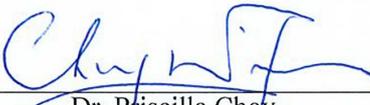


Civil Engineering and Development Department

**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 October 2023**

(Version 1.2)

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.

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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/hc/414202/L0210

Monthly Environmental Monitoring and Audit Report No. 48 (October 2023)

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BY EMAIL

Dear Sir,

We refer to email of 15 November 2023 attaching the Monthly Environmental Monitoring and Audit Report No. 48 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
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EXECUTIVE SUMMARY**Introduction**

1. This is the 48th 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 October 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

Works Contracts	Environmental Permit No.	Designated Project (DP)	Commencement date of construction
Contract No. ND/2019/01 – Kwu Tung North New Development Area, Phase 1: Site Formation and Infrastructure Works	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
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	EP-469/2013	Sewage Pumping Stations in Kwu Tung North New Development Area	28 October 2020
Contract No. ND/2019/03 – Kwu Tung North and Fanling North New Development Areas, Phase 1: Development of Long Valley Nature Park	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
Contract No. ND/2019/04 – Fanling North New Development Area,	EP-473/2013/A	Fanling Bypass Eastern Section (New Road)	23 February 2021

Works Contracts	Environmental Permit No.	Designated Project (DP)	Commencement date of construction
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
Contract No. ND/2019/05 – 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
Contract No. ND/2019/06 – 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
Contract No. ND/2019/07 – 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	3, 6, 12, 18, 24 and 27 Oct 23	3, 6, 12, 18, 24 and 27 Oct 23	N/A	N/A	N/A	
	FLN-DMS3			N/A	N/A	3, 6, 12, 18, 24 and 27 Oct 23			
	FLN-DMS5			5, 11, 17, 20 and 26 Oct 23	5, 11, 17, 20 and 26 Oct 23	N/A			
	KTN-DMS4(B)			5, 11, 17, 20 and 26 Oct 23	N/A	N/A			
24-hr Monitoring (TSP)	FLN-DMS1	N/A	N/A	5, 11, 17, 20 and 26 Oct 23	5, 11, 17, 20 and 26 Oct 23	N/A	N/A	N/A	
	FLN-DMS3			N/A	N/A	5, 11, 17, 20 and 26 Oct 23			
	FLN-DMS5A			5, 11, 17, 20 and 26 Oct 23	5, 11, 17, 20 and 26 Oct 23	N/A			
	KTN-DMS4(B)			5, 11, 17, 20 and 26 Oct 23	N/A	N/A			
Noise Monitoring	CP-FLN-NMS1	N/A			3, 12, 18 and 24 Oct 23		N/A	N/A	
	CP-FLN-NMS2	N/A				3, 12, 18 and 24 Oct 23			N/A
	CP-KTN-NMS2	5, 11, 17 and 26 Oct 23	N/A	N/A					
	CP-KTN-NMS3			N/A					
	CP-KTN-NMS5			N/A					
	CP-KTN-NMS6	N/A	5, 11, 17 and 26 Oct 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*	5, 6, 10, 11, 16, 17 and 27 Oct 2023	5, 10, 17 and 27 Oct 23	N/A*	N/A*	N/A*	
	Monitoring of Measures to Minimise Impacts to Ma Tso Lung Stream and Siu Hang San Tsuen Stream	19 Oct 23	N/A*	19 Oct 23	19 Oct 23	N/A*	N/A*	N/A*	

	Monitoring of Measures to Minimise Impacts on Ecological Sensitive Habitats from Disturbance and Pollution	12 and 18 Oct 23	12 and 18 Oct 23	18 Oct 23	18 Oct 23	18 Oct 23	N/A*	N/A*
Egretty Monitoring		N/A	N/A	N/A	N/A	N/A	N/A	N/A
24-hr RSP (Ambient Arsenic) Monitoring for Land Contamination		4, 10, 16, 20 and 26 Oct 23	N/A	4, 10, 16, 20 and 26 Oct 23	N/A	N/A	N/A	N/A
Water Quality Monitoring		N/A	3, 5, 7, 9, 11, 13, 16, 18, 20, 24, 26, 28 and 30 Oct 23	N/A	3, 5, 7, 9, 11, 13, 16, 18, 20, 24, 26, 28 and 30 Oct 23	N/A	N/A	N/A
Landfill Gas Monitoring		24 Oct 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		3, 11, 17, 24 and 31 Oct 23	4, 11, 18 and 27 Oct 23	6, 13, 17 and 27 Oct 23	5, 12, 18 and 26 Oct 23	3, 10, 19, 24 and 30 Oct 23	5, 12 and 18 Oct 23	6, 13, 20 and 27 Oct 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 _{eq} (30min)	0	0	0	0	0	0
Water Quality	DO	0	0	0	0	0	0
	Turbidity	0	0	0	0	0	0
	SS	0	0	0	0	0	0
	Arsenic	0	0	0	0	0	0
Landfill Gas	O ₂	0	0	0	0	0	0
	CH ₄						
	CO ₂						
Cultural heritage	Built Heritage Monitoring	0	0	0	0	0	0
Ecological Monitoring	Avifauna	0	0	0	0	0	0
	Aquatic fauna	0	1	0	0	0	0
	Non-aquatic fauna	6	4	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. No Action/Limit Level Exceedance was 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.
12. One (1) limit level exceedance for fish monitoring was recorded at MS_04, MS_06 & MS_07. The exceedances were considered non-project related. No project-related construction site activity was observed directly nearby. No exceedance of water quality was recorded in reporting month. Besides the environmental condition, no exceedance in number of native species of aquatic macroinvertebrates was recorded at the same location, whilst 4 non-native species of fishes were recorded in the same locations, thus it seems that the exceedance was unlikely due to project-related construction works.
13. Six (6) action level exceedance and four (4) limit level exceedance for non-aquatic fauna were recorded at T3, T4 & T5. The exceedance were considered non-project related, as large proportion of vegetative habitat along T3 were observed either removed and tarmacked as haul road by construction works outside of project, first reported in the Monthly Monitoring Report in December 2021. In addition, necessary Ecological mitigation measure were provided by all nearby project-related sites. No evidence to suggest that the exceedance was related to project activities.
14. The ecological monitoring result in the Reporting Month is shown in **Appendix L**.

Complaint Log

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

Notification of Summons and Successful Prosecutions

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

Reporting Changes

17. 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

18. 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

Contract No.	Site Activities (November 2023 to January 2024)
ND/2019/01	<ul style="list-style-type: none"> (a) Drainage works and sheet pile in Portion 1a (b) Site formation, stockpile of soil, erection of hoarding and construction of noise barrier in Portion 1c (c) Temporary storage of material in Portion 1e (d) Site formation work, construction of subway, road works and drainage works in Portion 2 (e) Excavation, backfilling, drainage and watermain works in Portion 3 (f) Watermain works, excavation, backfilling, road works, sheet piling and pipe jacking in Portion 5 (g) Drainage works, backfilling, road works, watermain works in Portion 6a (h) Operation of HAC treatment facility in Portion 6b (i) Sheet piling, excavation, stockpile of soil, drainage works and watermain works in Portion 7 (j) Construction of retaining wall, RC construction of fresh water reservoir, excavation at WSD's maintenance access, backfilling works, drainage works, soil nail and pipe pile wall installation in Portion 8a (k) Trenchless work, excavation, watermain works and ground treatment in Portion 8b (l) Sheet piling, excavation, road works, drainage works and watermain works in Portion 9b (m) Site clearance, tree felling, removal of existing structure and stockpile of soil in Portion 13
ND/2019/02	<ul style="list-style-type: none"> (a) Pipe Jacking (b) Backfilling (c) Concreting (d) Bedding & Pipe Laying (e) ELS (f) Sheet Pile Installation (g) Cut and Fill of Slope
ND/2019/03	<ul style="list-style-type: none"> (a) Portion 1 & Portion 1A <ul style="list-style-type: none"> - Road & Drainage works and watermain works at Yin Kong Road - Construction of Pavilion at Yin Kong Road (b) Portion 2 to Portion 20C <ul style="list-style-type: none"> - Wetland creation & restoration, Dry agricultural land creation - Construction of compacted earth path - Construction of Water Treatment Wetland - Tree felling and tree pruning work - Construction of Lodging Facility - Construction of Dry Weather Flow Interception (DWFI) - Construction of Car Park and Farmer's Forum
ND/2019/04	<ul style="list-style-type: none"> (a) Tree Felling (b) Pile Cap (c) Back Filling (d) Excavation (e) Grouting (f) Sheet Piling (g) Road works (h) Formwork Erection (i) Rebar Fixing (j) Pre-drill

Contract No.	Site Activities (November 2023 to January 2024)
	(k) Bore pile (l) ELS
ND/2019/05	(a) <u>North Team Works</u> <ul style="list-style-type: none"> - Backfilling and drainage work at C4-02 & C4-01. - Backfilling at C2-02. - Slope works at On Lok Garden FS 30. - Construction of B1-abutment wall, backfill & extraction of sheet pile. - Exposed water main of Jockey Club Rd – F63. - Road works of northbound of Jockey Club Rd. - Laying ducting for traffic signal, traffic light & street light & construction of permanent footpath for subsequent pedestrian diversion at J/O of JCR and Tong Hang Tsuen - Construction of new box culvert & retaining wall at Tong Hang Tsuen - Drainage works – DN 900 at On Kui Street near B1. - Pier & pier head construction at D2-01. - Cross head construction at B2-01, B2-02 & B2-03. (b) <u>Viaduct Works</u> <ul style="list-style-type: none"> - Segment fabrication for bridge C2, C1, D1, D2, E1, E4 - Segments erection by LG at bridges C3, C2 - SOP construction at D2-01 - Construction of pile cap and installation of bridge rotation components at pier D2-01 - Construction of Bridge B1 - Parapet skin fabrication and parapet construction. (c) <u>South Team Works</u> <ul style="list-style-type: none"> - TWSRW – Road work and UUs laying (Section P800 CH 300 to 450). - TWSRW – Construction of lower berm and Hydroseeding at FS04. - TWSRW - CLP 11 kv cable diversion work (1ST) - TWSRW – Gas (IPA400 and HP600) diversion work - TWSRW – Foundation work of D2-04M - TWSRE – Pavement Works (D400, L201, Temporary Road to match D300) - HKY FB (East) – Installation of cladding and E&M works. - HKY FB (West) – Construction of LT2 (Mini-piles) - E3-04a, E304b, E4-01 and E4-02 – cap construction - E305M Pier Head construction - NB109 – Bay 11~12 base slab construction. Bay 5 to 12 wall construction. - NB69 – Bay 5~6 base slab construction. - NB110 – Bay 8 ELS and base slab construction. - Demolish Existing NB74 and BBI. (d) <u>Form Traveler</u> <ul style="list-style-type: none"> - E3-01 – construction 2nd to 4th pair - E2-02 – construction 11th to 14th pair - D2-02 – construction 03rd to 7th pair - D2-03 – erection of form traveler no. 4 & construction 1st to 2nd pair - E2-01 - erection of 5th set of form traveler.
ND/2019/06	The construction phase has been completed and handed over to AFCD since 4 April 2022.

Contract No.	Site Activities (November 2023 to January 2024)
ND/2019/07	<ul style="list-style-type: none">(a) Road works at Portion 1, 4 and 5(b) C&D waste disposal at Portion 1, 2, 4 and 5(c) Construction of box culvert at Portion 2(d) Filling works at Portion 2 and 4(e) Construction of site haul road at Portion 4(f) Drainage works, Sewerage works at Portion 2, 3, 4 and 5(g) Construction of noise barrier at Portion 4 and 5(h) Waterworks at Portion 1, 2 and 4

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 48th EM&A Report which summarises the key findings of the EM&A programme in October 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 ³ 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	Figure21
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 ³ /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

Party	Role	Contact Person	Phone No.	Fax No.
Civil Engineering and Development Department, HKSAR (CEDD)	Project Proponent	Mr. Ryan Chau	3797 5387	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
<u>Contract No. ND/2019/01</u> Contractor (Build King – Richwell Engineering Joint Venture)	Site Agent	Mr. Ivan Leung	9640 8340	--
	Environmental Officer	Mr. Edward Tam	9287 8270	
<u>Contract No. ND/2019/02</u> Contractor (Chun Wo – Kwan Lee Joint Venture.)	Site Agent	Mr. Andy Chan	3485 9780	--
	Environmental Officer	Mr. Wesley So	9144 1643	
<u>Contract No. ND/2019/03</u> Contractor (Sang Hing Kuly Joint Venture)	Site Agent	Mr. Tang Wing Kai	9300 7037	--
	Environmental Officer	Mr. Ken Cheung	9803 5297	
<u>Contract No. ND/2019/04</u> Contractor (Daewoo – Chun Wo – Kwan Lee Joint Venture)	Site Agent	Mr. Eric Wu	9786 8630	--
	Environmental Officer	Mr. Sam Lam	6178 3179	
<u>Contract No. ND/2019/05</u> Contractor (CRCC – Paul Y. Joint Venture)	Site Agent	Mr. Darwin Lo	9467 5891	--
	Environmental Manager	Mr. Pan Fong	9436 9435	
	Environmental Officer	Ms. Iris Ho	5611 8325	
<u>Contract No. ND/2019/06</u> Contractor (New Concepts Engineering Development Ltd.)	Project Manager	Mr. Joe Cheng	9861 0060	--
	Environmental Officer	Mr. Alex Choy	6360 3236	
<u>Contract No. ND/2019/07</u> Contractor (China Road and Bridge Corporation)	Site Agent	Mr. Mac Chow	9169 9567	--
	Environmental Officer	Mr. K. M. Lui	5113 8223	
	Environmental Supervisor	Mr. Attlee Chau	6386 9018	

Summary of Construction Works Undertaken During Reporting Month2.9 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 (October 2023)
ND/2019/01	<ul style="list-style-type: none"> (a) Drainage works at Portion 1a (b) Site formation, socket-H piling and erection of hoarding at Portion 1c (c) Temporary storage of material at Portion 1e (d) Site clearance, site formation, construction of subway, drainage works and road works at Portion 2 (e) Sheet piling, drainage works and watermain works at Portion 3 (f) Watermains works at Portion 5 (g) Drainage works and backfilling at Portion 6a (h) Operation of HAC soil treatment facility at Portion 6b (i) Excavation and drainage works at Portion 7 (j) Construction of retaining wall, RC construction of fresh water service reservoir, construction of WSD's maintenance access, drainage works, backfilling works and soil nail at Portion 8a (k) Pipe jacking at LWSC's car park, trenchless work and watermain construction at Portion 8b (l) Sheet piling, excavation, drainage and watermain works at Portion 9b (m) Site clearance and removal of existing structures at Portion 13
ND/2019/02	<ul style="list-style-type: none"> (a) Pipe Jacking (b) Backfilling (c) Concreting (d) Bedding and pipe laying (e) ELS (f) Sheet Pile Installation (g) Cut and Fill of Slope
ND/2019/03	<ul style="list-style-type: none"> (a) Portion 1 & Portion 1A <ul style="list-style-type: none"> - Road & Drainage works and watermains works at Yin Kong Road - Construction of Pavilion at Yin Kong Road (b) Portion 2 to Portion 20C <ul style="list-style-type: none"> - Wetland creation & restoration, Dry agricultural land creation - Construction of compacted earth path - Construction of Water Treatment Wetland - Tree felling and tree pruning work - Construction of Lodging Facility - Construction of Dry Weather Flow Interception (DWFI) - Construction of Car Park and Farmer's Forum
ND/2019/04	<ul style="list-style-type: none"> (a) Tree Felling (b) Pile Cap (c) Back Filling (d) Excavation (e) Grouting (f) Sheet Piling (g) Road works (h) Formwork Erection (i) Rebar Fixing (j) Pre-drill (k) Bore pile (l) ELS

Contract No.	Site Activities (October 2023)
ND/2019/05	<p>(a) <u>South Team</u></p> <ul style="list-style-type: none"> - E3-05M –Pile cap completed. Pier construction in progress. - E3-04a – ELS in progress. Abandoned pile cap was removed 6 Sep 2023. - D2-04M – Bored Piling is in progress. P1 was completed on 26 Sep 2023. P2 is in progress. - FS04 – Raking drain and middle berm and construction work completed. - Works in TWSRE <ul style="list-style-type: none"> A. BBI cover walkway (Steelwork) – 1st stage was completed. B. Road Drains (i.e. gullies and manholes) along Road L201 are completed. C. HKY Footbridge/Staircase – Installation of subframe and roof in progress. D. HKY Footbridge/Staircase – Installation of Roof Fabricated Movement Joints completed. E. Road D400 leading to L201 Pavement work is completed. F. Diversion of Traffic to New BBI is completed on 7 Oct 2023. - Works in TWSRW – <ul style="list-style-type: none"> A. 11kv cable laying (FS04) in progress. B. Telecoms ducts laying (FS06) in progress. C. Sewerage diversion (DN600 Between TWS1.02 and TWS1.08) is completed. D. Drainage work – Manhole (FL9110) construction work is completed. E. Gas Pipe laying (IPA400/HP600 – near HKY entrance) in completed. F. Fresh and flushing water pipe laying (DN450/DN150 near HKY entrance) is completed. G. Road construction work (Concrete and bitumen paving – P800 CH350 to CH385) in progress. - NB109 <ul style="list-style-type: none"> A. Bay 9 1st pour Wall is completed. B. Bay 10 1st pour Wall is in progress. C. Bay 11 Footing in progress. D. Bay 12 is setting up for Plate Load Test. E. Bay 5 to Bay 8 2nd Wall is in progress. - NB69 – Bay 5 and Bay 6 Footing are completed. 1st Wall is in progress. - NB110 – Bay 3 to 5 Wall completed. Bay 8 Excavation is completed and Footing is in progress. <p>(b) <u>North Team</u></p> <ul style="list-style-type: none"> - Construction of pile cap of B2-01 completed. - Slope works of FS 30 was in progress. - Installation of falsework at C2-01 crosshead completed. - Dismantling of formwork for B1-02 Portal Beam construction completed. - C1-02 portal beam construction in progress. - C1-01 MJ portal construction in progress. - B2-01 pier construction completed - Construction of B1- Abutment wall in progress. - Backfilling & extraction of sheet pile at C2-02 were in progress. - Backfilling at C4-02 were in progress - Removal of temporary concrete block platform at D2-01 and debris due to black rainstorm were in progress. - JCR: Traffic diversion of slow lane of northbound of Jockey Club Rd was completed.

Contract No.	Site Activities (October 2023)
	<ul style="list-style-type: none"> - JCR: Abandoned of gully, removal of existing kerb and construction of bitumen joint were in progress. - JCR: Construction of pipe support for DN 150 exposed pipe was in progress. - JCR Tong Hang Village: Construction of cable duct / pits for detection loop/traffic signal / street light was completed. <p>(c) <u>Bridges and Structures</u></p> <ul style="list-style-type: none"> - Total 647 segments were casted in Huizhou casting yard. - Total 417 segments were delivered to site, and total 365 segments erected. - C3-02 T-span segment erection by LG in progress. - C2-03 diaphragm construction in completed. - SOP E2-01 formwork dismantle completed. - SOP E2-03 construction completed. - Construction of D2-01 bridge rotation system and upper turntable in progress. - LG launch to C3-02 T-span - Fabricate of steel support at Zheng Zhou for Bridge B1 in progress <p>(d) <u>Form Traveler</u></p> <ul style="list-style-type: none"> - Form traveler rebar fixing for 11th pair segment at E2-02 in progress. - Form traveler rebar fixing for 03rd pair segment at D2-02 in progress. - Dismantling of Form traveler at E3-03 completed. - FT02 erection at E3-01 in progress. - FT04 erection at D2-03 in progress. - FT05 erection at E2-01 in progress. - Completed concreting E2-E2-02-E2-03-S010, E2-E2-02-E2-01-S10. - Completed concreting D2-D2-02-D2-03-S01, D2-D2-02-D2-01-S01, D2-D2-02-D2-03-S02, D2-D2-02-D2-01-S02.
ND/2019/06	The construction phase was completed and handed over to AFCD since 4 April 2022.
ND/2019/07	<ul style="list-style-type: none"> (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 2, 3, 4 and 5 (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, 2 and 4

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	
Environmental Permit (EP)				
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
	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
Construction Noise Permit (CNP)				
ND/2019/01	GW-RN0966-23	25/09/2023	24/12/2023	Valid
	GW-RN0426-23	19/05/2023	18/11/2023	Valid
	GW-RN0840-23	01/09/2023	29/02/2024	Valid
	GW-RN0876-23	01/09/2023	31/01/2024	Valid
	GW-RN0802-23	16/08/2023	14/02/2024	Cancelled and Superseded by GW-RN1057-23 in reporting month
	GW-RN0877-23	01/09/2023	29/02/2024	Valid
	GW-RN0997-23	01/10/2023	31/03/2024	Valid
	GW-RN1057-23	13/10/2023	12/01/2024	Valid
ND/2019/02	GW-RN0747-23	01/08/2023	31/10/2023	Expired in reporting month
	GW-RN0534-23	08/06/2023	07/11/2023	Valid
	GW-RN0873-23	01/09/2023	31/12/2023	Valid
	GW-RN0938-23	08/09/2023	31/12/2023	Valid
ND/2019/03	GW-RN0733-23	01/09/2023	29/02/2024	Valid
ND/2019/04	GW-RN0709-23	13/07/2023	12/10/2023	Expired in reporting month
	GW-RN0761-23	01/08/2023	31/10/2023	Expired in reporting month
	GW-RN0799-23	06/08/2023	31/10/2023	Expired in reporting month
	GW-RN0800-23	06/08/2023	31/10/2023	Expired in reporting month
	GW-RN0878-23	17/08/2023	07/12/2023	Valid
	GW-RN0920-23	27/08/2023	26/11/2023	Valid
	GW-RN0984-23	23/09/2023	22/12/2023	Valid
	GW-RN1039-23	08/10/2023	07/01/2024	Valid
	GW-RN1101-23	13/10/2023	12/02/2024	Valid
GW-RN1110-23	19/10/2023	31/12/2023	Valid	
ND/2019/05	GW-RN0765-23	18/07/2023	17/10/2023	Expired in reporting month
	GW-RN0846-23	13/08/2023	30/11/2023	Valid
	GW-RN0847-23	13/08/2023	30/11/2023	Valid
	GW-RN0859-23	09/08/2023	08/11/2023	Valid
	GW-RN0870-23	01/09/2023	30/11/2023	Valid

Contract No.	Permit / Licence No.	Valid Period		Status
		From	To	
	GW-RN0897-23	01/09/2023	29/02/2024	Valid
	GW-RN0899-23	01/09/2023	30/11/2023	Valid
	GW-RN0977-23	01/10/2023	31/12/2023	Valid
	GW-RN1062-23	09/10/2023	30/11/2023	Valid
Notification pursuant to Air Pollution Control (Construction Dust) Regulation				
ND/2019/01	451792	11/12/2019	N/A	Valid
	477388	02/03/2022	N/A	Valid
ND/2019/02	454012	05/03/2020	N/A	Valid
ND/2019/03	452216	24/12/2019	N/A	Valid
	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
Billing Account for Disposal of Construction Waste				
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
Registration of Chemical Waste Producer				
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
Effluent Discharge License under Water Pollution Control Ordinance				
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	16/11/2022	28/02/2026	Valid
	WT00037412-2021	16/11/2022	30/04/2026	Valid
	WT00037564-2021	19/04/2021	30/04/2026	Valid

Contract No.	Permit / Licence No.	Valid Period		Status
		From	To	
	WT00037886-2021	28/06/2021	30/06/2026	Valid
	WT00041311-2022	21/06/2022	30/06/2027	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	02/06/2022	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 ^[2]	Scattered Village Houses North of Proposed Potential Ecopark
	ND/2019/04		
	ND/2019/05	FLN-DMS3 ^[3]	House near Tong Hang
	ND/2019/03	FLN-DMS5 ^[4]	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) ^[5]	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	9
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 m³/min. and 1.4 m³/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 weighing 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	75.2	35.2 – 132.6	303	500
FLN-DMS3	62.1	35.1 – 98.2	301	500
FLN-DMS5	54.8	34.7 – 96.9	279	500
KTN-DMS4(B)	73.0	32.2 – 147.5	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	70.8	45.6 – 91.7	150	260

FLN-DMS3	41.6	31.7 – 53.9	165	260
FLN-DMS5A	56.6	35.8 – 67.0	153	260
KTN-DMS4(B)	56.7	30.7 – 100.0	192	260

3.23 All 1-hour and 24-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 ^[2]	Belair Monte
ND/2019/04		
ND/2019/05	CP-FLN-NMS2 ^[3]	Scattered Village Houses in Tong Hang
ND/2019/01	CP-KTN-NMS2 ^[4]	Residential Buildings at Ma Tso Lung
	CP-KTN-NMS3 ^[5]	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	4
Acoustical Calibrator	SVANTEK	SV30A	2
	Brüel & Kjær	4231	1

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 ^[2]	Duration	Frequency	Measurement
ND/2019/06	CP-FLN-NMS1 ^[3]	L ₁₀ (30 min.) dB(A) L ₉₀ (30 min.) dB(A) L _{eq} (30 min.) dB(A) (as six consecutive L _{eq, 5min} readings)	0700-1900 hours on normal weekdays	Once per week	Façade
ND/2019/04					
ND/2019/05	CP-FLN-NMS2 ^[4]				
ND/2019/01	CP-KTN NMS2 ^[5]				Free-field ^[1]
	CP-KTN NMS3 ^[6]				
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_{eq}). It is the constant noise level which, under a given situation and time period, contains the same acoustic energy as the actual time-varying noise level.

L₁₀ is the level exceeded for 10% of the time. For 10% of the time, the sound or noise has a sound pressure level above L₁₀.

L₉₀ 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 ^[1]	63.4 – 70.2	69.9	75
ND/2019/04				
ND/2019/05	CP-FLN-NMS2 ^[2]	54.5 – 67.9	59.6	
ND/2019/01	CP-KTN-NMS2 ^[3]	53.8 – 57.9	58.6	
	CP-KTN-NMS3 ^[4]	51.4 – 55.7	51.6	
ND/2019/01	CP-KTN-NMS5	55.4 – 60.3	57.2	
ND/2019/02	CP-KTN-NMS6	56.3 – 59.8	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 ^[1]	Belair Monte (Existing)	Excavator, dump truck, mobile crane, piling, road traffic
ND/2019/04			
ND/2019/05	CP-FLN-NMS2 ^[2]	Scattered Village House in Tong Hang (Existing)	Excavator, piling, dump truck, road traffic
ND/2019/01	CP-KTN-NMS2 ^[3]	Residential Buildings at Ma Tso Lung (Existing)	Dump truck, excavator, road traffic
ND/2019/01	CP-KTN-NMS3 ^[4]	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"> • Temperature(°C) • pH(pH unit) • turbidity (NTU) • water depth (m) • salinity (ppt) • DO (mg/L and % of saturation) • SS (mg/L) • Ammonia Nitrogen (NH₃-N) (mg NH₃-N/L) • Unionized Ammonia (UIA) (mg/L) • Nitrate-nitrogen (NO₃-N) (mg NO₃⁻-N/L) • Ortho-phosphate (PO₄) (mg PO₄³⁻-P/L) 	<ul style="list-style-type: none"> • 3 water depths: 1m below water surface, mid-depth and 1m above river bed. • If the water depth was less than 3m, mid-depth sampling only. • If water depth was less than 6m, mid-depth may be omitted. 	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
River Beas			
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	
River Indus and near Siu Hang San Tsuen Stream			
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 EquipmentInstrumentation

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

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 No Action/Limit Level exceedance was recorded in the reporting month. The summary of exceedance record in the reporting month is shown in **Appendix O**.

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 ^[1]	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 m³/min. and 1.4 m³/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 ³)	Action Level (ng/m ³)	Limit Level, (ng/m ³)
04/10/2023	KTN-DMS4(A)	5.85	9.36	11.7
10/10/2023		1.91		
16/10/2023		6.08		
20/10/2023		6.14		
26/10/2023		5.71		

- 6.15 All ambient arsenic monitoring was conducted as scheduled in the reporting month. During the reporting month, 1,327.67m³ of arsenic soil transported to soil treatment plant and 2,105.26m³ 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	Portable Biogas Analyzer IRCD4 (Serial No. M230814007)	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 Castle Peak Road Diversion under EP-466/2013/A, Kwu Tung North New Development Area Road D1 to D5 under EP-468/2013/A, and 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 and FL27 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
		FL27	Monument	Opposite to Shung Him Tong Public Toilet, at the bottom of slope feature

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 and FL27	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 G202, G203, G303, G308, HKT03 and KT57 under EP-468/2013/A, also HFL08, FL05, FL07, FL08, FL10, FL11, FL17, FL19, FL31 and FL33 under ND/2019/04, and HFL05, FL02, FL04, FL24, FL27 and FL36 under ND/2019/05 for EP-473/2013/A. As G202, G203, G303, G308, HKT03, KT57, HFL05, HFL08, FL04, FL05, FL07, FL08, FL10, FL11, FL17, FL19, FL24, 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 and FL27 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: 5, 6, 10, 11, 16, 17 and 27 October 2023

Date of night-time monitoring: 6 and 16 October 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.
- 9.7 The location of Transects T1, T2, T3 and T5 is shown in **Figure 9** for reference.

Monitoring Parameters

9.8 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.

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

9.10 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

9.11 In total, 67 species of birds were recorded during the bird surveys within assessment area. Among the recorded birds, there were 27 species of waterbirds. The detailed list of waterbirds and all recorded birds are shown in **Appendices L1k and L1l** respectively.

9.12 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.

9.13 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.

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

9.15 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.

9.16 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.

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

9.18 **Table 9.1** summarises the avifauna monitoring results during the reporting month.

Table 9.1 Summary Table of Avifauna Monitoring Results to Corresponding Action and Limit Levels.

Monitoring Parameter	Result in Reporting Month	Baseline Level in Corresponding Month	Action Level	Limit Level
birds* using Ng Tung River, Sheung Yue River and Shek Sheung River Mean abundance of large water	106.25	16	10	7
Mean abundance of <i>Ardeola bacchus</i> using Ng Tung River, Sheung Yue River and Shek Sheung River	17.25	14	6	4
Mean Abundance of Bird recorded in LVNP	1020.25	567	472	337
Mean Abundance of <i>Ardeola bacchus</i> recorded in LVNP	22.25	18	14	10
Environmental disturbance and damage from activities in LVNP	-	-	Activity likely to cause unacceptable environmental disturbance or damage noted in LVNP.	Activity causing unacceptable environmental disturbance or damage noted in LVNP.
*Note Large Waterbirds includes: <i>Ardea alba</i> , <i>Ardea cinerea</i> , <i>Egretta eulophotes</i> , <i>Egretta garzetta</i> , <i>Ardea intermedia</i> and <i>Phalacrocorax carbo</i>				

9.19 No Action or Limit Level exceedance in avifauna monitoring was recorded during the reporting month.

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

Monitoring Requirements and Protocol

9.20 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.

9.21 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

- 9.22 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.

Due to Typhoon Signal no.9 was in force and consider the safety issue, ecological monitoring was postponed to 19 Oct 2023.

Date of aquatic fauna monitoring: 19th October 2023

Monitoring Location

- 9.23 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

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

Monitoring Parameters

- 9.25 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

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

Monitoring Status

- 9.27 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.

- 9.28 In the survey of aquatic fauna, a total of 14 aquatic invertebrate species were recorded in Ma Tso Lung Stream and Siu Hang San Tsuen Stream. There were 4 fish species recorded in the reporting month. One (1) species of conservation importance was recorded, namely *Oreochromis mossambicus*.

- 9.29 For the monitoring on 19th October 2023, two monitoring stations, MS_01 & MS_05, were found dried-up. No aquatic invertebrate nor fish species was recorded in those stations.

- 9.30 Aquatic faunal monitoring in construction phase was conducted during the reporting month and the results are attached in **Appendices L2 to L3**.

9.31 **Table 9.2** and **Table 9.3** summarises the aquatic monitoring results during the reporting month.
Table 9.2 Summary Table of Aquatic Macroinvertebrates Monitoring Results to Corresponding Action and Limit Levels.

Number of Native Species Recorded in Stations: MS_01 - MS_15	Result in Reporting Month	Baseline Level in Corresponding Month	Action Level	Limit Level
MS_01	0	0	NA	NA
MS_02 & MS_03	4	1	NA	NA
MS_04, MS_06 & MS_07	2	1	NA	NA
MS_05	0	0	NA	NA
MS_08, MS_09 & MS_10	6	3	2	1
MS_11	0	0	NA	NA
MS_12	0	1	NA	NA
MS_13 & MS_14	2	1	NA	NA
MS_15	2	0	NA	NA

Table 9.3 Summary Table of Fish Monitoring Results to Corresponding Action and Limit Levels.

Number of Native Species Recorded in Stations: MS_01 - MS_15	Result in Reporting Month	Baseline Level in Corresponding Month	Action Level	Limit Level
MS_01	0	0	NA	NA
MS_02 & MS_03	0	1	NA	NA
MS_04, MS_06 & MS_07	0	2	NA	1
MS_05	0	0	NA	NA
MS_08, MS_09 & MS_10	0	0	NA	NA
MS_11	0	0	NA	NA
MS_12	0	0	NA	NA
MS_13 & MS_14	0	0	NA	NA
MS_15	0	0	NA	NA

9.32 One (1) Limit Level exceedance was recorded during the reporting month during monitoring of aquatic fauna.

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

Monitoring Requirements and Protocol

- 9.33 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.
- 9.34 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

- 9.35 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.
- 9.36 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)

- 9.37 Both day-time and night-time amphibian surveys should be conducted whenever possible 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.
- 9.38 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)

- 9.39 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

- 9.40 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: 12, 18 October 2023

Monitoring Location

- 9.41 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.

- 9.42 The location of Transects is shown in **Figure 11** for reference.

Monitoring Parameters

- 9.43 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

- 9.44 During the survey, a total of 5 mammal species were recorded from transects. Two (2) species of conservation importance were recorded, namely *Cynopterus sphinx* and *Pipistrellus abramus*.
- 9.45 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 and T4.
- 9.46 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).
- 9.47 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).
- 9.48 *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).
- 9.49 Bat species, *Cynopterus sphinx* was observed roosting in the tent-shaped shelter under fronds of Chinese Fan-palm during the monitoring at T1. *Pipistrellus abramus* was recorded in flight at nighttime at all transect.

Herpetofauna (Amphibians and Reptiles)

9.50 Among the transects, a total of 14 herpetofauna species were observed. Species including toads, frogs, skinks, snakes and geckos were recorded near wetland habitats and watercourse. Transects T1 had the highest species diversity among all transects.

Insects (Butterfly and Dragonfly)

9.51 During the insect survey, a total of 52 butterfly species were recorded from transects. Ten (10) species of butterfly recorded was of particular conservation interest, namely *Hypolimnys misippus*, *Charaxes marmax*, *Jamides alecto* *Jamides celeno*, *Horaga onyx*, *Udaspes folus*, *Tajuria cippus*, *Pieris rapae*, *Catochrysops strabo* and *Zizula hylax*. Transect T1 had recorded the highest butterfly diversity among all transects.

9.52 15 species of odonata were recorded in the reporting month. Transect T1 had recorded the highest odonatan diversity among all transect.

9.53 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 L4 to L7**.

9.54 **Table 9.4** summarises the mammal monitoring results during the reporting month.

Table 9.4 Summary Table of Mammal Monitoring Results to Corresponding Action and Limit Levels.

Number of Native Species Recorded in each transect	Result in Reporting Month	Baseline Level in Corresponding Month	Action Level	Limit Level
T1	2	1	NA	NA
T3	1	1	NA	NA
T4	1	1	NA	NA
T5	1	1	NA	NA
T6	1	1	NA	NA

9.55 **Table 9.5** summarises the herpetofauna monitoring results during the reporting month.

Table 9.5 Summary Table of Herpetofauna Monitoring Results to Corresponding Action and Limit Levels.

Number of Native Species Recorded in each transect	Result in Reporting Month	Baseline Level in Corresponding Month	Action Level	Limit Level
T1	11	8	6	4
T3	2	5	4	3
T4	2	4	3	2
T5	3	4	3	2
T6	3	4	3	2

9.56 **Table 9.6** summarises the butterfly monitoring results during the reporting month.

Table 9.6 Summary Table of Butterfly Monitoring Results to Corresponding Action and Limit Levels.

Number of Species Recorded in each transect	Result in Reporting Month	Baseline Level in Corresponding Month	Action Level	Limit Level
T1	43	23	16	12
T3	8	13	9	7
T4	16	12	8	6
T5	13	14	10	7
T6	19	15	11	8

9.57 **Table 9.7** summarises the odonata monitoring results during the reporting month.

Table 9.7 Summary Table of Odonata Monitoring Results to Corresponding Action and Limit Levels.

Number of Native Species Recorded in each transect	Result in Reporting Month	Baseline Level in Corresponding Month	Action Level	Limit Level
T1	11	12	8	6
T3	1	11	8	6
T4	1	5	4	3
T5	3	10	7	5
T6	10	11	8	6

9.58 Six (6) Action Level exceedance and Four (4) Limit Level exceedance was recorded in non-aquatic fauna monitoring during the reporting month.

9.59 For the monitoring conducted on 18 October 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.
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Results and Observation

Action and Limit Level Exceedance

- 9.60 One (1) limit level exceedance for fish monitoring was recorded at MS_04, MS_06 & MS_07. The exceedances were considered non-project related.
- 9.61 For the MS_04, MS_06 & MS_07, no project-related construction site activity was observed directly nearby. No exceedance of Water Quality was recorded in reporting month. Besides the environmental condition, no exceedance in number of native species of aquatic macroinvertebrates was recorded at the same location, whilst 4 non-native species of fishes were recorded in the same locations, thus it seems that the exceedance was unlikely due to project-related construction works. Future results of these transects will be continuously reviewed.
- 9.62 Six (6) action level exceedance and Four (4) limit level exceedance for non-aquatic fauna were recorded at T3, T4 and T5. The exceedances were considered non-project related.
- 9.63 Large proportion of vegetative habitat along T3 (including some shrubs, wood and tall grass) were observed either removed, tarmacked, and concreted as haul road by construction works outside of project, first reported in the Monthly Monitoring Report in December 2021. The altered condition at transect might have been less favourable to inhabitation of butterfly, herpetofauna and odonates, as some species of these taxonomic groups prefers wet vegetated habitats that provides shelters, as opposed to open and dry habitat such as a tarmacked haul road. Previous odonate monitoring results see a drop in odonate records between summer of 2021 and 2022, during the period which construction activities outside of project were observed.
- 9.64 The weather condition of monitoring on 18th October was drizzle and had 38.3mm total rainfall, which might have affected butterfly and odonate occurrence, as well as certain groups of reptilians such as geckos and snakes, which commonly seeks shelters during rainstorms. Active searches were conducted on microhabitats along the transect, of which all species observed have been recorded.
- 9.65 For the transect of T3, T4 & T5, necessary Ecological mitigation measures were provided by all nearby project-related sites. In addition, no exceedance in other environmental parameters was recorded around 18th October, suggesting that it is unlikely that the exceedance recorded during ecological monitoring in T3, T4 & T5 was project-related. No evidence to suggest that the exceedance was related to project activities, as supported by environmental monitoring data. Future results of these transects will be continuously reviewed.

Details of the Influencing Factors

Major Activities

- 9.66 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.

- 9.67 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..
- 9.68 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.
- 9.69 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 T3 and T5.

Weather Conditions

- 9.70 According to the observation during survey, temperature and the rain flow records in the reporting month (Reference: <http://www.weather.gov.hk/wxinfo/pastwx/metob202310.htm>), weather conditions might pose influence towards the monitoring results.
- 9.71 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	3, 11, 17, 24 and 31 Oct 23	4, 11, 18 and 27 Oct 23	6, 13, 17 and 27 Oct 23	5, 12, 18 and 26 Oct 23	3, 10, 19, 24 and 30 Oct 23	5, 12 and 18 Oct 23	6, 13, 20 and 27 Oct 23
Joint Site Audit with representative of the <i>Supervisor's</i> Representative, the Contractor and IEC	11 Oct 23	27 Oct 23	17 Oct 23	18 Oct 23	19 Oct 23	N/A	20 Oct 23

Remarks: The weekly site inspection for ND/2019/06 has been terminated starting from 19/10/2023 since the termination proposal was approved by EPD on the same day.

- 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**. Any outstanding and recurrence deficiencies are presented in **Table 10.3**.
- 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. However, in June 2023, more defects were found during the handover inspection so the rectification works were undertaken until July 2023 when all works were completed.
- 10.5 The weekly site inspection and EM&A Reporting for ND/2019/06 were maintained until the termination proposal for ND/2019/06 has been endorsed by the IEC (17 Aug 23), the Engineer (26 Aug 23) and the Project Proponent (19 Sep 23) followed by approval from EPD (19 Oct 23) in accordance. The procedure for termination proposal for ND/2019/06 is in accordance with section 15.4.2 of updated EM&A Manual.

Table 10.2 Observations and Recommendations during Site Audits

Parameters	Date	Observations and Recommendations	Follow-up
Contract No.: ND/2019/01			
Water Quality	26/09/2023	Water pump failure causing muddy water overflow within the site boundary near Pak Shek Au should be fixed immediately.	Item remarked as 231003-R02. Follow-up action is needed to be review.
	03/10/2023	Enhance the trench surrounding the site at Pak Shek Au to prevent muddy runoff discharge.	Improvement/Rectification was observed during follow-up audit session on 11 Oct 2023.
	11/10/2023	Review the capacity of the sump pit at Portion 9b.	Improvement/Rectification was observed during follow-up audit session on 17 Oct 2023.
	17/10/2023	Temporary drainage was blocked by concrete paving. Contractor was reminded to remove such paving and ensure the proper function of temporary drainage system.	Improvement/Rectification was observed during follow-up audit session on 24 Oct 2023.
	26/09/2023	Barricade with geotextile should be installed surrounding the channels at RC3, enhance the adequacy of water pump usage, increase the capacity of temporary sedimentation pond, clear the U channel and ensure the sandbag barrier is fully enclosed at Portion 1B and 1C.	Item was remarked as 231003-R01a to R01c for easy reference. Follow-up action is needed to be review.
	03/10/2023	Enhance the adequacy of water pump usage.	Item was remarked as 231011-R02 for easy reference. Follow-up action is needed to be review.
	03/10/2023	Barricade with geotextile should be installed surrounding the channels at RC3.	
	03/10/2023	The capacity of temporary sedimentation pond should be increased.	
	11/10/2023	Mitigation measures rectification works at RC2 and RC3 were noted. The performance and efficiency of these works will be kept in view in the future inspections.	Item was remarked as 231017-R01 for easy reference. Follow-up action is needed to be review.
	17/10/2023		Improvement/Rectification was observed during follow-up audit session on 24 Oct 2023.
	24/10/2023	The bare soil next to the nullah at Portion 1B should be properly covered with tarpaulin sheet.	Improvement/Rectification was observed during follow-up audit session on 31 Oct 2023.
	24/10/2023	The inactive exposed slope at Pak Shek Au should be properly covered with tarpaulin sheet.	Improvement/Rectification was observed during follow-up audit session on 31 Oct 2023.

Parameters	Date	Observations and Recommendations	Follow-up
	24/10/2023	The deposited sediment at the drainage channel at RC3 should be regularly cleared.	Improvement/Rectification was observed during follow-up audit session on 31 Oct 2023.
<i>Air Quality</i>	26/09/2023	The Contractor was reminded to provide sufficient water-spraying to enhance dust suppression measures.	Improvement/Rectification was observed during follow-up audit session on 3 Oct 2023.
	24/10/2023	No enclosure on 3 sides and top shelter was provided for the dusty (cement) generation works and no cover for the temporary storage of cement bags at Portion 8A. The Contractor was reminded to provide appropriate dust suppression measures for these works.	Improvement/Rectification was observed during follow-up audit session on 31 Oct 2023.
	24/10/2023	The sediment at the paved haul road should be cleared (Portion 1B).	Improvement/Rectification was observed during follow-up audit session on 31 Oct 2023.
	24/10/2023	The bare soil next to the nullah at Portion 1B should be properly covered with tarpaulin sheet.	Improvement/Rectification was observed during follow-up audit session on 31 Oct 2023.
	24/10/2023	The inactive exposed slope at Pak Shek Au should be properly covered with tarpaulin sheet.	Improvement/Rectification was observed during follow-up audit session on 31 Oct 2023.
	31/10/2023	Dusty debris was observed at 9b exit. Contractor was reminded to clean it ASAP.	Follow-up action is needed to be reported in the following month.
	31/10/2023	Cover the temporary storage of cement bags at Pak Shek Au.	Follow-up action is needed to be reported in the following month.
<i>Waste / Chemical Management</i>	31/10/2023	Provide drip tray for the chemical / fuel containers at Portion 8A.	Follow-up action is needed to be reported in the following month.
Contract No.: ND/2019/02			
<i>Water Quality</i>	27/09/2023	Drainage system should be maintained properly along the riverside and VC, mitigation measures including fully enclosed sand bag barrier should be implemented.	Item remarked as 231004-R03. Follow-up action is needed to be review.
	04/10/2023	Collected waste water should be properly diverted to waste water treatment facilities.	Item remarked as 231011-R03. Follow-up action is needed to be review.
	11/10/2023		Item remarked as 231018-R03. Follow-up action is needed to be review.
	18/10/2023		Improvement/Rectification was observed during follow-up audit session on 27 Oct 2023.

Parameters	Date	Observations and Recommendations	Follow-up
	27/09/2023	Exposed slope surface should be covered by tarpaulin sheets properly.	Improvement/Rectification was observed during follow-up audit session on 4 Oct 2023.
	04/10/2023	Water mitigation measures should be provided to prevent material from the stockpile from falling into Shek Sheung River.	Improvement/Rectification was observed during follow-up audit session on 11 Oct 2023.
	18/10/2023	Accumulated muddy silt were observed under wastewater treatment facilities. Contractor are reminded to provide water mitigation measures to ensure that there are no muddy runoff discharge into Sheung Yue River.	Improvement/Rectification was observed during follow-up audit session on 27 Oct 2023.
	04/10/2023	Vehicles should be properly cleaned before leaving the site.	Item remarked as 231011-R04. Follow-up action is needed to be review.
	11/10/2023		Improvement/Rectification was observed during follow-up audit session on 18 Oct 2023.
	27/10/2023	Contractor was reminded to enhance the existing mitigation measures to prevent muddy discharge outside of site boundary at the exit next to the cycling track.	Follow-up action is needed to be reported in the following month.
	27/10/2023	Wheel-washing facilities should be provided and used at vehicle exits at Ho Sheung Heung and Dills Corner site area to ensure that vehicles are cleaned before leaving the site.	Follow-up action is needed to be reported in the following month.
<i>Ecology</i>	27/09/2023	The silt curtain under the bridge should be maintained properly and regularly.	Item remarked as 231004-R02. Follow-up action is needed to be review.
	04/10/2023		Improvement/Rectification was observed during follow-up audit session on 11 Oct 2023.
	11/10/2023	Small gap between the silt curtains should be covered by geotextile.	Item remarked as 231018-R02. Follow-up action is needed to be review.
	18/10/2023		Improvement/Rectification was observed during follow-up audit session on 27 Oct 2023.
<i>Landscape and Visual</i>	27/09/2023	The removed green hoarding along Sheung Yue River due to the construction works should be replaced and maintained properly as soon as possible.	Item remarked as 231004-R01. Follow-up action is needed to be review.
	04/10/2023		Item remarked as 231011-R01. Follow-up action is needed to be review.
	11/10/2023		Item remarked as 231018-R01. Follow-up action is needed to be review.
	18/10/2023		Item remarked as 231027-R01. Follow-up action is needed to be review.

Parameters	Date	Observations and Recommendations	Follow-up
	27/10/2023		Follow-up action is needed to be reported in the following month.
	27/09/2023	Tree protection zone should be maintained properly and regularly. / Construction works of the VC exceeding site boundary causing damage to trees within 2m from site boundaries.	Improvement/Rectification was observed during follow-up audit session on 4 Oct 2023.
Waste / Chemical Management	27/10/2023	Contractor was reminded to clear the chemical spillage.	Follow-up action is needed to be reported in the following month.
Permit / Licences	27/10/2023	The Environmental Permit should be displayed on site at Dills Corner site area.	Follow-up action is needed to be reported in the following month.
Contract No.: ND/2019/03			
Air Quality	29/09/2023	Dusty stockpiles should be covered with tarpaulin sheets.	Item remarked as 231006-R01. Follow-up action is needed to be review.
	06/10/2023		Item remarked as 231013-R01. Follow-up action is needed to be review.
	13/10/2023		Improvement/Rectification was observed during follow-up audit session on 17 Oct 2023.
Water Quality	29/09/2023	Provide adequate wheel-washing facilities for each vehicle exits.	Item remarked as 231006-O01. Follow-up action is needed to be review.
	06/10/2023		Item remarked as 231013-O01. Follow-up action is needed to be review.
	13/10/2023		Item remarked as 231017-O01. Follow-up action is needed to be review.
	17/10/2023		Improvement/Rectification was observed during follow-up audit session on 27 Oct 2023.
	29/09/2023	Provide sand bags to prevent muddy water discharge.	Improvement/Rectification was observed during follow-up audit session on 6 Oct 2023.
Contract No.: ND/2019/04			
Water Quality	28/09/2023	All vehicles should be cleaned of earth, mud and debris before leaving the site.	Item remarked as 231005-R01. Follow-up action is needed to be review.
	05/10/2023		Item remarked as 231012-R01. Follow-up action is needed to be review.
	12/10/2023	Wheel washing facilities should be provided at every site exit.	Item remarked as 231018-R01. Follow-up action is needed to be review.

Parameters	Date	Observations and Recommendations	Follow-up
	18/10/2023		Item remarked as 231026-R01. Follow-up action is needed to be review.
	26/10/2023		Follow-up action is needed to be reported in the following month.
	28/09/2023	Water quality mitigation measures along Ng Tung River should be provided, e.g. sand bag barrier.	Improvement/Rectification was observed during follow-up audit session on 5 Oct 2023.
	18/10/2023	Mitigation measures should be enhanced to avoid surface runoff discharge into Ng Tung River.	Item remarked as 231026-R03. Follow-up action is needed to be review.
	26/10/2023		Follow-up action is needed to be reported in the following month.
Ecology	28/09/2023	Silt curtain at Bridge F should be fully enclosed.	Improvement/Rectification was observed during follow-up audit session on 5 Oct 2023.
Air Quality	28/09/2023	Sufficient water-spraying should be provided regularly.	Improvement/Rectification was observed during follow-up audit session on 5 Oct 2023.
	05/10/2023	Dusty stockpile should be covered by impervious sheeting or sprayed with water.	Improvement/Rectification was observed during follow-up audit session on 12 Oct 2023.
	05/10/2023	More than 20 bags of cement should be covered properly.	Improvement/Rectification was observed during follow-up audit session on 12 Oct 2023.
Noise	28/09/2023	Noise barrier should be maintained properly.	Item remarked as 231005-R02 Follow-up action is needed to be review.
	05/10/2023		Item remarked as 231012-R02 Follow-up action is needed to be review.
	12/10/2023		Item remarked as 231018-R02 Follow-up action is needed to be review.
	18/10/2023		Item remarked as 231026-R02 Follow-up action is needed to be review.
	26/10/2023		Follow-up action is needed to be reported in the following month.
Waste / Chemical Management	05/10/2023	Drip tray should be provided with adequate capacity.	Improvement/Rectification was observed during follow-up audit session on 12 Oct 2023.

Parameters	Date	Observations and Recommendations	Follow-up
	26/10/2023	General refuse should be disposed of regularly and properly.	Follow-up action is needed to be reported in the following month.
Contract No.: ND/2019/05			
<i>Water Quality</i>	26/09/2023	Blue hose attached to water pump should be kept away from the riverside.	Improvement/Rectification was observed during follow-up audit session on 3 Oct 2023.
	10/10/2023	Provide maintenance of impervious sheeting for the exposed slope at Portion 3.	Improvement/Rectification was observed during follow-up audit session on 19 Oct 2023.
	19/10/2023	Drainage management of the E2-02 exit should be enhanced to avoid surface runoff discharge into inappropriate watercourse.	Item remarked as 231024-R03 Follow-up action is needed to be review.
	24/10/2023		Improvement/Rectification was observed during follow-up audit session on 30 Oct 2023.
<i>Waste / Chemical Management</i>	03/10/2023	Drip tray for the chemical / fuel containers should be provided at Portion 2.	Improvement/Rectification was observed during follow-up audit session on 10 Oct 2023.
	10/10/2023	Provide drip tray for chemical / fuel containers at Portion 3.	Improvement/Rectification was observed during follow-up audit session on 19 Oct 2023.
	10/10/2023	Keep clean and tidy at Portion 3	Item remarked as 231019-R01 Follow-up action is needed to be review.
	19/10/2023		Item remarked as 231024-R01 Follow-up action is needed to be review.
	24/10/2023		Item remarked as 231030-R01 Follow-up action is needed to be review.
	30/10/2023		Follow-up action is needed to be reported in the following month.
<i>Air Quality</i>	19/10/2023	Faded NRMM label on the generator located at E2-02 should be replaced.	Improvement/Rectification was observed during follow-up audit session on 24 Oct 2023.
	24/10/2023	Dusty stockpile should be covered properly, or removed from the area near the exit of E2-02.	Improvement/Rectification was observed during follow-up audit session on 30 Oct 2023.
Contract No.: ND/2019/06			
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Contract No.: ND/2019/07			
<i>Air Quality</i>	06/10/2023	Dusty stockpile should be covered properly to avoid dust generation.	Improvement/Rectification was observed during follow-up audit session on 13 Oct 2023.

Parameters	Date	Observations and Recommendations	Follow-up
<i>Water Quality</i>	13/10/2023	Exposed slope surface should be covered properly to avoid surface runoff.	Improvement/Rectification was observed during follow-up audit session on 20 Oct 2023.

Table 10.3 Summary Table for the Outstanding item(s) in the reporting month

Contract No.	Outstanding deficiencies since last reporting month (Sep 2023)	Deficiencies recorded in the reporting month (Oct 2023)								Total deficiencies (including repeated deficiencies) in the reporting month	Deficiencies rectified in the reporting month	Outstanding deficiencies need to be Follow-up in the next month (Nov 2023)								Total outstanding deficiencies
		A	N	W	W/C	C H	L & V	E	P/L			A	N	W	W/C	C H	L & V	E	P/L	
ND/2019/01	3	6	/	11	1	/	/	/	/	18	12	2	/	/	1	/	/	/	/	3
ND/2019/02	5	/	/	9	1	/	4	3	1	18	8	/	/	2	1	/	1	/	1	5
ND/2019/03	3	2	/	3	/	/	/	/	/	5	3	/	/	/	/	/	/	/	/	/
ND/2019/04	5	2	4	6	2	/	/	/	/	14	6	/	1	2	1	/	/	/	/	4
ND/2019/05	1	2	/	3	6	/	/	/	/	11	7	/	/	/	1	/	/	/	/	1
ND/2019/06	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
ND/2019/07	/	1	/	1	/	/	/	/	/	2	2	/	/	/	/	/	/	/	/	/

Legends:

A = Air Quality

N = Construction Noise Impact

W = Water Quality

W/C = Waste / Chemical Management

CH = Cultural Heritage

L&V = Landscape & Visual

E = Ecology

P/L = Permit / Licences

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 10.4**.

Table 10.4 Photographic Records and Implementation Status of Measures

EP No.	Condition	Photographic Record	Implementation Status
<p><u>EP-466/2013/</u> <u>A</u></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>^_[1]</p>
<p><u>EP-467/2013/</u> <u>A</u></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>^_[1]</p>
<p><u>EP-468/2013/</u> <u>A</u></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>^_[1]</p>
<p><u>EP-469/2013</u></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>^_[1]</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>^_[1]</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>^_[1]</p>
<p>Implementation status:</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>	

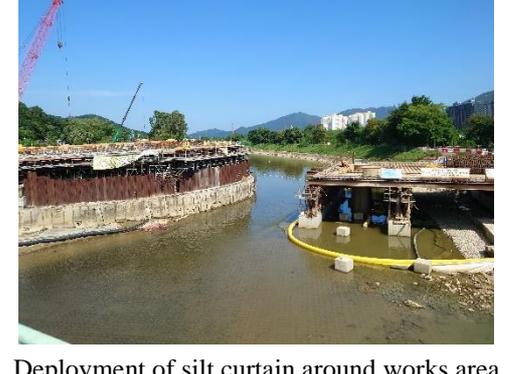
Remark:

[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 10.5 Specific Water Quality Mitigation Measures for Major Construction Works in the Reporting Month

Works Contracts	Photographic Records	
ND/2019/01	 <p data-bbox="448 815 820 846">Hard paved exposed slope surface</p>	 <p data-bbox="1011 815 1321 846">Hydroseeding for slope area</p>
ND/2019/02	 <p data-bbox="480 1240 820 1272">Hard paved exposed haul road</p>	 <p data-bbox="1011 1240 1374 1272">Hard paved exposed slope surface</p>
ND/2019/03	 <p data-bbox="480 1666 820 1697">Hard paved exposed haul road</p>	 <p data-bbox="979 1666 1394 1697">Watering the main haul road regularly.</p>
ND/2019/04	 <p data-bbox="464 2092 847 2123">Hard paved exposed slope surface</p>	 <p data-bbox="948 2069 1437 2123">Deployment of silt curtain around works area in Ng Tung River</p>

<p>ND/2019/05</p>	 <p>Covering dusty stockpile</p>	 <p>Provision of sand bags around works area</p>
<p>ND/2019/07</p>	 <p>Covering exposed slope surface with tarpaulin</p>	 <p>De-silting waste water before discharge</p>
<p>Water quality mitigation measures for site(s) in operation phase, remaining defect works</p>		
<p>ND/2019/06</p>	 <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 10.6 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>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 Himantopus himantopus was recorded



Wet agricultural land

11 ENVIRONMENTAL NON-CONFORMANCE

Summary of Exceedances

- 11.1 No Action/Limit Level exceedance for air quality, water 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**.
- 11.2 Ecological monitoring was carried out in the reporting month. Six (6) action level exceedance and four (4) limit level exceedance for non-aquatic fauna were recorded at T3, T4 & T5. The exceedance were considered non-project related.
- 11.3 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

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

Summary of Environmental Complaint

- 11.5 No environmental complaint was received in the reporting month. The Cumulative Complaint Log since the commencement of the Project is presented in Appendix S.

