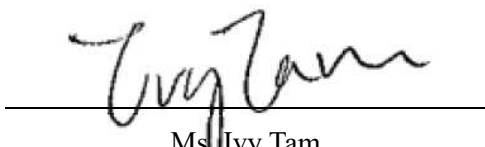


Civil Engineering and Development Department

EP-510/2016 – Police Facilities in Kong Nga Po

**Service Contract No. NDO 07/2019
Environmental Team for Site Formation and
Infrastructure Works for Police Facilities in
Kong Nga Po**

**Monthly Environmental Monitoring and
Audit Report for July 2022
(Version 1.0)**

Certified By	 _____ Ms. Ivy Tam (Environmental Team Leader)
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REMARKS:

The information supplied and contained within this report is, to the best of our knowledge, correct at the time of printing.

WELLAB accepts no responsibility for changes made to this report by third parties.

WELLAB LIMITED
Room 1714, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong
Tel: (852) 2898 7388 Fax: (852) 2898 7076
Website: www.wellab.com.hk

Our Ref.: PL-202208013

CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT
NORTH DEVELOPMENT OFFICE
UNIT 2320, LEVEL 23, TOWER 1, METROPLAZA,
223 HING FONG ROAD,
KWAI FONG, NEW TERRITORIES,
HONG KONG

Attention: Mr. William WONG

11 August 2022

Dear William,

Contract No. NDO/02/2018

**Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po
Monthly Environmental Monitoring and Audit Report for July 2022**

I refer to the email from the Environmental Team concerning the captioned. I have no adverse comment on the Monthly Environmental Monitoring and Audit Report for July 2022 (Version 1.0) and verify the report according to Conditions 1.9 and 3.5 of Environmental Permit with permit number EP-510/2016.

Yours faithfully,



Wingo So
Independent Environmental Checker

cc. CEDD – K.M. CHENG
AECOM - Gloria TANG
ET Leader – Ivy TAM

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EXECUTIVE SUMMARY

Introduction

1. This is the 25th monthly Environmental Monitoring and Audit (EM&A) Report under the Work Contract (Contract No. ND/2018/01 – Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po) (the Project). This report was prepared by Wellab Limited (Wellab) under “Service Contract No. NDO 07/2019 Environmental Team for Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po” (hereinafter called the “Service Contract”). This report documents the findings of Environmental Monitoring and Audit (EM&A) work conducted from 1st to 31st July 2022.

Summary of Construction Works undertaken during the Reporting Month

2. The major site activities undertaken in the reporting month include:
 - Site Formation at Portion D
 - Pre-bored Piling Works
 - Retaining Wall Construction
 - Stormwater Storage Tank & Underpass Construction
 - Slope Upgrading Works
 - Road & Associated Works
 - Sewerage Trenchless Works
 - Drainage & Watermain Trenchless Works
 - Bridge & Associated Works
 - Tree Felling Works

Environmental Monitoring and Audit Progress

3. A summary of the EM&A activities in this reporting month is listed in **Table I** below:

Table I Summary Table for EM&A Activities in the Reporting Month

EM&A Activities	Date
Air Quality Monitoring	4, 6, 8, 12, 14, 18, 20, 22, 26 and 28 July 2022
Noise Monitoring	6, 8, 12, 14, 20, 22, 26 and 28 July 2022
Ecological Monitoring	22 July 2022
Environmental Site Inspection	8, 15, 22 and 29 July 2022

Breaches of Action and Limit Levels

4. Summary of the environmental exceedances of the reporting month is tabulated in **Table II**.

Air Quality

5. All construction air quality monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded.

Construction Noise

6. All construction noise monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded.

Table II Summary Table for Events Recorded in the Reporting Month

Environmental Monitoring	Parameter	No. of Non-Project related Exceedances		No. of Exceedance related to the Construction Works		Action Taken
		Action Level	Limit Level	Action Level	Limit Level	
Air Quality	1-hr TSP	0	0	0	0	N/A
Noise	L _{eq} (30min)	0	0	0	0	N/A

Ecological Monitoring

7. All ecological monitoring was conducted as scheduled in the reporting month. The ecological monitoring result in the reporting month is shown in **Appendix H**.

Environmental Non-Compliance

8. No environmental non-compliance was recorded in the reporting month

Environmental Complaint

9. No environmental complaint was received in the reporting month.

Notification of Summons and Successful Prosecutions

10. No notification of summons or successful prosecutions was received in the reporting month.

Reporting Changes

11. No reporting change was made in the reporting month.

Future Key Issues

12. The major site activities for the coming three months include:

- Site Formation at Portion D
- Retaining Wall Construction
- Backfilling for Stormwater Storage Tank & Underpass
- Slope Upgrading Works
- Road & Associated Works
- Sewerage Trenchless Works
- Drainage & Watermain Trenchless works
- Bridge & Associated Works
- Tree Felling Works

13. Potential environmental impacts arising from the above construction activities are mainly associated with construction dust, noise, water quality and waste management. For the details, please refer to **Appendix A** regarding the anticipated major impacts from the construction works and corresponding recommended mitigation measures.

1 INTRODUCTION

- 1.1 Wellab Limited was commissioned by the Civil Engineering Development Department (CEDD) as the Environmental Team to undertake the Environmental Monitoring and Audit (EM&A) works for the Work Contract (Contract No. ND/2018/01 – Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po) to ensure that the environmental performance of the Works Contracts comply with the requirements specified in the Environmental Permits (EPs), Environmental Impact Assessment (EIA) Report and Environmental Monitoring & Audit (EM&A) Manual of the Police Facilities in Kong Nga Po Project and other relevant statutory requirements.

Purpose of the report

- 1.2 This is the 25th EM&A Report which summarises the impact monitoring results and audit findings for the EM&A programme during the reporting period from 1st to 31st July 2022. The major construction works for the Project commenced on 3rd July 2020 and the main site in Kong Nga Po will be substantially completed in end of October 2022 tentatively.

Structure of the report

- 1.3 The structure of the report is as follows:

- Section 1: **Introduction** - purpose and structure of the report.
- Section 2: **Project Information** – summarises background and scope of the Project, site description, project organisation and contact details, construction programme, the construction works undertaken and the status of Environmental Permits/Licences during the reporting month.
- Section 3: **Air Quality Monitoring** – summarises the monitoring parameters, monitoring programmes, monitoring methodologies, monitoring frequencies, monitoring locations, Action and Limit Levels, monitoring results and Event /Action Plans.
- Section 4: **Noise Monitoring** – summarises the monitoring parameters, monitoring programmes, monitoring methodologies, monitoring frequencies, monitoring locations, Action and Limit Levels, monitoring results and Event/Action Plans.
- Section 5: **Ecological Monitoring** – summarises the monitoring results of the monthly ecological monitoring undertaken within the reporting month.
- Section 6: **Landscape and Visual Monitoring** – summarises the audit results of the site inspection undertaken within the reporting month.
- Section 7: **Environmental Site Inspection** – summarises the audit findings of the weekly site inspections undertaken within the reporting month.
- Section 8: **Environmental Non-conformance** – summarises any monitoring exceedance, environmental complaints, environmental summons and successful prosecutions within the reporting month.
- Section 9: **Future Key Issues** – summarises the impact forecast for the next three months and monitoring schedule in the next month.
- Section 10: **Conclusions and Recommendations**

2 PROJECT INFORMATION

Background

- 2.1 The Project consists of site formation works and building works for the co-location of various police facilities in the Project site at Kong Nga Po as well as road improvement works to a section of the existing Kong Nga Po Road between the police facilities and Man Kam To Road. The police facilities include:
- Lo Wu Firing Range (LWFR) to be relocated from Lo Wu;
 - Ma Tso Lung Firing Range (MTLFR) to be relocated from Ma Tso Lung;
 - Weapons Training Facilities (WTF) and Police Driving and Traffic Training Facilities (PD&TTF) to be relocated from Fan Garden;
 - Helipad to be relocated from Lo Wu;
 - A Proposed Police Training Facility (PTF); and
 - A new internal access road network with underpass within the Project site.
- 2.2 The improvement works to Kong Nga Po Road between the police facilities and Man Kam To Road includes roadworks, viaduct of less than 100m between abutments, and associated works such as slopeworks and retaining walls.
- 2.3 In addition to the above, associated supporting infrastructure and utilities including an underground stormwater storage tank, sewage pumping station, petrol / diesel filling station, a multi-storey training complex associated with the PD&TTF, and other ancillary facilities will also be provided.
- 2.4 The Project is a Designated Project under the Environmental Impact Assessment Ordinance (EIAO). An Environmental Impact Assessment (EIA) Report (Report No.: AEIAR-201/2016) for the Project was approved under EIAO in October 2016 in accordance with the EIA Study Brief (No. ESB-276/2014) and the Technical Memorandum on Environmental Impact Assessment Process (EIAO-TM). The corresponding Environmental Permit was issued (EP no.: EP-510/2016) by the Director of Environmental Protection (DEP) in November 2016.
- 2.5 The Works Contract (Contract No. ND/2018/01 – Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po) generally consists of site formation & infrastructure works for the co-location of various police facilities at Kong Nga Po as well as upgrading works to a section of the existing Kong Nga Po Road between the police facilities and Man Kam To Road (hereinafter called “the Project”).
- 2.6 The major construction activities of the Project are site formation and infrastructure works which will include site clearance, excavation and filling, construction of access road, utilities laying and landscaping works. As such, an air quality and noise monitoring programme is recommended in the approved Environmental Monitoring and Audit (EM&A) Manual during the construction phases of this Project to monitor the expected dust and noise nuisances. Baseline air quality and noise monitoring were conducted by ET from 14th March 2020 to 2nd April 2020 to establish the background conditions of the designated sensitive receivers prior to the commencement of the Project’s construction works.

2.7 The site layout plan for the Project is shown in **Figure 1**.

Project Organization

2.8 Different parties with different levels of involvement in the Project organization include:

- Project Proponent – Civil Engineering and Development Department (CEDD)
- *Supervisor / Supervisor's Representative* – AECOM
- Environmental Team (ET) – Wellab Limited
- Independent Environmental Checker (IEC) – Acuity Sustainability Consulting Limited

2.9 The key personnel contact names and numbers are summarised in **Table 2.1**.

Table 2.1 Key Contacts of the Project

Party	Role	Contact Person	Phone No.	Fax No.
Civil Engineering and Development Department, HKSAR (CEDD)	Project Proponent	Mr. Joseph YAN	3152 3551	3547 1658
<i>Supervisor / Supervisor's Representative</i> (AECOM)	Chief Resident Engineer	Ms. Gloria Tang	9325 0836	3922 9797
Environmental Team (Wellab Limited)	Environmental Team Leader	Ms. Ivy Tam	2151 2090	2898 7076
	Qualified Ecologist	Dr. Priscilla Choy	2898 7388	2898 7076
	Registered Landscape Architect	Mr. Ted Lam	2898 7388	2898 7076
Independent Environmental Checker (Acuity Sustainability Consulting Limited)	Independent Environmental Checker	Mr. Wingo So	2698 6833	2693 9383
Contractor (Build King Construction Limited)	Site Agent	Mr. Book Kin Man	2272 3128	2528 1751
	Environmental Officer	Mr. Alex Liu	9754 3432	

Summary of Construction Works Undertaken During Reporting Month

2.10 The major site activities undertaken in the reporting month included:

- Site Formation at Portion D
- Pre-bored Piling Works
- Retaining Wall Construction
- Stormwater Storage Tank & Underpass Construction
- Slope Upgrading Works
- Road & Associated Works
- Sewerage Trenchless Works

- Drainage & Watermain Trenchless Works
- Bridge & Associated Works
- Tree Felling Works

Construction Programme

2.11 A copy of Contractors' construction programme is provided in **Appendix A**.

Status of Environmental Licences, Notifications and Permits

2.12 A summary of the relevant permits, licences, and/or notifications on environmental protection for this Project is presented in **Table 2.2**.

Table 2.2 Status of Environmental Licences, Notifications and Permits

Permit / Licence No.	Valid Period		Status
	From	To	
Environmental Permit (EP)			
EP-510/2016	N/A	N/A	Valid
Construction Noise Permit (CNP)			
GW-RN0442-22	15-06-2022	14-08-2022	Valid
GW-RN0482-22	29-06-2022	28-09-2022	Valid
GW-RN0522-22	28-06-2022	27-09-2022	Valid
Notification pursuant to Air Pollution Control (Construction Dust) Regulation			
EPD Ref no.: 451555	N/A	N/A	N/A
Billing Account for Construction Waste Disposal			
Account No. 7036173	24-12-2019	N/A	Valid
Registration of Chemical Waste Producer			
WPN5213-641-B2590-01	18-5-2020	N/A	Valid
Effluent Discharge Licence under Water Pollution Control Ordinance			
WT00035709-2020	11-5-2020	31-5-2025	Valid

Summary of EM&A Requirement

2.13 The EM&A programme requires construction noise monitoring, air quality monitoring, ecological monitoring and environmental site audits. The EM&A requirements are described in the following sections, including:

- All monitoring parameters;
- Action and Limit levels for all environmental parameters;
- Event / Action Plans;
- Environmental mitigation measures, as recommended in the Project EIA study final report; and
- Environmental requirements in contract documents.

Status of Compliance with Environmental Permits Conditions

2.14 The status of compliance with Environmental Permit (EP) No. EP-510/2016 and required

submission related to this Project under the EP is summarized in **Table 2.3**:

Table 2.3 Summary Table for Status of Compliance / Required Submission under EP No. EP-510/2016

EP Conditions	Submission	Submission Date	Approval Status
1.12	Notification of Commencement Date of Construction	3 rd June 2020	*
2.7	Proposal on the Reporting Mechanism and Curriculum Vitae of the IEC	6 th February 2020	*
2.11	Management Organizations	9 th March 2020	*
2.12	Construction Works Schedule and Location Plans	20 th March 2020	*
2.13 & 2.14	Detailed Vegetation Survey Report (Version 1.0)	2 nd April 2020	Approved
	Detailed Vegetation Survey Report (Version 2.0)	8 th May 2020	
	Detailed Vegetation Survey Report (Version 3.0)	9 th July 2020	
2.4 & 2.14	Transplantation Proposal (Version 1.0)	2 nd April 2020	Approved
	Transplantation Proposal (Version 2.0)	8 th May 2020	
	Transplantation Proposal (Version 3.0)	9 th July 2020	
2.15	Baseline Survey Report for Golden-Headed Cisticola	9 th March 2020	Approved
2.16	Explanatory Statement for Revised Layout Plan of Kong Nga Po Road	10 th March 2020	Approved
2.17	Layout Plan for Permeable Pavings	2 nd August 2022 (The demarcation and detail design of the permeable paving is subject to the design by ArchSD's Contractor)	N/A
2.18 & 2.19	Landscape and Visual Mitigation Plan	7 th April 2020	Approved
	Landscape and Visual Mitigation Plan (Revised Final Rev. 4)	28 th September 2020	
2.20	Plan for Perimeter Walls/ Boundary Walls at Project Site and Side Walls of Firing Range	To be submitted at least one month before the commencement of construction of relevant part(s) of the Project (under ArchSD's building works Contract)	N/A
2.23	Helicopter Flight Plan	To be submitted at least one month before the commencement of operation of the Helipad (under ArchSD's building works Contract)	N/A
3.4	Baseline Air Quality and Noise Monitoring Report	20 th April 2020	*
3.4	Baseline Monitoring Report for Landscape and Visual Resources	21 st April 2020	*

Remarks: * Approval not required in EP-510/2016
N/A – Not applicable at this stage

3 AIR QUALITY MONITORING

Monitoring Requirements

- 3.1 In accordance with the EM&A Manual, impact 1-hour TSP monitoring was conducted to monitor the air quality for the Works Contracts. **Appendix B** shows the established Action/Limit Levels for the air quality monitoring works.
- 3.2 Impact 1-hour TSP monitoring was conducted for at least three times every 6 day at one air quality monitoring station.

Monitoring Location

- 3.3 According to Section 2.2.5 of the EM&A Manual, impact air quality monitoring was conducted at the two designated monitoring stations for the Project as shown in **Figure 2**. **Table 3.1** describes the location of the air quality monitoring stations.

Table 3.1 Location for Air Quality Monitoring Stations

Monitoring Station	Location of Measurement
AM1	Village House, Kong Nga Po
AM2	Village House, Kong Nga Po

Monitoring Equipment

- 3.4 As the setup of HVS for 1-hour TSP monitoring at the designated locations and request for secured supply of electricity for HVS were not allowed by the villager, direct reading dust meters was therefore used to carry out the 1-hour TSP monitoring. Dust meter has been commonly used for measuring 1-hour TSP levels in a number of designated projects of major infrastructure works. The proposed use of direct reading dust meter was submitted to IEC and agreed by the IEC. With the use of direct reading dust meter, it can allow prompt and direct results for the EM&A reporting and the implementation of the event and action plan. The 1-hour sampling was determined on bi-monthly basis by the HVS to check the validity and accuracy of the results measured by direct reading method.
- 3.5 **Table 3.2** summarises the equipment used in the impact air quality monitoring programme. Copies of calibration certificates are attached in **Appendix C**.

Table 3.2 Air Quality Monitoring Equipment

Equipment	Model and Make	Quantity
Dust Monitor	AEROCET-831	3

- 3.6 Meteorological information was extracted from “Hong Kong Observatory - Ta Kwu Ling Weather Station” as the alternative method to obtain representative wind data. For Ta Kwu Ling Weather Station, it is located nearby the Project site and situated at approximately 15m above mean sea level. The station’s wind data monitoring equipment is set above the existing ground ten meters in compliance with the general setting up requirement. Furthermore, this station also provides other meteorological information, such as the humidity, rainfall, air pressure and temperature etc. The general meteorological conditions and the meteorological data at Ta Kwu Ling Weather Station are presented in **Appendix G**.

- 3.7 The general weather conditions (i.e. sunny, cloudy or rainy) were recorded by the field staffs during the monitoring day.

Monitoring Parameters, Frequency and Duration

- 3.8 **Table 3.3** summarises the monitoring parameters and frequencies of impact dust monitoring during the Works Contracts activities. The air quality monitoring schedule for the reporting month is shown in **Appendix D**.

Table 3.3 Impact Dust Monitoring Parameters, Frequency and Duration

Parameters	Frequency
1-hr TSP	Three times/ 6 days

Monitoring Methodology and QA/QC Procedure

1-hour TSP Air Quality Monitoring

Instrumentation

- 3.9 Direct reading dust meter was deployed for the air quality monitoring as shown in **Table 3.2**.
- 3.10 The measuring procedures of the dust meter are in accordance with the Manufacturer's Instruction Manual as follows:

(Met One Instrument: Model no/ AEROCET-831)

- The 1-hour dust meter is placed at least 1.3 meters above ground.
- Press and hold the Power key momentarily to power on the unit and make sure that the battery level was not flash or in low level.
- Allow the instrument to stand for about 3 second to display the Sample Screen minutes.
- Press the START / STOP key to run the internal vacuum pump for 1 minute and ready to use.
- Use the select dial to select the PM range and press the START / STOP key to start a measurement.
- Finally, push the START/STOP key to stop the measuring after 1 hour sampling.
- Information such as sampling date, time, value and site condition were recorded during the monitoring period.
- All data were recorded in the data logger for further data processing.

Maintenance/Calibration

- 3.11 The following maintenance/calibration was required for the direct dust meters:
- Check and calibrate the dust meter by high volume sampler (HVS) to check the validity and accuracy of the results measured by direct reading method. Calibration of dust meter should be carried out on a bi-monthly basis throughout all stages of the air quality monitoring.
 - The correlation of dust meter and HVS in TSP measurement was obtained by direct comparison of the weight of dust particle trapped in a filter paper using HVS with the

reading of the dust meter. Calibration of the dust meter with HVS should be powered on and off at the same location and the same time.

- The correlation coefficient was checked to establish the correlation relationship between the dust meter and HVS. The correlation factor was determined by comparing the results of HVS and dust meter.
- Checking is made prior to dust monitoring commencing to ensure all equipment is in good working condition with necessary power supply. Zero count test were conducted before and after each monitoring event.

Results and Observations

- 3.12 The monitoring results for 1-hour TSP monitoring are summarised in **Table 3.4**. Detailed monitoring results and graphical presentations of 1-hour TSP monitoring results are shown in **Appendix E**.

Table 3.4 Summary Table of 1-hour TSP Monitoring Results during the Reporting Month

Monitoring Station	Concentration ($\mu\text{g}/\text{m}^3$)		Action Level, $\mu\text{g}/\text{m}^3$	Limit Level, $\mu\text{g}/\text{m}^3$
	Average	Range		
AM1	73.4	37.1 – 103.2	308	500
AM2	72.8	39.8 – 144.9	311	

- 3.13 1-hour TSP monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedances were recorded.
- 3.14 According to our field observations, the major dust source identified at the designated air quality monitoring stations in the reporting month are shown in **Table 3.5**:

Table 3.5 Observation at Dust Monitoring Stations

Monitoring Station	Major Dust Source
AM1	Road traffic, exposed site area, site vehicle / equipment operation and movement
AM2	Road traffic, exposed site area, site vehicle / equipment operation and movement, vehicle / equipment operation and movement at warehouse nearby

Event and Action Plan

- 3.15 Should project-related non-compliance of the criteria occur, action in accordance with the Event Action Plan in **Appendix I** shall be carried out.

4 NOISE MONITORING

Monitoring Requirements

- 4.1 In accordance with EM&A Manual, construction noise monitoring was conducted in terms of the A-weighted equivalent continuous sound pressure level (Leq) to monitor the construction noise arising from the construction activities. The regular monitoring frequency for each monitoring station shall be on a weekly basis and one set of measurements between 0700 and 1900 hours on normal weekdays shall be conducted. **Appendix B** shows the established Action/Limit Levels for the environmental monitoring works.

Monitoring Location

- 4.2 According to Section 3.2.3 of the EM&A Manual, impact noise monitoring was conducted at fourteen designated noise monitoring stations as shown in **Figure 3**. **Table 4.1** describes the locations of the noise monitoring stations.

Table 4.1 Location of Noise Monitoring Stations

Monitoring Station	Location of Measurement
NM1	Village House, Sha Ling
NM2	Village House, Sha Ling
NM3	Village House No. 248, Sha Ling
NM4	Village House, Sha Ling
NM5	*Village House No. 270, Sha Ling
NM6	Village House, Sha Ling
NM7	Village House, Sha Ling
NM8	Village House, Sha Ling
NM9	Village House, Kong Nga Po
NM10	Village House, Kong Nga Po
NM11	Village House, Kong Nga Po
NM12	Village House, Kong Nga Po
NM13	Village House, Kong Nga Po
NM14	Village House, near Man Kam To Road

Note: *The location of NM5 as shown in Figure 3.1 of the EM&A Manual and Figure 4.2 of the EIA Report is Village House No.270, Sha Ling, not Village No. 272, Sha Ling according to <https://www.map.gov.hk/gm/map/s/B/1107625418>

Monitoring Equipment

- 4.3 Integrating Sound Level Meters were used for impact noise monitoring. The meters were Type 1 sound level meter capable of giving a continuous readout of the noise level readings including equivalent continuous sound pressure level (Leq) and percentile sound pressure level (Lx) that also complied with International Electrotechnical Commission Publications 651:1979 (Type 1) and 804:1985 (Type 1) specifications. **Table 4.2** summarises the noise monitoring equipment being used. Copies of calibration certificates are attached in **Appendix C**.

Table 4.2 Noise Monitoring Equipment

Equipment	Model	Quantity
Integrating Sound Level Meter	BSWA 308	5
Acoustical Calibrator	B&K 4231 and SVANTEK SV30A	2

Monitoring Parameters, Frequency and Duration

- 4.4 **Table 4.3** summarises the monitoring parameters, frequency and total duration of monitoring. The noise monitoring schedule is shown in **Appendix D**.

Table 4.3 Noise Monitoring Parameters, Duration and Frequency

Monitoring Stations	Parameter	Duration	Frequency	Measurement
NM1	$L_{10(30 \text{ min.})} \text{ dB(A)}^{[2]}$ $L_{90(30 \text{ min.})} \text{ dB(A)}^{[2]}$ $L_{\text{eq}(30 \text{ min.})} \text{ dB(A)}^{[2]}$ (as six consecutive $L_{\text{eq}, 5\text{min}}$ readings)	0700-1900 hrs on normal weekdays	Once per week	Free field ^[1]
NM2				Free field ^[1]
NM3				Facade
NM4				Facade
NM5				Facade
NM6				Free field ^[1]
NM7				Facade
NM8				Free field ^[1]
NM9				Free field ^[1]
NM10				Free field ^[1]
NM11				Facade
NM12				Facade
NM13				Free field ^[1]
NM14				Free field ^[1]

Remarks:

[1]: Correction of +3dB (A) for Free-field Measurement.

[2]: A-weighted equivalent continuous sound pressure level (L_{eq}). It is the constant noise level which, under a given situation and time period, contains the same acoustic energy as the actual time-varying noise level.

L_{10} is the level exceeded for 10% of the time. For 10% of the time, the sound or noise has a sound pressure level above L_{10} .

L_{90} is the level exceeded for 90% of the time. For 90% of the time, the noise level is above this level.

Monitoring Methodology and QA/QC Procedures

- 4.5 The monitoring procedures are as follows:

- The sound level meter was set on a tripod at a point 1m from the exterior of the noise sensitive facade and at the position of 1.2m above the ground;
- For free field measurement, the meter was positioned away from any nearby reflective surfaces. Free field noise levels was adjusted with a correction of +3 dB(A);
- The battery condition was checked to ensure the correct functioning of the meter;

- Parameters such as frequency weighting, the time weighting and the measurement time were set as follows:
 - frequency weighting : A
 - time weighting : Fast
 - time measurement : $L_{eq(30 \text{ min.})}$ dB(A)
(as six consecutive $L_{eq, 5 \text{ min}}$ readings) during non-restricted hours (i.e. 0700-1900 hrs on normal weekdays)
- Prior to and after each noise measurement, the meter was calibrated using a Calibrator for 94.0 dB at 1000 Hz. If the difference in the calibration level before and after measurement was more than 1.0 dB, the measurement would be considered invalid and repeat of noise measurement would be required after re-calibration or repair of the equipment;
- During the monitoring period, the L_{eq} , L_{90} and L_{10} were recorded. In addition, site conditions and noise sources were recorded on a standard record sheet;
- Noise measurement was paused temporarily during periods of high intrusive noise (e.g. dog barking, helicopter noise) if possible and observation record during measurement period should be provided; and
- Noise monitoring was cancelled in the presence of fog, rain, and wind with a steady speed exceeding 5 m/s, or wind with gusts exceeding 10 m/s. The wind speed should be checked with a portable wind speed meter capable of measuring the wind speed in m/s.

Maintenance and Calibration

- 4.6 The microphone head of the sound level meter and calibrator were cleaned with a soft cloth at quarterly intervals.
- 4.7 The sound level meter and calibrator were checked and calibrated at yearly intervals.
- 4.8 Immediately prior to and following each noise measurement, the accuracy of the sound level meter should be checked using an acoustic calibrator generating a known sound pressure level at a known frequency. Measurements would be accepted as valid only if the calibration levels before and after the noise measurement agreed to within 1.0 dB.

Results and Observations

- 4.9 The noise monitoring results are summarised in **Table 4.4**. Detailed monitoring results and graphical presentations of noise monitoring are shown in **Appendix F**. The weather information for the reporting month is summarised in **Appendix G**.

Table 4.4 Summary Table of Noise Monitoring Results during the Reporting Month

Monitoring Station	Average $L_{eq(30 \text{ min})}$ dB(A)	Range $L_{eq(30 \text{ min})}$ dB(A)	Baseline Level dB(A)	Limit Level dB(A)
NM1 ^[1]	62.1	56.9 – 64.7	54.9	75.0
NM2 ^[1]	61.0	59.2 – 63.3	56.7	
NM3	61.4	56.8 – 63.0	54.5	

Monitoring Station	Average L_{eq} (30 min) dB(A)	Range L_{eq} (30 min) dB(A)	Baseline Level dB(A)	Limit Level dB(A)
NM4	60.0	57.3 – 61.3	58.7	
NM5	57.7	54.3 – 58.7	57.0	
NM6 ^[1]	58.8	57.8 – 59.8	56.0	
NM7	56.9	53.3 – 59.6	49.8	
NM8 ^[1]	55.5	53.5 – 58.3	57.6	
NM9 ^[1]	62.7	59.9 – 64.0	55.9	
NM10 ^[1]	55.5	51.7 – 57.8	52.8	
NM11	53.1	52.1 – 54.1	46.4	
NM12	62.6	57.4 – 66.7	54.7	
NM13 ^[1]	66.1	53.1 – 71.9	61.3	
NM14 ^[1]	57.4	52.9 – 61.5	59.6	

Remarks:

[1]: Correction of +3dB (A) for Free-field Measurement.

- 4.10 Construction noise monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded. The summary of exceedance record in reporting month is shown in **Appendix J**.
- 4.11 According to our field observations, the major noise sources identified at the designated noise monitoring stations in the reporting month are as follows:

Table 4.5 Observation at Noise Monitoring Stations

Monitoring Station	Major Noise Source
NM1	Road traffic, excavation works, loading & unloading, sheet piling
NM2	Road traffic, excavation works, loading & unloading, sheet piling
NM3	Road traffic, excavation works
NM4	Road traffic, excavation works
NM5	Road traffic, excavation works
NM6	Road traffic, excavation works
NM7	Road traffic, excavation works
NM8	Road traffic, excavation works
NM9	Road traffic, excavation works, loading & unloading
NM10	Road traffic, excavation works, loading & unloading
NM11	Road traffic
NM12	Road traffic
NM13	Road traffic
NM14	Road traffic

Event and Action Plan

- 4.12 Should any project related non-compliance of the criteria occur, action in accordance with the Event Action Plan in **Appendix I** shall be carried out.

5 ECOLOGICAL MONITORING

Monitoring of Flora Species of Conservation Interest

- 5.1 As required under Section 8.3.2 of EM&A Manual, during construction phase, temporary protective fence shall be erected enclosing the flora species of conservation interest identified under the detailed vegetation survey. The temporary protective fence shall be properly maintained and monitored for the effectiveness. Monthly monitoring of individual of flora species of conservation interest identified in the detailed vegetation survey shall be conducted during the construction phase to make sure that the flora species of conservation interest are not affected by the construction activities of the Project.
- 5.2 The purpose of the monitoring is to monitor the timely implementation of proper environmental management practices and mitigation measures for the retained and transplanted individuals of flora species of conservation interest. Proper erection and maintenance of the temporary protective fence enclosing the individuals was inspected for the effectiveness. The recommended protection measures in the implementation schedule as stated in approved transplantation proposal were monitored and the conditions of the individuals of flora species of conservation interest were recorded as shown in **Table 5.1**.
- 5.3 According to the approved detailed vegetation survey report and transplantation proposal, 71 individuals of *Brainea insignis*, 41 individuals of *Spiranthes sinensis* and 3 individuals of *Aquilaria sinensis* were identified to be transplanted to the receptor site. 51 individuals of *Keteleeria fortunei*, 26 undersized seedlings of *Keteleeria fortunei* and 7 undersized seedlings of *Aquilaria sinensis* were identified to be retained along Kong Nga Po Road near Police Dog Unit and Force Search Unit Training School.

Post-Transplantation Monitoring and Maintenance Programme

- 5.4 According to approved transplantation proposal, post-transplantation monitoring should be conducted by the Contractor once per week in the first three months and once per month afterwards during the 12-month establishment period and the post-establishment period until the end of construction phase of the Project. Regular monitoring allows early detection of the growth status of transplanted species, sign of construction activity within and nearby the receptor site, and any environmental change of the receptor site.
- 5.5 Maintenance works were recommended for the first year of establishment to allow health growth of the transplanted species. In view of the condition of transplanted individuals after the 12-month establishment period, maintenance works were recommended to extend during the Post-establishment Period until the end of Construction Phase. Watering was recommended in daily practice during the first three months after the transplantation and during dry season. Watering frequency may be reduced to at least twice a week and adjusted based on the plant condition to keep the soil moist. Other maintenance works like use of mulch and weeding shall be conducted if required.

Results and Observations

- 5.6 Monthly monitoring of flora species of conservation interest was conducted by ET on 22nd July 2022 during the reporting month. The implementation status of protection measures as stated in approved transplantation proposal and the maintenance of temporary protective fence were inspected. The implementation status of protection measures is shown in **Table**

5.1 and photographic record and checklists for monthly monitoring are shown in **Appendix H**.

Transplanted *Brainea insignis* and *Spiranthes sinensis*

- 5.7 71 individuals of *Brainea insignis* and 41 individuals of *Spiranthes sinensis* were transplanted to receptor site from 21st to 26th May 2020. Transplantation Report recording the process of transplantation have been submitted to ET, IEC and the *Supervisor* for review and record. Post-transplantation monitoring was conducted once per week in the first three months (June to August 2020) and once per month during the 12-month establishment period and the post-establishment period until the end of construction phase of the Project. The health condition of the transplanted species was monitored by the Contractor. The Contractor provided maintenance works including watering, use of mulch and weeding in the first year of establishment to allow health growth of the transplanted species. Post-transplantation monitoring on transplanted *Brainea insignis* and *Spiranthes sinensis* was conducted on 29th July 2022 during the reporting month and the post-transplantation monitoring record is shown in **Appendix H**. The health condition of the transplanted *Brainea insignis* affected by bushfire on 2nd February 2021 were closely monitored and reported in the post-transplantation monitoring records.
- 5.8 During monthly monitoring, no construction activity and equipment storage was observed within the receptor site. Temporary protective fence was properly erected and maintained for the transplanted species.

Transplanted *Aquilaria sinensis*

- 5.9 3 individuals of *Aquilaria sinensis* were transplanted to receptor site from 3rd to 19th October 2020. Transplantation Report recording the process of transplantation have been submitted to ET, IEC and the *Supervisor* for review and record. Post-transplantation monitoring was conducted once per week in the first three months (October 2020 to January 2021) and once per month during the 12-month establishment period and the post-establishment period until the end of construction phase of the Project. The health conditions of the transplanted species were monitored by the Contractor. The Contractor provided maintenance works including watering, use of mulch and weeding in the first year of establishment to allow health growth of the transplanted species.
- 5.10 During the reporting month, the three individuals of transplanted *Aquilaria sinensis* A-008, A-0009 and A-0010 were collapsed after Typhoon Signal No. 8. According to the Tree Risk Assessment Report provided by the Contractor's landscape specialist, the collapsed trees have been removed on 16th July 2022.

Retained *Keteleeria fortunei* and *Aquilaria sinensis*

- 5.11 51 individuals of *Keteleeria fortunei*, 26 undersized seedlings of *Keteleeria fortunei* and 7 undersized seedlings of *Aquilaria sinensis* were identified to be retained along Kong Nga Po Road near Police Dog Unit and Force Search Unit Training School. Individuals of *Keteleeria fortunei* and *Aquilaria sinensis* were preserved based on the revised layout plan of Kong Nga Po Road.

- 5.12 During monitoring, no construction activity was observed within the area of retained species. Temporary protective fence was properly erected and maintained for the retained species. The photographic records for the retained individuals are shown in **Appendix H**.

Table 5.1 Implementation Status of Protection Measures for Flora Species of Conservation Interest

Recommended Mitigation Measures	Implementation Status
<i>Brainea insignis</i>	
Identification of Plant Species of Conservation Importance to be Retained / Transplanted To mark trees/plants proposed to be retained and to be transplanted on the layout plan prior to commencement of site construction works.	^
Protection of Plant Species of Conservation Importance prior to Site Clearance / Transplantation Works a) No site clearance shall be started at the locations of flora species of conservation interest until the transplantation works completed. b) Set up buffer zone to enhance the protection of flora species of conservation importance to be preserved / transplanted including the proposed location for transplantation when the site clearance works shall commence before the transplantation works completed.	N/A N/A
Temporary Protective Fence for Flora Species of Conservation Interest / Retained Tree a) To erect a temporary protective fence enclosing the flora species of conservation interest identified under the detailed vegetation survey. b) To set up a protection zone at least 1m from the plant / retained tree and erect robust, bright-coloured fencing of 1.5m in height.	^ ^
Maintenance of the Protection Zone for Flora Species of Conservation Interest / Retained Tree a) Monthly monitoring of flora species of conservation interest identified in the detailed vegetation survey should be conducted. b) To inspect the temporary protective fence whether it is properly erected and maintained during construction.	^ ^
Post-transplantation Monitoring a) Weekly post-transplantation monitoring of transplanted species in the first three months and monthly afterwards.	^
Maintenance of Transplanted Species a) To keep the soil moist by watering the receptor sites properly and adequately. b) To apply mulches on the soil surface over the plant root system, if required. c) To remove unwanted weeds found in receptor sites.	^ ^ ^
Other Protection Measures for Flora Species of Conservation Interest / Retained Tree / Vegetated Areas a) All works should be confined within the site boundary. b) Access of site staff should be controlled. c) Care should be taken to prevent trees/plants being damaged by mechanical equipment or stockpile both during site clearance works and construction works. d) No fixings should be driven into trees/plants. e) No workshop, canteens, or similar should be installed beneath trees/plants, nor will equipment maintenance etc. be carried out under trees/plants. f) No excavation, including that for services or changes in ground level will take place	^ ^ ^ ^ ^ ^

Recommended Mitigation Measures	Implementation Status
<p>within the spread of the crown of the trees / plants.</p> <p>g) No soil, debris or construction materials should be deposited around and against the trunk of a tree/plant as this causes bark damage and compaction of the soil.</p> <p>h) No fire should be lit below the branches and no petrol, oil or caustic substances stored near the trees/plants.</p> <p>i) No trees/plants should be used for anchoring or winching purposes or for the display of signs.</p> <p>j) Any damage or injury to the retained / transplanted plants should be reported as soon as possible for repair immediately.</p>	<p>^</p> <p>^</p> <p>^</p> <p>^</p>
<i>Spiranthes sinensis</i>	
<p>Identification of Plant Species of Conservation Importance to be Retained / Transplanted To mark trees/plants proposed to be retained and to be transplanted on the layout plan prior to commencement of site construction works.</p>	<p>^</p>
<p>Protection of Plant Species of Conservation Importance prior to Site Clearance / Transplantation Works</p> <p>a) No site clearance shall be started at the locations of flora species of conservation interest until the transplantation works completed.</p> <p>b) Set up buffer zone to enhance the protection of flora species of conservation importance to be preserved / transplanted including the proposed location for transplantation when the site clearance works shall commence before the transplantation works completed.</p>	<p>N/A</p> <p>N/A</p>
<p>Temporary Protective Fence for Flora Species of Conservation Interest / Retained Tree</p> <p>a) To erect a temporary protective fence enclosing the flora species of conservation interest identified under the detailed vegetation survey.</p> <p>b) To set up a protection zone at least 1m from the plant / retained tree and erect robust, bright-coloured fencing of 1.5m in height.</p>	<p>^</p> <p>^</p>
<p>Maintenance of the Protection Zone for Flora Species of Conservation Interest / Retained Tree</p> <p>a) Monthly monitoring of flora species of conservation interest identified in the detailed vegetation survey should be conducted.</p> <p>b) To inspect the temporary protective fence whether it is properly erected and maintained during construction.</p>	<p>^</p> <p>^</p>
<p>Post-transplantation Monitoring</p> <p>a) Weekly post-transplantation monitoring of transplanted species in the first three months and monthly afterwards.</p>	<p>^</p>
<p>Maintenance of Transplanted Species</p> <p>a) To keep the soil moist by watering the receptor sites properly and adequately.</p> <p>b) To apply mulches on the soil surface over the plant root system, if required.</p> <p>c) To remove unwanted weeds found in receptor sites.</p>	<p>^</p> <p>^</p> <p>^</p>

Recommended Mitigation Measures	Implementation Status
<p>Other Protection Measures for Flora Species of Conservation Interest / Retained Tree / Vegetated Areas</p> <p>a) All works should be confined within the site boundary.</p> <p>b) Access of site staff should be controlled.</p> <p>c) Care should be taken to prevent trees/plants being damaged by mechanical equipment or stockpile both during site clearance works and construction works.</p> <p>d) No fixings should be driven into trees/plants.</p> <p>e) No workshop, canteens, or similar should be installed beneath trees/plants, nor will equipment maintenance etc. be carried out under trees/plants.</p> <p>f) No excavation, including that for services or changes in ground level will take place within the spread of the crown of the trees / plants.</p> <p>g) No soil, debris or construction materials should be deposited around and against the trunk of a tree/plant as this causes bark damage and compaction of the soil.</p> <p>h) No fire should be lit below the branches and no petrol, oil or caustic substances stored near the trees/plants.</p> <p>i) No trees/plants should be used for anchoring or winching purposes or for the display of signs.</p> <p>j) Any damage or injury to the retained / transplanted plants should be reported as soon as possible for repair immediately.</p>	<p>^</p> <p>^</p> <p>^</p> <p>^</p> <p>^</p> <p>^</p> <p>^</p> <p>^</p> <p>^</p> <p>^</p>
<i>Keteleeria fortunei</i>	
<p>Identification of Plant Species of Conservation Importance to be Retained / Transplanted</p> <p>To mark trees/plants proposed to be retained and to be transplanted on the layout plan prior to commencement of site construction works.</p>	<p>^</p>
<p>Protection of Plant Species of Conservation Importance prior to Site Clearance / Transplantation Works</p> <p>a) No site clearance shall be started at the locations of flora species of conservation interest until the transplantation works completed.</p> <p>b) Set up buffer zone to enhance the protection of flora species of conservation importance to be preserved / transplanted including the proposed location for transplantation when the site clearance works shall commence before the transplantation works completed.</p>	<p>N/A</p> <p>N/A</p>
<p>Temporary Protective Fence for Flora Species of Conservation Interest / Retained Tree</p> <p>a) To erect a temporary protective fence enclosing the flora species of conservation interest identified under the detailed vegetation survey.</p> <p>b) To set up a protection zone at least 1m from the plant / retained tree and erect robust, bright-coloured fencing of 1.5m in height.</p>	<p>^</p> <p>^</p>
<p>Maintenance of the Protection Zone for Flora Species of Conservation Interest / Retained Tree</p> <p>a) Monthly monitoring of flora species of conservation interest identified in the detailed vegetation survey should be conducted.</p> <p>b) To inspect the temporary protective fence whether it is properly erected and maintained during construction.</p>	<p>^</p> <p>^</p>
<p>Post-transplantation Monitoring</p> <p>a) Weekly post-transplantation monitoring of transplanted species in the first three months and monthly afterwards.</p>	<p>N/A</p>
<p>Maintenance of Transplanted Species</p>	

Recommended Mitigation Measures	Implementation Status
a) To keep the soil moist by watering the receptor sites properly and adequately. b) To apply mulches on the soil surface over the plant root system, if required. c) To remove unwanted weeds found in receptor sites.	N/A N/A N/A
Other Protection Measures for Flora Species of Conservation Interest / Retained Tree / Vegetated Areas a) All works should be confined within the site boundary. b) Access of site staff should be controlled. c) Care should be taken to prevent trees/plants being damaged by mechanical equipment or stockpile both during site clearance works and construction works. d) No fixings should be driven into trees/plants. e) No workshop, canteens, or similar should be installed beneath trees/plants, nor will equipment maintenance etc. be carried out under trees/plants. f) No excavation, including that for services or changes in ground level will take place within the spread of the crown of the trees / plants. g) No soil, debris or construction materials should be deposited around and against the trunk of a tree/plant as this causes bark damage and compaction of the soil. h) No fire should be lit below the branches and no petrol, oil or caustic substances stored near the trees/plants. i) No trees/plants should be used for anchoring or winching purposes or for the display of signs. j) Any damage or injury to the retained / transplanted plants should be reported as soon as possible for repair immediately.	^ ^ ^ ^ ^ ^ ^ ^ ^ ^
<i>Aquilaria sinensis (Undersized Seedling)</i>	
Identification of Plant Species of Conservation Importance to be Retained / Transplanted To mark trees/plants proposed to be retained and to be transplanted on the layout plan prior to commencement of site construction works.	^
Protection of Plant Species of Conservation Importance prior to Site Clearance / Transplantation Works a) No site clearance shall be started at the locations of flora species of conservation interest until the transplantation works completed. b) Set up buffer zone to enhance the protection of flora species of conservation importance to be preserved / transplanted including the proposed location for transplantation when the site clearance works shall commence before the transplantation works completed.	N/A N/A
Temporary Protective Fence for Flora Species of Conservation Interest / Retained Tree a) To erect a temporary protective fence enclosing the flora species of conservation interest identified under the detailed vegetation survey. b) To set up a protection zone at least 1m from the plant / retained tree and erect robust, bright-coloured fencing of 1.5m in height.	^ ^
Maintenance of the Protection Zone for Flora Species of Conservation Interest / Retained Tree a) Monthly monitoring of flora species of conservation interest identified in the detailed vegetation survey should be conducted. b) To inspect the temporary protective fence whether it is properly erected and maintained during construction.	^ ^
Post-transplantation Monitoring a) Weekly post-transplantation monitoring of transplanted species in the first three months and monthly afterwards.	N/A

Recommended Mitigation Measures	Implementation Status
Maintenance of Transplanted Species	
a) To keep the soil moist by watering the receptor sites properly and adequately.	N/A
b) To apply mulches on the soil surface over the plant root system, if required.	N/A
c) To remove unwanted weeds found in receptor sites.	N/A
Other Protection Measures for Flora Species of Conservation Interest / Retained Tree / Vegetated Areas	
a) All works should be confined within the site boundary.	^
b) Access of site staff should be controlled.	^
c) Care should be taken to prevent trees/plants being damaged by mechanical equipment or stockpile both during site clearance works and construction works.	^
d) No fixings should be driven into trees/plants.	^
e) No workshop, canteens, or similar should be installed beneath trees/plants, nor will equipment maintenance etc. be carried out under trees/plants.	^
f) No excavation, including that for services or changes in ground level will take place within the spread of the crown of the trees / plants.	^
g) No soil, debris or construction materials should be deposited around and against the trunk of a tree/plant as this causes bark damage and compaction of the soil.	^
h) No fire should be lit below the branches and no petrol, oil or caustic substances stored near the trees/plants.	^
i) No trees/plants should be used for anchoring or winching purposes or for the display of signs.	^ ^
j) Any damage or injury to the retained / transplanted plants should be reported as soon as possible for repair immediately.	

Implementation status:	^	Mitigation measure was fully implemented
	*	Observation/reminder was made during monitoring but improved/rectified by the contractor
	#	Observation/reminder was made during monitoring but not yet improved/rectified by the contractor
	X	Non-compliance of mitigation measure
	•	Non-compliance but rectified by the contractor
	N/A	Not Applicable at this stage as no such site activities were conducted in the reporting period

Mitigation Measure for Golden-headed Cisticola

- 5.13 According to EP Condition 2.15, a baseline survey—for Golden-headed Cisticola for the Project was conducted and the baseline survey report was submitted. The mitigation measures detailed in the documents are recommended to minimise the noise, light and water quality impact from construction works to avifauna. Good site practice measures shall be implemented throughout the construction period. The recommended mitigation measures are summarised as following:

Noise

- Silencers or mufflers on well-maintained construction equipment should be utilized and properly maintained during the construction program
- Noise enclosure or acoustic shed should be effectively utilized, where practicable
- Machines or equipment known to emit noise or light strongly in one direction should, wherever possible, be orientated the noise away from the adjacent habitat

Light

- Adjusting the outdoor lighting to lower intensity
- Use of directional lighting to avoid light spill into sensitive areas
- Control/timing of lighting periods of some facilities, particularly those close to the ecological sensitive receivers

Water

- Proper drainage system installed to collect and dispose rainwater.
- Installation of sediment/rubbish trapping facilities (e.g. catch pits or sand/silt traps to contain the increase in suspended solids and materials in the storm water drainage system so as to avoid pollutants being washed out during heavy rainstorms)

Good Site Practice Measures

- Placement of stockpiling into designated area should be selected at disturbed area in order to minimize the disturbance to wildlife
- Open fire should be strictly prohibited
- The boundary of project boundary should be clearly demarcated
- General drainage system arrangement should include sediment and oil trapper to collect the site run-off
- Waste bin should be provided to collect the general refuse and construction waste

5.14 Site audits were conducted by ET on weekly basis to monitor the timely implementation of the recommended mitigation measures by the Contractor on the Project site. The observations are summarised in **Table 7.1** and the implementation status is given in **Appendix K**. Toolbox talk training related to ecological protection has been provided by the Contractor to site staff and frontline workers. Presence of avifauna and bird nest were checked prior to site clearance work.

Precautionary Measure for Butterfly Species of Conservation Interest

5.15 According to EP Condition 2.21, with consideration of minimizing impact on butterfly species of conservation interest recorded at the grassland in the Project site, planting of common grass species which are the larval food plants for butterfly species such as Small Three-Ring are included in Landscape and Visual Mitigation Plan.

5.16 The re-establishment of grassland areas in the Project shall be implemented before Commencement of Operation of the Project. Details of the plant species as larval food plants of butterflies including design and implementation arrangement will be further submitted under ArchSD's building works contract.

Precautionary Measures to Minimize Indirect Disturbance on Ecology

5.17 In accordance with Section 9.7.3 of EIA Report, mitigation measures for air, noise, water, waste and landscape aspects could act as precautionary measures to prevent and minimize any indirect disturbance impact or pollution arisen from the construction activities on the local ecology and offsite habitats. Site audits were carried out by ET on weekly basis to monitor the timely implementation of proper environmental management practices and mitigation measures on the Project site and the observations are summarised in Section 7.3.

6 LANDSCAPE AND VISUAL MONITORING

Monitoring Requirements

- 6.1 The EIA Report has recommended mitigation measures for landscape and visual resources to be undertaken during the construction and operation phases of the Project.
- 6.2 These measures include the consideration of a number of development options and the provision of mitigation measures to directly offset unavoidable impacts. The measures include strategies for reducing, offsetting and compensating impacts during construction and operation phases according to Section 10.13 in the EIA Report.
- 6.3 The implementation and maintenance of landscape compensatory planting measures is a key aspect of this and shall be checked to ensure that they are fully realised and that potential conflicts between the proposed landscape measures and any other Project works and operational requirements are resolved at the earliest possible date and without compromise to the intention of the mitigation measures. In addition, implementation of the mitigation measures recommended by the EIA shall be monitored throughout the construction phase site audit programme.
- 6.4 Bi-weekly inspection of the implementation of landscape and visual mitigation measures was conducted by ET during weekly site audit. The observation and recommendations made during the audit sessions are summarised in **Table 7.1**. The implementation status is given in **Appendix K**.

7 ENVIRONMENTAL SITE INSPECTION

Site Audits

- 7.1 Site audits were carried out by ET on weekly basis to monitor the timely implementation of proper environmental management practices and mitigation measures on the Contract site.
- 7.2 Site audits were conducted by ET with the representative of the *Supervisor's* Representative and the Contractor on 8th, 15th, 22nd and 29th July 2022 in the reporting month. Joint site audits with the representative of the *Supervisor's* Representative, the Contractor and IEC were carried out on 22nd July 2022.
- 7.3 During site inspections in the reporting month, no non-conformance was identified. The observations and recommendations made during the audit sessions are summarised in **Table 7.1**.

Table 7.1 Observations and Recommendations of Site Audit

Parameters	Date	Observations	Follow Up Action
Air Quality	15/07/2022	Provide dust mitigation measures (e.g., water spraying, cover with tarpaulin sheet etc.) for the exposed slope especially at Portion D.	The idle stockpiles of dusty materials were covered by the Contractor as observed during follow-up audit session on 22/07/2022.
Construction Noise Impact	--	No environmental deficiency was identified during the reporting month.	--
Water Quality	15/07/2022	Provide dust mitigation measures (e.g., water spraying, cover with tarpaulin sheet etc.) for the exposed slope especially at Portion D.	The idle stockpiles of dusty materials were covered by the Contractor as observed during follow-up audit session on 22/07/2022.
Waste/ Chemical Management	08/07/2022	Properly clear the rubbish under the bridge at Abutement A.	The rubbish was properly cleared by the Contractor as observed during follow-up audit session on 15/07/2022.
Landscape and Visual	22/07/2022	The construction materials within the tree protection zone should be cleared and protection fence should be erected properly at Feature A.	The protection fence was properly erected and construction materials within the tree protection zone were removed by the Contractor as observed during follow-up audit session on 29/07/2022.
Ecology	--	No environmental deficiency was identified during the reporting month.	--
Permit/Licences	--	No environmental deficiency was identified during the reporting month.	--

Implementation Status of Environmental Mitigation Measures

- 7.4 According to the EIA Report, Environmental Permit and the EM&A Manual of the Project, the mitigation measures detailed in the documents are recommended to be implemented during the construction phase. An updated summary of the Environmental Mitigation Implementation Schedule (EMIS) is provided in **Appendix K**.
- 7.5 During site inspections in the reporting month, the Contractor's readiness with the mitigation measures during rainy season against site run-off was found generally satisfactory despite some observations/recommendations as detailed above were raised. The mitigation measures

implemented in July 2022 are shown in the summary table in **Appendix K**.

Solid and Liquid Waste Management Status

- 7.6 In accordance with the EM&A Manual, waste management was audited during weekly site audit to determine if wastes are being managed in accordance with the Waste Management Plan (WMP) prepared for the Project and the relevant legislative and contractual requirements. Waste management practice including waste handling, storage, transportation and disposal were audited.
- 7.7 The Contractor have nominated on-site Environmental Officers to oversee the environmental management, pollution control measures, good site practices and training of site personnel in waste management. Proactive measures have been undertaken to make use of construction and demolition (C&D) materials to minimize the waste generated. On-site sorting and screening of excavated materials have been carried out to recover any recyclable portions. Inert C&D materials were used on-site for backfilling works and hard paving of haul road. In addition, inert C&D materials generated from excavation works were reused as fill materials in other local projects. The surplus inert C&D materials were disposed of at the Government's public fill reception facilities (PFRFs) for beneficial use by other projects. In order to monitor the disposal of inert and non-inert C&D materials and to control fly-tipping, every excavated materials before leaving the site are weighted by a weight bridge and Trip Ticket System is strictly followed.
- 7.8 The Contractors are advised to minimize the wastes generated through the recycling or reusing. All mitigation measures stipulated in the EM&A Manual and waste management plans shall be fully implemented. The status of implementation of waste management and reduction measures are summarised in **Appendix K**.
- 7.9 Waste generated from this Project includes inert C&D materials and non-inert C&D materials. Non-inert C&D materials are made up of general refuse and waste that cannot be reused or recycled and has to be disposed of at the designated landfill sites. The amount of wastes generated by the construction works of the Project during the reporting month is shown in **Appendix L**.

