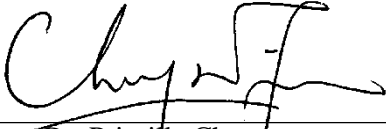


# Civil Engineering and Development Department

**Service Contract No. NDO 04/2019  
Environmental Team for Environmental  
Monitoring and Audit Works in  
Construction Phase for the First Phase  
Development of Kwu Tung North and  
Fanling North New Development Areas**

**Monthly Environmental Monitoring and  
Audit Report for April 2023**

**(Version 1.0)**

Certified By   
Dr. Priscilla Choy  
(Environmental Team Leader)

REMARKS:

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

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

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

Civil Engineering and Development Department  
North Development Office  
Unit 1501, Level 15, Tower I, Metroplaza,  
223 Hing Fong Road,  
Kwai Fong, N.T.

**Attention: Mr. Ryan Chau**

**Your Reference**

**Agreement No. CE 33/2019 (EP)**

**Independent Environmental Checker for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas – Investigation**

**Our Reference**

EC/TC/df/414202/L0175

**Monthly Environmental Monitoring and Audit Report No. 42 (April 2023)**

3/F Manulife Place  
348 Kwun Tong Road  
Kowloon  
Hong Kong

18 May 2023

T +852 2828 5757  
F +852 2827 1823  
mottmac.hk

**BY EMAIL**

Dear Sir,

We refer to email of 17 May 2023 attaching the Monthly Environmental Monitoring and Audit Report No. 42 prepared by the Environmental Team (ET) of the captioned.

We would like to inform you that we have no adverse comment on the captioned submission. Therefore, we write to verify the captioned submission in accordance with the Condition 3.4 of the Environmental Permit no. EP-466/2013/A, EP-467/2013/A, EP-468/2013/A, EP-469/2013, EP-470/2013A, EP-473/2013/A, EP-475/2013/A and EP-546/2017.

Should you have any queries, please contact the undersigned or our Ms. Liz Lo at 2828 5751.

Yours faithfully,  
For and on behalf of the  
Mott MacDonald Hong Kong Limited



Ir Thomas Chan  
Independent Environmental Checker  
T +852 2828 5967  
Thomas.Chan@mottmac.com

c.c.  
AECOM  
Wellab Ltd.

Mr. Chris Ho  
Dr. Priscilla Choy/  
Ms. Ivy Tam

chris.ho@aecom.com  
priscilla.choy@wellab.com.hk  
ivy.tam@wellab.com.hk

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**EXECUTIVE SUMMARY****Introduction**

1. This is the 42<sup>nd</sup> monthly Environmental Monitoring and Audit (EM&A) Report for the First Phase Development of Kwu Tung North (KTN) and Fanling North (FLN) New Development Areas (NDAs), comprising the Advance Works and First Stage Works (hereinafter called the “the Project”). This report is prepared by Wellab Limited under “Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of KTN and FLN NDAs” (hereinafter called the “Service Contract”). This report documents the findings of EM&A works conducted in April 2023.
2. During the reporting month, the following Works Contracts under relevant Environmental Permit(s) were undertaken for the Project:

**Table I Works Contracts under relevant Environmental Permit(s) in the Reporting Month**

<b>Works Contracts</b>	<b>Environmental Permit No.</b>	<b>Designated Project (DP)</b>	<b>Commencement date of construction</b>
<b>Contract No. ND/2019/01 – Kwu Tung North New Development Area, Phase 1: Site Formation and Infrastructure Works</b>	EP-466/2013/A	Castle Peak Road Diversion	12 August 2020
	EP-467/2013/A	Kwu Tung North New Development Area Road P1 and P2 and Associated New Kwu Tung Interchange and Pak Shek Au Interchange Improvement	12 August 2020
	EP-468/2013/A	Kwu Tung North New Development Area Road D1 to D5	1 June 2020
	EP-470/2013/A	Utilization of Treated Sewage Effluent (TSE) from Shek Wu Hui Sewage Treatment Works	23 March 2020
<b>Contract No. ND/2019/02 – Kwu Tung North New Development Area, Phase 1: Roads and Drains between Kwu Tung North New Development Area and Shek Wu Hui</b>	EP-469/2013	Sewage Pumping Stations in Kwu Tung North New Development Area	28 October 2020
<b>Contract No. ND/2019/03 – Kwu Tung North and Fanling North New Development Areas, Phase 1: Development of Long Valley Nature Park</b>	EP-468/2013/A	Kwu Tung North New Development Area Road D1 to D5	3 July 2020
	EP-473/2013/A	Fanling Bypass Eastern Section (New Road)	6 October 2020
<b>Contract No. ND/2019/04 – Fanling North New Development Area,</b>	EP-473/2013/A	Fanling Bypass Eastern Section (New Road)	23 February 2021



<b>Works Contracts</b>	<b>Environmental Permit No.</b>	<b>Designated Project (DP)</b>	<b>Commencement date of construction</b>
Phase 1: Fanling Bypass Eastern Section (Shek Wu San Tsuen North to Lung Yeuk Tau)	EP-546/2017	Fanling North Temporary Sewage Pumping Station	16 February 2021
<b>Contract No. ND/2019/05</b> – Fanling North New Development Area, Phase 1: Fanling Bypass Eastern Section (Shung Him Tong to Kau Lung Hang)	EP-473/2013/A	Fanling Bypass Eastern Section (New Road)	1 August 2020
<b>Contract No. ND/2019/06</b> – Fanling North New Development Area, Phase 1: Re-provisioning of North District Temporary Wholesale Market for Agricultural Products	EP-475/2013/A	Reprovision of temporary Wholesale Market in Fanling North New Development Area	29 October 2019
<b>Contract No. ND/2019/07</b> – Fanling North New Development Area, Phase 1: Site Formation and Infrastructure Works	Works area not under relevant Environmental Permit for Phase 1 of the Project.		1 March 2021

### **Environmental Monitoring and Audit Progress**

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

**Table II Summary Table for EM&A Activities in the Reporting Month**

EM&A Activities	Monitoring Station (s)	Works Contracts							
		ND/2019/01	ND/2019/02	ND/2019/03	ND/2019/04	ND/2019/05	ND/2019/06	ND/2019/07	
1-hr Suspended Particulates Monitoring (TSP)	FLN-DMS1	N/A	N/A	4, 6, 12, 18, 24 and 28 Apr 23	4, 6, 12, 18, 24 and 28 Apr 23	N/A	N/A	N/A	
	FLN-DMS3			N/A	N/A	4, 6, 12, 18, 24 and 28 Apr 23			
	FLN-DMS5			3, 6, 11, 17, 21 and 27 Apr 23	3, 6, 11, 17, 21 and 27 Apr 23	N/A			
	KTN-DMS4(B)	3, 6, 11, 17, 21 and 27 Apr 23	3, 6, 11, 17, 21 and 27 Apr 23	N/A					
24-hr TSP Monitoring	FLN-DMS1	N/A	N/A	3, 6, 11, 17, 21 and 27 Apr 23	3, 6, 11, 17, 21 and 27 Apr 23	N/A	N/A	N/A	
	FLN-DMS3			N/A	N/A	3, 6, 11, 17, 21 and 27 Apr 23			
	FLN-DMS5A			3, 6, 11, 17, 21 and 27 Apr 23	3, 6, 11, 17, 21 and 27 Apr 23	N/A			
	KTN-DMS4(B)	3, 6, 11, 17, 21 and 27 Apr 23	3, 6, 11, 17, 21 and 27 Apr 23	N/A					
Noise Monitoring	CP-FLN-NMS1	N/A			4, 12, 18 and 24 Apr 23		N/A	N/A	
	CP-FLN-NMS2	N/A				4, 12, 18 and 24 Apr 23			N/A
	CP-KTN-NMS2	3, 11, 17 and 27 Apr 23	N/A	N/A					
	CP-KTN-NMS3			N/A					
	CP-KTN-NMS5			N/A					
	CP-KTN-NMS6	N/A	3, 11, 17 and 27 Apr 23	N/A					
Ecological Survey	Monitoring of Measures to Minimise Disturbance to Water Birds on Ng Tung River, Sheung Yue River, and Long Valley	N/A*	N/A*	4, 6, 12, 13, 17, 20, 24, 25 Apr 23	2, 12, 20, 24 Apr 23	N/A*	N/A*	N/A*	
	Monitoring of Measures to Minimise Impacts to Ma Tso Lung Stream and Siu Hang San Tsuen Stream	21 Apr 23	N/A*	21 Apr 23	21 Apr 23	N/A*	N/A*	N/A*	

EM&A Activities	Monitoring Station (s)	Works Contracts						
		ND/2019/01	ND/2019/02	ND/2019/03	ND/2019/04	ND/2019/05	ND/2019/06	ND/2019/07
	Monitoring of Measures to Minimise Impacts on Ecological Sensitive Habitats from Disturbance and Pollution	19 and 26 Apr 23	19 and 26 Apr 23	26 Apr 23	26 Apr 23	26 Apr 23	N/A*	N/A*
Egretty Monitoring		N/A	N/A	24 Apr 23	N/A	N/A	N/A	N/A
24-hr RSP (Ambient Arsenic) Monitoring for Land Contamination		4, 6, 12, 18, 24 and 28 Apr 23	N/A	4, 6, 12, 18, 24 and 28 Apr 23	N/A	N/A	N/A	N/A
Water Quality Monitoring		N/A	3, 6, 11, 13, 15, 17, 19, 21, 24, 26, 28 Apr 23	N/A	3, 6, 11, 13, 15, 17, 19, 21, 24, 26, 28 Apr 23	N/A	N/A	N/A
Landfill Gas Monitoring		18 Apr 23	N/A	N/A	N/A	N/A	N/A	N/A
Built Heritage Monitoring		N/A	N/A	N/A	N/A	Daily assessment subject to construction works conducted within assessment area	N/A	N/A
Environmental Site Inspection		4, 11, 18 and 27 Apr 23	3, 12, 21 and 26 Apr 23	6, 13, 18 and 28 Apr 23	4, 13, 20 and 26 Apr 23	3, 11, 20 and 24 Apr 23	4, 13, 20 and 26 Apr 23	4, 14, 21 and 28 Apr 23

Remarks:

N/A – No relevant monitoring is required according to the updated EM&A Manual

N/A\* – No relevant monitoring is required according to the Baseline Ecological Monitoring Plan (Table 3.1)

[1] Since the distance between monitoring station CP-KTN-NMS2 and site boundary of ND/2019/03 under EP-468/2013/A exceeds 300m, the monitoring station is not applicable to ND/2019/03

[2] Since the distance between monitoring station CP-KTN-NMS3 and site boundary of ND/2019/03 under EP-468/2013/A exceeds 300m, the monitoring station is not applicable to ND/2019/03

[3] Since the distance between monitoring station CP-KTN-NMS1 and site boundary of ND/2019/02 under EP-469/2013 exceeds 300m, the monitoring station is not applicable to ND/2019/02

[4] Since the distance between monitoring station FLN-DMS1 and site boundary of ND/2019/05 under EP-473/2013/A exceeds 500m, the monitoring station is not applicable to ND/2019/05

[5] Since the distance between monitoring station FLN-DMS3 and site boundary of ND/2019/03 and ND/2019/04 under EP-473/2013/A exceeds 500m, the monitoring station is not applicable to ND/2019/03 and ND/2019/04

[6] Since the distance between monitoring station FLN-DMS5 and site boundary of ND/2019/05 under EP-473/2013/A exceeds 500m, the monitoring station is not applicable to ND/2019/05

[7] Since the distance between monitoring station CP-FLN-NMS2 and site boundary of ND/2019/03 and ND/2019/04 under EP-473/2013/A exceeds 300m, the monitoring station is not applicable to ND/2019/03 and ND/2019/04

[8] Since the distance between monitoring station CP-FLN-NMS1 and site boundary of ND/2019/03 under EP-473/2013/A exceeds 300m, the monitoring station is not applicable to ND/2019/03

**Breaches of Action and Limit Levels**

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

**Table III Summary Table for Events Recorded in the Reporting Month**

Environmental Monitoring	Parameter	No. of non-project related Exceedances		Total No. of non-project related Exceedances	No. of Exceedance related to the Construction Works of the Contract		Total No. of Exceedance related to the Construction Works of the Contract
		Action Level	Limit Level		Action Level	Limit Level	
Air Quality	1-hr TSP	0	0	0	0	0	0
	24-hr TSP	0	0	0	0	0	0
	24-hr RSP (Ambient Arsenic)	0	0	0	0	0	0
Noise	L <sub>eq</sub> (30min)	0	0	0	0	0	0
Water Quality <sup>[1]</sup>	DO	0	7	7	0	0	0
	Turbidity	1	4	5	0	0	0
	SS	0	3	3	0	0	0
	Arsenic	0	0	0	0	0	0
Landfill Gas	O <sub>2</sub>	0	0	0	0	0	0
	CH <sub>4</sub>						
	CO <sub>2</sub>						
Cultural heritage	Built Heritage Monitoring	0	0	0	0	0	0

**Air Quality**

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

**Construction Noise**

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

**Water Quality**

7. All additional water quality monitoring was conducted as scheduled in the reporting month. Seven (7) Limit Level for DO, One (1) Action Level and Four (4) Limit Level for turbidity, and Three (3) Limit Level for Suspended Solid of impact water quality monitoring were recorded. No construction

of channel for alternation of natural streams was carried out in the reporting month. Therefore, no water quality monitoring was conducted according to the Updated EM&A Manual and Baseline Water Quality Monitoring Report (KTN & FLN NDA). Relevant details are given in Section 5.

#### **Land Contamination**

8. All ambient arsenic monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded.

#### **Landfill Gas Monitoring**

9. Monitoring of landfill gas in the reporting month was carried out by the Contractor under ND/2019/01 at excavation location Portion 6b. No Limit Level exceedance was recorded.

#### **Built Heritage Monitoring**

10. Built heritage monitoring was carried out in the reporting month by the Contractor under ND/2019/05 for surveyed cultural heritage. No Limit Level exceedance was recorded.

#### **Ecological Monitoring**

11. All ecological monitoring was conducted as scheduled in the reporting month. The monitoring result is shown in **Appendix L** and will be compared with the Action/Limit level after the issuance of Final Baseline Ecological Report.

#### **Egretry Monitoring**

12. All Egretry monitoring was conducted as scheduled in the reporting month. The monitoring results can refer to the Monthly Egretry Monitoring Report for April 2023.

#### **Complaint Log**

13. Two environmental complaints were received in the reporting month. The two complaints regarding the same muddy water discharge situation near Castle Peak Road, Kwu Tung, were received and referred by EPD on 3 Apr 2023. Based on complaint information, discharge from the Soil Stockpiling area at Kwu Tung near was suspected.

#### **Notification of Summons and Successful Prosecutions**

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

#### **Reporting Changes**

15. This report has been prepared in compliance with the reporting requirements for the subsequent monthly EM&A Report as required by the “Updated Environmental Monitoring and Audit Manual for Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas” (Updated EM&A Manual).

#### **Future Key Issues**

16. The major site activities for the coming three months are shown in **Table IV**.

**Table IV Summary Table for Site Activities in the coming Three Months**

<b>Contract No.</b>	<b>Site Activities (May to July 2023)</b>
<b>ND/2019/01</b>	<ul style="list-style-type: none"> <li>(a) Site Clearance, tree felling, removal of existing structures, slope work and drainage works in Portion 1a</li> <li>(b) Excavation, backfilling, construction of hoarding/fencing and road works and tree felling in Portion 1b</li> <li>(c) Site clearance, site formation and socket H piling in Portion 1c</li> <li>(d) Temporary storage of material and site formation in Portion 1e</li> <li>(e) Tree felling, site formation work and construction of subway in Portion 2</li> <li>(f) Excavation, backfilling and drainage works in Portion 3</li> <li>(g) Watermain, excavation, backfilling, road works, sheet piling and pipe jacking in Portion 5</li> <li>(h) Drainage works, backfilling, road works, watermain work in Portion 6a</li> <li>(i) Operation of HAC treatment facility in Portion 6b</li> <li>(j) Site formation, sheet piling, excavation and drainage works in Portion 7</li> <li>(k) Construction of retaining wall, RC construction of fresh water reservoir, construction of WSD's maintenance access and backfilling works and drainage works in Portion 8a</li> <li>(l) Construction of jacking pit at LWSC's car park and trenchless work, excavation, watermain construction and trial pit in Portion 8b</li> <li>(m) Sheet piling, excavation, drainage works and watermain construction in Portion 9b</li> <li>(n) Stockpile of soil in Portion 9c</li> <li>(o) Road works and site clearance in Portion 10a</li> <li>(p) Road works and site clearance in Portion 10b</li> <li>(q) Site clearance, tree felling, remove of existing structure in Portion 13</li> </ul>
<b>ND/2019/02</b>	<ul style="list-style-type: none"> <li>(a) Pipe Jacking</li> <li>(b) Backfilling</li> <li>(c) Concreting</li> <li>(d) Bedding &amp; Pipe Laying</li> <li>(e) ELS</li> <li>(f) Sheet Pile Installation</li> <li>(g) Cut and Fill of Slope</li> </ul>
<b>ND/2019/03</b>	<ul style="list-style-type: none"> <li>(a) Portion 1 &amp; Portion 1A <ul style="list-style-type: none"> <li>- Road &amp; Drainage works and watermain works at Yin Kong Road</li> <li>- Construction of Pai Lau</li> <li>- Installation of Street Lighting</li> <li>- Construction of Pavilion at Yin Kong Road</li> </ul> </li> <li>(b) Portion 2 to Portion 20C <ul style="list-style-type: none"> <li>- Wetland creation &amp; restoration, Dry agricultural land creation</li> <li>- Construction of Tea House Pavilion</li> <li>- Construction of compacted earth path</li> <li>- Construction of Water Treatment Wetland</li> <li>- Tree felling and tree pruning work</li> <li>- Construction of Lodging Facility</li> <li>- Construction of Dry Weather Flow Interception (DWFI)</li> </ul> </li> </ul>

Contract No.	Site Activities (May to July 2023)
ND/2019/04	<ul style="list-style-type: none"> <li>(a) Tree Felling and transplant</li> <li>(b) Pile Cap</li> <li>(c) Back Filling</li> <li>(d) Excavation</li> <li>(e) Grouting</li> <li>(f) Sheet Piling</li> <li>(g) Road works</li> <li>(h) Pre-drill</li> <li>(i) Bore pile</li> <li>(j) ELS</li> </ul>
ND/2019/05	<ul style="list-style-type: none"> <li>(a) <u>North Team Works</u> <ul style="list-style-type: none"> <li>- ELS works and Pile cap construction at B2-01, B2-02, B2-03, C2-04b &amp; D2-01</li> <li>- Pier construction at C2-03b, C2-04b, D2-01 &amp; E2-01.</li> <li>- Pier head construction at C2-03b, C2-04b, C1-01a &amp; E2-01</li> <li>- Cross head construction at C2-01, C2-02, C3-02.</li> <li>- Slope works, road works and drainage work at Jockey Club Road (3SW-C/F63), Tong Hang</li> <li>- Junction and Portion VI (FS28 &amp; 29)</li> </ul> </li> <li><u>Viaduct Works</u> <ul style="list-style-type: none"> <li>- Segment fabrication for bridge C2 &amp; D1 &amp; E1.</li> <li>- Segments erection by LG at bridges C4, C3.</li> <li>- Segments erection by crane at bridge D1 and E1.</li> <li>- T-span construction by form traveler at Pier E2-02, E3-03, D2-02, E3-01</li> <li>- SOP construction at E3-02, D2-03, E2-01</li> <li>- Construction of pile cap and installation of bridge rotation components at pier D2-01.</li> <li>- Design and fabrication of 3rd and 4th set of form traveler.</li> <li>- Design and fabrication of truss formwork for Bridge B1.</li> <li>- Erection of tower crane at E2-01.</li> </ul> </li> <li>(b) <u>South Team Works</u> <ul style="list-style-type: none"> <li>- TWSRW – Road work (section ch 250 to 450). UU diversion.</li> <li>- TWSRW – Soil nail and ranking drain for FS04. Outage of CLP 132 kv.</li> <li>- TWSRE – Form D300 new road, BBI footing, relocation of existing BBI and road diversion</li> <li>- HKY FB (East) – construction of extension roof</li> <li>- HKY FB (West) – Construction of LT2</li> <li>- E2-03 – Pier head construction.</li> <li>- E3-04a, E3-05M, E4-01 and E4-02 – cap construction.</li> <li>- NB109 – bay 5~8, base slab construction.</li> <li>- NB69 – ELS excavation</li> </ul> </li> </ul>
ND/2019/06	The construction phase has been completed and handed over to AFCD since 4 April 2022.
ND/2019/07	<ul style="list-style-type: none"> <li>(a) Road works at Portion 1, 4 and 5</li> <li>(b) C&amp;D waste disposal at Portion 1, 2, 4 and 5</li> <li>(c) Construction of box culvert at Portion 2</li> <li>(d) Filling works at Portion 2 and 4</li> <li>(e) Construction of site haul road at Portion 4</li> <li>(f) Drainage works, Sewerage works at Portion 1, 3, 4 and 5</li> <li>(g) Mini piling works at Portion 4</li> <li>(h) Construction of noise barrier at Portion 4 and 5</li> <li>(i) Waterworks at Portion 1 and 4</li> </ul>

## 1 INTRODUCTION

1.1 Wellab Limited was commissioned by Civil Engineering and Development Department (CEDD) as the Environmental Team to undertake the Environmental Monitoring and Audit (EM&A) services for the Works Contracts involved in the implementation of the First Phase Development of Kwu Tung North (KTN) and Fanling North (FLN) New Development Areas (NDAs) Project to ensure that the environmental performance of the Works Contracts complies with the requirements specified in the Environmental Permits (EPs), Updated EM&A Manual, Environmental Impact Assessment (EIA) Report of the KTN FLN NDAs project and other relevant statutory requirements.

### Purpose of the report

1.2 This is the 42<sup>nd</sup> EM&A Report which summarises the key findings of the EM&A programme in April 2023.

### Structure of the report

1.3 The structure of the report is as follows:

- Section 1: **Introduction** - purpose and structure of the report.
- Section 2: **Project Information** - summarises background and scope of the Project, site description, project organisation and contact details, construction programme, the construction works undertaken and the status of Environmental Permits/Licences during the reporting month.
- Section 3: **Air Quality Monitoring** - summarises the monitoring parameters, monitoring programmes, monitoring methodologies, monitoring frequencies, monitoring locations, Action and Limit Levels, monitoring results and Event / Action Plans.
- Section 4: **Noise Monitoring** - summarises the monitoring parameters, monitoring programmes, monitoring methodologies, monitoring frequencies, monitoring locations, Action and Limit Levels, monitoring results and Event / Action Plans.
- Section 5: **Water Quality Monitoring** - summarises the monitoring parameters, monitoring programmes, monitoring methodologies, monitoring frequencies, monitoring locations, Action and Limit Levels and Event / Action Plans.
- Section 6: **Land Contamination (Ambient Arsenic Monitoring)** - summarises the monitoring parameters, monitoring programmes, monitoring methodologies, monitoring frequencies, monitoring locations, Action and Limit Levels, monitoring results and Event / Action Plans.
- Section 7: **Landfill Gas Monitoring** - summarises the monitoring requirement, monitoring parameters and frequency, monitoring locations, Action and Limit Levels, monitoring results and observation, and Event / Action Plans.
- Section 8: **Built Heritage Monitoring** – summarises the monitoring requirement, monitoring parameters and frequency, monitoring locations, Action and Limit Levels, monitoring results and observation.
- Section 9: **Ecological Monitoring** – summarises the details of monitoring of measures to minimise disturbance to waterbirds in Ng Tung River, Sheung Yue River, Shek Sheung River and Long Valley, monitoring of measures to



minimise impacts on ecological sensitive habitats from disturbance and pollution during the reporting month.

- Section 10: **Environmental Site Inspection** - summarises the audit findings of the weekly site inspections undertaken within the reporting month.
- Section 11: **Environmental Non-conformance** - summarises any monitoring exceedance, environmental complaints, environmental summons and successful prosecutions within the reporting month.
- Section 12: **Future Key Issues** - summarises the impact forecast, proposed mitigation measures and monitoring schedule for the upcoming months.
- Section 13: **Conclusions and Recommendations**

## 2 PROJECT INFORMATION

### Background

- 2.1 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.
- 2.2 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;
    - iii) 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 egret sites in the FLN NDA and enhancement works to an existing egret 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.

- 2.3 The Project which covers KTN and FLN NDAs is a designated project (DP) under Schedule 3 of the Environmental Impact Assessment (EIA) Ordinance (Cap. 499). In October 2013, the EIA Report (AEIAR-175/2013) for the Project was approved by the Director of Environmental Protection pursuant to the EIA Ordinance. The relevant EPs under the Project and the respective Work Contracts are summarised in **Tables 2.1a** and **2.1b**.

**Table 2.1a Summary of EPs under the Project and the Respective Work Contracts**

EP No.	Designated Project	C1	C2	C3	C5 A	C5 B	C6	C7
EP-466/2013/A	Castle Peak Road Diversion	✓						
EP-467/2013/A	Kwu Tung North New Development Area Road P1 and P2 and Associated New Kwu Tung Interchange and Pak Shek Au Interchange Improvement	✓						
EP-468/2013/A	Kwu Tung North New Development Area Road D1 to D5	✓		✓				
EP-469/2013	Sewage Pumping Stations in Kwu Tung North New Development Area		✓					
EP-470/2013/A	Utilization of Treated Sewage Effluent (TSE) from Shek Wu Hui Sewage Treatment Works	✓						
EP-473/2013/A	Fanling Bypass Eastern Section			✓	✓	✓		
EP-475/2013/A	Reprovision of temporary Wholesale Market in Fanling North New Development Area						✓	
EP-546/2017	Fanling North Temporary Sewage Pumping Station				✓			

Notes: C1: ND/2019/01 C2: ND/2019/02 C3: ND/2019/03 C5A: ND/2019/04  
C5B: ND/2019/05 C6: ND/2019/06 C7: ND/2019/07

**Table 2.1b Summary of Scope of Works under concerned EP**

Environmental Permit (EP) No.	Work Contract(s)	Scope of Works under concerned EP(s)	Site Layout Plan under concerned EP(s)
EP-466/2013/A(Part)	C1	Realign Castle Peak Road and join with the Pak Shek Au Interchange at the western end	Figure 12
EP-467/2013/A(Part)	C1	Construction of new primary distributor road (P1) within Kwu Tung North New Development Area	Figure 13
EP-468/2013/A(Part)	C1	Construction of new primary distributor roads (D1, D3, D4 and part of D5) within Kwu Tung North New Development Area	Figure 14
	C3	Development of a nature park at Long Valley and ecological mitigation and enhancement works for the nature park (Condition 2.9)	Figure 15
EP-469/2013(Part)	C2	Construction of one sewage pumping station in Kwu Tung North with installed capacity of more than 2,000 m <sup>3</sup> per day	Figure 16

Environmental Permit (EP) No.	Work Contract(s)	Scope of Works under concerned EP(s)	Site Layout Plan under concerned EP(s)
EP-470/2013/A(Part)	C1	Construction of service reservoir and watermain for the reuse of treated sewage effluent for reuse in Kwu Tung North Development Areas	Figure 17
EP-473/2013/A(Part)	C3	Establishment of alternative egretry sites and enhance the existing egretry site at Ho Sheung Heung and/or its vicinity (Condition 2.7)	Figure 18
EP-473/2013/A(Part)	C5A	Construction of new district distributor inside FLN NDA, which provides a linkage between the Man Kam To Road and the proposed Fanling Bypass Eastern Section	Figure 19
EP-473/2013/A(Part)	C5B		Figure 20
EP-475/2013/A	C6	The re-provisioned wholesale market will have approximately 1,000 market stalls within a site area of around 1.3 ha	Figure 21
EP-546/2017	C5A	Construct and operate a temporary sewage pumping station in Fanling North with installed capacity (average dry weather flow) of about 3,600m <sup>3</sup> /day	Figure 22

Remark: The EP(s) not related to the Project of the First Phase of the Kwu Tung North (KTN) and Fanling North (FLN) New Development Area (NDA) Development Areas are not included in the Table.

- 2.4 The site boundary of the Project and all Works Contracts are shown in **Drawing No. 1**.
- 2.5 The required submissions and submission status under Environmental Permits are shown in **Appendix U**.
- 2.6 The site layout plans under concerned Environmental Permits are shown in Figures 12 - 22.

### Project Organization

- 2.7 Different parties with different levels of involvement in the Project organisation include:
- Project Proponent – Civil Engineering and Development Department (CEDD)
  - *Supervisor / Supervisor's Representative* – AECOM Asia Co. Ltd.
  - Environmental Team (ET) – Wellab Limited
  - Independent Environmental Checker (IEC) – Mott MacDonald Hong Kong Ltd (MottMac)
- 2.8 The names and contact numbers of key personnel are summarised in **Table 2.2**.

**Table 2.2 Key Contacts of the Project**

<b>Party</b>	<b>Role</b>	<b>Contact Person</b>	<b>Phone No.</b>	<b>Fax No.</b>
Civil Engineering and Development Department, HKSAR (CEDD)	Project Proponent	Mr. Raymond Cheng	3619 3919	3547 1658
<i>Supervisor / Supervisor's Representative</i> (AECOM Asia Co. Ltd.)	Chief Resident Engineer	Mr. Alan Lee	6398 5982	2680 9515
	Senior Resident Engineer	Mr. King-man Chan	9651 2635	2680 9515
Environmental Team (Wellab Limited)	Environmental Team Leader	Dr. Priscilla Choy	2898 7388	2898 7076
Independent Environmental Checker (MottMac)	Independent Environmental Checker	Mr. Thomas Chan	2828 5967	2827 1823
<b><u>Contract No. ND/2019/01</u></b> Contractor (Build King – Richwell Engineering Joint Venture)	Site Agent	Mr. Ivan Leung	9640 8340	--
	Environmental Officer	Mr. Edward Tam	9287 8270	
<b><u>Contract No. ND/2019/02</u></b> Contractor (Chun Wo – Kwan Lee Joint Venture.)	Site Agent	Mr. Andy Chan	3485 9780	--
	Environmental Officer	Mr. Wesley So	9144 1643	
<b><u>Contract No. ND/2019/03</u></b> Contractor (Sang Hing Kuly Joint Venture)	Site Agent	Mr. Tang Wing Kai	9300 7037	--
	Environmental Officer	Mr. Ken Cheung	9803 5297	
<b><u>Contract No. ND/2019/04</u></b> Contractor (Daewoo – Chun Wo – Kwan Lee Joint Venture)	Site Agent	Mr. Eric Wu	9786 8630	--
	Environmental Manager	Mr. Jimmy Cheng	9609 5916	
	Environmental Officer	Mr. Sam Lam	6178 3179	
<b><u>Contract No. ND/2019/05</u></b> Contractor (CRCC – Paul Y. Joint Venture)	Site Agent	Mr. Darwin Lo	9467 5891	--
	Environmental Manager	Mr. Pan Fong	9436 9435	
	Environmental Officer	Ms. Louise Poon	5272 5709	
<b><u>Contract No. ND/2019/06</u></b> Contractor (New Concepts Engineering Development Ltd.)	Project Manager	Mr. Joe Cheng	9861 0060	--
	Environmental Officer	Mr. Alex Choy	6360 3236	
<b><u>Contract No. ND/2019/07</u></b> Contractor (China Road and Bridge Corporation)	Site Agent	Mr. Daniel Wong	5335 9572	--
	Environmental Officer	Mr. K. M. Lui	5113 8223	
	Environmental Supervisor	Mr. Attlee Chau	6386 9018	

**Summary of Construction Works Undertaken During Reporting Month**

2.9 The major site activities undertaken in the reporting month are shown in **Table 2.3**.

**Table 2.3 Summary Table for Major Site Activities in the Reporting Month**

Contract No.	Site Activities (April 2023)
<b>ND/2019/01</b>	<ul style="list-style-type: none"> <li>(a) Site clearance, removal of existing structures at Portion 1a</li> <li>(b) Excavation, backfilling and drainage works at Portion 1b</li> <li>(c) Site clearance and site formation at Portion 1c</li> <li>(d) Temporary storage of material at Portion 1e</li> <li>(e) Site clearance, site formation and construction of subway at Portion 2</li> <li>(f) Site clearance, excavation, sheet piling and drainage works at Portion 3</li> <li>(g) Drainage works, excavation, backfilling and sheet piling at Portion 5</li> <li>(h) Drainage works and backfilling at Portion 6a</li> <li>(i) Operation of HAC soil treatment facility at Portion 6b</li> <li>(j) Drainage works, excavation and backfilling at Portion 7</li> <li>(k) Construction of retaining wall, RC construction of flushing &amp; fresh water service reservoir and backfilling works at Portion 8a</li> <li>(l) Construction of jacking pit at LWSC's car park, trenchless work, watermain construction and trial pit at Portion 8b</li> <li>(m) Sheet piling, excavation, drainage works and watermain construction at Portion 9b</li> <li>(n) Stockpile of soil at Portion 9c</li> <li>(o) Utilities work at Portion 10a</li> <li>(p) Excavation and road works at Portion 10b</li> <li>(q) Site clearance and removal of existing structures at Portion 13</li> </ul>
<b>ND/2019/02</b>	<ul style="list-style-type: none"> <li>(a) Pipe Jacking</li> <li>(b) Backfilling</li> <li>(c) Concreting</li> <li>(d) Bedding and pipe laying</li> <li>(e) ELS</li> <li>(f) Sheet Pile Installation</li> <li>(g) Cut and Fill of Slope</li> </ul>
<b>ND/2019/03</b>	<ul style="list-style-type: none"> <li>(a) Portion 1 &amp; Portion 1A <ul style="list-style-type: none"> <li>- Road &amp; Drainage works and watermains works at Yin Kong Road</li> <li>- Construction of Pai Lau</li> <li>- Installation of Street Lighting</li> <li>- Construction of Pavilion at Yin Kong Road</li> </ul> </li> <li>(b) Portion 2 to Portion 20C <ul style="list-style-type: none"> <li>- Wetland creation &amp; restoration, Dry agricultural land creation</li> <li>- Construction of Tea House Pavilion</li> <li>- Construction of compacted earth path</li> <li>- Construction of Water Treatment Wetland</li> <li>- Tree felling and tree pruning work</li> <li>- Construction of Lodging Facility</li> <li>- Construction of Dry Weather Flow Interception (DWFI)</li> </ul> </li> </ul>

Contract No.	Site Activities (April 2023)
ND/2019/04	(a) Tree Felling and transplant (b) Pile Cap (c) Back Filling (d) Excavation (e) Grouting (f) Sheet Piling (g) Road works (h) Pre-drill (i) Bore pile (j) ELS
ND/2019/05	(a) The segment erection using launching gantry is critical to completion of section 4. (b) The pier D2-01 with bridge rotation system is critical to completion of section 5. (c) 5 <sup>th</sup> set of form traveler will be procured to be used at E2-01, thus, delay of E2-01, E2-02 and E3-03 will be mitigated.
ND/2019/06	The construction phase was completed and handed over to AFCD since 4 April 2022.
ND/2019/07	(a) Road works at Portion 1, 4 and 5 (b) C&D waste disposal at Portion 1, 2, 4 and 5 (c) Drainage works, Sewerage works at Portion 1, 3 and 4 (d) Construction of box culvert at Portion 2 (e) Filling works at Portion 2 and 4 (f) Construction of site haul road at Portion 4 (g) Waterworks at Portion 1

### Construction Programme

2.10 Copies of Contractors' construction programmes are provided in **Appendix A**.

### Status of Environmental Licences, Notifications and Permits

2.11 A summary of the relevant permits, licences, and/or notifications on environmental protection for this Project is presented in **Table 2.4**.

**Table 2.4 Status of Environmental Licences, Notifications and Permits**

Contract No.	Permit / Licence No.	Valid Period		Status
		From	To	
<b>Environmental Permit (EP)</b>				
ND/2019/01	EP-466/2013/A	21/11/2013	N/A	Valid
	EP-467/2013/A	27/01/2017	N/A	Valid
	EP-468/2013/A	27/01/2017	N/A	Valid
	EP-470/2013/A	21/11/2013	N/A	Valid
ND/2019/02	EP-469/2013	21/11/2013	N/A	Valid
ND/2019/03	EP-468/2013/A	27/01/2017	N/A	Valid
	EP-473/2013/A	27/01/2017	N/A	Valid
ND/2019/04	EP/473/2013/A	27/01/2017	N/A	Valid

Contract No.	Permit / Licence No.	Valid Period		Status
		From	To	
	EP/546/2017	16/11/2017	N/A	Valid
ND/2019/05	EP-473/2013/A	27/01/2017	N/A	Valid
ND/2019/06	EP-475/2013/A	13/01/2017	N/A	Valid
<b>Construction Noise Permit (CNP)</b>				
ND/2019/01	GW-RN0063-23	26/01/2023	25/04/2023	Expired in reporting month
	GW-RN1250-22	05/01/2023	04/04/2023	Expired in reporting month
	GW-RN0144-23	13/02/2023	12/05/2023	Valid
	GW-RN1196-22	19/12/2022	18/05/2023	Valid
	GW-RN0252-23	16/03/2023	15/08/2023	Valid
	GW-RN0304-23	26/03/2023	31/08/2023	Valid
	GW-RN0392-23	20/04/2023	19/08/2023	Valid
	GW-RN0394-23	26/04/2023	25/07/2023	Valid
	GW-RN0419-23	24/04/2023	31/08/2023	Valid
ND/2019/02	GW-RN1130-22	22/11/2022	10/05/2023	Valid
	GW-RN0048-23	08/02/2023	07/06/2023	Valid
	GW-RN0049-23	16/02/2023	15/05/2023	Valid
	GW-RN0234-23	15/03/2023	14/07/2023	Valid
ND/2019/03	GW-RN0054-23	01/03/2023	31/08/2023	Valid
ND/2019/04	GW-RN0099-23	06/02/2023	12/04/2023	Expired in reporting month
	GW-RN0184-23	27/02/2023	14/04/2023	Expired in reporting month
	GW-RN0188-23	27/02/2023	10/04/2023	Expired in reporting month
	GW-RN0282-23	20/03/2023	30/04/2023	Expired in reporting month
	GW-RN0183-23	27/02/2023	26/05/2023	Valid
	GW-RN0078-23	01/03/2023	31/05/2023	Cancelled and Superseded by GW-RN0300-23
	GW-RN0097-23	11/02/2023	10/05/2023	Renewed as GW-RN0300-23
	GW-RN0300-23	23/03/2023	22/06/2023	Valid
	GW-RN0269-23	19/03/2023	18/06/2023	Renewed as GW-RN0353-23
	GW-RN0069-23	18/02/2023	17/06/2023	Cancelled and Superseded by GW-RN0353-23
	GW-RN0353-23	13/04/2023	12/07/2023	Valid
ND/2019/05	GW-RN0203-23	02/03/2023	30/04/2023	Expired in reporting month
	GW-RN0221-23	01/03/2023	30/04/2023	Expired in reporting month
	GW-RN0134-23	15/02/2023	14/05/2023	Cancelled and Superseded by GW-RN0301-23 in reporting month
	GW-RN0239-23	08/03/2023	07/06/2023	Valid
	GW-RN0262-23	22/03/2023	21/06/2023	Valid
	GW-RN0288-23	30/03/2023	31/08/2023	Valid
	GW-RN0301-23	01/04/2023	31/05/2023	Valid
<b>Notification pursuant to Air Pollution Control (Construction Dust) Regulation</b>				
ND/2019/01	451792	11/12/2019	N/A	Valid
ND/2019/02	454012	05/03/2020	N/A	Valid
ND/2019/03	452216	24/12/2019	N/A	Valid



Contract No.	Permit / Licence No.	Valid Period		Status
		From	To	
	452332	31/12/2019	N/A	Valid
	452333	31/12/2019	N/A	Valid
ND/2019/04	461184	23/10/2020	N/A	Valid
ND/2019/05	454323	13/03/2020	N/A	Valid
ND/2019/06	449369	24/09/2019	N/A	Valid
ND/2019/07	459393	28/08/2020	N/A	Valid
<b>Billing Account for Disposal of Construction Waste</b>				
ND/2019/01	7036265	17/01/2020	N/A	Valid
ND/2019/02	7036898	01/04/2020	N/A	Valid
ND/2019/03	7036378	22/01/2020	N/A	Valid
ND/2019/04	7038391	22/09/2020	N/A	Valid
ND/2019/05	7036901	01/04/2020	N/A	Valid
ND/2019/06	7035473	17/10/2019	N/A	Valid
ND/2019/07	7038309	14/09/2020	N/A	Valid
<b>Registration of Chemical Waste Producer</b>				
ND/2019/01	5213-545-B2578-01	10/01/2020	N/A	Valid
ND/2019/02	5213-548-C4439-01	06/05/2020	N/A	Valid
ND/2019/03	5213-623-S4231-01	14/04/2020	N/A	Valid
ND/2019/04	5211-624-D2709-01	26/11/2020	N/A	Valid
ND/2019/05	5213-625-C4464-01	20/05/2020	N/A	Valid
ND/2019/06	5213-625-N2716-01	02/10/2019	N/A	Valid
ND/2019/07	5213-625-C4498-01	21/09/2020	N/A	Valid
<b>Effluent Discharge License under Water Pollution Control Ordinance</b>				
ND/2019/01	WT00036071-2020	22/06/2020	30/06/2025	Valid
	WT00036073-2020	22/06/2020	30/06/2025	Valid
	WT00036067-2020	22/06/2020	30/06/2025	Valid
	WT00036075-2020	22/06/2020	30/06/2025	Valid
	WT00036076-2020	22/06/2020	30/06/2025	Valid
	WT00037191-2020	21/04/2022	28/02/2026	Valid
	WT00037204-2020	02/02/2021	28/02/2025	Valid
	WT00037412-2021	15/04/2021	30/04/2026	Valid
	WT00037564-2021	19/04/2021	30/04/2026	Valid
	WT00037886-2021	28/06/2021	30/06/2026	Valid
ND/2019/02	WT00036584-2020	21/10/2020	31/10/2025	Valid
	WT00036952-2020	17/12/2020	31/12/2025	Valid
ND/2019/03	WT00035847-2020	12/08/2020	31/08/2025	Valid
	WT00036414-2020	25/02/2021	28/02/2026	Valid
	WT00037771-2021	08/07/2021	31/07/2026	Valid
	WT00035984-2020	25/02/2021	28/02/2026	Valid
ND/2019/04	WT00037539-2021	16/04/2021	30/04/2026	Valid
ND/2019/05	WT00036996-2020	22/12/2020	31/12/2025	Valid
ND/2019/06	WT00035415-2019	20/03/2020	31/03/2025	Valid
ND/2019/07	WT00037526-2021	21/04/2022	31/05/2026	Valid

### 3 AIR QUALITY MONITORING Monitoring Requirements

- 3.1 In accordance with the Updated EM&A Manual, impact 1-hour TSP and 24-hr TSP monitoring shall be conducted to monitor the air quality for the Works Contracts. **Appendix B** shows the established Action/Limit Level for the air quality monitoring works.
- 3.2 Impact 1-hour TSP monitoring was conducted for at least three times every 6 days, while the impact 24-hour TSP monitoring was conducted for at least once every 6 days at the designated air quality monitoring stations.

#### Monitoring Location

- 3.3 Impact air quality monitoring was conducted at the monitoring stations under the Works Contracts, as shown in **Figure 1 and Figure 2** according to Table 1.1 of Updated EM&A Manual and Baseline Air Quality Monitoring Report (KTN & FLN NDA).

#### Alternative Monitoring Station for KTN-DMS4

- 3.4 As KTN-DMS4 - Temporary structure near Fanling Highway (near Pak Shek Au) is no longer as existing ASR, air quality monitoring station should be relocated to the alternative dust monitoring location according to the updated EM&A Manual, Section 2.6.2. According to Figure 3.1 of Approved EIA report and site visits conducted in June 2022, ASR at near KTN-E70 – Temporary Structure near Fanling Highway near Pak Shek Au is considered as the most representative alternative station **KTN-DMS4(B)** for air quality monitoring for KTN-DMS4 (i.e. KTNE162).
- 3.5 The alternative monitoring location **KTN-DMS4(B)** is agreed by EPD on 17 August 2022. The 1-hr and 24-hrs TSP monitoring commenced starting from **24 August 2022**. **Table 3.1** describes the location of the air quality monitoring stations.

**Table 3.1 Location for Air Quality Monitoring Locations**

EP No.	Contract No.	Monitoring Station	Location
EP-473/2013/A	ND/2019/03	FLN-DMS1 <sup>[2]</sup>	Scattered Village Houses North of Proposed Potential Ecopark
	ND/2019/04		
	ND/2019/05	FLN-DMS3 <sup>[3]</sup>	House near Tong Hang
	ND/2019/03	FLN-DMS5 <sup>[4]</sup>	Noble Hill
	ND/2019/04	FLN-DMS5A	Good View New Village
EP-466/2013/A EP-467/2013/A EP-468/2013/A	ND/2019/01	KTN-DMS4(B) <sup>[5]</sup>	Temporary Structure near Fanling Highway (near Pak Shek Au)
EP-468/2013/A	ND/2019/03		

Remarks:

[1]: Noting that construction phase air quality monitoring at the other proposed monitoring stations (e.g. planned), where access is permitted, will be conducted during construction phase of relevant works contract(s).

[2]: Since the distance between monitoring station and site boundary of ND/2019/05 under EP-473/2013/A exceeds 500m, the monitoring station is not applicable to ND/2019/05.

[3]: Since the distance between monitoring station and site boundary of ND/2019/03 and ND/2019/04 under EP-473/2013/A exceeds 500m, the monitoring station is not applicable to ND/2019/03 and ND/2019/04.

[4]: Since the distance between monitoring station and site boundary of ND/2019/05 under EP-473/2013/A exceeds 500m, the monitoring station is not applicable to ND/2019/05

[5] KTN-DMS4(B) commenced starting from 24 August 2022 as an alternative monitoring station of KTN-DMS4.

### Monitoring Equipment

- 3.6 As the power supply for High Volume Sampler (HVS) for TSP monitoring at FLN-DMS 5A, KTN-DMS 4 and KTN-DMS 4(B) were rejected, direct reading dust meter was used to measure both 1-hour and 24-hour TSP levels:-
- The proposal for alternative monitoring equipment (i.e. direct reading dust meter) for TSP monitoring was approved by EPD according to the approved Baseline Air Quality Monitoring Report (KTN & FLN NDA); and
  - Same measurement methodology (i.e. direct reading dust meter) was adopted as baseline monitoring for a reliable comparison.
- 3.7 The proposed use of portable direct reading dust meters was also submitted to IEC and agreement was obtained from the IEC in accordance with Section 2.4.5 of the Updated EM&A Manual.
- 3.8 HVS for 24-hour TSP monitoring will be adopted once secured supply of electricity become available at FLN-DMS 5A and KTN-DMS 4(B).
- 3.9 **Table 3.2** summarises the equipment used in the impact air monitoring programme. Copies of calibration certificates are attached in **Appendix C**.

**Table 3.2 Air Quality Monitoring Equipment**

Monitoring Station	Equipment	Manufacturer	Model and Make	Quantity
FLN-DMS5 FLN-DMS5A KTN-DMS4(B)	Dust Monitor (1-hour and 24-hour TSP)	Met One Instruments	AEROCET-831	8
FLN-DMS1 FLN-DMS3	Dust Monitor (1-hour TSP)			
	HVS Sampler (TSP) (24-hour TSP)	Tisch	TISCH Model: TE-5170	2

- 3.10 Meteorological information extracted from “Hong Kong Observatory - Ta Kwu Ling Weather Station” was proposed as the alternative method to obtain representative wind data. For Ta Kwu Ling Weather Station, it is located nearby the Project site and situated at approximately 15m above mean sea level. The station’s wind data monitoring equipment is set above the existing ground 10 meters in compliance with the general setting up requirements. Furthermore, this station also provides other meteorological information, such as humidity, rainfall, air pressure and temperature etc.
- 3.11 The general weather conditions (i.e. sunny, cloudy or rainy) were recorded by the field staffs during the monitoring days.

### Monitoring Parameters, Frequency and Duration

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

**Table 3.3 Impact Dust Monitoring Parameters, Frequency and Duration**

Parameters	Frequency
1-hour TSP	Three times/ 6 days
24-hour TSP	Once / 6 days

## Monitoring Methodology and QA/QC Procedure

### 1-hour and 24-hour TSP Air Quality Monitoring

#### *Instrumentation*

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

#### **(AEROCET-831)**

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

#### *Maintenance/Calibration*

- 3.15 The following maintenance/calibration was required for the direct dust meters:
- Check and calibrate the meters by HVS to check the validity and accuracy of the results measured by direct reading method at 2-month intervals throughout all stages of the air quality monitoring.

### 24-hour TSP Air Quality Monitoring

#### *Instrumentation*

#### **(TISCH Model: TE-5170)**

- 3.16 High volume Samplers (HVS) completed with appropriate sampling inlets were employed for 24-hour TSP monitoring. Each sampler was composed of a motor, a filter holder, a flow controller and a sampling inlet and its performance specification complies with that required by USEPA Standard Title 40, Code of Federation Regulations Chapter 1 (Part 50).

#### *HVS Installation*

3.17 The following guidelines were adopted during the installation of HVS:

- A horizontal platform with appropriate support was provided to secure the samplers against gusty wind.
- No two samplers were placed less than 2 meters apart.
- The distance between the sampler and an obstacle, such as buildings, was at least twice the height that the obstacle protrudes above the sampler.
- A minimum of 2 meters of separation from walls, parapets and penthouses was required for rooftop samples.
- A minimum of 2 meters separation from any supporting structure, measured horizontally was required.
- No furnaces or incineration flues were nearby.
- Airflow around the sampler was unrestricted.
- The samplers were more than 20 meters from the drip line.
- Any wire fence and gate, to protect the sampler, should not cause any obstruction during monitoring.
- Permission and access to the monitoring stations have been obtained to set up the samplers.
- A secured supply of electricity was provided to operate the samplers.

#### ***Filters Preparation***

3.18 Wellab Limited (HOKLAS Registration No. HOKLAS083) is a HOKLAS accredited laboratory and responsible for the preparation of 24-hour conditioned and pre-weighed filter papers for the monitoring team.

3.19 All filters were equilibrated in the conditioning environment for 24 hours before weighing. The conditioning environment temperature was around 25°C and not variable by more than  $\pm 3^\circ\text{C}$ ; the relative humidity (RH) was  $< 50\%$  and not variable by more than  $\pm 5\%$ . A convenient working RH was 40%.

#### ***Operating/Analytical Procedures***

3.20 Operating/analytical procedures for the air quality monitoring were highlighted as follows:

- Prior to the commencement of dust sampling, the flow rate of the HVS was properly set (between 1.1 m<sup>3</sup>/min. and 1.4 m<sup>3</sup>/min.) in accordance with the manufacturer's instruction to within the range recommended in USEPA Standard Title 40, CFR Part 50;
- The power supply was checked to ensure the sampler worked properly;
- On sampling, the sampler was operated for 5 minutes to establish thermal equilibrium before placing any filter media at the designated air quality monitoring station;
- The filter holding frame was then removed by loosening the four nuts and carefully a weighted and conditioned filter was centered with the stamped number upwards, on a supporting screen;
- The filter was aligned on the screen so that the gasket formed an airtight seal on the outer edges of the filter. The filter holding frame was then tightened to the filter holder with swing bolts. The applied pressure should be sufficient to avoid air leakage at the

edges;

- The shelter lid was closed and secured with the aluminum strip;
- The timer was then programmed. Information was recorded on the record sheet, which included the starting time, the weather condition and the filter number (the initial weight of the filter paper can be found out by using the filter number);
- After sampling, the filter was removed and kept in a clean and tightly sealed plastic bag. The filter paper was then returned to the HOKLAS accredited laboratory (Wellab Ltd.) for reconditioning in the humidity-controlled chamber followed by accurate weighting by an electronic balance with a readout down to 0.1mg. The elapsed time was also recorded; and
- Before weighing, all filters were equilibrated in a conditioning environment for 24 hours. The conditioning environment temperature should be between 25°C and 30°C and did not vary by more than  $\pm 3^\circ\text{C}$ ; the RH should be  $< 50\%$  and did not vary by more than  $\pm 5\%$ . A convenient working RH is 40%. Weighing results were returned for further analysis of TSP concentrations collected by each filter.

### ***Maintenance/Calibration***

3.21 The following maintenance/calibration was required for the HVS:

- The high volume motors and their accessories were properly maintained. Appropriate maintenance such as routine motor brushes replacement and electrical wiring checking were made to ensure that the equipment and necessary power supply are in good working conditions; and
- All HVS were calibrated (five point calibration) using Calibration Kit prior to the commencement of baseline monitoring and thereafter at bi-monthly intervals.

### **Results and Observations**

3.22 The monitoring results for 1-hour TSP and 24-hour TSP are summarised in **Tables 3.4** and **3.5** respectively. Detailed monitoring results and graphical presentations of 1-hour and 24-hour TSP monitoring results are shown in **Appendix E**.

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

Monitoring Station	Concentration ( $\mu\text{g}/\text{m}^3$ )		Action Level, $\mu\text{g}/\text{m}^3$	Limit Level, $\mu\text{g}/\text{m}^3$
	Average	Range		
FLN-DMS1	86.6	51.4 – 134.0	303	500
FLN-DMS3	78.8	45.1 – 107.3	301	500
FLN-DMS5	72.4	32.7 – 122.8	279	500
KTN-DMS4(B)	74.5	42.0 – 124.7	297	500

**Table 3.5 Summary Table of 24-hour TSP Monitoring Results during the Reporting Month**

Monitoring Station	Concentration ( $\mu\text{g}/\text{m}^3$ )		Action Level, $\mu\text{g}/\text{m}^3$	Limit Level, $\mu\text{g}/\text{m}^3$
	Average	Range		
FLN-DMS1	77.4	20.7 – 117.2	150	260
FLN-DMS3	49.8	35.6 – 67.7	165	260
FLN-DMS5A	80.0	61.1 – 94.2	153	260
KTN-DMS4(B)	69.3	51.3 – 99.0	192	260

3.23 All 1-hour TSP monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedances were recorded.

3.24 According to our field observations, the major dust sources identified at the designated air quality monitoring stations in the reporting month are shown in **Table 3.6**:

**Table 3.6 Observation at Dust Monitoring Stations**

Monitoring Station	Major Dust Sources
FLN DMS1	Mobile crane, Excavator, piling, road traffic
FLN-DMS3	Excavator, piling, mobile crane, road traffic
FLN-DMS5	Road traffic
KTN-DMS4(B)	Excavator, piling, mobile crane, dump truck, road traffic

**Event and Action Plan**

3.25 Should any non-compliance of the criteria occur, actions in accordance with the Event/Action Plan in **Appendix N** shall be carried out.

## 4 NOISE MONITORING

### Monitoring Requirements

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

### Monitoring Location

- 4.2 Impact noise monitoring was conducted at the monitoring stations, as shown in **Figures 3** and **4** according to Table 1.1 of the Updated EM&A Manual. **Table 4.1** describes the locations of the noise monitoring stations.

**Table 4.1 Location of Noise Monitoring Stations**

Contract No.	Monitoring Station(s)	Location(s)
ND/2019/06	CP-FLN-NMS1 <sup>[2]</sup>	Belair Monte
ND/2019/04		
ND/2019/05	CP-FLN-NMS2 <sup>[3]</sup>	Scattered Village Houses in Tong Hang
ND/2019/01	CP-KTN-NMS2 <sup>[4]</sup>	Residential Buildings at Ma Tso Lung
	CP-KTN-NMS3 <sup>[5]</sup>	Fung Kong Garden
ND/2019/01	CP-KTN-NMS5	N/A
ND/2019/02	CP-KTN-NMS6	Ho Sheung Heung, Hau Ku Shek Ancestral Hall, Hung Shing Temple & Pai Fung Temple and Sin Wai Nunnery

Remarks:

[1]: Noting that construction phase noise monitoring at the other proposed monitoring stations (e.g. planned), where access is permitted, will be conducted during construction phase of relevant works contract(s).

[2]: Since the distance between monitoring station and site boundary of ND/2019/03 under EP-473/2013/A exceeds 300m, the monitoring station is not applicable to ND/2019/03.

[3]: Since the distance between monitoring station and site boundary of ND/2019/03 and ND/2019/04 under EP-473/2013/A exceeds 300m, the monitoring station is not applicable to ND/2019/03 and ND/2019/04.

[4],[5]: Since the distance between monitoring station and site boundary of ND/2019/03 under EP-468/2013/A exceeds 300m, the monitoring station is not applicable to ND/2019/03.

### Monitoring Equipment

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



**Table 4.2 Noise Monitoring Equipment**

Equipment	Manufacturer	Model	Quantity
Sound Level Meter	BSWA	BSWA 308	6
Acoustical Calibrator	Brüel & Kjær	4231	1
	SVANTEK	SV30A	3

**Monitoring Parameters, Frequency and Duration**

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

**Table 4.3 Noise Monitoring Parameters, Duration and Frequency**

Contract No.	Monitoring Stations	Parameters <sup>[2]</sup>	Duration	Frequency	Measurement
ND/2019/06	CP-FLN-NMS1 <sup>[3]</sup>	L <sub>10</sub> (30 min.) dB(A) L <sub>90</sub> (30 min.) dB(A) L <sub>eq</sub> (30 min.) dB(A) (as six consecutive L <sub>eq, 5min</sub> readings)	0700-1900 hours on normal weekdays	Once per week	Façade
ND/2019/04					
ND/2019/05					
ND/2019/01	CP-KTN NMS2 <sup>[5]</sup>				Free-field <sup>[1]</sup>
	CP-KTN NMS3 <sup>[6]</sup>				
ND/2019/01	CP-KTN NMS5				
ND/2019/02	CP-KTN-NMS6	Façade			

## Remarks:

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

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

L<sub>10</sub> is the level exceeded for 10% of the time. For 10% of the time, the sound or noise has a sound pressure level above L<sub>10</sub>.

L<sub>90</sub> is the level exceeded for 90% of the time. For 90% of the time, the noise level is above this level.

[3]: Since the distance between monitoring station and site boundary of ND/2019/03 under EP-473/2013/A exceeds 300m, the monitoring station is not applicable to ND/2019/03.

[4]: Since the distance between monitoring station and site boundary of ND/2019/03 and ND/2019/04 under EP-473/2013/A exceeds 300m, the monitoring station is not applicable to ND/2019/03 and ND/2019/04.

[5],[6]: Since the distance between monitoring station and site boundary of ND/2019/03 under EP-468/2013/A exceeds 300m, the monitoring station is not applicable to ND/2019/03.

### Monitoring Methodology and QA/QC Procedures

- The microphone head of the sound level meter was positioned at 1m from the exterior of the noise sensitive I and lowered sufficiently so that the building's external wall acted as a reflecting surface;
- The battery condition was checked to ensure the correct functioning of the meter;
- Parameters such as frequency weighting, time weighting and measurement time were set as follows:
  - frequency weighting : A
  - time weighting : Fast
  - time measurement :  $L_{eq}(30 \text{ min.}) \text{ dB(A)}$   
(as six consecutive  $L_{eq, 5\text{min}}$  readings) during non-restricted hours (i.e. 0700-1900 hours on normal weekdays)
- Prior to and after each noise measurement, the meter was calibrated using a Calibrator for 94.0 dB at 1000 Hz. If the difference in the calibration level before and after measurement was more than 1.0 dB, the measurement would be considered invalid and repeat of noise measurement would be required after re-calibration or repair of the equipment;
- During the monitoring period, the values of  $L_{eq}$ ,  $L_{90}$  and  $L_{10}$  were recorded. In addition, site conditions and noise sources were also recorded on a standard record sheet;
- Noise measurement was paused temporarily during periods of high intrusive noise (e.g. dog barking, helicopter noise) if possible and observation records during measurement period should be provided; and
- Noise monitoring was cancelled in the presence of fog, rain, and wind with a steady speed exceeding 5 m/s, or wind with gusts exceeding 10 m/s. The wind speed should be checked with a portable wind speed meter capable of measuring the wind speed in m/s.

### Maintenance and Calibration

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

### Results and Observations

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

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

Contract No.	Monitoring Station	Noise Level Leq (30 min), dB(A)	Baseline Level, dB(A)	Limit Level, dB(A)
ND/2019/06	CP-FLN-NMS1 <sup>[1]</sup>	66.5 – 70.2	69.9	75
ND/2019/04				
ND/2019/05	CP-FLN-NMS2 <sup>[2]</sup>	49.8 – 67.3	59.6	
ND/2019/01	CP-KTN-NMS2 <sup>[3]</sup>	51.5 – 57.4	58.6	
	CP-KTN-NMS3 <sup>[4]</sup>	53.7 – 60.0	51.6	
ND/2019/01	CP-KTN-NMS5	49.4 – 57.4	57.2	
ND/2019/02	CP-KTN-NMS6	56.5– 65.6	55.1	

Remarks:

[1]: Since the distance between monitoring station and site boundary of ND/2019/03 under EP-473/2013/A exceeds 300m, the monitoring station is not applicable to ND/2019/03.

[2]: Since the distance between monitoring station and site boundary of ND/2019/03 under EP-473/2013/A exceeds 300m, the monitoring station is not applicable to ND/2019/03.

[3],[4]: Since the distance between monitoring station and site boundary of ND/2019/03 under EP-468/2013/A exceeds 300m, the monitoring station is not applicable to ND/2019/03.

- 4.9 All noise monitoring was conducted as scheduled in the reporting month. No complaint on construction noise was received during the reporting month. No Action/Level exceedance was recorded. The summary of exceedance record in reporting month is shown in **Appendix O**.
- 4.10 According to our field observations, the major noise sources identified at the designated noise monitoring stations in the reporting month are as follows:

**Table 4.5 Observation at Noise Monitoring Stations**

Contract No.	Monitoring Station	Location	Major Noise Source
ND/2019/06	CP-FLN-NMS1 <sup>[1]</sup>	Belair Monte (Existing)	Excavator, dump truck, mobile crane, piling, road traffic
ND/2019/04			
ND/2019/05	CP-FLN-NMS2 <sup>[2]</sup>	Scattered Village House in Tong Hang (Existing)	Excavator, piling, dump truck, road traffic
ND/2019/01	CP-KTN-NMS2 <sup>[3]</sup>	Residential Buildings at Ma Tso Lung (Existing)	Dump truck, excavator, road traffic
ND/2019/01	CP-KTN-NMS3 <sup>[4]</sup>	Fung Kong Garden (Existing)	Road traffic
ND/2019/01	CP-KTN-NMS5	N/A	Road traffic
ND/2019/02	CP-KTN-NMS6	Ho Sheung Heung, Hau Ku Shek Ancestral Hall, Hung Shing Temple & Pai Fung Temple and Sin Wai Nunnery (Existing)	Road traffic

Remarks:

[1]: Since the distance between monitoring station and site boundary of ND/2019/03 under EP-473/2013/A exceeds 300m, the monitoring station is not applicable to ND/2019/03.

[2]: Since the distance between monitoring station and site boundary of ND/2019/03 under EP-473/2013/A exceeds 300m, the monitoring station is not applicable to ND/2019/03.

[3],[4]: Since the distance between monitoring station and site boundary of ND/2019/03 under EP-468/2013/A exceeds 300m. The monitoring station is not applicable to ND/2019/03.

**Event and Action Plan**

- 4.11 Should any non-compliance of the criteria occur, actions in accordance with the Event/Action Plan in **Appendix N** shall be carried out.

## 5 WATER QUALITY MONITORING

### Monitoring Requirements

- 5.1 In accordance with the Updated EM&A Manual, impact water quality monitoring shall be carried out three days per week at all the designated monitoring stations during the construction period. The measurement periods are during the construction of channel specified in Table 4.1 of the Updated EM&A Manual. The interval between two sets of monitoring shall not be less than 36 hours.
- 5.2 Replicate in-situ measurements of Dissolved Oxygen (DO), temperature, turbidity, pH, Suspended Solids (SS) and samples for Suspended Solids (SS), ammonia nitrogen, unionized ammonia, nitrate nitrogen and orthophosphate from each independent sampling event were collected to ensure a robust statistically interpretable database.
- 5.3 **Appendix B** shows the established Action and Limit Levels for the water quality monitoring work according to the Updated EM&A Manual and Baseline Water Quality Monitoring Report (KTN & FLN NDA).

### Monitoring Parameters, Frequency

- 5.4 **Table 5.1** summarises the monitoring parameters, monitoring periods and frequencies of the water quality monitoring.

**Table 5.1 Water Quality Monitoring Parameters and Frequency**

Parameters, unit	Depth	Frequency
<ul style="list-style-type: none"> <li>• Temperature(°C)</li> <li>• pH(pH unit)</li> <li>• turbidity (NTU)</li> <li>• water depth (m)</li> <li>• salinity (ppt)</li> <li>• DO (mg/L and % of saturation)</li> <li>• SS (mg/L)</li> <li>• Ammonia Nitrogen (NH<sub>3</sub>-N) (mg NH<sub>3</sub>-N/L)</li> <li>• Unionized Ammonia (UIA) (mg/L)</li> <li>• Nitrate-nitrogen (NO<sub>3</sub>-N) (mg NO<sub>3</sub><sup>-</sup>-N/L)</li> <li>• Ortho-phosphate (PO<sub>4</sub>) (mg PO<sub>4</sub><sup>3-</sup>-P/L)</li> </ul>	<ul style="list-style-type: none"> <li>• 3 water depths: 1m below water surface, mid-depth and 1m above river bed.</li> <li>• If the water depth was less than 3m, mid-depth sampling only.</li> <li>• If water depth was less than 6m, mid-depth may be omitted.</li> </ul>	3 days per week during construction of channel

### Results and Observations

- 5.5 According to Section 5.6.1.2 of the approved EIA Report, the potential water quality impact during construction is due to the alternation of natural streams (i.e. channelization of Ma Tso Lung Stream and Siu Hang San Tsuen Stream) as these two streams are the ecologically important streams.

- 5.6 No construction of channel was carried out at Ma Tso Lung Stream and Siu Hang San Tsuen Stream during the reporting month. Therefore, no water quality monitoring was conducted.

### **Additional Water Quality Monitoring**

#### **Monitoring Requirements**

- 5.7 Additional Water Quality Monitoring shall be carried out at River Beas, River Indus and near Siu Hang San Tsuen Stream three days per week at all designated monitoring stations during the construction period. The measurement period are during the construction site drainage along River Beas, construction of footbridge across River Beas and during construction of bridge across River Indus.
- 5.8 Replicate in-situ measurement and samples from each independent sampling event were collected to ensure a robust statistically interpretable database. DO, temperature, turbidity and pH were measured in-situ whereas SS and arsenic were determined by an accredited laboratory. Other relevant data, including monitoring location / position, time, water depth, weather conditions and any special phenomena or work underway at the construction site were recorded.
- 5.9 For all the monitoring stations, sampling were taken at 3 water depths, namely 1m below the water surface, mid depth and 1m above the river bed. For stations that were less than 3m in depth, only the mid depth sample was taken. Should the water depth was less than 6m, in which case the mid-depth station may have been omitted. The interval between two sampling surveys was not less than 36 hours.
- 5.10 **Appendix B** shows the established Action and Limit Levels for the environmental monitoring works.

#### **Monitoring Locations**

- 5.11 Additional impact water quality monitoring was conducted at 6 monitoring stations (SYR-CS1, SYR-IS1, NTR-CS1, NTR-IS1, SHST-IS2, MWR-IS3) which are summarised in **Table 5.2**. The location of monitoring stations is shown in **Figures 5 and 6**.

**Table 5.2 Additional Water Quality Monitoring Stations**

Station	Description	Locations	Measurement Periods
<b>River Beas</b>			
SYR-CS1	Control Station	Upstream of river	During the construction site drainage along River Beas and construction of the footbridge across River Beas
SYR-IS1	Impact Station	Downstream of river	
<b>River Indus and near Siu Hang San Tsuen Stream</b>			
NTR-CS1	Control Station	Upstream of river	During construction of the bridge across River Indus
NTR-IS1	Impact Station	Downstream of river	
SHST-IS2	Impact Station	Water sensitive receiver at near Siu Hang San Tsuen Stream	
MWR-IS3	Impact Station	Water sensitive receiver at near Ma Wat River	

### Monitoring Equipment

#### Instrumentation

- 5.12 Multi-parameter meters (Model YSI EXO) were used to measure DO, turbidity, salinity, pH and temperature.

#### Dissolved Oxygen (DO) and Temperature Measuring Equipment

- 5.13 The instrument for measuring dissolved oxygen and temperature should be portable and weatherproof complete with cable, sensor, and use DC power source. The equipment was capable of measuring:
- A dissolved oxygen level in the range of 0-20mg/L and 0-200% saturation; and
  - The temperature within 0-45 degree Celsius.
- 5.14 The equipment had a membrane electrode with automatic temperature compensation complete with a cable.
- 5.15 Sufficient stocks of spare electrodes and cables were available for replacement where necessary.
- 5.16 Salinity compensation was built-in in the DO equipment. *In-situ* salinity was measured to calibrate the DO equipment prior to each DO measurement.

#### Turbidity

- 5.17 Turbidity was measured *in situ* by using the nephelometric method. The instrument was portable and weatherproof using a DC power sources complete with cable, sensor and comprehensive operation manuals. The equipment was capable of measuring turbidity between 0-1000 NTU. The probe cable was not less than 25m in length. The meter was calibrated in order to establish the relationship between NTU units and the levels of Suspended Solids.

### Salinity

- 5.18 A portable salinometer capable of recording salinity within the range of 0-40 parts per thousand (ppt) was used for salinity measurement.

### Water Depth Detector

- 5.19 A portable, battery-operated and hand held echo sounder was used for the determination of water depth at each designated monitoring station.

### pH

- 5.20 The instrument consisted of a potentiometer, a glass electrode, a reference electrode and a temperature-compensating device. It was readable to 0.1pH in a range of 0 to 14. Standard buffer solutions of at least pH 7 and pH 10 were used for calibration of the instrument before and after use.

### Water Sampling for Laboratory Analysis

- 5.21 A water sampler, consisting of a transparent Polyvinyl Chloride (PVC) of a capacity of not less than two litres which can be effectively sealed with cups at both ends was used. The water sampler had a positive latching system to keep it open and prevent premature closure until released by a messenger when the sampler was at the selected water depth. In addition, a sampling cup attached to a fixed or extendable rod was also used for sampling at the monitoring stations with swallow water.

### Sample Container and Storage

- 5.22 Following collection, water samples for laboratory analysis were stored in high density polyethylene bottles with appropriate preservatives added, packed in the ice (cooled to 4°C without being frozen). The samples were delivered to WELLAB Limited (HOKLAS Registration No. HOKLAS083) and analysed as soon as possible after collection of the water samples. Sufficient volume of samples was collected to achieve the detection limit.

### Calibration of In Situ Instruments

- 5.23 The pH meter, DO meter and turbidimeter were checked and calibrated before use. DO meter and turbidimeter were certified by WELLAB Limited before use and subsequently re-calibrated at quarterly basis throughout all stage of water quality monitoring programme. Response of sensors and electrodes were checked with certified standard solutions before each use. Wet bulb calibration for a DO meter was carried out before measurement at each monitoring station.
- 5.24 For on-site calibration of field equipment (Multi-parameter Water Quality System), the standard BS 1427:2009 “Guide to on-site test methods for analysis of waters” was observed.

### Back-up Equipment

- 5.25 Sufficient stocks of spare parts were maintained for replacements when necessary. Backup monitoring equipment was also be made available so that monitoring could proceed uninterrupted even when some equipment was under maintenance, calibration, etc.



5.26 **Table 5.3** summarises the equipment used in the water quality monitoring programme. Copies of the calibration certificates of the multi-parameter water quality systems are shown in **Appendix C**.

**Table 5.3 Water Quality Monitoring Equipment**

Equipment	Model and Make	Qty.
Water sampler and sampling cup	A 2-Litre transparent PVC cylinder with latex cups at both ends and sampling cup for monitoring stations with swallow water	1
Sonar Water Depth Detector	Garmin Striker plus 4	1
Multi-parameter Water Quality System	YSI EXO 1	2

#### Monitoring Parameters and Frequency

5.27 **Table 5.4** summarises the monitoring parameters and frequencies of the additional water quality monitoring. The water quality monitoring schedule for the reporting month is shown in **Appendix D**.

**Table 5.4 Additional Water Quality Monitoring Parameters and Frequency**

Monitoring Station(s)		Parameters, unit	Depth	Frequency
River Beas	SYR-CS1 SYR-IS1	<ul style="list-style-type: none"> <li>• Temperature (°C)</li> <li>• pH (pH unit)</li> <li>• Turbidity (NTU)</li> <li>• Water depth (m)</li> <li>• Salinity (ppt)</li> <li>• Dissolved Oxygen (DO) (mg/L and % of saturation)</li> <li>• Suspended Solids (SS) (mg/L)</li> <li>• Arsenic (As) (µg/L)</li> </ul>	<ul style="list-style-type: none"> <li>• 3 water depths: 1m below water surface, mid-depth and 1m above river bed.</li> <li>• If the water depth was less than 3m, mid-depth sampling only.</li> </ul>	3 days per week
River Indus and near Siu Hang San Tsuen Stream	NTR-CS1 NTR-IS1 SHST-IS2 MWR-IS3	<ul style="list-style-type: none"> <li>• Temperature (°C)</li> <li>• pH (pH unit)</li> <li>• Turbidity (NTU)</li> <li>• Water depth (m)</li> <li>• Salinity (ppt)</li> <li>• Dissolved Oxygen (DO) (mg/L and % of saturation)</li> <li>• Suspended Solids (SS) (mg/L)</li> </ul>	<ul style="list-style-type: none"> <li>• If water depth was less than 6m, mid-depth might be omitted.</li> </ul>	

5.28 Monitoring location and position, time, sampling depth, weather conditions and any special phenomena or work underway nearby was also recorded.

## Monitoring Methodology

### Instrumentation

- 5.29 Multi-parameter meters (Model YSI EXO) were used to measure DO, turbidity, salinity, pH and temperature.

### Operating/Analytical Procedures

- 5.30 At each measurement, two consecutive measurements of DO concentration, DO saturation, salinity, turbidity, pH and temperature were taken. The probes were retrieved out of the water after the first measurement and then re-deployed for the second measurement. Where the difference in the value between the first and second readings of each set was more than 25% of the value of the first reading, the reading was discarded and further readings were taken.

### Laboratory Analytical Methods

- 5.31 Duplicate samples from each independent sampling event were required for all parameters. Analysis of suspended solids and arsenic were carried out by WELLAB Ltd. and comprehensive quality assurance and control procedures were in place in order to ensure the quality and consistency in results. The analysis methods and limits of reporting are provided in **Table 5.5**.

**Table 5.5 Method for Laboratory Analysis for Water Samples**

Determinant	Proposed Method	Limit of Reporting
Total Suspend Solids (SS)	APHA 17ed 2540 D	2.5 mg/L
Arsenic (As)	In-house method SOP022 (ICP-AES) and SOP076 (ICP-MS)	1 µg/L

## QA/QC Requirements

### Decontamination Procedures

- 5.32 Water sampling equipment used during the course of the monitoring process was decontaminated by manual washing and rinsed with distilled water after each sampling event. All of the disposal equipment was discarded after the sampling.

### Sampling Management and Supervision

- 5.33 All sampling bottles were labelled with the sample I.D. (including sampling station), laboratory number and sampling date. Water samples were dispatched to the testing laboratory for analysis as soon as possible. All the collected samples were stored in a cool box to keep the temperature less than 4°C but without frozen. All water samples were handled under chain of custody protocols and relinquished to the laboratory representatives at locations specified by the laboratory.

Quality Control Measures for Sample Testing

5.34 The samples testing and following QC programmes were performed by WELLAB Ltd. for every batch of 20 samples:

- One method blank; and
- One set of QC sample.

**Results and Observations**

5.35 All additional water quality monitoring was conducted as scheduled in the reporting month. The water quality monitoring schedule for this reporting month is shown in **Appendix D**.

5.36 The monitoring results and graphical presentation of additional water quality monitoring are shown in **Appendix G**.

5.37 The summary of exceedance record in the reporting month is shown in **Appendix O** and summarised in the **Table 5.6**.

**Table 5.6 Summary of Water Quality Exceedances**

Station	Exceedance Level	DO	Turbidity	SS	Arsenic	Total number of Non-project Related Exceedances	Total number of project Related Exceedances	
SYR-IS1	Action Level	0	0	0	0	0	0	
	Limit Level	2	1	0	0	3	0	
NTR-IS1	Action Level	0	0	0	N/A	0	0	
	Limit Level	1	1	1		3	0	
SHST-IS2	Action Level	0	1	0		1	0	
	Limit Level	2	1	1		4	0	
MWR-IS3	Action Level	0	0	0		0	0	
	Limit Level	2	1	1		4	0	
Total	Action Level	0	1	0		0	1	0
	Limit Level	7	4	3		0	14	0

\* Exceedances record date: 19/04/2023, 21/04/2023

Seven (7) Limit Level for DO, One (1) Action Level and Four (4) Limit Level for turbidity, and Three (3) Limit Level for Suspended Solid of impact water quality monitoring were recorded. Exceedances were recorded on 19 and 21 April 2023. After investigation, the exceedance was considered due to the other external factors rather than the contract works due to the following reasons:

1. No pollution discharged was observed from land-based site area;
2. Water quality mitigation measures at the nearby construction sites (Contract No. ND/2019/02 and ND/2019/04) were observed properly maintained including silt curtain were deployed for the construction of cofferdam around the works area, and green barriers with impervious sheeting to direct site runoff to water pump to the treatment facilities etc.
3. Muddy water from upstream was observed at Siu Hang San Tsuen. Contaminated water from upper stream was observed at Ma Wat River.
4. Control Station's DO Value already exceed either the Action or Limit Levels
5. Heavy rainfall (16mm to 21mm) was recorded before the water quality monitoring which

led to increased surface runoff and hence adverse water quality

**Event and Action Plan**

- 5.38 Should any non-compliance of the criteria occur, actions in accordance with the Event/Action Plan in **Appendix N** shall be carried out.

**6 LAND CONTAMINATION (AMBIENT ARSENIC MONITORING)****Monitoring Requirements**

- 6.1 According to Section 7.5 of the updated EM&A Manual, an ambient arsenic monitoring is required to be conducted in KTN during the clean-up processes of arsenic containing soil and the construction phase.
- 6.2 The Respirable Suspended Particulate (RSP, or PM10) was measured by High Volume Sampler (HVS) equipped with PM10 selector following the "Reference Method for the Determination of Particulate Matter as PM10 in the Atmosphere" Part 50 Chapter 1 Appendix J, Title 40 of the Code of Federal Regulations of the USEPA.
- 6.3 The Dust-laden air was drawn through PM10 HVS fitted with a conditioned pre-weighting filter paper, at a controlled rate. After sampling for 24-hour (details on measurement period are provided in Section 9.5.5), the filter paper with retained PM10 particulates was collected and returned to the laboratory for drying in a desiccators followed by accurate weighting. 24-hour average RSP levels were calculated from the ratio of the mass of PM10 particulates retained on the filter paper to the total volume of air sampled.
- 6.4 The weighted filter paper was prepared for arsenic testing through a "Hot Acid Extraction Procedure". The extracted material was tested for arsenic by using Inductively Coupled Plasma/Mass Spectrometry (ICP/MS). The extraction and testing was referenced to the following methods:
- Compendium Method 10-3.1 Selection, Preparation and Extraction of Filter Material, Center for Environmental Research Information, Office of Research and Development, USEPA, June 1999; and
  - Compendium Method 10-3.5 determination of Metals in Ambient Particulate Matter using Inductively Coupled Plasma/Mass Spectrometry (ICP/MS., Center for Environmental Research Information, Office of Research and Development, USEPA, June 1999.

**Monitoring Location**

- 6.5 Ambient arsenic monitoring was conducted at the monitoring station(s) under the Work Contract(s), as shown in **Figure 5. Table 6.1** describes the location of the ambient arsenic monitoring station.

**Table 6.1 Location of Ambient Arsenic Monitoring station**

EP. No	Contract No.	Monitoring Stations	Location
EP-466/2013/A EP-467/2013/A EP-468/2013/A	ND/2019/01	KTN-DMS-4A <sup>[1]</sup>	Temporary Structure at Pak Shek Au
EP-468/2013/A	ND/2019/03		

Remark:

[1]: Monitoring at the original location of KTN-DMS-4 (originally proposed in the approved EM&A Manual) was denied as there was no electricity supply. An alternative location (KTN-DMS-4A) was proposed.

## Monitoring Equipment

- 6.6 **Table 6.2** summarises the equipment used in the ambient arsenic monitoring. Copies of calibration certificates are attached in **Appendix C**.

**Table 6.2 Ambient Arsenic Monitoring Equipment**

Monitoring Stations	Equipment	Model and Make	Quantity
KTN-DMS-4A	Calibrator	TISCH Model: TE-5025A	1
	HVS Sampler (RSP)	TISCH Model: TE-6070X	1

## Monitoring Parameters, Frequency and Duration

- 6.7 **Table 6.3** summarises the monitoring parameters and frequencies of ambient arsenic during the clean-up processes of arsenic-containing soil and construction. The ambient arsenic monitoring schedule for the reporting month is shown in **Appendix D**.

**Table 6.3 Impact Ambient Arsenic Monitoring Parameters, Frequency and Duration**

Parameters	Frequency
24-hr RSP (Ambient Arsenic)	Once/ 6 days

## Monitoring Methodology and QA/QC Procedure

### 24-hour RSP Monitoring

#### Instrumentation

- 6.8 High volume samplers (HVS) (GMW PM10 (TE6070X)) complete with appropriate sampling inlets was employed for 24-hour RSP monitoring. The sampler was composed of a motor, a filter holder, a flow controller and a sampling inlet and its performance specification complied with that required by USEPA Standard Title 40, Code of Federation Regulations Chapter 1 (Part 50).
- 6.9 The following guidelines were adopted during the installation of HVS:
- a horizontal platform with appropriate support to secure the samplers against gusty wind was provided;
  - no two samplers was placed less than 2 meters apart;
  - the distance between the sampler and an obstacle, such as buildings, was at least twice the height that the obstacle protrudes above the sampler;
  - a minimum of 2 meters of separation from walls, parapets and penthouses was required for rooftop samplers;
  - a minimum of 2 meters separation from any supporting structure, measured horizontally was required;
  - no furnace or incinerator flue was nearby;
  - airflow around the sampler was unrestricted;
  - the sampler was more than 20 meters from the dripline;
  - any wire fence and gate, to protect the sampler, were not cause any obstruction during monitoring;
  - permission was obtained to set up the samplers and to obtain access to the monitoring stations; and
  - a secured supply of electricity was needed to operate the samplers.

### Operating/analytical procedures for the operation of HVS

- Prior to the commencement of the dust sampling, the flow rate of the high volume sampler was properly set (between 1.1 m<sup>3</sup>/min. and 1.4 m<sup>3</sup>/min.) in accordance with the manufacturer's instruction to within the range recommended in USEPA Standard Title 40, CFR Part 50.
- The power supply was checked to ensure the sampler worked properly. On sampling, the sampler was operated for 5 minutes to establish thermal equilibrium before placing any filter media at the designated air monitoring station.
- The filter holding frame was then removed by loosening the four nuts and a weighted and conditioned filter was carefully centered with the stamped number upwards, on a supporting screen.
- The filter was aligned on the screen so that the gasket formed an airtight seal on the outer edges of the filter. The filter holding frame was then tightened to the filter holder with swing bolts. The applied pressure was sufficient to avoid air leakage at the edges.
- The shelter lid was closed and secured with the aluminum strip.
- The timer was then programmed. Information was recorded on the record sheet, which included the starting time, the weather condition and the filter number (the initial weight of the filter paper can be found out by using the filter number).
- After sampling, the filter was removed and sent to the Wellab Ltd. for weighing. The elapsed time was also recorded.
- Before weighing, all filters were equilibrated in a conditioning environment for 24 hours. The conditioning environment temperature was between 25°C and 30°C and did not vary by more than ±3°C; the relative humidity (RH) was < 50% and did not vary by more than ±5%. A convenient working RH was 40%. Weighing results were further analysis of RSP concentrations collected by each filter.

### **Maintenance/Calibration**

- 6.10 The following maintenance/calibration was required for the HVS:
- The high volume motors and their accessories were properly maintained. Appropriate maintenance such as routine motor brushes replacement and electrical wiring checking were made to ensure that the equipment and necessary power supply were in good working condition.
  - High volume samplers were calibrated at bi-monthly intervals using TE-5025A Calibration Kit throughout all stages of the ambient arsenic monitoring.

### **Laboratory Measurement / Analysis**

- 6.11 Quartz filters of size 8" x 10" were labelled before sampling. A HOKLAS accredited laboratory, Wellab Ltd., was responsible for the preparation of 24-hour conditioned and pre-weighed filter papers for the monitoring team. The balance for weighting filter paper was regularly calibrated against a traceable standard.
- 6.12 All filters, which were prepared by Wellab Ltd., were equilibrated in the conditioning environment for 24 hours before weighing. The conditioning environment temperature was around 25 °C and not variable by more than ±3 °C; the relative humidity (RH) was < 50% and not variable by more than ±5%. A convenient working RH was 40%.
- 6.13 Wellab Ltd. (HOKLAS Registration No. HOKLAS083), was responsible for the extraction and testing procedure for Arsenic and comprehensive quality assurance and quality control programmes were conducted.

### Results and Observations

6.14 The ambient arsenic monitoring results are summarised in **Table 6.4**. Detailed monitoring results and test report are shown in **Appendix E**.

**Table 6.4 Summary Table of 24-hour RSP Monitoring Results (Ambient Arsenic) during the Reporting Month**

Monitoring Date	Monitoring Station	Concentration (ng/m <sup>3</sup> )	Action Level (ng/m <sup>3</sup> )	Limit Level, (ng/m <sup>3</sup> )
04/04/2023	KTN-DMS4(A)	1.89	9.36	11.7
06/04/2023		5.66		
12/04/2023		5.71		
18/04/2023		5.49		
24/04/2023		5.83		
28/04/2023		5.91		

6.15 All ambient arsenic monitoring was conducted as scheduled in the reporting month. During the reporting month, around 1,054.62m<sup>3</sup> of arsenic soil transported to soil treatment plant and 631.57m<sup>3</sup> treated. No Action/Limit Level exceedances were recorded.

### Event and Action Plan

6.16 Should any non-compliance of the criteria occur, actions in accordance with the Event/Action Plan in **Appendix N** shall be carried out.



## 7 LANDFILL GAS MONITORING

### Monitoring Requirement

- 7.1 In accordance with the updated EM&A Manual, monitoring of landfill gas (LFG) is required for the construction works within the Ma Tso Lung Landfill (MTLL, close to KTN NDA) during the construction phase. This section presents the results of landfill gas measurements performed by the Contractor. **Appendix B** shows the Limit Levels for the monitoring works.
- 7.2 The MTLL is situated in the vicinity of the KTN NDA. A portion of the development falls within the MTLL and its 250m Consultation Zone.

### Monitoring Parameters and Frequency

- 7.3 Monitoring parameters for Landfill gas monitoring include Methane, Carbon dioxide and Oxygen.
- 7.4 According to the mitigation measures of the updated EM&A Manual, measurements of the following frequencies should be carried out according to the monitoring requirements and procedures specified in Paragraphs 8.23 to 8.28 of EPD's Guidance Note, "LANDFILL GAS HAZARD ASSESSMENT GUIDANCE NOTE".
- 7.5 The frequency of monitoring of LFG was made reference to the updated EM&A Manual - Monitoring of any LFG which may be migrated to the site should be undertaken during construction of the infrastructure and the development within the Consultation Zone and within MTLL when the works involve confined spaces. Routine gas monitoring should be undertaken during groundwork construction and in all excavations. Monthly gas monitoring should also be conducted for set up on site such as offices, stores etc.

### Monitoring Locations

- 7.6 Monitoring of oxygen, methane and carbon dioxide was performed for the construction of infrastructure and the development within the Consultation Zone and within MTLL when the works involved confined spaces. In this reporting month, the area required to be monitored for landfill gas are shown below and **Figure 6** shows the landfill gas monitoring locations.

- Excavation Locations: Portion 6b
- Manholes and Chambers: N/A
- Relocation of monitoring wells: N/A
- Any other Confined Spaces: Containers in Portion 6b

### Monitoring Equipment

- 7.7 **Table 7.1** summarises the equipment employed by the Contractor for the landfill gas monitoring.

**Table 7.1 Landfill Gas Monitoring Equipment**

Equipment	Model and Make	Quantity
Portable gas detector	OPTIMA7 Biogas (Serial No. 331555)	1

### Results and Observations

- 7.8 In the reporting month, landfill gas monitoring was carried out by the Contractor on 1 occasion

at 6 monitoring stations. No Limit Level exceedance for landfill gas monitoring was recorded in the reporting month. The monitoring results are provided in **Appendix J**. Copies of calibration certificates are attached in **Appendix C**.

#### **Event and Action Plan**

- 7.9 Should any non-compliance of the criteria occur, actions in accordance with the Event/Action Plan in **Appendix N** would be carried out.

## 8 BUILT HERITAGE MONITORING

### Monitoring Requirement

- 8.1 In accordance with the updated EM&A Manual, baseline condition survey and baseline vibration impact assessment shall be conducted for identified built heritage prior to the commencement of construction works. Baseline condition survey and baseline vibration impact assessment shall be conducted by a qualified building surveyor or qualified structural engineer to define the vibration limit (a vibration limit at 7.5mm/s and 15mm/s could be adopted for graded historical buildings and historical buildings respectively) and to evaluate if construction vibration monitoring and structural strengthening measures are required during construction phase to ensure the construction performance meets the vibration standard stated in the EIA report.
- 8.2 According to the condition survey report from cultural heritage condition survey for Fanling Bypass Eastern Section under EP-473/2013/A, a vibration monitoring plan was proposed for the surveyed cultural heritage based on the Buildings Department's Practice Note (PNAP) APP-137. This section presents the results of built heritage monitoring performed by the Contractor according to the proposed monitoring plan in baseline condition survey report. **Appendix B** shows the Limit Levels for the monitoring works.

### Monitoring Location

- 8.3 In the reporting month, construction vibration monitoring was conducted for built heritage features at FL02 when pile driving operation was conducted within assessment area of the construction works. The location of the construction vibration monitoring stations was summarised in **Table 8.1** and shown in **Appendix K**.

**Table 8.1 Location of Construction Vibration Monitoring**

EP. No	Contract No.	Monitoring Station (s)	Nature of Cultural Heritage	Location (s)
EP-473/2013/A	ND/2019/05	FL02	Grave	Northwest side of Shung Him Tong Tsuen, at the hillside behind On Lok Garden

### Monitoring Parameters and Frequency

- 8.4 **Table 8.2** summarises the vibration monitoring plan for surveyed cultural heritage under the Works Contracts. Vibration monitoring was conducted for surveyed built heritage when pile driving operation was conducted within the assessment area of construction works.

**Table 8.2 Vibration Monitoring Plan**

EP. No	Contract No.	Monitoring Stations	Distance with Construction Works	Monitoring Plan
EP-473/2013/A	ND/2019/05	FL02	Within 50m	Daily assessment is required
			Within 75m	Bi-daily assessment is required
			Within 100m	Weekly assessment is required

Remark:

[1] Baseline condition survey was conducted for built heritage features at HFL08, FL05, FL07, FL08, FL10, FL11, FL17, FL19, FL31 and FL33 under ND/2019/04, also HFL05, FL02, FL04, FL24, FL27 and FL36 under ND/2019/05 for EP-473/2013/A. As HFL05, HFL08, FL04, FL05, FL07, FL08, FL10, FL11, FL17, FL19, FL24, FL27, FL31, FL33 and FL36 were not within the assessment area of the related construction work, no construction vibration monitoring was conducted for the built heritage in the reporting month.

- 8.5 The construction vibration monitoring was conducted throughout each event of the pile driving operation on a daily basis. The effect of ground-borne vibration from piling works on the surveyed built heritage was assessed by the maximum peak particle velocity (ppv), which was obtained from the maximum value of measurement of all pile driving operation events.

### Monitoring Equipment

- 8.6 Copies of calibration certificates of the monitoring equipment employed by the Contractor of the construction vibration monitoring are attached in **Appendix C**.

### Results and Observations

- 8.7 In the reporting month, construction vibration monitoring was carried out by the Contractor for the built heritage features at FL02 on a daily basis when pile driving operation was conducted within 50m of the construction work. No Limit Level exceedance for construction vibration monitoring was recorded in the reporting month. The monitoring results are provided in **Appendix K**.

### Event and Action Plan

- 8.8 **Table 8.3** summarises the vibration limits for construction vibration monitoring for surveyed cultural heritage.

**Table 8.3 Vibration Limits for Construction Vibration Monitoring**

Type of Building	Guide Values of Maximum ppv* (mm/Sec)	
	Transient Vibration	Continuous Vibration
Vibration-sensitive / dilapidated buildings#	7.5	3.0
Declared monuments/ Historical structures	3.0	

Remarks:

\* peak particle velocity

# as cultural heritages are sensitive receivers, vibration monitoring should be classified as vibration-sensitive

- 8.9 If any exceedance of limits is found or damage to either structural or non-structural elements of the historic buildings is identified, the construction works should be stopped immediately and structural engineer's advices should be sought for any remedial work.

## 9 ECOLOGICAL MONITORING

### Monitoring of Measures to Minimise Disturbance to Water Birds in Ng Tung River, Sheung Yue River, Shek Sheung River and Long Valley

#### Monitoring Requirements and Protocol

- 9.1 As required under Section 12.3.2.5 of the Updated EM&A Manual, where development under the NDAs project is undertaken within 200m (the maximum distance at which it is predicted there may be some disturbance, and hence a reduction in numbers of large waterbirds) of Sheung Yue River and Long Valley, weekly transect at both high and low tides should be followed (It is considered high tide when the tidal levels are above 1.5m and low tide when the tidal levels are below 1.5m at Tsim Bei Tsui Station).
- 9.2 The purpose of the survey is to identify and enumerate all bird species utilizing the river channels and Long Valley Nature Park (LVNP) and identify any sources of actual or potential disturbance to birds due to construction activities throughout the construction period according to the methodology specified in Table 12.1 in the Updated EM&A Manual.
- 9.3 Monitoring in Long Valley followed the methodology adopted by the regular HKBWS bird monitoring programme in order to obtain comparable results and a complete coverage of the area in the shortest possible time.

#### Monitoring Frequency

- 9.4 High tide and low tide avifauna monitoring was required to be carried out on a weekly basis. Additional night-time avifauna monitoring in Long Valley was required to be carried out twice monthly from September to April.

Date of avifauna monitoring: 4, 6, 12, 13, 17, 20, 24 and 25 April 2023

Date of night-time monitoring: 17 and 25 April 2023

#### Monitoring Location

- 9.5 The avifauna monitoring was carried out at Ng Tung River, Sheung Yue River and Long Valley in the reporting month according to the construction programme. The transect routes in the reporting month were as follows:

- T1. Ng Tung River
- T2. Ng Tung River
- T3. Sheung Yue River
- T5. Long Valley

- 9.6 As the sensitive receivers (large waterbirds) were easily visible, the transect route only needed to follow one bank of the rivers. The location of Transects T1, T2, T3 and T5 is shown in **Figure 9** for reference.

### Monitoring Parameters

9.7 The monitoring parameters and survey methodology for each transect are described below:

- Abundance of birds
- Types of habitat of which birds in use
- Notable bird behaviours such as roosting, feeding, nesting and presence of juveniles
- Birds heard through birdcalls that could not be located were marked as “heard”, while birds flying over the survey area were marked as “flight”. Species of conservation significance were specified.

9.8 Other information at the time of survey such as weather condition, tidal condition, tide level and noticeable natural or anthropogenic activities were documented.

9.9 For Avifauna survey, Ornithological nomenclature would make reference to The Avifauna of Hong Kong (Carey *et al.* 2001), The Birds of Hong Kong and South China (Viney *et al.* 2005), and the most recent updated list from other sources (e.g. Hong Kong Bird Watching Society).

### Monitoring Results

9.10 In total, 72 species of birds were recorded during the bird surveys within assessment area. Among the recorded birds, there were 25 species of waterbirds. The detailed list of waterbirds and all recorded birds are shown in **Appendices L1k and L1l** respectively.

9.11 Among the four transects, transect T5 had a higher species diversity and abundance due to its diverse habitat types within Long Valley. Species such as *Ardeola bacchus* and *Egretta garzetta* were commonly found roosting and foraging at wetland habitats such as agricultural lands and shallow water habitats.

9.12 Along transect T5 in Long Valley, species with conservation interest such as *Himantopus himantopus*, which is a passage migrant, was commonly observed in shallow water habitats.

9.13 Construction works were observed in T5 in the reporting month.

9.14 Transect T3 was conducted along Sheung Yue River. Bird species such as *Ardeola bacchus* and *Egretta garzetta* were commonly observed feeding and roosting on the river bank and river bed. Construction works were observed beside Sheung Yue River.

9.15 Transects T1 and T2 are located at Ng Tung River. *Ardeola bacchus* and *Egretta garzetta* were commonly found feeding and roosting along the Ng Tung River. Fishing activities were observed at both T1 and T2. Potential anthropogenic sources of disturbance observed along T1 and T2 including the usage of remote control boats.

9.16 Avifauna monitoring in construction phase was conducted during the reporting month and the detailed results are attached in **Appendix L1**.

### **Monitoring of Measures to Minimise Impacts to Ma Tso Lung Stream and Siu Hang San Tsuen Stream, and Long Valley**

#### Monitoring Requirements and Protocol

9.17 As required under Section 12.3.2.14 of the Updated EM&A Manual, aquatic faunal monitoring should be carried out during the construction phase.

9.18 Larger organisms such as fish should be monitored by direct counting, while kick-netting and

sweep-netting should be used for invertebrate sampling. There should be three replicates for invertebrate sampling at each sampling point. For kick-netting, the net should be placed with the opening facing the water current, and the substrate should be disturbed by kicking to dislodge organisms from the stream bed. Sweep-netting should be conducted when kick-netting is not feasible, such as in area with no water current. Small organisms that could not be identified with naked eye should be brought to the laboratory for identification under the dissecting microscope.

#### Monitoring Frequency

- 9.19 Quantitative aquatic fauna replicate surveys of stream fauna was required to be carried out on a monthly basis during wet season. Three replicates for invertebrates sampling and direct counting of fish fauna were performed respectively.

Date of aquatic fauna monitoring: 21<sup>st</sup> April 2023

#### Monitoring Location

- 9.20 During wet season, the monitoring locations required to be carried out in Ma Tso Lung Stream are as follow:

- MS\_01
- MS\_02
- MS\_03
- MS\_04
- MS\_05
- MS\_06
- MS\_07
- MS\_08
- MS\_09
- MS\_10
- MS\_11
- MS\_12
- MS\_13
- MS\_14
- MS\_15

- 9.21 The location of monitoring stations is shown in **Figure 10** for reference.

#### Monitoring Parameters

- 9.22 The monitoring parameters and survey methodology for each monitoring station are described below:
- Species composition
  - Abundance
  - Distribution for invertebrates and fish fauna
  - Species of conservation significance would be specified

- 9.23 Other information at the time of survey such as weather conditions and noticeable natural or anthropogenic activities were recorded.

#### Monitoring Status

- 9.24 According to the Updated EM&A Manual, quantitative aquatic fauna replicate surveys of stream fauna is required to be carried out on monthly basis during wet season.
- 9.25 In the survey of aquatic fauna, a total of 24 aquatic invertebrate species were recorded in Ma Tso Lung Stream and Siu Hang San Tsuen Stream. There were 3 fish species recorded in the reporting month. 1 species of conservation importance, *Oreochromis mossambicus*, was recorded. *Oreochromis mossambicus* is an introduced species.

- 9.26 For the monitoring on 21<sup>st</sup> April 2023, two monitoring stations, MS\_01 & MS\_05, were found dried-up. No aquatic invertebrate nor fish species was recorded in those stations.
- 9.27 Aquatic faunal monitoring in construction phase was conducted during the reporting month and the results are attached in **Appendices L2 to L3**.

### **Monitoring of Measures to Minimise Impacts on Ecological Sensitive Habitats from Disturbance and Pollution**

#### Monitoring Requirements and Protocol

- 9.28 As required under Section 12.3.2.17 of the Updated EM&A Manual, monitoring of measures to minimise impacts should be carried out during the construction phase.
- 9.29 The purpose of survey is to monitor the effectiveness of measures to minimise impacts on ecologically sensitive habitats from disturbance and pollution by standard faunal transect surveys.

#### *Mammal survey*

- 9.30 Mammal survey should be performed during both day and night times, in areas along the transect routes which may potentially be utilized by terrestrial mammals. Field signs such as droppings, footprints, diggings and burrows left by larger terrestrial mammals should be observed. Mammals directly observed should be recorded, and identification should be made as accurate as possible from the field signs observed.
- 9.31 Bat survey should be conducted along the transect routes shortly after sunset, with the use of a bat detector to record the echolocation calls. The relative abundance of the species encountered should be estimated with reference to the baseline monitoring results, i.e. using a scale from one (species recorded within transect routes) to three (dominant species within transect routes), for comparison between baseline results and the current monitoring results. Nomenclature of mammal should be based on Shek (2006).

#### *Herpetofauna survey (Amphibians and Reptiles)*

- 9.32 Amphibian surveys should be conducted whenever possible on evenings following or during periods of rainfall, focusing on areas suitable for amphibians (e.g. forest, shrublands, grasslands, streams, ponds, marshes, etc.). Calling amphibians should be recorded, supplemented by visual observation of eggs, tadpoles, adult frogs, and toads.
- 9.33 Active searching of appropriate microhabitats such as stones, pond bunds, crevices and leaf debris should be performed mainly. Observation of exposed, basking and foraging reptiles should also be conducted. Nomenclature of amphibian and reptile should be based on Chan et al. (2005) and Karsen et al. (1998), respectively.

#### *Insect survey (Butterfly and Dragonfly)*

- 9.34 Butterflies and dragonflies observed along the transects should be identified and counted. Preferable habitats of the insects such as watercourses, fishponds, and vegetated areas should be observed with special attention. Nomenclature and protection status of the species should be based on Lo et al. (2005) for butterflies and Tam et al. (2011) for dragonflies.

#### Monitoring Frequency

- 9.35 Monitoring surveys of ecological sensitive receivers such as mammals, insects (butterflies and



dragonflies), and herpetofauna was undertaken on a monthly bases.

Date of monitoring surveys of ecological sensitive receivers: 19, 26 April 2023

#### Monitoring Location

- 9.36 The transect routes in the reporting month according to the construction works are as follows:
- T1. Ma Tso Lung riparian zone and associated wetland habitats;
  - T1. Green belt areas E1-8, D1-8 and G1-3 in KTN NDA;
  - T1. AGR one C2-4 and C2-2 in KTN NDA;
  - T1. Area north of Ng Tung River;
  - T3. Area west of Siu Hang San Tsuen Stream;
  - T4. South side of Fanling Highway and Castle Peak Road in the vicinity of Pak Shek Au;
  - T5. Area west and east of the southern limit of the FLN NDA work area; and
  - T6. Areas in the western part of KTN.
- 9.37 The location of Transects is shown in **Figure 11** for reference.

#### Monitoring Parameters

- 9.38 The monitoring parameters and survey methodology for each transect are described below:-
- Species composition
  - Abundance
  - Distribution for fauna observed
  - Species of conservation significance would be specified

#### Monitoring Results

##### *Mammal*

- 9.39 During the survey, a total of 4 mammal species were recorded from transects. Two species of conservation importance were recorded, namely bat species *Cynopterus sphinx* and *Pipistrellus abramus*.
- 9.40 Domestic dogs, *Canis lupus familiaris*, were commonly found at transect T1, T4 and T6, where associated with human settlements, whilst domestic cats, *Felis catus*, were found at T1, T5 and T6.
- 9.41 Echolocation calls of bats were recorded with a bat detector. The bat detector would list out possible bat species having similar echolocation calls in pattern and frequency. The structure of the echolocation calls from the recordings was later analysed to identify species as far as possible (the lack of literature on echolocation call structure makes the field identification of some bat species in Hong Kong difficult, and some species could only be identified to genus level, or remain unidentified from the recordings).
- 9.42 Identification of bat species encountered in the surveys was made with consideration of the possible bat species suggested by the bat detector, the distribution of suggested bat species in Hong Kong, previous records of bat species in the EIA Report and Baseline Monitoring Report, and the structure of echolocation calls of the recordings (including call structure, frequency, duration, inter pulse interval etc., with reference to relevant literatures).
- 9.43 *Pipistrellus abramus* was recorded with FM/QCF call structure and frequency around 45 kHz

to 68 kHz (Ma et al., 2010, p.319). The above characteristics were further compared with data from relevant literatures to confirm the identities. References were also made to Tong (2016).

- 9.44 Bat species, *Cynopterus sphinx* was observed roosting in the tent-shaped shelter under fronds of Chinese Fan-palm during the monitoring at T1 and T4. *Pipistrellus abramus* was recorded in flight at nighttime at all transects.

#### *Herpetofauna (Amphibians and Reptiles)*

- 9.45 Along the transects, a total of 12 herpetofauna species was observed. 1 species of conservation importance was recorded, namely the Chinese Bullfrog *Hoplobatrachus rugulosus*. Species including toads, frogs, skinks and geckos were recorded near wetland habitats and watercourse. Transects T1 had the highest species diversity among all transects.

#### *Insects (Butterfly and Dragonfly)*

- 9.46 During the insect survey, a total of 37 butterfly species were recorded from transects. 1 species of butterfly recorded was of particular conservation interest, namely *Lexias pardalis*. Transect T1 had recorded the highest butterfly diversity among all transects.
- 9.47 13 species of odonata were recorded in the reporting month. 1 species recorded was of particular conservation interest, namely *Urothemis signata*.
- 9.48 Ecological sensitive receivers such as mammals, insects (butterflies and dragonflies), and herpetofauna monitoring during construction phase was conducted in the reporting month and the results are attached in **Appendices L2 to L5**.
- 9.49 For the monitoring conducted on 26 April 2023 at Transect T5, a section of the transect route was found located within a private property and hence not accessible. Another section of transect T5 was found blocked by a new accumulation of fallen trees. The inaccessible part are shown in **Photo 1** and **Photo 2** below. The adjusted accessible transect route is shown in **Figure 11**.



Photo 1. Inaccessible part of transect T5 located within a private property.

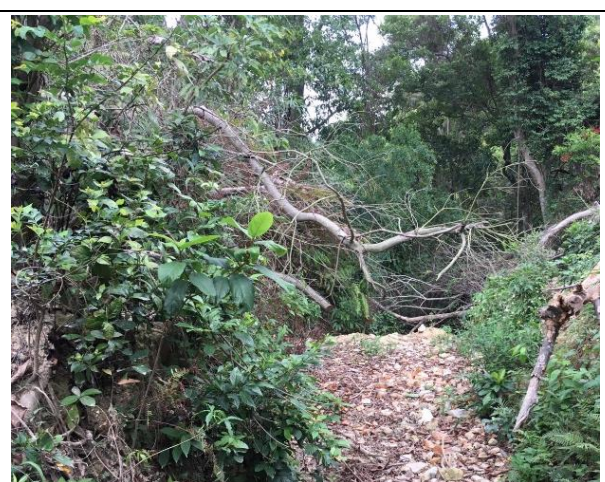


Photo 2. Inaccessible part of transect T5 blocked by fallen trees.

## Results and Observation

### Details of the Influencing Factors

#### *Major Activities*

- 9.50 During the survey of Monitoring of Measures to Minimise Disturbance to Water Birds in Sheung Yue River and Long Valley, anthropogenic activities including soil turning with excavator and other construction activities were observed in Long Valley. Construction works were observed beside Sheung Yue River.
- 9.51 The anthropogenic activities affected only a small area of the habitat in Long Valley during monitoring and would only pose minor disturbances to the birds..
- 9.52 During the survey of Monitoring of Measures to Minimise Disturbance to Water Birds in Ng Tung River, anthropogenic activities including construction works beside T2, recreational usage of remote control boats and helicopters at both T1 and T2, and recreational fishing by fishing rod at both T1 and T2 were observed.
- 9.53 During the survey of Monitoring of Measures to Minimise Impacts on Ecological Sensitive Habitats from Disturbance and Pollution, construction activities NOT under this Project were observed at T5.

#### *Weather Conditions*

- 9.54 According to the observation during survey, temperature and the rain flow records in the reporting month (Reference: <http://www.weather.gov.hk/wxinfo/pastwx/metob202304.htm>), weather conditions might pose influence towards the monitoring results.
- 9.55 The detailed ecological monitoring results are attached in **Appendix L**.

## References

- Ma, J., Jones, G., Zhu, G. J., & Metzner, W. (2010). Echolocation behaviours of the Japanese pipistrelle bat *Pipistrellus abramus* during foraging flight. *Acta Theriologica*, 55(4), 315-332.
- Tong, C. F. (2016). Distribution and preference of landscape features and foraging sites of insectivorous bats in Hong Kong urban parks. (Master dissertation)

**10 ENVIRONMENTAL SITE INSPECTION****Site Audits**

- 10.1 Site audits were carried out by ET on a weekly basis to monitor the timely implementation of proper environmental management practices and mitigation measures on the Contract site. Summary of the site audits are presented in **Table 10.1** and **Appendix P**.

**Table 10.1 Summary of Site Audits**

Environmental Site Inspection	Works Contracts						
	ND/2019/01	ND/2019/02	ND/2019/03	ND/2019/04	ND/2019/05	ND/2019/06	ND/2019/07
Weekly site audit with representative of the <i>Supervisor's</i> Representative and the Contractor	4, 11, 18 and 27 Apr 23	3, 12, 21 and 26 Apr 23	6, 13, 18 and 28 Apr 23	4, 13, 20 and 26 Apr 23	3, 11, 20 and 24 Apr 23	4, 13, 20 and 26 Apr 23	4, 14, 21 and 28 Apr 23
Joint Site Audit with representative of the <i>Supervisor's</i> Representative, the Contractor and IEC	27 Apr 23	21 Apr 23	18 Apr 23	26 Apr 23	20 Apr 23	N/A	28 Apr 23

- 10.2 During site inspections in the reporting month, no non-conformance was identified. The observations and recommendations made during the audit sessions are summarised in **Table 10.2**.
- 10.3 All construction activities with significant environmental impact undertaken by Contract No. ND/2019/06 was substantially completed in March 2022 and the majority of outstanding works were also completed in April 2022 with defect rectification works remained. The outstanding installation works were the short-duration works which would be completed within 2 months during the 1-year defect correction period, originally estimated.
- 10.4 Due to problems in material deliveries from Mainland China in 2022, the completion date of the outstanding works would be extended to June 2023 tentatively.
- 10.5 ET would record the environmental deficiency, if any, for NDTWM (EP-475/2013/A) during the whole defect correction period under Contract ND/2019/04 site inspection and would email weekly those inspection records to the Project Team of Contract ND/2019/06 for information.

**Table 10.2 Observations and Recommendations during Site Audits**

Parameters	Date	Observations and Recommendations	Follow-up
<b>Contract No.: ND/2019/01</b>			
<i>Waste/Chemical Management</i>	27/04/2023	General refuse should be disposed of properly and regularly.	Follow-up action is needed to be reported in the following month.
<b>Contract No.: ND/2019/02</b>			
<i>Water Quality</i>	12/04/2023	To enhance water mitigation measures surrounding exposed sloped works area on river bank at 河□ (Portion3, near Castle Peak Road).	Improvement/Rectification was observed during follow-up audit session on 21 April 2023.
<i>Waste/Chemical Management</i>	03/04/2023	Provide drip tray for chemical/fuel containers.	Item remarked as 230412-R01. Follow-up action is needed to be review.
	12/04/2023		Item remarked as 230421-R01. Follow-up action is needed to be review.
	21/04/2023		Improvement/Rectification was observed during follow-up audit session on 26 April 2023.
<b>Contract No.: ND/2019/03</b>			
<i>Air Quality</i>	31/03/2023	Dusty debris was observed at Yin Kong Road. Contractor was reminded to clear the dusty debris immediately.	Item remarked as 230406-O01. Follow-up action is needed to be review.
	06/04/2023		Item remarked as 230413-O01. Follow-up action is needed to be review.
	13/04/2023		Improvement/Rectification was observed during follow-up audit session on 18 April 2023.
	28/04/2023		Follow-up action is needed to be reported in the following month.
<i>Water Quality</i>	31/03/2023	Clear the wheel-washing bay regularly.	Item remarked as 230406-O02. Follow-up action is needed to be review.
	06/04/2023	Provide adequate wheel-washing facilities for each vehicle exits, suitable for the current temporary traffic arrangement, and ensure that vehicles are properly washed before leaving the site.	Item remarked as 230413-O02. Follow-up action is needed to be review.
	13/04/2023		Item remarked as 230418-O01. Follow-up action is needed to be review.
	18/04/2023		Item remarked as 230428-O01. Follow-up action is needed to be review.
	28/04/2023		Follow-up action is needed to be reported in the following month.
<i>Waste / Chemical Management</i>	31/03/2023		Provide drip tray for chemical/fuel containers.





Parameters	Date	Observations and Recommendations	Follow-up
	06/04/2023		Item remarked as 230413-R02. Follow-up action is needed to be review.
	13/04/2023		Item remarked as 230418-R01. Follow-up action is needed to be review.
	18/04/2023		Item remarked as 230428-R01. Follow-up action is needed to be review.
	28/04/2023		Follow-up action is needed to be reported in the following month.
<i>Landscape &amp; Visual</i>	06/04/2023	Remove any construction material from tree protection zone.	Item remarked as 230413-R02. Follow-up action is needed to be review.
	13/04/2023		Item remarked as 230418-R02. Follow-up action is needed to be review.
	18/04/2023		Item remarked as 230428-R02. Follow-up action is needed to be review.
	28/04/2023		Follow-up action is needed to be reported in the following month.
<b>Contract No.: ND/2019/04</b>			
<i>Water Quality</i>	30/03/2023	Covering of stockpile is required to minimize the muddy runoff during rainstorm.	Item remarked as 230404-R01. Follow-up action is needed to be review.
	04/04/2023		Item remarked as 230413-R01. Follow-up action is needed to be review.
	13/04/2023		Item remarked as 230420-R01. Follow-up action is needed to be review.
	20/04/2023		Improvement/Rectification was observed during follow-up audit session on 26 April 2023.
<b>Contract No.: ND/2019/05</b>			
<i>Waste/Chemical Management</i>	03/04/2023	Provide drip tray for chemical/fuel containers.	Improvement/Rectification was observed during follow-up audit session on 11 April 2023.
<i>Water Quality</i>	27/03/2023	Should provide adequate capacity of water treatment to prevent muddy runoff going through site surface in Kwu Tung site.	Improvement/Rectification was observed during follow-up audit session on 3 April 2023.
	03/04/2023	Discharge of muddy water was observed. Enhance the water mitigation measure in Tai Wo Service Road West.	Item remarked as 230411-R01. Follow-up action is needed to be review.
	11/04/2023		Improvement/Rectification was observed during follow-up audit session on 20 April 2023.

Parameters	Date	Observations and Recommendations	Follow-up
	20/04/2023	The drainage channel at FS04 should be properly protected to clear the soil nearby.	Improvement/Rectification was observed during follow-up audit session on 24 April 2023.
<b>Contract No.: ND/2019/06</b>			
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<b>Contract No.: ND/2019/07</b>			
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### Implementation Status of Environmental Mitigation Measures

- 10.6 According to the EIA Report, EPs and the Updated EM&A Manual, the mitigation measures detailed in the documents are recommended to be implemented during the construction phase. An updated summary of the Environmental Mitigation Implementation Schedule is provided in **Appendix Q**. The photographic records of measures as stipulated in EPs to mitigate environmental impacts in the reporting month are presented in **Table 10.3**.

**Table 10.3 Photographic Records and Implementation Status of Measures**

EP No.	Condition	Photographic Record	Implementation Status
<p>EP- 466/2013/ A</p>	<p>2.9</p>	 <p>To minimise adverse impacts on habitats of ecological importance in the vicinity of the Project, 2m high solid dull green site barrier fences shall be erected around all active works areas.</p>	<p>^<sub>[1]</sub></p>
<p>EP- 467/2013/ A</p>	<p>2.9</p>	 <p>To minimise adverse impacts on habitats of ecological importance in the vicinity of the Project, 2m high solid dull green site barrier fences shall be erected around all active works areas.</p>	<p>^<sub>[1]</sub></p>
<p>EP- 468/2013/ A</p>	<p>2.11</p>	 <p>To minimise adverse impacts on habitats of ecological importance in the vicinity of the Project, 2m high solid dull green site barrier fences shall be erected around all active works areas.</p>	<p>^<sub>[1]</sub></p>
<p>EP- 469/2013</p>	<p>2.7</p>	 <p>To minimise adverse impacts on habitats of ecological importance in the vicinity of the Project, 2m high solid dull green site barrier fences shall be erected around all active works areas.</p>	<p>^<sub>[1]</sub></p>



<p>EP- 473/2013/ A</p>	<p>2.13</p>	 <p>To minimise adverse impacts on habitats of ecological importance in the vicinity of the Project, 2m high solid dull green site barrier fences shall be erected around all active works areas.</p>	<p>^<sub>[1]</sub></p>
<p>EP- 475/2013/ A</p>	<p>2.7</p>	 <p>To minimise adverse impacts on habitats of ecological importance in the vicinity of the Project, 2m high solid dull green site barrier fences shall be erected around all active works areas.</p>	<p>^<sub>[1]</sub></p>
<p><b>Implementation status:</b></p>		<p>^ Mitigation measure was fully implemented                  * Observation/reminder was made during site audit but improved/rectified by the contractor                  # Observation/reminder was made during site audit but not yet improved/ rectified by the contractor                  X Non-compliance of mitigation measure                  • Non-compliance but rectified by the contractor                  N/A Not Applicable at this stage as no such site activities were conducted in the reporting period</p>	




Remark:

[1]: Barrier fences might be subjected to change according to the phasing plan designed at detailed design stage

### Implementation Status of Water Quality Mitigation Measures

10.7 The water quality mitigation measures detailed in the EIA Report and the Updated EM&A Manual are recommended to be implemented during the construction phase. Water quality mitigation measures implemented by the contractors were closely monitored to prevent water pollution, especially during rainy season. An updated summary of the Environmental Mitigation Implementation Schedule is provided in **Appendix Q**. Specific water quality mitigation measures for major construction works in the reporting month are presented in **Table 10.4**.

**Table 10.4 Specific Water Quality Mitigation Measures for Major Construction Works in the Reporting Month**

Works Contracts	Photographic Records	
ND/2019/01	 <p>Hard paved exposed slope surface</p>	 <p>Hydroseeding for slope area</p>
ND/2019/02	 <p>Hard paved exposed haul road</p>	 <p>Hard paved exposed slope surface</p>
ND/2019/03	 <p>Hard paved exposed haul road</p>	 <p>Regular clearance of water for wheel washing facility</p>
ND/2019/04	 <p>Hard paved exposed slope surface</p>	 <p>Deployment of silt curtain around works area in Ng Tung River</p>

ND/2019/05	 <p>Covering dusty stockpile</p>	 <p>Provision of sand bags around works area</p>
ND/2019/07	 <p>Covering exposed slope surface with tarpaulin</p>	 <p>De-silting waste water before discharge</p>
<b>Water quality mitigation measures for site(s) in operation phase, remaining defect works</b>		
ND/2019/06	 <p>Hard paved exposed haul road</p>	 <p>Hard paved exposed haul road</p>

### Solid and Liquid Waste Management Status








- 10.8 Waste generated from Contract Nos. ND/2019/01, ND/2019/02, ND/2019/03, ND/2019/04, ND/2019/05 and ND/2019/07 included inert construction and demolition (C&D) materials and non-inert C&D wastes in the reporting month. The site of ND/2019/06 was handed over to AFCD for operation since 4 April 2022.
- 10.9 The amount of wastes generated by the construction works of the Contract Nos. ND/2019/01, ND/2019/02, ND/2019/03, ND/2019/04, ND/2019/05 and ND/2019/07 during the reporting month are shown in **Appendix R**. The site of ND/2019/06 was handed over to AFCD for operation since 4 April 2022.
- 10.10 The Contractors are advised to minimise the wastes generated through recycling or reusing. All mitigation measures stipulated in the Updated EM&A Manual and waste management plans shall be fully implemented. The status of implementation of waste management and

reduction measures are summited in **Appendix Q**.

### **Ecological Mitigation Measures – Creation of Long Valley Nature Park (LVNP)**

- 10.11 Based on the findings of the EIA Report, the area of Long Valley has been assessed as of high to very high ecological value and is the largest contiguous area of freshwater wetland habitats in Hong Kong. To safeguard the ecological value of Long Valley, about 37 hectares of land in Long Valley has been proposed to develop into Long Valley Nature Park (LVNP) for conserving and enhancing the ecologically important environment as well as for compensation of the wetland loss due to the NDA development.
- 10.12 LVNP is developed according to the approved Habitat Creation and Management Plan (HCMP) submitted under EP-468/2013/A. HCMP provides a framework and specifications for development and management of LVNP and guides the development to maintain and enhance the 37 hectares of low-lying wetland habitats.
- 10.13 Regarding the design, the zoning of land use in LVNP is intended to maintain the existing mosaic pattern of wet and dry agriculture, while controlling the activities that could potentially disturb target habitats and species. LVNP will be divided into three broad zones of land use as below:
- Biodiversity Zone of about 21 hectares largely designated for biodiversity conservation through cultivation of specified crops and habitat management.
  - Agricultural Zone of about 11 hectares designated for commercially focuses crop production and eco-friendly agricultural practice for farming.
  - Visitor Zone of about 5 hectares designed to accommodate visitors as well as storage and other facilities and for educational purposes.
- 10.14 The construction of LVNP started in late 2019 and was expected to be completed in 2023. During the construction period, the progress of construction and wetland enhancement works has been under observation by different stakeholders including AFCD and green groups. Close communication between AFCD and CEDD were conducted to exchange views on conservation, restoration and management of habitats as well as on the planning and design of the park. In addition, advices from green groups, Hong Kong Bird Watching Society (HKBWS) and The Conservancy Association (CA), have been taken on habitat management of Long Valley and potential effects on habitat and wildlife of each individual work conducted in Long Valley. The last meeting was held on 18 November 2022 to share the progress of LVNP with different stakeholders, including CEDD, AFCD, CA, HKBWS, Contractor, ET, IEC and farmers.
- 10.15 Proposals on wetland creation and restoration, dry agricultural land creation, pond creation, water treatment wetland and design of irrigation channel were submitted by the Contractor to achieve the objectives stated in HCMP and accepted by the Engineer with consent from AFCD before implementation. The Contractor would consult the stakeholders for recommendations and suggestions on mitigation measures to minimise the environmental impacts arising from construction works. The progress of works would be arranged to minimise impacts to avifauna and maintain the habitat for avifauna. The photographic records of site activities in LVNP are presented in **Table 10.5**.

**Table 10.5 Photographic Records of Site Activities in LVNP**

	
<p>Continuing agricultural practice in existing farmland to maintain habitats in Long Valley</p>	
	
<p><i>Open water Habitat</i> Creation of wetland with designated habitat for biodiversity conservation</p>	<p><i>Open water Habitat</i></p>
	
<p>Planting of paddy rice to provide foraging ground for Yellow-breasted Bunting</p>	
	
<p>Enhancement of irrigation channel to provide reliable water source for farmland in Long Valley</p>	



Provision of bird island (hidden area)



Restoring of water flea pond to provide food source to water birds



Construction of storage sheds for farmers



A *Cuculus micropterus* was recorded



Wet agricultural land



Provision of noise barrier for noisy works in Long Valley

## 11 ENVIRONMENTAL NON-CONFORMANCE

### Summary of Exceedances

- 11.1 Seven (7) Limit Level for DO, One (1) Action Level and Four (4) Limit Level for turbidity, and Three (3) Limit Level for Suspended Solid of impact water quality monitoring were recorded. After investigation, the exceedance was considered due to the other external factors rather than the contract works.
- 11.2 No Action/Limit Level exceedance for air quality, construction noise, ambient arsenic, built heritage and landfill gas monitoring was recorded in the reporting month. The summary of exceedance record in the reporting month is shown in **Appendix O**.
- 11.3 Ecological monitoring was carried out in the reporting month. The results will be compared with Action and Limit Levels after issuance of the Final Baseline Ecological Report.
- 11.4 Should the monitoring results of the environmental monitoring parameters at any designated monitoring stations indicate that Action / Limit Levels are exceeded, the actions in accordance with the Event/Action Plan in **Appendix N** would be carried out.

### Summary of Environmental Non-Compliance

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

### Summary of Environmental Complaint

- 11.6 Two environmental complaints were received in the reporting month. The two complaints regarding the same muddy water discharge situation near Castle Peak Road, Kwu Tung near the site area of ND/2019/05, were received and referred by EPD on 3 Apr 2023. The Cumulative Complaint Log since the commencement of the Project is presented in **Appendix S**.

### Summary of Environmental Summon and Successful Prosecution

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

**12 FUTURE KEY ISSUES****Key Issues in the Coming Three Months**

12.1 The major site activities, potential environmental impacts and recommended mitigation measures for the coming three months are shown in **Table 12.1**.

**Table 12.1 Summary Table for Site Activities, Potential Environmental Impacts and Recommended Mitigation Measures in the Coming Months**

<b>Contract No.</b>	<b>Major Site Activities (May to July 2023)</b>	<b>Location/ Working Period</b>	<b>Potential Environmental Impact</b>	<b>Recommended Mitigation Measures</b>
<b>ND/2019/01</b>	(a) Site clearance / tree felling	Portions 1a, 1b, 1c, 2, 10a, 10b, 13	- Construction Dust impact	<b>Air</b> - Watering on exposed earth and haul road. - Cover the stockpiles or dusty materials. - Deploy water bowsers to water the haul road. - Deploy mist-cannon on site - Provide shelter with top and 3-sides for cement production activities. - Cover the Arsenic-containing soil. - Store the bulk cement in enclosed silo tank for soil treatment. - Close the mechanical cover of the vehicles used for transporting dusty materials. - Establish vehicle wheel washing facilities at vehicle exit points. - Speed control of site vehicles. <b>Noise</b> - Regular inspect of construction plants in good condition.
	(b) GI works	NIL	- Noise Impact (Construction Phase)	
	(c) Excavation	Portions 1b, 3, 5, 6a, 7, 8b, 9b, 10b	- Water Quality Impact (Construction Phase)	
	(d) Construction of retaining wall	Portions 8a	- Waste Management (Construction Waste)	
	(e) Construction of hoarding	Portion 1b		
	(f) Site Formation	Portions 1c, 1e, 2, 7		
	(g) Removal of existing structure	Portions 1a, 13		
	(h) Construction of subway	Portions 2		
	(i) Operation of HAC treatment facility	Portions 6b		
	(j) Drainage works / watermains	Portions 1a, 3, 5, 6a, 7, 8b, 9b, 10a, 10b		



	(k) Road Construction	Portion 1b, 5, 6a, 10a, 10b	<ul style="list-style-type: none"> <li>- Provide temporary noise screens if necessary.</li> <li>- Use of Quiet plants (QPME) and working methods if possible.</li> <li>- Sequencing operation of construction plants where practicable.</li> <li>- Shut down the machines and plant if not in use.</li> <li>- Only well-maintained plant to be operated on-site</li> <li>- Mobile plant to be sited as far away from NSRs as possible practicable.</li> <li>- Conduct noise monitoring regularly.</li> <li>- Erect silent-up noise barrier at portion 6b.</li> </ul> <p><b>Water</b></p> <ul style="list-style-type: none"> <li>- Set up wastewater treatment system (AquaSed) on site</li> <li>- Erect soil bund / temporary drain to divert /collect surface runoff.</li> <li>- Maintain the drainage and wastewater treatment facilities.</li> </ul> <p><b>Waste / Chemical Management</b></p> <ul style="list-style-type: none"> <li>- Sort out demolition debris and excavated materials from demolition works to recover reusable / recyclable portions</li> <li>- Provide recycling bins on site, encourage reuse and recycle as much as possible.</li> <li>- Provide drip trays for chemical containers.</li> <li>- Chemical spill kit available on site.</li> <li>- Chemical waste cabinet available on site.</li> </ul>
	(l) Trenchless	Portion 5, 8b	
	(m) Construction of reservoir	Portions 8a	
	(n) Soil nail	Portion 1a	
	(o) Sheet piling / ELS	Portion 1c, 5, 7, 8b, 9b, 10a, 10b	

				<ul style="list-style-type: none"> <li>- Chemical wastes to be stored in appropriate containers and collected by a licensed chemical waste collector.</li> <li>- Delivery of yard waste to tree shredding facility for upcycling.</li> </ul>
<b>ND/2019/02</b>	(a) Pipe Jacking	Portions 3	Air, Noise, Waste	<ul style="list-style-type: none"> <li>- Dusty works should be spray water. Idle stockpile or slop should be covered by Tarpaulin sheet properly.</li> <li>- Wheel washing should be carried out at every exit.</li> <li>- Plants should be well maintained to prevent dark smoke and oil leakage. Idle plant should be turned off.</li> <li>- Drip tray should be provided for all chemical and stationary plants.</li> <li>- No construction works shall be carried out in restricted hours (7:00 pm to 7:00 am) unless CNP is obtained.</li> <li>- Erect noise screen along site boundary.</li> <li>- Waste should be sorted and dispose according to the Waste Management Plan</li> <li>- No direct discharge of wastewater into storm drains is allowed. Wastewater must be de-silted before discharged in accordance with the water discharge license.</li> <li>- Dull green barrier and ecological measures should be implemented according to the Ecological protection plan.</li> </ul>
	(b) Backfilling	Portion 2, 3 & 4	Air, Noise, Waste	
	(c) Concreting	Portions 4, 7, 8, 9 & 10	Air, Noise, Water, Waste, Ecology	
	(d) Bedding & Pipe Laying	Portion 3 & 5	Air, Noise, Water, Waste, Ecology	
	(e) ELS	Portions 2, 3, 4 & 8	Air, Noise, Water, Waste, Ecology	
	(f) Sheet Pile Installation	Portions 3, 4, 5	Air, Noise, Water, Waste	
	(g) Cut and Fill of Slope	Portion 3, 4	Air, Noise, Water, Waste	
<b>ND/2019/03</b>	(a) Excavation & ELS	Portion 1, 1A, 2, 3, 4, 4A, 4B, 5, 5A	<ul style="list-style-type: none"> <li>- Waste</li> <li>- Air pollution</li> <li>- Noise pollution</li> </ul>	<ul style="list-style-type: none"> <li>- Dusty works should be sprayed with water or stockpile should be covered by Tarpaulin properly.</li> </ul>
	(b) Site Clearance	Sections 7, 8 and 9	<ul style="list-style-type: none"> <li>- Waste</li> </ul>	

			- Air pollution - Noise pollution	<ul style="list-style-type: none"> <li>- Plants should have maintenance to prevent dark smoke and oil leakage. Idle plant should be turned off.</li> <li>- Drip tray should be provided for all chemical and stationary plants.</li> <li>- No construction works shall be carried out in restricted hours (7:00 pm to 7:00 am) unless CNP is granted.</li> <li>- Waste should be sorted and disposed according to Waste Management Plan.</li> <li>- No direct discharge of wastewater into storm water drains is allowed. Wastewater must be desilted before discharging according to water discharge license.</li> </ul>
	(c) Tree Felling	Sections 6, 7, 8 and 9	- Waste - Air pollution - Noise pollution	
<b>ND/2019/04</b>	(a) Sheet piling	Portion H, Bridge A1 and A2	- Air, Noise, Waste	<ul style="list-style-type: none"> <li>- Dusty works should be sprayed with water or stockpile should be covered by tarpaulin properly.</li> <li>- Plants should have maintenance to prevent dark smoke and oil leakage. Idle plant should be turned off.</li> <li>- Drip tray should be provided for all chemical and stationary plants.</li> <li>- No construction works shall be carried out in restricted hours (7:00 pm to 7:00 am) unless CNP is granted.</li> <li>- Waste should be sorted and disposed according to Waste Management Plan.</li> <li>- No direct discharge of wastewater into storm water drains is allowed. Wastewater must be desilted before discharging according to water discharge license.</li> </ul>
	(b) Pile cap	Bridge A1, A2 and A3	- Air, Noise, Water, Waste	
	(c) Grouting	Bridge F, A2, A3 and Portion B, K, H	- Air, Noise, Water, Waste	
	(d) Bore pile	Portion B, N	- Air, Noise, Water, Waste	
	(e) Excavation & ELS	Portion J, F, H, K Bridge A1, A2	- Air, Noise, Waste	
	(f) Road works	Portion J, H, Q, R, S, U and VY	- Air, Noise, Waste	
	(g) Pre-drilling	Portion J	- Air, Noise, Water, Waste	
	(h) Tree felling	Portion S and V	- Air, Noise, Waste	

	(i) Tree transplant	Portion P	- Air, Noise, Waste	
<b>ND/2019/05</b>	(a) ELS & Pile Cap Construction	B2-01, B2-02, B2-03, C1-01a, C2-03b, C2-04b & D2-01 pier E2-01, D2-01	- Construction Dust Impact - Noise Impact - Water Quality Impact (Construction Phase) - Waste Management (Construction Waste) - Landscape and Visual - Cultural Heritage	Regular watering on exposed worksites and haul road. - Stockpiling area should be provided with covers and water spraying system. - Only well maintained plant to be operated on site. - plant known to emit noise strongly in one direction, where possible, be orientated so that the noise is directed away from nearby NSRs. - mobile plant to be sited as far away from NSRs as possible practicable. - All open stockpiles of construction materials of more than 50m <sup>3</sup> to be covered with tarpaulin. - Manholes to be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris being washed into the drainage system. - All vehicles and plant to be cleaned before leaving a construction site to ensure no earth, mud, debris and the like is deposited by them on roads. - Segregate and store different types of waste in different containers, skip or stockpiles to enhance reuse or recycling of materials and their proper disposal. - Sort out demolition debris and excavated materials from demolition works to recover reusable/recyclable portions.
	(b) Pier/Pier head Construction	C1-01a, C2-03b, C2-04b, D2-01 & E2-01; C3-01b, C1-01a & E2-01		
	(c) Cross head construction	C2-01, C2-02, C3-02		
	(d) Slope works	JCR (3SW-C/F63); Tong Hang Junction and Portion VI (FS28 & 29); FS04, FS06		
	(e) Fabrication for segment	bridge C2 & D1 & E1		
	(f) Fabrication for Form Traveler	3rd and 4th set of form traveler.		
	(g) Fabrication for truss formwork	Bridge B1		
	(h) Segment Erection by Launching Girder & Crane	bridges C4,C3; bridge D1 and E1		
	(i) SOP construction (precast & in-situ cast in type)	D2-02, E3-02, D2-03		
	(j) T-span construction by Form Traveler	Pier E2-02, E3-03, D2-02, E3-01		

	(k) Installation of bridge rotation components	pier E2-01, D2-01		<ul style="list-style-type: none"> <li>- Provide training to workers on appropriate waste management procedures, including waste reduction, reuse and recycling.</li> <li>- To adopt other good site practice, such as arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site and regular cleaning and maintenance programme for drainage.</li> <li>- Chemical wastes to 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.</li> <li>- Conducting Construction Vibration Monitoring</li> <li>- Tree Protection &amp; Preservation Existing 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.</li> <li>- Tree Transplantation Trees unavoidably affected by the Project works should be transplanted where practical. Trees should be transplanted straight to their final</li> </ul>
(l) Road construction	Jockey Club Road; TWSRW, TWSRE			
(m) Base slab construction	NB109 – bay 5~8			
(n) Tree Works	All works areas			

				receptor site and not held in a temporary nursery as far as possible. - Erect 2m high dull green site boundary fence.
<b>ND/2019/06</b>	N/A	N/A	N/A	N/A
<b>ND/2019/07</b>	(a) Road works	Portion 1, 4, 5	- Construction Dust Impact - Noise Impact - Water Quality Impact (Construction Phase) - Waste Management (Construction Waste) - Landscape and Visual	- Regular watering on exposed worksites and haul road. - Stockpiling area should be provided with covers and water spraying system. - Only well-maintained plant to be operated on-site. - plant known to emit noise strongly in one direction, where possible, be orientated so that the noise is directed away from nearby NSRs. - mobile plant to be sited as far away from NSRs as possible practicable. - All open stockpiles of construction materials of more than 50m <sup>3</sup> to be covered with tarpaulin. - Manholes to be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris being washed into the drainage system. - All vehicles and plant to be cleaned before leaving a construction site to ensure no
	(b) C&D waste disposal	Portion 1, 2, 4, 5		
	(c) Construction of box culvert	Portions 2		
	(d) Filling works	Portions 1, 2, 4		
	(e) Construction of site haul road	Portions 4		
	(f) Drainage Works	Portion 1, 3, 4, 5		
	(g) Sewerage works	Portion 1, 3, 4, 5		
	(h) Construction of Noise Barrier	Portion 5		
	(i) Waterworks	Portion 1, 4		

				<p>earth, mud, debris and the like is deposited by them on roads.</p> <ul style="list-style-type: none"> <li>- Segregate and store different types of waste in different containers, skip or stockpiles to enhance reuse or recycling of materials and their proper disposal.</li> <li>- Sort out demolition debris and excavated materials from demolition works to recover reusable/recyclable portions.</li> <li>- Provide training to workers on appropriate waste management procedures, including waste reduction, reuse and recycling.</li> <li>- To adopt other good site practice, such as arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site and regular cleaning and maintenance programme for drainage.</li> <li>- Chemical wastes to 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.</li> <li>- Tree Protection &amp; Preservation – Existing trees to be retained within the Project Site should be carefully protected during</li> </ul>
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				<p>construction. In particular OVTs will be preserved according to ETWB Technical Circular (Works) No. 29/2004.</p> <ul style="list-style-type: none"> <li>- 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.</li> <li>- Erect 2m high dull green site boundary fence.</li> <li>- Light Control – Construction day and night time lighting should be controlled to minimize glare impact to adjacent VSRs during the Construction phase.</li> </ul>
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12.2 The major site activities in coming three months are shown in **Table IV**.

**Monitoring Schedule for the Next Month**

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

**Construction Programme for the Next Month**

12.4 A tentative construction programme is provided in **Appendix A**.



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## 13 CONCLUSIONS AND RECOMMENDATIONS

### Conclusions

13.1 This monthly EM&A Report presents the EM&A work undertaken in April 2023 in accordance with the Updated EM&A Manual.

13.2 Seven (7) Limit Level for DO, One (1) Action Level and Four (4) Limit Level for turbidity, and Three (3) Limit Level for Suspended Solid of impact water quality monitoring were recorded.

13.3 No Action/Limit Level exceedance for air quality, construction noise, ambient arsenic, landfill gas monitoring and build heritage monitoring was recorded in the reporting month.

Contract No. ND/2019/01

13.4 Environmental site inspections were conducted on 4, 11, 18 and 27 Apr 23 by ET in the reporting month.

Contract No. ND/2019/02

13.5 Environmental site inspections were conducted on 3, 12, 21 and 26 Apr 23 by ET in the reporting month.

Contract No. ND/2019/03

13.6 Environmental site inspections were conducted on 6, 13, 18 and 28 Apr 23 by ET in the reporting month.

Contract No. ND/2019/04

13.7 Environmental site inspections were conducted on 4, 13, 20 and 26 Apr 23 by ET in the reporting month.

Contract No. ND/2019/05

13.8 Environmental site inspections were conducted on 3, 11, 20 and 24 Apr 23 by ET in the reporting month.

Contract No. ND/2019/06

13.9 Environmental site inspections were conducted on 4, 13, 20 and 26 Apr 23 by ET in the reporting month.

Contract No. ND/2019/07

13.10 Environmental site inspections were conducted on 4, 14, 21 and 28 Apr 23 by ET in the reporting month.

13.11 Two environmental complaints were received in the reporting month. No notification of summons or successful prosecutions was received in the reporting month.

13.12 The ET would keep track on the EM&A programme to ensure compliance of environmental requirements and the proper implementation of all necessary mitigation measures.

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## Recommendations

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

### *Air Quality Impact*

- To regular water haul roads;
- To provide vehicle washing facilities with high pressure water jet at every discernible or designated vehicle exit point;
- To maintain the impervious material to entirely cover the stockpile of dusty materials; and
- To ensure all regulated machines displayed with valid Non-road Mobile Machinery (NRMM) labels.

### *Construction Noise Impact*

- To ensure compressor operated with doors closed.

### *Water Impact*

- To review and implement temporary drainage system;
- To prevent any surface runoff discharge into Sheung Yuen River, Ma Wat River or public road;
- To provide sandbags or construct berm to prevent any outflow of muddy water from site area;
- To ensure all vehicle clear of earth and mud before leaving the site areas;
- To ensure the drainage facilities would not be clogged with waste or sediment to avoid overflow;
- To regularly check the condition of desilting materials for proper function;
- To regularly maintain and ensure water treatment facilities proper operation and function;
- To divert all the water generated from the construction site to de-silting facilities with sufficient handling capacity before discharge; and
- To avoid or regularly clear the stagnant water in drip trays;

### *Waste/Chemical Management*

- To dispose of general refuse properly;
- To clear and avoid oil stains at site areas;
- To provide proper storage areas for chemical; and
- To maintain drip trays for chemical storage well.

### *Landfill Gas Hazard*

- “No Smoking” and “No Naked Flame” notices in Chinese and English should be posted prominently around the construction site.

*Land Contamination*

- Stockpiling site(s) should be lined with impermeable sheeting and banded. Stockpiles should be properly covered by impermeable sheeting to reduce dust emission during dry season or contaminated run-off during rainy season. Watering should be avoided on stockpiles of soil to minimise runoff.

*Ecology*

- Properly erect and maintain 2m high solid barriers for protecting Siu Hang San Tsuen Stream.

*Permit/ Licences*

- To display valid Permit or Licences at the site entrances.

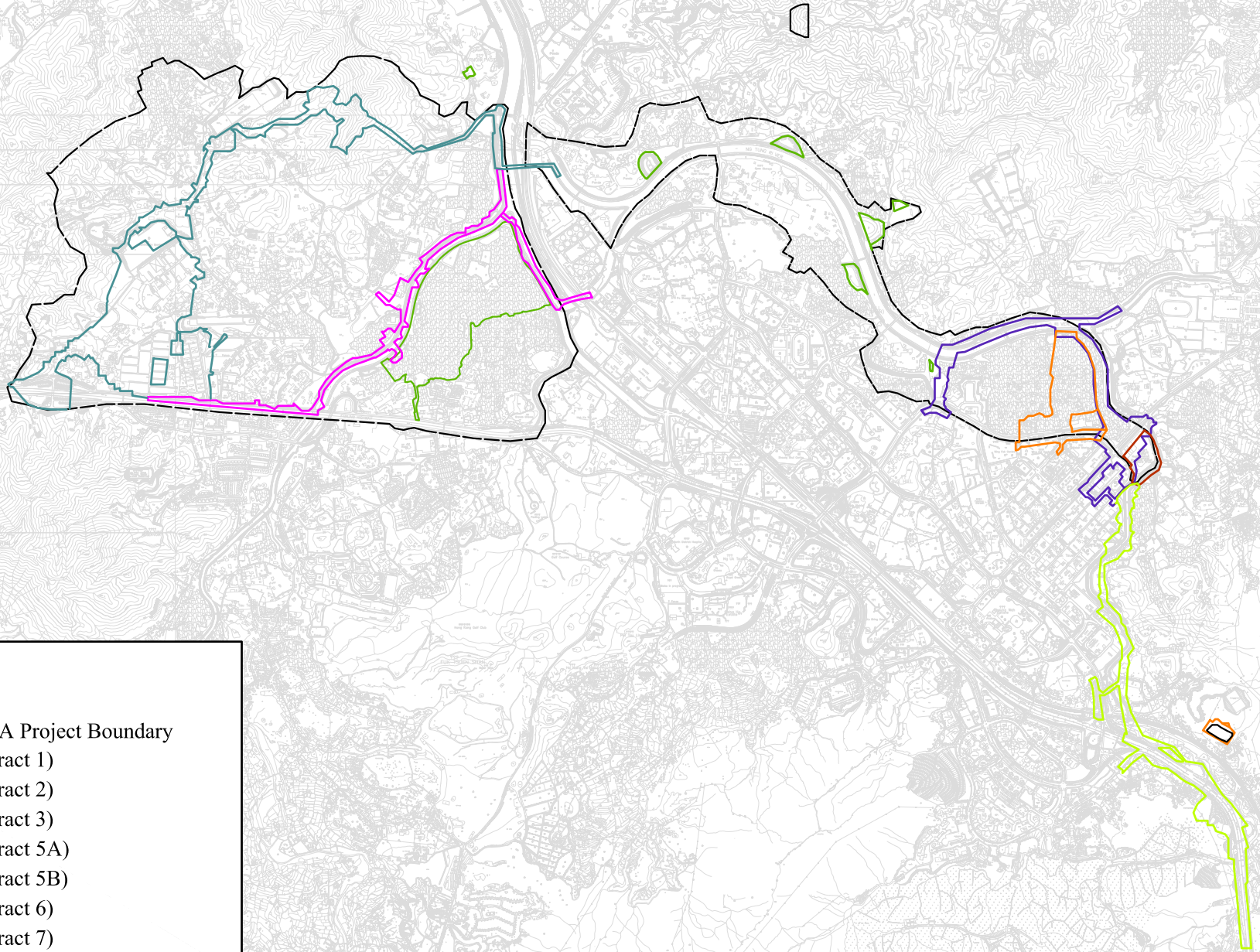
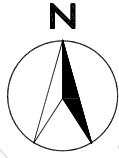
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**DRAWING(S)**

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**LEGEND**

- KTN and FLN NDA Project Boundary
- ND/2019/01 (Contract 1)
- ND/2019/02 (Contract 2)
- ND/2019/03 (Contract 3)
- ND/2019/04 (Contract 5A)
- ND/2019/05 (Contract 5B)
- ND/2019/06 (Contract 6)
- ND/2019/07 (Contract 7)

SCALE	A4 @ 1:80000	DATE	July 2020
CHECK	KL	DRAWN	ML
Project No.	WMA20002	Drawing No.	1
		REV	-

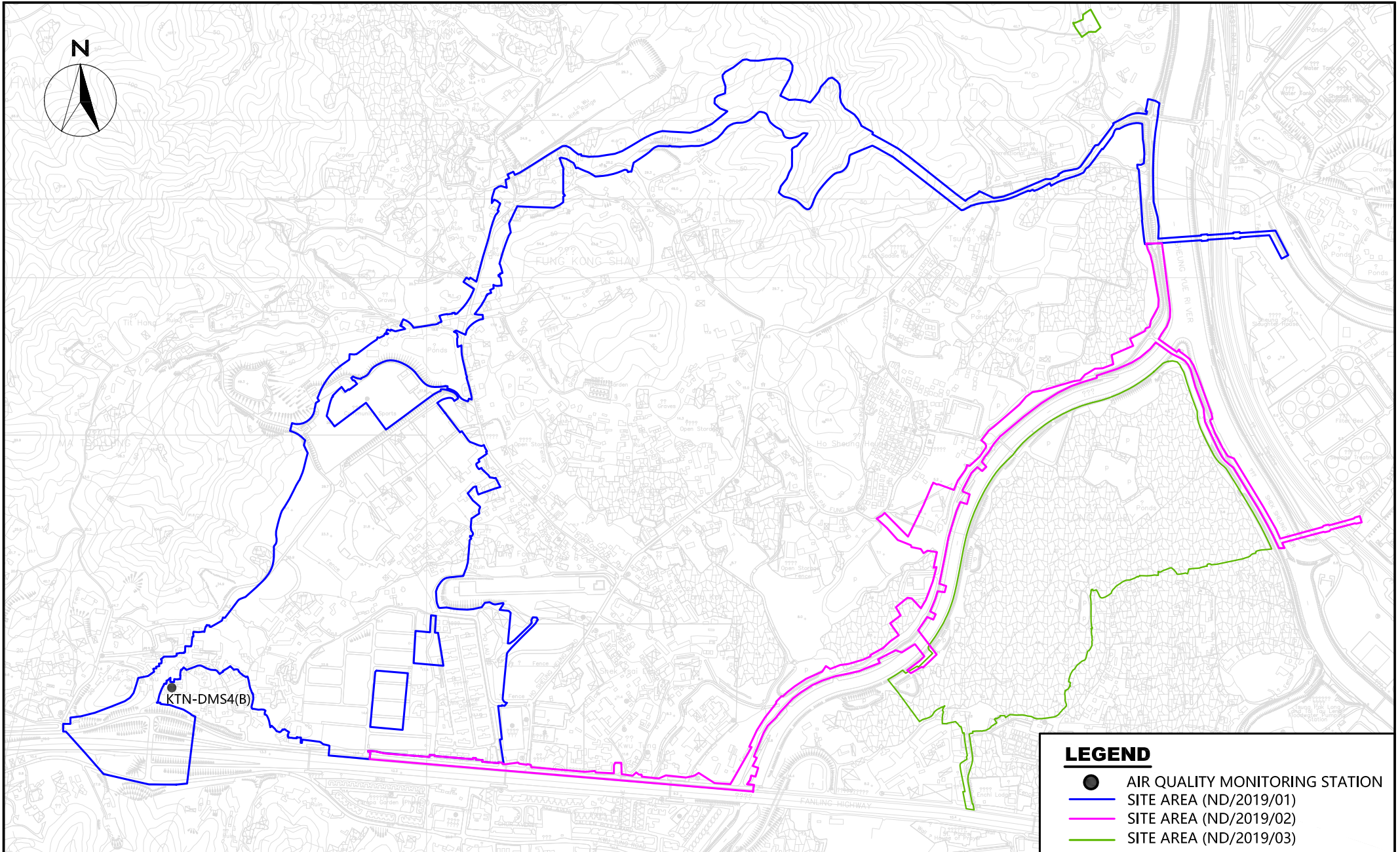
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**FIGURE(S)**

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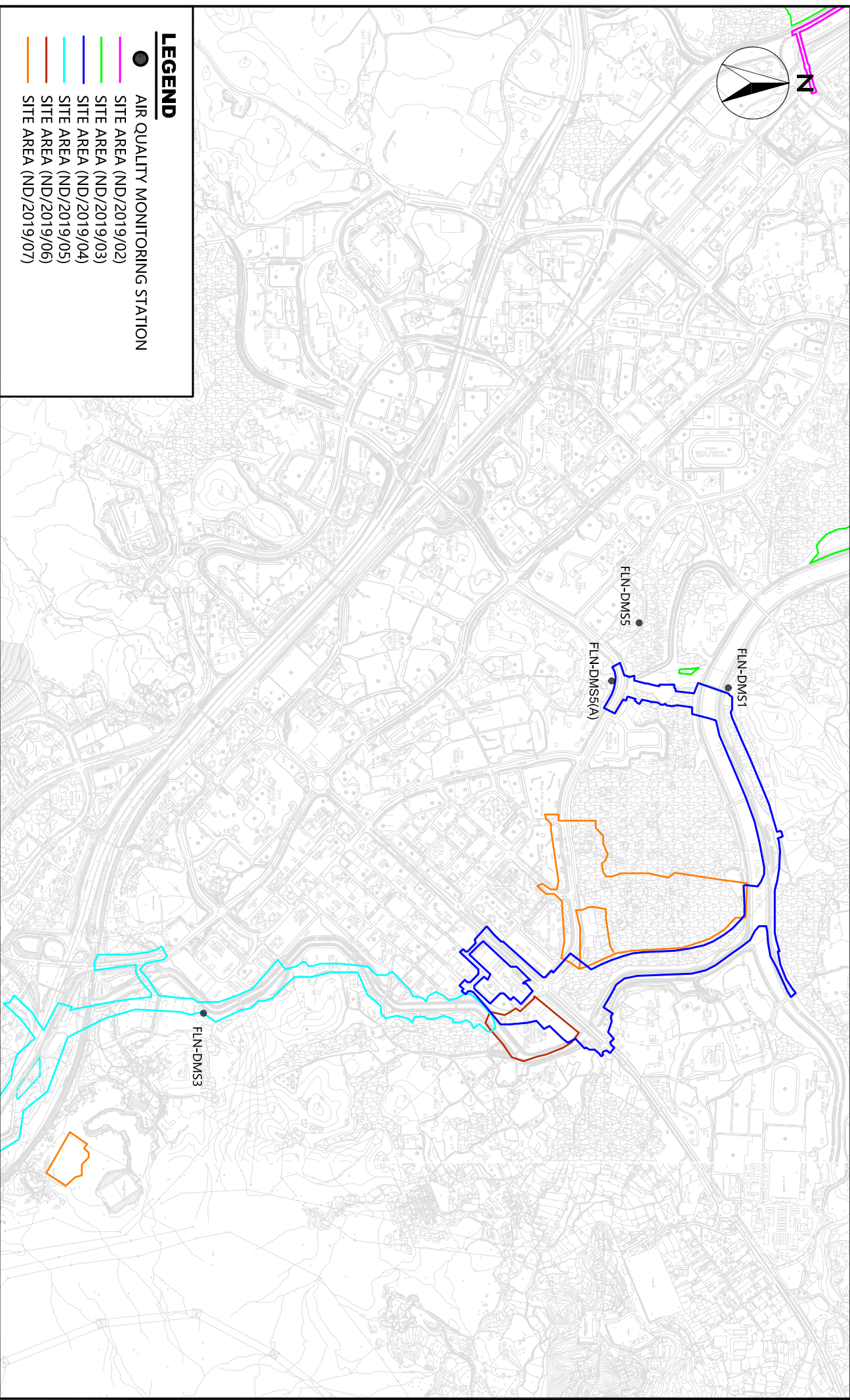
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**LEGEND**

- AIR QUALITY MONITORING STATION
- SITE AREA (ND/2019/01)
- SITE AREA (ND/2019/02)
- SITE AREA (ND/2019/03)

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CHECK	MM	DRAWN	ML	
PROJECT No.	WMA20002	FIGURE NO.	1	REV —



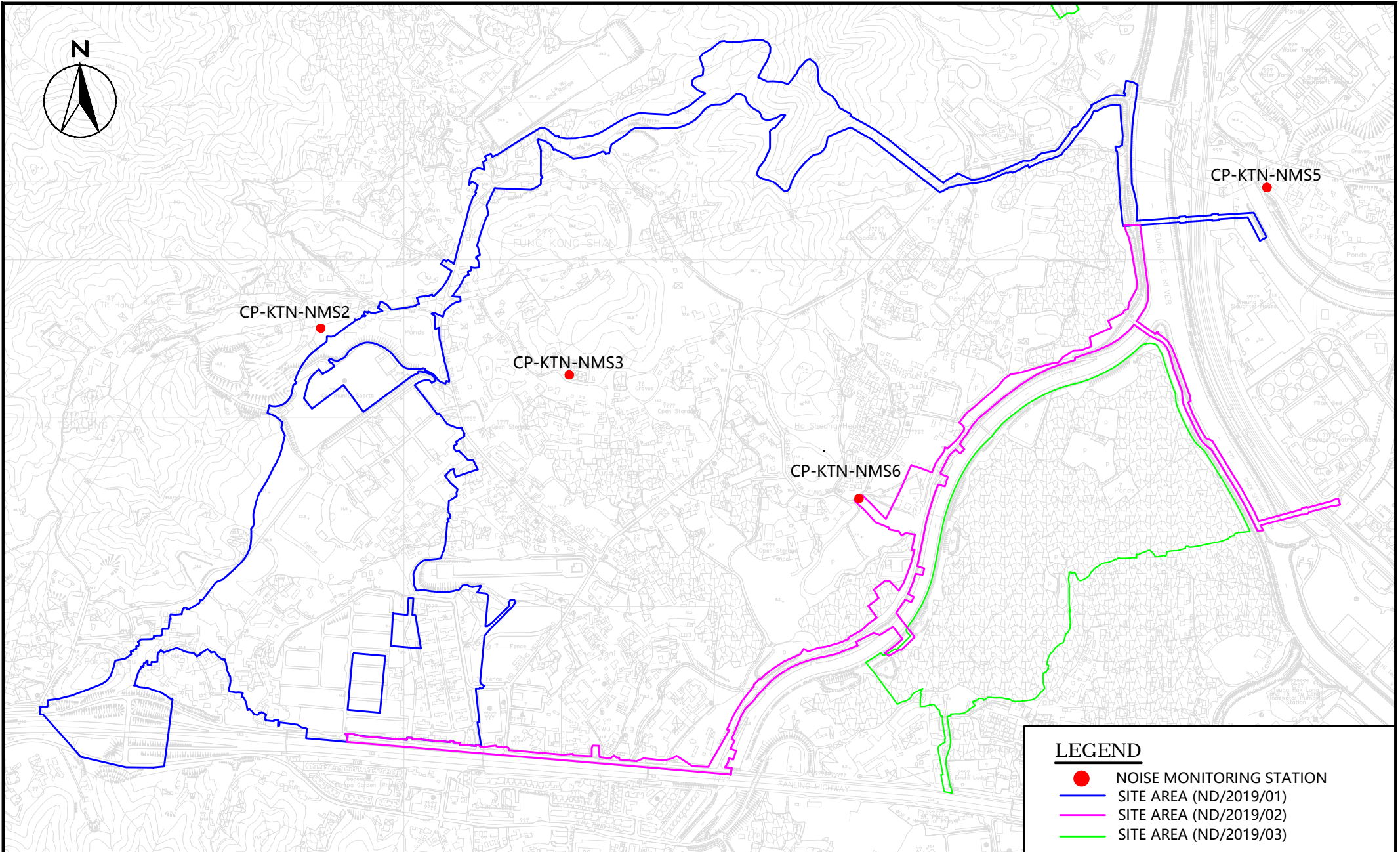
**LEGEND**

- AIR QUALITY MONITORING STATION
- SITE AREA (ND/2019/02)
- SITE AREA (ND/2019/03)
- SITE AREA (ND/2019/04)
- SITE AREA (ND/2019/05)
- SITE AREA (ND/2019/06)
- SITE AREA (ND/2019/07)

Service Contract No. NDO 04/2019 Environmental Team for EM&A Works in Construction  
Phase for the First Phase Development of KTN and FLN NDAs  
**Location of Air Quality Monitoring Station (FLN)**

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CHECK	IT	DRAWN	ML
PROJECT No.	WMAA20002	FIGURE No.	2
		REV	—

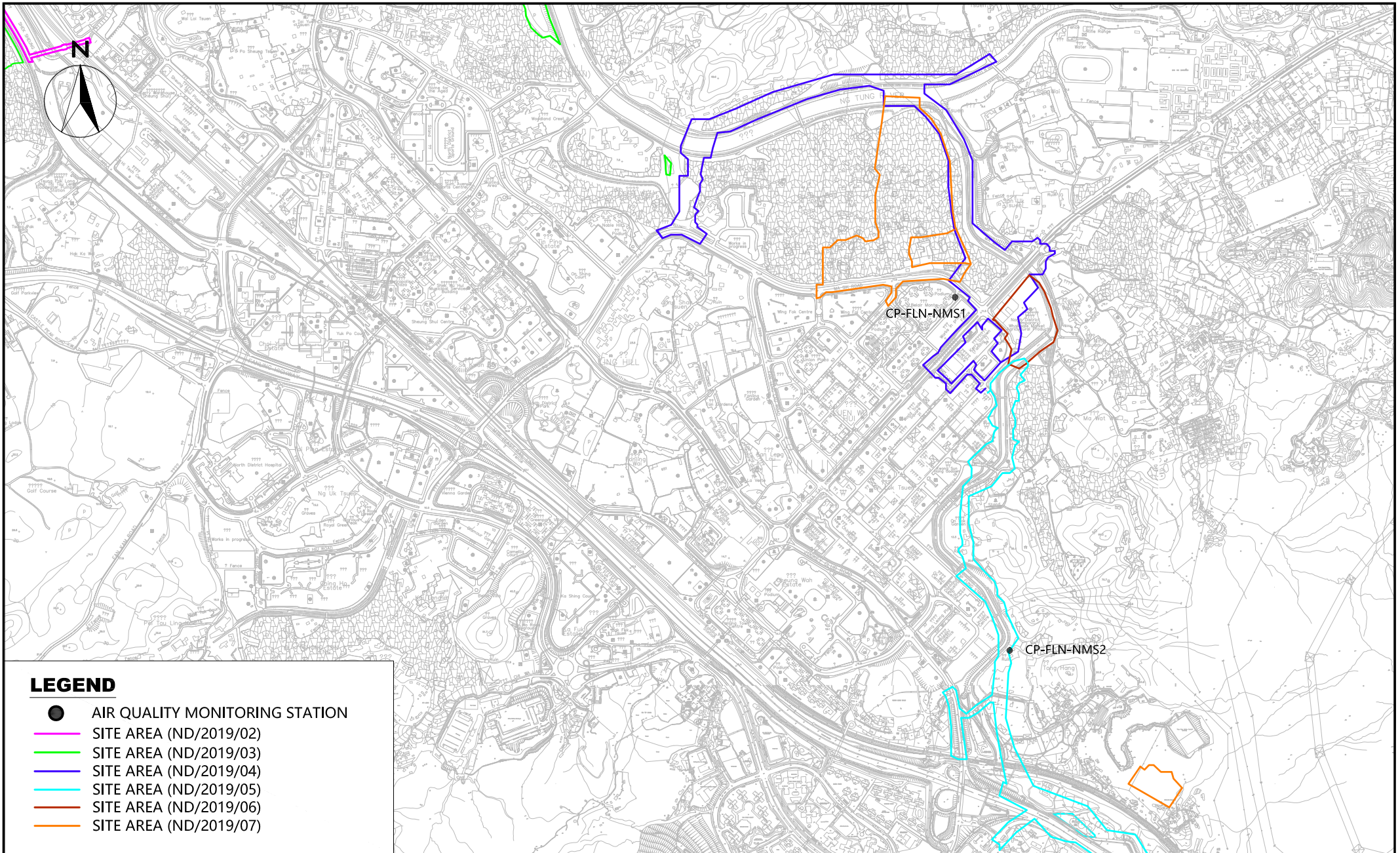




**LEGEND**

- NOISE MONITORING STATION
- SITE AREA (ND/2019/01)
- SITE AREA (ND/2019/02)
- SITE AREA (ND/2019/03)

SCALE	A4 @ 1:30000	DATE	OCT 2020	
CHECK	KL	DRAWN	NL	
PROJECT No.	WMA20002	FIGURE No.	3	REV —



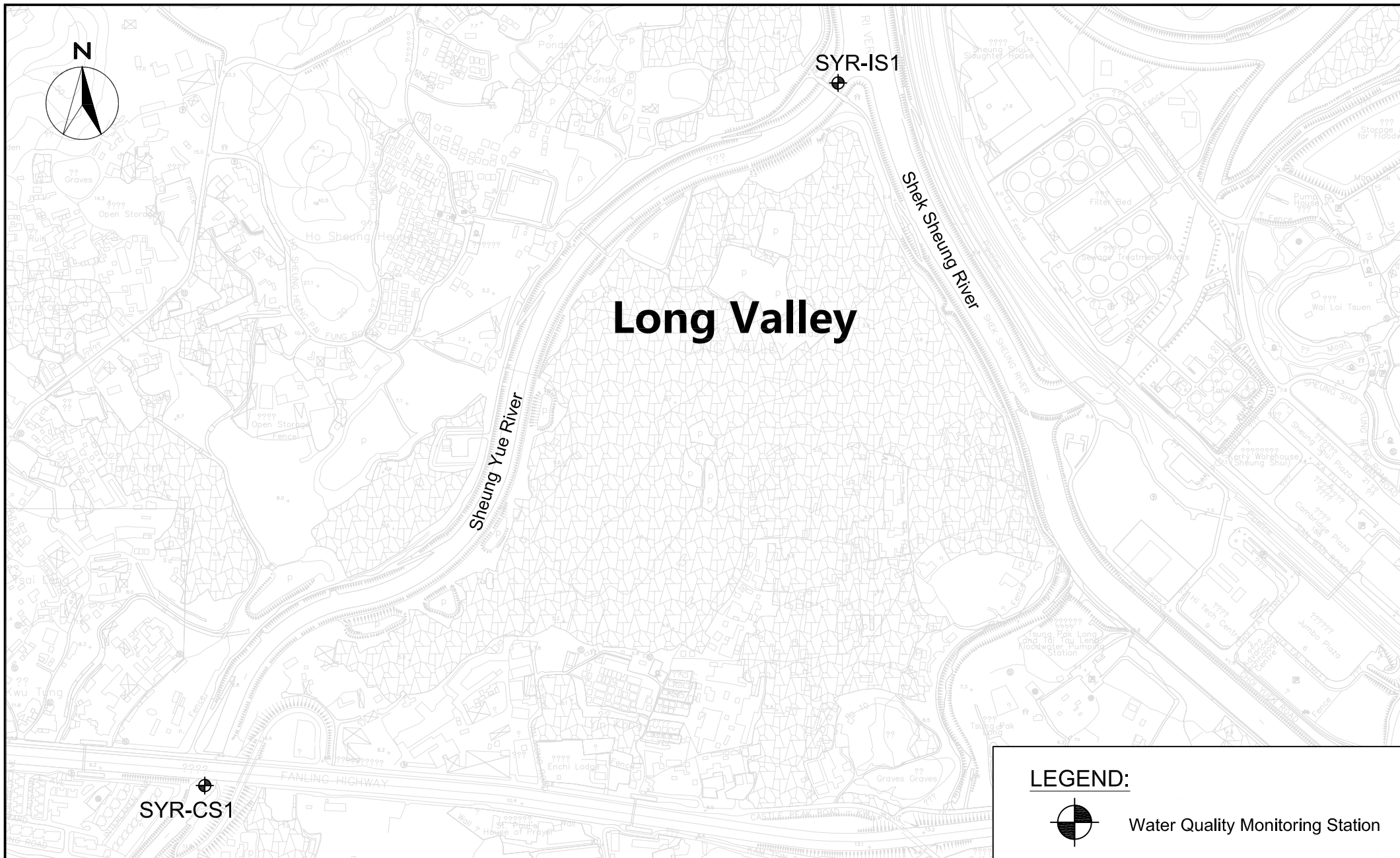
**LEGEND**

- AIR QUALITY MONITORING STATION
- SITE AREA (ND/2019/02)
- SITE AREA (ND/2019/03)
- SITE AREA (ND/2019/04)
- SITE AREA (ND/2019/05)
- SITE AREA (ND/2019/06)
- SITE AREA (ND/2019/07)



Service Contract No. NDO 04/2019 Environmental Team for EM&A Works in Construction  
 Phase for the First Phase Development of KTN and FLN NDAs  
**Location of Noise Monitoring Stations (FLN)**

SCALE	A4 @ 1:40000	DATE	AUG 2020	
CHECK	KL	DRAWN	NL	
PROJECT No.	WMA20002	FIGURE NO.	4	REV —



# Long Valley

**LEGEND:**



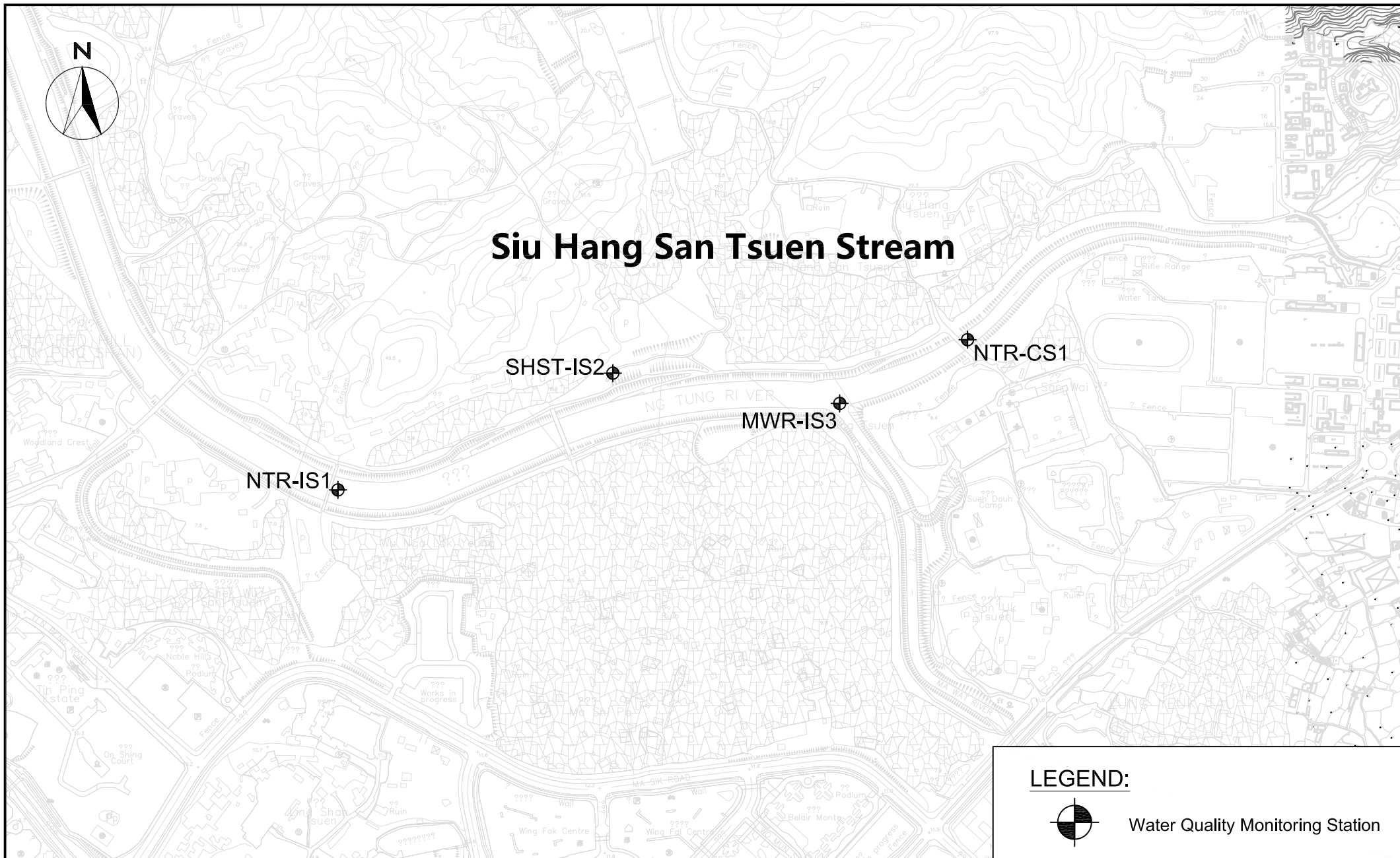
Water Quality Monitoring Station



Service Contract No. NDO 04/2019 Environmental Team for EM&A Works in Construction Phase for the First Phase Development of KTN and FLN NDAs

**Location of Additional Water Quality Monitoring Stations at River Beas**

SCALE	A4 @ 1:20000	DATE	FEB 2021	
CHECK	KL	DRAWN	NL	
PROJECT No.	WMA20002	FIGURE NO.	5	REV —



# Siu Hang San Tsuen Stream

SHST-IS2

NTR-CS1

MWR-IS3

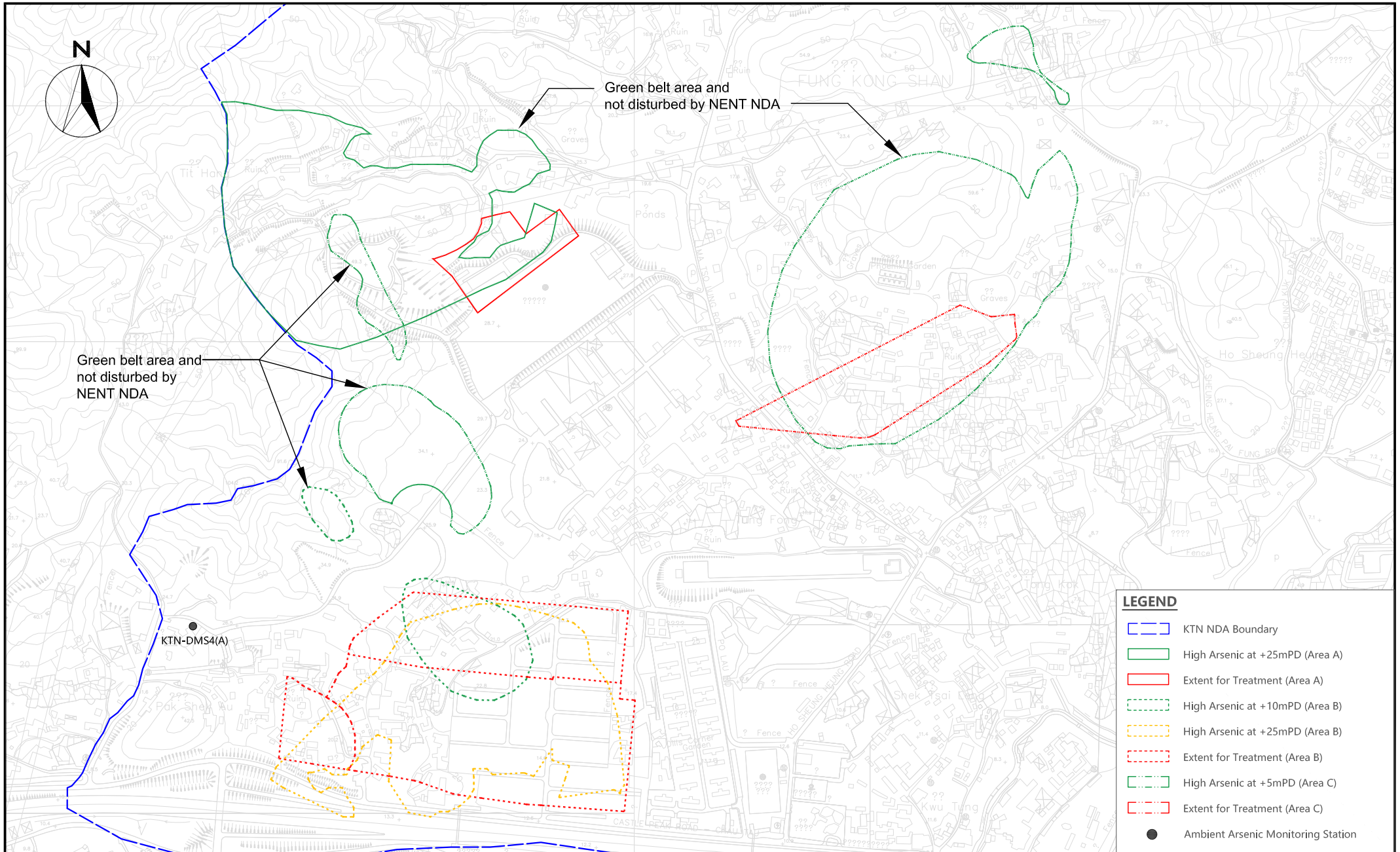
NTR-IS1

## LEGEND:



Water Quality Monitoring Station

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CHECK	KL	DRAWN	NL	
PROJECT No.	WMA20002	FIGURE NO.	6	REV —

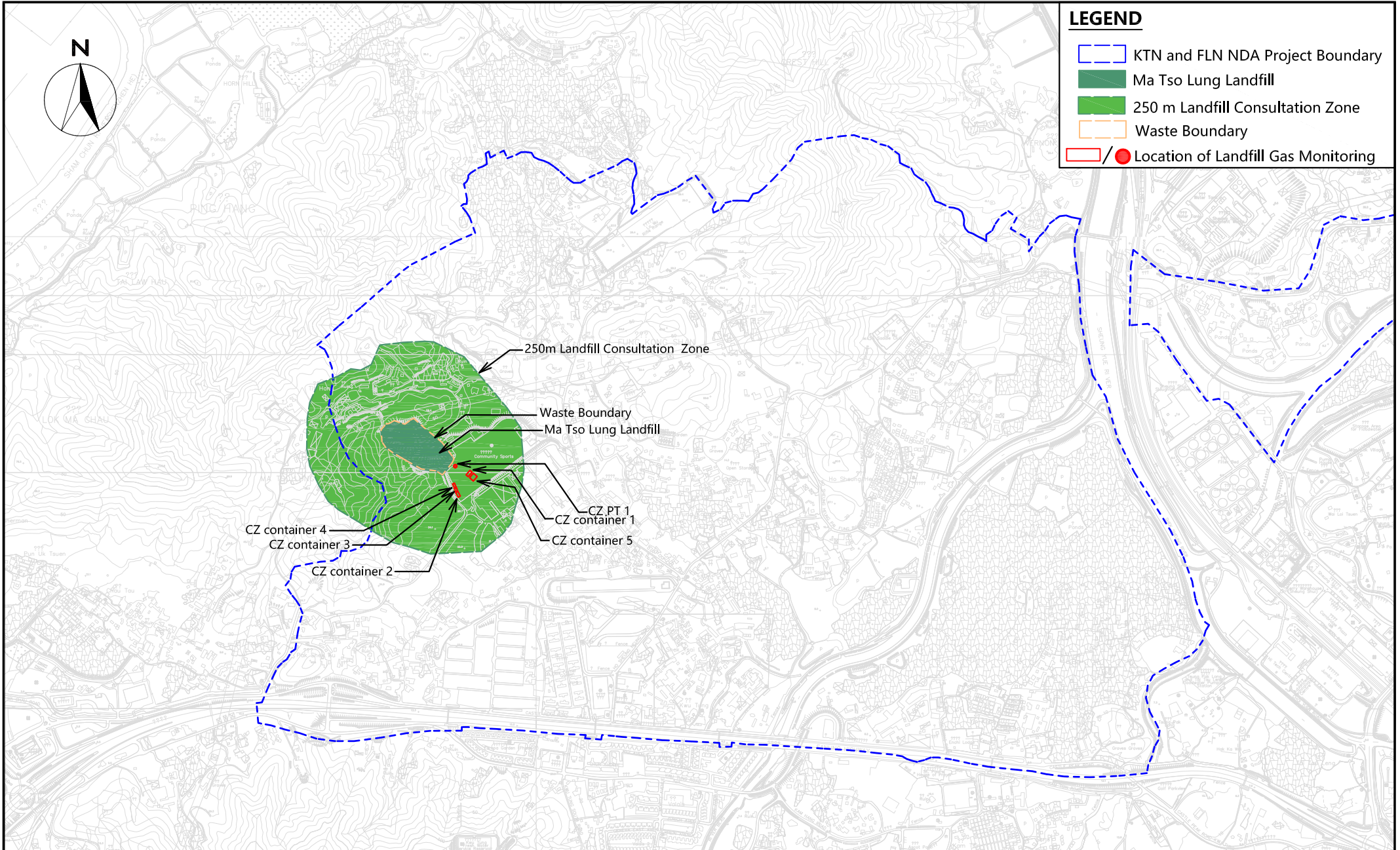


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CHECK	IT	DRAWN	ML	
PROJECT No.	WMA20002	FIGURE NO.	7	REV -



**LEGEND**

- KTN and FLN NDA Project Boundary
- Ma Tso Lung Landfill
- 250 m Landfill Consultation Zone
- Waste Boundary
- / ● Location of Landfill Gas Monitoring



250m Landfill Consultation Zone

Waste Boundary

Ma Tso Lung Landfill

CZ PT 1

CZ container 1

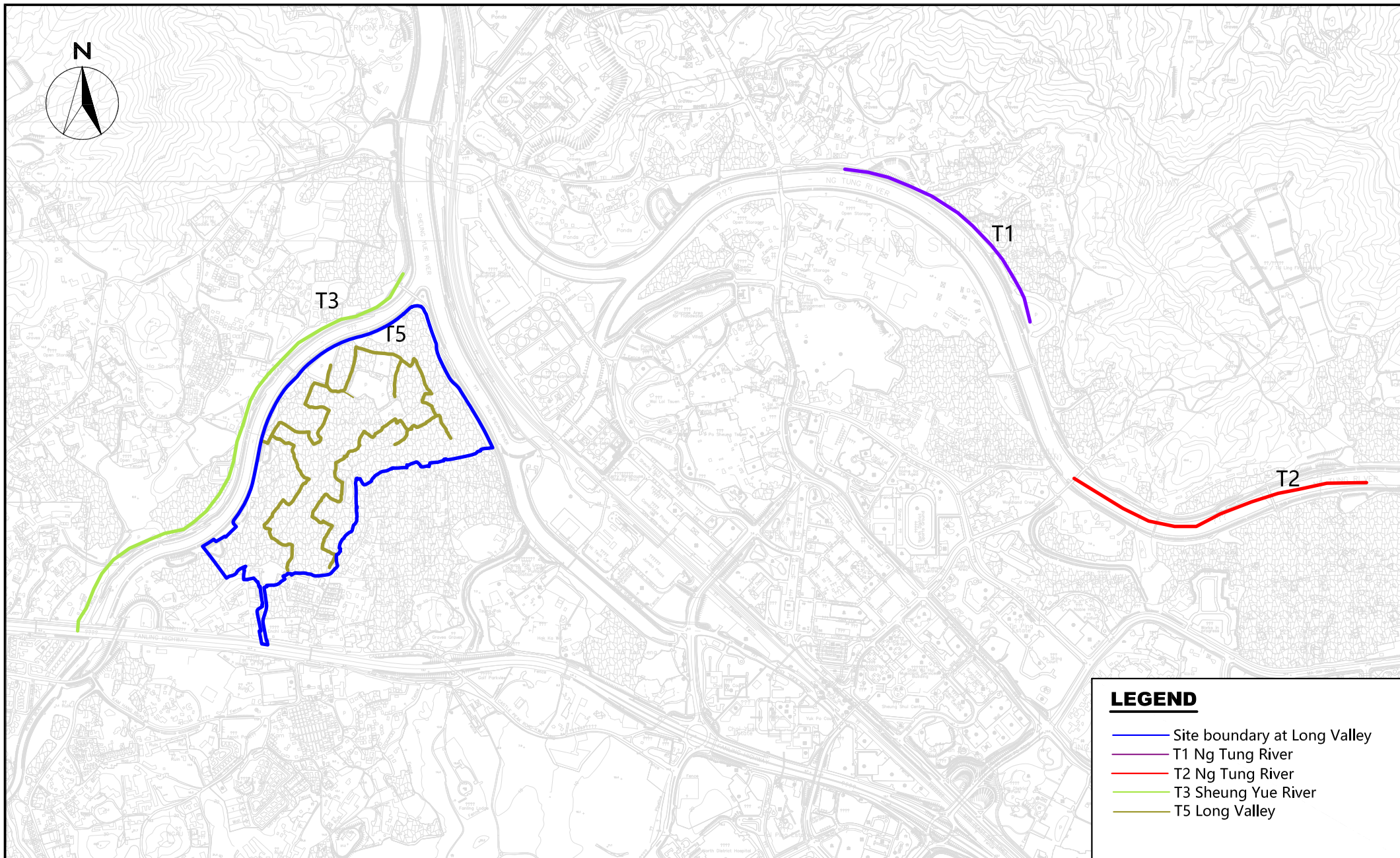
CZ container 5

CZ container 4

CZ container 3

CZ container 2

SCALE	A4 @ 1:40000	DATE	JAN 2021	
CHECK	KL	DRAWN	NL	
PROJECT No.	WMA20002	FIGURE NO.	8	REV —



**LEGEND**

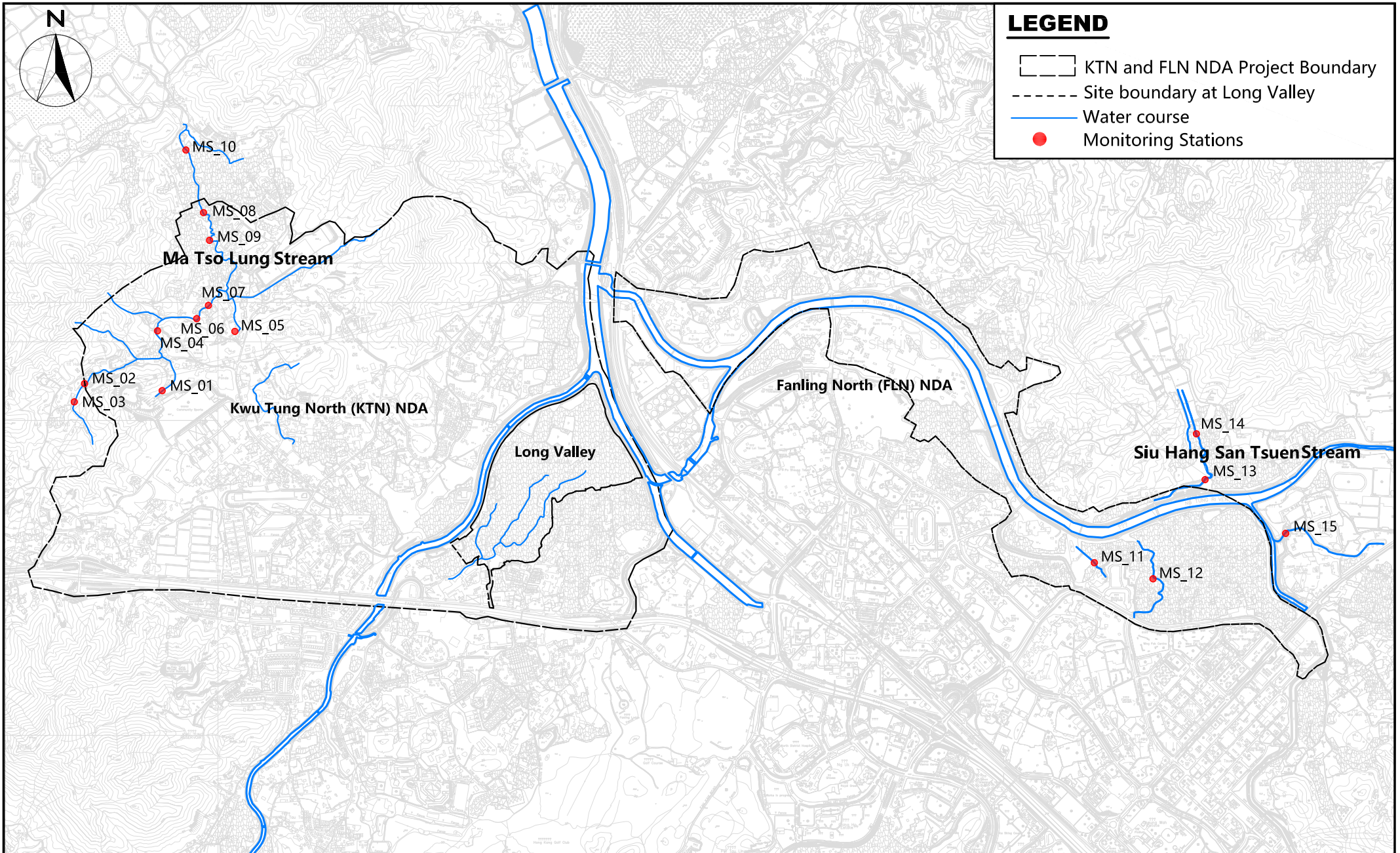
- Site boundary at Long Valley
- T1 Ng Tung River
- T2 Ng Tung River
- T3 Sheung Yue River
- T5 Long Valley

