of PME				Reflection Corr.	Façade Correction, dB(A)	Dist. to NSR (m)	Correction, dB(A) Dist.	Correction, dB(A) Barrier Effect	Corrected Noise Level, dB(A)	Dist. to NSR (m)	Correction, dB(A) Dist.	Correction, dB(A) Barrier Effect	Corrected Noise Level, dB(A)	Dist. to NSR (m)	Correction, dB(A) Dist.	Correction, dB(A) Barrier Effect	Corrected Noise Level, dB(A)
			% Operating Time	SWL, dB(A)	Qty	Total SWL, dB(A)														
Generator, super silenced, 70dB(A) at 7m	CNP 103	Barging Area	100	95	2	98	0.0	3.0	157.7	-51.9	0.0	49.1	151.7	-51.6	0.0	49.4	137.0	-50.7	0.0	50.3
Dump truck, gross vehicle weight ≦ 38 tonne	-	Barging Area	-	80	-	80	-	3.0	157.7	-22.0	0.0	61.2	151.7	-21.8	0.0	61.4	137.0	-21.4	0.0	61.8
Derrick Barge	CNP 061	BargingPoint 1	100	104	3	109	0.0	3.0	260.0	-56.3	0.0	55.5	278.0	-56.9	0.0	54.9	314.0	-57.9	0.0	53.9
Tug Boat	CNP 221	BargingPoint 1	100	110	1	110	0.0	3.0	260.0	-56.3	0.0	56.7	278.0	-56.9	0.0	56.1	314.0	-57.9	0.0	55.1
Derrick Barge	CNP 061	BargingPoint 2	100	104	3	109	0.0	3.0	290.0	-57.2	0.0	54.5	297.0	-57.4	0.0	54.3	278.0	-56.9	0.0	54.9
Tug Boat	CNP 221	BargingPoint 2	100	110	1	110	0.0	3.0	290.0	-57.2	0.0	55.8	297.0	-57.4	0.0	55.6	278.0	-56.9	0.0	56.1
								PME CNL				64.6				64.5				64.6
								Daytime noise exceedance				0.0				0.0				0.0

Activity C: Demolition of Barging Point Facilities

PME	ID Code	Work Area	Sound Power Level (SWL) of PME				Reflection Corr.	Façade Correction, dB(A)	Dist. to NSR (m)	Correction, dB(A) Dist.	Correction, dB(A) Barrier Effect	Corrected Noise Level, dB(A)	Dist. to NSR (m)	Correction, dB(A) Dist.	Correction, dB(A) Barrier Effect	Corrected Noise Level, dB(A)	Dist. to NSR (m)	Correction, dB(A) Dist.	Correction, dB(A) Barrier Effect	Corrected Noise Level, dB(A)
			% Operating Time	SWL, dB(A)	Qty	Total SWL, dB(A)														
Generator, super silenced, 70dB(A) at 7m	CNP 103	Barging Area	100	95	1	95	0.0	3.0	157.7	-51.9	0.0	46.1	151.7	-51.6	0.0	46.4	137.0	-50.7	0.0	47.3
Crane, mobile (diesel)	CNP 048	Barging Area	100	112	1	112	0.0	3.0	157.7	-51.9	0.0	63.1	151.7	-51.6	0.0	63.4	137.0	-50.7	0.0	64.3
Excavator, wheeled/tracked	CNP 081	Barging Area	100	112	1	112	0.0	3.0	157.7	-51.9	0.0	63.1	151.7	-51.6	0.0	63.4	137.0	-50.7	0.0	64.3
Drill, percussive, hand-held (electric)	CNP 064	Barging Area	100	103	2	106	0.0	3.0	157.7	-51.9	0.0	57.1	151.7	-51.6	0.0	57.4	137.0	-50.7	0.0	58.3
Tug Boat	CNP 221	BargingPoint 1	100	110	1	110	0.0	3.0	260.0	-56.3	0.0	56.7	278.0	-56.9	0.0	56.1	314.0	-57.9	0.0	55.1
								PME CNL				67.0				67.3				68.1
								Daytime noise exceedance				0.0				0.0				0.0

Activity D: Site Reinstatement

PME	ID Code	Work Area	Sound Power Level (SWL) of PME				Reflection Corr.	Façade Correction, dB(A)	Dist. to NSR (m)	Correction, dB(A) Dist.	Correction, dB(A) Barrier Effect	Corrected Noise Level, dB(A)	Dist. to NSR (m)	Correction, dB(A) Dist.	Correction, dB(A) Barrier Effect	Corrected Noise Level, dB(A)	Dist. to NSR (m)	Correction, dB(A) Dist.	Correction, dB(A) Barrier Effect	Corrected Noise Level, dB(A)
			% Operating Time	SWL, dB(A)	Qty	Total SWL, dB(A)														
Generator, super silenced, 70dB(A) at 7m	CNP 103	Barging Area	100	95	1	95	0.0	3.0	157.7	-51.9	0.0	46.1	151.7	-51.6	0.0	46.4	137.0	-50.7	0.0	47.3
Crane, mobile (diesel)	CNP 048	Barging Area	100	112	1	112	0.0	3.0	157.7	-51.9	0.0	63.1	151.7	-51.6	0.0	63.4	137.0	-50.7	0.0	64.3
Excavator, wheeled/tracked	CNP 081	Barging Area	100	112	1	112	0.0	3.0	157.7	-51.9	0.0	63.1	151.7	-51.6	0.0	63.4	137.0	-50.7	0.0	64.3
Drill, percussive, hand-held (electric)	CNP 064	Barging Area	100	103	2	106	0.0	3.0	157.7	-51.9	0.0	57.1	151.7	-51.6	0.0	57.4	137.0	-50.7	0.0	58.3
								PME CNL				66.6				67.0				67.8
								Daytime noise exceedance				0.0				0.0				0.0

Remark:
Based on BS5228-1:2009 F2.5 Method for mobile plant using a regular well-defined route (e.g. haul roads), distance correction is determined with equation 10 log (distance).
Distance between NSR and Work Area is notional distance.

Appendix E
Proposed Noise Mitigation Measures

Appendix E1

Proposed Noise Mitigation Measures

Multi-phase Construction for D-wall Construction

Figure E1.1: Zoning of Daytime D-wall Construction at TCW for Phase 1

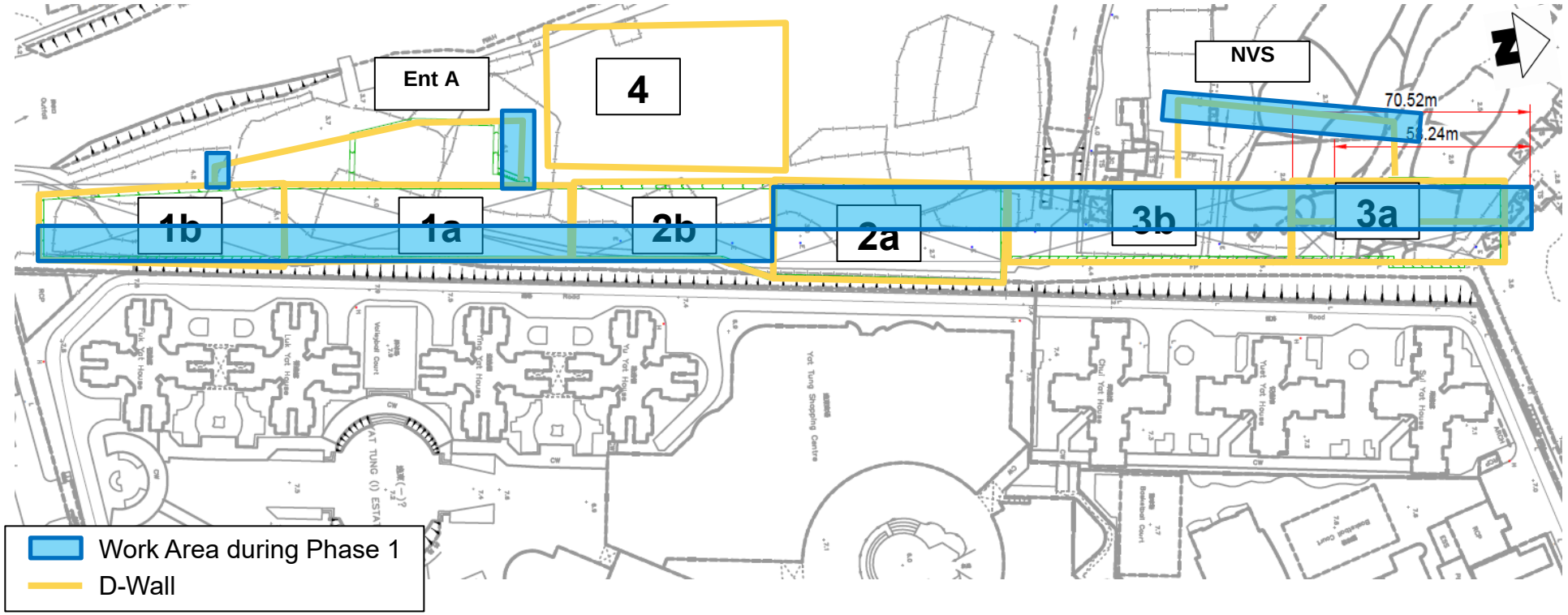
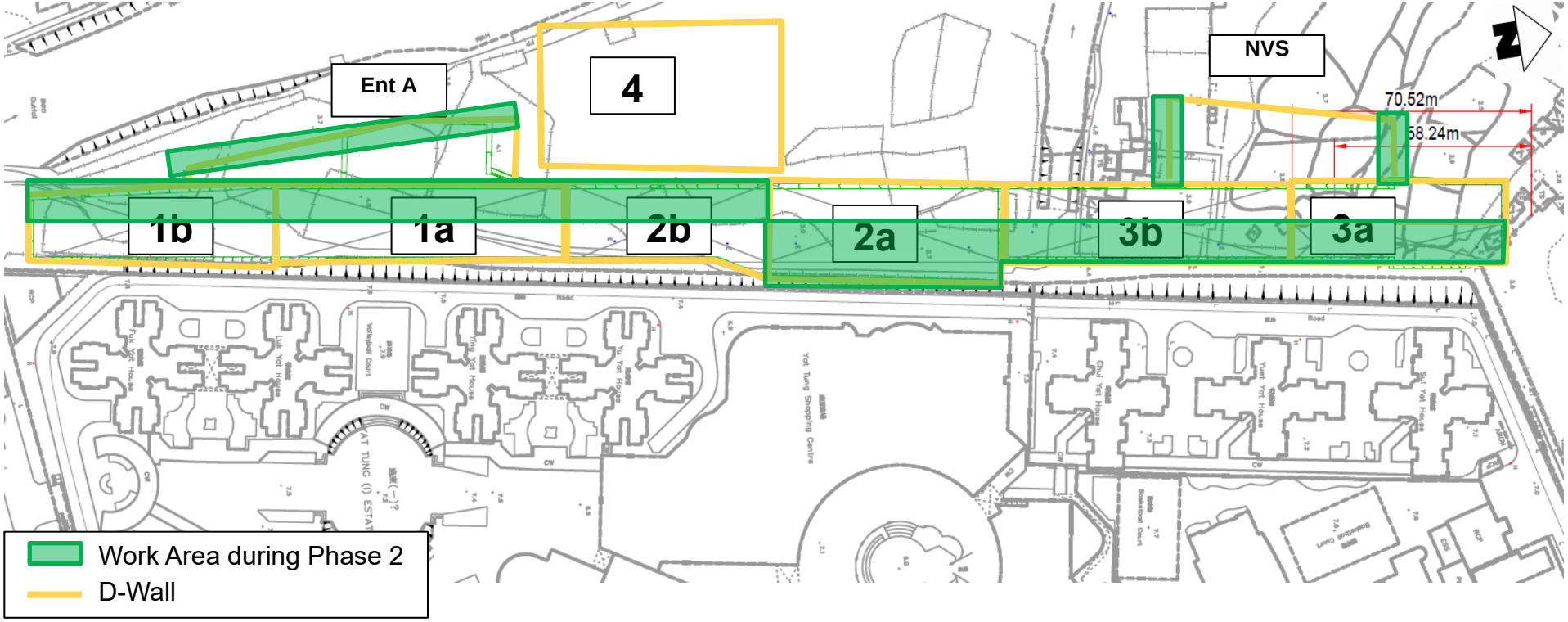


Figure E1.2: Zoning of Daytime D-wall Construction at TCW for Phase 2



Appendix E2
Proposed Noise Mitigation Measures
Retractable Noise Barrier

Figure E2.1: Catalog of Retractable Noise Barrier

Flexible Sound Shield™ is a free hanging type of noise blanket, outer skin made of water-resistant canvas and hydrophobic fabric with acoustic infill. Its soft rollable properties and assembly feature make **Flexible Sound Shield™** an appropriate noise mitigation measures for temporary noise barrier or noisy equipment treatment in difference situation, condition and most of scenarios.

PRODUCT FEATURE

- Light-weighted, thin and cost-effective
- Flexible for installation and easy storage
- Durable and suitable for construction sites or equipment application
- Complied with authority recommend requirement of temporary noise barriers specification
- Specially designed Wind Penetration Mechanism (WPM) model available

PRODUCT SPECIFICATION

Model	Panel Surface Density	Nominal Thickness	Acoustic Performance
FSS-4-WPM	4 kg/m2	35 mm	STC 21
FSS-5	5 kg /m2	15 mm	STC 24
FSS-7	7 kg /m2	18 mm	STC 27
FSS-9	9 kg /m2	20 mm	STC 30

Note: Acoustic performance in on-site insertion loss of previous project test result is available to provide upon request.

Advantage of Flexible Sound Shield™ :

1. **Light-weighted, thin, and Cost-effective**
   Flexible Sound Shield™ is engineered to be lightweight and thin, offering cost-effective solution without compromising on noise reduction capabilities.

2. **Easy Installation and Convenient Storage**
   With its soft and rollable properties, **Flexible Sound Shield™** offers effortless installation and convenient storage options. Its flexibility allows for quick and hassle-free setup, saving you valuable time.

3. **Adaptability to Different Situations**
   Flexible Sound Shield™ is designed to be versatile, making its suitable for a wide range of noise mitigation needs. It can be easily installed in various situation, offering effective noise reduction wherever it is required.

4. **Durability for Construction Sites and Equipment**
   Build to withstand demanding environments, the **Flexible Sound Shield™** is highly durable and well-suited for construction sites and equipment applications. Its robust construction ensures long-lasting performance in challenging conditions.

5. **Compliance with Recommended Specifications**
   Flexible Sound Shield™ fully complies with the recommended requirements for temporary noise barriers. Rest assured that you are investing in a product that meets the highest industry standards.