8 ENVIRONMENTAL NON-CONFORMANCE

Summary of Exceedances

- 8.1 No exceedance of Action and Limit Levels of air quality was recorded in the reporting month.
- 8.2 No exceedance of Action and Limit Levels of construction noise was recorded in the reporting month.
- 8.3 Should the monitoring results of the environmental monitoring parameters at any designated monitoring stations indicate that the Action / Limit Levels are exceeded, the actions in accordance with the Event and Action Plans in **Appendix I** be carried out. The summary of exceedance record in reporting month is shown in **Appendix J**.

Summary of Environmental Non-Compliance

- 8.4 No environmental non-compliance was recorded in the reporting month.

Summary of Environmental Complaint

- 8.5 In accordance with the EM&A Manual, Section 11.3, complaints should be referred to the ET for action. During the complaint investigation works, the ET and IEC as established according to EP Condition 2.1 and 2.6 can carry out *Ad-hoc* site inspections to identify the source of the complaint, review the effectiveness of the Contractor's remedial measures and the updated situation once received the complaint. In addition, additional monitoring and audit can also be arranged immediately to verify the situation if necessary. ET and IEC will also oversee the circumstances that leading to the complaint do not recur. Moreover, ET and IEC can cooperate efficiently with the Contractor and *Supervisor* on site for completion of the investigation.
- 8.6 There was no environmental complaint received in the reporting month. The Cumulative Complaint Log since the commencement of the Project is presented in **Appendix M**.

Summary of Environmental Summon and Successful Prosecution

- 8.7 There was no successful environmental prosecution or notification of summons received since the Project commencement. The Cumulative Log for environmental summon and successful prosecution since the commencement of the Project is presented in **Appendix N**.

9 FUTURE KEY ISSUES

Key Issues in the Coming Three Months

- 9.1 The tentative construction programme for the Project is provided in **Appendix A**. The major construction activities undertaken in the coming three months will include:
- Site Formation at Portion D
 - Retaining Wall Construction
 - Backfilling for Stormwater Storage Tank & Underpass
 - Slope Upgrading Works
 - Road & Associated Works
 - Sewerage Trenchless Works
 - Drainage & Watermain Trenchless works
 - Bridge & Associated Works
 - Tree Felling Works
- 9.2 With reference to the site layout plan including the indication of coming three months construction site activities in **Appendix A**, potential environmental impacts arising from the above construction activities are mainly associated with construction dust, noise, water quality, waste management, landscape and visual and ecology. The foreseeable environmental impacts were taken into consideration of the planned mitigation measures in the coming months.
- 9.3 The mitigation measures to be implemented for the coming three months were proposed by the Contractor and reviewed by ET, IEC and the *Supervisor* through Email, during site audit and SSMC meeting. The Proactive Environmental Protection Proforma summarizing the major site activities, potential environmental impacts and recommended mitigation measures was reviewed and endorsed by the *Supervisor*, ET and IEC and was shown in **Appendix A**.
- 9.4 Dust can be generated during construction works and exposed site area during the summer months. To prevent high dust concentrations during the summer months, the Contractor should pay attention on the air quality mitigation measures as far as practicable to minimise the dust impact to the villages which are located adjacent to the Project works (refer to the layout plan in **Appendix A**). The Contractor was also reminded to follow the Project Implementation Schedule in approved EIA report / EM&A Manual to implement appropriate dust control measure including “Use of regular water spraying (once every 1.25 hours or 8 times per day) to reduce dust emissions from heavy construction activities (including ground excavation, earth moving, etc.) at all active works area exposed site surfaces and unpaved roads, particularly during dry weather and covering 80% of stockpiling area by impervious sheets and spraying all dusty material with water immediately prior to any loading transfer operations to keep the dusty materials wet during material handling at the stockpile areas” as well as the relevant dust control practices as stipulated in the Air Pollution Control (Construction Dust) Regulation so that no adverse dust impact arising from the Project works site.
- 9.5 The Contractor is also recommended to arrange and maintain water quality mitigation measures during wet season (i.e. April to September). The dikes or embankments for flood protection should be implemented around the boundaries of earthwork areas. Temporary ditches should be provided to facilitate the runoff discharge into an appropriate watercourse,

through a site/sediment trap. The sediment/silt traps should be incorporated in the permanent drainage channels to enhance deposition rates. Efficient silt removal facilities shall deploy to ensure all treated effluent from wastewater treatment plant shall meet the requirements as stated in WPCO licences. The site drainage plan shall also be updated based on the site condition and construction programme.

- 9.6 In addition, construction noise is also one of the key environmental issues during construction of the Project. Noise mitigation measures such as using quiet plants and noise barriers should be in place, where applicable. In addition, the Contractor was reminded to frequently check and maintain the acoustic materials wrapped on noisy part of PME and ensure no gaps between noise barriers; proactively identify any potential construction noise impact to NSRs and provide sufficient mitigation measures if necessary; and provide notification to nearby villagers in Kong Nga Po for potential noisy works at works area.
- 9.7 Moreover, the tree protection zone for the existing *Keteleeria fortunei* and *Aquilaria sinensis* shall be properly maintained during the Kong Nga Po Road upgrading works in close proximity of the plant species of conservation importance according to the approved “Explanatory Statement for Revised Layout Plan of Kong Nga Po Road (Final)”.
- 9.8 All other mitigation measures recommended in the Project Implementation Schedule in the approved EIA report / EM&A Manual should be properly implemented and maintained as far as practicable.

Monitoring Schedule for the Next Month

- 9.9 The tentative environmental monitoring schedule for the next month is shown in **Appendix D**.

10 CONCLUSIONS AND RECOMMENDATIONS

Conclusions

- 10.1 This Monthly EM&A Report presents the EM&A work undertaken in July 2022 in accordance with EM&A Manual.
- 10.2 No Action/Limit Level exceedance was recorded for air quality monitoring in the reporting month.
- 10.3 No Action/Limit Level exceedance was recorded for construction noise monitoring in the reporting month.
- 10.4 Environmental site inspections were conducted on 8th, 15th, 22nd and 29th July 2022 by ET in the reporting month. No environmental non-compliance was recorded in the reporting month.
- 10.5 No environmental complaint, notification of summons or successful prosecutions was received in the reporting month.
- 10.6 The ET would keep track on the EM&A programme to ensure compliance of environmental requirements and the proper implementation of all necessary mitigation measures.

Recommendations

- 10.7 According to the environmental audits performed in the reporting month, the following recommendations were made:

Air Quality Impact

- To cover stockpile of dusty materials and exposed slope for dust suppression;
- To enhance the dust suppression measures including watering for the dust generation works, exposed site area and haul road;
- To regular check the valid NRMM labels are properly displayed on the regulated machines and non-road vehicles; and
- To provide the 3 sides enclosure with top shelter for dusty generation works.

Construction Noise

- To keep inspect the noise sources inside the site;
- To keep space out noisy equipment and position the equipment as far away as possible from sensitive receivers; and
- To maintain temporary noise barriers for operations of noisy equipment near the noise sensitive receivers, if necessary.

Water Impact

- To cover open stockpile of and exposed slope especially during rainy days;
- To keep reviewing and updating temporary drainage system;
- To provide earth bunds or sand bag barriers on site to direct stormwater to silt removal facilities;
- To maintain and ensure the silt removal facilities are functioning properly;

- An adequately designed and sited wheel washing facilities should be provided at every construction site exit where practicable; and
- To prevent wheel washing water from entering to the public road.

Waste/Chemical Management

- To check for any accumulation of waste materials or rubbish on site;
- To avoid any discharge or accidental spillage of chemical waste or oil directly from the site;
- To maintain the drip tray well to prevent oil and chemical leakage; and
- To avoid improper handling, storage and dispose of oil drums or chemical containers on site.

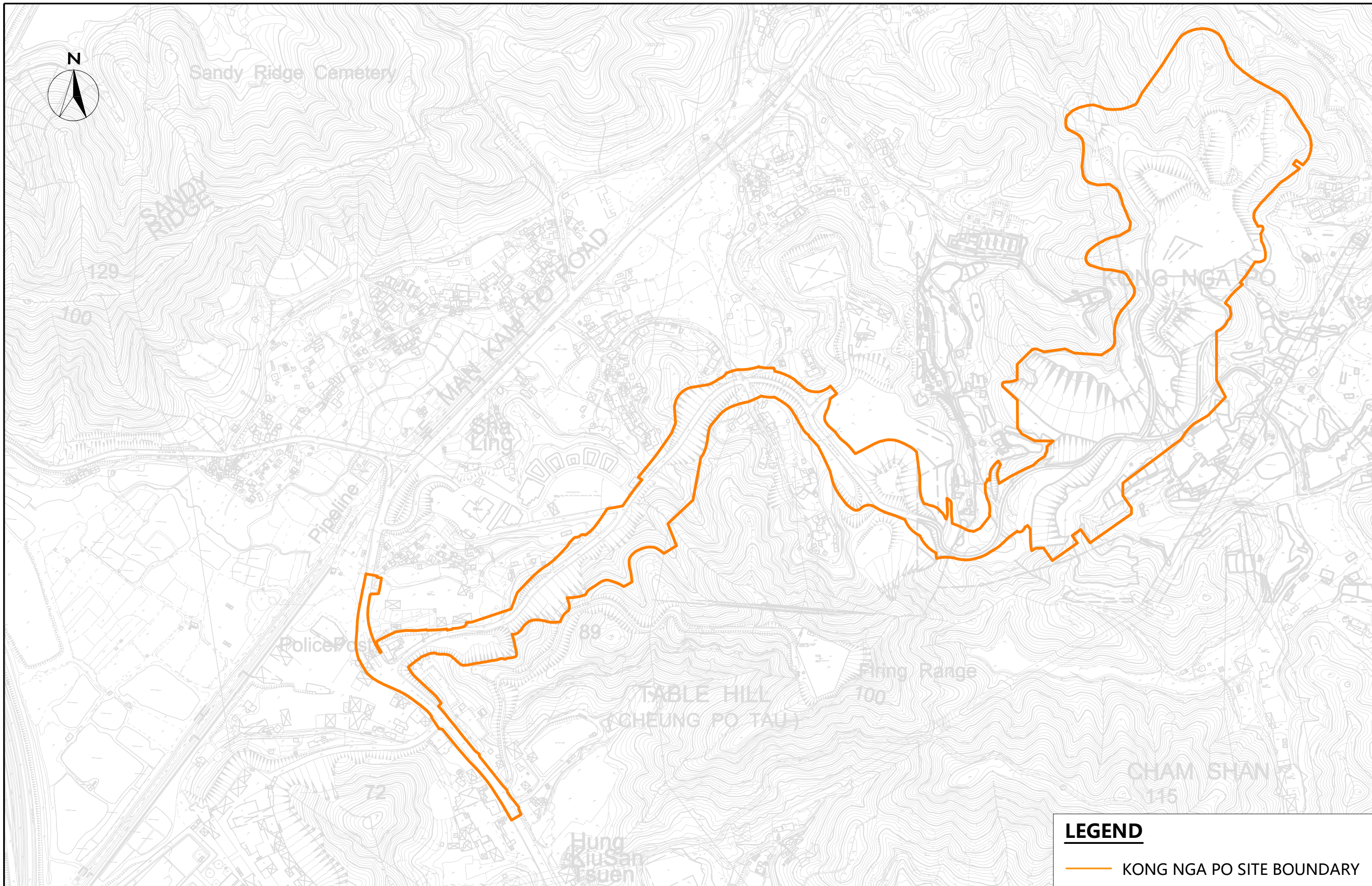
Ecology

- To erect and maintain the protection fence around the retained trees;
- To keep the tree protection zone large enough to protect the trees; and
- To keep close monitoring of conservation species and avoid dead/ detached branches.

Landscape and Visual

- To erect and maintain the protection fencing and tree protection zone around the preserved trees.

FIGURE(S)

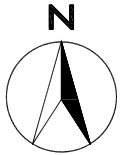


LEGEND			
—		KONG NGA PO SITE BOUNDARY	

Service Contract No. NDO 07/2019 Environmental Team for Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po
 Site Layout Plan



SCALE	A3 @1:40000	DATE	MAY 2020
CHECK	IT	DRAWN	KIKI
JDB No.	WMA20001	FIGURE No.	1
		REV	—

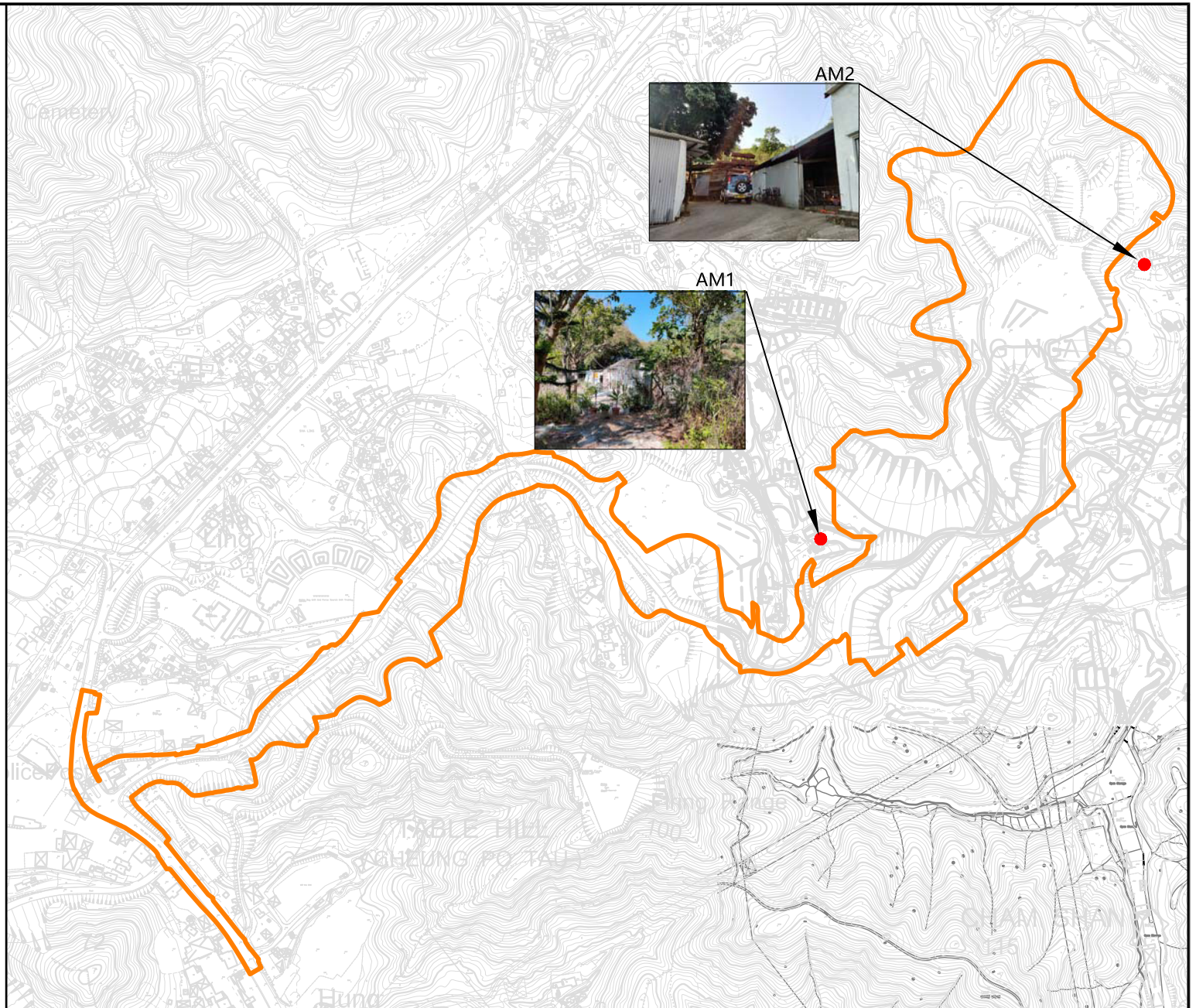


LEGEND

 SITE BOUNDARY

 AIR QUALITY MONITORING STATIONS

AIR QUALITY MONITORING STATIONS	
I.D	Description
AM1	Village House, Kong Nga Po
AM2	Village House, Kong Nga Po





Service Contract No. NDO 07/2019
Environmental Team for Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po

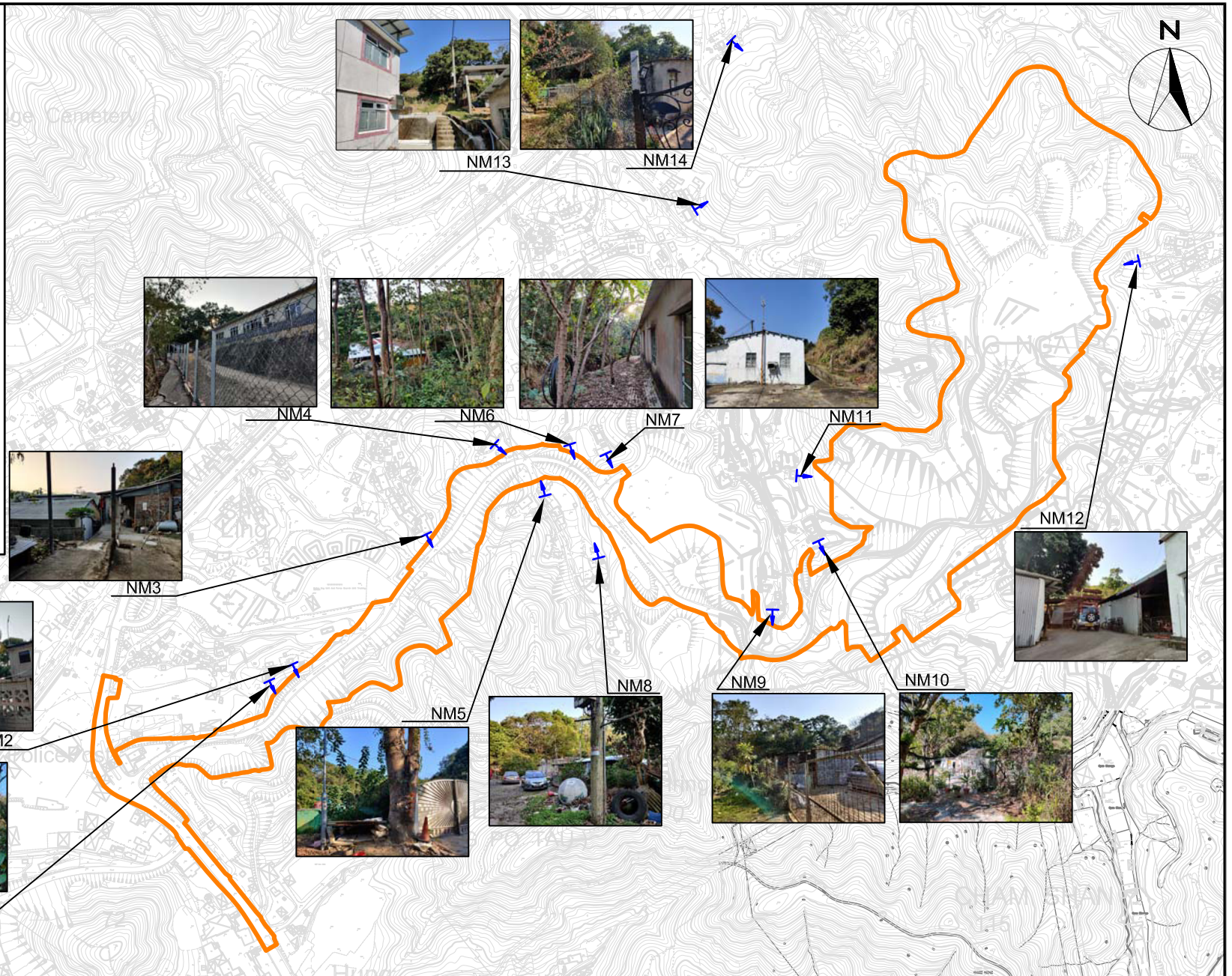
Air Quality Monitoring Stations

SCALE	A4 @ 1:50000	DATE	JUL 2020	
CHECK	IT	DRAWN	NL	
JOB No.	WMA20001	FIGURE NO.	2	REV —

LEGEND

-  SITE BOUNDARY
-  NOISE MONITORING STATIONS

NOISE MONITORING STATIONS	
I.D	Description
NM1	Village House, Sha Ling
NM2	Village House, Sha Ling
NM3	Village House No. 248, Sha Ling
NM4	Village House, Sha Ling
NM5	Village House No. 270, Sha Ling
NM6	Village House, Sha Ling
NM7	Village House, Sha Ling
NM8	Village House, Sha Ling
NM9	Village House, Kong Nga Po
NM10	Village House, Kong Nga Po
NM11	Village House, Kong Nga Po
NM12	Village House, Kong Nga Po
NM13	Village House, Kong Nga Po
NM14	Village House, near Man Kam To Road



Service Contract No. NDO 07/2019
 Environmental Team for Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po
Noise Monitoring Stations

SCALE	A4 @ 1:50000	DATE	JUL 2020	
CHECK	IT	DRAWN	NL	
JOB No.	WMA20001	FIGURE NO.	3	REV —

**APPENDIX A
CONSTRUCTION PROGRAMME AND
PROACTIVE ENVIRONMENTAL
PROTECTION PROFORMA**

Activity ID	Activity Name	Original Duration	Actual Duration	Total Float	Start	Finish	Predecessors	Successors	2022																
									July				August				September				October				
									03	10	17	24	31	07	14	21	28	04	11	18	25	02	09	16	23
Monthly Update (31 Jul 2022)		1015	791	308	27-Nov-19A	24-Jul-23																			
Dates		0	0	-24	31-Jul-22	31-Jul-22			<ul style="list-style-type: none"> 31-Jul-22, Dates 																
Key Dates (CD1-3)		0	0	-61	31-Jul-22	31-Jul-22			<ul style="list-style-type: none"> 31-Jul-22, Key Dates (CD1-3) KD1 (915 days after Starting Date), Portion B, B1 and B2 KD2 (915 days after Starting Date), Portion A, A1, B, B1 and B2 																
KD1	KD1 (915 days after Starting Date), Portion B, B1 and B2	0	0	-61		31-Jul-22*																			
KD2	KD2 (915 days after Starting Date), Portion A, A1, B, B1 and B2	0	0	-61		31-Jul-22*																			
Section Completion (Wf-10.1 & CD1-X5)		0	0	-246	31-Jul-22	31-Jul-22			<ul style="list-style-type: none"> 31-Jul-22, Section Completion (Wf-10.1 & CD1-X5) Completion of Section 3 (730 days after Starting Date), Works in Portion D and D1 (26 Nov 2021) 																
S3	Completion of Section 3 (730 days after Starting Date), Works in Portion D and D1 (26 Nov 2021)	0	0	-246		31-Jul-22*																			
Revised Completion Date		0	0	-24	31-Jul-22	31-Jul-22			<ul style="list-style-type: none"> 31-Jul-22, Revised Completion Date Revised Completion of Key Date KD1 Revised Completion of Key Date KD2 Revised Completion of Section 3 (22 Dec 2021) 																
RC.KD1	Revised Completion of Key Date KD1	0	0	-24		31-Jul-22*	PC.KD1																		
RC.KD2	Revised Completion of Key Date KD2	0	0	-24		31-Jul-22*	PC.KD2																		
RC.S3	Revised Completion of Section 3 (22 Dec 2021)	0	0	-220		31-Jul-22*	PC.S3, PWC-1050																		
Contract Submission		90	547	715	30-Jan-21 A	08-Aug-22			<ul style="list-style-type: none"> 08-Aug-22, Contract Submission 																
General Submission		90	547	715	30-Jan-21 A	08-Aug-22			<ul style="list-style-type: none"> 08-Aug-22, General Submission 																
GS-1750	Design of Road Lighting System [PS-31.1]	90	547	715	30-Jan-21 A	08-Aug-22	S3.GS-1700		<ul style="list-style-type: none"> Design of Road Lighting System [PS-31.1] 																
Works in KD1 and KD2 (Portion A, A1, B, B1, & B2)		766	720	454	25-Feb-20 A	25-Jan-23																			
Key Event		58	0	-107	24-Aug-22	21-Oct-22			<ul style="list-style-type: none"> 21-Oct-22, Key Event 																
KD.KE-1050	Completion of Retaining Walls	0	0	-49		24-Aug-22	KD.B.RD-0000, KD.DS-1150, KD.MS-1150, KD.PW-1850, KD.SDR.FD-1050, KD.SDR.FT-1400, KD.B.GH-1550, KD.SDR.FD-1000, KD.B.RD.R-1350, KD.GM-1200, KD.B.RD.R-1050.105, KD.B.RD.R-1050.420	KD.KE-1200		<ul style="list-style-type: none"> Completion of Retaining Walls 															
KD.KE-1350	Completion of Watermains at Man Kam To Road	0	0	-70		14-Sep-22	KD.A.RD-2450, KD.A.RD-2950	KD.KE-1200		<ul style="list-style-type: none"> Completion of Watermains at Man Kam To Road 															
KD.KE-1400	Completion of Drainage at Man Kam To Road	0	0	-107		21-Oct-22	KD.A.RD-1750.240, KD.A.RD-1770.170	KD.KE-1200		<ul style="list-style-type: none"> Completion of Drainage at Man Kam To Road 															
Submissions and Approvals		30	720	-89	25-Feb-20 A	02-Aug-22			<ul style="list-style-type: none"> 02-Aug-22, Submissions and Approvals 																
Acceptance of Subcontractors and Suppliers		30	720	-89	25-Feb-20 A	02-Aug-22			<ul style="list-style-type: none"> 02-Aug-22, Acceptance of Subcontractors and Suppliers 																
KD.AS-1700	Interface between CV/2017/02 and ND/2018/01	30	720	-89	25-Feb-20 A	02-Aug-22		KD.AS-1600		<ul style="list-style-type: none"> Interface between CV/2017/02 and ND/2018/01 															
Preliminary Works		50	622	-145	26-Jun-20 A	03-Aug-22			<ul style="list-style-type: none"> 03-Aug-22, Preliminary Works 																
KD.PW-1150	Site Clearance	50	622	-145	26-Jun-20 A	03-Aug-22	CS-1650, AS-1100	KD.B.RD-0000		<ul style="list-style-type: none"> Site Clearance 															
KD.B.RD-1100	Tree Felling Works	7	622	-144	26-Jun-20 A	02-Aug-22	KD.B.RD-1050	KD.B.RD-0000		<ul style="list-style-type: none"> Tree Felling Works 															
Portion A and A1		141	85	520	15-Apr-22 A	02-Nov-22																			
Road, Drain and Utilities Works		141	85	520	15-Apr-22 A	02-Nov-22																			
Watermains by Trenchless Method		36	0	-59	03-Aug-22	14-Sep-22			<ul style="list-style-type: none"> 14-Sep-22, Watermains by Trenchless Method 																
Watermains by Open Cut Method		36	0	-59	03-Aug-22	14-Sep-22			<ul style="list-style-type: none"> 14-Sep-22, Watermains by Open Cut Method 																
KD.A.RD-2850	Hydrostatic Test for 400mm Watermains	14	0	-59	03-Aug-22	18-Aug-22	KD.A.RD-3000	KD.A.RD-2900, KD.A.RD-2950		<ul style="list-style-type: none"> Hydrostatic Test for 400mm Watermains 															
KD.A.RD-2950	Sterilization and Connection to DN400 Gate Valve Provided by CV/2017/02	22	0	-59	19-Aug-22	14-Sep-22	KD.A.RD-2900, KD.A.RD-1600, KD.A.RD-1550, KD.A.RD-2850	KD.A.RD-2450, KD.KE-1350		<ul style="list-style-type: none"> Sterilization and Connection to DN400 Gate Valve Provided by CV/2017/02 															
Drainage by Trenchless Method		131	85	-89	15-Apr-22 A	21-Oct-22			<ul style="list-style-type: none"> 21-Oct-22, Drainage by Trenchless Method 																
Receiving Pit Construction and Modification		131	85	-89	15-Apr-22 A	21-Oct-22			<ul style="list-style-type: none"> 21-Oct-22, Receiving Pit Construction and Modification 																
KD.A.RD-1770.90	Trenchless Excavation for Drain Pipe (S2214-S2215)	31	85	-89	15-Apr-22 A	15-Sep-22	KD.A.RD-1770.100	KD.A.RD-1770.110, KD.A.RD-1770.120		<ul style="list-style-type: none"> Trenchless Excavation for Drain Pipe (S2214-S2215) 															
KD.A.RD-1770.110	Manhole S2214 Construction	11	0	-86	16-Sep-22	28-Sep-22	KD.A.RD-1770.90	KD.A.RD-1770.160		<ul style="list-style-type: none"> Manhole S2214 Construction 															

█ Remaining Level of Effort
 █ Remaining Work
 ◆ Milestone
 █ Actual Work
 █ Critical Remaining Work
 █ Summary



Activity ID	Activity Name	Original Duration	Actual Duration	Total Float	Start	Finish	Predecessors	Successors	2022															
									July				August				September				October			
									03	10	17	24	31	07	14	21	28	04	11	18	25	02	09	16
KD.B.RD.R-2100.25	Backfilling with Coarse Materials	3	0	-74	05-Sep-22	07-Sep-22	KD.B.RD.R-2100.20	KD.B.RD.R-2100.75																
KD.B.RD.R-2100.75	Road Works (CH175 - 280 WB)	6	0	-74	08-Sep-22	15-Sep-22	KD.B.RD.R-2100.25	KD.B.RD.R-2100.85																
KD.B.RD.R-2100.85	3rd Lane shift for Road works	1	0	-74	16-Sep-22	16-Sep-22	KD.B.RD.R-2100.75	KD.B.RD.R-2100.95																
KD.B.RD.R-2100.95	Road Works (CH120 - 280 EB)	12	0	-74	17-Sep-22	30-Sep-22	KD.B.RD.R-2100.85	KD.B.RD.R-2100.95																
Road and Drain CH250 - CH320		83	40	-118	14-Jun-22A	23-Nov-22																		
KD.B.RD.R-2150.60	Excavation and Lateral Support	16	40	-118	14-Jun-22A	17-Sep-22	KD.B.RD.R-1750.25, KD.B.RD.R-2100.65	KD.B.RD.R-2150.10, KD.B.RD.R-2150.15																
KD.B.RD.R-2150.10	Drainage S2203 to S2205 Construction	12	34	-118	21-Jun-22A	03-Oct-22	KD.B.RD.R-2150.60	KD.B.RD.R-2150.65																
KD.B.RD.R-2150.15	Sewerage KNP127 to KNP128 Construction	12	22	-118	06-Jul-22A	03-Oct-22	KD.B.RD.R-2150.60	KD.B.RD.R-2150.65																
KD.B.RD.R-2150.65	Backfill with Coarse Materials	6	0	-118	05-Oct-22	11-Oct-22	KD.B.RD.R-2150.15, KD.B.RD.R-2150.10	KD.B.RD.R-2150.20, S1.B.SL-1100																
KD.B.RD.R-2150.20	Watermains Construction	6	0	-118	12-Oct-22	18-Oct-22	KD.B.RD.R-2150.65	KD.B.RD.R-2150.25																
KD.B.RD.R-2150.25	Backfill with Coarse Materials	3	0	-118	19-Oct-22	21-Oct-22	KD.B.RD.R-2150.20	KD.B.RD.R-2150.75																
KD.B.RD.R-2150.75	Road Works	28	0	-118	22-Oct-22	23-Nov-22	KD.B.RD.R-2150.25	KD.B.RD.R-2150.75																
CH0+310 - CH0+600		170	40	454	14-Jun-22A	25-Jan-23																		
TTA Required		170	40	454	14-Jun-22A	25-Jan-23																		
Retaining Wall RD-A		141	0	32	04-Aug-22	25-Jan-23																		
KD.B.RD.R-1400.180	Backfill with Coarse Materials	6	0	-145	04-Aug-22	10-Aug-22	KD.B.RD.R-1400.105, KD.B.RD.R-1400.175	KD.B.RD.R-1400.185, KD.B.RD.R-1400.300																
KD.B.RD.R-1400.185	Sheet Piles Removal	6	0	-145	11-Aug-22	17-Aug-22	KD.B.RD.R-1400.180	KD.B.RD.R-1400.190																
KD.B.RD.R-1400.300	Slope Drain and Wire Mesh for Slope Surface for (3NW-C/47)	60	0	32	11-Aug-22	22-Oct-22	KD.B.RD.R-1400.180	S2.KE-1200, KD.B.RD.R-1400.310																
KD.B.RD.R-1400.190	Utilities Laying and Backfilling	12	0	-145	18-Aug-22	31-Aug-22	KD.B.RD.R-1400.185	KD.B.RD.R-1400.195																
KD.B.RD.R-1400.195	Road Works	6	0	-145	01-Sep-22	07-Sep-22	KD.B.RD.R-1400.190	KD.B.RD.R-1400.200																
KD.B.RD.R-1400.200	Temporary Road Formation	6	0	-145	08-Sep-22	15-Sep-22	KD.B.RD.R-1400.195	KD.B.RD.R-1750.25, KD.B.RD.R-2150.10																
KD.B.RD.R-1400.310	Slope Drain and Wire Mesh for Slope Surface for (3NW-C/F79)	75	0	32	24-Oct-22	25-Jan-23	KD.B.RD.R-1400.300	S2.KE-1200																
Road and Drain CH320 - CH420		85	40	539	14-Jun-22A	11-Oct-22																		
KD.B.RD.R-1500.15	Drainage S2201 to S2202 Construction	12	40	-56	14-Jun-22A	06-Aug-22		KD.B.RD.R-1500.20, KD.B.RD.R-1500.70, KD.B.RD.R-1500.135																
KD.B.RD.R-1500.60	Pre-Boring for KNP126	14	0	-81	01-Aug-22	16-Aug-22		KD.B.RD.R-1500.10																
KD.B.RD.R-1500.70	Backfilling with Coarse Materials	6	0	-49	08-Aug-22	13-Aug-22	KD.B.RD.R-1500.15	KD.B.RD.R-1500.25																
KD.B.RD.R-1500.135	Lane shift	1	0	-56	08-Aug-22	08-Aug-22	KD.B.RD.R-1500.15	KD.B.RD.R-1500.20																
KD.B.RD.R-1500.10	Receiving Pit at KNP126 Construction	12	0	-81	17-Aug-22	30-Aug-22	KD.B.RD.R-1500.60	KD.B.RD.R-1080.10, KD.B.RD.R-1500.12																
KD.B.RD.R-1500.12	Sewerage Trenchless KNP125 to KNP126	27	0	-80	17-Aug-22	17-Sep-22	KD.B.RD.R-1500.10, KD.B.RD.R-1080.60																	
KD.B.RD.R-1500.20	Sewerage KNP 126 to KNP127 Construction	12	0	-81	07-Sep-22	21-Sep-22	KD.B.RD.R-1500.15, KD.B.RD.R-1080.10, KD.B.RD.R-1500.135	KD.B.RD.R-1500.25																
KD.B.RD.R-1500.110	Excavation and Lateral Support	18	0	541	16-Sep-22	08-Oct-22	KD.B.RD.R-1750.25																	
KD.B.RD.R-1500.25	Watermains Construction	6	0	-81	22-Sep-22	28-Sep-22	KD.B.RD.R-1500.20, KD.B.RD.R-1500.70	KD.B.RD.R-1500.125																
KD.B.RD.R-1500.125	Backfilling with Coarse Materials	3	0	-81	29-Sep-22	03-Oct-22	KD.B.RD.R-1500.25	KD.B.RD.R-1500.75																
KD.B.RD.R-1500.75	Road Works	6	0	-81	05-Oct-22	11-Oct-22	KD.B.RD.R-1500.125	KD.B.RD.R-1500.125																
Road and Drain CH390 - CH430 (near Jacking Pit)		36	0	-129	04-Aug-22	15-Sep-22																		
KD.B.RD.R-1750.10	Drainage Manholes S2002 - S2004	18	0	-129	04-Aug-22	24-Aug-22	KD.B.RD.R-1400.105	KD.B.RD.R-1750.15																
KD.B.RD.R-1750.15	Utilities Laying and Backfilling	12	0	-129	25-Aug-22	07-Sep-22	KD.B.RD.R-1750.10	KD.B.RD.R-1750.20																
KD.B.RD.R-1750.20	Temporary Road Formation	6	0	-129	08-Sep-22	15-Sep-22	KD.B.RD.R-1750.15	KD.B.RD.R-1750.25																
KD.B.RD.R-1750.25	Temporary Road Diversion	0	0	-129	15-Sep-22	15-Sep-22	KD.B.RD.R-1750.20, KD.B.RD.R-1400.200	S1.B.SL-1100, KD.B.RD.R-2150.60																
Road and Drain CH430 - CH470L (PDU)		45	0	-129	16-Sep-22	09-Nov-22																		
KD.B.RD.R-1600.60	Excavation and Lateral Support	16	0	-129	16-Sep-22	06-Oct-22	KD.B.RD.R-1750.25	KD.B.RD.R-1600.10																
KD.B.RD.R-1600.10	Drainage S2001 to S2002 Construction	22	0	-129	30-Sep-22	27-Oct-22	KD.B.RD.R-1600.60	KD.B.RD.R-1600.15																
KD.B.RD.R-1600.15	Backfilling with Coarse Materials	16	0	-129	22-Oct-22	09-Nov-22	KD.B.RD.R-1600.10	KD.B.RD.R-1600.20																
Road and Drain CH420 - CH500R		20	0	-50	10-Aug-22	01-Sep-22																		
KD.B.RD.R-1650.10	Watermains Construction	8	0	-50	10-Aug-22	18-Aug-22	KD.B.RD.R-1700.10	KD.B.RD.R-1650.15																

 Remaining Level of Effort	 Remaining Work	 Milestone
 Actual Work	 Critical Remaining Work	 Summary



Activity ID	Activity Name	Original Duration	Actual Duration	Total Float	Start	Finish	Predecessors	Successors	2022															
									July				August				September				October			
									03	10	17	24	31	07	14	21	28	04	11	18	25	02	09	16
Bay 1 - 2									04-Aug-22, Bay 1 - 2															
KD.B.RD.R-1050.35	Backfilling with Coarse Materials	4	54	594	27-May-22A	04-Aug-22			Backfilling with Coarse Materials															
Sewerage and Utilities									24-Aug-22, Sewerage and Utilities															
KD.B.RD.R-1050.90	Sewerage KNP114 to KNP115 Construction	12	17	-127	12-Jul-22A	06-Aug-22	KD.B.RD.R-1050.87	KD.B.RD.R-1050.95, KD.B.RD.R-1800.110	Sewerage KNP114 to KNP115 Construction															
KD.B.RD.R-1050.95	Utilities Laying and Backfilling	12	0	-127	01-Aug-22	13-Aug-22	KD.B.RD.R-1050.90	KD.B.RD.R-1050.100	Utilities Laying and Backfilling															
KD.B.RD.R-1800.110	Sewerage KNP115 - KNP116	15	0	-124	01-Aug-22	17-Aug-22	KD.B.RD.R-1050.90	KD.B.RD.R-1800.45, KD.B.RD.R-1800.45, KD.B.RD.R-1050.430	Sewerage KNP115 - KNP116															
KD.B.RD.R-1050.100	Sheet Piles Removal	6	0	-127	15-Aug-22	20-Aug-22	KD.B.RD.R-1050.95	KD.B.RD.R-1050.105	Sheet Piles Removal															
KD.B.RD.R-1050.430	Road Works	2	0	-127	22-Aug-22	23-Aug-22	KD.B.RD.R-1050.100, KD.B.RD.R-1800.110	KD.B.RD.R-1050.105	Road Works															
KD.B.RD.R-1050.105	Release Two lanes at RDB	1	0	-127	24-Aug-22	24-Aug-22	KD.B.RD.R-1050.430	S1.B.SL-1150, KD.KE-1050	Release Two lanes at RDB															
Road and Drain CH890 - CH920L (OPII)									19-Oct-22, Road															
KD.B.RD.R-2250.15	Sewerage KNP111 to KNP112A	12	194	-115	01-Dec-21 A	23-Aug-22	KD.B.RD.R-2250.10	KD.B.RD.R-2250.19, KD.B.RD.R-2250.15	Sewerage KNP111 to KNP112A															
KD.B.RD.R-2250.10	Excavation and Lateral Support Works	12	192	-115	03-Dec-21 A	13-Aug-22			Excavation and Lateral Support Works															
KD.B.RD.R-2250.19	Temp road pavement	12	0	-115	23-Aug-22	06-Sep-22	KD.B.RD.R-2250.15	KD.B.RD.R-2250.18	Temp road pavement															
KD.B.RD.R-2250.18	1st Lane shift	1	0	-115	06-Sep-22	07-Sep-22	KD.B.RD.R-2250.19	KD.B.RD.R-2250.20	1st Lane shift															
KD.B.RD.R-2250.20	Backfill with Rock Fill	6	0	-115	07-Sep-22	15-Sep-22	KD.B.RD.R-2250.18	KD.B.RD.R-2250.30	Backfill with Rock Fill															
KD.B.RD.R-2250.30	Utilities Laying and Backfilling after lane shift	30	0	-115	15-Sep-22	22-Oct-22	KD.B.RD.R-2250.20	KD.B.RD.R-2250.35	Utilities Laying and Backfilling after lane shift															
KD.B.RD.R-2250.35	Road Works	25	0	-115	22-Oct-22	21-Nov-22	KD.B.RD.R-2250.30	KD.KE-1150	Road Works															
Road and Drain CH780 - CH920R									19-Oct-22, Road															
KD.B.RD.R-2200.10	Sheet Piles for S1807	7	32	-100	23-Jun-22A	27-Aug-22	S1.B.SL-1050, KD.B.RD.R-1050.105	KD.B.RD.R-2200.12	Sheet Piles for S1807															
KD.B.RD.R-2200.15	Excavation and Lateral Support	25	32	-110	23-Jun-22A	23-Sep-22	S1.B.SL-1050, KD.B.RD.R-1050.105	KD.B.RD.R-2200.20	Excavation and Lateral Support															
KD.B.RD.R-2200.12	Excavation for S1807	8	32	-100	23-Jun-22A	06-Sep-22	KD.B.RD.R-2200.10	KD.B.RD.R-2200.14	Excavation for S1807															
KD.B.RD.R-2200.14	Pipe Jacking S1809 to S1811	18	0	-100	27-Aug-22	17-Sep-22	KD.B.RD.R-2200.12	KD.B.RD.R-2200.16	Pipe Jacking S1809 to S1811															
KD.B.RD.R-2200.16	Drainage S1809 to S1811	9	0	-100	13-Sep-22	22-Sep-22	KD.B.RD.R-2200.14	KD.B.RD.R-2200.40	Drainage S1809 to S1811															
KD.B.RD.R-2200.20	Drainage S1807 to S1809	9	0	-110	24-Sep-22	06-Oct-22	KD.B.RD.R-2200.15	KD.B.RD.R-2200.40	Drainage S1807 to S1809															
KD.B.RD.R-2200.40	Backfilling with Coarse Materials	6	0	-110	03-Oct-22	10-Oct-22	KD.B.RD.R-2200.20, KD.B.RD.R-2200.16	KD.B.RD.R-2200.25	Backfilling with Coarse Materials															
KD.B.RD.R-2200.25	Watermains Construction	10	0	-110	05-Oct-22	15-Oct-22	KD.B.RD.R-2200.40	KD.B.RD.R-2200.30	Watermains Construction															
KD.B.RD.R-2200.30	Backfill with Coarse Materials	6	0	-110	13-Oct-22	19-Oct-22	KD.B.RD.R-2200.25	KD.B.RD.R-2200.35	Backfill with Coarse Materials															
Section 1 (Portions A, A1, B, B1 and B2)																								
Portion B, B1 and B2																								
Site Formation and Slope Works																								
S1.B.SL-1000	Fill Slope near 3NW-C/67	30	34	-74	21-Jun-22A	11-Aug-22	KD.B.RD-0000	S1.KE-1300, KD.B.RD.V-1480	Fill Slope near 3NW-C/67															
S1.B.SL-1150	Slope Upgrading Works for Feature 3NW-C/F17	120	0	4	25-Aug-22	18-Jan-23	KD.B.RD.R-1050.105	S1.KE-1300, S1.B.LD-1450	Slope Upgrading Works for Feature 3NW-C/F17															
S1.B.SL-1060	Surface Drain near Feature 3NW-C/C79	12	0	131	08-Sep-22	22-Sep-22	KD.B.RD.R-1350.10	S1.KE-1300	Surface Drain near Feature 3NW-C/C79															
S1.B.SL-1100	Fill Slope near 3NW-C/F21	150	0	-48	16-Sep-22	18-Mar-23	KD.SDR.FF-1450, KD.B.GH-1550, KD.DS-1150, KD.MS-1150, KD.SDR.FD-1000, KD.B.RD.R-1350, KD.GM-1200, KD.B.RD.R-1350.05	S1.KE-1300, S1.B.LD-1200	Fill Slope near 3NW-C/F21															
S1.B.SL-1110	Surface Drain near Feature 3NW-C/C47	12	0	105	12-Oct-22	25-Oct-22	KD.B.RD.R-2150.65	S1.KE-1300	Surface Drain near Feature 3NW-C/C47															
3NW-C/8									09-Sep-22, 3NW-C/8															
S1.B.SL.C8-2150	Landscape Treatment on Slope	72	334	141	16-Jun-21 A	09-Sep-22	S1.B.SL.C8-2200	S1.KE-1300	Landscape Treatment on Slope															
S1.B.SL.C8-2200	U-Channel and Catchpit Construction	67	237	141	11-Oct-21 A	24-Aug-22	S1.B.SL.C8-1950	S1.KE-1300, S1.B.SL.C8-2150	U-Channel and Catchpit Construction															
3NW-C/67									22-Oct-22, 3NW-C/67															
S1.B.SL.C67-1750	U-Channel, Catchpit and Maintenance Access Construction	69	0	107	01-Aug-22	22-Oct-22	S1.B.SL.C67-1650	S1.KE-1300, S1.B.SL.C67-1850	U-Channel, Catchpit and Maintenance Access Construction															
S1.B.SL.C67-1850	Landscape Treatment on Slope	69	0	107	01-Aug-22	22-Oct-22	S1.B.SL.C67-1750	S1.KE-1300	Landscape Treatment on Slope															

█ Remaining Level of Effort
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Activity ID	Activity Name	Original Duration	Actual Duration	Total Float	Start	Finish	Predecessors	Successors	2022															
									July				August				September				October			
									03	10	17	24	31	07	14	21	28	04	11	18	25	02	09	16
3NW-C/C43		192	79	-16	26-Apr-22A	22-Mar-23																		
S1.B.SL.C43-1050	Erection of Scaffolding	44	79	-61	26-Apr-22A	19-Sep-22	S1.B.SL.C43-1700, S1.B.SL.C67-1650	S1.B.SL.C43-1150, S1.B.SL.C43-1400, S1.B.SL.C43-1450	Erection of Scaffolding															
S1.B.SL.C43-1150	Test Nails (TN1 to TN10)	40	0	-61	20-Sep-22	07-Nov-22	S1.B.SL.C43-1050	S1.B.SL.C43-1200																
S1.B.SL.C43-1400	U-Channel, Catchpit and Maintenance Access Construction (Portion I & II)	150	0	-16	20-Sep-22	22-Mar-23	S1.B.SL.C43-1050	S1.KE-1300, S1.B.SL.C43-1550																
S1.B.SL.C43-1450	U-Channel, Catchpit and Maintenance Access Construction (Portion III & IV)	83	0	-1	20-Sep-22	29-Dec-22	S1.B.SL.C43-1050	S1.KE-1300, S1.B.SL.C43-1500																
S1.B.SL.C43-1500	Landscape Treatment on Slope (Portion I & II)	135	0	-1	20-Sep-22	04-Mar-23	S1.B.SL.C43-1450	S1.KE-1300																
S1.B.SL.C43-1550	Landscape Treatment on Slope (Portion III & IV)	135	0	-1	20-Sep-22	04-Mar-23	S1.B.SL.C43-1400	S1.KE-1300																
3NW-C/C37		147	27	27	29-Jun-22A	31-Jan-23																		
S1.B.SL.C37-1700	U-Channel, Catchpit and Maintenance Access Construction	120	27	27	29-Jun-22A	31-Jan-23	S1.B.SL.C37-1650	S1.KE-1300, S1.B.SL.C37-1750																
S1.B.SL.C37-1750	Landscape Treatment on Slope	92	0	84	01-Aug-22	18-Nov-22	S1.B.SL.C37-1700	S1.KE-1300																
3NW-C/C38		168	0	8	01-Aug-22	22-Feb-23																		
S1.B.SL.C38-1850	U-Channel, Catchpit and Maintenance Access Construction	168	0	8	01-Aug-22	22-Feb-23	S1.B.SL.C38-1800	S1.KE-1300, S1.B.SL.C38-1900																
S1.B.SL.C38-1900	Landscape Treatment on Slope	145	0	31	01-Aug-22	26-Jan-23	S1.B.SL.C38-1850	S1.KE-1300																
S1.B.SL.C38-1350	Test Nail (TN3 & TN6)	14	0	-30	05-Sep-22	21-Sep-22	S1.B.SL.C38-1250, S1.B.SL.C37-1650	S1.B.SL.C38-1400	Test Nail (TN3 & TN6)															
S1.B.SL.C38-1550	Excavate 1m below Row B	10	0	-135	05-Sep-22	16-Sep-22	S1.B.SL.C37-1650	S1.B.SL.C38-1700	Excavate 1m below Row B															
S1.B.SL.C38-1700	Excavate 1m below Row A	10	0	-135	17-Sep-22	28-Sep-22	S1.B.SL.C38-1550	S1.B.SL.C38-1600, KD.B.RD.R-1150.15, KD.B.RD.R-1850.75	Excavate 1m below Row A															
S1.B.SL.C38-1400	Row C Soil Nails (61 nos. C1 to C61)	16	0	-30	22-Sep-22	12-Oct-22	S1.B.SL.C38-1350	S1.B.SL.C38-1600	Row C Soil Nails (61 nos. C1 to C61)															
S1.B.SL.C38-1600	Test Nails (TN2 & TN5)	16	0	-30	13-Oct-22	31-Oct-22	S1.B.SL.C38-1400, S1.B.SL.C38-1700	S1.B.SL.C38-1650	Test Nails (TN2 & TN5)															
Section 2 (Portions C and C1)		831	622	-57	26-Jun-20A	15-May-23																		
Key Event		0	0	209	06-Aug-22	06-Aug-22			06-Aug-22, Key Event															
S2.KE-1000	Completion of Drainage Trenchless Works	0	0	209	06-Aug-22	06-Aug-22	S2.C.TD-1250, S2.C.TD-1300	S2.KE-1300	Completion of Drainage Trenchless Works															
Preliminary Works		50	622	-212	26-Jun-20A	03-Aug-22			03-Aug-22, Preliminary Works															
S2.C.PW-1250	Site Clearance	50	622	-212	26-Jun-20A	03-Aug-22	CS-1650, AS-1100	S2.C.RD.0000, S2.C.SF-0000, S2.C.PW-1150	Site Clearance															
Ground Investigation Field Works		24	0	62	01-Aug-22	27-Aug-22			27-Aug-22, Ground Investigation Field Works															
S2.C.GH-1800	Inspection Pits for Foundation of RW RD-D	24	0	62	01-Aug-22	27-Aug-22	S2.C.GH1300	S2.SDR.FD-1100	Inspection Pits for Foundation of RW RD-D															
Road, Drain and Utilities Works		200	65	-41	14-May-22A	04-Feb-23																		
Works at Existing Verge		200	65	-41	14-May-22A	04-Feb-23																		
CH0+920 - CH1+010 (OPII to Feature A)		184	58	-41	23-May-22A	04-Feb-23																		
S2.C.RD.V-1125	Sewerage drain KNP110A-111	6	58	-41	23-May-22A	30-Aug-22	KD.B.RD.R-2250.15	S2.C.RD.V-1126	Sewerage drain KNP110A-111															
S2.C.RD.V-1127	Storm drain S1805-1806	12	0	-41	23-Aug-22	06-Sep-22	KD.B.RD.R-2250.15	S2.C.RD.V-1130	Storm drain S1805-1806															
S2.C.RD.V-1126	Sewerage drain KNP110A-110	6	0	-41	30-Aug-22	06-Sep-22	S2.C.RD.V-1125	S2.C.RD.V-1130	Sewerage drain KNP110A-110															
S2.C.RD.V-1130	Site Clearance for Slope backfill	6	0	-41	06-Sep-22	14-Sep-22	S2.C.RD.V-1126, S2.C.RD.V-1127	S2.C.RD.V-1140	Site Clearance for Slope backfill															
S2.C.RD.V-1140	Slope Backfill	115	0	-41	14-Sep-22	04-Feb-23	S2.C.RD.V-1130	S2.C.RD.V-1150																
CH1+010 - CH1+140 (near Feature A)		157	65	-108	14-May-22A	28-Dec-22																		
S2.C.RD.V-1080	Sheet Piles and ELS KNP107	45	65	-90	14-May-22A	10-Aug-22	S2.C.RD.V-1070	S2.C.RD.V-1090, S2.C.RD.V-1110	Sheet Piles and ELS KNP107															
S2.C.RD.V-1114	Manhole construction (KNP108A-106, S1703-1705)	28	37	-108	17-Jun-22A	28-Dec-22	S2.C.RD.V-1112	S2.C.RD.V-1120																
S2.C.RD.V-1060	Pipe Jacking for KNP108 - KNP108A (55m)	24	0	-108	04-Aug-22	31-Aug-22	S2.C.RD.V-1040, S2.C.RD.V-1020	S2.C.RD.V-1090	Pipe Jacking for KNP108 - KNP108A (55m)															
S2.C.RD.V-1100	Drainage S1801 - S1802 - S1803, Utilities and Road Works	30	0	-17	04-Aug-22	07-Sep-22	S2.C.RD.V-1040	S2.C.RD.V-1120	Drainage S1801 - S1802 - S1803, Utilities and Road Works															