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CHECK	IT	DRAWN	KIKI	
PROJECT No.	WMA20002	FIGURE NO.	9	REV —



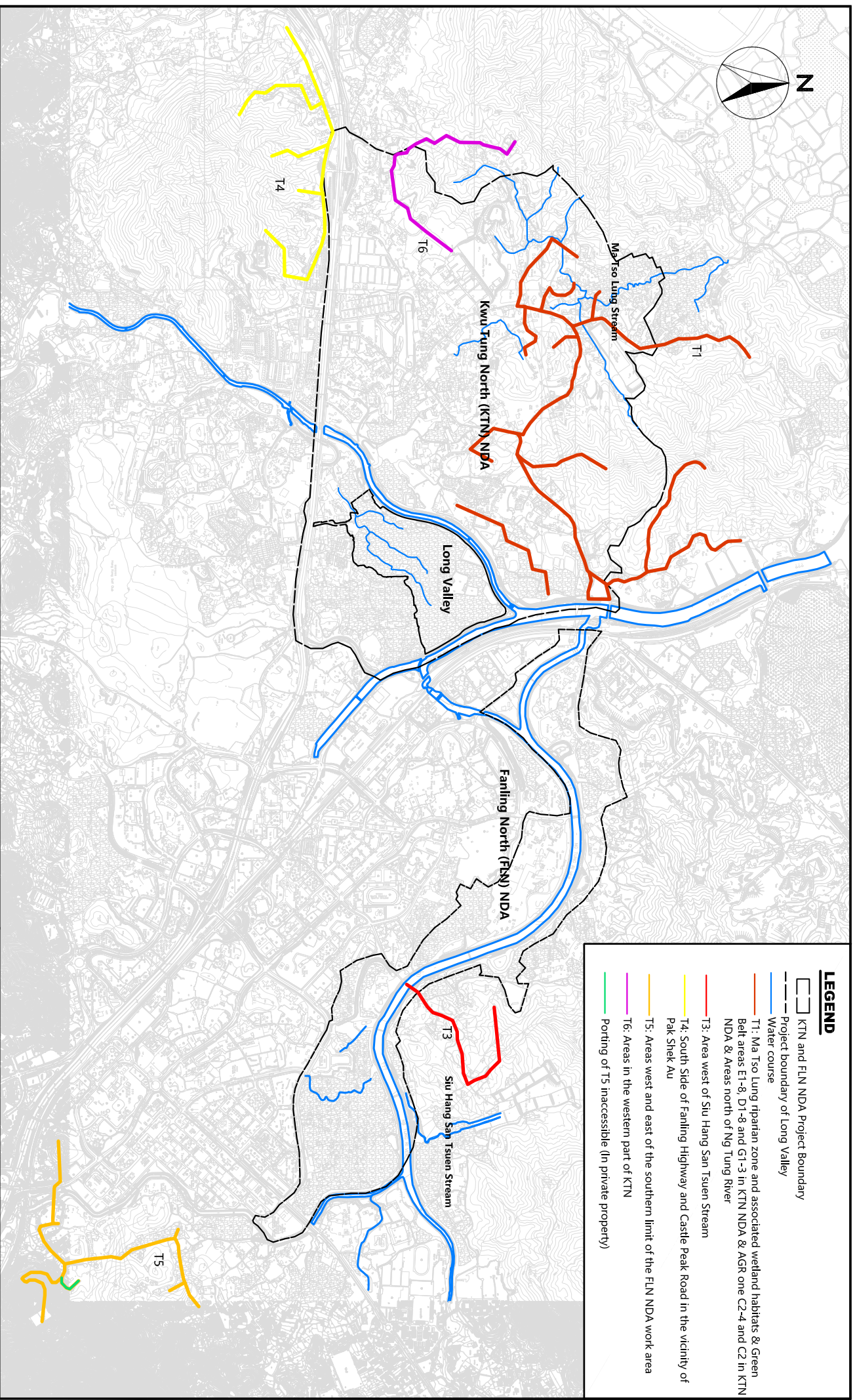
### LEGEND

- KTN and FLN NDA Project Boundary
- Site boundary at Long Valley
- Water course
- Monitoring Stations



SCALE	A4 @ 1:60000	DATE	MAY 2020	
CHECK	IT	DRAWN	KIKI	
PROJECT No.	WMA20002	FIGURE NO.	10	REV —





**LEGEND**

- KTN and FLN NDA Project Boundary
- Project boundary of Long Valley
- Water course
- T1: Ma Tso Ling riparian zone and associated wetland habitats & Green Belt areas E1-8, D1-8 and G1-3 in KTN NDA & AGR one C2-4 and C2 in KTN NDA & Areas north of Ng Tung River
- T3: Area west of Siu Hang San Tsuen Stream
- T4: South Side of Fanling Highway and Castle Peak Road in the vicinity of Pak Shek Au
- T5: Areas west and east of the southern limit of the FLN NDA work area
- T6: Areas in the western part of KTN
- T7: Porting of T5 inaccessible (in private property)

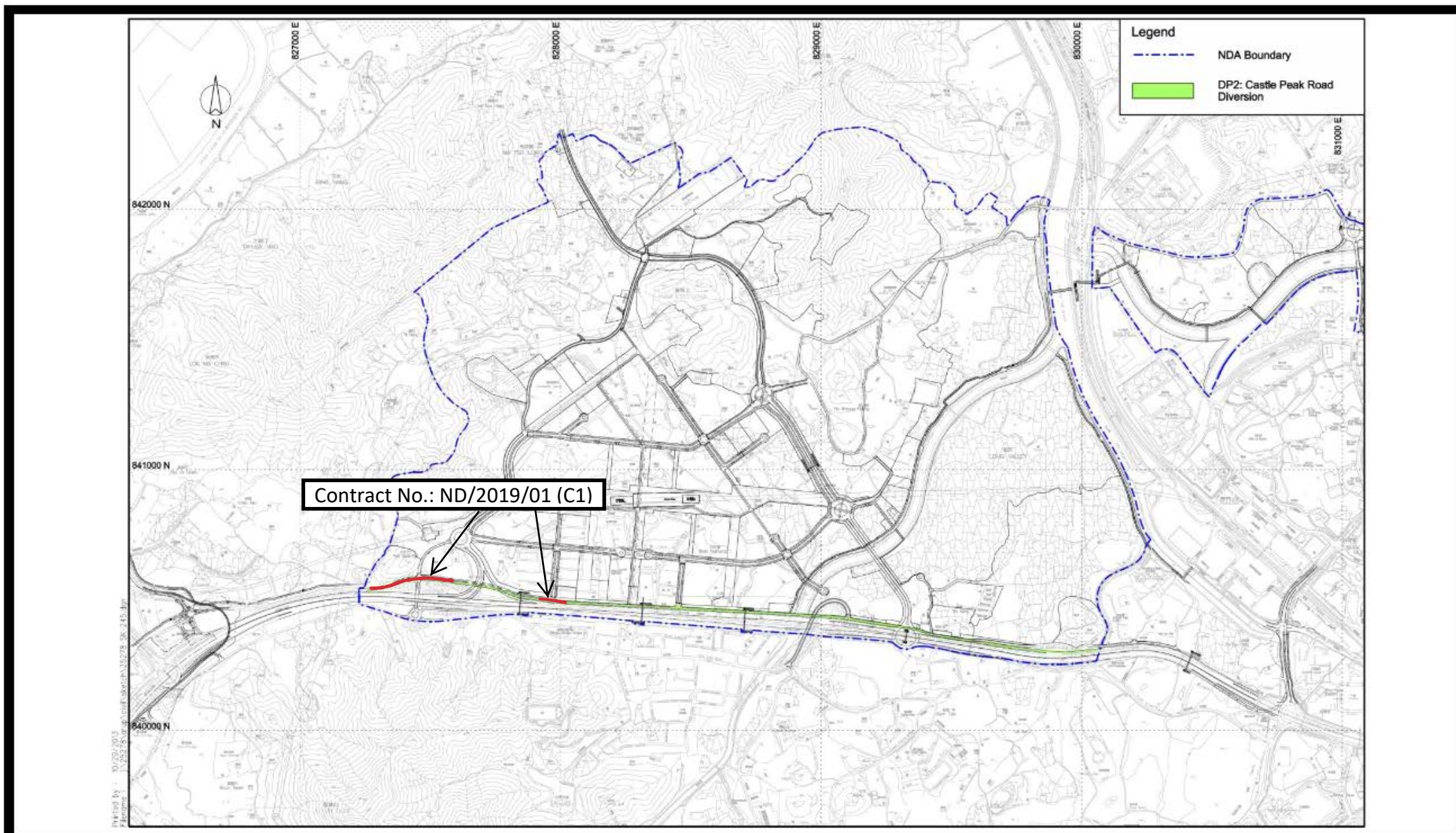
Service Contract No. NDO 04/2019 Environmental Team for EM&A Works in Construction  
Phase for the First Phase Development of KTN and FLN NDAs  
**Location of Transect Route of Ecological Sensitive Habitats  
(Non-Aquatic Fauna) Transects (T1, T3-T6)**

SCALE	A4 @ 1:70000	DATE	JUL 2021
CHECK	KL	DRAWN	ML
PROJECT No.	WMA20002	FIGURE No.	11
		REV	—

**Figure 12**

**Site Layout Plan of Contract ND/2019/01**

**under EP-466-2013-A**



**Project Title: Castle Peak Road Diversion**

**Figure 1: Location Plan for Castle Peak Road Diversion Project**

(Extracted from Drawing No. SK/245 of North East New Territories New Development Area Planning and Engineering Study)

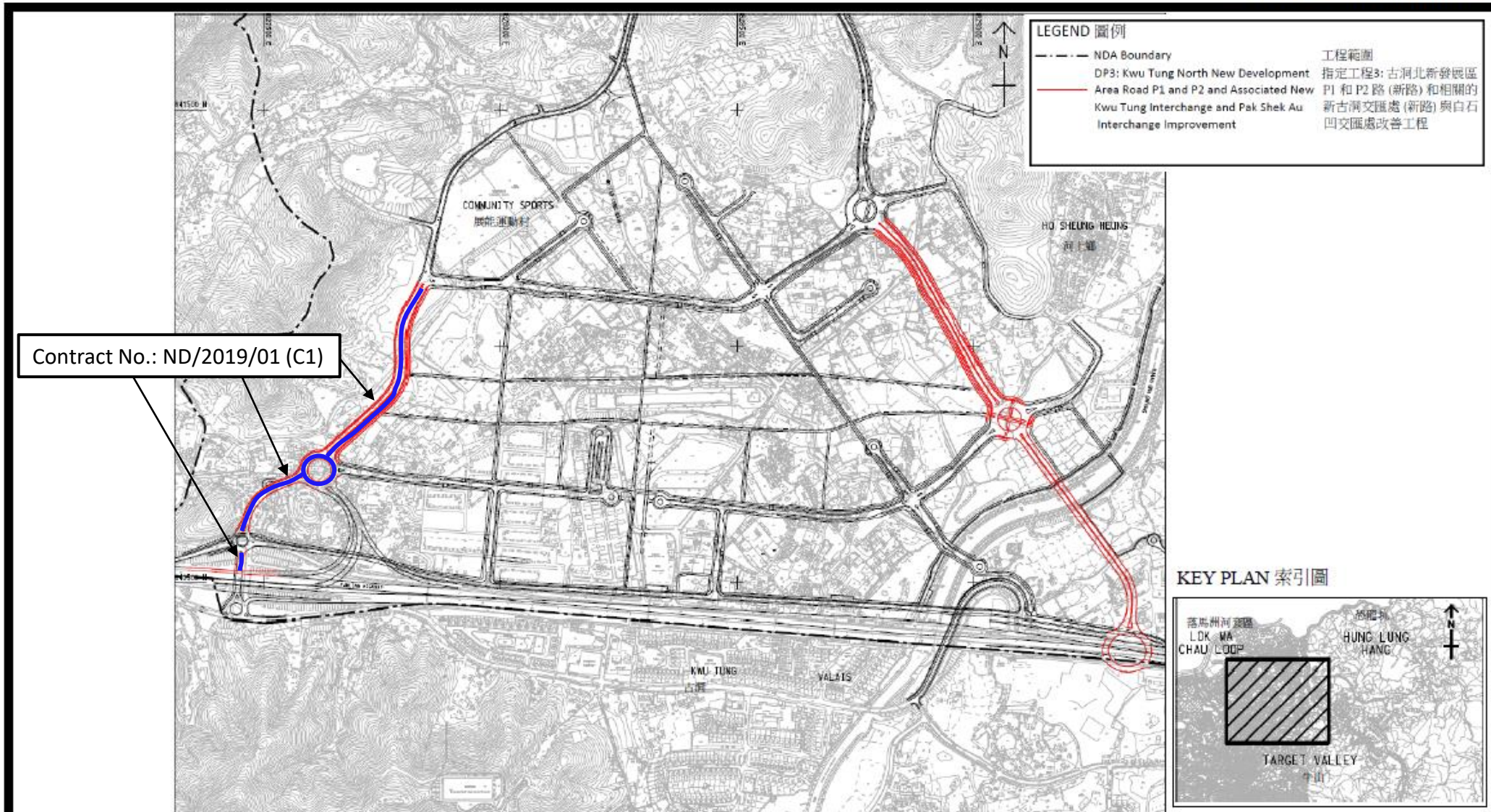
**Environmental Permit No:  
EP-466/2013/A**



**Figure 13**

**Site Layout Plan of Contract ND/2019/01**

**under EP-467-2013-A**



**Project Title:** Kwu Tung North New Development Area Road P1 and P2 and Associated New Kwu Tung Interchange and Pak Shek Au Interchange Improvement  
**工程名稱:** 古洞北新發展區P1和P2路(新路)和相關的新古洞交匯處(新路)與白石凹交匯處改善工程

**Environmental Permit No:**  
 EP-467/2013/A  
**環境許可證編號:**  
 EP-467/2013/A



**Figure 1: Location Plan for Interchange Improvement (Indicative)**  
 (This figure was prepared based on Figure 1.2 of VEP application (No.: VEP-523/2016))

**圖1: 交匯處改善工程位置(示意圖)**  
 (本圖是根據申請更改環境許可證(編號: VEP-523/2016)圖1.2編制)

**Figure 14**

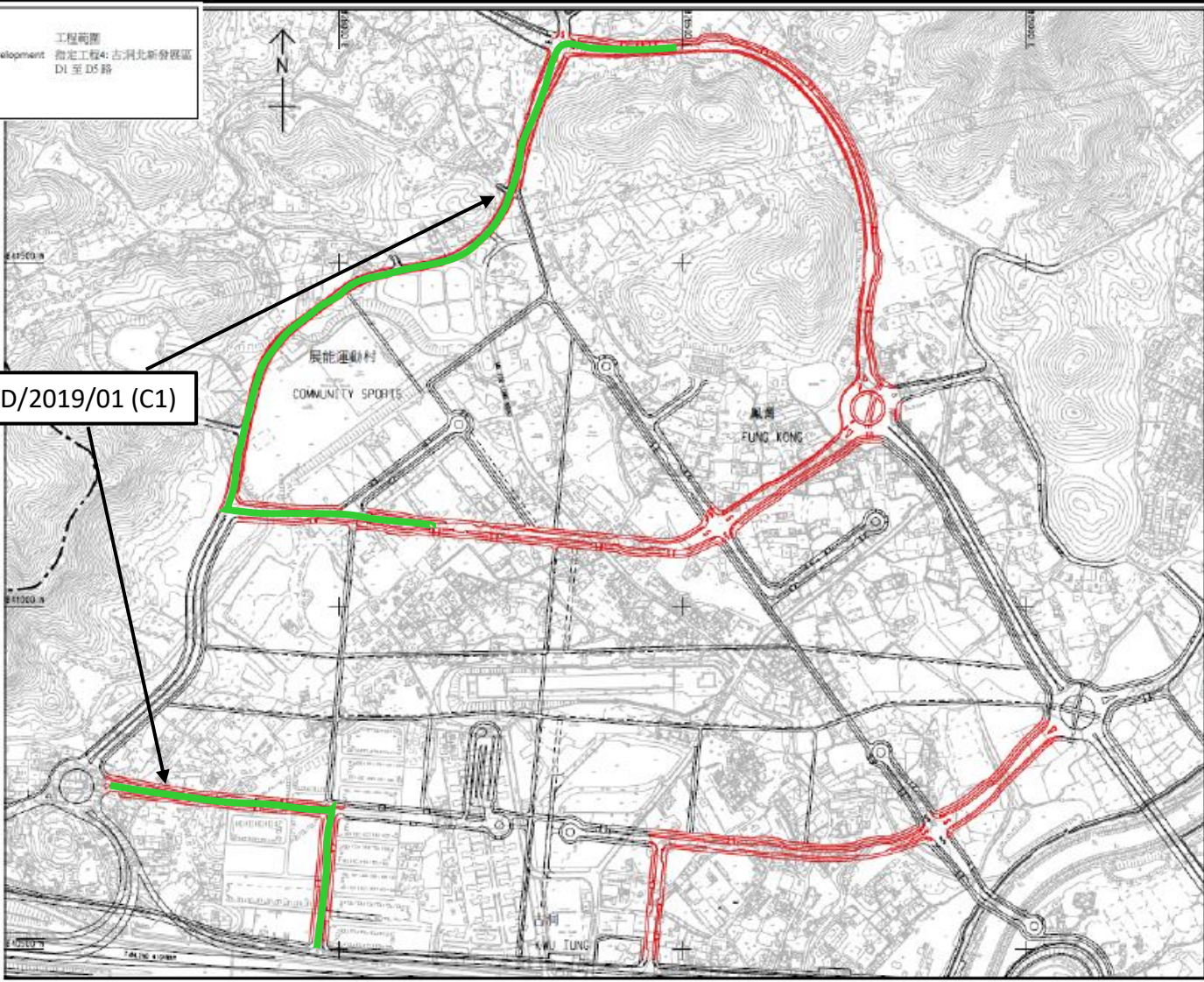
**Site Layout Plan of Contract ND/2019/01**

**under EP-468-2013-A**

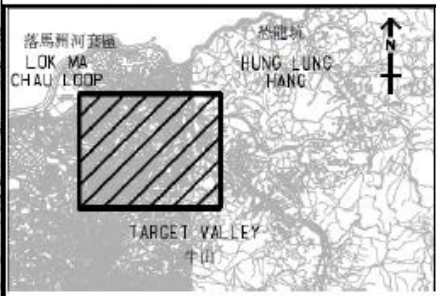
**LEGEND 圖例**

--- NDA Boundary	工程範圍
--- DP4: Kwu Tung North New Development	指定工程4: 古洞北新發展區
--- Area Road D1 to D5	D1 至 D5 路

Contract No.: ND/2019/01 (C1)



KEY PLAN 索引圖



**Project Title:** Kwu Tung North New Development Area Road D1 to D5  
**工程名稱:** 古洞北新發展區D1至D5路

**Environmental Permit No:**  
 EP-468/2013/A

**Figure 1: Location Plan for The Project (Indicative)**  
 (This figure was prepared based on Figure 1.4 of VEP application (No.: VEP-524/2016))

**圖1：工程項目位置(示意圖)**  
 (本圖是根據申請更改環境許可證(編號: VEP-524/2016)圖1.4編制)

**環境許可證編號：**  
 EP-468/2013/A

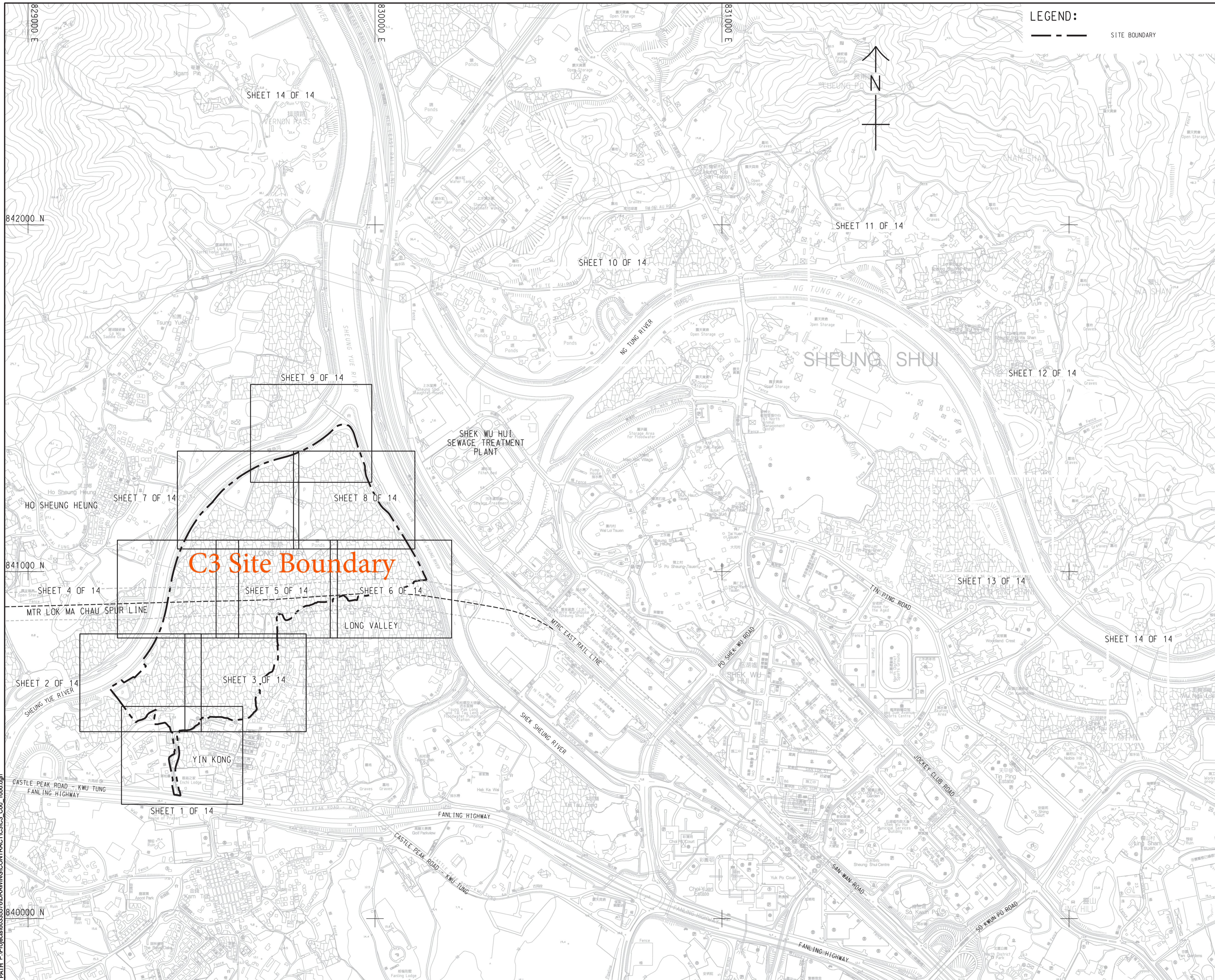


**Figure 15**

**Site Layout Plan of Contract ND/2019/03**

**under EP-468-2013-A**





LEGEND:  
 - - - - - SITE BOUNDARY



# Sang Hing - Kuly Venture

Title of Designated Project  
 Kwu Tung North New Development Area Road D1 to D5

**CLIENT**  
 土木工務拓展署  
 Civil Engineering and Development Department

**CONSULTANT**  
 工務顧問公司  
 AECOM Asia Company Ltd.  
 www.aecom.com

**SUB-CONSULTANTS**  
 分判工務顧問公司

**ISSUE/REVISION**

NO.	DATE	DESCRIPTION	CHK.
-	JUN-19	TENDER DRAWING	CYCH

**STATUS**  
 備註

**SCALE**  
 比例  
 A1 : 5000

**DIMENSION UNIT**  
 尺寸單位  
 METRES

**KEY PLAN**  
 索引圖

**PROJECT NO.**  
 項目編號  
 60335576

**CONTRACT NO.**  
 合約編號  
 ND/2019/03

**SHEET TITLE**  
 圖紙名稱  
 KEY PLAN OF GENERAL LAYOUT

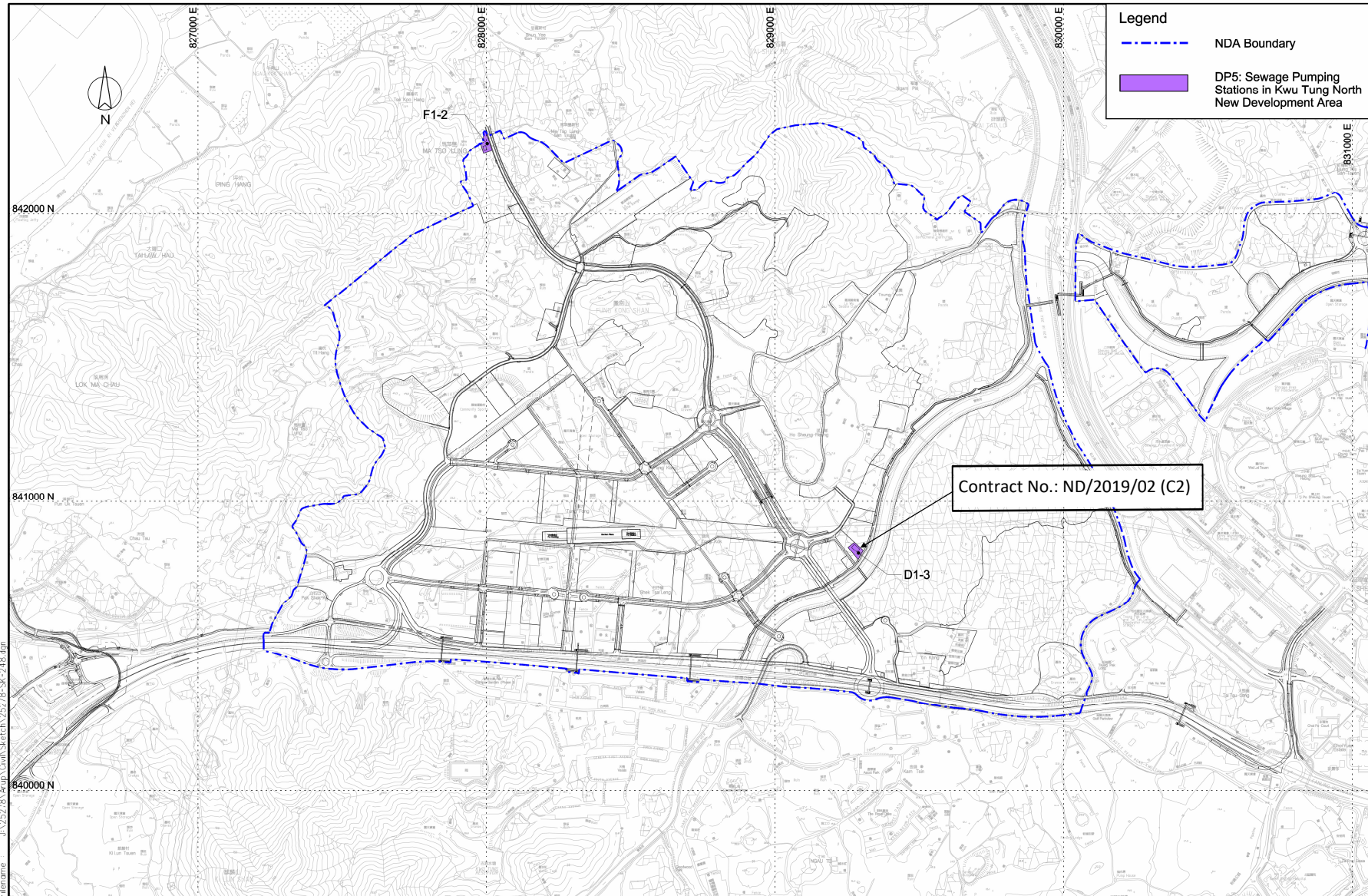
**SHEET NUMBER**  
 圖紙編號  
 60335576/C3/C00/1000

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**Figure 16**

**Site Layout Plan of Contract ND/2019/02**

**under EP-469-2013**



**Project Title: Sewage Pumping Stations in Kwu Tung North New Development Area**

**Figure 1: Location Plan for the Proposed Pumping Stations**

(Extracted from Drawing No. SK/248 of North East New Territories New Development Area Planning and Engineering Study)

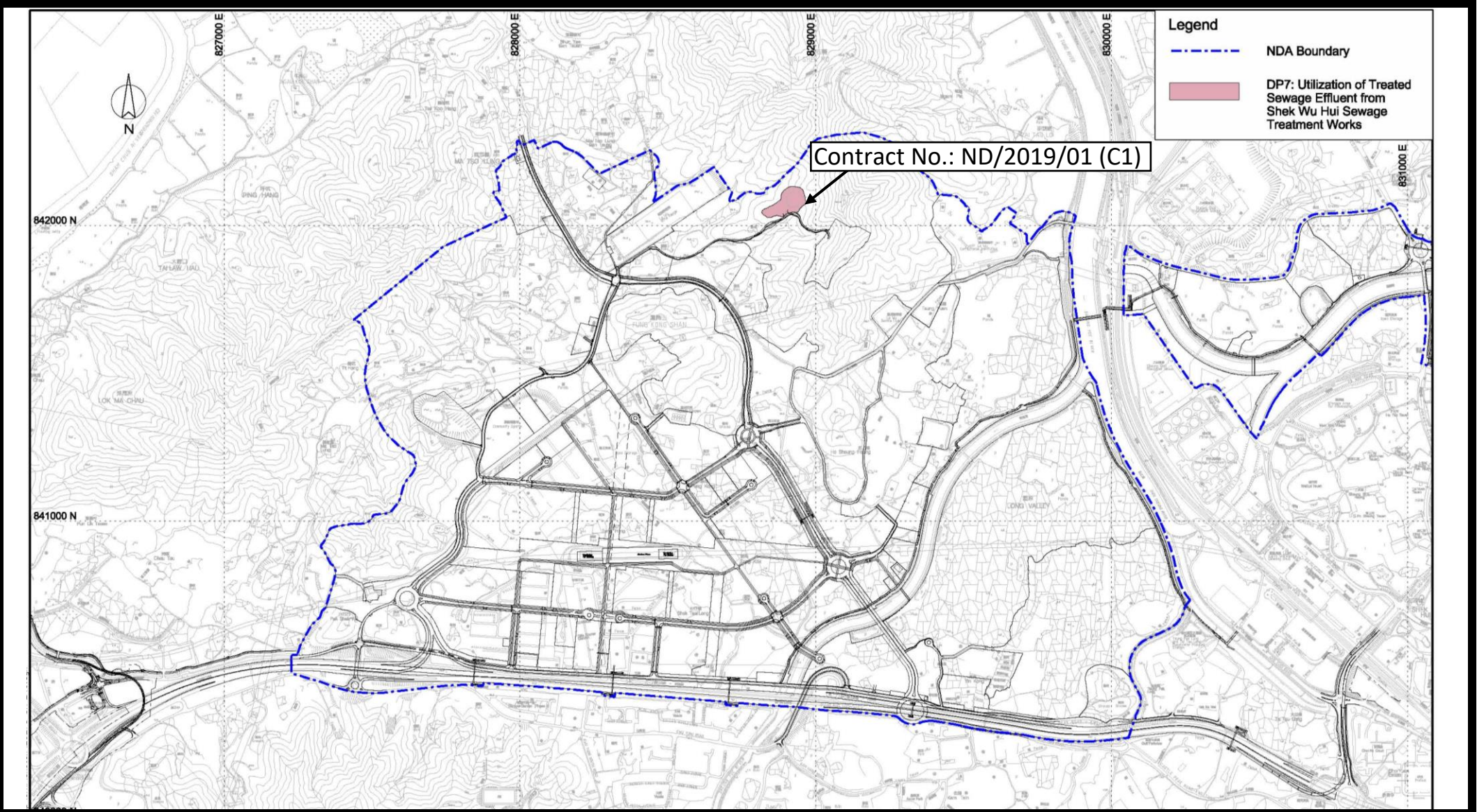
**Environmental Permit No:  
EP-469/2013**



**Figure 17**

**Site Layout Plan of Contract ND/2019/01**

**under EP-470-2013-A**



**Project Title: Utilization of Treated Sewage Effluent (TSE) from Shek Wu Hui Sewage Treatment Works**

**Figure 1: Location Plan for the Project**

(Extracted from Drawing No. SK/249 of North East New Territories New Development Area Planning and Engineering Study)

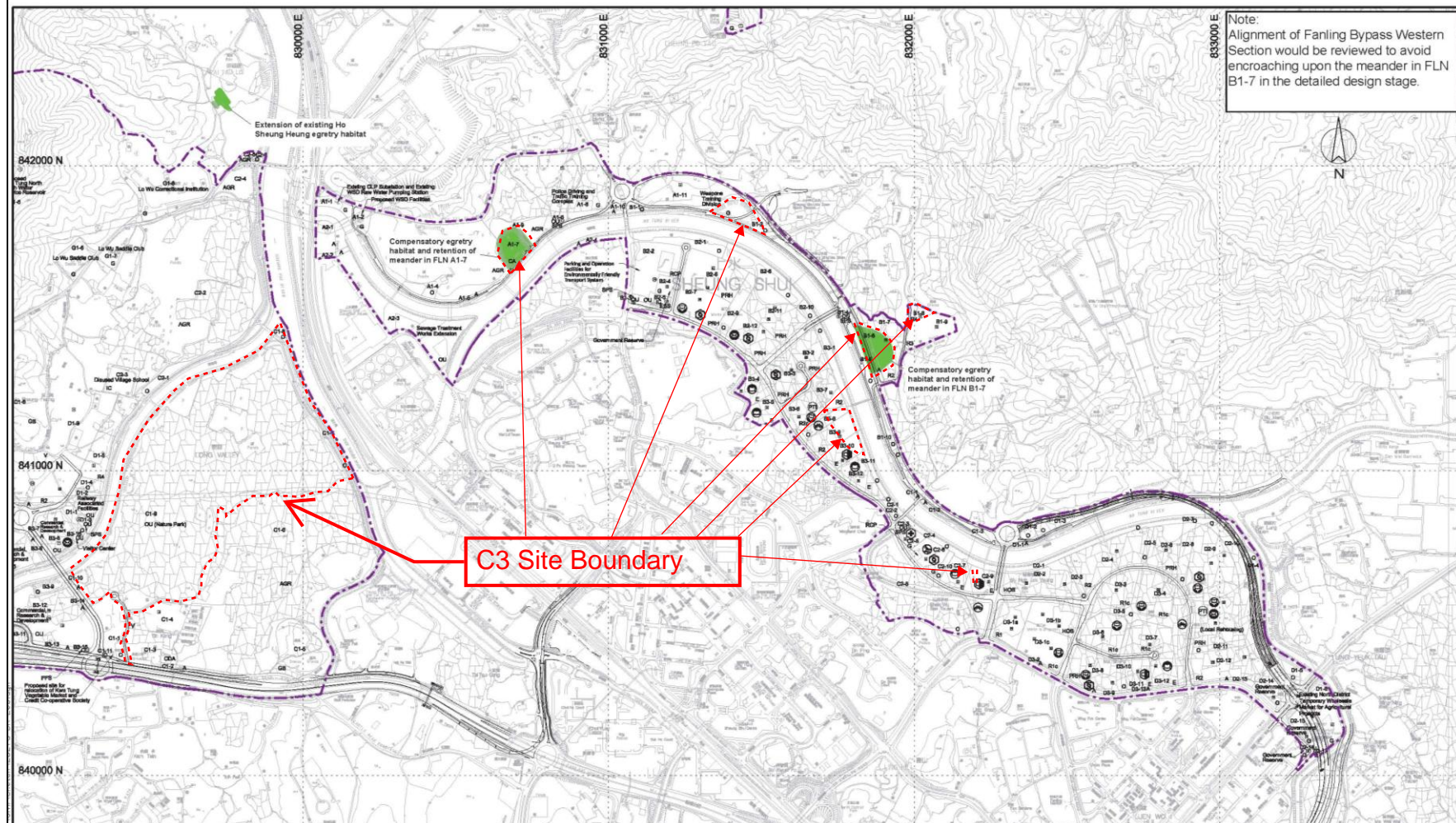
**Environmental Permit No:  
EP-470/2013/A**



**Figure 18**

**Site Layout Plan of Contract ND/2019/03**

**under EP-473-2013-A**



**Project Title:** Fanling Bypass Eastern Section  
**工程名稱:** 粉嶺繞道東段

**Figure 2:** Location of Alternative Egretty Sites and Retained Meanders  
**圖 2:** 替代鷺鳥林選址和保留河曲的位置

(Extracted from Drawing No. SK/254 of North East New Territories New Development Area Planning and Engineering Study)

(摘錄自新界東北新發展區規劃及工程研究 圖: SK/254)

**Environmental Permit No:**  
**EP-473/2013/A**

**環境許可證編號: EP-473/2013/A**

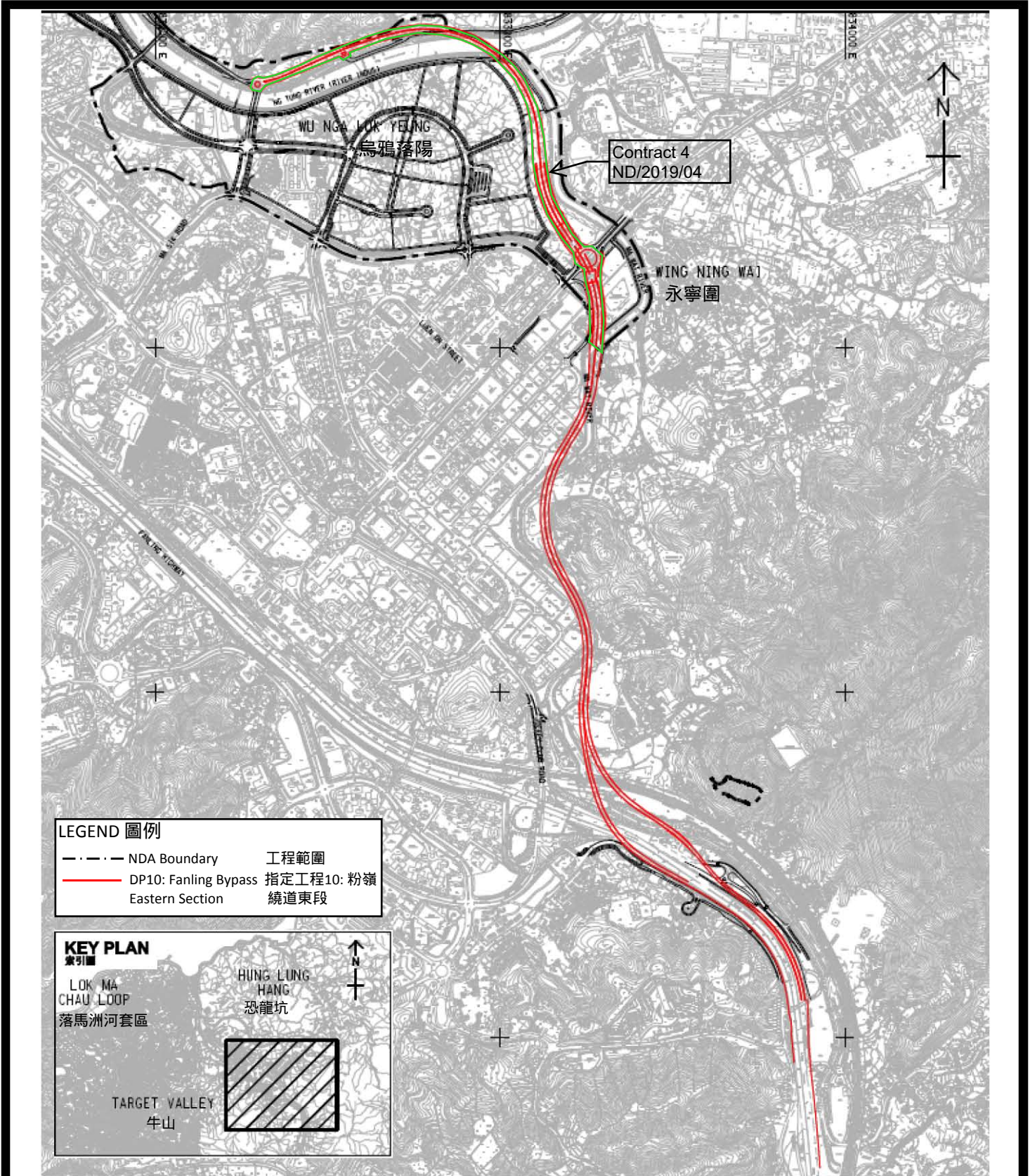


**Figure 19**

**Site Layout Plan of Contract ND/2019/04**

**under EP-473-2013-A**





**Project Title: Fanling Bypass Eastern Section**

工程名稱: 粉嶺繞道東段

**Figure 1: Location Plan for the Project (Indicative)**

圖 1: 工程項目位置 (示意圖)

This figure was prepared based on Figure 1.1 of VEP application (No.: VEP-526/2016)  
本圖是根據申請更改環境許可證(編號: VEP-526/2016)圖1.1編制

**Environmental Permit No:**

EP-473/2013/A

**環境許可證編號:**

EP-473/2013/A

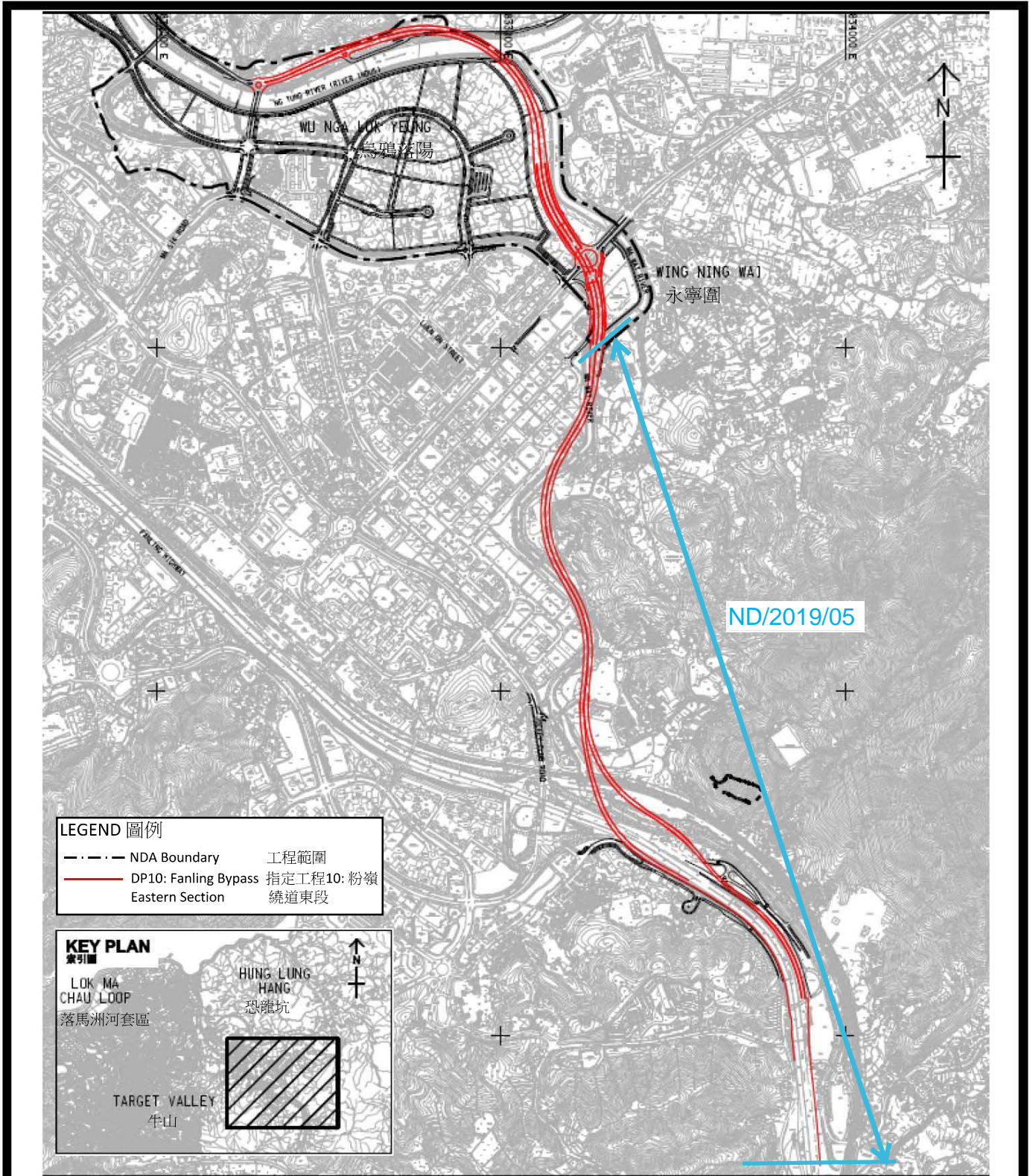
EP-473/2013/A



**Figure 20**

**Site Layout Plan of Contract ND/2019/05**

**under EP-473-2013-A**



**Project Title: Fanling Bypass Eastern Section**

工程名稱: 粉嶺繞道東段

**Environmental Permit No:**

EP-473/2013/A

**環境許可證編號:**

EP-473/2013/A

**Figure 1: Location Plan for the Project (Indicative)**

圖 1: 工程項目位置 (示意圖)

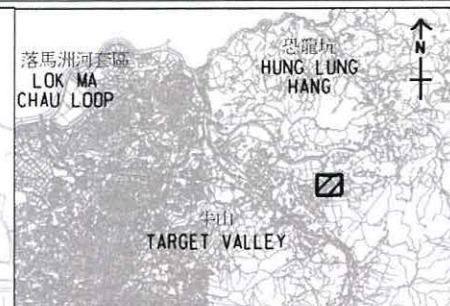
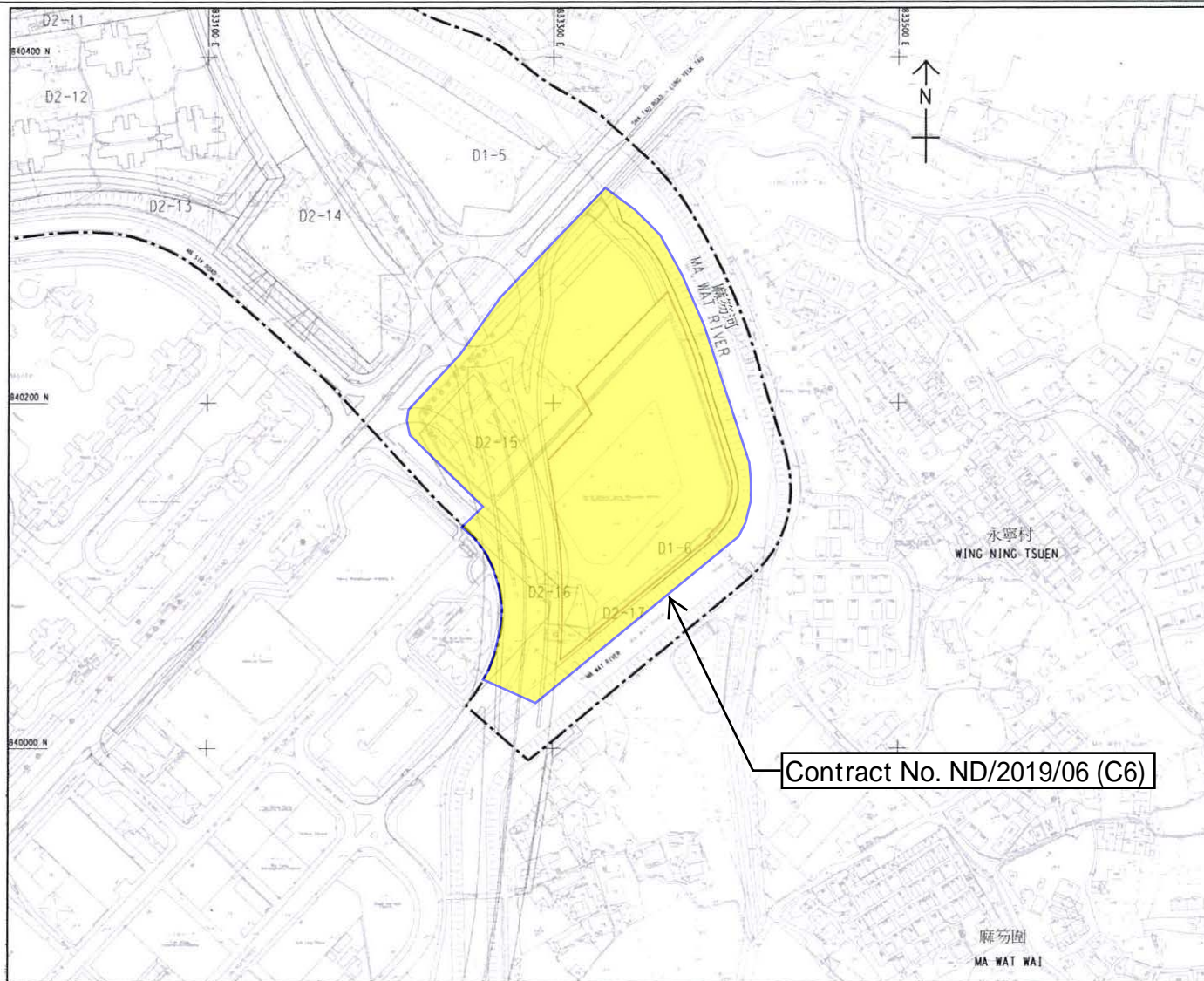
This figure was prepared based on Figure 1.1 of VEP application (No.: VEP-526/2016)  
本圖是根據申請更改環境許可證(編號: VEP-526/2016)圖1.1編制



**Figure 21**

**Site Layout Plan of Contract ND/2019/06**

**under EP-475-2013-A**



圖例:  
LEGEND:

--- 新發展區項目邊界  
NDA PROJECT BOUNDARY

— 最新位置邊界  
LATEST SITE BOUNDARY



**Project Title: NENT - Reprovision of temporary Wholesale Market in Fanling North New Development Area**  
**工程名稱：粉嶺北新發展區重置臨時批發市場**

**Environmental Permit No.: EP-475/2013/A**  
**環境許可證編號：EP-475/2013/A**

**Figure 1: Project Location Plan (Indicative)**  
**圖 1：工程項目位置圖 (示意圖)**

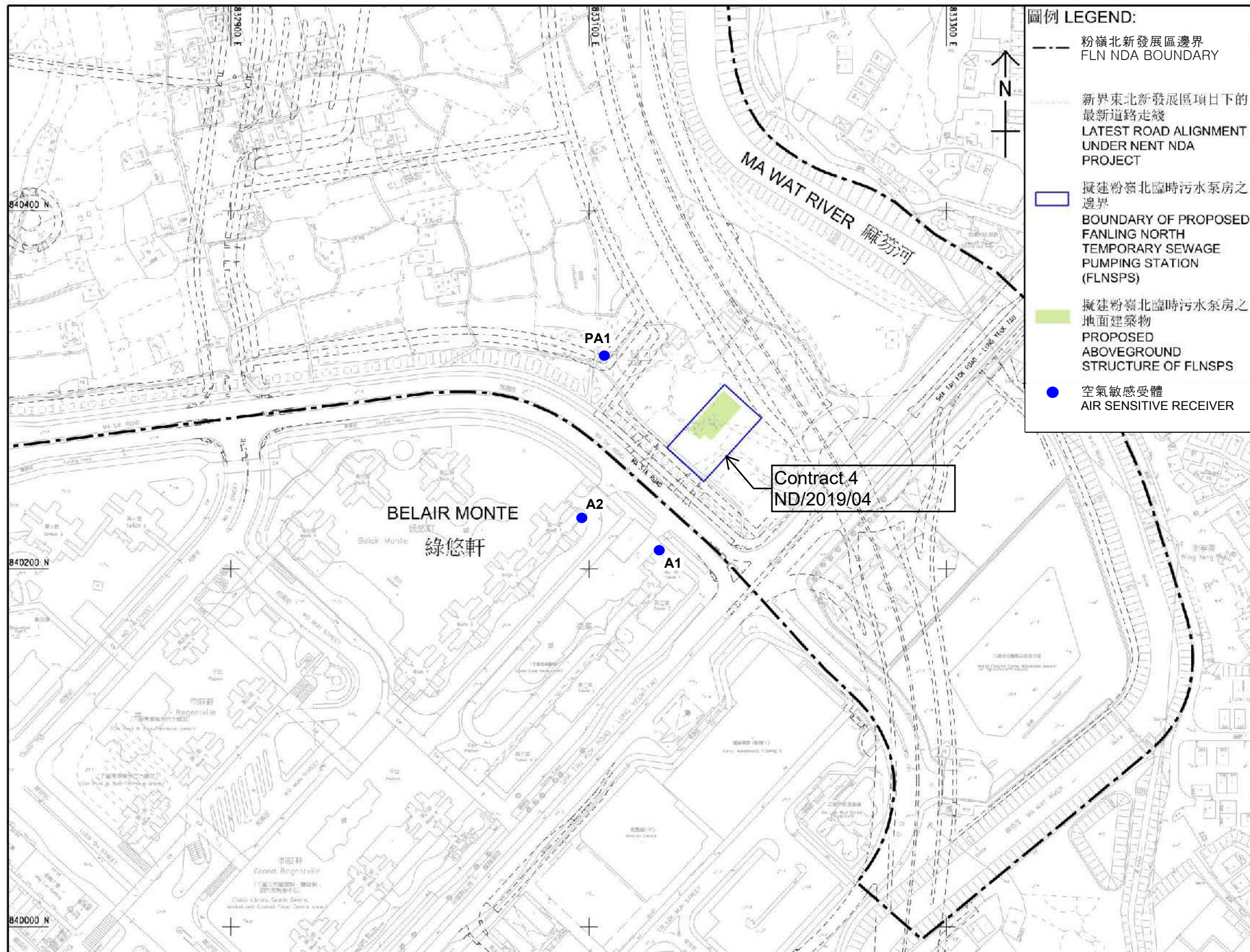
(This figure was prepared based on Figure 1.1 of VEP application (No.: VEP-516/2016))  
 (本圖是根據申請更改環境許可證(編號 VEP-516/2016) 圖 1.1 編制)



**Figure 22**

**Site Layout Plan of Contract ND/2019/04**

**under EP-546-2017**



**Project Title: Fanling North Temporary Sewage Pumping Station**  
 工程名稱：粉嶺北臨時污水泵房

**Environmental Permit No.: EP-546/2017**  
 環境許可證編號：EP-546/2017

**Figure 1: Project Location Plan (Indicative)**  
 圖 1：工程項目位置圖 (示意圖)

(This figure was prepared based on Figure 1.1 of Project Profile No: PP-557/2017  
 (本圖是根據工程項目簡介編號: PP-557/2017 圖 1.1 編制)



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**APPENDIX A  
CONSTRUCTION PROGRAMME**

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## **Construction Programme of ND/2019/01**

Activity ID	Activity Name	Remaining Duration	Start	Finish	Total Float	Calendar	April 2023					May 2023					June 2023					July 2023			
							26	02	09	16	23	30	07	14	21	28	04	11	18	25	02	09	16	23	
<b>Revised Programme (2023-03-25) Rev.0 for Edward</b>																									
<b>2.0 - Site Access Dates</b>																									
AD-1240	Portion 13	0	25-Apr-23*		-474	CD(7d)																			
AD-1000	Portion 1a	0	25-Apr-23*		-658	CD(7d)																			
AD-1260	Portion 15	0	25-Apr-23*		-109	CD(7d)																			
AD-1020	Portion 1c	0	25-Apr-23*		-474	CD(7d)																			
<b>3.0 - Site Completion Dates</b>																									
<b>3.1 Sectional Work Completion (Original Contract Completion Date)</b>																									
SC0-1150	Section 10B - all works in Area J1	0		25-Apr-23*	-18	CD(7d)																			
SC0-1020	Section 2B - all works in Area C2	0		06-May-23*	0	CD(7d)																			
SC0-1040	Section 4A - all works in Area D1	0		06-May-23*	0	CD(7d)																			
SC0-1080	Section 6A - all works in Area G1	0		06-Jul-23*	0	CD(7d)																			
<b>3.2 Planned Sectional Work Completion</b>																									
SC-1000	Section 1 - all works Area H except landscape works and District Cooling System related works	0		01-Jun-23*	-238	CD(7d)																			
SC-1150	Section 10B - all works in Area J1	0		02-Jun-23*	-57	CD(7d)																			
SC-1020	Section 2B - all works in Area C2	0		02-May-23*	4	CD(7d)																			
SC-1040	Section 4A - all works in Area D1	0		25-May-23*	-19	CD(7d)																			
SC-1050	Section 4B - all works in Area D2	0		25-May-23*	149	CD(7d)																			
SC-1080	Section 6A - all works in Area G1	0		24-Jul-23*	-18	CD(7d)																			
<b>4.0 - Key Dates</b>																									
<b>4.1 Key Date Completion (Original Contract Completion Date)</b>																									
KD0-1080	KD9 1230 days after starting date	0		25-Apr-23*	-5	CD(7d)																			
<b>6.0 - Preliminaries and General Requirements</b>																									
<b>6.2 - General Submissions</b>																									
GS-1290	Preparation and Submission of Fully Coordinated BIM	1041	21-Aug-20 A	28-Feb-26*	-23	CD(7d)																			
GS-1230	Submission of Major Method Statements	42	06-Dec-19 A	05-Jun-23	475	CD(7d)																			
<b>7.0 Construction</b>																									
<b>Section 1</b>																									
S1-1040	Additional Requirements for the Construction of Traffic Signal System at the Junction of Road D1 and L1 (CNE 085)	0		25-Apr-23	-239	CD(7d)																			
S1-1032	DN200 Fresh Watermain to Existing Watermain for MWSC Site between Po Lau Road and Castle Peak Road (CNE 075)	0		25-Apr-23	-239	CD(7d)																			
S1-1038	Early Open Road D1-1 and Road L-1 for General Public Use and Access (EWN 071)	0		25-Apr-23	-239	CD(7d)																			
S1-1044	Late Handover the Borrowed Zones from ArchSD's MWSC Contractor at Area H Portion 10a (CNE 088) (CE 250)	0		25-Apr-23	-212	CD(7d)																			
S1-1010	Planned Completion Date of Section 1	0		01-Jun-23	-238	CD(7d)																			
S1-1034	Potential Changes of the Scope of Noise Barriers (AECOM EWN PM-003)	0		25-Apr-23	-207	CD(7d)																			
S1-1042	Quotation for Additional Drainage & Sewerage Works at Portion 10a (PMI 202)	0		25-Apr-23	-239	CD(7d)																			
<b>Portion 10a in Area H, H1, H2 (Soil Treatment &amp; Provision of Site Access &amp; EVA to MWSC)</b>																									
<b>Preparation work/Tree Survey/Site Clearance/GI at Late Possession (Area H, H1)</b>																									
S1P10a-1100	Late Possession of Site of Part of Portions 7 and 10a (in Area H, H1, T1, T2 & T3) (CNE No. 001) (CE 009)	0		25-Apr-23	-239	CD(7d)																			
<b>KD1 - Provision of Site Access and EVA to MWSC</b>																									
<b>Civil Works</b>																									
<b>Road D1 (Stage 2) Castle Peak road junction</b>																									



- Planned Work
- Critical Work
- Actual Work
- ◆ Milestone
- ◆ Milestone Critical
- Summary LOE
- Summary LOE Critical

**ND/2019/01 - 3 Month Rolling Programme (2023-04)**

Data Date: 25-Apr-23

Run Date: 28-April-2023

Project ID: ND201901-RP-10  
Layout: ND201901-3MRP with logo  
Page 1 of 16

REVISED PROGRAMME (2023-04)			
Date	Revision	Checked	Approved
28-Apr-23	Rev.0	SC	BY

Activity ID	Activity Name	Remaining Duration	Start	Finish	Total Float	Calendar	April 2023					May 2023					June 2023					July 2023				
							26	02	09	16	23	30	07	14	21	28	04	11	18	25	02	09	16	23		
S1K1-2024	Construct & maintain Temporary drainage	31	25-Apr-23	01-Jun-23	-193	WD(6d)	Construct & maintain Temporary drainage																			
S1K1-2036	Road works - Formation & Sub base	27	01-Mar-23 A	27-May-23	-193	WD(6d)	[Gantt bar]																			
S1K1-2040	Road works - Laying bituminous paving	4	29-May-23	01-Jun-23	-193	WD(6d)	[Gantt bar]																			
S1K1-2038	Road works - Road kerb	7	19-May-23	27-May-23	-193	WD(6d)	[Gantt bar]																			
<b>Smart Road Lightings System Installation</b>																										
S1K1-3040	Testing and Commissioning (T&C) for road lighting system	30	25-Apr-23	24-May-23	-230	CD(7d)	[Gantt bar]																			
<b>Remaining Road works in Area H</b>																										
S1P10a-4000	DCS Works by Others (Anticipated Commencement Date 19-May-2023)	150	19-May-23	15-Oct-23	814	CD(7d)	[Gantt bar]																			
S1P10a-2200	Footpath Construction - RD L1 North Side - Laying Paving Blocks	32	06-Mar-23 A	02-Jun-23	-178	WD(6d)	[Gantt bar]																			
S1P10a-2190	Footpath Construction - RD L1 North Side - Site Formation	27	27-Jan-23 A	27-May-23	-173	WD(6d)	[Gantt bar]																			
S1P10a-2170	Footpath Construction - RD L1 South Side - Laying Paving Blocks	3	25-Apr-23*	27-Apr-23	-177	WD(6d)	[Gantt bar]																			
S1P10a-2140	Footpath Construction Rd D1 East Side (Stage 1) - Laying Paving Blocks	10	13-Feb-23 A	06-May-23	-178	WD(6d)	[Gantt bar]																			
S1P10a-2250	Footpath Construction Rd D1 East Side (Stage 2) - Laying Paving Blocks Inside Section	4	05-May-23	09-May-23	-182	WD(6d)	[Gantt bar]																			
S1P10a-2256	Footpath Construction Rd D1 East Side (Stage 2) - Laying Paving Blocks Outside Section	4	15-May-23	18-May-23	-182	WD(6d)	[Gantt bar]																			
S1P10a-2252	Footpath Construction Rd D1 East Side (Stage 2) - Divert Pedestrian Access	0		09-May-23	-181	WD(6d)	◆ Footpath Construction Rd D1 East Side (Stage 2) - Divert Pedestrian Access																			
S1P10a-2240	Footpath Construction Rd D1 East Side (Stage 2) - Site Formation Inside Section	4	29-Apr-23	04-May-23	-182	WD(6d)	[Gantt bar]																			
S1P10a-2254	Footpath Construction Rd D1 East Side (Stage 2) - Site Formation Outside Section	4	10-May-23	13-May-23	-182	WD(6d)	[Gantt bar]																			
S1P10a-2230	Footpath Construction Rd D1 West Side (Stage 2) - Laying Paving Blocks	6	08-May-23	13-May-23	-178	WD(6d)	[Gantt bar]																			
S1P10a-2220	Footpath Construction Rd D1 West Side (Stage 2) - Site Formation	6	29-Apr-23*	06-May-23	-182	WD(6d)	[Gantt bar]																			
S1P10a-2012	Road D1 & L1 Cycle Track - Laying bitumen	6	26-Apr-23*	03-May-23	-169	WD(6d)	[Gantt bar]																			
S1P10a-2005	Road D1 Cycle Track - Road Formation (Stage 2)	6	02-May-23*	08-May-23	-173	WD(6d)	[Gantt bar]																			
S1P10a-2018	Road Works - Irrigation System Installation	30	03-Jun-23	10-Jul-23	564	WD(6d)	[Gantt bar]																			
<b>Section 2A</b>																										
S2A-1006	Temporary Stockpile at Portion 5 and Additional Land D (EWN No. 020) (CNE No. 020, 037, 038) (CE 022)	0		25-Apr-23	988	CD(7d)	◆ Temporary Stockpile at Portion 5 and Additional Land D (EWN No. 020) (CNE No. 020, 037, 038) (CE 022)																			
<b>Portion 5 in Area C1 (Soil Treatment &amp; Interface with HD's Contractors)</b>																										
<b>Preparation work/Tree Survey/Site Clearance/GI</b>																										
S2AP5-1000	Late Possession of Site of Part of Portion 5 (in Area C1) (CNE No. 004) (CE 012)	0		25-Apr-23	988	CD(7d)	◆ Late Possession of Site of Part of Portion 5 (in Area C1) (CNE No. 004) (CE 012)																			
<b>Section 2B</b>																										
S2B-1000	Planned Completion Date of Section 2B	0		02-May-23	4	CD(7d)	◆ Planned Completion Date of Section 2B																			
S2B-1002	Potential Late Access to and Use of the Site (Portions 1c & 9a) (EWN 49) (CNE 058) (CE 175)	0		25-Apr-23	4	CD(7d)	◆ Potential Late Access to and Use of the Site (Portions 1c & 9a) (EWN 49) (CNE 058) (CE 175)																			
<b>Portion 9a in Area C2 (Soil Treatment &amp; Interface with HD's Contractors)</b>																										
<b>Soil Treatment</b>																										
S2BP9a-2020	Backfilling to the formation levels	6	03-Jan-23 A	02-May-23	4	WD(6d)	[Gantt bar]																			
S2BP9a-2000	Construct & maintain Temporary drainage	6	25-Apr-23	02-May-23	4	WD(6d)	Construct & maintain Temporary drainage																			
S2BP9a-2030	Erect Chain Link Fence	6	25-Apr-23	02-May-23	4	WD(6d)	[Gantt bar]																			
<b>Section 3</b>																										
S3-1006	Delay in the Access to and Use of Portions 1a & 12 of the Site (CNE 034) (CE 108)	0		25-Apr-23	-658	CD(7d)	◆ Delay in the Access to and Use of Portions 1a & 12 of the Site (CNE 034) (CE 108)																			
<b>Portion 1a in Area E (Soil Treatment &amp; Interface with HKHS's Contractors)</b>																										
<b>Soil Treatment</b>																										
S3P1a-2020	Backfilling to the formation levels	48	08-Jun-23	04-Aug-23	718	WD(6d)	[Gantt bar]																			
S3P1a-2010	Remove soil (original assumed 17334m3) (1 / 13 EGI completed, interim soil to be excavated / treated : 1260m3 / 400m3)	36	01-Mar-23 A	07-Jun-23	496	WD(6d)	[Gantt bar]																			
<b>Section 4A</b>																										
S4-1002	Delay in the Access to and Use of Portion 1b of the Site (EWN 034) (CNE 033) (CE 107)	0		25-Apr-23	-24	CD(7d)	◆ Delay in the Access to and Use of Portion 1b of the Site (EWN 034) (CNE 033) (CE 107)																			
S4-1000	Planned Completion Date of Section 4A	0		25-May-23	-19	CD(7d)	◆ Planned Completion Date of Section 4A																			
<b>Portion 1b in Area D1 (Soil Treatment &amp; Interface with HD's Contractors)</b>																										



- Planned Work
- Critical Work
- Actual Work
- ◆ Milestone
- ◆ Milestone Critical
- Summary LOE
- Summary LOE Critical

### ND/2019/01 - 3 Month Rolling Programme (2023-04)

Data Date: 25-Apr-23

Run Date: 28-April-2023

Project ID: ND201901-RP-10  
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REVISED PROGRAMME (2023-04)			
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Activity ID	Activity Name	Remaining Duration	Start	Finish	Total Float	Calendar	April 2023					May 2023					June 2023					July 2023				
							26	02	09	16	23	30	07	14	21	28	04	11	18	25	02	09	16	23		
<b>Soil Treatment</b>																										
S4AP1b-2000	Construct & maintain Temporary drainage	26	25-Apr-23	25-May-23	-16	WD(6d)	Construct & maintain Temporary drainage																			
S4AP1b-2070	Erect Chain Link Fence	26	20-Feb-23 A	25-May-23	-16	WD(6d)	Erect Chain Link Fence																			
S4AP1b-2050	New Feature KS56 - Construct Slope	15	30-Jan-23 A	12-May-23	-14	WD(6d)	New Feature KS56 - Construct Slope																			
S4AP1b-2065	New Feature KS56 - Hydroseeding	24	25-Mar-23 A	25-May-23	-16	WD(6d)	New Feature KS56 - Hydroseeding																			
S4AP1b-2030	New Feature KS57 - Construct Slope	2	01-Dec-22 A	26-Apr-23	-16	WD(6d)	New Feature KS57 - Construct Slope																			
<b>Section 4B</b>																										
S4B-1000	Planned Completion Date of Section 4B	0		25-May-23	149	CD(7d)	◆ Planned Completion Date of Section 4B																			
S4B-1002	Potential Late Access to and Use of the Site (Portions 1c & 9a) (EWN 49) (CNE 058) (CE 175)	0		25-Apr-23	168	CD(7d)	◆ Potential Late Access to and Use of the Site (Portions 1c & 9a) (EWN 49) (CNE 058) (CE 175)																			
<b>Portion 1c in Area D2 (Soil Treatment &amp; Interface with HD's Contractors)</b>																										
<b>Soil Treatment</b>																										
S4BP1c-2000	Construct & maintain Temporary drainage	26	25-Apr-23	25-May-23	123	WD(6d)	Construct & maintain Temporary drainage																			
S4BP1c-2050	Erect Chain Link Fence	26	20-Feb-23 A	25-May-23	123	WD(6d)	Erect Chain Link Fence																			
S4BP1c-2030	New Feature KS56 - Construct Slope	15	30-Jan-23 A	12-May-23	123	WD(6d)	New Feature KS56 - Construct Slope																			
S4BP1c-2045	New Feature KS56 - Hydroseeding	26	25-Mar-23 A	25-May-23	123	WD(6d)	New Feature KS56 - Hydroseeding																			
<b>Section 4C</b>																										
<b>Portion 1b in Area D3 (Soil Treatment &amp; Interface with ArchSD's Contractors)</b>																										
<b>Soil Treatment</b>																										
S4CP1b-2000	Construct & maintain Temporary drainage	0	25-Apr-23	25-Apr-23	1100	WD(6d)	Construct & maintain Temporary drainage																			
<b>Section 6A</b>																										
S6A-1000	Planned Completion Date of Section 6A	0		24-Jul-23	-18	CD(7d)	◆ Planned Completion Date of Section 6A																			
<b>Portion 1e in Area G1 (Soil Treatment &amp; Forming Hammerhead)</b>																										
S6AP1e-1000	Late Access to and Use of Site of Portion 1e (CNE 25) (CE 075)	0		25-Apr-23	-55	CD(7d)	◆ Late Access to and Use of Site of Portion 1e (CNE 25) (CE 075)																			
<b>Soil Treatment</b>																										
S6AP1e-2000	Construct & maintain Temporary drainage	60	26-Apr-23	08-Jul-23	-44	WD(6d)	Construct & maintain Temporary drainage																			
S6AP1e-2020	Remove Existing Retaining Wall and Site formation Works	60	26-Apr-23*	08-Jul-23	-44	WD(6d)	Remove Existing Retaining Wall and Site formation Works																			
<b>Portion 15 in Area G1 (Soil Treatment)</b>																										
<b>Preparation work/Tree Survey/Site Clearance/GI</b>																										
S6AP15-1020	Site clearance	24	26-Apr-23	24-May-23	-44	WD(6d)	Site clearance																			
<b>Soil Treatment</b>																										
S6AP15-2000	Construct & maintain Temporary drainage	73	26-Apr-23	24-Jul-23	-15	WD(6d)	Construct & maintain Temporary drainage																			
S6AP15-2020	Site formation Works	49	25-May-23	24-Jul-23	-15	WD(6d)	Site formation Works																			
<b>Section 6B</b>																										
S6B-1002	Late Access to and Use of Site of Portion 1e (CNE 25) (CE 075)	0		25-Apr-23	624	CD(7d)	◆ Late Access to and Use of Site of Portion 1e (CNE 25) (CE 075)																			
<b>Section 8</b>																										
S8-1018	Excavation Permit (XP) for New Cycle Path (EWN No. 021) (CNE No. 022)	0		25-Apr-23	-893	CD(7d)	◆ Excavation Permit (XP) for New Cycle Path (EWN No. 021) (CNE No. 022)																			
S8-1020	Increased Difficulty for the Construction of Pak Shek Au Pedestrian Subway Cum Cycle Track at Portion 2 (EWN 068)	0		25-Apr-23	-313	CD(7d)	◆ Increased Difficulty for the Construction of Pak Shek Au Pedestrian Subway Cum Cycle Track at Portion 2 (EWN 068)																			
S8-1016	Opening of Cycle Track at Portion 2 and 10a (EWN No. 017)	0		25-Apr-23	-893	CD(7d)	◆ Opening of Cycle Track at Portion 2 and 10a (EWN No. 017)																			
S8-1014	Part of Portion 2 Occupied by YL/2015/01 (EWN No. 016) (CNE No. 022)	0		25-Apr-23	-893	CD(7d)	◆ Part of Portion 2 Occupied by YL/2015/01 (EWN No. 016) (CNE No. 022)																			
S8-1012	Suspension of Works at Part of Portion 2 (EWN No. 019)	0		25-Apr-23	-893	CD(7d)	◆ Suspension of Works at Part of Portion 2 (EWN No. 019)																			
<b>Portion 2 in Area A (Soil Treatment &amp; Construction of Pak Shek Au Junction)</b>																										
<b>Preparation work</b>																										
S8P2-1018	Remaining Site clearance	36	25-Apr-23	07-Jun-23	-412	WD(6d)	Remaining Site clearance																			
<b>Soil Treatment</b>																										
S8P2-2020	Backfilling to the formation levels	48	27-May-23	24-Jul-23	-260	WD(6d)	Backfilling to the formation levels																			



- Planned Work
- Critical Work
- Actual Work
- ◆ Milestone
- ◆ Milestone Critical
- Summary LOE
- Summary LOE Critical

### ND/2019/01 - 3 Month Rolling Programme (2023-04)


Data Date: 25-Apr-23

Run Date: 28-April-2023

Project ID: ND201901-RP-10  
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REVISED PROGRAMME (2023-04)			
Date	Revision	Checked	Approved
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Activity ID	Activity Name	Remaining Duration	Start	Finish	Total Float	Calendar	April 2023					May 2023					June 2023					July 2023												
							26	02	09	16	23	30	07	14	21	28	04	11	18	25	02	09	16	23										
S8P2-2010	Remove soil (original assumed 6898m3) (0/1 EGI completed, interim soil to be excavated / treated : 0m3/0m3) Clean Soil	26	25-Apr-23*	25-May-23	-722	WD(6d)																												
<b>Civil Work</b>																																		
<b>Construction of Pak Shek Au Junction</b>																																		
S8P2-4100	Cut slope with soil nail construction at existing slope KS34	180	08-Jun-23	12-Jan-24	-408	WD(6d)																												
S8P2-4110	Expose existing UU & ELS for Drainage & Water Main	48	30-Jun-22 A	21-Jun-23	-424	WD(6d)																												
S8P2-4130	Road & Drain Construction Stage 1 - Construction of drainage, Watermain (0 / 11 MH Completed)	240	25-Apr-23	09-Feb-24	-426	WD(6d)																												
<b>Portion 1a in Area A (Soil Treatment, Slope, Retaining Wall, Noise Barrier, Drainage &amp; Roadwork)</b>																																		
<b>Preparation work</b>																																		
S8P1a-1004	Approval & Acceptance of Tree Felling Application	24	10-Sep-22 A	18-May-23	-548	CD(7d)																												
S8P1a-1040	Arsenic Treatment Plan	36	25-Apr-23	07-Jun-23	-388	WD(6d)																												
S8P1a-0108	Delay Diversion/Modification of Ext. CLP Cables & Facilities w/in Vicinity of Pak Shek Au at 1a & 2 (EWN 078) (CNE 102	0		25-Apr-23	-434	CD(7d)																												
S8P1a-0100	Delay in the Access to and Use of Portions 1a & 12 of the Site (CNE 034) (CE 108)	0		25-Apr-23	-658	CD(7d)																												
S8P1a-1015	Ground investigation (4 / 7 GI completed)	18	05-Nov-22 A	16-May-23	-468	WD(6d)																												
S8P1a-0106	Potential Changes of the Scope of Noise Barriers (AECOM EWN PM-003)	0		25-Apr-23	72	CD(7d)																												
S8P1a-0102	Potential Delay on Production and Supply of D.I. Pipes and Fittings (EWN 041) (CNE 047)	0		25-Apr-23	-257	CD(7d)																												
S8P1a-0104	Potential Delay on Production and Supply of M.S. Pipes and Fittings (EWN 042) (CNE 047)	0		25-Apr-23	-257	CD(7d)																												
S8P1a-1030	Prepare Arsenic Assessment Report	36	25-Apr-23	07-Jun-23	-388	WD(6d)																												
S8P1a-1010	Site clearance	45	05-Oct-22 A	17-Jun-23	-468	WD(6d)																												
S8P1a-1025	Verification of Ground Condition & Design Review by Project Manager	60	17-May-23	15-Jul-23	-578	CD(7d)																												
<b>Soil Treatment</b>																																		
S8P1a-2020	Backfilling to the formation levels	35	19-Jul-23	28-Aug-23	-366	WD(6d)																												
S8P1a-2010	Remove soil (original assumed 10988m3) (0 / 6 EGI completed, interim soil to be excavated / treated : 0m3 / 0m3)	33	08-Jun-23*	18-Jul-23	-388	WD(6d)																												
<b>Civil Work</b>																																		
S8P1a-3000	Construct & maintain Temporary drainage	709	17-Jul-23	03-Dec-25	-466	WD(6d)																												
S8P1a-4000	DCS Works by Others (Anticipated Start Date 1-Jul-2023)	150	01-Jul-23*	27-Nov-23	-252	CD(7d)																												
S8P1a-7000	Excavation for retaining wall KW16	45	17-Jul-23	06-Sep-23	-466	WD(6d)																												
S8P1a-3020	Slopeworks for new feature KS03 (with about 200 nos. of soil nails)	84	17-Jul-23	25-Oct-23	-419	WD(6d)																												
S8P1a-3010	Slopeworks for new feature KS34 (with about 200 nos. of soil nails)	84	17-Jul-23	25-Oct-23	-419	WD(6d)																												
<b>Portion 3 in Area A (Soil Treatment, Drainage &amp; Roadwork)</b>																																		
<b>Preparation work</b>																																		
S8P3-0100	Assumed Handover Date of Portion 3 (Late Possession) (CNE No. 005) (CE 015)	0	25-Apr-23*		-103	CD(7d)																												
S8P3-0104	Increased Risk for Damages to Existing Donjiang Raw Water Mains (DJRWs) (CNE 060)	0		25-Apr-23	112	CD(7d)																												
S8P3-0106	Potential Changes of the Scope of Noise Barriers (AECOM EWN PM-003)	0		25-Apr-23	265	CD(7d)																												
S8P3-0102	Potential Delay on Production and Supply of D.I. Pipes and Fittings (EWN 041) (CNE 047)	0		25-Apr-23	112	CD(7d)																												
S8P3-0103	Potential Delay on Production and Supply of M.S. Pipes and Fittings (EWN 042) (CNE 047)	0		25-Apr-23	112	CD(7d)																												
<b>Soil Treatment</b>																																		
S8P3-2020	Backfilling to the formation levels	45	15-May-23	08-Jul-23	-47	WD(6d)																												
<b>Civil Work</b>																																		
S8P3-3000	Construct & maintain Temporary drainage	370	25-Apr-23	23-Jul-24	-81	WD(6d)																												
S8P3-4000	DCS Works by Others (Anticipated Start Date 2-May-2023)	120	14-May-23*	10-Sep-23	-21	CD(7d)																												
S8P3-3010.00	Underground Drainage work (SMH1007 to 1008) (0 / 5 Completed)	16	06-Aug-22 A	13-May-23	-81	WD(6d)																												
S8P3-3010.02	Underground Fresh watermain CHA (North bound Carriageway) CHA	72	15-May-23	09-Aug-23	-81	WD(6d)																												
<b>Portion 5 in Area A (Soil Treatment, Bored Pile Wall, Drainage &amp; Roadwork)</b>																																		
<b>Preparation work/Tree Survey/Site Clearance/GI</b>																																		
S8P5-0102	Design Layout and Profile for the Water Supply Pipework (EWN 034)	0		25-Apr-23	-320	CD(7d)																												
S8P5-0108	Increased Risk for Damages to Existing Donjiang Raw Water Mains (DJRWs) (CNE 060)	0		25-Apr-23	-273	CD(7d)																												



Build King - Richwell Engineering Joint Venture

- Planned Work
- Critical Work
- Actual Work
- ◆ Milestone
- ◆ Milestone Critical
- Summary LOE
- Summary LOE Critical

### ND/2019/01 - 3 Month Rolling Programme (2023-04)

Data Date: 25-Apr-23      Run Date: 28-April-2023

Project ID: ND201901-RP-10  
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REVISED PROGRAMME (2023-04)			
Date	Revision	Checked	Approved
28-Apr-23	Rev.0	SC	BY



Activity ID	Activity Name	Remaining Duration	Start	Finish	Total Float	Calendar	April 2023					May 2023					June 2023					July 2023			
							26	02	09	16	23	30	07	14	21	28	04	11	18	25	02	09	16	23	
S8P9b-3132	Potential Changes of the Scope of Noise Barriers (AECOM EWN PM-003)	0		25-Apr-23	-81	CD(7d)					◆	◆ Potential Changes of the Scope of Noise Barriers (AECOM EWN PM-003)													
S8P9b-3122	Requesting for Additional Concrete Vehicular Access by the Local Villager adjacent 9b of the Site (EWN 064)	0		25-Apr-23	-114	CD(7d)					◆	◆ Requesting for Additional Concrete Vehicular Access by the Local Villager adjacent 9b of the Site (EWN 064)													
S8P9b-3146	Revised Sewerage System along Road D4 and D5 at Portion 9b of the Site (CNE 083)	0		25-Apr-23	-413	CD(7d)					◆	◆ Revised Sewerage System along Road D4 and D5 at Portion 9b of the Site (CNE 083)													
S8P9b-3124	Suspension of Precast Concrete Manhole Supply due to the Severe Outbreak of COVID-19 in Mainland China (EWN 060)	0		25-Apr-23	-53	CD(7d)					◆	◆ Suspension of Precast Concrete Manhole Supply due to the Severe Outbreak of COVID-19 in Mainland China (EWN 060)													
S8P9b-3152	Unrecognized Construction Works for Newly Underground Cables and Facilities conducted by CLP at Portion 9b (EWN 083)	0		25-Apr-23	-462	CD(7d)					◆	◆ Unrecognized Construction Works for Newly Underground Cables and Facilities conducted by CLP at Portion 9b (EWN 083)													
<b>Preparation work/Tree Survey/Site Clearance/GI</b>																									
S8P9b-0005	Late Possession of Site of Portions 9b & 9d (CNE No. 007) (EWN No. 011) (CE 022)	0		25-Apr-23	-413	CD(7d)					◆	◆ Late Possession of Site of Portions 9b & 9d (CNE No. 007) (EWN No. 011) (CE 022)													
S8P9b-0006	Removal of Existing CLP Facilities (EWN No. 018)	0		25-Apr-23	-341	CD(7d)					◆	◆ Removal of Existing CLP Facilities (EWN No. 018)													
S8P9b-1010	Site clearance & Tree Felling	40	25-Jun-22 A	12-Jun-23	-334	WD(6d)						[Red bar: 25-Jun-22 to 12-Jun-23]													
<b>Soil Treatment</b>																									
S8P9b-2020	Backfilling to the formation levels	80	13-Jun-23	15-Sep-23	-318	WD(6d)						[Red bar: 13-Jun-23 to 15-Sep-23]													
<b>Civil Work</b>																									
S8P9b-3000	Construct & maintain Temporary drainage	709	25-Apr-23	12-Sep-25	-390	WD(6d)						[Red bar: 25-Apr-23 to 12-Sep-25]													
S8P9b-3102	Implement TTA for diversion of Ma Tso Lung Road & Road D5	6	25-Apr-23*	02-May-23	-284	WD(6d)						[Red bar: 25-Apr-23 to 02-May-23]													
S8P9b-3104	Ma Tso Lung Road D4-2 - Break existing Road paving and Construct Pipe Culvert PC1 - Stage 2	30	06-May-23	10-Jun-23	-284	WD(6d)						[Red bar: 06-May-23 to 10-Jun-23]													
S8P9b-3108	Ma Tso Lung Road D4-2 - Construction of Underground Drainage Manhole M 3.90 to KT 71 10 and KT 71 08 to M.395	90	12-Jun-23	26-Sep-23	-284	WD(6d)						[Red bar: 12-Jun-23 to 26-Sep-23]													
S8P9b-3106	Ma Tso Lung Road D4-2 - Construction of Underground Sewerage Manhole FMH 7.14 to 8.03	60	06-May-23	18-Jul-23	-284	WD(6d)						[Red bar: 06-May-23 to 18-Jul-23]													
S8P9b-3006.20	New Feature KS19 - Hydroseeding	0	31-Mar-23 A	31-Mar-23 A		WD(6d)						[Milestone]													
S8P9b-3057.08	Road D4 (CH 400 - CH 625) - Underground Fresh Watermains	52	12-Jan-23 A	27-Jun-23	-48	WD(6d)						[Red bar: 12-Jan-23 to 27-Jun-23]													
S8P9b-3057.10	Road D4 (CH 400 to CH 625) - Laying DCS Pipes	110	28-Jun-23	07-Nov-23	-48	WD(6d)						[Red bar: 28-Jun-23 to 07-Nov-23]													
S8P9b-3010	Road D4 (CH 780 to CH 994) - Construction of Underground Drainage Manhole SMH KT5009 to SMH KT5016	144	14-Jun-23	04-Dec-23	-334	WD(6d)						[Red bar: 14-Jun-23 to 04-Dec-23]													
S8P9b-3008	Road D4 (CH 780 to CH 994) - Construction of Underground Sewerage Manhole FMH 7.10 to 7.13	136	15-Mar-23 A	06-Oct-23	-334	WD(6d)						[Red bar: 15-Mar-23 to 06-Oct-23]													
S8P9b-3262	Road D4 Across DJ Watermain - Construct Jacking Pit & Receiving Pit	100	16-May-23	12-Sep-23	-390	WD(6d)						[Red bar: 16-May-23 to 12-Sep-23]													
S8P9b-3260	Road D4 Across DJ Watermain - Implement TTA and Road Diversion (CH 670 to CH 780 )	12	02-May-23*	15-May-23	-390	WD(6d)						[Red bar: 02-May-23 to 15-May-23]													
S8P9b-3058.04	Road D5 - Construction of Underground Drainage Manhole SMH KT7103 to M 3.92 (4 / 4 MH completed)	6	17-Jan-22 A	02-May-23	-47	WD(6d)						[Red bar: 17-Jan-22 to 02-May-23]													
S8P9b-3058.06	Road D5 - Construction of Underground Sewerage Manhole FMH 8.01 to 8.02 (2 / 2 MH completed)	9	06-Feb-23 A	05-May-23	-50	WD(6d)						[Red bar: 06-Feb-23 to 05-May-23]													
S8P9b-3058.20	Road D5 - DCS Works by Others (Anticipated Commencement Date 23-Apr-2023)	90	06-May-23*	03-Aug-23	-13	CD(7d)						[Red bar: 06-May-23 to 03-Aug-23]													
S8P9b-3058.080	Road D5 - Laying Drainage Pipe between SMHK KT7103 and KT7104	60	06-May-23	18-Jul-23	-50	WD(6d)						[Red bar: 06-May-23 to 18-Jul-23]													
S8P9b-3058.10	Road D5 - Laying Watermains	72	19-Jul-23	12-Oct-23	-50	WD(6d)						[Red bar: 19-Jul-23 to 12-Oct-23]													
S8P9b-3030.06	Road W1 (CH100 to CH310) - Backfilling to Formation Level	48	08-Jun-23	04-Aug-23	-118	WD(6d)						[Red bar: 08-Jun-23 to 04-Aug-23]													
S8P9b-3030.04	Road W1 (CH100 to CH310) - Pressure test for Fresh & Flushing watermains	24	08-Jun-23	07-Jul-23	-94	WD(6d)						[Red bar: 08-Jun-23 to 07-Jul-23]													
S8P9b-3030.02	Road W1 (CH250 to CH310) - Laying Watermains	36	25-Apr-23*	07-Jun-23	-118	WD(6d)						[Red bar: 25-Apr-23 to 07-Jun-23]													
S8P9b-3001.02	Slopeworks for new feature KS19 - U channel, Berm, Maintenance Access & Handrail Construction	36	02-Dec-22 A	07-Jun-23	-234	WD(6d)						[Red bar: 02-Dec-22 to 07-Jun-23]													
<b>Portion 8a in Area A (Soil Treatment, Reservoirs, Slope, Drainage &amp; Roadwork)</b>																									
S8P8a-1100	Assumed resumption date of fresh and flushing reservoirs construction due to CNE No. 006 & EWN No. 005 (CE 019)	0		25-Apr-23	-509	CD(7d)						◆ Assumed resumption date of fresh and flushing reservoirs construction due to CNE No. 006 & EWN No. 005 (CE 019)													
S8P8a-1106	Design Change on Road W1 (EWN 025)	0		25-Apr-23	-224	CD(7d)						◆ Design Change on Road W1 (EWN 025)													
S8P8a-3090	Insufficient Width of Road W1 for Accommodation of All Underground Utilities (CNE 056)	0		25-Apr-23	-224	CD(7d)						◆ Insufficient Width of Road W1 for Accommodation of All Underground Utilities (CNE 056)													
<b>Preparation work/Tree Survey/Site Clearance/GI</b>																									
S8P8a-1035	Remaining Ground investigation (0 / 1 GI completed) to Fresh Water Service Reservoir	12	25-Apr-23	09-May-23	-255	WD(6d)						[Red bar: 25-Apr-23 to 09-May-23]													
<b>Forming Site Access and Site Formation</b>																									
<b>Stage 1 General Excavation near Flushing Water Service Reservoir (Excavation Volume 52834 m3)</b>																									
S8P8a-1105	Construct & maintain Temporary drainage	40	25-Apr-23	12-Jun-23	-283	WD(6d)						Construct & maintain Temporary drainage [Red bar: 25-Apr-23 to 12-Jun-23]													
S8P8a-1160	General excavation for remaining of Road W1	40	11-Jun-20 A	12-Jun-23	-283	WD(6d)						[Red bar: 11-Jun-20 to 12-Jun-23]													
<b>KD8 - complete all works for fresh water and flushing water services reservoirs, pipe laying &amp; road</b>																									
S8K8-6002	Strong Objection on the Construction of Fresh and Flushing Reservoirs (EWN 031) Maintenance Access beside KS47	0		25-Apr-23	-509	CD(7d)						◆ Strong Objection on the Construction of Fresh and Flushing Reservoirs (EWN 031) Maintenance Access beside KS47													
S8K8-6000	Temporary Stockpile at Portion 5 and Additional Land D (EWN No. 020) (CNE No. 020, 037, 038) (CE 022)	0		25-Apr-23	-421	CD(7d)						◆ Temporary Stockpile at Portion 5 and Additional Land D (EWN No. 020) (CNE No. 020, 037, 038) (CE 022)													
<b>Construction of Kwu Tung North Flushing Water Service Reservoir (KTN FLWSR)</b>																									

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Activity ID	Activity Name	Remaining Duration	Start	Finish	Total Float	Calendar	April 2023					May 2023					June 2023					July 2023			
							26	02	09	16	23	30	07	14	21	28	04	11	18	25	02	09	16	23	
<b>Civil Works</b>																									
S8K8-1005	Construct & maintain Temporary drainage	198	25-Apr-23	19-Dec-23	-279	WD(6d)	[Red bar from 25-Apr-23 to 19-Dec-23]																		
S8K8-1038	Install Watermains inside Chambers	90	22-Feb-23 A	11-Aug-23	-279	WD(6d)	[Red bar from 22-Feb-23 to 11-Aug-23]																		
S8K8-1100	Tank No. 1 - Fill up Tank No. 1 for Water Tightness Test	30	25-Apr-23	31-May-23	-236	WD(6d)	[Red bar from 25-Apr-23 to 31-May-23]																		
S8K8-1110	Tank No. 1 - Water Tightness Test	14	01-Jun-23	14-Jun-23	-292	CD(7d)	[Red bar from 01-Jun-23 to 14-Jun-23]																		
S8K8-1120	Tank No. 2 - Fill up Tank No. 2 for Water Tightness Test	30	15-Jun-23	21-Jul-23	-236	WD(6d)	[Red bar from 15-Jun-23 to 21-Jul-23]																		
S8K8-1130	Tank No. 2 - Water Tightness Test	14	22-Jul-23	04-Aug-23	-290	CD(7d)	[Red bar from 22-Jul-23 to 04-Aug-23]																		
<b>E&amp;M Works</b>																									
S8K8-2010	Design and Approval for E&M works for KTN FLWSR	24	01-Feb-21 A	18-May-23	-31	CD(7d)	[Red bar from 01-Feb-21 to 18-May-23]																		
S8K8-2050	Installation of E&M equipment for KTN FLWSR	218	03-Jul-23	22-Mar-24	-26	WD(6d)	[Red bar from 03-Jul-23 to 22-Mar-24]																		
S8K8-2030	Procurement of E&M equipment for KTN FLWSR	70	15-Aug-22 A	03-Jul-23	-31	CD(7d)	[Red bar from 15-Aug-22 to 03-Jul-23]																		
S8K8-2020	Submission and Approval of E&M plants & materials for KTN FLWSR	48	01-Feb-21 A	11-Jun-23	-31	CD(7d)	[Red bar from 01-Feb-21 to 11-Jun-23]																		
S8K8-2040	Supply, Factory Acceptance Test (FAT) & Delivery of E&M equipment for KTN FLWSR	120	06-May-23	26-Sep-23	-26	WD(6d)	[Red bar from 06-May-23 to 26-Sep-23]																		
<b>Construction of Kwu Tung North Freshwater Service Reservoir (KTN FWSR)</b>																									
S8K8-6044	Potential Delay on Supply of Steel Moulds for Construction of Fresh Water Service Reservoir(FWSR) (EWN 053)	0		25-Apr-23	-89	CD(7d)	<span style="color: red;">◆</span> Potential Delay on Supply of Steel Moulds for Construction of Fresh Water Service Reservoir(FWSR) (EWN 053)																		
S8K8-6034	Revised Construction Drawings of Fresh Water Service Reservoir (CNE 067 , 067a)	0		25-Apr-23	-112	CD(7d)	<span style="color: red;">◆</span> Revised Construction Drawings of Fresh Water Service Reservoir (CNE 067 , 067a)																		
<b>Civil Works</b>																									
S8K8-1030	Back Filling for Construction of Inlet Chamber	24	25-Apr-23*	23-May-23	-25	WD(6d)	[Red bar from 25-Apr-23 to 23-May-23]																		
S8K8-1000.76	Baffle Wall - GL 10 / D-J	20	25-Apr-23*	18-May-23	-84	WD(6d)	[Red bar from 25-Apr-23 to 18-May-23]																		
S8K8-1000.70	Baffle Wall - GL 10 / J-P	12	19-May-23	02-Jun-23	-74	WD(6d)	[Red bar from 19-May-23 to 02-Jun-23]																		
S8K8-1000.72	Baffle Wall - GL 7 / M-S	16	25-Apr-23*	13-May-23	-70	WD(6d)	[Red bar from 25-Apr-23 to 13-May-23]																		
S8K8-1000.60	Columns (109 of 152 nos complete)	48	28-Jun-22 A	21-Jun-23	-72	WD(6d)	[Red bar from 28-Jun-22 to 21-Jun-23]																		
S8K8-3000	Construct & maintain Temporary drainage	315	25-Apr-23	17-May-24	-68	WD(6d)	[Red bar from 25-Apr-23 to 17-May-24]																		
S8K8-1032	Construction of Inlet Chamber	48	24-May-23	21-Jul-23	-25	WD(6d)	[Red bar from 24-May-23 to 21-Jul-23]																		
S8K8-1000.46	Cover Slab - No. 15 Stage 3	12	24-Jul-23	05-Aug-23	-89	WD(6d)	[Red bar from 24-Jul-23 to 05-Aug-23]																		
S8K8-1002.80	Remove Tower Crane	8	14-Jul-23	22-Jul-23	-89	WD(6d)	[Red bar from 14-Jul-23 to 22-Jul-23]																		
S8K8-3150	Road W5 - Approval of Temp Design for Cut Slope (Assumed)	0		25-Apr-23*	-469	WD(6d)	<span style="color: red;">◆</span> Road W5 - Approval of Temp Design for Cut Slope (Assumed)																		
S8K8-1002.44	Roof - bay 2	22	16-Jan-23 A	20-Jun-23	-89	WD(6d)	[Red bar from 16-Jan-23 to 20-Jun-23]																		
S8K8-1002.46	Roof - bay 3	30	25-Apr-23*	31-May-23	-72	WD(6d)	[Red bar from 25-Apr-23 to 31-May-23]																		
S8K8-1002.48	Roof - bay 4	18	21-Jun-23	13-Jul-23	-89	WD(6d)	[Red bar from 21-Jun-23 to 13-Jul-23]																		
S8K8-3060	Up Hill Receiving Pit - Excavation & Construction	180	08-Jul-23	09-Feb-24	-470	WD(6d)	[Red bar from 08-Jul-23 to 09-Feb-24]																		
S8K8-3050	Up Hill Receiving Pit - Road W5 Cut Slope & Temp Soil Nail	60	25-Apr-23	07-Jul-23	-470	WD(6d)	[Red bar from 25-Apr-23 to 07-Jul-23]																		
S8K8-1002.22	Wall - No. 11	16	25-Apr-23*	13-May-23	-74	WD(6d)	[Red bar from 25-Apr-23 to 13-May-23]																		
S8K8-1002.20	Wall - No. 12	9	02-Mar-23 A	05-May-23	-74	WD(6d)	[Red bar from 02-Mar-23 to 05-May-23]																		
S8K8-1002.24	Wall - No. 13	16	15-May-23*	02-Jun-23	-74	WD(6d)	[Red bar from 15-May-23 to 02-Jun-23]																		
S8K8-1002.28	Wall - No. 1T	15	03-Feb-23 A	12-May-23	-64	WD(6d)	[Red bar from 03-Feb-23 to 12-May-23]																		
S8K8-1002.08	Wall - No. 6	7	21-Feb-23 A	03-May-23	-89	WD(6d)	[Red bar from 21-Feb-23 to 03-May-23]																		
S8K8-1002.12	Wall - No. 8	18	04-May-23*	24-May-23	-89	WD(6d)	[Red bar from 04-May-23 to 24-May-23]																		
S8K8-1002.14	Wall - No. 9	15	25-May-23*	12-Jun-23	-82	WD(6d)	[Red bar from 25-May-23 to 12-Jun-23]																		
<b>E&amp;M Works</b>																									
S8K8-4010	Design and Approval for E&M works for KTN FWSR	30	20-Dec-21 A	24-May-23	-108	CD(7d)	[Red bar from 20-Dec-21 to 24-May-23]																		
S8K8-4030	Procurement of E&M equipment for KTN FWSR	54	15-Aug-22 A	16-Aug-23	-138	CD(7d)	[Red bar from 15-Aug-22 to 16-Aug-23]																		
S8K8-4020	Submission and Approval of E&M plants & materials for KTN FWSR	60	15-Mar-22 A	23-Jun-23	-138	CD(7d)	[Red bar from 15-Mar-22 to 23-Jun-23]																		
S8K8-4040	Supply, Factory Acceptance Test (FAT) & Delivery of E&M equipment for KTN FWSR	140	19-Jul-23	04-Jan-24	-112	WD(6d)	[Red bar from 19-Jul-23 to 04-Jan-24]																		
<b>Remaining Civil Work in Portion 8a Area A</b>																									
S8P8a-6000	Backfill to level of utilities laying (SMH KT 7011A to 7009)	50	11-Jan-23 A	24-Jun-23	-283	WD(6d)	[Red bar from 11-Jan-23 to 24-Jun-23]																		
S8P8a-2558	Construct & maintain Temporary drainage	168	08-Jun-23	28-Dec-23	-341	WD(6d)	[Red bar from 08-Jun-23 to 28-Dec-23]																		



- █ Planned Work
- █ Critical Work
- █ Actual Work
- ◆ Milestone
- ◆ Milestone Critical
- █ Summary LOE
- █ Summary LOE Critical

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							26	02	09	16	23	30	07	14	21	28	04	11	18	25	02	09	16	23	
S8P8a-2598	Construct & maintain Temporary drainage	100	25-Apr-23	23-Aug-23	-341	WD(6d)																			
S8P8a-2658	Construct & maintain Temporary drainage	52	25-Apr-23	27-Jun-23	-181	WD(6d)																			
S8P8a-3046	Construct & maintain Temporary drainage	635	25-Apr-23	17-Jun-25	-341	WD(6d)																			
S8P8a-2602	Construction of retaining wall KW05 bay 7 - bay 16 (Base Slab 3/10 bays completed, Stem Wall 3/10 bays completed)	100	12-Nov-22 A	23-Aug-23	-341	WD(6d)																			
S8P8a-2662	Construction of retaining wall KW11 bay 1 - bay 11 (Base Slab 11/11 bays completed, Stem Wall 7/11 bays completed)	52	16-Jun-22 A	27-Jun-23	-181	WD(6d)																			
S8P8a-2600	Excavation for retaining wall KW05 bay 7 - bay 16 (bays 4/10 completed)	36	01-Nov-22 A	07-Jun-23	-336	WD(6d)																			
S8P8a-2560	Excavation for retaining wall KW06 bay 1 - bay 7 (bays 0/7 completed)	100	08-Jun-23	06-Oct-23	-336	WD(6d)																			
S8P8a-5020	Road A5 - New Formed Sloping Ground KS52 Compact fill	36	03-Jun-23	17-Jul-23	-181	WD(6d)																			
S8P8a-5030	Road A5 - Road Works	24	04-Jul-23	31-Jul-23	-181	WD(6d)																			
S8P8a-5000	Road A5 - Site Formation Works	20	23-Mar-23 A	18-May-23	-181	WD(6d)																			
S8P8a-6001	Road W1 - Construction of Drainage Manhole SMH KT 7006B to 7001 ( 0 / 8 M/H complete)	140	25-Apr-23*	11-Oct-23	-269	WD(6d)																			
S8P8a-6006	Road W1 - Construction of Drainage Manhole SMH KT 7011A to 7009 ( 0 / 5 M/H complete)	104	26-Jun-23	28-Oct-23	-283	WD(6d)																			

Portion 8b in Area A (Soil Treatment & Install Watermains by Trenchless / Open Trench Method)																									
S8P8b-1002	Assumed resumption date of fresh and flushing reservoirs construction due to CNE No. 006 & EWN No. 005 (CE 019)	0		25-Apr-23	-551	CD(7d)	<ul style="list-style-type: none"> <li>Assumed resumption date of fresh and flushing reservoirs construction due to CNE No. 006 &amp; EWN No. 005 (CE 019)</li> </ul>																		
S8P8b-1008	Change of Road Layout of Ho Sheung Heung Road after the Works by DSD Contract DC/2019/06 (CNE 072b)	0		25-Apr-23	-594	CD(7d)	<ul style="list-style-type: none"> <li>Change of Road Layout of Ho Sheung Heung Road after the Works by DSD Contract DC/2019/06 (CNE 072b)</li> </ul>																		
S8P8b-8170	Increased Risk for Suspension of Pipe Jacking Flushing Watermains underneath MTRC Premises in Portion 8b (EWN 080)	0		25-Apr-23	-298	CD(7d)	<ul style="list-style-type: none"> <li>Increased Risk for Suspension of Pipe Jacking Flushing Watermains underneath MTRC Premises in Portion 8b (EWN 080)</li> </ul>																		

Preparation work																									
S8P8b-1010	Site clearance & Tree Felling	21	27-Dec-22 A	19-May-23	-446	WD(6d)																			

Soil Treatment																									
S8P8b-2010	Remove soil (original assumed 11724m3) (0 / 8 EGI completed, interim soil to be excavated / treated : 0m3 / 0m3)	56	20-May-23*	27-Jul-23	-446	WD(6d)																			

Construction of Watermains						
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Construction of watermains by trenchless method																									
S8P8b-4000	Construct & maintain Temporary drainage	687	25-Apr-23	18-Aug-25	-415	WD(6d)																			
S8P8b-4012.22	GPR & Micrometeor Survey, Reporting & Approval	30	27-Dec-22 A	31-May-23	-406	WD(6d)																			
S8P8b-4012.24	Ground Treatment	134	01-Jun-23	09-Nov-23	-406	WD(6d)																			
S8P8b-4068	Up Hill Pipe Jacking Pit - ELS, Toe Grouting & Excavation	8	18-Jun-22 A	04-May-23	-442	WD(6d)																			
S8P8b-4100	Up Hill Pipe Jacking Pit - Set Up for Pipe Jacking	72	05-May-23*	31-Jul-23	-442	WD(6d)																			

Construction of watermains by open trench method																									
S8P8b-5002	DSD Maintenance Road - Stage 1 Laying flushing water main - CHY 1143 to 1233	77	04-Mar-23 A	27-Jul-23	-312	WD(6d)																			
S8P8b-5006.04	Government Land - Laying Flushing water main - CHY 921 to 931	24	02-May-23*	30-May-23	-142	WD(6d)																			
S8P8b-5006.06	Government Land - Laying Flushing water main - CHY 987 to 1040	52	25-Apr-23*	27-Jun-23	-165	WD(6d)																			
S8P8b-7120	Ho Sheung Heung Road Fresh water main - Combine Chamber Construction (CHO 760 to 801)	72	17-May-23	11-Aug-23	-371	WD(6d)																			
S8P8b-7110	Ho Sheung Heung Road Fresh water main - Excavation, Laying Pipes and Backfilling (CHO 760 to 801)	90	25-Apr-23*	11-Aug-23	-371	WD(6d)																			
S8P8b-7100	Ho Sheung Heung Road Fresh water main - Excavation, Laying Pipes and Backfilling (CHO 555 to 560 )	48	29-May-23	25-Jul-23	-480	WD(6d)																			
S8P8b-7090	Ho Sheung Heung Road Fresh water main - Excavation, Laying Pipes and Backfilling (CHO 560 to 603)	27	02-Mar-23 A	27-May-23	-480	WD(6d)																			

Section 9																									
S9-1002	Delay in the Access to and Use of Portions 1a & 12 of the Site (CNE 034) (CE 108)	0		25-Apr-23	-403	CD(7d)	<ul style="list-style-type: none"> <li>Delay in the Access to and Use of Portions 1a &amp; 12 of the Site (CNE 034) (CE 108)</li> </ul>																		

Portion 12 in Area F (Soil Treatment & Interface with EMSD's Contractors)						
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Soil Treatment																									
S9P12-3030	Approval of CIA, Tunnel Monitoring Proposal and Analysis	30	17-May-23	15-Jun-23	-554	CD(7d)																			
S9P12-2000	Construct & maintain Temporary drainage	200	10-Jun-23	07-Feb-24	-447	WD(6d)																			
S9P12-3040	Installation of Tunnel Monitoring Instrumentation	36	10-Jun-23	24-Jul-23	-447	WD(6d)																			
S9P12-3020	Prepare & Submit CIA, Tunnel Monitoring Proposal and Analysis	18	15-Jul-22 A	16-May-23	-448	WD(6d)																			

Section 10A																									
S10A-1004	Late Access to and Use of Site of Portion 1e (CNE 25) (CE 075)	0		25-Apr-23	988	CD(7d)	<ul style="list-style-type: none"> <li>Late Access to and Use of Site of Portion 1e (CNE 25) (CE 075)</li> </ul>																		

Section 10B						
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- Planned Work
- Critical Work
- Actual Work
- Milestone
- Milestone Critical
- Summary LOE
- Summary LOE Critical

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							26	02	09	16	23	30	07	14	21	28	04	11	18	25	02	09	16	23	
S10B-1000	Planned Completion Date of Section 10B	0		02-Jun-23	-57	CD(7d)	◆ Planned Completion Date of Section 10B																		
S10B-1010	Unavailability for Provision of Access to and Use of Portions 15 of the Site (CNE 104)	0		25-Apr-23	-55	CD(7d)	◆ Unavailability for Provision of Access to and Use of Portions 15 of the Site (CNE 104)																		
<b>Portion 15 in Area J1 (Soil Treatment)</b>																									
<b>Preparation work/Tree Survey/Site Clearance/GI</b>																									
S10BP7-1020	Site clearance	6	26-Apr-23	03-May-23	-44	WD(6d)																			
<b>Soil Treatment</b>																									
S10BP7-2000	Construct & maintain Temporary drainage	32	25-Mar-23 A	02-Jun-23	-44	WD(6d)																			
S10BP7-2020	Site formation Works	25	04-May-23	02-Jun-23	-44	WD(6d)																			
<b>Section 11</b>																									
<b>Portion 6b in Area B (Soil Treatment &amp; Operation of HAC Soil Treatment Plant)</b>																									
S11P6b-1002	Unstable Supply of Cement for HAC Soil Treatment (EWN 036, 038)	0		25-Apr-23	514	CD(7d)	◆ Unstable Supply of Cement for HAC Soil Treatment (EWN 036, 038)																		
<b>KD4 - Setting up and T&amp;C of the High Arsenic-containing Soil Treatment Plant</b>																									
S11P6b-2005	Construct & maintain Temporary drainage	700	25-Apr-23	02-Sep-25	102	WD(6d)																			
<b>Operation and Dismantling of the Soil Treatment Plant</b>																									
S11P6b-3010	Provide treatment to high arsenic-containing soil	548	03-Dec-20 A	06-Mar-25*	-22	WD(6d)																			
S11P6b-3000	Provide treatment to Imported high arsenic-containing soil (Estimated Qty 90,000m3)	501	01-Mar-23 A	28-Dec-24	-22	WD(6d)																			
<b>Section 12A</b>																									
<b>Portion 10b in Area L1 (Soil Treatment, Drainage &amp; Roadwork)</b>																									
<b>Soil Treatment</b>																									
S12P10b-2020	Backfilling to the formation levels	42	25-Mar-23 A	14-Jun-23	139	WD(6d)																			
<b>Civil Work</b>																									
S12P10b-3000	Construct & maintain Temporary drainage	364	25-Apr-23	16-Jul-24	21	WD(6d)																			
S12P10b-4000	DCS Works by Others (Anticipated Commencement Date 13-May-2023)	150	08-Jun-23*	04-Nov-23	25	CD(7d)																			
S12P10b-3010	Underground utilities & Drainage work (1 / 1 SM/H, 0 / 1 FMH) Before DCS Works	36	13-Oct-21 A	07-Jun-23	19	WD(6d)																			
<b>Section 13</b>																									
S13-1015	Late Possession of remaining part of Portion 2 for soil nail works (CNE No. 008) (EWN No. 006) (CE 014)	0		25-Apr-23	1353	CD(7d)	◆ Late Possession of remaining part of Portion 2 for soil nail works (CNE No. 008) (EWN No. 006) (CE 014)																		
S13-1012	Suspension of Works at Part of Portion 2 (CNE No. 016) (EWN No. 019)	0		25-Apr-23	-31	CD(7d)	◆ Suspension of Works at Part of Portion 2 (CNE No. 016) (EWN No. 019)																		
<b>Portion 2 in Area N (Soil Treatment, Slope, Drainage &amp; Pak Shek Au Junction)</b>																									
<b>Soil Treatment</b>																									
S13P2-2020	Backfilling to the formation levels	40	20-Jan-23 A	12-Jul-23	-22	WD(6d)																			
S13P2-2010	Remove soil (original assumed 10854m3) (0 / 3 EGI completed, interim soil to be excavated / treated : 0m3 / 0m3)	24	24-Aug-22 A	23-May-23	-22	WD(6d)																			
<b>Civil Works</b>																									
S13P2- 3170	Revised Slope KS38 - Approval & Acceptance of tree felling and transplant report	26	16-Apr-21 A	20-May-23	403	CD(7d)																			
S13P2- 4034.00	West Quadrant - Backfill to Formation Level	32	13-Jul-23	18-Aug-23	-22	WD(6d)																			
S13P2- 4020.06	West Quadrant - Construction of Footpath (Adjacent to Roundabout)	12	13-Jun-23	27-Jun-23	-22	WD(6d)																			
S13P2- 4030	West Quadrant - Construction of Retaining Wall KW37 & reconstruction of existing slope	40	20-Feb-23 A	12-Jun-23	-22	WD(6d)																			
S13P2- 4032	West Quadrant - Construction of road Drainage (Remaining - 3 / 5 MH completed)	64	11-Jan-23 A	12-Jul-23	-22	WD(6d)																			
S13P2- 4020.04	West Quadrant - Construction of Road Kerb (Adjacent to Roundabout)	12	30-May-23	12-Jun-23	-22	WD(6d)																			
S13P2- 4020.02	West Quadrant - Construction of Road Sub base (Adjacent to Roundabout)	12	15-May-23	29-May-23	-22	WD(6d)																			
S13P2- 4020.08	West Quadrant - Laying Bitumen & Road Marking (Adjacent to Roundabout)	12	28-Jun-23	12-Jul-23	-22	WD(6d)																			
<b>Portion 1a in Area N (Soil Treatment, Drainage &amp; Roadwork)</b>																									
<b>Preparation work/Tree Survey/Site Clearance/GI</b>																									
S13P1a-0100	Delay in the Access to and Use of Portions 1a & 12 of the Site (CNE 034) (CE 108)	0		25-Apr-23	-658	CD(7d)	◆ Delay in the Access to and Use of Portions 1a & 12 of the Site (CNE 034) (CE 108)																		
S13P1a-0102	Potential Changes of the Scope of Noise Barriers (AECOM EWN PM-003)	0		25-Apr-23	769	CD(7d)	◆ Potential Changes of the Scope of Noise Barriers (AECOM EWN PM-003)																		
<b>Soil Treatment</b>																									

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Activity ID	Activity Name	Remaining Duration	Start	Finish	Total Float	Calendar	April 2023					May 2023					June 2023					July 2023				
							26	02	09	16	23	30	07	14	21	28	04	11	18	25	02	09	16	23		
S13P1a-2020	Backfilling to the formation levels	80	20-Jun-23	22-Sep-23	495	WD(6d)																				
S13P1a-2010	Remove soil (original assumed 14182m3) (0 / 4 EGI completed, interim soil to be excavated / treated : 0m3 / 0m3)	46	25-Apr-23*	19-Jun-23	307	WD(6d)																				
<b>Civil Work</b>																										
S13P1a-3000	Construct & maintain Temporary drainage	442	25-Apr-23	18-Oct-24	307	WD(6d)																				
S13P1a-3010	Underground utilities & Drainage work ( 0 / 11 SMH & 0 / 4 FMH Completed)	314	25-Apr-23	16-May-24	307	WD(6d)																				
<b>Portion 7 in Area N (Soil Treatment, Drainage &amp; Roadwork)</b>																										
S13P7-0000	Potential Changes of the Scope of Noise Barriers (AECOM EWN PM-003)	0		25-Apr-23	826	CD(7d)																				
<b>Civil Work</b>																										
<b>Underground Utilities</b>																										
S13P7-3000	Construct & maintain Temporary drainage	383	25-Apr-23	07-Aug-24	366	WD(6d)																				
S13P7-4000	DCS Works by Others	109	10-Feb-23 A	11-Aug-23	452	CD(7d)																				
<b>Portion 1b in Area N (Soil Treatment, Drainage &amp; Roadwork)</b>																										
<b>Preparation work/Tree Survey/Site Clearance/GI</b>																										
S13P1b-0900	Delay in the Access to and Use of Portion 1b of the Site (EWN 034) (CNE 033) (CE 107)	0		25-Apr-23	-24	CD(7d)																				
<b>Civil Work</b>																										
S13P1b-3000	Construct & maintain Temporary drainage	305	25-Apr-23	04-May-24	474	WD(6d)																				
S13P1b-3012	Construction of Sewerage 1 / 1 MH complete)	32	30-Dec-22 A	02-Jun-23	471	WD(6d)																				
S13P1b-3010	Construction of Underground Drainage (4 / 5 MH complete)	27	10-Jun-22 A	27-May-23	476	WD(6d)																				
S13P1b-4000	DCS Works by Others (Anticipated Commencement Date 19-May-2023)	90	03-Jun-23*	31-Aug-23	578	CD(7d)																				
S13P1b-3014	Laying of Fresh Watermain CH I & Flushing Watermain CH DA	72	03-Jun-23	28-Aug-23	591	WD(6d)																				
<b>Portion 6a &amp; 5 in Area N (Soil Treatment, Noise Barrier, Drainage &amp; Roadwork)</b>																										
<b>Preparation work/Tree Survey/Site Clearance/GI</b>																										
S13P6a-1003	Design Layout and Profile for the Water Supply Pipework (EWN 034)	0		25-Apr-23	140	CD(7d)																				
S13P6a-1004	Increased Risk for Damages to Existing Donjiang Raw Water Mains (DJRWMs) (CNE 060)	0		25-Apr-23	140	CD(7d)																				
S13P6a-1005	Potential Changes of the Scope of Noise Barriers (AECOM EWN PM-003)	0		25-Apr-23	732	CD(7d)																				
S13P6a-1000	Resumption date from suspension of works at part of Portions 5 & 6a (CNE No. 002) (EWN No. 004) (CE 018)	0		25-Apr-23	140	CD(7d)																				
<b>Soil Treatment</b>																										
S13P6a-2020	Backfilling to the formation levels	60	01-Jun-23	11-Aug-23	1010	WD(6d)																				
S13P6a-2010	Remove soil (original assumed 566m3) (1 / 1 EGI completed, interim soil to be excavated / treated : 0m3 / 0m3) Clean Soil	30	25-Apr-23*	31-May-23	502	WD(6d)																				
<b>Civil Work</b>																										
S13P6a-3000	Construct & maintain Temporary drainage	639	25-Apr-23	21-Jun-25	140	WD(6d)																				
S13P6a-4000	DCS Works by Others (Anticipated Commencement Date 16-Jul-2023)	90	16-Jul-23*	13-Oct-23	165	CD(7d)																				
S13P6a-3012	Drainage works across DJ watermain (CNE 060, EC-1086)	160	25-Apr-23	04-Nov-23	116	WD(6d)																				
<b>Portion 1c in Area N (Soil Treatment, Drainage &amp; Roadwork)</b>																										
S13P1c-0002	Revised Noise Barrier Works at Road D3 in Portion 1C of the Site (EWN 081)	0		25-Apr-23	551	CD(7d)																				
<b>Preparation work/Tree Survey/Site Clearance/GI</b>																										
S13P1c-0102	Potential Changes of the Scope of Noise Barriers (AECOM EWN PM-003)	0		25-Apr-23	338	CD(7d)																				
S13P1c-1000	Potential Late Access to and Use of the Site (Portions 1c & 9a) (EWN 49) (CNE 058) (CE 175)	0		25-Apr-23	363	CD(7d)																				
<b>Civil Work</b>																										
S13P1c-3000	Construct & maintain Temporary drainage	354	25-Apr-23	04-Jul-24	383	WD(6d)																				
S13P1c-3010	Construct Underground Drainage (9 / 13 MH completed)	36	10-Jun-22 A	07-Jun-23	386	WD(6d)																				
S13P1c-3010.04	Construct Underground Sewerage (3 / 4 MH completed)	39	07-Oct-22 A	10-Jun-23	383	WD(6d)																				
S13P1c-4000	DCS Works by Others (Anticipated Commencement Date 19-May-2023)	90	11-Jun-23*	08-Sep-23	471	CD(7d)																				
S13P1c-3010.06	Laying of Fresh Watermain CH I & Flushing Watermain CH DA	72	12-Jun-23	05-Sep-23	386	WD(6d)																				
<b>Portion 9a in Area N (Soil Treatment, Noise Barrier, Drainage &amp; Roadwork)</b>																										
S13P9a-0100	Potential Changes of the Scope of Noise Barriers (AECOM EWN PM-003)	0		25-Apr-23	863	CD(7d)																				



- Planned Work
- Critical Work
- Actual Work
- Milestone
- Milestone Critical
- Summary LOE
- Summary LOE Critical

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Activity ID	Activity Name	Remaining Duration	Start	Finish	Total Float	Calendar	April 2023					May 2023					June 2023					July 2023																	
							26	02	09	16	23	30	07	14	21	28	04	11	18	25	02	09	16	23															
<b>Soil Treatment</b>																																							
S13P9a-2020	Backfilling to the formation levels	48	25-Apr-23	21-Jun-23	294	WD(6d)																																	
<b>Civil Work</b>																																							
S13P9a-3082	Additional Noise barrier NB04 footing - Piling Works (0 / 30 Mini H piles complete)	72	22-May-23*	16-Aug-23	255	WD(6d)																																	
S13P9a-3000	Construct & maintain Temporary drainage	518	25-Apr-23	18-Jan-25	261	WD(6d)																																	
S13P9a-3060	DCS Works by Others (Anticipated Commencement Date 18-Jul-2023)	120	18-Jul-23*	14-Nov-23	338	CD(7d)																																	
<b>Section 14</b>																																							
<b>Portion 10a in Area H1 (Soil Treatment, UU Diversion &amp; Construction Access to MWSC)</b>																																							
<b>KD5 - Provision of construction access in Area H1 and between Area H1 and Multi-Welfare Services Com</b>																																							
S14K5-1001	Late Possession of Site of Part of Portions 7 and 10a (in Area H, H1, T1, T2 & T3) (CNE No. 001) (CE 009)	0		25-Apr-23	1353	CD(7d)																																	
<b>Civil Work</b>																																							
S14P7T-3020	Construct temporary noise barrier along Castle Peak Road in Area H1 & Remaining Area T3	24	02-Jun-23*	30-Jun-23	-59	WD(6d)																																	
<b>Portion 7 in Area P (Soil Treatment &amp; KD3 - Tree Felling, General Site Clearance)</b>																																							
<b>KD3 - Tree felling, general site clearance (including the berm removal / levelling and general site)</b>																																							
<b>Soil Treatment</b>																																							
S14P7P-2020	Backfill with treated soil	140	20-Jul-23	05-Jan-24	544	WD(6d)																																	
S14P7P-2000	Construct & maintain Temporary drainage	210	25-Apr-23	05-Jan-24	544	WD(6d)																																	
S14P7P-2010	Remove soil (original assumed 17368m3) (2 / 2 EGI completed, interim soil to be excavated / treated : 0m3 / 0m3)	70	25-Apr-23*	19-Jul-23	544	WD(6d)																																	
<b>Portion 7 in Area S3 (Soil Treatment &amp; Operation of HAC Soil Treatment Plant)</b>																																							
<b>KD4 - Setting up and T&amp;C of the High Arsenic-containing Soil Treatment Plant</b>																																							
S14P7S3-2010	Set up, testing and commissioning high arsenic-containing soil treatment plant (KD4) (CSD for Treated soil Stock pile)	4	06-Oct-20 A	28-Apr-23	163	WD(6d)																																	
<b>Operation and Dismantling of the Soil Treatment Plant</b>																																							
S14P7S3-3010	Stock Pile of Treated Soil	437	20-Nov-20 A	17-Oct-24	163	WD(6d)																																	
<b>Soil Treatment</b>																																							
S14P7S3-4030	Backfilling to the formation level (Grid SA2AG4)	24	02-May-23	30-May-23	575	WD(6d)																																	
S14P7S3-4000	Construct & maintain Temporary drainage	29	13-Feb-23 A	30-May-23	575	WD(6d)																																	
S14P7S3-4010	Remove soil (original assumed 36295m3) (4 / 4 EGI completed, interim soil to be excavated / treated : 19800m3 / 3600m3)	5	13-Feb-23 A	29-Apr-23	514	WD(6d)																																	
<b>Portion 7 in Area T1, T2, T3 (Soil Treatment &amp; Temp. Noise Barrier along Castle Peak Road)</b>																																							
<b>Preparation work/Tree Survey/Site Clearance/GI</b>																																							
S14P7T-1022	Approval & Acceptance of Tree felling Application (Area T1)	30	26-May-23	24-Jun-23	-170	CD(7d)																																	
S14P7T-1012	Ground investigation (0 / 1 GI completed) (Area T1)	30	27-May-23	03-Jul-23	-113	WD(6d)																																	
S14P7T-1001	Late Possession of Site of Part of Portions 7 and 10a (in Area H, H1, T1, T2 & T3) (CNE No. 001) (CE 009)	0		25-Apr-23	-139	CD(7d)																																	
S14P7T-1020	Site clearance (Area T1)	30	26-Jun-23	31-Jul-23	-136	WD(6d)																																	
S14P7T-1024	Tree felling works (Area T1)	30	26-Jun-23	31-Jul-23	-136	WD(6d)																																	
S14P7T-1010	Tree survey and prepare tree felling and transplant report (Area T1)	26	09-Jan-23 A	25-May-23	-136	WD(6d)																																	
<b>Portion 1b in Area S2 (Soil Treatment)</b>																																							
<b>Preparation work/Tree Survey/Site Clearance/GI</b>																																							
S14P1b-0900	Delay in the Access to and Use of Portion 1b of the Site (EWN 034) (CNE 033) (CE 107)	0		25-Apr-23	-24	CD(7d)																																	
<b>Soil Treatment</b>																																							
S14P1b-2000	Construct & maintain Temporary drainage	48	25-Mar-23 A	21-Jun-23	754	WD(6d)																																	
S14P1b-2020	Site Formation Works & Erecting Hoarding	48	25-Apr-23	21-Jun-23	754	WD(6d)																																	
<b>Portion 1c &amp; 9a in Area S2 (Soil Treatment)</b>																																							
<b>Preparation work/Tree Survey/Site Clearance/GI</b>																																							
S14P1c-1003	Additional Reqmts for Demolition of Temp Structures Existing Sawmill Area S2 Portion 1C (CNE 091) (CE 259)	0		25-Apr-23	656	CD(7d)																																	
S14P1c-1000	Potential Late Access to and Use of the Site (Portions 1c & 9a) (EWN 49) (CNE 058) (CE 175)	0		25-Apr-23	656	CD(7d)																																	



- █ Planned Work
- █ Critical Work
- █ Actual Work
- ◆ Milestone
- ◆ Milestone Critical
- ▭ Summary LOE
- ▭ Summary LOE Critical

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Activity ID	Activity Name	Remaining Duration	Start	Finish	Total Float	Calendar	April 2023					May 2023					June 2023					July 2023			
							26	02	09	16	23	30	07	14	21	28	04	11	18	25	02	09	16	23	
S14P1c-1001	Temporary Stockpile for High Arsenic-Containing (HAC) Soil from HKHS & HD Sites at Portion 1c (EWN 52)	0		25-Apr-23	656	CD(7d)																			
<b>Soil Treatment</b>																									
S14P1c-2020	Backfilling to the formation levels	52	27-Jan-23 A	27-Jun-23	750	WD(6d)																			
S14P1c-2000	Construct & maintain Temporary drainage	52	25-Mar-23 A	27-Jun-23	750	WD(6d)																			
<b>Portion 6a in Area S2 (Soil Treatment)</b>																									
<b>Preparation work/Tree Survey/Site Clearance/GI</b>																									
S14P6a-1050	Arsenic Treatment Plan	36	08-Jun-23	21-Jul-23	436	WD(6d)																			
S14P6a-1040	Prepare Arsenic Assessment Report	36	25-Apr-23	07-Jun-23	436	WD(6d)																			
<b>Portion 6b in Area S2 (Soil Treatment)</b>																									
<b>Preparation work/Tree Survey/Site Clearance/GI</b>																									
S14P6b-1050	Arsenic Treatment Plan	30	02-May-22 A	31-May-23	478	WD(6d)																			
S14P6b-1040	Prepare Arsenic Assessment Report	30	02-May-22 A	31-May-23	478	WD(6d)																			
S14P6b-1017	Tree felling	30	25-Apr-23	31-May-23	478	WD(6d)																			
<b>Portion 1f in Area R (Soil Treatment &amp; Construction of Interim CLC)</b>																									
<b>Preparation work/Tree Survey/Site Clearance/GI</b>																									
S14P1f-1050	Arsenic Treatment Plan	36	08-Jun-23	21-Jul-23	496	WD(6d)																			
S14P1f-1040	Prepare Arsenic Assessment Report	36	25-Apr-23	07-Jun-23	496	WD(6d)																			
<b>Interim Community Liaison Centre (CLC)</b>																									
S14P1f-2040	Dismantling of interim CLC	12	25-Apr-23	09-May-23	496	WD(6d)																			
<b>Portion 9c in Area S1 (Soil Treatment)</b>																									
<b>Preparation work/Tree Survey/Site Clearance/GI</b>																									
S14P9c-1000	Late Possession of Site of Portions 9c (CNE No. 003)	0		25-Apr-23	-4	CD(7d)																			
S14P9c-1001	Suspension of Works at Portions 9c (CNE No. 010)	0		25-Apr-23	-4	CD(7d)																			
S14P9c-1014	Tree felling	15	19-Jul-21 A	12-May-23	517	WD(6d)																			
<b>Portion 13 in Area S4 (Soil Treatment)</b>																									
<b>Preparation work/Tree Survey/Site Clearance/GI</b>																									
S14P13-1012	Approval & Acceptance of Tree felling Application	30	27-May-23	03-Jul-23	8	WD(6d)																			
S14P13-1030	Environmental ground investigation and laboratory test (2 / 7 EGI completed)	36	10-Feb-23 A	07-Jun-23	28	WD(6d)																			
S14P13-1070	Notification and Approval of Asbestos Abatement Programme	30	19-May-23	17-Jun-23	133	CD(7d)																			
S14P13-1000	Potential Late Access to and Use of the Site (Portions 13) (EWN 50)	0		25-Apr-23	1353	CD(7d)																			
S14P13-1060	Prepare and submit Asbestos Abatement Programme	24	16-Jan-23 A	18-May-23	133	CD(7d)																			
S14P13-1080	Set up Containment Area, Removal and Disposal of Asbestos and Clean up Works	55	15-Mar-23 A	30-Jun-23	99	WD(6d)																			
S14P13-1020	Site clearance & Tree felling	90	04-Jul-23	18-Oct-23	8	WD(6d)																			
S14P13-1010	Tree survey and prepare tree felling and transplant report	26	09-Jan-23 A	25-May-23	-136	WD(6d)																			
<b>Cycle Track from Area H to Area N</b>																									
S14CT-0100	Suspension of Precast Concrete Manhole Supply due to the Severe Outbreak of COVID-19 in Mainland China (EWN 060)	0		25-Apr-23	592	CD(7d)																			
<b>Underground Utilities underneath Cycle Track</b>																									
S14CT-1000	Construct & maintain Temporary drainage	323	25-Apr-23	27-May-24	479	WD(6d)																			
S14CT-1060	Construct Underground Drainage in Portion 5 - Stage 2 (0 / 3 MH completed)	48	26-Jun-23	21-Aug-23	484	WD(6d)																			
S14CT-1010	Construct Underground Drainage in Portion 7 (0 / 6 MH completed)	60	02-Jun-23	12-Aug-23	479	WD(6d)																			
S14CT-1040	Construct Underground Drainage in Portion 9a (3 / 3 MH completed)	9	28-Jun-22 A	05-May-23	607	WD(6d)																			
S14CT-1010.04	Construct Underground Sewerage in Portion 7 (0 / 2 MH completed)	48	16-Jun-23	12-Aug-23	551	WD(6d)																			
S14CT-1100	Laying Underground Utilities by Others in Portion 5 (Stage 1) & 9a	48	26-Jun-23	21-Aug-23	596	WD(6d)																			
S14CT-1028	Laying Underground Watermain in Portion 5 - Stage 1	50	25-Apr-23	24-Jun-23	484	WD(6d)																			
S14CT-1044	Laying Underground Watermain in Portion 9a	30	06-May-23	10-Jun-23	607	WD(6d)																			
S14CT-1050	Modify Constructed Drainage MH SMH KT3003 & KT3004 in Portion 5 (0 / 2 MH completed)	6	28-Feb-23 A	02-May-23	1094	WD(6d)																			



- Planned Work
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Activity ID	Activity Name	Remaining Duration	Start	Finish	Total Float	Calendar	April 2023					May 2023					June 2023					July 2023					
							26	02	09	16	23	30	07	14	21	28	04	11	18	25	02	09	16	23			
<b>Portion 1b (Soil Treatment &amp; Civil Works)</b>																											
<b>Preparation work/Tree Survey/Site Clearance/GI</b>																											
S14P1b-1000	Delay in the Access to and Use of Portion 1b of the Site (EWN 034) (CNE 033)	(CE 107)	0		25-Apr-23	-24	CD(7d)	◆ Delay in the Access to and Use of Portion 1b of the Site (EWN 034) (CNE 033) (CE 107)																			
<b>Soil Treatment</b>																											
S14P1b-1200	Construct & maintain Temporary drainage		208	25-Apr-23	03-Jan-24	497	WD(6d)	[Green bar]																			
<b>Civil Works</b>																											
S14P1b-1314	Laying Underground Watermain		36	27-Apr-23	09-Jun-23	667	WD(6d)	[Green bar]																			
S14P1b-1304	Underground Sewerage Works		2	21-Sep-22 A	26-Apr-23	667	WD(6d)	[Blue bar]																			
<b>Portion 3 (Soil Treatment &amp; Civil Works)</b>																											
<b>Soil Treatment</b>																											
S14P3-1200	Construct & maintain Temporary drainage		105	25-Apr-23	29-Aug-23	697	WD(6d)	[Green bar]																			
<b>Civil Works</b>																											
S14P3-1300	Underground Drainage ( 0 / 1 MH completed)		15	16-Dec-22 A	12-May-23	630	WD(6d)	[Blue bar]																			
S14P3-1302	Underground Fresh & Flushing watermains (around 100m)		60	13-May-23	25-Jul-23	630	WD(6d)	[Green bar]																			
<b>Portion 5 (Soil Treatment &amp; Civil Works)</b>																											
<b>Soil Treatment</b>																											
S14P5-1202	Backfilling to the formation levels		36	27-Feb-23 A	07-Jun-23	588	WD(6d)	[Blue bar]																			
S14P5-1190	Construct & maintain Temporary drainage		138	25-Apr-23	09-Oct-23	516	WD(6d)	[Green bar]																			
<b>Civil Works</b>																											
S14P5-1300	Underground Drainage ( 0 / 2 MH completed)		48	16-Dec-22 A	21-Jun-23	516	WD(6d)	[Blue bar]																			
S14P5-1302	Underground Fresh & Flushing watermains (around 100m)		60	23-Jun-23	01-Sep-23	516	WD(6d)	[Green bar]																			
<b>Portion 1e (Soil Treatment)</b>																											
S14P1e-1000	Late Access to and Use of Site of Portion 1e (CNE 25)	(CE 075)	0		25-Apr-23	609	CD(7d)	◆ Late Access to and Use of Site of Portion 1e (CNE 25) (CE 075)																			
<b>Soil Treatment</b>																											
S14P1e-2080	Backfilling to the formation levels		90	06-Jun-23	20-Sep-23	678	WD(6d)	[Green bar]																			
S14P1e-3000	Construct & maintain Temporary drainage		124	25-Apr-23	20-Sep-23	678	WD(6d)	[Green bar]																			
S14P1e-2070	Remove soil (original assumed 860m3) (0 / 1 EGI completed, interim soil to be excavated / treated : 0m3 / 0m3)		34	25-Apr-23	05-Jun-23	498	WD(6d)	[Green bar]																			
<b>Portion 7 (Soil Treatment &amp; Civil Works)</b>																											
S14P7-6070	Backfilling to the formation levels		27	05-Mar-22 A	27-May-23	761	WD(6d)	[Blue bar]																			
S14P7-6080	Construct Haul Road		14	29-May-23	13-Jun-23	761	WD(6d)	[Green bar]																			
<b>Additional Land U2</b>																											
S14ALU2-3020	Approval & Acceptance of Tree felling Application		30	26-May-23	24-Jun-23	822	CD(7d)	[Green bar]																			
S14ALU2-4010	Construction of 525 mm Stepped Channel		72	11-Jul-23	04-Oct-23	668	WD(6d)	[Green bar]																			
S14ALU2-3030	Site clearance & Tree felling		12	26-Jun-23	10-Jul-23	668	WD(6d)	[Green bar]																			
S14ALU2-3010	Tree survey and prepare tree felling and transplant report		26	15-Mar-23 A	25-May-23	666	WD(6d)	[Blue bar]																			
<b>Section 15</b>																											
S15-1000	Presevation and protection of tree		992	06-Dec-19 A	10-Jan-26	-4	CD(7d)	[Red bar]																			
<b>Section 18 (Subject to excision)</b>																											
S18-1030	Watermain laying work in Portion 3		72	15-May-23	09-Aug-23	129	WD(6d)	[Green bar]																			
S18-1040	Watermain laying work in Portion 5		140	20-Sep-21 A	09-Sep-24	-67	WD(6d)	[Red bar]																			
S18-1050	Watermain laying work in Portion 6a & 6b		150	18-Jul-22 A	24-Oct-23	-136	WD(6d)	[Red bar]																			
S18-1075	Watermain laying work in Portion 8a		350	25-Apr-23	28-Jun-24	-58	WD(6d)	[Red bar]																			
S18-1070	Watermain laying work in Portion 9b		250	12-Jan-23 A	17-Jan-25	-270	WD(6d)	[Red bar]																			
<b>Section 20 (Subject to excision)</b>																											
S20-1026	Conflict between the Existing Underground Utilities with the Proposed Pak Shek Au Pedestrian Subway (CNE 097)		0		25-Apr-23	-274	CD(7d)	◆ Conflict between the Existing Underground Utilities with the Proposed Pak Shek Au Pedestrian Subway (CNE 097)																			



- Planned Work
- Critical Work
- Actual Work
- ◆ Milestone
- ◆ Milestone Critical
- Summary LOE
- Summary LOE Critical

### ND/2019/01 - 3 Month Rolling Programme (2023-04)

Data Date: 25-Apr-23

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Activity ID	Activity Name	Remaining Duration	Start	Finish	Total Float	Calendar	April 2023					May 2023					June 2023					July 2023			
							26	02	09	16	23	30	07	14	21	28	04	11	18	25	02	09	16	23	
S20-1018	Excavation Permit (XP) for New Cycle Path (EWN No. 021) (CNE No. 022)	0		25-Apr-23	-313	CD(7d)																			
S20-1022	Increased Difficulty for the Construction of Pak Shek Au Pedestrian Subway Cum Cycle Track at Portion 2 (EWN 068)	0		25-Apr-23	-313	CD(7d)																			
S20-1016	Opening Cycle Track at Portion 2 (EWN No. 017)	0		25-Apr-23	-313	CD(7d)																			
S20-1012	Part of Portion 2 Occupied by YL/2015/01 (EWN No. 016)	0		25-Apr-23	-313	CD(7d)																			
S20-1020	Suspension of Works at Part of Portion 2 (EWN No. 019)	0		25-Apr-23	-313	CD(7d)																			
<b>Construction of Pedestrian Subway cum Cycle Track Stage 2 (South of Castle Peak Road)</b>																									
<b>Civil and Structural Works</b>																									
S20S2-7510	Bay No. 1 - Excavation, Blinding & Waterproofing	10	23-May-23	03-Jun-23	-255	WD(6d)																			
S20S2-7520	Bay No. 1 - RC Structure	30	16-Jun-23	22-Jul-23	-265	WD(6d)																			
S20S2-7462	Bay No. 10 - RC Structure (Walls)	24	09-Jun-23	08-Jul-23	-183	WD(6d)																			
S20S2-7480	Bay No. 11 - RC Structure (Base Slab)	7	10-Mar-23 A	03-May-23	-259	WD(6d)																			
S20S2-7482	Bay No. 11 - RC Structure (Walls)	30	04-May-23	08-Jun-23	-183	WD(6d)																			
S20S2-7530	Bay No. 2 - Excavation, Blinding & Waterproofing	10	29-Jun-23	11-Jul-23	-255	WD(6d)																			
S20S2-7540	Bay No. 2 - RC Structure	30	24-Jul-23	26-Aug-23	-265	WD(6d)																			
S20S2-7730	Bay No. 4 - Excavation, Blinding & Waterproofing	10	23-Jun-23	05-Jul-23	-291	WD(6d)																			
S20S2-7740	Bay No. 4 - RC Structure	30	06-Jul-23	09-Aug-23	-210	WD(6d)																			
S20S2-7790	Bay No. 5 - Excavation, Blinding & Waterproofing	10	06-Jul-23	17-Jul-23	-291	WD(6d)																			
S20S2-7800	Bay No. 5 - RC Structure	24	18-Jul-23	14-Aug-23	-291	WD(6d)																			
S20S2-7504	Bay No. 9a - Excavation, Blinding & Waterproofing	10	05-Jun-23	15-Jun-23	-165	WD(6d)																			
S20S2-7506	Bay No. 9a - RC Structure (Base Slab)	30	16-Jun-23	22-Jul-23	-165	WD(6d)																			
S20S2-7490	Bay No. 9b - Excavation, Blinding & Waterproofing	13	24-Feb-23 A	10-May-23	-265	WD(6d)																			
S20S2-7500	Bay No. 9b - RC Structure (Base Slab)	30	11-May-23	15-Jun-23	-265	WD(6d)																			
S20S2-7502	Bay No. 9b - RC Structure (Walls)	30	10-Jul-23	12-Aug-23	-183	WD(6d)																			
S20S2-7320	ELS, Excavation & UU suspension works for subway	94	28-Apr-22 A	16-Aug-23	-186	WD(6d)																			
<b>E&amp;M, Lift Installation and Finishing Work for Pedestrian Subway</b>																									
S20ELF-1010	Design and Approval for Lift, Lighting and E&M works	90	25-Oct-22 A	23-Jul-23	475	CD(7d)																			
<b>Section 21 (Subject to excision)</b>																									
S21-1013	Change to the Area of Area M (PMI 160, CE 168)	0		25-Apr-23	371	CD(7d)																			
S21-1012	Late Possession of Site of Portions 1d & 11a (CNE No. 009) (CE 026)	0		25-Apr-23	365	CD(7d)																			
<b>Portion 1b in Area M (Soil Treatment)</b>																									
<b>Preparation work</b>																									
S21P1b-1012	Approval & Acceptance of Tree felling Application	30	01-Jun-23	07-Jul-23	301	WD(6d)																			
S21P1b-1020	Site Clearance & Tree Felling	60	08-Jul-23	15-Sep-23	301	WD(6d)																			
S21P1b-1010	Tree survey and prepare tree felling and transplant report	30	25-Apr-23	31-May-23	301	WD(6d)																			
<b>Portion 1d in Area M (Soil Treatment &amp; Demolition of Existing CLC)</b>																									
<b>Preparation work</b>																									
S21P1d-1012	Approval & Acceptance of Tree felling Application	30	01-Jun-23	07-Jul-23	301	WD(6d)																			
S21P1d-1020	Site Clearance & Tree Felling	60	08-Jul-23	15-Sep-23	301	WD(6d)																			
S21P1d-1010	Tree survey and prepare tree felling and transplant report	30	25-Apr-23	31-May-23	301	WD(6d)																			
<b>Portion 11a in Area M (Soil Treatment)</b>																									
<b>Preparation work</b>																									
S21P11a-1012	Approval & Acceptance of Tree felling Application	30	01-Jun-23	07-Jul-23	296	WD(6d)																			
S21P11a-1020	Site Clearance & Tree Felling	60	08-Jul-23	15-Sep-23	296	WD(6d)																			
S21P11a-1010	Tree survey and prepare tree felling and transplant report	30	25-Apr-23	31-May-23	296	WD(6d)																			
<b>8.0 - PMI / CE</b>																									
PC-1012	Change to the Area of Area M (PMI 160, CE 168)	0	22-Dec-21 A	25-Apr-23	371	CD(7d)																			



- Planned Work
- Critical Work
- Actual Work
- ◆ Milestone
- ◆ Milestone Critical
- Summary LOE
- Summary LOE Critical

### ND/2019/01 - 3 Month Rolling Programme (2023-04)

Data Date: 25-Apr-23

Run Date: 28-April-2023

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REVISED PROGRAMME (2023-04)			
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Activity ID	Activity Name	Remaining Duration	Start	Finish	Total Float	Calendar	April 2023					May 2023					June 2023					July 2023				
							26	02	09	16	23	30	07	14	21	28	04	11	18	25	02	09	16	23		
PC-1013	Quotation for Additional Drainage & Sewerage Works at Portion 10a (PMI 202)	0	25-Jul-22 A	25-Apr-23	-239	CD(7d)	[Gantt bar]																			
<b>9.0 - Major EWN / CNE</b>																										
EC-1120	Additional Reqmts for Demolition of Temp Structures Existing Sawmill Area S2 Portion 1C (CNE 091) (CE 259)	0	25-Oct-22 A	25-Apr-23	656	CD(7d)	[Gantt bar]																			
EC-1129	Additional Requirements for all the Lifting Operations within the Working Areas (EWN 086)	0	13-Feb-23 A	25-Apr-23	1099	WD (6d)	[Gantt bar]																			
EC-1111	Additional Requirements for the Construction of Traffic Signal System at the Junction of Road D1 and L1 (CNE 085)	0	30-Jul-22 A	25-Apr-23	-239	CD(7d)	[Gantt bar]																			
EC-1089	Additional Sewerage Pipes clash with the Proposed Watermains along Road D4 and D5 (EWN 065)	0	27-Apr-22 A	25-Apr-23	-185	CD(7d)	[Gantt bar]																			
EC-1087	Change of Road Layout of Ho Sheung Heung Road after the Works by DSD Contract DC/2019/06 (CNE 072b)	0	20-Apr-22 A	25-Apr-23	-594	CD(7d)	[Gantt bar]																			
EC-1067	Conflict between Drainage Works and Existing Twin DN2200 Dongjiang Water Mains (CNE 051) (CE 150)	0	29-Nov-21 A	25-Apr-23	-476	CD(7d)	[Gantt bar]																			
EC-1068	Conflict between Drainage Works and Water Mains in Road W1 (CNE 052)	0	02-Dec-21 A	25-Apr-23	-148	CD(7d)	[Gantt bar]																			
EC-1130	Conflict between the Existing Underground Utilities with the Proposed Pak Shek Au Pedestrian Subway (CNE 097)	0	03-Jan-23 A	25-Apr-23	-222	WD (6d)	[Gantt bar]																			
EC-1107	Delay Diversion/Modification of Ext. CLP Cables & Facilities w/in Vicinity of Pak Shek Au at 1a & 2 (EWN 078) (CNE 102)	0	18-Aug-22 A	25-Apr-23	-434	CD(7d)	[Gantt bar]																			
EC-1079	Delay in Supply of Precast Concrete Pipe due to the Severe Outbreak of Omicron (EWN 056)	0	16-Feb-22 A	25-Apr-23	1353	CD(7d)	[Gantt bar]																			
EC-1045	Delay in the Access to and Use of Portion 1b of the Site (CNE 033) (CE 107)	0	06-Jul-21 A	25-Apr-23	-24	CD(7d)	[Gantt bar]																			
EC-1046	Delay in the Access to and Use of Portions 1a & 12 of the Site (CNE 034) (CE 108)	0	06-Jul-21 A	25-Apr-23	-658	CD(7d)	[Gantt bar]																			
EC-1101	Delay to the Diversion of Existing Fresh Watermains along/ near Ma Tso Lung Road at Portion 9b of the Site (EWN 076)	0	19-Jul-22 A	25-Apr-23	-341	CD(7d)	[Gantt bar]																			
EC-1125	Delay to the Diversion/ Modification of Existing HKT Pillar Boxes & Associated Ducts Ma Tso Lung Road Por. 9b (CNE 096)	0	14-Nov-22 A	25-Apr-23	-413	CD(7d)	[Gantt bar]																			
EC-1100	Delay to the Diversion/Modification of Existing HKT Pillar Boxes & Associated ducts in Ma Tso Lung Rd (EWN 075) (CNE 096)	0	15-Jul-22 A	25-Apr-23	-341	CD(7d)	[Gantt bar]																			
EC-1102	Delay to the Relocation of Existing Fire Hydrant in Ma Tso Lung Road at Portion 9b of the Site (EWN 077)	0	19-Jul-22 A	25-Apr-23	-341	CD(7d)	[Gantt bar]																			
EC-1099	Delayed to the Removal and or Diversion of Existing CLP Cable and Facilities in Portion 9b of the Site (EWN 073)	0	31-Mar-22 A	25-Apr-23	-476	CD(7d)	[Gantt bar]																			
EC-1039	Design Change on Road W1 (EWN 025)	0	22-Mar-21 A	25-Apr-23	-224	CD(7d)	[Gantt bar]																			
EC-1088	Design Changes to the Permanent Street Lighting Works (CNE 074)	0	04-Mar-22 A	25-Apr-23	1353	CD(7d)	[Gantt bar]																			
EC-1050	Design Layout and Profile for the Water Supply Pipework (EWN 034)	0	17-Sep-21 A	25-Apr-23	-476	CD(7d)	[Gantt bar]																			
EC-1042	Details of DCS pipe at D4-1 & D5 Road (EWN 030)	0	21-May-21 A	25-Apr-23	-46	CD(7d)	[Gantt bar]																			
EC-1093	DN200 Fresh Watermain to Existing Watermain for MWSC Site between Po Lau Road and Castle Peak Road (CNE 075)	0	25-May-22 A	25-Apr-23	-239	CD(7d)	[Gantt bar]																			
EC-1097	Early Open Road D1-1 and Road L-1 for General Public Use and Access (EWN 071)	0	19-May-22 A	25-Apr-23	-239	CD(7d)	[Gantt bar]																			
EC-1049	Entrustment of Works for Installation of District Cooling System (DCS) pipelines along Road D4-1 (EWN 033)	0	18-Aug-21 A	25-Apr-23	-159	CD(7d)	[Gantt bar]																			
EC-1030	Excavation Permit (XP) for New Cycle Path (EWN No. 021) (CNE No. 022)	0	19-Oct-20 A	25-Apr-23	-893	CD(7d)	[Gantt bar]																			
EC-1064	Extra Time on Production and Delivery of Road Lighting Products (EWN 51)	0	13-Dec-21 A	25-Apr-23	-200	CD(7d)	[Gantt bar]																			
EC-1122	Further Changes to the Works Information for the Construction of DCS Pipes at Road D4-1 (PMI 155 CE157) (CNE 095)	0	08-Nov-22 A	25-Apr-23	-151	CD(7d)	[Gantt bar]																			
EC-1026	Handling of Unlawful Occupied Property Affected by the Works (CNE No. 014)	0	21-Aug-20 A	25-Apr-23	1353	CD(7d)	[Gantt bar]																			
EC-1027	Handling of Unlawful Occupied Property Affected by the Works within the Site (CNE No. 015)	0	31-Aug-20 A	25-Apr-23	1353	CD(7d)	[Gantt bar]																			
EC-1106	Indemant Weather in June 2022 (CNE 080) (CE 216)	0	02-Jun-22 A	25-Apr-23	1353	CD(7d)	[Gantt bar]																			
EC-1112	Indemant Weather in August 2022 (CNE 087) (CE 236)	0	03-Aug-22 A	25-Apr-23	1353	CD(7d)	[Gantt bar]																			
EC-1108	Indemant Weather in July 2022 (CNE 082) (CE 227)	0	02-Jul-22 A	25-Apr-23	1353	CD(7d)	[Gantt bar]																			
EC-1104	Indemant Weather in May 2022 (CNE 078) (CE 212)	0	11-May-22 A	25-Apr-23	1353	CD(7d)	[Gantt bar]																			
EC-1116	Indemant Weather in October 2022 (CNE 093) (CE 273)	0	07-Oct-22 A	25-Apr-23	1353	CD(7d)	[Gantt bar]																			
EC-1114	Indemant Weather in September 2022 (CNE 089) (CE 244)	0	19-Sep-22 A	25-Apr-23	1353	CD(7d)	[Gantt bar]																			
EC-1056	Indemant Weather on 8th October 2021 (CNE 036) (CE 163)	0	08-Oct-21 A	25-Apr-23	1353	CD(7d)	[Gantt bar]																			
EC-1092	Increased Difficulty for the Construction of Pak Shek Au Pedestrian Subway Cum Cycle Track at Portion 2 (EWN 068)	0	25-May-22 A	25-Apr-23	-313	CD(7d)	[Gantt bar]																			
EC-1086	Increased Risk for Damages to Existing Dongjiang Raw Water Mains (DJRWs) (CNE 060)	0	31-Mar-22 A	25-Apr-23	-476	CD(7d)	[Gantt bar]																			
EC-1118	Increased Risk for Suspension of Pipe Jacking Flushing Watermains underneath MTRC Zone Portion 8b (EWN 080) (CNE 092)	0	18-Oct-22 A	25-Apr-23	-298	CD(7d)	[Gantt bar]																			
EC-1117	Insufficient Design Information and Construction Details for the Works of Tentative NB02 (EWN 079) (CNE 090)	0	17-Oct-22 A	25-Apr-23	-76	CD(7d)	[Gantt bar]																			
EC-1070	Insufficient Width of Road W1 for Accommodation of All Underground Utilities (CNE 056)	0	04-Jan-22 A	25-Apr-23	-224	CD(7d)	[Gantt bar]																			
EC-1038	Late Access to and Use of Site of Portion 1e (EWN 024) (CNE 25) (CE 075)	0	06-Apr-21 A	25-Apr-23	-55	CD(7d)	[Gantt bar]																			
EC-1115	Late Handover the Borrowed Zones from ArchSD's MWSC Contractor at Area H Portion 10a (CNE 088) (CE 250)	0	26-Sep-22 A	25-Apr-23	-212	CD(7d)	[Gantt bar]																			
EC-1007	Late Possession of remaining part of Portion 2 for soil nail works (CNE No. 008) (EWN No. 006) (CE 014)	0	06-Jan-20 A	25-Apr-23	1353	CD(7d)	[Gantt bar]																			
EC-1004	Late Possession of Site of Part of Portion 5 (in Area C1) (CNE No. 004) (CE 012)	0	06-Apr-20 A	25-Apr-23	988	CD(7d)	[Gantt bar]																			



- █ Planned Work
- █ Critical Work
- █ Actual Work
- ◆ Milestone
- ◆ Milestone Critical
- Summary LOE
- Summary LOE Critical

### ND/2019/01 - 3 Month Rolling Programme (2023-04)

Data Date: 25-Apr-23

Run Date: 28-April-2023

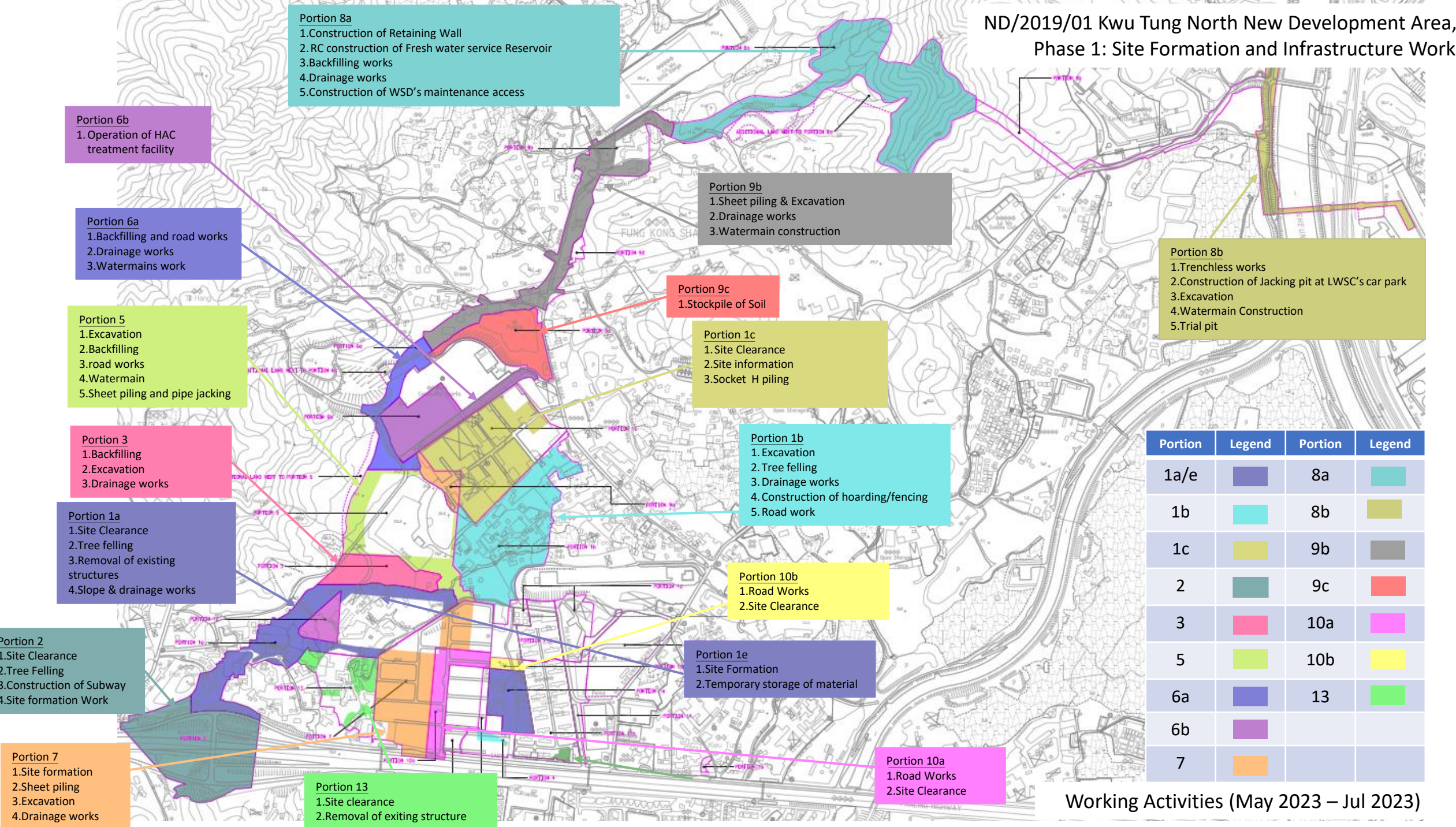
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ND/2019/01 Kwu Tung North New Development Area,  
Phase 1: Site Formation and Infrastructure Work



**Portion 8a**  
 1. Construction of Retaining Wall  
 2. RC construction of Fresh water service Reservoir  
 3. Backfilling works  
 4. Drainage works  
 5. Construction of WSD's maintenance access

**Portion 6b**  
 1. Operation of HAC treatment facility

**Portion 6a**  
 1. Backfilling and road works  
 2. Drainage works  
 3. Watermains work

**Portion 5**  
 1. Excavation  
 2. Backfilling  
 3. road works  
 4. Watermain  
 5. Sheet piling and pipe jacking

**Portion 3**  
 1. Backfilling  
 2. Excavation  
 3. Drainage works

**Portion 1a**  
 1. Site Clearance  
 2. Tree felling  
 3. Removal of existing structures  
 4. Slope & drainage works

**Portion 2**  
 1. Site Clearance  
 2. Tree Felling  
 3. Construction of Subway  
 4. Site formation Work

**Portion 7**  
 1. Site formation  
 2. Sheet piling  
 3. Excavation  
 4. Drainage works

**Portion 13**  
 1. Site clearance  
 2. Removal of exiting structure

**Portion 9b**  
 1. Sheet piling & Excavation  
 2. Drainage works  
 3. Watermain construction

**Portion 9c**  
 1. Stockpile of Soil

**Portion 1c**  
 1. Site Clearance  
 2. Site information  
 3. Socket H piling

**Portion 1b**  
 1. Excavation  
 2. Tree felling  
 3. Drainage works  
 4. Construction of hoarding/fencing  
 5. Road work

**Portion 10b**  
 1. Road Works  
 2. Site Clearance

**Portion 1e**  
 1. Site Formation  
 2. Temporary storage of material

**Portion 8b**  
 1. Trenchless works  
 2. Construction of Jacking pit at LWSC's car park  
 3. Excavation  
 4. Watermain Construction  
 5. Trial pit

Portion	Legend	Portion	Legend
1a/e		8a	
1b		8b	
1c		9b	
2		9c	
3		10a	
5		10b	
6a		13	
6b			
7			

Working Activities (May 2023 – Jul 2023)

## **Construction Programme of ND/2019/02**

**ND/2019/02 - Kwu Tung North New Development Area Phase 1:  
Roads & Drains between Kwu Tong North New Development Area and Shek Wu Hui**

Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Time Risk Allowance	2023				
								Apr	May	Jun	Jul	Aug
<b>ND-2019-02 KTNDA Phase 1:Roads and Drains between Kwu Tung North New Development &amp; Shek</b>		2484	1399	10-Apr-20 A	27-Jan-27	3						
<b>Contract Data</b>		0	0	31-Mar-23	31-Mar-23	307						
<b>Completion Obligation</b>		0	0	31-Mar-23	31-Mar-23	307						
<b>Specified Parts of the works</b>		0	0	31-Mar-23	31-Mar-23	307						
CD-1230	Portion10 (1323 days after starting date)- Works in P10 excl. switch back to permanent sewerage system	0	0		31-Mar-23*	307	0					
<b>Programme Data</b>		2484	1399	10-Apr-20 A	27-Jan-27	3						
<b>Preliminaries</b>		2311	1399	30-Sep-20 A	27-Jan-27	3						
<b>Subletting</b>		0	0	31-Mar-23	31-Mar-23	-18						
<b>ABWF</b>		0	0	31-Mar-23	31-Mar-23	-18						
<b>Package 6</b>		0	0	31-Mar-23	31-Mar-23	-18						
SC-1195-87	Award of subcontract - ABWF works (Package 6 - Fall Arrest System)	0	0		31-Mar-23*	-18						
SC-1195-107	Award of subcontract - ABWF works (Package 6 - Fences, Handrail, Guardrail, Parapet & Gate)	0	0		31-Mar-23*	-88						
SC-1195-117	Award of subcontract - ABWF works (Package 6 - Roller Shutter)	0	0		31-Mar-23*	-18						
SC-1195-6	Award of subcontract - ABWF works (Package 6 - Skylight)	0	0		31-Mar-23*	-109						
SC-1195-207	Award of subcontract - ABWF works (Package 6 - Steel Door)	0	0		31-Mar-23*	-84						
SC-1195-97	Award of subcontract - ABWF works (Package 6 - Sundries Metal Works)	0	0		31-Mar-23*	-34						
<b>Others</b>		0	0	31-Mar-23	31-Mar-23	-36						
SC-1250	Award of subcontract - Ground Investigation Works of Portion 11	0	0		31-Mar-23*	-36						
<b>Statutory Submission</b>		77	77	03-May-23	02-Aug-23	-1						
<b>MTRC</b>		77	77	03-May-23	02-Aug-23	-1						
<b>Method Statement Submission and Approval</b>		72	72	03-May-23	27-Jul-23	4						
MTRC-1050	Approval of contingency plan for pipe jacking work underneath East Rail Line	42	42	07-Jun-23	27-Jul-23	4	0					
MTRC-1030	Approval of material and plants for pipe jacking work underneath East Rail Line	42	42	07-Jun-23	27-Jul-23	4	0					
MTRC-1070	Approval of Method Statement for manhole construction work underneath East Rail Line	42	42	07-Jun-23	27-Jul-23	4	0					
MTRC-1010	Approval of Method Statement for pipe jacking work underneath East Rail Line	42	42	07-Jun-23	27-Jul-23	4	0					
MTRC-1040	Preparation of contingency plan for pipe jacking work underneath East Rail Line	30	30	03-May-23*	06-Jun-23	4	0					
MTRC-1020	Preparation of material and plants for pipe jacking work underneath East Rail Line	30	30	03-May-23*	06-Jun-23	4	0					
MTRC-1060	Preparation of Method Statement for manhole construction work underneath East Rail Line	30	30	03-May-23*	06-Jun-23	4	0					
MTRC-1000	Preparation of Method Statement for pipe jacking work underneath East Rail Line	30	30	03-May-23*	06-Jun-23	4	0					
<b>Pre-condition Survey &amp; Report</b>		28	28	30-Jun-23	02-Aug-23	-1						
MTRC-1120	Approval of Pre-condition report before construction work underneath East Rail Line	14	14	18-Jul-23	02-Aug-23	-1	0					
MTRC-1110	Preparation of Pre-condition Survey report before construction work underneath East Rail Line	14	14	30-Jun-23*	17-Jul-23	-1	0					
<b>BIM Submission</b>		1056	540	30-Oct-21 A	20-Sep-24	-53						
BIM1045	Preparation and Submission of BIM Model for Bar Bending Schedule	782	190	30-Oct-21 A	06-Oct-23	38						
BIM1047	Preparation and Submission of BIM Model for updating CSD and CBWD	1171	540	01-Nov-21 A	20-Sep-24	-53						
<b>Site Offices &amp; Preliminaries</b>		2311	1399	30-Sep-20 A	27-Jan-27	0						
<b>Temporary office for RE</b>		1739	825	30-Sep-20 A	02-Jul-25	169						
SP-1000b	Maintenance of container office	1739	825	30-Sep-20 A	02-Jul-25	169	0					
<b>Temporary office for Contractor</b>		1430	1399	16-Feb-23 A	27-Jan-27	0						
SP-1010a	Erection of container office in WA1	90	78	16-Feb-23 A	16-Jun-23	0	0					
SP-1010b	Maintenance of container office	1321	1321	17-Jun-23	27-Jan-27	0	0					
<b>E&amp;M Submission</b>		491	336	27-Oct-22 A	29-Feb-24	1066						
<b>Visitor Centre</b>		294	166	27-Oct-22 A	16-Oct-23	992						
<b>BS Shop Drawings Submission (Visitor Centre)</b>		78	51	21-Feb-23 A	30-May-23	1107						

Primary Baseline	Critical Milestone
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Data Date: 30-Apr-23  
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**3 Month Rolling Programme (May-23)**

Date	Revision	Checked	Approved
30-Apr-23	Monthly Update Programme (May-2023)	EW	

ND/2019/02 - Kwu Tung North New Development Area Phase 1:  
Roads & Drains between Kwu Tong North New Development Area and Shek Wu Hui

Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Time Risk Allowance	2023					
								Apr	May	Jun	Jul	Aug	
<b>CSD/ CBWD</b>													
<b>CSD</b>													
<b>Basement (CSF 495)</b>													
CSD-VC1100	CSD Preparation and submission for Visitor Centre (Rev.3)	21	21	31-Mar-23	24-Apr-23	-85	0						
CSD-VC1110	PM review & 4th round comment	13	13	25-Apr-23	10-May-23	-85	0						
<b>G/F (CSF 758)</b>													
CSD-VC1200	CSD Preparation and submission for Visitor Centre (Rev.3)	24	24	31-Mar-23	27-Apr-23	1134	0						
<b>1/F (CSF 1027)</b>													
CSD-VC1160	CSD Preparation and submission for Visitor Centre (Rev.1)	30	30	31-Mar-23	05-May-23	-51	0						
<b>R/F (CSF 1046)</b>													
CSD-VC1190	CSD Preparation and submission for Visitor Centre (Rev.1)	30	30	31-Mar-23	05-May-23	-37	0						
<b>CBWD</b>													
<b>Basement (CSF-508)</b>													
CBW-VC1290	CSD Preparation and submission for Visitor Centre (Rev.4)	30	30	31-Mar-23*	05-May-23	-74	0						
CBW-VC1300	PM review & 5th round comment	21	21	06-May-23	30-May-23	-74	0						
<b>G/F (CSF 537)</b>													
CBW-VC1350	CBW Preparation and submission for Visitor Centre (Rev.4)	21	15	21-Feb-23 A	17-Apr-23	-58							
CBW-VC1360	PM review & 5th round comment	16	16	18-Apr-23	06-May-23	-58							
<b>R/F (CSF 1097)</b>													
CBW-VC1440	CBW Preparation and submission for Visitor Centre (Rev.1)	26	26	31-Mar-23*	29-Apr-23	-235	0						
<b>MVAC (CSF 451)</b>													
MVAC-VC1095	PM review & 2nd round comment	30	30	31-Mar-23*	05-May-23	-88	0						
<b>PV Panel (CSF-909)</b>													
ABWF-P3-1730	Shop Drawing Submission - PV Panel - 4th submission to PM & review	18	18	31-Mar-23*	20-Apr-23	20	0						
<b>BS Materials Submission &amp; Procurement (Visitor Centre)</b>													
<b>PD (CSF-607)</b>													
PD-VC1030	Procurement & Delivery of Submersible Pump (16wks)	85	15	19-Nov-22 A	17-Apr-23	14	0						
<b>FS (CSF-980)</b>													
FS-VC1050	Procurement & Delivery of Sprinkler Pump & Local Control Panel (24wks)	145	145	25-Apr-23	16-Oct-23	-112	0						
FS-VC1040	Sprinkler Pump & Local Control Panel - 3rd submission to PM	21	21	31-Mar-23*	24-Apr-23	-112	0						
<b>MVAC (CSF-676)</b>													
MVAC-VC1130	AC Split Type - 3rd submission to PM & approval	21	21	31-Mar-23	24-Apr-23	42	0						
MVAC-VC1140	Procurement & Delivery of - AC Split Type (12wks)	21	21	25-Apr-23	19-May-23	42	0						
<b>ELE</b>													
<b>Genset (CSF-620)</b>													
ELE-VC1030	Procurement & Delivery of - Genset (16wks)	85	9	12-Nov-22 A	10-Apr-23	19	0						
<b>Switchboard (CSF-879)</b>													
ELV-VC1070	Procurement & Delivery of Switchboard (16wks)	85	14	27-Oct-22 A	15-Apr-23	-33	0						
<b>ELV</b>													
<b>PABX System (CSF-1086)</b>													
ELE-VC1060	PABX System - 2nd submission to PM and approval	22	8	16-Jan-23 A	08-Apr-23	-30	0						
ELE-VC1070	Procurement & Delivery of - PABX System (10wks)	70	70	10-Apr-23	03-Jul-23	-30	0						
<b>Lift (CSF-539)</b>													
LT-VC1050	Lift and Equipment - 2nd submission to PM & approval	30	30	31-Mar-23*	05-May-23	-45	0						

■ Primary Baseline     ◆ Critical Milestone  
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**3 Month Rolling Programme (May-23)**

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**ND/2019/02 - Kwu Tung North New Development Area Phase 1:  
Roads & Drains between Kwu Tong North New Development Area and Shek Wu Hui**

Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Time Risk Allowance	2023				
								Apr	May	Jun	Jul	Aug
LT-VC1060	Procurement & Delivery of - Lift Car and Equipment	117	52	03-Dec-22 A	31-May-23	-45	0					
<b>Sewerage Pumping Station</b>		<b>277</b>	<b>277</b>	<b>23-Feb-23 A</b>	<b>29-Feb-24</b>	<b>881</b>						
<b>PMI Issuance</b>		<b>0</b>	<b>0</b>	<b>31-Mar-23</b>	<b>31-Mar-23</b>	<b>-64</b>						
SPS-PMI-1000	Confirmation for the Flow Rate of Pump at SPS from 1000L/s to 1500L/s	0	0		31-Mar-23*	-64	0					
<b>BS Shop Drawings Submission (SPS)</b>		<b>66</b>	<b>66</b>	<b>31-Mar-23</b>	<b>16-Jun-23</b>	<b>1092</b>						
<b>CSD (CSF 1267)</b>		<b>14</b>	<b>14</b>	<b>01-Apr-23</b>	<b>17-Apr-23</b>	<b>1143</b>						
CSD-SPS1020	Sewage Pumping Station - 2nd submission to PM & approval	14	14	01-Apr-23	17-Apr-23	1143	0					
<b>CBWD</b>		<b>65</b>	<b>65</b>	<b>01-Apr-23</b>	<b>16-Jun-23</b>	<b>1092</b>						
CBW-SPS1010	Sewage Pumping Station - 1st round comment by PM & review	21	21	08-May-23	31-May-23	1092	0					
CBW-SPS1020	Sewage Pumping Station - 2nd submission to PM & approval	14	14	01-Jun-23	16-Jun-23	1092	0					
CBW-SPS1000	Shop Drawing Preparation and submission for Sewage Pumping Station (CBWD)	30	30	01-Apr-23	06-May-23	1092	0					
<b>Conduit Layout</b>		<b>65</b>	<b>65</b>	<b>01-Apr-23</b>	<b>16-Jun-23</b>	<b>1092</b>						
CL-SPS1010	Sewage Pumping Station - 1st round comment by PM & review	21	21	08-May-23	31-May-23	1092	0					
CL-SPS1020	Sewage Pumping Station - 2nd submission to PM & approval	14	14	01-Jun-23	16-Jun-23	1092	0					
CL-SPS1000	Shop Drawing Preparation and submission for Sewage Pumping Station (Conduit Layout)	30	30	01-Apr-23	06-May-23	1092	0					
<b>MVAC</b>		<b>65</b>	<b>65</b>	<b>01-Apr-23</b>	<b>16-Jun-23</b>	<b>1092</b>						
MVAC-SPS1020	Sewage Pumping Station - 1st submission to PM & review	21	21	08-May-23	31-May-23	1092	0					
MVAC-SPS1030	Sewage Pumping Station - 2nd submission to PM & approval	14	14	01-Jun-23	16-Jun-23	1092	0					
MVAC-SPS1010	Shop Drawing Preparation and submission for Sewage Pumping Station (MVAC)	30	30	01-Apr-23	06-May-23	1092	0					
<b>FS</b>		<b>65</b>	<b>65</b>	<b>01-Apr-23</b>	<b>16-Jun-23</b>	<b>1092</b>						
FS-SPS1020	Sewage Pumping Station - 1st submission to PM & review	21	21	08-May-23	31-May-23	1092	0					
FS-SPS1030	Sewage Pumping Station - 2nd submission to PM & approval	14	14	01-Jun-23	16-Jun-23	1092	0					
FS-SPS1010	Shop Drawing Preparation and submission for Sewage Pumping Station (FS)	30	30	01-Apr-23	06-May-23	1092	0					
<b>PD</b>		<b>65</b>	<b>65</b>	<b>01-Apr-23</b>	<b>16-Jun-23</b>	<b>1092</b>						
PD-SPS1010	Sewage Pumping Station - 1st submission to PM & review	21	21	08-May-23	31-May-23	1092	0					
PD-SPS1020	Sewage Pumping Station - 2nd submission to PM & approval	14	14	01-Jun-23	16-Jun-23	1092	0					
PD-SPS1000	Shop Drawing Preparation and submission for Sewage Pumping Station (PD)	30	30	01-Apr-23	06-May-23	1092	0					
<b>SPS Design</b>		<b>65</b>	<b>65</b>	<b>01-Apr-23</b>	<b>16-Jun-23</b>	<b>1092</b>						
SD-SPS1010	Sewage Pumping Station - 1st submission to PM & review	21	21	08-May-23	31-May-23	1092	0					
SD-SPS1020	Sewage Pumping Station - 2nd submission to PM & approval	14	14	01-Jun-23	16-Jun-23	1092	0					
SD-SPS1000	Shop Drawing Preparation and submission for Sewage Pumping Station (SPS Design)	30	30	01-Apr-23	06-May-23	1092	0					
<b>ELE (CSF-1182)</b>		<b>14</b>	<b>14</b>	<b>01-Apr-23</b>	<b>17-Apr-23</b>	<b>1143</b>						
ELE-SPS1020	Sewage Pumping Station - 2nd submission to PM & approval	14	14	01-Apr-23	17-Apr-23	1143	0					
<b>ELV</b>		<b>65</b>	<b>65</b>	<b>01-Apr-23</b>	<b>16-Jun-23</b>	<b>1092</b>						
ELV-SPS1010	Sewage Pumping Station - 1st submission to PM & review	21	21	08-May-23	31-May-23	1092	0					
ELV-SPS1020	Sewage Pumping Station - 2nd submission to PM & approval	14	14	01-Jun-23	16-Jun-23	1092	0					
ELV-SPS1000	Shop Drawing Preparation and submission for Sewage Pumping Station (ELV)	30	30	01-Apr-23	06-May-23	1092	0					
<b>Chemical Dosing System (CSF-1173)</b>		<b>14</b>	<b>14</b>	<b>31-Mar-23</b>	<b>15-Apr-23</b>	<b>282</b>						
ELV-SPS1120	Sewage Pumping Station - 2nd submission to PM & approval	14	14	31-Mar-23*	15-Apr-23	282	0					
<b>BS Materials Submission &amp; Procurement (SPS)</b>		<b>277</b>	<b>277</b>	<b>23-Feb-23 A</b>	<b>29-Feb-24</b>	<b>881</b>						
<b>Subletting</b>		<b>26</b>	<b>26</b>	<b>01-Apr-23</b>	<b>02-May-23</b>	<b>-64</b>						
SWP-SPS1560	Subletting Procedure for Material Procurement	26	26	01-Apr-23	02-May-23	-64	0					
<b>SWP</b>		<b>277</b>	<b>277</b>	<b>23-Feb-23 A</b>	<b>29-Feb-24</b>	<b>881</b>						
<b>Surge Analysis</b>		<b>60</b>	<b>60</b>	<b>03-May-23</b>	<b>13-Jul-23</b>	<b>1071</b>						

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**3 Month Rolling Programme (May-23)**

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ND/2019/02 - Kwu Tung North New Development Area Phase 1:  
Roads & Drains between Kwu Tong North New Development Area and Shek Wu Hui

Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Time Risk Allowance	2023				
								Apr	May	Jun	Jul	Aug
SWP-SPS1400	Preparation and Submission of Surge Analysis Report	60	60	03-May-23*	13-Jul-23	1071	0					
<b>Submersible Pump (40wks)</b>		76	76	03-May-23	01-Aug-23	-41						
SWP-SPS1000	Material Submission - Submersible Pump	25	25	03-May-23	31-May-23	-41	0					
SWP-SPS1010	Submersible Pump - 1st round comment by PM & review	30	30	01-Jun-23	07-Jul-23	-41	0					
SWP-SPS1020	Submersible Pump - 2nd submission to PM & approval	21	21	08-Jul-23	01-Aug-23	-41	0					
<b>Motorized Gate Valve, Check Valve and Actuator (36wks)</b>		74	74	03-May-23	29-Jul-23	-29						
SWP-SPS1040	Material Submission - Motorized Gate Valve, Check Valve and Actuator	25	25	03-May-23*	31-May-23	-29	0					
SWP-SPS1050	Motorized Gate Valve, Check Valve and Actuator - 1st round comment by PM & review	27	27	01-Jun-23	04-Jul-23	-29	0					
SWP-SPS1060	Motorized Gate Valve, Check Valve and Actuator - 2nd submission to PM & approval	22	22	05-Jul-23	29-Jul-23	-29	0					
<b>Lifting Appliance (36wks)</b>		74	74	03-May-23	29-Jul-23	-47						
SWP-SPS1170	Lifting Appliance - 1st round comment by PM & review	27	27	01-Jun-23	04-Jul-23	-47	0					
SWP-SPS1180	Lifting Appliance - 2nd submission to PM & approval	22	22	05-Jul-23	29-Jul-23	-47	0					
SWP-SPS1160	Material Submission - Lifting Appliance	25	25	03-May-23*	31-May-23	-47	0					
<b>Mechanical raked bar screen (36wks) (CSF-1318)</b>		235	235	23-Feb-23 A	08-Feb-24	57						
SWP-SPS1330	Mechanical raked bar screen - 1st round comment by PM & review	27	1	23-Feb-23 A	03-May-23	57	0					
SWP-SPS1340	Mechanical raked bar screen - 2nd submission to PM & approval	22	22	04-May-23	29-May-23	57	0					
SWP-SPS1350	Procurement & Delivery of Mechanical raked bar screen (36wks)	212	212	30-May-23	08-Feb-24	57	0					
<b>LMCP for Deodourisation System (36wks)</b>		74	74	03-May-23	29-Jul-23	-54						
SWP-SPS1370	LMCP for Deodourisation System - 1st round comment by PM & review	27	27	01-Jun-23	04-Jul-23	-54	0					
SWP-SPS1380	LMCP for Deodourisation System - 2nd submission to PM & approval	22	22	05-Jul-23	29-Jul-23	-54	0					
SWP-SPS1360	Material Submission - LMCP for Deodourisation System	25	25	03-May-23*	31-May-23	-54	0					
<b>DI Pipe and fittings (30 wks)</b>		250	250	03-May-23	29-Feb-24	7						
SWP-SPS1090	DI Pipe and fittings - 1st round comment by PM & review	27	27	01-Jun-23	04-Jul-23	7	0					
SWP-SPS1100	DI Pipe and fittings - 2nd submission to PM & approval	21	21	05-Jul-23	28-Jul-23	7	0					
SWP-SPS1080	Material Submission - DI Pipe and fittings	25	25	03-May-23*	31-May-23	7	0					
SWP-SPS1110	Procurement & Delivery of DI Pipe and fittings (30wks)	177	177	29-Jul-23	29-Feb-24	7	0					
<b>Penstock and Stop Log (30wks)</b>		198	198	31-Mar-23	23-Nov-23	146						
SWP-SPS1140	Penstock and Stop Log - 2nd submission to PM & approval	21	21	31-Mar-23	24-Apr-23	146	0					
SWP-SPS1150	Procurement & Delivery of Penstock and Stop Log(30 wks)	177	177	25-Apr-23	23-Nov-23	146	0					
<b>Deodourisation System (30wks) (CSF-1094)</b>		198	198	31-Mar-23	23-Nov-23	61						
SWP-SPS1220	Deodourisation System - 2nd submission to PM & approval	21	21	31-Mar-23*	24-Apr-23	61	0					
SWP-SPS1230	Procurement & Delivery of Deodourisation System (30wks)	177	177	25-Apr-23	23-Nov-23	61	0					
<b>Odour Ductwork (30wks)</b>		250	250	03-May-23	29-Feb-24	-64						
SWP-SPS1240	Material Submission - Odour Ductwork	25	25	03-May-23*	31-May-23	-64	0					
SWP-SPS1250	Odour Ductwork - 1st round comment by PM & review	27	27	01-Jun-23	04-Jul-23	-64	0					
SWP-SPS1260	Odour Ductwork - 2nd submission to PM & approval	21	21	05-Jul-23	28-Jul-23	-64	0					
SWP-SPS1270	Procurement & Delivery of Odour Ductwork (30wks)	177	177	29-Jul-23	29-Feb-24	-64	0					
<b>Sensors and Instruments (30wks)</b>		250	250	03-May-23	29-Feb-24	17						
SWP-SPS1280	Material Submission - Sensors and Instruments	25	25	03-May-23*	31-May-23	17	0					
SWP-SPS1310	Procurement & Delivery of Sensors and Instruments (30wks)	177	177	29-Jul-23	29-Feb-24	17	0					
SWP-SPS1290	Sensors and Instruments - 1st round comment by PM & review	27	27	01-Jun-23	04-Jul-23	17	0					
SWP-SPS1300	Sensors and Instruments - 2nd submission to PM & approval	21	21	05-Jul-23	28-Jul-23	17	0					
<b>Chemical Dosing System (30wks)</b>		250	250	03-May-23	29-Feb-24	19						
SWP-SPS1530	Chemical Dosing System - 1st round comment by PM & review	27	27	01-Jun-23	04-Jul-23	19	0					

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### 3 Month Rolling Programme (May-23)

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ND/2019/02 - Kwu Tung North New Development Area Phase 1:  
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Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Time Risk Allowance	2023				
								Apr	May	Jun	Jul	Aug
SWP-SPS1540	Chemical Dosing System - 2nd submission to PM & approval	21	21	05-Jul-23	28-Jul-23	19	0					
SWP-SPS1520	Material Submission - Chemical Dosing System	25	25	03-May-23*	31-May-23	19	0					
SWP-SPS1550	Procurement & Delivery of Chemical Dosing System (30wks)	177	177	29-Jul-23	29-Feb-24	19	0					
<b>Davit (24wks)</b>		<b>76</b>	<b>76</b>	<b>03-May-23</b>	<b>01-Aug-23</b>	<b>39</b>						
SWP-SPS1490	Davit - 1st round comment by PM & review	30	30	01-Jun-23	07-Jul-23	39	0					
SWP-SPS1500	Davit - 2nd submission to PM & approval	21	21	08-Jul-23	01-Aug-23	39	0					
SWP-SPS1480	Material Submission - Davit	25	25	03-May-23*	31-May-23	39	0					
<b>A-frame (20wks)</b>		<b>76</b>	<b>76</b>	<b>03-May-23</b>	<b>01-Aug-23</b>	<b>46</b>						
SWP-SPS1450	A-frame - 1st round comment by PM & review	30	30	01-Jun-23	07-Jul-23	46	0					
SWP-SPS1460	A-frame - 2nd submission to PM & approval	21	21	08-Jul-23	01-Aug-23	46	0					
SWP-SPS1440	Material Submission - A-frame	25	25	03-May-23*	31-May-23	46	0					
<b>PD (16wks)</b>		<b>74</b>	<b>74</b>	<b>03-May-23</b>	<b>29-Jul-23</b>	<b>122</b>						
PD-SPS1110	Material Submission - Sand Filter and Activated Carbon Filter	25	25	03-May-23*	31-May-23	122	0					
PD-SPS1120	Sand Filter and Activated Carbon Filter - 1st round comment by PM & review	28	28	01-Jun-23	05-Jul-23	122	0					
PD-SPS1130	Sand Filter and Activated Carbon Filter - 2nd submission to PM & approval	21	21	06-Jul-23	29-Jul-23	122	0					
<b>MVAC (12wks)</b>		<b>74</b>	<b>74</b>	<b>03-May-23</b>	<b>29-Jul-23</b>	<b>66</b>						
MVAC-SPS1050	AC Unit split type - 1st round comment by PM & review	28	28	01-Jun-23	05-Jul-23	66	0					
MVAC-SPS1060	AC Unit split type - 2nd submission to PM & approval	21	21	06-Jul-23	29-Jul-23	66	0					
MVAC-SPS1040	Material Submission - AC Unit split type	25	25	03-May-23*	31-May-23	66	0					
<b>ELE (16wks)</b>		<b>74</b>	<b>74</b>	<b>03-May-23</b>	<b>29-Jul-23</b>	<b>42</b>						
ELE-SPS1060	Material Submission - PV System	25	25	03-May-23*	31-May-23	42	0					
ELE-SPS1070	PV System - 1st round comment by PM & review	28	28	01-Jun-23	05-Jul-23	42	0					
ELE-SPS1080	PV System - 2nd submission to PM & approval	21	21	06-Jul-23	29-Jul-23	42	0					
<b>Footbridge FK2 Road lighting</b>		<b>30</b>	<b>7</b>	<b>01-Feb-23 A</b>	<b>07-Apr-23</b>	<b>-148</b>						
<b>Electrical schematic (CSF-445)</b>		<b>30</b>	<b>7</b>	<b>01-Feb-23 A</b>	<b>07-Apr-23</b>	<b>-148</b>						
RD-ES1040	Footbridge Electrical Schematic - Re-submission to HyD and approval	30	7	01-Feb-23 A	07-Apr-23	-148	0					
<b>EL System - Electrical and lighting layout (CSF-494)</b>		<b>30</b>	<b>7</b>	<b>01-Feb-23 A</b>	<b>07-Apr-23</b>	<b>-148</b>						
RD-EL1040	Electrical and lighting layout - Re-submission to HyD and approval	30	7	01-Feb-23 A	07-Apr-23	-148	0					
<b>Materials Submission (CSF-693)</b>		<b>30</b>	<b>7</b>	<b>01-Feb-23 A</b>	<b>07-Apr-23</b>	<b>-148</b>						
RD-MS1040	Material Submission - Re-submission to HyD and approval	30	7	01-Feb-23 A	07-Apr-23	-148	0					
<b>Drawing Submission of Road Lighting Layout (CSF-703)</b>		<b>30</b>	<b>7</b>	<b>01-Feb-23 A</b>	<b>07-Apr-23</b>	<b>-148</b>						
RD-RL1040	Road Lighting Layout - Re-submission to HyD and approval	30	7	01-Feb-23 A	07-Apr-23	-148	0					
<b>Lux Simulation Report (CSF-717)</b>		<b>30</b>	<b>7</b>	<b>01-Feb-23 A</b>	<b>07-Apr-23</b>	<b>-148</b>						
RD-LUX1040	Lux Simulation Report - Re-submission to HyD and approval	30	7	01-Feb-23 A	07-Apr-23	-148	0					
<b>Internal Arrangement of PB-01 (CSF-726)</b>		<b>30</b>	<b>7</b>	<b>01-Feb-23 A</b>	<b>07-Apr-23</b>	<b>-148</b>						
RD-PB1040	Internal Arrangement drawings of PB-01 - Re-submission to HyD and approval	30	7	01-Feb-23 A	07-Apr-23	-148	0					
<b>Irrigation System (CSF-634)</b>		<b>102</b>	<b>75</b>	<b>03-Feb-23 A</b>	<b>28-Jun-23</b>	<b>-128</b>						
IS-1030	Irrigation System drawings - 1st submission to AFCD, DSD, ASD, & EMSD, WSD & LCSD	48	27	03-Feb-23 A	02-May-23	-128	0					
IS-1040	Irrigation System drawings - Re-submission to AFCD, DSD, ASD, & EMSD, WSD & LCSD and approval	48	48	03-May-23	28-Jun-23	-128	0					
<b>ABWF Submission and Mock Up</b>		<b>214</b>	<b>187</b>	<b>22-Dec-22 A</b>	<b>10-Nov-23</b>	<b>82</b>						
<b>Visitor Centre</b>		<b>214</b>	<b>187</b>	<b>22-Dec-22 A</b>	<b>10-Nov-23</b>	<b>5</b>						
<b>ABWF Shop Drawing / Method Statement / ITP Submission</b>		<b>84</b>	<b>84</b>	<b>31-Mar-23</b>	<b>10-Jul-23</b>	<b>46</b>						
<b>Package 1</b>		<b>65</b>	<b>65</b>	<b>31-Mar-23</b>	<b>15-Jun-23</b>	<b>-61</b>						
<b>Tile Setting Out Drawing / Block Wall Frame Shop Drawings</b>		<b>65</b>	<b>65</b>	<b>31-Mar-23</b>	<b>15-Jun-23</b>	<b>-61</b>						

■ Primary Baseline     ◆ Critical Milestone  
■ Actual Work             ◆ Non-Critical Mil...  
■ Remaining Work  
■ Critical Remaining Work  
◆ Baseline Milestone

Data Date: 30-Apr-23  
 Project Start: 03-Feb-20  
 Project End: 30-Jan-27  
 Baseline: Latest Accepted Programme Rev. 2.5 (Accepted on 13 Mar 2023)

**3 Month Rolling Programme (May-23)**

Date	Revision	Checked	Approved
30-Apr-23	Monthly Update Programme (May-2023)	EW	



ND/2019/02 - Kwu Tung North New Development Area Phase 1:  
Roads & Drains between Kwu Tong North New Development Area and Shek Wu Hui

Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Time Risk Allowance	2023				
								Apr	May	Jun	Jul	Aug
ABWF-P1-1200	2nd submission to PM & approval	14	14	31-May-23	15-Jun-23	-61	0					
ABWF-P1-1190	Shop Drawing / Method Statement / ITP Submission	30	30	31-Mar-23*	05-May-23	-61	0					
ABWF-P1-1195	Shop Drawing / Method Statement / ITP Submission - 1st round comment by PM & review	21	21	06-May-23	30-May-23	-61	0					
<b>Package 3</b>		72	72	31-Mar-23	24-Jun-23	58						
<b>Suspended Ceiling</b>		53	53	31-Mar-23	01-Jun-23	-104						
ABWF-P3-1055	Shop Drawing / Method Statement / ITP Submission - Suspended Ceiling	26	26	31-Mar-23*	29-Apr-23	-104	0					
ABWF-P3-1060	Suspended Ceiling - 1st round comment by PM & review	15	15	02-May-23	18-May-23	-104	0					
ABWF-P3-1080	Suspended Ceiling - 2nd submission to PM & approval	12	12	19-May-23	01-Jun-23	-104	0					
<b>Raised Flooring</b>		72	72	31-Mar-23	24-Jun-23	-54						
ABWF-P3-1480	Raised Flooring - 1st round comment by PM & review	21	21	06-May-23	30-May-23	-54	0					
ABWF-P3-1500	Raised Flooring - 2nd submission to PM & approval	21	21	31-May-23	24-Jun-23	-54	0					
ABWF-P3-1475	Shop Drawing / Method Statement / ITP Submission - Raised Flooring	30	30	31-Mar-23*	05-May-23	-54	0					
<b>Plastic Laminate Wall Panels</b>		72	72	31-Mar-23	24-Jun-23	-27						
ABWF-P3-1510	Plastic Laminate Wall Panel - 1st round comment by PM & review	21	21	06-May-23	30-May-23	-27	0					
ABWF-P3-1530	Plastic Laminate Wall Panel - 2nd submission to PM & approval	21	21	31-May-23	24-Jun-23	-27	0					
ABWF-P3-1505	Shop Drawing / Method Statement / ITP Submission - Plastic Laminate Wall Panel	30	30	31-Mar-23*	05-May-23	-27	0					
<b>Thermal Insulation Board</b>		72	72	31-Mar-23	24-Jun-23	-100						
ABWF-P3-1535	Shop Drawing / Method Statement / ITP Submission - Thermal insulation Board	30	30	31-Mar-23*	05-May-23	-100	0					
ABWF-P3-1540	Thermal insulation Board - 1st round comment by PM & review	21	21	06-May-23	30-May-23	-100	0					
ABWF-P3-1560	Thermal insulation Board - 2nd submission to PM & approval	21	21	31-May-23	24-Jun-23	-100	0					
<b>Glass Wall</b>		56	56	31-Mar-23	05-Jun-23	-118						
ABWF-P3-1570	Glass Wall - 1st round comment by PM & review	21	21	25-Apr-23	19-May-23	-118	0					
ABWF-P3-1590	Glass Wall - 2nd submission to PM & approval	14	14	20-May-23	05-Jun-23	-118	0					
ABWF-P3-1565	Shop Drawing / Method Statement / ITP Submission - Glass Wall	21	21	31-Mar-23*	24-Apr-23	-118	0					
<b>Movable Partition</b>		72	72	31-Mar-23	24-Jun-23	20						
ABWF-P3-1600	Movable Partition - 1st round comment by PM & review	21	21	06-May-23	30-May-23	20	0					
ABWF-P3-1620	Movable Partition - 2nd submission to PM & approval	21	21	31-May-23	24-Jun-23	20	0					
ABWF-P3-1595	Shop Drawing / Method Statement / ITP Submission - Movable Partition	30	30	31-Mar-23*	05-May-23	20	0					
<b>Timber Deck</b>		72	72	31-Mar-23	24-Jun-23	58						
ABWF-P3-1655	Shop Drawing / Method Statement / ITP Submission - Timber Deck	30	30	31-Mar-23*	05-May-23	58	0					
ABWF-P3-1660	Timber Deck - 1st round comment by PM & review	21	21	06-May-23	30-May-23	58	0					
ABWF-P3-1680	Timber Deck - 2nd submission to PM & approval	21	21	31-May-23	24-Jun-23	58	0					
<b>Roof Hatch</b>		66	66	31-Mar-23	16-Jun-23	-23						
ABWF-P3-1700	Roof Hatch - 1st round comment by PM & review	15	15	06-May-23	23-May-23	-23	0					
ABWF-P3-1720	Roof Hatch - 2nd submission to PM & approval	21	21	24-May-23	16-Jun-23	-23	0					
ABWF-P3-1698	Shop Drawing / Method Statement / ITP Submission - Roof Hatch	30	30	31-Mar-23*	05-May-23	-23	0					
<b>Package 4</b>		72	72	31-Mar-23	24-Jun-23	-35						
<b>Timber Door</b>		58	58	31-Mar-23	07-Jun-23	-21						
ABWF-P1-1090	Shop Drawing / Method Statement / ITP Submission - Timber Door and Ironmongeries - 1st round comment by PM	14	14	06-May-23	22-May-23	-21	0					
ABWF-P4-1110	Shop Drawing / Method Statement / ITP Submission - Timber Door and Ironmongeries - 2nd submission to PM & approval	14	14	23-May-23	07-Jun-23	-21	0					
ABWF-P4-1085	Shop Drawing / Method Statement / ITP Submission - Timber Door and Ironmongeries	30	30	31-Mar-23*	05-May-23	-21	0					
<b>Fitting &amp; Fixtures</b>		72	72	31-Mar-23	24-Jun-23	-83						
ABWF-P4-1630	Fitting & Fixture - 1st round comment by PM & review	21	21	06-May-23	30-May-23	-83	0					
ABWF-P4-1650	Fitting & Fixture - 2nd submission to PM & approval	21	21	31-May-23	24-Jun-23	-83	0					

Primary Baseline	Critical Milestone
Actual Work	Non-Critical Milestone
Remaining Work	
Critical Remaining Work	
Baseline Milestone	

Data Date: 30-Apr-23  
 Project Start: 03-Feb-20  
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 Baseline: Latest Accepted Programme Rev. 2.5 (Accepted on 13 Mar 2023)

### 3 Month Rolling Programme (May-23)

Date	Revision	Checked	Approved
30-Apr-23	Monthly Update Programme (May-2023)	EW	

ND/2019/02 - Kwu Tung North New Development Area Phase 1:  
Roads & Drains between Kwu Tong North New Development Area and Shek Wu Hui

Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Time Risk Allowance	2023				
								Apr	May	Jun	Jul	Aug
ABWF-P4-1625	Shop Drawing / Method Statement / ITP Submission - Fitting & Fixture	30	30	31-Mar-23*	05-May-23	-83	0					
<b>Package 5</b>		68	68	31-Mar-23	19-Jun-23	-36						
<b>Window</b>		43	43	31-Mar-23	20-May-23	-82						
ABWF-P5-1145	Shop Drawing / Method Statement / ITP Submission - Window	15	15	31-Mar-23*	17-Apr-23	-82	0					
ABWF-P5-1150	Window - 1st round comment by PM & review	14	14	18-Apr-23	04-May-23	-82	0					
ABWF-P5-1170	Window - 2nd submission to PM & approval	14	14	05-May-23	20-May-23	-82	0					
<b>Louvre</b>		50	50	31-Mar-23	29-May-23	-75						
ABWF-P5-1025	Shop Drawing / Method Statement / ITP Submission - Louvre	20	20	31-Mar-23*	22-Apr-23	-75	0					
ABWF-P5-1030	Shop Drawing / Method Statement / ITP Submission - Louvre - 1st round comment by PM & review	20	20	24-Apr-23	17-May-23	-75	0					
ABWF-P5-1050	Shop Drawing Submission - Louvre - 2nd submission to PM & approval	10	10	18-May-23	29-May-23	-75	0					
<b>Aluminium Grilles</b>		68	68	31-Mar-23	19-Jun-23	-36						
ABWF-P5-1120	Shop Drawing / Method Statement / ITP Submission - Aluminium Grilles - 1st round comment by PM & review	21	21	06-May-23	30-May-23	-36	0					
ABWF-P5-1140	Shop Drawing / Method Statement / ITP Submission - Aluminium Grilles 2nd submission to PM & approval	17	17	31-May-23	19-Jun-23	-36	0					
ABWF-P5-1115	Shop Drawing / Method Statement / ITP Submission- Aluminium Grilles	30	30	31-Mar-23*	05-May-23	-36	0					
<b>Package 6</b>		84	84	31-Mar-23	10-Jul-23	19						
<b>Fence / Handrail / Parapet</b>		72	72	31-Mar-23	24-Jun-23	-88						
ABWF-P6-1190	Fence / Handrail / Parapet - 1st round comment by PM & review	21	21	06-May-23	30-May-23	-88	0					
ABWF-P6-1200	Fence / Handrail / Parapet - 2nd submission to PM & approval	21	21	31-May-23	24-Jun-23	-88	0					
ABWF-P6-1180	Shop Drawing / Method Statement / ITP Submission - Fence / Handrail / Parapet	30	30	31-Mar-23*	05-May-23	-88	0					
<b>Skylight</b>		46	46	14-Apr-23	07-Jun-23	-109						
ABWF-P3-1000	Shop Drawing / Method Statement / ITP Submission - Skylight	18	18	14-Apr-23	05-May-23	-109	0					
ABWF-P3-1010	Shop Drawing / Method Statement / ITP Submission - Skylight - 1st round comment by PM & review	14	14	06-May-23	22-May-23	-109	0					
ABWF-P3-1020	Shop Drawing / Method Statement / ITP Submission - Skylight - 2nd submission to PM & approval	14	14	23-May-23	07-Jun-23	-109	0					
<b>Fall Arrest system</b>		72	72	14-Apr-23	10-Jul-23	19						
ABWF-P3-1250	Shop Drawing / Method Statement / ITP Submission - 1st round comment by PM & review	21	21	20-May-23	13-Jun-23	19	0					
ABWF-P3-1240	Shop Drawing / Method Statement / ITP Submission- Fall Arrest System	30	30	14-Apr-23*	19-May-23	19	0					
ABWF-P3-1260	Shop Drawing / Method Statement / ITP Submission- Fall Arrest System - 2nd submission to PM & approval	21	21	14-Jun-23	10-Jul-23	19	0					
<b>Steel Doors</b>		55	55	14-Apr-23	17-Jun-23	-84						
ABWF-P3-1325	Shop Drawing / Method Statement / ITP Submission - Steel Doors and Ironmongeries	20	20	14-Apr-23*	08-May-23	-84	0					
ABWF-P3-1330	Shop Drawing / Method Statement / ITP Submission - Steel Doors and Ironmongeries - 1st round comment by PM	21	21	09-May-23	01-Jun-23	-84	0					
ABWF-P3-1350	Shop Drawing / Method Statement / ITP Submission - Steel Doors and Ironmongeries - 2nd submission to PM & approval	14	14	02-Jun-23	17-Jun-23	-84	0					
<b>Sundry Metal Works (Covers / Cat Ladder / Steel Staircase)</b>		72	72	14-Apr-23	10-Jul-23	-34						
ABWF-P4-1000	Shop Drawing / Method Statement / ITP Submission - Sundry Metal Works	30	30	14-Apr-23*	19-May-23	-34	0					
ABWF-P4-1020	Shop Drawing / Method Statement / ITP Submission - Sundry Metal Works - 2nd submission to PM & approval	21	21	14-Jun-23	10-Jul-23	-34	0					
ABWF-P4-1010	Shop Drawing / Method Statement / ITP Submission- Sundry Metal Works - 1st round comment by PM & review	21	21	20-May-23	13-Jun-23	-34	0					
<b>Package 7</b>		72	72	31-Mar-23	24-Jun-23	-71						
<b>Toilet Cubicle &amp; Shower Cubicle</b>		72	72	31-Mar-23	24-Jun-23	-71						
ABWF-P3-1270	Shop Drawing / Method Statement / ITP Submission - Toilet Cubicle	30	30	31-Mar-23*	05-May-23	-71	0					
ABWF-P3-1280	Shop Drawing / Method Statement / ITP Submission - Toilet Cubicle - 1st round comment by PM & review	21	21	06-May-23	30-May-23	-71	0					
ABWF-P3-1290	Shop Drawing / Method Statement / ITP Submission - Toilet Cubicle - 2nd submission to PM & approval	21	21	31-May-23	24-Jun-23	-71	0					
<b>ABWF Material Submission</b>		214	187	22-Dec-22 A	10-Nov-23	5						
<b>Package 1</b>		49	49	31-Mar-23	27-May-23	-45						
<b>Concrete Block</b>		49	49	31-Mar-23	27-May-23	-45						
ABWF-VC3130	Material & Sample Submission - Gypsum Block - 2nd submission to PM & approval	14	14	12-May-23	27-May-23	-45	0					

	Primary Baseline		Critical Milestone
	Actual Work		Non-Critical Milestone
	Remaining Work		
	Critical Remaining Work		
	Baseline Milestone		

Data Date: 30-Apr-23  
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### 3 Month Rolling Programme (May-23)

Date	Revision	Checked	Approved
30-Apr-23	Monthly Update Programme (May-2023)	EW	

ND/2019/02 - Kwu Tung North New Development Area Phase 1:  
Roads & Drains between Kwu Tong North New Development Area and Shek Wu Hui

Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Time Risk Allowance	2023				
								Apr	May	Jun	Jul	Aug
ABWF-VC3110	Material & Sample Submission - Gypsum Block	14	14	31-Mar-23*	15-Apr-23	-45	0					
ABWF-VC3120	Material & Sample Submission - Gypsum Block - 1st round comment by PM & review	21	21	17-Apr-23	11-May-23	-45	0					
<b>Package 2</b>		<b>76</b>	<b>49</b>	<b>09-Feb-23 A</b>	<b>27-May-23</b>	<b>-37</b>						
<b>Internal Wall Painting (CSF-1294)</b>		<b>46</b>	<b>19</b>	<b>09-Feb-23 A</b>	<b>21-Apr-23</b>	<b>-7</b>						
ABWF-VC3020	Material & Sample Submission - Internal Wall Painting - 2nd submission to PM & approval	14	14	06-Apr-23	21-Apr-23	-7	0					
ABWF-VC3010	Material & Sample Submission - Internal Wall Painting - 1st round comment by PM & review	21	5	09-Feb-23 A	05-Apr-23	-7	0					
<b>External Wall Painting</b>		<b>49</b>	<b>49</b>	<b>31-Mar-23</b>	<b>27-May-23</b>	<b>-58</b>						
ABWF-VC3200	Material & Sample Submission - External Wall Painting - 2nd submission to PM & approval	14	14	12-May-23	27-May-23	-58	0					
ABWF-VC3190	Material & Sample Submission - External Wall Painting - 1st round comment by PM & review	14	14	25-Apr-23	11-May-23	-58	0					
ABWF-VC3180	Material & Sample Submission - External Wall Painting	21	21	31-Mar-23*	24-Apr-23	-58	0					
<b>Package 3</b>		<b>214</b>	<b>187</b>	<b>22-Dec-22 A</b>	<b>10-Nov-23</b>	<b>5</b>						
<b>External suspended Baffle Ceiling (CSF-1103)</b>		<b>92</b>	<b>92</b>	<b>31-Mar-23</b>	<b>19-Jul-23</b>	<b>-93</b>						
ABWF-VC3270	Material & Sample Submission, 2nd round comment by PM & approval	20	20	31-Mar-23	22-Apr-23	-93	0					
ABWF-VC3280	Material Procurement of External Suspended Baffle Ceiling	72	72	24-Apr-23	19-Jul-23	-93	0					
<b>Movable Folding Partition (CSF-1104)</b>		<b>56</b>	<b>29</b>	<b>22-Dec-22 A</b>	<b>04-May-23</b>	<b>63</b>						
ABWF-VC3670	Material & Sample Submission, 2nd round comment by PM & approval	21	8	22-Dec-22 A	08-Apr-23	63	0					
ABWF-VC3680	Material Procurement of Movable Folding Partition	21	21	10-Apr-23	04-May-23	63	0					
<b>Internal Acoustic Ceiling (CSF-1105)</b>		<b>31</b>	<b>31</b>	<b>31-Mar-23</b>	<b>06-May-23</b>	<b>-68</b>						
ABWF-VC3310	Material & Sample Submission, 2nd round comment by PM & approval	10	10	31-Mar-23	11-Apr-23	-68	0					
ABWF-VC3320	Material Procurement of Acoustic Ceiling	21	21	12-Apr-23	06-May-23	-68	0					
<b>Raised Floor (CSF-1118)</b>		<b>21</b>	<b>21</b>	<b>31-Mar-23</b>	<b>24-Apr-23</b>	<b>-3</b>						
ABWF-VC3240	Material Procurement of Raised Floor	21	21	31-Mar-23	24-Apr-23	-3	0					
<b>Glass Wall</b>		<b>40</b>	<b>40</b>	<b>31-Mar-23</b>	<b>17-May-23</b>	<b>-102</b>						
ABWF-VC3330	Material & Sample Submission - Glass Wall	15	15	31-Mar-23*	17-Apr-23	-102	0					
ABWF-VC3340	Material & Sample Submission 1st round comment by PM & review	15	15	18-Apr-23	05-May-23	-102	0					
ABWF-VC3350	Material & Sample Submission, 2nd round comment by PM & approval	10	10	06-May-23	17-May-23	-102	0					
<b>Timber Deck</b>		<b>62</b>	<b>62</b>	<b>01-Jun-23</b>	<b>14-Aug-23</b>	<b>78</b>						
ABWF-VC3380	Material & Sample Submission - 1st round comment by PM & review	21	21	13-Jun-23	08-Jul-23	78	0					
ABWF-VC3370	Material & Sample Submission - Timber Deck	10	10	01-Jun-23*	12-Jun-23	68	0					
ABWF-VC3390	Material & Sample Submission -, 2nd round comment by PM & approval	10	10	10-Jul-23	20-Jul-23	78	0					
ABWF-VC3400	Material Procurement of Timber Deck	21	21	21-Jul-23	14-Aug-23	78	0					
<b>Timber Flooring</b>		<b>62</b>	<b>62</b>	<b>31-Mar-23</b>	<b>12-Jun-23</b>	<b>-55</b>						
ABWF-VC3620	Material & Sample Submission - 1st round comment by PM & review	21	21	12-Apr-23	06-May-23	-55	0					
ABWF-VC3610	Material & Sample Submission - Timber Flooring	10	10	31-Mar-23*	11-Apr-23	-55	0					
ABWF-VC3630	Material & Sample Submission -, 2nd round comment by PM & approval	10	10	08-May-23	18-May-23	-55	0					
ABWF-VC3640	Material Procurement of Timber Deck	21	21	19-May-23	12-Jun-23	-55	0					
<b>Roof Hatch</b>		<b>121</b>	<b>121</b>	<b>17-Jun-23</b>	<b>10-Nov-23</b>	<b>-23</b>						
ABWF-VC3700	Material & Sample Submission - 1st round comment by PM & review	21	21	30-Jun-23	25-Jul-23	-23	0					
ABWF-VC3690	Material & Sample Submission - Roof Hatch	10	10	17-Jun-23	29-Jun-23	-23	0					
ABWF-VC3720	Material Procurement and Delivery of Roof Hatch	90	90	26-Jul-23	10-Nov-23	-23	0					
<b>Package 4</b>		<b>85</b>	<b>85</b>	<b>31-Mar-23</b>	<b>11-Jul-23</b>	<b>-48</b>						
<b>Timber Door</b>		<b>70</b>	<b>70</b>	<b>31-Mar-23</b>	<b>21-Jun-23</b>	<b>-33</b>						
ABWF-VC3430	Material & Sample Submission -, 2nd round comment by PM & approval	20	20	06-May-23	29-May-23	-33	0					
ABWF-VC3420	Material & Sample Submission - 1st round comment by PM & review	20	20	12-Apr-23	05-May-23	-33	0					

Primary Baseline	Critical Milestone
Actual Work	Non-Critical Mil...
Remaining Work	
Critical Remaining Work	
Baseline Milestone	

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## 3 Month Rolling Programme (May-23)

Date	Revision	Checked	Approved
30-Apr-23	Monthly Update Programme (May-2023)	EW	

**ND/2019/02 - Kwu Tung North New Development Area Phase 1:  
Roads & Drains between Kwu Tong North New Development Area and Shek Wu Hui**

Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Time Risk Allowance	2023				
								Apr	May	Jun	Jul	Aug
ABWF-VC3410	Material & Sample Submission - Timber Doors	10	10	31-Mar-23*	11-Apr-23	-33	0					
ABWF-VC3440	Material Procurement of Timber Doors	20	20	30-May-23	21-Jun-23	-33	0					
<b>Fitting and Fixtures</b>		<b>85</b>	<b>85</b>	<b>31-Mar-23</b>	<b>11-Jul-23</b>	<b>-96</b>						
ABWF-VC3470	Material & Sample Submission - , 2nd round comment by PM & approval	14	14	19-May-23	03-Jun-23	-96	0					
ABWF-VC3460	Material & Sample Submission - 1st round comment by PM & review	21	21	24-Apr-23	18-May-23	-96	0					
ABWF-VC3450	Material & Sample Submission - Fitting and Fixtures	20	20	31-Mar-23*	22-Apr-23	-96	0					
ABWF-VC3480	Material Procurement of - Fitting and Fixtures	30	30	05-Jun-23	11-Jul-23	-96	0					
<b>Package 5</b>		<b>97</b>	<b>97</b>	<b>31-Mar-23</b>	<b>25-Jul-23</b>	<b>-65</b>						
<b>Windows</b>		<b>50</b>	<b>50</b>	<b>31-Mar-23</b>	<b>29-May-23</b>	<b>-89</b>						
ABWF-VC3540	Material & Sample Submission - 1st round comment by PM & review	12	12	24-Apr-23	08-May-23	-89	0					
ABWF-VC3530	Material & Sample Submission - Window	20	20	31-Mar-23*	22-Apr-23	-89	0					
ABWF-VC3550	Material & Sample Submission -, 2nd round comment by PM & approval	18	18	09-May-23	29-May-23	-89	0					
<b>Lourves</b>		<b>61</b>	<b>61</b>	<b>31-Mar-23</b>	<b>10-Jun-23</b>	<b>-86</b>						
ABWF-VC3510	Material & Sample Submission , 2nd round comment by PM & approval	14	14	10-May-23	25-May-23	-86	0					
ABWF-VC3490	Material & Sample Submission - Lourves	18	18	31-Mar-23*	20-Apr-23	-86	0					
ABWF-VC3500	Material & Sample Submission 1st round comment by PM & review	15	15	21-Apr-23	09-May-23	-86	0					
ABWF-VC3520	Material Procurement of Lourves	14	14	26-May-23	10-Jun-23	-86	0					
<b>Aluminium Grilles</b>		<b>97</b>	<b>97</b>	<b>31-Mar-23</b>	<b>25-Jul-23</b>	<b>-65</b>						
ABWF-VC3590	Material & Sample Submission , 2nd round comment by PM & approval	21	21	05-Jun-23	29-Jun-23	-65	0					
ABWF-VC3570	Material & Sample Submission - Aluminium Grilles	25	25	31-Mar-23*	28-Apr-23	-65	0					
ABWF-VC3580	Material & Sample Submission 1st round comment by PM & review	30	30	29-Apr-23	03-Jun-23	-65	0					
ABWF-VC3600	Material Procurement of Window / Lourves	21	21	30-Jun-23	25-Jul-23	-65	0					
<b>Mock Up</b>		<b>185</b>	<b>158</b>	<b>23-Feb-23 A</b>	<b>06-Oct-23</b>	<b>3</b>						
<b>Package 1</b>		<b>57</b>	<b>30</b>	<b>23-Feb-23 A</b>	<b>05-May-23</b>	<b>-53</b>						
<b>Plastering / Tile Adhesive</b>		<b>57</b>	<b>30</b>	<b>23-Feb-23 A</b>	<b>05-May-23</b>	<b>-62</b>						
ABWF-VC1030	Material Procurement of Plastering material / Tile Adhesive	14	14	19-Apr-23	05-May-23	-62	0					
ABWF-VC1010	Mock Up 1st round comment by PM & review	10	6	23-Feb-23 A	06-Apr-23	-62	0					
ABWF-VC1020	Mock Up modification, 2nd round comment by PM & approval	10	10	07-Apr-23	18-Apr-23	-62	0					
<b>Internal tiling works</b>		<b>47</b>	<b>30</b>	<b>23-Feb-23 A</b>	<b>05-May-23</b>	<b>-53</b>						
ABWF-VC1190	Material Procurement of Internal tiling works	14	14	19-Apr-23	05-May-23	-53	0					
ABWF-VC1170	Mock Up 1st round comment by PM & review	10	6	23-Feb-23 A	06-Apr-23	-53	0					
ABWF-VC1180	Mock Up modification, 2nd round comment by PM & approval	10	10	07-Apr-23	18-Apr-23	-53	0					
<b>Package 2</b>		<b>85</b>	<b>85</b>	<b>22-Apr-23</b>	<b>02-Aug-23</b>	<b>-37</b>						
<b>Internal Wall Painting</b>		<b>55</b>	<b>55</b>	<b>22-Apr-23</b>	<b>27-Jun-23</b>	<b>-7</b>						
ABWF-VC1960	Fabrication of Mock Up - Internal Wall Painting	10	10	22-Apr-23	04-May-23	-7	0					
ABWF-VC1990	Material Procurement for Internal Wall Painting	14	14	10-Jun-23	27-Jun-23	-7	0					
ABWF-VC1970	Mock Up 1st round comment by PM & review	21	21	05-May-23	29-May-23	-7	0					
ABWF-VC1980	Mock Up modification, 2nd round comment by PM & approval	10	10	30-May-23	09-Jun-23	-7	0					
<b>External Wall Painting</b>		<b>55</b>	<b>55</b>	<b>29-May-23</b>	<b>02-Aug-23</b>	<b>-58</b>						
ABWF-VC3140	Fabrication of Mock Up - External Wall Painting	10	10	29-May-23	08-Jun-23	-58	0					
ABWF-VC3170	Material Procurement for External Wall Painting	14	14	18-Jul-23	02-Aug-23	-58	0					
ABWF-VC3150	Mock Up 1st round comment by PM & review	21	21	09-Jun-23	05-Jul-23	-58	0					
ABWF-VC3160	Mock Up modification, 2nd round comment by PM & approval	10	10	06-Jul-23	17-Jul-23	-58	0					
<b>Package 3</b>		<b>105</b>	<b>105</b>	<b>02-Jun-23</b>	<b>06-Oct-23</b>	<b>3</b>						

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**ND/2019/02 - Kwu Tung North New Development Area Phase 1:  
Roads & Drains between Kwu Tong North New Development Area and Shek Wu Hui**

Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Time Risk Allowance	2023				
								Apr	May	Jun	Jul	Aug
<b>External suspended Baffle Ceiling</b>		50	50	02-Jun-23	01-Aug-23	-104						
ABWF-VC1360	Fabrication of Mock Up - External Suspended Baffle Ceiling	10	10	02-Jun-23	13-Jun-23	-104	0					
ABWF-VC1390	Material Procurement of External Suspended Baffle Ceiling	20	20	10-Jul-23	01-Aug-23	-104	0					
ABWF-VC1370	Mock Up 1st round comment by PM & review	8	8	14-Jun-23	23-Jun-23	-104	0					
ABWF-VC1380	Mock Up modification, 2nd round comment by PM & approval	12	12	24-Jun-23	08-Jul-23	-104	0					
<b>Internal Acoustic Ceiling</b>		67	67	02-Jun-23	21-Aug-23	-90						
ABWF-VC1400	Fabrication of Mock Up - Acoustic Ceiling	15	15	02-Jun-23	19-Jun-23	-90	0					
ABWF-VC1430	Material Procurement of Acoustic Ceiling	21	21	28-Jul-23	21-Aug-23	-90	0					
ABWF-VC1410	Mock Up 1st round comment by PM & review	21	21	20-Jun-23	15-Jul-23	-90	0					
ABWF-VC1420	Mock Up modification, 2nd round comment by PM & approval	10	10	17-Jul-23	27-Jul-23	-90	0					
<b>Raised Floor</b>		31	31	26-Jun-23	01-Aug-23	-54						
ABWF-VC1080	Fabrication of Mock Up - Raised Floor	10	10	26-Jun-23	07-Jul-23	-54	0					
ABWF-VC1090	Mock Up 1st round comment by PM & review	21	21	08-Jul-23	01-Aug-23	-54	0					
<b>Glass Wall</b>		102	102	06-Jun-23	06-Oct-23	-118						
ABWF-VC3030	Fabrication of Mock Up - Glass Wall	10	10	06-Jun-23	16-Jun-23	-118	0					
ABWF-VC3060	Material Procurement of Glass Wall	72	72	13-Jul-23	06-Oct-23	-118	0					
ABWF-VC3040	Mock Up 1st round comment by PM & review	14	14	17-Jun-23	05-Jul-23	-118	0					
ABWF-VC3050	Mock Up modification, 2nd round comment by PM & approval	6	6	06-Jul-23	12-Jul-23	-118	0					
<b>Timber Deck</b>		31	31	26-Jun-23	01-Aug-23	58						
ABWF-VC3070	Fabrication of Mock Up - Timber Deck	10	10	26-Jun-23	07-Jul-23	58	0					
ABWF-VC3080	Mock Up 1st round comment by PM & review	21	21	08-Jul-23	01-Aug-23	58	0					
<b>Package 4</b>		50	50	23-Jun-23	21-Aug-23	-33						
<b>Timber Door</b>		50	50	23-Jun-23	21-Aug-23	-33						
ABWF-VC1520	Fabrication of Mock Up - Timber Doors	10	10	23-Jun-23	05-Jul-23	-33	0					
ABWF-VC1530	Mock Up 1st round comment by PM & review	20	20	06-Jul-23	28-Jul-23	-33	0					
ABWF-VC1540	Mock Up modification, 2nd round comment by PM & approval	20	20	29-Jul-23	21-Aug-23	-33	0					
<b>Fitting and Fixtures</b>		31	31	12-Jul-23	16-Aug-23	-96						
ABWF-VC1640	Fabrication of Mock Up - Fitting and Fixtures	10	10	12-Jul-23	22-Jul-23	-96	0					
ABWF-VC1650	Mock Up 1st round comment by PM & review	21	21	24-Jul-23	16-Aug-23	-96	0					
<b>Package 5</b>		37	37	30-May-23	13-Jul-23	-89						
<b>Windows / Louvers</b>		37	37	30-May-23	13-Jul-23	-89						
ABWF-VC1800	Fabrication of Mock Up - Window / Louvers	10	10	30-May-23	09-Jun-23	-89	0					
ABWF-VC1830	Material Procurement of Window / Louvers	14	14	27-Jun-23	13-Jul-23	-89	0					
ABWF-VC1810	Mock Up 1st round comment by PM & review	7	7	10-Jun-23	17-Jun-23	-89	0					
ABWF-VC1820	Mock Up modification, 2nd round comment by PM & approval	6	6	19-Jun-23	26-Jun-23	-89	0					
<b>Package 6</b>		57	57	08-Jun-23	15-Aug-23	19						
<b>Skylight</b>		43	43	08-Jun-23	29-Jul-23	-109						
ABWF-VC1200	Fabrication of Mock Up - Skylight	10	10	08-Jun-23	19-Jun-23	-109	0					
ABWF-VC1230	Material Procurement of Skylight	21	21	06-Jul-23	29-Jul-23	-109	0					
ABWF-VC1210	Mock Up 1st round comment by PM & review	6	6	20-Jun-23	27-Jun-23	-109	0					
ABWF-VC1220	Mock Up modification, 2nd round comment by PM & approval	6	6	28-Jun-23	05-Jul-23	-109	0					
<b>Fall Arrest System</b>		31	31	11-Jul-23	15-Aug-23	19						
ABWF-VC1480	Fabrication of Mock Up - Fall Arrest System	10	10	11-Jul-23	21-Jul-23	19	0					
ABWF-VC1490	Mock Up 1st round comment by PM & review	21	21	22-Jul-23	15-Aug-23	19	0					

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ND/2019/02 - Kwu Tung North New Development Area Phase 1:  
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Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Time Risk Allowance	2023					
								Apr	May	Jun	Jul	Aug	
<b>Timber Wall / Fences</b>													
ABWF-VC1040	Fabrication of Mock Up - Timber Wall	10	10	26-Jun-23	07-Jul-23	-88	0						
ABWF-VC1050	Mock Up 1st round comment by PM & review	21	21	08-Jul-23	01-Aug-23	-88	0						
<b>Package 7</b>													
<b>Toilet Cubicle &amp; Shower Cubicle</b>													
ABWF-VC2040	Fabrication of Mock Up - Toilet and Shower Cubicles	12	12	26-Jun-23	10-Jul-23	-71	0						
ABWF-VC2050	Mock Up 1st round comment by PM & review	6	6	11-Jul-23	17-Jul-23	-71	0						
ABWF-VC2060	Mock Up modification, 2nd round comment by PM & approval	14	14	18-Jul-23	02-Aug-23	-71	0						
<b>Sewerage Pumping Station</b>													
<b>ABWF Shop Drawings Submission</b>													
<b>Recycled Composite Wood</b>													
ABWF-SPS1050	Recycled Composite Wood - 1st round comment by PM & review	30	30	24-May-23	28-Jun-23	74	0						
ABWF-SPS1060	Recycled Composite Wood - 2nd submission to PM & approval	21	21	29-Jun-23	24-Jul-23	74	0						
ABWF-SPS1040	Shop Drawing Submission - Recycled Composite Wood	25	25	24-Apr-23*	23-May-23	74	0						
<b>Window and Louvers</b>													
ABWF-SPS1170	Shop Drawing Submission - Window and Louvers	25	25	09-May-23*	06-Jun-23	-27	0						
ABWF-SPS1180	Shop Drawing Submission Window and Louvers - 1st round comment by PM & review	30	30	07-Jun-23	13-Jul-23	-27	0						
ABWF-SPS1190	Shop Drawing Submission Window and Louvers - 2nd submission to PM & approval	21	21	14-Jul-23	07-Aug-23	-27	0						
<b>Claddings</b>													
ABWF-SPS1200	Shop Drawing Submission - Claddings	25	25	23-May-23*	20-Jun-23	9	0						
ABWF-SPS1210	Shop Drawing Submission Claddings - 1st round comment by PM & review	30	30	21-Jun-23	27-Jul-23	9	0						
ABWF-SPS1220	Shop Drawing Submission Claddings - 2nd submission to PM & approval	21	21	28-Jul-23	21-Aug-23	9	0						
<b>ABWF Material Submission &amp; Procurement</b>													
<b>Recycled Composite Wood</b>													
ABWF-SPS1110	Material Submission - Recycled Composite Wood	25	25	23-May-23*	20-Jun-23	50	0						
ABWF-SPS1120	Material Submission - Recycled Composite Wood - 1st round comment by PM & review	30	30	21-Jun-23	27-Jul-23	50	0						
ABWF-SPS1130	Material Submission - Recycled Composite Wood - 2nd submission to PM & approval	21	21	28-Jul-23	21-Aug-23	50	0						
<b>Fences and Gates</b>													
ABWF-SPS1230	Material Submission - Fences and Gates	25	25	23-May-23*	20-Jun-23	88	0						
ABWF-SPS1240	Material Submission - Fences and Gates - 1st round comment by PM & review	30	30	21-Jun-23	27-Jul-23	88	0						
ABWF-SPS1250	Material Submission - Fences and Gates - 2nd submission to PM & approval	21	21	28-Jul-23	21-Aug-23	88	0						
<b>Window and Louvers</b>													
ABWF-SPS1270	Material Submission - Windows and Louvers - 1st round comment by PM & review	30	30	08-Jun-23	14-Jul-23	-28	0						
ABWF-SPS1280	Material Submission - Windows and Louvers - 2nd submission to PM & approval	21	21	15-Jul-23	08-Aug-23	-28	0						
ABWF-SPS1260	Material Submission - Windows and Louvers	25	25	10-May-23*	07-Jun-23	-28	0						
<b>Claddings</b>													
ABWF-SPS1290	Material Submission - Claddings	25	25	23-May-23*	20-Jun-23	9	0						
ABWF-SPS1300	Material Submission - Claddings - 1st round comment by PM & review	30	30	21-Jun-23	27-Jul-23	9	0						
ABWF-SPS1310	Material Submission - Claddings - 2nd submission to PM & approval	21	21	28-Jul-23	21-Aug-23	9	0						
<b>Shutters</b>													
ABWF-SPS1350	Material Submission - FRR Shutters	25	25	23-May-23*	20-Jun-23	149	0						
ABWF-SPS1360	Material Submission - FRR Shutters - 1st round comment by PM & review	30	30	21-Jun-23	27-Jul-23	149	0						
ABWF-SPS1370	Material Submission - FRR Shutters - 2nd submission to PM & approval	21	21	28-Jul-23	21-Aug-23	149	0						
<b>Footbridge FK2</b>													

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Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Time Risk Allowance	2023					
								Apr	May	Jun	Jul	Aug	
<b>ABWF Shop Drawings Submission</b>													
<b>Footbridge Deck Paving</b>													
ABWF-FK2-1000	Shop Drawing Submission - Footbridge Deck Paving	20	20	31-Mar-23*	22-Apr-23	-170	0						
ABWF-FK2-1010	Shop Drawing Submission - Footbridge Deck Paving - 1st round comment by PM & review	21	21	24-Apr-23	18-May-23	-170	0						
ABWF-FK2-1020	Shop Drawing Submission - Footbridge Deck Paving - 2nd submission to PM & approval	21	21	19-May-23	12-Jun-23	-170	0						
<b>Handrail</b>													
ABWF-FK2-1060	Shop Drawing Submission - Handrail	25	25	31-Mar-23*	28-Apr-23	-164	0						
ABWF-FK2-1070	Shop Drawing Submission - Handrail - 1st round comment by PM & review	30	30	29-Apr-23	03-Jun-23	-164	0						
ABWF-FK2-1080	Shop Drawing Submission - Handrail - 2nd submission to PM & approval	21	21	05-Jun-23	29-Jun-23	-164	0						
<b>Ramp Staircase Finishes</b>													
ABWF-FK2-1090	Shop Drawing Submission - Ramp Staircase Finishes	25	25	31-Mar-23*	28-Apr-23	-144	0						
ABWF-FK2-1100	Shop Drawing Submission - Ramp Staircase Finishes - 1st round comment by PM & review	30	30	29-Apr-23	03-Jun-23	-144	0						
ABWF-FK2-1110	Shop Drawing Submission - Ramp Staircase Finishes - 2nd submission to PM & approval	21	21	05-Jun-23	29-Jun-23	-144	0						
<b>ABWF Material Submission &amp; Procurement</b>													
<b>Footbridge Deck Paving</b>													
ABWF-FK2-1030	Material Submission - Footbridge Deck Paving	25	25	31-Mar-23*	28-Apr-23	-184	0						
ABWF-FK2-1050	Material Submission - Footbridge Deck Paving - 2nd submission to PM & approval	21	21	05-Jun-23	29-Jun-23	-184	0						
ABWF-FK2-1040	Material Submission - Footbridge Deck Paving - 1st round comment by PM & review	30	30	29-Apr-23	03-Jun-23	-184	0						
<b>Handrail</b>													
ABWF-FK2-1120	Material Submission - Handrail	25	25	31-Mar-23*	28-Apr-23	-164	0						
ABWF-FK2-1130	Material Submission - Handrail - 1st round comment by PM & review	30	30	29-Apr-23	03-Jun-23	-164	0						
ABWF-FK2-1140	Material Submission - Handrail - 2nd submission to PM & approval	21	21	05-Jun-23	29-Jun-23	-164	0						
<b>Ramp Staircase Finishes</b>													
ABWF-FK2-1160	Material Submission - Ramp Staircase Finishes - 1st round comment by PM & review	30	30	29-Apr-23	03-Jun-23	-144	0						
ABWF-FK2-1170	Material Submission - Ramp Staircase Finishes - 2nd submission to PM & approval	21	21	05-Jun-23	29-Jun-23	-144	0						
ABWF-FK2-1150	Material Submission - Ramp Staircase Finishes	25	25	31-Mar-23*	28-Apr-23	-144	0						
<b>Landscape Works Submission</b>													
<b>Landscape Method Statement Submission</b>													
LA-SPS1100	Method Statement of Planting and Soil Mixing - 1st submission to PM & review	18	18	04-May-23	24-May-23	-31	0						
LA-SPS1090	Method Statement of Planting and Soil Mixing - 1st submission to Project Manager	28	28	31-Mar-23*	03-May-23	-31	0						
LA-SPS1110	Method Statement of Planting and Soil Mixing - 2nd submission to PM & approval	18	18	25-May-23	14-Jun-23	-31	0						
<b>Landscape Material Submission &amp; Test Report</b>													
<b>Plant Specimen &amp; Origin</b>													
LA-SPS1010	Plant Nursery and Specimen Photos - 1st submission to PM & review	18	18	04-May-23	24-May-23	-31	0						
LA-SPS1000	Plant Nursery and Specimen Photos - 1st submission to Project Manager	28	28	31-Mar-23*	03-May-23	-31	0						
LA-SPS1020	Plant Nursery and Specimen Photos - 2nd submission to PM & approval	18	18	25-May-23	14-Jun-23	-31	0						
<b>Soil Mix</b>													
LA-SPS1040	Soil Mix Test Report - 1st submission to PM & review	18	18	04-May-23	24-May-23	-31	0						
LA-SPS1030	Soil Mix Test Report - 1st submission to Project Manager	28	28	31-Mar-23*	03-May-23	-31	0						
LA-SPS1050	Soil Mix Test Report - 2nd submission to PM & approval	18	18	25-May-23	14-Jun-23	-31	0						
<b>Soil Conditioners</b>													
LA-SPS1070	Soil Conditioners Test Report & Samples - 1st submission to PM & review	18	18	04-May-23	24-May-23	-31	0						
LA-SPS1060	Soil Conditioners Test Report & Samples - 1st submission to Project Manager	28	28	31-Mar-23*	03-May-23	-31	0						
LA-SPS1080	Soil Conditioners Test Report & Samples - 2nd submission to PM & approval	18	18	25-May-23	14-Jun-23	-31	0						

▬ Primary Baseline     ◆ Critical Milestone  
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 Baseline: Latest Accepted Programme Rev. 2.5 (Accepted on 13 Mar 2023)

**3 Month Rolling Programme (May-23)**

Date	Revision	Checked	Approved
30-Apr-23	Monthly Update Programme (May-2023)	EW	

**ND/2019/02 - Kwu Tung North New Development Area Phase 1:  
Roads & Drains between Kwu Tong North New Development Area and Shek Wu Hui**

Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Time Risk Allowance	2023					
								Apr	May	Jun	Jul	Aug	
<b>Landscape Design Submission</b>													
LA-SPS1170	Landscape Design Submission for FK2 - 2nd submission to PM & approval	21	21	29-May-23	21-Jun-23	-166	0						
LA-SPS1165	Landscape Design Submission for FK2 - 1st submission to PM & review	21	21	04-May-23	27-May-23	-205	0						
LA-SPS1160	Landscape Design Submission for FK2 - 1st submission to Project Manager	28	28	31-Mar-23*	03-May-23	-205	0						
LA-SPS1180	Landscape Design Submission for FK2 - Submission to Govt Dept for approval	60	60	29-May-23	08-Aug-23	-205	0						
<b>Works in Section 2</b>													
<b>Portion 2 - Road &amp; Drains</b>													
<b>Pre-construction works</b>													
P2-1070	Tree Protection and Preservation	1493	526	03-Aug-20 A	24-Dec-24	0	4						
<b>ELS</b>													
<b>Receiving shaft at FMH_KT1.32A</b>													
P2-7200	ELS for inspection shaft at FMH_KT1.32A	38	38	18-Apr-23	01-Jun-23	-29	6						
P2-7210	Install decking at KT1.32A	1	1	02-Jun-23	02-Jun-23	-29	0						
P2-7190	Set up TTA at Castle Peak Road Carriageway (westbound)	25	15	16-Feb-23 A	17-Apr-23	-29	0						
<b>Combined shaft for SMH_KT6005A &amp; FMH_KT1.33A</b>													
P2-4005	ELS of combined pit for SMH_KT6005A & FMH_KT1.33A	38	12	02-Feb-23 A	13-Apr-23	71	6						
P2-4010	Install decking at KT1.33A & release TTA	1	1	14-Apr-23	14-Apr-23	71	0						
<b>Combined shaft for SMH_KT6003B &amp; FMH_KT1.27A</b>													
P2-8235	ELS of combined pit for SMH_KT6003B & FMH_KT1.27A	38	38	06-Apr-23	20-May-23	-1	0						
P2-8230	Set up TTA at Castle Peak Road Carriageway	2	2	04-Apr-23	05-Apr-23	-1	0						
P2-8225	Site Possession (Assume 03-Apr-2023)	0	0		03-Apr-23*	-1	0						
<b>Combined shaft for SMH_KT6004A &amp; FMH_KT1.29A</b>													
P2-3010	ELS of combined pit for SMH_KT6004A & FMH_KT1.29A	38	38	05-Apr-23	19-May-23	45	1						
P2-3000	Set up TTA at Castle Peak Road Carriageway	1	1	04-Apr-23	04-Apr-23	-1	0						
<b>Pipe Jacking</b>													
<b>(KT1.30A to KT1.32A) (IL: 3.8-3.6mPD) 800mm dia</b>													
P2-3180	Pipe Jacking from FMH_KT1.30A to FMH_KT1.32A (20m, 3m/day)	7	7	20-Jul-23	27-Jul-23	-29	1						
P2-3185	Removal of TBM (0.8m dia.) from FMH_KT1.32A	14	14	28-Jul-23	12-Aug-23	-29	0						
P2-3170	Set up and assembly of TBM (0.8m dia.)	38	38	03-Jun-23	19-Jul-23	-29	0						
<b>(KT6003A to KT6003B) (IL: 6.0-5.7mPD) 2100mm dia</b>													
P2-8265	Pipe Jacking from SMH_KT6003A to SMH_KT6003B (85m, 3m/day)	28	28	22-May-23	23-Jun-23	-1	1						
P2-8270	Removal of TBM (2.1m dia.) at SMH_KT6003B	21	21	24-Jun-23	19-Jul-23	-1	0						
P2-8260	Set up and Assembly TBM (2.1m dia.) at SMH_KT6003A	38	38	06-Apr-23	20-May-23	-1	1						
<b>(KT6004A to KT6003B) (IL: 5.3-5.7mPD) 2100mm dia</b>													
P2-8275	Set up and Assembly TBM (2.1m dia.) at SMH_KT6004A	38	38	20-Jul-23	01-Sep-23	-1	2						
<b>Portion 3 - Road &amp; Drains</b>													
<b>Pre-construction works</b>													
P3-1060	Tree Protection and Preservation	1493	526	03-Aug-20 A	24-Dec-24	0	4						
<b>Sewer Pipeline Installation (KT1.33A to KT1.41A)</b>													
<b>KT1.39A - KT1.40A (99m) (Pipe Jacking by CE-074)</b>													
P3-6107	Backfilling to at grade level KT1.39A	30	30	08-Jul-23	11-Aug-23	296	2						
P3-6105	Construction of Manhole KT1.39A	30	30	01-Jun-23	07-Jul-23	296	2						
P3-6110	Construction of Manhole KT1.40A	30	30	01-Jun-23	07-Jul-23	326	2						
P3-6080	Demolish & removal of the slurry pipe, power cable inside the jacking pipe,	12	12	06-May-23	19-May-23	296	0						

Primary Baseline	Critical Milestone
Actual Work	Non-Critical Mil...
Remaining Work	
Critical Remaining Work	
Baseline Milestone	

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**3 Month Rolling Programme (May-23)**

Date	Revision	Checked	Approved
30-Apr-23	Monthly Update Programme (May-2023)	EW	



ND/2019/02 - Kwu Tung North New Development Area Phase 1:  
Roads & Drains between Kwu Tong North New Development Area and Shek Wu Hui

Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Time Risk Allowance	2023					
								Apr	May	Jun	Jul	Aug	
P3-6100	Demolish and removal the hoisting frame at Jacking Pit	3	3	29-May-23	31-May-23	296	0						
P3-6090	Demolish the guide rail, Breaking the thrust wall at Jacking Pit	7	7	20-May-23	27-May-23	296	0						
P3-6040	Pipe Jacking of 800 Concrete Pipe (1.39A to 1.40A) (99m ~3m/d)	33	17	14-Feb-23 A	19-Apr-23	296	2						
P3-6060	Pre- treatment grouting, setup the exit ring, cutting sheet pile	7	7	21-Apr-23	28-Apr-23	296	0						
P3-6070	TBM break through, setup guide rail, lifting out the TBM, jacking the remaining pipe to designated location, air test	5	5	29-Apr-23	05-May-23	296	0						
P3-6050	TBM reach the sheet pile at receiving pit	1	1	20-Apr-23	20-Apr-23	296	0						
<b>KT1.36A - KT1.33A (23m) (Open Cut by CE-068)</b>		<b>108</b>	<b>108</b>	<b>31-Mar-23</b>	<b>07-Aug-23</b>	<b>310</b>							
P3-6220	Backfill to base level of 2100 dia pipe, bedding and pipe laying	15	15	04-Jul-23	20-Jul-23	310	2						
P3-6230	Backfill to formation and reinstatement	15	15	21-Jul-23	07-Aug-23	310	2						
P3-6210	Bedding & 800 Dia. Concrete Pipe Laying	6	6	26-Jun-23	03-Jul-23	310	2						
P3-6200	Excavate to FEL	6	6	17-Jun-23	24-Jun-23	310	2						
P3-6150	Install 1st Level Strut	7	7	25-May-23	01-Jun-23	310	2						
P3-6170	Install 2nd Level Strut	7	7	09-Jun-23	16-Jun-23	310	2						
P3-5040.1	Installation of strut S1	5	5	12-Apr-23	17-Apr-23	310	2						
P3-5050.1	Installation of strut S2	5	5	22-Apr-23	27-Apr-23	310	2						
P3-5030	Sheet Pile Installation of combined shaft (KT1.33A & KT6005A)	7	7	31-Mar-23	07-Apr-23	310	2						
P3-6130	Sheet pile installation of Trench for 800 dia. and 2100 dia. pipe installation	10	10	06-May-23	17-May-23	310	2						
P3-5040	Soft Excavation to 1st strut level	3	3	08-Apr-23	11-Apr-23	310	2						
P3-5050	Soft Excavation to 2nd strut level	4	4	18-Apr-23	21-Apr-23	310	2						
P3-5070	Soft Excavation to F.L ; (approx. 8.5m depth)	6	6	28-Apr-23	05-May-23	310	2						
P3-6140	Soft Excavation to to 1st Strut Level	6	6	18-May-23	24-May-23	310	2						
P3-6160	Soft Excavation to to 2nd Strut Level	6	6	02-Jun-23	08-Jun-23	310	2						
<b>Portion 4 - Road &amp; Drains</b>		<b>1326</b>	<b>526</b>	<b>03-Aug-20 A</b>	<b>24-Dec-24</b>	<b>0</b>							
<b>Pre-construction works</b>		<b>1326</b>	<b>526</b>	<b>03-Aug-20 A</b>	<b>24-Dec-24</b>	<b>0</b>							
P4-1050	Tree Protection and Preservation	1493	526	03-Aug-20 A	24-Dec-24	0	4						
<b>Rising Main Installation by Open Cut (CHB 50 to 493 &amp; CHB515 to 974)</b>		<b>572</b>	<b>155</b>	<b>27-Sep-22 A</b>	<b>03-Oct-23</b>	<b>371</b>							
<b>Gang 1</b>		<b>307</b>	<b>155</b>	<b>27-Sep-22 A</b>	<b>03-Oct-23</b>	<b>0</b>							
<b>Rising Main CHB255 to CHB371 (116M) Gang 1-1</b>		<b>225</b>	<b>73</b>	<b>27-Sep-22 A</b>	<b>26-Jun-23</b>	<b>0</b>							
P4-3224	Backfilling of drain to at grade level	45	45	04-May-23	26-Jun-23	0							
P4-3222	Bedding and Pipe Laying (Twins DN700)	126	28	27-Sep-22 A	03-May-23	0							
P4-3223	RC Works Inspection Chamber and Air Valve Chamber	126	2	27-Sep-22 A	01-Apr-23	26							
<b>Rising Main CHB180 to CHB255 (75M) Gang 1-2</b>		<b>82</b>	<b>82</b>	<b>27-Jun-23</b>	<b>03-Oct-23</b>	<b>0</b>							
P4-6480	Sheet Pile Installation for open trench	49	49	27-Jun-23	23-Aug-23	0	3						
P4-6490	Soft Excavation to 1st strut level	57	57	27-Jul-23	03-Oct-23	0	3						
<b>Gang 2</b>		<b>90</b>	<b>29</b>	<b>04-Jan-23 A</b>	<b>04-May-23</b>	<b>63</b>							
<b>Rising Main CHB120 to CHB180 (60M) Gang 2-1</b>		<b>90</b>	<b>29</b>	<b>04-Jan-23 A</b>	<b>04-May-23</b>	<b>63</b>							
P4-6070	Backfilling of drain to at grade level	45	5	11-Jan-23 A	05-Apr-23	63							
P4-6065	RC Works Inspection Chamber and Air Valve Chamber	71	5	04-Jan-23 A	05-Apr-23	63							
P4-6320	Sheet Pile Extraction	30	25	23-Feb-23 A	04-May-23	63							
<b>Gang 3</b>		<b>81</b>	<b>14</b>	<b>04-Nov-22 A</b>	<b>15-Apr-23</b>	<b>231</b>							
<b>Rising Main CHB589 to CHB699 (88M) Gang 3-1</b>		<b>81</b>	<b>14</b>	<b>04-Nov-22 A</b>	<b>15-Apr-23</b>	<b>231</b>							
P4-5670	Backfilling of drain to at grade level	51	14	16-Dec-22 A	15-Apr-23	231							
P4-5665	RC Works Inspection Chamber and Air Valve Chamber	51	10	04-Nov-22 A	11-Apr-23	231							
<b>Gang 4</b>		<b>510</b>	<b>134</b>	<b>10-Dec-22 A</b>	<b>06-Sep-23</b>	<b>392</b>							

	Primary Baseline		Critical Milestone
	Actual Work		Non-Critical Mil...
	Remaining Work		
	Critical Remaining Work		
	Baseline Milestone		

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ND/2019/02 - Kwu Tung North New Development Area Phase 1:  
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Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Time Risk Allowance	2023					
								Apr	May	Jun	Jul	Aug	
<b>Rising Main CHB50 to CHB120 (70M) Gang 4-1</b>													
P4-6150	Backfilling of drain to at grade level	63	2	10-Dec-22 A	01-Apr-23	-8							
P4-6145	RC Works Inspection Chamber and Air Valve Chamber	51	1	03-Jan-23 A	01-Apr-23	-8							
<b>Rising Main CHB371 to CHB493 (122M) Gang 4-2</b>													
P4-6450	Bedding and Pipe Laying (Twins DN700)	132	132	03-Apr-23	06-Sep-23	-8							
P4-6430	Installation of strut S1	15	15	17-Jul-23	02-Aug-23	-8							
P4-6455	RC Works Inspection Chamber and Air Valve Chamber	36	36	06-May-23	16-Jun-23	-8							
P4-6410	Sheet Pile Installation for open trench	45	45	17-Jul-23	06-Sep-23	-8							
P4-6420	Soft Excavation to 1st strut level	36	36	03-Apr-23	15-May-23	-8							
P4-6440	Soft Excavation to F.L.	38	38	03-May-23	15-Jun-23	-8							
<b>Rising Main CHB867 to CHB974 (107M) Gang 4-5</b>													
P4-6400	Backfilling of drain to at grade level	420	131	11-Feb-23 A	02-Sep-23	395							
P4-6390	Bedding and Pipe Laying (Twins DN700)	45	45	13-Jul-23	02-Sep-23	395							
P4-6350	Installation of strut S1	20	20	24-Jun-23	18-Jul-23	395							
P4-6370	Installation of strut S2	56	56	05-Apr-23	09-Jun-23	395							
P4-6395	RC Works Inspection Chamber and Air Valve Chamber	44	44	11-May-23	03-Jul-23	395							
P4-6330	Sheet Pile Installation for open trench	45	45	24-Jun-23	16-Aug-23	403							
P4-6340	Soft Excavation to 1st strut level	49	34	11-Feb-23 A	10-May-23	395							
P4-6360	Soft Excavation to 2nd strut level	57	57	31-Mar-23	06-Jun-23	395							
P4-6380	Soft Excavation to F.L.	42	42	28-Apr-23	16-Jun-23	395							
<b>NS 250 PE Pipe Installation (From KT6.03A to KT6.01)</b>													
<b>Sewer Pipeline FMH_KT6.03A to FMH_KT6.02A (Gang 5-1)</b>													
P4-6240	Sheet Pile Installation for open trench	49	49	15-Jul-23	09-Sep-23	4							
<b>Drainage Outfall construction by Open Cut</b>													
<b>Outfall_5105</b>													
P4-OF1690	Erect formwork for Vertical blinding for base slab shear key	30	30	27-Jun-23	01-Aug-23	104							
P4-OF1660	Excavation to formation level	5	5	27-Jul-23	01-Aug-23	104	0						
P4-OF1670	Excavation to formation level	3	3	10-Jul-23	12-Jul-23	104	0						
P4-OF1670	Laying of silt curtain and delivery of concrete block	5	5	13-Jul-23	18-Jul-23	104	0						
P4-OF1680	Pour Concrete Blinding	4	4	19-Jul-23	22-Jul-23	104	0						
P4-OF1650	Removal of Grasscrete and concrete materials	10	10	27-Jun-23	08-Jul-23	104	0						
<b>Outfall_5104</b>													
P4-OF1900	Erect formwork for Vertical blinding for base slab shear key	30	30	27-Jun-23	01-Aug-23	188							
P4-OF1900	Erect formwork for Vertical blinding for base slab shear key	5	5	27-Jul-23	01-Aug-23	188	0						
P4-OF1870	Excavation to formation level	3	3	10-Jul-23	12-Jul-23	188	0						
P4-OF1880	Laying of silt curtain and delivery of concrete block	5	5	13-Jul-23	18-Jul-23	188	0						
P4-OF1890	Pour Concrete Blinding	4	4	19-Jul-23	22-Jul-23	188	0						
P4-OF1860	Removal of Grasscrete and concrete materials	10	10	27-Jun-23	08-Jul-23	188	0						
<b>Portion 5 - Sewage Rising Main</b>													
<b>Preparation Works</b>													
P5-5020	Relocation work of existing Board Band Cable and Street Light	1421	526	10-Apr-20 A	24-Dec-24	0							
P5-5030	Tree Protection and Preservation	109	1	02-Dec-22 A	31-Mar-23	-9	0						
<b>Sewage Rising Main Installation by Open Cut (CHB1056 to CHB 1557)</b>													
<b>CHB1200 - CHB1300 (100m)</b>													
P5-2070	Backfilling to at grade level	204	114	10-Dec-22 A	14-Aug-23	-43							
P5-2065	RC Works Inspection Chamber and Air Valve Chamber	108	1	10-Dec-22 A	31-Mar-23	-43	2						

	Primary Baseline		Critical Milestone
	Actual Work		Non-Critical Mil...
	Remaining Work		
	Critical Remaining Work		
	Baseline Milestone		

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 Project End: 30-Jan-27  
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ND/2019/02 - Kwu Tung North New Development Area Phase 1:  
Roads & Drains between Kwu Tong North New Development Area and Shek Wu Hui

Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Time Risk Allowance	2023					
								Apr	May	Jun	Jul	Aug	
<b>CHB1056 - CHB1102 (46m)</b>													
P5-2370	Backfilling to at grade level	25	25	01-Apr-23	24-Jul-23	-43							
P5-2360	Bedding and Pipe Laying (Twins DN700)	10	10	24-May-23	03-Jun-23	-43							
P5-2320	Installation of strut S1	20	20	12-Apr-23	05-May-23	-43							
P5-2340	Installation of strut S2	20	20	26-Apr-23	19-May-23	-43							
P5-2365	RC Works Inspection Chamber and Air Valve Chamber	45	45	24-May-23	17-Jul-23	-43							
P5-2300	Sheet Pile Installation for open trench	15	15	01-Apr-23	18-Apr-23	-43							
P5-2310	Soft Excavation to 1st strut level	15	15	05-Apr-23	21-Apr-23	-43							
P5-2330	Soft Excavation to 2nd strut level	15	15	19-Apr-23	06-May-23	-43							
P5-2350	Soft Excavation to F.L.	15	15	09-May-23	25-May-23	-43							
<b>CHB1102 - CHB1151 (49m)</b>													
P5-2100	Sheet Pile Installation for open trench	15	15	25-Jul-23	10-Aug-23	-43							
P5-2110	Soft Excavation to 1st strut level	15	15	28-Jul-23	14-Aug-23	-43							
<b>Sewage Rising Main Installation across Sheung Yue River by Pipejacking</b>													
P5-3020	ELS for Launching Pit (CHB 982) (4.5m x 3.5m; 5 layers of strut)	59	15	24-Dec-22 A	17-Apr-23	68	3						
P5-3030	ELS for Receiving Pit (CHB 1046) (7m x 3.5m; 5 layers of strut)	59	1	11-Jan-23 A	18-Apr-23	68	4						
P5-3060	Pipe Jacking from CHB 982 to CHB 1046 (64m, 2.7m/day)	31	31	01-Jun-23	08-Jul-23	68	0						
P5-3070	Removal of TBM (2.1m dia) & Transfer to Launching Pit at Shek Sheung River	12	12	10-Jul-23	22-Jul-23	68	0						
P5-3080	Rising main pipe laying (3x80m long DN 700DI, 2.6m/day) & grouting	80	80	24-Jul-23	27-Oct-23	231	3						
P5-3050	Set up and Assembly TBM (2.1m dia.)	36	36	19-Apr-23	31-May-23	68	2						
P5-3040	TBM Available for delivery to Portion 5	0	0	19-Apr-23*		68	0						
<b>Portion 7 - Kwu Tung North Sewage Pumping station</b>													
<b>Sewage Pumping Station</b>													
<b>Site Preparation</b>													
P7-1040	Tree Protection and Preservation	1493	526	03-Aug-20 A	24-Dec-24	0	4						
<b>Station Structure</b>													
<b>Basement to G/F Wall &amp; G/F Slab</b>													
<b>+1.55mPD (1st Pour)</b>													
P7-BF2190	Fomwork and Rebar Fixing of Grid A Wall	10	8	25-Feb-23 A	08-Apr-23	130	2						
P7-BF2200	Grid A Wall Concreting (1st Pour up to +7.65mPD with Cantilever Slab)	1	1	10-Apr-23	10-Apr-23	130	2						
<b>-2.05mPD (2nd Pour)</b>													
P7-BF1180	Base Slab Shutters	5	5	22-Apr-23	27-Apr-23	-76	1						
P7-BF1190	Base Slab, Wall of wet well and wall Kickers for screen chamber Concreting (-2.05mPD to -0.5mPD)	1	1	28-Apr-23	28-Apr-23	-76	1						
P7-BF1090	Dismantle of strut S5 & S4	14	7	28-Feb-23 A	07-Apr-23	-76	2						
P7-BF1170	Rebar fixing of basement Slab	12	12	08-Apr-23	21-Apr-23	-76	1						
<b>+1.55mPD (2nd Pour)</b>													
P7-BF2070	Construct Remaining Portion of +1.55mPD B/F Slab (137m3)	12	12	06-Jun-23	19-Jun-23	-76	2						
P7-BF2010	Dismantle of strut S3 at -0.5mPD	7	7	12-May-23	19-May-23	-76	2						
P7-BF2000	Dismantling base slab fomwork and soil backfill to -0.5mPD with testing	10	10	29-Apr-23	11-May-23	-76	2						
P7-BF2060	Remove Intermediate Sheet Pile separating Portion 1,2 & 3	14	14	20-May-23	05-Jun-23	-76	2						
<b>+7.50mPD (G/F Slab)</b>													
<b>Bay 1</b>													
P7-BF1401	Backfill & Dismantle of strut S2 at +2.2mPD	14	14	20-Jun-23	07-Jul-23	-76	2						
P7-BF1405	Backfill to +4.5mPD	7	7	17-Jul-23	24-Jul-23	24	5						

- Primary Baseline
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- Critical Milestone
- Non-Critical Mil...

Data Date: 30-Apr-23  
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Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Time Risk Allowance	2023					
								Apr	May	Jun	Jul	Aug	
P7-BF1409	Dismantle of Strut S1 at +4.5mPD	7	7	25-Jul-23	01-Aug-23	24	3						
P7-BF1403	Wall Extend to +4.5mPD along Grid A & B	7	7	08-Jul-23	15-Jul-23	-76	3						
<b>Bay 2</b>		<b>38</b>	<b>38</b>	<b>20-Jun-23</b>	<b>04-Aug-23</b>	<b>-29</b>							
P7-BF1423	Backfill & Dismantle of strut S2 at +2.2mPD	14	14	20-Jun-23	07-Jul-23	-76	2						
P7-BF1437	Backfill to +4.5mPD	7	7	20-Jul-23	27-Jul-23	-29	5						
P7-BF1439	Dismantle of Strut S1 at +4.5mPD	7	7	28-Jul-23	04-Aug-23	-29	3						
P7-BF1425	Wall Extend to +4.5mPD along Grid B & C	10	10	08-Jul-23	19-Jul-23	-76	3						
<b>Bay 3</b>		<b>38</b>	<b>38</b>	<b>20-Jun-23</b>	<b>04-Aug-23</b>	<b>-76</b>							
P7-BF1440	Backfill to +4.5mPD	7	7	20-Jul-23	27-Jul-23	-76	5						
P7-BF1447	Dismantle of Strut S1 at +4.5mPD	7	7	28-Jul-23	04-Aug-23	-76	3						
P7-BF1433	Dismantle of strut S2 at +2.2mPD	14	14	20-Jun-23	07-Jul-23	-76	2						
P7-BF1435	Wall Extend to +4.5mPD along Grid D & F	10	10	08-Jul-23	19-Jul-23	-76	3						
<b>External Works</b>		<b>81</b>	<b>81</b>	<b>12-May-23</b>	<b>16-Aug-23</b>	<b>203</b>							
<b>Drainage and Site Formation</b>		<b>81</b>	<b>81</b>	<b>12-May-23</b>	<b>16-Aug-23</b>	<b>203</b>							
<b>Sewerage pipe KT1.47A to KT1.48A</b>		<b>16</b>	<b>16</b>	<b>12-May-23</b>	<b>30-May-23</b>	<b>268</b>							
P7-1333	Open Trench formation for sewerage pipe KT1.47A to KT1.48A (12m long, -1.96mPD)	10	10	12-May-23	23-May-23	268	2						
P7-1336	Sewerage Pipe laying KT1.47A to KT1.48A (12m) (DN1050)	6	6	24-May-23	30-May-23	268	3						
<b>Rising main CHB0.0 to CHB50</b>		<b>25</b>	<b>25</b>	<b>19-Jul-23</b>	<b>16-Aug-23</b>	<b>163</b>							
P7-1350	Open Trench formation for rising main CHB0.0 to CHB50 (50m long 4m Depth, 1.6-2mPD)	25	25	19-Jul-23	16-Aug-23	163	2						
<b>Works in Section 3</b>		<b>1326</b>	<b>526</b>	<b>03-Aug-20 A</b>	<b>24-Dec-24</b>	<b>-259</b>							
<b>Portion 8 - Roads &amp; Drains</b>		<b>1326</b>	<b>526</b>	<b>03-Aug-20 A</b>	<b>24-Dec-24</b>	<b>-259</b>							
<b>Pre-construction works</b>		<b>1326</b>	<b>526</b>	<b>03-Aug-20 A</b>	<b>24-Dec-24</b>	<b>-549</b>							
P8-1055	Tree Protection and Preservation	1493	526	03-Aug-20 A	24-Dec-24	-549	4						
<b>Cycle Track and Footpath Diversion (For KT1.41A to KT1.47A Construction)</b>		<b>61</b>	<b>45</b>	<b>28-Feb-23 A</b>	<b>23-May-23</b>	<b>-285</b>							
P8-5900	Cycle Track Shifting to the top of North Bridge Ramp (After North Bridge Ramp Completion)	60	45	28-Feb-23 A	23-May-23	-285							
P8-5850	North Bridge Ramp Landing Completion	0	0		10-May-23	-274							
<b>Sewer Pipeline Installation</b>		<b>238</b>	<b>133</b>	<b>23-Nov-22 A</b>	<b>05-Sep-23</b>	<b>134</b>							
<b>KT1.40A - KT1.43.7 (50m)</b>		<b>69</b>	<b>18</b>	<b>23-Nov-22 A</b>	<b>20-Apr-23</b>	<b>-71</b>							
P8-5210	Backfilling of drain to at grade level with dismantling strut	23	12	15-Dec-22 A	13-Apr-23	-71							
P8-5205	Construction of Manhole KT1.43.7	21	7	23-Nov-22 A	07-Apr-23	-71							
P8-5220	Extraction of sheet pile and reinstatement	45	18	28-Dec-22 A	20-Apr-23	-71							
<b>KT1.43.7 - KT1.41A (60m)</b>		<b>178</b>	<b>83</b>	<b>05-Dec-22 A</b>	<b>08-Jul-23</b>	<b>184</b>							
P8-9160	Backfilling of drain to at grade level & Sheet Pile Extraction	30	30	02-Jun-23	08-Jul-23	184							
P8-9150	Bedding & Pipe Laying (800 Concrete Pipe)	10	10	26-Apr-23	08-May-23	184							
P8-9155	Construction of Manhole KT1.41A	21	21	09-May-23	01-Jun-23	184	2						
P8-9110	Installation of strut S1	26	26	21-Dec-22 A	29-Apr-23	184							
P8-9130	Installation of strut S2	26	35	15-Feb-23 A	11-May-23	184							
P8-9090	Sheet Pile Installation for open trench (Open Trench from 1.43.7 to 1.41A)	26	12	05-Dec-22 A	14-Apr-23	-95							
P8-9100	Soft Excavation to 1st strut level	25	19	17-Dec-22 A	22-Apr-23	184							
P8-9120	Soft Excavation to 2nd strut level	33	28	30-Jan-23 A	03-May-23	184							
P8-9140	Soft Excavation to F.L.	24	24	31-Mar-23	27-Apr-23	184							
<b>KT1.41A - KT1.47A (100m) (Open Cut by CE-076)</b>		<b>88</b>	<b>88</b>	<b>24-May-23</b>	<b>05-Sep-23</b>	<b>-285</b>							
P8-6020	Installation of strut S1	58	58	27-Jun-23	02-Sep-23	-285							
P8-6000	Sheet Pile Installation for open trench (after Completion of Temp. Cycle Track and Footpath)	49	49	24-May-23	21-Jul-23	-285							

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## 3 Month Rolling Programme (May-23)

Date	Revision	Checked	Approved
30-Apr-23	Monthly Update Programme (May-2023)	EW	

ND/2019/02 - Kwu Tung North New Development Area Phase 1:  
Roads & Drains between Kwu Tong North New Development Area and Shek Wu Hui

Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Time Risk Allowance	2023					
								Apr	May	Jun	Jul	Aug	
P8-6010	Soft Excavation to 1st strut level	57	57	23-Jun-23	29-Aug-23	-285							
P8-6030	Soft Excavation to 2nd strut level	42	42	19-Jul-23	05-Sep-23	-285							
<b>Drainage Outfall construction by Open Cut</b>		<b>90</b>	<b>63</b>	<b>21-Feb-23 A</b>	<b>13-Jun-23</b>	<b>-116</b>							
<b>Outfall 5100A</b>		<b>69</b>	<b>42</b>	<b>21-Feb-23 A</b>	<b>19-May-23</b>	<b>-95</b>							
P8-OF3761	Backfilling to at grade level	16	16	02-May-23	19-May-23	-95	1						
P8-OF3751	Drain Laying from Outfall 5100A to SMH_KTCP5100A	6	6	18-Apr-23	24-Apr-23	-95	0						
P8-OF3741	ELS of open trench from Outfall 5100A to SMH_KTCP5100A	15	15	31-Mar-23	17-Apr-23	-95	0						
P8-OF3756	Remove remaining side sheet pile & rock fill	5	5	25-Apr-23	29-Apr-23	-95	0						
P8-OF3766	Report Completion of Drainage works	0	0		19-May-23	-95	0						
P8-OF3731	Sheet Pile Installation from Outfall 5100A to SMH_KTCP5100A	20	7	21-Feb-23 A	07-Apr-23	-95	0						
<b>Outfall 5101</b>		<b>90</b>	<b>63</b>	<b>21-Feb-23 A</b>	<b>13-Jun-23</b>	<b>-116</b>							
P8-OF4106	Backfilling to at grade level	16	16	26-May-23	13-Jun-23	-116	1						
P8-OF4016	Dismantle Base slab Formwork	2	2	04-Apr-23	05-Apr-23	-185	0						
P8-OF4056	Dismantle Wall Formwork	3	3	18-Apr-23	20-Apr-23	-185	0						
P8-OF4086	Drain Laying from Outfall 5101A to SMH_KT5101A	6	6	13-May-23	19-May-23	-116	0						
P8-OF4076	ELS of open trench from Outfall 5101A to SMH_KT5101A	8	8	04-May-23	12-May-23	-116	0						
P8-OF4036	Erect formwork for oufall Wall (2nd side)	5	5	07-Apr-23	12-Apr-23	-185	0						
P8-OF4006	Outfall Baseslab concreting	1	1	03-Apr-23	03-Apr-23	-185	0						
P8-OF4046	Outfall Wall concreting	4	4	13-Apr-23	17-Apr-23	-185	0						
P8-OF3996	Rebar fixing for oufall base slab	9	2	21-Feb-23 A	01-Apr-23	-185	0						
P8-OF4026	Rebar fixing for oufall Wall	1	1	06-Apr-23	06-Apr-23	-185	0						
P8-OF4096	Remove remaining side sheet pile & rock fill	5	5	20-May-23	25-May-23	-116	0						
P8-OF4116	Report Completion of Drainage works	0	0		13-Jun-23	-116	0						
P8-OF4066	Sheet Pile Installation from Outfall 5101A to SMH_KT5101A	6	6	21-Apr-23	27-Apr-23	-116	0						
<b>NS 250 PE Pipe Installation (From KT1.47A to KT6.03A)</b>		<b>49</b>	<b>49</b>	<b>03-Jul-23</b>	<b>28-Aug-23</b>	<b>-363</b>							
P8-6900	Sheet Pile Installation for open trench	49	49	03-Jul-23*	28-Aug-23	-363							
<b>Portion 9 - Footbridge</b>		<b>157</b>	<b>130</b>	<b>22-Feb-23 A</b>	<b>01-Sep-23</b>	<b>-198</b>							
<b>Footbridge Construction</b>		<b>157</b>	<b>130</b>	<b>22-Feb-23 A</b>	<b>01-Sep-23</b>	<b>-198</b>							
<b>Middle Bridge Deck</b>		<b>126</b>	<b>99</b>	<b>22-Feb-23 A</b>	<b>27-Jul-23</b>	<b>-195</b>							
P9-1760	Backfilling the cofferdam & Remove sheet pile	14	14	12-Jul-23	27-Jul-23	-195	2						
P9-1745	Concreting for Middle Deck (1st Pour)	1	1	13-May-23	13-May-23	-226	0						
P9-1748	Concreting for Middle Deck (2nd Pour)	1	1	10-Jun-23	10-Jun-23	-226	0						
P9-1750	Curing & Remove all temporary works	24	24	12-Jun-23	11-Jul-23	-226	3						
P9-1590	Erection of middle truss for Middle Deck construction	18	4	22-Feb-23 A	04-Apr-23	-226	5						
P9-1730	Internal Formwork Erection for Middle Deck (1st Pour)	7	7	05-May-23	12-May-23	-226	3						
P9-1746	Internal Formwork Erection for Middle Deck (2nd Pour)	16	16	15-May-23	01-Jun-23	-226	2						
P9-1720	Rebar Fixing for Middle Deck (1st Pour)	16	16	15-Apr-23	04-May-23	-226	2						
P9-1747	Rebar Fixing for Middle Deck (2nd Pour)	7	7	02-Jun-23	09-Jun-23	-226	3						
P9-1710	Soffit Formwork Erection	9	9	05-Apr-23	14-Apr-23	-226	2						
<b>Remaining Footbridge Works</b>		<b>157</b>	<b>130</b>	<b>23-Feb-23 A</b>	<b>01-Sep-23</b>	<b>-198</b>							
<b>Northern Footway Ramp / Staircase</b>		<b>61</b>	<b>34</b>	<b>23-Feb-23 A</b>	<b>10-May-23</b>	<b>-274</b>							
P9-NR1050	Construction of Upper level U Channel	4	4	24-Apr-23	27-Apr-23	-274	5						
P9-NR1020	Formwork dismantle and backfill to finishing ground level	5	5	03-Apr-23	07-Apr-23	-274	5						
P9-NR1080	Installation of Gabion Wall	4	4	06-May-23	10-May-23	-274	5						

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## 3 Month Rolling Programme (May-23)

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30-Apr-23	Monthly Update Programme (May-2023)	EW	

**ND/2019/02 - Kwu Tung North New Development Area Phase 1:  
Roads & Drains between Kwu Tong North New Development Area and Shek Wu Hui**

Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Time Risk Allowance	2023				
								Apr	May	Jun	Jul	Aug
P9-NR1070	Installation of steel Railing	6	6	28-Apr-23	05-May-23	-274	5					
P9-NR1060	Laying concrete pavement layer and finishing layer	6	6	28-Apr-23	05-May-23	-274	5					
P9-NR1040	Placing drainage materials and Compacted Fill to the void of ramp	6	6	17-Apr-23	22-Apr-23	-274	5					
P9-NR1010	RC Works for Lower Portion of ramp foundation	8	2	23-Feb-23 A	01-Apr-23	-274	5					
P9-NR1030	RC Works for Upper portion of ramp wall, staircase and parapet and Lower ground level U Channel	7	7	08-Apr-23	15-Apr-23	-274	5					
<b>Southern Footway Ramp / Staircase</b>		<b>44</b>	<b>44</b>	<b>31-Mar-23</b>	<b>22-May-23</b>	<b>-140</b>						
P9-SR1050	Construction of Upper level U Channel	4	4	06-May-23	10-May-23	-140	5					
P9-SR1000	Excavate to formation level +5.2mPD	4	4	31-Mar-23	04-Apr-23	-140	5					
P9-SR1020	Formwork dismantle and backfill to finishing ground level	5	5	14-Apr-23	19-Apr-23	-140	5					
P9-SR1080	Installation of Gabion Wall	4	4	18-May-23	22-May-23	-140	5					
P9-SR1070	Installation of steel Railing	6	6	11-May-23	17-May-23	-140	5					
P9-SR1060	Laying concrete pavement layer and finishing layer	6	6	11-May-23	17-May-23	-140	5					
P9-SR1040	Placing drainage materials and Compacted Fill to the void of ramp	6	6	28-Apr-23	05-May-23	-140	5					
P9-SR1010	RC Works for Lower Portion of ramp foundation	8	8	05-Apr-23	13-Apr-23	-140	5					
P9-SR1030	RC Works for Upper portion of ramp wall, staircase and parapet and Lower ground level U Channel	7	7	20-Apr-23	27-Apr-23	-140	5					
<b>ABWF Works</b>		<b>40</b>	<b>40</b>	<b>30-Jun-23</b>	<b>16-Aug-23</b>	<b>-184</b>						
P9-1613	Laying of footbridge deck pavings	20	20	30-Jun-23	24-Jul-23	-184	2					
P9-1621	Metal Parapet and Handrail Installation	20	20	25-Jul-23	16-Aug-23	-184	2					
<b>BS Works</b>		<b>45</b>	<b>45</b>	<b>12-Jul-23</b>	<b>01-Sep-23</b>	<b>-226</b>						
P9-1601	Bridge Cable Laying for Lamp Post	15	15	29-Jul-23	15-Aug-23	-226	3					
P9-1595	Bridge Pillar Box Installation	15	15	12-Jul-23	28-Jul-23	-226	3					
P9-1603	South Bridge Drainage works	35	35	24-Jul-23	01-Sep-23	-226	2					
<b>Works in Section 4</b>		<b>1605</b>	<b>635</b>	<b>03-Aug-20 A</b>	<b>24-Dec-24</b>	<b>0</b>						
<b>Portion 10 - Visitor Centre</b>		<b>1605</b>	<b>635</b>	<b>03-Aug-20 A</b>	<b>24-Dec-24</b>	<b>0</b>						
<b>Pre-construction works</b>		<b>1326</b>	<b>526</b>	<b>03-Aug-20 A</b>	<b>24-Dec-24</b>	<b>0</b>						
P10-1040	Tree Protection and Preservation	1493	526	03-Aug-20 A	24-Dec-24	0	4					
<b>Visitor Centre</b>		<b>245</b>	<b>172</b>	<b>17-Jan-23 A</b>	<b>18-Sep-23</b>	<b>-17</b>						
<b>Superstructure</b>		<b>139</b>	<b>79</b>	<b>17-Jan-23 A</b>	<b>04-Jul-23</b>	<b>-95</b>						
<b>Ground Floor to Roof Floor</b>		<b>139</b>	<b>79</b>	<b>17-Jan-23 A</b>	<b>04-Jul-23</b>	<b>-95</b>						
<b>B/F to G/F Wall and G/F Slab</b>		<b>55</b>	<b>55</b>	<b>28-Apr-23</b>	<b>04-Jul-23</b>	<b>-95</b>						
<b>Bay 4 (On Grade Slab) (Toilet)</b>		<b>45</b>	<b>45</b>	<b>11-May-23</b>	<b>04-Jul-23</b>	<b>-95</b>						
P10-2110.153	Backfilling of Drainages	1	1	23-Jun-23	23-Jun-23	-95	1					
P10-2110.183	Base Slab formwork shutters	2	2	30-Jun-23	03-Jul-23	-95	1					
P10-2110.112	Dismantle falseworks from G/F to 1/F	6	6	11-May-23	17-May-23	-85	2					
P10-2110.193	G/F On Grade Slab Concreting	1	1	04-Jul-23	04-Jul-23	-95	1					
P10-2110.143	Laying Underground Drainage and testing	20	20	30-May-23	21-Jun-23	-95	1					
P10-2110.173	Rebar fixing of on grade Slab	5	5	24-Jun-23	29-Jun-23	-95	1					
<b>Bay 5 (On Grade Slab) (Tx Room)</b>		<b>38</b>	<b>38</b>	<b>28-Apr-23</b>	<b>12-Jun-23</b>	<b>-86</b>						
P10-2110.233	Backfilling of Drainages	1	1	30-May-23	30-May-23	-86	1					
P10-2110.253	Base Slab formwork shutters	2	2	09-Jun-23	10-Jun-23	-86	1					
P10-2110.203	Dismantle falseworks from G/F to 1/F	6	6	28-Apr-23	05-May-23	-95	2					
P10-2110.263	G/F On Grade Slab Concreting	1	1	12-Jun-23	12-Jun-23	-86	1					
P10-2110.223	Laying Underground Drainage and testing	20	20	06-May-23	29-May-23	-95	2					
P10-2110.243	Rebar fixing of on grade Slab	5	5	03-Jun-23	08-Jun-23	-86	1					

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ND/2019/02 - Kwu Tung North New Development Area Phase 1:  
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Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Time Risk Allowance	2023				
								Apr	May	Jun	Jul	Aug
<b>G/F to 1/F Wall and 1/F Slab</b>		74	14	17-Jan-23 A	15-Apr-23	-105						
<b>Bay 1</b>		69	9	17-Jan-23 A	10-Apr-23	-113						
P10-2700	1/F Slab Concreting	1	1	10-Apr-23	10-Apr-23	-113	1					
P10-2690	1/F Slab Shutters	2	2	07-Apr-23	08-Apr-23	-113	1					
P10-2670	Erection of Formwork for 1/F Slab	3	3	31-Mar-23	03-Apr-23	-113	1					
P10-2680	Rebar Fixing for 1/F Slab	3	3	04-Apr-23	06-Apr-23	-113	1					
P10-2640	Rebar Fixing for G/F to 1/F Wall	3	0	17-Jan-23 A	31-Mar-23	-113	1					
<b>Bay 2</b>		12	12	31-Mar-23	13-Apr-23	-116						
P10-2790	1/F Slab Concreting	1	1	13-Apr-23	13-Apr-23	-116	1					
P10-2780	1/F Slab Shutters	3	3	10-Apr-23	12-Apr-23	-116	1					
P10-2760	Erection of Formwork for 1/F Slab	4	4	31-Mar-23	04-Apr-23	-116	1					
P10-2770	Rebar Fixing for 1/F Slab	4	4	05-Apr-23	08-Apr-23	-116	1					
<b>Bay 3</b>		41	14	24-Feb-23 A	15-Apr-23	-105						
P10-2880	1/F Slab Concreting	1	1	15-Apr-23	15-Apr-23	-105	1					
P10-2870	1/F Slab Shutters	2	2	13-Apr-23	14-Apr-23	-105	1					
P10-2840	Erection of falsework and working platform for 1/F Slab	4	4	31-Mar-23	04-Apr-23	-105	1					
P10-2850	Erection of Formwork for 1/F Slab	4	4	05-Apr-23	08-Apr-23	-105	1					
P10-2835	G/F to 1/F Wall & Columns Concreting	7	4	24-Feb-23 A	04-Apr-23	-101	1					
P10-2860	Rebar Fixing for 1/F Slab	3	3	10-Apr-23	12-Apr-23	-105	1					
<b>1/F to +12.850mPD wall and +12.850mPD slab</b>		24	24	11-Apr-23	09-May-23	-116						
<b>Bay 1</b>		19	19	11-Apr-23	03-May-23	-113						
P10-3290	Concreting of drawf wall	1	1	21-Apr-23	21-Apr-23	-113	1					
P10-3300	Dismantling formwork of drawf wall	3	3	22-Apr-23	25-Apr-23	-113	1					
P10-3340	Double Slab Concreting	1	1	03-May-23	03-May-23	-113	1					
P10-3320	Double slab Rebar fixing	2	2	28-Apr-23	29-Apr-23	-113	1					
P10-3330	Double Slab Shutters	1	1	02-May-23	02-May-23	-113	1					
P10-3310	Erection of formwork for double slab	2	2	26-Apr-23	27-Apr-23	-113	1					
P10-3260	Erection of One Side Formwork for dwarf wall	2	2	14-Apr-23	15-Apr-23	-113	1					
P10-3250	Erection of props for dwarf wall	3	3	11-Apr-23	13-Apr-23	-113	1					
P10-3280	Erection of remaining side formwork for dwarf wall	2	2	19-Apr-23	20-Apr-23	-113	1					
P10-3270	Rebar Fixing for dwarf wall	2	2	17-Apr-23	18-Apr-23	-113	1					
<b>Bay 2</b>		21	21	14-Apr-23	09-May-23	-116						
P10-3390	Concreting of drawf wall	1	1	25-Apr-23	25-Apr-23	-116	1					
P10-3400	Dismantling formwork of drawf wall	3	3	26-Apr-23	28-Apr-23	-116	1					
P10-3440	Double Slab Concreting	1	1	09-May-23	09-May-23	-116	1					
P10-3420	Double slab Rebar fixing	3	3	04-May-23	06-May-23	-116	1					
P10-3430	Double Slab Shutters	1	1	08-May-23	08-May-23	-116	1					
P10-3410	Erection of formwork for double slab	3	3	29-Apr-23	03-May-23	-116	1					
P10-3360	Erection of One Side Formwork for dwarf wall	2	2	18-Apr-23	19-Apr-23	-116	1					
P10-3350	Erection of props for dwarf wall	3	3	14-Apr-23	17-Apr-23	-116	1					
P10-3380	Erection of remaining side formwork for dwarf wall	2	2	22-Apr-23	24-Apr-23	-116	1					
P10-3370	Rebar Fixing for dwarf wall	2	2	20-Apr-23	21-Apr-23	-116	1					
<b>1/F to R/F Wall and R/F Slab</b>		29	29	04-May-23	06-Jun-23	-111						
<b>Bay 1</b>		24	24	04-May-23	31-May-23	-108						

	Primary Baseline		Critical Milestone
	Actual Work		Non-Critical Mil...
	Remaining Work		
	Critical Remaining Work		
	Baseline Milestone		

Data Date: 30-Apr-23  
 Project Start: 03-Feb-20  
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### 3 Month Rolling Programme (May-23)

Date	Revision	Checked	Approved
30-Apr-23	Monthly Update Programme (May-2023)	EW	

ND/2019/02 - Kwu Tung North New Development Area Phase 1:  
Roads & Drains between Kwu Tong North New Development Area and Shek Wu Hui

Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Time Risk Allowance	2023				
								Apr	May	Jun	Jul	Aug
P10-3845	Double Slab to R/F wall Concreting	1	1	18-May-23	18-May-23	-108	1					
P10-3850	Erection of falsework and working platform for R/F Slab	4	4	19-May-23	23-May-23	-108	1					
P10-3810	Erection of falsework and working platform from Double Slab to R/F wall	3	3	04-May-23	06-May-23	-108	1					
P10-3860	Erection of Formwork for R/F Slab	2	2	24-May-23	25-May-23	-108	1					
P10-3820	Erection of One Side Formwork from Double Slab to R/F wall	3	3	08-May-23	10-May-23	-108	1					
P10-3840	Erection of remaining side formwork from Double Slab to R/F wall	3	3	15-May-23	17-May-23	-108	1					
P10-3890	R/F Slab Concreting	1	1	31-May-23	31-May-23	-108	1					
P10-3880	R/F Slab Shutters	2	2	29-May-23	30-May-23	-108	1					
P10-3870	Rebar Fixing for R/F Slab	2	2	26-May-23	27-May-23	-108	1					
P10-3830	Rebar Fixing from Double Slab to R/F wall	3	3	11-May-23	13-May-23	-108	1					
<b>Bay 2</b>		<b>24</b>	<b>24</b>	<b>10-May-23</b>	<b>06-Jun-23</b>	<b>-111</b>						
P10-3935	Double Slab to R/F wall Concreting	1	1	24-May-23	24-May-23	-111	1					
P10-3940	Erection of falsework and working platform for R/F Slab	3	3	25-May-23	27-May-23	-111	1					
P10-3900	Erection of falsework and working platform from Double Slab to R/F wall	3	3	10-May-23	12-May-23	-111	1					
P10-3950	Erection of Formwork for R/F Slab	3	3	29-May-23	31-May-23	-111	1					
P10-3910	Erection of One Side Formwork from Double Slab to R/F wall	3	3	13-May-23	16-May-23	-111	1					
P10-3930	Erection of remaining side formwork from Double Slab to R/F wall	3	3	20-May-23	23-May-23	-111	1					
P10-3980	R/F Slab Concreting	1	1	06-Jun-23	06-Jun-23	-111	1					
P10-3970	R/F Slab Shutters	2	2	03-Jun-23	05-Jun-23	-111	1					
P10-3960	Rebar Fixing for R/F Slab	2	2	01-Jun-23	02-Jun-23	-111	1					
P10-3920	Rebar Fixing from Double Slab to R/F wall	3	3	17-May-23	19-May-23	-111	1					
<b>ABWF / E&amp;M Works</b>		<b>111</b>	<b>111</b>	<b>27-Apr-23</b>	<b>06-Sep-23</b>	<b>-4</b>						
<b>Basement Floor</b>		<b>97</b>	<b>97</b>	<b>15-May-23</b>	<b>06-Sep-23</b>	<b>-20</b>						
<b>Rainwater Harvesting Tank / Irrigation Pump Room</b>		<b>97</b>	<b>97</b>	<b>15-May-23</b>	<b>06-Sep-23</b>	<b>-20</b>						
P10-BFRH-1000	Access Date of B/F Rainwater and Irrigation Room Fitting Out	0	0	15-May-23		-74						
<b>ABWF</b>		<b>67</b>	<b>67</b>	<b>15-May-23</b>	<b>02-Aug-23</b>	<b>-74</b>						
P10-BFRH-1050	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	12	12	09-Jun-23	23-Jun-23	-74	0					
P10-BFRH-1040	Erect Scaffolding for wall and ceiling finishes	2	2	07-Jun-23	08-Jun-23	-74	0					
P10-BFRH-1010	Setting Out	2	2	15-May-23	16-May-23	-74	0					
P10-BFRH-1060	Wall Finishes (Wall waterproofing, plastering, Skim Coat and 1st Coat Painting)	21	21	24-Jun-23	19-Jul-23	-74	0					
P10-BFRH-1020	Water Tanks Props and formwork removal	12	12	17-May-23	30-May-23	-74	0					
P10-BFRH-1030	Water Tanks water testing before waterproofing and touch up works	6	6	31-May-23	06-Jun-23	-74	0					
P10-BFRH-1070	Water tanks waterproofing and tiling	12	12	20-Jul-23	02-Aug-23	-74	0					
<b>BS Works</b>		<b>75</b>	<b>75</b>	<b>09-Jun-23</b>	<b>06-Sep-23</b>	<b>-20</b>						
<b>MVAC</b>		<b>24</b>	<b>24</b>	<b>09-Jun-23</b>	<b>08-Jul-23</b>	<b>31</b>						
P10-BFRH-1120	Air Duct installation	21	21	13-Jun-23	08-Jul-23	31	0					
P10-BFRH-1110	Setting out for all equipment / MOS inspection	3	3	09-Jun-23	12-Jun-23	31	0					
<b>PD</b>		<b>75</b>	<b>75</b>	<b>09-Jun-23</b>	<b>06-Sep-23</b>	<b>-70</b>						
P10-BFRH-1140	Installation of inertia block, FRP water tank, pressure pipe	30	30	21-Jun-23	27-Jul-23	-70	0					
P10-BFRH-1150	Installation of pipework, pumps, LMCP and accessories	35	35	28-Jul-23	06-Sep-23	-70	0					
P10-BFRH-1130	setting out for all equipment / MOS inspection	10	10	09-Jun-23	20-Jun-23	-70	0					
<b>EL</b>		<b>37</b>	<b>37</b>	<b>09-Jun-23</b>	<b>24-Jul-23</b>	<b>-52</b>						
P10-BFRH-1180	Cable wiring	20	20	30-Jun-23	24-Jul-23	-52	0					
P10-BFRH-1170	Installation of cable containments	15	15	12-Jun-23	29-Jun-23	-52	0					

■ Primary Baseline     ◆ Critical Milestone  
■ Actual Work             ◆ Non-Critical Mil...  
■ Remaining Work  
■ Critical Remaining Work  
◆ Baseline Milestone

Data Date: 30-Apr-23  
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### 3 Month Rolling Programme (May-23)

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ND/2019/02 - Kwu Tung North New Development Area Phase 1:  
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Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Time Risk Allowance	2023				
								Apr	May	Jun	Jul	Aug
P10-BFRH-1160	Setting out for all equipment / MOS inspection	2	2	09-Jun-23	10-Jun-23	-52	0					
<b>Sprinkler &amp; FS Pump Room</b>		97	97	15-May-23	06-Sep-23	-66						
P10-BFFS-1000	Access Date of B/F Sprinkler and FS Pump Room Fitting Out	0	0	15-May-23		-66						
<b>ABWF</b>		72	72	15-May-23	08-Aug-23	-57						
P10-BFFS-1140	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	12	12	09-Jun-23	23-Jun-23	-57	0					
P10-BFFS-1170	Concrete Plinth Casting and finishes	12	12	26-Jul-23	08-Aug-23	-57	0					
P10-BFFS-1130	Erect Scaffolding for wall and ceiling finishes	2	2	07-Jun-23	08-Jun-23	-66	0					
P10-BFFS-1110	Setting Out	12	12	17-May-23	30-May-23	-66	0					
P10-BFFS-1150	Wall Finishes (Wall waterproofing, plastering, Skim Coat and 1st Coat Painting)	14	14	24-Jun-23	11-Jul-23	-57	0					
P10-BFFS-1100	Water Tanks Props and formwork removal	2	2	15-May-23	16-May-23	-66	0					
P10-BFFS-1120	Water Tanks water testing before waterproofing and touch up works	6	6	31-May-23	06-Jun-23	-66	0					
P10-BFFS-1160	Water tanks waterproofing and tiling	12	12	12-Jul-23	25-Jul-23	-57	0					
<b>BS Works</b>		88	88	25-May-23	06-Sep-23	-66						
<b>MVAC</b>		3	3	09-Jun-23	12-Jun-23	-12						
P10-BFFS-1010	Setting out for all equipment / MOS inspection	3	3	09-Jun-23	12-Jun-23	-12	0					
<b>PD</b>		75	75	09-Jun-23	06-Sep-23	-66						
P10-BFFS-1040	Installation of inertia block, FRP water tank, pressure	30	30	21-Jun-23	27-Jul-23	-66	0					
P10-BFFS-1050	Installation of pipework, pumps, LMCP and accessories	35	35	28-Jul-23	06-Sep-23	-66	0					
P10-BFFS-1030	Setting out for all equipment / MOS inspection	10	10	09-Jun-23	20-Jun-23	-66	0					
<b>EL</b>		70	70	09-Jun-23	31-Aug-23	-61						
P10-BFFS-1080	Cable wiring	20	20	28-Jun-23	21-Jul-23	-61	0					
P10-BFFS-1070	Installation of cable containment	5	5	21-Jun-23	27-Jun-23	-61	0					
P10-BFFS-1090	Installation of Lighting fitting and small power provision	35	35	22-Jul-23	31-Aug-23	-61	0					
P10-BFFS-1060	Setting out for all equipment / MOS inspection	10	10	09-Jun-23	20-Jun-23	-61	0					
<b>FS</b>		15	15	25-May-23	10-Jun-23	-7						
P10-BFFS-1190	FS 1st Fixing	15	15	25-May-23	10-Jun-23	-7	0					
<b>Ground Floor</b>		107	107	27-Apr-23	01-Sep-23	0						
<b>Generator Room</b>		76	76	20-May-23	18-Aug-23	-45						
P10-GFGS1000	Access Date of G/F Generator Room Fitting Out	0	0	20-May-23		-78						
<b>ABWF</b>		64	64	20-May-23	04-Aug-23	-78						
P10-GFGS1070	Access Panel Installation to Generator Room	6	6	18-Jul-23	24-Jul-23	-78	0					
P10-GFGS1030	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	12	12	25-May-23	07-Jun-23	-78	0					
P10-GFGS1050	Concrete Plinth Casting and finishes	12	12	30-Jun-23	14-Jul-23	-78	0					
P10-GFGS1020	Erect Scaffolding for wall and ceiling finishes	2	2	23-May-23	24-May-23	-78	0					
P10-GFGS1080	Floor epoxy Painting & door installation	10	10	25-Jul-23	04-Aug-23	-78	0					
P10-GFGS1060	Floor Screeding	2	2	15-Jul-23	17-Jul-23	-78	0					
P10-GFGS1010	Setting Out	2	2	20-May-23	22-May-23	-78	0					
P10-GFGS1040	Wall Finishes (Wall plastering, Tiling, Skim Coat and 1st Coat Painting)	18	18	08-Jun-23	29-Jun-23	-78	0					
<b>BS Works</b>		72	72	25-May-23	18-Aug-23	-45						
<b>MVAC</b>		21	21	25-May-23	17-Jun-23	-45						
P10-GFGS1120	Air Duct installation	18	18	29-May-23	17-Jun-23	-45	0					
P10-GFGS1110	Setting out for all equipment / MOS inspection	3	3	25-May-23	27-May-23	-78	0					
<b>EL</b>		60	60	25-May-23	04-Aug-23	-78						
P10-GFGS1150	Cable wiring	15	15	17-Jun-23	06-Jul-23	-78	0					

Primary Baseline	Critical Milestone
Actual Work	Non-Critical Mil...
Remaining Work	
Critical Remaining Work	
Baseline Milestone	

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### 3 Month Rolling Programme (May-23)

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ND/2019/02 - Kwu Tung North New Development Area Phase 1:  
Roads & Drains between Kwu Tong North New Development Area and Shek Wu Hui

Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Time Risk Allowance	2023				
								Apr	May	Jun	Jul	Aug
P10-GFGS1140	Installation of cable containment	10	10	06-Jun-23	16-Jun-23	-78	0					
P10-GFGS1160	Installation of Lighting fitting and small power provision	25	25	07-Jul-23	04-Aug-23	-78	0					
P10-GFGS1130	Setting out for all equipment / MOS inspection	10	10	25-May-23	05-Jun-23	-78	0					
FS		51	51	19-Jun-23	18-Aug-23	-45						
P10-GFGS1090	FS Piping, cable containment Installation	30	30	19-Jun-23	25-Jul-23	-45	0					
P10-GFGS1100	FS Sprinkler head, Alarm smoke detector, heat detector installation	21	21	26-Jul-23	18-Aug-23	-45	0					
<b>Tx Room / Switch Room</b>		<b>53</b>	<b>53</b>	<b>26-May-23</b>	<b>28-Jul-23</b>	<b>-116</b>						
<b>ABWF</b>		<b>30</b>	<b>30</b>	<b>26-May-23</b>	<b>30-Jun-23</b>	<b>-93</b>						
P10-Tx1000	Access Date of G/F Tx Room / Switch Room Fitting Out	0	0	26-May-23		-116						
P10-Tx1105	Access Date of Tx Room Double Slab Builders works	0	0	26-May-23		-116						
P10-Tx1150	Cable Trench Angle Frame Installation	2	2	15-Jun-23	16-Jun-23	-93	0					
P10-Tx1140	Cable Trench Plastering	5	5	09-Jun-23	14-Jun-23	-93	0					
P10-Tx1180	Ceiling And Wall Painting (Final Coat)	2	2	20-Jun-23	21-Jun-23	-93	0					
P10-Tx1120	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	5	5	30-May-23	03-Jun-23	-116	0					
P10-Tx1190	Chequer Plate Installation	2	2	20-Jun-23	21-Jun-23	-93	0					
P10-Tx1220	Durasteel Installation to Air Duct	2	2	28-Jun-23	29-Jun-23	-93	0					
P10-Tx1110	Erect Scaffolding for wall and ceiling finishes of Tx Rm	1	1	29-May-23	29-May-23	-116	0					
P10-Tx1109	Flooding Test and Infra Red test after waterproofing	2	2	02-Jun-23	03-Jun-23	-116	0					
P10-Tx1210	Floor Dust Proof Coating	2	2	26-Jun-23	27-Jun-23	-93	0					
P10-Tx1160	Floor Screeding	2	2	17-Jun-23	19-Jun-23	-93	0					
P10-Tx1107	Fomwork dismantling and touch up works	3	3	26-May-23	29-May-23	-116	0					
P10-Tx1195	Lourves Installation	2	2	20-Jun-23	21-Jun-23	-93	0					
P10-Tx1170	Metal Door Frame Installation	2	2	17-Jun-23	19-Jun-23	-93	0					
P10-Tx1230	Metal Door Leaf Installation	1	1	30-Jun-23	30-Jun-23	-93	0					
P10-Tx1200	Painting to Chequer Plate	2	2	23-Jun-23	24-Jun-23	-93	0					
P10-Tx1100	Setting Out	2	2	26-May-23	27-May-23	-116	0					
P10-Tx1130	Wall Finishes (Wall plastering, Lourve Frame, Wall Tiling, Skim Coat and 1st Coat Painting)	4	4	05-Jun-23	08-Jun-23	-116	0					
P10-Tx1108	Waterproofing works of Tx Room Double Slab	3	3	30-May-23	01-Jun-23	-116	0					
<b>BS Works</b>		<b>41</b>	<b>41</b>	<b>09-Jun-23</b>	<b>28-Jul-23</b>	<b>-116</b>						
<b>Electrical Works</b>		<b>40</b>	<b>40</b>	<b>09-Jun-23</b>	<b>27-Jul-23</b>	<b>-116</b>						
P10-Tx1550	Cable Wiring at Switch Room	3	3	15-Jul-23	18-Jul-23	-112	2					
P10-Tx1250	Cable Wiring at Tx Room	10	10	21-Jun-23	04-Jul-23	-116	2					
P10-Tx1580	Delivery and assembly of Switchboard at Switch Room	1	1	20-Jul-23	20-Jul-23	-112	2					
P10-Tx1270	Delivery of Cable Tray	1	1	10-Jul-23	10-Jul-23	-116	2					
P10-Tx1660	Earthing and Lightning T&C	1	1	27-Jul-23	27-Jul-23	-116	2					
P10-Tx1570	FAT of Switchboard	1	1	19-Jul-23	19-Jul-23	-112	2					
P10-Tx1530	Installation of Cable Tray over ceiling	4	4	11-Jul-23	14-Jul-23	-116	2					
P10-Tx1650	Installation of Earthing Pits	2	2	25-Jul-23	26-Jul-23	-116	2					
P10-Tx1610	Installation of Earthing System at Tx Room and Switch Room	3	3	15-Jul-23	18-Jul-23	-116	2					
P10-Tx1560	Installation of Light Fitting at Switch Room	3	3	15-Jul-23	18-Jul-23	-112	2					
P10-Tx1260	Installation of Light Fitting at Tx Room	4	4	05-Jul-23	08-Jul-23	-116	2					
P10-Tx1630	Installation of Lighting conductors	3	3	19-Jul-23	21-Jul-23	-116	2					
P10-Tx1640	Installation of Lightning Pits	2	2	22-Jul-23	24-Jul-23	-116	2					
P10-Tx1600	Installation of MCB Board	4	4	15-Jul-23	19-Jul-23	-116	2					

	Primary Baseline		Critical Milestone
	Actual Work		Non-Critical Mil...
	Remaining Work		
	Critical Remaining Work		
	Baseline Milestone		

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**3 Month Rolling Programme (May-23)**

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**ND/2019/02 - Kwu Tung North New Development Area Phase 1:  
Roads & Drains between Kwu Tong North New Development Area and Shek Wu Hui**

Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Time Risk Allowance	2023				
								Apr	May	Jun	Jul	Aug
P10-Tx1240	Intallation (Electrical) of Conduit / Cable Containment at Tx Room	10	10	09-Jun-23	20-Jun-23	-116	2					
P10-Tx1540	Intallation (Electrical) of Conduit at Switch Room	4	4	15-Jul-23	19-Jul-23	-116	2					
P10-Tx1590	SAT of Switchboard	1	1	21-Jul-23	21-Jul-23	-112	2					
P10-Tx1620	System T&C (Electrical Works)	3	3	19-Jul-23	21-Jul-23	-116	2					
<b>MVAC Works</b>		15	15	09-Jun-23	27-Jun-23	-91						
P10-Tx1690	Cable Wiring & Cable Containment (MVAC) of Conduit at Tx Room	2	2	12-Jun-23	13-Jun-23	-91	2					
P10-Tx1720	Installation of Fan and Air Duct at Switchroom	2	2	20-Jun-23	21-Jun-23	-91	2					
P10-Tx1700	Installation of Fan and Air Duct at Tx Room	3	3	14-Jun-23	16-Jun-23	-91	2					
P10-Tx1710	Installation of Fan Controller at Tx Room	2	2	17-Jun-23	19-Jun-23	-91	2					
P10-Tx1730	Installation of LMCP at Switchroom	2	2	23-Jun-23	24-Jun-23	-91	2					
P10-Tx1680	Intallation (MVAC) of Conduit at Tx Room	2	2	09-Jun-23	10-Jun-23	-91	2					
P10-Tx1740	System T&C (MVAC Works)	2	2	26-Jun-23	27-Jun-23	-91	2					
<b>FS Works</b>		13	13	09-Jun-23	24-Jun-23	-89						
P10-Tx1810	Cable Wiring (FS) of Conduit at Switchroom	2	2	19-Jun-23	20-Jun-23	-89	2					
P10-Tx1780	Cable Wiring (FS) of Conduit at Tx Room	2	2	12-Jun-23	13-Jun-23	-89	2					
P10-Tx1800	Installation of (FS) Conduit at Switchroom	2	2	16-Jun-23	17-Jun-23	-89	2					
P10-Tx1830	Installation of AFA panel and audio / visual alarm equipment	1	1	23-Jun-23	23-Jun-23	-89	2					
P10-Tx1820	Installation of Heat Detector at Switchroom	1	1	21-Jun-23	21-Jun-23	-89	2					
P10-Tx1790	Installation of Heat Detector at Tx Room	2	2	14-Jun-23	15-Jun-23	-89	2					
P10-Tx1770	Intallation (FS) of Conduit at Tx Room	2	2	09-Jun-23	10-Jun-23	-89	2					
P10-Tx1840	System T&C (FS Works)	1	1	24-Jun-23	24-Jun-23	-89	2					
<b>CLP works &amp; Statutory Inspection</b>		1	1	28-Jul-23	28-Jul-23	-116						
P10-Tx1850	Submit WR1	1	1	28-Jul-23	28-Jul-23	-116	2					
<b>FS Control Room</b>		83	83	26-May-23	01-Sep-23	-109						
P10-GFFS1020	Access Date of G/F FS control Room Fitting Out	0	0	26-May-23		-109						
<b>ABWF</b>		40	40	26-May-23	13-Jul-23	-96						
P10-GFFS1110	Access Panel Installation to FS control Room	4	4	03-Jul-23	06-Jul-23	-96	0					
P10-GFFS1070	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	8	8	31-May-23	08-Jun-23	-96	0					
P10-GFFS1100	Concrete Plinth Casting and finishes	8	8	19-Jun-23	28-Jun-23	-96	0					
P10-GFFS1060	Erect Scaffolding for wall and ceiling finishes	2	2	29-May-23	30-May-23	-109	0					
P10-GFFS1120	Floor epoxy Painting & door installation	6	6	07-Jul-23	13-Jul-23	-96	0					
P10-GFFS1090	Floor Screeding	2	2	29-Jun-23	30-Jun-23	-96	0					
P10-GFFS1050	Setting Out	2	2	26-May-23	27-May-23	-109	0					
P10-GFFS1080	Wall Finishes (Wall plastering, Skim Coat and 1st Coat Painting)	8	8	09-Jun-23	17-Jun-23	-96	0					
<b>BS Works</b>		79	79	31-May-23	01-Sep-23	-109						
<b>MVAC</b>		36	36	31-May-23	13-Jul-23	-96						
P10-GFFS1160	Air Duct installation	18	18	21-Jun-23	13-Jul-23	-96	0					
P10-GFFS1150	Setting out for all equipment / MOS inspection	3	3	31-May-23	02-Jun-23	-109	0					
<b>EL</b>		49	49	31-May-23	28-Jul-23	-109						
P10-GFFS1190	Cable wiring	10	10	17-Jun-23	29-Jun-23	-109	0					
P10-GFFS1180	Installation of cable containment	5	5	12-Jun-23	16-Jun-23	-109	0					
P10-GFFS1200	Installation of Lighting fitting and small power provision	24	24	30-Jun-23	28-Jul-23	-109	0					
P10-GFFS1170	Setting out for all equipment / MOS inspection	10	10	31-May-23	10-Jun-23	-109	0					
<b>FS</b>		30	30	29-Jul-23	01-Sep-23	-109						

Primary Baseline	Critical Milestone
Actual Work	Non-Critical Mil...
Remaining Work	
Critical Remaining Work	
Baseline Milestone	

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## 3 Month Rolling Programme (May-23)

Date	Revision	Checked	Approved
30-Apr-23	Monthly Update Programme (May-2023)	EW	

ND/2019/02 - Kwu Tung North New Development Area Phase 1:  
Roads & Drains between Kwu Tong North New Development Area and Shek Wu Hui

Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Time Risk Allowance	2023						
								Apr	May	Jun	Jul	Aug		
P10-GFFS1130	FS Piping, cable containment Installation	30	30	29-Jul-23	01-Sep-23	-109	0							
<b>Ground Floor Male / Female / U-Toilet</b>		9	9	21-Jul-23	31-Jul-23	-92								
<b>ABWF</b>		9	9	21-Jul-23	31-Jul-23	-92								
P10-GT1000	Access Date of G/F Toilet Fitting Out	0	0	21-Jul-23		-92								
P10-GT1020	Block Wall Erection	6	6	25-Jul-23	31-Jul-23	-92								
P10-GT1010	Site Survey and setting out	3	3	21-Jul-23	24-Jul-23	-92								
<b>BOH</b>		103	103	27-Apr-23	28-Aug-23	4								
<b>Material Recovery</b>		79	79	08-May-23	09-Aug-23	-42								
<b>ABWF</b>		42	42	08-May-23	26-Jun-23	-51								
P10-GF-MR1020	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	12	12	12-May-23	25-May-23	-58	0							
P10-GF-MR1010	Erect Scaffolding for wall and ceiling finishes	2	2	10-May-23	11-May-23	-58	0							
P10-GF-MR1050	Floor quarry Tiles & door installation	12	12	12-Jun-23	26-Jun-23	-51	0							
P10-GF-MR1040	Floor Screeding	2	2	09-Jun-23	10-Jun-23	-51	0							
P10-GF-MR1000	Setting Out	2	2	08-May-23	09-May-23	-58	0							
P10-GF-MR1030	Wall Finishes (Wall plastering, tiling)	12	12	26-May-23	08-Jun-23	-58	0							
<b>BS Works</b>		51	51	09-Jun-23	09-Aug-23	-42								
<b>MVAC</b>		21	21	09-Jun-23	05-Jul-23	-58								
P10-GF-MR1090	Air Duct installation	18	18	13-Jun-23	05-Jul-23	-58	0							
P10-GF-MR1080	Setting out for all equipment / MOS inspection	3	3	09-Jun-23	12-Jun-23	-58	0							
<b>EL</b>		49	49	09-Jun-23	07-Aug-23	-40								
P10-GF-MR1120	Cable wiring	10	10	28-Jun-23	10-Jul-23	-40	0							
P10-GF-MR1110	Installation of cable containment	5	5	21-Jun-23	27-Jun-23	-40	0							
P10-GF-MR1130	Installation of Lighting fitting and small power provision	24	24	11-Jul-23	07-Aug-23	-40	0							
P10-GF-MR1100	Setting out for all equipment / MOS inspection	10	10	09-Jun-23	20-Jun-23	-40	0							
<b>FS</b>		30	30	06-Jul-23	09-Aug-23	-58								
P10-GF-MR1060	FS Piping, cable containment Installation	30	30	06-Jul-23	09-Aug-23	-58	0							
<b>Security Control Room</b>		86	86	27-Apr-23	08-Aug-23	-78								
P10-GFSC1190	Access Date of G/F security control Room Fitting Out	0	0	27-Apr-23		-78								
<b>ABWF</b>		48	48	27-Apr-23	23-Jun-23	-61								
P10-GFSC1050	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	9	9	03-May-23	12-May-23	-78	0							
P10-GFSC1040	Erect Scaffolding for wall and ceiling finishes	2	2	29-Apr-23	02-May-23	-78	0							
P10-GFSC1100	Floor epoxy Painting & door installation	6	6	16-Jun-23	23-Jun-23	-61	0							
P10-GFSC1070	Floor Screeding	2	2	31-May-23	01-Jun-23	-61	0							
P10-GFSC1030	Setting Out	2	2	27-Apr-23	28-Apr-23	-78	0							
P10-GFSC1060	Wall plastering	9	9	13-May-23	23-May-23	-78	0							
P10-GFSC1090	Wall Skim Coat and 1st Coat Painting	6	6	02-Jun-23	08-Jun-23	-61	0							
<b>BS Works</b>		64	64	24-May-23	08-Aug-23	-78								
<b>MVAC</b>		26	26	24-May-23	23-Jun-23	-61								
P10-GFSC1140	Air Duct installation	18	18	02-Jun-23	23-Jun-23	-61	0							
P10-GFSC1130	Setting out for all equipment / MOS inspection	3	3	24-May-23	26-May-23	-78	0							
<b>EL</b>		43	43	24-May-23	14-Jul-23	-78								
P10-GFSC1170	Cable wiring	10	10	10-Jun-23	21-Jun-23	-78	0							
P10-GFSC1160	Installation of cable containment	5	5	05-Jun-23	09-Jun-23	-78	0							
P10-GFSC1180	Installation of Lighting fitting and small power provision	18	18	23-Jun-23	14-Jul-23	-78	0							

Primary Baseline	Critical Milestone
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ND/2019/02 - Kwu Tung North New Development Area Phase 1:  
Roads & Drains between Kwu Tong North New Development Area and Shek Wu Hui

Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Time Risk Allowance	2023				
								Apr	May	Jun	Jul	Aug
P10-GFSC1150	Setting out for all equipment / MOS inspection	10	10	24-May-23	03-Jun-23	-78	0					
<b>FS</b>		21	21	15-Jul-23	08-Aug-23	-78						
P10-GFSC1110	FS Piping, cable containment Installation	21	21	15-Jul-23	08-Aug-23	-78	0					
<b>Main Distribution Frame Room</b>		79	79	02-May-23	03-Aug-23	-37						
<b>ABWF</b>		46	46	02-May-23	24-Jun-23	-50						
P10-GF-MDF1020	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	12	12	06-May-23	19-May-23	-53	0					
P10-GF-MDF1010	Erect Scaffolding for wall and ceiling finishes	2	2	04-May-23	05-May-23	-53	0					
P10-GF-MDF1050	Floor epoxy Painting	10	10	13-Jun-23	24-Jun-23	-50	0					
P10-GF-MDF1040	Floor Screeding	2	2	03-Jun-23	05-Jun-23	-50	0					
P10-GF-MDF1000	Setting Out	2	2	02-May-23	03-May-23	-53	0					
P10-GF-MDF1030	Wall Finishes (Wall plastering, Skim Coat and 1st Coat Painting)	12	12	20-May-23	02-Jun-23	-53	0					
<b>BS Works</b>		51	51	03-Jun-23	03-Aug-23	-37						
<b>MVAC</b>		21	21	03-Jun-23	28-Jun-23	-53						
P10-GF-MDF1090	Air Duct installation	18	18	07-Jun-23	28-Jun-23	-53	0					
P10-GF-MDF1080	Setting out for all equipment / MOS inspection	3	3	03-Jun-23	06-Jun-23	-53	0					
<b>EL</b>		49	49	03-Jun-23	01-Aug-23	-35						
P10-GF-MDF1120	Cable wiring	10	10	21-Jun-23	04-Jul-23	-35	0					
P10-GF-MDF1110	Installation of cable containment	5	5	15-Jun-23	20-Jun-23	-35	0					
P10-GF-MDF1130	Installation of Lighting fitting and small power provision	24	24	05-Jul-23	01-Aug-23	-35	0					
P10-GF-MDF1100	Setting out for all equipment / MOS inspection	10	10	03-Jun-23	14-Jun-23	-35	0					
<b>FS</b>		30	30	29-Jun-23	03-Aug-23	-53						
P10-GF-MDF1060	FS Piping, cable containment Installation	30	30	29-Jun-23	03-Aug-23	-53	0					
<b>Water Meter Cabinet</b>		65	65	02-May-23	18-Jul-23	29						
<b>ABWF</b>		40	40	02-May-23	16-Jun-23	29						
P10-GF-WMC1010	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	12	12	04-May-23	17-May-23	29	0					
P10-GF-WMC1040	Double Leaf Door Installation to water meter cabinet	6	6	03-Jun-23	09-Jun-23	29	0					
P10-GF-WMC1050	Floor epoxy Painting & door installation	6	6	10-Jun-23	16-Jun-23	29	0					
P10-GF-WMC1030	Floor Screeding	2	2	01-Jun-23	02-Jun-23	29	0					
P10-GF-WMC1000	Setting Out	2	2	02-May-23	03-May-23	29	0					
P10-GF-WMC1020	Wall Finishes (Wall plastering, Skim Coat and 1st Coat Painting)	12	12	18-May-23	31-May-23	29	0					
<b>BS Works</b>		25	25	17-Jun-23	18-Jul-23	29						
<b>PD</b>		25	25	17-Jun-23	18-Jul-23	29						
P10-GF-WMC1070	Water Meter Installation	10	10	07-Jul-23	18-Jul-23	29	0					
P10-GF-WMC1060	Water piping works Installation	15	15	17-Jun-23	06-Jul-23	29	0					
<b>Equipment Room</b>		79	79	26-May-23	28-Aug-23	-58						
<b>ABWF</b>		42	42	26-May-23	15-Jul-23	-67						
P10-GFER1050	Access Panel Installation	6	6	03-Jul-23	08-Jul-23	-67	0					
P10-GFER1020	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	12	12	31-May-23	13-Jun-23	-74	0					
P10-GFER1010	Erect Scaffolding for wall and ceiling finishes	2	2	29-May-23	30-May-23	-74	0					
P10-GFER1060	Floor epoxy Painting & door installation	6	6	10-Jul-23	15-Jul-23	-67	0					
P10-GFER1040	Floor Screeding	2	2	29-Jun-23	30-Jun-23	-67	0					
P10-GFER1000	Setting Out	2	2	26-May-23	27-May-23	-74	0					
P10-GFER1030	Wall Finishes (Wall plastering, Skim Coat and 1st Coat Painting)	12	12	14-Jun-23	28-Jun-23	-74	0					
<b>BS Works</b>		51	51	29-Jun-23	28-Aug-23	-58						

Primary Baseline	Critical Milestone
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Remaining Work	
Critical Remaining Work	
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### 3 Month Rolling Programme (May-23)

Date	Revision	Checked	Approved
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**ND/2019/02 - Kwu Tung North New Development Area Phase 1:  
Roads & Drains between Kwu Tong North New Development Area and Shek Wu Hui**

Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Time Risk Allowance	2023					
								Apr	May	Jun	Jul	Aug	
<b>MVAC</b>													
P10-GFER1100	Air Duct installation	18	18	29-Jun-23	24-Jul-23	-74	0						
P10-GFER1090	Setting out for all equipment / MOS inspection	3	3	29-Jun-23	03-Jul-23	-74	0						
<b>EL</b>													
P10-GFER1130	Cable wiring	10	10	18-Jul-23	28-Jul-23	-56	0						
P10-GFER1120	Installation of cable containment	5	5	12-Jul-23	17-Jul-23	-56	0						
P10-GFER1140	Installation of Lighting fitting and small power provision	24	24	29-Jul-23	25-Aug-23	-56	0						
P10-GFER1110	Setting out for all equipment / MOS inspection	10	10	29-Jun-23	11-Jul-23	-56	0						
<b>FS</b>													
P10-GFER1070	FS Piping, cable containment Installation	30	30	25-Jul-23	28-Aug-23	-74	0						
<b>Cleaners Store</b>													
<b>ABWF</b>													
P10-GFCS1020	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	9	9	25-Jul-23	03-Aug-23	-86	0						
P10-GFCS1010	Erect Scaffolding for wall and ceiling finishes	1	1	24-Jul-23	24-Jul-23	-86	0						
P10-GFCS1000	Setting Out	2	2	21-Jul-23	22-Jul-23	-86	0						
<b>Maintenance Corridor</b>													
<b>ABWF</b>													
P10-GF-MC1040	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	12	12	26-Jul-23	08-Aug-23	-95	0						
P10-GF-MC1030	Erect Scaffolding for wall and ceiling finishes	2	2	24-Jul-23	25-Jul-23	-95	0						
P10-GF-MC1020	Setting Out	2	2	21-Jul-23	22-Jul-23	-95	0						
<b>Staircase</b>													
<b>ST-02</b>													
<b>ABWF</b>													
P10-GF-ST2-1040	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	12	12	23-Jun-23	07-Jul-23	-82	0						
P10-GF-ST2-1055	Dismantle Scaffolding	1	1	22-Jul-23	22-Jul-23	-82	0						
P10-GF-ST2-1030	Erect Scaffolding for wall and ceiling finishes	2	2	20-Jun-23	21-Jun-23	-82	0						
P10-GF-ST2-1020	Setting Out	2	2	17-Jun-23	19-Jun-23	-82	0						
P10-GF-ST2-1060	Staircase Screeding	2	2	24-Jul-23	25-Jul-23	-82	0						
P10-GF-ST2-1070	Staircase Tiling / Tactile Installation	8	8	26-Jul-23	03-Aug-23	-17	0						
P10-GF-ST2-1050	Wall Finishes (Wall plastering, Skim Coat and 1st Coat Painting)	12	12	08-Jul-23	21-Jul-23	-82	0						
<b>BS Works</b>													
<b>PD</b>													
P10-GF-ST2-1010	Floor Drain Installation	6	6	20-Jul-23	26-Jul-23	32	0						
P10-GF-ST2-1000	Water piping works Installation	10	10	08-Jul-23	19-Jul-23	-23	0						
<b>FS</b>													
P10-GF-ST2-1100	FS Piping, cable containment Installation	6	6	08-Jul-23	14-Jul-23	-23	0						
P10-GF-ST2-1110	FS Sprinkler head, Alarm smoke detector, heat detector installation	8	8	15-Jul-23	24-Jul-23	-23	0						
<b>ST-03</b>													
<b>ABWF</b>													
P10-GF-ST3-1010	Erect Scaffolding for wall and ceiling finishes	2	2	28-Jul-23	29-Jul-23	-82	0						
P10-GF-ST3-1000	Setting Out	2	2	26-Jul-23	27-Jul-23	-82	0						
<b>External wall and External Area</b>													
<b>ABWF</b>													
P10-GF-EXT1000	Erection of external scaffolding	25	25	30-Jun-23	29-Jul-23	-86	3						

	Primary Baseline		Critical Milestone
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ND/2019/02 - Kwu Tung North New Development Area Phase 1:  
Roads & Drains between Kwu Tong North New Development Area and Shek Wu Hui

Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Time Risk Allowance	2023					
								Apr	May	Jun	Jul	Aug	
P10-GF-EXT1010	Waterproofing & Window / Louve Glazing Works	28	28	14-Jul-23	15-Aug-23	-89	6						
<b>1st Floor</b>		43	43	17-Jun-23	08-Aug-23	-59							
<b>Zone 1</b>		41	41	17-Jun-23	05-Aug-23	-63							
<b>Multi Purpose Room 1 &amp; 2</b>		41	41	17-Jun-23	05-Aug-23	-63							
P10-1FMP-1000	Access Date of 1/FMulti Purpose Room (1&2) Fitting Out	0	0	17-Jun-23		-69							
ABWF		40	40	17-Jun-23	04-Aug-23	-69							
P10-1F-MP1030	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	12	12	23-Jun-23	07-Jul-23	-69	0						
P10-1F-MP1020	Erect Scaffolding for wall and ceiling finishes	2	2	20-Jun-23	21-Jun-23	-69	0						
P10-1F-MP1010	Setting Out	2	2	17-Jun-23	19-Jun-23	-69	0						
P10-1F-MP1060	Timber Flooring	12	12	22-Jul-23	04-Aug-23	-69	0						
P10-1F-MP1040	Wall Finishes (Wall plastering, Skim Coat and 1st Coat Painting)	12	12	08-Jul-23	21-Jul-23	-69	0						
BS Works		25	25	08-Jul-23	05-Aug-23	-63							
MVAC		3	3	08-Jul-23	11-Jul-23	-63							
P10-1F-MP1110	Setting out for all equipment / MOS inspection	3	3	08-Jul-23	11-Jul-23	-63	0						
EL		25	25	08-Jul-23	05-Aug-23	-63							
P10-1F-MP1150	Cable wiring	10	10	26-Jul-23	05-Aug-23	-63	0						
P10-1F-MP1140	Installation of cable containment	5	5	20-Jul-23	25-Jul-23	-63	0						
P10-1F-MP1130	Setting out for all equipment / MOS inspection	10	10	08-Jul-23	19-Jul-23	-63	0						
<b>Storage Room</b>		40	40	17-Jun-23	04-Aug-23	-87							
P10-1F-SR0900	Access Date of 1/FStorage Room Fitting Out	0	0	17-Jun-23		-87							
ABWF		40	40	17-Jun-23	04-Aug-23	-87							
P10-1F-SR1020	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	12	12	23-Jun-23	07-Jul-23	-87	0						
P10-1F-SR1010	Erect Scaffolding for wall and ceiling finishes	2	2	20-Jun-23	21-Jun-23	-87	0						
P10-1F-SR1000	Setting Out	2	2	17-Jun-23	19-Jun-23	-87	0						
P10-1F-SR1050	Timber Flooring	12	12	22-Jul-23	04-Aug-23	-87	0						
P10-1F-SR1030	Wall Finishes (Wall plastering, Skim Coat and 1st Coat Painting)	12	12	08-Jul-23	21-Jul-23	-87	0						
<b>Zone 2</b>		38	38	24-Jun-23	08-Aug-23	-59							
<b>Workshop</b>		38	38	24-Jun-23	08-Aug-23	-71							
P10-1F-WS1000	Access Date of 1/F Workshop & Printer Room Fitting Out	0	0	24-Jun-23		-80							
ABWF		30	30	24-Jun-23	29-Jul-23	-63							
P10-1F-WS1030	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	12	12	29-Jun-23	13-Jul-23	-80	0						
P10-1F-WS1020	Erect Scaffolding for wall and ceiling finishes	2	2	27-Jun-23	28-Jun-23	-80	0						
P10-1F-WS1050	Floor Screeding	2	2	28-Jul-23	29-Jul-23	-63	0						
P10-1F-WS1010	Setting Out	2	2	24-Jun-23	26-Jun-23	-80	0						
P10-1F-WS1040	Wall Finishes (Wall plastering, Skim Coat and 1st Coat Painting)	12	12	14-Jul-23	27-Jul-23	-80	0						
BS Works		10	10	28-Jul-23	08-Aug-23	-80							
MVAC		3	3	28-Jul-23	31-Jul-23	-80							
P10-1F-WS1110	Setting out for all equipment / MOS inspection	3	3	28-Jul-23	31-Jul-23	-80	0						
EL		10	10	28-Jul-23	08-Aug-23	-80							
P10-1F-WS1130	Setting out for all equipment / MOS inspection	10	10	28-Jul-23	08-Aug-23	-80	0						
<b>Pantry</b>		30	30	24-Jun-23	29-Jul-23	-51							
P10-PTRY-1000	Access Date of Pantry Fitting Out	0	0	24-Jun-23		-51							
P10-PTRY-1020	Block Wall Erection	7	7	27-Jun-23	05-Jul-23	-51							
P10-PTRY-1060	Ceiling finishes	6	6	24-Jul-23	29-Jul-23	-51							

	Primary Baseline		Critical Milestone
	Actual Work		Non-Critical Mil...
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### 3 Month Rolling Programme (May-23)

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30-Apr-23	Monthly Update Programme (May-2023)	EW	

ND/2019/02 - Kwu Tung North New Development Area Phase 1:  
Roads & Drains between Kwu Tong North New Development Area and Shek Wu Hui

Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Time Risk Allowance	2023				
								Apr	May	Jun	Jul	Aug
P10-PTRY-1030	MEP Conduit embedment	5	5	06-Jul-23	11-Jul-23	-51						
P10-PTRY-1050	Protected screed	3	3	20-Jul-23	22-Jul-23	-51						
P10-PTRY-1010	Site Survey and setting out	2	2	24-Jun-23	26-Jun-23	-51						
P10-PTRY-1040	Waterproofing & testing	7	7	12-Jul-23	19-Jul-23	-51						
<b>Female Toilets / Disabled Toilet / Male Toilet / Baby Care Room</b>		<b>25</b>	<b>25</b>	<b>24-Jun-23</b>	<b>24-Jul-23</b>	<b>-47</b>						
<b>ABWF</b>		<b>24</b>	<b>24</b>	<b>24-Jun-23</b>	<b>22-Jul-23</b>	<b>-65</b>						
P10-1T1000	Access Date of Toilet Fitting Out	0	0	24-Jun-23		-65						
P10-1T1020	Block Wall Erection	7	7	27-Jun-23	05-Jul-23	-65						
P10-1T1030	MEP Conduit embedment	5	5	06-Jul-23	11-Jul-23	-65						
P10-1T1050	Protected screed	3	3	20-Jul-23	22-Jul-23	-65						
P10-1T1010	Site Survey and setting out	2	2	24-Jun-23	26-Jun-23	-65						
P10-1T1040	Waterproofing & testing	7	7	12-Jul-23	19-Jul-23	-65						
<b>BS Works</b>		<b>16</b>	<b>16</b>	<b>06-Jul-23</b>	<b>24-Jul-23</b>	<b>-47</b>						
<b>MVAC</b>		<b>8</b>	<b>8</b>	<b>06-Jul-23</b>	<b>14-Jul-23</b>	<b>-52</b>						
P10-1T1180	MEP Conduit embedment	6	6	08-Jul-23	14-Jul-23	-52	0					
P10-1T1150	Setting out for all equipment / Conduit / Switches	2	2	06-Jul-23	07-Jul-23	-52						
<b>FS</b>		<b>10</b>	<b>10</b>	<b>06-Jul-23</b>	<b>17-Jul-23</b>	<b>-41</b>						
P10-1T1160	FS Piping, cable containment Installation	10	10	06-Jul-23	17-Jul-23	-41	0					
<b>EL</b>		<b>14</b>	<b>14</b>	<b>08-Jul-23</b>	<b>24-Jul-23</b>	<b>-52</b>						
P10-1T1205	Electrical conduit installation	12	12	11-Jul-23	24-Jul-23	-52	0					
P10-1T1200	Setting out for all equipment / MOS inspection	2	2	08-Jul-23	10-Jul-23	-52	0					
<b>Senior Forestry Officer Office</b>		<b>38</b>	<b>38</b>	<b>24-Jun-23</b>	<b>08-Aug-23</b>	<b>-71</b>						
P10-1F-SFO1180	Access Date of 1/F SFO Office Fitting Out	0	0	24-Jun-23		-80						
<b>ABWF</b>		<b>30</b>	<b>30</b>	<b>24-Jun-23</b>	<b>29-Jul-23</b>	<b>-63</b>						
P10-1F-SFO1020	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	12	12	29-Jun-23	13-Jul-23	-80	0					
P10-1F-SFO1010	Erect Scaffolding for wall and ceiling finishes	2	2	27-Jun-23	28-Jun-23	-80	0					
P10-1F-SFO1040	Floor Screeding	2	2	28-Jul-23	29-Jul-23	-63	0					
P10-1F-SFO1000	Setting Out	2	2	24-Jun-23	26-Jun-23	-80	0					
P10-1F-SFO1030	Wall Finishes (Wall plastering, Skim Coat and 1st Coat Painting)	12	12	14-Jul-23	27-Jul-23	-80	0					
<b>BS Works</b>		<b>10</b>	<b>10</b>	<b>28-Jul-23</b>	<b>08-Aug-23</b>	<b>-80</b>						
<b>MVAC</b>		<b>3</b>	<b>3</b>	<b>28-Jul-23</b>	<b>31-Jul-23</b>	<b>-80</b>						
P10-1F-SFO1100	Setting out for all equipment / MOS inspection	3	3	28-Jul-23	31-Jul-23	-80	0					
<b>EL</b>		<b>10</b>	<b>10</b>	<b>28-Jul-23</b>	<b>08-Aug-23</b>	<b>-80</b>						
P10-1F-SFO1120	Setting out for all equipment / MOS inspection	10	10	28-Jul-23	08-Aug-23	-80	0					
<b>Server Room</b>		<b>38</b>	<b>38</b>	<b>24-Jun-23</b>	<b>08-Aug-23</b>	<b>-71</b>						
P10-1F-SER1180	Access Date of 1/F Server Room Fitting Out	0	0	24-Jun-23		-80						
<b>ABWF</b>		<b>30</b>	<b>30</b>	<b>24-Jun-23</b>	<b>29-Jul-23</b>	<b>-63</b>						
P10-1F-SER1020	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	12	12	29-Jun-23	13-Jul-23	-80	0					
P10-1F-SER1010	Erect Scaffolding for wall and ceiling finishes	2	2	27-Jun-23	28-Jun-23	-80	0					
P10-1F-SER1040	Floor Screeding	2	2	28-Jul-23	29-Jul-23	-63	0					
P10-1F-SER1000	Setting Out	2	2	24-Jun-23	26-Jun-23	-80	0					
P10-1F-SER1030	Wall Finishes (Wall plastering, Skim Coat and 1st Coat Painting)	12	12	14-Jul-23	27-Jul-23	-80	0					
<b>BS Works</b>		<b>10</b>	<b>10</b>	<b>28-Jul-23</b>	<b>08-Aug-23</b>	<b>-80</b>						
<b>MVAC</b>		<b>3</b>	<b>3</b>	<b>28-Jul-23</b>	<b>31-Jul-23</b>	<b>-80</b>						

	Primary Baseline		Critical Milestone
	Actual Work		Non-Critical Mil...
	Remaining Work		
	Critical Remaining Work		
	Baseline Milestone		

Data Date: 30-Apr-23  
 Project Start: 03-Feb-20  
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## 3 Month Rolling Programme (May-23)

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ND/2019/02 - Kwu Tung North New Development Area Phase 1:  
Roads & Drains between Kwu Tong North New Development Area and Shek Wu Hui

Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Time Risk Allowance	2023					
								Apr	May	Jun	Jul	Aug	
P10-1F-SER1100	Setting out for all equipment / MOS inspection	3	3	28-Jul-23	31-Jul-23	-80	0						
<b>EL</b>		10	10	28-Jul-23	08-Aug-23	-80							
P10-1F-SER1120	Setting out for all equipment / MOS inspection	10	10	28-Jul-23	08-Aug-23	-80	0						
<b>BOH</b>		4	4	26-Jul-23	29-Jul-23	-54							
<b>Staircase</b>		4	4	26-Jul-23	29-Jul-23	-54							
<b>ST-06</b>		4	4	26-Jul-23	29-Jul-23	-54							
<b>ABWF</b>		4	4	26-Jul-23	29-Jul-23	-54							
P10-1F-ST6-1010	Erect Scaffolding for wall and ceiling finishes	2	2	28-Jul-23	29-Jul-23	-54	0						
P10-1F-ST6-1000	Setting Out	2	2	26-Jul-23	27-Jul-23	-54	0						
<b>Zone 4</b>		25	25	24-Jun-23	24-Jul-23	-86							
<b>External Area</b>		25	25	24-Jun-23	24-Jul-23	-86							
P10-1F-EXT1000	Access Date of 1/F External Area Fitting Out	0	0	24-Jun-23		-86							
<b>ABWF</b>		25	25	24-Jun-23	24-Jul-23	-86							
P10-1F-EXT1010	Erection of external scaffolding	25	25	24-Jun-23	24-Jul-23	-86	3						
<b>Roof Floor</b>		55	55	24-Jun-23	28-Aug-23	-63							
<b>ABWF</b>		43	43	24-Jun-23	14-Aug-23	-111							
P10-RF1000	Access Date of Roof Fitting Out	0	0	24-Jun-23		-111							
P10-RF1040	Applying Roof waterproofing Membrane	5	5	04-Jul-23	08-Jul-23	-111	0						
P10-RF1070	Laying Floor finishes	18	18	25-Jul-23	14-Aug-23	-111	0						
P10-RF1060	Laying Insulation board with protection floor screed	6	6	21-Jul-23	27-Jul-23	-111	0						
P10-RF1030	Remedial and touch up works before applying waterproofing	2	2	30-Jun-23	03-Jul-23	-111	0						
P10-RF1020	Roof RC Structure Water Testing before waterproofing	3	3	27-Jun-23	29-Jun-23	-111	0						
P10-RF1010	Setting Out	2	2	24-Jun-23	26-Jun-23	-111	0						
P10-RF1050	Water Testing & Infra red testing	10	10	10-Jul-23	20-Jul-23	-111	0						
<b>BS Works</b>		40	40	04-Jul-23	18-Aug-23	-85							
P10-RF1150	BS 1st Fixing (Elec, Water, Irrigation piping, AC Ducting and piping)	20	20	04-Jul-23	26-Jul-23	-85	0						
P10-RF1160	BS 2nd Fixing (Elec, Water, Irrigation System connection, ACVOU Units and connection)	25	25	21-Jul-23	18-Aug-23	-85	0						
<b>Landscape Works</b>		30	30	25-Jul-23	28-Aug-23	-63							
P10-RF1115	Roof Planters Drainages, irrigation pipe, Artificial Granite Tile Installation	30	30	25-Jul-23	28-Aug-23	-63	0						
<b>Lift Installation</b>		51	51	24-Jun-23	23-Aug-23	-118							
P10-LT0900	Builder's works before handover to Cladding contractor installation	3	3	24-Jun-23	27-Jun-23	-95	3						
P10-LT1000	Lift External wall Cladding Installation	25	25	26-Jul-23	23-Aug-23	-118	2						
<b>External Works</b>		172	172	31-Mar-23	18-Sep-23	-96							
<b>Retaining wall</b>		96	96	11-May-23	01-Sep-23	-66							
P10-4150	Backfill to +7.5mPD	30	30	29-Jul-23	01-Sep-23	-66	3						
P10-4145	Construction of Retaining Wall KW-14 (11 Bays @ 7.5m / Bay)	48	48	23-Jun-23	18-Aug-23	-66	3						
P10-4140	Construction of U trough Structure KW-09 (6 Bays @ 7.5m / Bay)	48	48	11-May-23	07-Jul-23	-48	3						
<b>Underground Utilities Connection</b>		172	172	31-Mar-23	18-Sep-23	-96							
P10-2312	ELS, Trench excavation for drainage pipe (65m long, -0.72mPD to -1.03mPD)	28	28	03-Apr-23*	05-May-23	25	2						
P10-2316	Installation of 11KV Cables along sub-station from HSH Pai Lau to Vistor Centre EVA (~500m @ 2wks/50m)	120	120	31-Mar-23*	21-Aug-23	-94	1						
P10-4160	Installation of FTNS Cables from HSH Pai Lau to Vistor Centre MDF Room (~500m @ 2wks/50m)	144	144	31-Mar-23*	18-Sep-23	-125	1						
P10-2311	Underground Drainage and sewerage installation near U trough Structure KW-09	20	20	27-Apr-23	20-May-23	-90	2						
P10-2311.1	Underground sewerage Installation and Temp. Sewerage Tank connection	12	12	23-Jun-23	07-Jul-23	-18	3						
<b>Signage Works</b>		48	48	05-Jul-23	29-Aug-23	-27							

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	Actual Work		Non-Critical Mil...
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**3 Month Rolling Programme (May-23)**

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Roads & Drains between Kwu Tong North New Development Area and Shek Wu Hui

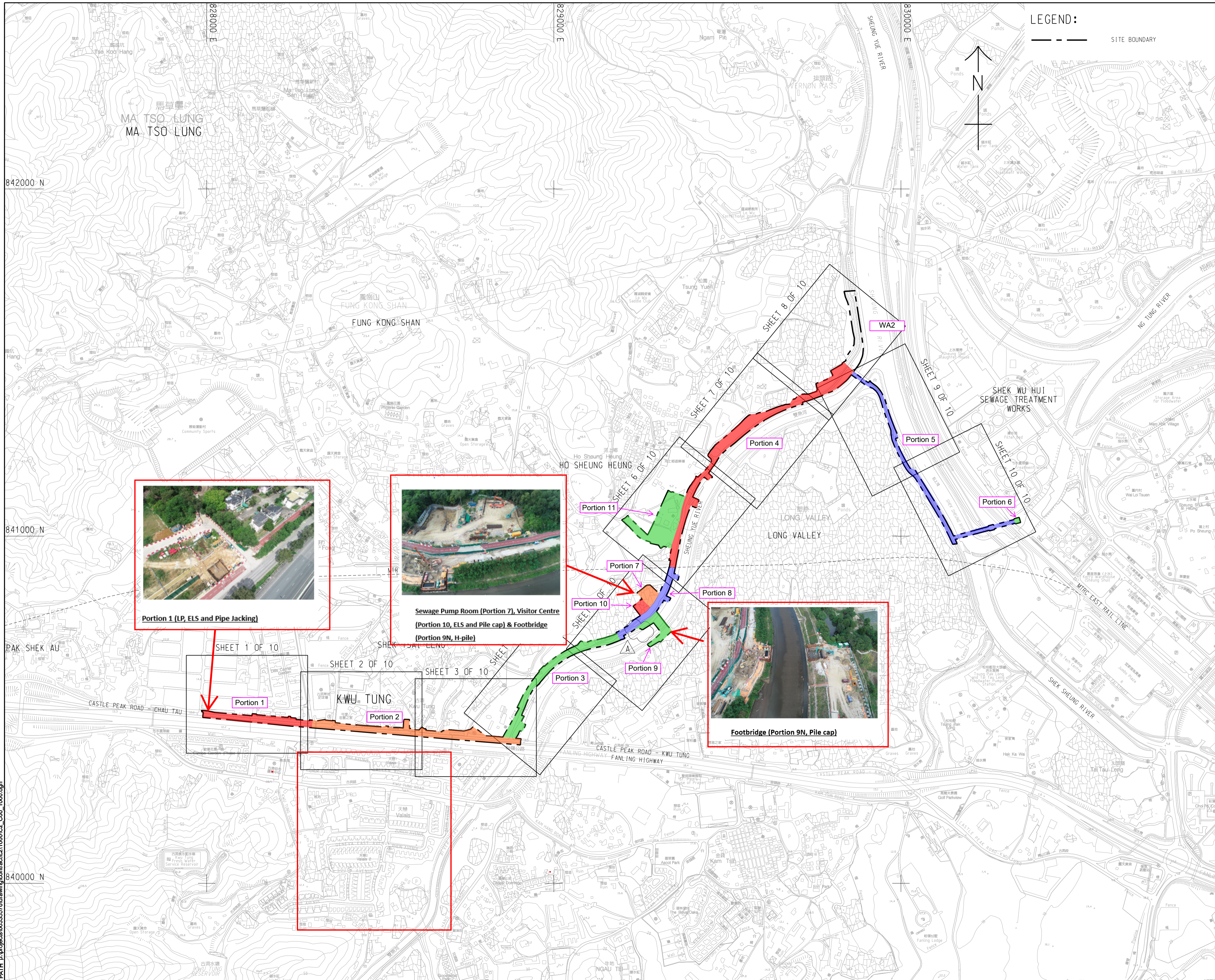
Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Time Risk Allowance	2023					
								Apr	May	Jun	Jul	Aug	
P10-SG-1000	Placing Statutory Signages and ready for FS Inspection	48	48	05-Jul-23*	29-Aug-23	-27	2						
<b>Works in Section 5</b>		138	111	27-Feb-23 A	10-Aug-23	80							
<b>Portion 11 - Village Resite Area</b>		138	111	27-Feb-23 A	10-Aug-23	80							
<b>Ground Investigation Works</b>		49	31	28-Feb-23 A	06-May-23	-36							
P11-1010	Engineering GI x 3 nos.	12	6	28-Feb-23 A	06-Apr-23	-36	2						
P11-1015	Environmental GI & Trial Pit: 4nos. & Submission of report	31	15	28-Feb-23 A	17-Apr-23	-20	2						
P11-1020	Submission and approval of GI report	24	24	08-Apr-23	06-May-23	-36	0						
<b>Site Formation</b>		30	30	08-May-23	10-Jun-23	-36							
P11-1030	Excavation and Cart Away High Arsenic Content Soil (Subjected to actual GI Result) (3000m3 @100m3/d)	30	30	08-May-23	10-Jun-23	-36	4						
<b>Drainage Works (Level: (IL +5mPD to +6.25mPD))</b>		50	50	12-Jun-23	10-Aug-23	-36							
P11-1048	Bedding & Pipe Laying (Twins 225 and 300mm)	12	12	15-Jul-23	28-Jul-23	-36	2						
P11-1090	Construction of Drainage Manhole M6.01	10	10	22-Jul-23	02-Aug-23	-36	2						
P11-1100	Construction of Drainage Manhole M6.02	12	12	28-Jul-23	10-Aug-23	-36	2						
P11-1044	Installation of 1st level strut S1	12	12	30-Jun-23	14-Jul-23	-36	2						
P11-1040	Sheet Pile installation (total length 140m with assume using type 4 sheet pile with 350pcs)	20	20	12-Jun-23	06-Jul-23	-36	2						
P11-1042	Soft Excavation to 1st strut level	10	10	24-Jun-23	06-Jul-23	-36	2						
P11-1046	Soft Excavation to F.L	10	10	08-Jul-23	19-Jul-23	-36	2						
<b>Outfall 6.04</b>		10	10	29-Jul-23	09-Aug-23	81							
P11-OF0900	Sheet Pile Installation at Outfall	10	10	29-Jul-23	09-Aug-23	81	0						
<b>Fresh Water Pipeworks (Level: (IL +6mPD to +7.0mPD))</b>		7	2	27-Feb-23 A	01-Apr-23	86							
P11-1033	Reply with Form WWO46 Part 3 from WSD for application of Water works (Fresh Water Works)	7	2	27-Feb-23 A	01-Apr-23	86	2						
<b>Salt Water Pipeworks</b>		7	2	27-Feb-23 A	01-Apr-23	111							
P11-1069	Reply with Form WWO46 Part 3 from WSD for application of Water works (Salt Water Works)	7	2	27-Feb-23 A	01-Apr-23	111	2						

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Portion 1 (LP, ELS and Pipe Jacking)



Sewage Pump Room (Portion 7), Visitor Centre (Portion 10, ELS and Pile cap) & Footbridge (Portion 9N, H-pile)



Footbridge (Portion 9N, Pile cap)

**ISSUE/REVISION**

REV	DATE	DESCRIPTION	CHK.
A	OCT-19	TENDER ADDENDUM NO. 2	CYH
-	SEP-19	TENDER DRAWING	CYH

**STATUS**  
 階段

**SCALE**  
 比例  
 A1 1 : 5000

**DIMENSION UNIT**  
 尺寸單位  
 METRES

**KEY PLAN**  
 索引圖

**PROJECT NO.**  
 項目編號  
 60335576

**CONTRACT NO.**  
 合約編號  
 ND/2019/02

**SHEET TITLE**  
 圖紙名稱  
 KEY PLAN

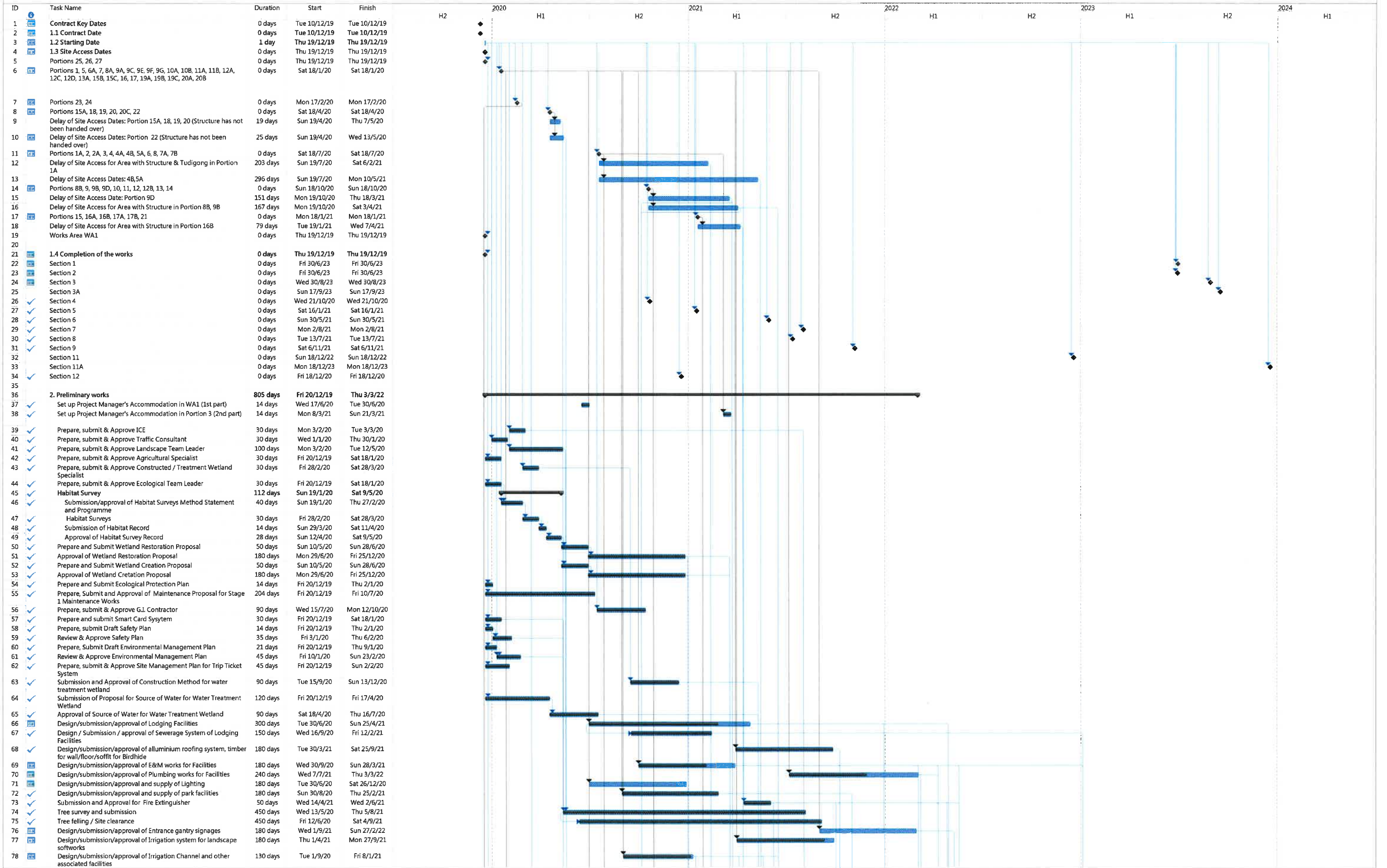
**SHEET NUMBER**  
 圖紙編號  
 60335576/C2/C00/1000A

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## **Construction Programme of ND/2019/03**

Kwu Tung North and Fanling North New Development Areas, Phase 1 : Development of Long Valley Nature Park

Project Programme of the Works

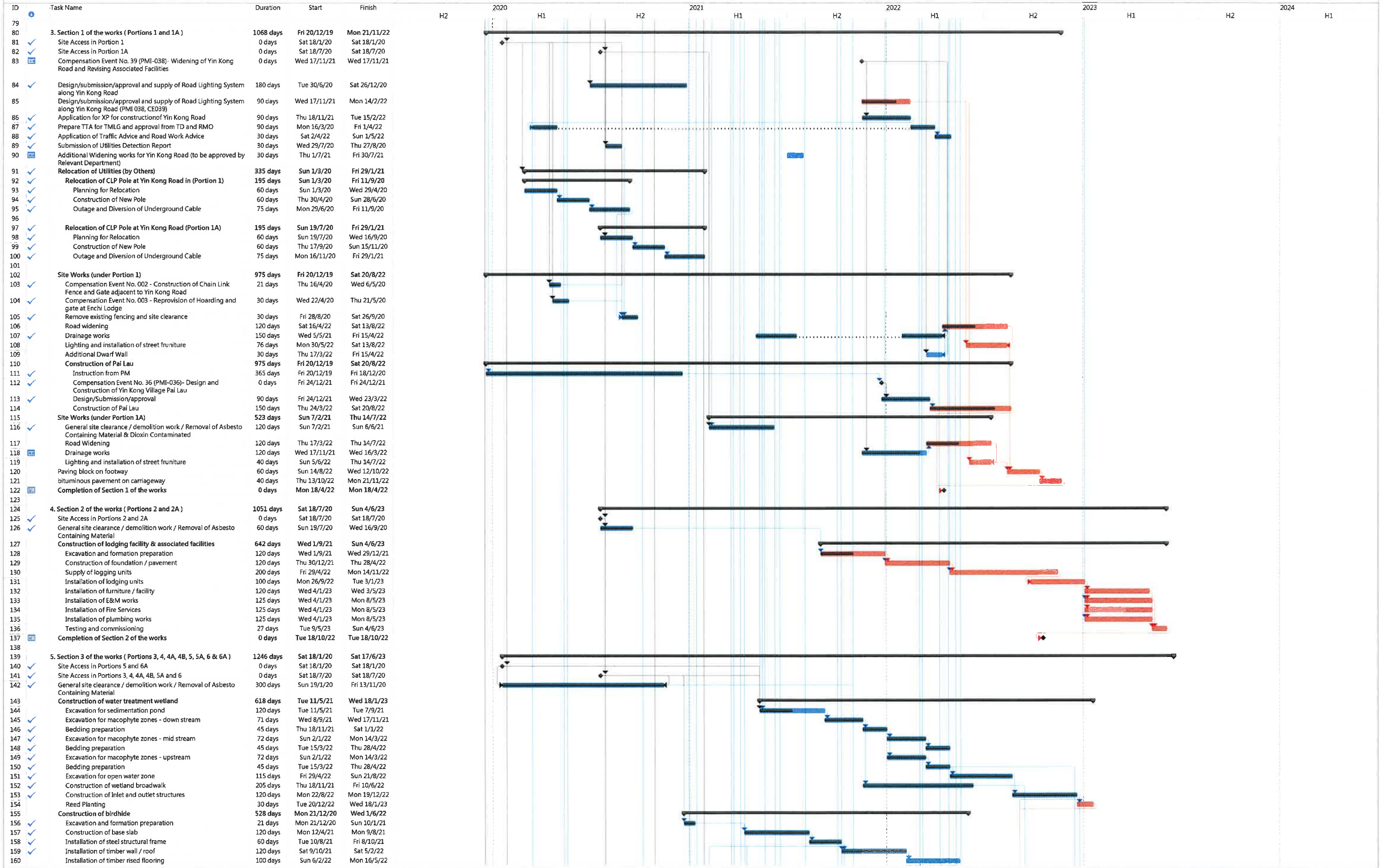


Revised Programme: Sep 2022  
Date Date: 2022-9-3

Task	Summary	Rolled Up Milestone	External Tasks	Inactive Milestone	Duration-only	Start-only	External Milestone
Critical Task	Rolled Up Task	Rolled Up Progress	Project Summary	Inactive Summary	Manual Summary Rollup	Finish-only	Progress
Milestone	Rolled Up Critical Task	Split	Group By Summary	Manual Task	Manual Summary	External Tasks	Deadline

Kwu Tung North and Fanling North New Development Areas, Phase 1 : Development of Long Valley Nature Park

Project Programme of the Works

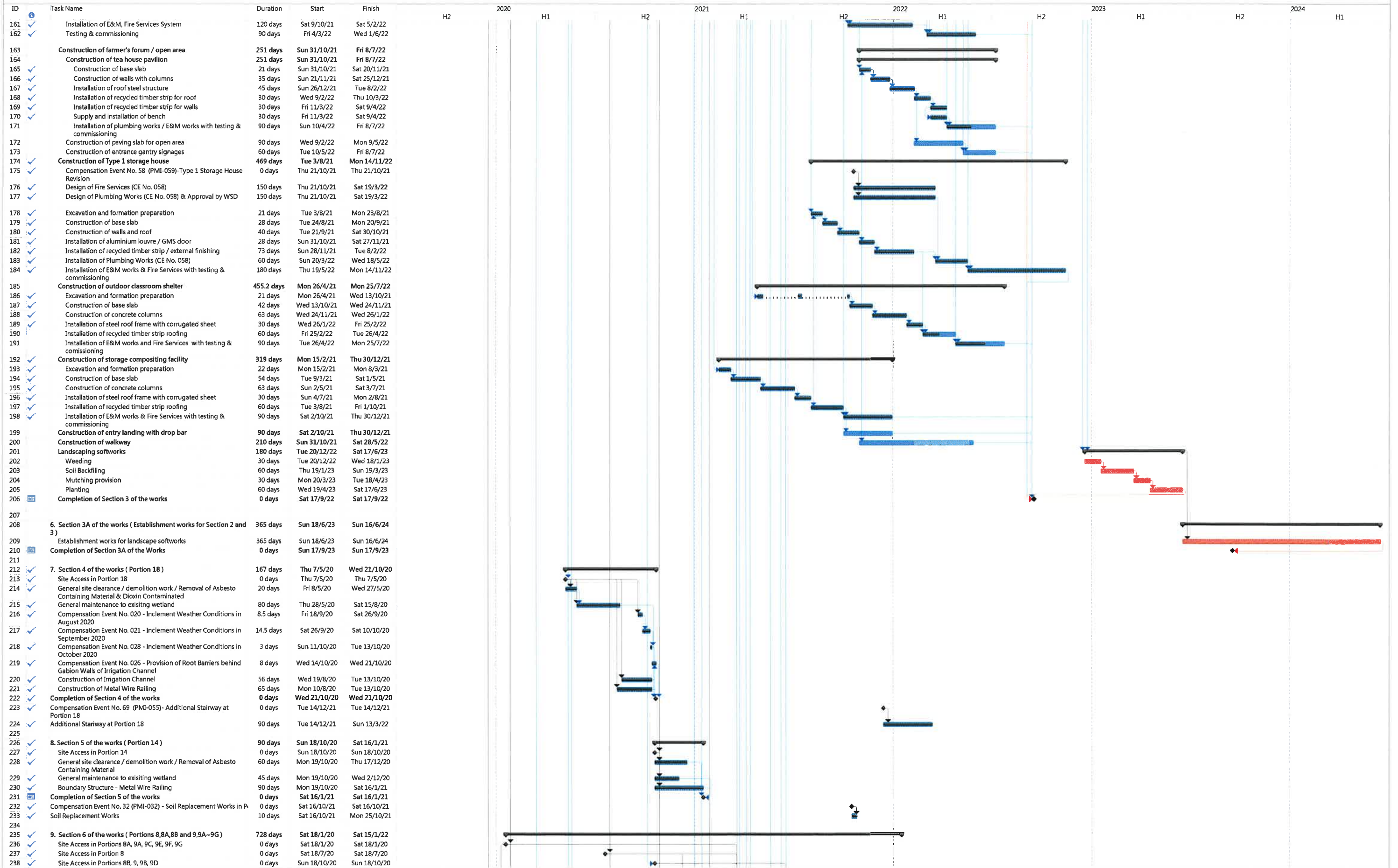


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Kwu Tung North and Fanling North New Development Areas, Phase 1 : Development of Long Valley Nature Park

Project Programme of the Works

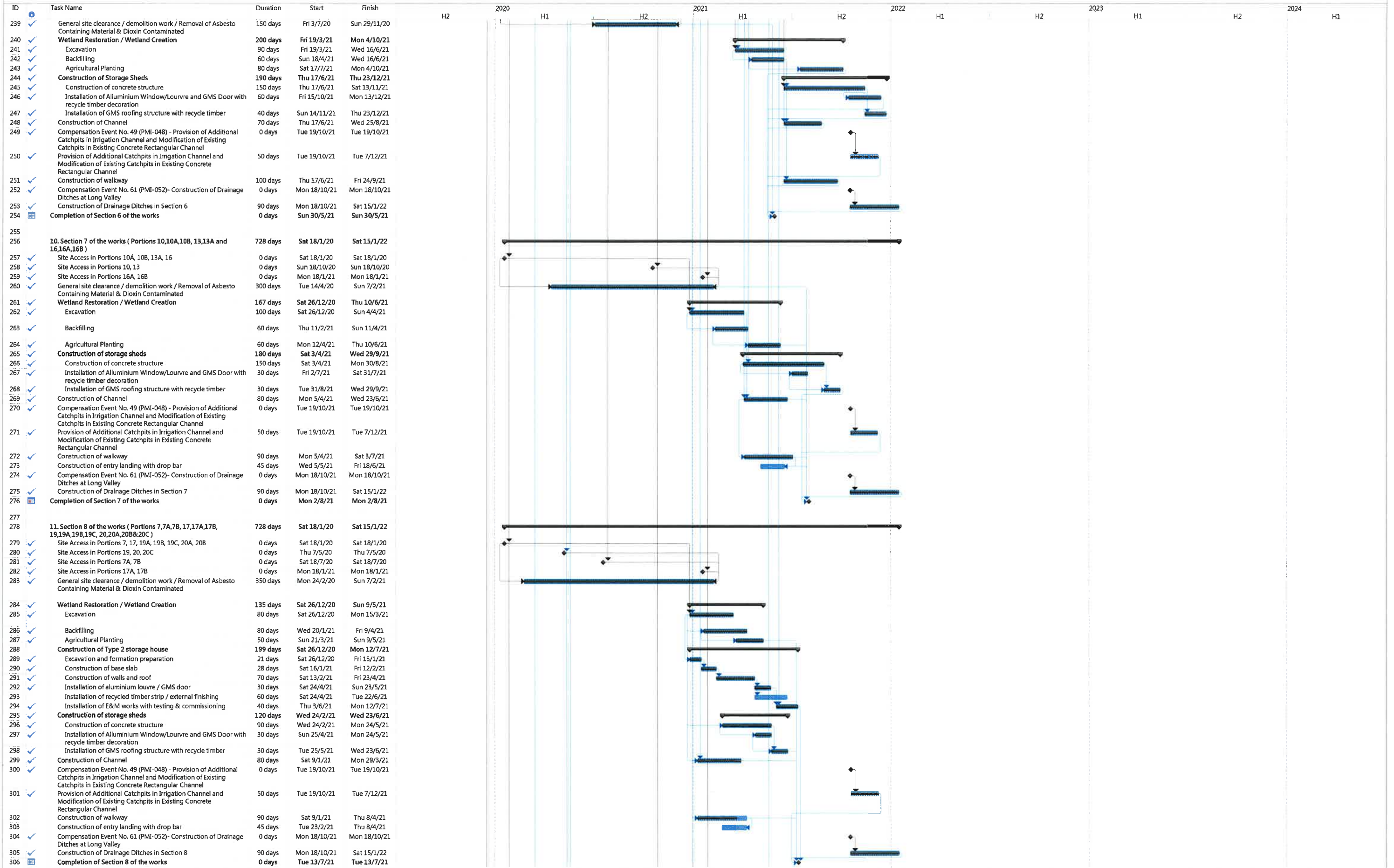


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Kwu Tung North and Fanling North New Development Areas, Phase 1 : Development of Long Valley Nature Park

Project Programme of the Works

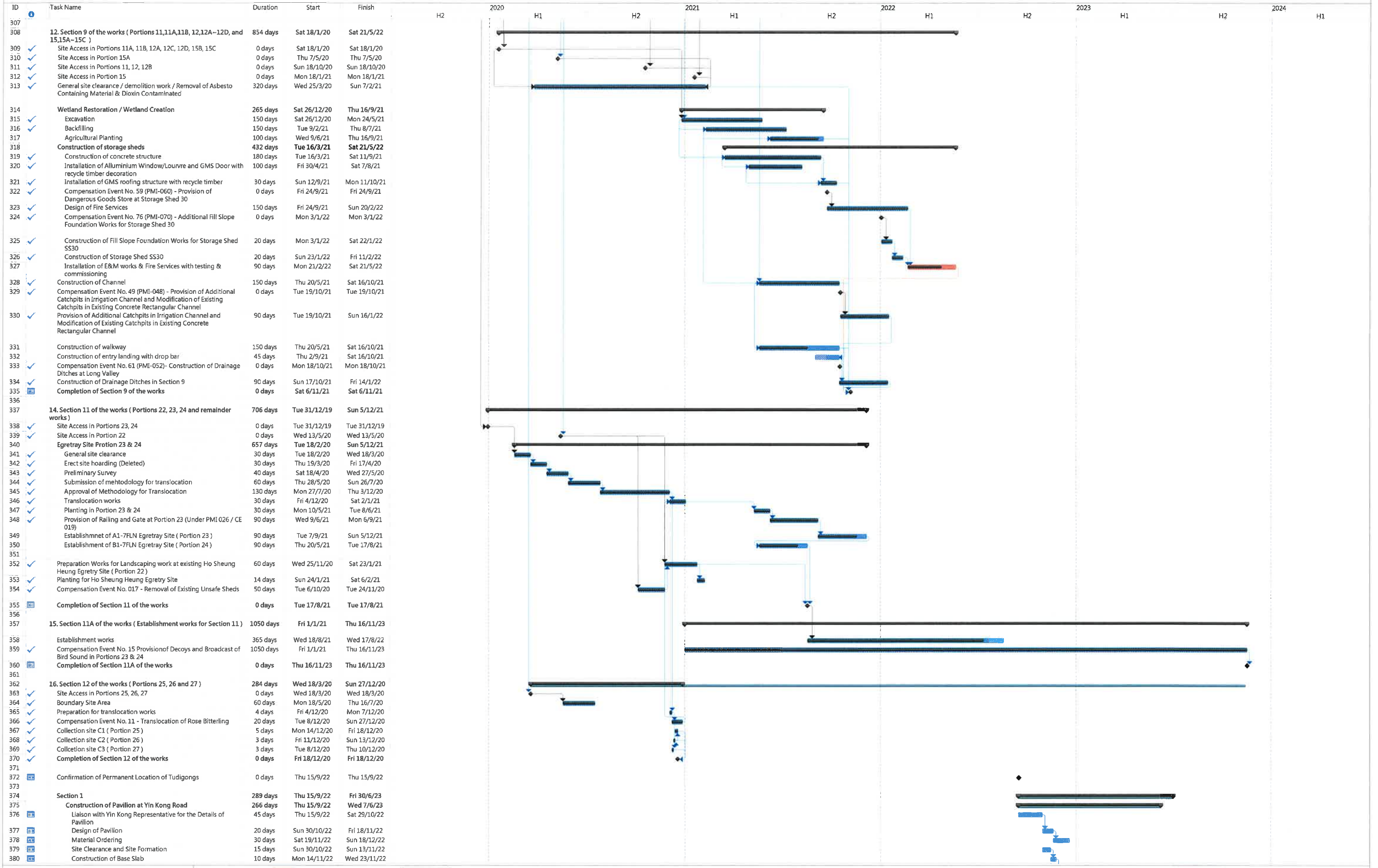


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Project Programme of the Works

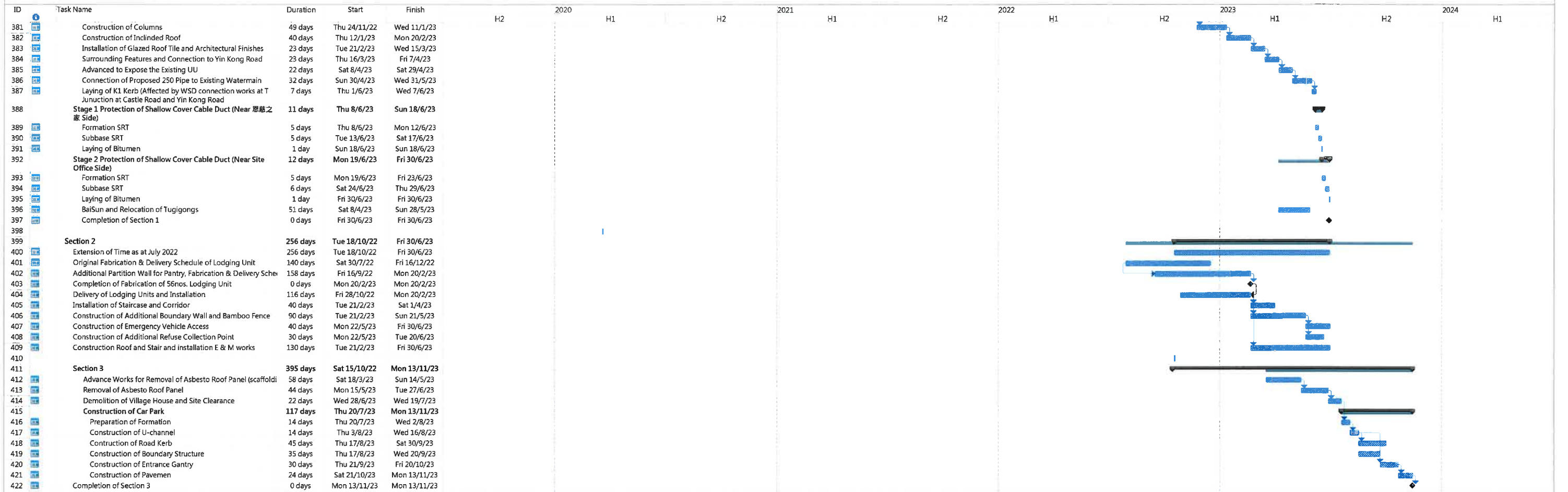


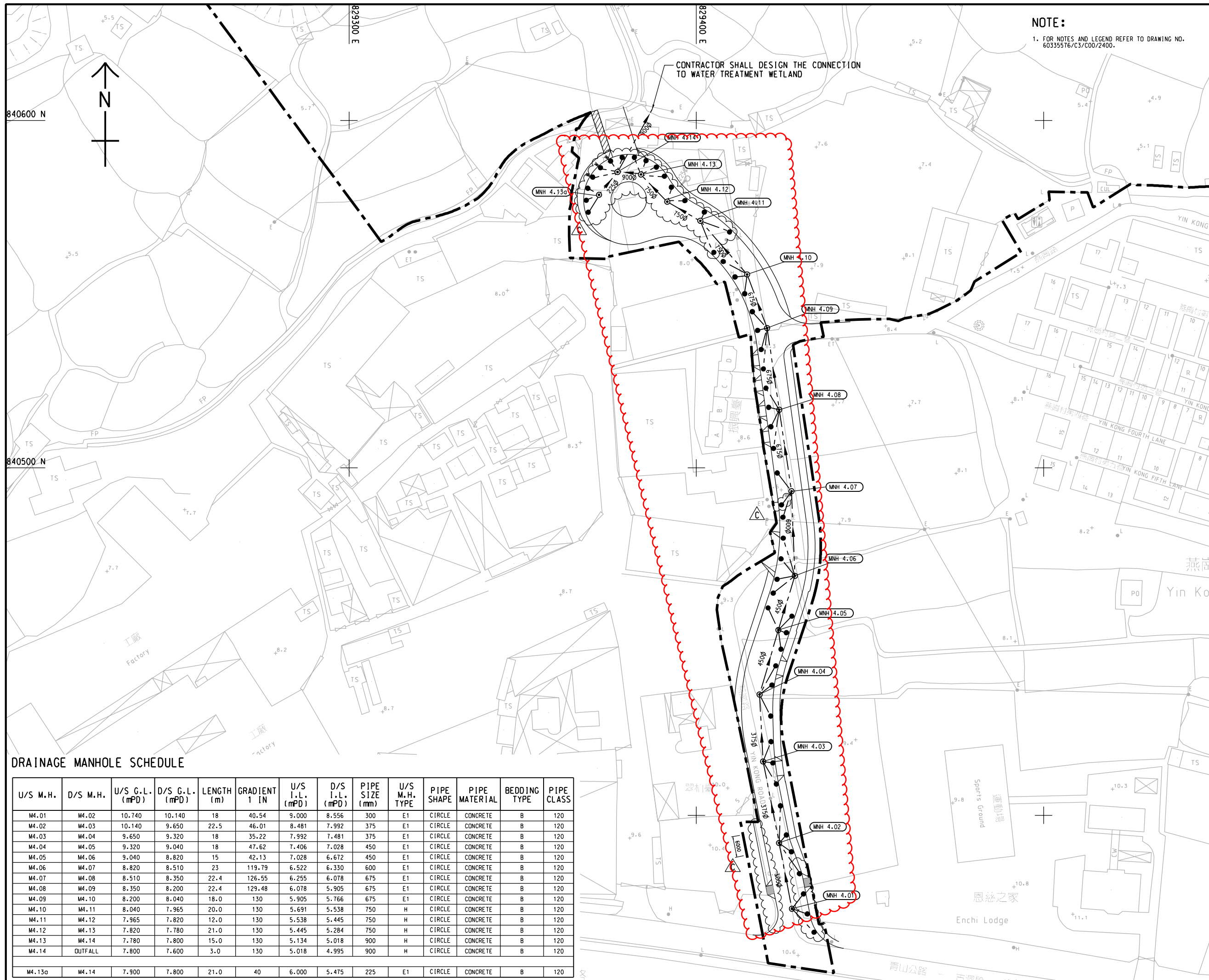
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Kwu Tung North and Fanling North New Development Areas, Phase 1 : Development of Long Valley Nature Park

Project Programme of the Works





DRAINAGE MANHOLE SCHEDULE

U/S M.H.	D/S M.H.	U/S G.L. (mPD)	D/S G.L. (mPD)	LENGTH (m)	GRADIENT 1 IN	U/S I.L. (mPD)	D/S I.L. (mPD)	PIPE SIZE (mm)	U/S M.H. TYPE	PIPE SHAPE	PIPE MATERIAL	BEDDING TYPE	PIPE CLASS
M4.01	M4.02	10.740	10.140	18	40.54	9.000	8.556	300	E1	CIRCLE	CONCRETE	B	120
M4.02	M4.03	10.140	9.650	22.5	46.01	8.481	7.992	375	E1	CIRCLE	CONCRETE	B	120
M4.03	M4.04	9.650	9.320	18	35.22	7.992	7.481	375	E1	CIRCLE	CONCRETE	B	120
M4.04	M4.05	9.320	9.040	18	47.62	7.406	7.028	450	E1	CIRCLE	CONCRETE	B	120
M4.05	M4.06	9.040	8.820	15	42.13	7.028	6.672	450	E1	CIRCLE	CONCRETE	B	120
M4.06	M4.07	8.820	8.510	23	119.79	6.522	6.330	600	E1	CIRCLE	CONCRETE	B	120
M4.07	M4.08	8.510	8.350	22.4	126.55	6.255	6.078	675	E1	CIRCLE	CONCRETE	B	120
M4.08	M4.09	8.350	8.200	22.4	129.48	6.078	5.905	675	E1	CIRCLE	CONCRETE	B	120
M4.09	M4.10	8.200	8.040	18.0	130	5.905	5.766	675	E1	CIRCLE	CONCRETE	B	120
M4.10	M4.11	8.040	7.965	20.0	130	5.691	5.538	750	H	CIRCLE	CONCRETE	B	120
M4.11	M4.12	7.965	7.820	12.0	130	5.538	5.445	750	H	CIRCLE	CONCRETE	B	120
M4.12	M4.13	7.820	7.780	21.0	130	5.445	5.284	750	H	CIRCLE	CONCRETE	B	120
M4.13	M4.14	7.780	7.800	15.0	130	5.134	5.018	900	H	CIRCLE	CONCRETE	B	120
M4.14	OUTFALL	7.800	7.600	3.0	130	5.018	4.995	900	H	CIRCLE	CONCRETE	B	120
M4.13a	M4.14	7.900	7.800	21.0	40	6.000	5.475	225	E1	CIRCLE	CONCRETE	B	120

**NOTE:**  
1. FOR NOTES AND LEGEND REFER TO DRAWING NO. 60335576/C3/C00/2400.

CONTRACTOR SHALL DESIGN THE CONNECTION TO WATER TREATMENT WETLAND

REV.	DATE	DESCRIPTION	DRAWN	PREP.	APP.
C	21/05/21	LAYOUT AMENDED	HLH	DT	WT
B	7/12/20	ROAD ALIGNMENT AMENDED	KLC	DT	WT
A	15/07/20	RUN IN ADDED AND MANHOLE RE-ARRANGED	KLC	DF	PY

CLIENT: **CEDD** 土木工程拓展署  
Civil Engineering and Development Department

CONSULTANT: **AECOM**

PROJECT: DEVELOPMENT OF KWU TUNG NORTH AND FANLING NORTH NEW DEVELOPMENT AREAS, PHASE 1

CONTRACT TITLE: KWU TUNG NORTH AND FANLING NORTH NEW DEVELOPMENT AREAS, PHASE 1: DEVELOPMENT OF LONG VALLEY NATURE PARK

REMARK: 1. SUPERSEDE DRG NO. 60335576/C3/C00/2410

TITLE: YIN KONG ROAD - ROAD DRAINAGE LAYOUT

PROJECT NO.	CONTRACT NO.	
60335576	ND/2019/03	
SCALE	DATE	
1:500 (A1)	4-JUN-20	
DRAWN	PREPARED	APPROVED
KLC	DF	PY
SKETCH NO.	REV.	
ND/2019/03/R10/130/0052	C	

## **Construction Programme of ND/2019/04**



Activity ID	Activity Name	Orig. Dur.	Rem. Dur.	Start	Finish	BL Start (RP05)	BL Finish (RP05)	Total Float	Activity Type	Activity % Complete	2023											
											Mar	Apr	May	Jun	Jul	Aug	Sep	Oct				
<b>2023-03 Monthly Update (based on accepted Revised Programme RP05-1 with E0T)</b>																						
<b>Project Contractual Dates</b>																						
Access Date of Each Portion																						
CD-1020	Access date of Portion O (Upon PM Instruction for need of TTA)	0	0	08-Apr-23		08-Dec-22		834	Start Milestone	0%												
CD-1160	Contract Access date of Portion Y (900 days)	0	0	08-Apr-23*		31-Jan-23		-67	Start Milestone	0%												
<b>Preliminary Works</b>																						
Subletting of Major Subcontract Package																						
SU-1090	Subletting for Noise Barrier Works	124	3	09-Aug-22 A	13-Apr-23	09-Aug-22	10-Feb-23	263	Task Dependent	97.58%												
Submission																						
Preparation for relevant works																						
SUB-1090	Prepare, submit & accept work submission for design for RC and MiC works	80	6	08-Mar-21 A	17-Apr-23	08-Mar-21	21-Dec-22	-32	Task Dependent	92.5%												
SUB-1430a	Electrical System for Sewerage Pumping Station	90	1	08-Jun-22 A	11-Apr-23	08-Jun-22	09-Jan-23	26	Task Dependent	98.89%												
SUB-1440	Building Services System	90	2	08-Jun-22 A	12-Apr-23	08-Jun-22	28-Dec-22	279	Task Dependent	97.78%												
SUB-1430b	Electrical System for Public toilet	90	2	08-Jun-22 A	12-Apr-23	08-Jun-22	28-Dec-22	44	Task Dependent	97.78%												
SUB-1410	Electrical and Mechanical Works for Lift Installation	80	6	08-Jun-22 A	17-Apr-23	08-Jun-22	23-Dec-22	359	Task Dependent	92.5%												
SUB-1450	Bio-treatment Plant for Public Toilet	90	6	08-Aug-22 A	17-Apr-23	08-Aug-22	23-Dec-22	40	Task Dependent	93.33%												
SUB-1470	Traffic Control and Surveillance System (TCSS)	90	6	08-Aug-22 A	17-Apr-23	08-Aug-22	23-Dec-22	446	Task Dependent	93.33%												
SUB-1480	Traffic Detector System	90	6	08-Aug-22 A	17-Apr-23	08-Aug-22	23-Dec-22	446	Task Dependent	93.33%												
SUB-1510	Crash cushion system.	90	6	08-Aug-22 A	17-Apr-23	08-Aug-22	23-Dec-22	397	Task Dependent	93.33%												
SUB-1520	Access facilities	90	6	08-Aug-22 A	17-Apr-23	08-Aug-22	23-Dec-22	86	Task Dependent	93.33%												
SUB-1460a	Pump systems and associated E&M Plants (for Sewerage Pumping station)	317	144	08-Aug-22 A	29-Sep-23	08-Aug-22	31-Aug-23	-20	Task Dependent	54.57%												
SUB-1420	Road lighting system	80	2	17-Sep-22 A	12-Apr-23	17-Sep-22	12-Dec-22	522	Task Dependent	97.5%												
SUB-1110	Prepare, submit & accept work submission for Noise Barrier Works	56	56	14-Apr-23	20-Jun-23	11-Feb-23	20-May-23	443	Task Dependent	0%												
SUB-1120	Prepare, submit & accept work submission for erect NB steel post and panel	56	56	14-Apr-23	20-Jun-23	11-Feb-23	20-May-23	443	Task Dependent	0%												
<b>Construction Works</b>																						
CW-0000	Tree survey in different portion (S8)	743	328	10-Oct-20 A	18-May-24	10-Oct-20	17-Feb-24	347	Task Dependent	55.85%												
CW-1000	Tree felling and protection at different portions (S8)	960	29	03-Dec-20 A	15-May-23	03-Dec-20	05-Dec-24	646	Task Dependent	97%												
<b>Civil Works around Interchange</b>																						
Stage 1																						
Construction Underpass (Portion H/C7)																						
INTS1-1300	Structure Works for Bay C2 & C4 (13m/bay, 60days/bay, 2 nos. workfronts)	60	12	09-Sep-22 A	24-Apr-23	09-Sep-22	26-Jan-23	277	Task Dependent	80%												
INTS1-1300-1	Structure Works for Bay C1 & C3 (13m/bay, 60days/bay, 2 nos. workfronts)	60	24	15-Oct-22 A	23-May-23	15-Oct-22	07-Mar-23	277	Task Dependent	60%												
INTS1-1300-2	Backfilling to Structure Works for Bay C1 to C4	30	30	24-May-23	29-Jun-23	08-Mar-23	15-Apr-23	277	Task Dependent	0%												
UU Works (Portion H, J, K, L, M)																						
North of Sha Tau Kok Road																						
Rising main Works																						
INTS1-1121	Rising Mains on Ma Sik Rd (Part 2)	70	59	11-Feb-23 A	20-Jun-23	23-Feb-23	20-May-23	237	Task Dependent	15.71%												
INTS1-1121	Rising Mains on Ma Sik Rd (Part 3)	70	70	21-Jun-23	12-Sep-23	22-May-23	14-Aug-23	237	Task Dependent	0%												
Sewerage Works																						
INTS1-1141	Remaining sewerage at Ma Sik rd (Part 2)	48	48	11-Apr-23	07-Jun-23	30-Mar-23	31-May-23	318	Task Dependent	0%												
Stormwater Works																						
INTS1-1131	1350 stormwater pipe near junction of STK Rd/Ma Sik rd	35	35	18-Apr-23	30-May-23	20-Feb-23	31-Mar-23	-45	Task Dependent	0%												
INTS1-1131	Testing of remaining 1350 stormwater pipe at Ma Sik rd	15	15	31-May-23	16-Jun-23	01-Apr-23	22-Apr-23	-45	Task Dependent	0%												
INTS1-1130c	Connection of remaining 1350 stormwater pipe at Ma Sik rd to downstream pipeworks (constructed by other contract)	15	15	17-Jun-23	06-Jul-23	24-Apr-23	11-May-23	-45	Task Dependent	0%												
Water Main Works																						
INTS1-1220	Water Pipes on Ma Sik Rd/On Kiu St/STK Rd (Part 1)	50	50	11-Apr-23	09-Jun-23	08-Dec-22	10-Feb-23	222	Task Dependent	0%												
INTS1-1210	Watermains DN600 near STK Rd N/B (For C9-C10)	80	80	11-Apr-23	17-Jul-23	14-Jan-23	25-Apr-23	-54	Task Dependent	0%												
INTS1-1221	Water Pipes on Ma Sik Rd/On Kiu St/STK Rd (Part 2)	50	50	10-Jun-23	09-Aug-23	11-Feb-23	14-Apr-23	222	Task Dependent	0%												
South of Sha Tau Kok Road																						
Sewerage Works																						

■ Remaining Work  
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▬ Project Baseline  
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**Three Months Rolling Programme (08 April 2023 to 31 July 2023)**

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**Data Date:** 08-Apr-23  
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 TASK filter: 3 Months  
 Lookahead.

