

Environmental Monitoring & Audit Monthly Report (January 2020)

Project Proponent : Civil Engineering and Development

Department

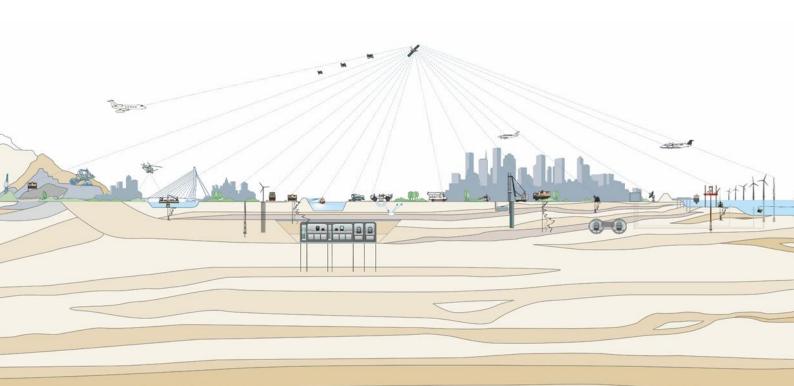
Project : Contract No. ND/2019/06

Fanling North New Development Area,

Phase 1:

Re-provisioning of North District Temporary Wholesale Market for Agricultural Products

Fugro Document No. : 0032/19/ED/0325B





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Phase 1:

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Fugro Document No. : 0032/19/ED/0325B

Prepared for:



02	Final	Jimmy Lui, Wingo So	Calvin Leung	Cahin Jenny.	20/4/2020
Issue No.	Status	Prepared and Checked by:	Certified by:	Signature:	Date



Civil Engineering and Development Department

North Development Office

Unit 1501, Level 15, Tower I, Metroplaza

223 Hing Fong Road

Kwai Fong

New Territories

Your reference:

Our reference:

HKCEDD14/50/106526

Date:

12 May 2020

Attention: Mr Ryan Chau

BY EMAIL & POST (email: hlchau@cedd.gov.hk)

Dear Sirs

Agreement No.: NDO 16/2018

Independent Environmental Checker for

Pre-construction Environmental Monitoring and Audit Works for the Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas Monthly Environmental Monitoring and Audit Report No.3 (January 2020) (Revised)

We refer to emails of 30 March and 5 May 2020 attaching the Monthly Environmental Monitoring and Audit Report No.3 (Revised) prepared by the Environmental Team (ET) of the captioned.

We have no further comment and hereby verify the Monthly Environmental Monitoring and Audit Report No.3 (January 2020) (Revised) in accordance with Clause 3.4 of the Environmental Permit no. EP-466/2013, EP-467/2013/A, EP-468/2013/A, EP-469/2013, EP-470/2013, EP-473/2013/A and EP-475/2013/A.

Should you have any queries, please do not hesitate to contact the undersigned or our Ms Katherine Chu on 2618 2831.

Yours faithfully ANEWR CONSULTING LIMITED

James Choi Independent Environmental Checker

CPSJ/LYMA/CWKK/csym

cc AECOM – Mr Chris Ho (email: chris.ho@aecom.com) Fugro – Mr Calvin Leung (email: c.leung@fugro.com)

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DOCUMENT ISSUE LOG

Issue No.	Status	Reason for Issue/Reissue	Comments on Content	Date
00	Draft	IEC 1st comments	IEC with no comments and submitted on 17/2/2020.	17/2/2020
01	Draft	EPD 1 st comments	Addressed EPD Comments and resubmitted on 26/3/2020.	26/3/2020
02	Final	IEC 2 st comments	Addressed EPD Comments and resubmitted on 20/4/2020.	20/4/2020



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EXCUTIVE SUMMARY

i. This is the 3rd monthly EM&A Report which summaries the impact monitoring results and audit findings for the contract (Contract No.ND/2019/06) within the period from 1 January to 31 January 2020.

Breaches of Action and Limit Levels

ii. No Action or Limit Level Exceedance of Noise monitoring was recorded in the reporting period.

Complaint, Notifications of Summons and Successful Prosecutions

iii. No complaints, notification of summons and prosecutions were received in the reporting period.

Reporting Change

iv. There was no reporting change required in the reporting period.

Future Key Issues

Construction Activities for the Coming Reporting Period

- v. During the coming reporting period, the principal work activities within the site included:
 - Temporary lighting installation
 - Hard paving works and road marking
 - Underground cable duct laying
 - Temporary office election
 - Carcass of management office building
 - Sewage works, water works
 - Drainage works
 - Breaking work existing paving
- vi. Potential environmental impacts due to the construction activities will be monitored or reviewed. The ET will continue to implement the environmental monitoring & audit programme in accordance with the EM&A Manual and Environmental Permit requirements. The recommended environmental mitigation measures shall be implemented on site and regular inspections as required will be carried out to ensure that the environmental conditions are acceptable.



1. INTRODUCTION

1.1 Background

- 1.1.1 The Kwu Tung North (KTN) and Fanling North (FLN) New Development Areas (NDAs) are one of the important sources of land and housing supply in the medium and long term. The development of the KTN and FLN NDAs will be implemented in phase for full completion by 2031. The Phase 1 of the NDAs development, comprising the Advance Works and First Stage Works, is targeted to be implemented from the second half of 2019 progressively. The Advance and First Stage Works would include site formation, engineering infrastructure works (including roads, drainage, sewerage, waterworks, landscaping works, pumping stations, and fresh water and flushing water service reservoirs), soil remediation, reprovisioning of North District Temporary Wholesale Market, development of a nature park at Long Valley and implementation of environmental mitigation measures.
- 1.1.2 The scope of works under the Advance and First Stage Works comprises the following:
 - a) The Advance Works (PWP item No. 7747CL-2) consist of:
 - i) site formation of land (including soil remediation) in KTN and FLN NDAs for housing, community facilities and engineering infrastructure;
 - ii) construction of roads including the eastern section of Fanling Bypass (FLBP(E)) connecting the FLN NDA to Fanling Highway and other roads with footpaths and cycle tracks, and associated junction/ road improvements;
 - engineering infrastructure works including drainage. Sewerage (including two sewage pumping stations), waterworks (including a fresh water service reservoir and a flushing water service reservoir in the KTN NDA), landscape works and slopeworks;
 - iv) part expansion and upgrading of Shek Wu Hui Sewage Treatment Works (SWHSTW);
 - v) reprovisioning works; and
 - vi) implementation of environmental mitigation measures and environmental monitoring and audit (EM&A) programme for the works mentioned in (i) to (v) above
 - b) The First Stage Works (PWP item No. 7759CL) consist of:
 - i) development of a nature park at Long Valley including provision of a visitor centre and a footbridge spanning across Sheung Yue River for connection between these two facilities;
 - ii) reprovisioning of two egretry sites in the FLN NDA and enhancement works to an existing egretry site in the KTN NDA;
 - iii) site formation of land for a village resite area and a district police station in the KTN NDA;
 - iv) engineering infrastructure works including roads, drainage, sewerage, waterbirds, and landscape works; and
 - v) implementation of environmental mitigation measures and environmental monitoring and audit (EM&A) programme for the works mentioned in (i) to (iv) above.
- 1.1.3 The Environmental Impact Assessment (EIA) report for the North East New Territories (NENT) NDAs Study, which covered the Advance Works and First Stage Works of KTN and FLN NDAs, has been submitted to Environmental Protection Department (EPD) in mid-2013. The report was subsequently approved with conditions by EPD on 19 October 2013 under Register No. AEIAR-175/2013.



- 1.1.4 The concurrent construction works under this contract (Contract No. ND/2019/06 Fanling North New Development Area, Phase 1: Re-provisioning of North District Temporary Wholesale Market for Agricultural Products) that may be carried out include, but not limited to, the following:
 - a. Fanling Bypass Eastern Section; and
 - b. Site Formation and Infrastructural Works at Fanling North New Development Area, Resite Area for Holf in Sha Tin and Site Formation Works for Village Resite Area in Fanling North New Development Area.
- 1.1.5 The Director of Environmental Protection (the Director) granted the Environmental Permit (EP-475/2013) to the Civil Engineering and Development Department on 21 November 2013. A Variation of an Environmental Permit (Application No. VEP-516/2016) EP-475/2013/A was issued on 13 January 2017 and it is the current permit for this Contract.
- 1.1.6 The construction phase and EM&A programme of the contract (Contract No.ND/2019/06) commenced on 29 October 2019.
- 1.1.7 This is the 3 rd monthly EM&A Report which summaries the impact monitoring results and audit findings for the contract (Contract No.ND/2019/06) within the period from 1 January to 31 January 2020.



1.2 Project Organization

1.2.1 The Project Organization structure is shown in Appendix C. The key personnel contact information are summarized in Table 1.1.

Table 1.1 Contact Information of Key Personnel

Party	Position	Name	Telephone	Fax
Civil Engineering and Development Department, HKSAR (CEDD)	Project Management	Mr. Lai Cheuk Ho	3547 1608	3547 1658
Engineer/Engineer's Representative (AECOM)	Resident Engineer	Mr. Leo Mak	6398 0379	3922 9797
Independent Environmental Checker (ANEWR)	Independent Environmental Checker	Mr. James Choi	2618 2836	3007 8648
Environmental Team (FTS)	Environmental Team Leader	Mr. Calvin Leung	3565 4441	3565 4160
	Site Agent	Mr. Anson Chan	9349 1320	
Contractor	Environmental Officer	Mr. Alex Choy	9409 9608	00000400
(NCED)	Environmental Coordinator	Ms, Hei Ling Chan	9571 8654	23632162

1.3 Construction Programme and Activities

- 1.3.1 The construction phase of the contract under the EP (EP-475/2013/A) commenced on 29 October 2019.
- 1.3.2 The construction programme of the contract is shown in **Appendix B**.

1.4 Works undertaken during the month

- 1.4.1 During this reporting period, the principal work activities within the site included:
 - Excavation
 - Breaking work
 - Hoarding work
 - Sewerage works, water works

1.5 Status of Environmental Licences, Notification and Permits

1.5.1 A summary of the relevant permits, licences and/or notifications on environmental protection for this Contract is presented in Table 1.2.

Table 1.2 Status of Environmental Licences, Notification and Permits

Permit / Direction / License	Ref No	Valid From	Valid Till
Environmental Permit	EP-475/2013/A	13/01/2017	N/A
Notification of Works Under APCO	449369	24/09/2019	N/A
Wastewater Discharge Licence	450687		
Registration as a Chemical Waste Producer	5213-625-N2716-01	02/10/2019	N/A
Billing Account for Disposal of Construction Waste	7035473	17/10/2019	N/A
Construction Noise Permit	GW-RN0921-19	25/12/2019	24/2/2020



2. NOISE QUALITY MONITORING

2.1 Monitoring Requirement

2.1.1 With reference to Section 3.7 of the Updated EM&A Manual, during normal construction working hour (0700-1900 Monday to Saturday), monitoring of Leq, 30min noise levels (as six consecutive Leq, 5min readings) shall be carried out at the agreed monitoring locations once every week in accordance with the methodology in the TM.

2.2 Monitoring Equipment and Methodology and QA/QC Procedure

- 2.2.1 The sound level meter used in noise monitoring was complied with the International Electrotechnical Commission Publication (IEC) 651:1979 (Type 1) and 804:1985 (Type 1) specifications as referred to in the Technical Memorandum issued under the Noise Control Ordinance (NCO).
- 2.2.2 Sound level calibrator was used for the on-site calibration of the meter. This calibrator was complied with the IEC Publication 942 (1988) Class 1 and ANSI S1.40 1984. Noise measurements were only accepted to be valid if the calibration levels from before and after the measurement agree to within 1.0dB. Measurements shall be recorded to the nearest 0.1dB.
- 2.2.3 Table 2.1 summarizes the noise monitoring equipment model used for this project.

Table 2.1 Noise Monitoring Equipment

Manufacturer/ Brand	Model	Equipment	Serial Number
0 "	CEL-63X Series	Sound Level Meter	1488295
Casella	CEL-120/1	Sound Calibrator	4358298

2.2.4 The monitoring procedures are as follows:

- For façade measurement, the monitoring station was set at a point 1m from the exterior of the sensitive receivers building façade and set at a position 1.2m above the ground. For free-field measurement, the monitoring station was set at a position 1.2m above the ground.
- The battery condition was checked to ensure good functioning of the meter.
- Parameters such as frequency weighting, the time weighting and the measurement time will set as follows:
 - frequency weighting : A
 - time weighting : Fast
 - measurement time : 30 minutes
- Prior to and after noise measurement, the meter shall be calibrated using the calibrator for 94.0 dB at 1000 Hz. If the difference in the calibration level before and after measurement is more than 1.0 dB, the measurement will considered invalid and repeat of noise measurement is required after recalibration or repair of the equipment.
- The wind speed at the monitoring station shall be checked with the portable wind meter. Noise monitoring should be 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.
- Noise measurement should be paused during periods of high intrusive noise if possible and observation shall be recorded when intrusive noise is not avoided.
- At the end of the monitoring period, the Leq, L10 and L90 shall be recorded. In addition, site
 conditions and noise sources should be recorded on a standard record sheet.

2.2.5 Maintenance / Calibration

- The microphone head of the sound level meter and calibrator should be cleaned with a soft cloth at quarterly intervals.
- The sound level meter and calibrator should be calibrated annually by a HOKLAS laboratory or the manufacturer.
- Relevant calibration certificates are provided in Appendix D.



2.3 Monitoring Parameters and Frequency

2.3.1 Table 2.2 presents the noise monitoring parameters and frequencies.

Table 2.2 Monitoring Parameters and Frequencies of Noise Monitoring

Parameter	Frequency and Period
LAeq (30min)	At each station at 0700-1900 hours on normal weekdays at a
(L10 and L90 will be recorded for reference)	frequency of once a week

2.4 Monitoring Locations

2.4.1 Noise monitoring was conducted at two designated monitoring stations as described in Table 2.3 and the monitoring locations are shown in **Figure A2**.

