

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: James Choi *James*

Position: Independent Environmental Checker

Date: 31 May 2023

MTR Corporation Limited

Tung Chung Line Extension

Construction Noise Management Plan
(for Works Contract No. 1201)
(Condition 2.13 of EP-614/2022)

Certified by: _____ Edan Li  _____

Position: Environmental Team Leader

Date: 31 May 2023

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Reference: 277416-REP-054-01b

This report takes into account the particular instructions and requirements of our client. It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.

Job number 277416

Ove Arup & Partners Hong Kong Limited

Level 5 Festival Walk

80 Tat Chee Avenue

Kowloon Tong

Kowloon

Hong Kong

arup.com

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1. Introduction

1.1 Project Background

- 1.1.1.1 The Railway Development Strategy 2014 (RDS-2014) announced by the Government of the Hong Kong Special Administrative Region included the conceptual scheme of Tung Chung West (TCW) Extension and a possible Tung Chung East (TCE) Station.
- 1.1.1.2 This new railway system has been included in the approved Schedule 3 Environmental Impact Assessment (EIA) for Tung Chung New Town Extension (TCNTE), which has included the new stations at TCE area and TCW area and the associated trackwork and tunnel. However, a separate Schedule 2 EIA study for this railway system is conducted to address the associated environmental impacts, taking into account of the latest design.
- 1.1.1.3 The EIA Report for Tung Chung Line Extension (the Project) (AEIAR-235/2022) was approved on 12 July 2022. The Environmental Permit (EP) (No. EP-614/2022) was then issued on 9 August 2022. According to Clause 2.13 of the EP, the Permit Holder shall submit a Construction Noise Management Plan (CNMP) for implementing construction noise mitigation measures at least 2 months before the commencement of construction works of relevant Works Contract of the Project to the Director of Environmental Protection (DEP) for approval.

1.2 Purpose of this Report

- 1.2.1.1 As stipulated in Clause 2.13 of the EP, the CNMP shall identify the noise source inventory 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 (Register No. AEIAR-235/2022). To further mitigate construction noise impacts, the CNMP shall 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. The CNMP shall include an implementation schedule in table form to clearly list out the mitigation measures to be implemented, and the implementation party, location, timing, and environmental performance required for implementation of the mitigation measures. All mitigation measures recommended and requirements specified in the CNMP shall be fully implemented.
- 1.2.1.2 For the groundborne construction noise, no noise exceedance was predicted in the approved report for Tung Chung Line Extension (AEIAR-235/2022). Hence, noise mitigation measures are not required for groundborne construction. Future review (e.g. in-situ measurement along the Tunnel Boring Machine (TBM) operation) should be conducted by the Contractor if TBM operation in restricted hours is needed.
- 1.2.1.3 This CNMP aims to identify the noise source inventory of TCW station, Emergency Access Point (EAP)/ Emergency Egress Point (EEP) and Launching/ Retrieval Shaft, and the barging facility. For the effectiveness of construction noise mitigation measures, including the use of quieter powered mechanical equipment, noise barriers and noise enclosures as recommended in the approved EIA report for Tung Chung Line Extension (AEIAR-235/2022) will be addressed.

1.2.1.4 Noise source inventory and mitigation measures adopted by TCE station and its rail realignment works are covered in a separate CNMP.

1.2.1.5 This CNMP will be reviewed and updated subject to the actual construction works and onsite arrangement if necessary. This CNMP focused on the construction works conducted during June 2023 to September 2023 only and the remaining construction period is still under design stage and subject to change. The Contractor will submit other CNMP reports for the remaining construction period once the details become available. If there is any update on the construction works conducted from June 2023 to September 2023, a revised CNMP will be submitted for EPD approval. To compare with the approved EIA for Tung Chung Line Extension (AEIAR-235/2022), the following items have been updated:

- Updated Quality Powered Mechanical Equipment (QPME) label;
- Inclusion of demolition of footbridge near Yat Tung Estate with the use of concrete crusher;
- Additional breaker for site clearance of TCW, EAP / EEP and launching shaft / retrieval shaft;
- No reprovision of footbridge near Yat Tung Estate; and
- Updated the construction programme of launching shaft / retrieval shaft and demolition of existing footbridge near Yat Tung Estate.

2. Assessment Criteria

2.1 Construction Noise

Airborne Construction Noise during Normal Hours

- 2.1.1.1 The Technical Memorandum on Environmental Impact Assessment Process (EIAO-TM) stipulates criteria of 65 – 75dB(A) for daytime construction activities, as shown in **Table 2.1**.

Table 2.1 Noise standards for daytime construction activities

| Uses | Noise Standards ^{[1][2]} , L _{eq} (30min) dB(A) |
|--|--|
| | 0700 – 1900 hours on any day not being a Sunday or general holiday |
| All domestic premises including temporary housing accommodation | 75 |
| Hotel and hostels | 75 |
| Educational institutions including kindergartens, nurseries and all others where unaided voice communication is required | 70 65 (During examination) |

Notes:

[1] The above standards apply to uses that rely on opened windows for ventilation.

[2] The above standards should be viewed as the maximum permissible noise levels assessed at 1m from the external facade.

Blasting

- 2.1.1.2 The administrative and procedural control of all blasting operations in Hong Kong is vested in the Mines Division of the Civil Engineering and Development Department (CEDD). The Dangerous Goods (General) Regulations, Chapter 295 also stipulates that no person shall carry out blasting unless he possesses a valid mine blasting certificate to be issued by the Mines Division of CEDD. The Superintendent of Mines will review the application on a case-by-case basis before issuing the Mine Blasting Certificate. Although there is no statutory noise level for blasting, the noise associated with the removal of debris and rocks are controlled under the EIAO-TM.

3. Airborne Construction Noise Impact Assessment

3.1 Airborne Construction Noise Impact Assessment Methodology

3.1.1.1 The construction noise impact assessment during daytime, on weekdays other than general holidays has been assessed in accordance with the methodology in paragraphs 5.3 and 5.4 of Annex 13 of the EIAO-TM.

3.1.1.2 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 Noise Sensitive Receivers (NSRs) and the notional noise source positions of the work sites;
- Apply corrections for façade, distance, barrier attenuation, acoustic reflection where applicable;
- 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 (e.g. Tung Chung New Town Extension (TCNTE)) in the vicinity of the proposed work;
- For any exceedance of noise criteria, all practical mitigation measures such as alternative construction methodology, quiet plant, silencer, enclosure, etc, shall be examined to alleviate the predicted noise impacts as much as practicable; and
- Consideration of noise mitigation measures will follow Annex 13 of EIAO-TM and EIAO Guidance Note “Preparation of Construction Noise Impact Assessment under the Environmental Impact Assessment Ordinance” [GN 9/2010].

3.2 Identification of Assessment Area and Noise Sensitive Receivers

3.2.1.1 The assessment area for airborne construction noise includes area within 300m from the boundary of the Project and the works of the Project. This CNMP presents the representative NSRs for TCW station, EAP/EEP and Launching/ Retrieval Shaft and the barging facility.

- 3.2.1.2 The existing NSRs has been reviewed by site visits in November 2022. It is observed that Tung Chung Area 54 has become Yu Nga Court and should be considered as an existing NSR. The number of storeys of the NSR have also been updated from 40 to 31.
- 3.2.1.3 The planned NSRs has been reviewed with the latest Recommended Outline Development Plan (RODP), updated population intensity and planning parameter, updated population intake years of TCNTE West collated from CEDD on 14 December 2022.
- 3.2.1.4 From the above information, there is no change to existing and planned NSR except for Yu Nga Court. Other representative NSRs presented in approved EIA for Tung Chung Line Extension (AEIAR-235/2022) remain unchanged and considered still valid.
- 3.2.1.5 Representative NSRs locations that would be affected by the construction noise have been summarised in **Table 3.1** below and the representative Noise Assessment Point (NAP) are shown in **Appendix 3.1**.

Table 3.1 Representative NSRs for airborne construction noise

| No. ^[1] | NSR ^[2] | Uses ^[3] | No. of Storey | NAP ^[6] | Population Intake Year |
|--------------------|--|---------------------|-------------------|---|------------------------|
| Existing NSRs | | | | | |
| E4 | Le Bleu Deux | R | 2 – 15 | LED-06a | N/A ^[5] |
| E8a | Tung Chung Crescent | R | 28 – 42 | TCC-01a, TCC-07a, TCC-09a | N/A ^[5] |
| E8b | Sunshine House International Pre-School (Tung Chung) | E | 1 | ESHI-01a | N/A ^[5] |
| E10 | Ma Wan Chung | V | 1 – 3 | MWC-01a | N/A ^[5] |
| E11a | Yat Tung Estate | R | 40 – 41 | YTE-01a, YTE-01b, YTE-04a, YTE-05a, YTE-14a, YTE-16a | N/A ^[5] |
| E11b | Tung Chung Catholic School Primary Section | E | 8 | ETCCS-01a | N/A ^[5] |
| E12 | Mun Tung Estate | R | 31 – 40 | MTE-01a | N/A ^[5] |
| E16 | Ha Ling Pei | V | 1 – 3 | HLP-01a, HLP-02a | N/A ^[5] |
| E22 | Yu Nga Court ^[7] | R | 31 ^[8] | A54-01a | N/A ^[5] |
| Planned NSRs | | | | | |
| P2 ^[4] | Residential Premises in Tung Chung West – Area 60 | R | 3 ^[4] | A60-03a | 2025 |

Notes:

- [1] The assessment will only include NSRs which rely on opened windows for ventilation.
- [2] Only the first layer of NSRs has been selected for assessment.
- [3] R – Residential Premises, E – Educational Institutions, V – Village type development.
- [4] The latest Recommended Outline Development Plan (RODP), updated population intensity and planning parameter, updated population intake years of TCNTE West have been collated from CEDD on 14 December 2022.
- [5] N/A – Not applicable.
- [6] NAP – Noise Assessment Point.
- [7] Yu Nga Court (E22) was previously known as planned NSR Tung Chung Area 54 (P7) in the approved EIA for Tung Chung Line Extension (AEIAR-235/2022).
- [8] The number of storeys of Yu Nga Court is updated based on observations of site visits in November 2022.

3.3 Inventory of Noise Sources

- 3.3.1.1 According to Section 4.4.2.2 of the approved EIA for Tung Chung Line Extension (AEIAR-235/2022), key airborne construction activities of TCW station, EAP/EEP and launching/ retrieval shaft and the barging facility have been identified for noise assessment and summarized below:

- Construction of the Tunnel Boring Machine (TBM) launching shaft/ retrieval shaft near Tung Chung Crescent;
- Construction of the Emergency Access Point (EAP) / Emergency Egress Point (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;
- Drill-&-blast for EAP / EEP and TCW Station; and
- Works such as temporary traffic management (TTM), landscaping, minor reinstatement, material delivery, etc.

3.3.1.2 The construction activities above, plant inventory and construction programme have been reviewed in view of the best available information when preparing this CNMP.

3.3.1.3 To compare with the approved EIA for Tung Chung Line Extension (AEIAR-235/2022), changes have been made as follows:

- Updated QPME labels;
- Inclusion of demolition of footbridge near Yat Tung Estate with the use of concrete crusher;
- Additional breaker for site clearance of TCW, EAP / EEP and launching shaft / retrieval shaft;
- No reprovision of footbridge near Yat Tung Estate; and
- Updated the construction programme of launching shaft / retrieval shaft and demolition of existing footbridge near Yat Tung Estate.

3.3.1.4 From the latest design of TCNTE, there is no need for reprovision of footbridge near Yat Tung Estate, and the Project Proponent will take over the demolition of footbridge near Yat Tung Estate from the project proponent of TCNTE. Other than this, for concurrent projects, the latest construction programme, workfronts and Powered Mechanical Equipment (PME) have been confirmed with relevant project proponents. Since the construction programme of launching shaft / retrieval shaft under Contract No. 1201 has been updated, the cumulative noise levels will be different from that in the approved EIA for Tung Chung Line Extension (AEIAR-235/2022).

3.3.1.5 The inventory and the percentage on time of PME have been confirmed by construction professionals as workable and practicable, including the demolition of footbridge near Yat Tung Estate. According to the latest construction methodology, the blasting will only be conducted once per day in each location and the blasting works should be scheduled according to the expected delivery time that agreed with CEDD. As the blasting will last for very short duration and be infrequent, it will not cause adverse impacts to NSRs.

3.3.1.6 The construction activities would be carried out with the use of PME including trench cutters, excavators, lorries, mobile cranes, concrete pumps, concrete mixers, etc. SWLs for each PME would be established according to GW-TM and other relevant information as appropriate. **Table 3.2** presents the SWLs for each PME.

Table 3.2 SWLs of PMEs

| PME | Unmitigated SWLs | | | Quiet Plant | | | Mitigated Scenario | | | |
|---|------------------|---|----------------|----------------------|-----------------------|----------------|--------------------|------------------|----------------|----------------------------|
| | ID | Description | PME SWL, dB(A) | ID ^{[1][2]} | Model / Size | PME SWL, dB(A) | Silencer, dB(A) | Enclosure, dB(A) | Barrier, dB(A) | PME SWL, dB(A) |
| Air Compressor | CNP002 | Air compressor, air flow > 10m ³ /min and <= 30m ³ /min | 102 | – | – | – | – | – | –5 | 97 |
| Air Compressor | CNP003 | Air compressor, air flow > 30m ³ /min | 104 | EPD-09607 | AIRMAN, PDS100S-5C5 | 93 | – | – | –5 | 88 |
| Bar Bender and Cutter | CNP021 | Bar bender and cutter (electric) | 90 | – | – | – | – | – | –10 | 80 |
| Concrete Crusher, excavator mounted | CPME# | Concrete Crusher, excavator mounted | 103 | – | – | – | – | – | – | 103 |
| Breaker, excavator mounted | CNP028 | Breaker, excavator mounted (hydraulic) | 122 | – | – | – | – | –15 | –5/-10 | 117/112/107 ^[5] |
| Concrete Lorry Mixer/ Concrete Truck | CNP044 | Concrete lorry mixer | 109 | – | – | – | – | –15 | –5 | 104/94 ^[7] |
| Concrete Mixer/ Bentonite Mixer/ Grout Mixer | CNP045 | Concrete mixer (electric) | 96 | – | – | – | – | – | –5/-10 | 91/86 ^[4] |
| Concrete Pump/ Electric Bentonite Circulation Pump | CNP047 | Concrete pump, stationary / lorry mounted | 109 | – | – | – | – | –15 | –10 | 99/94 ^[8] |
| Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | CNP048 | Crane, mobile / barge mounted (diesel) | 112 | EPD-09130 | KOBELCO, Model:CKS900 | 101 | – | – | –5 | 96 |
| Gantry Crane | CNP049 | Crane, tower (electric) | 95 | – | – | – | – | – | –5 | 90 |
| Flat-top Barge | CNP061 | Flat-top Barge | 104 | – | – | – | – | – | – | 104 |
| Electric drill/ Rock driller | CNP064 | Drill, percussive, hand—held (electric) | 103 | EPD-08781 | HILTI, TE1000-AVR | 99 | – | – | –5 | 94 |
| Dump Truck | CPME# | Dump truck, 5.5 tonne < gross vehicle weight <=38 tonne | 105 | – | – | – | – | – | –5 | 100 |
| Dump Truck with grab | CPME# | Dump truck, with grab, 5.5 tonne < gross vehicle weight <=38 tonne | 105 | – | – | – | – | – | – | 105 |
| Drill Rig, DTH Drilling Machine | CPME# | Drill Rig, rotary type (Diesel) | 110 | – | – | – | – | – | –10 | 100 |

| PME | Unmitigated SWLs | | | Quiet Plant | | | Mitigated Scenario | | | |
|--|------------------|---|----------------|--------------------------|---|----------------|--------------------|------------------|----------------|----------------------------|
| | ID | Description | PME SWL, dB(A) | ID ^{[1][2]} | Model / Size | PME SWL, dB(A) | Silencer, dB(A) | Enclosure, dB(A) | Barrier, dB(A) | PME SWL, dB(A) |
| Excavator | CNP081 | Excavator / loader, wheeled / tracked | 112 | EPD-13043/ EPD-07150 | DOOSAN, Model: DX300LC/ YANMAR, Model: SV08-1A | 104/90 | - | - | -5 | 99/85 |
| Generator | CNP101 | Generator, standard | 108 | EPD-10735 ^[3] | DENYO, Model:DCA-45LSK | 87 | - | - | -5 | 82 |
| Generator | CNP103 | Generator, super silenced, 70 dB(A) at 7 m | 95 | EPD-10735 ^[3] | DENYO, Model: DCA-45LSK | 87 | - | - | -5 | 82 |
| Lorry | CNP141 | Lorry | 112 | CPME# | 5.5 tonnes <gross vehicle weight ≤38 tonne | 105 | - | - | -5 | 100 |
| Lorry, with crane/grab | CPME# | Lorry, 5.5 tonnes < gross vehicle weight ≤38 tonnes | 105 | - | - | - | - | - | -5 | 100 |
| Piling, diaphragm wall, bentonite filtering plant/ Desander/ Slurry Treatment Plant / Grout Batch Plant / Filter Press Machine | CNP162 | Piling, diaphragm wall, bentonite filtering plant | 105 | - | - | - | - | - | -10 | 95 |
| Piling, Diaphragm Wall | CNP163 | Piling, D-wall, hydraulic extractor | 90 | - | - | - | - | - | -10 | 80 |
| Trench Cutter | CNP164 | Piling, large diameter bored, grab and chisel | 115 | - | - | - | - | -15 | -10 | 105 /100 ^[9] |
| Power Rammer (Petrol) | CNP169 | Power rammer (petrol) | 108 | - | - | - | - | - | -10 | 98 |
| Vibratory Poker | CNP170 | Poker, vibratory, hand held | 113 | CPME# | Poker, vibratory, hand-held (electric) | 102 | - | - | -10 | 92 |
| Rock Drill | CNP182 | Rock Drill, crawler mounted (hydraulic) | 123 | - | - | - | - | - | -10 | 113 |
| Roller, Vibratory | CNP186 | Roller, vibratory | 108 | EPD-06997 | SAKAI, Model: SW502S-1 | 94 | - | - | -5 | 89 |
| Saw, Circular, Wood | CNP201 | Saw, circular, wood | 108 | - | - | - | - | - | -10 | 98 |
| Tug Boat | CNP221 | Tug boat | 110 | - | - | - | - | - | - | 110 |
| Ventilation Fan | CNP241 | Ventilation fan | 108 | - | - | - | -15 | - | -10 | 98/93 ^[6] |
| Water pump | CNP281 | Water pump (electric) | 88 | - | - | - | - | - | -10 | 78 |

| PME | Unmitigated SWLs | | | Quiet Plant | | | Mitigated Scenario | | | |
|-------------------------------|------------------|------------------------------------|----------------|----------------------|--------------|----------------|--------------------|------------------|----------------|----------------|
| | ID | Description | PME SWL, dB(A) | ID ^{[1][2]} | Model / Size | PME SWL, dB(A) | Silencer, dB(A) | Enclosure, dB(A) | Barrier, dB(A) | PME SWL, dB(A) |
| Water Pump (petrol) | CNP282 | Water pump (petrol) | 103 | – | – | – | – | – | –10 | 88 |
| Water Pump, Submersible | CNP283 | Water pump, submersible (electric) | 85 | – | – | – | – | – | –10 | 75 |
| Chiller Plant ^[10] | -- | Chiller Plant | 88 | – | – | – | – | – | – | 88 |

Notes:

- [1] PME with code “EPD-XXXXX” are quiet equipment with SWLs extracted from EPD’s QPME inventory. QPME with same or lower SWL will be arranged onsite as far as practicable.
- [2] The SWL of quiet plant with code “CPME#” are based on SWLs of other commonly used PME from https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf
- [3] EPD-03845 has been expired and replaced by EPD-10735. The model / size and SWL of PME remain unchanged.
- [4] Barrier with 5 dB(A) noise reduction is applied to EAP/EEP and Launching Shaft / Retrieval Shaft, while barrier with 10 dB(A) noise reduction is applied to TCW station.
- [5] Barrier with 5 dB(A) noise reduction is applied to EAP/EEP, barrier with 10dB(A) noise reduction is applied to footbridge demolition and the site clearance for TCW and Launching Shaft/ Retrieval Shaft, while enclosure with 15 dB(A) noise reduction is applied to Launching Shaft / Retrieval Shaft.
- [6] Barrier with 10 dB(A) noise reduction is applied to EAP/EEP, Cut & Cover Tunnel and Launching Shaft / Retrieval Shaft, while silencer with 15 dB(A) noise reduction is applied to TCW station.
- [7] Barrier with 5 dB(A) noise reduction is applied to construction of Diaphragm Wall on the Station West side, foundation work of Launching Shaft / Retrieval Shaft, structural works, site clearance and site reinstatement while enclosure with 15 dB(A) noise reduction is applied to construction of Diaphragm Wall on the Station East side.
- [8] Barrier with 10 dB(A) noise reduction is applied to Launching Shaft / Retrieval Shaft and Cut & Cover Tunnel, while enclosure with 15 dB(A) noise reduction is applied to TCW station.
- [9] Barrier with 10 dB(A) noise reduction is applied to Launching Shaft / Retrieval Shaft, while enclosure with 15 dB(A) noise reduction is applied to TCW station.
- [10] The SWL of chiller plant has made reference to CNMP submission of Shatin to Central Link Contract No. 1107 - Diamond Hill to Kai Tak Tunnel.

3.3.2 Construction Noise Control Measures Proactively Adopted

3.3.2.1 Review of the practicality of use of following quieter construction equipment / methods has been conducted, which includes:

- (a) Hydraulic crusher/hand-held concrete crusher for demolition; and
- (b) Adoption of QPME.

3.3.2.2 Based on the review on the construction works, QPME have been adopted and hydraulic crusher/hand-held concrete crusher for footbridge demolition will be adopted as far as possible which the use of excavator mounted breaker is assumed for calculation as conservative assessment. For (i) Diamond wire saw/ non-explosive chemical agent for rock/concrete breaking; and (ii) silent piling by press-in method for sheet piles, the Contractor will further review during the detailed design over the construction stage.

3.3.2.3 During the design of the construction methodology, the design team has been fully aware of the NSRs in the proximity of the works sites, in particular the launching shaft close to Tung Chung Crescent, TCW station construction near Yat Tung Estate and the EAP / EEP on the opposite of Tung Chung Crescent. In order to minimize construction noise impact as much as possible at the outset, the following control measures have been incorporated in the construction methodology:

- Division of sub-zones for D-wall sequential construction works; and
- Advance the construction of the station slab structure of TCW Station.

3.3.2.4 With the control measures stated above and adoption of noise barrier or enclosure, the predicted construction noise levels comply with the noise criteria. Nevertheless, the following enhancement will be adopted to further reduce the impact to the nearby NSRs as far as possible:

- Noise enclosure for the mucking out location at the TBM launching shaft / retrieval shaft near Tung Chung Crescent;
- Screen cover for the mucking out location at the EAP/EEP near Shun Tung Road (Refer to **Appendix 3.2**).

3.3.2.5 For noise enclosure for the mucking out location at the TBM launching shaft / retrieval shaft near Tung Chung Crescent, details will be provided in another EP submission namely “Plan on Noise Enclosure at Tung Chung Crescent”.

3.4 Prediction and Evaluation of Construction Noise Impact

3.4.1.1 The construction activities involve site clearance, formation, superstructure, site reinstatement, etc. As discussed in **Section 3.3**, the Project Proponent will take over the demolition of footbridge near Yat Tung Estate from the project proponent of TCNTE . It is anticipated that the Project will be implemented in phases. The construction programme has been given in **Appendix 3.3**.

3.4.1.2 As stated in the approved EIA for Tung Chung Line Extension (AEIAR-235/2022), the construction would mainly comprise the activities as described in **Section 3.3**. The corresponding SWLs of these activities have been estimated according to the PME's SWLs and the assessment methodology in the GW-TM. **Table 3.2** presents the SWLs for each PME. **Appendix 3.4** gives the plant inventory adopted for each workfront and **Appendix 3.5** shows the locations of workfronts adopted for this construction noise assessment.

3.4.1.3 As mentioned in above sections, there is no update on the calculation methodology and representative NAPs. The construction programme and plant inventory have been updated as mentioned in **Section 3.3**. With the implementation of mitigation measures and good site practices, construction noise impacts are expected to achieve full compliance of relevant noise criteria.

3.5 Mitigation of Construction Noise Impact

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

- Good site practices to limit noise emissions at the source;
- Use of QPME;
- Use of temporary noise barriers and noise enclosure to screen noise from relatively static PMEs;
- Use of temporary movable enclosure to screen noise for the construction of diaphragm Wall near Yat Tung Estate; and
- Alternative use of plant items within on worksite, wherever practicable.

3.5.1.2 The above mitigation measures would need to be implemented in works sites as good practices where appropriate.

3.5.2 Good Site Management Practices

3.5.2.1 Good site practice and noise management techniques could considerably reduce the noise impact from construction site activities on nearby NSRs. The following measures should be practised during each phase of construction:

- 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, be orientated so that the noise is directed away from nearby NSRs;
- silencers or mufflers which available on construction equipment should be properly fitted 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; and
- provide designated unloading areas at barging point away from the NSR as far as possible.

3.5.2.2 The benefits of these techniques can vary according to specific site conditions and operations. The environmental noise climate would certainly be improved with these control practices, although the improvement can only be quantified during implementation when specific site parameters are known.

3.5.3 Use of Quality Powered Mechanical Equipment (QPME)

3.5.3.1 The use of quiet plant associated with the construction works is made reference to the PME listed in the TM or the QPME/ other commonly used PME listed in Environmental Protection Department (EPD) web pages as far as possible which includes the SWLs for specific quiet PME. It is generally known (supported by field measurement) that particular models of construction equipment are quieter than standard types given in the GW-TM.

3.5.4 Use of Movable Noise Barrier and Full Enclosure for Relatively Fixed Plant Source

3.5.4.1 Movable temporary noise barriers that can be located close to noisy plant and be moved concurrently with the plant along a worksite can be very effective for screening noise from NSRs. A typical design which has been used locally is a wooden framed barrier with a small-cantilevered upper portion of superficial density no less than 7kg/m^2 on a skid footing with 25mm thick internal sound absorptive lining. This measure is particularly effective for low level zone of NSRs. A cantilevered top cover would be required to achieve screening benefits at upper floors of NSRs.

3.5.4.2 Movable temporary noise barriers will be used for some PME (e.g. excavator). It is anticipated that suitably designed barriers could achieve at least 5dB(A) reduction for movable plant and 10dB(A) for stationary plant.

3.5.4.3 For the use of movable noise barrier for at-grade construction works, for example diaphragm wall installation, working space would be considered for their manoeuvrability and placement. Generally, sufficient separation between major plants during at-grade construction works is envisaged to cater for the use of temporary movable noise barriers onsite. Temporary movable noise barrier can be placed close to noise source locally as far as practicable.

3.5.4.4 The use of standard enclosure has been considered in this assessment to shelter relatively fixed plant including concrete pump, etc. These standard enclosures can provide at least 15dB(A) noise reduction.

3.5.5 Use of 3-side temporary movable enclosure to screen noise for the construction of diaphragm wall near Yat Tung Estate

3.5.5.1 As the workfronts of construction of diaphragm wall is in the closest proximity (i.e. approximately 10m) to the residential premises among other construction activities, 3-side temporary movable enclosure is used to house the PME's including trench cutter for construction works of diaphragm wall at TCW Station near Yat Tung Estate. In general, the 3-side temporary movable noise enclosure will be located to position above the prospective location for the diaphragm wall panel of TCW Station. Once the 3-side temporary movable enclosure is in position, the trench cutter shall move inside the 3-side temporary movable enclosure and start the trenching for diaphragm wall panel. Once the trenching is completed, the trench cutter will move out from the 3-side temporary movable enclosure for subsequent works of diaphragm wall construction. Then, this operation will be repeated for next diaphragm wall panel construction. This arrangement will be further reviewed in detailed design and construction stages. The enclosure should provide at least 15 dB(A) noise reduction, which is the same as proposed in the approved EIA report for Tung Chung Line Extension (AEIAR-235/2022) The design of the enclosure shall include the followings:

- Gaps and openings at joints should be avoided;
- Enclose the equipment on three sides with cover; and
- Absorptive lining should be provided at the sides facing the PME as far as practicable.

3.5.6 Installation of noise barrier along the site boundary to screen noise for the NSR at Ma Wan Chung

3.5.6.1 As the workfronts of construction of TCW Station and associated vent shaft structures are in close proximity to a residential receiver at Ma Wan Chung (MWC-01a). A noise barrier is proposed along the site boundary next to the concerned village house, which is the same as proposed in the approved EIA report for Tung Chung Line Extension (AEIAR-235/2022). The location and the section drawing of the proposed barrier is shown in **Appendix 3.6**. The design of the barrier shall include the followings:

- Gaps and openings at joints should be avoided;
- The length of the barrier should be about 27m while the height should be about 4m; and
- Surface density of the barrier no less than 7kg/m².

3.5.6.2 A summary of the movable temporary noise barrier, standard enclosure, 3-side temporary movable enclosure adopted for various PME's is given in **Table 3.3** below and indicative drawings for barrier and enclosure are shown in **Appendix 3.7**.

Table 3.3 Summary of barrier and standard enclosure adopted for PME's

| PME | Barrier/ Enclosure | Applied Work Locations ^[1] | Attenuation, dB(A) |
|--------------------------------------|------------------------------------|---------------------------------------|-------------------------|
| Air Compressor | Barrier | A, B | -5 |
| Bar Bender and Cutter | Barrier | A, B | -10 |
| Breaker, excavator mounted | Barrier | A, B | -5 / -10 ^[4] |
| | Enclosure | B ^[2] | -15 |
| Concrete Lorry Mixer/ Concrete Truck | Barrier | A, B | -5 |
| | 3-side temporary movable enclosure | A ^[3] | -15 |

| PME | Barrier/ Enclosure | Applied Work Locations ^[1] | Attenuation, dB(A) |
|--|------------------------------------|---------------------------------------|--------------------|
| Concrete Mixer/ Bentonite Mixer/ Grout Mixer | Barrier | A, B | -5 / -10 |
| Concrete Pump/ Electric Bentonite Circulation Pump | Barrier | B | -10 |
| | Enclosure | A | -15 |
| Gantry Crane | Barrier | B | -5 |
| Mobile Crane/ Service Crane/ Lifting Crane / Crawler Crane/ Lifting crane | Barrier | A, B | -5 |
| Electric drill/ Rock driller | Barrier | A, B | -5 |
| Dump Truck | Barrier | A, B | -5 |
| Drill Rig, DTH Drilling Machine | Barrier | A, B | -10 |
| Excavator | Barrier | A, B | -5 |
| Generator | Barrier | A, B | -5 |
| Lorry | Barrier | A, B | -5 |
| Lorry, with crane/grab | Barrier | A | -5 |
| Piling, diaphragm wall, bentonite filtering plant/ Desander/ Slurry Treatment Plant / Grout Batch Plant / Filter Press Machine | Barrier | A, B | -10 |
| Piling, diaphragm Wall | Barrier | A | -10 |
| Trench Cutter | Barrier | B | -10 |
| | 3-side temporary movable enclosure | A ^[3] | -15 |
| Power Rammer (Petrol) | Barrier | A, B | -10 |
| Vibratory Poker | Barrier | A, B | -10 |
| Rock Drill | Barrier | A, B | -10 |
| Roller, Vibratory | Barrier | A, B | -5 |
| Saw, Circular, Wood | Barrier | A, B | -10 |
| Ventilation Fan | Barrier | B | -10 |
| | Silencer | A | -15 |
| Water pump | Barrier | A | -10 |
| Water Pump (petrol) | Barrier | A, B | -10 |
| Water Pump, Submersible | Barrier | B | -10 |

Notes:

- [1] A: TCW Station, B: EAP / EEP and Launching Shaft / Retrieval Shaft
- [2] Only the breaker, excavator mounted at launching shaft would be mitigated by full enclosure.
- [3] The 3-side temporary movable enclosure would only be applied during the construction of diaphragm wall at TCW. For Concrete Lorry Mixer, 3-side temporary movable enclosure would be applied only at the workfronts at the east side. For Trench Cutter, 3-side temporary movable enclosure would be applied at the workfronts at both the east and west side.
- [4] According to the approved EIA report for Tuen Mun South Extension (AEIAR-236/2022) and the "Best Practice Guide for Environmental Protection on Construction Sites", page 6-10, published by Hong Kong Construction Association, May 2013, excavator-mounted breaker with soundproof hammer bracket can provide a noise reduction of up to 10 dB(A).

3.5.6.3 With the adoption of the above mitigation measures, the construction noise impacts during the construction period have been calculated in accordance with the work programme and are given in **Appendix 3.8**.

3.6 Prediction of Noise Impact with Implementation of Noise Mitigation Measures

3.6.1.1 **Appendix 3.8** presents the calculated construction noise impacts at representative NSRs. Concurrent projects such as TCNTE has been considered for the cumulative noise impact. The predicted construction noise impacts at the NSRs are summarised in **Table 3.4**.

Table 3.4 Summary of predicted construction noise impact at NSRs

| No. ^[1] | NSR | NAP ^{[2][3]} | Uses ^[4] | Leq (30min), dB(A) | | | | Duration of Exceedance Months |
|--------------------|---------------------|-----------------------|---------------------|--------------------------|-----------------------|------------------------|------------|-------------------------------|
| | | | | Criterion ^[5] | Mitigated Noise Level | Cumulative Noise Level | Exceedance | |
| Existing NSRs | | | | | | | | |
| E4 | Le Bleu Deux | LED-06a | R | 75 | 70 | 70 ^[6] | - | - |
| E8a | Tung Chung Crescent | TCC-01a | R | 75 | 73 | 73 ^[6] | - | - |
| | | TCC-07a | R | 75 | 71 | 71 ^[6] | - | - |

| No. ^[1] | NSR | NAP ^{[2],[3]} | Uses ^[4] | Leq (30min), dB(A) | | | | Duration of Exceedance Months |
|--------------------|--|------------------------|---------------------|--------------------------|-----------------------|------------------------|------------|-------------------------------|
| | | | | Criterion ^[5] | Mitigated Noise Level | Cumulative Noise Level | Exceedance | |
| | | TCC-09a | R | 75 | 75 | 75 ^[6] | - | - |
| E8b | Sunshine House International Pre-School (Tung Chung) | ESHI-01a | E | 70 (65) | 65 | 65 ^[6] | - | - |
| E10 | Ma Wan Chung | MWC-01a | V | 75 | 73 | 73 | - | - |
| E11a | Yat Tung Estate | YTE-01a | R | 75 | 75 | 75 | - | - |
| | | YTE-01b | R | 75 | 71 | 72 | - | - |
| | | YTE-04a | R | 75 | 74 | 74 | - | - |
| | | YTE-05a | R | 75 | 66 | 66 | - | - |
| | | YTE-14a | R | 75 | 73 | 73 | - | - |
| | | YTE-16a | R | 75 | 73 | 73 | - | - |
| E11b | Tung Chung Catholic School Primary Section | ETCCS-01a | E | 70 (65) | 64 | 64 | - | - |
| E12 | Mun Tung Estate | MTE-01a | R | 75 | 68 | 69 | - | - |
| E16 | Ha Ling Pei | HLP-01a | V | 75 | 63 | 65 | - | - |
| | | HLP-02a | V | 75 | 63 | 65 | - | - |
| E22 | Yu Nga Court | A54-01a ^[7] | R | 75 | 70 | 70 ^[6] | - | - |
| Planned NSRs | | | | | | | | |
| P2 | Residential Premises in Tung Chung West | A60-03a | R | 75 | 59 | 62 | - | - |

Notes:

- [1] The assessment will only include NSRs which rely on opened windows for ventilation.
- [2] NAP- Noise Assessment Point. Only the first layer of NSRs has been selected for assessment.
- [3] The latest Recommended Outline Development Plan (RODP), updated population intensity and planning parameter and updated population intake years of TCNTE West have been collated from CEDaD on 14 December 2022.
- [4] R – Residential Premises, E – Educational Institutions, V– Village type development.
- [5] Values in parentheses indicate the noise criterion during examination period of educational institution.
- [6] There is no concurrent project near NAPs. Hence, the cumulative noise is same as the mitigated noise level.
- [7] Yu Nga Court (E22) was previously known as planned NSR Tung Chung Area 54 (P7) in the approved EIA for Tung Chung Line Extension (AEIAR-235/2022).

3.6.1.2 Construction noise impacts arising from the proposed and concurrent projects at all planned and existing NSRs including residential premises and schools during normal and examination periods can be properly mitigated by implementing the proposed noise control measures. Given the transient nature of visitor using hiking trails and mitigation measures are recommended to reduce the noise emission, adverse noise impact is not anticipated.

3.6.1.3 The implementation schedule of the noise mitigation measures is summarized in **Appendix 3.9**.

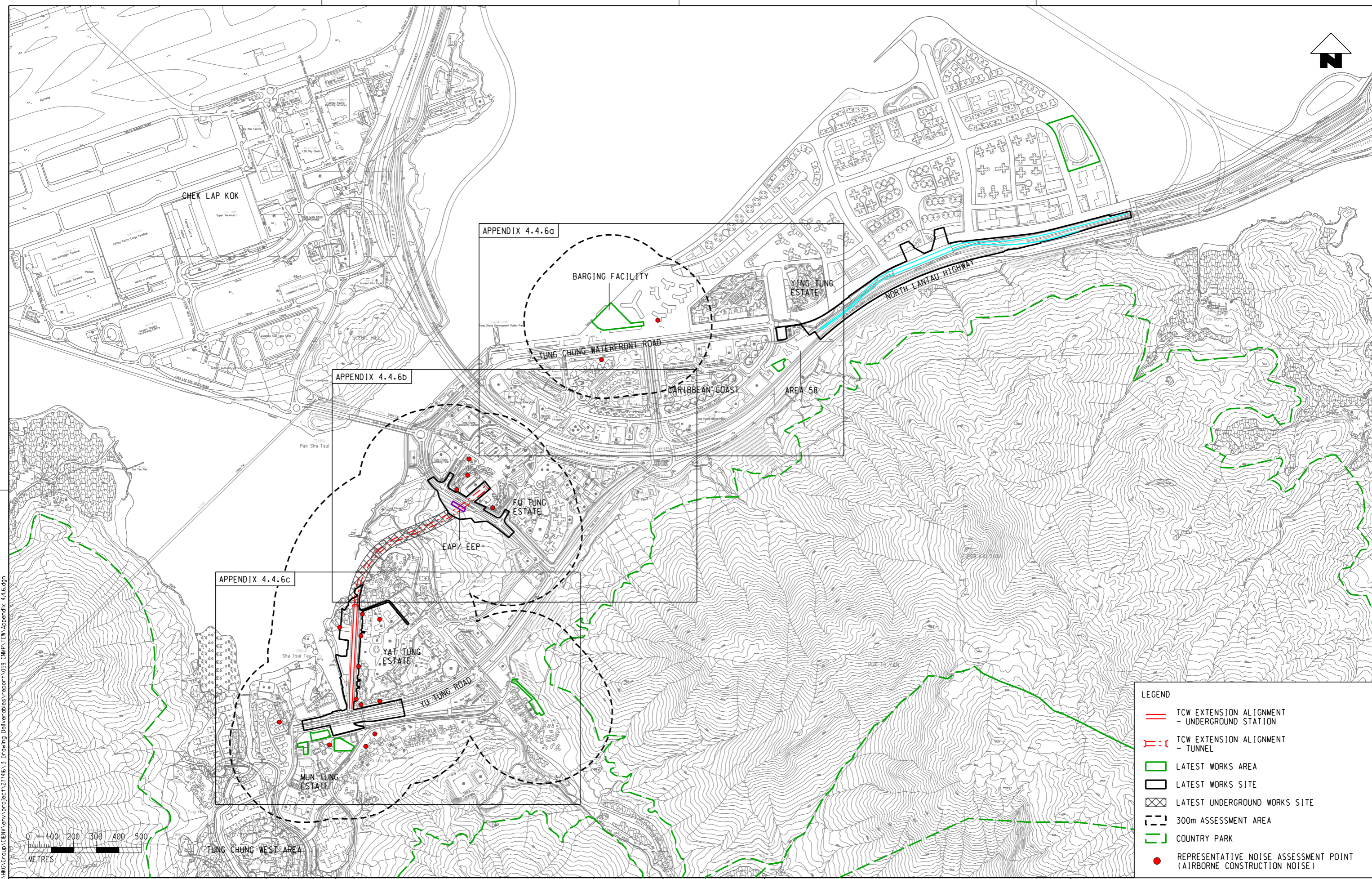
4. Conclusion

This CNMP (for Works Contract No. 1201) has identified the noise source inventory and assess the effectiveness of construction noise mitigation measures, including the use of quieter powered mechanical equipment, noise barriers and noise enclosures for works at TCW station, EAP/EEP and Launching / Retrieval Shaft, and the barging facilities as recommended in the approved EIA report for Tung Chung Line Extension (AEIAR-235/2022). With the implementation of the recommended mitigation measures, noise impacts during construction phases are expected to achieve full compliance of relevant noise criteria.

This CNMP focused on the construction works conducted during June 2023 to September 2023 only and the remaining construction period is still under design stage and subject to change. The Contractor will submit other CNMP reports for the remaining construction period once the details become available. If there is any update on the construction works conducted from June 2023 to September 2023, a revised CNMP will be submitted for EPD approval.

Appendix 3.1

Locations of Representative NSRs for airborne construction noise (Extracted from AEIAR-235/2022)

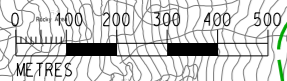


APPENDIX 4.4.6a

APPENDIX 4.4.6b

APPENDIX 4.4.6c

- LEGEND**
- TCW EXTENSION ALIGNMENT - UNDERGROUND STATION
 - TCW EXTENSION ALIGNMENT - TUNNEL
 - LATEST WORKS AREA
 - LATEST WORKS SITE
 - LATEST UNDERGROUND WORKS SITE
 - 300m ASSESSMENT AREA
 - COUNTRY PARK
 - REPRESENTATIVE NOISE ASSESSMENT POINT (AIRBORNE CONSTRUCTION NOISE)



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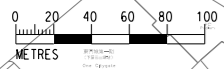
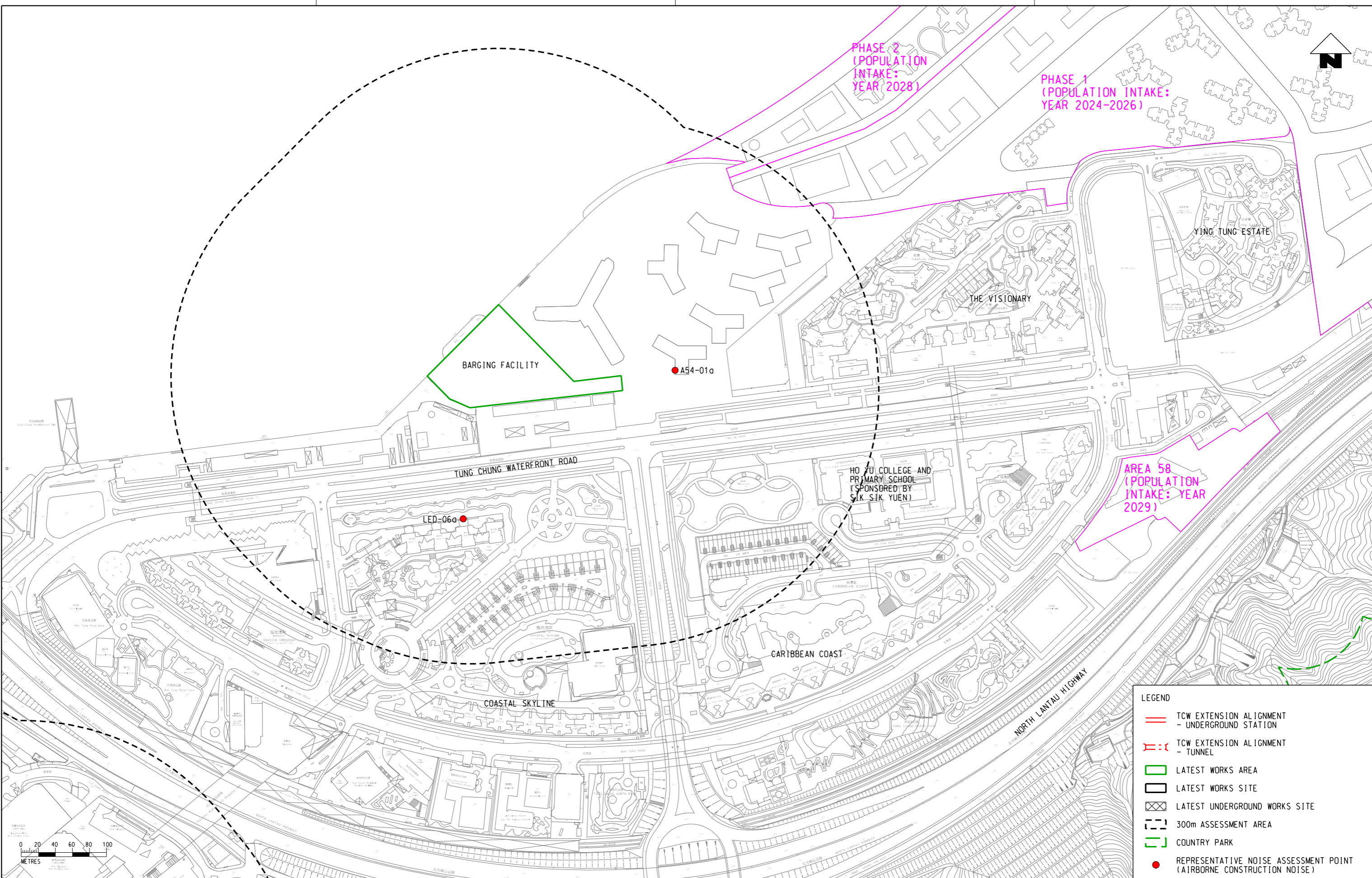
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LEGEND

- TCW EXTENSION ALIGNMENT - UNDERGROUND STATION
- - - TCW EXTENSION ALIGNMENT - TUNNEL
- LATEST WORKS AREA
- LATEST WORKS SITE
- LATEST UNDERGROUND WORKS SITE
- 300m ASSESSMENT AREA
- COUNTRY PARK
- REPRESENTATIVE NOISE ASSESSMENT POINT (AIRBORNE CONSTRUCTION NOISE)

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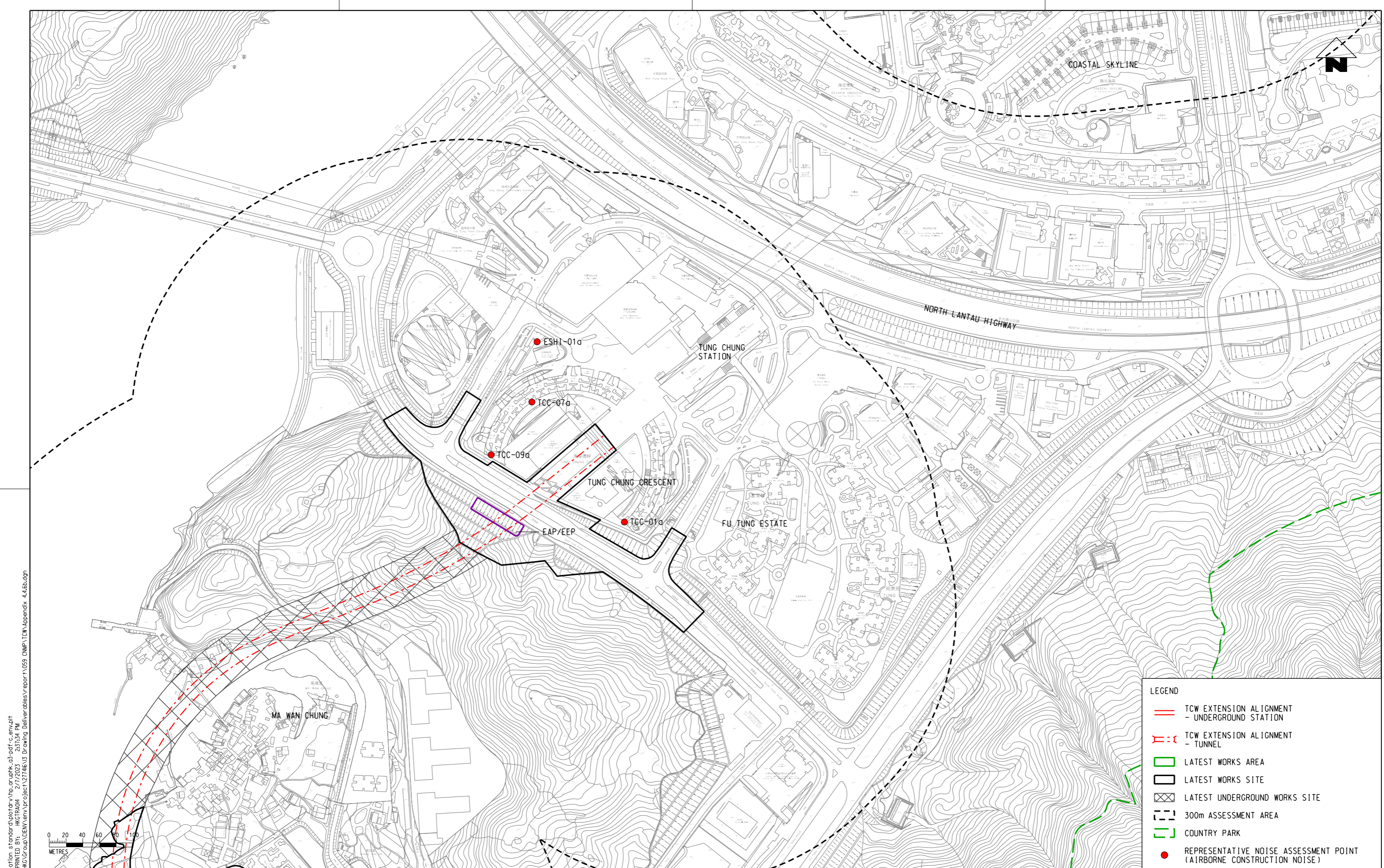
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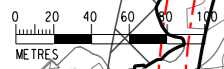
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- LEGEND**
- TCW EXTENSION ALIGNMENT - UNDERGROUND STATION
 - - - TCW EXTENSION ALIGNMENT - TUNNEL
 - LATEST WORKS AREA
 - LATEST WORKS SITE
 - LATEST UNDERGROUND WORKS SITE
 - 300m ASSESSMENT AREA
 - - - COUNTRY PARK
 - REPRESENTATIVE NOISE ASSESSMENT POINT (AIRBORNE CONSTRUCTION NOISE)