Backside Front side

Acoustic Blanket

Foldable for easy deliver and storage

Backside Front side

Connective panels

Figure E2.2: Design of 9m High Retractable Noise Barrier

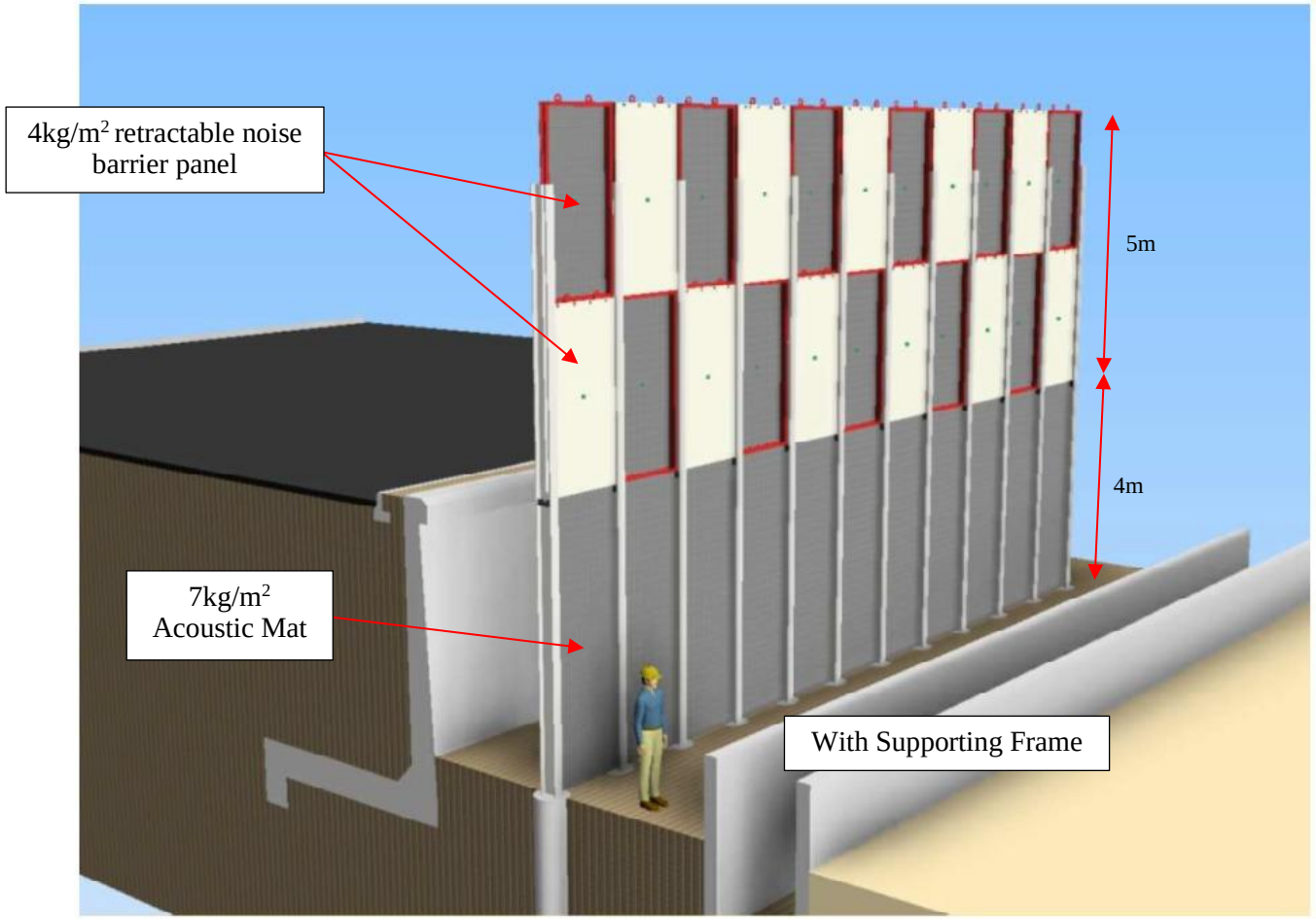


Figure E2.3: Noise Barrier Schematic for D-wall Construction

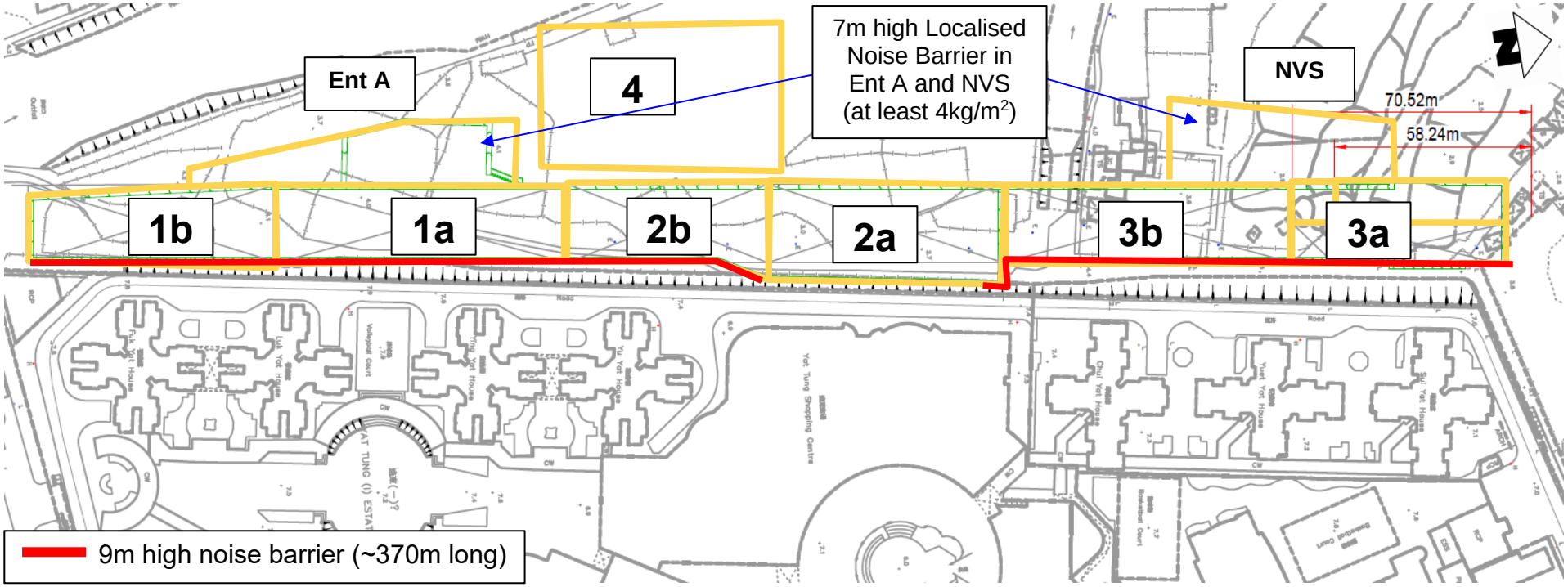
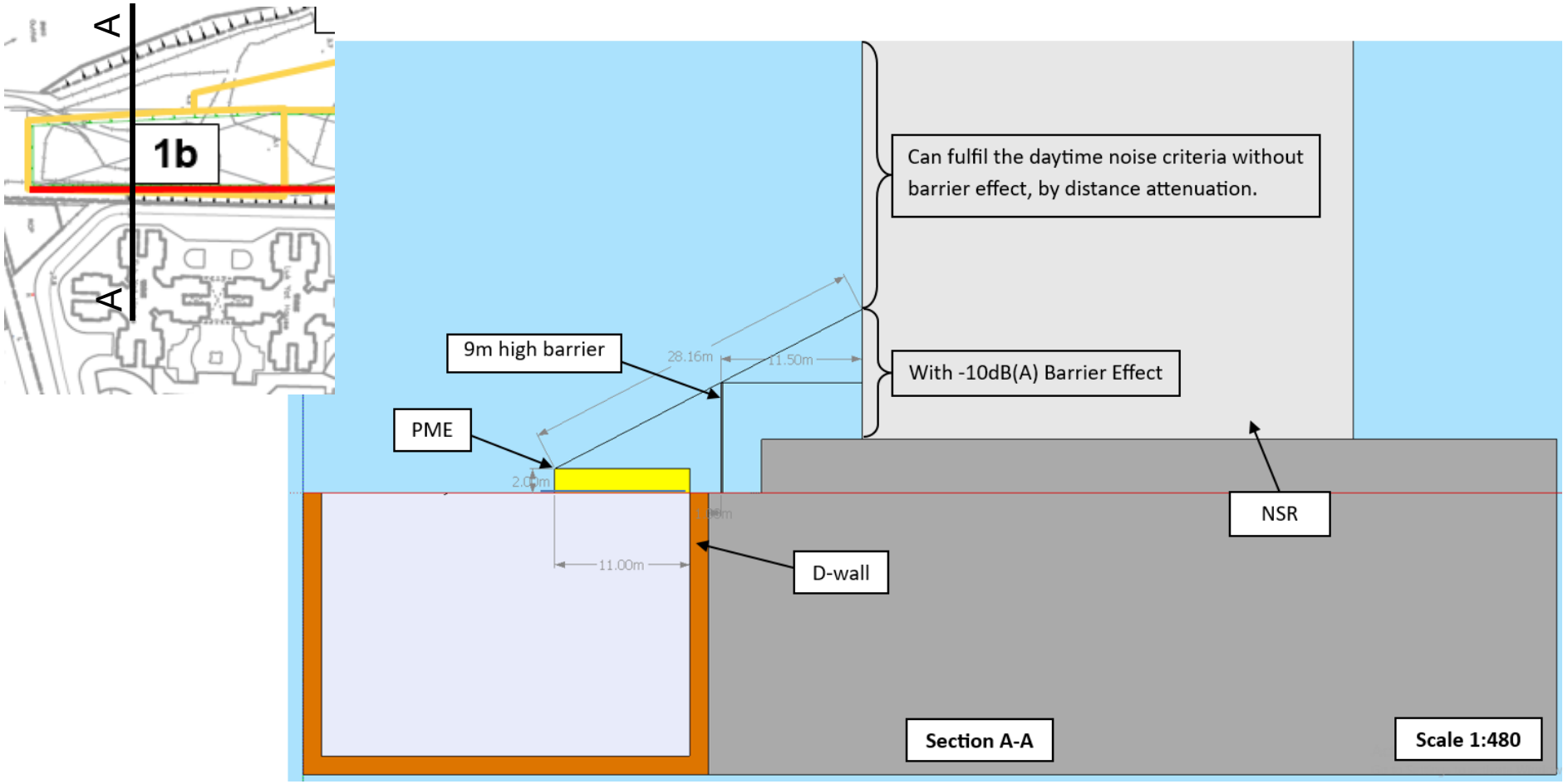


Figure E2.4: Sectional Drawing of Noise Barrier for D-wall Construction



Remark: The above sectional drawing shows the minimum height of the noise barrier at the worst-case NSR (i.e. Fuk Yat House). Similar calculations are conducted for other NSRs.

Figure E2.5: Noise Barrier Schematic during Phase 2

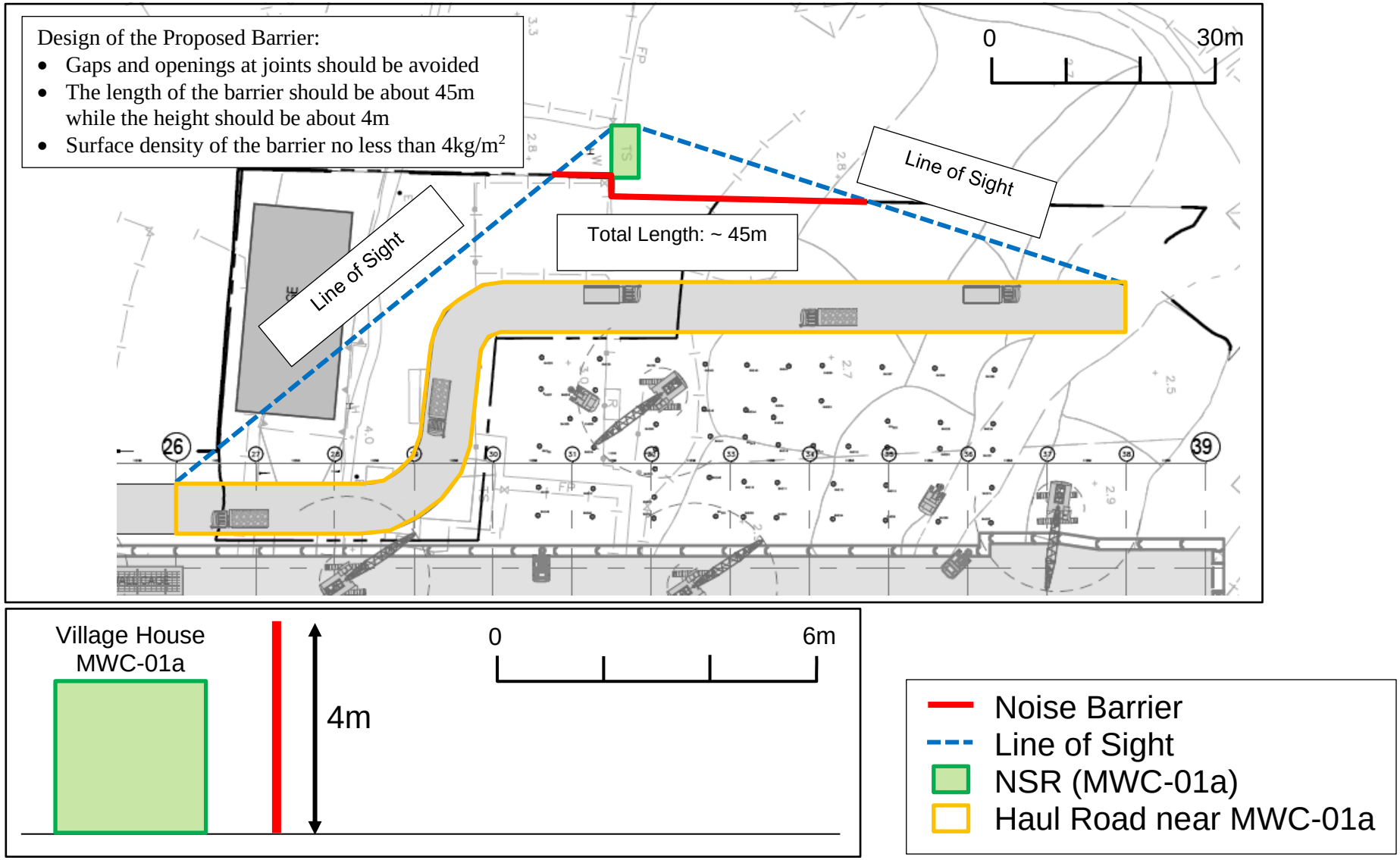


Figure E2.6: Sample Drawings of Individual Noise Enclosures in STP Site

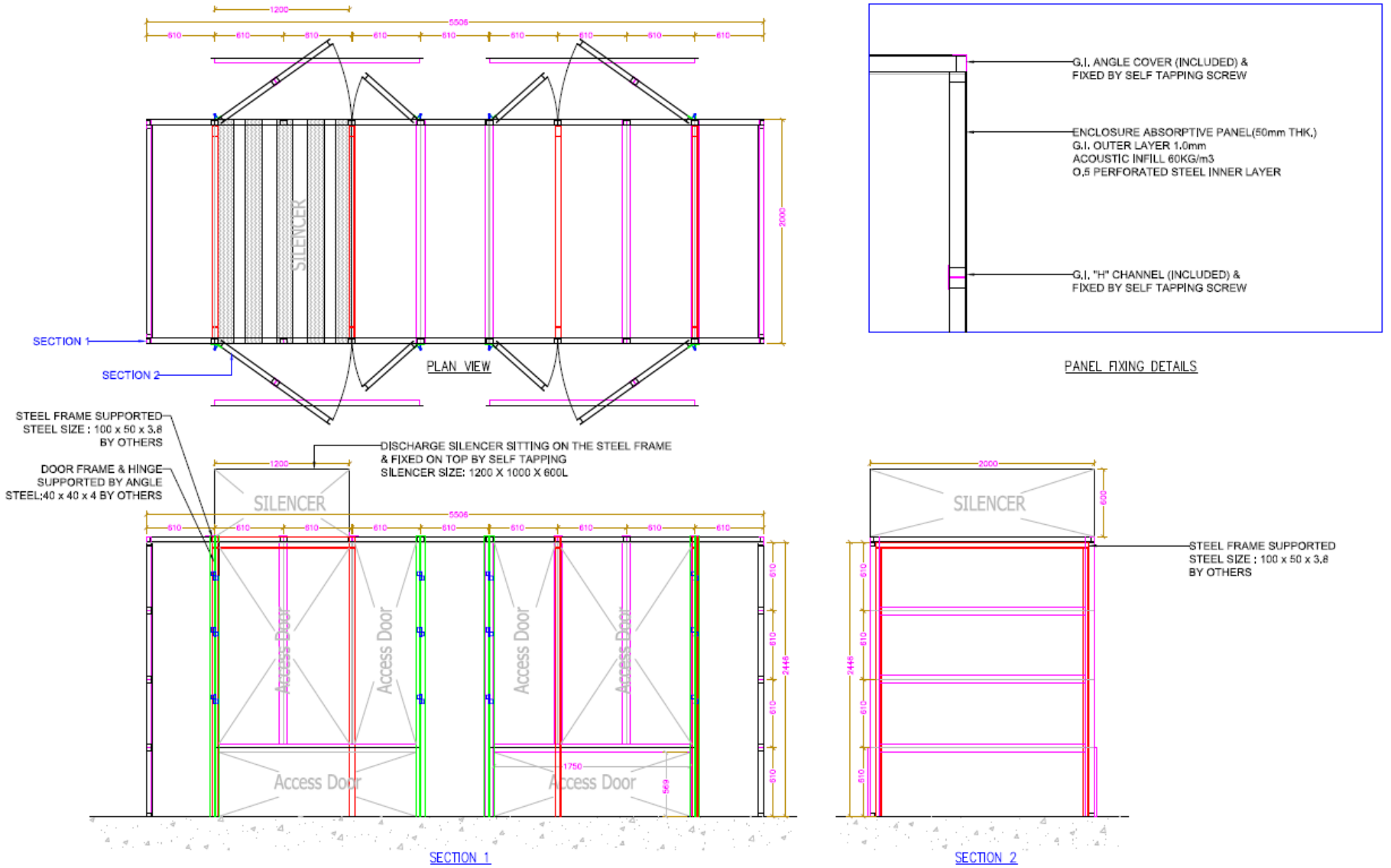


Photo E2.1: Sample Photo of Retractable Noise Barrier

Photo E2.3: Sample Photo of Noise Barrier along Site boundary

Photo E2.2: Sample Photo of 7m High Retractable Noise Barrier

Photo E2.4: Sample Photo of Noise Barrier Screening PME

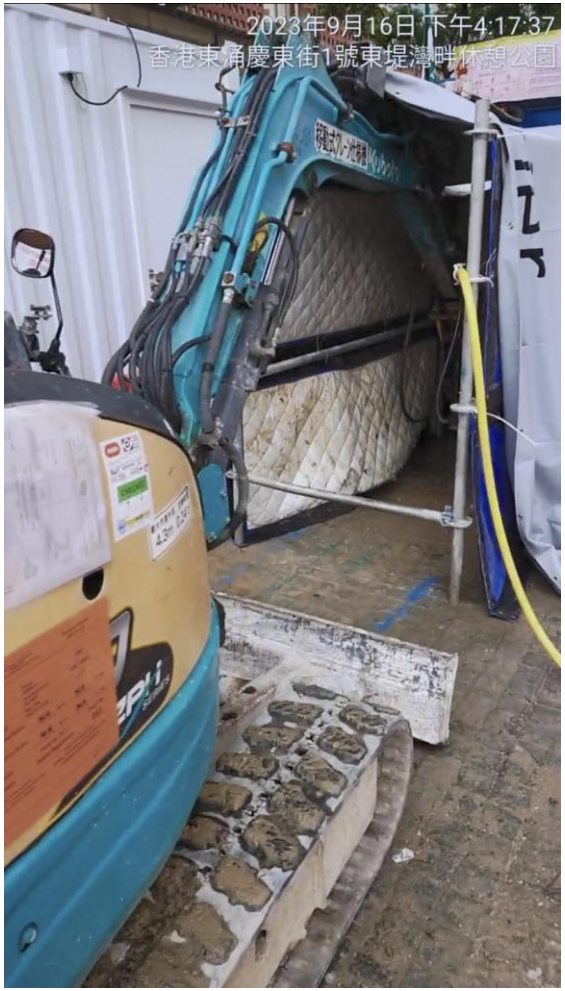


Photo E2.5: Sample Photo of Semi Noise Enclosure Screening the Breaker Head of Mini-robot Mounted Breaker

Appendix E3

Proposed Noise Mitigation Measures

Noise Enclosure and Noise Cover at Tung Chung Crescent

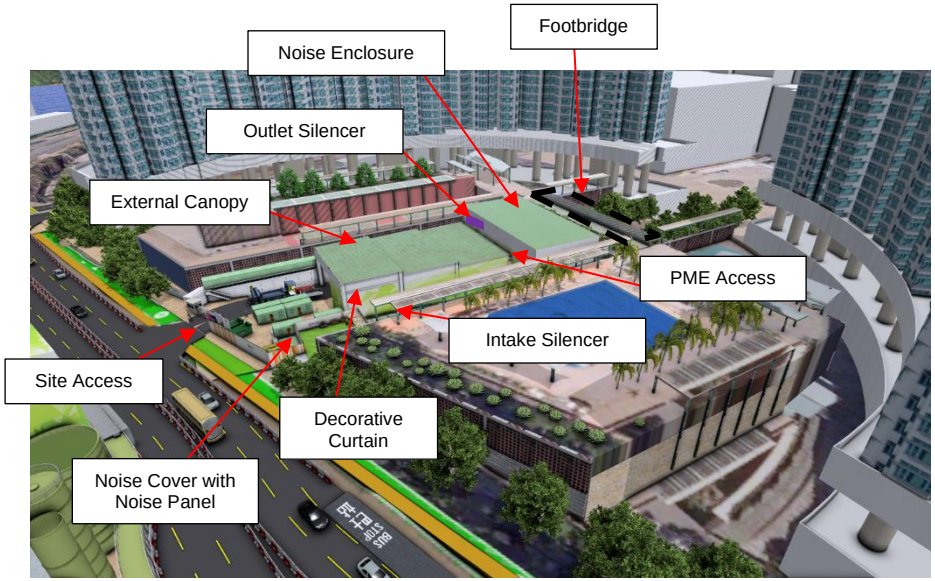
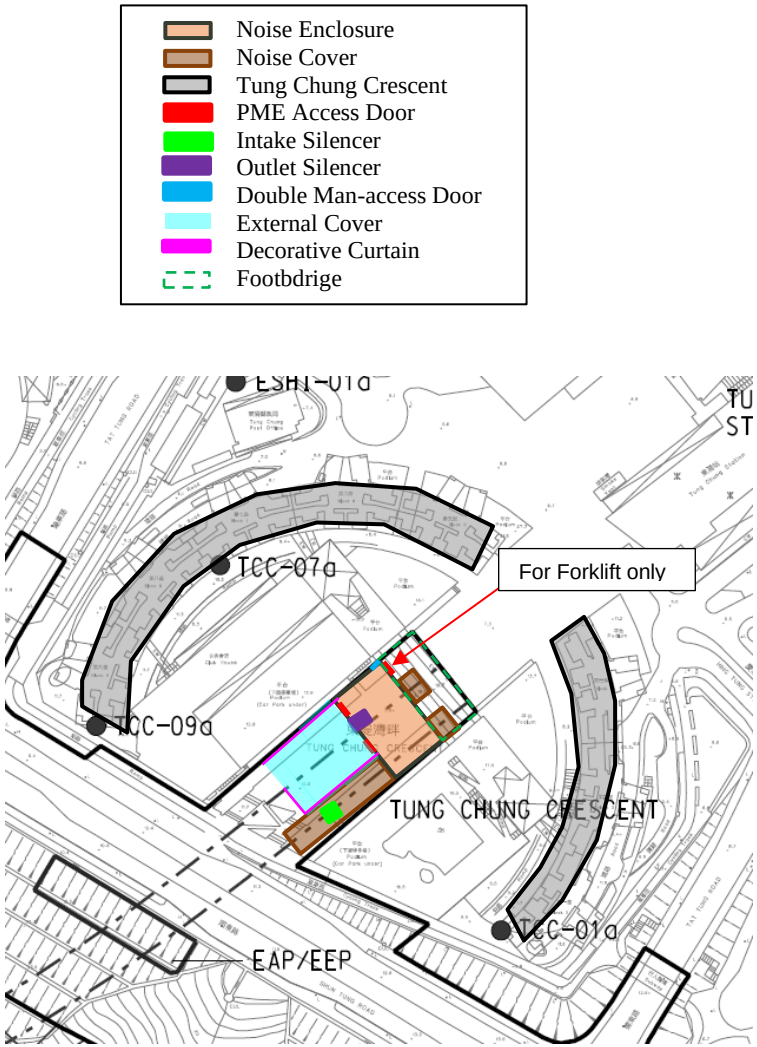