Table 2.3 Location of noise monitoring stations

Monitoring Location Description		Type of Measurement*
Contract 6		
CP-FLN-NMS1	Belair Monte (Existing)	Façade

Note: *For Free-field measurement, +3dB(A) should be added to the measured results

2.5 Results and Observations

- 2.5.1 The schedule of noise monitoring in reporting period is provided in **Appendix F**.
- 2.5.2 The adopted Action and Limit Levels for noise impact monitoring are provided in **Appendix E**.
- 2.5.3 The noise monitoring data are summarized in Table 2.4. Detailed monitoring data are presented in **Appendix G**.

Table 2.4 Summary of Noise Impact Monitoring Results

Monitoring Construction Noise Level Location Leq (30min), dB(A)		Baseline Level, dB(A)	Limit Level, dB(A)	
Contract 6				
CP-FLN-NMS1	68.4-70.7	69.9	75	

- 2.5.4 The Event and Action Plan for noise is given in **Appendix J**.
- 2.5.5 No Action or Limit Level Exceedance was recorded in the reporting period.

Other factor influencing the monitoring results

2.5.6 There were no other noticeable external factors generally affecting the monitoring results in this reporting period.



3. WASTE MANAGEMENT

- 3.1.1 Auditing of waste management practices during regular site inspections will confirm that the waste generated during construction are properly, stored, handled and disposed of. The construction Contractor(s) will be responsible for the implementation of any mitigation measures to reduce waste or redress issues arising from the waste materials.
- 3.1.2 The summary of site audited and the implemented environmental mitigation measures in the reporting period are summarized in **Appendix I and Appendix L**.
- 3.1.3 Monthly summary of waste flow table is detailed in **Appendix M**.



4. ENVIRONMENTAL SITE INSPECTION AND AUDIT

4.1 Site Inspection

- 4.1.1 Regular site inspections will be carried out by the ET once per week during construction phase.
- 4.1.2 In the reporting period, site inspections were carried out on 2, 9, 15 and 23 January 2020.
- 4.1.3 The summary of the site audits are given in **Appendix I.**
- 4.1.4 According to EP-475/2013/A section 2.7, 2m high solid dull green site barrier fences had been erected around all active works areas as a mitigation measure to minimise adverse impacts on habitats of ecological importance in the vicinity of the Project. Related photo shown in **Appendix N**.



5. ENVIRONMENTAL COMPLAINT AND NON-COMPLIANCE

- 5.1 Complaint, Notifications of Summons and Successful Prosecutions
- 5.1.1 No complaints, notification of summons and prosecutions were received in the reporting period.
- 5.1.2 Cumulative complaint log, summaries of complaints, notification of summons and successful prosecutions and public engagement activities are presented in **Appendix H**.



6. IMPLEMENTATION STATUS OF ENVIRONMENTAL MITIGATION MEASURES

6.1 Implementation Status

- 6.1.1 The Contractor has implemented environmental mitigation measures and requirements as stated in the EIA Reports, the EP and the EM&A Manuals. The implementation status of the mitigation measures during the reporting period is summarized in **Appendix K**.
- 6.1.2 As confirmed by contractor, 2m high solid dull green site barrier fences had been erected around all active works areas to minimise adverse impacts on habitats of ecological importance in the vicinity of the Project. The related photo shown in **Appendix O**.



7. FUTURE KEY ISSUES

7.1 Construction Works for the Coming Month

- 7.1.1 During the coming reporting period, the principal work activities within the site included:
 - Temporary lighting installation
 - Hard paving works and road marking
 - Underground cable duct laying
 - Temporary office election
 - Carcass of management office building
 - Sewage works, water works
 - Drainage works
 - Breaking work existing paving

7.2 Key Issues for the Coming Month

- 7.2.1 Potential environmental impacts due to the construction activities, including air quality, noise, water quality, waste, landscape and visual, will be monitored or reviewed. The ET will continue to implement the environmental monitoring & audit programme in accordance with the EM&A Manual and Environmental Permit requirement. The recommended environmental mitigation measures shall be implemented on site and regular inspections as required will be carried out to ensure that the environmental conditions are acceptable.
- 7.2.2 The anticipated impact of principal work activities within the site and the recommended mitigation measures are shown in **Appendix L**.

7.3 Monitoring Schedules for the Coming Months

7.3.1 The schedules for environmental monitoring in the coming months are provided in **Appendix F**.



8. Conclusions

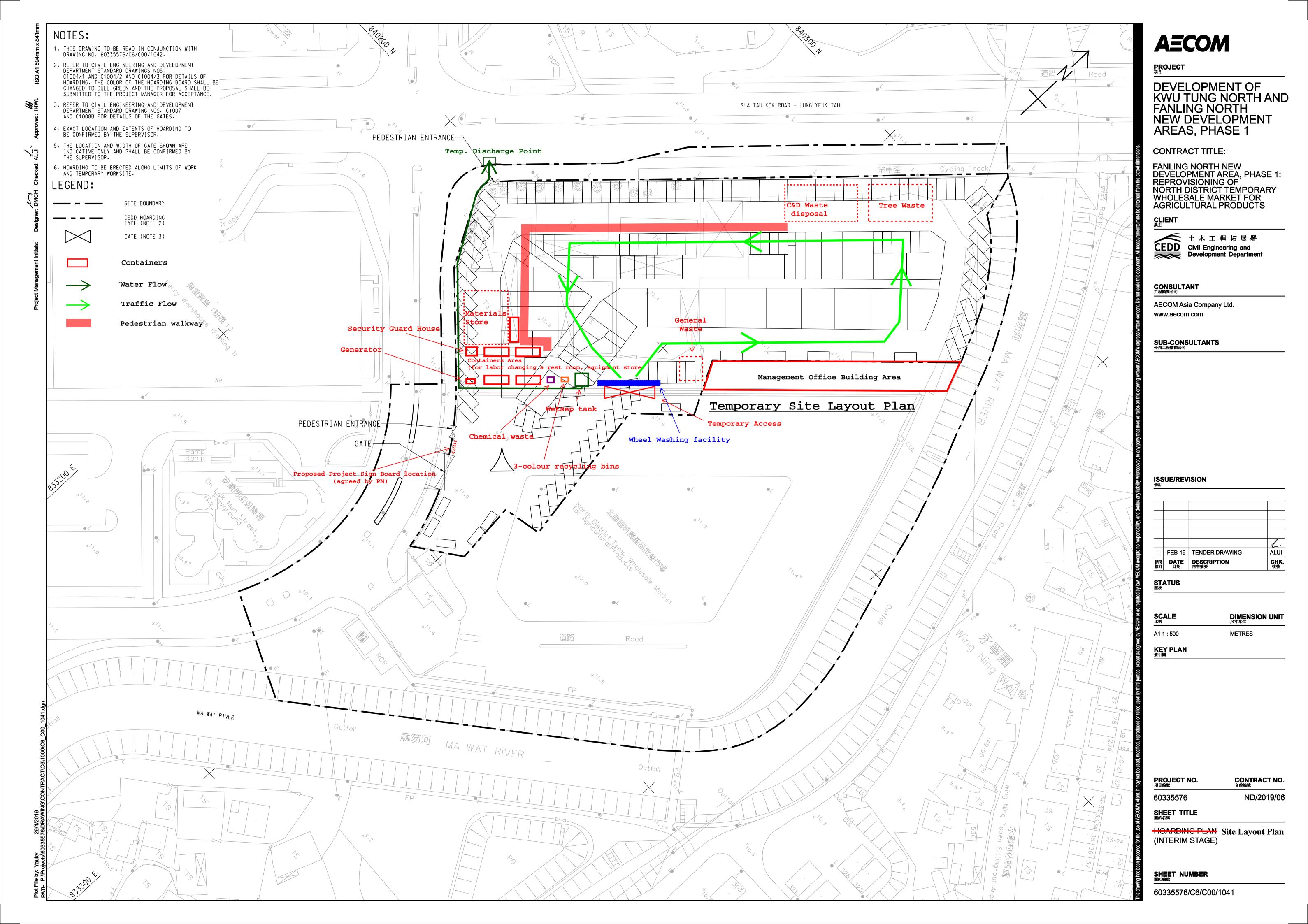
- 8.1.1 No Action or Limit Level Exceedance was recorded in the reporting period.
- 8.1.2 No complaints, notification of summons or successful prosecutions were received in the reporting period.
- 8.1.3 There was no reporting change required in the reporting period.
- 8.1.4 Potential environmental impacts due to the construction activities, including air quality, noise, water quality, waste, landscape and visual, will be monitored or reviewed. The ET will continue to implement the environmental monitoring & audit programme in accordance with the EM&A Manual and Environmental Permit requirements. The recommended environmental mitigation measures shall be implemented on site and regular inspections as required will be carried out to ensure that the environmental conditions are acceptable.



A. FIGURES

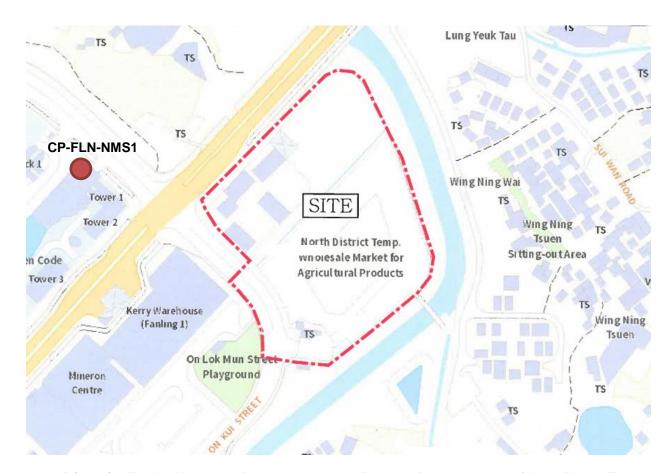


A.1 SITE LAYOUT PLAN





A.2 PROJECT BOUNDARY AND NOISE MONITORING STATION



Legend:

Contract No. ND/2019/06 Fanling North New Development Area, Phase 1: Re-provisioning of North District Temporary Wholesale Market for Agricultural Products site boundary

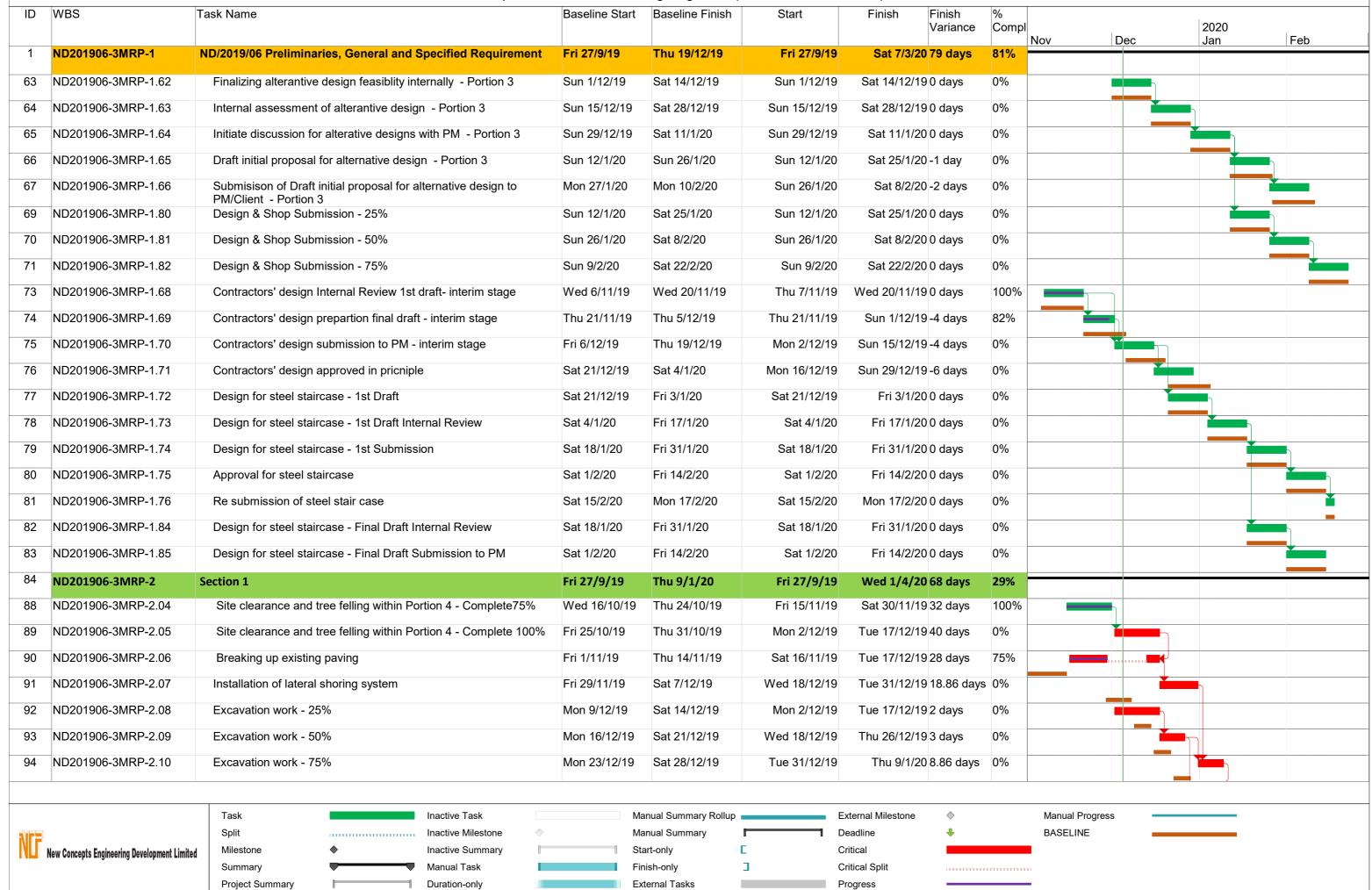
Construction Airborne Noise Monitoring Station



B. CONSTRUCTION PROGRAMME

Development of Kwu Tung North and Fanling North New Development Areas, Phase 1: Reprovisioning of North District Temporary Wholesale Market for Aricultural Products. Updated Three Months Rolling Programme (Nov 2019 - Jan/Feb 2020)

Dated:Thu 5/12/19 Data Date: 30 November 2019



Development of Kwu Tung North and Fanling North New Development Areas, Phase 1: Reprovisioning of North District Temporary Wholesale Market for Aricultural Products.