Baseline Programme RP05			
Date	Revision	Ch...	Approved
08-Apr-23	Data Date		



Activity ID	Activity Name	Orig. Dur.	Rem. Dur.	Start	Finish	BL Start (RP05)	BL Finish (RP05)	Total Float	Activity Type	Activity % Complete	2023											
											Mar	Apr	May	Jun	Jul	Aug	Sep	Oct				
INTS1-1300a	Sewerage works including ELSW (On Chuen St), from FMH_FL5.09 to FMH1004470 (Part 1)	60	11	08-Dec-22 A	22-Apr-23	08-Dec-22	22-Feb-23	-46	Task Dependent	82%												
INTS1-1300b	Sewerage works including ELSW (near Portion M), from FMH_FL5.06 to FMH_FL5.08	80	48	08-Dec-22 A	07-Jun-23	08-Dec-22	10-Feb-23	-94	Task Dependent	40%												
INTS1-1300c	Sewerage works including ELSW (Portion K), from FMH_FL5.05 to FMH_FL5.06	93	56	08-Dec-22 A	16-Jun-23	08-Dec-22	01-Apr-23	-19	Task Dependent	40%												
INTS1-1300d	Sewerage works including ELSW (STK Road), from FMH_FL5.00 to FMH_FL5.02 (Part 1)	50	10	14-Jan-23 A	29-Jun-23	03-Apr-23	06-Jun-23	-19	Task Dependent	80%												
INTS1-1300e	Sewerage works including ELSW (On Chuen St), from FMH_FL5.09 to FMH1004470 (Part 2)	60	59	28-Mar-23 A	05-Jul-23	23-Feb-23	09-May-23	-46	Task Dependent	1.67%												
INTS1-1300f	Sewerage works including ELSW (On Kiu St), from FMH_FL5.08 to FMH_FL5.09 (Part 1)	61	61	08-Jun-23	19-Aug-23	11-Feb-23	27-Apr-23	-94	Task Dependent	0%												
INTS1-1300g	Sewerage works including ELSW (STK Road), from FMH_FL5.00 to FMH_FL5.02 (Part 2)	50	50	29-Jun-23	28-Aug-23	07-Jun-23	05-Aug-23	-19	Task Dependent	0%												
INTS1-1300h	Sewerage works including ELSW (On Chuen St), from FMH_FL5.09 to FMH1004470 (Part 3)	73	73	05-Jul-23	28-Sep-23	10-May-23	05-Aug-23	-46	Task Dependent	0%												
<b>Stormwater Works and Retaining Wall</b>																						
INTS1-1310	Minor TTA for Retaining Wall FW32 and FW33	55	55	29-Jul-23	03-Oct-23	22-Jul-23	23-Sep-23	-2	Task Dependent	0%												
<b>Site Formation at Portion C, F, G, H and J (KD1)</b>																						
INTS1-1050	Site clearance work and setup TTA (early start by direct labour)(to be confirmed with PMI)	12	12	08-Dec-22 A	24-Apr-23	08-Dec-22	21-Dec-22	-23	Task Dependent	0%												
<b>F6 after TTA2 Implemented(Southbound Temporary Road)</b>																						
INTS1-9110	Piling Works for Lift tower and Footbridge F6 (Part C) (total 5nos. H piles, 4d/pile)	20	20	18-Apr-23	11-May-23	20-Feb-23	14-Mar-23	129	Task Dependent	0%												
INTS1-9010a	Piling Works for Lift tower and Footbridge F6 (Part D) (total 18nos. socket H piles, 4d/pile)	72	72	18-Apr-23	14-Jul-23	20-Feb-23	19-May-23	-23	Task Dependent	0%												
INTS1-9020	ELS for F6 Part D	90	90	15-Jul-23	31-Oct-23	20-May-23	05-Sep-23	-23	Task Dependent	0%												
<b>CLC</b>																						
CLC-1010	Approval	28	5	09-Dec-22 A	15-Apr-23	09-Dec-22	13-Jan-23	530	Task Dependent	82.14%												
CLC-1020	Material ordering (Steel)	16	16	17-Apr-23	05-May-23	14-Jan-23	04-Feb-23	530	Task Dependent	0%												
CLC-1030	Steel fabrication	40	40	06-May-23	23-Jun-23	06-Feb-23	23-Mar-23	566	Task Dependent	0%												
CLC-1020a	Material ordering (Other)	40	40	06-May-23	23-Jun-23	06-Feb-23	23-Mar-23	530	Task Dependent	0%												
CLC-1040	Builder works/Renovation works before installation of prefabricated panel	36	36	24-Jun-23	05-Aug-23	24-Mar-23	10-May-23	530	Task Dependent	0%												
CLC-1050	Installation of prefabricated panel, including E&M	42	42	07-Aug-23	23-Sep-23	11-May-23	30-Jun-23	530	Task Dependent	0%												
<b>Stage 2</b>																						
<b>TTA no.2</b>																						
<b>Full closure of On Kui Street for Subsequent Works</b>																						
INTS2-3070	Temp road btw On Lok Mun St and Wholesale market, if necessary	90	18	08-Dec-22 A	02-May-23	08-Dec-22	29-Mar-23	109	Task Dependent	80%												
INTS2-3040b	Necessary diversion works near the new entrance of wholesale market (for full closure of On Kui St)-Part 2	90	90	11-Apr-23	28-Jul-23	30-Mar-23	21-Jul-23	-2	Task Dependent	0%												
<b>Construction of Underpass (Portion H, J, K)</b>																						
INTS2-1010a	Sheet piling for Bay C14 to C15 (start after access of Portion K granted)	30	2	21-May-22 A	06-Jan-24	21-May-22	11-Oct-23	-19	Task Dependent	93.33%												
INTS2-1140	Trial Pit for Existing UU @ Northbound Lane of Sha Tau Kok Road	7	7	21-Mar-23 A	18-Apr-23	18-Jan-23	28-Jan-23	19	Task Dependent	5%												
INTS2-1090b	Sheet piling Bay C9 and C10 (after TTA2 Southbound)	34	34	18-Jul-23	25-Aug-23	12-May-23	21-Jun-23	-54	Task Dependent	0%												
<b>UU works (Portion J)</b>																						
INTS2-1040	UU Works - Northbound of Sha Tau Kok Road (after TTA2)-Part 1	60	60	11-Apr-23	21-Jun-23	18-Jan-23	31-Mar-23	26	Task Dependent	0%												
INTS2-1040a	UU Works - Northbound of Sha Tau Kok Road (after TTA2)-Part 2	60	60	23-Jun-23	01-Sep-23	01-Apr-23	16-Jun-23	26	Task Dependent	0%												
<b>Lift Tower and Footbridge F6 (Portion J)</b>																						
<b>Part A (Cable D)</b>																						
INTS2-3000b	F6 Column works C01, C02 & S01 (3 pile cap), 1WF	48	46	14-Feb-23 A	07-Jul-23	07-Jul-23	31-Aug-23	153	Task Dependent	4.17%												
INTS2-3000c	F6 Column works C01, C02 & S01 (2 pier), 1WF	60	60	08-Jul-23	15-Sep-23	01-Sep-23	13-Nov-23	153	Task Dependent	0%												
<b>Part B (Some part After Cable D)</b>																						
INTS2-1060	Piling for Footbridge F6 (Part B2) and lift (constrained by CLP 11kV cables), 32 nos., 2WF	64	29	05-Sep-22 A	21-Aug-23	05-Sep-22	28-Jun-23	-63	Task Dependent	54.69%												

■ Remaining Work  
◆ Milestone  
◆ Baseline Milestone  
▬ Project Baseline  
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Project ID: RP-RP05-1-MU03-2023

**Three Months Rolling Programme (08 April 2023 to 31 July 2023)**

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**Data Date:** 08-Apr-23  
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Baseline Programme RP05			
Date	Revision	Ch...	Approved
08-Apr-23	Data Date		



Activity ID	Activity Name	Orig. Dur.	Rem. Dur.	Start	Finish	BL Start (RP05)	BL Finish (RP05)	Total Float	Activity Type	Activity % Complete	2023											
											Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb
Part D																						
INTS2-1080	Construction of Footbridge F6 columns P06 after TTA no.2 (6nos piles)(Part D)	24	24	18-Apr-23	16-May-23	20-Feb-23	18-Mar-23	159	Task Dependent	0%												
INTS2-1080a	Construction of Footbridge F6 columns P06 after TTA no.2 (ELS, 1 cap, 1 column)(Part D)	66	66	17-May-23	04-Aug-23	20-Mar-23	10-Jun-23	159	Task Dependent	0%												
Stage 3																						
TTA no.3																						
INTS3-0010	Design, submit, processing & approval for TTA no.3	180	180	18-Apr-23	21-Nov-23	20-Feb-23	26-Sep-23	84	Task Dependent	0%												
Construction of Depressed road (Portion H & F)																						
Site Formation Works near Retaining Wall FW34																						
UTR-SF1010	Slope upgrading works near Retaining Wall FW34	26	11	01-Mar-22 A	22-Apr-23	01-Mar-22	22-Dec-22	78	Task Dependent	57.69%												
UTR-SF1040b	FW34 construction (Wall)	49	4	26-Jan-23 A	27-Apr-23	26-Jan-23	23-Mar-23	366	Task Dependent	91.84%												
Depressed Road A																						
Original Contract Design																						
UTR-1030	Sheet Piling	40	1	29-Nov-22 A	11-Apr-23	29-Nov-22	06-Jan-23	-62	Task Dependent	97.5%												
UTR-1020	U trough A (total: 93 nos. socket-H piles, 4 day/pile, 2 workfronts)	216	214	07-Jan-23 A	27-Dec-23	07-Jan-23	28-Sep-23	-62	Task Dependent	0.93%												
UTR-1030a	Excavation and ELS Installation	50	25	03-Mar-23 A	26-Jan-24	29-Sep-23	29-Nov-23	-62	Task Dependent	50%												
Depressed Road B																						
B1-B3																						
UTR-1000a	Sheet pile installation for U-trough B (B1-B3)	60	2	13-Jun-22 A	18-Aug-23	13-Jun-22	24-Apr-23	55	Task Dependent	96.67%												
UTR-1000	U trough B (27 nos. socket-H piles, 4 day/pile, 1 workfronts) for B1 to B3	108	108	11-Apr-23	18-Aug-23	08-Dec-22	24-Apr-23	19	Task Dependent	0%												
B4-B10																						
UTR-1050a	ELS for U-trough B (B4 - B10, 7 bays, 2 workfronts)_Part 1 (Sheet pile)	110	4	13-Jun-22 A	05-Mar-24	13-Jun-22	11-Dec-23	-51	Task Dependent	96.36%												
Remaining Works at Depressed road and Slip Road at both side of Depressed Road B																						
Slip Road from Interchange to Fanling Highway																						
UTR-1140	Excavation or Installation of sheet pile for retaining wall FW9/10	25	13	08-Feb-23 A	25-Apr-23	08-Dec-22	09-Jan-23	-84	Task Dependent	50%												
UTR-3100	Retaining Wall FW9 (13 bays, 15d/bay,2 teams)-Part 1	50	41	06-Mar-23 A	05-Aug-23	03-Apr-23	06-Jun-23	19	Task Dependent	18.9%												
UTR-3100a	Retaining Wall FW9 (13 bays, 15d/bay,2 teams)-Part 2	48	48	05-Aug-23	03-Oct-23	07-Jun-23	03-Aug-23	19	Task Dependent	0%												
Slip Road from Fanling Highway to Interchange																						
UTR-3010	FW-10(~75m, ~10bay, 15d/bay, 2 team) (before 11kV)	60	60	25-Apr-23	08-Jul-23	10-Jan-23	23-Mar-23	-84	Task Dependent	0%												
Sewage Pumping Station in Portion N (After TTA2 Northbound)																						
Statutory Submission																						
SPS-105	Submission and approval of WWO 542	365	243	08-Aug-22 A	06-Dec-23	08-Aug-22	07-Aug-23	13	Task Dependent	33.42%												
Excavation and ELS																						
SPS-1009	Sheet pile installation - SP1 (82 nos) and SP2 (105 nos) @ 10 nos/d (use 2 vibro hammer)	19	18	08-Feb-23 A	02-May-23	18-Jan-23	11-Feb-23	-60	Task Dependent	5.26%												
SPS-1010a	Install Dewatering Wells (DW1 ~ DW4) and Observation Wells (OW1 ~ OW2)	12	12	03-May-23	16-May-23	13-Feb-23	25-Feb-23	-60	Task Dependent	0%												
SPS-1010b	Pumping Test + Report	7	7	17-May-23	24-May-23	27-Feb-23	06-Mar-23	-60	Task Dependent	0%												
SPS-1010c	Submit Pumping Test Report and Obtain Consent for Excavation	7	7	25-May-23	02-Jun-23	07-Mar-23	14-Mar-23	-60	Task Dependent	0%												
SPS-1010	Excavate (+8.70mPD to +7.35mPD) to and install L1 ELS @ +7.850 mPD; Qty:463 m3 @ 300 m3/d)	14	14	03-Jun-23	19-Jun-23	15-Mar-23	30-Mar-23	-60	Task Dependent	0%												
SPS-1010d	Excavate (+7.35mPD to +5.325mPD for Sheet Pile SP3 Installation (Approx. Vol = 695 m3 @ 300 m3/day)	2	2	20-Jun-23	21-Jun-23	31-Mar-23	01-Apr-23	-60	Task Dependent	0%												
SPS-1010e	Sheet Pile Installation - SP3 (41 nos @ 5 nos/day/rig (use 1 vibro hammer)	8	8	23-Jun-23	03-Jul-23	03-Apr-23	15-Apr-23	-60	Task Dependent	0%												
SPS-1010f	Excavate (+5.325mPD to 4.35mPD) and install L2 ELS at +4.850 mPD (Qty:203m3 @ 250m3/d)	10	10	04-Jul-23	14-Jul-23	17-Apr-23	27-Apr-23	-60	Task Dependent	0%												
SPS-1010g	Excavate (+4.35mPD to +1.35mPD) and install L3 ELS at +1.850 mPD; (Qty: 624m3 @ 250m3/d)	12	12	15-Jul-23	28-Jul-23	28-Apr-23	12-May-23	-60	Task Dependent	0%												
SPS-1010h	Excavate (+1.35mPD to -1.65mPD) and install L4 ELS at +1.850 mPD; (Qty: 624m3 @ 250m3/d)	12	12	29-Jul-23	11-Aug-23	13-May-23	27-May-23	-60	Task Dependent	0%												
Transformer Room, Switch Room																						
Tx and Switch Rooms - Structures																						
SPS-1020-01	Construct Base Slab for Tx Room and Switch Room	15	15	04-Jul-23	20-Jul-23	17-Apr-23	04-May-23	162	Task Dependent	0%												

■ Remaining Work  
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**Three Months Rolling Programme (08 April 2023 to 31 July 2023)**

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**Data Date:** 08-Apr-23  
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Activity ID	Activity Name	Orig. Dur.	Rem. Dur.	Start	Finish	BL Start (RP05)	BL Finish (RP05)	Total Float	Activity Type	Activity % Complete	2023							
											Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
SPS-1020-02	Construct Wall and Columns for Tx Room and Switch Room	18	18	21-Jul-23	10-Aug-23	05-May-23	25-May-23	162	Task Dependent	0%								
ABWF and E&M Works (Remaining Parts of Sewage PS)																		
SPS-1035	E&M, BS and ABWF Procurement	227	128	07-Nov-22 A	12-Sep-23	07-Nov-22	14-Aug-23	26	Task Dependent	43.61%								
Reprovision of On Luk Mun Street Playground (S3)																		
Sublet and Design for Skateboard Park																		
OLMSP-100a	Sublet of subcontractor for construction of new skate board park	30	6	08-Dec-22 A	17-Apr-23	08-Dec-22	14-Jan-23	-24	Task Dependent	80%								
OLMSP-100a	AIP (including preparation of submission and approval)	28	14	23-Dec-22 A	26-Apr-23	23-Dec-22	31-Jan-23	-59	Task Dependent	50%								
OLMSP-100a	DDA (including preparation of submission and approval)	27	27	27-Apr-23	30-May-23	01-Feb-23	03-Mar-23	-59	Task Dependent	0%								
OLMSP-100a	Mock up and other submission	73	73	31-May-23	25-Aug-23	04-Mar-23	03-Jun-23	-59	Task Dependent	0%								
Sublet and Design for Ancillary and Services Block																		
OLMSP-100b	Submission & Approval of design for Ancillary Block	90	10	01-Sep-22 A	21-Apr-23	01-Sep-22	20-Jan-23	-87	Task Dependent	88.89%								
OLMSP-100b	Preliminary Design and Layout, Elevations	50	12	08-Nov-22 A	21-Apr-23	08-Nov-22	20-Jan-23	-110	Task Dependent	76%								
OLMSP-100b	Submission & Approval - UU/Drainage/E&M	63	15	14-Nov-22 A	23-Apr-23	14-Nov-22	22-Jan-23	-110	Task Dependent	76.19%								
OLMSP-100b	Submission & Approval - Shop Drawing	60	11	21-Nov-22 A	19-Apr-23	21-Nov-22	19-Jan-23	-110	Task Dependent	81.67%								
OLMSP-100b	Submission & Approval - Design Foundation/Footing/Structure	37	13	21-Nov-22 A	21-Apr-23	21-Nov-22	20-Jan-23	-110	Task Dependent	64.86%								
OLMSP-100b	Submission & Approval - Materials	94	41	21-Nov-22 A	20-May-23	21-Nov-22	18-Feb-23	-100	Task Dependent	56.38%								
OLMSP-100b	Submission & Consent (ASD & LCSD)	75	75	20-Apr-23	03-Jul-23	20-Jan-23	04-Apr-23	-110	Task Dependent	0%								
Works in Portion K1																		
Permanent Access between Wholesale Market and STK Road																		
OLMSP-500a	Construction of remaining permanent access, water main & UUs	30	6	08-Dec-22 A	17-Apr-23	08-Dec-22	14-Jan-23	91	Task Dependent	80%								
OLMSP-500b	Dismantle existing water main supply to wholesale market (for subsequent construction of Depressed Rd B - Bay 4-10)	30	30	18-Apr-23	23-May-23	16-Jan-23	22-Feb-23	91	Task Dependent	0%								
New Skateboard Park																		
Material Submissions (Lighting)																		
OLMSP-25	Lighting Layout Plan (with BIM) by Kum Shing	78	4	08-Nov-22 A	14-Apr-23	08-Nov-22	13-Feb-23	88	Task Dependent	94.87%								
Site Formation and UUs																		
OLMSP-10	Retaining Wall FW30 (165m, 25 bays, 15d/bay, 3 teams)	75	4	21-Jul-22 A	27-May-23	21-Jul-22	27-Feb-23	982	Task Dependent	95%								
OLMSP-10	Retaining Wall FW31 and other facilities (165m, 25 bays, 15d/bay, 3 teams)	69	3	09-Aug-22 A	01-Jun-23	09-Aug-22	18-Mar-23	982	Task Dependent	95%								
OLMSP-10	Site formation, UUs and drainage within the park	90	63	08-Dec-22 A	26-Jun-23	08-Dec-22	29-Mar-23	-8	Task Dependent	30%								
Landscape, T&C and FS Inspection																		
OLMSP-10	Landscaping Softworks with acceptance by clients (S3)	55	55	04-Jul-23	05-Sep-23	06-Apr-23	14-Jun-23	6	Task Dependent	0%								
Ancillary Block & Service Block and other facility																		
OLMSP-1210	Excavation and laying underground duct for buildings and park	30	6	08-Dec-22 A	17-Apr-23	08-Dec-22	14-Jan-23	-53	Task Dependent	80%								
OLMSP-1220	Backfilling for playground/Ancillary block and Service block	30	30	17-Apr-23	22-May-23	14-Jan-23	21-Feb-23	-53	Task Dependent	0%								
OLMSP-123	Construction of Service Block (Foundation)	21	21	04-Jul-23	27-Jul-23	06-Apr-23	04-May-23	-17	Task Dependent	0%								
OLMSP-124	Construction of Ancillary Block (Foundation)	21	21	04-Jul-23	27-Jul-23	06-Apr-23	04-May-23	-17	Task Dependent	0%								
OLMSP-1240	Construction of Ancillary Block (Fabrication)	90	90	04-Jul-23	18-Oct-23	06-Apr-23	27-Jul-23	-86	Task Dependent	0%								
OLMSP-1230	Construction of Service Block (Fabrication)	90	90	04-Jul-23	18-Oct-23	06-Apr-23	27-Jul-23	-86	Task Dependent	0%								
Material Submissions (MEP)																		
OLMSP-25	Material Submissions & Shop Drawings - MVAC	78	37	14-Nov-22 A	14-May-23	14-Nov-22	13-Feb-23	54	Task Dependent	52.56%								
OLMSP-25	Material Submissions & Shop Drawings - FS	78	37	14-Nov-22 A	14-May-23	14-Nov-22	13-Feb-23	54	Task Dependent	52.56%								
OLMSP-25	Material Submissions & Shop Drawings - Pumping and Drainage	78	37	14-Nov-22 A	14-May-23	14-Nov-22	13-Feb-23	54	Task Dependent	52.56%								
OLMSP-25	Material Submissions & Shop Drawings - Electrical	78	37	14-Nov-22 A	14-May-23	14-Nov-22	13-Feb-23	54	Task Dependent	52.56%								
Works in Portion P																		
OLMSP-1050	Retaining Wall FW10 (around 75m, 10 bays, 15d/bay) and other facilities-Part 1	37	37	11-Apr-23	24-May-23	29-Dec-23	14-Feb-24	118	Task Dependent	0%								
OLMSP-1050a	Retaining Wall FW10 (around 75m, 10 bays, 15d/bay) and other facilities-Part 2	38	38	25-May-23	11-Jul-23	15-Feb-24	02-Apr-24	118	Task Dependent	0%								
OLMSP-1100	Backfilling work to Retaining Wall FW10 & remaining area (between abutment (by Contract C5) and Depressed road B)	60	60	12-Jul-23	19-Sep-23	03-Apr-24	15-Jun-24	118	Task Dependent	0%								
Temporary Skateboard Park Scheme																		
OLMSP-2560	Operation of Temporary Skateboard Park	166	166	08-Apr-23*	20-Sep-23	01-Apr-23	13-Sep-23	173	Task Dependent	0%								

Remaining Work	Crit Milestone
Milestone	Actual Work
Baseline Milestone	Actual Milestone
Project Baseline	
Critical Remaining Work	

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Activity ID	Activity Name	Orig. Dur.	Rem. Dur.	Start	Finish	BL Start (RP05)	BL Finish (RP05)	Total Float	Activity Type	Activity % Complete	2023												
											Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	
OLMSP-2570	Time Risk Allowance	166	166	08-Apr-23	20-Sep-23	01-Apr-23	13-Sep-23	173	Task Dependent	0%													
Reprovision of Public Toilet and Refuse Collection Point (S6)																							
PTRCP-1000	Prefabrication of Mic Unit	30	12	22-Dec-22 A	02-May-23	22-Dec-22	01-Feb-23	-32	Task Dependent	60%													
PTRCP-2000	Retaining Wall FW10 (70m, 10 bays)	60	60	25-Apr-23	08-Jul-23	10-Jan-23	23-Mar-23	-84	Task Dependent	0%													
PTRCP-1010	Delivery of Mic Units	30	30	03-May-23	07-Jun-23	02-Feb-23	08-Mar-23	-32	Task Dependent	0%													
PTRCP-1020	Minor TTA after TTA Stage 2 and Portion P retaining wall	30	30	08-Jun-23	14-Jul-23	09-Mar-23	17-Apr-23	-32	Task Dependent	0%													
PTRCP-2000a	Footing of NB34 (60m, 6 bays)	60	60	26-Jun-23	05-Sep-23	13-Mar-23	27-May-23	-84	Task Dependent	0%													
Works in Portion A and Portion B (KD5)																							
Portion A																							
OTH-A-1020	Works at north part (Stage 3)	70	5	21-Oct-22 A	15-Apr-23	21-Oct-22	13-Jan-23	-65	Task Dependent	92.86%													
OTH-A-5000	Noise barrier 91- Footing (Stage 1)	56	56	17-Apr-23	23-Jun-23	14-Jan-23	23-Mar-23	421	Task Dependent	0%													
OTH-A-2000	Works at south part (Stage 1)	70	70	17-Apr-23	11-Jul-23	14-Jan-23	13-Apr-23	-65	Task Dependent	0%													
OTH-A-5010	Noise barrier 91 - Footing (Stage 2)	56	56	24-Jun-23	29-Aug-23	24-Mar-23	03-Jun-23	421	Task Dependent	0%													
OTH-A-2010	Works at south part (Stage 2)	70	70	12-Jul-23	03-Oct-23	14-Apr-23	08-Jul-23	-65	Task Dependent	0%													
Portion B																							
South Part of L3 Road																							
Southbound																							
CL200 to CL250 including footpath & slope																							
OTH-B-2010	Backfilling for watermain	25	25	29-Dec-22 A	10-May-23	29-Dec-22	31-Jan-23	171	Task Dependent	0%													
OTH-B-2020	Watermain	56	56	11-May-23	18-Jul-23	01-Feb-23	11-Apr-23	171	Task Dependent	0%													
OTH-B-2030	Backfilling for UUs	25	25	19-Jul-23	16-Aug-23	12-Apr-23	11-May-23	171	Task Dependent	0%													
From Ma Sik rd to CL200 (Road Section)																							
OTH-B-4030	Footing of NB52	45	32	16-Dec-22 A	18-May-23	16-Dec-22	13-Feb-23	-33	Task Dependent	30%													
OTH-B-4040	Backfilling for drainage works	25	25	18-May-23	17-Jun-23	14-Feb-23	14-Mar-23	-33	Task Dependent	0%													
OTH-B-4050	Drainage works	38	38	17-Jun-23	03-Aug-23	15-Mar-23	03-May-23	-33	Task Dependent	0%													
OTH-B-4060	Backfilling to formation	48	48	03-Aug-23	28-Sep-23	04-May-23	30-Jun-23	207	Task Dependent	0%													
From Ma Sik rd to CL200 (Footpath Section & slope)																							
OTH-B-3000	Backfilling for watermain	25	25	29-Dec-22 A	10-May-23	29-Dec-22	31-Jan-23	171	Task Dependent	0%													
OTH-B-3010	Watermain	56	56	11-May-23	18-Jul-23	01-Feb-23	11-Apr-23	171	Task Dependent	0%													
OTH-B-3020	Backfilling for UUs	25	25	19-Jul-23	16-Aug-23	12-Apr-23	11-May-23	171	Task Dependent	0%													
North Part of L3 Road																							
Southbound																							
OTH-B-6000	ELS for drainage works	45	45	17-Jun-23	11-Aug-23	15-Mar-23	11-May-23	-33	Task Dependent	0%													
Works within Portions Q, R, S, T, U, V, X and Y (S4)																							
Portion T																							
OTH-1060c	Road and UU works at Portion T (additional)-Stage 3	9	9	11-Apr-23	20-Apr-23	08-Dec-22	17-Dec-22	142	Task Dependent	0%													
OTH-1060d	Road and UU works at Portion T (additional)-Stage 4	9	9	21-Apr-23	02-May-23	19-Dec-22	30-Dec-22	142	Task Dependent	0%													
Portion R																							
Stage 3 (Area 1)																							
OTH-1043-1b	Construct road kerb and pedestrian crossing	16	8	24-Dec-22 A	19-Apr-23	24-Dec-22	14-Jan-23	-74	Task Dependent	50%													
OTH-1043-1c	Construct street furniture	12	12	20-Apr-23	04-May-23	16-Jan-23	01-Feb-23	-74	Task Dependent	0%													
OTH-1043-1d	Construct carriageway pavement	15	15	05-May-23	22-May-23	02-Feb-23	18-Feb-23	-74	Task Dependent	0%													
OTH-1043-1e	Road marking	1	1	23-May-23	23-May-23	20-Feb-23	20-Feb-23	-74	Task Dependent	0%													
OTH-1043-1f	Enabling traffic signal system	14	14	24-May-23	09-Jun-23	21-Feb-23	08-Mar-23	-74	Task Dependent	0%													
Stage 4 (Area 3)																							
OTH-1044-1b	Relocate gully	12	11	23-Dec-22 A	22-Apr-23	23-Dec-22	09-Jan-23	31	Task Dependent	8.33%													
OTH-1044-1d	Construct pedestrian crossing and road kerb	16	16	24-Apr-23	12-May-23	30-Jan-23	16-Feb-23	31	Task Dependent	0%													
OTH-1044-1e	Construct street furniture	12	12	13-May-23	27-May-23	17-Feb-23	02-Mar-23	31	Task Dependent	0%													
OTH-1044-1f	Construct carriageway pavement	15	15	29-May-23	14-Jun-23	03-Mar-23	20-Mar-23	31	Task Dependent	0%													
OTH-1044-1g	Road marking	1	1	15-Jun-23	15-Jun-23	21-Mar-23	21-Mar-23	31	Task Dependent	0%													
OTH-1044-1h	Enabling traffic signal system	14	14	16-Jun-23	04-Jul-23	22-Mar-23	11-Apr-23	31	Task Dependent	0%													

■ Remaining Work     ◆ Crit Milestone  
◇ Milestone     ■ Actual Work  
◇ Baseline Milestone     ◆ Actual Milestone  
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Activity ID	Activity Name	Orig. Dur.	Rem. Dur.	Start	Finish	BL Start (RP05)	BL Finish (RP05)	Total Float	Activity Type	Activity % Complete	2023											
											Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb
Stage 5 (Area 2, after Stage 3)																						
OTH-1045-1	Install temporary lighting system	10	10	10-Jun-23	21-Jun-23	09-Mar-23	20-Mar-23	-74	Task Dependent	0%												
OTH-1045-1a	Install temporary traffic signal system	10	10	10-Jun-23	21-Jun-23	09-Mar-23	20-Mar-23	-74	Task Dependent	0%												
OTH-1045-1b	Demolish centre divider	17	17	23-Jun-23	13-Jul-23	21-Mar-23	13-Apr-23	-74	Task Dependent	0%												
OTH-1045-1d	Relocate traffic signal post	10	10	14-Jul-23	25-Jul-23	14-Apr-23	25-Apr-23	-55	Task Dependent	0%												
OTH-1045-1c	Construct new centre divider, relocate lighting	30	30	14-Jul-23	17-Aug-23	14-Apr-23	19-May-23	-74	Task Dependent	0%												
OTH-1045-1e	Construct pedestrian crossing	16	16	26-Jul-23	12-Aug-23	26-Apr-23	15-May-23	-55	Task Dependent	0%												
Portion Q																						
Area 1																						
OTH-1031b	Site formation works, ELSW, RW40 (Bay 4-7) and backfill	80	16	08-Jul-22 A	28-Apr-23	08-Jul-22	03-Jan-23	23	Task Dependent	80%												
OTH-1031c	Site formation works, ELSW, RW40 (Bay 1-3) and backfill	60	9	08-Sep-22 A	10-May-23	08-Sep-22	14-Jan-23	23	Task Dependent	85%												
OTH-1031e	Construct new pavement at carriageway, reinstate cycle track	21	21	11-May-23	05-Jun-23	08-Feb-23	03-Mar-23	23	Task Dependent	0%												
OTH-1031f	Street furniture	30	30	06-Jun-23	12-Jul-23	04-Mar-23	12-Apr-23	23	Task Dependent	0%												
OTH-1031g	Road marking	1	1	13-Jul-23	13-Jul-23	13-Apr-23	13-Apr-23	23	Task Dependent	0%												
OTH-1031h	Overall resurfacing	60	60	14-Jul-23	21-Sep-23	14-Apr-23	26-Jun-23	23	Task Dependent	0%												
Area 2																						
OTH-1032a	Demolish existing pavement, relocate gully	21	7	13-Jul-22 A	18-Apr-23	13-Jul-22	30-Dec-22	64	Task Dependent	66.67%												
OTH-1032b	Construct new pavement at carriageway, reinstate public lighting	21	18	30-Jul-22 A	10-May-23	30-Jul-22	21-Jan-23	64	Task Dependent	14.29%												
OTH-1032c	Relocate traffic signal post	10	10	11-May-23	22-May-23	26-Jan-23	06-Feb-23	64	Task Dependent	0%												
OTH-1032d	Road marking	1	1	23-May-23	23-May-23	07-Feb-23	07-Feb-23	64	Task Dependent	0%												
Area 3																						
OTH-1033	Modify existing pavement traffic island	28	28	08-Dec-22 A	13-May-23	08-Dec-22	12-Jan-23	61	Task Dependent	0%												
OTH-1033a	Relocate traffic signal post	10	10	15-May-23	25-May-23	13-Jan-23	27-Jan-23	61	Task Dependent	0%												
OTH-1033b	Road marking	1	1	27-May-23	27-May-23	28-Jan-23	28-Jan-23	61	Task Dependent	0%												
Portion U																						
Area 2																						
OTH-1070-2a	Demolish existing central divider	30	2	03-Mar-23 A	12-Apr-23	23-May-23	28-Jun-23	88	Task Dependent	95%												
OTH-1070-2b	Construct new central divider	30	30	12-Apr-23	18-May-23	29-Jun-23	03-Aug-23	88	Task Dependent	0%												
OTH-1070-2c	Relocate public lighting	20	20	18-May-23	12-Jun-23	04-Aug-23	26-Aug-23	88	Task Dependent	0%												
OTH-1070-2d	Relocate traffic signal post	20	20	12-Jun-23	07-Jul-23	28-Aug-23	19-Sep-23	88	Task Dependent	0%												
OTH-1070-2e	Road marking	1	1	07-Jul-23	08-Jul-23	20-Sep-23	20-Sep-23	88	Task Dependent	0%												
Area 3																						
OTH-1070-3a	Construct retaining wall and top slab (Part 1)	90	72	19-Dec-22 A	07-Jul-23	19-Dec-22	13-Apr-23	-92	Task Dependent	20%												
OTH-1070-3b	Construct retaining wall and top slab (Part 2)	90	90	08-Jul-23	24-Oct-23	14-Apr-23	01-Aug-23	-92	Task Dependent	0%												
Portion S																						
Area 1																						
OTH-1050-1a	Site formation, retaining wall, extension of subway, stairway, relocate fire hydrant (Part 1)	40	16	08-Dec-22 A	28-Apr-23	08-Dec-22	30-Jan-23	-96	Task Dependent	60%												
OTH-1050-1b	Site formation, retaining wall, extension of subway, stairway, relocate fire hydrant (Part 2)	40	40	29-Apr-23	16-Jun-23	31-Jan-23	17-Mar-23	-96	Task Dependent	0%												
OTH-1050-1c	Site formation, retaining wall, extension of subway, stairway, relocate fire hydrant (Part 3)	40	40	17-Jun-23	04-Aug-23	18-Mar-23	09-May-23	-96	Task Dependent	0%												
OTH-1050-1d	Set back road kerb and relocate gully	46	46	05-Aug-23	27-Sep-23	10-May-23	05-Jul-23	-96	Task Dependent	0%												
Area 2																						
OTH-1050-2a	Site formation, retaining wall, relocate fire hydrant, relocate public lighting (Part 1)	25	1	08-Dec-22 A	11-Apr-23	08-Dec-22	09-Jan-23	-90	Task Dependent	96%												
OTH-1050-2b	Site formation, retaining wall, relocate fire hydrant, relocate public lighting (Part 2)	25	25	12-Apr-23	11-May-23	10-Jan-23	10-Feb-23	-90	Task Dependent	0%												
OTH-1050-2c	Relocate traffic signal post	20	20	12-May-23	05-Jun-23	11-Feb-23	06-Mar-23	-90	Task Dependent	0%												
OTH-1050-2d	Set back road kerb and relocate gully	50	50	06-Jun-23	04-Aug-23	07-Mar-23	09-May-23	-90	Task Dependent	0%												
OTH-1050-2e	Set back existing traffic island	60	60	05-Aug-23	16-Oct-23	10-May-23	21-Jul-23	-90	Task Dependent	0%												
Area 3																						

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Activity ID	Activity Name	Orig. Dur.	Rem. Dur.	Start	Finish	BL Start (RP05)	BL Finish (RP05)	Total Float	Activity Type	Activity % Complete	2023												
											Mar	Apr	May	Jun	Jul	Aug	Sep	Oct					
OTH-1050-3a	Demolish existing central divider (Part 1)	43	19	08-Dec-22 A	03-May-23	08-Dec-22	02-Feb-23	-96	Task Dependent	55.81%													
OTH-1050-3b	Demolish existing central divider (Part 2)	43	43	04-May-23	24-Jun-23	03-Feb-23	24-Mar-23	-96	Task Dependent	0%													
OTH-1050-3c	Construct new central divider (Part 1)	50	50	26-Jun-23	23-Aug-23	25-Mar-23	29-May-23	-96	Task Dependent	0%													
<b>Portion X</b>																							
OTH-1085	TTA application for Portion X	83	7	09-Jun-22 A	18-Apr-23	09-Jun-22	20-Jan-23	-98	Task Dependent	91.57%													
OTH-2030	Site formation, retaining wall, modify subway, relocate public lighting (Part 1)	50	50	19-Apr-23	17-Jun-23	21-Jan-23	23-Mar-23	-98	Task Dependent	0%													
OTH-2030a	Site formation, retaining wall, modify subway, relocate public lighting (Part 2)	50	50	19-Jun-23	17-Aug-23	24-Mar-23	27-May-23	-98	Task Dependent	0%													
<b>Portion V,Y</b>																							
OTH-1075	TTA application for Portion VY	209	40	27-Apr-22 A	29-May-23	27-Apr-22	30-Jan-23	-57	Task Dependent	80.86%													
<b>Area 1</b>																							
OTH-1080-1a1	UU lowering (by others)	11	2	30-Jan-23 A	31-May-23	07-Mar-23	18-Mar-23	-57	Task Dependent	81.82%													
OTH-1080-1b	Construct new pavement at carriageway, reinstate public lighting	20	20	01-Jun-23	24-Jun-23	20-Mar-23	15-Apr-23	-57	Task Dependent	0%													
OTH-1080-1c	Street furniture	20	20	26-Jun-23	19-Jul-23	17-Apr-23	10-May-23	-57	Task Dependent	0%													
OTH-1080-1d	Road marking	1	1	20-Jul-23	20-Jul-23	11-May-23	11-May-23	-57	Task Dependent	0%													
<b>Area 2</b>																							
OTH-1080-2c	Demolish existing central divider	30	30	04-Feb-23 A	28-Oct-23	17-Jul-23	19-Aug-23	-57	Task Dependent	0%													
OTH-1080-2a	Demolish existing traffic island	23	23	21-Jul-23	16-Aug-23	12-May-23	08-Jun-23	-57	Task Dependent	0%													
<b>Junction improvement works at Portion J (S4)</b>																							
OTH-2020	Relocation of Traffic System- Siu Wan Road Junctional works (tree felling and site clearance)	30	30	18-Apr-23	23-May-23	20-Feb-23	25-Mar-23	44	Task Dependent	0%													
OTH-2020a	Relocation of Traffic System- Siu Wan Road Junctional works (road realignment)	40	40	24-May-23	12-Jul-23	27-Mar-23	17-May-23	44	Task Dependent	0%													
OTH-2020b	Relocation of Traffic System- Siu Wan Road Junctional works (paving works etc)	40	40	13-Jul-23	28-Aug-23	18-May-23	06-Jul-23	44	Task Dependent	0%													
<b>CLP 132kV and 11kV Cable Works at Bridge and interchange area</b>																							
<b>Cable B (Green) Fanling to Louhu Circuit 132KV- by CLP (Bridge A2,A3 and interchange )</b>																							
CLP-2030	Diversion of CLP 200m cable B4 (At portion H,J)	60	20	08-Dec-21 A	11-May-23	08-Dec-21	14-Mar-23	86	Task Dependent	66.67%													
CLP-2040	Diversion of CLP 120m cable B5 (At portion C,H)	70	23	21-Oct-22 A	20-May-23	21-Oct-22	21-Jan-23	78	Task Dependent	67.14%													
CLP-2060	Abandon of Cable B (At portion C,G,H,J,K,L) (Interchange area)	15	15	22-May-23	08-Jun-23	15-Mar-23	31-Mar-23	78	Task Dependent	0%													
<b>Cable C (Red) Ting Kok Road- Heung Yuen Wai Circuit 132KV- by CLP (Bridge A3 and interchange area)</b>																							
CLP-3000	Diversion of CLP 150m cable C1 (At portion H,J)	69	5	09-May-22 A	15-Apr-23	09-May-22	13-Jan-23	-63	Task Dependent	92.75%													
CLP-3010	Diversion of CLP 63m cable C2 (At portion K,K1,K2)	60	5	08-Jul-22 A	15-Apr-23	08-Jul-22	13-Jan-23	-63	Task Dependent	91.67%													
CLP-3020	Abandon of C1(At portion H,J,K,K1,K2)	21	1	18-Jan-23 A	17-Apr-23	18-Jan-23	14-Feb-23	-63	Task Dependent	95.24%													
<b>Cable D (Blue) Fanling- Ping Che Circuit 132KV- by CLP (Bridge A3 and Interchange Area)</b>																							
CLP-4005	Diversion of CLP 163m cable D1 (At portion H)(outside Underpass)	50	26	08-Dec-22 A	11-May-23	08-Dec-22	10-Feb-23	110	Task Dependent	48%													
CLP-4010a	Diversion of CLP 270m cable D2 (At portion I,J,N)-at STK Rd (after TTA 2)	10	10	18-Apr-23	28-Apr-23	20-Feb-23	02-Mar-23	165	Task Dependent	0%													
CLP-4020	Diversion of CLP 180m cable D3 -after TTA 2	75	75	18-Apr-23	18-Jul-23	20-Feb-23	23-May-23	100	Task Dependent	0%													
CLP-4000	Diversion of CLP 163m cable D1 (At portion H)(after C5 to C8)	45	45	12-May-23	06-Jul-23	11-Feb-23	04-Apr-23	110	Task Dependent	0%													
<b>Temporary Diversion Scheme (CLP 132 Ping Che Line)</b>																							
CLP-4110	Civil works for CLP temporary diversion (by DCKJV)	75	20	16-Dec-22 A	04-May-23	16-Dec-22	20-Mar-23	76	Task Dependent	73.33%													
CLP-4120	Ducting works, cabling works and change-over for CLP temporary diversion (by CLP)	144	67	30-Dec-22 A	30-Jun-23	07-Feb-23	02-Aug-23	60	Task Dependent	53.47%													
<b>CLP 11kV Cables works at Interchange area (tentative scheme)</b>																							
CLP-5010	Laying new 11kV cables(255m) F6 & underpass area (Portion J/H)(after C5 to C8)	60	36	08-Dec-22 A	23-May-23	08-Dec-22	22-Feb-23	9	Task Dependent	40%													
CLP-5050	Laying new 11kV cables(400m) at STK Road and MS Road (portion J)(after TTA 2)	60	60	18-Apr-23	29-Jun-23	20-Feb-23	05-May-23	-63	Task Dependent	0%													
CLP-5020	Abandon 11kV cables in F6 & underpass area (portion K/H) (after C5 to C8)	15	15	24-May-23	10-Jun-23	23-Feb-23	11-Mar-23	9	Task Dependent	0%													
CLP-5060	Abandon 11kV cables at STK Rad and MS Road (portion J)	15	15	30-Jun-23	18-Jul-23	06-May-23	23-May-23	-63	Task Dependent	0%													
CLP-5030	Laying new 11kV cables(520m) F6 & underpass & U-Through B area (portion K)	60	60	08-Jul-23	16-Sep-23	24-Mar-23	08-Jun-23	-45	Task Dependent	0%													
<b>Towngas (By others)</b>																							
TG-1000	IPA gas main laying (after C5 to C8)	45	45	11-Apr-23	03-Jun-23	08-Dec-22	04-Feb-23	15	Task Dependent	0%													

■ Remaining Work      ◆ Crit Milestone  
◇ Milestone              ■ Actual Work  
◇ Baseline Milestone      ◆ Actual Milestone  
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**Three Months Rolling Programme (08 April 2023 to 31 July 2023)**

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**Lookahead.**

Baseline Programme RP05			
Date	Revision	Ch...	Approved
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Activity ID	Activity Name	Orig. Dur.	Rem. Dur.	Start	Finish	BL Start (RP05)	BL Finish (RP05)	Total Float	Activity Type	Activity % Complete	2023								
											Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	
TG-1010	MP gas main laying-stage 1 (after C5 to C8)	45	45	11-Apr-23	03-Jun-23	08-Dec-22	04-Feb-23	-45	Task Dependent	0%									
TG-1040	LBG gas main laying-stage 1 (after C5 to C8)	47	47	11-Apr-23	06-Jun-23	08-Dec-22	07-Feb-23	-38	Task Dependent	0%									
TG-1020	MP gas main laying-stage 2 (portion J/K, near Toilet/ RCP)	46	46	05-Jun-23	29-Jul-23	06-Feb-23	30-Mar-23	-45	Task Dependent	0%									
TG-1060	LBG gas main laying-stage 3 (Portion P, near Playground)	51	51	08-Jul-23	06-Sep-23	24-Mar-23	29-May-23	-21	Task Dependent	0%									
TG-1030	MP gas main laying-stage 3 (Portion P, near Playground)	52	52	08-Jul-23	07-Sep-23	24-Mar-23	30-May-23	-22	Task Dependent	0%									
TG-1050	LBG gas main laying-stage 2 (portion J/K, near Toilet/ RCP)	37	37	01-Aug-23	13-Sep-23	21-Apr-23	05-Jun-23	-84	Task Dependent	0%									
Telecom (By others)																			
HGC/HKBN/HKBNESHK/PCCW																			
TL-1000	HGC/HKBN/HKBNES/PCCW diversion -stage 1 (after C5-C8)	50	50	11-Apr-23	09-Jun-23	08-Dec-22	10-Feb-23	10	Task Dependent	0%									
TL-1040	PCCW diversion-stage 5 (near the toilet and RCP)	50	50	11-Apr-23	09-Jun-23	08-Dec-22	10-Feb-23	-4	Task Dependent	0%									
TL-1020	HGC/HKBN/HKBNES/PCCW diversion -stage 3 (after RW9, near existing market and new playground)	100	100	11-Apr-23	09-Aug-23	08-Dec-22	14-Apr-23	-3	Task Dependent	0%									
TL-1010	HGC/HKBN/HKBNES/PCCW diversion -stage 2 (after TTA)	49	49	18-Apr-23	15-Jun-23	20-Feb-23	21-Apr-23	5	Task Dependent	0%									
TL-1030	HGC/HKBN/HKBNES/PCCW diversion -stage 4 (near Portion M)	75	75	18-Apr-23	18-Jul-23	20-Feb-23	23-May-23	16	Task Dependent	0%									
TL-1050	PCCW diversion-stage 6 (near the On Luk Min St playground, assume access is granted on 1 Aug 22)	75	75	08-Jul-23	06-Oct-23	24-Mar-23	27-Jun-23	-51	Task Dependent	0%									
Towngas/telecom																			
TL-3000	Towngas telecom diversion -stage 1 (after C5 to C8)	50	50	11-Apr-23	09-Jun-23	08-Dec-22	10-Feb-23	10	Task Dependent	0%									
TL-3010	HGC/HKBN/HKBNES diversion -stage 2 (after TTA)	49	49	18-Apr-23	15-Jun-23	20-Feb-23	21-Apr-23	5	Task Dependent	0%									
Bridge F(MS)																			
Stage 6 Falsework Erection and Abutment Construction in N.side																			
BWFW-6000a	Submission and approval of Bearing and Trial	74	11	08-Jul-22 A	22-Apr-23	08-Jul-22	20-Dec-22	242	Task Dependent	85.14%									
BWFW-6000	Abutment F-04M construction (include pile cap, 1no. 60d/abt, 1no.workfront)	73	49	05-Sep-22 A	08-Jun-23	05-Sep-22	20-Jan-23	200	Task Dependent	33.5%									
BWFW-6000b	Submission and approval of temporary bearing	90	12	08-Oct-22 A	08-May-23	08-Oct-22	07-Feb-23	242	Task Dependent	86.67%									
BWFW-6000c	Fabrication of Bearing including material delivery	150	87	05-Nov-22 A	07-Aug-23	05-Nov-22	11-May-23	549	Task Dependent	42%									
BWFW-6000d	Bearing installation at F-04 (Temporary bearing)	12	12	08-Jun-23	23-Jun-23	08-Feb-23	21-Feb-23	216	Task Dependent	0%									
BWFW-6010	Erect falsework for bridge deck construction between pier F-03 and abutment F-04M (near F-04)	14	14	26-Jun-23	13-Jul-23	03-Mar-23	18-Mar-23	200	Task Dependent	0%									
Stage 7 Bridge Deck Construction & Formation work and abutment in N.side																			
BWFW-7020a	Submission and approval of post tension method statement and material	90	43	08-Dec-22 A	01-Jun-23	08-Dec-22	29-Mar-23	287	Task Dependent	52.22%									
BWFW-7010	Remove the ELS system around the abutment F-04M	14	14	08-Jun-23	26-Jun-23	15-Feb-23	02-Mar-23	200	Task Dependent	0%									
BWFW-7020	Bridge deck construction between pier F-03 and abt F-04M	53	53	13-Jul-23	13-Sep-23	20-Mar-23	25-May-23	200	Task Dependent	0%									
Stage 8 Cofferdam modification and Formation in Both sides																			
South side																			
New scheme in wet season																			
BWFW-808C	Install decking for bored piling at Pier F-02 (Stage 1)	40	40	11-Apr-23	29-May-23	23-Feb-23	14-Apr-23	160	Task Dependent	0%									
BWFW-808C	Install decking for bored piling at Pier F-02 (Stage 2)	40	40	30-May-23	17-Jul-23	15-Apr-23	02-Jun-23	160	Task Dependent	0%									
Stage 9 Piling works for pier F-02 and abutment F-01M in S.side																			
BWFW-9030	Bored pile construction at abutment F-01M(4 nos, 15d/ bored, 1 set machine)	60	45	03-Mar-23 A	03-Jun-23	01-Mar-23	15-May-23	141	Task Dependent	25%									
BWFW-9030a	Interface coring, sonic test, and grouting for bored pile construction at abutment F-01M	36	36	05-Jun-23	18-Jul-23	16-May-23	28-Jun-23	212	Task Dependent	0%									
BWFW-9020	Bored pile construction at abutment pier F-02 (2 nos, 15d/ bored, 1 set machine)	30	30	18-Jul-23	21-Aug-23	03-Jun-23	10-Jul-23	160	Task Dependent	0%									
Stage 11 Abutment construction in S.side																			
BWFW-11000	Install sheet pile using vibration hammer to form ELS system for the pile cap F-01	47	47	05-Jun-23	31-Jul-23	16-May-23	12-Jul-23	141	Task Dependent	0%									
BWFW-11010	ELS and install wailing and strut F-01	60	60	01-Aug-23	11-Oct-23	13-Jul-23	20-Sep-23	141	Task Dependent	0%									
Bridge Works (A1,A2,A3,G,F4)																			
Site Clearance & Additional GI and Pre-drilling Works																			
BWGIPW-1050	Site clearance & additional GI and Pre-drilling works: Footbridge F4 (after Road of C7 redirect and A3-02)	53	4	06-Aug-21 A	01-Jun-23	06-Aug-21	29-Mar-23	202	Task Dependent	92.45%									
BWGIPW-1040	Site clearance & additional GI and Pre-drilling works: Bridge G	53	5	25-Oct-21 A	22-May-23	25-Oct-21	20-Mar-23	10	Task Dependent	90.57%									
BWGIPW-1015	Site clearance & additional GI and Pre-drilling works: Bridge A3 (part-3)	12	7	24-Feb-23 A	18-Apr-23	08-Dec-22	21-Dec-22	-58	Task Dependent	41.67%									

■ Remaining Work  
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											Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	
BWGIPW-0010	C7 access completed after unchartered tree (INTS1-5020)(A3-03R, 04,05,06M)	0	0		24-Apr-23		21-Dec-22	-23	Finish Milestone	0%													
<b>Construction of Bridge Foundation</b>																							
<b>Construction of Bridge A3 Foundation (Team 2) (~30m depth)</b>																							
BWBF-1350a1	Demolition of piling platform at A3-02	30	9	12-Dec-22 A	20-Apr-23	12-Dec-22	18-Jan-23	202	Task Dependent	70%													
BWBF-1380	Pier A3-03l (2nos. bored piles, 20d/pile, 1no. workfront)*	40	40	19-Apr-23	06-Jun-23	22-Dec-22	13-Feb-23	-58	Task Dependent	0%													
BWBF-1340b	Pier A3-01r (2nos. pile, 20d/pile, 1no. workfront)*	40	40	07-Jun-23	25-Jul-23	14-Feb-23	31-Mar-23	-48	Task Dependent	0%													
<b>Rising Main Diversion at Bridge A3</b>																							
BWBF-1350d	Stage 2 - Rising main diversion works (Between Footbridge F4 and Pier A3-03)	30	7	21-Dec-22 A	18-Apr-23	21-Dec-22	31-Jan-23	987	Task Dependent	76.67%													
BWBF-1350	Stage 3 - Rising main diversion works (Between A3-03 and Abutment A3-06)	60	30	01-Feb-23 A	24-May-23	01-Feb-23	15-Apr-23	987	Task Dependent	50%													
<b>Construction of Bridge G Foundation (Team 3) (~20m depth)</b>																							
BWBF-1180	ELS for G-02 to G-04	30	30	11-Apr-23*	16-May-23	02-Feb-23	08-Mar-23	-15	Task Dependent	0%													
BWBF-1210	Pier G-04 (2nos. pile, 15d/pile, 1 no. workfront)	30	30	17-May-23	21-Jun-23	13-Mar-23	20-Apr-23	12	Task Dependent	0%													
BWBF-1110	ELS for Abt G-06 and G-05	30	30	17-May-23	21-Jun-23	09-Mar-23	17-Apr-23	-15	Task Dependent	0%													
BWBF-1220	Pier G-03 (2nos. pile, 15d/pile, 1 no. workfront)	30	30	23-Jun-23	28-Jul-23	21-Apr-23	27-May-23	12	Task Dependent	0%													
BWBF-1120	Abt G-06 (6nos. pile, 15d/pile, 1 no. workfront)	90	90	23-Jun-23	09-Oct-23	18-Apr-23	04-Aug-23	-15	Task Dependent	0%													
BWBF-1240	Pier G-02 (2nos. pile, 15d/pile, 1 no. workfront)	30	30	29-Jul-23	01-Sep-23	29-May-23	04-Jul-23	12	Task Dependent	0%													
<b>Construction of Footbridge F4 Foundation</b>																							
BWBF-1360a	ELS for Footbridge F4-01	30	30	21-Apr-23	27-May-23	19-Jan-23	25-Feb-23	202	Task Dependent	0%													
BWBF-170a	ELS for Footbridge F4-02	30	30	29-May-23	04-Jul-23	27-Feb-23	01-Apr-23	213	Task Dependent	0%													
BWBF-1360	Footbridge F4-01 (6nos. socket-H, 4d/pile, 1no. workfront)	24	24	02-Jun-23	30-Jun-23	30-Mar-23	02-May-23	202	Task Dependent	0%													
BWBF-1370	Footbridge F4-02 (6nos. socket-H, 4d/pile, 1no. workfront)	24	24	05-Jul-23	01-Aug-23	03-May-23	31-May-23	213	Task Dependent	0%													
<b>ELS of Bridge Pier</b>																							
<b>ELS of Bridge A1 Foundation</b>																							
BWBE-1010	ELS for Pier A1-02	30	30	11-Apr-23	16-May-23	24-Dec-22	03-Feb-23	259	Task Dependent	0%													
BWBE-1030	ELS for Pier A1-04	30	30	11-Apr-23	16-May-23	05-Jan-23	11-Feb-23	139	Task Dependent	0%													
BWBE-1050	ELS for Pier A1-01M	30	30	17-May-23	21-Jun-23	04-Feb-23	10-Mar-23	289	Task Dependent	0%													
<b>ELS of Bridge A2 Foundation</b>																							
BWBE-2000	Excavation & strut for Pier A2-02	15	15	10-Jun-23	29-Jun-23	19-Apr-23	06-May-23	-69	Task Dependent	0%													
<b>ELS of Bridge A3 Foundation</b>																							
BWBE-3020	ELS for Pier A3-03r	30	30	07-Jun-23	13-Jul-23	14-Feb-23	20-Mar-23	-58	Task Dependent	0%													
BWBE-3030	ELS for Pier A3-03l	30	30	07-Jun-23	13-Jul-23	14-Feb-23	20-Mar-23	-58	Task Dependent	0%													
BWBF-1340a	ELS for Pier A3-01r	30	30	26-Jul-23	29-Aug-23	01-Apr-23	11-May-23	-48	Task Dependent	0%													
<b>ELS of Bridge G Foundation</b>																							
BWBE-4020	ELS for Pier G-04	30	30	23-Jun-23	28-Jul-23	21-Apr-23	27-May-23	162	Task Dependent	0%													
BWBE-4030	ELS for Pier G-03	30	30	29-Jul-23	01-Sep-23	29-May-23	04-Jul-23	222	Task Dependent	0%													
<b>ELS of Bridge F4 Foundation</b>																							
BWBE-5000	ELS for Pier F4-01	20	20	03-Jul-23	25-Jul-23	03-May-23	25-May-23	202	Task Dependent	0%													
BWBE-5010	ELS for Pier F4-02	20	20	02-Aug-23	24-Aug-23	01-Jun-23	24-Jun-23	213	Task Dependent	0%													
<b>Pile cap of Bridge</b>																							
<b>Pile cap of Bridge A1 Foundation</b>																							
BWBC-1010	Pile cap for Abt A1-02 (1 no. pile cap, 30d/cap, 1no. workfront)	30	30	17-May-23	21-Jun-23	04-Feb-23	10-Mar-23	259	Task Dependent	0%													
BWBC-1030	Pile cap for Abt A1-04 (1 no. pile cap, 30d/cap, 1no. workfront)	30	30	17-May-23	21-Jun-23	13-Feb-23	18-Mar-23	139	Task Dependent	0%													
BWBC-1050	Pile cap for Abt A1-01M (1 no. pile cap, 30d/cap, 1no. workfront)	30	30	23-Jun-23	28-Jul-23	11-Mar-23	19-Apr-23	289	Task Dependent	0%													
<b>Pile cap of Bridge A2 Foundation</b>																							
BWBC-2030	Pile cap for A2-03l (1no. pile cap, 30d/cap, 1no. workfront)	30	1	07-Jan-23 A	11-Apr-23	07-Jan-23	14-Feb-23	-69	Task Dependent	98%													
BWBC-2000	Pile cap for A2-02a/b (1 no. pile cap, 30d/cap, 1no. workfront)	30	30	29-Jun-23	04-Aug-23	08-May-23	12-Jun-23	-69	Task Dependent	0%													
<b>Pile cap of Bridge A3 Foundation</b>																							
BWBC-3010	Pile cap for A3-02 (1no. pile cap, 30d/cap, 1no. workfront)	30	24	08-Mar-23 A	09-May-23	16-Jan-23	22-Feb-23	-25	Task Dependent	20%													
BWBC-3000	Pile cap for A3-01l (2nos. pile cap, 30d/cap, 1nos. workfronts)	30	30	11-Apr-23	16-May-23	15-Feb-23	21-Mar-23	20	Task Dependent	0%													
BWBC-3030	Pile cap for A3-03l (1no. pile cap, 30d/cap, 1no. workfront)	30	30	14-Jul-23	17-Aug-23	21-Mar-23	28-Apr-23	-58	Task Dependent	0%													

■ Remaining Work  
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BWBC-3020	Pile cap for A3-03r (1no. pile cap, 30d/cap, 1no. workfront)	30	30	14-Jul-23	17-Aug-23	21-Mar-23	28-Apr-23	-58	Task Dependent	0%									
Pile cap of Bridge G Foundation																			
BWBC-4030	Pile cap for G-04 (1no. pile cap, 30d/cap, 1no. workfront)	30	30	29-Jul-23	01-Sep-23	29-May-23	04-Jul-23	162	Task Dependent	0%									
Pile cap of Bridge F4 Foundation																			
BWBC-5000	Pile cap for F4-01 (1no. pile cap, 30d/cap, 1no. workfront)	30	30	26-Jul-23	29-Aug-23	27-May-23	03-Jul-23	202	Task Dependent	0%									
Construction of Bridge Substructure																			
Construction of Bridge A1 Substructure																			
BWBS-1050	Pier A1-06a/b (2nos. column, 30d/column, 1 no. workfront)	60	54	20-Jan-23 A	14-Jun-23	21-Jan-23	04-Apr-23	85	Task Dependent	10%									
BWBS-1150	Pier A1-05a/b (2nos. column, 30d/column, 1 no. workfront)	60	60	11-Apr-23	21-Jun-23	06-Apr-23	20-Jun-23	139	Task Dependent	0%									
BWBS-1130	Pier A1-04a/b (2nos. column, 30d/column, 1 no. workfront)	60	60	23-Jun-23	01-Sep-23	06-Apr-23	20-Jun-23	139	Task Dependent	0%									
BWBS-1090	Pier A1-03a/b (2nos. column, 30d/column, 1 no. workfront)	60	60	23-Jun-23	01-Sep-23	21-Jun-23	31-Aug-23	199	Task Dependent	0%									
Construction of Bridge A2 Substructure																			
BWBS-1140	Pier A2-05M (1no. column, 30d/column, 1no. workfront)	30	27	09-Mar-23 A	12-May-23	14-Jan-23	21-Feb-23	-107	Task Dependent	10%									
BWBS-1120	Pier A2-04M (1no. column, 30d/column, 1no. workfront)	30	6	19-Mar-23 A	17-Apr-23	22-Feb-23	28-Mar-23	30	Task Dependent	80%									
BWBS-1060	Pier A2-01a/b (2nos. column, 30d/column, 1no. workfronts)	60	60	11-Apr-23	21-Jun-23	01-Mar-23	15-May-23	-59	Task Dependent	0%									
BWBS-1085	Pier A2-03l (1 no. column, 50d/column, portal, 1no. workfront)	50	50	11-Apr-23	10-Jun-23	15-Feb-23	18-Apr-23	-69	Task Dependent	0%									
BWBS-1020	Pier A2-02a/b (2nos. column, 30d/column, 1no. workfronts)	60	60	04-Aug-23	16-Oct-23	13-Jun-23	23-Aug-23	-19	Task Dependent	0%									
Construction of Bridge A3 Substructure																			
BWBS-1030	Pier A3-05a/b (2nos. column, 30d/column, 1no. workfront)	60	9	22-Jul-22 A	20-Apr-23	22-Jul-22	26-Oct-22	-8	Task Dependent	85%									
BWBS-1215	Pier A3-04a/b (2nos. column, 30d/column, 1no. workfront)	60	48	29-Sep-22 A	17-Jun-23	29-Sep-22	16-Dec-22	-8	Task Dependent	20%									
BWBS-1010	Abt 03-06M (1no. abutment, 60d/abutment, 1no. workfront)	60	51	08-Dec-22 A	10-Jun-23	08-Dec-22	22-Feb-23	-82	Task Dependent	15%									
BWBS-1170	Pier A3-02 in nullah (1no. column, 60d/column, 1no. workfront)	60	60	10-May-23	21-Jul-23	23-Feb-23	09-May-23	-25	Task Dependent	0%									
BWBS-1195	Pier A3-01l (1 no. column, 50d/column, portal, 1no. workfront)- Stage 1	50	50	19-Jun-23	17-Aug-23	22-Mar-23	24-May-23	-8	Task Dependent	0%									
Construction of Bridge Deck																			
Construction of Bridge A1 Deck																			
BWBD-1063	Falsework Erection for A1 cast in-situ pier segments-stage 1 (A1-06)	15	15	15-Jun-23	04-Jul-23	06-Apr-23	26-Apr-23	85	Task Dependent	0%									
BWBD-1066	Falsework Erection for A1 cast in-situ pier segments-stage 2 (A1-05)	15	15	23-Jun-23	11-Jul-23	21-Jun-23	10-Jul-23	139	Task Dependent	0%									
BWBD-1073	Bridge A1 cast in-situ pier segments A1-06*	90	90	05-Jul-23	19-Oct-23	27-Apr-23	14-Aug-23	85	Task Dependent	0%									
BWBD-1076	Bridge A1 cast in-situ pier segments A1-05	90	90	12-Jul-23	27-Oct-23	11-Jul-23	26-Oct-23	139	Task Dependent	0%									
Construction of Bridge A2 Deck																			
Construction of Pier Segment																			
BWBD-1022	Falsework Erection for A2 cast in-situ pier segments-A2-03r	23	23	11-Apr-23	08-May-23	08-Dec-22	06-Jan-23	-87	Task Dependent	0%									
BWBD-1027	Falsework Erection for A2 cast in-situ pier segments-A2-04	23	23	18-Apr-23	15-May-23	29-Mar-23	28-Apr-23	30	Task Dependent	0%									
BWBD-1022a	Bridge A2 cast pier segments at A2-03r	90	90	09-May-23	24-Aug-23	07-Jan-23	29-Apr-23	-87	Task Dependent	0%									
BWBD-1024	Falsework Erection for A2 cast in-situ pier segments-A2-05	23	23	13-May-23	09-Jun-23	22-Feb-23	20-Mar-23	-107	Task Dependent	0%									
BWBD-1027a	Bridge A2 cast pier segments at A2-04	90	90	16-May-23	31-Aug-23	29-Apr-23	16-Aug-23	30	Task Dependent	0%									
BWBD-1024a	Bridge A2 cast pier segments at A2-05*	90	90	10-Jun-23	25-Sep-23	21-Mar-23	12-Jul-23	-107	Task Dependent	0%									
BWBD-1023	Falsework Erection for A2 cast in-situ pier segments-A2-03l	23	23	10-Jun-23	10-Jul-23	19-Apr-23	16-May-23	-47	Task Dependent	0%									
BWBD-1026	Falsework Erection for A2 cast in-situ pier segments-A2-01	23	23	23-Jun-23	20-Jul-23	16-May-23	12-Jun-23	-59	Task Dependent	0%									
BWBD-1026a	Bridge A2 cast pier segments at A2-01	90	90	21-Jul-23	06-Nov-23	13-Jun-23	27-Sep-23	-59	Task Dependent	0%									
Form Traveller and Segment Erection Works																			
BWBD-2000	Procurement of Traveler (4nos, 2pairs)	151	3	09-Aug-22 A	13-Apr-23	09-Aug-22	10-Feb-23	31	Task Dependent	98.01%									
BWBD-2040	Procurement of Falsework-Stage 2	90	32	25-Nov-22 A	18-May-23	25-Nov-22	16-Mar-23	2	Task Dependent	64.44%									
Construction of Bridge A3 Deck																			
Construction of Pier Segment																			
BWBD-1082	Falsework Erection for A3 cast in-situ segments (A3-05)	10	10	21-Apr-23	03-May-23	27-Oct-22	07-Nov-22	313	Task Dependent	0%									
BWBD-1082a	Bridge A3 cast in-situ segments (A3-05)	90	90	04-May-23	19-Aug-23	08-Nov-22	19-Dec-22	313	Task Dependent	0%									
BWBD-1083	Falsework Erection for A3 cast in-situ segments (A3-06)	10	10	12-Jun-23	23-Jun-23	23-Feb-23	06-Mar-23	-82	Task Dependent	0%									
BWBD-1081	Falsework Erection for A3 cast in-situ segments (A3-04)	10	10	19-Jun-23	30-Jun-23	17-Dec-22	30-Dec-22	3	Task Dependent	0%									
BWBD-1083a	Bridge A3 cast in-situ segments (A3-06)*	90	90	24-Jun-23	10-Oct-23	07-Mar-23	27-Jun-23	-82	Task Dependent	0%									
BWBD-1081a	Bridge A3 cast in-situ segments (A3-04)	90	90	03-Jul-23	17-Oct-23	31-Dec-22	24-Apr-23	3	Task Dependent	0%									

■ Remaining Work  
◆ Milestone  
◆ Baseline Milestone  
▬ Project Baseline  
▬ Critical Remaining Work  
◆ Crit Milestone  
▬ Actual Work  
◆ Actual Milestone

Project ID: RP-RP05-1-MU03-2023

**Three Months Rolling Programme (08 April 2023 to 31 July 2023)**

**Data Date:** 08-Apr-23  
**Printed:** 15-Apr-23 08:25  
**Layout:** 3 MRP Layout  
 TASK filter: 3 Months  
 Lookahead.

Baseline Programme RP05

Date	Revision	Ch...	Approved
08-Apr-23	Data Date		



Activity ID	Activity Name	Orig. Dur.	Rem. Dur.	Start	Finish	BL Start (RP05)	BL Finish (RP05)	Total Float	Activity Type	Activity % Complete	2023												
											Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
BWBD-1087	Falsework Erection for A3 cast in-situ segments (A3-02)	10	10	22-Jul-23	02-Aug-23	10-May-23	20-May-23	-25	Task Dependent	0%													
U-trough 1-4																							
UT1-1000	U-trough 1 and near by road works and FW-18 (after Bored pile G-06)	80	80	23-Jun-23	25-Sep-23	18-Apr-23	24-Jul-23	-15	Task Dependent	0%													

■ Remaining Work     ◆ Crit Milestone  
◇ Milestone     ■ Actual Work  
◇ Baseline Milestone     ◆ Actual Milestone  
■ Project Baseline  
■ Critical Remaining Work

Project ID: RP-RP05-1-MU03-2023

**Three Months Rolling Programme (08 April 2023 to 31 July 2023)**

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**Data Date:** 08-Apr-23  
**Printed:** 15-Apr-23 08:25  
**Layout:** 3 MRP Layout  
 TASK filter: 3 Months  
 Lookahead.

Baseline Programme RP05			
Date	Revision	Ch...	Approved
08-Apr-23	Data Date		



# AECOM

**PROJECT**  
**DEVELOPMENT OF KIU TUNG NORTH AND FANLING NORTH NEW DEVELOPMENT AREAS, PHASE 1**

**CONTRACT TITLE:**  
**FANLING NORTH NEW DEVELOPMENT AREA, PHASE 1: FANLING BYPASS EASTERN SECTION (SHEK WU SAN TSUEN NORTH TO LUNG YEUK TAU)**

**CLIENT**  
 土木工程拓展署  
 Civil Engineering and Development Department

**CONSULTANT**  
 AECOM Asia Company Ltd.  
[www.aecom.com](http://www.aecom.com)

**SUB-CONSULTANTS**

**ISSUE/REVISION**

NO	DATE	DESCRIPTION	REVISED BY	CHECKED BY
1	NOV-18	TENDER DRAWING		

**STATUS**

**SCALE:** A1 1:7000  
**DIMENSION UNIT:** METRES

**KEY PLAN:**

**PROJECT NO.:** 60335576  
**CONTRACT NO.:** ND/2018/04

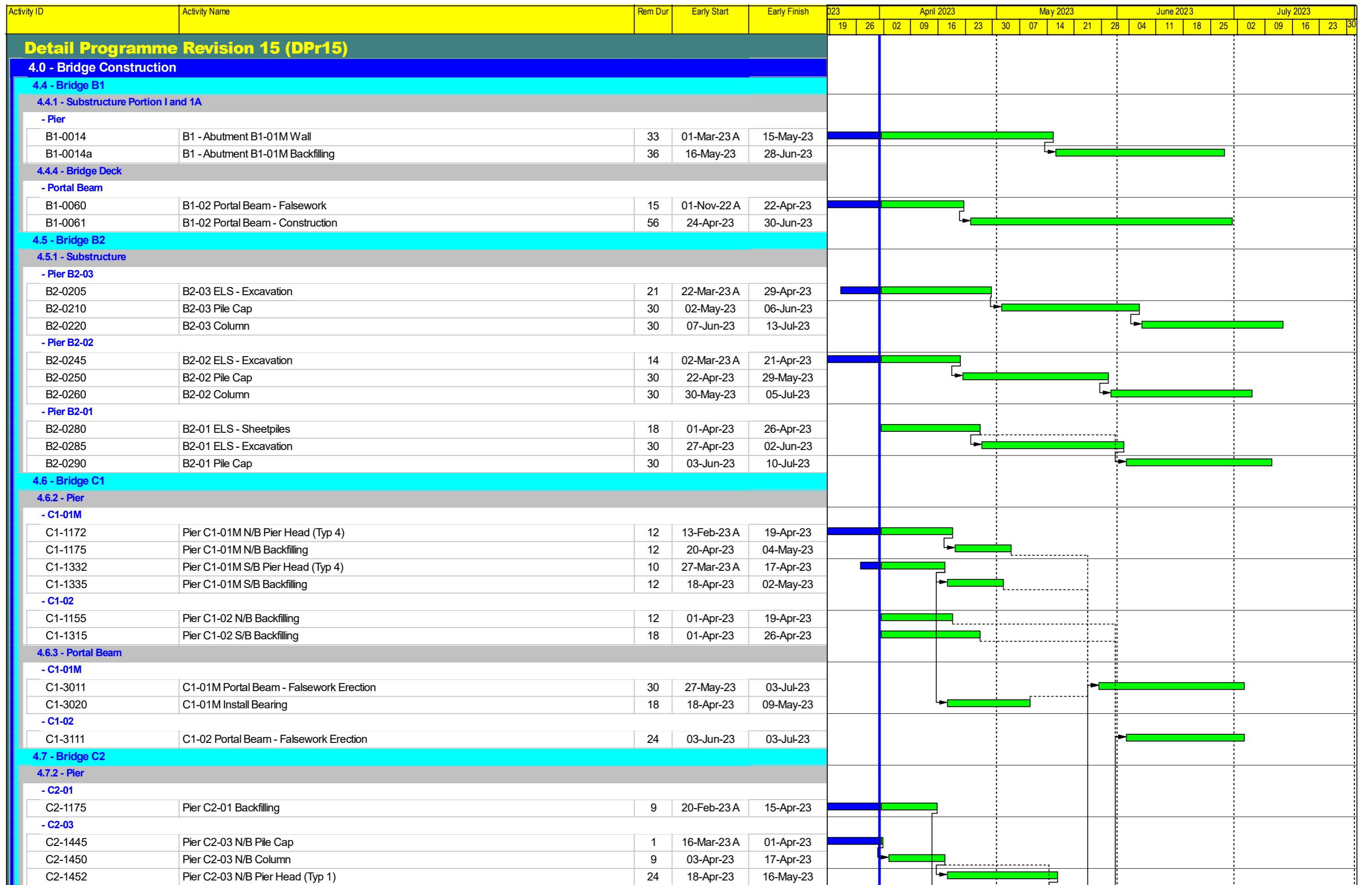
**SHEET TITLE:**  
**KEY PLAN AND LOCATION PLAN**

**SHEET NUMBER:** 001  
**60335576/C5A/C00/1000**

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## **Construction Programme of ND/2019/05**

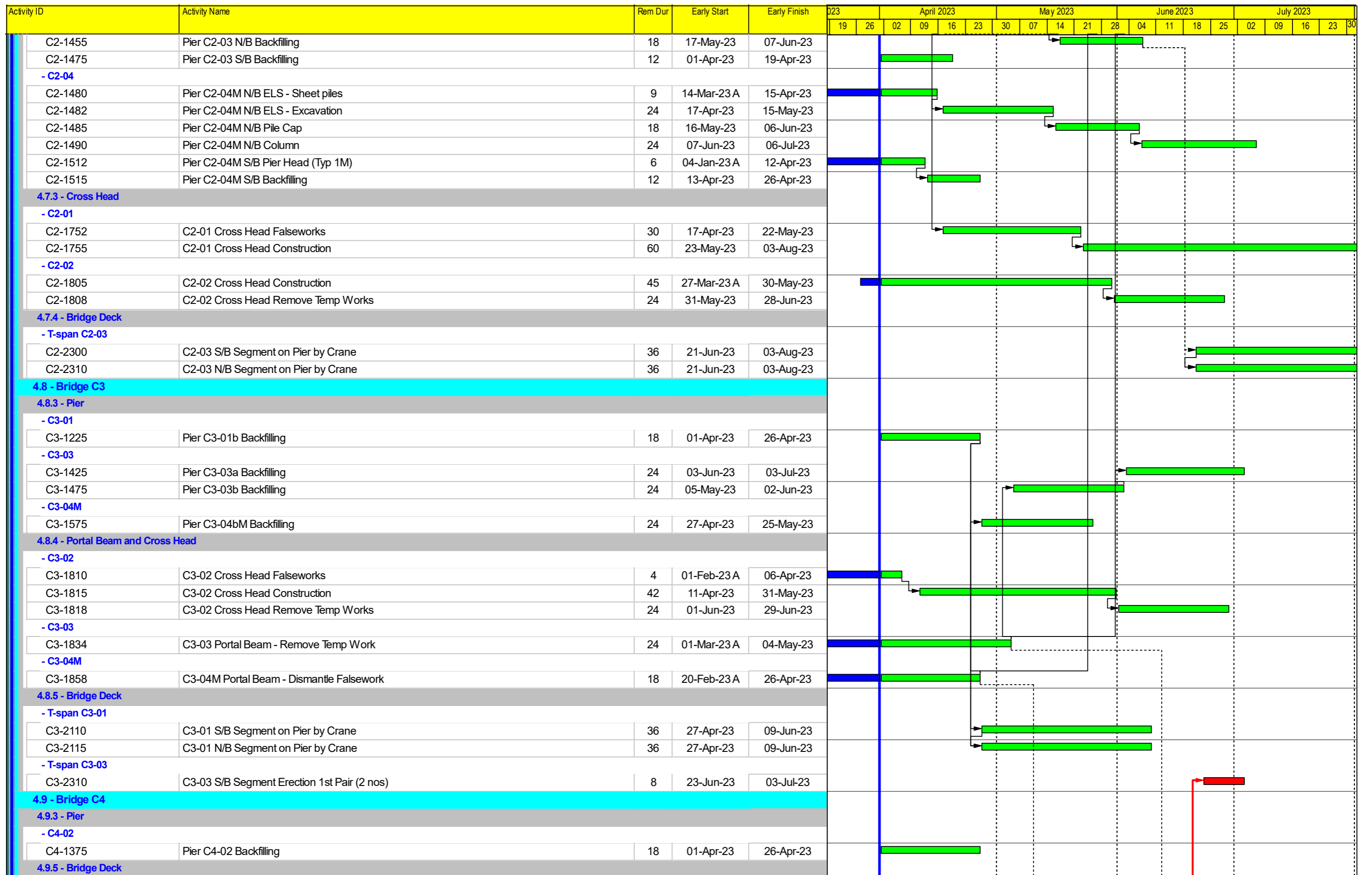


- █ Actual Work
- █ Non-critical
- █ Critical
- ◆ Milestone

**Contract ND/2019/05 - FBES (Shung Him Tong to Kau Lung Hang)**  
**Three-Month Rolling Programme**

Project ID : DPr15-5  
 Layout : 3MRP EPD  
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02-May-23	Draft		

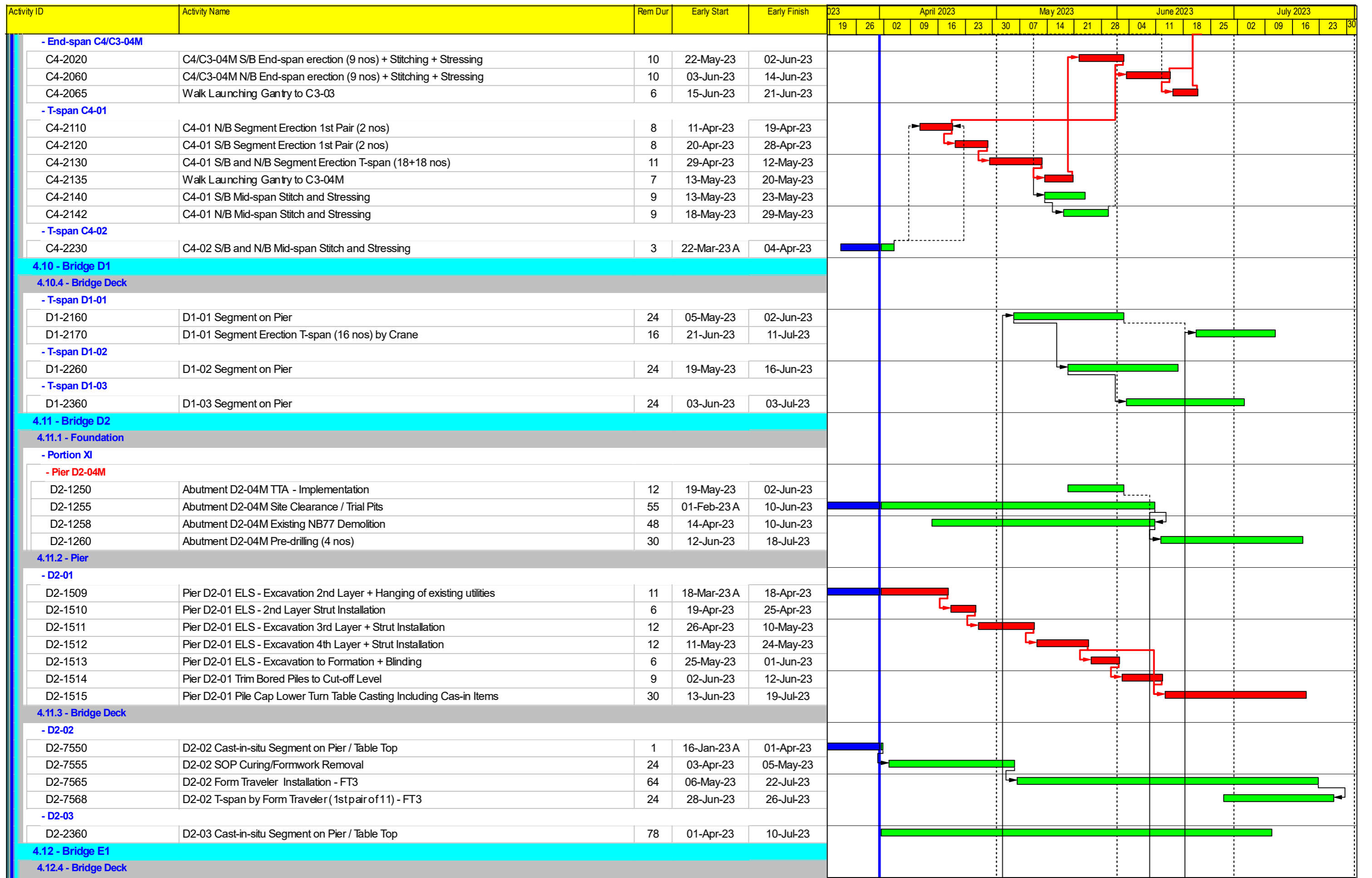


- Actual Work
- Non-critical
- Critical
- Milestone

**Contract ND/2019/05 - FBES (Shung Him Tong to Kau Lung Hang)**  
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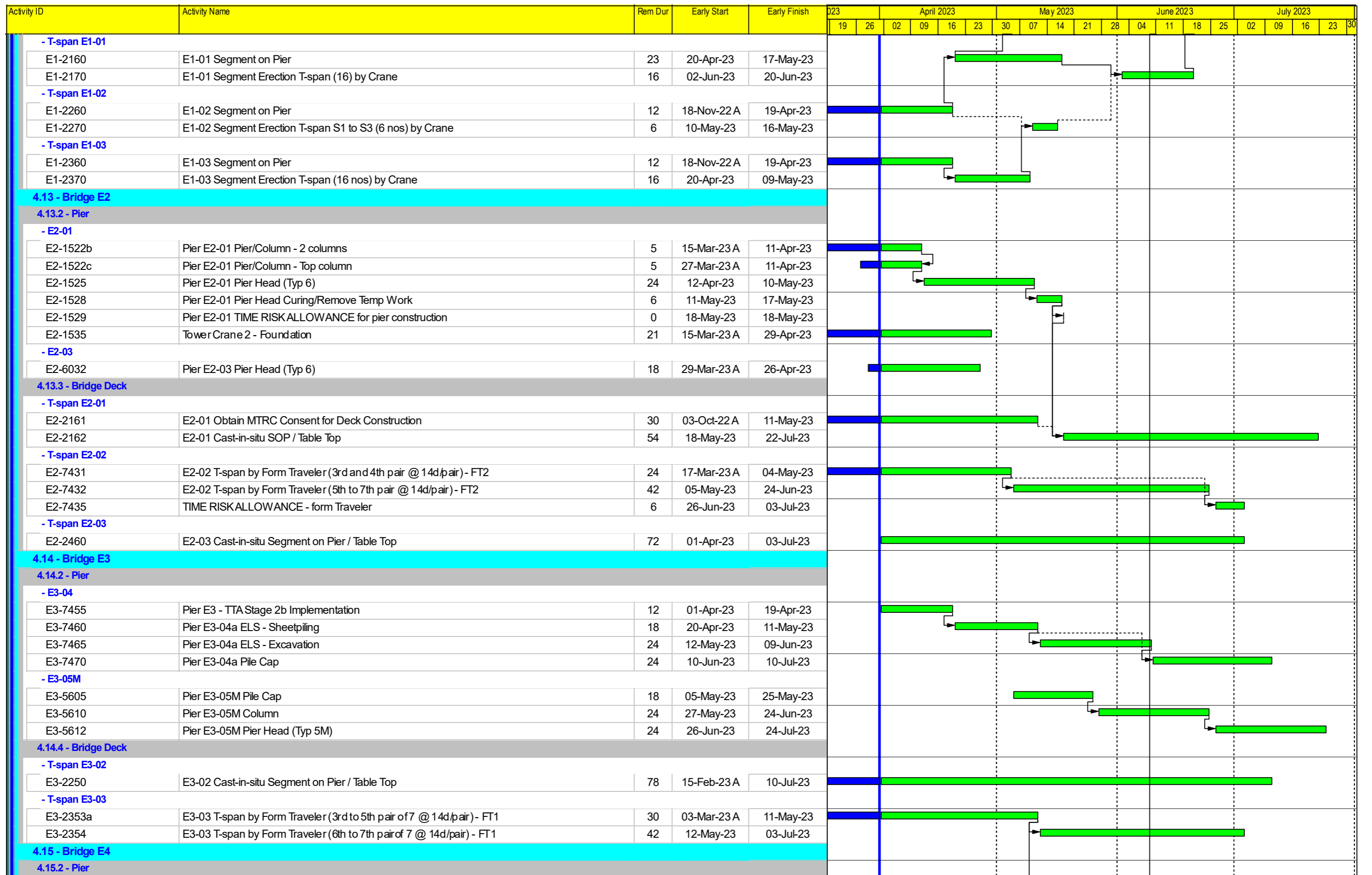


- █ Actual Work
- █ Non-critical
- █ Critical
- ◆ Milestone

**Contract ND/2019/05 - FBES (Shung Him Tong to Kau Lung Hang)**  
**Three-Month Rolling Programme**

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- Actual Work
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- ◆ Milestone

**Contract ND/2019/05 - FBES (Shung Him Tong to Kau Lung Hang)**  
**Three-Month Rolling Programme**

Project ID : DPR15-5  
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3MRP			
Date	Revision	Check...	Approved
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Activity ID	Activity Name	Rem Dur	Early Start	Early Finish	2023		April 2023				May 2023				June 2023			July 2023						
					19	26	02	09	16	23	30	07	14	21	28	04	11	18	25	02	09	16	23	30
<b>- E4-02</b>																								
E4-1345	Pier E4-02 Pre-drilling	18	16-Feb-23 A	26-Apr-23																				
E4-1350	Pier E4-02 ELS - Sheetpiling	24	27-Apr-23	25-May-23																				
E4-1352	Pier E4-02 ELS - Excavation	24	27-May-23	24-Jun-23																				
E4-1355	Pier E4-02 Footing	24	26-Jun-23	24-Jul-23																				
<b>5.0 - Fanling Highway Associated Works</b>																								
<b>5.2 - Fanling Highway Noise Barrier</b>																								
<b>5.2.3 - Noise Barrier NB109</b>																								
FHY-1512	Noise Barrier NB109 - Bay 5-13 Sheet Piles	72	09-Jan-23 A	03-Jul-23																				
FHY-1515	Noise Barrier NB109 - Bay 5-13 Footing	90	20-Apr-23	07-Aug-23																				
FHY-1517	Noise Barrier NB109 - Bay 5-13 Stem Wall	90	12-May-23	28-Aug-23																				
FHY-1555	Noise Barrier NB109 - Fabrication and Delivery	180	01-Apr-23	09-Nov-23																				
<b>5.2.5 - Fanling Bypass N/B Slip Road</b>																								
TSW-4173	Existing NB29 Panels near D2-04M - Store for Reuse	30	12-Jun-23	18-Jul-23																				
<b>5.3 - Tai Wo Service Road East (TWSR-East)</b>																								
<b>5.3.1 - TWSR-East HKY FB Extension</b>																								
<b>- Lift and Stairs Structure</b>																								
FBE-1235	HKY FB East LT1 Lift Shaft - Steel Works	60	20-Apr-23	03-Jul-23																				
FBE-1248	HKY FB East - Stairs Erection	12	25-Feb-23 A	19-Apr-23																				
<b>- HKY FB Extension Deck</b>																								
FBE-1352	HKY FB East - Lighting System Procurement and Delivery	25	01-Aug-22 A	05-May-23																				
FBE-1355	HKY FB East - ABWF and BS Works	65	06-May-23	24-Jul-23																				
<b>5.3.2 - TWSR East (1) Adjacent to Cycle Track</b>																								
<b>- Ch100 to Ch200</b>																								
TSE-2405	TWSR-East Ch100-Ch200 S/B - New Feature FW01 (Fill Slope)	24	26-Jun-23	24-Jul-23																				
<b>5.3.3 - TWSR-East Bus-Bus Interchange</b>																								
<b>- Bus-Bus Interchange Shelter</b>																								
<b>- Covered Walkway</b>																								
BBI-1205	BBI Covered Walkway - Fabrication and Delivery	18	01-Sep-22 A	26-Apr-23																				
BBI-1208	BBI Covered Walkway - Lighting Procurement and Delivery	54	11-Oct-22 A	09-Jun-23																				
BBI-1215	BBI Covered Walkway - Footing	21	14-Nov-22 A	29-Apr-23																				
BBI-1225	BBI Covered Walkway - Steel Works and Roof	60	02-May-23	13-Jul-23																				
BBI-1230	BBI Covered Walkway - Lighting Installation	24	14-Jun-23	13-Jul-23																				
<b>- Bus-Bus Interchange Road Works</b>																								
BBI-1315	BBI - New Feature FW02 (L-Shape Ret Wall)	36	19-May-23	03-Jul-23																				
BBI-1320	BBI - Drainage, Sewerage and Utilities	30	27-May-23	03-Jul-23																				
BBI-1322	BBI - DN150 Watermain	30	27-May-23	03-Jul-23																				
<b>- TWSR East (2) Entry to BBI from Fanling Highway</b>																								
BBI-1420	BBI Entry from FH - Site Formation	42	12-May-23	03-Jul-23																				
BBI-1425	BBI Entry from FH - New Feature FS01 (Fill Slope)	42	10-Jun-23	31-Jul-23																				
BBI-1430	BBI Entry from FH - Drainage, Sewerage and Utilities	42	10-Jun-23	31-Jul-23																				
<b>- TWSR East (2) BBI Exit to Fanling Highway</b>																								
BBI-1522	BBI Exit to FH - Application for Lighting Removal	60	10-Jun-23	21-Aug-23																				
<b>5.3.5 - TWSR-East Noise Barrier</b>																								
<b>- Noise Barrier NB68</b>																								
TSE-1568	Noise Barrier NB68 - Fabrication and Delivery	150	01-Apr-23	04-Oct-23																				
<b>5.3.6 - PMI 027 - DN1200 and DN600 Watermain Diversion</b>																								
<b>- DN600 Watermain</b>																								
PMI027-240	DN600 - Watermain Connection to Existing by WSD	6	16-Feb-23 A	12-Apr-23																				

■ Actual Work  
■ Non-critical  
■ Critical  
◆ Milestone

**Contract ND/2019/05 - FBES (Shung Him Tong to Kau Lung Hang)**  
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Activity ID	Activity Name	Rem Dur	Early Start	Early Finish	2023							April 2023			May 2023			June 2023			July 2023		
					19	26	02	09	16	23	30	07	14	21	28	04	11	18	25	02	09	16	23
<b>5.4 - Tai Wo Service Road West (TWSR-West)</b>																							
<b>5.4.2 - TWSR-West Ch000 to Ch200</b>																							
TSW-4106	TWSRW Ch100-Ch150 Drainage 1650dia - SMH FL9109 to existing MH	78	01-Apr-23	10-Jul-23																			
TSW-4107	TWSRW Ch100-Ch150 Sewerage DN450 - FMH TWS2.04 to TWS2.06	78	01-Apr-23	10-Jul-23																			
TSW-4109	TWSRW Ch100-Ch150 Watermain - DN450 and DN150 Include Testing	36	01-Apr-23	18-May-23																			
TSW-4350	TWSRW Ch150-Ch200 S/B - Roadworks+Footpath	16	01-Nov-22 A	24-Apr-23																			
TSW-4355	TWSRW Ch150-Ch200 S/B - Road Lighting including Cabling	16	01-Nov-22 A	24-Apr-23																			
<b>5.4.3 - TWSR-West Ch200 to Ch450</b>																							
<b>- Ch200 to Ch400</b>																							
TSW-4437	TWSRW Ch200 to Ch440 Watermain - DN450 and DN150 Include Testing	24	18-Oct-22 A	04-May-23																			
TSW-4438	TWSRW Ch200-Ch400 Utility - Gasmain S/B Lane	24	03-Oct-22 A	04-May-23																			
TSW-4449	TWSRW Ch200-Ch400 New Feature FS21	24	15-Nov-22 A	04-May-23																			
<b>- Ch400 to Ch450</b>																							
TSW-4458	TWSRW Ch400-Ch450 Drainage/Sewerage works Interfaced with FL48	18	12-May-23	02-Jun-23																			
TSW-4459	TWSRW Ch400-Ch450 Utility - Gasmain N/B Lane	18	05-May-23	25-May-23																			
TSW-4461	TWSRW Ch400-Ch450 Utility - HKT Ducts	18	05-May-23	25-May-23																			
TSW-4462	TWSRW Ch400-Ch450 Utility - CTG+HGC+NWT+HKBN+CCTV Ducts	18	05-May-23	25-May-23																			
TSW-4463	TWSRW Ch400-Ch450 Road Works+Footpath+Cycletrack	48	27-May-23	24-Jul-23																			
<b>5.4.4 - TWSR-West Ch450 to Ch600</b>																							
<b>- Ch450 to Ch600 Footpath</b>																							
TSW-3126	TWSRW Ch450-Ch600 Utility - CLP Ducts 11KV	24	06-Mar-23 A	04-May-23																			
TSW-3127	TWSRW Ch450-Ch600 Utility - HKT Ducts	42	05-May-23	24-Jun-23																			
TSW-3128	TWSRW Ch450-Ch600 Utility - CTG+HGC+NWT+HKBN+CCTV Ducts	24	15-Mar-23 A	04-May-23																			
TSW-3129	TWSRW Ch450-Ch600 - Drainage works interfaced with FL48	24	27-May-23	24-Jun-23																			
<b>5.4.5 - TWSR-West Ch600 to Ch800</b>																							
<b>- Ch600 to Ch800 Slope Works</b>																							
TSW-1150	Slope FS04 - Bottom Slope Berm Drainage	24	01-Apr-23	04-May-23																			
TSW-1155	Existing Feature 3SW-C/C360 Soil Nail	120	05-May-23	25-Sep-23																			
TSW-1160	Existing Feature 3SW-C/C430 Soil Nail	120	05-May-23	25-Sep-23																			
<b>- Ch600 to Ch800 Road Works</b>																							
TSW-1170	TWSRW Ch600 to Ch800 N/B - Site Clearance and Road Formation	28	15-Nov-22 A	07-Jun-23																			
TSW-1183	TWSRW Ch600 to Ch800 N/B - Drainage and Gully	60	19-May-23	31-Jul-23																			
TSW-1184	TWSRW Ch600 to Ch800 N/B - Road Lighting Including Cabling	60	03-Jun-23	14-Aug-23																			
TSW-1185	TWSRW Ch600 to Ch800 N/B - Roadworks+Footpath+Cycletrack	78	03-Jun-23	04-Sep-23																			
<b>5.4.6 - Existing Utility Diversion</b>																							
<b>- TWSRW Divert Existing Utilities</b>																							
TSW-8810	TWSRW Gasmain Diversion	90	26-Jun-23	11-Oct-23																			
TSW-8830	TWSRW CLP 132kV - Cable Laying/Pulling	24	20-Feb-23 A	04-May-23																			
TSW-8835	TWSRW CLP 132kV - Cable Diversion	24	20-Apr-23	18-May-23																			
TSW-8840	TWSRW CLP 132kV - Existing Cable Removal	18	19-May-23	09-Jun-23																			
TSW-8850	TWSRW Telecom - Cable Diversion	90	26-Jun-23	11-Oct-23																			
<b>- Sewerage Diversion</b>																							
TSW-8860	TWSRW Existing Sewerage Diversion Stage 1	24	27-May-23	24-Jun-23																			
<b>- Watermain Diversion Stage 1</b>																							
TSW-5750	TWSRW DN450 WM Diversion Stage 1 - Temp Connection Pipe	30	27-Apr-23	02-Jun-23																			
TSW-8755	TWSRW DN450 WM Diversion Stage 1 - Pressure Test	18	03-Jun-23	24-Jun-23																			
TSW-8760	TWSRW DN450 WM Diversion Stage 1 - Swabbing	12	26-Jun-23	10-Jul-23																			
TSW-8775	TWSRW DN150 WM Diversion Stage 1 - Temp Connection Pipe	30	12-May-23	16-Jun-23																			
TSW-8780	TWSRW DN150 WM Diversion Stage 1 - Pressure Test	18	17-Jun-23	10-Jul-23																			

- Actual Work
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- ◆ Milestone

**Contract ND/2019/05 - FBES (Shung Him Tong to Kau Lung Hang)**  
**Three-Month Rolling Programme**

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3MRP			
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02-May-23	Draft		

Activity ID	Activity Name	Rem Dur	Early Start	Early Finish	2023							April 2023				May 2023				June 2023			July 2023		
					19	26	02	09	16	23	30	07	14	21	28	04	11	18	25	02	09	16	23	30	
<b>5.5 - Jockey Club Road</b>																									
<b>5.5.2 - Tong Hang Village Road (THV Road)</b>																									
JCR-2180	THV TTA Stage 1 Implementation	12	23-May-23	06-Jun-23																					
JCR-2181	THV Road N/B - Application for Lighting Removal	60	01-Apr-23	16-Jun-23																					
JCR-2182	THV Road N/B - Lighting Removal/Install Temporary Lighting	12	17-Jun-23	03-Jul-23																					
JCR-2185	THV Road N/B Footpath - Site Clearance	12	07-Jun-23	20-Jun-23																					
JCR-2190	THV Road N/B - Issue PMI for Ret Wall FW51	0	02-May-23																						
JCR-2193	THV Road N/B - Ret Wall FW51 Preparation Work	30	02-May-23	06-Jun-23																					
JCR-2195	THV Road N/B - Ret Wall FW51 Construction	90	07-Jun-23	21-Sep-23																					
<b>5.5.3 - North Bound</b>																									
JCR-2375	JCR N/B - Slope Works FS05 - Slope Excavation	12	16-Jan-23 A	19-Apr-23																					
JCR-2380	JCR N/B - Slope Works FS05 - Existing Soil Nail Removal	30	20-Apr-23	25-May-23																					
JCR-2415	JCR N/B - 3SW-C/F63 - Rockfill	18	16-Jan-23 A	26-Apr-23																					
JCR-2440	JCR N/B - Utility Install/Traffic Light Civil Provision	18	13-Apr-23	04-May-23																					
JCR-2450	JCR N/B - Temp Road and Remove Central Barrier for TTA Stage 2	18	05-May-23	25-May-23																					
<b>5.5.5 - South Bound</b>																									
JCR-2600	JCR TTA Stage 2A Implementation	12	27-May-23	09-Jun-23																					
JCR-2610	JCR S/B Slow Lane - Drainage Works	24	10-Jun-23	10-Jul-23																					
JCR-2620	JCR S/B Slow Lane - Utility Install/Road Lighting	24	10-Jun-23	10-Jul-23																					
JCR-2630	JCR S/B Slow Lane - Road Paving/Marking	48	10-Jun-23	07-Aug-23																					

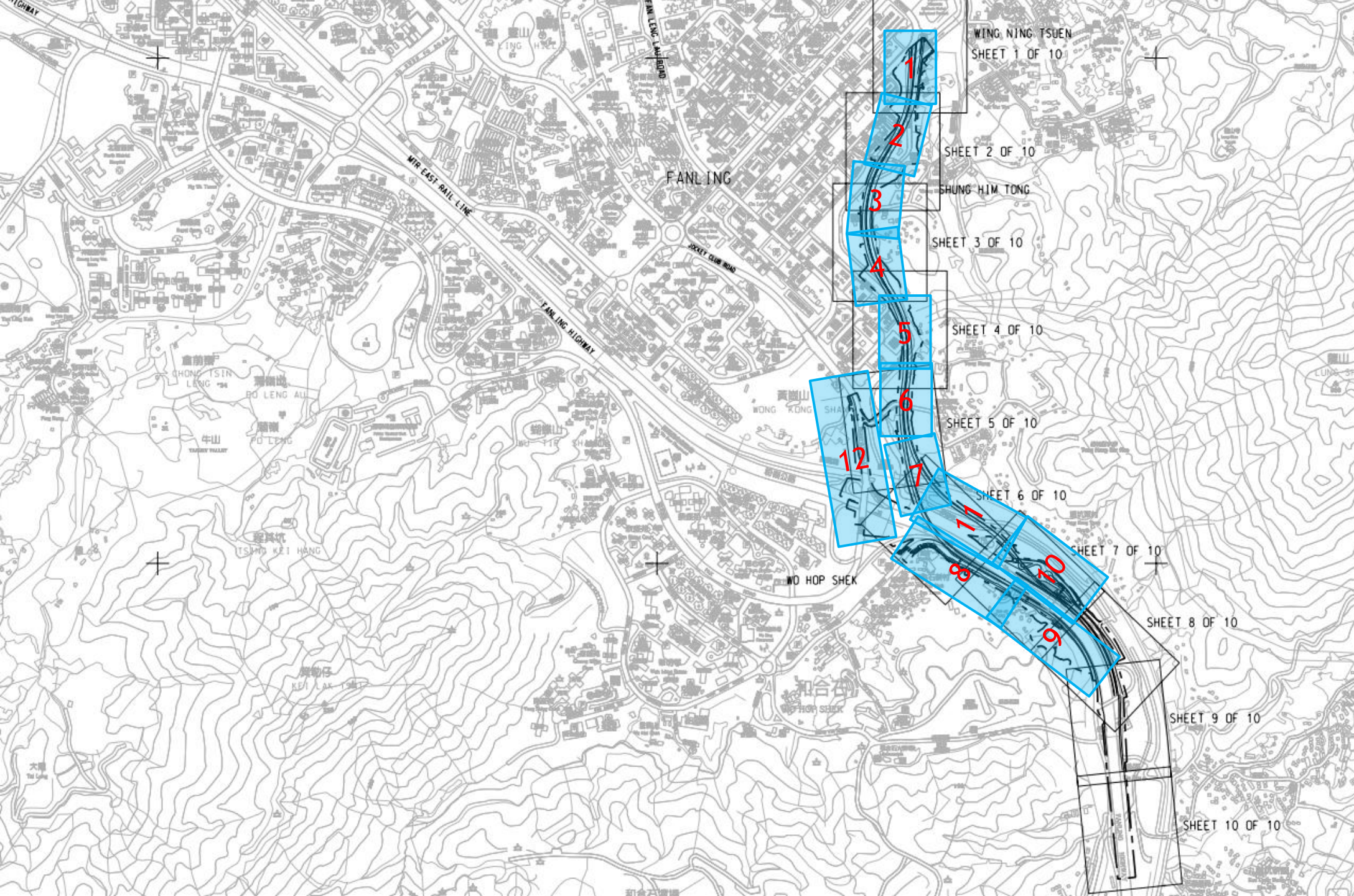
- █ Actual Work
- █ Non-critical
- █ Critical
- ◆ Milestone

**Contract ND/2019/05 - FBES (Shung Him Tong to Kau Lung Hang)**  
**Three-Month Rolling Programme**

Project ID : DPr15-5  
 Layout : 3MRP EPD  
 Date : 04-May-23 / Page 7 of 7

3MRP			
Date	Revision	Check...	Approved
02-May-23	Draft		





**CONSULTANT**  
2020124

AECOM Asia Company Ltd.  
www.aecom.com

**SUB-CONSULTANTS**  
2020124-1

**ISSUE/REVISION**  
01

NO.	DATE	DESCRIPTION	CHK.
-	JUN-19	TENDER DRAWING	P/PCM

**STATUS**  
01

**SCALE**  
A1:1:7000

**DIMENSION UNIT**  
METRES

**KEY PLAN**  
01

**PROJECT NO.**  
60335576

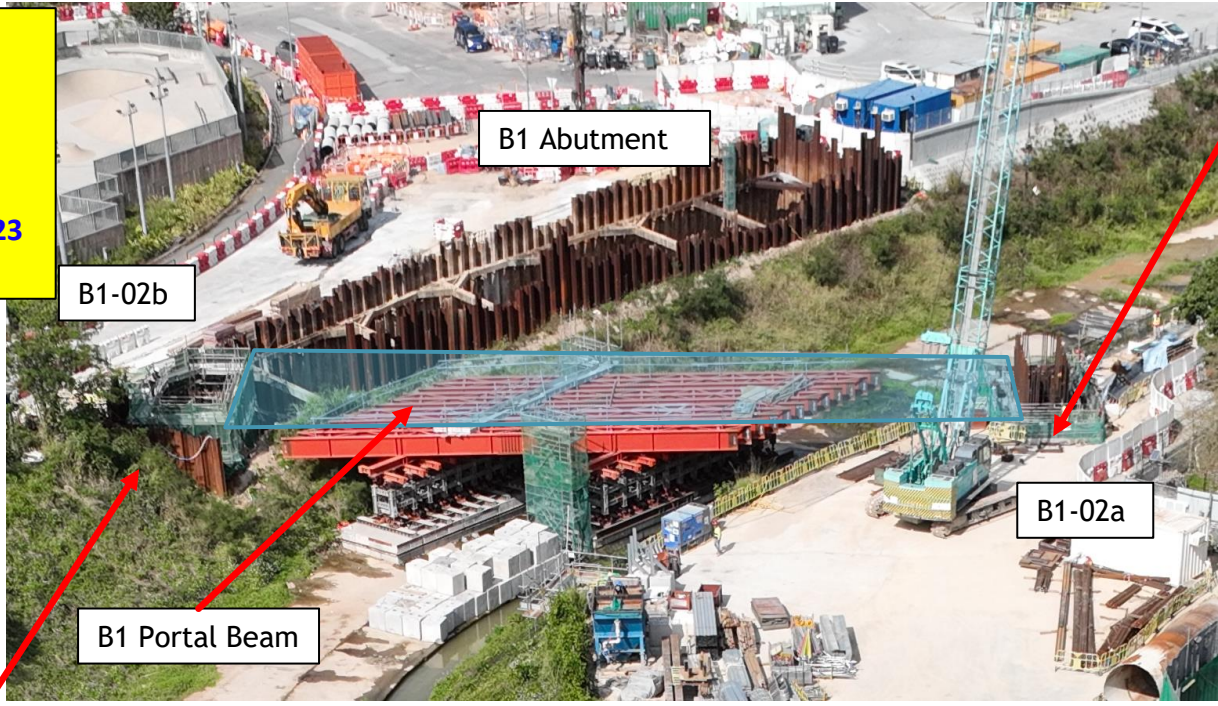
**CONTRACT NO.**  
ND/2019/05

**SHEET TITLE**  
KEY PLAN AND LOCATION PLAN

AECOM and its consultants shall be responsible for the accuracy of the information provided in this drawing. AECOM and its consultants shall not be held responsible for any errors or omissions in this drawing. AECOM and its consultants shall not be held responsible for any errors or omissions in this drawing. AECOM and its consultants shall not be held responsible for any errors or omissions in this drawing.

# ▶ North Team Area Highlighted - B1-02 Portal Beam

Portion 1 (On Kui St)  
B1-02 Portal Beam  
- Pile cap Concreted on 05/11/22.  
- ES:01/11/23 EF:20/04/24  
- LS:01/11/23 LF:20/04/24  
- Target 1<sup>st</sup> pour concreting by 10/03/23  
- Ahead against R14A



B1 Abutment

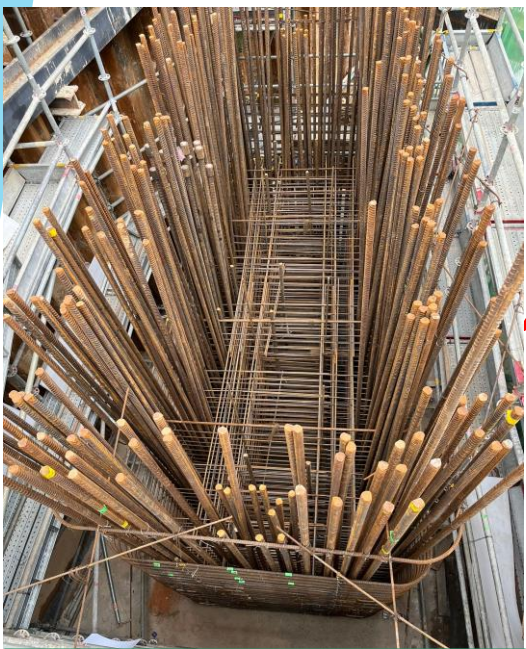
B1-02b

B1-02a

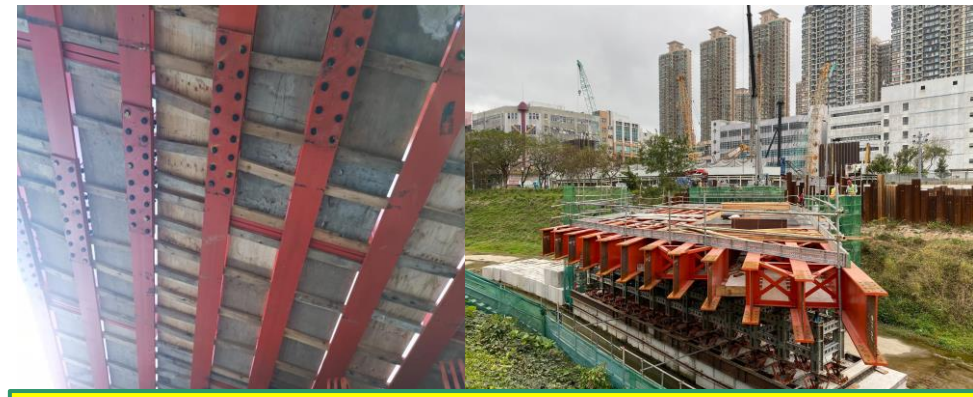
B1 Portal Beam



B1-02a pier construction in progress.



B1-02b pier construction in progress.



B1-02 portal beam construction in progress

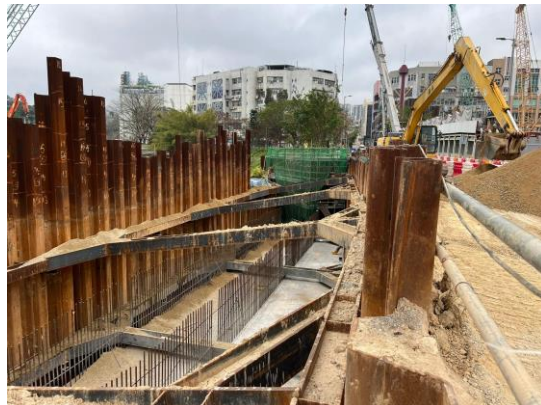


B1-02 Mega-shor tower for portal beam construction completed on 29/12/22

# 1 North Team



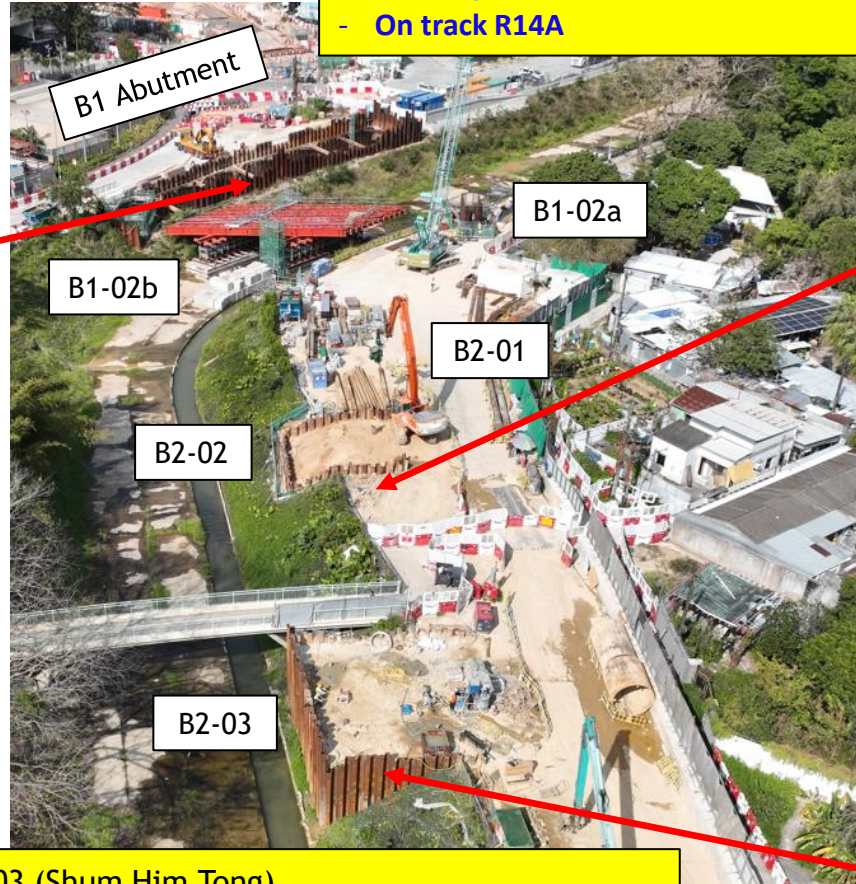
B1-01M Pile Cap Concreted & Formwork Removal works in progress



B1-01M backfilling in progress

## B1-01M (On Kui St)

- Pile cap concreted
- Backfilling in Progress
- Pile Cap - ES: 22/11/22 EF: 06/02/23
- Pile Cap - LS: 26/10/23 LF: 06/01/24
- **On track R14A**



B1 Abutment

B1-02a

B1-02b

B2-01

B2-02

B2-03

## B2-03 (Shum Him Tong)

- B2-03 grouting of reservation tubes completed
- ELS Sheet Piling Works planned to commence on 13/02/23
- Bored Piling - ES: 03/01/23 EF: 18/01/23
- Bored Piling - LS: 19/07/23 LF: 03/08/23
- **Ahead R14A**



B2-02 Sheet Piling Works in progress

## B2-02 (Shum Him Tong)

- Sheet Piling Works in Progress: 30/96 nos. completed (updated on 8/2)
- ELS - ES: 22/04/23 EF: 13/05/23
- ELS - LS: 28/10/23 LF: 27/11/23
- **Ahead R14A**



B2-03 Grouting of reservation tubes Completed

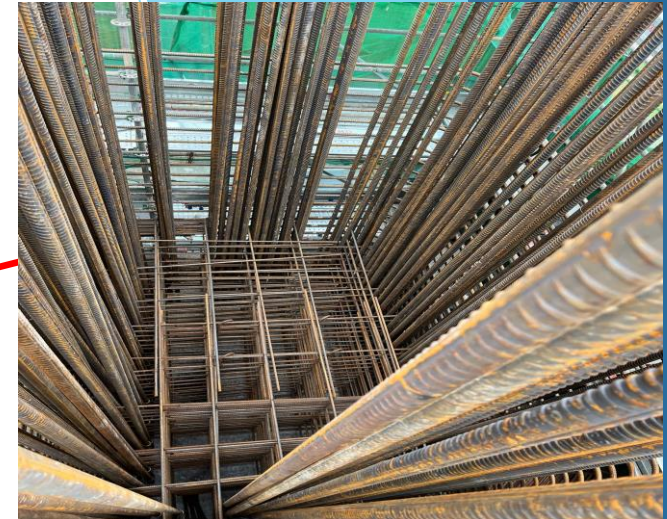
# 2 North Team

**C1-02a & b pier**

- C1-02a & b pier construction in progress
- Pier - ES: 29/12/22 EF: 13/02/23  
- LS: 25/09/23 LF: 08/11/23
- **On Track against R14A**



**C1-02a pier 1<sup>st</sup> & 2<sup>nd</sup> pour completed on 20/01/23 & 03/02/23 respectively**



**C1-02b pier 1<sup>st</sup> pour in progress**



**C1-01a 3rd layer of strut Installation completed**

**C1-01a (Shum Him Tong)**

- Pipe Piling Works Completed
- 3<sup>rd</sup> layer of strut Installation completed
- Target to cast blinding layer on 11/02/23
- ELS - ES: 17/12/22 EF: 17/01/23  
- ELS - LS: 28/07/23 LF: 24/08/23
- **On Track against R14A**

**C1-01b pier head**

- C1-01b pier head in progress
- Pier head  
- ES: 18/11/22 EF: 15/12/22  
- LS: 01/09/23 LF: 28/09/23
- **On Track against R14A**

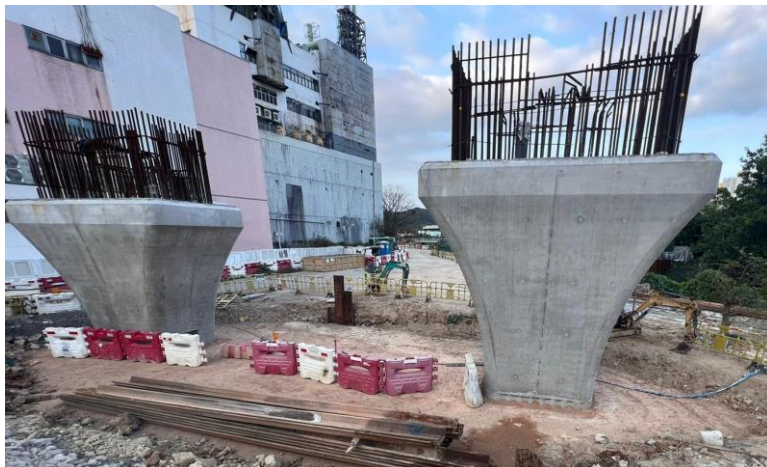


**C1-01b pier head construction in progress**

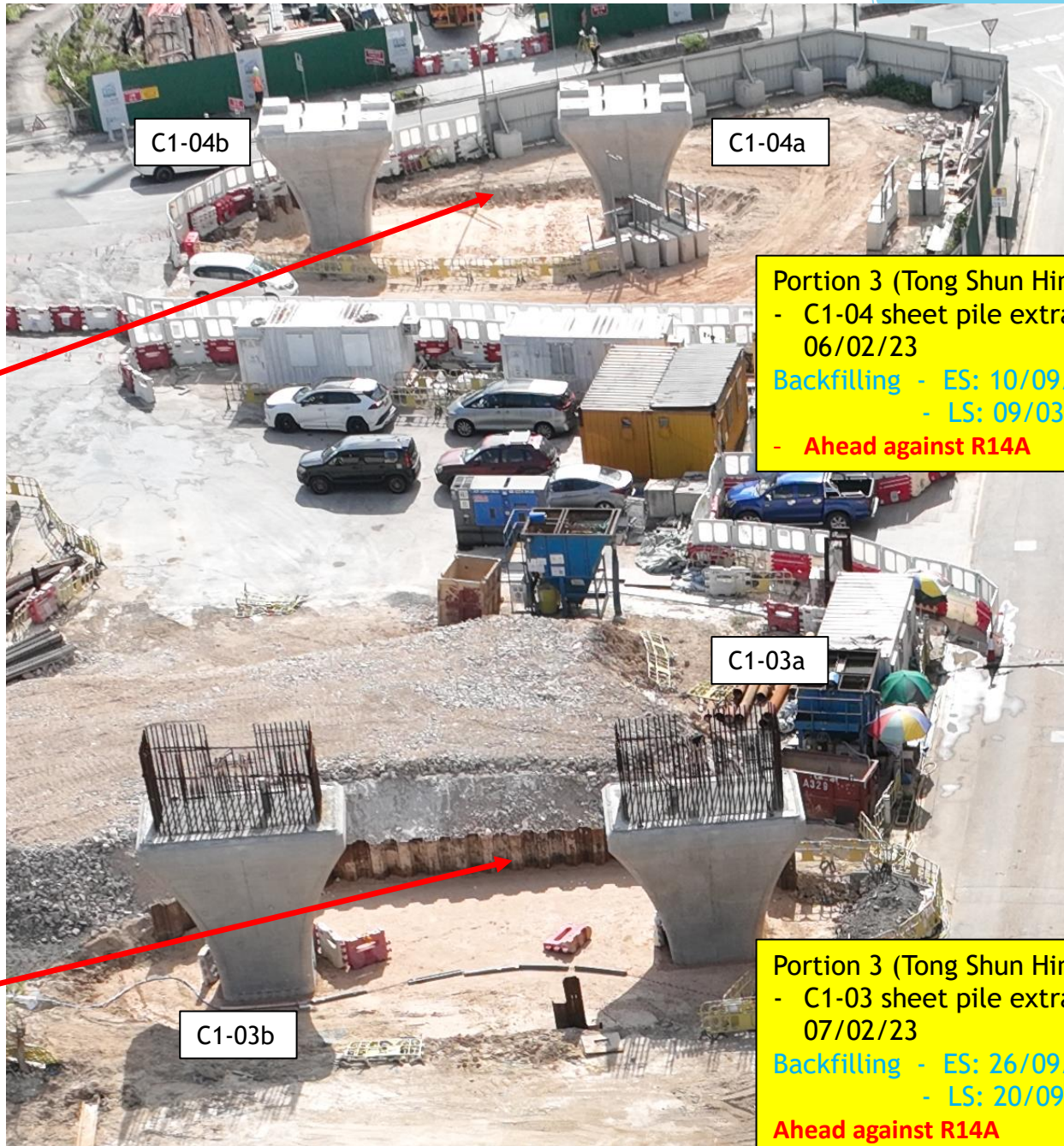
## North Team



C1-04 sheet pile extraction completed on 06/02/23.  
Backfilling to E.G.L. in progress.



C1-03 sheet pile extraction completed on 07/02/23.  
Backfilling to E.G.L. in progress.



C1-04b

C1-04a

Portion 3 (Tong Shun Hing)

- C1-04 sheet pile extraction completed on 06/02/23

Backfilling - ES: 10/09/22 EF: 16/09/22

- LS: 09/03/24 LF: 09/03/24

- Ahead against R14A

C1-03a

C1-03b

Portion 3 (Tong Shun Hing)

- C1-03 sheet pile extraction completed on 07/02/23

Backfilling - ES: 26/09/22 EF: 30/09/22

- LS: 20/09/23 LF: 20/09/23

Ahead against R14A

# 2 North Team

Portion 4  
C2-01 & C2-02 pier & cross head  
Construction

- C2-02 cross head in progress
- Cross head - ES: 14/01/23 EF: 22/05/23  
- LS: 30/06/23 LF: 31/10/23

Target 1<sup>st</sup> pour concreting by 15/04/23

- On Track against R14A



C2-02 cross head construction in progress



C2-01 Dismantling of falsework completed



## North Team

### Portion 5 (On Lok Garden)

#### C2-03a & C2-04a & C3-01a pier head

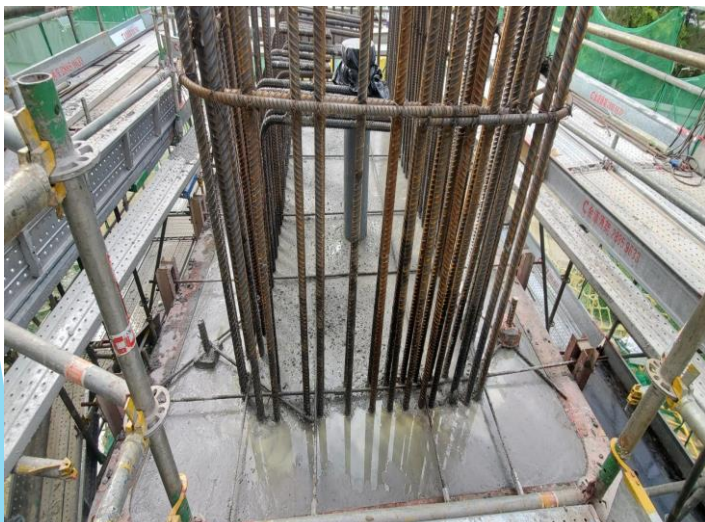
- C3-01 pier head completed
- C2-03a & C2-04a pier head in progress
- Pier + Pier head
  - ES: 15/11/22 EF: 30/01/23
  - LS: 14/12/22 LF: 22/02/23

- **On Track against R14A**

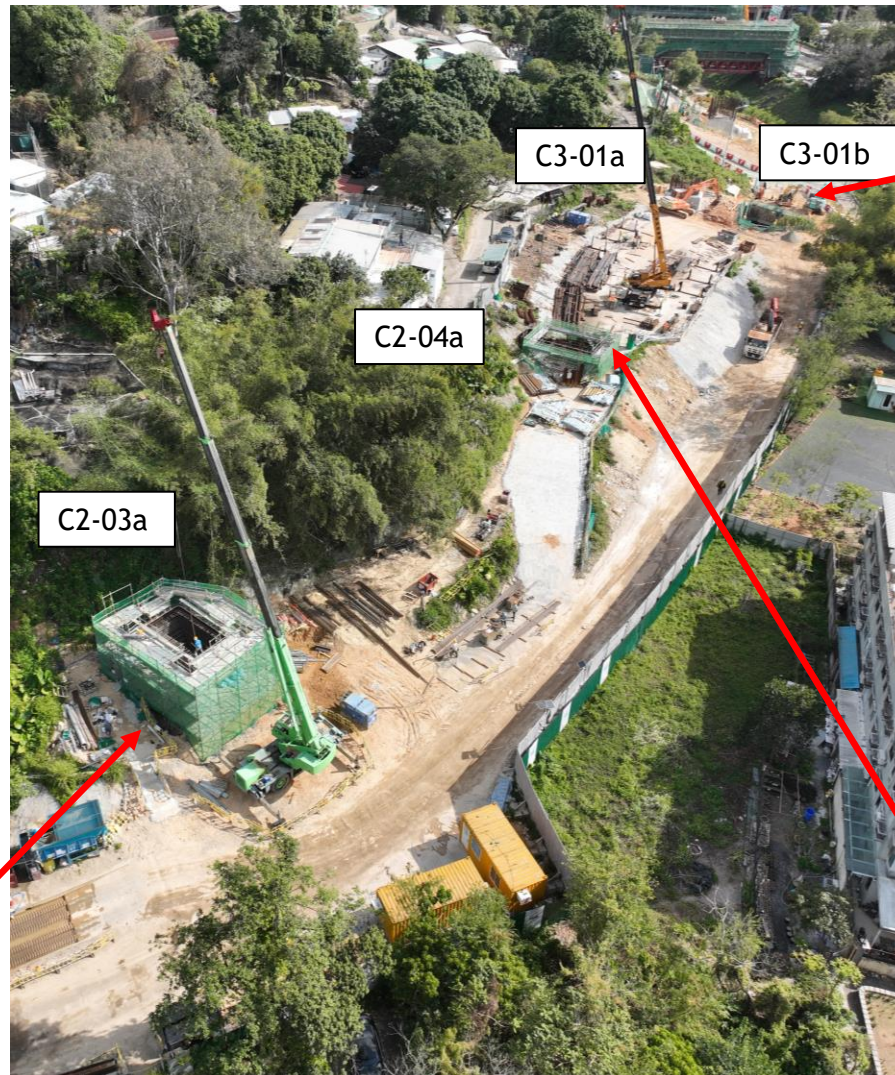
#### C3-01b ELS

- Pipe piling commenced on 05/01/23
- ELS - ES: 06/01/23 EF: 30/01/23
- LS: 21/02/23 LF: 13/03/23

- **On Track against R14A**



C2-03a pier head construction completed on 07/02/23



C3-01b blinding layer completed on 03/02/23. Pile head breaking in progress.



C2-04a pier head construction in progress

3

▶ North Team  
Area Highlighted  
- Cross head - C3-02



Footing for C3-02 cross head construction in progress



Portion 6 (Village side)  
C3-02 Cross Head Construction in Progress  
Cross head - ES:20/01/23 EF:29/05/23  
- LS:11/02/23 LF:16/06/23  
Target 1<sup>st</sup> pour concreting by 15/04/23  
- Ahead against R14A



4

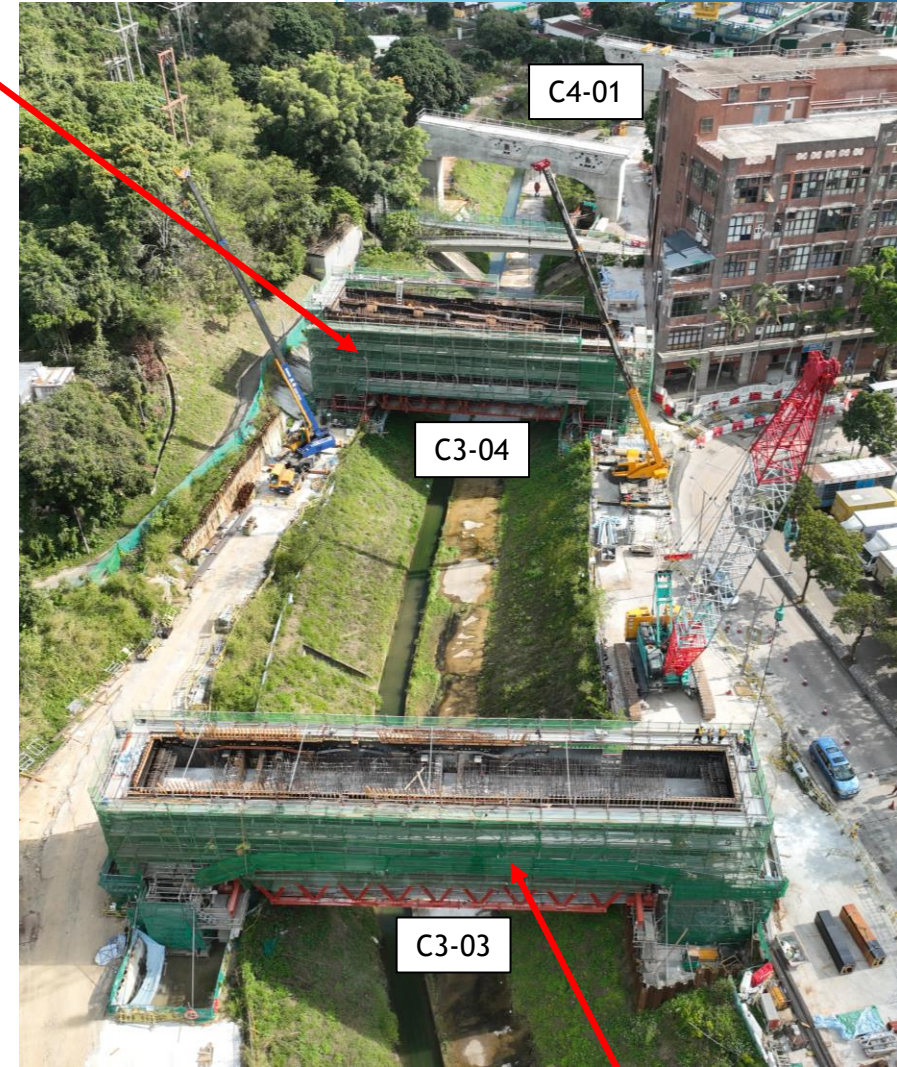
▶ North Team

Area Highlighted

- Portal Beam - C3-04 & C3-03

Portion 6 (Village side)  
 C3-04 MJ Portal Beam Construction in Progress

- Portal beam - ES:08/11/22 EF:06/03/23  
 LS:05/12/22 LF:01/04/23
- Target 2<sup>nd</sup> pour concreting by 15/02/23
- On track against R14A



C4-01

C3-04

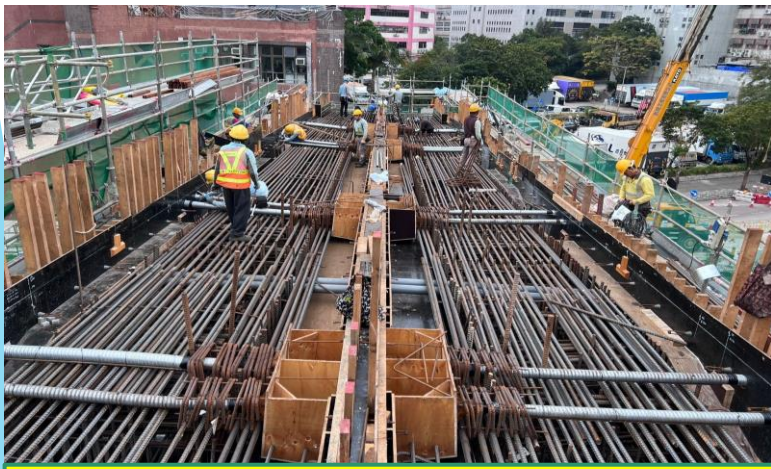
C3-03



C3-04 Portal Beam 1<sup>st</sup> pour concreting completed on 12/01/23



C3-03 Portal Beam 1<sup>st</sup> pour concreting completed on 19/01/23



C3-04 Portal Beam 2<sup>nd</sup> pour rebar fixing in progress



C3-03 Portal Beam rebar fixing for 2<sup>nd</sup> pour in progress

Portion 6 (Village side)  
 C3-03 Portal Beam Construction in Progress

- Portal beam - ES:03/10/22 EF:13/02/23  
 LS:12/12/22 LF:27/04/23
- Target 2<sup>nd</sup> pour concreting by 28/02/23
- On track against R14A

▶ North Team  
 Area Highlighted  
 - HD - C4-02

Portion 6  
 C4-02  
 • C4-02 cross head - hand over to bridge team on 01/02/23  
 - ES:29/11/22 EF:28/12/22  
 LS:13/12/22 LF:12/01/23  
 - On track against R14A



C4-02 Dismantling of temporary falsework completed on 13/01/23

North Team  
Area Highlighted - E2-01 & D2-01



E2-01 formwork erection for upper turntable in progress.



E2-01

D2-01

- Portion 8 (MTR trackside)
- E2-01
- Formwork Erection for upper turntable in progress
  - E2-01 Pile Cap Construction
    - ES: 07/10/22 EF: 05/01/23
    - LS: 07/10/22 LF: 05/01/23
  - Slippage against R14A
- D2-01
- Pre-grouting works (within MTRC 6m Zone) completed on 10/01/23.
  - Pipe piling in progress.
  - D2-01 ELS + Grouting + Excavation
    - ES:11/11/22 EF:16/02/23
    - LS:15/11/22 LF:20/02/23
  - Slippage against R14A



D2-01 pre-grouting works (within MTRC 6m Zone) completed. Pipe piling in progress.

## ▶ Viaduct

### Launching Girder (Bridge C4)

- Launching LG forward to erect C4-02 T-Span segments in progress



## ▶ Viaduct

### Segments Erection by Crane (Bridge E1 and D1)

- 2<sup>nd</sup> cast of the diaphragm at SOP E1-03 completed on 18 January.
- 2<sup>nd</sup> cast of the diaphragm at SOP E1-02 completed on 9 February.
- Completed erecting access towers for SOP E1-01 and D1-01.
- Temporary jack and sliding boxes installation completed for SOP E1-01 and D1-01.



## ▶ Viaduct

### Bridge Rotation

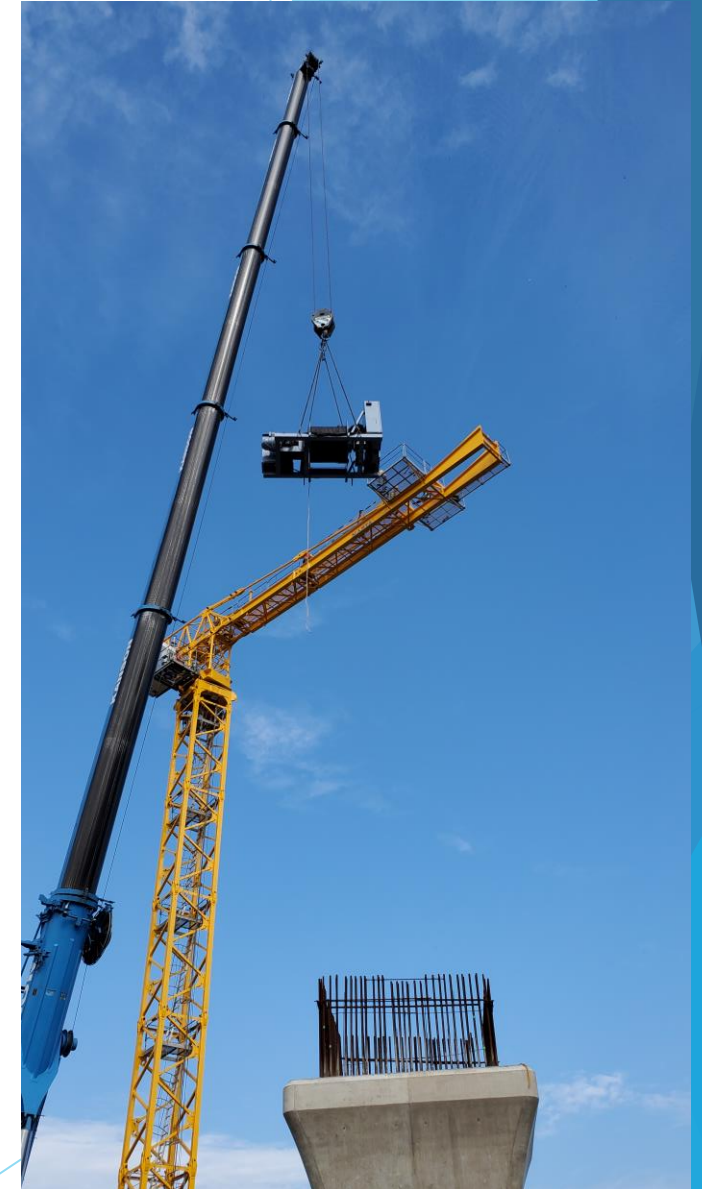
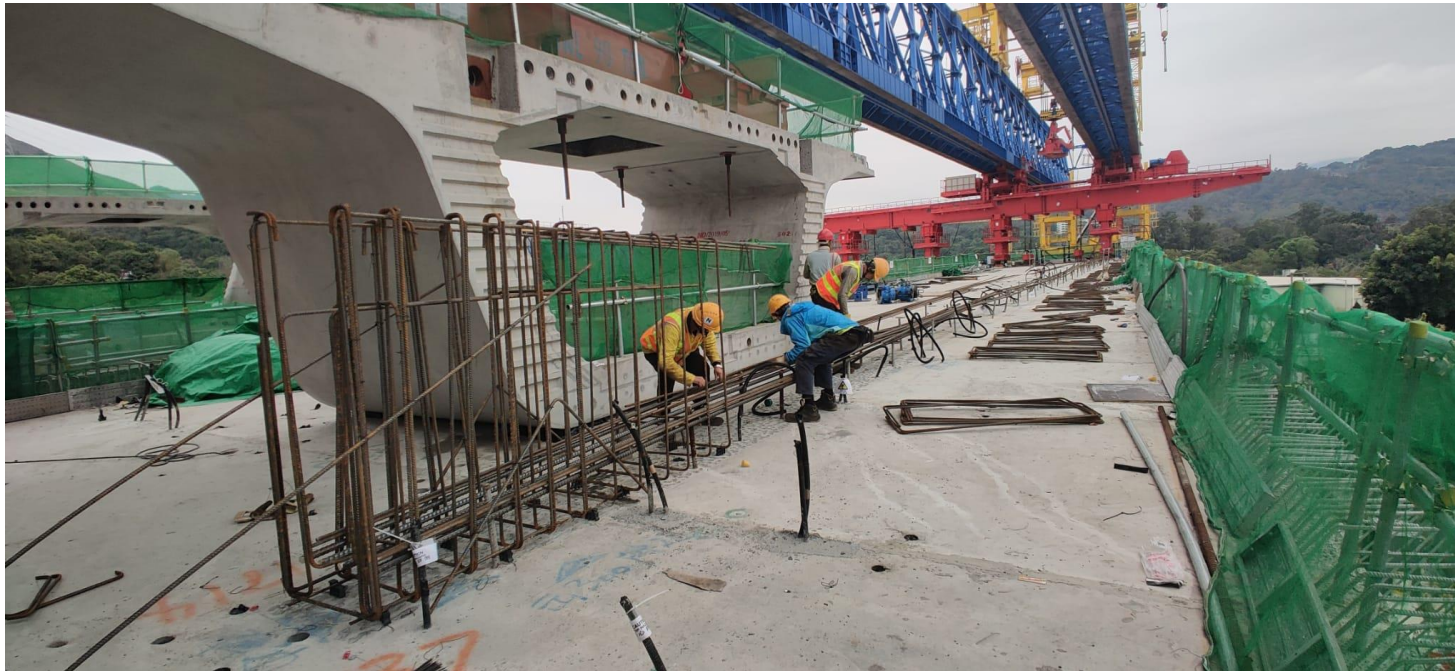
- Completed grouting shear steel support.
- Completed concreting the primary reaction blocks in 6 January.
- Formwork erection and trial rebar fixing for upper turntable in progress.



## ▶ Viaduct

### Others

- Erection of Tower Crane at D2-02 was completed.
- Preparation works for gantry crane assembly on segment deck at Bridge C4 was in progress.



## ▶ Viaduct

### Segment On Pier (SOP)

- Completed pouring for E3-01-E3-02-S01 and E3-01-E2-03-S01 on 10 January 2023.
- Horizontal TPT and false cantilever tendons threading for first pair segments at E3-01 commenced.
- Falsework erection for D2-02 SOP in progress.
- Preparation works for falsework erection for E3-02 SOP in progress.

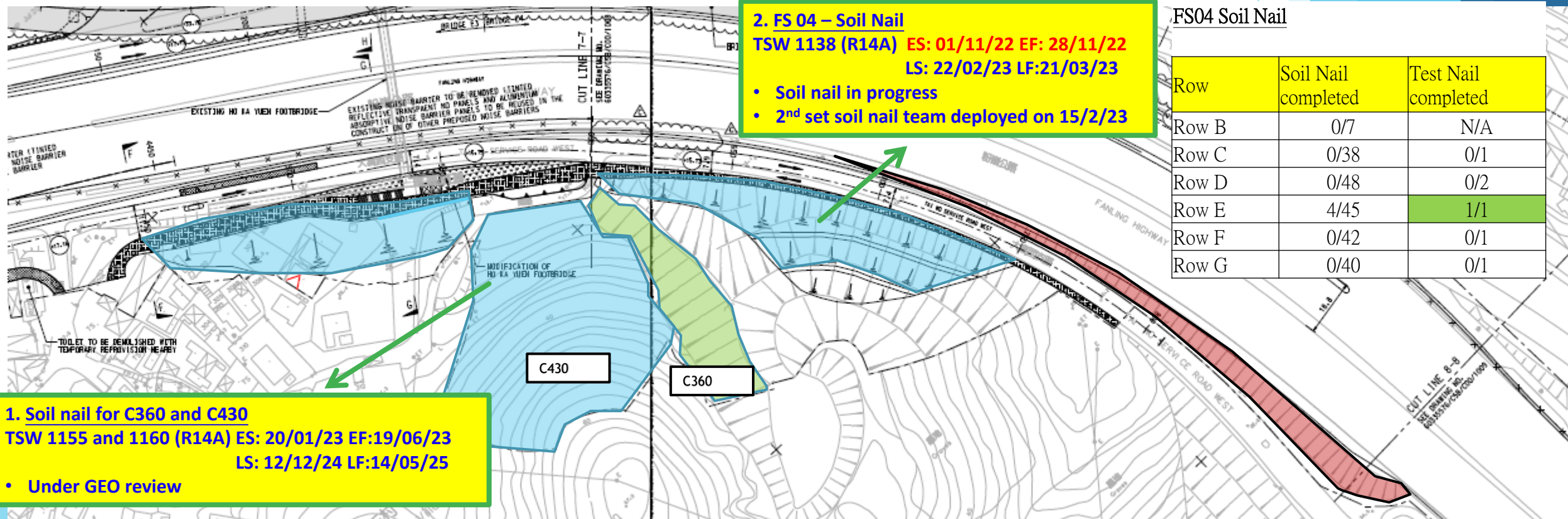


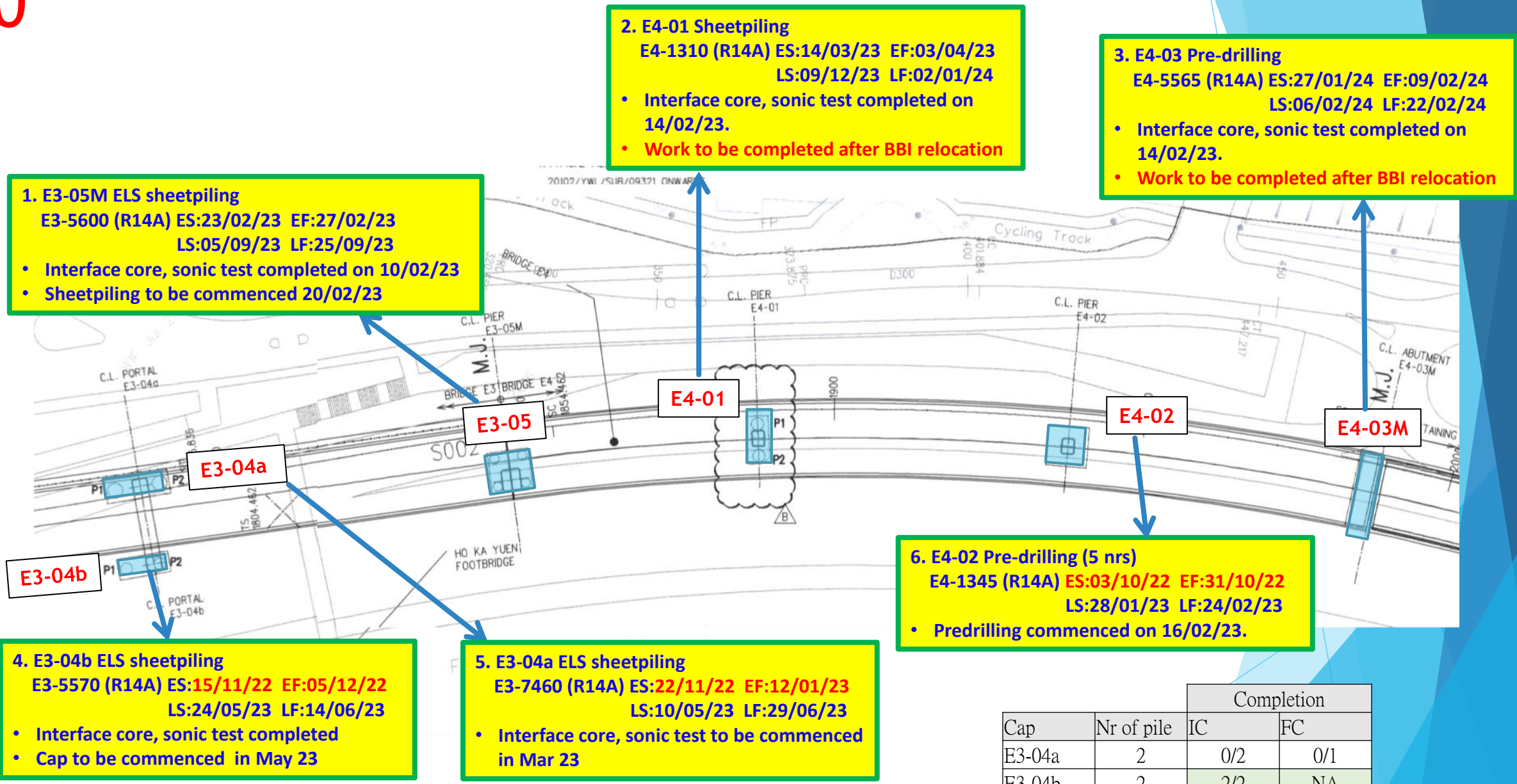


## ▶ South Team



2023年2月6日 16:45:22





**1. E3-05M ELS sheetpiling**  
 E3-5600 (R14A) ES:23/02/23 EF:27/02/23  
 LS:05/09/23 LF:25/09/23

- Interface core, sonic test completed on 10/02/23
- Sheetpiling to be commenced 20/02/23

**2. E4-01 Sheetpiling**  
 E4-1310 (R14A) ES:14/03/23 EF:03/04/23  
 LS:09/12/23 LF:02/01/24

- Interface core, sonic test completed on 14/02/23.
- Work to be completed after BBI relocation

**3. E4-03 Pre-drilling**  
 E4-5565 (R14A) ES:27/01/24 EF:09/02/24  
 LS:06/02/24 LF:22/02/24

- Interface core, sonic test completed on 14/02/23.
- Work to be completed after BBI relocation

**4. E3-04b ELS sheetpiling**  
 E3-5570 (R14A) ES:15/11/22 EF:05/12/22  
 LS:24/05/23 LF:14/06/23

- Interface core, sonic test completed
- Cap to be commenced in May 23

**5. E3-04a ELS sheetpiling**  
 E3-7460 (R14A) ES:22/11/22 EF:12/01/23  
 LS:10/05/23 LF:29/06/23

- Interface core, sonic test to be commenced in Mar 23

**6. E4-02 Pre-drilling (5 nrs)**  
 E4-1345 (R14A) ES:03/10/22 EF:31/10/22  
 LS:28/01/23 LF:24/02/23

- Predrilling commenced on 16/02/23.

Cap	Nr of pile	Completion	
		IC	FC
E3-04a	2	0/2	0/1
E3-04b	2	2/2	NA
E3-05M	4	4/4	1/1
E4-01	2	2/2	1/1

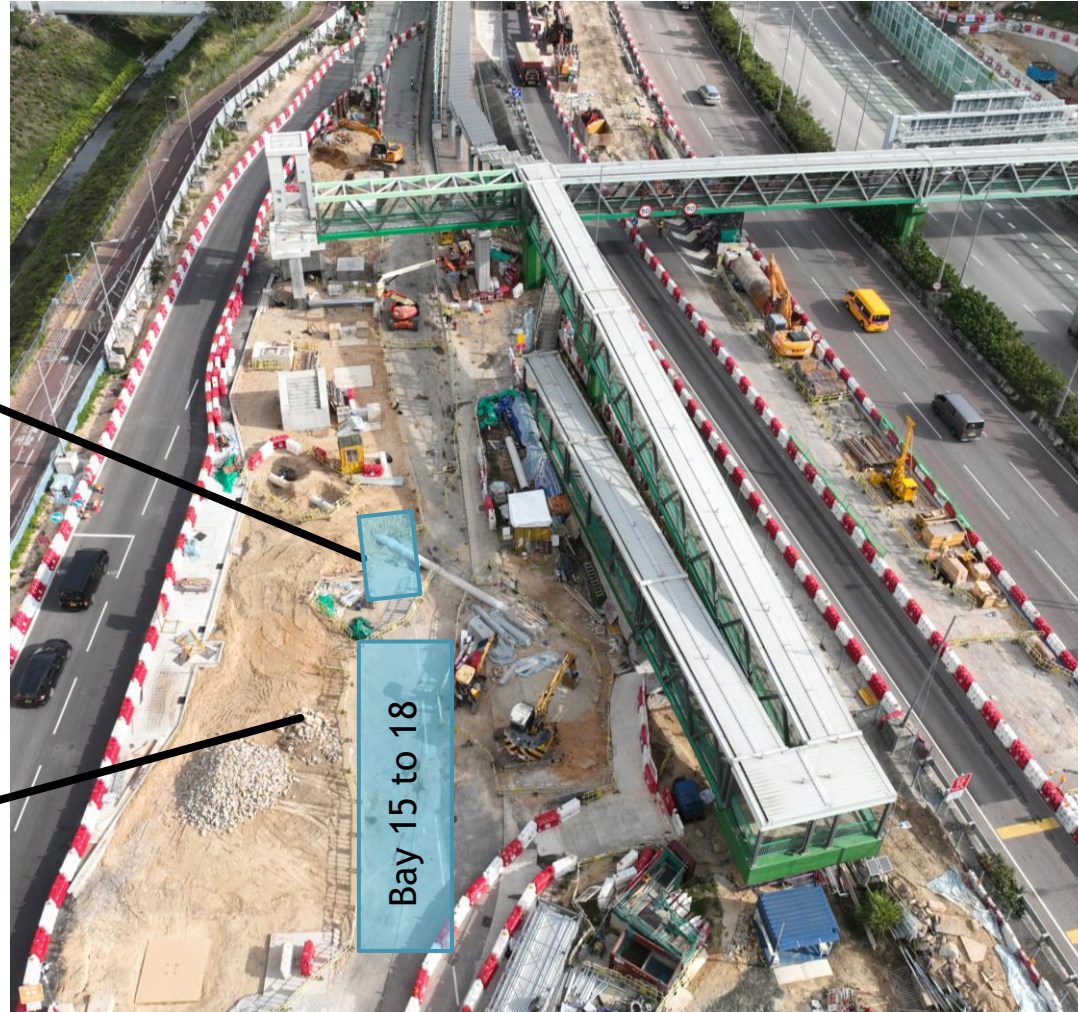
▶ South Team

1. HKY FB East Steel Deck - Erection  
 FBE-1350 (R14A) ES:29/11/22 EF:12/12/22  
 LS:04/01/23 LF:17/01/23
- Staircase to be erect on 15/ Feb 23

3. TWSRE – BBI Road work  
 BBI-1330 (R14A) ES:07/02/23 EF:03/04/23  
 LS:11/03/23 LF:11/05/23

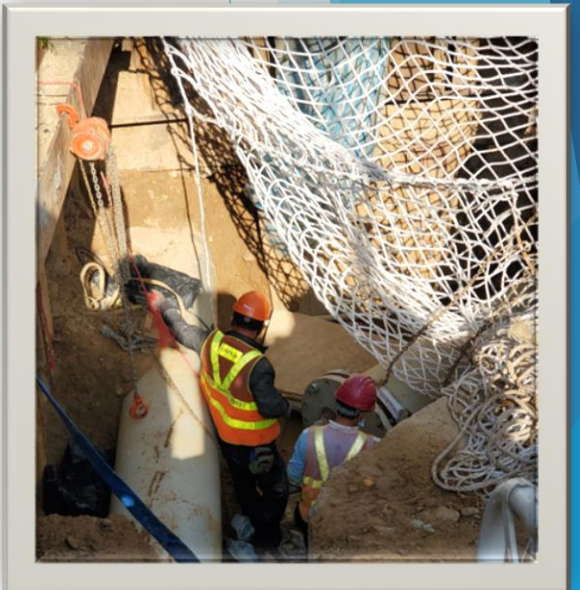


Bay 13 & 14



Bay 15 to 18

4. TWSRE – Dn600 Watermain within BBI area  
 PMI 027- 200 (R14A) ES:18/10/22 EF:28/11/22  
 LS:19/05/23 LF:03/07/23
- Pressures Test on 9/ Feb/ 23
  - Target connection by 14/Feb/23



2. TWSRE – BBI Cover walkway Footing  
 BBI-1215 (R14A) ES:13/12/22 EF:19/01/23  
 LS:18/01/23 LF:24/02/23
- Footing bay 4~12 and bay 19 ~ 20 completed (11/20 completed)
  - Bay 13 & 14 in progress
  - Bay 15 & 16 to be commenced after Dn450/ 600 drainage completed

**1. TWSRW CLP132kV Cable diversion**  
 TSW 8835 (R14A) ES:25/02/23 EF:31/03/23  
 LS:20/04/23 LF:25/05/23

- All ducts laying must be completed on or before 20/02/23 in order to facilitate outage in 2023
- Outage shall be completed by 15/04/23



**Area A: Joint Bay by CLP**



**Schedule for 132kV switchover at TWSRW**

**Key dates**

- 1/2/23 – TTA by JV and Excavation of joint bay by CLP (at A and G)
- 21/2/23 – Cabling work
- 10/3/23 – 1<sup>st</sup> outage
- 27/3/23 – 2<sup>nd</sup> outage (complete works by 15/4)

Location	Description/ Status	Completion Date	Action by
A:	JV to obtain RA for TTA	30/1	Done
Joint bay at Wo Hing Rd footpath	TTA to be implemented by 30/1		
B:	Excavation and set up joint bay	1/2 - 20/2	CLP
FW 52 bay 4b	Complete footing	6/1	
C:	CLP duct laying	7/1 - 9/1	
FW52 bay 7b	Complete footing	13/1	
D:	CLP duct laying	16/1 - 19/1	
Joint bay for cabling	Expose joint bay	10/1 - 14/1	
E:	Lower down existing footpath and preparation	4/1 - 11/1	Done
Trench at HKY entrance	Access diversion	12/1	
F:	Trench excavation	13 - 14/1	
Trench near FW06	CLP duct laying	16/1 - 20/1	
G:	Cross road drainage and trench excavation	4/1 - 9/1	
Joint bay at Kui Tau Rd	CLP duct laying	10/1 - 13/1	
	RA for TTA165 is ready	30/1	
	TTA to be implemented by 30/1		
	Excavation and set up joint bay	1/2 - 20/2	CLP
	Cabling works (2 circuits, total 6 drums)	21/2 - 10/3	
	Cable jointing (1 <sup>st</sup> circuit)	10/3 - 24/3	
	T&C	24/3 - 26/3	CLP
	Cable jointing (2 <sup>nd</sup> circuit)	27/3 - 10/4	
	T&C	12/4 - 15/4	

**Drawpit Dp 0-9 done by JV**



**Area G: Joint Bay by CLP**



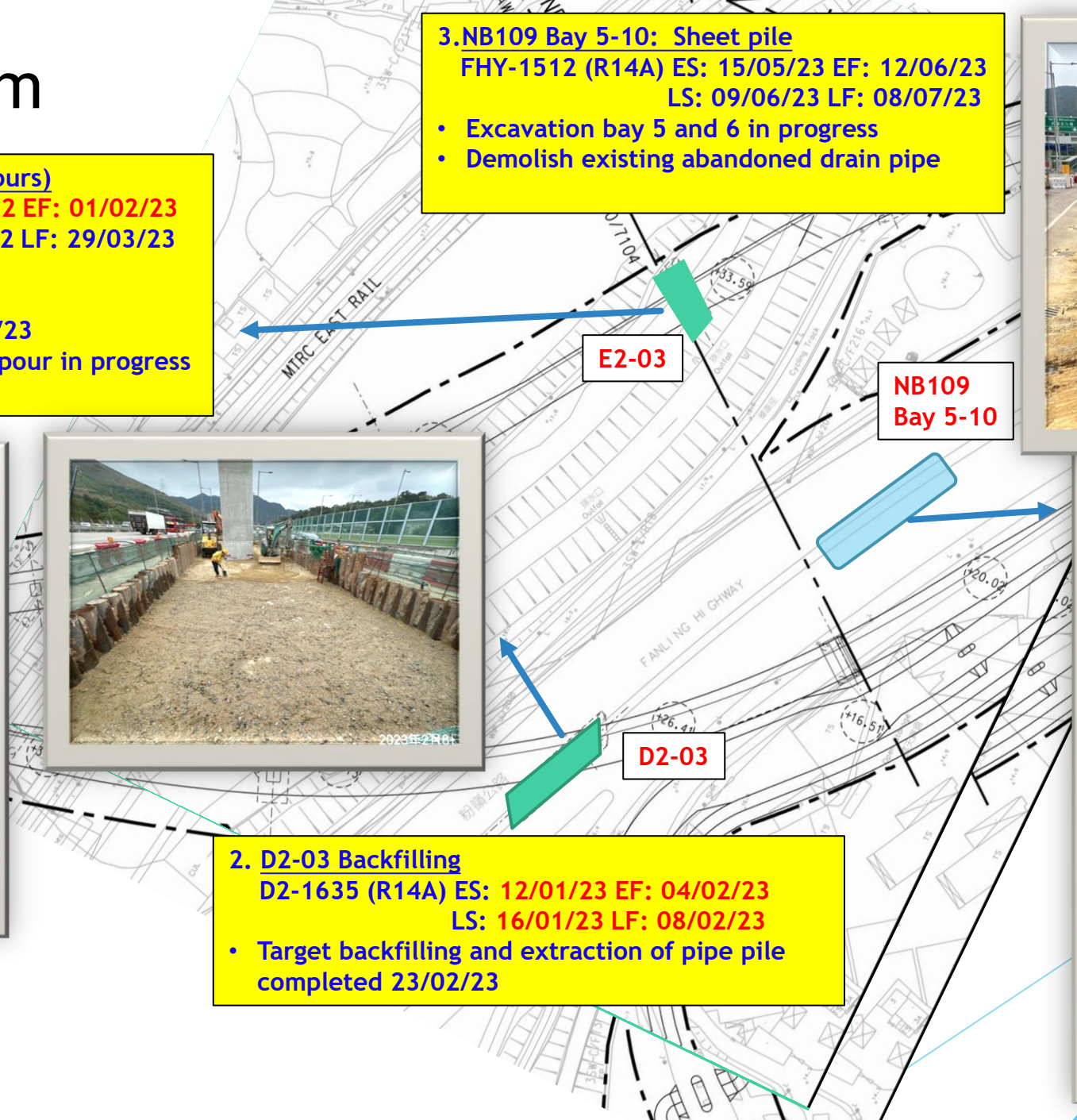
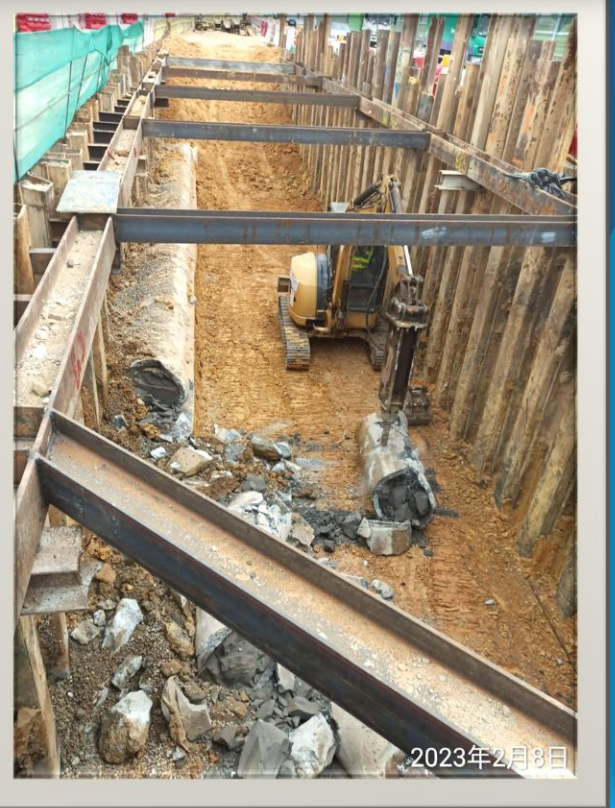
# 11 South Team

1. **E2-03 Pier: (Twin pier, 5 pours)**  
E2-6030 (R14A) ES: 27/10/22 EF: 01/02/23  
LS: 22/12/22 LF: 29/03/23

- 2/5 pour completed
- Backfilling completed 4/02/23
- Rebar fixing for 3<sup>rd</sup> and 4<sup>th</sup> pour in progress

3. **NB109 Bay 5-10: Sheet pile**  
FHY-1512 (R14A) ES: 15/05/23 EF: 12/06/23  
LS: 09/06/23 LF: 08/07/23

- Excavation bay 5 and 6 in progress
- Demolish existing abandoned drain pipe

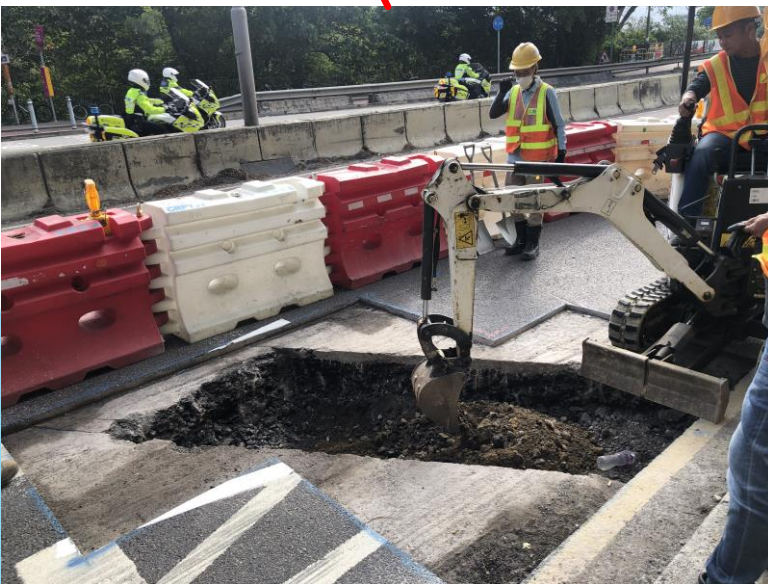
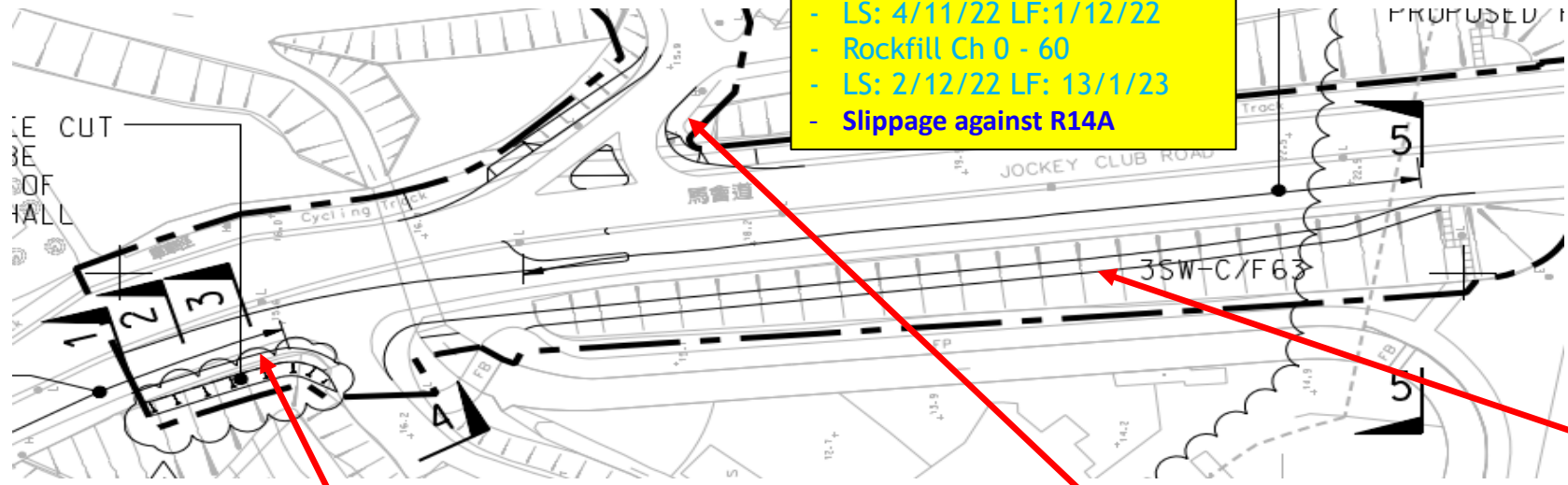


2. **D2-03 Backfilling**  
D2-1635 (R14A) ES: 12/01/23 EF: 04/02/23  
LS: 16/01/23 LF: 08/02/23

- Target backfilling and extraction of pipe pile completed 23/02/23

# 12 North Team

Jockey Club Road 3SW-C/F63  
 - Rockfill Slope construction in progress  
 - Rockfill Ch 60 - 110  
 - LS: 4/11/22 LF:1/12/22  
 - Rockfill Ch 0 - 60  
 - LS: 2/12/22 LF: 13/1/23  
 - Slippage against R14A



Trench excavation for watermain diversion (near FS05)



Footpath Construction in progress at Tong Hang



Rockfill Slope at Ch. 0 - 110 in progress

## **Construction Programme of ND/2019/07**

## Contract No. ND/2019/07 Fanling North New Development Area, Phase 1: Site Formation and Infrastructure Works

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float	Apr	May	Jun	Jul	Aug
<b>Fanling North New Development Area, Phase 1: Site Formation and Infrastructure Works</b>										
<b>Key Dates and Sectional Completion of the Works</b>										
<b>Contractual Key Dates</b>										
KDS1000	KD1 - Completion of all works within Portion V of the Site necessary for the opening of partial Road L1	0	13-May-23	13-May-23	0					
* KD1 - Completion of all works within Portion V of the Site necessary for the opening of partial Road L1										
<b>Preliminaries, Contractor's Design, Method Statement Submission and Approval</b>										
<b>General Submission</b>										
PGS1260	TTA Scheme for UU along MSK Road	150	01-Jan-23	30-May-23	-103					
TTA Scheme for UU along MSK Road										
<b>Contractor's Design Submission and Approval</b>										
<b>Permanent Works Design</b>										
PWD1030	Design for irrigation system	75	01-Mar-23	09-May-23	-28					
Design for irrigation system										
PWD1035	Time risk allowance for Design for irrigation system	7	10-May-23	17-May-23	-28					
Time risk allowance for Design for irrigation system										
PWD1040	Design for noise barrier panel	90	23-Nov-22	11-Apr-23	57					
Design for noise barrier panel										
PWD1045	Time risk allowance for Design for noise barrier panel	7	12-Apr-23	19-Apr-23	57					
Time risk allowance for Design for noise barrier panel										
PWD1055	Revised NB62 & NB63 pile cap design submission and approval	50	13-Feb-23	15-Apr-23	-50					
Revised NB62 & NB63 pile cap design submission and approval										
<b>Tendering and Procurement for Major Subcontractor</b>										
<b>Procurement for NB Post and Panel</b>										
TDS1170-1	Place Order and Delivery for fabrication of NB steel posts	364	10-Aug-22	16-May-23	-10					
Place Order and Delivery for fabrication of NB steel posts										
TDS1180-1	Fabrication and Delivery to site - NB62 steel post and panel for mock up (1st)	12	17-May-23	28-May-23	-10					
Fabrication and Delivery to site - NB62 steel post and panel for mock up (1st)										
TDS1180-2	Fabrication and Delivery to site - NB63 post and panel (Bay18 - Bay21)	36	22-Jun-23	27-Jul-23	36					
Fabrication and Delivery to site - NB63 post and panel (Bay18 - Bay21)										
TDS1180-3	Fabrication and Delivery to site - NB62 post and panel (remaining)	24	29-May-23	21-Jun-23	36					
Fabrication and Delivery to site - NB62 post and panel (remaining)										
TDS1180-7	Place Order and Delivery for fabrication of NB steel panel	364	09-Nov-22	16-May-23	-10					
Place Order and Delivery for fabrication of NB steel panel										
<b>Tree Works and Submission of the tree survey report and tree preservation and removal</b>										
<b>Tree Works on Ma Sik Road</b>										
TWS1210	TPRP and Tree transplanting works at the side of road (9nos) (before noise barrier construction)	80	28-Mar-22	01-May-23	-74					
TPRP and Tree transplanting works at the side of road (9nos) (before noise barrier construction)										
<b>Section 1- Site Formation and Infrastructure Works in Area A</b>										
<b>Site Formation (Portion II- Area A 21900m2)</b>										
<b>Site Formation Works in South Part of Portion II</b>										
S1-SF1415	Site formation works part 2 (12577m3) and Removal of temporary works, haul road and temporary accesses	75	03-Jan-22	21-Apr-23	-110					
Site formation works part 2 (12577m3) and Removal of temporary works, haul road and temporary accesses										
S1-SF1417	Site formation works part 3 (12577m3) and Removal of temporary works, haul road and temporary accesses	78	22-Apr-23	26-Jul-23	-110					
Site formation works part 3 (12577m3) and Removal of temporary works, haul road and temporary accesses										
<b>Site Formation (Portion III- Area A 4900m2)</b>										
S1-SF1546	Removal of existing feature 3SW-A/F85	15	11-Apr-23	27-Apr-23	340					
Removal of existing feature 3SW-A/F85										
<b>Site Formation (Portion IV- Area A 3800m2)</b>										
S1-SF1870	Site formation works (2391m3) (after site formation in Area D)	30	20-Jun-23	26-Jul-23	-110					
Site formation works (2391m3) (after site formation in Area D)										
<b>Box Culvert BC3 and Outfall 10</b>										
<b>Box Culvert BC3 (CH168 to CH216)</b>										
S1-BC0890	Backfilling from Bay 17 to Bay 18 (2310m3)	29	10-Jun-23	15-Jul-23	-62					
Backfilling from Bay 17 to Bay 18 (2310m3)										
<b>Box Culvert BC3 (CH216 to CH264)</b>										
S1-BC1080-1	Construction of the box culvert side wall and top slab Bay 19A	15	23-May-23	09-Jun-23	-63					
Construction of the box culvert side wall and top slab Bay 19A										
S1-BC1080-2	Construction of the box culvert side wall and top slab Bay 19	15	13-Mar-23	15-Apr-23	-63					
Construction of the box culvert side wall and top slab Bay 19										
S1-BC1090	Construction of the box culvert side wall and top slab Bay 20	30	10-Jun-23	17-Jul-23	-63					
Construction of the box culvert side wall and top slab Bay 20										
S1-BC1100	Construction of the box culvert side wall and top slab Bay 21	30	17-Apr-23	22-May-23	-63					
Construction of the box culvert side wall and top slab Bay 21										
<b>Box Culvert BC3 (CH264 to CH282.799) and Outfall 10</b>										
<b>Revised Outfall</b>										
S1-BC1330	Outfall - Construct base slab and wing walls	12	23-Mar-23	24-Apr-23	343					
Outfall - Construct base slab and wing walls										
<b>Drainage, Sewerage, Waterworks and Road Works</b>										
<b>Along Ma Sik Road</b>										
<b>TTA - Closure of Ma Sik Road Eastbound Slow Lane between Wo Tai Street and Site Boundary</b>										
S1-CS1240	Implement TTA	10	31-May-23	10-Jun-23	-82					
Implement TTA										
S1-CS1260	UU detection and trial pit	10	12-Jun-23	23-Jun-23	-82					
UU detection and trial pit										
S1-CS1270	Utility works by others	30	24-Jun-23	29-Jul-23	-82					
Utility works by others										
S1-CS1293	Fresh water main works (10m) (In dry season)	30	24-Jun-23	29-Jul-23	-82					
Fresh water main works (10m) (In dry season)										
S1-CS1295	Flushing water main works (10m) (In dry season)	30	24-Jun-23	29-Jul-23	-82					
Flushing water main works (10m) (In dry season)										
<b>Along Proposed Cycletrack and Footpath</b>										
<b>Works in Portion I</b>										
<b>Works in Portion I CT73 (Ch400 to Ch649)</b>										
S1-CS1472	Irrigation system (CT73 Ch400 to Ch649 total 249m)	85	18-May-23	28-Aug-23	-18					
Irrigation system (CT73 Ch400 to Ch649 total 249m)										
S1-CS1473	Fresh water main works (CT73 Ch400 to Ch649 total 249m)	85	04-Jan-23	23-Jun-23	-8					
Fresh water main works (CT73 Ch400 to Ch649 total 249m)										
S1-CS1474	Flushing water main works (CT73 Ch400 to Ch649 total 249m)	85	04-Jan-23	23-Jun-23	-8					
Flushing water main works (CT73 Ch400 to Ch649 total 249m)										
S1-CS1475	U-Channel along the Cycletrack(CT73 Ch400 to Ch649 total 249m)	85	18-May-23	28-Aug-23	-8					
U-Channel along the Cycletrack(CT73 Ch400 to Ch649 total 249m)										
<b>Works in Portion I CT74</b>										
S1-CS1493	Fresh water main works (CT74 Ch100 to Ch281 total 181m)	80	24-Jun-23	26-Sep-23	77					
Fresh water main works (CT74 Ch100 to Ch281 total 181m)										
S1-CS1495	Flushing water main works (CT74 Ch100 to Ch281 total 181m)	80	24-Jun-23	26-Sep-23	77					
Flushing water main works (CT74 Ch100 to Ch281 total 181m)										
<b>Works in Portion II CT71 (Ch100 to Ch369.376)</b>										
S1-CS1520	Drainage work (MNH_FL5.29 to MNH_FL5.26 229m) After box culvert back filling Bay1 to Bay22	85	09-Jan-23	20-Sep-23	148					
Drainage work (MNH_FL5.29 to MNH_FL5.26 229m) After box culvert back filling Bay1 to Bay22										
<b>Works in Portion III CT76 (Ch100 to Ch298.277)</b>										
<b>Sewerage</b>										
S1-CS1800	CE149 - Sewerage DN600 - Construction of working pit at FMH_FL1.19A (Jacking Pit)	32	03-Mar-23	21-Apr-23	-165					
CE149 - Sewerage DN600 - Construction of working pit at FMH_FL1.19A (Jacking Pit)										
S1-CS1810-1	CE149 - Sewerage DN600 - Dismantle of TBM at receiving pit and maintenance of TBM	6	05-May-23	11-May-23	-181					
CE149 - Sewerage DN600 - Dismantle of TBM at receiving pit and maintenance of TBM										
S1-CS1810-2	CE149 - Sewerage DN600 - Setup for trenchless construction at FMH_FL1.19A (from FL1.19A to FL1.19)	18	12-May-23	02-Jun-23	-181					
CE149 - Sewerage DN600 - Setup for trenchless construction at FMH_FL1.19A (from FL1.19A to FL1.19)										
S1-CS1810-3	CE149 - Sewerage DN600 - Construction of sewerage from FMH_FL1.19A to FL1.19	39	03-Jun-23	20-Jul-23	-49					
CE149 - Sewerage DN600 - Construction of sewerage from FMH_FL1.19A to FL1.19										
<b>Section 4- Site Formation and Infrastructure Works in Area D</b>										
S4-SF1050	Site clearance	40	11-Feb-22	16-May-23	-89					
Site clearance										
S4-SF1120	Site formation works (10276m3)	80	04-Feb-22	26-Jul-23	-110					
Site formation works (10276m3)										
<b>Section 5- Site Formation and Infrastructure Works in Area E and Remainder of the Works</b>										
<b>Road L1</b>										
<b>Road L1 in Portion I (P700 CH175 to CH245)</b>										
S4-SF1120	Site formation works (10276m3)	80	04-Feb-22	26-Jul-23	-110					
Site formation works (10276m3)										

- Actual Work
- Remaining Work
- Critical Remaining Work
- ◆ Milestone



**中國路橋工程有限責任公司**  
CHINA ROAD AND BRIDGE CORPORATION

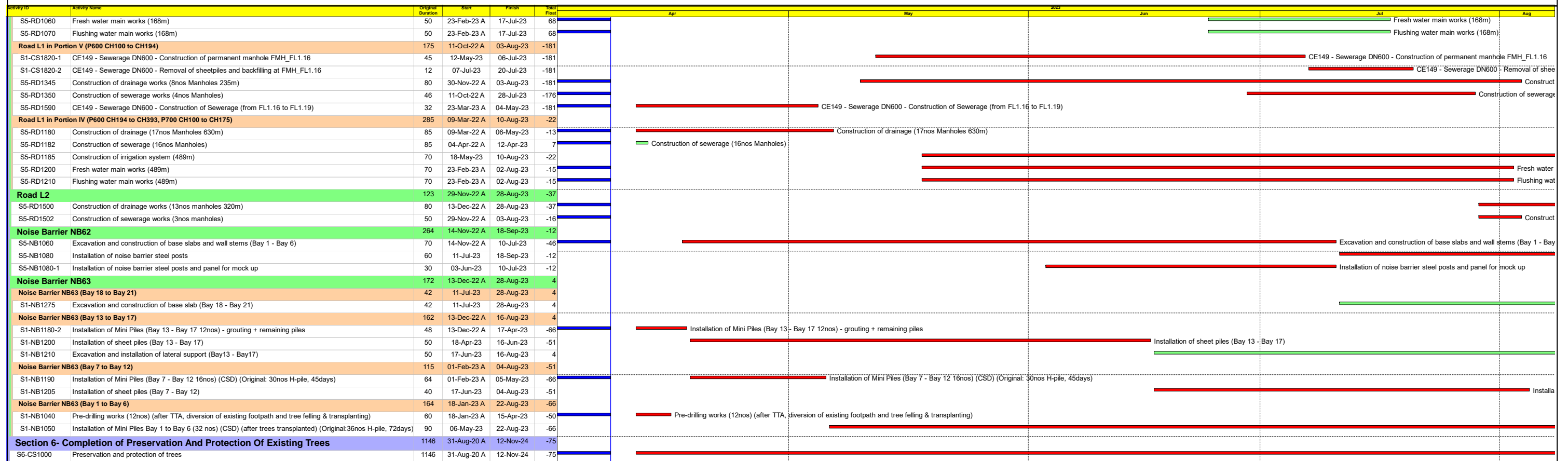
Three Month Rolling Programme (Data Date : 08-Apr-23)

Page : 1 of 2

Date	Revision	Checked	Approved
08-Apr-23	RDWPC	ZAN	CLX



### Contract No. ND/2019/07 Fanling North New Development Area, Phase 1: Site Formation and Infrastructure Works



- Actual Work
- Remaining Work
- Critical Remaining Work
- Milestone



Date	Revision	Checked	Approved
08-Apr-23	RDWPC	ZAN	CLX

Portion	Legend
I	
II	
III	
IV	
V	

**PORTION II**

1. C&D waste disposal
2. Construction of box culvert
3. Filling works

**PORTION I**

1. C&D waste disposal
2. Drainage works
3. Sewerage works
4. Road works
5. Waterworks

**PORTION IV**

1. Site Clearance
2. Drainage works
3. Sewerage works
4. C&D waste disposal
5. Filling works
6. Mini piling works
7. Construction of site haul road
8. Construction of noise barrier
9. Road works
10. Waterworks

**PORTION V**

1. C&D waste disposal
2. Construction of noise barrier
3. Construction of site haul road
4. Drainage works
5. Sewerage works
6. Road works

**PORTION III**

1. Drainage works
2. Sewerage works

**ND/2019/07**

**- FANLING NORTH NEW DEVELOPMENT AREA, PHASE 1:  
SITE FORMATION AND INFRASTRUCTURE WORKS**

**Working Activities (Apr 2023 – July 2023)**

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**APPENDIX B  
ACTION AND LIMIT LEVELS**

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**Appendix B - Action and Limit Levels**

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

Monitoring station	Action Level (ug/m <sup>3</sup> )	Limit Level (ug/m <sup>3</sup> )
FLN-DMS1	303	500
FLN-DMS3	301	
FLN-DMS5	279	
KTN-DMS4(B)	297	

**Table B-2 Action and Limit Levels for 24-hour TSP**

Monitoring station	Action Level (ug/m <sup>3</sup> )	Limit Level (ug/m <sup>3</sup> )
FLN-DMS1	150	260
FLN-DMS3	165	
FLN-DMS5A	153	
KTN-DMS4(B)	192	

**Table B-3 Action and Limit Levels for Construction Noise**

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

Noted:

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

(\*) reduce to 70 dB(A) for schools and 65 dB(A) during school examination periods.