Figure E3.1: Noise Enclosure and Noise Cover Setup at TCC

Figure E3.2: Sample Drawing of Noise Enclosure



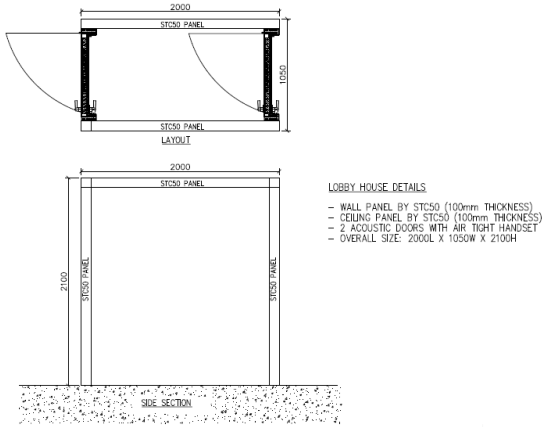


Figure E3.3: Drawing of Typical Man-access Double Door

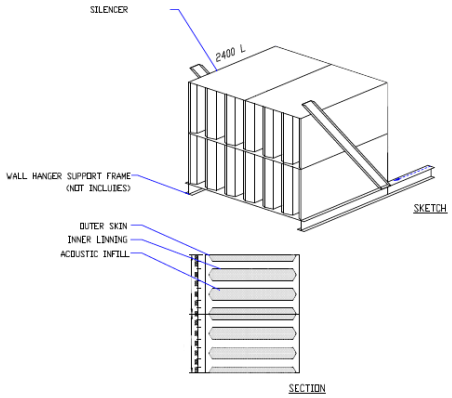


Figure E3.4: Drawing of Typical Silencer


Photo E3.1: Sample Photos of Noise Enclosure (Central Kowloon Route – Central Tunnel)

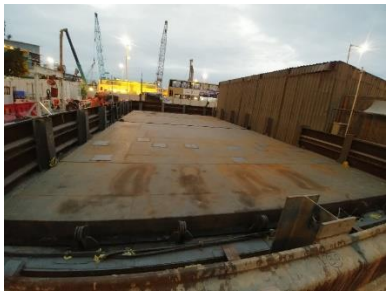



Photo E3.2: Sample Photos of Noise Cover (Central Kowloon Route – Central Tunnel)


Photo E3.3: Sample Photos of STP (Left) and Filter Press (Right) (Trunk Road T2)

Appendix E4

Proposed Noise Mitigation Measures

Quieter Construction Equipment/Methods

Figure E4.1: Technical Specification of Electrical Mobile Crane for Trench Cutter and Hydraulic Grab

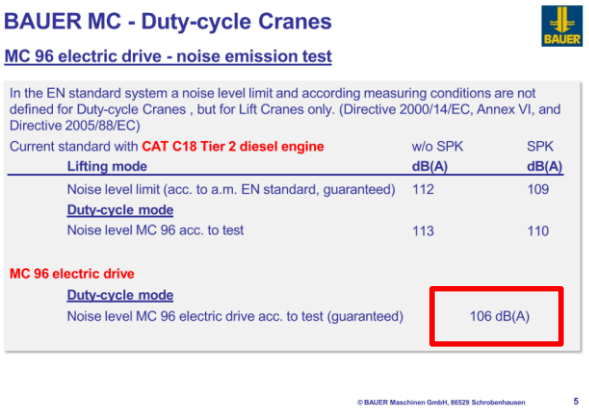


Figure E4.3: Technical Specification of Electrical Mobile Crane for Trench Cutter and Hydraulic Grab (con't)

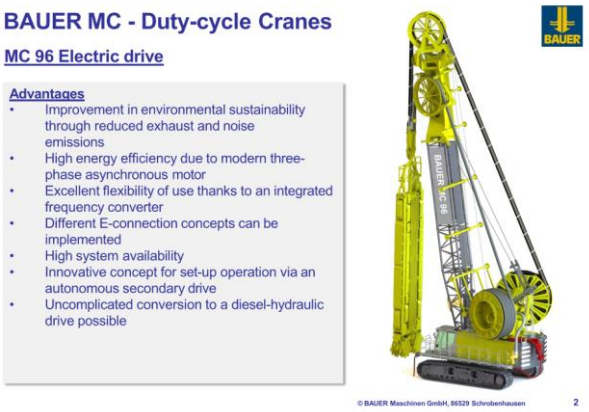


Figure E4.2: Technical Specification of Electrical Mobile Crane for Trench Cutter and Hydraulic Grab (con't)

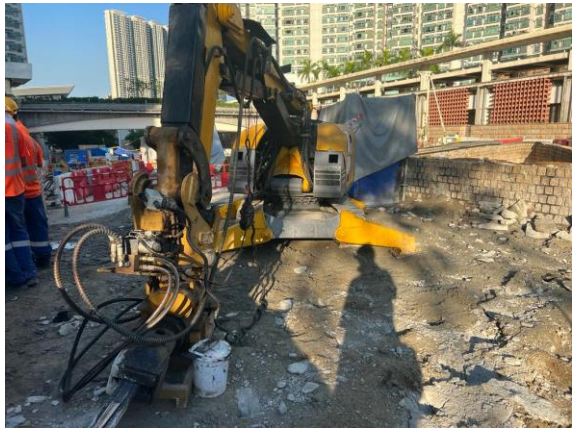


Photo E4.1: Mini-robot Mounted Breaker

Top-down Method:

- At first, the top slab is constructed
- Excavation continues below the top slab and excavated materials are removed through the top slab opening
- Struts layer is then installed for support
- Excavation continues and the concourse slab level is constructed
- The struts layer can be removed
- The above steps are repeated until the base slab is constructed

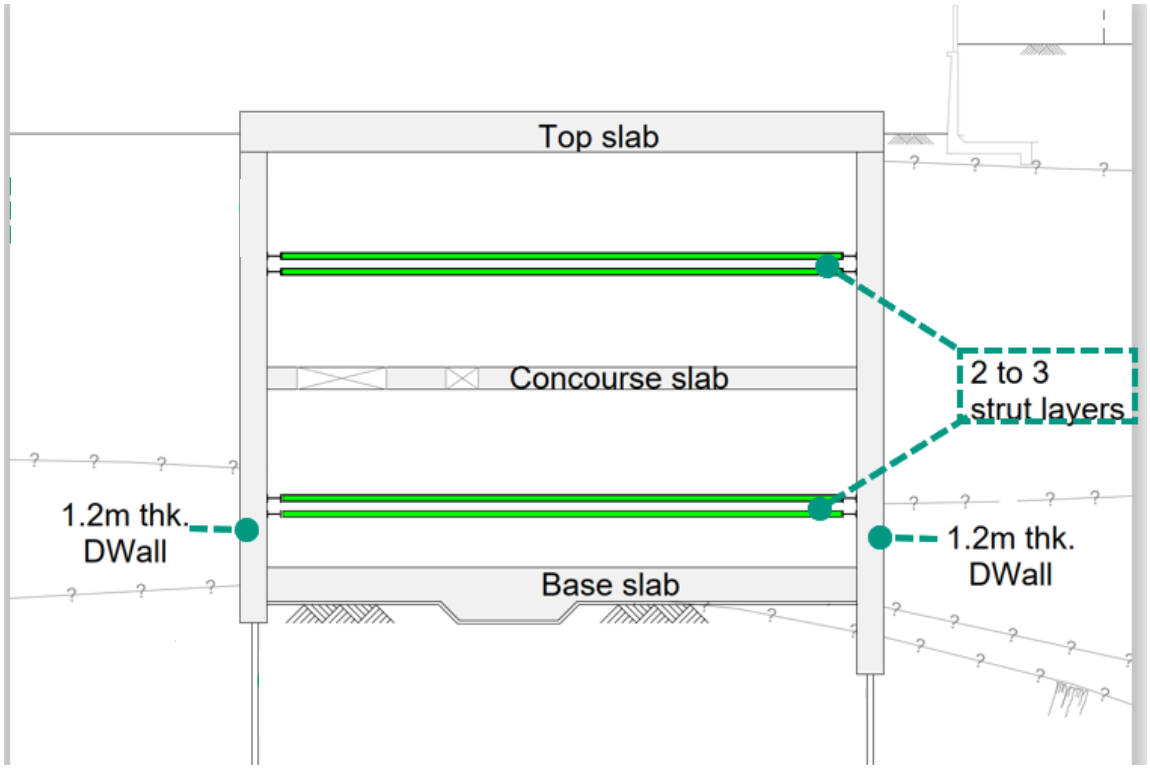


Figure E4.4: Schematic Drawing of Top-down Method

Appendix E5
Proposed Noise Mitigation Measures
Other Mitigation Measures

Photo E5.1: Sample Photo of Barriers at Engine Box

Photo E5.2: Sample Photo of Silencer at Exhaust

Photo E5.3: Sample Photo of Acoustic Plenum

Photo E5.4: Sample Photo of Acoustic Plenum

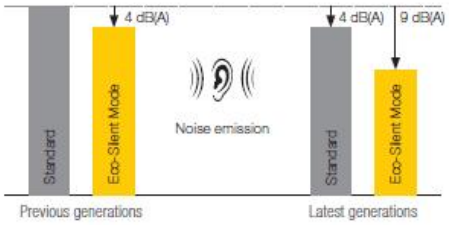
Efficient and environmentally friendly

The reduction of all kinds of emissions protects both the environment and your employees. Furthermore, optimising the emission load makes it possible to use your machines even in sensitive working environments and makes the workflow more economic. Liebherr offers a range of retrofits to help our machines to work more efficiently and more ecologically.

Eco-Silent Mode
Liebherr's Eco-Silent Mode reduces noise emissions through decreasing the engine speed to a predefined power level. Further reductions can be achieved by lowering the fan speed of charge air and water cooler. This is especially advantageous when working in cities or even at night. Lower speeds also result in reduced fuel consumption per working cycle. Preselection is done in the operator's cab where all performance values can be monitored. Settings are saved even when the machine is switched of.

Your benefits
- Reduced noise emission
- Reduced fuel consumption per work cycle
- Increased jobsite flexibility
- Less wear and tear

Noise reduction up to 4 dB, depending on the machine.



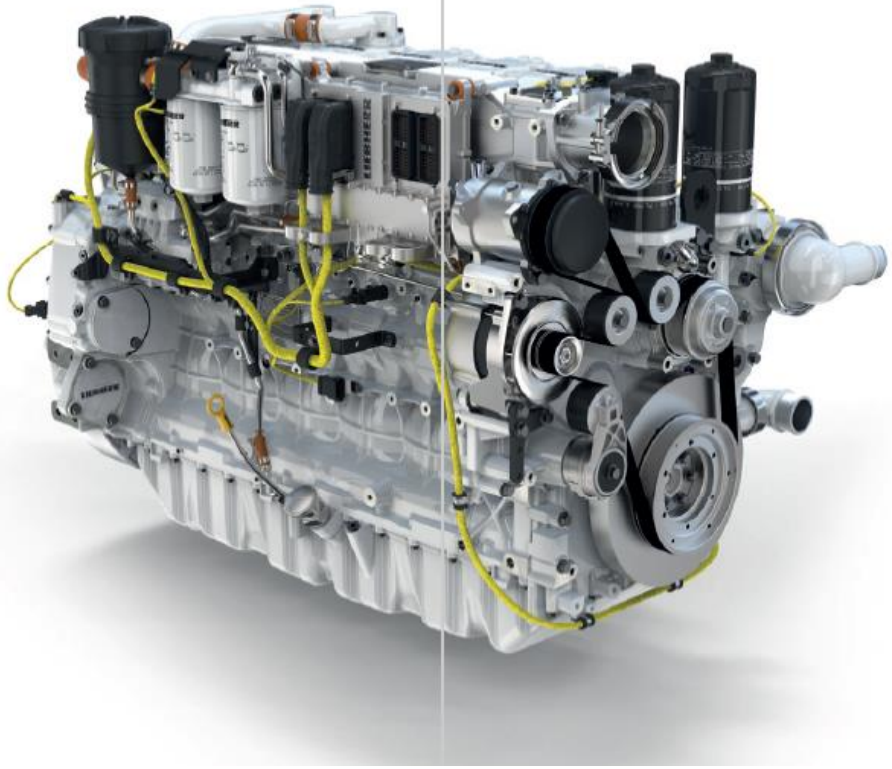


Figure E5.1: Catalog of Eco-silent Mode System for Trench Cutter and Hydraulic Grab

Appendix F
Implementation Schedule

Table F1: Implementation Schedule of Noise Mitigation Measures

Ref. Section in CNMP	Noise Mitigation Measures	Objectives of the Measures	Implementation Party	Location	Timing	Requirement
3.5.3 – 3.5.5	**Multi-phase Construction for D-wall Construction**	To minimize extensive construction noise impact arising from the same work zone to nearby NSRs	Contractor	TCW Station	Phase 1 to Phase 2	EIAO-TM, NCO
3.5.6	**Separation of Major PMEs for D-wall Construction**	To minimize extensive construction noise impact arising from the same work zone to nearby NSRs	Contractor	TCW Station	Phase 1 to Phase 2	EIAO-TM, NCO
3.5.7 – 3.5.11	**Retractable Noise Barrier** • Retractable Noise Barrier for D-wall Construction near Yat Tung Estate • Retractable Noise Barrier for NSR at Ma Wan Chung	To minimize construction noise impact arising from the Project at the affected NSRs near TCW	Contractor	TCW Station	Construction Phase	EIAO-TM, NCO
3.5.12 – 3.5.13	**Noise Enclosure and Noise Cover for TBM Launching Shaft/Retrieval Shaft and STP near TCC**	To minimize construction noise impact arising from the Project at the affected NSRs near TCC	Contractor	TCC	Construction Phase	EIAO-TM, NCO
3.5.14 – 3.5.15	**Semi Noise Enclosure, Noise Barrier and Noise Cover for the Mucking Out Location at the EAP/EEP near Shun Tung Road**	To minimize construction noise impact arising from the Project at the affected NSRs near EAP/EEP	Contractor	EAP/EEP	Construction Phase	EIAO-TM, NCO

Ref. Section in CNMP	Noise Mitigation Measures	Objectives of the Measures	Implementation Party	Location	Timing	Requirement
3.5.16 – 3.5.25	**Quieter Construction Equipment/Method:** • QPME • Electric Plants • TBM • Top-down Method for TCW Station Construction • Use of Mini-robot Mounted Breaker • Use of Mini-robot Mounted Hydraulic Crusher • Use of Hydraulic Splitter • Use of Wire Saw • Use of Non-explosive Chemical Expansion Agent • Use of Non-percussive Piling	To minimize construction noise impact arising from the Project at the affected NSRs	Contractor	Construction Work Sites	Construction Phase	EIAO-TM, NCO
3.5.26	**Good Site Practices** • Only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction programme; • Machines and plant (such as trucks, cranes) that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum; • Plant known to emit noise strongly in one direction, where possible, should be orientated so that the noise is directed away from nearby NSRs; • Silencers or mufflers which available on construction equipment should be properly fit and maintained during the construction works; • Spoil transportation routes should be directed away from NSRs as far as practicable; • Mobile plant should be sited as far away from NSRs as possible and practicable; • Material stockpiles, site office and other structures should be effectively utilised, where practicable, to screen noise from on-site construction activities; • Noise monitoring at selected NSRs should be conducted as far as practicable; • Designated unloading areas should be provided at barging point away from the NSR as far as possible;	To minimize construction noise impact arising from the Project at the affected NSRs	Contractor	Construction Work Sites	Construction Phase	EIAO-TM, NCO

	• All practicable mitigation measures should be executed to minimize noise impact to the NSRs.					
3.5.27	**Other Noise Mitigation Measures** • Engine box noise barriers, exhaust silencer and eco-silent mode system on Trench Cutter and Hydraulic Grab • Acoustic plenum on Drilling Rig • Local noise enclosure on PMEs such as Air Compressor, Grout Station and Grout Pump • Euro V/VI Concrete Truck equipped with EGR and SWL measurement for Concrete Truck • Retractable noise barrier for Rock Drill and Hydraulic Breaker • Retractable noise barrier for other activities where required	To minimize construction noise impact arising from the Project at the affected NSRs	Contractor	Construction Work Sites	Construction Phase	EIAO-TM, NCO

Appendix G
Detail Noise Calculation (Mitigated)

Appendix G1

Detail Noise Calculation (Mitigated) *TCW*

Figure G1.1: Mitigated Noise Assessment Results at Ma Wan Chung

Construction Activities	months	Works Zone	SWL	Dist	Dist. Corr	Façade Corr	CNL	2023 N	2023 D	2024 J	2024 F	2024 M	2024 A	2024 M	2024 J	2024 J	2024 A	2024 S	2024 O	2024 N	2024 D
Site Clearance / Pretreatment Works	1	zone 2b	101	157	-52	3	52	52													
	1	zone 3a	101	65	-44	3	60	60													
	1	Ent A	101	228	-55	3	49			49											
	2	NVS	101	36	-39	3	65	65	65												
Pretreatment for Retaining Wall	1	zone 2b	101	157	-52	3	52	52													
	1	zone 3a	101	65	-44	3	60	60													
	1	Ent A	101	228	-55	3	49			49											
	2	NVS	101	36	-39	3	65	65	65												
Footbridge Demolition	2	Footbridge	103	119	-49	3	57	57	57												
D-wall Construction with Trench Cutter	5	zone 1a	97	220	-55	3	45								45	45	45	45	45		
	4	zone 1b	97	300	-58	3	42					42	42	42						42	
	6	zone 2a	97	98	-48	3	52	52	52	52	52										52
	4	zone 2b	97	157	-52	3	48		48	48	48										
	3	zone 3a	97	65	-44	3	56					56							56	56	
	7	zone 3b	97	59	-43	3	57							57	57	57	57				
D-wall Construction with Hydraulic Grab / Mechanical Grab / Concreting	6	zone 1a	97	220	-55	3	45						45	45						45	45
	9	zone 1b	97	300	-58	3	42					42			42	42	42	42	42		42
	2	zone 2a	97	98	-48	3	52												52	52	
	6	zone 2b	97	157	-52	3	48						48					48	48	48	48
	7	zone 3a	97	65	-44	3	56		56	56	56	56									
	9	zone 3b	97	59	-43	3	57							57	57	57	57			57	57
	4	Ent A	97	228	-55	3	45													45	45
	6	NVS	97	36	-39	3	61		61			61									
H-pile Activity	5	zone 1a	101	220	-55	3	49			49	49	49									
	2	zone 1b	101	300	-58	3	46		46												
	9	zone 2a	101	98	-48	3	56					56	56	56	56	56	56	56			
	5	zone 2b	101	157	-52	3	52							52	52	52	52				
	4	zone 3a	101	65	-44	3	60						60							60	60
	10	zone 3b	101	59	-43	3	61		61	61	61	61	61								
	7	Ent A	101	228	-55	3	49						49	49	49						
	6	NVS	101	36	-39	3	65								65	65	65				
Excavation + Lifting Work + Dewatering	3	zone 1a	102	220	-55	3	50														
	4	zone 1b	102	300	-58	3	47														
	4	zone 2a	102	98	-48	3	57														
	4	zone 2b	102	157	-52	3	53														
	8	zone 3a	102	65	-44	3	61														
	9	zone 3b	102	59	-43	3	62														
	8	Ent A	102	228	-55	3	50														
	8	NVS	102	36	-39	3	66														
D-wall Test / Capping Bream with Top Slab	3	zone 1a	103	220	-55	3	51														
	3	zone 1b	103	300	-58	3	48														
	3	zone 2a	103	98	-48	3	58														
	3	zone 2b	103	157	-52	3	54														
	5	zone 3a	103	65	-44	3	62														
	4	zone 3b	103	59	-43	3	63														
	5	Ent A	103	228	-55	3	51														
	4	NVS	103	36	-39	3	67														
Pump Test	1	zone 1a	95	220	-55	3	43														
	1	zone 1b	95	300	-58	3	40														
	2	zone 2a	95	98	-48	3	50														
	2	zone 2b	95	157	-52	3	46														
	2	zone 3a	95	65	-44	3	54														
	2	zone 3b	95	59	-43	3	55														
	3	Ent A	95	228	-55	3	43														
	3	NVS	95	36	-39	3	59														
TBM Operation	11	zone 3a	99	65	-44	3	58														
Slab Work	2	zone 1a	103	220	-55	3	51														
	1	zone 1b	103	300	-58	3	48														
	2	zone 2a	103	98	-48	3	58														
	2	zone 2b	103	157	-52	3	54														
	4	zone 3a	103	65	-44	3	62														
	4	zone 3b	103	59	-43	3	63														
	3	Ent A	103	228	-55	3	51														
	3	NVS	103	36	-39	3	67														
OTE Precast Work	1	zone 1a	96	220	-55	3	44														
	1	zone 1b	96	300	-58	3	41														
	1	zone 2a	96	98	-48	3	51														
	1	zone 2b	96	157	-52	3	47														
	1	zone 3a	96	65	-44	3	55														
	1	zone 3b	96	59	-43	3	56														
Precast Work	1	zone 1a	93	220	-55	3	41														
	1	zone 1b	93	300	-58	3	38														
	1	zone 2a	93	98	-48	3	48														
	1	zone 2b	93	157	-52	3	44														
Bar Bending	13	zone 4	94	143	-51	3	46														
ABWF/BS/Site Reinstatement	18	zone 1a	102	220	-55	3	50														
	18	zone 1b	102	300	-58	3	47														
	18	zone 2a	102	98	-48	3	57														
	18	zone 2b	102	157	-52	3	53														
	18	zone 3a	102	65	-44	3	61														
	18	zone 3b	102	59	-43	3	62														
	24	Ent A	102	228	-55	3	50														
	21	NVS	102	36	-39	3	66														
D-wall Construction Supporting Group	23	zone 4	109	143	-51	3	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61
Excavation Supporting Group	15	zone 4	103	143	-51	3	55														
Predicted CNL at Ma Wan Chung								70	70	65	65	67	66	65	68	68	68	63	63	66	65
Predicted CNL at Ma Wan Chung from TCNTE (MWC-01a)								57	57	57	57	57	57	55	55	55	55	55	55	55	55
Total CNL								70	71	66	66	68	66	65	68	68	68	63	64	66	65
Noise Exceedance (Daytime Criteria: 75dB(A))																					