Dated:Thu 5/12/19

Updated Three Months Rolling Programme (Nov 2019 - Jan/Feb 2020) Data Date: 30 November 2019 ID WBS Task Name Baseline Start Baseline Finish Start Finish Finish Variance Compl 2020 Dec Jan Feb Nov ND201906-3MRP-2.11 Excavation work - 100% Mon 30/12/19 Sat 4/1/20 Sat 4/1/20 Sat 11/1/20 6 days 0% ND201906-3MRP-2.12 Plate load test to verify formation bearing capacity Fri 20/12/19 Fri 27/12/19 Fri 27/12/19 Fri 3/1/20 5 days 0% 0% ND201906-3MRP-2.13 Blinding layer for foundation - Transformer/switch rooms Mon 6/1/20 Tue 7/1/20 Sat 4/1/20 Sat 4/1/20 -2 days 0% ND201906-3MRP-2.14 Blinding layer for foundation - remaining area Wed 8/1/20 Thu 9/1/20 Mon 6/1/20 Mon 6/1/20 - 3 days ND201906-3MRP-2.15 Formwork of G/F beams and slabs - Transformer /switch/generator Thu 9/1/20 Thu 16/1/20 3 days 0% Mon 13/1/20 Mon 6/1/20 ND201906-3MRP-2.16 Rebar fixing of G/F beams and slabs - Transformer Tue 14/1/20 Sat 18/1/20 Fri 10/1/20 Sat 18/1/20 0 days 0% /switch/generator rooms ND201906-3MRP-2.17 Concreting fixing of G/F beams and slabs - Transformer Sun 19/1/20 Sun 19/1/20 Mon 20/1/20 Mon 20/1/20 1 day 0% /switch/generator rooms 0% ND201906-3MRP-2.18 Site clearance of G/F beams and slabs - Transformer Mon 20/1/20 Tue 21/1/20 Tue 21/1/20 Thu 23/1/20 2 days /switch/generator rooms ND201906-3MRP-2.19 Formwork of G/F beams and slabs - Remaining area of building Wed 22/1/20 Mon 27/1/20 Fri 17/1/20 Wed 29/1/20 1 day 0% ND201906-3MRP-2.20 Rebar fixing of G/F beams and slabs - Remaining area of building Mon 27/1/20 Thu 30/1/20 Mon 20/1/20 Fri 31/1/20 1 day 0% ND201906-3MRP-2.21 Concreting fixing of G/F beams and slabs - Remaining area of Thu 30/1/20 Fri 31/1/20 Sat 1/2/20 Sat 1/2/20 1 day 0% building ND201906-3MRP-2.22 Site clearance of G/F beams and slabs - Remaining area of Wed 29/1/20 Fri 31/1/20 Mon 3/2/20 Wed 5/2/20 4 days 0% building ND201906-3MRP-2.23 Sat 1/2/20 0% Construction of walls and columns - 50% Sun 9/2/20 Thu 6/2/20 Fri 14/2/20 5 days ND201906-3MRP-2.24 Construction of walls and columns - 100% Mon 10/2/20 Tue 18/2/20 Sat 15/2/20 Mon 24/2/20 5 days 0% ND201906-3MRP-3 Fri 27/9/19 Section 2 Mon 20/1/20 Fri 27/9/19 Mon 2/3/20 33 days 46% ND201906-3MRP-3.03 Site clearance and tree felling within Portion 6 - Complete 50% Wed 9/10/19 Thu 17/10/19 Fri 6/12/19 Sat 21/12/19 56 days 0% ND201906-3MRP-3.04 Site clearance and tree felling within Portion 6 - Complete 75% Fri 18/10/19 Sat 26/10/19 Mon 23/12/19 Thu 9/1/20 62 days 0% ND201906-3MRP-3.05 Mon 28/10/19 Fri 10/1/20 Wed 29/1/20 70 days 0% Site clearance and tree felling within Portion 6 - Complete 100% Sat 2/11/19 ND201906-3MRP-3.09 Topographic Survey - Submission of initial survey report Wed 6/11/19 Thu 14/11/19 Wed 6/11/19 Thu 14/11/19 0 days 100% ND201906-3MRP-3.10 Confirmation of prebore location D37 & D57 Fri 1/11/19 Sat 16/11/19 Fri 1/11/19 Sat 9/11/19 -6 days 100% 100% ND201906-3MRP-3.11 Setup pre-drilling for D37 & D57 Mon 18/11/19 Sat 23/11/19 Sat 9/11/19 Fri 15/11/19 -7 days Commencement of pre-drilling at D37 & D57 ND201906-3MRP-3.12 Mon 25/11/19 Tue 10/12/19 Sat 16/11/19 Fri 29/11/19 -9 days 100% ND201906-3MRP-3.13 Wed 11/12/19 Fri 27/12/19 0% Complete of pre-drilling at D37 & D57 and submission of record Sat 30/11/19 Mon 16/12/19 -9 days ND201906-3MRP-3.14 Tue 17/12/19 Tue 17/12/19 0% Trial pits for slope fill investigation - 50% Thu 2/1/20 Fri 3/1/20 1 day ND201906-3MRP-3.22 Trial pits for slope fill investigation - 100% Fri 3/1/20 Tue 14/1/20 Sat 4/1/20 Sat 18/1/20 4 days 0% ND201906-3MRP-3.15 Preparation of reprots for replacmenet of losse fill Thu 23/1/20 Thu 6/2/20 Sat 4/1/20 Mon 20/1/20 -12 days 0% ND201906-3MRP-3.16 Fri 21/2/20 Submit report to PM, DSD and relevant govt, departments Fri 7/2/20 Thu 30/1/20 Fri 14/2/20 -6 days 0% 132 ND201906-3MRP-4 Section 3 Fri 27/9/19 Fri 7/2/20 Fri 27/9/19 Wed 11/3/20 28 days 52% Task Inactive Task Manual Summary Rollup External Milestone Manual Progress Split BASELINE Inactive Milestone Manual Summary Deadline Start-only Critical Milestone **Inactive Summary** New Concepts Engineering Development Limited 3 Finish-only Critical Split Summary Manual Task

Progress

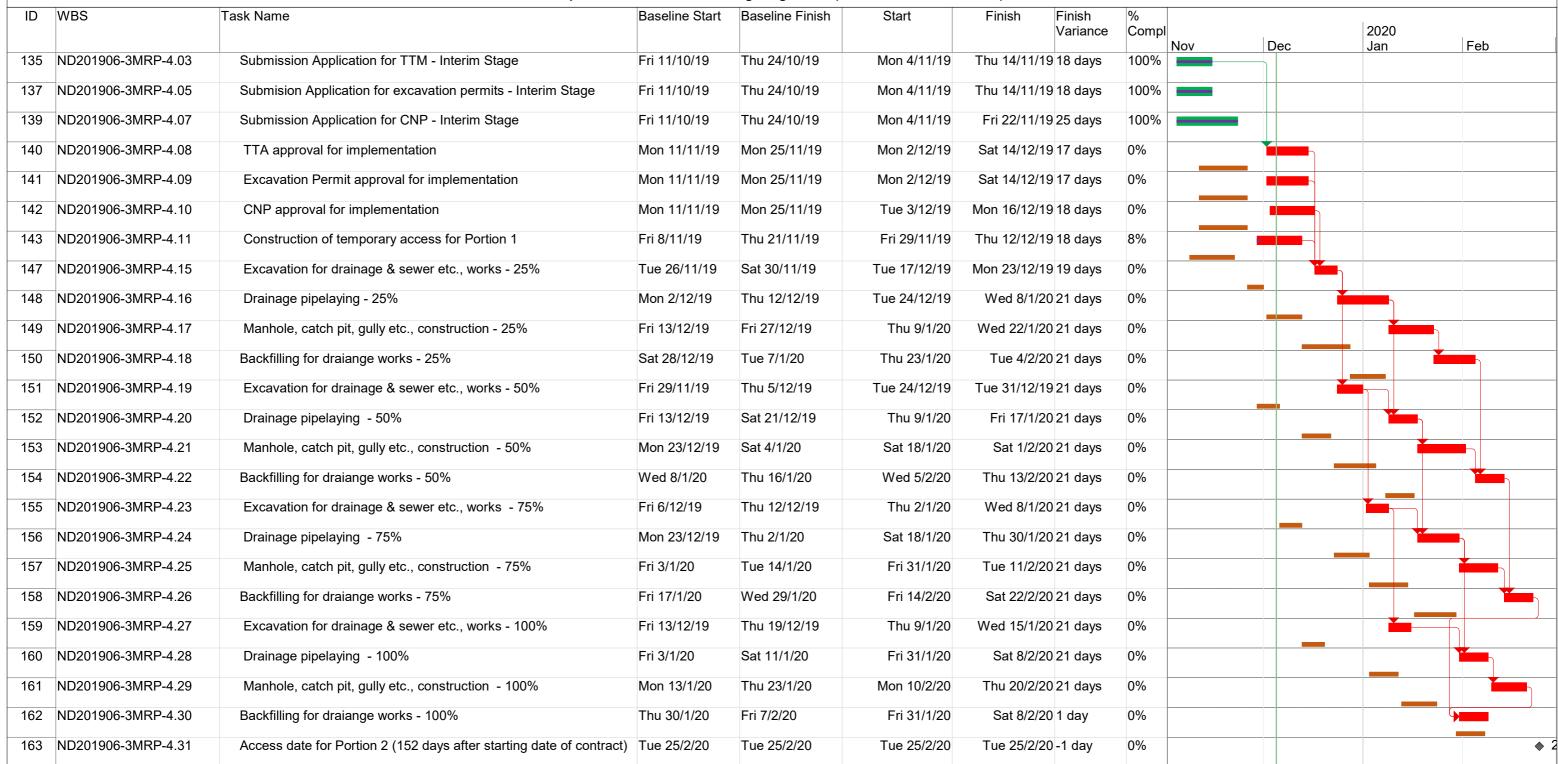
External Tasks

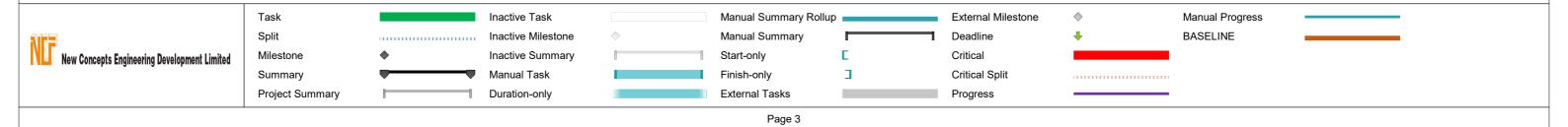
Project Summary

Duration-only

Development of Kwu Tung North and Fanling North New Development Areas, Phase 1: Reprovisioning of North District Temporary Wholesale Market for Aricultural Products. Updated Three Months Rolling Programme (Nov 2019 - Jan/Feb 2020)

Dated:Thu 5/12/19 Data Date: 30 November 2019



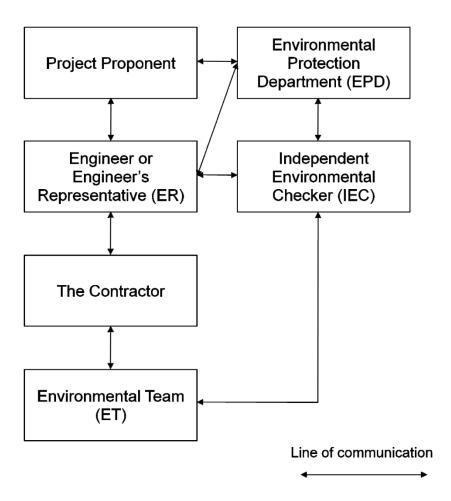




C. PROJECT ORGANIZATION CHART



Project organization chart (environmental)





D. CALIBRATION CERTIFICATES OF MONITORING EQUIPMENT

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre. 5 Lok Yi Street, Tai Lam, Tuen Mun, N.T., Hong Kong.

+852 2450 8233 Tel Fax : +852 2450 6138 E-mail: matlab@fugro.com Website: www.fugro.com



183057CA196305 Report no.:

Page 1 of 1

CALIBRATION CERTIFICATE OF SOUND LEVEL METER

Client Supplied Information

Client: Fugro Technical Services Ltd.

Address: Room 723 & 725, 7/F., Block B Profit Industrial Building, 1-15 Kwai Fung Crescent, Kwai Chung, N.T.

Project: Calibration Services Details of Unit Under Test, UUT

Description

Sound Level Meter

Manufacturer

Casella

Model No.

Serial No.

CEL-63X

Next Calibration Date

16-Oct-2020

Specification Limit

EN 61672: 2003 Type 1

Meter

1488295

Laboratory Information

Details of Reference Equipment -

Description

B & K Acoustic Multifunction Calibrator 4226 (Traditional free field setting)

Microphone

CE-251

02809

Equipment ID.