**Table B-4.1 Action and Limit Levels for Water Quality Monitoring<sup>(1)</sup>**

Parameters	Action Level	Limit Level
DO in mg/L (depth average) <sup>#+</sup>	5 percentile of baseline data.	4 mg/L or 1 percentile of baseline data.
SS in mg/L (depth averaged) <sup>*&amp;</sup>	95 percentile of baseline data or 120% of upstream control station.	20 mg/L or 99 percentile of baseline data or 130% of upstream control station.
Turbidity in NTU (depth averaged) <sup>*^</sup>	95 percentile of baseline data or 120% of upstream control station.	99 percentile of baseline data or 130% of upstream control station.
Unionized ammonia in mg/L (depth averaged) <sup>*~</sup>	95 percentile of baseline data or 120% of upstream control	0.021mg/L or 99 percentile of baseline data or 130% of

	station.	upstream control station.
Nitrate nitrogen in mg/L (depth averaged)*^	95 percentile of baseline data or 120% of upstream control station.	99 percentile of baseline data or 130% of upstream control station.
Orthophosphate in mg/L (depth averaged)*^	95 percentile of baseline data or 120% of upstream control station.	99 percentile of baseline data or 130% of upstream control station.

Remarks:

# AL of DO is 5 percentile of baseline data or level at control station at same tide of the same day (whichever lower) and LL of DO is 4.0 mg/L or level at control station at same tide of the same day (whichever lower);  
 + 1 percentile of baseline data were adopted for LL for DO as those levels were greater than 4 mg/L;  
 \* AL is 120% of control station’s level at the same tide of the same day when depth average greater than 95 percentile of baseline data;  
 ^ LL is 130% of control station’s level at the same tide of the same day when depth average greater than 99 percentile of baseline data.  
 ~ LL is 130% of control station’s level at the same tide of the same day when depth average greater than 99 percentile of baseline data or 0.021mg/L.  
 & LL is 130% of control station’s level at the same tide of the same day when depth average greater than 99 percentile of baseline data or 20mg/L.

**Table B-4.2 Summary of Baseline Water Quality Monitoring Results (KTN NDA)<sup>(1)</sup>**

Monitoring Parameter					
Location  Parameter	KTN-CS1				
	Max	Min	Average	5 Percentile	1 Percentile
DO in mg/L	7.79	6.28	6.82	6.32	6.28
Parameter	Max	Min	Average	95 Percentile	99 Percentile
	Turbidity in NTU	72.4	4.59	10.88	62.2
Suspended Solid in mg/L	74	2	9	60	73
Unionized ammonia in mg/L	0.0005	0.0001	0.0003	0.0004	0.0005
Nitrate nitrogen in mg/L	0.52	0.09	0.27	0.50	0.52
Orthophosphate in mg/L	0.19	0.01	0.10	0.17	0.19

Monitoring Parameter					
Location  Parameter	KTN-IS1				
	Max	Min	Average	5 Percentile	1 Percentile
DO in mg/L	8.08	4.71	6.83	6.14	5.02

	Max	Min	Average	95 Percentile	99 Percentile
Turbidity in NTU	44.56	4.57	8.63	38.98	44.56
Suspended Solid in mg/L	35	2	6	31	35
Unionized ammonia in mg/L	0.0006	0.0001	0.0004	0.0005	0.0006
Nitrate nitrogen in mg/L	0.57	0.09	0.29	0.54	0.57
Orthophosphate in mg/L	0.14	0.03	0.09	0.13	0.14

Note:

(1) The Action and Limit Levels for Water Quality Monitoring and the Summary of Baseline Water Quality Monitoring Results are according to pre-construction ET's Updated EM&A Manual and Baseline Water Quality Monitoring Report (KTN & FLN NDA).

**Table B-4.3 Action and Limit Levels for Additional Water Quality Monitoring**

Parameters	Action Level	Limit Level
<b>River Beas (SYR-IS1)</b>		
DO in mg/L (depth average) <sup>[1]</sup>	SYR-IS1: <u>6.1</u> <sup>[2]</sup>	SYR-IS1: <u>6.0</u> <sup>[2]</sup>
SS in mg/L (depth average) <sup>[1]</sup>	SYR-IS1: <u>75.6</u> or 120% of upstream control station, whichever is higher <sup>[3]</sup>	SYR-IS1: <u>83.1</u> or 130% of upstream control station, whichever is higher <sup>[3]</sup>
Turbidity in NTU (depth average) <sup>[1]</sup>	SYR-IS1: <u>48.2</u> or 120% of upstream control station, whichever is higher <sup>[3]</sup>	SYR-IS1: <u>50.9</u> or 130% of upstream control station, whichever is higher <sup>[3]</sup>
Arsenic in µg/L (depth average) <sup>[2]</sup>	SYR-IS1: <u>5.4</u> or 120% of upstream control station, whichever is higher <sup>[3]</sup>	SYR-IS1: 50 µg/L <sup>[4]</sup>
<b>River Indus and near Siu Hang San Tsuen Stream (NTR-IS1, SHST-IS2, MWR-IS3)</b>		
DO in mg/L (depth average) <sup>[1]</sup>	NTR-IS1: <u>5.8</u> <sup>[2]</sup> SHST-IS2: <u>7.0</u> <sup>[2]</sup> MWR-IS3: <u>8.6</u> <sup>[2]</sup>	NTR-IS1: <u>5.7</u> <sup>[2]</sup> SHST-IS2: <u>6.8</u> <sup>[2]</sup> MWR-IS3: <u>8.5</u> <sup>[2]</sup>
SS in mg/L (depth average) <sup>[1]</sup>	NTR-IS1: <u>8.9</u> SHST-IS2: <u>4.0</u> MWR-IS3: <u>14.0</u> or 120% of upstream control station, whichever is higher <sup>[3]</sup>	NTR-IS1: <u>9.0</u> SHST-IS2: <u>4.0</u> MWR-IS3: <u>14.4</u> or 130% of upstream control station, whichever is higher <sup>[3]</sup>
Turbidity in NTU (depth average) <sup>[1]</sup>	NTR-IS1: <u>6.0</u> SHST-IS2: <u>4.4</u> MWR-IS3: <u>10.1</u> or 120% of upstream control station, whichever is higher <sup>[3]</sup>	NTR-IS1: <u>6.1</u> SHST-IS2: <u>4.7</u> MWR-IS3: <u>11.1</u> or 130% of upstream control station, whichever is higher <sup>[3]</sup>

Remarks:

[1] "Depth-averaged" is calculated by taking the arithmetic mean of reading of all three depths.

[2] For DO, non-compliance occurs when monitoring results is lower than the limits.

[3] For turbidity, SS and arsenic, non-compliance occurs when monitoring results is larger than the limits.

[4] There is no local criterion for heavy metal. Limit Level of heavy metal is adopted from Category III Surface Water Quality Standards (GB3838-2002) (地表水環境質量標準), which applicable for Shenzhen River on mainland side.

**Table B-5 Action and Limit Levels for Ambient Arsenic Monitoring**

Parameter	Action Level	Limit Level
Ambient Arsenic Concentration	<b>9.36ng/m<sup>3</sup></b> - 80% of 11.7ng/m <sup>3</sup> – the highest ambient arsenic concentration predicted during the construction phase with mitigation measures implemented)	<b>11.7ng/m<sup>3</sup></b> - the highest ambient arsenic concentration predicted during the construction phase with mitigation measures implemented

**Table B-6 Action level in the event of LFG being detected**

Parameter	Monitoring Results	Actions
O <sub>2</sub>	<19% v/v	Increase underground ventilation to restore O <sub>2</sub> to >19% v/v
	<18% v/v	Stop works, evacuate all personnel, prohibit entry, and increase ventilation to restore O <sub>2</sub> level to >19%
CH <sub>4</sub>	>10% LEL	Prohibit hot works, increase ventilation to restore CH <sub>4</sub> to <10% LEL
	>20% LEL	Stop works, evacuate all personnel, increase ventilation further to restore CH <sub>4</sub> to <10% LEL
CO <sub>2</sub>	>0.5% v/v	Increase ventilation to restore C O <sub>2</sub> to <0.5% v/v
	>1.5% v/v	Stop works, evacuate all personnel, increase ventilation further to restore CO <sub>2</sub> to <0.5%

**Table B-7 Vibration Limit for Construction Vibration Monitoring**

Type of Building	Guide Values of Maximum PPV* (mm/Sec)	
	Transient Vibration	Continuous Vibration
Vibration-sensitive / dilapidated buildings#	7.5	3.0
Declared monuments/ Historical structures	3.0	

**Table B-8.1 Action and Limit Levels and Responses to Evidence of Disturbance to Waterbirds using in Ng Tung, Sheung Yue and Shek Sheung Rivers**

Action Level	Response	Limit Level	Response
<b>Construction Phase</b>			
Decline in numbers of all waterbird species relative to numbers during Baseline Monitoring such that the Action Level response is triggered.	Investigate cause and if cause identified as related to NDAs project instigate remedial action to remove or reduce source of	Decline in numbers of all waterbird species relative to numbers during Baseline Monitoring such that the Limit Level response is triggered.	Investigate cause and if caused identified as related to NDAs project instigate remedial action. Review and adjust LVNP management

	disturbance.		measures to improve conditions for affected species.
Decline in numbers of any one waterbird species occurring in significant numbers* during Baseline Monitoring such that the Action Level response is triggered.	Investigate cause and if cause identified as related to NDAs project instigate remedial action to remove or reduce source of disturbance.	Decline in numbers of any one waterbird species occurring in significant numbers* during Baseline Monitoring such that the Limit Level response is triggered.	Investigate cause and if caused identified as related to NDAs project instigate remedial action. Review and adjust LVNP management measures to improve conditions for affected species.
<b>Operational Phase</b>			
Decline in numbers of all waterbird species relative to numbers during Baseline Monitoring such that the Action Level response is triggered.	Investigate cause and if cause identified as related to NDAs review and adjust LVNP management measures to improve conditions for affected species in LVNP.	Decline in numbers of all waterbird species relative to numbers during Baseline Monitoring such that the Limit Level response is triggered.	Investigate cause and if cause identified as related to NDAs consider and implement additional mitigation measures (e.g. additional screening and screen planting, adjustments to infrastructure design).
Decline in numbers of any one waterbird species occurring in significant numbers* during Baseline Monitoring such that the Action Level response is triggered.	Investigate cause and if cause identified as related to NDAs review and adjust LVNP management measures to improve conditions for affected species.	Decline in numbers of any one waterbird species occurring in significant numbers* during Baseline Monitoring such that the Limit Level response is triggered.	Investigate cause and if cause identified as related to NDAs consider and implement additional mitigation measures (e.g. additional screen planting, adjustments to infrastructure design).

\* Whether numbers are significant will depend on species and season and should be determined following collection and evaluation of Baseline survey data.

**Table B-8.2 Action and Limit Levels and Responses to Evidence of Declines in Aquatic Fauna**

Action Level	Response	Limit Level	Response
<b>Construction Phase</b>			
Reduction in species diversity such that Action Level response is triggered.	Investigate cause and if cause identified as related to Project instigate remedial action to remove or reduce source of disturbance.	Reduction in taxa diversity such that Limit Level response is triggered.	Investigate cause and if caused identified as related to Project instigate remedial action.



\* Whether numbers are significant will depend on species and season. Significance threshold for each species should be reviewed following collection of Baseline survey data.

**Table B-8.3 Action and Limit Levels and Responses to Evidence of Declines in non-aquatic Fauna**

Action Level	Response	Limit Level	Response
<b>Construction Phase</b>			
Reduction in species diversity such that Action Level response is triggered.	Investigate cause and if cause identified as related to Project instigate remedial action to remove or reduce source of disturbance.	Reduction in taxa diversity such that Limit Level response is triggered.	Investigate cause and if caused identified as related to Project instigate remedial action.

\* Whether numbers are significant will depend on species and season. Significance threshold for each species should be reviewed following collection of Baseline survey data.

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**APPENDIX C  
COPIES OF CALIBRATION  
CERTIFICATES**

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**TEST REPORT**

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

Test Report No.:	37894
Date of Issue:	2023-03-06
Date Received:	2023-03-03
Date Tested:	2023-03-03
Date Completed:	2023-03-06
Next Due Date:	2023-05-05

Page: 1 of 1

**ATTN:** Ms. Meiling Tang

**Certificate of Calibration**

**Item for Calibration:**

Description	: Dust Monitor
Manufacturer	: Met One Instruments
Model No.	: AEROCET-831
Serial No.	: X23807
Flow rate	: 0.1 cfm
Zero Count Test	: 0 count per 1 minute
Equipment No.	: WA-01-01

**Test Conditions:**

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

**Test Specifications & Methodology:**

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

**Results:**

Correlation Factor (CF)	1.134
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*PREPARED AND CHECKED BY:*

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

  
**PATRICK TSE**  
General Manager

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

Dust Meter	Dust Meter	High Volume Sampler
Equipment No.:	WA-01-01	WA-12-09
Model No. :	AEROCET-831	TE-5170
Serial No.	X23807	2203
Calibration Date:	3-Mar-23	3-Mar-23
Location:	Wellab Office (Calibration Room)	

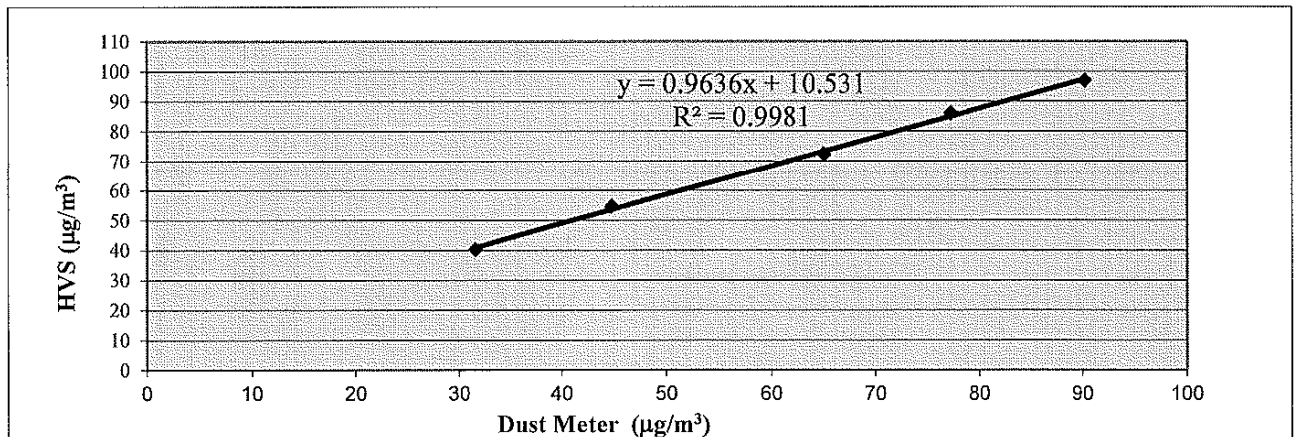
Calibration of 1 hr TSP		
Calibration Point	Dust Meter	HVS
	Mass Concentration ( $\mu\text{g}/\text{m}^3$ ) X-axis	Mass concentration ( $\mu\text{g}/\text{m}^3$ ) Y-axis
1	32	40
2	45	55
3	65	72
4	77	86
5	90	97
Average	61.8	70.1

By Linear Regression of Y on X  
 Slope, mw = 0.9636 Intercept, bw = 10.5311  
 Correlation coefficient\* = 0.9990

\*If Correlation Coefficient < 0.90, check and recalibrate.

Set Correlation Factor	
Particulate Concentration by High Volume Sampler ( $\mu\text{g}/\text{m}^3$ )	70.1
Particulate Concentration by Dust Meter ( $\mu\text{g}/\text{m}^3$ )	61.8
Measuring time, (min)	60

Set Correlation Factor, SCF  
 SCF = [ K=High Volume Sampler / Dust Meter, ( $\mu\text{g}/\text{m}^3$ ) ] 1.134



QC Reviewer: Ceb Man Mbv Signature: he Date: 4/3/23

**TEST REPORT**

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

Test Report No.:	37894A
Date of Issue:	2023-03-06
Date Received:	2023-03-03
Date Tested:	2023-03-03
Date Completed:	2023-03-06
Next Due Date:	2023-05-05

Page: 1 of 1

**ATTN:** Ms. Meiling Tang

**Certificate of Calibration**

**Item for Calibration:**

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

**Test Conditions:**

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

**Test Specifications & Methodology:**

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

**Results:**

Correlation Factor (CF)	1.140
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*PREPARED AND CHECKED BY:*

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

  
**PATRICK TSE**  
General Manager

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

Dust Meter	Dust Meter	High Volume Sampler
Equipment No.:	WA-01-02	WA-12-09
Model No. :	AEROCET-831	TE-5170
Serial No.	X23808	2203
Calibration Date:	3-Mar-23	3-Mar-23
Location:	Wellab Office (Calibration Room)	

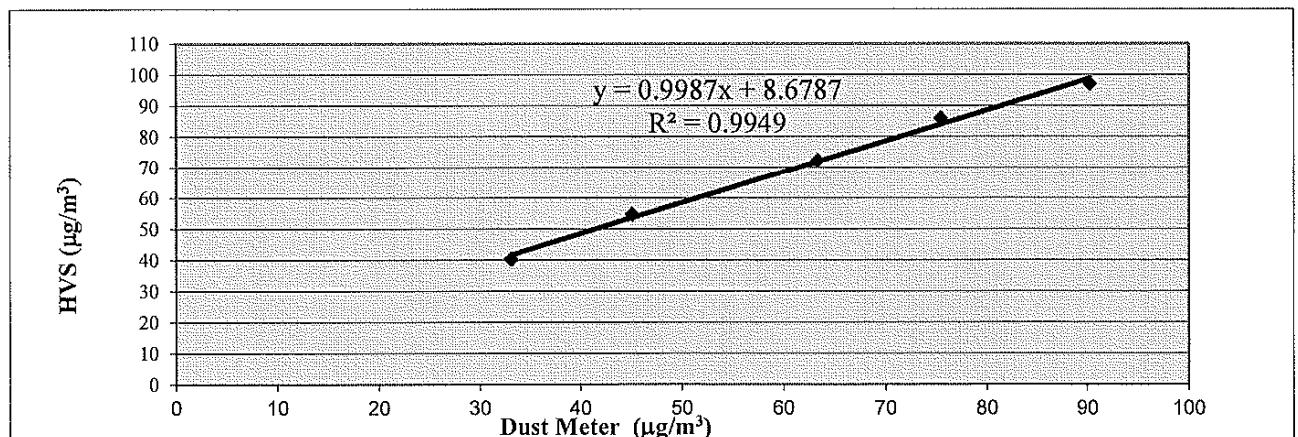
Calibration of 1 hr TSP		
Calibration Point	Dust Meter	HVS
	Mass Concentration ( $\mu\text{g}/\text{m}^3$ ) X-axis	Mass concentration ( $\mu\text{g}/\text{m}^3$ ) Y-axis
1	33	40
2	45	55
3	63	72
4	76	86
5	90	97
<b>Average</b>	<b>61.5</b>	<b>70.1</b>

By Linear Regression of Y on X  
 Slope , mw = 0.9987 Intercept, bw = 8.6787  
 Correlation coefficient\* = 0.9975

\*If Correlation Coefficient < 0.90, check and recalibrate.

Set Correlation Factor	
Particulate Concentration by High Volume Sampler ( $\mu\text{g}/\text{m}^3$ )	70.1
Particulate Concentration by Dust Meter ( $\mu\text{g}/\text{m}^3$ )	61.5
Measuring time, (min)	60

Set Correlation Factor , SCF  
 SCF = [ K=High Volume Sampler / Dust Meter, ( $\mu\text{g}/\text{m}^3$ ) ] 1.140



QC Reviewer: Lee M. N. N. N. Signature: kei Date: 4/3/23

**TEST REPORT**

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

Test Report No.:	37894B
Date of Issue:	2023-03-06
Date Received:	2023-03-03
Date Tested:	2023-03-03
Date Completed:	2023-03-06
Next Due Date:	2023-05-05

Page: 1 of 1

**ATTN:** Ms. Meiling Tang

**Certificate of Calibration**

**Item for Calibration:**

Description	: Dust Monitor
Manufacturer	: Met One Instruments
Model No.	: AEROCET-831
Serial No.	: X23809
Flow rate	: 0.1 cfm
Zero Count Test	: 0 count per 1 minute
Equipment No.	: WA-01-03

**Test Conditions:**

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

**Test Specifications & Methodology:**

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

**Results:**

Correlation Factor (CF)	1.102
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*PREPARED AND CHECKED BY:*

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

  
**PATRICK TSE**  
General Manager

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

Dust Meter	Dust Meter	High Volume Sampler
Equipment No.:	WA-01-03	WA-12-09
Model No. :	AEROCET-831	TE-5170
Serial No.	X23809	2203
Calibration Date:	3-Mar-23	3-Mar-23
Location:	Wellab Office (Calibration Room)	

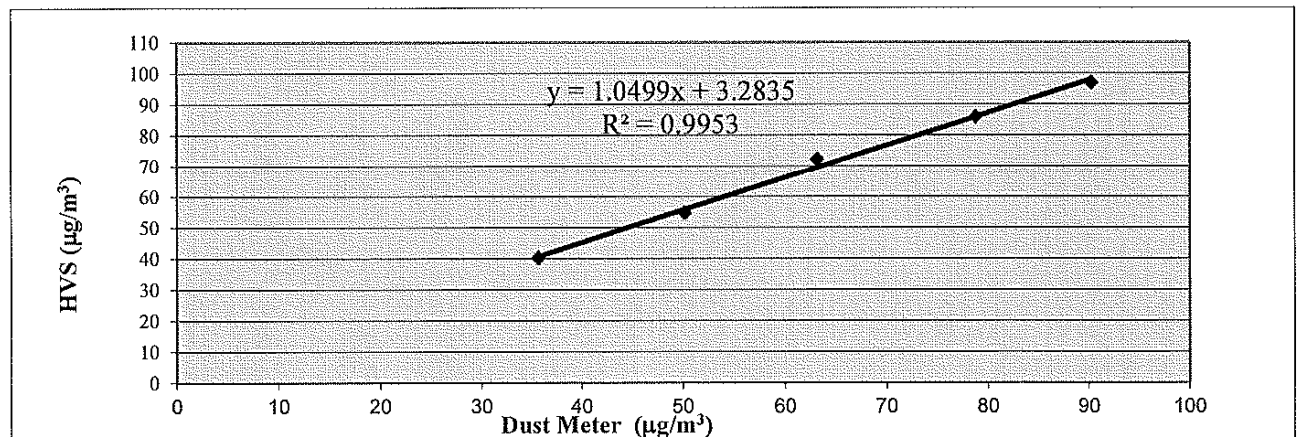
Calibration of 1 hr TSP		
Calibration Point	Dust Meter	HVS
	Mass Concentration ( $\mu\text{g}/\text{m}^3$ ) X-axis	Mass concentration ( $\mu\text{g}/\text{m}^3$ ) Y-axis
1	36	40
2	50	55
3	63	72
4	79	86
5	90	97
<b>Average</b>	<b>63.6</b>	<b>70.1</b>

By Linear Regression of Y on X  
 Slope , mw = 1.0499 Intercept, bw = 3.2835  
 Correlation coefficient\* = 0.9976

\*If Correlation Coefficient < 0.90, check and recalibrate.

Set Correlation Factor	
Particulate Concentration by High Volume Sampler ( $\mu\text{g}/\text{m}^3$ )	70.1
Particulate Concentration by Dust Meter ( $\mu\text{g}/\text{m}^3$ )	63.6
Measuring time, (min)	60

Set Correlation Factor , SCF  
 SCF = [ K=High Volume Sampler / Dust Meter, ( $\mu\text{g}/\text{m}^3$ ) ] 1.102



QC Reviewer: LEE MMY UER Signature: kei Date: 4/3/2023



**TEST REPORT**

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

Test Report No.:	37858
Date of Issue:	2023-02-27
Date Received:	2023-02-25
Date Tested:	2023-02-25
Date Completed:	2023-02-27
Next Due Date:	2023-04-26

Page: 1 of 1

**ATTN:** Ms. Meiling Tang

**Certificate of Calibration**

**Item for Calibration:**

Description : Dust Monitor  
 Manufacturer : Met One Instruments  
 Model No. : AEROCET-831  
 Serial No. : X24476  
 Flow rate : 0.1 cfm  
 Zero Count Test : 0 count per 1 minute  
 Equipment No. : WA-01-05

**Test Conditions:**

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

**Test Specifications & Methodology:**

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

**Results:**

Correlation Factor (CF)	1.109
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*PREPARED AND CHECKED BY:*

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

  
 \_\_\_\_\_  
**PATRICK TSE**  
 General Manager

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

Dust Meter	Dust Meter	High Volume Sampler
Equipment No.:	WA-01-05	WA-12-09
Model No. :	AEROCET-831	TE-5170
Serial No.	X24476	2203
Calibration Date:	25-Feb-23	25-Feb-23
Location:	Wellab Office (Calibration Room)	

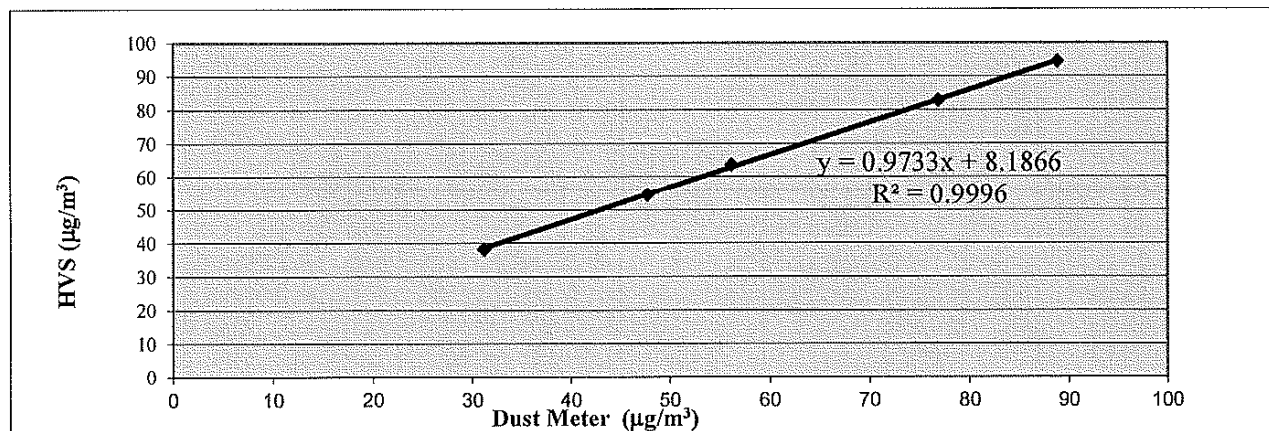
Calibration of 1 hr TSP		
Calibration Point	Dust Meter	HVS
	Mass Concentration ( $\mu\text{g}/\text{m}^3$ ) X-axis	Mass concentration ( $\mu\text{g}/\text{m}^3$ ) Y-axis
1	31	38
2	48	55
3	56	64
4	77	83
5	89	95
<b>Average</b>	<b>60.2</b>	<b>66.8</b>

By Linear Regression of Y on X  
 Slope , mw = 0.9733 Intercept, bw = 8.1866  
 Correlation coefficient\* = 0.9998

\*If Correlation Coefficient < 0.90, check and recalibrate.

Set Correlation Factor	
Particulate Concentration by High Volume Sampler ( $\mu\text{g}/\text{m}^3$ )	66.8
Particulate Concentration by Dust Meter ( $\mu\text{g}/\text{m}^3$ )	60.2
Measuring time, (min)	60

Set Correlation Factor , SCF  
 SCF = [ K=High Volume Sampler / Dust Meter, ( $\mu\text{g}/\text{m}^3$ ) ] 1.109



QC Reviewer: LEE MIN HEE Signature: Lee Date: 26/2/2023

**TEST REPORT**

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

Test Report No.:	38139
Date of Issue:	2023-04-24
Date Received:	2023-04-22
Date Tested:	2023-04-22
Date Completed:	2023-04-24
Next Due Date:	2023-06-23

Page: 1 of 1

**ATTN:** Ms. Meiling Tang

**Certificate of Calibration**

**Item for Calibration:**

Description : Dust Monitor  
 Manufacturer : Met One Instruments  
 Model No. : AEROCET-831  
 Serial No. : X24476  
 Flow rate : 0.1 cfm  
 Zero Count Test : 0 count per 1 minute  
 Equipment No. : WA-01-05

**Test Conditions:**

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

**Test Specifications & Methodology:**

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

**Results:**

Correlation Factor (CF)	1.107
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*PREPARED AND CHECKED BY:*

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

  
**PATRICK TSE**  
 General Manager

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

Dust Meter	Dust Meter	High Volume Sampler
Equipment No.:	WA-01-05	WA-12-09
Model No. :	AEROCET-831	TE-5170
Serial No.	X24476	2203
Calibration Date:	22-Apr-23	22-Apr-23
Location:	Wellab Office (Calibration Room)	

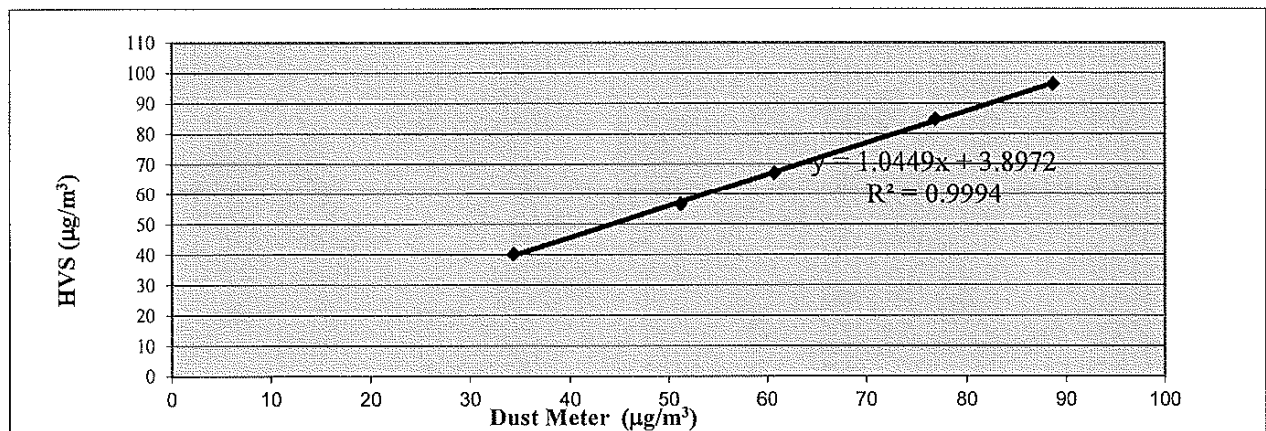
Calibration of 1 hr TSP		
Calibration Point	Dust Meter	HVS
	Mass Concentration ( $\mu\text{g}/\text{m}^3$ ) X-axis	Mass concentration ( $\mu\text{g}/\text{m}^3$ ) Y-axis
1	34	40
2	51	57
3	61	67
4	77	85
5	89	96
<b>Average</b>	<b>62.4</b>	<b>69.1</b>

By Linear Regression of Y on X  
 Slope, mw = 1.0449 Intercept, bw = 3.8972  
 Correlation coefficient\* = 0.9997

\*If Correlation Coefficient < 0.90, check and recalibrate.

Set Correlation Factor	
Particulate Concentration by High Volume Sampler ( $\mu\text{g}/\text{m}^3$ )	69.1
Particulate Concentration by Dust Meter ( $\mu\text{g}/\text{m}^3$ )	62.4
Measuring time, (min)	60

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



QC Reviewer: MAN MAN Signature: ke- Date: 23/4/2023

**TEST REPORT**

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

Test Report No.:	37858A
Date of Issue:	2023-02-27
Date Received:	2023-02-25
Date Tested:	2023-02-25
Date Completed:	2023-02-27
Next Due Date:	2023-04-26

Page: 1 of 1

**ATTN:** Ms. Meiling Tang

<b>Certificate of Calibration</b>
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**Item for Calibration:**

Description	: Dust Monitor
Manufacturer	: Met One Instruments
Model No.	: AEROCET-831
Serial No.	: X24477
Flow rate	: 0.1 cfm
Zero Count Test	: 0 count per 1 minute
Equipment No.	: WA-01-06

**Test Conditions:**

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

**Test Specifications & Methodology:**

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

**Results:**

Correlation Factor (CF)	1.136
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*PREPARED AND CHECKED BY:*  
For and On Behalf of **WELLAB Ltd.**

  
**PATRICK TSE**  
General Manager

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

Dust Meter	Dust Meter	High Volume Sampler
Equipment No.:	WA-01-06	WA-12-09
Model No. :	AEROCET-831	TE-5170
Serial No.	X24477	2203
Calibration Date:	25-Feb-23	25-Feb-23
Location:	Wellab Office (Calibration Room)	

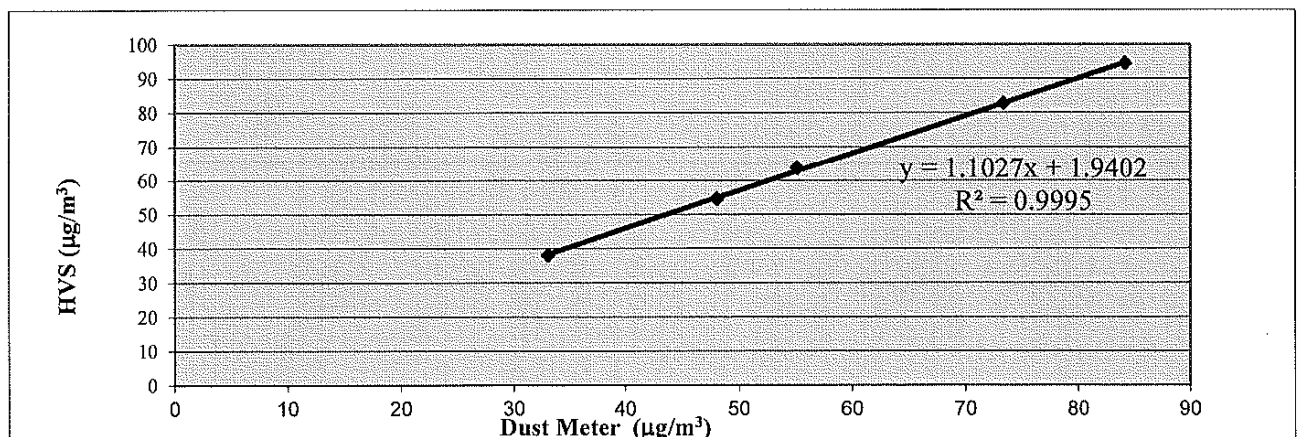
Calibration of 1 hr TSP		
Calibration Point	Dust Meter	HVS
	Mass Concentration ( $\mu\text{g}/\text{m}^3$ ) X-axis	Mass concentration ( $\mu\text{g}/\text{m}^3$ ) Y-axis
1	33	38
2	48	55
3	55	64
4	73	83
5	84	95
<b>Average</b>	<b>58.8</b>	<b>66.8</b>

By Linear Regression of Y on X  
 Slope,  $m_w =$  1.1027      Intercept,  $b_w =$  1.9402  
 Correlation coefficient\* = 0.9997

\*If Correlation Coefficient < 0.90, check and recalibrate.

Set Correlation Factor	
Particulate Concentration by High Volume Sampler ( $\mu\text{g}/\text{m}^3$ )	66.8
Particulate Concentration by Dust Meter ( $\mu\text{g}/\text{m}^3$ )	58.8
Measuring time, (min)	60

Set Correlation Factor, SCF  
 $\text{SCF} = [ K = \text{High Volume Sampler} / \text{Dust Meter, } (\mu\text{g}/\text{m}^3) ]$       1.136



QC Reviewer: LEE Mon Hee      Signature: hei      Date: 26/2/2023

**TEST REPORT**

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

Test Report No.:	38139A
Date of Issue:	2023-04-24
Date Received:	2023-04-22
Date Tested:	2023-04-22
Date Completed:	2023-04-24
Next Due Date:	2023-06-23

Page: 1 of 1

**ATTN:** Ms. Meiling Tang

**Certificate of Calibration**

**Item for Calibration:**

Description	: Dust Monitor
Manufacturer	: Met One Instruments
Model No.	: AEROCET-831
Serial No.	: X24477
Flow rate	: 0.1 cfm
Zero Count Test	: 0 count per 1 minute
Equipment No.	: WA-01-06

**Test Conditions:**

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

**Test Specifications & Methodology:**

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

**Results:**

Correlation Factor (CF)	1.125
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**PREPARED AND CHECKED BY:**

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

  
\_\_\_\_\_  
**PATRICK TSE**  
General Manager

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

Dust Meter	Dust Meter	High Volume Sampler
Equipment No.:	WA-01-06	WA-12-09
Model No. :	AEROCET-831	TE-5170
Serial No.	X24477	2203
Calibration Date:	22-Apr-23	22-Apr-23
Location:	Wellab Office (Calibration Room)	

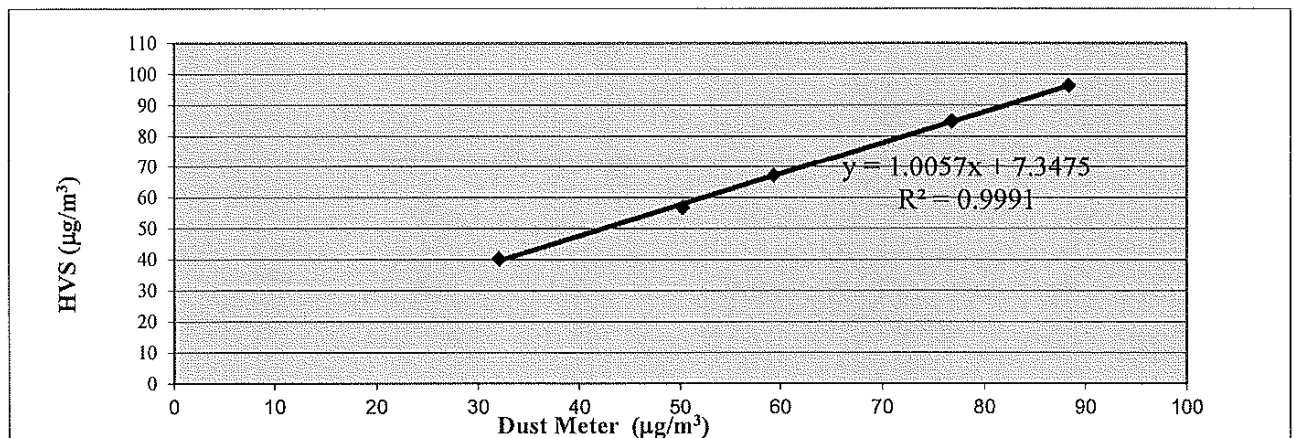
Calibration of 1 hr TSP		
Calibration Point	Dust Meter	HVS
	Mass Concentration ( $\mu\text{g}/\text{m}^3$ ) X-axis	Mass concentration ( $\mu\text{g}/\text{m}^3$ ) Y-axis
1	32	40
2	50	57
3	59	67
4	77	85
5	88	96
<b>Average</b>	<b>61.4</b>	<b>69.1</b>

By Linear Regression of Y on X  
 Slope, mw = 1.0057 Intercept, bw = 7.3475  
 Correlation coefficient\* = 0.9995

\*If Correlation Coefficient < 0.90, check and recalibrate.

Set Correlation Factor	
Particulate Concentration by High Volume Sampler ( $\mu\text{g}/\text{m}^3$ )	69.1
Particulate Concentration by Dust Meter ( $\mu\text{g}/\text{m}^3$ )	61.4
Measuring time, (min)	60

Set Correlation Factor, SCF  
 SCF = [ K=High Volume Sampler / Dust Meter, ( $\mu\text{g}/\text{m}^3$ ) ] 1.125



QC Reviewer: LEA Mon 11/22 Signature: her Date: 23/4/2023



**TEST REPORT**

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

Test Report No.:	37894D
Date of Issue:	2023-03-06
Date Received:	2023-03-03
Date Tested:	2023-03-03
Date Completed:	2023-03-06
Next Due Date:	2023-05-05

Page: 1 of 1

**ATTN:** Ms. Meiling Tang

**Certificate of Calibration**

**Item for Calibration:**

Description	: Dust Monitor
Manufacturer	: Met One Instruments
Model No.	: AEROCET-831
Serial No.	: X24475
Flow rate	: 0.1 cfm
Zero Count Test	: 0 count per 1 minute
Equipment No.	: WA-01-07

**Test Conditions:**

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

**Test Specifications & Methodology:**

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

**Results:**

Correlation Factor (CF)	1.116
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*PREPARED AND CHECKED BY:*

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

  
**PATRICK TSE**  
General Manager

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

Dust Meter	Dust Meter	High Volume Sampler
Equipment No.:	WA-01-07	WA-12-09
Model No. :	AEROCET-831	TE-5170
Serial No.	X24475	2203
Calibration Date:	3-Mar-23	3-Mar-23
Location:	Wellab Office (Calibration Room)	

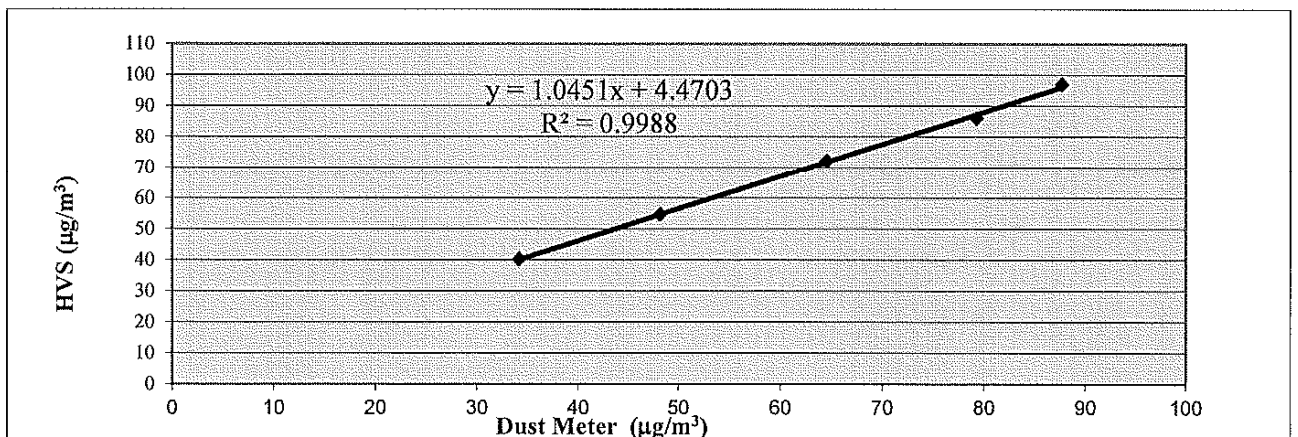
Calibration of 1 hr TSP		
Calibration Point	Dust Meter	HVS
	Mass Concentration ( $\mu\text{g}/\text{m}^3$ ) X-axis	Mass concentration ( $\mu\text{g}/\text{m}^3$ ) Y-axis
1	34	40
2	48	55
3	65	72
4	79	86
5	88	97
<b>Average</b>	<b>62.8</b>	<b>70.1</b>

By Linear Regression of Y on X  
 Slope , mw = 1.0451 Intercept, bw = 4.4703  
 Correlation coefficient\* = 0.9994

\*If Correlation Coefficient < 0.90, check and recalibrate.

Set Correlation Factor	
Particulate Concentration by High Volume Sampler ( $\mu\text{g}/\text{m}^3$ )	70.1
Particulate Concentration by Dust Meter ( $\mu\text{g}/\text{m}^3$ )	62.8
Measuring time, (min)	60

Set Correlation Factor , SCF  
 $\text{SCF} = [ K = \text{High Volume Sampler} / \text{Dust Meter, } (\mu\text{g}/\text{m}^3) ]$  1.116



QC Reviewer: LEE WANN MEZ Signature: ken Date: 4/3/2023

**TEST REPORT**

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

Test Report No.:	37858B
Date of Issue:	2023-02-27
Date Received:	2023-02-25
Date Tested:	2023-02-25
Date Completed:	2023-02-27
Next Due Date:	2023-04-26

Page: 1 of 1

**ATTN:** Ms. Meiling Tang

**Certificate of Calibration**

**Item for Calibration:**

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

**Test Conditions:**

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

**Test Specifications & Methodology:**

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

**Results:**

Correlation Factor (CF)	1.156
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*PREPARED AND CHECKED BY:*  
For and On Behalf of **WELLAB Ltd.**

  
**PATRICK TSE**  
General Manager

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

Dust Meter	Dust Meter	High Volume Sampler
Equipment No.:	WA-01-08	WA-12-09
Model No. :	AEROCET-831	TE-5170
Serial No.	X24479	2203
Calibration Date:	25-Feb-23	25-Feb-23
Location:	Wellab Office (Calibration Room)	

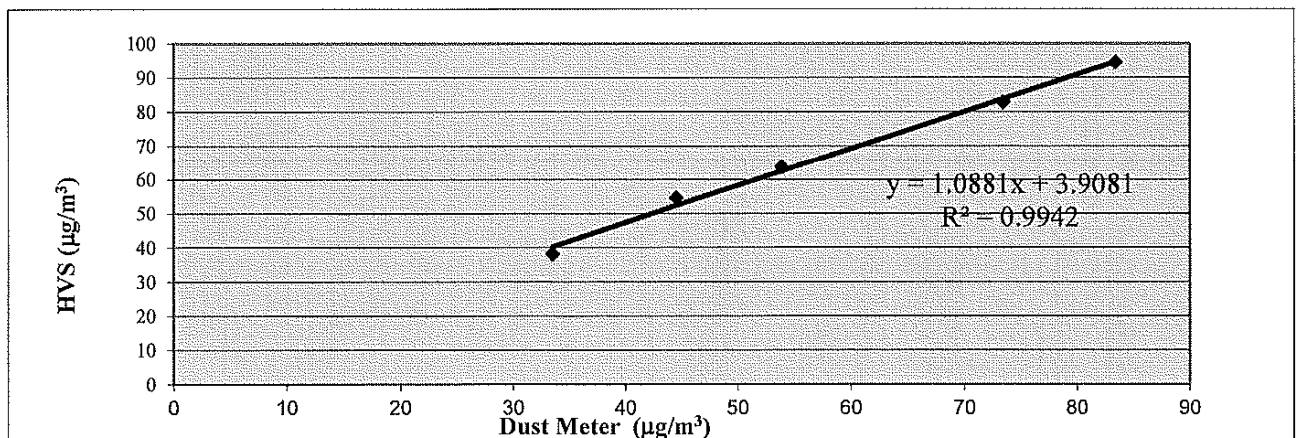
Calibration of 1 hr TSP		
Calibration Point	Dust Meter	HVS
	Mass Concentration ( $\mu\text{g}/\text{m}^3$ ) X-axis	Mass concentration ( $\mu\text{g}/\text{m}^3$ ) Y-axis
1	34	38
2	45	55
3	54	64
4	74	83
5	83	95
Average	57.8	66.8

By Linear Regression of Y on X  
 Slope, mw = 1.0881 Intercept, bw = 3.9081  
 Correlation coefficient\* = 0.9971

\*If Correlation Coefficient < 0.90, check and recalibrate.

Set Correlation Factor	
Particulate Concentration by High Volume Sampler ( $\mu\text{g}/\text{m}^3$ )	66.8
Particulate Concentration by Dust Meter ( $\mu\text{g}/\text{m}^3$ )	57.8
Measuring time, (min)	60

Set Correlation Factor, SCF  
 SCF = [ K=High Volume Sampler / Dust Meter, ( $\mu\text{g}/\text{m}^3$ ) ] 1.156



QC Reviewer: LJB MWS HED Signature: kei Date: 26/2/2023

**TEST REPORT**

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

Test Report No.:	37858C
Date of Issue:	2023-02-27
Date Received:	2023-02-25
Date Tested:	2023-02-25
Date Completed:	2023-02-27
Next Due Date:	2023-04-26

Page: 1 of 1

**ATTN:** Ms. Meiling Tang

<b>Certificate of Calibration</b>
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**Item for Calibration:**

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

**Test Conditions:**

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

**Test Specifications & Methodology:**

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

**Results:**

Correlation Factor (CF)	1.104
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*PREPARED AND CHECKED BY:*  
For and On Behalf of **WELLAB Ltd.**

  
**PATRICK TSE**  
*Laboratory Manager*

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

Dust Meter	Dust Meter	High Volume Sampler
Equipment No.:	WA-01-09	WA-12-09
Model No. :	AEROCET-831	TE-5170
Serial No.	X23811	2203
Calibration Date:	25-Feb-23	25-Feb-23
Location:	Wellab Office (Calibration Room)	

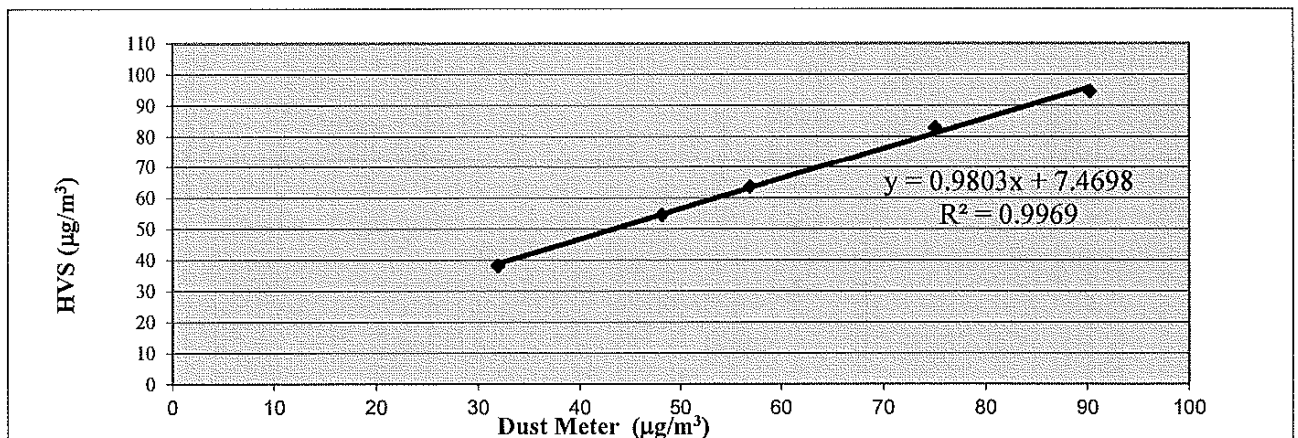
Calibration of 1 hr TSP		
Calibration Point	Dust Meter	HVS
	Mass Concentration ( $\mu\text{g}/\text{m}^3$ ) X-axis	Mass concentration ( $\mu\text{g}/\text{m}^3$ ) Y-axis
1	32	38
2	48	55
3	57	64
4	75	83
5	90	95
Average	60.5	66.8

By Linear Regression of Y on X  
 Slope, mw = 0.9803 Intercept, bw = 7.4698  
 Correlation coefficient\* = 0.9985

\*If Correlation Coefficient < 0.90, check and recalibrate.

Set Correlation Factor	
Particulate Concentration by High Volume Sampler ( $\mu\text{g}/\text{m}^3$ )	66.8
Particulate Concentration by Dust Meter ( $\mu\text{g}/\text{m}^3$ )	60.5
Measuring time, (min)	60

Set Correlation Factor, SCF  
 $\text{SCF} = [ K = \text{High Volume Sampler} / \text{Dust Meter, } (\mu\text{g}/\text{m}^3) ]$  1.104



QC Reviewer: LEE MAN HUI Signature: kei Date: 26/2/23

**TEST REPORT**

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

Test Report No.:	38139C
Date of Issue:	2023-04-24
Date Received:	2023-04-22
Date Tested:	2023-04-22
Date Completed:	2023-04-24
Next Due Date:	2023-06-23

Page: 1 of 1

**ATTN:** Ms. Meiling Tang

**Certificate of Calibration**

**Item for Calibration:**

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

**Test Conditions:**

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

**Test Specifications & Methodology:**

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

**Results:**

Correlation Factor (CF)	1.067
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\*\*\*\*\*

*PREPARED AND CHECKED BY:*

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

  
**PATRICK TSE**  
*Laboratory Manager*

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

Dust Meter	Dust Meter	High Volume Sampler
Equipment No.:	WA-01-09	WA-12-09
Model No. :	AEROCET-831	TE-5170
Serial No.	X23811	2203
Calibration Date:	22-Apr-23	22-Apr-23
Location:	Wellab Office (Calibration Room)	

Calibration of 1 hr TSP		
Calibration Point	Dust Meter	HVS
	Mass Concentration ( $\mu\text{g}/\text{m}^3$ ) X-axis	Mass concentration ( $\mu\text{g}/\text{m}^3$ ) Y-axis
1	35	40
2	51	57
3	65	67
4	81	85
5	91	96
Average	64.8	69.1

By Linear Regression of Y on X

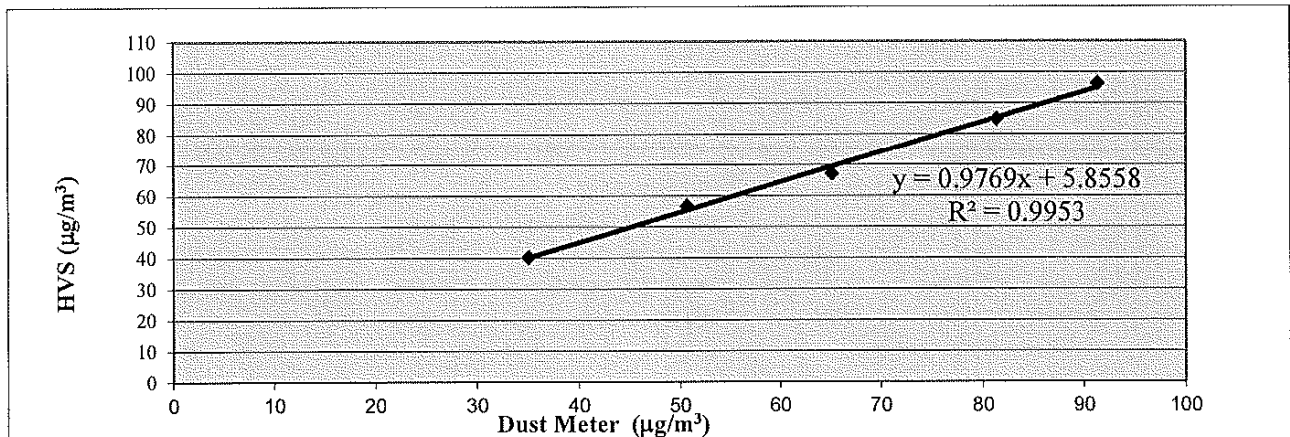
Slope,  $m_w =$  0.9769                      Intercept,  $b_w =$  5.8558  
 Correlation coefficient\* = 0.9976

\*If Correlation Coefficient < 0.90, check and recalibrate.

Set Correlation Factor	
Particulate Concentration by High Volume Sampler ( $\mu\text{g}/\text{m}^3$ )	69.1
Particulate Concentration by Dust Meter ( $\mu\text{g}/\text{m}^3$ )	64.8
Measuring time, (min)	60

Set Correlation Factor, SCF

SCF = [  $K = \text{High Volume Sampler} / \text{Dust Meter}, (\mu\text{g}/\text{m}^3)$  ] 1.067



QC Reviewer: LBB Mon HBB      Signature: her      Date: 23/4/23





**High-Volume TSP Sampler  
5-POINT CALIBRATION DATA SHEET**

File No. Cal./230303

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

Serial No. 2203  
Cal. Date: 3-Mar-23

Ambient Condition			
Temperature, Ta (K)	294	Pressure, Pa (mmHg)	769.2

Orifice Transfer Standard Information					
Serial No.	0993	Slope, mc	0.0574	Intercept, bc	-0.04292
Last Calibration Date:	16-Jan-23	$mc \times Qstd + bc = [\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$			
Next Calibration Date:	16-Jan-24	$Qstd = \{[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2} - bc\} / mc$			

Calibration of TSP Sampler					
Calibration Point	Orifice			HVS	
	$\Delta H$ (orifice), in. of water	$[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$	Qstd (CFM) X - axis	$\Delta W$ (HVS), in. of water	$[\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$ Y-axis
1	11.4	3.42	60.28	7.2	2.72
2	9.0	3.04	53.65	6.0	2.48
3	8.2	2.90	51.24	5.6	2.40
4	5.9	2.46	43.58	4.0	2.03
5	3.3	1.84	32.78	2.4	1.57

**By Linear Regression of Y on X**

Slope, mw = 0.0426 Intercept, bw = 0.1820

Correlation coefficient\* = 0.9985

\*If Correlation Coefficient < 0.990, check and recalibrate.

**Set Point Calculation**

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

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

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

Therefore, Set Point; W =  $(mw \times Qstd + bw)^2 \times (760 / Pa) \times (Ta / 298) =$  3.95

Remarks: \_\_\_\_\_

Conducted by: LEE MAN HING  
Checked by: Ho Ka Chun

Signature: \_\_\_\_\_  
Signature: \_\_\_\_\_

Date: 3/3/2023  
Date: 3/3/2023

# High-Volume TSP Sampler

## 5-POINT CALIBRATION DATA SHEET

File No. Cal./230422

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

Serial No. 2203  
Cal. Date: 22-Apr-23

Ambient Condition			
Temperature, Ta (K)	<u>293.4</u>	Pressure, Pa (mmHg)	<u>758.6</u>

Orifice Transfer Standard Information					
Serial No.	<u>0993</u>	Slope, mc	<u>0.0574</u>	Intercept, bc	<u>-0.04292</u>
Last Calibration Date:	<u>16-Jan-23</u>	$mc \times Qstd + bc = [\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$			
Next Calibration Date:	<u>16-Jan-24</u>	$Qstd = \{[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2} - bc\} / mc$			

Calibration of TSP Sampler					
Calibration Point	Orifice			HVS	
	$\Delta H$ (orifice), in. of water	$[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$	Qstd (CFM) X-axis	$\Delta W$ (HVS), in. of water	$[\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$ Y-axis
1	11.8	3.46	60.96	7.8	2.81
2	9.6	3.12	55.06	6.2	2.51
3	8.7	2.97	52.45	5.8	2.42
4	5.4	2.34	41.48	3.7	1.94
5	3.4	1.86	33.07	2.4	1.56

### By Linear Regression of Y on X

Slope, mw = 0.0444

Intercept, bw = 0.0925

Correlation coefficient\* = 0.9995

\*If Correlation Coefficient < 0.990, check and recalibrate.

### Set Point Calculation

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

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

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

Therefore, Set Point; W =  $(mw \times Qstd + bw)^2 \times (760 / Pa) \times (Ta / 298) =$  3.94

Remarks: \_\_\_\_\_

Conducted by: [Signature]  
Checked by: [Signature]

Signature: \_\_\_\_\_  
Signature: \_\_\_\_\_

Date: 22/4/2023  
Date: 22/4/23

## High-Volume TSP Sampler 5-POINT CALIBRATION DATA SHEET

Station FLN-DMS1 - Scattered Village Houses North of Proposed Potential Ecopark  
 Date: 23-Feb-23  
 Model No. TE-5170  
 Equipment No.: WA-12-20

File No. WMA20002/20/0017  
 Next Due Date: 22-Apr-23  
 Operator: HL  
 Serial No. 3223

Ambient Condition			
Temperature, Ta (K)	290.6	Pressure, Pa (mmHg)	770.5

Orifice Transfer Standard Information					
Serial No.	0993	Slope, mc	0.0574	Intercept, bc	-0.04292
Last Calibration Date:	16-Jan-23	$mc \times Qstd + bc = [\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$			
Next Calibration Date:	16-Jan-24	$Qstd = \{[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2} - bc\} / mc$			

Calibration of TSP Sampler					
Calibration Point	Orifice			HVS	
	$\Delta H$ (orifice), in. of water	$[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$	Qstd (CFM) X - axis	$\Delta W$ (HVS), in. of water	$[\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$ Y-axis
1	11.5	3.46	60.94	8.0	2.88
2	10.4	3.29	57.99	6.9	2.68
3	7.1	2.72	48.05	5.0	2.28
4	5.4	2.37	42.00	3.7	1.96
5	3.3	1.85	32.99	2.4	1.58

By Linear Regression of Y on X

Slope, mw = 0.0459 Intercept, bw : 0.0553  
 Correlation coefficient\* = 0.9985

\*If Correlation Coefficient < 0.990, check and recalibrate.

### Set Point Calculation

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

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

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

Therefore, Set Point;  $W = (mw \times Qstd + bw)^2 \times (760 / Pa) \times (Ta / 298) =$  3.96

Remarks: \_\_\_\_\_

Conducted by: LEE MAN HEE Signature: \_\_\_\_\_  
 Checked by: Ho Ka Chun Signature: \_\_\_\_\_

Date: 23/2/2023  
 Date: 23/2/2023

## High-Volume TSP Sampler 5-POINT CALIBRATION DATA SHEET

Station FLN-DMS1 - Scattered Village Houses North of Proposed Potential Ecopark  
 Date: 19-Apr-23  
 Model No. TE-5170  
 Equipment No.: WA-12-20

File No. WMA20002/20/0018  
 Next Due Date: 18-Jun-23  
 Operator: HL  
 Serial No. 3223

Ambient Condition			
Temperature, Ta (K)	298.5	Pressure, Pa (mmHg)	755.9

Orifice Transfer Standard Information					
Serial No.	0993	Slope, mc	0.0574	Intercept, bc	-0.04292
Last Calibration Date:	16-Jan-23	$mc \times Qstd + bc = [\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$			
Next Calibration Date:	16-Jan-24	$Qstd = \{[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2} - bc\} / mc$			

Calibration of TSP Sampler					
Calibration Point	Orifice			HVS	
	$\Delta H$ (orifice), in. of water	$[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$	Qstd (CFM) X - axis	$\Delta W$ (HVS), in. of water	$[\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$ Y-axis
1	14.6	3.81	67.03	9.1	3.01
2	12.2	3.48	61.34	8.4	2.89
3	9.2	3.02	53.37	6.5	2.54
4	5.6	2.36	41.80	4.4	2.09
5	3.4	1.84	32.73	2.9	1.70

By Linear Regression of Y on X

Slope, mw = 0.0390 Intercept, bw : 0.4443  
 Correlation coefficient\* = 0.9973

\*If Correlation Coefficient < 0.990, check and recalibrate.

### Set Point Calculation

From the TSP Field Calibration Curve, take Qstd = 43 CFM  
 From the Regression Equation, the "Y" value according to

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

Therefore, Set Point; W =  $(mw \times Qstd + bw)^2 \times (760 / Pa) \times (Ta / 298) =$  4.54

Remarks: \_\_\_\_\_

Conducted by: LEE MAN HEU Signature: Lee Man Heu Date: 19/4/2023  
 Checked by: Lee Ka Nin Signature: Lee Ka Nin Date: 19/4/2023

**High-Volume TSP Sampler  
5-POINT CALIBRATION DATA SHEET**

Station FLN-DMS3 - House near Tong Hang  
Date: 23-Feb-23  
Model No. TE-5170  
Equipment No.: WA-12-17

File No. WMA20002/17/0017  
Next Due Date: 22-Apr-23  
Operator: HL  
Serial No. 3218

Ambient Condition			
Temperature, Ta (K)	290.4	Pressure, Pa (mmHg)	770.8

Orifice Transfer Standard Information					
Serial No.	0993	Slope, mc	0.0574	Intercept, bc	-0.04292
Last Calibration Date:	16-Jan-23	$mc \times Qstd + bc = [\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$ $Qstd = \{[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2} - bc\} / mc$			
Next Calibration Date:	16-Jan-24				

Calibration of TSP Sampler					
Calibration Point	Orifice			HVS	
	$\Delta H$ (orifice), in. of water	$[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$	Qstd (CFM) X - axis	$\Delta W$ (HVS), in. of water	$[\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$ Y-axis
1	10.8	3.35	59.11	7.3	2.76
2	8.8	3.03	53.43	6.0	2.50
3	7.1	2.72	48.07	4.8	2.24
4	5.4	2.37	42.02	3.9	2.01
5	3.1	1.80	32.02	2.4	1.58

**By Linear Regression of Y on X**

Slope, mw = 0.0431 Intercept, bw = 0.1933  
Correlation coefficient\* = 0.9992

\*If Correlation Coefficient < 0.990, check and recalibrate.

**Set Point Calculation**

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

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

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

Therefore, Set Point;  $W = (mw \times Qstd + bw)^2 \times (760 / Pa) \times (Ta / 298) =$  4.03

Remarks: \_\_\_\_\_  
\_\_\_\_\_

Conducted by: LEE Man Hei Signature: \_\_\_\_\_  
Checked by: Ho Ka Chun Signature: \_\_\_\_\_

Date: 23/2/2023  
Date: 23/2/2023

## High-Volume TSP Sampler 5-POINT CALIBRATION DATA SHEET

Station FLN-DMS3 - House near Tong Hang  
Date: 19-Apr-23  
Model No. TE-5170  
Equipment No.: WA-12-17

File No. WMA20002/17/0018  
Next Due Date: 18-Jun-23  
Operator: HL  
Serial No. 3218

Ambient Condition			
Temperature, Ta (K)	301	Pressure, Pa (mmHg)	757.9

Orifice Transfer Standard Information					
Serial No.	0993	Slope, mc	0.0574	Intercept, bc	-0.04292
Last Calibration Date:	16-Jan-23	$mc \times Qstd + bc = [\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$			
Next Calibration Date:	16-Jan-24	$Qstd = \{[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2} - bc\} / mc$			

Calibration of TSP Sampler					
Calibration Point	Orifice			HVS	
	$\Delta H$ (orifice), in. of water	$[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$	Qstd (CFM) X - axis	$\Delta W$ (HVS), in. of water	$[\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$ Y-axis
1	14.0	3.72	65.47	9.0	2.98
2	11.9	3.43	60.42	8.0	2.81
3	9.6	3.08	54.34	6.7	2.57
4	5.4	2.31	40.94	4.1	2.01
5	3.7	1.91	34.02	2.9	1.69

**By Linear Regression of Y on X**

Slope, mw = 0.0412      Intercept, bw = 0.3122  
Correlation coefficient\* = 0.9992

\*If Correlation Coefficient < 0.990, check and recalibrate.

**Set Point Calculation**

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

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

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

Therefore, Set Point; W =  $(mw \times Qstd + bw)^2 \times (760 / Pa) \times (Ta / 298) =$  4.39

Remarks: \_\_\_\_\_

Conducted by: LET Max Liu Signature: \_\_\_\_\_ Date: 19/4/2023  
Checked by: Ho Ka Chee Signature: \_\_\_\_\_ Date: 19/4/2023

**RSP - Respirable Suspended Particulates Sampler (PM 10)**  
**Field Calibration Report**

Station KTN-DMS4A - Temporary Structure at Pak Shek Au  
Date: 3-Mar-23  
Model No. TE-6070X  
Equipment No.: WA-11-03

File No. WMA20002/03/0017  
Next Due Date: 2-May-23  
Operator: HL  
Serial No. 3225

Ambient Condition			
Temperature, Ta (K)	294.4	Pressure, Pa (mmHg)	770.5

Orifice Transfer Standard Information					
Serial No.:	0993	Slope, mc	0.0574	Intercept, bc	-0.04292
Last Calibration Date:	16-Jan-23	Next Calibration Date:	16-Jan-24		

Calibration of RSP Sampler							
Calibration Point	ORIFICE					HVS	
	$\Delta H$ (orifice), in. of water	Del Hc <sup>(1)</sup>	Qstd <sup>(2)</sup> (CFM)	Qa <sup>(3)</sup> (CFM) X-axis	Qa <sup>(3)</sup> (m <sup>3</sup> /min) X-axis	$\Delta W$ (HVS), in. of water	$[\Delta W \times (Ta + 30) / Pa]^{1/2}$ Y-axis
1	9.1	9.34	53.95	52.57	1.49	7.8	1.81
2	7.1	7.29	47.74	46.52	1.32	6.2	1.62
3	6	6.16	43.95	42.82	1.21	5.3	1.49
4	4.7	4.82	38.98	37.99	1.07	4.2	1.33
5	2.1	2.16	26.30	25.63	0.73	2.3	0.98

By Linear Regression of Y on X

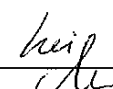
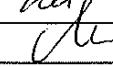
Slope, mw = 0.0308 Intercept, bw = 0.1817  
Correlation coefficient\* = 0.9990

- (1) DEL Hc =  $\Delta H \times (Pa/760 \times 298/Ta)$
- (2) Qstd =  $\{[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2} - bc\}/mc$  (m3/min)
- (3) Qa = Qstd  $\times (Ta / Pa) \times (760 / 298)$  (m3/min)

\*If Correlation Coefficient < 0.990, check and recalibrate.

Set Point Calculation	
Set Point Flow Rate., SFR	
SFR = $1.13 \times (760/Pa) \times (Ta/298) =$	<u>38.91</u>
Sampler Well - Type Manometer Set Point, SSP	
SSP = $[(mw \times SFR + bw)^2 \times Pa] / (Ta + 30) =$	<u>4.52</u>

Remarks: \_\_\_\_\_

Conducted by: L26 MAN H22 Signature:  Date: 3/3/2023  
Checked by: W20 Ca C22 Signature:  Date: 3/3/2023



# Certificate of Calibration

Calibration Certification Information			
Cal. Date: January 16, 2023	Rootsmeter S/N: 438320	Ta: 293	°K
Operator: Jim Tisch		Pa: 749.0	mm Hg
Calibration Model #: TE-5025A	Calibrator S/N: <b>0993</b>		

Run	Vol. Init (m3)	Vol. Final (m3)	ΔVol. (m3)	ΔTime (min)	ΔP (mm Hg)	ΔH (in H2O)
1	1	2	1	1.3860	3.2	2.00
2	3	4	1	0.9880	6.4	4.00
3	5	6	1	0.8810	8.0	5.00
4	7	8	1	0.8410	8.8	5.50
5	9	10	1	0.6950	12.8	8.00

Data Tabulation					
Vstd (m3)	Qstd (x-axis)	$\sqrt{\Delta H \left( \frac{Pa}{Pstd} \right) \left( \frac{Tstd}{Ta} \right)}$ (y-axis)	Va	Qa (x-axis)	$\sqrt{\Delta H \left( \frac{Ta}{Pa} \right)}$ (y-axis)
0.9981	0.7201	1.4159	0.9957	0.7184	0.8845
0.9938	1.0059	2.0024	0.9915	1.0035	1.2509
0.9917	1.1257	2.2388	0.9893	1.1230	1.3985
0.9906	1.1779	2.3480	0.9883	1.1751	1.4668
0.9853	1.4177	2.8318	0.9829	1.4143	1.7690
<b>QSTD</b>	m=	<b>2.02881</b>	<b>QA</b>	m=	<b>1.27041</b>
	b=	<b>-0.04292</b>		b=	<b>-0.02681</b>
	r=	<b>0.99998</b>		r=	<b>0.99998</b>

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

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

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

### TEST REPORT

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

Test Report No.:	37893B
Date of Issue:	2023-03-06
Date Received:	2023-03-03
Date Tested:	2023-03-03
Date Completed:	2023-03-06
Next Due Date:	2024-03-05

Page: 1 of 1

**ATTN:** Ms. Meiling Tang

### Certificate of Calibration

**Item for calibration:**

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

**Test conditions:**

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

**Test Specifications:**

Performance checking at 94 and 114 dB

**Methodology:**

In-house method, according to manufacturer instruction manual

**Results:**

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

*PREPARED AND CHECKED BY:*

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

  
**PATRICK TSE**  
General Manager

### TEST REPORT

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

Test Report No.:	37893D
Date of Issue:	2023-03-06
Date Received:	2023-03-03
Date Tested:	2023-03-03
Date Completed:	2023-03-06
Next Due Date:	2024-03-05

Page: 1 of 1

**ATTN:** Ms. Meiling Tang

### Certificate of Calibration

**Item for calibration:**

Description	: Sound Level Meter
Manufacturer	: BSWA
Model No.	: BSWA 308
Serial No.	: 580007
Equipment No.	: WN-01-05

**Test conditions:**

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

**Test Specifications:**

Performance checking at 94 and 114 dB

**Methodology:**

In-house method, according to manufacturer instruction manual

**Results:**

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

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

  
**PATRICK TSE**  
General Manager

### TEST REPORT

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

Test Report No.:	37893E
Date of Issue:	2023-03-06
Date Received:	2023-03-03
Date Tested:	2023-03-03
Date Completed:	2023-03-06
Next Due Date:	2024-03-05

Page: 1 of 1

**ATTN:** Ms. Meiling Tang

### Certificate of Calibration

**Item for calibration:**

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

**Test conditions:**

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

**Test Specifications:**

Performance checking at 94 and 114 dB

**Methodology:**

In-house method, according to manufacturer instruction manual

**Results:**

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

*PREPARED AND CHECKED BY:*

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

  
**PATRICK TSE**  
General Manager

## TEST REPORT

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

Test Report No.:	37894
Date of Issue:	2023-03-13
Date Received:	2023-03-10
Date Tested:	2023-03-10
Date Completed:	2023-03-13
Next Due Date:	2024-03-12

Page: 1 of 1

**ATTN:** Ms. Meiling Tang

### Certificate of Calibration

**Item for calibration:**

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

**Test conditions:**

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

**Test Specifications:**

Performance checking at 94 and 114 dB

**Methodology:**

In-house method, according to manufacturer instruction manual

**Results:**

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

*PREPARED AND CHECKED BY:*

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



**PATRICK TSE**

General Manager

## TEST REPORT

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

Test Report No.:	37894A
Date of Issue:	2023-03-13
Date Received:	2023-03-10
Date Tested:	2023-03-10
Date Completed:	2023-03-13
Next Due Date:	2024-03-12

Page: 1 of 1

**ATTN:** Ms. Meiling Tang

### Certificate of Calibration

**Item for calibration:**

Description	: Sound Level Meter
Manufacturer	: BSWA
Model No.	: BSWA 308
Serial No.	: 580013
Equipment No.	: WN-01-09

**Test conditions:**

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

**Test Specifications:**

Performance checking at 94 and 114 dB

**Methodology:**

In-house method, according to manufacturer instruction manual

**Results:**

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

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

  
**PATRICK TSE**  
General Manager

## TEST REPORT

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

Test Report No.:	37894B
Date of Issue:	2023-03-13
Date Received:	2023-03-10
Date Tested:	2023-03-10
Date Completed:	2023-03-13
Next Due Date:	2024-03-12

Page: 1 of 1

**ATTN:** Ms. Meiling Tang

### Certificate of Calibration

**Item for calibration:**

Description	: Sound Level Meter
Manufacturer	: BSWA
Model No.	: BSWA 308
Serial No.	: 580017
Equipment No.	: WN-01-10

**Test conditions:**

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

**Test Specifications:**

Performance checking at 94 and 114 dB

**Methodology:**

In-house method, according to manufacturer instruction manual

**Results:**

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

*PREPARED AND CHECKED BY:*

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

  
**PATRICK TSE**  
General Manager

**TEST REPORT**

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

Test Report No.:	37018
Date of Issue:	2022-08-22
Date Received:	2022-08-19
Date Tested:	2022-08-19
Date Completed:	2022-08-22
Next Due Date:	2023-08-21

Page: 1 of 1

**ATTN:** Ms. Meiling Tang

**Certificate of Calibration**

**Item for Calibration:**

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

**Test Conditions:**

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

**Methodology:**

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

**Results:**

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

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

\*\*\*\*\*

*PREPARED AND CHECKED BY:*

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

  
**PATRICK TSE**  
 General Manager



### TEST REPORT

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

Test Report No.:	37163
Date of Issue:	2022-10-02
Date Received:	2022-09-30
Date Tested:	2022-10-02
Date Completed:	2022-10-02
Next Due Date:	2023-10-01

Page: 1 of 1

**ATTN:** Ms. Meiling Tang

### Certificate of Calibration

**Item for calibration:**

Description	: Acoustical Calibrator
Manufacturer	: SVANTEK
Model No.	: SV30A
Serial No.	: 24803
Equipment No.	: N-09-03

**Test conditions:**

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

**Methodology:**

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

**Results:**

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

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

  
**PATRICK TSE**  
General Manager

### TEST REPORT

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

Test Report No.:	37018A
Date of Issue:	2022-08-22
Date Received:	2022-08-19
Date Tested:	2022-08-19
Date Completed:	2022-08-22
Next Due Date:	2023-08-21

Page: 1 of 1

**ATTN:** Ms. Meiling Tang

### Certificate of Calibration

**Item for calibration:**

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

**Test conditions:**

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

**Methodology:**

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

**Results:**

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

*PREPARED AND CHECKED BY:*

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



**PATRICK TSE**  
General Manager

## TEST REPORT

**APPLICANT:** Wellab Limited  
(EM&A Department)  
Room 1801, Technology Park,  
18 On Lai Street,  
Shatin, NT, Hong Kong

Test Report No.:	37163A
Date of Issue:	2022-10-02
Date Received:	2022-09-30
Date Tested:	2022-10-02
Date Completed:	2022-10-02
Next Due Date:	2023-10-01

Page: 1 of 1

**ATTN:** Ms. Meiling Tang

### Certificate of Calibration

**Item for calibration:**

Description	: Acoustical Calibrator
Manufacturer	: SVANTEK
Model No.	: SV30A
Serial No.	: 24780
Equipment No.	: N-09-05

**Test conditions:**

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

**Methodology:**

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

**Results:**

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

*PREPARED AND CHECKED BY:*

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



**PATRICK TSE**  
General Manager

**TEST REPORT**

**APPLICANT:** Wellab Limited (EM&A)  
RM 1808, Technology Park,  
18 On Lai Street,  
Shatin, N.T., Hong Kong

Test Report No.:	38018
Date of Issue:	2023-03-24
Date Received:	2023-03-23
Date Tested:	2023-03-23 to 2023-03-24
Date Completed:	2023-03-24

**ATTN:** Miss Mei Ling Tang

Page: 1 of 2

**Certificate of Calibration**

**Item for calibration:**

YSI EXO1 Multiparameter Sondes	Equipment No.: SW-08-75	
Manufacturer:	YSI Incorporated, a Xylem brand	
Description:	Model No.	Serial No.
- EXO1 Sonde, 100 meter Depth, 4 Sensor ports	599502-24	16J102347
- EXO Optical DO Sensor, Ti	599100-01	16J100964
- EXO conductivity/Temperature Sensor, Ti	599870	16H100201
- EXO Turbidity Sensor, Ti	599101-01	16J101156
- EXO pH Sensor Assembly, Guarded, Ti	599701	17B100259

**Test conditions:**

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

**Test Specifications:**

Performance checking for Conductivity, Temperature, pH, Dissolved oxygen (D.O.) and Turbidity

**Methodology:**

According to manufacturer instruction manual, APHA 20e 4500-O C

\*\*\*\*\*

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

  
**PATRICK TSE**  
General Manager

## TEST REPORT

Test Report No.:	38018
Date of Issue:	2023-03-24
Date Received:	2023-03-23
Date Tested:	2023-03-23 to 2023-03-24
Date Completed:	2023-03-24
Page:	2 of 2

### Certificate of Calibration

**Results:**

**Conductivity performance checking**

	Instrument Readings ( $\mu\text{S}/\text{cm}$ )	Acceptance Criteria	Comment
KCl stock solution (12890 $\mu\text{S}/\text{cm}$ )	13200	12246-13534	Pass

**Temperature performance checking**

Reference thermometer- E431 Readings ( $^{\circ}\text{C}$ )	Instrument Readings ( $^{\circ}\text{C}$ )	Correction ( $^{\circ}\text{C}$ )	Comment
20.0	20.002	-0.002	N/A

**pH performance checking**

	Instrument Readings (pH unit)	Acceptance Criteria	Comment
pH QC buffer 4.00	3.97	$4.00 \pm 0.10$	Pass
pH QC buffer 6.86	6.84	$6.86 \pm 0.10$	Pass
pH QC buffer 9.18	9.20	$9.18 \pm 0.10$	Pass

**D.O. performance checking**

	Instrument Readings (mg/L)	Acceptance Criteria	Comment
Zero DO solution	0.09	$<0.1\text{mg/L}$	Pass

Winkler Titration value (mg/L)	Instrument Readings (mg/L)	Acceptance Criteria	Comment
8.16	8.04	Difference between Titration value and instrument reading $<0.2\text{mg/L}$	Pass

**Turbidity performance checking**

Turbidity stock solution	Instrument Readings (NTU)	Acceptance Criteria	Comment
10 NTU	10.11	9.0-11.0	Pass
50 NTU	50.21	45.0-55.0	Pass
100 NTU	102.3	90.0-110.0	Pass

**Depth performance checking**

Water Depth	Instrument Readings (m)	Acceptance Criteria	Comment
0.5 meter	0.50	0.45-0.55	Pass

\*\*\*\*\*END OF REPORT\*\*\*\*\*

**TEST REPORT**

**APPLICANT:** Wellab Limited (EM&A)  
RM 1808, Technology Park,  
18 On Lai Street,  
Shatin, N.T., Hong Kong

Test Report No.:	38018A
Date of Issue:	2023-03-24
Date Received:	2023-03-23
Date Tested:	2023-03-23 to 2023-03-24
Date Completed:	2023-03-24

**ATTN:** Miss Mei Ling Tang

Page: 1 of 2

**Certificate of Calibration**

**Item for calibration:**

YSI EXO1 Multiparameter Sondes	Equipment No.:	SW-08-83
Manufacturer:	YSI Incorporated, a Xylem brand	
Description:	Model No.	Serial No.
- EXO1 Sonde, 100 meter Depth, 4 Sensor ports	599502-24	17A104735
- EXO Optical DO Sensor, Ti	599100-01	17B102220
- EXO conductivity/Temperature Sensor, Ti	599870	17B100808
- EXO Turbidity Sensor, Ti	599101-01	18C101823
- EXO pH Sensor Assembly, Guarded, Ti	599701	17B103644

**Test conditions:**

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

**Test Specifications:**

Performance checking for Conductivity, Temperature, pH, Dissolved oxygen (D.O.) and Turbidity

**Methodology:**

According to manufacturer instruction manual, APHA 20e 4500-O C

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

  
\_\_\_\_\_  
**PATRICK TSE**  
General Manager

## TEST REPORT

Test Report No.:	38018A
Date of Issue:	2023-03-24
Date Received:	2023-03-23
Date Tested:	2023-03-23 to 2023-03-24
Date Completed:	2023-03-24

Page: 2 of 2

### Certificate of Calibration

**Results:**

**Conductivity performance checking**

	Instrument Readings ( $\mu\text{S}/\text{cm}$ )	Acceptance Criteria	Comment
KCl stock solution (12890 $\mu\text{S}/\text{cm}$ )	12800	12246-13534	Pass

**Temperature performance checking**

	Instrument Readings ( $^{\circ}\text{C}$ )	Correction ( $^{\circ}\text{C}$ )	Comment
Reference thermometer- E431 Readings ( $^{\circ}\text{C}$ )			
20.0	20.003	-0.003	N/A

**pH performance checking**

	Instrument Readings (pH unit)	Acceptance Criteria	Comment
pH QC buffer 4.00	4.01	$4.00 \pm 0.10$	Pass
pH QC buffer 6.86	6.81	$6.86 \pm 0.10$	Pass
pH QC buffer 9.18	9.22	$9.18 \pm 0.10$	Pass

**D.O. performance checking**

	Instrument Readings (mg/L)	Acceptance Criteria	Comment
Zero DO solution	0.09	$<0.1\text{mg}/\text{L}$	Pass

	Instrument Readings (mg/L)	Acceptance Criteria	Comment
Winkler Titration value (mg/L)			
8.16	8.11	Difference between Titration value and instrument reading $<0.2\text{mg}/\text{L}$	Pass

**Turbidity performance checking**

	Instrument Readings (NTU)	Acceptance Criteria	Comment
Turbidity stock solution			
10 NTU	9.59	9.0-11.0	Pass
50 NTU	51.63	45.0-55.0	Pass
100 NTU	103.2	90.0-110.0	Pass

**Depth performance checking**

	Instrument Readings (m)	Acceptance Criteria	Comment
Water Depth			
0.5 meter	0.50	0.45-0.55	Pass

\*\*\*\*\*END OF REPORT\*\*\*\*\*



## CERTIFICATE OF ANALYSIS

CONTACT: MR FUNG  
CLIENT: AECOM ASIA COMPANY LIMITED  
ADDRESS: 1501-10, 15/F, TOWER 1,  
GRAND CENTRAL PLAZA,  
138 SHATIN RURAL COMMITTEE ROAD,  
SHATIN, NEW TERRITORIES, HONG KONG

WORK ORDER: HK2238648  
SUB BATCH: 0  
LABORATORY: HONG KONG  
DATE RECEIVED: 03-Oct-2022  
DATE OF ISSUE: 13-Oct-2022

### SPECIFIC COMMENTS

Equipment information (Brand name, Model No., Serial No. and Equipment No.) is provided by client. The performance of the equipment stated in this report is checked with independent reference material and results are compared against a calibrated secondary source. The "Instrument Specification" quoted is the acceptance criteria applicable for similar equipment used by the laboratory or quoted from relevant international standards. The "Date of next Calibration" is recommended according to best practice principles as practised by the laboratory or quoted from relevant international standards. The validity of equipment/ meter performance only applies to the result(s) stated in the report.

Equipment Type: Landfill Gas Analyser  
Service Nature: Performance Check  
Scope: Carbon dioxide, Methane and Oxygen  
Brand Name/ Model No.: OPTIMA7 Biogas  
Serial No./Equipment No.: 331555  
Date of Calibration: 11 October, 2022

### GENERAL COMMENTS

This report superseded any previous report(s) with same work order number.

Ms Chan Ka Yu, Karen  
Manager - Organics

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# REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION



Work Order: HK2238648  
 Sub-Batch: 0  
 Client: AECOM ASIA COMPANY LIMITED  
 Date of Issue: 13-Oct-2022

Equipment Type: Landfill Gas Analyser  
 Brand Name/  
 Model No.: OPTIMA7 Biogas  
 Serial No./  
 Equipment No.: 331555

Date of Calibration: 11 October, 2022 Date of next Calibration: 11 October, 2023

Parameters:

Methane

Calibrated Gas Standard, %	Monitor Readout, %	% error	Instrument Specification, %
0.0 (Nitrogen)	0.00	0.00	± 0.30
1.0	1.02	0.02	± 0.30
2.5	2.45	-0.05	± 0.30
50.0	48.57	-1.43	± 2.50

Carbon Dioxide

Calibrated Gas Standard, %	Monitor Readout, %	% error	Instrument Specification, %
0.0 (Nitrogen)	0.00	0.00	± 0.30
1.0	1.08	0.08	± 0.30
2.5	2.58	0.08	± 0.30
10.0	10.02	0.02	± 0.50
50.0	47.50	-2.50	± 2.50

Oxygen

Calibrated Gas Standard, %	Monitor Readout, %	% error	Instrument Specification, %
0.0 (Nitrogen)	0.00	0.00	± 0.20
0.5	0.43	-0.07	± 0.20
2.5	2.54	0.04	± 0.20
10.0	10.14	0.14	± 0.20

Ms Chan Ka Yu, Karen  
 Manager - Organics



## Calibration Report

Calibration No. : 92008051 - B14D3501

---

Laboratory : FT Laboratories Ltd.

Address : Lot No. DD77 Section 1552 S.Ass 1RP, Ng Chow South Road, Ping Che, Fanling, New Territories

Telephone : (852) 2758 4861

Facsimile : (852) 2758 8962

---

Customer : CRCC-Paul Y. Joint Venture

Address : Unit A, 10/F., MG Tower, 133 Hoi Bun Road, Kwun Tong, Kowloon.

Item Calibrated : Name/Description: Vibration meter

Manufacturer: InstanTel

Meter's model: Micromate ISEE Std

Serial no. of meter: UM17121

Serial no. of sensor: UM17121

Eqt. No.: -

Reference Standard /	:	C/ACC/1 (CNAS Cert No.: 2HB21001704-0001)	Accelerometer
Major Measurement	:	C/OSC/2 (HKAS Cert No.: RF210042)	Oscilloscope
Equipment	:	C/F-GEN/3 (CNAS Cert No.: 2HB21000253-0001)	Function Generator
	:	R/DMM/2 (CNAS Cert No.: 2HB21000253-0002)	Multimeter
	:	C/ES/1, C/AMP/3	Shaker and amplifier

Calibration Method : In-house procedure (CAL 091)  
Calibration of Vibration meters by comparison with reference transducer.

Date of item received : 14 Feb., 2023

Date of Calibration : 16 Feb., 2023

Location of Calibration : Calibration Laboratory of FT Laboratories Ltd.

### Calibration Conditions

Temperature :  $20 \pm 3$  °C

Relative Humidity : 30% to 80%

Test Results : The test results are detailed in the subsequent page(s).

HOKLAS Approved Signatory :

Date of Issue: 21 FEB 2023

- LAI Wing Chun, Victor (General Manager)
- CHAN Joseph Nicolas (Senior Technical Engineer)

- Notes:
- (1) The above equipment has been calibrated against standards which are traceable to internationally recognized standards.
  - (2) Hong Kong Accreditation Service (HKAS) has accredited this laboratory under the Hong Kong Laboratory Accreditation Scheme (HOKLAS) for specific laboratory activities as listed in the HOKLAS directory of accredited laboratories. The results shown in this report were determined by this laboratory in accordance with its terms of accreditation.
  - (3) Such terms of accreditation stipulate that the results shall be traceable to the International System of Units (S.I.) or recognised measurement standards.
  - (4) This certificate shall not be reproduced, except in full, without the written approval of FT Laboratories Ltd.



## Calibration Report

Calibration No. : 92008051 - B14D3501

### Results

(1) Frequency response at 10.0 mm/s (velocity measurement)

Frequency (Hz)	Measured velocity in the following direction (mm/s)			Error in the following direction (mm/s)		
	Vert.	Tran.	Long.	Vert.	Tran.	Long.
20	10.330	10.546	10.483	0.330	0.546	0.483
60	10.173	10.764	10.701	0.173	0.764	0.701
100	10.210	11.576	12.099	0.210	1.576	2.099

Error for frequency response = Measured velocity (mm/s) minus 10.0 mm/s

(2) Level linearity at 60Hz (velocity measurement)


Reference level (mm/s)	Measured velocity in the following direction (mm/s)			Error in the following direction (mm/s)		
	Vert.	Tran.	Long.	Vert.	Tran.	Long.
5.0	5.131	5.531	5.654	0.131	0.531	0.654
10.0	10.173	10.764	10.701	0.173	0.764	0.701
20.0	20.130	21.478	22.227	0.130	1.478	2.227


Error for level linearity = Measured velocity (mm/s) minus Reference level (mm/s)

### Remarks:

- (A) The expanded uncertainty of measurement relative to "measured values" with  $k=2$ ,  
10.7 % For frequency range 20 Hz to 100 Hz; 0.1 g to 0.8 g
- (B) Each reported result is the mean of three measurements on UUT (unit-under-test).
- (C) Before calibration, the UUT was allowed to stabilise in the laboratory environment for at least 1 hr.
- (D) The reported uncertainty is the expanded uncertainty  $U$  for a level of confidence of 95%, together with a coverage factor  $k$ . The combined standard uncertainty  $u_c$  can be calculated as  $u_c=U/k$  and its  $k$  value.
- (E) The values given in this Calibration Report only relate to the unit-under-test and the values measured at the time of the test. Any uncertainties quoted will not include allowances for the environmental changes, variation and shock during transportation, or the capability of any other laboratory to repeat the measurement.
- (F) The UUT was mounted in the vibration shaker using mounting jigs and cyanoacrylate adhesive or petro wax.
- (G) Applicable  $g$  value used,  $1g = 9.80665 \text{ m/s}^2$ , as per C/ACC/1 report no. SSD20071651.

<End of Report>

Calibrated by: Yan Wing Man   
Date: 16 Feb., 2023

Checked by: CH Cheung   
Date: 17 FEB 2023



FT Laboratories Ltd.  
科達測檢試驗所有限公司  
Calibration Report



Calibration No. : 92008051 - B14D3601  
Laboratory : FT Laboratories Ltd  
Address : Lot No. DD77 Section 1552 S.Ass 1RP, Ng Chow South Road, Ping Che, Fanling, New Territories  
Telephone : (852) 2758 4861  
Facsimile : (852) 2758 8962

Customer : CRCC-Paul Y. Joint Venture  
Address : Unit A, 10/F., MG Tower, 133 Hoi Bun Road, Kwun Tong, Kowloon.

Unit under test (UUT) : Description: Tiltmeter Sensor  
Manufacturer: Sung Jin  
Model: SJ-705  
Serial No.: 121871  
Eq't No.: -

Reference Standard / Major Measurement Equipment : C/CAL/5 (CNAS Cert No.: CDP202104081)

Calibration Method : In-house Procedure (CAL 112) Comparison of UUT reading against reference clinometer reading while mounted in an angle generator jig.

Date of item received : 14 Feb , 2023

Date of Calibration : 14 Feb , 2023

Location of Calibration : Calibration Laboratory of FT Laboratories Ltd.

Calibration Conditions

Temperature :  $20 \pm 3^{\circ}\text{C}$   
Relative Humidity : 30% to 80%

Test Results : The test results are detailed in the subsequent page(s).

HOKLAS Approved Signatory :

Date of Issue: 21 FEB 2023

- LAI Wing Chun, Victor (General Manager)  
 CHAN Joseph Nicolas (Senior Technical Engineer)

- Notes:
- (1) The above equipment has been calibrated against standards which are traceable to internationally recognized standards.
  - (2) Hong Kong Accreditation Service (HKAS) has accredited this laboratory under the Hong Kong Laboratory Accreditation Scheme (HOKLAS) for specific laboratory activities as listed in the HOKLAS directory of accredited laboratories. The results shown in this report were determined by this laboratory in accordance with its terms of accreditation.
  - (3) Such terms of accreditation stipulate that the results shall be traceable to the International System of Units (S.I.) or recognised measurement standards.
  - (4) This certificate shall not be reproduced, except in full, without the written approval of FT Laboratories Ltd.



# FT Laboratories Ltd.

## 科達測檢試驗所有限公司

### Calibration Report



Calibration No. : 92008051 - B14D3601

**Results:**

Reference angle (°)	UUT reading (see Note 1)	Error of reading (see Note 2)	Expanded Uncertainty, U (°)	Coverage factor, k
Horizontal measurement				
5.009	4.943	-0.066	0.029	1.96
2.504	2.473	-0.032	0.029	1.96
1.001	0.986	-0.015	0.029	1.96
0.000	-0.007	-0.007	0.029	1.96
-1.002	-0.994	0.008	0.029	1.96
-2.504	-2.481	0.023	0.029	1.96
-5.008	-4.958	0.050	0.029	1.96
Vertical measurement				
5.009	4.921	-0.088	0.029	1.96
2.504	2.448	-0.057	0.029	1.96
1.001	0.964	-0.038	0.029	1.96
0.000	-0.026	-0.026	0.029	1.96
-1.002	-1.018	-0.016	0.029	1.96
-2.504	-2.504	0.000	0.029	1.96
-5.008	-4.979	0.029	0.029	1.96

**Note:**

- (1) UUT reading = (the reading when (+) sign on the left - the reading when (-) sign on the left) / 2
- (2) Error of reading = UUT reading - Reference angle

**Remarks:**

- (A) The tiltmeter and readout system were calibrated together as a single measuring system (UUT).
- (B) Before calibration, the UUT and referee were allowed to stabilize in the laboratory for at least 30 mins while the UUT was also switched on for at least 30 mins.
- (C) The reported uncertainties are the expanded uncertainty U for a level of confidence of 95%, together with their coverage factor k. The combined standard uncertainties can be calculated as  $u_c = U/k$  and their k values are given by t-distribution with its degrees of freedom  $v_{eff}$ .
- (D) The values given in this Calibration Report only relate to the unit-under-test (UUT) and the values measured at the time of test. Any uncertainties quoted will not include allowances for the environment changes, variation and shock during transportation,

< End of Report >

Calibrated by: Yan Wing Man *Man*  
Date: 14 Feb., 2023

Checked by: CH Chung *Chung*  
Date: 17 FEB 2023

## CALIBRATION CERTIFICATE

Calibration Item: Micromate System ISEE (Calibration with Geophone UM17124)  
Model No.: 721A2501  
Serial No.: UM17124  
Calibration Date: 1 March 2023  
Next Calibration Date: 1 March 2024  
Method Used: In-house Method B3-001  
In-house Testing Procedure No.: B3-001

<u>Test References</u>	<u>Model</u>	<u>Serial No.</u>
Minimate Pro 4	720A2301	MP12550
ISEE Triaxial Geophone	720A2001	SE12565
15MHz Function Generator*	33120A	US34003309
Stanford Spectrum Analyzer	SR760	41550
Keysight Multimeter*	34470A	MY57700765
HP Distortion Meter*	339A	2025A04515
Bruel & Kjaer Accelerometer*	4370	31474
Bruel & Kjaer Charge Amplifier*	2647	2731339
Bruel & Kjaer Conditional Amplifier*	2690	2437929
LDS Air Cooled Vibrator	V556	92794/1
LDS Field Power Supply	FPS10L	ARA 04/05
LDS Power Amplifier	PA1000L	ARA 07/06

\*References are traceable to NIST or equivalent.

INSTANTEL INC. hereby certifies that this unit has been calibrated and that the results are consistent with the specifications published regarding this instrument. The SENSORCHECK feature of the unit is sufficiently reliable to indicate proper operation, although it is recommended that this unit be sent to INSTANTEL or an authorized service center for regular calibration.

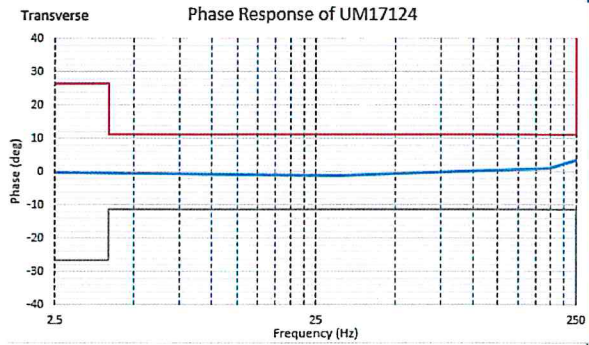
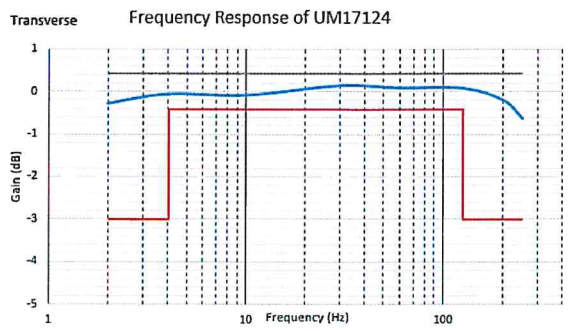
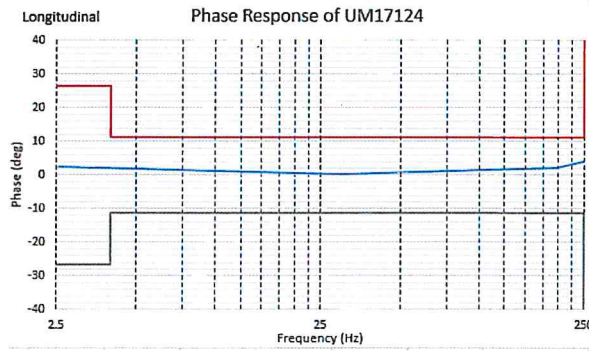
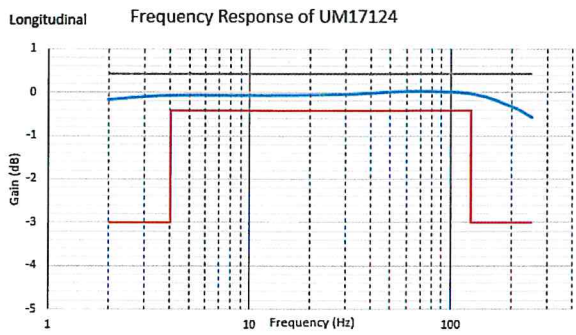
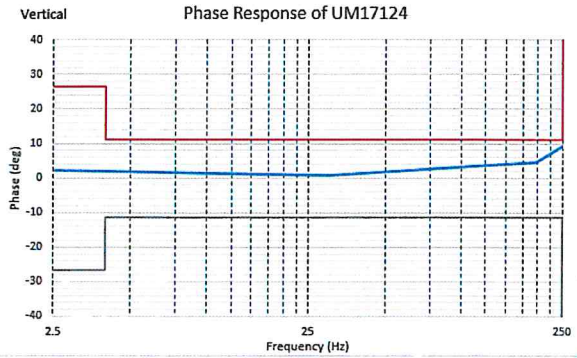
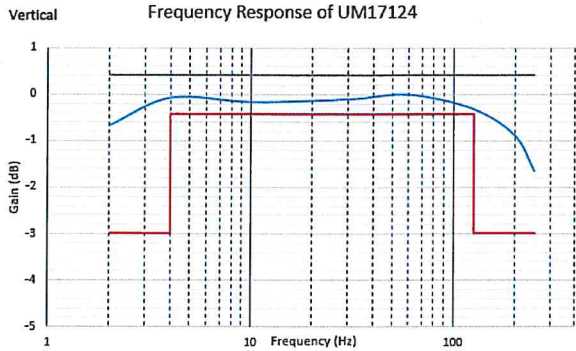
Authorized by: \_\_\_\_\_



(Anson Kan)

Date: 1 March 2023

# Frequency Responses of UM17124



## CALIBRATION CERTIFICATE

Calibration Item: TRIAXIAL GEOPHONE (Calibration with main unit UM17124)  
Part Number: 721A2901  
Serial No.: UM17124  
Calibration Date: 1 March 2023  
Next Calibration Date: 1 March 2024  
Method Used: In-house Method B3-001  
In-house Testing Procedure No.: B3-001

<u>Test References</u>	<u>Model</u>	<u>Serial No.</u>
Minimate Pro 4	720A2301	MP12550
ISEE Triaxial Geophone	720A2001	SE12565
15MHz Function Generator*	33120A	US34003309
Stanford Spectrum Analyzer	SR760	41550
Keysight Multimeter*	34470A	MY57700765
HP Distortion Meter*	339A	2025A04515
Bruel & Kjaer Accelerometer*	4370	31474
Bruel & Kjaer Charge Amplifier*	2647	2731339
Bruel & Kjaer Conditional Amplifier*	2690	2437929
LDS Air Cooled Vibrator	V556	92794/1
LDS Field Power Supply	FPS10L	ARA 04/05
LDS Power Amplifier	PA1000L	ARA 07/06

\*References are traceable to NIST or equivalent.

INSTANTEL INC. hereby certifies that this unit has been calibrated and that the results are consistent with the specifications published regarding this instrument. The SENSORCHECK feature of the unit is sufficiently reliable to indicate proper operation, although it is recommended that this unit be sent to INSTANTEL or an authorized service center for regular calibration.

Authorized by: \_\_\_\_\_



(Anson Kan)

Date: 1 March 2023



## CALIBRATION CERTIFICATE

Calibration Item: Micromate System ISEE (Calibration with Geophone UM17126)  
Model No.: 721A2501  
Serial No.: UM17126  
Calibration Date: 17 February 2023  
Next Calibration Date: 17 February 2024  
Method Used: In-house Method B3-001  
In-house Testing Procedure No.: B3-001

<u>Test References</u>	<u>Model</u>	<u>Serial No.</u>
Minimate Pro 4	720A2301	MP12550
ISEE Triaxial Geophone	720A2001	SE12565
15MHz Function Generator*	33120A	US34003309
Stanford Spectrum Analyzer	SR760	41550
Keysight Multimeter*	34470A	MY57700765
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Bruel & Kjaer Accelerometer*	4370	31474
Bruel & Kjaer Charge Amplifier*	2647	2731339
Bruel & Kjaer Conditional Amplifier*	2690	2437929
LDS Air Cooled Vibrator	V556	92794/1
LDS Field Power Supply	FPS10L	ARA 04/05
LDS Power Amplifier	PA1000L	ARA 07/06

\*References are traceable to NIST or equivalent.

INSTANTEL INC. hereby certifies that this unit has been calibrated and that the results are consistent with the specifications published regarding this instrument. The SENSORCHECK feature of the unit is sufficiently reliable to indicate proper operation, although it is recommended that this unit be sent to INSTANTEL or an authorized service center for regular calibration.

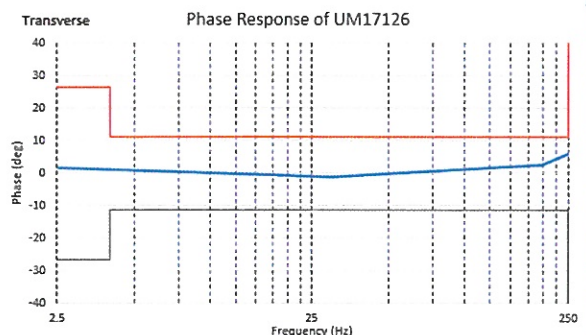
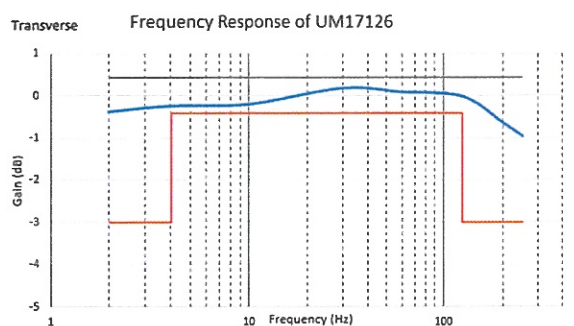
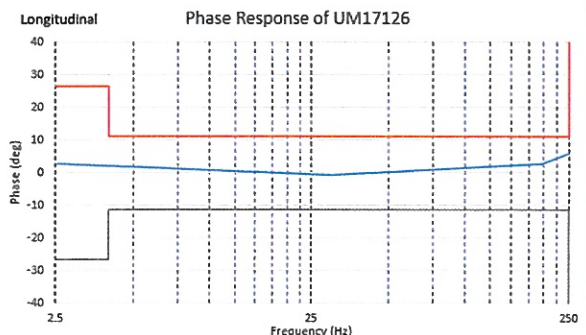
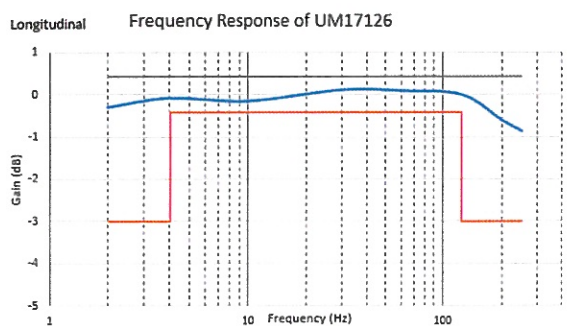
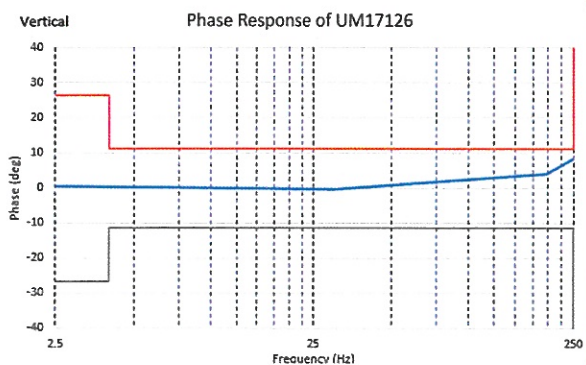
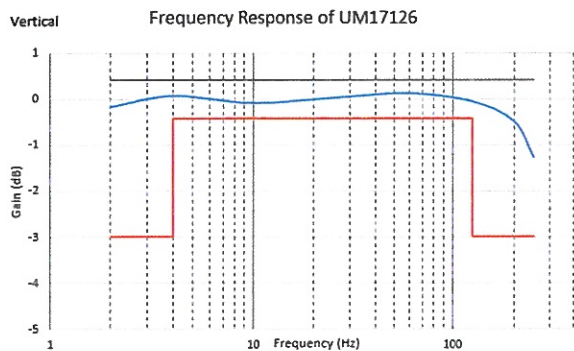
Authorized by: \_\_\_\_\_



(Anson Kan)

Date: 17 February 2023

# Frequency Responses of UM17126



## CALIBRATION CERTIFICATE


Calibration Item: TRIAXIAL GEOPHONE (Calibration with  
main unit UM17126)  
Part Number: 721A2901  
Serial No.: UM17126  
Calibration Date: 17 February 2023  
Next Calibration Date: 17 February 2024  
Method Used: In-house Method B3-001  
In-house Testing Procedure No.: B3-001

<u>Test References</u>	<u>Model</u>	<u>Serial No.</u>
Minimate Pro 4	720A2301	MP12550
ISEE Triaxial Geophone	720A2001	SE12565
15MHz Function Generator*	33120A	US34003309
Stanford Spectrum Analyzer	SR760	41550
Keysight Multimeter*	34470A	MY57700765
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Bruel & Kjaer Accelerometer*	4370	31474
Bruel & Kjaer Charge Amplifier*	2647	2731339
Bruel & Kjaer Conditional Amplifier*	2690	2437929
LDS Air Cooled Vibrator	V556	92794/1
LDS Field Power Supply	FPS10L	ARA 04/05
LDS Power Amplifier	PA1000L	ARA 07/06

\*References are traceable to NIST or equivalent.

INSTANTEL INC. hereby certifies that this unit has been calibrated and that the results are consistent with the specifications published regarding this instrument. The SENSORCHECK feature of the unit is sufficiently reliable to indicate proper operation, although it is recommended that this unit be sent to INSTANTEL or an authorized service center for regular calibration.

Authorized by: \_\_\_\_\_



(Anson Kan)

Date: 17 February 2023

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**APPENDIX D  
ENVIRONMENTAL MONITORING  
SCHEDULES**

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**Contract No. NDO 04/2019**  
**Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas**  
**Impact Air Quality and Noise Monitoring Schedule (April 2023)**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1-Apr
<b>2-Apr</b>	3-Apr	4-Apr	5-Apr	6-Apr	7-Apr	8-Apr
	<p style="text-align: center;"><b>1hr TSP* X3</b> KTN-DMS4(B), FLN-DMS5</p> <p style="text-align: center;"><b>24hr TSP*</b> KTN-DMS4(B), FLN-DMS5A</p> <p style="text-align: center;"><b>Noise</b></p> <p style="text-align: center;">CP-KTN-NMS2, CP-KTN-NMS3, CP-KTN-NMS5, CP-KTN-NMS6</p> <p style="text-align: center;"><b>24hr TSP</b> FLN-DMS1, FLN-DMS3</p>	<p style="text-align: center;"><b>1hr TSP* X3</b> FLN-DMS1, FLN-DMS3</p> <p style="text-align: center;"><b>Noise</b></p> <p style="text-align: center;">CP-FLN-NMS1, CP-FLN-NMS2</p> <p style="text-align: center;"><b>24hr RSP (Arsenic)</b> KTN-DMS4A</p>		<p style="text-align: center;"><b>1hr TSP* X3</b> FLN-DMS1, FLN-DMS3, KTN-DMS4(B), FLN-DMS5</p> <p style="text-align: center;"><b>24hr TSP*</b> KTN-DMS4(B), FLN-DMS5A</p> <p style="text-align: center;"><b>24hr TSP</b> FLN-DMS1, FLN-DMS3</p> <p style="text-align: center;"><b>24hr RSP (Arsenic)</b> KTN-DMS4A</p>		
<b>9-Apr</b>	<b>10-Apr</b>	11-Apr	12-Apr	13-Apr	14-Apr	15-Apr
		<p style="text-align: center;"><b>1hr TSP* X3</b> KTN-DMS4(B), FLN-DMS5</p> <p style="text-align: center;"><b>24hr TSP*</b> KTN-DMS4(B), FLN-DMS5A</p> <p style="text-align: center;"><b>Noise</b></p> <p style="text-align: center;">CP-KTN-NMS2, CP-KTN-NMS3, CP-KTN-NMS5, CP-KTN-NMS6</p> <p style="text-align: center;"><b>24hr TSP</b> FLN-DMS1, FLN-DMS3</p>	<p style="text-align: center;"><b>1hr TSP* X3</b> FLN-DMS1, FLN-DMS3</p> <p style="text-align: center;"><b>Noise</b></p> <p style="text-align: center;">CP-FLN-NMS1, CP-FLN-NMS2</p> <p style="text-align: center;"><b>24hr RSP (Arsenic)</b> KTN-DMS4A</p>			
<b>16-Apr</b>	17-Apr	18-Apr	19-Apr	20-Apr	21-Apr	22-Apr
	<p style="text-align: center;"><b>1hr TSP* X3</b> KTN-DMS4(B), FLN-DMS5</p> <p style="text-align: center;"><b>24hr TSP*</b> KTN-DMS4(B), FLN-DMS5A</p> <p style="text-align: center;"><b>Noise</b></p> <p style="text-align: center;">CP-KTN-NMS2, CP-KTN-NMS3, CP-KTN-NMS5, CP-KTN-NMS6</p> <p style="text-align: center;"><b>24hr TSP</b> FLN-DMS1, FLN-DMS3</p>	<p style="text-align: center;"><b>1hr TSP* X3</b> FLN-DMS1, FLN-DMS3</p> <p style="text-align: center;"><b>Noise</b></p> <p style="text-align: center;">CP-FLN-NMS1, CP-FLN-NMS2</p> <p style="text-align: center;"><b>24hr RSP (Arsenic)</b> KTN-DMS4A</p>			<p style="text-align: center;"><b>1hr TSP* X3</b> KTN-DMS4(B), FLN-DMS5</p> <p style="text-align: center;"><b>24hr TSP*</b> KTN-DMS4(B), FLN-DMS5A</p> <p style="text-align: center;"><b>24hr TSP</b> FLN-DMS1, FLN-DMS3</p>	
<b>23-Apr</b>	24-Apr	25-Apr	26-Apr	27-Apr	28-Apr	29-Apr
	<p style="text-align: center;"><b>1hr TSP* X3</b> FLN-DMS1, FLN-DMS3</p> <p style="text-align: center;"><b>Noise</b></p> <p style="text-align: center;">CP-FLN-NMS1, CP-FLN-NMS2</p> <p style="text-align: center;"><b>24hr RSP (Arsenic)</b> KTN-DMS4A</p>			<p style="text-align: center;"><b>1hr TSP* X3</b> KTN-DMS4(B), FLN-DMS5</p> <p style="text-align: center;"><b>24hr TSP*</b> KTN-DMS4(B), FLN-DMS5A</p> <p style="text-align: center;"><b>Noise</b></p> <p style="text-align: center;">CP-KTN-NMS2, CP-KTN-NMS3, CP-KTN-NMS5, CP-KTN-NMS6</p> <p style="text-align: center;"><b>24hr TSP</b> FLN-DMS1, FLN-DMS3</p>	<p style="text-align: center;"><b>1hr TSP* X3</b> FLN-DMS1, FLN-DMS3</p> <p style="text-align: center;"><b>24hr RSP (Arsenic)</b> KTN-DMS4A</p>	
<b>30-Apr</b>						

Remarks:

\*Monitoring session would be conducted by portable TSP monitor.

Environmental Permit(s)	Contract No.	Air Quality Stations	Noise Stations
EP-466/2013/A EP-467/2013/A EP-468/2013/A	ND/2019/01	<b>1hr TSP and 24hr TSP</b> KTN-DMS4(B) - Temporary Structure near Fanling Highway (near Pak Shek Au)	--
EP-468/2013/A	ND/2019/03		
EP-466/2013/A EP-467/2013/A EP-468/2013/A	ND/2019/01	<b>24hr RSP (Arsenic)</b> KTN-DMS4A - Temporary Structure at Pak Shek Au	--
EP-468/2013/A	ND/2019/03		
EP-467/2013/A EP-468/2013/A <sup>(1)</sup>	ND/2019/01	--	CP-KTN-NMS2 - Residential Buildings at Ma Tso Lung
EP-468/2013/A <sup>(2)</sup>	ND/2019/01	--	CP-KTN-NMS3 -Fung Kong Garden
EP-469/2013 <sup>(3)</sup>	ND/2019/02	--	CP-KTN-NMS6 - Ho Sheung Heung, Hau Ku Shek Ancestral Hall, Hung Shing Temple & Pai Fung Temple and Sin Wai Nunnery
EP-470/2013/A	ND/2019/01	--	CP-KTN-NMS5 - N/A
EP-473/2013/A <sup>(4)</sup>	ND/2019/03	<b>1hr TSP and 24hr TSP</b> FLN-DMS1 - Scattered Village Houses North of Proposed Potential Ecopark	--
	ND/2019/04		--
EP-473/2013/A <sup>(5)</sup>	ND/2019/05	<b>1hr TSP and 24hr TSP</b> FLN-DMS3 - House near Tong Hang	--
EP-473/2013/A <sup>(6)</sup>	ND/2019/03	<b>1hr TSP</b> FLN-DMS5 - Noble Hill	--
	ND/2019/04	<b>24hr TSP</b> FLN-DMS5A - Good View New Village	--
EP-473/2013/A <sup>(7)</sup>	ND/2019/05	--	CP-FLN-NMS2 - Scattered Village Houses in Tong Hang
EP-473/2013/A <sup>(8)</sup>	ND/2019/04	--	CP-FLN-NMS1 - Belair Monte
	ND/2019/05	--	
EP-475/2013/A	ND/2019/06	--	
<b>Remarks:</b> 1. Since the distance between monitoring station CP-KTN-NMS2 and site boundary of ND/2019/03 under EP-468/2013/A exceeds 300m. The monitoring station is not applicable to ND/2019/03 2. Since the distance between monitoring station CP-KTN-NMS3 and site boundary of ND/2019/03 under EP-468/2013/A exceeds 300m. The monitoring station is not applicable to ND/2019/03 3. Since the distance between monitoring station CP-KTN-NMS1 and site boundary of ND/2019/02 under EP-469/2013 exceeds 300m. The monitoring station is not applicable to ND/2019/02 4. Since the distance between monitoring station FLN-DMS1 and site boundary of ND/2019/05 under EP-473/2013/A exceeds 500m. The monitoring station is not applicable to ND/2019/05 5. Since the distance between monitoring station FLN-DMS3 and site boundary of ND/2019/03 and ND/2019/04 under EP-473/2013/A exceeds 500m. The monitoring station is not applicable to ND/2019/03 and ND/2019/04 6. Since the distance between monitoring station FLN-DMS5 and site boundary of ND/2019/05 under EP-473/2013/A exceeds 500m. The monitoring station is not applicable to ND/2019/05 7. Since the distance between monitoring station CP-FLN-NMS2 and site boundary of ND/2019/03 and ND/2019/04 under EP-473/2013/A exceeds 300m. The monitoring station is not applicable to ND/2019/03 and ND/2019/04. 8. Since the distance between monitoring station CP-FLN-NMS1 and site boundary of ND/2019/03 under EP-473/2013/A exceeds 300m. The monitoring station is not applicable to ND/2019/03.			

**Contract No. NDO 04/2019**  
**Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas**  
**Impact Water Quality Monitoring Schedule (April 2023)**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1-Apr
2-Apr	3-Apr	4-Apr	5-Apr	6-Apr	7-Apr	8-Apr
	<b>Water Quality Monitoring</b> River Beas, River Indus and near Siu Hang San Tsuen Stream			<b>Water Quality Monitoring</b> River Beas, River Indus and near Siu Hang San Tsuen Stream		
9-Apr	10-Apr	11-Apr	12-Apr	13-Apr	14-Apr	15-Apr
		<b>Water Quality Monitoring</b> River Beas, River Indus and near Siu Hang San Tsuen Stream		<b>Water Quality Monitoring</b> River Beas, River Indus and near Siu Hang San Tsuen Stream		<b>Water Quality Monitoring</b> River Beas, River Indus and near Siu Hang San Tsuen Stream
16-Apr	17-Apr	18-Apr	19-Apr	20-Apr	21-Apr	22-Apr
	<b>Water Quality Monitoring</b> River Beas, River Indus and near Siu Hang San Tsuen Stream		<b>Water Quality Monitoring</b> River Beas, River Indus and near Siu Hang San Tsuen Stream		<b>Water Quality Monitoring</b> River Beas, River Indus and near Siu Hang San Tsuen Stream	
23-Apr	24-Apr	25-Apr	26-Apr	27-Apr	28-Apr	29-Apr
	<b>Water Quality Monitoring</b> River Beas, River Indus and near Siu Hang San Tsuen Stream		<b>Water Quality Monitoring</b> River Beas, River Indus and near Siu Hang San Tsuen Stream		<b>Water Quality Monitoring</b> River Beas, River Indus and near Siu Hang San Tsuen Stream	
30-Apr						

**Water Quality Monitoring Stations**

River Beas: SYR-CS1 - Upstream of river, SYR-IS1 - Downstream of river  
River Indus and near Siu Hang San Tsuen Stream: NTR-CS1 - Upstream of river, NTR-IS1 - Downstream of river, SHST-IS2 - Water sensitive receiver at near Siu Hang San Tsuen Stream,  
MWR-IS3 - Water sensitive receiver at near Ma Wat River

Environmental Permit(s)	Contract No.	Water Quality Stations
EP-469/2013	ND/2019/02	<u><b>River Beas</b></u> SYR-CS1 - Upstream of river SYR-IS1 - Downstream of river
EP-473/2013/A	ND/2019/04	<u><b>River Indus and near Siu Hang San Tsuen Stream</b></u> NTR-CS1 - Upstream of river NTR-IS1 - Downstream of river SHST-IS2 - Water sensitive receiver at near Siu Hang San Tsuen Stream MWR-IS3 - Water sensitive receiver at near Ma Wat River



**Contract No. NDO 04/2019**  
**Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas**  
**Impact Ecological Monitoring Schedule (April 2023)**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1-Apr
<b>2-Apr</b>	3-Apr	4-Apr	<b>5-Apr</b>	6-Apr	<b>7-Apr</b>	<b>8-Apr</b>
		Monitoring of Measures to Minimise Disturbance to Water Birds in Ng Tung River <b>T1 T2</b> High tide: Start time: 10:00 Low tide: Start time: 16:00		Monitoring of Measures to Minimise Disturbance to Water Birds in Sheung Yue River and Long Valley <b>T3 T5</b> High tide: Start time: 09:00 Low tide: Start time: 14:00		
<b>9-Apr</b>	10-Apr	11-Apr	12-Apr	13-Apr	14-Apr	15-Apr
			Monitoring of Measures to Minimise Disturbance to Water Birds in Ng Tung River <b>T1 T2</b> High tide: Start time: 11:00 Low tide: Start time: 08:00	Monitoring of Measures to Minimise Disturbance to Water Birds in Sheung Yue River and Long Valley <b>T3 T5</b> High tide: Start time: 14:00 Low tide: Start time: 07:00		
<b>16-Apr</b>	17-Apr	18-Apr	19-Apr	20-Apr	21-Apr	22-Apr
	Monitoring of Measures to Minimise Disturbance to Water Birds in Sheung Yue River and Long Valley <b>T3 T5#</b> High tide: Start time: 09:00 Low tide: Start time: 14:00		Monitoring of Measures to Minimise Impacts on Ecological Sensitive Habitats from Disturbance and Pollution <b>T1, T6</b>	Monitoring of Measures to Minimise Disturbance to Water Birds in Ng Tung River <b>T1 T2</b> High tide: Start time: 10:00 Low tide: Start time: 15:00	Monitoring of Measures to Minimise Impacts to Ma Tso Lung and Siu Hang San Tsuen Stream <b>MS 01 - MS 15</b>	
<b>23-Apr</b>	24-Apr	25-Apr	26-Apr	27-Apr	28-Apr	29-Apr
	Monitoring of Measures to Minimise Disturbance to Water Birds in Ng Tung River <b>T1 T2</b> High tide: Start time: 14:00 Low tide: Start time: 07:00	Monitoring of Measures to Minimise Disturbance to Water Birds in Sheung Yue River and Long Valley <b>T3 T5#</b> High tide: Start time: 14:00 Low tide: Start time: 07:00	Monitoring of Measures to Minimise Impacts on Ecological Sensitive Habitats from Disturbance and Pollution <b>T3, T4, T5</b>			
<b>30-Apr</b>						

#Night-time avifauna monitoring in Long Valley

**Contract No. NDO 04/2019**  
**Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas**  
**Egretty Monitoring Schedule for April 2023**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1-Apr
<b>2-Apr</b>	3-Apr	4-Apr	5-Apr	6-Apr	7-Apr	8-Apr
<b>9-Apr</b>	10-Apr	11-Apr	12-Apr	13-Apr	14-Apr	15-Apr
<b>16-Apr</b>	17-Apr	18-Apr	19-Apr	20-Apr	21-Apr	22-Apr
<b>23-Apr</b>	24-Apr	25-Apr	26-Apr	27-Apr	28-Apr	29-Apr
	Egretty Monitoring Ho Sheung Heung Egretty Site, Compensation Site A1-7 FLN and B1-7 FLN, Meanders of Split Colony					
<b>30-Apr</b>						

Item	Activity	Monitoring Stations/Transects
1	Monitoring of Measures to Minimise Disturbance to Water Birds in Ng Tung River, Sheung Yue River, and Long Valley	T1. Ng Tung River T2. Ng Tung River T3. Sheung Yue River T5. Long Valley
2	Monitoring of Measures to Minimise Impacts to Aquatic Fauna in Ma Tso Lung Stream and Siu Hang San Tsuen Stream	MS_01, MS_02, MS_03, MS_04, MS_05, MS_06, MS_07, MS_08, MS_09, MS_10, MS_11, MS_12, MS_13, MS_14, MS_15
3	Monitoring of Measures to Minimise Impacts on Ecological Sensitive Habitats from Disturbance and Pollution	T1. Ma Tso Lung riparian zone and associated wetland habitats T1. Green belt areas E1-8,D1-8 and G1-3 in KTN NDA T1. AGR one C2-4 and C2-2 in KTN NDA T1. Areas north of Ng Tung River T3. Area west of Siu Hang San Tsuen Stream T4. South side of Fanling Highway and Castle Peak Road in the vicinity of Pak Shek Au T5. Area west and east of the southern limit of the FLN NDA work area T6. Areas in the western part of KTN

**Contract No. NDO 04/2019**  
**Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas**  
**Weekly Site Inspection Schedule for April 2023**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1-Apr
<b>2-Apr</b>	3-Apr	4-Apr	<b>5-Apr</b>	6-Apr	<b>7-Apr</b>	<b>8-Apr</b>
	Site Inspection (ND/2019/02) Site Inspection (ND/2019/05)	Site Inspection (ND/2019/01) Site Inspection (ND/2019/07) Site Inspection (ND/2019/04) Site Inspection (ND/2019/06)		Site Inspection (ND/2019/03)		
<b>9-Apr</b>	<b>10-Apr</b>	11-Apr	12-Apr	13-Apr	14-Apr	15-Apr
		Site Inspection (ND/2019/01) Site Inspection (ND/2019/05)	Site Inspection (ND/2019/02)	Site Inspection (ND/2019/04) Site Inspection (ND/2019/06)	Site Inspection (ND/2019/03) Site Inspection (ND/2019/07)	
<b>16-Apr</b>	17-Apr	18-Apr	19-Apr	20-Apr	21-Apr	22-Apr
		Site Inspection (ND/2019/01)	Site Inspection (ND/2019/02)	Site Inspection (ND/2019/04) Site Inspection (ND/2019/06) Site Inspection (ND/2019/05)	Site Inspection (ND/2019/03) Site Inspection (ND/2019/07)	
<b>23-Apr</b>	24-Apr	25-Apr	26-Apr	27-Apr	28-Apr	29-Apr
	Site Inspection (ND/2019/05)	Site Inspection (ND/2019/01)	Site Inspection (ND/2019/02)	Site Inspection (ND/2019/04) Site Inspection (ND/2019/06)	Site Inspection (ND/2019/03) Site Inspection (ND/2019/07)	
<b>30-Apr</b>						

**Contract No. NDO 04/2019**  
**Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas**  
**Tentative Impact Air Quality and Noise Monitoring Schedule (May 2023)**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	<b>1-May</b>	2-May	3-May	4-May	5-May	6-May
			<p><b>1hr TSP* X3</b> KTN-DMS4(B), FLN-DMS5</p> <p><b>24hr TSP*</b> KTN-DMS4(B), FLN-DMS5A</p> <p><b>Noise</b> CP-KTN-NMS2, CP-KTN-NMS3, CP-KTN-NMS5, CP-KTN-NMS6</p> <p><b>24hr TSP</b> FLN-DMS1, FLN-DMS3</p>	<p><b>1hr TSP* X3</b> FLN-DMS1, FLN-DMS3</p> <p><b>Noise</b> CP-FLN-NMS1, CP-FLN-NMS2</p> <p><b>24hr RSP (Arsenic)</b> KTN-DMS4A</p>		
<b>7-May</b>	8-May	9-May	10-May	11-May	12-May	13-May
		<p><b>1hr TSP* X3</b> KTN-DMS4(B), FLN-DMS5</p> <p><b>24hr TSP*</b> KTN-DMS4(B), FLN-DMS5A</p> <p><b>Noise</b> CP-KTN-NMS2, CP-KTN-NMS3, CP-KTN-NMS5, CP-KTN-NMS6</p> <p><b>24hr TSP</b> FLN-DMS1, FLN-DMS3</p>	<p><b>1hr TSP* X3</b> FLN-DMS1, FLN-DMS3</p> <p><b>Noise</b> CP-FLN-NMS1, CP-FLN-NMS2</p> <p><b>24hr RSP (Arsenic)</b> KTN-DMS4A</p>			
<b>14-May</b>	15-May	16-May	17-May	18-May	19-May	20-May
	<p><b>1hr TSP* X3</b> KTN-DMS4(B), FLN-DMS5</p> <p><b>24hr TSP*</b> KTN-DMS4(B), FLN-DMS5A</p> <p><b>24hr TSP</b> FLN-DMS1, FLN-DMS3</p>	<p><b>1hr TSP* X3</b> FLN-DMS1, FLN-DMS3</p> <p><b>Noise</b> CP-FLN-NMS1, CP-FLN-NMS2</p> <p><b>24hr RSP (Arsenic)</b> KTN-DMS4A</p>			<p><b>1hr TSP* X3</b> KTN-DMS4(B), FLN-DMS5</p> <p><b>24hr TSP*</b> KTN-DMS4(B), FLN-DMS5A</p> <p><b>Noise</b> CP-KTN-NMS2, CP-KTN-NMS3, CP-KTN-NMS5, CP-KTN-NMS6</p> <p><b>24hr TSP</b> FLN-DMS1, FLN-DMS3</p>	
<b>21-May</b>	22-May	23-May	24-May	25-May	<b>26-May</b>	27-May
	<p><b>1hr TSP* X3</b> FLN-DMS1, FLN-DMS3</p> <p><b>Noise</b> CP-FLN-NMS1, CP-FLN-NMS2</p> <p><b>24hr RSP (Arsenic)</b> KTN-DMS4A</p>		<p><b>1hr TSP* X3</b> KTN-DMS4(B), FLN-DMS5</p> <p><b>24hr TSP*</b> KTN-DMS4(B), FLN-DMS5A</p> <p><b>Noise</b> CP-KTN-NMS2, CP-KTN-NMS3, CP-KTN-NMS5, CP-KTN-NMS6</p> <p><b>24hr TSP</b> FLN-DMS1, FLN-DMS3</p>	<p><b>1hr TSP* X3</b> FLN-DMS1, FLN-DMS3</p>		<p><b>24hr RSP (Arsenic)</b> KTN-DMS4A</p>
<b>28-May</b>	29-May	30-May	31-May			
		<p><b>1hr TSP* X3</b> KTN-DMS4(B), FLN-DMS5</p> <p><b>24hr TSP*</b> KTN-DMS4(B), FLN-DMS5A</p> <p><b>Noise</b> CP-KTN-NMS2, CP-KTN-NMS3, CP-KTN-NMS5, CP-KTN-NMS6</p> <p><b>24hr TSP</b> FLN-DMS1, FLN-DMS3</p>	<p><b>1hr TSP* X3</b> FLN-DMS1, FLN-DMS3</p> <p><b>Noise</b> CP-FLN-NMS1, CP-FLN-NMS2</p>			

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

Remarks:

\*Monitoring session would be conducted by portable TSP monitor.

Environmental Permit(s)	Contract No.	Air Quality Stations	Noise Stations
EP-466/2013/A EP-467/2013/A EP-468/2013/A	ND/2019/01	<b>1hr TSP and 24hr TSP</b> KTN-DMS4(B) - Temporary Structure near Fanling Highway (near Pak Shek Au)	--
EP-468/2013/A	ND/2019/03		
EP-466/2013/A EP-467/2013/A EP-468/2013/A	ND/2019/01	<b>24hr RSP (Arsenic)</b> KTN-DMS4A - Temporary Structure at Pak Shek Au	--
EP-468/2013/A	ND/2019/03		
EP-467/2013/A EP-468/2013/A <sup>(1)</sup>	ND/2019/01	--	CP-KTN-NMS2 - Residential Buildings at Ma Tso Lung
EP-468/2013/A <sup>(2)</sup>	ND/2019/01	--	CP-KTN-NMS3 -Fung Kong Garden
EP-469/2013 <sup>(3)</sup>	ND/2019/02	--	CP-KTN-NMS6 - Ho Sheung Heung, Hau Ku Shek Ancestral Hall, Hung Shing Temple & Pai Fung Temple and Sin Wai Nunnery
EP-470/2013/A	ND/2019/01	--	CP-KTN-NMS5 - N/A
EP-473/2013/A <sup>(4)</sup>	ND/2019/03	<b>1hr TSP and 24hr TSP</b> FLN-DMS1 - Scattered Village Houses North of Proposed Potential Ecopark	--
	ND/2019/04		--
EP-473/2013/A <sup>(5)</sup>	ND/2019/05	<b>1hr TSP and 24hr TSP</b> FLN-DMS3 - House near Tong Hang	--
EP-473/2013/A <sup>(6)</sup>	ND/2019/03	<b>1hr TSP</b> FLN-DMS5 - Noble Hill	--
	ND/2019/04	<b>24hr TSP</b> FLN-DMS5A - Good View New Village	--
EP-473/2013/A <sup>(7)</sup>	ND/2019/05	--	CP-FLN-NMS2 - Scattered Village Houses in Tong Hang
EP-473/2013/A <sup>(8)</sup>	ND/2019/04	--	CP-FLN-NMS1 - Belair Monte
	ND/2019/05	--	
EP-475/2013/A	ND/2019/06	--	
<b>Remarks:</b> 1. Since the distance between monitoring station CP-KTN-NMS2 and site boundary of ND/2019/03 under EP-468/2013/A exceeds 300m. The monitoring station is not applicable to ND/2019/03 2. Since the distance between monitoring station CP-KTN-NMS3 and site boundary of ND/2019/03 under EP-468/2013/A exceeds 300m. The monitoring station is not applicable to ND/2019/03 3. Since the distance between monitoring station CP-KTN-NMS1 and site boundary of ND/2019/02 under EP-469/2013 exceeds 300m. The monitoring station is not applicable to ND/2019/02 4. Since the distance between monitoring station FLN-DMS1 and site boundary of ND/2019/05 under EP-473/2013/A exceeds 500m. The monitoring station is not applicable to ND/2019/05 5. Since the distance between monitoring station FLN-DMS3 and site boundary of ND/2019/03 and ND/2019/04 under EP-473/2013/A exceeds 500m. The monitoring station is not applicable to ND/2019/03 and ND/2019/04 6. Since the distance between monitoring station FLN-DMS5 and site boundary of ND/2019/05 under EP-473/2013/A exceeds 500m. The monitoring station is not applicable to ND/2019/05 7. Since the distance between monitoring station CP-FLN-NMS2 and site boundary of ND/2019/03 and ND/2019/04 under EP-473/2013/A exceeds 300m. The monitoring station is not applicable to ND/2019/03 and ND/2019/04. 8. Since the distance between monitoring station CP-FLN-NMS1 and site boundary of ND/2019/03 under EP-473/2013/A exceeds 300m. The monitoring station is not applicable to ND/2019/03.			

**Contract No. NDO 04/2019**  
**Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas**  
**Tentative Impact Water Quality Monitoring Schedule (May 2023)**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	<b>1-May</b>	2-May	3-May	4-May	5-May	6-May
		<b><u>Water Quality Monitoring</u></b> River Beas, River Indus and near Siu Hang San Tsuen Stream		<b><u>Water Quality Monitoring</u></b> River Beas, River Indus and near Siu Hang San Tsuen Stream		<b><u>Water Quality Monitoring</u></b> River Beas, River Indus and near Siu Hang San Tsuen Stream
<b>7-May</b>	8-May	9-May	10-May	11-May	12-May	13-May
	<b><u>Water Quality Monitoring</u></b> River Beas, River Indus and near Siu Hang San Tsuen Stream		<b><u>Water Quality Monitoring</u></b> River Beas, River Indus and near Siu Hang San Tsuen Stream		<b><u>Water Quality Monitoring</u></b> River Beas, River Indus and near Siu Hang San Tsuen Stream	
<b>14-May</b>	15-May	16-May	17-May	18-May	19-May	20-May
	<b><u>Water Quality Monitoring</u></b> River Beas, River Indus and near Siu Hang San Tsuen Stream		<b><u>Water Quality Monitoring</u></b> River Beas, River Indus and near Siu Hang San Tsuen Stream		<b><u>Water Quality Monitoring</u></b> River Beas, River Indus and near Siu Hang San Tsuen Stream	
<b>21-May</b>	22-May	23-May	24-May	25-May	<b>26-May</b>	27-May
	<b><u>Water Quality Monitoring</u></b> River Beas, River Indus and near Siu Hang San Tsuen Stream		<b><u>Water Quality Monitoring</u></b> River Beas, River Indus and near Siu Hang San Tsuen Stream			<b><u>Water Quality Monitoring</u></b> River Beas, River Indus and near Siu Hang San Tsuen Stream
<b>28-May</b>	29-May	30-May	31-May			
	<b><u>Water Quality Monitoring</u></b> River Beas, River Indus and near Siu Hang San Tsuen Stream		<b><u>Water Quality Monitoring</u></b> River Beas, River Indus and near Siu Hang San Tsuen Stream			

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

**Water Quality Monitoring Stations**

River Beas: SYR-CS1 - Upstream of river, SYR-IS1 - Downstream of river

River Indus and near Siu Hang San Tsuen Stream: NTR-CS1 - Upstream of river, NTR-IS1 - Downstream of river, SHST-IS2 - Water sensitive receiver at near Siu Hang San Tsuen Stream,

MWR-IS3 - Water sensitive receiver at near Ma Wat River

Environmental Permit(s)	Contract No.	Water Quality Stations
EP-469/2013	ND/2019/02	<u><b>River Beas</b></u> SYR-CS1 - Upstream of river SYR-IS1 - Downstream of river
EP-473/2013/A	ND/2019/04	<u><b>River Indus and near Siu Hang San Tsuen Stream</b></u> NTR-CS1 - Upstream of river NTR-IS1 - Downstream of river SHST-IS2 - Water sensitive receiver at near Siu Hang San Tsuen Stream MWR-IS3 - Water sensitive receiver at near Ma Wat River



**Contract No. NDO 04/2019**  
**Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas**  
**Tentative Impact Ecological Monitoring Schedule (May 2023)**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	<b>1-May</b>	2-May	3-May	4-May	5-May	6-May
				Monitoring of Measures to Minimise Disturbance to Water Birds in Ng Tung River <b>T1 T2</b> High tide: Start time: 10:00 Low tide: Start time: 15:00	Monitoring of Measures to Minimise Disturbance to Water Birds in Sheung Yue River and Long Valley <b>T3 T5</b> High tide: Start time: 10:00 Low tide: Start time: 14:00	
<b>7-May</b>	8-May	9-May	10-May	11-May	12-May	13-May
	Monitoring of Measures to Minimise Impacts on Ecological Sensitive Habitats from Disturbance and Pollution <b>T3, T4, T5</b>	Monitoring of Measures to Minimise Impacts to Ma Tso Lung and Siu Hang San Tsuen Stream <b>MS 01 - MS 15</b>	Monitoring of Measures to Minimise Disturbance to Water Birds in Sheung Yue River and Long Valley <b>T3 T5</b> High tide: Start time: 13:00 Low tide: Start time: 07:00	Monitoring of Measures to Minimise Disturbance to Water Birds in Ng Tung River <b>T1 T2</b> High tide: Start time: 15:00 Low tide: Start time: 07:00		
<b>14-May</b>	15-May	16-May	17-May	18-May	19-May	20-May
	Monitoring of Measures to Minimise Disturbance to Water Birds in Ng Tung River <b>T1 T2</b> High tide: Start time: 08:00 Low tide: Start time: 12:00	Monitoring of Measures to Minimise Disturbance to Water Birds in Sheung Yue River and Long Valley <b>T3 T5</b> High tide: Start time: 08:00 Low tide: Start time: 13:00				
<b>21-May</b>	22-May	23-May	24-May	25-May	<b>26-May</b>	27-May
	Monitoring of Measures to Minimise Disturbance to Water Birds in Sheung Yue River and Long Valley <b>T3 T5</b> High tide: Start time: 09:00 Low tide: Start time: 17:00	Monitoring of Measures to Minimise Disturbance to Water Birds in Ng Tung River <b>T1 T2</b> High tide: Start time: 10:00 Low tide: Start time: 17:00		Monitoring of Measures to Minimise Impacts on Ecological Sensitive Habitats from Disturbance and Pollution <b>T1, T6</b>		
<b>28-May</b>	29-May	30-May	31-May			
	Monitoring of Measures to Minimise Disturbance to Water Birds in Sheung Yue River and Long Valley <b>T3 T5</b> High tide: Start time: 15:00 Low tide: Start time: 11:00	Monitoring of Measures to Minimise Disturbance to Water Birds in Ng Tung River <b>T1 T2</b> High tide: Start time: 17:00 Low tide: Start time: 11:00				

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

#Night-time avifauna monitoring in Long Valley

**Contract No. NDO 04/2019**  
**Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas**  
**Tentative Egretty Monitoring Schedule for May 2023**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	<b>1-May</b>	2-May	3-May	4-May	5-May	6-May
<b>7-May</b>	8-May	9-May	10-May	11-May	12-May	13-May
<b>14-May</b>	15-May	16-May	17-May	18-May	19-May	20-May
<b>21-May</b>	22-May	23-May	24-May	25-May	<b>26-May</b>	27-May
			<u>Egretty Monitoring</u> Ho Sheung Heung Egretty Site, Compensation Site A1-7 FLN and B1-7 FLN, Meanders of Split Colony			
<b>28-May</b>	29-May	30-May	31-May			

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

Item	Activity	Monitoring Stations/Transects
1	Monitoring of Measures to Minimise Disturbance to Water Birds in Ng Tung River, Sheung Yue River, and Long Valley	T1. Ng Tung River T2. Ng Tung River T3. Sheung Yue River T5. Long Valley
2	Monitoring of Measures to Minimise Impacts to Aquatic Fauna in Ma Tso Lung Stream and Siu Hang San Tsuen Stream	MS_01, MS_02, MS_03, MS_04, MS_05, MS_06, MS_07, MS_08, MS_09, MS_10, MS_11, MS_12, MS_13, MS_14, MS_15
3	Monitoring of Measures to Minimise Impacts on Ecological Sensitive Habitats from Disturbance and Pollution	T1. Ma Tso Lung riparian zone and associated wetland habitats T1. Green belt areas E1-8,D1-8 and G1-3 in KTN NDA T1. AGR one C2-4 and C2-2 in KTN NDA T1. Areas north of Ng Tung River T3. Area west of Siu Hang San Tsuen Stream T4. South side of Fanling Highway and Castle Peak Road in the vicinity of Pak Shek Au T5. Area west and east of the southern limit of the FLN NDA work area T6. Areas in the western part of KTN

**Contract No. NDO 04/2019**  
**Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas**  
**Tentative Weekly Site Inspection Schedule for May 2023**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	<b>1-May</b>	2-May	3-May	4-May	5-May	6-May
		Site Inspection (ND/2019/01) Site Inspection (ND/2019/05)	Site Inspection (ND/2019/02)	Site Inspection (ND/2019/04) Site Inspection (ND/2019/06)	Site Inspection (ND/2019/03) Site Inspection (ND/2019/07)	
<b>7-May</b>	8-May	9-May	10-May	11-May	12-May	13-May
	Site Inspection (ND/2019/05)	Site Inspection (ND/2019/01)	Site Inspection (ND/2019/02)	Site Inspection (ND/2019/04) Site Inspection (ND/2019/06)	Site Inspection (ND/2019/03) Site Inspection (ND/2019/07)	
<b>14-May</b>	15-May	16-May	17-May	18-May	19-May	20-May
	Site Inspection (ND/2019/05)	Site Inspection (ND/2019/01)	Site Inspection (ND/2019/02)	Site Inspection (ND/2019/04) Site Inspection (ND/2019/06)	Site Inspection (ND/2019/03) Site Inspection (ND/2019/07)	
<b>21-May</b>	22-May	23-May	24-May	25-May	<b>26-May</b>	27-May
	Site Inspection (ND/2019/05)	Site Inspection (ND/2019/01)	Site Inspection (ND/2019/02)	Site Inspection (ND/2019/04) Site Inspection (ND/2019/06) Site Inspection (ND/2019/03) Site Inspection (ND/2019/07)		
<b>28-May</b>	29-May	30-May	31-May			
	Site Inspection (ND/2019/05)	Site Inspection (ND/2019/01)	Site Inspection (ND/2019/02)			

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

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

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## Appendix E - 1-hour TSP Monitoring Results

Location FLN-DMS1 - Scattered Village Houses North of Proposed Potential Ecopark			
Date	Time	Weather	Particulate Concentration ( $\mu\text{g}/\text{m}^3$ )
4-Apr-23	13:00	Cloudy	97.5
4-Apr-23	14:00	Cloudy	104.0
4-Apr-23	15:00	Cloudy	82.0
6-Apr-23	13:15	Cloudy	51.4
6-Apr-23	14:15	Cloudy	52.8
6-Apr-23	15:15	Cloudy	66.2
12-Apr-23	13:05	Sunny	113.9
12-Apr-23	14:05	Sunny	134.0
12-Apr-23	15:05	Sunny	130.5
18-Apr-23	13:30	Cloudy	116.3
18-Apr-23	14:30	Cloudy	122.9
18-Apr-23	15:30	Cloudy	106.2
24-Apr-23	9:00	Cloudy	66.3
24-Apr-23	10:00	Cloudy	64.3
24-Apr-23	11:00	Cloudy	64.0
28-Apr-23	13:00	Sunny	56.5
28-Apr-23	14:00	Sunny	63.3
28-Apr-23	15:00	Sunny	66.3
		Minimum	51.4
		Maximum	134.0
		Average	86.6

Location FLN-DMS3 - House near Tong Hang			
Date	Time	Weather	Particulate Concentration ( $\mu\text{g}/\text{m}^3$ )
4-Apr-23	13:00	Cloudy	104.3
4-Apr-23	14:00	Cloudy	107.3
4-Apr-23	15:00	Cloudy	94.2
6-Apr-23	13:30	Cloudy	45.1
6-Apr-23	14:30	Cloudy	53.8
6-Apr-23	15:30	Cloudy	59.0
12-Apr-23	13:00	Sunny	101.3
12-Apr-23	14:00	Sunny	88.9
12-Apr-23	15:00	Sunny	106.7
18-Apr-23	13:30	Cloudy	91.8
18-Apr-23	14:30	Cloudy	102.6
18-Apr-23	15:30	Cloudy	86.8
24-Apr-23	13:00	Cloudy	80.4
24-Apr-23	14:00	Cloudy	74.1
24-Apr-23	15:00	Cloudy	60.0
28-Apr-23	13:00	Sunny	49.1
28-Apr-23	14:00	Sunny	55.3
28-Apr-23	15:00	Sunny	57.5
		Minimum	45.1
		Maximum	107.3
		Average	78.8

## Appendix E - 1-hour TSP Monitoring Results

Location FLN-DMS5 - Noble Hill			
Date	Time	Weather	Particulate Concentration ( $\mu\text{g}/\text{m}^3$ )
3-Apr-23	13:00	Cloudy	66.7
3-Apr-23	14:00	Cloudy	87.5
3-Apr-23	15:00	Cloudy	69.2
6-Apr-23	13:00	Cloudy	33.5
6-Apr-23	14:00	Cloudy	32.7
6-Apr-23	15:00	Cloudy	34.8
11-Apr-23	9:00	Sunny	56.4
11-Apr-23	10:00	Sunny	68.7
11-Apr-23	11:00	Sunny	54.9
17-Apr-23	9:00	Cloudy	97.5
17-Apr-23	10:00	Cloudy	104.7
17-Apr-23	11:00	Cloudy	107.2
21-Apr-23	13:00	Cloudy	83.8
21-Apr-23	14:00	Cloudy	122.8
21-Apr-23	15:00	Cloudy	118.2
27-Apr-23	13:00	Cloudy	56.8
27-Apr-23	14:00	Cloudy	55.1
27-Apr-23	15:00	Cloudy	53.2
		Minimum	32.7
		Maximum	122.8
		Average	72.4

Location KTN-DMS4(B) - Temporary Structure at Pak Shek Au			
Date	Time	Weather	Particulate Concentration ( $\mu\text{g}/\text{m}^3$ )
3-Apr-23	8:00	Cloudy	76.4
3-Apr-23	9:00	Cloudy	94.3
3-Apr-23	10:00	Cloudy	96.5
6-Apr-23	13:00	Cloudy	46.4
6-Apr-23	14:00	Cloudy	42.0
6-Apr-23	15:00	Cloudy	48.4
11-Apr-23	13:00	Cloudy	43.1
11-Apr-23	14:00	Cloudy	61.8
11-Apr-23	15:00	Cloudy	73.3
17-Apr-23	9:00	Cloudy	95.0
17-Apr-23	10:00	Cloudy	124.7
17-Apr-23	11:00	Cloudy	104.7
21-Apr-23	13:00	Cloudy	65.8
21-Apr-23	14:00	Cloudy	96.3
21-Apr-23	15:00	Cloudy	100.8
27-Apr-23	13:00	Cloudy	63.2
27-Apr-23	14:00	Cloudy	55.3
27-Apr-23	15:00	Cloudy	52.4
		Minimum	42.0
		Maximum	124.7
		Average	74.5

## Appendix E - 24-hour TSP Monitoring Results

### Location FLN-DMS1 - Scattered Village Houses North of Proposed Potential Ecopark

Start Date	Weather Condition	Air Temp. (K)	Filter Weight (g)		Particulate weight (g)	Elapse Time		Sampling Time(hrs.)	Flow Rate (m <sup>3</sup> /min.)		Av. flow (m <sup>3</sup> /min)	Total vol. (m <sup>3</sup> )	Conc. (µg/m <sup>3</sup> )
			Initial	Final		Initial	Final		Initial	Final			
3-Apr-23	Cloudy	294.0	2.9549	2.9910	0.0361	7634.8	7658.8	24.0	1.21	1.21	1.21	1740.9	20.7
6-Apr-23	Sunny	297.5	3.0043	3.0666	0.0623	7658.8	7682.8	24.0	1.20	1.20	1.20	1727.8	36.1
11-Apr-23	Sunny	293.6	2.9276	3.1211	0.1935	7682.8	7706.8	24.0	1.22	1.21	1.21	1745.0	110.9
17-Apr-23	Sunny	297.3	2.9294	3.1320	0.2026	7706.8	7730.8	24.0	1.20	1.20	1.20	1728.6	117.2
21-Apr-23	Cloudy	296.8	2.9676	3.1403	0.1727	7730.9	7754.9	24.0	1.22	1.22	1.22	1752.0	98.6
27-Apr-23	Sunny	293.5	2.9664	3.1099	0.1435	7754.9	7778.9	24.0	1.24	1.23	1.23	1775.6	80.8
												Min	20.7
												Max	117.2
												Average	77.4

### Location FLN-DMS3 - House near Tong Hang

Start Date	Weather Condition	Air Temp. (K)	Filter Weight (g)		Particulate weight (g)	Elapse Time		Sampling Time(hrs.)	Flow Rate (m <sup>3</sup> /min.)		Av. flow (m <sup>3</sup> /min)	Total vol. (m <sup>3</sup> )	Conc. (µg/m <sup>3</sup> )
			Initial	Final		Initial	Final		Initial	Final			
3-Apr-23	Cloudy	294.0	2.9786	3.0575	0.0789	8797.3	8821.3	24.0	1.20	1.20	1.20	1723.5	45.8
6-Apr-23	Sunny	297.5	2.9371	3.0017	0.0646	8821.3	8845.3	24.0	1.19	1.19	1.19	1709.6	37.8
11-Apr-23	Sunny	293.6	2.9600	3.0770	0.1170	8845.3	8869.3	24.0	1.20	1.20	1.20	1727.9	67.7
17-Apr-23	Sunny	297.3	2.8993	3.0059	0.1066	8869.3	8893.3	24.0	1.19	1.19	1.19	1710.4	62.3
21-Apr-23	Cloudy	296.8	2.9364	2.9993	0.0629	8893.3	8917.3	24.0	1.23	1.23	1.23	1765.7	35.6
27-Apr-23	Sunny	293.5	2.9442	3.0328	0.0886	8917.3	8941.3	24.0	1.25	1.24	1.24	1787.7	49.6
												Min	35.6
												Max	67.7
												Average	49.8

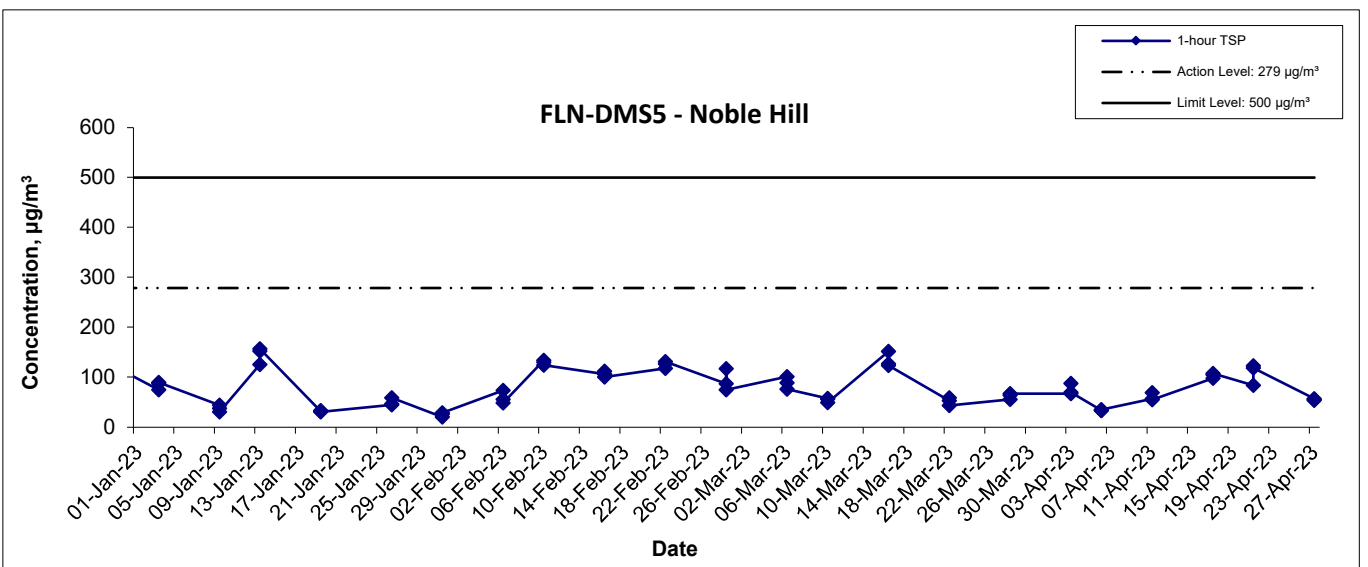
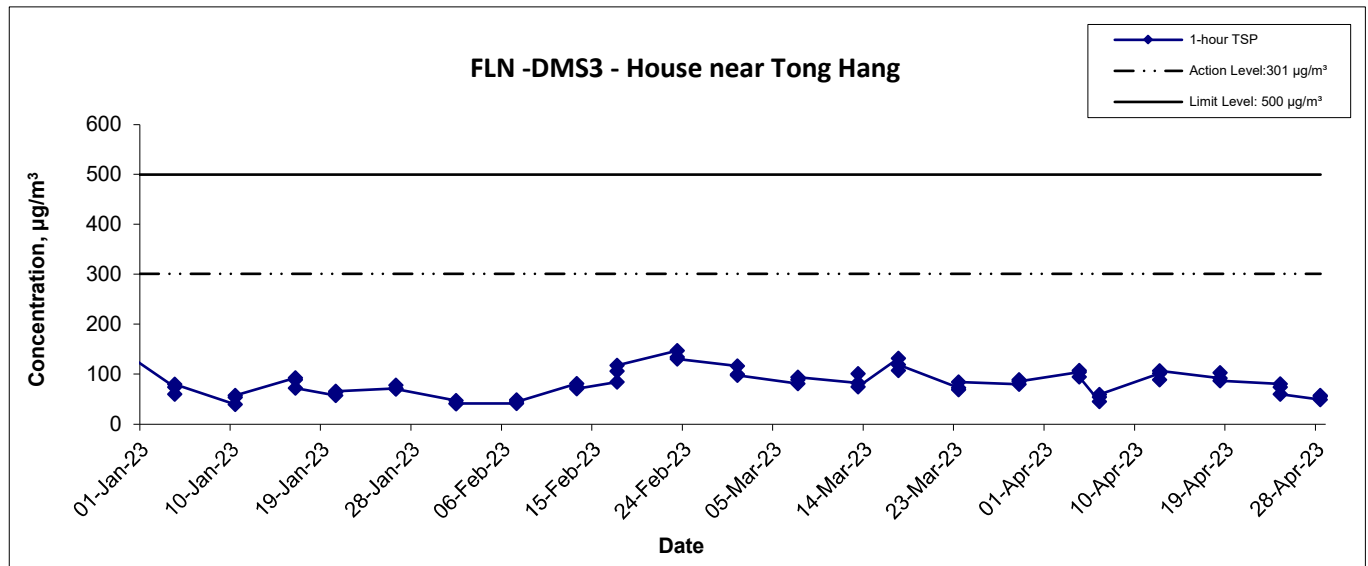
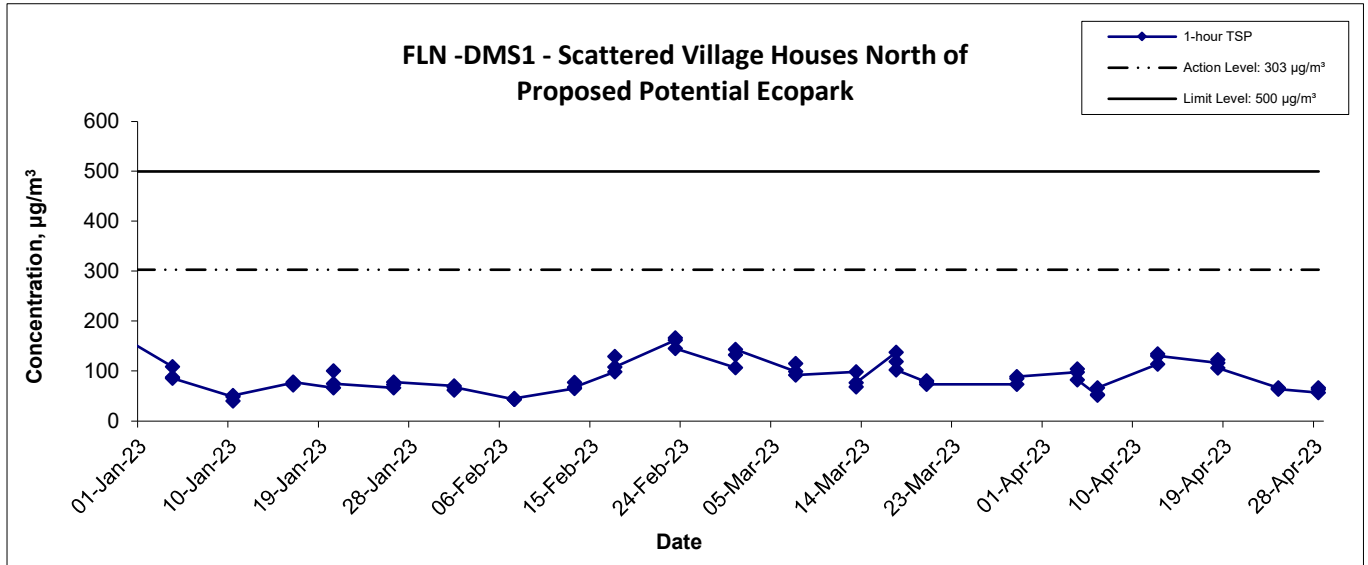


## Appendix E - 24-hour TSP Monitoring Results

Location FLN-DMS5A - Good View New Village			
Date	Time	Weather	Particulate Concentration ( $\mu\text{g}/\text{m}^3$ )
3-Apr-23	13:25	Cloudy	85.9
6-Apr-23	11:30	Cloudy	61.1
11-Apr-23	9:30	Cloudy	81.5
17-Apr-23	8:30	Cloudy	94.2
21-Apr-23	9:45	Cloudy	88.5
27-Apr-23	9:30	Cloudy	68.5
		Minimum	61.1
		Maximum	94.2
		Average	80.0

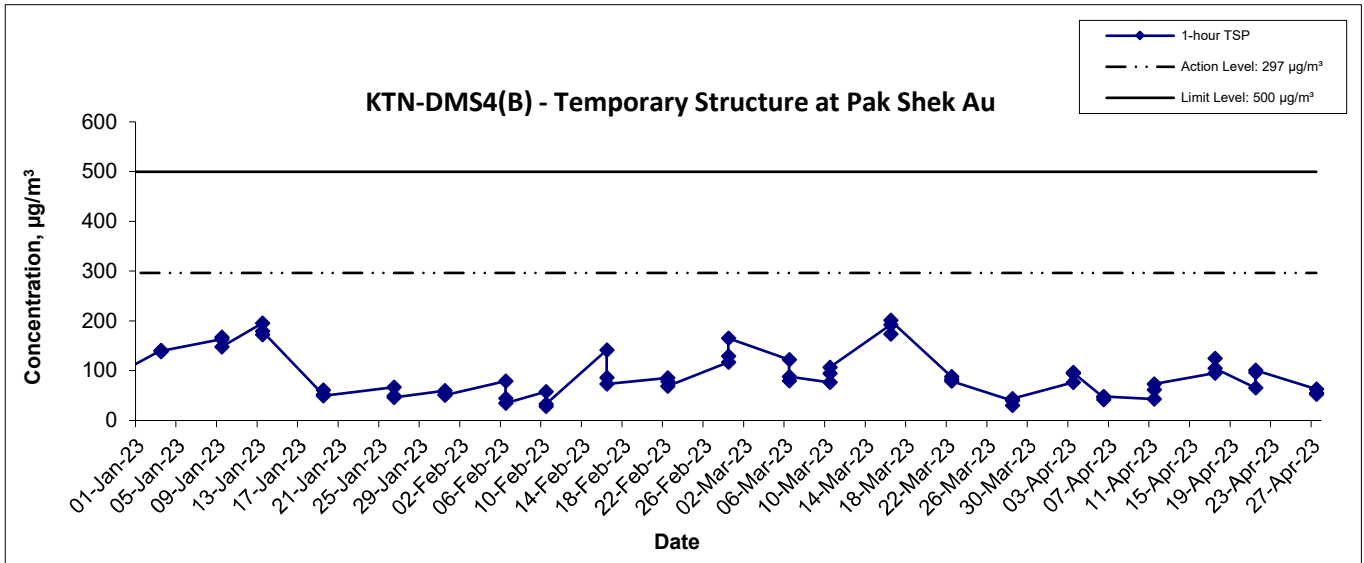
Location KTN-DMS4(B) - Temporary Structure at Pak Shek Au			
Date	Time	Weather	Particulate Concentration ( $\mu\text{g}/\text{m}^3$ )
3-Apr-23	10:25	Cloudy	99.0
6-Apr-23	11:30	Cloudy	53.8
11-Apr-23	9:00	Cloudy	53.2
17-Apr-23	9:00	Cloudy	72.6
21-Apr-23	9:30	Cloudy	79.4
27-Apr-23	9:00	Cloudy	60.1
		Minimum	53.2
		Maximum	99.0
		Average	69.7


### 1-hr TSP Concentration Levels



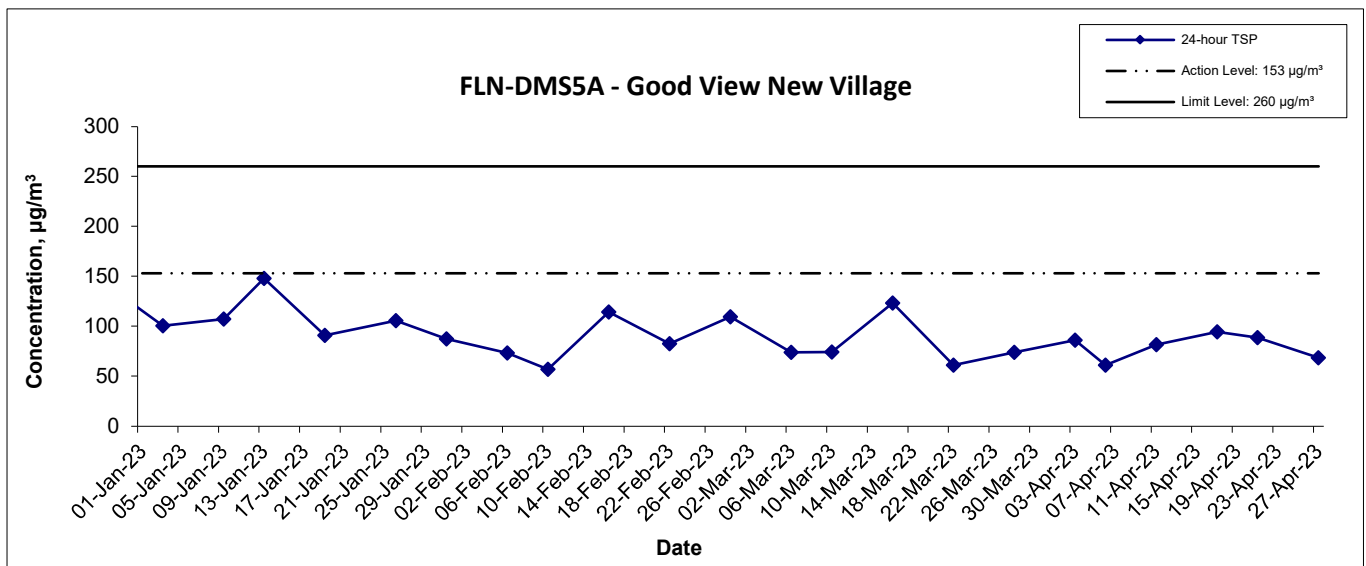
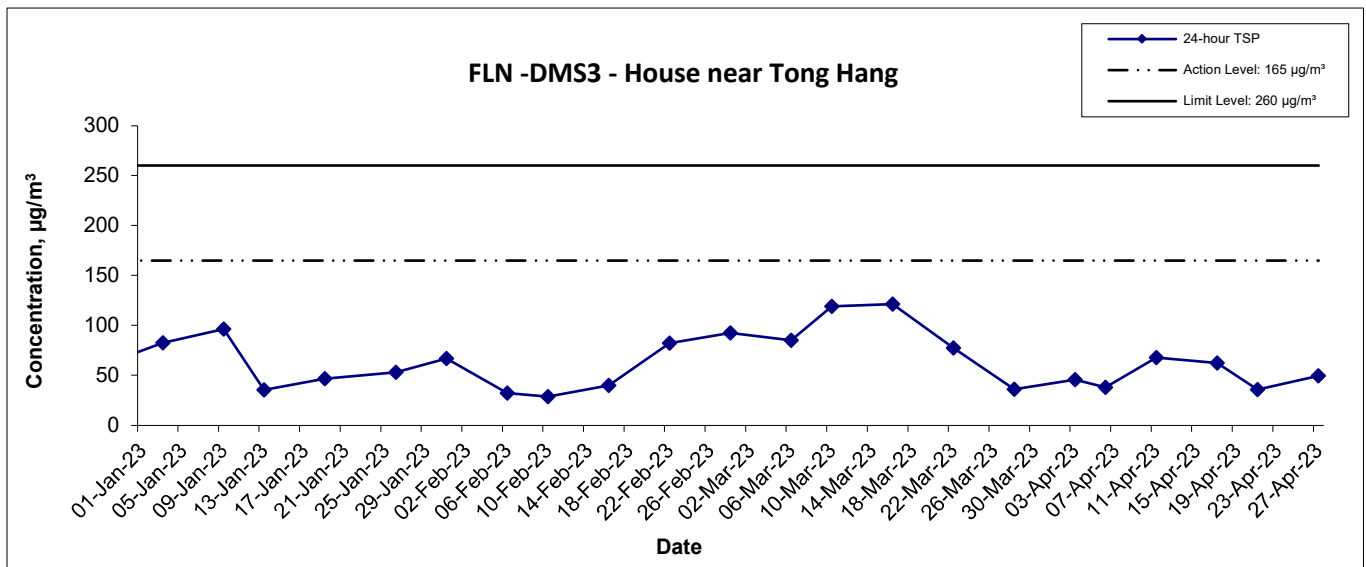
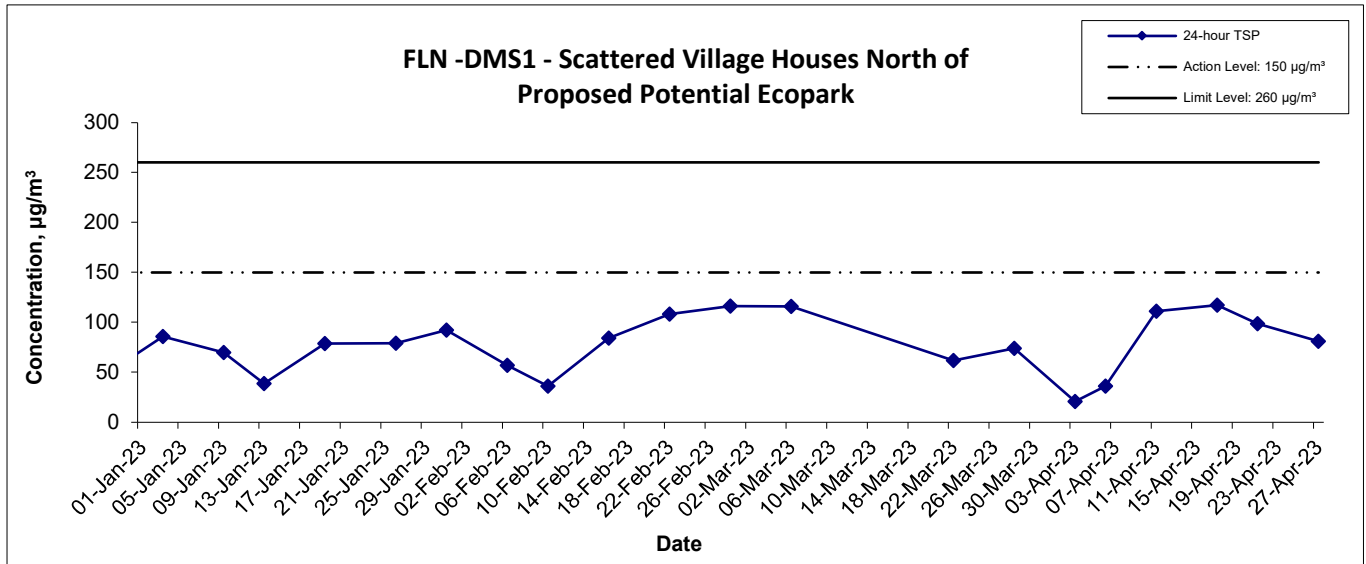
Title Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas Graphical Presentation of 1-hour TSP Monitoring Results	Scale	Project No.	consulting . testing . research	
		N.T.S		WMA20002
	Date	Apr 23		Appendix E