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Activity ID	Activity Name	Original Duration	Actual Duration	Total Float	Start	Finish	Predecessors	Successors	2022															
									July				August				September				October			
									03	10	17	24	31	07	14	21	28	04	11	18	25	02	09	16
S2.C.RD.V-1110	Drainage S1702 - S1703, Utilities and Road Works	20	0	-13	11-Aug-22	02-Sep-22	S2.C.RD.V-1080	S2.C.RD.V-1120	Drainage S1702 - S1703, Utilities and Road Works															
S2.C.RD.V-1090	Pipe Jacking for KNP108 - KNP107 (48m)	26	0	-108	01-Sep-22	03-Oct-22	S2.C.RD.V-1080, S2.C.RD.V-1060	S2.C.RD.V-1120, S2.C.RD.V-1095	Pipe Jacking for KNP108 - KNP107 (48m)															
S2.C.RD.V-1095	Pipe Jacking for KNP107 - KNP106	26	0	-108	05-Oct-22	03-Nov-22	S2.C.RD.V-1090	S2.C.RD.V-1120, S2.C.RD.V-1112																
Works at Existing Kong Nga Po Road (TTA Required)		134	8	-93	22-Jul-22A	16-Jan-23																		
S2.C.RD.R-1450	CH0+890 - CH0+960R Waterworks and Road Works	35	8	-114	22-Jul-22A	07-Sep-22	S2.C.RD.R-1350.10	S2.C.RD.R-1500, S2.C.SF-1550	CH0+890 - CH0+960R Waterworks and Road Works															
S2.C.RD.R-1600	CH1+590 - CH1+610 Drainage, Waterworks & Utilities	45	0	-231	17-Aug-22*	11-Oct-22	S3.D.SF-3500	S2.C.RD.R-1650, S3.D.SL-2420	CH1+590 - CH1+610 Drainage															
S2.C.RD.R-1500	CH0+960 - CH1+010R Waterworks and Road Works	35	0	-114	08-Sep-22	21-Oct-22	S2.C.RD.R-1450	S2.KE-1100, S2.C.RD.R-1000, S2.C.RD.R-1050	CH0+960 - CH1+010R Waterworks and Road Works															
S2.C.RD.R-1650	CH1+610 - CH1+690L Drainage & Utilities Waterworks	80	0	-93	12-Oct-22	16-Jan-23	S2.C.RD.R-1600	S2.C.RD.R-1700, S2.C.LD-1000																
S2.C.RD.R-1050	CH1+140 - CH1+190R Drainage, Sewerage and Road Works	50	0	-114	22-Oct-22	19-Dec-22	S2.C.RD.R-1500	S2.C.RD.R-1100, S2.C.SF-1250																
Bridge Construction (CH1 +190 - CH1+320)		256	163	1	10-Jan-22A	15-Dec-22																		
S2.C.BG-1450	Bridge Deck Construction	120	163	8	10-Jan-22A	20-Aug-22	S2.C.BG-1400, S2.MS-1200, S2.C.BG-1600.10, S2.C.BG-1600.20, S2.C.BG-1700	S2.C.BG-1500, S2.C.LD-1050, S2.C.SF-1160, S2.C.SF-1170, S2.C.SF-1600, S2.C.RD.R-1150	Bridge Deck Construction															
S2.C.BG-1375.20	Backfill to Bottom of Retaining Wall RD-C2	15	0	-109	01-Aug-22	17-Aug-22	S2.C.BG-1600.20	S2.C.RW-1050.20	Backfill to Bottom of Retaining Wall RD-C2															
S2.C.BG-1650	Retaining Wall RD-C1 & C2	112	0	-109	04-Aug-22	15-Dec-22	S2.C.RW-1050.10, S2.C.RW-1050.20																	
S2.C.BG-1500	Sewerage/Utilities on Bridge	80	0	18	22-Aug-22	25-Nov-22	S2.C.BG-1450	S2.C.BG-1550																
Drainage Trenchless Works		151	58	170	23-May-22A	06-Aug-22																		
S2.C.TD-1150	Pipe Jacking of DN1200 Concrete Pipe (SMH0125 to SMH0125A) [107m, 1.5m per day]	65	58	-231	23-May-22A	02-Aug-22	S2.C.TD-1100, S2.C.TD-1050, S2.MS-1000	S2.C.TD-1200, S2.C.TD-1300	Pipe Jacking of DN1200 Concrete Pipe (SMH0125 to SMH0125A) [107m, 1.5m per day]															
S2.C.TD-1200	Pipe Jacking of DN1200 Concrete Pipe (SMH0125A to SMH0129A)	26	41	170	13-Jun-22A	04-Aug-22	S2.C.TD-1150, S2.C.TD-1060	S2.C.TD-1250	Pipe Jacking of DN1200 Concrete Pipe (SMH0125A to SMH0129A)															
S2.C.TD-1250	Construct Manholes (SMH0125A and SMH0129A)	90	41	170	13-Jun-22A	06-Aug-22	S2.C.TD-1200	S2.KE-1000	Construct Manholes (SMH0125A and SMH0129A)															
Retaining Wall		112	0	-109	04-Aug-22	15-Dec-22																		
S2.C.RW-1050.10	Retaining Wall RD-C1	100	0	-97	04-Aug-22	01-Dec-22	S2.SDR.FD-1050, S2.C.BG-1375.10, S2.C.RW-1050.30, S2.C.RW-1010	S2.C.BG-1650, S2.KE-1250, S2.C.SF-1150, S2.C.SF-1100																
S2.C.RW-1050.20	Retaining Wall RD-C2	100	0	-109	18-Aug-22	15-Dec-22	S2.C.BG-1375.20, S2.SDR.FD-1050	S2.C.RD.V-1050, S2.C.SF-1100, S2.C.SF-1150, S2.C.BG-1650																
Site Formation and Slope Upgrading Works		209	27	-57	29-Jun-22A	15-May-23																		
S2.C.SF-1550	Fill Slope near CH0+900 - CH1+040R	100	0	36	01-Aug-22	28-Nov-22	S2.C.RD.R-1450	S2.KE-1200, S2.C.LD-1250, S2.C.SF-1610																
S2.C.SF-1450	Fill Slope near CH0+910 - CH1+040L	100	0	19	04-Aug-22	01-Dec-22	S2.C.SF-0000, S2.C.RD.R-1350.10	S2.KE-1150, S2.C.LD-1200																
S2.C.SF-1600	Fill Replacement of 3NW-C/F54 (near Bridge)	60	0	98	22-Aug-22	02-Nov-22	S2.SDR.FF1250, S2.C.BG-1450	S2.KE-1150																
S2.C.SF-1160	Fill Slope near Bridge Abutment A (3NW-C/C345)	14	0	84	22-Aug-22	06-Sep-22	S2.C.BG-1450	S2.KE-1150, S2.C.SF-1620	Fill Slope near Bridge Abutment A (3NW-C/C345)															
S2.C.SF-1620	Slope Drain and Wire Mesh for Slope Surface for Feature 1 (3NW-C/C345)	30	0	84	07-Sep-22	14-Oct-22	S2.C.SF-1160	S2.KE-1200, S2.C.SF-1630	Slope Drain and Wire Mesh															
S2.C.SF-1200	Fill Slope near CH1+350R (near 3NW-C/C351)	150	0	-29	07-Oct-22	11-Apr-23	S2.C.SF-0000, S2.C.RD.V-1050, S3.D.RW-DA-A-1100.85	S2.KE-1150																
S2.C.SF-1630	Slope Drain and Wire Mesh for Slope Surface for Feature 1 (3NW-C/C346)	30	0	84	15-Oct-22	18-Nov-22	S2.C.SF-1620	S2.KE-1200																
Feature A		113	27	-99	29-Jun-22A	15-May-23																		
S2.C.SF-1050	[PM514] Feature A Row C Rock Dowels (11nos)	28	27	-99	29-Jun-22A	02-Feb-23	S2.C.SF-1000, PM514, S2.C.RD.V-1120	S2.C.SF-1060																

█ Remaining Level of Effort
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Activity ID	Activity Name	Original Duration	Actual Duration	Total Float	Start	Finish	Predecessors	Successors	2022																			
									July				August				September				October							
									03	10	17	24	31	07	14	21	28	04	11	18	25	02	09	16	23			
S2.C.SF-1070	[PM514] Feature A Row A Rock Dowels (26nos)	65	27	-99	29-Jun-22A	15-May-23	S2.C.SF-1060	S2.C.SF-1080	[Gantt bar: July 29 - Aug 15]																			
S2.C.SF-1060	[PM514] Feature A Row B Rock Dowels (19nos)	48	23	-99	05-Jul-22A	23-Feb-23	S2.C.SF-1050	S2.C.SF-1070	[Gantt bar: July 05 - Aug 23]																			
Section 3 (Portion D, D1)		705	619	-240	30-Jun-20A	11-Nov-22			[Summary bar: June 30 - Nov 11]																			
Submissions and Approvals		90	230	-173	20-Oct-21A	20-Aug-22			[Summary bar: Oct 20 - Aug 20]																			
Design for Major Construction Works		90	230	-173	20-Oct-21A	20-Aug-22			[Summary bar: Oct 20 - Aug 20]																			
S3.GS-1800	Design and Acceptance of E&M Installation on Sewage Storage Tank [PS-30.01]	90	230	-173	20-Oct-21A	20-Aug-22	S3.GS-1700	S3.D.SEW-1300	[Gantt bar: Oct 20 - Aug 20]																			
Key Event		70	0	-250	05-Aug-22	29-Oct-22			[Summary bar: Aug 05 - Oct 29]																			
S3.KE-2150	Completion of Retaining Wall DA-I	0	0	-180		05-Aug-22	S3.D.RW-DA-I1100.30, S3.D.RW-DA-I1150.65, S3.D.RW-DA-I1200.60	S3.KE-1200	[Milestone: Aug 05]																			
S3.KE-1300	Completion of Stormwater Storage Tank with Testing	0	0	-238		17-Aug-22	S3.D.SWF1250.15	S3.KE-1500	[Milestone: Aug 17]																			
S3.KE-1400	Completion of Underpass	0	0	-246		25-Aug-22	S3.D.UP-1150	S3.KE-1500	[Milestone: Aug 25]																			
S3.KE-1750	Completion of Retaining Wall DA-A	0	0	-199		27-Aug-22	S3.D.RW-DA-A-1100.85, S3.D.RW-DA-A-1000.35, S3.D1.RW-DA-A-1050.5, S3.D.RW-DA-A-1150.95, S3.D.RW-DA-A-1000.39	S3.KE-1200	[Milestone: Aug 27]																			
S3.KE-1350	Completion of Sewage Storage Tank	0	0	-252		31-Aug-22	S3.D.SEW-1950, S3.D.SEW-1250	S3.KE-1500	[Milestone: Aug 31]																			
S3.KE-2200	Completion of Retaining Wall DA-J	0	0	-225		03-Sep-22	S3.D.RW-DA-J-1100.50, S3.D.RW-DA-J-1050.70	S3.KE-1200, S3.D.SF-2500	[Milestone: Sep 03]																			
S3.KE-1450	Completion of Slope Upgrading Works	0	0	-289		07-Oct-22	S3.D.SL-1050-18, S3.D.SL-2200, S3.D.SL-1100, S3.D.SL-2100, S3.D.SL-1150-06, S3.D.SL-2000, S3.D.SL-1050-68, S3.D.SL-1150-56, S3.D.SL-2300, S3.D.SL-2250, S3.D.SL-2350, S3.D.SL-2420	S3.KE-1500	[Milestone: Oct 07]																			
S3.KE-1200	Completion of Retaining Walls	0	0	-300		18-Oct-22	S3.KE-1750, S3.KE-1800, S3.KE-1850, S3.KE-1900, S3.KE-1950, S3.KE-2000, S3.KE-2050, S3.KE-2100, S3.KE-2150, S3.KE-2200, S3.KE-2250, S3.KE-2300, S3.KE-2350, S3.KE-2400, S3.KE-2450, S3.KE-2500, S3.KE-2550, S3.KE-2600	S3.KE-1500	[Milestone: Oct 18]																			
S3.KE-1950	Completion of Retaining Wall DA-F Bay 1-9	0	0	-240		18-Oct-22	S3.SDR.FD-1200, S3.D.RW-DA-F-1000.55	S3.KE-1200	[Milestone: Oct 18]																			

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Activity ID	Activity Name	Original Duration	Actual Duration	Total Float	Start	Finish	Predecessors	Successors	2022															
									July				August				September				October			
									03	10	17	24	31	07	14	21	28	04	11	18	25	02	09	16
S3.D.RD-1000	L01 - CH67 - CH200 Drainage (near SMH-S0001 to SMH-S0006)	60	50	-251	01-Jun-22A	30-Sep-22	S3.D.RD-0000, S3.D.SF-2250, S3.AS-1400	S3.KE-1250, S3.D.RD-2800	Gantt bar: 01-Jun-22 to 30-Sep-22															
S3.D.RD-2800	L01 - CH67 - CH200 Backfill to Road Formation	20	50	-251	01-Jun-22A	14-Oct-22	S3.D.RD-1000, S3.D.RW-DA-J-1100.50	S3.D.RD-2850	Gantt bar: 01-Jun-22 to 14-Oct-22															
S3.D.RD-2850	L01 - CH67 - CH200 - Utilities and Road Works	14	0	-251	15-Oct-22	31-Oct-22	S3.D.RD-2800	S3.KE-1250	Gantt bar: 15-Oct-22 to 31-Oct-22															
Road L06		81	71	-235	06-May-22A	12-Oct-22			Gantt bar: 06-May-22 to 12-Oct-22															
CH100 - CH178		81	71	-235	06-May-22A	12-Oct-22			Gantt bar: 06-May-22 to 12-Oct-22															
S3.D.RD-1100	L06 - CH100 - CH178 (near Drainage SMH-S0101 to SMH-S0103)	50	71	-235	06-May-22A	31-Aug-22	S3.D.RD-0000, S3.D.SF-2900	S3.D.RD-2900	Gantt bar: 06-May-22 to 31-Aug-22															
S3.D.RD-2900	L06 - CH100 - CH178 Backfill to Road Formation	20	0	-235	31-Aug-22	23-Sep-22	S3.D.RD-1100	S3.D.RD-2950	Gantt bar: 31-Aug-22 to 23-Sep-22															
S3.D.RD-2950	L06 - CH100 - CH178 Utilities and Road Works	14	0	-235	24-Sep-22	12-Oct-22	S3.D.RD-2900	S3.KE-1250	Gantt bar: 24-Sep-22 to 12-Oct-22															
CH178 - CH305		14	0	-194	06-Aug-22	22-Aug-22			Gantt bar: 06-Aug-22 to 22-Aug-22															
S3.D.RD-2600	L06 - CH178 - CH305 Utilities and Road Works	14	0	-194	06-Aug-22	22-Aug-22	S3.D.RD-2550	S3.KE-1250	Gantt bar: 06-Aug-22 to 22-Aug-22															
Road L09		70	0	-275	19-Aug-22	11-Nov-22			Gantt bar: 19-Aug-22 to 11-Nov-22															
S3.D.RD-1050	L09 - CH100 - CH183 Drainage (near SMH-S0201 to SMH-S0205)	50	0	-275	19-Aug-22	19-Oct-22	S3.D.RD-0000, S3.D.SF-1255, S3.D.RD-1550.10	S3.D.RD-2700	Gantt bar: 19-Aug-22 to 19-Oct-22															
S3.D.RD-2700	L09 - CH100 - CH183 Backfill to Road Formation	20	0	-275	20-Oct-22	11-Nov-22	S3.D.RD-1050	S3.D.RD-2750	Gantt bar: 20-Oct-22 to 11-Nov-22															
Road L10		283	200	-248	24-Nov-21 A	27-Oct-22			Gantt bar: 24-Nov-21 to 27-Oct-22															
CH100 - CH200		66	24	-248	04-Jul-22A	27-Oct-22			Gantt bar: 04-Jul-22 to 27-Oct-22															
S3.D.RD-1550	L10 - CH100 - CH200 Drainage (near SMH-S0701 to SMH-S0002)	60	24	-248	04-Jul-22A	05-Sep-22	S3.D.RD-1550.10	S3.D.RD-1550.20	Gantt bar: 04-Jul-22 to 05-Sep-22															
S3.D.RD-1550.20	L10 - CH100 - CH200 Backfill to Road Formation	28	0	-248	06-Sep-22	11-Oct-22	S3.D.RD-1550	S3.D.RD-1550.30	Gantt bar: 06-Sep-22 to 11-Oct-22															
S3.D.RD-1550.30	L10 - CH100 - CH200 Utilities and Road Works	14	0	-248	12-Oct-22	27-Oct-22	S3.D.RD-1550.20	S3.KE-1250	Gantt bar: 12-Oct-22 to 27-Oct-22															
CH200 - CH300		34	0	-219	12-Aug-22	21-Sep-22			Gantt bar: 12-Aug-22 to 21-Sep-22															
S3.D.RD-1850.20	L10 - CH200 - CH300 Backfill to Road Formation	20	0	-219	12-Aug-22	03-Sep-22	S3.D.RD-1850, S3.D.RD-2000.10, S3.SDR.FD-1500, S3.D.SF-2300	S3.D.RD-1850.30	Gantt bar: 12-Aug-22 to 03-Sep-22															
S3.D.RD-1850.30	L10 - CH200 - CH300 Utilities and Road Works	14	0	-219	05-Sep-22	21-Sep-22	S3.D.RD-1850.20	S3.KE-1250	Gantt bar: 05-Sep-22 to 21-Sep-22															
CH300 - CH364		200	200	-191	24-Nov-21 A	18-Aug-22			Gantt bar: 24-Nov-21 to 18-Aug-22															
S3.D.RD-2000.20	L10 - CH300 - CH364 Backfill to Road Formation	20	200	-191	24-Nov-21 A	02-Aug-22	S3.D.RD-2000, S3.D.RW-DA-K-1150.30, S3.SDR.FD-1500	S3.D.RD-2000.70	Gantt bar: 24-Nov-21 to 02-Aug-22															
S3.D.RD-2000.70	L10 - CH300 - CH364 Utilities and Road Works	14	23	-191	05-Jul-22A	18-Aug-22	S3.D.RD-2000.20	S3.KE-1250	Gantt bar: 05-Jul-22 to 18-Aug-22															
Road L12		334	279	-216	20-Aug-21 A	17-Sep-22			Gantt bar: 20-Aug-21 to 17-Sep-22															
S3.D.RD-2100	L12 - CH100 - CH150 Drainage Construction	30	279	-216	20-Aug-21 A	02-Aug-22	S3.D.RD-2150	S3.D.RD-2200	Gantt bar: 20-Aug-21 to 02-Aug-22															
S3.D.RD-2200	L12 - CH100-CH150 Backfill to Road Formation	25	0	-216	03-Aug-22	31-Aug-22	S3.D.RD-2100, S3.D.RW-DA-K-1000.55, S3.SDR.FD-1500, S3.D.RW-0000, S3.D.SF-1350, S3.D.RD-2150	S3.D.RD-2500	Gantt bar: 03-Aug-22 to 31-Aug-22															
S3.D.RD-2500	L12 - CH100-CH150 Utilities and Road Works	14	0	-216	01-Sep-22	17-Sep-22	S3.D.RD-2200	S3.KE-1250	Gantt bar: 01-Sep-22 to 17-Sep-22															
Platform G (+70.0mPD)		420	367	-225	06-May-21 A	28-Sep-22			Gantt bar: 06-May-21 to 28-Sep-22															
Site Formation		205	367	-199	06-May-21 A	27-Aug-22			Gantt bar: 06-May-21 to 27-Aug-22															
S3.D.SF-1150.02	Cut and Lower Platform G to +70.0mPD (7800 cum)	90	367	-199	06-May-21 A	10-Aug-22	S3.D.RW-DA-H-1200-90, S3.D.RW-DA-H-1200-80, S3.D.SF-1450.50	S3.KE-1150, S3.D.RW-DA-H-1200-20	Gantt bar: 06-May-21 to 10-Aug-22															
S3.D.SF-1250	Fill Slope in front of RW DA-H	20	184	-199	13-Dec-21 A	27-Aug-22	S3.D.RW-DA-H-1200-10, S3.D.RW-DA-H-1200-20	S3.KE-1150	Gantt bar: 13-Dec-21 to 27-Aug-22															
Road, Drainage and Utilities		133	315	-201	09-Jul-21 A	30-Aug-22			Gantt bar: 09-Jul-21 to 30-Aug-22															

■ Remaining Level of Effort
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Activity ID	Activity Name	Original Duration	Actual Duration	Total Float	Start	Finish	Predecessors	Successors	2022															
									July				August				September				October			
									03	10	17	24	31	07	14	21	28	04	11	18	25	02	09	16
S3.D.RD-1250	[PM377] L11 - CH100 - CH213 (near Drainage SMH-S1101 to SMH-0109)	56	315	-201	09-Jul-21 A	06-Aug-22	S3.D.RD-0000, S3.D.RD-1250.10, PM377	S3.D.RD-2250	[PM377] L11 - CH100 - CH213 (near Drainage SMH-S1101 to SMH-0109)															
S3.D.RD-2250	L11 - CH100 - CH213 Backfill to Road Formation	30	240	-201	07-Oct-21 A	13-Aug-22	S3.D.RD-1250	S3.D.RD-2650	L11 - CH100 - CH213 Backfill to Road Formation															
S3.D.RD-2650	L11 - CH100 - CH213 Utilities and Road Works	14	229	-201	21-Oct-21 A	30-Aug-22	S3.D.RD-2250	S3.KE-1250	L11 - CH100 - CH213 Utilities and Road Works															
Slope Upgrading Works		50	0	-225	01-Aug-22	28-Sep-22			28-Sep-22, Slope Upgrading Works															
Feature J		50	0	-225	01-Aug-22	28-Sep-22			28-Sep-22, Feature J															
S3.D.SL-1150-01	Cut to 1m below Row B	10	0	-225	01-Aug-22	11-Aug-22	S3.D.SL-1050-16, S3.D.SF-2500	S3.D.SL-1150-04, S3.D.SL-1150-02	Cut to 1m below Row B															
S3.D.SL-1150-02	Test Nail TN7 & TN8, including pull-out test	8	0	-225	12-Aug-22	20-Aug-22	S3.D.SL-1150-01	S3.D.SL-1150-03	Test Nail TN7 & TN8, including pull-out test															
S3.D.SL-1150-04	Cut to 1m below Row A	10	0	-215	12-Aug-22	23-Aug-22	S3.D.SL-1150-01	S3.D.SL-1150-06	Cut to 1m below Row A															
S3.D.SL-1150-03	Row B Soil Nails (43 nos)	12	0	-225	22-Aug-22	03-Sep-22	S3.D.SL-1150-02	S3.D.SL-1150-06	Row B Soil Nails (43 nos)															
S3.D.SL-1150-06	Row A Soil Nails (61 nos)	18	0	-225	05-Sep-22	26-Sep-22	S3.D.SL-1150-04, S3.D.SL-1150-03	S3.KE-1450, S3.D.SL-1150-56	Row A Soil Nails (61 nos)															
S3.D.SL-1150-56	Landscape Treatment on Slope	18	0	-225	07-Sep-22	28-Sep-22	S3.D.SL-1150-06	S3.KE-1450	Landscape Treatment on Slope															
Platform +64.50 (Interim Principal Office)		28	0	-217	01-Aug-22	01-Sep-22			01-Sep-22, Platform +64.50 (Interim Principal Office)															
S3.D.SL-1160	Excavation and Lower to +64.50mPD	28	0	-217	01-Aug-22	01-Sep-22	PWC-1300	S3.KE-1150, S3.D.RD-1760.10	Excavation and Lower to +64.50mPD															
Platform F (+64.5mPD)		535	546	-229	24-Sep-20 A	24-Oct-22			24-Oct-22															
Site Formation		535	546	-229	24-Sep-20 A	24-Oct-22			24-Oct-22															
S3.D.SF-1300	Excavate 3NW-C/C454, 3NW-C/C401 at Platform F (126900cum)	130	546	-245	24-Sep-20 A	24-Oct-22	S3.D.SF-1450.60, S3.D.SF-1450.20, S3.D.SF-0000	S3.D.SF-2850	Excavate 3NW-C/C454, 3NW-C/C401 at Platform F (126900cum)															
S3.D.SF-1450.40	Cutting to Bottom of DA-F (Bay 1 to Bay 9) (2400 cum)	6	55	-205	26-May-22 A	03-Sep-22	S3.D.SF-1450.50	S3.D.GI3450, S3.D.SF-1450	Cutting to Bottom of DA-F (Bay 1 to Bay 9) (2400 cum)															
S3.D.SF-1600	Excavate 3NW-C/C363 to 54.5mPD (Sothem of Platform F) (24300 cum)	80	55	-230	26-May-22 A	06-Oct-22	S3.D.RW-DA-M-1050.20, S3.D.RW-DA-M-1000.10	S3.KE-1150	Excavate 3NW-C/C363 to 54.5mPD (Sothem of Platform F) (24300 cum)															
S3.D.SF-2900	Excavate 3NW-C/C454 & C401 near L06 to Backfill Stormwater Storage Tank	70	55	-235	26-May-22 A	19-Oct-22	S3.D.SF-3250	S3.D.RD-1100	Excavate 3NW-C/C454 & C401 near L06 to Backfill Stormwater Storage Tank															
S3.D.SF-3000	Excavate 3NW-C/C454 & C401 near L02 to Backfill DA-M Bay 1-9	62	55	-199	26-May-22 A	16-Sep-22	S3.D.RD-1400.70	S3.D.RD-1800.10	Excavate 3NW-C/C454 & C401 near L02 to Backfill DA-M Bay 1-9															
S3.D.SF-2850	Backfilling by 3NW-C/C454, 3NW-C/C401	0	0	-245		24-Oct-22	S3.D.RD-1200.30, S3.D.SF-2550, S3.D.SF-1300, S3.D.RD-1300.70, S3.D.RW-DA-F-1100.55	S3.KE-1150	Backfilling by 3NW-C/C454, 3NW-C/C401															
Retaining Wall		44	27	-240	29-Jun-22 A	18-Oct-22			18-Oct-22, Retaini															
DA-F (Bay 1 - Bay 30)		44	27	-240	29-Jun-22 A	18-Oct-22			18-Oct-22, DA-F (E															
DA-F (Bay 1 - Bay 9)		24	27	-240	29-Jun-22 A	18-Oct-22			18-Oct-22, DA-F (E															
S3.D.RW-DA-F-1000.95	DA-F1 Bay 9 Wall	24	27	-240	29-Jun-22 A	18-Oct-22	S3.D.RW-DA-F-1000.50	S3.D.RW-DA-F-1000.55	DA-F1 Bay 9 Wall															
DA-F (Bay 10 - Bay 16)		40	21	-194	07-Jul-22 A	15-Aug-22			15-Aug-22, DA-F (Bay 10 - Bay 16)															
S3.D.RW-DA-F-1150.45	DA-F1 Bay 10 Wall	24	21	-194	07-Jul-22 A	15-Aug-22	S3.D.RW-DA-F-1150.10	S3.D.RW-DA-F-1150.70	DA-F1 Bay 10 Wall															
S3.D.RW-DA-F-1150.50	DA-F2 Bay 11 Wall	24	21	-188	07-Jul-22 A	08-Aug-22	S3.D.RW-DA-F-1150.15	S3.D.RW-DA-F-1150.70	DA-F2 Bay 11 Wall															
S3.D.RW-DA-F-1150.55	DA-F2 Bay 12 Wall	24	21	-188	07-Jul-22 A	08-Aug-22	S3.D.RW-DA-F-1150.20	S3.D.RW-DA-F-1150.70	DA-F2 Bay 12 Wall															
S3.D.RW-DA-F-1150.60	DA-F2 Bay 13 Wall	24	21	-188	07-Jul-22 A	08-Aug-22	S3.D.RW-DA-F-1150.25	S3.D.RW-DA-F-1150.70	DA-F2 Bay 13 Wall															
S3.D.RW-DA-F-1150.65	DA-F2 Bay 14 Wall	24	21	-194	07-Jul-22 A	15-Aug-22	S3.D.RW-DA-F-1150.30	S3.D.RW-DA-F-1150.70	DA-F2 Bay 14 Wall															
Road, Drainage and Utilities		81	40	-204	14-Jun-22 A	22-Sep-22			22-Sep-22, Road, Drainage and Utilities															
Road L01		80	37	-219	17-Jun-22 A	21-Sep-22			21-Sep-22, Road L01															
CH200 - CH350		14	0	-189	01-Aug-22	16-Aug-22			16-Aug-22, CH200 - CH350															
S3.D.RD-1750.30	L01 - CH200 - CH350 Utilities and Road Works	14	0	-189	01-Aug-22	16-Aug-22	S3.D.RD-1750.20	S3.KE-1250	L01 - CH200 - CH350 Utilities and Road Works															
CH350 - CH450		14	37	-217	17-Jun-22 A	19-Sep-22			19-Sep-22, CH350 - CH450															
S3.D.RD-1760.40	L01 - CH350 - CH450 Utilities and Road Works	14	37	-217	17-Jun-22 A	19-Sep-22	S3.D.RD-1760.30	S3.KE-1250	L01 - CH350 - CH450 Utilities and Road Works															
CH450 - CH518		30	22	-240	06-Jul-22 A	03-Sep-22			03-Sep-22, CH450 - CH518															

█ Remaining Level of Effort
 █ Remaining Work
 █ Actual Work
 █ Critical Remaining Work
 ◆ Milestone
 ⇨ Summary



Activity ID	Activity Name	Original Duration	Actual Duration	Total Float	Start	Finish	Predecessors	Successors	2022															
									July				August				September				October			
									03	10	17	24	31	07	14	21	28	04	11	18	25	02	09	16
S3.D.RD-1200.20	L01 - CH450 - CH518 Backfilling Formation Level of DA-F	30	22	-240	06-Jul-22A	03-Sep-22	S3.D.RD-1200	S3.KE-1250, S3.D.RW-DA-F-1000.50	[Gantt bar: 06-Jul-22A to 03-Sep-22]															
CH518 - CH581		25	3	-219	28-Jul-22A	21-Sep-22	[Summary bar: 28-Jul-22A to 21-Sep-22]																	
S3.D.RD-1760.70	L01 - CH518 - CH581 Backfill to Road Formation	16	3	-219	28-Jul-22A	03-Sep-22	S3.D.RD-1760.60	S3.D.RD-1760.80	[Gantt bar: 28-Jul-22A to 03-Sep-22]															
S3.D.RD-1760.80	L01 - CH518 - CH581 Utilities and Road Works	14	0	-219	05-Sep-22	21-Sep-22	S3.D.RD-1760.70	S3.KE-1250	[Gantt bar: 05-Sep-22 to 21-Sep-22]															
Road L02		71	40	-204	14-Jun-22A	22-Sep-22	[Summary bar: 14-Jun-22A to 22-Sep-22]																	
CH100 - CH218		44	0	-219	01-Aug-22	21-Sep-22	[Summary bar: 01-Aug-22 to 21-Sep-22]																	
S3.D.RD-1800.20	L02 - CH100 - CH218 Backfill to Road Formation	30	0	-219	01-Aug-22	03-Sep-22	S3.D.RD-1800	S3.D.RD-1800.70	[Gantt bar: 01-Aug-22 to 03-Sep-22]															
S3.D.RD-1800.70	L02 - CH100 - CH218 Utilities and Road Works	14	0	-219	05-Sep-22	21-Sep-22	S3.D.RD-1800.20	S3.KE-1250	[Gantt bar: 05-Sep-22 to 21-Sep-22]															
CH218 - CH250		45	2	-214	29-Jul-22A	22-Sep-22	[Summary bar: 29-Jul-22A to 22-Sep-22]																	
S3.D.RD-2050	L02 - CH218 - CH250 Drainage and Sewerage (near SMHS0213 to SMHS0217)	30	2	-214	29-Jul-22A	29-Aug-22	S3.D.RD-2050.10	S3.D.RD-2050.20	[Gantt bar: 29-Jul-22A to 29-Aug-22]															
S3.D.RD-2050.20	L02 - CH218 - CH250 Backfill to Road Formation	20	0	-214	30-Aug-22	22-Sep-22	S3.D.RD-2050, S3.D.RW-DA-F-1100.55	S3.D.RD-2050.70	[Gantt bar: 30-Aug-22 to 22-Sep-22]															
S3.D.RD-2050.70	L02 - CH218 - CH250 Utilities and Road Works	14	0	-214	30-Aug-22	15-Sep-22	S3.D.RD-2050.20	S3.KE-1250	[Gantt bar: 30-Aug-22 to 15-Sep-22]															
CH250 - CH350		32	0	-207	01-Aug-22	06-Sep-22	[Summary bar: 01-Aug-22 to 06-Sep-22]																	
S3.D.RD-2350	L02 - CH250 - CH350 Sewerage and Drainage	14	0	-207	01-Aug-22	16-Aug-22	S3.D.RD-2300	S3.D.RD-2400	[Gantt bar: 01-Aug-22 to 16-Aug-22]															
S3.D.RD-2400	L02 - CH250 - CH350 Backfilling to Formation Level	18	0	-207	01-Aug-22	20-Aug-22	S3.D.RD-2350	S3.D.RD-2450	[Gantt bar: 01-Aug-22 to 20-Aug-22]															
S3.D.RD-2450	L02 - CH250 - CH350 Utilities and Road Works	14	0	-207	22-Aug-22	06-Sep-22	S3.D.RD-2400	S3.KE-1250	[Gantt bar: 22-Aug-22 to 06-Sep-22]															
CH350 - CH518		66	40	-199	14-Jun-22A	16-Sep-22	[Summary bar: 14-Jun-22A to 16-Sep-22]																	
S3.D.RD-1400	L02 - CH350 - CH518 Drainage and Sewerage (near SMHS0217 to SMHS0118)	28	40	-199	14-Jun-22A	23-Aug-22	S3.D.RD-1400.10	S3.D.RD-1400.20	[Gantt bar: 14-Jun-22A to 23-Aug-22]															
S3.D.RD-1400.10	L02 - CH350 - CH518 Backfill to Drainage/Sewerage Commencing Level	14	40	-199	14-Jun-22A	06-Aug-22	S3.KE-2350	S3.D.RD-1400, S3.D.RW-DA-F-1150.10	[Gantt bar: 14-Jun-22A to 06-Aug-22]															
S3.D.RD-1400.30	L02 - CH350 - CH518 Utilities and Road Works	14	40	-181	14-Jun-22A	06-Aug-22	S3.D.RW-DA-F-1150.70	S3.KE-1250	[Gantt bar: 14-Jun-22A to 06-Aug-22]															
S3.D.RD-1400.20	L02 - CH350 - CH518 Backfilling to Formation Level	20	0	-199	24-Aug-22	16-Sep-22	S3.D.RD-1400	S3.D.RD-1400.70	[Gantt bar: 24-Aug-22 to 16-Sep-22]															
S3.D.RD-1400.70	Backfill to DA-M Bay 2-9	0	0	-199	16-Sep-22	16-Sep-22	S3.D.RD-1400.20	S3.D.SF-3000	[Gantt bar: 16-Sep-22 to 16-Sep-22]															
Platform K (+64.5mPD) & Platform L (+62.5mPD)		82	50	-235	01-Jun-22A	12-Oct-22	[Summary bar: 01-Jun-22A to 12-Oct-22]																	
Site Formation		61	50	-235	01-Jun-22A	12-Oct-22	[Summary bar: 01-Jun-22A to 12-Oct-22]																	
S3.D.SF-2050	No-Fines Concrete Fill 3NW-C/F50 (near RW DA-M Bay 13 to 29)	28	50	-203	01-Jun-22A	01-Sep-22	S3.SDR.FF-1350, S3.GM-2050, S3.D.RW-DA-M-1100.90	S3.KE-1150	[Gantt bar: 01-Jun-22A to 01-Sep-22]															
S3.D.SF-2100	No-Fines Concrete Fill 3NW-C/F51 (near RW DA-M Bay 1 to 12)	25	50	-200	01-Jun-22A	29-Aug-22	S3.GM-1950, S3.SDR.FF-1400, S3.KE-2350	S3.KE-1150	[Gantt bar: 01-Jun-22A to 29-Aug-22]															
S3.D.SF-2200	Compacted Fill 3NW-C/F57 (near RW DA-M Bay 39/40)	60	50	-235	01-Jun-22A	12-Oct-22	S3.SDR.FF-1500, S3.GM-2200, S3.KE-2450, S3.KE-2500	S3.KE-1150	[Gantt bar: 01-Jun-22A to 12-Oct-22]															
S3.D.SF-2350	Drainage for 3NW-C/C367 (near DA-M Bay 24 to 29)	50	50	-220	01-Jun-22A	22-Sep-22	S3.SDR.FF-1250, S3.GM-2100, S3.KE-2400	S3.KE-1150	[Gantt bar: 01-Jun-22A to 22-Sep-22]															
S3.D.SF-2800	No-Fines Concrete Fill 3NW-C/F58 (near RW DA-M Bay 30 to 34)	30	50	-205	01-Jun-22A	03-Sep-22	S3.D.RW-DA-M-1200.65	S3.KE-1150	[Gantt bar: 01-Jun-22A to 03-Sep-22]															
S3.D.SF-2550	Cut and Lower to +64.5mPD at Platform K	30	0	-210	06-Aug-22	09-Sep-22	S3.D.RW-DA+1000.45, S3.D.RW-DA+1100.30, S3.D.RW-DA+1200.60	S3.KE-1150, S3.D.SF-2850	[Gantt bar: 06-Aug-22 to 09-Sep-22]															
Road, Drainage and Utilities		62	32	-231	23-Jun-22A	07-Oct-22	[Summary bar: 23-Jun-22A to 07-Oct-22]																	
Road L07		56	0	-231	01-Aug-22	07-Oct-22	[Summary bar: 01-Aug-22 to 07-Oct-22]																	
S3.D.RD-1700.20	L07 - CH100 - CH172 Backfill to Road Formation	26	0	-231	01-Aug-22	30-Aug-22	S3.D.RD-1700	S3.D.RD-1700.30	[Gantt bar: 01-Aug-22 to 30-Aug-22]															

■ Remaining Level of Effort
 ■ Remaining Work
 ◆ Milestone
 ■ Critical Remaining Work
 ⇨ Summary

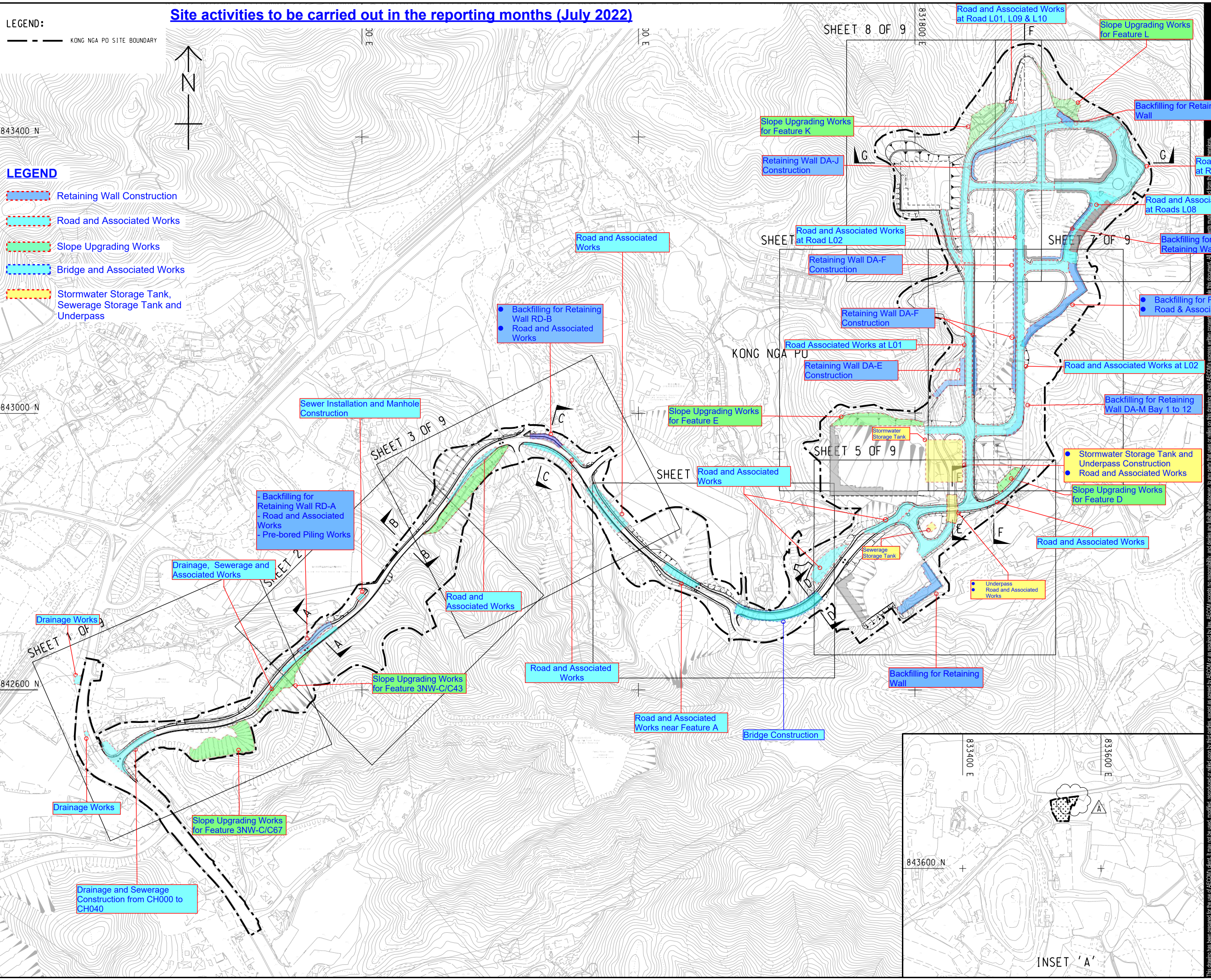


Activity ID	Activity Name	Original Duration	Actual Duration	Total Float	Start	Finish	Predecessors	Successors	2022																
									July				August				September				October				
									03	10	17	24	31	07	14	21	28	04	11	18	25	02	09	16	23
S3.D.RD-1650	L04 - CH185 - CH309 Drainage (near SMH-S1304 to SMH-S0125)	40	26	-223	30-Jun-22A	23-Aug-22	S3.D.SF-2650.20	S3.D.RD-1650.10	[Gantt bar: 30-Jun-22A to 23-Aug-22]																
S3.D.RD-1650.10	L04 - CH185 - CH309 Backfilling and Road Works	14	0	-223	24-Aug-22	08-Sep-22	S3.D.RD-1650	S3.D.RD-1650.20	[Gantt bar: 24-Aug-22 to 08-Sep-22]																
S3.D.RD-1650.20	L04 - CH185 - CH309 Utilities and Road Works	14	0	-223	09-Sep-22	26-Sep-22	S3.D.RD-1650.10	S3.KE-1250	[Gantt bar: 09-Sep-22 to 26-Sep-22]																
Road L05		68	0	-243	01-Aug-22	21-Oct-22																			
S3.D.RD-1950	L05 - CH100 - CH159 Drainage/Sewerage (near SMH-0502 to SMH-S0127)	38	0	-243	01-Aug-22	14-Sep-22	S3.D.SF-2650.20	S3.D.RD-1950.10	[Gantt bar: 01-Aug-22 to 14-Sep-22]																
S3.D.RD-1950.10	L05 - CH100 - CH159 Backfill to Road Formation	16	0	-243	15-Sep-22	05-Oct-22	S3.D.RD-1950	S3.D.RD-1950.20	[Gantt bar: 15-Sep-22 to 05-Oct-22]																
S3.D.RD-1950.20	L05 - CH100 - CH159 - Utilities and Road Works	14	0	-243	06-Oct-22	21-Oct-22	S3.D.RD-1950.10	S3.KE-1250	[Gantt bar: 06-Oct-22 to 21-Oct-22]																
Slope Upgrading Works		55	0	-230	01-Aug-22	06-Oct-22																			
S3.D.SL-1100	Upgrading Works for Slope at Platform C +48mPD (Feature D) [existing 3NW-C/C363]	55	0	-230	01-Aug-22	06-Oct-22	S3.D.SL-0000, S3.GM-1900, S3.SDR.FF1150, S3.D1.SF-1000, PM534	S3.KE-1450	[Gantt bar: 01-Aug-22 to 06-Oct-22]																
Platform B (+52.5mPD)		567	506	-250	13-Nov-20A	29-Oct-22																			
Site Formation		567	506	-250	13-Nov-20A	29-Oct-22																			
S3.D.SF-2000	Cut 3NW-C/C358 (Platform B)	60	506	-219	13-Nov-20A	18-Aug-22	S3.SDR.FF1100, S3.GM-1850, S3.D.SF-1200	S3.KE-1150, S3.D.SF-1800, S3.D.SL-2050	[Gantt bar: 13-Nov-20A to 18-Aug-22]																
S3.D.SF-1100	Cut Feature E & F to +52.5mPD at Platform B	75	11	-250	19-Jul-22A	29-Oct-22	S3.D.SF-1200, S3.GM-1000, S3.AS-1150, S3.D.SF-1700, S3.SDR.FF1550	S3.KE-1150	[Gantt bar: 19-Jul-22A to 29-Oct-22]																
S3.D.SF-1110	Drainage Construction at Front Face of DA-C (3NW-C/C357)	28	0	-203	01-Aug-22	01-Sep-22	S3.D.RW-DA-C-3370	S3.KE-1150	[Gantt bar: 01-Aug-22 to 01-Sep-22]																
S3.D.SF-1450	Backfill to DA-C	0	0	-205		03-Sep-22	S3.D.SF-1400, S3.D.SF-1450.50, S3.D.SF-1450.40	S3.KE-1150	[Gantt bar: 03-Sep-22]																
Slope Upgrading Works		208	264	-230	07-Sep-21 A	06-Oct-22																			
Feature E		208	264	-230	07-Sep-21 A	06-Oct-22																			
S3.D.SL-2250	U-Channel, Catchpit and Maintenance Access Construction	52	264	-217	07-Sep-21 A	19-Sep-22	S3.D.SL-2000	S3.KE-1450	[Gantt bar: 07-Sep-21 A to 19-Sep-22]																
S3.D.SL-2000	[RF00135] Row A Soil Nails (91 nos.)	18	71	-192	06-May-22A	02-Aug-22	S3.D.SL-1950, S3.D.SL-1900	S3.KE-1450, S3.D.SL-2250, S3.D.SL-2300	[Gantt bar: 06-May-22A to 02-Aug-22]																
S3.D.SL-2300	Landscape Treatment on Slope	40	0	-230	01-Aug-22	16-Sep-22	S3.D.SL-2000	S3.KE-1450, S3.D.SL-2410	[Gantt bar: 01-Aug-22 to 16-Sep-22]																
S3.D.SL-2410	Drainage works and surface protection works for existing slopes - feature no 3NW-C/C357 and C358	55	0	-230	01-Aug-22	06-Oct-22	S3.D.SL-2300	S3.KE-1450	[Gantt bar: 01-Aug-22 to 06-Oct-22]																
Feature F		108	104	-217	23-Mar-22A	19-Sep-22																			
S3.D.SL-2100	Row B Soil Nails (29 nos)	10	104	-217	23-Mar-22A	30-Aug-22	S3.D.SL-2050	S3.KE-1450, S3.D.SL-2150	[Gantt bar: 23-Mar-22A to 30-Aug-22]																
S3.D.SL-2350	Landscape Treatment on Slope	18	0	-217	29-Aug-22	19-Sep-22	S3.D.SL-2200	S3.KE-1450	[Gantt bar: 29-Aug-22 to 19-Sep-22]																
S3.D.SL-2150	Test Nail TN8	6	0	-217	31-Aug-22	06-Sep-22	S3.D.SL-2100	S3.D.SL-2200	[Gantt bar: 31-Aug-22 to 06-Sep-22]																
S3.D.SL-2200	Row A Soil Nails (29 nos)	10	0	-217	07-Sep-22	19-Sep-22	S3.D.SL-2150	S3.KE-1450, S3.D.SL-2350	[Gantt bar: 07-Sep-22 to 19-Sep-22]																
Platform A (+49.0mPD)		506	450	-210	21-Jan-21 A	07-Oct-22																			
Site Formation		485	450	-210	21-Jan-21 A	12-Sep-22																			
S3.D.SF-1550	Excavate to +49.0mPD at Platform A	54	450	-212	21-Jan-21 A	26-Aug-22	S3.D.PW-1450, S3.GM-1700, S3.SDR.FF1000, S3.D.SF-1650	S3.KE-1150, S3.D.RD-1350.20	[Gantt bar: 21-Jan-21 A to 26-Aug-22]																
S3.D.SF-3300	Backfill to Platform A	0	0	-210		12-Sep-22	S3.D.SF-1900	S3.KE-1150	[Gantt bar: 12-Sep-22]																
Slope Upgrading Works		21	0	-210	12-Sep-22	07-Oct-22																			
S3.D.SL-2420	Drainage works and surface protection works for existing slopes - feature no 3NW-C/C350[Feature M]	21	0	-231	12-Sep-22	07-Oct-22	S3.D.SF-3100, S2.C.SF-1305, S2.C.PD.R-1600, S3.D.RD-1600	S3.KE-1450, S3.D.SF-1900, S3.D.SL-2430	[Gantt bar: 12-Sep-22 to 07-Oct-22]																

█ Remaining Level of Effort
 █ Remaining Work
 █ Actual Work
 █ Critical Remaining Work
 ◆ Milestone
 ⇨ Summary



Plot File by: WingSan.Chan@aecom.com
 02-July-2019
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 Project Management Initials: Designer: YHH Check: SCWC Approved: RCYK
 ISO A1 594mm x 841mm



LEGEND:
 - - - KONG NGA PO SITE BOUNDARY

- LEGEND**
- Retaining Wall Construction
 - Road and Associated Works
 - Slope Upgrading Works
 - Bridge and Associated Works
 - Stormwater Storage Tank, Sewerage Storage Tank and Underpass

Site activities to be carried out in the reporting months (July 2022)

AECOM

PROJECT
 項目
 SITE FORMATION AND INFRASTRUCTURE WORKS FOR POLICE FACILITIES IN KONG NGA PO - DESIGN AND CONSTRUCTION

CONTRACT TITLE
 合約名稱
 SITE FORMATION AND INFRASTRUCTURE WORKS FOR POLICE FACILITIES IN KONG NGA PO

DESIGNER
 設計
 土木工程拓展署
 Civil Engineering and Development Department

SULTANT
 顧問
 AECOM Asia Company Ltd.
 www.aecom.com

CONSULTANTS
 顧問
 分利工程顧問公司

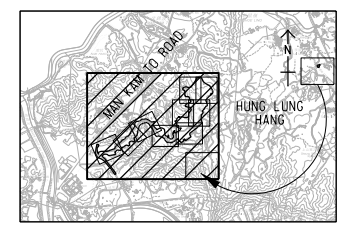
ISSUE/REVISION
 修訂

NO.	DATE	DESCRIPTION	CHK.
A	JUL 19	TENDER ADDENDUM NO.1	SCWC
-	JUN 19	TENDER DRAWING	SCWC

STATUS
 階段

SCALE
 比例
 A1 1:2500

KEY PLAN A1 1:50000



PROJECT NO.
 項目編號
 60534575

CONTRACT NO.
 合約編號
 ND/2018/01

SHEET TITLE
 圖紙名稱
 KEY PLAN AND LOCATION PLAN

SHEET NUMBER
 圖紙編號
 60534575/C1/1000A

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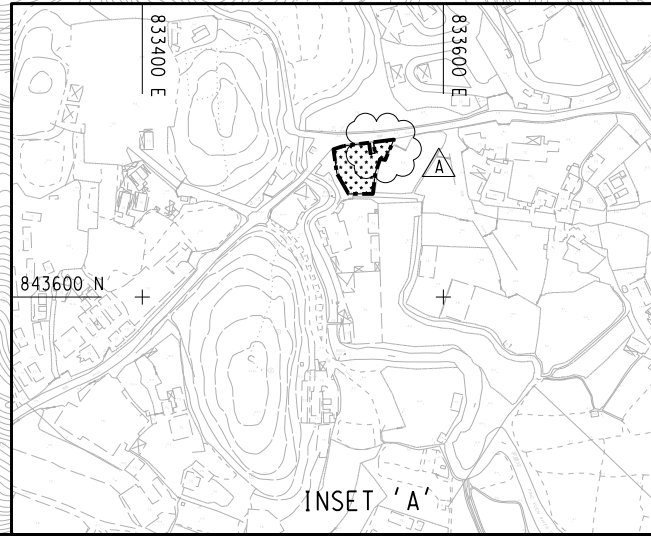
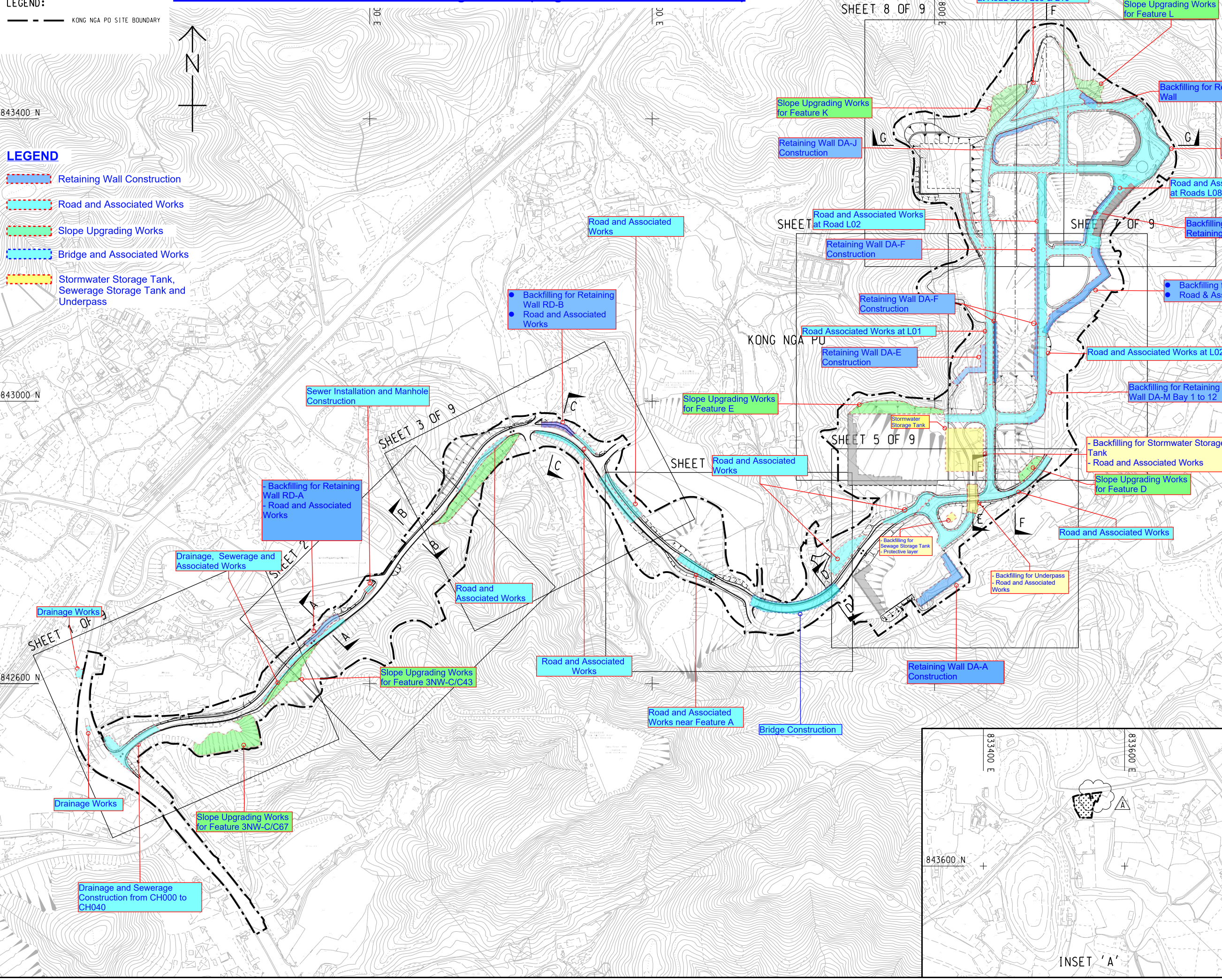
Site activities to be carried out in coming months (August 2022 to October 2022)