R-108-1

Date of Calibration:

17-Oct-2019

Ambient Temperature: 22

°C

Preamplifier

CEL-495

003921

Calibration Location:

Calibration Laboratory of FTS

Method Used : By direct comparison

Calibration Results:

Parame	ters	Mean Value (dB)	Specific	ation	Limit(dB)
	4000Hz	1.4	2.6	to	-0.6
A-weighting frequency response	2000Hz	1.3	2.8	to	-0.4
	1000Hz	0.0	1.1	to	-1.1
	500Hz	-3.4	-1.8	to	-4.6
	250Hz	-8.7	-7.2	to	-10.0
	125Hz	-16.2	-14.6	to	-17.6
	63Hz	-26.2	-24.7	to	-27.7
	31.5Hz	-39.1	-37.4	to	-41.4
Differential level	94dB-104dB	0.0		± 0.6	3
linearity	104dB-114dB	0.0		± 0.6	3

Remarks:

- 1. The equipment used in this calibration is traceable to recognized National Standards.
- 2. The mean value is the average of four measurements.
- 3. For calibration: Reference SPL are 94, 104 & 114dB, range setting is 20-140dB & time weighting is fast
- 4. The equipment does comply with EN 61672: 2003 Type 1 sound level meter for the above measurement.
- The values given in this Calibration Certificate only relate to the values at the time of the test and any uncertainties will not include allowance for the equipment long term drift, variations with environment changes, vibration and shock during tranportation, overloading, mis-handling or the capability of any other laboratory to repeat the measurement.

Alliam Date: >3-10-2019 Certified by : __ Checked by: CA-R-297 (22/07/2009)

: _____ P. T. Toung_ Date : ____ 2 V - 10 - 20 19 Leung Kwok Tai (Assistant Manager)

** End of Report **

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre, 5 Lok Yi Street, Tai Lam, Tuen Mun, N.T., Hong Kong.

+852 2450 8233 Fax : +852 2450 6138 E-mail: matlab@fugro.com Website: www.fugro.com



Page 1 of 1

Report no.: 183057CA195873

CALIBRATION CERTIFICATE OF SOUND CALIBRATOR

Client Supplied Information

Client: Fugro Technical Services Ltd.

Project: Calibration Services Details of Unit Under Test, UUT

Description

Sound Calibrator

Manufacturer

Casella (Model CEL-120/1)

Serial No.

4358289

Equipment ID

N-35

Next Calibration Date

25-Jul-2020

Specification Limit

EN 60942: 2003 Type 1

Laboratory Information

Description

Reference Sound level meter

Equipment ID. :

R-119-1

Date of Calibration:

26-Jul-2019

Ambient Temperature: 22 °C

Calibration Location:

Calibration Laboratory of FTS

Method Used

By direct comparison

Calibration Results:

-			
	Parameters (Setting of UUT)	Mean Value (error of measurement)	Specification Limit(dB)
	94dB	0.1 dB	±0.4dB
	114dB	0.0 dB	±0.40B

Remarks:

- 1. The equipment used in this calibration is traceable to recognized National Standards.
- 2. The mean value is the average of four measurements.
- 3. The equipment does comply with the specification limit.
- 4. The values given in this Calibration Certificate only relate to the values at the time of the test and any uncertainties will not include allowance for the equipment long term drift, variations with environment changes, vibration and shock during tranportation, overloading, mis-handling or the capability of any other laboratory to repeat the measurement.

Checked by: William Date: 36-7-2019 Certified by: RT Louis Date: 10-7-2019 CA-R-297 (22/07/2009) Leung Kwok Tai (Assistant Manager)

** End of Report **



E. ACTION AND LIMIT LEVELS



Action and Limit Levels for Construction Noise

Monitoring Location	Description	Time Period	Action Level	Limit Level
Contract 6				
CP-FLN-NMS1	Belair Monte (Existing)	0700 – 1900 hours on normal weekdays	When one documented complaint is received	75 dB(A)



F. ENVIRONMENTAL MONITORING SCHEDULES



Project: Contract No. NDO 14/2018 - Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas (Contract – 06)

EP-475/2013/A: Reprovision of temporary Wholesale Market in Fanling North New Development Area

Impact Monitoring Schedule (January 2020)

Sun	Mon	Tue	Wed	Thu	Fri	Sat	
			1	2	3	4	
5	6 CP-FLN-NMS1	7	8	9	10	11	
12	13 CP-FLN-NMS1	14	15	16	17	18	
19	20	21 CP-FLN-NMS1	22	23	24	25	
26	27	28	29	30	31		

Notes:

- 1. Monitoring Locations: CP-FLN-NMS1 Belair Monte (Existing)
- 2. Actual monitoring date will be subjected to change due to any safety concern or adverse weather condition.
- 3. Noise Monitoring on 31 Jan 2020 was cancelled due to Wu Han China coronavirus.

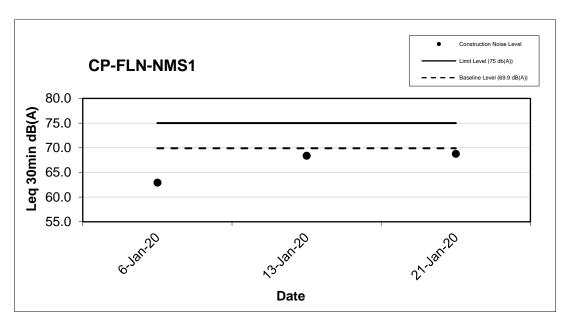


G. NOISE MONITORING DATA AND GRAPHICAL PRESENTATIONS



CP-FLN-NMS1 Belair Monte

	Start Time	Measured Noise Level (MNL)		Baseline	Limit	Corrected			Wind	
Date		L_{eq}^{*}	L ₉₀	L ₁₀	(BNL)	Level	Noise Level (CNL)#		Weather	Speed m/s
		Unit: dB(A) 30 mins								111/5
6-Jan-20	09:47	70.7	59.3	73.5	69.9	75	63.0		Fine	1.7
13-Jan-20	09:50	68.4	56.8	71.4	69.9	75	68.4	Measured≦Baseline	Fine	0.3
21-Jan-20	09:44	68.8	58.0	72.5	69.9	75	68.8	Measured≦Baseline	Fine	1.8





H. CUMULATIVE STATISTICS ON EXCEEDANCES, COMPLAINTS, NOTIFICATIONS OF SUMMONS AND SUCCESSFUL PROSECUTIONS



Environmental Complaints Log

Complaint Log No.	Date of Complaint	Received From	Received By	Nature of Complaint	Investigation/Mitigation Action	Status
Nil	-	-	-	-	-	-

Remark:

Cumulative Statistics on Complaints, Notifications of Summons and Successful Prosecutions and Public Engagement Activities

Reporting Period	Complaints	Notifications of Summons and Prosecutions	Public Engagement Activities
This Month	0	0	0
Cumulative	0	0	0
Project-to-Date	0	0	U

Cumulative Statistics on Monitoring Exceedance

Monitoring Parameter	Month/Year	No. of Exceedance		
Monitoring Farameter	WOILTIVI Cal	Action	Limit	
Noise	No. of Exceedance This Month	0	0	
(LAeq (30min))	Cumulative Project-to-Date	0	0	

^{*} No Complaints, Notifications of Summons or Successful Prosecutions was received in the reporting period.



I. SITE AUDIT SUMMARY



Site Audit Summary

Inspection Date	Observation/ Comment	Follow Up Action	Completion Date
Follow Up action(s) of last reporting month	Stock pile should be fully enclosed by tarpaulin sheet	Stock pile has been fully enclosed by tarpaulin sheet	29/12/2019
	Waste on the ground should be sorted and cleared regularly.	Waste on the ground has been cleared.	9/1/2020
2/1/2020	Grid screen should be provided on the top of water tank to prevent waste falling in.	Grid screen has been provided on the top of water tank to prevent waste falling in.	9/1/2020
	De-silting of U-channel in a regular basis.	Rubbish in the existing channel has been cleared.	9/1/2020
	Temporary Soil Stock-pile should be fully enclosed by tarpaulin sheet for dust control	Temporary Soil Stock-pile has been fully enclosed by tarpaulin sheet for dust control.	16/1/2020
9/1/2020	Water spray should be provided for dust control on concrete breaking works.	Water spray has been provided for dust control.	16/1/2020
9/1/2020	De-silting of U-channel should be proceeded in a regular basis.	De-silting of U-channel has been proceeded in a regular basis.	16/1/2020
	Waste should be removed regularly to prevent over-loading on the waste container.	Waste should be removed regularly. Record of clearance of waste container was displaced on site for monitoring.	16/1/2020
15/1/2020	Sand bags should be provided at the boundary area besides the top of U-channel, to prevent sewage overflooding from the U-channel into the river nearby during heavy rain.	Water pump was provided in the end of U-Channel to pumping sewage to water tank due to prevent overflooding.	23/1/2020
23/1/2020	Temporary Soil Stock-pile should be fully enclosed by tarpaulin sheet for dust control	Temporary Soil Stock-pile has been fully enclosed by tarpaulin sheet for dust control.	23/1/2020

Remark: Site inspection on 31 Jan 2020 was cancelled due to Wu Han China coronavirus.



J. EVENTS AND ACTION PLAN



Event and Action Plan for Construction Noise

Front	Action							
Event	ET	IEC	ER	Contractor				
Action Level Exceedance	1.Notify the IEC, ER and Contractor; 2.Carry out investigation; 3.Report the results of investigation to the IEC, ER and Contractor; 4.Discuss jointly with the Contractor and formulate remedial measures; 5.Increase the monitoring frequency to check the mitigation effectiveness.	1. Review the monitoring data submitted by the ET; 2. Review the construction methods and proposed redial measures by the Contractor, and advise the ET and ER if the proposed remedial measures would be sufficient; 3. Supervise the implementation of remedial measures;	Confirm receipt of notification of failure in writing; Notify the Contractor; Require the Contractor to propose remedial measures for the analyzed noise problem; Ensure remedial measures are properly implemented.	Submit noise mitigation proposals to the ER and copy to the IEC and ET; Implement noise mitigation proposals.				
Limit Level Exceedance	1.Identify sources. 2.Inform IEC, ER and Contractor; 3.Repeat measurements to confirm findings; 4.Increase the monitoring frequency; 5.Carry out analysis of the Contractor's working procedures with the ER and Contractor to determine possible mitigations to be implemented; 6.Inform IEC, ER and Contractor the causes and actions taken for the exceedances; 7.Assess the effectiveness of the Contractor's remedial action with the ER and keep the IEC informed of the results; 8.If exceedance stops, cease additional monitoring.	1.Discuss amongst the ER, ET and Contractor on the potential remedial actions; 2.Review the Contractor's remedial action whenever necessary to assure their effectiveness and advise the ER accordingly; 3.Supervise the implementation of remedial measures.	1.Confirm receipt of notification of exceedance in writing; 2.Notify the Contractor. 3.Require the Contractor to propose remedial measures for the analyzed noise problems; 4.Ensure remedial measures are properly implemented; 5.If exceedance continues, consider what portion of work is responsible and instruct the Contractor to stop that portion of works until the exceedance is abated.	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial action to the ER and copy to the ET and IEC within 3 working days of notification; 3. Implement the agreed proposals; 4. Resubmit proposals if problems still not under control; 5. Stop the relevant portion of works as determined by the ER until the exceedance is abated.				

Notes:

ET – Environmental Team

IEC – Independent Environmental Checker

ER – Engineer's Representative



K. IMPLEMENTATION STATUS OF ENVIRONMENTAL MITIGATION MEASURES (CONSTRUCTION PHASE)



EIA Ref.	Objective & Address	Stage (D/C/O)	Recommended Mitigation Measures	Implementation Status (Construction Phase)	
		Co	ommon Mitigation Measures (Applicable to ALL Project Components, including DPs and Non-DPs)		
			Construction Dust Impact		
S3.8	All construction sites	С	Mitigation measures in form of regular watering under a good site practice should be adopted. Watering once per hour on exposed worksites and haul road is proposed to achieve dust removal efficiency of 92.1%. While the above watering frequencies are to be followed, the extent of watering may vary depending on actual site conditions but should be sufficient to maintain an equivalent intensity of no less than 1.7 L/m² to achieve the respective dust removal efficiencies.	Α	
S3.8	All construction sites	С	The Contractor shall follow the procedures and requirements given in the Air Pollution Control (Construction Dust) Regulation.	۸	
			Following dust suppression measures should also be incorporated by the Contractor to control the dust nuisance throughout the construction phase: • Any excavated or stockpile of dusty material should be covered entirely by impervious sheeting or sprayed with water to maintain the entire surface wet and then removed or backfilled or reinstated where practicable within 24 hours of the excavation or unloading;	,	
	All construction sites		 Any dusty materials remaining after a stockpile is removed should be wetted with water and cleared from the surface of roads; 	^	
		I construction sites C		A stockpile of dusty material should not be extend beyond the pedestrian barriers, fencing or traffic cones;	۸
			The load of dusty materials on a vehicle leaving a construction site should be covered entirely by impervious sheeting to ensure that the dusty materials do not leak from the vehicle;	N.O	
S3.8			 Where practicable, vehicle washing facilities with high pressure water jet should be provided at every discernible or designated vehicle exit point. The area where vehicle washing takes place and the road section between the washing facilities and the exit point should be paved with concrete, bituminous materials or hardcores; 		
			 When there are open excavation and reinstatement works, hoarding of not less than 2.4m high should be provided as far as practicable along the site boundary with provision for public crossing. Good site practice shall also be adopted by the Contractor to ensure the conditions of the hoardings are properly maintained throughout the construction period. 		
		 The portion of any road leading only to construction site that is within 30m of a vehicle entrance or exit should be clear of dusty materials; Surfaces where any pneumatic or power-driven drilling, cutting, polishing or other mechanical breaking operation place should be sprayed with water or a dust suppression chemical continuously; Any area that involves demolition activities should be sprayed with water or a dust suppression chemical immer prior to, during and immediately after the activities so as to maintain the entire surface wet; Where a scaffolding is erected around the perimeter of a building under construction, effective dust screens, sheet netting should be provided to enclose the scaffolding from the ground floor level of the building, or a canopy sheet 	۸		
			 Surfaces where any pneumatic or power-driven drilling, cutting, polishing or other mechanical breaking operation takes place should be sprayed with water or a dust suppression chemical continuously; 	^	
			 Any area that involves demolition activities should be sprayed with water or a dust suppression chemical immediately prior to, during and immediately after the activities so as to maintain the entire surface wet; 	^	
			Where a scaffolding is erected around the perimeter of a building under construction, effective dust screens, sheeting or netting should be provided to enclose the scaffolding from the ground floor level of the building, or a canopy should be provided from the first floor level up to the highest level of the scaffolding;		
			Any skip hoist for material transport should be totally enclosed by impervious sheeting;	N.O	
S3.8	All construction sites	С	Every stock of more than 20 bags of cement or dry pulverised fuel ash (PFA) should be covered entirely by impervious sheeting or placed in an area sheltered on the top and the 3 sides;	N.O	
			• Cement or dry PFA delivered in bulk should be stored in a closed silo fitted with an audible high level alarm which is	N.O	