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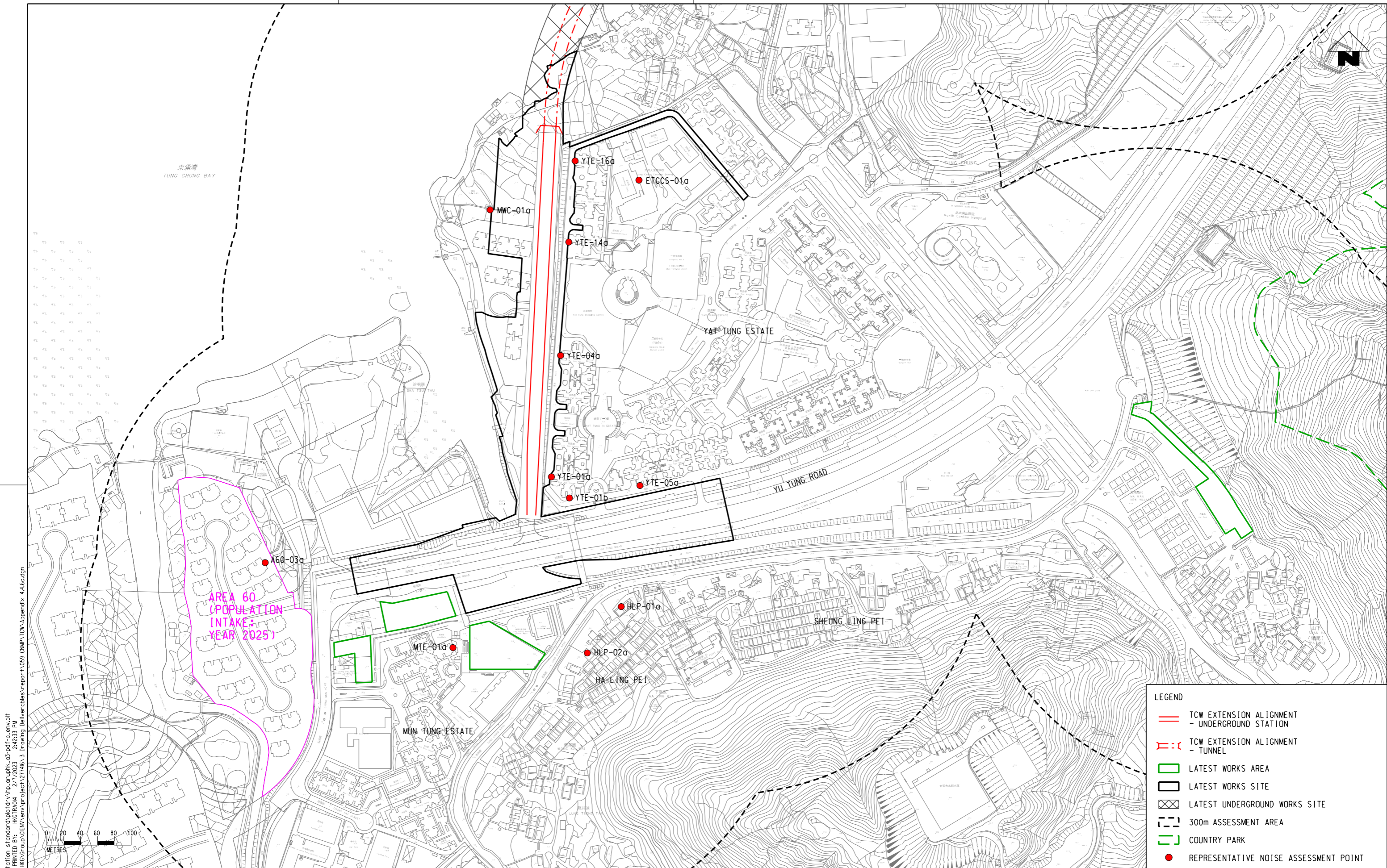
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LEGEND

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- - - TCW EXTENSION ALIGNMENT - TUNNEL
- LATEST WORKS AREA
- LATEST WORKS SITE
- LATEST UNDERGROUND WORKS SITE
- 300m ASSESSMENT AREA
- COUNTRY PARK
- REPRESENTATIVE NOISE ASSESSMENT POINT

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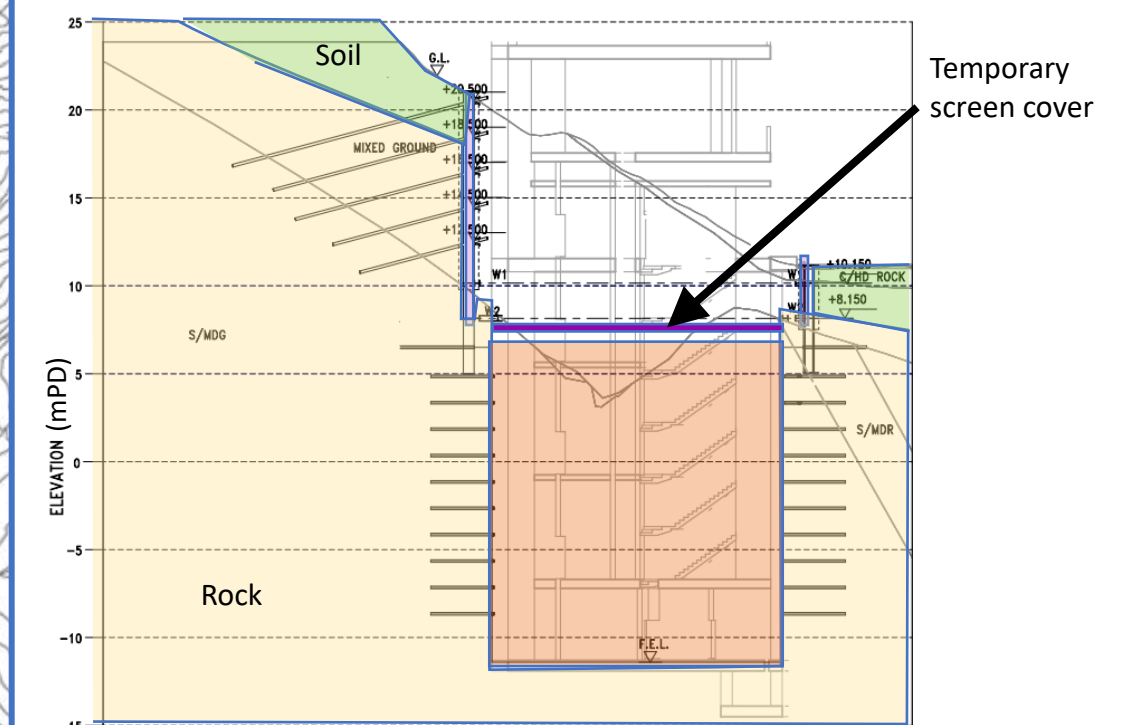
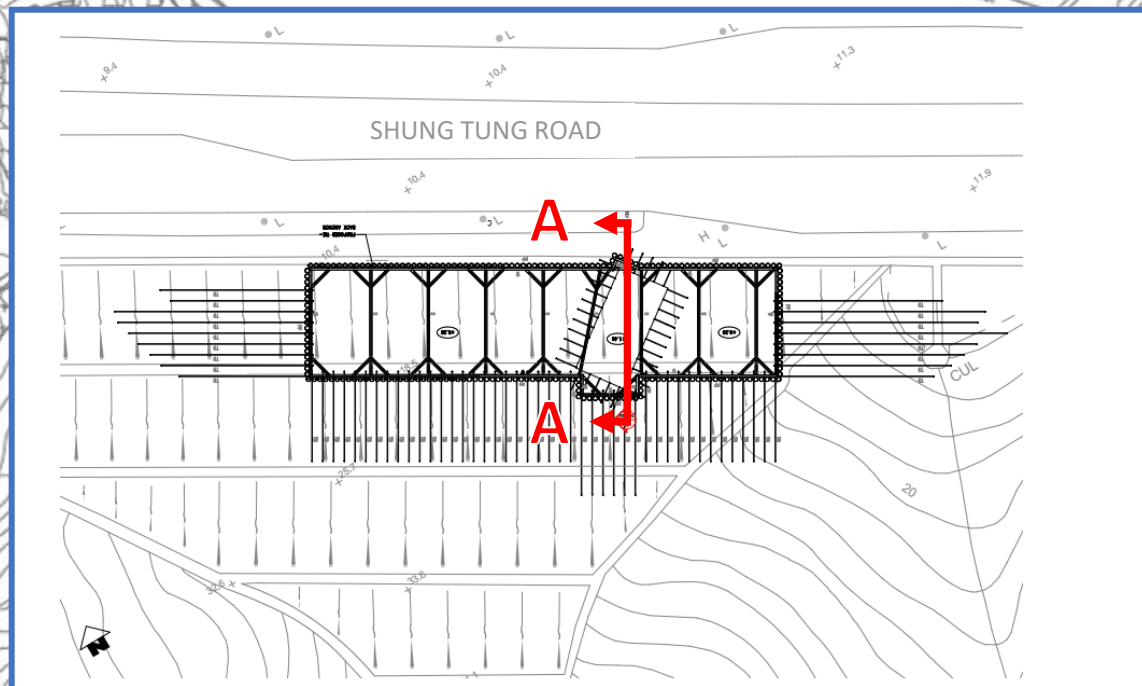
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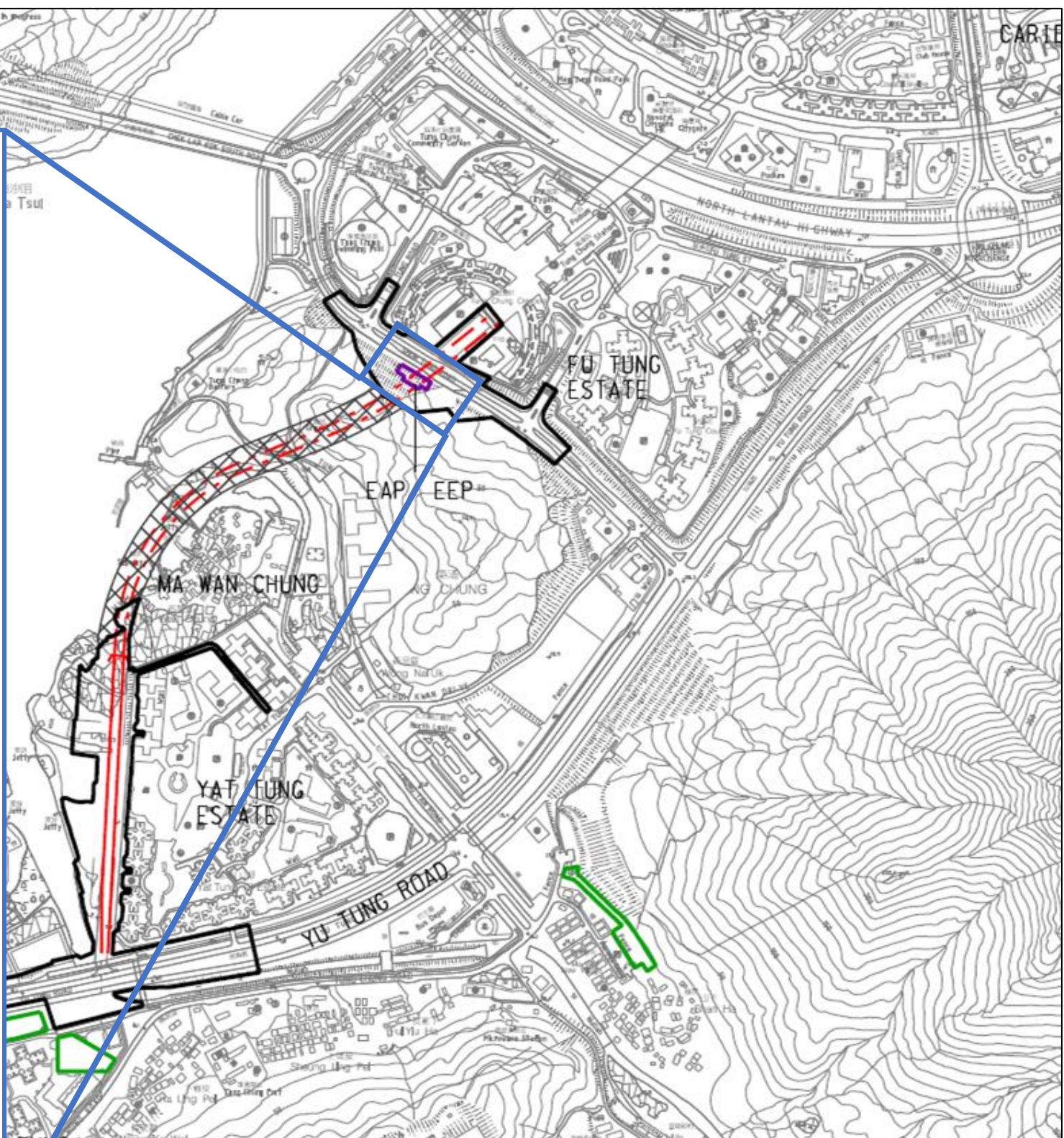
Appendix 3.2

Screen cover for EAP/EEP

Typical Screen Cover at EAP/EEP



Section A-A



LEGEND

- TCW EXTENSION ALIGNMENT - UNDERGROUND STATION
- - - TCW EXTENSION ALIGNMENT - TUNNEL
- LATEST WORKS AREA
- LATEST WORKS SITE
- LATEST UNDERGROUND WORKS SITE

* The figure is for indicative purpose only and the actual screen cover are subject to the detailed design and site condition.

Appendix 3.3

Tentative Construction Programme

Tentative Construction Programme

| Major Construction Activities | 2023 | | | 2024 | | | | 2025 | | | | 2026 | | | | 2027 | | | | 2028 | | | | 2029 | | | | 2030 | | | | |
|---|------|----|----|------|----|----|----|------|----|----|----|------|----|----|----|------|----|----|----|------|----|----|----|------|----|----|----|------|----|----|----|--|
| | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | |
| Tung Chung Crescent | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Site Clearance | ■ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Foundation and Excavation Works | | ■ | ■ | ■ | ■ | | | ■ | ■ | ■ | ■ | | | | | | | | | | | | | | | | | | | | | |
| TBM Operation | | | | | | | | | | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | | | | | | | | | | | | | |
| Structural Works at Launching Shaft and C&C Tunnel | | | | | | | | | | ■ | ■ | ■ | ■ | | | | | | | | | | | | | | | | | | | |
| Site Reinstatement | | | | | | | | | | | | | | | | | | | | | | ■ | ■ | ■ | ■ | ■ | ■ | | | | | |
| EAP/EEP | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Site Clearance | ■ | ■ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Site Formation (Temporary Wall Construction and Slope Excavation) | | | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | | | | | | | | | | | | | | | | | | | | | | |
| Foundation and Shaft Excavation Works | | | | | | | | | ■ | ■ | | | | | | | | | | | | | | | | | | | | | | |
| Construction of EAP/ EEP | | | | | | | | | | ■ | ■ | | | | | | | | | | | | | | | | | | | | | |
| Site Reinstatement | | | | | | | | | | | | | | | | | | | | | | ■ | ■ | ■ | ■ | ■ | | | | | | |
| ABWF, BS and E&M Works * | | | | | | | | | | | | | | | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | | | | | | |
| TCW | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Footbridge Demolition | ■ | ■ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Site Clearance | ■ | ■ | ■ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Foundation and Excavation Works | | | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | | | | | | | | | | | | | |
| D-wall Steel Cage Rebar Fixing | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | | | | | | | | | | | | | |
| Structural Works at TCW Station | | | | | | | | | | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | |
| Site Reinstatement | | | | | | | | | | | | | | | | | | | | | | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | |
| ABWF, BS and E&M Works * | | | | | | | | | | | | | | | | | | | | | | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | |
| Barging Facility | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Site Clearance / Formation | ■ | ■ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Construction of Barging Facility | | ■ | ■ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Operation of Barging Facility | | | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | |
| Demolition of Barging Facility | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Site Reinstatement | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Remarks:

* ABWF - Architectural Builder's Work and Finishes, BS - Building Service, E&M - Electrical and Mechanical

These works are minor construction works conducted inside building structure. Hence, no assessment shall be required in the EIA considering the environmental impact from these works is insignificant.

Appendix 3.4

Detailed PME Inventory

PME Inventory for TCW

Project: Environmental Consultancy No. C1202 EIA Study for Tung Chung Line Extension
Title: TCW Station - Plant Inventory (Modified Base Scheme)- Site Clearance

| Site Clearance at TCW | | | | | | | | | | | | | | | |
|-----------------------|---|---------------------------------|--------------------------|-------|---------------|--------------------------|--------------------|---------------------------------------|---------------------------|---------------------|---------------------|--------------------|------------|-----|-----|
| Works Area/ Activity | PME | % Operating Time ^[1] | Time Correction dB(A) | Units | Unmitigated | | | Mitigated | | | | | | | |
| | | | | | PME Reference | Single Unit PME dB(A) | Total SWL dB(A) | QPME Reference ^{[2], [3]} | Single Unit QPME dB(A) | Mitigation Measures | Correction dB(A) | Total SWL dB(A) | | | |
| TCW Site Clearance | Excavator | 90 | 0 | 2 | CNP081 | 112 | 115 | EPD-07150 | 90 | Barrier | -5 | 88 | | | |
| | Breaker, excavator mounted/ Hydraulic breaker | 30 | -5 | 1 | CNP028 | 122 | 117 | | | | | | Barrier | -10 | 107 |
| | Dump Truck | 70 | -2 | 2 | CPME# | 105 | 106 | | | | | | Barrier | -5 | 101 |
| | | | | | | | Total SWL | 119 | | | | Total SWL | 108 | | |

Note:

[1] Percentage on time within 30 minutes.

[2] PME with code "EPD-XXXXX" are quiet equipment with SWLs extracted from EPD's QPME inventory.

[3] The plant with code "CPME#" are referenced from EPD's guidance "Sound Power Level of Other Commonly Used PME" from https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf

Project: Environmental Consultancy No. C1202 EIA Study for Tung Chung Line Extension
Title: TCW Station - Plant Inventory (Modified Base Scheme)- Dwall (All Hit Panel), Mini-pile/ Pre-bored H-piles (Station Box-Foundation Works at East)

| Construction of Diaphragm Wall on Station East Side | | | | | | | | | | | | | |
|--|---|---------------------------------|-----------------------|-------|---------------|------------------------------|-----------------|------------------------------------|------------------------|---------------------|------------------|------------------------------|------------|
| Works Area/ Activity | PME | % Operating Time ^[1] | Time Correction dB(A) | Units | PME Reference | Unmitigated | | QPME Reference ^{[2], [3]} | Single Unit QPME dB(A) | Mitigated | | | |
| | | | | | | Single Unit PME dB(A) | Total SWL dB(A) | | | Mitigation Measures | Correction dB(A) | Total SWL dB(A) | |
| E-Zone A Construction of Diaphragm Wall - Dwall Rig | Piling, Diaphragm Wall | 90 | 0 | 1 | CNP163 | 90 | 90 | | | Barrier | -10 | 80 | |
| | Trench Cutter | 90 | 0 | 1 | CNP164 | 115 | 115 | | | Enclosure | -15 | 100 | |
| | Total SWL | | | | | 115 | 115 | | | | | 100 | |
| E-Zone A Construction of Diaphragm Wall- Ancillary Plant | Piling, Diaphragm Wall | 90 | 0 | 1 | CNP163 | 90 | 90 | | | Barrier | -10 | 80 | |
| | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 | |
| | Concrete Lorry Mixer/ Concrete Truck | 40 | -4 | 1 | CNP044 | 109 | 105 | | | Enclosure | -15 | 90 | |
| | Total SWL | | | | | 112 | 112 | | | | | 96 | |
| | | | | | | Max SWL^[4] | 115 | | | | | Max SWL^[4] | 100 |
| E-Zone A Installation of Mini-piles - Drill Rig | Drill Rig, DTH Drilling Machine | 90 | 0 | 1 | CPME# | 110 | 110 | | | Barrier | -10 | 100 | |
| | Total SWL | | | | | 110 | 110 | | | | | 100 | |
| | Max SWL^[5] | | | | | 110 | 110 | | | | | 100 | |
| E-Zone A Installation of Mini-piles - Ancillary Plant | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 | |
| | Total SWL | | | | | 110 | 110 | | | | | 94 | |
| | Max SWL^[5] | | | | | 110 | 110 | | | | | 100 | |
| E-Zone B Construction of Diaphragm Wall - Dwall Rig | Piling, Diaphragm Wall | 90 | 0 | 1 | CNP163 | 90 | 90 | | | Barrier | -10 | 80 | |
| | Trench Cutter | 90 | 0 | 1 | CNP164 | 115 | 115 | | | Enclosure | -15 | 100 | |
| | Total SWL | | | | | 115 | 115 | | | | | 100 | |
| E-Zone B Construction of Diaphragm Wall- Ancillary Plant | Piling, Diaphragm Wall | 90 | 0 | 1 | CNP163 | 90 | 90 | | | Barrier | -10 | 80 | |
| | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 | |
| | Concrete Lorry Mixer/ Concrete Truck | 40 | -4 | 1 | CNP044 | 109 | 105 | | | Enclosure | -15 | 90 | |
| | Total SWL | | | | | 112 | 112 | | | | | 96 | |
| | | | | | | Max SWL^[4] | 115 | | | | | Max SWL^[4] | 100 |
| E-Zone B Installation of Mini-piles - Drill Rig | Drill Rig, DTH Drilling Machine | 90 | 0 | 1 | CPME# | 110 | 110 | | | Barrier | -10 | 100 | |
| | Total SWL | | | | | 110 | 110 | | | | | 100 | |
| | Max SWL^[5] | | | | | 110 | 110 | | | | | 100 | |
| E-Zone B Installation of Mini-piles - Ancillary Plant | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 | |
| | Total SWL | | | | | 110 | 110 | | | | | 94 | |
| | Max SWL^[5] | | | | | 110 | 110 | | | | | 100 | |
| E-Zone C Construction of Diaphragm Wall - Dwall Rig | Piling, Diaphragm Wall | 90 | 0 | 1 | CNP163 | 90 | 90 | | | Barrier | -10 | 80 | |
| | Trench Cutter | 90 | 0 | 1 | CNP164 | 115 | 115 | | | Enclosure | -15 | 100 | |
| | Total SWL | | | | | 115 | 115 | | | | | 100 | |
| E-Zone C Construction of Diaphragm Wall- Ancillary Plant | Piling, Diaphragm Wall | 90 | 0 | 1 | CNP163 | 90 | 90 | | | Barrier | -10 | 80 | |
| | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 | |
| | Concrete Lorry Mixer/ Concrete Truck | 40 | -4 | 1 | CNP044 | 109 | 105 | | | Enclosure | -15 | 90 | |
| | Total SWL | | | | | 112 | 112 | | | | | 96 | |
| | | | | | | Max SWL^[4] | 115 | | | | | Max SWL^[4] | 100 |
| E-Zone C Installation of Mini-piles - Drill Rig | Drill Rig, DTH Drilling Machine | 90 | 0 | 1 | CPME# | 110 | 110 | | | Barrier | -10 | 100 | |
| | Total SWL | | | | | 110 | 110 | | | | | 100 | |
| | Max SWL^[5] | | | | | 110 | 110 | | | | | 100 | |
| E-Zone C Installation of Mini-piles - Ancillary Plant | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 | |
| | Total SWL | | | | | 110 | 110 | | | | | 94 | |
| | Max SWL^[5] | | | | | 110 | 110 | | | | | 100 | |

Project: Environmental Consultancy No. C1202 EIA Study for Tung Chung Line Extension
Title: TCW Station - Plant Inventory (Modified Base Scheme)- Dwall (All Hit Panel), Mini-pile/ Pre-bored H-piles (Station Box-Foundation Works at East)

| Construction of Diaphragm Wall on Station East Side | | | | | | | | | | | | | |
|--|---|---------------------------------|-----------------------|-------|---------------|-----------------------|-----------------|------------------------------------|------------------------|---------------------|------------------|-------------------------------|------------|
| Works Area/ Activity | PME | % Operating Time ^[1] | Time Correction dB(A) | Units | PME Reference | Unmitigated | | QPME Reference ^{[2], [3]} | Single Unit QPME dB(A) | Mitigated | | | |
| | | | | | | Single Unit PME dB(A) | Total SWL dB(A) | | | Mitigation Measures | Correction dB(A) | Total SWL dB(A) | |
| E-Zone D Construction of Diaphragm Wall - Dwall Rig | Piling, Diaphragm Wall | 90 | 0 | 1 | CNP163 | 90 | 90 | | | Barrier | -10 | 80 | |
| | Trench Cutter | 70 | -2 | 1 | CNP164 | 115 | 113 | | | Enclosure | -15 | 98 | |
| | Total SWL | | | | | 113 | 113 | | | | | Total SWL | 99 |
| E-Zone D Construction of Diaphragm Wall- Ancillary Plant | Piling, Diaphragm Wall | 90 | 0 | 1 | CNP163 | 90 | 90 | | | Barrier | -10 | 80 | |
| | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 | |
| | Concrete Lorry Mixer/ Concrete Truck | 40 | -4 | 1 | CNP044 | 109 | 105 | | | Enclosure | -15 | 90 | |
| | Total SWL | | | | | 112 | 112 | | | | | Total SWL | 96 |
| | Max SWL ^[4] | | | | | 113 | 113 | | | | | Max SWL ^[4] | 99 |
| E-Zone D Installation of Mini-piles - Drill Rig | Drill Rig, DTH Drilling Machine | 90 | 0 | 1 | CPME# | 110 | 110 | | | Barrier | -10 | 100 | |
| | Total SWL | | | | | 110 | 110 | | | | | Total SWL | 100 |
| E-Zone D Installation of Mini-piles - Ancillary Plant | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 | |
| | Total SWL | | | | | 110 | 110 | | | | | Total SWL | 94 |
| | Max SWL ^[5] | | | | | 110 | 110 | | | | | Max SWL ^[5] | 100 |
| E-Zone E Construction of Diaphragm Wall - Dwall Rig | Piling, Diaphragm Wall | 90 | 0 | 1 | CNP163 | 90 | 90 | | | Barrier | -10 | 80 | |
| | Trench Cutter | 70 | -2 | 1 | CNP164 | 115 | 113 | | | Enclosure | -15 | 98 | |
| | Total SWL | | | | | 113 | 113 | | | | | Total SWL | 99 |
| E-Zone E Construction of Diaphragm Wall- Ancillary Plant | Piling, Diaphragm Wall | 90 | 0 | 1 | CNP163 | 90 | 90 | | | Barrier | -10 | 80 | |
| | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 | |
| | Concrete Lorry Mixer/ Concrete Truck | 40 | -4 | 1 | CNP044 | 109 | 105 | | | Enclosure | -15 | 90 | |
| | Total SWL | | | | | 112 | 112 | | | | | Total SWL | 96 |
| | Max SWL ^[4] | | | | | 113 | 113 | | | | | Max SWL ^[4] | 99 |
| E-Zone E Installation of Mini-piles - Drill Rig | Drill Rig, DTH Drilling Machine | 90 | 0 | 1 | CPME# | 110 | 110 | | | Barrier | -10 | 100 | |
| | Total SWL | | | | | 110 | 110 | | | | | Total SWL | 100 |
| E-Zone E Installation of Mini-piles - Ancillary Plant | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 | |
| | Total SWL | | | | | 110 | 110 | | | | | Total SWL | 94 |
| | Max SWL ^[5] | | | | | 110 | 110 | | | | | Max SWL ^[5] | 100 |

Note:
 [1] Percentage on time within 30 minutes.
 [2] PME with code "EPD-XXXXX" are quiet equipment with SWLs extracted from EPD's QPME inventory.
 [3] The plant with code "CPME#" are referenced from EPD's guidance "Sound Power Level of Other Commonly Used PME" from https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf
 [4]The Trench Cutter (CNP164) and Ancillary Plants (i.e. Mobile Crane & Concrete Lorry Mixer (CNP048 & CNP044)) of construction of diaphragm wall are carried out in phases, i.e. will not happen at the same time at the same workfront.
 [5]The 2 activities of installation of mini-piles are carried out in phases, i.e. will not happen at the same time at the same workfront.

Project: Environmental Consultancy No. C1202 EIA Study for Tung Chung Line Extension
Title: TCW Station - Plant Inventory (Modified Base Scheme)- Dwall (All Hit Panel), Mini-pile/ Pre-bored H-piles (Station Box-Foundation Works at West)

| Construction of Diaphragm Wall on Station West Side | | | | | | | | | | | | |
|--|---|---------------------------------|-----------------------|-------|---------------|-----------------------|-----------------|------------------------------------|------------------------|---------------------|------------------------------|-----------------|
| Works Area/ Activity | PME | % Operating Time ^[1] | Time Correction dB(A) | Units | PME Reference | Unmitigated | | QPME Reference ^{[2], [3]} | Single Unit QPME dB(A) | Mitigated | | |
| | | | | | | Single Unit PME dB(A) | Total SWL dB(A) | | | Mitigation Measures | Correction dB(A) | Total SWL dB(A) |
| W-Zone A Construction of Diaphragm Wall - Dwall Rig | Piling, Diaphragm Wall | 90 | 0 | 1 | CNP163 | 90 | 90 | | | Barrier | -10 | 80 |
| | Trench Cutter | 90 | 0 | 1 | CNP164 | 115 | 115 | | | Enclosure | -15 | 100 |
| | Total SWL | | | | | 115 | 115 | | | | Total SWL | 100 |
| W-Zone A Construction of Diaphragm Wall- Ancillary Plant | Piling, Diaphragm Wall | 90 | 0 | 1 | CNP163 | 90 | 90 | | | Barrier | -10 | 80 |
| | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 |
| | Concrete Lorry Mixer/ Concrete Truck | 40 | -4 | 1 | CNP044 | 109 | 105 | | | Barrier | -5 | 100 |
| | Total SWL | | | | | 112 | 112 | | | | Total SWL | 101 |
| | Max SWL^[4] | | | | | 115 | 115 | | | | Max SWL^[4] | 101 |
| W-Zone A Installation of Mini-piles - Drill Rig | Drill Rig, DTH Drilling Machine | 90 | 0 | 1 | CPME# | 110 | 110 | | | Barrier | -10 | 100 |
| | Total SWL | | | | | 110 | 110 | | | | Total SWL | 100 |
| | Max SWL^[5] | | | | | 110 | 110 | | | | Max SWL^[5] | 100 |
| W-Zone A Installation of Mini-piles - Ancillary Plant | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 |
| | Total SWL | | | | | 110 | 110 | | | | Total SWL | 94 |
| | Max SWL^[5] | | | | | 110 | 110 | | | | Max SWL^[5] | 100 |
| W-Zone B Construction of Diaphragm Wall - Dwall Rig | Piling, Diaphragm Wall | 90 | 0 | 1 | CNP163 | 90 | 90 | | | Barrier | -10 | 80 |
| | Trench Cutter | 90 | 0 | 1 | CNP164 | 115 | 115 | | | Enclosure | -15 | 100 |
| | Total SWL | | | | | 115 | 115 | | | | Total SWL | 100 |
| W-Zone B Construction of Diaphragm Wall- Ancillary Plant | Piling, Diaphragm Wall | 90 | 0 | 1 | CNP163 | 90 | 90 | | | Barrier | -10 | 80 |
| | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 |
| | Concrete Lorry Mixer/ Concrete Truck | 40 | -4 | 1 | CNP044 | 109 | 105 | | | Barrier | -5 | 100 |
| | Total SWL | | | | | 112 | 112 | | | | Total SWL | 101 |
| | Max SWL^[4] | | | | | 115 | 115 | | | | Max SWL^[4] | 101 |
| W-Zone B Installation of Mini-piles - Drill Rig | Drill Rig, DTH Drilling Machine | 90 | 0 | 1 | CPME# | 110 | 110 | | | Barrier | -10 | 100 |
| | Total SWL | | | | | 110 | 110 | | | | Total SWL | 100 |
| | Max SWL^[5] | | | | | 110 | 110 | | | | Max SWL^[5] | 100 |
| W-Zone B Installation of Mini-piles - Ancillary Plant | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 |
| | Total SWL | | | | | 110 | 110 | | | | Total SWL | 94 |
| | Max SWL^[5] | | | | | 110 | 110 | | | | Max SWL^[5] | 100 |
| W-Zone C Construction of Diaphragm Wall - Dwall Rig | Piling, Diaphragm Wall | 90 | 0 | 1 | CNP163 | 90 | 90 | | | Barrier | -10 | 80 |
| | Trench Cutter | 90 | 0 | 1 | CNP164 | 115 | 115 | | | Enclosure | -15 | 100 |
| | Total SWL | | | | | 115 | 115 | | | | Total SWL | 100 |
| W-Zone C Construction of Diaphragm Wall- Ancillary Plant | Piling, Diaphragm Wall | 90 | 0 | 1 | CNP163 | 90 | 90 | | | Barrier | -10 | 80 |
| | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 |
| | Concrete Lorry Mixer/ Concrete Truck | 40 | -4 | 1 | CNP044 | 109 | 105 | | | Barrier | -5 | 100 |
| | Total SWL | | | | | 112 | 112 | | | | Total SWL | 101 |
| | Max SWL^[4] | | | | | 115 | 115 | | | | Max SWL^[4] | 101 |
| W-Zone C Installation of Mini-piles - Drill Rig | Drill Rig, DTH Drilling Machine | 90 | 0 | 1 | CPME# | 110 | 110 | | | Barrier | -10 | 100 |
| | Total SWL | | | | | 110 | 110 | | | | Total SWL | 100 |
| | Max SWL^[5] | | | | | 110 | 110 | | | | Max SWL^[5] | 100 |
| W-Zone C Installation of Mini-piles - Ancillary Plant | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 |
| | Total SWL | | | | | 110 | 110 | | | | Total SWL | 94 |
| | Max SWL^[5] | | | | | 110 | 110 | | | | Max SWL^[5] | 100 |

Project: Environmental Consultancy No. C1202 EIA Study for Tung Chung Line Extension
Title: TCW Station - Plant Inventory (Modified Base Scheme)- Dwall (All Hit Panel), Mini-pile/ Pre-bored H-piles (Station Box-Foundation Works at West)

| Construction of Diaphragm Wall on Station West Side | | | | | | | | | | | | |
|--|---|---------------------------------|-----------------------|-------|---------------|-----------------------|-----------------|------------------------------------|------------------------|---------------------|------------------|-----------------|
| Works Area/ Activity | PME | % Operating Time ^[1] | Time Correction dB(A) | Units | PME Reference | Unmitigated | | Mitigated | | | | |
| | | | | | | Single Unit PME dB(A) | Total SWL dB(A) | QPME Reference ^{[2], [3]} | Single Unit QPME dB(A) | Mitigation Measures | Correction dB(A) | Total SWL dB(A) |
| W-Zone D Construction of Diaphragm Wall - Dwall Rig | Piling, Diaphragm Wall | 90 | 0 | 2 | CNP163 | 90 | 93 | | | Barrier | -10 | 83 |
| | Trench Cutter | 90 | 0 | 1 | CNP164 | 115 | 115 | | | Enclosure | -15 | 100 |
| | Total SWL | | | | | 115 | 115 | | | | | 100 |
| W-Zone D Construction of Diaphragm Wall- Ancillary Plant | Piling, Diaphragm Wall | 90 | 0 | 1 | CNP163 | 90 | 90 | | | Barrier | -10 | 80 |
| | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 |
| | Concrete Lorry Mixer/ Concrete Truck | 40 | -4 | 1 | CNP044 | 109 | 105 | | | Barrier | -5 | 100 |
| | Total SWL | | | | | 112 | 112 | | | | | 101 |
| | Max SWL ^[4] | | | | | 115 | 115 | | | | | 101 |
| W-Zone D Installation of Mini-piles - Drill Rig | Drill Rig, DTH Drilling Machine | 90 | 0 | 1 | CPME# | 110 | 110 | | | Barrier | -10 | 100 |
| | | | | | | Total SWL | 110 | | | | | 100 |
| W-Zone D Installation of Mini-piles - Ancillary Plant | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 |
| | | | | | | Total SWL | 110 | | | | | 94 |
| | Max SWL ^[5] | | | | | 110 | 110 | | | | | 100 |
| W-Zone E Construction of Diaphragm Wall - Dwall Rig | Piling, Diaphragm Wall | 90 | 0 | 1 | CNP163 | 90 | 90 | | | Barrier | -10 | 80 |
| | Trench Cutter | 90 | 0 | 1 | CNP164 | 115 | 115 | | | Enclosure | -15 | 100 |
| | Total SWL | | | | | 115 | 115 | | | | | 100 |
| W-Zone E Construction of Diaphragm Wall- Ancillary Plant | Piling, Diaphragm Wall | 90 | 0 | 1 | CNP163 | 90 | 90 | | | Barrier | -10 | 80 |
| | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 |
| | Concrete Lorry Mixer/ Concrete Truck | 40 | -4 | 1 | CNP044 | 109 | 105 | | | Barrier | -5 | 100 |
| | Total SWL | | | | | 112 | 112 | | | | | 101 |
| | Max SWL ^[4] | | | | | 115 | 115 | | | | | 101 |
| W-Zone E Installation of Mini-piles - Drill Rig | Drill Rig, DTH Drilling Machine | 90 | 0 | 1 | CPME# | 110 | 110 | | | Barrier | -10 | 100 |
| | | | | | | Total SWL | 110 | | | | | 100 |
| W-Zone E Installation of Mini-piles - Ancillary Plant | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 |
| | | | | | | Total SWL | 110 | | | | | 94 |
| | Max SWL ^[5] | | | | | 110 | 110 | | | | | 100 |

Note:

[1] Percentage on time within 30 minutes.

[2] PME with code "EPD-XXXXX" are quiet equipment with SWLs extracted from EPD's QPME inventory.

[3] The plant with code "CPME#" are referenced from EPD's guidance "Sound Power Level of Other Commonly Used PME" from https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf

[4]The Trench Cutter (CNP164) and Ancillary Plants (i.e. Mobile Crane & Concrete Lorry Mixer (CNP048 & CNP044)) of construction of diaphragm wall are carried out in phases, i.e. will not happen at the same time at the same workfront.

[5]The 2 activities of installation of mini-piles are carried out in phases, i.e. will not happen at the same time at the same workfront.

Project: Environmental Consultancy No. C1202 EIA Study for Tung Chung Line Extension

Title: TCW Station - Plant Inventory (Modified Base Scheme)- Dwall (All Hit Panel), Mini-pile/ Pre-bored H-piles (Station Box-Foundation Works at East side and West side - Stationary Plants)

| Construction of Diaphragm Wall on Station East Side & West Side - Stationary Plants | | | | | | | | | | | | |
|---|---|---------------------------------|-----------------------|-------|---------------|-----------------------|-----------------|------------------------------------|------------------------|---------------------|------------------|-----------------|
| Works Area/ Activity | PME | % Operating Time ^[1] | Time Correction dB(A) | Units | PME Reference | Unmitigated | | Mitigated | | | | |
| | | | | | | Single Unit PME dB(A) | Total SWL dB(A) | QPME Reference ^{[2], [3]} | Single Unit QPME dB(A) | Mitigation Measures | Correction dB(A) | Total SWL dB(A) |
| D-wall S1 Diaphragm Wall Construction - Supporting Stationary Plants | Generator | 90 | 0 | 2 | CNP103 | 95 | 98 | EPD-10735 | 87 | Barrier | -5 | 85 |
| | Piling, diaphragm wall, bentonite filtering plant/ Desander | 70 | -2 | 3 | CNP162 | 105 | 108 | | | Barrier | -10 | 98 |
| | Total SWL | | | | | | 109 | | | | | 98 |
| D-wall S2 Diaphragm Wall Construction - Supporting Stationary Plants | Concrete Mixer/ Bentonite Mixer/ Grout Mixer | 50 | -3 | 2 | CNP045 | 96 | 96 | | | Barrier | -10 | 86 |
| | Concrete Pump/ Electric Bentonite Circulation Pump | 50 | -3 | 3 | CNP047 | 109 | 111 | | | Enclosure | -15 | 96 |
| | Total SWL | | | | | | 111 | | | | | 96 |
| D-wall S3 Diaphragm Wall Construction - Supporting Stationary Plants | Concrete Mixer/ Bentonite Mixer/ Grout Mixer | 50 | -3 | 1 | CNP045 | 96 | 93 | | | Barrier | -10 | 83 |
| | Concrete Pump/ Electric Bentonite Circulation Pump | 50 | -3 | 2 | CNP047 | 109 | 109 | | | Enclosure | -15 | 94 |
| | Total SWL | | | | | | 109 | | | | | 94 |
| D-wall S4 Diaphragm Wall Construction - Supporting Stationary Plants | Piling, diaphragm wall, bentonite filtering plant/ Desander | 70 | -2 | 2 | CNP162 | 105 | 106 | | | Barrier | -10 | 96 |
| | Generator | 90 | 0 | 1 | CNP103 | 95 | 95 | EPD-10735 | 87 | Barrier | -5 | 82 |
| | Total SWL | | | | | | 107 | | | | | 97 |
| D-wall S5 Diaphragm Wall Construction - Supporting Stationary Plants | Concrete Mixer/ Bentonite Mixer/ Grout Mixer | 50 | -3 | 2 | CNP045 | 96 | 96 | | | Barrier | -10 | 86 |
| | Concrete Pump/ Electric Bentonite Circulation Pump | 50 | -3 | 5 | CNP047 | 109 | 113 | | | Enclosure | -15 | 98 |
| | Generator | 90 | 0 | 2 | CNP103 | 95 | 98 | EPD-10735 | 87 | Barrier | -5 | 85 |
| Total SWL | | | | | | 113 | | | | | 98 | |
| D-wall S6 Diaphragm Wall Construction - Supporting Stationary Plants | Bar Bender and Cutter | 50 | -3 | 2 | CNP021 | 90 | 90 | | | Barrier | -10 | 80 |
| | Total SWL | | | | | | 90 | | | | | 80 |
| D-wall S7 Mini-piles Installation (Zone A)-Supporting Stationary Plants | Air Compressor | 70 | -2 | 2 | CNP003 | 104 | 105 | EPD-09607 | 93 | Barrier | -5 | 89 |
| | Generator | 20 | -7 | 1 | CNP103 | 95 | 88 | EPD-10735 | 87 | Barrier | -5 | 75 |
| | Concrete Mixer/ Bentonite Mixer/ Grout Mixer | 20 | -7 | 1 | CNP045 | 96 | 89 | | | Barrier | -10 | 79 |
| Total SWL | | | | | | 106 | | | | | 90 | |
| D-wall S8 Mini-piles Installation (Zone B)-Supporting Stationary Plants | Air Compressor | 70 | -2 | 2 | CNP003 | 104 | 105 | EPD-09607 | 93 | Barrier | -5 | 89 |
| | Generator | 20 | -7 | 1 | CNP103 | 95 | 88 | EPD-10735 | 87 | Barrier | -5 | 75 |
| | Concrete Mixer/ Bentonite Mixer/ Grout Mixer | 20 | -7 | 1 | CNP045 | 96 | 89 | | | Barrier | -10 | 79 |
| Total SWL | | | | | | 106 | | | | | 90 | |
| D-wall S9 Mini-piles Installation (Zone C)-Supporting Stationary Plants | Air Compressor | 70 | -2 | 2 | CNP003 | 104 | 105 | EPD-09607 | 93 | Barrier | -5 | 89 |
| | Generator | 20 | -7 | 1 | CNP103 | 95 | 88 | EPD-10735 | 87 | Barrier | -5 | 75 |
| | Concrete Mixer/ Bentonite Mixer/ Grout Mixer | 20 | -7 | 1 | CNP045 | 96 | 89 | | | Barrier | -10 | 79 |
| Total SWL | | | | | | 106 | | | | | 90 | |
| D-wall S10 Mini-piles Installation (Zone D)-Supporting Stationary Plants | Air Compressor | 70 | -2 | 2 | CNP003 | 104 | 105 | EPD-09607 | 93 | Barrier | -5 | 89 |
| | Generator | 20 | -7 | 1 | CNP103 | 95 | 88 | EPD-10735 | 87 | Barrier | -5 | 75 |
| | Concrete Mixer/ Bentonite Mixer/ Grout Mixer | 20 | -7 | 1 | CNP045 | 96 | 89 | | | Barrier | -10 | 79 |
| Total SWL | | | | | | 106 | | | | | 90 | |
| D-wall S11 Mini-piles Installation (Zone E)-Supporting Stationary Plants | Air Compressor | 70 | -2 | 2 | CNP003 | 104 | 105 | EPD-09607 | 93 | Barrier | -5 | 89 |
| | Generator | 20 | -7 | 1 | CNP103 | 95 | 88 | EPD-10735 | 87 | Barrier | -5 | 75 |
| | Concrete Mixer/ Bentonite Mixer/ Grout Mixer | 20 | -7 | 1 | CNP045 | 96 | 89 | | | Barrier | -10 | 79 |
| Total SWL | | | | | | 106 | | | | | 90 | |

Note:

[1] Percentage on time within 30 minutes.

[2] PME with code "EPD-XXXXX" are quiet equipment with SWLs extracted from EPD's QPME inventory.

[3] The plant with code "CPME#" are referenced from EPD's guidance "Sound Power Level of Other Commonly Used PME" from https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf

[4]The 2 activities of constructions of diaphragm wall are carried out in phases, i.e. will not happen at the same time at the same workfront.

[5]The 2 activities of installation of mini-piles are carried out in phases, i.e. will not happen at the same time at the same workfront.

Project: Environmental Consultancy No. C1202 EIA Study for Tung Chung Line Extension
Title: TCW Station - Plant Inventory (Modified Base Scheme)- EVA Lifting Plants and Materials

| EVA - Lifting Plants and Materials | | | | | | | | | | | | | |
|--|------------------------|---------------------------------|--------------------------|-------|---------------|--------------------------|--------------------|---------------------------------------|---------------------------|---------------------|---------------------|--------------------|-----------|
| Works Area/ Activity | PME | % Operating Time ^[1] | Time Correction dB(A) | Units | Unmitigated | | | Mitigated | | | | | |
| | | | | | PME Reference | Single Unit PME dB(A) | Total SWL dB(A) | QPME Reference ^{[2], [3]} | Single Unit QPME dB(A) | Mitigation Measures | Correction dB(A) | Total SWL dB(A) | |
| EVA - Lifting Plants and Materials - Lorry 1 | Lorry, with crane/grab | 8 | -11 | 1 | CPME# | 105 | 94 | | | Barrier | -5 | 89 | |
| | | | | | | | Total SWL | 94 | | | | Total SWL | 89 |
| EVA - Lifting Plants and Materials - Lorry 2 | Lorry, with crane/grab | 8 | -11 | 1 | CPME# | 105 | 94 | | | Barrier | -5 | 89 | |
| | | | | | | | Total SWL | 94 | | | | Total SWL | 89 |

Note:

[1] Percentage on time within 30 minutes.

[2] PME with code "EPD-XXXXX" are quiet equipment with SWLs extracted from EPD's QPME inventory.

[3] The plant with code "CPME#" are referenced from EPD's guidance "Sound Power Level of Other Commonly Used PME" from https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf

[4] The operation of the Lifting Plants and Material at EVA is in M0 - M24, which is overlapping with the construction of Diaphragm Wall. However, the construction of Diaphragm Wall and the Lifting of Plants and Materials at EVA will not be conducted concurrently in the same zone. Considering that the Lifting Plants and Materials at EVA only operate for 8% of time (i.e. less than 3 minutes within 30 minutes), only the construction of Diaphragm Wall will be taken into account in M0-M24 of the construction.

Project: Environmental Consultancy No. C1202 EIA Study for Tung Chung Line Extension
Title: Title: TCW (Modified Base Scheme - 18 Nov 2020 Program) - Works Area WA.W02 for D-wall Steel Cage Rebar Fixing Works

| TCW Station - Works Area WA.W02 for D-wall Steel Cage Rebar Fixing Works | | | | | | | | | | | | | |
|--|---|---------------------------------|--------------------------|-------|---------------|--------------------------|--------------------|---------------------------------------|---------------------------|---------------------|---------------------|--------------------|------------|
| Works Area/ Activity | PME | % Operating Time ^[1] | Time Correction dB(A) | Units | Unmitigated | | | Mitigated | | | | | |
| | | | | | PME Reference | Single Unit PME dB(A) | Total SWL dB(A) | QPME Reference ^{[2], [3]} | Single Unit QPME dB(A) | Mitigation Measures | Correction dB(A) | Total SWL dB(A) | |
| WA.W02 - D-wall Steel Cage Rebar Fixing Works | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 2 | CNP048 | 112 | 113 | EPD-09130 | 101 | Barrier | -5 | 97 | |
| | Lorry, with crane/grab | 70 | -2 | 2 | CPME# | 105 | 106 | | | Barrier | -5 | 101 | |
| | Bar Bender and Cutter | 100 | 0 | 8 | CNP021 | 90 | 99 | | | Barrier | -10 | 89 | |
| | Generator | 100 | 0 | 1 | CNP103 | 95 | 95 | EPD-10735 | 87 | Barrier | -5 | 82 | |
| | | | | | | | Total SWL | 114 | | | | Total SWL | 103 |

Note:

[1] Percentage on time within 30 minutes.

[3] The plant with code "CPME#" are referenced from EPD's guidance "Sound Power Level of Other Commonly Used PME" from https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf

[3] The SWL of quiet plant with code "CPME#" are based on SWLs of other commonly used PME from https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf

Project: Environmental Consultancy No. C1202 EIA Study for Tung Chung Line Extension
Title: TCW (Modified Base Scheme - 18 Nov 2020 Program) Excavation (Station Box)

| TCW Excavation (Station Box) | | | | | | | | | | | | | | |
|---|---|---------------------------------|--------------------------|-------|---------------|--------------------------|--------------------|---------------------------------------|---------------------------|---------------------|---------------------|--------------------|------------------|------------|
| Works Area/ Activity | PME | % Operating Time ^[1] | Time Correction dB(A) | Units | PME Reference | Unmitigated | | Mitigated | | | | | | |
| | | | | | | Single Unit PME dB(A) | Total SWL dB(A) | QPME Reference ^{[2], [3]} | Single Unit QPME dB(A) | Mitigation Measures | Correction dB(A) | Total SWL dB(A) | | |
| Mucking out Opening A1 - Excavation Works (Soft & Installation of Struts) | Dump Truck | 50 | -3 | 1 | CPME# | 105 | 102 | | | Barrier | -5 | 97 | | |
| | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 | | |
| | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 20 | -7 | 1 | CNP048 | 112 | 105 | EPD-09130 | 101 | Barrier | -5 | 89 | | |
| | Lorry | 20 | -7 | 1 | CNP141 | 112 | 105 | CPME# | 105 | Barrier | -5 | 93 | | |
| | Ventilation Fan | 90 | 0 | 1 | CNP241 | 108 | 108 | | | Silencer | -15 | 93 | | |
| | | | | | | Total SWL | 114 | | | | | | Total SWL | 101 |
| Excavation S1 - Stationary Plant for Excavation Zone A | Generator | 90 | 0 | 2 | CNP103 | 95 | 98 | EPD-10735 | 87 | Barrier | -5 | 85 | | |
| | | | | | | Total SWL | 98 | | | | | | Total SWL | 85 |
| Zone A - Excavation Works (Soft & Installation of Struts) - Below Roof Slab | Breaker, excavator mounted/ Hydraulic breaker | 20 | -7 | 1 | CNP028 | 0 | 0 | - | - | - | - | 0 | | |
| | Excavator | 80 | -1 | 2 | CNP081 | 0 | 0 | - | - | - | - | 0 | | |
| | Water Pump (petrol) | 90 | 0 | 2 | CNP282 | 0 | 0 | - | - | - | - | 0 | | |
| | | | | | | Total SWL | | | | | | | Total SWL | |

Note:

[1] Percentage on time within 30 minutes.