Summary of Environmental Summon and Successful Prosecution

- 11.6 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

Contract No.	Major Site Activities (November 2023 to January 2024)	Location/ Working Period	Potential Environmental Impact	Recommended Mitigation Measures
ND/2019/01	(a) Site clearance / tree felling	Portions 13	- Construction Dust impact - Noise Impact (Construction Phase) - Water Quality Impact (Construction Phase) - Waste Management (Construction Waste)	Air - 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. Noise - Regular inspect of construction plants in good condition.
	(b) GI works	NIL		
	(c) Excavation / Backfilling	Portions 3, 5, 7, 8a, 8b, 9b		
	(d) Construction of retaining wall	Portions 8a		
	(e) Construction of hoarding / fencing	NIL		
	(f) Site Formation	Portions 1c, 2		
	(g) Removal of existing structure	Portions 13		
	(h) Construction of subway	Portions 2		
	(i) Operation of HAC treatment facility	Portions 6b		
	(j) Drainage works / watermains works	Portions 1a, 2, 3, 5, 6a, 7, 8a, 8b, 9b		

	(k) Road Construction	Portion 2, 5, 6a	<ul style="list-style-type: none"> - Provide temporary noise screens if necessary. - Use of Quiet plants (QPME) and working methods if possible. - Sequencing operation of construction plants where practicable. - Shut down the machines and plant if not in use. - Only well-maintained plant to be operated on-site - Mobile plant to be sited as far away from NSRs as possible practicable. - Conduct noise monitoring regularly. - Erect silent-up noise barrier at portion 6b. <p>Water</p> <ul style="list-style-type: none"> - Set up wastewater treatment system (AquaSed) on site - Erect soil bund / temporary drain to divert /collect surface runoff. - Maintain the drainage and wastewater treatment facilities. <p>Waste / Chemical Management</p> <ul style="list-style-type: none"> - Sort out demolition debris and excavated materials from demolition works to recover reusable / recyclable portions - Provide recycling bins on site, encourage reuse and recycle as much as possible. - Provide drip trays for chemical containers. - Chemical spill kit available on site. - Chemical waste cabinet available on site.
	(l) Trenchless	Portion 5, 8b	
	(m) Construction of reservoir	Portions 8a	
	(n) Soil Nail	Portion 8a	
	(o) Erection of hoarding	Portion 1c	
	(p) Sheet piling / ELS	Portion 1c, 5, 7, 9b	

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

				<ul style="list-style-type: none"> - Dull green barrier and ecological measures should be implemented according to the Ecological protection plan.
ND/2019/03	(a) Excavation & ELS	Portion 1, 1A, 2, 3, 4, 4A, 4B, 5, 5A	<ul style="list-style-type: none"> - Waste - Air pollution - Noise pollution 	<ul style="list-style-type: none"> - Dusty works should be sprayed with water or stockpile should be covered by Tarpaulin properly. - Plants should have maintenance to prevent dark smoke and oil leakage. Idle plant should be turned off. - Drip tray should be provided for all chemical and stationary plants. - No construction works shall be carried out in restricted hours (7:00 pm to 7:00 am) unless CNP is granted. - Waste should be sorted and disposed according to Waste Management Plan. - No direct discharge of wastewater into storm water drains is allowed. Wastewater must be desilted before discharging according to water discharge license.
	(b) Site Clearance	Sections 7, 8 and 9	<ul style="list-style-type: none"> - Waste - Air pollution - Noise pollution 	
	(c) Tree Felling	Sections 6, 7, 8 and 9	<ul style="list-style-type: none"> - Waste - Air pollution - Noise pollution 	
ND/2019/04	(a) Sheet piling	Portion J, K and Footbridge F4	- Air, Noise, Waste	<ul style="list-style-type: none"> - Dusty works should be sprayed with water or stockpile should be covered by tarpaulin properly. - Plants should have maintenance to prevent dark smoke and oil leakage. Idle plant should be turned off. - Drip tray should be provided for all chemical and stationary plants.
	(b) Pile cap	Bridge A1, A3 and Portion J	- Air, Noise, Water, Waste	
	(c) Grouting	Bridge F, A2, A3 and Portion J, B, K, H	- Air, Noise, Water, Waste	
	(d) Bore pile	Bridge G and Bridge F02	- Air, Noise, Water, Waste	

	(e) Excavation & ELS	Portion J, F, H, K, X, S, Bridge A1, A2 and A3	- Air, Noise, Waste	<ul style="list-style-type: none"> - No construction works shall be carried out in restricted hours (7:00 pm to 7:00 am) unless CNP is granted. - Waste should be sorted and disposed according to Waste Management Plan. - No direct discharge of wastewater into storm water drains is allowed. Wastewater must be desilted before discharging according to water discharge license.
	(f) Road works	Portion J, H, Q, R, U and VY	- Air, Noise, Waste	
	(g) Pre-drilling	NIL	- Air, Noise, Water, Waste	
	(h) Tree pruning	Portion Q, S, T	- Air, Noise, Waste	
	(i) UU diversion	Portion J and K	- Air, Noise, Waste	
ND/2019/05	(a) ELS & Pile Cap Construction	Pier D2-01 , E3-04a, E304b, E4-01 and E4-02 NB110 - Bay 8	<ul style="list-style-type: none"> - Construction Dust Impact - Noise Impact - Water Quality Impact (Construction Phase) - Waste Management (Construction Waste) - Landscape and Visual - Cultural Heritage 	<ul style="list-style-type: none"> - 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 50m³ 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) Bored Piling	D2-04M		
	(c) Cross head construction	B2-01, B2-02 and B2-03		
	(d) Pier / Pier head Construction	B2-01, D2-01 and E305M		
	(e) Fabrication for segment	C2, C1, D1, D2, E1, E4		
	(f) Form Traveler	E3-01 construction 2nd to 4th pair E2-02 construction 11th to 14th pair D2-02 construction 03rd to 7th pair D2-03 erection of form traveler no.4 &		

		construction 1st to 2nd pair E2-01 erection of 5th set of form traveler.		<p>earth, mud, debris and the like is deposited by them on roads.</p> <ul style="list-style-type: none"> - 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. - Provide training to workers on appropriate waste management procedures, including waste reduction, reuse and recycling. - 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. - 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. - Conducting Construction Vibration Monitoring
(g)	Construction of Abutment wall	B1		
(h)	Segment Erection by Launching Girder & Crane	bridges C3, C2		
(i)	SOP construction (precast & in-situ cast in type)	D2-01		
(j)	T-span construction by Form Traveler	C3-02		
(k)	Installation of bridge rotation components	Pier D2-01		
(l)	Road construction	TWSRW, TWSRE		
(m)	Base slab construction	NB109 – bay 11~12; NB110 – bay 8 NB69 – bay 5~6		
(n)	Tree Works	All works areas		

				<ul style="list-style-type: none"> - 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. - 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. - Erect 2m high dull green site boundary fence.
ND/2019/06	N/A	N/A	N/A	N/A
ND/2019/07	(a) Road works	Portion 1, 4, 5	<ul style="list-style-type: none"> - Construction Dust Impact - Noise Impact - Water Quality Impact (Construction Phase) - Waste Management (Construction Waste) - Landscape and Visual 	<ul style="list-style-type: none"> - 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 50m³ to be covered with tarpaulin.
	(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 2, 3, 4, 5		
	(g) Sewerage works	Portion 3, 4, 5		
	(h) Construction of Noise Barrier	Portion 5		
	(i) Waterworks	Portion 1, 2, 4		

				<ul style="list-style-type: none"> - 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. - Provide training to workers on appropriate waste management procedures, including waste reduction, reuse and recycling. - 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. - 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
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				<p>another licensed facility, in accordance with the Waste Disposal (Chemical Waste) (General) Regulation.</p> <ul style="list-style-type: none"> - 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. - 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. - Erect 2m high dull green site boundary fence. - Light Control – Construction day and night time lighting should be controlled to minimize glare impact to adjacent VSRs during the Construction phase.
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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**.

13 CONCLUSIONS AND RECOMMENDATIONS

Conclusions

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

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

13.3 Six (6) non-project related action level exceedance and four (4) non-project related limit level exceedance for non-aquatic fauna were recorded.

Contract No. ND/2019/01

13.4 Environmental site inspections were conducted on 3, 11, 17, 24 and 31 Oct 23 by ET in the reporting month.

Contract No. ND/2019/02

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

Contract No. ND/2019/03

13.6 Environmental site inspections were conducted on 6, 13, 17 and 27 Oct 23 by ET in the reporting month.

Contract No. ND/2019/04

13.7 Environmental site inspections were conducted on 5, 12, 18 and 26 Oct 23 by ET in the reporting month.

Contract No. ND/2019/05

13.8 Environmental site inspections were conducted on 3, 10, 19, 24 and 30 Oct 23 by ET in the reporting month.

Contract No. ND/2019/06

13.9 Environmental site inspections were conducted on 5, 12 and 18 Oct 23 by ET in the reporting month. The construction phase EM&A Programme for Contract No. ND/2019/06 was terminated on 19 Oct 2023.

Contract No. ND/2019/07

13.10 Environmental site inspections were conducted on 6, 13, 20 and 27 Oct 23 by ET in the reporting month.

13.11 No environmental complaint was 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.

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.
- To ensure the noise barriers were fully enclosed.

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.

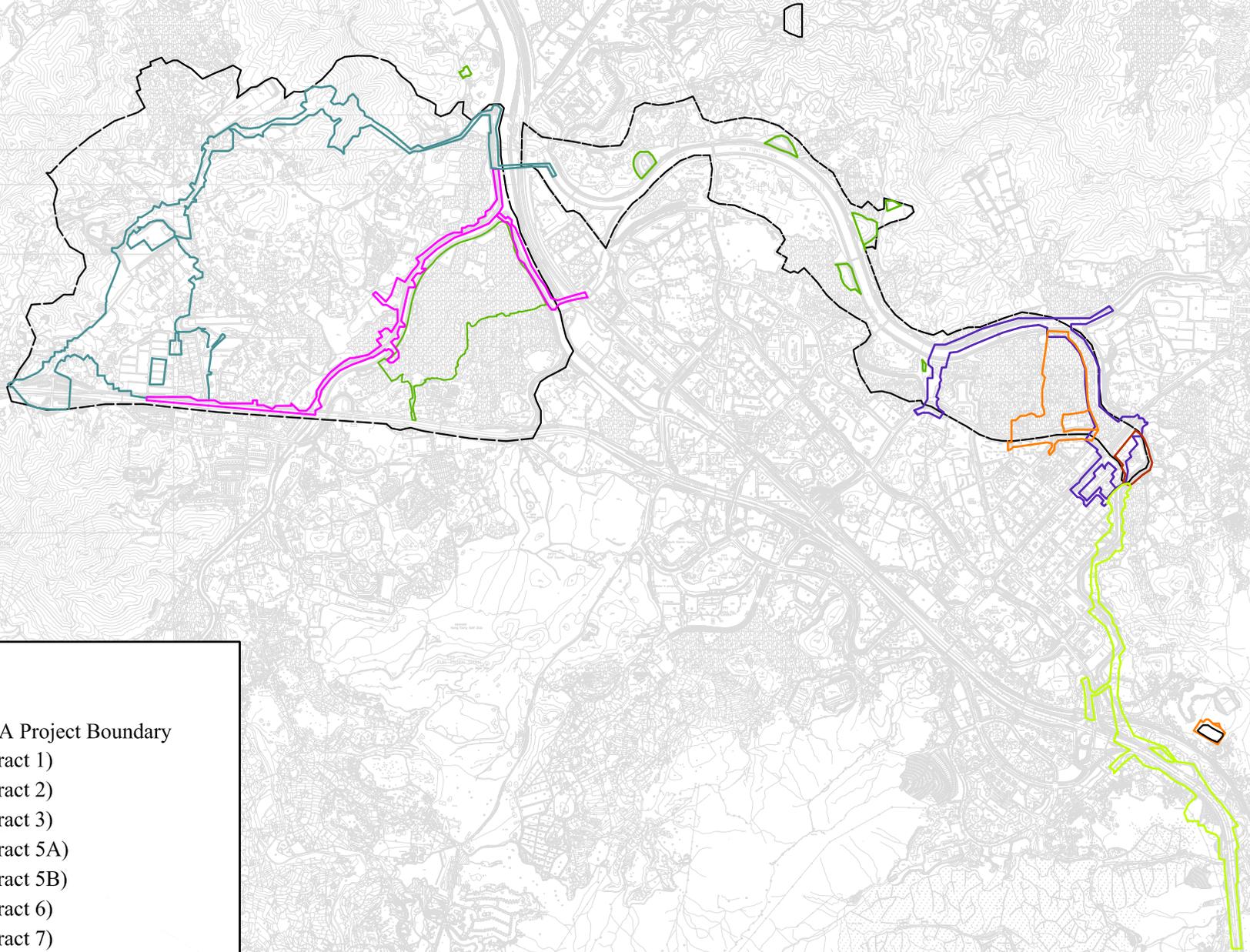
Ecology

- 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.

DRAWING(S)

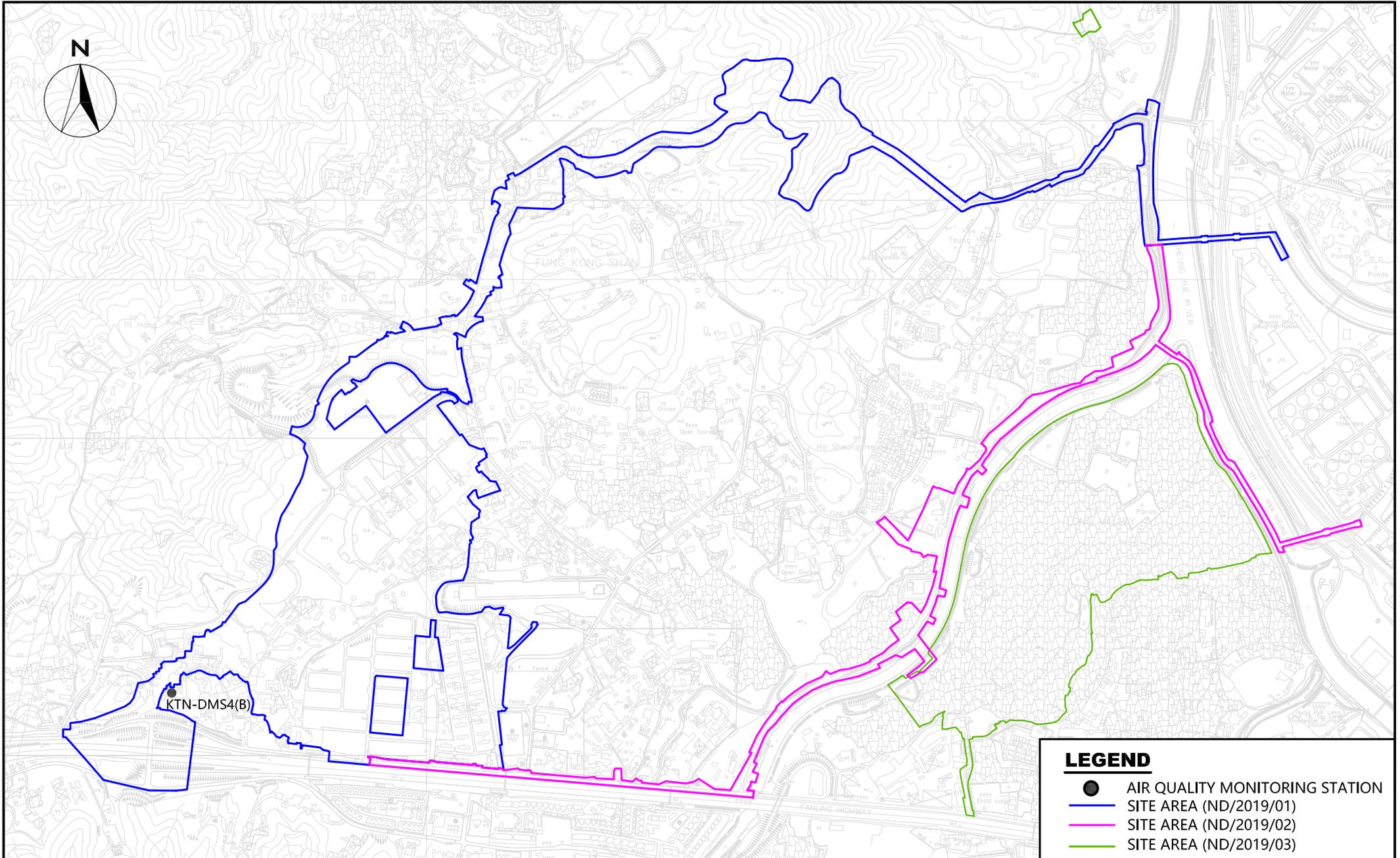


LEGEND

-  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)

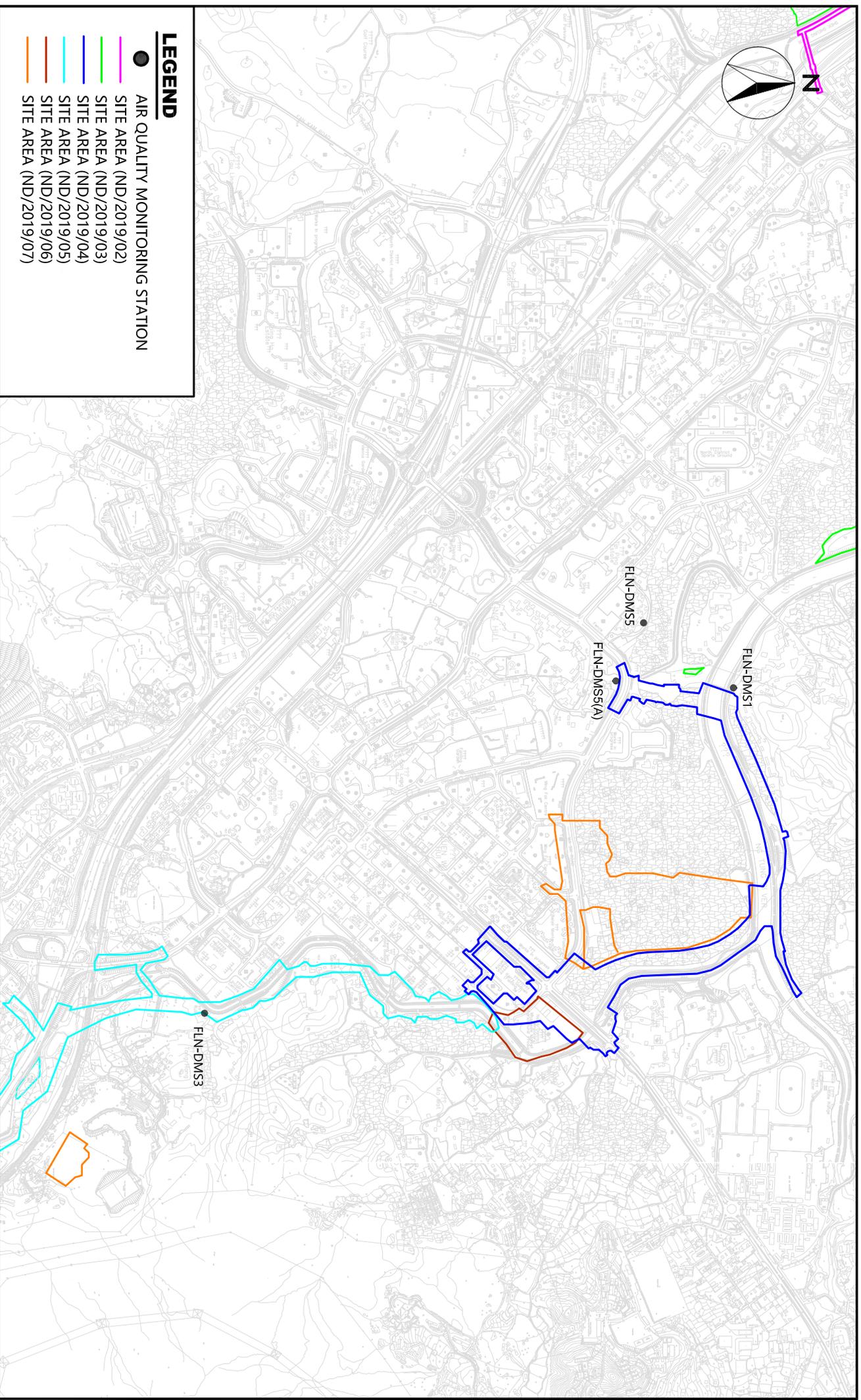
SCALE	A4 @ 1:80000	DATE	July 2020
CHECK	KL	DRAWN	ML
Project No.	WMA20002	Drawing No.	1
		REV	-

FIGURE(S)



LEGEND	
●	AIR QUALITY MONITORING STATION
— (Blue)	SITE AREA (ND/2019/01)
— (Pink)	SITE AREA (ND/2019/02)
— (Green)	SITE AREA (ND/2019/03)

SCALE	A4 @ 1:30000	DATE	AUG 2022	
CHECK	MM	DRAWN	ML	
PROJECT No.	WMA20002	FIGURE NO.	1	REV —

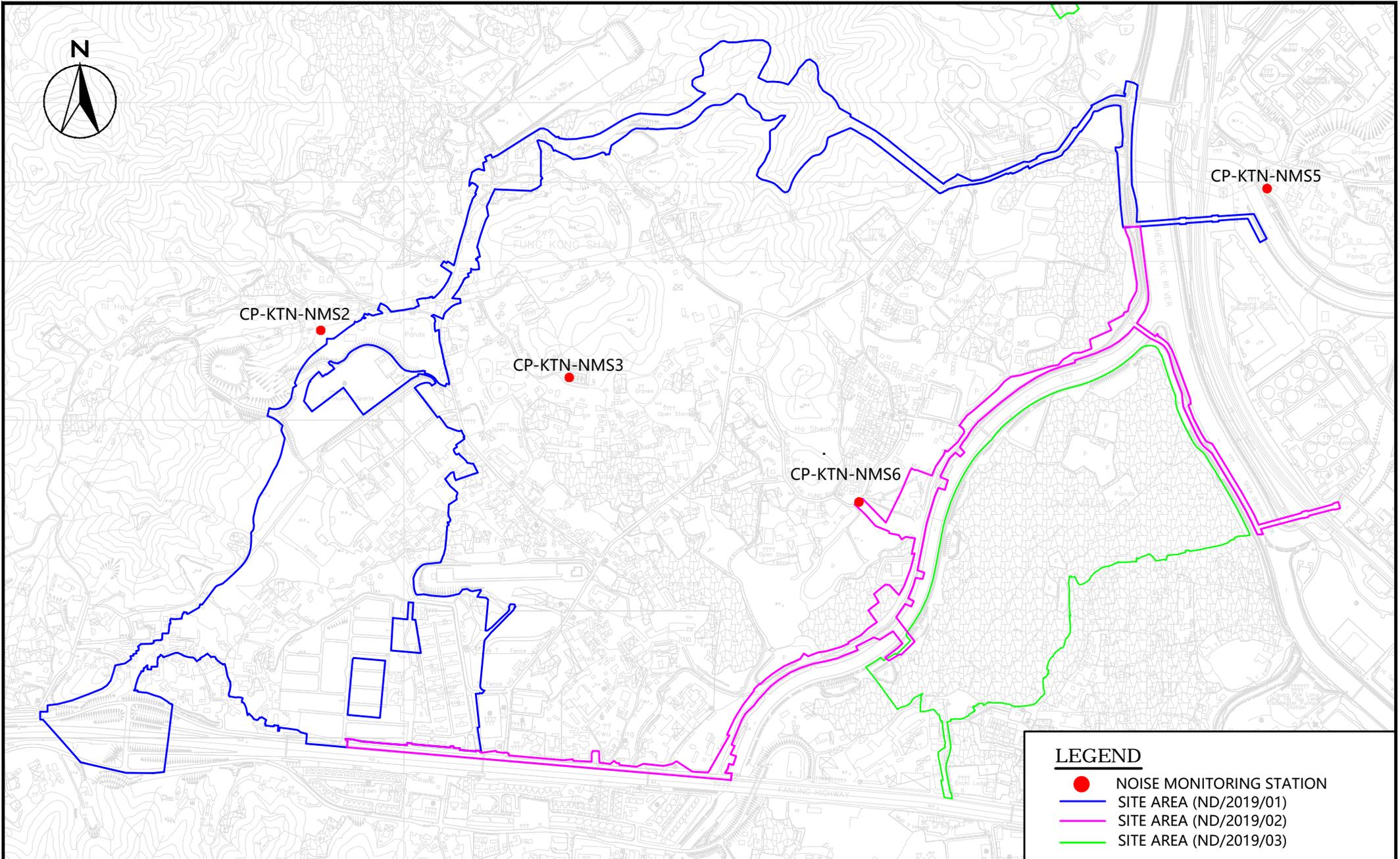


LEGEND

- 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)

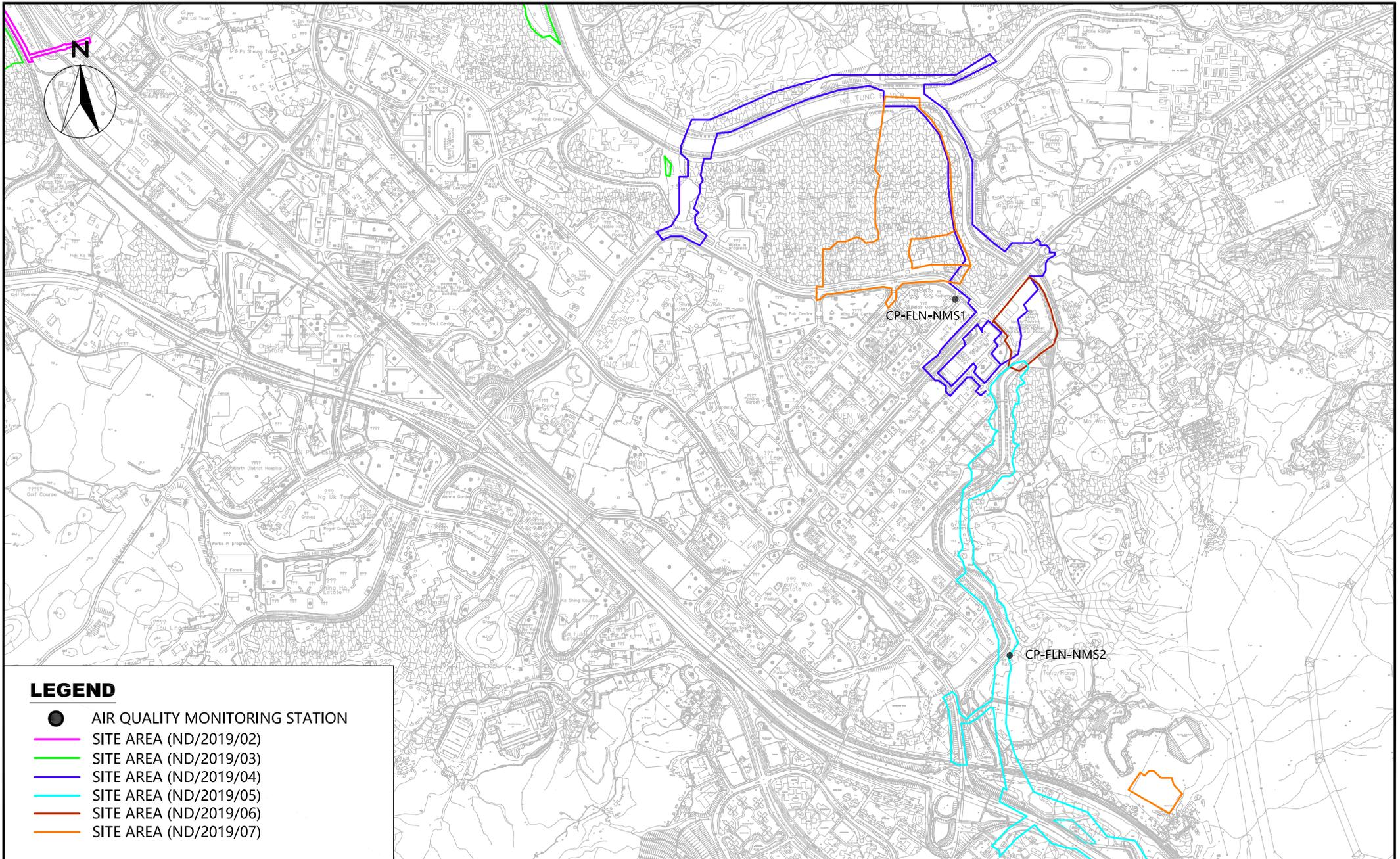
Service Contract No. NDO 04/2019 Environmental Team for EM&A Works in Construction
Phase for the First Phase Development of KTN and FLN NDAs
Location of Air Quality Monitoring Station (FLN)

SCALE	A4 @ 1:40000	DATE	DEC 2021
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)

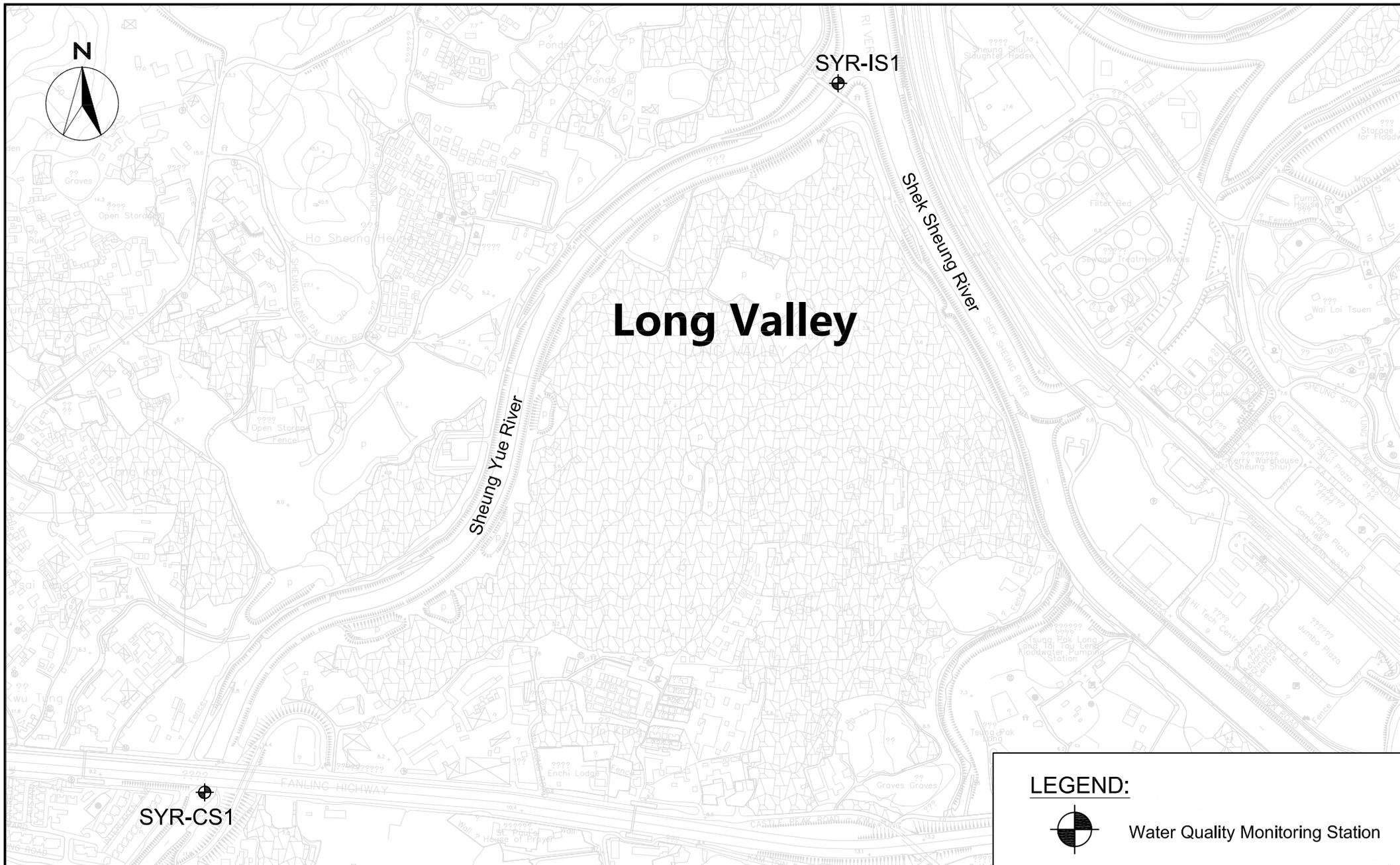
SCALE	A4 @ 1:30000	DATE	OCT 2020
CHECK	KL	DRAWN	NL
PROJECT No.	WMA20002	FIGURE NO.	3
		REV	—



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)

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



Long Valley

LEGEND:



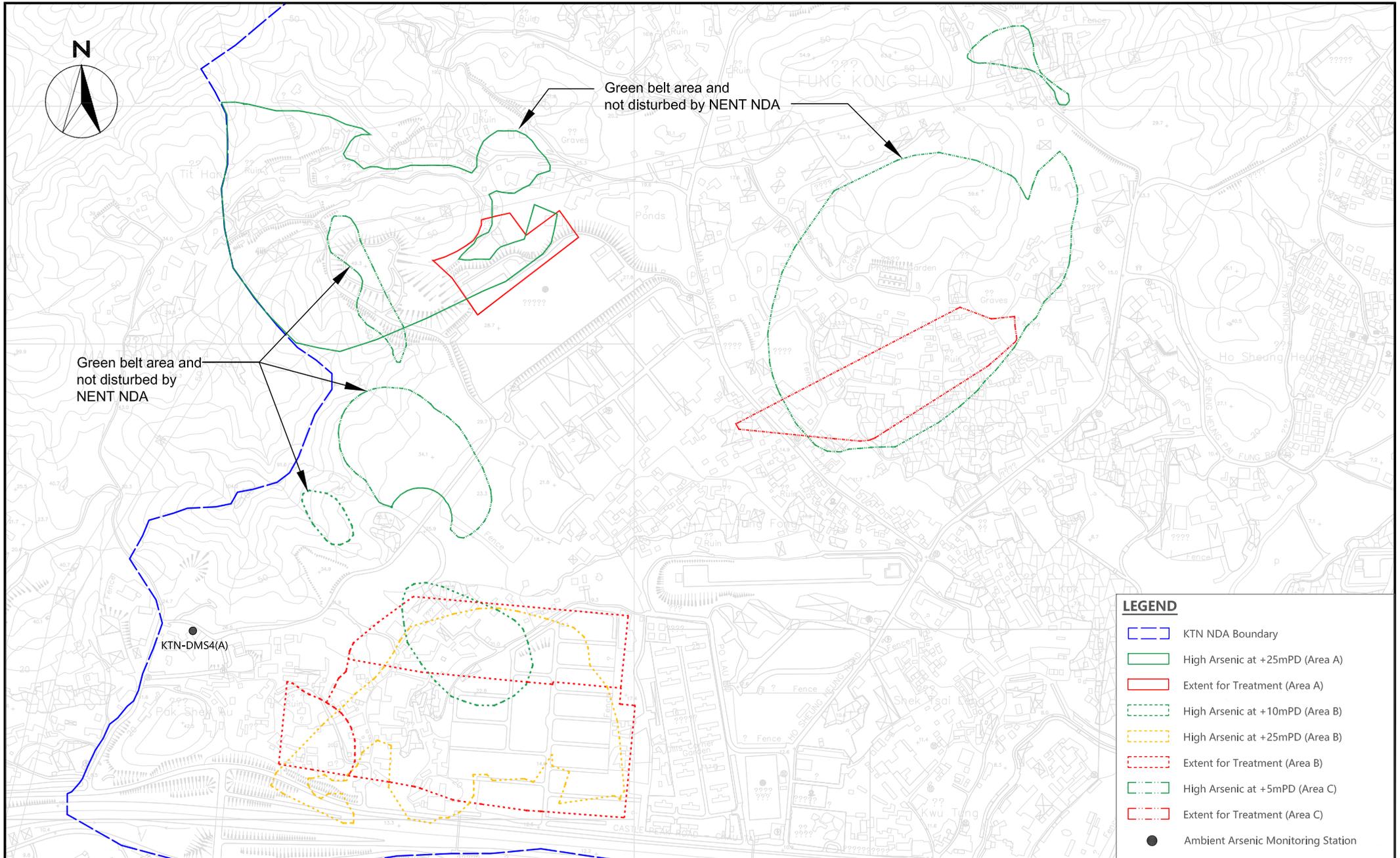
Water Quality Monitoring Station



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 —

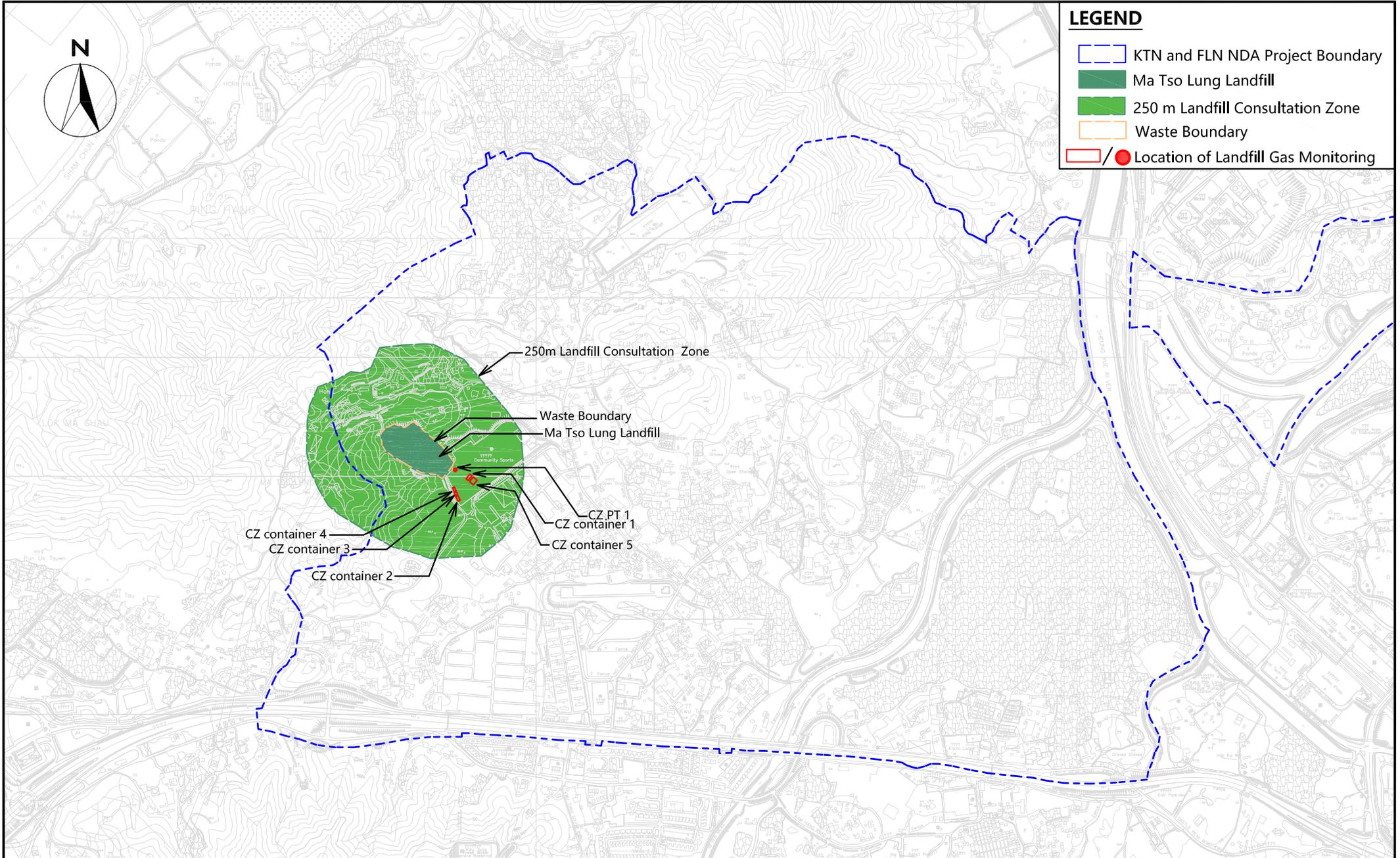


SCALE	1:20000 (A4)	DATE	Jun 2020	
CHECK	IT	DRAWN	ML	
PROJECT No.	WMA20002	FIGURE NO.	7	REV -

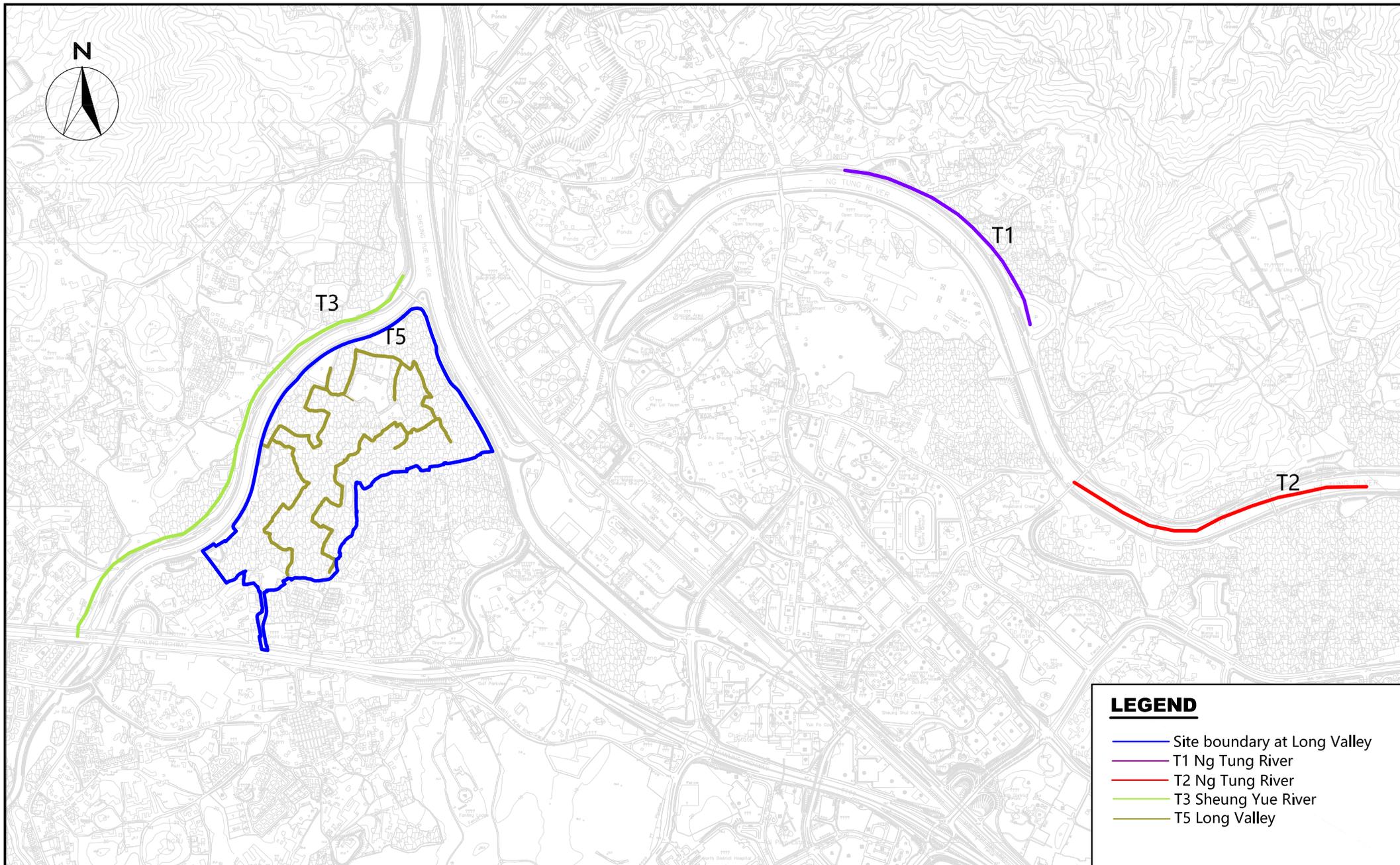


LEGEND

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



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



LEGEND

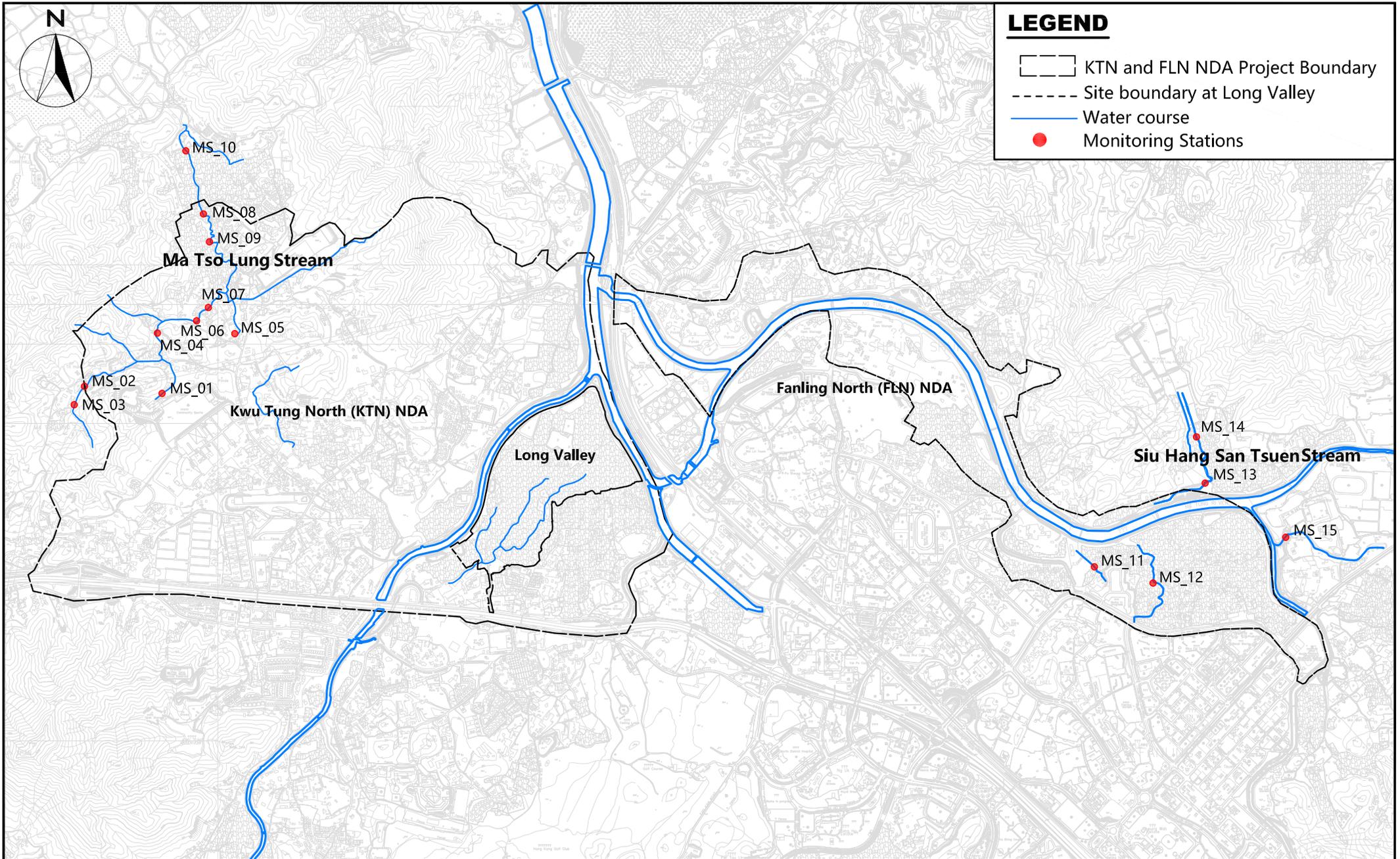
- Site boundary at Long Valley
- T1 Ng Tung River
- T2 Ng Tung River
- T3 Sheung Yue River
- T5 Long Valley

SCALE	A4 @ 1:40000	DATE	MAY 2020	
CHECK	IT	DRAWN	KIKI	
PROJECT No.	WMA20002	FIGURE NO.	9	REV —

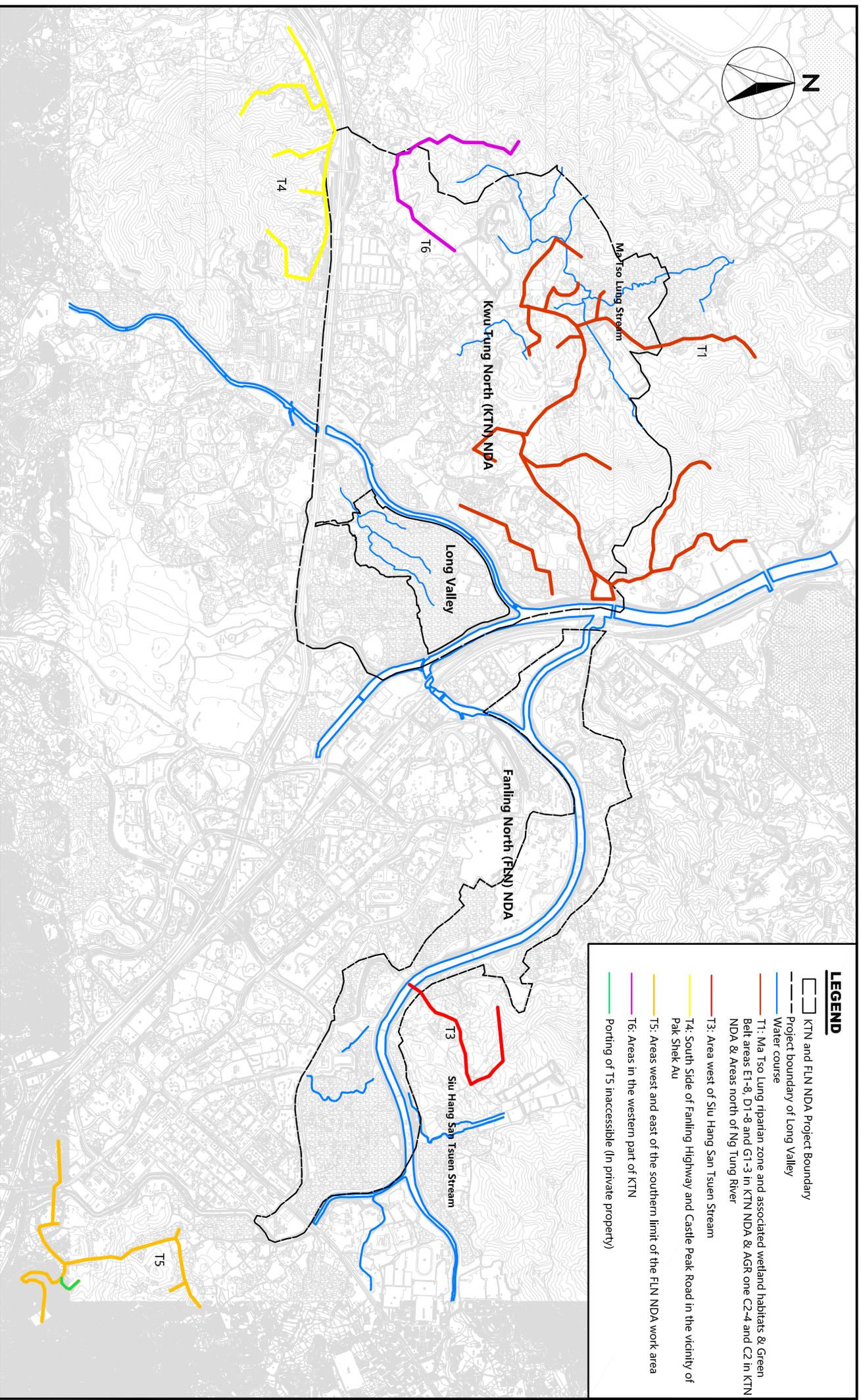


LEGEND

- 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
- Porting of T5 inaccessible (in private property)

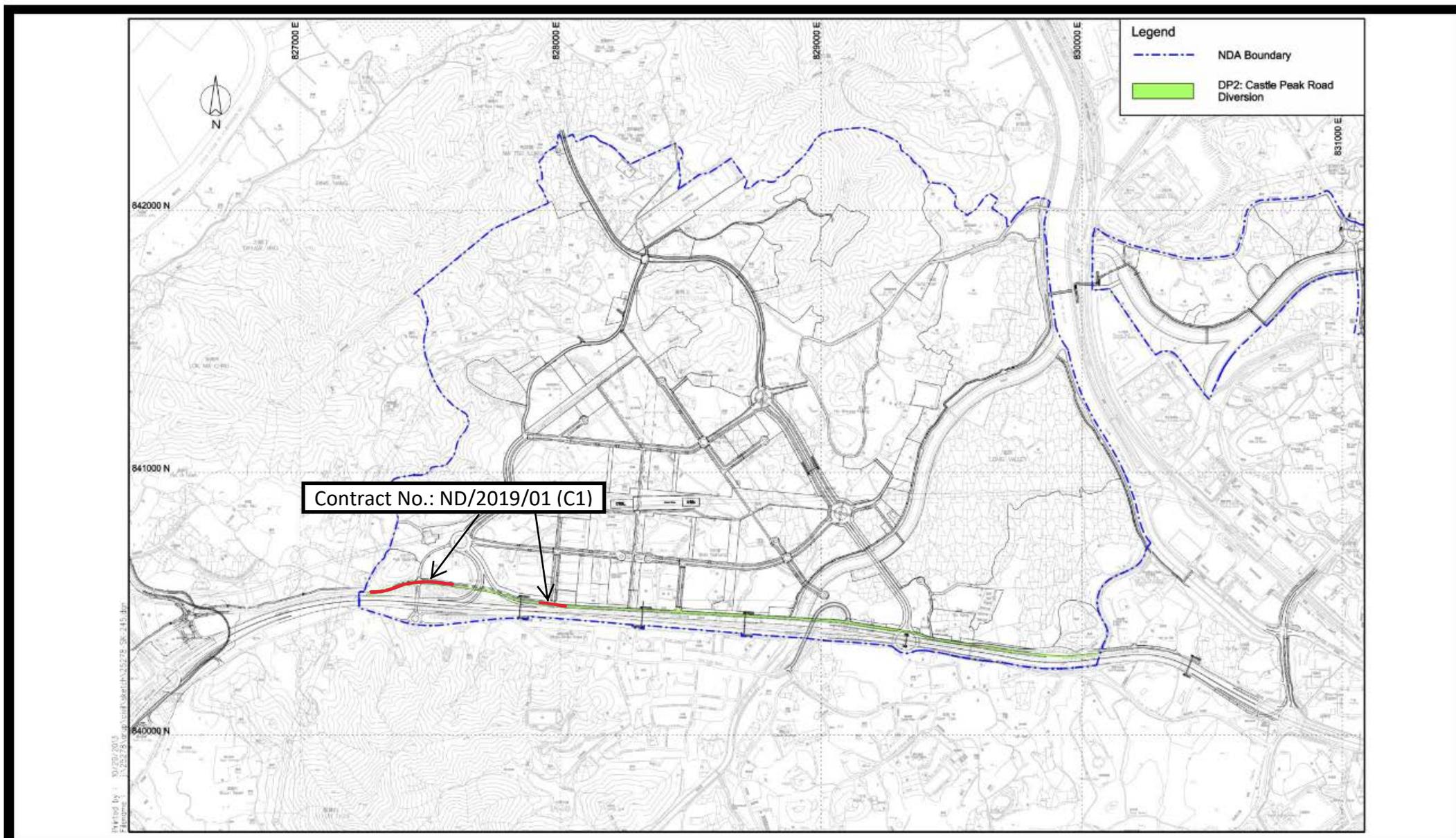
Service Contract No. NDO 04/2019 Environmental Team for EM&A Works in Construction
Phase for the First Phase Development of KTN and FLN NDAs
**Location of Transect Route of Ecological Sensitive Habitats
(Non-Aquatic Fauna) Transects (T1, T3-T6)**

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)

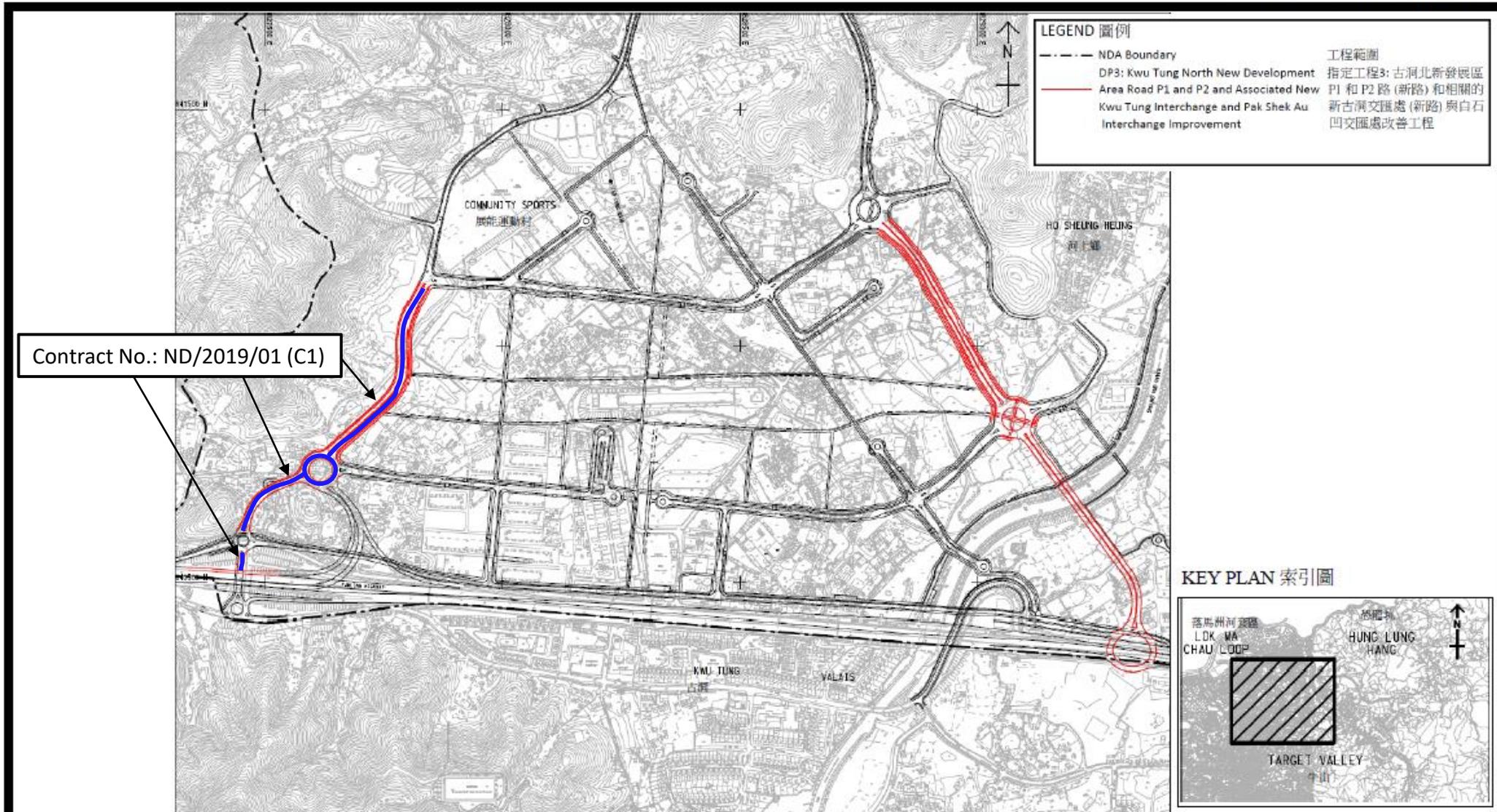
**Environmental Permit No:
EP-466/2013/A**



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

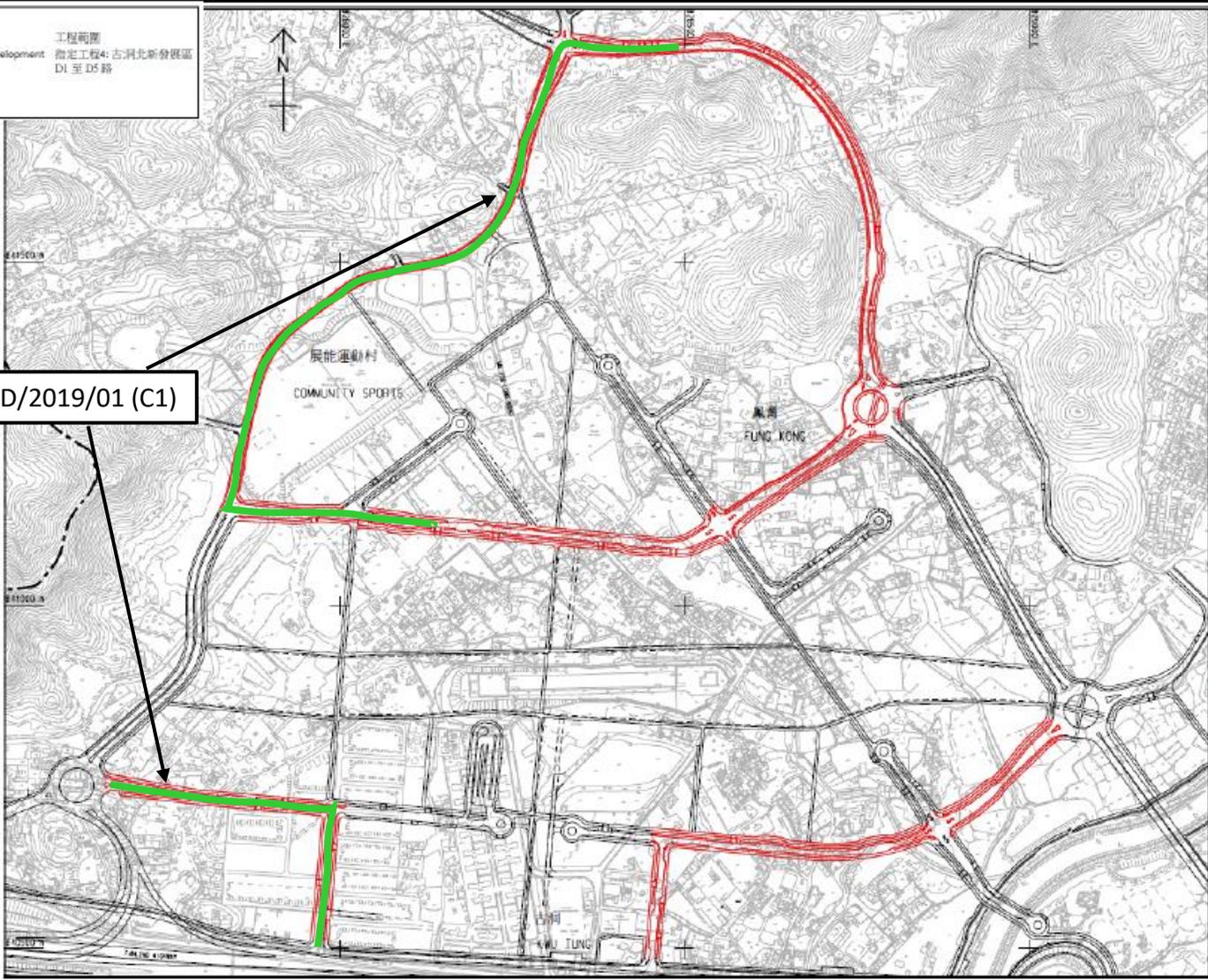
Site Layout Plan of Contract ND/2019/01

under EP-468-2013-A

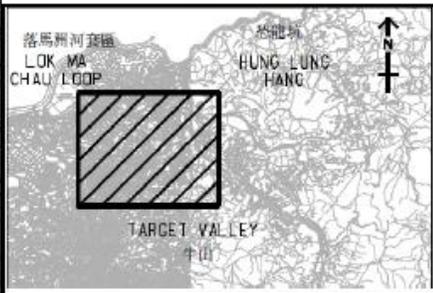
LEGEND 圖例

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

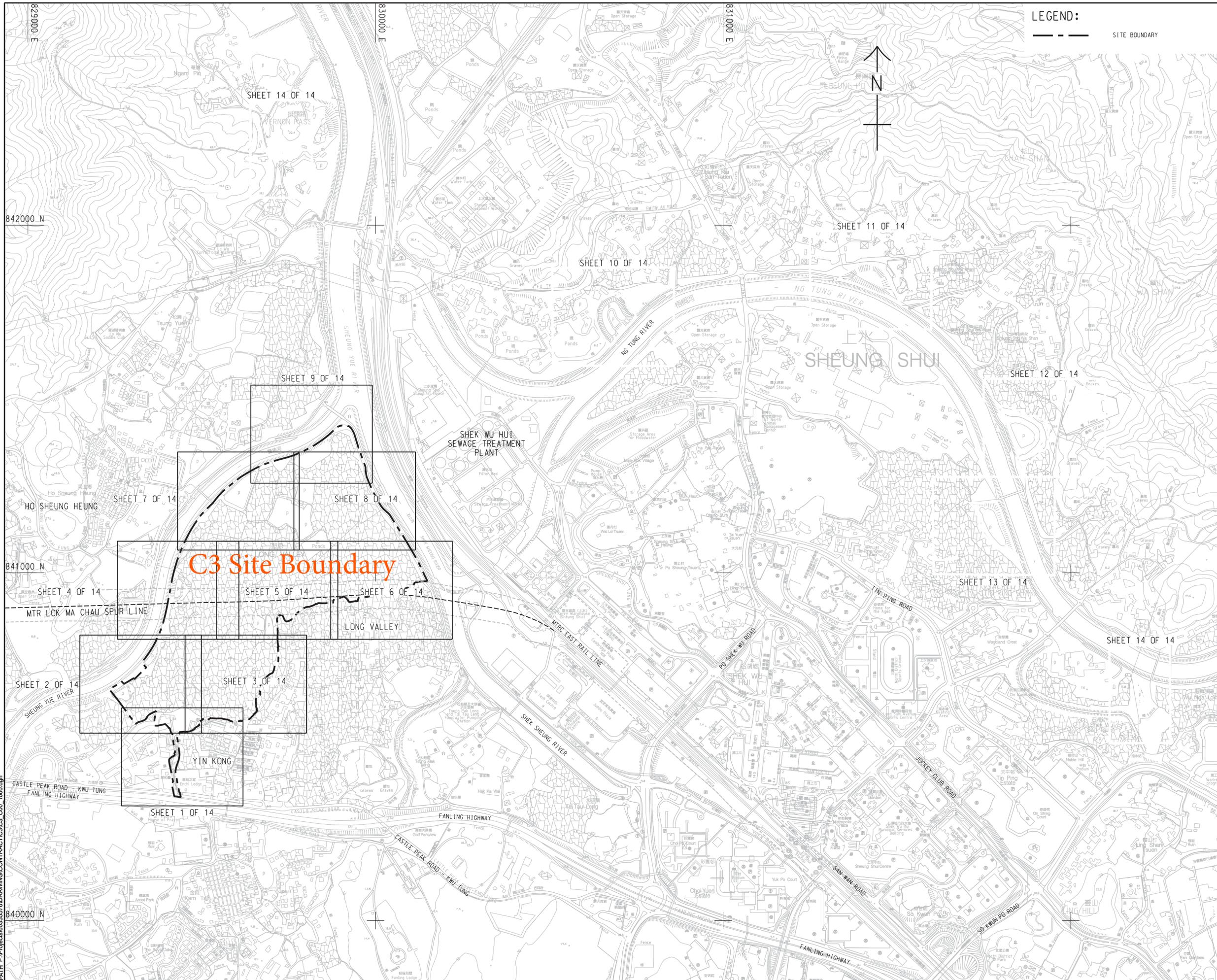
環境許可證編號：
 EP-468/2013/A



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
CEDD Civil Engineering and Development Department