Construction Activities	Works Zone	2025 J	2025 F	2025 M	2025 A	2025 M	2025 J	2025 J	2025 A	2025 S	2025 O	2025 N	2025 D
Site Clearance / Pretreatment Works	zone 2b												
	zone 3a												
	Ent A												
	NVS												
Pretreatment for Retaining Wall	zone 2b												
	zone 3a												
	Ent A												
	NVS												
Footbridge Demolition	Footbridge												
D-wall Construction with Trench Cutter	zone 1a												
	zone 1b												
	zone 2a	52											
	zone 2b		48										
	zone 3a												
	zone 3b			57	57	57							
D-wall Construction with Hydraulic Grab / Mechanical Grab / Concreting	zone 1a	45	45										
	zone 1b	42	42										
	zone 2a												
	zone 2b	48											
	zone 3a		56	56	56								
	zone 3b	57	57	57									
	Ent A	45	45										
	NVS			61	61	61	61						
H-pile Activity	zone 1a			49	49								
	zone 1b					46							
	zone 2a						56	56					
	zone 2b								52				
	zone 3a	60											
	zone 3b				61	61	61	61	61				
	Ent A			49	49	49	49						
	NVS							65	65	65			
Excavation + Lifting Work + Dewatering	zone 1a												
	zone 1b												
	zone 2a												
	zone 2b												
	zone 3a												61
	zone 3b												
	Ent A												
	NVS												
D-wall Test / Capping Bream with Top Slab	zone 1a									51	51	51	
	zone 1b												48
	zone 2a							58	58	58			
	zone 2b										54	54	54
	zone 3a					62	62	62	62	62			
	zone 3b								63	63	63	63	
	Ent A						51	51	51	51	51		
	NVS										67	67	67
Pump Test	zone 1a												
	zone 1b												
	zone 2a												
	zone 2b												
	zone 3a										54	54	
	zone 3b												55
	Ent A											43	43
	NVS												
TBM Operation	zone 3a											58	58
Slab Work	zone 1a												
	zone 1b												
	zone 2a												
	zone 2b												
	zone 3a												
	zone 3b												
	Ent A												
	NVS												
OTE Precast Work	zone 1a												
	zone 1b												
	zone 2a												
	zone 2b												
	zone 3a												
	zone 3b												
Precast Work	zone 1a												
	zone 1b												
	zone 2a												
	zone 2b												
Bar Bending	zone 4												46
ABWF/BS/Site Reinstatement	zone 1a												
	zone 1b												
	zone 2a												
	zone 2b												
	zone 3a												
	zone 3b												
	Ent A												
	NVS												
D-wall Construction Supporting Group	zone 4	61	61	61	61	61	61	61	61	61			
Excavation Supporting Group	zone 4										55	55	55
Predicted CNL at Ma Wan Chung		65	64	66	67	68	68	69	70	69	69	69	69
Predicted CNL at Ma Wan Chung from TCNTE (MWC-01a)		54	54	54	54	54	54	54	54	54	54	50	50
Total CNL		65	64	67	67	68	68	69	70	69	69	69	69
Noise Exceedance (Daytime Criteria: 75dB(A))													

Construction Activities	Works Zone	2026 J	2026 F	2026 M	2026 A	2026 M	2026 J	2026 J	2026 A	2026 S	2026 O	2026 N	2026 D
Site Clearance / Pretreatment Works	zone 2b												
	zone 3a												
	Ent A												
	NVS												
Pretreatment for Retaining Wall	zone 2b												
	zone 3a												
	Ent A												
	NVS												
Footbridge Demolition	Footbridge												
D-wall Construction with Trench Cutter	zone 1a												
	zone 1b												
	zone 2a												
	zone 2b												
	zone 3a												
	zone 3b												
D-wall Construction with Hydraulic Grab / Mechanical Grab / Concreting	zone 1a												
	zone 1b												
	zone 2a												
	zone 2b												
	zone 3a												
	zone 3b												
	Ent A												
	NVS												
H-pile Activity	zone 1a												
	zone 1b												
	zone 2a												
	zone 2b												
	zone 3a												
	zone 3b												
	Ent A												
	NVS												
Excavation + Lifting Work + Dewatering	zone 1a					50	50	50					
	zone 1b								47	47	47	47	
	zone 2a					57	57	57	57				
	zone 2b									53	53	53	53
	zone 3a	61	61	61	61	61	61	61					
	zone 3b		62	62	62	62	62	62	62	62	62		
	Ent A		50	50	50	50	50	50	50	50			
	NVS					66	66	66	66	66	66	66	66
D-wall Test / Capping Bream with Top Slab	zone 1a												
	zone 1b	48	48										
	zone 2a												
	zone 2b												
	zone 3a												
	zone 3b												
	Ent A												
	NVS	67											
Pump Test	zone 1a			43									
	zone 1b				40								
	zone 2a	50	50										
	zone 2b			46	46								
	zone 3a												
	zone 3b	55											
	Ent A	43											
	NVS		59	59	59								
TBM Operation	zone 3a	58	58	58	58	58	58	58	58	58			
Slab Work	zone 1a												51
	zone 1b												
	zone 2a												
	zone 2b												
	zone 3a									62	62	62	62
	zone 3b											63	63
	Ent A										51	51	51
	NVS												
OTE Precast Work	zone 1a												
	zone 1b												
	zone 2a												
	zone 2b												
	zone 3a												55
	zone 3b												
Precast Work	zone 1a												
	zone 1b												
	zone 2a												
	zone 2b												
Bar Bending	zone 4	46	46	46	46	46	46	46	46	46	46	46	46
ABWF/BS/Site Reinstatement	zone 1a												
	zone 1b												
	zone 2a												
	zone 2b												
	zone 3a												
	zone 3b												
	Ent A												
	NVS												
D-wall Construction Supporting Group	zone 4												
Excavation Supporting Group	zone 4	55	55	55	55	55	55	55	55	55	55	55	55
Predicted CNL at Ma Wan Chung		69	67	67	66	69	69	69	68	69	69	69	69
Predicted CNL at Ma Wan Chung from TCNTE (MWC-01a)		50	50	50	55	55	55	55	55	55	55	55	55
Total CNL		69	67	67	67	69	69	69	68	69	69	69	70
Noise Exceedance (Daytime Criteria: 75dB(A))													

Construction Activities	Works Zone	2027 J	2027 F	2027 M	2027 A	2027 M	2027 J	2027 J	2027 A	2027 S	2027 O	2027 N	2027 D
Site Clearance / Pretreatment Works	zone 2b												
	zone 3a												
	Ent A												
	NVS												
Pretreatment for Retaining Wall	zone 2b												
	zone 3a												
	Ent A												
	NVS												
Footbridge Demolition	Footbridge												
D-wall Construction with Trench Cutter	zone 1a												
	zone 1b												
	zone 2a												
	zone 2b												
	zone 3a												
	zone 3b												
D-wall Construction with Hydraulic Grab / Mechanical Grab / Concreting	zone 1a												
	zone 1b												
	zone 2a												
	zone 2b												
	zone 3a												
	zone 3b												
	Ent A												
	NVS												
H-pile Activity	zone 1a												
	zone 1b												
	zone 2a												
	zone 2b												
	zone 3a												
	zone 3b												
	Ent A												
	NVS												
Excavation + Lifting Work + Dewatering	zone 1a												
	zone 1b												
	zone 2a												
	zone 2b												
	zone 3a												
	zone 3b												
	Ent A												
	NVS												
D-wall Test / Capping Bream with Top Slab	zone 1a												
	zone 1b												
	zone 2a												
	zone 2b												
	zone 3a												
	zone 3b												
	Ent A												
	NVS												
Pump Test	zone 1a												
	zone 1b												
	zone 2a												
	zone 2b												
	zone 3a												
	zone 3b												
	Ent A												
	NVS												
TBM Operation	zone 3a												
Slab Work	zone 1a	51											
	zone 1b		48										
	zone 2a	58	58										
	zone 2b			54	54								
	zone 3a												
	zone 3b	63	63										
	Ent A												
	NVS	67	67	67									
OTE Precast Work	zone 1a			44									
	zone 1b			41									
	zone 2a					51							
	zone 2b					47							
	zone 3a												
	zone 3b			56									
Precast Work	zone 1a				41								
	zone 1b				38								
	zone 2a						48						
	zone 2b						44						
Bar Bending	zone 4												
ABWF/BS/Site Reinstatement	zone 1a							50	50	50	50	50	50
	zone 1b							47	47	47	47	47	47
	zone 2a							57	57	57	57	57	57
	zone 2b							53	53	53	53	53	53
	zone 3a							61	61	61	61	61	61
	zone 3b							62	62	62	62	62	62
	Ent A	50	50	50	50	50	50	50	50	50	50	50	50
	NVS				66	66	66	66	66	66	66	66	66
D-wall Construction Supporting Group	zone 4												
Excavation Supporting Group	zone 4												
Predicted CNL at Ma Wan Chung		69	69	68	67	67	67	69	69	69	69	69	69
Predicted CNL at Ma Wan Chung from TCNTE (MWC-01a)		55	55	55	55	53	53	53	53	53	53	50	50
Total CNL		70	70	68	67	67	67	69	69	69	69	69	69
Noise Exceedance (Daytime Criteria: 75dB(A))													

Construction Activities	Works Zone	2028 J	2028 F	2028 M	2028 A	2028 M	2028 J	2028 J	2028 A	2028 S	2028 O	2028 N	2028 D
ABWF/BS/Site Reinstatement	zone 1a	50	50	50	50	50	50	50	50	50	50	50	50
	zone 1b	47	47	47	47	47	47	47	47	47	47	47	47
	zone 2a	57	57	57	57	57	57	57	57	57	57	57	57
	zone 2b	53	53	53	53	53	53	53	53	53	53	53	53
	zone 3a	61	61	61	61	61	61	61	61	61	61	61	61
	zone 3b	62	62	62	62	62	62	62	62	62	62	62	62
	Ent A	50	50	50	50	50	50	50	50	50	50	50	50
	NVS	66	66	66	66	66	66	66	66	66	66	66	66
Predicted CNL at Ma Wan Chung		69	69	69	69	69	69	69	69	69	69	69	69
Predicted CNL at Ma Wan Chung from TCNTE (MWC-01a)		50	50	50	50	51	51	51	51	51	51	50	50
Total CNL		69	69	69	69	69	69	69	69	69	69	69	69
Noise Exceedance (Daytime Criteria: 75dB(A))													

Construction Activities	Works Zone	2029 J	2029 F	2029 M	2029 A	2029 M	2029 J	2029 J	2029 A	2029 S	2029 O	2029 N	2029 D
ABWF/BS/Site Reinstatement	zone 1a	50	50	50	50	50	50						
	zone 1b	47	47	47	47	47	47						
	zone 2a	57	57	57	57	57	57						
	zone 2b	53	53	53	53	53	53						
	zone 3a	61	61	61	61	61	61						
	zone 3b	62	62	62	62	62	62						
	Ent A	50	50	50	50	50	50						
	NVS	66	66	66	66	66	66						
Predicted CNL at Ma Wan Chung		69	69	69	69	69	69						
Predicted CNL at Ma Wan Chung from TCNTE (MWC-01a)		50	50	50	50	50	50						
Total CNL		69	69	69	69	69	69						
Noise Exceedance (Daytime Criteria: 75dB(A))													

Remark:
Distance between NSR and Work Area is notional distance

Figure G1.2: Mitigated Noise Assessment Results at Fuk Yat House

| Construction Activities | months | Works Zone | SWL | Dist | Dist. Corr | Façade Corr | CNL | 2023 | | 2024 | | | | | | | | | | | 2025 | | | | | | | | | | | | 2026 | | | | | | | | | | | | 2027 | | | | | | | | | | | | 2028 | | | | | | | | | | | | 2029 | | | | | | | | | | | |
|---|---|---

Figure G1.3: Mitigated Noise Assessment Results at Luk Yat House

Construction Activities	months	Works Zone	SWL	Dist	Dist. Corr	Façade Corr	CNL	2023		2024												2025												2026												2027												2028												2029											
								N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
Site Clearance / Pretreatment Works	1	zone 2b	101	86	-47	3	57	57																																																																									
	1	zone 3a	101	295	-57	3	47	47																																																																									
	1	Ent A	101	41	-40	3	64			64																																																																							
	2	NVS	101	266	-56	3	48	48	48																																																																								
Pretreatment for Retaining Wall	1	zone 2b	101	86	-47	3	57	57																																																																									
	1	zone 3a	101	295	-57	3	47	47																																																																									
	1	Ent A	101	41	-40	3	64			64																																																																							
	2	NVS	101	266	-56	3	48	48	48																																																																								
Footbridge Demolition	2	Footbridge	103	67	-45	3	61	61	61																																																																								
D-wall Construction with Trench Cutter	5	zone 1a	97	26	-36	3	64								64	64	64	64	64																																																																
	4	zone 1b	97	29	-37	3	63						63	63	63					63																																																																
	6	zone 2a	97	144	-51	3	49	49	49	49	49									49	49																																																												
	4	zone 2b	97	86	-47	3	53		53	53	53													53																																																										
	3	zone 3a	97	295	-57	3	43						43							43	43																																																														
	7	zone 3b	97	217	-55	3	45								45	45	45	45							45	45	45																																																								
D-wall Construction with Hydraulic Grab / Mechanical Grab / Concreting	6	zone 1a	97	26	-36	3	64							64	64					64	64	64	64																																																										
	9	zone 1b	97	29	-37	3	63						63			63	63	63	63	63		63	63	63																																																										
	2	zone 2a	97	144	-51	3	49														49	49																																																												
	6	zone 2b	97	86	-47	3	53							53					53	53	53	53	53																																																										
	7	zone 3a	97	295	-57	3	43		43	43	43	43												43	43	43																																																							
	9	zone 3b	97	217	-55	3	45								45	45	45	45			45	45	45	45	45																																																									
	4	Ent A	97	41	-40	3	60													60	60	60	60																																																										
	6	NVS	97	266	-56	3	44		44			44												44	44	44	44																																																						
H-pile Activity	5	zone 1a	101	26	-36	3	68			68	68	68												68	68																																																								
	2	zone 1b	101	29	-37	3	67		67																	67																																																						
	9	zone 2a	101	144	-51	3	53					53	53	53	53	53	53	53										53	53																																																				
	5	zone 2b	101	86	-47	3	57							57	57	57	57													57																																																		
	4	zone 3a	101	295	-57	3	47						47							47	47	47																																																												
	10	zone 3b	101	217	-55	3	49		49	49	49	49	49												49	49	49	49	49																																																		
	7	Ent A	101	41	-40	3	64						64	64	64										64	64	64	64																																																				
	6	NVS	101	266	-56	3	48								48	48	48											48	48	48																																																			
Excavation + Lifting Work + Dewatering	3	zone 1a	102	26	-36	3	69																														69	69	69																																								
	4	zone 1b	102	29	-37	3	68																																	68	68	68	68																																				
	4	zone 2a	102	144	-51	3	54																														54	54	54	54																																							
	4	zone 2b	102	86	-47	3	58																																		58	58	58	58																																			
	8	zone 3a	102	295	-57	3	48																									48	48	48	48	48	48	48	48																																								
	9	zone 3b	102	217	-55	3	50																											50	50	50	50	50	50	50	50	50																																						
	8	Ent A	102	41	-40	3	65																											65	65	65	65	65	65	65	65																																							
	8	NVS	102	266	-56	3	49																														49	49	49	49	49	49	49	49																																			
D-wall Test / Capping Bream with Top Slab	3	zone 1a	103	26	-36	3	70																						70	70	70																																																		
	3	zone 1b	103	29	-37	3	69																									69	69	69																																																
	3	zone 2a	103	144	-51	3	55																				55	55	55																																																				
	3	zone 2b	103	86	-47	3	59																							59	59	59																																																	
	5	zone 3a	103	295	-57	3	49																		49	49	49	49	49																																																				
	4	zone 3b	103	217	-55	3	51																					51	51	51	51																																																		
	5	Ent A	103	41	-40	3	66																			66	66	66	66	66																																																			
	4	NVS	103	266	-56	3	50																							50	50	50	50																																																
Pump Test	1	zone 1a	95	26	-36	3	62																												62																																												
	1	zone 1b	95	29	-37	3	61																													61																																											
	2	zone 2a	95	144	-51	3	47																										47	47																																													
	2	zone 2b	95	86	-47	3	51																												51	51																																											
	2	zone 3a	95	295	-57	3	41																							41	41																																																		
	2	zone 3b	95	217	-55	3	43																									43	43																																															
	3	Ent A	95	41	-40	3	58																								58	58	58																																															
	3	NVS	95	266	-56	3	42																											42	42	42																																											
TBM Operation	11	zone 3a	99	295	-57	3	45																								45	45	45	45	45	45	45	45	45	45	45																																						
Slab Work	2	zone 1a	103	26	-36	3	70																																					70	70																																				
	1	zone 1b	103	29	-37	3	69																																						69																																			
	2	zone 2a	103	144	-51	3	55																																						55	55																																			
	2	zone 2b	103	86	-47	3	59																																								59	59																																	
	4	zone 3a	103	295	-57	3	49																																		49	49	49	49																																					
	4	zone 3b	103	217	-55	3	51																																				51	51	51	51																																			
	3	Ent A	103	41	-40	3	66																																			66	66	66																																					
	3	NVS	103	266	-56	3	50																																						50	50	50																																		
OTE Precast Work	1	zone 1a	96	26	-36	3	63																																								63																																	
	1	zone 1b	96	29	-37	3	62																																								62																																	
	1	zone 2a	96	144	-51	3	48																																										48																															
	1	zone 2b	96	86	-47	3	52																																										52																															
	1	zone 3a	96	295	-57	3	42																																					42																																			
	1	zone 3b	96	217	-55	3	44																																								44																																	
Precast Work	1	zone 1a	93	26	-36	3	60																																									60																																
	1	zone 1b	93	29	-37	3	59																																									59																																
	1	zone 2a	93	144	-51	3	45																																											45																														
	1	zone 2b	93	86	-47	3	49																																											49																														
Bar Bending	13	zone 4	94	101	-48	3	49																									49	49	49	49	49	49	49	49	49	49	49	49	49																																				
ABWF/BS/Site Reinstatement	18	zone 1a	102	26	-36	3	69																																													69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69						
	18	zone 1b	102	29	-37	3	68																																													68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68						
	18	zone 2a	102	144	-51	3	54																																													54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54						
	18	zone 2b	102	86	-47	3	58																																													58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58						
	18	zone 3a	102	295	-57	3	48																																													48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48						
	18	zone 3b	102	217	-55	3	50																																													50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50						
	24	Ent A	102	41	-40	3	65																																							65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65						
	21	NVS	102	266	-56	3	49																																										49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49						
D-wall Construction Supporting Group	23	zone 4	109	101	-48	3	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64																																																				
Excavation Supporting Group	15	zone 4	103	101	-48	3	58																								58	58	58	58	58	58	58	58	58	58	58	58	58	58	58																																				
Predicted CNL at Luk Yat House								67	70	71	69	71	70	70	70	69	69	69	69	70	70	70	70	70	70	70	70	68	69	72	72	71	70	69	70	67	67	71	71	71	70	70	71	71	72	72	71	69	68	66	66	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73						
Predicted CNL at Luk Yat House from TCNTE (YTE-01a)								60	60	60	60	60	60	60	60	60	60	60	60	60	60	58	58	58	59	59	59	59	59	59	59	51	51	52	52	52	52	52	52	52	52	52	52	51	51	51	51	51	51	51	51	51	51	51	51	50	50	47	47	47	47	47	47	47	47	47	47	0	0	0	0	0	0	0	0						
Total CNL								68	70	72	70	71	71	71	71	70	70	70	70	70	70	70	70	71	71	70	70	69	69	72	72	71	70	69	70	67	67	71	71	71	70	70	71	71	72	72	71	69	68	66	66	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73						
Noise Exceedance (Daytime Criteria: 75dB(A))																																																																																