[2] PME with code "EPD-XXXX" are quiet equipment with SWLs extracted from EPD's QPME inventory.

[3] The plant with code "CPME#" are referenced from EPD's guidance "Sound Power Level of Other Commonly Used PME" from https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf

[4] The PME working underground is shaded in grey and the SWL is assumed as 0 dB(A).

Project: Environmental Consultancy No. C1202 EIA Study for Tung Chung Line Extension
Title: TCW (Modified Base Scheme - 18 Nov 2020 Program) Excavation (Station Box)

| TCW Excavation (Station Box) | | | | | | | | | | | | |
|---|---|---------------------------------|-----------------------|-------|---------------|------------------------------|-----------------|------------------------------------|------------------------|---------------------|------------------------------|------------------|
| Works Area/ Activity | PME | % Operating Time ^[1] | Time Correction dB(A) | Units | PME Reference | Unmitigated | | Mitigated | | | | |
| | | | | | | Single Unit PME dB(A) | Total SWL dB(A) | QPME Reference ^{[2], [3]} | Single Unit QPME dB(A) | Mitigation Measures | Correction dB(A) | Total SWL dB(A) |
| Mucking out Opening C1 - Excavation Works (Soft & Installation of Struts) | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 |
| | Lorry | 20 | -7 | 1 | CNP141 | 112 | 105 | CPME# | 105 | Barrier | -5 | 93 |
| | Ventilation Fan | 90 | 0 | 1 | CNP241 | 108 | 108 | | | Silencer | -15 | 93 |
| | Total SWL | | | | | | 113 | | | | | Total SWL |
| Mucking out Opening C1- Excavation Works (Soft, Rock & Installation of Struts) | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 |
| | Lorry | 20 | -7 | 1 | CNP141 | 112 | 105 | CPME# | 105 | Barrier | -5 | 93 |
| | Ventilation Fan | 90 | 0 | 1 | CNP241 | 108 | 108 | | | Silencer | -15 | 93 |
| | Total SWL | | | | | | 113 | | | | | Total SWL |
| | | | | | | Max SWL^[4] | 113 | | | | Max SWL^[4] | 98 |
| Mucking out Opening C2 - Excavation Works (Soft & Installation of Struts) | Dump Truck | 50 | -3 | 1 | CPME# | 105 | 102 | | | Barrier | -5 | 97 |
| | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 |
| | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 20 | -7 | 1 | CNP048 | 112 | 105 | EPD-09130 | 101 | Barrier | -5 | 89 |
| | Ventilation Fan | 90 | 0 | 1 | CNP241 | 108 | 108 | | | Silencer | -15 | 93 |
| Total SWL | | | | | | 113 | | | | | Total SWL | 100 |
| Mucking out Opening C2- Excavation Works (Soft, Rock & Installation of Struts) | Dump Truck | 50 | -3 | 1 | CPME# | 105 | 102 | | | Barrier | -5 | 97 |
| | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 |
| | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 20 | -7 | 1 | CNP048 | 112 | 105 | EPD-09130 | 101 | Barrier | -5 | 89 |
| | Ventilation Fan | 90 | 0 | 1 | CNP241 | 108 | 108 | | | Silencer | -15 | 93 |
| Total SWL | | | | | | 113 | | | | | Total SWL | 100 |
| | | | | | | Max SWL^[4] | 113 | | | | Max SWL^[4] | 100 |
| Excavation S2 - Stationary Plant for Excavation Zone C | Generator | 90 | 0 | 2 | CNP103 | 95 | 98 | EPD-10735 | 87 | Barrier | -5 | 85 |
| Total SWL | | | | | | | 98 | | | | Total SWL | 85 |
| Zone C - Excavation Works (Soft & Installation of Struts) - Below Roof Slab | Breaker, excavator mounted/ Hydraulic breaker | 20 | -7 | 1 | CNP028 | 0 | 0 | - | - | - | - | 0 |
| | Excavator | 80 | -1 | 4 | CNP081 | 0 | 0 | - | - | - | - | 0 |
| | Water Pump (petrol) | 90 | 0 | 2 | CNP282 | 0 | 0 | - | - | - | - | 0 |
| Total SWL | | | | | | 0 | | | | | Total SWL | 0 |
| Zone C - Excavation Works (Soft, Rock & Installation of Struts) - Below Roof Slab | Breaker, excavator mounted/ Hydraulic breaker | 80 | -1 | 3 | CNP028 | 0 | 0 | - | - | - | - | 0 |
| | Rock Drill | 30 | -5 | 1 | CNP182 | 0 | 0 | - | - | - | - | 0 |
| | Excavator | 50 | -3 | 2 | CNP081 | 0 | 0 | - | - | - | - | 0 |
| | Water Pump, Submersible | 90 | 0 | 2 | CNP283 | 0 | 0 | - | - | - | - | 0 |
| Total SWL | | | | | | 0 | | | | | Total SWL | 0 |

Note:

[1] Percentage on time within 30 minutes.

[2] PME with code "EPD-XXXXX" are quiet equipment with SWLs extracted from EPD's QPME inventory.

[3] The plant with code "CPME#" are referenced from EPD's guidance "Sound Power Level of Other Commonly Used PME" from https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf

[4] The activities of constructions are carried out in phases, i.e. will not happen at the same time at the same workfront.

[5] The PME working underground is shaded in grey and the SWL is assumed as 0 dB(A).

Project: Environmental Consultancy No. C1202 EIA Study for Tung Chung Line Extension
Title: TCW (Modified Base Scheme - 18 Nov 2020 Program) Excavation (Station Box)

| TCW Excavation (Station Box) | | | | | | | | | | | | | |
|---|---|---------------------------------|-----------------------|-------|---------------|-----------------------|-------------------------------|------------------------------------|------------------------|---------------------|------------------|-------------------------------|------------|
| | | | | | Unmitigated | | | Mitigated | | | | | |
| Works Area/ Activity | PME | % Operating Time ^[1] | Time Correction dB(A) | Units | PME Reference | Single Unit PME dB(A) | Total SWL dB(A) | QPME Reference ^{[2], [3]} | Single Unit QPME dB(A) | Mitigation Measures | Correction dB(A) | Total SWL dB(A) | |
| Mucking out Opening B1 - Excavation Works (Soft & Installation of Struts) | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 | |
| | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 20 | -7 | 1 | CNP048 | 112 | 105 | EPD-09130 | 101 | Barrier | -5 | 89 | |
| | Lorry | 20 | -7 | 1 | CNP141 | 112 | 105 | CPME# | 105 | Barrier | -5 | 93 | |
| | Ventilation Fan | 90 | 0 | 1 | CNP241 | 108 | 108 | | | Silencer | -15 | 93 | |
| | | | | | | | Total SWL | 114 | | | | Total SWL | 99 |
| Mucking out Opening B1 - Excavation Works (Soft, Rock & Installation of Struts) | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 | |
| | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 20 | -7 | 1 | CNP048 | 112 | 105 | EPD-09130 | 101 | Barrier | -5 | 89 | |
| | Lorry | 20 | -7 | 1 | CNP141 | 112 | 105 | CPME# | 105 | Barrier | -5 | 93 | |
| | Ventilation Fan | 90 | 0 | 1 | CNP241 | 108 | 108 | | | Silencer | -15 | 93 | |
| | | | | | | | Total SWL | 114 | | | | Total SWL | 99 |
| | | | | | | | Max SWL ^[4] | 114 | | | | Max SWL ^[4] | 99 |
| Mucking out Opening B2 - Excavation Works (Soft & Installation of Struts) | Dump Truck | 50 | -3 | 1 | CPME# | 105 | 102 | | | Barrier | -5 | 97 | |
| | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 | |
| | Ventilation Fan | 90 | 0 | 1 | CNP241 | 108 | 108 | | | Silencer | -15 | 93 | |
| | | | | | | | Total SWL | 113 | | | | Total SWL | 100 |
| Mucking out Opening B2 - Excavation Works (Soft, Rock & Installation of Struts) | Dump Truck | 50 | -3 | 1 | CPME# | 105 | 102 | | | Barrier | -5 | 97 | |
| | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 | |
| | Ventilation Fan | 90 | 0 | 1 | CNP241 | 108 | 108 | | | Silencer | -15 | 93 | |
| | | | | | | | Total SWL | 113 | | | | Total SWL | 100 |
| | | | | | | | Max SWL ^[4] | 113 | | | | Max SWL ^[4] | 100 |
| Excavation S1 - Stationary Plant for Excavation Zone B | Generator | 90 | 0 | 2 | CNP103 | 95 | 98 | EPD-10735 | 87 | Barrier | -5 | 85 | |
| | | | | | | | Total SWL | 98 | | | | Total SWL | 85 |
| Zone B - Excavation Works (Soft & Installation of Struts) - Below Roof Slab | Breaker, excavator mounted/ Hydraulic breaker | 20 | -7 | 1 | CNP028 | 0 | 0 | - | - | - | - | 0 | |
| | Excavator | 80 | -1 | 4 | CNP081 | 0 | 0 | - | - | - | - | 0 | |
| | Water Pump (petrol) | 90 | 0 | 2 | CNP282 | 0 | 0 | - | - | - | - | 0 | |
| | | | | | | | Total SWL | 0 | | | | Total SWL | 0 |
| Zone B - Excavation Works (Soft, Rock & Installation of Struts) - Below Roof Slab | Breaker, excavator mounted/ Hydraulic breaker | 80 | -1 | 3 | CNP028 | 0 | 0 | - | - | - | - | 0 | |
| | Rock Drill | 30 | -5 | 1 | CNP182 | 0 | 0 | - | - | - | - | 0 | |
| | Excavator | 50 | -3 | 2 | CNP081 | 0 | 0 | - | - | - | - | 0 | |
| | Water Pump, Submersible | 90 | 0 | 2 | CNP283 | 0 | 0 | - | - | - | - | 0 | |
| | | | | | | | Total SWL | 0 | | | | Total SWL | 0 |

Note:

[1] Percentage on time within 30 minutes.

[2] PME with code "EPD-XXXXX" are quiet equipment with SWLs extracted from EPD's QPME inventory.

[3] The plant with code "CPME#" are referenced from EPD's guidance "Sound Power Level of Other Commonly Used PME" from https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf

[4] The activities of constructions are carried out in phases, i.e. will not happen at the same time at the same workfront.

[5] The PME working underground is shaded in grey and the SWL is assumed as 0 dB(A).

Project: Environmental Consultancy No. C1202 EIA Study for Tung Chung Line Extension
Title: TCW (Modified Base Scheme - 18 Nov 2020 Program) Excavation (Station Box)

| TCW Excavation (Station Box) | | | | | | | | | | | | |
|---|---|---------------------------------|-----------------------|-------|---------------|-----------------------|-----------------|------------------------------------|------------------------|---------------------|------------------|------------------|
| Works Area/ Activity | PME | % Operating Time ^[1] | Time Correction dB(A) | Units | PME Reference | Unmitigated | | Mitigated | | | | |
| | | | | | | Single Unit PME dB(A) | Total SWL dB(A) | QPME Reference ^{[2], [3]} | Single Unit QPME dB(A) | Mitigation Measures | Correction dB(A) | Total SWL dB(A) |
| Mucking out Opening D1 - Excavation Works (Soft & Installation of Struts) | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 |
| | Lorry | 20 | -7 | 1 | CNP141 | 112 | 105 | CPME# | 105 | Barrier | -5 | 93 |
| | Ventilation Fan | 90 | 0 | 1 | CNP241 | 108 | 108 | | | Silencer | -15 | 93 |
| | Total SWL | | | | | | 113 | | | | | Total SWL |
| Mucking out Opening D2 - Excavation Works (Soft & Installation of Struts) | Dump Truck | 50 | -3 | 1 | CPME# | 105 | 102 | | | Barrier | -5 | 97 |
| | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 |
| | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 20 | -7 | 1 | CNP048 | 112 | 105 | EPD-09130 | 101 | Barrier | -5 | 89 |
| | Ventilation Fan | 90 | 0 | 1 | CNP241 | 108 | 108 | | | Silencer | -15 | 93 |
| Total SWL | | | | | | 113 | | | | | Total SWL | 100 |
| Excavation S2 - Stationary Plant for Excavation Zone D | Generator | 90 | 0 | 2 | CNP103 | 95 | 98 | EPD-10735 | 87 | Barrier | -5 | 85 |
| Total SWL | | | | | | 98 | | | | | Total SWL | 85 |
| Zone D - Excavation Works (Soft & Installation of Struts) - Below Roof Slab | Breaker, excavator mounted/ Hydraulic breaker | 20 | -7 | 1 | CNP028 | 0 | 0 | - | - | - | - | 0 |
| | Excavator | 80 | -1 | 4 | CNP081 | 0 | 0 | - | - | - | - | 0 |
| | Water Pump (petrol) | 90 | 0 | 2 | CNP282 | 0 | 0 | - | - | - | - | 0 |
| Total SWL | | | | | | 0 | | | | | Total SWL | 0 |

Note:

[1] Percentage on time within 30 minutes.

[2] PME with code "EPD-XXXX" are quiet equipment with SWLs extracted from EPD's QPME inventory.

[3] The plant with code "CPME#" are referenced from EPD's guidance "Sound Power Level of Other Commonly Used PME" from https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf

[4] The PME working underground is shaded in grey and the SWL is assumed as 0 dB(A).

Project: Environmental Consultancy No. C1202 EIA Study for Tung Chung Line Extension
Title: TCW (Modified Base Scheme - 18 Nov 2020 Program) Excavation (Station Box)

| TCW Excavation (Station Box) | | | | | | | | | | | | | | |
|---|---|---------------------------------|-----------------------|-------|---------------|-------------------------------|-----------------|------------------------------------|------------------------|---------------------|------------------|-----------------|-------------------------------|------------|
| Works Area/ Activity | PME | % Operating Time ^[1] | Time Correction dB(A) | Units | PME Reference | Unmitigated | | Mitigated | | | | | | |
| | | | | | | Single Unit PME dB(A) | Total SWL dB(A) | QPME Reference ^{[2], [3]} | Single Unit QPME dB(A) | Mitigation Measures | Correction dB(A) | Total SWL dB(A) | | |
| Mucking out Opening E1 - Excavation Works (Soft & Installation of Struts) | Dump Truck | 50 | -3 | 1 | CPME# | 105 | 102 | | | Barrier | -5 | 97 | | |
| | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 | | |
| | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 20 | -7 | 1 | CNP048 | 112 | 105 | EPD-09130 | 101 | Barrier | -5 | 89 | | |
| | Lorry | 20 | -7 | 1 | CNP141 | 112 | 105 | CPME# | 105 | Barrier | -5 | 93 | | |
| | Ventilation Fan | 90 | 0 | 1 | CNP241 | 108 | 108 | | | Silencer | -15 | 93 | | |
| | | | | | | Total SWL | 114 | | | | | | Total SWL | 101 |
| Mucking out Opening E1 - Excavation Works (Soft, Rock & Installation of Struts) | Dump Truck | 50 | -3 | 1 | CPME# | 105 | 102 | | | Barrier | -5 | 97 | | |
| | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 | | |
| | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 20 | -7 | 1 | CNP048 | 112 | 105 | EPD-09130 | 101 | Barrier | -5 | 89 | | |
| | Lorry | 20 | -7 | 1 | CNP141 | 112 | 105 | CPME# | 105 | Barrier | -5 | 93 | | |
| | Ventilation Fan | 90 | 0 | 1 | CNP241 | 108 | 108 | | | Silencer | -15 | 93 | | |
| | | | | | | Total SWL | 114 | | | | | | Total SWL | 101 |
| | | | | | | Max SWL ^[4] | 114 | | | | | | Max SWL ^[4] | 101 |
| Excavation S3 - Stationary Plant for Excavation Zone E | Generator | 90 | 0 | 1 | CNP103 | 95 | 95 | EPD-10735 | 87 | Barrier | -5 | 82 | | |
| | | | | | | Total SWL | 95 | | | | | | Total SWL | 82 |
| Zone E - Excavation Works (Soft & Installation of Struts) | Breaker, excavator mounted/ Hydraulic breaker | 20 | -7 | 1 | CNP028 | 0 | 0 | - | - | - | - | 0 | | |
| | Excavator | 80 | -1 | 2 | CNP081 | 0 | 0 | - | - | - | - | 0 | | |
| | Water Pump (petrol) | 90 | 0 | 1 | CNP282 | 0 | 0 | - | - | - | - | 0 | | |
| | | | | | | Total SWL | 0 | | | | | | Total SWL | 0 |
| Zone E - Excavation Works (Soft, Rock & Installation of Struts) | Breaker, excavator mounted/ Hydraulic breaker | 80 | -1 | 1 | CNP028 | 0 | 0 | - | - | - | - | 0 | | |
| | Rock Drill | 30 | -5 | 1 | CNP182 | 0 | 0 | - | - | - | - | 0 | | |
| | Excavator | 50 | -3 | 2 | CNP081 | 0 | 0 | - | - | - | - | 0 | | |
| | Water Pump, Submersible | 90 | 0 | 1 | CNP283 | 0 | 0 | - | - | - | - | 0 | | |
| | | | | | | Total SWL | 0 | | | | | | Total SWL | 0 |

Note:

[1] Percentage on time within 30 minutes.

[2] PME with code "EPD-XXXX" are quiet equipment with SWLs extracted from EPD's QPME inventory.

[3] The plant with code "CPME#" are referenced from EPD's guidance "Sound Power Level of Other Commonly Used PME" from https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf

[4] The activities of constructions are carried out in phases, i.e. will not happen at the same time at the same workfront.

[5] The PME working underground is shaded in grey and the SWL is assumed as 0 dB(A).

Project: Environmental Consultancy No. C1202 EIA Study for Tung Chung Line Extension
Title: TCW (Modified Base Scheme - 18 Nov 2020 Program) Structural Works (Station Box)

| TCW Structural Works (Station Box) - Zone A | | | | | | | | | | | | | |
|---|---|---------------------------------|-----------------------|-------|---------------|-----------------------|-----------------|------------------------------------|------------------------|---------------------|------------------|------------------------------|------------|
| Works Area/ Activity | PME | % Operating Time ^[1] | Time Correction dB(A) | Units | Unmitigated | | | Mitigated | | | | | |
| | | | | | PME Reference | Single Unit PME dB(A) | Total SWL dB(A) | QPME Reference ^{[2], [3]} | Single Unit QPME dB(A) | Mitigation Measures | Correction dB(A) | Total SWL dB(A) | |
| Mucking out Opening A1 - Station Structure Construction - Roof Slab | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 | |
| | Lorry | 40 | -4 | 1 | CNP141 | 112 | 108 | CPME# | 105 | Barrier | -5 | 96 | |
| | Saw, Circular, Wood | 50 | -3 | 1 | CNP201 | 108 | 105 | | | Barrier | -10 | 95 | |
| | Vibratory Poker | 60 | -2 | 3 | CNP170 | 113 | 116 | CPME# | 102 | Barrier | -10 | 95 | |
| | Electric drill/ Rock driller | 60 | -2 | 1 | CNP064 | 103 | 101 | EPD-08781 | 99 | Barrier | -5 | 92 | |
| Total SWL | | | | | | | 118 | | | | | Total SWL | 102 |
| Mucking out Opening A1 - Station Structure Construction - Concourse Slab | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 | |
| | Lorry | 40 | -4 | 1 | CNP141 | 112 | 108 | CPME# | 105 | Barrier | -5 | 96 | |
| | Ventilation Fan | 90 | 0 | 1 | CNP241 | 108 | 108 | | | Silencer | -15 | 93 | |
| Total SWL | | | | | | | 114 | | | | | Total SWL | 99 |
| Mucking out Opening A1 - Station Structure Construction - Mezzanine Slab | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 | |
| | Lorry | 40 | -4 | 1 | CNP141 | 112 | 108 | CPME# | 105 | Barrier | -5 | 96 | |
| | Ventilation Fan | 90 | 0 | 1 | CNP241 | 108 | 108 | | | Silencer | -15 | 93 | |
| Total SWL | | | | | | | 114 | | | | | Total SWL | 99 |
| Mucking out Opening A1 - Station Structure Construction - Base Slab/ Platform Slab | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 | |
| | Lorry | 40 | -4 | 1 | CNP141 | 112 | 108 | CPME# | 105 | Barrier | -5 | 96 | |
| | Ventilation Fan | 90 | 0 | 1 | CNP241 | 108 | 108 | | | Silencer | -15 | 93 | |
| Total SWL | | | | | | | 114 | | | | | Total SWL | 99 |
| Mucking out Opening A1 - Station Structure Construction - OTE Slab & Platform Plantroom | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 | |
| | Lorry | 40 | -4 | 1 | CNP141 | 112 | 108 | CPME# | 105 | Barrier | -5 | 96 | |
| | Ventilation Fan | 90 | 0 | 1 | CNP241 | 108 | 108 | | | Silencer | -15 | 93 | |
| Total SWL | | | | | | | 114 | | | | | Total SWL | 99 |
| Max SWL^[4] | | | | | | | 114 | | | | | Max SWL^[4] | 99 |
| Structural S1 - Stationary Plant for Structural Zone A | Generator | 90 | 0 | 1 | CNP103 | 95 | 95 | EPD-10735 | 87 | Barrier | -5 | 82 | |
| | Air Compressor | 20 | -7 | 1 | CNP003 | 104 | 97 | EPD-09607 | 93 | Barrier | -5 | 81 | |
| | Bar Bender and Cutter | 70 | -2 | 1 | CNP021 | 90 | 88 | | | Barrier | -10 | 78 | |
| | Concrete Lorry Mixer/ Concrete Truck | 80 | -1 | 1 | CNP044 | 109 | 108 | | | Barrier | -5 | 103 | |
| | Concrete Pump/ Electric Bentonite Circulation Pump | 80 | -1 | 1 | CNP047 | 109 | 108 | | | Enclosure | -15 | 93 | |
| Total SWL | | | | | | | 111 | | | | | Total SWL | 104 |
| Zone A Below Roof Slab - Station Structure Construction - Concourse Slab | Saw, Circular, Wood | 50 | -3 | 1 | CNP201 | 0 | 0 | - | - | - | - | 0 | |
| | Electric drill/ Rock driller | 60 | -2 | 1 | CNP064 | 0 | 0 | - | - | - | - | 0 | |
| | Vibratory Poker | 60 | -2 | 3 | CNP170 | 0 | 0 | - | - | - | - | 0 | |
| | Water Pump, Submersible | 50 | -3 | 1 | CNP283 | 0 | 0 | - | - | - | - | 0 | |
| Total SWL | | | | | | | 0 | | | | | Total SWL | 0 |
| Zone A Below Roof Slab - Station Structure Construction - Mezzanine Slab | Saw, Circular, Wood | 50 | -3 | 1 | CNP201 | 0 | 0 | - | - | - | - | 0 | |
| | Electric drill/ Rock driller | 60 | -2 | 1 | CNP064 | 0 | 0 | - | - | - | - | 0 | |
| | Vibratory Poker | 60 | -2 | 3 | CNP170 | 0 | 0 | - | - | - | - | 0 | |
| | Water Pump, Submersible | 50 | -3 | 1 | CNP283 | 0 | 0 | - | - | - | - | 0 | |
| Total SWL | | | | | | | 0 | | | | | Total SWL | 0 |
| Zone A Below Roof Slab - Station Structure Construction - Base Slab/ Platform Slab | Saw, Circular, Wood | 50 | -3 | 1 | CNP201 | 0 | 0 | - | - | - | - | 0 | |
| | Electric drill/ Rock driller | 60 | -2 | 1 | CNP064 | 0 | 0 | - | - | - | - | 0 | |
| | Vibratory Poker | 60 | -2 | 3 | CNP170 | 0 | 0 | - | - | - | - | 0 | |
| | Water Pump, Submersible | 50 | -3 | 1 | CNP283 | 0 | 0 | - | - | - | - | 0 | |
| Total SWL | | | | | | | 0 | | | | | Total SWL | 0 |
| Zone A Below Roof Slab - Station Structure Construction - Platform Slab | Saw, Circular, Wood | 50 | -3 | 1 | CNP201 | 0 | 0 | - | - | - | - | 0 | |
| | Electric drill/ Rock driller | 60 | -2 | 1 | CNP064 | 0 | 0 | - | - | - | - | 0 | |
| | Vibratory Poker | 60 | -2 | 2 | CNP170 | 0 | 0 | - | - | - | - | 0 | |
| | Water Pump, Submersible | 50 | -3 | 1 | CNP283 | 0 | 0 | - | - | - | - | 0 | |
| Total SWL | | | | | | | 0 | | | | | Total SWL | 0 |
| Zone A Below Roof Slab - Station Structure Construction - OTE Slab & Platform Plantroom | Saw, Circular, Wood | 50 | -3 | 1 | CNP201 | 0 | 0 | - | - | - | - | 0 | |
| | Electric drill/ Rock driller | 60 | -2 | 1 | CNP064 | 0 | 0 | - | - | - | - | 0 | |
| | Vibratory Poker | 60 | -2 | 2 | CNP170 | 0 | 0 | - | - | - | - | 0 | |
| | Water Pump, Submersible | 50 | -3 | 1 | CNP283 | 0 | 0 | - | - | - | - | 0 | |
| Total SWL | | | | | | | 0 | | | | | Total SWL | 0 |

Note:

[1] Percentage on time within 30 minutes.

[2] PME with code "EPD-XXXX" are quiet equipment with SWLs extracted from EPD's QPME inventory.

[3] The plant with code "CPME#" are referenced from EPD's guidance "Sound Power Level of Other Commonly Used PME" from https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf

[4] The activities of constructions are carried out in phases, i.e. will not happen at the same time at the same workfront.

[5] The PME working underground is shaded in grey and the SWL is assumed as 0 dB(A).

Project: Environmental Consultancy No. C1202 EIA Study for Tung Chung Line Extension
Title: TCW (Modified Base Scheme - 18 Nov 2020 Program) Structural Works (Station Box)

| TCW Structural Works (Station Box) - Zone B | | | | | | | | | | | | | | |
|---|---|---------------------------------|-----------------------|-------|---------------|------------------------------|-----------------|------------------------------------|------------------------|---------------------|------------------|-----------------|------------------------------|------------|
| Works Area/ Activity | PME | % Operating Time ^[1] | Time Correction dB(A) | Units | PME Reference | Unmitigated | | Mitigated | | | | | | |
| | | | | | | Single Unit PME dB(A) | Total SWL dB(A) | QPME Reference ^{[2], [3]} | Single Unit QPME dB(A) | Mitigation Measures | Correction dB(A) | Total SWL dB(A) | | |
| Mucking out Opening B1 - Station Structure Construction - Roof Slab | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 | | |
| | Lorry | 50 | -3 | 1 | CNP141 | 112 | 109 | CPME# | 105 | Barrier | -5 | 97 | | |
| | Saw, Circular, Wood | 50 | -3 | 1 | CNP201 | 108 | 105 | | | Barrier | -10 | 95 | | |
| | Vibratory Poker | 60 | -2 | 2 | CNP170 | 113 | 114 | CPME# | 102 | Barrier | -10 | 93 | | |
| | Electric drill/ Rock driller | 60 | -2 | 1 | CNP064 | 103 | 101 | EPD-08781 | 99 | Barrier | -5 | 92 | | |
| | | | | | | Total SWL | 117 | | | | | | Total SWL | 102 |
| Mucking out Opening B1 - Station Structure Construction - Concourse Slab | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 | | |
| | Lorry | 50 | -3 | 1 | CNP141 | 112 | 109 | CPME# | 105 | Barrier | -5 | 97 | | |
| | Ventilation Fan | 90 | 0 | 1 | CNP241 | 108 | 108 | | | Silencer | -15 | 93 | | |
| | | | | | | Total SWL | 114 | | | | | | Total SWL | 100 |
| Mucking out Opening B1 - Station Structure Construction - Mezzanine Slab | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 | | |
| | Lorry | 50 | -3 | 1 | CNP141 | 112 | 109 | CPME# | 105 | Barrier | -5 | 97 | | |
| | Ventilation Fan | 90 | 0 | 1 | CNP241 | 108 | 108 | | | Silencer | -15 | 93 | | |
| | | | | | | Total SWL | 114 | | | | | | Total SWL | 100 |
| Mucking out Opening B1 - Station Structure Construction - Base Slab/ Platform Slab | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 | | |
| | Lorry | 50 | -3 | 1 | CNP141 | 112 | 109 | CPME# | 105 | Barrier | -5 | 97 | | |
| | Ventilation Fan | 90 | 0 | 1 | CNP241 | 108 | 108 | | | Silencer | -15 | 93 | | |
| | | | | | | Total SWL | 114 | | | | | | Total SWL | 100 |
| Mucking out Opening B1 - Station Structure Construction - OTE Slab & Platform Plantroom | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 | | |
| | Lorry | 50 | -3 | 1 | CNP141 | 112 | 109 | CPME# | 105 | Barrier | -5 | 97 | | |
| | Ventilation Fan | 90 | 0 | 1 | CNP241 | 108 | 108 | | | Silencer | -15 | 93 | | |
| | | | | | | Total SWL | 114 | | | | | | Total SWL | 100 |
| | | | | | | Max SWL^[4] | 114 | | | | | | Max SWL^[4] | 100 |
| Mucking out Opening B2 - Station Structure Construction - Roof Slab | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 | | |
| | Lorry | 50 | -3 | 1 | CNP141 | 112 | 109 | CPME# | 105 | Barrier | -5 | 97 | | |
| | Saw, Circular, Wood | 50 | -3 | 1 | CNP201 | 108 | 105 | | | Barrier | -10 | 95 | | |
| | Vibratory Poker | 60 | -2 | 2 | CNP170 | 113 | 114 | CPME# | 102 | Barrier | -10 | 93 | | |
| | Electric drill/ Rock driller | 60 | -2 | 1 | CNP064 | 103 | 101 | EPD-08781 | 99 | Barrier | -5 | 92 | | |
| | | | | | | Total SWL | 117 | | | | | | Total SWL | 102 |
| Mucking out Opening B2 - Station Structure Construction - Concourse Slab | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 | | |
| | Lorry | 50 | -3 | 1 | CNP141 | 112 | 109 | CPME# | 105 | Barrier | -5 | 97 | | |
| | Ventilation Fan | 90 | 0 | 1 | CNP241 | 108 | 108 | | | Silencer | -15 | 93 | | |
| | | | | | | Total SWL | 114 | | | | | | Total SWL | 100 |
| Mucking out Opening B2 - Station Structure Construction - Mezzanine Slab | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 | | |
| | Lorry | 50 | -3 | 1 | CNP141 | 112 | 109 | CPME# | 105 | Barrier | -5 | 97 | | |
| | Ventilation Fan | 90 | 0 | 1 | CNP241 | 108 | 108 | | | Silencer | -15 | 93 | | |
| | | | | | | Total SWL | 114 | | | | | | Total SWL | 100 |
| Mucking out Opening B2 - Station Structure Construction - Base Slab/ Platform Slab | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 | | |
| | Lorry | 50 | -3 | 1 | CNP141 | 112 | 109 | CPME# | 105 | Barrier | -5 | 97 | | |
| | Ventilation Fan | 90 | 0 | 1 | CNP241 | 108 | 108 | | | Silencer | -15 | 93 | | |
| | | | | | | Total SWL | 114 | | | | | | Total SWL | 100 |
| Mucking out Opening B2 - Station Structure Construction - OTE Slab & Platform Plantroom | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 | | |
| | Lorry | 50 | -3 | 1 | CNP141 | 112 | 109 | CPME# | 105 | Barrier | -5 | 97 | | |
| | Ventilation Fan | 90 | 0 | 1 | CNP241 | 108 | 108 | | | Silencer | -15 | 93 | | |
| | | | | | | Total SWL | 114 | | | | | | Total SWL | 100 |
| | | | | | | Max SWL^[4] | 114 | | | | | | Max SWL^[4] | 100 |

Project: Environmental Consultancy No. C1202 EIA Study for Tung Chung Line Extension
Title: TCW (Modified Base Scheme - 18 Nov 2020 Program) Structural Works (Station Box)

| TCW Structural Works (Station Box) - Zone B | | | | | | | | | | | | | | |
|---|--|---------------------------------|-----------------------|-------|---------------|-----------------------|-----------------|------------------------------------|------------------------|---------------------|------------------|-----------------|------------------|------------|
| Works Area/ Activity | PME | % Operating Time ^[1] | Time Correction dB(A) | Units | PME Reference | Unmitigated | | Mitigated | | | | | | |
| | | | | | | Single Unit PME dB(A) | Total SWL dB(A) | QPME Reference ^{[2], [3]} | Single Unit QPME dB(A) | Mitigation Measures | Correction dB(A) | Total SWL dB(A) | | |
| Structural S1 - Stationary Plant for Structural Zone B | Generator | 90 | 0 | 1 | CNP103 | 95 | 95 | EPD-10735 | 87 | Barrier | -5 | 82 | | |
| | Air Compressor | 20 | -7 | 1 | CNP003 | 104 | 97 | EPD-09607 | 93 | Barrier | -5 | 81 | | |
| | Bar Bender and Cutter | 70 | -2 | 1 | CNP021 | 90 | 88 | | | Barrier | -10 | 78 | | |
| | Concrete Lorry Mixer/ Concrete Truck | 80 | -1 | 1 | CNP044 | 109 | 108 | | | Barrier | -5 | 103 | | |
| | Concrete Pump/ Electric Bentonite Circulation Pump | 80 | -1 | 1 | CNP047 | 109 | 108 | | | Enclosure | -15 | 93 | | |
| | | | | | | Total SWL | 111 | | | | | | Total SWL | 104 |
| Zone B Below Roof Slab - Station Structure Construction - Concourse Slab | Saw, Circular, Wood | 50 | -3 | 1 | CNP201 | 0 | 0 | - | - | - | - | 0 | | |
| | Electric drill/ Rock driller | 60 | -2 | 1 | CNP064 | 0 | 0 | - | - | - | - | 0 | | |
| | Vibratory Poker | 60 | -2 | 3 | CNP170 | 0 | 0 | - | - | - | - | 0 | | |
| | Water Pump, Submersible | 50 | -3 | 2 | CNP283 | 0 | 0 | - | - | - | - | 0 | | |
| | | | | | | Total SWL | 0 | | | | | | Total SWL | 0 |
| Zone B Below Roof Slab - Station Structure Construction - Mezzanine Slab | Saw, Circular, Wood | 50 | -3 | 1 | CNP201 | 0 | 0 | - | - | - | - | 0 | | |
| | Electric drill/ Rock driller | 60 | -2 | 1 | CNP064 | 0 | 0 | - | - | - | - | 0 | | |
| | Vibratory Poker | 60 | -2 | 3 | CNP170 | 0 | 0 | - | - | - | - | 0 | | |
| | Water Pump, Submersible | 50 | -3 | 2 | CNP283 | 0 | 0 | - | - | - | - | 0 | | |
| | | | | | | Total SWL | 0 | | | | | | Total SWL | 0 |
| Zone B Below Roof Slab - Station Structure Construction - Base Slab/ Platform | Saw, Circular, Wood | 50 | -3 | 1 | CNP201 | 0 | 0 | - | - | - | - | 0 | | |
| | Electric drill/ Rock driller | 60 | -2 | 1 | CNP064 | 0 | 0 | - | - | - | - | 0 | | |
| | Vibratory Poker | 60 | -2 | 3 | CNP170 | 0 | 0 | - | - | - | - | 0 | | |
| | Water Pump, Submersible | 50 | -3 | 2 | CNP283 | 0 | 0 | - | - | - | - | 0 | | |
| | | | | | | Total SWL | 0 | | | | | | Total SWL | 0 |
| Zone B Below Roof Slab - Station Structure Construction - OTE Slab & Platform Plantroom | Saw, Circular, Wood | 50 | -3 | 1 | CNP201 | 0 | 0 | - | - | - | - | 0 | | |
| | Electric drill/ Rock driller | 60 | -2 | 1 | CNP064 | 0 | 0 | - | - | - | - | 0 | | |
| | Vibratory Poker | 60 | -2 | 2 | CNP170 | 0 | 0 | - | - | - | - | 0 | | |
| | Water Pump, Submersible | 50 | -3 | 2 | CNP283 | 0 | 0 | - | - | - | - | 0 | | |
| | | | | | | Total SWL | 0 | | | | | | Total SWL | 0 |

Note:

[1] Percentage on time within 30 minutes.

[2] PME with code "EPD-XXXXX" are quiet equipment with SWLs extracted from EPD's QPME inventory.

[3] The plant with code "CPME#" are referenced from EPD's guidance "Sound Power Level of Other Commonly Used PME" from https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf

[4] The activities of constructions are carried out in phases, i.e. will not happen at the same time at the same workfront.

[5] The PME working underground is shaded in grey and the SWL is assumed as 0 dB(A).

Project: Environmental Consultancy No. C1202 EIA Study for Tung Chung Line Extension
Title: TCW (Modified Base Scheme - 18 Nov 2020 Program) Structural Works (Station Box)

| TCW Structural Works (Station Box) - Zone C | | | | | | | | | | | | | |
|---|---|---------------------------------|-----------------------|-------|---------------|------------------------------|-----------------|------------------------------------|------------------------|---------------------|------------------|------------------------------|------------|
| Works Area/ Activity | PME | % Operating Time ^[1] | Time Correction dB(A) | Units | PME Reference | Unmitigated | | Mitigated | | | | | |
| | | | | | | Single Unit PME dB(A) | Total SWL dB(A) | QPME Reference ^{[2], [3]} | Single Unit QPME dB(A) | Mitigation Measures | Correction dB(A) | Total SWL dB(A) | |
| Mucking out Opening C1 - Station Structure Construction - Roof Slab | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 | |
| | Lorry | 50 | -3 | 1 | CNP141 | 112 | 109 | CPME# | 105 | Barrier | -5 | 97 | |
| | Saw, Circular, Wood | 50 | -3 | 1 | CNP201 | 108 | 105 | | | Barrier | -10 | 95 | |
| | Vibratory Poker | 60 | -2 | 2 | CNP170 | 113 | 114 | CPME# | 102 | Barrier | -10 | 93 | |
| | Electric drill/ Rock driller | 60 | -2 | 1 | CNP064 | 103 | 101 | EPD-08781 | 99 | Barrier | -5 | 92 | |
| | | | | | | Total SWL | 117 | | | | | Total SWL | 102 |
| Mucking out Opening C1 - Station Structure Construction - Concourse Slab | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 | |
| | Lorry | 50 | -3 | 1 | CNP141 | 112 | 109 | CPME# | 105 | Barrier | -5 | 97 | |
| | Ventilation Fan | 90 | 0 | 1 | CNP241 | 108 | 108 | | | Silencer | -15 | 93 | |
| | | | | | | Total SWL | 114 | | | | | Total SWL | 100 |
| Mucking out Opening C1 - Station Structure Construction - Mezzanine Slab | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 | |
| | Lorry | 50 | -3 | 1 | CNP141 | 112 | 109 | CPME# | 105 | Barrier | -5 | 97 | |
| | Ventilation Fan | 90 | 0 | 1 | CNP241 | 108 | 108 | | | Silencer | -15 | 93 | |
| | | | | | | Total SWL | 114 | | | | | Total SWL | 100 |
| Mucking out Opening C1 - Station Structure Construction - Base Slab/ Platform Slab | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 | |
| | Lorry | 50 | -3 | 1 | CNP141 | 112 | 109 | CPME# | 105 | Barrier | -5 | 97 | |
| | Ventilation Fan | 90 | 0 | 1 | CNP241 | 108 | 108 | | | Silencer | -15 | 93 | |
| | | | | | | Total SWL | 114 | | | | | Total SWL | 100 |
| Mucking out Opening C1 - Station Structure Construction - OTE Slab & Platform Plantroom | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 | |
| | Lorry | 50 | -3 | 1 | CNP141 | 112 | 109 | CPME# | 105 | Barrier | -5 | 97 | |
| | Ventilation Fan | 90 | 0 | 1 | CNP241 | 108 | 108 | | | Silencer | -15 | 93 | |
| | | | | | | Total SWL | 114 | | | | | Total SWL | 100 |
| | | | | | | Max SWL^[4] | 114 | | | | | Max SWL^[4] | 100 |
| Mucking out Opening C2 - Station Structure Construction - Roof Slab | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 | |
| | Lorry | 50 | -3 | 1 | CNP141 | 112 | 109 | CPME# | 105 | Barrier | -5 | 97 | |
| | Saw, Circular, Wood | 50 | -3 | 1 | CNP201 | 108 | 105 | | | Barrier | -10 | 95 | |
| | Vibratory Poker | 60 | -2 | 2 | CNP170 | 113 | 114 | CPME# | 102 | Barrier | -10 | 93 | |
| | Electric drill/ Rock driller | 60 | -2 | 1 | CNP064 | 103 | 101 | EPD-08781 | 99 | Barrier | -5 | 92 | |
| | | | | | | Total SWL | 117 | | | | | Total SWL | 102 |
| Mucking out Opening C2 - Station Structure Construction - Concourse Slab | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 | |
| | Lorry | 50 | -3 | 1 | CNP141 | 112 | 109 | CPME# | 105 | Barrier | -5 | 97 | |
| | Ventilation Fan | 90 | 0 | 1 | CNP241 | 108 | 108 | | | Silencer | -15 | 93 | |
| | | | | | | Total SWL | 114 | | | | | Total SWL | 100 |
| Mucking out Opening C2 - Station Structure Construction - Mezzanine Slab | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 | |
| | Lorry | 50 | -3 | 1 | CNP141 | 112 | 109 | CPME# | 105 | Barrier | -5 | 97 | |
| | Ventilation Fan | 90 | 0 | 1 | CNP241 | 108 | 108 | | | Silencer | -15 | 93 | |
| | | | | | | Total SWL | 114 | | | | | Total SWL | 100 |
| Mucking out Opening C2 - Station Structure Construction - Base Slab/ Platform Slab | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 | |
| | Lorry | 50 | -3 | 1 | CNP141 | 112 | 109 | CPME# | 105 | Barrier | -5 | 97 | |
| | Ventilation Fan | 90 | 0 | 1 | CNP241 | 108 | 108 | | | Silencer | -15 | 93 | |
| | | | | | | Total SWL | 114 | | | | | Total SWL | 100 |
| Mucking out Opening C2 - Station Structure Construction - OTE Slab & Platform Plantroom | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 | |
| | Lorry | 50 | -3 | 1 | CNP141 | 112 | 109 | CPME# | 105 | Barrier | -5 | 97 | |
| | Ventilation Fan | 90 | 0 | 1 | CNP241 | 108 | 108 | | | Silencer | -15 | 93 | |
| | | | | | | Total SWL | 114 | | | | | Total SWL | 100 |
| | | | | | | Max SWL^[4] | 114 | | | | | Max SWL^[4] | 100 |

Project: Environmental Consultancy No. C1202 EIA Study for Tung Chung Line Extension
Title: TCW (Modified Base Scheme - 18 Nov 2020 Program) Structural Works (Station Box)

| TCW Structural Works (Station Box) - Zone C | | | | | | | | | | | | | | |
|---|--|---------------------------------|-----------------------|-------|---------------|-----------------------|-----------------|------------------------------------|------------------------|---------------------|------------------|-----------------|------------------|------------|
| Works Area/ Activity | PME | % Operating Time ^[1] | Time Correction dB(A) | Units | PME Reference | Unmitigated | | Mitigated | | | | | | |
| | | | | | | Single Unit PME dB(A) | Total SWL dB(A) | QPME Reference ^{[2], [3]} | Single Unit QPME dB(A) | Mitigation Measures | Correction dB(A) | Total SWL dB(A) | | |
| Structural S2 - Stationary Plant for Structural Zone C | Generator | 90 | 0 | 1 | CNP103 | 95 | 95 | EPD-10735 | 87 | Barrier | -5 | 82 | | |
| | Air Compressor | 20 | -7 | 1 | CNP003 | 104 | 97 | EPD-09607 | 93 | Barrier | -5 | 81 | | |
| | Bar Bender and Cutter | 70 | -2 | 1 | CNP021 | 90 | 88 | | | Barrier | -10 | 78 | | |
| | Concrete Lorry Mixer/ Concrete Truck | 80 | -1 | 1 | CNP044 | 109 | 108 | | | Barrier | -5 | 103 | | |
| | Concrete Pump/ Electric Bentonite Circulation Pump | 80 | -1 | 1 | CNP047 | 109 | 108 | | | Enclosure | -15 | 93 | | |
| | | | | | | Total SWL | 111 | | | | | | Total SWL | 104 |
| Zone C Below Roof Slab - Station Structure Construction - Concourse Slab | Saw, Circular, Wood | 50 | -3 | 1 | CNP201 | 0 | 0 | - | - | - | - | 0 | | |
| | Electric drill/ Rock driller | 60 | -2 | 1 | CNP064 | 0 | 0 | - | - | - | - | 0 | | |
| | Vibratory Poker | 60 | -2 | 3 | CNP170 | 0 | 0 | - | - | - | - | 0 | | |
| | Water Pump, Submersible | 50 | -3 | 2 | CNP283 | 0 | 0 | - | - | - | - | 0 | | |
| | | | | | | Total SWL | 0 | | | | | | Total SWL | 0 |
| Zone C Below Roof Slab - Station Structure Construction - Mezzanine Slab | Saw, Circular, Wood | 50 | -3 | 1 | CNP201 | 0 | 0 | - | - | - | - | 0 | | |
| | Electric drill/ Rock driller | 60 | -2 | 1 | CNP064 | 0 | 0 | - | - | - | - | 0 | | |
| | Vibratory Poker | 60 | -2 | 3 | CNP170 | 0 | 0 | - | - | - | - | 0 | | |
| | Water Pump, Submersible | 50 | -3 | 2 | CNP283 | 0 | 0 | - | - | - | - | 0 | | |
| | | | | | | Total SWL | 0 | | | | | | Total SWL | 0 |
| Zone C Below Roof Slab - Station Structure Construction - Base Slab/ Platform Slab | Saw, Circular, Wood | 50 | -3 | 1 | CNP201 | 0 | 0 | - | - | - | - | 0 | | |
| | Electric drill/ Rock driller | 60 | -2 | 1 | CNP064 | 0 | 0 | - | - | - | - | 0 | | |
| | Vibratory Poker | 60 | -2 | 3 | CNP170 | 0 | 0 | - | - | - | - | 0 | | |
| | Water Pump, Submersible | 50 | -3 | 2 | CNP283 | 0 | 0 | - | - | - | - | 0 | | |
| | | | | | | Total SWL | 0 | | | | | | Total SWL | 0 |
| Zone C Below Roof Slab - Station Structure Construction - OTE Slab & Platform Plantroom | Saw, Circular, Wood | 50 | -3 | 1 | CNP201 | 0 | 0 | - | - | - | - | 0 | | |
| | Electric drill/ Rock driller | 60 | -2 | 1 | CNP064 | 0 | 0 | - | - | - | - | 0 | | |
| | Vibratory Poker | 60 | -2 | 2 | CNP170 | 0 | 0 | - | - | - | - | 0 | | |
| | Water Pump, Submersible | 50 | -3 | 2 | CNP283 | 0 | 0 | - | - | - | - | 0 | | |
| | | | | | | Total SWL | 0 | | | | | | Total SWL | 0 |

Note:

[1] Percentage on time within 30 minutes.

[2] PME with code "EPD-XXXXX" are quiet equipment with SWLs extracted from EPD's QPME inventory.

[3] The plant with code "CPME#" are referenced from EPD's guidance "Sound Power Level of Other Commonly Used PME" from https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf

[4] The activities of constructions are carried out in phases, i.e. will not happen at the same time at the same workfront.

[5] The PME working underground is shaded in grey and the SWL is assumed as 0 dB(A).