CONSULTANT
 工程師有限公司
 AECOM Asia Company Ltd.
 www.aecom.com

SUB-CONSULTANTS
 分判工程師有限公司

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

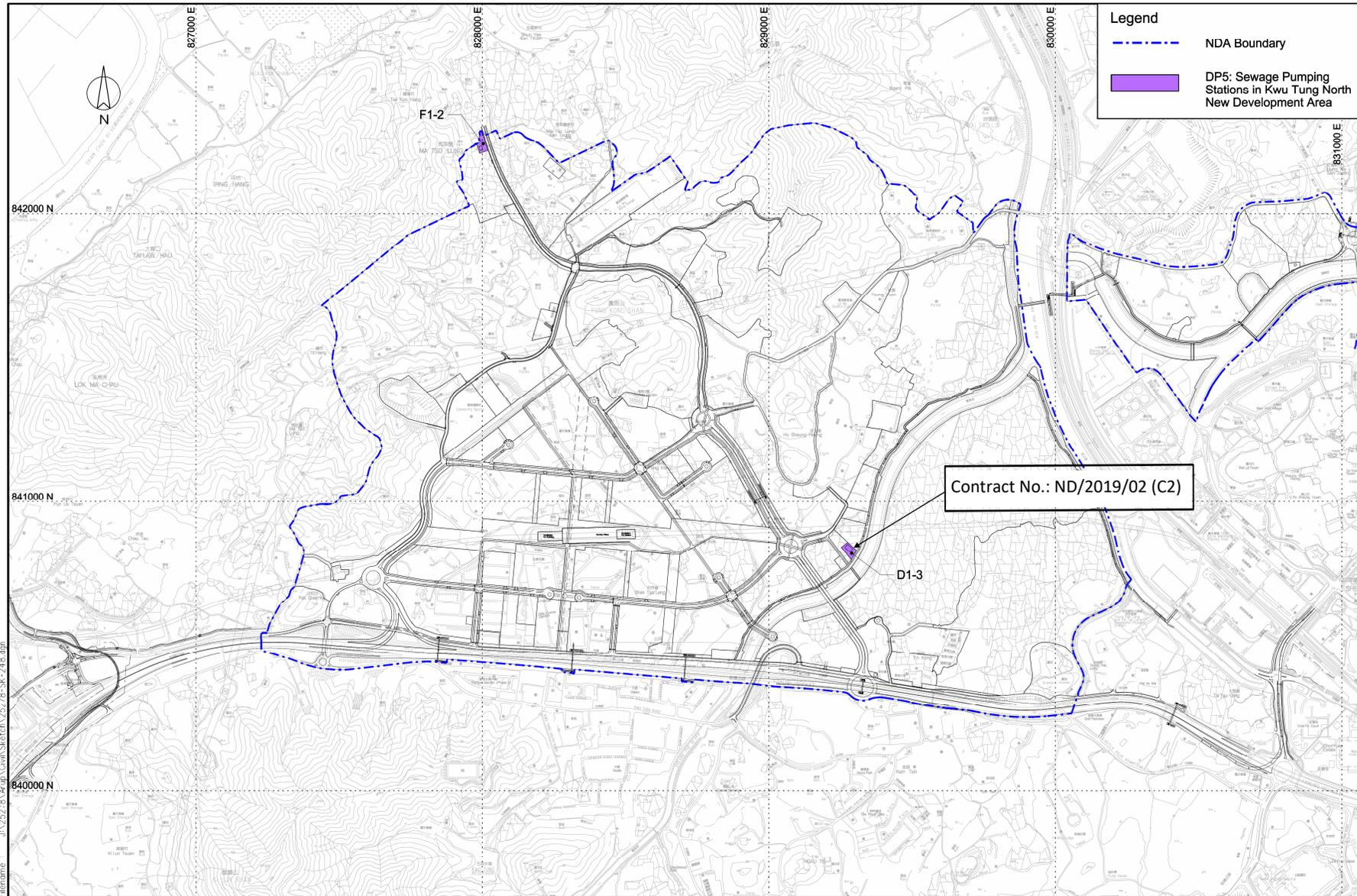
SHEET NUMBER
 圖紙編號: 60335576/C3/C00/1000

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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)

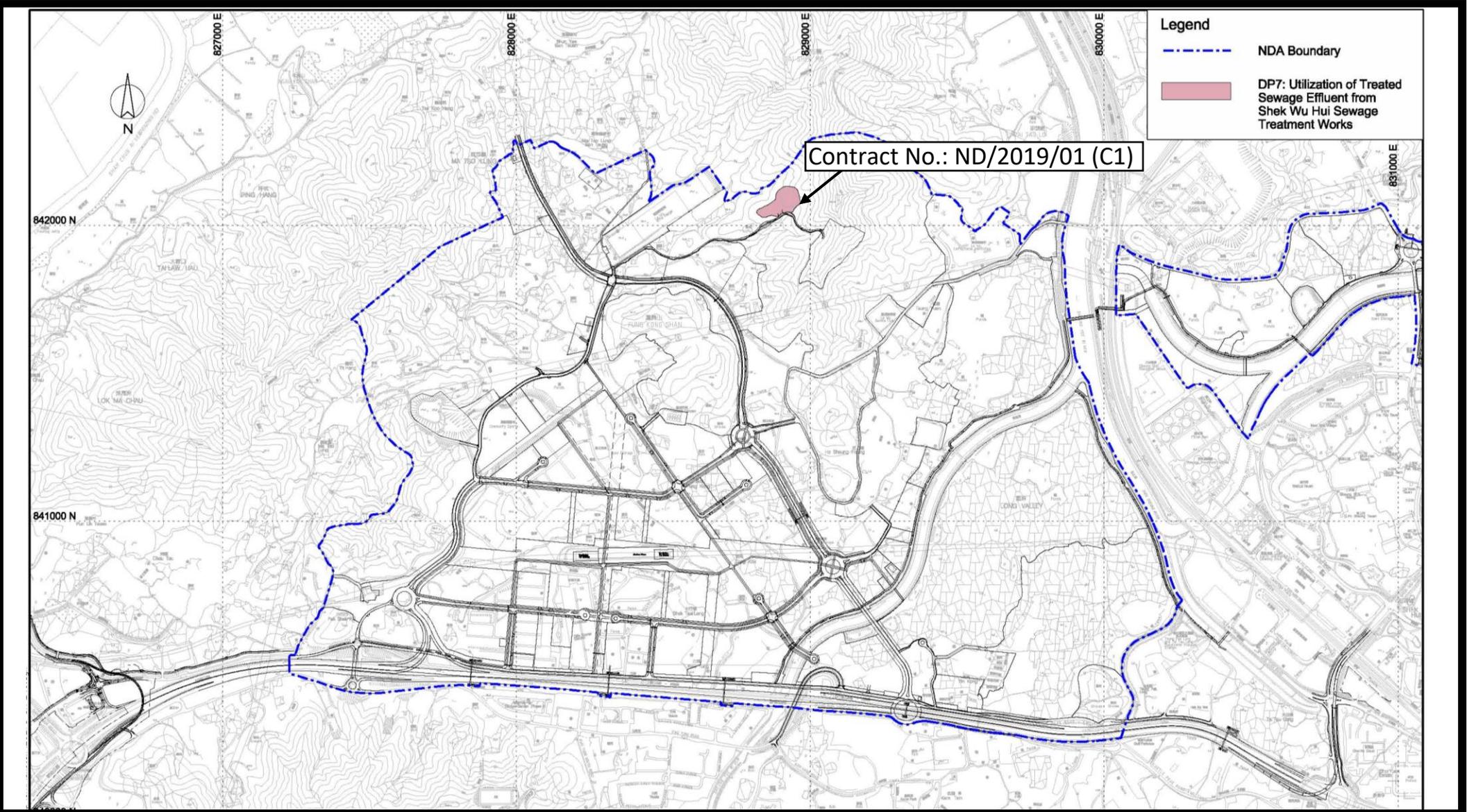
**Environmental Permit No:
EP-469/2013**



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)

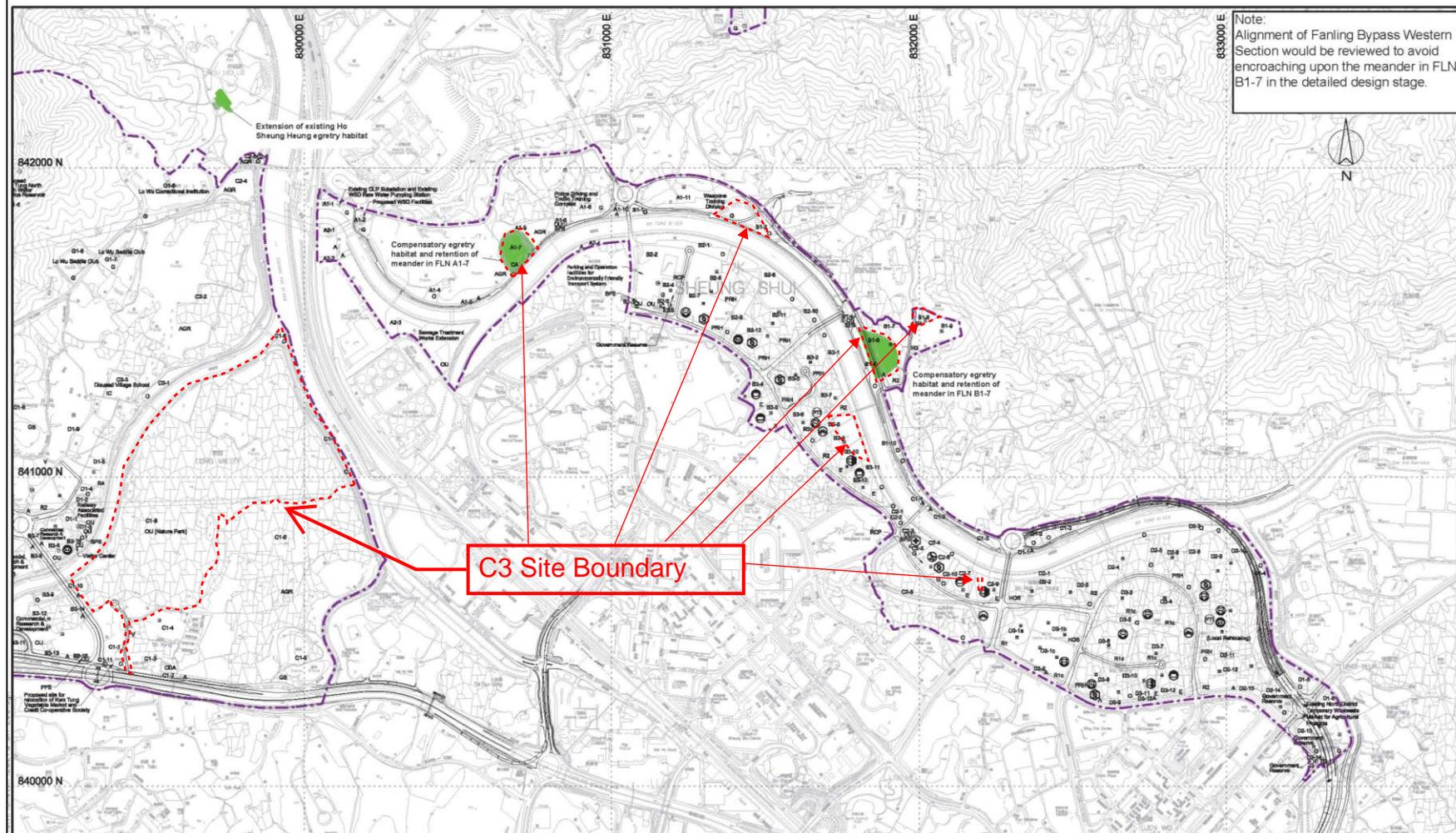
**Environmental Permit No:
EP-470/2013/A**



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 Egret 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

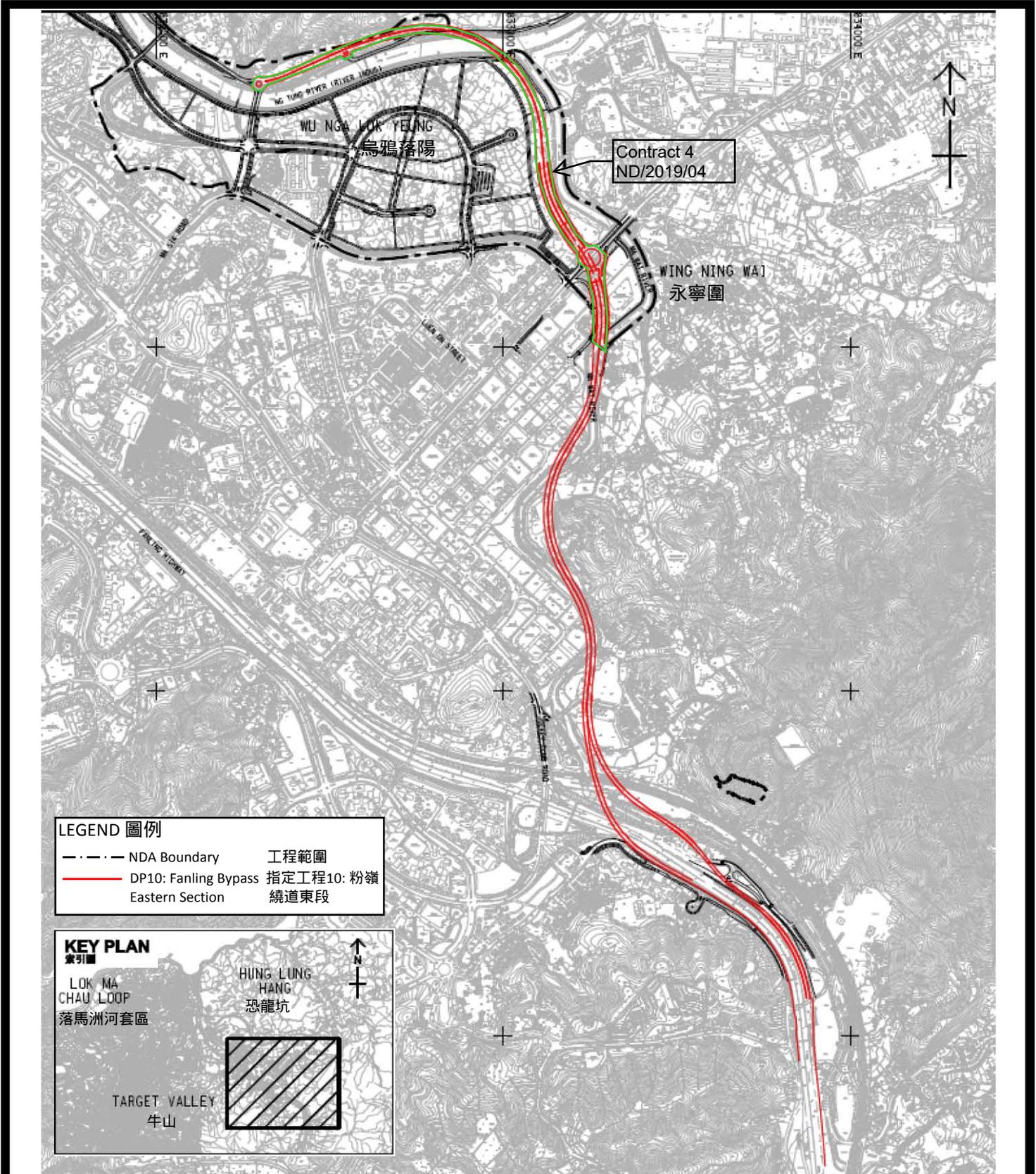
環境許可證編號: EP-473/2013/A



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

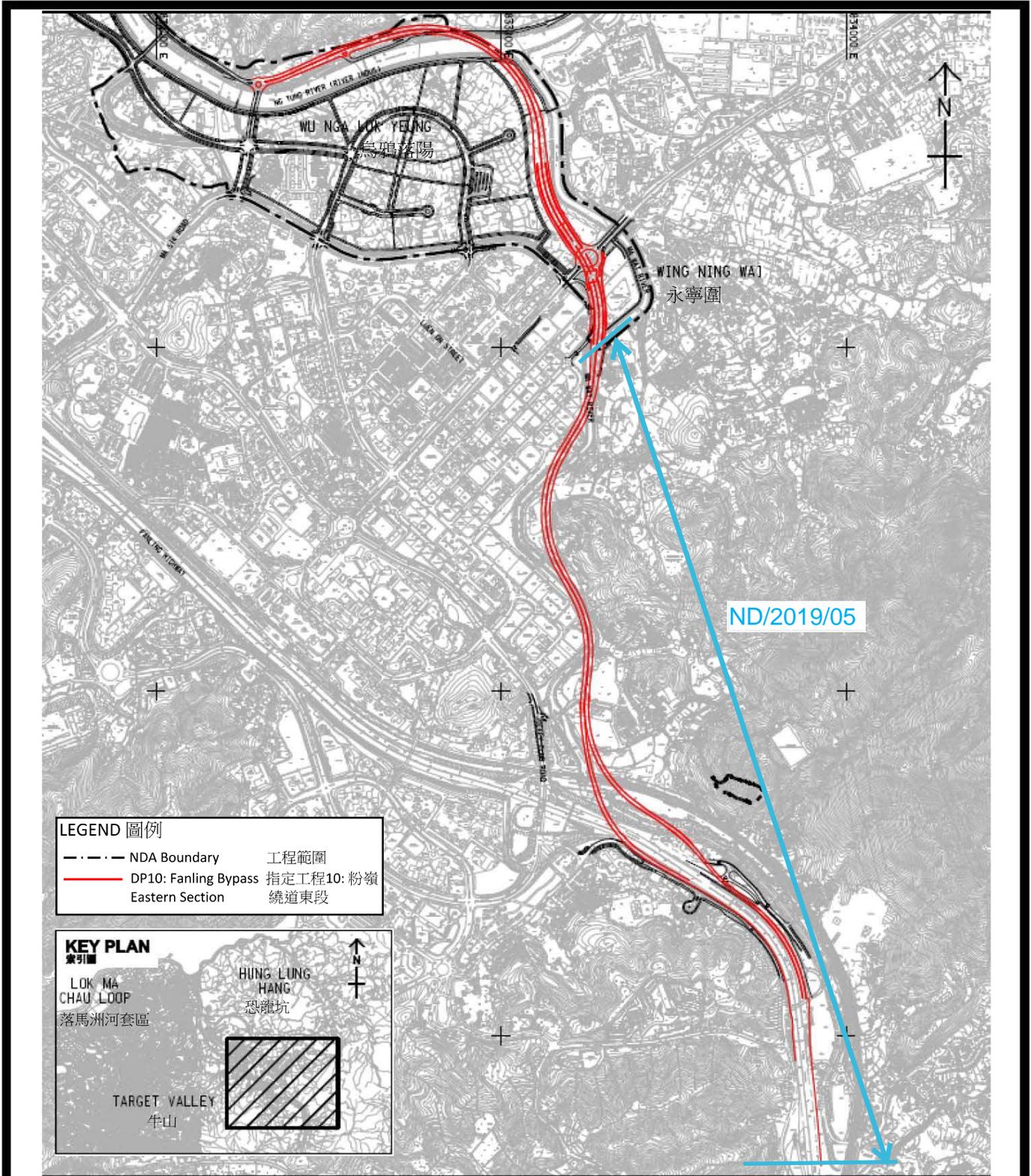
EP-473/2013/A



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)

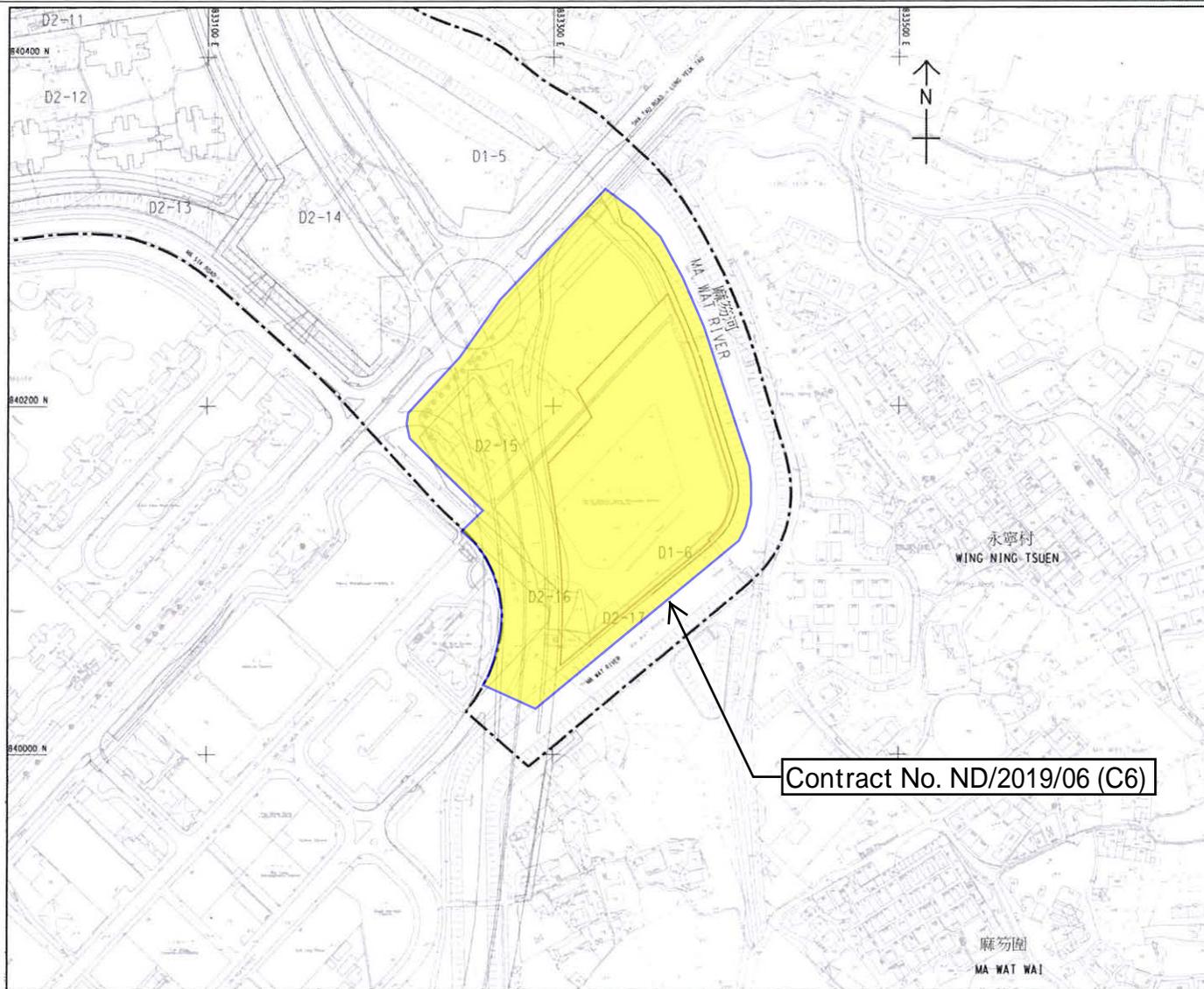
This figure was prepared based on Figure 1.1 of VEP application (No.: VEP-526/2016)
本圖是根據申請更改環境許可證(編號: VEP-526/2016)圖1.1編制



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)

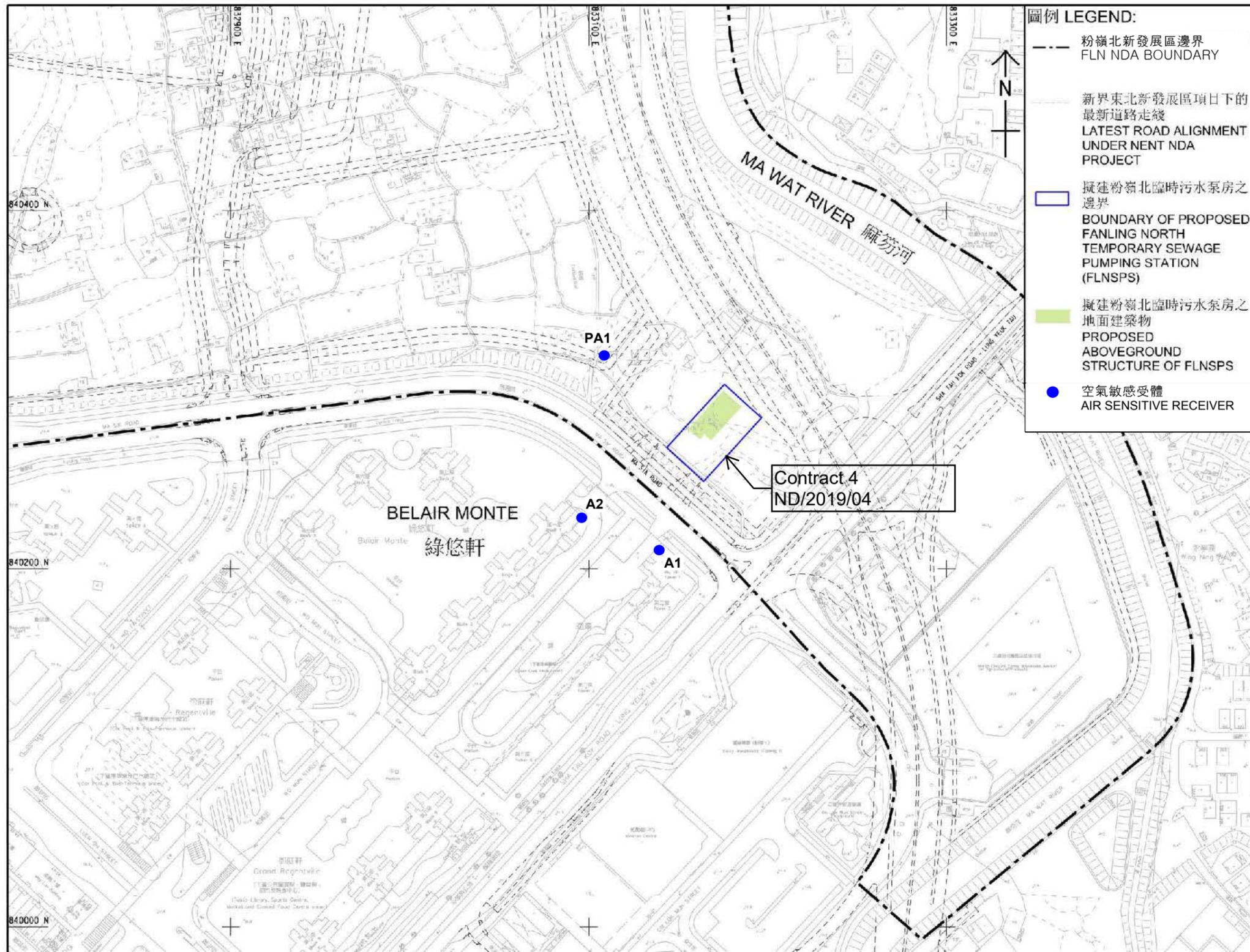
(This figure was prepared based on Figure 1.1 of VEP application (No.: VEP-516/2016))
 (本圖是根據申請更改環境許可證(編號 VEP-516/2016) 圖 1.1 編制)



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)

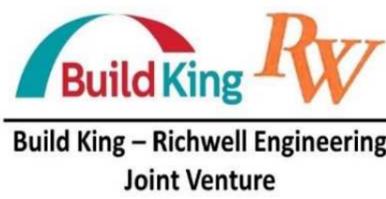
(This figure was prepared based on Figure 1.1 of Project Profile No: PP-557/2017
 (本圖是根據工程項目簡介編號: PP-557/2017 圖 1.1 編制)



**APPENDIX A
CONSTRUCTION PROGRAMME**

Construction Programme of ND/2019/01

Activity ID	Activity Name	Remaining Duration	Start	Finish	Total Float	Calendar	October 2023					November 2023				December 2023				January 2024			
							24	01	08	15	22	29	05	12	19	26	03	10	17	24	31	07	14
Revised Programme (2023-10-25) Rev.0																							
2.0 - Site Access Dates																							
AD-1000	Portion 1a	0	25-Oct-23*		-841	CD(7d)																	
AD-1020	Portion 1c	0	25-Oct-23*		-657	CD(7d)																	
AD-1220	Portion 11b	0	05-Oct-23 A			CD(7d)																	
3.0 - Site Completion Dates																							
3.1 Sectional Work Completion (Original Contract Completion Date)																							
SC0-1050	Section 4B - all works in Area D2	0		21-Oct-23 A		CD(7d)																	
3.2 Planned Sectional Work Completion																							
SC-1130	Section 9 - all works in Area F	0		07-Nov-23*	-427	CD(7d)																	
6.0 - Preliminaries and General Requirements																							
6.2 - General Submissions																							
GS-1290	Preparation and Submission of Fully Corodinated BIM	886	21-Aug-20 A	11-Nov-28*	-1010	CD(7d)																	
GS-1230	Submission of Major Method Statements	42	06-Dec-19 A	05-Dec-23	370	CD(7d)																	
GS-1420.0	Water Supply to WSD for Irrigation System (Road D5) - East Bound Footpath - WWO542 Approval	30	13-Jan-24	11-Feb-24	-224	CD(7d)																	
GS-1420	Water Supply to WSD for Irrigation System (Road D5) - East Bound Footpath - WWO542 Submission	15	29-Dec-23	12-Jan-24	-224	CD(7d)																	
GS-1430.0	Water Supply to WSD for Irrigation System (Road D5) - West Bound Footpath - WWO542 Approval	38	01-Jan-24	08-Feb-24	-224	CD(7d)																	
GS-1430	Water Supply to WSD for Irrigation System (Road D5) - West Bound Footpath - WWO542 Submission	19	14-Dec-23	01-Jan-24	-224	CD(7d)																	
6.3 - Subletting Packages																							
SP-1210	Landscaping Works	18	05-Jun-23 A	11-Nov-23	289	CD(7d)																	
7.0 Construction																							
Section 1																							
Portion 10a in Area H, H1, H2 (Soil Treatment & Provision of Site Access & EVA to MWSC)																							
Remaining Road works in Area H																							
S1P10a-4000	DCS Works by Others (Commencement Date May-2023)	27	20-May-23 A	20-Nov-23	678	CD(7d)																	
Section 3																							
Portion 1a in Area E (Soil Treatment & Interface with HKHS's Contractors)																							
Soil Treatment																							
S3P1a-2020	Backfilling to the formation levels	48	08-Nov-23	05-Jan-24	593	WD(6d)																	
S3P1a-2000	Construct & maintain Temporary drainage	60	01-Mar-23 A	05-Jan-24	593	WD(6d)																	
S3P1a-2010	Remove soil (original assumed 17334m3) (1/ 13 EGI completed, interim soil to be excavated / treated : 1260m3 / 400m3)	12	01-Mar-23 A	07-Nov-23	371	WD(6d)																	
Section 6B																							
Portion 11b in Area G2 (Soil Treatment)																							
Preparation work/Tree Survey/Site Clearance/GI																							
S6BP11b-1012	Approval & Acceptance of Tree Felling Application	30	19-Nov-23	18-Dec-23	238	CD(7d)																	
S6BP11b-1025	Ground investigation (0 / 1 GI completed)	6	01-Nov-23	07-Nov-23	287	WD(6d)																	
S6BP11b-1070	Notification and Approval of Asbestos Abatement Programme	30	15-Nov-23	14-Dec-23	272	CD(7d)																	
S6BP11b-1060	Prepare and submit Asbestos Abatement Programme	18	06-Oct-23 A	14-Nov-23	219	WD(6d)																	
S6BP11b-1080	Set up Containment Area, Removal and Disposal of Asbestos and Clean up Works	36	15-Dec-23	29-Jan-24	219	WD(6d)																	
S6BP11b-1020	Site Clearance & Tree Felling	54	28-Dec-23	04-Mar-24	192	WD(6d)																	



- Planned Work
- Critical Work
- Actual Work
- ◆ Milestone
- ◆ Milestone Critical
- Summary LOE
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Activity ID	Activity Name	Remaining Duration	Start	Finish	Total Float	Calendar	October 2023					November 2023					December 2023				January 2024					
							24	01	08	15	22	29	05	12	19	26	03	10	17	24	31	07	14	21	28	
S8P1a-2310	Laying Fresh Watermains CHA 297 to CHA 385	0	07-Jul-23 A	24-Oct-23 A		WD(6d)	[Gantt bar: 07-Jul-23 A to 24-Oct-23 A]																			
S8P1a-2330	Laying Fresh Watermains CHAA 150 to CH 266	36	15-Nov-23	28-Dec-23	-101	WD(6d)	[Gantt bar: 15-Nov-23 to 28-Dec-23]																			
S8P1a-2332	Pressure test for Fresh watermains	18	29-Dec-23	19-Jan-24	-23	WD(6d)	[Gantt bar: 29-Dec-23 to 19-Jan-24]																			
S8P1a-2070	Slopeworks for new feature KS34 - Slope Drainage and Maintenance Access	64	21-Dec-23	11-Mar-24	-70	WD(6d)	[Gantt bar: 21-Dec-23 to 11-Mar-24]																			
S8P1a-2040	Slopeworks for new feature KS34 Lower Bench - Cut Slope (Before Design change for Upper Bench)	0	16-Aug-23 A	25-Sep-23 A		WD(6d)	[Gantt bar: 16-Aug-23 A to 25-Sep-23 A]																			
S8P1a-2042	Slopeworks for new feature KS34 Lower Bench - Remaining Cut Slope	15	13-Nov-23	29-Nov-23	-70	WD(6d)	[Gantt bar: 13-Nov-23 to 29-Nov-23]																			
S8P1a-2050	Slopeworks for new feature KS34 Lower Bench - Soil Nail Installation & Soil Nail Head Rows BC+BB+BA (7 + 7 +7 Nos)	18	30-Nov-23	20-Dec-23	-70	WD(6d)	[Gantt bar: 30-Nov-23 to 20-Dec-23]																			
S8P1a-2030	Slopeworks for new feature KS34 Upper Bench - Cut Slope (Rock Fill changed to Soil Nail)	2	16-Oct-23 A	26-Oct-23	-70	WD(6d)	[Gantt bar: 16-Oct-23 A to 26-Oct-23]																			
S8P1a-2032	Slopeworks for new feature KS34 Upper Bench - Soil Nail Installation & Soil Nail Head Rows BD+BE (30 + 32 Nos)	14	27-Oct-23	11-Nov-23	-70	WD(6d)	[Gantt bar: 27-Oct-23 to 11-Nov-23]																			
Roundabout C3																										
S8P1a-5500	DCS Works by Others (Start Date to be Confirmed)	150	25-Oct-23	22-Mar-24	-2	CD(7d)	[Gantt bar: 25-Oct-23 to 22-Mar-24]																			
S8P1a-5200	Divert Haul Road	0		16-Nov-23	-263	WD(6d)	[Gantt bar: 16-Nov-23 to 16-Nov-23]																			
S8P1a-5230	Laying Fresh Watermains CHA 365 to CHA 400	48	17-Nov-23	15-Jan-24	-55	WD(6d)	[Gantt bar: 17-Nov-23 to 15-Jan-24]																			
S8P1a-5020	Retaining wall KW17 - Construction of retaining wall KW17 (0 / 7 bays complete)	124	09-Jan-24	12-Jun-24	-263	WD(6d)	[Gantt bar: 09-Jan-24 to 12-Jun-24]																			
S8P1a-5010	Retaining wall KW17 - Excavation for retaining wall KW17	24	08-Dec-23	08-Jan-24	-263	WD(6d)	[Gantt bar: 08-Dec-23 to 08-Jan-24]																			
S8P1a-5000	Site clearance	18	17-Nov-23	07-Dec-23	-263	WD(6d)	[Gantt bar: 17-Nov-23 to 07-Dec-23]																			
S8P1a-5220	Underground Roundabout Drainage M1.82 to M1.84 and Primary drainage pipe laying (0 / 6 Completed)	60	02-Jan-24	14-Mar-24	-157	WD(6d)	[Gantt bar: 02-Jan-24 to 14-Mar-24]																			
S8P1a-5212	Underground Roundabout Drainage SMHKT 1011 and Pipe Laying to SKT 1103 (0 / 1 Completed)	36	17-Nov-23	30-Dec-23	-157	WD(6d)	[Gantt bar: 17-Nov-23 to 30-Dec-23]																			
S8P1a-5210	Underground Roundabout Drainage SMHKT 1013 and Pipe Laying to SKT 1103A (0 / 1 Completed)	18	01-Aug-23 A	14-Nov-23	-263	WD(6d)	[Gantt bar: 01-Aug-23 A to 14-Nov-23]																			
Within MTRC Protection Zone																										
S8P1a-4210	Construction of Sewerage FMH KT 3.01D to 3.01E (0 / 2 M/H complete)	48	17-Nov-23	15-Jan-24	-157	WD(6d)	[Gantt bar: 17-Nov-23 to 15-Jan-24]																			
S8P1a-6000	DCS Works by Others (Start Date to be Confirmed)	150	25-Oct-23	22-Mar-24	-62	CD(7d)	[Gantt bar: 25-Oct-23 to 22-Mar-24]																			
S8P1a-4030	New Formed Cut Slope KS03 to Road Formation level	24	20-Jan-24	20-Feb-24	-479	WD(6d)	[Gantt bar: 20-Jan-24 to 20-Feb-24]																			
S8P1a-4020	New Formed Cut Slope KS53 to Road Formation level	24	06-Jan-24	02-Feb-24	-479	WD(6d)	[Gantt bar: 06-Jan-24 to 02-Feb-24]																			
S8P1a-4010	Site Clearance & Tree Felling	24	06-Dec-23	05-Jan-24	-479	WD(6d)	[Gantt bar: 06-Dec-23 to 05-Jan-24]																			
S8P1a-4220	Underground Roundabout Drainage M1.81 to M1.83 and Primary drainage pipe laying (0 / 3 Completed)	48	16-Jan-24	14-Mar-24	-157	WD(6d)	[Gantt bar: 16-Jan-24 to 14-Mar-24]																			
Portion 3 in Area A (Soil Treatment, Drainage & Roadwork)																										
Preparation work																										
S8P3-0106	Potential Changes of the Scope of Noise Barriers (AECOM EWN PM-003)	0		25-Oct-23	0	CD(7d)	[Gantt bar: 25-Oct-23 to 25-Oct-23]																			
Civil Work																										
S8P3-3002	Backfill to Road Formation Level	30	28-Nov-23	04-Jan-24	-311	WD(6d)	[Gantt bar: 28-Nov-23 to 04-Jan-24]																			
S8P3-3000	Construct & maintain Temporary drainage	472	25-Oct-23	30-May-25	-400	WD(6d)	[Gantt bar: 25-Oct-23 to 30-May-25]																			
S8P3-3005	New Feature KS53 - Cut slope	68	05-Jan-24	27-Mar-24	-311	WD(6d)	[Gantt bar: 05-Jan-24 to 27-Mar-24]																			
S8P3-3010.30	Underground Drainage work (M2.70a to & Including KT1008 backdrop) (0 / 1 Completed)	0	01-Aug-23 A	14-Oct-23 A		WD(6d)	[Gantt bar: 01-Aug-23 A to 14-Oct-23 A]																			
S8P3-3010.320	Underground Fresh watermain CHA 612 - CHA 620	12	14-Nov-23	27-Nov-23	-311	WD(6d)	[Gantt bar: 14-Nov-23 to 27-Nov-23]																			
S8P3-3010.310	Underground Fresh watermain CHA 665 - CHA 682	12	31-Oct-23	13-Nov-23	-311	WD(6d)	[Gantt bar: 31-Oct-23 to 13-Nov-23]																			
Portion 5 in Area A (Soil Treatment, Bored Pile Wall, Drainage & Roadwork)																										
Preparation work/Tree Survey/Site Clearance/GI																										
S8P5-0102	Design Layout and Profile for the Water Supply Pipework (EWN 034)	0		25-Oct-23	-400	CD(7d)	[Gantt bar: 25-Oct-23 to 25-Oct-23]																			
S8P5-0108	Increased Risk for Damages to Existing Donjiang Raw Water Mains (DJRWMs) (CNE 060)	0		25-Oct-23	-390	CD(7d)	[Gantt bar: 25-Oct-23 to 25-Oct-23]																			
S8P5-0110	Potential Changes of the Scope of Noise Barriers (AECOM EWN PM-003)	0		25-Oct-23	6	CD(7d)	[Gantt bar: 25-Oct-23 to 25-Oct-23]																			
S8P5-0000	The footing detail for Roadside Directional Sign ADS30 at Portion 5 (EWN 043)	0		25-Oct-23	-54	CD(7d)	[Gantt bar: 25-Oct-23 to 25-Oct-23]																			
Construction according to CSD for Alternative on Bored Pile Wall																										
S8P5-2005	Construct & maintain Temporary drainage	417	25-Oct-23	20-Mar-25	-315	WD(6d)	[Gantt bar: 25-Oct-23 to 20-Mar-25]																			
Civil Work																										
S8P5-5000	DCS Works by Others (Stage 1 - Anticipated Start Date Sep 2023) (CH 490 - CH 520) "To be Confirmed"	90	08-Nov-23	05-Feb-24	137	CD(7d)	[Gantt bar: 08-Nov-23 to 05-Feb-24]																			



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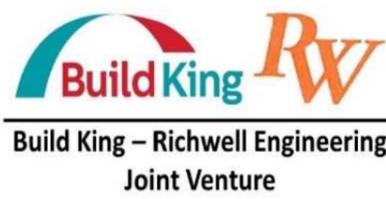
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Portion 10b in Area L1 (Soil Treatment, Drainage & Roadwork)																									
Soil Treatment																									
S12P10b-2020	Backfilling to the formation levels	16	25-Mar-23 A	11-Nov-23	0	WD(6d)																			
Civil Work																									
S12P10b-3000	Construct & maintain Temporary drainage	266	25-Oct-23	14-Sep-24	-31	WD(6d)																			
S12P10b-4000	DCS Works by Others (Anticipated Commencement Date Jan-2024)	90	18-Jan-24*	16-Apr-24	-41	CD(7d)																			
S12P10b-3004	Underground Sewerage - Lay Inlet Pipe to FMHKT 4.03	24	20-Nov-23	16-Dec-23	-32	WD(6d)																			
S12P10b-3002	Underground Primary Drainage SMHKT 8008 to 8009 (only laying Pipe)	36	06-Nov-23*	16-Dec-23	-32	WD(6d)																			
S12P10b-3012	Underground Secondary Drainage work (0 / 2 SMH)	24	18-Dec-23	17-Jan-24	-32	WD(6d)																			
Portion 11b in Area L1 (Soil Treatment, Drainage & Roadwork)																									
Preparation work/Tree Survey/Site Clearance/GI																									
S14P11b-3140	Demolish Existing Building No. 16 & 18	24	16-Jan-24	15-Feb-24	35	WD(6d)																			
S12P11b-1030	Environmental ground investigation and laboratory test(1 EGI in other portion represent this portion)	15	02-Jan-24	18-Jan-24	38	WD(6d)																			
S12P11b-1025	Ground investigation (0 / 1 GI completed)	10	18-Dec-23	30-Dec-23	38	WD(6d)																			
S12P11b-2040	Notification and Approval of Asbestos Abatement Programme	30	15-Nov-23	14-Dec-23	45	CD(7d)																			
S12P11b-2030	Prepare and submit Asbestos Abatement Programme	18	06-Oct-23 A	14-Nov-23	37	WD(6d)																			
S12P11b-2050	Set up Containment Area, Removal and Disposal of Asbestos and Clean up Works	24	15-Dec-23	15-Jan-24	35	WD(6d)																			
S12P11b-1020	Site clearance	24	20-Nov-23	16-Dec-23	38	WD(6d)																			
S12P11b-1010	Tree survey and prepare tree felling and transplant report	22	09-Oct-23 A	18-Nov-23	38	WD(6d)																			
Soil Treatment																									
S12P11b-2010	Remove soil (original assumed 269m3) (0 / 1 EGI completed, interim soil to be excavated / treated : 0m3 /0m3) Clean Soil	18	23-Jan-24	15-Feb-24	35	WD(6d)																			
Civil Work																									
S12P11b-3000	Construct & maintain Temporary drainage	114	23-Jan-24	14-Jun-24	35	WD(6d)																			
Section 12B																									
Portion 11b in Area L2 (Soil Treatment, Drainage & Roadwork)																									
Preparation work/Tree Survey/Site Clearance/GI																									
S12BP11b-1012	Approval & Acceptance of Tree Felling Application	30	19-Nov-23	18-Dec-23	99	CD(7d)																			
S12BP11b-2040	Notification and Approval of Asbestos Abatement Programme	30	15-Nov-23	14-Dec-23	189	CD(7d)																			
S12BP11b-2030	Prepare and submit Asbestos Abatement Programme	18	06-Oct-23 A	14-Nov-23	150	WD(6d)																			
S12BP11b-2050	Set up Containment Area, Removal and Disposal of Asbestos and Clean up Works	24	15-Dec-23	15-Jan-24	149	WD(6d)																			
S12BP11b-1020	Site Clearance & Tree Felling	48	28-Dec-23	26-Feb-24	77	WD(6d)																			
S12BP11b-1010	Tree survey and prepare tree felling and transplant report	22	09-Oct-23 A	18-Nov-23	78	WD(6d)																			
Section 13																									
S13-1015	Late Possession of remaining part of Portion 2 for soil nail works (CNE No. 008) (EWN No. 006) (CE 014)	0		25-Oct-23	366	CD(7d)																			
Portion 2 in Area N (Soil Treatment, Slope, Drainage & Pak Shek Au Junction)																									
Civil Works																									
S13P2- 4054	East Quadrant - Construct Temp Road To Divert Exit Road 9A	53	25-Sep-23 A	27-Dec-23	0	WD(6d)																			
S13P2- 4052	East Quadrant - Construction of Road Drainage M6.41 & 6.35 (2 / 2 MH Completed)	0	05-Sep-23 A	25-Sep-23 A		WD(6d)																			
S13P2- 4054.02	East Quadrant - Construction of Road Drainage M6.42 to 6.44 (0 / 3 MH Completed)	66	28-Dec-23	18-Mar-24	0	WD(6d)																			
S13P2- 6504	East Quadrant - Laying Drainage Pipe (MH M6.22C to M6.35)	16	09-Oct-23 A	11-Nov-23	67	WD(6d)																			
S13P2- 4030.00	Retaining Wall KW37 - Backfill to Formation level	16	26-Jun-23 A	11-Nov-23	91	WD(6d)																			
S13P2- 4030.30	Retaining Wall KW37 - Construct Maintenance Stair Case	6	13-Nov-23	18-Nov-23	97	WD(6d)																			
S13P2- 4054.00	Traffic diversion to Temp Road	0		27-Dec-23	0	CD(7d)																			
S13P2- 4048	West Quadrant - Remaining Installation of smart road lightings system	12	27-Nov-23	09-Dec-23	91	WD(6d)																			
S13P2- 4034.06	West Quadrant - Construction of Footpath (After Remaining Drainage & Backfilling KW37)	12	13-Nov-23	25-Nov-23	91	WD(6d)																			
S13P2- 4049	West Quadrant - Road Widening Works along Kwu Tung Road	60	11-Dec-23	24-Feb-24	91	WD(6d)																			



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Activity ID	Activity Name	Remaining Duration	Start	Finish	Total Float	Calendar	October 2023					November 2023				December 2023				January 2024					
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Portion 1a in Area N (Soil Treatment, Drainage & Roadwork)																									
Preparation work/Tree Survey/Site Clearance/GI																									
S13P1a-0102	Potential Changes of the Scope of Noise Barriers (AECOM EWN PM-003)	0		25-Oct-23	572	CD(7d)	◆ Potential Changes of the Scope of Noise Barriers (AECOM EWN PM-003)																		
Soil Treatment																									
S13P1a-2020	Backfilling to the formation levels	30	22-Nov-23	28-Dec-23	120	WD(6d)	[Green bar]																		
S13P1a-2010	Remove soil (original assumed 14182m3) (0 / 4 EGI completed, interim soil to be excavated / treated : 0m3 / 0m3)	24	25-Oct-23	21-Nov-23	120	WD(6d)	[Green bar]																		
Civil Work																									
S13P1a-3000	Construct & maintain Temporary drainage	592	25-Oct-23	22-Oct-25	1	WD(6d)	[Green bar]																		
S13P1a-4000	Road D1 - DCS Works by Others (Anticipated Commencement Date Dec-2023)	120	22-Dec-23*	19-Apr-24	2	CD(7d)	[Green bar]																		
S13P1a-3012	Underground Primary Drainage work SMH KT1015 - KT1013A pipe connection (0 / 4 MH Completed)	50	20-Apr-23 A	21-Dec-23	2	WD(6d)	[Green bar]																		
Portion 7 in Area N (Soil Treatment, Drainage & Roadwork)																									
S13P7-0010	Late Completion for the EMSD's District Cooling System (DCS) Works (Contract No. 1330EM20A) along Road D1-2 (CNE 122)	0		25-Oct-23	805	CD(7d)	◆ Late Completion for the EMSD's District Cooling System (DCS) Works (Contract No. 1330EM20A) along Road D1-2 (CNE 122)																		
S13P7-0000	Potential Changes of the Scope of Noise Barriers (AECOM EWN PM-003)	0		25-Oct-23	598	CD(7d)	◆ Potential Changes of the Scope of Noise Barriers (AECOM EWN PM-003)																		
Civil Work																									
Underground Utilities																									
S13P7-3000	Construct & maintain Temporary drainage	366	25-Oct-23	16-Jan-25	197	WD(6d)	[Green bar]																		
S13P7-4020	DCS Works by Others - Area Adjacent to Junction of Road D1-1 & Road L1 (Commencement Date 27-Sep-2023)	17	27-Sep-23 A	10-Nov-23	316	CD(7d)	[Blue bar]																		
S13P7-3010	Underground Primary drainage SMHKT 1015C and Pipe Laying	18	03-Nov-23	23-Nov-23	197	WD(6d)	[Green bar]																		
S13P7-4010	Underground Secondary drainage (0 / 5 M/H completed)	48	24-Nov-23	22-Jan-24	197	WD(6d)	[Green bar]																		
S13P7-3012	Underground sewage FMHKT 3.05 to 1.18 (3/ 4 M/H completed)	26	03-Aug-23 A	23-Nov-23	197	WD(6d)	[Blue bar]																		
S13P7-3013	Underground Watermains	156	23-Jan-24	03-Aug-24	197	WD(6d)	[Green bar]																		
Portion 1b in Area N (Soil Treatment, Drainage & Roadwork)																									
Civil Work																									
S13P1b-3000	Construct & maintain Temporary drainage	542	25-Oct-23	22-Aug-25	51	WD(6d)	[Green bar]																		
S13P1b-4000	DCS Works by Others (Anticipated Commencement Date Sep-2023)	98	03-Oct-23 A	30-Jan-24	48	CD(7d)	[Blue bar]																		
Portion 6a & 5 in Area N (Soil Treatment, Noise Barrier, Drainage & Roadwork)																									
Preparation work/Tree Survey/Site Clearance/GI																									
S13P6a-1003	Design Layout and Profile for the Water Supply Pipework (EWN 034)	0		25-Oct-23	-89	CD(7d)	◆ Design Layout and Profile for the Water Supply Pipework (EWN 034)																		
S13P6a-1004	Increased Risk for Damages to Existing Donjiang Raw Water Mains (DJRWMs) (CNE 060)	0		25-Oct-23	-89	CD(7d)	◆ Increased Risk for Damages to Existing Donjiang Raw Water Mains (DJRWMs) (CNE 060)																		
S13P6a-1005	Potential Changes of the Scope of Noise Barriers (AECOM EWN PM-003)	0		25-Oct-23	589	CD(7d)	◆ Potential Changes of the Scope of Noise Barriers (AECOM EWN PM-003)																		
Soil Treatment																									
S13P6a-2020	Backfilling to the formation levels	60	29-Nov-23	09-Feb-24	-67	WD(6d)	[Red bar]																		
S13P6a-2010	Remove soil (original assumed 566m3) (1 / 1 EGI completed, interim soil to be excavated / treated : 0m3 / 0m3) Clean Soil	30	25-Oct-23	28-Nov-23	-67	WD(6d)	[Red bar]																		
Civil Work																									
S13P6a-3000	Construct & maintain Temporary drainage	666	25-Oct-23	21-Jan-26	-73	WD(6d)	[Red bar]																		
S13P6a-3012	Pipe Jacking across DJ watermain (CNE 060, EC-1086) - Jacking Pit ELS & Excavation	48	25-Oct-23	19-Dec-23	-73	WD(6d)	[Red bar]																		
S13P6a-3012.00	Pipe Jacking across DJ watermain (CNE 060, EC-1086) - Receiving Pit ELS & Excavation	48	20-Dec-23	20-Feb-24	-73	WD(6d)	[Red bar]																		
Portion 1c in Area N (Soil Treatment, Drainage & Roadwork)																									
S13P1c-0002	Revised Noise Barrier Works at Road D3 in Portion 1C of the Site (EWN 081)	0		25-Oct-23	189	CD(7d)	◆ Revised Noise Barrier Works at Road D3 in Portion 1C of the Site (EWN 081)																		
Preparation work/Tree Survey/Site Clearance/GI																									
S13P1c-0102	Potential Changes of the Scope of Noise Barriers (AECOM EWN PM-003)	0		25-Oct-23	63	CD(7d)	◆ Potential Changes of the Scope of Noise Barriers (AECOM EWN PM-003)																		
S13P1c-1000	Potential Late Access to and Use of the Site (Portions 1c & 9a) (EWN 49) (CNE 058)	0		25-Oct-23	805	CD(7d)	◆ Potential Late Access to and Use of the Site (Portions 1c & 9a) (EWN 49) (CNE 058) (CE 175)																		
Civil Work																									
S13P1c-3000	Construct & maintain Temporary drainage	408	25-Oct-23	10-Mar-25	155	WD(6d)	[Green bar]																		
S13P1c-4000	DCS Works by Others CH D3 122 to 186 (Commencement May-2023, Return Delayed from Sep to Oct 2023)	7	29-May-23 A	31-Oct-23	355	CD(7d)	[Blue bar]																		