### 1-hr TSP Concentration Levels



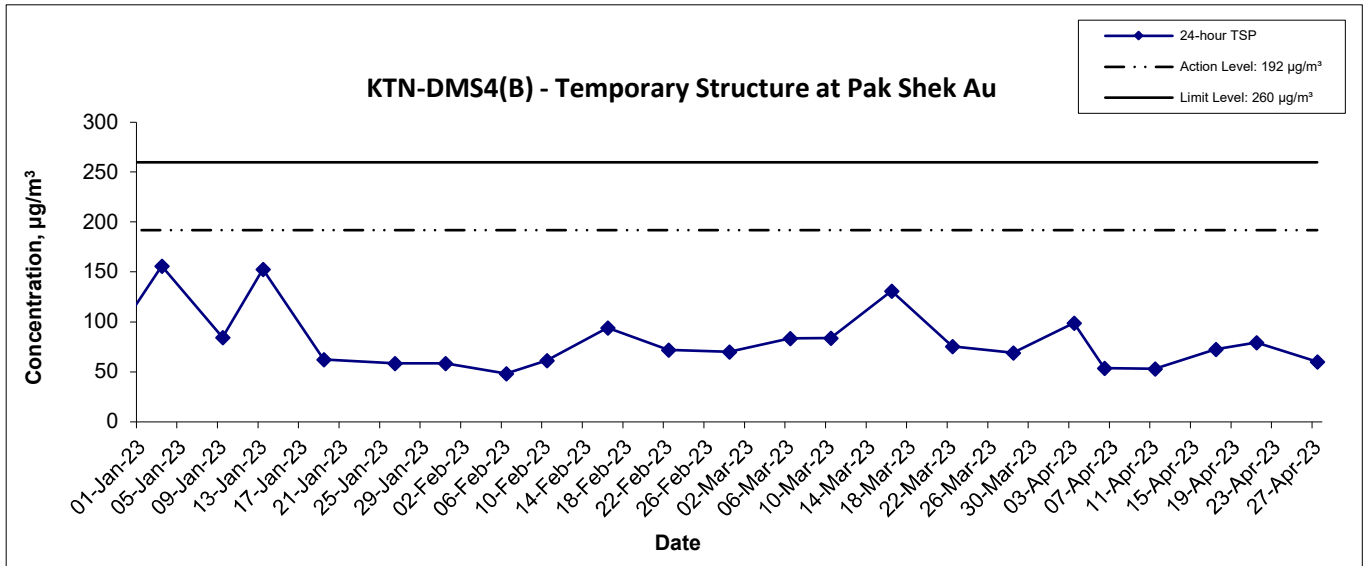
Title Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas Graphical Presentation of 1-hour TSP Monitoring Results	Scale	Project No.	 consulting . testing . research
	Date	Appendix	
	N.T.S	WMA20002	
	Apr 23	E	

### 24-hr TSP Concentration Levels



Title Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas Graphical Presentation of 24-hour TSP Monitoring Results	Scale	Project No.	 consulting . testing . research	
		N.T.S		WMA20002
	Date	Apr 23		Appendix E

## 24-hr TSP Concentration Levels

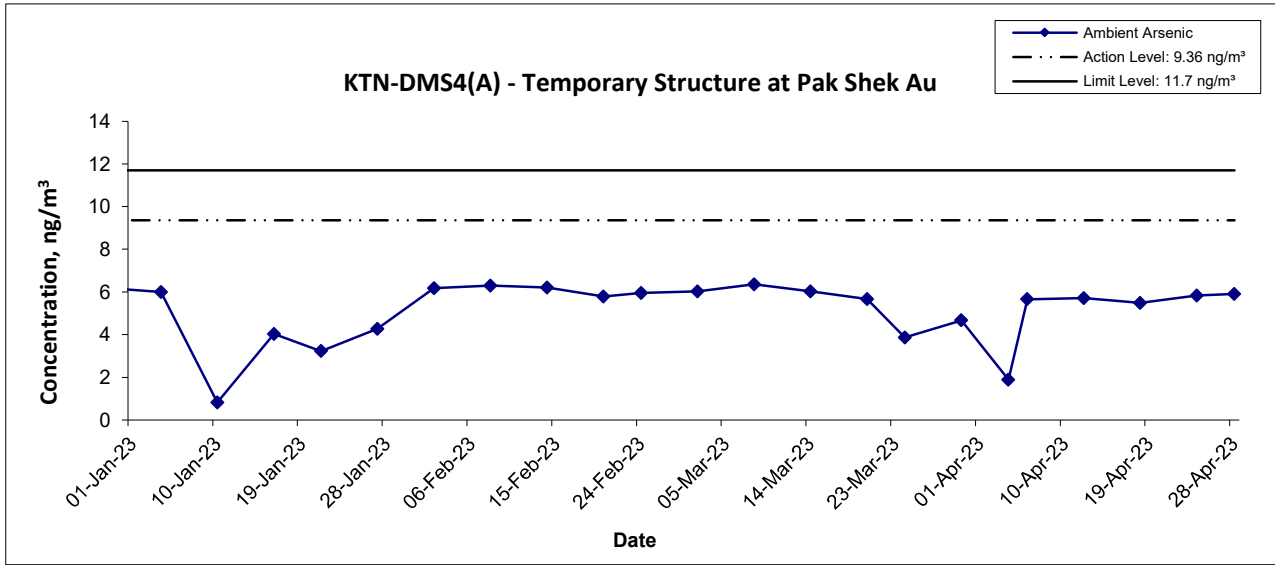


Title Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas Graphical Presentation of 24-hour TSP Monitoring Results	Scale N.T.S	Project No. WMA20002	consulting . testing . research
	Date Apr 23	Appendix E	

## Appendix E - Ambient Arsenic Monitoring Results

Location KTN-DMS4(A) - Temporary Structure at Pak Shek Au			
Date	Arsenic ( $\mu\text{g}$ )	Standard Volume, Vstd ( $\text{m}^3$ )	Ambient Arsenic Concentration ( $\text{ng}/\text{m}^3$ )
4-Apr-23	3.0	1590.6	1.89
6-Apr-23	9.1	1608.1	5.66
12-Apr-23	9.1	1593.6	5.71
18-Apr-23	8.8	1603.1	5.49
24-Apr-23	9.3	1595.6	5.83
28-Apr-23	9.4	1591.4	5.91

## Ambient Arsenic



Title Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas  Graphical Presentation of Ambient Arsenic Monitoring Results	Scale N.T.S	Project No. WMA20002	
	Date Apr 23	Appendix E	

**TEST REPORT**

**APPLICANT:** Wellab (EM&A)  
RM 1808, Technology Park,  
18 On Lai Street,  
Shatin, N.T., Hong Kong

Report No.:	38013
Date of Issue:	2023-04-13
Date Received:	2023-04-06
Date Tested:	2023-04-06
Date Completed:	2023-04-13

**ATTN:** Ms Ivy Tam

Page: 1 of 1

**Sample Description :** 1 sample as received from customer said to be quartz filter  
**Laboratory No. :** 38013  
**Project No. :** WMA 20002  
**Project Title:** Service Contract No. NDO 04/2019  
 Environmental Team for Environmental Monitoring and Audit Works in  
 Construction Phase for the First Phase Development of Kwu Tung North  
 and Fanling North New Development Areas

**Tests Requested & Methodology:**

Item	Parameters	Ref. Method	Limit of reporting
1	Arsenic	In-house method SOP036 (ICP-MS)	0.18 µg

**Results:**

Sample ID	220411/052
Sample No.	38013-1
Arsenic (µg)	3.0

Remarks: 1) <= less than  
 2) Results for the test material reported as received

\*\*\*\*\*END OF REPORT\*\*\*\*\*

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

  
**PATRICK TSE**  
*General Manager*



**TEST REPORT**

**APPLICANT:** Wellab (EM&A)  
RM 1808, Technology Park,  
18 On Lai Street,  
Shatin, N.T., Hong Kong

Report No.:	QC38013
Date of Issue:	2023-04-13
Date Received:	2023-04-06
Date Tested:	2023-04-06
Date Completed:	2023-04-13

**ATTN:** Ms Ivy Tam

Page: 1 of 2

**QC report:  
Method Blank**

Parameter	Method Blank	Acceptance
Arsenic (µg)	<0.036	<0.036

**Filter Lot Blank**

Parameter	Filter Lot Blank	Acceptance
Arsenic (µg)	0.03	N/A

**Laboratory control spike/ Method QC**

Parameter	MQC	Acceptance
Arsenic (%)	96	80-120

**Calibration check**

Parameter	CCV	Acceptance
Arsenic (%)	92	90-110

**Interference check solution A**

Parameter	ICS A	Acceptance
Arsenic (µg)	<0.036	<0.036

**Interference check solution AB**

Parameter	ICS AB	Acceptance
Arsenic (%)	100	70-130

Remarks: 1) <= less than  
2) N/A = Not applicable  
3) This report is the summary of quality control data for report number 38013

\*\*\*\*\*

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

  
**PATRICK TSE**  
General Manager

**TEST REPORT**

Report No.:	QC38013
Date of Issue:	2023-04-13
Date Received:	2023-04-06
Date Tested:	2023-04-06
Date Completed:	2023-04-13
Page:	2 of 2

**QC report:  
 Matrix Spike**

Parameter	Matrix Spike	Acceptance
Arsenic (%)	89	75-125

**Filter Duplicate**

Parameter	Filter Duplicate	Acceptance
Arsenic (%)	7	RPD $\leq$ 20%

**Serial dilution check**

Parameter	Serial dilution check	Acceptance
Arsenic (%)	96	90-110

Remarks: 1)  $\leq$  less than  
 2) N/A = Not applicable  
 3) This report is the summary of quality control data for report number 38013

\*\*\*\*\*END OF REPORT\*\*\*\*\*

## TEST REPORT

**APPLICANT:** Wellab (EM&A)  
RM 1808, Technology Park,  
18 On Lai Street,  
Shatin, N.T., Hong Kong

Report No.:	38045
Date of Issue:	2023-04-14
Date Received:	2023-04-11
Date Tested:	2023-04-11
Date Completed:	2023-04-14

**ATTN:** Ms Ivy Tam

Page: 1 of 1

**Sample Description :** 1 sample as received from customer said to be quartz filter  
**Laboratory No. :** 38045  
**Project No. :** WMA 20002  
**Project Title:** Service Contract No. NDO 04/2019  
 Environmental Team for Environmental Monitoring and Audit Works in  
 Construction Phase for the First Phase Development of Kwu Tung North  
 and Fanling North New Development Areas

**Tests Requested & Methodology:**

Item	Parameters	Ref. Method	Limit of reporting
1	Arsenic	In-house method SOP036 (ICP-MS)	0.18 µg

**Results:**

Sample ID	220411/053
Sample No.	38045-1
Arsenic (µg)	9.1

Remarks: 1) <= less than  
 2) Results for the test material reported as received

\*\*\*\*\*END OF REPORT\*\*\*\*\*

*PREPARED AND CHECKED BY:*

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

  
**PATRICK TSE**  
 General Manager

## TEST REPORT

**APPLICANT:** Wellab (EM&A)  
RM 1808, Technology Park,  
18 On Lai Street,  
Shatin, N.T., Hong Kong

Report No.:	QC38045
Date of Issue:	2023-04-14
Date Received:	2023-04-11
Date Tested:	2023-04-11
Date Completed:	2023-04-14

**ATTN:** Ms Ivy Tam

Page: 1 of 2

**QC report:  
Method Blank**

Parameter	Method Blank	Acceptance
Arsenic (µg)	<0.036	<0.036

**Filter Lot Blank**

Parameter	Filter Lot Blank	Acceptance
Arsenic (µg)	0.03	N/A

**Laboratory control spike/ Method QC**

Parameter	MQC	Acceptance
Arsenic (%)	110	80-120

**Calibration check**

Parameter	CCV	Acceptance
Arsenic (%)	102	90-110

**Interference check solution A**

Parameter	ICS A	Acceptance
Arsenic (µg)	<0.036	<0.036

**Interference check solution AB**

Parameter	ICS AB	Acceptance
Arsenic (%)	97	70-130

Remarks: 1) < = less than  
2) N/A = Not applicable  
3) This report is the summary of quality control data for report number 38045

\*\*\*\*\*

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

  
**PATRICK TSE**  
General Manager

## TEST REPORT

Report No.:	QC38045
Date of Issue:	2023-04-14
Date Received:	2023-04-11
Date Tested:	2023-04-11
Date Completed:	2023-04-14
Page:	2 of 2

**QC report:**

**Matrix Spike**

Parameter	Matrix Spike	Acceptance
Arsenic (%)	93	75-125

**Filter Duplicate**

Parameter	Filter Duplicate	Acceptance
Arsenic (%)	1	RPD $\leq$ 20%

**Serial dilution check**

Parameter	Serial dilution check	Acceptance
Arsenic (%)	98	90-110

Remarks: 1)  $\leq$  less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 38045

\*\*\*\*\*END OF REP ORT\*\*\*\*\*

**TEST REPORT**

**APPLICANT:** Wellab (EM&A)  
RM 1808, Technology Park,  
18 On Lai Street,  
Shatin, N.T., Hong Kong

Report No.:	38046
Date of Issue:	2023-04-18
Date Received:	2023-04-13
Date Tested:	2023-04-13
Date Completed:	2023-04-18

**ATTN:** Ms Ivy Tam

Page: 1 of 1

**Sample Description :** 1 sample as received from customer said to be quartz filter  
**Laboratory No. :** 38046  
**Project No. :** WMA 20002  
**Project Title:** Service Contract No. NDO 04/2019  
 Environmental Team for Environmental Monitoring and Audit Works in  
 Construction Phase for the First Phase Development of Kwu Tung North  
 and Fanling North New Development Areas

**Tests Requested & Methodology:**

Item	Parameters	Ref. Method	Limit of reporting
1	Arsenic	In-house method SOP036 (ICP-MS)	0.18 µg

**Results:**

Sample ID	220411/054
Sample No.	38046-1
Arsenic (µg)	9.1

Remarks: 1) <= less than  
 2) Results for the test material reported as received

\*\*\*\*\*END OF REPORT\*\*\*\*\*

*PREPARED AND CHECKED BY:*

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

  
**PATRICK TSE**  
 General Manager

## TEST REPORT

**APPLICANT:** Wellab (EM&A)  
RM 1808, Technology Park,  
18 On Lai Street,  
Shatin, N.T., Hong Kong

Report No.:	QC38046
Date of Issue:	2023-04-18
Date Received:	2023-04-13
Date Tested:	2023-04-13
Date Completed:	2023-04-18

**ATTN:** Ms Ivy Tam

Page: 1 of 2

**QC report:  
Method Blank**

Parameter	Method Blank	Acceptance
Arsenic (µg)	<0.036	<0.036

**Filter Lot Blank**

Parameter	Filter Lot Blank	Acceptance
Arsenic (µg)	0.03	N/A

**Laboratory control spike/ Method QC**

Parameter	MQC	Acceptance
Arsenic (%)	113	80-120

**Calibration check**

Parameter	CCV	Acceptance
Arsenic (%)	100	90-110

**Interference check solution A**

Parameter	ICS A	Acceptance
Arsenic (µg)	<0.036	<0.036

**Interference check solution AB**


Parameter	ICS AB	Acceptance
Arsenic (%)	97	70-130

Remarks: 1) < = less than  
2) N/A = Not applicable  
3) This report is the summary of quality control data for report number 38046

\*\*\*\*\*

*PREPARED AND CHECKED BY:*

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

  
**PATRICK TSE**  
General Manager

## TEST REPORT

Report No.:	QC38046
Date of Issue:	2023-04-18
Date Received:	2023-04-13
Date Tested:	2023-04-13
Date Completed:	2023-04-18
Page:	2 of 2

**QC report:**

**Matrix Spike**

Parameter	Matrix Spike	Acceptance
Arsenic (%)	113	75-125

**Filter Duplicate**

Parameter	Filter Duplicate	Acceptance
Arsenic (%)	3	RPD<20%

**Serial dilution check**

Parameter	Serial dilution check	Acceptance
Arsenic (%)	103	90-110

Remarks: 1) <= less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 38046

\*\*\*\*\*END OF REP ORT\*\*\*\*\*



## TEST REPORT

**APPLICANT:** Wellab (EM&A)  
RM 1808, Technology Park,  
18 On Lai Street,  
Shatin, N.T., Hong Kong

Report No.:	38085
Date of Issue:	2023-04-24
Date Received:	2023-04-19
Date Tested:	2023-04-19
Date Completed:	2023-04-24

**ATTN:** Ms Ivy Tam

Page: 1 of 1

**Sample Description :** 1 sample as received from customer said to be quartz filter  
**Laboratory No. :** 38085  
**Project No. :** WMA 20002  
**Project Title:** Service Contract No. NDO 04/2019  
 Environmental Team for Environmental Monitoring and Audit Works in  
 Construction Phase for the First Phase Development of Kwu Tung North  
 and Fanling North New Development Areas

**Tests Requested & Methodology:**

Item	Parameters	Ref. Method	Limit of reporting
1	Arsenic	In-house method SOP036 (ICP-MS)	0.18 µg

**Results:**

Sample ID	220411/055
Sample No.	38085-1
Arsenic (µg)	8.8

Remarks: 1) <= less than  
 2) Results for the test material reported as received

\*\*\*\*\*END OF REPORT\*\*\*\*\*

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

  
**PATRICK TSE**  
 General Manager

## TEST REPORT

**APPLICANT:** Wellab (EM&A)  
RM 1808, Technology Park,  
18 On Lai Street,  
Shatin, N.T., Hong Kong

Report No.:	QC38085
Date of Issue:	2023-04-24
Date Received:	2023-04-19
Date Tested:	2023-04-19
Date Completed:	2023-04-24

**ATTN:** Ms Ivy Tam

Page: 1 of 2

**QC report:**

**Method Blank**

Parameter	Method Blank	Acceptance
Arsenic (µg)	<0.036	<0.036

**Filter Lot Blank**

Parameter	Filter Lot Blank	Acceptance
Arsenic (µg)	0.03	N/A

**Laboratory control spike/ Method QC**

Parameter	MQC	Acceptance
Arsenic (%)	111	80-120

**Calibration check**

Parameter	CCV	Acceptance
Arsenic (%)	99	90-110

**Interference check solution A**

Parameter	ICS A	Acceptance
Arsenic (µg)	<0.036	<0.036

**Interference check solution AB**

Parameter	ICS AB	Acceptance
Arsenic (%)	97	70-130

Remarks: 1) <= less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 38085

\*\*\*\*\*

*PREPARED AND CHECKED BY:*

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

  
**PATRICK TSE**  
General Manager

## TEST REPORT

Report No.:	QC38085
Date of Issue:	2023-04-24
Date Received:	2023-04-19
Date Tested:	2023-04-19
Date Completed:	2023-04-24
Page:	2 of 2

**QC report:  
Matrix Spike**

Parameter	Matrix Spike	Acceptance
Arsenic (%)	105	75-125

**Filter Duplicate**

Parameter	Filter Duplicate	Acceptance
Arsenic (%)	3	RPD<20%

**Serial dilution check**

Parameter	Serial dilution check	Acceptance
Arsenic (%)	98	90-110

- Remarks: 1) <= less than  
 2) N/A = Not applicable  
 3) This report is the summary of quality control data for report number 38085

\*\*\*\*\*END OF REP ORT\*\*\*\*\*

**TEST REPORT**

**APPLICANT:** Wellab (EM&A)  
RM 1808, Technology Park,  
18 On Lai Street,  
Shatin, N.T., Hong Kong

Report No.:	38133
Date of Issue:	2023-04-28
Date Received:	2023-04-25
Date Tested:	2023-04-25
Date Completed:	2023-04-28

**ATTN:** Ms Ivy Tam

Page: 1 of 1

**Sample Description :** 1 sample as received from customer said to be quartz filter  
**Laboratory No. :** 38133  
**Project No. :** WMA 20002  
**Project Title:** Service Contract No. NDO 04/2019  
 Environmental Team for Environmental Monitoring and Audit Works in  
 Construction Phase for the First Phase Development of Kwu Tung North  
 and Fanling North New Development Areas

**Tests Requested & Methodology:**

Item	Parameters	Ref. Method	Limit of reporting
1	Arsenic	In-house method SOP036 (ICP-MS)	0.18 µg

**Results:**

Sample ID	220411/056
Sample No.	38133-1
Arsenic (µg)	9.3

Remarks: 1) <= less than  
 2) Results for the test material reported as received

\*\*\*\*\*END OF REPORT\*\*\*\*\*

*PREPARED AND CHECKED BY:*

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

  
**PATRICK TSE**  
 General Manager

## TEST REPORT

**APPLICANT:** Wellab (EM&A)  
RM 1808, Technology Park,  
18 On Lai Street,  
Shatin, N.T., Hong Kong

Report No.:	QC38133
Date of Issue:	2023-04-28
Date Received:	2023-04-25
Date Tested:	2023-04-25
Date Completed:	2023-04-28

**ATTN:** Ms Ivy Tam

Page: 1 of 2

**QC report:**  
**Method Blank**

Parameter	Method Blank	Acceptance
Arsenic (µg)	<0.036	<0.036

**Filter Lot Blank**

Parameter	Filter Lot Blank	Acceptance
Arsenic (µg)	0.03	N/A

**Laboratory control spike/ Method QC**

Parameter	MQC	Acceptance
Arsenic (%)	117	80-120

**Calibration check**

Parameter	CCV	Acceptance
Arsenic (%)	104	90-110

**Interference check solution A**

Parameter	ICS A	Acceptance
Arsenic (µg)	<0.036	<0.036

**Interference check solution AB**

Parameter	ICS AB	Acceptance
Arsenic (%)	97	70-130

Remarks: 1) < = less than  
2) N/A = Not applicable  
3) This report is the summary of quality control data for report number 38133

\*\*\*\*\*

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

  
**PATRICK TSE**  
General Manager

## TEST REPORT

Report No.:	QC38133
Date of Issue:	2023-04-28
Date Received:	2023-04-25
Date Tested:	2023-04-25
Date Completed:	2023-04-28
Page:	2 of 2

**QC report:**

**Matrix Spike**

Parameter	Matrix Spike	Acceptance
Arsenic (%)	100	75-125

**Filter Duplicate**

Parameter	Filter Duplicate	Acceptance
Arsenic (%)	2	RPD ≤ 20%

**Serial dilution check**

Parameter	Serial dilution check	Acceptance
Arsenic (%)	105	90-110

Remarks: 1) <= less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 38133

\*\*\*\*\*END OF REP ORT\*\*\*\*\*

### TEST REPORT

**APPLICANT:** Wellab (EM&A)  
RM 1808, Technology Park,  
18 On Lai Street,  
Shatin, N.T., Hong Kong

Report No.:	38136
Date of Issue:	2023-05-05
Date Received:	2023-05-02
Date Tested:	2023-05-02
Date Completed:	2023-05-05

**ATTN:** Ms Ivy Tam

Page: 1 of 1

**Sample Description :** 1 sample as received from customer said to be quartz filter  
**Laboratory No. :** 38136  
**Project No. :** WMA 20002  
**Project Title:** Service Contract No. NDO 04/2019  
 Environmental Team for Environmental Monitoring and Audit Works in  
 Construction Phase for the First Phase Development of Kwu Tung North  
 and Fanling North New Development Areas

**Tests Requested & Methodology:**

Item	Parameters	Ref. Method	Limit of reporting
1	Arsenic	In-house method SOP036 (ICP-MS)	0.18 µg

**Results:**

Sample ID	220411/057
Sample No.	38136-1
Arsenic (µg)	9.4

Remarks: 1) <= less than  
 2) Results for the test material reported as received

\*\*\*\*\*END OF REPORT\*\*\*\*\*

*PREPARED AND CHECKED BY:*

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

  
**PATRICK TSE**  
 General Manager

## TEST REPORT

**APPLICANT:** Wellab (EM&A)  
RM 1808, Technology Park,  
18 On Lai Street,  
Shatin, N.T., Hong Kong

Report No.:	QC38136
Date of Issue:	2023-05-05
Date Received:	2023-05-02
Date Tested:	2023-05-02
Date Completed:	2023-05-05

**ATTN:** Ms Ivy Tam

Page: 1 of 2

**QC report:**

**Method Blank**

Parameter	Method Blank	Acceptance
Arsenic (µg)	<0.036	<0.036

**Filter Lot Blank**

Parameter	Filter Lot Blank	Acceptance
Arsenic (µg)	0.03	N/A

**Laboratory control spike/ Method QC**

Parameter	MQC	Acceptance
Arsenic (%)	117	80-120

**Calibration check**

Parameter	CCV	Acceptance
Arsenic (%)	109	90-110

**Interference check solution A**

Parameter	ICS A	Acceptance
Arsenic (µg)	<0.036	<0.036

**Interference check solution AB**

Parameter	ICS AB	Acceptance
Arsenic (%)	97	70-130

Remarks: 1) <= less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 38136

\*\*\*\*\*

*PREPARED AND CHECKED BY:*

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

  
**PATRICK TSE**  
General Manager



## TEST REPORT

Report No.:	QC38136
Date of Issue:	2023-05-05
Date Received:	2023-05-02
Date Tested:	2023-05-02
Date Completed:	2023-05-05
Page:	2 of 2

**QC report:  
Matrix Spike**

Parameter	Matrix Spike	Acceptance
Arsenic (%)	118	75-125

**Filter Duplicate**

Parameter	Filter Duplicate	Acceptance
Arsenic (%)	2	RPD ≤ 20%

**Serial dilution check**

Parameter	Serial dilution check	Acceptance
Arsenic (%)	106	90-110

- Remarks: 1) < = less than  
 2) N/A = Not applicable  
 3) This report is the summary of quality control data for report number 38136

\*\*\*\*\*END OF REP ORT\*\*\*\*\*

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

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**Appendix F - Noise Monitoring Results**

Location CP-FLN-NMS1 - Belair Monte (Existing)								
Date	Weather	Time	Unit: dB (A) (5-min)			Average	Baseline Level	
			L <sub>eq</sub>	L <sub>10</sub>	L <sub>90</sub>	L <sub>eq</sub>	L <sub>eq</sub>	
4-Apr-23	Cloudy	13:15	67.7	70.8	61.9	67.1	69.9	
		13:20	66.1	69.5	59.4			
		13:25	66.6	70.4	59.9			
		13:30	67.3	70.7	59.3			
		13:35	66.4	69.9	60.9			
13:40	68.2	71.6	61.8					
12-Apr-23	Sunny	13:30	67.5	70.3	59.3	66.5		69.9
		13:35	66.4	68.8	61.2			
		13:40	65.5	68.7	58.5			
		13:45	67.0	71.0	59.3			
		13:50	66.3	69.3	58.6			
13:55	65.8	68.9	59.6					
18-Apr-23	Cloudy	14:00	71.2	73.2	66.4	70.2	69.9	
		14:05	71.6	74.4	64.2			
		14:10	69.0	71.2	63.4			
		14:15	69.3	72.0	65.0			
		14:20	68.9	70.4	63.9			
14:25	70.3	73.0	65.0					
24-Apr-23	Cloudy	10:25	66.6	68.6	63.2	67.4		69.9
		10:30	67.8	70.8	62.9			
		10:35	66.7	69.9	62.6			
		10:40	67.6	71.1	61.6			
		10:45	67.3	70.5	62.4			
10:50	68.0	71.2	62.4					

Location CP-FLN-NMS2 - Scattered Village House in Tong Hang (Existing)								
Date	Weather	Time	Unit: dB (A) (5-min)			Average	Baseline Level	
			L <sub>eq</sub>	L <sub>10</sub>	L <sub>90</sub>	L <sub>eq</sub>	L <sub>eq</sub>	
4-Apr-23	Cloudy	13:00	58.9	64.1	55.8	56.8	59.6	
		13:05	56.3	56.9	55.7			
		13:10	56.3	56.6	55.7			
		13:15	56.3	56.8	55.8			
		13:20	56.2	56.7	55.6			
		13:25	55.9	56.5	55.4			
12-Apr-23	Sunny	13:00	53.6	54.1	43.2	49.8		59.6
		13:05	46.4	47.5	42.4			
		13:10	50.9	53.9	43.0			
		13:15	45.4	51.1	43.3			
		13:20	48.9	51.6	44.9			
13:25	48.3	51.5	44.1					
18-Apr-23	Cloudy	16:45	68.2	69.6	57.5	67.3	59.6	
		16:50	71.4	74.6	65.3			
		16:55	65.3	68.7	58.8			
		17:00	65.7	69.4	58.9			
		17:05	64.7	68.2	58.8			
17:10	62.6	64.6	54.9					
24-Apr-23	Cloudy	11:25	65.7	66.3	65.0	65.5		59.6
		11:30	65.9	66.6	64.7			
		11:35	65.6	66.4	64.9			
		11:40	65.3	66.1	64.8			
		11:45	65.2	65.7	64.7			
11:50	65.5	66.4	64.9					

**Appendix F - Noise Monitoring Results**

<b>Location CP-KTN-NMS2 - Residential Buildings at Ma Tso Lung (Existing)</b>							
Date	Weather	Time	Unit: dB (A) (5-min)			Average	Baseline Level
			L <sub>eq</sub>	L <sub>10</sub>	L <sub>90</sub>	L <sub>eq</sub>	L <sub>eq</sub>
3-Apr-23	Cloudy	09:15	55.9	57.8	53.5	57.4	58.6
		09:20	56.6	57.2	54.3		
		09:25	58.6	60.0	55.2		
		09:30	57.0	58.4	54.1		
		09:35	58.1	60.6	54.6		
09:40	57.5	59.3	54.0				
11-Apr-23	Sunny	08:30	53.9	58.9	48.4	51.5	
		08:35	49.5	51.4	47.5		
		08:40	54.0	56.6	48.0		
		08:45	48.3	49.8	45.8		
		08:50	51.0	61.7	46.5		
08:55	47.9	49.3	46.1				
17-Apr-23	Sunny	14:00	55.3	59.8	43.0	56.8	
		14:05	55.5	61.1	45.9		
		14:10	46.1	47.7	44.3		
		14:15	62.0	62.5	45.3		
		14:20	56.4	63.3	42.9		
14:25	51.6	55.5	44.5				
27-Apr-23	Cloudy	13:30	58.6	60.4	55.7	57.0	
		13:35	58.3	59.7	55.0		
		13:40	56.5	58.8	54.6		
		13:45	55.1	55.8	54.4		
		13:50	55.8	57.0	54.6		
13:55	56.3	57.2	54.7				

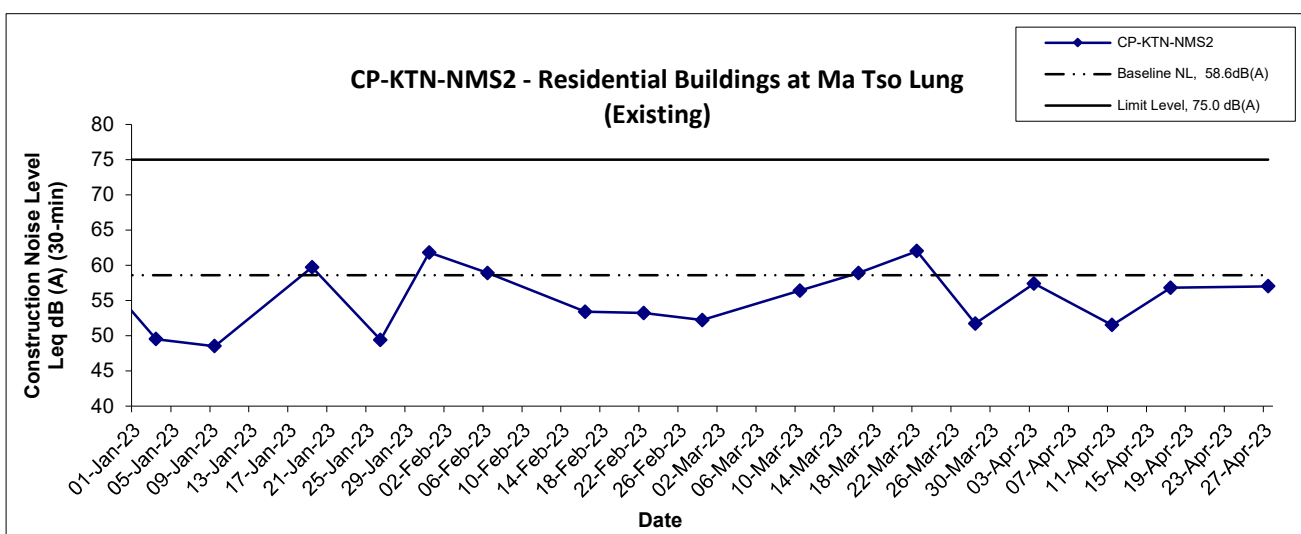
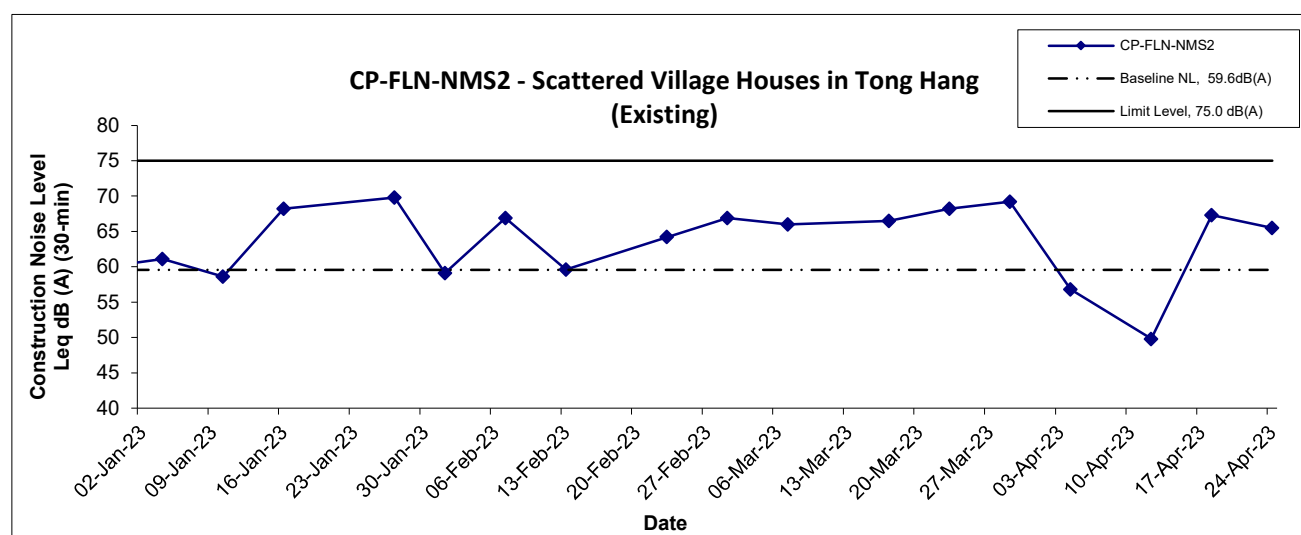
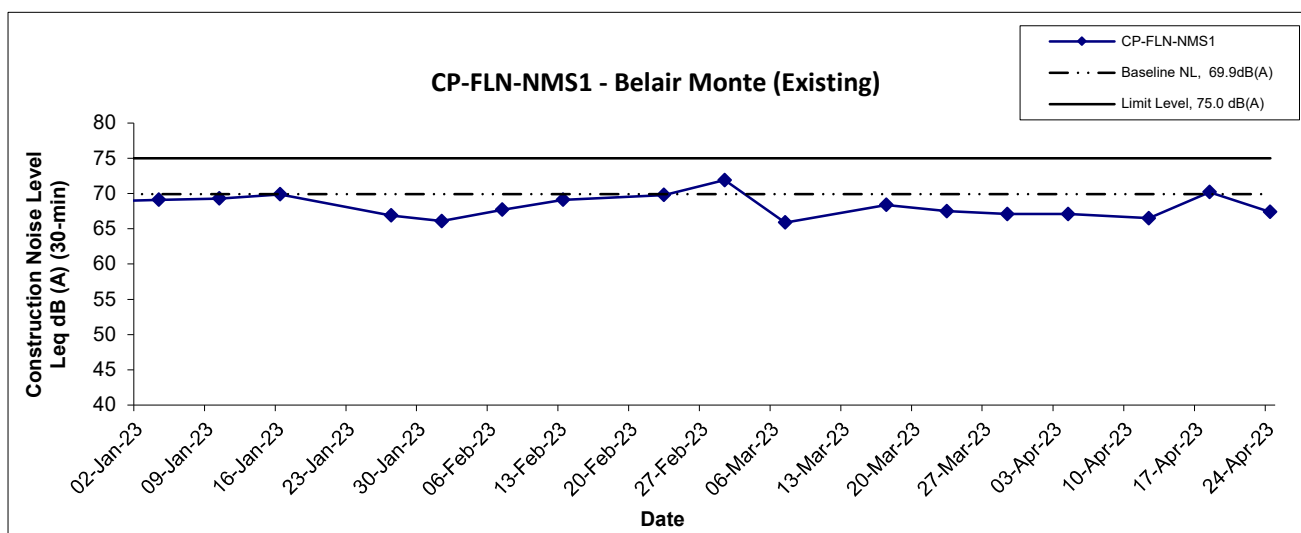
<b>Location CP-KTN-NMS3 - Fung Kong Garden (Existing)</b>							
Date	Weather	Time	Unit: dB (A) (5-min)			Average	Baseline Level
			L <sub>eq</sub>	L <sub>10</sub>	L <sub>90</sub>	L <sub>eq</sub>	L <sub>eq</sub>
3-Apr-23	Cloudy	09:50	53.4	56.1	51.4	53.7	51.6
		09:55	52.8	53.8	51.5		
		10:00	52.7	54.5	51.0		
		10:05	52.4	53.8	51.0		
		10:10	52.5	54.0	51.1		
10:15	56.5	58.0	51.7				
11-Apr-23	Sunny	09:15	53.9	54.1	53.2	54.1	
		09:20	53.9	54.3	53.5		
		09:25	54.1	54.5	53.8		
		09:30	54.7	55.6	52.6		
		09:35	54.5	55.8	52.6		
09:40	53.5	54.3	52.5				
17-Apr-23	Sunny	15:00	60.8	61.5	55.5	60.0	
		15:05	60.9	63.0	56.7		
		15:10	58.7	60.0	56.9		
		15:15	59.9	63.0	57.0		
		15:20	59.3	60.4	56.4		
15:25	59.7	61.0	57.8				
27-Apr-23	Cloudy	14:10	56.0	56.6	55.4	57.3	
		14:15	56.0	56.4	55.5		
		14:20	57.3	58.3	56.2		
		14:25	58.2	59.2	57.5		
		14:30	58.0	59.1	56.6		
14:35	57.7	58.6	57.0				

**Appendix F - Noise Monitoring Results**

Location CP-KTN-NMS5 - N/A							
Date	Weather	Time	Unit: dB (A) (5-min)			Average	Baseline Level
			L <sub>eq</sub>	L <sub>10</sub>	L <sub>90</sub>	L <sub>eq</sub>	L <sub>eq</sub>
3-Apr-23	Cloudy	11:30	56.6	59.5	52.1	55.9	57.2
		11:35	55.4	57.3	52.5		
		11:40	57.9	60.4	54.7		
		11:45	54.9	55.9	53.8		
		11:50	54.1	55.0	52.8		
11:55	55.4	56.7	52.9				
11-Apr-23	Sunny	10:05	52.4	53.6	46.7	49.4	
		10:10	47.3	49.2	44.9		
		10:15	48.9	51.6	45.3		
		10:20	50.4	52.7	44.8		
		10:25	45.5	47.2	42.3		
10:30	48.3	52.5	43.4				
17-Apr-23	Cloudy	11:30	57.9	59.9	55.6	57.4	
		11:35	56.7	58.1	55.4		
		11:40	59.0	61.4	55.4		
		11:45	56.6	57.9	55.3		
		11:50	56.4	57.2	55.0		
11:55	57.5	60.0	54.9				
27-Apr-23	Cloudy	10:10	55.1	57.0	52.7	56.6	
		10:15	54.9	57.3	52.0		
		10:20	53.9	56.7	51.3		
		10:25	53.8	56.6	50.7		
		10:30	61.2	65.2	52.0		
10:35	54.7	56.4	52.3				

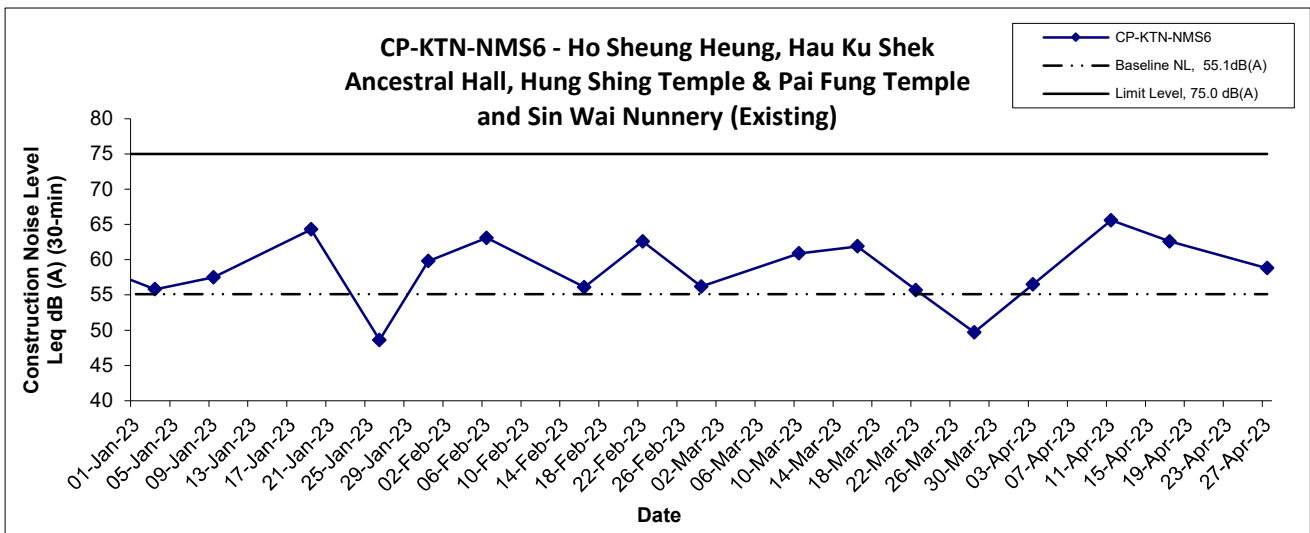
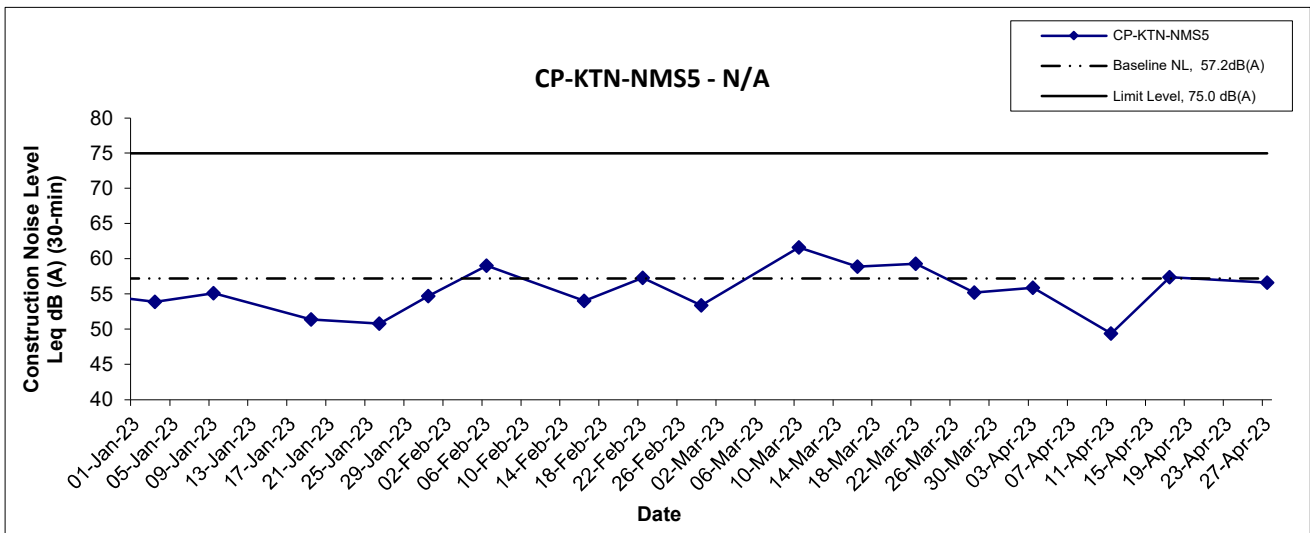
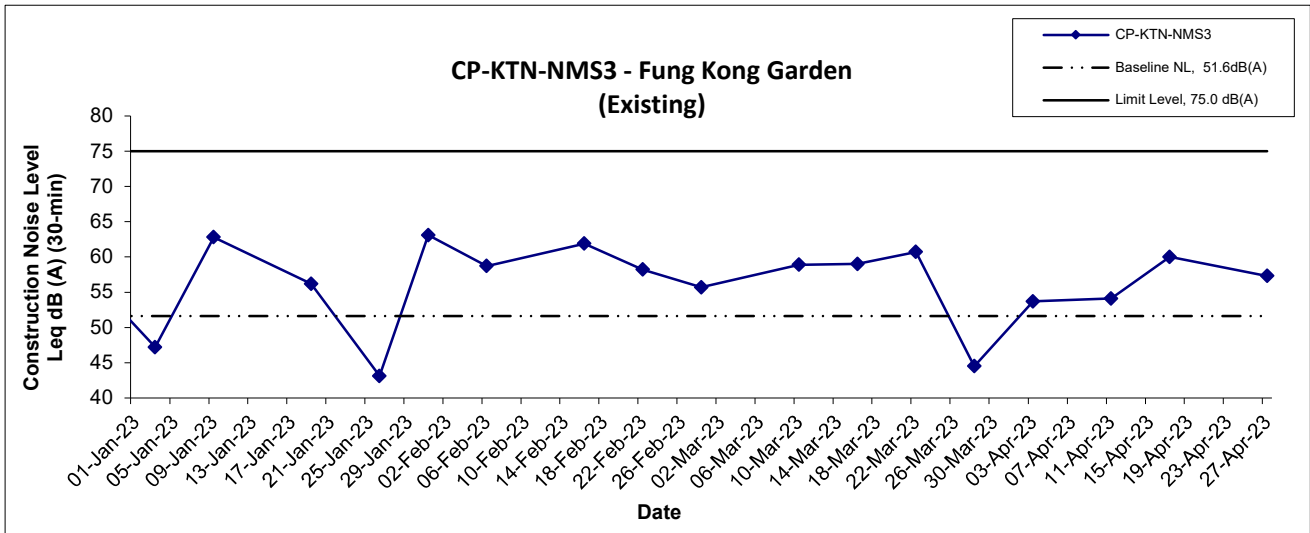
Location CP-KTN-NMS6 - Ho Sheung Heung, Hau Ku Shek Ancestral Hall, Hung Shing Temple & Pai Fung Temple and Sin Wai Nunnery (Existing)							
Date	Weather	Time	Unit: dB (A) (5-min)			Average	Baseline Level
			L <sub>eq</sub>	L <sub>10</sub>	L <sub>90</sub>	L <sub>eq</sub>	L <sub>eq</sub>
3-Apr-23	Cloudy	10:35	60.2	61.9	53.1	56.5	55.1
		10:40	53.5	54.2	52.7		
		10:45	53.3	54.0	52.5		
		10:50	54.9	55.3	52.7		
		10:55	54.5	54.7	52.7		
11:00	57.6	57.8	53.0				
11-Apr-23	Sunny	11:00	65.4	66.2	57.2	65.6	
		11:05	65.5	65.9	65.2		
		11:10	65.8	66.1	65.6		
		11:15	66.3	67.2	63.4		
		11:20	65.1	66.2	63.9		
11:25	65.1	66.9	63.8				
17-Apr-23	Sunny	13:15	59.9	60.9	57.4	62.6	
		13:20	61.3	61.5	57.6		
		13:25	59.3	61.0	57.6		
		13:30	60.7	63.0	57.7		
		13:35	67.2	71.2	57.9		
13:40	60.8	62.5	57.7				
27-Apr-23	Cloudy	09:20	57.5	60.0	54.6	58.8	
		09:25	58.7	60.5	55.8		
		09:30	56.8	56.9	55.6		
		09:35	57.9	58.9	55.3		
		09:40	61.6	62.1	56.1		
09:45	58.8	60.9	55.3				

## Noise Levels



Title Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas Graphical Presentation of Construction Noise Monitoring Results	Scale N.T.S	Project No. WMA20002	
	Date Apr 23	Appendix F	

## Noise Levels



Title Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas Graphical Presentation of Construction Noise Monitoring Results	Scale N.T.S	Project No. WMA20002	
	Date Apr 23	Appendix F	

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**APPENDIX G  
WATER QUALITY MONITORING  
RESULTS AND GRAPHICAL  
PRESENTATIONS**

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Contract No. NDO 04/2019

Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas

Water Quality Monitoring Results

Location: SYR-CS1

Date	Weather Condition	Start Time	Sampling Depth (m)		Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)		Arsenic (µg/L)	
					Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
3-Apr-23	Cloudy	09:01	Middle	0.1	21.8	21.8	7.9	7.9	0.2	0.2	41.8	41.7	3.7	3.7	10.6	10.6	19	19.5	10	10.0
					21.8		7.8		0.2		41.5		3.6		10.5		20		10	
6-Apr-23	Cloudy	09:17	Middle	0.1	21.8	21.8	7.6	7.6	0.1	0.1	46.5	46.5	4.1	4.1	9.1	9.1	11	11.5	9	9.5
					21.8		7.6		0.1		46.4		4.1		9.0		12		10	
11-Apr-23	Cloudy	10:49	Middle	0.1	25.7	25.7	7.7	7.7	0.2	0.2	73.6	73.4	6.0	6.0	14.1	14.1	31	29.5	14	14.0
					25.7		7.7		0.2		73.2		6.0		14.0		28		14	
13-Apr-23	Sunny	10:42	Middle	0.1	24.8	24.8	7.5	7.5	0.2	0.2	71.5	71.9	5.9	6.0	20.3	20.4	62	59.0	9	8.5
					24.8		7.5		0.2		72.2		6.0		20.5		56		8	
15-Apr-23	Fine	12:01	Middle	0.1	26.7	26.8	7.7	7.7	0.2	0.2	52.8	52.9	4.2	4.2	12.6	12.7	17	16.0	12	12.0
					26.8		7.7		0.2		52.9		4.2		12.7		15		12	
17-Apr-23	Sunny	13:25	Middle	0.1	26.9	26.9	7.8	7.8	0.2	0.2	71.4	71.4	5.7	5.7	16.3	16.3	12	11.0	9	9.0
					26.9		7.8		0.2		71.4		5.7		16.3		10		9	
19-Apr-23	Rainy	11:31	Middle	0.2	25.3	25.3	8.3	8.3	0.1	0.1	49.9	49.8	4.1	4.1	14.9	15.3	23	24.5	10	10.0
					25.3		8.2		0.1		49.7		4.1		15.7		26		10	
21-Apr-23	Cloudy	09:57	Middle	0.2	24.1	24.1	7.4	7.4	0.1	0.1	57.8	57.8	4.9	4.9	27.5	27.4	26	27.5	9	9.5
					24.1		7.4		0.1		57.8		4.9		27.3		29		10	
24-Apr-23	Cloudy	12:19	Middle	0.2	24.1	24.1	7.3	7.3	0.1	0.1	80.4	80.2	6.8	6.8	11.2	11.3	11	11.0	9	9.5
					24.1		7.3		0.1		80.0		6.7		11.3		11		10	
26-Apr-23	Cloudy	15:26	Middle	0.1	23.8	23.8	8.0	8.0	0.1	0.1	56.9	56.9	4.8	4.8	5.1	5.1	9	8.5	8	8.5
					23.8		8.0		0.1		56.9		4.8		5.1		8		8	
28-Apr-23	Sunny	09:16	Middle	0.1	24.5	24.5	7.9	7.9	0.8	0.8	69.2	69.2	5.8	5.8	7.6	7.7	13	12.0	9	9.0
					24.5		7.9		0.8		69.2		5.8		7.7		11		9	

Contract No. NDO 04/2019

Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas

Water Quality Monitoring Results

Location: SYR-IS1

Date	Weather Condition	Start Time	Sampling Depth (m)		Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)		Arsenic (µg/L)	
					Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
3-Apr-23	Cloudy	10:45	Middle	0.5	22.4	22.4	7.4	7.4	0.2	0.2	77.7	78.0	6.7	6.8	30.2	30.3	34	35.0	6	6.0
					22.4		7.4		0.2		78.2		6.8		30.3		36		6	
6-Apr-23	Cloudy	09:32	Middle	0.5	22.2	22.2	7.4	7.4	0.2	0.2	76.1	76.3	6.6	6.6	31.1	31.2	26	26.0	6	6.0
					22.2		7.4		0.2		76.4		6.6		31.3		26		6	
11-Apr-23	Cloudy	11:08	Middle	0.4	26.1	26.2	7.5	7.5	0.2	0.2	80.4	80.7	6.5	6.6	31.9	31.9	37	40.0	6	6.0
					26.2		7.5		0.2		81.0		6.6		31.8		43		6	
13-Apr-23	Sunny	11:07	Middle	0.4	23.9	23.9	7.3	7.3	0.1	0.1	78.0	77.9	6.6	6.6	7.3	7.3	10	10.5	9	9.0
					23.9		7.3		0.1		77.8		6.6		7.2		11		9	
15-Apr-23	Fine	12:18	Middle	0.4	28.1	28.1	8.0	8.0	0.1	0.1	94.0	93.9	7.3	7.3	30.6	30.5	29	29.0	9	9.0
					28.1		8.0		0.1		93.7		7.3		30.4		29		9	
17-Apr-23	Sunny	13:41	Middle	0.4	29.8	29.8	7.7	7.7	0.2	0.2	81.5	81.3	6.2	6.2	30.5	30.7	28	27.0	10	10.0
					29.8		7.7		0.2		81.1		6.2		30.9		26		10	
19-Apr-23	Rainy	11:43	Middle	0.4	26.0	26.0	8.1	8.1	0.3	0.3	45.8	45.7	3.7	3.7	42.7	42.6	46	44.5	4	4.0
					26.0		8.1		0.3		45.6		3.7		42.5		43		4	
21-Apr-23	Cloudy	10:10	Middle	0.4	24.9	24.9	7.4	7.4	0.2	0.2	52.4	52.3	4.3	4.3	57.0	56.9	61	57.0	3	3.0
					24.9		7.4		0.2		52.1		4.3		56.8		53		3	
24-Apr-23	Cloudy	12:36	Middle	0.4	24.9	24.9	7.5	7.5	0.2	0.2	75.2	75.0	6.2	6.2	16.7	16.6	51	49.0	4	4.0
					24.9		7.5		0.2		74.8		6.2		16.5		47		4	
26-Apr-23	Cloudy	15:37	Middle	0.4	25.7	25.7	7.7	7.7	0.3	0.3	79.1	79.2	6.4	6.5	27.2	27.2	40	37.5	7	7.0
					25.7		7.7		0.3		79.3		6.5		27.2		35		7	
28-Apr-23	Sunny	09:31	Middle	0.4	25.6	25.6	8.1	8.1	0.3	0.3	80.7	80.7	6.6	6.6	28.9	28.9	27	27.5	5	5.0
					25.6		8.0		0.3		80.6		6.6		28.8		28		5	

**Contract No. NDO 04/2019**  
**Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas**  
**Water Quality Monitoring Results**

**Location: NTR-CS1**

Date	Weather Condition	Start Time	Sampling Depth (m)		Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)		
					Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	
3-Apr-23	Cloudy	13:34	Middle	0.2	21.9	21.9	7.6	7.6	0.1	0.1	86.4	86.3	7.6	7.6	6.9	6.9	8	7	7.5
					21.9		7.6		0.1		86.1		7.5		6.9				
6-Apr-23	Cloudy	11:08	Middle	0.2	21.9	21.9	7.3	7.3	0.1	0.1	83.6	83.5	7.3	7.3	7.0	7.0	14	14	14.0
					21.9		7.3		0.1		83.4		7.3		7.0				
11-Apr-23	Cloudy	12:20	Middle	0.2	25.7	25.7	7.8	7.8	0.1	0.1	101.1	101.1	8.2	8.2	5.9	5.9	5	6	5.5
					25.7		7.8		0.1		101.0		8.2		5.9				
13-Apr-23	Sunny	10:02	Middle	0.2	24.2	24.2	7.7	7.7	0.1	0.1	98.0	98.1	8.2	8.2	6.0	6.2	5	6	5.5
					24.2		7.7		0.1		98.1		8.2		6.4				
15-Apr-23	Fine	13:42	Middle	0.2	24.4	24.4	7.6	7.6	0.1	0.1	105.8	102.2	8.8	8.5	6.5	6.5	4	4	4.0
					24.4		7.6		0.1		98.5		8.2		6.5				
17-Apr-23	Sunny	14:59	Middle	0.1	27.7	27.7	7.7	7.7	0.1	0.1	110.0	110.1	8.7	8.7	8.9	8.8	10	12	11.0
					27.7		7.7		0.1		110.1		8.7		8.7				
19-Apr-23	Rainy	13:16	Middle	0.2	24.3	24.3	8.3	8.3	0.1	0.1	59.0	59.0	4.9	4.9	43.8	44.0	47	50	48.5
					24.3		8.3		0.1		59.0		4.9		44.1				
21-Apr-23	Cloudy	12:03	Middle	0.2	24.9	24.9	7.5	7.5	0.1	0.1	82.2	82.2	6.8	6.8	9.5	9.5	10	10	10.0
					24.9		7.5		0.1		82.1		6.8		9.5				
24-Apr-23	Cloudy	10:00	Middle	0.2	24.8	24.8	7.4	7.4	0.1	0.1	86.5	86.5	7.2	7.2	8.9	8.9	11	10	10.5
					24.8		7.4		0.1		86.5		7.2		8.9				
26-Apr-23	Cloudy	16:40	Middle	0.2	24.4	24.4	7.6	7.6	0.1	0.1	84.1	84.1	7.0	7.0	11.8	11.9	16	16	16.0
					24.4		7.6		0.1		84.0		7.0		11.9				
28-Apr-23	Sunny	10:51	Middle	0.2	24.4	24.4	7.5	7.5	0.1	0.1	87.3	87.2	7.3	7.3	7.6	7.6	12	12	12.0
					24.4		7.5		0.1		87.0		7.3		7.6				

**Contract No. NDO 04/2019**  
**Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas**  
**Water Quality Monitoring Results**

Location: NTR-IS1

Date	Weather Condition	Start Time	Sampling Depth (m)		Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)		
					Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	
3-Apr-23	Cloudy	12:34	Middle	0.4	21.3	21.3	7.6	7.6	0.1	0.1	66.5	66.5	5.9	5.9	7.0	7.0	8	8	8.0
					21.3		7.6		0.1		66.4		5.9		6.9		8		
6-Apr-23	Cloudy	10:36	Middle	0.5	21.4	21.4	7.4	7.4	0.1	0.1	67.7	67.6	6.0	6.0	7.4	7.4	16	16	16.0
					21.4		7.4		0.1		67.5		6.0		7.4		16		
11-Apr-23	Cloudy	11:47	Middle	0.4	25.2	25.2	7.8	7.8	0.1	0.1	98.3	98.2	8.1	8.1	5.9	5.9	4	3	3.5
					25.2		7.8		0.1		98.1		8.1		5.9		3		
13-Apr-23	Sunny	14:30	Middle	0.4	26.0	26.0	8.1	8.1	0.1	0.1	75.0	74.9	6.1	6.1	6.1	6.1	5	5	5.0
					26.0		8.1		0.1		74.8		6.1		6.1		5		
15-Apr-23	Fine	13:15	Middle	0.4	28.0	28.0	8.0	8.0	0.1	0.1	83.4	83.2	6.5	6.5	6.7	6.7	4	3	3.5
					28.0		8.0		0.1		82.9		6.5		6.7		3		
17-Apr-23	Sunny	14:08	Middle	0.5	26.6	26.6	8.0	8.0	0.1	0.1	89.8	89.7	7.2	7.2	8.5	8.5	12	11	11.5
					26.6		8.0		0.1		89.6		7.2		8.5		11		
19-Apr-23	Rainy	13:49	Middle	0.6	24.8	24.8	8.1	8.1	0.1	0.1	64.2	64.2	5.3	5.3	25.7	25.7	19	20	19.5
					24.8		8.1		0.1		64.1		5.3		25.7		20		
21-Apr-23	Cloudy	11:26	Middle	0.4	24.2	24.2	7.4	7.4	0.1	0.1	73.6	73.5	6.2	6.2	40.8	40.8	32	28	30.0
					24.2		7.4		0.1		73.3		6.2		40.7		28		
24-Apr-23	Cloudy	09:23	Middle	0.4	24.1	24.1	7.4	7.4	0.1	0.1	76.6	76.5	6.4	6.4	10.2	10.1	12	12	12.0
					24.1		7.4		0.1		76.4		6.4		10.0		12		
26-Apr-23	Cloudy	16:17	Middle	0.4	24.8	24.8	7.7	7.7	0.1	0.1	72.4	72.3	6.0	6.0	12.8	12.9	12	14	13.0
					24.8		7.7		0.1		72.1		6.0		12.9		14		
28-Apr-23	Sunny	10:16	Middle	0.4	26.3	26.3	8.1	8.1	0.1	0.1	73.2	73.6	5.9	6.0	8.9	8.9	13	13	13.0
					26.3		8.1		0.1		73.9		6.0		8.8		13		

**Contract No. NDO 04/2019**  
**Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas**  
**Water Quality Monitoring Results**

**Location: SHST-IS2**

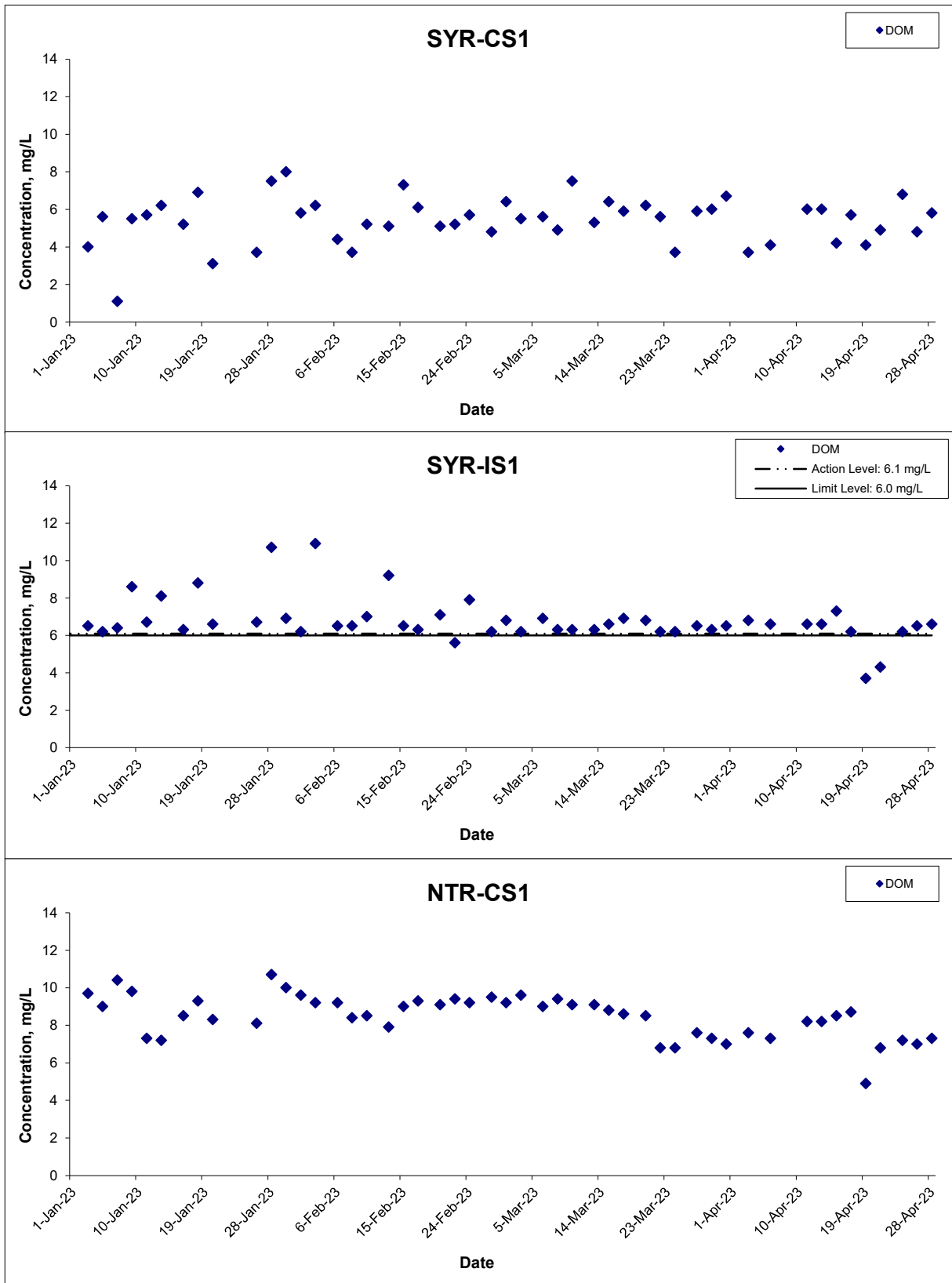
Date	Weather Condition	Start Time	Sampling Depth (m)		Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)		
					Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	
3-Apr-23	Cloudy	12:17	Middle	0.2	21.5	21.5	7.7	7.7	0.1	0.1	80.3	80.5	7.1	7.1	6.0	6.0	6	6	6.0
					21.5		7.7		0.1		80.6		7.1		6.0				
6-Apr-23	Cloudy	10:19	Middle	0.2	21.3	21.3	7.6	7.6	0.1	0.1	81.0	80.9	7.2	7.2	7.2	7.2	13	14	13.5
					21.3		7.6		0.1		80.7		7.2		7.2				
11-Apr-23	Cloudy	11:30	Middle	0.2	25.6	25.6	7.6	7.6	0.1	0.1	88.0	87.5	7.2	7.2	6.0	6.1	6	6	6.0
					25.6		7.6		0.1		86.9		7.1		6.1				
13-Apr-23	Sunny	14:11	Middle	0.2	25.7	25.7	8.8	8.8	0.1	0.1	88.6	88.5	7.2	7.2	6.6	6.6	5	6	5.5
					25.6		8.8		0.1		88.3		7.2		6.6				
15-Apr-23	Fine	13:02	Middle	0.2	29.2	29.2	8.1	8.1	0.1	0.1	94.5	94.5	7.2	7.2	7.3	7.3	4	4	4.0
					29.2		8.1		0.1		94.4		7.2		7.2				
17-Apr-23	Sunny	14:20	Middle	0.1	26.6	26.6	7.8	7.8	0.1	0.1	91.1	90.4	7.3	7.3	8.9	8.9	8	7	7.5
					26.6		7.8		0.1		89.6		7.2		8.9				
19-Apr-23	Rainy	13:37	Middle	0.2	23.8	23.8	8.3	8.3	0.1	0.1	65.1	65.1	5.5	5.5	55.6	55.8	22	22	22.0
					23.8		8.3		0.1		65.0		5.5		56.0				
21-Apr-23	Cloudy	11:02	Middle	0.3	24.3	24.3	7.8	7.8	0.1	0.1	78.8	78.6	6.6	6.6	76.5	76.8	54	50	52.0
					24.3		7.8		0.1		78.4		6.6		77.1				
24-Apr-23	Cloudy	09:05	Middle	0.3	24.6	24.6	7.4	7.4	0.1	0.1	86.2	85.8	7.2	7.2	8.7	8.8	8	8	8.0
					24.6		7.4		0.1		85.4		7.1		8.8				
26-Apr-23	Cloudy	16:05	Middle	0.3	23.5	23.5	7.8	7.8	0.1	0.1	85.2	85.5	7.2	7.3	10.3	10.3	14	13	13.5
					23.5		7.8		0.1		85.8		7.3		10.2				
28-Apr-23	Sunny	10:01	Middle	0.3	25.7	25.7	8.5	8.5	0.1	0.1	90.3	90.3	7.4	7.4	6.2	6.1	14	12	13.0
					25.7		8.4		0.1		90.2		7.4		5.9				

**Contract No. NDO 04/2019**  
**Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas**  
**Water Quality Monitoring Results**

**Location: MWR-IS3**

Date	Weather Condition	Start Time	Sampling Depth (m)		Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)	
					Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
3-Apr-23	Cloudy	13:54	Middle	0.2	22.0	22.0	7.8	7.8	0.2	0.2	102.0	102.2	8.9	8.9	7.7	7.7	8	8.5
					22.0		7.8		0.2		102.3		8.9		7.6		9	
6-Apr-23	Cloudy	11:24	Middle	0.2	22.0	22.0	7.8	7.8	0.1	0.1	101.4	100.8	8.9	8.9	5.1	5.1	13	13.5
					22.0		7.8		0.1		100.1		8.8		5.1		14	
11-Apr-23	Cloudy	12:33	Middle	0.2	25.3	25.3	7.6	7.6	0.1	0.1	105.5	105.9	8.7	8.7	5.7	5.7	6	6.0
					25.3		7.6		0.1		106.2		8.7		5.7		6	
13-Apr-23	Sunny	10:18	Middle	0.2	24.3	24.3	7.5	7.5	0.1	0.1	106.0	105.9	8.9	8.9	2.9	2.9	7	6.5
					24.3		7.5		0.1		105.8		8.9		2.9		6	
15-Apr-23	Fine	13:59	Middle	0.2	24.3	24.3	7.4	7.4	0.1	0.1	102.0	103.3	8.5	8.7	7.2	7.2	3	3.0
					24.3		7.4		0.1		104.5		8.8		7.2		3	
17-Apr-23	Sunny	14:49	Middle	0.1	28.4	28.4	8.0	8.0	0.2	0.2	120.0	120.1	9.3	9.3	9.1	9.1	9	9.5
					28.4		8.0		0.2		120.1		9.3		9.0		10	
19-Apr-23	Rainy	12:59	Middle	0.2	24.3	24.3	8.2	8.2	0.1	0.1	56.8	56.8	4.8	4.8	69.9	70.3	63	66.5
					24.3		8.2		0.1		56.8		4.8		70.6		70	
21-Apr-23	Cloudy	12:23	Middle	0.2	24.8	24.8	7.4	7.4	0.1	0.1	84.3	84.3	7.0	7.0	7.7	7.7	10	9.5
					24.8		7.4		0.1		84.2		7.0		7.6		9	
24-Apr-23	Cloudy	10:14	Middle	0.2	24.9	24.9	7.4	7.4	0.1	0.1	105.5	105.3	8.7	8.7	7.0	7.1	11	10.5
					24.9		7.4		0.1		105.0		8.7		7.1		10	
26-Apr-23	Cloudy	16:51	Middle	0.2	24.3	24.3	7.5	7.5	0.1	0.1	104.5	104.9	8.7	8.8	3.8	3.8	7	7.5
					24.3		7.5		0.1		105.3		8.8		3.8		8	
28-Apr-23	Sunny	11:10	Middle	0.2	24.3	24.3	7.3	7.3	0.1	0.1	106.8	106.0	8.9	8.9	5.4	5.4	5	5.0
					24.3		7.3		0.1		105.1		8.8		5.4		5	

## Dissolved Oxygen (Middle)



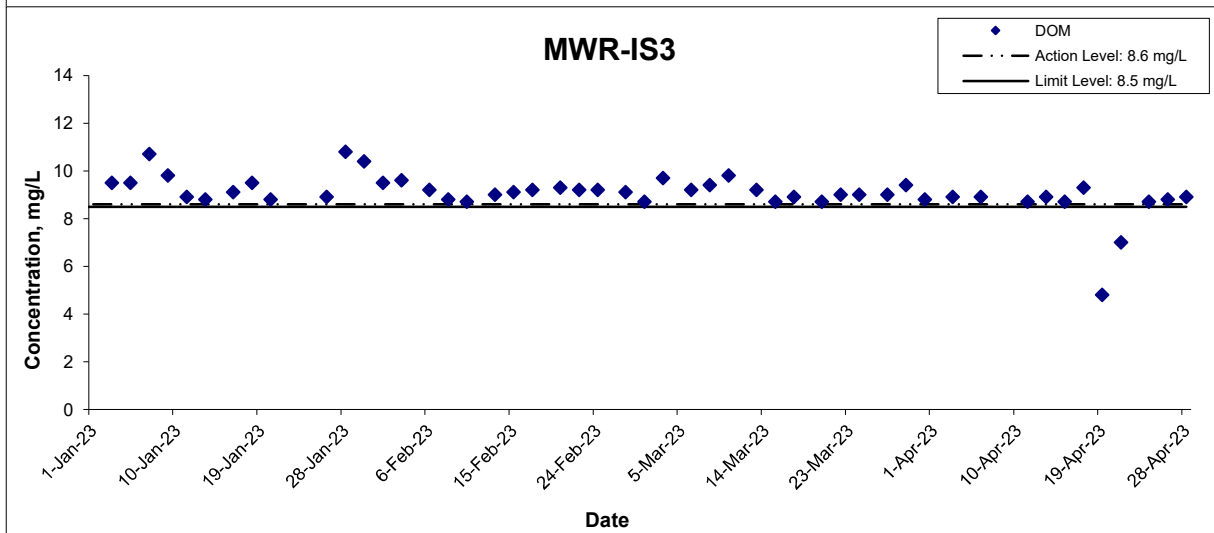
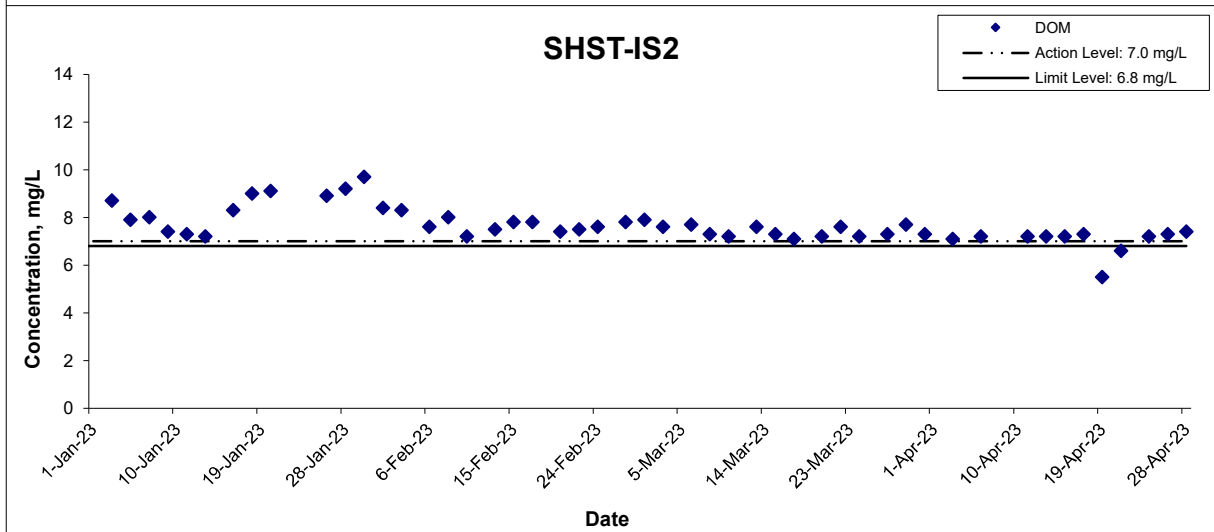
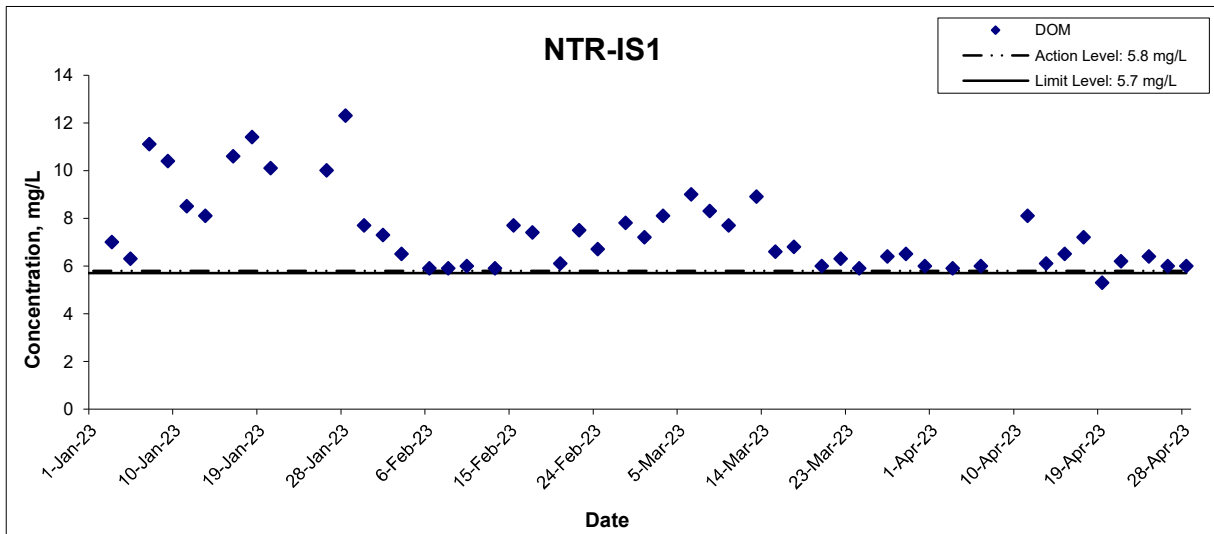
Title  
 Contract No. NDO 04/2019  
 Advance and First Stage Works of Kwu Tung North and Fanling  
 North New Development Areas  
 Graphical Presentation of Water Quality Monitoring  
 Results

Scale  
 N.T.S  
 Date  
 Apr 23

Project  
 No. WMA20002  
 Appendix  
 G



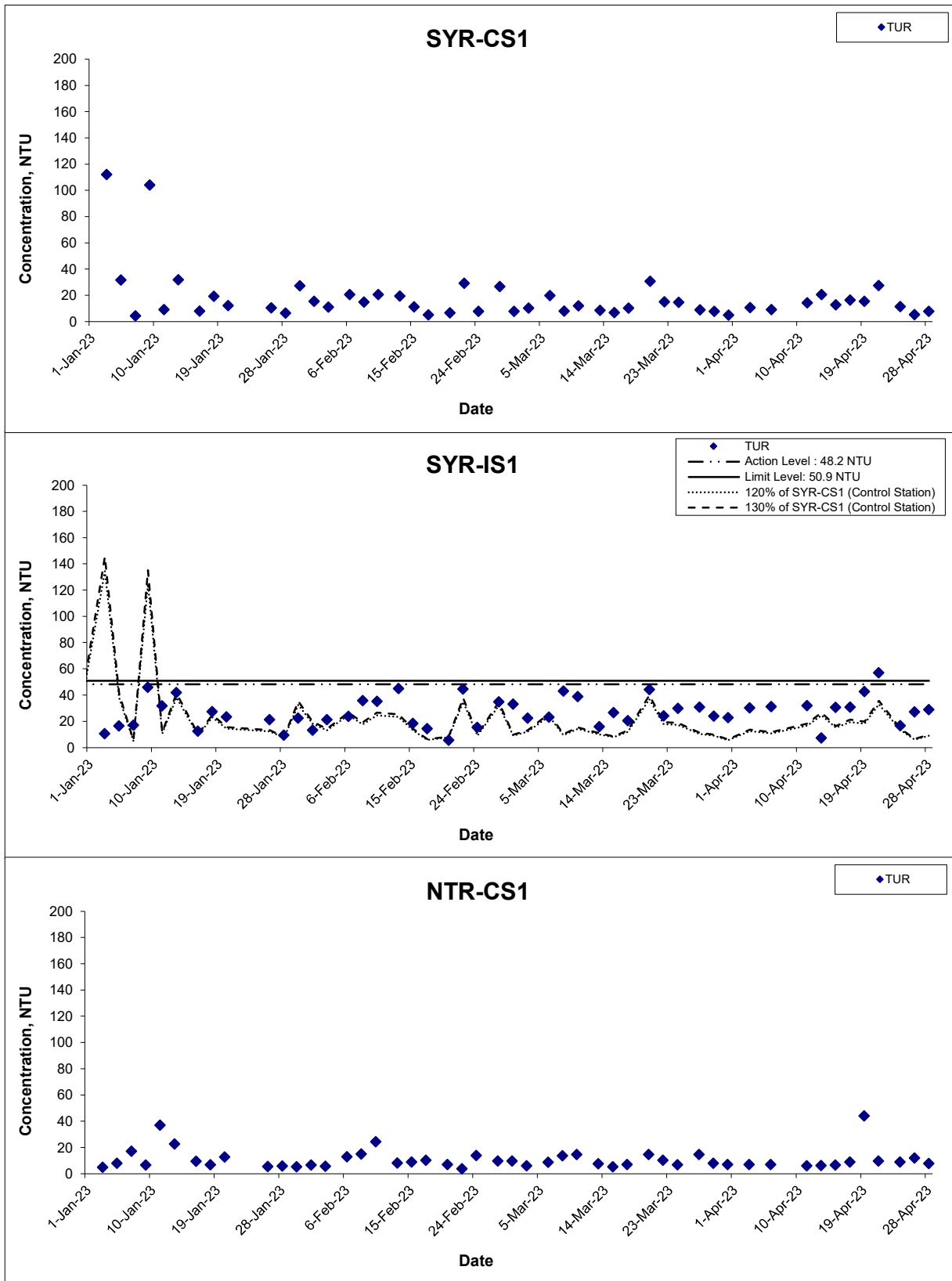
## Dissolved Oxygen (Middle)



Title Contract No. NDO 04/2019 Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas  Graphical Presentation of Water Quality Monitoring Results	Scale N.T.S	Project No. WMA20002	consulting . testing . research
	Date Apr 23	Appendix G	

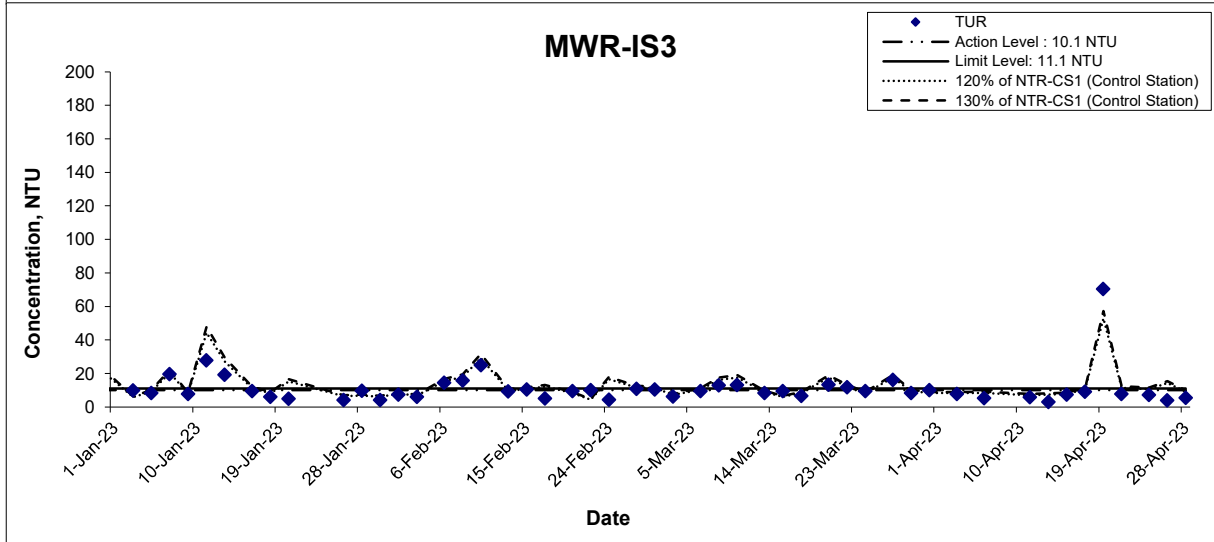
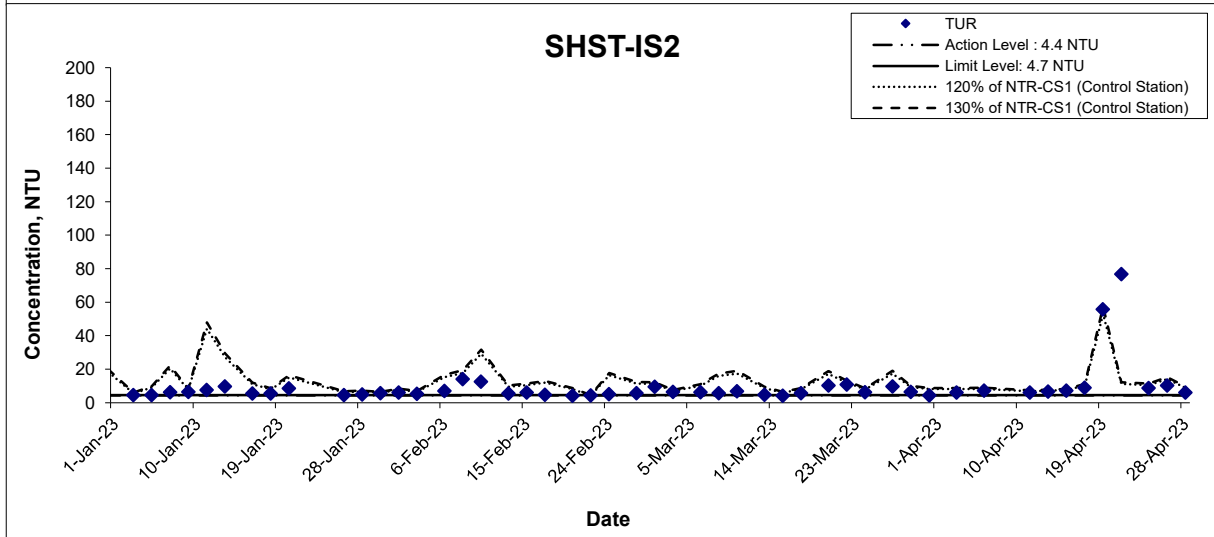
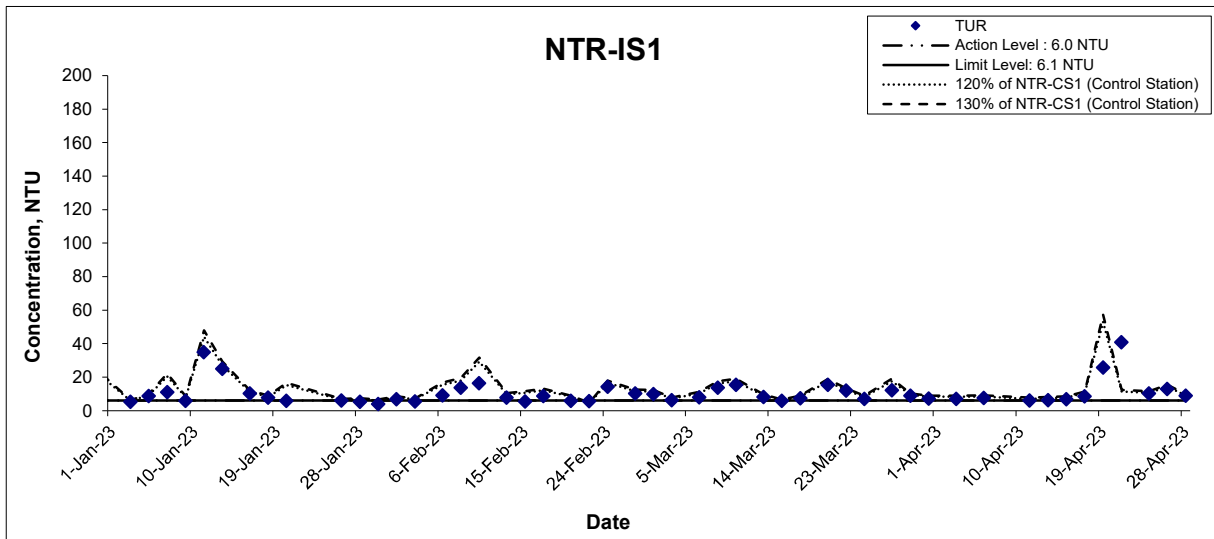


## Turbidity (Depth-averaged)



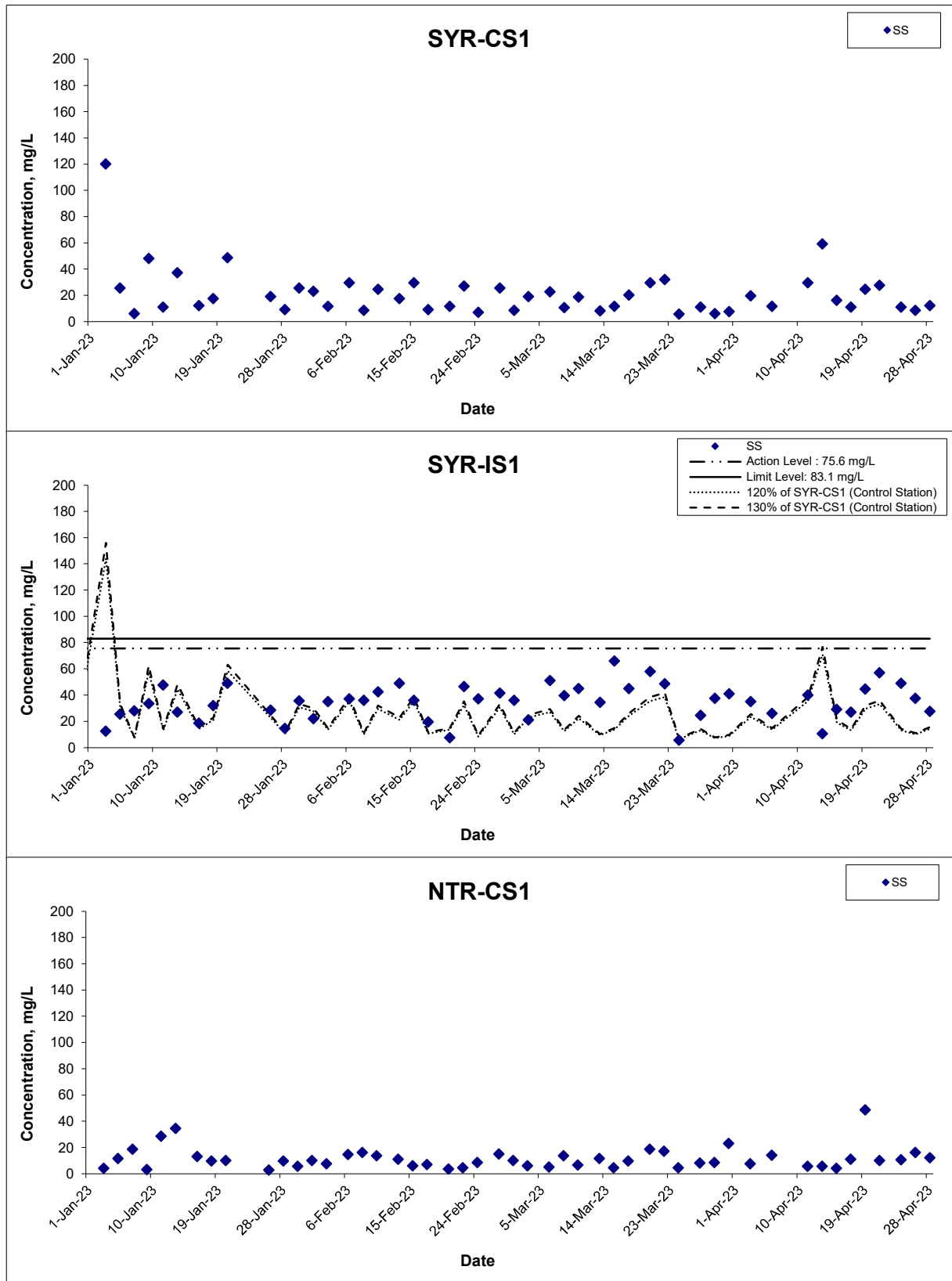
Title Contract No. NDO 04/2019 Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas  Graphical Presentation of Water Quality Monitoring Results	Scale N.T.S	Project No. WMA20002	consulting . testing . research
	Date Apr 23	Appendix G	

## Turbidity (Depth-averaged)



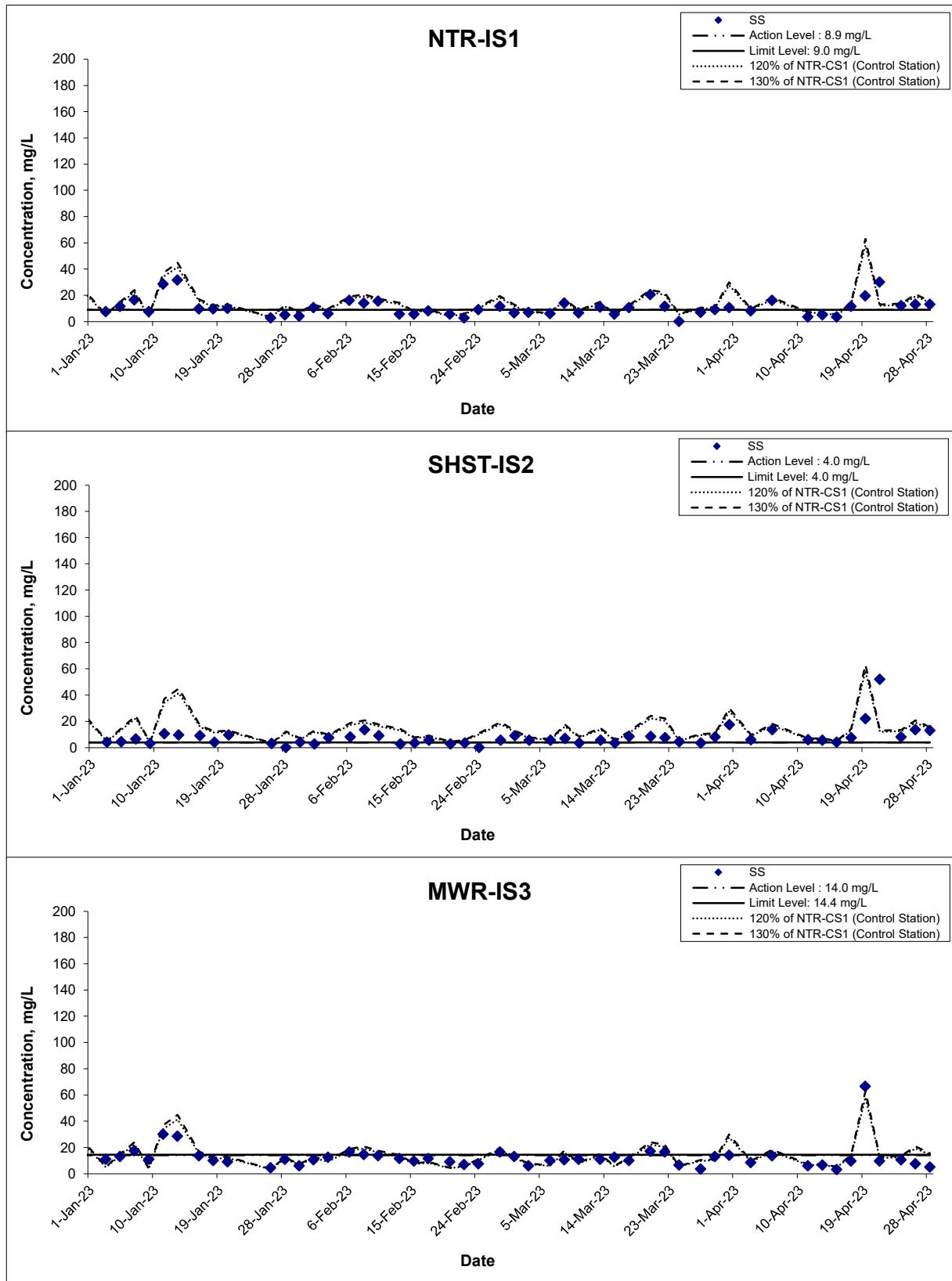
Title Contract No. NDO 04/2019 Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas  Graphical Presentation of Water Quality Monitoring Results	Scale N.T.S	Project No. WMA20002	consulting . testing . research
	Date Apr 23	Appendix G	

## Suspended Solids (Depth-averaged)




Title Contract No. NDO 04/2019 Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas  Graphical Presentation of Water Quality Monitoring Results	Scale N.T.S	Project No. WMA20002	匯力 consulting . testing . research
	Date Apr 23	Appendix G	

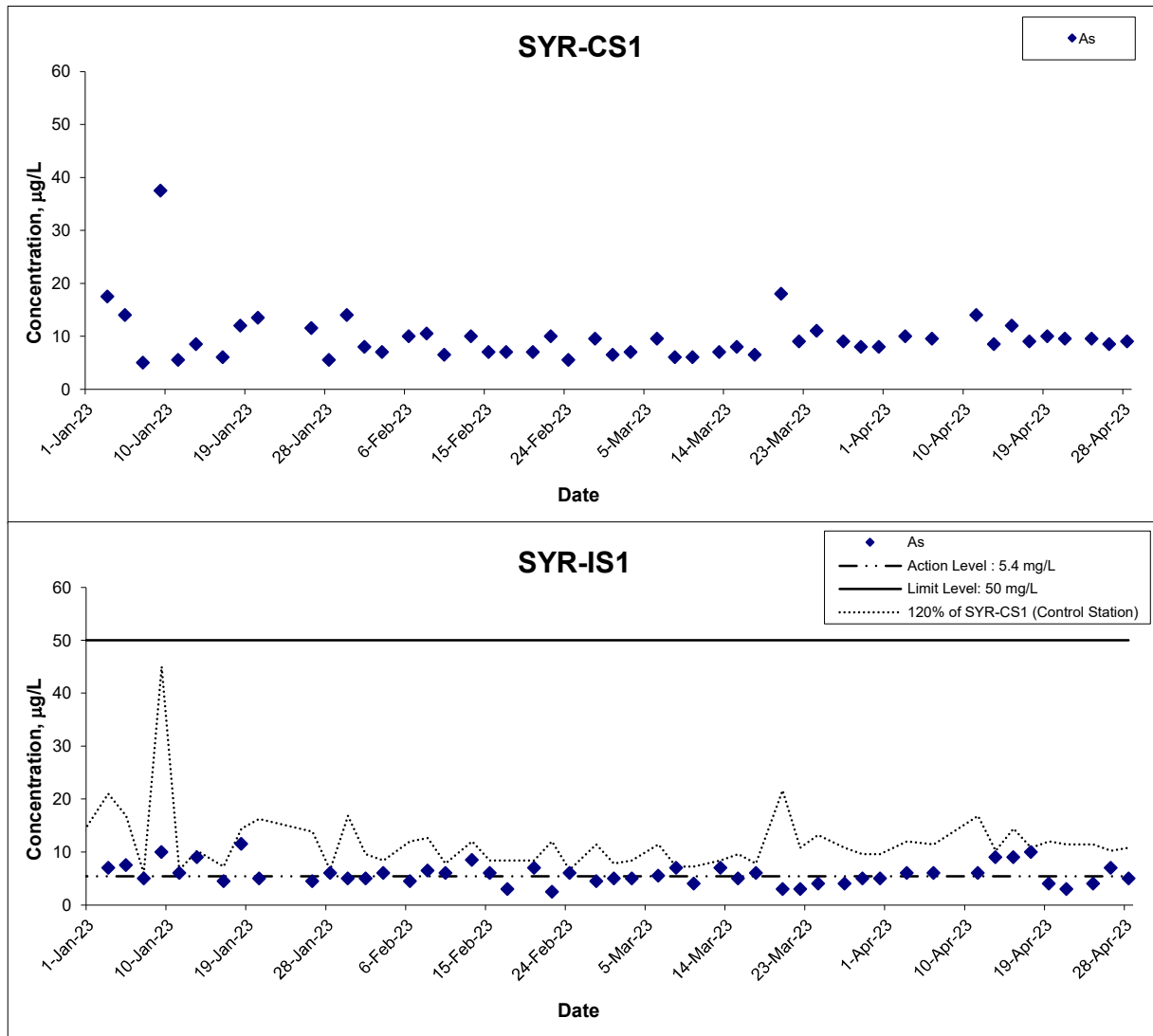
## Suspended Solids (Depth-averaged)



Remarks: The graphical point at zero concentration is presented as below the reporting limit.

Title	Contract No. NDO 04/2019 Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas		Scale	N.T.S	Project No.	WMA20002	 consulting . testing . research
	Graphical Presentation of Water Quality Monitoring Results		Date	Apr 23	Appendix	G	

## Arsenic (Depth-averaged)



Title Contract No. NDO 04/2019 Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas  Graphical Presentation of Water Quality Monitoring Results	Scale N.T.S	Project No. WMA20002	consulting . testing . research
	Date Apr 23	Appendix G	

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**APPENDIX H  
LABORATORY TESTING REPORTS FOR  
LABORATORY ANALYSIS**

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**TEST REPORT**

**APPLICANT:** Wellab Limited (EM&A Department)  
Rm 1714, Technology Park,  
18 On Lai Street,  
Shatin, N.T.

Report No.:	37967
Date of Issue:	2023-04-12
Date Received:	2023-04-03
Date Tested:	2023-04-03
Date Completed:	2023-04-12

**ATTN:** Mr. Marco Ma

Page: 1 of 1

**Sample Description :** 4 liquid samples as received from client said to be water  
**Laboratory No. :** 37967  
**Project No. :** WMA20002  
**Project Name :** Contract No. NDO 04/2019  
 Advance and First Stage Works of Kwu Tung North and Fanling North New  
 Development Areas  
**Custody No. :** WMA20002/230403  
**Sampling Date :** 2023-04-03

**Tests Requested & Methodology:**

Item	Parameters	Ref. Method	Limit of reporting
1	Total Suspended Solids dried at 104-125°C	APHA 17ed 2540 D	2.5 mg/L
2	Arsenic	In-house method SOP022 (ICP-AES) and SOP076 (ICP-MS)	1 µg/L

**Results:**

Sample ID	SYR-CS1-a	SYR-CS1-b	SYR-IS1-a	SYR-IS1-b
Sample No.	37967-2	37967-3	37967-5	37967-6
Total Suspended Solids dried at 104-125°C (mg/L)	19	20	34	36
Arsenic (µg/L)	10	10	6	6

Remarks: 1) < = less than

\*\*\*\*\*END OF REPORT\*\*\*\*\*

*PREPARED AND CHECKED BY:*

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

  
**PATRICK TSE**  
 General Manager

**TEST REPORT**

**APPLICANT:** Wellab Limited (EM&A Department)  
Rm 1714, Technology Park,  
18 On Lai Street,  
Shatin, N.T.

Report No.:	37967A
Date of Issue:	2023-04-12
Date Received:	2023-04-03
Date Tested:	2023-04-03
Date Completed:	2023-04-12

**ATTN:** Mr. Marco Ma

Page: 1 of 1

**Sample Description :** 8 liquid samples as received from client said to be water  
**Laboratory No. :** 37967A  
**Project No. :** WMA20002  
**Project Name :** Contract No. NDO 04/2019  
 Advance and First Stage Works of Kwu Tung North and Fanling North New  
 Development Areas  
**Custody No. :** WMA20002/230403  
**Sampling Date :** 2023-04-03

**Tests Requested & Methodology:**

Item	Parameters	Ref. Method	Limit of reporting
1	Total Suspended Solids dried at 104-125°C	APHA 17ed 2540 D	2.5 mg/L

**Results:**

Sample ID	NTR-CS1-a	NTR-CS1-b	NTR-IS1-a	NTR-IS1-b
Sample No.	37967-8	37967-9	37967-11	37967-12
Total Suspended Solids dried at 104-125°C (mg/L)	8	7	8	8

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	37967-14	37967-15	37967-17	37967-18
Total Suspended Solids dried at 104-125°C (mg/L)	6	6	8	9

Remarks: 1) <= less than

\*\*\*\*\*END OF REPORT\*\*\*\*\*

*PREPARED AND CHECKED BY:*

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

  
**PATRICK TSE**  
General Manager



**TEST REPORT**

**APPLICANT:** Wellab Limited (EM&A Department)  
Rm 1714, Technology Park,  
18 On Lai Street,  
Shatin, N.T.

Report No.:	37972
Date of Issue:	2023-04-14
Date Received:	2023-04-06
Date Tested:	2023-04-06
Date Completed:	2023-04-14

**ATTN:** Mr. Marco Ma

Page: 1 of 1

**Sample Description :** 4 liquid samples as received from client said to be water  
**Laboratory No. :** 37972  
**Project No. :** WMA20002  
**Project Name :** Contract No. NDO 04/2019  
 Advance and First Stage Works of Kwu Tung North and Fanling North New  
 Development Areas  
**Custody No. :** WMA20002/230406  
**Sampling Date :** 2023-04-06

**Tests Requested & Methodology:**

Item	Parameters	Ref. Method	Limit of reporting
1	Total Suspended Solids dried at 104-145°C	APHA 17ed 2540 D	2.5 mg/L
2	Arsenic	In-house method SOP022 (ICP-AES) and SOP076 (ICP-MS)	1 µg/L

**Results:**

Sample ID	SYR-CS1-a	SYR-CS1-b	SYR-IS1-a	SYR-IS1-b
Sample No.	37972-2	37972-3	37972-5	37972-6
Total Suspended Solids dried at 104-145°C (mg/L)	11	12	26	26
Arsenic (µg/L)	9	10	6	6

Remarks: 1) <= less than

\*\*\*\*\*END OF REPORT\*\*\*\*\*

*PREPARED AND CHECKED BY:*

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

  
**PATRICK TSE**  
General Manager

**TEST REPORT**

**APPLICANT:** Wellab Limited (EM&A Department)  
Rm 1714, Technology Park,  
18 On Lai Street,  
Shatin, N.T.

Report No.:	37972A
Date of Issue:	2023-04-14
Date Received:	2023-04-06
Date Tested:	2023-04-06
Date Completed:	2023-04-14

**ATTN:** Mr. Marco Ma

Page: 1 of 1

**Sample Description :** 8 liquid samples as received from client said to be water  
**Laboratory No. :** 37972A  
**Project No. :** WMA20002  
**Project Name :** Contract No. NDO 04/2019  
 Advance and First Stage Works of Kwu Tung North and Fanling North New  
 Development Areas  
**Custody No. :** WMA20002/230406  
**Sampling Date :** 2023-04-06

**Tests Requested & Methodology:**

Item	Parameters	Ref. Method	Limit of reporting
1	Total Suspended Solids dried at 104-145°C	APHA 17ed 2540 D	2.5 mg/L

**Results:**

Sample ID	NTR-CS1-a	NTR-CS1-b	NTR-IS1-a	NTR-IS1-b
Sample No.	37972-8	37972-9	37972-11	37972-12
Total Suspended Solids dried at 104-145°C (mg/L)	14	14	16	16

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	37972-14	37972-15	37972-17	37972-18
Total Suspended Solids dried at 104-145°C (mg/L)	13	14	13	14

Remarks: 1) <= less than

\*\*\*\*\*END OF REPORT\*\*\*\*\*

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

  
**PATRICK TSE**  
General Manager

**TEST REPORT**

**APPLICANT:** Wellab Limited (EM&A Department)  
Rm 1714, Technology Park,  
18 On Lai Street,  
Shatin, N.T.

Report No.:	37977
Date of Issue:	2023-04-17
Date Received:	2023-04-11
Date Tested:	2023-04-11
Date Completed:	2023-04-17

**ATTN:** Mr. Marco Ma

Page: 1 of 1

**Sample Description** : 4 liquid samples as received from client said to be water  
**Laboratory No.** : 37977  
**Project No.** : WMA20002  
**Project Name** : Contract No. NDO 04/2019  
 Advance and First Stage Works of Kwu Tung North and Fanling North New  
 Development Areas  
**Custody No.** : WMA20002/230411  
**Sampling Date** : 2023-04-11

**Tests Requested & Methodology:**

Item	Parameters	Ref. Method	Limit of reporting
1	Total Suspended Solids dried at 103-105°C	APHA 17ed 2540 D	2.5 mg/L
2	Arsenic	In-house method SOP022 (ICP-AES) and SOP076 (ICP-MS)	1 µg/L

**Results:**

Sample ID	SYR-CS1-a	SYR-CS1-b	SYR-IS1-a	SYR-IS1-b
Sample No.	37977-2	37977-3	37977-5	37977-6
Total Suspended Solids dried at 103-105°C (mg/L)	31	28	37	43
Arsenic (µg/L)	14	14	6	6

Remarks: 1) <= less than

\*\*\*\*\*END OF REPORT\*\*\*\*\*

*PREPARED AND CHECKED BY:*

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

  
**PATRICK TSE**  
 General Manager

**TEST REPORT**

**APPLICANT:** Wellab Limited (EM&A Department)  
Rm 1714, Technology Park,  
18 On Lai Street,  
Shatin, N.T.

Report No.:	37977A
Date of Issue:	2023-04-17
Date Received:	2023-04-11
Date Tested:	2023-04-11
Date Completed:	2023-04-17

**ATTN:** Mr. Marco Ma

Page: 1 of 1

**Sample Description** : 8 liquid samples as received from client said to be water  
**Laboratory No.** : 37977A  
**Project No.** : WMA20002  
**Project Name** : Contract No. NDO 04/2019  
Advance and First Stage Works of Kwu Tung North and Fanling North New  
Development Areas  
**Custody No.** : WMA20002/230411  
**Sampling Date** : 2023-04-11

**Tests Requested & Methodology:**

Item	Parameters	Ref. Method	Limit of reporting
1	Total Suspended Solids dried at 103-105°C	APHA 17ed 2540 D	2.5 mg/L

**Results:**

Sample ID	NTR-CS1-a	NTR-CS1-b	NTR-IS1-a	NTR-IS1-b
Sample No.	37977-8	37977-9	37977-11	37977-12
Total Suspended Solids dried at 103-105°C (mg/L)	5	6	4	3


Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	37977-14	37977-15	37977-17	37977-18
Total Suspended Solids dried at 103-105°C (mg/L)	6	6	6	6

Remarks: 1) <= less than

\*\*\*\*\*END OF REPORT\*\*\*\*\*

*PREPARED AND CHECKED BY:*

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

  
**PATRICK TSE**  
General Manager

**TEST REPORT**

**APPLICANT:** Wellab Limited (EM&A Department)  
Rm 1714, Technology Park,  
18 On Lai Street,  
Shatin, N.T.

Report No.:	37983
Date of Issue:	2023-04-19
Date Received:	2023-04-13
Date Tested:	2023-04-13
Date Completed:	2023-04-19

**ATTN:** Mr. Marco Ma

Page: 1 of 1

**Sample Description** : 4 liquid samples as received from client said to be water  
**Laboratory No.** : 37983  
**Project No.** : WMA20002  
**Project Name** : Contract No. NDO 04/2019  
Advance and First Stage Works of Kwu Tung North and Fanling North New  
Development Areas  
**Custody No.** : WMA20002/230412  
**Sampling Date** : 2023-04-13

**Tests Requested & Methodology:**

Item	Parameters	Ref. Method	Limit of reporting
1	Total Suspended Solids dried at 103-105°C	APHA 17ed 2540 D	2.5 mg/L
2	Arsenic	In-house method SOP022 (ICP-AES) and SOP076 (ICP-MS)	1 µg/L

**Results:**

Sample ID	SYR-CS1-a	SYR-CS1-b	SYR-IS1-a	SYR-IS1-b
Sample No.	37983-2	37983-3	37983-5	37983-6
Total Suspended Solids dried at 103-105°C (mg/L)	62	56	10	11
Arsenic (µg/L)	9	8	9	9

Remarks: 1) <= less than

\*\*\*\*\*END OF REPORT\*\*\*\*\*

*PREPARED AND CHECKED BY:*

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

  
**PATRICK TSE**  
General Manager

**TEST REPORT**

**APPLICANT:** Wellab Limited (EM&A Department)  
Rm 1714, Technology Park,  
18 On Lai Street,  
Shatin, N.T.

Report No.:	37983A
Date of Issue:	2023-04-19
Date Received:	2023-04-13
Date Tested:	2023-04-13
Date Completed:	2023-04-19

**ATTN:** Mr. Marco Ma

Page: 1 of 1

**Sample Description :** 8 liquid samples as received from client said to be water  
**Laboratory No. :** 37983A  
**Project No. :** WMA20002  
**Project Name :** Contract No. NDO 04/2019  
 Advance and First Stage Works of Kwu Tung North and Fanling North New  
 Development Areas  
**Custody No. :** WMA20002/230413  
**Sampling Date :** 2023-04-13

**Tests Requested & Methodology:**

Item	Parameters	Ref. Method	Limit of reporting
1	Total Suspended Solids dried at 103-105°C	APHA 17ed 2540 D	2.5 mg/L

**Results:**

Sample ID	NTR-CS1-a	NTR-CS1-b	NTR-IS1-a	NTR-IS1-b
Sample No.	37983-8	37983-9	37983-11	37983-12
Total Suspended Solids dried at 103-105°C (mg/L)	5	6	5	5

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	37983-14	37983-15	37983-17	37983-18
Total Suspended Solids dried at 103-105°C (mg/L)	5	6	7	6

Remarks: 1) <= less than

\*\*\*\*\*END OF REPORT\*\*\*\*\*

*PREPARED AND CHECKED BY:*

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

  
**PATRICK TSE**  
General Manager

**TEST REPORT**

**APPLICANT:** Wellab Limited (EM&A Department)  
Rm 1714, Technology Park,  
18 On Lai Street,  
Shatin, N.T.

Report No.:	37991
Date of Issue:	2023-04-19
Date Received:	2023-04-15
Date Tested:	2023-04-15
Date Completed:	2023-04-19

**ATTN:** Mr. Marco Ma

Page: 1 of 1

**Sample Description :** 4 liquid samples as received from client said to be water  
**Laboratory No. :** 37991  
**Project No. :** WMA20002  
**Project Name :** Contract No. NDO 04/2019  
 Advance and First Stage Works of Kwu Tung North and Fanling North New  
 Development Areas  
**Custody No. :** WMA20002/230415  
**Sampling Date :** 2023-04-15

**Tests Requested & Methodology:**

Item	Parameters	Ref. Method	Limit of reporting
1	Total Suspended Solids dried at 103-105°C	APHA 17ed 2540 D	2.5 mg/L
2	Arsenic	In-house method SOP022 (ICP-AES) and SOP076 (ICP-MS)	1 µg/L

**Results:**

Sample ID	SYR-CS1-a	SYR-CS1-b	SYR-IS1-a	SYR-IS1-b
Sample No.	37991-2	37991-3	37991-5	37991-6
Total Suspended Solids dried at 103-105°C (mg/L)	17	15	29	29
Arsenic (µg/L)	12	12	9	9

Remarks: 1) <= less than

\*\*\*\*\*END OF REPORT\*\*\*\*\*

*PREPARED AND CHECKED BY:*

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

  
**PATRICK TSE**  
General Manager

**TEST REPORT**

**APPLICANT:** Wellab Limited (EM&A Department)  
Rm 1714, Technology Park,  
18 On Lai Street,  
Shatin, N.T.

Report No.:	37991A
Date of Issue:	2023-04-19
Date Received:	2023-04-15
Date Tested:	2023-04-15
Date Completed:	2023-04-19

**ATTN:** Mr. Marco Ma

Page: 1 of 1

**Sample Description :** 8 liquid samples as received from client said to be water  
**Laboratory No. :** 37991A  
**Project No. :** WMA20002  
**Project Name :** Contract No. NDO 04/2019  
 Advance and First Stage Works of Kwu Tung North and Fanling North New  
 Development Areas  
**Custody No. :** WMA20002/230415  
**Sampling Date :** 2023-04-15

**Tests Requested & Methodology:**

Item	Parameters	Ref. Method	Limit of reporting
1	Total Suspended Solids dried at 103-105°C	APHA 17ed 2540 D	2.5 mg/L

**Results:**

Sample ID	NTR-CS1-a	NTR-CS1-b	NTR-IS1-a	NTR-IS1-b
Sample No.	37991-8	37991-9	37991-11	37991-12
Total Suspended Solids dried at 103-105°C (mg/L)	4	4	4	3

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	37991-14	37991-15	37991-17	37991-18
Total Suspended Solids dried at 103-105°C (mg/L)	4	4	3	3

Remarks: 1) <= less than

\*\*\*\*\*END OF REPORT\*\*\*\*\*

*PREPARED AND CHECKED BY:*

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

  
**PATRICK TSE**  
 General Manager



**TEST REPORT**

**APPLICANT:** Wellab Limited (EM&A Department)  
Rm 1714, Technology Park,  
18 On Lai Street,  
Shatin, N.T.

Report No.:	38024
Date of Issue:	2023-04-21
Date Received:	2023-04-17
Date Tested:	2023-04-17
Date Completed:	2023-04-21

**ATTN:** Mr. Marco Ma

Page: 1 of 1

**Sample Description :** 4 liquid samples as received from client said to be water  
**Laboratory No. :** 38024  
**Project No. :** WMA20002  
**Project Name :** Contract No. NDO 04/2019  
 Advance and First Stage Works of Kwu Tung North and Fanling North New  
 Development Areas  
**Custody No. :** WMA20002/230417  
**Sampling Date :** 2023-04-17

**Tests Requested & Methodology:**

Item	Parameters	Ref. Method	Limit of reporting
1	Total Suspended Solids dried at 103-105°C	APHA 17ed 2540 D	2.5 mg/L
2	Arsenic	In-house method SOP022 (ICP-AES) and SOP076 (ICP-MS)	1 µg/L

**Results:**

Sample ID	SYR-CS1-a	SYR-CS1-b	SYR-IS1-a	SYR-IS1-b
Sample No.	38024-2	38024-3	38024-5	38024-6
Total Suspended Solids dried at 103-105°C (mg/L)	12	10	28	26
Arsenic (µg/L)	9	9	10	10

Remarks: 1) <= less than

\*\*\*\*\*END OF REPORT\*\*\*\*\*

*PREPARED AND CHECKED BY:*

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

  
**PATRICK TSE**  
General Manager

**TEST REPORT**

**APPLICANT:** Wellab Limited (EM&A Department)  
Rm 1714, Technology Park,  
18 On Lai Street,  
Shatin, N.T.

Report No.:	38024A
Date of Issue:	2023-04-21
Date Received:	2023-04-17
Date Tested:	2023-04-17
Date Completed:	2023-04-21

**ATTN:** Mr. Marco Ma

Page: 1 of 1

**Sample Description :** 8 liquid samples as received from client said to be water  
**Laboratory No. :** 38024A  
**Project No. :** WMA20002  
**Project Name :** Contract No. NDO 04/2019  
 Advance and First Stage Works of Kwu Tung North and Fanling North New  
 Development Areas  
**Custody No. :** WMA20002/230417  
**Sampling Date :** 2023-04-17

**Tests Requested & Methodology:**

Item	Parameters	Ref. Method	Limit of reporting
1	Total Suspended Solids dried at 103-105°C	APHA 17ed 2540 D	2.5 mg/L

**Results:**

Sample ID	NTR-CS1-a	NTR-CS1-b	NTR-IS1-a	NTR-IS1-b
Sample No.	38024-8	38024-9	38024-11	38024-12
Total Suspended Solids dried at 103-105°C (mg/L)	10	12	12	11

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	38024-14	38024-15	38024-17	38024-18
Total Suspended Solids dried at 103-105°C (mg/L)	8	7	9	10

Remarks: 1) <= less than

\*\*\*\*\*END OF REPORT\*\*\*\*\*

PREPARED AND CHECKED BY:

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

  
 PATRICK TSE  
 General Manager

**TEST REPORT**

**APPLICANT:** Wellab Limited (EM&A Department)  
Rm 1714, Technology Park,  
18 On Lai Street,  
Shatin, N.T.

Report No.:	38030
Date of Issue:	2023-04-25
Date Received:	2023-04-19
Date Tested:	2023-04-19
Date Completed:	2023-04-25

**ATTN:** Mr. Marco Ma

Page: 1 of 1

**Sample Description** : 4 liquid samples as received from client said to be water  
**Laboratory No.** : 38030  
**Project No.** : WMA20002  
**Project Name** : Contract No. NDO 04/2019  
 Advance and First Stage Works of Kwu Tung North and Fanling North New  
 Development Areas  
**Custody No.** : WMA20002/230419  
**Sampling Date** : 2023-04-19

**Tests Requested & Methodology:**

Item	Parameters	Ref. Method	Limit of reporting
1	Total Suspended Solids dried at 103-105°C	APHA 17ed 2540 D	2.5 mg/L
2	Arsenic	In-house method SOP022 (ICP-AES) and SOP076 (ICP-MS)	1 µg/L

**Results:**

Sample ID	SYR-CS1-a	SYR-CS1-b	SYR-IS1-a	SYR-IS1-b
Sample No.	38030-2	38030-3	38030-5	38030-6
Total Suspended Solids dried at 103-105°C (mg/L)	23	26	46	43
Arsenic (µg/L)	10	10	4	4

Remarks: 1) <= less than

\*\*\*\*\*END OF REPORT\*\*\*\*\*

*PREPARED AND CHECKED BY:*

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

  
**PATRICK TSE**  
General Manager

### TEST REPORT

**APPLICANT:** Wellab Limited (EM&A Department)  
Rm 1714, Technology Park,  
18 On Lai Street,  
Shatin, N.T.

Report No.:	38030A
Date of Issue:	2023-04-25
Date Received:	2023-04-19
Date Tested:	2023-04-19
Date Completed:	2023-04-25

**ATTN:** Mr. Marco Ma

Page: 1 of 1

**Sample Description :** 8 liquid samples as received from client said to be water  
**Laboratory No. :** 38030A  
**Project No. :** WMA20002  
**Project Name :** Contract No. NDO 04/2019  
 Advance and First Stage Works of Kwu Tung North and Fanling North New  
 Development Areas  
**Custody No. :** WMA20002/230419  
**Sampling Date :** 2023-04-19

**Tests Requested & Methodology:**

Item	Parameters	Ref. Method	Limit of reporting
1	Total Suspended Solids dried at 103-105°C	APHA 17ed 2540 D	2.5 mg/L

**Results:**

Sample ID	NTR-CS1-a	NTR-CS1-b	NTR-IS1-a	NTR-IS1-b
Sample No.	38030-8	38030-9	38030-11	38030-12
Total Suspended Solids dried at 103-105°C (mg/L)	47	50	19	20

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	38030-14	38030-15	38030-17	38030-18
Total Suspended Solids dried at 103-105°C (mg/L)	22	22	63	70

Remarks: 1) <= less than

\*\*\*\*\*END OF REPORT\*\*\*\*\*

PREPARED AND CHECKED BY:

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

  
**PATRICK TSE**  
General Manager

## TEST REPORT

**APPLICANT:** Wellab Limited (EM&A Department)  
Rm 1714, Technology Park,  
18 On Lai Street,  
Shatin, N.T.

Report No.:	38037
Date of Issue:	2023-04-27
Date Received:	2023-04-21
Date Tested:	2023-04-21
Date Completed:	2023-04-27

**ATTN:** Mr. Marco Ma

Page: 1 of 1

**Sample Description :** 4 liquid samples as received from client said to be water  
**Laboratory No. :** 38037  
**Project No. :** WMA20002  
**Project Name :** Contract No. NDO 04/2019  
 Advance and First Stage Works of Kwu Tung North and Fanling North New  
 Development Areas  
**Custody No. :** WMA20002/230421  
**Sampling Date :** 2023-04-21

**Tests Requested & Methodology:**

Item	Parameters	Ref. Method	Limit of reporting
1	Total Suspended Solids dried at 103-105°C	APHA 17ed 2540 D	2.5 mg/L
2	Arsenic	In-house method SOP022 (ICP-AES) and SOP076 (ICP-MS)	1 µg/L

**Results:**

Sample ID	SYR-CS1-a	SYR-CS1-b	SYR-IS1-a	SYR-IS1-b
Sample No.	38037-2	38037-3	38037-5	38037-6
Total Suspended Solids dried at 103-105°C (mg/L)	26	29	61	53
Arsenic (µg/L)	9	10	3	3

Remarks: 1) <= less than

\*\*\*\*\*END OF REPORT\*\*\*\*\*

*PREPARED AND CHECKED BY:*

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

  
**PATRICK TSE**  
 General Manager

**TEST REPORT**

**APPLICANT:** Wellab Limited (EM&A Department)  
Rm 1714, Technology Park,  
18 On Lai Street,  
Shatin, N.T.

Report No.:	38037A
Date of Issue:	2023-04-27
Date Received:	2023-04-21
Date Tested:	2023-04-21
Date Completed:	2023-04-27

**ATTN:** Mr. Marco Ma

Page: 1 of 1

**Sample Description :** 8 liquid samples as received from client said to be water  
**Laboratory No. :** 38037A  
**Project No. :** WMA20002  
**Project Name :** Contract No. NDO 04/2019  
 Advance and First Stage Works of Kwu Tung North and Fanling North New  
 Development Areas  
**Custody No. :** WMA20002/230421  
**Sampling Date :** 2023-04-21

**Tests Requested & Methodology:**

Item	Parameters	Ref. Method	Limit of reporting
1	Total Suspended Solids dried at 103-105°C	APHA 17ed 2540 D	2.5 mg/L

**Results:**

Sample ID	NTR-CS1-a	NTR-CS1-b	NTR-IS1-a	NTR-IS1-b
Sample No.	38037-8	38037-9	38037-11	38037-12
Total Suspended Solids dried at 103-105°C (mg/L)	10	10	32	28

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	38037-14	38037-15	38037-17	38037-18
Total Suspended Solids dried at 103-105°C (mg/L)	54	50	10	9

Remarks: 1) <= less than

\*\*\*\*\*END OF REPORT\*\*\*\*\*

*PREPARED AND CHECKED BY:*

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

  
**PATRICK TSE**  
 General Manager

**TEST REPORT**

**APPLICANT:** Wellab Limited (EM&A Department)  
Rm 1714, Technology Park,  
18 On Lai Street,  
Shatin, N.T.

Report No.:	38067
Date of Issue:	2023-04-28
Date Received:	2023-04-24
Date Tested:	2023-04-24
Date Completed:	2023-04-28

**ATTN:** Mr. Marco Ma

Page: 1 of 1

**Sample Description :** 4 liquid samples as received from client said to be water  
**Laboratory No. :** 38067  
**Project No. :** WMA20002  
**Project Name :** Contract No. NDO 04/2019  
 Advance and First Stage Works of Kwu Tung North and Fanling North New  
 Development Areas  
**Custody No. :** WMA20002/230424  
**Sampling Date :** 2023-04-24

**Tests Requested & Methodology:**

Item	Parameters	Ref. Method	Limit of reporting
1	Total Suspended Solids dried at 103-105°C	APHA 17ed 2540 D	2.5 mg/L
2	Arsenic	In-house method SOP022 (ICP-AES) and SOP076 (ICP-MS)	1 µg/L

**Results:**

Sample ID	SYR-CS1-a	SYR-CS1-b	SYR-IS1-a	SYR-IS1-b
Sample No.	38067-2	38067-3	38067-5	38067-6
Total Suspended Solids dried at 103-105°C (mg/L)	11	11	51	47
Arsenic (µg/L)	9	10	4	4

Remarks: 1) < = less than

\*\*\*\*\*END OF REPORT\*\*\*\*\*

*PREPARED AND CHECKED BY:*

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

  
**PATRICK TSE**  
 General Manager

### TEST REPORT

**APPLICANT:** Wellab Limited (EM&A Department)  
Rm 1714, Technology Park,  
18 On Lai Street,  
Shatin, N.T.

Report No.:	38067A
Date of Issue:	2023-04-28
Date Received:	2023-04-24
Date Tested:	2023-04-24
Date Completed:	2023-04-28

**ATTN:** Mr. Marco Ma

Page: 1 of 1

**Sample Description :** 8 liquid samples as received from client said to be water  
**Laboratory No. :** 38067A  
**Project No. :** WMA20002  
**Project Name :** Contract No. NDO 04/2019  
 Advance and First Stage Works of Kwu Tung North and Fanling North New  
 Development Areas  
**Custody No. :** WMA20002/230424  
**Sampling Date :** 2023-04-24

**Tests Requested & Methodology:**

Item	Parameters	Ref. Method	Limit of reporting
1	Total Suspended Solids dried at 103-105°C	APHA 17ed 2540 D	2.5 mg/L

**Results:**

Sample ID	NTR-CS1-a	NTR-CS1-b	NTR-IS1-a	NTR-IS1-b
Sample No.	38067-8	38067-9	38067-11	38067-12
Total Suspended Solids dried at 103-105°C (mg/L)	11	10	12	12

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	38067-14	38067-15	38067-17	38067-18
Total Suspended Solids dried at 103-105°C (mg/L)	8	8	11	10

Remarks: 1) <= less than

\*\*\*\*\*END OF REPORT\*\*\*\*\*

PREPARED AND CHECKED BY:

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

  
**PATRICK TSE**  
 General Manager



## TEST REPORT

**APPLICANT:** Wellab Limited (EM&A Department)  
Rm 1714, Technology Park,  
18 On Lai Street,  
Shatin, N.T.

Report No.:	38073
Date of Issue:	2023-05-03
Date Received:	2023-04-26
Date Tested:	2023-04-26
Date Completed:	2023-05-03

**ATTN:** Mr. Marco Ma

Page: 1 of 1

**Sample Description :** 4 liquid samples as received from client said to be water  
**Laboratory No. :** 38073  
**Project No. :** WMA20002  
**Project Name :** Contract No. NDO 04/2019  
 Advance and First Stage Works of Kwu Tung North and Fanling North New  
 Development Areas  
**Custody No. :** WMA20002/230426  
**Sampling Date :** 2023-04-26

**Tests Requested & Methodology:**

Item	Parameters	Ref. Method	Limit of reporting
1	Total Suspended Solids dried at 103-105°C	APHA 17ed 2540 D	2.5 mg/L
2	Arsenic	In-house method SOP022 (ICP-AES) and SOP076 (ICP-MS)	1 µg/L

**Results:**

Sample ID	SYR-CS1-a	SYR-CS1-b	SYR-IS1-a	SYR-IS1-b
Sample No.	38073-2	38073-3	38073-5	38073-6
Total Suspended Solids dried at 103-105°C (mg/L)	9	8	40	35
Arsenic (µg/L)	9	8	7	7

Remarks: 1) <= less than

\*\*\*\*\*END OF REPORT\*\*\*\*\*

*PREPARED AND CHECKED BY:*

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

  
**PATRICK TSE**  
General Manager

## TEST REPORT

**APPLICANT:** Wellab Limited (EM&A Department)  
Rm 1714, Technology Park,  
18 On Lai Street,  
Shatin, N.T.

Report No.:	38073A
Date of Issue:	2023-05-03
Date Received:	2023-04-26
Date Tested:	2023-04-26
Date Completed:	2023-05-03

**ATTN:** Mr. Marco Ma

Page: 1 of 1

**Sample Description :** 8 liquid samples as received from client said to be water  
**Laboratory No. :** 38073A  
**Project No. :** WMA20002  
**Project Name :** Contract No. NDO 04/2019  
 Advance and First Stage Works of Kwu Tung North and Fanling North New  
 Development Areas  
**Custody No. :** WMA20002/230426  
**Sampling Date :** 2023-04-26

**Tests Requested & Methodology:**

Item	Parameters	Ref. Method	Limit of reporting
1	Total Suspended Solids dried at 103-105°C	APHA 17ed 2540 D	2.5 mg/L

**Results:**

Sample ID	NTR-CS1-a	NTR-CS1-b	NTR-IS1-a	NTR-IS1-b
Sample No.	38073-8	38073-9	38073-11	38073-12
Total Suspended Solids dried at 103-105°C (mg/L)	16	16	12	14

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	38073-14	38073-15	38073-17	38073-18
Total Suspended Solids dried at 103-105°C (mg/L)	14	13	7	8

Remarks: 1) <= less than

\*\*\*\*\*END OF REPORT\*\*\*\*\*

*PREPARED AND CHECKED BY:*

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

  
**PATRICK TSE**  
 General Manager

### TEST REPORT

**APPLICANT:** Wellab Limited (EM&A Department)  
Rm 1714, Technology Park,  
18 On Lai Street,  
Shatin, N.T.

Report No.:	38079
Date of Issue:	2023-05-04
Date Received:	2023-04-28
Date Tested:	2023-04-28
Date Completed:	2023-05-04

**ATTN:** Mr. Marco Ma

Page: 1 of 1

**Sample Description :** 4 liquid samples as received from client said to be water  
**Laboratory No. :** 38079  
**Project No. :** WMA20002  
**Project Name :** Contract No. NDO 04/2019  
 Advance and First Stage Works of Kwu Tung North and Fanling North New  
 Development Areas  
**Custody No. :** WMA20002/230428  
**Sampling Date :** 2023-04-28

**Tests Requested & Methodology:**

Item	Parameters	Ref. Method	Limit of reporting
1	Total Suspended Solids dried at 103-105°C	APHA 17ed 2540 D	2.5 mg/L
2	Arsenic	In-house method SOP022 (ICP-AES) and SOP076 (ICP-MS)	1 µg/L

**Results:**

Sample ID	SYR-CS1-a	SYR-CS1-b	SYR-IS1-a	SYR-IS1-b
Sample No.	38079-2	38079-3	38079-5	38079-6
Total Suspended Solids dried at 103-105°C (mg/L)	13	11	27	28
Arsenic (µg/L)	9	9	5	5

Remarks: 1) < = less than

\*\*\*\*\*END OF REPORT\*\*\*\*\*

*PREPARED AND CHECKED BY:*

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

  
**PATRICK TSE**  
General Manager

**TEST REPORT**

**APPLICANT:** Wellab Limited (EM&A Department)  
Rm 1714, Technology Park,  
18 On Lai Street,  
Shatin, N.T.

Report No.:	38079A
Date of Issue:	2023-05-04
Date Received:	2023-04-28
Date Tested:	2023-04-28
Date Completed:	2023-05-04

**ATTN:** Mr. Marco Ma

Page: 1 of 1

**Sample Description** : 8 liquid samples as received from client said to be water  
**Laboratory No.** : 38079A  
**Project No.** : WMA20002  
**Project Name** : Contract No. NDO 04/2019  
Advance and First Stage Works of Kwu Tung North and Fanling North New  
Development Areas  
**Custody No.** : WMA20002/230428  
**Sampling Date** : 2023-04-28

**Tests Requested & Methodology:**

Item	Parameters	Ref. Method	Limit of reporting
1	Total Suspended Solids dried at 103-105°C	APHA 17ed 2540 D	2.5 mg/L

**Results:**

Sample ID	NTR-CS1-a	NTR-CS1-b	NTR-IS1-a	NTR-IS1-b
Sample No.	38079-8	38079-9	38079-11	38079-12
Total Suspended Solids dried at 103-105°C (mg/L)	12	12	13	13

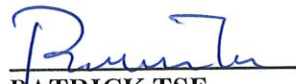
Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	38079-14	38079-15	38079-17	38079-18
Total Suspended Solids dried at 103-105°C (mg/L)	14	12	5	5

Remarks: 1) <= less than

\*\*\*\*\*END OF REPORT\*\*\*\*\*

PREPARED AND CHECKED BY:

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

  
**PATRICK TSE**  
General Manager

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**APPENDIX I  
QUALITY CONTROL REPORTS FOR SS  
AND ARSENIC LABORATORY  
ANALYSIS**

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## TEST REPORT

**APPLICANT:** Wellab Limited (EM&A Department)  
Rm 1714, Technology Park,  
18 On Lai Street,  
Shatin, N.T.

Report No.:	QC37967
Date of Issue:	2023-04-12
Date Received:	2023-04-03
Date Tested:	2023-04-03
Date Completed:	2023-04-12

**ATTN:** Mr. Marco Ma

Page: 1 of 1

**QC report**

**Method Blank**

Parameter	Method Blank 1	Method Blank 2	Acceptance
Total Suspended Solids (mg/L)	<0.5	<0.5	<0.5
Arsenic (µg/L)	<0.2	N/A	<0.2

**Method QC**

Parameter	MQC1	MQC2	Acceptance
Total Suspended Solids (%)	92	100	80-120
Arsenic (%)	87	N/A	80-120

**Sample Spike**

Parameter	Sample Spike 1	Sample Spike 2	Acceptance
Total Suspended Solids (%)	N/A	N/A	N/A
Arsenic (%)	113	N/A	80-120

**Sample Duplicate**

Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	1	2	RPD≤5%
Arsenic (%)	1	N/A	RPD≤20%

Remarks: 1) < = less than  
2) N/A = Not applicable  
3) This report is the summary of quality control data for report number 37967.

\*\*\*\*\*END OF REPORT\*\*\*\*\*

PREPARED AND CHECKED BY:

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

  
**PATRICIK TSE**  
General Manager

**TEST REPORT**

**APPLICANT:** Wellab Limited (EM&A Department)  
Rm 1714, Technology Park,  
18 On Lai Street,  
Shatin, N.T.

Report No.:	QC37972
Date of Issue:	2023-04-14
Date Received:	2023-04-06
Date Tested:	2023-04-06
Date Completed:	2023-04-14

**ATTN:** Mr. Marco Ma

Page: 1 of 1

**QC report****Method Blank**

Parameter	Method Blank 1	Method Blank 2	Acceptance
Total Suspended Solids (mg/L)	<0.5	<0.5	<0.5
Arsenic ( $\mu\text{g/L}$ )	<0.2	N/A	<0.2

**Method QC**

Parameter	MQC1	MQC2	Acceptance
Total Suspended Solids (%)	106	104	80-120
Arsenic (%)	87	N/A	80-120

**Sample Spike**

Parameter	Sample Spike 1	Sample Spike 2	Acceptance
Total Suspended Solids (%)	N/A	N/A	N/A
Arsenic (%)	108	N/A	80-120

**Sample Duplicate**

Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	5	3	RPD $\leq$ 5%
Arsenic (%)	1	N/A	RPD $\leq$ 20%

Remarks: 1)  $\leq$  less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 37972.

\*\*\*\*\*END OF REPORT\*\*\*\*\*

*PREPARED AND CHECKED BY:*

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

  
**PATRICIK TSE**  
General Manager

**TEST REPORT**

**APPLICANT:** Wellab Limited (EM&A Department)  
Rm 1714, Technology Park,  
18 On Lai Street,  
Shatin, N.T.

Report No.:	QC37977
Date of Issue:	2023-04-17
Date Received:	2023-04-11
Date Tested:	2023-04-11
Date Completed:	2023-04-17

**ATTN:** Mr. Marco Ma

Page: 1 of 1

**QC report****Method Blank**

Parameter	Method Blank 1	Method Blank 2	Acceptance
Total Suspended Solids (mg/L)	<0.5	<0.5	<0.5
Arsenic (µg/L)	<0.2	N/A	<0.2

**Method QC**

Parameter	MQC1	MQC2	Acceptance
Total Suspended Solids (%)	94	100	80-120
Arsenic (%)	102	N/A	80-120

**Sample Spike**

Parameter	Sample Spike 1	Sample Spike 2	Acceptance
Total Suspended Solids (%)	N/A	N/A	N/A
Arsenic (%)	115	N/A	80-120

**Sample Duplicate**

Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	0	2	RPD <sub>≤</sub> 5%
Arsenic (%)	8	N/A	RPD <sub>≤</sub> 20%

Remarks: 1) <= less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 37977.

\*\*\*\*\*END OF REPORT\*\*\*\*\*

*PREPARED AND CHECKED BY:*

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

  
**PATRCIK TSE**  
General Manager



**TEST REPORT**

**APPLICANT:** Wellab Limited (EM&A Department)  
Rm 1714, Technology Park,  
18 On Lai Street,  
Shatin, N.T.

Report No.:	QC37983
Date of Issue:	2023-04-16
Date Received:	2023-04-13
Date Tested:	2023-04-13
Date Completed:	2023-04-16

**ATTN:** Mr. Marco Ma

Page: 1 of 1

QC report

Method Blank

Parameter	Method Blank 1	Method Blank 2	Acceptance
Total Suspended Solids (mg/L)	<0.5	<0.5	<0.5
Arsenic ( $\mu\text{g/L}$ )	<0.2	N/A	<0.2

Method QC

Parameter	MQC1	MQC2	Acceptance
Total Suspended Solids (%)	102	107	80-120
Arsenic (%)	103	N/A	80-120

Sample Spike

Parameter	Sample Spike 1	Sample Spike 2	Acceptance
Total Suspended Solids (%)	N/A	N/A	N/A
Arsenic (%)	89	N/A	80-120

Sample Duplicate

Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	2	1	RPD $\leq$ 5%
Arsenic (%)	7	N/A	RPD $\leq$ 20%

Remarks: 1)  $\leq$  = less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 37983.

\*\*\*\*\*END OF REPORT\*\*\*\*\*

PREPARED AND CHECKED BY:

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

  
**PATRCIK TSE**  
General Manager

### TEST REPORT

**APPLICANT:** Wellab Limited (EM&A Department)  
Rm 1714, Technology Park,  
18 On Lai Street,  
Shatin, N.T.

Report No.:	QC37991
Date of Issue:	2023-04-19
Date Received:	2023-04-15
Date Tested:	2023-04-15
Date Completed:	2023-04-19

**ATTN:** Mr. Marco Ma

Page: 1 of 1

**QC report**

**Method Blank**

Parameter	Method Blank 1	Method Blank 2	Acceptance
Total Suspended Solids (mg/L)	<0.5	<0.5	<0.5
Arsenic (µg/L)	<0.2	N/A	<0.2

**Method QC**

Parameter	MQC1	MQC2	Acceptance
Total Suspended Solids (%)	113	94	80-120
Arsenic (%)	99	N/A	80-120

**Sample Spike**

Parameter	Sample Spike 1	Sample Spike 2	Acceptance
Total Suspended Solids (%)	N/A	N/A	N/A
Arsenic (%)	112	N/A	80-120

**Sample Duplicate**

Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	3	2	RPD≤5%
Arsenic (%)	4	N/A	RPD≤20%

Remarks: 1) < = less than  
2) N/A = Not applicable  
3) This report is the summary of quality control data for report number 37991.

\*\*\*\*\*END OF REPORT\*\*\*\*\*

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

  
**PATRICIK TSE**  
General Manager

**TEST REPORT**

**APPLICANT:** Wellab Limited (EM&A Department)  
Rm 1714, Technology Park,  
18 On Lai Street,  
Shatin, N.T.

Report No.:	QC38024
Date of Issue:	2023-04-21
Date Received:	2023-04-17
Date Tested:	2023-04-17
Date Completed:	2023-04-21

**ATTN:** Mr. Marco Ma

Page: 1 of 1

QC report  
Method Blank

Parameter	Method Blank 1	Method Blank 2	Acceptance
Total Suspended Solids (mg/L)	<0.5	<0.5	<0.5
Arsenic (µg/L)	<0.2	N/A	<0.2

Method QC

Parameter	MQC1	MQC2	Acceptance
Total Suspended Solids (%)	108	92	80-120
Arsenic (%)	103	N/A	80-120

Sample Spike

Parameter	Sample Spike 1	Sample Spike 2	Acceptance
Total Suspended Solids (%)	N/A	N/A	N/A
Arsenic (%)	101	N/A	80-120

Sample Duplicate

Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	5	4	RPD≤5%
Arsenic (%)	11	N/A	RPD≤20%

Remarks: 1) < = less than  
2) N/A = Not applicable  
3) This report is the summary of quality control data for report number 38024.

\*\*\*\*\*END OF REPORT\*\*\*\*\*

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

  
**PATRICIK TSE**  
General Manager

**TEST REPORT**

**APPLICANT:** Wellab Limited (EM&A Department)  
Rm 1714, Technology Park,  
18 On Lai Street,  
Shatin, N.T.

Report No.:	QC38030
Date of Issue:	2023-04-25
Date Received:	2023-04-19
Date Tested:	2023-04-19
Date Completed:	2023-04-25

**ATTN:** Mr. Marco Ma

Page: 1 of 1

**QC report  
Method Blank**

Parameter	Method Blank 1	Method Blank 2	Acceptance
Total Suspended Solids (mg/L)	<0.5	<0.5	<0.5
Arsenic (µg/L)	<0.2	N/A	<0.2

**Method QC**

Parameter	MQC1	MQC2	Acceptance
Total Suspended Solids (%)	85	95	80-120
Arsenic (%)	92	N/A	80-120

**Sample Spike**

Parameter	Sample Spike 1	Sample Spike 2	Acceptance
Total Suspended Solids (%)	N/A	N/A	N/A
Arsenic (%)	94	N/A	80-120

**Sample Duplicate**

Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	1	3	RPD≤5%
Arsenic (%)	6	N/A	RPD≤20%

Remarks: 1) <= less than  
2) N/A = Not applicable  
3) This report is the summary of quality control data for report number 38030.

\*\*\*\*\*END OF REPORT\*\*\*\*\*

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

  
**PATRCIK TSE**  
General Manager

**TEST REPORT**

**APPLICANT:** Wellab Limited (EM&A Department)  
Rm 1714, Technology Park,  
18 On Lai Street,  
Shatin, N.T.

Report No.:	QC38037
Date of Issue:	2023-04-27
Date Received:	2023-04-21
Date Tested:	2023-04-21
Date Completed:	2023-04-27

**ATTN:** Mr. Marco Ma

Page: 1 of 1

**QC report  
Method Blank**

Parameter	Method Blank 1	Method Blank 2	Acceptance
Total Suspended Solids (mg/L)	<0.5	<0.5	<0.5
Arsenic (µg/L)	<0.2	N/A	<0.2

**Method QC**

Parameter	MQC1	MQC2	Acceptance
Total Suspended Solids (%)	102	118	80-120
Arsenic (%)	91	N/A	80-120

**Sample Spike**

Parameter	Sample Spike 1	Sample Spike 2	Acceptance
Total Suspended Solids (%)	N/A	N/A	N/A
Arsenic (%)	112	N/A	80-120


**Sample Duplicate**

Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	2	5	RPD≤5%
Arsenic (%)	8	N/A	RPD≤20%

Remarks: 1) < = less than  
2) N/A = Not applicable  
3) This report is the summary of quality control data for report number 38037.

\*\*\*\*\*END OF REPORT\*\*\*\*\*

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

  
**PATRCIK TSE**  
General Manager

**TEST REPORT**

**APPLICANT:** Wellab Limited (EM&A Department)  
Rm 1714, Technology Park,  
18 On Lai Street,  
Shatin, N.T.

Report No.:	QC38067
Date of Issue:	2023-04-28
Date Received:	2023-04-24
Date Tested:	2023-04-24
Date Completed:	2023-04-28

**ATTN:** Mr. Marco Ma  
**QC report**  
**Method Blank**

Page: 1 of 1

Parameter	Method Blank 1	Method Blank 2	Acceptance
Total Suspended Solids (mg/L)	<0.5	<0.5	<0.5
Arsenic (µg/L)	<0.2	N/A	<0.2

**Method QC**

Parameter	MQC1	MQC2	Acceptance
Total Suspended Solids (%)	106	116	80-120
Arsenic (%)	107	N/A	80-120

**Sample Spike**

Parameter	Sample Spike 1	Sample Spike 2	Acceptance
Total Suspended Solids (%)	N/A	N/A	N/A
Arsenic (%)	84	N/A	80-120

**Sample Duplicate**

Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	1	1	RPD≤5%
Arsenic (%)	5	N/A	RPD≤20%

Remarks: 1) < = less than  
2) N/A = Not applicable  
3) This report is the summary of quality control data for report number 38067.

\*\*\*\*\*END OF REPORT\*\*\*\*\*

PREPARED AND CHECKED BY:

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

  
**PATRICIK TSE**  
General Manager

**TEST REPORT**

**APPLICANT:** Wellab Limited (EM&A Department)  
Rm 1714, Technology Park,  
18 On Lai Street,  
Shatin, N.T.

Report No.:	QC38073
Date of Issue:	2023-05-03
Date Received:	2023-04-26
Date Tested:	2023-04-26
Date Completed:	2023-05-03

**ATTN:** Mr. Marco Ma  
QC report  
Method Blank

Page: 1 of 1

Parameter	Method Blank 1	Method Blank 2	Acceptance
Total Suspended Solids (mg/L)	<0.5	<0.5	<0.5
Arsenic (µg/L)	<0.2	N/A	<0.2

**Method QC**

Parameter	MQC1	MQC2	Acceptance
Total Suspended Solids (%)	119	114	80-120
Arsenic (%)	104	N/A	80-120

**Sample Spike**

Parameter	Sample Spike 1	Sample Spike 2	Acceptance
Total Suspended Solids (%)	N/A	N/A	N/A
Arsenic (%)	116	N/A	80-120

**Sample Duplicate**

Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	1	2	RPD≤5%
Arsenic (%)	12	N/A	RPD≤20%

Remarks: 1) < = less than  
2) N/A = Not applicable  
3) This report is the summary of quality control data for report number 38073.

\*\*\*\*\*END OF REPORT\*\*\*\*\*

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

  
**PATRCIK TSE**  
General Manager

## TEST REPORT

**APPLICANT:** Wellab Limited (EM&A Department)  
Rm 1714, Technology Park,  
18 On Lai Street,  
Shatin, N.T.

Report No.: QC38079  
Date of Issue: 2023-05-04  
Date Received: 2023-04-28  
Date Tested: 2023-04-28  
Date Completed: 2023-05-04

Page: 1 of 1

**ATTN:** Mr. Marco Ma

QC report

Method Blank

Parameter	Method Blank 1	Method Blank 2	Acceptance
Total Suspended Solids (mg/L)	<0.5	<0.5	<0.5
Arsenic (µg/L)	<0.2	N/A	<0.2

Method QC

Parameter	MQC1	MQC2	Acceptance
Total Suspended Solids (%)	116	86	80-120
Arsenic (%)	91	N/A	80-120

Sample Spike

Parameter	Sample Spike 1	Sample Spike 2	Acceptance
Total Suspended Solids (%)	N/A	N/A	N/A
Arsenic (%)	95	N/A	80-120

Sample Duplicate

Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	3	2	RPD≤5%
Arsenic (%)	1	N/A	RPD≤20%

Remarks: 1) < = less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 38079.

\*\*\*\*\*END OF REPORT\*\*\*\*\*

PREPARED AND CHECKED BY:

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

  
**PATRCIK TSE**  
General Manager



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**APPENDIX J  
LANDFILL GAS MONITORING  
RESULTS**

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**Contract No. ND/2019/01**

**Development of Kwu Tung North & Fanling North New Development Area, Phase 1:  
Kwu Tung North New Development Area, Phase 1: Site formation & Infrastructure works**

堆填區附近區域(Consultation Zone)每月氣體監察記錄

日期及時間	位置	氣體及安全標準	氧氣 O <sub>2</sub> >19%	甲烷 CH <sub>4</sub> <10% LEL	二氧化碳 CO <sub>2</sub> <0.5%
18-04-2023 9:55	CZ PT 1		20.68	0.00	0.00
18-04-2023 9:57	CZ container 1		20.55	0.00	0.00
18-04-2023 9:49	CZ container 2		20.95	0.01	0.04
18-04-2023 9:51	CZ container 3		20.96	0.02	0.04
18-04-2023 9:53	CZ container 4		20.83	0.00	0.03
18-04-2023 9:59	CZ container 5		20.44	0.00	0.01

Prepared by : Y L Chan (Safety Officer)

Date : 18-04-2023

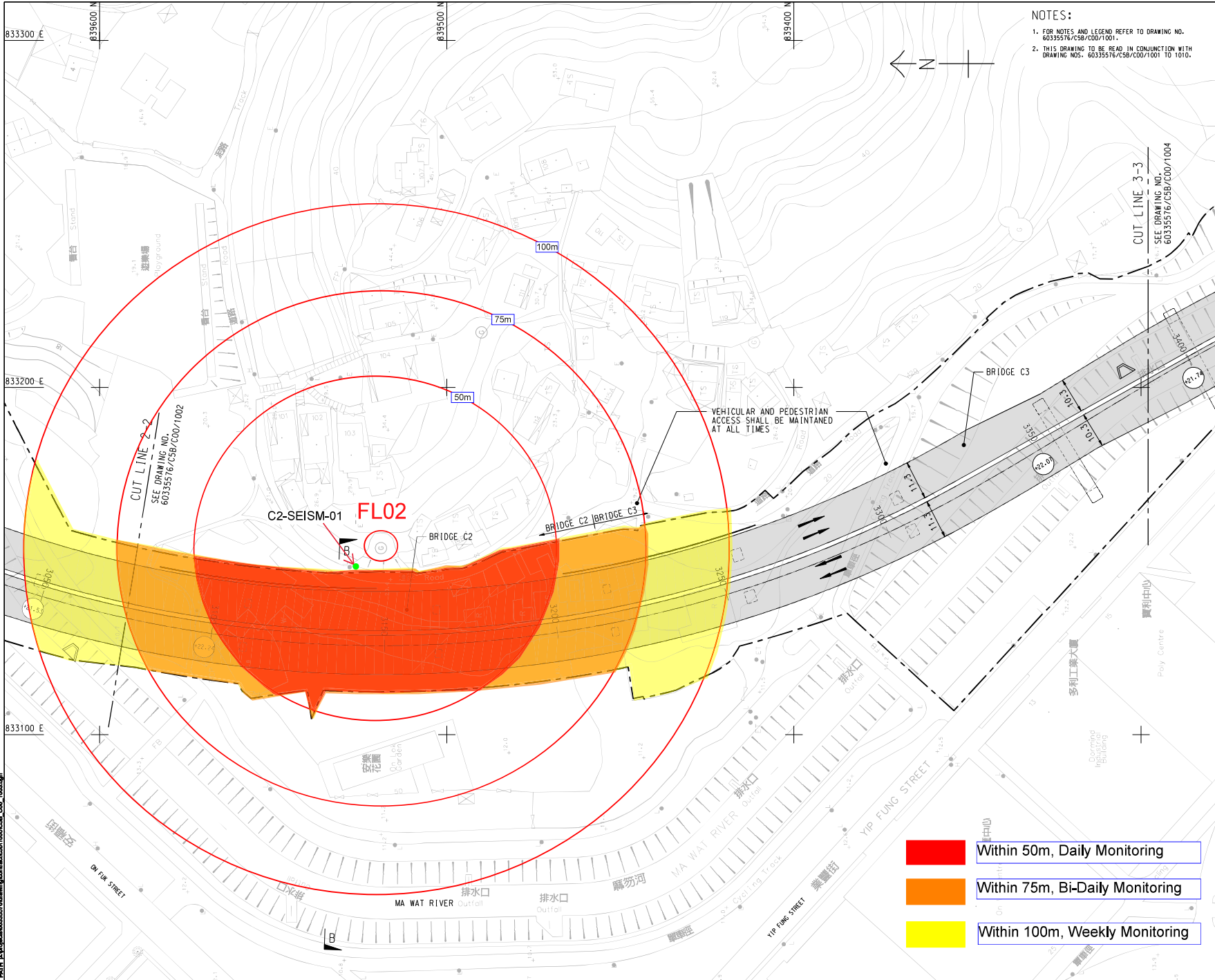
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**APPENDIX K  
BUILT HERITAGE MONITORING  
RESULTS**

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NOTES:  
 1. FOR NOTES AND LEGEND REFER TO DRAWING NO. 60335576/CSB/C00/1001.  
 2. THIS DRAWING TO BE READ IN CONJUNCTION WITH DRAWING NOS. 60335576/CSB/C00/1001 TO 1010.

- Within 50m, Daily Monitoring
- Within 75m, Bi-Daily Monitoring
- Within 100m, Weekly Monitoring

**AECOM**

**PROJECT**  
 DEVELOPMENT OF KWU TUNG NORTH AND FANLING NORTH NEW DEVELOPMENT AREAS, PHASE 1

**CONTRACT TITLE:**  
 FANLING NORTH NEW DEVELOPMENT AREA, PHASE 1: FANLING BYPASS EASTERN SECTION (SHUNG HIM TONG TO KAU LUNG HANG)

**CLIENT**  
 土木工程拓展署  
 Civil Engineering and Development Department

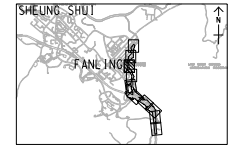
**CONSULTANT**  
 AECOM Asia Company Ltd.  
 www.aecom.com

**SUB-CONSULTANTS**  
 24/11/2018

ISSUE/REVISION		
NO.	DATE	DESCRIPTION
1	JUN-19	TENDER DRAWING
2		
3		
4		
5		

**SCALE**  
 A1: 800 METRES

**KEY PLAN** A1: 70000



**PROJECT NO.** 60335576  
**CONTRACT NO.** ND/2018/05

**SHEET TITLE**  
 GENERAL LAYOUT

**SHEET NUMBER**  
 60335576/CSB/C00/1003

SHEET 3 OF 10

This drawing has been prepared for the use of AECOM. It is the property of AECOM and shall remain the property of AECOM. It is not to be used for any other purpose without the written consent of AECOM. AECOM makes no representation or warranty as to the accuracy or completeness of the information provided herein. It is the responsibility of the user to verify the accuracy and completeness of the information provided herein.