Project: Environmental Consultancy No. C1202 EIA Study for Tung Chung Line Extension
Title: TCW (Modified Base Scheme - 18 Nov 2020 Program) Structural Works (Station Box)

| TCW Structural Works (Station Box) - Zone D | | | | | | | | | | | | | | |
|---|---|---------------------------------|-----------------------|-------|---------------|------------------------------|-----------------|------------------------------------|------------------------|---------------------|------------------|-----------------|------------------------------|------------|
| Works Area/ Activity | PME | % Operating Time ^[1] | Time Correction dB(A) | Units | PME Reference | Unmitigated | | Mitigated | | | | | | |
| | | | | | | Single Unit PME dB(A) | Total SWL dB(A) | QPME Reference ^{[2], [3]} | Single Unit QPME dB(A) | Mitigation Measures | Correction dB(A) | Total SWL dB(A) | | |
| Mucking out Opening D1 - Station Structure Construction - Roof Slab | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 | | |
| | Lorry | 50 | -3 | 1 | CNP141 | 112 | 109 | CPME# | 105 | Barrier | -5 | 97 | | |
| | Saw, Circular, Wood | 50 | -3 | 1 | CNP201 | 108 | 105 | | | Barrier | -10 | 95 | | |
| | Vibratory Poker | 60 | -2 | 2 | CNP170 | 113 | 114 | CPME# | 102 | Barrier | -10 | 93 | | |
| | Electric drill/ Rock driller | 60 | -2 | 1 | CNP064 | 103 | 101 | EPD-08781 | 99 | Barrier | -5 | 92 | | |
| | | | | | | Total SWL | 117 | | | | | | Total SWL | 102 |
| Mucking out Opening D1 - Station Structure Construction - Concourse Slab | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 | | |
| | Lorry | 50 | -3 | 1 | CNP141 | 112 | 109 | CPME# | 105 | Barrier | -5 | 97 | | |
| | Ventilation Fan | 90 | 0 | 1 | CNP241 | 108 | 108 | | | Silencer | -15 | 93 | | |
| | | | | | | Total SWL | 114 | | | | | | Total SWL | 100 |
| Mucking out Opening D1 - Station Structure Construction - Mezzanine Slab | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 | | |
| | Lorry | 50 | -3 | 1 | CNP141 | 112 | 109 | CPME# | 105 | Barrier | -5 | 97 | | |
| | Ventilation Fan | 90 | 0 | 1 | CNP241 | 108 | 108 | | | Silencer | -15 | 93 | | |
| | | | | | | Total SWL | 114 | | | | | | Total SWL | 100 |
| Mucking out Opening D1 - Station Structure Construction - Base Slab/ Platform Slab | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 | | |
| | Lorry | 50 | -3 | 1 | CNP141 | 112 | 109 | CPME# | 105 | Barrier | -5 | 97 | | |
| | Ventilation Fan | 90 | 0 | 1 | CNP241 | 108 | 108 | | | Silencer | -15 | 93 | | |
| | | | | | | Total SWL | 114 | | | | | | Total SWL | 100 |
| Mucking out Opening D1 - Station Structure Construction - OTE Slab & Platform Plantroom | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 | | |
| | Lorry | 50 | -3 | 1 | CNP141 | 112 | 109 | CPME# | 105 | Barrier | -5 | 97 | | |
| | Ventilation Fan | 90 | 0 | 1 | CNP241 | 108 | 108 | | | Silencer | -15 | 93 | | |
| | | | | | | Total SWL | 114 | | | | | | Total SWL | 100 |
| | | | | | | Max SWL^[4] | 114 | | | | | | Max SWL^[4] | 100 |
| Mucking out Opening D2 - Station Structure Construction - Roof Slab | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 | | |
| | Lorry | 50 | -3 | 1 | CNP141 | 112 | 109 | CPME# | 105 | Barrier | -5 | 97 | | |
| | Saw, Circular, Wood | 50 | -3 | 1 | CNP201 | 108 | 105 | | | Barrier | -10 | 95 | | |
| | Vibratory Poker | 60 | -2 | 2 | CNP170 | 113 | 114 | CPME# | 102 | Barrier | -10 | 93 | | |
| | Electric drill/ Rock driller | 60 | -2 | 1 | CNP064 | 103 | 101 | EPD-08781 | 99 | Barrier | -5 | 92 | | |
| | | | | | | Total SWL | 117 | | | | | | Total SWL | 102 |
| Mucking out Opening D2 - Station Structure Construction - Concourse Slab | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 | | |
| | Lorry | 50 | -3 | 1 | CNP141 | 112 | 109 | CPME# | 105 | Barrier | -5 | 97 | | |
| | Ventilation Fan | 90 | 0 | 1 | CNP241 | 108 | 108 | | | Silencer | -15 | 93 | | |
| | | | | | | Total SWL | 114 | | | | | | Total SWL | 100 |
| Mucking out Opening D2 - Station Structure Construction - Mezzanine Slab | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 | | |
| | Lorry | 50 | -3 | 1 | CNP141 | 112 | 109 | CPME# | 105 | Barrier | -5 | 97 | | |
| | Ventilation Fan | 90 | 0 | 1 | CNP241 | 108 | 108 | | | Silencer | -15 | 93 | | |
| | | | | | | Total SWL | 114 | | | | | | Total SWL | 100 |
| Mucking out Opening D2 - Station Structure Construction - Base Slab/ Platform Slab | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 | | |
| | Lorry | 50 | -3 | 1 | CNP141 | 112 | 109 | CPME# | 105 | Barrier | -5 | 97 | | |
| | Ventilation Fan | 90 | 0 | 1 | CNP241 | 108 | 108 | | | Silencer | -15 | 93 | | |
| | | | | | | Total SWL | 114 | | | | | | Total SWL | 100 |
| Mucking out Opening D2 - Station Structure Construction - OTE Slab & Platform Plantroom | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 | | |
| | Lorry | 50 | -3 | 1 | CNP141 | 112 | 109 | CPME# | 105 | Barrier | -5 | 97 | | |
| | Ventilation Fan | 90 | 0 | 1 | CNP241 | 108 | 108 | | | Silencer | -15 | 93 | | |
| | | | | | | Total SWL | 114 | | | | | | Total SWL | 100 |
| | | | | | | Max SWL^[4] | 114 | | | | | | Max SWL^[4] | 100 |

Project: Environmental Consultancy No. C1202 EIA Study for Tung Chung Line Extension
Title: TCW (Modified Base Scheme - 18 Nov 2020 Program) Structural Works (Station Box)

| TCW Structural Works (Station Box) - Zone D | | | | | | | | | | | | | | |
|---|--|---------------------------------|-----------------------|-------|---------------|-----------------------|------------------|------------------------------------|------------------------|---------------------|------------------|-----------------|------------------|------------------|
| Works Area/ Activity | PME | % Operating Time ^[1] | Time Correction dB(A) | Units | PME Reference | Unmitigated | | Mitigated | | | | | | |
| | | | | | | Single Unit PME dB(A) | Total SWL dB(A) | QPME Reference ^{[2], [3]} | Single Unit QPME dB(A) | Mitigation Measures | Correction dB(A) | Total SWL dB(A) | | |
| Structural S2 - Stationary Plant for Structural Zone D | Generator | 90 | 0 | 1 | CNP103 | 95 | 95 | EPD-10735 | 87 | Barrier | -5 | 82 | | |
| | Air Compressor | 20 | -7 | 1 | CNP003 | 104 | 97 | EPD-09607 | 93 | Barrier | -5 | 81 | | |
| | Bar Bender and Cutter | 70 | -2 | 1 | CNP021 | 90 | 88 | | | Barrier | -10 | 78 | | |
| | Concrete Lorry Mixer/ Concrete Truck | 80 | -1 | 2 | CNP044 | 109 | 111 | | | Barrier | -5 | 106 | | |
| | Concrete Pump/ Electric Bentonite Circulation Pump | 80 | -1 | 2 | CNP047 | 109 | 111 | | | Enclosure | -15 | 96 | | |
| | | | | | | Total SWL | 114 | | | | | | Total SWL | 106 |
| Zone D Below Roof Slab - Station Structure Construction - Concourse Slab | Saw, Circular, Wood | 50 | -3 | 1 | CNP201 | 0 | 0 | - | - | - | - | 0 | | |
| | Electric drill/ Rock driller | 60 | -2 | 1 | CNP064 | 0 | 0 | - | - | - | - | 0 | | |
| | Vibratory Poker | 60 | -2 | 3 | CNP170 | 0 | 0 | - | - | - | - | 0 | | |
| | Water Pump, Submersible | 50 | -3 | 2 | CNP283 | 0 | 0 | - | - | - | - | 0 | | |
| | | | | | | | Total SWL | 0 | | | | | | Total SWL |
| Zone D Below Roof Slab - Station Structure Construction - Mezzanine Slab | Saw, Circular, Wood | 50 | -3 | 1 | CNP201 | 0 | 0 | - | - | - | - | 0 | | |
| | Electric drill/ Rock driller | 60 | -2 | 1 | CNP064 | 0 | 0 | - | - | - | - | 0 | | |
| | Vibratory Poker | 60 | -2 | 3 | CNP170 | 0 | 0 | - | - | - | - | 0 | | |
| | Water Pump, Submersible | 50 | -3 | 2 | CNP283 | 0 | 0 | - | - | - | - | 0 | | |
| | | | | | | | Total SWL | 0 | | | | | | Total SWL |
| Zone D Below Roof Slab - Station Structure Construction - Base Slab/ Platform Slab | Saw, Circular, Wood | 50 | -3 | 1 | CNP201 | 0 | 0 | - | - | - | - | 0 | | |
| | Electric drill/ Rock driller | 60 | -2 | 1 | CNP064 | 0 | 0 | - | - | - | - | 0 | | |
| | Vibratory Poker | 60 | -2 | 3 | CNP170 | 0 | 0 | - | - | - | - | 0 | | |
| | Water Pump, Submersible | 50 | -3 | 2 | CNP283 | 0 | 0 | - | - | - | - | 0 | | |
| | | | | | | | Total SWL | 0 | | | | | | Total SWL |
| Zone D Below Roof Slab - Station Structure Construction - OTE Slab & Platform Plantroom | Saw, Circular, Wood | 50 | -3 | 1 | CNP201 | 0 | 0 | - | - | - | - | 0 | | |
| | Electric drill/ Rock driller | 60 | -2 | 1 | CNP064 | 0 | 0 | - | - | - | - | 0 | | |
| | Vibratory Poker | 60 | -2 | 2 | CNP170 | 0 | 0 | - | - | - | - | 0 | | |
| | Water Pump, Submersible | 50 | -3 | 2 | CNP283 | 0 | 0 | - | - | - | - | 0 | | |
| | | | | | | | Total SWL | 0 | | | | | | Total SWL |

Note:

[1] Percentage on time within 30 minutes.

[2] PME with code "EPD-XXXXX" are quiet equipment with SWLs extracted from EPD's QPME inventory.

[3] The plant with code "CPME#" are referenced from EPD's guidance "Sound Power Level of Other Commonly Used PME" from https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf

[4] The activities of constructions are carried out in phases, i.e. will not happen at the same time at the same workfront.

[5] The PME working underground is shaded in grey and the SWL is assumed as 0 dB(A).

Project: Environmental Consultancy No. C1202 EIA Study for Tung Chung Line Extension
Title: TCW (Modified Base Scheme - 18 Nov 2020 Program) Structural Works (Station Box)

| TCW Structural Works (Station Box) - Zone E | | | | | | | | | | | | |
|---|---|---------------------------------|-----------------------|-------|---------------|-------------------------------|------------------|------------------------------------|------------------------|-------------------------------|------------------|-----------------|
| Works Area/ Activity | PME | % Operating Time ^[1] | Time Correction dB(A) | Units | PME Reference | Unmitigated | | Mitigated | | | | |
| | | | | | | Single Unit PME dB(A) | Total SWL dB(A) | QPME Reference ^{[2], [3]} | Single Unit QPME dB(A) | Mitigation Measures | Correction dB(A) | Total SWL dB(A) |
| Mucking out Opening E1 - Station Structure Construction - Roof Slab | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 |
| | Lorry | 40 | -4 | 1 | CNP141 | 112 | 108 | CPME# | 105 | Barrier | -5 | 96 |
| | Saw, Circular, Wood | 50 | -3 | 1 | CNP201 | 108 | 105 | | | Barrier | -10 | 95 |
| | Vibratory Poker | 60 | -2 | 3 | CNP170 | 113 | 116 | CPME# | 102 | Barrier | -10 | 95 |
| | Electric drill/ Rock driller | 60 | -2 | 1 | CNP064 | 103 | 101 | EPD-08781 | 99 | Barrier | -5 | 92 |
| | | | | | | Total SWL | 118 | | | Total SWL | 102 | |
| Mucking out Opening E1 - Station Structure Construction - Concourse Slab | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 |
| | Lorry | 40 | -4 | 1 | CNP141 | 112 | 108 | CPME# | 105 | Barrier | -5 | 96 |
| | Ventilation Fan | 90 | 0 | 1 | CNP241 | 108 | 108 | | | Silencer | -15 | 93 |
| | | | | | | Total SWL | 114 | | | Total SWL | 99 | |
| Mucking out Opening E1 - Station Structure Construction - Mezzanine Slab | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 |
| | Lorry | 40 | -4 | 1 | CNP141 | 112 | 108 | CPME# | 105 | Barrier | -5 | 96 |
| | Ventilation Fan | 90 | 0 | 1 | CNP241 | 108 | 108 | | | Silencer | -15 | 93 |
| | | | | | | Total SWL | 114 | | | Total SWL | 99 | |
| Mucking out Opening E1 - Station Structure Construction - Base Slab/ Platform Slab | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 |
| | Lorry | 40 | -4 | 1 | CNP141 | 112 | 108 | CPME# | 105 | Barrier | -5 | 96 |
| | Ventilation Fan | 90 | 0 | 1 | CNP241 | 108 | 108 | | | Silencer | -15 | 93 |
| | | | | | | Total SWL | 114 | | | Total SWL | 99 | |
| Mucking out Opening E1 - Station Structure Construction - OTE Slab & Platform Plantroom | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 |
| | Lorry | 40 | -4 | 1 | CNP141 | 112 | 108 | CPME# | 105 | Barrier | -5 | 96 |
| | Ventilation Fan | 90 | 0 | 1 | CNP241 | 108 | 108 | | | Silencer | -15 | 93 |
| | | | | | | Total SWL | 114 | | | Total SWL | 99 | |
| | | | | | | Max SWL ^[4] | 114 | | | Max SWL ^[4] | 99 | |
| Structural S2 - Stationary Plant for Structural Zone E | Generator | 90 | 0 | 1 | CNP103 | 95 | 95 | EPD-10735 | 87 | Barrier | -5 | 82 |
| | Air Compressor | 20 | -7 | 1 | CNP003 | 104 | 97 | EPD-09607 | 93 | Barrier | -5 | 81 |
| | Bar Bender and Cutter | 70 | -2 | 1 | CNP021 | 90 | 88 | | | Barrier | -10 | 78 |
| | Concrete Lorry Mixer/ Concrete Truck | 80 | -1 | 1 | CNP044 | 109 | 108 | | | Barrier | -5 | 103 |
| | Concrete Pump/ Electric Bentonite Circulation Pump | 80 | -1 | 1 | CNP047 | 109 | 108 | | | Enclosure | -15 | 93 |
| | | | | | | Total SWL | 111 | | | Total SWL | 104 | |
| Zone E Below Roof Slab - Station Structure Construction - Concourse Slab | Saw, Circular, Wood | 50 | -3 | 1 | CNP201 | 0 | 0 | - | - | - | - | 0 |
| | Electric drill/ Rock driller | 60 | -2 | 1 | CNP064 | 0 | 0 | - | - | - | - | 0 |
| | Vibratory Poker | 60 | -2 | 3 | CNP170 | 0 | 0 | - | - | - | - | 0 |
| | Water Pump, Submersible | 50 | -3 | 1 | CNP283 | 0 | 0 | - | - | - | - | 0 |
| | | | | | | | Total SWL | 0 | | | Total SWL | 0 |
| Zone E Below Roof Slab - Station Structure Construction - Mezzanine Slab | Saw, Circular, Wood | 50 | -3 | 1 | CNP201 | 0 | 0 | - | - | - | - | 0 |
| | Electric drill/ Rock driller | 60 | -2 | 1 | CNP064 | 0 | 0 | - | - | - | - | 0 |
| | Vibratory Poker | 60 | -2 | 3 | CNP170 | 0 | 0 | - | - | - | - | 0 |
| | Water Pump, Submersible | 50 | -3 | 1 | CNP283 | 0 | 0 | - | - | - | - | 0 |
| | | | | | | | Total SWL | 0 | | | Total SWL | 0 |
| Zone E Below Roof Slab - Station Structure Construction - Base Slab/ Platform Slab | Saw, Circular, Wood | 50 | -3 | 1 | CNP201 | 0 | 0 | - | - | - | - | 0 |
| | Electric drill/ Rock driller | 60 | -2 | 1 | CNP064 | 0 | 0 | - | - | - | - | 0 |
| | Vibratory Poker | 60 | -2 | 3 | CNP170 | 0 | 0 | - | - | - | - | 0 |
| | Water Pump, Submersible | 50 | -3 | 1 | CNP283 | 0 | 0 | - | - | - | - | 0 |
| | | | | | | | Total SWL | 0 | | | Total SWL | 0 |
| Zone E Below Roof Slab - Station Structure Construction - OTE Slab & Platform Plantroom | Saw, Circular, Wood | 50 | -3 | 1 | CNP201 | 0 | 0 | - | - | - | - | 0 |
| | Electric drill/ Rock driller | 60 | -2 | 1 | CNP064 | 0 | 0 | - | - | - | - | 0 |
| | Vibratory Poker | 60 | -2 | 3 | CNP170 | 0 | 0 | - | - | - | - | 0 |
| | Water Pump, Submersible | 50 | -3 | 1 | CNP283 | 0 | 0 | - | - | - | - | 0 |
| | | | | | | | Total SWL | 0 | | | Total SWL | 0 |

Note:

[1] Percentage on time within 30 minutes.

[2] PME with code "EPD-XXXX" are quiet equipment with SWLs extracted from EPD's QPME inventory.

[3] The plant with code "CPME#" are referenced from EPD's guidance "Sound Power Level of Other Commonly Used PME" from https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf

[4] The activities of constructions are carried out in phases, i.e. will not happen at the same time at the same workfront.

[5] The PME working underground is shaded in grey and the SWL is assumed as 0 dB(A).

Project: Environmental Consultancy No. C1202 EIA Study for Tung Chung Line Extension
Title: TCW (Modified Base Scheme - 18 Nov 2020 Program) - Vent Shaft Structures and Entrances

| TCW Station - Vent Shaft Structures and Entrances - Foundation Works | | | | | | | | | | | | | | |
|--|---|---------------------------------|-----------------------|-------|---------------|-------------------------------|-----------------|------------------------------------|------------------------|---------------------|------------------|-----------------|-------------------------------|------------|
| Works Area/ Activity | PME | % Operating Time ^[1] | Time Correction dB(A) | Units | PME Reference | Unmitigated | | Mitigated | | | | | | |
| | | | | | | Single Unit PME dB(A) | Total SWL dB(A) | QPME Reference ^{[2], [3]} | Single Unit QPME dB(A) | Mitigation Measures | Correction dB(A) | Total SWL dB(A) | | |
| North Vent Shaft Structure - Installation of Socket H-piles | Drill Rig, DTH Drilling Machine | 90 | 0 | 2 | CPME# | 110 | 113 | | | Barrier | -10 | 103 | | |
| | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 30 | -5 | 1 | CNP048 | 112 | 107 | EPD-09130 | 101 | Barrier | -5 | 91 | | |
| | Lorry | 10 | -10 | 1 | CNP141 | 112 | 102 | CPME# | 105 | Barrier | -5 | 90 | | |
| | | | | | | Total SWL | 114 | | | | | | Total SWL | 103 |
| North Vent Shaft Structure - Installation of Pipe Pile Wall | Drill Rig, DTH Drilling Machine | 90 | 0 | 2 | CPME# | 110 | 113 | | | Barrier | -10 | 103 | | |
| | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 30 | -5 | 1 | CNP048 | 112 | 107 | EPD-09130 | 101 | Barrier | -5 | 91 | | |
| | Lorry | 10 | -10 | 1 | CNP141 | 112 | 102 | CPME# | 105 | Barrier | -5 | 90 | | |
| | | | | | | Total SWL | 114 | | | | | | Total SWL | 103 |
| | | | | | | Max SWL ^[4] | 114 | | | | | | Max SWL ^[4] | 103 |
| Entrance A - Installation of Socket H-piles | Drill Rig, DTH Drilling Machine | 90 | 0 | 1 | CPME# | 110 | 110 | | | Barrier | -10 | 100 | | |
| | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 30 | -5 | 1 | CNP048 | 112 | 107 | EPD-09130 | 101 | Barrier | -5 | 91 | | |
| | Lorry | 10 | -10 | 1 | CNP141 | 112 | 102 | CPME# | 105 | Barrier | -5 | 90 | | |
| | | | | | | Total SWL | 112 | | | | | | Total SWL | 100 |
| Entrance A - Installation of Pipe Pile Wall | Drill Rig, DTH Drilling Machine | 90 | 0 | 1 | CPME# | 110 | 110 | | | Barrier | -10 | 100 | | |
| | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 30 | -5 | 1 | CNP048 | 112 | 107 | EPD-09130 | 101 | Barrier | -5 | 91 | | |
| | Lorry | 10 | -10 | 1 | CNP141 | 112 | 102 | CPME# | 105 | Barrier | -5 | 90 | | |
| | | | | | | Total SWL | 112 | | | | | | Total SWL | 100 |
| | | | | | | Max SWL ^[4] | 112 | | | | | | Max SWL ^[4] | 100 |
| Building S1 - Stationary Plant for North Vent Shaft Structure | Concrete Mixer/ Bentonite Mixer/ Grout Mixer | 20 | -7 | 1 | CNP045 | 96 | 89 | | | Barrier | -10 | 79 | | |
| | Air Compressor | 70 | -2 | 4 | CNP003 | 104 | 108 | EPD-09607 | 93 | Barrier | -5 | 92 | | |
| | Generator | 20 | -7 | 2 | CNP103 | 95 | 91 | EPD-10735 | 87 | Barrier | -5 | 78 | | |
| | | | | | | Total SWL | 109 | | | | | | Total SWL | 93 |
| Building S2 - Stationary Plant for Entrance A | Concrete Mixer/ Bentonite Mixer/ Grout Mixer | 20 | -7 | 1 | CNP045 | 96 | 89 | | | Barrier | -10 | 79 | | |
| | Air Compressor | 70 | -2 | 2 | CNP003 | 104 | 105 | EPD-09607 | 93 | Barrier | -5 | 89 | | |
| | Generator | 20 | -7 | 1 | CNP103 | 95 | 88 | EPD-10735 | 87 | Barrier | -5 | 75 | | |
| | | | | | | Total SWL | 106 | | | | | | Total SWL | 90 |

Note:

[1] Percentage on time within 30 minutes.

[2] PME with code "EPD-XXXXX" are quiet equipment with SWLs extracted from EPD's QPME inventory.

[3] The plant with code "CPME#" are referenced from EPD's guidance "Sound Power Level of Other Commonly Used PME" from https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf

[4] The activities of constructions are carried out in phases, i.e. will not happen at the same time at the same workfront.

Project: Environmental Consultancy No. C1202 EIA Study for Tung Chung Line Extension
Title: TCW (Modified Base Scheme - 18 Nov 2020 Program) - Vent Shaft Structures and Entrances

| TCW Station - Vent Shaft Structures and Entrances - Excavation Works | | | | | | | | | | | | | |
|---|---|---------------------------------|--------------------------|-------|---------------|--------------------------|--------------------|---------------------------------------|---------------------------|---------------------|---------------------|--------------------|-----------|
| Works Area/ Activity | PME | % Operating Time ^[1] | Time Correction dB(A) | Units | Unmitigated | | | Mitigated | | | | | |
| | | | | | PME Reference | Single Unit PME dB(A) | Total SWL dB(A) | QPME Reference ^{[2], [3]} | Single Unit QPME dB(A) | Mitigation Measures | Correction dB(A) | Total SWL dB(A) | |
| North Vent Shaft Structure - Excavation (Soft) and Installation of Struts | Excavator | 80 | -1 | 2 | CNP081 | 112 | 114 | EPD-07150 | 90 | Barrier | -5 | 87 | |
| | Lorry | 20 | -7 | 1 | CNP141 | 112 | 105 | CPME# | 105 | Barrier | -5 | 93 | |
| | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 30 | -5 | 1 | CNP048 | 112 | 107 | EPD-09130 | 101 | Barrier | -5 | 91 | |
| | Dump Truck | 50 | -3 | 1 | CPME# | 105 | 102 | | | Barrier | -5 | 97 | |
| Total SWL | | | | | | | 115 | | | | | Total SWL | 99 |
| Entrance A - Excavation (Soft) and Installation of Struts | Excavator | 80 | -1 | 2 | CNP081 | 112 | 114 | EPD-07150 | 90 | Barrier | -5 | 87 | |
| | Lorry | 20 | -7 | 1 | CNP141 | 112 | 105 | CPME# | 105 | Barrier | -5 | 93 | |
| | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 30 | -5 | 1 | CNP048 | 112 | 107 | EPD-09130 | 101 | Barrier | -5 | 91 | |
| | Dump Truck | 50 | -3 | 1 | CPME# | 105 | 102 | | | Barrier | -5 | 97 | |
| Total SWL | | | | | | | 115 | | | | | Total SWL | 99 |
| Building S1 - Stationary Plant for North Vent Shaft Structure | Generator | 90 | 0 | 1 | CNP103 | 95 | 95 | EPD-10735 | 87 | Barrier | -5 | 82 | |
| | Water pump | 20 | -7 | 1 | CNP281 | 88 | 81 | | | Barrier | -10 | 71 | |
| Total SWL | | | | | | | 95 | | | | | Total SWL | 82 |
| Building S2 - Stationary Plant for Entrance A | Generator | 90 | 0 | 1 | CNP103 | 95 | 95 | EPD-10735 | 87 | Barrier | -5 | 82 | |
| | Water pump | 20 | -7 | 1 | CNP281 | 88 | 81 | | | Barrier | -10 | 71 | |
| Total SWL | | | | | | | 95 | | | | | Total SWL | 82 |

Note:

[1] Percentage on time within 30 minutes.

[2] PME with code "EPD-XXXXX" are quiet equipment with SWLs extracted from EPD's QPME inventory.

[3] The plant with code "CPME#" are referenced from EPD's guidance "Sound Power Level of Other Commonly Used PME" from https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf

Project: Environmental Consultancy No. C1202 EIA Study for Tung Chung Line Extension
Title: TCW (Modified Base Scheme - 18 Nov 2020 Program) - Vent Shaft Structures and Entrances

| TCW Station - Vent Shaft Structures and Entrances - South Vent Shaft Structure Structural Works | | | | | | | | | | | | |
|---|---|---------------------------------|-----------------------|-------|---------------|------------------------------|-----------------|------------------------------------|------------------------|---------------------|------------------------------|-----------------|
| Works Area/ Activity | PME | % Operating Time ^[1] | Time Correction dB(A) | Units | PME Reference | Unmitigated | | Mitigated | | | | |
| | | | | | | Single Unit PME dB(A) | Total SWL dB(A) | QPME Reference ^{[2], [3]} | Single Unit QPME dB(A) | Mitigation Measures | Correction dB(A) | Total SWL dB(A) |
| South Vent Shaft Structure Structural Works (Construction of Walls at Station Roof Slab Level) | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 |
| | Lorry | 50 | -3 | 1 | CNP141 | 112 | 109 | CPME# | 105 | Barrier | -5 | 97 |
| | Vibratory Poker | 60 | -2 | 2 | CNP170 | 113 | 114 | CPME# | 102 | Barrier | -10 | 93 |
| | Total SWL | | | | | 116 | 116 | | | | | 100 |
| South Vent Shaft Structure Structural Works (Construction of Ground Level Slab) | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 |
| | Lorry | 50 | -3 | 1 | CNP141 | 112 | 109 | CPME# | 105 | Barrier | -5 | 97 |
| | Vibratory Poker | 60 | -2 | 2 | CNP170 | 113 | 114 | CPME# | 102 | Barrier | -10 | 93 |
| | Total SWL | | | | | 116 | 116 | | | | | 100 |
| South Vent Shaft Structure Structural Works (Construction of Ground Level Walls) | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 |
| | Lorry | 50 | -3 | 1 | CNP141 | 112 | 109 | CPME# | 105 | Barrier | -5 | 97 |
| | Vibratory Poker | 60 | -2 | 2 | CNP170 | 113 | 114 | CPME# | 102 | Barrier | -10 | 93 |
| | Total SWL | | | | | 116 | 116 | | | | | 100 |
| South Vent Shaft Structure Structural Works (Construction of 1st Level Slab) | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 |
| | Lorry | 50 | -3 | 1 | CNP141 | 112 | 109 | CPME# | 105 | Barrier | -5 | 97 |
| | Vibratory Poker | 60 | -2 | 2 | CNP170 | 113 | 114 | CPME# | 102 | Barrier | -10 | 93 |
| | Total SWL | | | | | 116 | 116 | | | | | 100 |
| South Vent Shaft Structure Structural Works (Construction of 1st Level Walls) | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 |
| | Lorry | 50 | -3 | 1 | CNP141 | 112 | 109 | CPME# | 105 | Barrier | -5 | 97 |
| | Vibratory Poker | 60 | -2 | 2 | CNP170 | 113 | 114 | CPME# | 102 | Barrier | -10 | 93 |
| | Total SWL | | | | | 116 | 116 | | | | | 100 |
| South Vent Shaft Structure Structural Works (Construction of Roof Slab) | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 |
| | Lorry | 50 | -3 | 1 | CNP141 | 112 | 109 | CPME# | 105 | Barrier | -5 | 97 |
| | Vibratory Poker | 60 | -2 | 2 | CNP170 | 113 | 114 | CPME# | 102 | Barrier | -10 | 93 |
| | Total SWL | | | | | 116 | 116 | | | | | 100 |
| South Vent Shaft Structure Structural Works (Construction of Plantrooms) | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 |
| | Lorry | 50 | -3 | 1 | CNP141 | 112 | 109 | CPME# | 105 | Barrier | -5 | 97 |
| | Vibratory Poker | 60 | -2 | 2 | CNP170 | 113 | 114 | CPME# | 102 | Barrier | -10 | 93 |
| | Total SWL | | | | | 116 | 116 | | | | | 100 |
| | | | | | | Max SWL^[4] | 116 | | | | Max SWL^[4] | 100 |
| Building S2 - Stationary Plant for South Vent Shaft Structure | Generator | 90 | 0 | 1 | CNP103 | 95 | 95 | EPD-10735 | 87 | Barrier | -5 | 82 |
| | Bar Bender and Cutter | 70 | -2 | 1 | CNP021 | 90 | 88 | | | Barrier | -10 | 78 |
| | Air Compressor | 20 | -7 | 1 | CNP003 | 104 | 97 | EPD-09607 | 93 | Barrier | -5 | 81 |
| | Concrete Lorry Mixer/ Concrete Truck | 50 | -3 | 1 | CNP044 | 109 | 106 | | | Barrier | -5 | 101 |
| | Concrete Pump/ Electric Bentonite Circulation Pump | 50 | -3 | 1 | CNP047 | 109 | 106 | | | Enclosure | -15 | 91 |
| | Saw, Circular, Wood | 50 | -3 | 1 | CNP201 | 108 | 105 | | | Barrier | -10 | 95 |
| | Electric drill/ Rock driller | 60 | -2 | 1 | CNP064 | 103 | 101 | EPD-08781 | 99 | Barrier | -5 | 92 |
| Total SWL | | | | | 111 | 111 | | | | | Total SWL | 103 |

Note:

[1] Percentage on time within 30 minutes.

[2] PME with code "EPD-XXXXX" are quiet equipment with SWLs extracted from EPD's QPME inventory.

[3] The plant with code "CPME#" are referenced from EPD's guidance "Sound Power Level of Other Commonly Used PME" from https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf

[4] The activities of constructions are carried out in phases, i.e. will not happen at the same time at the same workfront.

Project: Environmental Consultancy No. C1202 EIA Study for Tung Chung Line Extension
Title: TCW (Modified Base Scheme - 18 Nov 2020 Program) - Vent Shaft Structures and Entrances

| TCW Station - Vent Shaft Structures and Entrances - North Vent Shaft Structure Structural Works | | | | | | | | | | | | |
|--|---|---------------------------------|-----------------------|-------|---------------|------------------------------|-----------------|------------------------------------|------------------------|---------------------|------------------------------|-----------------|
| Works Area/ Activity | PME | % Operating Time ^[1] | Time Correction dB(A) | Units | PME Reference | Unmitigated | | Mitigated | | | | |
| | | | | | | Single Unit PME dB(A) | Total SWL dB(A) | QPME Reference ^{[2], [3]} | Single Unit QPME dB(A) | Mitigation Measures | Correction dB(A) | Total SWL dB(A) |
| North Vent Shaft Structure Structural Works (Construction of Mezzanine (Base) Slab) | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 |
| | Lorry | 50 | -3 | 1 | CNP141 | 112 | 109 | CPME# | 105 | Barrier | -5 | 97 |
| | Vibratory Poker | 60 | -2 | 2 | CNP170 | 113 | 114 | CPME# | 102 | Barrier | -10 | 93 |
| | Total SWL | | | | | 116 | 116 | | | | | 100 |
| North Vent Shaft Structure Structural Works (Construction of Walls at Mezzanine Slab Level and Plenum Level + Remove Struts) | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 |
| | Lorry | 50 | -3 | 1 | CNP141 | 112 | 109 | CPME# | 105 | Barrier | -5 | 97 |
| | Vibratory Poker | 60 | -2 | 2 | CNP170 | 113 | 114 | CPME# | 102 | Barrier | -10 | 93 |
| | Total SWL | | | | | 116 | 116 | | | | | 100 |
| North Vent Shaft Structure Structural Works (Construction of Station Box Roof Level Slab) | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 |
| | Lorry | 50 | -3 | 1 | CNP141 | 112 | 109 | CPME# | 105 | Barrier | -5 | 97 |
| | Vibratory Poker | 60 | -2 | 2 | CNP170 | 113 | 114 | CPME# | 102 | Barrier | -10 | 93 |
| | Total SWL | | | | | 116 | 116 | | | | | 100 |
| North Vent Shaft Structure Structural Works (Construction of Walls at Station Box Roof Slab Level) | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 |
| | Lorry | 50 | -3 | 1 | CNP141 | 112 | 109 | CPME# | 105 | Barrier | -5 | 97 |
| | Vibratory Poker | 60 | -2 | 2 | CNP170 | 113 | 114 | CPME# | 102 | Barrier | -10 | 93 |
| | Total SWL | | | | | 116 | 116 | | | | | 100 |
| North Vent Shaft Structure Structural Works (Construction of Walls at Ground Level Slab) | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 |
| | Lorry | 50 | -3 | 1 | CNP141 | 112 | 109 | CPME# | 105 | Barrier | -5 | 97 |
| | Vibratory Poker | 60 | -2 | 2 | CNP170 | 113 | 114 | CPME# | 102 | Barrier | -10 | 93 |
| | Total SWL | | | | | 116 | 116 | | | | | 100 |
| North Vent Shaft Structure Structural Works (Construction of Walls at Ground Slab Level) | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 |
| | Lorry | 50 | -3 | 1 | CNP141 | 112 | 109 | CPME# | 105 | Barrier | -5 | 97 |
| | Vibratory Poker | 60 | -2 | 2 | CNP170 | 113 | 114 | CPME# | 102 | Barrier | -10 | 93 |
| | Total SWL | | | | | 116 | 116 | | | | | 100 |
| North Vent Shaft Structure Structural Works (Construction of 1st Level Slab) | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 |
| | Lorry | 50 | -3 | 1 | CNP141 | 112 | 109 | CPME# | 105 | Barrier | -5 | 97 |
| | Vibratory Poker | 60 | -2 | 2 | CNP170 | 113 | 114 | CPME# | 102 | Barrier | -10 | 93 |
| | Total SWL | | | | | 116 | 116 | | | | | 100 |
| North Vent Shaft Structure Structural Works (Construction of Wall at 1st Slab Level) | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 |
| | Lorry | 50 | -3 | 1 | CNP141 | 112 | 109 | CPME# | 105 | Barrier | -5 | 97 |
| | Vibratory Poker | 60 | -2 | 2 | CNP170 | 113 | 114 | CPME# | 102 | Barrier | -10 | 93 |
| | Total SWL | | | | | 116 | 116 | | | | | 100 |
| North Vent Shaft Structure Structural Works (Construction of Roof Slab) | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 |
| | Lorry | 50 | -3 | 1 | CNP141 | 112 | 109 | CPME# | 105 | Barrier | -5 | 97 |
| | Vibratory Poker | 60 | -2 | 2 | CNP170 | 113 | 114 | CPME# | 102 | Barrier | -10 | 93 |
| | Total SWL | | | | | 116 | 116 | | | | | 100 |
| North Vent Shaft Structure Structural Works (Construction of Plantrooms) | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 |
| | Lorry | 50 | -3 | 1 | CNP141 | 112 | 109 | CPME# | 105 | Barrier | -5 | 97 |
| | Vibratory Poker | 60 | -2 | 2 | CNP170 | 113 | 114 | CPME# | 102 | Barrier | -10 | 93 |
| | Total SWL | | | | | 116 | 116 | | | | | 100 |
| | | | | | | Max SWL^[4] | 116 | | | | Max SWL^[4] | 100 |
| Building S1 - Stationary Plant for North Vent Shaft Structure | Generator | 90 | 0 | 1 | CNP103 | 95 | 95 | EPD-10735 | 87 | Barrier | -5 | 82 |
| | Bar Bender and Cutter | 70 | -2 | 1 | CNP021 | 90 | 88 | | | Barrier | -10 | 78 |
| | Air Compressor | 20 | -7 | 1 | CNP003 | 104 | 97 | EPD-09607 | 93 | Barrier | -5 | 81 |
| | Concrete Lorry Mixer/ Concrete Truck | 50 | -3 | 1 | CNP044 | 109 | 106 | | | Barrier | -5 | 101 |
| | Concrete Pump/ Electric Bentonite Circulation Pump | 50 | -3 | 1 | CNP047 | 109 | 106 | | | Enclosure | -15 | 91 |
| | Saw, Circular, Wood | 50 | -3 | 2 | CNP201 | 108 | 108 | | | Barrier | -10 | 98 |
| | Electric drill/ Rock driller | 60 | -2 | 2 | CNP064 | 103 | 104 | EPD-08781 | 99 | Barrier | -5 | 95 |
| | Total SWL | | | | | 112 | 112 | | | | | 104 |

Note:

[1] Percentage on time within 30 minutes.

[2] PME with code "EPD-XXXXX" are quiet equipment with SWLs extracted from EPD's QPME inventory.

[3] The plant with code "CPME#" are referenced from EPD's guidance "Sound Power Level of Other Commonly Used PME" from https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf

[4] The activities of constructions are carried out in phases, i.e. will not happen at the same time at the same workfront.

Project: Environmental Consultancy No. C1202 EIA Study for Tung Chung Line Extension
Title: TCW (Modified Base Scheme - 18 Nov 2020 Program) - Vent Shaft Structures and Entrances

| TCW Station - Vent Shaft Structures and Entrances - Entrance A Structural Works | | | | | | | | | | | | | |
|--|---|---------------------------------|-----------------------|-------|---------------|------------------------------|-----------------|------------------------------------|------------------------|---------------------|------------------|------------------------------|------------|
| Works Area/ Activity | PME | % Operating Time ^[1] | Time Correction dB(A) | Units | PME Reference | Unmitigated | | Mitigated | | | | | |
| | | | | | | Single Unit PME dB(A) | Total SWL dB(A) | QPME Reference ^{[2], [3]} | Single Unit QPME dB(A) | Mitigation Measures | Correction dB(A) | Total SWL dB(A) | |
| Entrance A Structural Works (Construction of Concourse (Base) Slab) | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 | |
| | Lorry | 50 | -3 | 1 | CNP141 | 112 | 109 | CPME# | 105 | Barrier | -5 | 97 | |
| | Vibratory Poker | 60 | -2 | 2 | CNP170 | 113 | 114 | CPME# | 102 | Barrier | -10 | 93 | |
| | | | | | | Total SWL | 116 | | | | | Total SWL | 100 |
| Entrance A Structural Works (Construction of Walls at Concourse (Base) Slab Level + Remove Struts) | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 | |
| | Lorry | 50 | -3 | 1 | CNP141 | 112 | 109 | CPME# | 105 | Barrier | -5 | 97 | |
| | Vibratory Poker | 60 | -2 | 2 | CNP170 | 113 | 114 | CPME# | 102 | Barrier | -10 | 93 | |
| | | | | | | Total SWL | 116 | | | | | Total SWL | 100 |
| Entrance A Structural Works (Construction of Mezzanine Level Slab) | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 | |
| | Lorry | 50 | -3 | 1 | CNP141 | 112 | 109 | CPME# | 105 | Barrier | -5 | 97 | |
| | Vibratory Poker | 60 | -2 | 2 | CNP170 | 113 | 114 | CPME# | 102 | Barrier | -10 | 93 | |
| | | | | | | Total SWL | 116 | | | | | Total SWL | 100 |
| Entrance A Structural Works (Construction of Mezzanine Slab Level + Remove Struts) | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 | |
| | Lorry | 50 | -3 | 1 | CNP141 | 112 | 109 | CPME# | 105 | Barrier | -5 | 97 | |
| | Vibratory Poker | 60 | -2 | 2 | CNP170 | 113 | 114 | CPME# | 102 | Barrier | -10 | 93 | |
| | | | | | | Total SWL | 116 | | | | | Total SWL | 100 |
| Entrance A Structural Works (Construction of Station Box Roof Level Slab, Permanent Struts & Walers) | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 | |
| | Lorry | 50 | -3 | 1 | CNP141 | 112 | 109 | CPME# | 105 | Barrier | -5 | 97 | |
| | Vibratory Poker | 60 | -2 | 2 | CNP170 | 113 | 114 | CPME# | 102 | Barrier | -10 | 93 | |
| | | | | | | Total SWL | 116 | | | | | Total SWL | 100 |
| Entrance A Structural Works (Construction of Walls at Roof Slab Level) | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 | |
| | Lorry | 50 | -3 | 1 | CNP141 | 112 | 109 | CPME# | 105 | Barrier | -5 | 97 | |
| | Vibratory Poker | 60 | -2 | 2 | CNP170 | 113 | 114 | CPME# | 102 | Barrier | -10 | 93 | |
| | | | | | | Total SWL | 116 | | | | | Total SWL | 100 |
| Entrance A Structural Works (Construction of Ground Level Slab) | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 | |
| | Lorry | 50 | -3 | 1 | CNP141 | 112 | 109 | CPME# | 105 | Barrier | -5 | 97 | |
| | Vibratory Poker | 60 | -2 | 2 | CNP170 | 113 | 114 | CPME# | 102 | Barrier | -10 | 93 | |
| | | | | | | Total SWL | 116 | | | | | Total SWL | 100 |
| Entrance A Structural Works (Construction of Roof Support) | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 | |
| | Lorry | 50 | -3 | 1 | CNP141 | 112 | 109 | CPME# | 105 | Barrier | -5 | 97 | |
| | Vibratory Poker | 60 | -2 | 2 | CNP170 | 113 | 114 | CPME# | 102 | Barrier | -10 | 93 | |
| | | | | | | Total SWL | 116 | | | | | Total SWL | 100 |
| Entrance A Structural Works (Construction of Entrance Roof) | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 | |
| | Lorry | 50 | -3 | 1 | CNP141 | 112 | 109 | CPME# | 105 | Barrier | -5 | 97 | |
| | Vibratory Poker | 60 | -2 | 2 | CNP170 | 113 | 114 | CPME# | 102 | Barrier | -10 | 93 | |
| | | | | | | Total SWL | 116 | | | | | Total SWL | 100 |
| | | | | | | Max SWL^[4] | 116 | | | | | Max SWL^[4] | 100 |
| Building S2 - Stationary Plant for Entrance A | Generator | 90 | 0 | 1 | CNP103 | 95 | 95 | EPD-10735 | 87 | Barrier | -5 | 82 | |
| | Bar Bender and Cutter | 70 | -2 | 1 | CNP021 | 90 | 88 | | | Barrier | -10 | 78 | |
| | Air Compressor | 20 | -7 | 1 | CNP003 | 104 | 97 | EPD-09607 | 93 | Barrier | -5 | 81 | |
| | Concrete Lorry Mixer/ Concrete Truck | 50 | -3 | 1 | CNP044 | 109 | 106 | | | Barrier | -5 | 101 | |
| | Concrete Pump/ Electric Bentonite Circulation Pump | 50 | -3 | 1 | CNP047 | 109 | 106 | | | Enclosure | -15 | 91 | |
| | Saw, Circular, Wood | 50 | -3 | 2 | CNP201 | 108 | 108 | | | Barrier | -10 | 98 | |
| | Electric drill/ Rock driller | 60 | -2 | 2 | CNP064 | 103 | 104 | EPD-08781 | 99 | Barrier | -5 | 95 | |
| | | | | | | Total SWL | 112 | | | | | Total SWL | 104 |

Note:

[1] Percentage on time within 30 minutes.

[2] PME with code "EPD-XXXXX" are quiet equipment with SWLs extracted from EPD's QPME inventory.

[3] The plant with code "CPME#" are referenced from EPD's guidance "Sound Power Level of Other Commonly Used PME" from https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf

[4] The activities of constructions are carried out in phases, i.e. will not happen at the same time at the same workfront.

Project: Environmental Consultancy No. C1202 EIA Study for Tung Chung Line Extension
Title: TCW (Modified Base Scheme - 18 Nov 2020 Program) - Vent Shaft Structures and Entrances

| TCW Station - Vent Shaft Structures and Entrances - Entrance B Structural Works | | | | | | | | | | | | |
|---|---|---------------------------------|-----------------------|-------|---------------|-------------------------------|-----------------|------------------------------------|------------------------|---------------------|-------------------------------|-----------------|
| Works Area/ Activity | PME | % Operating Time ^[1] | Time Correction dB(A) | Units | PME Reference | Unmitigated | | Mitigated | | | | |
| | | | | | | Single Unit PME dB(A) | Total SWL dB(A) | QPME Reference ^{[2], [3]} | Single Unit QPME dB(A) | Mitigation Measures | Correction dB(A) | Total SWL dB(A) |
| Entrance B Structural Works (Construction of Walls at Station Box Roof Level) | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 |
| | Lorry | 50 | -3 | 1 | CNP141 | 112 | 109 | CPME# | 105 | Barrier | -5 | 97 |
| | Vibratory Poker | 60 | -2 | 2 | CNP170 | 113 | 114 | CPME# | 102 | Barrier | -10 | 93 |
| | | | | | | Total SWL | 116 | | | | Total SWL | 100 |
| Entrance B Structural Works (Construction of Ground Level Slab) | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 |
| | Lorry | 50 | -3 | 1 | CNP141 | 112 | 109 | CPME# | 105 | Barrier | -5 | 97 |
| | Vibratory Poker | 60 | -2 | 2 | CNP170 | 113 | 114 | CPME# | 102 | Barrier | -10 | 93 |
| | | | | | | Total SWL | 116 | | | | Total SWL | 100 |
| Entrance B Structural Works (Construction of Roof Support) | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 |
| | Lorry | 50 | -3 | 1 | CNP141 | 112 | 109 | CPME# | 105 | Barrier | -5 | 97 |
| | Vibratory Poker | 60 | -2 | 2 | CNP170 | 113 | 114 | CPME# | 102 | Barrier | -10 | 93 |
| | | | | | | Total SWL | 116 | | | | Total SWL | 100 |
| Entrance B Structural Works (Construction of Entrance Roof) | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 |
| | Lorry | 50 | -3 | 1 | CNP141 | 112 | 109 | CPME# | 105 | Barrier | -5 | 97 |
| | Vibratory Poker | 60 | -2 | 2 | CNP170 | 113 | 114 | CPME# | 102 | Barrier | -10 | 93 |
| | | | | | | Total SWL | 116 | | | | Total SWL | 100 |
| | | | | | | Max SWL ^[4] | 116 | | | | Max SWL ^[4] | 100 |
| Building S1 - Stationary Plant for Entrance B | Generator | 90 | 0 | 1 | CNP103 | 95 | 95 | EPD-10735 | 87 | Barrier | -5 | 82 |
| | Bar Bender and Cutter | 70 | -2 | 1 | CNP021 | 90 | 88 | | | Barrier | -10 | 78 |
| | Air Compressor | 20 | -7 | 1 | CNP003 | 104 | 97 | EPD-09607 | 93 | Barrier | -5 | 81 |
| | Concrete Lorry Mixer/ Concrete Truck | 50 | -3 | 1 | CNP044 | 109 | 106 | | | Barrier | -5 | 101 |
| | Concrete Pump/ Electric Bentonite Circulation Pump | 50 | -3 | 1 | CNP047 | 109 | 106 | | | Enclosure | -15 | 91 |
| | Saw, Circular, Wood | 50 | -3 | 1 | CNP201 | 108 | 105 | | | Barrier | -10 | 95 |
| | Electric drill/ Rock driller | 60 | -2 | 1 | CNP064 | 103 | 101 | EPD-08781 | 99 | Barrier | -5 | 92 |
| | | | | | | Total SWL | 111 | | | | Total SWL | 103 |

Note:

[1] Percentage on time within 30 minutes.

[2] PME with code "EPD-XXXXX" are quiet equipment with SWLs extracted from EPD's QPME inventory.

[3] The plant with code "CPME#" are referenced from EPD's guidance "Sound Power Level of Other Commonly Used PME" from https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf

[4] The activities of constructions are carried out in phases, i.e. will not happen at the same time at the same workfront.

Project: Environmental Consultancy No. C1202 EIA Study for Tung Chung Line Extension
Title: TCW Station - Plant Inventory (Modified Base Scheme)- Site Reinstatement

| Site Reinstatement at TCW | | | | | | | | | | | | |
|--|---|---------------------------------|--------------------------|--------|-------------------------------|--------------------------|--------------------|---------------------------------------|---------------------------|---------------------|-------------------------------|--------------------|
| Works Area/ Activity | PME | % Operating Time ^[1] | Time Correction dB(A) | Units | PME Reference | Unmitigated | | Mitigated | | | | |
| | | | | | | Single Unit PME dB(A) | Total SWL dB(A) | QPME Reference ^{[2], [3]} | Single Unit QPME dB(A) | Mitigation Measures | Correction dB(A) | Total SWL dB(A) |
| TCW Site Reinstatement Retaining wall construction and backfilling for site formation | Excavator | 70 | -2 | 4 | CNP081 | 112 | 116 | EPD-07150 | 90 | Barrier | -5 | 89 |
| | Roller, Vibratory | 70 | -2 | 2 | CNP186 | 108 | 109 | EPD-06997 | 94 | Barrier | -5 | 90 |
| | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 2 | CNP048 | 112 | 113 | EPD-09130 | 101 | Barrier | -5 | 97 |
| | Lorry | 70 | -2 | 2 | CNP141 | 112 | 113 | CPME# | 105 | Barrier | -5 | 101 |
| | Dump Truck | 50 | -3 | 3 | CPME# | 105 | 107 | | | Barrier | -5 | 102 |
| | Concrete Lorry Mixer/ Concrete Truck | 50 | -3 | 3 | CNP044 | 109 | 111 | | | Barrier | -5 | 106 |
| | Saw, Circular, Wood | 70 | -2 | 1 | CNP201 | 108 | 106 | | | Barrier | -10 | 96 |
| | Concrete Pump/ Electric Bentonite Circulation Pump | 70 | -2 | 1 | CNP047 | 109 | 107 | | | Enclosure | -15 | 92 |
| Vibratory Poker | 70 | -2 | 2 | CNP170 | 113 | 114 | CPME# | 102 | Barrier | -10 | 93 | |
| | | | | | Total SWL | 122 | | | | | Total SWL | 109 |
| TCW Site Reinstatement Utilities laying, Road and drainage construction | Excavator | 70 | -2 | 4 | CNP081 | 112 | 116 | EPD-07150 | 90 | Barrier | -5 | 89 |
| | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 2 | CNP048 | 112 | 113 | EPD-09130 | 101 | Barrier | -5 | 97 |
| | Lorry | 70 | -2 | 2 | CNP141 | 112 | 113 | CPME# | 105 | Barrier | -5 | 101 |
| | Concrete Lorry Mixer/ Concrete Truck | 70 | -2 | 4 | CNP044 | 109 | 113 | | | Barrier | -5 | 108 |
| | Vibratory Poker | 70 | -2 | 2 | CNP170 | 113 | 114 | CPME# | 102 | Barrier | -10 | 93 |
| | Power Rammer (Petrol) | 70 | -2 | 1 | CNP169 | 108 | 106 | | | Barrier | -10 | 96 |
| | | | | | Total SWL | 122 | | | | | Total SWL | 110 |
| TCW Site Reinstatement Compensatory tree planting & landscape works | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 2 | CNP048 | 112 | 113 | EPD-09130 | 101 | Barrier | -5 | 97 |
| | Lorry | 70 | -2 | 2 | CNP141 | 112 | 113 | CPME# | 105 | Barrier | -5 | 101 |
| | Excavator | 70 | -2 | 1 | CNP081 | 112 | 110 | EPD-07150 | 90 | Barrier | -5 | 83 |
| | | | | | Total SWL | 117 | | | | | Total SWL | 103 |
| TCW Site Reinstatement Boundary fencing erection | Lorry | 70 | -2 | 2 | CNP141 | 112 | 113 | CPME# | 105 | Barrier | -5 | 101 |
| | Concrete Lorry Mixer/ Concrete Truck | 70 | -2 | 2 | CNP044 | 109 | 110 | | | Barrier | -5 | 105 |
| | Excavator | 70 | -2 | 1 | CNP081 | 112 | 110 | EPD-07150 | 90 | Barrier | -5 | 83 |
| | | | | | Total SWL | 116 | | | | | Total SWL | 107 |
| | | | | | Max SWL ^[4] | 122 | | | | | Max SWL ^[4] | 110 |

Note:

[1] Percentage on time within 30 minutes.