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S18-1050	Watermain laying work in Portion 6a & 6b	198	18-Jul-22 A	26-Jun-24	-4	WD(6d)	[Gantt bar: 18-Jul-22 to 26-Jun-24]																			
S18-1020	Watermain laying work in Portion 1a	264	07-Jul-23 A	12-Sep-24	-70	WD(6d)	[Gantt bar: 07-Jul-23 to 12-Sep-24]																			
Section 20 (Subject to excision)																										
S20-1022	Increased Difficulty for the Construction of Pak Shek Au Pedestrian Subway Cum Cycle Track (EWN 068) (CNE 116)	0		25-Oct-23	-762	CD(7d)	◆ Increased Difficulty for the Construction of Pak Shek Au Pedestrian Subway Cum Cycle Track (EWN 068) (CNE 116)																			
S20-1030	Unexpected Underground Conditions Encountered during Construction of Pak Shek Au Pedestrian Subway (EWN 093) (CNE 116)	0		25-Oct-23	-687	CD(7d)	◆ Unexpected Underground Conditions Encountered during Construction of Pak Shek Au Pedestrian Subway (EWN 093) (CNE 116)																			
Construction of Pedestrian Subway cum Cycle Track Stage 2 (South of Castle Peak Road)																										
Civil and Structural Works																										
S20S2-7540	Bay No. 1 - RC Structure	80	11-Dec-23	19-Mar-24	-575	WD(6d)	[Gantt bar: 11-Dec-23 to 19-Mar-24]																			
S20S2-7462.10	Bay No. 10 - Waterproofing Membrane & Mass Concrete Fill To walls	10	28-Oct-23	08-Nov-23	-258	WD(6d)	[Gantt bar: 28-Oct-23 to 08-Nov-23]																			
S20S2-7462	Bay No. 10 - RC Structure (Walls)	3	28-Aug-23 A	27-Oct-23	-334	WD(6d)	[Gantt bar: 28-Aug-23 to 27-Oct-23]																			
S20S2-7462.20	Bay No. 10 - Waterproofing Membrane & 120mm Brick Work To walls	10	09-Nov-23	20-Nov-23	-258	WD(6d)	[Gantt bar: 09-Nov-23 to 20-Nov-23]																			
S20S2-7482.20	Bay No. 11 - Waterproofing Membrane & 120mm Brick Work To walls	10	06-Nov-23	16-Nov-23	-255	WD(6d)	[Gantt bar: 06-Nov-23 to 16-Nov-23]																			
S20S2-7482.10	Bay No. 11 - Waterproofing Membrane & Mass Concrete Fill To walls	10	25-Oct-23	04-Nov-23	-255	WD(6d)	[Gantt bar: 25-Oct-23 to 04-Nov-23]																			
S20S2-7510	Bay No. 12 - Excavation, Blinding & Waterproofing	6	13-Jan-24	19-Jan-24	-337	WD(6d)	[Gantt bar: 13-Jan-24 to 19-Jan-24]																			
S20S2-7520	Bay No. 12 - RC Structure	30	20-Jan-24	27-Feb-24	-337	WD(6d)	[Gantt bar: 20-Jan-24 to 27-Feb-24]																			
S20S2-7430.10	Bay No. 13 - Waterproofing Membrane & Mass Concrete Fill To walls	10	21-Nov-23	01-Dec-23	-258	WD(6d)	[Gantt bar: 21-Nov-23 to 01-Dec-23]																			
S20S2-7430.20	Bay No. 13 - Waterproofing Membrane & 120mm Brick Work To walls	10	02-Dec-23	13-Dec-23	-258	WD(6d)	[Gantt bar: 02-Dec-23 to 13-Dec-23]																			
S20S2-7820.10	Bay No. 14 - Waterproofing Membrane & 120mm Brick Work To walls	12	20-Dec-23	05-Jan-24	-617	WD(6d)	[Gantt bar: 20-Dec-23 to 05-Jan-24]																			
S20S2-7820	Bay No. 14 - RC Structure	48	25-Oct-23	19-Dec-23	-617	WD(6d)	[Gantt bar: 25-Oct-23 to 19-Dec-23]																			
S20S2-7820.20	Bay No. 14 - Waterproofing Membrane & 50mm Screeding To Roof Slab	8	06-Jan-24	15-Jan-24	-617	WD(6d)	[Gantt bar: 06-Jan-24 to 15-Jan-24]																			
S20S2-7840	Bay No. 15 - RC Structure	48	16-Jan-24	14-Mar-24	-617	WD(6d)	[Gantt bar: 16-Jan-24 to 14-Mar-24]																			
S20S2-7560	Bay No. 2 - RC Structure	75	01-Dec-23	04-Mar-24	-562	WD(6d)	[Gantt bar: 01-Dec-23 to 04-Mar-24]																			
S20S2-7580	Bay No. 3 - RC Structure	80	29-Nov-23	07-Mar-24	-573	WD(6d)	[Gantt bar: 29-Nov-23 to 07-Mar-24]																			
S20S2-7740	Bay No. 5 - RC Structure	54	08-Jan-24	13-Mar-24	-574	WD(6d)	[Gantt bar: 08-Jan-24 to 13-Mar-24]																			
S20S2-7780	Bay No. 7 - RC Structure	60	30-Dec-23	13-Mar-24	-574	WD(6d)	[Gantt bar: 30-Dec-23 to 13-Mar-24]																			
S20S2-7508.10	Bay No. 9a & 9b - Waterproofing Membrane & 120mm Brick Work To walls	12	13-Jan-24	26-Jan-24	-301	WD(6d)	[Gantt bar: 13-Jan-24 to 26-Jan-24]																			
S20S2-7504	Bay No. 9a - Excavation, Blinding & Waterproofing	6	25-Sep-23 A	31-Oct-23	-337	WD(6d)	[Gantt bar: 25-Sep-23 to 31-Oct-23]																			
S20S2-7506	Bay No. 9a - RC Structure (Base Slab)	30	01-Nov-23	05-Dec-23	-337	WD(6d)	[Gantt bar: 01-Nov-23 to 05-Dec-23]																			
S20S2-7508	Bay No. 9a - RC Structure (Walls)	30	06-Dec-23	12-Jan-24	-337	WD(6d)	[Gantt bar: 06-Dec-23 to 12-Jan-24]																			
S20S2-7502	Bay No. 9b - RC Structure (Walls)	30	28-Oct-23	01-Dec-23	-334	WD(6d)	[Gantt bar: 28-Oct-23 to 01-Dec-23]																			
S20S2-7320.30	Subway Bay (1 & 2) South Face - Driving Sheet Pile	20	25-Oct-23	16-Nov-23	-575	WD(6d)	[Gantt bar: 25-Oct-23 to 16-Nov-23]																			
S20S2-7320.40	Subway Bay (1 & 2) South Face - ELS & Excavation	20	17-Nov-23	09-Dec-23	-575	WD(6d)	[Gantt bar: 17-Nov-23 to 09-Dec-23]																			
S20S2-7320.10	Subway Bay (14 - 16) - Lift Shaft & Sump Pit Excavation	3	25-Sep-23 A	27-Oct-23	-552	WD(6d)	[Gantt bar: 25-Sep-23 to 27-Oct-23]																			
S20S2-6060	Subway Bay (3 - 8) - ELS & Excavation	48	22-Nov-23	19-Jan-24	-574	WD(6d)	[Gantt bar: 22-Nov-23 to 19-Jan-24]																			
S20S2-6050	Subway Bay (3 - 8) North Face - Driving Sheet Pile	32	25-Oct-23	30-Nov-23	-575	WD(6d)	[Gantt bar: 25-Oct-23 to 30-Nov-23]																			
S20S2-6040	Subway Bay (3 - 8) North Face - Preboring for Sheet Pile	40	22-Sep-23 A	09-Dec-23	-575	WD(6d)	[Gantt bar: 22-Sep-23 to 09-Dec-23]																			
S20S2-6030	Subway Bay (3 - 8) South Face - (Remaining) Driving Sheet Pile	8	11-Jan-24	19-Jan-24	-574	WD(6d)	[Gantt bar: 11-Jan-24 to 19-Jan-24]																			
S20S2-6010	Subway Bay 8 (Remaining) South Face - Preboring for Sheet Pile	24	11-Dec-23	10-Jan-24	-574	WD(6d)	[Gantt bar: 11-Dec-23 to 10-Jan-24]																			
E&M, Lift Installation and Finishing Work for Pedestrian Subway																										
S20ELF-1010	Design and Approval for Lift, Lighting and E&M works	72	25-Oct-22 A	04-Jan-24	370	CD(7d)	[Gantt bar: 25-Oct-22 to 04-Jan-24]																			
S20ELF-1030	Procurement of Lighting, E&M equipment	60	13-Jan-24	12-Mar-24	362	CD(7d)	[Gantt bar: 13-Jan-24 to 12-Mar-24]																			
S20ELF-1020	Submission and Approval of Lighting, E&M plants & materials	80	17-Feb-23 A	12-Jan-24	362	CD(7d)	[Gantt bar: 17-Feb-23 to 12-Jan-24]																			
Section 21 (Subject to excision)																										
S21-1013	Change to the Area of Area M (PMI 160, CE 168)	0		25-Oct-23	190	CD(7d)	◆ Change to the Area of Area M (PMI 160, CE 168)																			
Portion 1b in Area M (Soil Treatment)																										
Preparation work																										



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

ND/2019/01 - 3 Month Rolling Programme (2023-10)

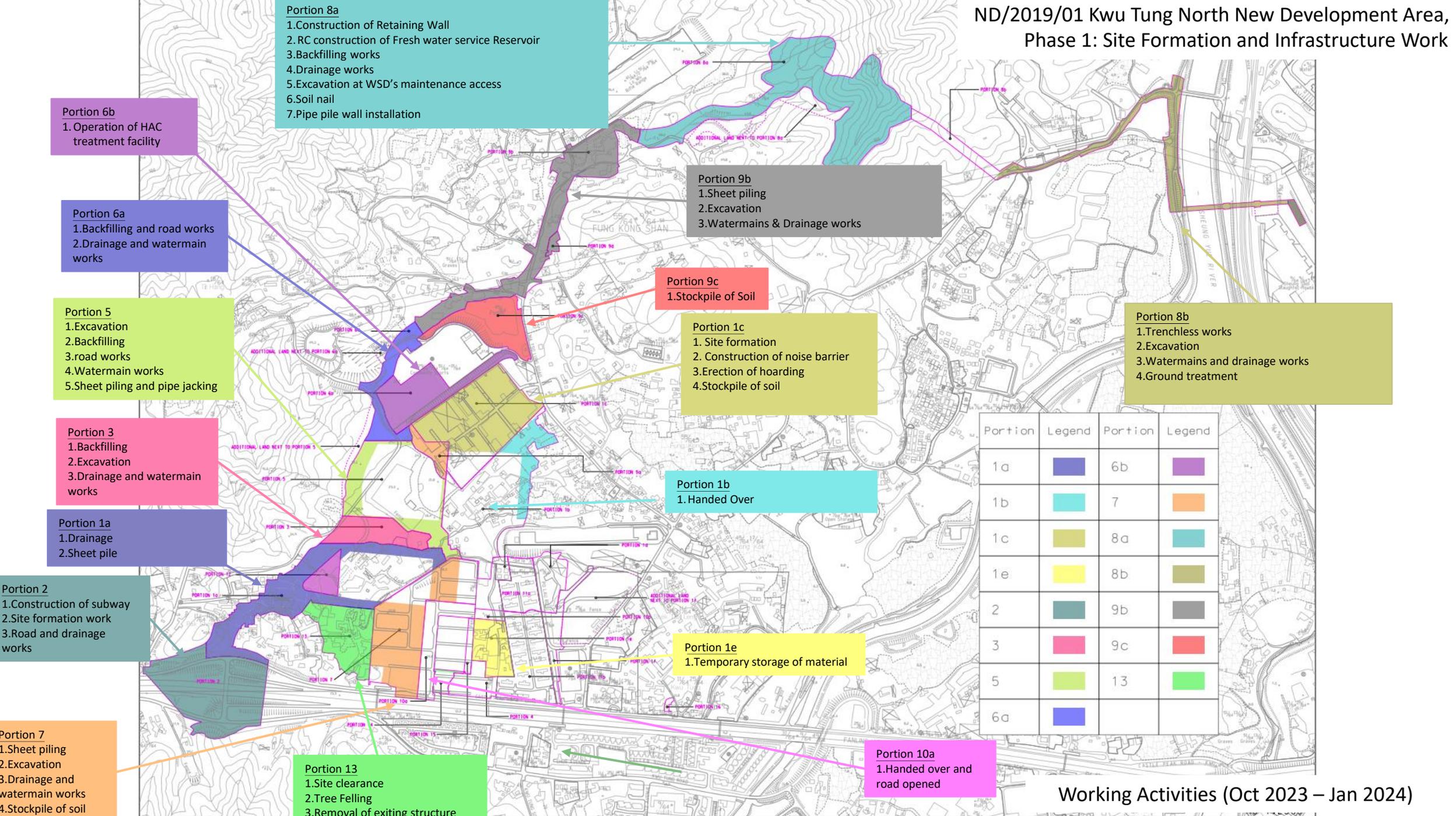
Data Date: 25-Oct-23

Run Date: 30-Oct-2023

Project ID: ND201901-RP-44
 Layout: ND201901-3MRP with logo
 Page 14 of 17

REVISED PROGRAMME (2023-10)			
Date	Revision	Checked	Approved
30-Oct-23	Rev.0	SC	BY

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. Excavation at WSD's maintenance access
 6. Soil nail
 7. Pipe pile wall installation

Portion 6b
 1. Operation of HAC treatment facility

Portion 6a
 1. Backfilling and road works
 2. Drainage and watermain works

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

Portion 3
 1. Backfilling
 2. Excavation
 3. Drainage and watermain works

Portion 1a
 1. Drainage
 2. Sheet pile

Portion 2
 1. Construction of subway
 2. Site formation work
 3. Road and drainage works

Portion 7
 1. Sheet piling
 2. Excavation
 3. Drainage and watermain works
 4. Stockpile of soil

Portion 13
 1. Site clearance
 2. Tree Felling
 3. Removal of exiting structure

Portion 9b
 1. Sheet piling
 2. Excavation
 3. Watermains & Drainage works

Portion 9c
 1. Stockpile of Soil

Portion 1c
 1. Site formation
 2. Construction of noise barrier
 3. Erection of hoarding
 4. Stockpile of soil

Portion 8b
 1. Trenchless works
 2. Excavation
 3. Watermains and drainage works
 4. Ground treatment

Portion 1b
 1. Handed Over

Portion 1e
 1. Temporary storage of material

Portion 10a
 1. Handed over and road opened

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

Working Activities (Oct 2023 – Jan 2024)

Construction Programme of ND/2019/02

#	Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	2023					2024
								Sep	Oct	Nov	Dec	Jan	
1	Monthly Programme Update - ND-2019-02 KTNDA Phase 1							376	329	03-Oct-2023 A	27-Aug-2024	821	
2	Programme Data							376	329	03-Oct-2023 A	27-Aug-2024	821	
3	Preliminaries							334	334	03-Oct-2023 A	27-Aug-2024	836	
4	Statutory Submission							132	132	03-Oct-2023	07-Feb-2024	69	
5	MTRC							132	132	03-Oct-2023	07-Feb-2024	69	
6	Method Statement Submission and Approval							72	72	03-Oct-2023	09-Dec-2023	69	
7	MTRC-1000	Preparation of Method Statement for pipe jacking work underneath East Rail Line	30	30	03-Oct-2023*	31-Oct-2023	69						
8	MTRC-1010	Approval of Method Statement for pipe jacking work underneath East Rail Line	42	42	01-Nov-2023	09-Dec-2023	69						
9	MTRC-1020	Preparation of material and plants for pipe jacking work underneath East Rail Line	30	30	03-Oct-2023*	31-Oct-2023	69						
10	MTRC-1030	Approval of material and plants for pipe jacking work underneath East Rail Line	42	42	01-Nov-2023	09-Dec-2023	69						
11	MTRC-1040	Preparation of contingency plan for pipe jacking work underneath East Rail Line	30	30	03-Oct-2023*	31-Oct-2023	69						
12	MTRC-1050	Approval of contingency plan for pipe jacking work underneath East Rail Line	42	42	01-Nov-2023	09-Dec-2023	69						
13	MTRC-1060	Preparation of Method Statement for manhole construction work underneath East Rail Line	30	30	03-Oct-2023*	31-Oct-2023	69						
14	MTRC-1070	Approval of Method Statement for manhole construction work underneath East Rail Line	42	42	01-Nov-2023	09-Dec-2023	69						
15	Pre-condition Survey & Report							28	28	03-Oct-2023	30-Oct-2023	113	
16	MTRC-1110	Preparation of Pre-condition Survey report before construction work underneath East Rail Line	14	14	03-Oct-2023*	16-Oct-2023	113						
17	MTRC-1120	Approval of Pre-condition report before construction work underneath East Rail Line	14	14	16-Oct-2023	30-Oct-2023	113						
18	Notification of commencement of works							60	60	09-Dec-2023	07-Feb-2024	69	
19	MTRC-1130	Preparation and Submission of Written Notice to MTRCL for the notification of commencement of works	60	60	09-Dec-2023	07-Feb-2024	69						
20	E&M Submission							334	334	03-Oct-2023	27-Aug-2024	836	
21	Visitor Centre							95	95	03-Oct-2023	03-Jan-2024	1075	
22	BS Shop Drawings Submission (Visitor Centre)							30	30	03-Oct-2023	31-Oct-2023	1140	
23	CSD/ CBWD							30	30	03-Oct-2023	31-Oct-2023	1140	
24	CSD							30	30	03-Oct-2023	31-Oct-2023	1140	
25	G/F (CSF 758)							24	24	03-Oct-2023	26-Oct-2023	1146	
26	CSD-VC1200	CSD Preparation and submission for Visitor Centre (Rev.3)	24	24	03-Oct-2023	26-Oct-2023	1146						
27	1/F (CSF 1027)							30	30	03-Oct-2023	31-Oct-2023	-143	
28	CSD-VC1160	CSD Preparation and submission for Visitor Centre (Rev.1)	30	30	03-Oct-2023	31-Oct-2023	-143						
29	R/F (CSF 1046)							30	30	03-Oct-2023	31-Oct-2023	-129	
30	CSD-VC1190	CSD Preparation and submission for Visitor Centre (Rev.1)	30	30	03-Oct-2023	31-Oct-2023	-129						
31	CBWD							26	26	03-Oct-2023	27-Oct-2023	-479	
32	R/F (CSF 1097)							26	26	03-Oct-2023	27-Oct-2023	-479	
33	CBW-VC1440	CBW Preparation and submission for Visitor Centre (Rev.1)	26	26	03-Oct-2023*	27-Oct-2023	-479						
34	PV Panel (CSF-909)							18	18	03-Oct-2023	19-Oct-2023	-69	
35	ABWF-P3-1730	Shop Drawing Submission - PV Panel - 4th submission to PM & review	18	18	03-Oct-2023*	19-Oct-2023	-69						
36	BS Materials Submission & Procurement (Visitor Centre)							95	95	03-Oct-2023	03-Jan-2024	-94	
37	MVAC (CSF-676)							42	42	03-Oct-2023	11-Nov-2023	-41	
38	MVAC-VC1130	AC Split Type - 3rd submission to PM & approval	21	21	03-Oct-2023	21-Oct-2023	-41						
39	MVAC-VC1140	Procurement & Delivery of - AC Split Type (12wks)	21	21	21-Oct-2023	11-Nov-2023	-41						
40	ELV							95	95	03-Oct-2023	03-Jan-2024	-135	
41	PABX System (CSF-1086)							95	95	03-Oct-2023	03-Jan-2024	-135	
42	ELE-VC1060	PABX System - 2nd submission to PM and approval	25	25	03-Oct-2023	26-Oct-2023	-135						
43	ELE-VC1070	Procurement & Delivery of - PABX System (10wks)	70	70	27-Oct-2023	03-Jan-2024	-135						
44	Sewerage Pumping Station							334	334	03-Oct-2023	27-Aug-2024	836	
45	PMI Issuance							0	0	03-Oct-2023	03-Oct-2023	-219	
46	SPS-PMI-1000	Confirmation for the Flow Rate of Pump at SPS from 1000L/s to 1500L/s	0	0	03-Oct-2023	03-Oct-2023*	-219						
47	BS Shop Drawings Submission (SPS)							65	65	03-Oct-2023	02-Dec-2023	1105	
48	CSD (CSF 1267)							14	14	03-Oct-2023	16-Oct-2023	1155	
49	CSD-SPS1020	Sewerage Pumping Station - 2nd submission to PM & approval	14	14	03-Oct-2023	16-Oct-2023	1155						
50	CBWD							65	65	03-Oct-2023	02-Dec-2023	1105	
51	CBW-SPS1000	Shop Drawing Preparation and submission for Sewerage Pumping Station (CBWD)	30	30	03-Oct-2023	31-Oct-2023	1105						
52	CBW-SPS1010	Sewerage Pumping Station - 1st round comment by PM & review	21	21	01-Nov-2023	20-Nov-2023	1105						
53	CBW-SPS1020	Sewerage Pumping Station - 2nd submission to PM & approval	14	14	20-Nov-2023	02-Dec-2023	1105						
54	Conduit Layout							65	65	03-Oct-2023	02-Dec-2023	1105	
55	CL-SPS1000	Shop Drawing Preparation and submission for Sewerage Pumping Station (Conduit Layout)	30	30	03-Oct-2023	31-Oct-2023	1105						
56	CL-SPS1010	Sewerage Pumping Station - 1st round comment by PM & review	21	21	01-Nov-2023	20-Nov-2023	1105						
57	CL-SPS1020	Sewerage Pumping Station - 2nd submission to PM & approval	14	14	20-Nov-2023	02-Dec-2023	1105						
58	MVAC							65	65	03-Oct-2023	02-Dec-2023	1105	
59	MVAC-SPS1010	Shop Drawing Preparation and submission for Sewerage Pumping Station (MVAC)	30	30	03-Oct-2023	31-Oct-2023	1105						
60	MVAC-SPS1020	Sewerage Pumping Station - 1st submission to PM & review	21	21	01-Nov-2023	20-Nov-2023	1105						
61	MVAC-SPS1030	Sewerage Pumping Station - 2nd submission to PM & approval	14	14	20-Nov-2023	02-Dec-2023	1105						
62	FS							65	65	03-Oct-2023	02-Dec-2023	1105	
63	FS-SPS1010	Shop Drawing Preparation and submission for Sewerage Pumping Station (FS)	30	30	03-Oct-2023	31-Oct-2023	1105						
64	FS-SPS1020	Sewerage Pumping Station - 1st submission to PM & review	21	21	01-Nov-2023	20-Nov-2023	1105						
65	FS-SPS1030	Sewerage Pumping Station - 2nd submission to PM & approval	14	14	20-Nov-2023	02-Dec-2023	1105						
66	PD							65	65	03-Oct-2023	02-Dec-2023	1105	
67	PD-SPS1000	Shop Drawing Preparation and submission for Sewerage Pumping Station (PD)	30	30	03-Oct-2023	31-Oct-2023	1105						
68	PD-SPS1010	Sewerage Pumping Station - 1st submission to PM & review	21	21	01-Nov-2023	20-Nov-2023	1105						
69	PD-SPS1020	Sewerage Pumping Station - 2nd submission to PM & approval	14	14	20-Nov-2023	02-Dec-2023	1105						
70	SPS Design							65	65	03-Oct-2023	02-Dec-2023	1105	

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

Data Date: 30-Sep-2023
 Project Start: 03-Feb-2020
 Project End: 26-Nov-2026
 Baseline: Rev. 2.5 (January 2023 Monthly Programme Update)

**4 Month Rolling Programme
(2023 Oct to 2024 Jan)**

Date	Revision	Checked	Approved
28-Oct-2023	0	RP	EW

#	Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	2023					2024
								Sep	Oct	Nov	Dec	Jan	
71	SD-SPS1000	Shop Drawing Preparation and submission for Sewage Pumping Station (SPS Design)	30	30	03-Oct-2023	31-Oct-2023	1105						
72	SD-SPS1010	Sewage Pumping Station - 1st submission to PM & review	21	21	01-Nov-2023	20-Nov-2023	1105						
73	SD-SPS1020	Sewage Pumping Station - 2nd submission to PM & approval	14	14	20-Nov-2023	02-Dec-2023	1105						
74	ELE (CSF-1182)		14	14	03-Oct-2023	16-Oct-2023	1156						
75	ELE-SPS1020	Sewage Pumping Station - 2nd submission to PM & approval	14	14	03-Oct-2023	16-Oct-2023	1156						
76	ELV		65	65	03-Oct-2023	02-Dec-2023	1105						
77	ELV-SPS1000	Shop Drawing Preparation and submission for Sewage Pumping Station (ELV)	30	30	03-Oct-2023	31-Oct-2023	1105						
78	ELV-SPS1010	Sewage Pumping Station - 1st submission to PM & review	21	21	01-Nov-2023	20-Nov-2023	1105						
79	ELV-SPS1020	Sewage Pumping Station - 2nd submission to PM & approval	14	14	20-Nov-2023	02-Dec-2023	1105						
80	Chemical Dosing System (CSF-1173)		14	14	03-Oct-2023	16-Oct-2023	335						
81	ELV-SPS1120	Sewage Pumping Station - 2nd submission to PM & approval	14	14	03-Oct-2023*	16-Oct-2023	335						
82	BS Materials Submission & Procurement (SPS)		334	334	03-Oct-2023	27-Aug-2024	836						
83	Subletting		26	26	03-Oct-2023	27-Oct-2023	-20						
84	SWP-SPS1560	Subletting Procedure for Material Procurement	26	26	03-Oct-2023	27-Oct-2023	-20						
85	SWP		334	334	03-Oct-2023	27-Aug-2024	836						
86	Surge Analysis		60	60	27-Oct-2023	22-Dec-2023	1084						
87	SWP-SPS1400	Preparation and Submission of Surge Analysis Report	60	60	27-Oct-2023*	22-Dec-2023	1084						
88	Submersible Pump (40wks)		308	308	27-Oct-2023	27-Aug-2024	13						
89	SWP-SPS1000	Material Submission - Submersible Pump	25	25	27-Oct-2023	20-Nov-2023	13						
90	SWP-SPS1010	Submersible Pump - 1st round comment by PM & review	30	30	20-Nov-2023	18-Dec-2023	13						
91	SWP-SPS1020	Submersible Pump - 2nd submission to PM & approval	21	21	18-Dec-2023	10-Jan-2024	13						
92	SWP-SPS1030	Procurement & Delivery of Submersible Pump (40wks)	232	232	10-Jan-2024	27-Aug-2024	13						
93	Motorized Gate Valve, Check Valve and Actuator (36wks)		286	286	27-Oct-2023	06-Aug-2024	24						
94	SWP-SPS1040	Material Submission - Motorized Gate Valve, Check Valve and Actuator	25	25	27-Oct-2023*	20-Nov-2023	24						
95	SWP-SPS1050	Motorized Gate Valve, Check Valve and Actuator - 1st round comment by PM & review	27	27	20-Nov-2023	15-Dec-2023	24						
96	SWP-SPS1060	Motorized Gate Valve, Check Valve and Actuator - 2nd submission to PM & approval	22	22	15-Dec-2023	08-Jan-2024	24						
97	SWP-SPS1070	Procurement & Delivery of Motorized Gate Valve, Check Valve and Actuator (36wks)	212	212	09-Jan-2024	06-Aug-2024	24						
98	Lifting Appliance (36wks)		286	286	27-Oct-2023	06-Aug-2024	4						
99	SWP-SPS1160	Material Submission - Lifting Appliance	25	25	27-Oct-2023*	20-Nov-2023	4						
100	SWP-SPS1170	Lifting Appliance - 1st round comment by PM & review	27	27	20-Nov-2023	15-Dec-2023	4						
101	SWP-SPS1180	Lifting Appliance - 2nd submission to PM & approval	22	22	15-Dec-2023	08-Jan-2024	4						
102	SWP-SPS1190	Procurement & Delivery of Lifting Appliance (36wks)	212	212	09-Jan-2024	06-Aug-2024	4						
103	Mechanical raked bar screen (36wks)		286	286	27-Oct-2023	06-Aug-2024	63						
104	SWP-SPS1320	Material Submission - Mechanical raked bar screen	25	25	27-Oct-2023*	20-Nov-2023	63						
105	SWP-SPS1330	Mechanical raked bar screen - 1st round comment by PM & review	27	27	20-Nov-2023	15-Dec-2023	63						
106	SWP-SPS1340	Mechanical raked bar screen - 2nd submission to PM & approval	22	22	15-Dec-2023	08-Jan-2024	63						
107	SWP-SPS1350	Procurement & Delivery of Mechanical raked bar screen (36wks)	212	212	09-Jan-2024	06-Aug-2024	63						
108	LMCP for Deodourisation System (36wks)		286	286	27-Oct-2023	06-Aug-2024	-4						
109	SWP-SPS1360	Material Submission - LMCP for Deodourisation System	25	25	27-Oct-2023*	20-Nov-2023	-4						
110	SWP-SPS1370	LMCP for Deodourisation System - 1st round comment by PM & review	27	27	20-Nov-2023	15-Dec-2023	-4						
111	SWP-SPS1380	LMCP for Deodourisation System - 2nd submission to PM & approval	22	22	15-Dec-2023	08-Jan-2024	-4						
112	SWP-SPS1390	Procurement & Delivery of LMCP for Deodourisation System (36wks)	212	212	09-Jan-2024	06-Aug-2024	-4						
113	DI Pipe and fittings (30 wks)		250	250	27-Oct-2023	03-Jul-2024	60						
114	SWP-SPS1080	Material Submission - DI Pipe and fittings	25	25	27-Oct-2023*	20-Nov-2023	60						
115	SWP-SPS1090	DI Pipe and fittings - 1st round comment by PM & review	27	27	20-Nov-2023	15-Dec-2023	60						
116	SWP-SPS1100	DI Pipe and fittings - 2nd submission to PM & approval	21	21	15-Dec-2023	08-Jan-2024	60						
117	SWP-SPS1110	Procurement & Delivery of DI Pipe and fittings (30wks)	177	177	08-Jan-2024	03-Jul-2024	60						
118	Penstock and Stop Log (30wks)		250	250	27-Oct-2023	03-Jul-2024	127						
119	SWP-SPS1120	Material Submission - Penstock and Stop Log	25	25	27-Oct-2023	20-Nov-2023	127						
120	SWP-SPS1130	Penstock and Stop Log - 1st round comment by PM & review	27	27	20-Nov-2023	15-Dec-2023	127						
121	SWP-SPS1140	Penstock and Stop Log - 2nd submission to PM & approval	21	21	15-Dec-2023	08-Jan-2024	127						
122	SWP-SPS1150	Procurement & Delivery of Penstock and Stop Log (30 wks)	177	177	08-Jan-2024	03-Jul-2024	127						
123	Deodourisation System (30wks) (CSF-1094)		198	198	03-Oct-2023	17-Apr-2024	110						
124	SWP-SPS1220	Deodourisation System - 2nd submission to PM & approval	21	21	03-Oct-2023*	21-Oct-2023	110						
125	SWP-SPS1230	Procurement & Delivery of Deodourisation System (30wks)	177	177	21-Oct-2023	17-Apr-2024	110						
126	Odour Ductwork (30wks)		250	250	27-Oct-2023	03-Jul-2024	-20						
127	SWP-SPS1240	Material Submission - Odour Ductwork	25	25	27-Oct-2023*	20-Nov-2023	-20						
128	SWP-SPS1250	Odour Ductwork - 1st round comment by PM & review	27	27	20-Nov-2023	15-Dec-2023	-20						
129	SWP-SPS1260	Odour Ductwork - 2nd submission to PM & approval	21	21	15-Dec-2023	08-Jan-2024	-20						
130	SWP-SPS1270	Procurement & Delivery of Odour Ductwork (30wks)	177	177	08-Jan-2024	03-Jul-2024	-20						
131	Sensors and Instruments (30wks)		250	250	27-Oct-2023	03-Jul-2024	71						
132	SWP-SPS1280	Material Submission - Sensors and Instruments	25	25	27-Oct-2023*	20-Nov-2023	71						
133	SWP-SPS1290	Sensors and Instruments - 1st round comment by PM & review	27	27	20-Nov-2023	15-Dec-2023	71						
134	SWP-SPS1300	Sensors and Instruments - 2nd submission to PM & approval	21	21	15-Dec-2023	08-Jan-2024	71						
135	SWP-SPS1310	Procurement & Delivery of Sensors and Instruments (30wks)	177	177	08-Jan-2024	03-Jul-2024	71						
136	Chemical Dosing System (30wks)		250	250	27-Oct-2023	03-Jul-2024	73						
137	SWP-SPS1520	Material Submission - Chemical Dosing System	25	25	27-Oct-2023*	20-Nov-2023	73						
138	SWP-SPS1530	Chemical Dosing System - 1st round comment by PM & review	27	27	20-Nov-2023	15-Dec-2023	73						
139	SWP-SPS1540	Chemical Dosing System - 2nd submission to PM & approval	21	21	15-Dec-2023	08-Jan-2024	73						
140	SWP-SPS1550	Procurement & Delivery of Chemical Dosing System (30wks)	177	177	08-Jan-2024	03-Jul-2024	73						

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Data Date: 30-Sep-2023
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**4 Month Rolling Programme
(2023 Oct to 2024 Jan)**

Date	Revision	Checked	Approved
28-Oct-2023	0	RP	EW

#	Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	2023					2024
								Sep	Oct	Nov	Dec	Jan	
141	Davit (24wks)		200	200	27-Oct-2023	14-May-2024	90						
142	SWP-SPS1480	Material Submission - Davit	25	25	27-Oct-2023*	20-Nov-2023	90						
143	SWP-SPS1490	Davit - 1st round comment by PM & review	30	30	20-Nov-2023	18-Dec-2023	90						
144	SWP-SPS1500	Davit - 2nd submission to PM & approval	21	21	18-Dec-2023	10-Jan-2024	90						
145	SWP-SPS1510	Procurement & Delivery of Davit (24wks)	124	124	10-Jan-2024	14-May-2024	90						
146	A-frame (20wks)		193	193	27-Oct-2023	08-May-2024	97						
147	SWP-SPS1440	Material Submission - A-frame	25	25	27-Oct-2023*	20-Nov-2023	97						
148	SWP-SPS1450	A-frame - 1st round comment by PM & review	30	30	20-Nov-2023	18-Dec-2023	97						
149	SWP-SPS1460	A-frame - 2nd submission to PM & approval	21	21	18-Dec-2023	10-Jan-2024	97						
150	SWP-SPS1470	Procurement & Delivery of A-frame (20wks)	117	117	10-Jan-2024	08-May-2024	97						
151	PD (16wks)		170	170	27-Oct-2023	15-Apr-2024	179						
152	PD-SPS1110	Material Submission - Sand Filter and Activated Carbon Filter	25	25	27-Oct-2023*	20-Nov-2023	179						
153	PD-SPS1120	Sand Filter and Activated Carbon Filter - 1st round comment by PM & review	28	28	20-Nov-2023	16-Dec-2023	179						
154	PD-SPS1130	Sand Filter and Activated Carbon Filter - 2nd submission to PM & approval	21	21	16-Dec-2023	08-Jan-2024	179						
155	PD-SPS1140	Procurement & Delivery of Sand Filter and Activated Carbon Filter (16wks)	96	96	09-Jan-2024	15-Apr-2024	179						
156	FS (24wks)		218	218	27-Oct-2023	01-Jun-2024	126						
157	FS-SPS1070	Material Submission - Local Control Panel	25	25	27-Oct-2023*	20-Nov-2023	126						
158	FS-SPS1080	Local Control Panel - 1st round comment by PM & review	28	28	20-Nov-2023	16-Dec-2023	126						
159	FS-SPS1090	Local Control Panel - 2nd submission to PM & approval	21	21	16-Dec-2023	08-Jan-2024	126						
160	FS-SPS1100	Procurement & Delivery of Local Control Panel (24wks)	144	144	09-Jan-2024	01-Jun-2024	126						
161	MVAC (12wks)		146	146	27-Oct-2023	19-Mar-2024	113						
162	MVAC-SPS1040	Material Submission - AC Unit split type	25	25	27-Oct-2023*	20-Nov-2023	113						
163	MVAC-SPS1050	AC Unit split type - 1st round comment by PM & review	28	28	20-Nov-2023	16-Dec-2023	113						
164	MVAC-SPS1060	AC Unit split type - 2nd submission to PM & approval	21	21	16-Dec-2023	08-Jan-2024	113						
165	MVAC-SPS1070	Procurement & Delivery of AC Unit split type (12wks)	72	72	09-Jan-2024	19-Mar-2024	113						
166	ELE (16wks)		170	170	27-Oct-2023	15-Apr-2024	89						
167	ELE-SPS1060	Material Submission - PV System	25	25	27-Oct-2023*	20-Nov-2023	89						
168	ELE-SPS1070	PV System - 1st round comment by PM & review	28	28	20-Nov-2023	16-Dec-2023	89						
169	ELE-SPS1080	PV System - 2nd submission to PM & approval	21	21	16-Dec-2023	08-Jan-2024	89						
170	ELE-SPS1090	Procurement & Delivery of PV System (16wks)	96	96	09-Jan-2024	15-Apr-2024	89						
171	ELV (16wks)		170	170	27-Oct-2023	15-Apr-2024	174						
172	ELV-SPS1060	Material Submission - SCADA	25	25	27-Oct-2023*	20-Nov-2023	174						
173	ELV-SPS1070	SCADA - 1st round comment by PM & review	28	28	20-Nov-2023	16-Dec-2023	174						
174	ELV-SPS1080	SCADA - 2nd submission to PM & approval	21	21	16-Dec-2023	08-Jan-2024	174						
175	ELV-SPS1090	Procurement & Delivery of SCADA (16wks)	96	96	09-Jan-2024	15-Apr-2024	174						
176	Footbridge FK2 Road lighting		34	34	03-Oct-2023	03-Nov-2023	-230						
177	Electrical schematic (CSF-445)		34	34	03-Oct-2023	03-Nov-2023	-230						
178	RD-ES1040	Footbridge Electrical Schematic - Re-submission to HyD and approval	34	34	03-Oct-2023	03-Nov-2023	-230						
179	EL System - Electrical and lighting layout (CSF-494)		34	34	03-Oct-2023	03-Nov-2023	-230						
180	RD-EL1040	Electrical and lighting layout - Re-submission to HyD and approval	34	34	03-Oct-2023	03-Nov-2023	-230						
181	Materials Submission (CSF-693)		34	34	03-Oct-2023	03-Nov-2023	-230						
182	RD-MS1040	Material Submission - Re-submission to HyD and approval	34	34	03-Oct-2023	03-Nov-2023	-230						
183	Drawing Submission of Road Lighting Layout (CSF-703)		34	34	03-Oct-2023	03-Nov-2023	-230						
184	RD-RL1040	Road Lighting Layout - Re-submission to HyD and approval	34	34	03-Oct-2023	03-Nov-2023	-230						
185	Lux Simulation Report (CSF-717)		34	34	03-Oct-2023	03-Nov-2023	-230						
186	RD-LUX1040	Lux Simulation Report - Re-submission to HyD and approval	34	34	03-Oct-2023	03-Nov-2023	-230						
187	Internal Arrangement of PB-01 (CSF-726)		34	34	03-Oct-2023	03-Nov-2023	-230						
188	RD-PB1040	Internal Arrangement drawings of PB-01 - Re-submission to HyD and approval	34	34	03-Oct-2023	03-Nov-2023	-230						
189	Irrigation System (CSF-634)		108	108	04-Oct-2023	18-Jan-2024	-207						
190	IS-1030	Irrigation System drawings - 1st submission to AFCD, DSD, ASD, & EMSD, WSD & LCSD	54	54	04-Oct-2023	24-Nov-2023	-207						
191	IS-1040	Irrigation System drawings - Re-submission to AFCD, DSD, ASD, & EMSD, WSD & LCSD and approval	54	54	25-Nov-2023	18-Jan-2024	-207						
192	ABWF Submission and Mock Up		143	143	03-Oct-2023 A	21-Feb-2024	1027						
193	Visitor Centre		143	143	03-Oct-2023 A	21-Feb-2024	1027						
194	ABWF Shop Drawing / Method Statement / ITP Submission		72	72	03-Oct-2023 A	09-Dec-2023	247						
195	Package 3		72	72	03-Oct-2023 A	09-Dec-2023	-19						
196	Suspended Ceiling		12	11	10-Oct-2023 A	20-Nov-2023	-182						
197	ABWF-P3-1080	Suspended Ceiling - 2nd submission to PM & approval	12	11	10-Oct-2023 A	20-Nov-2023	-182						
198	Raised Flooring		21	21	12-Oct-2023	02-Nov-2023	-97						
199	ABWF-P3-1500	Raised Flooring - 2nd submission to PM & approval	21	21	12-Oct-2023	02-Nov-2023	-97						
200	Plastic Laminate Wall Panels		21	21	17-Nov-2023	07-Dec-2023	-113						
201	ABWF-P3-1530	Plastic Laminate Wall Panel - 2nd submission to PM & approval	21	21	17-Nov-2023	07-Dec-2023	-113						
202	Thermal Insulation Board		21	20	19-Oct-2023 A	06-Dec-2023	-200						
203	ABWF-P3-1560	Thermal insulation Board - 2nd submission to PM & approval	21	20	19-Oct-2023 A	06-Dec-2023	-200						
204	Timber Deck		72	72	03-Oct-2023	09-Dec-2023	-19						
205	ABWF-P3-1655	Shop Drawing / Method Statement / ITP Submission - Timber Deck	30	30	03-Oct-2023*	31-Oct-2023	-19						
206	ABWF-P3-1660	Timber Deck - 1st round comment by PM & review	21	21	01-Nov-2023	20-Nov-2023	-19						
207	ABWF-P3-1680	Timber Deck - 2nd submission to PM & approval	21	21	20-Nov-2023	09-Dec-2023	-19						
208	Package 4		72	72	03-Oct-2023	09-Dec-2023	-169						
209	Fitting & Fixtures		72	72	03-Oct-2023	09-Dec-2023	-169						
210	ABWF-P4-1625	Shop Drawing / Method Statement / ITP Submission - Fitting & Fixture	30	30	03-Oct-2023*	31-Oct-2023	-169						

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**4 Month Rolling Programme
(2023 Oct to 2024 Jan)**

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#	Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	2023					2024
								Sep	Oct	Nov	Dec	Jan	
211	ABWF-P4-1630	Fitting & Fixture - 1st round comment by PM & review	21	21	01-Nov-2023	20-Nov-2023	-169						
212	ABWF-P4-1650	Fitting & Fixture - 2nd submission to PM & approval	21	21	20-Nov-2023	09-Dec-2023	-169						
213	Package 5		17	17	03-Oct-2023	18-Oct-2023	-76						
214	Aluminium Grilles		17	17	03-Oct-2023	18-Oct-2023	-76						
215	ABWF-P5-1140	Shop Drawing / Method Statement / ITP Submission - Aluminium Grilles 2nd submission to PM & approval	17	17	03-Oct-2023	18-Oct-2023	-76						
216	Package 6		72	72	03-Oct-2023 A	09-Dec-2023	247						
217	Fence / Handrail / Parapet		21	15	11-Oct-2023 A	20-Nov-2023	-158						
218	ABWF-P6-1200	Fence / Handrail / Parapet - 2nd submission to PM & approval	21	15	11-Oct-2023 A	20-Nov-2023	-158						
219	Roller Shutters		72	72	03-Oct-2023	09-Dec-2023	247						
220	ABWF-P3-1210	Shop Drawing / Method Statement / ITP Submission - Shutter	30	30	03-Oct-2023*	31-Oct-2023	247						
221	ABWF-P3-1220	Shop Drawing / Method Statement / ITP Submission - Shutter - 1st round comment by PM & review	21	21	01-Nov-2023	20-Nov-2023	247						
222	ABWF-P3-1230	Shop Drawing / Method Statement / ITP Submission - Shutter - 2nd submission to PM & approval	21	21	20-Nov-2023	09-Dec-2023	247						
223	Fall Arrest system		72	72	03-Oct-2023	09-Dec-2023	-46						
224	ABWF-P3-1240	Shop Drawing / Method Statement / ITP Submission- Fall Arrest System	30	30	03-Oct-2023*	31-Oct-2023	-46						
225	ABWF-P3-1250	Shop Drawing / Method Statement / ITP Submission - 1st round comment by PM & review	21	21	01-Nov-2023	20-Nov-2023	-46						
226	ABWF-P3-1260	Shop Drawing / Method Statement / ITP Submission- Fall Arrest System - 2nd submission to PM & approval	21	21	20-Nov-2023	09-Dec-2023	-46						
227	Sundry Metal Works (Covers / Cat Ladder / Steel Staircase)		21	15	11-Oct-2023 A	20-Nov-2023	-89						
228	ABWF-P4-1020	Shop Drawing / Method Statement / ITP Submission - Sundry Metal Works - 2nd submission to PM & approval	21	15	11-Oct-2023 A	20-Nov-2023	-89						
229	Package 7		72	72	03-Oct-2023	09-Dec-2023	-159						
230	Toilet Cubicle & Shower Cubicle		72	72	03-Oct-2023	09-Dec-2023	-159						
231	ABWF-P3-1270	Shop Drawing / Method Statement / ITP Submission - Toilet Cubicle	30	30	03-Oct-2023*	31-Oct-2023	-159						
232	ABWF-P3-1280	Shop Drawing / Method Statement / ITP Submission - Toilet Cubicle - 1st round comment by PM & review	21	21	01-Nov-2023	20-Nov-2023	-159						
233	ABWF-P3-1290	Shop Drawing / Method Statement / ITP Submission - Toilet Cubicle - 2nd submission to PM & approval	21	21	20-Nov-2023	09-Dec-2023	-159						
234	ABWF Material Submission		97	97	03-Oct-2023	05-Jan-2024	971						
235	Package 2		49	49	03-Oct-2023	18-Nov-2023	-150						
236	External Wall Painting		49	49	03-Oct-2023	18-Nov-2023	-150						
237	ABWF-VC3180	Material & Sample Submission - External Wall Painting	21	21	03-Oct-2023*	21-Oct-2023	-150						
238	ABWF-VC3190	Material & Sample Submission - External Wall Painting - 1st round comment by PM & review	14	14	21-Oct-2023	04-Nov-2023	-150						
239	ABWF-VC3200	Material & Sample Submission - External Wall Painting - 2nd submission to PM & approval	14	14	06-Nov-2023	18-Nov-2023	-150						
240	Package 3		10	10	12-Oct-2023	20-Oct-2023	1048						
241	Glass Wall		10	10	12-Oct-2023	20-Oct-2023	1048						
242	ABWF-VC3350	Material & Sample Submission, 2nd round comment by PM & approval	10	10	12-Oct-2023*	20-Oct-2023	1048						
243	Package 4		85	85	03-Oct-2023	21-Dec-2023	-131						
244	Timber Door		70	70	03-Oct-2023	07-Dec-2023	-116						
245	ABWF-VC3410	Material & Sample Submission - Timber Doors	10	10	03-Oct-2023*	11-Oct-2023	-116						
246	ABWF-VC3420	Material & Sample Submission - 1st round comment by PM & review	20	20	12-Oct-2023	31-Oct-2023	-116						
247	ABWF-VC3430	Material & Sample Submission - , 2nd round comment by PM & approval	20	20	01-Nov-2023	18-Nov-2023	-116						
248	ABWF-VC3440	Material Procurement of Timber Doors	20	20	20-Nov-2023	07-Dec-2023	-116						
249	Fitting and Fixtures		85	85	03-Oct-2023	21-Dec-2023	-182						
250	ABWF-VC3450	Material & Sample Submission - Fitting and Fixtures	20	20	03-Oct-2023*	20-Oct-2023	-182						
251	ABWF-VC3460	Material & Sample Submission - 1st round comment by PM & review	21	21	21-Oct-2023	10-Nov-2023	-182						
252	ABWF-VC3470	Material & Sample Submission - , 2nd round comment by PM & approval	14	14	10-Nov-2023	23-Nov-2023	-182						
253	ABWF-VC3480	Material Procurement of - Fitting and Fixtures	30	30	24-Nov-2023	21-Dec-2023	-182						
254	Package 5		97	97	03-Oct-2023	05-Jan-2024	155						
255	Windows		50	50	03-Oct-2023	18-Nov-2023	-182						
256	ABWF-VC3530	Material & Sample Submission - Window	20	20	03-Oct-2023*	20-Oct-2023	-182						
257	ABWF-VC3540	Material & Sample Submission - 1st round comment by PM & review	12	12	21-Oct-2023	02-Nov-2023	-182						
258	ABWF-VC3550	Material & Sample Submission - , 2nd round comment by PM & approval	18	18	02-Nov-2023	18-Nov-2023	-182						
259	Louves		61	61	03-Oct-2023	29-Nov-2023	191						
260	ABWF-VC3490	Material & Sample Submission - Louves	18	18	03-Oct-2023*	19-Oct-2023	191						
261	ABWF-VC3500	Material & Sample Submission 1st round comment by PM & review	15	15	19-Oct-2023	03-Nov-2023	191						
262	ABWF-VC3510	Material & Sample Submission , 2nd round comment by PM & approval	14	14	03-Nov-2023	16-Nov-2023	191						
263	ABWF-VC3520	Material Procurement of Louves	14	14	16-Nov-2023	29-Nov-2023	191						
264	Aluminium Grilles		97	97	03-Oct-2023	05-Jan-2024	-156						
265	ABWF-VC3570	Material & Sample Submission - Aluminium Grilles	25	25	03-Oct-2023*	26-Oct-2023	-156						
266	ABWF-VC3580	Material & Sample Submission 1st round comment by PM & review	30	30	27-Oct-2023	23-Nov-2023	-156						
267	ABWF-VC3590	Material & Sample Submission , 2nd round comment by PM & approval	21	21	24-Nov-2023	13-Dec-2023	-156						
268	ABWF-VC3600	Material Procurement of Window / Louves	21	21	13-Dec-2023	05-Jan-2024	-156						
269	Mock Up		138	134	07-Oct-2023 A	21-Feb-2024	1027						
270	Package 2		55	55	18-Nov-2023	12-Jan-2024	-150						
271	External Wall Painting		55	55	18-Nov-2023	12-Jan-2024	-150						
272	ABWF-VC3140	Fabrication of Mock Up - External Wall Painting	10	10	18-Nov-2023	28-Nov-2023	-150						
273	ABWF-VC3150	Mock Up 1st round comment by PM & review	21	21	28-Nov-2023	16-Dec-2023	-150						
274	ABWF-VC3160	Mock Up modification, 2nd round comment by PM & approval	10	10	18-Dec-2023	28-Dec-2023	-150						
275	ABWF-VC3170	Material Procurement for External Wall Painting	14	14	29-Dec-2023	12-Jan-2024	-150						
276	Package 3		129	114	07-Oct-2023 A	09-Feb-2024	1036						
277	External suspended Baffle Ceiling		31	32	07-Oct-2023 A	19-Dec-2023	-182						
278	ABWF-VC1380	Mock Up modification, 2nd round comment by PM & approval	12	12	07-Oct-2023 A	30-Nov-2023	-182						
279	ABWF-VC1390	Material Procurement of External Suspended Baffle Ceiling	20	20	18-Oct-2023 A	19-Dec-2023	-182						
280	Internal Acoustic Ceiling		67	67	20-Nov-2023	24-Jan-2024	-176						

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#	Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	2023					2024
								Sep	Oct	Nov	Dec	Jan	
281	ABWF-VC1400	Fabrication of Mock Up - Acoustic Ceiling	15	15	20-Nov-2023	04-Dec-2023	-176						
282	ABWF-VC1410	Mock Up 1st round comment by PM & review	21	21	04-Dec-2023	23-Dec-2023	-176						
283	ABWF-VC1420	Mock Up modification, 2nd round comment by PM & approval	10	10	23-Dec-2023	05-Jan-2024	-176						
284	ABWF-VC1430	Material Procurement of Acoustic Ceiling	21	21	05-Jan-2024	24-Jan-2024	-176						
285	Raised Floor		62	62	02-Nov-2023	02-Jan-2024	-97						
286	ABWF-VC1080	Fabrication of Mock Up - Raised Floor	10	10	02-Nov-2023	11-Nov-2023	-97						
287	ABWF-VC1090	Mock Up 1st round comment by PM & review	21	21	11-Nov-2023	30-Nov-2023	-97						
288	ABWF-VC1100	Mock Up modification, 2nd round comment by PM & approval	10	10	01-Dec-2023	09-Dec-2023	-97						
289	ABWF-VC1110	Material Procurement of Raised Floor	21	21	11-Dec-2023	02-Jan-2024	-97						
290	Glass Wall		102	102	21-Oct-2023	29-Jan-2024	1048						
291	ABWF-VC3030	Fabrication of Mock Up - Glass Wall	10	10	21-Oct-2023	31-Oct-2023	1048						
292	ABWF-VC3040	Mock Up 1st round comment by PM & review	14	14	01-Nov-2023	14-Nov-2023	1048						
293	ABWF-VC3050	Mock Up modification, 2nd round comment by PM & approval	6	6	14-Nov-2023	18-Nov-2023	1048						
294	ABWF-VC3060	Material Procurement of Glass Wall	72	72	20-Nov-2023	29-Jan-2024	1048						
295	Timber Deck		62	62	09-Dec-2023	09-Feb-2024	-19						
296	ABWF-VC3070	Fabrication of Mock Up - Timber Deck	10	10	09-Dec-2023	19-Dec-2023	-19						
297	ABWF-VC3080	Mock Up 1st round comment by PM & review	21	21	19-Dec-2023	11-Jan-2024	-19						
298	ABWF-VC3090	Mock Up modification, 2nd round comment by PM & approval	10	10	11-Jan-2024	20-Jan-2024	-19						
299	ABWF-VC3100	Material Procurement of Timber Deck	21	21	20-Jan-2024	09-Feb-2024	-19						
300	Package 4		70	70	08-Dec-2023	17-Feb-2024	-116						
301	Timber Door		70	70	08-Dec-2023	17-Feb-2024	-116						
302	ABWF-VC1520	Fabrication of Mock Up - Timber Doors	10	10	08-Dec-2023	16-Dec-2023	-116						
303	ABWF-VC1530	Mock Up 1st round comment by PM & review	20	20	18-Dec-2023	08-Jan-2024	-116						
304	ABWF-VC1540	Mock Up modification, 2nd round comment by PM & approval	20	20	09-Jan-2024	26-Jan-2024	-116						
305	ABWF-VC1550	Material Procurement of Timber Doors	20	20	27-Jan-2024	17-Feb-2024	-116						
306	Fitting and Fixtures		45	45	22-Dec-2023	05-Feb-2024	-182						
307	ABWF-VC1640	Fabrication of Mock Up - Fitting and Fixtures	10	10	22-Dec-2023	03-Jan-2024	-182						
308	ABWF-VC1650	Mock Up 1st round comment by PM & review	21	21	04-Jan-2024	23-Jan-2024	-182						
309	ABWF-VC1660	Mock Up modification, 2nd round comment by PM & approval	14	14	23-Jan-2024	05-Feb-2024	-182						
310	Package 5		37	37	20-Nov-2023	23-Dec-2023	-182						
311	Windows / Louvers		37	37	20-Nov-2023	23-Dec-2023	-182						
312	ABWF-VC1800	Fabrication of Mock Up - Window / Louvers	10	10	20-Nov-2023	28-Nov-2023	-182						
313	ABWF-VC1810	Mock Up 1st round comment by PM & review	7	7	29-Nov-2023	05-Dec-2023	-182						
314	ABWF-VC1820	Mock Up modification, 2nd round comment by PM & approval	6	6	05-Dec-2023	11-Dec-2023	-182						
315	ABWF-VC1830	Material Procurement of Window / Louvers	14	14	11-Dec-2023	23-Dec-2023	-182						
316	Package 6		134	134	11-Oct-2023	21-Feb-2024	-46						
317	Skylight		43	43	11-Oct-2023	21-Nov-2023	-162						
318	ABWF-VC1200	Fabrication of Mock Up - Skylight	10	10	11-Oct-2023	20-Oct-2023	-162						
319	ABWF-VC1210	Mock Up 1st round comment by PM & review	6	6	20-Oct-2023	27-Oct-2023	-162						
320	ABWF-VC1220	Mock Up modification, 2nd round comment by PM & approval	6	6	27-Oct-2023	01-Nov-2023	-162						
321	ABWF-VC1230	Material Procurement of Skylight	21	21	01-Nov-2023	21-Nov-2023	-162						
322	Fall Arrest System		71	71	09-Dec-2023	21-Feb-2024	-46						
323	ABWF-VC1480	Fabrication of Mock Up - Fall Arrest System	10	10	09-Dec-2023	19-Dec-2023	-46						
324	ABWF-VC1490	Mock Up 1st round comment by PM & review	21	21	19-Dec-2023	11-Jan-2024	-46						
325	ABWF-VC1500	Mock Up modification, 2nd round comment by PM & approval	10	10	11-Jan-2024	20-Jan-2024	-46						
326	ABWF-VC1510	Material Procurement of Fall Arrest System	30	30	20-Jan-2024	21-Feb-2024	-46						
327	Timber Wall / Fences		62	62	20-Nov-2023	19-Jan-2024	-158						
328	ABWF-VC1040	Fabrication of Mock Up - Timber Wall	10	10	20-Nov-2023	29-Nov-2023	-158						
329	ABWF-VC1050	Mock Up 1st round comment by PM & review	21	21	29-Nov-2023	19-Dec-2023	-158						
330	ABWF-VC1060	Mock Up modification, 2nd round comment by PM & approval	10	10	19-Dec-2023	30-Dec-2023	-158						
331	ABWF-VC1070	Material Procurement of Timber Wall	21	21	30-Dec-2023	19-Jan-2024	-158						
332	Package 7		46	46	09-Dec-2023	25-Jan-2024	-159						
333	Toilet Cubicle & Shower Cubicle		46	46	09-Dec-2023	25-Jan-2024	-159						
334	ABWF-VC2040	Fabrication of Mock Up - Toilet and Shower Cubicles	12	12	09-Dec-2023	21-Dec-2023	-159						
335	ABWF-VC2050	Mock Up 1st round comment by PM & review	6	6	21-Dec-2023	28-Dec-2023	-159						
336	ABWF-VC2060	Mock Up modification, 2nd round comment by PM & approval	14	14	29-Dec-2023	12-Jan-2024	-159						
337	ABWF-VC2070	Material Procurement of Toilet and Shower Cubicles	14	14	12-Jan-2024	25-Jan-2024	-159						
338	Sewerage Pumping Station		131	131	03-Oct-2023	06-Feb-2024	193						
339	ABWF Shop Drawings Submission		106	106	03-Oct-2023	13-Jan-2024	213						
340	Recycled Composite Wood		76	76	03-Oct-2023	13-Dec-2023	152						
341	ABWF-SPS1040	Shop Drawing Submission - Recycled Composite Wood	25	25	03-Oct-2023*	26-Oct-2023	152						
342	ABWF-SPS1050	Recycled Composite Wood - 1st round comment by PM & review	30	30	27-Oct-2023	23-Nov-2023	152						
343	ABWF-SPS1060	Recycled Composite Wood - 2nd submission to PM & approval	21	21	24-Nov-2023	13-Dec-2023	152						
344	Fences and Gates		76	76	03-Oct-2023	13-Dec-2023	193						
345	ABWF-SPS1140	Shop Drawing Submission - Fences and Gates	25	25	03-Oct-2023*	26-Oct-2023	193						
346	ABWF-SPS1150	Fences and Gates - 1st round comment by PM & review	30	30	27-Oct-2023	23-Nov-2023	193						
347	ABWF-SPS1160	Fences and Gates - 2nd submission to PM & approval	21	21	24-Nov-2023	13-Dec-2023	193						
348	Window and Louvers		76	76	03-Oct-2023	13-Dec-2023	50						
349	ABWF-SPS1170	Shop Drawing Submission - Window and Louvers	25	25	03-Oct-2023*	26-Oct-2023	50						
350	ABWF-SPS1180	Shop Drawing Submission Window and Louvers - 1st round comment by PM & review	30	30	27-Oct-2023	23-Nov-2023	50						

▬ Primary Baseline
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Data Date: 30-Sep-2023
 Project Start: 03-Feb-2020
 Project End: 26-Nov-2026
 Baseline: Rev. 2.5 (January 2023 Monthly Programme Update)