LEGEND:
 --- KONG NGA PO SITE BOUNDARY

LEGEND

- Retaining Wall Construction
- Road and Associated Works
- Slope Upgrading Works
- Bridge and Associated Works
- Stormwater Storage Tank, Sewerage Storage Tank and Underpass

Project Management Initials: Designer: YHH Check: SCWC Approved: RCHK
 ISO A1 594mm x 841mm
 File by: WingSan.Chan@aecom.com 02-July-2019
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PROJECT
 項目
 SITE FORMATION AND INFRASTRUCTURE WORKS FOR POLICE FACILITIES IN KONG NGA PO - DESIGN AND CONSTRUCTION
 CONTRACT TITLE
 SITE FORMATION AND INFRASTRUCTURE WORKS FOR POLICE FACILITIES IN KONG NGA PO
 土木工程拓展署
 Civil Engineering and Development Department

SULTANT
 AECOM Asia Company Ltd.
 www.aecom.com

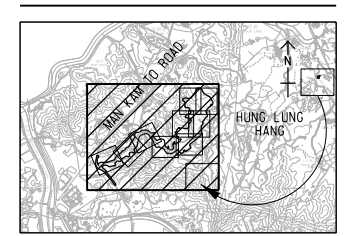
ISSUE/REVISION
 修訂

I/R	DATE	DESCRIPTION	CHK.
A	JUL 19	TENDER ADDENDUM NO.1	SCWC
-	JUN 19	TENDER DRAWING	SCWC

STATUS
 現狀

SCALE
 比例
 A1 1 : 2500

KEY PLAN A1 1 : 50000



PROJECT NO.
 項目編號
 60534575

CONTRACT NO.
 合約編號
 ND/2018/01

SHEET TITLE
 圖紙名稱
 KEY PLAN AND LOCATION PLAN

SHEET NUMBER
 圖紙編號
 60534575/C1/1000A

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Ref*	Proposed Construction Method**	Location/Working Period	Anticipated Major Impacts	Recommended Mitigation Measures
EIA 7.5.1.3; EM&A Log 6.2	Tree felling works	Kong Nga Po Main Site Kong Nga Po Road	Generation of timber waste and yard waste	<ul style="list-style-type: none"> • Sorting, cutting and delivering suitable timber to shredding facilities for recycling and reused • Regular inspection for compliance of tree treatment schedule • Provide training to frontline workers for conservative species
EIA Table 10.11 EM&A Table 9.1			Landscape and visual impact	<ul style="list-style-type: none"> • Properly fenced off the conservative species • Preservation of existing trees will be undertaken in accordance with DEVB TC(W) 7/2015 and Guidelines for Tree Risk Assessment and Management Arrangement • Control construction area to minimize the impact on existing retained trees

Ref*	Proposed Construction Method**	Location/Working Period	Anticipated Major Impacts	Recommended Mitigation Measures
EIA 3.91; EM&A Log 2.2	Site Formation	Kong Nga Po Main Site	Dust impact from excavation activities	<ul style="list-style-type: none"> • Deploy water bowser for regular water spraying to enhance dust suppression • Manual water spraying for dusty operation where inaccessible by water bowser • Speed control of site transportation • Stockpile of dusty materials will be covered by tarpaulin to avoid wind-blown dust • Vehicles used for transporting dusty materials/spoils will be covered by mechanical cover before leaving the site • Wheel washing facilities had been provided and cleaning the wheel of all vehicles before leaving the site
EIA 5.6.1.2; EM&A Log 4.2			Water Pollution Control	<ul style="list-style-type: none"> • Appropriate and sufficient wastewater treatment according to Temporary Drainage Management Plan before discharging of wastewater • Regular inspection and maintenance of wastewater treatment facilities • Provision of soil berms, rock check dam and retention pit near excavation area/low-lying region • Cover the stockpiling with appropriate materials • Hard paving or well-compact of main haul road to minimize washout of soil • Slope stabilization such as hydroseeding and shotcrete provision • Wheels of all vehicles and plants should be cleaned before leaving the site. The wastewater generated from wheel washing activities will be treated and reused on site

Ref*	Proposed Construction Method**	Location/Working Period	Anticipated Major Impacts	Recommended Mitigation Measures
EIA 4.4.6; EM&A Log 3.2	(Cont') Site Formation	(Cont') Kong Nga Po Main Site	Noise	<ul style="list-style-type: none"> Regular inspection and maintenance of plant & equipment in good condition Enclose the noisy part of machineries with noise isolating mats Deploy Quality Powered Mechanical Equipment (QPME) if possible
EIA 7.5.1.4; EM&A Log 6.2			Chemicals such as diesel and lubricants	<ul style="list-style-type: none"> Chemical wastes should be stored in designated area Drip tray and chemical spillage kit shall be provided on site
EIA 7.5.1.1 & 7.5.1.2; EM&A Log 6.2			Waste Generation	<ul style="list-style-type: none"> Training of site personnel in proper waste management and chemical handling procedures Proper storage and sorting of excavated inert materials to maximize on site reuse for backfilling
EIA 10.11, EM&A Log 9.4			Ecology Concern	<ul style="list-style-type: none"> Provide training to frontline workers for the conservative species Provision of protective fence for the conservative species Regular inspection for concerned vegetation and conservative species Adopted low intensity lighting to minimize the light impact to surrounding species Regular inspection and maintenance of plant & equipment in good condition Enclose the noisy part of machineries with noise isolating mats to minimize noise level to nearby species Deploy quality powered mechanical equipment if possible

Ref*	Proposed Construction Method**	Location/Working Period	Anticipated Major Impacts	Recommended Mitigation Measures
EIA Table 10.11 EM&A Table 9.1	(Cont') Site Formation	(Cont') Kong Nga Po Main Site	Landscape and visual impact	<ul style="list-style-type: none"> • Preservation of existing trees will be undertaken in accordance with DEVB TC(W) 7/2015 and Guidelines for Tree Risk Assessment and Management Arrangement • Restrict construction area to minimize the impact on existing retained trees
EIA 3.91; EM&A Log 2.2	Reinforced Concrete	Kong Nga Po Main Site	Air	<ul style="list-style-type: none"> • Dusty materials that exceeded 20 bags will be stored in area sheltered on top and the three sides or covered entirely by impervious sheeting.
EIA 5.6.1.2; EM&A Log 4.2	Structure Construction Including Retaining	Kong Nga Po Road	Waste water pollution control	<ul style="list-style-type: none"> • Soil berm and retention pit will be provided for the control of water outflow • Desilting/sedimentation devices will be provided for wastewater treatment prior to discharge • Designated location for residual concrete washout
EIA 4.4.6; EM&A Log 3.2	Wall and Bridge Deck		Noise	<ul style="list-style-type: none"> • Well-planning of concreting works to prevent working in restricted hours
EIA 4.4.6; EM&A Log 3.2			Working in Restricted Hours	<ul style="list-style-type: none"> • Valid construction noise permit should be obtained and displayed on site • In case of non-compliance with the construction noise criteria, more frequent monitoring and action should be carried out
EIA 7.5.1.4; EM&A Log 6.2			Chemicals for concreting works	<ul style="list-style-type: none"> • Chemical for concreting works such as curing compound and retarder should be stored in designated area with proper labelling and packing • Designated location for residual concrete washout



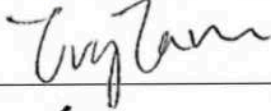

Ref*	Proposed Construction Method**	Location/Working Period	Anticipated Major Impacts	Recommended Mitigation Measures
EIA 3.91; EM&A Log 2.2	Slope Upgrading Works	Kong Nga Po Main Site Kong Nga Po Road	Dust impact from soil nail works	<ul style="list-style-type: none"> • Three side enclosure with top shelter for cement mixing works • Water spraying on soil nailing works • Dusty materials exceeding 20 bags shall be stored in area sheltered on top and the three sides or covered entirely by impervious sheeting
EIA 5.6.1.2; EM&A Log 4.2			Water	<ul style="list-style-type: none"> • Deploy desilting/sedimentation devices for wastewater treatment prior to discharge • Establish soil berm with retention pit to control water outflow
EIA 4.4.6; EM&A Log 3.2			Noise	<ul style="list-style-type: none"> • Regular inspection and maintenance of plant and equipment in good condition • Provide noise barriers for soil nailing works where near the sensitive receiver
EIA 10.11, EM&A Log 9.4			Ecology Concern	<ul style="list-style-type: none"> • Provide training to frontline workers for the conservative species • Provision of protective fence for the conservative species • Regular inspection for concerned vegetation
EIA Table 10.11 EM&A Table 9.1			Landscape and visual impact	<ul style="list-style-type: none"> • Properly fenced off the conservative species • Preservation of existing trees will be undertaken in accordance with DEVB TC(W) 7/2015 and Guidelines for Tree Risk Assessment and Management Arrangement
EIA 3.91; EM&A Log 2.2	Trenchless Works	Kong Nga Po Road Man Kam To Road	Air	<ul style="list-style-type: none"> • Regular inspection and maintenance of plant and equipment in good condition • Regularly clean up stockpiles and debris to avoid accumulation of materials • Dusty materials exceeding 20 bags shall be stored in area sheltered on top and the three sides or covered entirely by impervious sheeting.

Ref*	Proposed Construction Method**	Location/Working Period	Anticipated Major Impacts	Recommended Mitigation Measures
EIA 5.6.1.2; EM&A Log 4.2	(Con't) Trenchless Works	(Con't) Kong Nga Po Road Man Kam To Road	Water	<ul style="list-style-type: none"> Provide desilting/sedimentation devices for wastewater treatment before discharge
EIA 4.4.6; EM&A Log 3.2			Noise from roadworks	<ul style="list-style-type: none"> Enclose the noisy part of machineries with noise isolating mats during hard surface breaking
EIA 7.5.1.4; EM&A Log 6.2			Chemical Waste	<ul style="list-style-type: none"> Drip tray and chemical spillage kit shall be provided on site
EIA Table 10.11 EM&A Table 9.1			Landscape and visual impact	<ul style="list-style-type: none"> Properly fenced off the conservative species Properly implement temporary traffic arrangement which control construction area to minimize landscape and visual impacts
EIA 3.91; EM&A Log 2.2	Road and Associated Works	Kong Nga Po Main Site Kong Nga Po Road	Air	<ul style="list-style-type: none"> Regular inspection and maintenance of plant and equipment in good condition Regularly clean up stockpiles and debris to avoid accumulation of materials
EIA 5.6.1.2; EM&A Log 4.2			Water	<ul style="list-style-type: none"> Provide desilting/sedimentation devices for wastewater treatment before discharge
EIA 4.4.6; EM&A Log 3.2			Noise from roadworks	<ul style="list-style-type: none"> Enclose the noisy part of machineries with noise isolating mats during hard surface breaking

Ref*	Proposed Construction Method**	Location/Working Period	Anticipated Major Impacts	Recommended Mitigation Measures
EIA 7.5.1.4; EM&A Log 6.2	(Con't) Road and	(Con't) Kong Nga Po Main	Chemical Waste	<ul style="list-style-type: none"> Drip tray and chemical spillage kit shall be provided on site
EIA Table 10.11 EM&A Table 9.1	Associated Works	Site Kong Nga Po Road	Landscape and visual impact	<ul style="list-style-type: none"> Properly fenced off the conservative species Properly implement temporary traffic arrangement which control construction area to minimize landscape and visual impacts

*EIA Ref/EM&A Log Ref/Design Document Ref

**Details of equipment, vehicles, plants, processes, technologies for the construction method

	Name	Signature	Date
Prepared by Contractor	Alex Liu		30 July 2022
Endorsed by Supervisor's Representative	Winston Wong		1 Aug 2022
Reviewed by Environmental Team Leader	Ivy Tam		8 August 2022
Approved by Independent Environmental Checker	Wingo So		8 August 2022

**APPENDIX B
ACTION AND LIMIT LEVELS**

Appendix B - Action and Limit Levels**Table B-1 Action and Limit Levels for 1-hour TSP**

Monitoring station	Action Level (ug/m ³)	Limit Level (ug/m ³)
AM1	308	500
AM2	311	

TableB-2 Action and Limit Levels for Construction Noise

Time Period	Action Level	Limit Level
0700-1900 hours on normal weekdays	When one documented complaint is received	75 dB(A)

Noted:

If works are to be carried during restricted hours, the conditions stipulated in the construction noise permit issued by the Noise Control Authority have to be followed.

**APPENDIX C
COPIES OF CALIBRATION
CERTIFICATES**

TEST REPORT

APPLICANT: Wellab Limited
(EM&A Department)
Room 1808, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

Test Report No.:	36645A
Date of Issue:	2022-05-10
Date Received:	2022-05-06
Date Tested:	2022-05-06
Date Completed:	2022-05-10
Next Due Date:	2022-07-09

Page: 1 of 1

ATTN: Ms. Meiling Tang

Certificate of Calibration

Item for Calibration:

Description	: Dust Monitor
Manufacturer	: Met One Instruments
Model No.	: AEROCET-831
Serial No.	: X23808
Flow rate	: 0.1 cfm
Zero Count Test	: 0 count per 1 minute
Equipment No.	: WA-01-02

Test Conditions:

Room Temperature	: 17-22 degree Celsius
Relative Humidity	: 40-70%

Test Specifications & Methodology:

1. Instruction and Operation Manual High Volume Sampler, Tisch Environmental Inc.
2. In-house method in according to the instruction manual: The Dust Monitor was compared with a calibrated High Volume Sampler and the result was used to generate the Correlation Factor (CF) between the Dust Monitor and High Volume Sampler.

Results:

Correlation Factor (CF)	1.096
-------------------------	-------

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**



PATRICK TSE
General Manager

TSP - Total Suspended Particulates (1 hr Dust Meter) Calibration Report

Dust Meter	Dust Meter	High Volume Sampler
Equipment No.:	WA-01-02	WA-12-09
Model No. :	AEROCET-831	TE-5170
Serial No.	X23808	2203
Calibration Date:	6-May-22	6-May-22
Location:	Wellab Office (Calibration Room)	

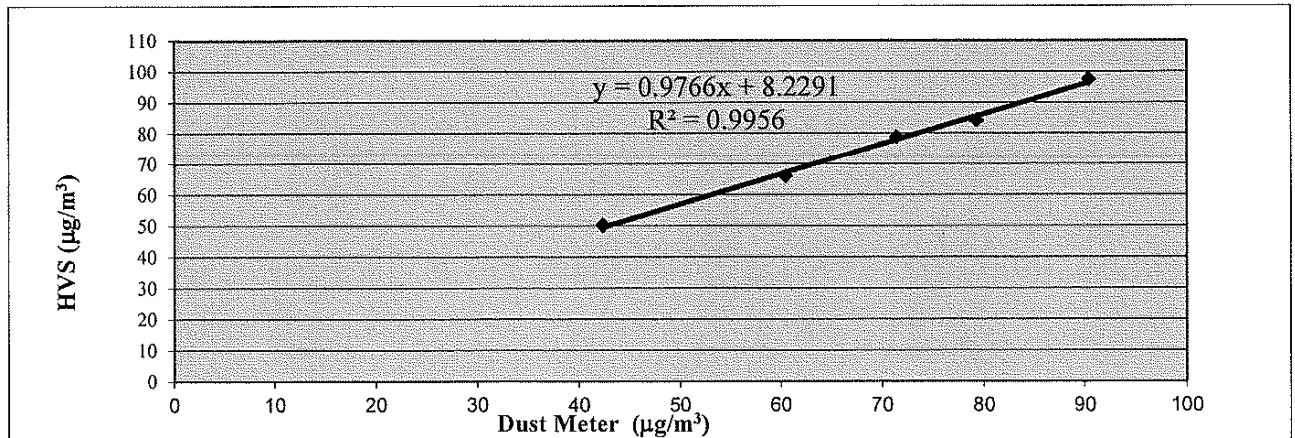
Calibration of 1 hr TSP		
Calibration Point	Dust Meter	HVS
	Mass Concentration ($\mu\text{g}/\text{m}^3$) X-axis	Mass concentration ($\mu\text{g}/\text{m}^3$) Y-axis
1	42	50
2	61	66
3	71	79
4	79	84
5	90	98
Average	68.8	75.4

By Linear Regression of Y on X
 Slope, mw = 0.9766 Intercept, bw = 8.2291
 Correlation coefficient* = 0.9978

*If Correlation Coefficient < 0.90, check and recalibrate.

Set Correlation Factor	
Particulate Concentration by High Volume Sampler ($\mu\text{g}/\text{m}^3$)	75.4
Particulate Concentration by Dust Meter ($\mu\text{g}/\text{m}^3$)	68.8
Measuring time, (min)	60

Set Correlation Factor, SCF
 SCF = | K=High Volume Sampler / Dust Meter, ($\mu\text{g}/\text{m}^3$) | 1.096



QC Reviewer: LEE MANN HEZ Signature: Lee Date: 6-5-2022

TEST REPORT

APPLICANT: Wellab Limited
(EM&A Department)
Room 1808, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

Test Report No.:	36841B
Date of Issue:	2022-06-27
Date Received:	2022-06-24
Date Tested:	2022-06-25
Date Completed:	2022-06-27
Next Due Date:	2022-08-26
Page:	1 of 1

ATTN: Ms. Meiling Tang

Certificate of Calibration

Item for Calibration:

Description : Dust Monitor
 Manufacturer : Met One Instruments
 Model No. : AEROCET-831
 Serial No. : X24479
 Flow rate : 0.1 cfm
 Zero Count Test : 0 count per 1 minute
 Equipment No. : WA-01-08

Test Conditions:

Room Temperature : 17-22 degree Celsius
 Relative Humidity : 40-70%

Test Specifications & Methodology:

1. Instruction and Operation Manual High Volume Sampler, Tisch Environmental Inc.
2. In-house method in according to the instruction manual: The Dust Monitor was compared with a calibrated High Volume Sampler and the result was used to generate the Correlation Factor (CF) between the Dust Monitor and High Volume Sampler.

Results:

Correlation Factor (CF)	1.087
-------------------------	-------

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**



PATRICK TSE
General Manager

TSP - Total Suspended Particulates (1 hr Dust Meter) Calibration Report

Dust Meter	Dust Meter	High Volume Sampler
Equipment No.:	WA-01-08	WA-12-09
Model No. :	AEROCET-831	TE-5170
Serial No.	X24479	2203
Calibration Date:	25-Jun-22	25-Jun-22
Location:	Wellab Office (Calibration Room)	

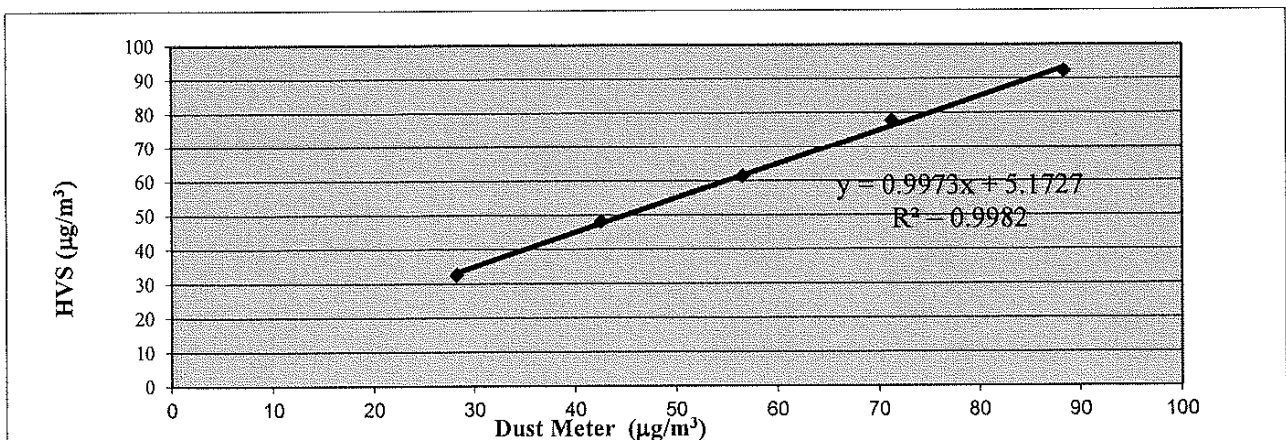
Calibration of 1 hr TSP		
Calibration Point	Dust Meter	HVS
	Mass Concentration ($\mu\text{g}/\text{m}^3$) X-axis	Mass concentration ($\mu\text{g}/\text{m}^3$) Y-axis
1	28	33
2	43	48
3	57	61
4	71	78
5	88	92
Average	57.4	62.5

By Linear Regression of Y on X
 Slope, mw = 0.9973 Intercept, bw = 5.1727
 Correlation coefficient* = 0.9991

*If Correlation Coefficient < 0.90, check and recalibrate.

Set Correlation Factor	
Particulate Concentration by High Volume Sampler ($\mu\text{g}/\text{m}^3$)	62.5
Particulate Concentration by Dust Meter ($\mu\text{g}/\text{m}^3$)	57.4
Measuring time, (min)	60

Set Correlation Factor, SCF
 SCF = [K=High Volume Sampler / Dust Meter, ($\mu\text{g}/\text{m}^3$)] 1.087



QC Reviewer: LEE MAN HUI Signature: lee Date: 26/6/2022

TEST REPORT

APPLICANT: Wellab Limited
(EM&A Department)
Room 1808, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

Test Report No.:	36841C
Date of Issue:	2022-06-27
Date Received:	2022-06-24
Date Tested:	2022-06-25
Date Completed:	2022-06-27
Next Due Date:	2022-08-26

Page: 1 of 1

ATTN: Ms. Meiling Tang

Certificate of Calibration

Item for Calibration:

Description	: Dust Monitor
Manufacturer	: Met One Instruments
Model No.	: AEROCET-831
Serial No.	: X23811
Flow rate	: 0.1 cfm
Zero Count Test	: 0 count per 1 minute
Equipment No.	: WA-01-09

Test Conditions:

Room Temperature	: 17-22 degree Celsius
Relative Humidity	: 40-70%

Test Specifications & Methodology:

1. Instruction and Operation Manual High Volume Sampler, Tisch Environmental Inc.
2. In-house method in according to the instruction manual: The Dust Monitor was compared with a calibrated High Volume Sampler and the result was used to generate the Correlation Factor (CF) between the Dust Monitor and High Volume Sampler.

Results:

Correlation Factor (CF)	1.107
-------------------------	-------

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**



PATRICK TSE
Laboratory Manager

TSP - Total Suspended Particulates (1 hr Dust Meter) Calibration Report

Dust Meter	Dust Meter	High Volume Sampler
Equipment No.:	WA-01-09	WA-12-09
Model No. :	AEROCET-831	TE-5170
Serial No.	X23811	2203
Calibration Date:	25-Jun-22	25-Jun-22
Location:	Wellab Office (Calibration Room)	

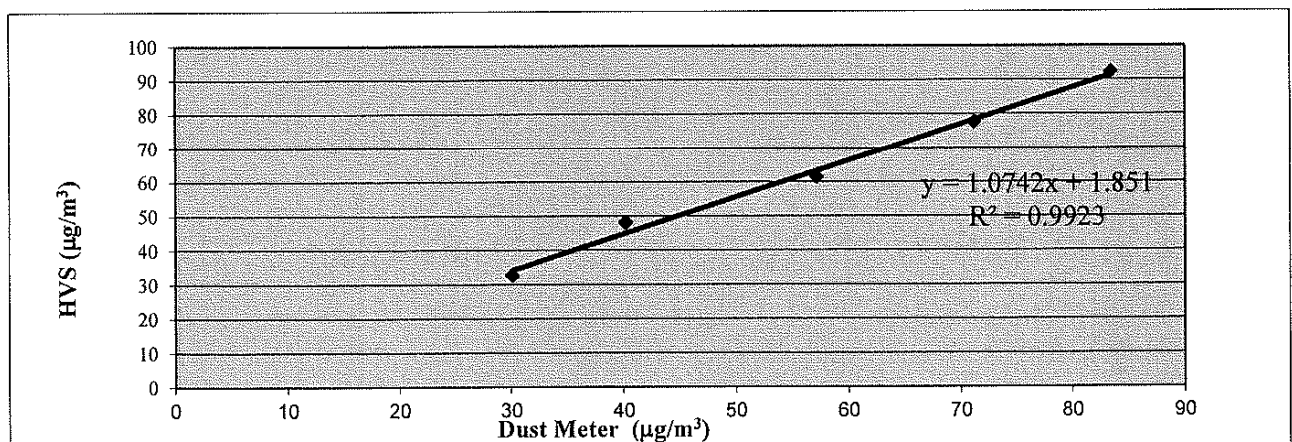
Calibration of 1 hr TSP		
Calibration Point	Dust Meter	HVS
	Mass Concentration ($\mu\text{g}/\text{m}^3$) X-axis	Mass concentration ($\mu\text{g}/\text{m}^3$) Y-axis
1	30	33
2	40	48
3	57	61
4	71	78
5	83	92
Average	56.4	62.5

By Linear Regression of Y on X
 Slope, $m_w =$ 1.0742 Intercept, $b_w =$ 1.8510
 Correlation coefficient* = 0.9962

*If Correlation Coefficient < 0.90, check and recalibrate.

Set Correlation Factor	
Particulate Concentration by High Volume Sampler ($\mu\text{g}/\text{m}^3$)	62.5
Particulate Concentration by Dust Meter ($\mu\text{g}/\text{m}^3$)	56.4
Measuring time, (min)	60

Set Correlation Factor, SCF
 $\text{SCF} = [K = \text{High Volume Sampler} / \text{Dust Meter, } (\mu\text{g}/\text{m}^3)]$ 1.107



QC Reviewer: WZ MNN HEZ Signature: hi Date: 26/6/22

High-Volume TSP Sampler 5-POINT CALIBRATION DATA SHEET

File No. Cal./220506

Equipment No.: WA-12-09
Model No. TE-5170
Operator: HL

Serial No. 2203
Cal. Date: 6-May-22

Ambient Condition			
Temperature, Ta (K)	294.8	Pressure, Pa (mmHg)	762.4

Orifice Transfer Standard Information					
Serial No.	2896	Slope, mc	0.0588	Intercept, bc	-0.01030
Last Calibration Date:	20-Jan-22	$mc \times Qstd + bc = [\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$			
Next Calibration Date:	20-Jan-23	$Qstd = \{[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2} - bc\} / mc$			

Calibration of TSP Sampler					
Calibration Point	Orifice			HVS	
	ΔH (orifice), in. of water	[ΔH x (Pa/760) x (298/Ta)] ^{1/2}	Qstd (CFM) X - axis	ΔW (HVS), in. of water	[ΔW x (Pa/760) x (298/Ta)] ^{1/2} Y-axis
1	13.5	3.70	63.15	8.6	2.95
2	11.3	3.39	57.79	7.1	2.68
3	8.6	2.95	50.44	5.4	2.34
4	5.8	2.43	41.45	3.7	1.94
5	3.6	1.91	32.70	2.5	1.59

By Linear Regression of Y on X

Slope, mw = 0.0447 Intercept, bw : 0.1042

Correlation coefficient* = 0.9991

*If Correlation Coefficient < 0.990, check and recalibrate.

Set Point Calculation

From the TSP Field Calibration Curve, take Qstd = 43 CFM

From the Regression Equation, the "Y" value according to

$$mw \times Qstd + bw = [\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$$

Therefore, Set Point; W = (mw x Qstd + bw)² x (760 / Pa) x (Ta / 298) = 4.06

Remarks: _____

Conducted by: LBB MAN HEE
Checked by: LBB KA CHU

Signature: [Signature]
Signature: [Signature]

Date: 6/5/22
Date: 6/5/22

High-Volume TSP Sampler 5-POINT CALIBRATION DATA SHEET

File No. Cal./220625

Equipment No.: WA-12-09
Model No. TE-5170
Operator: HL

Serial No. 2203
Cal. Date: 25-Jun-22

Ambient Condition			
Temperature, Ta (K)	294.3	Pressure, Pa (mmHg)	758.9

Orifice Transfer Standard Information					
Serial No.	2896	Slope, mc	0.0588	Intercept, bc	-0.01030
Last Calibration Date:	20-Jan-22	$mc \times Qstd + bc = [\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$			
Next Calibration Date:	20-Jan-23	$Qstd = \{[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2} - bc\} / mc$			

Calibration of TSP Sampler					
Calibration Point	Orifice			HVS	
	ΔH (orifice), in. of water	$[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$	Qstd (CFM) X - axis	ΔW (HVS), in. of water	$[\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$ Y-axis
1	12.1	3.50	59.71	8.2	2.88
2	10.3	3.23	55.10	7.0	2.66
3	8.4	2.91	49.78	5.4	2.34
4	5.6	2.38	40.68	3.8	1.96
5	3.7	1.93	33.10	2.6	1.62

By Linear Regression of Y on X

Slope, $mw =$ 0.0472

Intercept, $bw =$ 0.0408

Correlation coefficient* = 0.9981

*If Correlation Coefficient < 0.990, check and recalibrate.

Set Point Calculation

From the TSP Field Calibration Curve, take Qstd = 43 CFM

From the Regression Equation, the "Y" value according to

$$mw \times Qstd + bw = [\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$$

Therefore, Set Point; $W = (mw \times Qstd + bw)^2 \times (760 / Pa) \times (Ta / 298) =$ 4.24

Remarks: _____

Conducted by: Lee Man Ho
Checked by: Lo Ka Che

Signature: kei
Signature: lu

Date: 25-6-2022
Date: 25/6/2022



Certificate of Calibration

Calibration Certification Information			
Cal. Date: January 20, 2022	Rootsmeter S/N: 438320	Ta: 293	°K
Operator: Jim Tisch		Pa: 759.7	mm Hg
Calibration Model #: TE-5025A	Calibrator S/N: 2896		

Run	Vol. Init (m3)	Vol. Final (m3)	ΔVol. (m3)	ΔTime (min)	ΔP (mm Hg)	ΔH (in H2O)
1	1	2	1	1.4610	3.2	2.00
2	3	4	1	1.0360	6.4	4.00
3	5	6	1	0.9190	7.9	5.00
4	7	8	1	0.8780	8.8	5.50
5	9	10	1	0.7250	12.7	8.00

Data Tabulation					
Vstd (m3)	Qstd (x-axis)	$\sqrt{\Delta H \left(\frac{Pa}{Pstd} \right) \left(\frac{Tstd}{Ta} \right)}$ (y-axis)	Va	Qa (x-axis)	$\sqrt{\Delta H (Ta/Pa)}$ (y-axis)
1.0124	0.6929	1.4260	0.9958	0.6816	0.8783
1.0081	0.9731	2.0166	0.9916	0.9571	1.2420
1.0061	1.0948	2.2546	0.9896	1.0768	1.3887
1.0049	1.1445	2.3647	0.9884	1.1258	1.4564
0.9997	1.3789	2.8519	0.9833	1.3563	1.7565
QSTD	m=	2.07510	QA	m=	1.29939
	b=	-0.01030		b=	-0.00634
	r=	0.99995		r=	0.99995

Calculations	
Vstd= $\Delta Vol((Pa-\Delta P)/Pstd)(Tstd/Ta)$	Va= $\Delta Vol((Pa-\Delta P)/Pa)$
Qstd= $Vstd/\Delta Time$	Qa= $Va/\Delta Time$
For subsequent flow rate calculations:	
$Qstd = 1/m \left(\left(\sqrt{\Delta H \left(\frac{Pa}{Pstd} \right) \left(\frac{Tstd}{Ta} \right)} \right) - b \right)$	$Qa = 1/m \left(\left(\sqrt{\Delta H (Ta/Pa)} \right) - b \right)$

Standard Conditions	
Tstd:	298.15 °K
Pstd:	760 mm Hg
Key	
ΔH:	calibrator manometer reading (in H2O)
ΔP:	rootsmeter manometer reading (mm Hg)
Ta:	actual absolute temperature (°K)
Pa:	actual barometric pressure (mm Hg)
b:	intercept
m:	slope

RECALIBRATION
US EPA recommends annual recalibration per 1998 40 Code of Federal Regulations Part 50 to 51, Appendix B to Part 50, Reference Method for the Determination of Suspended Particulate Matter in the Atmosphere, 9.2.17, page 30

TEST REPORT

APPLICANT: Wellab Limited
(EM&A Department)
Room 1808, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

Test Report No.:	36405
Date of Issue:	2022-03-07
Date Received:	2022-03-04
Date Tested:	2022-03-04
Date Completed:	2022-03-07
Next Due Date:	2023-03-06

Page: 1 of 1

ATTN: Ms. Meiling Tang

Certificate of Calibration

Item for calibration:

Description	: Sound Level Meter
Manufacturer	: BSWA
Model No.	: BSWA 308
Serial No.	: 570271
Equipment No.	: WN-01-01

Test conditions:

Room Temperature	: 17-22 degree Celsius
Relative Humidity	: 40-70%

Test Specifications:

Performance checking at 94 and 114 dB

Methodology:

In-house method, according to manufacturer instruction manual

Results:

Reference Set Point, dB	Instrument Readings, dB
94	94.0
114	114.0

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**


PATRICK TSE
General Manager

TEST REPORT

APPLICANT: Wellab Limited
(EM&A Department)
Room 1808, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

Test Report No.:	36405A
Date of Issue:	2022-03-07
Date Received:	2022-03-04
Date Tested:	2022-03-04
Date Completed:	2022-03-07
Next Due Date:	2023-03-06

Page: 1 of 1

ATTN: Ms. Meiling Tang

Certificate of Calibration

Item for calibration:

Description	: Sound Level Meter
Manufacturer	: BSWA
Model No.	: BSWA 308
Serial No.	: 580004
Equipment No.	: WN-01-02

Test conditions:

Room Temperature	: 17-22 degree Celsius
Relative Humidity	: 40-70%

Test Specifications:

Performance checking at 94 and 114 dB

Methodology:

In-house method, according to manufacturer instruction manual

Results:

Reference Set Point, dB	Instrument Readings, dB
94	94.0
114	114.0

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**


PATRICK TSE
General Manager

TEST REPORT

APPLICANT: Wellab Limited
(EM&A Department)
Room 1808, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

Test Report No.:	36405B
Date of Issue:	2022-03-07
Date Received:	2022-03-04
Date Tested:	2022-03-04
Date Completed:	2022-03-07
Next Due Date:	2023-03-06

Page: 1 of 1

ATTN: Ms. Meiling Tang

Certificate of Calibration

Item for calibration:

Description	: Sound Level Meter
Manufacturer	: BSWA
Model No.	: BSWA 308
Serial No.	: 580005
Equipment No.	: WN-01-03

Test conditions:

Room Temperature	: 17-22 degree Celsius
Relative Humidity	: 40-70%

Test Specifications:

Performance checking at 94 and 114 dB

Methodology:

In-house method, according to manufacturer instruction manual

Results:

Reference Set Point, dB	Instrument Readings, dB
94	94.0
114	114.0

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**


PATRICK TSE
General Manager

TEST REPORT

APPLICANT: Wellab Limited
(EM&A Department)
Room 1808, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

Test Report No.:	36405E
Date of Issue:	2022-03-07
Date Received:	2022-03-04
Date Tested:	2022-03-04
Date Completed:	2022-03-07
Next Due Date:	2023-03-06

Page: 1 of 1

ATTN: Ms. Meiling Tang

Certificate of Calibration

Item for calibration:

Description	: Sound Level Meter
Manufacturer	: BSWA
Model No.	: BSWA 308
Serial No.	: 580008
Equipment No.	: WN-01-06

Test conditions:

Room Temperature	: 17-22 degree Celsius
Relative Humidity	: 40-70%

Test Specifications:

Performance checking at 94 and 114 dB

Methodology:

In-house method, according to manufacturer instruction manual

Results:

Reference Set Point, dB	Instrument Readings, dB
94	94.0
114	114.0

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**


PATRICK TSE
General Manager

TEST REPORT

APPLICANT: Wellab Limited
(EM&A Department)
Room 1808, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

Test Report No.: 36481
Date of Issue: 2022-03-14
Date Received: 2022-03-11
Date Tested: 2022-03-11
Date Completed: 2022-03-14
Next Due Date: 2023-03-13

Page: 1 of 1

ATTN: Ms. Meiling Tang

Certificate of Calibration

Item for calibration:

Description : Sound Level Meter
Manufacturer : BSWA
Model No. : BSWA 308
Serial No. : 580011
Equipment No. : WN-01-08

Test conditions:

Room Temperature : 17-22 degree Celsius
Relative Humidity : 40-70%

Test Specifications:

Performance checking at 94 and 114 dB

Methodology:

In-house method, according to manufacturer instruction manual

Results:

Reference Set Point, dB	Instrument Readings, dB
94	94.0
114	114.0

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**


PATRICK TSE
General Manager

TEST REPORT

APPLICANT: Wellab Limited
(EM&A Department)
Room 1808, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

Test Report No.:	35658
Date of Issue:	2021-08-23
Date Received:	2021-08-20
Date Tested:	2021-08-20
Date Completed:	2021-08-23
Next Due Date:	2022-08-22

Page: 1 of 1

ATTN: Ms. Meiling Tang

Certificate of Calibration

Item for Calibration:

Description : Acoustical Calibrator
 Manufacturer : Brüel & Kjær
 Model No. : 4231
 Serial No. : 2412367
 Equipment No. : N-02-03

Test Conditions:

Room Temperature : 17-22 degree Celsius
 Relative Humidity : 40-70%

Methodology:

The Sound Level Calibrator has been calibrated in accordance with the documented procedures and using standard(s) and instrument(s) which are recommended by the manufacturer, or equivalent.

Results:

Sound Pressure Level (1kHz)	Measured SPL	Tolerance
At 94 dB SPL	94.0	94.0 ± 0.1dB
At 114 dB SPL	114.0	114.0 ± 0.1dB

Remark: This report supersedes the one dated 2019-08-20 with certificate number 31951.

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**


PATRICK TSE
General Manager

TEST REPORT

APPLICANT: Wellab Limited
(EM&A Department)
Room 1808, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

Test Report No.:	35658A
Date of Issue:	2021-08-23
Date Received:	2021-08-20
Date Tested:	2021-08-20
Date Completed:	2021-08-23
Next Due Date:	2022-08-22

Page: 1 of 1

ATTN: Ms. Meiling Tang

Certificate of Calibration

Item for calibration:

Description	: Acoustical Calibrator
Manufacturer	: SVANTEK
Model No.	: SV30A
Serial No.	: 24791
Equipment No.	: N-09-04

Test conditions:

Room Temperature	: 17-22 degree Celsius
Relative Humidity	: 40-70%

Methodology:

The Sound Level Calibrator has been calibrated in accordance with the documented procedures and using standard(s) and instrument(s) which are recommended by the manufacturer, or equivalent.

Results:

Sound Pressure Level (1kHz)	Measured SPL	Tolerance
At 94 dB SPL	94.0	94.0 ± 0.1 dB
At 114 dB SPL	114.0	114.0 ± 0.1 dB

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**


PATRICK TSE
General Manager

**APPENDIX D
ENVIRONMENTAL MONITORING
SCHEDULES**

Service Contract No. NDO 07/2019
Environmental Team for Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po
Impact Air Quality, Noise and Ecological Monitoring Schedule (July 2022)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1-Jul	2-Jul
3-Jul	4-Jul	5-Jul	6-Jul	7-Jul	8-Jul	9-Jul
	1 hr TSP X3 AM2		1 hr TSP X3 AM1 Noise NM1 to NM7, NM10		1 hr TSP X3 AM2 Noise NM8 to NM9, NM11 to NM14	
10-Jul	11-Jul	12-Jul	13-Jul	14-Jul	15-Jul	16-Jul
		1 hr TSP X3 AM1 Noise NM1 to NM7, NM10		1 hr TSP X3 AM2 Noise NM8 to NM9, NM11 to NM14		
17-Jul	18-Jul	19-Jul	20-Jul	21-Jul	22-Jul	23-Jul
	1 hr TSP X3 AM1		1 hr TSP X3 AM2 Noise NM8 to NM9, NM11 to NM14		1 hr TSP X3 AM1 Noise NM1 to NM7, NM10 Monitoring of Flora Species of Conservation Interest	
24-Jul	25-Jul	26-Jul	27-Jul	28-Jul	29-Jul	30-Jul
		1 hr TSP X3 AM2 Noise NM8 to NM9, NM11 to NM14		1 hr TSP X3 AM1 Noise NM1 to NM7, NM10		
31-Jul						

Air Quality Monitoring Station(s)

AM1 - Village House, Kong Nga Po
AM2 - Village House, Kong Nga Po

Noise Monitoring Station(s)

NM1 - Village House, Sha Ling	NM8 - Village House, Sha Ling
NM2 - Village House, Sha Ling	NM9 - Village House, Kong Nga Po
NM3 - Village House No. 248, Sha Ling	NM10 - Village House, Kong Nga Po
NM4 - Village House, Sha Ling	NM11 - Village House, Kong Nga Po
NM5 - Village House No. 270, Sha Ling	NM12 - Village House, Kong Nga Po
NM6 - Village House, Sha Ling	NM13 - Village House, Kong Nga Po
NM7 - Village House, Sha Ling	NM14 - Village House, near Man Kam To Road

Service Contract No. NDO 07/2019
Environmental Team for Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po
Tentative Impact Air Quality, Noise and Ecological Monitoring Schedule (August 2022)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1-Aug	2-Aug	3-Aug	4-Aug	5-Aug	6-Aug
	1 hr TSP X3 AM2	1 hr TSP X3 AM1 Noise NM1 to NM7, NM10			1 hr TSP X3 AM2 Noise NM8 to NM9, NM11 to NM14	
7-Aug	8-Aug	9-Aug	10-Aug	11-Aug	12-Aug	13-Aug
	1 hr TSP X3 AM1			1 hr TSP X3 AM2 Noise NM8 to NM9, NM11 to NM14	1 hr TSP X3 AM1 Noise NM1 to NM7, NM10	
14-Aug	15-Aug	16-Aug	17-Aug	18-Aug	19-Aug	20-Aug
			1 hr TSP X3 AM2 Noise NM8 to NM9, NM11 to NM14	1 hr TSP X3 AM1 Noise NM1 to NM7, NM10	Monitoring of Flora Species of Conservation Interest	
21-Aug	22-Aug	23-Aug	24-Aug	25-Aug	26-Aug	27-Aug
		1 hr TSP X3 AM2 Noise NM8 to NM9, NM11 to NM14	1 hr TSP X3 AM1 Noise NM1 to NM7, NM10			
28-Aug	29-Aug	30-Aug	31-Aug			
	1 hr TSP X3 AM2	1 hr TSP X3 AM1 Noise NM1 to NM7, NM10				

The schedule may be changed due to unforeseen circumstances (adverse weather, etc)

Air Quality Monitoring Station(s)

AM1 - Village House, Kong Nga Po
AM2 - Village House, Kong Nga Po

Noise Monitoring Station(s)

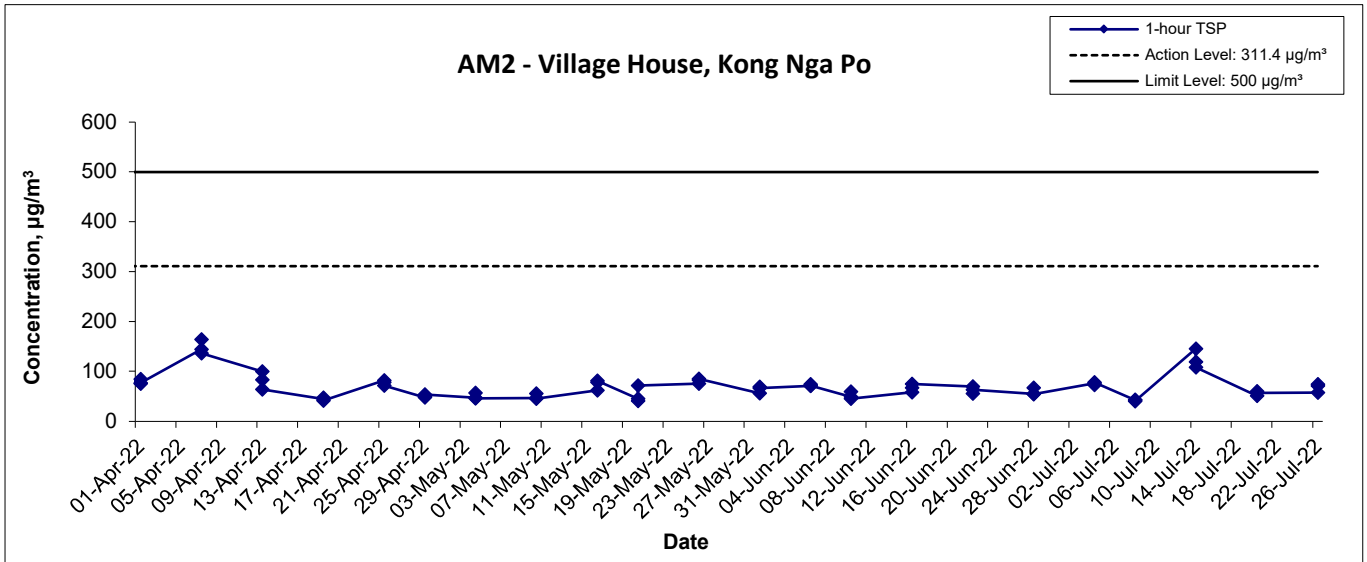
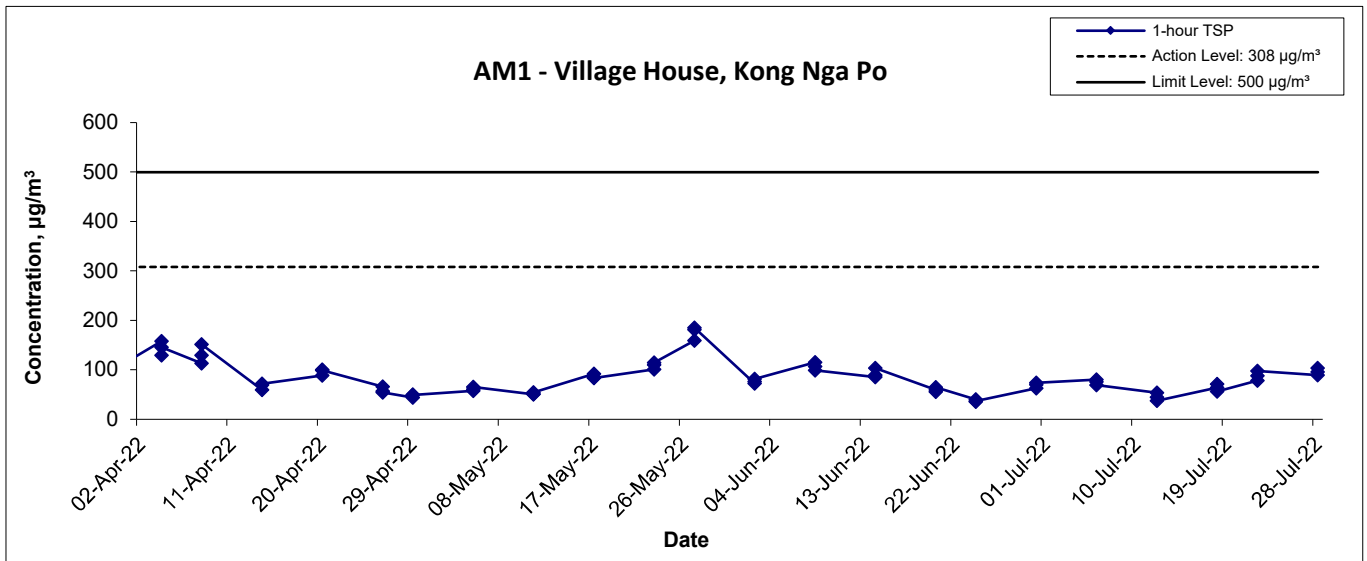
NM1 - Village House, Sha Ling	NM8 - Village House, Sha Ling
NM2 - Village House, Sha Ling	NM9 - Village House, Kong Nga Po
NM3 - Village House No. 248, Sha Ling	NM10 - Village House, Kong Nga Po
NM4 - Village House, Sha Ling	NM11 - Village House, Kong Nga Po
NM5 - Village House No. 270, Sha Ling	NM12 - Village House, Kong Nga Po
NM6 - Village House, Sha Ling	NM13 - Village House, Kong Nga Po
NM7 - Village House, Sha Ling	NM14 - Village House, near Man Kam To Road


**APPENDIX E
AIR QUALITY MONITORING RESULTS
AND GRAPHICAL PRESENTATION**

Appendix E - 1-hour TSP Monitoring Results

Location AM1 - Village House, Kong Nga Po			
Date	Time	Weather	Particulate Concentration ($\mu\text{g}/\text{m}^3$)
6-Jul-22	13:00	Sunny	80.0
6-Jul-22	14:00	Sunny	75.7
6-Jul-22	15:00	Sunny	68.8
12-Jul-22	9:00	Sunny	53.4
12-Jul-22	10:00	Sunny	44.2
12-Jul-22	11:00	Sunny	37.1
18-Jul-22	9:00	Sunny	64.0
18-Jul-22	10:00	Sunny	70.7
18-Jul-22	11:00	Sunny	56.2
22-Jul-22	13:30	Sunny	77.8
22-Jul-22	14:30	Sunny	87.8
22-Jul-22	15:30	Sunny	97.5
28-Jul-22	13:35	Sunny	89.3
28-Jul-22	14:35	Sunny	95.5
28-Jul-22	15:35	Sunny	103.2
		Minimum	37.1
		Maximum	103.2
		Average	73.4

Location AM2 - Village House, Kong Nga Po			
Date	Time	Weather	Particulate Concentration ($\mu\text{g}/\text{m}^3$)
4-Jul-22	9:00	Cloudy	76.0
4-Jul-22	10:00	Cloudy	72.7
4-Jul-22	11:00	Cloudy	77.7
8-Jul-22	13:05	Sunny	42.4
8-Jul-22	14:05	Sunny	42.7
8-Jul-22	15:05	Sunny	39.8
14-Jul-22	13:00	Sunny	144.9
14-Jul-22	14:00	Sunny	119.1
14-Jul-22	15:00	Sunny	107.8
20-Jul-22	13:00	Sunny	51.0
20-Jul-22	14:00	Sunny	59.6
20-Jul-22	15:00	Sunny	56.9
26-Jul-22	9:00	Sunny	57.3
26-Jul-22	10:00	Sunny	73.9
26-Jul-22	11:00	Sunny	70.5
		Minimum	39.8
		Maximum	144.9
		Average	72.8



Title Service Contract No. NDO 07/2019 Environmental Team for Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po Graphical Presentation of 1-hour TSP Monitoring Results	Scale N.T.S	Project No. WMA20001	 consulting . testing . research
	Date Jul 22	Appendix E	

**APPENDIX F
NOISE MONITORING RESULTS AND
GRAPHICAL PRESENTATION**

Appendix F - Noise Monitoring Results

Location NM1 - Village House, Sha Ling										
Date	Weather	Wind Speed (m/s)	Time	Unit: dB (A) (5-min)			Average	Baseline Level		
				L _{eq}	L ₁₀	L ₉₀	L _{eq}	L _{eq}		
6-Jul-22	Cloudy	0.0	10:30	60.6	62.3	58.7	61.2	54.9		
			10:35	60.3	61.0	59.4				
			10:40	60.0	60.8	59.2				
			10:45	60.4	61.2	59.4				
			10:50	61.6	62.7	59.9				
10:55	63.3	65.4	61.7							
12-Jul-22	Sunny	0.0	08:35	65.2	68.9	61.4	64.7		54.9	
			08:40	63.8	65.5	62.0				
			08:45	63.2	64.7	61.5				
			08:50	66.1	68.3	61.3				
			08:55	65.9	71.1	61.5				
09:00	63.0	64.9	61.3							
22-Jul-22	Sunny	0.0	13:00	62.7	65.2	57.9	62.2			54.9
			13:05	62.3	65.0	57.8				
			13:10	65.3	68.9	57.8				
			13:15	58.6	60.2	56.6				
			13:20	60.6	63.0	57.7				
13:25	60.6	63.5	57.0							
28-Jul-22	Sunny	0.0	16:45	59.1	59.9	57.9	56.9	54.9		
			16:50	57.8	58.3	57.4				
			16:55	55.6	58.0	55.4				
			17:00	56.6	58.5	54.6				
			17:05	56.1	58.4	53.3				
17:10	54.8	55.7	51.8							