[2] PME with code "EPD-XXXX" are quiet equipment with SWLs extracted from EPD's QPME inventory.

[3] The plant with code "CPME#" are referenced from EPD's guidance "Sound Power Level of Other Commonly Used PME" from https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf

[4] The above construction activities are carried out in phases, i.e. will not happen at the same time at the same workfront.

Project: Environmental Consultancy No. C1202 EIA Study for Tung Chung Line Extension
Title: TCW Station - Plant Inventory (Modified Base Scheme)- Demolition of Footbridge

| Footbridge Demolition | | | | | | | | | | | | | | |
|----------------------------|--|---------------------------------|--------------------------|-------|---------------|--------------------------|--------------------|---------------------------------------|---------------------------|---------------------|---------------------|--------------------|------------------|------------|
| Works Area/ Activity | PME | % Operating Time ^[1] | Time Correction dB(A) | Units | PME Reference | Unmitigated | | Mitigated | | | | | | |
| | | | | | | Single Unit PME dB(A) | Total SWL dB(A) | QPME Reference ^{[2], [3]} | Single Unit QPME dB(A) | Mitigation Measures | Correction dB(A) | Total SWL dB(A) | | |
| FB-A Footbridge Demolition | Breaker, excavator mounted/ Hydraulic breaker | 30 | -5 | 1 | CNP028 | 122 | 117 | | | Barrier | -10 | 107 | | |
| | Dump Truck, with grab, 5.5 tonne < gross vehicle weight ≤ 38 tonne | 50 | -3 | 1 | CPME# | 105 | 102 | | | | | 102 | | |
| | Excavator | 70 | -2 | 1 | CNP081 | 112 | 110 | EPD-13043 | 104 | Barrier | -5 | 97 | | |
| | Concrete Crusher, excavator mounted | 70 | -2 | 1 | CPME# | 103 | 101 | | | | | 101 | | |
| | | | | | | Total SWL | 118 | | | | | | Total SWL | 109 |

Note:

[1] Percentage on time within 30 minutes.

[2] PME with code "EPD-XXXXX" are quiet equipment with SWLs extracted from EPD's QPME inventory.

[3] The plant with code "CPME#" are referenced from EPD's guidance "Sound Power Level of Other Commonly Used PME" from https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf

PME Inventory for EAP / EEP
and Launching Shaft

Project: Environmental Consultancy No. C1202 EIA Study for Tung Chung Line Extension

Title: Plant Inventory EAP / EEP

| EAP / EEP Site Formation Works - Temporary Wall | | | | | | | | | | | | |
|---|---|---------------------------------|--------------------------|-------|---------------|--------------------------|--------------------|---------------------------------------|---------------------------|---------------------|---------------------|--------------------|
| | | | | | Unmitigated | | | Mitigated | | | | |
| Works Area/ Activity | PME | % Operating Time ^[1] | Time Correction dB(A) | Units | PME Reference | Single Unit PME dB(A) | Total SWL dB(A) | QPME Reference ^{[2], [3]} | Single Unit QPME dB(A) | Mitigation Measures | Correction dB(A) | Total SWL dB(A) |
| EAP-A - Installation of Pipe Piles | Drill Rig/ DTH Drilling Machine | 90 | 0 | 2 | CPME# | 110 | 113 | | | Barrier | -10 | 103 |
| | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 30 | -5 | 1 | CNP048 | 112 | 107 | EPD-09130 | 101 | Barrier | -5 | 91 |
| | Excavator | 10 | -10 | 1 | CNP081 | 112 | 102 | EPD-07150 | 90 | Barrier | -5 | 75 |
| | Air Compressor | 90 | 0 | 4 | CNP003 | 104 | 110 | EPD-09607 | 93 | Barrier | -5 | 94 |
| | Lorry | 20 | -7 | 1 | CNP141 | 112 | 105 | CPME# | 105 | Barrier | -5 | 93 |
| | Generator | 50 | -3 | 2 | CNP103 | 95 | 95 | EPD-10735 | 87 | Barrier | -5 | 82 |
| Total SWL | | | | | | | 116 | | | | Total SWL | 104 |

Note:

[1] Percentage on time within 30 minutes.

[2] PME with code "EPD-XXXXX" are quiet equipment with SWLs extracted from EPD's QPME inventory.

[3] The plant with code "CPME#" are referenced from EPD's guidance "Sound Power Level of Other Commonly Used PME" from https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf

Project: Environmental Consultancy No. C1202 EIA Study for Tung Chung Line Extension

Title: Plant Inventory EAP / EEP

| EAP / EEP Site Formation Works - Slope Excavation | | | | | | | | | | | | | |
|---|---|---------------------------------|--------------------------|-------|---------------|--------------------------|--------------------|---------------------------------------|---------------------------|---------------------|---------------------|--------------------|------------|
| | | | | | Unmitigated | | | Mitigated | | | | | |
| Works Area/ Activity | PME | % Operating Time ^[1] | Time Correction dB(A) | Units | PME Reference | Single Unit PME dB(A) | Total SWL dB(A) | QPME Reference ^{[2], [3]} | Single Unit QPME dB(A) | Mitigation Measures | Correction dB(A) | Total SWL dB(A) | |
| EAP-B - Slope Excavation | Breaker, excavator mounted | 90 | 0 | 1 | CNP028 | 122 | 122 | | | Barrier | -5 | 117 | |
| | Electric drill/ Rock driller | 30 | -5 | 1 | CNP064 | 103 | 98 | EPD-08781 | 99 | Barrier | -5 | 89 | |
| | Excavator | 50 | -3 | 1 | CNP081 | 112 | 109 | EPD-07150 | 90 | Barrier | -5 | 82 | |
| | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 30 | -5 | 1 | CNP048 | 112 | 107 | EPD-09130 | 101 | Barrier | -5 | 91 | |
| | Dump Truck | 50 | -3 | 1 | CPME# | 105 | 102 | | | Barrier | -5 | 97 | |
| | Generator | 90 | 0 | 1 | CNP101 | 108 | 108 | EPD-10735 | 87 | Barrier | -5 | 82 | |
| | Water pump | 20 | -7 | 1 | CNP281 | 88 | 81 | | | Barrier | -10 | 71 | |
| | | | | | | Total SWL | 122 | | | | | Total SWL | 117 |
| EAP-B - Installation of Tie Back Anchor | Drill Rig/ DTH Drilling Machine | 90 | 0 | 2 | CPME# | 110 | 113 | | | Barrier | -10 | 103 | |
| | Air Compressor | 90 | 0 | 4 | CNP003 | 104 | 110 | EPD-09607 | 93 | Barrier | -5 | 94 | |
| | Generator | 50 | -3 | 2 | CNP103 | 95 | 95 | EPD-10735 | 87 | Barrier | -5 | 82 | |
| | | | | | | Total SWL | 114 | | | | | Total SWL | 103 |
| EAP-B - Installation of Strut and Walling | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 | |
| | Lorry | 50 | -3 | 1 | CNP141 | 112 | 109 | CPME# | 105 | Barrier | -5 | 97 | |
| | | | | | | Total SWL | 113 | | | | | Total SWL | 99 |

Note:

[1] Percentage on time within 30 minutes.

[2] PME with code "EPD-XXXXX" are quiet equipment with SWLs extracted from EPD's QPME inventory.

[3] The plant with code "CPME#" are referenced from EPD's guidance "Sound Power Level of Other Commonly Used PME" from https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf

Project: Environmental Consultancy No. C1202 EIA Study for Tung Chung Line Extension

Title: Plant Inventory EAP / EEP

| EAP / EEP - Foundation and Shaft Excavation Works | | | | | | | | | | | | | |
|---|---|---------------------------------|--------------------------|-------|---------------|--------------------------|--------------------|---------------------------------------|---------------------------|---------------------|---------------------|--------------------|------------|
| | | | | | Unmitigated | | | Mitigated | | | | | |
| Works Area/ Activity | PME | % Operating Time ^[1] | Time Correction dB(A) | Units | PME Reference | Single Unit PME dB(A) | Total SWL dB(A) | QPME Reference ^{[2], [3]} | Single Unit QPME dB(A) | Mitigation Measures | Correction dB(A) | Total SWL dB(A) | |
| EAP-B - Installation of Pre-bored H-piles | Drill Rig/ DTH Drilling Machine | 90 | 0 | 1 | CPME# | 110 | 110 | | | Barrier | -10 | 100 | |
| | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 30 | -5 | 1 | CNP048 | 112 | 107 | EPD-09130 | 101 | Barrier | -5 | 91 | |
| | Air Compressor | 90 | 0 | 2 | CNP003 | 104 | 107 | EPD-09607 | 93 | Barrier | -5 | 91 | |
| | Lorry | 10 | -10 | 1 | CNP141 | 112 | 102 | CPME# | 105 | Barrier | -5 | 90 | |
| | Generator | 50 | -3 | 2 | CNP101 | 108 | 108 | EPD-10735 | 87 | Barrier | -5 | 82 | |
| | Concrete Mixer/ Bentonite Mixer/ Grout Mixer | 20 | -7 | 1 | CNP045 | 96 | 89 | | | Barrier | -5 | 84 | |
| | | | | | | Total SWL | 114 | | | | | Total SWL | 101 |
| EAP-A - Hard Excavation (Shaft Zone) | Breaker, excavator mounted | 90 | 0 | 1 | CNP028 | 0 | 0 | - | - | - | - | 0 | |
| | Rock Drill | 50 | -3 | 1 | CNP182 | 0 | 0 | - | - | - | - | 0 | |
| | Excavator | 50 | -3 | 1 | CNP081 | 112 | 109 | EPD-07150 | 90 | Barrier | -5 | 82 | |
| | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 30 | -5 | 1 | CNP048 | 112 | 107 | EPD-09130 | 101 | Barrier | -5 | 91 | |
| | Dump Truck | 30 | -5 | 1 | CNP068 | 105 | 100 | | | Barrier | -5 | 95 | |
| | Generator | 90 | 0 | 1 | CNP103 | 95 | 95 | EPD-10735 | 87 | Barrier | -5 | 82 | |
| | Water pump | 50 | -3 | 1 | CNP281 | 88 | 85 | | | Barrier | -10 | 75 | |
| | Ventilation Fan | 90 | 0 | 1 | CNP241 | 108 | 108 | | | Barrier | -10 | 98 | |
| | | | | | | Total SWL | 113 | | | | | Total SWL | 100 |

Note:

[1] Percentage on time within 30 minutes.

[2] PME with code "EPD-XXXXX" are quiet equipment with SWLs extracted from EPD's QPME inventory.

[3] The plant with code "CPME#" are referenced from EPD's guidance "Sound Power Level of Other Commonly Used PME" from https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf

[4] The PME working underground is shaded in grey and the SWL is assumed as 0 dB(A).

Project: Environmental Consultancy No. C1202 EIA Study for Tung Chung Line Extension

Title: Plant Inventory EAP / EEP

| EAP / EEP - Building (Above Ground) and Shaft Zone (Underground) | | | | | | | | | | | | | |
|--|---|---------------------------------|--------------------------|-------|---------------|--------------------------|--------------------|---------------------------------------|---------------------------|---------------------|---------------------|--------------------|------------|
| | | | | | Unmitigated | | | Mitigated | | | | | |
| Works Area/ Activity | PME | % Operating Time ^[1] | Time Correction dB(A) | Units | PME Reference | Single Unit PME dB(A) | Total SWL dB(A) | QPME Reference ^{[2], [3]} | Single Unit QPME dB(A) | Mitigation Measures | Correction dB(A) | Total SWL dB(A) | |
| EAP-A - Construction of EAP/EEP Building (Aboveground) | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 50 | -3 | 2 | CNP048 | 112 | 112 | EPD-09130 | 101 | Barrier | -5 | 96 | |
| | Air Compressor | 90 | 0 | 2 | CNP003 | 104 | 107 | | | Barrier | -5 | 102 | |
| | Lorry | 50 | -3 | 1 | CNP141 | 112 | 109 | | | Barrier | -5 | 104 | |
| | Water pump | 50 | -3 | 1 | CNP281 | 88 | 85 | | | Barrier | -10 | 75 | |
| | Generator | 80 | -1 | 2 | CNP101 | 108 | 110 | EPD-10735 | 87 | Barrier | -5 | 84 | |
| | Vibratory Poker | 50 | -3 | 4 | CNP170 | 113 | 116 | CPME# | 102 | Barrier | -10 | 95 | |
| | Saw, Circular, Wood | 50 | -3 | 1 | CNP201 | 108 | 105 | | | Barrier | -10 | 95 | |
| | Electric drill/ Rock driller | 50 | -3 | 2 | CNP064 | 103 | 103 | EPD-08781 | 99 | Barrier | -5 | 94 | |
| Total SWL | | | | | | | 119 | | | | | Total SWL | 107 |
| EAP-A - Construction of Shaft Structure and Staircases | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 50 | -3 | 2 | CNP048 | 112 | 112 | EPD-09130 | 101 | Barrier | -5 | 96 | |
| | Air Compressor | 90 | 0 | 2 | CNP003 | 104 | 107 | EPD-09607 | 93 | Barrier | -5 | 91 | |
| | Lorry | 50 | -3 | 1 | CNP141 | 112 | 109 | CPME# | 105 | Barrier | -5 | 97 | |
| | Water pump | 50 | -3 | 1 | CNP281 | 88 | 85 | | | Barrier | -10 | 75 | |
| | Generator | 80 | -1 | 2 | CNP101 | 108 | 110 | EPD-10735 | 87 | Barrier | -5 | 84 | |
| | Vibratory Poker | 50 | -3 | 4 | CNP170 | 113 | 116 | CPME# | 102 | Barrier | -10 | 95 | |
| | Saw, Circular, Wood | 90 | 0 | 1 | CNP201 | 108 | 108 | | | Barrier | -10 | 98 | |
| | Electric drill/ Rock driller | 50 | -3 | 2 | CNP064 | 103 | 103 | EPD-08781 | 99 | Barrier | -5 | 94 | |
| | Ventilation Fan | 90 | 0 | 2 | CNP241 | 108 | 111 | | | Barrier | -10 | 101 | |
| | Bar Bender and Cutter | 50 | -3 | 1 | CNP021 | 90 | 87 | | | Barrier | -10 | 77 | |
| Total SWL | | | | | | | 120 | | | | | Total SWL | 105 |

Note:

[1] Percentage on time within 30 minutes.

[2] PME with code "EPD-XXXXX" are quiet equipment with SWLs extracted from EPD's QPME inventory.

[3] The plant with code "CPME#" are referenced from EPD's guidance "Sound Power Level of Other Commonly Used PME" from https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf

Project: Environmental Consultancy No. C1202 EIA Study for Tung Chung Line Extension

Title: Plant Inventory (Launching Shaft and C&C Tunnel) - Foundation Works

| Launching Shaft - Foundation Work | | | | | Unmitigated | | | Mitigated | | | | |
|---|--|---------------------------------|--------------------------|-------|------------------|--------------------------|--------------------|---------------------------------------|---------------------------|---------------------|---------------------|--------------------|
| Works Area/ Activity | PME | % Operating Time ^[1] | Time Correction dB(A) | Units | PME Reference | Single Unit PME dB(A) | Total SWL dB(A) | QPME Reference ^{[2], [3]} | Single Unit QPME dB(A) | Mitigation Measures | Correction dB(A) | Total SWL dB(A) |
| LS-A - Construction of Diaphragm Wall at TCC | Trench Cutter | 90 | 0 | 1 | CNP164 | 115 | 115 | | | Barrier | -10 | 105 |
| | Concrete Mixer/ Bentonite Mixer/ Grout Mixer | 30 | -5 | 1 | CNP045 | 96 | 91 | | | Barrier | -5 | 86 |
| | Concrete Pump/ Electric Bentonite Circulation Pump | 50 | -3 | 1 | CNP047 | 109 | 106 | | | Barrier | -10 | 96 |
| | Piling, diaphragm wall, bentonite filtering plant/ STP- Slurry Treatment Plant/ Filter Press Machine | 70 | -2 | 1 | CNP162 | 105 | 103 | | | Barrier | -10 | 93 |
| | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 |
| | Excavator | 50 | -3 | 1 | CNP081 | 112 | 109 | EPD-07150 | 90 | Barrier | -5 | 82 |
| | Dump Truck | 50 | -3 | 1 | CPME# | 105 | 102 | | | Barrier | -5 | 97 |
| | Concrete Lorry Mixer/ Concrete Truck | 40 | -4 | 1 | CNP044 | 109 | 105 | | | Barrier | -5 | 100 |
| | Generator | 90 | 0 | 1 | CNP103 | 95 | 95 | EPD-10735 | 87 | Barrier | -5 | 82 |
| | | | | | Total SWL | 118 | | | | | Total SWL | 107 |
| LS-A - Installation of Pre-bored H-piles at TCC | Drill Rig/ DTH Drilling Machine | 90 | 0 | 2 | CPME# | 110 | 113 | | | Barrier | -10 | 103 |
| | Air Compressor | 90 | 0 | 4 | CNP003 | 104 | 110 | EPD-09607 | 93 | Barrier | -5 | 94 |
| | Lorry | 30 | -5 | 1 | CNP141 | 112 | 107 | CPME# | 105 | Barrier | -5 | 95 |
| | Generator | 50 | -3 | 2 | CNP103 | 95 | 95 | EPD-10735 | 87 | Barrier | -5 | 82 |
| | Concrete Mixer/ Bentonite Mixer/ Grout Mixer | 20 | -7 | 1 | CNP045 | 96 | 89 | | | Barrier | -5 | 84 |
| | | | | | Total SWL | 115 | | | | | Total SWL | 104 |
| LS-A - Installation of Pipe Piles at TCC | Drill Rig/ DTH Drilling Machine | 90 | 0 | 2 | CPME# | 110 | 113 | | | Barrier | -10 | 103 |
| | Air Compressor | 90 | 0 | 4 | CNP003 | 104 | 110 | EPD-09607 | 93 | Barrier | -5 | 94 |
| | Generator | 50 | -3 | 2 | CNP103 | 95 | 95 | EPD-10735 | 87 | Barrier | -5 | 82 |
| | | | | | Total SWL | 114 | | | | | Total SWL | 103 |

Note:

[1] Percentage on time within 30 minutes.

[2] PME with code "EPD-XXXXX" are quiet equipment with SWLs extracted from EPD's QPME inventory.

[3] The plant with code "CPME#" are referenced from EPD's guidance "Sound Power Level of Other Commonly Used PME" from https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf

Project: Environmental Consultancy No. C1202 EIA Study for Tung Chung Line Extension

Title: Plant Inventory (Launching Shaft and C&C Tunnel) - Excavation Works

| Launching Shaft - Excavation Work | | | | | Unmitigated | | | Mitigated | | | | |
|---|---|---------------------------------|--------------------------|--------|------------------|--------------------------|--------------------|---------------------------------------|---------------------------|---------------------|---------------------|--------------------|
| Works Area/ Activity | PME | % Operating Time ^[1] | Time Correction dB(A) | Units | PME Reference | Single Unit PME dB(A) | Total SWL dB(A) | QPME Reference ^{[2], [3]} | Single Unit QPME dB(A) | Mitigation Measures | Correction dB(A) | Total SWL dB(A) |
| LS-A - Excavation Works (Soft & Installation of Struts) for Launching Shaft | Dump Truck | 50 | -3 | 1 | CPME# | 105 | 102 | | | Barrier | -5 | 97 |
| | Excavator | 80 | -1 | 2 | CNP081 | 112 | 114 | EPD-07150 | 90 | Barrier | -5 | 87 |
| | Breaker, excavator mounted | 20 | -7 | 1 | CNP028 | 122 | 115 | | | Enclosure | -15 | 100 |
| | Water Pump (petrol) | 90 | 0 | 2 | CNP282 | 103 | 106 | | | Barrier | -10 | 96 |
| | Generator | 90 | 0 | 2 | CNP103 | 95 | 98 | EPD-10735 | 87 | Barrier | -5 | 85 |
| | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 |
| | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 20 | -7 | 1 | CNP048 | 112 | 105 | EPD-09130 | 101 | Barrier | -5 | 89 |
| | Lorry | 20 | -7 | 1 | CNP141 | 112 | 105 | CPME# | 105 | Barrier | -5 | 93 |
| | Ventilation Fan | 90 | 0 | 1 | CNP241 | 108 | 108 | | | Barrier | -10 | 98 |
| | | | | | Total SWL | 119 | | | | | Total SWL | 105 |
| LS-A - Excavation Works (Rock & Installtion of Struts) for Launching Shaft | Dump Truck | 50 | -3 | 1 | CPME# | 105 | 102 | | | Barrier | -5 | 97 |
| | Excavator | 50 | -3 | 1 | CNP081 | 112 | 109 | EPD-07150 | 90 | Barrier | -5 | 82 |
| | Breaker, excavator mounted | 80 | -1 | 3 | CNP028 | 122 | 126 | | | Enclosure | -15 | 111 |
| | Water Pump, Submersible | 90 | 0 | 2 | CNP283 | 85 | 88 | | | Barrier | -10 | 78 |
| | Generator | 90 | 0 | 2 | CNP103 | 95 | 98 | EPD-10735 | 87 | Barrier | -5 | 85 |
| | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 |
| | Ventilation Fan | 90 | 0 | 1 | CNP241 | 108 | 108 | | | Barrier | -10 | 98 |
| | Rock Drill | 30 | -5 | 1 | CNP182 | 123 | 118 | | | Barrier | -10 | 108 |
| | Lorry | 20 | -7 | 1 | CNP141 | 112 | 105 | CPME# | 105 | Barrier | -5 | 93 |
| Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 20 | -7 | 1 | CNP048 | 112 | 105 | EPD-09130 | 101 | Barrier | -5 | 89 | |
| | | | | | Total SWL | 127 | | | | | Total SWL | 113 |
| LS-A - Excavation Works (Soft & Installation of Struts) for C&C Tunnel | Dump Truck | 50 | -3 | 1 | CPME# | 105 | 102 | | | Barrier | -5 | 97 |
| | Excavator | 80 | -1 | 2 | CNP081 | 112 | 114 | EPD-07150 | 90 | Barrier | -5 | 87 |
| | Breaker, excavator mounted | 20 | -7 | 1 | CNP028 | 122 | 115 | | | Enclosure | -15 | 100 |
| | Water Pump (petrol) | 90 | 0 | 2 | CNP282 | 103 | 106 | | | Barrier | -10 | 96 |
| | Generator | 90 | 0 | 2 | CNP103 | 95 | 98 | EPD-10735 | 87 | Barrier | -5 | 85 |
| | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 |
| | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 20 | -7 | 1 | CNP048 | 112 | 105 | EPD-09130 | 101 | Barrier | -5 | 89 |
| | Lorry | 20 | -7 | 1 | CNP141 | 112 | 105 | CPME# | 105 | Barrier | -5 | 93 |
| | Ventilation Fan | 90 | 0 | 1 | CNP241 | 108 | 108 | | | Barrier | -10 | 98 |
| | | | | | Total SWL | 119 | | | | | Total SWL | 105 |
| LS-A - Excavation Works (Rock & Installtion of Struts) for C&C Tunnel | Dump Truck | 50 | -3 | 1 | CPME# | 105 | 102 | | | Barrier | -5 | 97 |
| | Excavator | 50 | -3 | 1 | CNP081 | 112 | 109 | EPD-07150 | 90 | Barrier | -5 | 82 |
| | Breaker, excavator mounted | 80 | -1 | 3 | CNP028 | 122 | 126 | | | Enclosure | -15 | 111 |
| | Water Pump, Submersible | 90 | 0 | 2 | CNP283 | 85 | 88 | | | Barrier | -10 | 78 |
| | Generator | 90 | 0 | 2 | CNP103 | 95 | 98 | EPD-10735 | 87 | Barrier | -5 | 85 |
| | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 |
| | Ventilation Fan | 90 | 0 | 1 | CNP241 | 108 | 108 | | | Barrier | -10 | 98 |
| | Rock Drill | 30 | -5 | 1 | CNP182 | 123 | 118 | | | Barrier | -10 | 108 |
| | Lorry | 20 | -7 | 1 | CNP141 | 112 | 105 | CPME# | 105 | Barrier | -5 | 93 |
| Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 20 | -7 | 1 | CNP048 | 112 | 105 | EPD-09130 | 101 | Barrier | -5 | 89 | |
| | | | | | Total SWL | 127 | | | | | Total SWL | 113 |

Note:

[1] Percentage on time within 30 minutes.

[2] PME with code "EPD-XXXXX" are quiet equipment with SWLs extracted from EPD's QPME inventory.

[3] The plant with code "CPME#" are referenced from EPD's guidance "Sound Power Level of Other Commonly Used PME" from https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf

[4] Breaker, excavator mounted (CNP028) will adopte enclosure with -15dB(A) at Launching Shaft.

Project: Environmental Consultancy No. C1202 EIA Study for Tung Chung Line Extension

Title: Plant Inventory (TBM Operation)

| TBM Operation | | | | | | | | | | | | |
|----------------------|---|---------------------------------|--------------------------|-------|------------------|--------------------------|--------------------|---------------------------------------|---------------------------|---------------------|---------------------|--------------------|
| | | | | | Unmitigated | | | Mitigated | | | | |
| Works Area/ Activity | PME | % Operating Time ^[1] | Time Correction dB(A) | Units | PME Reference | Single Unit PME dB(A) | Total SWL dB(A) | QPME Reference ^{[2], [3]} | Single Unit QPME dB(A) | Mitigation Measures | Correction dB(A) | Total SWL dB(A) |
| LS-A - TBM Operation | Ventilation Fan | 100 | 0 | 2 | CNP241 | 108 | 111 | | | Barrier | -10 | 101 |
| | Chiller Plant | 100 | 0 | 1 | -- | 88 | 88 | | | | | 88 |
| | Crawler Crane/ Gantry Crane | 60 | -2 | 1 | CNP049 | 95 | 93 | | | Barrier | -5 | 88 |
| | Concrete Pump/ Electric Bentonite Circulation Pump | 100 | 0 | 1 | CNP047 | 109 | 109 | | | Barrier | -10 | 99 |
| | Air Compressor | 90 | 0 | 4 | CNP002 | 102 | 108 | | | Barrier | -5 | 103 |
| | Lorry | 30 | -5 | 1 | CNP141 | 112 | 107 | CPME# | 105 | Barrier | -5 | 95 |
| | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 30 | -5 | 1 | CNP048 | 112 | 107 | EPD-09130 | 101 | Barrier | -5 | 91 |
| | | | | | Total SWL | 116 | | | | | Total SWL | 106 |
| LS-C - TBM Operation | STP - Slurry Treatment Plant | 100 | 0 | 1 | CNP162 | 105 | 105 | | | Barrier | -10 | 95 |
| | Filter Press Machine | 90 | 0 | 1 | CNP162 | 105 | 105 | | | Barrier | -10 | 95 |
| | Grout Batch Plant | 100 | 0 | 1 | CNP162 | 105 | 105 | | | Barrier | -10 | 95 |
| | | | | | Total SWL | 110 | | | | | Total SWL | 100 |

Note:

[1] Percentage on time within 30 minutes.

[2] PME with code "EPD-XXXXX" are quiet equipment with SWLs extracted from EPD's QPME inventory.

[3] The plant with code "CPME#" are referenced from EPD's guidance "Sound Power Level of Other Commonly Used PME" from https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf

Project: Environmental Consultancy No. C1202 EIA Study for Tung Chung Line Extension
Title: EAP/EEP - Site Clearance

| Site Clearance at EAP/EEP | | | | | | | | | | | | | |
|--------------------------------|----------------------------|---------------------------------|--------------------------|-------|---------------|--------------------------|--------------------|---------------------------------------|---------------------------|---------------------|---------------------|--------------------|------------|
| Works Area/ Activity | PME | % Operating Time ^[1] | Time Correction dB(A) | Units | Unmitigated | | | Mitigated | | | | | |
| | | | | | PME Reference | Single Unit PME dB(A) | Total SWL dB(A) | QPME Reference ^{[2], [3]} | Single Unit QPME dB(A) | Mitigation Measures | Correction dB(A) | Total SWL dB(A) | |
| EAP-B - EAP/EEP Site Clearance | Excavator | 90 | 0 | 2 | CNP081 | 112 | 115 | EPD-07150 | 90 | Barrier | -5 | 88 | |
| | Breaker, excavator mounted | 30 | -5 | 1 | CNP028 | 122 | 117 | | | Barrier | -5 | 112 | |
| | Dump Truck | 90 | 0 | 2 | CPME# | 105 | 108 | | | Barrier | -5 | 103 | |
| | | | | | | | Total SWL | 119 | | | | Total SWL | 112 |

Note:

[1] Percentage on time within 30 minutes.

[2] PME with code "EPD-XXXXX" are quiet equipment with SWLs extracted from EPD's QPME inventory.

[3] The plant with code "CPME#" are referenced from EPD's guidance "Sound Power Level of Other Commonly Used PME" from https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf

Project: Environmental Consultancy No. C1202 EIA Study for Tung Chung Line Extension

Title: EAP/EEP - Site Reinstatement

| Site Reinstatement at EAP/EEP | | | | | | | | | | | | | | |
|---|---|---------------------------------|--------------------------|-------|---------------|------------------------------|--------------------|---------------------------------------|---------------------------|---------------------|---------------------|--------------------|------------------------------|------------|
| Works Area/ Activity | PME | % Operating Time ^[1] | Time Correction dB(A) | Units | PME Reference | Unmitigated | | Mitigated | | | | | | |
| | | | | | | Single Unit PME dB(A) | Total SWL dB(A) | QPME Reference ^{[2], [3]} | Single Unit QPME dB(A) | Mitigation Measures | Correction dB(A) | Total SWL dB(A) | | |
| EAP-B: EAP/EEP :Slope Reinstatement | Excavator | 90 | 0 | 2 | CNP081 | 112 | 115 | EPD-07150 | 90 | Barrier | -5 | 88 | | |
| | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 90 | 0 | 1 | CNP048 | 112 | 112 | EPD-09130 | 101 | Barrier | -5 | 96 | | |
| | Lorry | 90 | 0 | 1 | CNP141 | 112 | 112 | CPME# | 105 | Barrier | -5 | 100 | | |
| | | | | | | Total SWL | 118 | | | | | | Total SWL | 101 |
| EAP-B: Compensatory tree planting & landscape works | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 90 | 0 | 2 | CNP048 | 112 | 115 | EPD-09130 | 101 | Barrier | -5 | 99 | | |
| | Lorry | 90 | 0 | 2 | CNP141 | 112 | 115 | CPME# | 105 | Barrier | -5 | 103 | | |
| | Excavator | 90 | 0 | 1 | CNP081 | 112 | 112 | EPD-07150 | 90 | Barrier | -5 | 85 | | |
| | | | | | | Total SWL | 119 | | | | | | Total SWL | 104 |
| EAP-B: Boundary fencing erection | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 90 | 0 | 1 | CNP048 | 112 | 112 | EPD-09130 | 101 | Barrier | -5 | 96 | | |
| | Lorry | 90 | 0 | 1 | CNP141 | 112 | 112 | CPME# | 105 | Barrier | -5 | 100 | | |
| | Concrete Lorry Mixer/ Concrete Truck | 90 | 0 | 2 | CNP044 | 109 | 112 | | | Barrier | -5 | 107 | | |
| | | | | | | Total SWL | 116 | | | | | | Total SWL | 108 |
| | | | | | | Max SWL^[4] | 119 | | | | | | Max SWL^[4] | 108 |

Note:

[1] Percentage on time within 30 minutes.

[2] PME with code "EPD-XXXXX" are quiet equipment with SWLs extracted from EPD's QPME inventory.

[3] The plant with code "CPME#" are referenced from EPD's guidance "Sound Power Level of Other Commonly Used PME" from https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf

[4]The above construction activities are carried out in phases, i.e. will not happen at the same time at the same workfront.

Project: Environmental Consultancy No. C1202 EIA Study for Tung Chung Line Extension
Title: Shun Tung Road - Site Clearance

| Site Clearance at Shun Tung Road | | | | | Unmitigated | | | Mitigated | | | | |
|-------------------------------------|---|---------------------------------|--------------------------|-------|---------------|--------------------------|--------------------|---------------------------------------|---------------------------|---------------------|---------------------|--------------------|
| Works Area/ Activity | PME | % Operating Time ^[1] | Time Correction dB(A) | Units | PME Reference | Single Unit PME dB(A) | Total SWL dB(A) | QPME Reference ^{[2], [3]} | Single Unit QPME dB(A) | Mitigation Measures | Correction dB(A) | Total SWL dB(A) |
| LS-C: Shun Tung Road Site Clearance | Excavator | 90 | 0 | 2 | CNP081 | 112 | 115 | EPD-07150 | 90 | Barrier | -5 | 88 |
| | Breaker, excavator mounted | 30 | -5 | 1 | CNP028 | 122 | 117 | | | Barrier | -10 | 107 |
| | Roller, Vibratory | 90 | 0 | 1 | CNP186 | 108 | 108 | EPD-06997 | 94 | Barrier | -5 | 89 |
| | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 90 | 0 | 1 | CNP048 | 112 | 112 | EPD-09130 | 101 | Barrier | -5 | 96 |
| | Lorry | 90 | 0 | 1 | CNP141 | 112 | 112 | CPME# | 105 | Barrier | -5 | 100 |
| | Dump Truck | 90 | 0 | 1 | CNP068 | 105 | 105 | | | Barrier | -5 | 100 |
| | Concrete Lorry Mixer/ Concrete Truck | 90 | 0 | 1 | CNP044 | 109 | 109 | | | Barrier | -5 | 104 |
| | Vibratory Poker | 90 | 0 | 1 | CNP170 | 113 | 113 | CPME# | 102 | Barrier | -10 | 92 |
| | Power Rammer (Petrol) | 90 | 0 | 1 | CNP169 | 108 | 108 | | | Barrier | -10 | 98 |
| Total SWL | | | | | | | 122 | | | | Total SWL | 110 |

Note:

[1] Percentage on time within 30 minutes.

[2] PME with code "EPD-XXXXX" are quiet equipment with SWLs extracted from EPD's QPME inventory.

[3] The plant with code "CPME#" are referenced from EPD's guidance "Sound Power Level of Other Commonly Used PME" from https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf

Project: Environmental Consultancy No. C1202 EIA Study for Tung Chung Line Extension
Title: Shun Tung Road - Site Reinstatement

| Site Reinstatement at Shun Tung Road | | | | | | | | | | | | |
|--|---|---------------------------------|--------------------------|-------|---------------|--------------------------|--------------------|---------------------------------------|---------------------------|---------------------|---------------------|--------------------|
| Works Area/ Activity | PME | % Operating Time ^[1] | Time Correction dB(A) | Units | Unmitigated | | | Mitigated | | | | |
| | | | | | PME Reference | Single Unit PME dB(A) | Total SWL dB(A) | QPME Reference ^{[2], [3]} | Single Unit QPME dB(A) | Mitigation Measures | Correction dB(A) | Total SWL dB(A) |
| LS-C: Shun Tung Road Utilities, Road and Drainage Reconstruction | Excavator | 90 | 0 | 4 | CNP081 | 112 | 118 | EPD-07150 | 90 | Barrier | -5 | 91 |
| | Roller, Vibratory | 90 | 0 | 2 | CNP186 | 108 | 111 | EPD-06997 | 94 | Barrier | -5 | 92 |
| | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 90 | 0 | 1 | CNP048 | 112 | 112 | EPD-09130 | 101 | Barrier | -5 | 96 |
| | Lorry | 90 | 0 | 2 | CNP141 | 112 | 115 | CPME# | 105 | Barrier | -5 | 103 |
| | Dump Truck | 90 | 0 | 2 | CPME# | 105 | 108 | | | Barrier | -5 | 103 |
| | Concrete Lorry Mixer/ Concrete Truck | 90 | 0 | 2 | CNP044 | 109 | 112 | | | Barrier | -5 | 107 |
| | Vibratory Poker | 90 | 0 | 2 | CNP170 | 113 | 116 | CPME# | 102 | Barrier | -10 | 95 |
| | Power Rammer (Petrol) | 90 | 0 | 1 | CNP169 | 108 | 108 | | | Barrier | -10 | 98 |
| Total SWL | | | | | | | 122 | | | | Total SWL | 110 |

Note:

[1] Percentage on time within 30 minutes.

[2] PME with code "EPD-XXXXX" are quiet equipment with SWLs extracted from EPD's QPME inventory.

[3] The plant with code "CPME#" are referenced from EPD's guidance "Sound Power Level of Other Commonly Used PME" from https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf

Project: Environmental Consultancy No. C1202 EIA Study for Tung Chung Line Extension
Title: Tung Chung Crescent - Site Clearance

| Site Clearance at Tung Chung Crescent | | | | | | | | | | | | | |
|--|----------------------------|---------------------------------|--------------------------|-------|---------------|--------------------------|--------------------|---------------------------------------|---------------------------|---------------------|---------------------|--------------------|------------|
| Works Area/ Activity | PME | % Operating Time ^[1] | Time Correction dB(A) | Units | Unmitigated | | | Mitigated | | | | | |
| | | | | | PME Reference | Single Unit PME dB(A) | Total SWL dB(A) | QPME Reference ^{[2], [3]} | Single Unit QPME dB(A) | Mitigation Measures | Correction dB(A) | Total SWL dB(A) | |
| LS-A: Tung Chung Crescent Site Clearance | Excavator | 90 | 0 | 2 | CNP081 | 112 | 115 | EPD-07150 | 90 | Barrier | -5 | 88 | |
| | Breaker, excavator mounted | 30 | -5 | 1 | CNP028 | 122 | 117 | | | Barrier | -10 | 107 | |
| | Dump Truck | 90 | 0 | 2 | CPME# | 105 | 108 | | | Barrier | -5 | 103 | |
| | | | | | | | Total SWL | 119 | | | | Total SWL | 108 |

Note:

[1] Percentage on time within 30 minutes.

[2] PME with code "EPD-XXXXX" are quiet equipment with SWLs extracted from EPD's QPME inventory.

[3] The plant with code "CPME#" are referenced from EPD's guidance "Sound Power Level of Other Commonly Used PME" from https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf

Project: Environmental Consultancy No. C1202 EIA Study for Tung Chung Line Extension
Title: TBM Launching Shaft at Tung Chung Crescent - Site Reinstatement

| Site Reinstatement at TBM Launching Shaft at Tung Chung Crescent | | | | | | | | | | | | | |
|--|---|---------------------------------|--------------------------|-------|---------------|--------------------------|--------------------|---------------------------------------|---------------------------|---------------------|---------------------|-------------------------------|------------|
| Works Area/ Activity | PME | % Operating Time ^[1] | Time Correction dB(A) | Units | Unmitigated | | | Mitigated | | | | | |
| | | | | | PME Reference | Single Unit PME dB(A) | Total SWL dB(A) | QPME Reference ^{[2], [3]} | Single Unit QPME dB(A) | Mitigation Measures | Correction dB(A) | Total SWL dB(A) | |
| LS-A: TBM Launching Shaft - Backfilling Shaft | Excavator | 90 | 0 | 2 | CNP081 | 112 | 115 | EPD-07150 | 90 | Barrier | -5 | 88 | |
| | Roller, Vibratory | 90 | 0 | 1 | CNP186 | 108 | 108 | EPD-06997 | 94 | Barrier | -5 | 89 | |
| | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 90 | 0 | 1 | CNP048 | 112 | 112 | EPD-09130 | 101 | Barrier | -5 | 96 | |
| | Lorry | 90 | 0 | 1 | CNP141 | 112 | 112 | CPME# | 105 | Barrier | -5 | 100 | |
| | Dump Truck | 90 | 0 | 4 | CPME# | 105 | 111 | | | Barrier | -5 | 106 | |
| Total SWL | | | | | | | 119 | | | | | Total SWL | 107 |
| LS-A: TBM Launching Shaft - Amenity Area Re-provisioning | Excavator | 90 | 0 | 2 | CNP081 | 112 | 115 | EPD-07150 | 90 | Barrier | -5 | 88 | |
| | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 90 | 0 | 1 | CNP048 | 112 | 112 | EPD-09130 | 101 | Barrier | -5 | 96 | |
| | Lorry | 90 | 0 | 1 | CNP141 | 112 | 112 | CPME# | 105 | Barrier | -5 | 100 | |
| | Dump Truck | 90 | 0 | 2 | CPME# | 105 | 108 | | | Barrier | -5 | 103 | |
| | Concrete Lorry Mixer/ Concrete Truck | 90 | 0 | 2 | CNP044 | 109 | 112 | | | Barrier | -5 | 107 | |
| Total SWL | | | | | | | 119 | | | | | Total SWL | 109 |
| LS-A: TBM Launching Shaft - Compensatory tree planting & landscape works | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 90 | 0 | 1 | CNP048 | 112 | 112 | EPD-09130 | 101 | Barrier | -5 | 96 | |
| | Lorry | 90 | 0 | 1 | CNP141 | 112 | 112 | CPME# | 105 | Barrier | -5 | 100 | |
| Total SWL | | | | | | | 115 | | | | | Total SWL | 101 |
| Max SWL ^[4] | | | | | | | 119 | | | | | Max SWL ^[4] | 109 |

Note:

[1] Percentage on time within 30 minutes.

[2] PME with code "EPD-XXXXX" are quiet equipment with SWLs extracted from EPD's QPME inventory.

[3] The plant with code "CPME#" are referenced from EPD's guidance "Sound Power Level of Other Commonly Used PME" from https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf

[4] The above construction activities are carried out in phases, i.e. will not happen at the same time at the same workfront.

Project: Environmental Consultancy No. C1202 EIA Study for Tung Chung Line Extension
Title: Launching Shaft and Cut & Cover Tunnel (Underground) - Structural Works

| Structural Works at Cut & Cover Tunnel | | | | | | | | | | | | |
|---|---|---------------------------------|--------------------------|-------|---------------|--------------------------|--------------------|---------------------------------------|---------------------------|---------------------|---------------------|--------------------|
| Works Area/ Activity | PME | % Operating Time ^[1] | Time Correction dB(A) | Units | PME Reference | Unmitigated | | Mitigated | | | | |
| | | | | | | Single Unit PME dB(A) | Total SWL dB(A) | QPME Reference ^{[2], [3]} | Single Unit QPME dB(A) | Mitigation Measures | Correction dB(A) | Total SWL dB(A) |
| C&C Tunnel - C&C Tunnel Base Slab + Drill & Fix Connection to Existing Overrun Tunnels | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 50 | -3 | 2 | CNP048 | 112 | 112 | EPD-09130 | 101 | Barrier | -5 | 96 |
| | Lorry | 30 | -5 | 2 | CNP141 | 112 | 110 | CPME# | 105 | Barrier | -5 | 98 |
| | Generator | 90 | 0 | 2 | CNP103 | 95 | 98 | EPD-10735 | 87 | Barrier | -5 | 85 |
| | Air Compressor | 20 | -7 | 1 | CNP003 | 104 | 97 | EPD-09607 | 93 | Barrier | -5 | 81 |
| | Bar Bender and Cutter | 70 | -2 | 1 | CNP021 | 90 | 88 | | | Barrier | -10 | 78 |
| | Ventilation Fan | 90 | 0 | 2 | CNP241 | 108 | 111 | | | Barrier | -10 | 101 |
| | Concrete Lorry Mixer/ Concrete Truck | 80 | -1 | 1 | CNP044 | 109 | 108 | | | Barrier | -5 | 103 |
| | Concrete Pump/ Electric Bentonite Circulation Pump | 80 | -1 | 1 | CNP047 | 109 | 108 | | | Barrier | -10 | 98 |
| | Saw, Circular, Wood | 50 | -3 | 2 | CNP201 | 0 | 0 | - | - | - | - | 0 |
| | Electric drill/ Rock driller | 60 | -2 | 2 | CNP064 | 0 | 0 | - | - | - | - | 0 |
| | Vibratory Poker | 60 | -2 | 3 | CNP170 | 0 | 0 | - | - | - | - | 0 |
| | Water Pump, Submersible | 50 | -3 | 2 | CNP283 | 0 | 0 | - | - | - | - | 0 |
| | | | | | | | Total SWL | 117 | | | Total SWL | 107 |
| C&C Tunnel - C&C Tunnel Side Walls + Drill & Fix Connection to Existing Overrun Tunnels + Remove Struts | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 50 | -3 | 2 | CNP048 | 112 | 112 | EPD-09130 | 101 | Barrier | -5 | 96 |
| | Lorry | 30 | -5 | 2 | CNP141 | 112 | 110 | CPME# | 105 | Barrier | -5 | 98 |
| | Generator | 90 | 0 | 2 | CNP103 | 95 | 98 | EPD-10735 | 87 | Barrier | -5 | 85 |
| | Air Compressor | 20 | -7 | 1 | CNP003 | 104 | 97 | EPD-09607 | 93 | Barrier | -5 | 81 |
| | Bar Bender and Cutter | 70 | -2 | 1 | CNP021 | 90 | 88 | | | Barrier | -10 | 78 |
| | Ventilation Fan | 90 | 0 | 2 | CNP241 | 108 | 111 | | | Barrier | -10 | 101 |
| | Concrete Lorry Mixer/ Concrete Truck | 80 | -1 | 1 | CNP044 | 109 | 108 | | | Barrier | -5 | 103 |
| | Concrete Pump/ Electric Bentonite Circulation Pump | 80 | -1 | 1 | CNP047 | 109 | 108 | | | Barrier | -10 | 98 |
| | Saw, Circular, Wood | 50 | -3 | 2 | CNP201 | 0 | 0 | - | - | - | - | 0 |
| | Electric drill/ Rock driller | 60 | -2 | 2 | CNP064 | 0 | 0 | - | - | - | - | 0 |
| | Vibratory Poker | 60 | -2 | 3 | CNP170 | 0 | 0 | - | - | - | - | 0 |
| | Water Pump, Submersible | 50 | -3 | 2 | CNP283 | 0 | 0 | - | - | - | - | 0 |
| | | | | | | | Total SWL | 117 | | | Total SWL | 107 |
| C&C Tunnel - C&C Tunnel Roof Slabs + Drill & Fix Connection to Existing Overrun Tunnels + Remove Struts | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 50 | -3 | 2 | CNP048 | 112 | 112 | EPD-09130 | 101 | Barrier | -5 | 96 |
| | Lorry | 30 | -5 | 2 | CNP141 | 112 | 110 | CPME# | 105 | Barrier | -5 | 98 |
| | Generator | 90 | 0 | 2 | CNP103 | 95 | 98 | EPD-10735 | 87 | Barrier | -5 | 85 |
| | Air Compressor | 20 | -7 | 1 | CNP003 | 104 | 97 | EPD-09607 | 93 | Barrier | -5 | 81 |
| | Bar Bender and Cutter | 70 | -2 | 1 | CNP021 | 90 | 88 | | | Barrier | -10 | 78 |
| | Ventilation Fan | 90 | 0 | 2 | CNP241 | 108 | 111 | | | Barrier | -10 | 101 |
| | Concrete Lorry Mixer/ Concrete Truck | 80 | -1 | 1 | CNP044 | 109 | 108 | | | Barrier | -5 | 103 |
| | Concrete Pump/ Electric Bentonite Circulation Pump | 80 | -1 | 1 | CNP047 | 109 | 108 | | | Barrier | -10 | 98 |
| | Saw, Circular, Wood | 50 | -3 | 2 | CNP201 | 0 | 0 | - | - | - | - | 0 |
| | Electric drill/ Rock driller | 60 | -2 | 2 | CNP064 | 0 | 0 | - | - | - | - | 0 |
| | Vibratory Poker | 60 | -2 | 3 | CNP170 | 0 | 0 | - | - | - | - | 0 |
| | Water Pump, Submersible | 50 | -3 | 2 | CNP283 | 0 | 0 | - | - | - | - | 0 |
| | | | | | | | Total SWL | 117 | | | Total SWL | 107 |

Note:

[1] Percentage on time within 30 minutes.

[2] PME with code "EPD-XXXXX" are quiet equipment with SWLs extracted from EPD's QPME inventory.

[3] The plant with code "CPME#" are referenced from EPD's guidance "Sound Power Level of Other Commonly Used PME" from https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf

[4] The PME working underground is shaded in grey and the SWL is assumed as 0 dB(A).