**4 Month Rolling Programme
(2023 Oct to 2024 Jan)**

Date	Revision	Checked	Approved
28-Oct-2023	0	RP	EW

#	Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	2023					2024
								Sep	Oct	Nov	Dec	Jan	
351	ABWF-SPS1190	Shop Drawing Submission Window and Louves - 2nd submission to PM & approval	21	21	24-Nov-2023	13-Dec-2023	50						
352	Claddings		76	76	03-Oct-2023	13-Dec-2023	106						
353	ABWF-SPS1200	Shop Drawing Submission - Claddings	25	25	03-Oct-2023*	26-Oct-2023	106						
354	ABWF-SPS1210	Shop Drawing Submission Claddings - 1st round comment by PM & review	30	30	27-Oct-2023	23-Nov-2023	106						
355	ABWF-SPS1220	Shop Drawing Submission Claddings - 2nd submission to PM & approval	21	21	24-Nov-2023	13-Dec-2023	106						
356	Shutters		76	76	01-Nov-2023	13-Jan-2024	213						
357	ABWF-SPS1320	Shop Drawing Submission - Shutters	25	25	01-Nov-2023*	23-Nov-2023	213						
358	ABWF-SPS1330	Shop Drawing Submission Shutters - 1st round comment by PM & review	30	30	24-Nov-2023	21-Dec-2023	213						
359	ABWF-SPS1340	Shop Drawing Submission Shutters - 2nd submission to PM & approval	21	21	22-Dec-2023	13-Jan-2024	213						
360	ABWF Material Submission & Procurement		76	76	03-Oct-2023	13-Dec-2023	243						
361	Recycled Composite Wood		76	76	03-Oct-2023	13-Dec-2023	152						
362	ABWF-SPS1110	Material Submission - Recycled Composite Wood	25	25	03-Oct-2023*	26-Oct-2023	152						
363	ABWF-SPS1120	Material Submission - Recycled Composite Wood - 1st round comment by PM & review	30	30	27-Oct-2023	23-Nov-2023	152						
364	ABWF-SPS1130	Material Submission - Recycled Composite Wood - 2nd submission to PM & approval	21	21	24-Nov-2023	13-Dec-2023	152						
365	Fences and Gates		76	76	03-Oct-2023	13-Dec-2023	193						
366	ABWF-SPS1230	Material Submission - Fences and Gates	25	25	03-Oct-2023*	26-Oct-2023	193						
367	ABWF-SPS1240	Material Submission - Fences and Gates - 1st round comment by PM & review	30	30	27-Oct-2023	23-Nov-2023	193						
368	ABWF-SPS1250	Material Submission - Fences and Gates - 2nd submission to PM & approval	21	21	24-Nov-2023	13-Dec-2023	193						
369	Window and Louves		76	76	03-Oct-2023	13-Dec-2023	50						
370	ABWF-SPS1260	Material Submission - Windows and Louves	25	25	03-Oct-2023*	26-Oct-2023	50						
371	ABWF-SPS1270	Material Submission - Windows and Louves - 1st round comment by PM & review	30	30	27-Oct-2023	23-Nov-2023	50						
372	ABWF-SPS1280	Material Submission - Windows and Louves - 2nd submission to PM & approval	21	21	24-Nov-2023	13-Dec-2023	50						
373	Claddings		76	76	03-Oct-2023	13-Dec-2023	106						
374	ABWF-SPS1290	Material Submission - Claddings	25	25	03-Oct-2023*	26-Oct-2023	106						
375	ABWF-SPS1300	Material Submission - Claddings - 1st round comment by PM & review	30	30	27-Oct-2023	23-Nov-2023	106						
376	ABWF-SPS1310	Material Submission - Claddings - 2nd submission to PM & approval	21	21	24-Nov-2023	13-Dec-2023	106						
377	Shutters		76	76	03-Oct-2023	13-Dec-2023	243						
378	ABWF-SPS1350	Material Submission - FRR Shutters	25	25	03-Oct-2023*	26-Oct-2023	243						
379	ABWF-SPS1360	Material Submission - FRR Shutters - 1st round comment by PM & review	30	30	27-Oct-2023	23-Nov-2023	243						
380	ABWF-SPS1370	Material Submission - FRR Shutters - 2nd submission to PM & approval	21	21	24-Nov-2023	13-Dec-2023	243						
381	Mock Up		55	55	13-Dec-2023	06-Feb-2024	193						
382	Recycled Composite Wood		55	55	13-Dec-2023	06-Feb-2024	152						
383	ABWF-SPS1070	Fabrication of Mock Up - Recycled Composite Wood	25	25	13-Dec-2023	09-Jan-2024	152						
384	ABWF-SPS1080	Mock Up 1st round comment by PM & review	30	30	09-Jan-2024	06-Feb-2024	152						
385	Fences and Gates		55	55	13-Dec-2023	06-Feb-2024	193						
386	ABWF-SPS1380	Fabrication of Mock Up - Fences and Gates	25	25	13-Dec-2023	09-Jan-2024	193						
387	ABWF-SPS1390	Mock Up 1st round comment by PM & review	30	30	09-Jan-2024	06-Feb-2024	193						
388	Window and Louves		55	55	13-Dec-2023	06-Feb-2024	50						
389	ABWF-SPS1420	Fabrication of Mock Up - Window and Louves	25	25	13-Dec-2023	09-Jan-2024	50						
390	ABWF-SPS1430	Mock Up 1st round comment by PM & review	30	30	09-Jan-2024	06-Feb-2024	50						
391	Claddings		55	55	13-Dec-2023	06-Feb-2024	106						
392	ABWF-SPS1460	Fabrication of Mock Up - Claddings	25	25	13-Dec-2023	09-Jan-2024	106						
393	ABWF-SPS1470	Mock Up 1st round comment by PM & review	30	30	09-Jan-2024	06-Feb-2024	106						
394	Footbridge FK2		76	76	03-Oct-2023	13-Dec-2023	-190						
395	ABWF Shop Drawings Submission		76	76	03-Oct-2023	13-Dec-2023	-190						
396	Footbridge Deck Paving		62	62	03-Oct-2023	30-Nov-2023	-221						
397	ABWF-FK2-1000	Shop Drawing Submission - Footbridge Deck Paving	20	20	03-Oct-2023*	20-Oct-2023	-221						
398	ABWF-FK2-1010	Shop Drawing Submission - Footbridge Deck Paving - 1st round comment by PM & review	21	21	21-Oct-2023	10-Nov-2023	-221						
399	ABWF-FK2-1020	Shop Drawing Submission - Footbridge Deck Paving - 2nd submission to PM & approval	21	21	10-Nov-2023	30-Nov-2023	-221						
400	Handrail		76	76	03-Oct-2023	13-Dec-2023	-212						
401	ABWF-FK2-1060	Shop Drawing Submission - Handrail	25	25	03-Oct-2023*	26-Oct-2023	-212						
402	ABWF-FK2-1070	Shop Drawing Submission - Handrail - 1st round comment by PM & review	30	30	27-Oct-2023	23-Nov-2023	-212						
403	ABWF-FK2-1080	Shop Drawing Submission - Handrail - 2nd submission to PM & approval	21	21	24-Nov-2023	13-Dec-2023	-212						
404	Ramp Staircase Finishes		76	76	03-Oct-2023	13-Dec-2023	-190						
405	ABWF-FK2-1090	Shop Drawing Submission - Ramp Staircase Finishes	25	25	03-Oct-2023*	26-Oct-2023	-190						
406	ABWF-FK2-1100	Shop Drawing Submission - Ramp Staircase Finishes - 1st round comment by PM & review	30	30	27-Oct-2023	23-Nov-2023	-190						
407	ABWF-FK2-1110	Shop Drawing Submission - Ramp Staircase Finishes - 2nd submission to PM & approval	21	21	24-Nov-2023	13-Dec-2023	-190						
408	ABWF Material Submission & Procurement		76	76	03-Oct-2023	13-Dec-2023	-190						
409	Footbridge Deck Paving		76	76	03-Oct-2023	13-Dec-2023	-235						
410	ABWF-FK2-1030	Material Submission - Footbridge Deck Paving	25	25	03-Oct-2023*	26-Oct-2023	-235						
411	ABWF-FK2-1040	Material Submission - Footbridge Deck Paving - 1st round comment by PM & review	30	30	27-Oct-2023	23-Nov-2023	-235						
412	ABWF-FK2-1050	Material Submission - Footbridge Deck Paving - 2nd submission to PM & approval	21	21	24-Nov-2023	13-Dec-2023	-235						
413	Handrail		76	76	03-Oct-2023	13-Dec-2023	-212						
414	ABWF-FK2-1120	Material Submission - Handrail	25	25	03-Oct-2023*	26-Oct-2023	-212						
415	ABWF-FK2-1130	Material Submission - Handrail - 1st round comment by PM & review	30	30	27-Oct-2023	23-Nov-2023	-212						
416	ABWF-FK2-1140	Material Submission - Handrail - 2nd submission to PM & approval	21	21	24-Nov-2023	13-Dec-2023	-212						
417	Ramp Staircase Finishes		76	76	03-Oct-2023	13-Dec-2023	-190						
418	ABWF-FK2-1150	Material Submission - Ramp Staircase Finishes	25	25	03-Oct-2023*	26-Oct-2023	-190						
419	ABWF-FK2-1160	Material Submission - Ramp Staircase Finishes - 1st round comment by PM & review	30	30	27-Oct-2023	23-Nov-2023	-190						
420	ABWF-FK2-1170	Material Submission - Ramp Staircase Finishes - 2nd submission to PM & approval	21	21	24-Nov-2023	13-Dec-2023	-190						

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**4 Month Rolling Programme
(2023 Oct to 2024 Jan)**

Date	Revision	Checked	Approved
28-Oct-2023	0	RP	EW

#	Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	2023					2024
								Sep	Oct	Nov	Dec	Jan	
421	Landscape Works Submission		109	109	03-Oct-2023	17-Jan-2024	-170						
422	Landscape Method Statement Submission		64	64	03-Oct-2023	02-Dec-2023	-125						
423	LA-SPS1090	Method Statement of Planting and Soil Mixing - 1st submission to Project Manager	28	28	03-Oct-2023*	30-Oct-2023	-125						
424	LA-SPS1100	Method Statement of Planting and Soil Mixing - 1st submission to PM & review	18	18	30-Oct-2023	15-Nov-2023	-125						
425	LA-SPS1110	Method Statement of Planting and Soil Mixing - 2nd submission to PM & approval	18	18	15-Nov-2023	02-Dec-2023	-125						
426	Landscape Material Submission & Test Report		64	64	03-Oct-2023	02-Dec-2023	-125						
427	Plant Specimen & Origin		64	64	03-Oct-2023	02-Dec-2023	-125						
428	LA-SPS1000	Plant Nursery and Specimen Photos - 1st submission to Project Manager	28	28	03-Oct-2023*	30-Oct-2023	-125						
429	LA-SPS1010	Plant Nursery and Specimen Photos - 1st submission to PM & review	18	18	30-Oct-2023	15-Nov-2023	-125						
430	LA-SPS1020	Plant Nursery and Specimen Photos - 2nd submission to PM & approval	18	18	15-Nov-2023	02-Dec-2023	-125						
431	Soil Mix		64	64	03-Oct-2023	02-Dec-2023	-125						
432	LA-SPS1030	Soil Mix Test Report - 1st submission to Project Manager	28	28	03-Oct-2023*	30-Oct-2023	-125						
433	LA-SPS1040	Soil Mix Test Report - 1st submission to PM & review	18	18	30-Oct-2023	15-Nov-2023	-125						
434	LA-SPS1050	Soil Mix Test Report - 2nd submission to PM & approval	18	18	15-Nov-2023	02-Dec-2023	-125						
435	Soil Conditioners		64	64	03-Oct-2023	02-Dec-2023	-125						
436	LA-SPS1060	Soil Conditioners Test Report & Samples - 1st submission to Project Manager	28	28	03-Oct-2023*	30-Oct-2023	-125						
437	LA-SPS1070	Soil Conditioners Test Report & Samples - 1st submission to PM & review	18	18	30-Oct-2023	15-Nov-2023	-125						
438	LA-SPS1080	Soil Conditioners Test Report & Samples - 2nd submission to PM & approval	18	18	15-Nov-2023	02-Dec-2023	-125						
439	Landscape Design Submission		109	109	03-Oct-2023	17-Jan-2024	-254						
440	LA-SPS1160	Landscape Design Submission for FK2 - 1st submission to Project Manager	28	28	03-Oct-2023*	30-Oct-2023	-254						
441	LA-SPS1165	Landscape Design Submission for FK2 - 1st submission to PM & review	21	21	30-Oct-2023	18-Nov-2023	-254						
442	LA-SPS1170	Landscape Design Submission for FK2 - 2nd submission to PM & approval	21	21	18-Nov-2023	07-Dec-2023	-215						
443	LA-SPS1180	Landscape Design Submission for FK2 - Submission to Govt Dept for approval	60	60	18-Nov-2023	17-Jan-2024	-254						
444	Works in Section 2		211	211	03-Oct-2023 A	29-Apr-2024	330						
445	Portion 2 - Road & Drains		146	146	03-Oct-2023	23-Feb-2024	241						
446	Pipe Jacking		146	146	03-Oct-2023	23-Feb-2024	241						
447	(KT1.30A to KT1.32A) (IL: 3.8-3.6mPD) 800mm dia		66	66	03-Oct-2023	05-Dec-2023	50						
448	P2-3170	Set up and assembly of TBM (0.8m dia.)	43	43	03-Oct-2023	13-Nov-2023	50						
449	P2-3180	Pipe Jacking from FMH_KT1.30A to FMH_KT1.32A (20m, 3m/day)	8	8	13-Nov-2023	20-Nov-2023	50						
450	P2-3185	Removal of TBM (0.8m dia.) from FMH_KT1.32A	16	16	20-Nov-2023	05-Dec-2023	50						
451	(KT1.29A to KT1.27A) (IL: 4.1-4.6mPD) 800mm dia		74	74	05-Dec-2023	19-Feb-2024	50						
452	P2-8205	Set up and Assembly of TBM (0.8m dia.)	43	43	05-Dec-2023	17-Jan-2024	50						
453	P2-8210	Pipe Jacking from FMH_KT1.29A to FMH_KT1.27A (85m, 3m/day)	32	32	17-Jan-2024	19-Feb-2024	50						
454	(KT1.33A to KT1.32A) (IL: 3.6mPD) 1500mm dia		23	23	30-Jan-2024	23-Feb-2024	241						
455	P2-4040	Removal of TBM (1.5m dia.) at FMH_KT1.32A	23	23	30-Jan-2024	23-Feb-2024	241						
456	(KT6003A to KT6003B) (IL: 6.0-5.7mPD) 2100mm dia		98	98	03-Oct-2023	06-Jan-2024	21						
457	P2-8260	Set up and Assembly TBM (2.1m dia.) at SMH_KT6003A	43	43	03-Oct-2023	13-Nov-2023	21						
458	P2-8265	Pipe Jacking from SMH_KT6003A to SMH_KT6003B (85m, 3m/day)	32	32	13-Nov-2023	12-Dec-2023	21						
459	P2-8270	Removal of TBM (2.1m dia.) at SMH_KT6003B	24	24	12-Dec-2023	06-Jan-2024	21						
460	(KT6004A to KT6003B) (IL: 5.3-5.7mPD) 2100mm dia		43	43	06-Jan-2024	19-Feb-2024	21						
461	P2-8275	Set up and Assembly TBM (2.1m dia.) at SMH_KT6004A	43	43	06-Jan-2024	19-Feb-2024	21						
462	Portion 3 - Road & Drains		75	75	05-Oct-2023	14-Dec-2023	429						
463	Sewer Pipeline Installation (KT1.33A to KT1.41A)		75	75	05-Oct-2023	14-Dec-2023	429						
464	KT1.39A - KT1.40A (99m) (Pipe Jacking by CE-074)		34	34	14-Nov-2023	14-Dec-2023	429						
465	P3-6120	Backfilling to at grade level KT1.40A	34	34	14-Nov-2023*	14-Dec-2023	429						
466	KT1.36A - KT1.33A (23m) (Open Cut by CE-068)		56	56	05-Oct-2023	27-Nov-2023	430						
467	P3-6170	Install 2nd Level Strut	8	8	05-Oct-2023*	12-Oct-2023	431						
468	P3-6200	Excavate to FEL	7	7	13-Oct-2023*	19-Oct-2023	430						
469	P3-6210	Bedding & 800 Dia. Concrete Pipe Laying	7	7	19-Oct-2023*	26-Oct-2023	430						
470	P3-6220	Backfill to base level of 2100 dia pipe, bedding and pipe laying	17	17	26-Oct-2023*	11-Nov-2023	430						
471	P3-6230	Backfill to formation and reinstatement	17	17	11-Nov-2023*	27-Nov-2023	430						
472	Portion 4 - Road & Drains		147	147	02-Nov-2023 A	25-Mar-2024	350						
473	Rising Main Installation by Open Cut (CHB 50 to 493 & CHB515 to 974)		147	147	02-Nov-2023 A	25-Mar-2024	350						
474	Gang 1		101	101	08-Nov-2023	17-Feb-2024	134						
475	Rising Main CHB255 to CHB371 (116M) Gang 1-1		51	51	08-Nov-2023	27-Dec-2023	127						
476	P4-3224	Backfilling of drain to at grade level	51	51	08-Nov-2023	27-Dec-2023	127						
477	Rising Main CHB180 to CHB255 (75M) Gang 1-2		51	51	27-Dec-2023	17-Feb-2024	134						
478	P4-6550	Backfilling of drain to at grade level	51	51	27-Dec-2023	17-Feb-2024	134						
479	Gang 4		147	147	02-Nov-2023 A	25-Mar-2024	350						
480	Rising Main CHB371 to CHB493 (122M) Gang 4-2		80	80	02-Nov-2023 A	19-Jan-2024	226						
481	P4-6440	Soft Excavation to F.L.	39	10	02-Nov-2023 A	11-Nov-2023	226						
482	P4-6450	Bedding and Pipe Laying (Twins DN700)	17	4	04-Dec-2023 A	22-Nov-2023	226						
483	P4-6455	RC Works Inspection Chamber and Air Valve Chamber	51	51	17-Nov-2023	08-Jan-2024	226						
484	P4-6460	Backfilling of drain to at grade level	34	34	08-Dec-2023	12-Jan-2024	226						
485	P4-6470	Sheet Pile Extraction	34	34	15-Dec-2023	19-Jan-2024	226						
486	Rising Main CHB699 to CHB749 (50M) Gang 4-3		33	33	19-Jan-2024	22-Feb-2024	226						
487	P4-5680	Sheet Pile Installation for open trench	17	17	19-Jan-2024	03-Feb-2024	226						
488	P4-5690	Soft Excavation to 1st strut level	17	17	22-Jan-2024	07-Feb-2024	226						
489	P4-5700	Installation of strut S1	23	23	29-Jan-2024	22-Feb-2024	226						
490	Rising Main CHB749 to CHB867 (118M) Gang 4-4		51	51	08-Nov-2023	27-Dec-2023	345						

▬ Primary Baseline
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◆ Non-Critical Milestone

Data Date: 30-Sep-2023
 Project Start: 03-Feb-2020
 Project End: 26-Nov-2026
 Baseline: Rev. 2.5 (January 2023 Monthly Programme Update)

**4 Month Rolling Programme
(2023 Oct to 2024 Jan)**

Date	Revision	Checked	Approved
28-Oct-2023	0	RP	EW

#	Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	2023					2024
								Sep	Oct	Nov	Dec	Jan	
491	P4-5830	Backfilling of drain to at grade level	51	51	08-Nov-2023	27-Dec-2023	345						
492	Rising Main CHB867 to CHB974 (107M) Gang 4-5		90	90	27-Dec-2023	25-Mar-2024	350						
493	P4-6330	Sheet Pile Installation for open trench	55	55	27-Dec-2023	21-Feb-2024	350						
494	P4-6340	Soft Excavation to 1st strut level	64	64	18-Jan-2024	21-Mar-2024	350						
495	P4-6350	Installation of strut S1	63	63	23-Jan-2024	25-Mar-2024	350						
496	NS 250 PE Pipe Installation (From KT6.03A to KT6.01)		116	116	04-Nov-2023	27-Feb-2024	86						
497	Sewer Pipeline FMH_KT6.03A to FMH_KT6.02A (Gang 5-1)		116	116	04-Nov-2023	27-Feb-2024	86						
498	P4-6240	Sheet Pile Installation for open trench	55	55	04-Nov-2023*	28-Dec-2023	86						
499	P4-6250	Soft Excavation to 1st strut level	64	64	30-Nov-2023	01-Feb-2024	86						
500	P4-6260	Installation of strut S1	65	65	04-Dec-2023	06-Feb-2024	86						
501	P4-6270	Soft Excavation to 2nd strut level	47	47	22-Dec-2023	08-Feb-2024	86						
502	P4-6280	Installation of strut S2	50	50	05-Jan-2024	23-Feb-2024	86						
503	P4-6290	Soft Excavation to F.L.	44	44	13-Jan-2024	27-Feb-2024	86						
504	Rising Main Installation by Pipe Jacking CHB493 to CHB514 (21M)		65	65	01-Dec-2023	03-Feb-2024	201						
505	P4-5410	Site Setup, Set up TTA & Plant Mobilization	16	16	01-Dec-2023*	15-Dec-2023	201						
506	P4-5420	Instrumentation Installation and Monitoring Works	7	7	15-Dec-2023	21-Dec-2023	201						
507	P4-5430	ELS for Launching Pit (3 layers of strut)	43	43	22-Dec-2023	03-Feb-2024	201						
508	P4-5440	ELS for Receiving Pit (3 layers of strut)	43	43	22-Dec-2023	03-Feb-2024	201						
509	Drainage Outfall construction by Open Cut		36	36	27-Dec-2023	31-Jan-2024	222						
510	Outfall_5105		36	36	27-Dec-2023	31-Jan-2024	127						
511	P4-OF1650	Removal of Grasscrete and concrete materials	11	11	27-Dec-2023	08-Jan-2024	127						
512	P4-OF1660	Excavation to formation level	3	3	08-Jan-2024	11-Jan-2024	127						
513	P4-OF1670	Laying of silt curtain and delivery of concrete block	6	6	11-Jan-2024	16-Jan-2024	127						
514	P4-OF1680	Pour Concrete Blinding	5	5	16-Jan-2024	20-Jan-2024	127						
515	P4-OF1690	Erect formwork for Vertical blinding for base slab shear key	6	6	24-Jan-2024	29-Jan-2024	127						
516	P4-OF1700	Pour Concrete shear key blinding	2	2	29-Jan-2024	31-Jan-2024	127						
517	Outfall_5104		36	36	27-Dec-2023	31-Jan-2024	222						
518	P4-OF1860	Removal of Grasscrete and concrete materials	11	11	27-Dec-2023	08-Jan-2024	222						
519	P4-OF1870	Excavation to formation level	3	3	08-Jan-2024	11-Jan-2024	222						
520	P4-OF1880	Laying of silt curtain and delivery of concrete block	6	6	11-Jan-2024	16-Jan-2024	222						
521	P4-OF1890	Pour Concrete Blinding	5	5	16-Jan-2024	20-Jan-2024	222						
522	P4-OF1900	Erect formwork for Vertical blinding for base slab shear key	6	6	24-Jan-2024	29-Jan-2024	222						
523	P4-OF1910	Pour Concrete shear key blinding	2	2	29-Jan-2024	31-Jan-2024	222						
524	Portion 5 - Sewage Rising Main		211	211	03-Oct-2023	29-Apr-2024	330						
525	Sewage Rising Main Installation by Open Cut (CHB1056 to CHB 1557)		162	162	03-Oct-2023	09-Mar-2024	379						
526	CHB1056 - CHB1102 (46m)		104	104	03-Oct-2023	11-Jan-2024	437						
527	P5-2310	Soft Excavation to 1st strut level	17	17	03-Oct-2023	18-Oct-2023	437						
528	P5-2320	Installation of strut S1	23	23	09-Oct-2023	31-Oct-2023	437						
529	P5-2330	Soft Excavation to 2nd strut level	17	17	14-Oct-2023	01-Nov-2023	437						
530	P5-2340	Installation of strut S2	23	23	21-Oct-2023	13-Nov-2023	437						
531	P5-2350	Soft Excavation to F.L.	17	17	02-Nov-2023	17-Nov-2023	437						
532	P5-2360	Bedding and Pipe Laying (Twins DN700)	11	11	15-Nov-2023	25-Nov-2023	437						
533	P5-2365	RC Works Inspection Chamber and Air Valve Chamber	51	51	15-Nov-2023	05-Jan-2024	437						
534	P5-2370	Backfilling to at grade level	28	28	13-Dec-2023	11-Jan-2024	437						
535	CHB1102 - CHB1151 (49m)		107	107	03-Oct-2023	15-Jan-2024	105						
536	P5-2100	Sheet Pile Installation for open trench	17	17	03-Oct-2023	18-Oct-2023	105						
537	P5-2110	Soft Excavation to 1st strut level	17	17	05-Oct-2023	21-Oct-2023	105						
538	P5-2120	Installation of strut S1	23	23	12-Oct-2023	03-Nov-2023	105						
539	P5-2130	Soft Excavation to 2nd strut level	17	17	18-Oct-2023	03-Nov-2023	105						
540	P5-2140	Installation of strut S2	23	23	25-Oct-2023	15-Nov-2023	105						
541	P5-2150	Soft Excavation to F.L.	17	17	04-Nov-2023	21-Nov-2023	105						
542	P5-2160	Bedding and Pipe Laying (Twins DN700)	11	11	18-Nov-2023	29-Nov-2023	105						
543	P5-2165	RC Works Inspection Chamber and Air Valve Chamber	51	51	18-Nov-2023	09-Jan-2024	105						
544	P5-2170	Backfilling to at grade level	28	28	16-Dec-2023	15-Jan-2024	105						
545	CHB1151 - CHB1200 (49m)		107	107	17-Oct-2023	29-Jan-2024	168						
546	P5-2200	Sheet Pile Installation for open trench	17	17	17-Oct-2023	02-Nov-2023	168						
547	P5-2210	Soft Excavation to 1st strut level	17	17	19-Oct-2023	06-Nov-2023	168						
548	P5-2220	Installation of strut S1	23	23	27-Oct-2023	17-Nov-2023	168						
549	P5-2230	Soft Excavation to 2nd strut level	17	17	02-Nov-2023	18-Nov-2023	168						
550	P5-2240	Installation of strut S2	23	23	09-Nov-2023	30-Nov-2023	168						
551	P5-2250	Soft Excavation to F.L.	17	17	20-Nov-2023	05-Dec-2023	168						
552	P5-2260	Bedding & Pipe Laying (Twins DN700)	11	11	02-Dec-2023	13-Dec-2023	168						
553	P5-2265	RC Works Inspection Chamber and Air Valve Chamber	51	51	02-Dec-2023	23-Jan-2024	168						
554	P5-2270	Backfilling to at grade level	23	23	08-Jan-2024	29-Jan-2024	168						
555	CHB1300 - CHB 1359 (59m)		17	17	29-Jan-2024	17-Feb-2024	168						
556	P5-2400	Sheet Pile Installation for open trench	17	17	29-Jan-2024	17-Feb-2024	168						
557	CHB1359 - CHB 1478 (119m)		55	55	15-Jan-2024	09-Mar-2024	105						
558	P5-5035	Sheet Pile Installation for open trench	55	55	15-Jan-2024	09-Mar-2024	105						
559	Sewage Rising Main Installation across Sheung Yue River by Pipejacking (CHB 982-1046)		179	179	02-Nov-2023	29-Apr-2024	263						
560	P5-3040	TBM Available for delivery to Portion 5	0	0	02-Nov-2023*		80						

▬ Primary Baseline
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Data Date: 30-Sep-2023
 Project Start: 03-Feb-2020
 Project End: 26-Nov-2026
 Baseline: Rev. 2.5 (January 2023 Monthly Programme Update)

**4 Month Rolling Programme
(2023 Oct to 2024 Jan)**

Date	Revision	Checked	Approved
28-Oct-2023	0	RP	EW

#	Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	2023					2024
								Sep	Oct	Nov	Dec	Jan	
561	P5-3050	Set up and Assembly TBM (2.1m dia.)	41	41	02-Nov-2023	09-Dec-2023	80						
562	P5-3060	Pipe Jacking from CHB 982 to CHB 1046 (64m, 2.7m/day)	35	35	09-Dec-2023	15-Jan-2024	80						
563	P5-3070	Removal of TBM (2.1m dia) & Transfer to Launching Pit at Shek Sheung River	14	14	15-Jan-2024	27-Jan-2024	80						
564	P5-3080	Rising main pipe laying (3x80m long DN 700DI, 2.6m/day) & grouting	90	90	27-Jan-2024	29-Apr-2024	263						
565	Portion 7 - Kwu Tung North Sewage Pumping station		151	151	03-Oct-2023	28-Feb-2024	225						
566	Sewage Pumping Station		151	151	03-Oct-2023	28-Feb-2024	225						
567	Station Structure		125	125	03-Oct-2023	31-Jan-2024	94						
568	Basement to G/F Wall & G/F Slab		90	90	03-Oct-2023	28-Dec-2023	85						
569	+1.55mPD (1st Pour)		21	21	03-Oct-2023	24-Oct-2023	151						
570	P7-BF2180	Falsework Erection for Grid A Wall construction	9	9	03-Oct-2023	11-Oct-2023	151						
571	P7-BF2190	Formwork and Rebar Fixing of Grid A Wall	11	11	11-Oct-2023	21-Oct-2023	151						
572	P7-BF2200	Grid A Wall Concreting (1st Pour up to +7.65mPD with Cantilever Slab)	1	1	21-Oct-2023	24-Oct-2023	151						
573	+7.50mPD (G/F Slab)		90	90	03-Oct-2023	28-Dec-2023	85						
574	Bay 1		53	53	03-Oct-2023	22-Nov-2023	120						
575	P7-BF1401	Backfill & Dismantle of strut S2 at +2.2mPD	16	16	03-Oct-2023	17-Oct-2023	7						
576	P7-BF1403	Wall Extend to +4.5mPD along Grid A & B	8	8	17-Oct-2023	25-Oct-2023	7						
577	P7-BF1405	Backfill to +4.5mPD	8	8	25-Oct-2023	02-Nov-2023	120						
578	P7-BF1409	Dismantle of Strut S1 at +4.5mPD	8	8	02-Nov-2023	09-Nov-2023	120						
579	P7-BF2150	Wall & Slab Construction (along Grid B up to +7.65mPD)	14	14	09-Nov-2023	22-Nov-2023	120						
580	Bay 2		68	68	03-Oct-2023	05-Dec-2023	60						
581	P7-BF1423	Backfill & Dismantle of strut S2 at +2.2mPD	16	16	03-Oct-2023	17-Oct-2023	7						
582	P7-BF1425	Wall Extend to +4.5mPD along Grid B & C	11	11	17-Oct-2023	28-Oct-2023	7						
583	P7-BF1437	Backfill to +4.5mPD	8	8	28-Oct-2023	04-Nov-2023	60						
584	P7-BF1439	Dismantle of Strut S1 at +4.5mPD	8	8	04-Nov-2023	13-Nov-2023	60						
585	P7-BF2160	Ground Beam & Slab Construction (along Grid B to D)	25	25	13-Nov-2023	05-Dec-2023	60						
586	Bay 3		68	68	03-Oct-2023	05-Dec-2023	108						
587	P7-BF1433	Dismantle of strut S2 at +2.2mPD	16	16	03-Oct-2023	17-Oct-2023	7						
588	P7-BF1435	Wall Extend to +4.5mPD along Grid D & F	11	11	17-Oct-2023	28-Oct-2023	7						
589	P7-BF1440	Backfill to +4.5mPD	8	8	28-Oct-2023	04-Nov-2023	7						
590	P7-BF1447	Dismantle of Strut S1 at +4.5mPD	8	8	04-Nov-2023	13-Nov-2023	7						
591	P7-BF2170	Wall & Slab Construction (along Grid D to E)	25	25	13-Nov-2023	05-Dec-2023	108						
592	Bay 4		47	47	13-Nov-2023	28-Dec-2023	19						
593	P7-BF1445	Soil backfill to +5.35mPD with testing	8	8	13-Nov-2023	20-Nov-2023	7						
594	P7-BF1465	Grout Breaking of Socket H Piles (8nos)	5	5	20-Nov-2023	24-Nov-2023	7						
595	P7-BF1475	Low Level Pile Head treatment and Capping Plate Installation	3	3	24-Nov-2023	27-Nov-2023	7						
596	P7-BF1525	Rebar fixing of basement Slab	14	14	27-Nov-2023	09-Dec-2023	7						
597	P7-BF1535	Base Slab Shutters	6	6	09-Dec-2023	15-Dec-2023	7						
598	P7-BF1545	Concreting of Base Slab (+7.5mPD)	1	1	15-Dec-2023	15-Dec-2023	7						
599	P7-BF1555	Backfill to +7.5mPD at the side of Base slab	11	11	16-Dec-2023	28-Dec-2023	19						
600	Tx Room Double Slab at +12.55mPD		23	23	16-Dec-2023	09-Jan-2024	7						
601	P7-Tx1000	Construction of Tx Rm Double Slab at +12.55mPD	23	23	16-Dec-2023	09-Jan-2024	7						
602	Roof Slab		72	72	22-Nov-2023	31-Jan-2024	94						
603	Bay 1		41	41	22-Nov-2023	02-Jan-2024	120						
604	P7-RF1000	Erection of falsework and working platform for G/F to R/F wall	7	7	22-Nov-2023	28-Nov-2023	120						
605	P7-RF1010	Erection of One Side Formwork for G/F to R/F Wall	6	6	28-Nov-2023	04-Dec-2023	120						
606	P7-RF1020	Rebar Fixing for G/F to R/F Wall	6	6	04-Dec-2023	08-Dec-2023	120						
607	P7-RF1030	Erection of remaining side formwork for G/F to R/F Wall	5	5	08-Dec-2023	13-Dec-2023	120						
608	P7-RF1040	Erection of falsework and working platform for R/F Slab	5	5	13-Dec-2023	16-Dec-2023	120						
609	P7-RF1050	Erection of Formwork for R/F Slab	6	6	16-Dec-2023	22-Dec-2023	120						
610	P7-RF1060	Rebar Fixing for R/F Slab	5	5	22-Dec-2023	28-Dec-2023	120						
611	P7-RF1070	R/F Slab Shutters	2	2	29-Dec-2023	30-Dec-2023	120						
612	P7-RF1080	R/F Slab & G/F to R/F wall Concreting	1	1	30-Dec-2023	02-Jan-2024	120						
613	Bay 2		42	42	06-Dec-2023	17-Jan-2024	60						
614	P7-RF1090	Erection of falsework and working platform for G/F to R/F wall	7	7	06-Dec-2023	12-Dec-2023	60						
615	P7-RF1100	Erection of One Side Formwork for G/F to R/F Wall	6	6	12-Dec-2023	16-Dec-2023	60						
616	P7-RF1110	Rebar Fixing for G/F to R/F Wall	6	6	16-Dec-2023	22-Dec-2023	60						
617	P7-RF1120	Erection of remaining side formwork for G/F to R/F Wall	5	5	22-Dec-2023	28-Dec-2023	60						
618	P7-RF1130	Erection of falsework and working platform for R/F Slab	5	5	29-Dec-2023	03-Jan-2024	60						
619	P7-RF1140	Erection of Formwork for R/F Slab	6	6	03-Jan-2024	09-Jan-2024	60						
620	P7-RF1150	Rebar Fixing for R/F Slab	6	6	09-Jan-2024	13-Jan-2024	60						
621	P7-RF1160	R/F Slab Shutters	2	2	13-Jan-2024	16-Jan-2024	60						
622	P7-RF1170	R/F Slab & G/F to R/F wall Concreting	1	1	16-Jan-2024	17-Jan-2024	60						
623	Bay 3		41	41	06-Dec-2023	16-Jan-2024	108						
624	P7-RF1180	Erection of falsework and working platform for G/F to R/F wall	7	7	06-Dec-2023	12-Dec-2023	108						
625	P7-RF1190	Erection of One Side Formwork for G/F to R/F Wall	5	5	12-Dec-2023	15-Dec-2023	108						
626	P7-RF1200	Rebar Fixing for G/F to R/F Wall	5	5	16-Dec-2023	20-Dec-2023	108						
627	P7-RF1210	Erection of remaining side formwork for G/F to R/F Wall	7	7	20-Dec-2023	28-Dec-2023	108						
628	P7-RF1220	Erection of falsework and working platform for R/F Slab	5	5	29-Dec-2023	03-Jan-2024	108						
629	P7-RF1230	Erection of Formwork for R/F Slab	5	5	03-Jan-2024	08-Jan-2024	108						
630	P7-RF1240	Rebar Fixing for R/F Slab	5	5	08-Jan-2024	11-Jan-2024	108						

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Data Date: 30-Sep-2023
 Project Start: 03-Feb-2020
 Project End: 26-Nov-2026
 Baseline: Rev. 2.5 (January 2023 Monthly Programme Update)

**4 Month Rolling Programme
(2023 Oct to 2024 Jan)**

Date	Revision	Checked	Approved
28-Oct-2023	0	RP	EW

#	Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	2023				2024	
								Sep	Oct	Nov	Dec	Jan	
631	P7-RF1250	R/F Slab Shutters	3	3	11-Jan-2024	15-Jan-2024	108						
632	P7-RF1260	R/F Slab & G/F to R/F wall Concreting	1	1	15-Jan-2024	16-Jan-2024	108						
633	Bay 4		24	24	10-Jan-2024	31-Jan-2024	94						
634	P7-RF1270	Erection of falsework and working platform for G/F to R/F wall	5	5	10-Jan-2024	13-Jan-2024	94						
635	P7-RF1280	Erection of One Side Formwork for G/F to R/F Wall	5	5	13-Jan-2024	18-Jan-2024	94						
636	P7-RF1290	Rebar Fixing for G/F to R/F Wall	5	5	18-Jan-2024	22-Jan-2024	94						
637	P7-RF1300	Erection of remaining side formwork for G/F to R/F Wall	5	5	22-Jan-2024	26-Jan-2024	94						
638	P7-RF1310	Erection of falsework and working platform for R/F Slab	6	6	26-Jan-2024	31-Jan-2024	94						
639	Retaining Wall & U trough		100	100	20-Nov-2023	28-Feb-2024	111						
640	P7-RW1211	Soil backfill From +5.3mPD to +6.2mPD with testing	34	34	20-Nov-2023	21-Dec-2023	111						
641	P7-RW1213	Construction of U Trough RC Structure wall (KW08 Type A)(Wall Founding level +6.2mPD)	51	51	21-Dec-2023	09-Feb-2024	111						
642	P7-RW1214	Backfill to formation level to +7.5mPD	34	34	24-Jan-2024	28-Feb-2024	111						
643	ABWF/ E&M Works		16	16	15-Jan-2024	30-Jan-2024	225						
644	Basement Floor		16	16	15-Jan-2024	30-Jan-2024	225						
645	Wet Well		16	16	15-Jan-2024	30-Jan-2024	225						
646	P7-WW1000	Access Date of Wet Well Builders works	0	0	15-Jan-2024		225						
647	P7-WW1100	Scaffolding and working platform modification	6	6	15-Jan-2024	19-Jan-2024	225						
648	P7-WW1110	Wall and Ceiling Waterproofing, testing and screeding	10	10	20-Jan-2024	30-Jan-2024	225						
649	External Works		88	88	03-Oct-2023	27-Dec-2023	288						
650	Drainage and Site Formation		88	88	03-Oct-2023	27-Dec-2023	288						
651	Sewerage pipe KT1.47A to KT1.48A		18	18	03-Oct-2023	19-Oct-2023	357						
652	P7-1333	Open Trench formation for sewerage pipe KT1.47A to KT1.48A (12m long, -1.96mPD)	11	11	03-Oct-2023	12-Oct-2023	357						
653	P7-1336	Sewerage Pipe laying KT1.47A to KT1.48A (12m) (DN1050)	7	7	13-Oct-2023	19-Oct-2023	357						
654	Rising main CHB0.0 to CHB50		34	34	27-Oct-2023	28-Nov-2023	276						
655	P7-1350	Open Trench formation for rising main CHB0.0 to CHB50 (50m long 4m Depth, 1.6-2mPD)	28	28	27-Oct-2023	23-Nov-2023	276						
656	P7-1360	Rising main laying (50m) (Twins DN700)	17	17	13-Nov-2023	28-Nov-2023	276						
657	DN1050 Overflow Pipe		30	30	25-Nov-2023	27-Dec-2023	259						
658	P7-1375	Open Trench formation for DN1050 Overflow Pipe(24m long +5.3mPD)	17	17	25-Nov-2023	12-Dec-2023	259						
659	P7-1377	Overflow Pipe laying (24m) (DN1050)	14	14	12-Dec-2023	27-Dec-2023	259						
660	Works in Section 3		142	142	03-Oct-2023	21-Feb-2024	171						
661	Portion 8 - Roads & Drains		141	141	03-Oct-2023	20-Feb-2024	172						
662	Sewer Pipeline Installation		106	106	03-Oct-2023	13-Jan-2024	211						
663	KT1.43.7 - KT1.41A (60m)		57	57	03-Oct-2023	25-Nov-2023	259						
664	P8-9155	Construction of Manhole KT1.41A	24	24	03-Oct-2023	25-Oct-2023	259						
665	P8-9160	Backfilling of drain to at grade level & Sheet Pile Extraction	34	34	25-Oct-2023	25-Nov-2023	259						
666	KT1.41A - KT1.47A (100m) (Open Cut by CE-076)		106	106	03-Oct-2023	13-Jan-2024	-203						
667	P8-6060	Bedding & Pipe Laying (Twins 1200 Concrete Pipe)	23	23	03-Oct-2023	24-Oct-2023	-203						
668	P8-6070	Backfilling of drain to at grade level	51	51	18-Oct-2023	05-Dec-2023	-203						
669	P8-6100	Construction of Manhole KT1.47A	24	24	06-Dec-2023*	29-Dec-2023	-203						
670	P8-6110	Backfilling to at grade level	34	34	09-Dec-2023*	13-Jan-2024	-203						
671	Drainage Outfall construction by Open Cut		141	141	03-Oct-2023	20-Feb-2024	-235						
672	Outfall 5100A		30	30	16-Oct-2023	14-Nov-2023	-141						
673	P8-OF3751	Drain Laying from Outfall 5100A to SMH_KT5100A	7	7	16-Oct-2023*	21-Oct-2023	-141						
674	P8-OF3756	Remove remaining side sheet pile & rock fill	6	6	21-Oct-2023*	27-Oct-2023	-141						
675	P8-OF3761	Backfilling to at grade level	18	18	27-Oct-2023*	14-Nov-2023	-141						
676	P8-OF3766	Report Completion of Drainage works	0	0		14-Nov-2023	-141						
677	Outfall 5101		62	62	03-Oct-2023	04-Dec-2023	-156						
678	P8-OF4036	Erect formwork for outfall Wall (2nd side)	6	6	03-Oct-2023	07-Oct-2023	-239						
679	P8-OF4046	Outfall Wall concreting	5	5	07-Oct-2023	12-Oct-2023	-239						
680	P8-OF4056	Dismantle Wall Formwork	3	3	12-Oct-2023	14-Oct-2023	-239						
681	P8-OF4066	Sheet Pile Installation from Outfall 5101A to SMH_KT5101A	7	7	14-Oct-2023	21-Oct-2023	-161						
682	P8-OF4076	ELS of open trench from Outfall 5101A to SMH_KT5101A	9	9	26-Oct-2023	03-Nov-2023	-161						
683	P8-OF4086	Drain Laying from Outfall 5101A to SMH_KT5101A	7	7	04-Nov-2023	10-Nov-2023	-161						
684	P8-OF4096	Remove remaining side sheet pile & rock fill	6	6	10-Nov-2023	15-Nov-2023	-161						
685	P8-OF4106	Backfilling to at grade level	18	18	15-Nov-2023	02-Dec-2023	-161						
686	P8-OF4116	Report Completion of Drainage works	0	0		04-Dec-2023	-88						
687	Sewer Installation at SMH_KT5101A to OF5101(50m) (Open Cut)		128	128	14-Oct-2023	20-Feb-2024	-239						
688	P8-3010	Sheet Pile Installation	27	27	14-Oct-2023*	10-Nov-2023	-239						
689	P8-3020	Soft Excavation to 1st strut level	41	41	28-Oct-2023	05-Dec-2023	-239						
690	P8-3025	Installation of strut S1	43	43	01-Nov-2023	11-Dec-2023	-239						
691	P8-3030	Soft Excavation to 2nd strut level	43	43	07-Nov-2023	16-Dec-2023	-239						
692	P8-3035	Installation of strut S2	45	45	20-Nov-2023	04-Jan-2024	-239						
693	P8-3040	Soft Excavation to F.L.; (approx. 6.5m depth)	41	41	01-Dec-2023	11-Jan-2024	-239						
694	P8-3060	Bedding and Pipe Laying (Twins DN700)	38	38	11-Jan-2024	20-Feb-2024	-239						
695	Outfall 5103		99	99	31-Oct-2023	03-Feb-2024	-243						
696	P8-OF1640	Removal of Grasscrete and concrete materials	2	2	31-Oct-2023	01-Nov-2023	-296						
697	P8-OF1650	Excavation to formation level	3	3	01-Nov-2023	04-Nov-2023	-296						
698	P8-OF1660	Laying of silt curtain and delivery of concrete block	6	6	04-Nov-2023	10-Nov-2023	-296						
699	P8-OF1670	Pour Concrete Blinding	5	5	10-Nov-2023	14-Nov-2023	-296						
700	P8-OF1680	Erect formwork for Vertical blinding for base slab shear key	6	6	17-Nov-2023	22-Nov-2023	-296						

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

Data Date: 30-Sep-2023
 Project Start: 03-Feb-2020
 Project End: 26-Nov-2026
 Baseline: Rev. 2.5 (January 2023 Monthly Programme Update)

**4 Month Rolling Programme
(2023 Oct to 2024 Jan)**

Date	Revision	Checked	Approved
28-Oct-2023	0	RP	EW

#	Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	2023					2024
								Sep	Oct	Nov	Dec	Jan	
701	P8-OF1690	Pour Concrete shear key blinding	2	2	22-Nov-2023	24-Nov-2023	-296						
702	P8-OF1700	Strip off formwork for shear key	1	1	24-Nov-2023	25-Nov-2023	-296						
703	P8-OF1710	Erect formwork for Shear key	6	6	25-Nov-2023	01-Dec-2023	-296						
704	P8-OF1720	Erect formwork for outfall base slab	1	1	01-Dec-2023	01-Dec-2023	-296						
705	P8-OF1730	Erect formwork for outfall Wall (1st side)	3	3	01-Dec-2023	05-Dec-2023	-296						
706	P8-OF1740	Rebar fixing for outfall base slab	2	2	05-Dec-2023	07-Dec-2023	-296						
707	P8-OF1750	Outfall Baseslab concreting	6	6	07-Dec-2023	12-Dec-2023	-296						
708	P8-OF1760	Dismantle 1st pour Wall Formwork	3	3	12-Dec-2023	15-Dec-2023	-296						
709	P8-OF1770	Dismantle Base slab Formwork	5	5	15-Dec-2023	20-Dec-2023	-296						
710	P8-OF1780	Rebar fixing for outfall Wall	3	3	20-Dec-2023	22-Dec-2023	-296						
711	P8-OF1790	Erect formwork for outfall Wall (2nd side)	2	2	22-Dec-2023	27-Dec-2023	-296						
712	P8-OF1800	Outfall Wall concreting	2	2	27-Dec-2023	29-Dec-2023	-296						
713	P8-OF1810	Dismantle Wall Formwork	2	2	29-Dec-2023	02-Jan-2024	-296						
714	P8-OF3836	Sheet Pile Installation from Outfall 5103 to SMH_KT5103	23	23	02-Jan-2024	23-Jan-2024	-296						
715	P8-OF3846	ELS of open trench from Outfall 5103 to SMH_KT5103	11	11	12-Jan-2024	23-Jan-2024	-243						
716	P8-OF3856	Drain Laying from Outfall 5103 to SMH_KT5103	7	7	23-Jan-2024	29-Jan-2024	-243						
717	P8-OF3866	Remove remaining side sheet pile & rock fill	6	6	29-Jan-2024	03-Feb-2024	-243						
718	Sewer Installation at SMH_KT5103 to OF 5103 (50m) (Open Cut)		18	18	23-Jan-2024	08-Feb-2024	-296						
719	P8-3210	Sheet Pile Installation	17	17	23-Jan-2024	07-Feb-2024	-296						
720	P8-3220	Soft Excavation to 1st strut level	14	14	26-Jan-2024	08-Feb-2024	-296						
721	NS 250 PE Pipe Installation (From KT1.47A to KT6.03A)		141	141	03-Oct-2023	19-Feb-2024	-238						
722	P8-7010	Installation of strut S1	65	65	03-Oct-2023	04-Dec-2023	-238						
723	P8-7020	Soft Excavation to 2nd strut level	47	47	21-Oct-2023	05-Dec-2023	-238						
724	P8-7030	Installation of strut S2	50	50	02-Nov-2023	18-Dec-2023	-238						
725	P8-7040	Soft Excavation to F.L.	44	44	10-Nov-2023	21-Dec-2023	-238						
726	P8-7050	Bedding and Pipe Laying (NS 250 PE Pipe)	23	23	11-Dec-2023	04-Jan-2024	-238						
727	P8-7060	Backfilling of drain to at grade level	51	51	29-Dec-2023	19-Feb-2024	-238						
728	Portion 9 - Footbridge		144	144	03-Oct-2023	21-Feb-2024	-235						
729	Footbridge Construction		144	144	03-Oct-2023	21-Feb-2024	-235						
730	Remaining Footbridge Works		144	144	03-Oct-2023	21-Feb-2024	-235						
731	Northern Footway Ramp / Staircase		11	11	04-Oct-2023	14-Oct-2023	-159						
732	P9-NR1060	Laying concrete pavement layer and finishing layer	7	7	04-Oct-2023*	11-Oct-2023	-159						
733	P9-NR1070	Installation of steel Railing	7	7	04-Oct-2023*	11-Oct-2023	-159						
734	P9-NR1080	Installation of Gabion Wall	5	5	11-Oct-2023	14-Oct-2023	-159						
735	Southern Footway Ramp / Staircase		30	30	03-Oct-2023	01-Nov-2023	-176						
736	P9-SR1030	RC Works for Upper portion of ramp wall, staircase and parapet and Lower ground level U Channel	8	8	03-Oct-2023	10-Oct-2023	-176						
737	P9-SR1040	Placing drainage materials and Compacted Fill to the void of ramp	7	7	10-Oct-2023	16-Oct-2023	-176						
738	P9-SR1050	Construction of Upper level U Channel	5	5	16-Oct-2023	20-Oct-2023	-176						
739	P9-SR1060	Laying concrete pavement layer and finishing layer	7	7	20-Oct-2023	27-Oct-2023	-176						
740	P9-SR1070	Installation of steel Railing	7	7	20-Oct-2023	27-Oct-2023	-176						
741	P9-SR1080	Installation of Gabion Wall	5	5	27-Oct-2023	01-Nov-2023	-176						
742	ABWF Works		68	68	13-Dec-2023	21-Feb-2024	-235						
743	P9-1613	Laying of footbridge deck pavings	23	23	13-Dec-2023	06-Jan-2024	-235						
744	P9-1621	Metal Parapet and Handrail Installation	23	23	06-Jan-2024	27-Jan-2024	-235						
745	P9-1631	Laying of staircase finishes	23	23	27-Jan-2024	21-Feb-2024	-235						
746	BS Works		51	51	04-Nov-2023	21-Dec-2023	-230						
747	P9-1595	Bridge Pillar Box Installation	17	17	04-Nov-2023	20-Nov-2023	-230						
748	P9-1601	Bridge Cable Laying for Lamp Post	17	17	20-Nov-2023	05-Dec-2023	-230						
749	P9-1602	Bridge Lamp Post Installation	17	17	06-Dec-2023	21-Dec-2023	-230						
750	P9-1603	South Bridge Drainage works	39	39	15-Nov-2023	21-Dec-2023	-230						
751	Landscape Works		16	16	17-Jan-2024	31-Jan-2024	-254						
752	P9-1615	Formation of Slope profile by rock fill	16	16	17-Jan-2024	31-Jan-2024	-254						
753	Works in Section 4		208	161	03-Oct-2023 A	11-Mar-2024	989						
754	Portion 10 - Visitor Centre		208	161	03-Oct-2023 A	11-Mar-2024	989						
755	Visitor Centre		208	161	03-Oct-2023 A	11-Mar-2024	989						
756	Superstructure		23	23	03-Oct-2023	24-Oct-2023	-154						
757	Ground Floor to Roof Floor		23	23	03-Oct-2023	24-Oct-2023	-154						
758	G/F to 1/F Wall and 1/F Slab		23	23	03-Oct-2023	24-Oct-2023	-154						
759	Bay 3		23	23	03-Oct-2023	24-Oct-2023	-154						
760	P10-2800	Erection of falsework and working platform for G/F to 1/F wall	3	3	03-Oct-2023	05-Oct-2023	-154						
761	P10-2810	Erection of One Side Formwork for G/F to 1/F Wall	2	2	05-Oct-2023	07-Oct-2023	-154						
762	P10-2820	Rebar Fixing for G/F to 1/F Wall	2	2	07-Oct-2023	10-Oct-2023	-154						
763	P10-2830	Erection of remaining side formwork for G/F to 1/F Wall	2	2	10-Oct-2023	12-Oct-2023	-153						
764	P10-2835	G/F to 1/F Wall & Columns Concreting	8	8	10-Oct-2023	17-Oct-2023	-154						
765	P10-2840	Erection of falsework and working platform for 1/F Slab	2	2	12-Oct-2023	13-Oct-2023	-153						
766	P10-2850	Erection of Formwork for 1/F Slab	2	2	13-Oct-2023	16-Oct-2023	-153						
767	P10-2860	Rebar Fixing for 1/F Slab	3	3	17-Oct-2023	20-Oct-2023	-154						
768	P10-2870	1/F Slab Shutters	2	2	20-Oct-2023	24-Oct-2023	-154						
769	P10-2880	1/F Slab Concreting	1	1	24-Oct-2023	24-Oct-2023	-154						
770	ABWF / E&M Works		208	161	03-Oct-2023 A	11-Mar-2024	989						

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Data Date: 30-Sep-2023
 Project Start: 03-Feb-2020
 Project End: 26-Nov-2026
 Baseline: Rev. 2.5 (January 2023 Monthly Programme Update)

**4 Month Rolling Programme
(2023 Oct to 2024 Jan)**

Date	Revision	Checked	Approved
28-Oct-2023	0	RP	EW

#	Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	2023					2024
								Sep	Oct	Nov	Dec	Jan	
771		Basement Floor	34	34	08-Nov-2023	09-Dec-2023	-44						
772		Rainwater Harvesting Tank / Irrigation Pump Room	34	34	08-Nov-2023	09-Dec-2023	-44						
773		BS Works	34	34	08-Nov-2023	09-Dec-2023	-44						
774	EL		34	34	08-Nov-2023	09-Dec-2023	-44						
775	P10-BFRH-1200	Plants Installation	34	34	08-Nov-2023*	09-Dec-2023	-44						
776		Ground Floor	194	147	03-Oct-2023 A	27-Feb-2024	1003						
777		Generator Room	114	63	05-Oct-2023 A	05-Dec-2023	-78						
778		BS Works	114	63	05-Oct-2023 A	05-Dec-2023	-78						
779	EL		63	63	05-Oct-2023	05-Dec-2023	-84						
780	P10-GFGS1160	Installation of Lighting fitting and small power provision	18	18	05-Oct-2023*	24-Oct-2023	-84						
781	P10-GFGS1170	Genset Installation	34	34	24-Oct-2023*	24-Nov-2023	-84						
782	P10-GFGS1180	T&C of Genset	11	11	24-Nov-2023*	05-Dec-2023	-84						
783	FS		24	9	25-Nov-2023 A	28-Oct-2023	-38						
784	P10-GFGS1100	FS Sprinkler head, Alarm smoke detector, heat detector installation	24	9	25-Nov-2023 A	28-Oct-2023	-38						
785		Tx Room / Switch Room	89	89	03-Oct-2023	30-Dec-2023	1061						
786		ABWF	8	8	29-Nov-2023	07-Dec-2023	1101						
787	P10-Tx1195	Louvers Installation	2	2	29-Nov-2023	01-Dec-2023	1101						
788	P10-Tx1210	Floor Dust Proof Coating	2	2	01-Dec-2023	04-Dec-2023	1101						
789	P10-Tx1220	Durasteel Installation to Air Duct	2	2	04-Dec-2023	06-Dec-2023	1101						
790	P10-Tx1230	Metal Door Leaf Installation	1	1	06-Dec-2023	07-Dec-2023	1101						
791		BS Works	89	89	03-Oct-2023	30-Dec-2023	-121						
792		CLP works & Statutory Inspection	89	89	03-Oct-2023	30-Dec-2023	-121						
793	P10-Tx2000	1st CLP Preinspection of Tx Room	1	1	03-Oct-2023	03-Oct-2023	-110						
794	P10-Tx2010	1st Defect Rectification	5	5	03-Oct-2023	07-Oct-2023	-110						
795	P10-Tx2015	Submit WR1	1	1	19-Oct-2023	20-Oct-2023	-68						
796	P10-Tx2020	2nd CLP Inspection of Tx Room	1	1	20-Oct-2023	21-Oct-2023	-123						
797	P10-Tx2030	2nd Defect Rectification	3	3	21-Oct-2023	25-Oct-2023	-123						
798	P10-Tx2040	Handover Inspection with CLP	1	1	26-Oct-2023	26-Oct-2023	-123						
799	P10-Tx2050	CLP Installation Works	68	68	26-Oct-2023	30-Dec-2023	-123						
800		FS Control Room	73	73	11-Oct-2023 A	20-Dec-2023	-128						
801		ABWF	7	7	11-Oct-2023	18-Oct-2023	-96						
802	P10-GFFS1120	Floor epoxy Painting & door installation	7	7	11-Oct-2023	18-Oct-2023	-96						
803		BS Works	72	72	12-Oct-2023 A	20-Dec-2023	-128						
804	EL		38	38	12-Oct-2023	18-Nov-2023	-128						
805	P10-GFFS1190	Cable wiring	11	11	12-Oct-2023	24-Oct-2023	-128						
806	P10-GFFS1200	Installation of Lighting fitting and small power provision	27	27	24-Oct-2023	18-Nov-2023	-128						
807	FS		53	34	18-Nov-2023 A	20-Dec-2023	-128						
808	P10-GFFS1130	FS Piping, cable containment Installation	34	34	18-Nov-2023	20-Dec-2023	-128						
809	P10-GFFS1140	FS Sprinkler head, Alarm smoke detector, heat detector installation	24	7	20-Nov-2023 A	15-Dec-2023	-128						
810		Ground Floor Male / Female / U-Toilet	90	90	06-Nov-2023	01-Feb-2024	-94						
811		ABWF	90	90	06-Nov-2023	01-Feb-2024	-150						
812	P10-GT1010	Site Survey and setting out	3	3	06-Nov-2023	09-Nov-2023	-129						
813	P10-GT1020	Block Wall Erection	7	7	09-Nov-2023	15-Nov-2023	-129						
814	P10-GT1040	Waterproofing & testing	8	8	17-Nov-2023*	24-Nov-2023	-129						
815	P10-GT1050	Protected screed	3	3	25-Nov-2023*	28-Nov-2023	-129						
816	P10-GT1060	Ceiling Grid Installation	6	6	28-Nov-2023*	04-Dec-2023	-129						
817	P10-GT1070	Wall finishes and furring wall installation	10	10	04-Dec-2023*	13-Dec-2023	-129						
818	P10-GT1080	Floor finishes with protection	11	11	05-Dec-2023*	15-Dec-2023	-129						
819	P10-GT1085	Ceiling Board Installation	6	6	15-Dec-2023*	20-Dec-2023	-114						
820	P10-GT1090	Vanity Counter Installation	6	6	15-Dec-2023*	20-Dec-2023	-129						
821	P10-GT1100	Door installation	3	3	15-Dec-2023*	18-Dec-2023	-106						
822	P10-GT1110	Cubical installation	8	8	25-Jan-2024*	01-Feb-2024	-150						
823	P10-GT1120	Sanitary fitting installation	10	10	16-Dec-2023*	28-Dec-2023	-129						
824		BS Works	54	54	15-Nov-2023	09-Jan-2024	-68						
825		MVAC	53	53	15-Nov-2023	08-Jan-2024	-113						
826	P10-GT1030	Setting out for all equipment / Conduit / Switches	2	2	15-Nov-2023*	17-Nov-2023	-129						
827	P10-GT1150	MEP Conduit embedment	7	7	17-Nov-2023*	24-Nov-2023	-104						
828	P10-GT1160	Air Duct installation	20	20	04-Dec-2023*	22-Dec-2023	-113						
829	P10-GT1300	MVAC unit, Exhaust fans installation	20	20	16-Dec-2023*	08-Jan-2024	-113						
830	FS		46	46	15-Nov-2023	30-Dec-2023	-106						
831	P10-GT1180	FS Piping, cable containment Installation	11	11	15-Nov-2023*	25-Nov-2023	-94						
832	P10-GT1190	FS Sprinkler pipe overhead with ceiling installation	11	11	04-Dec-2023*	14-Dec-2023	-102						
833	P10-GT1195	FS Sprinkler head, Alarm smoke detector, heat detector installation	11	11	18-Dec-2023*	30-Dec-2023	-106						
834	PD		54	54	15-Nov-2023	09-Jan-2024	-68						
835	P10-GT1210	setting out for pipeworks / San fit, & Installation of pipework at ceiling level	11	11	15-Nov-2023*	25-Nov-2023	-48						
836	P10-GT1220	Installation of pipework connection to underground drainage	11	11	25-Nov-2023*	06-Dec-2023	-48						
837	P10-GT1230	Installation of pipework connection to sanitary fitting	11	11	28-Dec-2023*	09-Jan-2024	-68						
838	EL		34	34	04-Dec-2023	08-Jan-2024	-119						
839	P10-GT1260	Installation of cable containment	9	9	04-Dec-2023*	12-Dec-2023	-119						
840	P10-GT1270	Cable wiring	14	14	12-Dec-2023*	27-Dec-2023	-119						

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

Data Date: 30-Sep-2023
 Project Start: 03-Feb-2020
 Project End: 26-Nov-2026
 Baseline: Rev. 2.5 (January 2023 Monthly Programme Update)