EIA Ref.	Objective & Address	Stage (D/C/O)	Recommended Mitigation Measures	Implementation Status (Construction Phase)
			interlocked with the material filling line and no overfilling is allowed;	
			 Loading, unloading, transfer, handling or storage of bulk cement or dry PFA should be carried out in a totally enclosed system or facility, and any vent or exhaust should be fitted with an effective fabric filter or equivalent air pollution control system; and 	
			• Exposed earth should be properly treated by compaction, turfing, hydroseeding, vegetation planting or sealing with latex, vinyl, bitumen, shortcrete or other suitable surface stabiliser within six months after the last construction activity on the construction site or part of the construction site where the exposed earth lies.	۸
S3.8	Selected representative dust monitoring station	С	Implement regular dust monitoring under EM&A programme during the Construction phase.	۸
			Noise Impact (Construction Phase)	
			Implement the following good site management practices:	
			only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction programme;	٨
		re C	machines and plant (such as trucks, cranes) that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum;	^
			 plant known to emit noise strongly in one direction, where possible, be orientated so that the noise is directed away from nearby NSRs; 	۸
S4.9	All construction sites where practicable		silencers or mufflers on construction equipment should be properly fitted and maintained during the construction works;	٨
			mobile plant should be sited as far away from NSRs as possible and practicable; and	
			 material stockpiles, mobile container site office and other structures should be effectively utilised, where practicable, to screen noise from on-site construction activities. 	۸
			Install temporary site hoarding (approx 2.4m high) located on the site boundaries between noisy construction activities and NSRs. The conditions of the hoardings shall be properly maintained throughout the construction period.	٨
			Install movable noise barriers, full enclosure and acoustic mat, screen the noisy plants including air compressor and generator.	٨
			Use of "Quiet" Plant and Working Methods	N.O
S4.9	All construction sites where practicable	С	Sequencing operation of construction plants where practicable.	۸
S4.9	Selected representative noise monitoring stations	С	Implement a noise monitoring under EM&A programme.	۸

Water Quality Impact (Construction Phase)



EIA Ref.	Objective & Address	Stage (D/C/O)	Recommended Mitigation Measures	Implementation Status (Construction Phase)	
			Construction Runoff In accordance with the Practice Note for Professional Persons on Construction Site Drainage, Environmental Protection Department, 1994 (ProPECC PN 1/94), construction phase mitigation measures should be provided and the Storm Water Pollution Control Plan is given below. Storm Water Pollution Control Plan		
			At the start of site establishment, perimeter cut-off drains to direct off-site water around the site should be constructed with internal drainage works and erosion and sedimentation control facilities implemented. Channels (both temporary and permanent drainage pipes and culverts), earth bunds or sand bag barriers should be provided on site to direct stormwater to silt removal facilities. The design of the temporary on-site drainage system will be undertaken by the Contractor prior to the commencement of construction.		
S5.7	All construction sites	С	 Diversion of natural stormwater should be provided as far as possible. The design of temporary on-site drainage should prevent runoff going through site surface, construction machinery and equipments in order to avoid or minimize polluted runoff. Sedimentation tanks with sufficient capacity, constructed from pre-formed individual cells of approximately 6 to 8m3 capacities, are recommended as a general mitigation measure which can be used for settling surface runoff prior to disposal. The system capacity shall be flexible and able to handle multiple inputs from a variety of sources and suited to applications where the influent is pumped. 	N.O	
			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 silt/sediment trap. The silt/sediment traps should be incorporated in the permanent drainage channels to enhance deposition rates.		
			The design of efficient silt removal facilities should be based on the guidelines in Appendix A1 of ProPECC PN 1/94. The detailed design of the sand/silt traps should be undertaken by the Contractor prior to the commencement of construction.	۸	
				 Construction works should be programmed to minimize surface excavation works during the rainy seasons (April to September). All exposed earth areas should be completed and vegetated as soon as possible after earthworks have been completed. If excavation of soil cannot be avoided during the rainy season, or at any time of year when rainstorms are likely, exposed slope surfaces should be covered by tarpaulin or other means. 	^
			 All drainage facilities and erosion and sediment control structures should be regularly inspected and maintained to ensure proper and efficient operation at all times and particularly following rainstorms. Deposited silt and grit should be removed regularly and disposed of by spreading evenly over stable, vegetated areas. 		
S5.7	All construction sites	С	Measures should be taken to minimize the ingress of site drainage into excavations. If the excavation of trenches in wet periods is necessary, it should be dug and backfilled in short sections wherever practicable. Water pumped out from trenches or foundation excavations should be discharged into storm drains via silt removal facilities.		
			All open stockpiles of construction materials (for example, aggregates, sand and fill material) of more than 50m3 should be covered with tarpaulin or similar fabric during rainstorms. Measures should be taken to prevent the washing away of construction materials, soil, silt or debris into any drainage system.		



EIA Ref.	Objective & Address	Stage (D/C/O)	Recommended Mitigation Measures	Implementation Status (Construction Phase)
			 Manholes (including newly constructed ones) should always be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris being washed into the drainage system and storm runoff being directed into foul sewers. 	۸
			 Precautions be taken at any time of year when rainstorms are likely, actions to be taken when a rainstorm is imminent or forecasted, and actions to be taken during or after rainstorms are summarised in Appendix A2 of ProPECC PN 1/94. Particular attention should be paid to the control of silty surface runoff during storm events. 	۸
			 All vehicles and plant should be cleaned before leaving a construction site to ensure no earth, mud, debris and the like is deposited by them on roads. An adequately designed and sited wheel washing facilities should be provided at every construction site exit where practicable. Wash-water should have sand and silt settled out and removed at least on a weekly basis to ensure the continued efficiency of the process. The section of access road leading to, and exiting from, the wheel-wash bay to the public road should be paved with sufficient backfall toward the wheel-wash bay to prevent vehicle tracking of soil and silty water to public roads and drains. 	^
			 Oil interceptors should be provided in the drainage system downstream of any oil/fuel pollution sources. The oil interceptors should be emptied and cleaned regularly to prevent the release of oil and grease into the storm water drainage system after accidental spillage. A bypass should be provided for the oil interceptors to prevent flushing during heavy rain. 	N O
			 Construction solid waste, debris and rubbish on site should be collected, handled and disposed of properly to avoid water quality impacts. 	۸
			 All fuel tanks and storage areas should be provided with locks and sited on sealed areas, within bunds of a capacity equal to 110% of the storage capacity of the largest tank to prevent spilled fuel oils from reaching water sensitive receivers nearby. Regular environmental audit on the construction site should be carried out in order to prevent any malpractices. Notices should be posted at conspicuous locations to remind the workers not to discharge any sewage or wastewater into the meander, wetlands and fish ponds. 	٨
	All streams that required diversion that required diversion	С	Stream Diversion In order to prevent sediment transport during riverbank works, deployment of silt curtain should be implemented, especially when construction works encroach or occur in close distance to water body. It is recommended to carry out all the riverbank works and diversion works within a cofferdam or diaphragm wall and the work areas on riverbed should be kept in dry condition.	N.O
	All identified groundwater-		Groundwater from Contaminated Area For other inaccessible sites, site investigation is required when they are resumed and handed over to the Project Proponent to identify if contaminated groundwater is found.	N.O
S5.7	contaminated areas	С	If the investigation results indicated that the groundwater to be generated from construction works would be contaminated, the contaminated groundwater should be either discharged into recharged wells, or properly treated in compliance with the requirements of Technical Memorandum on Standards for Effluents Discharged into Drainage on Sewerage Systems, Inland and Coastal Waters.	N O



EIA Ref.	Objective & Address	Stage (D/C/O)	Recommended Mitigation Measures	Implementation Status (Construction Phase)
			If recharged well method were used, the groundwater quality in the recharged well should not be affected by recharging operation, i.e. the pollution levels of the recharged groundwater should not be higher than that in the recharging wells.	N.O
			 If treatment and discharge method were used, the design of wastewater treatment facilities, such as active carbon and petrol interceptor, should be submitted to the EPD and a discharge license should be obtained under the WPCO through the Regional Offices of EPD. 	N.O
			Sewage from Workforce Portable chemical toilets and sewage holding tanks should be provided for handling the construction sewage generated by the workforce. A licensed Contractor should be employed to provide appropriate and adequate portable toilets and be responsible for appropriate disposal and maintenance.	N.O
S5.7	All construction sites	С	Notices should be posted at conspicuous locations to remind the workers not to discharge any sewage or wastewater into the nearby environment during the construction phase of the Project. Regular environmental audit on the construction site should be conducted in order to provide an effective control of any malpractices and achieve continual improvement of environmental performance on site. It is anticipated that sewage generation during the construction phase of the Project would not cause water quality impact after undertaking all required measures.	^
			Waste Management (Construction Waste)	
S7.6	All construction sites where practicable	commence ment construction	 Waste Reduction Measures Waste reduction is best achieved at the planning and design phase, as well as by ensuring the implementation of good site practices. The following recommendations are proposed to achieve reduction: segregate and store different types of waste in different containers, skip or stockpiles to enhance reuse or recycling of materials and their proper disposal; 	N.O
		of construction	proper storage and site practices to minimize the potential for damage and contamination of construction materials;	۸
			 plan and stock construction materials carefully to minimize amount of waste generated and avoid unnecessary generation of waste; 	Λ
S7.6	All construction sites where	Prior to the commence	• sort out demolition debris and excavated materials from demolition works to recover reusable/recyclable portions (i.e. soil, broken concrete, metal etc.);	N.O
	practicable	ment construction	 provide training to workers on the importance of appropriate waste management procedures, including waste reduction, reuse and recycling. 	٨
S7.6	All construction sites	С	Prepare Waste Management Plan and submit to the Engineer for approval	N.O
S7.6	All construction sites	С	Good Site Practice The following good site practices are recommended throughout the construction activities: nomination of an approved personnel, such as a site manager, to be responsible for the implementation of good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site;	A



EIA Ref.	Objective & Address	Stage (D/C/O)	Recommended Mitigation Measures	Implementation Status (Construction Phase)
			 training of site personnel in site cleanliness, appropriate waste management procedures and concepts of waste reduction, reuse and recycling; 	۸
			provision of sufficient waste disposal points and regular collection for disposal;	۸
			appropriate measures to minimize windblown litter and dust during transportation of waste by either covering trucks or by	٨
			transporting wastes in enclosed containers;	٨
			regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors;	٨
			Storage of Waste	٨
			The following recommendation should be implemented to minimize the impacts:	
S7.6	All construction sites	С	waste such as soil should be handled and stored well to ensure secure containment;	
07.0	7 III GONGII GOOG		 stockpiling area should be provided with covers and water spraying system to prevent materials from wind-blown or being washed away; 	۸
			different locations should be designated to stockpile each material to enhance reuse;	Λ
	All construction sites (Collection and Transportation of Waste	٨
		С	The following recommendation should minimize the impacts:	
S7.6			remove waste in timely manner;	
			employ the trucks with cover or enclosed containers for waste transportation;	٨
			obtain relevant waste disposal permits from the appropriate authorities; and	٨
S7.6	All construction sites	С	disposal of waste should be done at licensed waste disposal facilities.	۸
			Excavated and C&D Material	
			Wherever practicable, C&D materials should be segregated from other wastes to avoid contamination and ensure acceptability at public filling areas or reclamation sites. The following mitigation measures should be implemented in handling the excavated and C&D materials: • maintain temporary stockpiles and reuse excavated fill material for backfilling;	Α
				N.O
S7.6	All construction sites	С	 carry out on-site sorting; deliver surplus artificial hard materials to Tuen Mun Area 38 recycling plant or its successor for recycling into subsequent useful products; 	_
			 make provisions in the Contract documents to allow and promote the use of recycled aggregates where appropriate; 	N.O
			 implement a recording system for the amount of waste generated, recycled and disposed of for checking; 	Λ.
			 Standard formwork should be used as far as practicable in order to minimize the arising of C&D waste. The use of more durable formwork (e.g. metal hoarding) or plastic facing should be encouraged in order to enhance the possibility of recycling. The purchasing of construction materials should be carefully planned in order to avoid over ordering and wastage. 	N O
			Wheel wash facilities have to be provided at the site entrance before the trucks leaving the works area.	٨



EIA Ref.	Objective & Address	Stage (D/C/O)	Recommended Mitigation Measures	Implementation Status (Construction Phase)
S7.6	All construction sites where applicable	С	Contaminated Soil As a precaution, it is recommended that standard good site practice should be implemented during the construction phase to minimize any potential exposure to contaminated soils or groundwater. The details of mitigation measures to minimize the potential environmental implications arising from the handling of contaminated materials refer to Land Contamination Section.	
S7.6	All construction sites	С	Chemical Waste If chemical wastes are produced at the construction site, the Contractors should register with EPD as chemical waste producers. Chemical wastes should be stored in appropriate containers and collected by a licensed chemical waste Contractor. Chemical wastes (e.g. spent lubricant oil) should be recycled at an appropriate facility as far as possible, while the chemical waste that cannot be recycled should be disposed of at either the Chemical Waste Treatment Centre, or another licensed facility, in accordance with the Waste Disposal (Chemical Waste) (General) Regulation.	۸
S7.6	All construction sites	С	 General Waste General refuse should be stored in enclosed bins separately from construction and chemical wastes. Recycling bins should also be placed to encourage recycling. 	N.O
01.0			 Preferably enclosed and covered areas should be provided for general refuse collection and routine cleaning for these areas should also be implemented to keep areas clean. 	۸
			A reputable waste collector should be employed to remove general refuse on a daily basis.	N.O
S7.6	All construction sites	С	 Sewage The WMP should document the locations and number of portable chemical toilets depending on the number of workers, land availability, site condition and activities. 	N.O
			Regularly collection by licensed collectors should be arranged to minimize potential environmental impacts.	N.O
S7.6	Onsite	С	Topsoil reuse – Topsoil, where identified, should be stripped and stored for re-use in the construction of the soft landscape works, where practical. This is considered a general measure for good site practice.	N.O
			Cultural Heritage (Construction Phase)	
S11.6.1	All soil excavation works	Immediately upon discovery during	Inform Upon Archaeological Discovery Pursuant to the Antiquities and Monuments Ordinance, the construction Contractor should inform the AMO immediately in case of discovery of antiquities or supposed antiquities in the course of excavation works in construction phase.	N.O
S11.6.2	Within NDAs	С	Watertable Monitoring Since the construction works and development activities may induce change in the watertable. It is recommended the Contractor should ensure that the change of watertable induced by the construction works and development activities will not result in settlement of built heritage.	