Remark:

Distance between NSR and Work Area is notional distance

Figure G1.4: Mitigated Noise Assessment Results at Ying Yat House

| Construction Activities | months | Works Zone | SWL | Dist | Dist. Corr | Façade Corr | CNL | 2023 N | 2023 D | 2024 J | 2024 F | 2024 M | 2024 A | 2024 M | 2024 J | 2024 J | 2024 A | 2024 S | 2024 O | 2024 N | 2024 D | 2025 J | 2025 F | 2025 M | 2025 A | 2025 M | 2025 J | 2025 J | 2025 A | 2025 S | 2025 O | 2025 N | 2025 D | 2026 J | 2026 F | 2026 M | 2026 A | 2026 M | 2026 J | 2026 J | 2026 A | 2026 S | 2026 O | 2026 N | 2026 D | 2027 J | 2027 F | 2027 M | 2027 A | 2027 M | 2027 J | 2027 J | 2027 A | 2027 S | 2027 O | 2027 N | 2027 D | 2028 J | 2028 F | 2028 M | 2028 A | 2028 M | 2028 J | 2028 J | 2028 A | 2028 S | 2028 O | 2028 N | 2028 D | 2029 J | 2029 F | 2029 M | 2029 A | 2029 M | 2029 J | 2029 J | 2029 A | 2029 S | 2029 O | 2029 N | 2029 D |
|---|---|---

Figure G1.5: Mitigated Noise Assessment Results at Yu Yat House

| Construction Activities | months | Works Zone | SWL | Dist | Dist. Corr | Façade Corr | CNL | 2023 | | 2024 | | | | | | | | | | | 2025 | | | | | | | | | | | 2026 | | | | | | | | | | | 2027 | | | | | | | | | | | 2028 | | | | | | | | | | | 2029 | | | | | | | | | | |
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Figure G1.6: Mitigated Noise Assessment Results at Chui Yat House

| Construction Activities | months | Works Zone | SWL | Dist | Dist. Corr | Façade Corr | CNL | 2023 N | 2023 D | 2024 J | 2024 F | 2024 M | 2024 A | 2024 M | 2024 J | 2024 J | 2024 A | 2024 S | 2024 O | 2024 N | 2024 D | 2025 J | 2025 F | 2025 M | 2025 A | 2025 M | 2025 J | 2025 J | 2025 A | 2025 S | 2025 O | 2025 N | 2025 D | 2026 J | 2026 F | 2026 M | 2026 A | 2026 M | 2026 J | 2026 J | 2026 A | 2026 S | 2026 O | 2026 N | 2026 D | 2027 J | 2027 F | 2027 M | 2027 A | 2027 M | 2027 J | 2027 J | 2027 A | 2027 S | 2027 O | 2027 N | 2027 D | 2028 J | 2028 F | 2028 M | 2028 A | 2028 M | 2028 J | 2028 J | 2028 A | 2028 S | 2028 O | 2028 N | 2028 D | 2029 J | 2029 F | 2029 M | 2029 A | 2029 M | 2029 J | 2029 J | 2029 A | 2029 S | 2029 O | 2029 N | 2029 D |
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Figure G1.7: Mitigated Noise Assessment Results at Yuet Yat House

| Construction Activities | months | Works Zone | SWL | Dist | Dist. Corr | Façade Corr | CNL | 2023 N | 2023 D | 2024 J | 2024 F | 2024 M | 2024 A | 2024 M | 2024 J | 2024 J | 2024 A | 2024 S | 2024 O | 2024 N | 2024 D | 2025 J | 2025 F | 2025 M | 2025 A | 2025 M | 2025 J | 2025 J | 2025 A | 2025 S | 2025 O | 2025 N | 2025 D | 2026 J | 2026 F | 2026 M | 2026 A | 2026 M | 2026 J | 2026 J | 2026 A | 2026 S | 2026 O | 2026 N | 2026 D | 2027 J | 2027 F | 2027 M | 2027 A | 2027 M | 2027 J | 2027 J | 2027 A | 2027 S | 2027 O | 2027 N | 2027 D | 2028 J | 2028 F | 2028 M | 2028 A | 2028 M | 2028 J | 2028 J | 2028 A | 2028 S | 2028 O | 2028 N | 2028 D | 2029 J | 2029 F | 2029 M | 2029 A | 2029 M | 2029 J | 2029 J | 2029 A | 2029 S | 2029 O | 2029 N | 2029 D |
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Figure G1.8: Mitigated Noise Assessment Results at Sui Yat House

Construction Activities	months	Works Zone	SWL	Dist	Dist. Corr	Façade Corr	CNL	2023		2024												2025												2026												2027												2028												2029											
									N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
Site Clearance / Pretreatment Works	1	zone 2b	101	198	-54	3	50	50																																																																									
	1	zone 3a	101	26	-36	3	68	68																																																																									
	1	Ent A	101	280	-57	3	47			47																																																																							
	2	NVS	101	54	-43	3	61	61	61																																																																							
Pretreatment for Retaining Wall	1	zone 2b	101	198	-54	3	50	50																																																																									
	1	zone 3a	101	26	-36	3	68	68																																																																									
	1	Ent A	101	280	-57	3	47			47																																																																							
	2	NVS	101	54	-43	3	61	61	61																																																																							
Footbridge Demolition	2	Footbridge	103	408	-60	3	46	46	46																																																																							
D-wall Construction with Trench Cutter	5	zone 1a	97	263	-56	3	44									44	44	44	44	44																																																														
	4	zone 1b	97	345	-59	3	41					41	41	41						41																																																														
	6	zone 2a	97	134	-51	3	49	49	49	49	49										49	49																																																											
	4	zone 2b	97	198	-54	3	46		46	46	46													46																																																											
	3	zone 3a	97	26	-36	3	64					64							64	64																																																													
	7	zone 3b	97	62	-44	3	56							56	56	56	56							56	56	56																																																							
D-wall Construction with Hydraulic Grab / Mechanical Grab / Concreting	6	zone 1a	97	263	-56	3	44						44	44						44	44	44	44																																																										
	9	zone 1b	97	345	-59	3	41					41			41	41	41	41	41		41	41	41																																																										
	2	zone 2a	97	134	-51	3	49												49	49																																																													
	6	zone 2b	97	198	-54	3	46						46					46	46	46	46	46																																																											
	7	zone 3a	97	26	-36	3	64		64	64	64	64												64	64	64																																																							
	9	zone 3b	97	62	-44	3	56							56	56	56	56			56	56	56	56	56																																																									
	4	Ent A	97	280	-57	3	43													43	43	43	43																																																										
	6	NVS	97	54	-43	3	57		57			57												57	57	57	57																																																						
H-pile Activity	5	zone 1a	101	263	-56	3	48			48	48	48												48	48																																																								
	2	zone 1b	101	345	-59	3	45		45																	45																																																						
	9	zone 2a	101	134	-51	3	53					53	53	53	53	53	53	53										53	53																																																				
	5	zone 2b	101	198	-54	3	50							50	50	50	50												50																																																			
	4	zone 3a	101	26	-36	3	68						68							68	68	68																																																											
	10	zone 3b	101	62	-44	3	60		60	60	60	60	60												60	60	60	60	60																																																			
	7	Ent A	101	280	-57	3	47						47	47	47										47	47	47	47																																																						
	6	NVS	101	54	-43	3	61								61	61	61											61	61	61																																																			
Excavation + Lifting Work + Dewatering	3	zone 1a	102	263	-56	3	49																															49	49	49																																								
	4	zone 1b	102	345	-59	3	46																																		46	46	46	46																																				
	4	zone 2a	102	134	-51	3	54																															54	54	54	54																																							
	4	zone 2b	102	198	-54	3	51																																			51	51	51	51																																			
	8	zone 3a	102	26	-36	3	69																										69	69	69	69	69	69	69	69																																								
	9	zone 3b	102	62	-44	3	61																												61	61	61	61	61	61	61	61	61																																					
	8	Ent A	102	280	-57	3	48																												48	48	48	48	48	48	48	48																																						
	8	NVS	102	54	-43	3	62																															62	62	62	62	62	62	62	62																																			
D-wall Test / Capping Bream with Top Slab	3	zone 1a	103	263	-56	3	50																							50	50	50																																																
	3	zone 1b	103	345	-59	3	47																										47	47	47																																													
	3	zone 2a	103	134	-51	3	55																					55	55	55																																																		
	3	zone 2b	103	198	-54	3	52																								52	52	52																																															
	5	zone 3a	103	26	-36	3	70																			70	70	70	70	70																																																		
	4	zone 3b	103	62	-44	3	62																						62	62	62	62																																																
	5	Ent A	103	280	-57	3	49																				49	49	49	49	49																																																	
	4	NVS	103	54	-43	3	63																								63	63	63	63																																														
Pump Test	1	zone 1a	95	263	-56	3	42																													42																																												
	1	zone 1b	95	345	-59	3	39																														39																																											
	2	zone 2a	95	134	-51	3	47																											47	47																																													
	2	zone 2b	95	198	-54	3	44																													44	44																																											
	2	zone 3a	95	26	-36	3	62																								62	62																																																	
	2	zone 3b	95	62	-44	3	54																										54	54																																															
	3	Ent A	95	280	-57	3	41																									41	41	41																																															
	3	NVS	95	54	-43	3	55																												55	55	55																																											
TBM Operation	11	zone 3a	99	26	-36	3	66																									66	66	66	66	66	66	66	66	66	66	66																																							
Slab Work	2	zone 1a	103	263	-56	3	50																																						50	50																																			
	1	zone 1b	103	345	-59	3	47																																								47																																	
	2	zone 2a	103	134	-51	3	55																																							55	55																																	
	2	zone 2b	103	198	-54	3	52																																									52	52																															
	4	zone 3a	103	26	-36	3	70																																			70	70	70	70																																			
	4	zone 3b	103	62	-44	3	62																																					62	62	62	62																																	
	3	Ent A	103	280	-57	3	49																																				49	49	49																																			
	3	NVS	103	54	-43	3	63																																							63	63	63																																
OTE Precast Work	1	zone 1a	96	263	-56	3	43																																									43																																
	1	zone 1b	96	345	-59	3	40																																									40																																
	1	zone 2a	96	134	-51	3	48																																											48																														
	1	zone 2b	96	198	-54	3	45																																											45																														
	1	zone 3a	96	26	-36	3	63																																						63																																			
	1	zone 3b	96	62	-44	3	55																																									55																																
Precast Work	1	zone 1a	93	263	-56	3	40																																										40																															
	1	zone 1b	93	345	-59	3	37																																										37																															
	1	zone 2a	93	134	-51	3	45																																												45																													
	1	zone 2b	93	198	-54	3	42																																												42																													
Bar Bending	13	zone 4	94	210	-54	3	43																										43	43	43	43	43	43	43	43	43	43	43	43	43																																			
ABWF/BS/Site Reinstatement	18	zone 1a	102	263	-56	3	49																																													49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49						
	18	zone 1b	102	345	-59	3	46																																													46	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46						
	18	zone 2a	102	134	-51	3	54																																													54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54						
	18	zone 2b	102	198	-54	3	51																																													51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51						
	18	zone 3a	102	26	-36	3	69																																													69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69						
	18	zone 3b	102	62	-44	3	61																																													61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61						
	24	Ent A	102	280	-57	3	48																																							48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48						
	21	NVS	102	54	-43	3	62																																										62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62						
D-wall Construction Supporting Group	23	zone 4	109	210	-54	3	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58																																																			
Excavation Supporting Group	15	zone 4	103	210	-54	3	52																								52	52	52	52	52	52	52	52	52	52	52	52	52	52	52																																			
Predicted CNL at Sui Yat House								72	69	67	67	69	69	63	65	65	65	60	65	70	68	68	66	67	67	71	71	71	71	71	67	70	71	71	71	71	71	72	72	72	69	73	72	72	72	67	67	64	63	63	63	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71						
Predicted CNL at Sui Yat House from TCNTE (YTE-16a)								51	51	51	51	51	51	51	51	51	51	51	51	51	51	50	50	50	50	50	50	50	50	50	50	0	0	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
Total CNL								72	69	67	67	69	69	63	65	65	65	60	66	70	68	68	66	67	67	71	71	71	71	71	67	70	71	71	71	71	71	72	72	72	69	73	72	72	72	67	67	64	63	63	63	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71						
Noise Exceedance (Daytime Criteria: 75dB(A))																																																																																

Remark:
Distance between NSR and Work Area is notional distance

Figure G1.9: Mitigated Noise Assessment Results at Mun Wo House

| Construction Activities | months | Works Zone | SWL | Dist | Dist. Corr | Façade Corr | CNL | 2023 N | 2023 D | 2024 J | 2024 F | 2024 M | 2024 A | 2024 M | 2024 J | 2024 J | 2024 A | 2024 S | 2024 O | 2024 N | 2024 D | 2025 J | 2025 F | 2025 M | 2025 A | 2025 M | 2025 J | 2025 J | 2025 A | 2025 S | 2025 O | 2025 N | 2025 D | 2026 J | 2026 F | 2026 M | 2026 A | 2026 M | 2026 J | 2026 J | 2026 A | 2026 S | 2026 O | 2026 N | 2026 D | 2027 J | 2027 F | 2027 M | 2027 A | 2027 M | 2027 J | 2027 J | 2027 A | 2027 S | 2027 O | 2027 N | 2027 D | 2028 J | 2028 F | 2028 M | 2028 A | 2028 M | 2028 J | 2028 J | 2028 A | 2028 S | 2028 O | 2028 N | 2028 D | 2029 J | 2029 F | 2029 M | 2029 A | 2029 M | 2029 J | 2029 J | 2029 A | 2029 S | 2029 O | 2029 N | 2029 D |
|---|---|---