Project: Environmental Consultancy No. C1202 EIA Study for Tung Chung Line Extension
Title: Launching Shaft and Cut & Cover Tunnel (Underground) - Structural Works

| Structural Works at Launching Shaft | | | | | | | | | | | | |
|--|---|---------------------------------|--------------------------|-------|---------------|--------------------------|--------------------|---------------------------------------|---------------------------|---------------------|---------------------|--------------------|
| Works Area/ Activity | PME | % Operating Time ^[1] | Time Correction dB(A) | Units | PME Reference | Unmitigated | | Mitigated | | | | |
| | | | | | | Single Unit PME dB(A) | Total SWL dB(A) | QPME Reference ^{[2], [3]} | Single Unit QPME dB(A) | Mitigation Measures | Correction dB(A) | Total SWL dB(A) |
| LS-D - Constuction of Launching Shaft Base Slab | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 |
| | Lorry | 50 | -3 | 1 | CNP141 | 112 | 109 | CPME# | 105 | Barrier | -5 | 97 |
| | Generator | 90 | 0 | 2 | CNP103 | 95 | 98 | EPD-10735 | 87 | Barrier | -5 | 85 |
| | Air Compressor | 20 | -7 | 1 | CNP003 | 104 | 97 | EPD-09607 | 93 | Barrier | -5 | 81 |
| | Bar Bender and Cutter | 70 | -2 | 1 | CNP021 | 90 | 88 | | | Barrier | -10 | 78 |
| | Ventilation Fan | 90 | 0 | 1 | CNP241 | 108 | 108 | | | Barrier | -10 | 98 |
| | Concrete Lorry Mixer/ Concrete Truck | 80 | -1 | 1 | CNP044 | 109 | 108 | | | Barrier | -5 | 103 |
| | Concrete Pump/ Electric Bentonite Circulation Pump | 80 | -1 | 1 | CNP047 | 109 | 108 | | | Barrier | -10 | 98 |
| | Saw, Circular, Wood | 50 | -3 | 2 | CNP201 | 0 | 0 | - | - | - | - | 0 |
| | Electric drill/ Rock driller | 60 | -2 | 2 | CNP064 | 0 | 0 | - | - | - | - | 0 |
| | Vibratory Poker | 60 | -2 | 3 | CNP170 | 0 | 0 | - | - | - | - | 0 |
| | Water Pump, Submersible | 50 | -3 | 2 | CNP283 | 0 | 0 | - | - | - | - | 0 |
| | | | | | | Total SWL | 116 | | | | | Total SWL |
| LS-D - Constuction of Launching Shaft Side Walls + Remove Struts | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 |
| | Lorry | 50 | -3 | 1 | CNP141 | 112 | 109 | CPME# | 105 | Barrier | -5 | 97 |
| | Generator | 90 | 0 | 2 | CNP103 | 95 | 98 | EPD-10735 | 87 | Barrier | -5 | 85 |
| | Air Compressor | 20 | -7 | 1 | CNP003 | 104 | 97 | EPD-09607 | 93 | Barrier | -5 | 81 |
| | Bar Bender and Cutter | 70 | -2 | 1 | CNP021 | 90 | 88 | | | Barrier | -10 | 78 |
| | Ventilation Fan | 90 | 0 | 1 | CNP241 | 108 | 108 | | | Barrier | -10 | 98 |
| | Concrete Lorry Mixer/ Concrete Truck | 80 | -1 | 1 | CNP044 | 109 | 108 | | | Barrier | -5 | 103 |
| | Concrete Pump/ Electric Bentonite Circulation Pump | 80 | -1 | 1 | CNP047 | 109 | 108 | | | Barrier | -10 | 98 |
| | Saw, Circular, Wood | 50 | -3 | 2 | CNP201 | 0 | 0 | - | - | - | - | 0 |
| | Electric drill/ Rock driller | 60 | -2 | 2 | CNP064 | 0 | 0 | - | - | - | - | 0 |
| | Vibratory Poker | 60 | -2 | 3 | CNP170 | 0 | 0 | - | - | - | - | 0 |
| | Water Pump, Submersible | 50 | -3 | 2 | CNP283 | 0 | 0 | - | - | - | - | 0 |
| | | | | | | Total SWL | 116 | | | | | Total SWL |
| LS-D - Constuction of Launching Shaft Roof Slab + Remove Struts | Mobile Crane/ Service Crane/ Crawler Crane/ Lifting crane | 70 | -2 | 1 | CNP048 | 112 | 110 | EPD-09130 | 101 | Barrier | -5 | 94 |
| | Lorry | 50 | -3 | 1 | CNP141 | 112 | 109 | CPME# | 105 | Barrier | -5 | 97 |
| | Generator | 90 | 0 | 2 | CNP103 | 95 | 98 | EPD-10735 | 87 | Barrier | -5 | 85 |
| | Air Compressor | 20 | -7 | 1 | CNP003 | 104 | 97 | EPD-09607 | 93 | Barrier | -5 | 81 |
| | Bar Bender and Cutter | 70 | -2 | 1 | CNP021 | 90 | 88 | | | Barrier | -10 | 78 |
| | Ventilation Fan | 90 | 0 | 1 | CNP241 | 108 | 108 | | | Barrier | -10 | 98 |
| | Concrete Lorry Mixer/ Concrete Truck | 80 | -1 | 1 | CNP044 | 109 | 108 | | | Barrier | -5 | 103 |
| | Concrete Pump/ Electric Bentonite Circulation Pump | 80 | -1 | 1 | CNP047 | 109 | 108 | | | Barrier | -10 | 98 |
| | Saw, Circular, Wood | 50 | -3 | 2 | CNP201 | 0 | 0 | - | - | - | - | 0 |
| | Electric drill/ Rock driller | 60 | -2 | 2 | CNP064 | 0 | 0 | - | - | - | - | 0 |
| | Vibratory Poker | 60 | -2 | 3 | CNP170 | 0 | 0 | - | - | - | - | 0 |
| | Water Pump, Submersible | 50 | -3 | 2 | CNP283 | 0 | 0 | - | - | - | - | 0 |
| | | | | | | Total SWL | 116 | | | | | Total SWL |

Note:

[1] Percentage on time within 30 minutes.

[2] PME with code "EPD-XXXXX" are quiet equipment with SWLs extracted from EPD's QPME inventory.

[3] The plant with code "CPME#" are referenced from EPD's guidance "Sound Power Level of Other Commonly Used PME" from https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf

[4] The PME working underground is shaded in grey and the SWL is assumed as 0 dB(A).

PME Inventory for Barging Point

Project: Environmental Consultancy No. C1202 EIA Study for Tung Chung Line Extension

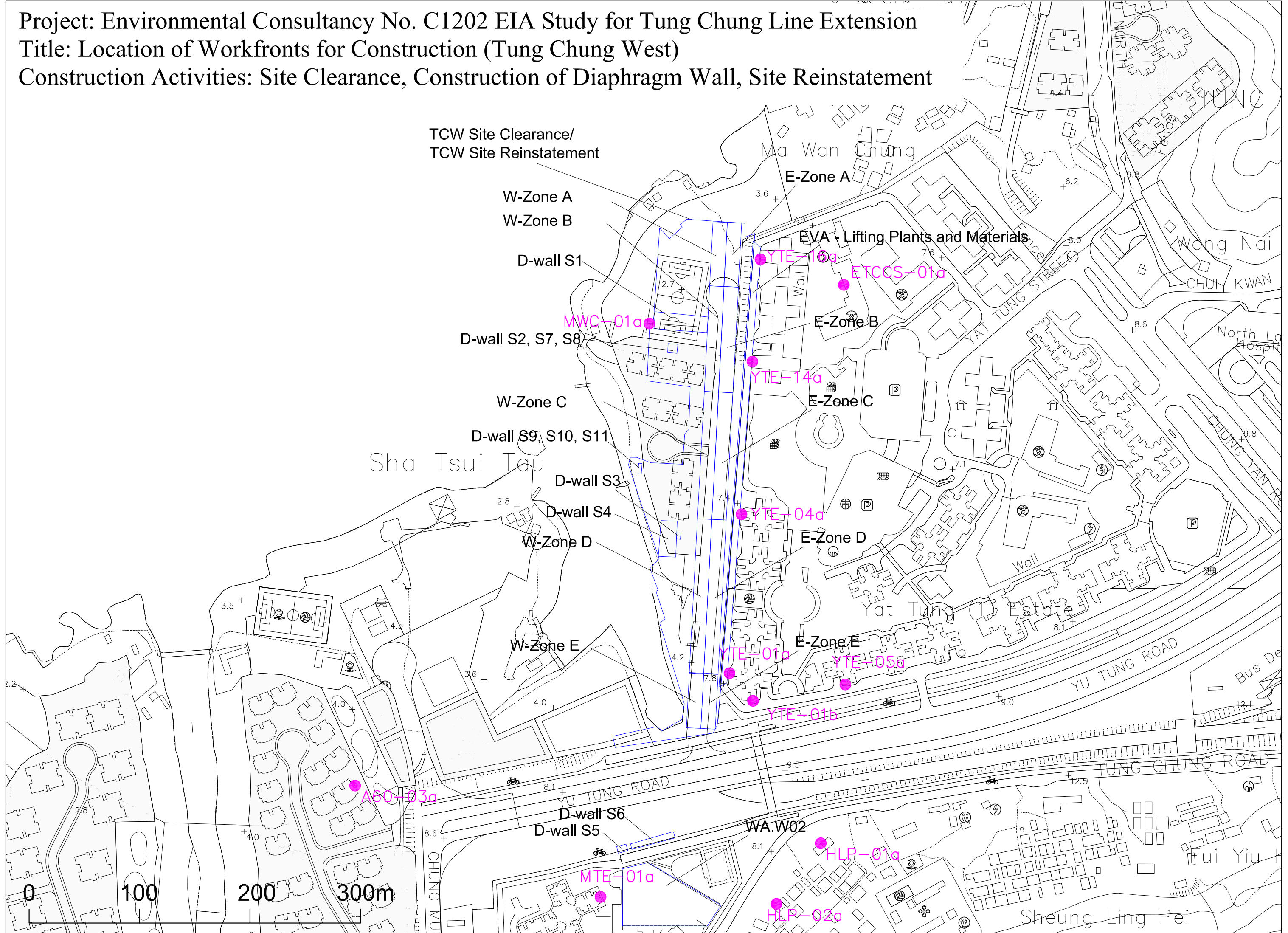
Title : Barging Point - Plant Inventory

| Source | SWL / Unit dB(A) | Qty Nos | % Util | Total SWL dB(A) |
|---|---------------------|------------|--------|-----------------------|
| <u>Construction of Barging Point Facilities</u> | | | | |
| Generator | 95 | 1 | 100% | 95 |
| Moblie Crane | 112 | 1 | 100% | 112 |
| Excavator | 112 | 1 | 100% | 112 |
| Electric Drill | 103 | 2 | 100% | 106 |
| Vibratory Poker | 113 | 2 | 100% | 116 |
| Flat-top Barge Barging Point 1 | 104 | 1 | 100% | 104 |
| Tug Boat Barging Point 1 | 110 | 1 | 100% | 110 |
| Flat-top Barge Barging Point 2 | 104 | 1 | 100% | 104 |
| Tug Boat Barging Point 2 | 110 | 1 | 100% | 110 |
| <u>Site Clearance</u> | | | | |
| Generator | 95 | 1 | 100% | 95 |
| Moblie Crane | 112 | 1 | 100% | 112 |
| Excavator | 112 | 1 | 100% | 112 |
| <u>Barging Point Operation</u> | | | | |
| Generator | 95 | 2 | 100% | 98 |
| Flat-top Barge at Barging Point 1 | 104 | 1 | 100% | 104 |
| Barge at Barging Point 1 | 104 | 2 | 100% | 107 |
| Tug Boat at Barging Point 1 | 110 | 1 | 100% | 110 |
| Flat-top Barge at Barging Point 2 | 104 | 1 | 100% | 104 |
| Barge at Barging Point 2 | 104 | 2 | 100% | 107 |
| Tug Boat at Barging Point 2 | 110 | 1 | 100% | 110 |
| <u>Barging Point Operation (Dump truck - Haul Road)</u> | | | | |
| Dump Truck - Daytime only | 105 | 132 | 100% | 126 |
| <u>Demolition of Barging Point Facilities</u> | | | | |
| Generator | 95 | 1 | 100% | 95 |
| Moblie Crane | 112 | 1 | 100% | 112 |
| Excavator | 112 | 1 | 100% | 112 |
| Electric Drill | 103 | 2 | 100% | 106 |
| Tug Boat at Barging Point 1 | 110 | 1 | 100% | 110 |
| <u>Site Reinstatement</u> | | | | |
| Generator | 95 | 1 | 100% | 95 |
| Moblie Crane | 112 | 1 | 100% | 112 |
| Excavator | 112 | 1 | 100% | 112 |
| Electric Drill | 103 | 2 | 100% | 106 |

Appendix 3.5

Locations of Workfronts for Construction

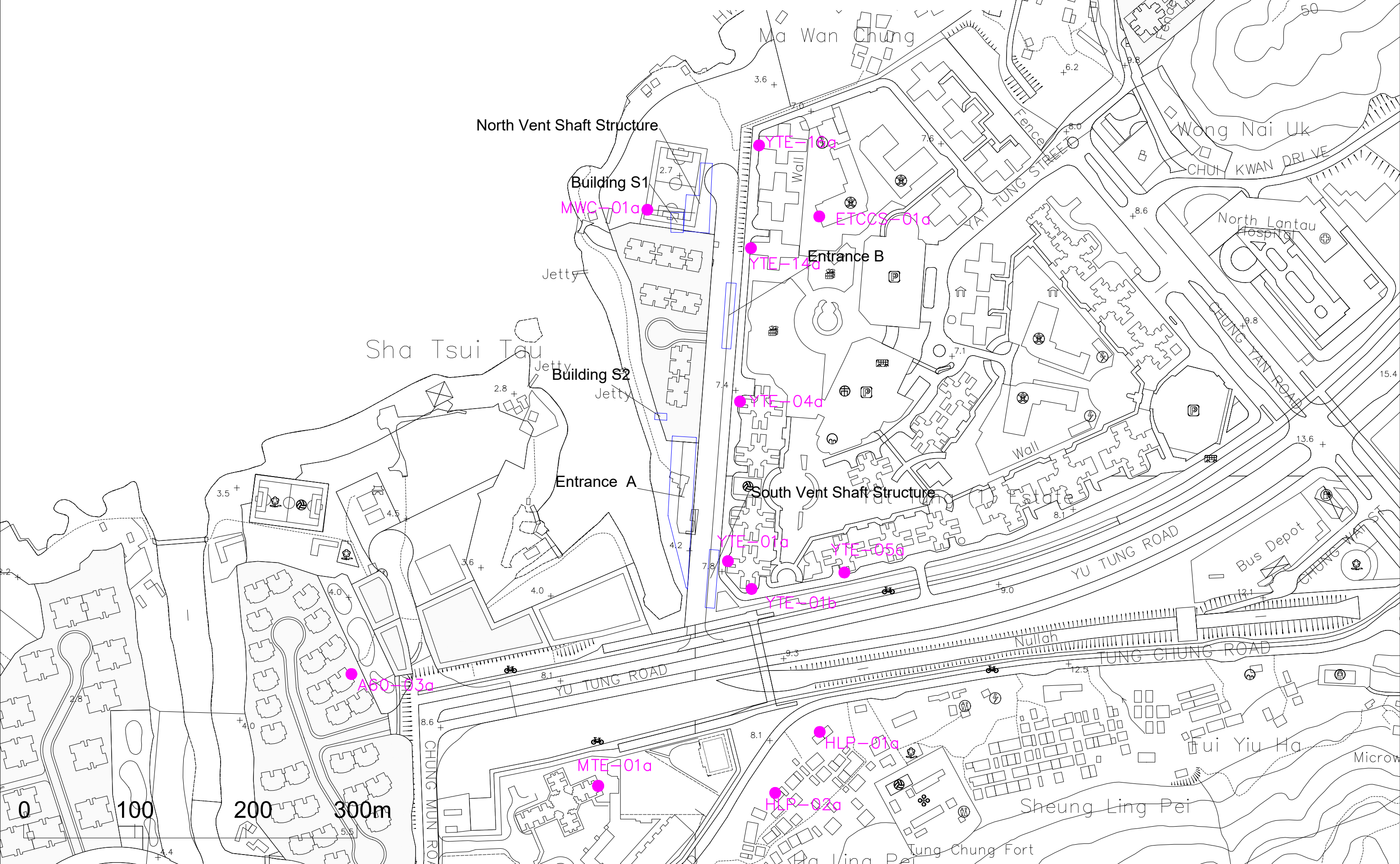
Project: Environmental Consultancy No. C1202 EIA Study for Tung Chung Line Extension
Title: Location of Workfronts for Construction (Tung Chung West)
Construction Activities: Site Clearance, Construction of Diaphragm Wall, Site Reinstatement



Project: Environmental Consultancy No. C1202 EIA Study for Tung Chung Line Extension

Title: Location of Workfronts for Construction (Tung Chung West)

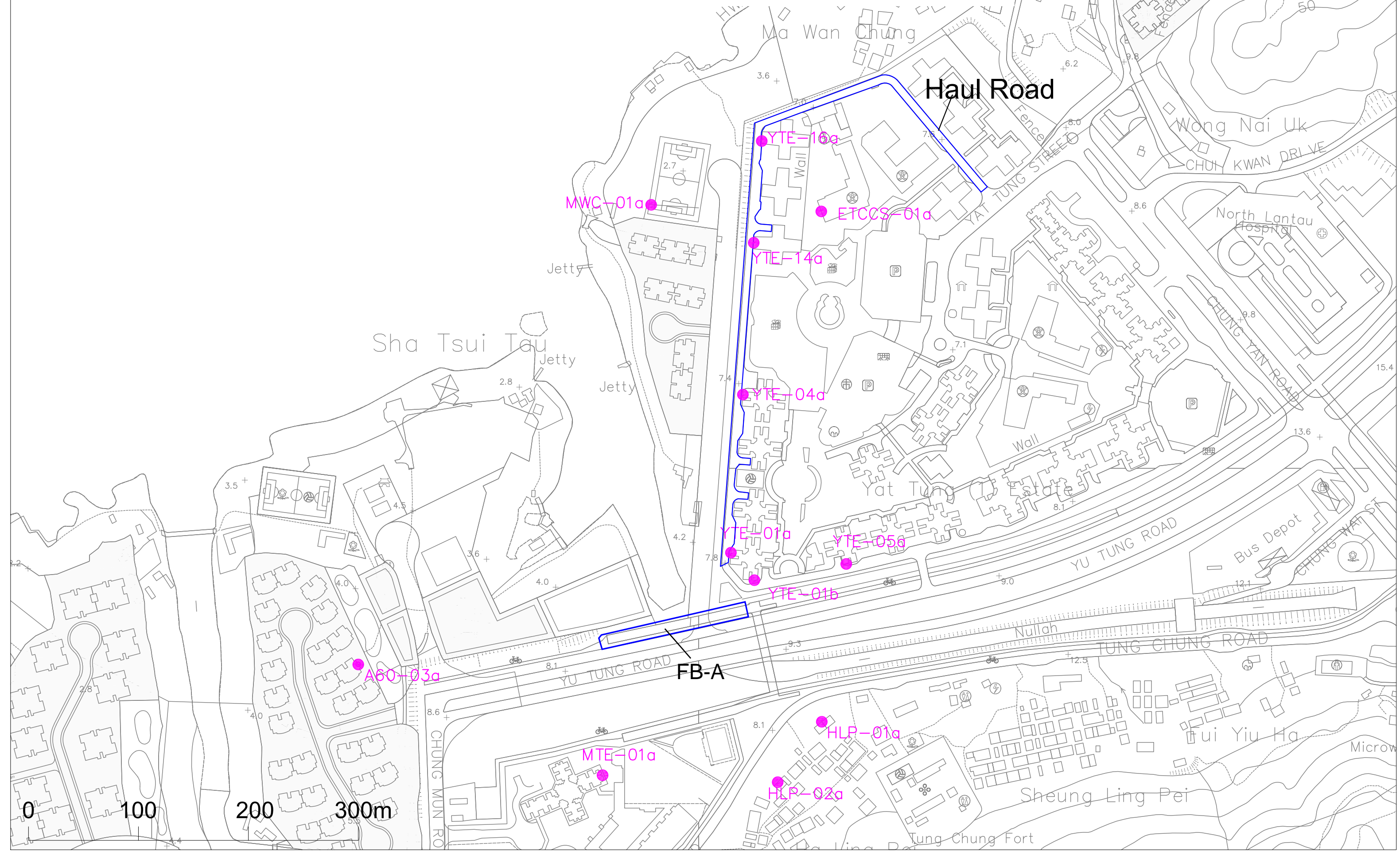
Construction Activities: Vent Shaft Structures and Entrances



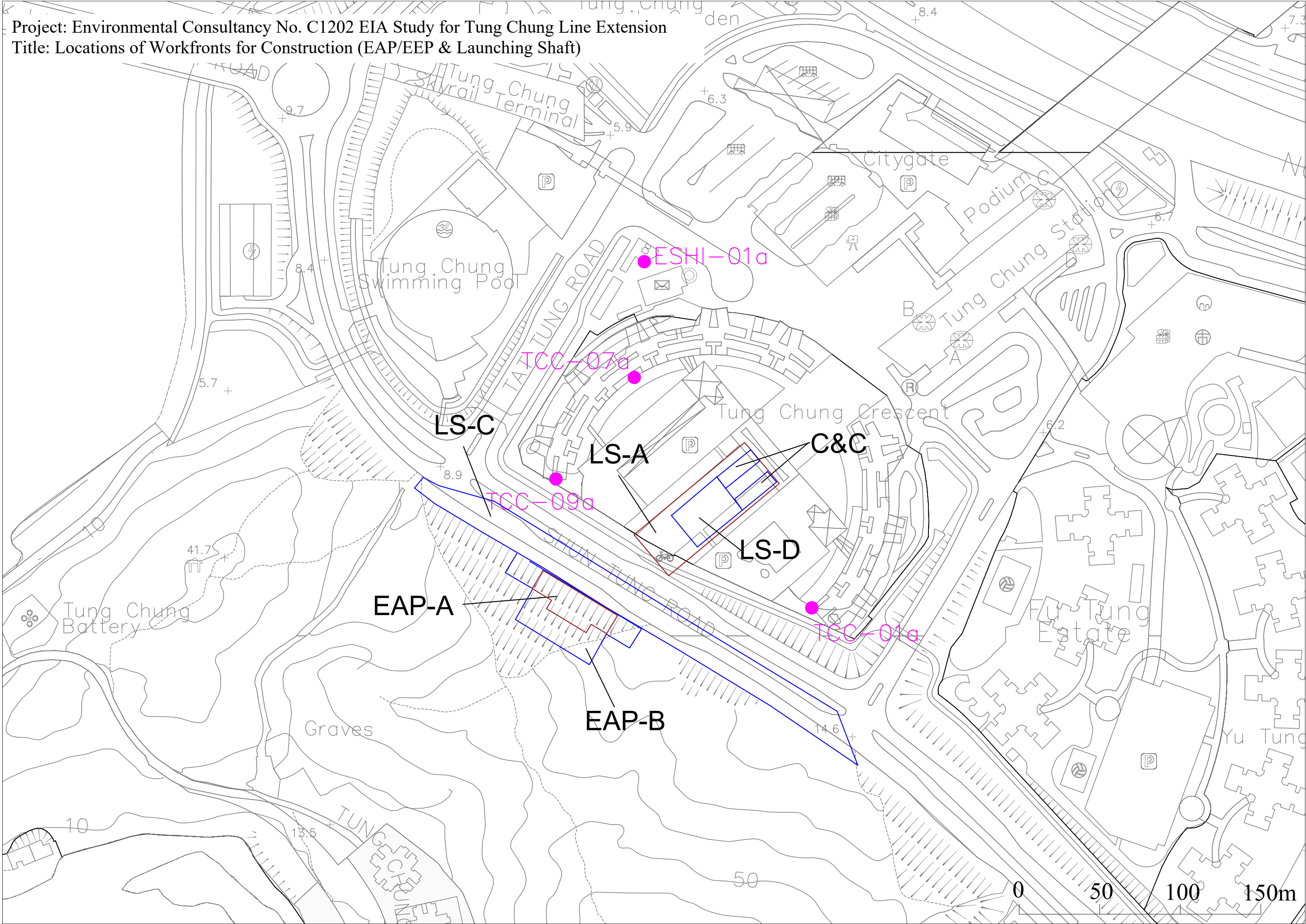
Project: Environmental Consultancy No. C1202 EIA Study for Tung Chung Line Extension

Title: Location of Workfronts for Construction (Tung Chung West)

Construction Activities: Demolition of Footbridge and Haul Road



Project: Environmental Consultancy No. C1202 EIA Study for Tung Chung Line Extension
Title: Locations of Workfronts for Construction (EAP/EEP & Launching Shaft)



LS-C

LS-A

C&C

LS-D

EAP-A

EAP-B

ESH1-01a

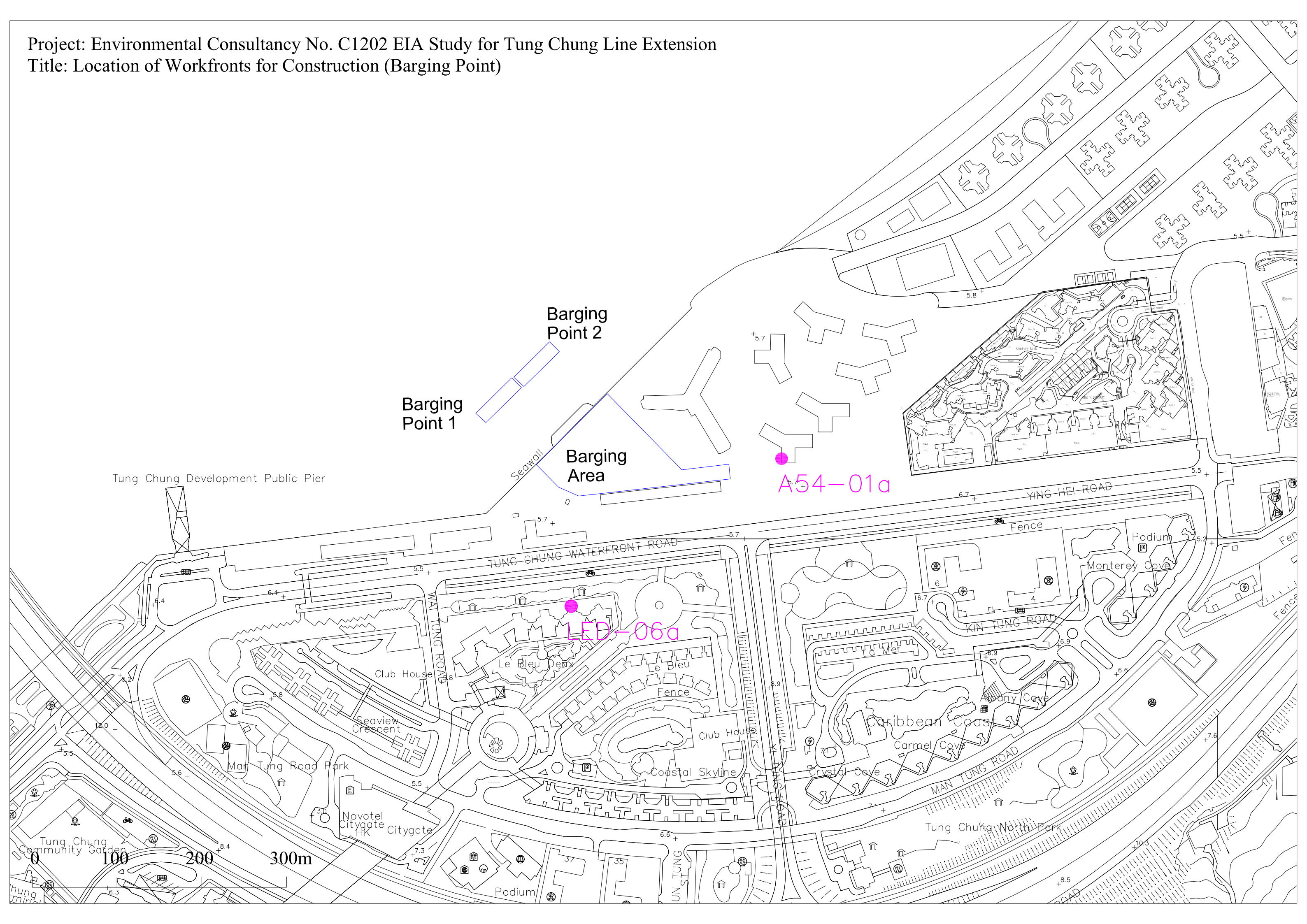
TCC-07a

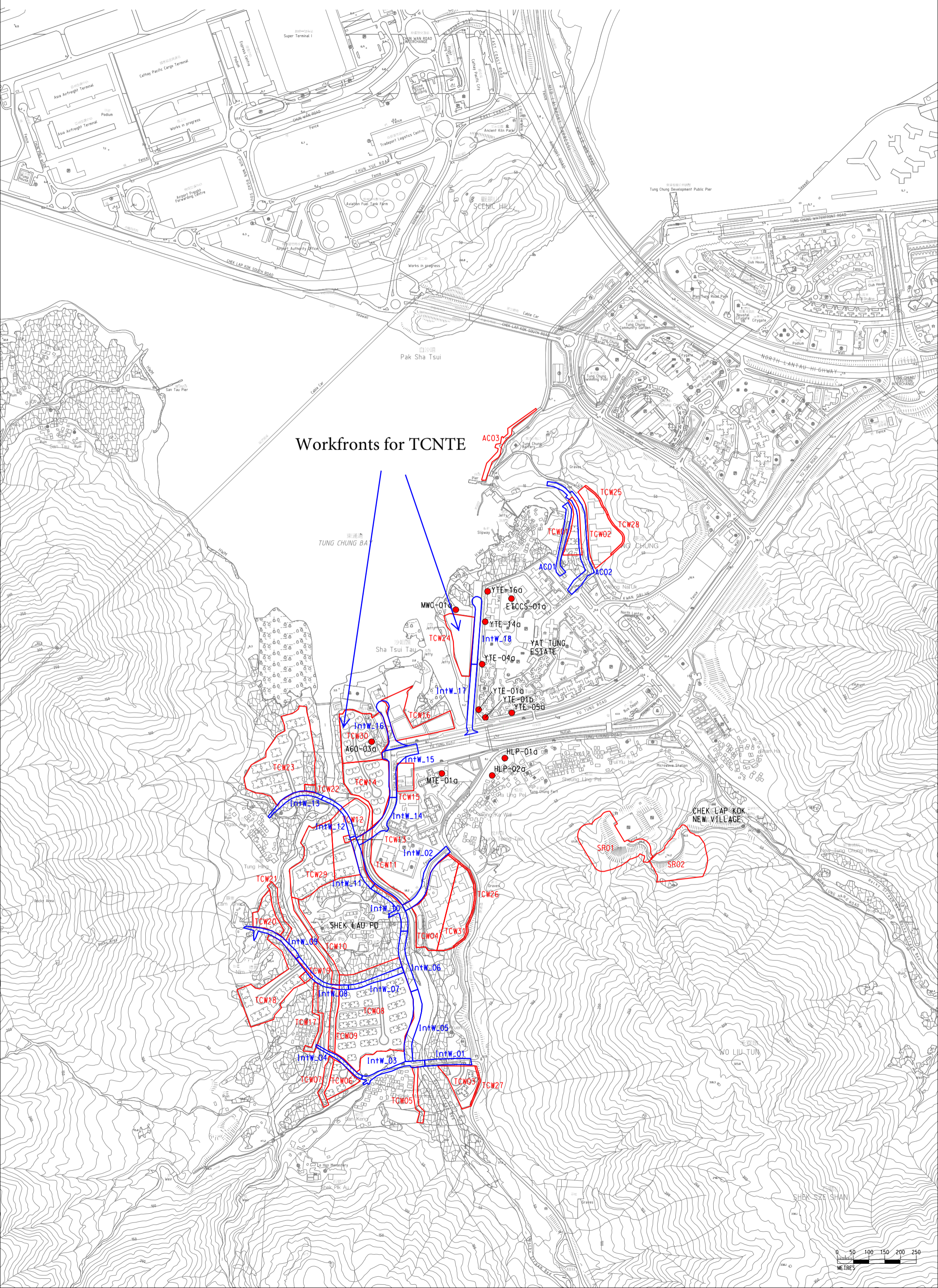
TCC-09a

TCC-01a

0 50 100 150m

Project: Environmental Consultancy No. C1202 EIA Study for Tung Chung Line Extension
Title: Location of Workfronts for Construction (Barging Point)



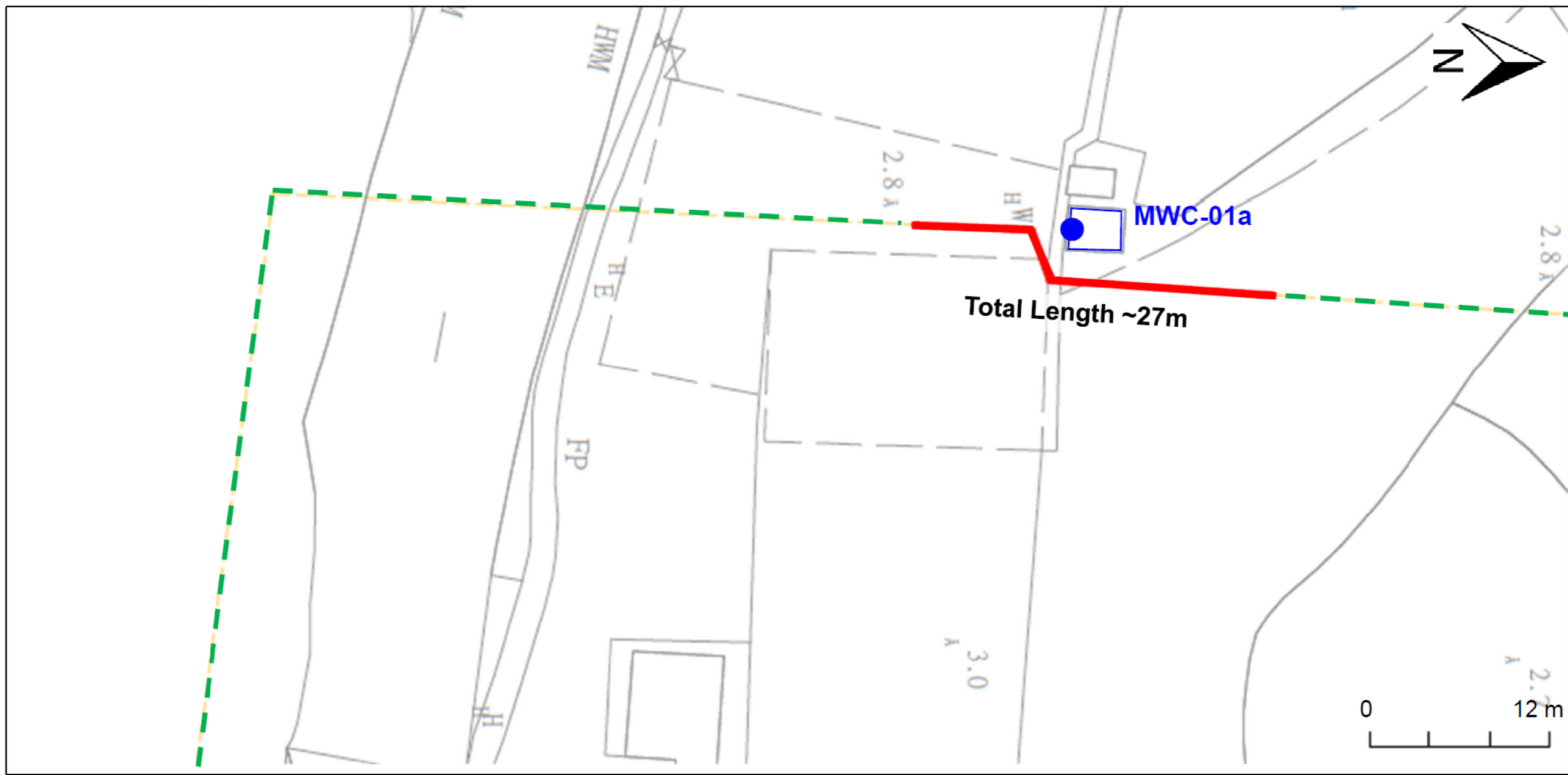


Workfronts for TCNTE

- TCW01
- TCW02
- TCW03
- TCW04
- TCW05
- TCW06
- TCW07
- TCW08
- TCW09
- TCW10
- TCW11
- TCW12
- TCW13
- TCW14
- TCW15
- TCW16
- TCW17
- TCW18
- TCW19
- TCW20
- TCW21
- TCW22
- TCW23
- TCW24
- TCW25
- TCW26
- TCW27
- TCW28
- TCW29
- TCW30
- IntW-01
- IntW-02
- IntW-03
- IntW-04
- IntW-05
- IntW-06
- IntW-07
- IntW-08
- IntW-09
- IntW-10
- IntW-11
- IntW-12
- IntW-13
- IntW-14
- IntW-15
- IntW-16
- IntW-17
- IntW-18
- AC01
- AC02
- AC03
- MWC-01a
- YTE-01a
- YTE-01b
- YTE-04a
- YTE-14a
- YTE-16a
- ETCCS-01a
- HLP-01a
- HLP-02a
- MTE-01a
- A60-03a
- SR01
- SR02

Appendix 3.6

Locations of Noise Barrier at Ma Wan Chung (Extracted from AEIAR-235/2022)



Village House
MWC-01a



2.8mPD



4m

0

6 m

Design of the Proposed Barrier:

- Gaps and openings at joints should be avoided;
- The length of the barrier should be about 27m while the height should be about 4m; and
- Surface density of the barrier no less than 7kg/m².

Legend

- Noise Assessment Point (NAP)
- Proposed Barrier along the boundary
- - - Boundary of the Workfront at TCW Station

G:\common\micr\os\station_s\ondar\plot\dr\h\p_cr\phk_c3\pdf_c.env\pht
 Default: HKC\RA04_9/6/2021 5:56:35 PM
 FILENAME: \\kgm1s27\CEEN\env\project\27146\3_Drawing\Deliverables\report\029_Noise_Impact_Assessment_Working Paper\FIGURE_4.4.1.dgn

| REV | DESCRIPTION | BY | DATE | APPROVED | REV | DESCRIPTION | BY | DATE | APPROVED |
|-----|-------------|----|--------|----------|-----|-------------|----|------|----------|
| A | FIRST ISSUE | GL | 160821 | FC | | | | | |

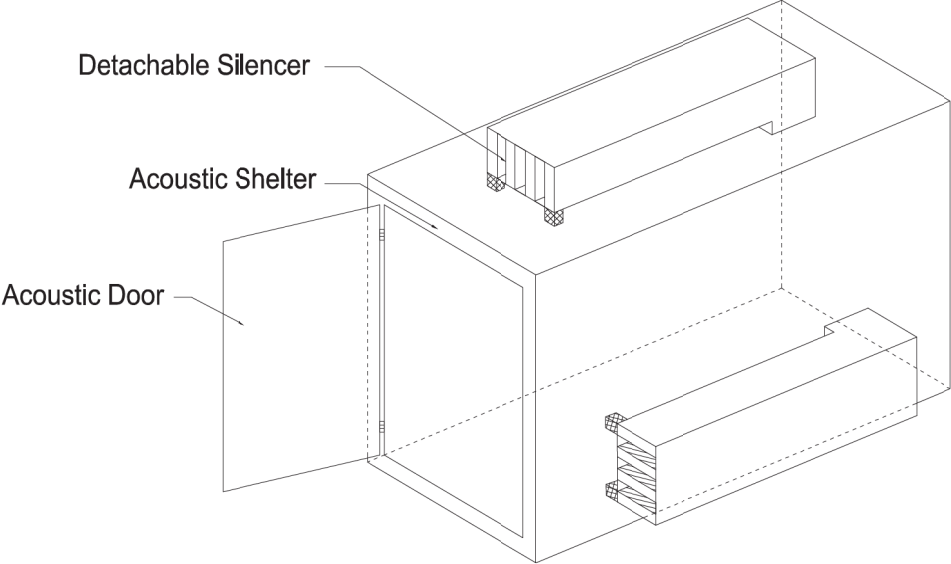
| | |
|----------|------------|
| DRAWN | GL |
| DESIGNED | GL |
| CHECKED | EL |
| APPROVED | FC |
| DATE | 16/08/2021 |

MTR
 C1202 – EIA for Tung Chung Line Extension
 ORIGINATOR
 ARUP Ove Arup & Partners
 Hong Kong Limited
 CADD REF. FIGURE 4.4.1.A.dgn

| TITLE | | SCALE | DRAWING NO. | REV. |
|---|--|----------|--------------|------|
| LOCATION OF THE NOISE BARRIER AT MA WAN CHUNG | | AS SHOWN | FIGURE 4.4.1 | A |

Appendix 3.7

Sketch of Typical Temporary Noise Barrier & Enclosure and 3-side Temporary Movable Enclosure (Extracted from AEIAR-235/2022)

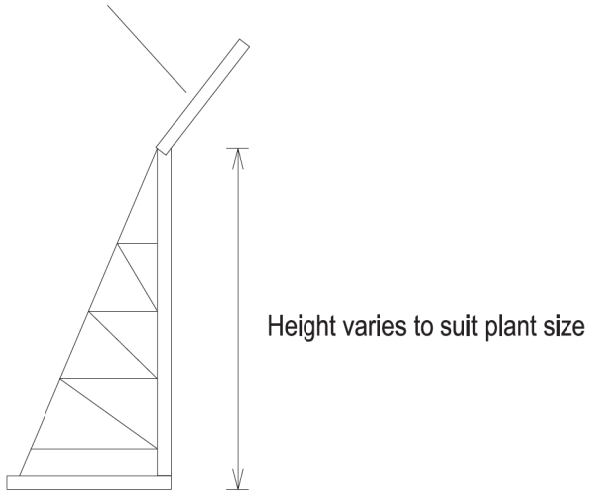


Acoustic Shelter Enclosure System
(Demountable Type)

Note: Adequate ventilation will be provided as appropriate with necessary noise mitigation to achieve 15 dB(A) noise reduction. The noise enclosure shall be constructed in accordance with relevant safety and legislative requirements in Hong Kong for normal operation. Discharges from any diesel engine within the enclosure should be ducted to the discharge outlets. The ducting is vital for the discharge of combustion exhaust, as it could avoid development of stagnant toxic gas within the enclosure, besides for ensuring proper air circulations.

Section of Typical Temporary Noise Enclosure

Minimum surface density of 7kg/m²

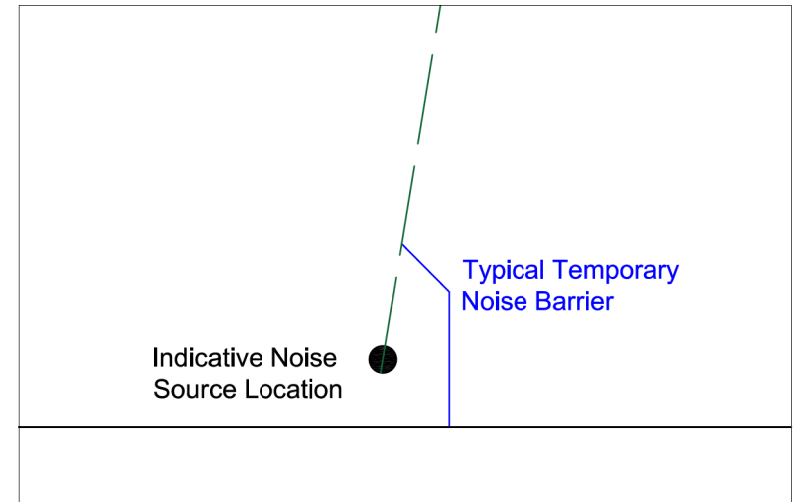
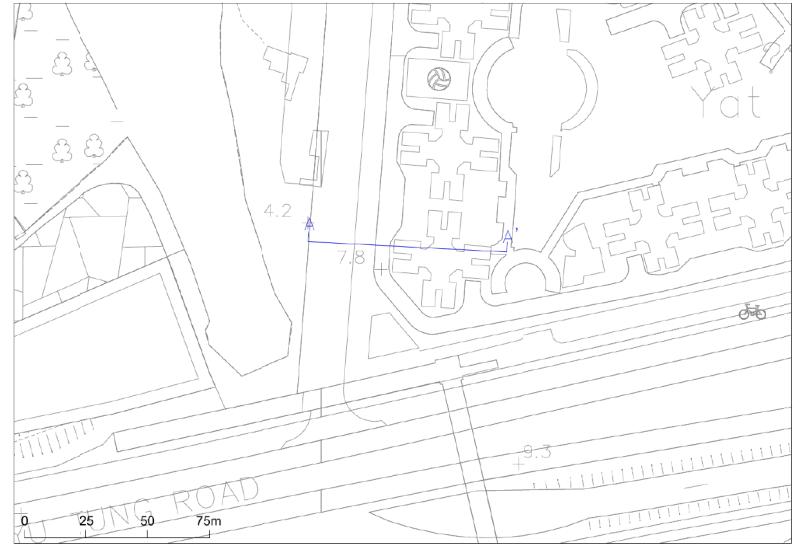
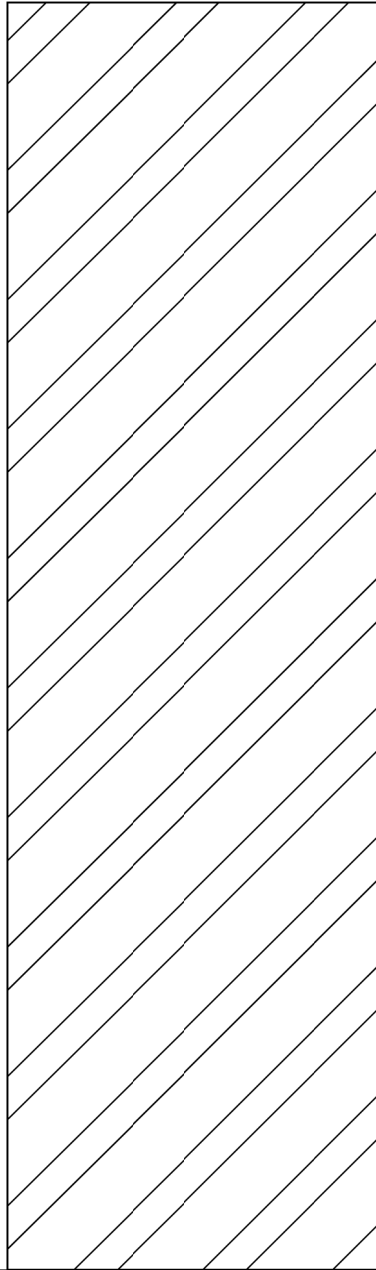


Typical Section of Temporary Movable Noise Barrier
(2-4m tall)

Section of Typical Temporary Noise Barrier

Indicative Section Drawing of the Use of Typical Temporary Noise Barrier at Yat Tung Estate

Yat Tung Estate
Fuk Ya House

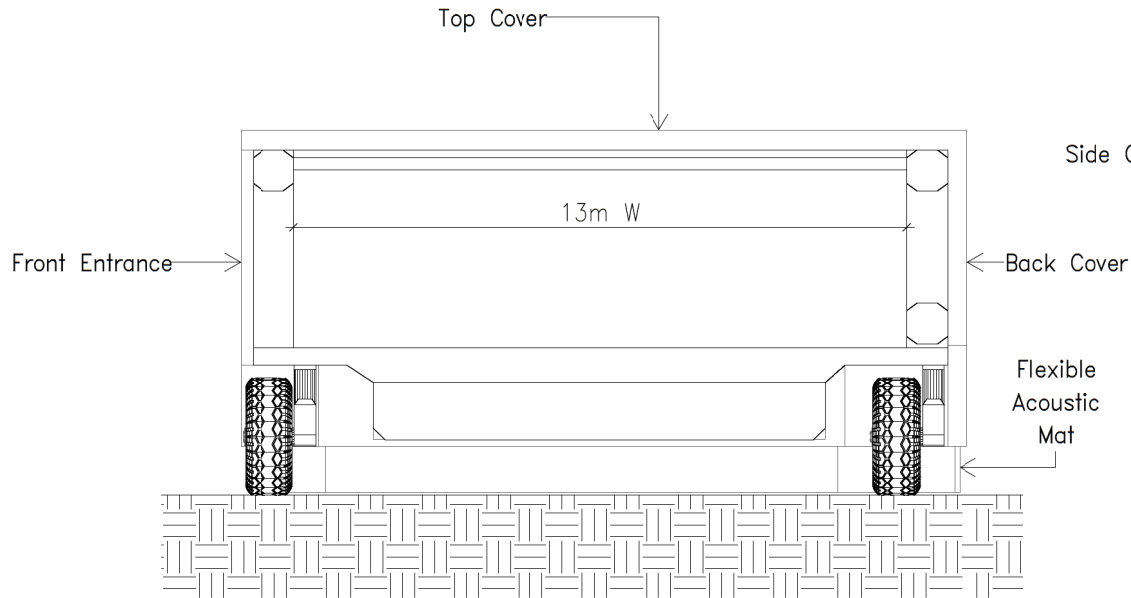


Indicative
Noise Source
Location

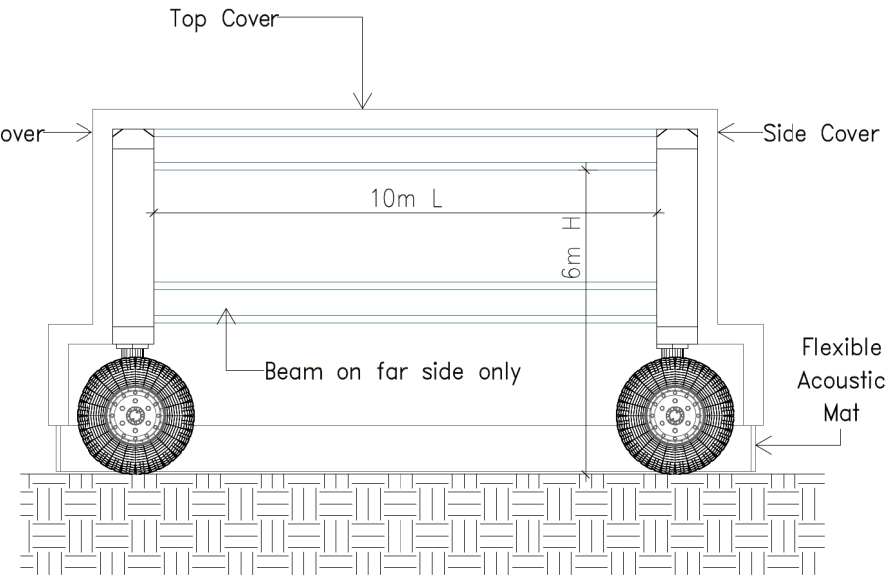
Typical Temporary
Noise Barrier

0 10 20 30m

Note: The section drawing is for indicative purpose and for reference only.



1 Side Profile
NTS



2 Front Entrance
NTS

Section of 3-side Temporary Movable Enclosure

Note

This figure of movable noise enclosure is for indicative purpose and the design including dimensions is subject to further review.

For reference, the approximate dimensions of the low headroom trench cutter that was adopted in construction of Tuen Ma Line was : 5m(W) x 11m(L) x 5m (H).