**4 Month Rolling Programme
(2023 Oct to 2024 Jan)**

Date	Revision	Checked	Approved
28-Oct-2023	0	RP	EW

#	Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	2023					2024
								Sep	Oct	Nov	Dec	Jan	
841	P10-GT1280	Installation of Lighting fitting and small power provision	11	11	27-Dec-2023*	08-Jan-2024	-119						
842	BOH		138	132	03-Oct-2023 A	07-Feb-2024	-83						
843	Material Recovery		113	113	03-Oct-2023	19-Jan-2024	-64						
844	ABWF		43	43	03-Oct-2023	13-Nov-2023	-112						
845	P10-GF-MR1020	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	14	14	03-Oct-2023	14-Oct-2023	-120						
846	P10-GF-MR1030	Wall Finishes (Wall plastering, tiling)	14	14	14-Oct-2023	28-Oct-2023	-120						
847	P10-GF-MR1040	Floor Screeding	2	2	28-Oct-2023	31-Oct-2023	-112						
848	P10-GF-MR1050	Floor quarry Tiles & door installation	14	14	31-Oct-2023	13-Nov-2023	-112						
849	BS Works		86	86	28-Oct-2023	19-Jan-2024	-64						
850	MVAC		24	24	28-Oct-2023	20-Nov-2023	-120						
851	P10-GF-MR1080	Setting out for all equipment / MOS inspection	3	3	28-Oct-2023	01-Nov-2023	-120						
852	P10-GF-MR1090	Air Duct installation	20	20	01-Nov-2023	20-Nov-2023	-120						
853	EL		55	55	28-Oct-2023	19-Dec-2023	-100						
854	P10-GF-MR1100	Setting out for all equipment / MOS inspection	11	11	28-Oct-2023	08-Nov-2023	-100						
855	P10-GF-MR1110	Installation of cable containment	6	6	08-Nov-2023	14-Nov-2023	-100						
856	P10-GF-MR1120	Cable wiring	11	11	14-Nov-2023	24-Nov-2023	-100						
857	P10-GF-MR1130	Installation of Lighting fitting and small power provision	27	27	24-Nov-2023	19-Dec-2023	-100						
858	FS		57	57	20-Nov-2023	16-Jan-2024	-120						
859	P10-GF-MR1060	FS Piping, cable containment Installation	34	34	20-Nov-2023	21-Dec-2023	-120						
860	P10-GF-MR1070	FS Sprinkler head, Alarm smoke detector, heat detector installation	24	24	21-Dec-2023	16-Jan-2024	-120						
861	PD		28	28	21-Dec-2023	19-Jan-2024	-64						
862	P10-GF-MR1140	Water piping works Installation	17	17	21-Dec-2023	09-Jan-2024	-64						
863	P10-GF-MR1150	Surface Channel formation	11	11	10-Jan-2024	19-Jan-2024	-64						
864	Security Control Room		108	102	03-Oct-2023 A	10-Jan-2024	-120						
865	ABWF		7	7	03-Oct-2023	09-Oct-2023	-89						
866	P10-GFSC1100	Floor epoxy Painting & door installation	7	7	03-Oct-2023	09-Oct-2023	-89						
867	BS Works		108	102	05-Oct-2023 A	10-Jan-2024	-120						
868	MVAC		20	19	05-Oct-2023 A	20-Oct-2023	-102						
869	P10-GFSC1140	Air Duct installation	20	19	05-Oct-2023 A	20-Oct-2023	-102						
870	EL		32	32	09-Oct-2023	08-Nov-2023	-120						
871	P10-GFSC1170	Cable wiring	11	11	09-Oct-2023*	18-Oct-2023	-120						
872	P10-GFSC1180	Installation of Lighting fitting and small power provision	20	20	19-Oct-2023*	08-Nov-2023	-120						
873	FS		47	47	08-Nov-2023	21-Dec-2023	-120						
874	P10-GFSC1110	FS Piping, cable containment Installation	24	24	08-Nov-2023*	30-Nov-2023	-120						
875	P10-GFSC1120	FS Sprinkler head, Alarm smoke detector, heat detector installation	24	24	30-Nov-2023*	21-Dec-2023	-120						
876	Security System		17	17	22-Dec-2023	10-Jan-2024	-120						
877	P10-GFSC1210	Security System Installation	17	17	22-Dec-2023	10-Jan-2024	-120						
878	Main Distribution Frame Room		72	72	04-Oct-2023 A	11-Dec-2023	-85						
879	BS Works		72	72	04-Oct-2023 A	11-Dec-2023	-85						
880	MVAC		20	14	04-Oct-2023 A	17-Oct-2023	-85						
881	P10-GF-MDF1090	Air Duct installation	20	14	04-Oct-2023 A	17-Oct-2023	-85						
882	EL		43	41	05-Oct-2023 A	15-Nov-2023	-63						
883	P10-GF-MDF1110	Installation of cable containment	6	2	05-Oct-2023 A	09-Oct-2023	-63						
884	P10-GF-MDF1120	Cable wiring	11	11	09-Oct-2023*	19-Oct-2023	-63						
885	P10-GF-MDF1130	Installation of Lighting fitting and small power provision	27	27	19-Oct-2023*	15-Nov-2023	-63						
886	FS		57	57	17-Oct-2023	11-Dec-2023	-85						
887	P10-GF-MDF1060	FS Piping, cable containment Installation	34	34	17-Oct-2023	18-Nov-2023	-85						
888	P10-GF-MDF1070	FS Sprinkler head, Alarm smoke detector, heat detector installation	24	24	18-Nov-2023	11-Dec-2023	-85						
889	Equipment Room		110	110	11-Oct-2023	25-Jan-2024	-131						
890	ABWF		45	45	11-Oct-2023	23-Nov-2023	-123						
891	P10-GFER1010	Erect Scaffolding for wall and ceiling finishes	2	2	11-Oct-2023*	12-Oct-2023	-131						
892	P10-GFER1020	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	14	14	13-Oct-2023*	26-Oct-2023	-131						
893	P10-GFER1030	Wall Finishes (Wall plastering, Skim Coat and 1st Coat Painting)	14	14	26-Oct-2023*	08-Nov-2023	-131						
894	P10-GFER1040	Floor Screeding	2	2	08-Nov-2023*	10-Nov-2023	-123						
895	P10-GFER1050	Access Panel Installation	7	7	10-Nov-2023*	16-Nov-2023	-123						
896	P10-GFER1060	Floor epoxy Painting & door installation	7	7	16-Nov-2023*	23-Nov-2023	-123						
897	BS Works		81	81	08-Nov-2023	26-Jan-2024	-131						
898	MVAC		24	24	08-Nov-2023	30-Nov-2023	-131						
899	P10-GFER1090	Setting out for all equipment / MOS inspection	3	3	08-Nov-2023	11-Nov-2023	-131						
900	P10-GFER1100	Air Duct installation	20	20	11-Nov-2023	30-Nov-2023	-131						
901	EL		55	55	08-Nov-2023	02-Jan-2024	-111						
902	P10-GFER1110	Setting out for all equipment / MOS inspection	11	11	08-Nov-2023	18-Nov-2023	-111						
903	P10-GFER1120	Installation of cable containment	6	6	18-Nov-2023	24-Nov-2023	-111						
904	P10-GFER1130	Cable wiring	11	11	24-Nov-2023	05-Dec-2023	-111						
905	P10-GFER1140	Installation of Lighting fitting and small power provision	27	27	05-Dec-2023	02-Jan-2024	-111						
906	FS		57	57	30-Nov-2023	26-Jan-2024	-131						
907	P10-GFER1070	FS Piping, cable containment Installation	34	34	30-Nov-2023	04-Jan-2024	-131						
908	P10-GFER1080	FS Sprinkler head, Alarm smoke detector, heat detector installation	24	24	04-Jan-2024	26-Jan-2024	-131						
909	Cleaners Store		82	82	06-Nov-2023	25-Jan-2024	-100						
910	ABWF		82	82	06-Nov-2023	25-Jan-2024	-100						

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

Data Date: 30-Sep-2023
 Project Start: 03-Feb-2020
 Project End: 26-Nov-2026
 Baseline: Rev. 2.5 (January 2023 Monthly Programme Update)

**4 Month Rolling Programme
(2023 Oct to 2024 Jan)**

Date	Revision	Checked	Approved
28-Oct-2023	0	RP	EW

#	Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	2023					2024
								Sep	Oct	Nov	Dec	Jan	
911	P10-GFCS 1000	Setting Out	2	2	06-Nov-2023*	08-Nov-2023	-122						
912	P10-GFCS 1010	Erect Scaffolding for wall and ceiling finishes	1	1	08-Nov-2023*	09-Nov-2023	-122						
913	P10-GFCS 1020	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	10	10	09-Nov-2023*	18-Nov-2023	-122						
914	P10-GFCS 1030	Floor Waterproofing, testing and Protective Screeding	14	14	18-Nov-2023*	01-Dec-2023	-83						
915	P10-GFCS 1040	Wall Finishes (Wall plastering, Skim Coat and 1st Coat Painting)	11	11	01-Dec-2023*	12-Dec-2023	-83						
916	P10-GFCS 1060	Ceiling Grid Installation	7	7	12-Dec-2023*	18-Dec-2023	-83						
917	P10-GFCS 1070	Floor epoxy Painting	7	7	18-Dec-2023*	27-Dec-2023	-83						
918	P10-GFCS 1180	Ceiling Board Installation	9	9	12-Jan-2024	20-Jan-2024	-100						
919	P10-GFCS 1190	Door Installation	5	5	20-Jan-2024*	25-Jan-2024	-100						
920	BS Works		55	55	18-Nov-2023	12-Jan-2024	-116						
921	MVAC		17	17	18-Nov-2023	05-Dec-2023	-116						
922	P10-GFCS 1100	Setting out for all equipment / MOS inspection	3	3	18-Nov-2023	22-Nov-2023	-122						
923	P10-GFCS 1110	Air Duct installation	14	14	22-Nov-2023	05-Dec-2023	-116						
924	EL		55	55	18-Nov-2023	12-Jan-2024	-122						
925	P10-GFCS 1120	Setting out for all equipment / MOS inspection	11	11	18-Nov-2023	29-Nov-2023	-122						
926	P10-GFCS 1130	Installation of cable containment	6	6	29-Nov-2023	05-Dec-2023	-122						
927	P10-GFCS 1140	Cable wiring	11	11	05-Dec-2023	15-Dec-2023	-122						
928	P10-GFCS 1150	Installation of Lighting fitting and small power provision	27	27	15-Dec-2023	12-Jan-2024	-122						
929	FS		34	34	05-Dec-2023	09-Jan-2024	-112						
930	P10-GFCS 1080	FS Piping, cable containment Installation	17	17	05-Dec-2023	20-Dec-2023	-116						
931	P10-GFCS 1090	FS Sprinkler head, Alarm smoke detector, heat detector installation	17	17	20-Dec-2023	09-Jan-2024	-112						
932	PD		28	28	05-Dec-2023	03-Jan-2024	-116						
933	P10-GFCS 1160	Water piping works Installation	17	17	05-Dec-2023	20-Dec-2023	-116						
934	P10-GFCS 1170	Floor Drain Installation	11	11	20-Dec-2023	03-Jan-2024	-116						
935	Maintenance Corridor		74	74	06-Nov-2023	18-Jan-2024	-132						
936	ABWF		56	56	06-Nov-2023	30-Dec-2023	-132						
937	P10-GF-MC1020	Setting Out	2	2	06-Nov-2023*	08-Nov-2023	-132						
938	P10-GF-MC1030	Erect Scaffolding for wall and ceiling finishes	2	2	08-Nov-2023*	10-Nov-2023	-132						
939	P10-GF-MC1040	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	14	14	10-Nov-2023*	23-Nov-2023	-132						
940	P10-GF-MC1050	Floor Waterproofing, testing and Protective Screeding	14	14	23-Nov-2023*	05-Dec-2023	-132						
941	P10-GF-MC1060	Wall Finishes (Wall plastering, Skim Coat and 1st Coat Painting)	11	11	06-Dec-2023*	15-Dec-2023	-132						
942	P10-GF-MC1070	Access Panel Installation	7	7	16-Dec-2023*	22-Dec-2023	-132						
943	P10-GF-MC1080	Floor epoxy Painting	7	7	22-Dec-2023*	30-Dec-2023	-132						
944	BS Works		18	18	30-Dec-2023	18-Jan-2024	-132						
945	PD		18	18	30-Dec-2023	18-Jan-2024	-132						
946	P10-GF-MC1000	Water piping works Installation	11	11	30-Dec-2023*	11-Jan-2024	-132						
947	P10-GF-MC1010	Floor Drain Installation	7	7	11-Jan-2024*	18-Jan-2024	-132						
948	Staircase		132	132	03-Oct-2023	07-Feb-2024	-83						
949	ST-02		64	64	03-Oct-2023	02-Dec-2023	-15						
950	ABWF		64	64	03-Oct-2023	02-Dec-2023	-45						
951	P10-GF-ST2-1020	Setting Out	2	2	03-Oct-2023	04-Oct-2023	-114						
952	P10-GF-ST2-1030	Erect Scaffolding for wall and ceiling finishes	2	2	04-Oct-2023	06-Oct-2023	-114						
953	P10-GF-ST2-1040	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	14	14	06-Oct-2023	19-Oct-2023	-114						
954	P10-GF-ST2-1050	Wall Finishes (Wall plastering, Skim Coat and 1st Coat Painting)	14	14	19-Oct-2023	02-Nov-2023	-114						
955	P10-GF-ST2-1055	Dismantle Scaffolding	1	1	02-Nov-2023	03-Nov-2023	-114						
956	P10-GF-ST2-1060	Staircase Screeding	2	2	03-Nov-2023	04-Nov-2023	-114						
957	P10-GF-ST2-1070	Staircase Tiling / Tactile Installation	9	9	04-Nov-2023	14-Nov-2023	-39						
958	P10-GF-ST2-1080	Staircase Handrail installation	7	7	20-Nov-2023	25-Nov-2023	-45						
959	P10-GF-ST2-1090	Staircase Wall Painting	7	7	25-Nov-2023	02-Dec-2023	-45						
960	BS Works		18	18	19-Oct-2023	06-Nov-2023	13						
961	PD		18	18	19-Oct-2023	06-Nov-2023	13						
962	P10-GF-ST2-1000	Water piping works Installation	11	11	19-Oct-2023	31-Oct-2023	-46						
963	P10-GF-ST2-1010	Floor Drain Installation	7	7	31-Oct-2023	06-Nov-2023	13						
964	FS		16	16	19-Oct-2023	03-Nov-2023	-46						
965	P10-GF-ST2-1100	FS Piping, cable containment Installation	7	7	19-Oct-2023	26-Oct-2023	-46						
966	P10-GF-ST2-1110	FS Sprinkler head, Alarm smoke detector, heat detector installation	9	9	26-Oct-2023	03-Nov-2023	-46						
967	ST-03		57	57	04-Nov-2023	30-Dec-2023	-43						
968	ABWF		57	57	04-Nov-2023	30-Dec-2023	-74						
969	P10-GF-ST3-1000	Setting Out	2	2	04-Nov-2023	07-Nov-2023	-114						
970	P10-GF-ST3-1010	Erect Scaffolding for wall and ceiling finishes	2	2	07-Nov-2023	09-Nov-2023	-114						
971	P10-GF-ST3-1020	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	14	14	09-Nov-2023	22-Nov-2023	-114						
972	P10-GF-ST3-1030	Wall Finishes (Wall plastering, Skim Coat and 1st Coat Painting)	14	14	22-Nov-2023	05-Dec-2023	-114						
973	P10-GF-ST3-1035	Dismantle Scaffolding	1	1	05-Dec-2023	05-Dec-2023	-114						
974	P10-GF-ST3-1040	Staircase Screeding	2	2	06-Dec-2023	07-Dec-2023	-114						
975	P10-GF-ST3-1050	Staircase Tiling / Tactile Installation	9	9	07-Dec-2023	15-Dec-2023	-74						
976	P10-GF-ST3-1060	Staircase Handrail installation	7	7	16-Dec-2023	22-Dec-2023	-74						
977	P10-GF-ST3-1070	Staircase Wall Painting	7	7	22-Dec-2023	30-Dec-2023	-74						
978	BS Works		18	18	22-Nov-2023	08-Dec-2023	-22						
979	PD		18	18	22-Nov-2023	08-Dec-2023	-22						
980	P10-GF-ST3-1100	Water piping works Installation	11	11	22-Nov-2023	02-Dec-2023	-80						

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

Data Date: 30-Sep-2023
 Project Start: 03-Feb-2020
 Project End: 26-Nov-2026
 Baseline: Rev. 2.5 (January 2023 Monthly Programme Update)

**4 Month Rolling Programme
(2023 Oct to 2024 Jan)**

Date	Revision	Checked	Approved
28-Oct-2023	0	RP	EW

#	Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	2023					2024
								Sep	Oct	Nov	Dec	Jan	
981	P10-GF-ST3-1110	Floor Drain Installation	7	7	02-Dec-2023	08-Dec-2023	-22						
982	FS		16	16	22-Nov-2023	06-Dec-2023	-80						
983	P10-GF-ST3-1080	FS Piping, cable containment Installation	7	7	22-Nov-2023	28-Nov-2023	-80						
984	P10-GF-ST3-1090	FS Sprinkler head, Alarm smoke detector, heat detector installation	9	9	28-Nov-2023	06-Dec-2023	-80						
985	ST-04		45	45	07-Dec-2023	22-Jan-2024	-66						
986	ABWF		45	45	07-Dec-2023	22-Jan-2024	-96						
987	P10-GF-ST4-1000	Setting Out	2	2	07-Dec-2023	09-Dec-2023	-114						
988	P10-GF-ST4-1010	Erect Scaffolding for wall and ceiling finishes	2	2	09-Dec-2023	12-Dec-2023	-114						
989	P10-GF-ST4-1020	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	9	9	12-Dec-2023	20-Dec-2023	-114						
990	P10-GF-ST4-1030	Wall Finishes (Wall plastering, Skim Coat and 1st Coat Painting)	9	9	16-Dec-2023	28-Dec-2023	-114						
991	P10-GF-ST4-1035	Dismantle Scaffolding	1	1	28-Dec-2023	28-Dec-2023	-114						
992	P10-GF-ST4-1040	Staircase Screeding	2	2	29-Dec-2023	30-Dec-2023	-114						
993	P10-GF-ST4-1050	Staircase Tiling / Tactile Installation	9	9	30-Dec-2023	09-Jan-2024	-96						
994	P10-GF-ST4-1060	Staircase Handrail installation	7	7	10-Jan-2024	16-Jan-2024	-96						
995	P10-GF-ST4-1070	Staircase Wall Painting	7	7	16-Jan-2024	22-Jan-2024	-96						
996	BS Works		18	18	16-Dec-2023	06-Jan-2024	-49						
997	PD		18	18	16-Dec-2023	06-Jan-2024	-49						
998	P10-GF-ST4-1100	Water piping works Installation	11	11	16-Dec-2023	29-Dec-2023	-102						
999	P10-GF-ST4-1110	Floor Drain Installation	7	7	29-Dec-2023	06-Jan-2024	-49						
1000	FS		10	10	16-Dec-2023	28-Dec-2023	-102						
1001	P10-GF-ST4-1080	FS Piping, cable containment Installation	7	7	16-Dec-2023	23-Dec-2023	-102						
1002	P10-GF-ST4-1090	FS Sprinkler head, Alarm smoke detector, heat detector installation	3	3	23-Dec-2023	28-Dec-2023	-102						
1003	ST-05		39	39	30-Dec-2023	07-Feb-2024	-83						
1004	ABWF		39	39	30-Dec-2023	07-Feb-2024	-114						
1005	P10-GF-ST5-1000	Setting Out	2	2	30-Dec-2023	03-Jan-2024	-114						
1006	P10-GF-ST5-1010	Erect Scaffolding for wall and ceiling finishes	2	2	03-Jan-2024	05-Jan-2024	-114						
1007	P10-GF-ST5-1020	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	9	9	05-Jan-2024	13-Jan-2024	-114						
1008	P10-GF-ST5-1030	Wall Finishes (Wall plastering, Skim Coat and 1st Coat Painting)	14	14	13-Jan-2024	26-Jan-2024	-114						
1009	P10-GF-ST5-1035	Dismantle Scaffolding	1	1	26-Jan-2024	27-Jan-2024	-114						
1010	P10-GF-ST5-1040	Staircase Screeding	2	2	27-Jan-2024	30-Jan-2024	-114						
1011	P10-GF-ST5-1050	Staircase Tiling / Tactile Installation	9	9	30-Jan-2024	07-Feb-2024	-114						
1012	BS Works		18	18	13-Jan-2024	30-Jan-2024	-75						
1013	PD		18	18	13-Jan-2024	30-Jan-2024	-75						
1014	P10-GF-ST5-1100	Water piping works Installation	11	11	13-Jan-2024	24-Jan-2024	-97						
1015	P10-GF-ST5-1110	Floor Drain Installation	7	7	24-Jan-2024	30-Jan-2024	-75						
1016	FS		10	10	13-Jan-2024	23-Jan-2024	-97						
1017	P10-GF-ST5-1080	FS Piping, cable containment Installation	7	7	13-Jan-2024	19-Jan-2024	-97						
1018	P10-GF-ST5-1090	FS Sprinkler head, Alarm smoke detector, heat detector installation	3	3	20-Jan-2024	23-Jan-2024	-97						
1019	External wall and External Area		111	111	08-Nov-2023	27-Feb-2024	-134						
1020	ABWF		111	111	08-Nov-2023	27-Feb-2024	-172						
1021	P10-GF-EXT1000	Erection of external scaffolding	28	28	08-Nov-2023	05-Dec-2023	-142						
1022	P10-GF-EXT1010	Waterproofing & Window / Louvre Glazing Works	32	32	23-Dec-2023	25-Jan-2024	-182						
1023	P10-GF-EXT1020	Aluminium Baffle Ceiling Grid Installation	32	32	06-Jan-2024	05-Feb-2024	-182						
1024	P10-GF-EXT1030	Wooden Fence Installation	45	45	12-Jan-2024	27-Feb-2024	-172						
1025	Landscape Works		29	29	30-Dec-2023	29-Jan-2024	-106						
1026	P10-GF-EXT1490	Planters Structural works	23	23	30-Dec-2023	22-Jan-2024	-106						
1027	P10-GF-EXT1495	Planters RC defect rectification	7	7	22-Jan-2024	29-Jan-2024	-106						
1028	1st Floor		153	153	11-Oct-2023	11-Mar-2024	-115						
1029	Zone 1		93	93	01-Nov-2023	02-Feb-2024	-113						
1030	Multi Purpose Room 1 & 2		96	96	01-Nov-2023	02-Feb-2024	-117						
1031	ABWF		96	96	01-Nov-2023	02-Feb-2024	-117						
1032	P10-1F-MP1020	Erect Scaffolding for wall and ceiling finishes	2	2	01-Nov-2023	02-Nov-2023	-125						
1033	P10-1F-MP1030	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	14	14	02-Nov-2023	15-Nov-2023	-125						
1034	P10-1F-MP1040	Wall Finishes (Wall plastering, Skim Coat and 1st Coat Painting)	14	14	15-Nov-2023	28-Nov-2023	-125						
1035	P10-1F-MP1050	Floor Screeding	2	2	11-Dec-2023	12-Dec-2023	-125						
1036	P10-1F-MP1060	Timber Flooring	14	14	28-Nov-2023	11-Dec-2023	-125						
1037	P10-1F-MP1070	Ceiling Grid Installation	7	7	13-Dec-2023	19-Dec-2023	-125						
1038	P10-1F-MP1080	Plastic Laminate / Glass Partition Wall Installation	7	7	19-Dec-2023	27-Dec-2023	-125						
1039	P10-1F-MP1170	Ceiling Board Installation	9	9	24-Jan-2024	02-Feb-2024	-117						
1040	BS Works		68	68	15-Nov-2023	20-Jan-2024	-125						
1041	MVAC		43	43	15-Nov-2023	27-Dec-2023	-125						
1042	P10-1F-MP1110	Setting out for all equipment / MOS inspection	3	3	15-Nov-2023	18-Nov-2023	-118						
1043	P10-1F-MP1120	Air Duct installation	20	20	06-Dec-2023	27-Dec-2023	-125						
1044	EL		55	55	15-Nov-2023	09-Jan-2024	-118						
1045	P10-1F-MP1130	Setting out for all equipment / MOS inspection	11	11	15-Nov-2023	25-Nov-2023	-118						
1046	P10-1F-MP1140	Installation of cable containment	6	6	25-Nov-2023	01-Dec-2023	-118						
1047	P10-1F-MP1150	Cable wiring	11	11	01-Dec-2023	12-Dec-2023	-118						
1048	P10-1F-MP1160	Installation of Lighting fitting and small power provision	27	27	12-Dec-2023	09-Jan-2024	-118						
1049	FS		45	45	06-Dec-2023	20-Jan-2024	-125						
1050	P10-1F-MP1090	FS Piping, cable containment Installation	23	23	06-Dec-2023	29-Dec-2023	-125						

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

Data Date: 30-Sep-2023
 Project Start: 03-Feb-2020
 Project End: 26-Nov-2026
 Baseline: Rev. 2.5 (January 2023 Monthly Programme Update)

**4 Month Rolling Programme
(2023 Oct to 2024 Jan)**

Date	Revision	Checked	Approved
28-Oct-2023	0	RP	EW



俊和 - 群利聯營體
CW - KL JV

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



Monthly Programme Update
(September 2023)

#	Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	2023					2024
								Sep	Oct	Nov	Dec	Jan	
1051	P10-1F-MP1100	FS Sprinkler head, Alarm smoke detector, heat detector installation	23	23	29-Dec-2023	20-Jan-2024	-125						
1052	Storage Room		93	93	01-Nov-2023	01-Feb-2024	-135						
1053	P10-1F-SR0900	Access Date of 1/F Storage Room Fitting Out	0	0	01-Nov-2023		-79						
1054	ABWF		56	56	01-Nov-2023	22-Dec-2023	-123						
1055	P10-1F-SR1020	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	14	14	01-Nov-2023	13-Nov-2023	-143						
1056	P10-1F-SR1030	Wall Finishes (Wall plastering, Skim Coat and 1st Coat Painting)	14	14	13-Nov-2023	25-Nov-2023	-143						
1057	P10-1F-SR1040	Floor Screeding	2	2	08-Dec-2023	11-Dec-2023	-123						
1058	P10-1F-SR1050	Timber Flooring	14	14	25-Nov-2023	08-Dec-2023	-143						
1059	P10-1F-SR1060	Ceiling Grid Installation	7	7	11-Dec-2023	16-Dec-2023	-123						
1060	P10-1F-SR1070	Plastic Laminate Installation	7	7	16-Dec-2023	22-Dec-2023	-123						
1061	BS Works		55	55	08-Dec-2023	01-Feb-2024	-137						
1062	MVAC		24	24	08-Dec-2023	03-Jan-2024	-131						
1063	P10-1F-SR1100	Setting out for all equipment / MOS inspection	3	3	08-Dec-2023	12-Dec-2023	-143						
1064	P10-1F-SR1110	Air Duct installation	20	20	12-Dec-2023	03-Jan-2024	-131						
1065	EL		55	55	08-Dec-2023	01-Feb-2024	-143						
1066	P10-1F-SR1120	Setting out for all equipment / MOS inspection	11	11	08-Dec-2023	19-Dec-2023	-143						
1067	P10-1F-SR1130	Installation of cable containment	6	6	19-Dec-2023	23-Dec-2023	-143						
1068	P10-1F-SR1140	Cable wiring	11	11	23-Dec-2023	06-Jan-2024	-143						
1069	P10-1F-SR1150	Installation of Lighting fitting and small power provision	27	27	06-Jan-2024	01-Feb-2024	-143						
1070	FS		45	45	12-Dec-2023	26-Jan-2024	-131						
1071	P10-1F-SR1080	FS Piping, cable containment Installation	23	23	12-Dec-2023	05-Jan-2024	-131						
1072	P10-1F-SR1090	FS Sprinkler head, Alarm smoke detector, heat detector installation	23	23	05-Jan-2024	26-Jan-2024	-131						
1073	Zone 2		134	134	11-Oct-2023	21-Feb-2024	-94						
1074	Workshop		96	96	01-Nov-2023	02-Feb-2024	-130						
1075	ABWF		96	96	01-Nov-2023	02-Feb-2024	-130						
1076	P10-1F-WS1010	Setting Out	2	2	01-Nov-2023	02-Nov-2023	-134						
1077	P10-1F-WS1020	Erect Scaffolding for wall and ceiling finishes	2	2	02-Nov-2023	04-Nov-2023	-134						
1078	P10-1F-WS1030	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	14	14	04-Nov-2023	17-Nov-2023	-134						
1079	P10-1F-WS1040	Wall Finishes (Wall plastering, Skim Coat and 1st Coat Painting)	14	14	17-Nov-2023	30-Nov-2023	-134						
1080	P10-1F-WS1050	Floor Screeding	2	2	30-Nov-2023	01-Dec-2023	-115						
1081	P10-1F-WS1070	Ceiling Grid Installation	7	7	02-Dec-2023	08-Dec-2023	-115						
1082	P10-1F-WS1080	Plastic Laminate Installation	7	7	08-Dec-2023	14-Dec-2023	-115						
1083	P10-1F-WS1170	Ceiling Board Installation	9	9	24-Jan-2024	02-Feb-2024	-130						
1084	BS Works		55	55	30-Nov-2023	24-Jan-2024	-130						
1085	MVAC		24	24	30-Nov-2023	22-Dec-2023	-123						
1086	P10-1F-WS1110	Setting out for all equipment / MOS inspection	3	3	30-Nov-2023	02-Dec-2023	-134						
1087	P10-1F-WS1120	Air Duct installation	20	20	02-Dec-2023	22-Dec-2023	-123						
1088	EL		55	55	30-Nov-2023	24-Jan-2024	-134						
1089	P10-1F-WS1130	Setting out for all equipment / MOS inspection	11	11	30-Nov-2023	11-Dec-2023	-134						
1090	P10-1F-WS1140	Installation of cable containment	6	6	11-Dec-2023	15-Dec-2023	-134						
1091	P10-1F-WS1150	Cable wiring	11	11	15-Dec-2023	28-Dec-2023	-134						
1092	P10-1F-WS1160	Installation of Lighting fitting and small power provision	27	27	28-Dec-2023	24-Jan-2024	-134						
1093	FS		45	45	02-Dec-2023	17-Jan-2024	-123						
1094	P10-1F-WS1090	FS Piping, cable containment Installation	23	23	02-Dec-2023	23-Dec-2023	-123						
1095	P10-1F-WS1100	FS Sprinkler head, Alarm smoke detector, heat detector installation	23	23	23-Dec-2023	17-Jan-2024	-123						
1096	Pantry		60	60	11-Oct-2023	06-Dec-2023	-80						
1097	P10-PTRY-1010	Site Survey and setting out	2	2	11-Oct-2023	12-Oct-2023	-80						
1098	P10-PTRY-1020	Block Wall Erection	8	8	13-Oct-2023	20-Oct-2023	-80						
1099	P10-PTRY-1030	MEP Conduit embedment	6	6	20-Oct-2023	26-Oct-2023	-80						
1100	P10-PTRY-1040	Waterproofing & testing	8	8	26-Oct-2023	03-Nov-2023	-80						
1101	P10-PTRY-1050	Protected screed	3	3	03-Nov-2023	06-Nov-2023	-80						
1102	P10-PTRY-1060	Ceiling finishes	7	7	06-Nov-2023	13-Nov-2023	-80						
1103	P10-PTRY-1070	Floor finishes	11	11	13-Nov-2023	23-Nov-2023	-80						
1104	P10-PTRY-1080	Wall finishes	11	11	14-Nov-2023	24-Nov-2023	-80						
1105	P10-PTRY-1090	Cabinet installation	3	3	24-Nov-2023	27-Nov-2023	-78						
1106	P10-PTRY-1100	Door installation	3	3	24-Nov-2023	27-Nov-2023	-78						
1107	P10-PTRY-1110	Vanity Counter Installation	7	7	24-Nov-2023	30-Nov-2023	-80						
1108	P10-PTRY-1120	Sanitary fitting installation	11	11	25-Nov-2023	05-Dec-2023	-80						
1109	P10-PTRY-1130	Signage, false ceiling panels, Lighting and air grille installation	7	7	27-Nov-2023	04-Dec-2023	-78						
1110	P10-PTRY-1140	Inspection, T&C, cleaning	1	1	06-Dec-2023	06-Dec-2023	-80						
1111	Female Toilets / Disabled Toilet / Male Toilet / Baby Care Room		134	134	11-Oct-2023	21-Feb-2024	-134						
1112	ABWF		125	125	11-Oct-2023	09-Feb-2024	-176						
1113	P10-1T1010	Site Survey and setting out	2	2	11-Oct-2023	12-Oct-2023	-95						
1114	P10-1T1020	Block Wall Erection	8	8	13-Oct-2023	20-Oct-2023	-95						
1115	P10-1T1030	MEP Conduit embedment	6	6	20-Oct-2023	26-Oct-2023	-95						
1116	P10-1T1040	Waterproofing & testing	8	8	26-Oct-2023	03-Nov-2023	-95						
1117	P10-1T1050	Protected screed	3	3	03-Nov-2023	06-Nov-2023	-95						
1118	P10-1T1060	Ceiling Grid Installation	6	6	24-Jan-2024	30-Jan-2024	-176						
1119	P10-1T1070	Floor finishes	11	11	30-Jan-2024	09-Feb-2024	-176						
1120	BS Works		124	124	20-Oct-2023	21-Feb-2024	-134						

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

Data Date: 30-Sep-2023
 Project Start: 03-Feb-2020
 Project End: 26-Nov-2026
 Baseline: Rev. 2.5 (January 2023 Monthly Programme Update)

4 Month Rolling Programme (2023 Oct to 2024 Jan)

Date	Revision	Checked	Approved
28-Oct-2023	0	RP	EW

#	Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	2023					2024
								Sep	Oct	Nov	Dec	Jan	
1121	MVAC		124	124	20-Oct-2023	21-Feb-2024	-171						
1122	P10-1T1150	Setting out for all equipment / Conduit / Switches	2	2	20-Oct-2023	24-Oct-2023	-82						
1123	P10-1T1180	MEP Conduit embedment	7	7	24-Oct-2023	30-Oct-2023	-82						
1124	P10-1T1190	Air Duct installation	20	20	30-Jan-2024	21-Feb-2024	-171						
1125	FS		115	115	20-Oct-2023	09-Feb-2024	-162						
1126	P10-1T1160	FS Piping, cable containment Installation	11	11	20-Oct-2023	01-Nov-2023	-69						
1127	P10-1T1170	FS Sprinkler pipe overhead with ceiling installation	11	11	30-Jan-2024	09-Feb-2024	-162						
1128	PD		11	11	30-Jan-2024	09-Feb-2024	-125						
1129	P10-1T1240	setting out for pipeworks / San fit, & Installation of pipe work at ceiling level	11	11	30-Jan-2024	09-Feb-2024	-125						
1130	EL		111	111	24-Oct-2023	07-Feb-2024	-176						
1131	P10-1T1200	Setting out for all equipment / MOS inspection	2	2	24-Oct-2023	25-Oct-2023	-82						
1132	P10-1T1205	Electrical conduit installation	14	14	25-Oct-2023	07-Nov-2023	-82						
1133	P10-1T1210	Installation of cable containment	9	9	30-Jan-2024	07-Feb-2024	-176						
1134	Senior Forestry Officer Office		96	96	01-Nov-2023	02-Feb-2024	-130						
1135	ABWF		96	96	01-Nov-2023	02-Feb-2024	-130						
1136	P10-1F-SFO1000	Setting Out	2	2	01-Nov-2023	02-Nov-2023	-134						
1137	P10-1F-SFO1010	Erect Scaffolding for wall and ceiling finishes	2	2	02-Nov-2023	04-Nov-2023	-134						
1138	P10-1F-SFO1020	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	14	14	04-Nov-2023	17-Nov-2023	-134						
1139	P10-1F-SFO1030	Wall Finishes (Wall plastering, Skim Coat and 1st Coat Painting)	14	14	17-Nov-2023	30-Nov-2023	-134						
1140	P10-1F-SFO1040	Floor Screeding	2	2	30-Nov-2023	01-Dec-2023	-115						
1141	P10-1F-SFO1060	Ceiling Grid Installation	7	7	02-Dec-2023	08-Dec-2023	-115						
1142	P10-1F-SFO1070	Plastic Laminate Installation	7	7	08-Dec-2023	14-Dec-2023	-115						
1143	P10-1F-SFO1160	Ceiling Board Installation	9	9	24-Jan-2024	02-Feb-2024	-130						
1144	BS Works		55	55	30-Nov-2023	24-Jan-2024	-130						
1145	MVAC		24	24	30-Nov-2023	22-Dec-2023	-123						
1146	P10-1F-SFO1100	Setting out for all equipment / MOS inspection	3	3	30-Nov-2023	02-Dec-2023	-134						
1147	P10-1F-SFO1110	Air Duct installation	20	20	02-Dec-2023	22-Dec-2023	-123						
1148	EL		55	55	30-Nov-2023	24-Jan-2024	-134						
1149	P10-1F-SFO1120	Setting out for all equipment / MOS inspection	11	11	30-Nov-2023	11-Dec-2023	-134						
1150	P10-1F-SFO1130	Installation of cable containment	6	6	11-Dec-2023	15-Dec-2023	-134						
1151	P10-1F-SFO1140	Cable wiring	11	11	15-Dec-2023	28-Dec-2023	-134						
1152	P10-1F-SFO1150	Installation of Lighting fitting and small power provision	27	27	28-Dec-2023	24-Jan-2024	-134						
1153	FS		45	45	02-Dec-2023	17-Jan-2024	-123						
1154	P10-1F-SFO1080	FS Piping, cable containment Installation	23	23	02-Dec-2023	23-Dec-2023	-123						
1155	P10-1F-SFO1090	FS Sprinkler head, Alarm smoke detector, heat detector installation	23	23	23-Dec-2023	17-Jan-2024	-123						
1156	Server Room		96	96	01-Nov-2023	02-Feb-2024	-130						
1157	ABWF		96	96	01-Nov-2023	02-Feb-2024	-130						
1158	P10-1F-SER1000	Setting Out	2	2	01-Nov-2023	02-Nov-2023	-134						
1159	P10-1F-SER1010	Erect Scaffolding for wall and ceiling finishes	2	2	02-Nov-2023	04-Nov-2023	-134						
1160	P10-1F-SER1020	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	14	14	04-Nov-2023	17-Nov-2023	-134						
1161	P10-1F-SER1030	Wall Finishes (Wall plastering, Skim Coat and 1st Coat Painting)	14	14	17-Nov-2023	30-Nov-2023	-134						
1162	P10-1F-SER1040	Floor Screeding	2	2	30-Nov-2023	01-Dec-2023	-115						
1163	P10-1F-SER1060	Ceiling Grid Installation	7	7	02-Dec-2023	08-Dec-2023	-115						
1164	P10-1F-SER1070	Plastic Laminate Installation	7	7	08-Dec-2023	14-Dec-2023	-115						
1165	P10-1F-SER1160	Ceiling Board Installation	9	9	24-Jan-2024	02-Feb-2024	-130						
1166	BS Works		55	55	30-Nov-2023	24-Jan-2024	-130						
1167	MVAC		24	24	30-Nov-2023	22-Dec-2023	-123						
1168	P10-1F-SER1100	Setting out for all equipment / MOS inspection	3	3	30-Nov-2023	02-Dec-2023	-134						
1169	P10-1F-SER1110	Air Duct installation	20	20	02-Dec-2023	22-Dec-2023	-123						
1170	EL		55	55	30-Nov-2023	24-Jan-2024	-134						
1171	P10-1F-SER1120	Setting out for all equipment / MOS inspection	11	11	30-Nov-2023	11-Dec-2023	-134						
1172	P10-1F-SER1130	Installation of cable containment	6	6	11-Dec-2023	15-Dec-2023	-134						
1173	P10-1F-SER1140	Cable wiring	11	11	15-Dec-2023	28-Dec-2023	-134						
1174	P10-1F-SER1150	Installation of Lighting fitting and small power provision	27	27	28-Dec-2023	24-Jan-2024	-134						
1175	FS		45	45	02-Dec-2023	17-Jan-2024	-123						
1176	P10-1F-SER1080	FS Piping, cable containment Installation	23	23	02-Dec-2023	23-Dec-2023	-123						
1177	P10-1F-SER1090	FS Sprinkler head, Alarm smoke detector, heat detector installation	23	23	23-Dec-2023	17-Jan-2024	-123						
1178	BOH		56	56	04-Nov-2023	29-Dec-2023	-42						
1179	Staircase		56	56	04-Nov-2023	29-Dec-2023	-42						
1180	ST-06		56	56	04-Nov-2023	29-Dec-2023	-42						
1181	ABWF		56	56	04-Nov-2023	29-Dec-2023	-73						
1182	P10-1F-ST6-1000	Setting Out	2	2	04-Nov-2023	07-Nov-2023	-80						
1183	P10-1F-ST6-1010	Erect Scaffolding for wall and ceiling finishes	2	2	07-Nov-2023	09-Nov-2023	-80						
1184	P10-1F-ST6-1020	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	14	14	09-Nov-2023	22-Nov-2023	-80						
1185	P10-1F-ST6-1030	Wall Finishes (Wall plastering, Skim Coat and 1st Coat Painting)	14	14	22-Nov-2023	05-Dec-2023	-73						
1186	P10-1F-ST6-1040	Staircase Screeding	2	2	13-Dec-2023	15-Dec-2023	-73						
1187	P10-1F-ST6-1050	Staircase Tiling / Tactile Installation	9	9	05-Dec-2023	13-Dec-2023	-73						
1188	P10-1F-ST6-1060	Staircase Handrail installation	7	7	15-Dec-2023	21-Dec-2023	-73						
1189	P10-1F-ST6-1070	Staircase Wall Painting	7	7	21-Dec-2023	29-Dec-2023	-73						
1190	BS Works		18	18	22-Nov-2023	08-Dec-2023	-22						

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

Data Date: 30-Sep-2023
 Project Start: 03-Feb-2020
 Project End: 26-Nov-2026
 Baseline: Rev. 2.5 (January 2023 Monthly Programme Update)

**4 Month Rolling Programme
(2023 Oct to 2024 Jan)**

Date	Revision	Checked	Approved
28-Oct-2023	0	RP	EW

#	Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	2023					2024
								Sep	Oct	Nov	Dec	Jan	
1191	PD		18	18	22-Nov-2023	08-Dec-2023	-22						
1192	P10-1F-ST6-1100	Water piping works Installation	11	11	22-Nov-2023	02-Dec-2023	-80						
1193	P10-1F-ST6-1110	Floor Drain Installation	7	7	02-Dec-2023	08-Dec-2023	-22						
1194	FS		16	16	22-Nov-2023	06-Dec-2023	-80						
1195	P10-1F-ST6-1080	FS Piping, cable containment Installation	7	7	22-Nov-2023	28-Nov-2023	-80						
1196	P10-1F-ST6-1090	FS Sprinkler head, Alarm smoke detector, heat detector installation	9	9	28-Nov-2023	06-Dec-2023	-80						
1197	Zone 3		35	35	15-Jan-2024	19-Feb-2024	-153						
1198	Office & Office Room 1 & 2		26	26	15-Jan-2024	09-Feb-2024	-143						
1199	P10-1FOF-1000	Access Date of 1/F Office Room 1 & 2 Fitting Out	0	0	15-Jan-2024*		-110						
1200	ABWF		28	28	15-Jan-2024	09-Feb-2024	-199						
1201	P10-1FOF-1010	Setting Out	2	2	15-Jan-2024	17-Jan-2024	-199						
1202	P10-1FOF-1020	Erect Scaffolding for wall and ceiling finishes	2	2	17-Jan-2024	18-Jan-2024	-199						
1203	P10-1FOF-1030	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	24	24	18-Jan-2024	09-Feb-2024	-199						
1204	BS Works		23	23	18-Jan-2024	08-Feb-2024	-145						
1205	MVAC		23	23	18-Jan-2024	08-Feb-2024	-145						
1206	P10-1FOF-1100	Setting out for all equipment / MOS inspection	2	2	18-Jan-2024	20-Jan-2024	-145						
1207	P10-1FOF-1110	Air Duct installation	20	20	20-Jan-2024	08-Feb-2024	-145						
1208	EL		16	16	18-Jan-2024	02-Feb-2024	-178						
1209	P10-1FOF-1120	Setting out for all equipment / MOS inspection	2	2	18-Jan-2024	20-Jan-2024	-178						
1210	P10-1FOF-1130	Installation of cable containment	14	14	20-Jan-2024	02-Feb-2024	-178						
1211	FS		23	23	18-Jan-2024	08-Feb-2024	-179						
1212	P10-1FOF-1080	FS Piping, cable containment Installation	23	23	18-Jan-2024	08-Feb-2024	-179						
1213	Main Office		33	33	17-Jan-2024	19-Feb-2024	-174						
1214	P10-1FOF1010	Access Date of 1/F Main Office Fitting Out	0	0	17-Jan-2024*		-110						
1215	ABWF		32	32	17-Jan-2024	19-Feb-2024	-199						
1216	P10-1FOF1160	Setting Out	2	2	17-Jan-2024	18-Jan-2024	-199						
1217	P10-1FOF1170	Erect Scaffolding for wall and ceiling finishes	2	2	18-Jan-2024	20-Jan-2024	-199						
1218	P10-1FOF1180	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	23	23	20-Jan-2024	14-Feb-2024	-199						
1219	P10-1FOF1190	Wall Finishes (Wall plastering, Skim Coat and 1st Coat Painting)	23	23	25-Jan-2024	19-Feb-2024	-199						
1220	BS Works		16	16	20-Jan-2024	05-Feb-2024	-165						
1221	MVAC		2	2	20-Jan-2024	23-Jan-2024	-175						
1222	P10-1F-OF1280	Setting out for all equipment / MOS inspection	2	2	20-Jan-2024	23-Jan-2024	-175						
1223	EL		16	16	20-Jan-2024	05-Feb-2024	-175						
1224	P10-1F-OF1300	Setting out for all equipment / MOS inspection	2	2	20-Jan-2024	23-Jan-2024	-175						
1225	P10-1F-OF1310	Installation of cable containment	11	11	25-Jan-2024	05-Feb-2024	-175						
1226	FS		11	11	20-Jan-2024	31-Jan-2024	-160						
1227	P10-1F-OF1260	FS Piping, cable containment Installation	11	11	20-Jan-2024	31-Jan-2024	-160						
1228	Zone 4		132	132	01-Nov-2023	11-Mar-2024	-173						
1229	External Area		132	132	01-Nov-2023	11-Mar-2024	-173						
1230	P10-1F-EXT1000	Access Date of 1/F External Area Fitting Out	0	0	01-Nov-2023*		-79						
1231	ABWF		133	133	01-Nov-2023	11-Mar-2024	-182						
1232	P10-1F-EXT1010	Erection of external scaffolding	28	28	01-Nov-2023	27-Nov-2023	-143						
1233	P10-1F-EXT1020	Aluminium Baffle Ceiling Grid Installation	41	41	19-Dec-2023	30-Jan-2024	-182						
1234	P10-1F-EXT1030	Aluminium Baffle Ceiling Board Installation	41	41	30-Jan-2024	11-Mar-2024	-182						
1235	P10-1F-EXT1043	External Wall metal grille Installation	20	20	30-Jan-2024	21-Feb-2024	-182						
1236	BS Works		53	53	19-Dec-2023	14-Feb-2024	-146						
1237	MVAC		20	20	19-Dec-2023	11-Jan-2024	-162						
1238	P10-1F-EXT1060	Setting out for all equipment / MOS inspection	3	3	19-Dec-2023	22-Dec-2023	-182						
1239	P10-1F-EXT1070	Air Duct installation	17	17	22-Dec-2023	11-Jan-2024	-162						
1240	EL		46	46	28-Dec-2023	14-Feb-2024	-146						
1241	P10-1F-EXT1080	Setting out for all equipment / MOS inspection	7	7	28-Dec-2023	04-Jan-2024	-182						
1242	P10-1F-EXT1090	Installation of cable containment	6	6	04-Jan-2024	10-Jan-2024	-160						
1243	P10-1F-EXT1100	Cable wiring	11	11	10-Jan-2024	20-Jan-2024	-146						
1244	P10-1F-EXT1110	Installation of Lighting fitting and small power provision	23	23	20-Jan-2024	14-Feb-2024	-146						
1245	FS		34	34	28-Dec-2023	30-Jan-2024	-182						
1246	P10-1F-EXT1300	FS Piping, cable containment Installation	17	17	28-Dec-2023	13-Jan-2024	-182						
1247	P10-1F-EXT1310	FS Sprinkler head, Alarm smoke detector, heat detector installation	17	17	13-Jan-2024	30-Jan-2024	-182						
1248	Roof Floor		150	150	11-Oct-2023	08-Mar-2024	-63						
1249	ABWF		128	128	11-Oct-2023	15-Feb-2024	-41						
1250	P10-RF1000	Access Date of Roof Fitting Out	0	0	11-Oct-2023		-86						
1251	P10-RF1010	Setting Out	2	2	11-Oct-2023	12-Oct-2023	-154						
1252	P10-RF1020	Roof RC Structure Water Testing before waterproofing	3	3	13-Oct-2023	16-Oct-2023	-154						
1253	P10-RF1030	Remedial and touch up works before applying waterproofing	2	2	16-Oct-2023	18-Oct-2023	-154						
1254	P10-RF1040	Applying Roof waterproofing Membrane	6	6	18-Oct-2023	24-Oct-2023	-154						
1255	P10-RF1050	Water Testing & Infra red testing	11	11	06-Dec-2023	16-Dec-2023	-200						
1256	P10-RF1060	Laying Insulation board with protection floor screed	7	7	16-Dec-2023	23-Dec-2023	-200						
1257	P10-RF1070	Laying Floor finishes	20	20	20-Dec-2023	11-Jan-2024	-200						
1258	P10-RF1080	Roof Dog House BS Installation	23	23	11-Jan-2024	01-Feb-2024	-154						
1259	P10-RF1081	Roof Skylight Steelwork / Frame Installation (Top of Main Office: 4nos)	11	11	28-Dec-2023	09-Jan-2024	-199						
1260	P10-RF1082	Roof Skylight Steelwork / Frame Installation (Top of Office Room 1 & 2: 2nos)	6	6	05-Jan-2024	10-Jan-2024	-200						

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

Data Date: 30-Sep-2023
 Project Start: 03-Feb-2020
 Project End: 26-Nov-2026
 Baseline: Rev. 2.5 (January 2023 Monthly Programme Update)

4 Month Rolling Programme
(2023 Oct to 2024 Jan)

Date	Revision	Checked	Approved
28-Oct-2023	0	RP	EW

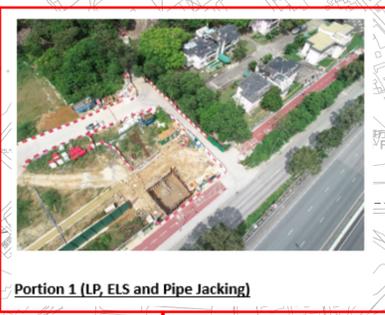
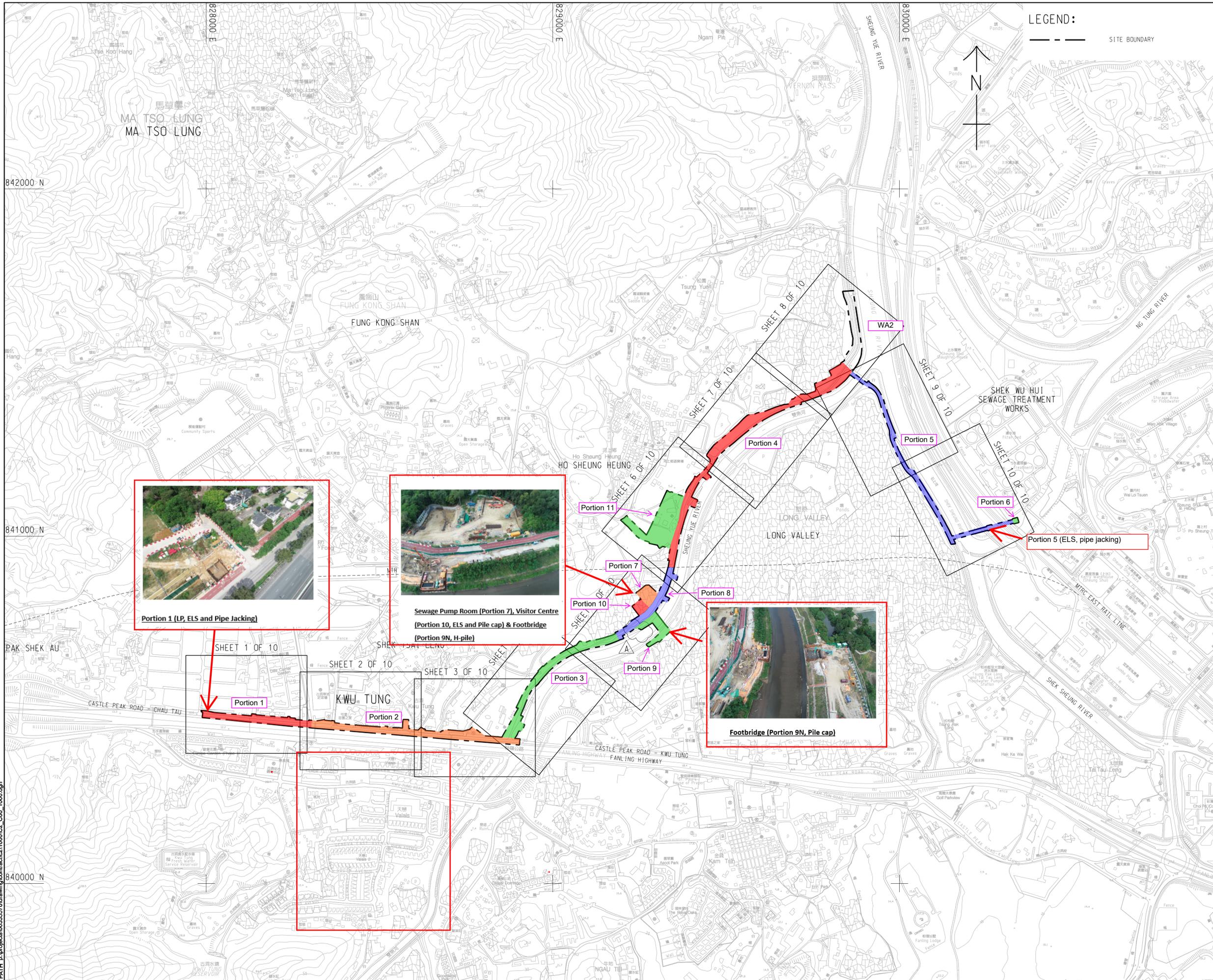
#	Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	2023				2024		
								Sep	Oct	Nov	Dec	Jan		
1261	P10-RF1083	Roof Skylight Steelwork / Frame Installation (Ext. Area: 4nos)	11	11	11-Jan-2024	22-Jan-2024	-132							
1262	P10-RF1084	Roof Skylight Glazing Installation (Top of Main Office: 4nos)	8	8	09-Jan-2024	17-Jan-2024	-199							
1263	P10-RF1085	Roof Skylight Glazing Installation (Top of Office Room 1 & 2: 2nos)	5	5	10-Jan-2024	15-Jan-2024	-200							
1264	P10-RF1086	Roof Skylight Glazing Installation (Ext. Area: 4nos)	7	7	22-Jan-2024	29-Jan-2024	-132							
1265	P10-RF1090	Hatch Door and Cat Ladder Installation	11	11	11-Jan-2024	22-Jan-2024	-17							
1266	P10-RF1095	PV Panel Installation	34	34	11-Jan-2024	15-Feb-2024	-154							
1267	BS Works		68	68	14-Nov-2023	19-Jan-2024	-129							
1268	P10-RF1160	BS 2nd Fixing (Elec, Water, Irrigation System connection, AC VOU Units and connection)	28	28	14-Nov-2023	09-Dec-2023	-129							
1269	P10-RF1165	BS final Fixing	34	34	05-Dec-2023	09-Jan-2024	-129							
1270	P10-RF1170	T&C of Roof BS System	11	11	09-Jan-2024	19-Jan-2024	-129							
1271	Landscape Works		78	78	20-Dec-2023	08-Mar-2024	-155							
1272	P10-RF1115	Roof Planters Drainages, irrigation pipe, Artificial Granite Tile Installation	34	34	20-Dec-2023	24-Jan-2024	-144							
1273	P10-RF1120	Soil Backfilling to Roof Planters	51	51	18-Jan-2024	08-Mar-2024	-155							
1274	Lift Installation		71	71	03-Oct-2023	08-Dec-2023	1099							
1275	P10-LT1000	Lift External wall Cladding Installation	28	28	01-Nov-2023*	27-Nov-2023	1109							
1276	P10-LT1005	Erection of Scaffolding and Lift Shaft checking	3	3	27-Nov-2023*	30-Nov-2023	1109							
1277	P10-LT1007	Commence Lift Installation	0	0	03-Oct-2023*		-86							
1278	P10-LT1010	Lift Shaft Plumbing	3	3	03-Oct-2023	05-Oct-2023	-86							
1279	P10-LT1020	Guide Rail Brackets, Guide Rail and Door Frame Installation	7	7	05-Oct-2023	12-Oct-2023	-86							
1280	P10-LT1030	Grouting of Lift Door Frame	6	6	12-Oct-2023	17-Oct-2023	-86							
1281	P10-LT1040	Car Sling, Hoisting ropes, and counter weight frame	6	6	17-Oct-2023	24-Oct-2023	-86							
1282	P10-LT1050	Lift Cart Assembly	11	11	24-Oct-2023	03-Nov-2023	-86							
1283	P10-LT1060	Landing Door Installation	6	6	03-Nov-2023	08-Nov-2023	-86							
1284	P10-LT1070	Machine controller and Governor Installation	6	6	08-Nov-2023	14-Nov-2023	-86							
1285	P10-LT1080	Trunking and Conduit in lift shaft	6	6	14-Nov-2023	18-Nov-2023	-86							
1286	P10-LT1090	Lift Shaft Wiring	6	6	18-Nov-2023	24-Nov-2023	-86							
1287	P10-LT1100	Removing of Scaffolding, Erect lift plinth and install cat ladder	5	5	24-Nov-2023	28-Nov-2023	-86							
1288	P10-LT1110	Pit Equipments	5	5	28-Nov-2023	02-Dec-2023	-86							
1289	P10-LT1120	Wiring outside lift shaft for lift supervision panel	7	7	02-Dec-2023	08-Dec-2023	-86							
1290	External Works		154	154	03-Oct-2023	01-Mar-2024	-119							
1291	Retaining wall		68	68	06-Nov-2023	11-Jan-2024	-125							
1292	P10-4145	Construction of Retaining Wall KW-14 (11 Bays @ 7.5m / Bay)	54	54	06-Nov-2023	28-Dec-2023	-125							
1293	P10-4150	Backfill to +7.5mPD	34	34	07-Dec-2023	11-Jan-2024	-125							
1294	Underground Utilities Connection		154	154	03-Oct-2023	01-Mar-2024	-119							
1295	P10-2311	Underground Drainage and sewerage installation near U trough Structure KW-09	23	23	03-Oct-2023	24-Oct-2023	-42							
1296	P10-2311.1	Underground sewerage Installation and Temp. Sewerage Tank connection	14	14	06-Nov-2023	18-Nov-2023	-71							
1297	P10-2312	ELS, Trench excavation for drainage pipe (65m long, -0.72mPD to -1.03mPD)	32	32	03-Oct-2023*	02-Nov-2023	-61							
1298	P10-2313	Sewerage pipe laying (65m) (DN1050)	23	23	27-Dec-2023	18-Jan-2024	-132							
1299	P10-2314	Connection of fresh water to existing watermains	8	8	28-Dec-2023	05-Jan-2024	-62							
1300	P10-2315	Connection of Salt water to existing watermains	8	8	28-Dec-2023	05-Jan-2024	-129							
1301	P10-2316	Installation of 11KV Cables along sub-station from HSH Pai Lau to Visitor Centre EVA (~500m @ 2wks/50m)	120	120	03-Oct-2023*	26-Jan-2024	-185							
1302	P10-2317	Underground Cables Laying (Under EVA)	34	34	27-Jan-2024	01-Mar-2024	-185							
1303	P10-2318	Connection of Main pipe to Street Hydrant outside premises	8	8	28-Dec-2023	05-Jan-2024	-129							
1304	P10-2320	Install Street Hydrant outside premises	16	16	05-Jan-2024	19-Jan-2024	-129							
1305	P10-4160	Installation of FTNS Cables from HSH Pai Lau to Visitor Centre MDF Room (~500m @ 2wks/50m)	144	144	03-Oct-2023*	22-Feb-2024	-190							
1306	Signage Works		54	54	03-Oct-2023	23-Nov-2023	-35							
1307	P10-SG-1000	Placing Statutory Signages and ready for FS Inspection	54	54	03-Oct-2023*	23-Nov-2023	-35							
1308	Statutory Inspection		1	1	20-Jan-2024	20-Jan-2024	-129							
1309	WSD Inspection		1	1	20-Jan-2024	20-Jan-2024	-129							
1310	FS Street Hydrant		1	1	20-Jan-2024	20-Jan-2024	-129							
1311	P10-WSD1120	Submit Form WWO1082 For WSD Inspection - FS Street Hydrant	1	1	20-Jan-2024	20-Jan-2024	-129							
1312	Works in Section 5		101	101	02-Nov-2023	08-Feb-2024	-21							
1313	Portion 11 - Village Resite Area		101	101	02-Nov-2023	08-Feb-2024	-21							
1314	Site Formation		34	34	02-Nov-2023	04-Dec-2023	-149							
1315	P11-1030	Excavation and Cart Away High Arsenic Content Soil (Subjected to actual GI Result) (3000m3 @100m3/d)	34	34	02-Nov-2023	04-Dec-2023	-149							
1316	Drainage Works (Level: (IL +5mPD to +6.25mPD)		68	68	04-Dec-2023	08-Feb-2024	-149							
1317	P11-1040	Sheet Pile installation (total length 140m with assume using type 4 sheet pile with 350pcs)	23	23	04-Dec-2023	27-Dec-2023	-149							
1318	P11-1042	Soft Excavation to 1st strut level	11	11	14-Dec-2023	27-Dec-2023	-149							
1319	P11-1044	Installation of 1st level strut S1	14	14	19-Dec-2023	04-Jan-2024	-149							
1320	P11-1046	Soft Excavation to F.L	11	11	28-Dec-2023	09-Jan-2024	-149							
1321	P11-1048	Bedding & Pipe Laying (Twins 225 and 300mm)	14	14	04-Jan-2024	17-Jan-2024	-149							
1322	P11-1090	Construction of Drainage Manhole M6.01	11	11	10-Jan-2024	20-Jan-2024	-149							
1323	P11-1100	Construction of Drainage Manhole M6.02	14	14	16-Jan-2024	29-Jan-2024	-149							
1324	P11-1110	Construction of Drainage Manhole M6.03	14	14	20-Jan-2024	02-Feb-2024	-149							
1325	P11-1120	Construction of Drainage Manhole M6.04	14	14	26-Jan-2024	08-Feb-2024	-149							
1326	Outfall 6.04		20	20	17-Jan-2024	05-Feb-2024	-17							
1327	P11-OF0900	Sheet Pile Installation at Outfall	11	11	17-Jan-2024	27-Jan-2024	-17							
1328	P11-OF1000	Excavation to 1st strut level	3	3	27-Jan-2024	30-Jan-2024	-17							
1329	P11-OF1010	Installation 1st level strut and testing	6	6	30-Jan-2024	05-Feb-2024	-17							

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

Data Date: 30-Sep-2023
 Project Start: 03-Feb-2020
 Project End: 26-Nov-2026
 Baseline: Rev. 2.5 (January 2023 Monthly Programme Update)

**4 Month Rolling Programme
(2023 Oct to 2024 Jan)**

Date	Revision	Checked	Approved
28-Oct-2023	0	RP	EW



AECOM

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

CONTRACT TITLE:
 KWU TUNG NORTH NEW DEVELOPMENT AREA, PHASE 1: ROADS AND DRAINS BETWEEN KWU TUNG NORTH NEW DEVELOPMENT AREA AND SHEK WU HUI