Figure G1.10: Mitigated Noise Assessment Results at Ha Ling Pei Village

Construction Activities	months	Works Zone	SWL	Dist	Dist. Corr	Façade Corr	CNL	2023		2024												2025												2026												2027												2028												2029											
									N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
Site Clearance / Pretreatment Works	1	zone 2b	101	303	-58	3	46	46																																																																										
	1	zone 3a	101	508	-62	3	42	42																																																																										
	1	Ent A	101	227	-55	3	49			49																																																																									
	2	NVS	101	481	-62	3	42	42	42																																																																									
Pretreatment for Retaining Wall	1	zone 2b	101	303	-58	3	46	46																																																																										
	1	zone 3a	101	508	-62	3	42	42																																																																										
	1	Ent A	101	227	-55	3	49			49																																																																									
	2	NVS	101	481	-62	3	42	42	42																																																																									
Footbridge Demolition	2	Footbridge	103	118	-49	3	57	57	57																																																																									
D-wall Construction with Trench Cutter	5	zone 1a	97	232	-55	3	45								45	45	45	45	45																																																														
	4	zone 1b	97	170	-53	3	47					47	47	47						47																																																															
	6	zone 2a	97	361	-59	3	41	41	41	41	41										41	41																																																											
	4	zone 2b	97	303	-58	3	42		42	42	42												42																																																											
	3	zone 3a	97	508	-62	3	38					38							38	38																																																													
	7	zone 3b	97	431	-61	3	39							39	39	39	39							39	39	39																																																						
D-wall Construction with Hydraulic Grab / Mechanical Grab / Concreting	6	zone 1a	97	232	-55	3	45						45	45						45	45	45	45																																																										
	9	zone 1b	97	170	-53	3	47					47			47	47	47	47	47		47	47	47																																																										
	2	zone 2a	97	361	-59	3	41												41	41																																																												
	6	zone 2b	97	303	-58	3	42						42					42	42	42	42	42																																																											
	7	zone 3a	97	508	-62	3	38		38	38	38	38												38	38	38																																																								
	9	zone 3b	97	431	-61	3	39							39	39	39	39			39	39	39	39	39																																																										
	4	Ent A	97	227	-55	3	45													45	45	45	45																																																											
	6	NVS	97	481	-62	3	38		38			38														38	38	38	38																																																						
H-pile Activity	5	zone 1a	101	232	-55	3	49			49	49	49														49	49																																																							
	2	zone 1b	101	170	-53	3	51		51																		51																																																						
	9	zone 2a	101	361	-59	3	45					45	45	45	45	45	45	45											45	45																																																				
	5	zone 2b	101	303	-58	3	46							46	46	46	46														46																																																				
	4	zone 3a	101	508	-62	3	42						42							42	42	42																																																												
	10	zone 3b	101	431	-61	3	43		43	43	43	43	43												43	43	43	43	43																																																				
	7	Ent A	101	227	-55	3	49						49	49	49											49	49	49	49																																																						
	6	NVS	101	481	-62	3	42								42	42	42													42	42	42																																																			
Excavation + Lifting Work + Dewatering	3	zone 1a	102	232	-55	3	50																															50	50	50																																										
	4	zone 1b	102	170	-53	3	52																																		52	52	52	52																																						
	4	zone 2a	102	361	-59	3	46																															46	46	46	46																																									
	4	zone 2b	102	303	-58	3	47																																				47	47	47	47																																				
	8	zone 3a	102	508	-62	3	43																										43	43	43	43	43	43	43	43																																											
	9	zone 3b	102	431	-61	3	44																												44	44	44	44	44	44	44	44	44																																								
	8	Ent A	102	227	-55	3	50																												50	50	50	50	50	50	50	50																																									
	8	NVS	102	481	-62	3	43																															43	43	43	43	43	43	43	43																																				
D-wall Test / Capping Bream with Top Slab	3	zone 1a	103	232	-55	3	51																								51	51	51																																																				
	3	zone 1b	103	170	-53	3	53																											53	53	53																																															
	3	zone 2a	103	361	-59	3	47																						47	47	47																																																						
	3	zone 2b	103	303	-58	3	48																									48	48	48																																																	
	5	zone 3a	103	508	-62	3	44																				44	44	44	44	44																																																						
	4	zone 3b	103	431	-61	3	45																							45	45	45	45																																																					
	5	Ent A	103	227	-55	3	51																					51	51	51	51	51																																																						
	4	NVS	103	481	-62	3	44																									44	44	44	44																																																
Pump Test	1	zone 1a	95	232	-55	3	43																														43																																													
	1	zone 1b	95	170	-53	3	45																															45																																												
	2	zone 2a	95	361	-59	3	39																												39	39																																													
	2	zone 2b	95	303	-58	3	40																														40	40																																												
	2	zone 3a	95	508	-62	3	36																									36	36																																																		
	2	zone 3b	95	431	-61	3	37																											37	37																																															
	3	Ent A	95	227	-55	3	43																										43	43	43																																															
	3	NVS	95	481	-62	3	36																													36	36	36																																												
TBM Operation	11	zone 3a	99	508	-62	3	40																										40	40	40	40	40	40	40	40	40	40	40																																								
Slab Work	2	zone 1a	103	232	-55	3	51																																							51	51																																				
	1	zone 1b	103	170	-53	3	53																																										53																																			
	2	zone 2a	103	361	-59	3	47																																									47	47																																			
	2	zone 2b	103	303	-58	3	48																																											48	48																																	
	4	zone 3a	103	508	-62	3	44																																			44	44	44	44																																					
	4	zone 3b	103	431	-61	3	45																																							45	45	45	45																																			
	3	Ent A	103	227	-55	3	51																																				51	51	51																																					
	3	NVS	103	481	-62	3	44																																									44	44	44																																		
OTE Precast Work	1	zone 1a	96	232	-55	3	44																																											44																																		
	1	zone 1b	96	170	-53	3	46																																											46																																		
	1	zone 2a	96	361	-59	3	40																																													40																																
	1	zone 2b	96	303	-58	3	41																																													41																																
	1	zone 3a	96	508	-62	3	37																																						37																																					
	1	zone 3b	96	431	-61	3	38																																											38																																		
Precast Work	1	zone 1a	93	232	-55	3	41																																												41																																	
	1	zone 1b	93	170	-53	3	43																																												43																																	
	1	zone 2a	93	361	-59	3	37																																														37																															
	1	zone 2b	93	303	-58	3	38																																														38																															
Bar Bending	13	zone 4	94	310	-58	3	39																										39	39	39	39	39	39	39	39	39	39	39	39	39																																					
ABWF/BS/Site Reinstatement	18	zone 1a	102	232	-55	3	50																																															50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50						
	18	zone 1b	102	170	-53	3	52																																															52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52						
	18	zone 2a	102	361	-59	3	46																																															46	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46						
	18	zone 2b	102	303	-58	3	47																																															47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47						
	18	zone 3a	102	508	-62	3	43																																															43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43						
	18	zone 3b	102	431	-61	3	44																																															44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44						
	24	Ent A	102	227	-55	3	50																																									50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50						
	21	NVS	102	481	-62	3	43																																												43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43						
D-wall Construction Supporting Group	23	zone 4	109	310	-58	3	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54																																																				
Excavation Supporting Group	15	zone 4	103	310	-58	3	48																								48	48	48	48	48	48	48	48	48	48	48	48	48	48	48																																			
Predicted CNL at Ha Ling Pei Village								60	60	57	56	57	57	57	57	57	57	56	56	57	57	57	56	56	57	57	57	57	57	58	56	55	56	55	56	54	54	56	56	56	56	56	57	57	57	56	57	54	54	52	52	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58						
Predicted CNL at Ha Ling Pei Village from TCNTE (HLP-01a)								61	61	61	61	61	61	61	61	61	61	61	61	61	61	56	56	56	57	57	57	57	57	57	57	48	48	49	49	49	49	49	49	49	49	49	49	48	48	48	48	48	48	48	48	48	48	48	48	48	48	46	46	46	46	46	46	46	46	46	46	0	0	0	0	0	0	0	0						
Total CNL								63	64	63	62	63	62	62	63	62	62	62	62	62	62	59	59	59	60	60	60	60	60	60	60	56	56	56	57	55	55	56	56	56	57	57	57	57	57	56	57	55	55	53	53	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58						
Noise Exceedance (Daytime Criteria: 75dB(A))																																																																																		

Remark:

Distance between NSR and Work Area is notional distance

Figure G1.11: Mitigated Noise Assessment Results at Tung Chung Catholic School Primary Section

| Construction Activities | months | Works Zone | SWL | Dist | Dist. Corr | Façade Corr | CNL | 2023 N | 2023 D | 2024 J | 2024 F | 2024 M | 2024 A | 2024 M | 2024 J | 2024 J | 2024 A | 2024 S | 2024 O | 2024 N | 2024 D | 2025 J | 2025 F | 2025 M | 2025 A | 2025 M | 2025 J | 2025 J | 2025 A | 2025 S | 2025 O | 2025 N | 2025 D | 2026 J | 2026 F | 2026 M | 2026 A | 2026 M | 2026 J | 2026 J | 2026 A | 2026 S | 2026 O | 2026 N | 2026 D | 2027 J | 2027 F | 2027 M | 2027 A | 2027 M | 2027 J | 2027 J | 2027 A | 2027 S | 2027 O | 2027 N | 2027 D | 2028 J | 2028 F | 2028 M | 2028 A | 2028 M | 2028 J | 2028 J | 2028 A | 2028 S | 2028 O | 2028 N | 2028 D | 2029 J | 2029 F | 2029 M | 2029 A | 2029 M | 2029 J | 2029 J | 2029 A | 2029 S | 2029 O | 2029 N | 2029 D |
|---|---|---

Figure G1.12: Mitigated Noise Assessment Results at Tung Chung Catholic School Primary Section (during examination period)

| Construction Activities | months | Works Zone | SWL | Dist | Dist. Corr | Façade Corr | CNL | 2023 N | 2023 D | 2024 J | 2024 F | 2024 M | 2024 A | 2024 M | 2024 J | 2024 J | 2024 A | 2024 S | 2024 O | 2024 N | 2024 D | 2025 J | 2025 F | 2025 M | 2025 A | 2025 M | 2025 J | 2025 J | 2025 A | 2025 S | 2025 O | 2025 N | 2025 D | 2026 J | 2026 F | 2026 M | 2026 A | 2026 M | 2026 J | 2026 J | 2026 A | 2026 S | 2026 O | 2026 N | 2026 D | 2027 J | 2027 F | 2027 M | 2027 A | 2027 M | 2027 J | 2027 J | 2027 A | 2027 S | 2027 O | 2027 N | 2027 D | 2028 J | 2028 F | 2028 M | 2028 A | 2028 M | 2028 J | 2028 J | 2028 A | 2028 S | 2028 O | 2028 N | 2028 D | 2029 J | 2029 F | 2029 M | 2029 A | 2029 M | 2029 J | 2029 J | 2029 A | 2029 S | 2029 O | 2029 N | 2029 D |
|---|---|---

Appendix G2

Detail Noise Calculation (Mitigated)
TCC and EAP/EEP

Figure G2.1: Mitigated Noise Assessment Results at Tung Chung Crescent Block 1

Construction Activities	months	Works Zone	SWL	Dist	Dist. Corr	Façade Corr	CNL	2023 N	2023 D
Tung Chung Crescent									
Site Clearance	1	TCC Work Area	114	78	-46	3	71	71	
Pipe Pile Activity / Curtain Wall Grouting	2	Launching Shaft	109	73	-45	3	67	67	67
	3	Retrieval Shaft	109	88	-47	3	65		
Constrcution/Demolition of Noise Enclosure	10	TCC Work Area	109	78	-46	3	66	66	66
Excavation + Lifting+ Dewatering (Drill/Split/Break)	12	TCC Enclosure	111	70	-45	3	69		
STP Site Set Up Assembly/Disassembly	6	STP Site	109	53	-42	3	70		
TBM Assembly / Maintanance (inside enclosure)	8	TCC Enclosure	106	70	-45	3	64		
TBM Assembly / Maintanance (outside enclosure) Group 1	8	TCC Outside Enclosure	113	86	-47	3	69		
TBM Assembly / Maintanance (outside enclosure) Group 2	8	Forklift Area	101	75	-46	3	58		
TBM Operation (exclude STP)	14	TCC Enclosure	108	70	-45	3	66		
TBM Operation (only STP)	14	STP Site	107	53	-42	3	68		
Site Reinstatement	18	TCC Work Area	109	78	-46	3	66		
Slab Work	13	TCC Work Area	107	78	-46	3	64		
EAP/EEP									
Site Clearance	3	EAP/EEP	110	141	-51	3	62	62	62
Excavation + Lifting+ Dewatering (Drill/Split/Break)	12	TCA Shaft	112	140	-51	3	64		
Slope (Rock) + Lifting+ Dewatering / Tie Back Anchor	6	EAP/EEP	113	141	-51	3	65		
Building Works	13	EAP/EEP	111	141	-51	3	63		
BS Work / Test & Comissioning	26	EAP/EEP	104	141	-51	3	56		
Predicted CNL at Tung Chung Crescent Block 1								74	70
Noise Exceedance (Daytime Criteria: 75dB(A))									

Construction Activities	2024 J	F	M	A	M	J	J	A	S	O	N	D
Tung Chung Crescent												
Site Clearance												
Pipe Pile Activity / Curtain Wall Grouting (Launching Shaft)												
Pipe Pile Activity / Curtain Wall Grouting (Retrieval Shaft)	65	65	65									
Constrcution/Demolition of Noise Enclosure	66	66	66	66	66	66						
Excavation + Lifting+ Dewatering (Drill/Split/Break)							69	69	69	69	69	69
STP Site Set Up Assembly/Disassembly											70	70
TBM Assembly / Maintanance (inside enclosure)												
TBM Assembly / Maintanance (outside enclosure) Group 1												
TBM Assembly / Maintanance (outside enclosure) Group 2												
TBM Operation (exclude STP)												
TBM Operation (only STP)												
Site Reinstatement												
Slab Work												
EAP/EEP												
Site Clearance	62											
Excavation + Lifting+ Dewatering (Drill/Split/Break)								64	64	64	64	64
Slope (Rock) + Lifting+ Dewatering / Tie Back Anchor		65	65	65	65	65	65					
Building Works												
BS Work / Test & Comissioning												
Predicted CNL at Tung Chung Crescent Block 1	70	70	70	69	69	69	70	70	70	70	73	73
Noise Exceedance (Daytime Criteria: 75dB(A))												

Construction Activities	2025 J	F	M	A	M	J	J	A	S	O	N	D
Tung Chung Crescent												
Site Clearance												
Pipe Pile Activity / Curtain Wall Grouting (Launching Shaft)												
Pipe Pile Activity / Curtain Wall Grouting (Retrieval Shaft)												
Constrcution/Demolition of Noise Enclosure												
Excavation + Lifting+ Dewatering (Drill/Split/Break)											69	69
STP Site Set Up Assembly/Disassembly												
TBM Assembly / Maintanance (inside enclosure)	64	64	64	64								
TBM Assembly / Maintanance (outside enclosure) Group 1	69	69	69	69								
TBM Assembly / Maintanance (outside enclosure) Group 2	58	58	58	58								
TBM Operation (exclude STP)					66	66	66	66	66	66	66	
TBM Operation (only STP)					68	68	68	68	68	68	68	
Site Reinstatement												
Slab Work											64	64
EAP/EEP												
Site Clearance												
Excavation + Lifting+ Dewatering (Drill/Split/Break)	64	64	64	64	64	64	64					
Slope (Rock) + Lifting+ Dewatering / Tie Back Anchor												
Building Works						63	63	63	63	63	63	63
BS Work / Test & Comissioning												
Predicted CNL at Tung Chung Crescent Block 1	71	71	71	71	71	72	72	71	71	71	74	71
Noise Exceedance (Daytime Criteria: 75dB(A))												

Construction Activities	2026 J	F	M	A	M	J	J	A	S	O	N	D
Tung Chung Crescent												
Site Clearance												
Pipe Pile Activity / Curtain Wall Grouting (Launching Shaft)												
Pipe Pile Activity / Curtain Wall Grouting (Retrieval Shaft)												
Constrcution/Demolition of Noise Enclosure												
Excavation + Lifting+ Dewatering (Drill/Split/Break)	69	69	69	69								
STP Site Set Up Assembly/Disassembly												
TBM Assembly / Maintanance (inside enclosure)									64	64	64	64
TBM Assembly / Maintanance (outside enclosure) Group 1									69	69	69	69
TBM Assembly / Maintanance (outside enclosure) Group 2									58	58	58	58
TBM Operation (exclude STP)		66	66	66	66	66	66	66				
TBM Operation (only STP)		68	68	68	68	68	68	68				
Site Reinstatement												
Slab Work	64	64	64	64	64	64						64
EAP/EEP												
Site Clearance												
Excavation + Lifting+ Dewatering (Drill/Split/Break)												
Slope (Rock) + Lifting+ Dewatering / Tie Back Anchor												
Building Works	63	63	63	63	63	63						
BS Work / Test & Comissioning							56	56	56	56	56	56
Predicted CNL at Tung Chung Crescent Block 1	71	74	74	74	72	72	71	71	71	71	71	72
Noise Exceedance (Daytime Criteria: 75dB(A))												

Construction Activities	2027 J	F	M	A	M	J	J	A	S	O	N	D
Tung Chung Crescent												
Site Clearance												
Pipe Pile Activity / Curtain Wall Grouting (Launching Shaft)												
Pipe Pile Activity / Curtain Wall Grouting (Retrieval Shaft)												
Constrcution/Demolition of Noise Enclosure					66	66						
Excavation + Lifting+ Dewatering (Drill/Split/Break)												
STP Site Set Up Assembly/Disassembly	70	70	70	70								
TBM Assembly / Maintanance (inside enclosure)												
TBM Assembly / Maintanance (outside enclosure) Group 1												
TBM Assembly / Maintanance (outside enclosure) Group 2												
TBM Operation (exclude STP)												
TBM Operation (only STP)												
Site Reinstatement							66	66	66	66	66	66
Slab Work	64	64	64	64								
EAP/EEP												
Site Clearance												
Excavation + Lifting+ Dewatering (Drill/Split/Break)												
Slope (Rock) + Lifting+ Dewatering / Tie Back Anchor												
Building Works												
BS Work / Test & Comissioning	56	56	56	56	56	56	56	56	56	56	56	56
Predicted CNL at Tung Chung Crescent Block 1	71	71	71	71	67	67	67	67	67	67	67	67
Noise Exceedance (Daytime Criteria: 75dB(A))												

Construction Activities	2028 J	F	M	A	M	J	J	A	S	O	N	D
Tung Chung Crescent												
Site Clearance												
Pipe Pile Activity / Curtain Wall Grouting (Launching Shaft)												
Pipe Pile Activity / Curtain Wall Grouting (Retrieval Shaft)												
Constrcution/Demolition of Noise Enclosure												
Excavation + Lifting+ Dewatering (Drill/Split/Break)												
STP Site Set Up Assembly/Disassembly												
TBM Assembly / Maintanance (inside enclosure)												
TBM Assembly / Maintanance (outside enclosure) Group 1												
TBM Assembly / Maintanance (outside enclosure) Group 2												
TBM Operation (exclude STP)												
TBM Operation (only STP)												
Site Reinstatement	66	66	66	66	66	66	66	66	66	66	66	66
Slab Work												
EAP/EEP												
Site Clearance												
Excavation + Lifting+ Dewatering (Drill/Split/Break)												
Slope (Rock) + Lifting+ Dewatering / Tie Back Anchor												
Building Works												
BS Work / Test & Comissioning	56	56	56	56	56	56	56	56				
Predicted CNL at Tung Chung Crescent Block 1	67	67	67	67	67	67	67	67	66	66	66	66
Noise Exceedance (Daytime Criteria: 75dB(A))												

Construction Activities	2029 J	F	M	A	M	J	J	A	S	O	N	D
Tung Chung Crescent												
Site Clearance												
Pipe Pile Activity / Curtain Wall Grouting (Launching Shaft)												
Pipe Pile Activity / Curtain Wall Grouting (Retrieval Shaft)												
Constrcution/Demolition of Noise Enclosure												
Excavation + Lifting+ Dewatering (Drill/Split/Break)												
STP Site Set Up Assembly/Disassembly												
TBM Assembly / Maintanance (inside enclosure)												
TBM Assembly / Maintanance (outside enclosure) Group 1												
TBM Assembly / Maintanance (outside enclosure) Group 2												
TBM Operation (exclude STP)												
TBM Operation (only STP)												
Site Reinstatement	66											
Slab Work												
EAP/EEP												
Site Clearance												
Excavation + Lifting+ Dewatering (Drill/Split/Break)												
Slope (Rock) + Lifting+ Dewatering / Tie Back Anchor												
Building Works												
BS Work / Test & Comissioning												
Predicted CNL at Tung Chung Crescent Block 1	66											
Noise Exceedance (Daytime Criteria: 75dB(A))												

Remark:

Distance between NSR and Work Area is notional distance

Figure G2.2: Mitigated Noise Assessment Results at Tung Chung Crescent Block 3

Construction Activities	months	Works Zone	SWL	Dist	Dist. Corr	Façade Corr	CNL	2023 N	2023 D	2024 J	2024 F	2024 M	2024 A	2024 M	2024 J	2024 J	2024 A	2024 S	2024 O	2024 N	2024 D
Tung Chung Crescent																					
Site Clearance	1	TCC Work Area	114	73	-45	3	72	72													
Pipe Pile Activity / Curtain Wall Grouting	2	Launching Shaft	109	72	-45	3	67	67	67												
	3	Retrieval Shaft	109	66	-44	3	68			68	68	68									
Constrcution/Demolition of Noise Enclosure	10	TCC Work Area	109	73	-45	3	67	67	67	67	67	67	67	67	67						
Excavation + Lifting+ Dewatering (Drill/Split/Break)	12	TCC Enclosure	111	63	-44	3	70									70	70	70	70	70	70
STP Site Set Up Assembly/Disassembly	6	STP Site	109	134	-51	3	61													61	61
TBM Assembly / Maintanance (inside enclosure)	8	TCC Enclosure	106	63	-44	3	65														
TBM Assembly / Maintanance (outside enclosure) Group 1	8	TCC Outside Enclosure	113	90	-47	3	69														
TBM Assembly / Maintanance (outside enclosure) Group 2	8	Forklift Area	101	49	-42	3	62														
TBM Operation (exclude STP)	14	TCC Enclosure	108	63	-44	3	67														
TBM Operation (only STP)	14	STP Site	107	134	-51	3	59														
Site Reinstatement	18	TCC Work Area	109	73	-45	3	67														
Slab Work	13	TCC Work Area	107	73	-45	3	65														
EAP/EEP																					
Site Clearance	3	EAP/EEP	110	189	-54	3	59	59	59	59											
Excavation + Lifting+ Dewatering (Drill/Split/Break)	12	TCA Shaft	112	183	-53	3	62										62	62	62	62	62
Slope (Rock) + Lifting+ Dewatering / Tie Back Anchor	6	EAP/EEP	113	189	-54	3	62				62	62	62	62	62	62					
Building Works	13	EAP/EEP	111	189	-54	3	60														
BS Work / Test & Comissioning	26	EAP/EEP	104	189	-54	3	53														
Predicted CNL at Tung Chung Crescent Block 3								74	70	71	71	71	68	68	68	71	71	71	71	71	71
Noise Exceedance (Daytime Criteria: 75dB(A))																					