## Summary of vibration readings at FL02 (C2-SEISM-01)



Table 2.3: Vibration Limit from PNAP APP-137 & PS 34.01(2)

TYPE OF BUILDING	GUIDE VALUES OF MAXIMUM PPV* (MM/SEC)	
	TRANSIENT VIBRATION	CONTINUOUS VIBRATION
Vibration-sensitive / dilapidated buildings#	7.5	3.0

Date	Max. PPV recorded (mm/s)	Serial no. of device (Micromate/ Supergraph)
01 Apr 2023	0.226	UM17121
03 Apr 2023	0.130	UM17124
04 Apr 2023	0.213	UM17121
06 Apr 2023	0.128	UM17124
11 Apr 2023	0.235	UM17121
12 Apr 2023	0.157	UM17124
13 Apr 2023	0.127	UM17124
14 Apr 2023	0.184	UM17121
15 Apr 2023	0.078	UM17124
17 Apr 2023	0.097	UM17121
18 Apr 2023	0.202	UM17121
19 Apr 2023	0.116	UM17124
20 Apr 2023	2.048	UM17121
21 Apr 2023	2.524	UM17126
22 Apr 2023	0.656	UM17121
24 Apr 2023	0.742	UM17121
25 Apr 2023	1.011	UM17121
26 Apr 2023	0.895	UM17126
27 Apr 2023	1.375	UM17121
28 Apr 2023	1.361	UM17126
29 Apr 2023	0.893	UM17126

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**APPENDIX L**  
**ECOLOGICAL MONITORING RESULTS**

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Appendix L1a. Avifauna Species Recorded for Water Birds Monitoring, 4 & 6 April 2023, High Tide

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date		4/4/2023 (T1 & T2), 6/4/2023 (T3 & T5)										
					Weather Condition		Fine, Fine										
					Tidal Condition		High										
					Tide Level (m)		1.92, 1.84										
					Start Time		1000, 0900										
					Abundance												
					Transect Walk												
					T1	T2	T3	T5					Heard	Flight			
			WAL	DAL	SWH	P											
Amur Stonechat	<i>Saxicola stejnegeri</i>	黑喉石鵯	WV					2									
Asian Koel	<i>Eudynamys scolopacea</i>	噪鵯	R		1	2						3					
Barn Swallow	<i>Hirundo rustica</i>	家燕	PM, Sv		1								16				
Black Kite	<i>Milvus migrans</i>	黑鳶	R, WV	(RC), Cap.586	2	1							2				
Black-collared Starling	<i>Gracupica nigricollis</i>	黑領椋鳥	R		3	4		16					4				
Black-faced Bunting	<i>Emberiza spodocephala</i>	灰頭鵯	WV, PM		1												
Black-winged Stilt	<i>Himantopus himantopus</i>	黑翅長腳鵯	PM	RC				26	6	86			4				
Chinese Bulbul	<i>Pycnonotus sinensis</i>	白頭鵯	R			1		4									
Chinese Pond Heron	<i>Ardeola bacchus</i>	池鷺	R	PRC(RC)			3	2	2	4			4				
Cinereous Tit	<i>Parus cinereus</i>	蒼背山雀	R		2	1			1								
Collared Crow	<i>Corvus torquatus</i>	白頸鴉	UR	LC, VU		1											
Common Greenshank	<i>Tringa nebularia</i>	青腳鵯	PM, WV	RC			1			1							
Common Kestrel	<i>Falco tinnunculus</i>	紅隼	CaM, WV	Cap. 586									1				
Common Moorhen	<i>Gallinula chloropus</i>	黑水雞	R					2									
Common Myna	<i>Acridotheres tristis</i>	家八哥	UR		2	2											

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date		4/4/2023 (T1 & T2), 6/4/2023 (T3 & T5)						
					Weather Condition		Fine, Fine						
					Tidal Condition		High						
					Tide Level (m)		1.92, 1.84						
					Start Time		1000, 0900						
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					
			WAL	DAL	SWH	P	Heard	Flight					
Common Sandpiper	<i>Actitis hypoleucos</i>	磯鵲	WV, PM			3							
Common Snipe	<i>Gallinago gallinago</i>	扇尾沙錐	WV, PM				4						
Common Tailorbird	<i>Orthotomus sutorius</i>	長尾縫葉鶯	R		1								
Crested Myna	<i>Acridotheres cristatellus</i>	八哥	R			3		4				6	
Eastern Cattle Egret	<i>Bubulcus coromandus</i>	牛背鷺	R, PM	(LC)		1		9	4				
Eastern Yellow Wagtail	<i>Motacilla tschutschensis</i>	東黃鵲鴝	PM, WV					6	5			11	
Eurasian Tree Sparrow	<i>Passer montanus</i>	樹麻雀	R									32	
Great Cormorant	<i>Phalacrocorax carbo</i>	普通鸕鶿	CWV	PRC		1							
Great Egret	<i>Ardea alba</i>	大白鷺	R, WV	PRC(RC)	6	3	1		1				
Greater Coucal	<i>Centropus sinensis</i>	褐翅鴉鵂	R	(VU)					1				
Green Sandpiper	<i>Tringa ochropus</i>	白腰草鶿	UPM, WV				1						
Grey-headed Lapwing	<i>Vanellus cinereus</i>	灰頭麥雞	WV, PM	LC					1				
Grey Heron	<i>Ardea cinerea</i>	蒼鷺	WV	PRC	3	3	3						
House Swift	<i>Apus nipalensis</i>	小白腰雨燕	SpM, R		3	5						10	
Large Hawk-Cuckoo	<i>Hierococcyx sparveroides</i>	大鷹鴝	Sv			1					1		
Little Egret	<i>Egretta garzetta</i>	小白鷺	R	PRC(RC)	1	6	8			3		2	
Little Ringed Plover	<i>Charadrius dubius</i>	金眶鶺鴒	WV, PM	LC						13			



Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date		4/4/2023 (T1 & T2), 6/4/2023 (T3 & T5)							
					Weather Condition		Fine, Fine							
					Tidal Condition		High							
					Tide Level (m)		1.92, 1.84							
					Start Time		1000, 0900							
					Abundance									
					Transect Walk									
					T1	T2	T3	T5						
			WAL	DAL	SWH	P	Heard	Flight						
Long-tailed Shrike	<i>Lanius schach</i>	棕背伯勞	R					2						
Marsh Sandpiper	<i>Tringa stagnatilis</i>	澤鷸	PM, WV	RC					2					
Masked Laughingthrush	<i>Pterorhinus perspicillatus</i>	黑臉噪鵲	R					3			3	2		
Olive-backed Pipit	<i>Anthus hodgsoni</i>	樹鵲	WV					3						
Oriental Magpie-Robin	<i>Copsychus saularis</i>	鵲鴝	R			1		1						
Pallas's Leaf Warbler	<i>Phylloscopus proregulus</i>	黃腰柳鶯	WV		4			2						
Plain Prinia	<i>Prinia inornata</i>	純色鷓鴣	R			1		1			2			
Plaintive Cuckoo	<i>Cacomantis merulinus</i>	八聲杜鵑	USV								1			
Red-throated Pipit	<i>Anthus cervinus</i>	紅喉鵲	CPM, WV	RC				13					2	
Red-whiskered Bulbul	<i>Pycnonotus jocosus</i>	紅耳鶇	R		2	10		6					4	
Richard's Pipit	<i>Anthus richardi</i>	理氏鵲	WV, PM					5						
Rock Dove	<i>Columba livia</i>	原鴿	R			3		13					3	
Scaly-breasted Munia	<i>Lonchura punctulata</i>	斑文鳥	R					6					120	
Spotted Dove	<i>Streptopelia chinensis</i>	珠頸斑鳩	R		3	6		10					6	
Swinhoe's White-eye	<i>Zosterops simplex</i>	暗綠繡眼鳥	R			3								
White-breasted Waterhen	<i>Amaurornis phoenicurus</i>	白胸苦惡鳥	R					2			1		1	
White-throated Kingfisher	<i>Halcyon smyrnensis</i>	白胸翡翠	R	(LC)		1							1	

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date		4/4/2023 (T1 & T2), 6/4/2023 (T3 & T5)									
					Weather Condition		Fine, Fine									
					Tidal Condition		High									
					Tide Level (m)		1.92, 1.84									
					Start Time		1000, 0900									
					Abundance											
					Transect Walk											
					T1	T2	T3	T5								
			WAL	DAL	SWH	P	Heard	Flight								
White Wagtail	<i>Motacilla alba</i>	白鵲鵲	PM, WV			1		12				5				
Wood Sandpiper	<i>Tringa glareola</i>	林鵲	PM, WV	LC			28		29							
Yellow-breasted Bunting	<i>Emberiza aureola</i>	黃胸鵲		CR, RC				2								
<b>Total No. of Species</b>					15	23	7	7	27	7	0	6	20			
<b>Total No. of Conservation Interest Species</b>					4	8	5	4	8	7	0	0	7			

Note:  
R – Resident; WV – Winter visitor; PM – Passage migrant; CPM - Common Passage Migrant; UPM – Uncommon passage migrant;; UR – Uncommon resident; CWV - Common Winter Visitor; OV - Occasional visitor  
Status was decided according to AFCD biodiversity website (www.hkbiodiversity.net)  
Cap. 170: All bird species are under protection of Wild Animals Protection Ordinance  
Cap.586 : Endangered Species of Animals and Plants Ordinance (Cap.586)  
CR: Rare in China Red Data Book Status  
VU: Vulnerable in IUCN Red List Status  
(VU): Vulnerable in China Red Data Book Status  
EN: Endangered in IUCN Red List Status  
(EN): Endangered in China Red Data Book Status  
NT: Near Threatened in IUCN Red List Status  
CR: Critically Endangered in IUCN Red List Status  
RC=Regional Concern; LC=Local Concern; PRC=Potential Regional Concern; GC=Global Concern; PGC=Potential Global Concern. Letters in parentheses indicate that the assessment is on the basis of restrictedness in breeding and/or roosting sites rather than in general occurrence (Fellowes et al. (2002)  
WAL: Wet Agricultural Land  
DAL: Dry Agricultural Land

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date		4/4/2023 (T1 & T2), 6/4/2023 (T3 & T5)									
					Weather Condition		Fine, Fine									
					Tidal Condition		High									
					Tide Level (m)		1.92, 1.84									
					Start Time		1000, 0900									
					Abundance											
					Transect Walk											
								T5								
					T1	T2	T3	WAL	DAL	SWH	P	Heard	Flight			
					SWH: Shallow Water Habitat P: Pond											

**Appendix L1b. Avifauna Species Recorded for Water Birds Monitoring, 4 & 6 April 2023, Low Tide**

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date		4/4/2023 (T1 & T2), 6/4/2023 (T3 & T5)						
					Weather Condition		Overcast, Fine						
					Tidal Condition		Low						
					Tide Level (m)		0.8, 1.43						
					Start Time		1600, 1400						
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					Heard
			WAL	DAL	SWH	P							
Alexandrine Parakeet	<i>Psittacula eupatria</i>	亞歷山大鸚鵡	RR	NT, Cap. 586		1							
Amur Stonechat	<i>Saxicola stejnegeri</i>	黑喉石鵲	WV					1					
Asian Koel	<i>Eudynamys scolopacea</i>	噪鵲	R		3	3						2	1
Black Kite	<i>Milvus migrans</i>	黑鳶	R, WV	(RC), Cap.586		2							1
Black-collared Starling	<i>Gracupica nigricollis</i>	黑領椋鳥	R		4	6							
Black-winged Stilt	<i>Himantopus himantopus</i>	黑翅長腳鵲	PM	RC			1	40	2	54			5
Chinese Bulbul	<i>Pycnonotus sinensis</i>	白頭鵲	R						4				
Chinese Pond Heron	<i>Ardeola bacchus</i>	池鷺	R	PRC(RC)	2	1	5	2	1	1			2
Cinereous Tit	<i>Parus cinereus</i>	蒼背山雀	R		1								
Collared Crow	<i>Corvus torquatus</i>	白頸鴉	UR	LC, VU		1	2						
Common Greenshank	<i>Tringa nebularia</i>	青腳鵲	PM, WV	RC						1			
Common Kestrel	<i>Falco tinnunculus</i>	紅隼	CaM, WV	Cap. 586									1
Common Moorhen	<i>Gallinula chloropus</i>	黑水雞	R					3					
Common Myna	<i>Acridotheres tristis</i>	家八哥	UR										2
Common Sandpiper	<i>Actitis hypoleucos</i>	磯鵲	WV, PM				2						

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date		4/4/2023 (T1 & T2), 6/4/2023 (T3 & T5)								
					Weather Condition		Overcast, Fine								
					Tidal Condition		Low								
					Tide Level (m)		0.8, 1.43								
					Start Time		1600, 1400								
					Abundance										
					Transect Walk										
					T1	T2	T3	T5						Heard	Flight
			WAL	DAL	SWH	P									
Crested Myna	<i>Acridotheres cristatellus</i>	八哥	R				4	10							36
Eastern Cattle Egret	<i>Bubulcus coromandus</i>	牛背鷺	R, PM	(LC)					9						
Eastern Yellow Wagtail	<i>Motacilla tschutschensis</i>	東黃鶺鴒	PM, WV					1		16					
Eurasian Tree Sparrow	<i>Passer montanus</i>	樹麻雀	R					4							
Grey-headed Lapwing	<i>Vanellus cinereus</i>	灰頭麥雞	WV, PM	LC						1					
Great Egret	<i>Ardea alba</i>	大白鷺	R, WV	PRC(RC)	1	5	1			1					1
Green Sandpiper	<i>Tringa ochropus</i>	白腰草鶺鴒	UPM, WV							3					
Grey Heron	<i>Ardea cinerea</i>	蒼鷺	WV	PRC	1	1									
House Swift	<i>Apus nipalensis</i>	小白腰雨燕	SpM, R					1							32
Little Egret	<i>Egretta garzetta</i>	小白鷺	R	PRC(RC)		4	10								
Little Ringed Plover	<i>Charadrius dubius</i>	金眶鸕	WV, PM	LC					3		14				
Long-tailed Shrike	<i>Lanius schach</i>	棕背伯勞	R							1					
Masked Laughingthrush	<i>Pterorhinus perspicillatus</i>	黑臉噪鶺鴒	R			1				9			3		
Olive-backed Pipit	<i>Anthus hodgsoni</i>	樹鶺鴒	WV		1	1				3					
Oriental Magpie-Robin	<i>Copsychus saularis</i>	鶺鴒	R				1			1					1
Pallas's Leaf Warbler	<i>Phylloscopus proregulus</i>	黃腰柳鶺鴒	WV							1					
Plain Prinia	<i>Prinia inornata</i>	純色鶺鴒	R		3	3				3					1

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date		4/4/2023 (T1 & T2), 6/4/2023 (T3 & T5)							
					Weather Condition		Overcast, Fine							
					Tidal Condition		Low							
					Tide Level (m)		0.8, 1.43							
					Start Time		1600, 1400							
					Abundance									
					Transect Walk									
					T1	T2	T3	T5						
			WAL	DAL	SWH	P	Heard	Flight						
Red-rumped Swallow	<i>Cecropis daurica</i>	金腰燕	UPM		4									
Red-throated Pipit	<i>Anthus cervinus</i>	紅喉鵯	CPM, WV	RC			7	9				3		
Red-whiskered Bulbul	<i>Pycnonotus jocosus</i>	紅耳鶇	R		8	6		2						
Richard's Pipit	<i>Anthus richardi</i>	理氏鵯	WV, PM					4						
Rock Dove	<i>Columba livia</i>	原鴿	R			10		11				6		
Scaly-breasted Munia	<i>Lonchura punctulata</i>	斑文鳥	R			1		60				70		
Spotted Dove	<i>Streptopelia chinensis</i>	珠頸斑鳩	R		1	4		8				2		
Swinhoe's White-eye	<i>Zosterops simplex</i>	暗綠繡眼鳥	R			1								
White Wagtail	<i>Motacilla alba</i>	白鶺鴒	PM, WV				2	11				4		
White-breasted Waterhen	<i>Amaurornis phoenicurus</i>	白胸苦惡鳥	R				2				2	2		
White-throated Kingfisher	<i>Halcyon smyrnensis</i>	白胸翡翠	R	(LC)		1	1							
Wood Sandpiper	<i>Tringa glareola</i>	林鵲	PM, WV	LC			31	4	26					
Yellow-bellied Prinia	<i>Prinia flaviventris</i>	黃腹鷦鶯	R					1			4			
<b>Total No. of Species</b>					12	21	9	9	23	5	0	4	17	
<b>Total No. of Conservation Interest Species</b>					3	8	6	6	6	5	0	0	6	

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date		4/4/2023 (T1 & T2), 6/4/2023 (T3 & T5)									
					Weather Condition		Overcast, Fine									
					Tidal Condition		Low									
					Tide Level (m)		0.8, 1.43									
					Start Time		1600, 1400									
					Abundance											
					Transect Walk											
								T5								
					T1	T2	T3	WAL	DAL	SWH	P	Heard	Flight			

Note:  
R – Resident; WV – Winter visitor; PM – Passage migrant; CPM - Common Passage Migrant; UPM – Uncommon passage migrant; SPM - Scarce Passage Migrant; CaM - Common autumn migrant;; USV - Uncommon Summer visitor; SpM – Spring migrant; Sv – Summer Visitor; UR – Uncommon resident;  
Status was decided according to AFCD biodiversity website ([www.hkbiodiversity.net](http://www.hkbiodiversity.net))  
Cap. 170: All bird species are under protection of Wild Animals Protection Ordinance  
Cap.586 : Endangered Species of Animals and Plants Ordinance (Cap.586)  
RC=Regional Concern; LC=Local Concern; PRC=Potential Regional Concern; GC=Global Concern; PGC=Potential Global Concern. Letters in parentheses indicate that the assessment is on the basis of restrictedness in breeding and/or roosting sites rather than in general occurrence (Fellowes et al. (2002)  
WAL: Wet Agricultural Land  
DAL: Dry Agricultural Land  
SWH: Shallow Water Habitat  
P: Pond

Appendix L1c. Avifauna Species Recorded for Water Birds Monitoring, 12 & 13 April 2023, High Tide

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date		12/4/2023 (T1 & T2), 13/4/2023 (T3 & T5)							
					Weather Condition		Sunny, Sunny							
					Tidal Condition		High							
					Tide Level (m)		2.02, 2.46							
					Start Time		1100, 1400							
					Abundance									
					Transect Walk									
					T1	T2	T3	T5					Heard	Flight
			WAL	DAL	SWH	P								
Asian Koel	<i>Eudynamys scolopacea</i>	噪鵲	R				2	1					1	
Barn Swallow	<i>Hirundo rustica</i>	家燕	PM, Sv				2							
Black Kite	<i>Milvus migrans</i>	黑鳶	R, WV	(RC), Cap.586			2						2	
Black-collared Starling	<i>Gracupica nigricollis</i>	黑領椋鳥	R						3	6			1	
Black-winged Stilt	<i>Himantopus himantopus</i>	黑翅長腳鷸	PM	RC					41	7	43			8
Chinese Pond Heron	<i>Ardeola bacchus</i>	池鷺	R	PRC(RC)			2	3		5	1			6
Cinereous Tit	<i>Parus cinereus</i>	蒼背山雀	R				2		1					
Collared Crow	<i>Corvus torquatus</i>	白頸鴉	UR	LC, VU					3	1			1	
Common Greenshank	<i>Tringa nebularia</i>	青腳鷸	PM, WV	RC					1	1	3			
Common Moorhen	<i>Gallinula chloropus</i>	黑水雞	R							3				
Common Myna	<i>Acridotheres tristis</i>	家八哥	UR							2				
Common Sandpiper	<i>Actitis hypoleucos</i>	磯鷸	WV, PM						3	1	3			
Common Snipe	<i>Gallinago gallinago</i>	扇尾沙錐	WV, PM							1	1			
Common Tailorbird	<i>Orthotomus sutorius</i>	長尾縫葉鶯	R				1		1		1			
Crested Myna	<i>Acridotheres cristatellus</i>	八哥	R				1	2	2	16	22			3



Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date		12/4/2023 (T1 & T2), 13/4/2023 (T3 & T5)						
					Weather Condition		Sunny, Sunny						
					Tidal Condition		High						
					Tide Level (m)		2.02, 2.46						
					Start Time		1100, 1400						
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					Heard
			WAL	DAL	SWH	P							
Crested Serpent Eagle	<i>Spilornis cheela</i>	蛇鵟	UR	Cap.586, (VU)									1
Dusky Warbler	<i>Phylloscopus fuscatus</i>	褐柳鶯	PM, WV			1							
Eastern Cattle Egret	<i>Bubulcus coromandus</i>	牛背鶯	R, PM	(LC)				12	3	1			16
Eastern Yellow Wagtail	<i>Motacilla tschutschensis</i>	東黃鸚鵡	PM, WV						5				
Eurasian Tree Sparrow	<i>Passer montanus</i>	樹麻雀	R			1			3				
Great Egret	<i>Ardea alba</i>	大白鶯	R, WV	PRC(RC)	2	1	1			2			1
Greater Coucal	<i>Centropus sinensis</i>	褐翅鴉鵂	R	(VU)								1	
Green Sandpiper	<i>Tringa ochropus</i>	白腰草鶯	UPM, WV				1		1	2			
Grey Heron	<i>Ardea cinerea</i>	蒼鶯	WV	PRC		1	3			1			
Grey-headed Lapwing	<i>Vanellus cinereus</i>	灰頭麥雞	WV, PM	LC					2				1
House Swift	<i>Apus nipalensis</i>	小白腰雨燕	SpM, R										8
Large Hawk-Cuckoo	<i>Hierococyx sparverioides</i>	大鷹鴉	Sv		1	2						1	
Little Egret	<i>Egretta garzetta</i>	小白鶯	R	PRC(RC)	3	5	10		5	3			2
Little Ringed Plover	<i>Charadrius dubius</i>	金眶鸛	WV, PM	LC					1				
Masked Laughingthrush	<i>Pterorhinus perspicillatus</i>	黑臉噪鶯	R		2	3	3					2	
Oriental Magpie-Robin	<i>Copsychus saularis</i>	鶻鶻	R		1	2							

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date		12/4/2023 (T1 & T2), 13/4/2023 (T3 & T5)							
					Weather Condition		Sunny, Sunny							
					Tidal Condition		High							
					Tide Level (m)		2.02, 2.46							
					Start Time		1100, 1400							
					Abundance									
					Transect Walk									
					T1	T2	T3	T5						
			WAL	DAL	SWH	P	Heard	Flight						
Oriental Pratincole	<i>Glareola maldivarum</i>	普通燕鴿	PM	LC								1		
Pallas's Leaf Warbler	<i>Phylloscopus proregulus</i>	黃腰柳鶯	WV		1									
Plain Prinia	<i>Prinia inornata</i>	純色鷓鴣	R					4			2			
Red-billed Blue Magpie	<i>Urocissa erythrorhyncha</i>	紅咀藍鶇	R			1								
Red-necked Stint	<i>Calidris ruficollis</i>	紅頸濱鶇	SpM	NT, LC				14	1					
Red-throated Pipit	<i>Anthus cervinus</i>	紅喉鶇	CPM, WV	RC					16					
Red-whiskered Bulbul	<i>Pycnonotus jocosus</i>	紅耳鶇	R		7	5			6		3	1		
Richard's Pipit	<i>Anthus richardi</i>	理氏鶇	WV, PM						3					
Rock Dove	<i>Columba livia</i>	原鴿	R			8	4		7					
Scaly-breasted Munia	<i>Lonchura punctulata</i>	斑文鳥	R			1								
Spotted Dove	<i>Streptopelia chinensis</i>	珠頸斑鳩	R		2	8	1		7			1		
Swinhoe's White-eye	<i>Zosterops simplex</i>	暗綠繡眼鳥	R		4									
White Wagtail	<i>Motacilla alba</i>	白鶇鶇	PM, WV		2		3		2					
White-breasted Waterhen	<i>Amaurornis phoenicurus</i>	白胸苦惡鳥	R				1							
Wood Sandpiper	<i>Tringa glareola</i>	林鶇	PM, WV	LC			3	44	10	51		11		
Yellow-bellied Prinia	<i>Prinia flaviventris</i>	黃腹鷓鴣	R		2						1			
<b>Total No. of Species</b>					18	16	16	7	27	10	0	10	13	

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date		12/4/2023 (T1 & T2), 13/4/2023 (T3 & T5)									
					Weather Condition		Sunny, Sunny									
					Tidal Condition		High									
					Tide Level (m)		2.02, 2.46									
					Start Time		1100, 1400									
					Abundance											
					Transect Walk											
					T1	T2	T3	T5								
								WAL	DAL	SWH	P	Heard	Flight			
<b>Total No. of Conservation Interest Species</b>					4	4	5	3	11	8	0	3	9			

Note:  
R – Resident; WV – Winter visitor; PM – Passage migrant; CPM - Common Passage Migrant; UPM – Uncommon passage migrant; SPM - Scarce Passage Migrant; CaM - Common autumn migrant; USV - Uncommon Summer visitor; SpM – Spring migrant; UR – Uncommon resident; SWV –CWV - Common Winter Visitor;  
Status was decided according to AFCD biodiversity website (www.hkbiodiversity.net)  
Cap. 170: All bird species are under protection of Wild Animals Protection Ordinance  
Cap.586 : Endangered Species of Animals and Plants Ordinance (Cap.586)  
VU: Vulnerable in IUCN Red List Status  
EN: Endangered in IUCN Red List Status  
(EN): Endangered in China Red Data Book Status  
RC=Regional Concern; LC=Local Concern; PRC=Potential Regional Concern; GC=Global Concern; PGC=Potential Global Concern. Letters in parentheses indicate that the assessment is on the basis of restrictedness in breeding and/or roosting sites rather than in general occurrence (Fellowes et al. (2002)  
WAL: Wet Agricultural Land  
DAL: Dry Agricultural Land  
SWH: Shallow Water Habitat  
P: Pond

Appendix L1d. Avifauna Species Recorded for Water Birds Monitoring, 12 & 13 April 2023, Low Tide

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date		12/4/2023 (T1 & T2), 13/4/2023 (T3 & T5)									
					Weather Condition		Sunny, Sunny									
					Tidal Condition		Low									
					Tide Level (m)		1.27, 1.44									
					Start Time		0800, 0700									
					Abundance											
					Transect Walk											
					T1	T2	T3	T5					Heard	Flight		
			WAL	DAL	SWH	P										
Alexandrine Parakeet	<i>Psittacula eupatria</i>	亞歷山大鸚鵡	RR	NT, Cap. 586	1								1			
Asian Koel	<i>Eudynamys scolopacea</i>	噪鵲	R		1	4	1		2			1				
Barn Swallow	<i>Hirundo rustica</i>	家燕	PM, Sv		1								2			
Black Kite	<i>Milvus migrans</i>	黑鳶	R, WV	(RC), Cap.586	3								1			
Black-collared Starling	<i>Gracupica nigricollis</i>	黑領椋鳥	R		3	4	2		4				2			
Black-winged Stilt	<i>Himantopus himantopus</i>	黑翅長腳鵲	PM	RC			4	21	6	54			4			
Black-throated Laughingthrush	<i>Pterorhinus chinensis</i>	黑喉噪鵲	R		1											
Chinese Bulbul	<i>Pycnonotus sinensis</i>	白頭鵲	R			2										
Chinese Pond Heron	<i>Ardeola bacchus</i>	池鷺	R	PRC(RC)		2	2		6				1			
Cinereous Tit	<i>Parus cinereus</i>	蒼背山雀	R		1	3										
Common Greenshank	<i>Tringa nebularia</i>	青腳鵲	PM, WV	RC			1	3	1	3			1			
Common Kingfisher	<i>Alcedo atthis</i>	普通翠鳥	R			1			1							
Common Moorhen	<i>Gallinula chloropus</i>	黑水雞	R							3						
Common Myna	<i>Acridotheres tristis</i>	家八哥	UR				4		1							

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date		12/4/2023 (T1 & T2), 13/4/2023 (T3 & T5)							
					Weather Condition		Sunny, Sunny							
					Tidal Condition		Low							
					Tide Level (m)		1.27, 1.44							
					Start Time		0800, 0700							
					Abundance									
					Transect Walk									
					T1	T2	T3	T5						
			WAL	DAL	SWH	P	Heard	Flight						
Common Sandpiper	<i>Actitis hypoleucos</i>	磯鵲	WV, PM			1			1					
Common Snipe	<i>Gallinago gallinago</i>	扇尾沙錐	WV, PM					2						
Common Tailorbird	<i>Orthotomus sutorius</i>	長尾縫葉鶯	R		1									
Crested Myna	<i>Acridotheres cristatellus</i>	八哥	R		2	1			17			4		
Dusky Warbler	<i>Phylloscopus fuscatus</i>	褐柳鶯	PM, WV			1								
Eastern Cattle Egret	<i>Bubulcus coromandus</i>	牛背鶯	R, PM	(LC)			1	3				1		
Eastern Yellow Wagtail	<i>Motacilla tschutschensis</i>	東黃鶺鴒	PM, WV					9						
Eurasian Tree Sparrow	<i>Passer montanus</i>	樹麻雀	R			1								
Great Egret	<i>Ardea alba</i>	大白鶯	R, WV	PRC(RC)	1	2	3					3		
Greater Coucal	<i>Centropus sinensis</i>	褐翅鴉鶻	R	(VU)	1									
Green Sandpiper	<i>Tringa ochropus</i>	白腰草鶻	UPM, WV				2		1					
Grey Heron	<i>Ardea cinerea</i>	蒼鶯	WV	PRC	1	1								
Grey-headed Lapwing	<i>Vanellus cinereus</i>	灰頭麥雞	WV, PM	LC					2					
Intermediate Egret	<i>Ardea intermedia</i>	中白鶯	CPM	RC		1		1						
Little Egret	<i>Egretta garzetta</i>	小白鶯	R	PRC(RC)		4	20	1	1					
Little Ringed Plover	<i>Charadrius dubius</i>	金眶鶻	WV, PM	LC			1							
Masked Laughingthrush	<i>Pterorhinus perspicillatus</i>	黑臉噪鶻	R		1	3			3			7		

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date		12/4/2023 (T1 & T2), 13/4/2023 (T3 & T5)							
					Weather Condition		Sunny, Sunny							
					Tidal Condition		Low							
					Tide Level (m)		1.27, 1.44							
					Start Time		0800, 0700							
					Abundance									
					Transect Walk									
					T1	T2	T3	T5				Heard	Flight	
			WAL	DAL	SWH	P								
Olive-backed Pipit	<i>Anthus hodgsoni</i>	樹鵲	WV					1						
Oriental Magpie	<i>Pica serica</i>	喜鵲	R					2						
Oriental Magpie-Robin	<i>Copsychus saularis</i>	鵲鴝	R									1		
Oriental Pratincole	<i>Glareola maldivarum</i>	普通燕鴿	PM	LC				1						
Pallas's Leaf Warbler	<i>Phylloscopus proregulus</i>	黃腰柳鶯	WV											
Plain Prinia	<i>Prinia inornata</i>	純色鷓鴣	R					5						
Red-necked Stint	<i>Calidris ruficollis</i>	紅頸濱鷸	SpM	NT, LC				24	2					
Red-rumped Swallow	<i>Cecropis daurica</i>	金腰燕	UPM									3		
Red-whiskered Bulbul	<i>Pycnonotus jocosus</i>	紅耳鶇	R					4	2	3		2		
Richard's Pipit	<i>Anthus richardi</i>	理氏鵲	WV, PM						1					
Rock Dove	<i>Columba livia</i>	原鴿	R						5	3			4	
Scaly-breasted Munia	<i>Lonchura punctulata</i>	斑文鳥	R							40				
Spotted Dove	<i>Streptopelia chinensis</i>	珠頸斑鳩	R					2	3					
Swinhoe's White-eye	<i>Zosterops simplex</i>	暗綠繡眼鳥	R						1				2	
White Wagtail	<i>Motacilla alba</i>	白鶇鴝	PM, WV						1				1	
White-breasted Waterhen	<i>Amaurornis phoenicurus</i>	白胸苦惡鳥	R							1	3			
White-throated Kingfisher	<i>Halcyon smyrnensis</i>	白胸翡翠	R	(LC)					1					

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date		12/4/2023 (T1 & T2), 13/4/2023 (T3 & T5)						
					Weather Condition		Sunny, Sunny						
					Tidal Condition		Low						
					Tide Level (m)		1.27, 1.44						
					Start Time		0800, 0700						
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					Heard
			WAL	DAL	SWH	P							
Wood Sandpiper	<i>Tringa glareola</i>	林鵲	PM, WV	LC			5	44	22	32			
Yellow-bellied Prinia	<i>Prinia flaviventris</i>	黃腹鷓鴣	R			1	1					3	
<b>Total No. of Species</b>					17	23	16	6	26	9	0	4	13
<b>Total No. of Conservation Interest Species</b>					5	6	8	6	7	5	0	0	7

Note:  
R – Resident; WV – Winter visitor; PM – Passage migrant; CPM - Common Passage Migrant; UPM – Uncommon passage migrant; SpM – Spring migrant; UR – Uncommon resident; CWV - Common Winter Visitor  
Status was decided according to AFCD biodiversity website (www.hkbiodiversity.net)  
Cap. 170: All bird species are under protection of Wild Animals Protection Ordinance  
Cap.586 : Endangered Species of Animals and Plants Ordinance (Cap.586)  
RC=Regional Concern; LC=Local Concern; PRC=Potential Regional Concern; GC=Global Concern; PGC=Potential Global Concern. Letters in parentheses indicate that the assessment is on the basis of restrictedness in breeding and/or roosting sites rather than in general occurrence (Fellowes et al. (2002)  
WAL: Wet Agricultural Land  
DAL: Dry Agricultural Land  
SWH: Shallow Water Habitat  
P: Pond

Appendix L1e. Avifauna Species Recorded for Water Birds Monitoring, 20 & 17 April 2023, High Tide

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date		20/4/2023 (T1 & T2), 17/4/2023 (T3 & T5)							
					Weather Condition		Overcast, Sunny							
					Tidal Condition		High							
					Tide Level (m)		2.37, 1.91							
					Start Time		1000, 0900							
					Abundance									
					Transect Walk									
					T1	T2	T3	T5					Heard	Flight
			WAL	DAL	SWH	P								
Alexandrine Parakeet	<i>Psittacula eupatria</i>	亞歷山大鸚鵡	RR	NT, Cap. 586	1		2							
Asian Koel	<i>Eudynamys scolopacea</i>	噪鵲	R		2	2	2					1		
Barn Swallow	<i>Hirundo rustica</i>	家燕	PM, Sv		4									2
Black Kite	<i>Milvus migrans</i>	黑鳶	R, WV	(RC), Cap.586		1	2							1
Black-collared Starling	<i>Gracupica nigricollis</i>	黑領椋鳥	R		2	1	8	3	5					2
Black-winged Stilt	<i>Himantopus himantopus</i>	黑翅長腳鵲	PM	RC			6	25	13	20				3
Chinese Pond Heron	<i>Ardeola bacchus</i>	池鷺	R	PRC(RC)	3	3	7	6	10					1
Cinereous Tit	<i>Parus cinereus</i>	蒼背山雀	R		3	1	2		1			1		
Common Greenshank	<i>Tringa nebularia</i>	青腳鵲	PM, WV	RC			1	2	1	1				
Common Moorhen	<i>Gallinula chloropus</i>	黑水雞	R							3				
Common Myna	<i>Acridotheres tristis</i>	家八哥	UR											1
Common Sandpiper	<i>Actitis hypoleucos</i>	磯鵲	WV, PM		1		1	4	1	1				
Common Snipe	<i>Gallinago gallinago</i>	扇尾沙錐	WV, PM					2	2	1				1
Common Tailorbird	<i>Orthotomus sutorius</i>	長尾縫葉鶯	R		1	1			2					
Crested Myna	<i>Acridotheres cristatellus</i>	八哥	R		5		1							8



Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date		20/4/2023 (T1 & T2), 17/4/2023 (T3 & T5)							
					Weather Condition		Overcast, Sunny							
					Tidal Condition		High							
					Tide Level (m)		2.37, 1.91							
					Start Time		1000, 0900							
					Abundance									
					Transect Walk									
					T1	T2	T3	T5					Heard	Flight
			WAL	DAL	SWH	P								
Crested Serpent Eagle	<i>Spilornis cheela</i>	蛇鷲	UR	Cap.586, (VU)										2
Eastern Cattle Egret	<i>Bubulcus coromandus</i>	牛背鷺	R, PM	(LC)			1	12						
Eurasian Tree Sparrow	<i>Passer montanus</i>	樹麻雀	R		3			3						
Great Egret	<i>Ardea alba</i>	大白鷺	R, WV	PRC(RC)	2	3	1	1						
Greater Coucal	<i>Centropus sinensis</i>	褐翅鴉鴉	R	(VU)									1	1
Greater Painted-snipe	<i>Rostratula benghalensis</i>	彩鷺	R	LC			1							
Green Sandpiper	<i>Tringa ochropus</i>	白腰草鷺	UPM, WV				3	4	2	1				
Grey Heron	<i>Ardea cinerea</i>	蒼鷺	WV	PRC			4							
Grey-headed Lapwing	<i>Vanellus cinereus</i>	灰頭麥雞	WV, PM	LC					2					
House Swift	<i>Apus nipalensis</i>	小白腰雨燕	SpM, R			15								
Large Hawk-Cuckoo	<i>Hierococcyx sparverioides</i>	大鷹鴉	Sv		1	1							1	
Little Egret	<i>Egretta garzetta</i>	小白鷺	R	PRC(RC)	3	4	17	2		23				
Long-tailed Shrike	<i>Lanius schach</i>	棕背伯勞	R				1							
Marsh Sandpiper	<i>Tringa stagnatilis</i>	澤鷺	PM, WV	RC				2		2				
Masked Laughingthrush	<i>Pterorhinus perspicillatus</i>	黑臉噪鷲	R			10	4		4					
Olive-backed Pipit	<i>Anthus hodgsoni</i>	樹鷺	WV						1					
Oriental Magpie-Robin	<i>Copsychus saularis</i>	鵲鴝	R				1							

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date		20/4/2023 (T1 & T2), 17/4/2023 (T3 & T5)							
					Weather Condition		Overcast, Sunny							
					Tidal Condition		High							
					Tide Level (m)		2.37, 1.91							
					Start Time		1000, 0900							
					Abundance									
					Transect Walk									
					T1	T2	T3	T5					Heard	Flight
			WAL	DAL	SWH	P								
Plain Prinia	<i>Prinia inornata</i>	純色鷓鴣	R								2	2		
Pallas's Leaf Warbler	<i>Phylloscopus proregulus</i>	黃腰柳鶯	WV											
Red-necked Stint	<i>Calidris ruficollis</i>	紅頸濱鶮	SpM	NT, LC			4		12					
Red-whiskered Bulbul	<i>Pycnonotus jocosus</i>	紅耳鶇	R		8	3								
Rock Dove	<i>Columba livia</i>	原鴿	R			21	14		8					
Scaly-breasted Munia	<i>Lonchura punctulata</i>	斑文鳥	R						80					
Spotted Dove	<i>Streptopelia chinensis</i>	珠頸斑鳩	R		2	5	3		5			4		
Swinhoe's White-eye	<i>Zosterops simplex</i>	暗綠繡眼鳥	R				2		1					
White Wagtail	<i>Motacilla alba</i>	白鶇鶇	PM, WV		2	3	4	3	2			2		
White-breasted Waterhen	<i>Amaurornis phoenicurus</i>	白胸苦惡鳥	R						2		2			
White-throated Kingfisher	<i>Halcyon smyrnensis</i>	白胸翡翠	R	(LC)								2		
Wood Sandpiper	<i>Tringa glareola</i>	林鶇	PM, WV	LC			1	22	7	31		1		
Yellow-bellied Prinia	<i>Prinia flaviventris</i>	黃腹鷓鴣	R		4	2		1			4			
<b>Total No. of Species</b>					17	17	23	16	19	10	0	7	15	
<b>Total No. of Conservation Interest Species</b>					4	4	11	9	5	6	0	1	7	

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date		20/4/2023 (T1 & T2), 17/4/2023 (T3 & T5)										
					Weather Condition		Overcast, Sunny										
					Tidal Condition		High										
					Tide Level (m)		2.37, 1.91										
					Start Time		1000, 0900										
					Abundance												
					Transect Walk												
								T1		T2		T3		T5			
								WAL		DAL		SWH		P		Heard	Flight

Note:  
R – Resident; WV – Winter visitor; PM – Passage migrant; CPM - Common Passage Migrant; UPM – Uncommon passage migrant; SPM - Scarce Passage Migrant; CaM - Common autumn migrant; SpM – Spring migrant;UR – Uncommon resident; CWV - Common Winter Visitor; OV – Occasional Visitor  
Status was decided according to AFCD biodiversity website (www.hkbiodiversity.net)  
Cap. 170: All bird species are under protection of Wild Animals Protection Ordinance  
Cap.586 : Endangered Species of Animals and Plants Ordinance (Cap.586)  
(EN): Endangered in China Red Data Book Status  
VU: Vulnerable in IUCN Red List Status  
RC=Regional Concern; LC=Local Concern; PRC=Potential Regional Concern; GC=Global Concern; PGC=Potential Global Concern. Letters in parentheses indicate that the assessment is on the basis of restrictedness in breeding and/or roosting sites rather than in general occurrence (Fellowes et al. (2002)  
WAL: Wet Agricultural Land  
DAL: Dry Agricultural Land  
SWH: Shallow Water Habitat  
P: Pond

Appendix L1f. Avifauna Species Recorded for Water Birds Monitoring, 20 & 17 April 2023, Low Tide

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date		20/4/2023 (T1 & T2), 17/4/2023 (T3 & T5)					
					Weather Condition		Overcast, Sunny					
					Tidal Condition		Low					
					Tide Level (m)		1.08, 1.02					
					Start Time		1500, 1400					
					Abundance							
					Transect Walk							
					T1	T2	T3	T5				
			WAL	DAL	SWH	P	Heard	Flight				
Alexandrine Parakeet	<i>Psittacula eupatria</i>	亞歷山大鸚鵡	RR	NT, Cap. 586	11							3
Asian Koel	<i>Eudynamys scolopacea</i>	噪鵲	R		1	3	1					2
Barn Swallow	<i>Hirundo rustica</i>	家燕	PM, Sv		2							
Black-collared Starling	<i>Gracupica nigricollis</i>	黑領椋鳥	R		4	2	4		5			4
Black-winged Stilt	<i>Himantopus himantopus</i>	黑翅長腳鷸	PM	RC			9	34	6	36		6
Chinese Pond Heron	<i>Ardeola bacchus</i>	池鷺	R	PRC(RC)	4	2	1	5	1			4
Cinereous Tit	<i>Parus cinereus</i>	蒼背山雀	R		1		1					
Common Greenshank	<i>Tringa nebularia</i>	青腳鷸	PM, WV	RC			3	6		4		
Common Moorhen	<i>Gallinula chloropus</i>	黑水雞	R						5			
Common Myna	<i>Acridotheres tristis</i>	家八哥	UR						2			
Common Sandpiper	<i>Actitis hypoleucos</i>	磯鷸	WV, PM		1	1	1			1		
Common Snipe	<i>Gallinago gallinago</i>	扇尾沙錐	WV, PM					4		2		6
Common Tailorbird	<i>Orthotomus sutorius</i>	長尾縫葉鶯	R			1	1		1			3
Crested Myna	<i>Acridotheres cristatellus</i>	八哥	R			15	4		8			1
Dusky Warbler	<i>Phylloscopus fuscatus</i>	褐柳鶯	PM, WV			1						

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date		20/4/2023 (T1 & T2), 17/4/2023 (T3 & T5)							
					Weather Condition		Overcast, Sunny							
					Tidal Condition		Low							
					Tide Level (m)		1.08, 1.02							
					Start Time		1500, 1400							
					Abundance									
					Transect Walk									
					T1	T2	T3	T5						
			WAL	DAL	SWH	P	Heard	Flight						
Eastern Cattle Egret	<i>Bubulcus coromandus</i>	牛背鷺	R, PM	(LC)					8				1	
Eastern Yellow Wagtail	<i>Motacilla tschutschensis</i>	東黃鵲鴝	PM, WV				2	5	1				14	
Eurasian Tree Sparrow	<i>Passer montanus</i>	樹麻雀	R			5	3							
Great Egret	<i>Ardea alba</i>	大白鷺	R, WV	PRC(RC)		3	1							
Greater Coucal	<i>Centropus sinensis</i>	褐翅鴉鵂	R	(VU)									1	
Greater Painted-snipe	<i>Rostratula benghalensis</i>	彩鷺	R	LC									1	
Green Sandpiper	<i>Tringa ochropus</i>	白腰草鷺	UPM, WV			2			3					
Grey Heron	<i>Ardea cinerea</i>	蒼鷺	WV	PRC		1								
Grey-headed Lapwing	<i>Vanellus cinereus</i>	灰頭麥雞	WV, PM	LC					3					
House Swift	<i>Apus nipalensis</i>	小白腰雨燕	SpM, R										1	
Large Hawk-Cuckoo	<i>Hierococcyx sparveriioides</i>	大鷹鴝	Sv		1	1	1					2		
Large-billed Crow	<i>Corvus macrorhynchus</i>	大嘴烏鴉	R		1	1								
Little Egret	<i>Egretta garzetta</i>	小白鷺	R	PRC(RC)		6	17		18	1			2	
Little Ringed Plover	<i>Charadrius dubius</i>	金眶鴝	WV, PM	LC					3				2	
Marsh Sandpiper	<i>Tringa stagnatilis</i>	澤鷺	PM, WV	RC						4				
Masked Laughingthrush	<i>Pterorhinus perspicillatus</i>	黑臉噪鷓	R		7	5			5			5		
Oriental Magpie-Robin	<i>Copsychus saularis</i>	鵲鴝	R						1					

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date		20/4/2023 (T1 & T2), 17/4/2023 (T3 & T5)							
					Weather Condition		Overcast, Sunny							
					Tidal Condition		Low							
					Tide Level (m)		1.08, 1.02							
					Start Time		1500, 1400							
					Abundance									
					Transect Walk									
					T1	T2	T3	T5						
			WAL	DAL	SWH	P	Heard	Flight						
Plain Prinia	<i>Prinia inornata</i>	純色鷓鴣	R					1			2			
Red-necked Stint	<i>Calidris ruficollis</i>	紅頸濱鷸	SpM	NT, LC				14	5					
Red-throated Pipit	<i>Anthus cervinus</i>	紅喉鵯	CPM, WV	RC	6	10								
Red-whiskered Bulbul	<i>Pycnonotus jocosus</i>	紅耳鶇	R				3							
Richard's Pipit	<i>Anthus richardi</i>	理氏鵯	WV, PM					2						
Rock Dove	<i>Columba livia</i>	原鴿	R			6		10				1		
Scaly-breasted Munia	<i>Lonchura punctulata</i>	斑文鳥	R					90				30		
Spotted Dove	<i>Streptopelia chinensis</i>	珠頸斑鳩	R		1	4	3	1				4		
White Wagtail	<i>Motacilla alba</i>	白鶺鴒	PM, WV		2	2	4	3				1		
White-breasted Waterhen	<i>Amaurornis phoenicurus</i>	白胸苦惡鳥	R					4			2	1		
Wood Sandpiper	<i>Tringa glareola</i>	林鷸	PM, WV	LC			3	40	5	37		6		
<b>Total No. of Species</b>					13	17	19	7	22	10	0	6	19	
<b>Total No. of Conservation Interest Species</b>					3	4	7	5	7	6	0	0	9	

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			20/4/2023 (T1 & T2), 17/4/2023 (T3 & T5)							
					Weather Condition			Overcast, Sunny							
					Tidal Condition			Low							
					Tide Level (m)			1.08, 1.02							
					Start Time			1500, 1400							
					Abundance										
					Transect Walk										
								T5							
					T1	T2	T3	WAL	DAL	SWH	P	Heard	Flight		

Note:  
R – Resident; WV – Winter visitor; PM – Passage migrant; CPM - Common Passage Migrant; UPM – Uncommon passage migrant; SPM - Scarce Passage Migrant; CaM - Common autumn migrant;; SpM – Spring migrant; Sv – Summer Visitor; UR – Uncommon resident; SWV – Scarce winter visitor; CWV - Common Winter Visitor; OV - Occasional visitor  
Status was decided according to AFCD biodiversity website ([www.hkbiodiversity.net](http://www.hkbiodiversity.net))  
Cap. 170: All bird species are under protection of Wild Animals Protection Ordinance  
Cap.586 : Endangered Species of Animals and Plants Ordinance (Cap.586)  
(VU): Vulnerable in China Red Data Book Status  
NT: Near Threatened in IUCN Red List Status  
RC=Regional Concern; LC=Local Concern; PRC=Potential Regional Concern; GC=Global Concern; PGC=Potential Global Concern. Letters in parentheses indicate that the assessment is on the basis of restrictedness in breeding and/or roosting sites rather than in general occurrence (Fellowes et al. (2002)  
WAL: Wet Agricultural Land  
DAL: Dry Agricultural Land  
SWH: Shallow Water Habitat  
P: Pond

Appendix L1g. Avifauna Species Recorded for Water Birds Monitoring, 24 & 25 April 2023, High Tide

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date		24/4/2023 (T1 & T2), 25/4/2023 (T3 & T5)									
					Weather Condition		Fine, Drizzle									
					Tidal Condition		High									
					Tide Level (m)		2.24, 2.27									
					Start Time		1400, 1400									
					Abundance											
					Transect Walk											
					T1	T2	T3	T5					Heard	Flight		
			WAL	DAL	SWH	P										
Amur Stonechat	<i>Saxicola stejnegeri</i>	黑喉石鵯	WV					1								
Alexandrine Parakeet	<i>Psittacula eupatria</i>	亞歷山大鸚鵡	RR	NT, Cap. 586	5								1			
Asian Koel	<i>Eudynamys scolopacea</i>	噪鵲	R		1	2			2							
Barn Swallow	<i>Hirundo rustica</i>	家燕	PM, Sv		4	1	2									
Black Kite	<i>Milvus migrans</i>	黑鳶	R, WV	(RC), Cap.586			1									
Black-collared Starling	<i>Gracupica nigricollis</i>	黑領椋鳥	R		3	4							2			
Black-winged Stilt	<i>Himantopus himantopus</i>	黑翅長腳鵞	PM	RC				8	7	56			10			
Chinese Bulbul	<i>Pycnonotus sinensis</i>	白頭鵯	R		2				2							
Chinese Pond Heron	<i>Ardeola bacchus</i>	池鷺	R	PRC(RC)	1		3						2			
Cinereous Tit	<i>Parus cinereus</i>	蒼背山雀	R				1									
Common Greenshank	<i>Tringa nebularia</i>	青腳鵞	PM, WV	RC						2						
Common Kingfisher	<i>Alcedo atthis</i>	普通翠鳥	R		1											
Common Myna	<i>Acridotheres tristis</i>	家八哥	UR		1								4			
Common Sandpiper	<i>Actitis hypoleucos</i>	磯鵞	WV, PM		1	1	3									



Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date		24/4/2023 (T1 & T2), 25/4/2023 (T3 & T5)							
					Weather Condition		Fine, Drizzle							
					Tidal Condition		High							
					Tide Level (m)		2.24, 2.27							
					Start Time		1400, 1400							
					Abundance									
					Transect Walk									
					T1	T2	T3	T5					Heard	Flight
			WAL	DAL	SWH	P								
Common Snipe	<i>Gallinago gallinago</i>	扇尾沙錐	WV, PM									4		
Crested Myna	<i>Acridotheres cristatellus</i>	八哥	R		9		1		2			16		
Eastern Cattle Egret	<i>Bubulcus coromandus</i>	牛背鷺	R, PM	(LC)					1					
Eastern Yellow Wagtail	<i>Motacilla tschutschensis</i>	東黃鶺鴒	PM, WV						6			6		
Eurasian Tree Sparrow	<i>Passer montanus</i>	樹麻雀	R			4			5					
Great Egret	<i>Ardea alba</i>	大白鷺	R, WV	PRC(RC)	1		1		2			1		
Greater Coucal	<i>Centropus sinensis</i>	褐翅鴉鴉	R	(VU)	1									
Greater Painted-snipe	<i>Rostratula benghalensis</i>	彩鶺鴒	R	LC								1		
Grey Heron	<i>Ardea cinerea</i>	蒼鷺	WV	PRC	1		2							
Grey-headed Lapwing	<i>Vanellus cinereus</i>	灰頭麥雞	WV, PM	LC					2					
House Swift	<i>Apus nipalensis</i>	小白腰雨燕	SpM, R									2		
Indian Cuckoo	<i>Cuculus micropterus</i>	四聲杜鵑	SSv						1		1			
Large Hawk-Cuckoo	<i>Hierococyx sparverioides</i>	大鷹鴉	Sv		1	1					2			
Large-billed Crow	<i>Corvus macrorhynchus</i>	大嘴烏鴉	R									1		
Little Egret	<i>Egretta garzetta</i>	小白鷺	R	PRC(RC)	4	2	10			7		3		
Long-tailed Shrike	<i>Lanius schach</i>	棕背伯勞	R						1					
Marsh Sandpiper	<i>Tringa stagnatilis</i>	澤鶺鴒	PM, WV	RC						1				

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date		24/4/2023 (T1 & T2), 25/4/2023 (T3 & T5)							
					Weather Condition		Fine, Drizzle							
					Tidal Condition		High							
					Tide Level (m)		2.24, 2.27							
					Start Time		1400, 1400							
					Abundance									
					Transect Walk									
					T1	T2	T3	T5						Heard
			WAL	DAL	SWH	P								
Masked Laughingthrush	<i>Pterorhinus perspicillatus</i>	黑臉噪鵲	R					6			3			
Oriental Magpie-Robin	<i>Copsychus saularis</i>	鵲鴝	R			1	2	1						
Plain Prinia	<i>Prinia inornata</i>	純色鷓鴣	R			2	1							
Red-necked Stint	<i>Calidris ruficollis</i>	紅頸濱鵲	SpM	NT, LC								22		
Red-throated Pipit	<i>Anthus cervinus</i>	紅喉鵲	CPM, WV	RC				4						
Red-whiskered Bulbul	<i>Pycnonotus jocosus</i>	紅耳鵲	R		5	10		2				2		
Richard's Pipit	<i>Anthus richardi</i>	理氏鵲	WV, PM				1							
Rock Dove	<i>Columba livia</i>	原鴿	R			11						16		
Scaly-breasted Munia	<i>Lonchura punctulata</i>	斑文鳥	R				5					50		
Spotted Dove	<i>Streptopelia chinensis</i>	珠頸斑鳩	R			5	2							
Swinhoe's White-eye	<i>Zosterops simplex</i>	暗綠繡眼鳥	R					1						
White Wagtail	<i>Motacilla alba</i>	白鵲鴝	PM, WV			2						2		
White-breasted Waterhen	<i>Amaurornis phoenicurus</i>	白胸苦惡鳥	R					1						
White-shouldered Starling	<i>Sturnia sinensis</i>	灰背椋鳥	M, WV, Sv	LC				2						
White-throated Kingfisher	<i>Halcyon smyrnensis</i>	白胸翡翠	R	(LC)			1							
Wood Sandpiper	<i>Tringa glareola</i>	林鵲	PM, WV	LC				1		4				
Yellow-bellied Prinia	<i>Prinia flaviventris</i>	黃腹鷓鴣	R		2	1		1						
Yellow-breasted Bunting	<i>Emberiza aureola</i>	黃胸鵲	PM	CR, RC				2						

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date		24/4/2023 (T1 & T2), 25/4/2023 (T3 & T5)							
					Weather Condition		Fine, Drizzle							
					Tidal Condition		High							
					Tide Level (m)		2.24, 2.27							
					Start Time		1400, 1400							
					Abundance									
					Transect Walk									
					T1	T2	T3	T5				Heard	Flight	
			WAL	DAL	SWH	P								
<b>Total No. of Species</b>					19	15	14	2	20	6	0	3	18	
<b>Total No. of Conservation Interest Species</b>					6	1	6	2	6	6	0	0	7	

Note:  
R – Resident; WV – Winter visitor; PM – Passage migrant; CPM - Common Passage Migrant; UPM – Uncommon passage migrant; SPM - Scarce Passage Migrant; CaM - Common autumn migrant; SpM – Spring migrant; Sv – Summer Visitor; UR – Uncommon resident; SWV – Scarce winter visitor; CWV - Common Winter Visitor; OV - Occasional visitor  
Status was decided according to AFCD biodiversity website (www.hkbiodiversity.net)  
Cap. 170: All bird species are under protection of Wild Animals Protection Ordinance  
Cap.586 : Endangered Species of Animals and Plants Ordinance (Cap.586)  
VU: Vulnerable in IUCN Red List Status  
RC=Regional Concern; LC=Local Concern; PRC=Potential Regional Concern; GC=Global Concern. Letters in parentheses indicate that the assessment is on the basis of restrictedness in breeding and/or roosting sites rather than in general occurrence (Fellowes et al. (2002)  
WAL: Wet Agricultural Land  
DAL: Dry Agricultural Land  
SWH: Shallow Water Habitat  
P: Pond

Appendix L1h. Avifauna Species Recorded for Water Birds Monitoring, 24 & 25 April 2023, Low Tide

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date		24/4/2023 (T1 & T2), 25/4/2023 (T3 & T5)							
					Weather Condition		Drizzle, Drizzle							
					Tidal Condition		Low							
					Tide Level (m)		1.03, 1.12							
					Start Time		0700, 0700							
					Abundance									
					Transect Walk									
					T1	T2	T3	T5				Heard	Flight	
			WAL	DAL	SWH	P								
Alexandrine Parakeet	<i>Psittacula eupatria</i>	亞歷山大鸚鵡	RR	NT, Cap. 586									6	
Asian Koel	<i>Eudynamys scolopacea</i>	噪鵲	R		1	3			1			2	1	
Barn Swallow	<i>Hirundo rustica</i>	家燕	PM, Sv		4	3								
Black Kite	<i>Milvus migrans</i>	黑鳶	R, WV	(RC), Cap.586									1	
Black-collared Starling	<i>Gracupica nigricollis</i>	黑領椋鳥	R		4	1	4	4	16				8	
Black-winged Stilt	<i>Himantopus himantopus</i>	黑翅長腳鵲	PM	RC			2	3	2	36			6	
Chinese Bulbul	<i>Pycnonotus sinensis</i>	白頭鶇	R		2	2								
Chinese Pond Heron	<i>Ardeola bacchus</i>	池鷺	R	PRC(RC)	3	3	3	1	2	1			2	
Cinereous Tit	<i>Parus cinereus</i>	蒼背山雀	R		4		2							
Collared Crow	<i>Corvus torquatus</i>	白頸鴉	UR	LC, VU			1							
Common Greenshank	<i>Tringa nebularia</i>	青腳鵲	PM, WV	RC			1			1				
Common Kingfisher	<i>Alcedo atthis</i>	普通翠鳥	R		1									
Common Moorhen	<i>Gallinula chloropus</i>	黑水雞	R					2						
Common Myna	<i>Acridotheres tristis</i>	家八哥	UR										2	
Common Sandpiper	<i>Actitis hypoleucos</i>	磯鵲	WV, PM		2									

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date		24/4/2023 (T1 & T2), 25/4/2023 (T3 & T5)							
					Weather Condition		Drizzle, Drizzle							
					Tidal Condition		Low							
					Tide Level (m)		1.03, 1.12							
					Start Time		0700, 0700							
					Abundance									
					Transect Walk									
					T1	T2	T3	T5				Heard	Flight	
			WAL	DAL	SWH	P								
Common Snipe	<i>Gallinago gallinago</i>	扇尾沙錐	WV, PM									2		
Common Tailorbird	<i>Orthotomus sutorius</i>	長尾縫葉鶯	R		2									
Crested Myna	<i>Acridotheres cristatellus</i>	八哥	R	8				21				13		
Eastern Yellow Wagtail	<i>Motacilla tschutschensis</i>	東黃鵲鴝	PM, WV					4						
Eurasian Tree Sparrow	<i>Passer montanus</i>	樹麻雀	R		3									
Great Egret	<i>Ardea alba</i>	大白鷺	R, WV	PRC(RC)	5	1		1				1		
Greater Coucal	<i>Centropus sinensis</i>	褐翅鴉鵂	R	(VU)	1									
Green Sandpiper	<i>Tringa ochropus</i>	白腰草鶻	UPM, WV			1								
Grey Heron	<i>Ardea cinerea</i>	蒼鷺	WV	PRC			1							
Grey-headed Lapwing	<i>Vanellus cinereus</i>	灰頭麥雞	WV, PM	LC				2						
House Swift	<i>Apus nipalensis</i>	小白腰雨燕	SpM, R		6							6		
Large Hawk-Cuckoo	<i>Hierococcyx sparverioides</i>	大鷹鴝	Sv		1						1			
Large-billed Crow	<i>Corvus macrorhynchus</i>	大嘴烏鴉	R		1									
Little Egret	<i>Egretta garzetta</i>	小白鷺	R	PRC(RC)	4	4	8	2	1			3		
Masked Laughingthrush	<i>Pterorhinus perspicillatus</i>	黑臉噪鶇	R		5	6								
Oriental Magpie	<i>Pica serica</i>	喜鵲	R									2		
Oriental Magpie-Robin	<i>Copsychus saularis</i>	鵲鴝	R			1					1	1		

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date		24/4/2023 (T1 & T2), 25/4/2023 (T3 & T5)									
					Weather Condition		Drizzle, Drizzle									
					Tidal Condition		Low									
					Tide Level (m)		1.03, 1.12									
					Start Time		0700, 0700									
					Abundance											
					Transect Walk											
					T1	T2	T3	T5					Heard	Flight		
			WAL	DAL	SWH	P										
Plain Prinia	<i>Prinia inornata</i>	純色鷓鴣	R					1	2				3			
Pied Kingfisher	<i>Ceryle rudis</i>	斑魚狗	UR	(LC)	2											
Red-throated Pipit	<i>Anthus cervinus</i>	紅喉鵯	CPM, WV	RC					2							
Red-whiskered Bulbul	<i>Pycnonotus jocosus</i>	紅耳鶇	R		8	10										
Richard's Pipit	<i>Anthus richardi</i>	理氏鵯	WV, PM				1									
Rock Dove	<i>Columba livia</i>	原鴿	R			11										
Scaly-breasted Munia	<i>Lonchura punctulata</i>	斑文鳥	R										60			
Spotted Dove	<i>Streptopelia chinensis</i>	珠頸斑鳩	R		5	6	2		6				3			
Swinhoe's White-eye	<i>Zosterops simplex</i>	暗綠繡眼鳥	R			2										
White Wagtail	<i>Motacilla alba</i>	白鶺鴒	PM, WV			1							2			
White-breasted Waterhen	<i>Amaurornis phoenicurus</i>	白胸苦惡鳥	R						2			3	2			
White-throated Kingfisher	<i>Halcyon smyrnensis</i>	白胸翡翠	R	(LC)			1									
Wood Sandpiper	<i>Tringa glareola</i>	林鵲	PM, WV	LC				21	2				2			
Yellow-bellied Prinia	<i>Prinia flaviventris</i>	黃腹鷓鴣	R		1	2			1			3				
<b>Total No. of Species</b>					16	20	13	6	15	4	0	5	20			
<b>Total No. of Conservation Interest Species</b>					4	3	7	4	7	4	0	0	7			

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date		24/4/2023 (T1 & T2), 25/4/2023 (T3 & T5)									
					Weather Condition		Drizzle, Drizzle									
					Tidal Condition		Low									
					Tide Level (m)		1.03, 1.12									
					Start Time		0700, 0700									
					Abundance											
					Transect Walk											
					T1	T2	T3	T5								
			WAL	DAL	SWH	P	Heard	Flight								

Note:  
R – Resident; WV – Winter visitor; PM – Passage migrant; CPM - Common Passage Migrant; UPM – Uncommon passage migrant; SPM - Scarce Passage Migrant; CaM - Common autumn migrant;; USV - Uncommon Summer visitor; SpM – Spring migrant; UR – Uncommon resident; SWV – Scarce winter visitor; CWV - Common Winter Visitor.  
Status was decided according to AFCD biodiversity website (www.hkbiodiversity.net)  
Cap. 170: All bird species are under protection of Wild Animals Protection Ordinance  
Cap.586 : Endangered Species of Animals and Plants Ordinance (Cap.586)  
VU: Vulnerable in IUCN Red List Status  
RC=Regional Concern; LC=Local Concern; PRC=Potential Regional Concern; GC=Global Concern; PGC=Potential Global Concern. Letters in parentheses indicate that the assessment is on the basis of restrictedness in breeding and/or roosting sites rather than in general occurrence (Fellowes et al. (2002)  
WAL: Wet Agricultural Land  
DAL: Dry Agricultural Land  
SWH: Shallow Water Habitat  
P: Pond

**Appendix L1i. Avifauna Species Recorded for Water Birds Monitoring, Night Survey, 17 April 2023, T5**

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date: 17/4/2023					
					Start Time: 18:30					
					Abundance					
WAL	DAL	SWH	P	Heard	Flight					
Asian Koel	<i>Eudynamys scolopacea</i>	噪鵲	R						3	
Black-collared Starling	<i>Gracupica nigricollis</i>	黑領棕鳥	R			1				
Black-crowned Night Heron	<i>Nycticorax nycticorax</i>	夜鷺	R, WV	LC		1				
Black-winged Stilt	<i>Himantopus himantopus</i>	黑翅長腳鵲	PM	RC	20		30			
Chinese Pond Heron	<i>Ardeola bacchus</i>	池鷺	R	PRC(RC)			5			3
Common Greenshank	<i>Tringa nebularia</i>	青腳鵲	PM, WV	RC			12			
Common Snipe	<i>Gallinago gallinago</i>	扇尾沙錐	WV, PM			2				3
Eastern Cattle Egret	<i>Bubulcus coromandus</i>	牛背鷺	R, PM	(LC)			3			
Great Egret	<i>Ardea alba</i>	大白鷺	R, WV	PRC(RC)			1			1
Greater Painted-snipe	<i>Rostratula benghalensis</i>	彩鵲	R	LC	2					1
Green Sandpiper	<i>Tringa ochropus</i>	白腰草鵲	UPM, WV				1			
Grey-headed Lapwing	<i>Vanellus cinereus</i>	灰頭麥雞	WV, PM	LC						1
Large Hawk-Cuckoo	<i>Hierococcyx sparverioides</i>	大鷹鵲	Sv							2
Little Egret	<i>Egretta garzetta</i>	小白鷺	R	PRC(RC)			17			
Little Ringed Plover	<i>Charadrius dubius</i>	金眶鸕	WV, PM	LC			3			
Masked Laughingthrush	<i>Pterorhinus perspicillatus</i>	黑臉噪鵲	R			4				3
Red-necked Stint	<i>Calidris ruficollis</i>	紅頸濱鵲	SpM	NT, LC			14			
White-breasted Waterhen	<i>Amaurornis phoenicurus</i>	白胸苦惡鳥	R			3			3	
Wood Sandpiper	<i>Tringa glareola</i>	林鵲	PM, WV	LC	5	2	29			4
Yellow-bellied Prinia	<i>Prinia flaviventris</i>	黃腹鷓鴣	R						1	
Total No. of Species					3	6	10	0	3	8
Total No. of Conservation Interest Species					3	2	9	0	0	5
Note: R – Resident; WV – Winter visitor; PM – Passage migrant; CPM - Common Passage Migrant; UPM – Uncommon passage migrant; CaM - Common autumn migrant;; SpM – Spring migrant; UR – Uncommon resident; CWV - Common Winter Visitor Status was decided according to AFCD biodiversity website (www.hkbiodiversity.net) Cap. 170: All bird species are under protection of Wild Animals Protection Ordinance										



Cap.586 : Endangered Species of Animals and Plants Ordinance (Cap.586)

RC=Regional Concern; LC=Local Concern; PRC=Potential Regional Concern; GC=Global Concern; PGC=Potential Global Concern. Letters in parentheses indicate that the assessment is on the basis of restrictedness in breeding and/or roosting sites rather than in general occurrence (Fellowes et al. (2002)

WAL: Wet Agricultural Land; DAL: Dry Agricultural Land; SWH: Shallow Water Habitat; P: Pond.

**Appendix L1j. Avifauna Species Recorded for Water Birds Monitoring, Night Survey, 25 April 2023, T5**

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date: 25/4/2023					
					Start Time: 18:30					
					Abundance					
					WAL	DAL	SWH	P	Heard	Flight
Asian Koel	<i>Eudynamys scolopacea</i>	噪鵲	R						2	
Black-collared Starling	<i>Gracupica nigricollis</i>	黑領棕鳥	R		16					
Black-crowned Night Heron	<i>Nycticorax nycticorax</i>	夜鷺	R, WV	LC						1
Black-winged Stilt	<i>Himantopus himantopus</i>	黑翅長腳鵲	PM	RC	11		36			5
Chinese Pond Heron	<i>Ardeola bacchus</i>	池鷺	R	PRC(RC)						
Crested Myna	<i>Acridotheres cristatellus</i>	八哥	R						30	
Eastern Cattle Egret	<i>Bubulcus coromandus</i>	牛背鷺	R, PM	(LC)						
Greater Painted-snipe	<i>Rostratula benghalensis</i>	彩鵲	R	LC	3				1	
Grey Heron	<i>Ardea cinerea</i>	蒼鷺	WV	PRC						1
Grey-headed Lapwing	<i>Vanellus cinereus</i>	灰頭麥雞	WV, PM	LC			2			
Indian Cuckoo	<i>Cuculus micropterus</i>	四聲杜鵑	SSv						1	
Large Hawk-Cuckoo	<i>Hierococcyx sparverioides</i>	大鷹鵲	Sv						1	
Little Egret	<i>Egretta garzetta</i>	小白鷺	R	PRC(RC)			4			19
Masked Laughingthrush	<i>Pterorhinus perspicillatus</i>	黑臉噪鵲	R						3	
White-breasted Waterhen	<i>Amaurornis phoenicurus</i>	白胸苦惡鳥	R						4	
Wood Sandpiper	<i>Tringa glareola</i>	林鵲	PM, WV	LC	1	8	28			2
Yellow-bellied Prinia	<i>Prinia flaviventris</i>	黃腹鷓鴣	R						3	
Total No. of Species					3	2	4	0	8	5
Total No. of Conservation Interest Species					3	1	3	0	1	5
Note: R – Resident; WV – Winter visitor; PM – Passage migrant; CPM - Common Passage Migrant; UPM – Uncommon passage migrant; CaM - Common autumn migrant; USV - Uncommon Summer visitor; SpM – Spring migrant;; CWV - Common Winter Visitor. Status was decided according to AFCD biodiversity website (www.hkbiodiversity.net) Cap. 170: All bird species are under protection of Wild Animals Protection Ordinance Cap.586 : Endangered Species of Animals and Plants Ordinance (Cap.586) RC=Regional Concern; LC=Local Concern; PRC=Potential Regional Concern; GC=Global Concern; PGC=Potential Global Concern. Letters in parentheses indicate that the assessment is on the basis of restrictedness in breeding and/or roosting sites rather than in general occurrence (Fellows et al. (2002) WAL: Wet Agricultural Land; DAL: Dry Agricultural Land; SWH: Shallow Water Habitat; P: Pond.										

**Appendix L1k, Waterbirds Recorded in April 2023**

Common Name	Species Name	Chinese Name	Conservation Status	Recorded habitat from the survey	Distribution in Hong Kong*
Black-crowned Night Heron	<i>Nycticorax nycticorax</i>	夜鷺	LC	T5: In flight	Common resident and winter visitor. Widely distributed in Hong Kong.
Black-winged Stilt	<i>Himantopus himantopus</i>	黑翅長腳鷺	RC	T3: River bank, River bed, in flight T5: Wet Agricultural Land, Dry Agricultural Land, Shallow Water Habitat, In flight	Common passage migrant. Found in Deep Bay area, Long Valley, Kam Tin.
Chinese Pond Heron	<i>Ardeola bacchus</i>	池鷺	PRC(RC)	T1: River bank, In flight T2: River bank, In flight T3: River bank, River bed, in flight T5: Wet Agricultural Land, Dry Agricultural Land, Shallow Water Habitat, In flight	Common resident. Widely distributed in Hong Kong.
Common Greenshank	<i>Tringa nebularia</i>	青腳鷺	RC	T3: River bank, River bed, In flight T5: Wet Agricultural Land, Dry Agricultural Land, Shallow Water Habitat, In flight	Abundant winter visitor and migrant. Found in Deep Bay area.
Common Kingfisher	<i>Alcedo atthis</i>	普通翠鳥		T2: River bank, In flight T3: River bank, In flight T5: Dry Agricultural Land,	Common passage migrant and winter visitor. Widely distributed in wetland habitat throughout Hong Kong.
Common Moorhen	<i>Gallinula chloropus</i>	黑水雞		T5: Wet Agricultural Land, Dry Agricultural Land, Shallow Water Habitat	Common winter visitor, resident and migrant. Found in Deep Bay area, Shuen Wan, Starling Inlet.
Common Sandpiper	<i>Actitis hypoleucos</i>	磯鷺		T1: River bank, In flight T2: River bank, In flight T3: River bank, River bed, In flight T5: Wet Agricultural Land, Dry Agricultural Land, Shallow Water Habitat, In flight.	Common passage migrant and winter visitor. Widely distributed in wetland area throughout Hong Kong.
Common Snipe	<i>Gallinago gallinago</i>	扇尾沙錐		T5: Wet Agricultural Land, Dry Agricultural Land, Shallow Water Habitat, In flight	Common passage migrant and winter visitor. Found in Long Valley, Chau Tau, Sai Kung.

Common Name	Species Name	Chinese Name	Conservation Status	Recorded habitat from the survey	Distribution in Hong Kong*
Eastern Cattle Egret	<i>Bubulcus coromandus</i>	牛背鷺	(LC)	T2: River bank, In flight T3: River bank, River bed, In flight T5: Wet Agricultural Land, Dry Agricultural Land, Shallow Water Habitat, In flight	Resident and common passage migrant. Widely distributed in Hong Kong.
Great Cormorant	<i>Phalacrocorax carbo</i>	普通鸕鷀	PRC	T2: In flight	Common winter visitor. Widely distributed in coastal areas throughout Hong Kong.
Great Egret	<i>Ardea alba</i>	大白鷺	PRC(RC)	T1: River bank, In flight T2: River bank, In flight T3: River bank, River bed, In flight T5: Dry Agricultural Land, Shallow Water Habitat, In flight	Common resident and winter visitor. Widely distributed in Hong Kong.
Greater Painted-snipe	<i>Rostratula benghalensis</i>	彩鷺	LC	T3: River bank T5: Wet Agricultural Land	Locally common resident. Found in Ha Tsuen, Lok Ma Chau, Kam Tin, Long Valley, Hong Kong Wetland Park.
Green Sandpiper	<i>Tringa ochropus</i>	白腰草鷺		T3: River bank, River bed T5: Wet Agricultural Land, Dry Agricultural Land, Shallow Water Habitat.	Uncommon passage migrant and winter visitor. Found in Deep Bay area, Shuen Wan, Long Valley, Kam Tin, Shek Kong, Ho Chung.
Grey Heron	<i>Ardea cinerea</i>	蒼鷺	PRC	T1: River bank, In flight T2: River bank, In flight T3: River bank, River bed, In flight T5: Shallow Water Habitat	Common winter visitor. Found in Deep Bay area, Starling Inlet, Kowloon Park, Cape D'Aguilar.
Grey-headed Lapwing	<i>Vanellus cinereus</i>	灰頭麥雞	LC	T5: Wet Agricultural Land, Dry Agricultural Land, Shallow Water Habitat, In flight	Locally common winter visitor and migrant. Found in Kam tin, Tsim Bei Tsui, Lo Wu, Tai Long Wan, Shuen Wan, Castle Peak, Chek Lap Kok.
Intermediate Egret	<i>Ardea intermedia</i>	中白鷺	RC	T2: River bank, In flight T5: Dry Agricultural Land	Resident and passage migrant. Found in Deep Bay area, Tai Long Wan, Starling Inlet, Tai O, Cap D'Aguilar.
Little Egret	<i>Egretta garzetta</i>	小白鷺	PRC(RC)	T1: River bank, In flight T2: River bank, In flight T3: River bank, River bed, In flight	Common resident. Widely distributed in coastal area throughout Hong Kong.

Common Name	Species Name	Chinese Name	Conservation Status	Recorded habitat from the survey	Distribution in Hong Kong*
				T5: Wet Agricultural Land, Dry Agricultural Land, Shallow Water Habitat,, In flight	
Little Ringed Plover	<i>Charadrius dubius</i>	金眶鴝	(LC)	T3: River bank, River bed, In flight T5: Wet Agricultural Land, Dry Agricultural Land, Shallow Water Habitat, In flight	Common winter visitor and passage migrant. Widely distributed in freshwater areas throughout Hong Kong.
Marsh Sandpiper	<i>Tringa stagnatilis</i>	澤鵲	RC	T5: Wet Agricultural Land, Shallow Water Habitat	Abundant winter visitor and migrant. Found in Deep Bay area, Shuen Wan, Long Valley, Kam Tin, Sai Kung.
Oriental Pratincole	<i>Glareola maldivarum</i>	普通燕鴝	LC	T5: Dry Agricultural Land, In flight	Passage migrant. Found in Mai Po, Tsim Bei Tsui.
Pied Kingfisher	<i>Ceryle rudis</i>	斑魚狗	(LC)	T1: In flight	Uncommon resident. Widely distributed in lakes and ponds throughout Hong Kong.
Red-necked Stint	<i>Calidris ruficollis</i>	紅頸濱鵲	NT, LC	T5: Wet Agricultural Land, Dry Agricultural Land, Shallow Water Habitat	Abundant spring passage migrant. Found in Deep Bay area.
White-breasted Waterhen	<i>Amaurornis phoenicurus</i>	白胸苦惡鳥		T3: River bank T5: Wet Agricultural Land, Dry Agricultural Land, Shallow Water Habitat, In flight	Common resident. Widely distributed in wetland throughout Hong Kong.
White-throated Kingfisher	<i>Halcyon smyrnenis</i>	白胸翡翠	(LC)	T2: River bank, In flight T3: River bank, River bed, In flight T5: In flight	Common resident. Widely distributed in coastal areas throughout Hong Kong.
Wood Sandpiper	<i>Tringa glareola</i>	林鵲	LC	T3: River bank T5: Wet Agricultural Land, Dry Agricultural Land, Shallow Water Habitat, In flight	Common migrant and winter visitor. Widely distributed in wetland area throughout Hong Kong.
Note:					

Common Name	Species Name	Chinese Name	Conservation Status	Recorded habitat from the survey	Distribution in Hong Kong*
<p>R – Resident; WV – Winter visitor; PM – Passage migrant; CPM - Common Passage Migrant; UPM – Uncommon passage migrant; SPM - Scarce Passage Migrant;CaM - Common autumn migrant; USV - Uncommon Summer visitor; SpM – Spring migrant; Sv – Summer Visitor; UR – Uncommon resident; SWV – Scarce winter visitor; CWV - Common Winter Visitor</p> <p>Status was decided according to AFCD biodiversity website (<a href="http://www.hkbiodiversity.net">www.hkbiodiversity.net</a>)</p> <p>Cap. 170: All bird species are under protection of Wild Animals Protection Ordinance</p> <p>Cap.586 : Endangered Species of Animals and Plants Ordinance (Cap.586)</p> <p>VU: Vulnerable in IUCN Red List Status (VU): Vulnerable in China Red Data Book Status</p> <p>EN: Endangered in IUCN Red List Status (EN): Endangered in China Red Data Book Status</p> <p>RC=Regional Concern; LC=Local Concern; PRC=Potential Regional Concern; GC=Global Concern; PGC=Potential Global Concern. Letters in parentheses indicate that the assessment is on the basis of restrictedness in breeding and/or roosting sites rather than in general occurrence (Fellowes et al. (2002)</p> <p>WAL: Wet Agricultural Land DAL: Dry Agricultural Land SWH: Shallow Water Habitat P: Pond</p> <p>*Source: Hong Kong Biodiversity Database, AFCD (<a href="https://www.afcd.gov.hk/English/conservation/hkbiodiversity/database/search.php">https://www.afcd.gov.hk/English/conservation/hkbiodiversity/database/search.php</a>)</p>					

**Appendix L1I. Birds Recorded in April 2023**

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status
Alexandrine Parakeet	<i>Psittacula eupatria</i>	亞歷山大鸚鵡	RR	NT, Cap. 586
Amur Stonechat	<i>Saxicola stejnegeri</i>	黑喉石鵲	WV	
Asian Koel	<i>Eudynamys scolopacea</i>	噪鵲	R	
Barn Swallow	<i>Hirundo rustica</i>	家燕	PM, Sv	
Black Kite	<i>Milvus migrans</i>	黑鳶	R, WV	(RC), Cap.586
Black-collared Starling	<i>Gracupica nigricollis</i>	黑領椋鳥	R	
Black-crowned Night Heron	<i>Nycticorax nycticorax</i>	夜鷺	R, WV	LC
Black-faced Bunting	<i>Emberiza spodocephala</i>	灰頭鵲	WV, PM	
Black-throated Laughingthrush	<i>Pterorhinus chinensis</i>	黑喉噪鵲	R	
Black-winged Stilt	<i>Himantopus himantopus</i>	黑翅長腳鵲	PM	RC
Chinese Bulbul	<i>Pycnonotus sinensis</i>	白頭鵲	R	
Chinese Pond Heron	<i>Ardeola bacchus</i>	池鷺	R	PRC(RC)
Cinereous Tit	<i>Parus cinereus</i>	蒼背山雀	R	
Collared Crow	<i>Corvus torquatus</i>	白頸鴉	UR	LC, VU
Common Greenshank	<i>Tringa nebularia</i>	青腳鵲	PM, WV	RC
Common Kestrel	<i>Falco tinnunculus</i>	紅隼	CaM, WV	Cap. 586
Common Kingfisher	<i>Alcedo atthis</i>	普通翠鳥	R	
Common Moorhen	<i>Gallinula chloropus</i>	黑水雞	R	
Common Myna	<i>Acridotheres tristis</i>	家八哥	UR	
Common Sandpiper	<i>Actitis hypoleucos</i>	磯鵲	WV, PM	
Common Snipe	<i>Gallinago gallinago</i>	扇尾沙錐	WV, PM	

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status
Common Tailorbird	<i>Orthotomus sutorius</i>	長尾縫葉鶯	R	
Crested Myna	<i>Acridotheres cristatellus</i>	八哥	R	
Crested Serpent Eagle	<i>Spilornis cheela</i>	蛇鵰	UR	Cap.586, (VU)
Dusky Warbler	<i>Phylloscopus fuscatus</i>	褐柳鶯	PM, WV	
Eastern Cattle Egret	<i>Bubulcus coromandus</i>	牛背鶯	R, PM	(LC)
Eastern Yellow Wagtail	<i>Motacilla tschutschensis</i>	東黃鵲鴝	PM, WV	
Eurasian Tree Sparrow	<i>Passer montanus</i>	樹麻雀	R	
Great Cormorant	<i>Phalacrocorax carbo</i>	普通鸕鶿	CWV	PRC
Great Egret	<i>Ardea alba</i>	大白鶯	R, WV	PRC(RC)
Greater Coucal	<i>Centropus sinensis</i>	褐翅鴉鴝	R	(VU)
Greater Painted-snipe	<i>Rostratula benghalensis</i>	彩鶻	R	LC
Green Sandpiper	<i>Tringa ochropus</i>	白腰草鶻	UPM, WV	
Grey Heron	<i>Ardea cinerea</i>	蒼鶯	WV	PRC
Grey Wagtail	<i>Motacilla cinerea</i>	灰鵲鴝	WV	
Grey-headed Lapwing	<i>Vanellus cinereus</i>	灰頭麥雞	WV, PM	LC
House Swift	<i>Apus nipalensis</i>	小白腰雨燕	SpM, R	
Indian Cuckoo	<i>Cuculus micropterus</i>	四聲杜鵑	SSv	
Intermediate Egret	<i>Ardea intermedia</i>	中白鶯	CPM	RC
Large Hawk-Cuckoo	<i>Hierococcyx sparverioides</i>	大鷹鴝	Sv	
Large-billed Crow	<i>Corvus macrorhynchus</i>	大嘴烏鴉	R	
Little Bunting	<i>Emberiza pusilla</i>	小鵲	CPM, WV	



Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status
Little Egret	<i>Egretta garzetta</i>	小白鷺	R	PRC(RC)
Little Ringed Plover	<i>Charadrius dubius</i>	金眶鴝	WV, PM	(LC)
Long-tailed Shrike	<i>Lanius schach</i>	棕背伯勞	R	
Marsh Sandpiper	<i>Tringa stagnatilis</i>	澤鵞	PM, WV	RC
Masked Laughingthrush	<i>Pterorhinus perspicillatus</i>	黑臉噪鵲	R	
Olive-backed Pipit	<i>Anthus hodgsoni</i>	樹鵲	WV	
Oriental Magpie	<i>Pica serica</i>	喜鵲	R	
Oriental Magpie-Robin	<i>Copsychus saularis</i>	鵲鴝	R	
Oriental Pratincole	<i>Glareola maldivarum</i>	普通燕鴝	PM	LC
Pallas's Leaf Warbler	<i>Phylloscopus proregulus</i>	黃腰柳鶯	WV	
Pied Kingfisher	<i>Ceryle rudis</i>	斑魚狗	UR	(LC)
Plain Prinia	<i>Prinia inornata</i>	純色鷓鴣	R	
Plaintive Cuckoo	<i>Cacomantis merulinus</i>	八聲杜鵑	USV	
Red-billed Blue Magpie	<i>Urocissa erythrorhyncha</i>	紅咀藍鵲	R	
Red-necked Stint	<i>Calidris ruficollis</i>	紅頸濱鵞	SpM	NT, LC
Red-rumped Swallow	<i>Cecropis daurica</i>	金腰燕	UPM	
Red-throated Pipit	<i>Anthus cervinus</i>	紅喉鵲	CPM, WV	RC
Red-whiskered bulbul	<i>Pycnonotus jocosus</i>	紅耳鸚	R	
Richard's Pipit	<i>Anthus richardi</i>	理氏鵲	WV, PM	
Rock Dove	<i>Columba livia</i>	原鴿	R	
Scaly-breasted Munia	<i>Lonchura punctulata</i>	斑文鳥	R	

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status
Spotted Dove	<i>Streptopelia chinensis</i>	珠頸斑鳩	R	
Swinhoe's White-eye	<i>Zosterops simplex</i>	暗綠繡眼鳥	R	
White Wagtail	<i>Motacilla alba</i>	白鶺鴒	PM, WV	
White-breasted Waterhen	<i>Amaurornis phoenicurus</i>	白胸苦惡鳥	R	
White-shouldered Starling	<i>Sturnia sinensis</i>	灰背椋鳥	M, WV, Sv	LC
White-throated Kingfisher	<i>Halcyon smyrnensis</i>	白胸翡翠	R	(LC)
Wood Sandpiper	<i>Tringa glareola</i>	林鶺鴒	PM, WV	LC
Yellow-bellied Prinia	<i>Prinia flaviventris</i>	黃腹鷦鶯	R	
Yellow-breasted Bunting	<i>Emberiza aureola</i>	黃胸鵪	PM	(EN), RC

Note:

R – Resident; WV – Winter visitor; PM – Passage migrant; CPM - Common Passage Migrant; UPM – Uncommon passage migrant; UR – Uncommon resident; SPM - Scarce Passage Migrant; SpM – Spring Migrant; ; USV - Uncommon Summer visitor; Sv – Summer Visitor; SSv – Spring & Summer Visitor; SWV – Scarce winter visitor;

Cap.586 : Endangered Species of Animals and Plants Ordinance (Cap.586)

VU: Vulnerable on IUCN Red List of Threatened Species.

(VU): Vulnerable in China Red Data Book Status

(EN): Endangered in China Red Data Book Status

RC=Regional Concern; LC=Local Concern; PRC=Potential Regional Concern; GC=Global Concern; PGC=Potential Global Concern. Letters in parentheses indicate that the assessment is on the basis of restrictedness in breeding and/or roosting sites rather than in general occurrence (Fellowes et al. (2002)

WAL: Wet Agricultural Land

DAL: Dry Agricultural Land

SWH: Shallow Water Habitat

P: Pond

**Appendix L2. Freshwater Macroinvertebrate Species Recorded for Aquatic Fauna Monitoring, 21 April, 2023**

Common Name	Scientific Name	Conservation Status	Occurrence Status	Date: 21 April 2023										
				Weather: Fine										
				Methods: Kick-netting, sweep netting and direct observation										
				Abundance										
				MS_01*	MS_02	MS_03	MS_04	MS_05*	MS_06	MS_07	MS_08	MS_09	MS_10	
Apple Snail	<i>Pomacea canaliculata</i>	-	Introduced									+	+	
Atyid shrimp	<i>Caridina</i> sp.	-	-											
Black Fly	Diptera	-	-									+++		
Bladder Snail	<i>Physella acuta</i>	-	-			++			++	+				
Blood Worm	Chironomidae	-	-		++									
Caddisfly	<i>Hydroptila</i> sp.	-	-									++	+	
Chinese River Snail	<i>Sinotaia guangdongensis</i>	-	Native									+		+
Crimson Dropwing	<i>Trithemis aurora</i>	-	Native		+									
Fishfly	Megaloptera	-	-		+							+		+++
Golden Freshwater Clam	<i>Corbicula fluminea</i>	-	Native									++		
Indigo Dropwing	<i>Trithemis festiva</i>	-	Native				+					+		
Leech	<i>Hirudinea</i>	-	-									+	+	
Mayfly	<i>Baetis</i> sp.	-	-									++	++	
	<i>Caenis</i> sp.	-	-									+	+	
	<i>Cloeon</i> sp.	-	-									+		
Polychaete	Polychaeta	-	-									+		
Ram's Horn Snail	<i>Gyraulus convexiusculus</i>	-	Introduced			+++								

Red-rimmed Melania	<i>Melanoides tuberculata</i>	-	Introduced						++	++	+++	+++	
River Snail	<i>Radix plicatulus</i>	-	Introduced				+			+	+		
River Snail	<i>Sinotaia quadrata</i>	-	-										
Water Strider	<i>Metrocoris sp.</i>	-	-				++		++	++	+++	+++	
	<i>Microvelia sp.</i>		-				+		+++	++	++		+++
	<i>Ptilomera tigrina</i>		Native								+	+	
Yellow Featherlegs	<i>Copera marginipes</i>	-	Native										
Total No. of species				0	3	1	5	0	4	5	17	9	3
Total No. of Conservation Interest Species				0	0	0	0	0	0	0	0	0	0
Note: *: dried-up station +: species recorded within the study area (no. of individuals from 1-10) ++: species commonly recorded within the study area (no. of individuals from 11-20) +++: most abundant species recorded within the study area (no. of individuals from 21 and above)													

Common Name	Scientific Name	Conservation Status	Occurrence Status	Date: 21 April 2023				
				Weather: Fine				
				Methods: Kick-netting, sweep netting and direct observation				
				Abundance				
				MS_11	MS_12	MS_13	MS_14	MS_15
Apple Snail	<i>Pomacea canaliculata</i>	-	Introduced		+++	+++	+++	+++
Atyid shrimp	<i>Caridina</i> sp.	-	-			+++	+++	
Black Fly	Diptera	-	-					
Bladder Snail	<i>Physella acuta</i>	-	-					
Blood Worm	Chironomidae	-	-	+++	++	++		
Caddisfly	<i>Hydroptila</i> sp.	-	-			+		
Chinese River Snail	<i>Sinotaia guangdongensis</i>	-	Native					
Crimson Dropwing	<i>Trithemis aurora</i>	-	Native			++		
Fishfly	Megaloptera	-	-					
Golden Freshwater Clam	<i>Corbicula fluminea</i>	-	Native			+		
Indigo Dropwing	<i>Trithemis festiva</i>	-	Native					
Leech	<i>Hirudinea</i>	-	-					++
Mayfly	<i>Baetis</i> sp.	-	-					
	<i>Caenis</i> sp.	-	-					
	<i>Cloeon</i> sp.	-	-					
Polychaete	Polychaeta	-	-					
Ram's Horn Snail	<i>Gyraulus convexiusculus</i>	-	Introduced					+
Red-rimmed Melania	<i>Melanoides tuberculata</i>	-	Introduced					
River Snail	<i>Radix plicatulus</i>	-	Introduced				+	
River Snail	<i>Sinotaia quadrata</i>	-	-					

Water Strider	<i>Metrocoris sp.</i>	-	-					
	<i>Microvelia sp.</i>	-	-					
	<i>Ptilomera tigrina</i>	-	Native					
Yellow Featherlegs	<i>Copera marginipes</i>	-	Native				+	
Total No. of species				1	2	6	4	3
Total No. of Conservation Interest Species				0	0	0	0	0

**Appendix L3. Freshwater Fish Species Recorded for Aquatic Fauna Monitoring, 21 April 2023**

Common Name	Scientific Name	Conservation Status	Occurrence Status	Date: 21 April 2023										
				Weather: Fine										
				Methods: Kick-netting, sweep netting and direct observation										
				Abundance										
				MS_01*	MS_02	MS_03	MS_04	MS_05*	MS_06	MS_07	MS_08	MS_09	MS_10	
Mosquito Fish	<i>Gambusia affinis</i>	-	Introduced											
Mozambique Tilapia	<i>Oreochromis mossambicus</i>	VU	Introduced						+					
Nile Tilapia	<i>Oreochromis niloticus</i>	-	Introduced						+		++			
Total No. of species				0	0	0	0	0	2	0	1	0	0	0
Total No. of Conservation Interest Species				0	0	0	0	0	1	0	0	0	0	0
<p>Note:  VU: Vulnerable on IUCN Red List of Threatened Species.  Occurrence Status was according to The IUCN Red List of Threatened Species website (<a href="https://www.iucnredlist.org">https://www.iucnredlist.org</a>)  +: species recorded within the study area (no. of individuals from 1-10)  ++: species commonly recorded within the study area (no. of individuals from 11-20)  +++: most abundant species recorded within the study area (no. of individuals from 21 and above)</p>														

Common Name	Scientific Name	Conservation Status	Occurrence Status	Date: 21 April 2023				
				Weather: Fine				
				Methods: Kick-netting, sweep netting and direct observation				
				Abundance				
				MS_11	MS_12	MS_13	MS_14	MS_15
Mosquito Fish	<i>Gambusia affinis</i>	-	Introduced			+		
Mozambique Tilapia	<i>Oreochromis mossambicus</i>	VU	Introduced					+
Nile Tilapia	<i>Oreochromis niloticus</i>	-	Introduced					+++
Total No. of species				0	0	1	0	2
Total No. of Conservation Interest Species				0	0	0	0	1
<p>Note:  VU: Vulnerable on IUCN Red List of Threatened Species.</p> <p>Occurrence Status was according to The IUCN Red List of Threatened Species website (<a href="https://www.iucnredlist.org">https://www.iucnredlist.org</a>)</p> <p>+: species recorded within the study area (no. of individuals from 1-10)</p> <p>++: species commonly recorded within the study area (no. of individuals from 11-20)</p> <p>+++: most abundant species recorded within the study area (no. of individuals from 21 and above)</p>								



**Appendix L4. Mammal Species Recorded for Ecologically Sensitive Habitat Monitoring, 19 & 26 April 2023**

Common Name	Species Name	Chinese Name	Conservation Status	Occurrence Status	Date: 19/4 /2023 (T1,6) , 26/4 /2022 (T3,4,5)				
					Relative Abundance				
					Transect Walk				
					T1	T3	T4	T5	T6
Domestic Cat	<i>Felis catus</i>	野貓		Introduced	+			+	+
Domestic Dog	<i>Canis lupus familiaris</i>	野狗		Introduced	+++		+++		++
Japanese Pipistrelle	<i>Pipistrellus abramus</i>	東亞家蝠	Cap. 170	Native	+++	+++	+	++	+
Short-nosed Fruit Bat	<i>Cynopterus sphinx</i>	短吻果蝠	Cap. 170, NT	Native	++		++		
Total No. of species					4	1	3	2	3
Total No. of Conservation Interest Species					2	1	2	1	1
<p>Note:</p> <p>Cap. 170: Species under protection of Wild Animals Protection Ordinance (Cap. 170)</p> <p>NT: Near Threatened in the Red List of China's Vertebrates</p> <p>Occurrence Status was according to The IUCN Red List of Threatened Species website (<a href="https://www.iucnredlist.org">https://www.iucnredlist.org</a>)</p> <p>+: species recorded within transect routes</p> <p>++: species commonly recorded within transect routes</p> <p>+++: dominant species within transect routes</p> <p>Local Restrictedness Column has been removed as said information is no longer available.</p>									

**Appendix L5. Herpetofauna Species Recorded for Ecologically Sensitive Habitat Monitoring, 19 & 26 April 2023**

Common Name	Species Name	Chinese Name	Conservation Status	Occurrence Status	Date: 19/4 /2023 (T1,6) , 26/4 /2022 (T3,4,5)				
					Relative Abundance				
					Transect Walk				
					T1	T3	T4	T5	T6
Amphibian									
Asian Common Toad	<i>Bufo melanostictus</i>	黑眶蟾蜍	-	Native	+			+++	
Asiatic Painted Frog	<i>Kaloula pulchra pulchra</i>	花狹口蛙	-	Native	+++				+
Brown Tree Frog	<i>Polypedates megacephalus</i>	斑腿泛樹蛙	-	Native	+				
Chinese Bullfrog	<i>Hoplobatrachus rugulosus</i>	虎紋蛙	(EN)	Native	+				
Gunther's Frog	<i>Hylarana guentheri</i>	沼蛙	-	Native	++			+++	
Ornate Pigmy Frog	<i>Microhyla fissipes</i>	飾紋姬蛙	-	Native	+++				+
Paddy Frog	<i>Fejervarya limnocharis</i>	澤蛙	-	Native	+++			+++	
Spotted Narrow-mouthed Frog	<i>Kalophrynus interlineatus</i>	花細狹口蛙	-	Native	+				
Asian Common Toad	<i>Bufo melanostictus</i>	黑眶蟾蜍	-	Native	+			+++	
Reptile									
Bowring's Gecko	<i>Hemidactylus bowringii</i>	原尾蜥虎	-	Native	+++	+			
Chinese gecko	<i>Gekko chinensis</i>	中國壁虎	-	Native		+			
Chinese Skink	<i>Plestiodon chinensis chinensis</i>	石龍子	-	Native			+	+	
Total No. of species					9	2	1	4	2
Total No. of Conservation Interest Species					1	0	0	0	0

Note:

(EN): Near Threatened in Red List of China Vertebrates

Occurrence Status was according to The IUCN Red List of Threatened Species website (<https://www.iucnredlist.org>)

+: species recorded within transect routes

++: species commonly recorded within transect routes

+++: dominant species within transect routes

**Appendix L6. Butterfly Species Recorded Ecologically Sensitive Habitat Monitoring, 19 & 26 April 2023**

Common Name	Species Name	Chinese Name	Conservation Status	Occurrence Status*	Date: 19/4 /2023 (T1,6) , 26/4 /2022 (T3,4,5)				
					Relative Abundance				
					Transect Walk				
					T1	T3	T4	T5	T6
Blue Admiral	<i>Kaniska canace</i>	琉璃蛺蝶	-	-	+				
Ceylon Blue Glassy	<i>Ideopsis similis</i>	擬旖斑蝶	-	-	+				
Chinese Peacock	<i>Papilio bianor</i>	碧鳳蝶	-	-	+			+	
Common Archduke	<i>Lexias pardalis</i>	小豹律蛺蝶	R	-	+				
Common Bluebottle	<i>Graphium sarpedon</i>	青鳳蝶	-	-	+++	+	++	+++	
Common Five-ring	<i>Ypthima baldus</i>	矍眼蝶	-	-	+		+		
Common Grass Yellow	<i>Eurema hecabe</i>	寬邊黃粉蝶	-	-	++	+	++	+	+
Common Hedge Blue	<i>Acytolepis puspa</i>	鈕灰蝶	-	-		+	+		+
Common Jay	<i>Graphium doson axion</i>	木蘭青鳳蝶	-	-	+				
Common Jester	<i>Symbrenthia lilaea</i>	散紋盛蛺蝶	-	-			+	+	
Common Mormon	<i>Papilio polytes</i>	玉帶鳳蝶	-	-		+		++	
Common Mapwing	<i>Cyrestis thyodamas</i>	網絲蛺蝶	-	-	+++				+
Common Mime	<i>Chilasa clytia</i>	斑鳳蝶	-	-	+			+	
Common Mormon	<i>Papilio polytes</i>	玉帶鳳蝶	-	-	+++		+++		+
Common Sailer	<i>Neptis hylas</i>	中環蛺蝶	-	-	+	+		+	
Dark Brand Bush Brown	<i>Mycalesis mineus</i>	小眉眼蝶	-	-	++		+	+	
Five-bar Swordtail	<i>Pathysa antiphates</i>	綠鳳蝶	-	-	+			+	
Five-dot Sergeant	<i>Parathyma sulpitia</i>	殘鏢線蛺蝶	-	-			+		

Common Name	Species Name	Chinese Name	Conservation Status	Occurrence Status*	Date: 19/4 /2023 (T1,6) , 26/4 /2022 (T3,4,5)				
					Relative Abundance				
					Transect Walk				
					T1	T3	T4	T5	T6
Great Mormon	<i>Papilio memnon</i>	美鳳蝶	-	-	++		+		
Indian Cabbage White	<i>Pieris canidia</i>	東方菜粉蝶	-	-	+++	+	++	+++	
Lemon Emigrant	<i>Catopsilia pomona</i>	遷粉蝶	-	-		+			
Long-tailed Blue	<i>Lampides boeticus</i>	亮灰蝶	-	-			+	+	
Pale Grass Blue	<i>Pseudozizeeria maha</i>	酢漿灰蝶	-	-	+++	+++	+++	+++	
Paris Peacock	<i>Papilio paris</i>	巴黎翠鳳蝶	-	-	++	+			+
Plum Judy	<i>Abisara echerius</i>	蛇目褐蛺蝶	-	-	+	+		++	+
Punchinello	<i>Zemeros flegyas</i>	波蛺蝶	-	-				+	
Red Helen	<i>Papilio Helenus</i>	玉斑鳳蝶	-	-	+				
Red-base Jezebel	<i>Delias pasithoe</i>	報喜斑粉蝶	-	-	+		+		
Rustic	<i>Cupha erymanthis</i>	黃襟蛺蝶	-	-	+				
Short-banded Sailer	<i>Phaedyma columella</i>	柱菲蛺蝶	-	-	+		+	+	
Small White	<i>Pieris rapae</i>	菜粉蝶	-	-	+++	+++	+++	+++	+++
South China Bush Brown	<i>Mycalesis mineus</i>	平頂眉眼蝶	-	-	+				+
Spangle	<i>Papilio protenor</i>	藍鳳蝶	-	-	++	+	++	++	
Tailed Jay	<i>Graphium agamemnon</i>	統帥青鳳蝶	-	-	+			+	
Tailless Line Blue	<i>Prosotas dubiosa</i>	疑波灰蝶	-	-	++			++	
Three-spot Grass Yellow	<i>Eurema blanda</i>	檠黃粉蝶	-	-	++	+	+		+
White-edged Blue Baron	<i>Euthalia phemius</i>	尖翅翠蛺蝶	-	-	+	+			

Common Name	Species Name	Chinese Name	Conservation Status	Occurrence Status*	Date: 19/4 /2023 (T1,6) , 26/4 /2022 (T3,4,5)				
					Relative Abundance				
					Transect Walk				
					T1	T3	T4	T5	T6
Total No. of species					30	14	17	19	9
Total No. of Conservation Interest Species					1	0	0	0	0
<p>Note:</p> <p>Occurrence Status was according to The IUCN Red List of Threatened Species website (<a href="https://www.iucnredlist.org">https://www.iucnredlist.org</a>)</p> <p>*Very limited data are available for the occurrence status (being native to Hong Kong) of butterflies</p> <p>+: species recorded within transect routes</p> <p>++: species commonly recorded within transect routes</p> <p>+++: dominant species within transect routes</p> <p>LC: Local Concern (Fellowes et al., 2002)</p>									

**Appendix L7. Odonata Species Recorded for Ecologically Sensitive Habitat Monitoring, 19 & 26 April 2023**

Common Name	Species Name	Chinese Name	Conservation Status	Occurrence Status	Date: 19/4 /2023 (T1,6) , 26/4 /2022 (T3,4,5)				
					Relative Abundance				
					Transect Walk				
					T1	T3	T4	T5	T6
Blue Dasher	<i>Brachydiplax flavovittata</i>	藍額疏脈蜻	-	Native	+				
Common Blue Skimmer	<i>Orthetrum glaucum</i>	黑尾灰蜻	-	Native				+	
Common Red Skimmer	<i>Orthetrum pruinosum</i>	赤褐灰蜻	-	Native	+		+	+	
Green Skimmer	<i>Orthetrum sabina</i>	狹腹灰蜻	-	Native			+		
Lesser Blue Skimmer	<i>Orthetrum triangulare triangulare</i>	鼎脈灰蜻	-	Native			+		
Pied Percher	<i>Neurothemis tullia tullia</i>	截斑脈蜻	-	Native	+				
Pied Skimmer	<i>Pseudothemis zonata</i>	玉帶蜻	-	Native	+				
Red-faced Skimmer	<i>Orthetrum chrysis</i>	華麗灰蜻	-	Native	+				
Russet Percher	<i>Neurothemis fulvia</i>	網脈蜻	-	Native			+		
Saddlebag Glider	<i>Tramea virginia</i>	華斜痣蜻	-	Native	+				
Scarlet Basker	<i>Urothemis signata</i>	赤斑曲鈎脈蜻	LC	Native	+++				
Variegated Flutterer	<i>Rhyothemis variegata</i>	斑麗翅蜻	-	Native	+++				

Common Name	Species Name	Chinese Name	Conservation Status	Occurrence Status	Date: 19/4 /2023 (T1,6) , 26/4 /2022 (T3,4,5)				
					Relative Abundance				
					Transect Walk				
					T1	T3	T4	T5	T6
Wandering Glider	<i>Pantala flavescens</i>	黃蜻	-	Native	+++	++	+++	+	+
Total No. of species					9	1	5	3	1
Total No. of Conservation Interest Species					1	0	0	0	0
<p>Note:</p> <p>Occurrence Status was according to The IUCN Red List of Threatened Species website (<a href="https://www.iucnredlist.org">https://www.iucnredlist.org</a>)</p> <p>+: species recorded within transect routes</p> <p>++: species commonly recorded within transect routes</p> <p>+++: dominant species within transect routes</p> <p>LC: Local Concern (Fellowes et al., 2002)</p>									



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**APPENDIX M**  
**WEATHER CONDITION**

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**APPENDIX M –  
GENERAL WEATHER CONDITIONS DURING THE MONITORING PERIOD**

<b>Date</b>	<b>Mean Air Temperature (°C)</b>	<b>Mean Relative Humidity (%)</b>	<b>Precipitation (mm)</b>
<b>1 April 23</b>	<b>20.3</b>	<b>89</b>	<b>0.7</b>
<b>2 April 23</b>	<b>21.1</b>	<b>92</b>	<b>0.7</b>
<b>3 April 23</b>	<b>20.9</b>	<b>90</b>	<b>2.1</b>
<b>4 April 23</b>	<b>23.7</b>	<b>90</b>	<b>4</b>
<b>5 April 23</b>	<b>25.3</b>	<b>89</b>	<b>0.4</b>
<b>6 April 23</b>	<b>25.4</b>	<b>87</b>	<b>5.9</b>
<b>7 April 23</b>	<b>21.8</b>	<b>74</b>	<b>4.4</b>
<b>8 April 23</b>	<b>20.6</b>	<b>73</b>	<b>Trace</b>
<b>9 April 23</b>	<b>19.8</b>	<b>72</b>	<b>2.6</b>
<b>10 April 23</b>	<b>21.4</b>	<b>80</b>	<b>0</b>
<b>11 April 23</b>	<b>24.2</b>	<b>81</b>	<b>0</b>
<b>12 April 23</b>	<b>25</b>	<b>76</b>	<b>0</b>
<b>13 April 23</b>	<b>23.4</b>	<b>78</b>	<b>0</b>
<b>14 April 23</b>	<b>24.7</b>	<b>80</b>	<b>0</b>
<b>15 April 23</b>	<b>26.9</b>	<b>70</b>	<b>0</b>

<b>Date</b>	<b>Mean Air Temperature (°C)</b>	<b>Mean Relative Humidity (%)</b>	<b>Precipitation (mm)</b>
<b>16 April 23</b>	<b>26.7</b>	<b>69</b>	<b>0</b>
<b>17 April 23</b>	<b>26.1</b>	<b>80</b>	<b>Trace</b>
<b>18 April 23</b>	<b>26.7</b>	<b>81</b>	<b>Trace</b>
<b>19 April 23</b>	<b>25.9</b>	<b>81</b>	<b>26.5</b>
<b>20 April 23</b>	<b>24</b>	<b>94</b>	<b>18.2</b>
<b>21 April 23</b>	<b>24.1</b>	<b>90</b>	<b>4.3</b>
<b>22 April 23</b>	<b>23.1</b>	<b>89</b>	<b>0.7</b>
<b>23 April 23</b>	<b>23</b>	<b>91</b>	<b>0.4</b>
<b>24 April 23</b>	<b>23.5</b>	<b>89</b>	<b>1</b>
<b>25 April 23</b>	<b>22.4</b>	<b>91</b>	<b>4.4</b>
<b>26 April 23</b>	<b>21.6</b>	<b>73</b>	<b>0</b>
<b>27 April 23</b>	<b>22.7</b>	<b>80</b>	<b>0.3</b>
<b>28 April 23</b>	<b>24.1</b>	<b>84</b>	<b>0.9</b>
<b>29 April 23</b>	<b>25.4</b>	<b>82</b>	<b>Trace</b>
<b>30 April 23</b>	<b>24.6</b>	<b>73</b>	<b>0</b>

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

\*\*Trace means rainfall less than 0.05 mm.

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**APPENDIX N**  
**EVENT ACTION PLANS**

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

EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
<b>ACTION LEVEL</b>				
1. Exceedance for one sample	1. Identify source, investigate the causes of exceedance and propose remedial measures; 2. Inform IEC,ER and Contractor; 3. Repeat measurement to confirm finding; and 4. Increase monitoring frequency to daily.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; and 3. Review and advise the ET and ER on the effectiveness of the proposed remedial measures.	1. Notify Contractor.	1. Identify source, investigate the causes of exceedance and propose remedial measures 2. Rectify any unacceptable practice and implement remedial measures; and 3. Amend working methods agreed with ER if appropriate.
2. Exceedance for two or more consecutive samples	1. Identify source, investigate the causes of exceedance and propose remedial measures; 2. Inform IEC,ER and Contractor; 3. Advise the ER and Contractor on the effectiveness of the proposed remedial measures; 4. Repeat measurements	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET and Contractor on possible remedial measures; 4. Advise the ET and ER on the effectiveness of the proposed remedial measures; and 5. Supervise	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; and 3. Supervise and ensure remedial measures properly implemented.	1. Identify source, investigate the causes of exceedance and propose remedial measures 2. Submit proposals for remedial actions to ER with a copy to ET and IEC within 3 working days of notification; 3. Implement the

	<p>to confirm findings;                      5. Increase monitoring frequency to daily;                      6. Discuss with IEC, ER and Contractor on remedial actions required;                      7. If exceedance continues, arrange meeting with IEC and ER; and                      8. If exceedance stops, cease additional monitoring.</p>	<p>Implementation of remedial measures.</p>		<p>agreed proposals; and                      4. Amend proposal if appropriate.</p>
<b>LIMIT LEVEL</b>				
<p>1.Exceedance for one sample</p>	<p>Identify source, investigate the causes of exceedance and propose remedial measures;                      2. Inform ER, Contractor, IEC and EPD;                      3. Repeat measurement to confirm finding;                      4. Increase monitoring frequency to daily;                      5. Assess effectiveness of Contractor’s remedial actions and keep IEC, EPD and ER informed of the results.</p>	<p>1. Check monitoring data submitted by ET;                      2. Check Contractor’s working method;                      3. Discuss with ET, ER and Contractor on possible remedial measures;                      4. Advise the ER and ET on the effectiveness of the proposed remedial measures;                      5. Supervise implementation of remedial</p>	<p>1. Confirm receipt of notification of failure in writing;                      2. Notify Contractor; and                      3. Supervise and ensure remedial measures properly implemented.</p>	<p>1. Identify source, investigate the causes of exceedance and propose remedial measures;                      2. Take immediate action to avoid further exceedance;                      3. Submit proposals for remedial actions to ER with a copy to ET and IEC within 3 working days of notification;                      4. Implement the agreed proposals; and                      5. Amend proposal if appropriate.</p>

		measures.		
2.Exceedance for two or more consecutive samples	<ol style="list-style-type: none"> <li>1. Notify IEC, ER, Contractor and EPD;</li> <li>2. Identify source;</li> <li>3. Repeat measurement to confirm findings;</li> <li>4. Increase monitoring frequency to daily;</li> <li>5. Carry out analysis of Contractor’s working procedures to determine possible mitigation to be implemented;</li> <li>6. Arrange meeting with IEC, Contractor and ER to discuss the remedial actions to be taken;</li> <li>7. Assess effectiveness of Contractor’s remedial actions and keep IEC, EPD and ER informed of the results;</li> <li>8. If exceedance stops, cease additional monitoring.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check monitoring data submitted by ET;</li> <li>2. Check Contractor’s working method;</li> <li>3. Discuss amongst ER, ET, and Contractor on the potential remedial actions;</li> <li>4. Review Contractor’s remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly; and</li> <li>5. Supervise the implementation of remedial measures.</li> </ol>	<ol style="list-style-type: none"> <li>1. Confirm receipt of notification of failure in writing;</li> <li>2. Notify Contractor;</li> <li>3. In consultation with the ET and IEC, agree with the Contractor on the remedial measures to be implemented;</li> <li>4. Supervise and ensure remedial measures properly implemented; and</li> <li>5. If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated.</li> </ol>	<ol style="list-style-type: none"> <li>1. Identify source, investigate the causes of exceedance and propose remedial measures;</li> <li>2. Take immediate action to avoid further exceedance;</li> <li>3. Submit proposals for remedial actions to ER with a copy to ET and IEC within 3 working days of notification;</li> <li>4. Implement the agreed proposals;</li> <li>5. Resubmit proposals if problem still not under control;</li> <li>6. Stop the relevant portion of works as determined by the ER until the exceedance is abated.</li> </ol>

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

**Table N-2: Event / Action Plan for Construction Noise**

EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
Action Level	<ol style="list-style-type: none"> <li>1. Notify IEC, ER and Contractor;</li> <li>2. Carry out investigation;</li> <li>3. Report the results of investigation to the IEC, ER and Contractor;</li> <li>4. Discuss jointly with the Contractor and formulate remedial measures;</li> <li>5. Increase monitoring frequency to check mitigation effectiveness.</li> </ol>	<ol style="list-style-type: none"> <li>1. Review the monitoring data submitted by the ET;</li> <li>2. Review the construction methods and proposed remedial measures by the Contractor, and advise the ET and ER if the proposed remedial measures would be sufficient;</li> <li>3. Supervise the implementation of remedial measures.</li> </ol>	<ol style="list-style-type: none"> <li>1. Confirm receipt of notification of failure in writing;</li> <li>2. Notify the Contractor;</li> <li>3. Require Contractor to propose remedial measures for the analysed noise problem;</li> <li>4. Ensure remedial measures are properly implemented</li> </ol>	<ol style="list-style-type: none"> <li>1. Submit noise mitigation proposals to ER and copy to the IEC and ET;</li> <li>2. Implement noise mitigation proposals.</li> </ol>
Limit Level	<ol style="list-style-type: none"> <li>1. Identify source;</li> <li>2. Inform IEC, ER and Contractor;</li> <li>3. Repeat measurements to confirm findings;</li> <li>4. Increase the monitoring frequency;</li> <li>5. Carry out analysis of Contractor's working procedures with the ER and Contractor to determine possible mitigation to be implemented;</li> <li>6. Inform IEC, ER and Contractor the causes and actions taken for the exceedances;</li> </ol>	<ol style="list-style-type: none"> <li>1. Discuss amongst the ER, ET, and Contractor on the potential remedial actions;</li> <li>2. Review the Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly;</li> <li>3. Supervise the implementation of remedial measures.</li> </ol>	<ol style="list-style-type: none"> <li>1. Confirm receipt of notification of exceedance in writing;</li> <li>2. Notify the Contractor;</li> <li>3. Require the Contractor to propose remedial measures for the analysed noise problem;</li> <li>4. Ensure remedial measures are properly implemented;</li> <li>5. If exceedance continues, consider what portion of the work is responsible and instruct the</li> </ol>	<ol style="list-style-type: none"> <li>1. Take immediate action to avoid further exceedance;</li> <li>2. Submit proposals for remedial actions to the ER and copy to the ET and IEC within 3 working days of notification;</li> <li>3. Implement the agreed proposals;</li> <li>4. Resubmit proposals if problems still not under control;</li> <li>5. Stop the relevant portion of works as</li> </ol>



EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
	7. Assess effectiveness of Contractor’s remedial actions and keep IEC informed of the results;  8. If exceedance stops, cease additional monitoring.		Contractor to stop that portion of work until the exceedance is abated.	determined by the ER until the exceedance is abated.

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

**Table N-3: Event / Action Plan for Water Quality**

EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
Action level being exceeded by one sampling day	<ol style="list-style-type: none"> <li>1. Conduct addition site investigation on the same day;</li> <li>2. Inform IEC, Contractor and ER;</li> <li>3. Check monitoring data, all plant, equipment, Contractor's working methods and other relative information;</li> <li>4. Review proposals on remedial measures submitted by Contractor;</li> <li>5. Discuss remedial measures with IEC and Contractor and ER; and</li> <li>6. Review submit proposal and ensure the effectiveness of the implemented mitigation measures.</li> </ol>	<ol style="list-style-type: none"> <li>1. Discuss with ET, ER and Contractor on the implemented mitigation measures;</li> <li>2. Review proposals on remedial measures submitted by Contractor and advise the ER accordingly; and</li> <li>3. Review submit proposal and advise the ET and ER on the Effectiveness of the implemented mitigation measures.</li> </ol>	<ol style="list-style-type: none"> <li>1. Review proposals on remedial measures submitted by Contractor;</li> <li>2. Discuss with IEC, ET and Contractor on the Implemented mitigation measures;</li> <li>3. Make agreement on the remedial measures to be implemented; and</li> <li>4. Supervise the implementation of agreed remedial measures.</li> </ol>	<ol style="list-style-type: none"> <li>1. Identify source(s) of impact;</li> <li>2. Inform the ER and confirm notification of the noncompliance in writing;</li> <li>3. Rectify unacceptable practice;</li> <li>4. Check all plant and equipment;</li> <li>5. Consider changes of working methods;</li> <li>6. Discuss with ER, ET and IEC and submit proposal of remedial measures to ER and IEC; and</li> <li>7. Implement the agreed mitigation measures.</li> </ol>
Action level being exceeded by more than one consecutive sampling days	<ol style="list-style-type: none"> <li>1. Conduct addition site investigation on the same day;</li> <li>2. Inform IEC, Contractor and ER;</li> <li>3. Check monitoring data, all plant, equipment,</li> </ol>	<ol style="list-style-type: none"> <li>1. Discuss with ET, Contractor and ER on the implemented mitigation measures;</li> <li>2. Review the proposed remedial measures submitted by Contractor and advise</li> </ol>	<ol style="list-style-type: none"> <li>1. Discuss with ET, IEC and Contractor on the proposed mitigation measures;</li> <li>2. Make agreement on the remedial measures to be implemented; and</li> </ol>	<ol style="list-style-type: none"> <li>1. Identify source(s) of impact;</li> <li>2. Inform the ER and confirm notification of the non-compliance in writing;</li> <li>3. Rectify unacceptable</li> </ol>

EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
	<p>Contractor's working methods and other relative information;</p> <p>4. Discuss remedial measures with IEC, contractor and ER; and</p> <p>5. Review submit proposal and ensure the agreed remedial measures are implemented</p>	<p>the ER accordingly; and</p> <p>3. Review and advise the ET and ER on the effectiveness of the implemented mitigation measures.</p>	<p>3. Discuss with ET, IEC and Contractor on the effectiveness of the implemented remedial measures</p>	<p>practice;</p> <p>4. Check all plant and equipment and consider changes of working methods;</p> <p>5. Discuss with ET, IEC and ER and submit proposal of remedial measures to ER and IEC within 3 working days of notification; and</p> <p>6. Implement the agreed mitigation measures.</p>
Limit level being exceeded by one sampling day	<p>1. Conduct addition site investigation on the same day;</p> <p>2. Inform IEC, Contractor and ER;</p> <p>3. Rectify unacceptable practice;</p> <p>4. Check monitoring data, all plant, equipment, Contractor's working methods and other relative information;</p> <p>5. Consider changes of working methods;</p> <p>6. Discuss mitigation measures with IEC, ER and Contractor;</p> <p>7. Review the submit</p>	<p>1. Discuss with ET, Contractor and ER on the implemented mitigation measures;</p> <p>2. Review the proposed remedial measures submitted by Contractor and advise the ER accordingly; and</p> <p>3. Review and advise the ET and ER on the effectiveness of the implemented mitigation measures.</p>	<p>1. Discuss with ET, IEC and Contractor on the implemented remedial measures;</p> <p>2. Request Contractor to critically review the working methods;</p> <p>3. Make agreement on the remedial measures to be implemented; and</p> <p>4. Discuss with ET, IEC and Contractor on the effectiveness of the implemented remedial measures.</p>	<p>1. Identify source(s) of impact;</p> <p>2. Inform the ER and confirm notification of the noncompliance in writing;</p> <p>3. Rectify unacceptable practice;</p> <p>4. Check all plant and equipment and consider changes of working methods;</p> <p>5. Discuss with ET, IEC and ER and submit proposal of additional mitigation measures to ER and IEC within 3 working days of</p>

EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
	proposal and ensure the agreed remedial measures are implemented;			notification; and 6. Implement the agreed remedial measures.
Limit level being exceeded by more than one consecutive sampling days	<ol style="list-style-type: none"> <li>1. Conduct addition site investigation on the same day;</li> <li>2. Inform IEC, contractor and ER;</li> <li>3. Check monitoring data, all plant, equipment, Contractor's working methods and other relative information;</li> <li>4. Discuss mitigation measures with IEC, ER and Contractor; and</li> <li>5. Review the submit proposal and ensure the agreed remedial measures are implemented.</li> </ol>	<ol style="list-style-type: none"> <li>1. Discuss with ET, Contractor and ER on the implemented mitigation measures;</li> <li>2. Review the proposed remedial measures submitted by Contractor and advise the ER accordingly; and</li> <li>3. Review and advise the ET and ER on the effectiveness of the implemented mitigation measures.</li> </ol>	<ol style="list-style-type: none"> <li>1. Discuss with ET, IEC and Contractor on the implemented remedial measures</li> <li>2. Request Contractor to critically review the working methods;</li> <li>3. Make agreement on the remedial measures to be implemented;</li> <li>4. Discuss with ET and IEC on the effectiveness of the implemented mitigation measures; and</li> <li>5. Consider and instruct, if necessary, the Contractor to slow down or to stop all or part of the dredging activities until no exceedance of Limit level.</li> </ol>	<ol style="list-style-type: none"> <li>1. Identify source(s) of impact;</li> <li>2. Inform the ER and confirm notification of the noncompliance in writing;</li> <li>3. Rectify Unacceptable practice;</li> <li>4. Check all plant and equipment and consider changes of working methods;</li> <li>5. Discuss with ET, IEC and ER and submit proposal of additional mitigation measures to ER and IEC within 3 working days of notification; and</li> <li>6. Implement the agreed remedial measures.</li> <li>7. As directed by the ER, to slow down or stop all or part of the dredging activities until no exceedance of Limit level.</li> </ol>

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

**Table N-4: Actions in the event of LFG being detected**

Parameter	Monitoring Results	Actions
O <sub>2</sub>	<19% v/v	Increase underground ventilation to restore O <sub>2</sub> to >19% v/v
	<18% v/v	Stop works, evacuate all personnel, prohibit entry, and increase ventilation to restore O <sub>2</sub> level to >19%
CH <sub>4</sub>	>10% LEL	Prohibit hot works, increase ventilation to restore CH <sub>4</sub> to <10% LEL
	>20% LEL	Stop works, evacuate all personnel, increase ventilation further to restore CH <sub>4</sub> to <10% LEL
CO <sub>2</sub>	>0.5% v/v	Increase ventilation to restore C O <sub>2</sub> to <0.5% v/v
	>1.5% v/v	Stop works, evacuate all personnel, increase ventilation further to restore CO <sub>2</sub> to <0.5%

Note: Depending on the results of the measurements, actions required will vary and should be set down by the Safety Officer or another appropriately qualified person. As a minimum these should encompass those actions specified in the above table.

**Table N-5: Event / Action Plan for Ambient Arsenic Monitoring**

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

	<p>actions required;</p> <p>7. If exceedance continues, arrange meeting with IEC and ER; and</p> <p>8. If exceedance stops, cease additional monitoring.</p>			
<b>LIMIT LEVEL</b>				
<p>1.Exceedance for one sample</p>	<p>1. Identify source, investigate the causes of exceedance and propose remedial measures;</p> <p>2. Inform ER, Contractor, IEC and EPD;</p> <p>3. Repeat measurement to confirm finding;</p> <p>4. Increase monitoring frequency to daily;</p> <p>5. Assess effectiveness of Contractor’s remedial actions and keep IEC, EPD and ER informed of the results.</p>	<p>1. Check monitoring data submitted by ET;</p> <p>2. Check Contractor’s working method;</p> <p>3. Discuss with ET, ER and Contractor on possible remedial measures;</p> <p>4. Advise the ER and ET on the effectiveness of the proposed remedial measures;</p> <p>5. Supervise implementation of remedial measures.</p>	<p>1. Confirm receipt of notification of failure in writing;</p> <p>2. Notify Contractor; and</p> <p>3. Supervise and ensure remedial measures properly implemented.</p>	<p>1. Identify source, investigate the causes of exceedance and propose remedial measures;</p> <p>2. Take immediate action to avoid further exceedance;</p> <p>3. Submit proposals for remedial actions to ER with a copy to ET and IEC within 3 working days of notification;</p> <p>4. Implement the agreed proposals; and</p> <p>5. Amend proposal if appropriate.</p>
<p>2.Exceedance for two or more consecutive samples</p>	<p>1. Notify IEC, ER, Contractor and EPD;</p> <p>2. Identify source;</p> <p>3. Repeat measurement to confirm findings;</p> <p>4. Increase monitoring frequency to daily;</p> <p>5. Carry out analysis of Contractor’s working</p>	<p>1. Discuss amongst ER, ET, and Contractor on the potential remedial actions;</p> <p>2. Review Contractor’s remedial actions whenever necessary to assure</p>	<p>1. Confirm receipt of notification of failure in writing;</p> <p>2. Notify Contractor;</p> <p>3. In consultation with the ET and IEC, agree with the Contractor on the</p>	<p>1. Take immediate action to avoid further exceedance;</p> <p>2. Submit proposals for remedial actions to ER with a copy to ET and IEC within 3 working days of notification;</p>

	<p>procedures to determine possible mitigation to be implemented;</p> <p>6. Arrange meeting with IEC, Contractor and ER to discuss the remedial actions to be taken;</p> <p>7. Assess effectiveness of Contractor’s remedial actions and keep IEC, EPD and ER informed of the results;</p> <p>8. If exceedance stops, cease additional monitoring.</p>	<p>their effectiveness and advise the ER accordingly;</p> <p>3. Supervise the implementation of remedial measures</p>	<p>remedial measures to be implemented;</p> <p>4. Supervise and ensure remedial measures properly implemented; and</p> <p>5. If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated.</p>	<p>3. Implement the agreed proposals;</p> <p>4. Resubmit proposals if problem still not under control;</p> <p>5. Stop the relevant portion of works as determined by the ER until the exceedance is abated.</p>
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Abbreviations: ET – Environmental Team, IEC – Independent Environmental Checker, ER – Engineer’s Representative



**Table N-6.1 Action and Limit Levels and Responses for Avifauna Monitoring and General Site Inspection in the LVNP during Construction Phase.**

EVENT	RESPONSE			
	ET	IEC	Contractor	Project Proponent
<b>AVIFAUNA MONITORING</b>				
Action Level exceeded.	1. Check monitoring data and repeat data analysis to confirm findings;  2. Review relevant ecological data to check if the exceedance is due to natural variation or is construction works related;  3. Identify potential source(s) of impact;  4. Immediately inform IEC, Contractor and PP.  5. Discuss with the Contractor on the remedial measure(s) to mitigate the impact(s) identified; and  6. Conduct necessary site inspections/audits to ensure all remedial	1. Check monitoring data, analysis and investigation by ET;  2. Review the remedial measure(s) proposed by the Contractor and advise the PP accordingly; and  3. Conduct necessary site inspections/ audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP and feedback the audit results to the PP.	1. Confirm receipt of notification of the exceedance of Action Level in writing; and  2. Propose and implement the remedial measures(s) to mitigate the impact(s) identified.	1. Check the monitoring results and findings from ET and IEC;  2. Discuss the need for increased site inspection/audit frequency proposed by ET with IEC and the Contractor; and  3. Supervise the instigated further mitigation measure(s).

	measures are properly implemented by the Contractor, as agreed with the PP.			
Limit Level exceeded.	<ol style="list-style-type: none"> <li>1. Check monitoring data and repeat data analysis to confirm findings;</li> <li>2. Identify potential source(s) of impact;</li> <li>3. Immediately inform IEC, Contractor and PP.</li> <li>4. Discuss with the Contractor on the remedial measure(s) to mitigate the impact(s) identified;</li> <li>5. Discuss with the PP, IEC, and Contractor on the need for further mitigation measure(s); and</li> <li>6. Conduct necessary site inspections/audits to ensure all remedial measures are properly</li> </ol>	<ol style="list-style-type: none"> <li>1. Check monitoring data, analysis and investigation by ET;</li> <li>2. Discuss with the PP, ET, and Contractor on the need for further mitigation measure(s);</li> <li>3. Review the effectiveness of the further mitigation measure(s) proposed and implemented by Contractor and advise the PP accordingly;</li> <li>4. Review the remedial measure(s) proposed by the Contractor and advise the PP accordingly; and</li> <li>5. Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP and</li> </ol>	<ol style="list-style-type: none"> <li>1. Confirm receipt of notification of the exceedance of Limit Level in writing;</li> <li>2. Discuss with the PP, IEC, and ET on the need of further mitigation measure(s), then propose and implement the further mitigation measure(s); and</li> <li>3. Propose and implement the remedial measures(s) to mitigate the impact(s) identified.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check the monitoring results and findings from ET and IEC;</li> <li>2. Discuss the need for increased site inspection and audit frequency proposed by ET with IEC and the Contractor;</li> <li>3. Discuss and confirm the further mitigation measure(s) required with the ET, IEC, and Contractor; and</li> <li>4. Supervise the instigated further mitigation measure(s).</li> </ol>

	implemented by the Contractor, as agreed with the PP.	feedback the audit results to the PP.		
<b>General Site Inspection</b>				
Action Level exceeded.	<ol style="list-style-type: none"> <li>Investigate if the activity identified is related to the construction works;</li> <li>Immediately inform IEC, Contractor and PP.</li> <li>Discuss with the Contractor on the remedial measure(s) to mitigate the impact(s) identified; and</li> <li>Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP.</li> </ol>	<ol style="list-style-type: none"> <li>Check the investigation and findings of the ET;</li> <li>Review the remedial measure(s) proposed by the Contractor and advise the PP accordingly; and</li> <li>Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP and feedback the audit results to the PP.</li> </ol>	<ol style="list-style-type: none"> <li>Confirm receipt of notification of the exceedance of Action Level in writing; and</li> <li>Propose and implement the remedial measures(s) to mitigate the impact(s) of the activity identified.</li> </ol>	<ol style="list-style-type: none"> <li>Check the investigation and findings of the ET and IEC;</li> <li>Discuss the need for increased site inspection/audit frequency proposed by ET with IEC and the Contractor; and</li> <li>Supervise the instigated further mitigation measure(s).</li> </ol>
Limit Level exceeded	<ol style="list-style-type: none"> <li>Investigate if the activity identified is related to the construction works;</li> </ol>	<ol style="list-style-type: none"> <li>Check the investigation and findings or the ET;</li> <li>Discuss with the PP,</li> </ol>	<ol style="list-style-type: none"> <li>Confirm receipt of notification of the exceedance of Limit Level in writing;</li> </ol>	<ol style="list-style-type: none"> <li>Check the monitoring results and findings from ET and IEC;</li> <li>Discuss the need for</li> </ol>

	<p>2. Immediately inform IEC, Contractor and PP.</p> <p>3. Discuss with the Contractor on the remedial measure(s) to mitigate the impact(s) identified;</p> <p>4. Discuss with the PP, IEC, and Contractor on the need for further mitigation measure(s); and</p> <p>5. Conduct necessary site inspections/ audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP.</p>	<p>ET, and Contractor on the need for further mitigation measure(s);</p> <p>3. Review the effectiveness of the further mitigation measure(s) proposed and implemented by Contractor and advise the PP accordingly;</p> <p>4. Review the remedial measure(s) proposed by the Contractor and advise the PP accordingly; and</p> <p>5. Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP and feedback the audit results to the PP.</p>	<p>2. Discuss with the PP, IEC, and ET on the need of further mitigation measure(s), then propose and implement the further mitigation measure(s); and</p> <p>3. Propose and implement the remedial measures(s) to mitigate the impact(s) identified.</p>	<p>increased site inspection and audit frequency proposed by ET with IEC and the Contractor;</p> <p>3. Discuss and confirm the further mitigation measure(s) required with the ET, IEC, and Contractor; and</p> <p>4. Supervise the instigated further mitigation measure(s).</p>
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**Table N-6.2 Action and Limit Levels and Responses to Evidence of Disturbance to Waterbirds using in Ng Tung, Sheung Yue and Shek Sheung Rivers**

EVENT	RESPONSE			
	ET	IEC	Contractor	Project Proponent
<b>Construction Phase</b>				
Action Level	1. Check monitoring	1. Check monitoring data,	1. Confirm receipt of	1. Check the monitoring

<p>exceeded.</p>	<p>data and repeat data analysis to confirm findings;</p> <p>2. Review relevant ecological data to check if the exceedance is due to natural variation or is construction works related;</p> <p>3. Identify potential source(s) of impact;</p> <p>4. Immediately inform IEC, Contractor and PP.</p> <p>5. Discuss with the Contractor on the remedial measure(s) to mitigate the impact(s) identified; and</p> <p>6. Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP.</p>	<p>analysis and investigation by ET;</p> <p>2. Review the remedial measure(s) proposed by the Contractor and advise the PP accordingly; and</p> <p>3. Conduct necessary site inspections/ audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP and feedback the audit results to the PP.</p>	<p>notification of the exceedance of Action Level in writing; and</p> <p>2. Propose and implement the remedial measures(s) to mitigate the impact(s) identified.</p>	<p>results and findings from ET and IEC;</p> <p>2. Discuss the need for increased site inspection/audit frequency proposed by ET with IEC and the Contractor; and</p> <p>3. Supervise the instigated further mitigation measure(s).</p>
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<p>Limit Level Exceeded.</p>	<ol style="list-style-type: none"> <li>1. Check monitoring data and repeat data analysis to confirm findings;</li> <li>2. Identify potential source(s) of impact;</li> <li>3. Immediately inform IEC, Contractor and PP.</li> <li>4. Discuss with the Contractor on the remedial measure(s) to mitigate the impact(s) identified;</li> <li>5. Discuss with the PP, IEC, and Contractor on the need for further mitigation measure(s); and</li> <li>6. Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check monitoring data, analysis and investigation by ET;</li> <li>2. Discuss with the PP, ET, and Contractor on the need for further mitigation measure(s);</li> <li>3. Review the effectiveness of the further mitigation measure(s) proposed and implemented by Contractor and advise the PP accordingly;</li> <li>4. Review the remedial measure(s) proposed by the Contractor and advise the PP accordingly; and</li> <li>5. Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP and feedback the audit results to the PP.</li> </ol>	<ol style="list-style-type: none"> <li>1. Confirm receipt of notification of the exceedance of Limit Level in writing;</li> <li>2. Discuss with the PP, IEC, and ET on the need of further mitigation measure(s), then propose and implement the further mitigation measure(s); and</li> <li>3. Propose and implement the remedial measures(s) to mitigate the impact(s) identified.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check the monitoring results and findings from ET and IEC;</li> <li>2. Discuss the need for increased site inspection and audit frequency proposed by ET with IEC and the Contractor;</li> <li>3. Discuss and confirm the further mitigation measure(s) required with the ET, IEC, and Contractor; and</li> <li>4. Supervise the instigated further mitigation measure(s).</li> </ol>
<p><b>Operational Phase</b></p>				
<p>Action Level</p>	<ol style="list-style-type: none"> <li>1. Check monitoring</li> </ol>	<ol style="list-style-type: none"> <li>1. Check monitoring</li> </ol>	<ol style="list-style-type: none"> <li>1. Confirm receipt of</li> </ol>	<ol style="list-style-type: none"> <li>1. Check the monitoring</li> </ol>

<p>exceeded.</p>	<p>data and repeat data analysis to confirm findings;</p> <p>2. Review relevant ecological data to check if the exceedance is due to natural variation or is construction works related;</p> <p>3. Identify potential source(s) of impact;</p> <p>4. Immediately inform IEC, Contractor and PP.</p> <p>5. Discuss with the Contractor on the remedial measure(s) to mitigate the impact(s) identified; and</p> <p>6. Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP.</p>	<p>data, analysis and investigation by ET;</p> <p>2. Review the remedial measure(s) proposed by the Contractor and advise the PP accordingly; and</p> <p>3. Conduct necessary site inspections/ audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP and feedback the audit results to the PP.</p>	<p>notification of the exceedance of Action Level in writing; and</p> <p>2. Propose and implement the remedial measures(s) to mitigate the impact(s) identified.</p>	<p>results and findings from ET and IEC;</p> <p>2. Discuss the need for increased site inspection/audit frequency proposed by ET with IEC and the Contractor; and</p> <p>3. Supervise the instigated further mitigation measure(s).</p>
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<p>Limit Level exceeded.</p>	<ol style="list-style-type: none"> <li>1. Check monitoring data and repeat data analysis to confirm findings;</li> <li>2. Identify potential source(s) of impact;</li> <li>3. Immediately inform IEC, Contractor and PP.</li> <li>4. Discuss with the Contractor on the remedial measure(s) to mitigate the impact(s) identified;</li> <li>5. Discuss with the PP, IEC, and Contractor on the need for further mitigation measure(s); and</li> <li>6. Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check monitoring data, analysis and investigation by ET;</li> <li>2. Discuss with the PP, ET, and Contractor on the need for further mitigation measure(s);</li> <li>3. Review the effectiveness of the further mitigation measure(s) proposed and implemented by Contractor and advise the PP accordingly;</li> <li>4. Review the remedial measure(s) proposed by the Contractor and advise the PP accordingly; and</li> <li>5. Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP and feedback the audit results to the PP.</li> </ol>	<ol style="list-style-type: none"> <li>1. Confirm receipt of notification of the exceedance of Limit Level in writing;</li> <li>2. Discuss with the PP, IEC, and ET on the need of further mitigation measure(s), then propose and implement the further mitigation measure(s); and</li> <li>3. Propose and implement the remedial measures(s) to mitigate the impact(s) identified.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check the monitoring results and findings from ET and IEC;</li> <li>2. Discuss the need for increased site inspection and audit frequency proposed by ET with IEC and the Contractor;</li> <li>3. Discuss and confirm the further mitigation measure(s) required with the ET, IEC, and Contractor; and</li> <li>4. Supervise the instigated further mitigation measure(s).</li> </ol>
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**Table N-6.3 Action and Limit Levels and Responses to Evidence of Declines in Aquatic Fauna**  
 WMA20002\App N - Event Action Plan



EVENT	RESPONSE			
	ET	IEC	Contractor	Project Proponent
<b>Construction Phase</b>				
Action Level exceeded.	1. Check monitoring data and repeat data analysis to confirm findings;  2. Review relevant ecological data to check if the exceedance is due to natural variation or is construction works related;  3. Identify potential source(s) of impact;  4. Immediately inform IEC, Contractor and PP.  5. Discuss with the Contractor on the remedial measure(s) to mitigate the impact(s) identified; and  6. Conduct necessary site inspections/audits to ensure all remedial measures are properly	1. Check monitoring data, analysis and investigation by ET;  2. Review the remedial measure(s) proposed by the Contractor and advise the PP accordingly; and  3. Conduct necessary site inspections/ audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP and feedback the audit results to the PP.	1. Confirm receipt of notification of the exceedance of Action Level in writing; and  2. Propose and implement the remedial measures(s) to mitigate the impact(s) identified.	1. Check the monitoring results and findings from ET and IEC;  2. Discuss the need for increased site inspection/audit frequency proposed by ET with IEC and the Contractor; and  3. Supervise the instigated further mitigation measure(s).

	implemented by the Contractor, as agreed with the PP.			
Limit Level exceeded.	<ol style="list-style-type: none"> <li>1. Check monitoring data and repeat data analysis to confirm findings;</li> <li>2. Review relevant ecological data to check if the exceedance is due to natural variation or is construction works related;</li> <li>3. Identify potential source(s) of impact;</li> <li>4. Immediately inform IEC, Contractor and PP.</li> <li>5. Discuss with the Contractor on the remedial measure(s) to mitigate the impact(s) identified;</li> <li>6. Discuss with the PP, IEC, and Contractor on the need for further mitigation measure(s); and</li> </ol>	<ol style="list-style-type: none"> <li>1. Check monitoring data, analysis and investigation by ET;</li> <li>2. Discuss with the PP, ET, and Contractor on the need for further mitigation measure(s);</li> <li>3. Review the effectiveness of the further mitigation measure(s) proposed and implemented by Contractor and advise the PP accordingly;</li> <li>4. Review the remedial measure(s) proposed by the Contractor and advise the PP accordingly; and</li> <li>5. Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP and feedback the audit</li> </ol>	<ol style="list-style-type: none"> <li>1. Confirm receipt of notification of the exceedance of Limit Level in writing;</li> <li>2. Discuss with the PP, IEC, and ET on the need of further mitigation measure(s), then propose and implement the further mitigation measure(s); and</li> <li>3. Propose and implement the remedial measures(s) to mitigate the impact(s) identified.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check the monitoring results and findings from ET and IEC;</li> <li>2. Discuss the need for increased site inspection and audit frequency proposed by ET with IEC and the Contractor;</li> <li>3. Discuss and confirm the further mitigation measure(s) required with the ET, IEC, and Contractor; and</li> <li>4. Supervise the instigated further mitigation measure(s).</li> </ol>

	7. Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP.	results to the PP.		
<b>Operational Phase</b>				
Action Level exceeded.	<ol style="list-style-type: none"> <li>1. Check monitoring data and repeat data analysis to confirm findings;</li> <li>2. Review relevant ecological data to check if the exceedance is due to natural variation or is construction works related;</li> <li>3. Identify potential source(s) of impact;</li> <li>4. Immediately inform IEC, Contractor and PP.</li> <li>5. Discuss with the Contractor on the remedial measure(s) to mitigate the impact(s) identified;</li> </ol>	<ol style="list-style-type: none"> <li>1. Check monitoring data, analysis and investigation by ET;</li> <li>2. Review the remedial measure(s) proposed by the Contractor and advise the PP accordingly; and</li> <li>3. Conduct necessary site inspections/ audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP and feedback the audit results to the PP.</li> </ol>	<ol style="list-style-type: none"> <li>1. Confirm receipt of notification of the exceedance of Action Level in writing; and</li> <li>2. Propose and implement the remedial measures(s) to mitigate the impact(s) identified.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check the monitoring results and findings from ET and IEC;</li> <li>2. Discuss the need for increased site inspection/audit frequency proposed by ET with IEC and the Contractor; and</li> <li>3. Supervise the instigated further mitigation measure(s).</li> </ol>

	<p>and</p> <p>6. Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP.</p>			
<p>Limit Level exceeded.</p>	<p>1. Check monitoring data and repeat data analysis to confirm findings;</p> <p>2. Review relevant ecological data to check if the exceedance is due to natural variation or is construction works related;</p> <p>3. Identify potential source(s) of impact;</p> <p>4. Immediately inform IEC, Contractor and PP.</p> <p>5. Discuss with the Contractor on the remedial measure(s) to mitigate the</p>	<p>1. Check monitoring data, analysis and investigation by ET;</p> <p>2. Discuss with the PP, ET, and Contractor on the need for further mitigation measure(s);</p> <p>3. Review the effectiveness of the further mitigation measure(s) proposed and implemented by Contractor and advise the PP accordingly;</p> <p>4. Review the remedial measure(s) proposed by the Contractor and advise the PP accordingly; and</p>	<p>1. Confirm receipt of notification of the exceedance of Limit Level in writing;</p> <p>2. Discuss with the PP, IEC, and ET on the need of further mitigation measure(s), then propose and implement the further mitigation measure(s); and</p> <p>3. Propose and implement the remedial measures(s) to mitigate the impact(s) identified.</p>	<p>1. Check the monitoring results and findings from ET and IEC;</p> <p>2. Discuss the need for increased site inspection and audit frequency proposed by ET with IEC and the Contractor;</p> <p>3. Discuss and confirm the further mitigation measure(s) required with the ET, IEC, and Contractor; and</p> <p>4. Supervise the instigated further mitigation measure(s).</p>

	<p>impact(s) identified;</p> <p>6. Discuss with the PP, IEC, and Contractor on the need for further mitigation measure(s); and</p> <p>7. Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP.</p>	<p>5. Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP and feedback the audit results to the PP.</p>		
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**Table N-6.4 Action and Limit Levels and Responses to Evidence of Declines in the Seasonal Non-aquatic Fauna (Herptofauna, Butterfly and Odonates) in Ecologically Sensitive Habitats**

EVENT	RESPONSE			
	ET	IEC	Contractor	Project Proponent
<b>Construction Phase</b>				
Action Level exceeded.	<p>1. Check monitoring data and repeat data analysis to confirm findings;</p> <p>2. Review relevant ecological data to check if the exceedance is due to natural variation or is</p>	<p>1. Check monitoring data, analysis and investigation by ET;</p> <p>2. Review the remedial measure(s) proposed by the Contractor and advise the PP accordingly; and</p>	<p>1. Confirm receipt of notification of the exceedance of Action Level in writing; and</p> <p>2. Propose and implement the remedial measures(s) to mitigate the impact(s) identified.</p>	<p>1. Check the monitoring results and findings from ET and IEC;</p> <p>2. Discuss the need for increased site inspection/audit frequency proposed by ET with IEC and the Contractor; and</p>

	<p>construction works related;</p> <p>3. Identify potential source(s) of impact;</p> <p>4. Immediately inform IEC, Contractor and PP.</p> <p>5. Discuss with the Contractor on the remedial measure(s) to mitigate the impact(s) identified; and</p> <p>6. Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP.</p>	<p>3. Conduct necessary site inspections/ audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP and feedback the audit results to the PP.</p>		<p>3. Supervise the instigated further mitigation measure(s).</p>
<p>Limit Level exceeded.</p>	<p>1. Check monitoring data and repeat data analysis to confirm findings;</p> <p>2. Review relevant ecological data to check if the exceedance is due to</p>	<p>1. Check monitoring data, analysis and investigation by ET;</p> <p>2. Discuss with the PP, ET, and Contractor on the need for further mitigation measure(s);</p>	<p>1. Confirm receipt of notification of the exceedance of Limit Level in writing;</p> <p>2. Discuss with the PP, IEC, and ET on the need of further mitigation measure(s),</p>	<p>1. Check the monitoring results and findings from ET and IEC;</p> <p>2. Discuss the need for increased site inspection and audit frequency proposed by ET with IEC and the</p>

	<p>natural variation or is construction works related;</p> <p>3. Identify potential source(s) of impact;</p> <p>4. Immediately inform IEC, Contractor and PP.</p> <p>5. Discuss with the Contractor on the remedial measure(s) to mitigate the impact(s) identified;</p> <p>6. Discuss with the PP, IEC, and Contractor on the need for further mitigation measure(s); and</p> <p>7. Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP.</p>	<p>3. Review the effectiveness of the further mitigation measure(s) proposed and implemented by Contractor and advise the PP accordingly;</p> <p>4. Review the remedial measure(s) proposed by the Contractor and advise the PP accordingly; and</p> <p>5. Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP and feedback the audit results to the PP.</p>	<p>then propose and implement the further mitigation measure(s); and</p> <p>3. Propose and implement the remedial measures(s) to mitigate the impact(s) identified.</p>	<p>Contractor;</p> <p>3. Discuss and confirm the further mitigation measure(s) required with the ET, IEC, and Contractor; and</p> <p>4. Supervise the instigated further mitigation measure(s).</p>
<b>Operational Phase</b>				

<p>Action Level exceeded.</p>	<ol style="list-style-type: none"> <li>1. Check monitoring data and repeat data analysis to confirm findings;</li> <li>2. Review relevant ecological data to check if the exceedance is due to natural variation or is construction works related;</li> <li>3. Identify potential source(s) of impact;</li> <li>4. Immediately inform IEC, Contractor and PP.</li> <li>5. Discuss with the Contractor on the remedial measure(s) to mitigate the impact(s) identified; and</li> <li>6. Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check monitoring data, analysis and investigation by ET;</li> <li>2. Review the remedial measure(s) proposed by the Contractor and advise the PP accordingly; and</li> <li>3. Conduct necessary site inspections/ audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP and feedback the audit results to the PP.</li> </ol>	<ol style="list-style-type: none"> <li>1. Confirm receipt of notification of the exceedance of Action Level in writing; and</li> <li>2. Propose and implement the remedial measures(s) to mitigate the impact(s) identified.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check the monitoring results and findings from ET and IEC;</li> <li>2. Discuss the need for increased site inspection/audit frequency proposed by ET with IEC and the Contractor; and</li> <li>3. Supervise the instigated further mitigation measure(s).</li> </ol>
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<p>Limit Level exceeded.</p>	<ol style="list-style-type: none"> <li>1. Check monitoring data and repeat data analysis to confirm findings;</li> <li>2. Review relevant ecological data to check if the exceedance is due to natural variation or is construction works related;</li> <li>3. Identify potential source(s) of impact;</li> <li>4. Immediately inform IEC, Contractor and PP.</li> <li>5. Discuss with the Contractor on the remedial measure(s) to mitigate the impact(s) identified;</li> <li>6. Discuss with the PP, IEC, and Contractor on the need for further mitigation measure(s); and</li> <li>7. Conduct necessary</li> </ol>	<ol style="list-style-type: none"> <li>1. Check monitoring data, analysis and investigation by ET;</li> <li>2. Discuss with the PP, ET, and Contractor on the need for further mitigation measure(s);</li> <li>3. Review the effectiveness of the further mitigation measure(s) proposed and implemented by Contractor and advise the PP accordingly;</li> <li>4. Review the remedial measure(s) proposed by the Contractor and advise the PP accordingly; and</li> <li>5. Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP and feedback the audit results to the PP.</li> </ol>	<ol style="list-style-type: none"> <li>1. Confirm receipt of notification of the exceedance of Limit Level in writing;</li> <li>2. Discuss with the PP, IEC, and ET on the need of further mitigation measure(s), then propose and implement the further mitigation measure(s); and</li> <li>3. Propose and implement the remedial measures(s) to mitigate the impact(s) identified.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check the monitoring results and findings from ET and IEC;</li> <li>2. Discuss the need for increased site inspection and audit frequency proposed by ET with IEC and the Contractor;</li> <li>3. Discuss and confirm the further mitigation measure(s) required with the ET, IEC, and Contractor; and</li> <li>4. Supervise the instigated further mitigation measure(s).</li> </ol>

	<p>site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP.</p>			
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**Table N-6.5 Action and Limit Levels and Responses to Evidence of Declines in the Non-seasonal Non-aquatic Fauna (Mammals) in Ecologically Sensitive Habitats**

EVENT	RESPONSE			
	ET	IEC	Contractor	Project Proponent
<b>Construction Phase</b>				
Action Level exceeded.	<p>1. Check monitoring data and repeat data analysis to confirm findings;</p> <p>2. Review relevant ecological data to check if the exceedance is due to natural variation or is construction works related;</p> <p>3. Identify potential source(s) of impact;</p> <p>4. Immediately inform IEC, Contractor and PP.</p>	<p>1. Check monitoring data, analysis and investigation by ET;</p> <p>2. Review the remedial measure(s) proposed by the Contractor and advise the PP accordingly; and</p> <p>3. Conduct necessary site inspections/ audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP and feedback the audit</p>	<p>1. Confirm receipt of notification of the exceedance of Action Level in writing; and</p> <p>2. Propose and implement the remedial measures(s) to mitigate the impact(s) identified.</p>	<p>1. Check the monitoring results and findings from ET and IEC;</p> <p>2. Discuss the need for increased site inspection/audit frequency proposed by ET with IEC and the Contractor; and</p> <p>3. Supervise the instigated further mitigation measure(s).</p>

	<p>5. Discuss with the Contractor on the remedial measure(s) to mitigate the impact(s) identified; and</p> <p>6. Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP.</p>	<p>results to the PP.</p>		
<p>Limit Level exceeded.</p>	<p>1. Check monitoring data and repeat data analysis to confirm findings;</p> <p>2. Review relevant ecological data to check if the exceedance is due to natural variation or is construction works related;</p> <p>3. Identify potential source(s) of impact;</p> <p>4. Immediately inform IEC, Contractor and PP.</p>	<p>1. Check monitoring data, analysis and investigation by ET;</p> <p>2. Discuss with the PP, ET, and Contractor on the need for further mitigation measure(s);</p> <p>3. Review the effectiveness of the further mitigation measure(s) proposed and implemented by Contractor and advise the PP accordingly;</p> <p>4. Review the remedial measure(s) proposed by the Contractor and advise the PP</p>	<p>1. Confirm receipt of notification of the exceedance of Limit Level in writing;</p> <p>2. Discuss with the PP, IEC, and ET on the need of further mitigation measure(s), then propose and implement the further mitigation measure(s); and</p> <p>3. Propose and implement the remedial measures(s) to mitigate the impact(s) identified.</p>	<p>1. Check the monitoring results and findings from ET and IEC;</p> <p>2. Discuss the need for increased site inspection and audit frequency proposed by ET with IEC and the Contractor;</p> <p>3. Discuss and confirm the further mitigation measure(s) required with the ET, IEC, and Contractor; and</p> <p>4. Supervise the instigated further mitigation measure(s).</p>

	<p>5. Discuss with the Contractor on the remedial measure(s) to mitigate the impact(s) identified;</p> <p>6. Discuss with the PP, IEC, and Contractor on the need for further mitigation measure(s); and</p> <p>7. Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP.</p>	<p>accordingly; and</p> <p>5. Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP and feedback the audit results to the PP.</p>		
<b>Operational Phase</b>				
Action Level exceeded.	<p>1. Check monitoring data and repeat data analysis to confirm findings;</p> <p>2. Review relevant ecological data to</p>	<p>1. Check monitoring data, analysis and investigation by ET;</p> <p>2. Review the remedial measure(s) proposed by the Contractor and</p>	<p>1. Confirm receipt of notification of the exceedance of Action Level in writing; and</p> <p>2. Propose and implement the</p>	<p>1. Check the monitoring results and findings from ET and IEC;</p> <p>2. Discuss the need for increased site inspection/audit</p>

	<p>check if the exceedance is due to natural variation or is construction works related;</p> <p>3. Identify potential source(s) of impact;</p> <p>4. Immediately inform IEC, Contractor and PP.</p> <p>5. Discuss with the Contractor on the remedial measure(s) to mitigate the impact(s) identified; and</p> <p>6. Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP.</p>	<p>advise the PP accordingly; and</p> <p>3. Conduct necessary site inspections/ audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP and feedback the audit results to the PP.</p>	<p>remedial measures(s) to mitigate the impact(s) identified.</p>	<p>frequency proposed by ET with IEC and the Contractor; and</p> <p>3. Supervise the instigated further mitigation measure(s).</p>
<p>Limit Level exceeded.</p>	<p>1. Check monitoring data and repeat data analysis to confirm findings;</p>	<p>1. Check monitoring data, analysis and investigation by ET;</p>	<p>1. Confirm receipt of notification of the exceedance of Limit Level in writing;</p>	<p>1. Check the monitoring results and findings from ET and IEC;</p>

	<p>2. Review relevant ecological data to check if the exceedance is due to natural variation or is construction works related;</p> <p>3. Identify potential source(s) of impact;</p> <p>4. Immediately inform IEC, Contractor and PP.</p> <p>5. Discuss with the Contractor on the remedial measure(s) to mitigate the impact(s) identified;</p> <p>6. Discuss with the PP, IEC, and Contractor on the need for further mitigation measure(s); and</p> <p>7. Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed</p>	<p>2. Discuss with the PP, ET, and Contractor on the need for further mitigation measure(s);</p> <p>3. Review the effectiveness of the further mitigation measure(s) proposed and implemented by Contractor and advise the PP accordingly;</p> <p>4. Review the remedial measure(s) proposed by the Contractor and advise the PP accordingly; and</p> <p>5. Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP and feedback the audit results to the PP.</p>	<p>2. Discuss with the PP, IEC, and ET on the need of further mitigation measure(s), then propose and implement the further mitigation measure(s); and</p> <p>3. Propose and implement the remedial measures(s) to mitigate the impact(s) identified.</p>	<p>2. Discuss the need for increased site inspection and audit frequency proposed by ET with IEC and the Contractor;</p> <p>3. Discuss and confirm the further mitigation measure(s) required with the ET, IEC, and Contractor; and</p> <p>4. Supervise the instigated further mitigation measure(s).</p>
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	with the PP.			
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**APPENDIX O**  
**SUMMARY OF EXCEEDANCE**

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

Environmental Monitoring	Parameter	No. of non-project related Exceedance		No. of Exceedance related to the Construction Activities of this Contract	
		Action Level	Limit Level	Action Level	Limit Level
Air Quality	1-hr TSP	0	0	0	0
	24-hr TSP	0	0	0	0
	24-hr RSP (Ambient Arsenic)	0	0	0	0

**(B) Exceedance Report for Construction Noise**

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

**(C) Exceedance Report for Water Quality**

Environmental Monitoring	Parameter	No. of non-project related Exceedance		No. of Exceedance related to the Construction Activities of this Contract	
		Action Level	Limit Level	Action Level	Limit Level
Water Quality	DO	0	7	0	0
	Turbidity	1	4	0	0
	SS	0	3	0	0
	Arsenic	0	0	0	0

**(D) Exceedance Report for Landfill Gas**

Environmental Monitoring	Parameter	No. of non-project related Exceedance		No. of Exceedance related to the Construction Activities of this Contract	
		Action Level	Limit Level	Action Level	Limit Level
Landfill Gas	O <sub>2</sub> (% v/v) CH <sub>4</sub> (% LEL) CO <sub>2</sub> (% v/v)	0	0	0	0

**(E) Exceedance Report for Built Heritage Monitoring**

Environmental Monitoring	Parameter	No. of non-project related Exceedance		No. of Exceedance related to the Construction Activities of this Contract	
		Action Level	Limit Level	Action Level	Limit Level
Cultural Heritage	Built Heritage Monitoring	0	0	0	0

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**APPENDIX P**  
**SITE AUDIT SUMMARY**

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
**Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas**

**ND/2019/01 – Kwu Tung North New Development Area, Phase 1: Site Formation and Infrastructure Work**

**Weekly Site Inspection Record Summary**

Checklist Reference Number	230404
Date	4 April 2023 (Tuesday)
Time	10:30 – 11:30

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	<b><i>B. Air Quality</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>C. Noise</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>D. Water Quality</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>E. Waste / Chemical Management</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>F. Land Contamination</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>G. Landfill Gas Hazard</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>H. Cultural Heritage</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>I. Landscape and Visual</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>J. Ecology</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>K. Permits/Licences</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>L. Others</i></b>	
	• Follow-up on previous audit section (Ref. No.:230328), no environmental deficiency was observed during site inspection.	

	Name	Signature	Date
Recorded by	Ivy Tam		13 April 2023
Checked by	Dr. Priscilla Choy		13 April 2023



*Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas*

*ND/2019/01 – Kwu Tung North New Development Area, Phase 1: Site Formation and Infrastructure Work*

**Weekly Site Inspection Record Summary**

Checklist Reference Number	230411
Date	11 April 2023 (Tuesday)
Time	09:30 – 11:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	<b><i>B. Air Quality</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>C. Noise</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>D. Water Quality</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>E. Waste / Chemical Management</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>F. Land Contamination</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>G. Landfill Gas Hazard</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>H. Cultural Heritage</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>I. Landscape and Visual</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>J. Ecology</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>K. Permits/Licences</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>L. Others</i></b>	
	• Follow-up on previous audit section (Ref. No.:230404), no environmental deficiency was observed during site inspection.	

	Name	Signature	Date
Recorded by	Marco Ma		13 April 2023
Checked by	Dr. Priscilla Choy		13 April 2023

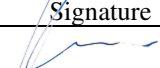

**Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas**

**ND/2019/01 – Kwu Tung North New Development Area, Phase 1: Site Formation and Infrastructure Work**

**Weekly Site Inspection Record Summary**

Checklist Reference Number	230418
Date	18 April 2023 (Tuesday)
Time	09:30 – 11:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	<b><i>B. Air Quality</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>C. Noise</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>D. Water Quality</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>E. Waste / Chemical Management</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>F. Land Contamination</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>G. Landfill Gas Hazard</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>H. Cultural Heritage</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>I. Landscape and Visual</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>J. Ecology</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>K. Permits/Licences</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>L. Others</i></b>	
	• Follow-up on previous audit section (Ref. No.:230411), no environmental deficiency was observed during site inspection.	

	Name	Signature	Date
Recorded by	Marco Ma		19 April 2023
Checked by	Dr. Priscilla Choy		19 April 2023



*Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas*

*ND/2019/01 – Kwu Tung North New Development Area, Phase 1: Site Formation and Infrastructure Work*

**Weekly Site Inspection Record Summary**

Checklist Reference Number	230427
Date	27 April 2023 (Thursday)
Time	14:00 – 15:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	<b><i>B. Air Quality</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>C. Noise</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>D. Water Quality</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>E. Waste / Chemical Management</i></b>	
230427-R01	• General refuse should be disposed of properly and regularly.	E 1 iii
	<b><i>F. Land Contamination</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>G. Landfill Gas Hazard</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>H. Cultural Heritage</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>I. Landscape and Visual</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>J. Ecology</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>K. Permits/Licences</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>L. Others</i></b>	
	• Follow-up on previous audit section (Ref. No.:230418), no environmental deficiency was observed during site inspection.	

	Name	Signature	Date
Recorded by	Marco Ma		3 May 2023
Checked by	Dr. Priscilla Choy		3 May 2023



*Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas*

*ND/2019/02 – Kwu Tung North New Development Area, Phase 1: Roads and Drains between Kwu Tung North New Development and Shek Wu Hui*

**Weekly Site Inspection Record Summary**

Checklist Reference Number	230403
Date	3 April 2023 (Monday)
Time	08:45 – 10:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	<b>B. Air Quality</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>C. Construction Noise Impact</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>D. Water Quality</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>E. Waste / Chemical Management</b>	
230403-R01	• Provide drip tray for chemical/fuel containers.	E 14
	<b>F. Cultural Heritage</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>G. Landscape and Visual</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>H. Ecology</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>I. Permits/Licences</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>L. Others</b>	
	• Follow-up on previous audit section (Ref. No.:230329), no majoe environmental deficiency was observed during site inspection.	

	Name	Signature	Date
Recorded by	Him Ng		4 April 2023
Checked by	Dr. Priscilla Choy		4 April 2023



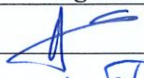

*Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas*

*ND/2019/02 – Kwu Tung North New Development Area, Phase 1: Roads and Drains between Kwu Tung North New Development and Shek Wu Hui*

**Weekly Site Inspection Record Summary**

Checklist Reference Number	230412
Date	12 April 2023 (Wednesday)
Time	09:30 – 10:30

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	<b>B. Air Quality</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>C. Construction Noise Impact</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>D. Water Quality</b>	
230412-R02	• To enhance water mitigation measures surrounding exposed sloped works area on river bank at 河口.	D 7
	<b>E. Waste / Chemical Management</b>	
230412-R01	• Provide drip tray for chemical/fuel containers.	E 14
	<b>F. Cultural Heritage</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>G. Landscape and Visual</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>H. Ecology</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>I. Permits/Licences</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>L. Others</b>	
	• Follow-up on previous audit section (Ref. No.:230403), follow-up actions were required for item 230403-R01, which was remarked as 230412-R01.	

	Name	Signature	Date
Recorded by	Adrian Lam		12 April 2023
Checked by	Dr. Priscilla Choy		12 April 2023

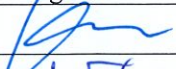

*Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas*

*ND/2019/02 – Kwu Tung North New Development Area, Phase 1: Roads and Drains between Kwu Tung North New Development and Shek Wu Hui*

Weekly Site Inspection Record Summary

Checklist Reference Number	230421
Date	21 April 2023 (Friday)
Time	14:00 – 15:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	<b>B. Air Quality</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>C. Construction Noise Impact</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>D. Water Quality</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>E. Waste / Chemical Management</b>	
230421-R01	• Provide drip tray for chemical/fuel containers.	E 14
	<b>F. Cultural Heritage</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>G. Landscape and Visual</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>H. Ecology</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>I. Permits/Licences</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>L. Others</b>	
	• Follow-up on previous audit section (Ref. No.:230412), item no. 230412-R02 was observed improved/rectified by the Contractor. Item no. 230412-R01 was remarked as 230421-R01. Follow-up action is needed to be review.	

	Name	Signature	Date
Recorded by	Marco Ma		25 April 2023
Checked by	Dr. Priscilla Choy		25 April 2023

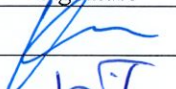

***Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas***

***ND/2019/02 – Kwu Tung North New Development Area, Phase 1: Roads and Drains between Kwu Tung North New Development and Shek Wu Hui***

**Weekly Site Inspection Record Summary**

Checklist Reference Number	230426
Date	26 April 2023 (Wednesday)
Time	09:30 – 10:30

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	<b><i>B. Air Quality</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>C. Construction Noise Impact</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>D. Water Quality</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>E. Waste / Chemical Management</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>F. Cultural Heritage</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>G. Landscape and Visual</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>H. Ecology</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>I. Permits/Licences</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>L. Others</i></b>	
	• Follow-up on previous audit section (Ref. No.:230421), item no. 230421-R01 was observed improved/rectified by the Contractor during the site inspection.	

	Name	Signature	Date
Recorded by	Marco Ma		3 May 2023
Checked by	Dr. Priscilla Choy		3 May 2023



**Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas**

**ND/2019/03 – Kwu Tung North New Development Area, Phase 1: Development of Long Valley Nature Park**

**Weekly Site Inspection Record Summary**

Checklist Reference Number	230406
Date	6 April, 2023 (Thursday)
Time	10:00-11:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	<b>B. Air Quality</b>	
230406-O01	• Dusty debris was observed at Yin Kong Road. Contractor was reminded to clear the dusty debris immediately.	B 9
	<b>C. Construction Noise Impact</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>D. Water Quality</b>	
230406-O02	• Provide adequate wheel-washing facilities for each vehicle exits, suitable for the current temporary traffic arrangement, and ensure that vehicles are properly washed before leaving the site.	D 12 (i, ii, iv, v)
	<b>E. Waste / Chemical Management</b>	
230406-R01	• Provide drip tray for chemical/fuel containers.	E 14
	<b>F. Landscape &amp; Visual</b>	
230406-R02	• Remove any construction material from tree protection zone.	F 1
	<b>G. Ecology</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>H. Permits/Licences</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>I. Others</b>	
	Follow-up on previous audit section (Ref. No.:230331). Item no. 230331-O01, 230331-R01, and 230331-R02 were remarked as 230406-O01, 230406-R01 and 230406-O02 respectively. Follow-up action is needed to be review.	

	Name	Signature	Date
Recorded by	Adrian Lam		6 April 2023
Checked by	Dr. Priscilla Choy		6 April 2023



*Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas*

*ND/2019/03 – Kwu Tung North New Development Area, Phase 1: Development of Long Valley Nature Park*

**Weekly Site Inspection Record Summary**

Checklist Reference Number	230413
Date	13 April, 2023 (Thursday)
Time	10:00 - 11:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	<b>B. Air Quality</b>	
230413-O01	• Dusty debris was observed at Yin Kong Road. Contractor was reminded to clear the dusty debris immediately.	B 9
	<b>C. Construction Noise Impact</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>D. Water Quality</b>	
230413-O02	• Provide adequate wheel-washing facilities for each vehicle exits, and ensure that vehicles are properly washed before leaving the site.	D 12 (i, ii, iv, v)
	<b>E. Waste / Chemical Management</b>	
230413-R01	• Provide drip tray for chemical/fuel containers.	E 14
	<b>F. Landscape &amp; Visual</b>	
230413-R02	• Remove any construction material from tree protection zone.	F 1
	<b>G. Ecology</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>H. Permits/Licences</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>I. Others</b>	
	Follow-up on previous audit section (Ref. No.:230406). Item no. 230406-O01, 230406-O02, 230406-R01, and 230406-R02 were remarked as 230413-O01, 230413-O02, 230413-R01 and 230413-O02 respectively. Follow-up action is needed to be review.	

	Name	Signature	Date
Recorded by	Him Ng		14 April 2023
Checked by	Dr. Priscilla Choy		14 April 2023

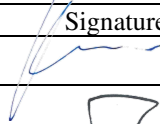
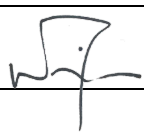
**Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas**

**ND/2019/03 – Kwu Tung North New Development Area, Phase 1: Development of Long Valley Nature Park**

**Weekly Site Inspection Record Summary**

Checklist Reference Number	230418
Date	18 April, 2023 (Wednesday)
Time	14:00 - 15:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	<b>B. Air Quality</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>C. Construction Noise Impact</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>D. Water Quality</b>	
230418-O01	• Provide adequate wheel-washing facilities for each vehicle exits, and ensure that vehicles are properly washed before leaving the site.	D 12 (i, ii, iv, v)
	<b>E. Waste / Chemical Management</b>	
230418-R01	• Provide drip tray for chemical/fuel containers.	E 14
	<b>F. Landscape &amp; Visual</b>	
230418-R02	• Remove any construction material from tree protection zone.	F 1
	<b>G. Ecology</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>H. Permits/Licences</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>I. Others</b>	
	Follow-up on previous audit section (Ref. No.:230413). Item no. 230413-O01 was observed improved/rectified by the Contractor. Item 230413-O02, 230413-R01 and 230413-R02 were remarked as 230418-O01, 230418-R01 and 230418-R02 respectively. Follow-up action is needed to be review.	

	Name	Signature	Date
Recorded by	Marco Ma		19 April 2023
Checked by	Dr. Priscilla Choy		19 April 2023



*Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas*

*ND/2019/03 – Kwu Tung North New Development Area, Phase 1: Development of Long Valley Nature Park*

**Weekly Site Inspection Record Summary**

Checklist Reference Number	230428
Date	28 April, 2023 (Friday)
Time	10:00 - 11:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	<b>B. Air Quality</b>	
230428-O02	• Dusty debris was observed at Yin Kong Road. Contractor was reminded to clear the dusty debris immediately.	B 9
	<b>C. Construction Noise Impact</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>D. Water Quality</b>	
230428-O01	• Provide adequate wheel-washing facilities for each vehicle exits, and ensure that vehicles are properly washed before leaving the site.	D 12 (i, ii, iv, v)
	<b>E. Waste / Chemical Management</b>	
230428-R01	• Provide drip tray for chemical/fuel containers.	E 14
	<b>F. Landscape &amp; Visual</b>	
230428-R02	• Remove any construction material from tree protection zone.	F 1
	<b>G. Ecology</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>H. Permits/Licences</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>I. Others</b>	
	Follow-up on previous audit section (Ref. No.:230418). Item 230418-O01, 230418-R01 and 230418-R02 were remarked as 230428-O01, 230428-R01 and 230428-R02 respectively. Follow-up action is needed to be review.	

	Name	Signature	Date
Recorded by	Him Ng		28 April 2023
Checked by	Dr. Priscilla Choy		28 April 2023


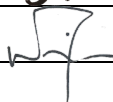
**Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas**

**ND/2019/04 – Fanling North New Development Area, Phase 1: Fanling Bypass Eastern Section (Shek Wu San Tsuen North to Lung Yeuk Tau)**

**Weekly Site Inspection Record Summary**

Checklist Reference Number	230404
Date	4 April 2023 (Tuesday)
Time	14:00 – 15:30

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	<b>B. Air Quality</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>C. Noise</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>D. Water Quality</b>	
230404-R01	• Covering of stockpile is required to minimize the muddy runoff during rainstorm.	D 8
	<b>E. Waste / Chemical Management</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>F. Cultural Heritage</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>G. Landscape and Visual</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>H. Ecology</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>I. Permits/Licences</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>J. Others</b>	
	Follow-up on previous audit section (Ref. No.: 230330), Item no. 230330-R01 was remarked as 230404-R01. Follow-up action is needed to be review.	

	Name	Signature	Date
Recorded by	Him Ng		4 April 2023
Checked by	Dr. Priscilla Choy		4 April 2023




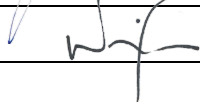
**Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas**

**ND/2019/04 – Fanling North New Development Area, Phase 1: Fanling Bypass Eastern Section (Shek Wu San Tsuen North to Lung Yeuk Tau)**

**Weekly Site Inspection Record Summary**

Checklist Reference Number	230413
Date	13 April 2023 (Thursday)
Time	14:00 – 15:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	<b>B. Air Quality</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>C. Noise</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>D. Water Quality</b>	
230413-R01	• Covering of stockpile is required to minimize the muddy runoff during rainstorm.	D 8
	<b>E. Waste / Chemical Management</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>F. Cultural Heritage</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>G. Landscape and Visual</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>H. Ecology</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>I. Permits/Licences</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>J. Others</b>	
	Follow-up on previous audit section (Ref. No.: 230404), Item no. 230404-R01 was remarked as 230413-R01. Follow-up action is needed to be review.	

	Name	Signature	Date
Recorded by	Marco Ma		19 April 2023
Checked by	Dr. Priscilla Choy		19 April 2023



**Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas**

**ND/2019/04 – Fanling North New Development Area, Phase 1: Fanling Bypass Eastern Section (Shek Wu San Tsuen North to Lung Yeuk Tau)**

**Weekly Site Inspection Record Summary**

Checklist Reference Number	230420
Date	20 April 2023 (Thursday)
Time	14:30 – 15:30

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	<b>B. Air Quality</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>C. Noise</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>D. Water Quality</b>	
230420-R01	• Covering of stockpile is required to minimize the muddy runoff during rainstorm.	D 8
	<b>E. Waste / Chemical Management</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>F. Cultural Heritage</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>G. Landscape and Visual</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>H. Ecology</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>I. Permits/Licences</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>J. Others</b>	
	Follow-up on previous audit section (Ref. No.: 230413), Item no. 230413-R01 was remarked as 230420-R01. Follow-up action is needed to be review.	

	Name	Signature	Date
Recorded by	Him Ng		24 April 2023
Checked by	Dr. Priscilla Choy		24 April 2023

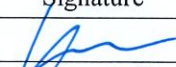

*Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas*

*ND/2019/04 – Fanling North New Development Area, Phase 1: Fanling Bypass Eastern Section (Shek Wu San Tsuen North to Lung Yeuk Tau)*

**Weekly Site Inspection Record Summary**

Checklist Reference Number	230426
Date	26 April 2023 (Wednesday)
Time	14:00 – 15:30

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	<b><i>B. Air Quality</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>C. Noise</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>D. Water Quality</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>E. Waste / Chemical Management</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>F. Cultural Heritage</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>G. Landscape and Visual</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>H. Ecology</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>I. Permits/Licences</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>J. Others</i></b>	
	Follow-up on previous audit section (Ref. No.: 230420), Item no. 230420-R01 was observed improved/rectified by the Contractor during the site inspection.	

	Name	Signature	Date
Recorded by	Marco Ma		3 May 2023
Checked by	Dr. Priscilla Choy		3 May 2023



**Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas**

**ND/2019/05 – Fanling North New Development Area, Phase 1: Fanling Bypass Eastern Section between Shung Him Tong to Kau Lung Hang**

**Weekly Site Inspection Record Summary**

Checklist Reference Number	230403
Date	3 April 2023 (Monday)
Time	14:00 – 15:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	<b>B. Air Quality</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>C. Noise</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>D. Water Quality</b>	
230403-O01	• Discharge of muddy water was observed. Enhance the water mitigation measure in Tai Wo Service Road West.	D 3
	<b>E. Waste / Chemical Management</b>	
230403-R01	• Provide drip tray for chemical/fuel containers.	E 14
	<b>F. Cultural Heritage</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>G. Landscape and Visual</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>H. Ecology</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>I. Permits/Licences</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>J. Others</b>	
	• Follow-up on previous audit section (Ref. No.: 230327), all major environmental deficiency was rectified by Contractor.	

	Name	Signature	Date
Recorded by	Him Ng		4 April 2023
Checked by	Dr. Priscilla Choy		4 April 2023


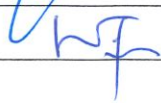
*Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas*

*ND/2019/05 – Fanling North New Development Area, Phase 1: Fanling Bypass Eastern Section between Shung Him Tong to Kau Lung Hang*

Weekly Site Inspection Record Summary

Checklist Reference Number	230411
Date	11 April 2023 (Tuesday)
Time	14:00 – 15:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	<b>B. Air Quality</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>C. Noise</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>D. Water Quality</b>	
230411-R01	• To enhance the water mitigation measure at Tai Wo Service Road West.	D 3
	<b>E. Waste / Chemical Management</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>F. Cultural Heritage</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>G. Landscape and Visual</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>H. Ecology</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>I. Permits/Licences</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>J. Others</b>	
	• Follow-up on previous audit section (Ref. No.: 230403), item no. 230403-R01 was observed improved/rectified by the Contractor. Item no. 230403-O01 was remarked as 230411-R01. Follow-up action is needed to be review.	

	Name	Signature	Date
Recorded by	Marco Ma		13 April 2023
Checked by	Dr. Priscilla Choy		13 April 2023



*Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas*

*ND/2019/05 – Fanling North New Development Area, Phase 1: Fanling Bypass Eastern Section between Shung Him Tong to Kau Lung Hang*

**Weekly Site Inspection Record Summary**

Checklist Reference Number	230420
Date	20 April 2023 (Thursday)
Time	09:00 – 11:30

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	<b>B. Air Quality</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>C. Noise</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>D. Water Quality</b>	
230420-R01	• The drainage channel at FS04 should be properly protected to clear the soil nearby.	D 6
	<b>E. Waste / Chemical Management</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>F. Cultural Heritage</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>G. Landscape and Visual</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>H. Ecology</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>I. Permits/Licences</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>J. Others</b>	
	• Follow-up on previous audit section (Ref. No.: 230411), item no. 230411-R01 was observed improved/rectified by the Contractor.	

	Name	Signature	Date
Recorded by	Marco Ma		20 April 2023
Checked by	Dr. Priscilla Choy		20 April 2023

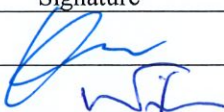

*Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas*

*ND/2019/05 – Fanling North New Development Area, Phase 1: Fanling Bypass Eastern Section between Shung Him Tong to Kau Lung Hang*

Weekly Site Inspection Record Summary

Checklist Reference Number	230424
Date	24 April 2023 (Monday)
Time	14:00 – 15:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	<b><i>B. Air Quality</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>C. Noise</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>D. Water Quality</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>E. Waste / Chemical Management</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>F. Cultural Heritage</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>G. Landscape and Visual</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>H. Ecology</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>I. Permits/Licences</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>J. Others</i></b>	
	• Follow-up on previous audit section (Ref. No.: 230420), item no. 230420-R01 was observed improved/rectified by the Contractor.	

	Name	Signature	Date
Recorded by	Marco Ma		25 April 2023
Checked by	Dr. Priscilla Choy		25 April 2023



**Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas**

**ND/2019/06 – Fanling North New Development Area, Phase 1: Re-provisioning of North District Temporary Wholesale Market for Agricultural Products**

**Weekly Site Inspection Record Summary**

Checklist Reference Number	230404
Date	4 April 2023 (Tuesday)
Time	13:30 - 14:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	<b>B. Air Quality</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>C. Noise</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>D. Water Quality</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>E. Waste / Chemical Management</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>F. Landscape and Visual</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>G. Ecology</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>H. Permits/Licences</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>I. Others</b>	
	• Follow-up on previous audit section (Ref. No.: 230330), no environmental deficiency was identified during site inspection.	

	Name	Signature	Date
Recorded by	Him Ng		4 April 2023
Checked by	Dr. Priscilla Choy		4 April 2023



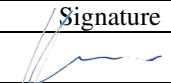

**Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas**

**ND/2019/06 – Fanling North New Development Area, Phase 1: Re-provisioning of North District Temporary Wholesale Market for Agricultural Products**

**Weekly Site Inspection Record Summary**

Checklist Reference Number	230413
Date	13 April 2023 (Thursday)
Time	13:30 - 14:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	<b>B. Air Quality</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>C. Noise</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>D. Water Quality</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>E. Waste / Chemical Management</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>F. Landscape and Visual</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>G. Ecology</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>H. Permits/Licences</b>	
	• No environmental deficiency was identified during site inspection.	
	<b>I. Others</b>	
	• Follow-up on previous audit section (Ref. No.: 230404), no environmental deficiency was identified during site inspection.	

	Name	Signature	Date
Recorded by	Marco Ma		19 April 2023
Checked by	Dr. Priscilla Choy		19 April 2023



*Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas*

*ND/2019/06 – Fanling North New Development Area, Phase 1: Reprovisioning of North District Temporary Wholesale Market for Agricultural Products*

**Weekly Site Inspection Record Summary**

Checklist Reference Number	230420
Date	20 April 2023 (Thursday)
Time	13:30 - 14:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	<b><i>B. Air Quality</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>C. Noise</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>D. Water Quality</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>E. Waste / Chemical Management</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>F. Landscape and Visual</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>G. Ecology</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>H. Permits/Licences</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>I. Others</i></b>	
	• Follow-up on previous audit section (Ref. No.: 230413), no environmental deficiency was identified during site inspection.	



	Name	Signature	Date
Recorded by	Him Ng		24 April 2023
Checked by	Dr. Priscilla Choy		24 April 2023

*Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas*  
*ND/2019/06 – Fanling North New Development Area, Phase 1: Reprovisioning of North District Temporary Wholesale Market for Agricultural Products*

**Weekly Site Inspection Record Summary**

Checklist Reference Number	230426
Date	26 April 2023 (Wednesday)
Time	13:30 - 14:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	<b><i>B. Air Quality</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>C. Noise</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>D. Water Quality</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>E. Waste / Chemical Management</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>F. Landscape and Visual</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>G. Ecology</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>H. Permits/Licences</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>I. Others</i></b>	
	• Follow-up on previous audit section (Ref. No.: 230420), no environmental deficiency was identified during site inspection.	

	Name	Signature	Date
Recorded by	Marco Ma		3 May 2023
Checked by	Dr. Priscilla Choy		3 May 2023



*Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas*

*ND/2019/07 – Fanling North New Development Area, Phase 1: Site Formation and Infrastructure Works*

**Weekly Site Inspection Record Summary**

Checklist Reference Number	230404
Date	4 April 2023 (Tuesday)
Time	09:15 – 09:45

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	<b><i>B. Air Quality</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>C. Construction Noise Impact</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>D. Water Quality</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>E. Waste / Chemical Management</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>F. Landscape and Visual</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>G. Ecology</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>H. Permits/Licences</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>I. Others</i></b>	
	• Follow-up on previous audit section (Ref. No.: 230331), no major environmental deficiency was observed during site inspection.	

	Name	Signature	Date
Recorded by	Adrian Lam		4 April 2023
Checked by	Dr. Priscilla Choy		4 April 2023

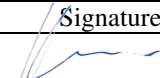

**Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas**

**ND/2019/07 – Fanling North New Development Area, Phase 1: Site Formation and Infrastructure Works**

**Weekly Site Inspection Record Summary**

Checklist Reference Number	230414
Date	14 April 2023 (Friday)
Time	14:00 – 15:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	<b><i>B. Air Quality</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>C. Construction Noise Impact</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>D. Water Quality</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>E. Waste / Chemical Management</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>F. Landscape and Visual</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>G. Ecology</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>H. Permits/Licences</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>I. Others</i></b>	
	• Follow-up on previous audit section (Ref. No.: 230404), no major environmental deficiency was observed during site inspection.	

	Name	Signature	Date
Recorded by	Marco Ma		19 April 2023
Checked by	Dr. Priscilla Choy		19 April 2023


*Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas*

*ND/2019/07 – Fanling North New Development Area, Phase 1: Site Formation and Infrastructure Works*

Weekly Site Inspection Record Summary

Checklist Reference Number	230421
Date	21 April 2023 (Friday)
Time	14:00 – 15:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	<b><i>B. Air Quality</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>C. Construction Noise Impact</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>D. Water Quality</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>E. Waste / Chemical Management</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>F. Landscape and Visual</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>G. Ecology</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>H. Permits/Licences</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>I. Others</i></b>	
	• Follow-up on previous audit section (Ref. No.: 230414), no major environmental deficiency was observed during site inspection.	

	Name	Signature	Date
Recorded by	Marco Ma		21 April 2023
Checked by	Dr. Priscilla Choy		21 April 2023



*Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas*

*ND/2019/07 – Fanling North New Development Area, Phase 1: Site Formation and Infrastructure Works*

**Weekly Site Inspection Record Summary**

Checklist Reference Number	230428
Date	28 April 2023 (Friday)
Time	09:30 – 10:30

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	<b><i>B. Air Quality</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>C. Construction Noise Impact</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>D. Water Quality</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>E. Waste / Chemical Management</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>F. Landscape and Visual</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>G. Ecology</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>H. Permits/Licences</i></b>	
	• No environmental deficiency was identified during site inspection.	
	<b><i>I. Others</i></b>	
	• Follow-up on previous audit section (Ref. No.: 230421), no major environmental deficiency was observed during site inspection.	