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

CONSULTANT
 工程顧問公司
 AECOM Asia Company Ltd.
 www.aecom.com

SUB-CONSULTANTS
 分判工程顧問公司

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

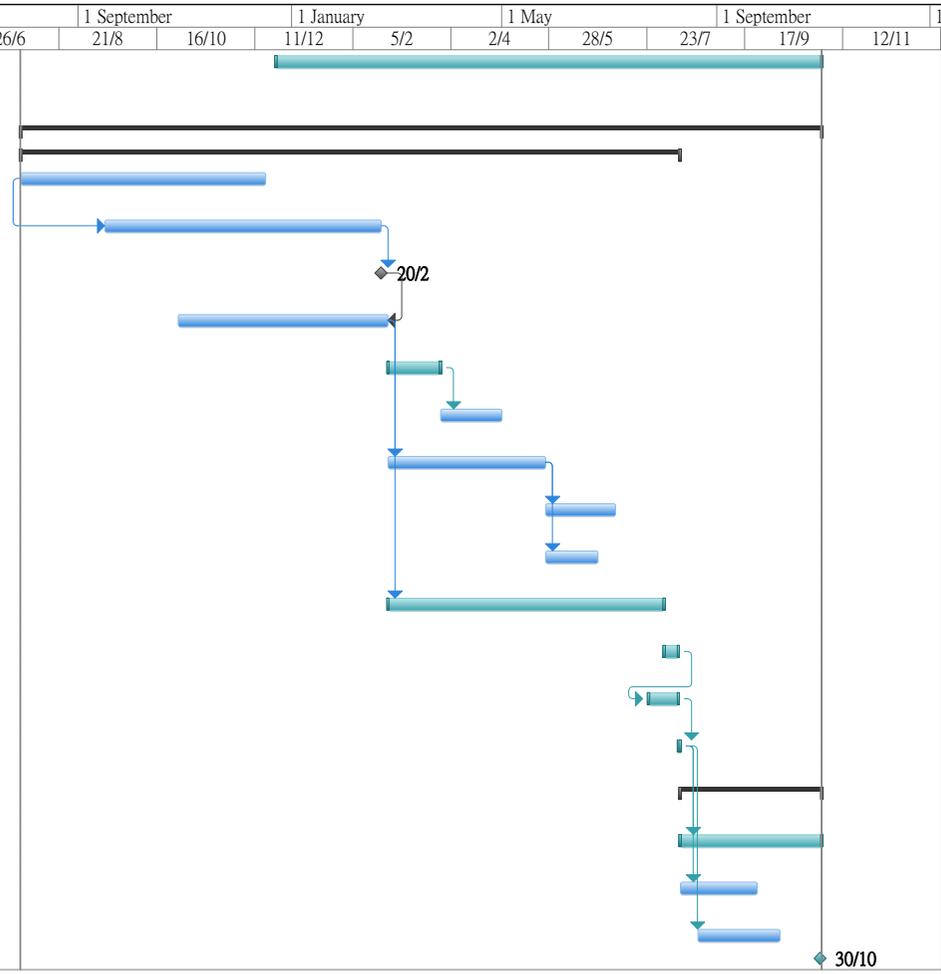
SHEET NUMBER
 圖紙編號
 60335576/C2/C00/1000A

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Construction Programme of ND/2019/03

ND/2019/03
Programme for Construction in Section 2

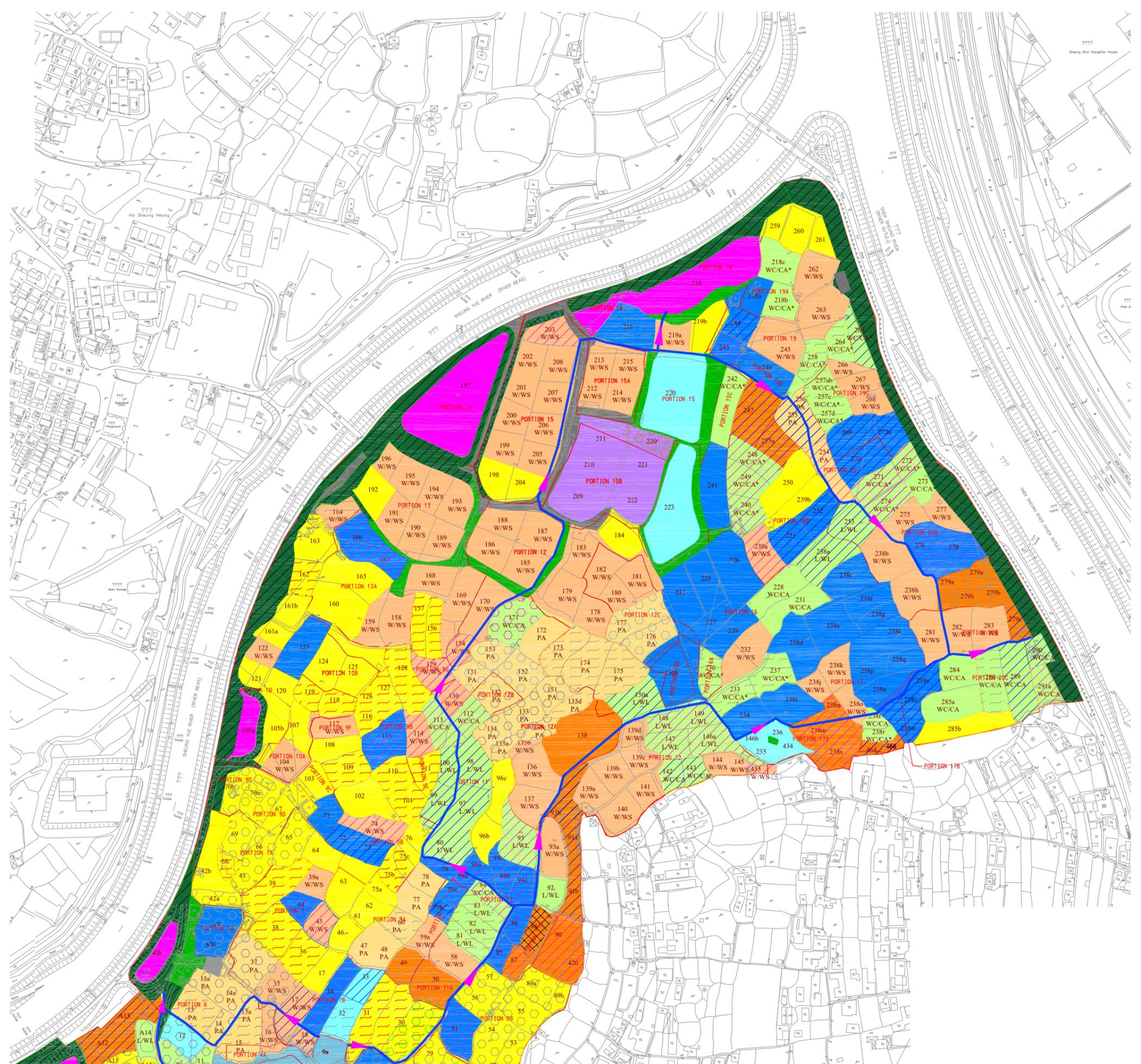
ID	Task Name	Duration	Start	Finish	1 May		1 September		1 January		1 May		1 September		1
					1/5	26/6	21/8	16/10	11/12	5/2	2/4	28/5	23/7	17/9	
1	Extension of Time Due to COVID-19	312 days	Fri 23/12/22	Mon 30/10/23											
2															
3	Section 2 Construction Works	458 days	Sat 30/7/22	Mon 30/10/23											
4	Lodging Facility Construction	377 days	Sat 30/7/22	Thu 10/8/23											
5	Original Fabrication & Delivery Schedule of Lodging Unit	140 days	Sat 30/7/22	Fri 16/12/22											
6	Additional Partition Wall for Pantry, Fabrication & Delivery Schedule of Lodging Unit Changed	158 days	Fri 16/9/22	Mon 20/2/23											
7	Completion of Fabrication of 56nos. Lodging Unit	0 days	Mon 20/2/23	Mon 20/2/23											
8	Delivery of Lodging Units and Installation	120 days	Fri 28/10/22	Fri 24/2/23											
9	Fabrication of Steel Structure	30 days	Sat 25/2/23	Sun 26/3/23											
10	Fabrication & Installation of Staircase, Corridor and Roof	35 days	Mon 27/3/23	Sun 30/4/23											
11	Construction of Additional Boundary Fence	90 days	Sat 25/2/23	Thu 25/5/23											
12	Construction of Emergency Vehicle Access	40 days	Fri 26/5/23	Tue 4/7/23											
13	Construction of Additional Refuse Collection Point	30 days	Fri 26/5/23	Sat 24/6/23											
14	Installation E & M works and water pipe connection	158 days	Sat 25/2/23	Tue 1/8/23											
15	CLP Energilze	8 days	Wed 2/8/23	Wed 9/8/23											
16	FS Submission 314/501 and FSD Approval	17 days	Mon 24/7/23	Wed 9/8/23											
17	FS Inpsection	1 day	Thu 10/8/23	Thu 10/8/23											
18	Remaining Works of Section 2	81 days	Fri 11/8/23	Mon 30/10/23											
19	Remaining Works for Block A to Block E	81 days	Fri 11/8/23	Mon 30/10/23											
20	Construction of Guard House and Refuse Station	44 days	Fri 11/8/23	Sat 23/9/23											
21	Construction of Bamboo Fencing	47 days	Mon 21/8/23	Fri 6/10/23											
22	Completion of Section 2 Works	0 days	Mon 30/10/23	Mon 30/10/23											



Section 2 Remaining Works	Task		Project Summary		Inactive Milestone		Manual Summary Rollup		Deadline	
	Split		External Tasks		Inactive Summary		Manual Summary		Progress	
	Milestone		External Milestone		Manual Task		Start-only		Manual Progress	
	Summary		Inactive Task		Duration-only		Finish-only			

ID	Task	Task Name	Duration	Start	Finish	June 2023	July 2023	August 2023	September 2023	October 2023	November 2023	December 2023
1		Confirmation of BaiSun and Relocation of Tugigongs	0 days	Thu 15/6/23	Thu 15/6/23	◆ 15/6						
2		Section 3	197 days	Thu 15/6/23	Thu 28/12/23	—————						
3		Advance Works for Removal of Asbesto Roof Panel (scaffolding) ~ No work is allowed before Relocation of Tudigongs	18 days	Thu 15/6/23	Sun 2/7/23	—————						
4		Removal of Asbestos Roof Panel and Village House Clearance	21 days	Mon 3/7/23	Sun 23/7/23	—————						
5		EPD Inspection of Asbestos Works Completion	1 day	Mon 24/7/23	Mon 24/7/23	—————						
6		Dismantle Bamboo Scaffolding and Furniture inside Village House	7 days	Tue 25/7/23	Mon 31/7/23	—————						
7		Removal of Water Meter	1 day	Tue 1/8/23	Tue 1/8/23	—————						
8		Removal of Electrical Meter and Power Supply	7 days	Thu 3/8/23	Wed 9/8/23	—————						
9		Demolition of Village House and Site Clearance	14 days	Thu 10/8/23	Wed 23/8/23	—————						
10		Construction of Car Park and Pavement	127 days	Thu 24/8/23	Thu 28/12/23	—————						
11		Preparation of Formation and Site Clearence	25 days	Thu 24/8/23	Sun 17/9/23	—————						
12		Laying of Cable Duct and Drawpit	14 days	Mon 18/9/23	Sun 1/10/23	—————						
13		Installation of Lighting Pole & Pillar Box	21 days	Sat 18/11/23	Fri 8/12/23	—————						
14		CLP Energise and T&C	7 days	Sat 9/12/23	Fri 15/12/23	—————						
15		Laying of Sewerage Pipe	14 days	Mon 18/9/23	Sun 1/10/23	—————						
16		Formation Layer	10 days	Mon 2/10/23	Wed 11/10/23	—————						
17		Laying Subbase	10 days	Mon 9/10/23	Wed 18/10/23	—————						
18		Laying Final Layer	10 days	Mon 16/10/23	Wed 25/10/23	—————						
19		Construction of Road Kerb	25 days	Thu 26/10/23	Sun 19/11/23	—————						
20		Construction of U-channel	14 days	Mon 20/11/23	Sun 3/12/23	—————						
21		Construction of Boundary Structure	25 days	Mon 20/11/23	Thu 14/12/23	—————						
22		Construction of Entrance Gantry	35 days	Mon 20/11/23	Sun 24/12/23	—————						
23		Construction of Pavement and Guard House	25 days	Mon 4/12/23	Thu 28/12/23	—————						
24		Completion of Section 3	0 days	Thu 28/12/23	Thu 28/12/23	—————						◆ 2

Section 3 Construction Date: 3/8/2023	Task		Project Summary		Inactive Milestone		Manual Summary Rollup		Deadline	
	Split		External Tasks		Inactive Summary		Manual Summary		Progress	
	Milestone		External Milestone		Manual Task		Start-only			
	Summary		Inactive Task		Duration-only		Finish-only			

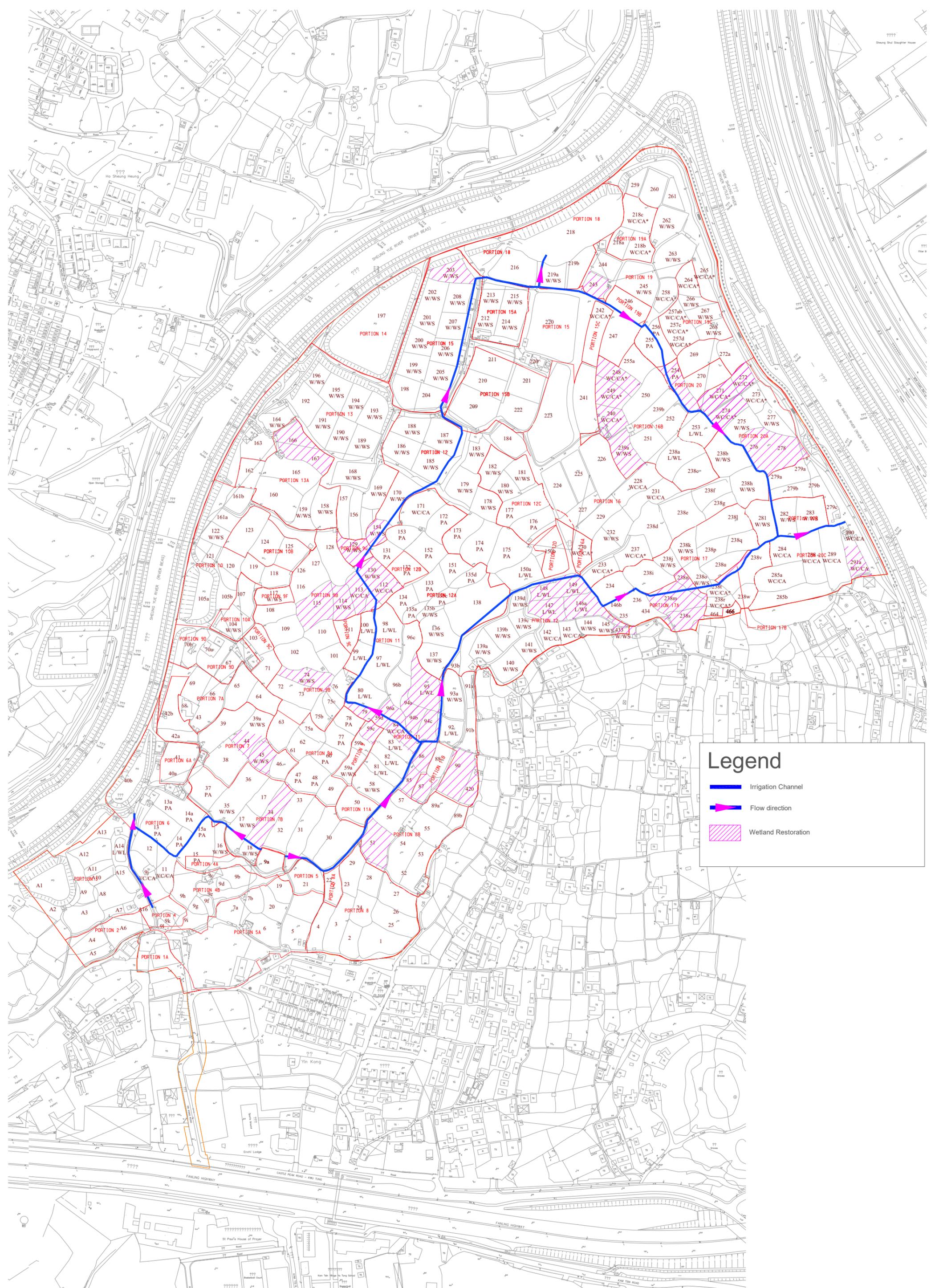


Legend

 W/W/S	Intensive Wet Agricultural Land - Watercress/Water Spinach		Mitigation Plantation
 WC/CA	Less Intensive Wet Agricultural Land - Water Chestnut/ Chinese Arrowhead		Village Area/ Urban/Residential Area
 LWL	Less Intensive Wet Agricultural Land - Lotus/Water Lily		Water Treatment Wetland
 PA	Intensive Wet Agricultural Land - Paddy Field		Irrigation Channel
	Marsh - Open Water		Flow direction
	Marsh		
	Marsh - Reedbed		
	Pond		
	Water Flea Pond		
	Mitigation Wetland		
	Dry Agricultural Land		
	Plantation		

(*) Habitat planted with low density of wet crops (<20% coverage) that concentrate at the centre

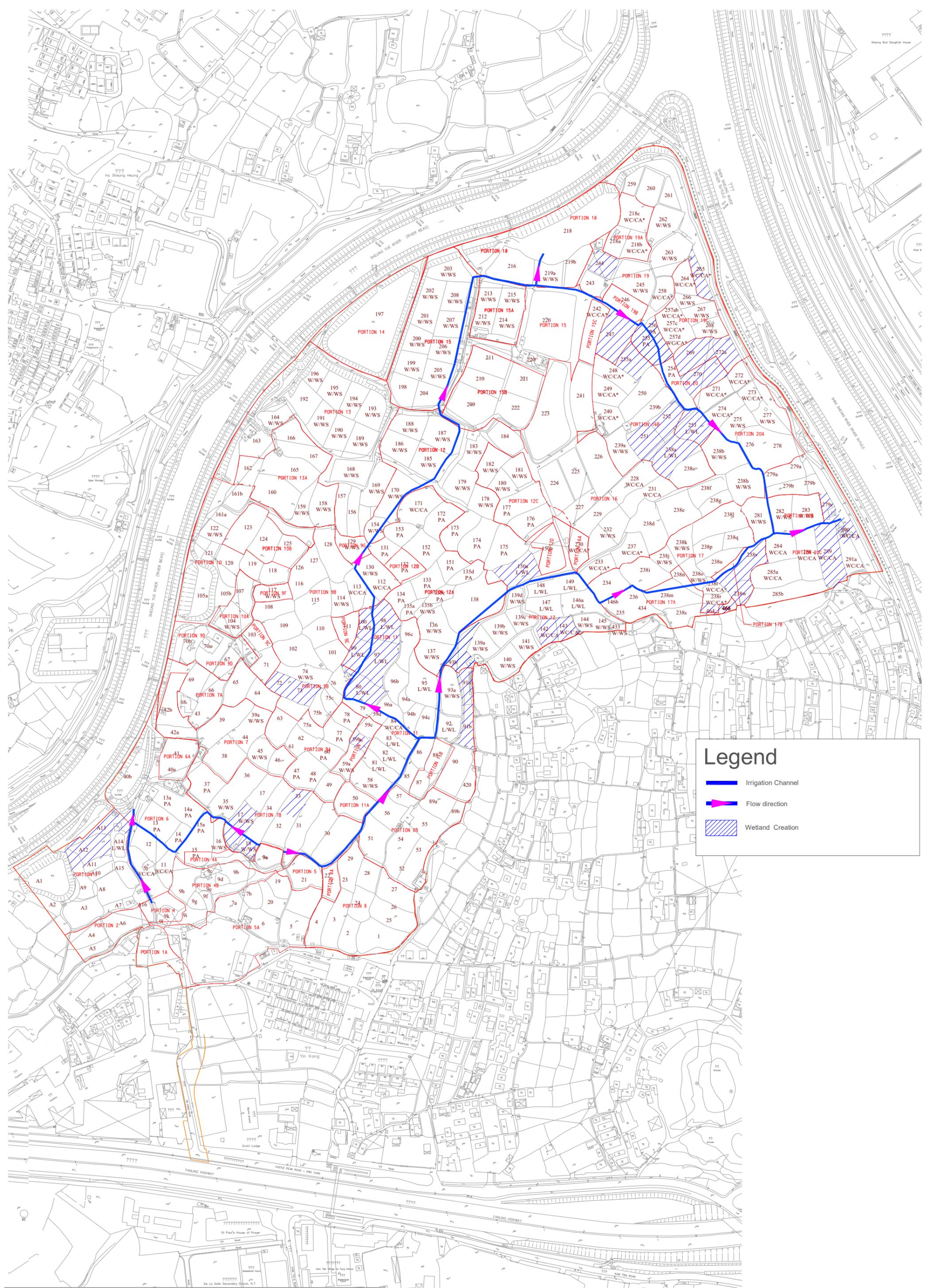
Figure 3. LVNP proposed layout plan



Legend

-  Irrigation Channel
-  Flow direction
-  Wetland Restoration

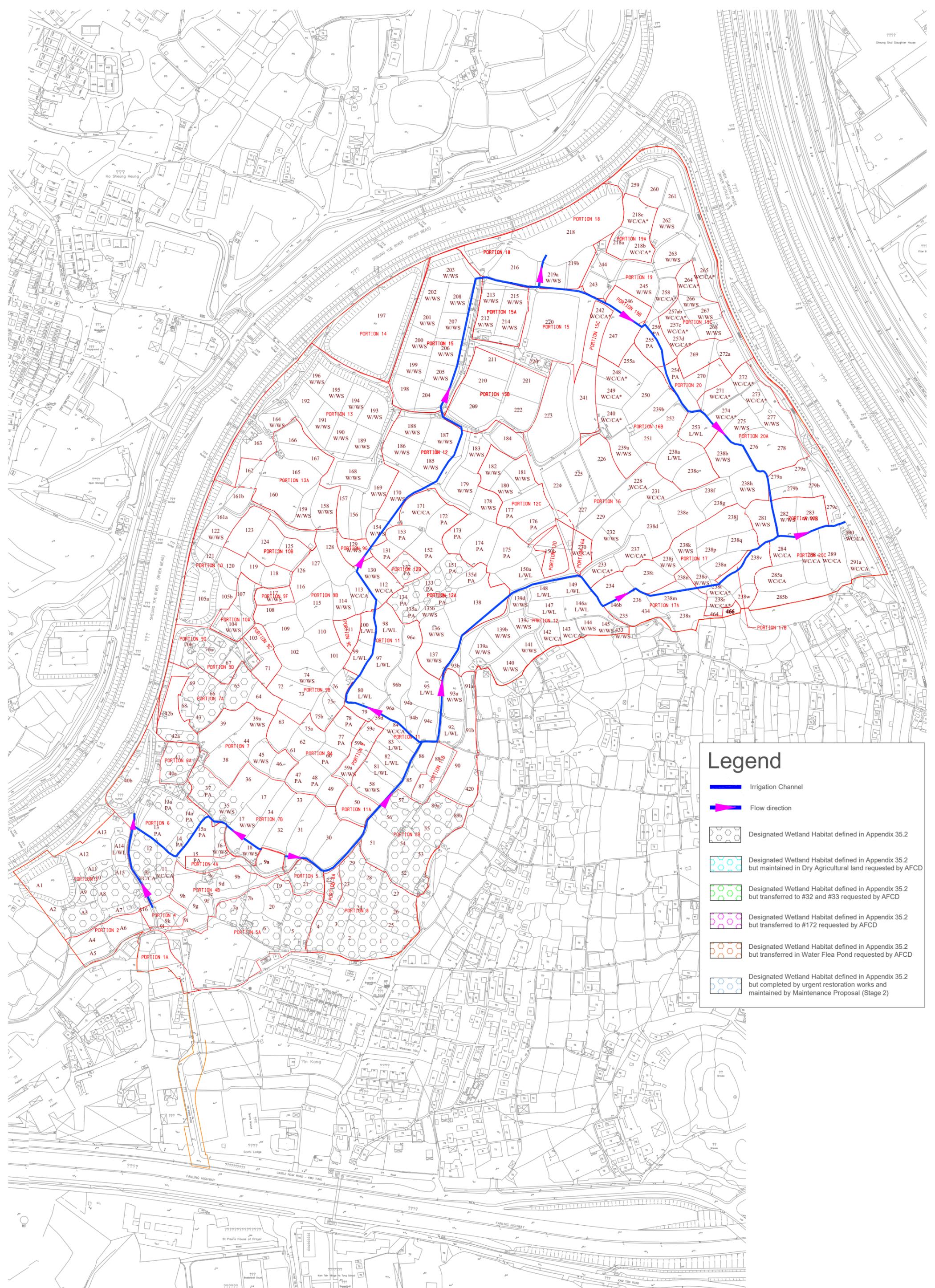
Figure 3a. The locations of wetland to be restored



Legend

- Irrigation Channel
- Flow direction
- Wetland Creation

Figure 3b. The locations of wetland to be created



Legend

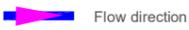
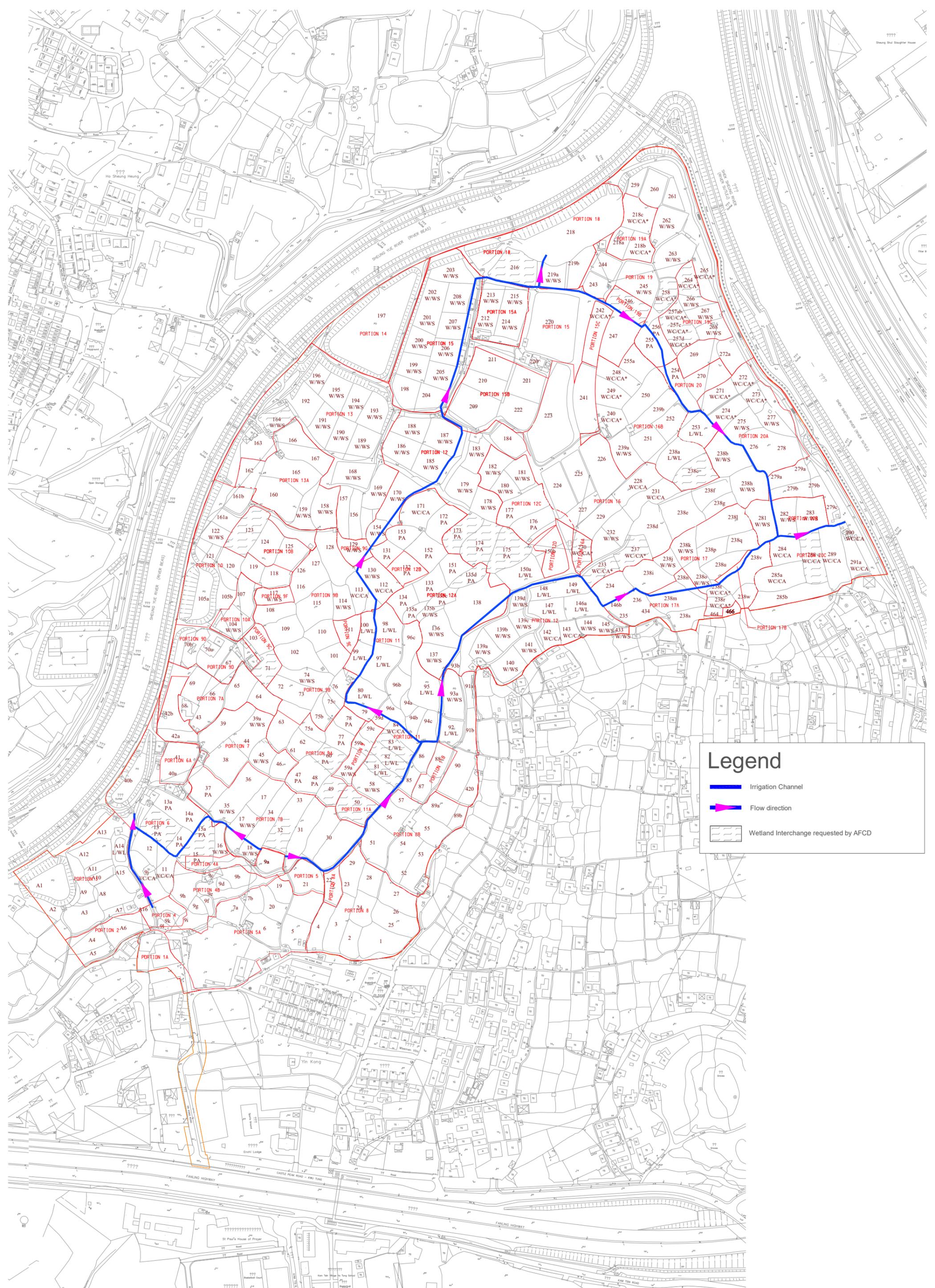
-  Irrigation Channel
-  Flow direction
-  Designated Wetland Habitat defined in Appendix 35.2
-  Designated Wetland Habitat defined in Appendix 35.2 but maintained in Dry Agricultural land requested by AFCD
-  Designated Wetland Habitat defined in Appendix 35.2 but transferred to #32 and #33 requested by AFCD
-  Designated Wetland Habitat defined in Appendix 35.2 but transferred to #172 requested by AFCD
-  Designated Wetland Habitat defined in Appendix 35.2 but transferred in Water Flea Pond requested by AFCD
-  Designated Wetland Habitat defined in Appendix 35.2 but completed by urgent restoration works and maintained by Maintenance Proposal (Stage 2)

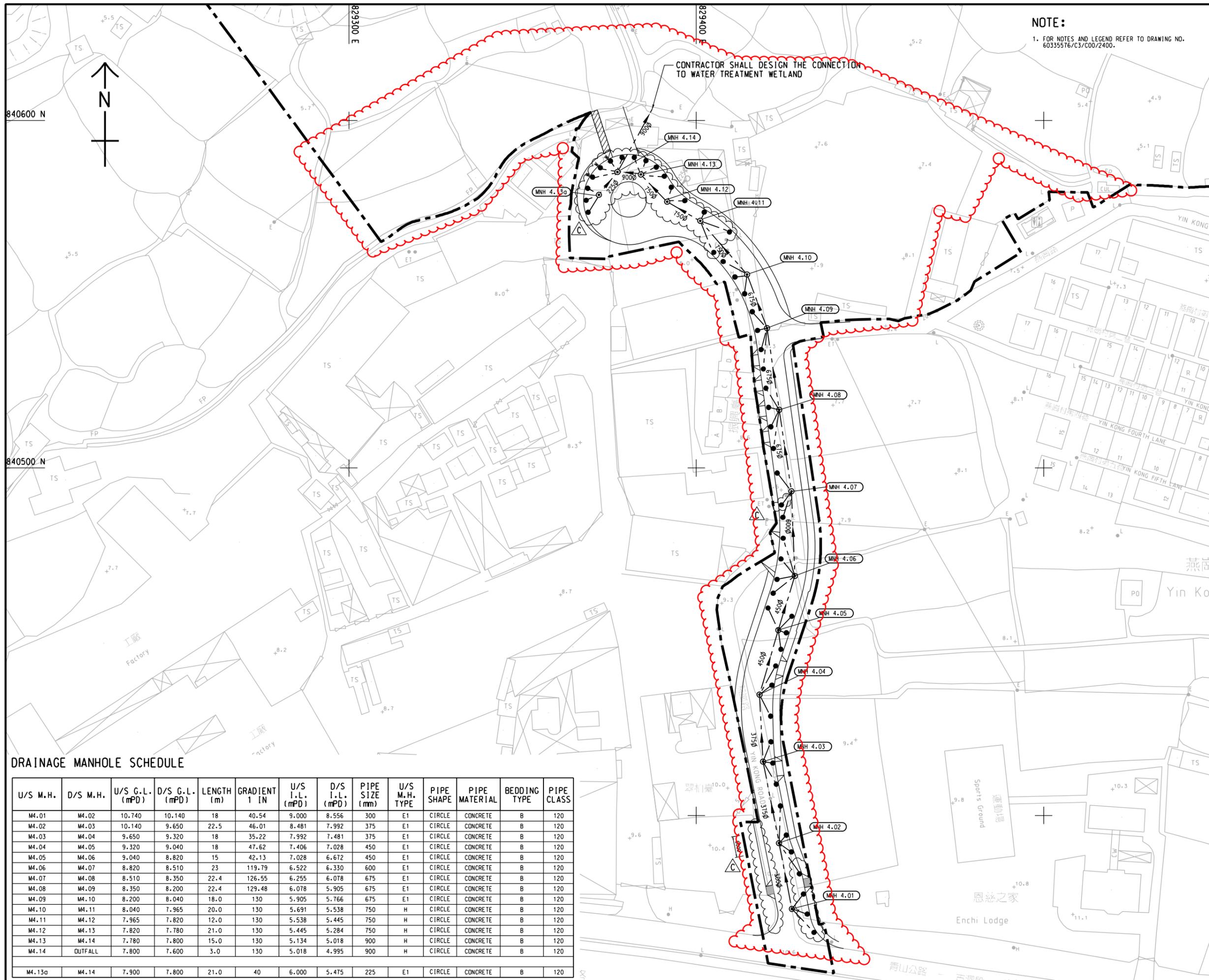
Figure 3c. Designated wetland habitats in Appendix 35.2



Legend

- Irrigation Channel
- Flow direction
- Wetland Interchange requested by AFCD

Figure 3d. Wetland interchange requested by AFCD



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

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

REV.	DATE	DESCRIPTION	DRAWN	PRE.	APP.

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

Construction Programme of ND/2019/04



Activity ID	Activity Name	Orig. Dur.	Rem. Dur.	Start	Finish	BL Start RP06(1)	BL Finish RP06(1)	Total Float	Activity % Complete	2023				2024						
										Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr			
2023-09 Monthly Update (based on RP06(1) Submitted on 23 Jun 2023)																				
Preliminary Works																				
Submission																				
Preparation for relevant works																				
SUB-1120	Prepare, submit & accept work submission for erect NB steel post and panel	146	45	08-Aug-23 A	30-Nov-23	08-Aug-23	30-Nov-23	29	69.18%											
SUB-1410	Electrical and Mechanical Works for Lift Installation	80	121	08-Jun-22 A	05-Mar-24	08-Jun-22	05-Mar-24	74	0%											
SUB-1420	Road lighting system - Design, lux, civil requirement, CLP pillar box (including gantry and directional sign)	80	18	17-Sep-22 A	30-Oct-23	17-Sep-22	13-Oct-23	167	77.5%											
SUB-1450	Bio-treatment Plant for Public Toilet	90	13	08-Aug-22 A	24-Oct-23	08-Aug-22	24-Oct-23	34	85.56%											
SUB-1470	Traffic Control and Surveillance System (TCSS)	90	45	08-Aug-22 A	30-Nov-23	08-Aug-22	30-Nov-23	175	50%											
SUB-1480	Traffic Detector System	90	45	08-Aug-22 A	30-Nov-23	08-Aug-22	30-Nov-23	175	50%											
SUB-1510	Crash cushion system.	90	46	08-Aug-22 A	01-Dec-23	08-Aug-22	01-Dec-23	143	48.89%											
Construction Works																				
CW-1010	Protection of tree at different portions (S8)	429	430	08-Aug-23 A	20-Mar-25	08-Aug-23	20-Mar-25	9	0%											
Civil Works around Interchange																				
Stage 1																				
Construction Underpass (Portion H/C7)																				
INTS1-1300-2	Backfilling to Structure Works for Bay C1 to C4	30	30	31-Oct-23	04-Dec-23	14-Nov-23	18-Dec-23	-49	0%											
Underpass - Bay C1																				
INTS1-1s1	Structure Works for Bay C1 - Wall	15	11	27-Sep-23 A	20-Oct-23	26-Sep-23	14-Oct-23	-15	26.67%											
INTS1-1s2	Structure Works for Bay C1 - Roof	30	30	21-Oct-23	25-Nov-23	16-Oct-23	20-Nov-23	-15	0%											
Underpass - Bay C2																				
INTS1-2s1	Structure Works for Bay C2 - Roof	24	18	15-Jun-23 A	30-Oct-23	15-Jun-23	13-Nov-23	-49	25%											
UU Works (Portion H, J, K, L, M)																				
North of Sha Tau Kok Road																				
Rising main Works																				
INTS1-1120a	Rising Mains on Ma Sik Rd (Part 2- Ma Sik Rd Via Sha Tau Kok Rd to downstream at On Kui St)	70	35	11-Feb-23 A	18-Nov-23	11-Feb-23	18-Nov-23	112	50%											
INTS1-1120c	Rising Mains on Ma Sik Rd (From STK Rd to Ma Sik Rd down stream near C7)	70	70	13-Dec-23	09-Mar-24	22-Nov-23	17-Feb-24	94	0%											
Sewerage Works																				
INTS1-1140	Remaining sewerage at Ma Sik rd (Part 1) Ma Sik Road (from rising main of STK Rd to C7)	90	71	08-Dec-22 A	24-Jun-24	08-Dec-22	29-Jul-24	-40	21.11%											
Stormwater Works																				
INTS1-1130a	1350 stormwater pipe near junction of STK Rd/Ma Sik rd (from existing to SMH 2002c to downstream at Ma Sik Rd, C7)	83	38	18-Apr-23 A	22-Nov-23	18-Apr-23	22-Nov-23	-215	54.22%											
INTS1-1131	900 stormwater pipe near On Kui St (underneath CLP132 Ping Che joint bay)	34	34	08-Dec-23	19-Jan-24	14-Nov-23	22-Dec-23	-134	0%											
INTS1-1131c	Testing of remaining 1350 stormwater pipe at Ma Sik rd	15	15	23-Nov-23	09-Dec-23	23-Nov-23	09-Dec-23	-215	0%											
INTS1-1130c	Connection of remaining 1350 stormwater pipe at Ma Sik rd to downstream pipeworks (constructed by other contract C7)	15	15	11-Dec-23	29-Dec-23	11-Dec-23	29-Dec-23	-215	0%											
Temporary Diversion (for ELSW of Underpass C9-C13)																				
INTS1-1130	Temp diversion of 1350 stormwater pipe at Ma Sik rd to downstream pipeworks (Construction)	27	3	08-Sep-23 A	11-Oct-23	08-Sep-23	11-Oct-23	-150	88.89%											
Water Main Works																				
INTS1-1220	Watermain at STK Rd (Part 1) near Part C of Footbridge F6- 600MS, 600DI, 300DI	34	1	09-Aug-23 A	09-Oct-23	09-Aug-23	09-Oct-23	-136	97.06%											

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

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										Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
INTS1-1220a	Watermain at STK Rd (Part 2) near Part D of Footbridge F6 and temp connection point - 600MS, 600DI, 300DI	12	12	10-Oct-23	24-Oct-23	10-Oct-23	24-Oct-23	-123	0%								
INTS1-1220b	Watermain (from STK Rd to connection point at On Kui St) (Part 3) - 600DI and final connection	15	15	25-Oct-23	10-Nov-23	25-Oct-23	10-Nov-23	-43	0%								
Temporary connection (for ELSW of Underpass C9-C13)																	
INTS1-122	Temporary connection - 600MS and 300DI (including all testing)	15	15	25-Oct-23	10-Nov-23	25-Oct-23	10-Nov-23	-43	0%								
South of Sha Tau Kok Road																	
Rising Main Works																	
INTS1-1400	Rising main installation (undemeath CLP 132 Ping Che joint bay)	97	97	09-Oct-23	02-Feb-24	08-Sep-23	05-Jan-24	-146	0%								
Sewerage Works																	
INTS1-1300a	Sewerage works including ELSW (near Portion M), from FMH_FL5.06 to FMH_FL5.08	80	6	08-Dec-22 A	14-Oct-23	08-Dec-22	20-Sep-23	-40	92.5%								
INTS1-1300a	Sewerage works including ELSW (On Kiu St), from FMH_FL5.08 to FMH_FL5.09 (Part 1)	61	61	16-Oct-23	28-Dec-23	21-Sep-23	04-Dec-23	-40	0%								
INTS1-1300a	Sewerage works including ELSW (On Kiu St), from FMH_FL5.08 to FMH_FL5.09 (Part 2)	82	82	29-Dec-23	11-Apr-24	05-Dec-23	15-Mar-24	-40	0%								
INTS1-1300a	Sewerage works including ELSW (On Chuen St), from FMH_FL5.09 to FMH1004470 (Part 1)	60	12	08-Dec-22 A	21-Oct-23	08-Dec-22	21-Sep-23	-36	80%								
INTS1-1300a	Sewerage works including ELSW (On Chuen St), from FMH_FL5.09 to FMH1004470 (Part 2)	60	60	24-Oct-23	04-Jan-24	22-Sep-23	04-Dec-23	-36	0%								
INTS1-1300a	Sewerage works including ELSW (On Chuen St), from FMH_FL5.09 to FMH1004470 (Part 3)	73	73	05-Jan-24	06-Apr-24	05-Dec-23	05-Mar-24	-36	0%								
INTS1-1300b	Sewerage works including ELSW (Portion K), from FMH_FL5.05 to FMH_FL5.06	93	6	08-Dec-22 A	14-Oct-23	08-Dec-22	20-Sep-23	-121	93.55%								
INTS1-1300c	Sewerage works including ELSW (STK Road), from FMH_FL5.00 to FMH_FL5.02 (Part 1)	50	12	14-Jan-23 A	21-Oct-23	14-Jan-23	21-Sep-23	-135	76%								
INTS1-1300c	Sewerage works including ELSW (STK Road), from FMH_FL5.00 to FMH_FL5.02 (Part 2)	84	60	29-May-23 A	04-Jan-24	29-May-23	04-Jan-24	-135	28.57%								
Temporary diversion (for ELWS of Underpass C9-C13)																	
INTS1-1300	Temporary sewerage diversion from FMH5.03 to new sewerage manhole and then existing manhole (Construction)	28	2	31-Jul-23 A	10-Oct-23	31-Jul-23	23-Sep-23	-65	92.86%								
Stomwater Works and Retaining Wall																	
INTS1-1320	Retaining Wall FW32 and 33 (141m, 20 bays, 15d/bay,2 teams) and stormwater drain-Part 1	75	75	28-Nov-23	29-Feb-24	28-Nov-23	29-Feb-24	-37	0%								
F6 after TTA2 Implemented (Part C and Part D)																	
Footbridge F6 (Part C)																	
INTS1-9120	ELS for F6 (Part C)	73	73	10-Oct-23	06-Jan-24	10-Oct-23	06-Jan-24	-136	0%								
INTS1-9130	Construction of Substructure for F6 (Part C)- Pile cap	42	42	08-Jan-24	28-Feb-24	08-Jan-24	28-Feb-24	-136	0%								
Footbridge F6 (Part D)																	
INTS1-9020	ELS for F6 Part D	80	80	25-Oct-23	29-Jan-24	25-Oct-23	29-Jan-24	-123	0%								
INTS1-9030	Construction of Substructure for F6 Part D- Pile cap	19	19	30-Jan-24	23-Feb-24	30-Jan-24	23-Feb-24	-123	0%								
CLC																	
CLC-1070	Connection of water supply	6	6	09-Oct-23	14-Oct-23	09-Sep-23	15-Sep-23	268	0%								
CLC-1080	Site clearance works and handover	6	6	16-Oct-23	21-Oct-23	16-Sep-23	22-Sep-23	268	0%								
Stage 2																	
TTA no.2																	
Full closure of On Kui Street for Subsequent Works																	
INTS2-3040b	Necessary diversion works near the new entrance of wholesale market (for full closure of On Kui St)-Part 2	90	42	29-Aug-23 A	27-Nov-23	29-Aug-23	27-Nov-23	-37	53.33%								
Construction of Underpass (Portion H, J, K)																	

■ Remaining Work ◆ Crit Milestone
◇ Milestone ■ Actual Work
◇ Baseline Milestone ◆ Actual Milestone
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Pipe Pile Installation (Underpass Bay 9 - Bay 11)																				
INTS2-4040	Pipe piling (A4)	10	2	03-Aug-23 A	10-Oct-23	03-Aug-23	11-Sep-23	-68	80%											
INTS2-4050	Pipe piling (B3)	14	3	22-Aug-23 A	13-Oct-23	22-Aug-23	27-Sep-23	-68	80%											
ELSW for Underpass Bay 9- Bay 11																				
INTS2-4100	King post installation	14	3	08-Aug-23 A	11-Oct-23	08-Aug-23	19-Sep-23	-183	78.57%											
INTS2-4110	Excavation to below 1st layer of strut	6	6	08-Oct-23 A	03-Nov-23	27-Sep-23	05-Oct-23	-196	0%											
INTS2-4120	Install 1st layer of strut	6	6	04-Nov-23	10-Nov-23	06-Oct-23	12-Oct-23	-196	0%											
INTS2-4130	Excavation to below 2nd layer of strut	6	6	11-Nov-23	17-Nov-23	13-Oct-23	19-Oct-23	-196	0%											
INTS2-4140	Install 2nd layer of strut	6	6	18-Nov-23	24-Nov-23	20-Oct-23	27-Oct-23	-196	0%											
INTS2-4150	Excavate to founding level	6	6	25-Nov-23	01-Dec-23	28-Oct-23	03-Nov-23	-196	0%											
INTS2-4160	Formation and blinding	3	3	02-Dec-23	05-Dec-23	04-Nov-23	07-Nov-23	-196	0%											
Underpass C9-C11 Structure (assume hanging UUs and concurrent with UUs diversion)																				
INTS2-3100	Combined Bay C10&C11 - Base Slab	29	29	30-Dec-23	02-Feb-24	30-Dec-23	02-Feb-24	-215	0%											
INTS2-3100a	Combined Bay C10&C11 - Wall	43	43	03-Feb-24	27-Mar-24	03-Feb-24	27-Mar-24	-215	0%											
INTS2-3150	Bay C9 - Base Slab	22	22	03-Feb-24	02-Mar-24	03-Feb-24	02-Mar-24	-112	0%											
ELSW for Underpass Bay 12- Bay 13																				
INTS2-4170	Excavation to below 1st layer of strut	6	6	05-Jan-24	11-Jan-24	15-Jan-24	20-Jan-24	-135	0%											
INTS2-4180	Install 1st layer of strut	6	6	12-Jan-24	18-Jan-24	22-Jan-24	27-Jan-24	-135	0%											
INTS2-4190	Excavation to below 2nd layer of strut	6	6	19-Jan-24	25-Jan-24	29-Jan-24	03-Feb-24	-135	0%											
INTS2-4200	Install 2nd layer of strut	6	6	26-Jan-24	01-Feb-24	05-Feb-24	14-Feb-24	-135	0%											
INTS2-4210	Formation and blinding	3	3	02-Feb-24	05-Feb-24	15-Feb-24	17-Feb-24	-135	0%											
Underpass C12-C13 Structure (assume hanging UUs and concurrent with UUs diversion)																				
INTS2-3130	Bay C13 - Base Slab	21	21	06-Feb-24	04-Mar-24	19-Feb-24	13-Mar-24	-135	0%											
Underpass C14-C15																				
INTS2-1010-1	ELS for Bay C14 to C15 (13m/bay, 60days/bay, 2no. workfronts)-Part 2	50	35	08-Aug-23 A	18-Nov-23	08-Aug-23	27-Nov-23	-77	30%											
INTS2-1090	Structure Works for Bay C15	84	84	20-Nov-23	02-Mar-24	28-Nov-23	11-Mar-24	-77	0%											
Noise Barrier FLN-SE22 and FLN-SE21 (Portion J)																				
INTS2-2000a	Submission and approval of Design for noise enclosure	54	27	26-Jul-23 A	09-Nov-23	26-Jul-23	11-Oct-23	-53	50%											
INTS2-2000b	Fabrication of noise enclosure material	100	100	10-Nov-23	12-Mar-24	12-Oct-23	09-Feb-24	-53	0%											
Noise Barrier FLN-SE22 (Near Sha Tau Kok)																				
INTS2-1030	Noise Barrier Footing-Northbound	50	2	08-May-23 A	10-Oct-23	08-May-23	16-Sep-23	-122	96%											
INTS2-1030-1	Noise Barrier Footing-Central Median	49	49	13-Dec-23	14-Feb-24	22-Nov-23	20-Jan-24	-122	0%											
Noise Barrier FLN-SE21 (Near Fanling)																				
INTS2-1030a	Noise Barrier Footing-Northbound	53	53	11-Oct-23	12-Dec-23	18-Sep-23	21-Nov-23	-122	0%											
INTS2-1030	Noise Barrier Footing-Central Median	49	49	13-Dec-23	14-Feb-24	22-Nov-23	20-Jan-24	-122	0%											
UU works (Portion J)																				
INTS2-1040	UU Works (drainage) - Northbound of Sha Tau Kok Road (after TTA2)-Part 1	60	60	13-Dec-23	27-Feb-24	22-Nov-23	02-Feb-24	-32	0%											
Lift Tower and Footbridge F6 (Portion J)																				
Design and Fabrication (S960 Footbridge F6 and Lift)																				
INTS2-1450	Design and Approval of steel element and canopy for Footbridge F6	339	20	11-Apr-23 A	01-Nov-23	11-Apr-23	03-Oct-23	-170	94.1%											
INTS2-1450-0	Fabrication and delivery of steel element an canopy for Footbridge F6	99	99	02-Nov-23	02-Mar-24	04-Oct-23	31-Jan-24	-120	0%											
INTS2-1450-1	Combined Builder Works for lift shaft	111	45	08-May-23 A	30-Nov-23	08-May-23	02-Nov-23	-15	59.46%											
INTS2-1450	Installation drawing for lift	111	45	08-May-23 A	30-Nov-23	08-May-23	02-Nov-23	-15	59.46%											

■ Remaining Work
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Activity ID	Activity Name	Orig. Dur.	Rem. Dur.	Start	Finish	BL Start RP06(1)	BL Finish RP06(1)	Total Float	Activity % Complete	2023				2024			
										Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
INTS2-1450	Fabrication for lift	165	165	01-Dec-23	25-Jun-24	03-Nov-23	27-May-24	-15	0%								
INTS2-1450	Design and Approval of bearing for Footbridge F6	90	90	02-Nov-23	21-Feb-24	04-Oct-23	20-Jan-24	-170	0%								
INTS2-1450-2	Lighting design(Civil requirement,Pillar box arrangement,Electrical Design,lighting&earthing,Lux simulation)KD3-F6&SE	146	43	08-May-23 A	28-Nov-23	08-May-23	31-Oct-23	-13	70.55%								
INTS2-1450	Procurement of lighting items and E&M items	144	144	29-Nov-23	28-May-24	01-Nov-23	27-Apr-24	-13	0%								
Part A (Cable D)																	
INTS2-1310	F6 piling (Part A)(remaining 10 nos Hpiles, 3 piles/wk)	20	8	30-Jul-23 A	16-Dec-23	30-Jul-23	28-Dec-23	-102	60%								
INTS2-1310a	Loading test of socketed H pile	18	18	18-Dec-23	10-Jan-24	29-Dec-23	19-Jan-24	-102	0%								
INTS2-1320	F6 pile cap and pier (Part A)- 1 pile cap (P01), pile cap (abutment) and 1 pier (P01)	52	52	11-Jan-24	14-Mar-24	20-Jan-24	23-Mar-24	-102	0%								
INTS2-3000c	F6 pier works C01, C02 (2 Piers), 1WF	60	60	02-Nov-23	13-Jan-24	04-Oct-23	13-Dec-23	-41	0%								
Part B (Some part After Cable D)																	
INTS2-1060	Piling for Footbridge F6 (Part B2) and lift (constrained by CLP 11kV cables), remaining no.=24 nos.at 3 piles/wk)	64	27	05-Sep-22 A	07-Dec-23	05-Sep-22	13-Nov-23	-195	57.81%								
INTS2-1060a	ELS for pile cap and pier at P07, P08, C03 (3 locations)	60	60	08-Dec-23	22-Feb-24	14-Nov-23	25-Jan-24	-195	0%								
Part D																	
INTS2-1080a	Construction of Footbridge F6 Pier P06 after TTA no.2 (ELS, 1 cap, 1 pier)(Part D)	90	90	08-Oct-23 A	25-Jan-24	08-Sep-23	27-Dec-23	-57	0%								
Stage 3																	
TTA no.3																	
INTS3-0010	Design, submit, processing & approval for TTA no.3	180	129	15-May-23 A	14-Mar-24	15-May-23	14-Mar-24	72	28.33%								
Road, drainage and UU Works (Portion H)																	
INTS3-101	Lighting, E&M and BS Procurement	200	200	11-Dec-23	15-Aug-24	11-Dec-23	15-Aug-24	-14	0%								
Stomwater Pumping Station (after TTA Stage 3) (Portion H)																	
Statutory Submission and Design																	
INTS3-103	FS design (Stormwater pumping station)	268	168	08-May-23 A	04-May-24	08-May-23	04-May-24	43	37.31%								
INTS3-103-1	Submersible pump design (Stormwater pumping station)	268	168	08-May-23 A	04-May-24	08-May-23	04-May-24	43	37.31%								
INTS3-103-2	Scada design (Stormwater pumping station)	268	168	08-May-23 A	04-May-24	08-May-23	04-May-24	43	37.31%								
INTS3-103-4	Lighting and E&M for Stormwater Pumping Station	153	129	08-May-23 A	14-Mar-24	08-May-23	14-Mar-24	-4	15.69%								
INTS3-104	Flood alarm system design (Underpass)	196	96	08-May-23 A	01-Feb-24	08-May-23	01-Feb-24	12	51.02%								
INTS3-104-1	Flood alarm system civil requirement (Underpass)	196	96	08-May-23 A	01-Feb-24	08-May-23	01-Feb-24	12	51.02%								
INTS3-104-2	FS radio communication system (Underpass)	196	96	08-May-23 A	01-Feb-24	08-May-23	01-Feb-24	12	51.02%								
INTS3-104-3	Submission and Approval of DDA to DSD&HyD (Underpass)	152	152	02-Feb-24	09-Aug-24	02-Feb-24	09-Aug-24	12	0%								
INTS3-104-4	Lighting system and E&M (underpass)	153	53	08-May-23 A	09-Dec-23	08-May-23	09-Dec-23	-14	65.36%								
INTS3-2000	Submission and approval of WWO 542	365	365	02-Dec-23	30-Nov-24	04-Feb-24	02-Feb-25	-140	0%								
Construction of Depressed road (Portion H & F)																	
Depressed Road A																	
CSD																	
Depressed Road A (CSD)																	
Depressed Rd																	
UTRA-1001	Structure (1-4)	61	7	08-May-23 A	16-Oct-23	08-May-23	15-Sep-23	-53	88.52%								
UTRA-1003	Excavation and ELS Installation (4-9)	26	26	30-May-23 A	08-Nov-23	30-May-23	10-Oct-23	10	0%								
UTRA-1004	Structure (5-9)	78	78	09-Nov-23	14-Feb-24	11-Oct-23	13-Jan-24	10	0%								
UTRA-1006	Excavation and ELS Installation (9-12)	77	77	08-Jul-23 A	10-Jan-24	08-Jul-23	09-Dec-23	-51	0%								
UTRA-1007	Structure (10-12) including all wall construction and backfill, removal of strut	88	88	11-Jan-24	30-Apr-24	11-Dec-23	28-Mar-24	-51	0%								

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										Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr			
Retaining Wall																				
UTRA-2001	Retaining wall FW29	135	135	17-Oct-23	02-Apr-24	16-Sep-23	01-Mar-24	-53	0%											
Depressed Road B																				
B1-B3																				
UTR-1000	U trough B (27 nos. socket-H piles, 4 day/pile, 1 workfronts) for B1 to B3, Assume CSD approved - omitted socked H pile	1	1	09-Oct-23	09-Oct-23	08-Sep-23	08-Sep-23	-15	0%											
UTR-1000a	Sheet pile installation for U-trough B (B1-B3)	60	2	13-Jun-22 A	10-Oct-23	13-Jun-22	09-Sep-23	-16	96.67%											
UTR-1010	ELS for U-trough B (B1 - B3, 3 bays)	90	63	10-May-23 A	23-Dec-23	10-May-23	25-Nov-23	-16	30%											
UTR-1040	Construction of U-trough B (3 bays, 15m/bay, 30d/bay,1workfronts)	90	90	27-Dec-23	18-Apr-24	27-Nov-23	16-Mar-24	-16	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	06-Feb-24	13-Jun-22	09-Jan-24	-6	96.36%											
UTR-1100	ELS for U-trough B (B4 - B10, 7 bays, 2 workfronts)-Part 2 (Sheet pile and ELSW)	100	100	07-Feb-24	13-Jun-24	10-Jan-24	14-May-24	-6	0%											
Remaining Works at Depressed road and Slip Road at both side of Depressed Road B																				
Slip Road from Interchange to Fanling Highway																				
UTR-3100	Retaining Wall FW9 (13 bays, 15d/bay,2 teams)-Part 1	50	16	06-Mar-23 A	03-Nov-23	06-Mar-23	11-Oct-23	-121	68%											
UTR-3100a	Retaining Wall FW9 (13 bays, 15d/bay,2 teams)-Part 2	48	48	04-Nov-23	02-Jan-24	12-Oct-23	07-Dec-23	-121	0%											
UTR-3110	UU works along FW9 (including backfilling, drainage, watermain along slip road)-Part 1	75	75	03-Jan-24	06-Apr-24	08-Dec-23	11-Mar-24	-121	0%											
Slip Road from Fanling Highway to Interchange																				
UTR-3010	FW-10(~75m, ~10bay, 15d/bay, 2 team) (after 11kV, town gas and other UUs)	60	60	07-Dec-23	21-Feb-24	16-Nov-23	27-Jan-24	-176	0%											
Sewage Pumping Station in Portion N (After TTA2 Northbound)																				
Statutory Submission and Design																				
SPS-101	Submission and approval of WWO 542 (FS and Portable / Flushing)	146	76	08-May-23 A	22-Dec-23	08-May-23	22-Dec-23	-48	47.95%											
SPS-102	Submission and approval of FS design and Flame detector	365	55	01-Dec-22 A	01-Dec-23	01-Dec-22	01-Dec-23	-27	84.93%											
SPS-103	Submission and approval of DDA to DSD	152	152	23-Dec-23	22-May-24	23-Dec-23	22-May-24	-48	0%											
SPS-105	Submission and approval of WWO 542 (FS and Portable / Flushing)	365	76	08-Aug-22 A	22-Dec-23	08-Aug-22	22-Dec-23	15	79.18%											
SPS-106	Mega Link Application	180	180	23-Dec-23	19-Jun-24	23-Dec-23	19-Jun-24	15	0%											
SPS-107	Direct Link Application	180	180	23-Dec-23	19-Jun-24	23-Dec-23	19-Jun-24	15	0%											
Excavation and ELS																				
SPS-1010c	Excavate (+7.35mPD to +3.5mPD) between PP2 and PP3 and Install L2 ELS at +4.0 mPD (Approx. Vol = 778 m3 @ 300 m3/day)	18	5	09-Sep-23 A	13-Oct-23	27-Sep-23	19-Oct-23	-53	72.22%											
SPS-1010d	Excavate (+3.5mPD to -1.65mPD) between PP2 and PP3 and Install L3 ELS at -1.15 mPD (Qty:1168m3 @ 250m3/d)	18	18	20-Oct-23 A	04-Nov-23	20-Oct-23	10-Nov-23	-53	0%											
SPS-1010e	Excavate (-1.65mPD to -3.985 mPD) between PP2 and PP3 to FEL (Qty: 485m3 @ 175m3/d)	18	18	06-Nov-23	25-Nov-23	11-Nov-23	01-Dec-23	-53	0%											
SPS-1010g	Install L1 Strut between PP1 and PP3,Excavate (+7.35mPD to +5.325mPD) between PP 1 and PP3 (Qty: 200m3 @ 300m3/d)	9	9	27-Nov-23	06-Dec-23	02-Dec-23	12-Dec-23	-53	0%											
Structural Works																				
SPS-1030a	Construct Base Slab plus kicker (Wet Well) and remove L3 strut	20	20	07-Dec-23	02-Jan-24	13-Dec-23	08-Jan-24	-53	0%											
SPS-1030b	Construct Wall (wet well) up to +3.5	14	14	03-Jan-24	18-Jan-24	09-Jan-24	24-Jan-24	-53	0%											
SPS-1030c	Construct base slab (inlet chamber)	14	14	03-Jan-24	18-Jan-24	09-Jan-24	24-Jan-24	-53	0%											
SPS-1030d	Construct wall (inlet chamber and wet well) up to +3.5 and removal L2 strut	20	20	19-Jan-24	14-Feb-24	25-Jan-24	20-Feb-24	-53	0%											
Transformer Room, Switch Room																				
Tx and Switch Rooms - Structures																				
SPS-1020-01	Construct Base Slab for Tx Room and Switch Room	15	15	07-Dec-23	23-Dec-23	13-Dec-23	02-Jan-24	-40	0%											