EIA Ref.	Objective & Address	Stage (D/C/O)	Recommended Mitigation Measures	Implementation Status (Construction Phase)
S11.6.2	Identified potential vibration impacted built heritage features	specified in baseline condition survey and baseline vibration	Conducting Construction Vibration Monitoring and Structural Strengthening Measures Construction vibration monitoring and structural strengthening measures should be conducted during Construction phase based on the assessment result of baseline condition survey and baseline vibration impact assessment, so as to ensure the construction performance meets with the vibration standard stated in the EIA report.	14.0
		Lan	dscape and Visual (Detailed Design, Prior to Construction, Construction and Operational Phases)	
S.12.9	Throughout NDAs,	C as soon as the areas become available, to achieve early establishment.	General Good Practice Measures - For areas unavoidably disturbed by the Project on a short term basis e.g. works areas, the general principle to try and restore these to their former state to suit future land use, should be adhered to. With regard to topsoil, where identified, it should be stripped, treated appropriately, and where suitable and practical stored for re-use in the construction of the soft landscape works such asroadside amenity strips, and open space sites.	N.O
S.12.9 MM1	Throughout NDAs, particularly for reservoirs	С	Minimum Topographical Change –To minimize landscape and visual impacts, the footprint and elevation of such elements should be optimized to reduce topographical/ landform changes, as well as reduce land take and interference with natural terrain. Where there is a need to significantly cut into the existing landform, retaining walls should be considered as well as cut slopes, to minimize landform changes and land resumption, while also considering visual amenity. Earthworks and engineered slopes should be designed to be a visually interesting landform, compatible with the surrounding landscape and to mimic the natural contouring and terrain e.g. introduction and continuation of natural features such as spurs and ridges where appropriate, to support assimilation with the hillside setting.	N.O
S.12.9 MM2	Throughout NDAs	С	Detailed Design (Visual) –The footprint and massing of development components and the works area should also be kept to a practical minimum and the detailed design of development components for Construction phase should follow the Sustainable Building Design Guidelines. The form, textures, finishes and colours of the proposed development components should aim to be compatible with the existing surroundings. To improve visual amenity designs should be aesthetically pleasing and treatment of structures also improve visual amenity. For example, natural building materials such as stone and timber, should be considered for architectural features, and light earthy tone colours such as shades of green, shades of grey, shades of brown and off-white should also be considered to reduce the visibility of the development components, including all roadwork, buildings and noise barriers. In addition, the design of structures should consider green roofs were feasible, following stated guidelines. All Noise barriers, particularly noise barriers but also any barriers proposed for ecological impact mitigation, should be kept to a practical minimum, and be of such a designed as to integrate as well as possible into the surrounding visual context and be as low as practical to minimize blocking views. Noise barrier design, including vertical, cantilever or curved, and noise enclosures including semi-enclosure and full enclosure, at grade and/ orelevated, should follow the guidelines stated. Construction time frame should also be considered and designs seek to keep it to a practical minimum.	N.O



EIA Ref.	Objective & Address	Stage (D/C/O)	Recommended Mitigation Measures	Implementation Status (Construction Phase)
S12.9 MM14.4	All watercourses, particularly the stream at Siu Hang San Tsuen that will flow under the Fanling Bypass Eastern Section	С	Avoid affecting Watercourses – In the detailed design, consideration should be made of watercourses, to minimize any impacts e.g. at new bridge crossings, viaducts, road alignment etc. Guidelines stated should be followed. For example, for the stream at Siu Hang San Tsuen in FLN NDA, much of the stream is located underneath the viaduct for the proposed Fanling Bypass. In order to avoid impacts to the stream, the detailed final design of the viaduct should follow guidelines and ensure that no viaduct footings or other structures are placed in the stream. Bridges and box culverts should also be used to minimize the necessity of watercourse modification and protect the watercourses where necessary.	N.O
S.12.9 MM3	Onsite as stipulated in the planning documents for the formulation of the Preliminary Layout Plan	С	Open Space Provision - the principles adopted in the RODP planning ensure that public open space systems are incorporated. All requirements for open space areas stipulated in the planning documents for the formulation of the Preliminary Layout Plan should be adhered to.	N.O
S.12.9 MM4	Onsite	С	Tree Protection & Preservation — Exiting trees to be retained within the Project Site should be carefully protected during construction. In particular OVTs will be preserved according to ETWB Technical Circular (Works) No. 29/2004. Detailed Tree Protection Specification shall be provided in the Contract Specification. Under this specification, the Contractor shall be required to submit, for approval, a detailed working method statement for the protection of trees prior to undertaking any works adjacent to all retained trees, including trees in Contractor's works areas. A detailed tree survey will be carried out for the Tree Removal Application (TRA) process which will be carried out at the later detailed design stage of the Project. The detailed tree survey will propose which trees should be retained, transplanted or felled and will include details of tree protection measures for those trees to be retained.	N.O
S.12.9 MM5	Onsite possible. consider locations	C & O	Tree Transplantation – Trees unavoidably affected by the Project works should be transplanted where practical. Trees should be transplanted straight to their final receptor site and not held in a temporary nursery as far as possible. A detailed Tree Transplanting Specification shall be provided in the Contract Specification, where applicable. Sufficient time for necessary tree root and crown preparation periods shall be allowed in the project programme. A detailed transplanting proposal will be submitted to relevant government departments for approval in accordance with ETWBTC 2/2004 and 3/2006 and final locations of transplanted trees should be agreed prior to commencement of the work. For trees associated with highways e.g. roadside planting along highways, that are unavoidably affected and should be transplanted, HyD HQ/GN/13 'Interim Guidelines for Tree Transplanting Works under Highways Department's Vegetation Maintenance Ambit' should be referred to.	N.O



EIA Ref.	Objective & Address	Stage (D/C/O)	Recommended Mitigation Measures	Implementation Status (Construction Phase)
S.12.9 MM6	Onsite	C & O	Slope Landscaping – Site formation should be reduced as far as possible. Hydroseeding of modified slopes should be done as soon as grading works are completed to prevent erosion and subsequent loss of landscape resources and character. Woodlandtree seedlings and/ or shrubs should be planted where slope gradient and site conditions allow. In addition, landscape planting should be provided for the retaining structures associated with modified slopes where conditions allow. All slope landscaping works should comply with GEO Publication No. 1/2011-Technical Guidelines on Landscape Treatment for Slopes.	
S.12.9 MM7	Onsite where possible. Otherwise consider offsite locations	C & O	Compensatory Planting – Compensatory tree planting for felled trees shall be provided to the satisfaction of relevant Government departments. Required numbers and locations of compensatory trees shall be determined and agreed separately with Government during the Tree Removal Application process under ETWBTC 3/2006. Compensatory planting is proposed at the potential open areas such as open spaces, amenity areas, open areas of the streetscapes, as well as the open areas within development lots.	N.O
S.12.9 MM7	Onsite where possible. Otherwise consider offsite locations	C & O	Compensatory planting for shrubs should be considered in suitable locations. Native species such as <i>Melastoma</i>	
S.12.9 MM8	In areas identified in the EIA Landscape Mitigation Plans and as agreed with AFCD	C&O	Woodland Compensatory Planting –Specific Woodland compensatory planting is proposed for any areas of quality woodland that are unavoidably affected by the Project. The location and design of the woodland compensatory planting will principally be within habitats of lower value such as upland grassland. The proposed locations are identified, for example, on the foothills of Tai Shek Mo, and on the higher ground of Fung Kong Shan in KTN NDA; along Fanling Bypass; and a small area in the northern FLN NDA. The intention of the compensatory woodland will be to recreate areas of quality woodland, not necessarily to compensate for loss of trees on a like for like basis (See E18 & E27 also).	



EIA Ref.	Objective & Address	Stage (D/C/O)	Recommended Mitigation Measures	Implementation Status (Construction Phase)
			conditions and, especially, because though the areas identified are largely grassland it is inevitable that these areas will already support some patches of trees and shrubs which would be inappropriate for further planting.	
S.12.9 MM9	On appropriate structures	C & O	Vertical Greening – Planting of climbers to grow up vertical surfaces were appropriate (e.g. building edges, piers).	N.O
S.12.9 MM10	On appropriate buildings	C & O	Green Roof – Roof greening where appropriate should be established on proposed buildings as per the guidelines stated. These guidelines provide further details including information regarding structural loading, design, maintenance, etc. considerations as well as providing information on what types of plants might be suitable.	N.O
S.12.9 MM11	Along roads, around suitable built structures, or around VSRs to contain their view out to the NDA structures.	C & O	Screen Planting – Tall screen/buffer trees and shrubs should be planted. This measure may additionally form part of the compensatory planting.	N.O
S.12.9 MM12	On viaducts or along roads.	C & O	Road Greening –For viaducts, soft landscaping should be provided to soften the hard, straight edges (for climbers used to cover the vertical, hard surfaces of the piers – see MM9 Vertical Greening) and shade tolerant plants should be planted, where light is sufficient, to improve aesthetic value of areas under viaducts. Both at grade planting and use of elevated planters should be considered for the soft landscaping of viaducts, taking into account the preference to minimize the overall viaduct bulk and integrate architectural forms and textural finishes which improve aesthetics. For at grade roads, planting should be considered along central dividers and on road islands e.g. in the middle of roundabouts. (Roadside planting i.e. at the road edge and not in the central divider or road island, is considered part of Screen Planting)	
S.12.9 MM13 & EIA Annex 13	Onsite where possible. Otherwise consider offsite locations Onside where possible. Otherwise consider offsite reprovisioned watercourses. Onside where possible. Otherwise consider offsite locations Onside where possible. Onside where possible waterload edge and not in the central divider of road island, is considered part of Screen Planting) Marsh/Wetland Compensation —The proposed Long Valley Nature Park (LVNP) will be designed and implemented to enhance on wetland areas within the LVNP. (See E4,E15 and E25 also) Onside where possible. Onside where possible. Otherwise consider offsite locations Onside where possible waterload areas within the LVNP. (See E4,E15 and E25 also) Also see LV16, LV17, and LV18 as wetland planting should be provided along the embankments and beds of modified reprovisioned watercourses.		N.O	
S.12.9 MM14.1	Streams and channelized watercourses e.g. a Ma Tso Lung and Siu Han San Tsuen	C&O	Reprovision of Natural Stream – Where natural streams are unavoidably affected along some of their length, they can be diverted to avoid the proposed new developments and retain the integrity of the whole stream. Detailed design of any stream diversion should follow the Guidelines in ETWB Technical Circular (Works) No. 5/2005 (Protection of natural streams/rivers from adverse impacts arising from construction works) and appropriate construction methods should be used. Two short stretches of the Ma Tso Lung Stream will be affected by Project in the KTN NDA; by the LMC Eastern Connection Road on the western border of Site F1-3 and further upstream by Site E-2. At both these locations, the stream will be reprovisioned and maintain the flow between unaffected sections of the stream. The reprovisioned stream will be provided with a natural bed and banks, as well as having an area of marsh/ pool next to it and trees and shrubs further from the banks. (See E2, E14 and E24 also)	N.O



EIA Ref.	Objective & Address	Stage (D/C/O)	Recommended Mitigation Measures	Implementation Status (Construction Phase)
\$12.9 MM14.2	Streams and channelized watercourses e.g. a Ma Tso Lung and Siu Han San Tsuen	C & O	Stream Buffer Planting —Providing a minimum 10 m buffer with planting (where there is a general presumption against any development taking place) along streams where they flow close to developments, confers a degree of protection to the stream course and its associated vegetation. For the stream at Ma Tso Lung in KTN NDA, the middle and upper sections will be designated as Green Belt zone where there is a general presumption against development as buffer to the stream. For the stream at Siu Hang San Tsuen in FLN NDA, within the NDA boundary much of the stream would be located underneath the viaduct for the proposed Fanling Bypass. To the south of the viaduct the stream flows through an Open Space area D1-3. In this Open Space zone a 10m buffer is proposed in which natural vegetation will be retained and enhanced and human activities will be limited in order to avoid direct impacts to the stream bed and to minimize potential indirect impacts to the stream and riparian corridor. (See E3 also)	N.O
S12.9 MM14.3	Channelized watercourse, particularly the Ma Wat River Channel Diversion	C & O	Enhancement Planting along Embankment - For channelized watercourses, if these are modified, the Drainage Services Department Practice Note No.1/2005 – Guidelines on Environmental Considerations for River Channel Design, should be considered and appropriate mitigation measures included ensuring the new watercourses match the existing as far as possible. Measures can include enhancement planting to upgrade the channels as appropriate, including consideration of wetland planting along embankments where appropriate; as well as consideration of the best materials for the channel lining (e.g. gabion). All measures must also ensure any necessary maintenance work can be carried out and that the channel meets all its requirements for water flow, etc. For example, a stretch of the Ma Wat River Channel in the south of FLN NDA will have to be diverted for the construction of the Fanling Bypass Eastern Section. This measure will be particularly relevant in this area.	N.O
S12.9 MM15	E1-7 and C1-9 (LVNP) in KNT NDA and generally throughout NDA	C & O	Pond Replacement –Principles adopted in the design of the NDAs ensure that they incorporate ponds within the RODPs. All requirements for ponds stipulated in the planning documents for the formulation of the Preliminary Layout Plan (e.g. at Fung Kong Shan Park in E1-7 of KNT ND) should be adhered to.	N.O
S.12.9 MM16	Throughout NDAs	С	Screen Hoarding –Screen hoarding shall 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). It is proposed that the screening be compatible with the surrounding environment and where possible, non- reflective, recessive colours be used. Any works areas near the ecological sensitive areas should erect 2m high dull green site boundary fence. Details can refer to	N.O
S.12.9 MM17	Throughout NDAs	C & O	the ecological impact assessment (Chapter 13 of the EIA report). Light Control – Construction day and night time lighting should be controlled to minimize glare impact to adjacent VSRs during the Construction phase. Street and night time lighting shall also be controlled to minimize glare impact to adjacent VSRs during the operation phase.	