	Name	Signature	Date
Recorded by	Marco Ma		3 May 2023
Checked by	Dr. Priscilla Choy		3 May 2023

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

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EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
<b>Construction Dust Impact</b>							
S3.8	D1	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/m <sup>2</sup> to achieve the respective dust removal efficiencies	Minimize dust impact at the nearby sensitive receivers	Contractor	All construction sites	Construction phase	^
S3.8	D2	The Contractor shall follow the procedures and requirements given in the Air Pollution Control (Construction Dust) Regulation.	Minimize dust impact at the nearby sensitive receivers	Contractor	All construction sites	Construction phase	^
S3.8	D3	<p>Following dust suppression measures should also be incorporated by the Contractor to control the dust nuisance throughout the construction Phase</p> <ul style="list-style-type: none"> <li>• 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;</li> <li>• Any dusty materials remaining after a stockpile is removed should be wetted with water and cleared from the surface of roads;</li> <li>• A stockpile of dusty material should not be extend beyond the pedestrian barriers, fencing or traffic cones;</li> <li>• 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;</li> <li>• 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;</li> <li>• When there are open excavation and reinstatement works,</li> </ul>	Minimize dust impact at the nearby sensitive receivers	Contractor	All construction sites	Construction phase	#  ^  ^  ^  ^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		<p>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.</p> <ul style="list-style-type: none"> <li>• The portion of any road leading only to construction site that is within 30m of a vehicle entrance or exit should be kept clear of dusty materials;</li> <li>• 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;</li> <li>• 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;</li> <li>• 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;</li> <li>• Any skip hoist for material transport should be totally enclosed by impervious sheeting;</li> <li>• 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;</li> <li>• Cement or dry PFA delivered in bulk should be stored in a closed silo fitted with an audible high level alarm which is interlocked with the material filling line and no overfilling is allowed;</li> <li>• 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</li> </ul>					<p style="text-align: center;">^</p> <p style="text-align: center;">^</p> <p style="text-align: center;">^</p> <p style="text-align: center;">^</p> <p style="text-align: center;">N/A</p> <p style="text-align: center;">N/A</p> <p style="text-align: center;">^</p>

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		<ul style="list-style-type: none"> <li>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.</li> </ul>					^
SURFACE S3.8	D4	Implement regular dust monitoring under EM&A programme during the construction stage.	Monitoring of dust impact	Contractor	Selected representative dust monitoring station	Construction phase	^
<b>Noise Impact (Construction Phase)</b>							
S4.9	N1	Implement the following good site management practices: <ul style="list-style-type: none"> <li>Only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction programme;</li> <li>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;</li> <li>Plant known to emit noise strongly in one direction, where</li> </ul>	Control construction airborne noise	Contractor	All construction sites	Construction phase	^ ^ ^

**App Q - IMPLEMENTATION SCHEDULE AND RECOMMENDED MITIGATION MEASURES**

**April 2023**

<b>EIA Ref.</b>	<b>EM&amp;A Log Ref</b>	<b>Recommended Mitigation Measures (What Measures)</b>	<b>Objectives of the recommended Measures &amp; Main Concerns to address (What Requirements)</b>	<b>Who to implement the measures? (Who)</b>	<b>Location of the measures (Where)</b>	<b>When to Implement the measures? (When)</b>	<b>Implementation Status</b>
		<p>possible, be orientated so that the noise is directed away from nearby NSRs; silencers or mufflers on construction equipment should be properly fitted and maintained during the construction works;</p> <ul style="list-style-type: none"> <li>• Mobile plant should be sited as far away from NSRs as possible and practicable;</li> <li>• Material stockpiles, mobile container site office and other structures should be effectively utilised, where practicable, to screen noise from on-site construction activities.</li> </ul>					<p>^</p> <p>^</p>
S4.9	N2	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.	Reduce the construction noise levels at low-level zone of NSRs through partial screening.	Contractor	All construction sites where practicable	Construction phase	^
S4.9	N3	Install movable noise barriers and full enclosure and acoustic mat, screen the noisy plants including air compressor and generator.	Screen the noisy plant items to be used at all construction sites	Contractor	All construction sites where practicable	Construction phase	^
S4.9	N4	Use of “Quiet” Plant and Working Methods	Reduce the noise levels of plant items	Contractor	All construction sites where practicable	Construction phase	^
S4.9	N5	Sequencing operation of construction plants where practicable.	Operate sequentially within the same work site to reduce the construction airborne noise	Contractor	All construction sites where practicable	Construction phase	^
S4.9	N6	Implement a noise monitoring under EM&A programme.	Monitor the construction noise levels at the selected	Contractor	Selected representative	Construction phase	^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
			representative locations		noise monitoring stations		
<b>Water Quality Impact (Construction Phase)</b>							
S5.7	W1	<p><u>Construction Runoff and Site Drainage</u> 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. where appropriate, should include the following:</p> <p><b>Stormwater Pollution Control Plan</b></p> <ul style="list-style-type: none"> <li>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.</li> <li>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 8m<sup>3</sup> 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</li> </ul>	Control construction runoff	Contractor	All construction sites	Construction phase	^  #

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		<p>inputs from a variety of sources and suited to applications where the influent is pumped.</p> <ul style="list-style-type: none"> <li>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.</li> <li>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.</li> <li>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.</li> <li>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.</li> <li>Measures should be taken to minimise 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</li> </ul>					<p>^</p> <p>^</p> <p>N/A</p> <p>#</p> <p>^</p>

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		<p>foundation excavations should be discharged into storm drains via silt removal facilities.</p> <ul style="list-style-type: none"> <li>• All open stockpiles of construction materials (for example, aggregates, sand and fill material) of more than 50m<sup>3</sup> 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.</li> <li>• 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.</li> <li>• Precautions to 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 summarized in Appendix A2 of ProPECC PN 1/94. Particular attention should be paid to the control of silty surface runoff during storm events.</li> <li>• 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</li> </ul>					<p style="text-align: center;">^</p> <p style="text-align: center;">^</p> <p style="text-align: center;">^</p> <p style="text-align: center;">^</p>

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		<p>public roads and drains.</p> <ul style="list-style-type: none"> <li>• 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.</li> <li>• Construction solid waste, debris and rubbish on site should be collected, handled and disposed of properly to avoid water quality impacts.</li> <li>• 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.</li> <li>• 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.</li> </ul>					<p>N/A</p> <p>^</p> <p>^</p> <p>^</p>
S5.7	W2	<p><u>Stream Diversion</u></p> <ul style="list-style-type: none"> <li>• 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.</li> </ul>	Minimize water quality impact due to stream diversion	Contractor	All streams that required diversion	Construction phase	#



EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
S5.7	W3	<p><u>Groundwater from Contaminated Area</u></p> <ul style="list-style-type: none"> <li>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.</li> <li>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.</li> <li>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.</li> <li>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.</li> </ul>	Minimize water quality impact due to potential groundwater from contaminated area	Contractor	All identified groundwater-contaminated areas	Construction phase	N/A  N/A  N/A
S5.7	W4	<p><u>Sewage from Workforce</u></p> <p>Portable chemical toilets and sewage holding tanks should be provided for</p>	Handling of site sewage	Contractor	All construction sites	Construction Phase	^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		<p>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.</p> <p>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.</p>					
<b>Waste Management (Construction Waste)</b>							
S7.6	WM1	<p><u>Waste Reduction Measures</u></p> <p>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:</p> <ul style="list-style-type: none"> <li>• segregate and store different types of waste in different containers, skip or stockpiles to enhance reuse or recycling of materials and their proper disposal;</li> <li>• proper storage and site practices to minimize the potential for</li> </ul>	Reduce waste generation	Contractor	All construction sites where practicable	Prior to the commencement of construction	<p style="text-align: center;">^</p> <p style="text-align: center;">^</p>

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		damage and contamination of construction materials; <ul style="list-style-type: none"> <li>• plan and stock construction materials carefully to minimize amount of waste generated and avoid unnecessary generation of waste;</li> <li>• sort out demolition debris and excavated materials from demolition works to recover reusable/recyclable portions (i.e. soil, broken concrete, metal etc);</li> <li>• provide training to workers on the importance of appropriate waste management procedures, including waste reduction, reuse and recycling.</li> </ul>					^  N/A  ^
S7.6	WM2	Prepare Waste Management Plan and submit to the Engineer for approval	Minimize waste generation during construction	Contractor	All construction sites	Construction phase	^
S7.6	WM3	<u>Good Site Practice</u> The following good site practices are recommended throughout the construction activities: <ul style="list-style-type: none"> <li>• 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;</li> <li>• Training of site personnel in site cleanliness, appropriate waste management procedures and concepts of waste reduction, reuse and recycling;</li> </ul>	Minimize waste generation during construction	Contractor	All construction sites	Construction phase	^  ^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		<ul style="list-style-type: none"> <li>• Provision of sufficient waste disposal points and regular collection for disposal;</li> <li>• Appropriate measures to minimise windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers;</li> <li>• Regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors;</li> </ul>					<p style="text-align: center;">^</p> <p style="text-align: center;">^</p> <p style="text-align: center;">*</p>
S7.6	WM4	<p><u>Storage of Waste</u></p> <p>The following recommendation should be implemented to minimize the impacts:</p> <ul style="list-style-type: none"> <li>• Waste such as soil should be handled and stored well to ensure secure containment;</li> <li>• Stockpiling area should be provided with covers and water spraying system to prevent materials from wind-blown or being washed away;</li> <li>• Different locations should be designated to stockpile each material to enhance reuse;</li> </ul>	Minimize waste impacts from storage	Contractor	All construction sites	Construction phase	<p style="text-align: center;">^</p> <p style="text-align: center;">^</p> <p style="text-align: center;">^</p>
S7.6	WM5	<p><u>Collection and Transportation of Waste</u></p> <p>The following recommendation should be implemented to minimize the</p>	Minimize waste impact	Contractor	All construction	Construction	

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		impacts: <ul style="list-style-type: none"> <li>• Remove waste in timely manner;</li> <li>• Employ the trucks with cover or enclosed containers for waste transportation;</li> <li>• Obtain relevant waste disposal permits from the appropriate authorities; and</li> <li>• Disposal of waste should be done at licensed waste disposal facilities.</li> </ul>	from storage		sites	phase	^ ^ ^ ^
S7.6	WM6	<u>Excavated and C&amp;D Material</u> Wherever practicable, C&D materials should be segregated from other wastes to avoid contamination and ensure acceptability at Public Fill Reception Facilities areas or reclamation sites. The following mitigation measures should be implemented in handling the excavated and C&D materials: <ul style="list-style-type: none"> <li>• Maintain temporary stockpiles and reuse excavated fill material for backfilling;</li> <li>• Carry out on-site sorting;</li> <li>• Deliver surplus artificial hard materials to Tuen Mun Area 38 recycling plant or its successor for recycling into subsequent useful products;</li> <li>• Make provisions in the Contract documents to allow and promote the use of recycled aggregates where appropriate; and</li> <li>• Implement a recording system for the amount of waste generated,</li> </ul>	Minimize waste impacts from excavated and C&D material	Contractor	All construction sites	Construction phase	^ ^ N/A N/A N/A ^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		<p>recycled and disposed of for checking;</p> <p>Standard formwork should be used as far as practicable in order to minimize the arising of C&amp;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.</p> <p>Wheel wash facilities have to be provided at the site entrance before the trucks leaving the works area.</p>					<p>N/A</p> <p>^</p>
S7.6	WM7	<p><u>Contaminated Soil</u></p> <p>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 river measures to minimize the potential environmental implications arising from the handling of contaminated materials refer to Land Contamination Section.</p>	Remediate contaminated soil	Contractor	All construction sites where applicable	Construction phase	^
S7.6	WM8	<p><u>Chemical Waste</u></p> <p>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</p>	Control the chemical waste and ensure proper storage, handling and disposal	Contractor	All construction sites	Construction phase	^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		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.					
S7.6	WM9	<p><u>General Waste</u></p> <ul style="list-style-type: none"> <li>General refuse should be stored in enclosed bins separately from construction and chemical wastes. Recycling bins should also be placed to encourage recycling.</li> <li>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.</li> <li>A reputable waste collector should be employed to remove general refuse on a daily basis.</li> </ul>	Minimize production of the general refuse and avoid odour, pest and litter impacts	Contractor	All construction sites	Construction phase	^  ^  ^
S7.6	WM10	<p><u>Sewage</u></p> <ul style="list-style-type: none"> <li>The WMP should document the locations and number of portable chemical toilets depending on the number of workers, land availability, site condition and activities.</li> <li>Regularly collection by licensed collectors should be arranged to minimize potential environmental impacts.</li> </ul>	Minimize production of sewage impacts	Contractor	All construction sites	Construction phase	N/A  N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
S7.6	WM11	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.	Good site practice	Contractor/ Project Proponent	Onsite	Construction phase	N/A
<b>Land Contamination</b>							
S 8.4	LC2	Detailed site investigation (SI) for all inaccessible potentially contaminated sites in 2 NDAs	Verify the land contamination potential before the commencement of construction	Project Proponent Detailed Design Consultant Contractor	All inaccessible potentially contaminated sites in 2 NDAs as listed in the CAP	After the land is resumed and handed over to the Project Proponent	N/A
S 8.5	LC3	Preparation and submission of supplementary Contamination Assessment Report (CAR) and Remediation Action Plan (RAP) for all inaccessible potentially contaminated sites in 2 NDAs to EPD for agreement if land contamination is confirmed	Present the findings of SI and evaluate the potential environmental and human health impacts Recommend appropriate mitigation measures for the contaminated soil and groundwater identified in the assessment if	Project Proponent/ Detailed Design Consultant	All inaccessible potentially contaminated sites in 2 NDAs as listed in the CAP	Prior to the commencement of any proposed construction works if land contamination is confirmed and remediation is required	N/A



**App Q - IMPLEMENTATION SCHEDULE AND RECOMMENDED MITIGATION MEASURES**

**April 2023**

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
			remediation is required				
S 8.5	LC4	Preparation and submission of Remediation Report to EPD for agreement	Demonstrate that the decontamination work is adequate and is carried out in accordance with the endorsed supplementary CAR and RAP	Project Proponent/ Detailed Design Consultant	All inaccessible potentially contaminated sites in 2 NDAs as listed in the CAP	Prior to the commencement of any proposed construction works if land contamination is confirmed and remediation is required	N/A
S 8.6	LC5	Re-appraisal of surveyed sites (if they become part of the land requirement for NDA development) that were not identified as potentially contaminated or could not be accessed for visual inspection during the site survey	Verify the land contamination potential due to potential change of land uses before the commencement of construction	Project Proponent/ Detailed Design Consultant	All surveyed sites (if they become part of the land requirement for NDA development (that were not identified as potentially	After the land is resumed and handed over to the Project Proponent.	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
					contaminated or could not be accessed for visual inspection during the site survey as listed in the CAP		
S 8.7.2 and Appendix 8.4	LC6	Treatment of arsenic-containing soil “Solidification/Stabilization” (S/S) treatment method was proposed for the treatment of arsenic-containing soil. Toxicity Characteristic Leaching Procedure (TCLP) test should be undertaken after S/S in order to ensure that the contaminant will not leach to the environment. Unconfined Compressive Strength (UCS) test should be conducted, and not less than 1MPa should be met prior to the backfilling or stockpiled for future reuse within the study area.	To treat the arsenic containing soil	Government Developer/ Contractor	KTN NDA	Prior to commencement of construction works within KTN NDA	N/A
S 8.7.2 and Appendix 8.4	LC7	Excavation and Transportation <ul style="list-style-type: none"> <li>• Excavation profiles must be properly designed and executed with attention to the relevant requirements for environment, health and safety;</li> <li>• In case the soil to be excavated is situated beneath the groundwater table, it may be necessary to lower the groundwater table;</li> <li>• Excavation should be carried out during dry season as far as</li> </ul>	To minimize the potential environmental impacts arising from the handling of contaminated materials	Contractor	KTN NDA	Prior to commencement of construction works within KTN NDA	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		<p>possible to minimize runoff from excavated soils;</p> <ul style="list-style-type: none"> <li>• Stockpiling site(s) should be lined with impermeable sheeting and bunded. Stockpiles should be properly covered by impermeable sheeting to reduce dust emission during dry season or contaminated run-off during rainy season. Watering should be avoided on stockpiles of soil to minimize runoff;</li> <li>• Supply of suitable backfill material after excavation, if require; Vehicles containing any excavated materials should be suitably covered to limit potential dust emissions or run-off, and truck bodies and tailgates should be sealed to prevent any discharge during transport or during wet season;</li> <li>• Speed control for the trucks carrying excavated materials should be enforced; and Vehicle wheel washing facilities at the site’s exit points should be established and used.</li> </ul>					^
S 8.7.2 and Appendix 8.4	LC8	<p>Solidification/Stabilization</p> <ul style="list-style-type: none"> <li>• The loading, unloading, handling, transfer or storage of cement should be carried out in an enclosed system;</li> <li>• Mixing process and other associated material handling activities should be properly scheduled to minimize potential noise impact and dust emission;</li> <li>• The mixing facilities should be sited as far apart as</li> </ul>	To minimize the potential environmental impacts arising from the handling of contaminated materials	Contractor	KTN NDA	The course of treatment	N/A  ^  ^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		<p>practicable from the nearby noise sensitive receivers;</p> <ul style="list-style-type: none"> <li>• Mixing of soil and cement / water / other additive(s) should be undertaken at a solidification plant to minimize the potential for leaching;</li> <li>• Runoff from the solidification / stabilization area should be prevented by constructing a concrete bund along the perimeter of the solidification / stabilization area;</li> <li>• If stockpile of treated soil is required, the stockpiling site(s) should be lined with impermeable sheeting and banded. Stockpiles should be properly covered by impermeable sheeting to reduce dust emission during dry season or site run-off during rainy season; and</li> </ul> <p>If necessary, there should be clear and separated areas for stockpiling of untreated and treated materials.</p>					<p style="text-align: center;">^</p> <p style="text-align: center;">^</p> <p style="text-align: center;">*</p>
S 8.7.2 and Appendix 8.4	LC9	<p><u>Safety Measures</u></p> <ul style="list-style-type: none"> <li>• Set up a list of safety measures for site workers;</li> <li>• Provide written information and training on safety for site workers;</li> <li>• Keep a log-book and plan showing the zones requiring treatment and clean zones;</li> <li>• Maintain a hygienic working environment;</li> <li>• Avoid dust generation;</li> <li>• Provide face and respiratory protection gear to site workers if</li> </ul>	To minimize the potential adverse effects on health and safety of construction workers	Contractor	KTN NDA	The course of treatment	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		<p>necessary;</p> <ul style="list-style-type: none"> <li>• Provide personal protective clothing (e.g. chemical resistant jackboot, liquid tight gloves) to site workers if necessary;</li> <li>• Provide first aid training and materials to site worker;</li> <li>• Bulk earth moving equipment should be utilized as much as possible to minimize worker</li> </ul> <p>Eating, drinking and smoking should not be allowed in the excavation areas and treatment area to avoid inadvertent ingestion of arsenic containing soil.</p>					
<b>Landfill Gas Hazard</b>							
S10.6	LFG1	<ul style="list-style-type: none"> <li>• Underground rooms or void should be avoided as far as practicable in the proposed developments within the Consultation Zone and should be avoided totally in the proposed developments within the MTLL.</li> <li>• Buildings or structures within the MTLL should be at ground level with raised floor slabs which are less prone to gas ingress.</li> <li>• For the high risk category, the use of active control of gas, including barriers and detection systems are recommended. These measures include the control of gas by mechanical means e.g. ventilation of spaces with air to dilute gas, or extraction of gas using fans or blowers.</li> <li>• For the low risk category, the provision of barriers to the movement of gas is recommended. Measures recommended</li> </ul>	To minimize the risk of LFG hazards to occupants within MTLL and its 250m Consultation Zone	Government / Developer/ Detailed Design Consultant within MTLL and its 250m Consultation Zone	Buildings within MTLL and its 250m Consultation Zone	Detailed design phase	N/A



EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		<p>adverse circumstances, should be present on all worksites throughout the works.</p> <ul style="list-style-type: none"> <li>• All personnel who work on site and all visitors to the site should be made aware of the possibility of ignition of gas in the vicinity of the works, the possible presence of contaminated water and the need to avoid physical contact with it.</li> <li>• Those staff who work in, or have responsibility for “at risk” areas, including bore pilling and excavation works, should receive appropriate training on working in areas susceptible to LFG.</li> <li>• Enhanced personal hygiene practices including washing thoroughly after working and eating only in “clean” areas should be adopted where contact may have been made with any groundwater which is thought to be contaminated with leachate.</li> <li>• Any offices / quarters set up on site should take precautions against LFG ingress, such as being raised off the ground. Other storage premises, e.g. shipping containers, where this is not possible should be well ventilated prior to entry.</li> <li>• Adequate precautions to prevent the accumulation of LFG under site buildings and within storage shed should be taken by raising buildings off the ground where appropriate and “airing” storage containers prior to entry by personnel and ensuring adequate ventilation at all times.</li> </ul>					<p style="text-align: center;">^</p> <p style="text-align: center;">^</p> <p style="text-align: center;">^</p> <p style="text-align: center;">^</p> <p style="text-align: center;">^</p>

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		<ul style="list-style-type: none"> <li>• Smoking and naked flames should be prohibited within confined spaces. “No Smoking” and “No Naked Flame” notices in Chinese and English should be posted prominently around the construction site. Safety notices should be posted warning of the potential hazards.</li> <li>• Welding, flame-cutting or other hot works may only be carried out in confined spaces when controlled by a “permit to work” procedure, properly authorized by the Safety Officer. The permit to work procedure should set down clearly the requirements for continuous monitoring of methane, carbon dioxide and oxygen throughout the period during which the hot works are in progress. The procedure should also require the presence of an appropriately qualified person who shall be responsible for reviewing the gas measurements as they are made, and who shall have executive responsibility for suspending the work in the event of unacceptable or hazardous conditions. Only those workers who are appropriately trained and fully aware of the potentially hazardous conditions which may arise should be permitted to carry out hot works in confined areas.</li> <li>• During the construction works, adequate fire extinguishers and breathing apparatus sets should be made available on site and appropriate training given in their use.</li> </ul>					<p style="text-align: center;">^</p> <p style="text-align: center;">N/A</p> <p style="text-align: center;">^</p>



EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		<ul style="list-style-type: none"> <li>Ongoing gas monitoring should be considered for offices, stores etc set up on site.</li> </ul>					^
S10.6	LFG3	<p>Utility Companies</p> <ul style="list-style-type: none"> <li>The developers should make the utility companies aware of the location and features of the site within the Consultation Zone during the respective detailed design stage as part of the QLFGHA.</li> <li>The utilities companies should have a responsibility to train and ensure their staff to take appropriate precautions at all times when entering enclosed spaces or plant rooms.</li> <li>Should utility installation be required in site E1-1, the developers should make the utility companies aware of the potential constraints imposed by the landfill restoration facilities and aftercare works to ensure these facilities and works will remain unaffected. Appropriate precautionary measures against landfill gas should also be taken should utility installation be required within the MTLL.</li> </ul> <p>Building Management</p> <ul style="list-style-type: none"> <li>The management committee of the building estate will hold a special responsibility to ensure that the occupants of the building, its staff and maintenance workers are protected from LFG and that visitors to the site are also made aware as to the dangers and the</li> </ul>	<p>To minimize the risk of LFG hazards to the occupants, maintenance personnel, visitors and other users within MTLL and its 250m Consultation Zone</p>	<p>Government / Developer within MTLL and its 250m Consultation Zone</p>	<p>Buildings within MTLL and its 250m Consultation Zone</p>	<p>Operation phase</p>	<p>N/A</p>

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		<p>precautions required to be taken.</p> <ul style="list-style-type: none"> <li>Of primary importance to satisfactorily upholding this responsibility will be to ensure that strict procedures for maintaining control over all temporary and /or permanent works proposed at the site are reviewed with regard to the LFG hazard. This needs to be accompanied by a comprehensive contingency plan in case of incidents, including liaison with EPD officers, Fire Services Department, Landfill Restoration Contractors and others, as necessary.</li> <li>All construction and maintenance (including utilities) personnel working at the site should be made aware of the hazards of LFG and its possible presence on site. This should be achieved through a combination of posting warning signs in prominent places and also by access to detailed information on LFG hazards and the designs and procedural means by which these hazards are being minimized on site. In addition, entry to confined spaces such as refuse/store rooms, drainage manholes etc. should be preceded by a period of “airing” the space by opening the door widely allowing fresh air to enter. Where appropriate, monitoring of gas should also precede entry.</li> <li>Any proposed modifications or additions to the building structure should be subject to a further assessment of LFG hazard,</li> </ul>					

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		<p>particularly in areas where a gas membrane has been installed. Any penetrations of the membrane must be repaired as soon as possible after detection or works completion using similar products.</p> <ul style="list-style-type: none"> <li>The building management company should also make arrangement with Landfill Restoration Contractor so that they are advised of all situations which may potentially threaten the safety of the building occupants resulting from any accidents or failures at the landfill site. The building management company should also have available suitable gas monitoring equipment for any ad hoc investigations necessary relating to LFG and be in a position to undertake any future routine monitoring of gas which may be considered necessary soloing completion of the defects correction period.</li> <li>To ensure that all the above protection and precautionary measures and issues pertaining to LFG are properly and consistently addressed by future users and owners of the site, it is recommended that a comprehensive LFG hazard management system be developed by the owner of the building or its property management agency. The system should be developed by the developers of the sites as part of the QLFQHA before the occupation of the building and implemented during its operational</li> </ul>					

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		phase.					
<i>Cultural Heritage (Pre-construction Phase)</i>							
S11.6.1	CH1	<p><u>Undertaking Further Archaeological Survey to Cover the Outstanding Areas</u></p> <p>Further archaeological surveys to cover the outstanding areas of the not-yet-surveyed-area with medium archaeological potential located in the areas with proposed development as presented in Figure 11.9 should be implemented after land resumption to confirm and verify the findings of the EIA. The survey should be conducted by a professional archaeologist and prior to fieldwork commencement, the archaeologist should obtain a Licence to Excavate and Search for Antiquities from the Authority under the AM Ordinance. It should be noted that the scope of further archaeological survey is based on the current proposed alignment. Any additional works areas which have not been covered by the current archaeological impact assessment should be covered as soon as possible. Subject to the findings of the archaeological survey to be conducted after land resumption, additional mitigation measures would be designed and implemented before the commencement of construction works to mitigate the adverse impact.</p>	To confirm and verify the findings of the EIA	Project Proponent/ Contractor/ Qualified Archaeologist	In the not-yet-surveyed-areas with medium archaeological potential located in the areas within Areas D1-11, A3-5, A3-6, B1-1, and B1-7,	After land resumption but before construction	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
S11.6.1	CH2	<p><u>Undertaking Survey-cum-Rescue Excavation</u></p> <p>A Survey-cum-Rescue Excavation should be conducted after land resumption and before the commencement of construction works to define the precise archaeological deposits extent and to preserve the archaeological resources by record. The excavation should be conducted by a professional archaeologist and prior to fieldwork commencement, the archaeologist should obtain a Licence to Excavate and Search for Antiquities from the Authority under the AM Ordinance.</p>	<p>To define the precise archaeological deposits extent and to preserve the archaeological resources as far as possible</p>	<p>Project Proponent/ Contractor/ Qualified Archaeologist</p>	<p>In KTN NDA, for Site 3 and In FLN NDA for Site 5.</p>	<p>After land resumption but before construction commencement of the zone</p>	<p>N/A</p>
S11.6.1	CH3	<p><u>Undertaking Preservation in-situ for Site 7</u></p> <p>Preservation in-situ of the cultivation deposits in Site 7 is proposed. If disturbance to the site by the design of the Central Park is unavoidable, further archaeological survey should be conducted after land resumption prior to the pre-construction stage to assess the feasibility to incorporate Site 7 into the design of the development plan of the proposed zone. Appropriate followup actions, including preservation of the significant archaeological deposits in-situ in the Central Park, would then be considered with the consent of AMO.</p> <p>The recommended mitigation measure of preservation in-situ with further archaeological survey should be conducted by a professional archaeologist and prior to fieldwork commencement, the archaeologist should obtain a Licence to Excavate and Search for Antiquities from the</p>	<p>To preserve the archaeological resources as far as possible.</p>	<p>Project Proponent/ Contractor/ Qualified Archaeologist</p>	<p>Site 7 in FLN NDA</p>	<p>After land resumption prior to preconstruction stage of the proposed Central Park (Area C2-8, Zoning O)</p>	<p>N/A</p>

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		Authority under the AM Ordinance.					
S11.6.1	CH4	<p><u>Undertaking Induction Training</u></p> <p>Induction training should be provided to the construction Contractor before the commencement of the excavation works in Spots A, D, F to H. An induction will be conducted as part of the environmental health and safety induction programme to all site staff before they are deployed on site. The induction will include an introduction on the historical development of the Site, the possible archaeological remains that may be encountered during ground excavation works as well as the reporting procedures in case suspected archaeological remains are identified. A set of the presentation material (in the form of power point presentation) with content details will be prepared by an archaeologist and submitted to AMO for reference and record purpose. The first induction briefing will be video recorded and it will be used as induction briefing material for new site staff.</p>	To preserve the archaeological resources as far as possible	Project Proponent/ Contractor/ Qualified Archaeologist	Spots A, D, F to H	Before the commencement of the excavation works and before site staff are deployed on site	N/A
S11.6.1	CH5	<p><u>Undertaking Archaeological Impact Assessment before Construction at A1</u></p> <p>It is recommended that an Archaeological Impact Assessment to be conducted in the impacted area in Area B1-8 and B1-9 at A1 (Sheung</p>	To define the precise archaeological deposits extent and to preserve the archaeological resources as	Project Proponent/ Contractor/ Qualified	Area B1-8 and B1-9 zoned as R4 and R3 in A1	After land resumption but before construction	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		Shui Wa Shan Site of Archaeological Interest) after land resumption and before construction when detail construction work information is available to determine the need for further archaeological follow up actions.	far as possible	Archaeologist			
S11.6.1	CH6	<p><u>Undertaking Archaeological Impact Assessment before Construction within A1 but except Area B1-8 and B1-9</u></p> <p>Should there be any development work within the Sheung Shui Wa Shan Site of Archaeological Interest, it is recommended that an Archaeological Impact Assessment is required after land resumption and before construction when detail construction work information is available to determine the need for further archaeological follow up actions.</p>	To define the precise archaeological deposits extent and to preserve the archaeological resources as far as possible.	Project Proponent/ Contractor/ Qualified Archaeologist	Area within A1 except Area B1-8 and B1-9 in R4 &R3 zoning	After land resumption but before construction	N/A
S11.6.2	CH7	<p><u>Undertaking baseline condition survey and baseline vibration impact assessment</u></p> <p>In case any potential vibration impact on any nearby built heritage features are identified during the pre-construction stage of the Project, prior to commencement of construction works, a baseline condition survey and baseline vibration impact assessment should be conducted by a qualified building surveyor or a qualified structural engineer to define the vibration limit (a vibration limit at 7.5mm/s could be adopted for graded historic buildings) and to evaluate if construction vibration monitoring and structural strengthening measures are required during</p>	To minimize the vibration impacts during preconstruction stage on any identified potential vibration impacted built heritage features	Project Proponent/ Contractor	G303 and G308	Preconstruction stage before commencement of construction works during Schedule 3 study	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		construction phase so as to ensure the construction performance meets with the vibration standard stated in the EIA report. The condition survey of graded historic building should be submitted to AMO for information.					
S11.6.2	CH8	<p><u>Undertaking baseline condition survey and baseline vibration impact assessment</u></p> <p>In case any potential vibration impact on any nearby built heritage features are identified during the pre-construction stage of the Project, prior to commencement of construction works, a baseline condition survey and baseline vibration impact assessment should be conducted by a qualified building surveyor or a qualified structural engineer to define the vibration limit (a vibration limit at 7.5mm/s and 15mm/s could be adopted for graded historic buildings and historic buildings respectively) and to evaluate if construction vibration monitoring and structural strengthening measures are required during construction phase so as to ensure the construction performance meets with the vibration standard stated in the EIA report. The condition survey of graded historic building should be submitted to AMO for information.</p>	To minimize the vibration impacts during preconstruction stage on any identified potential vibration impacted built heritage features	Project Proponent/ Contractor	KT57, FL05, FL18, and FL2	Preconstruction stage before commencement of construction works	N/A
S11.6.2	CH9	<p><u>Conducting Photographic and Cartographic Records Prior to Removal/Relocation of Impacted Built Heritages</u></p> <p>Prior to removal/relocation of the directly impacted historical buildings and cultural/historical landscape features, photographic and cartographic</p>	To preserve the directly impacted sites by record prior to their removal / relocation	Project Proponent/ Contractor	Ancillary structures of G303, HKT01, HKT02, Entrance	Prior to Removal / Relocation of features before commencement of construction	N/A



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		records should be conducted to preserve them by record. Liaison with and obtaining agreement from the descendants of these features will be carried out the Project Proponent.			Gate of HKT03, HKT04, KT01 to KT10, KT13, KT36, KT39, KT40, KT41, KT43, KT45, KT47, KT50, KT54, KT62 to KT63, KT69, FL01, FL16, and FL35	works during Schedule 3 study	
S11.6.2	CH10	<u>Conducting Photographic and Cartographic Records Prior to Removal/Relocation of Impacted Built Heritages</u> Prior to removal/relocation of the directly impacted historical buildings and cultural/historical landscape features, photographic and cartographic records should be conducted to preserve them by record. Liaison with and obtaining agreement from the descendants of these features will be carried out by the Project Proponent.	To preserve the directly impacted sites by record prior to their removal / relocation	Project Proponent/ Contractor	KT12 and KT61	Prior to Removal / Relocation of features before commencement of construction works	N/A
S11.6.2	CH11	Relocation of Built Heritages Relocation of built heritages to a reasonable location nearby may be required.	To preserve the directly impacted sites by relocation	Project Proponent/ Contractor	HKT01, HKT02, Entrance Gate of HKT03	After the photographic and cartographic records and before commencement of	N/A

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						construction works	
S11.6.2	CH12	Drainage System and Access Route Design For the retained built heritage items in developable area, drainage system and access route would be designed to prevent the persevered flooding and maintain the accessibility to the built heritage.	To prevent the persevered flooding and maintain the accessibility to the built heritage	Contractor /Detailed Design consultant	The retained built heritage items	Pre-construction phase	N/A
<b>Cultural Heritage (Construction Phase)</b>							
S11.6.1	CH13	<u>Inform Upon Archaeological Discovery</u> 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.	Special attention should be given to areas evaluated to have archaeological potential or significance.	Contractor	All soil excavation works	Immediately upon discovery during excavation works	N/A
S11.6.2	CH14	<u>Watertable Monitoring</u> 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.	To minimize the potential impacts to the built heritage items by the change of watertable induced by the works during the Construction phase	Contractor	Within NDAs	Construction phase	N/A

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S11.6.2	CH15	<p><u>Conducting Construction Vibration Monitoring and Structural Strengthening Measures</u></p> <p>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.</p>	<p>To minimize the potential impacts during Construction phase on any identified potential vibration impacted built heritage features</p>	Contractor	<p>Identified potential vibration impacted built heritage features</p>	<p>Construction phase, with details specified in baseline condition survey and baseline vibration impact assessment</p>	^
<b><i>Landscape and Visual Impact (Detailed Design, Prior to Construction, Construction and Operation Phases)</i></b>							
S.12.9	LV1	<p>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.</p> <p>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.</p>		<p>Detailed design consultant/ Contractor</p>	<p>Throughout NDAs,</p>	<p>Prior to Construction, Construction &amp; for all planting, this should be installed as the areas become available, to achieve early establishment</p>	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
S.12.9 MM1	LV2	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.	Reduce topographical changes and minimize land resumption	Government / Detailed Design Consultant/ Contractor	Throughout NDAs, particularly for reservoirs	Prior to Construction	N/A
S.12.9 MM2	LV3	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	Improve visual amenity of the new buildings, NDAs in general and integrate as best possible into the surrounding landscape	Detailed Design Consultant	Throughout NDAs	Prior to Construction	N/A

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		<p>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. Construction time frame should also be considered and designs seek to keep it to a practical minimum.</p>					
S12.9 MM14.4	LV 4	<p>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.</p> <p>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</p>	Avoid direct impacts to watercourses	Detailed Design Consultant/ Contractor	All watercourses, particularly the stream at Siu Hang San Tsuen that will flow under the Fanling Bypass Eastern	Prior to Construction and Construction Phase	^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		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.			Section		
<b>Landscape and Visual (Construction)</b>							
S.12.9 MM3	LV5	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.	Reprovision of open space.  Enhance visual amenity of the area and improve the overall landscape character	Government  Developer/ Detailed Design  Consultant/ Contractor/	Onsite as stipulated in the planning documents for the formulation of the Preliminary Layout Plan	Prior to Construction and Construction Phas	N/A
S.12.9 MM4	LV6	Tree Protection & Preservation – Existing 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.	Protect and Preserve Trees	Government / Detailed Design  Consultant/ Contractor	Onsite	Prior to Construction and Construction Phase	N/A

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		<p>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</p>					
S.12.9 MM5	LV7	<p>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.</p> <p>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.</p> <p>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.</p> <p>For trees associated with highways e.g. roadside planting along highways, that are unavoidably affected and should be transplanted,</p>	Transplant Trees where suitable for transplantation	Government / Detailed Design Consultant/ Contractor	Onsite where possible. Otherwise consider offsite locations	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A

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		HyD HQ/GN/13 'Interim Guidelines for Tree Transplanting Works under Highways Department's Vegetation Maintenance Ambit' should be referred to.					
S.12.9 MM6	LV8	<p>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.</p> <p>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.</p>	<p>To avoid substantial slope cutting and fill slopes.</p> <p>To prevent erosion and subsequent loss of landscape resources and character.</p> <p>To ensure man-made slopes are as visually amenable as possible.</p>	<p>Government / Detailed Design Consultant/ Contractor</p>	<p>Onsite</p>	<p>Prior to Construction, Construction Phase &amp; Maintenance in Operation Phase</p>	<p>N/A</p>
S.12.9 MM7	LV9	<p>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.</p> <p>Compensatory planting is proposed at the potential open areas such as</p>	<p>Compensate for trees and shrubs lost due to the Project.</p>	<p>Government / Detailed Design Consultant/ Contractor</p>	<p>Onsite where possible. Otherwise consider offsite locations</p>	<p>Prior to Construction, Construction Phase &amp; Maintenance in Operation Phase</p>	<p>N/A</p>



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		<p>open spaces, amenity areas, open areas of the streetscapes, as well as the open areas within development lots.</p> <p>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.</p>					
S.12.9 MM8	LV10	<p>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.</p> <p>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 &amp; E27 also).</p> <p>Native tree species are suggested for planting in the appropriate</p>					N/A

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		<p>locations, including <i>Ailanthus fordii</i>, <i>Bischofia javanica</i>, <i>Castanopsis fissa</i>, <i>Celtis sinensis</i>, <i>Cinnamomum burmannii</i>, <i>Cinnamomum camphora</i>, <i>Xanthoxylum avicennae</i>, <i>Hibiscus tiliaceus</i>, <i>Liquidambar formosana</i>, <i>Sapium discolor</i>, <i>Schefflera heptaphylla</i> and <i>Ilex rotunda</i>.</p> <p>In addition some understory vegetation may be planted including shrubs such as <i>Atalantia buxifolia</i>, <i>Diospyros vaccinioides</i>, <i>Gardenia jasminoides</i>, <i>Ixora chinensis</i>, <i>Ligustrum sinense</i>, <i>Litsea rotundifolia</i>, <i>Melastoma malabathricum</i>, <i>Melastoma dodecandrum</i>, <i>Rhodomyrtus tomentosa</i>, <i>Rhaphiolepis indica</i>, and <i>Rhododendron simsii</i>.</p> <p>The area allocated for compensatory woodland planting allows in part for the fact that it will take some time for the compensatory planting to achieve the landscape and ecological function and value of the area to be lost. In addition, it allows for the fact that not all of the areas identified for planting will prove to be plantable, by virtue of topography and ground 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.</p>					

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S.12.9 MM9	LV11	Vertical Greening – Planting of climbers to grow up vertical surfaces were appropriate (e.g. building edges, piers).	Soften hard surfaces and facilities	Government / Developer/ Detailed Design Consultant/ Contractor	On appropriate structures	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
S.12.9 MM10	LV12	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.	Reduce exposure to untreated concrete surfaces and particularly mitigate visual impact to VSRs at high levels. Provide greening.	Government / Developer/ Detailed Design Consultant/ Contractor	On appropriate buildings	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
S.12.9 MM11	LV13	Screen Planting – Tall screen/buffer trees and shrubs should be planted. This measure may additionally form part of the compensatory planting.	To screen proposed structures such as roads and buildings. Improve compatibility with the surrounding environment and create a pleasant pedestrian environment	Government / Detailed Design Consultant/ Contractor	Along roads, around suitable built structures, or around VSRs to contain their view out to the NDA structures.	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A

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S.12.9 MM12	LV14	<p>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.</p> <p>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)</p>	To soften the hard, straight edges and provide greening along roads.	Government / Developer/ Detailed Design Consultant/ Contractor	On viaducts or along roads	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
S.12.9 MM13 & EIA Annex 13	LV15	<p>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)</p> <p>Also see LV16, LV17, and LV18 as wetland planting should be provided along the embankments and beds of modified/ reprovisioned watercourses.</p>	Compensate for Marsh/ Wetland lost due to the Project.	Project Proponent/ Detailed Design Consultant/ Contractor/ Maintenance Authority	Onsite where possible. Otherwise consider offsite locations	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A

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S.12.9 MM14.1	LV16	<p>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.</p> <p>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.</p> <p>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)</p>	<p>Achieve a natural stream, similar to existing, including wetland planting provision for embankments</p>	<p>Government / Developer/ Detailed Design Consultant/ Contractor</p>	<p>Streams and channelized watercourses e.g. a Ma Tso Lung and Siu Han San Tsuen</p>	<p>Prior to Construction, Construction Phase &amp; Maintenance in Operation Phase</p>	<p>N/A</p>
S12.9 MM14.2	LV17	<p>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.</p>	<p>Protect natural streams</p>	<p>Government / Developer/ Detailed Design Consultant/ Contractor</p>	<p>Streams and channelized watercourses e.g. a Ma Tso Lung and Siu Han</p>	<p>Prior to Construction, Construction Phase &amp; Maintenance in Operation Phase</p>	<p>N/A</p>

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		<p>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.</p> <p>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)</p>			San Tsuen		
S12.9 MM14.3	LV18	<p>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.</p>	<p>Minimize the necessity of watercourse modification, protect watercourses where possible and enhance channelized watercourses</p>	<p>Government / Developer/ Detailed Design Consultant/ Contractor</p>	<p>Channelized watercourse, particularly the Ma Wat River Channel Diversion</p>	<p>Prior to Construction, Construction Phase &amp; Maintenance in Operation Phase</p>	N/A

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		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.					
S12.9 MM15	LV19	<p>Pond Replacement –Principles adopted in the design of the NDAs ensure that they incorporate ponds within the RODPs.</p> <p>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.</p>	Reprovision for ponds lost due to the Project.	Project Proponent/ Detailed Design Consultant/ Contractor/ Maintenance Authority	E1-7 and C1-9 (LVNP) in KNT NDA and generally throughout NDA	Prior to Construction, Construction Phase Maintenance in Operation Phase	N/A
S.12.9 MM16	LV20	<p>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.</p> <p>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).</p>	To screen undesirable views of the works site.	Contractor	Throughout NDAs	Construction Phase	^

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S.12.9 MM17	LV21	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.	To minimize glare impact to adjacent VSRs	Government / Developer/ Contractor	Throughout NDAs	Construction and Operation Phases	N/A
<b><i>Ecology (Prior to Construction Phase or throughout the project)</i></b>							
S. 13.9	E1	Egretry Habitat Creation & Management Plan (EHCMP) and Woodland Planting and Management Plan (WPMP)	Compensate for loss of Man Kam To Road egretry.  Compensate for loss of secondary woodland and hillside plantation of ecological significance.	Project Proponent/ Detailed Design Consultant (EHCMP and WPMP).	FLN area A1-7 (egretry compensation). KTN areas E1-8 and G1-3 (woodland compensation).	Detailed design phase	N/A



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S. 13.9	E2	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	Minimize impacts on Ma Tso Lung Stream and Ma Tso Lung San Tsuen Stream and riparian corridor of importance to species of conservation significance.	Project Proponent/ Detailed Design Consultant. (design of Ma Tso Lung Stream diversion and buffer zone habitat restoration measures)	KTN areas F1-2 and F1-3 and LMC Loop Eastern Connection Road.	Detailed design and construction phases.	N/A
S13.9	E3	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.	Minimize impacts on Siu Hang San Tsuen Stream and stream fauna.	PlanD, Project Proponent/ Detailed Design Consultant/ Contractor/ Maintenance Authority	FLN area D1-3.	Detailed design, construction and operation phases.	N/A
S.13.9	E4	Long Valley Nature Park (LVNP) designation, design and implementation.	Compensate for wetland loss arising from the project and protection of	Project Proponent/ Detailed Design	Long Valley KTN area C1-9 and any suitable areas to	Detailed design phase	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		Enhancement of non-wetland habitats in LVNP. Planning for the advanced provision of alternative foraging habitat along main river channels for large waterbirds.	Long Valley from adverse ecological impacts including provision of additional/alternative habitat for large waterbirds using Ng Tung, Sheung Yue and Shek Sheung River channels.	Consultant (Long Valley Nature Park Habitat Creation & Management Plan)	be identified during the planning stage		
S13.9	E5	Stringent planning control requirements in Long Valley north and west of Sheung Yue River, including Ho Sheung Heung egretty.	Protect these wetland areas from indirect impacts to habitats and fauna especially breeding ardeids foraging in these areas and utilizing flight-lines from Ho Sheung Heung egretty. Avoid habitat loss and disturbance to fauna of conservation significance, especially nesting ardeids Maintenance of ecological linkages with Deep Bay ecosystem and avoidance	PlanD.	KTN areas C2-1 and C2-2 , Ho Sheung Heung egretty and areas north of Long Valley along the Ng Tung River to the Shenzhen River	Detailed design phase	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
			of severance of these linkages, especially for waterbirds				
S13.9	E6	Planning for creation of Green Corridors along the Sheung Yue, Ng Tung and Shek Sheung Rivers, retention and provision of screen plantings where feasible; and detailed design of Open Space areas and development areas along river corridors.	Minimize disturbance to large waterbirds using Ng Tung, Sheung Yue and Shek Sheung River channels.  Maintain ecological linkages within NDA Project Area and between Project Area and Deep Bay ecosystem, especially for Long Valley and waterbirds.	Project Proponent/ Detailed Design Consultant/ Contractor/ Maintenance Authority	Area along Ng Tung, Sheung Yue and Shek Sheung River	Detailed design, construction and operational phases.	N/A
S13.9	E7	Building setback and mounding in locations near Long Valley.  KTN area B3-12 (30m setback from road D3) and KTN area C1-1 (15m setback and mounding along northern and northeastern boundaries).	Minimization of disturbance impacts to fauna using Long Valley.	PlanD	KTN area B3-12 (30m setback from road D3) and KTN area C1-1 (15m setback and mounding along	Detailed design phase	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
					northern and northeastern boundaries.		
S13.9	E8	<p>Preparation and implementation of Guidelines for building design measures to minimize mortality and light and glare impacts to fauna.</p> <p>Guidelines to address the following measures:</p> <p>Use opaque, non-transparent, non-reflective noise barriers for all developments associated with the Project.</p> <p>Measures to include the following:</p> <ul style="list-style-type: none"> <li>• Fritting, or the placement of ceramic lines or dots on glass, which creates a visual barrier to birds and reduces air conditioning loads by lowering heat gain, while still allowing light transmission for interior spaces. It is most successful when the frits are applied on the outside surface. Frosted glass has similar effects;</li> <li>• Angled glass to be used only for smaller panes in buildings with a limited amount of glass;</li> <li>• The use of glass that reflects UV light (primarily visible to birds, but not to humans) to reduce collisions;</li> <li>• Film and art treatment allow glass surfaces to be used a medium of expression, often related to the nature and use of the building, as well indicating to birds their impenetrability;</li> </ul>	Minimize mortality and disturbance impacts on fauna, especially mammals and birds.	PlanD/ Project Proponent/ Developer/ Detailed Design Consultant	Near Long Valley	Detailed design phase	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		<ul style="list-style-type: none"> <li>Lightweight external screens can be added to windows or become a façade element of larger buildings, and are suitable where non-operable windows are prevalent, which is often the case in modern buildings in HK</li> </ul>					
	E9	Not used					N/A
S13.8	E10	Review development footprint and layout of proposed developments in KTN areas D1-11a and G1-5 to avoid/minimize direct and indirect impacts on secondary woodland at Ho Sheung Heung and shrubland at Crest Hill.	Minimize loss of secondary woodland and shrubland of ecological value.	Project Proponent/Detail Design Consultant	KTN areas D1-11a and G1-5 to avoid/minimize direct and indirect impacts on secondary woodland at Ho Sheung Heung and Crest Hill	Detailed design phase	N/A

S13.9	E11	<p>No construction during ardeid breeding season (1 March to 31 July) along Sheung Yue River north or east of KTN D1-5 and east of D1-9 and C2-3, construction hours restricted to 09.00 to 17.30 during 1 March to 31 July on new pedestrian bridge over the Sheung Yue River, new pedestrian bridge over the tidal section of the Ng Tung River and existing bridge between KTN areas C2-2 and C1-8.</p> <p>Review Design and construction methods for all bridges especially those on the Sheung Yue and tidal Ng Tung Rivers and adopt methods which minimize impacts on Long Valley and the rivers, and disturbance and fragmentation impacts on fauna.</p> <p>No overlap in construction of bridges over main river channels. Measures to ensure no hydrological disruption to Long Valley Watercourse and water supply to Long Valley to be designed at the detailed design stage for the rechannelisation of the Long Valley Watercourse and the development of areas through which it passes, including KTN area B3-12. Contingency plan to address any disruption to be included in LVNP HCMP. Avoid removal or interference with screen planting undertaken under the Construction of Cycle Tracks and Associated Supporting Facilities from Sha Po Tsuen to Shek Sheung project.</p>	<p>Minimize disturbance impacts (including cumulative impacts with cycle track project) to flight-lines of breeding ardeids.</p>	<p>Project Proponent/ Detailed Design Consultant Contractor</p>	<p>Along and within Sheung Yue and Ng Tung Rivers, Long Valley, Long Valley and watercourse upstream areas including KTN area B3-12</p>	<p>Detailed design/ construction phase.</p>	<p>^</p>
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EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
<i>Ecology (Construction Phase)</i>							
S13.9	E12	<p>Compensatory egret habitat provision and establishment.</p> <p>Review condition and location of egretries before commencement of works. Formulate and implement additional mitigation measures as appropriate.</p> <p>Phasing of works near and within Man Kam To Road Egret habitat outside breeding season</p>	<p>Compensate for loss of Man Kam To Road egret habitat.</p> <p>Avoid mortality of breeding egrets</p>	<p>Project Proponent/ Detailed Design Consultant/ Contractor</p>	<p>FLN area A1-7 500m from Man Kam To Road Egret habitat.</p>	<p>Construction phase.</p>	<p>^</p>
S13.9	E13	<p>Review design and construction methods for bridges, especially those on the Sheung Yue and tidal Ng Tung Rivers, and adopt measures which minimize impacts on rivers and disturbance and fragmentation impacts on fauna.</p> <p>No construction during ardeid breeding season (1 March to 31 July) along Sheung Yue River north and east of KTN area D1-5 and east of D1-9 and C2-3 and restriction of working hours on new pedestrian bridges over the Sheung Yue River and tidal Ng Tung River to 09.00 to 17.30 during the ardeid breeding season (1 March to 31 July)</p> <p>Provision of alternative foraging habitat along main river channels for large waterbirds.</p>	<p>Minimize impacts on rivers and disturbance and fragmentation impacts on fauna</p>	<p>Project Proponent/ Detailed Design Consultant/ Contractor</p>	<p>Along and within the Sheung Yue, Ng Tung and Shek Sheung Rivers</p>	<p>Detailed design and construction phases.</p>	<p>^</p>

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
S13.9	E14	<p>Buffer zone of 15-30m as appropriate on both sides (not less than 45m total width) of Ma Tso Lung Stream north of the point where it is crossed by the LMC Loop Eastern Connection Road, and Ma Tso Lung Stream diversion during construction of the LMC Loop Eastern Connection Road; development along lower reaches of Ma Tso Lung Stream and Ma Tso Lung San Tsuen Stream in OU zones in KTN areas F1-2 and F1-3 to be set back beyond buffer.</p> <p>Construction and maintenance of permanent 1.2m high solid faunal barrier at all at-grade sections of LMC Loop eastern connection Road north of junction with road D4 within 15-30m as appropriate of Ma Tso Lung Stream buffer and construction of faunal underpass beneath road.</p> <p>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.</p>	<p>Minimize impacts direct and indirect impacts of habitat loss, disturbance, pollution and fragmentation on Ma Tso Lung Stream and marsh and riparian corridor of importance to species of conservation significance.</p>	<p>PlanD/ Project Proponent/ Developer/ Detailed Design Consultant/ Contractor. (Design of Ma Tso Lung Stream diversion and buffer zone habitat restoration measures)</p>	<p>KTN areas H1-1, F12 and F1-3 and Lok Ma Chau Loop Eastern Connection Road.</p>	<p>Detailed design and construction phases.</p>	<p>N/A</p>



EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
S.13.9	E15	Creation and enhancement of proposed Long Valley Nature Park and creation and enhancement of wetland and buffer planting within LVNP.	Compensate for wetland loss arising from the project	Project Proponent/ Contractor (LVNP Detailed Habitat Creation & Management Plan)	Long Valley, (KTN area C1-9).	Construction phase.	^
S13.9	E16	Creation of Green Corridors along the Sheung Yue, Ng Tung and Shek Sheung Rivers, retention and provision of screen plantings where feasible; provision of Open Space areas and development areas along river corridors;  Design and erection of 2m high solid dull green site barrier fence between river channel and any active works area along or adjacent to Ng Tung, Sheung Yue and Shek Sheung Rivers.  Ng Tung, Sheung Yue and Shek Sheung Rivers screen planting.	Minimize disturbance to waterbirds using Ng Tung, Sheung Yue and Shek Sheung River channels.	Detailed Design Consultant/ Contractor	Ng Tung, Sheung Yue and Shek Sheung Rivers	Detailed design and Construction phases.	^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
S13.9	E17	<p>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.</p> <p>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.</p>	<p>Minimize dust, disturbance, mortality and other adverse ecological impacts on habitats, flora and fauna. Measures to minimize flight- line impacts to birds, especially breeding ardeids.</p>	<p>Contractor</p>	<p>Interface between areas/habitats/ fauna/ flora of ecological importance (e.g. KTN areas B1-3, C1-5, C1- 6, C1-9, C2-2, C2-4, C2-5, D1-8, E1-8, G1- 3, H1-1, Ma Tso Lung Stream and tributaries; 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</p>	<p>Construction phase.</p>	<p>^</p>

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
					of the Fanling Bypass. Riparian corridor of Ma Tso Lung Stream and tributaries.		
S13.9	E18	Compensatory woodland planting, management and maintenance.	Compensate for loss of secondary woodland and hillside plantation of ecological significance.	Project Proponent/ Contractor	KTN areas E1-8 and G1-3.	Construction phase.	N/A
S13.9	E19	Use opaque, non-transparent, non-reflective noise barriers for all construction sites.  Unnecessary lighting should be avoided.	Minimize mortality impacts on birds.	Contractor	All construction sites	Construction phase.	^
S13.9	E20	Pre-site clearance check for presence of flora or fauna of conservation significance and bat roosts. If any are found, measures should be proposed and implemented 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.	Minimize impacts to flora and fauna of conservation significance. Minimize impacts to protected fauna and flora species.  Formulate and implement mitigation measures to	Government/ Developer/ Contractor/ Ecologist	All construction sites.	Prior to clearance of vegetation and structures.	N/A

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		<p>Pre-site clearance check on all construction sites and pre –works commencement check on watercourses to be physically and/or hydrologically impacted by construction activities for presence of protected plant species/specimens of conservation significance. If any are found consider adjustments to avoid, minimize and/or compensate for impacts; including adjustments to design, timing of works,</p> <p>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.</p> <p>Seek agreement of relevant authorities including AFCD in respect of proposed measures, then implement.</p> <p>Pre-site clearance check on all construction sites for presence of Chinese Bullfrog, translocation to suitable areas including LVNP.</p>	<p>avoid, minimize and/or compensate for impacts; including adjustments to design, timing of works, transplantation and translocation.</p>				
S13.9	E21	<p>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</p>	<p>Minimize impacts to flora and fauna of conservation significance. Minimize impacts to protected fauna and flora species. Consider</p>	<p>Government/ Developer/ Contractor/ Ecologist</p>	<p>All construction sites.</p>	<p>Prior to clearance of vegetation and structures.</p>	<p>N/A</p>

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		<p>translocation. Seek agreement of relevant authorities including AFCD in respect of proposed measures, then implement.</p> <p>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</p> <p>Pre-works commencement check on watercourses to be physically and/or hydrologically impacted by construction activities for presence of Small Snakehead and <i>Sommaniathelphusa zanklon</i>. Capture any <i>Sommaniathelphusa zanklon</i> found and translocate to Ma Tso Lung Stream/ other suitable areas including LVNP</p>	<p>and implement adjustments to avoid, minimize or compensate for impacts; including adjustments to design, timing of works, transplantation and translocation</p>				
S13.9	E22	Prevention of dust, run-off and pollutants impacting Deep Bay catchment area and areas of ecological importance.	Avoid increase to pollution entering ecologically sensitive Deep Bay ecosystem.	Contractor	All construction sites.	Construction	N/A
<b><i>Specific Mitigation Measures for Designated Projects</i></b>							
<b><i>DP2- Castle Peak Road Diversion (Major Improvement)</i></b>							
<b><i>Landscape and Visual (Detailed Design, Prior to Construction, Construction and Operational Phases)</i></b>							

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
S.12.A9	LV1-DP2	<p>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.</p> <p>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.</p>		Detailed Design Consultant/ Contractor	Throughout NDAs,	Prior to Construction, Construction & for all planting, this should be installed as soon as the areas become available, to achieve early establishment	N/A
S.12.A9 MM14.4	LV4-DP2	<p>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.</p> <p>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.</p>	Avoid direct impacts to watercourses	Detailed Design Consultant/ Contractor	All watercourses, particularly the stream at Siu Hang San Tsuen that will flow under the Fanling Bypass Eastern Section	Prior to Construction and Construction Phase	N/A
S.12.A9 MM4	LV5-DP2	Tree Protection & Preservation – Existing trees to be retained within the Project Site should be carefully protected during construction.	Protect and Preserve Trees	Government/ Detailed	Onsite	Prior to Construction	^

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		<p>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.</p> <p>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.</p>		Design Consultant/ Contractor		and Construction Phase	
S.12.A9 MM5	LV6- DP2	<p>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.</p>	Transplant Trees where suitable for transplantation	Government Detailed Design Consultant/ Contractor	<i>Onsite where possible, otherwise consider offsite locations</i>	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A

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		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.					
S.12.A9 MM6	LV7- DP2	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.	To avoid substantial slope cutting and fill slopes. To prevent erosion and subsequent loss of landscape resources and character. To ensure man-made slopes are as visually amenable as possible.	Government Detailed Design Consultant/ Contractor	<i>Onsite</i>	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
S.12.A9 MM8	LV9- DP2	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.	Reprovide areas of woodland to compensate for those areas of quality woodland lost.	Project Proponent/ Detailed Design Consultant/ Contractor/ Maintenance Authority	<i>In areas identified in the EIA Landscape Mitigation Plans and as agreed with AFCD</i>	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A



EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		<p>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 &amp; E27 also).</p> <p>Native tree species are suggested for planting in the appropriate locations, including <i>Ailanthus fordii</i>, <i>Bischofia javanica</i>, <i>Castanopsis fissa</i>, <i>Celtis sinensis</i>, <i>Cinnamomum burmannii</i>, <i>Cinnamomum camphora</i>, <i>Xanthoxylum avicennae</i>, <i>Hibiscus tiliaceus</i>, <i>Liquidambar formosana</i>, <i>Sapium discolor</i>, <i>Schefflera heptaphylla</i> and <i>Ilex rotunda</i>. In addition some understory vegetation may be planted including shrubs such as <i>Atalantia buxifolia</i>, <i>Diospyros vaccinioides</i>, <i>Gardenia jasminoides</i>, <i>Ixora chinensis</i>, <i>Ligustrum sinense</i>, <i>Litsea rotundifolia</i>, <i>Melastoma malabathricum</i>, <i>Melastoma dodecandrum</i>, <i>Rhodomyrtus tomentosa</i>, <i>Rhaphiolepis indica</i>, and <i>Rhododendron simsii</i>.</p> <p>The area allocated for compensatory woodland planting allows in part for the fact that it will take some time for the compensatory planting to achieve the landscape and ecological function and value of the area to be lost. In addition, it allows for the fact that not all of the areas identified for planting will prove to be plantable, by virtue of topography and ground 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.</p>					
S.12.A9	LV10-	Vertical Greening – Planting of climbers to grow up vertical surfaces were	Soften hard surfaces and	Government	<i>On appropriate</i>	Prior to	N/A

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MM9	DP2	appropriate (e.g. viaduct piers, noise barriers).	facilities	Detailed Design Consultant/ Contractor	<i>structures</i>	Construction, Construction Phase & Maintenance in Operation Phase	
S.12.A9 MM11	LV11- DP2	Screen Planting – Tall screen/buffer trees and shrubs should be planted. This measure may additionally form part of the compensatory planting.	To screen proposed structures such as roads and buildings. Improve compatibility with the surrounding environment and create a pleasant pedestrian environment	Government Detailed Design Consultant/ Contractor	<i>Along roads, around suitable built structures, or around VSRs to contain their view out to the NDA structures.</i>	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
S.12.A9 MM12	LV12- DP2	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	To soften the hard, straight edges and provide greening along roads.	Government Detailed Design Consultant/ Contractor	<i>On viaducts or along roads.</i>	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		<p>forms and textural finishes which improve aesthetics.</p> <p>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)</p>					
S.12.A9 MM13 & EIA Annex 13	LV13- DP2	<p>Marsh/Wetland Compensation –The proposed Long Valley Nature Park (LVNP) will be designed and implemented to enhance onwetland areas within the LVNP. (See E4,E15 and E25 also)</p> <p>Also see LV16, LV17, and LV18 as wetland planting should be provided along the embankments and beds of modified/ reprovisioned watercourses.</p>	Compensate for Marsh/ Wetland lost due to the Project.	Project Proponent/ Detailed Design Consultant/ Contractor/ Maintenance Authority	<i>Onsite where possible. Otherwise consider offsite locations</i>	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
S.12.A9 MM14.3	LV14- DP2	<p>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.</p> <p>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</p>	Minimize the necessity of watercourse modification, protect watercourses where possible and enhance channelized watercourses	Government / Detailed Design Consultant/ Contractor	<i>Channelized watercourse, particularly the Ma Wat River Channel Diversion</i>	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		<p>maintenance work can be carried out and that the channel meets all its requirements for water flow, etc.</p> <p>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.</p>					
S.12.A9 MM15	LV15- DP2	<p>Pond Replacement –Principles adopted in the design of the NDAs ensure that they incorporate ponds within the RODPs.</p> <p>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.</p>	<p>Reprovision for ponds lost due to the Project.</p>	<p>Project Proponent/ Detailed Design Consultant/ Contractor/ Maintenance Authority</p>	<p><i>E1-7 and C1-9 (LVNP) in KNT NDA and generally throughout NDA</i></p>	<p>Prior to Construction, Construction Phase Maintenance in Operation Phase</p>	N/A
<b><i>Landscape and Visual (Construction)</i></b>							
S.12.A9 MM16	LV16- DP2	<p>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, nonreflective, recessive colours be used.</p> <p>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).</p>	<p>To screen undesirable views of the works site.</p>	<p>Contractor</p>	<p><i>Throughout NDAs</i></p>	<p>Construction Phase</p>	<p>^</p>

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
S.12.A9 MM17	LV17- DP2	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.	To minimize glare impact to adjacent VSRs	Government / Contractor	Throughout NDAs	Construction and Operation Phases	^
<b>Ecology (Detailed Design, Construction and Operational Phases)</b>							
S13.9	E2-DP2	Use opaque, non-transparent, non-reflective noise barriers.  Unnecessary lighting should be avoided.	Minimize mortality impacts on birds.	Detailed Design Consultant/ Contractor/ Maintenance Authority	Within NDA.	Detailed design phase, Construction phase and Operation phase.	^
<b>Ecology (Construction Phase)</b>							
S.13.9	E3-DP2	Design and erection of 2m high solid dull green site barrier fence between active works areas and all areas/habitats of ecological importance.	Minimize dust, disturbance, mortality and other adverse ecological impacts on habitats, flora and fauna.	Contractor.	Interface between areas/habitats of ecological importance (KTN area B1-3) and works areas.	Construction phase.	^
S13.9	E4-DP2	Compensatory native woodland planting.	Compensate for loss of	Project	KTN NDA areas	Construction	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
			plantation of ecological significance.	Proponent / Contractor	E1-8 and G1-3.	phase.	
<b>Cultural Heritage (Construction Phase)</b>							
S11.6.2	CH5-DP2	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.	To minimize the potential impacts during Construction phase on any identified potential vibration impacted built heritage features	Project Proponent/ Contractor	Identified potential vibration impacted built heritage features	Construction phase, with details specified in baseline condition survey and baseline vibration impact assessment,	N/A
<b>DP3- KTN NDA Road P1 and P2 (New Road) and associated new Kwu Tung Interchange (New Road) and Pak Shek Au Interchange Improvement (Major Improvement)</b>							
<b>Landscape and Visual (Detailed Design, Prior to Construction, Construction and Operational Phases)</b>							
S.12.A9	LV1-DP3	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.		Detailed Design Consultant/ Contractor	Throughout NDAs,	Prior to Construction, Construction & for all planting, this should be installed as soon as the areas become available, to achieve early establishment	^
S.12.A9	LV4-	Avoid affecting Watercourses – In the detailed design, consideration should	Avoid direct impacts to	Detailed	All watercourses,	Prior to Construction	^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
MM14.4	DP3	<p>be made of watercourses, to minimize any impacts e.g. at new bridge crossings, viaducts, road alignment etc.</p> <p>Guidelines stated should be followed.</p> <p>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.</p> <p>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.</p> <p>Bridges and box culverts should also be used to minimize the necessity of watercourse modification and protect the watercourses where necessary.</p>	watercourses	Design Consultant/ Contractor	<i>particularly the stream at Siu Hang San Tsuen that will flow under the Fanling Bypass Eastern Section</i>	And Construction Phase	
S.12.A9 MM4	LV5- DP3	<p>Tree Protection &amp; Preservation – Existing trees to be retained within the Project Site should be carefully protected during construction.</p> <p>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.</p> <p>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</p>	Protect and Preserve Trees	Government Detailed Design Consultant/ Contractor	<i>Onsite</i>	Prior to Construction and Construction Phase	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		propose which trees should be retained, transplanted or felled and will include details of tree protection measures for those trees to be retained.					
S.12.A9 MM5	LV6- DP3	<p>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.</p> <p>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.</p> <p>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.</p>	Transplant Trees where suitable for transplantation	Government Detailed Design Consultant/ Contractor	<i>Onsite where possible. Otherwise consider offsite locations.</i>	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
S.12.A9 MM6	LV7- DP3	<p>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</p>	<p>To avoid substantial slope cutting and fill slopes.</p> <p>To prevent erosion and</p>	Government Detailed Design Consultant/	<i>Onsite</i>	Prior to Construction, Construction Phase &	N/A



EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		<p>slope gradient and site conditions allow.</p> <p>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.</p>	<p>subsequent loss of landscape resources and character.</p> <p>To ensure man-made slopes are as visually amenable as possible.</p>	Contractor		Maintenance in Operation Phase	
S.12.A9 MM7	LV8-DP3	<p>Compensatory Planting – Compensatory tree planting for felled trees shall be provided to the satisfaction of relevant Government departments. Required numbers and locations of compensate orytrees shall be determined and agreed separately with Government during the Tree Removal Application process under ETWBTC 3/2006.</p> <p>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.</p>	Compensate for trees and shrubs lost due to the Project.	Government Detailed Design Consultant/ Contractor	<p><i>Onsite where possible.</i></p> <p><i>Otherwise consider offsite locations</i></p>	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
S.12.A9	LV9-	Woodland Compensatory Planting –Specific Woodland compensatory	Reprovide areas of	Project	<i>In areas</i>	Prior to	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
MM8	DP3	<p>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.</p> <p>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 &amp; E27 also). Native tree species are suggested for planting in the appropriate locations, including <i>Ailanthus fordii</i>, <i>Bischofia javanica</i>, <i>Castanopsis fissa</i>, <i>Celtis sinensis</i>, <i>Cinnamomum burmannii</i>, <i>Cinnamomum camphora</i>, <i>Xanthoxylum avicennae</i>, <i>Hibiscus tiliaceus</i>, <i>Liquidambar formosana</i>, <i>Sapium discolor</i>, <i>Schefflera heptaphylla</i> and <i>Ilex rotunda</i>. In addition some understory vegetation may be planted including shrubs such as <i>Atalantia buxifolia</i>, <i>Diospyros vaccinioides</i>, <i>Gardenia jasminoides</i>, <i>Ixora chinensis</i>, <i>Ligustrum sinense</i>, <i>Litsea rotundifolia</i>, <i>Melastoma malabathricum</i>, <i>Melastoma dodecandrum</i>, <i>Rhodomyrtus tomentosa</i>, <i>Rhaphiolepis indica</i>, and <i>Rhododendron simsii</i>. The area allocated for compensatory woodland planting allows in part for the fact that it will take some time for the compensatory planting to achieve the landscape and ecological function and value of the area to be lost. In addition, it allows for</p>	<p>woodland to compensate for those areas of quality woodland lost.</p>	<p>Proponent/ Detailed Design Consultant/ Contractor/ Maintenance Authority</p>	<p><i>identified in the EIA Landscape Mitigation Plans and as agreed with AFCD</i></p>	<p>Construction, Construction Phase &amp; Maintenance in Operation Phase</p>	

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		the fact that not all of the areas identified for planting will prove to be plantable, by virtue of topography and ground 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.A9 MM9	LV10- DP3	Vertical Greening – Planting of climbers to grow up vertical surfaces were appropriate (e.g. viaduct piers, noise barriers).	Soften hard surfaces and facilities	Government Detailed Design Consultant/ Contractor	<i>On appropriate structures</i>	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
S.12.A9 MM11	LV11- DP3	Screen Planting – Tall screen/buffer trees and shrubs should be planted. This measure may additionally form part of the compensatory planting.	To screen proposed structures such as roads and buildings. Improve compatibility with the surrounding environment and create a pleasant pedestrian environment	Government Detailed Design Consultant/ Contractor	<i>Along roads, around suitable built structures, or around VSRs to contain their view out to the NDA structures.</i>	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
S.12.A9	LV12-	Road Greening –For viaducts, soft landscaping should be provided to soften	To soften the hard,	Government	<i>On viaducts or</i>	Prior to	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
MM12	DP3	<p>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.</p> <p>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)</p>	straight edges and provide greening along roads.	Detailed Design Consultant/ Contractor	<i>along roads.</i>	Construction, Construction Phase & Maintenance in Operation Phase	
S.12.A9 MM13 EIA Annex 13	LV13- DP3	<p>Marsh/Wetland Compensation –The proposed Long Valley Nature Park (LVNP) will be designed and implemented to enhance onwetland areas within the LVNP. (See E4,E15 and E25 also)</p> <p>Also see LV16, LV17, and LV18 as wetland planting should be provided along the embankments and beds of modified/ reprovisioned watercourses.</p>	Compensate for Marsh/ Wetland lost due to the Project.	Project Proponent/ Detailed Design Consultant/ Contractor/ Maintenance Authority	<i>Onsite where possible. Otherwise consider offsite locations</i>	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
S.12.A9 MM14.3	LV14- DP3	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	Minimize the necessity of watercourse modification,	Government / Detailed Design	<i>Channelized watercourse, particularly the</i>	Prior to Construction, Construction	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		<p>Design, should be considered and appropriate mitigation measures included ensuring the new watercourses match the existing as far as possible.</p> <p>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.</p>	<p>protect watercourses where possible and enhance channelized watercourses</p>	<p>Consultant/ Contractor</p>	<p><i>Ma Wat River Channel Diversion</i></p>	<p>Phase &amp; Maintenance in Operation Phase</p>	
S.12.A9 MM15	LV15- DP3	<p>Pond Replacement –Principles adopted in the design of the NDAs ensure that they incorporate ponds within the RODPs.</p> <p>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.</p>		<p>Project Proponent/ Detailed Design Consultant/ Contractor/ Maintenance Authority</p>	<p><i>E1-7 and C1-9 (LVNP) in KNT NDA and generally throughout NDA</i></p>	<p>Prior to Construction, Construction Phase Maintenance in Operation Phase</p>	N/A
<b>Landscape and Visual (Construction)</b>							
S.12.A9 MM16	LV16- DP3	<p>Screen Hoarding –Screen hoarding shall be erected along areas of the construction works site boundary where the works site borders publically</p>	<p>To screen undesirable views</p>	<p>Contractor</p>	<p><i>Throughout NDAs</i></p>	<p>Construction Phase</p>	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		<p>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, nonreflective, recessive colours be used.</p> <p>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).</p>	of the works site.				
S.12.A9 MM17	LV17- DP3	<p>Light Control – Construction day and night time lighting should be controlled to minimize glare impact to adjacent VSRs during the Construction phase.</p> <p>Street and night time lighting shall also be controlled to minimize glare impact to adjacent VSRs during the operation phase.</p>	To minimize glare impact to adjacent VSRs	Government / Contractor	<i>Throughout NDAs</i>	Construction and Operation Phases	N/A
<b>Ecology (Detailed Design, Construction and Operational Phases)</b>							
S.13.9	E3-DP3	<p>Use opaque, non-transparent, non-reflective noise barriers.</p> <p>Unnecessary lighting should be avoided.</p>	Minimize mortality impacts on birds.	Detailed Design Consultant/ Contractor Maintenance Authority.	Throughout.	Detailed design, Construction and Operation phases.	^
<b>Ecology (Construction Phase)</b>							
S.13.9	E4-DP3	Creation of proposed Long Valley Nature Park and creation and enhancement of wetland and woodland areas and buffer planting within LVNP.	Compensate for wetland loss arising from the project.	Project Proponent/ Contractor	Long Valley	Construction phase.	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
				(LVNP Detailed Habitat Creation & Management Plan).			
S.13.9	E5-DP3	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.	Minimize dust, disturbance, mortality and other adverse ecological impacts on habitats, flora and fauna.  Measures to minimize flightline impacts to birds,	Contractor.	Interface between areas/habitats of ecological importance (KTN areas B1-3, H1-1) and works areas.	Construction phase.	N/A
S13.9	E6-DP3	Compensatory native woodland planting.	Compensate for loss of plantation of ecological significance.	Project Proponent / Contractor	KTN areas E1-8 and G1-3.	Construction phase.	N/A
<b>DP4- KTN NDA Road D1 to D5 (New Road)</b>							
<b>Landscape and Visual (Detailed Design, Prior to Construction, Construction and Operational Phases)</b>							
S.12.A9	LV1-DP4	General Good Practice Measures - For areas unavoidably disturbed by the Project on a short term basis e.g. works areas, the general principle to		Detailed Design Consultant/	<u>Throughout</u> <u>NDA</u> s,	Prior to Construction, Construction & for all	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		<p>try and restore these to their former state to suit future land use, should be adhered to.</p> <p>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.</p>		Contractor		planting, this should be installed as soon as the areas become available, to achieve early establishment	
S.12.A9 MM1	LV2- DP4	<p>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.</p>	Reduce topographical changes and minimize land resumption	Government / Detailed Design Consultant/ Contractor/	<u>Throughout NDAs, particularly for reservoirs</u>	Prior to Construction	N/A
S.12.A9 MM2	LV3- DP4	<p>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</p>	Improve visual amenity of the new buildings, NDAs in general and integrate as best possible	Detailed Design Consultant/	Throughout NDAs	Prior to Construction	N/A



EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		<p>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.</p> <p>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.</p> <p>Construction time frame should also be considered and designs seek to keep it to a practical minimum.</p>	<p>into the surrounding landscape</p>				
S.12.A9	LV4-	Tree Protection & Preservation – Exiting trees to be retained within the	Protect and Preserve Trees	Government /	Onsite	Prior to Construction	^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
MM4	DP4	<p>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.</p> <p>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.</p>		Detailed Design Consultant/ Contractor		and Construction Phase	
S.12.A9 MM5	LV5- DP4	<p>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.</p> <p>A detailed transplanting proposal will be submitted to relevant government departments for approval in accordance with ETWBTC</p>	Transplant Trees where suitable for transplantation	Government / Detailed Design Consultant/ Contractor	Onsite possible. Consider locations where Otherwise offsite locations	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		<p>2/2004 and 3/2006 and final locations of transplanted trees should be agreed prior to commencement of the work.</p> <p>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.</p>					
S.12.A9 MM6	LV6- DP4	<p>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.</p> <p>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.</p>	<p>To avoid substantial slope cutting and fill slopes.</p> <p>To prevent erosion and subsequent loss of landscape resources and character.</p> <p>To ensure man-made slopes are as visually amenable as possible.</p>	Government Detailed Design Consultant/ Contractor	Onsite	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
S.12.A9 MM7	LV7- DP4	<p>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.</p> <p>Compensatory planting is proposed at the potential open areas such as</p>	Compensate for trees and shrubs lost due to the Project.	Government Detailed Design Consultant/ Contractor	Onsite where possible. Otherwise consider offsite locations	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		<p>open spaces, amenity areas, open areas of the streetscapes, as well as the open areas within development lots.</p> <p>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..</p>					
S.12.A9 MM8	LV8- DP4	<p>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.</p> <p>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 &amp; E27 also).</p> <p>Native tree species are suggested for planting in the appropriate locations, including <i>Ailanthus fordii</i>, <i>Bischofia javanica</i>, <i>Castanopsis fissa</i>, <i>Celtis sinensis</i>, <i>Cinnamomum burmannii</i>, <i>Cinnamomum camphora</i>,</p>	<p>Reprovide areas of woodland to compensate for those areas of quality woodland lost.</p>	<p>Project Proponent/ Detailed Design Consultant/ Contractor/ Maintenance Authority</p>	<p>In areas identified in the EIA Landscape Mitigation Plans and as agreed with AFCD</p>	<p>Prior to Construction, Construction Phase &amp; Maintenance in Operation Phase</p>	<p>N/A</p>

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		<p>Xanthoxylum avicennae, Hibiscus tiliaceus, Liquidambar formosana, Sapium discolor, Schefflera heptaphylla and Ilex rotunda. In addition some understory vegetation may be planted including shrubs such as Atalantia buxifolia, Diospyros vaccinioides, Gardenia jasminoides, Ixora chinensis, Ligustrum sinense, Litsea rotundifolia, Melastoma malabathricum, Melastoma dodecandrum, Rhodomyrtus tomentosa, Rhapsiolepis indica, and Rhododendron simsii.</p> <p>The area allocated for compensatory woodland planting allows in part for the fact that it will take some time for the compensatory planting to achieve the landscape and ecological function and value of the area to be lost. In addition, it allows for the fact that not all of the areas identified for planting will prove to be plantable, by virtue of topography and ground 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.</p>					
S.12.A9 MM9	LV9- DP4	Vertical Greening – Planting of climbers to grow up vertical surfaces were appropriate (e.g. viaduct piers, noise barriers).	Soften hard surfaces and facilities	Government / Detailed Design Consultant/ Contractor	On appropriate structures	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
S.12.A9 MM11	LV10- DP4	Screen Planting – Tall screen/buffer trees and shrubs should be planted. This measure may additionally form part of the compensatory planting.	To screen proposed structures such as roads	Government / Detailed Design	Along roads, around suitable	Prior to Construction, Construction Phase &	N/A

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			and buildings. Improve compatibility with the surrounding environment and create a pleasant pedestrian environment	Consultant/ Contractor	built structures , or around VSRS to contain their view out to the NDA structures.	Maintenance in Operation Phase	
S.12.A9 MM12	LV11- DP4	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)	To soften the hard, straight edges and provide greening along roads.	Government Detailed Design Consultant/ Contractor	On viaducts or along roads.	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
S.12.A9 MM13 & EIA Annex 13	LV12- DP4	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)  Also see LV16, LV17, and LV18 as wetland planting should be provided	Compensate for Marsh/ Wetland lost due to the Project.	Project Proponent/ Detailed Design Consultant/	Onsite where possible. Otherwise consider offsite	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		along the embankments and beds of modified/ re-provisioned watercourses.		Contractor/ Maintenance Authority	locations		
S.12.A9 MM15	LV13- DP4	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.	Reprovision for ponds lost due to the Project.	Project Proponent/ Detailed Design Consultant/ Contractor/ Maintenance Authority	E1-7 and C1-9 (LVNP) in KNT NDA and generally throughout NDA	Prior to Construction, Construction Phase  Maintenance in Operation Phase	N/A
<b><i>Landscape and Visual (Construction)</i></b>							
S.12.A9 MM16	LV14- DP4	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).	To screen undesirable views of the works site.	Contractor			N/A
S.12.A9 MM17	LV15- DP4	Light Control – Construction day and night time lighting should be controlled to minimize glare impact to adjacent VSRs during the	To minimize glare impact to adjacent VSRs	Government / Contractor	<u>Throughout NDAs</u>	Construction and Operation Phases	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		Construction phase. Street and night time lighting shall also be controlled to minimize glare impact to adjacent VSRs during the operation phase.					
<b>Ecology (Prior to Detailed Design Prior to Construction Phase)</b>							
S. 13.9	E1-DP4	Egretry Habitat Creation & Management Plan (EHCMP) and Woodland Planting and Management Plan (WPMP)	Compensate for loss of Man Kam To Road egretry. Compensate for loss of secondary woodland and hillside plantation of ecological significance.	Project Proponent/ Detailed Design Consultant (EHCMP and WPMP).	FLN area A1-7 (egretry compensation). KTN areas E1-8 and G1-3 (woodland compensation).	Detailed design phase.	N/A
<b>Ecology (Detailed Design, Construction and Operational Phases)</b>							
S13.9	E2-DP4	Use opaque, non-transparent, non-reflective noise barriers. Unnecessary lighting should be avoided.	Minimize mortality impacts on birds.	Detailed Design Consultant/ Contractor Maintenance Authority.	Throughout.	Throughout.	N/A
<b>Ecology (Construction Phase)</b>							
S.13.9	E3-DP4	Design and erection of 2m high solid dull green site barrier fence between active works areas and all areas/habitats of ecological importance.	Minimize dust, disturbance, mortality and other adverse ecological impacts on habitats, flora	Contractor.	Interface between areas/habitats of ecological importance (KTN	Construction phase.	N/A



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			and fauna.		areas B1-3, E1-8, G1-3 and H1-1) and works areas		
S13.9	E4-DP4	Compensatory native woodland planting.	Compensate for loss of plantation of ecological significance.	Project Proponent / Contractor	KTN areas E1-8 and G1-3.	Construction phase.	N/A
S13.8	E5-DP4	Maintenance of compensatory native woodland planting.	Compensate for loss of plantation of ecological significance.	Maintenance Authority.	KTN areas E1-8 and G1-3.	Operation phase	N/A
<b>Cultural Heritage (Pre-construction Phase)</b>							
S11.6.1	CH1-DP4	<u>Undertaking Survey-cum-Rescue Excavation</u> A Survey-cum-Rescue Excavation should be conducted after land resumption and before the commencement of construction works to define the precise archaeological deposits extent and to preserve the archaeological resources by record. The excavation should be conducted by a professional archaeologist and prior to fieldwork commencement, the archaeologist should obtain a Licence to Excavate and Search for Antiquities from the Authority under the AM Ordinance.	To define the precise archaeological deposits extent and to preserve the archaeological resources as far as possible.	Project Proponent / Contractor/ Qualified Archaeologist	In KTN NDA, for Site 1	After land resumption but before Construction commencement of the zones	N/A
S11.6.1	CH2-DP4	<u>Undertaking Further Archaeological Survey to Cover the Outstanding Areas</u> Further archaeological surveys to cover the outstanding areas of the not-yet-surveyed-area with medium archaeological potential located with	To confirm and verify the findings of the EIA	Project Proponent/ Contractor/ Qualified	In the not-yet-surveyed- areas with medium archaeological	After land resumption but before construction	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		<p>areas with proposed development as presented in <b>Figure 11.9</b> should be implemented after land resumption to confirm and verify the findings of the EIA. The survey should be conducted by a professional archaeologist and prior to fieldwork commencement, the archaeologist should obtain a Licence to Excavate and Search for Antiquities from the Authority under the AM Ordinance. It should be noted that the scope of further archaeological survey is based on the current proposed alignment. Any additional works areas which have not been covered by the current archaeological impact assessment should be covered as soon as possible. Subject to the findings of the archaeological survey to be conducted after land resumption, additional mitigation measures would be designed and implemented before the commencement of construction works to mitigate the adverse impact.</p>		Archaeologist	potential located within the work extent of DP4		
S11.6.1	CH3-DP4	<p><u>Undertaking Induction Training</u> Induction training should be provided to the construction Contractor before the commencement of the excavation works in Spot E. An induction will be conducted as part of the environmental health and safety induction programme to all site staff before they are deployed on site. The induction will include an introduction on the historical development of the Site, the possible archaeological remains that may be encountered during ground excavation works as well as the reporting procedures in case suspected archaeological remains are identified. A set</p>	To preserve the archaeological resources as far as possible	Project Proponent/ Contractor/ Qualified Archaeologist	Spot E	Before the commencement of the excavation works and before site staff are deployed on site	N/A

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		of the presentation material (in the form of power point presentation) with content details will be prepared by an archaeologist and submitted to AMO for reference and record purpose. The first induction briefing will be video recorded and it will be used as induction briefing material for new site staff.					
S11.6.2	CH4-DP4	<p><u>Conducting Photographic and Cartographic Records Prior to Removal/Relocation of Impacted Built Heritages</u></p> <p>Prior to removal/relocation of the directly impacted historical buildings and cultural/historical landscape features, photographic and cartographic records should be conducted to preserve them by record. Liaison with and obtaining agreement from the descendants of these features will be carried out by the Project Proponent.</p>	To preserve the directly impacted sites by record prior to their removal / relocation	Project Proponent/ Contractor	Entrance Gate of HKT03, KT16, KT17 and KT18	Prior to Removal / Relocation of features before commencement of construction works	N/A
S11.6.2	CH5-DP4	<p><u>Undertaking baseline condition survey and baseline vibration impact assessment</u></p> <p>In case any potential vibration impact on any nearby built heritage features are identified during the pre-construction stage of the Project, prior to commencement of construction works, a baseline condition survey and baseline vibration impact assessment should be conducted by a qualified building surveyor or a qualified structural engineer to define the vibration limit (a vibration limit at 15mm/s could be adopted for historic buildings) and to evaluate if construction vibration monitoring and structural strengthening measures are required during construction</p>	To minimize the vibration impacts during preconstruction stage on any identified potential vibration impacted built heritage features	Project Proponent/ Contractor	HKT03 (Main Building) and G308	Preconstruction stage before commencement of construction works	N/A

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		phase so as to ensure the construction performance meets with the vibration standard stated in the EIA report.					
S11.6.2	CH6-DP4	<u>Relocation of Built Heritages</u> Relocation of built heritages to a reasonable location nearby may be required.	To preserve the directly impacted sites by relocation	Project Proponent/ Contractor	Entrance Gate of HKT03	After the photographic and cartographic records and before commencement of construction works	N/A
<b>Cultural Heritage (Construction Phase)</b>							
S11.6.2	CH7-DP4	<u>Conducting Construction Vibration Monitoring and Structural Strengthening Measures</u> 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.	To minimize the potential impacts during Construction phase on any identified potential vibration impacted built heritage features	Contractor	Identified potential vibration impacted built heritage features	Construction phase, with details specified in baseline condition survey and baseline vibration impact assessment,	N/A
<b>DP5- New sewage pumping stations (SPSs) in KTN NDA</b>							
<b>Landscape and Visual (Detailed Design, Prior to Construction, Construction and Operational Phases)</b>							
S.12.B9	S.12.B9	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		Detailed Design Consultant/ Contractor/	Throughout NDAs,	Prior to Construction, Construction & for all planting,	N/A

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		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.				this should be installed as soon as the areas become available, to achieve early establishment	
S.12.B9 MM1	LV2- DP5	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.	Reduce topographical changes and minimize land resumption	Government / Detailed Design Consultant/ Contractor/	Throughout NDAs, particularly for reservoirs	Prior to Construction	N/A
S.12.B9 MM2	LV3- DP5	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,	Improve visual amenity of the new buildings, NDAs in	Detailed Design Consultant/	Throughout NDAs	Throughout NDAs	N/A

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		<p>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.</p> <p>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 Construction time frame should also be considered.</p>	<p>general and integrate as best possible into the surrounding landscape</p>				
S.12.B9 MM4	LV4- DP5	<p>Tree Protection &amp; Preservation – Existing trees to be retained within the Project Site should be carefully protected during construction.</p> <p>In particular OVTs will be preserved according to ETWB Technical Circular</p>	<p>Protect and Preserve Trees</p>	<p>Government Detailed Design</p>	<p>Onsite</p>	<p>Prior to Construction and</p>	<p>^</p>

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		<p>(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.</p> <p>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.</p>		Consultant/ Contractor		Construction Phase	
S.12.B9 MM5	LV5- DP5	<p>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.</p> <p>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.</p>	Transplant Trees where suitable for transplantation	Government  Detailed Design Consultant/ Contractor	Onsite where possible.  Otherwise consider offsite location.	Prior to Construction,, Construction Phase & Maintenance in Operation Phase	N/A

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		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.					
S.12.B9 MM6	LV6- DP5	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.	To avoid substantial slope cutting and fill slopes.  To prevent erosion and subsequent loss of landscape resources and character.  To ensure man-made slopes are as visually amenable as possible.	Government/  Detailed Design  Consultant/	Onsite	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
S.12.B9 MM7	LV7- DP5	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	Compensate for trees and shrubs lost due to the Project.	Government/  Detailed Design  Consultant/  Contractor	Onsite where possible.  Otherwise consider offsite locations	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A



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		<p>spaces, amenity areas, open areas of the streetscapes, as well as the open areas within development lots.</p> <p>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.</p>					
S.12.B9 MM8	LV8- DP5	<p>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.</p> <p>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 &amp; E27 also).</p> <p>Native tree species are suggested for planting in the appropriate locations, including <i>Ailanthus fordii</i>, <i>Bischofia javanica</i>, <i>Castanopsis fissa</i>, <i>Celtis sinensis</i>, <i>Cinnamomum burmannii</i>, <i>Cinnamomum camphora</i>, <i>Xanthoxylum</i></p>	Reprovide areas of woodland to compensate for those areas of quality woodland lost.	Project Proponent/ Detailed Design Consultant/ Contractor/ Maintenance Authority	In areas identified in the EIA Landscape Mitigation Plans and as agreed with AFCD	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		<p><i>avicennae</i>, <i>Hibiscus tiliaceus</i>, <i>Liquidambar formosana</i>, <i>Sapium discolor</i>, <i>Schefflera heptaphylla</i> and <i>Ilex rotunda</i>. In addition some understory vegetation may be planted including shrubs such as <i>Atalantia buxifolia</i>, <i>Diospyros vaccinioides</i>, <i>Gardenia jasminoides</i>, <i>Ixora chinensis</i>, <i>Ligustrum sinense</i>, <i>Litsea rotundifolia</i>, <i>Melastoma malabathricum</i>, <i>Melastoma dodecandrum</i>, <i>Rhodomyrtus omentosa</i>, <i>Rhaphiolepis indica</i>, and <i>Rhododendron simsii</i>.</p> <p>The area allocated for compensatory woodland planting allows in part for the fact that it will take some time for the compensatory planting to achieve the landscape and ecological function and value of the area to be lost. In addition, it allows for the fact that not all of the areas identified for planting will prove to be plantable, by virtue of topography and ground 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.</p>					
S.12.B9 MM9	LV9- DP5	Vertical Greening – Planting of climbers to grow up vertical surfaces were appropriate (e.g. viaduct piers, noise barriers).	Soften hard surfaces and facilities	Government / Detailed Design Consultant/ Contractor	<i>On appropriate structures</i>	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
S.12.B9 MM10	LV10- DP5	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.	Reduce exposure to untreated concrete surfaces and particularly mitigate visual impact to VSRs at high levels. Provide greening.	Government / Detailed Design Consultant/ Contractor	<i>On appropriate buildings</i>	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
S.12.B9 MM11	LV11- DP5	Screen Planting – Tall screen/buffer trees and shrubs should be implanted. This measure may additionally form part of the compensatory planting.	To screen proposed structures such as roads and buildings. Improve compatibility with the surrounding environment and create a pleasant pedestrian environment	Government / Detailed Design Consultant/ Contractor	<i>Along roads, around suitable built structures, or around VSRs to contain their view out to the NDA structures.</i>	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
S.12.B9 MM14.3	LV12- DP5	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	Minimize the necessity of watercourse modification, protect watercourses where possible and enhance channelized watercourses	Government / Detailed Design Consultant/ Contractor	<u>Channelized watercourse, particularly the Ma Wat River Channel Diversion</u>	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		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.					
<b>Landscape and Visual (Construction)</b>							
S.12.B9 MM16	LV13- DP5	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, nonreflective, 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).	To screen undesirable views of the works site.	Contractor	<i>Throughout NDAs</i>	Construction Phase	N/A
S.12.B9 MM17	LV14- DP5	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.	To minimize glare impact to adjacent VSRs	Government / Contractor	<i>Throughout NDAs</i>	Construction and Operation Phases	^
<b>Ecology (Construction Phase)</b>							
S.13.9	E1-DP5	Design and erection of 2m high solid dull green site barrier fence	Minimize dust,	Contractor.	<i>Interface</i>	Construction phase.	N/A

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		between active works areas and all areas/habitats of ecological importance.	disturbance, mortality and other adverse ecological impacts on habitats, flora and fauna.		<i>between areas/habitats of ecological importance and works areas (all sides of KTN area F1-2).</i>		
<b><i>DP7-Utilization of Treated Sewage Effluent (TSE) from Shek Wu Hui Sewage Treatment Works (SWHSTW)</i></b>							
<b><i>Landscape and Visual (Construction Phase and Operational Phase)</i></b>							
S.12.9 MM4	LV1- DP7	<p>Tree Protection &amp; Preservation – Existing 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.</p> <p>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</p>	Protect and Preserve Trees	Government / Detailed Design Consultant/ Contractor	<i>Onsite</i>	Prior to Construction and Construction Phase	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		tree protection measures for those trees to be retained.					
S.12.9 MM9	LV2-DP7	Vertical Greening – Planting of climbers to grow up vertical surfaces were appropriate (e.g. building edges, piers).	Soften hard surfaces and facilities	Government / Detailed Design Consultant/ Contractor	<i>On appropriate structures</i>	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
S.12.9 MM10	LV3-DP7	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.	Reduce exposure to untreated concrete surfaces and particularly mitigate visual impact to VSRs at high levels. Provide greening.	Government / Detailed Design Consultant/ Contractor	<i>On appropriate buildings</i>	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
<b>DP10- Fanling Bypass Eastern Section (New Road)</b>							
<b>Landscape and Visual (Detailed Design, Prior to Construction, Construction and Operational Phases)</b>							
S.12.D9	LV1-DP10	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		Detailed Design Consultant/ Contractor	<i>Throughout NDAs.</i>	Prior to Construction, Construction & for all planting, this should be installed as soon as the areas become	^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		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.				available, to achieve early establishment	
S.12.D9 MM1	LV2-DP10	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.	Reduce topographical changes and minimize land resumption	Government/ Detailed Design Consultant/ Contractor	<u>Throughout NDAs, particularly for reservoirs</u>	Prior to Construction	N/A
S.12.D9 MM4	LV3-DP10	Tree Protection & Preservation – Existing 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	Protect and Preserve Trees	Government/ Detailed Design Consultant/ Contractor	<u>Onsite</u>	Prior to Construction and Construction Phase	^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		<p>works adjacent to all retained trees, including trees in Contractor’s works areas.</p> <p>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.</p>					
S.12.D9 MM5	LV4- DP10	<p>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.</p> <p>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.</p> <p>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</p>	Transplant Trees where suitable for transplantation	Government/ Detailed Design Consultant/ Contractor	<u>Onsite where possible.</u> <u>Otherwise consider offsite locations</u>	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A



EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		referred to.					
S.12.D9 MM6	LV5- DP10	<p>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.</p> <p>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.</p>	<p>To avoid substantial slope cutting and fill slopes.</p> <p>To prevent erosion and subsequent loss of landscape resources and character.</p> <p>To ensure man-made slopes are as visually amenable as possible.</p>	<p>Government/ Detailed Design  Consultant/ Contractor</p>	<p><u>Onsite</u></p>	<p>Prior to Construction, Construction Phase &amp; Maintenance in Operation Phase</p>	<p>N/A</p>
S.12.D9 MM7	LV6- DP10	<p>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.</p> <p>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.</p> <p>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</i></p>	<p>Compensate for trees and shrubs lost due to the Project.</p>	<p>Government/ Detailed Design  Consultant/ Contractor</p>	<p><u>Onsite where possible.</u> <u>Otherwise consider offsite locations</u></p>	<p>Prior to Construction, Construction Phase &amp; Maintenance in Operation Phase</p>	<p>N/A</p>

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		<i>dodecandrum, Atalantia buxifolia, Rhodomyrtus tomentosa, Rhapsiolepis indica, and Rhododendron simsii</i> are suggested.					
S.12.D9 MM8	LV7- DP10	<p>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.</p> <p>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 &amp; E27 also).</p> <p>Native tree species are suggested for planting in the appropriate locations, including <i>Ailanthus fordii, Bischofia javanica, Castanopsis fissa, Celtis sinensis, Cinnamomum burmannii, Cinnamomum camphora, Xanthoxylum avicennae, Hibiscus tiliaceus, Liquidambar formosana, Sapium discolor, Schefflera heptaphylla and Ilex rotunda</i>. In addition some understory vegetation may be planted including shrubs such as <i>Atalantia buxifolia, Diospyros vaccinioides, Gardenia jasminoides, Ixora chinensis, Ligustrum sinense, Litsea rotundifolia, Melastoma malabathricum, Melastoma dodecandrum, Rhodomyrtus tomentosa,</i></p>	Reprovide areas of woodland to compensate for those areas of quality woodland lost.	Project Proponent/ Detailed Design Consultant/ Contractor/ Maintenance Authority	<u><i>In areas identified in the EIA Landscape Mitigation Plans and as agreed with AFCD</i></u>	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A

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		<i>Rhaphiolepis indica, and Rhododendron simsii.</i> <i>The area allocated for compensatory woodland planting allows in part for the fact that it will take some time for the compensatory planting to achieve the landscape and ecological function and value of the area to be lost. In addition, it allows for the fact that not all of the areas identified for planting will prove to be plantable, by virtue of topography and ground 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.</i>					
S.12.D9 MM9	LV8- DP10	Vertical Greening – Planting of climbers to grow up vertical surfaces were appropriate (e.g. viaduct piers, noise barriers).	Soften hard surfaces and facilities	Government/ Detailed Design Consultant/ Contractor	<u>On appropriate structures</u>	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
S.12.D9 MM11	LV9- DP10	Screen Planting – Tall screen/buffer trees and shrubs should be planted. This measure may additionally form part of the compensatory planting.	To screen proposed structures such as roads and buildings. Improve compatibility with the surrounding environment and create a pleasant pedestrian environment	Government/ Detailed Design Consultant/ Contractor	<u>Along roads, around suitable built structures, or around VSRs to contain their view out to the NDA structures.</u>	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
S.12.D9M	LV10-	Road Greening –For viaducts, soft landscaping should be provided to	To soften the hard, straight	Government/	<u>On viaducts or</u>	Prior to Construction,	N/A

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M12	DP10	<p>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.</p> <p>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)</p>	edges and provide greening along roads.	Detailed Design Consultant/ Contractor	<u>along roads.</u>	Construction Phase & Maintenance in Operation Phase	
S.12.D9 MM14.3	LV11- DP10	<p>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</p>	Minimize the necessity of watercourse modification, protect watercourses where possible and enhance channelized watercourses	Government/ Detailed Design Consultant/ Contractor	<u>Channelized watercourse, particularly the Ma Wat River Channel Diversion</u>	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A

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		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.					
<b>Landscape and Visual (Construction)</b>							
S.12.D9 MM16	LV12- DP10	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).	To screen undesirable views of the works site.	Contractor	<u>Throughout NDAs</u>	Construction Phase	^
S.12.D9 MM17	LV13- DP10	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.	To minimize glare impact to adjacent VSRs	Government / Contractor	<u>Throughout NDAs</u>	Construction and Operation phases	^
<b>Ecology (Detailed Design, Construction and Operational Phases)</b>							
S13.8	E1- DP10	Use opaque, non-transparent, non-reflective noise barriers. Unnecessary lighting should be avoided.	Minimize mortality impacts on birds.	Detailed Design Consultant/	<u>Throughout NDAs</u>	Detailed design, construction and	^

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				Contractor Maintenance Authority.		Operation phases.	
<b>Ecology (Construction Phase)</b>							
S13.9	E3-DP10	Lower reaches of Siu Hang San Tsuen Stream to have 10m wide vegetated buffer in Open Space Zone D1-3 and Fanling Bypass to cross stream on viaduct.	Minimize impacts on Siu Hang San Tsuen Stream and stream fauna.	Contractor.	<u>FLN area D1-3.</u>	Construction phase.	^
S.13.9	E4-DP10	Design and erection of 2m high solid dull green site barrier fence between active works areas and all areas/habitats of ecological importance.	Minimize dust, disturbance, mortality and other adverse ecological impacts on habitats, flora and fauna. Measures to minimize flight-line impacts to birds, especially breeding ardeids.	Contractor.	<u>Interface between areas/habitats of ecological importance and works areas (all of the north side of the Bypass works areas west of interchange with Sha Tau Kok Road).</u>	Construction phase.	*
<b>Cultural Heritage (Construction Phase)</b>							
S11.6.2	CH4-DP10	<u>Conducting Construction Vibration Monitoring and Structural Strengthening Measures</u> Construction vibration monitoring and structural strengthening measures	To minimize the potential impacts during Construction phase on any	Contractor.	<u>Identified potential vibration impacted built</u>	Construction phase, with details specified in baseline condition	N/A

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		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.	identified potential vibration impacted built heritage features		<i>heritage features</i>	survey and baseline vibration impact assessment,	
<b><i>DPI2-Reprovision of temporary wholesale market in FLN NDA</i></b>							
<b><i>Landscape and Visual (Detailed Design, Prior to Construction, Construction and Operational Phases)</i></b>							
S.12.D9	LV1-DP12	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.		Detailed design consultant/ Contractor	Throughout NDAs,	Prior to Construction, Construction & for all planting, this should be installed as soon as the areas become available, to achieve early establishment	N/A
S.12.D9 MM1	LV2-DP12	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	Reduce topographical changes and minimize land resumption	Government / Detailed Design Consultant/ Contractor	Throughout NDAs, particularly for reservoirs	Prior to Construction	N/A

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		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.					
S.12.D9 MM2	LV3- DP12	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	Improve visual amenity of the new buildings, NDAs in general and integrate as best possible into the surrounding landscape	Detailed Design Consultant	Throughout NDAs	Prior to Construction	N/A



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		<p>proposed for ecological impact mitigation, should be kept to a practical minimum, and be of such a design 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.</p> <p>Construction time frame should also be considered and designs seek to keep it to a practical minimum.</p>					
S.12.D9 MM4	LV4- DP12	<p>Tree Protection &amp; Preservation – Existing 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.</p> <p>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</p>	Protect and Preserve Trees	Government / Detailed Design Consultant/ Contractor	Onsite	Prior to Construction and Construction Phase	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		trees should be retained, transplanted or felled and will include details of tree protection measures for those trees to be retained.					
S.12.D9 MM5	LV5- DP12	<p>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.</p> <p>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.</p> <p>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.</p>	Transplant Trees where suitable for transplantation	Government / Detailed Design Consultant/ Contractor	Onsite where possible. Otherwise consider offsite locations	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
S.12.D9 MM6	LV6- DP12	<p>Slope Landscaping – Site formation should be reduced as far as possible. Seeding of modified slopes should be done as soon as grading works are</p>	To avoid substantial slope cutting and fill slopes.	Government / Detailed Design	Onsite	Prior to Construction, Construction Phase &	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		<p>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.</p> <p>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.</p>	<p>To prevent erosion and subsequent loss of landscape resources and character.</p> <p>To ensure man-made slopes are as visually amenable as possible.</p>	<p>Consultant/ Contractor</p>		<p>Maintenance in Operation Phase</p>	
S.12.D9 MM7	LV7- DP12	<p>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.</p> <p>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.</p> <p>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>,</p>	<p>Compensate for trees and shrubs lost due to the Project.</p>	<p>Government / Detailed Design Consultant/ Contractor</p>	<p>Onsite where possible. Otherwise consider offsite locations</p>	<p>Prior to Construction, Construction Phase &amp; Maintenance in Operation Phase</p>	<p>N/A</p>

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		<i>Rhodomyrtus tomentosa, Rhapsiolepis indica, and Rhododendron simsii</i> are suggested.					
S.12.D9 MM11	LV8- DP12	Screen Planting – Tall screen/buffer trees and shrubs should be planted. This measure may additionally form part of the compensatory planting	To screen proposed structures such as roads and buildings. Improve compatibility with the surrounding environment and create a pleasant pedestrian environment	Government / Detailed Design Consultant/ Contractor	Along roads, around suitable built structures, or around VSRs to contain their view out to the NDA structures.	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
<b>Landscape and Visual (Construction)</b>							
S.12.D9 MM16	LV9- DP12	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, nonreflective, 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).	To screen undesirable views of the works site.	Contractor	Throughout NDAs	Construction Phase	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
S.12.D9 MM17	LV10- DP12	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.	To minimize glare impact to adjacent VSRs	Government / Contractor	Throughout NDAs	Construction and Operation Phases	N/A

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

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

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Name of Department: Civil Engineering and Development Department

**Monthly Summary Waste Flow Table for 2023**

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly				
	Total Quantity Generated	Hard Rock and Large Broken Concrete (a)	Reused in the Contract (b)	Reused in Other Projects (c)	Disposed as Public Fill (d)	Imported Fill (e)	Metals	Paper / Cardboard Packaging	Plastics (see Note 3)	Chemical Waste	Others, e.g. general refuse
	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m <sup>3</sup> )
January	3.628	0.000	2.500	0.000	1.128	6.425	2.904	0.000	0.004	0.000	0.571
February	3.466	0.000	1.869	0.000	1.597	6.967	0.004	0.364	0.003	0.560	0.445
March	2.338	0.000	1.814	0.000	0.524	2.944	0.003	0.449	0.003	0.000	0.572
April	1.260	0.000	1.239	0.000	0.021	0.789	0.004	0.000	0.010	0.720	0.383
May											
June											
Sub-total	10.692	0.000	7.422	0.000	3.270	17.125	2.915	0.813	0.020	1.280	1.971
July											
August											
September											
October											
November											
December											
Total	10.692	0.000	7.422	0.000	3.270	17.125	2.915	0.813	0.020	1.280	1.971

Forecast of Total Quantities of C&D Materials to be Generated from the Contract*										
Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in Other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper / Cardboard Packaging	Plastics (see Note 3)	Chemical Waste	Others, e.g. general refuse
(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m <sup>3</sup> )
1,310.619	300.000	1,010.619	0.000	0.000	0.000	20.000	10.000	20.000	0.500	10.000

- Notes: (1) The performance target are given in PS Clause 1.115(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 amount of C&D materials expected to be generated from the Works, together with a break down of the nature where the total amount of C&D materials expected to be generated from the Works is equal to or exceeding 50,000m<sup>3</sup>.  
 (5) Conversion factors for reporting purpose:  
 in-situ: rock = 2.5 tonnes/m<sup>3</sup>; soil = 2.0 tonnes/m<sup>3</sup>  
 excavated: rock = 2.0 tonnes/m<sup>3</sup>; soil = 1.8 tonnes/m<sup>3</sup>  
 broken concrete and bitumen = 2.4 tonnes/m<sup>3</sup>  
 C&D Waste = 0.9 tonnes/m<sup>3</sup>  
 Slurry = 1.0 tonnes/m<sup>3</sup>  
 (6) Numbers are rounded off to the nearest three decimal places  
 \* Forecast  
 (7) Total Quantity Generated = a+b+c+d





俊和-群利聯營體  
CW - KL JV  
Name of Department: CEDD

Appendix F

Contract No.: ND/2019/02  
Year 2023

Waste Flow Table

Month	Total Quantity Generated (a) = (c)+(d)+(e)  (in tonnes)	Actual Quantities of Inert C&D Materials Generated Monthly					Actual Quantities of Non-Inert C&D Wastes Generated Monthly				
		Hard Rock and Large Broken Concrete (b)  (in tonnes)	Reused in the Contract (c)  (in tonnes)	Reused in other Projects (d)  (in tonnes)	Disposed as Public Fill* (e)  (in tonnes)	Imported Fill (f)  (in tonnes)	Metals  (in tonnes)	Paper/ cardboard packaging  (in tonnes)	Plastics (see Note 2)  (in tonnes)	Chemical Waste  (in tonnes)	Others, e.g. general refuse#  (in tonnes)
		Jan	3,700.28	0.00	0.00	3,700.28	0.00	0.00	0.00	0.00	0.00
Feb	7,033.84	0.00	0.00	7,033.84	0.00	0.00	0.00	0.12	0.00	102.69	
Mar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	106.73	
Apr	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	34.63	
May											
June											
<b>Sub-total</b>	<b>10,734.11</b>	<b>0.00</b>	<b>0.00</b>	<b>10,734.11</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.12</b>	<b>0.00</b>	<b>0.00</b>	<b>370.39</b>
July											
Aug											
Sept											
Oct											
Nov											
Dec											
<b>Sub-total</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	
<b>Total</b>	<b>10,734.11</b>	<b>0.00</b>	<b>0.00</b>	<b>10,734.11</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.12</b>	<b>0.00</b>	<b>0.00</b>	<b>370.39</b>

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

Forecast of Total Quantities of C&D Materials to be Generated from the ND/2019/02

Forecast Made at the End of the Project	Total Quantity Generated	Hard Rock & Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ cardboard packaging	Plastics	Chemicals Waste	Others, e.g. general refuse
									(see Note 2)		
	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)
<b>Total:</b>	234,210	8,400	2,500	0	231,710	600	100	1.0	0.5	0.5	375

Name of Department: CEDD

**Monthly Summary Waste Flow Table for 2023 (Year)**

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly				
	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill*	Metals	Paper/ cardboard packaging	Plastics (see Note 3)	Chemical Waste	Others, e.g. general refuse
	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m <sup>3</sup> )
Jan	0.24082	0	0	0.16613	0.07469	0	0	0	0	0	0
Feb	0.011965	0	0	0	0.011965	0	0	0	0	0	0
Mar	0.027225	0	0	0	0.027225	0	0	0	0	0	0
Apr	0.005575	0	0	0	0.005575	0	0	0	0	0	0
May											
Jun											
Sub-Total											
Jul											
Aug											
Sep											
Oct											
Nov											
Dec											
Total											

\*Remark: Imported Fill not taken into account of Total Quantity Generated

#Revised Figure

Forecast of Total Quantities of C&D Materials to be Generated from the Contract\*

Sang Hing – Kuly Joint Venture  
 Contract No.: ND/2019/03  
 Kwu Tung North and Fanling North New Development Areas, Phase 1:  
 Development of Long Valley Nature Park

Total Quantity Generated (in '000m <sup>3</sup> )	Hard Rock and Large Broken Concrete (in '000m <sup>3</sup> )	Reused in the Contract (in '000m <sup>3</sup> )	Reused in other Projects (in '000m <sup>3</sup> )	Disposed as Public Fill (in '000m <sup>3</sup> )	Imported Fill (in '000m <sup>3</sup> )	Metals (in '000 kg)	Paper/ cardboard packaging (in '000kg)	Plastics (see Note 3) (in '000kg)	Chemical Waste (in '000kg)	Others, e.g. general refuse (in '000m <sup>3</sup> )
9	2	1	1	6	10	3	3	1	1	3

\*Remark: Figure to be revised if necessary

Notes:

- (1) The performance targets are given in ETWB Technical Circular PS Clause 6(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 total amount of C&D materials expected to be generated from the Works is equal to or exceeding 50,000 m3. (ETWB Technical Circular PS Clause 5(4)(b) refers).  
 [Delete Note (4) and the table above on the forecast, where inapplicable].

Monthly Summary Waste Flow Table for 2023 (Year)

Month	Total Quantity Generated	Actual Quantities of Inert C&D Materials Generated Monthly					Actual Quantities of Non-Inert C&D Wastes Generated Monthly				
		Hard Rock and Large Broken Concrete (a)	Reused in the Contract (b)	Reused in other Projects (c)	Disposed as Public Fill (d)	Imported Fill (e)	Metals (f)	Paper/ cardboard packaging (g)	Plastics (h)	Chemical Waste (i)	Others, e.g. general refuse (j)
		(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)
Jan	1,821.54	0.00	0.00	0.00	1,648.04	0.00	62.72	0.00	0.00	0.00	110.78
Feb	5,111.83	0.00	0.00	1,432.80	3,268.73	289.95	0.00	0.07	0.00	0.00	120.28
Mar	17,069.10	0.00	0.00	12,165.07	4,675.24	0.00	0.00	0.04	0.00	0.00	228.75
Apr	10,098.27	0.00	0.00	7,469.40	2,562.44	0.00	0.00	0.04	0.00	0.00	66.38
May											
June											
<b>Sub-total</b>	<b>34,100.73</b>	<b>0.00</b>	<b>0.00</b>	<b>21,067.27</b>	<b>12,154.45</b>	<b>289.95</b>	<b>0.00</b>	<b>0.15</b>	<b>0.00</b>	<b>0.00</b>	<b>526.19</b>
July											
Aug											
Sept											
Oct											
Nov											
Dec											
<b>Sub-total</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>Total</b>	<b>34,100.73</b>	<b>0.00</b>	<b>0.00</b>	<b>21,067.27</b>	<b>12,154.45</b>	<b>289.95</b>	<b>0.00</b>	<b>0.15</b>	<b>0.00</b>	<b>0.00</b>	<b>526.19</b>

Notes:

- (1) The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site.
- (2) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material.
- (3) Broken concrete for recycling into aggregates.
- (4) Total quantity generated = a+b+c+d+e+f+g+h+i+j



Appendix F

Contract No.: ND/2019/04

Forecast of Total Quantities of C&D Materials to be Generated from the DCK JV											
Forecast Made at the End of the Project	Total Quantity Generated	Hard Rock & Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ cardboard packaging	Plastics (see Note 3)	Chemicals Waste	Others, e.g. general refuse
	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)
	141,782.30	0	10,000	20,000.00	60,000.00	32,200.00	80	0.8	0	1.5	19,500.00

## Monthly Summary Waste Flow Table for 2023 (year)

Name of Person completing the record: Louise Poon (EO)

Project : Fanling North New Development Area, Phase 1: Fanling Bypass Eastern Section (Shung Him Tong to Kau Lung Hang)

Contract No.: ND/2019/05

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly					
	Total Quantity Generated (a) = (b)+(c)+(d)+(e)	Hard Rock and Large Broken Concrete (b)	*Reused in the Contract ©	Reused in other Projects (d)	Disposed as Public Fill (e)	Imported Fill (f)	Metals (g)	Paper/ cardboard packaging/ (h)	Plastics (i) (see Note 3)	Yard Waste (j)	Chemical Waste (k)	Others, e.g. general refuse (l)
	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000 kg)
Jan-23	1.270	0.000	0.546	0.000	0.724	0.000	4.126	0.275	0.005	0.000	0.000	46.650
Feb-23	2.094	0.000	0.624	0.000	1.470	0.000	0.000	0.608	0.000	2.660	0.000	79.010
Mar-23	2.298	0.000	0.348	0.000	1.950	0.000	0.090	1.302	0.098	1.860	0.000	91.690
Apr-23	2.236	0.000	0.276	0.000	1.960	0.000	0.021	0.699	0.030	1.470	0.000	55.990
May-23												
Jun-23												
<b>Sub-total</b>	<b>7.898</b>	<b>0.000</b>	<b>1.794</b>	<b>0.000</b>	<b>6.104</b>	<b>0.000</b>	<b>4.237</b>	<b>2.884</b>	<b>0.133</b>	<b>5.990</b>	<b>0.000</b>	<b>273.340</b>
Jul-23												
Aug-23												
Sep-23												
Oct-23												
Nov-23												
Dec-23												
<b>Total in 2023</b>	<b>7.898</b>	<b>0.000</b>	<b>1.794</b>	<b>0.000</b>	<b>6.104</b>	<b>0.000</b>	<b>4.237</b>	<b>2.884</b>	<b>0.133</b>	<b>5.990</b>	<b>0.000</b>	<b>273.340</b>
<b>Total of the Project since 2020</b>	<b>101.240</b>	<b>0.000</b>	<b>12.513</b>	<b>2.857</b>	<b>85.870</b>	<b>5.110</b>	<b>141.941</b>	<b>12.316</b>	<b>3.953</b>	<b>788.803</b>	<b>24.882</b>	<b>3362.250</b>

\*Approx. estimation for each dump truck is 6m<sup>3</sup>/truck or 12 ton/truck

Total Quantity of Inert C&D Materials Generated: 101.240 (in '000m<sup>3</sup>) (a) = (b)+(c)+(d)+(e)

## Monthly Summary Waste Flow Table for 2023 (year)

Name of Person completing the record: KM LUI (EO)

Project : Fanling North New Development Area, Phase 1: Site Formation and Infrastructure Works

Contract No.: ND/2019/07

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly				
	Total Quantity Generated	Hard Rock and Large Broken Concrete (a)	Reused in the Contract (b)	Reused in other Projects (c)	Disposed as Public Fill (d)	Imported Fill	Metals	Paper/ cardboard packaging	Plastics (see Note 2)	Chemical Waste	Others, e.g. general refuse
	(in '000T)	(in '000T)	(in '000T)	(in '000T)	(in '000T)	(in '000T)	(in '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000 T)
Jan	0	0	0	0	0	0	0	0	0	0	0.018
Feb	0	0	0	0	0	1.400	0	0	0	0	0.013
Mar	0.212	0	0	0	0.212	11.711	0	0	0.001	0	0.028
Apr	0	0	0	0	0	7.340	0	0	0	0	0.009
May											
Jun											
Sub-total	0.212	0.000	0.000	0.000	0.212	20.451	0.000	0.000	0.001	0.000	0.068
Jul											
Aug											
Sep											
Oct											
Nov											
Dec											
Total	5.521	0.000	1.514	0.000	4.007	170.498	0.017	1.763	0.026	212.240	5.717

- Notes:
- (1) The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site.
  - (2) Plastics refer to plastic bottles/containers, plastic sheets/ foam from packaging materials.
  - (3) Broken concrete for recycling into aggregates.
  - (4) Total Quantity Generated = a+b+c+d..



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**APPENDIX S  
COMPLAINT LOG**

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**Appendix S - Complaint Log**

<b>Log Ref.</b>	<b>Location</b>	<b>Received Date</b>	<b>Details of Complaint</b>	<b>Investigation/ Mitigation Action</b>	<b>Status</b>
COM-2020-07-01	Public Road at Portion 6a (ND/2019/01)	13 <sup>th</sup> July 2020	The EPD visit on 13 July 2020 was to respond the complaint received from the 2nd week in July regarding the dust problem in public road of Portion 6a. Mr. Tse (EPD) observed muddy wheel track on the public road, and he expressed that the public road should keep free of mud even it was inside the project area. He also advised BKRWJV (the Contractor) to clean up the muddy wheel track and provide rectified photos to him.	A designated person is provided at the ingress/egress for vehicle washing before the wheel washing facility is in use, this is to make sure all vehicle are free of mud before leaving the site. And, the designated person is also responsible for cleaning the public road if any mud is found on it.	Closed
COM-2020-11-01	Portion 4 and Portion 7 near Dills Corner Garden (ND/2019/01)	11 <sup>th</sup> November 2020	The EPD inspection at Portion 4 on 11 November 2020 was to respond the complaint regarding the dust problem near Dills Corner Garden referred by a District Council Member. No construction activities was carried out and no obvious dust emission was observed. EPD advised BKRWJV (the Contractor) to increase the height of temporary water barrier and install sprinklers on bare ground. Another EPD inspection was conducted on 26 November 2020 at	The height of temporary water barrier was increased at Portion 4. Sprinklers were installed on bare ground at Portion 4 and on top soil at Portion 7. Manual water spraying were provided regularly. Hydroseeding will be provided on soil surface at Portion 4 for long-term measures.  Proper implementation of dust mitigation measures will be continuously reviewed and monitored to avoid potential dust impact on site.	Closed

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			Portion 7 for the dust complaint. During inspection, no obvious dust emission was observed and potential dust may generate from top soil which appear to be dry. EPD advised the Contractor to install sprinklers on top soil for dust suppression.		
COM-2020-11-02	Works Area A & B (ND/2019/05)	27 <sup>th</sup> November 2020	The complainant complained about the noise generated from the alarm of scissors platform during works for PM's site accommodation on Sunday and called the police force. Police officer has checked that Construction Noise Permit has been applied for the construction work. Also, the complainant complained about the reflective blue color of roof material of site office.	Permit-to-Work system was properly implemented for works at restricted hours. The PME used have been checked in compliance with the valid Construction Noise Permit (CNP No.: GW-RN0788-20). Acoustics mats were erected between works area and noise sensitive receivers. Scissor platform or noisy work activities will be arranged and minimized to be used on Sunday or evening time on weekdays. Specific training for the quieter works arrangement was provided to workers. Also, the blue roof will be covered by non-reflective green roof material.	Closed
COM-2021-01-01	Ma Tso Lung Road (ND/2019/01)	7 <sup>th</sup> January 2021	A complaint regarding soil deposited on Ma Tso Lung Road was referred by EPD verbally.	No soil / mud deposit or mud track were observed along the Ma Tso Lung Road during investigation and site inspection between Contractor, the <i>Supervisor</i> , ET and IEC. The road condition of Ma Tso Lung Road will be closely monitored and the public road will be regularly cleaned if mud deposit was observed. Wheel washing facilities at every site entrance will be regularly monitored to ensure proper implementation of dust control measures.	Closed

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COM-2021-01-02	Ma Tso Lung Road (Near L/P VD5622) (ND/2019/01)	13 <sup>th</sup> January 2021	A complaint was received from 1823 regarding the suspected odour emitted from muddy water discharged.	Water sample collected from the wastewater treatment facility was clear and no odour was detected. Sewage from chemical toilet was collected on a regular basis by licensed collector. Brownish wastewater was observed discharging upstream of the site from an unknown factory to the uncharted channel which may be potential source of the odour.	Closed
COM-2021-01-03	CTC Storage Yard (ND/2019/05)	22 <sup>nd</sup> January 2021	A complaint was referred from EPD regarding the noise generated before 7 a.m. on weekdays and machinery noise generated on Sunday from CTC Storage Yard.	No attendance record of workers working for CTC Storage Yard earlier than 8 a.m. and on Sunday (day of complaint) was recorded. To ensure strict compliance to Noise Control Ordinance and prevent noise nuisance to the nearby villages, the Contractor has implemented the following enhancement measures: 1. Issue a memo to the relevant sub-contractor on restricted working hour. 2. Conduct specific training to sub-contractor frontline supervisor and works. 3. Apply a construction noise permit for the suspected location.	Closed
COM-2021-01-04	Ho Sheung Heung (ND/2019/02)	28 <sup>th</sup> January 2021	A complaint was received from 1823 regarding an idling construction vehicle near Ho Sheung Heung to operate the engine for over 10	Ad-hoc training was provided to workers on switching off idling engines when awaiting on site. Poster for “Switching off idling engines” was posted at site entrance to alert workers on the	Closed

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			minutes. Also, the complainant complained on noise nuisance from the speaker during meeting.	issue. For noise nuisance from the meeting, the speaker volume in the future event will be lower as much as possible.	
COM-2021-02-01	CTC Storage Yard (ND/2019/05)	4 <sup>th</sup> February 2021	A complaint was received from EPD call on 2 <sup>nd</sup> February 2021 regarding a noise complaint from a Tong Hang villager about noise from CTC storage yard at around 19:00 – 20:00 on 1 <sup>st</sup> February 2021.	The suspected cause of the complaint was the delivery of a rotary drilling rig by a tractor lorry arrived at CTC Storage Yard at around 19:00 at 1 <sup>st</sup> February 2021. The delivery time was restricted due to the oversized tractor lorry (width >2.4m and length protruded >1.4m at tractor tail). No loading and unloading was conducted during the time of complaint.  For follow up action, the Contractor will apply Construction Noise Permit for any foreseeable delivery that may not be finished before restricted hours and will notify possible affected village representatives in advance.	Closed
COM-2021-02-02	CTC Storage Yard (ND/2019/05)	16 <sup>th</sup> February 2021	A complaint was received from EPD call on 10 <sup>th</sup> February 2021 regarding a noise complaint from a Tong Hang villager about some impact noise from CTC Storage yard at Sunday's daytime (7 <sup>th</sup> February 2021).	Under investigation, erection of chain link fence for separating works area and adjacent village house was conducted by a sub-contractor on 7 <sup>th</sup> February 2021 without notification to the Contractor. Sub-contractor has been reminded that any work within site area shall be conducted after instruction by the Contractor and permit-to-work system on restricted hours works shall be strictly followed.	Closed
COM-2021-02-03	CTC Storage Yard (ND/2019/05)	2 <sup>nd</sup> March 2021	A complaint was received from EPD call on 24 <sup>th</sup> February 2021 regarding a noise complaint from a Tong Hang villagers about some machinery noise	Further enhancement on erection of acoustics mats and mobile acoustics mat panels was conducted at strategic location at E1-01 for mitigation of the noise impact to the nearby	Closed

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			and dust from CTC Storage yard. Joint site inspection of the Contractor, the <i>supervisor</i> and EPD was conducted on the same day for the bored piling at CTC Storage Yard and check on the noise and dust mitigation measures. EPD requested to enhance noise and dust mitigation measures for grabbing operation of the Rotary Drill Rig for construction of piles of E1-01.	sensitive receivers. Regular water spraying has been applied to suppress the dust from grabbing procedure and the skip.	
COM-2021-03-01	Ma Tso Lung Shun Yee San Tsuen (ND/2019/01)	1 <sup>st</sup> March 2021	A complaint was referred from EPD regarding fly-tipping of C&D waste near Ma Tso Lung Shun Yee San Tsuen and muddy public road.	Under investigation, the suspected site near Shun Yee San Tsuen was out of project site boundary. Internal trip ticket system was properly implemented for dump trucks transported from project site to other approved alternative disposal ground. Also, dump trucks were properly washed and mechanical cover of dump trucks were closed while leaving the site.  For follow up action, banners and flags were displayed on site to promote the environmental protection awareness. Regular training was provided to remind the dump truck drivers that illegal dumping is strictly prohibited.	Closed
COM-2021-03-02	CTC Storage Yard (ND/2019/05)	15 <sup>th</sup> March 2021	A complaint was received from EPD call and an inspection by EPD was conducted on 9 <sup>th</sup> March 2021 regarding a dust complaint from a Tong Hang villager. The complainant	For follow up action, the Contractor provided training to remind frontline supervisors and workers to wet the auger before movement when it was dried for preventing any occasional situation that the auger was dried.	Closed

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			complained that rotary drill rig shall be equipped with enclosure for dust control and rotary drill rig had exhaust disturbance. Also, the complainant requested to improve wheel washing at site entrance.	The Contractor provided training to brief frontline supervisor and the operators to prevent exhaust disturbance. Also, the drill rigs exhaust pipe shall not face to the public area. If it is avoidable, screens shall be arranged to divert the exhaust gas. An additional cut-off drain was constructed and notice signs were erected for notifying drivers to give wheel washing in front of the cut-off drains.	
COM-2021-03-03	Ma Tso Lung Road (ND/2019/01)	9 <sup>th</sup> April 2021	A complaint was referred from EPD on 23 March 2021 regarding muddy public access road along Ma Tso Lung Road.	The muddy access road was found generated from a nearby private factory where the access road is not hard paved. The Contractor arranged water browser to help clean up the section of road on 24 <sup>th</sup> and 25 <sup>th</sup> March 2021 respectively. Also, dump truck were properly washed at project site exit near Ma Tso Lung Road.	Closed
COM-2021-04-01	Long Valley, Kwu Tung (ND/2019/03)	9 <sup>th</sup> April 2021	A complaint was referred from EPD regarding to associated impacts arising from construction works at Long Valley Nature Park, causing nuisance and affecting the habitat and ecological value in Long Valley.	Construction works for development of Long Valley Nature Park are conducted according to the recommended mitigation measures stated in Habitat Creation and Management Plan. Wetland creation and restoration works are in progress which include provision of paddy field, turning abandoned agricultural lands into wet agricultural land and provision of open water habitat with bird island. Irrigation channel is under construction for provision of reliable water supply to farmland.  For construction works, the following significant mitigation measures are implemented: 1. Provide noise barriers to minimize noise nuisance to adjacent field where Greater Painted-	Closed

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				<p>snipe was found;</p> <ol style="list-style-type: none"> <li>2. Arrange concrete pump for concreting works to minimise noise impact;</li> <li>3. Provide water spraying on the exposed earth to dampen the dusty surface;</li> <li>4. Provide shade cloth to separate works area and marsh where Greater Painted-snipe were found;</li> <li>5. Demarcation of temporary vehicle access to prohibit vehicle across the farmland;</li> <li>6. Provide 2m dull green site boundary fence along Long Valley work areas; and</li> <li>7. Block the main accesses by temporary barrier to avoid human disturbance.</li> </ol>	
COM-2021-04-02	Close to junction of Ma Wat River and Ng Tung River (ND/2019/04, ND/2019/05, ND/2019/06)	23 <sup>rd</sup> April 2021	A complaint was referred from EPD regarding to suspected polluting effluent discharged from Ma Wat River near junction of Ma Wat River and Ng Tung River.	<p>Under investigation, muddy water was observed from a small stream of Ma Wat River which is outside project site boundary. Contractor's wastewater treatment facilities and mitigation measures on water quality were checked. Latest discharge monitoring results shows the discharge quality in compliance with the limit stated in the discharge licence.</p> <p>The following mitigation measures will keep implemented and inspected:</p> <ol style="list-style-type: none"> <li>1. Installation of silt curtain, geotextiles and concrete blocks for excavation works at Ng Tung River with regular inspection;</li> <li>2. Exposed slope paved with concrete to prevent muddy runoff;</li> <li>3. Setting up wastewater treatment plants at</li> </ol>	Closed



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				<p>several locations of the site area;</p> <p>4. Bund/seal off works area near river and set up with dewatering system;</p> <p>5. Spare water pumps and sand bags for emergency use during heavy rain;</p> <p>6. Regular training to the operators of wastewater treatment facilities; and</p> <p>7. Regular checking and maintenance of the wastewater treatment facilities and desilting tank.</p>	
COM-2021-04-03	Near Shek Wu San Tsuen, Sheung Shui (ND/2019/04)	28 <sup>th</sup> April 2021	A complaint was referred from EPD regarding to construction dust arising from dump trucks from construction sites near Shek Wu San Tsuen.	<p>No obvious dust emission was observed during EPD inspection on 28<sup>th</sup> and 29<sup>th</sup> April 2021, However, potential dust impact may arise from sandy materials found on public road and exposed ground surface.</p> <p>For follow up action, soil debris were removed at public road. Water spraying was provided on the exposed ground surface. Also, all dump trucks are covered properly and wheel wash is provided before leaving site. Implemented of the mitigation measures will keep reviewed and monitored.</p>	Closed
COM-2021-05-01	Near Tong Hang section of Ma Wat River (ND/2019/05)	17 <sup>th</sup> May 2021	A complaint was referred from EPD regarding to suspected polluting effluent discharged from construction sites near Ma Wat River.	Under investigation, no pollution from works areas near Ma Wat River was observed. For wastewater pollution control, all wastewater treatment facilities have been setup at discharge points. According to the latest discharge monitoring results on April 2021, no non-compliance to limit set in discharge licence was recorded. Regular maintenance and services of the facilities have been conducted. Close monitoring	Closed

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				with checklist has been conducted by operators of the facilities. Mitigation measures such as sealing gaps between concrete blocks/water barriers/pipe pile walls have been implemented to prevent leakage. Implementation of the mitigation measures will keep reviewed and closely monitored.	
COM-2021-09-01	Chau Tau Road near the CLP Chau Tau Substation (ND/2019/01)	2 <sup>nd</sup> September 2021	A complaint was referred by EPD and an inspection by EPD was conducted on 3 September 2021 regarding a muddy public access road at Chau Tau Road near the CLP Chau Tau Substation.	<p>Ad-hoc site inspection was conducted on 2 Sep 2021 at Chau Tau Road near the CLP Chau Tau Substation, no muddy wheel track or soil deposit was observed. No concrete lorry was observed using the Chau Tau Road near the CLP Chau Tau Substation.</p> <p>Concreting at Portion 5 was observed during EPD inspection on 3 September 2021, wheel washing bay and manual wheel washing was provided at site exit, all vehicles were properly washed and no muddy track was observed at Chau Tau Road.</p> <p>The Contractor has been implement following mitigation measure upon received the complaint:</p> <ul style="list-style-type: none"> <li>• Rearranged the traffic route and informed the concrete lorry drivers not to use Chau Tau Road;</li> <li>• Keep monitoring the effectiveness of the wheel washing facilities at site exist; and</li> <li>• Clean up the public road immediately if soil deposit was observed.</li> </ul>	Closed

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COM-2021-09-02	Not specified (ND/2019/01)	3 <sup>rd</sup> September 2021	A complaint was referred by EPD regarding C&D waste stored on site.	<p>Refer to the photos provided by the complainant, the mentioned C&amp;D waste mainly felled trees mixed with general refuse and temporary stored within the site boundary, Ad-hoc site inspection was conducted by Contractor and RSS on 3<sup>rd</sup> September 2021, all C&amp;D waste were stored within the site boundary, no odour perceived during site inspection.</p> <p>The Contractor has been implement following mitigation measure upon received the complaint:</p> <ul style="list-style-type: none"> <li>• Sort out the non-inert waste from the felled trees;</li> <li>• Remove the general refuse if possible, otherwise, coved by tarpaulin sheet; and</li> <li>• Relocate or transport the yard waste to other places which are not easy visible by public.</li> </ul> <p>Implementation of the mitigation measures will keep reviewed and closely monitored to ensure no adverse impact will be generated from the construction works of the Project.</p>	Closed
COM-2021-11-01	Close to Shek Wu San Tsuen (ND/2019/04)	3 <sup>rd</sup> November 2021	A complaint was referred from EPD on 22 <sup>th</sup> November 2021, about various issues including suspected environmental nuisances from the captioned Project from a member of public on 3 <sup>rd</sup> Nov 2021. He followed-up again on 19 <sup>th</sup> Nov 2021.	<p>Site inspection was conducted by contractor and EPD inspectors on 25<sup>th</sup> November 2021, no obvious dust emission was observed within site boundary. The potential dust impact may arise from sandy materials found at public road which is under DSD maintenance.</p> <p>Air quality monitoring was carried out at location FLN-DMS1 - Scattered Village</p>	Closed

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				<p>Houses North of Proposed Potential Ecopark and Location FLN-DMS5 - Noble Hill near Shek Wu San Tsuen in accordance with the EM&amp;A manual. With reference to the air quality monitoring data collected in Nov 2021, all monitoring data were complied with the action and limit level and no exceedance was recorded.</p> <p>The Contractor has been implement following mitigation measure upon received the complaint:</p> <ul style="list-style-type: none"> <li>• 工程團隊亦已於接近民居並正在進行大型工程(例如建造大口徑樁)位置安裝了各種隔音屏障，例如在大型機器的發電機上加上隔音布、在圍板加上隔音屏障</li> <li>• 增加自動灑水系統</li> </ul>	
COM-2021-12-01	On Kui Street along Ma Wat River (ND/2019/05)	13 <sup>rd</sup> December 2021	AECOM referred to public complaints received by 1823 on 13 December 2021 regarding "中鐵建保華聯營公司粉嶺地盤工人沖建築泥水落河 污染河道。"	<p>Refer to the photo attached in the above complaint, it is suspected that there were bentonite slurry leaking from the flexible pipe joint near works area of pier C2-01 and the cause of incident as blow:</p> <ul style="list-style-type: none"> <li>• Tightness of flexible pipe joint</li> <li>• Worker's awareness and knowledge on proper handling of pipe leakage</li> <li>• Readiness of contingency tools and equipment for the pipe leakage</li> </ul> <p>The Contractor has been implement following mitigation measure upon received the complaint:</p> <ul style="list-style-type: none"> <li>• Doubling pipe clamps at each joint to strengthen the connection tightness and</li> </ul>	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
				seal <ul style="list-style-type: none"> <li>• Briefing workers for proper spillage handling</li> <li>• Well readiness of contingency tools and equipment for handling of leakage</li> <li>• Designating responsible supervisor for regular pipeline condition check and monitoring</li> <li>• Daily inspection for pipeline condition by responsible supervisors before works</li> <li>• Erection of bunding/sandbags along the works area to effectively stop any potential leakage/surface runoff</li> <li>• Review and updated Environmental Management Plans (EMP) covering Site Specific Procedures for Muddy runoff/leakage Control (See CSF submission, ref. no. CSF/HSE/002115) on 21 Dec 2021</li> <li>• Specific trainings of proper handling of leakage adjacent to the river/drainage for JV managerial and supervisory staff</li> </ul>	
COM-2022-01-01	Close to Shek Wu San Tsuen (ND/2019/04)	13 <sup>rd</sup> January 2022	A complaint was referred from EPD on 14 Jan 2022 from a public member alleged the captioned Project of “我們每個工作天都會受到高噪音和震動的影響，在沒有足夠的保障下，使近距離的民居十分擔心，屋裂有惡化跡象，兒童/長者難有	Contractor have carried out daily noise monitoring and vibration monitoring. No exceedance was recorded. The monitoring results are displayed on the notice board for easy reference. For noise control measures, QPME label are affixed to generators and acoustic noise barriers are mounted on powered mechanical equipments such as	Closed

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			寧靜環境，成人在家中工作、兒童做功課在噪雜的環保下，難以適應，我們很希望受到合理的重視和改善，使實際環境不會太差。”	excavators, crawler cranes and vibration hammers and installed along hoarding to minimize noise nuisance to neighborhood.  Based on the findings of investigation, no exceedance of noise and vibration monitoring was found. Contractor will ensure that the construction works carried out must comply with the condition stated in the Noise Control Ordinance and to implement mitigation measures proposed in the Project Implementation Schedule.	
COM-2022-01-02	Near Sheung Yue River (ND/2019/02)	28 <sup>th</sup> January 2022	A complaint was received from 1823 on 28 Jan 2022 regarding “在雙魚河河邊單車徑附近的工程，一個多月來，當工人沒有工作期間，所有機械都沒有熄匙，當機械運作時，產生很大的噪音及很多廢氣。理解工人有工作時，機械運作是正常，但一個月來工人沒工作時，機械依然運作，產生問題嚴重，要求部門跟進及處理。”	Investigation was conducted by contractor on 4 Feb 2022. All plants are turned off when awaiting more than 3 min. Dark smoke monitoring for the powered mechanical equipment had been carried out. No dark smoke was recorded. Based on the findings of investigation, no exceedance of noise and air monitoring was found.  Follow-up Actions had been conducted on 4 Feb 2022. Mitigation measures are implemented. Dull green barriers are installed around active works areas to prevent dust emitted to the public. QPME is used to minimize noise nuisance to the neighbourhood.  Specific environmental training about Noise and Smoke Control for Plants was provided to frontline staff on 4 Feb 2022. The frontline staff was reminded to switch off idling equipment for	Closed

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				preventing recurrence of idling construction equipment awaiting on site, and carry out routine maintenance of plant and equipment for mitigating unwanted noise and air pollutant emissions.	
COM-2022-02-01	Ng Tung River (ND/2019/04)	17 <sup>th</sup> February 2022	<p>EPD received 2 complaints from members of public about suspected disposal of foam waste and illegal discharge from the captioned Project to Ng Tung River on 13 &amp; 16 Feb 2022 respectively.</p> <p>Details of complaint case received on 13 Feb 2022: 「本人途經唔上水梧桐河近馬屎埔新村附近地盤發現河道有大量懷疑發泡膠影響何到魚類生物, 要求環境保護署或相關部門進行跟進」</p> <p>Details of complaint case received on 16 Feb 2022: 「2022年2月10日下午三時, 發現梧桐河面出現乳白色, 懷疑與附近工程泥漿水有關, 懷疑經雨水渠排出。」</p>	<p>Investigation was conducted by contractor. It is found that no foam has been used on site. No construction works was carried out during 9 Feb to 14 Feb 2022 at A3 piling platform as two suspected close contact cases for A3-02 piling platform team was found. The bored piling works and A3 piling platform welding works was suspended from 9 Feb 2022 and resumed on 14 Feb 2022 after the whole team received negative results.</p> <p>Mitigation measures are implemented, there is a silt curtain enclosing the opened workfronts and the openings of the A3 piling platform. Hence, the platform and other workfronts along the river have no discharge to the river.</p> <p>In addition, it is reported that suspected contaminated water was discharging to Ma Wat River from surrounding industrial buildings near C5 contract site.</p> <p>Based on the findings of investigation, no foam</p>	Closed

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				has been used by on site and no suspected contaminated water was discharged from the project. Thus, the complaint cases are not caused by our project.	
COM-2022-03-01	Near Ho Sheung Heung (ND/2019/02)	2 <sup>nd</sup> March 2022	A complaint was received from EPD on 8 Mar 2022 from a public member regarding "投訴河上鄉鄉公所附近地盤的機器及吊雞車的難嗅氣味滋擾"	<p>Joint inspection for the issue was conducted by AECOM, Environmental team, Contractor on 9 March 2022 and no source of odour was found during the inspection. There was no major works. The area is for temporary soil storage. Only one excavator is at Portion 11. The excavator is well maintained and no bad smell is emitted. Moreover, all plants are checked before used. As per the contract requirement, project must use Euro V diesel in our plants, which is a cleaner fuel than industrial diesel and shall generate less odour. Project regularly conducts diesel sampling and testing to ensure that the used fuel is Euro V diesel. A diesel sampling for the excavator at Portion11 was also conducted on 9 March 2022.</p> <p>Based on the findings of investigation, all plants are well maintained and checked before use. Cleaner fuel is used for plants onsite. No odour was found. CW-KL JV mitigates air pollution from sources to reduce environmental nuisance to the neighbourhood.</p>	Closed
COM-2022-03-02	Near Ho Sheung Heung (ND/2019/02)	23 <sup>rd</sup> March 2022	A complaint was received from EPD on 22 Mar 2022 from a public member regarding "河鄉近洪聖爺廟"	Joint inspection for the issue was conducted by AECOM, Environmental team, Independent Environmental Checker and Contractor on 25 March 2022. There was no major works. The area	Closed



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			<p>有個很大的基建地盤, 經常發出很大噪音, 包括車輛駛入後停泊時的聲浪, 地盤面積有半個摩士公園大, 車輛可以泊到其他地方, 減少對居民的滋擾, 之前亦曾作出相同投訴, 有環保署職員跟進, 故現堅持要求再次跟進及回覆 "</p>	<p>is for temporary soil storage. A dump truck was at portion 11, but left the site in short time. All dump trucks used in the project would not stay on site overnight and left the site before 6p.m. One excavator and one loader were at Portion 11. No idling crane lorry was at Portion 11. The equipment would be switched off when not in use. Moreover, all our plants are well maintained and checked before used.</p> <p>Noise monitoring around Portion 11 had been conducted on 26, 28 and 29 March 2022 (AM and PM periods) by Contractor with AECOM. The noise levels are lower than the standard of noise requirement for domestic premises (75dB(A)). It was predicted that no noise exceedance would be found at NSRs.</p> <p>Environmental Training related to use of equipment onsite had been provided to site staff to increase their awareness of environmental protection. Posters of mitigating adverse environmental impacts had been fixed at Portion 11 to increase workers' environmental awareness. QR codes for air quality, noise, and water quality monitoring data conducted by Environmental team of the project had been also fixed at Portion 11 for the public's information.</p> <p>Based on the findings of investigation, all plants</p>	

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				are well maintained and checked before use. CW-KL JV mitigates noise pollution from sources to reduce environmental nuisance to the neighborhoods. No noise exceedance is predicted to be found at NSRs. Environmental promotion is given to site staff to increase their awareness of environmental protection.	
COM-2022-06-15	Near Ng Tung River, adjacent to Shek Wu San Tsuen North (ND/2019/04)	5 <sup>th</sup> July 2022	A complaint was received from EPD on 15 June 2022 from a public member regarding “本人住在梧桐河多年，每天都會到河邊兩岸進行晨運或會經河邊出外購物。由年頭開始，兩岸邊有些小型機械在進行工程，開始時還好，但近期發現機械所發出的黑煙比以前多，有時發現有些污水，泥水和油污流道出行人道來。本人有一次發現有些泥水和油污落到溝渠和地面，便好心跟現場人員講叫他們小心。但是他們沒有理會，因為梧桐河是一個非常美麗的地方，假日也有很多人來遊玩。避免意外發生，希望貴處能代為處理。”	Investigation was conducted by contractor and reply as follow: “工程團隊經常及日後亦會加緊巡視地盤範圍，同時敦促工程人員注重機械及挖掘機的廢氣排放，以及工程污水或泥水流出，減少對周邊環境的影響。”  Air monitoring was conducted on 2, 8, 14, 20, 24 and 30 June 2022, including AM and PM period. No exceedance of air monitoring was found. One exceedance of Water Quality Monitoring was found on 13 June 2022, but based on the investigation report, there was no direct evidence showing that the exceedance recorded at the 3 nearby monitoring stations were due to Contract.  For dark smoke emission, the contractor would collect and test the Ultra Low Sulphur Diesel(ULSD) content monthly. For monitoring of any muddy water discharging from construction activities, the contractor would collect and test the suspended solids from Ng Tung River monthly, also collect and test pH, suspended solids and	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
				COD of wastewater sampling at wastewater treatment plant monthly.	
COM-2022-06-28	Near Ng Tung River, adjacent to Shek Wu San Tsuen North (ND/2019/04)	5 <sup>th</sup> July 2022	A complaint was received from EPD on 28 June 2022 from a public member regarding “連續兩日聞到燒塑膠燒鐵味，然後見到地盤這部機放黑煙，每幾秒噴一次村民不想再持續吸入這些毒氣。”	Investigation was conducted by contractor and reply as follow: “本工程沒有包含燃燒塑製品或鐵製品工序，而附近居民有焚燒垃圾習慣，有可能因而產生誤會；工程所使用的機械及挖掘機已符合環保署要求，有團隊接收投訴後即時於6月29日安排維修人員檢查相關挖掘機並無異常，同時就投訴人的關注已於7月4日將所述挖掘機調離該範圍。工程團隊會繼續盡力安排工程機械及挖掘機在合理工作距離內遠離居民住處，以減少對居民的影響。”	Closed
COM-2022-06-30	Near Ng Tung River, adjacent to Shek Wu San Tsuen North (ND/2019/04)	5 <sup>th</sup> July 2022	A complaint was received from EPD on 30 June 2022 from a public member regarding “講嚟講去都係得個講字，日日都大塵，又話整自動灑水系統等咗咁耐都有，機器又放黑煙又臭。”	Investigation was conducted by contractor and reply as follow: “自動灑水系統已安裝完成，另外工程人員亦會手動向工地範圍噴灑水份，以減低塵埃對附近居民的影響；而由於相關投訴時段（6月30日）至今均為雨天，工程人員亦有持續觀察塵土飛揚及泥水等開題，由於雨水可有效隔絕塵埃，待天氣好轉後相關恆常減少塵埃的措施亦會恢復，例如地面乾燥就會進行相對應減少塵埃的措施，包括人手及自動灑水等。”	Closed
COM-2022-07-21	Man Young Storage area (ND/2019/05)	21 <sup>st</sup> July 2022	EPD received a public complaint on 14 July 2022 from nearby villagers regarding noise and odour nuisance from generators. Complaint detail is as follow:	Investigation was conducted by contractor and clarify a few points as follow: 1. Instead of four generators being used simultaneously from the complaint, there shall be actually two generators being used	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
			<p>"現投訴地盤長期24 小時 長期用柴油發電機，做成民居滋擾，因為噪音及震動。附近居民無法睡眠，柴油氣味亦令人非常討厭，請問法例是否不能晚上七點後不能用柴油發電機。另外那地盤晚上七點後亦有人工作。故亦不一需要長時間開發發電機，而那地盤共有四個發電機同時開動。該地盤為保華公司與中國建築聯營。正確地址為粉嶺塘坑村370 號。萬勇地盤。燈柱號碼AJ2326 對面"</p>	<p>alternatively (one is solely for standby purpose) for power supply of site works and containers.</p> <ol style="list-style-type: none"> <li>2. Instead of 24 hours operation of the concerned generator from the complaint, there shall be actually no restricted hour (19:00-07:00) works for generator operation according to our permit-to-work system (see appendix I).</li> <li>3. A valid construction noise permit (ref. no.: GW-RN0551-22) is obtained on 11/7/2022 covering concerned works area and PMEs before 23:00 (see appendix II). All conditions imposed on permit will be strictly followed once restricted hour works are conducted.</li> </ol> <p>The cause of the complaint is concluded to be noise and odour nuisance for the daily operation of one generator in non-restricted hours (07:00 to 19:00).</p> <p>For noise mitigation measures, contractor had arranged all generators of Quality Powered Mechanical Equipment (QPME) type and installed sound reduction fabric along the side of site boundary facing to the villagers. On top of these measures, JV had installed acoustic blanket (27 dB sound reduction) enclosing the two generators for non-restricted hour operation</p> <p>For odour mitigation measures, on top of currently</p>	

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
				using all generators with approved NRMM type, JV also installed odour adsorption bags which is made of activated carbon during oil fueling practice to further reduce nuisance.	
COM-2022-07-27	Near Portion 1b/1c (Ma Tso Lung) (ND/2019/01)	27 <sup>th</sup> July 2022	A complaint referred from 1823 regarding dust emission and noise impact, “古洞馬草壟地盤沒有任何圍板引致沙塵及噪音影響附近村民事宜”	<p>The contractor claimed that due to the confirmation of site formation level of the hoarding, water main diversion and necessary access, the erection of site hoarding is on hold. Weekly environmental walk was conducted at the mentioned area on 19 and 26 July 2022, no obvious dust emissions and noise impacts were identified.</p> <p>EPD carried out complaint investigation at Portion 1b / 1c on 26 July 2022 at 11:00, no adverse comment was given.</p> <p>Air quality monitoring and noise monitoring were carried out at nearby location once to twice a week and no exceedance was recorded. An ad-hoc noise monitoring was carried out on 28 July 2022 at Portion 1b, no exceedance was recorded also.</p> <p>The contractor would start the hoarding erection in early of August 2022, erect tarpaulin sheet on temporary fencing in front of villager’s house etc as mitigation. The environmental conditions of the site will be continuously reviewed and monitored to ensure no adverse impacts generated from the construction works of the Project.</p>	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
COM-2022-07-21	Lower Ng Tung River (from upstream Ma Wat River) (ND/2019/05)	29 <sup>th</sup> July 2022	<p>EPD received a complaint on 29 July 2022 concerning that the brownish silty water was continuously flowing to Lower Ng Tung River from upstream of Mat Wat River. The complaint was forwarded to ET by EPD through email on 5 Aug 2022.</p> <p>Based on peripheral inspection, the muddy water was spotted.</p>	<p>At the time of EPD's inspection, a tiny gap was found at the bund around the sheet piles at B2-03. The gap was then sealed off so as to prevent muddy runoff from the sheet piling work.</p> <p>Concerning the photo taken at C2-02 by EPD, there shall be collection facilities to divert runoff to our wastewater treatment plant prior to discharge. Wastewater collection facilities including sufficient water pumps and flexible pipes are prepared during works.</p> <p>Meanwhile, below are some JV's regular preventive measures for water pollution control:</p> <ol style="list-style-type: none"> <li>1. 18 nos. of wastewater treatment facilities are operating for different working areas including B2-03 and C2-02;</li> <li>2. Discharge qualities are regularly monitored and tested by HOKLAS accredited laboratory. The results show all discharge quality are complying with discharge standards as per discharge license, test results for concerned areas which were submitted to EPD.</li> </ol>	Closed
COM-2022-08-08	Ma Wat River near Lamp Post EB1339 (ND/2019/05)	8 <sup>th</sup> August 2022	<p>EPD received a complaint EPD ref: N07/RN/00016607-22 on 8 August 2022 and forwarded to ET through E-mail on 12/08/2022 and transferred to JV on the same day.</p> <p>The complaint content: "近電燈柱</p>	<p><b>Noise</b> Refer to the Contractor's internal Permit-to-Work (PTW) System for restricted hours works, there was no works carried out at Pier C4-01 on any Sundays or public holidays which is nearest to the lamp pole EB1339 since 13 July 2022. The</p>	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
			EB1339 沿麻芴河一帶，有一大型建天橋工程，本來已經帶給鄉郊空氣和噪音污染，近來星期日和假期也開工，其機器均嘈雜和發出廢氣，貴署不應該容許工程在假日運作，嚴重影響跑步、踏單車和郊遊人士。請貴署注視。"	<p>Sundays works at Pier C4-02 and C4-03 which are further away from the aforesaid lamp pole were performed in accordance with the CNP ref. GW-RN0551-22 (with validity from 11 July 2022 to 10 October 2022 granted by EPD on 30 June 2022). Therefore, the possible cause of the incident might be Sundays' works at Pier C4-02 and C4-03 on 31/07/2022 and Pier C4-02 on 07/08/2022 but the works at these areas were carried out in complying with the condition to the valid CNP.</p> <p><b>Air</b> For the aforesaid Sundays' works for Pier C4-02, a generator has been used and emitted exhaust gas that might be the cause of the incident. There is a high volume sampler for regular air monitoring at around 30m distance from the generator. Up to now, there was no any exceedance reported from ET since commencement of the project. Based on the above findings, it might conclude that there was no any non-compliance issue.</p> <p>Nevertheless, the Contractor will conduct internal surprise check to the restricted hours works, if any, and give exhaust checking and fuel testing to ensure compliance of ULSD standard.</p>	
COM-2022-08-16a	Ma Wat River near Lamp Post EB1339 (ND/2019/05)	16 <sup>th</sup> August 2022	EPD received a complaint (EPD ref: N07/RN/00017008-22) regarding water pollution in Fanling On Lok Tsuen near lamp post EB1339 on 16	To facilitate ET's investigation, this report is providing the following information: Since the works areas vicinity to lamp post EB1339 are Piers C4-01 and C4-02, the following	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
			<p>August 2022. EPD forwarded the case to ET through email on 17 August 2022.</p> <p>The complaint content: " 本人留意到近麻笏村的麻笏河有大量水泥流入河，影響釣魚人士，查看下，是由上游（近安樂村業和街利亨中心近電燈柱EB1339）一帶的多個大型工程的水泥流入河。另外，建築物 and 工地範圍和附近很多積水，很污糟，有大量工人的飯盒和垃圾，引起蚊患和衛生。"</p>	<p>investigation are focusing on these two works area locations.</p> <ol style="list-style-type: none"> <li>1. Site activities at Piers C4-01 and C4-02; From thorough investigation, there are only minor defect rectification works for pier concrete surface at Pier no. C4-01 which is nearest to the lamp pole EB1339. Besides, there are only formwork/falsework dismantling works in the concerned area at Pier C4-02 which is further away from the aforesaid lamp pole. The whole area has been hard paved without any muddy surface. It is reasonably concluded that there are no construction activities in the concerned location which would generate large amount of muddy water.</li> <li>2. Preventive measures for pollution control; 18 nos. of wastewater treatment facilities have been setup and operating for different working areas including works area of Pier Nos. C4-01 &amp; C4-02 in the concerned period.</li> <li>3. Latest discharge monitoring results; The water quality of the discharge from the Site have been monitored according to the granted discharge licence ref. WT00036996-2020. Discharge qualities are regularly monitored and tested by HOKLAS accredited laboratory. The results show all discharge samples are complying with discharge standards outlined in discharge license, test results of discharge sample in concerned areas which were</li> </ol>	



Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
				<p>submitted to EPD.</p> <p>4. Any possible source of muddy discharge to induce the captioned incident; Based on the above information and investigation findings, it is concluded that the source of muddy discharge was not related to the construction activities under Contract No. ND/2019/05.</p> <p>5. Housekeeping; Receptacle with lid were provided on site. Cleaning have been performing in daily basis. Daily morning brief have been conducting to remind frontline staff about housekeeping.</p> <p>Although it is concluded that the complaint was not related to the Contract, the Contractor will keep daily monitoring on site condition and visual check discharge qualities against with standard solution of suspended solids (30 mg/L stipulated in licence condition) in order to get rid of any muddy discharge to the river. In addition, the Contractor will regularly conduct morning briefing and tool-box training to the frontline for keeping refresh their awareness on muddy water control.</p>	
COM-2022-08-16b	Ma Sik Road and Sha Tau Kok Road near Lung Yeuk Tau (ND/2019/04)	16 <sup>th</sup> August 2022	A complaint was received from EPD on 16 August 2022, "One Innovale construction site located in Ma Sik Road and Sha Tau Kok Road (Lung Yeuk Tau) that has been creating not only serious dust but also muddy	Investigation was conducted by contractor and reply as follow: "Despite the fact that the One Innovale construction site, where the complainant concerned about, is not part of ND/2019/04 project, we would ensure all vehicles has used the	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
			materials along the main road. During sunny days, dust flies up with busy traffic flow. This morning I even saw muds dropped down from the trucks made the road a muddy mesh pollution."	wheel washing facilities before leaving the site. Also, we have assigned two workers to conduct cleaning works to area adjacent with our vehicle egress. Moreover, we inspect every dump trucks on application of mechanical dump truck cover and keep photo records for compliance control. In addition, water bowser is arranged for road washing along Sha Tau Kok Road adjacent with our vehicle egress regularly."	
COM-2022-09-01	青山公路近燈柱EA2139 (ND/2019/01 , ND/2019/05)	1 <sup>st</sup> September 2022	Complaint received by EPD on 1 Sep 2022 and forwarded to ET on 2 Sep 2022, “投訴土木工程署, 環保署監管不善, 大量黃泥水從地盤流入附近河流, 影響生態. 地點: 青山公路近燈柱EA2139”.	Investigation was conducted by contractor and reply as follow: “A soil storage area was handed over from ND/2019/01 to ND/2019/05 on 18 August 2022. As this is a new area just possessed about 2 weeks before the date of this complaint, site preparation and setup such as wheel washing bay, temporary drainage system, wastewater treatment facility etc. were still undergoing. Some temporary measures were provided in place for preventing runoff into the adjacent public drainage system. During the site preparation and setup works, it was found that there is a pipework by others outside C5’s site which intermittently discharges muddy water into the surface drainage and suspected the complaint is caused by this. Contractor of C1 also provided certain information as follow: “Portion 1e (next to the said area) which is a temporary storage area with no major construction works will be carried out at such portion. The grey water pipe which is	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
				<p>belongs to other contractor nearby and muddy water discharge into the surface drainage was occasionally observed. We suspected the complaint is caused by this. Few water pipes were identified at the north sides near the interface of other contractor.”</p> <p>From 5 Sep 2022, the weekly environmental inspection of C5 with Environmental Team (ET) will cover this area for regular identification of any deficiency in environmental management.</p>	
COM-2022-09-29	Construction site nearby Dills Corner Garden Blk 5 (ND/2019/02)	29 <sup>th</sup> September 2022	Complaint received by EPD on 29 Sep 2022 and forwarded to ET on 30 Sep 2022. Complaint detail is as follow: “石仔嶺花園第五座投訴工程噪音滋擾。我們不知承辦商工程，請幫忙跟進。謝謝！”	<p>Joint inspection for the issue was conducted by AECOM, EPD and Contractor on 29 September 2022. Installation of sheet pile by Vibration Hammer was in progress during the inspection. Considering the founding during inspection and in order to quantify the noise nuisance made by related works, noise monitoring around Portion 2 had been conducted on 30 September, 3 and 5 October 2022(AM and PM periods) by Contractor with AECOM. Result shown that all noise levels are lower than the standard (75dB(A)). But the traffic condition has been considered as an influencing factor. Based on the findings, no noise exceedance is predicted to be found at NSRs.</p> <p>Several mitigation measures have been taken to alleviate the impact made. Noise screen has been erected along the fencing at Portion 2. Moreover, noise generation works including installation of sheet pile will be suspended at Portion 2 during 11:00-14:00 of working day. Environmental</p>	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
				promotion is given to site staff to increase their awareness of environmental protection.	
COM-2022-10-06	Fanling On Lok Tsuen near lamp post EB1339” (ND/2019/05)	7 <sup>th</sup> October 2022	Complaint received by EPD on 6 Oct 2022 and forwarded to ET on 7 Oct 2022. “近電燈柱 EB1339 近麻笏河，有一大型建天橋工程，星期日和假期幾十名工人正在開工，工作間大型鐵板聲炒耳，工人大聲叫囂，還開擴音器播歌.....使附近寧靜的安樂村、麻笏村、塘坑村和郊遊人士不安寧。”	Based on the Contractor’s internal Permit-to-Work (PTW) System for restricted hours works, there was no works carried out at Pier C4-01 on recent Sundays or public holidays where is located near lamp pole EB1339 since September 2022. The holiday works at Pier C4-02 which are further away from the aforesaid lamp pole were carried out on 04/10/2022 in accordance with the CNP ref. GW-RN0551-22 granted by EPD. The works involved housekeeping and scaffold erection without any Powered Mechanic Equipment (PMEs). Therefore, the possible cause of the incident might be the work at Pier C4-02 on 04/10/2022. But the scaffold erection involved prescribed construction work in non-Designated Area was carried out with fully compliance with the valid CNP. Therefore, it might conclude that there was no any non-compliance issue. Nevertheless, the Contractor have conducted specific training to relevant site supervisors to remind workers to refrain from using loud speakers/playing loud music for works during restricted hours and to ensure keep the restricted hours works as quiet as possible, if any, and will install sound absorbing materials for the concerned works.	Closed
COM-2022-10-09	Portion 5 (ND/2019/02)	17 <sup>th</sup> October 2022	Complaint received by EPD on 13 Oct 2022 and forwarded to ET on 17	As mentioned by EPD, the construction site is near Shek Sheung River. The complaint location	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
			Oct 2022. The complainant alleged the captioned Project of "有關上水石上河有地盤直接排放污水落河事宜 2022 年 10 月 9 日 地盤直接排放污水落河"	may be Portion 5 of project site. Joint inspection for the issue was conducted by EPD, AECOM and Contractor on 14 October 2022. According to the record of construction site, no work was arranged on 9 Oct 2022. Subject to the comments made by EPD staff during the site inspection, several mitigation measures have been taken to enhance the water pollution control performance. Contractor had arranged a wastewater treatment tank to replace the existing tank on site to improve the treatment performance and one more sedimentation tank is introduced to increase the detention time. Moreover, all hoses related to the wastewater transportation have been removed from the slope near Shek Sheung River. Also, water discharge has been suspended for the facilities enhancement. Contractor enhanced the routine checking and maintenance of wastewater treatment facilities including cleaning and replacing of tanks. Posters of mitigating adverse environmental impacts had been fixed at Portion 5 to increase workers' environmental awareness. Training has been provided for site staff. Based on the findings of investigation, CW-KL JV enhanced water pollution control to reduce nuisance to the environment. Environmental promotion is given to site staff to increase their awareness of environmental protection.	
COM-2022-10-18	安樂村新界蔬	28 <sup>th</sup> October 2022	EPD received a complaint (EPD ref: N07/RN/00022664-22) regarding	Since the works areas adjacent to North District Temporary Wholesale Market (北區臨時農	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
	菜批發市場旁 (ND/2019/05)		water pollution in “construction works of the Kwu Tung North new development area of NENT Project” on 18 October 2022 and forwarded to ET through E-mail on 28 October 2022 and ET transferred to JV on the same day. The complaint alleged: "投訴安樂村新界蔬菜批發市場旁有人私自破壞污水渠並把污水接駁至麻笏非法排放污水，投訴人表示親眼見到涉事人員鑿爛污水渠，具體位置會後續來電補充附近的燈柱號碼，又表示部門跟進時如需要具體位置亦可直接聯絡查詢人。"	產品批發市場) are Portion I and Portion II, the following investigation are focusing on these two works area locations. 1. Site activities at Portion I and Portion II; In response to the complaint, “sewerage pipe being damaged and connected to Ma Wat River” is not observed on-site. There were substructure construction works which did not generate wastewater in Portion I and II. 2. Preventive measures for pollution control; 2 nos. of wastewater treatment facilities have been setup and operating for works area in portion I & Portion II in the concerned period. 3. Latest discharge monitoring results; The water quality of the discharge from the Site have been monitored according to the granted discharge licence ref. WT00036996-2020. Discharge qualities are regularly monitored and tested by HOKLAS accredited laboratory. The results show all discharge samples are complying with discharge standards outlined in discharge license, test results of discharge sample in concerned areas which were submitted to EPD. 4. Any possible source of muddy discharge to induce the captioned incident; No wastewater generating activities were conducted at Portion I and II on 18 October 2022. Wastewater (if any) from all construction activities is properly collected, treated and	

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
				<p>monitored.</p> <p>Based on the above findings, it is concluded that the complaint was not related to the Contract. Contractor will continue daily monitoring on our site condition and visual check discharge qualities against with standard solution of suspended solids (30 mg/L stipulated in licence condition) in order to get rid of any water pollution to the river. In addition, Contractor will regularly conduct morning briefing and tool-box training to the frontline for keeping refresh their awareness on water pollution control.</p>	
COM-2022-10-31	near Po Lau Road, Kwu Tung (ND/2019/01)	31 <sup>st</sup> October 2022	EPD received a complaint with ref: N07/RN/00024008-22 on 31 October 2022 and referred the complaint to ET. Description: A complaint referred from EPD regarding dust impact near Po Lau Road, Kwu Tung. The complaint alleged: “古洞開發區波樓路新大樓附近有路面平整工程, 早上九時多有儲泥及卸泥活動, 吹起沙塵, 影響駕駛安全”	<p>The suspected complaint location was Portion 1b. According to the records of Hong Kong Observatory on 31 October 2022, typhoon signal number 1 was hoisted and the local winds were generally strong.</p> <ol style="list-style-type: none"> <li>1. Weekly environmental walk and EPD ad-hoc inspection was carried out on 01 November 2022 morning, it was reminded that the frequency of watering shall be increased under strong wind condition.</li> <li>2. Two water browsers were deployed for regularly watering of main haul road.</li> <li>3. Mist cannon was provided on site for dust suppression.</li> <li>4. Manual water spraying was provided to maintain site condition in a damp condition.</li> <li>5. Once the level of stockpile reached the formation level, hydroseeding was applied.</li> </ol>	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
				<ol style="list-style-type: none"> <li>6. Dust monitoring was carried out at KTN-DMS4(B) on 21 Oct 2022 and 27 Oct 2022, no exceedance was recorded.</li> <li>7. Cover the slope surface with impervious sheeting.</li> <li>8. Addition water browser with capacity 20,000L was deployed on site on 01 November 2022.</li> <li>9. Hydroseeding to exposed soil once the formation level reached.</li> <li>10. Keep closely monitoring on the concerned area.</li> </ol>	
COM-2022-11-10	Construction site near Shek Wu San Tsuen North (ND/2019/04)	10 <sup>th</sup> November 2022	EPD received a complaint with ref: N07/ RN/00025077-22 on 10 November 2022 and referred the complaint to ET and IEC on 2 December 2022. The complaint alleged: "White smoke was emitted from an operating crane (blue/white color) in the construction site of Fanling North New Development Area, Phase 1: Fanling Bypass Eastern Section nearby Shek Wu San Tsuen North."	<p>There was a crane in blue/white color working in the area nearby Shek Wu San Tsuen. According to Contractor's record, the crane has stopped works since 10 Nov 2022 afternoon for the preparation of removal from site. No white or dark smoke emission has been observed on 10 Nov 2022 morning. The crane was removed on 12 Nov 2022. Photo record shown that the blue/white crane was totally removed on 14 Nov 2022.</p> <p>Based on the findings of investigation, no emission of white smoke was observed on the date of complaint. The Contractor would keep monitoring the plant whether there are dark smoke emission and the operation would stop at once if dark smoke emission has been observed, by comparing with the Ringelmann Chart.</p>	Closed



Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
COM-2022-12-07	Construction site near Lamp post VD6513 (ND/2019/05)	7 <sup>th</sup> December 2022	<p>EPD received a complaint with ref.: N07/RN/00028143-22 on 7 Dec 2022 and referred the complaint to ET and IEC on 14 Dec 2022. The complaint alleged: “本人住北區，習慣晨運，目睹近來北區太多基建工程，已經很多污染，環保署有沒有積極監察？”</p> <p>本人於星期日(27.12.2022)，行經粉嶺龍山近塘坑村附近，近電燈柱VD6513，興建中的橋跨行人路，高空掉下釘子在行人路上，掉下發泡膠並隨風吹散各地和麻芴河流中，請環保署查看是否有物質？做成污染。附上圖。另外，水馬大部分欠蓋存積水。</p> <p>高空掉建築物很危險”</p>	<p>The investigation results are as follows:</p> <ol style="list-style-type: none"> <li>1. The works area vicinity to lamp post VD6513 is Piers C4-03. There are viaduct construction works above the concerned lamp post.</li> <li>2. Expanding foam and tiny metal nails found over there were both non-hazardous and non-harmful substance. It is suspected that they were some remaining left behind from previous foundation construction works or by the public due to there is a public area currently. Although the material might be not from the current works, to maintain good neighborhood relationship, the Contractor have promptly followed up as follow: <ol style="list-style-type: none"> <li>A. Cleaned up the expanding foam and metal nails,</li> <li>B. Tightened and securely fixed the safety net,</li> <li>C. Sealed up those water-filled barriers without lids and their damaged parts.</li> </ol> </li> </ol> <p>JV conducted joint site inspection with EPD inspectors at the concerned area on 13 Dec 2022. EPD satisfied with the above follow-up actions taken for the complaint.</p>	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
COM-2023-01-12	Sheung Yue River (ND/2019/01) (ND/2019/02)	12 <sup>th</sup> January 2023	As reported by DSD, DSD had a joint site inspection, and observed large amount of muddy runoff was outflowing from the construction sites at Kwu Tung North into Sheung Yue River, which divided into 3 main sources of muddy runoff.	Due to the complaint location, there will be two contractors conducted the investigation as below. <u>From Contract Number (ND/2019/01):</u> Investigation was conducted by contractor and reply as follow: Investigation Findings: 1. The suspected complaint location was between Portion 7 and the outlet of Sheung Yue River. 2. According to the site records, activities include trimming and compaction of formation level and installation of lamp post were conducted. 3. EPD staff carried out investigation on 16 January 2023 and two water samples were collected. 4. An immediate checking by supplier was arranged to check the efficiency of the wastewater treatment plant. 5. During the checking, it was observed that the chemical dosing system was found clogged due to undissolved chemical, and it has been repaired. 6. The chemical was found lumping due to recent high relative humidity. 7. According to the records of Hong Kong Observatory on 10-15 January 2023, the relative humidity was reached to at least 94%. 8. An inspection was carried out with ET, it was observed that a covered u-channel was found damage and mud was accumulated at the bottom of the channel. Wastewater discharged from wastewater treatment plant may mixed with the	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
				<p>accumulated mud and cause the wastewater become turbid / muddy.</p> <p>9. Visual comparison was conducted with ET on 17 January 2023, the colour of the glass bottle collected from wastewater treatment plant looks clear when compare with the standard solution.</p> <p>10. During the ad-hoc inspection on 27 January 2023, inadequate treated wastewater discharge from nearby private construction site was observed.</p> <p>Mitigation Measures and Follow-Up Actions:</p> <ol style="list-style-type: none"> <li>1. Properly store the chemical with covered tarpaulin to prevent lumping;</li> <li>2. A refresher training for WWTP operation and maintenance by supplier was provided to foreman and designated workers;</li> <li>3. Repair the damaged u-channel;</li> <li>4. Arrange to clear the accumulated sludge in the channel; and</li> <li>5. Keep closely monitoring such as daily visual inspection on the WWTP and clear the accumulated sludge in the channel.</li> </ol> <p><u>From Contract Number (ND/2019/02):</u>                      Investigation was conducted by contractor and reply as follow:                      As mentioned by EPD and DSD, the finding was happened at the upstream of Sheung Yue River and the project site falls along the downstream of</p>	

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
				<p>complaint location.</p> <ol style="list-style-type: none"> <li>1. Joint inspection for the issue was conducted by EPD and DSD on 11 January 2023.</li> <li>2. According to the record of construction site, no work was arranged on 12 January 2023 at Portion 1 along Castle Peak Road. Formwork, steel work and welding were carried out along Sheung Yue River. Site inspection and discharge sampling by contractor itself was conducted 12 January 2023 along all of the functioning wastewater treatment facilities along Sheung Yue River and no muddy discharge was found. The condition of outfall along rivers were also checked.</li> <li>3. According to investigation by contractor 12 Jan 2023, no muddy discharge from our project was observed. Preventative measures have been provided to further reduce the risk of illegal discharge. Silt Curtain has been installed along outfall and workforce with potential risk of polluted runoff has been installed sheet pile and canvas was provided to intercept runoff due to rainwater.</li> <li>4. Checking and maintenance of wastewater treatment facilities have been carried out by supplier before the joint inspection by EPD and DSD.</li> <li>5. Training on proper wastewater treatment and discharge has been provided for site staff to raise the awareness of site staff at all levels.</li> </ol> <p>Conclusion: Based on the findings of investigation, CW-KL</p>	

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
				JV enhanced water pollution control to reduce nuisance to the environment. Environmental promotion is given to site staff and workers to increase their awareness of environmental protection.	

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
COM-2023-02-03	a construction site near On Lok Garden at On Fuk Street, North District. (ND/2019/05)	3 <sup>rd</sup> February 2023	EPD received a complaint with ref.: N07/RN/0002434-23 on 29 Jan 2023. Complaint detail: Suspect some closeby construction sites flow the waste water into the river that potentially kill the fish inside the river.	<p>The investigation result as follows:</p> <p>Since the concerned area near On Lok Garden is Portion V, the following investigation is focusing on portion V and its nearby works area (portion VI &amp; VIII) from upper stream of Ma Wat River.</p> <ol style="list-style-type: none"> <li>1. Site activities at concerned areas; There were superstructure construction works (i.e., construction of pier and portal beam and segment) which did not generate wastewater in Portion V and its nearby works area from upper stream of Ma Wat River.</li> <li>2. Preventive measures for pollution control; 19 sets of wastewater treatment facilities have been setup and operating for all works area for Contract No. 5 which covering all of the concerned works areas,</li> <li>3. Latest discharge monitoring results; The water quality of the discharge from the Site have been monitored according to the granted discharge licence ref. WT00036996-2020. Discharge qualities are regularly monitored and tested by HOKLAS accredited laboratory. The results show all discharge samples are complying with discharge standards outlined in discharge license, test results of discharge sample in concerned areas which were submitted to EPD.</li> </ol>	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
				<p>4. Any possible source of muddy discharge to induce the captioned incident;                      No wastewater generating activities were conducted at Portion V in concerned period between 06:48 to 06:53 on 19 January 2023. Wastewater (if any) from all our construction activities is properly collected, treated and monitored.</p> <p>During joint inspection with EPD inspectors and the Supervisor as well as the contractor on 31 January 2023, off site wastewater sources from other discharge pipes at upper stream of Ma Wat River are observed which are highly potential contributing to the incident.</p>	

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
COM-2023-02-08	Construction site near Dills Corner Garden (ND/2019/01)	8 <sup>th</sup> February 2023	EPD received a complaint with ref.: N07/RN/00003315-23 on 6 Feb 2023. Complaint detail: 投訴波樓路石仔嶺花園裏面的打樁工程噪音	The investigation result as follows:  1. The suspected complaint location was Dills Corner Garden where few contracts which included ND/2019/01, ND/2019/02, ND/2019/05 and private construction site were carried out construction works nearby. 2. There was no foundation work carried out at or near Drills Corner Garden under ND/2019/01. 3. The nearest site area Portion 1e was a temporary storage area for construction material where no construction works carried out. 4. However, piling work was identified next to the Drills Corner Garden which was not belonged to ND/2019/01. 5. According to the EPD records, there were two piling permits granted to other contactors near the Drills Corner Garden which were not under ND/2019/01. 6. As there was no foundation work carried out under ND/2019/01, no mitigation measures or follow-up actions were proposed.	Closed



Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
COM-2023-04-03a	The Soil Stockpiling area at Kwu Tung near L/P: GD5847 (ND/2019/05)	3 <sup>rd</sup> April 2023	EPD received a complaint with ref.: N07/RN/00008714-23 on 3 Apr 2023. Complaint detail: 投訴上水古洞波樓路石仔嶺花園隔離地盤的泥車出馬路時, 帶泥水往馬路	<p>The investigation result as follows:</p> <ol style="list-style-type: none"> <li>1. There are many construction sites in the concerned area adjacent to lamp post GD5847 using the access road. Thus, concerned dump trucks and their impacts may not be relevant to JV.</li> <li>2. There are stockpiling works for the temporary storage, internal transferring and sorting of inert materials in the concerned area.</li> <li>3. To prevent any potential impacts from the works, sufficient resources of manpower and facilities are allocated for the implementation of mitigation measures including wheel washing and water pollution control.</li> <li>4. Resources allocation is listed as below, <ul style="list-style-type: none"> <li>(a) Four full-time workers and one supervisory staff</li> <li>(b) Wheel washing bay supplemented with water pipes</li> <li>(c) Proper temporary drainage system (cutoff drain, water pumps, sump pits, bunding, etc.,)</li> <li>(d) One set of wastewater treatment facilities</li> <li>(e) Fully hard paved haul road</li> </ul> </li> </ol> <p>Based on the above findings, it is concluded that the complaint was not related to the Contract. JV will continue allocating sufficient resources and daily monitoring of their site conditions for proper pollution control.</p>	Closed
COM-2023-04-03b			EPD received a complaint with ref.: N07/RN/00008728-23 on 3 Apr 2023. Complaint detail: 投訴古洞發展區地盤的泥車頭, 出入時沒有清洗乾淨, 將泥漿帶出馬路, 他今天大約 14:00, 發現有多部泥頭車都此問題, 泥漿由青山公路古洞段, 一直帶到往元朗的高速公路, 現要求跟進及回覆		

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**APPENDIX T  
SUMMARY OF SUCCESSFUL  
PROSECUTION**

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**Appendix T - Summary of Successful Prosecution**

<b>Date of Successful Prosecution</b>	<b>Details of the Successful Prosecution</b>	<b>Status</b>	<b>Follow Up</b>
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**APPENDIX U  
SUMMARY TABLE FOR REQUIRED  
SUBMISSION UNDER  
ENVIRONMENTAL PERMIT**

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**Development of Kwu Tung North and Fanling North New Development Areas**  
**Summary for the EP Submissions**

DP No.	EP No.	Designated Project	Phase (1st Phase = 1, Remaining Phase = 2)	Commencement date of construction	C1	C2	C3	C4	C5	C6	C7
<a href="#">DP2</a>	<a href="#">EP-466/2013/A</a>	Castle Peak Road Diversion	1	12-Aug-20	<a href="#">C1-DP2</a>						
<a href="#">DP3</a>	<a href="#">EP-467/2013/A</a>	Kwu Tung North New Development Area Road P1 and P2 and Associated New Kwu Tung Interchange and Pak Shek Au Interchange Improvement	1	12-Aug-20	<a href="#">C1-DP3</a>						
<a href="#">DP4</a>	<a href="#">EP-468/2013/A</a>	Kwu Tung North New Development Area Road D1 to D5	1	1-Jun-20 (for C1) 3-Jul-20 (for C3)	<a href="#">C1-DP4</a>		<a href="#">C3-DP4</a>				
<a href="#">DP5</a>	<a href="#">EP-469/2013</a>	Sewage Pumping Stations in Kwu Tung North New Development Area	1	28-Oct-20		<a href="#">C2-DP5</a>					
<a href="#">DP7</a>	<a href="#">EP-470/2013</a>	Utilization of Treated Sewage Effluent (TSE) from Shek Wu Hui Sewage Treatment Works	1	23-Mar-20	<a href="#">C1-DP7</a>						
<a href="#">DP10</a>	<a href="#">EP-473/2013/A</a>	Fanling Bypass Eastern Section	1	6-Oct-20 (for C3) 23-Feb-21 (for C4) 1-Aug-20 (for C5)			<a href="#">C3-DP10</a>	<a href="#">C4-DP10</a>	<a href="#">C5-DP10</a>		
<a href="#">DP12</a>	<a href="#">EP-475/2013/A</a>	Reprovision of temporary Wholesale Market in Fanling North New Development Area	1	29-Oct-19						<a href="#">C6-DP12</a>	
<a href="#">DP14</a>	<a href="#">EP-546/2017</a>	Fanling North Temporary Sewage Pumping Station	1	16-Feb-21				<a href="#">C4-DP14</a>			

DP2	EP-466/2013/A	Castle Peak Road Diversion				
Construction commencement date		12 August 2020				
Operation commencement date		tbc				
EP Condition		Requirements and Submissions			Submission Status	Remarks
		Period	Action	Timeframe		
1.12	Commencement date of construction	Before construction		no later than 8 weeks prior to the commencement of construction.	Notified 2 March 2020	
2.1	Establish of ET	Before construction	<b>Establish -</b> An ET & IEC of at least 7 years of experience in EM&A or environmental management.	no later than 6 weeks before the commencement of construction .	Established 5 March 2020	Pre-construction ET
					Established 23 January 2020	Construction Phase ET
2.2	Employment of IEC	Before construction			Established 11 March 2020	Pre-construction IEC
					Established 20 February 2020	Construction Phase IEC
2.3	Update EM&A Manual	Before construction	<b>Deposit</b>	at least 4 weeks before the commencement of construction.	Latest submitted on 4 September 2020 by Pre-construction ET	
2.4	Management organization of the main construction companies	Before construction	<b>Inform in writing</b>	no later than 2 weeks before the commencement of construction.	Deposited 27 July 2020	
2.5	Layout Plan	Before construction	<b>Deposit</b>	no later than 2 weeks before the commencement of construction.	Deposited 27 July 2020	EPD Approved 25 August 2020
2.6	Cultural Heritage Impact -- Baseline condition survey and baseline vibration impact assessment	Before construction	<b>To Conduct -</b> A baseline condition survey and baseline vibration impact assessment by a qualified building surveyor or a qualified structural engineer.  <b>Note:</b> The baseline condition survey and baseline vibration impact assessment shall be included in and form part of the Baseline Monitoring Report to be submitted under Condition 3.3.	prior to the commencement of construction.	Submitted 8 October 2022	
2.7	Cultural Heritage Impact -- Photographic and Cartographic Records/ Proposals on relocation of any building	Others	<b>Deposit -</b> A copy of Photographic and cartographic records of directly impacted historical buildings at HKT08 and the entrance gate of HKT03.	prior to the commencement of the respective removal or relocation works.	NA	No relocation is required.
		Others	<b>For Approval -</b> Proposals on relocation of any built heritages.	prior to commencement of the respective relocation work.	NA	No relocation is required.
2.8	Landscape Plan	Others	<b>Deposit</b>	at least 6 weeks before the commencement of the corresponding parts of landscape and visual mitigation measures of the Project.	NA	Submitted justification 3 October 2022 PlanD comment 13 October 2022
2.10	Traffic Noise Mitigation Plan	Before construction	<b>Submit</b>	At least one month before commencement of construction	To be submitted before commencement of Remaining Phase works	
3.3	Baseline Monitoring Report	Before construction	<b>Submit</b>	at least 2 weeks before the commencement of construction.	Submitted by Pre-Construction ET	by Fugro
3.4	Monthly EM&A Report	During construction	<b>Submit</b>	within 2 weeks after the end of each reporting month throughout the entire construction period.	Submitted by ET Monthly	
4.2	Dedicated website	During construction	<b>Set up and Notify in writing --</b> the internet address.	in place within one month after the commencement of construction of the Project.	Notified 7 July 2022	First Notified 22 April 2020 [For all EPs]
		During construction and operation	<b>Upload --</b> All environmental monitoring results described in Condition 4.1 and all submissions required by this Permit.	in the shortest time practicable, and in no event later than 2 weeks after the relevant environmental monitoring data are collected or become available.	N/A	
			<b>Maintain</b>	entire construction period and during the first 3-year of operation.	N/A	

Remarks: tbc: To be confirmed

DP: Designated Project

\* tentative submission date will be supplemented once available

# The Landscape Plan will be submitted by CEDD's Castle Peak Road project team as confirmed since there is no existing tree is being affected by CEDD KTN NDA Phase 1 Works within the small portion of area along Castle Peak Road (near Pak Shek Au) which is overlapped with DP2 work boundary.

DP3	EP-467/2013/A	Kwu Tung North New Development Area Road P1 and P2 and Associated New Kwu Tung Interchange and Pak Shek Au Interchange Improvement				
Construction commencement date		12 August 2020				
Operation commencement date		tbc				
EP Condition		Requirements and Submissions			Submission Status	Remarks
		Period	Action	Timeframe		
1.12	Commencement date of construction	Before construction		no later than 8 weeks prior to the commencement of construction	Notified 2 March 2020	
2.1	Establish of ET	Before construction	<b>Establish -</b> An ET & IEC of at least 7 years of experience in EM&A or environmental management.	no later than 6 weeks before the commencement of construction	Established 5 March 2020	Pre-construction ET
					Established 23 January 2020	Construction Phase ET
2.2	Employment of IEC	Before construction			Established 11 March 2020	Pre-construction IEC
					Established 20 February 2020	Construction Phase IEC
2.3	Update EM&A Manual	Before construction	<b>Deposit</b>	at least 4 weeks before the commencement of construction	Latest submitted on 4 September 2020 by Pre-construction ET	
2.4	Management organization of the main construction companies	Before construction	<b>Inform in writing</b>	no later than 2 weeks before the commencement of construction	Deposited 27 July 2020	
2.5	Layout Plan	Before construction	<b>Deposit</b>	no later than 2 weeks before the commencement of construction	Deposited 27 July 2020	EPD Approved 25 August 2020
2.6	Traffic Noise Mitigation Plan	Before construction	<b>For Approval</b>	no later than 1 month before the commencement of construction	Deposited 31 July 2019	EPD Approved 9 August 2019
2.7	Cultural Heritage Impact -- Photographic and Cartographic Records	Others	<b>Deposit -</b> A copy of Photographic and cartographic records of directly impacted historical buildings and cultural/historical landscape features at Locatoins KT38, KT44 and KT52.	prior to the commencement of the respective removal or relocation works	Deposited 10 Feb 2021	No relocation is required
2.8	Landscape Plan	Others	<b>Deposit</b>	at least 6 weeks before the commencement of the corresponding parts of landscape and visual mitigation measures of the Project	Deposited 19 December 2022	
3.3	Baseline Monitoring Report	Before construction	<b>Submit</b>	at least 2 weeks before the commencement of construction	Submitted by Pre-Construction ET	by Fugro
3.4	Monthly EM&A Report	During construction	<b>Submit</b>	within 2 weeks after the end of each reporting month throughout the entire construction period	Submitted by ET Monthly	
4.2	Dedicated website	During construction	<b>Set up and Notify in writing --</b> the internet address	in place within one month after the commencement of construction of the Project.	Notified 7 July 2022	First Notified 22 April 2020 [For all EPs]
		During construction and operation	<b>Upload --</b> All environmental monitoring results described in Condition 4.1 and all submissions required by this Permit	in the shortest time practicable, and in no event later than 2 weeks after the relevant environmental monitoring data are collected or become available	N/A	
			<b>Maintain</b>	entire construction period and during the first 3-year of operation	N/A	

Remarks: tbc: To be confirmed  
DP: Designated Project  
\*tentative submission date will be supplemented once available

DP4	EP-468/2013/A	Kwu Tung North New Development Area Road D1 to D5				
Construction commencement date		1 June 2020				
Operation commencement date		tbc				
EP Condition		Requirements and Submissions			Submission Status	Remarks
		Period	Action	Timeframe		
1.12	Commencement date of construction	Before construction		no later than 8 weeks prior to the commencement of construction	Notified 2 March 2020	
2.1	Establish of ET	Before construction	<b>Establish -</b> An ET & IEC of at least 7 years of experience in EM&A or environmental management.	no later than 6 weeks before the commencement of construction	Established 5 March 2020	Pre-construction ET
					Established 23 January 2020	Construction Phase ET
2.2	Employment of IEC	Before construction			Established 11 March 2020	Pre-construction IEC
					Established 20 February 2020	Construction Phase IEC
2.3	Update EM&A Manual	Before construction	<b>Deposit</b>	at least 4 weeks before the commencement of construction	Latest submitted on 4 September 2020 by Pre-construction ET	
2.4	Management organization of the main construction companies	Before construction	<b>Inform in writing</b>	no later than 2 weeks before the commencement of construction	Deposited 14 May 2020	
2.5	Layout Plan	Before construction	<b>Deposit</b>	no later than 2 weeks before the commencement of construction	Deposited 14 May 2020	
2.6	Cultural Heritage Impact -- Baseline condition survey and baseline vibration impact assessment	Before construction	<b>To Conduct -</b> A baseline condition survey and baseline vibration impact assessment by a qualified building surveyor or a qualified structural engineer  <b>Note:</b> The baseline condition survey and baseline vibration impact assessment shall be included in and form part of the Baseline Monitoring Report to be submitted under Condition 3.3	prior to the commencement of construction	Submitted 8 October 2022	
2.7	Cultural Heritage Impact -- Photographic and Cartographic Records/ Proposals on relocation of any building	Others	<b>Deposit -</b> A copy of Photographic and cartographic records of directly impacted historical buildings and cultural/historical landscape features at locations HKT03, KT16, KT17 and KT18	prior to the commencement of the respective removal or relocation works	NA	No relocation is required.
		Others	<b>For Approval -</b> Proposals on relocation of any built heritages	prior to commencement of the respective relocation work	NA	No relocation is required.
2.8	Compensatory Tree Planting Plan	Before construction	<b>For Approval</b>	prior to the commencement of construction	Resubmitted 17 August 2022	EPD approved 31 August 2022
2.9	Habitat Creation and Management Plan	Others	<b>For Approval</b>	prior to the commencement of construction of relevant part of the Project	Submitted 20 October 2020	EPD approved 4 November 2020
2.10	Traffic Noise Mitigation Plan	Before construction	<b>For Approval</b>	no later than 1 month before commencement of construction	Submitted 31 July 2019	EPD approved 9 August 2019
3.3	Baseline Monitoring Report	Before construction	<b>Submit</b>	at least 2 weeks before the commencement of construction	Submitted by Pre-Construction ET	by Fugro
3.4	Monthly EM&A Report	During construction	<b>Submit</b>	within 2 weeks after the end of each reporting month throughout the entire construction period	Submitted by ET Monthly	
4.2	Dedicated website	During construction	<b>Set up and Notify in writing --</b> the internet address	in place within one month after the commencement of construction of the Project.	Notified 7 July 2022	First Notified 22 April 2020 [For all EPs]
		During construction and operation	<b>Upload --</b> All environmental monitoring results described in Condition 4.1 and all submissions required by this Permit	in the shortest time practicable, and in no event later than 2 weeks after the relevant environmental monitoring data are collected or become available	N/A	
			<b>Maintain</b>	entire construction period and during the first 3-year of operation	N/A	

Remarks: tbc: To be confirmed  
DP: Designated Project

\*tentative submission date will be supplemented once available



DP5	EP-469/2013	Sewage Pumping Stations in Kwu Tung North New Development Area				
Construction commencement date		28 October 2020				
Operation commencement date		tbc				
EP Condition		Requirements and Submissions			Submission Status	Remarks
		Period	Action	Timeframe		
1.12	Commencement date of construction	Before construction		no later than 8 weeks prior to the commencement of construction	Notify 14 October 2020	
2.1	Establish of ET	Before construction	<b>Establish -</b> An ET & IEC of at least 7 years of experience in EM&A or environmental management.	no later than 6 weeks before the commencement of construction	Established 5 March 2020	Pre-construction ET
					Established 23 January 2020	Construction Phase ET
2.2	Employment of IEC	Before construction			Established 11 March 2020	Pre-construction IEC
					Established 20 February 2020	Construction Phase IEC
2.3	Update EM&A Manual	Before construction	<b>Deposit</b>	at least 4 weeks before the commencement of construction	Latest submitted on 4 September 2020 by Pre-construction ET	
2.4	Management organization of the main construction companies	Before construction	<b>Inform in writing</b>	no later than 2 weeks before the commencement of construction	Deposited 17 September 2020	
2.5	Location Plans	Before construction	<b>Deposit</b>	no later than 2 weeks before the commencement of construction	Deposited 11 August 2022	First Deposited 15 October 2020
2.6	Landscape Plan	Before construction	<b>Deposit</b>	at least 6 weeks before the commencement of the corresponding parts of landscape and visual mitigation measures	Deposited 9 August 2022	Comments from PlanD on 8 September 2022
3.3	Baseline Monitoring Report	Before construction	<b>Submit</b>	at least 2 weeks before the commencement of construction	Submitted by Pre-construction ET	by Fugro
3.4	Monthly EM&A Report	During construction	<b>Submit</b>	within 2 weeks after the end of each reporting month throughout the entire construction period	Submitted by ET Monthly	
4.2	Dedicated website	During construction	<b>Set up and Notify in writing --</b> the internet address	in place within one month after the commencement of construction of the Project.	Notified 7 July 2022	First Notified 22 April 2020 [For all EPs]
		During construction and operation	<b>Upload --</b> All environmental monitoring results described in Condition 4.1 and all submissions required by this Permit	in the shortest time practicable, and in no event later than 2 weeks after the relevant environmental monitoring data are collected or become available	N/A	
			<b>Maintain</b>	entire construction period and during the first 3-year of operation	N/A	

Remarks: tbc: To be confirmed  
DP: Designated Project  
\*tentative submission date will be supplemented once available

DP7	EP-470/2013	Utilization of Treated Sewage Effluent (TSE) from Shek Wu Hui Sewage Treatment Works				
Construction commencement date		23 March 2020				
Operation commencement date		tbc				
EP Condition		Requirements and Submissions			Submission Status	Remarks
		Period	Action	Timeframe		
1.12	Commencement date of construction	Before construction		no later than 8 weeks prior to the commencement of construction	Notify 22 January 2020	
2.1	Establish of ET	Before construction	<b>Establish -</b> An ET & IEC of at least 7 years of experience in EM&A or environmental management.	no later than 6 weeks before the commencement of construction	Established 5 March 2020	Pre-construction ET
					Established 23 January 2020	Construction Phase ET
2.2	Employment of IEC	Before construction			Established 11 March 2020	Pre-construction IEC
					Established 20 February 2020	Construction Phase IEC
2.3	Update EM&A Manual	Before construction	<b>Deposit</b>	at least 4 weeks before the commencement of construction	Latest submitted on 4 September 2020 by Pre-construction ET	
2.4	Management organization of the main construction companies	Before construction	<b>Inform in writing</b>	no later than 2 weeks before the commencement of construction	Deposited 14 May 2020	
2.5	Layout Plan	Before construction	<b>Deposit</b>	no later than 2 weeks before the commencement of construction	Deposited 14 May 2020	
3.3	Baseline Monitoring Report	Before construction	<b>Submit</b>	at least 2 weeks before the commencement of construction	Submitted by Pre-Construction ET	by Fugro
3.4	Monthly EM&A Report	During construction	<b>Submit</b>	within 2 weeks after the end of each reporting month throughout the entire construction period	Submitted by ET Monthly	
4.2	Dedicated website	During construction	<b>Set up and Notify in writing --</b> the internet address	in place within one month after the commencement of construction of the Project.	Notified 7 July 2022	First Notified 22 April 2020 [For all EPs]
		During construction and operation	<b>Upload --</b> All environmental monitoring results described in Condition 4.1 and all submissions required by this Permit	in the shortest time practicable, and in no event later than 2 weeks after the relevant environmental monitoring data are collected or become available	N/A	
			<b>Maintain</b>	entire construction period and during the first 3-year of operation	N/A	

Remarks: tbc: To be confirmed  
DP: Designated Project  
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DP10	EP-473/2013/A	Fanling Bypass Eastern Section				
Construction commencement date		1 August 2020				
Operation commencement date		tbc				
EP Condition		Requirements and Submissions			Submission Status	Remarks
		Period	Action	Timeframe		
1.12	Commencement date of construction	Before construction		no later than 8 weeks prior to the commencement of construction	Notified 8 September 2020	
2.1	Establish of ET	Before construction	<b>Establish -</b> An ET & IEC of at least 7 years of experience in EM&A or environmental management.	no later than 6 weeks before the commencement of construction	Established 5 March 2020	Pre-construction ET
					Established 23 January 2020	Construction Phase ET
2.2	Employment of IEC	Before construction			Established 11 March 2020	Pre-construction IEC
					Established 20 February 2020	Construction Phase IEC
2.3	Update EM&A Manual	Before construction	<b>Deposit</b>	at least 4 weeks before the commencement of construction	Latest submitted on 4 September 2020 by Pre-construction ET	
2.4	Management organization of the main construction companies	Before construction	<b>Inform in writing</b>	no later than 2 weeks before the commencement of construction	Deposited 17 March 2021	
2.5	Location Plans	Before construction	<b>Deposit</b>	no later than 2 weeks before the commencement of construction	Deposited 10 December 2020	
2.6	Relocation Plan for Rose Bitterling	Before construction	<b>Approval</b>	before the commencement of construction	N/A	
2.7	Egretty Habitat Creation and Management Plan	Before construction	<b>Approval</b>	before the commencement of construction	N/A	
2.8	Detailed Design of Siu Hang San Tsuen Stream	Before construction	<b>Deposit</b>	before the commencement of construction	Deposited 5 May 2022	EPD Satisfied 18 May 2022
2.9	Traffic Noise Mitigation Plan	Before construction	<b>Approval</b>	no later than 1 month before the commencement of construction	Submitted 11 September 2020	EPD Approved 8 October 2020
2.10	Cultural Heritage Impact -- Baseline condition survey and baseline vibration impact assessment	Before construction	<b>To Conduct -</b> A baseline condition survey and baseline vibration impact assessment by a qualified building surveyor or a qualified structural engineer  <b>Note:</b> The baseline condition survey and baseline vibration impact assessment shall be included in and form part of the Baseline Monitoring Report to be submitted under Condition 3.3	prior to the commencement of construction	Submitted 1 September 2022, 5 May 2022 and 12 July 2022	
2.11	Cultural Heritage Impact -- Photographic and Cartographic Records/ Proposals on relocation of any building	Others	<b>Deposit -</b> A copy of Photographic and cartographic records of directly impacted historical buildings and cultural/historical landscape features at FL19	prior to the commencement of the respective removal or relocation works	Submitted 25 May 2022	No relocation is required
		Others	<b>For Approval -</b> Proposals on relocation of any built heritages	prior to commencement of the respective relocation work	NA	No relocation is required
3.3	Baseline Monitoring Report	Before construction	<b>Submit</b>	at least 2 weeks before the commencement of construction	Submitted by Pre-Construction ET	by Fugro
3.4	Monthly EM&A Report	During construction	<b>Submit</b>	within 2 weeks after the end of each reporting month throughout the entire construction period	Submitted by ET Monthly	
4.2	Dedicated website	During construction	<b>Set up and Notify in writing --</b> the internet address	in place within one month after the commencement of construction of the Project.	Notified 7 July 2022	First Notified 22 April 2020 [For all EPs]
		During construction and operation	<b>Upload --</b> All environmental monitoring results described in Condition 4.1 and all submissions required by this Permit	in the shortest time practicable, and in no event later than 2 weeks after the relevant environmental monitoring data are collected or become available	N/A	
			<b>Maintain</b>	entire construction period and during the first 3-year of operation	N/A	

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DP12	EP-475/2013/A	Reprovision of Temporary Wholesale Market in Fanling North New Development Area				
Construction commencement date				29 October 2019		
Operation commencement date				tbc		
EP Condition		Requirements and Submissions			Submission Status	Remarks
		Period	Action	Timeframe		
1.12	Commencement date of construction	Before construction		no later than 8 weeks prior to the commencement of construction	Notified 15 October 2019	
2.1	Establish of ET	Before construction	<b>Establish -</b> An ET & IEC of at least 7 years of experience in EM&A or environmental management.	no later than 6 weeks before the commencement of construction	Established 5 March 2020	Pre-construction ET
					Established 23 January 2020	Construction Phase ET
2.2	Employment of IEC	Before construction			Established 11 March 2020	Pre-construction IEC
					Established 20 February 2020	Construction Phase IEC
2.3	Update EM&A Manual	Before construction	<b>Deposit</b>	at least 4 weeks before the commencement of construction	Latest submitted on 4 September 2020 by Pre-construction ET	
2.4	Management organization of the main construction companies	Before construction	<b>Inform in writing</b>	no later than 2 weeks before the commencement of construction	Deposited 14 October 2019	
2.5	Layout Plan	Before construction	<b>Deposit</b>	no later than 2 weeks before the commencement of construction	Deposited 14 October 2019	
2.6	Landscape Plan	Others	<b>Deposit</b>	at least 6 weeks before the commencement of the corresponding parts of landscape and visual mitigation measures of the Project	Deposited 31 March 2022	
3.3	Baseline Monitoring Report	Before construction	<b>Submit</b>	at least 2 weeks before the commencement of construction	Submitted by Pre-construction ET	by Fugro
3.4	Monthly EM&A Report	During construction	<b>Submit</b>	within 2 weeks after the end of each reporting month throughout the entire construction period	Submitted by ET monthly	
4.2	Dedicated website	During construction	<b>Set up and Notify in writing --</b> the internet address	in place within one month after the commencement of construction of the Project.	Notified 7 July 2022	First Notified 22 April 2020 [For all EPs]
		During construction and operation	<b>Upload --</b> All environmental monitoring results described in Condition 4.1 and all submissions required by this Permit	in the shortest time practicable, and in no event later than 2 weeks after the relevant environmental monitoring data are collected or become available	N/A	
			<b>Maintain</b>	entire construction period and during the first 3-year of operation	N/A	

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<b>DP14</b>	<b>EP-546/2017</b>	<b>Fanling North Temporary Sewage Pumping Station</b>				
<b>Construction commencement date</b>		<b>16 February 2021</b>				
<b>Operation commencement date</b>		<b>tbc</b>				
<b>EP Condition</b>		<b>Requirements and Submissions</b>			<b>Submission Status</b>	<b>Remarks</b>
		<b>Period</b>	<b>Action</b>	<b>Timeframe</b>		
1.12	Commencement date of construction	Before construction		no later than 1 month prior to the commencement of construction	Notified 8 September 2020	
1.14	Commencement date of operation	Before operation	<b>Notify in writing</b>	no later than 1 month prior to the commencement of operation	N/A	
2.4	IEC Audit Report	After construction	<b>Deposit</b>	within one month upon completion of the construction works	N/A	