Appendix 3.8

Predicted Construction Noise Impacts with Implementation of Noise Mitigated Measures

Mitigated Construction Noise for TCW

Project : Environmental Consultancy No. C1202 EIA Study for Tung Chung Line Extension

Title : Construction Noise Calculation

Scenario : Mitigated Scenario

| | | 2029 | | | | | | | |
|--|-----|------|-----|-----|-----|-----|-----|-----|-----|
| | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug |
| Site Clearance at TCW | | | | | | | | | |
| TCW Site Clearance | 108 | | | | | | | | |
| Construction of Diaphragm Wall on Station East Side | | | | | | | | | |
| E- Zone A Construction of Diaphragm Wall | 100 | | | | | | | | |
| E- Zone A Installation of Mini-piles | 100 | | | | | | | | |
| E- Zone B Construction of Diaphragm Wall | 100 | | | | | | | | |
| E- Zone B Installation of Mini-piles | 100 | | | | | | | | |
| E- Zone C Construction of Diaphragm Wall | 100 | | | | | | | | |
| E- Zone C Installation of Mini-piles | 100 | | | | | | | | |
| E- Zone D Construction of Diaphragm Wall | 99 | | | | | | | | |
| E- Zone D Installation of Mini-piles | 100 | | | | | | | | |
| E- Zone E Construction of Diaphragm Wall | 99 | | | | | | | | |
| E- Zone E Installation of Mini-piles | 100 | | | | | | | | |
| Construction of Diaphragm Wall on Station West Side | | | | | | | | | |
| W- Zone A Construction of Diaphragm Wall | 101 | | | | | | | | |
| W- Zone A Installation of Mini-piles | 100 | | | | | | | | |
| W- Zone B Construction of Diaphragm Wall | 101 | | | | | | | | |
| W- Zone B Installation of Mini-piles | 100 | | | | | | | | |
| W- Zone C Construction of Diaphragm Wall | 101 | | | | | | | | |
| W- Zone C Installation of Mini-piles | 100 | | | | | | | | |
| W- Zone D Construction of Diaphragm Wall | 101 | | | | | | | | |
| W- Zone D Installation of Mini-piles | 100 | | | | | | | | |
| W- Zone E Construction of Diaphragm Wall | 101 | | | | | | | | |
| W- Zone E Installation of Mini-piles | 100 | | | | | | | | |
| Construction of Diaphragm Wall on Station East Side & West Side - Stationary Plants | | | | | | | | | |
| Dwall S1 Diaphragm Wall Construction - Supporting Stationary Plants | 98 | | | | | | | | |
| Dwall S2 Diaphragm Wall Construction - Supporting Stationary Plants | 96 | | | | | | | | |
| Dwall S3 Diaphragm Wall Construction - Supporting Stationary Plants | 94 | | | | | | | | |
| Dwall S4 Diaphragm Wall Construction - Supporting Stationary Plants | 97 | | | | | | | | |
| Dwall S5 Diaphragm Wall Construction - Supporting Stationary Plants | 98 | | | | | | | | |
| Dwall S6 Diaphragm Wall Construction - Supporting Stationary Plants | 80 | | | | | | | | |
| Dwall S7 Mini-piles Installation (Zone A) - Supporting Stationary Plants | 90 | | | | | | | | |
| Dwall S8 Mini-piles Installation (Zone B) - Supporting Stationary Plants | 90 | | | | | | | | |
| Dwall S9 Mini-piles Installation (Zone C) - Supporting Stationary Plants | 90 | | | | | | | | |
| Dwall S10 Mini-piles Installation (Zone D) - Supporting Stationary Plants | 90 | | | | | | | | |
| Dwall S11 Mini-piles Installation (Zone E) - Supporting Stationary Plants | 90 | | | | | | | | |
| Works Area WA.W02 for D-wall Steel Cage Rebar Fixing Works | | | | | | | | | |
| WA.W02 -D-wall Steel Cage Rebar Fixing Works | 103 | | | | | | | | |
| TCW Excavation | | | | | | | | | |
| Mucking out Opening A1 - Excavation Works | 101 | | | | | | | | |
| Excavation S1 - Stationary Plant for Excavation Zone A | 85 | | | | | | | | |
| Mucking out Opening B1 - Excavation Works | 99 | | | | | | | | |
| Mucking out Opening B2 - Excavation Works | 100 | | | | | | | | |
| Excavation S1 - Stationary Plant for Excavation Zone B | 85 | | | | | | | | |
| Mucking out Opening C1 - Excavation Works | 98 | | | | | | | | |
| Mucking out Opening C2 - Excavation Works | 100 | | | | | | | | |
| Excavation S2 - Stationary Plant for Excavation Zone C | 85 | | | | | | | | |
| Mucking out Opening D1 - Excavation Works | 98 | | | | | | | | |
| Mucking out Opening D2 - Excavation Works | 100 | | | | | | | | |
| Excavation S2 - Stationary Plant for Excavation Zone D | 85 | | | | | | | | |
| Mucking out Opening E1 - Excavation Works | 101 | | | | | | | | |
| Excavation S3 - Stationary Plant for Excavation Zone E | 82 | | | | | | | | |

Project : Environmental Consultancy No. C1202 EIA Study for Tung Chung Line Extension

Title : Construction Noise Calculation

Scenario : Mitigated Scenario

| | | 2029 | | | | | | | |
|--|-----|------|-----|-----|-----|-----|-----|-----|-----|
| | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug |
| TCW Structural Works | | | | | | | | | |
| Mucking out Opening A1 - Structural Works (Roof Slab) | 102 | | | | | | | | |
| Mucking out Opening A1 - Structural Works (other than Roof Slab) | 99 | | | | | | | | |
| Structural S1 - Stationary Plant for Structural Zone A | 104 | | | | | | | | |
| Mucking out Opening B1 - Structural Works (Roof Slab) | 102 | | | | | | | | |
| Mucking out Opening B1 - Structural Works (Other Than Roof Slab) | 100 | | | | | | | | |
| Mucking out Opening B2 - Structural Works (Roof Slab) | 102 | | | | | | | | |
| Mucking out Opening B2 - Structural Works (Other Than Roof Slab) | 100 | | | | | | | | |
| Structural S1 - Stationary Plant for Structural Zone B | 104 | | | | | | | | |
| Mucking out Opening C1 - Structural Works (Roof Slab) | 102 | | | | | | | | |
| Mucking out Opening C1 - Structural Works (Other Than Roof Slab) | 100 | | | | | | | | |
| Mucking out Opening C2 - Structural Works (Roof Slab) | 102 | | | | | | | | |
| Mucking out Opening C2 - Structural Works (Other Than Roof Slab) | 100 | | | | | | | | |
| Structural S2 - Stationary Plant for Structural Zone C | 104 | | | | | | | | |
| Mucking out Opening D1 - Structural Works (Roof Slab) | 102 | | | | | | | | |
| Mucking out Opening D1 - Structural Works (Other Than Roof Slab) | 100 | | | | | | | | |
| Mucking out Opening D2 - Structural Works (Roof Slab) | 102 | | | | | | | | |
| Mucking out Opening D2 - Structural Works (Other Than Roof Slab) | 100 | | | | | | | | |
| Structural S2 - Stationary Plant for Structural Zone D | 106 | | | | | | | | |
| Mucking out Opening E1 - Structural Works (Roof Slab) | 102 | | | | | | | | |
| Mucking out Opening E1 - Structural Works (Other Than Roof Slab) | 99 | | | | | | | | |
| Structural S2 - Stationary Plant for Structural Zone E | 104 | | | | | | | | |
| TCW Vent Shaft Structure and Entrances - Foundation Works | | | | | | | | | |
| North Vent Shaft Structure - Foundation Works | 103 | | | | | | | | |
| Building S1 - Stationary Plant for North Vent Shaft Structure Foundation Works | 93 | | | | | | | | |
| Entrance A - Foundation Works | 100 | | | | | | | | |
| Building S2 - Stationary Plant for Entrance A Foundation Works | 90 | | | | | | | | |
| TCW Vent Shaft Structure and Entrances - Excavation Works | | | | | | | | | |
| North Vent Shaft Structure - Excavation Works | 99 | | | | | | | | |
| Building S1 - Stationary Plant for North Vent Shaft Structure Excavation Works | 82 | | | | | | | | |
| Entrance A - Excavation Works | 99 | | | | | | | | |
| Building S2 - Stationary Plant for Entrance A Excavation Works | 82 | | | | | | | | |
| TCW Vent Shaft Structure and Entrances - Structural Works | | | | | | | | | |
| South Vent Shaft Structure - Structural Works | 100 | | | | | | | | |
| Building S2 - Stationary Plant for South Vent Shaft Structure Structural Works | 103 | | | | | | | | |
| North Vent Shaft Structure - Structural Works | 100 | | | | | | | | |
| Building S1 - Stationary Plant for North Vent Shaft Structure Structural Works | 104 | | | | | | | | |
| Entrance A - Structural Works | 100 | | | | | | | | |
| Building S2 - Stationary Plant for Entrance A Structural Works | 104 | | | | | | | | |
| Entrance B - Structural Works | 100 | | | | | | | | |
| Building S1 - Stationary Plant for Entrance B Structural Works | 103 | | | | | | | | |
| Site Reinstatement | | | | | | | | | |
| TCW Site Reinstatement | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 |
| Footbridge Modification | | | | | | | | | |
| Footbridge Demolition | 109 | | | | | | | | |

Project : EIA for Tung Chung Line Extension
 Title : Preliminary Noise Assessment from TCW Haul Road
 Subtitle : Construction of Haul Road at Yat Tung Estate (Mitigated)

YTE-16a

| Source | Period | SWL / Unit dB(A) | Qty Nos | % Util | Total SWL dB(A) | Dist m | Speed kph | [2] Angle deg | Correction [1] | | | | Mitigated | SPL |
|--|--------|------------------|---------|--------|-----------------|--------|-----------|---------------|----------------|--------------|-------------|-------------|--------------|---------------|
| | | | | | | | | | Dist dB(A) | Facade dB(A) | Speed dB(A) | Angle dB(A) | | Daytime dB(A) |
| Lorry with Crane - vehicle / hr - Daytime only | II | 105 | 2 | 100% | 108 | 6 | 5 | 180 | -8 | 3 | -7 | 0 | -5 (Barrier) | 58 |
| Noise Impacts from Haul Road, dB(A) | | | | | | | | | | | | | 58 | |

YTE-14a

| Source | Period | SWL / Unit dB(A) | Qty Nos | % Util | Total SWL dB(A) | Dist m | Speed kph | [2] Angle deg | Correction [1] | | | | Mitigated | SPL |
|--|--------|------------------|---------|--------|-----------------|--------|-----------|---------------|----------------|--------------|-------------|-------------|--------------|---------------|
| | | | | | | | | | Dist dB(A) | Facade dB(A) | Speed dB(A) | Angle dB(A) | | Daytime dB(A) |
| Lorry with Crane - vehicle / hr - Daytime only | II | 105 | 2 | 100% | 108 | 6 | 5 | 180 | -8 | 3 | -7 | 0 | -5 (Barrier) | 58 |
| Noise Impacts from Haul Road, dB(A) | | | | | | | | | | | | | 58 | |

YTE-04a

| Source | Period | SWL / Unit dB(A) | Qty Nos | % Util | Total SWL dB(A) | Dist m | Speed kph | [2] Angle deg | Correction [1] | | | | Mitigated | SPL |
|--|--------|------------------|---------|--------|-----------------|--------|-----------|---------------|----------------|--------------|-------------|-------------|--------------|---------------|
| | | | | | | | | | Dist dB(A) | Facade dB(A) | Speed dB(A) | Angle dB(A) | | Daytime dB(A) |
| Lorry with Crane - vehicle / hr - Daytime only | II | 105 | 2 | 100% | 108 | 6 | 5 | 180 | -8 | 3 | -7 | 0 | -5 (Barrier) | 58 |
| Noise Impacts from Haul Road, dB(A) | | | | | | | | | | | | | 58 | |

YTE-01a

| Source | Period | SWL / Unit dB(A) | Qty Nos | % Util | Total SWL dB(A) | Dist m | Speed kph | [2] Angle deg | Correction [1] | | | | Mitigated | SPL |
|--|--------|------------------|---------|--------|-----------------|--------|-----------|---------------|----------------|--------------|-------------|-------------|--------------|---------------|
| | | | | | | | | | Dist dB(A) | Facade dB(A) | Speed dB(A) | Angle dB(A) | | Daytime dB(A) |
| Lorry with Crane - vehicle / hr - Daytime only | II | 105 | 2 | 100% | 108 | 7 | 5 | 180 | -8 | 3 | -7 | 0 | -5 (Barrier) | 58 |
| Noise Impacts from Haul Road, dB(A) | | | | | | | | | | | | | 58 | |

HLP-01a

| Source | Period | SWL / Unit dB(A) | Qty Nos | % Util | Total SWL dB(A) | Dist m | Speed kph | [2] Angle deg | Correction [1] | | | | Mitigated | SPL |
|--|--------|------------------|---------|--------|-----------------|--------|-----------|---------------|----------------|--------------|-------------|-------------|--------------|---------------|
| | | | | | | | | | Dist dB(A) | Facade dB(A) | Speed dB(A) | Angle dB(A) | | Daytime dB(A) |
| Lorry with Crane - vehicle / hr - Daytime only | II | 105 | 2 | 100% | 108 | 170 | 5 | 180 | -22 | 3 | -7 | 0 | -5 (Barrier) | 43 |
| Noise Impacts from Haul Road, dB(A) | | | | | | | | | | | | | 43 | |

HLP-02a

| Source | Period | SWL / Unit dB(A) | Qty Nos | % Util | Total SWL dB(A) | Dist m | Speed kph | [2] Angle deg | Correction [1] | | | | Mitigated | SPL |
|--|--------|------------------|---------|--------|-----------------|--------|-----------|---------------|----------------|--------------|-------------|-------------|--------------|---------------|
| | | | | | | | | | Dist dB(A) | Facade dB(A) | Speed dB(A) | Angle dB(A) | | Daytime dB(A) |
| Lorry with Crane - vehicle / hr - Daytime only | II | 105 | 2 | 100% | 108 | 205 | 5 | 180 | -23 | 3 | -7 | 0 | -5 (Barrier) | 42 |
| Noise Impacts from Haul Road, dB(A) | | | | | | | | | | | | | 42 | |

Project : EIA for Tung Chung Line Extension
 Title : Preliminary Noise Assessment from TCW Haul Road
 Subtitle : Construction of Haul Road at Yat Tung Estate (Mitigated)

MTE-01a

| Source | Period | SWL / Unit dB(A) | Qty Nos | % Util | Total SWL dB(A) | Dist m | Speed kph | [2] Angle deg | Correction [1] | | | | Mitigated | SPL |
|--|--------|------------------|---------|--------|-----------------|--------|-----------|---------------|----------------|--------------|-------------|-------------|--------------|---------------|
| | | | | | | | | | Dist dB(A) | Facade dB(A) | Speed dB(A) | Angle dB(A) | | Daytime dB(A) |
| Lorry with Crane - vehicle / hr - Daytime only | II | 105 | 2 | 100% | 108 | 220 | 5 | 180 | -23 | 3 | -7 | 0 | -5 (Barrier) | 42 |
| Noise Impacts from Haul Road, dB(A) | | | | | | | | | | | | | | 42 |

ETCCS-01a

| Source | Period | SWL / Unit dB(A) | Qty Nos | % Util | Total SWL dB(A) | Dist m | Speed kph | [2] Angle deg | Correction [1] | | | | Mitigated | SPL |
|--|--------|------------------|---------|--------|-----------------|--------|-----------|---------------|----------------|--------------|-------------|-------------|--------------|---------------|
| | | | | | | | | | Dist dB(A) | Facade dB(A) | Speed dB(A) | Angle dB(A) | | Daytime dB(A) |
| Lorry with Crane - vehicle / hr - Daytime only | II | 105 | 2 | 100% | 108 | 70 | 5 | 180 | -18 | 3 | -7 | 0 | -5 (Barrier) | 47 |
| Noise Impacts from Haul Road, dB(A) | | | | | | | | | | | | | | 47 |

YTE-01b

| Source | Period | SWL / Unit dB(A) | Qty Nos | % Util | Total SWL dB(A) | Dist m | Speed kph | [2] Angle deg | Correction [1] | | | | Mitigated | SPL |
|--|--------|------------------|---------|--------|-----------------|---------|-----------|---------------|----------------|--------------|-------------|-------------|--------------|----------------|
| | | | | | | | | | Dist dB(A) | Facade dB(A) | Speed dB(A) | Angle dB(A) | | Daytime dB(A) |
| Lorry with Crane - vehicle / hr - Daytime only | II | 105 | 2 | 100% | 108 | N/A [3] | 5 | N/A [3] | N/A [3] | 3 | -7 | N/A [3] | -5 (Barrier) | N/A [3] |
| Noise Impacts from Haul Road, dB(A) | | | | | | | | | | | | | | N/A [3] |

YTE-05a

| Source | Period | SWL / Unit dB(A) | Qty Nos | % Util | Total SWL dB(A) | Dist m | Speed kph | [2] Angle deg | Correction [1] | | | | Mitigated | SPL |
|--|--------|------------------|---------|--------|-----------------|---------|-----------|---------------|----------------|--------------|-------------|-------------|--------------|----------------|
| | | | | | | | | | Dist dB(A) | Facade dB(A) | Speed dB(A) | Angle dB(A) | | Daytime dB(A) |
| Lorry with Crane - vehicle / hr - Daytime only | II | 105 | 2 | 100% | 108 | N/A [3] | 5 | N/A [3] | N/A [3] | 3 | -7 | N/A [3] | -5 (Barrier) | N/A [3] |
| Noise Impacts from Haul Road, dB(A) | | | | | | | | | | | | | | N/A [3] |

MWC-01a

| Source | Period | SWL / Unit dB(A) | Qty Nos | % Util | Total SWL dB(A) | Dist m | Speed kph | [2] Angle deg | Correction [1] | | | | Mitigated | SPL |
|--|--------|------------------|---------|--------|-----------------|--------|-----------|---------------|----------------|--------------|-------------|-------------|--------------|---------------|
| | | | | | | | | | Dist dB(A) | Facade dB(A) | Speed dB(A) | Angle dB(A) | | Daytime dB(A) |
| Lorry with Crane - vehicle / hr - Daytime only | II | 105 | 2 | 100% | 108 | 90 | 5 | 180 | -20 | 3 | -7 | 0 | -5 (Barrier) | 46 |
| Noise Impacts from Haul Road, dB(A) | | | | | | | | | | | | | | 46 |

Note:

I - Daytime, evening and night-time operation
 II - Daytime operation only
 III - Evening operation only

[1] : Based on BS 5228 Pt 1: 1997 D3.5.2 Method for mobile plant using a regular well defined route (haul road)

$$L_{eq} = L_w - 33 + 10 \log (Qty) - 10 \log (speed) - 10 \log (dist) + 10 \log (angle / 180) + C_{facade}$$

[2] : A view angle of 180 deg has been assumed for conservative assessment

[3]: The view angle of the receiver will not include the haul road.

Project : Environmental Consultancy No. C1202 EIA Study for Tung Chung Line Extension

Title : Construction Noise Calculation

Scenario : Mitigated Scenario

| | Max | 2023 | | | | | | | 2024 | | | | | | | 2025 | | | | | | | | | | | | | | | | | |
|---|-----|------|-----|-----|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|
| | | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | |
| Predicted Construction Noise of the Project (without Haul Road), dB(A) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NSR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| YTE-16a | 73 | 65 | 65 | 65 | 65 | 65 | 69 | 69 | 69 | 69 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 69 | 69 | 69 | 73 | 72 | 69 | 69 | 70 | 67 | 67 | 70 | 70 | 68 | 66 | |
| YTE-14a | 73 | 68 | 68 | 68 | 68 | 68 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 69 | 69 | 70 | 70 | 70 | 70 | 70 | 71 | 69 | 69 | 70 | 70 | 70 | 72 | |
| YTE-04a | 74 | 71 | 71 | 71 | 71 | 71 | 72 | 71 | 71 | 71 | 71 | 71 | 71 | 71 | 71 | 71 | 72 | 72 | 72 | 71 | 73 | 72 | 72 | 72 | 72 | 72 | 72 | 71 | 71 | 68 | 69 | | |
| YTE-01a | 75 | 70 | 70 | 70 | 70 | 70 | 75 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 75 | 74 | 74 | 74 | 74 | 74 | 75 | 74 | 72 | 72 | 71 | 71 | | |
| HLP-01a | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 59 | 59 | 59 | 59 | 59 | 59 | 60 | 60 | 60 | 60 | 59 | 59 | | |
| HLP-02a | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 61 | 62 | | |
| MTE-01a | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | | |
| ETCCS-01a | 64 | 58 | 58 | 58 | 58 | 58 | 60 | 60 | 60 | 60 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 60 | 60 | 61 | 63 | 63 | 62 | 62 | 62 | 61 | 61 | 62 | 62 | 61 | 61 | |
| YTE-01b | 71 | 71 | 71 | 71 | 71 | 71 | 71 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 68 | 67 | 66 | 66 | 65 | 65 | |
| YTE-05a | 66 | 64 | 64 | 64 | 64 | 64 | 64 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 59 | 58 | 60 | 60 | 60 | 60 | 60 | 60 | 61 | 61 | 60 | 60 | 59 | 59 | |
| A60-03a | 59 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 55 | 55 |
| MWC-01a | 73 | 61 | 61 | 61 | 61 | 61 | 72 | 72 | 71 | 71 | 71 | 71 | 71 | 71 | 71 | 71 | 71 | 71 | 72 | 72 | 72 | 72 | 72 | 72 | 72 | 72 | 71 | 71 | 72 | 72 | 72 | 72 | |

| Predicted Construction Noise of the Haul Road at Yat Tung Estate, dB(A) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|---|---|---|---|---|---|---|---|---|
| | Max | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NSR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| YTE-16a | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| YTE-14a | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| YTE-04a | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| YTE-01a | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| HLP-01a | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| HLP-02a | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| MTE-01a | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| ETCCS-01a | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| YTE-01b | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| YTE-05a | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| A60-03a | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 0 | 0 |
| MWC-01a | 46 | 46 | 46 | 46 | 46 | 46 | 46 | 46 | 46 | 46 | 46 | 46 | 46 | 46 | 46 | 46 | 46 | 46 | 46 | 46 | 46 | 46 | 46 | 46 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |

| Predicted Construction Noise from the Project, dB(A) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| | Max | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NSR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| YTE-16a | 73 | 66 | 66 | 66 | 66 | 66 | 69 | 69 | 69 | 69 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 69 | 69 | 70 | 73 | 72 | 70 | 70 | 70 | 67 | 67 | 70 | 70 | 68 | 66 | |
| YTE-14a | 73 | 69 | 69 | 69 | 69 | 69 | 71 | 71 | 71 | 71 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 69 | 69 | 70 | 70 | 70 | 70 | 70 | 71 | 69 | 69 | 70 | 70 | 70 | 72 | |
| YTE-04a | 74 | 72 | 72 | 72 | 72 | 72 | 72 | 72 | 72 | 72 | 72 | 72 | 72 | 72 | 72 | 72 | 72 | 72 | 72 | 74 | 72 | 72 | 72 | 72 | 72 | 72 | 71 | 71 | 68 | 69 | | | |
| YTE-01a | 75 | 70 | 70 | 70 | 70 | 70 | 75 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 75 | 74 | 74 | 74 | 74 | 74 | 75 | 74 | 72 | 72 | 71 | 71 | | |
| HLP-01a | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 59 | 59 | 59 | 59 | 59 | 59 | 60 | 60 | 60 | 60 | 59 | 59 | | |
| HLP-02a | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 61 | 62 | | |
| MTE-01a | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | | |
| ETCCS-01a | 64 | 58 | 58 | 58 | 58 | 58 | 60 | 60 | 60 | 60 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 60 | 60 | 61 | 63 | 63 | 62 | 62 | 62 | 61 | 61 | 62 | 62 | 61 | 61 | |
| YTE-01b | 71 | 71 | 71 | 71 | 71 | 71 | 71 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 66 | 66 | 66 | 66 | 66 | 66 | 68 | 67 | 66 | 66 | 65 | 65 | | |
| YTE-05a | 66 | 64 | 64 | 64 | 64 | 64 | 64 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 59 | 58 | 60 | 60 | 60 | 60 | 60 | 60 | 61 | 61 | 60 | 60 | 59 | 59 | |
| A60-03a | 59 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 55 | 55 |
| MWC-01a | 73 | 61 | 61 | 61 | 61 | 61 | 72 | 72 | 71 | 71 | 71 | 71 | 71 | 71 | 71 | 71 | 71 | 71 | 72 | 72 | 72 | 72 | 72 | 72 | 72 | 72 | 71 | 71 | 72 | 72 | 72 | 72 | |

- Note:
1. As a worst case scenario, the predicted construction noise is calculated using the distance between the notional centre of the workfront to the closest NSR.
 2. Text in red in shaded cell denotes exceedance of relevant criterion.
 3. Cell with shaded area denotes the unoccupancy of the NSR (i.e. before the population intake).

Project : Environmental Consultancy No. C1202 EIA Study for Tung Chung Line Extension

Title : Construction Noise Calculation

Scenario : Mitigated Scenario

| | Max | 2026 | | | | | | | | | | | | 2027 | | | | | | | | | | | | 2028 | | | | | | | | | | | | | |
|---|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|
| | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | | |
| Predicted Construction Noise of the Project (without Haul Road), dB(A) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NSR | Max | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| YTE-16a | 73 | 68 | 70 | 69 | 68 | 69 | 69 | 69 | 70 | 69 | 69 | 68 | 68 | 68 | 69 | 69 | 69 | 69 | 69 | 67 | 64 | 64 | 64 | 59 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | |
| YTE-14a | 73 | 73 | 73 | 72 | 70 | 72 | 70 | 71 | 73 | 72 | 71 | 69 | 70 | 71 | 72 | 72 | 72 | 72 | 72 | 71 | 68 | 67 | 67 | 64 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 |
| YTE-04a | 74 | 69 | 74 | 73 | 72 | 73 | 69 | 71 | 73 | 71 | 72 | 72 | 71 | 71 | 70 | 70 | 72 | 73 | 73 | 73 | 72 | 72 | 72 | 74 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | |
| YTE-01a | 75 | 73 | 74 | 71 | 70 | 71 | 68 | 75 | 75 | 75 | 75 | 75 | 67 | 68 | 67 | 68 | 69 | 68 | 68 | 68 | 66 | 66 | 66 | 68 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | |
| HLP-01a | 63 | 60 | 62 | 61 | 58 | 59 | 57 | 59 | 60 | 58 | 59 | 59 | 57 | 58 | 57 | 58 | 59 | 59 | 59 | 58 | 57 | 57 | 57 | 56 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | |
| HLP-02a | 63 | 62 | 63 | 62 | 57 | 58 | 56 | 58 | 59 | 57 | 58 | 58 | 56 | 57 | 56 | 57 | 58 | 58 | 58 | 57 | 56 | 56 | 56 | 56 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | |
| MTE-01a | 68 | 68 | 68 | 67 | 57 | 58 | 56 | 58 | 59 | 57 | 58 | 58 | 56 | 57 | 56 | 58 | 58 | 58 | 58 | 57 | 56 | 56 | 56 | 57 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | |
| ETCCS-01a | 64 | 63 | 64 | 63 | 62 | 63 | 62 | 63 | 64 | 63 | 63 | 61 | 62 | 62 | 64 | 63 | 64 | 64 | 64 | 63 | 61 | 61 | 61 | 57 | 57 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | |
| YTE-01b | 71 | 67 | 69 | 68 | 66 | 67 | 65 | 67 | 68 | 67 | 67 | 68 | 68 | 64 | 65 | 64 | 65 | 66 | 66 | 66 | 65 | 63 | 63 | 63 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | |
| YTE-05a | 66 | 61 | 66 | 65 | 64 | 64 | 60 | 63 | 65 | 63 | 63 | 65 | 63 | 63 | 62 | 61 | 64 | 65 | 65 | 64 | 64 | 63 | 63 | 63 | 60 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | |
| A60-03a | 59 | 56 | 59 | 58 | 56 | 57 | 54 | 56 | 58 | 56 | 56 | 56 | 56 | 55 | 55 | 55 | 57 | 57 | 57 | 57 | 56 | 56 | 56 | 55 | 57 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | |
| MWC-01a | 73 | 73 | 73 | 70 | 68 | 71 | 69 | 69 | 72 | 71 | 69 | 63 | 68 | 70 | 72 | 72 | 72 | 72 | 72 | 70 | 69 | 68 | 68 | 59 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | |

| Predicted Construction Noise of the Haul Road at Yat Tung Estate, dB(A) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|-----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Max | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NSR | Max | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| YTE-16a | 58 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| YTE-14a | 58 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| YTE-04a | 58 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| YTE-01a | 58 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HLP-01a | 43 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HLP-02a | 42 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| MTE-01a | 42 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ETCCS-01a | 47 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| YTE-01b | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| YTE-05a | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| A60-03a | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| MWC-01a | 46 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| Predicted Construction Noise from the Project, dB(A) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| | Max | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NSR | Max | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| YTE-16a | 73 | 68 | 70 | 69 | 68 | 69 | 69 | 69 | 70 | 69 | 69 | 68 | 68 | 68 | 69 | 69 | 69 | 69 | 69 | 67 | 64 | 64 | 64 | 59 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 |
| YTE-14a | 73 | 73 | 73 | 72 | 70 | 72 | 70 | 71 | 73 | 72 | 71 | 69 | 70 | 71 | 72 | 72 | 72 | 72 | 72 | 71 | 68 | 67 | 67 | 64 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 |
| YTE-04a | 74 | 69 | 74 | 73 | 72 | 73 | 69 | 71 | 73 | 71 | 72 | 72 | 71 | 71 | 70 | 70 | 72 | 73 | 73 | 73 | 72 | 72 | 72 | 74 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | |
| YTE-01a | 75 | 73 | 74 | 71 | 70 | 71 | 68 | 75 | 75 | 75 | 75 | 75 | 67 | 68 | 67 | 68 | 69 | 68 | 68 | 68 | 66 | 66 | 66 | 68 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | |
| HLP-01a | 63 | 60 | 62 | 61 | 58 | 59 | 57 | 59 | 60 | 58 | 59 | 59 | 57 | 58 | 57 | 58 | 59 | 59 | 59 | 58 | 57 | 57 | 57 | 56 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | |
| HLP-02a | 63 | 62 | 63 | 62 | 57 | 58 | 56 | 58 | 59 | 57 | 58 | 58 | 56 | 57 | 56 | 57 | 58 | 58 | 58 | 57 | 56 | 56 | 56 | 56 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | |
| MTE-01a | 68 | 68 | 68 | 67 | 57 | 58 | 56 | 58 | 59 | 57 | 58 | 58 | 56 | 57 | 56 | 58 | 58 | 58 | 58 | 57 | 56 | 56 | 56 | 57 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | |
| ETCCS-01a | 64 | 63 | 64 | 63 | 62 | 63 | 62 | 63 | 64 | 63 | 63 | 61 | 62 | 62 | 64 | 63 | 64 | 64 | 64 | 63 | 61 | 61 | 61 | 57 | 57 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 |
| YTE-01b | 71 | 67 | 69 | 68 | 66 | 67 | 65 | 67 | 68 | 67 | 67 | 68 | 68 | 64 | 65 | 64 | 65 | 66 | 66 | 66 | 65 | 63 | 63 | 63 | 60 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | |
| YTE-05a | 66 | 61 | 66 | 65 | 64 | 64 | 60 | 63 | 65 | 63 | 63 | 65 | 63 | 63 | 62 | 61 | 64 | 65 | 65 | 64 | 64 | 63 | 63 | 63 | 60 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 |
| A60-03a | 59 | 56 | 59 | 58 | 56 | 57 | 54 | 56 | 58 | 56 | 56 | 56 | 56 | 55 | 55 | 55 | 57 | 57 | 57 | 57 | 56 | 56 | 56 | 55 | 57 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 |
| MWC-01a | 73 | 73 | 73 | 70 | 68 | 71 | 69 | 69 | 72 | 71 | 69 | 63 | 68 | 70 | 72 | 72 | 72 | 72 | 72 | 70 | 69 | 68 | 68 | 59 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 69 |

- Note:
- As a worst case scenario, the predicted construction noise is calculated using the distance between the notional centre of the workfront to the closest NSR.
 - Text in red in shaded cell denotes exceedance of relevant criterion.
 - Cell with shaded area denotes the unoccupancy of the NSR (i.e. before the population intake).

Project : Environmental Consultancy No. C1202 EIA Study for Tung Chung Line Extension

Title : Construction Noise Calculation

Scenario : Mitigated Scenario

| | | 2029 | | | | | | | |
|---|------------|------|-----|-----|-----|-----|-----|-----|-----|
| | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug |
| Predicted Construction Noise of the Project (without Haul Road), dB(A) | | | | | | | | | |
| NSR | Max | | | | | | | | |
| YTE-16a | 73 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 |
| YTE-14a | 73 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 |
| YTE-04a | 74 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 |
| YTE-01a | 75 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 |
| HLP-01a | 63 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 |
| HLP-02a | 63 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 |
| MTE-01a | 68 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 |
| ETCCS-01a | 64 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 |
| YTE-01b | 71 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 |
| YTE-05a | 66 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 |
| A60-03a | 59 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 |
| MWC-01a | 73 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 69 |

| Predicted Construction Noise of the Haul Road at Yat Tung Estate, dB(A) | | | | | | | | | |
|--|------------|---|---|---|---|---|---|---|---|
| NSR | Max | | | | | | | | |
| YTE-16a | 58 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| YTE-14a | 58 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| YTE-04a | 58 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| YTE-01a | 58 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HLP-01a | 43 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HLP-02a | 42 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| MTE-01a | 42 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ETCCS-01a | 47 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| YTE-01b | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| YTE-05a | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| A60-03a | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| MWC-01a | 46 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| Predicted Construction Noise from the Project, dB(A) | | | | | | | | | |
|---|------------|----|----|----|----|----|----|----|----|
| NSR | Max | | | | | | | | |
| YTE-16a | 73 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 |
| YTE-14a | 73 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 |
| YTE-04a | 74 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 |
| YTE-01a | 75 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 |
| HLP-01a | 63 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 |
| HLP-02a | 63 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 |
| MTE-01a | 68 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 |
| ETCCS-01a | 64 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 |
| YTE-01b | 71 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 |
| YTE-05a | 66 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 |
| A60-03a | 59 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 |
| MWC-01a | 73 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 69 |

Note:

1. As a worst case scenario, the predicted construction noise is calculated using the distance between the notional centre of the workfront to the closest NSR.
2. Text in red in shaded cell denotes exceedance of relevant criterion.
3. Cell with shaded area denotes the unoccupancy of the NSR (i.e. before the population intake).

Title : Construction Noise Calculation for TCNTE
Scenario : Mitigated Scenario

| Activities | 2029 | | | | | | | |
|---|------|-----|-------|-----|-----|------|------|-----|
| | Jan | Feb | March | Apr | May | June | July | Aug |
| AC01 | | | | | | | | |
| AC02 | | | | | | | | |
| AC03 | | | | | | | | |
| SR01 | | | | | | | | |
| A2 - Site Formation (Solid and Rock) | | | | | | | | |
| Service Reservoir Structure | | | | | | | | |
| Landscaping | | | | | | | | |
| SR02 | | | | | | | | |
| A2 - Site Formation (Solid and Rock) | | | | | | | | |
| Service Reservoir Structure | | | | | | | | |
| Landscaping | | | | | | | | |
| TCW01 (Area 48) | | | | | | | | |
| B1 - High PR Residential Foundations | | | | | | | | |
| B2 - High PR Residential Foundations and High PR Residential Superstructure | | | | | | | | |
| B3 - High PR Residential Superstructure | | | | | | | | |
| TCW02 (area 23) | | | | | | | | |
| A2 - Site Formation (Solid and Rock) | | | | | | | | |
| B1 - High PR Residential Foundations | | | | | | | | |
| B2 - High PR Residential Foundations and High PR Residential Superstructure | | | | | | | | |
| B3 - High PR Residential Superstructure | 109 | 109 | 109 | 109 | 109 | 109 | 109 | 109 |
| TCW03 (Area 46) | | | | | | | | |
| A1 - Site Formation (Soil) | | | | | | | | |
| B1 - High PR Residential Foundations | | | | | | | | |
| B2 - High PR Residential Foundations and High PR Residential Superstructure | | | | | | | | |
| B3 - High PR Residential Superstructure | | | | | | | | |
| TCW04 (Area 42) | | | | | | | | |
| A1 - Site Formation (Soil) | | | | | | | | |
| B1 - High PR Residential Foundations | | | | | | | | |
| B2 - High PR Residential Foundations and High PR Residential Superstructure | | | | | | | | |
| B3 - High PR Residential Superstructure | | | | | | | | |
| TCW05 | | | | | | | | |
| D1 - Folder Formation | | | | | | | | |
| TCW06 (Area 71B) | | | | | | | | |
| C1 - Medium PR Residential / GIC Foundations | | | | | | | | |
| C2 - Medium PR Residential / GIC Foundations and Medium PR Residential / GIC Superstructure | | | | | | | | |
| C3 - Medium PR Residential/ GIC Superstructure | | | | | | | | |

Title : Construction Noise Calculation for TCNTE
Scenario : Mitigated Scenario

| Activities | 2029 | | | | | | | |
|---|------|-----|-------|-----|-----|------|------|-----|
| | Jan | Feb | March | Apr | May | June | July | Aug |
| TCW07 | | | | | | | | |
| D1 - Folder Formation | | | | | | | | |
| TCW08 (Area 71A) | | | | | | | | |
| C1 - Medium PR Residential / GIC Foundations | | | | | | | | |
| C2 - Medium PR Residential / GIC Foundations and Medium PR Residential / GIC Superstructure | | | | | | | | |
| C3 - Medium PR Residential/ GIC Superstructure | | | | | | | | |
| TCW09 | | | | | | | | |
| D1 - Folder Formation | | | | | | | | |
| TCW10 | | | | | | | | |
| D1 - Folder Formation | | | | | | | | |
| TCW12 | | | | | | | | |
| C1 - Medium PR Residential / GIC Foundations | | | | | | | | |
| C2 - Medium PR Residential / GIC Foundations and Medium PR Residential / GIC Superstructure | | | | | | | | |
| C3 - Medium PR Residential/ GIC Superstructure | | | | | | | | |
| TCW13 | | | | | | | | |
| F1 - SPS Foundations | | | | | | | | |
| F2 - SPS Foundations and Superstructure | | | | | | | | |
| F3 - SPS Superstructure | | | | | | | | |
| TCW14 | | | | | | | | |
| C1 - Medium PR Residential / GIC Foundations | | | | | | | | |
| C2 - Medium PR Residential / GIC Foundations and Medium PR Residential / GIC Superstructure | | | | | | | | |
| C3 - Medium PR Residential/ GIC Superstructure | | | | | | | | |
| TCW15 | | | | | | | | |
| F1 - SPS Foundations | | | | | | | | |
| F2 - SPS Foundations and Superstructure | | | | | | | | |
| F3 - SPS Superstructure | | | | | | | | |
| TCW16 | | | | | | | | |
| B1 - High PR Residential Foundations | | | | | | | | |
| B2 - High PR Residential Foundations and High PR Residential Superstructure | | | | | | | | |
| B3 - High PR Residential Superstructure | | | | | | | | |
| TCW17 | | | | | | | | |
| D1 - Folder Formation | | | | | | | | |
| TCW18 | | | | | | | | |
| C1 - Medium PR Residential / GIC Foundations | | | | | | | | |
| C2 - Medium PR Residential / GIC Foundations and Medium PR Residential / GIC Superstructure | | | | | | | | |
| C3 - Medium PR Residential/ GIC Superstructure | | | | | | | | |

Title : Construction Noise Calculation for TCNTE
Scenario : Mitigated Scenario

| Activities | 2029 | | | | | | | |
|--|------|-----|-------|-----|-----|------|------|-----|
| | Jan | Feb | March | Apr | May | June | July | Aug |
| TCW19 | | | | | | | | |
| F1 - SPS Foundations | | | | | | | | |
| F2 - SPS Foundations and Superstructure | | | | | | | | |
| F3 - SPS Superstructure | | | | | | | | |
| TCW20 | | | | | | | | |
| C1 - Medium PR Residential / GIC Foundations | | | | | | | | |
| C2 - Medium PR Residential / GIC Foundations and Medium PR Residential / GIC Superstructure | | | | | | | | |
| C3 - Medium PR | | | | | | | | |
| TCW21 | | | | | | | | |
| D1 - Folder Formation | | | | | | | | |
| TCW22 | | | | | | | | |
| F1 - SPS Foundations | | | | | | | | |
| F2 - SPS Foundations and Superstructure | | | | | | | | |
| F3 - SPS | | | | | | | | |
| TCW23 | | | | | | | | |
| C1 - Medium PR Residential / GIC Foundations | | | | | | | | |
| C2 - Medium PR Residential / GIC Foundations and Medium PR Residential / GIC Superstructure | | | | | | | | |
| C3 - Medium PR Residential/ GIC Superstructure | | | | | | | | |
| TCW25 | | | | | | | | |
| A2 - Site Formation (Solid and Rock)- Drill | | | | | | | | |
| TCW26 | | | | | | | | |
| A1 - Site Formation (Soil)- Drill | | | | | | | | |
| TCW27 | | | | | | | | |
| A1 - Site Formation (Soil)- Drill | | | | | | | | |
| TCW28 | | | | | | | | |
| A1 - Site Formation (Soil)- Drill | | | | | | | | |
| TCW29 | | | | | | | | |
| C1 - Medium PR Residential / GIC Foundations | | | | | | | | |
| C2 - Medium PR Residential / GIC Foundations and Medium PR Residential / GIC Superstructure | | | | | | | | |
| C3 - Medium PR Residential/ GIC Superstructure | | | | | | | | |
| TCW30 | | | | | | | | |
| C1 - Medium PR Residential / GIC Foundations | | | | | | | | |
| C2 - Medium PR Residential / GIC Foundations and Medium PR Residential / GIC Superstructure | | | | | | | | |
| C3 - Medium PR Residential/ GIC Superstructure | | | | | | | | |
| TCW31 | | | | | | | | |
| A1 - Site Formation (Soil) | | | | | | | | |
| B1 - High PR Residential Foundations | | | | | | | | |
| B2 - High PR Residential Foundations and High PR Residential Superstructure | | | | | | | | |
| B3 - High PR Residential Superstructure | | | | | | | | |

Title : Construction Noise Calculation for TCNTE
Scenario : Mitigated Scenario

| Activities | 2029 | | | | | | | |
|-------------------------|------|-----|-------|-----|-----|------|------|-----|
| | Jan | Feb | March | Apr | May | June | July | Aug |
| IntW_01 (Internal Road) | | | | | | | | |
| IntW_02 (Internal Road) | | | | | | | | |
| IntW_03 (Internal Road) | | | | | | | | |
| IntW_04 (Internal Road) | | | | | | | | |
| IntW_05 (Internal Road) | | | | | | | | |
| IntW_06 (Internal Road) | | | | | | | | |
| IntW_07 (Internal Road) | | | | | | | | |
| IntW_08 (Internal Road) | | | | | | | | |
| IntW_09 (Internal Road) | | | | | | | | |
| IntW_10 (Internal Road) | | | | | | | | |
| IntW_11 (Internal Road) | | | | | | | | |
| IntW_12 (Internal Road) | | | | | | | | |
| IntW_13 (Internal Road) | | | | | | | | |
| IntW_14 (Internal Road) | | | | | | | | |
| IntW_15 (Internal Road) | | | | | | | | |
| IntW_16 (Internal Road) | | | | | | | | |
| IntW_17 (Internal Road) | | | | | | | | |
| IntW_18 (Internal Road) | | | | | | | | |
| IntW_19 (Internal Road) | | | | | | | | |
| IntW_20 (Internal Road) | | | | | | | | |
| IntW_21 (Internal Road) | | | | | | | | |
| IntW_22 (Internal Road) | | | | | | | | |
| IntW_23 (Internal Road) | | | | | | | | |
| IntW_24 (Internal Road) | | | | | | | | |
| IntW_25 (Internal Road) | | | | | | | | |
| IntW_26 (Internal Road) | | | | | | | | |
| IntW_27 (Internal Road) | | | | | | | | |
| IntW_28 (Internal Road) | | | | | | | | |
| IntW_29 (Internal Road) | | | | | | | | |

Title : Construction Noise Calculation for TCNTE
Scenario : Mitigated Scenario

| Activities | 2023 | | | | | | | | | | | | 2024 | | | | | | | | | | | | 2025 | | | | | | | | | | | | | |
|--|------|-----|------|------|-----|------|-----|-----|-----|-----|-----|-------|------|-----|------|------|-----|------|-----|-----|-----|-----|-----|-------|------|-----|------|------|-----|------|-----|-----|-----|---|--|--|----|----|
| | Apr | May | June | July | Aug | Sept | Oct | Nov | Dec | Jan | Feb | March | Apr | May | June | July | Aug | Sept | Oct | Nov | Dec | Jan | Feb | March | Apr | May | June | July | Aug | Sept | Oct | Nov | Dec | | | | | |
| Predicted Construction Noise, dB(A) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Max | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| YTE-16a | 52 | 51 | 52 | 52 | 52 | 52 | 52 | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 0 | 0 | | | | |
| YTE-14a | 55 | 54 | 55 | 55 | 55 | 55 | 55 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 52 | 52 | 52 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 46 | 46 | | | | | |
| YTE-04a | 58 | 57 | 58 | 58 | 58 | 58 | 58 | 57 | 57 | 57 | 57 | 57 | 57 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 55 | 55 | 55 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 48 | 48 | | | | | |
| YTE-01a | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 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 | | | | | | |
| HLP-01a | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 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 | | | | | | |
| HLP-02a | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 56 | 56 | 56 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 48 | 48 | | | | | | |
| MTE-01a | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 60 | 60 | 60 | 60 | 60 | 60 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 52 | 52 | | | | | | |
| ETCCS-01a | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 0 | 0 | | | | | | |
| YTE-01b | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 51 | 51 | | | | | | |
| YTE-05a | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 51 | 51 | 51 | 51 | 51 | 51 | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 47 | 47 | | | | | | |
| A60-03a | 58 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 49 | 49 |
| MWC-01a | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 50 | 50 | | | | | | |

[1] Cell with shaded area denotes the unoccupancy of the NSR (i.e. before the population intake).

Title : Construction Noise Calculation for TCNTE
Scenario : Mitigated Scenario

| Activities | 2029 | 2029 | | | | | | | |
|--|------|------|-----|-------|-----|-----|------|------|-----|
| | | Jan | Feb | March | Apr | May | June | July | Aug |
| Predicted Construction Noise, dB(A) | | | | | | | | | |
| | Max | | | | | | | | |
| YTE-16a | 52 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| YTE-14a | 55 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| YTE-04a | 58 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| YTE-01a | 61 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HLP-01a | 62 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HLP-02a | 61 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| MTE-01a | 61 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ETCCS-01a | 53 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| YTE-01b | 64 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| YTE-05a | 52 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| A60-03a | 58 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| MWC-01a | 57 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |

[1] Cell with shaded area denotes the unoccupancy of the NSR (i.e. before the population intake).