EIA Ref.	Objective & Address	Stage (D/C/O)	Recommended Mitigation Measures	Implementation Status (Construction Phase)
S.13.9	KTN areas F1-2 and F1-3 and LMC Loop Eastern Connection Road.	D&C	Detailed design of development along lower reaches of Ma Tso Lung Stream and Ma Tso Lung San Tsuen Stream in OU zones F1-2 and F1-3 and detailed design of LMC Loop Eastern Connection Road with restoration of diverted stream and riparian corridor, permanent barrier and underpass on the at-grade section Compensation for the loss of seasonally wet grassland at Ma Tso Lung by habitat restoration and enhancement along diverted section of Ma Tso Lung Stream	N.O
S13.9	FLN area D1-3.	D & C & O.	Detailed design, implementation and management of Siu Hang San Tsuen Stream to have 10m wide vegetated buffer in Open Space zone D1-3, Fanling Bypass to cross stream on viaduct.	N.O
			Ecology (Construction Phase)	
S. 13.9	FLN area A1-7 500m from Man Kam To Road Egretry.	С	Compensatory egretry habitat provision and establishment. Review condition and location of egretries before commencement of works. Formulate and implement additional mitigation measures as appropriate. Phasing of works near and within Man Kam To Road Egretry outside breeding season	N.O
S.13.9	Interface between areas/habitats/fauna/ flora of ecological importance (e.g. FLN areas A1-3, A1-7 and A1-9) and works areas; and around any works areas north of the Fanling Bypass and north of the Ng Tung River west of the western terminus of the Fanling Bypass. Riparian corridor of Ma Tso Lung Stream and tributaries.	С	Design and erection of 2m high solid dull green site barrier fence between active works areas and all areas/habitats of ecological importance on edge of development areas, including along any roads adjacent to or penetrating into areas/habitats of ecological importance. Erection of a 2m high dull green site barrier fence at the edge of the works area or 30m from Ma Tso Lung Stream and tributaries, whichever distance is the greater.	
S13.9	All construction sites	С	Use opaque, non-transparent, non-reflective noise barriers for all construction sites. Unnecessary lighting should be avoided.	N.O
S13.9	All construction sites.		Prior arance of getation and Pre-site clearance check on all construction sites and pre —works commencement check on watercourses to be physically	



EIA Ref.	Objective & Address	Stage (D/C/O)	Recommended Mitigation Measures	Implementation Status (Construction Phase)
S13.9	All construction sites.	clearance of vegetation and structures	transplantation and translocation. Seek agreement of relevant authorities including AFCD in respect of proposed measures, then implement. Pre-site clearance of construction sites in Crest Hill area, KTN areas D1-7, D1-11 and G1-5 (where Eurasian Hobby was recorded) and on Cheung Po Tau, FLN area A3-1 (where Grey Nightjar was recorded) for presence of any breeding birds/breeding sites. If any are found consider adjustments to avoid, minimize and/or compensate for impacts; including adjustments to design, timing of works, transplantation and translocation. Seek agreement of relevant authorities including AFCD in respect of proposed measures, then implement. Pre-site clearance check on all construction sites for presence of Chinese Bullfrog, translocation to suitable areas including LVNP.	N.O
S13.9	Prior clearance of vegetation and structures of vegetation and structures of vegetation and structures of vegetation and structures		Pre-works commencement check on watercourses to be physically and/or hydrologically impacted by construction activities for presence of flora or fauna of conservation significance and bat roosts. If any are found consider adjustments to avoid, minimize and/or compensate for impacts; including adjustments to design, timing of works, transplantation and translocation. Seek agreement of relevant authorities including AFCD in respect of proposed measures, then implement. Pre-site clearance check on all construction sites for presence of reptile species of conservation significance, capture and translocate to receptor site; review translocation options in respect to species in Ma Tso Lung area and determine whether release locally or elsewhere is appropriate. Seek agreement of relevant authorities including AFCD in respect of proposed measures then implement.	N.O
S13.9	All construction sites	С	Prevention of dust, run-off and pollutants impacting Deep Bay catchment area and areas of ecological importance.	N.O
			Specific Mitigation Measures for Designated Projects	
			DP12-Reprovision of temporary wholesale market in FLN NDA	
		Lan	dscape and Visual (Detailed Design, Prior to Construction, Construction and Operational Phases)	
S.12.D9	Throughout NDAs,	C as	General Good Practice Measures - For areas unavoidably disturbed by the Project on a short term basis e.g. works areas, the general principle to try and restore these to their former state to suit future land use, should be adhered to. With regard to topsoil, where identified, it should be stripped, treated appropriately, and where suitable and practical stored for re-use in the construction of the soft landscape works such as roadside amenity strips, and open space sites.	N.O
S.12.D9 MM1	Throughout NDAs, particularly for reservoirs	(:	Minimum Topographical Change –To minimize landscape and visual impacts, the footprint and elevation of such elements should be optimized to reduce topographical/ landform changes, as well as reduce land take and interference with natural terrain. Where there is a need to significantly cut into the existing landform, retaining walls should be considered as well as cut slopes, to minimize landform changes and land resumption, while also considering visual amenity. Earthworks and engineered slopes should be designed to be a visually interesting landform, compatible with the surrounding landscape and to mimic the natural contouring and terrain e.g. introduction and continuation of natural features such as spurs and ridges where	N()



EIA Ref.	, (D/C/O)		Recommended Mitigation Measures	Implementation Status (Construction Phase)
			appropriate, to support assimilation with the hillside setting.	
S.12.D9 MM2	Throughout NDAs	С	Detailed Design (Visual) –The footprint and massing of development components and the works area should also be kept to a practical minimum and the detailed design of development components for Construction phase should follow the Sustainable Building Design Guidelines. The form, textures, finishes and colours of the proposed development components should aim to be compatible with the existing surroundings. To improve visual amenity designs should be aesthetically pleasing and treatment of structures also improve visual amenity. For example, natural building materials such as stone and timber, should be considered for architectural features, and light earthy tone colours such as shades of green, shades of grey, shades of brown and off-white should also be considered to reduce the visibility of the development components, including all roadwork, buildings and noise barriers. In addition, the design of structures should consider green roofs were feasible, following stated guidelines. All Noise barriers, particularly noise barriers but also any barriers proposed for ecological impact mitigation, should be kept to a practical minimum, and be of such a designed as to integrate as well as possible into the surrounding visual context and be as low as practical to minimize blocking views. Noise barrier design, including vertical, cantilever or curved, and noise enclosures including semi-enclosure and full enclosure, at grade and/ or elevated, should follow the guidelines stated.	N.O
S.12.D9 MM4	Onsite	С	Construction time frame should also be considered and designs seek to keep it to a practical minimum. Tree Protection & Preservation — Exiting trees to be retained within the Project Site should be carefully protected during construction. In particular OVTs will be preserved according to ETWB Technical Circular (Works) No. 29/2004. Detailed Tree Protection Specification shall be provided in the Contract Specification. Under this specification, the Contractor shall be required to submit, for approval, a detailed working method statement for the protection of trees prior to undertaking any works adjacent to all retained trees, including trees in Contractor's works areas. A detailed tree survey will be carried out for the Tree Removal Application (TRA) process which will be carried out at the later detailed design stage of the Project. The detailed tree survey will propose which trees should be retained, transplanted or felled and will include details of tree protection measures for those trees to be retained.	N.O
S.12.D9 MM5	Onsite where possible. Otherwise consider offsite location	C&O	Tree Transplantation – Trees unavoidably affected by the Project works should be transplanted where practical. Trees should be transplanted straight to their final receptor site and not held in a temporary nursery as far as possible. A detailed Tree Transplanting Specification shall be provided in the Contract Specification, where applicable. Sufficient time for necessary tree root and crown preparation periods shall be allowed in the project programme. A detailed transplanting proposal will be submitted to relevant government departments for approval in accordance with ETWBTC 2/2004 and 3/2006 and final locations of transplanted trees should be agreed prior to commencement of the work. For trees associated with highways e.g. roadside planting along highways, that are unavoidably affected and should be transplanted, HyD HQ/GN/13 'Interim Guidelines for Tree Transplanting Works under Highways Department's Vegetation Maintenance Ambit' should be referred to.	N.O



EIA Ref.	Objective & Address	Stage (D/C/O)	Recommended Mitigation Measures	Implementation Status (Construction Phase)
S.12.D9 MM6	Onsite	C&O	Slope Landscaping – Site formation should be reduced as far as possible. Seeding of modified slopes should be done as soon as grading works are completed to prevent erosion and subsequent loss of landscape resources and character. Woodland tree seedlings and/ or shrubs should be planted where slope gradient and site conditions allow. In addition, landscape planting should be provided for the retaining structures associated with modified slopes where conditions allow. All slope landscaping works should comply with GEO Publication No. 1/2011-Technical Guidelines on Landscape Treatment for Slopes.	N.O
S.12.D9 MM7	Onsite where possible. Otherwise consider offsite location offsite locations	C & O	Compensatory Planting – Compensatory tree planting for felled trees shall be provided to the satisfaction of relevant Government departments. Required numbers and locations of compensatory trees shall be determined and agreed separately with Government during the Tree Removal Application process under ETWBTC 3/2006. Compensatory planting is proposed at the potential open areas such as open spaces, amenity areas, open areas of the streetscapes, as well as the open areas within development lots. Compensatory planting for shrubs should be considered in suitable locations. Native species such as <i>Melastoma malabathricum</i> , <i>Diospyros vaccinioides</i> , <i>Gardenia jasminoides</i> , <i>Ixora chinensis</i> , <i>Ligustrum sinense</i> , <i>Litsea rotundifolia</i> , <i>Melastoma dodecandrum</i> , <i>Atalantia buxifolia</i> , <i>Rhodomyrtus tomentosa</i> , <i>Rhaphiolepis indica</i> , and <i>Rhododendron simsii</i> are suggested.	N.O
S.12.D9 MM11	Along roads, around suitable built structures, or around VSRs to contain their view out to the NDA structures. built structures, or around VSRs to contain their view out to the NDA structures.	C & O	Screen Planting – Tall screen/buffer trees and shrubs should be planted. This measure may additionally form part of the compensatory planting.	N.O
S.12.D9 MM16	Throughout NDAs	С	Screen Hoarding –Screen hoarding shall 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). It is proposed that the screening be compatible with the surrounding environment and where possible, non- reflective, recessive colours be used. Any works areas near the ecological sensitive areas should erect 2m high dull green site boundary fence. Details can refer to the ecological impact assessment (Chapter 13 of the EIA report).	N.O
S.12.D9 MM17	Light Control – Construction day and night time lighting should be controlled to minimize glare impact to adjacent VSRs during the Construction phase.		N.O	

Remarks: ^ Compliance of mitigation measure

/ Recommendation was made during site audit but not improved/ rectified by the Contractor in reporting period.

x Non-compliance of mitigation measure

N.A Not Applicable at this stage as no such site activities were conducted in the reporting period

N.O Not Observed during site inspection in the reporting period.



L. PROACTIVE ENVIRONMENTAL PROTECTION PROFORMA



Reporting Period: 01/01/2020-3	1/01/2020	
Construction Works	Anticipated Impacts	Corresponding Mitigation Measures
Hoarding work;	Noise Pollution	Adopt QPME label
Sewerage works,water works	Waste water Water pollution	Reuse on Site after sedimentation
Site clearance and tree felling	Refuse generation Air pollution	Waste disposal to Pubilc Landfill
	3. Waste water	 Restrict the speed of all vehicles moving within the Site to below 10 km/hr to minimize fugitive dust emission
		 Every vehicle shall be washed to remove dusty materials from its body and wheels
		Cover any stockpile by impervious sheeting
		Reuse on Site after sedimentation
Excavation work	C&D waste Air pollution	Cover C&D waste by impervious sheeting
	3. Noise pollution	Disposal to FB
		Spray with water to work area before, during and after the work
		Adopt QPME for excavator
		Adopt noise barrier in screening noise
Breaking work existing paving	C&D waste Air pollution	Cover C&D waste by impervious sheeting
	3. Noise pollution	Sorting before disposal to FB
		Spray with water to work area before, during and after the work
		Adopt QPME for excavator
		Adopt noise barrier in screening noise

Remarks:

The Contractor should implemented environmental mitigation measures and requirements as stated in the EIA Reports, the EP and the EM&A Manuals.