Location NM2 - Village House, Sha Ling										
Date	Weather	Wind Speed (m/s)	Time	Unit: dB (A) (5-min)			Average	Baseline Level		
				L _{eq}	L ₁₀	L ₉₀	L _{eq}	L _{eq}		
6-Jul-22	Cloudy	0.0	11:10	61.1	63.8	54.4	60.0	56.7		
			11:05	60.3	60.2	54.6				
			11:00	60.3	61.2	54.5				
			10:55	58.5	61.2	54.7				
			10:50	60.2	63.1	54.5				
10:45	58.8	60.6	54.3							
12-Jul-22	Sunny	0.0	08:40	59.3	60.9	55.8	59.2		56.7	
			08:45	60.9	64.8	55.3				
			08:50	58.4	61.2	54.8				
			08:55	59.1	60.8	54.4				
			09:00	57.2	58.7	53.6				
09:05	59.4	61.5	54.4							
22-Jul-22	Sunny	0.0	13:10	64.4	68.0	60.3	63.3			56.7
			13:15	62.8	66.1	59.5				
			13:20	62.1	63.2	60.3				
			13:25	62.0	63.1	61.0				
			13:30	64.8	68.3	61.9				
13:35	62.7	65.5	60.5							
28-Jul-22	Sunny	0.0	16:55	57.8	60.0	55.9	60.3	56.7		
			17:00	57.2	58.7	56.2				
			17:05	58.3	59.3	56.1				
			17:10	57.2	58.1	56.2				
			17:15	59.8	61.6	56.7				
17:20	65.0	65.9	60.1							

Appendix F - Noise Monitoring Results

Location NM3 - Village House No. 248, Sha Ling								
Date	Weather	Wind Speed (m/s)	Time	Unit: dB (A) (5-min)			Average L _{eq}	Baseline Level L _{eq}
				L _{eq}	L ₁₀	L ₉₀		
6-Jul-22	Cloudy	0.0	09:45	61.4	62.0	60.8	61.6	54.5
			09:50	60.7	61.8	59.2		
			09:55	60.6	61.6	59.3		
			10:00	61.4	63.0	59.6		
			10:05	63.3	66.9	60.2		
			10:10	61.8	63.6	59.1		
12-Jul-22	Sunny	0.0	09:20	57.7	59.7	48.3	56.8	54.5
			09:25	56.3	60.8	48.4		
			09:30	55.7	57.5	49.9		
			09:35	56.5	60.8	50.0		
			09:40	55.0	58.6	47.7		
			09:45	58.4	63.1	47.0		
22-Jul-22	Sunny	0.0	14:00	61.5	62.9	60.2	63.0	54.5
			14:05	61.2	61.9	60.5		
			14:10	63.1	64.7	61.8		
			14:15	62.2	63.2	61.0		
			14:20	66.1	67.1	61.0		
			14:25	61.9	63.2	61.1		
28-Jul-22	Sunny	0.0	14:25	62.1	63.1	61.2	61.9	54.5
			14:30	61.8	62.5	61.3		
			14:35	62.1	63.0	61.3		
			14:40	62.2	63.4	61.2		
			14:45	61.8	62.4	61.0		
			14:50	61.6	62.3	60.9		

Location NM4 - Village House, Sha Ling								
Date	Weather	Wind Speed (m/s)	Time	Unit: dB (A) (5-min)			Average L _{eq}	Baseline Level L _{eq}
				L _{eq}	L ₁₀	L ₉₀		
6-Jul-22	Sunny	0.0	14:00	61.5	63.8	57.6	61.0	58.7
			14:05	61.6	65.0	58.1		
			14:10	59.5	61.5	58.0		
			14:15	59.2	60.4	58.0		
			14:20	62.8	65.1	58.5		
			14:25	60.1	61.0	58.0		
12-Jul-22	Sunny	0.0	10:05	57.3	57.9	56.6	59.4	58.7
			10:10	59.1	61.6	57.0		
			10:15	58.1	59.7	56.7		
			10:20	60.0	61.5	57.4		
			10:25	58.6	60.5	57.0		
			10:30	61.8	63.8	56.9		
22-Jul-22	Sunny	0.0	14:45	59.0	60.6	57.3	61.3	58.7
			14:50	58.6	59.6	57.3		
			14:55	58.4	60.0	57.3		
			15:00	63.5	66.0	57.1		
			15:05	64.4	66.7	57.3		
			15:10	59.5	61.8	57.2		
28-Jul-22	Sunny	0.0	15:15	57.0	57.7	56.2	57.3	58.7
			15:20	56.6	57.3	55.9		
			15:25	57.2	58.9	56.0		
			15:30	57.2	58.5	55.9		
			15:35	58.2	59.7	56.9		
			15:40	57.5	59.2	56.1		

Appendix F - Noise Monitoring Results

Location NM5 - Village House No. 270, Sha Ling								
Date	Weather	Wind Speed (m/s)	Time	Unit: dB (A) (5-min)			Average	Baseline Level
				L _{eq}	L ₁₀	L ₉₀		
6-Jul-22	Cloudy	0.2	11:30	61.2	64.8	53.4	58.7	57.0
			11:35	59.7	62.8	51.3		
			11:40	56.4	60.6	50.3		
			11:45	53.6	54.5	49.5		
			11:50	59.2	63.0	49.7		
11:55	58.7	63.0	50.6					
12-Jul-22	Sunny	0.0	10:00	62.2	62.1	54.8	58.5	
			10:05	58.0	61.3	55.0		
			10:10	57.7	60.4	55.0		
			10:15	58.2	61.2	54.0		
			10:20	54.5	57.1	52.2		
10:25	56.0	59.5	52.1					
22-Jul-22	Sunny	0.2	14:08	55.0	58.8	50.4	54.3	
			14:13	51.9	52.8	50.0		
			14:18	55.1	58.7	50.0		
			14:23	52.5	54.4	48.3		
			14:28	55.4	59.2	48.2		
14:33	54.5	58.2	48.4					
28-Jul-22	Sunny	0.2	14:30	58.8	61.9	55.1	58.0	
			14:35	58.8	60.4	55.5		
			14:40	57.5	58.8	54.7		
			14:45	57.3	58.9	54.3		
			14:50	59.3	61.9	54.8		
14:55	54.7	55.2	54.2					

Location NM6 - Village House, Sha Ling								
Date	Weather	Wind Speed (m/s)	Time	Unit: dB (A) (5-min)			Average	Baseline Level
				L _{eq}	L ₁₀	L ₉₀		
6-Jul-22	Sunny	0.0	13:45	57.3	58.8	54.6	57.8	56.0
			13:50	56.8	58.7	54.7		
			13:55	55.1	56.5	53.4		
			14:00	59.5	61.2	53.6		
			14:05	58.0	59.5	54.3		
14:10	58.8	61.9	54.0					
12-Jul-22	Sunny	0.0	10:40	56.0	59.3	50.1	59.0	
			10:45	54.3	57.2	50.3		
			10:50	61.5	64.2	50.6		
			10:55	61.9	63.8	50.0		
			11:00	57.8	58.0	50.7		
11:05	57.7	60.8	50.5					
22-Jul-22	Sunny	0.0	15:05	56.8	58.5	50.9	59.8	
			15:10	52.8	53.7	51.7		
			15:15	56.6	58.7	52.9		
			15:20	58.8	61.8	52.5		
			15:25	62.5	64.3	61.2		
15:30	63.1	65.0	59.3					
28-Jul-22	Sunny	0.0	15:25	58.6	60.4	56.9	58.3	
			15:30	57.4	58.3	56.7		
			15:35	58.8	60.5	57.4		
			15:40	58.8	60.7	57.3		
			15:45	58.0	59.5	57.0		
15:50	58.0	59.2	57.1					

Appendix F - Noise Monitoring Results

Location NM7 - Village House, Sha Ling								
Date	Weather	Wind Speed (m/s)	Time	Unit: dB (A) (5-min)			Average	Baseline Level
				L _{eq}	L ₁₀	L ₉₀	L _{eq}	L _{eq}
6-Jul-22	Sunny	0.0	13:40	52.0	55.0	48.9	57.2	49.8
			13:45	51.0	53.4	47.3		
			13:50	53.3	55.9	48.2		
			13:55	60.9	67.6	48.9		
			14:00	57.6	56.3	48.3		
			14:05	59.2	66.0	49.3		
12-Jul-22	Sunny	0.0	10:45	54.2	57.8	48.0	53.3	
			10:50	57.6	62.8	46.4		
			10:55	51.3	56.0	43.4		
			11:00	50.6	54.6	44.1		
			11:05	47.1	50.4	41.5		
			11:10	51.7	57.0	41.9		
22-Jul-22	Sunny	0.0	15:30	59.6	60.2	59.2	59.6	
			15:35	60.0	61.0	59.2		
			15:40	59.5	60.0	59.0		
			15:45	59.6	60.3	59.2		
			15:50	59.8	60.8	59.0		
			15:55	59.1	59.4	58.8		
28-Jul-22	Sunny	0.0	16:05	55.9	57.8	52.3	54.9	
			16:10	52.8	53.7	51.9		
			16:15	56.9	59.2	52.6		
			16:20	54.2	56.2	51.7		
			16:25	54.0	56.5	52.1		
			16:30	54.1	56.2	52.3		

Location NM8 - Village House, Sha Ling								
Date	Weather	Wind Speed (m/s)	Time	Unit: dB (A) (5-min)			Average	Baseline Level
				L _{eq}	L ₁₀	L ₉₀	L _{eq}	L _{eq}
8-Jul-22	Sunny	0.0	13:00	52.2	57.5	47.7	53.6	57.6
			13:05	53.2	58.1	48.3		
			13:10	50.2	51.9	48.2		
			13:15	51.6	52.4	48.4		
			13:20	48.7	49.8	47.6		
			13:25	58.3	50.3	47.8		
14-Jul-22	Sunny	0.0	13:00	52.6	52.8	46.6	58.3	
			14:05	48.9	50.1	43.8		
			15:10	59.7	66.8	46.2		
			16:15	63.3	64.2	54.1		
			17:20	57.3	64.2	47.6		
			18:25	53.1	53.7	47.7		
20-Jul-22	Cloudy	0.0	16:25	53.0	53.6	47.3	54.4	
			16:30	54.3	56.9	48.5		
			16:35	53.7	56.2	48.4		
			16:40	51.5	54.0	46.5		
			16:45	51.1	53.2	47.0		
			16:50	58.2	60.6	48.8		
26-Jul-22	Sunny	0.0	11:30	54.6	54.7	50.2	53.5	
			11:35	57.3	59.7	51.1		
			11:40	52.4	52.9	48.8		
			11:45	52.5	53.9	49.3		
			11:50	49.8	51.9	47.6		
			11:55	48.1	50.1	46.2		

Appendix F - Noise Monitoring Results

Location NM9 - Village House, Kong Nga Po								
Date	Weather	Wind Speed (m/s)	Time	Unit: dB (A) (5-min)			Average L _{eq}	Baseline Level L _{eq}
				L _{eq}	L ₁₀	L ₉₀		
8-Jul-22	Sunny	0.3	13:40	65.6	66.5	60.6	64.0	55.9
			13:45	64.9	67.3	59.9		
			13:50	62.3	64.3	59.7		
			13:55	63.1	65.1	60.4		
			14:00	62.8	64.7	60.4		
			14:05	64.4	67.0	60.9		
14-Jul-22	Sunny	0.0	15:15	62.7	60.2	55.2	59.9	
			15:20	58.8	61.5	54.2		
			15:25	56.7	58.4	52.9		
			15:30	61.6	66.2	53.0		
			15:35	58.8	61.9	53.9		
			15:40	57.1	59.7	53.9		
20-Jul-22	Cloudy	0.5	15:45	63.6	66.1	61.1	63.0	
			15:50	63.0	64.8	61.3		
			15:55	62.2	63.6	60.8		
			16:00	63.7	64.4	61.0		
			16:05	62.6	64.2	60.9		
			16:10	62.5	64.1	60.8		
26-Jul-22	Sunny	0.0	10:45	62.2	62.5	61.9	62.8	
			10:50	62.9	64.0	61.1		
			10:55	62.2	62.4	61.9		
			11:00	62.7	63.4	62.2		
			11:05	62.2	62.7	61.9		
			11:10	64.3	66.8	60.9		

Location NM10 - Village House, Kong Nga Po								
Date	Weather	Wind Speed (m/s)	Time	Unit: dB (A) (5-min)			Average L _{eq}	Baseline Level L _{eq}
				L _{eq}	L ₁₀	L ₉₀		
6-Jul-22	Sunny	0.0	13:00	54.1	55.8	51.1	53.1	52.8
			13:05	52.1	53.2	50.9		
			13:10	55.6	60.7	49.9		
			13:15	50.5	51.7	48.9		
			13:20	52.5	56.1	48.4		
			13:25	52.1	53.2	50.5		
12-Jul-22	Sunny	0.0	11:30	52.5	54.6	50.6	51.7	
			11:35	51.9	53.7	50.3		
			11:40	51.8	53.6	50.1		
			11:45	51.1	52.1	50.0		
			11:50	51.2	52.4	50.2		
			11:55	51.3	53.2	49.6		
22-Jul-22	Sunny	0.0	16:00	58.1	60.1	55.2	57.8	
			16:05	56.8	58.7	54.5		
			16:10	57.2	59.3	55.1		
			16:15	57.4	59.2	55.2		
			16:20	58.4	62.1	55.2		
			16:25	58.4	61.4	55.5		
28-Jul-22	Sunny	0.0	13:35	56.3	57.9	54.3	56.6	
			13:40	57.7	59.4	54.4		
			13:45	57.7	60.4	54.5		
			13:50	56.6	58.5	54.4		
			13:55	55.4	56.3	53.4		
			14:00	55.1	56.3	53.4		

Appendix F - Noise Monitoring Results

Location NM11 - Village House, Kong Nga Po								
Date	Weather	Wind Speed (m/s)	Time	Unit: dB (A) (5-min)			Average	Baseline Level
				L _{eq}	L ₁₀	L ₉₀	L _{eq}	L _{eq}
8-Jul-22	Sunny	0.0	13:50	51.9	52.4	51.0	52.1	46.4
			13:55	51.6	52.2	51.0		
			14:00	51.8	52.2	51.2		
			14:05	51.5	52.2	50.8		
			14:10	51.1	51.6	50.6		
14:15	54.1	52.8	50.5					
14-Jul-22	Sunny	0.0	14:30	54.1	55.1	53.1	54.1	
			14:35	53.6	54.5	52.8		
			14:40	56.1	59.7	52.7		
			14:45	53.1	54.8	51.8		
			14:50	53.7	55.2	52.8		
20-Jul-22	Cloudy	0.0	14:55	53.1	54.8	51.9	53.7	
			15:05	53.9	54.6	53.1		
			15:10	53.5	54.0	53.1		
			15:15	53.8	55.4	53.2		
			15:20	53.5	55.6	53.2		
26-Jul-22	Sunny	0.0	15:25	53.7	54.1	53.1	52.2	
			15:30	53.5	53.9	53.1		
			10:35	52.0	52.9	51.1		
			10:40	52.4	53.3	51.6		
			10:45	52.0	52.5	51.4		
10:50	52.3	52.8	51.7					
10:55	51.9	52.4	51.2					
11:00	52.3	53.1	51.3					

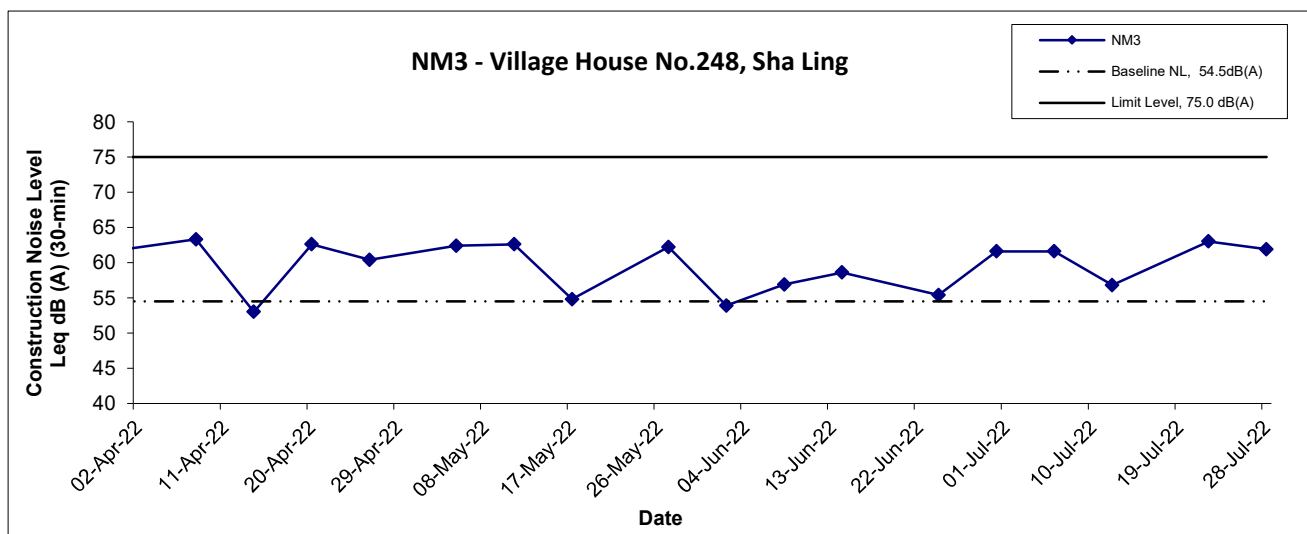
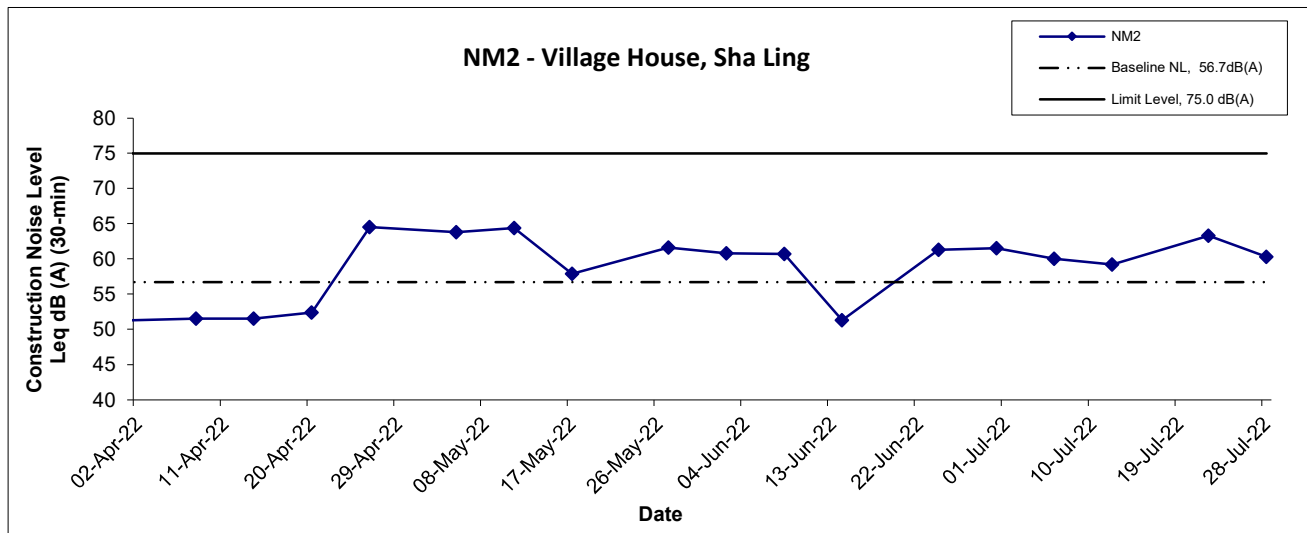
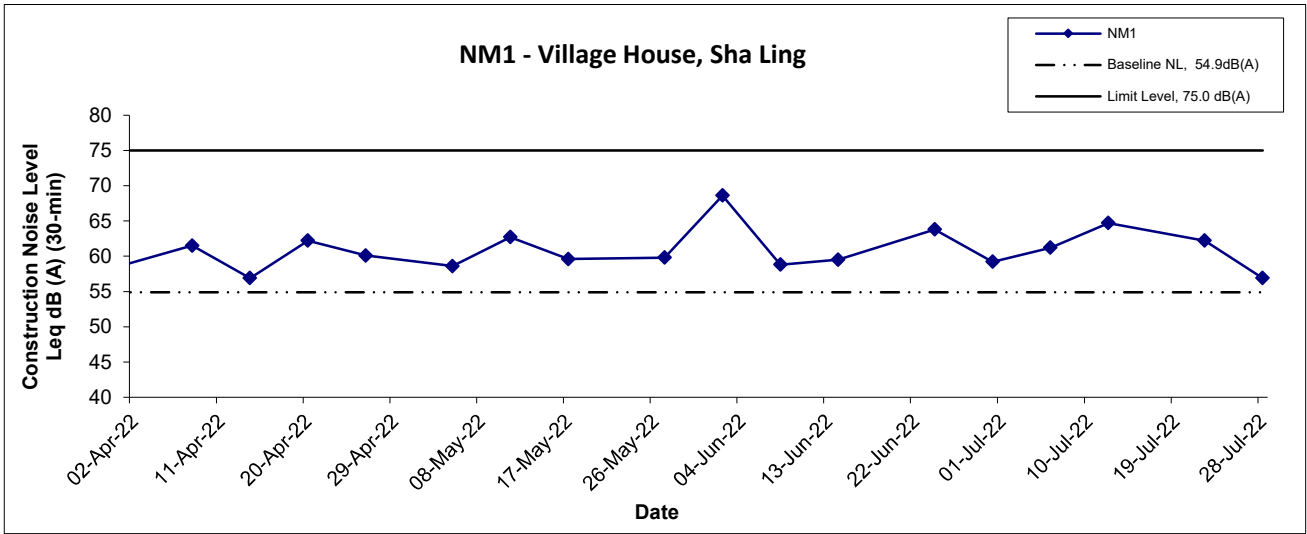
Location NM12 - Village House, Kong Nga Po								
Date	Weather	Wind Speed (m/s)	Time	Unit: dB (A) (5-min)			Average	Baseline Level
				L _{eq}	L ₁₀	L ₉₀	L _{eq}	L _{eq}
8-Jul-22	Sunny	0.2	13:10	64.6	68.5	45.5	57.4	54.7
			13:15	52.1	50.7	45.5		
			13:20	48.1	49.6	45.9		
			13:25	45.7	46.6	44.7		
			13:30	47.7	49.6	45.8		
14-Jul-22	Sunny	0.0	13:35	48.9	50.5	46.0	57.5	
			13:45	65.0	61.1	45.9		
			13:50	46.3	46.7	45.6		
			13:55	47.1	48.2	45.6		
			14:00	46.0	46.6	45.2		
20-Jul-22	Cloudy	0.0	14:05	46.3	47.0	45.4	66.7	
			14:10	46.4	46.9	45.7		
			13:00	67.6	69.0	60.4		
			13:05	64.9	66.1	59.9		
			13:10	67.1	69.2	60.9		
26-Jul-22	Sunny	0.0	13:15	67.8	68.1	60.1	61.8	
			13:20	67.3	68.8	60.3		
			13:25	64.7	65.9	59.3		
			09:05	61.7	62.3	57.9		
			09:10	60.9	61.8	57.5		
09:15	59.7	60.3	57.0					
09:20	57.6	58.5	57.1					
09:25	64.5	66.1	57.9					
09:30	62.9	63.2	57.7					

Appendix F - Noise Monitoring Results

Location NM13 - Village House, Kong Nga Po									
Date	Weather	Wind Speed (m/s)	Time	Unit: dB (A) (5-min)			Average L _{eq}	Baseline Level L _{eq}	
				L _{eq}	L ₁₀	L ₉₀			
8-Jul-22	Sunny	0.0	14:20	74.1	78.1	49.7	71.9	61.3	
			14:25	68.5	72.0	47.3			
			14:30	72.8	77.2	48.8			
			14:35	70.7	76.5	47.7			
			14:40	66.7	72.8	48.2			
14:45	74.1	78.6	48.7						
14-Jul-22	Sunny	0.0	16:00	61.0	58.5	51.4	55.7		61.3
			16:05	52.3	53.6	50.1			
			16:10	51.7	52.9	50.5			
			16:15	52.7	54.7	50.7			
			16:20	53.0	54.7	51.0			
16:25	54.3	56.4	51.5						
20-Jul-22	Cloudy	0.3	14:25	54.3	55.2	52.3	53.5	61.3	
			14:30	53.5	54.6	52.5			
			14:35	53.4	54.9	52.0			
			14:40	53.2	54.6	51.8			
			14:45	53.1	54.4	51.7			
14:50	53.5	55.0	52.1						
26-Jul-22	Sunny	0.3	09:55	51.6	52.3	49.4	53.1		61.3
			10:00	53.8	57.4	48.8			
			10:05	54.1	56.9	51.8			
			10:10	52.2	53.1	51.5			
			10:15	52.8	53.9	51.1			
10:20	53.6	55.8	51.0						

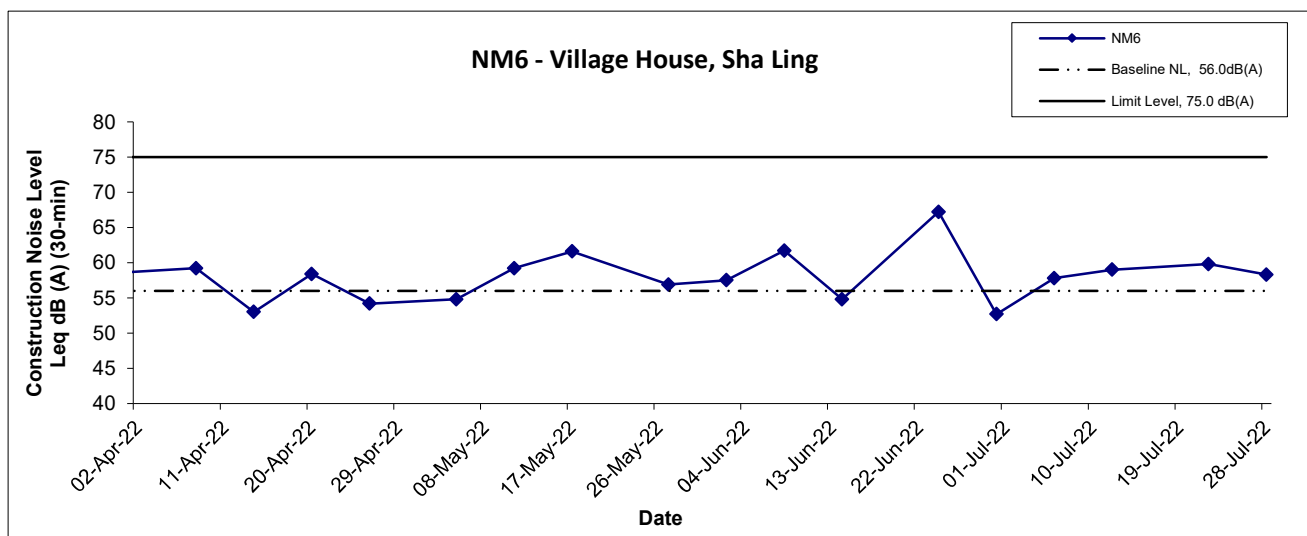
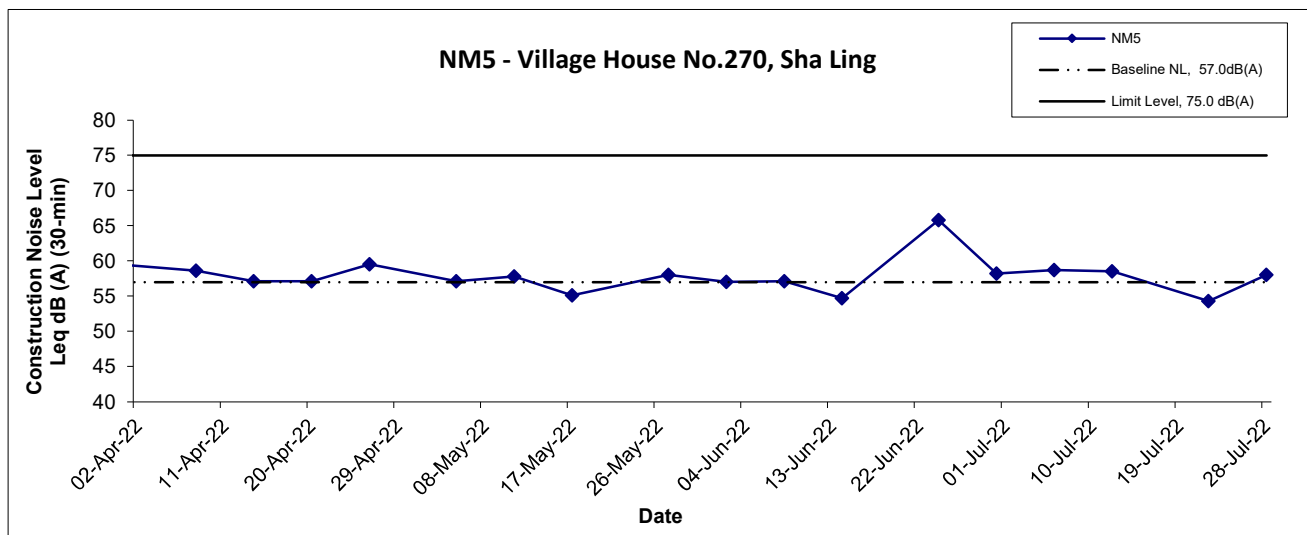
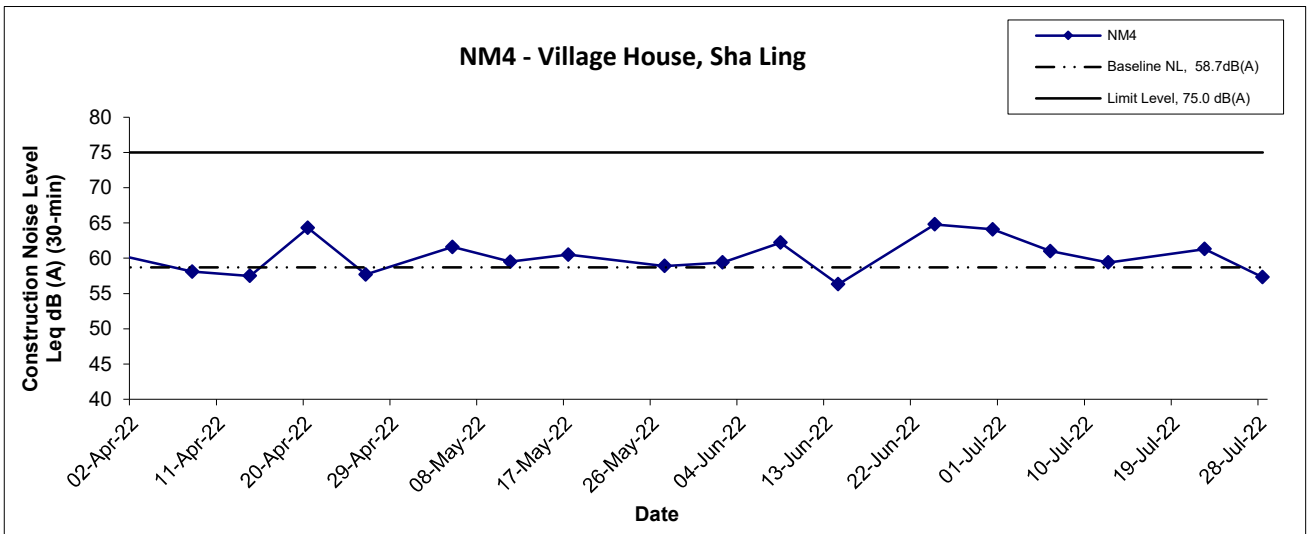
Location NM14 - Village House, near Man Kam To Road									
Date	Weather	Wind Speed (m/s)	Time	Unit: dB (A) (5-min)			Average L _{eq}	Baseline Level L _{eq}	
				L _{eq}	L ₁₀	L ₉₀			
8-Jul-22	Sunny	0.2	14:35	63.8	69.0	47.0	61.5	59.6	
			14:40	59.4	64.0	49.8			
			14:45	61.3	64.6	48.3			
			14:50	60.0	63.2	46.0			
			14:55	61.8	63.8	47.9			
15:00	61.3	65.6	48.1						
14-Jul-22	Sunny	0.0	16:45	50.8	51.1	44.8	54.0		59.6
			16:50	49.3	52.5	44.9			
			16:55	49.6	53.2	43.9			
			17:00	58.8	66.1	44.4			
			17:05	55.7	59.5	43.2			
17:10	48.4	52.6	42.1						
20-Jul-22	Cloudy	0.0	13:45	57.8	59.1	52.7	55.2	59.6	
			13:50	54.7	56.8	52.7			
			13:55	54.5	55.7	52.8			
			14:00	54.3	56.2	52.0			
			14:05	54.1	55.7	52.7			
14:10	54.4	56.4	52.4						
26-Jul-22	Sunny	0.0	09:45	52.3	54.6	49.7	52.9		59.6
			09:50	52.2	53.5	50.1			
			09:55	54.6	55.2	50.8			
			10:00	52.2	54.0	49.7			
			10:05	52.3	55.0	49.5			
10:10	53.0	54.6	49.4						

Noise Levels



Title Service Contract No. NDO 07/2019 Environmental Team for Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po Graphical Presentation of Construction Noise Monitoring Results	Scale N.T.S	Project No. WMA20001	consulting . testing . research
	Date Jul 22	Appendix F	

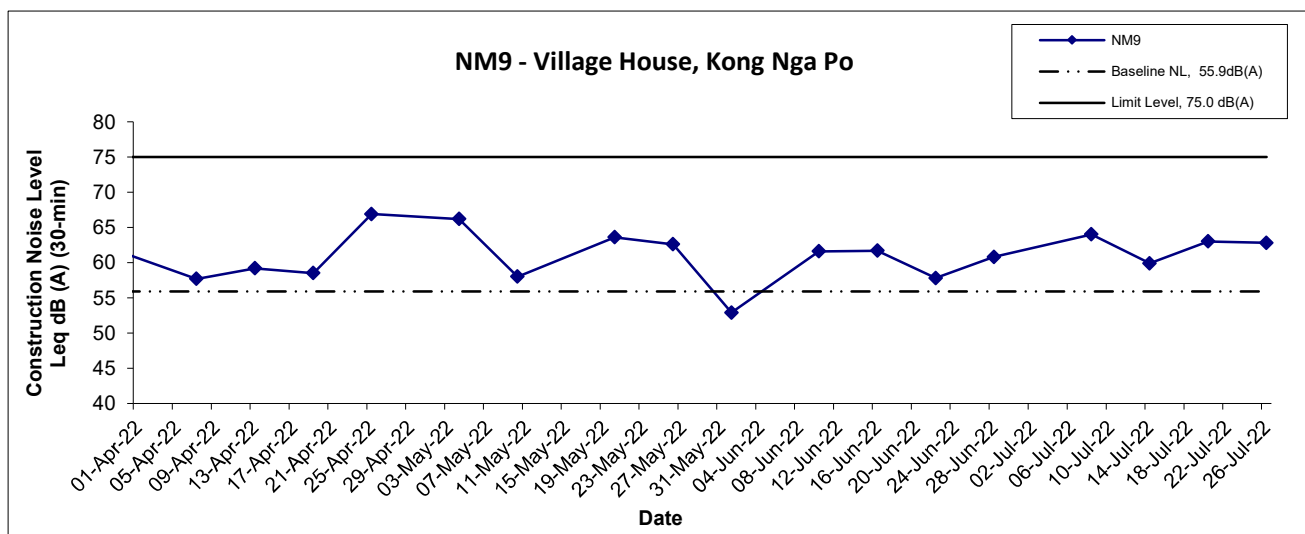
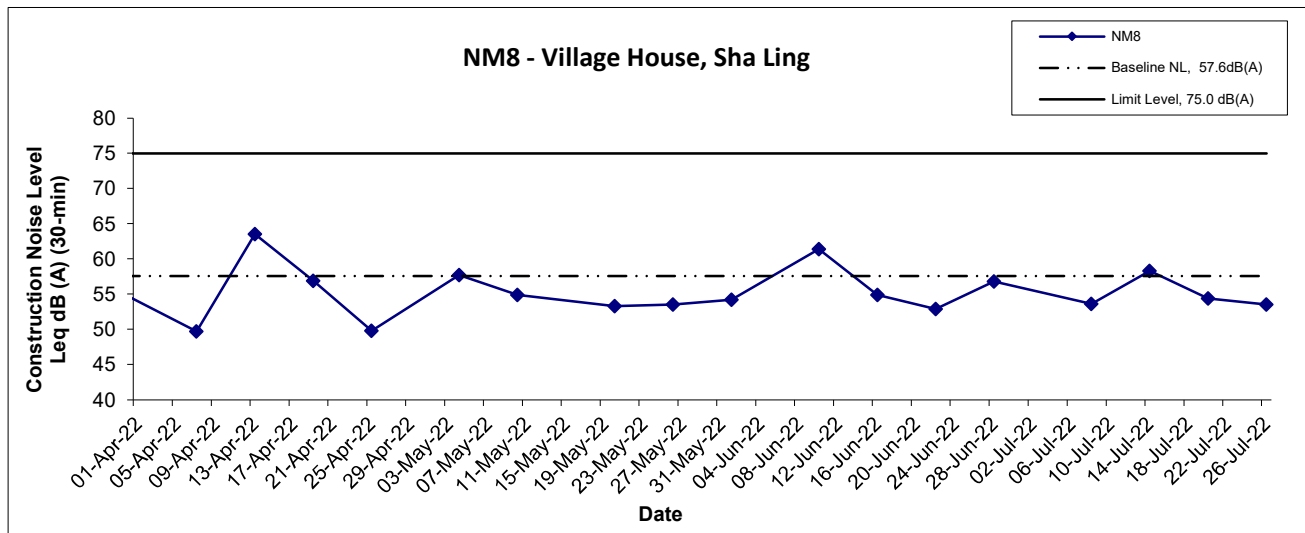
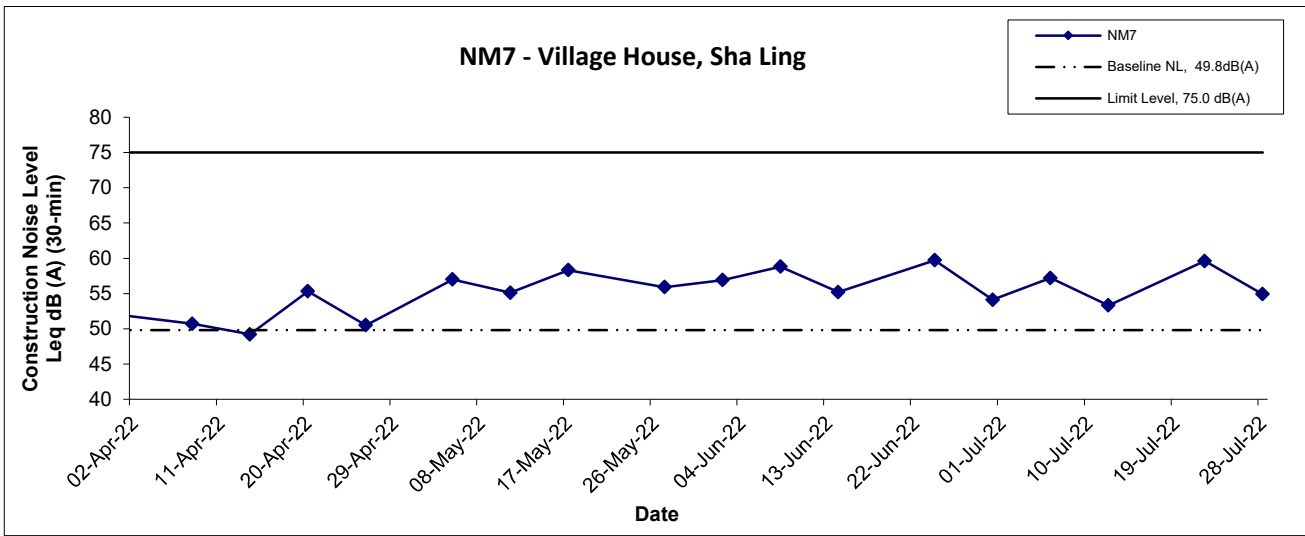
Noise Levels



Title Service Contract No. NDO 07/2019 Environmental Team for Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po Graphical Presentation of Construction Noise Monitoring Results	Scale	N.T.S	Project No.	WMA20001
	Date	Jul 22	Appendix	F

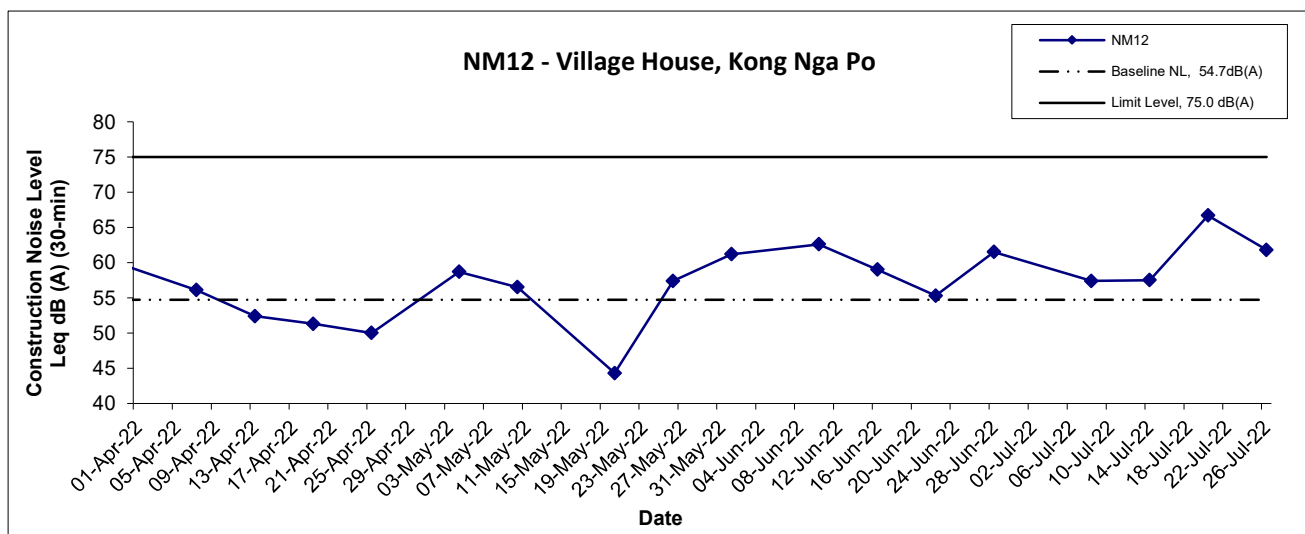
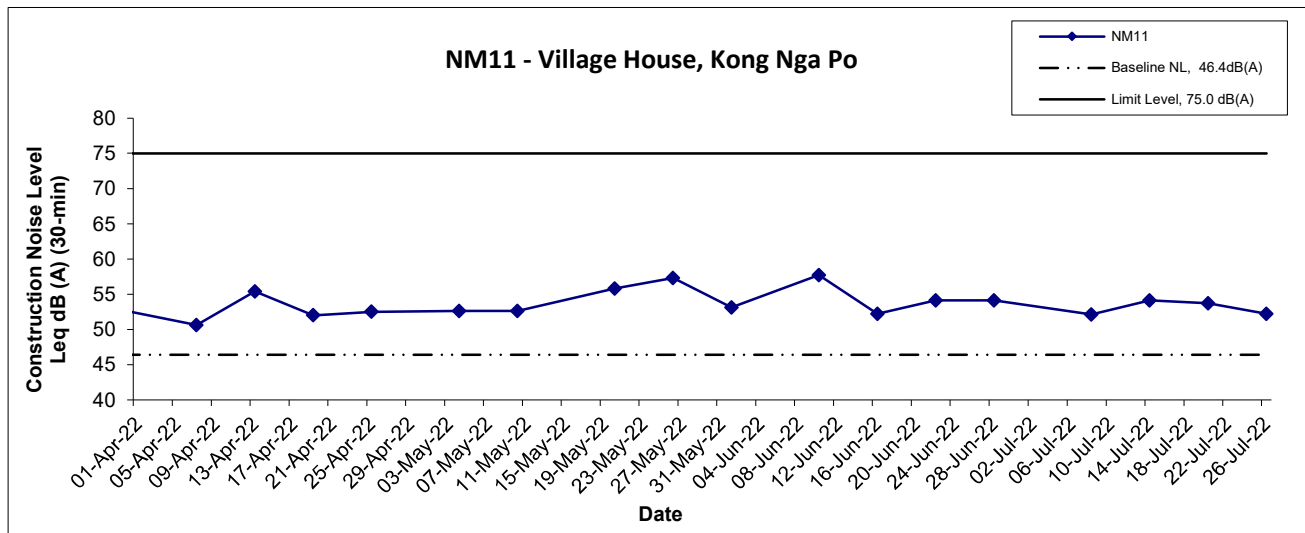
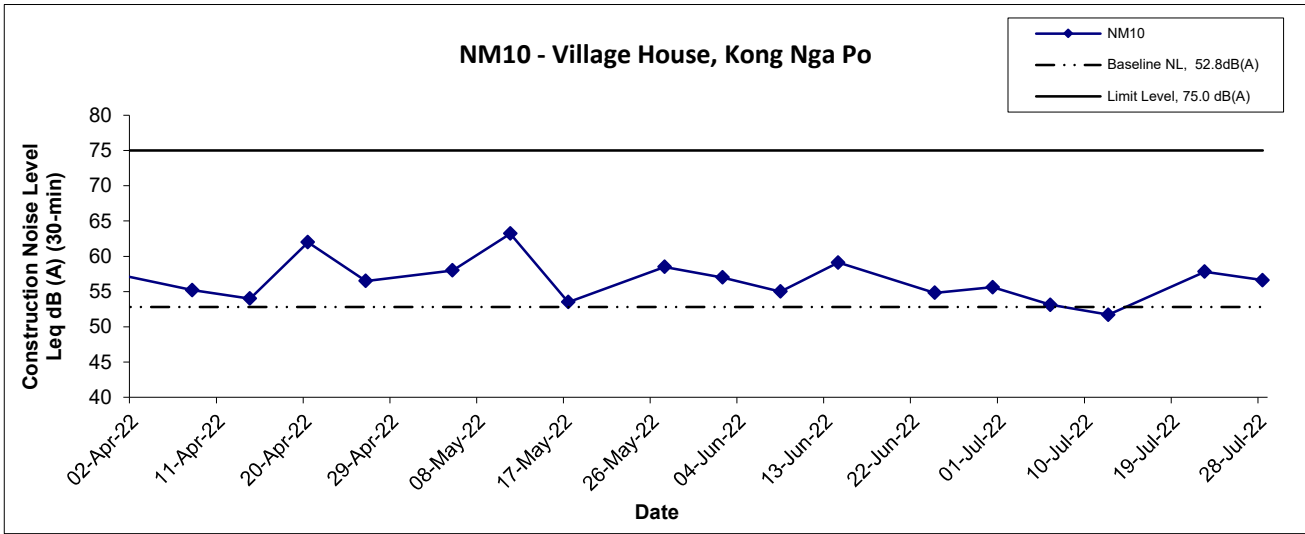


Noise Levels



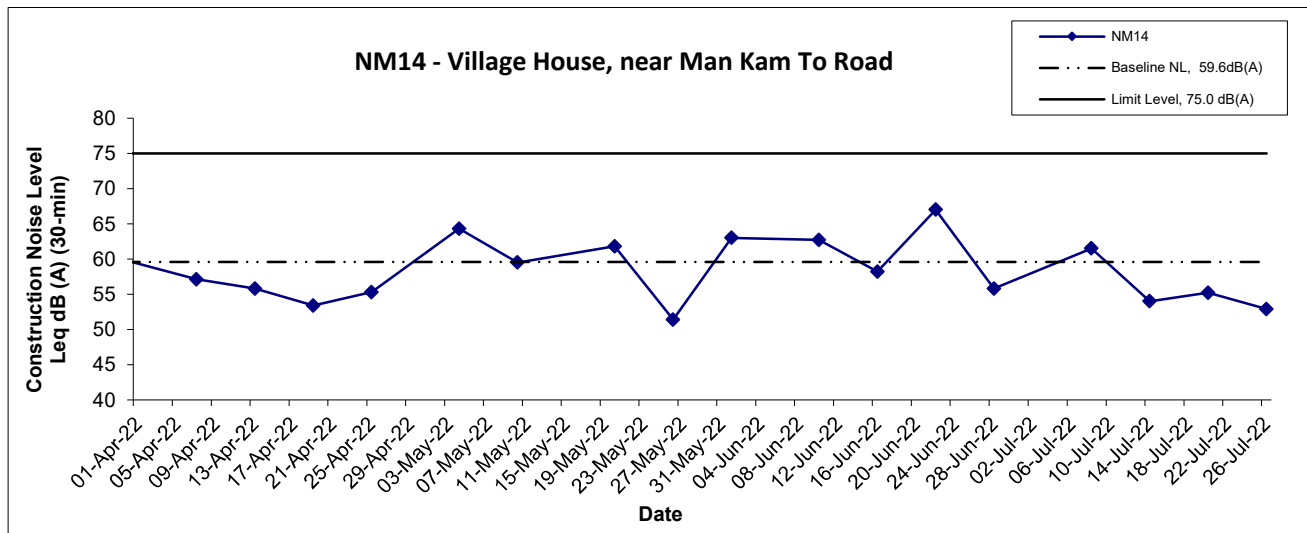
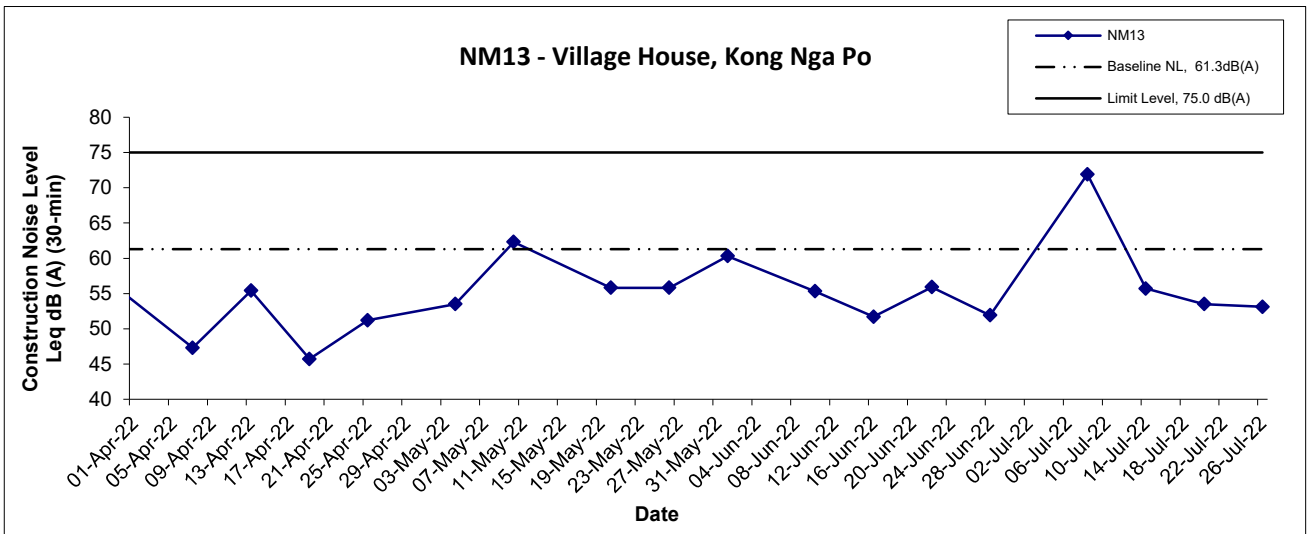
Title Service Contract No. NDO 07/2019 Environmental Team for Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po Graphical Presentation of Construction Noise Monitoring Results	Scale	Project No.	consulting . testing . research
	N.T.S	WMA20001	
Date	Jul 22	Appendix	F

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Noise Levels



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	Date	Jul 22	Appendix	F

**APPENDIX G
WEATHER CONDITION**

Appendix G –**General Weather Conditions during the Monitoring Period (July 2022)**

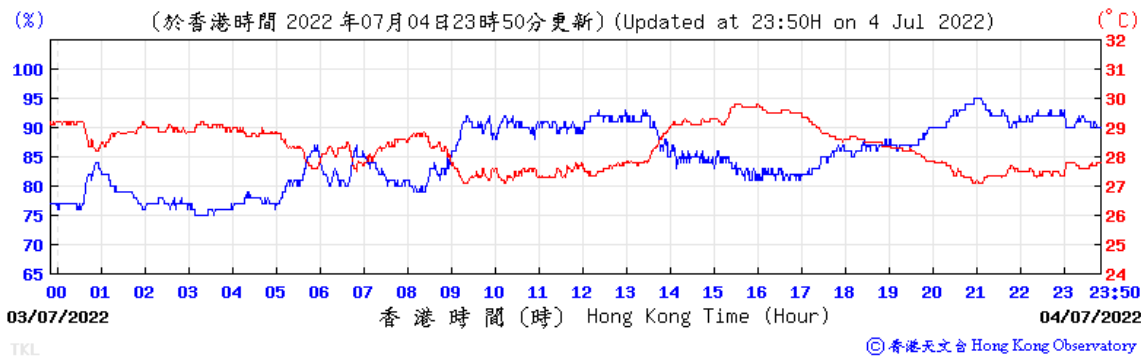
Date	Mean Air Temperature (°C)	Mean Relative Humidity (%)	Precipitation (mm)
1 July 2022	27.2	85	63
2 July 2022	26.9	89	72.4
3 July 2022	29	82	0
4 July 2022	28.8	83	0.4
5 July 2022	29	82	0.2
6 July 2022	28.8	81	0.5
7 July 2022	28.7	86	13.1
8 July 2022	30	79	Trace
9 July 2022	29.9	81	Trace
10 July 2022	30.5	77	Trace
11 July 2022	30.9	73	0
12 July 2022	31.1	72	0
13 July 2022	31	71	0
14 July 2022	30.4	75	0
15 July 2022	30.4	77	0.2
16 July 2022	30.5	77	1.5
17 July 2022	30.5	76	1.2

Date	Mean Air Temperature (°C)	Mean Relative Humidity (%)	Precipitation (mm)
18 July 2022	30.4	78	2.7
19 July 2022	30.8	75	Trace
20 July 2022	30.8	76	0.6
21 July 2022	30.9	74	0.3
22 July 2022	31.2	72	0
23 July 2022	31.4	74	0
24 July 2022	32	72	0
25 July 2022	32	74	0
26 July 2022	31.2	71	0
27 July 2022	31	69	0
28 July 2022	31.2	73	0
29 July 2022	31.7	74	0
30 July 2022	29.5	81	2.4
31 July 2022	30.8	76	0

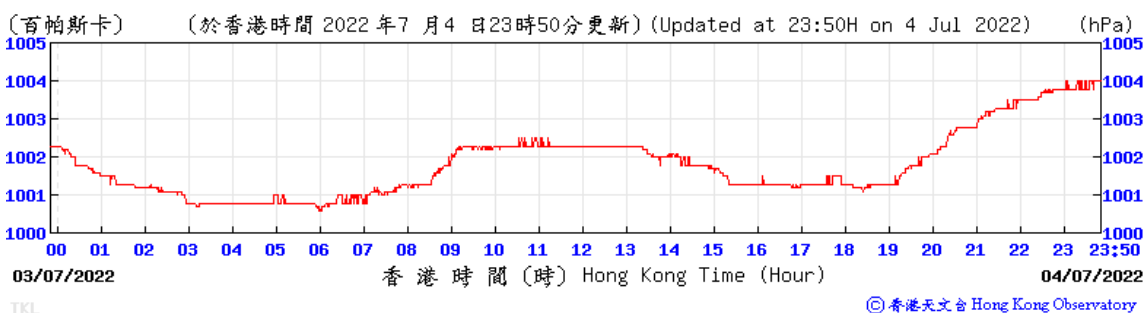
* The above information was extracted from the daily weather summary by Hong Kong Observatory.