Construction Activities	2025 J	2025 F	2025 M	2025 A	2025 M	2025 J	2025 J	2025 A	2025 S	2025 O	2025 N	2025 D	2026 J	2026 F	2026 M	2026 A	2026 M	2026 J	2026 J	2026 A	2026 S	2026 O	2026 N	2026 D
Tung Chung Crescent																								
Site Clearance																								
Pipe Pile Activity / Curtain Wall Grouting (Launching Shaft)																								
Pipe Pile Activity / Curtain Wall Grouting (Retrieval Shaft)																								
Constrcution/Demolition of Noise Enclosure																								
Excavation + Lifting+ Dewatering (Drill/Split/Break)											70	70	70	70	70	70								
STP Site Set Up Assembly/Disassembly																								
TBM Assembly / Maintanance (inside enclosure)	65	65	65	65																	65	65	65	65
TBM Assembly / Maintanance (outside enclosure) Group 1	69	69	69	69																	69	69	69	69
TBM Assembly / Maintanance (outside enclosure) Group 2	62	62	62	62																	62	62	62	62
TBM Operation (exclude STP)					67	67	67	67	67	67	67			67	67	67	67	67	67	67				
TBM Operation (only STP)					59	59	59	59	59	59	59			59	59	59	59	59	59	59				
Site Reinstatement																								
Slab Work											65	65	65	65	65	65	65	65						65
EAP/EEP																								
Site Clearance																								
Excavation + Lifting+ Dewatering (Drill/Split/Break)	62	62	62	62	62	62	62																	
Slope (Rock) + Lifting+ Dewatering / Tie Back Anchor																								
Building Works						60	60	60	60	60	60	60	60	60	60	60	60	60						
BS Work / Test & Comissioning																			53	53	53	53	53	53
Predicted CNL at Tung Chung Crescent Block 3	72	72	72	72	69	69	69	69	69	69	73	71	71	73	73	73	70	70	68	68	71	71	71	72
Noise Exceedance (Daytime Criteria: 75dB(A))																								

Construction Activities	2027 J	2027 F	2027 M	2027 A	2027 M	2027 J	2027 J	2027 A	2027 S	2027 O	2027 N	2027 D	2028 J	2028 F	2028 M	2028 A	2028 M	2028 J	2028 J	2028 A	2028 S	2028 O	2028 N	2028 D	2029 J	2029 F	2029 M	2029 A	2029 M	2029 J	2029 J	2029 A	2029 S	2029 O	2029 N	2029 D
Tung Chung Crescent																																				
Site Clearance																																				
Pipe Pile Activity / Curtain Wall Grouting (Launching Shaft)																																				
Pipe Pile Activity / Curtain Wall Grouting (Retrieval Shaft)																																				
Constrcution/Demolition of Noise Enclosure					67	67																														
Excavation + Lifting+ Dewatering (Drill/Split/Break)																																				
STP Site Set Up Assembly/Disassembly	61	61	61	61																																
TBM Assembly / Maintanance (inside enclosure)																																				
TBM Assembly / Maintanance (outside enclosure) Group 1																																				
TBM Assembly / Maintanance (outside enclosure) Group 2																																				
TBM Operation (exclude STP)																																				
TBM Operation (only STP)																																				
Site Reinstatement							67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67											
Slab Work	65	65	65	65																																
EAP/EEP																																				
Site Clearance																																				
Excavation + Lifting+ Dewatering (Drill/Split/Break)																																				
Slope (Rock) + Lifting+ Dewatering / Tie Back Anchor																																				
Building Works																																				
BS Work / Test & Comissioning	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53																
Predicted CNL at Tung Chung Crescent Block 3	66	66	66	66	67	67	68	68	68	68	68	68	68	68	68	68	68	68	68	68	67	67	67	67	67											
Noise Exceedance (Daytime Criteria: 75dB(A))																																				

Remark:
Distance between NSR and Work Area is notional distance

Figure G2.3: Mitigated Noise Assessment Results at Tung Chung Crescent Block 5

Construction Activities	months	Works Zone	SWL	Dist	Dist. Corr	Façade Corr	CNL	2023 N	2023 D
Tung Chung Crescent									
Site Clearance	1	TCC Work Area	114	69	-45	3	72	72	
Pipe Pile Activity / Curtain Wall Grouting	2	Launching Shaft	109	79	-46	3	66	66	66
	3	Retrieval Shaft	109	58	-43	3	69		
Constrcution/Demolition of Noise Enclosure	10	TCC Work Area	109	69	-45	3	67	67	67
Excavation + Lifting+ Dewatering (Drill/Split/Break)	12	TCC Enclosure	111	59	-43	3	71		
STP Site Set Up Assembly/Disassembly	6	STP Site	109	169	-53	3	59		
TBM Assembly / Maintanance (inside enclosure)	8	TCC Enclosure	106	59	-43	3	66		
TBM Assembly / Maintanance (outside enclosure) Group 1	8	TCC Outside Enclosure	113	83	-46	3	70		
TBM Assembly / Maintanance (outside enclosure) Group 2	8	Forklift Area	101	43	-41	3	63		
TBM Operation (exclude STP)	14	TCC Enclosure	108	59	-43	3	68		
TBM Operation (only STP)	14	STP Site	107	169	-53	3	57		
Site Reinstatement	18	TCC Work Area	109	69	-45	3	67		
Slab Work	13	TCC Work Area	107	69	-45	3	65		
EAP/EEP									
Site Clearance	3	EAP/EEP	110	182	-53	3	60	60	60
Excavation + Lifting+ Dewatering (Drill/Split/Break)	12	TCA Shaft	112	187	-53	3	62		
Slope (Rock) + Lifting+ Dewatering / Tie Back Anchor	6	EAP/EEP	113	182	-53	3	63		
Building Works	13	EAP/EEP	111	182	-53	3	61		
BS Work / Test & Comissioning	26	EAP/EEP	104	182	-53	3	54		
Predicted CNL at Tung Chung Crescent Block 5								74	70
Noise Exceedance (Daytime Criteria: 75dB(A))									

2024	J	F	M	A	M	J	J	A	S	O	N	D
Site Clearance (TCC)												
Pipe Pile – Launching Shaft												
Pipe Pile – Retrieval Shaft	69	69	69									
Constrcution/Demolition of Noise Enclosure	67	67	67	67	67	67						
Excavation + Lifting+ Dewatering (Drill/Split/Break) (TCC)							71	71	71	71	71	71
STP Site Set Up Assembly/Disassembly											59	59
TBM Assembly / Maintanance (inside enclosure)												
TBM Assembly / Maintanance (outside enclosure) Group 1												
TBM Assembly / Maintanance (outside enclosure) Group 2												
TBM Operation (exclude STP)												
TBM Operation (only STP)												
Site Reinstatement												
Slab Work												
Site Clearance (EAP/EEP)	60											
Excavation + Lifting+ Dewatering (Drill/Split/Break) (TCA Shaft)								62	62	62	62	62
Slope (Rock) + Lifting+ Dewatering / Tie Back Anchor		63	63	63	63	63	63					
Building Works												
BS Work / Test & Comissioning												
Predicted CNL at Tung Chung Crescent Block 5	72	72	72	69	69	69	72	71	71	71	72	72
Noise Exceedance (Daytime Criteria: 75dB(A))												

2025	J	F	M	A	M	J	J	A	S	O	N	D
Site Clearance (TCC)												
Pipe Pile – Launching Shaft												
Pipe Pile – Retrieval Shaft												
Constrcution/Demolition of Noise Enclosure												
Excavation + Lifting+ Dewatering (Drill/Split/Break) (TCC)											71	71
STP Site Set Up Assembly/Disassembly												
TBM Assembly / Maintanance (inside enclosure)	66	66	66	66								
TBM Assembly / Maintanance (outside enclosure) Group 1	70	70	70	70								
TBM Assembly / Maintanance (outside enclosure) Group 2	63	63	63	63								
TBM Operation (exclude STP)					68	68	68	68	68	68	68	
TBM Operation (only STP)					57	57	57	57	57	57	57	
Site Reinstatement												
Slab Work											65	65
Site Clearance (EAP/EEP)												
Excavation + Lifting+ Dewatering (Drill/Split/Break) (TCA Shaft)	62	62	62	62	62	62	62					
Slope (Rock) + Lifting+ Dewatering / Tie Back Anchor												
Building Works						61	61	61	61	61	61	61
BS Work / Test & Comissioning												
Predicted CNL at Tung Chung Crescent Block 5	73	73	73	73	69	70	70	69	69	69	74	72
Noise Exceedance (Daytime Criteria: 75dB(A))												

2026	J	F	M	A	M	J	J	A	S	O	N	D
Site Clearance (TCC)												
Pipe Pile – Launching Shaft												
Pipe Pile – Retrieval Shaft												
Constrcution/Demolition of Noise Enclosure												
Excavation + Lifting+ Dewatering (Drill/Split/Break) (TCC)	71	71	71	71								
STP Site Set Up Assembly/Disassembly												
TBM Assembly / Maintanance (inside enclosure)									66	66	66	66
TBM Assembly / Maintanance (outside enclosure) Group 1									70	70	70	70
TBM Assembly / Maintanance (outside enclosure) Group 2									63	63	63	63
TBM Operation (exclude STP)		68	68	68	68	68	68	68				
TBM Operation (only STP)		57	57	57	57	57	57	57				
Site Reinstatement												
Slab Work	65	65	65	65	65	65						65
Site Clearance (EAP/EEP)												
Excavation + Lifting+ Dewatering (Drill/Split/Break) (TCA Shaft)												
Slope (Rock) + Lifting+ Dewatering / Tie Back Anchor												
Building Works	61	61	61	61	61	61						
BS Work / Test & Comissioning							54	54	54	54	54	54
Predicted CNL at Tung Chung Crescent Block 5	72	74	74	74	71	71	69	69	72	72	72	73
Noise Exceedance (Daytime Criteria: 75dB(A))												

2027	J	F	M	A	M	J	J	A	S	O	N	D
Site Clearance (TCC)												
Pipe Pile – Launching Shaft												
Pipe Pile – Retrieval Shaft												
Constrcution/Demolition of Noise Enclosure					67	67						
Excavation + Lifting+ Dewatering (Drill/Split/Break) (TCC)												
STP Site Set Up Assembly/Disassembly	59	59	59	59								
TBM Assembly / Maintanance (inside enclosure)												
TBM Assembly / Maintanance (outside enclosure) Group 1												
TBM Assembly / Maintanance (outside enclosure) Group 2												
TBM Operation (exclude STP)												
TBM Operation (only STP)												
Site Reinstatement							67	67	67	67	67	67
Slab Work	65	65	65	65								
Site Clearance (EAP/EEP)												
Excavation + Lifting+ Dewatering (Drill/Split/Break) (TCA Shaft)												
Slope (Rock) + Lifting+ Dewatering / Tie Back Anchor												
Building Works												
BS Work / Test & Comissioning	54	54	54	54	54	54	54	54	54	54	54	54
Predicted CNL at Tung Chung Crescent Block 5	66	66	66	66	67	67	68	68	68	68	68	68
Noise Exceedance (Daytime Criteria: 75dB(A))												

2028	J	F	M	A	M	J	J	A	S	O	N	D
Site Clearance (TCC)												
Pipe Pile – Launching Shaft												
Pipe Pile – Retrieval Shaft												
Constrcution/Demolition of Noise Enclosure												
Excavation + Lifting+ Dewatering (Drill/Split/Break) (TCC)												
STP Site Set Up Assembly/Disassembly												
TBM Assembly / Maintanance (inside enclosure)												
TBM Assembly / Maintanance (outside enclosure) Group 1												
TBM Assembly / Maintanance (outside enclosure) Group 2												
TBM Operation (exclude STP)												
TBM Operation (only STP)												
Site Reinstatement	67	67	67	67	67	67	67	67	67	67	67	67
Slab Work												
Site Clearance (EAP/EEP)												
Excavation + Lifting+ Dewatering (Drill/Split/Break) (TCA Shaft)												
Slope (Rock) + Lifting+ Dewatering / Tie Back Anchor												
Building Works												
BS Work / Test & Comissioning	54	54	54	54	54	54	54	54				
Predicted CNL at Tung Chung Crescent Block 5	68	68	68	68	68	68	68	68	67	67	67	67
Noise Exceedance (Daytime Criteria: 75dB(A))												

2029	J	F	M	A	M	J	J	A	S	O	N	D
Site Clearance (TCC)												
Pipe Pile – Launching Shaft												
Pipe Pile – Retrieval Shaft												
Constrcution/Demolition of Noise Enclosure												
Excavation + Lifting+ Dewatering (Drill/Split/Break) (TCC)												
STP Site Set Up Assembly/Disassembly												
TBM Assembly / Maintanance (inside enclosure)												
TBM Assembly / Maintanance (outside enclosure) Group 1												
TBM Assembly / Maintanance (outside enclosure) Group 2												
TBM Operation (exclude STP)												
TBM Operation (only STP)												
Site Reinstatement	67											
Slab Work												
Site Clearance (EAP/EEP)												
Excavation + Lifting+ Dewatering (Drill/Split/Break) (TCA Shaft)												
Slope (Rock) + Lifting+ Dewatering / Tie Back Anchor												
Building Works												
BS Work / Test & Comissioning												
Predicted CNL at Tung Chung Crescent Block 5	67											
Noise Exceedance (Daytime Criteria: 75dB(A))												

Remark:

Distance between NSR and Work Area is notional distance

Figure G2.4: Mitigated Noise Assessment Results at Tung Chung Crescent Block 7

Construction Activities	months	Works Zone	SWL	Dist	Dist. Corr	Façade Corr	CNL
Tung Chung Crescent							
Site Clearance	1	TCC Work Area	114	77	-46	3	71
Pipe Pile Activity / Curtain Wall Grouting	2	Launching Shaft	109	96	-48	3	64
	3	Retrieval Shaft	109	77	-46	3	66
Constrcution/Demolition of Noise Enclosure	10	TCC Work Area	109	77	-46	3	66
Excavation + Lifting+ Dewatering (Drill/Split/Break)	12	TCC Enclosure	111	73	-45	3	69
STP Site Set Up Assembly/Disassembly	6	STP Site	109	116	-49	3	63
TBM Assembly / Maintanance (inside enclosure)	8	TCC Enclosure	106	73	-45	3	64
TBM Assembly / Maintanance (outside enclosure) Group 1	8	TCC Outside Enclosure	113	78	-46	3	70
TBM Assembly / Maintanance (outside enclosure) Group 2	8	Forklift Area	101	74	-45	3	59
TBM Operation (exclude STP)	14	TCC Enclosure	108	73	-45	3	66
TBM Operation (only STP)	14	STP Site	107	116	-49	3	61
Site Reinstatement	18	TCC Work Area	109	77	-46	3	66
Slab Work	13	TCC Work Area	107	77	-46	3	64
EAP/EEP							
Site Clearance	3	EAP/EEP	110	137	-51	3	62
Excavation + Lifting+ Dewatering (Drill/Split/Break)	12	TCA Shaft	112	139	-51	3	64
Slope (Rock) + Lifting+ Dewatering / Tie Back Anchor	6	EAP/EEP	113	137	-51	3	65
Building Works	13	EAP/EEP	111	137	-51	3	63
BS Work / Test & Comissioning	26	EAP/EEP	104	137	-51	3	56

Construction Activities	2023		2024											
	N	D	J	F	M	A	M	J	J	A	S	O	N	D
Tung Chung Crescent														
Site Clearance	71													
Pipe Pile Activity / Curtain Wall Grouting (Launching Shaft)	64	64												
Pipe Pile Activity / Curtain Wall Grouting (Retrieval Shaft)			66	66	66									
Constrcution/Demolition of Noise Enclosure	66	66	66	66	66	66	66	66						
Excavation + Lifting+ Dewatering (Drill/Split/Break)									69	69	69	69	69	69
STP Site Set Up Assembly/Disassembly													63	63
TBM Assembly / Maintanance (inside enclosure)														
TBM Assembly / Maintanance (outside enclosure) Group 1														
TBM Assembly / Maintanance (outside enclosure) Group 2														
TBM Operation (exclude STP)														
TBM Operation (only STP)														
Site Reinstatement														
Slab Work														
EAP/EEP														
Site Clearance	62	62	62											
Excavation + Lifting+ Dewatering (Drill/Split/Break)										64	64	64	64	64
Slope (Rock) + Lifting+ Dewatering / Tie Back Anchor				65	65	65	65	65	65					
Building Works														
BS Work / Test & Comissioning														
Predicted CNL at Tung Chung Crescent Block 7	73	69	70	70	70	69	69	69	70	70	70	70	71	71
Noise Exceedance (Daytime Criteria: 75dB(A))														

Construction Activities	2025											
	J	F	M	A	M	J	J	A	S	O	N	D
Tung Chung Crescent												
Site Clearance												
Pipe Pile Activity / Curtain Wall Grouting (Launching Shaft)												
Pipe Pile Activity / Curtain Wall Grouting (Retrieval Shaft)												
Constrcution/Demolition of Noise Enclosure												
Excavation + Lifting+ Dewatering (Drill/Split/Break)											69	69
STP Site Set Up Assembly/Disassembly												
TBM Assembly / Maintanance (inside enclosure)	64	64	64	64								
TBM Assembly / Maintanance (outside enclosure) Group 1	70	70	70	70								
TBM Assembly / Maintanance (outside enclosure) Group 2	59	59	59	59								
TBM Operation (exclude STP)					66	66	66	66	66	66	66	
TBM Operation (only STP)					61	61	61	61	61	61	61	
Site Reinstatement												
Slab Work											64	64
EAP/EEP												
Site Clearance												
Excavation + Lifting+ Dewatering (Drill/Split/Break)	64	64	64	64	64	64	64					
Slope (Rock) + Lifting+ Dewatering / Tie Back Anchor												
Building Works						63	63	63	63	63	63	63
BS Work / Test & Comissioning												
Predicted CNL at Tung Chung Crescent Block 7	72	72	72	72	69	70	70	69	69	69	73	71
Noise Exceedance (Daytime Criteria: 75dB(A))												

Construction Activities	2026											
	J	F	M	A	M	J	J	A	S	O	N	D
Tung Chung Crescent												
Site Clearance												
Pipe Pile Activity / Curtain Wall Grouting (Launching Shaft)												
Pipe Pile Activity / Curtain Wall Grouting (Retrieval Shaft)												
Constrcution/Demolition of Noise Enclosure												
Excavation + Lifting+ Dewatering (Drill/Split/Break)	69	69	69	69								
STP Site Set Up Assembly/Disassembly												
TBM Assembly / Maintanance (inside enclosure)									64	64	64	64
TBM Assembly / Maintanance (outside enclosure) Group 1									70	70	70	70
TBM Assembly / Maintanance (outside enclosure) Group 2									59	59	59	59
TBM Operation (exclude STP)		66	66	66	66	66	66	66				
TBM Operation (only STP)		61	61	61	61	61	61	61				
Site Reinstatement												
Slab Work	64	64	64	64	64	64						64
EAP/EEP												
Site Clearance												
Excavation + Lifting+ Dewatering (Drill/Split/Break)												
Slope (Rock) + Lifting+ Dewatering / Tie Back Anchor												
Building Works	63	63	63	63	63	63						
BS Work / Test & Comissioning							56	56	56	56	56	56
Predicted CNL at Tung Chung Crescent Block 7	71	73	73	73	70	70	68	68	72	72	72	72
Noise Exceedance (Daytime Criteria: 75dB(A))												