Coming Month: 01/02/2020-29/0	2/2020	
Construction Works	Anticipated Impacts	Corresponding Mitigation Measures
Temporary lighting installation	Noise Pollution	Adopt QPME label
Hard paving works and road marking	Noise pollution	Adopt noise barrier in screening noise
Underground cable duct laying	C&D waste Air pollution	Cover C&D waste by impervious sheeting
	3. Noise pollution	Disposal to FB
		Spray with water to work area before, during and after the work
		Adopt QPME for excavator
		Adopt noise barrier in screening noise
Temporary office erection	C&D waste Air pollution	Cover C&D waste by impervious sheeting
	Noise pollution	Disposal to FB
		Spray with water to work area before, during and after the work
		Adopt QPME for excavator
		Adopt noise barrier in screening noise
Carcass of management office building	C&D waste Air pollution	Cover C&D waste by impervious sheeting
Saliding	Noise pollution	Sorting before disposal to FB
		Spray with water to work area before, during and after the work
		Adopt QPME for excavator
		Adopt noise barrier in screening noise

Remarks:

The Contractor should implemented environmental mitigation measures and requirements as stated in the EIA Reports, the EP and the EM&A Manuals.



Construction Works	Anticipated Impacts	Corresponding Mitigation Measures
Sewage works, water works	Noise Pollution	Adopt QPME label
	2. C&D waste	 Cover C&D waste by impervious sheeting
		 Sorting before disposal to FB
Drainage works	Noise Pollution C&D waste	 Cover C&D waste by impervious sheeting
	2. Cab waste	Disposal to FB
		 Spray with water to work area before, during and after the work
		 Adopt QPME for excavator
		 Adopt noise barrier in screening noise
Breaking work existing paving	 C&D waste Air pollution Noise pollution 	 Cover C&D waste by impervious sheeting
		Disposal to FB
		 Spray with water to work area before, during and after the work
		 Adopt QPME for excavator
		 Adopt noise barrier in screening noise

Remarks:

The Contractor should implemented environmental mitigation measures and requirements as stated in the EIA Reports, the EP and the EM&A Manuals.



M.WASTE FLOW TABLE

Name of Department: CEDD Contract No.:ND/2019/06

Monthly Summary Waste Flow Table for <u>2019</u> (year)

	Actual Quantities od Inert C&D Materials Generated Monthly							Actual Quantities of C&D Wastes Generated Monthly				
Month	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in the other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ cardboard packaging	Plastic (see Note 3)	Chemical Waste	Others, e.g. gneral refuse	
	in '000m3	in '000m3	in '000m3	in '000m3	in '000m3	in '000m3	in '000kg	in '000kg	in '000kg	in '000kg	in '000m3	
Jan												
Feb												
Mar												
Apr												
May												
June												
Sub-												
total												
July												
Aug												
Sept												
Oct					0.005		0				0.00005	
Nov	0	0	0		****	0	0	0	0	0	0.00577	
Dec	0	0	0			0	0		0	·	0.055	
Total	0	0	0	0	1.355	0	0	0	0	0	0.0393	

Monthly Summary Waste Flow Table for <u>2020</u> (year)

	Actual Quantities od Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly					
Month	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in the other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ cardboard packaging	Plastic (see Note 3)	Chemical Waste	Others, e.g. gneral refuse	
	in '000m3	in '000m3	in '000m3	in '000m3	in '000m3	in '000m3	in '000kg	in '000kg	in '000kg	in '000kg	in '000m3	
Jan	0	0	0	0	1.013	0	0	0	0	0	0.0122	
Feb												
Mar												
Apr												
May												
June												
Sub-												
total												
July												
Aug												
Sept												
Oct												
Nov												
Dec	0.0	0.0	0.0	0.0	1.012	0.0		0.0	0.0	0.0	0.0100	
Total	0.0	0.0	0.0	0.0	1.013	0.0	0.0	0.0	0.0	0.0	0.0122	

Notes: (1) The performance targets are given in PS Clause 1.102(14).

- (2) The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site.
- (3) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material

^{*(4)} The *Contractor* shall also submit the latest forecast of the total amount of C&D materials expected to be generated from the *works*, together with a breakdown of the nature where the amount of C&D materials expected to be generated from the works is equal to or exceeding 50,000m3. [Delete Note (4) and the table above on the forecast, where inapplicable].



N. COMPENSATION EVENT NOTIFICATION NO. 6 REGARDING RESTRICTION OF SITE WORKS DUE TO CORONAVIRUS OUTBREAK IN MAINLAND CHINA



創業工程建設有限公司 NEW CONCEPTS ENGINEERING DEVELOPMENT LTD

A Member of New Concepts Holdings Ltd.
Listed on the Stock Exchange of Hong Kong (Stock code: 2221)

Our Ref : NCED/P80/611/0093 Date : 5 February 2020

AECOM Asia Company Limited

By Email and By Hand

8/F Grand Central Plaza, Tower 2, 138 Shatin Rural Committee Road, Shatin, Hong Kong

Attn: Mr. Alan Lee (The Project Manager's delegate for the Contract)

Dear Sir,

Re: Contract No. ND/2019/06

Fanling North New Development Area, Phase 1:

Reprovisioning of North District Temporary Wholesale Market for Agricultural Products

Compensation Event Notification No. 6 regarding

Restriction of Site Works due to Coronavirus Outbreak in Mainland China

As directed by the Development Bureau, we were instructed to restrict the site works during the period from 29 January 2020 to 2 February 2020 inclusive to the absolute minimum, such as those required for maintaining site security/safety or related to care of works or emergency works, in order to reduce the risk of the spread of the novel coronavirus in the community on 29 January 2020.

An advanced message of the above arrangement was also conveyed to us to follow via your office on 28 January 2020.

Referring to our letter ref. NCED/P80/611/0101 dated 17 January 2020, the site was closed during Chinese New Year Holidays (25-28 January 2020) and normal site activities were scheduled on 29 January 2020.

In accordance with NEC Clause 60.1(19), the event has stopped us completing the works from 29 January 2020 to 2 February 2020 and increased the cost and time to complete the project. This additional cost and time estimate will be submitted separately.

Thank you for your kind attention.

Yours faithfully,

For and on behalf of

NEW CONCEPTS ENGINEERING DEVELOPMENT LIMITED

Joe Cheng

Contractor's Project Manager

Encl. JC/AC/ac







政府總部 發展局 工務科 香港添馬添美道2號



Government Secretariat

West Wing, Central Government Offices,
2 Tim Mei Avenue, Tamar, Hong Kong

Works Branch Development Bureau

政府總部西翼

本局網址 Our Website: http://www.devb.gov.hk 本局檔號 Our Ref.: () in DEVB(PS) 103/1 電話 Tel No.: 3509 8337 傳真 Fax No.: 2521 9682

本局檔號 Our Ref.: 來函檔號 Your Ref.:

電郵 E-mail:

認可公共工程物料供應商及專門承造商名冊的承建商

敬啟者;

有關新型冠狀病毒咸染的認知和防節事官

繼特區政府在2020年1月25日公布在「對公共衞生有重要性的新型傳染病預備及應變計劃」下提升應變級別至緊急後,政府部門在農曆新年假期後至2020年2月2日已作出特別上班安排,以減低新型冠狀病毒在社區傳播的風險。特區政府亦呼籲私人機構在可行情況下,作類似安排。有見及此,我們促請 貴公司可按機構運作需要,就僱員的工作安排作出彈性處理,並在工作場所和建築工地加強相關預防措施。

倘若 貴公司員工和地盤工人有必要返回工作場所和工地,我們建議 貴公司採取適當預防措施,以下列出部分措施供參考:

- 檢視個人防護裝備(包括外科□罩、潔手液、酒精搓手液和漂白水) 的存量,儘量確保有足夠的存量,供員工使用;
- 建議員工和地盤工人在進入工地前量度體溫。當員工出現呼吸道感染病徵,如發燒及咳嗽,應戴上外科口罩,停止上班及盡早求醫;
- 員工應儘量佩戴外科口罩,特別在須面對面或在人多擠迫的地方工 作時;
- 員工應儘量避免前往受影響地區 (如湖北省)。如從受影響地區返港,應停止上班,並密切留意返港後十四日內的健康情況;
- 保持良好的環境衞生和工地整潔;
- 於工地內顯眼處,張貼新型傳染性病原體呼吸系統病的健康教育資訊¹。

Fax Pages: 2/5

i 有關健康教育資訊可於衞生防護中心網頁下載: https://www.chp.gov.hk/tc/features/102465.html

請瀏覽下列網頁以取得更多由衛生防護中心發布的健康指引和嚴重新型傳染性病原體呼吸系統病的最新狀況:

主網頁

- 英文版: https://www.chp.gov.hk/en/features/102465.html
- 中文版: https://www.chp.gov.hk/tc/features/102465.html

有關在工作場所預防措施的健康指引

英文版:

https://www.chp.gov.hk/files/pdf/nid_guideline_workplace_eng.pdf

- 中文版:

https://www.chp.gov.hk/files/pdf/nid guideline workplace chi.pdf

非常感謝 貴公司在上述事官的協助。

發展局局長

(陳玉華 (一)

2020年1月29日

副本呈送:香港建造商會

香港建築業承建商聯會 香港機電工程承建商協會 香港機電工程商協會

政府總部 發展局 工務科 香港添馬添美道2號 政府總部西翼



本局網址 Our Website: http://www.devb.gov.hk 本局檔號 Our Ref.: () in DEVB(PS) 103/1

來承檔號 Your Ref.:

Works Branch Development Bureau Government Secretariat

West Wing, Central Government Offices, 2 Tim Mei Avenue, Tamar, Hong Kong

電話 Tel No.: 3509 8337 傳真 Fax No.: 2521 9682

雷郵 E-mail:

29 January 2020

All contractors on the List of Approved Suppliers of Materials and Specialist Contractors for Public Works

Dear Sirs,

Awareness and Preparedness for Novel Coronavirus Infection

Following the escalation of the response level to Emergency under the Preparedness and Response Plan for Novel Infectious Disease of Public Health Significance on 25 January 2020, the HKSAR Government has implemented special work arrangement for government departments after the Lunar New Year holidays until 2 February 2020 in order to reduce the risk of the spread of the novel coronavirus in the community. The HKSAR Government has also appealed to the private sector organisations to make similar arrangement as far as practicable. In this connection, we would urge you to make flexible work arrangements for employees in accordance with your operational need and step up precautionary measures in workplaces and construction sites.

In the event that staff members and workers are absolutely necessary to return to workplaces and construction sites, the following measures, though not exhaustive, are suggested for your reference:

- Review and ensure sufficient stock of personal protection equipment (including surgical masks, hand sanitizer, alcohol-based handrub, bleach, etc.) for the use of staff members and workers;
- Advise staff members and workers to check body temperature before entering construction sites. Those who have fever or respiratory symptoms should wear a surgical mask, refrain from work and seek medical advice promptly;
- Request staff members and workers to wear surgical masks as far as possible, especially when they are required to work in face-to-face or in a crowded area;

- Remind staff members and workers to avoid unnecessary travel to the affected areas (e.g. Hubei Province). If staff members and workers return to Hong Kong from the affected area, they should be refrained from work and observe the health condition closely for 14 days:
- Maintain good environmental hygiene and site cleanliness;
- Place health education materials on the severe respiratory disease associated with a novel infectious agent 1 at prominent areas of the workplaces and construction sites.

You may access the links below for the health advice and latest situation of the severe respiratory disease associated with a novel infectious agent published by the Centre for Health Protection:

Main Page:

- English version: https://www.chp.gov.hk/en/features/102465.html
- Chinese version: https://www.chp.gov.hk/tc/features/102465.html

Guidelines on Health Advice

- English version:
 - https://www.chp.gov.hk/files/pdf/nid_guideline_workplace_eng.pdf
- Chinese version:
 https://www.chp.gov.hk/files/pdf/nid_guideline_workplace_chi.pdf

Thank you very much for your assistance on this matter.

Yours faithfully,

(Ms. Hortensia CHAN) for Secretary for Development

c.c. Hong Kong Construction Association

Hong Kong General Building Contractors Association

Hong Kong Federation of Electrical and Mechanical Contractors

Hong Kong E&M Contractors' Association

Fax Pages: 5/5

¹ The health education materials are available for downloading at the website of Centre for Health Protection: https://www.chp.gov.hk/en/resources/464/102466.html



創業工程建設有限公司 NEW CONCEPTS ENGINEERING DEVELOPMENT LTD.

A Member of New Concepts Holdings Ltd. Listed on the Stock Exchange of Hong Kong (Stock code: 2221)

Our Ref : NCED/P80/611/0101 Date : 17 January 2020

AECOM Asia Company Limited

By Email and By Hand

8/F Grand Central Plaza, Tower 2, 138 Shatin Rural Committee Road, Shatin, Hong Kong

Attn: Mr. Alan Lee (The Project Manager's delegate for the Contract)

Dear Sir,

Re: Contract No. ND/2019/06

Fanling North New Development Area, Phase 1: Reprovisioning of North District Temporary Wholesale Market for Agricultural Products

Site Closure during Chinese New Year

Please notify that the Site will be closed during the Chinese New Year holidays (25-28 January 2020).

For emergency, please have the emergency list for your record and reference.

Thank you for your kind attention.

Yours faithfully, For and on behalf of

NEW CONCEPTS ENGINEERING DEVELOPMENT LIMITED

Joe Cheng

Contractor's Project Manager

Encl.





Tel: (852) 2750 7008 Fax: (852) 2363 2162 E-mail: ncfl@netvigator.com



o. PHOTO OF GREEN SITE BARRIER FENCES

Photo of green site barrier fences



High 2m solid dull green site barrier fences had been erected around all active works areas.