4 July 2022

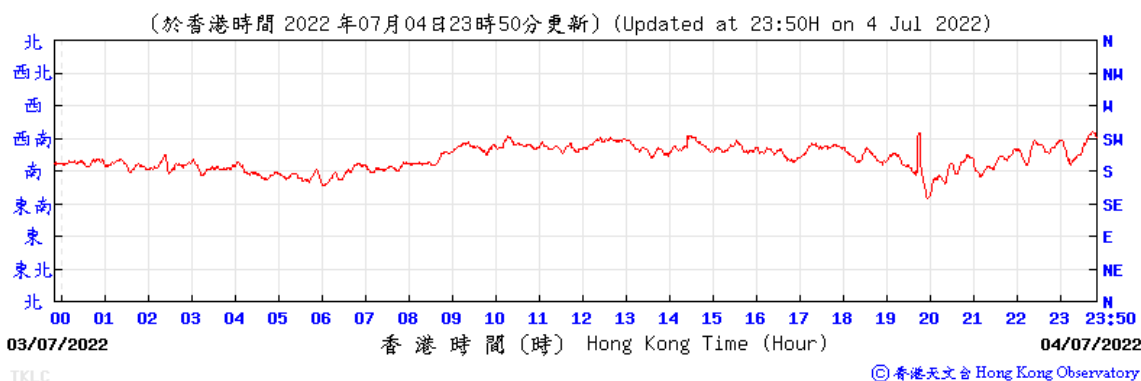
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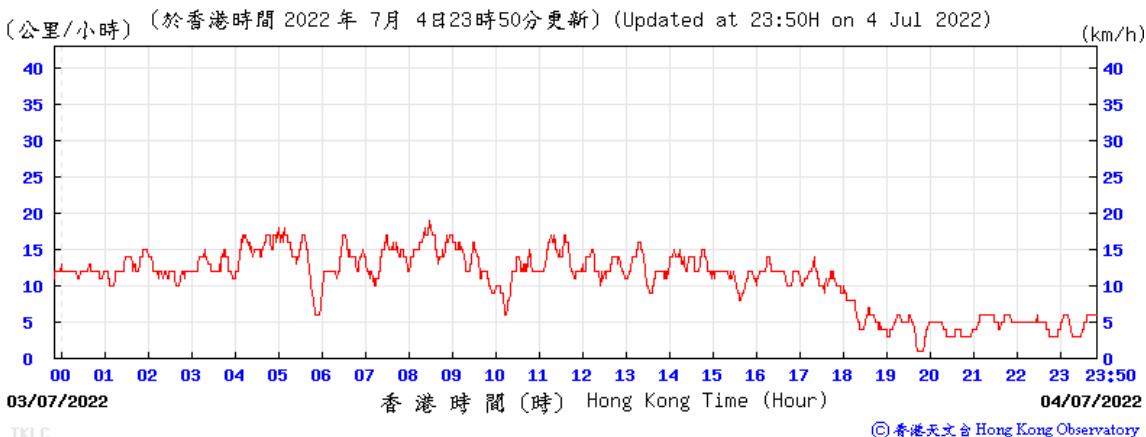
Pressure:



Wind Direction:



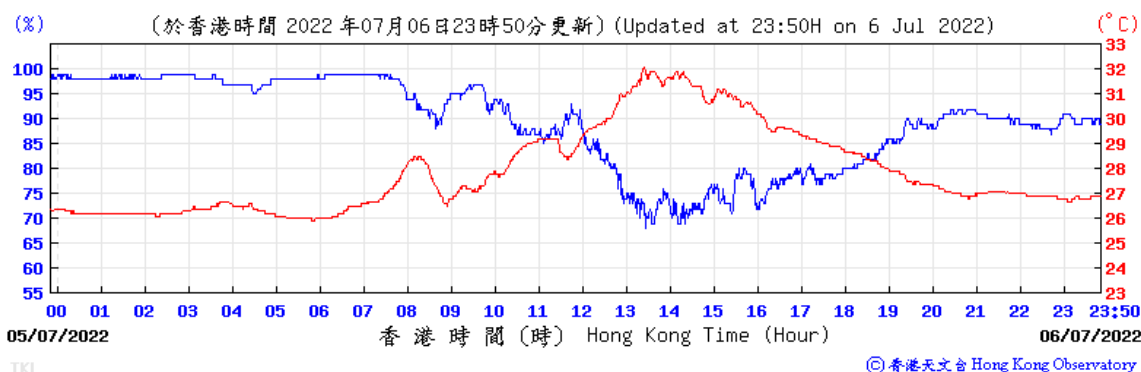
Wind Speed:



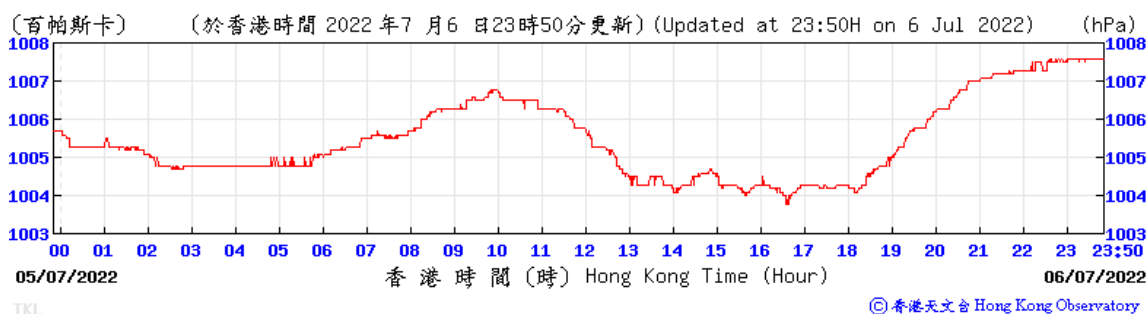
Title Service Contract No. NDO 07/2019 Environmental Team for Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po Meteorological Data at Ta Kwu Ling Weather Station	Scale N.T.S	Project No. WMA20001	
	Date Jul 22	Appendix G	

6 July 2022

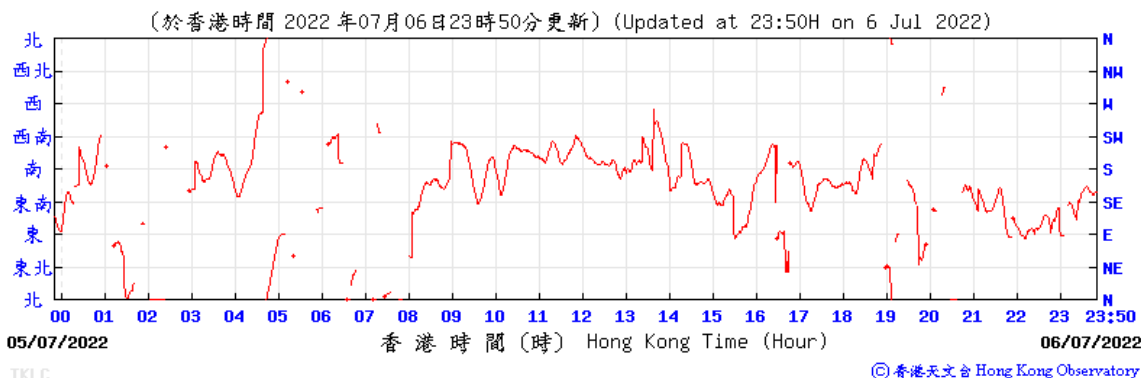
Temperature/Humidity:



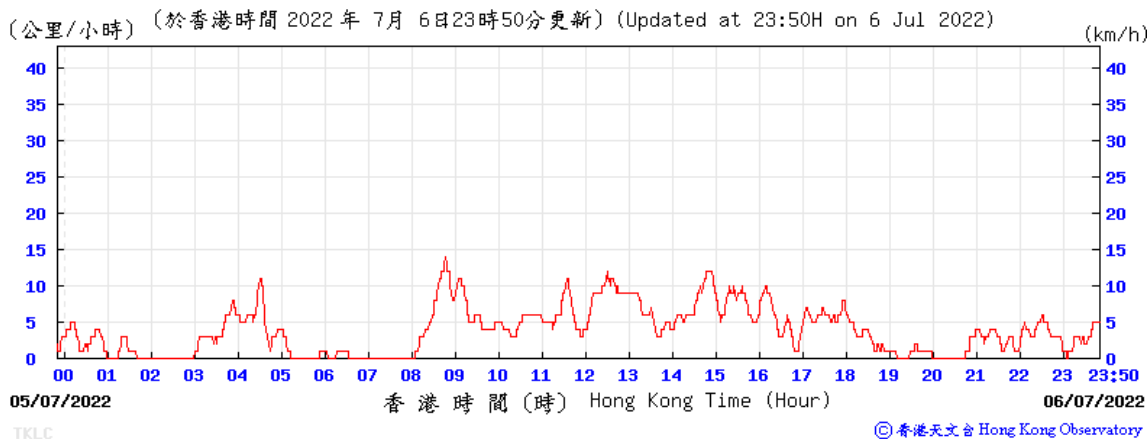
Pressure:




Wind Direction:



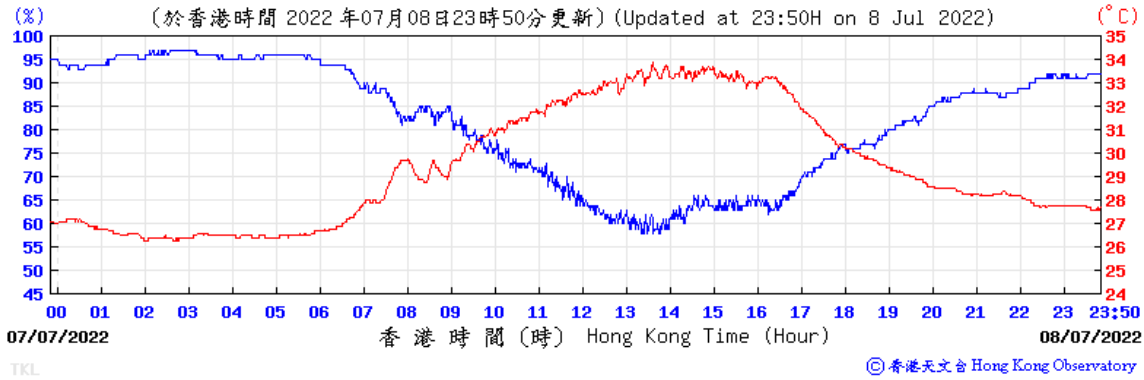
Wind Speed:



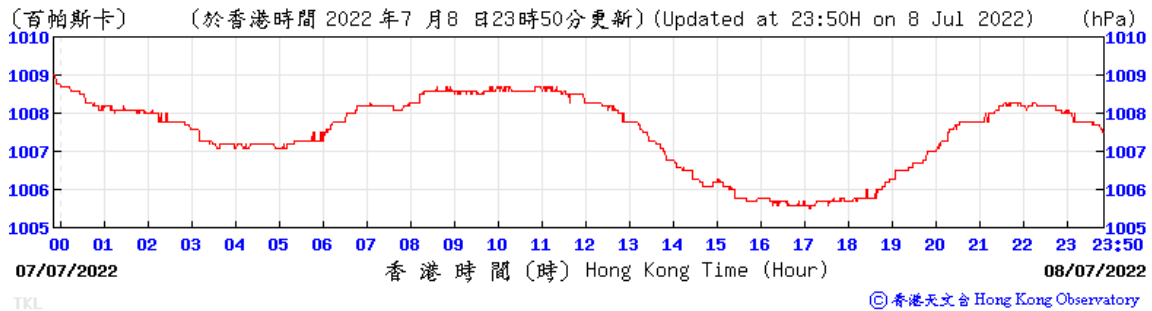
Title Service Contract No. NDO 07/2019 Environmental Team for Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po Meteorological Data at Ta Kwu Ling Weather Station	Scale N.T.S	Project No. WMA20001	 consulting . testing . research
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8 July 2022

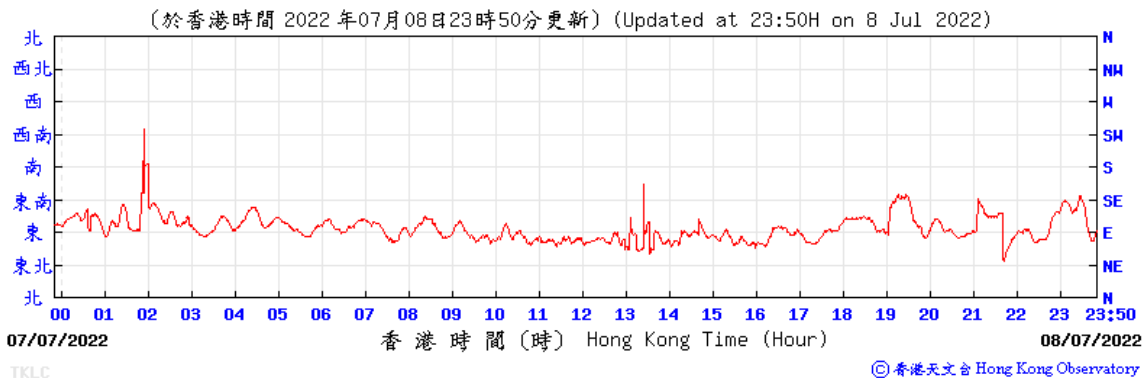
Temperature/Humidity:



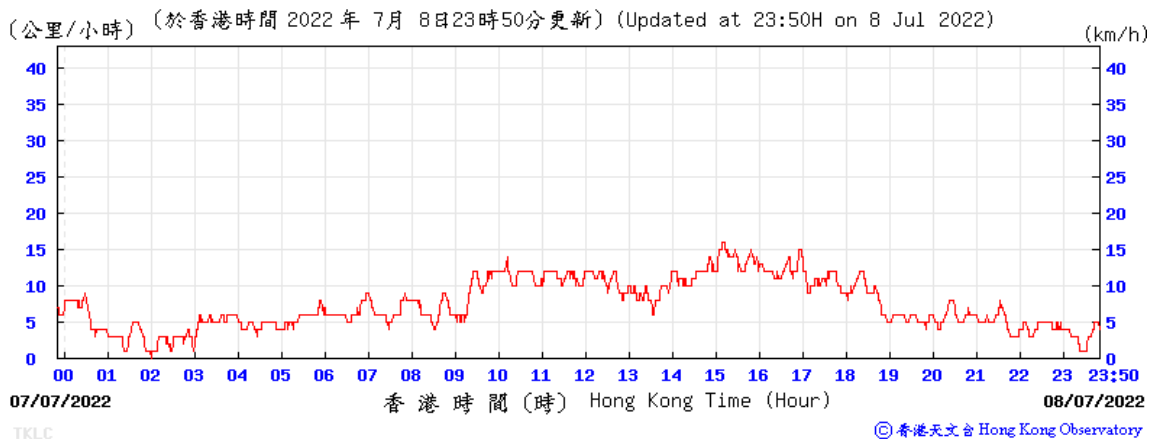
Pressure:




Wind Direction:



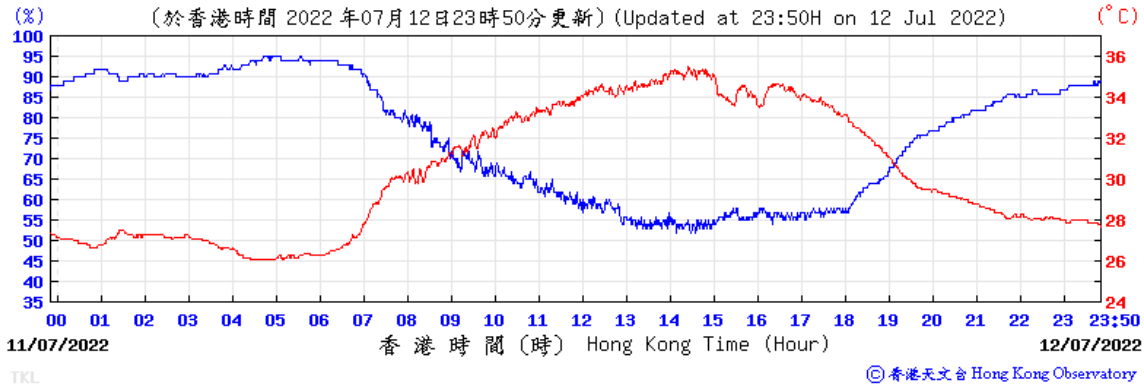
Wind Speed:



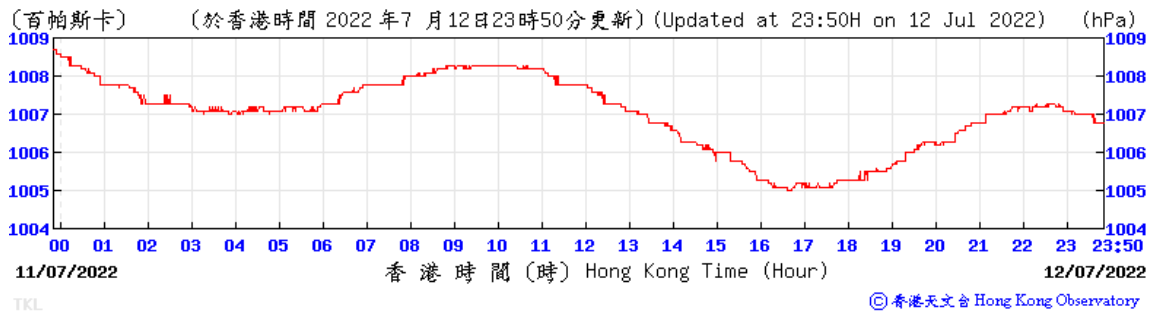
Title Service Contract No. NDO 07/2019 Environmental Team for Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po Meteorological Data at Ta Kwu Ling Weather Station	Scale N.T.S	Project No. WMA20001	 consulting . testing . research
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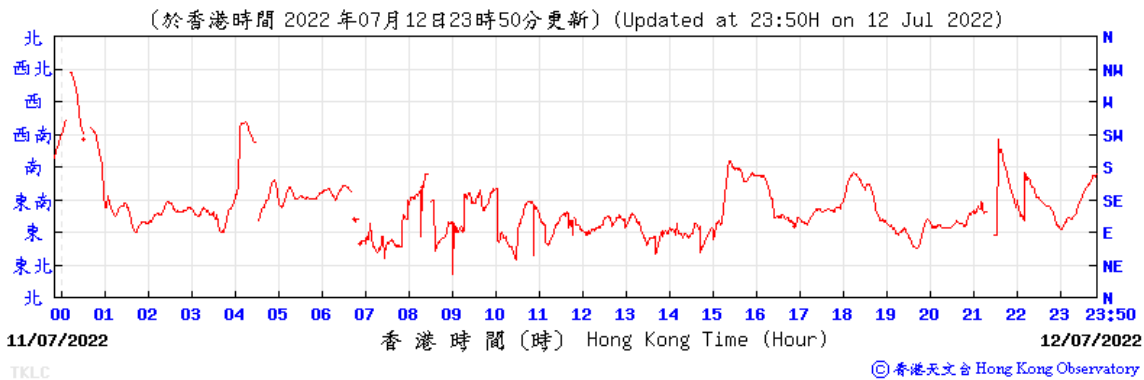
Temperature/Humidity:



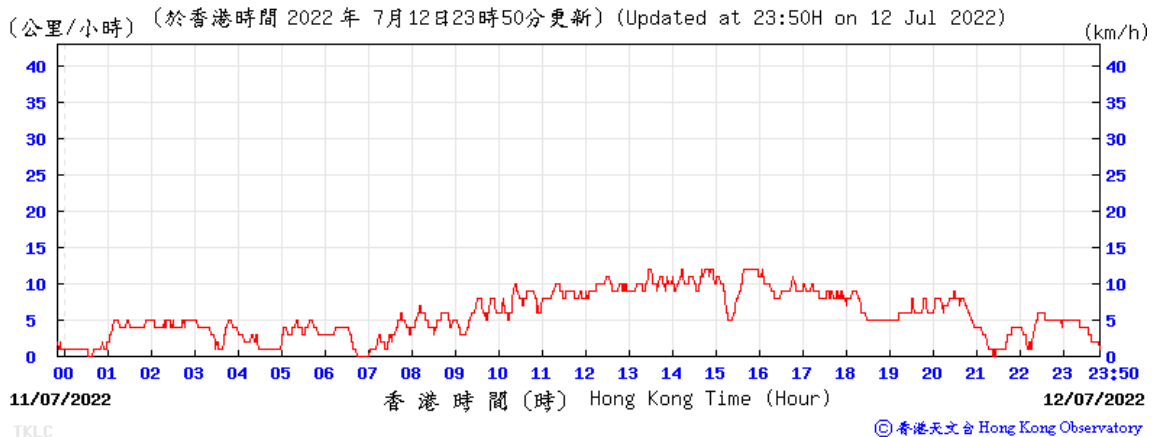
Pressure:



Wind Direction:



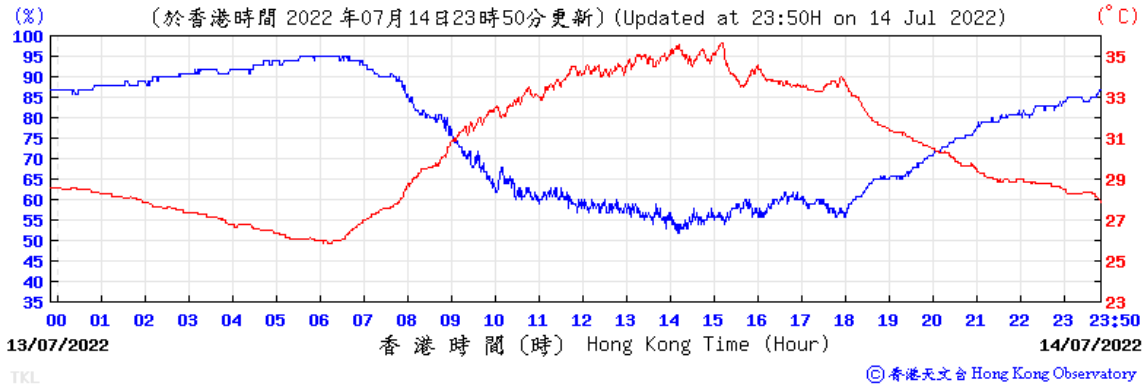
Wind Speed:



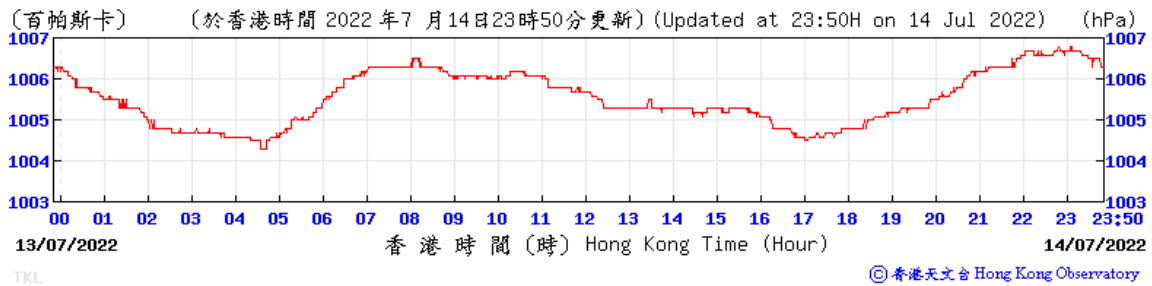
Title Service Contract No. NDO 07/2019 Environmental Team for Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po Meteorological Data at Ta Kwu Ling Weather Station	Scale N.T.S	Project No. WMA20001	
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14 July 2022

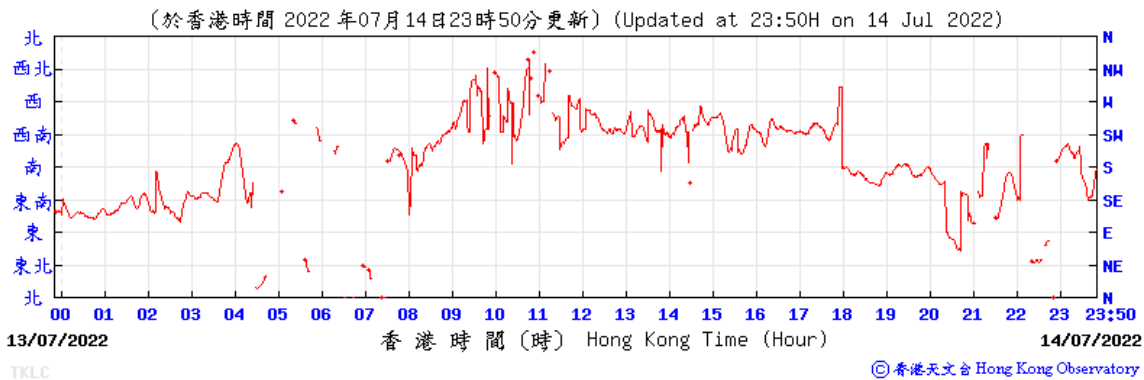
Temperature/Humidity:



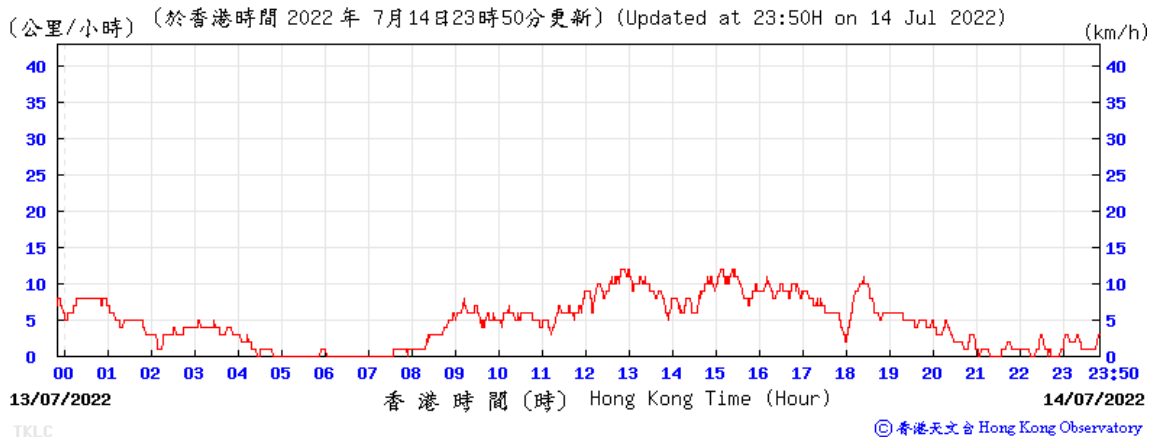
Pressure:




Wind Direction:



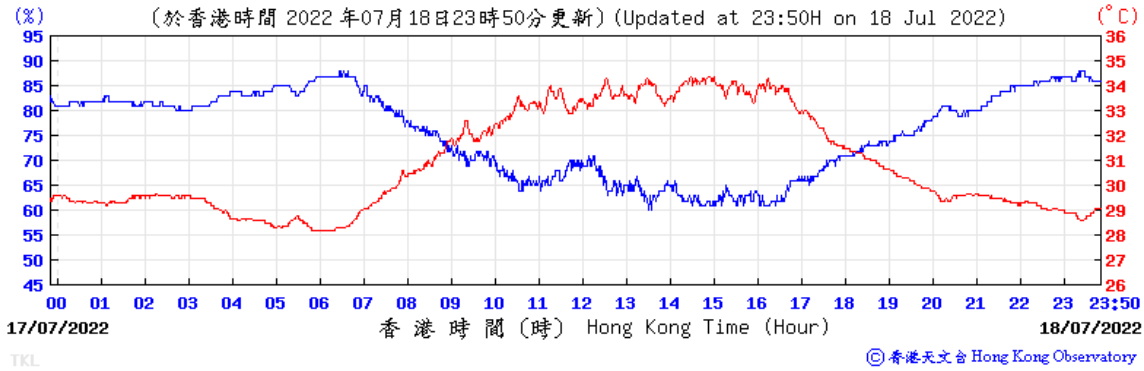
Wind Speed:



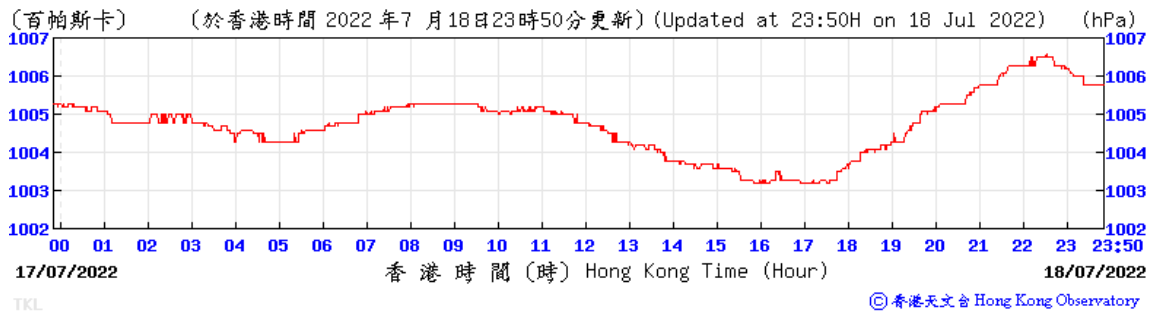
Title Service Contract No. NDO 07/2019 Environmental Team for Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po Meteorological Data at Ta Kwu Ling Weather Station	Scale N.T.S	Project No. WMA20001	 consulting . testing . research
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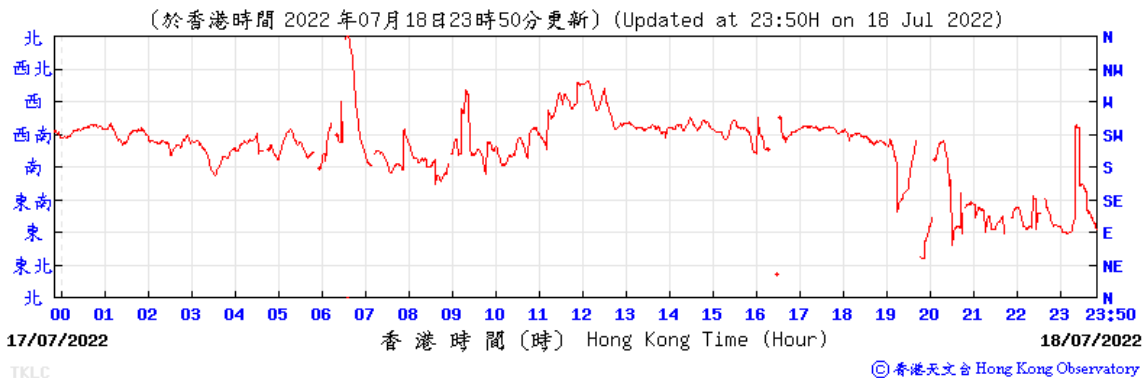
Temperature/Humidity:



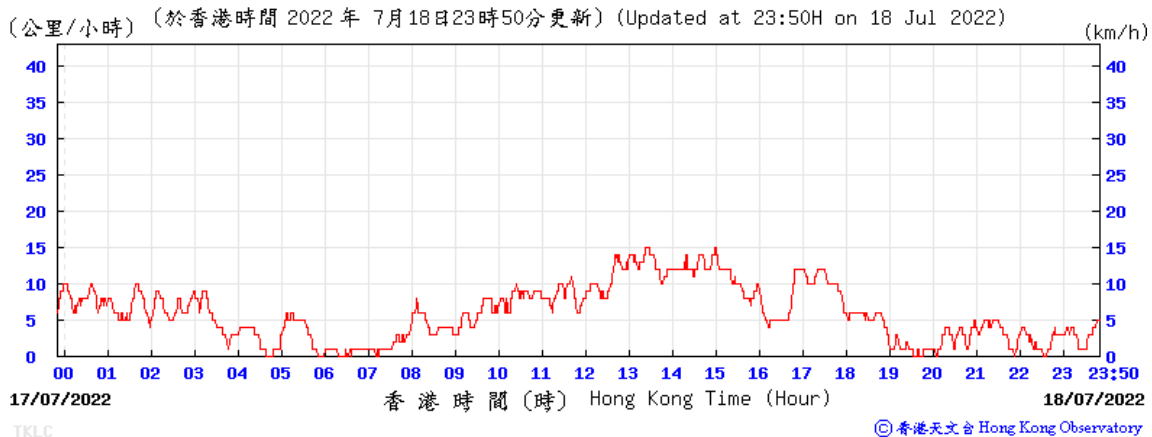
Pressure:




Wind Direction:



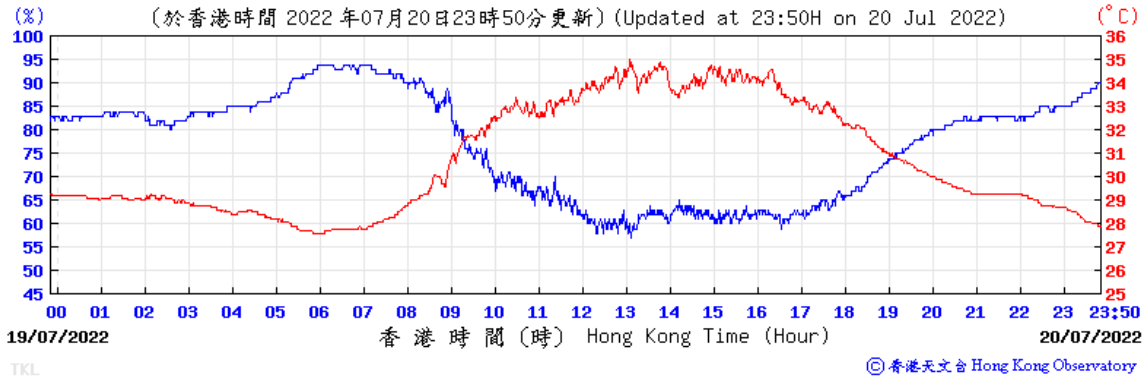
Wind Speed:



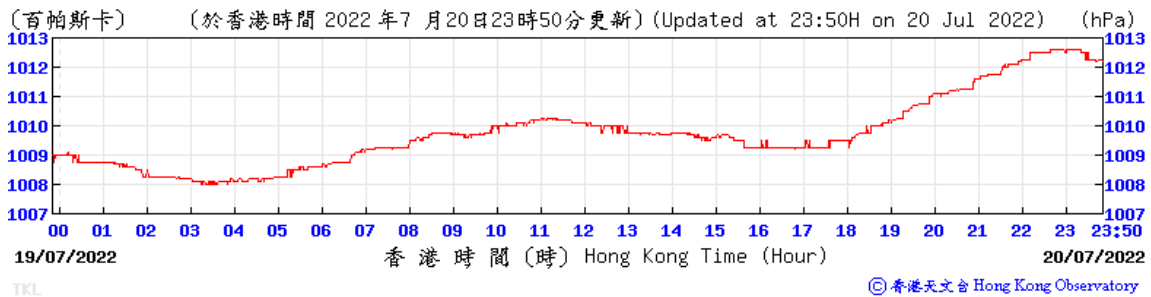
Title Service Contract No. NDO 07/2019 Environmental Team for Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po Meteorological Data at Ta Kwu Ling Weather Station	Scale N.T.S	Project No. WMA20001	 consulting . testing . research
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20 July 2022

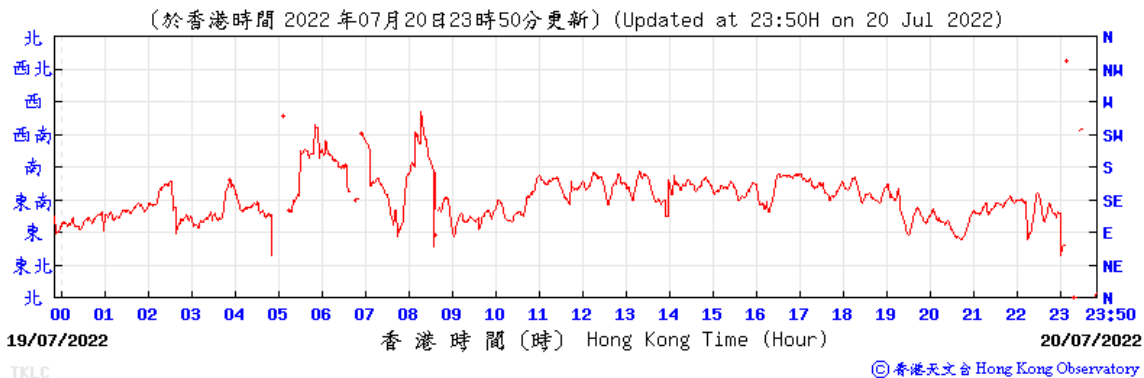
Temperature/Humidity:



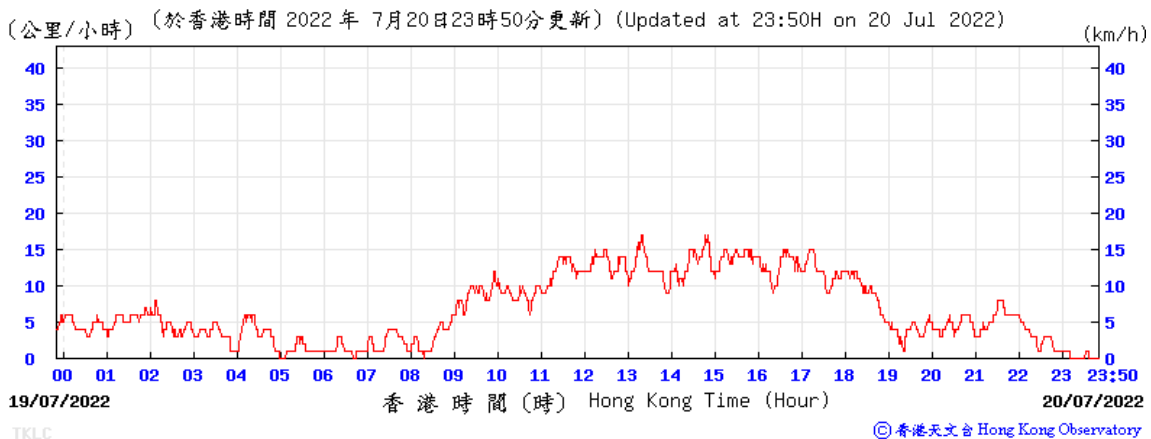
Pressure:




Wind Direction:



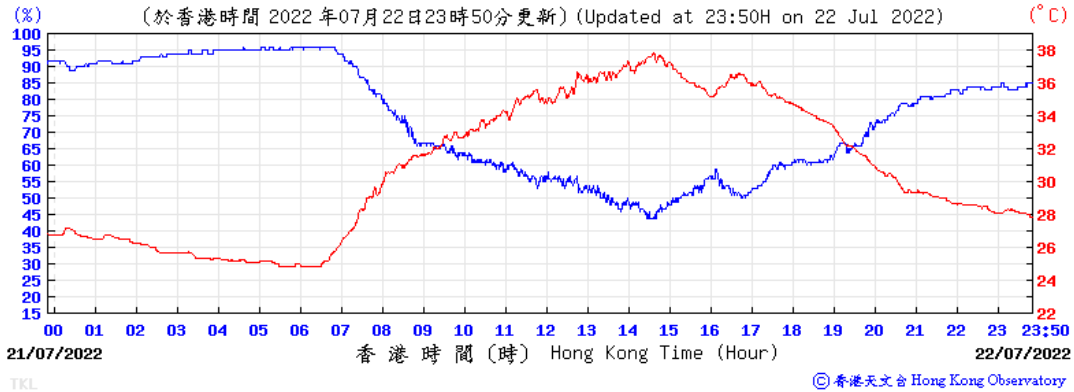
Wind Speed:



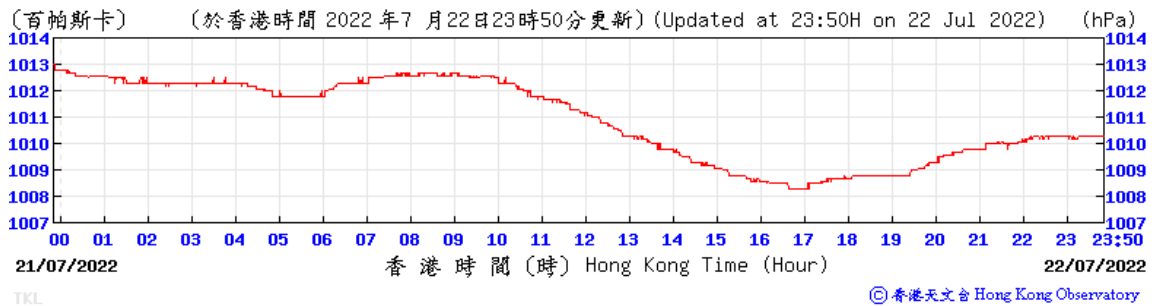
Title Service Contract No. NDO 07/2019 Environmental Team for Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po Meteorological Data at Ta Kwu Ling Weather Station	Scale N.T.S	Project No. WMA20001	 consulting . testing . research
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22 July 2022

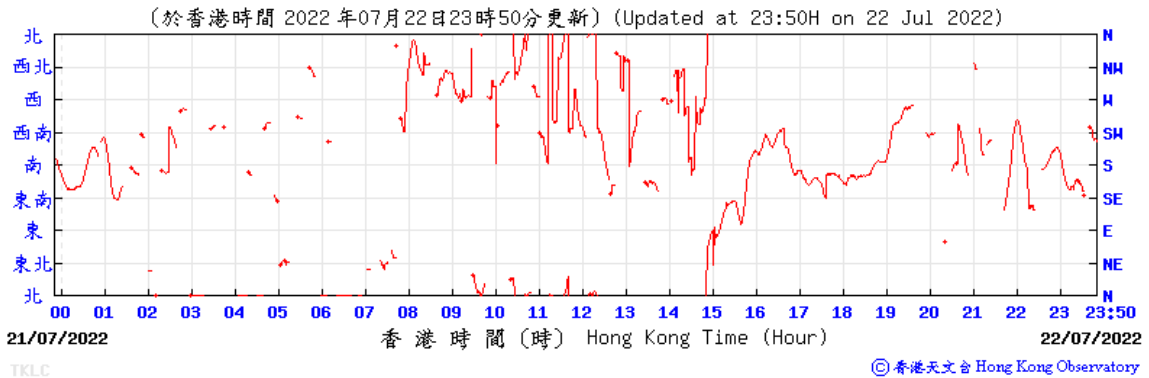
Temperature/Humidity:



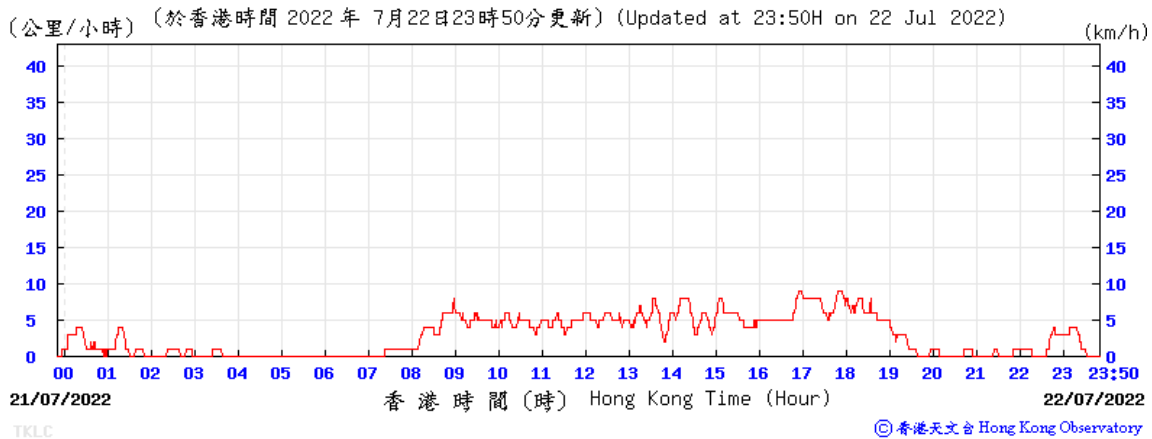
Pressure:




Wind Direction:



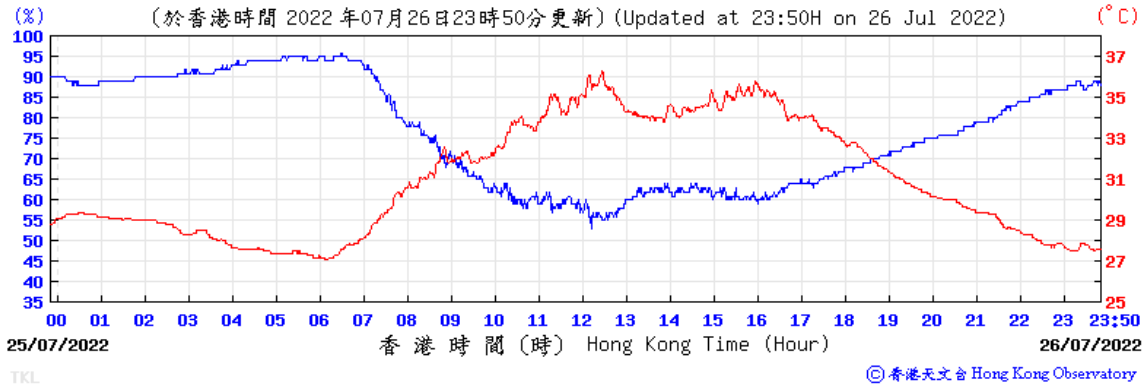
Wind Speed:



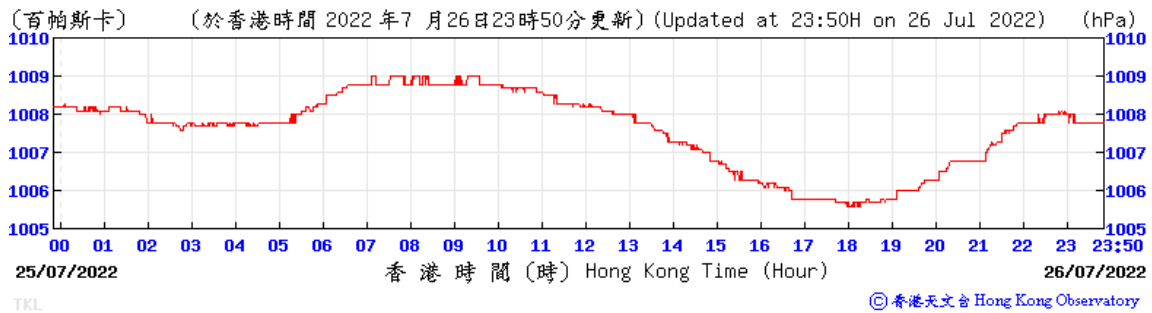
Title Service Contract No. NDO 07/2019 Environmental Team for Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po Meteorological Data at Ta Kwu Ling Weather Station	Scale N.T.S	Project No. WMA20001	 consulting . testing . research
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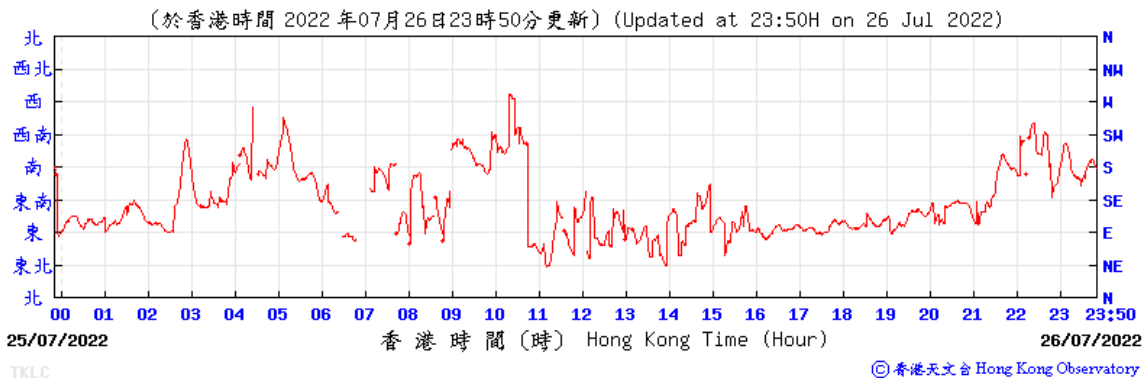
Temperature/Humidity:



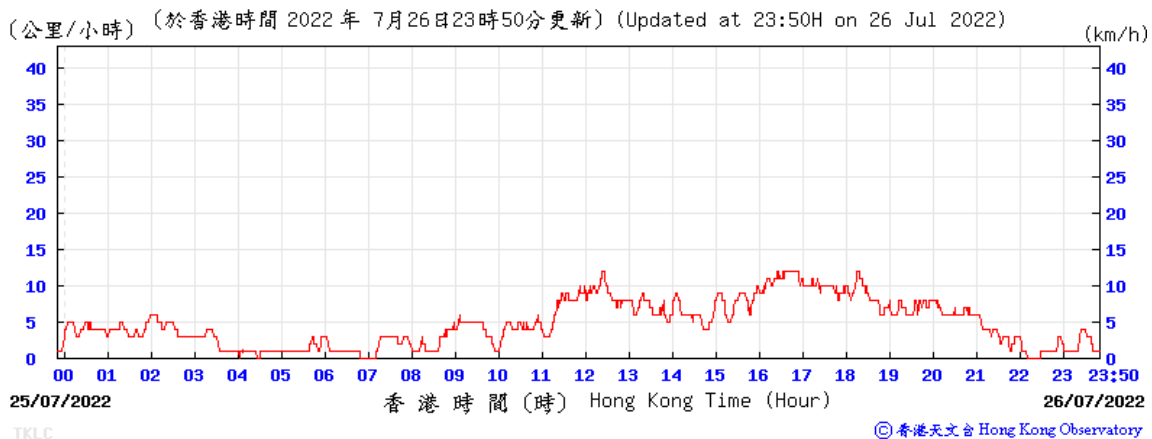
Pressure:




Wind Direction:



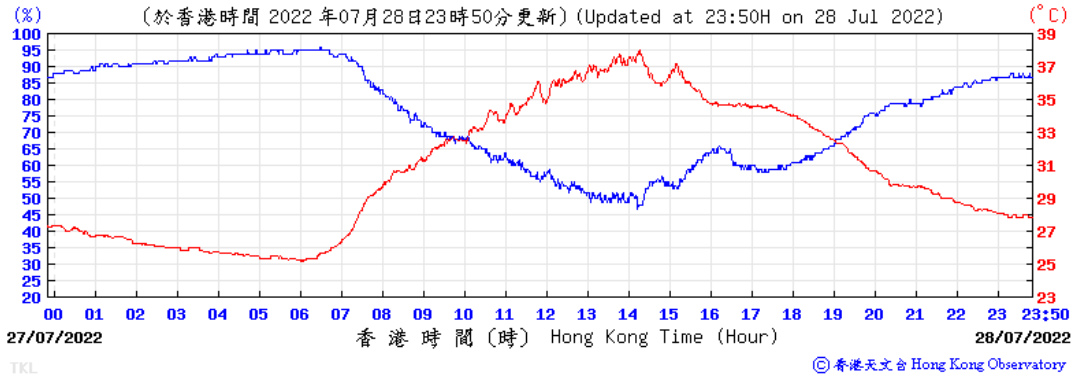
Wind Speed:



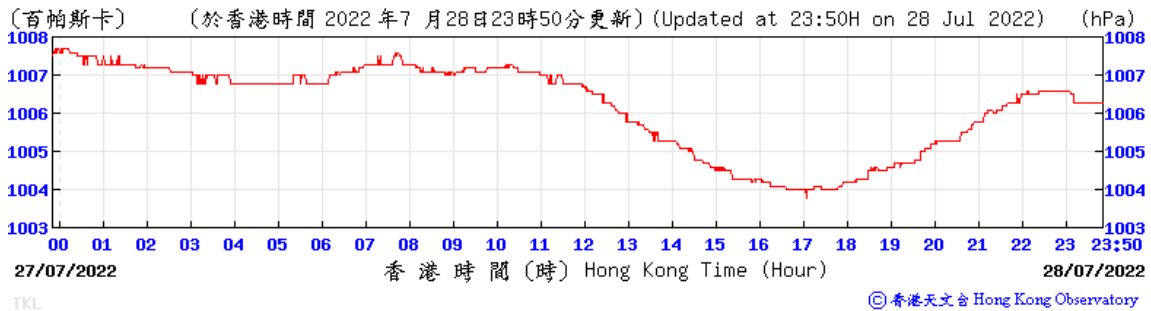
Title Service Contract No. NDO 07/2019 Environmental Team for Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po Meteorological Data at Ta Kwu Ling Weather Station	Scale N.T.S	Project No. WMA20001	 consulting . testing . research
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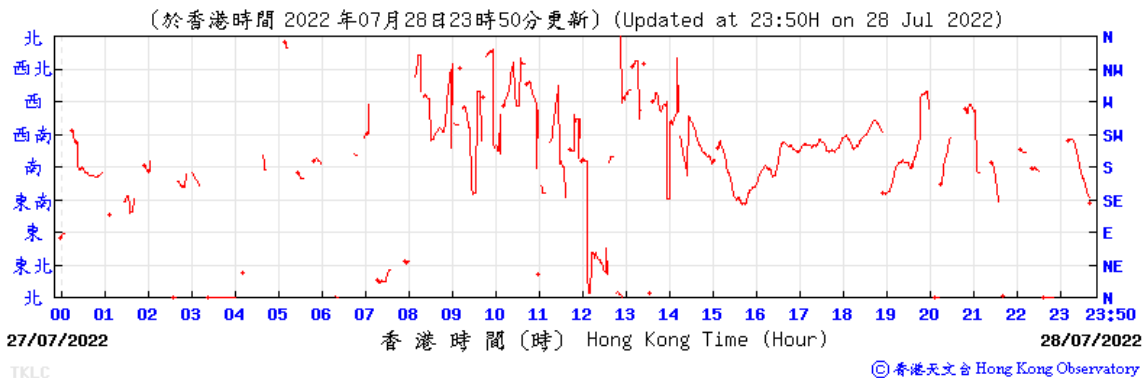
Temperature/Humidity:



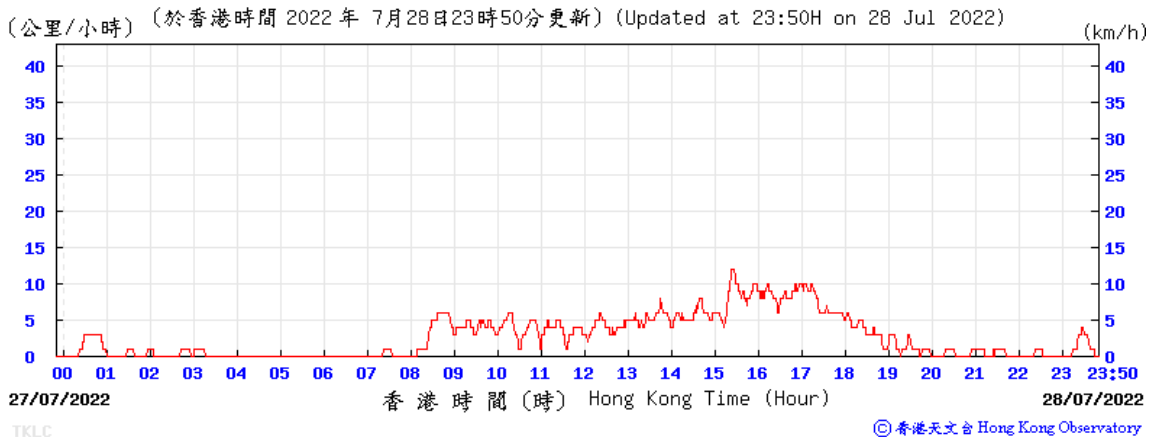
Pressure:



Wind Direction:



Wind Speed:







Title Service Contract No. NDO 07/2019 Environmental Team for Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po Meteorological Data at Ta Kwu Ling Weather Station	Scale N.T.S	Project No. WMA20001	consulting . testing . research
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**APPENDIX H
ECOLOGICAL MONITORING RESULTS**

Photographic Records for Monthly Monitoring of Flora Species of Conservation Interest on 22nd July 2022

1. *Brainea insignis*

<p>Photo 1</p>  <p>Description: Protective fence for transplanted <i>Brainea insignis</i> are properly erected with warning flags for bushfire prevention.</p>	<p>Photo 2</p>  <p>Description: Protective fence for transplanted <i>Brainea insignis</i> are properly erected.</p>
<p>Photo 3</p>  <p>Description: General view of transplanted <i>Brainea insignis</i>.</p>	<p>Photo 4</p>  <p>Description: General view of transplanted <i>Brainea insignis</i>.</p>

Photographic Records for Monthly Monitoring of Flora Species of Conservation Interest on 22nd July 2022

2. *Spiranthes sinensis*

Photo 5



Description: General view of transplanted *Spiranthes sinensis*.