Construction Activities	2027											
	J	F	M	A	M	J	J	A	S	O	N	D
Tung Chung Crescent												
Site Clearance												
Pipe Pile Activity / Curtain Wall Grouting (Launching Shaft)												
Pipe Pile Activity / Curtain Wall Grouting (Retrieval Shaft)												
Constrcution/Demolition of Noise Enclosure					66	66						
Excavation + Lifting+ Dewatering (Drill/Split/Break)												
STP Site Set Up Assembly/Disassembly	63	63	63	63								
TBM Assembly / Maintanance (inside enclosure)												
TBM Assembly / Maintanance (outside enclosure) Group 1												
TBM Assembly / Maintanance (outside enclosure) Group 2												
TBM Operation (exclude STP)												
TBM Operation (only STP)												
Site Reinstatement							66	66	66	66	66	66
Slab Work	64	64	64	64								
EAP/EEP												
Site Clearance												
Excavation + Lifting+ Dewatering (Drill/Split/Break)												
Slope (Rock) + Lifting+ Dewatering / Tie Back Anchor												
Building Works												
BS Work / Test & Comissioning	56	56	56	56	56	56	56	56	56	56	56	56
Predicted CNL at Tung Chung Crescent Block 7	67	67	67	67	67	67	67	67	67	67	67	67
Noise Exceedance (Daytime Criteria: 75dB(A))												

Construction Activities	2028											
	J	F	M	A	M	J	J	A	S	O	N	D
Tung Chung Crescent												
Site Clearance												
Pipe Pile Activity / Curtain Wall Grouting (Launching Shaft)												
Pipe Pile Activity / Curtain Wall Grouting (Retrieval Shaft)												
Constrcution/Demolition of Noise Enclosure												
Excavation + Lifting+ Dewatering (Drill/Split/Break)												
STP Site Set Up Assembly/Disassembly												
TBM Assembly / Maintanance (inside enclosure)												
TBM Assembly / Maintanance (outside enclosure) Group 1												
TBM Assembly / Maintanance (outside enclosure) Group 2												
TBM Operation (exclude STP)												
TBM Operation (only STP)												
Site Reinstatement	66	66	66	66	66	66	66	66	66	66	66	66
Slab Work												
EAP/EEP												
Site Clearance												
Excavation + Lifting+ Dewatering (Drill/Split/Break)												
Slope (Rock) + Lifting+ Dewatering / Tie Back Anchor												
Building Works												
BS Work / Test & Comissioning	56	56	56	56	56	56	56	56				
Predicted CNL at Tung Chung Crescent Block 7	67	67	67	67	67	67	67	67	66	66	66	66
Noise Exceedance (Daytime Criteria: 75dB(A))												

Construction Activities	2029											
	J	F	M	A	M	J	J	A	S	O	N	D
Tung Chung Crescent												
Site Clearance												
Pipe Pile Activity / Curtain Wall Grouting (Launching Shaft)												
Pipe Pile Activity / Curtain Wall Grouting (Retrieval Shaft)												
Constrcution/Demolition of Noise Enclosure												
Excavation + Lifting+ Dewatering (Drill/Split/Break)												
STP Site Set Up Assembly/Disassembly												
TBM Assembly / Maintanance (inside enclosure)												
TBM Assembly / Maintanance (outside enclosure) Group 1												
TBM Assembly / Maintanance (outside enclosure) Group 2												
TBM Operation (exclude STP)												
TBM Operation (only STP)												
Site Reinstatement	66											
Slab Work												
EAP/EEP												
Site Clearance												
Excavation + Lifting+ Dewatering (Drill/Split/Break)												
Slope (Rock) + Lifting+ Dewatering / Tie Back Anchor												
Building Works												
BS Work / Test & Comissioning												
Predicted CNL at Tung Chung Crescent Block 7	66											
Noise Exceedance (Daytime Criteria: 75dB(A))												

Remark:
Distance between NSR and Work Area is notional distance

Figure G2.5: Mitigated Noise Assessment Results at Tung Chung Crescent Block 9

Construction Activities	months	Works Zone	SWL	Dist	Dist. Corr	Façade Corr	CNL
Tung Chung Crescent							
Site Clearance	1	TCC Work Area	114	70	-45	3	72
Pipe Pile Activity / Curtain Wall Grouting	2	Launching Shaft	109	87	-47	3	65
	3	Retrieval Shaft	109	94	-47	3	65
Constrcution/Demolition of Noise Enclosure	10	TCC Work Area	109	70	-45	3	67
Excavation + Lifting+ Dewatering (Drill/Split/Break)	12	TCC Enclosure	111	90	-47	3	67
STP Site Set Up Assembly/Disassembly	6	STP Site	109	38	-40	3	72
TBM Assembly / Maintanance (inside enclosure)	8	TCC Enclosure	106	90	-47	3	62
TBM Assembly / Maintanance (outside enclosure) Group 1	8	TCC Outside Enclosure	113	63	-44	3	72
TBM Assembly / Maintanance (outside enclosure) Group 2	8	Forklift Area	101	105	-48	3	56
TBM Operation (exclude STP)	14	TCC Enclosure	108	90	-47	3	64
TBM Operation (only STP)	14	STP Site	107	38	-40	3	70
Site Reinstatement	18	TCC Work Area	109	70	-45	3	67
Slab Work	13	TCC Work Area	107	70	-45	3	65
EAP/EEP							
Site Clearance	3	EAP/EEP	110	64	-44	3	69
Excavation + Lifting+ Dewatering (Drill/Split/Break)	12	TCA Shaft	112	74	-45	3	70
Slope (Rock) + Lifting+ Dewatering / Tie Back Anchor	6	EAP/EEP	113	64	-44	3	72
Building Works	13	EAP/EEP	111	64	-44	3	70
BS Work / Test & Comissioning	26	EAP/EEP	104	64	-44	3	63

Construction Activities	2023 N	D	2024 J	F	M	A	M	J	J	A	S	O	N	D
Tung Chung Crescent														
Site Clearance	72													
Pipe Pile Activity / Curtain Wall Grouting	65	65												
			65	65	65									
Constrcution/Demolition of Noise Enclosure	67	67	67	67	67	67	67	67						
Excavation + Lifting+ Dewatering (Drill/Split/Break)									67	67	67	67	67	67
STP Site Set Up Assembly/Disassembly													72	72
TBM Assembly / Maintanance (inside enclosure)														
TBM Assembly / Maintanance (outside enclosure) Group 1														
TBM Assembly / Maintanance (outside enclosure) Group 2														
TBM Operation (exclude STP)														
TBM Operation (only STP)														
Site Reinstatement														
Slab Work														
EAP/EEP														
Site Clearance	69	69	69											
Excavation + Lifting+ Dewatering (Drill/Split/Break)										70	70	70	70	70
Slope (Rock) + Lifting+ Dewatering / Tie Back Anchor				72	72	72	72	72	72					
Building Works														
BS Work / Test & Comissioning														
Predicted CNL at Tung Chung Crescent Block 9	75	72	72	74	74	73	73	73	73	72	72	72	75	75
Noise Exceedance (Daytime Criteria: 75dB(A))														

Construction Activities	2025 J	F	M	A	M	J	J	A	S	O	N	D	2026 J	F	M	A	M	J	J	A	S	O	N	D
Tung Chung Crescent																								
Site Clearance																								
Pipe Pile Activity / Curtain Wall Grouting																								
Constrcution/Demolition of Noise Enclosure																								
Excavation + Lifting+ Dewatering (Drill/Split/Break)											67	67	67	67	67	67								
STP Site Set Up Assembly/Disassembly																								
TBM Assembly / Maintanance (inside enclosure)	62	62	62	62																	62	62	62	62
TBM Assembly / Maintanance (outside enclosure) Group 1	72	72	72	72																	72	72	72	72
TBM Assembly / Maintanance (outside enclosure) Group 2	56	56	56	56																	56	56	56	56
TBM Operation (exclude STP)					64	64	64	64	64	64	64			64	64	64	64	64	64	64				
TBM Operation (only STP)					70	70	70	70	70	70	70			70	70	70	70	70	70	70				
Site Reinstatement																								
Slab Work											65	65	65	65	65	65	65	65						65
EAP/EEP																								
Site Clearance																								
Excavation + Lifting+ Dewatering (Drill/Split/Break)	70	70	70	70	70	70	70																	
Slope (Rock) + Lifting+ Dewatering / Tie Back Anchor																								
Building Works						70	70	70	70	70	70	70	70	70	70	70	70	70						
BS Work / Test & Comissioning																			63	63	63	63	63	63
Predicted CNL at Tung Chung Crescent Block 9	75	75	75	75	74	75	75	74	74	74	75	72	72	75	75	75	74	74	72	72	73	73	73	74
Noise Exceedance (Daytime Criteria: 75dB(A))																								

Construction Activities	2027 J	F	M	A	M	J	J	A	S	O	N	D	2028 J	F	M	A	M	J	J	A	S	O	N	D	2029 J	F	M	A	M	J	J	A	S	O	N	D
Tung Chung Crescent																																				
Site Clearance																																				
Pipe Pile Activity / Curtain Wall Grouting																																				
Constrcution/Demolition of Noise Enclosure					67	67																														
Excavation + Lifting+ Dewatering (Drill/Split/Break)																																				
STP Site Set Up Assembly/Disassembly	72	72	72	72																																
TBM Assembly / Maintanance (inside enclosure)																																				
TBM Assembly / Maintanance (outside enclosure) Group 1																																				
TBM Assembly / Maintanance (outside enclosure) Group 2																																				
TBM Operation (exclude STP)																																				
TBM Operation (only STP)																																				
Site Reinstatement							67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67											
Slab Work	65	65	65	65																																
EAP/EEP																																				
Site Clearance																																				
Excavation + Lifting+ Dewatering (Drill/Split/Break)																																				
Slope (Rock) + Lifting+ Dewatering / Tie Back Anchor																																				
Building Works																																				
BS Work / Test & Comissioning	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63																
Predicted CNL at Tung Chung Crescent Block 9	73	73	73	73	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	67	67	67	67	67											
Noise Exceedance (Daytime Criteria: 75dB(A))																																				

Remark:

Distance between NSR and Work Area is notional distance

Figure G2.6: Mitigated Noise Assessment Results at Sunshine House International Pre-School (Tung Chung)

Construction Activities	months	Works Zone	SWL	Dist	Dist. Corr	Façade Corr	CNL	2023 N	2023 D
Tung Chung Crescent									
Site Clearance	1	TCC Work Area	114	137	-51	3	66	66	
Pipe Pile Activity / Curtain Wall Grouting	2	Launching Shaft	109	160	-52	3	60	60	60
Pipe Pile Activity / Curtain Wall Grouting	3	Retrieval Shaft	109	137	-51	3	61		
Constrcution/Demolition of Noise Enclosure	10	TCC Work Area	109	137	-51	3	61	61	61
Excavation + Lifting+ Dewatering (Drill/Split/Break)	12	TCC Enclosure	111	133	-50	3	64		
STP Site Set Up Assembly/Disassembly	6	STP Site	109	170	-53	3	59		
TBM Assembly / Maintanance (inside enclosure)	8	TCC Enclosure	106	133	-50	3	59		
TBM Assembly / Maintanance (outside enclosure) Group 1	8	TCC Outside Enclosure	113	138	-51	3	65		
TBM Assembly / Maintanance (outside enclosure) Group 2	8	Forklift Area	101	137	-51	3	53		
TBM Operation (exclude STP)	14	TCC Enclosure	108	133	-50	3	61		
TBM Operation (only STP)	14	STP Site	107	170	-53	3	57		
Site Reinstatement	18	TCC Work Area	109	137	-51	3	61		
Slab Work	13	TCC Work Area	107	137	-51	3	59		
EAP/EEP									
Site Clearance	3	EAP/EEP	110	198	-54	3	59	59	59
Excavation + Lifting+ Dewatering (Drill/Split/Break)	12	TCA Shaft	112	224	-55	3	60		
Slope (Rock) + Lifting+ Dewatering / Tie Back Anchor	6	EAP/EEP	113	198	-54	3	62		
Building Works	13	EAP/EEP	111	198	-54	3	60		
BS Work / Test & Comissioning	26	EAP/EEP	104	198	-54	3	53		
Predicted CNL at Sunshine House International Pre-School (Tung Chung)								68	65
Noise Exceedance (Daytime Criteria: 70dB(A))									

Construction Activities (2024)	J	F	M	A	M	J	J	A	S	O	N	D
Tung Chung Crescent												
Site Clearance												
Pipe Pile Activity / Curtain Wall Grouting (Launching Shaft)												
Pipe Pile Activity / Curtain Wall Grouting (Retrieval Shaft)	61	61	61									
Constrcution/Demolition of Noise Enclosure	61	61	61	61	61	61						
Excavation + Lifting+ Dewatering (Drill/Split/Break)							64	64	64	64	64	64
STP Site Set Up Assembly/Disassembly											59	59
TBM Assembly / Maintanance (inside enclosure)												
TBM Assembly / Maintanance (outside enclosure) Group 1												
TBM Assembly / Maintanance (outside enclosure) Group 2												
TBM Operation (exclude STP)												
TBM Operation (only STP)												
Site Reinstatement												
Slab Work												
EAP/EEP												
Site Clearance	59											
Excavation + Lifting+ Dewatering (Drill/Split/Break)								60	60	60	60	60
Slope (Rock) + Lifting+ Dewatering / Tie Back Anchor		62	62	62	62	62	62					
Building Works												
BS Work / Test & Comissioning												
Predicted CNL at Sunshine House International Pre-School (Tung Chung)	65	66	66	64	64	64	66	65	65	65	66	66
Noise Exceedance (Daytime Criteria: 70dB(A))												

Construction Activities (2025)	J	F	M	A	M	J	J	A	S	O	N	D
Tung Chung Crescent												
Site Clearance												
Pipe Pile Activity / Curtain Wall Grouting (Launching Shaft)												
Pipe Pile Activity / Curtain Wall Grouting (Retrieval Shaft)												
Constrcution/Demolition of Noise Enclosure												
Excavation + Lifting+ Dewatering (Drill/Split/Break)											64	64
STP Site Set Up Assembly/Disassembly												
TBM Assembly / Maintanance (inside enclosure)	59	59	59	59								
TBM Assembly / Maintanance (outside enclosure) Group 1	65	65	65	65								
TBM Assembly / Maintanance (outside enclosure) Group 2	53	53	53	53								
TBM Operation (exclude STP)					61	61	61	61	61	61	61	
TBM Operation (only STP)					57	57	57	57	57	57	57	
Site Reinstatement												
Slab Work											59	59
EAP/EEP												
Site Clearance												
Excavation + Lifting+ Dewatering (Drill/Split/Break)	60	60	60	60	60	60	60					
Slope (Rock) + Lifting+ Dewatering / Tie Back Anchor												
Building Works						60	60	60	60	60	60	60
BS Work / Test & Comissioning												
Predicted CNL at Sunshine House International Pre-School (Tung Chung)	67	67	67	67	65	66	66	65	65	65	68	66
Noise Exceedance (Daytime Criteria: 70dB(A))												

Construction Activities (2026)	J	F	M	A	M	J	J	A	S	O	N	D
Tung Chung Crescent												
Site Clearance												
Pipe Pile Activity / Curtain Wall Grouting (Launching Shaft)												
Pipe Pile Activity / Curtain Wall Grouting (Retrieval Shaft)												
Constrcution/Demolition of Noise Enclosure												
Excavation + Lifting+ Dewatering (Drill/Split/Break)	64	64	64	64								
STP Site Set Up Assembly/Disassembly												
TBM Assembly / Maintanance (inside enclosure)									59	59	59	59
TBM Assembly / Maintanance (outside enclosure) Group 1									65	65	65	65
TBM Assembly / Maintanance (outside enclosure) Group 2									53	53	53	53
TBM Operation (exclude STP)		61	61	61	61	61	61	61				
TBM Operation (only STP)		57	57	57	57	57	57	57				
Site Reinstatement												
Slab Work	59	59	59	59	59	59						59
EAP/EEP												
Site Clearance												
Excavation + Lifting+ Dewatering (Drill/Split/Break)												
Slope (Rock) + Lifting+ Dewatering / Tie Back Anchor												
Building Works	60	60	60	60	60	60						
BS Work / Test & Comissioning							53	53	53	53	53	53
Predicted CNL at Sunshine House International Pre-School (Tung Chung)	66	68	68	68	66	66	63	63	67	67	67	67
Noise Exceedance (Daytime Criteria: 70dB(A))												

Construction Activities (2027)	J	F	M	A	M	J	J	A	S	O	N	D
Tung Chung Crescent												
Site Clearance												
Pipe Pile Activity / Curtain Wall Grouting (Launching Shaft)												
Pipe Pile Activity / Curtain Wall Grouting (Retrieval Shaft)												
Constrcution/Demolition of Noise Enclosure					61	61						
Excavation + Lifting+ Dewatering (Drill/Split/Break)												
STP Site Set Up Assembly/Disassembly	59	59	59	59								
TBM Assembly / Maintanance (inside enclosure)												
TBM Assembly / Maintanance (outside enclosure) Group 1												
TBM Assembly / Maintanance (outside enclosure) Group 2												
TBM Operation (exclude STP)												
TBM Operation (only STP)												
Site Reinstatement							61	61	61	61	61	61
Slab Work	59	59	59	59								
EAP/EEP												
Site Clearance												
Excavation + Lifting+ Dewatering (Drill/Split/Break)												
Slope (Rock) + Lifting+ Dewatering / Tie Back Anchor												
Building Works												
BS Work / Test & Comissioning	53	53	53	53	53	53	53	53	53	53	53	53
Predicted CNL at Sunshine House International Pre-School (Tung Chung)	63	63	63	63	62	62	62	62	62	62	62	62
Noise Exceedance (Daytime Criteria: 70dB(A))												

Construction Activities (2028)	J	F	M	A	M	J	J	A	S	O	N	D
Tung Chung Crescent												
Site Clearance												
Pipe Pile Activity / Curtain Wall Grouting (Launching Shaft)												
Pipe Pile Activity / Curtain Wall Grouting (Retrieval Shaft)												
Constrcution/Demolition of Noise Enclosure												
Excavation + Lifting+ Dewatering (Drill/Split/Break)												
STP Site Set Up Assembly/Disassembly												
TBM Assembly / Maintanance (inside enclosure)												
TBM Assembly / Maintanance (outside enclosure) Group 1												
TBM Assembly / Maintanance (outside enclosure) Group 2												
TBM Operation (exclude STP)												
TBM Operation (only STP)												
Site Reinstatement	61	61	61	61	61	61	61	61	61	61	61	61
Slab Work												
EAP/EEP												
Site Clearance												
Excavation + Lifting+ Dewatering (Drill/Split/Break)												
Slope (Rock) + Lifting+ Dewatering / Tie Back Anchor												
Building Works												
BS Work / Test & Comissioning	53	53	53	53	53	53	53	53				
Predicted CNL at Sunshine House International Pre-School (Tung Chung)	62	62	62	62	62	62	62	62	61	61	61	61
Noise Exceedance (Daytime Criteria: 70dB(A))												

Construction Activities (2029)	J	F	M	A	M	J	J	A	S	O	N	D
Tung Chung Crescent												
Site Clearance												
Pipe Pile Activity / Curtain Wall Grouting (Launching Shaft)												
Pipe Pile Activity / Curtain Wall Grouting (Retrieval Shaft)												
Constrcution/Demolition of Noise Enclosure												
Excavation + Lifting+ Dewatering (Drill/Split/Break)												
STP Site Set Up Assembly/Disassembly												
TBM Assembly / Maintanance (inside enclosure)												
TBM Assembly / Maintanance (outside enclosure) Group 1												
TBM Assembly / Maintanance (outside enclosure) Group 2												
TBM Operation (exclude STP)												
TBM Operation (only STP)												
Site Reinstatement	61											
Slab Work												
EAP/EEP												
Site Clearance												
Excavation + Lifting+ Dewatering (Drill/Split/Break)												
Slope (Rock) + Lifting+ Dewatering / Tie Back Anchor												
Building Works												
BS Work / Test & Comissioning												
Predicted CNL at Sunshine House International Pre-School (Tung Chung)	61											
Noise Exceedance (Daytime Criteria: 70dB(A))												

Remark:

Distance between NSR and Work Area is notional distance