Project : Environmental Consultancy No. C1202 EIA Study for Tung Chung Line Extension

Title : Construction Noise Calculation

Scenario : Mitigated Scenario

| Predicted Construction Noise from the Project, dB(A) | Max | 2026 | | | | | | | | | | | | 2027 | | | | | | | | | | | | 2028 | | | | | | | | | | | | |
|--|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|
| | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | |
| NSR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| YTE-16a | 73 | 68 | 70 | 69 | 68 | 69 | 69 | 69 | 70 | 69 | 69 | 68 | 68 | 68 | 69 | 69 | 69 | 69 | 69 | 67 | 64 | 64 | 64 | 59 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 |
| YTE-14a | 73 | 73 | 73 | 72 | 70 | 72 | 70 | 71 | 73 | 72 | 71 | 69 | 70 | 71 | 72 | 72 | 72 | 72 | 72 | 71 | 68 | 67 | 67 | 64 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 |
| YTE-04a | 74 | 69 | 74 | 73 | 72 | 73 | 69 | 71 | 73 | 71 | 72 | 72 | 71 | 71 | 70 | 70 | 72 | 73 | 73 | 73 | 72 | 72 | 72 | 74 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | |
| YTE-01a | 75 | 73 | 74 | 71 | 70 | 71 | 68 | 75 | 75 | 75 | 75 | 75 | 75 | 67 | 68 | 67 | 68 | 69 | 68 | 68 | 68 | 66 | 66 | 66 | 68 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 |
| HLP-01a | 63 | 60 | 62 | 61 | 58 | 59 | 57 | 59 | 60 | 58 | 59 | 59 | 59 | 57 | 58 | 57 | 58 | 59 | 59 | 59 | 58 | 57 | 57 | 56 | 56 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 |
| HLP-02a | 63 | 62 | 63 | 62 | 57 | 58 | 56 | 58 | 59 | 57 | 58 | 58 | 58 | 56 | 57 | 56 | 57 | 58 | 58 | 58 | 58 | 57 | 56 | 56 | 56 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 |
| MTE-01a | 68 | 68 | 68 | 67 | 57 | 58 | 56 | 58 | 59 | 57 | 58 | 58 | 58 | 56 | 57 | 56 | 58 | 58 | 58 | 58 | 57 | 56 | 56 | 56 | 57 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 |
| ETCCS-01a | 64 | 63 | 64 | 63 | 62 | 63 | 62 | 63 | 64 | 63 | 63 | 61 | 62 | 62 | 64 | 63 | 64 | 64 | 64 | 63 | 61 | 61 | 61 | 57 | 57 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 |
| YTE-01b | 71 | 67 | 69 | 68 | 66 | 67 | 65 | 67 | 68 | 67 | 67 | 68 | 68 | 64 | 65 | 64 | 65 | 66 | 66 | 66 | 65 | 63 | 63 | 63 | 63 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 |
| YTE-05a | 66 | 61 | 66 | 65 | 64 | 64 | 60 | 63 | 65 | 63 | 63 | 65 | 63 | 63 | 62 | 61 | 64 | 65 | 65 | 64 | 64 | 63 | 63 | 63 | 60 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 |
| A60-03a | 59 | 56 | 59 | 58 | 56 | 57 | 54 | 56 | 58 | 56 | 56 | 56 | 56 | 55 | 55 | 55 | 57 | 57 | 57 | 57 | 56 | 56 | 56 | 55 | 57 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 |
| MWC-01a | 73 | 73 | 73 | 70 | 68 | 71 | 69 | 69 | 72 | 71 | 69 | 63 | 68 | 70 | 72 | 72 | 72 | 72 | 72 | 70 | 69 | 68 | 68 | 59 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 69 |

TCNTE EIA¹⁴ Predicted Construction Noise, dB(A)

| TCNTE EIA ¹⁴ Predicted Construction Noise, dB(A) | Max | 2026 | | | | | | | | | | | | 2027 | | | | | | | | | | | | 2028 | | | | | | | | | | | | |
|---|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|
| | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | |
| NSR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| YTE-16a | 52 | 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 |
| YTE-14a | 55 | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 46 | 46 | 46 | 46 | 46 | 46 | 46 | 46 | 46 | 46 | 46 | 46 | 46 | 46 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 0 | 0 |
| YTE-04a | 58 | 49 | 49 | 49 | 49 | 50 | 50 | 50 | 50 | 50 | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 46 | 46 | 46 | 46 | 46 | 46 | 46 | 46 | 46 | 46 | 46 | 0 | 0 | |
| YTE-01a | 61 | 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 | 47 | 0 | 0 | |
| HLP-01a | 62 | 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 | 46 | 0 | 0 | |
| HLP-02a | 61 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 46 | 46 | 46 | 46 | 46 | 46 | 46 | 46 | 46 | 46 | 46 | 0 | 0 | |
| MTE-01a | 61 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ETCCS-01a | 53 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| YTE-01b | 64 | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 0 | 0 | |
| YTE-05a | 52 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 0 | 0 | |
| A60-03a | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| MWC-01a | 57 | 50 | 50 | 50 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 53 | 53 | 53 | 53 | 53 | 53 | 50 | 50 | 50 | 50 | 50 | 50 | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 50 | 50 |

Cumulative Predicted Construction Noise, dB(A)

| Cumulative Predicted Construction Noise, dB(A) | Max | 2026 | | | | | | | | | | | | 2027 | | | | | | | | | | | | 2028 | | | | | | | | | | | | |
|--|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|
| | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | |
| NSR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| YTE-16a | 73 | 68 | 70 | 69 | 68 | 69 | 69 | 69 | 70 | 69 | 69 | 68 | 68 | 68 | 69 | 69 | 69 | 69 | 69 | 67 | 64 | 64 | 64 | 60 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 |
| YTE-14a | 73 | 73 | 73 | 72 | 70 | 72 | 70 | 71 | 73 | 72 | 71 | 69 | 70 | 71 | 72 | 72 | 72 | 72 | 72 | 71 | 68 | 68 | 68 | 64 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 |
| YTE-04a | 74 | 69 | 74 | 73 | 72 | 73 | 69 | 71 | 73 | 71 | 72 | 72 | 71 | 71 | 70 | 70 | 72 | 73 | 73 | 73 | 72 | 72 | 72 | 74 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | |
| YTE-01a | 75 | 73 | 74 | 72 | 70 | 71 | 68 | 75 | 75 | 75 | 75 | 75 | 75 | 67 | 68 | 67 | 68 | 69 | 68 | 68 | 68 | 66 | 66 | 66 | 68 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 |
| HLP-01a | 65 | 60 | 62 | 61 | 59 | 60 | 57 | 59 | 60 | 59 | 59 | 59 | 59 | 58 | 58 | 57 | 59 | 59 | 59 | 59 | 59 | 58 | 58 | 57 | 57 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 |
| HLP-02a | 65 | 62 | 63 | 63 | 58 | 59 | 57 | 58 | 59 | 58 | 58 | 58 | 58 | 57 | 57 | 57 | 58 | 59 | 58 | 58 | 58 | 57 | 57 | 57 | 57 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 55 | 55 |
| MTE-01a | 69 | 68 | 68 | 67 | 58 | 59 | 57 | 59 | 60 | 58 | 59 | 59 | 59 | 58 | 58 | 57 | 59 | 59 | 59 | 59 | 59 | 58 | 58 | 56 | 57 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 |
| ETCCS-01a | 64 | 63 | 64 | 63 | 62 | 63 | 62 | 63 | 64 | 63 | 63 | 61 | 62 | 62 | 64 | 63 | 64 | 64 | 64 | 63 | 61 | 61 | 61 | 57 | 57 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 |
| YTE-01b | 72 | 67 | 69 | 68 | 66 | 67 | 65 | 68 | 68 | 67 | 68 | 68 | 68 | 65 | 65 | 64 | 65 | 66 | 66 | 66 | 66 | 66 | 63 | 63 | 63 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 61 | 61 |
| YTE-05a | 66 | 61 | 66 | 65 | 64 | 64 | 60 | 63 | 65 | 63 | 63 | 65 | 63 | 63 | 62 | 61 | 64 | 65 | 65 | 64 | 64 | 63 | 63 | 63 | 60 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 |
| A60-03a | 62 | 60 | 62 | 61 | 60 | 61 | 60 | 60 | 61 | 60 | 60 | 61 | 60 | 60 | 60 | 60 | 61 | 61 | 61 | 61 | 61 | 60 | 60 | 60 | 60 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 |
| MWC-01a | 73 | 73 | 73 | 70 | 68 | 71 | 69 | 70 | 72 | 71 | 70 | 64 | 68 | 70 | 72 | 72 | 72 | 72 | 72 | 71 | 69 | 69 | 69 | 60 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 69 |

Note:

- As a worst case scenario, the predicted construction noise is calculated using the distance between the notional centre of the workforce to the closest NSR.
- Text in red in shaded cell denotes exceedance of relevant criterion.
- Cell with shaded area denotes the unoccupancy of the NSR (i.e. before the population intake).
- The plant inventory for construction of TCNTE is retrieved from approved EIA report for TCNTE (AEIAR-196/2016).

Project : Environmental Consultancy No. C1202 EIA Study for Tung Chung Line Extension

Title : Construction Noise Calculation

Scenario : Mitigated Scenario

| | | 2029 | | | | | | | |
|---|------------|------|-----|-----|-----|-----|-----|-----|-----|
| | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug |
| Predicted Construction Noise from the Project, dB(A) | | | | | | | | | |
| NSR | Max | | | | | | | | |
| YTE-16a | 73 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 |
| YTE-14a | 73 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 |
| YTE-04a | 74 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 |
| YTE-01a | 75 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 |
| HLP-01a | 63 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 |
| HLP-02a | 63 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 |
| MTE-01a | 68 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 |
| ETCCS-01a | 64 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 |
| YTE-01b | 71 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 |
| YTE-05a | 66 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 |
| A60-03a | 59 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 |
| MWC-01a | 73 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 69 |

| TCNTE EIA¹⁴ Predicted Construction Noise, dB(A) | | | | | | | | | |
|---|------------|----|----|----|----|----|----|----|----|
| NSR | Max | | | | | | | | |
| YTE-16a | 52 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| YTE-14a | 55 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| YTE-04a | 58 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| YTE-01a | 61 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HLP-01a | 62 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HLP-02a | 61 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| MTE-01a | 61 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ETCCS-01a | 53 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| YTE-01b | 64 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| YTE-05a | 52 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| A60-03a | 58 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| MWC-01a | 57 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |

| Cumulative Predicted Construction Noise, dB(A) | | | | | | | | | |
|---|------------|----|----|----|----|----|----|----|----|
| NSR | Max | | | | | | | | |
| YTE-16a | 73 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 |
| YTE-14a | 73 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 |
| YTE-04a | 74 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 |
| YTE-01a | 75 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 |
| HLP-01a | 65 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 |
| HLP-02a | 65 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 |
| MTE-01a | 69 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 |
| ETCCS-01a | 64 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 |
| YTE-01b | 72 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 |
| YTE-05a | 66 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 |
| A60-03a | 62 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 |
| MWC-01a | 73 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 69 |

Note:

1. As a worst case scenario, the predicted construction noise is calculated using the distance between the notional centre of the workforce to the closest NSR.
2. Text in red in shaded cell denotes exceedance of relevant criterion.
3. Cell with shaded area denotes the unoccupancy of the NSR (i.e. before the population intake).
4. The plant inventory for construction of TCNTE is retrieved from approved EIA report for TCNTE (AEIAR-196/2016).

Mitigated Construction Noise for EAP / EEP
and Launching Shaft

Project : Environmental Consultancy No. C1202 EIA Study for Tung Chung Line Extension

Title : Construction Noise Calculation

Scenario : Mitigated Scenario

| | 2029 | | | | | | | |
|--|------|-----|-----|-----|-----|-----|-----|-----|
| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug |
| EAP / EEP Site Formation Works - Temporary Wall | | | | | | | | |
| EAP-A - Installation of Pipe Piles | 104 | | | | | | | |
| EAP / EEP Site Formation Works - Slope Excavation | | | | | | | | |
| EAP-B - Slope Excavation | 117 | | | | | | | |
| EAP-B - Installation of Tie Back Anchor | 103 | | | | | | | |
| EAP-B - Installation of Strut and Walling | 99 | | | | | | | |
| EAP / EEP - Foundation and Shaft Excavation Works | | | | | | | | |
| EAP-B - Installation of Pre-bored H-piles | 101 | | | | | | | |
| EAP-A - Hard Excavation (Shaft Zone) | 100 | | | | | | | |
| EAP / EEP - Building (Above Ground) and Shaft Zone (Underground) | | | | | | | | |
| EAP-A - Construction of EAP/EEP Building (Aboveground) | 107 | | | | | | | |
| EAP-A - Construction of Shaft Structure and Staircases | 105 | | | | | | | |
| Launching Shaft - Foundation Work | | | | | | | | |
| LS-A - Construction of Diaphragm Wall at TCC | 107 | | | | | | | |
| LS-A - Installation of Pre-bored H-piles at TCC | 104 | | | | | | | |
| LS-A - Installation of Pipe Piles at TCC | 103 | | | | | | | |
| Launching Shaft - Excavation Work | | | | | | | | |
| LS-A - Excavation Works (Soft & Installation of Struts) for Launching Shaft | 105 | | | | | | | |
| LS-A - Excavation Works (Rock & Installation of Struts) for Launching Shaft | 113 | | | | | | | |
| LS-A - Excavation Works (Soft & Installation of Struts) for C&C Tunnel | 105 | | | | | | | |
| LS-A - Excavation Works (Rock & Installation of Struts) for C&C Tunnel | 113 | | | | | | | |
| TBM Operation | | | | | | | | |
| LS-A - TBM Operation | 106 | | | | | | | |
| LS-C - TBM Operation | 100 | | | | | | | |
| Site Clearance & Site Reinstatement | | | | | | | | |
| EAP-B - Site Clearance | 112 | | | | | | | |
| EAP-B - Site Reinstatement | 108 | | | | 108 | 108 | 108 | 108 |
| LS-C: Shun Tung Road Site Clearance | 110 | | | | | | | |
| LS-C - Shun Tung Rd Site Reinstatement | 110 | 110 | 110 | 110 | 110 | | | |
| LS-A - Site Clearance | 108 | | | | | | | |
| LS-A - Site Reinstatement | 109 | 109 | 109 | 109 | 109 | 109 | 109 | 109 |
| C&C Tunnel - Structural Works | | | | | | | | |
| C&C Tunnel - C&C Tunnel Base Slab + Drill & Fix Connection to Existing Overrun Tunnels | 107 | | | | | | | |
| C&C Tunnel - C&C Tunnel Side Walls + Drill & Fix Connection to Existing Overrun Tunnels + Remove | 107 | | | | | | | |
| C&C Tunnel - C&C Tunnel Roof Slabs + Drill & Fix Connection to Existing Overrun Tunnels + Remove | 107 | | | | | | | |
| Launching Shaft - Structural Works | | | | | | | | |
| LS-D - Construction of Launching Shaft Base Slab | 106 | | | | | | | |
| LS-D - Construction of Launching Shaft Side Walls + Remove Struts | 106 | | | | | | | |
| LS-D - Construction of Launching Shaft Roof Slab + Remove Struts | 106 | | | | | | | |

Predicted Construction Noise, dB(A)

| NSR | Max | | | | | | | | |
|----------|-----|----|----|----|----|----|----|----|----|
| TCC-09a | 75 | 74 | 74 | 74 | 74 | 74 | 68 | 68 | 68 |
| TCC-01a | 73 | 72 | 72 | 72 | 72 | 72 | 67 | 67 | 67 |
| ESHI-01a | 65 | 58 | 58 | 58 | 58 | 59 | 57 | 57 | 57 |
| TCC-07a | 71 | 67 | 67 | 67 | 67 | 68 | 66 | 66 | 66 |

Note:

1. As a worst case scenario, the predicted construction noise is calculated using the distance between the notional centre of the workfront to the closest NSR.
2. Text in red in shaded cell denotes exceedance of relevant criterion.

Unmitigated Construction Noise for
Barging Facility

Project : EIA for Tung Chung Line Extension
Title : Preliminary Noise Assessment from Barging Point
Subtitle : Construction of Barging Point Facilities (Unmitigated)

NSR : A54-01a

| Source | SWL / Unit dB(A) | Qty Nos | % Util | Total SWL dB(A) | Dist m | Correction | | | SPL |
|---|---------------------|------------|--------|--------------------|-----------|---------------|-----------------|-----------------|------------------|
| | | | | | | Dist dB(A) | Facade dB(A) | Screen dB(A) | Daytime dB(A) |
| <i>Daytime</i> | | | | | | | | | |
| Generator (CNP103) Barging Area | 95 | 1 | 100% | 95 | 160 | -52 | 3 | 0 | 46 |
| Moblie Crane (CNP048) Barging Area | 112 | 1 | 100% | 112 | 160 | -52 | 3 | 0 | 63 |
| Excavator (CNP081) Barging Area | 112 | 1 | 100% | 112 | 160 | -52 | 3 | 0 | 63 |
| Electric Drill (CNP064) Barging Area | 103 | 2 | 100% | 106 | 160 | -52 | 3 | 0 | 57 |
| Vibratory Poker(CNP170) Barging Area | 113 | 2 | 100% | 116 | 160 | -52 | 3 | 0 | 67 |
| Flat-top Barge (CNP061) Barging Point 1 | 104 | 1 | 100% | 104 | 300 | -58 | 3 | 0 | 49 |
| Tug Boat (CNP221) Barging Point 1 | 110 | 1 | 100% | 110 | 340 | -59 | 3 | 0 | 54 |
| Flat-top Barge (CNP061) Barging Point 2 | 104 | 1 | 100% | 104 | 260 | -56 | 3 | 0 | 51 |
| Tug Boat (CNP221) Barging Point 2 | 110 | 1 | 100% | 110 | 305 | -58 | 3 | 0 | 55 |
| Total Noise Impacts, dB(A) | | | | | | | | | 70 |
| Criterion, dB(A) | | | | | | | | | 75 |
| Exceedence, dB(A) | | | | | | | | | - |

Project : EIA for Tung Chung Line Extension
Title : Preliminary Noise Assessment from Barging Point
Subtitle : Construction of Barging Point Facilities (Unmitigated)

NSR : LED-06a

| Source | SWL / Unit dB(A) | Qty Nos | % Util | Total SWL dB(A) | Dist m | Correction | | | SPL |
|---|---------------------|------------|--------|--------------------|-----------|---------------|-----------------|-----------------|------------------|
| | | | | | | Dist dB(A) | Facade dB(A) | Screen dB(A) | Daytime dB(A) |
| <i>Daytime</i> | | | | | | | | | |
| Generator (CNP103) Barging Area | 95 | 1 | 100% | 95 | 160 | -52 | 3 | 0 | 46 |
| Moblie Crane (CNP048) Barging Area | 112 | 1 | 100% | 112 | 160 | -52 | 3 | 0 | 63 |
| Excavator (CNP081) Barging Area | 112 | 1 | 100% | 112 | 160 | -52 | 3 | 0 | 63 |
| Electric Drill (CNP064) Barging Area | 103 | 2 | 100% | 106 | 160 | -52 | 3 | 0 | 57 |
| Vibratory Poker(CNP170) Barging Area | 113 | 2 | 100% | 116 | 160 | -52 | 3 | 0 | 67 |
| Flat-top Barge (CNP061) Barging Point 1 | 104 | 1 | 100% | 104 | 200 | -54 | 3 | 0 | 53 |
| Tug Boat (CNP221) Barging Point 1 | 110 | 1 | 100% | 110 | 250 | -56 | 3 | 0 | 57 |
| Flat-top Barge (CNP061) Barging Point 2 | 104 | 1 | 100% | 104 | 235 | -55 | 3 | 0 | 52 |
| Tug Boat (CNP221) Barging Point 2 | 110 | 1 | 100% | 110 | 280 | -57 | 3 | 0 | 56 |
| Total Noise Impacts, dB(A) | | | | | | | | | 70 |
| Criterion, dB(A) | | | | | | | | | 75 |
| Exceedence, dB(A) | | | | | | | | | - |

Project :
Title :
Subtitle :

EIA for Tung Chung Line Extension
 Preliminary Noise Assessment from Barging Point
 Site Clearance (Unmitigated)

NSR : A54-01a

| Source | SWL / Unit dB(A) | Qty Nos | % Util | Total SWL dB(A) | Dist m | Correction | | | SPL |
|------------------------------------|---------------------|------------|--------|-----------------------|-----------|---------------|-----------------|-----------------|------------------|
| | | | | | | Dist dB(A) | Facade dB(A) | Screen dB(A) | Daytime dB(A) |
| <i>Daytime</i> | | | | | | | | | |
| Generator (CNP103) Barging Area | 95 | 1 | 100% | 95 | 160 | -52 | 3 | 0 | 46 |
| Moblle Crane (CNP048) Barging Area | 112 | 1 | 100% | 112 | 160 | -52 | 3 | 0 | 63 |
| Excavator (CNP081) Barging Area | 112 | 1 | 100% | 112 | 160 | -52 | 3 | 0 | 63 |
| Total Noise Impacts, dB(A) | | | | | | | | | 66 |
| Criterion, dB(A) | | | | | | | | | 75 |
| Exceedence, dB(A) | | | | | | | | | - |

Project :
Title :
Subtitle :

EIA for Tung Chung Line Extension
 Preliminary Noise Assessment from Barging Point
 Site Clearance (Unmitigated)

NSR : LED-06a

| Source | SWL / Unit dB(A) | Qty Nos | % Util | Total SWL dB(A) | Dist m | Correction | | | SPL |
|------------------------------------|---------------------|------------|--------|-----------------------|-----------|---------------|-----------------|-----------------|------------------|
| | | | | | | Dist dB(A) | Facade dB(A) | Screen dB(A) | Daytime dB(A) |
| <i>Daytime</i> | | | | | | | | | |
| Generator (CNP103) Barging Area | 95 | 1 | 100% | 95 | 160 | -52 | 3 | 0 | 46 |
| Moblie Crane (CNP048) Barging Area | 112 | 1 | 100% | 112 | 160 | -52 | 3 | 0 | 63 |
| Excavator (CNP081) Barging Area | 112 | 1 | 100% | 112 | 160 | -52 | 3 | 0 | 63 |
| Total Noise Impacts, dB(A) | | | | | | | | | 66 |
| Criterion, dB(A) | | | | | | | | | 75 |
| Exceedence, dB(A) | | | | | | | | | - |

Project :
Title :
Subtitle :

EIA for Tung Chung Line Extension
 Preliminary Noise Assessment from Barging Point
 Barging Point Operation (Unmitigated)

NSR : A54-01a

| Source | SWL / Unit dB(A) | Qty Nos | % Util | Total SWL dB(A) | Dist m | Correction | | | SPL |
|---|---------------------|------------|--------|-----------------------|-----------|---------------|-----------------|-----------------|------------------|
| | | | | | | Dist dB(A) | Facade dB(A) | Screen dB(A) | Daytime dB(A) |
| <i>Daytime</i> | | | | | | | | | |
| Generator (CNP103) Barging Area | 95 | 2 | 100% | 98 | 160 | -52 | 3 | 0 | 49 |
| Dump Truck, vehicle / hr [1] Haul Road | | | | | | | | | 65 |
| Flat-top Barge (CNP061) Barging Point 1 | 104 | 1 | 100% | 104 | 300 | -58 | 3 | 0 | 49 |
| Barge (CNP061) Barging Point 1 | 104 | 2 | 100% | 107 | 340 | -59 | 3 | 0 | 51 |
| Tug Boat (CNP221) Barging Point 1 | 110 | 1 | 100% | 110 | 340 | -59 | 3 | 0 | 54 |
| Flat-top Barge (CNP061) Barging Point 2 | 104 | 1 | 100% | 104 | 260 | -56 | 3 | 0 | 51 |
| Barge (CNP061) Barging Point 2 | 104 | 2 | 100% | 107 | 305 | -58 | 3 | 0 | 52 |
| Tug Boat (CNP221) Barging Point 2 | 110 | 1 | 100% | 110 | 305 | -58 | 3 | 0 | 55 |
| Total Noise Impacts, dB(A) | | | | | | | | | 67 |
| Criterion, dB(A) | | | | | | | | | 75 |
| Exceedence, dB(A) | | | | | | | | | - |

Note:
 [1] : See separate calculations for noise impacts from haul road

Project :
Title :
Subtitle :

EIA for Tung Chung Line Extension
 Preliminary Noise Assessment from Barging Point
 Barging Point Operation (Unmitigated)

NSR : LED-06a

| Source | SWL / Unit dB(A) | Qty Nos | % Util | Total SWL dB(A) | Dist m | Correction | | | SPL |
|---|---------------------|------------|--------|--------------------|-----------|---------------|-----------------|-----------------|------------------|
| | | | | | | Dist dB(A) | Facade dB(A) | Screen dB(A) | Daytime dB(A) |
| <i>Daytime</i> | | | | | | | | | |
| Generator (CNP103) Barging Area | 95 | 2 | 100% | 98 | 130 | -50 | 3 | 0 | 51 |
| Dump Truck, vehicle / hr [1] Haul Road | | | | | | | | | 62 |
| Flat-top Barge (CNP061) Barging Point 1 | 104 | 1 | 100% | 104 | 200 | -54 | 3 | 0 | 53 |
| Barge (CNP061) Barging Point 1 | 104 | 2 | 100% | 107 | 250 | -56 | 3 | 0 | 54 |
| Tug Boat (CNP221) Barging Point 1 | 110 | 1 | 100% | 110 | 250 | -56 | 3 | 0 | 57 |
| Flat-top Barge (CNP061) Barging Point 2 | 104 | 1 | 100% | 104 | 235 | -55 | 3 | 0 | 52 |
| Barge (CNP061) Barging Point 2 | 104 | 2 | 100% | 107 | 280 | -57 | 3 | 0 | 53 |
| Tug Boat (CNP221) Barging Point 2 | 110 | 1 | 100% | 110 | 280 | -57 | 3 | 0 | 56 |
| Total Noise Impacts, dB(A) | | | | | | | | | 65 |
| Criterion, dB(A) | | | | | | | | | 75 |
| Exceedence, dB(A) | | | | | | | | | - |

Note:
 [1] : See separate calculations for noise impacts from haul road

Project : EIA for Tung Chung Line Extension
Title : Preliminary Noise Assessment from Barging Point
Subtitle : Barging Point Operation (Unmitigated)

A54-01a

| Source | Period | SWL / Unit dB(A) | Qty Nos | % Util | Total SWL dB(A) | Dist m | Speed kph | [2] Angle deg | Correction [1] | | | | SPL |
|--|--------|------------------|---------|--------|-----------------|--------|-----------|---------------|----------------|--------------|-------------|-------------|---------------|
| | | | | | | | | | Dist dB(A) | Facade dB(A) | Speed dB(A) | Angle dB(A) | Daytime dB(A) |
| Dump Truck, vehicle / hr - Daytime only | II | 105 | 132 | 100% | 126 | 60 | 20 | 180 | -18 | 3 | -13 | 0 | 65 |
| Noise Impacts from Haul Road, dB(A) | | | | | | | | | | | | | 65 |

Note:
 I - Daytime, evening and night-time operation
 II - Daytime operation only
 III - Evening operation only

[1] : Based on BS 5228 Pt 1: 1997 D3.5.2 Method for mobile plant using a regular well defined route (haul road)
 $L_{eq} = L_w - 33 + 10 \log (Qty) - 10 \log (speed) - 10 \log (dist) + 10 \log (angle / 180) + C_{facade}$

[2] : A view angle of 180 deg has been assumed for conservative assessment

Project : EIA for Tung Chung Line Extension
Title : Preliminary Noise Assessment from Barging Point
Subtitle : Barging Point Operation (Unmitigated)

LED-06a

| Source | Period | SWL / Unit dB(A) | Qty Nos | % Util | Total SWL dB(A) | Dist m | Speed kph | [2] Angle deg | Correction [1] | | | | SPL |
|--|--------|------------------|---------|--------|-----------------|--------|-----------|---------------|----------------|--------------|-------------|-------------|---------------|
| | | | | | | | | | Dist dB(A) | Facade dB(A) | Speed dB(A) | Angle dB(A) | Daytime dB(A) |
| Dump Truck, vehicle / hr - Daytime only | II | 105 | 132 | 100% | 126 | 130 | 20 | 180 | -21 | 3 | -13 | 0 | 62 |
| Noise Impacts from Haul Road, dB(A) | | | | | | | | | | | | | 62 |

Note:
 I - Daytime, evening and night-time operation
 II - Daytime operation only
 III - Evening operation only

[1] : Based on BS 5228 Pt 1: 1997 D3.5.2 Method for mobile plant using a regular well defined route (haul road)
 $L_{eq} = L_w - 33 + 10 \log (Qty) - 10 \log (speed) - 10 \log (dist) + 10 \log (angle / 180) + C_{facade}$

[2] : A view angle of 180 deg has been assumed for conservative assessment

Project : EIA for Tung Chung Line Extension
Title : Preliminary Noise Assessment from Barging Point
Subtitle : Demolition of Barging Point Facilities (Unmitigated)

NSR : A54-01a

| Source | SWL / Unit dB(A) | Qty Nos | % Util | Total SWL dB(A) | Dist m | Correction | | | SPL |
|--------------------------------------|---------------------|------------|--------|--------------------|-----------|---------------|-----------------|-----------------|------------------|
| | | | | | | Dist dB(A) | Facade dB(A) | Screen dB(A) | Daytime dB(A) |
| <i>Daytime</i> | | | | | | | | | |
| Generator (CNP103) Barging Area | 95 | 1 | 100% | 95 | 160 | -52 | 3 | 0 | 46 |
| Moblie Crane (CNP048) Barging Area | 112 | 1 | 100% | 112 | 160 | -52 | 3 | 0 | 63 |
| Excavator (CNP081) Barging Area | 112 | 1 | 100% | 112 | 160 | -52 | 3 | 0 | 63 |
| Electric Drill (CNP064) Barging Area | 103 | 2 | 100% | 106 | 160 | -52 | 3 | 0 | 57 |
| Tug Boat (CNP221) Barging Point 1 | 110 | 1 | 100% | 110 | 340 | -59 | 3 | 0 | 54 |
| Total Noise Impacts, dB(A) | | | | | | | | | 67 |
| Criterion, dB(A) | | | | | | | | | 75 |
| Exceedence, dB(A) | | | | | | | | | - |

Project : EIA for Tung Chung Line Extension
Title : Preliminary Noise Assessment from Barging Point
Subtitle : Demolition of Barging Point Facilities (Unmitigated)

NSR : LED-06a

| Source | SWL / Unit dB(A) | Qty Nos | % Util | Total SWL dB(A) | Dist m | Correction | | | SPL |
|--------------------------------------|---------------------|------------|--------|--------------------|-----------|---------------|-----------------|-----------------|------------------|
| | | | | | | Dist dB(A) | Facade dB(A) | Screen dB(A) | Daytime dB(A) |
| <i>Daytime</i> | | | | | | | | | |
| Generator (CNP103) Barging Area | 95 | 1 | 100% | 95 | 160 | -52 | 3 | 0 | 46 |
| Moblie Crane (CNP048) Barging Area | 112 | 1 | 100% | 112 | 160 | -52 | 3 | 0 | 63 |
| Excavator (CNP081) Barging Area | 112 | 1 | 100% | 112 | 160 | -52 | 3 | 0 | 63 |
| Electric Drill (CNP064) Barging Area | 103 | 2 | 100% | 106 | 160 | -52 | 3 | 0 | 57 |
| Tug Boat (CNP221) Barging Point 1 | 110 | 1 | 100% | 110 | 250 | -56 | 3 | 0 | 57 |
| Total Noise Impacts, dB(A) | | | | | | | | | 67 |
| Criterion, dB(A) | | | | | | | | | 75 |
| Exceedence, dB(A) | | | | | | | | | - |

Project : EIA for Tung Chung Line Extension
Title : Preliminary Noise Assessment from Barging Point
Subtitle : Site Reinstatement (Unmitigated)

NSR : A54-01a

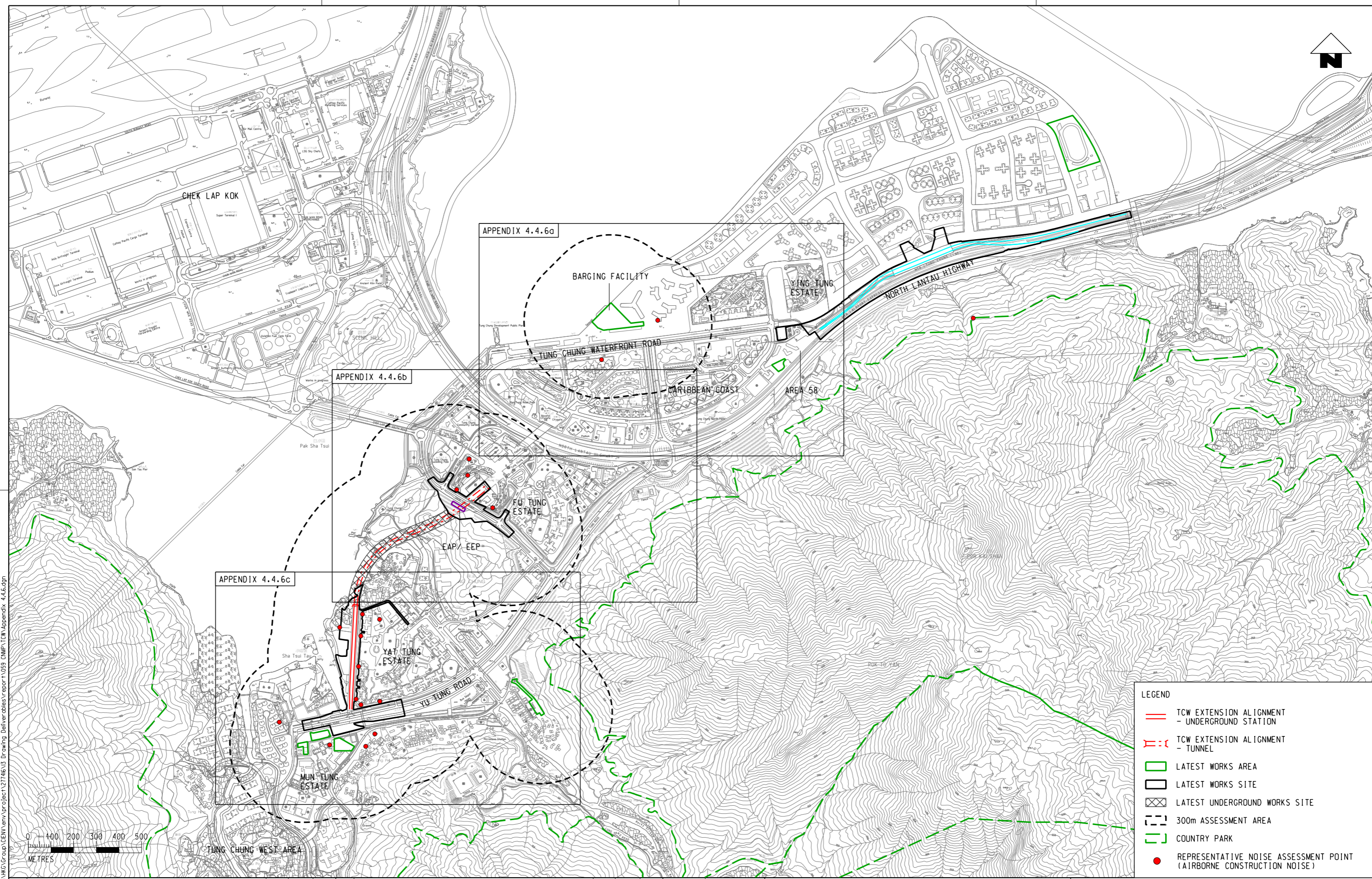
| Source | SWL / Unit dB(A) | Qty Nos | % Util | Total SWL dB(A) | Dist m | Correction | | | SPL |
|--------------------------------------|---------------------|------------|--------|--------------------|-----------|---------------|-----------------|-----------------|------------------|
| | | | | | | Dist dB(A) | Facade dB(A) | Screen dB(A) | Daytime dB(A) |
| <i>Daytime</i> | | | | | | | | | |
| Generator (CNP103) Barging Area | 95 | 1 | 100% | 95 | 160 | -52 | 3 | 0 | 46 |
| Moblie Crane (CNP048) Barging Area | 112 | 1 | 100% | 112 | 160 | -52 | 3 | 0 | 63 |
| Excavator (CNP081) Barging Area | 112 | 1 | 100% | 112 | 160 | -52 | 3 | 0 | 63 |
| Electric Drill (CNP064) Barging Area | 103 | 2 | 100% | 106 | 160 | -52 | 3 | 0 | 57 |
| Total Noise Impacts, dB(A) | | | | | | | | | 66 |
| Criterion, dB(A) | | | | | | | | | 75 |
| Exceedence, dB(A) | | | | | | | | | - |

Project :
Title :
Subtitle :

EIA for Tung Chung Line Extension
 Preliminary Noise Assessment from Barging Point
 Site Reinstatement (Unmitigated)

NSR : LED-06a

| Source | SWL / Unit dB(A) | Qty Nos | % Util | Total SWL dB(A) | Dist m | Correction | | | SPL |
|--------------------------------------|---------------------|------------|--------|--------------------|-----------|---------------|-----------------|-----------------|------------------|
| | | | | | | Dist dB(A) | Facade dB(A) | Screen dB(A) | Daytime dB(A) |
| <i>Daytime</i> | | | | | | | | | |
| Generator (CNP103) Barging Area | 95 | 1 | 100% | 95 | 160 | -52 | 3 | 0 | 46 |
| Moblie Crane (CNP048) Barging Area | 112 | 1 | 100% | 112 | 160 | -52 | 3 | 0 | 63 |
| Excavator (CNP081) Barging Area | 112 | 1 | 100% | 112 | 160 | -52 | 3 | 0 | 63 |
| Electric Drill (CNP064) Barging Area | 103 | 2 | 100% | 106 | 160 | -52 | 3 | 0 | 57 |
| Total Noise Impacts, dB(A) | | | | | | | | | 66 |
| Criterion, dB(A) | | | | | | | | | 75 |
| Exceedence, dB(A) | | | | | | | | | - |



APPENDIX 4.4.6a

APPENDIX 4.4.6b

APPENDIX 4.4.6c

- LEGEND**
- TCW EXTENSION ALIGNMENT - UNDERGROUND STATION
 - TCW EXTENSION ALIGNMENT - TUNNEL
 - LATEST WORKS AREA
 - LATEST WORKS SITE
 - LATEST UNDERGROUND WORKS SITE
 - 300m ASSESSMENT AREA
 - COUNTRY PARK
 - REPRESENTATIVE NOISE ASSESSMENT POINT (AIRBORNE CONSTRUCTION NOISE)

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C1202 - EIA for Tung Chung Line Extension

ORIGINATOR

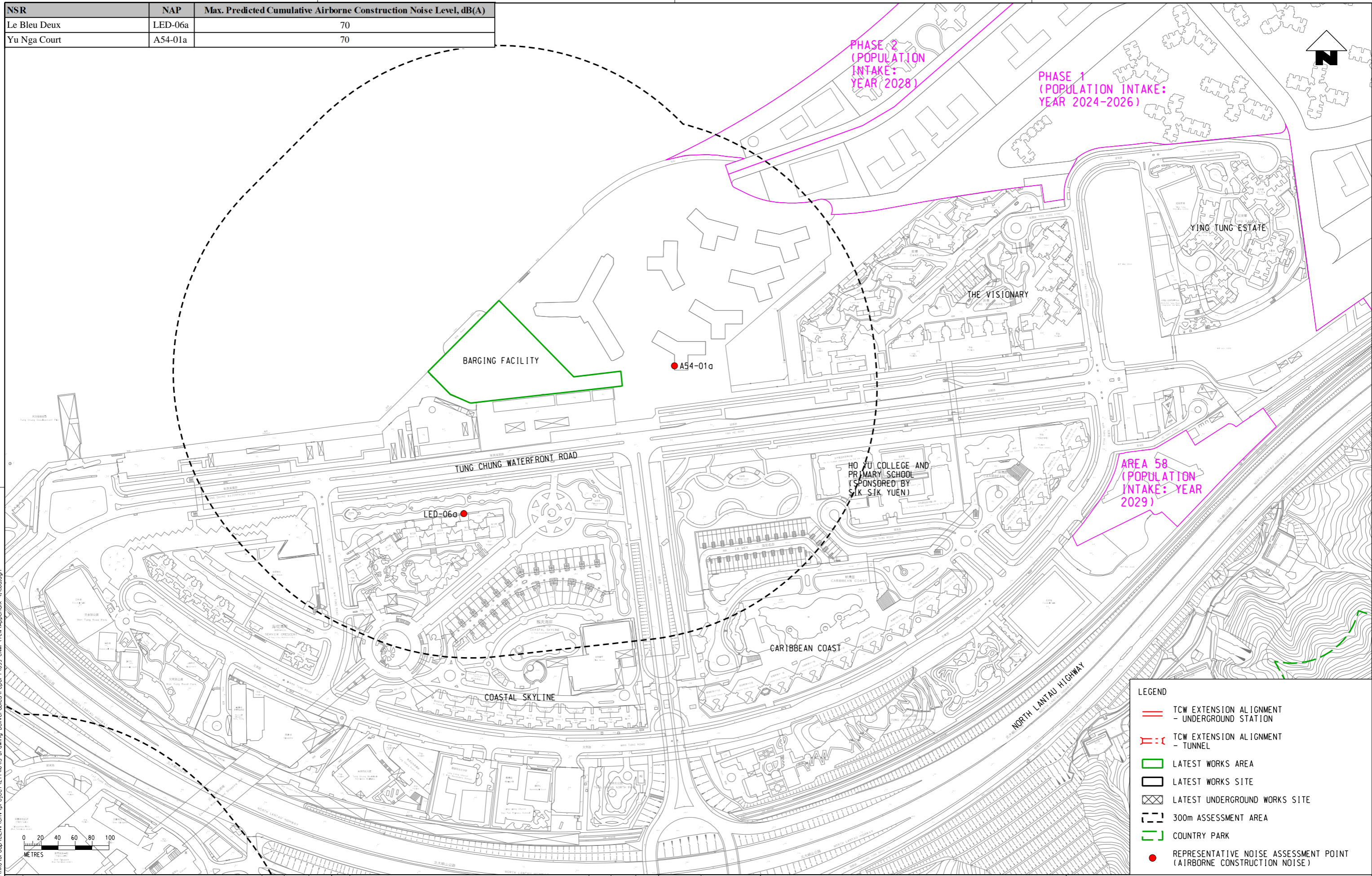
ARUP Ove Arup & Partners
Hong Kong Limited

CADD REF. Appendix 4.4.6.dgn

| | | | |
|-------|----------|--|----------------|
| TITLE | | PREDICTED NOISE LEVELS OF REPRESENTATIVE NOISE ASSESSMENT POINTS (AIRBORNE CONSTRUCTION NOISE) | |
| SCALE | AS SHOWN | DRAWING NO. | APPENDIX 4.4.6 |
| REV. | A | | |

| | | | | | | | | | |
|-----|-------------|----|--------|----------|-----|-------------|----|------|----------|
| REV | DESCRIPTION | BY | DATE | APPROVED | REV | DESCRIPTION | BY | DATE | APPROVED |
| A | FIRST ISSUE | GL | 070223 | FC | | | | | |

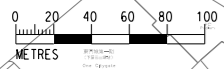
| NSR | NAP | Max. Predicted Cumulative Airborne Construction Noise Level, dB(A) |
|--------------|---------|--|
| Le Bleu Deux | LED-06a | 70 |
| Yu Nga Court | A54-01a | 70 |



LEGEND

- TCW EXTENSION ALIGNMENT - UNDERGROUND STATION
- - - TCW EXTENSION ALIGNMENT - TUNNEL
- LATEST WORKS AREA
- LATEST WORKS SITE
- LATEST UNDERGROUND WORKS SITE
- 300m ASSESSMENT AREA
- COUNTRY PARK
- REPRESENTATIVE NOISE ASSESSMENT POINT (AIRBORNE CONSTRUCTION NOISE)

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C1202 - EIA for Tung Chung Line Extension

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Hong Kong Limited

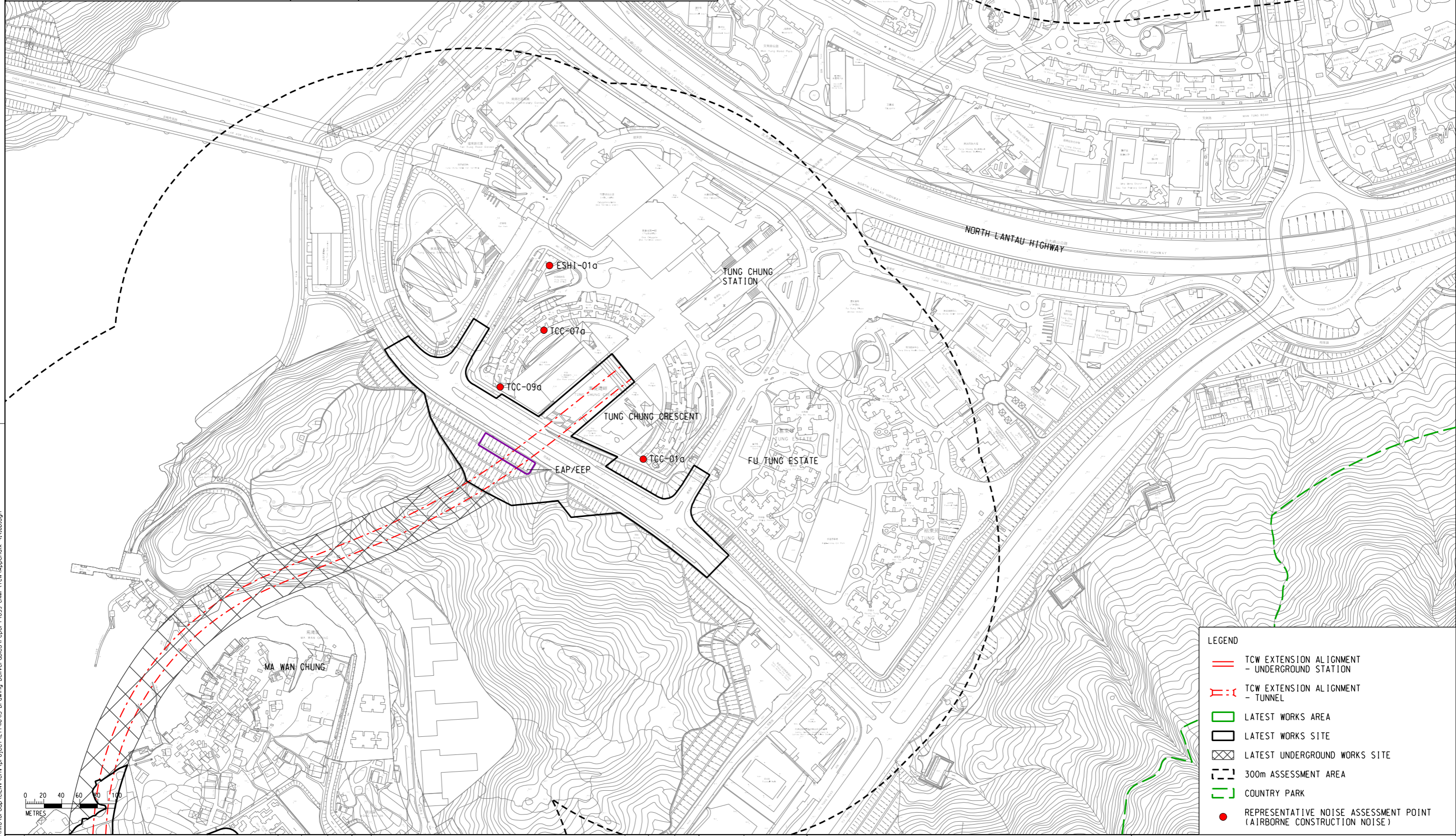
CADD REF. Appendix 4.4.6a.dgn

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|---------------|-----------------|--|--|
| TITLE | | PREDICTED NOISE LEVELS OF REPRESENTATIVE NOISE ASSESSMENT POINTS (AIRBORNE CONSTRUCTION NOISE) | |
| SCALE | DRAWING NO. | REV. | |
| 1 : 4000 (A3) | APPENDIX 4.4.6a | A | |

| REV | DESCRIPTION | BY | DATE | APPROVED | REV | DESCRIPTION | BY | DATE | APPROVED |
|-----|-------------|----|--------|----------|-----|-------------|----|------|----------|
| A | FIRST ISSUE | GL | 070223 | FC | | | | | |

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| NSR | NAP | Max. Predicted Cumulative Airborne Construction Noise Level, dB(A) |
|--|----------|--|
| Tung Chung Crescent | TCC-01a | 73 |
| | TCC-07a | 71 |
| | TCC-09a | 75 |
| Sunshine House International Pre-School (Tung Chung) | ESHI-01a | 65 |



LEGEND

- TCW EXTENSION ALIGNMENT - UNDERGROUND STATION
- - - TCW EXTENSION ALIGNMENT - TUNNEL
- LATEST WORKS AREA
- LATEST WORKS SITE
- LATEST UNDERGROUND WORKS SITE
- 300m ASSESSMENT AREA
- COUNTRY PARK
- REPRESENTATIVE NOISE ASSESSMENT POINT (AIRBORNE CONSTRUCTION NOISE)

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| DRAWN | GL | C1202 - EIA for Tung Chung Line Extension ORIGINATOR Ove Arup & Partners Hong Kong Limited |
| DESIGNED | GL | |
| CHECKED | EL | |
| APPROVED | FC | |
| DATE | 07/02/2023 | |
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| CADD REF. | | Appendix 4.4.6b.dgn |

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|---|-----------------|
| PREDICTED NOISE LEVELS OF REPRESENTATIVE NOISE ASSESSMENT POINTS (AIRBORNE CONSTRUCTION NOISE) | |
| SCALE | 1 : 4000 (A3) |
| DRAWING NO. | APPENDIX 4.4.6b |
| REV. | A |

| REV | DESCRIPTION | BY | DATE | APPROVED |
|-----|-------------|----|--------|----------|
| A | FIRST ISSUE | GL | 070223 | FC |

Appendix 3.9

Noise Mitigation Implementation Schedule

**Noise Mitigation Implementation Schedule
Tung Chung Line Extension**

| EIA Ref. | EM&A Log Ref | Recommended Mitigation Measures | Objectives of the Recommended Measures & Main Concerns to address | Implementation Agent | Location / Timing | Implementation Phase |
|---------------------------|--------------|---|---|----------------------|--|----------------------|
| <i>Construction Noise</i> | | | | | | |
| S4.4.4.4 | N1 | <p>The following measures should be implemented:</p> <ul style="list-style-type: none"> • 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, be orientated so that the noise is directed away from nearby NSRs; • silencers or mufflers which available on construction equipment should be properly fitted 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; | Control construction airborne noise | Contractor | All construction sites (Tung Chung West Station, Emergency Accessing Point/ Emergency Egress Point, Launching/ Retrieval Shaft and Barging Facility) | Construction phase |

**Noise Mitigation Implementation Schedule
Tung Chung Line Extension**

| EIA Ref. | EM&A Log Ref | Recommended Mitigation Measures | Objectives of the Recommended Measures & Main Concerns to address | Implementation Agent | Location / Timing | Implementation Phase |
|----------------------|--------------|---|---|----------------------|--|----------------------|
| | | <ul style="list-style-type: none"> noise monitoring at selected NSRs should be conducted as far as practicable; and provide designated unloading areas at barging point away from the NSR as far as possible. | | | | |
| S4.4.4.6 | N2 | Use of quiet plant which should be made reference to the Powered Mechanical Equipment (PME) listed in the Technical Memorandum or the Quality Powered Mechanical Equipment (QPME) / other commonly used PME listed in Environmental Protection Department (EPD) web pages as far as possible which includes the Sound Power Level (SWLs) for specific quiet PME (e.g. EPD-09607, EPD-10735). | Reduce the noise levels from plant items | Contractor | All construction sites (Tung Chung West Station, Emergency Accessing Point/ Emergency Egress Point, Launching/ Retrieval Shaft and Barging Facility) where practicable | Construction phase |
| S4.4.4.7 – S4.4.4.10 | N3 | Install movable temporary noise barriers (typical design is wooden framed barrier with a small-cantilevered upper portion of superficial density no less than 7kg/m ² on a skid footing with 25mm thick internal sound absorptive lining), and full enclosure, screen the noisy plants including concrete pump etc. | Minimise the construction noise levels through screening | Contractor | All construction sites (Tung Chung West Station, Emergency Accessing Point/ Emergency Egress Point, Launching/ Retrieval Shaft and Barging Facility) | Construction phase |
| S4.4.4.11 | N4 | Use of 3-side temporary movable enclosure to screen trench cutters and concrete lorry mixer near Yat Tung Estate. The design of the enclosure shall include the followings: <ul style="list-style-type: none"> Gaps and openings at joints should be avoided; Enclose the equipment on three sides with cover; and Absorptive lining should be provided at the sides facing the PME as far as practicable. | Minimise the construction noise levels through screening | Contractor | Construction of diaphragm wall near Yat Tung Estate | Construction phase |

**Noise Mitigation Implementation Schedule
Tung Chung Line Extension**

| EIA Ref. | EM&A Log Ref | Recommended Mitigation Measures | Objectives of the Recommended Measures & Main Concerns to address | Implementation Agent | Location / Timing | Implementation Phase |
|-----------|--------------|--|---|----------------------|--|----------------------|
| S4.4.4.12 | N5 | <p>Installation of noise barrier along the western side of site boundary to screen noise for the village houses of Ma Wan Chung. The location of noise barrier is shown in the Figure 4.4.1 of the EIA report. The design of the noise barrier should include the followings:</p> <ul style="list-style-type: none"> • Gaps and openings at joints should be avoided; • The length of the barrier should be about 27m while the height should be about 4m; and • Surface density of the barrier no less than 7kg/m². | Minimise the construction noise levels through screening | Contractor | Construction of TCW Station and associated above-ground structures | Construction phase |
| S4.4.4.4 | N6 | Implement an airborne construction noise monitoring under EM&A programme. | Monitor the airborne construction noise levels at the selected representative locations | Contractor | Selected noise monitoring stations ^[1] | Construction phase |

Note:

[1] Refer to Figure 5.1 of EM&A Manual of the approved EIA for Tung Chung Line Extension (AEIAR-235/2022).