Photo 6



Description: General view of transplanted *Spiranthes sinensis*.

Photo 7



Description: Protective fence for transplanted *Spiranthes sinensis* are properly erected.

Photo 8



Description: Protective fence for transplanted *Spiranthes sinensis* are properly erected.

Photographic Records for Monthly Monitoring of Flora Species of Conservation Interest on 22nd July 2022

3. *Keteleeria fortunei*

Photo 9



Description: Protective fence for *Keteleeria fortunei* are properly erected.

Photo 10



Description: Protective fence for *Keteleeria fortunei* are properly erected.

Photo 11



Description: Protective fence for *Keteleeria fortunei* are properly erected.

Photo 12



Description: An undersized seedling of *Keteleeria fortunei* (F-0081) was found collapsed due to internal decay.

Photo 13



Description: An undersized seedling of *Keteleeria fortunei* (F-0051) was found uprooted by the nearby fallen tree.

Photo 14



Description: An undersized seedling of *Keteleeria fortunei* (F-0015) was found uprooted by the nearby fallen tree

Photographic Records for Monthly Monitoring of Flora Species of Conservation Interest on 22nd July 2022

4. *Aquilaria sinensis*

Photo 15



Description: The three individuals of transplanted *Aquilaria sinensis* (A-008, A-0009 and A-0010) were collapsed after Typhoon Signal No. 8 and removed according to Tree Risk Assessment Report prepared by the Contractor's landscape specialist.

Photographic Records for Monthly Monitoring of Flora Species of Conservation Interest on 22nd July 2022

5. Undersized seedling of *Aquilaria sinensis*

Photo 16



Description: General view of undersized seedling of *Aquilaria sinensis*

Photo 17



Description: Protective fence for undersized seedling of *Aquilaria sinensis* are properly erected.

Monthly Monitoring of Flora Species of Conservation Interest
Service Contract No. NDO 07/2019
Environmental Team for Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po

Audit Ref. No. 2022

Contract <u>Service Contract No. NDO 07/2019</u> <u>Environmental Team for Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po</u>	Env. Team <u>Wellab Limited</u> Supervisor's Rep. <u>AECOM</u> IEC <u>Acuity Sustainability Consulting Limited</u>
Inspected By ET Auditor: <u>Jaylan</u> Supervisor's Rep.: <u>Mr. Winston Wong</u> IEC: <u>Mr. Wings So</u>	Inspection Date <u>22 July 2022</u> Time Period <u>11:00 ~ 12:00</u>

Part A Weather

Condition: Sunny Fine Overcast Drizzle Rain Storm Hazy

Temperature: 26 °C

Humidity: High (RH>90%) Moderate (90%>RH>50%) Low (RH<50%)

Wind: Calm Light Breeze Strong

	N/A or not observed	Yes	No	Follow-up	N/C	Remarks
Part B						
1. <u>Brainea insignis</u>						
1.1 Are the plants' health conditions satisfactory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Except those affected by the bushfire
1.2 Are transplanted plants on site protected carefully?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.3 Are the temporary protective fence properly erected and maintained?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.4 Are the plant protection zone set 1m from the plants?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.5 Are all grassed and planted area kept free from weeds/unwanted plants?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.6 Is compaction of the soil avoided for the plants?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.7 Are litter/ unwanted material removed within the planting area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.8 Are equipment or stockpile placed outside the protection zone?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.9 Are soil, debris or construction materials deposited around and against the trunk of a plant as this causes bark damage avoided?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.10 Are fixings driven into plants avoided?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.11 Are the plants used for anchoring or winching purposes or for the display of signs avoided?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.12 Are the fire lit below the branches and petrol, oil or caustic substances stored near the plants avoided?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.13 Are all plants kept free from pest, disease or fungal infection?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.14 Are there enough area for growth and development of plant roots?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.15a Is exposure of plant roots avoided?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.15b If not, were broken off or rotting of roots avoided?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Monthly Monitoring of Flora Species of Conservation Interest
 Service Contract No. NDO 07/2019
 Environmental Team for Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po

	N/A or not observed	Yes	No	Follow-up	N/C	Remarks
2. <i>Spiranthes sinensis</i>						
2.1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not in blooming season
2.2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.3	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.4	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.5	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.6	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.7	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.8	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.9	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.10	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.11	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.12	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.13	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.14	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.15a	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.15b	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. <i>Keteleeria fortunei</i>						
3.1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Except F-081 (internal decay) F-081 (uprooted by nearby F-018 fallen tree)
3.2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.3	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.4	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.5	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.6	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.7	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.8	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.9	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.10	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.11	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.12	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.13	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Except F-081 (internal decay)
3.14	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.15a	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.15b	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.16	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.17	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.18	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.19	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

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	N/A or not observed	Yes	No	Follow-up	N/C	Remarks
4. <i>Aquilaria sinensis</i> (for undersized seedling)						
4.1 Are the trees' health conditions satisfactory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.2 Are existing trees to be retained on site protected carefully?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.3 Are the temporary protective fence properly erected and maintained?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.4 Are the trees protection zone set 1m from the trees?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.5 Are all grassed and planted area kept free from weeds/unwanted plants?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.6 Is compaction of the soil avoided for the trees?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.7 Are litter/ unwanted material removed within the planting area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.8 Are equipment or stockpile placed outside the protection zone?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.9 Are soil, debris or construction materials deposited around and against the trunk of a trees as this causes bark damage avoided?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.10 Are fixings driven into trees avoided?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.11 Are the trees used for anchoring or winching purposes or for the display of signs avoided?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.12 Are the fire lit below the branches and petrol, oil or caustic substances stored near the trees avoided?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.13 Are all trees kept free from pest, disease or fungal infection?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.14 Are there enough area for growth and development of tree roots?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.15a Is exposure of tree roots avoided?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.15b If not, were broken off or rotting of roots avoided?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.16 Are wounds/mechanical injuries avoided on tree trunk?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.17 Are leaning of trees avoided?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.18 Are dead/detached branches avoided?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.19 Are decay/cavity avoided on tree trunks?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

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Part C Follow-up for the Previous Site Audit on Date: <u>17 June 22</u> (Ref. No. <u>220618</u>)		N/A or not observed	Yes	No	Follow-up	N/C	Remarks
1.	Is the situation in item <u>(3)</u> improved/rectified?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>(4)</u>
2.	Is the situation in item <u>(4)</u> improved/rectified?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.	Is the situation in item _____ improved/rectified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.	Is the situation in item _____ improved/rectified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5.	Is the situation in item _____ improved/rectified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6.	Is the situation in item _____ improved/rectified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7.	Is the situation in item _____ improved/rectified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8.	Is the situation in item _____ improved/rectified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9.	Is the situation in item _____ improved/rectified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
10.	Is the situation in item _____ improved/rectified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Remarks/Observations

- ① Protection fence was observed properly erected and maintained surrounding the tree/plants.
- ② No construction activities was observed at the location of the flora species of conservation interest.
- ③ The soil condition at the receptor side for *Braemia insignis* and *Spiranthes sinensis* was observed dry. The Contractor was reminded to reduce the watering frequency subject to the soil condition.
- ④ The three individuals of transplanted *Aquilaria sinensis* were collapsed after typhoon signal NO. 8. The broken trunks have been removed according TRA Report.

Signatures:

ET Auditor

[Signature]
 (Name: Jing)
 (Date: 17/6/22)

IEC Auditor

[Signature]
 (Name: Winggo Su)
 (Date: 22/7/2022)

Supervisor's Rep.

[Signature]
 (Name: Winston Wong)
 (Date: 22/7/2022)

Contractor's Representative

[Signature]
 (Name: Alex Liu)
 (Date: 22/7/22)

Post-Transplantation
Monitoring Record
Conducted by Contractor

Template of Post-transplantation Monitoring Checklist
Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po

Audit Ref. No. _____

Contract ND/2018/01

Inspected By Kenny Lau

Inspection Date 29 July 2022

Time Period _____

Part A Weather

Condition Sunny Fine Overcast Drizzle Rain Storm Hazy

Temperature 31.7 °C

Humidity High (RH>90%) Moderate (90%>RH>50%) Low (RH<50%)

Wind Calm Light Breeze Strong

N/A or not observed Yes No Follow-up N/C Remarks

Part B

1. Cycadfern *Brainea insignis*

1.1	Are the plants' health conditions satisfactory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.2	Are transplanted plants on site protected carefully?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.3	Are the temporary protective fence properly erected and maintained?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.4	Are the plant protection zone set 1m from the plants?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.5	Are all grassed and planted area kept free from weeds/unwanted plants?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.6	Is compaction of the soil avoided for the plants?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.7	Are litter/ unwanted material removed within the planting area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.8	Are equipment or stockpile placed outside the protection zone?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.9	Are soil, debris or construction materials deposited around and against the trunk of a plant as this causes bark damage avoided?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.10	Are fixings driven into plants avoided?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.11	Are the plants used for anchoring or winching purposes or for the display of signs avoided?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.12	Are the fire lit below the branches and petrol, oil or caustic substances stored near the plants avoided?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.13	Are all plants kept free from pest, disease or fungal infection?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.14	Are there enough area for growth and development of plant roots?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.15a	Is exposure of plant roots avoided?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.15b	If not, were broken off or rotting of roots avoided?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____

N/A or not observed Yes No Follow-up N/C Remarks

2. Ladies Tresses *Spiranthes sinensis*

2.1	Are the plants' health conditions satisfactory?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>Not in Blooming Season</u>
2.2	Are transplanted plants on site protected carefully?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
2.3	Are the temporary protective fence properly erected and maintained?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
2.4	Are the plant protection zone set 1m from the plants?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
2.5	Are all grassed and planted area kept free from weeds/unwanted plants?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
2.6	Is compaction of the soil avoided for the plants?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
2.7	Are litter/ unwanted material removed within the planting area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____

Template of Post-transplantation Monitoring Checklist
Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po

	N/A or not observed	Yes	No	Follow-up	N/C	Remarks
2.8 Are equipment or stockpile placed outside the protection zone?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
2.9 Are soil, debris or construction materials deposited around and against the trunk of a plant as this causes bark damage avoided?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
2.10 Are fixings driven into plants avoided?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
2.11 Are the plants used for anchoring or winching purposes or for the display of signs avoided?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
2.12 Are the fire lit below the branches and petrol, oil or caustic substances stored near the plants avoided?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
2.13 Are all plants kept free from pest, disease or fungal infection?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
2.14 Are there enough area for growth and development of plant roots?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
2.15a Is exposure of plant roots avoided?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
2.15b If not, were broken off or rotting of roots avoided?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____

	N/A or not observed	Yes	No	Follow-up	N/C	Remarks
3. <u>Incense Trees <i>Aauullaria sinensis</i></u>						
3.1 Are the trees's health conditions satisfactory?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
3.2 Are transplanted trees on site protected carefully?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
3.3 Are the temporary protective fence properly erected and maintained?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
3.4 Are the tree protection zone set 1m from the trees?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
3.5 Are all grassed and planted area kept free from weeds/unwanted plants?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
3.6 Is compaction of the soil avoided for the trees	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
3.7 Are litter/ unwanted material removed within the planting area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
3.8 Are equipment or stockpile placed outside the protection zone?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
3.9 Are soil, debris or construction materials deposited around and against the trunk of a tree as this causes bark damage avoided?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
3.10 Are fixings driven into trees avoided?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
3.11 Are the trees used for anchoring or winching purposes or for the display of signs avoided?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
3.12 Are the fire lit below the branches and petrol, oil or caustic substances stored near the trees avoided?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
3.13 Are all trees kept free from pest, disease or fungal infection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
3.14 Are there enough area for growth and development of tree roots?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
3.15a Is exposure of tree roots avoided?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
3.15b If not, were broken off or rotting of roots avoided?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
3.16 Are wounds/mechanical injuries avoided on tree trunk?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
3.17 Are leaning of trees avoided?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
3.18 Are dead/detached branches avoided?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
3.19 Are decay/cavity avoided on tree trunks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____

Template of Post-transplantation Monitoring Checklist
 Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po

Part C Follow-up for the Previous Site Audit on Date: _____ (Ref. No. _____)		N/A or not observed	Yes	No	Follow-up	N/C	Remarks
1.	Is the situation in item _____ improved/rectified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
2.	Is the situation in item _____ improved/rectified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
3.	Is the situation in item _____ improved/rectified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
4.	Is the situation in item _____ improved/rectified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
5.	Is the situation in item _____ improved/rectified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
6.	Is the situation in item _____ improved/rectified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
7.	Is the situation in item _____ improved/rectified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
8.	Is the situation in item _____ improved/rectified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
9.	Is the situation in item _____ improved/rectified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
10.	Is the situation in item _____ improved/rectified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____

Remarks/Observations

Signatures:

Contractor's Representative

 (Name: Renny Lam)
 (Date: 24-7-2022)

Supervisor's Rep.

 (Name: _____)
 (Date: _____)

ENVIRONMENTAL PERMIT No.: EP-510/2016

Contract No. ND/2018/01

Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po

Tree/Plant/ Colony No.	Number of Individuals	Species Name	Form (G/F/P)	Health (G/F/P)	Remark
C-0001	01	<i>Brainea insignis</i>	F	F	
	02	<i>Brainea insignis</i>	F	F	
	03	<i>Brainea insignis</i>	F	F	
	04	<i>Brainea insignis</i>	F	F	
	05	<i>Brainea insignis</i>	F	F	
	06	<i>Brainea insignis</i>	F	F	
	07	<i>Brainea insignis</i>	F	F	
	08	<i>Brainea insignis</i>	F	F	
C-0002	01	<i>Brainea insignis</i>	F	F	
	02	<i>Brainea insignis</i>	F	F	
	03	<i>Brainea insignis</i>	F	P	
	04	<i>Brainea insignis</i>	F	F	
	05	<i>Brainea insignis</i>	F	F	
	06	<i>Brainea insignis</i>	F	F	
	07	<i>Brainea insignis</i>	F	F	
	08	<i>Brainea insignis</i>	F	F	
C-0003	01	<i>Brainea insignis</i>	F	F	
C-0004	01	<i>Brainea insignis</i>	P	P	Dry out caused by bushfire initially outside site boundary and high temperature on 2 Feb 2021
	02	<i>Brainea insignis</i>	F	F	
	03	<i>Brainea insignis</i>	F	F	
	04	<i>Brainea insignis</i>	F	F	
	05	<i>Brainea insignis</i>	F	F	
	06	<i>Brainea insignis</i>	F	F	
	07	<i>Brainea insignis</i>	F	F	
	08	<i>Brainea insignis</i>	F	F	
	09	<i>Brainea insignis</i>	P	P	Dry out caused by bushfire initially outside site boundary and high temperature on 2 Feb 2021
	10	<i>Brainea insignis</i>	P	P	
	11	<i>Brainea insignis</i>	F	F	
	12	<i>Brainea insignis</i>	F	F	
	13	<i>Brainea insignis</i>	P	P	Dry out caused by bushfire initially outside site boundary and high temperature on 2 Feb 2021
	14	<i>Brainea insignis</i>	F	F	
	15	<i>Brainea insignis</i>	P	P	Dry out caused by bushfire initially outside site boundary and high temperature on 2 Feb 2021
	16	<i>Brainea insignis</i>	P	P	Dry out caused by bushfire initially outside site boundary and high temperature on 2 Feb 2021
	17	<i>Brainea insignis</i>	P	F	
	18	<i>Brainea insignis</i>	P	P	Burned by bushfire initially outside site boundary on 2 Feb 2021

ENVIRONMENTAL PERMIT No.: EP-510/2016

Contract No. ND/2018/01

Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po

Tree/Plant/ Colony No.	Number of Individuals	Species Name	Form (G/F/P)	Health (G/F/P)	Remark
	19	<i>Brainea insignis</i>	F	F	
	20	<i>Brainea insignis</i>	F	F	
C-0005	01	<i>Brainea insignis</i>	F	F	
	02	<i>Brainea insignis</i>	F	F	
	03	<i>Brainea insignis</i>	F	F	
	04	<i>Brainea insignis</i>	F	F	
	05	<i>Brainea insignis</i>	F	F	
	06	<i>Brainea insignis</i>	F	F	
	07	<i>Brainea insignis</i>	F	F	
C-0006	01	<i>Brainea insignis</i>	F	F	
C-0007	01	<i>Brainea insignis</i>	F	F	
	02	<i>Brainea insignis</i>	F	F	
C-0008	01	<i>Brainea insignis</i>	F	F	
	02	<i>Brainea insignis</i>	F	F	
	03	<i>Brainea insignis</i>	P	P	
	04	<i>Brainea insignis</i>	F	F	
	05	<i>Brainea insignis</i>	P	P	
	06	<i>Brainea insignis</i>	P	F	
	07	<i>Brainea insignis</i>	F	F	
C-0009	01	<i>Brainea insignis</i>	F	F	
C-0010	01	<i>Brainea insignis</i>	F	F	
	02	<i>Brainea insignis</i>	F	F	
	03	<i>Brainea insignis</i>	F	F	
C-0011	01	<i>Brainea insignis</i>	P	P	Dry out caused by bushfire initially outside site boundary and high temperature on 2 Feb 2021
	02	<i>Brainea insignis</i>	F	F	
	03	<i>Brainea insignis</i>	P	P	
	04	<i>Brainea insignis</i>	F	F	
	05	<i>Brainea insignis</i>	P	P	
	06	<i>Brainea insignis</i>	F	P	
	07	<i>Brainea insignis</i>	P	P	
	08	<i>Brainea insignis</i>	F	F	
	09	<i>Brainea insignis</i>	F	F	
	10	<i>Brainea insignis</i>	F	F	
	11	<i>Brainea insignis</i>	F	F	
	12	<i>Brainea insignis</i>	P	P	
	13	<i>Brainea insignis</i>	F	F	

Environmental Permit No. EP-510/2016

Contract No.: ND/2018/01

Project Title:

**Site Formation and Infrastructure Works
For Police Facilities in Kong Nga Po**

Post-Transplantation Monitoring Record of *Brainea insignis* (Cycad fern)

Inspection Date : 29 July 2022

Cycad fern (*Brainea insignis*)



C-0001(Patch)_01



C-0001(Patch)_02

Cycad fern (*Brainea insignis*)



C-0001(Patch)_03



C-0001(Patch)_04

Cycad fern (*Brainea insignis*)



C-0001(patch)_05



C-0001(patch)_06

Cycad fern (*Brainea insignis*)



C-0001(Patch)_07



C-0001(Patch)_08

Cycad fern (*Brainea insignis*)



C-0002(Patch)_01



C-0002(Patch)_02

Cycad fern (*Brainea insignis*)



C-0002(Patch)_03



C-0002(Patch)_04

Cycad fern (*Brainea insignis*)



C-0002(Patch)_05



C-0002(Patch)_06

Cycad fern (*Brainea insignis*)



C-0002(Patch)_07



C-0002(Patch)_08

Cycad fern (*Brainea insignis*)



C-0003



C-0004(Patch)_01

Cycad fern (*Brainea insignis*)



C-0004(Patch)_02



C-0004(Patch)_03

Cycad fern (*Brainea insignis*)



C-0004(Patch)_04



C-0004(Patch)_05

Cycad fern (*Brainea insignis*)



C-0004(Patch)_06



C-0004(Patch)_07

Cycad fern (*Brainea insignis*)



C-0004(Patch)_08



C-0004(Patch)_09

Cycad fern (*Brainea insignis*)



C-0004(Patch)_10



C-0004(Patch)_11

Cycad fern (*Brainea insignis*)



C-0004(Patch)_12



C-0004(Patch)_13

Cycad fern (*Brainea insignis*)



C-0004(Patch)_14



C-0004(Patch)_15

Cycad fern (*Brainea insignis*)



C-0004(Patch)_16



C-0004(Patch)_17

Cycad fern (*Brainea insignis*)



C-0004(Patch)_18



C-0004(Patch)_19

Cycad fern (*Brainea insignis*)



C-0004(Patch)_20



C-0005(Patch)_01

Cycad fern (*Brainea insignis*)



C-0005(Patch)_02



C-0005(Patch)_03

Cycad fern (*Brainea insignis*)



C-0005(Patch)_04



C-0005(Patch)_05

Cycad fern (*Brainea insignis*)



C-0005(Patch)_06



C-0005(Patch)_07

Cycad fern (*Brainea insignis*)



C-0006



C-0007(Patch)_01

Cycad fern (*Brainea insignis*)



C-0007(Patch)_02



C-0008(Patch)_01

Cycad fern (*Brainea insignis*)



C-0008(Patch)_02



C-0008(Patch)_03

Cycad fern (*Brainea insignis*)



C-0008(Patch)_04



C-0008(Patch)_05

Cycad fern (*Brainea insignis*)



C-0008(Patch)_06



C-0008(Patch)_07

Cycad fern (*Brainea insignis*)



C-0009



C-0010(Patch)_01

Cycad fern (*Brainea insignis*)



C-0010(Patch)_02



C-0010(Patch)_03

Cycad fern (*Brainea insignis*)



C-0011(Patch)_01



C-0011(Patch)_02

Cycad fern (*Brainea insignis*)



C-0011(Patch)_03



C-0011(Patch)_04

Cycad fern (*Brainea insignis*)



C-0011(Patch)_05



C-0011(Patch)_06

Cycad fern (*Brainea insignis*)



C-0011(Patch)_07



C-0011(Patch)_08

Cycad fern (*Brainea insignis*)



C-0011(Patch)_09



C-0011(Patch)_10

Cycad fern (*Brainea insignis*)



C-0011(Patch)_11



C-0011(Patch)_12

Cycad fern (*Brainea insignis*)



C-0011(Patch)_13

ENVIRONMENTAL PERMIT No.: EP-510/2016

Contract No. ND/2018/01

Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po

Tree/Plant/Colony No.	Species Name	Form (G/F/P)	Health (G/F/P)	Remark
L-0001	<i>Spiranthes sinensis</i>	-	-	No sprout observed
L-0002	<i>Spiranthes sinensis</i>	-	-	No sprout observed
L-0003	<i>Spiranthes sinensis</i>	-	-	No sprout observed
L-0004	<i>Spiranthes sinensis</i>	F	F	
L-0005	<i>Spiranthes sinensis</i>	-	-	No sprout observed
L-0006	<i>Spiranthes sinensis</i>	-	-	No sprout observed
L-0007	<i>Spiranthes sinensis</i>	-	-	No sprout observed
L-0008	<i>Spiranthes sinensis</i>	F	F	
L-0009	<i>Spiranthes sinensis</i>	-	-	No sprout observed
L-00010	<i>Spiranthes sinensis</i>	-	-	No sprout observed
L-00011	<i>Spiranthes sinensis</i>	-	-	No sprout observed
L-00012	<i>Spiranthes sinensis</i>	-	-	No sprout observed
L-00013	<i>Spiranthes sinensis</i>	-	-	No sprout observed
L-00014	<i>Spiranthes sinensis</i>	F	F	
L-00015	<i>Spiranthes sinensis</i>	F	F	
L-00016	<i>Spiranthes sinensis</i>	-	-	No sprout observed
L-00018	<i>Spiranthes sinensis</i>	-	-	No sprout observed
L-00019	<i>Spiranthes sinensis</i>	-	-	No sprout observed
L-00020	<i>Spiranthes sinensis</i>	-	-	No sprout observed
L-00021	<i>Spiranthes sinensis</i>	-	-	No sprout observed
L-00022	<i>Spiranthes sinensis</i>	-	-	No sprout observed
L-00023	<i>Spiranthes sinensis</i>	-	-	No sprout observed
L-00024	<i>Spiranthes sinensis</i>	F	F	
L-00025	<i>Spiranthes sinensis</i>	-	-	No sprout observed
L-00026	<i>Spiranthes sinensis</i>	-	-	No sprout observed
L-00027	<i>Spiranthes sinensis</i>	-	-	No sprout observed
L-00028	<i>Spiranthes sinensis</i>	-	-	No sprout observed
L-00029	<i>Spiranthes sinensis</i>	-	-	No sprout observed
L-00030	<i>Spiranthes sinensis</i>	-	-	No sprout observed
L-00031	<i>Spiranthes sinensis</i>	F	F	
L-00032	<i>Spiranthes sinensis</i>	-	-	No sprout observed
L-00033	<i>Spiranthes sinensis</i>	-	-	No sprout observed
L-00034	<i>Spiranthes sinensis</i>	-	-	No sprout observed
L-00035	<i>Spiranthes sinensis</i>	-	-	No sprout observed
L-00036	<i>Spiranthes sinensis</i>	-	-	No sprout observed
L-00037	<i>Spiranthes sinensis</i>	F	F	
L-00038	<i>Spiranthes sinensis</i>	-	-	No sprout observed
L-00039	<i>Spiranthes sinensis</i>	-	-	No sprout observed
L-00040	<i>Spiranthes sinensis</i>	-	-	No sprout observed
L-00041	<i>Spiranthes sinensis</i>	-	-	No sprout observed
L-00042	<i>Spiranthes sinensis</i>	-	-	No sprout observed

Environmental Permit No. EP-510/2016

Contract No.: ND/2018/01

Project Title:

**Site Formation and Infrastructure Works
For Police Facilities in Kong Nga Po**

Post-Transplantation Monitoring Record of *Spiranthes sinensis* (Ladies Tresses)

Inspection Date : 29 July 2022

Ladies Tresses (*Spiranthes sinensis*)



L-0001



L-0002

Ladies Tresses (*Spiranthes sinensis*)



L-0003



L-0004

Ladies Tresses (*Spiranthes sinensis*)



L-0005



L-0006

Ladies Tresses (*Spiranthes sinensis*)



L-0007



L-0008

Ladies Tresses (*Spiranthes sinensis*)



L-0009



L-0010

Ladies Tresses (*Spiranthes sinensis*)



L-0011



L-0012

Ladies Tresses (*Spiranthes sinensis*)



L-0013



L-0014

Ladies Tresses (*Spiranthes sinensis*)



L-0015



L-0016

Ladies Tresses (*Spiranthes sinensis*)



L-0018



L-0019

Ladies Tresses (*Spiranthes sinensis*)



L-0020



L-0021

Ladies Tresses (*Spiranthes sinensis*)



L-0022



L-0023

Ladies Tresses (*Spiranthes sinensis*)



L-0024



L-0025

Ladies Tresses (*Spiranthes sinensis*)



L-0026



L-0027

Ladies Tresses (*Spiranthes sinensis*)



L-0028



L-0029

Ladies Tresses (*Spiranthes sinensis*)



L-0030



L-0031

Ladies Tresses (*Spiranthes sinensis*)



L-0032



L-0033

Ladies Tresses (*Spiranthes sinensis*)



L-0034



L-0035

Ladies Tresses (*Spiranthes sinensis*)



L-0036



L-0037

Ladies Tresses (*Spiranthes sinensis*)



L-0038



L-0039

Ladies Tresses (*Spiranthes sinensis*)



L-0040



L-0041

Ladies Tresses (*Spiranthes sinensis*)



L-0042

HONG KONG LANDSCAPING CO., LTD.

ND/2018/01 – Site Formation and Infrastructure Works for Police Facilities in Kong Nga Po

LANDSCAPING WORKS

POST-TRANSPLANTATION RECORD OF CYCAD FERN AND LADIES TRESSES FOR THE MONTH OF (JULY 2022)

Works	Date	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Watering	澆水																						✓										
Fertilizing	施肥																																
Pruning	修剪																																
Weeding	除雜草																																
Litter	清垃圾																																
Clearing																																	
Pest Control	殺蟲																																
Disease Control	殺菌																																
Replacement	更換樹苗																																
Firming UP	扶樹																																
Remark		☉	☉		○	○	○	☉	○	○	○					○	○	○	○	○	○	○									○	☉	

○ Drizzling ☉ Rainy

Prepared by



Kenny LAU



Watering has been conducted for the flora species on 22.07.2022 since the weather were sunny and dried for a consecutive days.

APPENDIX I
EVENT ACTION PLANS

Appendix I:**Table I-1: Event / Action Plan for Air Quality**

EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
ACTION LEVEL				
1. Exceedance for one sample	1. Identify source, investigate the causes of exceedance and propose remedial measures; 2. Inform IEC,ER and Contractor; 3. Repeat measurement to confirm finding; and 4. Increase monitoring frequency to daily.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method.	1. Notify Contractor.	1. Rectify any unacceptable practice: 2. Amend working methods if appropriate.
2. Exceedance for two or more consecutive samples	1. Identify source; 2. Inform IEC, ER and Contractor; 3. Advise the WKCDA on the effectiveness of the proposed remedial measure; 4. Repeat measurements to confirm findings; 5. Increase monitoring frequency to daily; 6. Discuss with IEC and Contractor on remedial actions required; 7. If exceedance continues, arrange meeting with IEC and ER; and	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET and Contractor on possible remedial measures; 4. Advise the ET on the effectiveness of the proposed remedial measures; and 5. Monitor Implementation of remedial measures.	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; and 3. Ensure remedial measures properly implemented.	1. Submit proposals for remedial to ER within 3 working days of notification; 2. Implement the agreed proposals; and 3. Amend proposal if appropriate.

EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
	8. If exceedance stops, cease additional monitoring.			
LIMIT LEVEL				
1.Exceedance for one sample	<ol style="list-style-type: none"> 1. Identify source, investigate the causes of exceedance and propose remedial measures; 2. Inform ER, Contractor and EPD; 3. Repeat measurement to confirm finding; 4. Increase monitoring frequency to daily; and 5. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and the ER informed of the results. 	<ol style="list-style-type: none"> 1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET and Contractor on possible remedial measures; 4. Advise the ER on the effectiveness of the proposed remedial measures; and 5. Monitor the implementation of remedial measures. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; and 3. Ensure remedial measures properly implemented. 	<ol style="list-style-type: none"> 1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC within 3 working days of notification; 3. Implement the agreed proposals; and 4. Amend proposal if appropriate.
2.Exceedance for two or more consecutive samples	<ol style="list-style-type: none"> 1. Notify IEC, the ER, Contractor and EPD; 2. Identify source; 3. Repeat measurement to confirm findings; 4. Increase monitoring frequency to daily; 5. Carry out analysis of Contractor's working procedures to determine 	<ol style="list-style-type: none"> 1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss amongst ER, ET, and Contractor on the potential remedial actions; 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. In consultation with IEC, agree with the Contractor on the remedial measures to be implemented; 	<ol style="list-style-type: none"> 1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC within 3 working days of notification; 3. Implement the agreed proposals;

EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
	possible mitigation to be implemented; 6. Arrange meeting with IEC, and ER to discuss the remedial actions to be taken; 7. Assess effectiveness of Contractor’s remedial actions and keep IEC, EPD and ER informed of the results; and 8. If exceedance stops, cease additional monitoring.	4. Review Contractor’s remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly; and 5. Monitor implementation of remedial measures.	4. Ensure remedial measures properly implemented; and 5. If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedances is abated.	4. Resubmit proposals if problem still not under control; and 5. Stop the relevant portion of works as determined by the ER until the exceedance is abated.

Abbreviations: ET – Environmental Team, IEC – Independent Environmental Checker, ER – Engineer’s Representative

Table I-2: Event / Action Plan for Construction Noise

EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
Action Level	<ol style="list-style-type: none"> 1. Notify ER, IEC and Contractor; 2. Carry out investigation; 3. Report the results of investigation to the IEC, ER and Contractor; 4. Discuss with the IEC and Contractor on remedial measures required; and 5. Increase monitoring frequency to check mitigation effectiveness. 	<ol style="list-style-type: none"> 1. Review the monitoring data submitted by the ET; 2. Review the proposed remedial measures by the Contractor and advise ER; and 3. Advise the ER on the effectiveness of the proposed remedial measures. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. In consolidation with the IEC, agree with the Contractor on the remedial measure to be implemented; and 4. Supervise the implementation of remedial measure. 	<ol style="list-style-type: none"> 1. Submit noise mitigation proposals to IEC and ER; and 2. Implement noise mitigation proposals.
Limit Level	<ol style="list-style-type: none"> 1. Inform IEC, ER and Contractor and EPD; 2. Repeat measurements to confirm findings; 3. Increase the monitoring frequency; 4. Identify source and investigate the cause of exceedance; 5. Carry out analysis of Contractor's working procedures; 6. Discuss with the IEC, Contractor and ER on 	<ol style="list-style-type: none"> 1. Discuss amongst the ER, ET, and Contractor on the potential remedial actions; and 2. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly; 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of failure in writing; 2. Notify the Contractor; 3. In consolidation with the IEC, agree with the Contractor on the remedial measures to be implemented; 4. Supervise the implementation of remedial measures; and 5. If exceedance continues, consider 	<ol style="list-style-type: none"> 1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to the IEC and ER within 3 working days of notification; 3. Implement the agreed proposals; 4. Submit further proposal if problem still not under control; and 5. Stop the relevant portion of works as

EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
	remedial measure required; 7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; and 8. If exceedance stops, cease additional monitoring.		stopping the Contractor to continue working in that portion of work which causes the exceedance until the exceedance is abated.	determined by the ER until the exceedance is abated.

Abbreviations: ET – Environmental Team, IEC – Independent Environmental Checker, ER – Engineer's Representative

Table I-3: Event / Action Plan for Landscape and Visual Mitigation Measures

EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
Non-conformity on one occasion	Identify source. Inform IEC and ER. Discuss remedial actions with IEC, ER and Contractor. Monitor remedial actions until rectification has been completed.	Check report. Check Contractor's working method. Discuss with ET and Contractor on possible remedial measures. Advise ER on effectiveness of proposed remedial measures. Check implementation of remedial measures.	Notify Contractor. Ensure remedial measures are properly implemented	Amend working methods to prevent recurrence of nonconformity. Rectify damage and undertake additional action necessary.
Repeated Nonconformity	Identify source. Inform IEC and ER. Increase monitoring frequency. Discuss remedial actions with IEC, ER and Contractor. Monitor remedial actions until rectification has been completed. If non-conformity stops, cease additional monitoring.	Check monitoring report. Check Contractor's working method. Discuss with ET and Contractor on possible remedial measures. Advise ER on effectiveness of proposed remedial measures. Supervise implementation of remedial measures.	Notify Contractor. Ensure remedial measures are properly implemented.	Amend working methods to prevent recurrence of nonconformity. Rectify damage and undertake additional action necessary.

Abbreviations: ET – Environmental Team, IEC – Independent Environmental Checker, ER – Engineer's Representative

APPENDIX J
SUMMARY OF EXCEEDANCE

Appendix J: Exceedance Report**(A) Exceedance Report for Air Quality**

Environmental Monitoring	Parameter	No. of non-project related Exceedance		No. of Exceedance related to the Construction Activities of this Contract		Cumulative No. of Exceedance recorded
		Action Level	Limit Level	Action Level	Limit Level	
Air Quality	1-hr TSP	0	0	0	0	0

(B) Exceedance Report for Construction Noise

Environmental Monitoring	Parameter	No. of non-project related Exceedance		No. of Exceedance related to the Construction Activities of this Contract		Cumulative No. of Exceedance recorded
		Action Level	Limit Level	Action Level	Limit Level	
Noise	$L_{eq(30 \text{ min.})}$ dB(A)	0	0	0	0	6

**APPENDIX K
ENVIRONMENTAL MITIGATION
IMPLEMENTATION SCHEDULE (EMIS)**

Appendix K – Implementation Schedule and Recommended Mitigation Measures

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
<i>Air Quality Impact – Construction Phase</i>							
3.91	2.2	<p>Dust Control Measures</p> <p>To achieve compliance with the FSP, RSP and TSP criteria during the construction phase, good practices for dust control should be implemented to reduce dust impacts. The dust control measures are detailed as follows:</p> <ul style="list-style-type: none"> • Use of regular water spraying (once every 1.25 hours or 8 times per day) to reduce dust emissions from heavy construction activities (including ground excavation, earth moving, etc.) at all active works area exposed site surfaces and unpaved roads, particularly during dry weather. • Covering 80% of stockpiling area by impervious sheets and spraying all dusty material with water immediately prior to any loading transfer operations to keep the dusty materials wet during material handing at the stockpile areas. 	Construction Dust	Contractor	Project construction site / Duration of the construction phase / Prior to commencement of operation	Construction phase	*
		<p>Relevant dust control practices as stipulated in the Air Pollution Control (Construction Dust) Regulation should be adopted:</p> <p>Good Site Management</p> <ul style="list-style-type: none"> • Good site management is important to help reduce potential air quality impact down to an acceptable level. 					^

Appendix K – Implementation Schedule and Recommended Mitigation Measures

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		<p>As a general guide, the Contractor should maintain high standards of housekeeping to prevent emissions of fugitive dust. Loading, unloading, handling and storage of raw materials, wastes or byproducts should be carried out in a manner so as to minimise the release of visible dust emission. Any piles of materials accumulated on or around the work areas should be cleaned up regularly. Cleaning, repair and maintenance of all plant facilities within the work areas should be carried out in a manner minimising generation of fugitive dust emissions. The material should be handled properly to prevent fugitive dust emission before cleaning.</p>					
		<p>Disturbed Parts of the Roads</p> <ul style="list-style-type: none"> • Main temporary access points should be paved with concrete, bituminous hardcore materials or metal plates and be kept clear of dusty materials; or • Unpaved parts of the road should be sprayed with water or a dust suppression chemical so as to keep the entire road wet. 					^
		<p>Exposed Earth</p> <ul style="list-style-type: none"> • Exposed earth should be properly treated by compaction, hydroseeding, vegetation planting or seeding with latex, 					^

Appendix K – Implementation Schedule and Recommended Mitigation Measures

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		vinyl, bitumen within six months after the last construction activity on the site or part of the site where the exposed earth lies.					
		<p>Loading, Unloading or Transfer of Dusty Materials</p> <ul style="list-style-type: none"> All dusty materials should be sprayed with water immediately prior to any loading or transfer operation so as to keep the dusty material wet. 					^
		<p>Debris Handling</p> <ul style="list-style-type: none"> Any debris should be covered entirely by impervious sheeting or stored in a debris collection area sheltered on the top and the three sides. Before debris is dumped into a chute, water should be sprayed onto the debris so that it remains wet when it is dumped. 					* ^
		<p>Transport of Dusty Materials</p> <ul style="list-style-type: none"> Vehicles used for transporting dusty materials/spoils should be covered with tarpaulin or similar material. The cover should extend over the edges of the sides and tailboards. 					^
		<p>Wheel Washing</p> <ul style="list-style-type: none"> Vehicle wheel washing facilities should be provided at each construction site exit. Immediately before leaving the 					^

Appendix K – Implementation Schedule and Recommended Mitigation Measures

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		<p>construction site, every vehicle should be washed to remove any dusty materials from its body and wheels.</p> <p>Use of Vehicles</p> <ul style="list-style-type: none"> • The speed of the trucks within the site should be controlled to about 10 km/hour in order to reduce adverse dust impacts and secure the safe movement around the site • Immediately before leaving the construction site, every vehicle should be washed to remove any dusty materials from its body and wheels. • Where a vehicle leaving the construction site is carrying a load of dusty materials, the load should be covered entirely by clean impervious sheeting to ensure that the dusty materials do not leak from the vehicle. <p>Site hoarding</p> <ul style="list-style-type: none"> • Where a site boundary adjoins a road, street, service lane or other area accessible to the public, hoarding of not less than 2.4m high from ground level should be provided along the entire length of that portion of the site boundary except for a site entrance or exit. 					<p style="text-align: center;">^</p> <p style="text-align: center;">^</p> <p style="text-align: center;">^</p> <p style="text-align: center;">^</p>

Appendix K – Implementation Schedule and Recommended Mitigation Measures

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
<i>Noise Impact – Construction Phase</i>							
4.4.6	3.2	<p>Good Site Practice</p> <p>Good site practice and noise management can significantly reduce the impact of construction site activities on nearby NSRs. The following package of measures should be followed during each phase of construction:</p> <ul style="list-style-type: none"> • Only well-maintained plant to be operated onsite and plant should be serviced regularly during the construction works; • Machines and plant that may be in intermittent use to be shut down between work periods or should be throttled down to a minimum; • Plant known to emit noise strongly in one direction, should, where possible, be orientated to direct noise away from the NSRs; • Mobile plant should be sited as far away from NSRs as possible; and • Material stockpiles and other structures to be effectively utilised, where practicable, to screen noise from on-site construction activities. 	Maintain good site practice to minimise / avoid construction noise impact	Contractor	Within the Project site / During construction phase / Prior to commencement of operation.	Construction Phase	^ ^ ^ ^
4.4.6	3.2	<p>Adoption of QPME</p> <ul style="list-style-type: none"> • QPME should be adopted as far as applicable. 	Minimise/ avoid construction noise	Contractor	Within the	Construction Phase	^

Appendix K – Implementation Schedule and Recommended Mitigation Measures

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
4.4.6	3.2	Use of Movable Barriers <ul style="list-style-type: none"> Movable noise barriers should be placed along the active works area and mobile plants to block the direct line of sight between PME and the NSRs. 	impacts to the surrounding NSRs		Project site / During construction phase / Prior to commencement of operation.		^
4.4.6	Use of Noise Enclosure/ Acoustic Shed <ul style="list-style-type: none"> Noise enclosure or acoustic shed should be used to cover stationary PME such as air compressor and generator. 	^					
4.4.6	Use of Noise Insulating Fabric <ul style="list-style-type: none"> Noise insulating fabric can also be adopted for certain PME (e.g. pilling machine etc.). 	^					
Water Quality Impact – Construction Phase							
5.6.1.1	4.2	General Construction Activities The following measures should be implemented: <ul style="list-style-type: none"> Construction waste, debris and refuse generated on-site should be stored or contained appropriately to prevent them entering nearby watercourses or blocking stormwater drains. Regular off-site removal of these materials should be maintained to minimise the volume of waste present on the construction site at any one time. Stockpiles of construction materials such as cement and 	Maintain good site practices to avoid pollution of water courses	Contractor	Within the Project site / During construction phase	Construction Phase	^ ^ ^

Appendix K – Implementation Schedule and Recommended Mitigation Measures

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		excavated material should be covered when not in use to reduce the potential for water pollution.					
5.6.1.2	4.2	<p>Construction Site Runoff</p> <p>The site practices outlined in ProPECC Note PN 1/94 should be followed as far as practicable in order to minimise surface runoff and the chance of erosion. The following measures are recommended:</p> <ul style="list-style-type: none"> • Temporary site drainage facilities are to be designed and implemented by the Contractor prior to commencement of construction to convey surface runoff to storm drains applying adequately designed silt/ sand removal traps and sediment basins. • Perimeter cut-off drains shall be installed in advance of any earthworks and site formation work to convey site runoff from the works areas to the silt removal facilities. • Runoff into the excavation areas during rainstorm events shall be minimised as far as practicable. Any wastewater pumped out of the excavation areas shall be treated to remove suspended solids prior to discharge. • Maintenance and inspection of the drainage system and sediment removal facilities should be carried out regularly to remove any sediment and blockages, especially when 	Minimise / control construction site runoff to avoid pollution of water courses	Contractor	Within the Project site / During construction phase	Construction Phase	<p style="text-align: center;">^</p> <p style="text-align: center;">^</p> <p style="text-align: center;">^</p> <p style="text-align: center;">^</p>

Appendix K – Implementation Schedule and Recommended Mitigation Measures

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		<p>rainstorms are forecast.</p> <ul style="list-style-type: none"> • Final surface levels should be compacted and final surface protections installed to prevent erosion caused by rainstorms. • Open stockpiles of material should be covered on site with waterproof layers such as tarpaulin to reduce the potential for sediment laden runoff entering the drainage system. • The wheels of all vehicles and plant should be cleaned before leaving the works areas to remove sediment, soil and debris from the tracks. The washwater should be treated to remove any suspended sediment. • Surface water from concrete batching areas and the rest of the site should be separated as far as possible. Wastewater from any concrete batching plant (if required) shall be treated to the required standards including pH adjustment and settlement of suspended sediments before discharging to stormwater drains • Manholes (including those constructed as part of the Project) should be adequately covered and temporarily sealed at all times to prevent silt, construction materials or debris from entering the drainage system, and to prevent 					<p style="text-align: center;">^</p> <p style="text-align: center;">^</p> <p style="text-align: center;">^</p> <p style="text-align: center;">^</p> <p style="text-align: center;">^</p>

Appendix K – Implementation Schedule and Recommended Mitigation Measures

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		<p>storm runoff from entering foul sewers. The discharge of surface runoff into foul sewers should be prevented so as not to overload the sewerage system.</p> <p>Discharges should be collected by the temporary drainage system installed by the Contractor and treated on-site to remove sediment prior to discharge to the off-site drainage areas. The Contractor is required to obtain a discharge licence from EPD under the WPCO for all discharges from site with all discharges meeting the water quality requirements of the Technical Memorandum on Standards for Effluents Discharged into Drainage and Sewerage Systems, Inland and Coastal Waters (TM-DSS).</p>					^
5.6.1.3	4.2	<p>Accidental Spillage of Chemicals</p> <p>In accordance with the Waste Disposal (Chemical Waste) (General) Regulation (Cap 354C), the following measures should be implemented:</p> <ul style="list-style-type: none"> The labelling and storage of chemicals should be in accordance with the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes and maintained at all times by the Contractor. Oils and fuels should only be stored in designated areas which have appropriate pollution prevention control 	Prevent accidental discharge of chemicals into the surrounding environment	Contractor	Within the Project site / During construction phase	Construction phase	^

Appendix K – Implementation Schedule and Recommended Mitigation Measures

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		<p>facilities such as oil and grease traps.</p> <ul style="list-style-type: none"> The maintenance of vehicles should only be undertaken in areas of the site served by appropriate pollution prevention control facilities. To prevent the spillage of fuels and solvents to nearby stormwater drains, all fuel tanks and storage areas should be locked and sited on sealed areas of the site, within bunded areas with a capacity equal to 110% of the storage capacity of the largest container. The bund should be kept free of surface water at all times and after each rainfall event. 					<p>^</p> <p>^</p>
5.6.1.4	4.2	<p>Sewage from Construction Workforce</p> <p>Portable toilets should be available throughout the construction phase and regularly maintained, collected and disposed by a licensed waste collector to a public sewage treatment works for suitable treatment.</p>	Prevent discharge of sewage into the surrounding environment	Contractor	Within the Project site / During construction phase	construction phase	^
5.6.1.5	4.2	<p>Construction Works in Close Proximity to Inland Watercourses</p> <p>Mitigation measures such as such as temporary diversions of existing drainage culverts/ watercourses before construction commences and during construction should be implemented, in addition to those listed in ProPECC Note PN1/94 <i>Construction</i></p>	Minimise/ control construction site discharges to avoid pollution of nearby watercourses	Contractor	Within the Project site / During construction phase	construction phase	

Appendix K – Implementation Schedule and Recommended Mitigation Measures

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		<p><i>Site Drainage and ETWB TC (Works) No. 5/2005 Protection of Natural Streams/ivers from Adverse Impacts Arising from Construction Works.</i> Measures include the following:</p> <ul style="list-style-type: none"> • Stockpiling of construction materials and spoil, should be properly covered and located away from any natural stream/river. • Construction works close to the inland waters should be carried out in dry season as far as practicable where the flow in the surface channel or stream is low. • Removal of existing vegetation alongside the riverbanks should be avoided or minimised. When disturbance to vegetation is unavoidable, all disturbed areas should be hydroseeded or planted with suitable vegetation to blend in with the natural environment upon completion of works. 					<p>N/A</p> <p>N/A</p> <p>N/A</p>
Waste Management Implications – Construction Phase							
7.5.1.1	6.2	<p>Good Site Practice</p> <p>Recommendations for good site practices during the construction activities include:</p> <ul style="list-style-type: none"> • Nomination of an approved person, such as a site manager, to be responsible for good site practices, arrangements for collection and effective disposal to an 	Implement good site practices to minimize waste generation	Contractor	Project construction site / Throughout construction stage / Until completion of all construction	Construction phase	^

Appendix K – Implementation Schedule and Recommended Mitigation Measures

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		<p>appropriate facility, of all wastes generated at the site</p> <ul style="list-style-type: none"> • Training of site personnel in proper waste management and chemical handling procedures • Provision of sufficient waste disposal points and regular collection of waste • Appropriate measures to minimise windblown litter and dust/odour during transportation of waste by either covering trucks or by transporting wastes in enclosed containers • Stockpiles of C&D materials should be kept covered by impervious sheets to avoid windblown dust • All dusty materials including C&D materials should be sprayed with water immediately prior to any loading transfer operation so as to keep the dusty material wet during material handling at the stockpile areas • Provision of wheel washing facilities before the trucks leaving the works area so as to minimise dust introduction to public roads • Well planned delivery programme for off-site disposal such that adverse environmental impact from transporting the inert or non-inert C&D materials is not anticipated 			activities		<p>^</p> <p>*</p> <p>^</p> <p>^</p> <p>^</p> <p>^</p> <p>^</p>
7.5.1.2	6.2	Waste Reduction Measures	Implement good	Contractor	Project	Construction phase	

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		<p>Good management and control can prevent the generation of a significant amount of waste. Waste reduction is best achieved at the planning and design stage, as well as by ensuring the implementation of good site practices. Recommendations to achieve waste reduction include:</p> <ul style="list-style-type: none"> • Sort non-inert C&D materials to recover any recyclable portions • Segregation and storage of different types of waste in different containers or skips or stockpiles to enhance reuse or recycling of materials and their proper disposal • Encourage collection of recyclable waste such as waste paper and aluminum cans by providing separate labelled bins to enable such waste to be segregated from other general refuse generated by the work force • Proper site practices to minimize the potential for damage or contamination of inert C&D materials • Plan the use of construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of waste 	management and control to minimize waste generation		construction site / Throughout construction stage / Until completion of all construction activities		^ ^ ^ ^ ^
7.5.1.3	6.2	<p>Inert and Non-inert C&D Materials</p> <p>In order to minimise impacts resulting from collection and transportation of inert C&D materials for off-site disposal, the</p>	Minimise impacts resulting from collection and transportation of inert C&D	Contractor	Project construction site / Throughout	Construction phase	^

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		<p>inert C&D materials should be reused on-site as fill material as far as practicable. In addition, inert C&D materials generated from excavation works could be reused as fill materials in local projects that require public fill for reclamation.</p> <p>The surplus inert C&D materials will be disposed of at the Government's PFRFs for beneficial use by other projects in Hong Kong.</p> <p>The C&D materials generated from general site clearance should be sorted on site to segregate any inert materials for reuse or disposal at PFRFs whereas the non-inert materials will be disposed of at the designated landfill site.</p> <p>In order to monitor the disposal of inert and non-inert C&D materials at respectively PFRFs and the designated landfill site, and to control fly-tipping, it is recommended that the Contractor should follow the DEVB Technical Circular (Works) No. 6/2010 for Trip Ticket System for Disposal of Construction & Demolition Materials issued by Development Bureau. In addition, it is also recommended that the Contractor should prepare and implement a Waste Management Plan detailing their various waste arising and waste management practices in accordance with the relevant requirements of the ETWB Technical Circular (Works) No. 19/2005 Environmental</p>	materials		construction stage / Until completion of all construction activities		<p style="text-align: center;">^</p> <p style="text-align: center;">^</p> <p style="text-align: center;">^</p>

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		Management on Construction Site					
7.5.1.4	6.2	<p>Chemical Waste</p> <p>If chemical wastes are produced at the construction site, the Contractor will be required to register with the EPD as a chemical waste producer and to follow the guidelines stated in the “Code of Practice on the Packaging Labelling and Storage of Chemical Wastes”. Good quality containers compatible with the chemical wastes should be used, and incompatible chemicals should be stored separately. Appropriate labels should be securely attached on each chemical waste container indicating the corresponding chemical characteristics of the chemical waste, such as explosive, flammable, oxidising, irritant, toxic, harmful, corrosive, etc. The Contractor should use a licensed collector to transport and dispose of the chemical wastes at the approved Chemical Waste Treatment Centre or other licensed recycling facilities, in accordance with the Waste Disposal (Chemical Waste) (General) Regulation.</p> <p>Potential environmental impacts arising from the handling activities (including storage, collection, transportation and disposal of chemical waste) are expected to be minimal with the implementation of appropriate mitigation measures as recommended</p>	Implement good practices to avoid chemical waste impact.	Contractor	Project construction site / Throughout construction stage / Until completion of all construction activities	Construction phase	^

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7.5.1.5	6.2	<p>General Refuse</p> <p>General refuse should be stored in enclosed bins or compaction units separated from inert C&D materials. A reputable waste collector should be employed by the Contractor to remove general refuse from the site, separately from inert C&D materials. Preferably an enclosed and covered area should be provided to reduce the occurrence of 'windblown' light material.</p>	Implement good practices to avoid odour nuisance or pest/vermin problem and waste impact.	Contractor	Project construction site / Throughout construction stage / Until completion of all construction activities	Construction phase	^
Land Contamination – Construction Phase							
8.6.1	7.2	In any case where contaminated soil is identified after the commencement of works, a Contamination Assessment Plan (CAP) is required to be prepared for EPD's endorsement prior to the site investigation. The Contamination Assessment Report (CAR) and/ or Remediation Action Plan (RAP) should be prepared for EPD's approval after the site investigation. If land contamination is confirmed, remediation works should be carried out according to the approved RAP. A Remediation Report (RR) should also be prepared for EPD's endorsement to demonstrate that the clean-up of the contaminated land is completed. No construction work or development of the site should be carried out before the approval of the RR.	Assessment is required for EPD approval in any case where contaminated soil is identified	Contractor	Project construction site / Before construction stage	Design phase	N/A
8.6.1	7.2	The following mitigation measures are proposed for	Minimise impacts resulting	Contractor	Project	Construction phase	

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		<p>contaminated material excavation and transportation of contaminated materials (if any), in order to minimise the potentially adverse effects health and safety of construction workers and impacts arising from the disposal of potentially contaminated materials:</p> <ul style="list-style-type: none"> • To minimise the chance for construction workers to come into contact with any contaminated materials, bulk earth-moving excavation equipment should be employed; • Contact with contaminated materials can be minimised by wearing appropriate clothing and personal protective equipment such as gloves and masks (especially when working directly with contaminated material), provision of washing facilities and prohibition of smoking and eating on site; • Stockpiling of contaminated excavated materials on site should be avoided as far as possible; • The use of any contaminated soil for landscaping purpose should be avoided unless pre-treatment was carried out; • Vehicles containing any excavated materials should be suitably covered to reduce dust emissions and / or release of contaminated wastewater; • Truck bodies and tailgates should be sealed to stop any 	<p>from excavation and transportation in the of contaminated materials</p>		<p>construction site / Throughout construction stage / Until completion of all construction activities</p>		<p>N/A</p> <p>N/A</p> <p>N/A</p> <p>N/A</p> <p>N/A</p>

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		<p>discharge;</p> <ul style="list-style-type: none"> Only licensed waste haulers should be used to collect and transport contaminated material to treatment/disposal site and should be equipped with tracking system to avoid fly tipping; Speed control for trucks carrying contaminated materials should be exercised; Observe all relevant regulations in relation to waste handling, such as Waste Disposal Ordinance (Cap 354), Waste Disposal (Chemical Waste) (General) Regulation (Cap 354C) and obtain all necessary permits where required; and Maintain records of waste generation, disposal quantities and disposal arrangements. 					<p>N/A</p> <p>N/A</p> <p>N/A</p> <p>N/A</p>
Ecological Impact							
9.7.1	8.3	<p>Temporary Protective Fence for Flora Species of Conservation Interest</p> <p>During construction phase, erection and maintenance of a temporary protective fence enclosing the flora species of conservation interest identified under the detailed vegetation survey is recommended.</p> <p>Monthly monitoring of any other flora species of conservation</p>	<p>To avoid potential impact on flora species of conservation interest from construction activities such as materials storage;</p> <p>To make sure that the flora species of conservation</p>	Contractor	Project construction site / Throughout construction stage / Until completion of all construction activities	Construction phase	^

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		interest identified in the detailed vegetation survey should be conducted during the construction phase.	interest are not affected by the construction activities of the project.				
<i>Golden-headed Cisticola (Recommended Mitigation Measures from Baseline Survey Report of Golden-headed Cisticola)</i>							
-	-	<p>The following mitigation measures are proposed for minimizing noise impacts induced by construction works:</p> <ul style="list-style-type: none"> Silencers or mufflers on well-maintained construction equipment should be utilized and properly maintained during the construction program Noise enclosure or acoustic shed should be effectively utilized, where practicable Machines or equipment known to emit noise or light strongly in one direction should, wherever possible, be orientated the noise away from the adjacent habitat 	Construction noise	Contractor	Project area – areas adjacent to sensitive receivers / During construction phase	Construction phase	N/A ^ ^
-	-	<p>The following mitigation measures are proposed for minimizing light impacts:</p> <ul style="list-style-type: none"> Adjusting the outdoor lighting to lower intensity Use of directional lighting to avoid light spill into sensitive areas Control/timing of lighting periods of some facilities, particularly those close to the ecological sensitive receivers 	To minimize the light disturbance to avifauna	Contractor	Project area – areas adjacent to sensitive receivers / During construction phase	Construction phase	^ ^ ^

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-	-	<p>Drainage system</p> <ul style="list-style-type: none"> • Proper drainage system should be installed to collect and dispose rainwater • Installation of sediment/rubbish trapping facilities (e.g. catch pits or sand/silt traps to contain the increase in suspended solids and materials in the storm water drainage system so as to avoid pollutants being washed out during heavy rainstorms) 	Prevent discharge of pollutant into the surrounding environment	Contractor	Project area – areas adjacent to sensitive receivers / During construction phase	Construction phase	^ ^
-	-	<p>Good Site Practice Measures</p> <ul style="list-style-type: none"> • Placement of stockpiling into designated area should be selected at disturbed area in order to minimize the disturbance to wildlife • Open fire should be strictly prohibited • The boundary of project boundary should be clearly demarcated • General drainage system arrangement should include sediment and oil trapper to collect the site run-off • Waste bin should be provided to collect the general refuse and construction waste 	To avoid potential impact on Golden-headed Cisticola	Contractor	Project area – areas adjacent to sensitive receivers / During construction phase	Construction phase	^ ^ ^ ^

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<i>Landscape and Visual Impacts – Construction Phase</i>							
Table 10.11	Table 9.1	CM01: Trees / woodland within the Project Site which are unaffected by the works shall be protected and preserved during the detailed design stage and construction phase. The tree preservation proposals shall be coordinated with the layout and design of the engineering and architectural works at detailed design stage for further retention of individual trees. The preservation of existing tree shall provide instant greening and screening effect for proposed works. Tree protection works will be undertaken in accordance with DEVB TC(W) 7/2015 on “Tree Preservation” and tree risk assessment in accordance with “Guidelines for Tree Risk Assessment and Management Arrangement” by DEVB.	Preserve and protect existing trees	Contractor	Project area / During design stage / construction phase / Establishment Period	Design and construction phase	^
Table 10.11	Table 9.1	CM02: If removal of trees unavoidable due to construction impacts, trees will be transplanted where technically feasible in accordance with “Guidelines on Tree Transplanting” by DEVB and HQ/GN/13 and HQ/GN/13 – Interim Guidelines for Tree Transplanting Works under Highways Department’s Vegetation Maintenance Ambit where applicable.	Preserve and protect existing trees	Contractor	Project area / During design stage / construction phase / Establishment Period	Design and construction phase	^
Table 10.11	Table	CM03: Construction area control, where possible, to ensure that	Minimise landscape and	Contractor	Project area /	Construction phase	^

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	9.1	the landscape and visual impacts arising from the construction activities are minimised. This includes the reduction of the extent and location of working areas to avoid sensitive LR's, siting of offices or temporary structures so that they are not visually prominent, and consideration of detailed schedules to shorten the construction period. Temporary landscape treatments are considered to be adopted such as applying hydro-seeding on temporary stockpiles and areas of earthworks to alleviate the potential impacts and minimise soil erosion.	visual impacts.		During design stage / construction phase.		
Table 10.11	Table 9.1	CM04: Replanting of existing / disturbed vegetation shall be undertaken as soon as technically feasible during the construction phase. The priority shall be areas at the periphery of the site to ensure that proposed planting fulfils its role in mitigating the predicted impacts including screening views of the proposals as early as possible during the operation phase.	Maximise the mitigation effect of the planting to minimise landscape and visual impacts.	Contractor	Project area / During design stage / construction phase / Establishment Period	Construction phase	N/A
Table 10.11	Table 9.1	CM05: Decorative screen hoarding will be erected along areas of the construction works site boundary where the works site borders publically accessible routes and/or is close to visually sensitive receivers (VSRs) to screen undesirable views of the works site. It is proposed that the screening be compatible with the surrounding environment and where possible, non-reflective, recessive colours be used.	Minimise landscape and visual impacts.	Contractor	Project area – areas adjacent to sensitive receivers / During construction phase.	Construction phase	^

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<i>Landscape and Visual Impacts (Recommended Mitigation Measures from Landscape and Visual Mitigation Plan)</i>							
-	-	<p>Tree protection and preservation</p> <p>a. The tree preservation proposals shall be coordinated with the layout and design of the engineering and architectural works at the detailed design stage for further retention of individual trees.</p> <p>b. During construction period, retained trees will be protected from impact from construction activity as per General Specification for Civil Engineering Works (2006 Edition), Section 26 – Preservation and Protection of Trees and Guidelines on Tree Preservation during Development.</p>	To avoid potential impact on retained tree from construction activities such as materials storage; To make sure that the retained tree are not affected by the construction activities of the Project	CEDD's and ArchSD's Contractors	CEDD: Along KNP Road where applicable and slopes within KNP Police Facilities Site ArchSD: Within KNP Police Facilities Site	Design and construction phase of CEDD's and ArchSD's Contracts	*
-	-	<p>Tree transplantation</p> <p>a. If removal of trees unavoidable due to construction impacts, trees will be transplanted where technically feasible in accordance with "Guidelines on Tree Transplanting" by DEVB and HQ/GN/13 and HQ/GN/13 – Interim Guidelines for Tree Transplanting Works under Highways Department's Vegetation Maintenance Ambit where applicable.</p>	To preserve the trees with conservation interest which are unavoidably affected by the construction activities.	CEDD's Contractors	The location of three <i>Aquilaria sinensis</i> at Site Portion B and D, and the receptor site for the transplanted trees opposite Portion B1 of the site.	Construction Stage of CEDD's contracts	^
-	-	Work area and temporary works area	To minimize the landscape	CEDD's and	CEDD: Along	Construction	^

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		<p>a. Reduction of the extent and location of working areas to avoid sensitive LR's</p> <p>b. Siting of offices or temporary structures so that they are not visually prominent</p> <p>c. Consideration of detailed schedules to shorten the construction period</p> <p>d. Temporary landscape treatments are considered to be adopted such as applying hydro-seeding on temporary stockpiles and areas of earthworks to alleviate the potential impacts and minimise soil erosion.</p>	and visual impacts by construction area control	ArchSD's Contractors	KNP Road where applicable and slopes within KNP Police Facilities Site ArchSD: Within KNP Police Facilities Site	Stage of CEDD's and ArchSD's Contracts	^ ^ ^
-	-	<p>Advance implementation of mitigation planting</p> <p>a. Replanting of existing / disturbed vegetation shall be undertaken as soon as technically feasible during the construction phase.</p>	To mitigate the predicted impacts including screening views of the proposals as early as possible during the operation phase.	CEDD's and ArchSD's Contractors	Whole project site area, priority given to periphery of the site	Construction Stage of CEDD's and ArchSD's Contracts	N/A
-	-	<p>Decorative screen hoarding</p> <p>a. Decorative screen hoarding will be erected along areas of the construction works site boundary where the works site borders publically accessible routes and/or is close to visually sensitive receivers (VSRs)</p> <p>b. It is proposed that the screening be compatible with the</p>	To screen undesirable views of the works site.	CEDD's and ArchSD's Contractors	Along areas of the construction works site boundary where the works site borders publically	Construction Phase CEDD's and ArchSD's Contracts	^ ^

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		surrounding environment and where possible, non-reflective, recessive colours be used.			accessible routes and/or is close to visually sensitive receivers (VSRs)		
-	-	<p>Detail design considerations</p> <p>a. Detailed design of development components should reduce landscape footprint and visibility of structures.</p>	To reduce the area allowed for any development to a practical minimum	CEDD's Detailed Designers / Consultants ArchSD's Detailed Designers / Consultants	CEDD: Along KNP Road where applicable and slopes within KNP Police Facilities Site ArchSD: Within KNP Police Facilities Site	Design Stage of CEDD's and ArchSD's Contracts	N/A
-	-	<p>Aesthetically pleasing design and responsive design of buildings and structures</p> <p>a. The form, textures, finishes and colours of the proposed development components should be compatible with the existing surroundings. Light earthy tone colours such as shades of green, grey, brown and off-white may be utilised where technically feasible to reduce the visibility of the development components, including all roadwork, buildings and noise barriers etc</p>	<p>a. To reduce the visibility of the development components</p> <p>b. To further improve visual amenity</p> <p>c. To reduce the mass of development</p> <p>d. To minimise the 'wall</p>	ArchSD's Detailed Designers / Consultants	Within KNP Police Facilities Site	Design Stage ArchSD's Contract	N/A

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		<p>b. Adopting natural building materials such as stone and timber should be for architectural features, where technically feasible.</p> <p>c. Using responsive design for the disposition of the main elements of the proposed scheme including the locations of buildings and utility structures.</p> <p>d. Grouping of utilities and infrastructure components into proposed buildings as far as technically feasible to reduce the mass of development</p> <p>e. The disposition and height profile of the developments and above ground utilities structures to respond to the existing context particularly the existing landform and preserved trees,</p> <p>f. Creation of setbacks, articulating the development frontage and maintenance of view corridors when technically feasible</p>	<p>effects' and create a subtle transition at the edges of the site</p> <p>e. To enhance the sense of visual integration with the existing context, avoid abrupt transitions between the existing and proposed built environment and reduce the apparent visual mass of the proposed developments.</p>				
-	-	<p>Design of engineering structure</p> <p>a. The design of the proposed Engineering Structures such as the proposed road layout and any ancillary structures including the sewage pumping station and the Ma Tso Lung Firing Range should pay particular attention to the appearance and construction methods.</p> <p>b. The detailed design landscape consultants shall work in unison with the engineers on the aesthetic aspects of the structures and</p>	<p>To give the engineering structures a more natural appearance that allows them to blend into the local rural landscape.</p>	<p>CEDD's Detailed Designers / Consultants</p>	<p>Whole project site area</p>	<p>Design Stage of CEDD's Contracts</p>	<p>^</p>

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		<p>their relationship with the landscape.</p> <p>c. The design of engineering structures shall avoid any unnecessary visual clutter achieved through the co-ordination of the various engineering disciplines involved to arrive at integrated design solutions.</p>					
-	-	<p>Design of retaining walls and slopes</p> <p>a. The proposed treatment of Retaining Wall and Slopes will be undertaken in accordance with GEO Publication No. 1/2011 "Technical Guidelines on Landscape Treatment and Bioengineering for Man-made Slopes and Retaining Walls".</p> <p>b. These engineering structures will be aesthetically enhanced through the use of soft landscape works including tree and shrub planting.</p>	<p>To give man-made slopes a more natural appearance blending into the local rural landscape.</p>	<p>CEDD's Detailed Designers / Consultants</p>	<p>Retaining walls and slopes within the whole site area</p>	<p>Design Stage of CEDD's Contracts</p>	^
-	-	<p>Compensatory planting proposal</p> <p>a. All compensatory planting of trees is to be carried out in accordance with DEVB TCW No. 7/2015. A total woodland compensation area of 5.54 ha is proposed.</p> <p>b. The planting proposals will utilise largely native species in accordance with GLTM/DEVB's - Guiding Principles on Use of Native Plant Species in Public Works Projects,</p> <p>c. Some compensatory shrub and ground cover planting will also</p>	<p>To compensate for the existing dead trees to be removed and create a more structurally diverse woodland.</p>	<p>CEDD's and ArchSD's Contractors</p>	<p>CEDD: Along KNP Road where applicable and slopes within KNP Police Facilities Site ArchSD: Within KNP Police</p>	<p>Construction Stage of CEDD's and ArchSD's Contract</p>	N/A

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		<p>be provided within the woodland area to create a more structurally diverse woodland.</p> <p>d. Woodland areas will utilise a combination of large sized tree stock (including heavy standard sized trees) and whip sized trees to create a more naturalistic</p> <p>e. The smaller, younger plant stock will adapt to their new growing conditions more quickly than larger sized stock and establish a naturalistic effect more rapidly.</p> <p>f. Roadside and amenity planting will utilise largely heavy standard sized trees.</p>			Facilities Site		
-	-	<p>Landscape buffer tree planting</p> <p>a. Tree planting using larger sized tree stock shall be provided to screen the proposed structures and associated facilities.</p> <p>b. The planting will utilise native species wherever possible.</p>	To improve compatibility with the surrounding environment and create a pleasant pedestrian environment.	CEDD's and ArchSD's Contractors	CEDD: along KNP Road where applicable and slopes within KNP Police Facilities Site ArchSD : within KNP Police Facilities Site	Construction Stage of CEDD's and ArchSD's Contract	N/A
-	-	Roadside and amenity planting (within KNP Police Facilitate Site)	To enhance the landscape and visual quality of the existing and proposed	ArchSD's Contractor	KNP Police Facilities Site	Construction Stage of ArchSD's	N/A



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		a. Roadside and amenity planting using predominantly native species	transport routes and car parks.			Contract	
-	-	Grassland (ecological mitigation) a. Creation of new grassland areas approximately 1.02 ha in size. Inclusion of common grass species <i>Ischaemum barbatum</i> and <i>Tetradium glabrifolium</i> (the larval food plants for butterfly species).	To provide larval food plants for the butterfly species.	ArchSD's Contractor	ArchSD : within KNP Police Facilities Site	Construction Stage of ArchSD's Contract	N/A
-	-	Green roof (within KNP Police Facilitate Site) a. Green roofs predominantly using native species shall be introduced where technically feasible on proposed buildings to reduce exposure of untreated concrete surfaces b. Location and extent of green roof subject to detailed design.	To enhance the sustainability of the design and mitigate visual impact to VSRs at high levels	ArchSD's Contractor	Within KNP Police Facilitate Site	Construction stage of ArchSD's Contract	N/A
-	-	Vertical greening a. Vertical planting shall be introduced using predominantly native species. b. Planting to utilise climbing and trailing plants. Location and extent of vertical greening subject to detailed design.	To soften the hard, vertical surfaces of the proposed development components including the walls of the proposed buildings and retaining walls.	CEDD's and ArchSD's Contractors	CEDD: along KNP Road where applicable and slopes within KNP Police Facilitate Site ArchSD : within KNP Police Facilitate Site	Construction Stage of CEDD's and ArchSD's Contracts	N/A
-	-	Green paving (within KNP Police Facilitate Site)	To reduce the area of	ArchSD's Contractor	Within KNP	Construction stage	N/A



Appendix K – Implementation Schedule and Recommended Mitigation Measures



EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		<p>a. Green paving approach such as grass-crete or grass-grid to maximise the area of planting and reduce the area of hard paving</p> <p>b. Location and extent of green paving subject to detailed design of the ArchSD's contract. This includes the use of permeable paving where grass-crete / grass grid is not practicable.</p>	hard paving		Police Facilitate Site	of ArchSD's Contracts	
-	-	<p>Light control (operation)</p> <p>a. Street and night time lighting glare will be controlled</p>	To minimize glare impact to adjacent VSRs during the operation stage.	HKPF and HyD	HKPF: Within KNP Police Facilitate Site HyD: Along Kong Nga Po Road	Operation Stage	N/A



- Implementation status:**
- ^ Mitigation measure was fully implemented
 - * Observation/reminder was made during site audit but improved/rectified by the contractor
 - # Observation/reminder was made during site audit but not yet improved/rectified by the contractor
 - X Non-compliance of mitigation measure
 - Non-compliance but rectified by the contractor
 - N/A Not Applicable at this stage as no such site activities were conducted in the reporting period


Ref*	Proposed Construction Method	Location/Working Period	Anticipated Major Impacts	Recommended Mitigation Measures	Photo Records (Partial)
EIA 3.91; EM&A Log 2.2	Site Formation	Kong Nga Po Main Site	Dust impact from excavation activities	<ul style="list-style-type: none"> • Deploy water bowser for regular water spraying to enhance dust suppression • Manual water spraying for dusty operation where inaccessible by water bowser • Speed control of site transportation • Stockpile of dusty materials will be covered by tarpaulin to avoid wind-blown dust • Vehicles used for transporting dusty materials/spoils will be covered by mechanical cover before leaving the site • Wheel washing facilities had been provided and cleaning the wheel of all vehicles before leaving the site 	 <p>By main contractor at KNP Main Site</p>  <p>By main contractor at KNP Main Site</p>



Ref*	Proposed Construction Method	Location/Working Period	Anticipated Major Impacts	Recommended Mitigation Measures	Photo Records (Partial)
(Con't) EIA 3.91; EM&A Log 2.2	(Cont') Site Formation	(Cont') Kong Nga Po Main Site	(Con't) Dust impact from excavation activities		 <p>By main contractor at KNP Main Site</p>  <p>By main contractor at KNP Main Site</p>



Ref*	Proposed Construction Method	Location/Working Period	Anticipated Major Impacts	Recommended Mitigation Measures	Photo Records (Partial)
(Con't) EIA 3.91; EM&A Log 2.2	(Cont') Site Formation	(Cont') Kong Nga Po Main Site	(Con't) Dust impact from excavation activities		 <p>By sub-contractor at KNP Main Site</p>  <p>By main contractor at KNP Main Site</p>



Ref*	Proposed Construction Method	Location/Working Period	Anticipated Major Impacts	Recommended Mitigation Measures	Photo Records (Partial)
EIA 5.6.1.2; EM&A Log 4.2	(Cont') Site Formation	(Cont') Kong Nga Po Main Site	Water Pollution Control	<ul style="list-style-type: none"> • Appropriate and sufficient wastewater treatment according to Temporary Drainage Management Plan before discharging of wastewater • Regular inspection and maintenance of wastewater treatment facilities • Provision of soil berms, rock check dam and retention pit near excavation area/low-lying region • Cover the stockpiling with appropriate materials • Slope stabilization such as hydroseeding and shotcrete provision • Wheels of all vehicles and plants should be cleaned before leaving the site. The wastewater generated from wheel washing activities will be treated and reused on site 	 <p>24.07.2022</p> <p>By main contractor at KNP Main Site</p>  <p>24.07.2022</p> <p>By main contractor at KNP Main Site</p>



Ref*	Proposed Construction Method	Location/Working Period	Anticipated Major Impacts	Recommended Mitigation Measures	Photo Records (Partial)
EIA 4.4.6; EM&A Log 3.2	(Cont') Site Formation	(Cont') Kong Nga Po Main Site	Noise	<ul style="list-style-type: none"> Regular inspection and maintenance of plant & equipment in good condition Enclose the noisy part of machineries with noise isolating mats Deploy Quality Powered Mechanical Equipment (QPME) if possible 	 <p>By main contractor at KNP Main Site</p>
EIA 7.5.1.1 & 7.5.1.2; EM&A Log 6.2			Waste Generation	<ul style="list-style-type: none"> Training of site personnel in proper waste management and chemical handling procedures Proper storage and sorting of excavated inert materials to maximize on site reuse for backfilling 	 <p>By sub-contractor at KNP Main Site</p>



Ref*	Proposed Construction Method	Location/Working Period	Anticipated Major Impacts	Recommended Mitigation Measures	Photo Records (Partial)
EIA 10.11, EM&A Log 9.4	(Cont') Site Formation	(Cont') Kong Nga Po Main Site	Ecology Concern	<ul style="list-style-type: none"> • Provide training to frontline workers for the conservative species • Provision of protective fence for the conservative species • Regular inspection for concerned vegetation and conservative species • Adopted low intensity lighting to minimize the light impact to surrounding species • Regular inspection and maintenance of plant & equipment in good condition • Deploy quality powered mechanical equipment if possible 	 <p>By main contractor at KNP Main Site</p>



Ref*	Proposed Construction Method	Location/Working Period	Anticipated Major Impacts	Recommended Mitigation Measures	Photo Records (Partial)
EIA 3.91; EM&A Log 2.2	Reinforced Concrete Structure Construction	Kong Nga Po Main Site Kong Nga Po Road	Air	<ul style="list-style-type: none"> Dusty materials that exceeded 20 bags will be stored in area sheltered on top and the three sides or covered entirely by impervious sheeting. 	 <p>By sub-contractor at KNP road</p>
EIA 5.6.1.2; EM&A Log 4.2			Waste water pollution control	<ul style="list-style-type: none"> Soil berm and retention pit will be provided for the control of water outflow Desilting/sedimentation devices will be provided for wastewater treatment prior to discharge Designated location for residual concrete washout 	 <p>By main contractor at KNP road</p>

Ref*	Proposed Construction Method	Location/Working Period	Anticipated Major Impacts	Recommended Mitigation Measures	Photo Records (Partial)
EIA 4.4.6; EM&A Log 3.2	(Con't) Reinforced Concrete Structure Construction	(Con't) Kong Nga Po Main Site Kong Nga Po Road	Working in Restricted Hours	<ul style="list-style-type: none"> Valid construction noise permit should be obtained and displayed on site 	 <p>By main contractor at KNP road</p>
EIA 4.4.6; EM&A Log 3.2			Noise	<ul style="list-style-type: none"> Well-planning of concreting works to prevent working in restricted hours 	 <p>By main contractor at KNP Road</p>

Ref*	Proposed Construction Method	Location/Working Period	Anticipated Major Impacts	Recommended Mitigation Measures	Photo Records (Partial)
EIA 3.91; EM&A Log 2.2	Slope Upgrading Works	Kong Nga Po Main Site Kong Nga Po Road	Dust impact from soil nail works	<ul style="list-style-type: none"> • Three side enclosure with top shelter for cement mixing works • Water spraying on soil nailing works • Dusty materials exceeding 20 bags shall be stored in area sheltered on top and the three sides or covered entirely by impervious sheeting 	 <p>By sub-contractor at KNP Road</p>
EIA 5.6.1.2; EM&A Log 4.2			Water	<ul style="list-style-type: none"> • Deploy desilting/sedimentation devices for wastewater treatment prior to discharge • Establish soil berm with retention pit to control water outflow 	 <p>By sub-contractor at KNP Main Site</p>

Ref*	Proposed Construction Method	Location/Working Period	Anticipated Major Impacts	Recommended Mitigation Measures	Photo Records (Partial)
EIA 10.11, EM&A Log 9.4	(Con't) Slope Upgrading Works	(Con't) Kong Nga Po Main Site Kong Nga Po Road	Ecology Concern	<ul style="list-style-type: none"> • Provide training to frontline workers for the conservative species • Provision of protective fence for the conservative species • Regular inspection for concerned vegetation 	 <p>By main contractor at KNP Main Site</p>
EIA 3.91; EM&A Log 2.2	Trenchless Works	Kong Nga Po Road Man Kam To Road	Air	<ul style="list-style-type: none"> • Regular inspection and maintenance of plant and equipment in good condition • Regularly clean up stockpiles and debris to avoid accumulation of materials • Dusty materials exceeding 20 bags shall be stored in area sheltered on top and the three sides or covered entirely by impervious sheeting. 	 <p>By sub-contractor at KNP Main Site</p>

Ref*	Proposed Construction Method	Location/Working Period	Anticipated Major Impacts	Recommended Mitigation Measures	Photo Records (Partial)
EIA 5.6.1.2; EM&A Log 4.2	(Con't) Trenchless Works	(Con't) Kong Nga Po Road Man Kam To Road	Water	<ul style="list-style-type: none"> Provide desilting/sedimentation devices for wastewater treatment before discharge 	 <p>20.07.2022</p> <p>By main contractor at KNP Road</p>
EIA 3.91; EM&A Log 2.2	Road and Associated Works	Kong Nga Po Main Site Kong Nga Po Road	Air	<ul style="list-style-type: none"> Regular inspection and maintenance of plant and equipment in good condition Regularly clean up stockpiles and debris to avoid accumulation of materials 	 <p>19.07.2022</p> <p>By sub-contractor at KNP Road</p>

Ref*	Proposed Construction Method	Location/Working Period	Anticipated Major Impacts	Recommended Mitigation Measures	Photo Records (Partial)
EIA 5.6.1.2; EM&A Log 4.2	(Con't) Road and Associated Works	(Con't) Kong Nga Po Main Site Kong Nga Po Road	Water	<ul style="list-style-type: none"> Provide desilting/sedimentation devices for wastewater treatment before discharge 	 <p>24.07.2022</p> <p>By main contractor at KNP Road</p>
EIA Table 10.11 EM&A Table 9.1			Landscape and visual impact	<ul style="list-style-type: none"> Properly fenced off the conservative species Properly implement temporary traffic arrangement which control construction area to minimize landscape and visual impacts 	 <p>27.07.2022</p> <p>By main contractor at KNP Road</p>

**APPENDIX L
WASTE GENERATION IN THE
REPORTING MONTH**

Environmental Permit No.: EP-510/2016**Monthly Summary Waste Flow Table for 2020**

Month	Total Quantity Generated	Actual Quantities of Inert C&D Waste Generated Monthly					Actual Quantities of C&D Waste Generated Monthly				
		Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metal	Paper/Cardboard Packaging	Plastics (see Note 3)	Chemical Waste	Others, e.g. General Refuse
	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m ³)
Jan	0.00304	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00304
Feb	0.00699	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00699
Mar	0.01294	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.01294
Apr	0.02173	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.02173
May	0.02534	0.00000	0.00000	0.00000	0.01329	0.00000	0.00000	0.00000	0.00000	0.00000	0.01205
Jun	0.10368	0.00000	0.00000	0.00000	0.00687	0.00000	0.00000	0.00000	0.00000	0.00000	0.09681
Sub-Total	0.17372	0.00000	0.00000	0.00000	0.02016	0.00000	0.00000	0.00000	0.00000	0.00000	0.15355
Jul	33.65416	0.00000	0.00000	33.07233	0.07872	0.00000	0.00000	0.00000	0.00000	0.00000	0.50311
Aug	26.60619	0.00000	0.00000	25.47880	0.48478	0.00000	0.00000	0.00000	0.00000	0.00000	0.64260
Sep	50.56237	0.00000	0.00000	48.88600	0.45676	0.00000	0.00000	0.00000	0.00000	0.00000	1.21961
Oct	41.97128	0.00000	0.00000	41.63335	0.02784	0.00000	0.00000	0.00000	0.00000	0.00000	0.31009
Nov	62.67238	0.00000	0.00000	61.98935	0.09226	0.00000	0.00000	0.00000	0.00000	0.00000	0.59077
Dec	61.43492	0.00000	0.00000	52.40582	8.76826	0.00000	0.00000	0.00000	0.00000	0.00000	0.26083
Total	277.07501	0.00000	0.00000	263.46567	9.92879	0.00000	0.00000	0.00000	0.00000	0.00000	3.68056

Environmental Permit No.: EP-510/2016**Monthly Summary Waste Flow Table for 2021**

Month	Total Quantity Generated	Actual Quantities of Inert C&D Waste Generated Monthly					Actual Quantities of C&D Waste Generated Monthly				
		Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metal	Paper/Cardboard Packaging	Plastics (see Note 3)	Chemical Waste	Others, e.g. General Refuse
	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m ³)
Cumulative in 2020	277.07501	0.00000	0.00000	263.46567	9.92879	0.00000	0.00000	0.00000	0.00000	0.00000	3.68056
Jan	44.91877	0.00000	0.00000	20.33601	24.31886	0.00000	0.00000	0.00000	0.00000	0.00000	0.26389
Feb	13.08831	N/A	N/A	9.64034	3.40955	N/A	N/A	N/A	N/A	N/A	0.03841
Mar	35.52359	N/A	N/A	19.92956	15.50902	N/A	N/A	N/A	N/A	N/A	0.08501
Apr	42.22569	N/A	11.95500	7.21197	22.96688	N/A	N/A	N/A	N/A	N/A	0.09183
May	9.09491	N/A	4.13844	4.47821	0.43554	N/A	N/A	N/A	N/A	N/A	0.04272
Jun	40.50170	N/A	22.95720	16.78316	0.68899	N/A	N/A	N/A	N/A	N/A	0.07235
Sub-Total	462.42797	0.00000	39.05064	341.84492	77.25764	0.00000	0.00000	0.00000	0.00000	0.00000	4.27477
Jul	38.56656	N/A	2.04766	34.19166	2.26520	N/A	N/A	N/A	N/A	N/A	0.06204
Aug	32.57509	N/A	3.80440	23.63834	4.94379	N/A	N/A	N/A	N/A	N/A	0.18856
Sep	14.56695	N/A	13.46440	0.00000	0.99677	N/A	N/A	N/A	N/A	N/A	0.10578
Oct	6.10194	N/A	5.02740	0.00000	0.96228	N/A	N/A	N/A	N/A	N/A	0.11225
Nov	15.41373	N/A	14.04710	0.00000	1.25681	N/A	N/A	N/A	N/A	N/A	0.10982
Dec	16.44356	N/A	15.59920	0.00000	0.73992	N/A	N/A	N/A	N/A	N/A	0.10444
Total	586.09580	0.00000	93.04080	399.67493	88.42240	0.00000	0.00000	0.00000	0.00000	0.00000	4.95767

Environmental Permit No.: EP-510/2016**Monthly Summary Waste Flow Table for 2022**

Month	Total Quantity Generated	Actual Quantities of Inert C&D Waste Generated Monthly					Actual Quantities of C&D Waste Generated Monthly				
		Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metal	Paper/Cardboard Packaging	Plastics (see Note 3)	Chemical Waste	Others, e.g. General Refuse
	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m ³)
Cumulative up to 2021	586.09580	0.00000	93.04080	399.67493	88.42240	0.00000	0.00000	0.00000	0.00000	0.00000	4.95767
Jan	15.52131	N/A	14.62310	0.00000	0.75883	0.00000	0.00000	0.00000	0.00000	0.00000	0.13939
Feb	0.75965	N/A	0.00000#	0.00000	0.68681	0.00000	0.00000	0.00000	0.00000	0.00000	0.07283
Mar	11.42694	N/A	11.19380	0.00000	0.13435	0.00000	0.00000	0.00000	0.00000	0.00000	0.09879
Apr	21.11792	N/A	20.93220	0.00000	0.03174	0.00000	0.00000	0.00000	0.00000	0.00000	0.15399
May	23.62989	N/A	22.75850	0.00000	0.78923	0.00000	0.00000	0.00000	0.00000	0.00000	0.08216
Jun	50.32256	N/A	49.84710	0.00000	0.38282	0.00000	0.00000	0.00000	0.00000	0.00000	0.09264
Sub-Total	708.87407	0.00000	212.39550	399.67493	91.20618	0.00000	0.00000	0.00000	0.00000	0.00000	5.59747
Jul	55.65088	N/A	54.26760	0.00000	0.37304	0.91776	0.00000	0.00000	0.00000	0.00000	0.09247
Aug	0.00000										
Sep	0.00000										
Oct	0.00000										
Nov	0.00000										
Dec	0.00000										
Total	764.52495	0.00000	266.66310	399.67493	91.57922	0.91776	0.00000	0.00000	0.00000	0.00000	5.68994

Environmental Permit No.: EP-510/2016

Forecast of Total Quantities of C&D Materials to be Generated from the Contract*										
Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metal	Paper/Cardboard Packaging	Plastics (see Note 3)	Chemical Waste	Others, e.g. General Refuse
(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m ³)
630.500	0.000	190.000	358.000	78.000	0.000	0.000	0.000	0.000	0.000	4.500

Notes:

- (1) Not Used.
- (2) The waste flow table shall also include C&D materials that are specified in this contract to be imported for use at the Site
- (3) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging materials.
- (4) The summary table shall be submitted to the *Supervisor* monthly together with the Waste Flow Table for review and monitoring in accordance with the PS Clause 25.20A(4)
- (5) The density of inert C&D is assumed 2.2 tonnes per cubic meter
- (6) The density of non-inert C&D is assumed 1.5 tonnes per cubic meter
- (7) The C&D materials generated before Jul 2020 are from domestic activities, site investigation, clearance, and preparation for surveying works

*The total quantity of C&D materials to be generated from the Contract had been updated by surveying record

#Quantity to be included in Mar-2022 since lack of manpower of Survey Team for data logging in Feb-2022 due to Covid-19

**APPENDIX M
COMPLAINT LOG**

Appendix M - Complaint Log**Reporting month: July 2022**

Complaint Log Ref.	EPD Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
C-001	EP3/N07/RN/18746-20	Kong Nga Po Road	19 th August 2020	The complainant complained about the construction noise nuisance of the Kong Nga Po Road and requested noise monitoring and mitigation measures to lower the noise level.	<p>According to the results from regular noise monitoring, no Limit Level Exceedance was recorded at sensitive receivers since the commencement of the construction of the Project. In addition, there was no environmental deficiency regarding construction noise impact recorded during site inspection. It is considered that no adverse construction noise impact was brought to the nearby sensitive receivers due to the site works in July and August 2020.</p> <p>Upon receipt of the complaint, the Contractor had undertaken the follow up action as follow:</p> <ul style="list-style-type: none"> • Erect noise isolating mat at Portion B1 to reduce noise nuisance arising from the site <p>Nevertheless, the Contractor was reminded to fully implement the relevant noise mitigation measures according to the EM&A Manual on site, such as:</p> <ul style="list-style-type: none"> • Selection of quieter plant; • Provision of sufficient noise mitigation measures (e.g. movable noise barrier, noise enclosure, acoustic shed, noise insulating fabric etc.) for the site activities on nearby NSRs where appropriate. • To strengthen site supervision and provide regular training to the workers to increase awareness of their environmental responsibilities and minimize the noise impact 	Closed

Complaint Log Ref.	EPD Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
					to the nearby residents during working hours as well as restricted hours.	
C-002	EP3/N07/RN/21538-20	Kong Nga Po Road	22 nd September 2020	The complainant complained about the polluting effluent discharged from construction site, leading to flooding and pollution problem.	<p>According to EM&A Manual of the Project, the complaint was referred to the ET for investigation. Ad-hoc site inspections were conducted by ET and IEC to identify the source of the complaint, review the effectiveness of the Contractor’s remedial measures and the updated situation once received the complaint.</p> <p>According to the site inspection finding, no muddy effluent discharged from Portion D entrance was observed at Kong Nga Po Road. Wastewater generated from wheel washing, construction works or surface runoff was collected and treated in wastewater treatment facilities. Wastewater treatment facilities were functioning properly. No Limit Level exceedance for pH, suspended solid and chemical oxygen demand was recorded in effluent discharge monitoring.</p> <p>In order to avoid any circumstances that may lead to the complaint, ET and IEC have recommended enhancement on water quality mitigation measures. The Contractor had undertaken the follow up actions and additional mitigation measures on drainage system to minimize the water quality impact arising from the construction works as follow:</p> <ul style="list-style-type: none"> • Provision of soil berm at edge near retaining wall DAM Bay 43-46 • Setting up of wastewater treatment facilities near wheel washing bay 	Closed

Complaint Log Ref.	EPD Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
					<ul style="list-style-type: none"> • Re-formation of haul road in Portion D • Provision of soil berm near Platform B • Increase in capacity of retention pit near Platform B • Reinforcement of soil berm near excavation area and near retaining wall at Portion D to minimize water leakage • Regular maintenance of clear U-channel which was blocked by natural debris at Kong Nga Po Road <p>Nevertheless, the Contractor was reminded to ensure the wastewater generated from construction works must comply with the condition stated in the Effluent Discharge license and enhance sediment control measure regarding storm water management to assure no muddy water is being discharged from the construction site. The environmental conditions of the site and the control of works will be continuously reviewed and monitored by the Supervisor, ET and IEC.</p>	
C-003	N/A	Kong Nga Po Road	8 th October 2020	The complainant complained about the muddy water discharged from construction site into Kong Nga Po Road during heavy rainfall. Also, he concerned if there is illegal discharge and if the design of drainage system	According to the finding of <i>ad-hoc</i> site inspection, no muddy effluent discharge was observed on road surface and road drainage along the Kong Nga Po road section from construction site to the location of complaint during rainfall. Also, no direct slope surface and pathway for muddy water outflow from the site to the location of complaint was observed. Potential source of muddy water to the location of complaint is likely from natural surface runoff from shrubland and grassland	Closed

Complaint Log Ref.	EPD Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
				is sufficient to handle the discharge.	along the Kong Nga Po Road during heavy rainfall.	
C-004	N/A	Kong Nga Po Road	28 th October 2020	The complainant complained about the polluting effluent discharged from construction site, leading to flooding and water pollution problem.	<p>Continuous improvement works on the temporary drainage system at Project site have been conducted for water pollution control since September 2020. Regular checking were carried out by the Contractor to ensure the system is working properly. All wastewater were collected and treated to ensure discharge comply with condition stated in the Effluent Discharge Licence.</p> <p>In addition, the Contractor has taken the following mitigation measures to minimize the water quality impact arising from the construction works:</p> <ul style="list-style-type: none"> ● Regular inspection and maintenance on sediment control measure at Project site; ● <i>Ad-hoc</i> inspection on the water pollution control measures at Project site before onset of the typhoon; ● Regular maintenance record on wastewater treatment facilities; and ● Provision of vegetated filter strips at outer side of existing soil berms and slope surface to act as natural filtration for water pollution control. <p>The environmental condition of the site and the control of work will be continuously reviewed and monitored by the Supervisor, ET and IEC.</p>	

Complaint Log Ref.	EPD Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
C-005	N/A	Slope Feature A at Kong Nga Po Road	28 th October 2020	The complainant complained about the noise generated from the construction activities at Slope Feature A that caused annoyance to his family.	<p>According to the results from regular noise monitoring, no Limit Level exceedance was recorded at sensitive receivers during the time of complaint. In addition, there was no environmental deficiency regarding construction noise impact was recorded during site inspection. In view of the above, it is considered that no adverse construction noise impact was brought to the nearby sensitive receivers due to the site works.</p> <p>Upon receipt of the complaint, the Contractor had undertaken the follow up action as follow:</p> <ul style="list-style-type: none"> • Setting up of double layers of noise barrier to block the transmission of noise from breaking point to Noise Sensitive Receivers; • Conducting internal noise monitoring to ensure the noise mitigation measures are properly implemented; and • To check and maintain the noise insulating fabric enclosed the noisy part of the breaker. <p>Nevertheless, the Contractor was reminded to fully implement the relevant noise mitigation measures according to the EM&A Manual on site , such as</p> <ul style="list-style-type: none"> • To frequently check and maintain the acoustic materials wrapped on noisy part of PME and ensure no gaps between noise barriers; • To proactively identify any potential construction noise impact to NSRs and provide sufficient mitigation measures if necessary; • To provide regular training to the workers to 	Closed

Complaint Log Ref.	EPD Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
					<p>increase awareness of their environmental responsibilities and minimize the noise impact to the nearby residents during working hours as well as restricted hours;</p> <ul style="list-style-type: none"> To provide notification to nearby villagers in Kong Nga Po for potential noisy works at works area 	
C-006	N/A	Portion C at Kong Nga Po Road	30 th November 2020	The complainant complained about the noise nuisance from the construction activities at Portion C on Kong Nga Po Road.	No complaint investigation is required as this complaint has been withdrawn by the complainant.	Closed
C-007	N/A	Portion C at Kong Nga Po Road	30 th November 2020	The complainant complained about the muddy water discharged from construction site into nearby drainage system and some oil slicks observed at the downstream of the drainage.	No complaint investigation is required as this complaint has been withdrawn by the complainant.	Closed
C-008	EP3/N07/RN/8845-21	Near Lamp Post BD2370 at Kong Nga Po Road	19 th April 2021	The complainant complained about suspected dumping soil at nullah, causing blockage and flooding near lamp post BD2370.	<p>According to the finding of <i>ad-hoc</i> site inspection conducted by the Contractor, no excavation nor construction works were carried out by ND/2018/01 near Lamp Post BD2370. Slope excavation was carrying out at Slope Feature 3NW-C/C38, the disposal was recorded and controlled by trip ticket system.</p> <p>Existing U-channel near slope toe had been covered and</p>	Closed

Complaint Log Ref.	EPD Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
					<p>surface runoff was guided to sedimentation tank by submersible pump. No discharge was taken place due to dry season and excavation was not a wastewater-generated activity.</p> <p>Upon receipt of the complaint, the Contractor had undertaken the follow up action as follow:</p> <ul style="list-style-type: none"> • Excavated slop had been covered by erosion mat • Strictly implemented trip ticket system to monitor the C&D waste disposal • Deployed sufficient submersible pump and wastewater treatment facilities for the surface runoff treatment 	
C-009	N/A	Kong Nga Po Road (Feature A)	22 nd October 2021	The complainant complained about noise generated from rock breaking activities at Construction Site caused nuisance to his family and the village.	<p>According to the results from regular noise monitoring, no Limit Level exceedance was recorded at the noise sensitive receivers during the construction works. In addition, there was no environmental deficiency regarding construction noise impact was recorded during site inspection.</p> <p>In addition, Contractor has also undertaken the follow up action as follow:</p> <ul style="list-style-type: none"> • The hammer of excavator had been wrapped with sound proof canvas; • Silent-up retractable noise barriers were deployed for noise mitigation measure during the rock breaking works. <p>Nevertheless, the Contractor was reminded to fully implement the relevant noise mitigation measures according to the EM&A Manual on site , such as:</p>	Closed

Complaint Log Ref.	EPD Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
					<ul style="list-style-type: none"> To frequently check and maintain the acoustic materials wrapped on noisy part of PME and ensure no gaps between noise barriers; To proactively identify any potential construction noise impact to NSRs and provide sufficient mitigation measures if necessary; To provide regular training to the workers to increase awareness of their environmental responsibilities and minimize the noise impact to the nearby residents during working hours as well as restricted hours; and To provide notification to nearby villagers in Kong Nga Po for potential noisy works at works area. 	
C-010	N/A	Kong Nga Po Road	18 th November 2021	The complainant complained about noise and vibration generated from sheet-piling works and rock breaking works for pipe laying works at Kong Nga Po Road	<p>Noise mitigation measures have been implemented for sheet-piling works as below:</p> <ul style="list-style-type: none"> noisy part of sheet-piling plant has been enclosed by sound insulation materials; proactive environmental protection proforma has been prepared to identify the potential noise impact to NSRs and corresponding mitigation measures has been implemented; toolbox talk training for site engineers and frontline workers on construction noise suppression has been conducted. <p>In addition, noise mitigation measures have been implemented for rock breaking activities as below:</p> <ul style="list-style-type: none"> hammer of the excavator has been wrapped by 	Closed

Complaint Log Ref.	EPD Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
					<p>soundproofing material;</p> <ul style="list-style-type: none"> ● checking and maintenance of the soundproofing material wrapped on the hammer has been implemented before operation; ● SilentUP Retractable Noise Barriers have been installed to block the noise transmission to the village of complainant; ● proactive environmental protection proforma has been prepared to identify the potential noise impact to NSRs and corresponding mitigation measures has been implemented; ● toolbox talk training for site engineers and frontline workers on construction noise suppression has been conducted; ● nearby villagers close to the rock breaking works have been informed before the commencement of the works <p>Moreover, no Limit Level exceedance was recorded at the noise sensitive receivers during the construction works. There was also no environmental deficiency regarding construction noise impact at Kong Nga Po Road was recorded during site inspection.</p> <p>However, in order to avoid the recurrence of the complaint due to the rock breaking works at Feature A works area, alternative working methods such as the use of hydraulic splitters, hydraulic jaw crushers and rock sawing will be considered for the upcoming</p>	

Complaint Log Ref.	EPD Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
					<p>rock breaking works.</p> <p>Enhancement on the noise mitigation measures such as strengthening the use of noise barriers to enclose the noise source from rock breaking works and controlling the working period to avoid continuous noisy works will also be implemented for upcoming rock breaking works.</p>	
C-011	N/A	Kong Nga Po Road near 警察訓練學校	22 nd December 2021	The complainant complained about soil / muddy water discharging out from construction site near 警察訓練學校 at Kong Nga Po Road	<p>Internal movement of excavated materials by dump truck were carried out by ND/2018/01 at 3NW-C/C37 near Lamp Post BD2369 and RD-A near Lamp Post BD2356, and both near the Police Dog Unit and Force Search Unit Training School as mentioned in the complaint.</p> <p>The following was observed during the investigation:</p> <ul style="list-style-type: none"> • wheel washing facilities have been provided for vehicles and plants leaving the works areas; • the section before the site exits have been paved with backfall to prevent the wheel washing water from entering the public road; • frontline worker was carrying out public road washing for public cleanliness in the perspective of the general public; • no earth, mud or muddy water were deposited on roads. <p>Enhancement measures have been carried out RD-A to restore the pavement quality and further prevent the wheel washing water from entering the public road.</p>	Closed

Complaint Log Ref.	EPD Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
C-012	N/A	Works Area Near Lamp Post GD0460 at Kong Nga Po Road	3 rd May 2022	<p>The complainant complained about the following issues:</p> <ul style="list-style-type: none"> - Noise from construction activities that caused nuisance to public - Vibration may cause damage to nearby structure - Suspected muddy water discharged into private drainage 	<p>The main construction works near the complaint location as stated by the complainant was the pre-boring works at works area “S0131” from 21 April 2022 to 30 April 2022. Observations have been spotted during the investigation as below:</p> <p><u>Noise & Vibration</u></p> <ul style="list-style-type: none"> - Additional noise barrier has been erected for the pre-boring works to minimize the noise transmitted to the noise sensitive receiver (NSR) even the line of sight between the noise source point and the NSR was blocked by the natural barrier. <p><u>Muddy Water Discharge</u></p> <ul style="list-style-type: none"> - Wastewater Treatment Facilities has been in place and functioning to treat the wastewater generated from the pre-boring works. - discharged effluent from the wastewater treatment system for the works area “S0131” has been sampled on 25 April 2022 and the test report showed a result of Total Suspended Solid of < 1mg/L which complied with the requirement of < 30mg/L as stipulated in Discharge Licence. - no muddy water along the drainage near the complaint location was observed, the water flowing in the drainage was clean even after the heavy rainstorm on 12 May 2022. - no chemical along the drainage near the complaint location was observed. <p>The following additional measures were implemented by the Contractor:</p>	Closed

Complaint Log Ref.	EPD Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
					<p><u>Noise & Vibration (26/4/2022)</u></p> <ul style="list-style-type: none"> - self-monitoring on noise at the NSR has been conducted and the result showed a noise level of Leq,T = 58.7dB(A) that no exceedance of noise level from the pre-boring works. - self-monitoring on vibration at the NSR has been conducted and the result showed a vibration level of 2.977mm/s that was far lower than the Peak Particle Velocity Limits of 15mm/s. <p><u>Muddy Water Discharge</u></p> <ul style="list-style-type: none"> - additional clearance works for the existing drainage to help to clear the soil accumulated in the drainage brought from nearby existing earth and to ensure no blockage of the drainage. 	
C-013	N/A	Works Area Near Lamp Post BD2355 at Kong Nga Po Road	23 rd June 2022	The complainant complained about vibration from construction activities that caused nuisance to a nearby Sensitive Receiver of the Police Dog Unit and Force Search Unit Training School (HKPDU)	<p>The main construction works near the HKPDU mentioned by the complainant was the pre-boring works at Works Area “RD-A”. The works were commenced on 11 June 2022 and completed on 21 June 2022. The following observations were made during the investigation:</p> <ul style="list-style-type: none"> - no vibration was noticed during the site inspection at Works Area “RD-A” for the pre-boring works on 15 June 2022 - a difference in elevation (at least 3m) between the Works Area “RD-A” and the nearby Sensitive Receiver was formed after the completion of backfilling for the retaining wall system and might have already reduced the vibration transmission to the Sensitive Receiver 	Closed

Complaint Log Ref.	EPD Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
					The following additional measures were implemented by the Contractor: <ul style="list-style-type: none"> - self-monitoring on vibration at the nearby Sensitive Receiver was conducted on 21 June 2022 and the result showed a vibration level of 0.348 mm/s that was far lower than the Peak Particle Velocity Limits of 15mm/s - feasibility of alternative working methods to further minimize the vibration to nearby Sensitive Receivers for upcoming pre-boring works at other works area will be considered by the Contractor 	

Cumulative Complaint Log

Reporting Period	Total no. of Complaint Received
This reporting month	0
From 3 rd July 2020 to end of the reporting month	13

**APPENDIX N
SUMMARY OF SUCCESSFUL
PROSECUTION**

Appendix N - Summary of Successful Prosecution

Date of Successful Prosecution	Details of the Successful Prosecution	Status	Follow Up	Total no. Received in this Reporting Month	Total no. Received since Project Commencement
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