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SPS-1020-02	Construct Wall and Columns for Tx Room and Switch Room	21	21	27-Dec-23	20-Jan-24	03-Jan-24	26-Jan-24	-40	0%								
SPS-1020-03	Construct Roof Slab (Erect falsework, scaffolding, formworks, Rebars and Concreting)	26	26	22-Jan-24	23-Feb-24	27-Jan-24	29-Feb-24	-40	0%								
ABWF and E&M Works (Remaining Parts of Sewage PS)																	
SPS-103.5	Pump systems and associated E&M Plants (for Sewerage Pumping station)	317	46	08-Aug-22 A	01-Dec-23	08-Aug-22	03-Feb-24	-117	85.49%								
SPS-1035	E&M, BS and ABWF Procurement	227	104	07-Nov-22 A	14-Feb-24	07-Nov-22	14-Feb-24	11	54.19%								
Reprovision of On Luk Mun Street Playground (S3)																	
Sublet and Design for Skateboard Park																	
OLMSP-100a	Mock up and other submission	13	13	26-Jun-23 A	24-Oct-23	26-Jun-23	22-Sep-23	-132	0%								
Works in Portion K1																	
Permanent Access between Wholesale Market and STK Road																	
OLMSP-500a	Construction of remaining permanent access & EVA, water main, UUs & direct link (under D204 road)	30	30	09-Oct-23	13-Nov-23	08-Sep-23	14-Oct-23	-85	0%								
OLMSP-500b	Dismantle existing water main supply to wholesale market (for subsequent construction of Depressed Rd B - Bay 4-10)	30	30	14-Nov-23	18-Dec-23	16-Oct-23	20-Nov-23	30	0%								
Public Area																	
OLMSP-600	Construction of fence wall (Part 1)	33	33	09-Oct-23	16-Nov-23	08-Sep-23	18-Oct-23	-80	0%								
OLMSP-600a	Construction of fence wall (Part 2)	7	7	09-Oct-23	16-Oct-23	08-Sep-23	15-Sep-23	-132	0%								
OLMSP-610	External cable drawpits and cable ducting for E&M services including CLP and direct link	61	32	05-Jul-23 A	23-Nov-23	05-Jul-23	26-Oct-23	-132	47.54%								
OLMSP-610a	Cabling (by CLP)	38	38	24-Nov-23	10-Jan-24	30-Nov-23	16-Jan-24	-132	0%								
OLMSP-610	Energization to Services block, Ancillary block, skateboard park	0	0		10-Jan-24		16-Jan-24	-132	0%								
OLMSP-620	Backfilling works	10	10	24-Nov-23	05-Dec-23	27-Oct-23	07-Nov-23	-86	0%								
OLMSP-630	U channel and catchpit	21	21	06-Dec-23	02-Jan-24	08-Nov-23	01-Dec-23	-86	0%								
OLMSP-640	Staircase	21	21	06-Dec-23	02-Jan-24	08-Nov-23	01-Dec-23	-86	0%								
OLMSP-650	Granite tiling	21	21	06-Dec-23	02-Jan-24	08-Nov-23	01-Dec-23	-86	0%								
OLMSP-670	Builder works (Gate, railing, footpath, harbour, signage etc)	21	21	06-Dec-23	02-Jan-24	08-Nov-23	01-Dec-23	-86	0%								
New Skateboard Park																	
OLMSP-1260	T&C (S3)	39	39	25-Jan-24	13-Mar-24	17-Jan-24	05-Mar-24	-144	0%								
OLMSP-126	Submission and Approval of General Building Plan (GBP)	105	31	08-May-23 A	14-Nov-23	08-May-23	14-Nov-23	-100	70.48%								
OLMSP-126	Submission of Form 501	14	14	15-Nov-23	30-Nov-23	15-Nov-23	30-Nov-23	-100	0%								
OLMSP-1270	FS inspection (S3)	39	39	25-Jan-24	13-Mar-24	17-Jan-24	05-Mar-24	-144	0%								
Site Formation and UUs																	
OLMSP-10	Stormwater drainage works within the park	90	7	08-Dec-22 A	16-Oct-23	08-Dec-22	15-Sep-23	-126	92.22%								
OLMSP-10	Retaining Wall FW 31 (13 bays, 15d/bay, 3 teams)	69	11	09-Aug-22 A	20-Oct-23	09-Aug-22	20-Sep-23	-125	84.06%								
OLMSP-10	Backfilling behind retaining wall	7	7	21-Oct-23	30-Oct-23	21-Sep-23	28-Sep-23	-125	0%								
Construction of Skateboard Park (by California)																	
OLMSP-101	Rough grading and drainage (floor drain and its connection pipe to main stormwater drainage system)	25	25	09-Oct-23	07-Nov-23	08-Sep-23	09-Oct-23	-144	0%								
OLMSP-10	Install vertical wall	12	12	08-Nov-23	21-Nov-23	10-Oct-23	24-Oct-23	-144	0%								
OLMSP-10	Install steps	6	6	22-Nov-23	28-Nov-23	25-Oct-23	31-Oct-23	-144	0%								
OLMSP-10	Install transition and banks	15	15	29-Nov-23	15-Dec-23	01-Nov-23	17-Nov-23	-144	0%								
OLMSP-10	Install flat works	10	10	16-Dec-23	29-Dec-23	18-Nov-23	29-Nov-23	-144	0%								
OLMSP-10	All other remaining works (inspection and rectify defect)	6	6	30-Dec-23	06-Jan-24	30-Nov-23	06-Dec-23	-144	0%								
OLMSP-10	BS works (lighting installation by Kum Shing)	15	15	08-Jan-24	24-Jan-24	07-Dec-23	23-Dec-23	-144	0%								

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										Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr			
Landscape Area																				
OLMSP-102	Construction of fence wall	33	33	09-Oct-23	16-Nov-23	13-Sep-23	24-Oct-23	-104	0%											
OLMSP-10	Construction of concrete access	12	12	09-Oct-23	21-Oct-23	13-Sep-23	26-Sep-23	-104	0%											
OLMSP-10	Landscaping Softworks with acceptance by clients (S3)	27	27	24-Oct-23	23-Nov-23	27-Sep-23	31-Oct-23	-104	0%											
OLMSP-10	Establishment works	365	365	24-Nov-23	22-Nov-24	01-Nov-23	30-Oct-24	-67	0%											
OLMSP-10	BS works (lighting installation by Kum Shing and irrigation system)	10	10	24-Nov-23	05-Dec-23	01-Nov-23	11-Nov-23	-104	0%											
Ancillary Block & Service Block and other facility																				
Ancillary Block																				
OLMSP-12	Construction of Ancillary Block (Installation)	5	5	05-Oct-23 A	13-Oct-23	27-Oct-23	31-Oct-23	-111	0%											
OLMSP-12	BS work (Lighting, flushing/cleansing pump, plumbing, hose reel)	36	36	30-Oct-23	09-Dec-23	15-Nov-23	28-Dec-23	-108	0%											
OLMSP-124	ABWF(connect to footing, late cast of internal tiles and E&M services, parapet and trench at roof and waterproof work)	12	12	14-Oct-23	28-Oct-23	01-Nov-23	14-Nov-23	-108	0%											
Service Block																				
OLMSP-12	Construction of Service Block (Installation)	2	2	14-Oct-23	16-Oct-23	15-Nov-23	16-Nov-23	-111	0%											
OLMSP-12	BS work (Lighting, FS pump, plumbing, AC for switch room and call point)	36	36	02-Nov-23	13-Dec-23	02-Dec-23	16-Jan-24	-111	0%											
OLMSP-123	ABWF(connect to footing, late cast of internal tiles and E&M services, parapet and trench at roof and waterproof work)	13	13	17-Oct-23	01-Nov-23	17-Nov-23	01-Dec-23	-111	0%											
OLMSP-123	Works required by CLP at Meter room (meter board and lock for the door of meter room)	11	11	17-Oct-23	30-Oct-23	17-Nov-23	29-Nov-23	-111	0%											
Material Submissions (MEP)																				
OLMSP-25	Procurement of MVAC item	62	20	14-Jul-23 A	27-Oct-23	14-Jul-23	14-Nov-23	-130	67.74%											
OLMSP-25	Procurement of FS (including FS pump) item	62	20	14-Jul-23 A	27-Oct-23	14-Jul-23	08-Nov-23	-130	67.74%											
OLMSP-25	Procurement of Pumping and Drainage item	62	20	14-Jul-23 A	27-Oct-23	14-Jul-23	08-Nov-23	-130	67.74%											
OLMSP-25	Procurement of Electrical item	62	20	14-Jul-23 A	27-Oct-23	14-Jul-23	08-Nov-23	-130	67.74%											
Works in Portion P																				
OLMSP-1050	Retaining Wall FW10 (around 75m, 10 bays, 15d/bay, 2 team) and other facilities-Part 1	37	15	08-May-23 A	26-Oct-23	08-May-23	25-Sep-23	2	59.46%											
OLMSP-1050a	Retaining Wall FW10 (around 75m, 10 bays, 15d/bay, 2 team) and other facilities-Part 2	38	38	27-Oct-23	09-Dec-23	26-Sep-23	11-Nov-23	2	0%											
OLMSP-1100	Backfilling work to Retaining Wall FW10 & remaining area (between abutment (by Contract C5) and Depressed road B)	60	60	11-Dec-23	24-Feb-24	13-Nov-23	24-Jan-24	2	0%											
Temporary Skateboard Park Scheme																				
OLMSP-2570	Operation of mini Skateboard Park	140	109	03-Jul-23 A	20-Feb-24	03-Jul-23	19-Jan-24	141	22.14%											
Reprovision of Public Toilet and Refuse Collection Point (S6)																				
PTRCP-100-1	Submission and approval of structural design for RCP and Toilet	602	11	11-Apr-23 A	20-Oct-23	11-Apr-23	20-Sep-23	-69	98.17%											
PTRCP-100-11	Submission and approval of E&M design for RCP and Toilet (Civil requirement, MVAC, Plumbing, Electrical)	602	11	11-Apr-23 A	20-Oct-23	11-Apr-23	20-Sep-23	-69	98.17%											
PTRCP-100-21	Submission and approval of UU and drainage design for RCP and Toilet	602	11	11-Apr-23 A	20-Oct-23	11-Apr-23	20-Sep-23	-69	98.17%											
PTRCP-100-31	Submission and approval of ABWF for RCP and Toilet	602	11	11-Apr-23 A	20-Oct-23	11-Apr-23	20-Sep-23	-69	98.17%											
PTRCP-100-41	Submission and approval of material submission for RCP and Toilet	97	47	08-May-23 A	02-Dec-23	08-May-23	04-Nov-23	-45	51.55%											
PTRCP-100-61	Submission and Consent for RCP and Toilet (ASD and FEHD)	60	60	21-Oct-23	03-Jan-24	21-Sep-23	02-Dec-23	-69	0%											
PTRCP-100-71	Procurement of builder works and E&M items	45	45	04-Dec-23	27-Jan-24	06-Nov-23	29-Dec-23	-45	0%											
PTRCP-1000	Prefabrication of Mic Unit	45	45	04-Jan-24	28-Feb-24	04-Dec-23	27-Jan-24	-69	0%											
Works in Portion A and Portion B (KD5)																				
Portion A																				
Noise Barrier NB91																				

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◇ Milestone ■ Actual Work
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										Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
OTH-A-500.1	UU detection and trial pits	18	1	16-Sep-23 A	09-Oct-23	16-Sep-23	09-Oct-23	2	94.44%								
OTH-A-500.2	Break planter, cast concrete footpath	12	12	10-Oct-23	24-Oct-23	10-Oct-23	24-Oct-23	2	0%								
OTH-A-500.3	Noise barrier 91- ELSW for pile cap	30	30	25-Oct-23	28-Nov-23	25-Oct-23	28-Nov-23	2	0%								
OTH-A-5000	Noise barrier 91- Footing (Stage 1)	45	45	29-Nov-23	23-Jan-24	29-Nov-23	23-Jan-24	2	0%								
OTH-A-5010	Noise barrier 91 - Footing (Stage 2)	45	45	24-Jan-24	19-Mar-24	24-Jan-24	19-Mar-24	2	0%								
Noise Barrier NB53																	
OTH-A-400	TTA and RA	57	7	08-May-23 A	16-Oct-23	08-May-23	15-Sep-23	178	87.72%								
OTH-A-400.1	UU detection and trial pits	18	18	17-Oct-23	07-Nov-23	16-Sep-23	09-Oct-23	178	0%								
OTH-A-400.2	Break planter, cast concrete footpath	12	12	08-Nov-23	21-Nov-23	10-Oct-23	24-Oct-23	178	0%								
OTH-A-400.3	Noise barrier 53- ELSW for piling platform and pile cap	30	30	22-Nov-23	28-Dec-23	25-Oct-23	28-Nov-23	178	0%								
OTH-A-4000	Noise barrier 53- Piling - Assume CSD approved- mini pile : 80 nos, 1.5 day / pile (Stage 1)	60	60	29-Dec-23	12-Mar-24	29-Nov-23	09-Feb-24	178	0%								
Portion B																	
South Part of L3 Road																	
Southbound																	
OTH-B-403C	Wall of NB52	26	26	09-Oct-23	08-Nov-23	08-Sep-23	10-Oct-23	-47	0%								
OTH-B-403C	Fabrication of Steel works and panel for noise barrier NB51 & NB52	90	90	01-Dec-23	21-Mar-24	01-Dec-23	21-Mar-24	220	0%								
OTH-B-4040	Backfilling for drainage works	50	50	09-Nov-23	09-Jan-24	11-Oct-23	08-Dec-23	-47	0%								
OTH-B-4050	Temporary access	30	30	10-Jan-24	16-Feb-24	09-Dec-23	16-Jan-24	-47	0%								
North Part of L3 Road																	
OTH-B-600	Assembling and Storage area for FT	108	19	08-May-23 A	31-Oct-23	08-May-23	17-Oct-23	-17	82.41%								
Southbound																	
OTH-B-6000	ELS for drainage works	45	45	10-Jan-24	05-Mar-24	09-Dec-23	02-Feb-24	45	0%								
Northbound																	
OTH-B-7000	Excavation for U-trough	51	51	01-Nov-23	02-Jan-24	18-Oct-23	16-Dec-23	110	0%								
OTH-B-7010	Slab of U-trough	54	54	03-Jan-24	08-Mar-24	18-Dec-23	24-Feb-24	110	0%								
OTH-B-7070a	Procurement of Lighting for gantry	199	199	31-Oct-23	04-Jul-24	14-Oct-23	18-Jun-24	167	0%								
Works within Portions Q, R, S, T, U, V, X and Y (S4)																	
Portion Q																	
Portion Q Additional Work																	
OTH-1032-1c	Additional ducting	30	30	09-Oct-23	13-Nov-23	08-Sep-23	14-Oct-23	-79	0%								
Portion U																	
Area 2 (Traffic Island)																	
OTH-1070-2f	Set back the existing traffic island	14	2	31-May-23 A	10-Oct-23	31-May-23	10-Oct-23	-96	85.71%								
Area 4																	
OTH-1070-2g	Demolition of existing central divider	20	20	11-Oct-23	03-Nov-23	11-Oct-23	03-Nov-23	-96	0%								
OTH-1070-2h	Drainage	40	40	04-Nov-23	20-Dec-23	04-Nov-23	20-Dec-23	-96	0%								
OTH-1070-2i	Construction of new central divider	30	30	21-Dec-23	27-Jan-24	21-Dec-23	27-Jan-24	-96	0%								
OTH-1070-2i	Relocate public light and traffic signal post	15	15	29-Jan-24	17-Feb-24	29-Jan-24	17-Feb-24	-96	0%								
Area 3																	
OTH-1070-2	Drainage works and temporary walkway	30	6	06-Apr-23 A	14-Oct-23	06-Apr-23	14-Sep-23	-72	80%								
OTH-1070-3a	Construct top slab	60	54	09-Sep-23 A	18-Dec-23	15-Sep-23	27-Nov-23	-72	10%								
OTH-1070-3c	Set back road kerb	10	2	09-Sep-23 A	20-Dec-23	28-Nov-23	08-Dec-23	-72	80%								

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OTH-1070-3d	Street furniture	15	15	21-Dec-23	10-Jan-24	09-Dec-23	28-Dec-23	-72	0%								
OTH-1070-3e	Construction of carriageway	30	6	09-Sep-23 A	17-Jan-24	29-Dec-23	02-Feb-24	-72	80%								
Portion U Additional Works																	
OTH-1070-4c	Additional ducting	30	30	14-Nov-23	18-Dec-23	06-Dec-23	12-Jan-24	-79	0%								
Portion S																	
OTH-1050b	Subway extension (Stage 2)	60	60	08-Oct-23 A	18-Dec-23	11-Oct-23	20-Dec-23	-49	0%								
Portion X																	
OTH-2030a	Site formation, wing wall, retaining wall, draft wall (Part 2)	23	18	01-Sep-23 A	30-Oct-23	09-Sep-23	07-Oct-23	-84	21.74%								
OTH-2030c	Relocate public lighting, relocate directional sign	50	50	09-Oct-23	06-Dec-23	18-Sep-23	17-Nov-23	-116	0%								
OTH-2040	Construct new pavement at carriageway	50	50	07-Dec-23	06-Feb-24	18-Nov-23	18-Jan-24	-116	0%								
OTH-2050	Street furniture	26	26	07-Feb-24	11-Mar-24	19-Jan-24	21-Feb-24	-116	0%								
Portion V,Y																	
OTH-1075	TTA application for Portion VY	209	1	27-Apr-22 A	09-Oct-23	27-Apr-22	08-Sep-23	-33	99.52%								
Area 1 (New Footpath Area)																	
OTH-1080-1b	Relocate Fire Hydrant	30	18	15-May-23 A	30-Oct-23	15-May-23	28-Sep-23	-81	40%								
OTH-1080-1c	Drainage	20	6	20-Jun-23 A	06-Nov-23	20-Jun-23	07-Oct-23	-81	70%								
OTH-1080-1d	Carriageway	19	19	07-Nov-23	28-Nov-23	09-Oct-23	31-Oct-23	-81	0%								
Area 2 (Pedestrian Crossing)																	
OTH-1080-2c	Demolish existing central divider	20	6	07-Aug-23 A	05-Dec-23	07-Aug-23	07-Nov-23	-81	70%								
OTH-1080-2d	Construct new central divider and traffic island	30	30	06-Dec-23	12-Jan-24	08-Nov-23	12-Dec-23	-81	0%								
OTH-1080-2f	Carriageway	13	13	13-Jan-24	27-Jan-24	13-Dec-23	29-Dec-23	-81	0%								
Area 3 (New Pedestrian Crossing Island)																	
OTH-1080-2g	Form Pedestrian Crossing and Island	26	26	29-Nov-23	30-Dec-23	01-Nov-23	30-Nov-23	-71	0%								
Portion VY Additional Work																	
OTH-1080-4a	XP, TTA and RA	0	30	08-May-23 A	13-Nov-23	08-May-23	14-Oct-23	-49	0%								
OTH-1080-4c	Additional ducting	30	30	19-Dec-23	25-Jan-24	13-Jan-24	20-Feb-24	-79	0%								
Junction improvement works at Portion J (S4)																	
OTH-2020	Relocation of Traffic System- Siu Wan Road Junctional works (tree felling and site clearance)	40	40	09-Oct-23	24-Nov-23	08-Sep-23	27-Oct-23	-109	0%								
OTH-2020a	Relocation of Traffic System- Siu Wan Road Junctional works (road realignment)	40	40	25-Nov-23	13-Jan-24	28-Oct-23	13-Dec-23	-109	0%								
OTH-2020b	Relocation of Traffic System- Siu Wan Road Junctional works (paving works etc)	40	40	15-Jan-24	04-Mar-24	14-Dec-23	01-Feb-24	-109	0%								
CLP 132kV and 11kV Cable Works at Bridge and interchange area																	
CLP-1040	ESS by CLP at portion I	0	0		30-Dec-23*		30-Dec-23	-70	0%								
Cable B (Green) Fanling to Louhu Circuit 132KV- by CLP (Bridge A2,A3 and interchange)																	
CLP-2060	Abandon of Cable B (At portion C,G,H,J,K,L) (Interchange area)	15	2	08-Jul-23 A	10-Oct-23	08-Jul-23	09-Sep-23	-65	86.67%								
Cable D (Blue) Fanling- Ping Che Circuit 132KV- by CLP (Bridge A3 and Interchange Area)																	
CLP-4000	Diversion of CLP 163m cable D1 (At portion H)(after C5 to C8)	45	45	09-Nov-23	03-Jan-24	11-Oct-23	02-Dec-23	-110	0%								
CLP-4005	Diversion of CLP 163m cable D1 (At portion H)(outside Underpass)	50	26	08-Dec-22 A	08-Nov-23	08-Dec-22	10-Oct-23	-110	48%								
CLP-4010a	Diversion of CLP 270m cable D2 (At portion I,J,N)-at STK Rd (after TTA 2)	10	10	03-Feb-24	17-Feb-24	06-Jan-24	17-Jan-24	-146	0%								
CLP-4020	Diversion of CLP 180m cable D3 -after TTA 2	75	75	09-Oct-23	08-Jan-24	08-Sep-23	07-Dec-23	-114	0%								
CLP 11kV Cables works at Interchange area (tentative scheme)																	
CLP-5010	Laying new 11kV cables(255m) F6 & underpass area (Portion J/H)(after C5 to C8)	60	9	08-Dec-22 A	18-Oct-23	08-Dec-22	18-Sep-23	-189	85%								

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CLP-5030	Laying new 11kV cables(520m) F6 & underpass & U-Through B area (portion K)	60	24	08-May-23 A	06-Nov-23	08-May-23	03-Nov-23	-105	60%								
CLP-5040	Abandon 11kV cables in Underpass and Uthrough B area (portion K)	15	15	07-Nov-23	23-Nov-23	04-Nov-23	21-Nov-23	-105	0%								
CLP-5050	Laying new 11kV cables(400m) at STK Road and MS Road (portion J)(after TTA 2)	38	9	15-May-23 A	18-Oct-23	15-May-23	18-Sep-23	-195	76.32%								
CLP-5060	Abandon 11kV cables at STK Rad and MS Road (portion J)	15	15	19-Oct-23	06-Nov-23	19-Sep-23	07-Oct-23	-195	0%								
Towngas (By others)																	
TG-1000	IPA gas main laying (Above Underpass C8 and along STK Rd)	45	18	11-Apr-23 A	30-Oct-23	11-Apr-23	09-Oct-23	-174	60%								
TG-1000a	IPA gas main laying (after pipe pile underpass C9-C10)	26	26	31-Oct-23	29-Nov-23	10-Oct-23	08-Nov-23	-174	0%								
TG-1010	MP gas main laying-stage 1 (Above Underpass C8 and along STK Rd)	45	18	11-Apr-23 A	30-Oct-23	11-Apr-23	09-Oct-23	-174	60%								
TG-1010a	MP gas main laying-stage 1 (after pipe pile underpass C9-C10)	26	26	31-Oct-23	29-Nov-23	10-Oct-23	08-Nov-23	-174	0%								
TG-1020	MP gas main laying-stage 2 (portion J/K, near Toilet/ RCP)	35	9	10-Jun-23 A	09-Nov-23	10-Jun-23	26-Oct-23	-157	74.29%								
TG-1030	MP gas main laying-stage 3 (Portion P, near Playground, Data centre, On Chuen St)	50	23	10-Jun-23 A	25-Nov-23	10-Jun-23	10-Nov-23	-171	54%								
TG-1040	LBG gas main laying-stage 1(Above Underpass C8 and along STK Rd)	47	21	11-Apr-23 A	02-Nov-23	11-Apr-23	10-Oct-23	-176	55.32%								
TG-1040a	LBG gas main laying-stage 1 (after pipe pile underpass C9-C10)	25	25	03-Nov-23	01-Dec-23	11-Oct-23	09-Nov-23	-176	0%								
TG-1050	LBG gas main laying-stage 2 (portion J/K, near Toilet/ RCP)	35	12	10-Jun-23 A	16-Nov-23	10-Jun-23	25-Oct-23	-163	65.71%								
TG-1060	LBG gas main laying-stage 3(Portion P, near Playground, Data centre, On Chuen St)	50	25	10-Jun-23 A	01-Dec-23	10-Jun-23	09-Nov-23	-176	50%								
TG-1070	Abandon existing gas main	4	4	02-Dec-23	06-Dec-23	11-Nov-23	15-Nov-23	-176	0%								
Telecom (By others)																	
HGC/HKBN/HKBNESHK/PCCW																	
TL-1000	HGC/HKBN/HKBNES/PCCW diversion -stage 1 (after C5-C8)	50	23	08-Aug-23 A	04-Nov-23	08-Aug-23	06-Oct-23	37	54%								
TL-1010	HGC/HKBN/HKBNES/PCCW diversion -stage 2 (after TTA)	49	49	09-Oct-23	05-Dec-23	08-Sep-23	07-Nov-23	11	0%								
TL-1020	HGC/HKBN/HKBNES/PCCW diversion -stage 3 (after RW9, near existing market and new playground)	66	66	09-Oct-23	27-Dec-23	08-Sep-23	27-Nov-23	-6	0%								
TL-1030	HGC/HKBN/HKBNES/PCCW diversion -stage 4 (near Portion M)	60	60	09-Oct-23	18-Dec-23	08-Sep-23	20-Nov-23	-111	0%								
TL-1040	PCCW diversion-stage 5 (near the toilet and RCP)	50	50	09-Oct-23	06-Dec-23	08-Sep-23	08-Nov-23	-3	0%								
TL-1050	PCCW diversion-stage 6 (near the On Luk Min St playground)	66	39	08-May-23 A	23-Nov-23	08-May-23	26-Oct-23	21	40.91%								
TL-1060	Abandon of existing cables of UUs	30	30	28-Dec-23	01-Feb-24	28-Nov-23	04-Jan-24	-6	0%								
Towngas/telecom																	
TL-3000	Towngas telecom diversion -stage 1 (after C5 to C8)	50	15	01-Aug-23 A	26-Oct-23	01-Aug-23	25-Sep-23	-195	70%								
TL-3010	HGC/HKBN/HKBNES diversion -stage 2 (after TTA)	49	16	01-Aug-23 A	27-Oct-23	01-Aug-23	26-Sep-23	-196	67.35%								
Bridge F(MS)																	
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	21	08-Dec-22 A	02-Nov-23	08-Dec-22	04-Oct-23	64	76.67%								
BWFW-7030	Post tensioning slab tendons (include 7 days for required concrete strength) F-03 to F-04M	14	14	03-Nov-23	18-Nov-23	05-Oct-23	20-Oct-23	64	0%								
BWFW-7040	Remove false work	7	7	20-Nov-23	27-Nov-23	21-Oct-23	30-Oct-23	141	0%								
Stage 9 Piling works for pier F-02 and abutment F-01M in S.side																	
BWFW-9020	Bored pile construction at abutment pier F-02 (2 nos, 15d/ bored, 1 set machine)	30	21	05-Sep-23 A	02-Nov-23	08-Sep-23	14-Oct-23	-19	30%								
BWFW-9020a	Interface coring, sonic test, and grouting for bored pile construction at abutment pier F-02	40	40	03-Nov-23	19-Dec-23	16-Oct-23	01-Dec-23	26	0%								
BWFW-9030a	Interface coring, sonic test, and grouting for bored pile construction at abutment F-01M	36	36	09-Oct-23	20-Nov-23	08-Sep-23	21-Oct-23	103	0%								
Stage 10 ELS installation & Excavation and Pile Cap & piers in S.side																	

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BWFW-10000	Install sheet pile using vibration hammer to form ELS system for the pile cap F-02 (*carry out on dry season)	28	28	03-Nov-23*	05-Dec-23	01-Nov-23	02-Dec-23	16	0%								
BWFW-10010	ELS and install wailing and strut F-02	22	22	06-Dec-23	03-Jan-24	04-Dec-23	30-Dec-23	16	0%								
BWFW-10020	F-02 Pile cap construction (1nos, 30d/ cap, 1 workfront)	30	30	04-Jan-24	07-Feb-24	02-Jan-24	05-Feb-24	16	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 (After F-02 bored pile)	24	24	03-Nov-23	30-Nov-23	16-Oct-23	13-Nov-23	64	0%								
BWFW-11010	ELS and install wailing and strut F-01	30	30	01-Dec-23	08-Jan-24	14-Nov-23	18-Dec-23	64	0%								
BWFW-11020	F-01 Pile cap construction (1nos, 30d/ cap, 1 workfront)	30	30	09-Jan-24	15-Feb-24	19-Dec-23	25-Jan-24	64	0%								
Stage 12 Falsework erection in Middle of Ng Tung River (dry season)																	
BWFW-12000	Erect steel platform between pier F-02 and F-03 (after F-03 and F-04 Deck)	60	60	20-Nov-23	31-Jan-24	21-Oct-23	03-Jan-24	64	0%								
BWFW-12010	Erect falsework onto the platform for the construction of bridge deck F-02, F-	14	14	01-Feb-24	20-Feb-24	04-Jan-24	19-Jan-24	64	0%								
Bridge Works (A1,A2,A3,G,F4)																	
Bridge A1																	
ELS of Bridge A1 Foundation																	
BWBE-1030a	Existing rebar bending yard for bridge works adjacent pile cap A1-01M (occupied the area up to 31/7/23)	30	7	08-May-23 A	16-Oct-23	08-May-23	15-Sep-23	111	76.67%								
BWBE-1050	ELS for Pier A1-01M	30	19	16-Aug-23 A	08-Nov-23	16-Aug-23	10-Nov-23	111	36.67%								
Pile cap of Bridge A1 Foundation																	
BWBC-1050	Pile cap for Abt A1-01M (1 no. pile cap, 45d/cap, 1no. workfront)	40	40	09-Nov-23	27-Dec-23	11-Nov-23	29-Dec-23	111	0%								
Construction of Bridge A1 Substructure																	
BWBS-1050	Pier A1-06a/b (2nos. column, 30d/column, 1 no. workfront)	60	19	20-Jan-23 A	31-Oct-23	20-Jan-23	29-Sep-23	41	68.33%								
BWBS-1070	Pier A1-02a/b (2nos. column, 36d/column, 1 no. workfront)	45	27	08-Aug-23 A	09-Nov-23	08-Aug-23	21-Oct-23	178	40%								
BWBS-1090	Pier A1-03a/b (2nos. column, 36d/column, 1 no. workfront, 2 nos. pier mould)	36	11	26-Jul-23 A	20-Oct-23	26-Jul-23	20-Sep-23	144	69.44%								
BWBS-1130	Pier A1-04a/b (2nos. column, 36d/column, 1 no. workfront, 2 nos. pier mould)	36	11	09-Jul-23 A	20-Oct-23	09-Jul-23	05-Oct-23	94	69.44%								
BWBS-1220	Abt A1-01M (1no. abutment, ~60 d/abutment, 1no. workfront)	60	60	28-Dec-23	11-Mar-24	30-Dec-23	13-Mar-24	111	0%								
Construction of Bridge A1 Deck																	
BWBD-1061	Falsework Erection for A1 cast in-situ decking (A1-02 to A1-03)	21	21	10-Nov-23	04-Dec-23	24-Oct-23	16-Nov-23	178	0%								
BWBD-1062	Falsework Erection for A1 cast in-situ decking (A1-03 to A1-04)	21	21	21-Oct-23	15-Nov-23	06-Oct-23	31-Oct-23	144	0%								
BWBD-1063	Falsework Erection for A1 cast in-situ decking (A1-06 to A2-01 and remainin	21	21	17-Nov-23	11-Dec-23	19-Oct-23	13-Nov-23	287	0%								
BWBD-1063-1	Bearing installation at A1-06	14	14	01-Nov-23	16-Nov-23	03-Oct-23	18-Oct-23	41	0%								
BWBD-1064	Falsework Erection for A1 cast in-situ decking (A1-05 to A1-06)	21	21	24-Oct-23	16-Nov-23	22-Sep-23	18-Oct-23	41	0%								
BWBD-1065	Falsework Erection for A1 cast in-situ decking (A1-04 to A1-05)	21	21	21-Oct-23	15-Nov-23	06-Oct-23	31-Oct-23	94	0%								
BWBD-1080c	Cast in-site Bridge Deck (From A1-04 to A1-05) 60days/span	50	50	20-Jan-24	21-Mar-24	20-Dec-23	22-Feb-24	41	0%								
BWBD-1080d	Cast in-site Bridge Deck (From A1-06 to A1-05) 60days/span	52	52	17-Nov-23	19-Jan-24	19-Oct-23	19-Dec-23	41	0%								
Bridge A2																	
Construction of Bridge A2 Substructure																	
BWBS-1020	Pier A2-02a/b (2nos. column, 36d/column, 1no. workfronts, 2 nos. pier mould)	36	22	20-Jun-23 A	03-Nov-23	20-Jun-23	05-Oct-23	0	38.89%								
BWBS-1060	Pier A2-01a/b (2nos. column, 36d/column, 1no. workfronts, 2 nos. pier mould)	36	22	24-Jun-23 A	16-Nov-23	24-Jun-23	18-Oct-23	287	38.89%								
BWBS-1140a	Pier A2-05M (1no. crosshead, 26d RMD + 52d Crosshead, 1no. workfront)	78	52	09-Jul-23 A	08-Dec-23	09-Jul-23	10-Nov-23	132	33.33%								
Construction of Bridge A2 Deck																	
Construction of Pier Table																	
A2-02																	
BWBD-1021	Falsework Erection for A2 cast in-situ pier table - A2-02	26	26	04-Nov-23	04-Dec-23	06-Nov-23	05-Dec-23	0	0%								

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

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Three Months Rolling Programme (08 October 2023 to 31 January 2024)

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Baseline Programme RP06(1)			
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08-Oct-23	Data Date		



Activity ID	Activity Name	Orig. Dur.	Rem. Dur.	Start	Finish	BL Start RP06(1)	BL Finish RP06(1)	Total Float	Activity % Complete	2023				2024			
										Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
BWBD-102	Bridge A2 cast in-situ pier table at A2-02	52	52	05-Dec-23	06-Feb-24	06-Dec-23	07-Feb-24	0	0%								
BWBD-102	Fabrication of FWK & Falsework Erection for A2 cast in situ pier table - A2-02	36	15	29-Sep-23 A	26-Oct-23	21-Sep-23	04-Nov-23	7	58.33%								
A2-03																	
BWBD-1023	Falsework Erection for A2 cast in-situ portal - A2-03l and A2-03r (include RMD platform)	90	86	26-Jun-23 A	31-Jan-24	26-Jun-23	31-Jan-24	19	4.44%								
BWBD-1023	Fabrication of FWK & Falsework Erection for A2 cast in-situ portal - A2-03l and A2-03r	9	9	26-Jun-23 A	18-Oct-23	26-Jun-23	13-Oct-23	19	0%								
BWBD-102	Bridge A2 cast in-situ portal at A2-03l and A2-03r	65	65	01-Feb-24	24-Apr-24	01-Feb-24	24-Apr-24	19	0%								
A2-05																	
BWBD-1024	Falsework Erection for A2 cast in-situ pier table - A2-05 (include RMD platform)	60	15	20-Jun-23 A	28-Dec-23	11-Nov-23	23-Jan-24	132	75%								
BWBD-102	Bearing installation at A2-05 and temporary fixity	30	30	29-Dec-23	02-Feb-24	24-Jan-24	01-Mar-24	132	0%								
BWBD-102	Bridge A2 cast in-situ pier table at A2-05	60	60	03-Feb-24	20-Apr-24	02-Mar-24	17-May-24	132	0%								
Form Traveller and Segment Erection Works																	
BWBD-1041	Bridge A2 by Form Traveler - Stage 1 (at Pier A2-04), Team A	76	76	08-Nov-23	07-Feb-24	04-Nov-23	03-Feb-24	-1	0%								
BWBD-2090	Setup traveler	25	25	18-Sep-23 A	07-Nov-23	05-Oct-23	03-Nov-23	-1	0%								
Bridge A3																	
ELS of Bridge A3 Foundation																	
BWBE-3000-1	ELS for Pier A3-01l	25	11	30-Jun-23 A	20-Oct-23	30-Jun-23	20-Sep-23	-10	56%								
BWBE-3020	ELS for Pier A3-03r	30	1	30-Jun-23 A	09-Oct-23	30-Jun-23	15-Sep-23	-61	96.67%								
BWBE-3030	ELS for Pier A3-03l	30	2	30-Jun-23 A	11-Oct-23	16-Sep-23	24-Oct-23	-33	93.33%								
BWBF-1340a	ELS for Pier A3-01r	25	25	03-Nov-23	01-Dec-23	16-Oct-23	14-Nov-23	-19	0%								
Pile cap of Bridge A3 Foundation																	
BWBC-3000	Pile cap for A3-01l (2nos. pile cap, 25d/cap, 1nos. workfronts)	25	25	21-Oct-23	20-Nov-23	21-Sep-23	21-Oct-23	-10	0%								
BWBC-3000a	Pile cap for A3-01r (1nos. pile cap, 25d/cap, 1 workfronts)	25	25	02-Dec-23	03-Jan-24	15-Nov-23	13-Dec-23	-19	0%								
BWBC-3020	Pile cap for A3-03r (1no. pile cap, 30d/cap, 1no. workfront)	30	30	10-Oct-23	14-Nov-23	16-Sep-23	24-Oct-23	-61	0%								
BWBC-3030	Pile cap for A3-03l (1no. pile cap, 30d/cap, 1no. workfront)	30	30	15-Nov-23	19-Dec-23	25-Oct-23	28-Nov-23	-61	0%								
Construction of Bridge A3 Substructure																	
BWBS-1194-1	Fabrication of FWK and Falseworks for Pier A3-01 and A3-03	36	29	08-Oct-23 A	11-Nov-23	08-Sep-23	21-Oct-23	-55	19.44%								
BWBS-1195	Pier A3-01l (1 no. column, 26d/column, portal, 2nos. workfront, 1 steel mould)- Stage 1	26	26	23-Jan-24	24-Feb-24	02-Jan-24	31-Jan-24	-61	0%								
BWBS-1210	Pier A3-03r (1 no. column, 26d/column, portal, 2nos. workfront, 1 steel mould)-stage 1	26	26	15-Nov-23	14-Dec-23	25-Oct-23	23-Nov-23	-57	0%								
BWBS-1260	Pier A3-03l (1 no. column, 26d/column, portal, 2nos. workfront, 1 steel mould)-stage 2	26	26	20-Dec-23	22-Jan-24	29-Nov-23	30-Dec-23	-61	0%								
Construction of Bridge A3 Deck																	
Construction of Pier table																	
BWBD-1081	Falsework Erection for A3 cast in-situ decking (A3-04 to A3-03)	21	21	16-Nov-23	09-Dec-23	24-Oct-23	16-Nov-23	211	0%								
BWBD-1081	Bearing installation at A3-04	14	14	16-Nov-23	01-Dec-23	24-Oct-23	08-Nov-23	211	0%								
BWBD-1082	Falsework Erection for A3 cast in-situ decking (A3-05 to A3-04)	21	21	21-Oct-23	15-Nov-23	26-Sep-23	21-Oct-23	172	0%								
BWBD-1082	Bearing installation at A3-05	14	14	21-Oct-23	07-Nov-23	26-Sep-23	13-Oct-23	172	0%								
BWBD-1083	Falsework Erection for A3 cast in-situ decking (A3-06 to A3-05)	21	11	25-Jul-23 A	20-Oct-23	25-Jul-23	25-Sep-23	172	47.62%								
BWBD-1083	Bearing installation at A3-06	14	14	09-Oct-23	25-Oct-23	08-Sep-23	23-Sep-23	183	0%								
BWBD-1084	Design of FWK and Falsework Erection for A3 cast in-situ pier table & column (A3-01 & A3-03)	60	60	09-Oct-23	18-Dec-23	21-Sep-23	02-Dec-23	-28	0%								
BWBD-1084-1	Fabrication of FWK and Falsework Erection for A3 cast in-situ pier table (A3-01 & A3-03)	46	46	19-Dec-23	16-Feb-24	04-Dec-23	29-Jan-24	-28	0%								

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

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Three Months Rolling Programme (08 October 2023 to 31 January 2024)

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Activity ID	Activity Name	Orig. Dur.	Rem. Dur.	Start	Finish	BL Start RP06(1)	BL Finish RP06(1)	Total Float	Activity % Complete	2023				2024				
										Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	
BWBD-1087a	Bridge A3 cast-in-situ pier table (A3-02)	52	40	25-Sep-23 A	24-Nov-23	11-Oct-23	11-Dec-23	-13	23.08%									
Form Traveller and Segment Erection Works																		
BWBD-1091a	Cast in Bridge Deck (From A3-04 to A3-05) 60days/span	60	60	20-Jan-24	06-Apr-24	27-Dec-23	09-Mar-24	172	0%									
BWBD-1091b	Cast in Bridge Deck (From A3-05 to A3-06) 60days/span	60	60	08-Nov-23	19-Jan-24	14-Oct-23	23-Dec-23	172	0%									
BWBD-2110	Bridge A3 by Form Traveler Stage 5 (at Pier A3-02), Team B	114	114	30-Nov-23	22-Apr-24	12-Dec-23	04-May-24	-17	0%									
BWBD-2150	Setup traveler	25	25	01-Nov-23	29-Nov-23	01-Nov-23	29-Nov-23	-17	0%									
BWBD-2150a	Procurement of 2nd Set Form Traveller (4 nos)	25	19	08-May-23 A	31-Oct-23	08-May-23	31-Oct-23	-17	24%									
Bridge G																		
Construction of Bridge G Foundation (Team 3) CSD																		
BWBF-1150	Pier G-05 (1 no. pile, 15d/pile, 1 no. workforce)	15	15	30-Jan-24	19-Feb-24	16-Jan-24	01-Feb-24	-13	0%									
BWBF-1180	ELS for bored pile works at G-02 to G-06	87	19	15-Jun-23 A	31-Oct-23	15-Jun-23	29-Sep-23	-11	78.16%									
BWBF-1210	Pier G-04 (2 nos. pile, 15d/pile, 1 no. workforce)	30	30	22-Dec-23	29-Jan-24	08-Dec-23	15-Jan-24	-13	0%									
BWBF-1220	Pier G-03 (1 no. pile, 15d/pile, 1 no. workforce)	15	15	05-Dec-23	21-Dec-23	21-Nov-23	07-Dec-23	-13	0%									
BWBF-1240	Pier G-02 (2 nos. pile, 15d/pile, 1 no. workforce)	30	27	28-Sep-23 A	04-Dec-23	16-Oct-23	20-Nov-23	-13	10%									
ELS of Bridge G Foundation																		
BWBE-4020	ELS for Pier G-04	30	30	30-Jan-24	07-Mar-24	16-Jan-24	22-Feb-24	3	0%									
BWBE-4030	ELS for Pier G-03	30	30	22-Dec-23	29-Jan-24	08-Dec-23	15-Jan-24	123	0%									
BWBE-4040	ELS for Pier G-02	30	30	05-Dec-23	11-Jan-24	21-Nov-23	27-Dec-23	108	0%									
BWBE-4050	ELS for Pier G-01	30	30	09-Oct-23	13-Nov-23	08-Sep-23	14-Oct-23	66	0%									
Pile cap of Bridge G Foundation																		
BWBC-4000	Pile cap for G-01 (2nos. pile cap, 30d/cap, 1no. workforce)	60	60	14-Nov-23	25-Jan-24	16-Oct-23	27-Dec-23	66	0%									
BWBC-4010	Pile cap for G-02 (1no. pile cap, 30d/cap, 1no. workforce)	30	30	12-Jan-24	19-Feb-24	28-Dec-23	01-Feb-24	108	0%									
BWBC-4020	Pile cap for G-03 (1no. pile cap, 30d/cap, 1no. workforce)	30	30	30-Jan-24	07-Mar-24	16-Jan-24	22-Feb-24	123	0%									
Construction of Bridge G Substructure																		
BWBS-1160	Pier G-01a/b (2nos. column, 30d/column, 1no. workforce)	60	60	26-Jan-24	12-Apr-24	28-Dec-23	11-Mar-24	66	0%									
Footbridge F4																		
Design and Fabrication (Steel Footbridge F4 and Lighting)																		
BWBF-136-1	Approval of Design (AIP, DDA and Acabas)	77	77	09-Oct-23	10-Jan-24	08-Sep-23	09-Dec-23	-56	0%									
BWBF-136-2	Fabrication of steel element for Footbridge F4	165	165	11-Jan-24	02-Aug-24	11-Dec-23	05-Jul-24	83	0%									
BWBF-136-3	Lighting design (Civil requirement, Pillar box arrangement, Electrical Design, lighting and earthing, Lux simulation)	24	122	08-May-23 A	06-Mar-24	08-May-23	03-Feb-24	89	0%									
Construction of Footbridge F4 Foundation																		
BWBF-1360a	ELS for Footbridge F4-01	30	30	11-Jan-24	17-Feb-24	11-Dec-23	17-Jan-24	-56	0%									
Construction of Bridge Furniture																		
Other Bridge Deck Works																		
BWF-108	Procurement of Installation of traffic detection system and TCSS items (KD5)	180	180	01-Dec-23	13-Jul-24	01-Dec-23	13-Jul-24	175	0%									
BWF-1140-2	Procurement of Lightings items	180	180	31-Oct-23	11-Jun-24	14-Oct-23	25-May-24	233	0%									

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

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Construction Programme of ND/2019/05

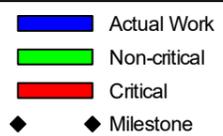
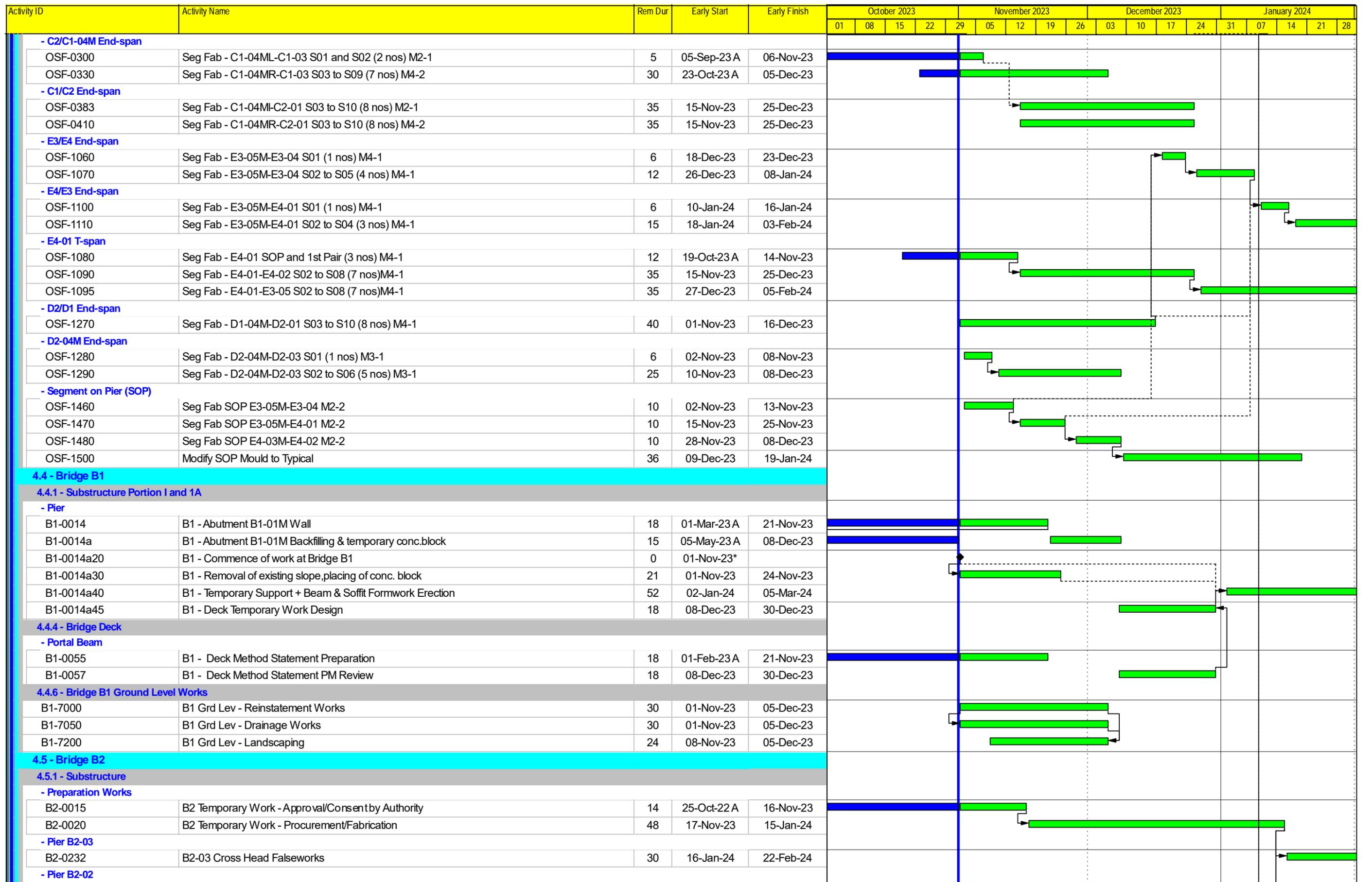
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					01	08	15	22	29	05	12	19	26	03	10	17	24	31	07	14	21	28	
3MRP No. 44 (Nov 2023)																							
Section 4 - Summary																							
Sum-2136	Bridge C3 Segment Erection by LG	43	12-Jul-23 A	20-Dec-23																			
Sum-2137	Bridge C2 Segment Erection by LG	95	21-Dec-23	20-Apr-24																			
Section 5 D2-01 - Summary																							
Sum-2522	Pier D2-01 Column + Pier Head	49	25-Oct-23 A	29-Dec-23																			
Sum-2523	Pier D2-01 Cast-in-situ SOP	54	30-Dec-23	06-Mar-24																			
Section 5 TWSR West - Summary																							
Sum-2540	TWSRW Ch400-Ch450 Utility Diversion, Footpath & Roadworks	6	01-Sep-23 A	07-Nov-23																			
Sum-2550	TWSRW Ch200-Ch450 TWSRW Diversion	6	08-Nov-23	14-Nov-23																			
Sum-2560	TWSRW Ch450-Ch500 Utility - Gasmain	42	08-Nov-23	28-Dec-23																			
Sum-2570	TWSRW Ch600 to Ch750 N/B Road Works	63	29-Dec-23	15-Mar-24																			
2.0 - Preliminary Works																							
2.3 - Contractor's Design (PS 1,109)																							
2.3.2 - (b) Irrigation system																							
CDb-110	Irrigation System - Prep/Submit Design	130	01-Nov-23	09-Mar-24																			
CDb-130	Irrigation System - Design Approval	130	01-Dec-23	08-Apr-24																			
2.3.4 - (d) Lighting System																							
CDd-135	Road Lighting System - Manufacturing and Delivery	90	19-Dec-23	17-Mar-24																			
CDd-200	Bridge Deck Void Lighting System - Prep/Submit Design	180	01-Nov-23	28-Apr-24																			
2.3.6 - (f) BBI Public Toilet BS System																							
CDf-110	Public Toilet BS and MVAC System - Prep/Submit Design	24	01-Mar-22 A	24-Nov-23																			
CDf-130	Public Toilet BS and MVAC System - Design Approval	55	01-May-22 A	25-Dec-23																			
2.3.7 - (g) BBI Public Toilet Bio-treatment Plant																							
CDg-110	Public Toilet Bio-treatment Plant - Prep/Submit Design	30	01-Mar-22 A	30-Nov-23																			
CDg-130	Public Toilet Bio-treatment Plant - Design Approval	42	01-Dec-23	11-Jan-24																			
2.3.8 - (h) Traffic Control and Surveillance System (TCSS)																							
CDh-110	TCSS - Prep/Submit Design	120	17-Nov-23	15-Mar-24																			
CDh-130	TCSS - Design Approval	120	17-Dec-23	14-Apr-24																			
2.3.9 - (i) Traffic Detector System																							
CDi-110	Traffic Detector System - Prep/Submit Design	150	01-Nov-23	29-Mar-24																			
CDi-130	Traffic Detector System - Design Approval	120	31-Dec-23	28-Apr-24																			
2.3.11 - (k) Deck Girder Access Facilities																							
CDk-100	Access Facilities - Procurement	150	01-Nov-23	29-Mar-24																			
4.0 - Bridge Construction																							
4.2 - Form Traveller																							
E2-7409	Form Traveller No. 5 - Fabrication and Delivery (E2-01)	2	01-Mar-23 A	02-Nov-23																			
4.3 - Segment Fabrication																							
4.3.1 - Shop Drawings																							
- Bridge B2																							
AD-500	Bridge B2 Segment Fabrication Shop Drawings Preparation	18	01-Jul-23 A	18-Nov-23																			
AD-502	Bridge B2 Segment Fabrication Shop Drawings PM Review	48	19-Nov-23	05-Jan-24																			
4.3.2 - Off-Site Fabrication																							
- C1/B2 End-span																							
OSF-0250	Seg Fab - C1-01MR-C1-02 S01 to S09 (9 nos) M4-2	25	12-Oct-23 A	29-Nov-23																			
- C1-02 T-span																							
OSF-0290	Seg Fab - C1-02R-C1-03 S03 to S09 (7 nos) M3-2	10	11-Oct-23 A	11-Nov-23																			
- C1-03 T-span																							
OSF-0343	Seg Fab - C1-03L-C1-02 S02 to S10 (9 nos) M1-2	25	02-Sep-23 A	29-Nov-23																			
OSF-0370	Seg Fab - C1-03R-C1-02 S02 to S10 (9 nos) M1-1	10	13-Sep-23 A	11-Nov-23																			

- 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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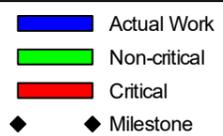
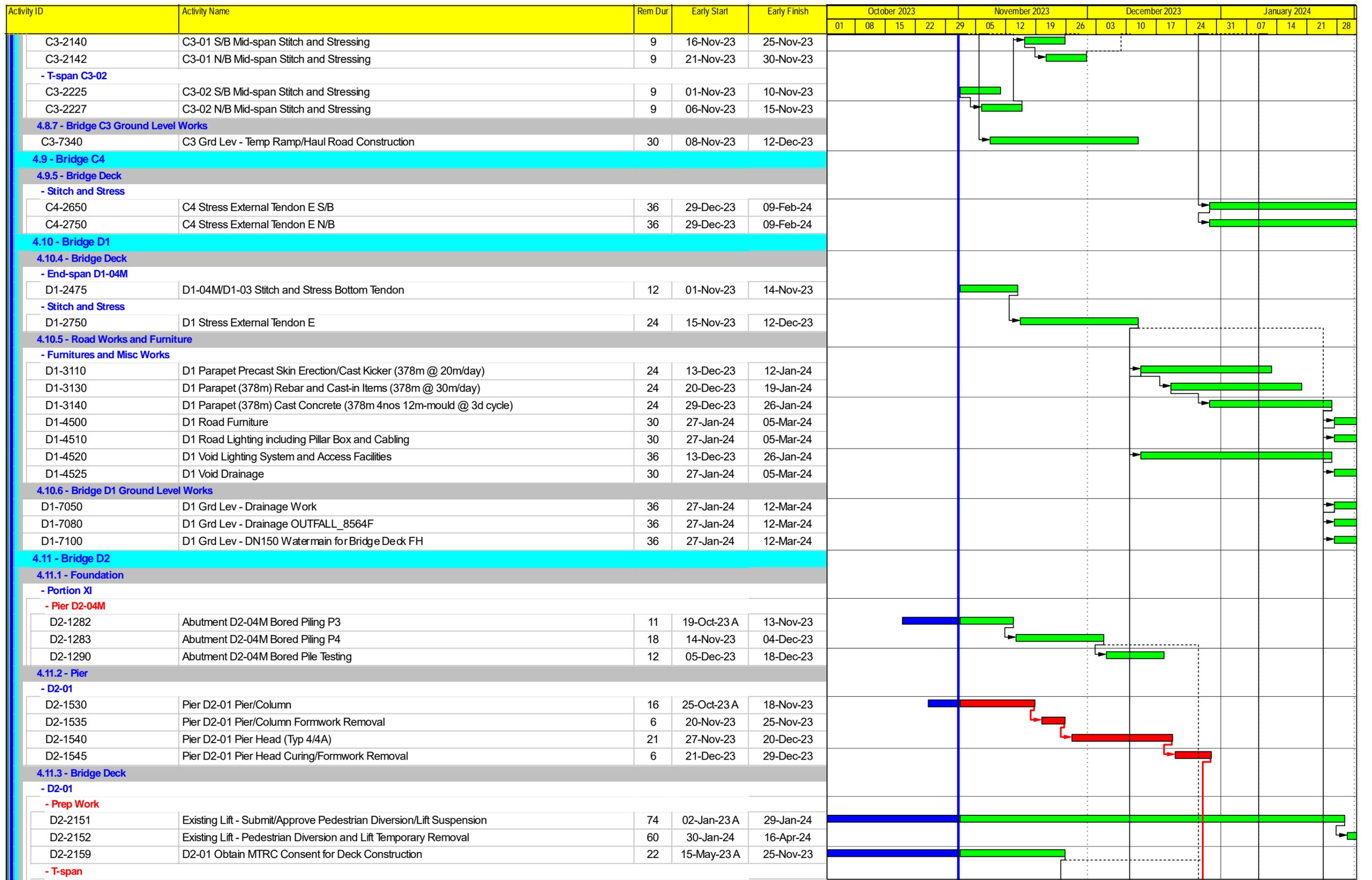
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31-Oct-23	Draft		



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Three-Month Rolling Programme

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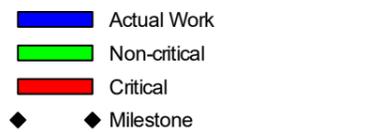
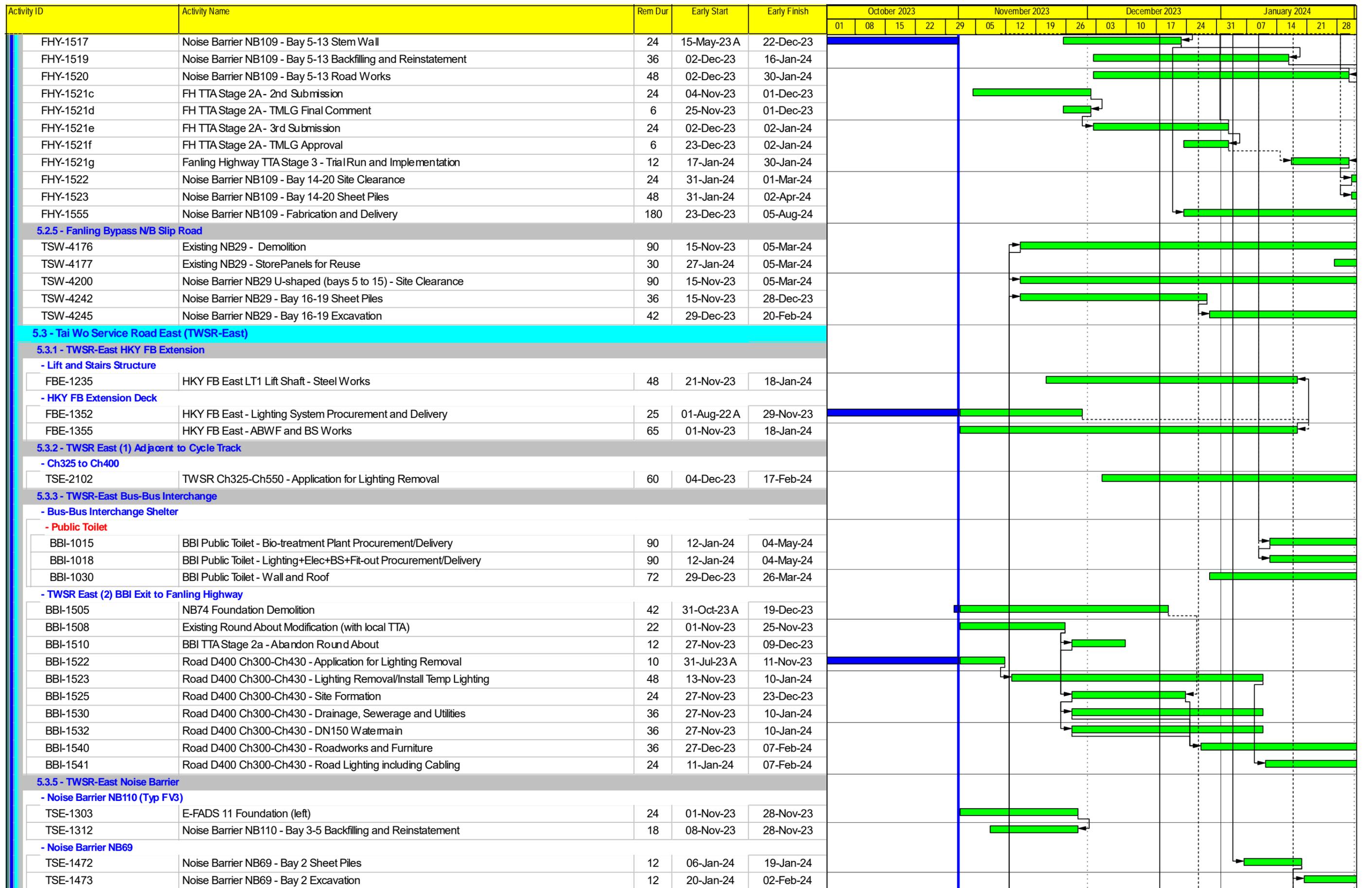
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Date	Revision	Check...	Approved
31-Oct-23	Draft		



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Three-Month Rolling Programme

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

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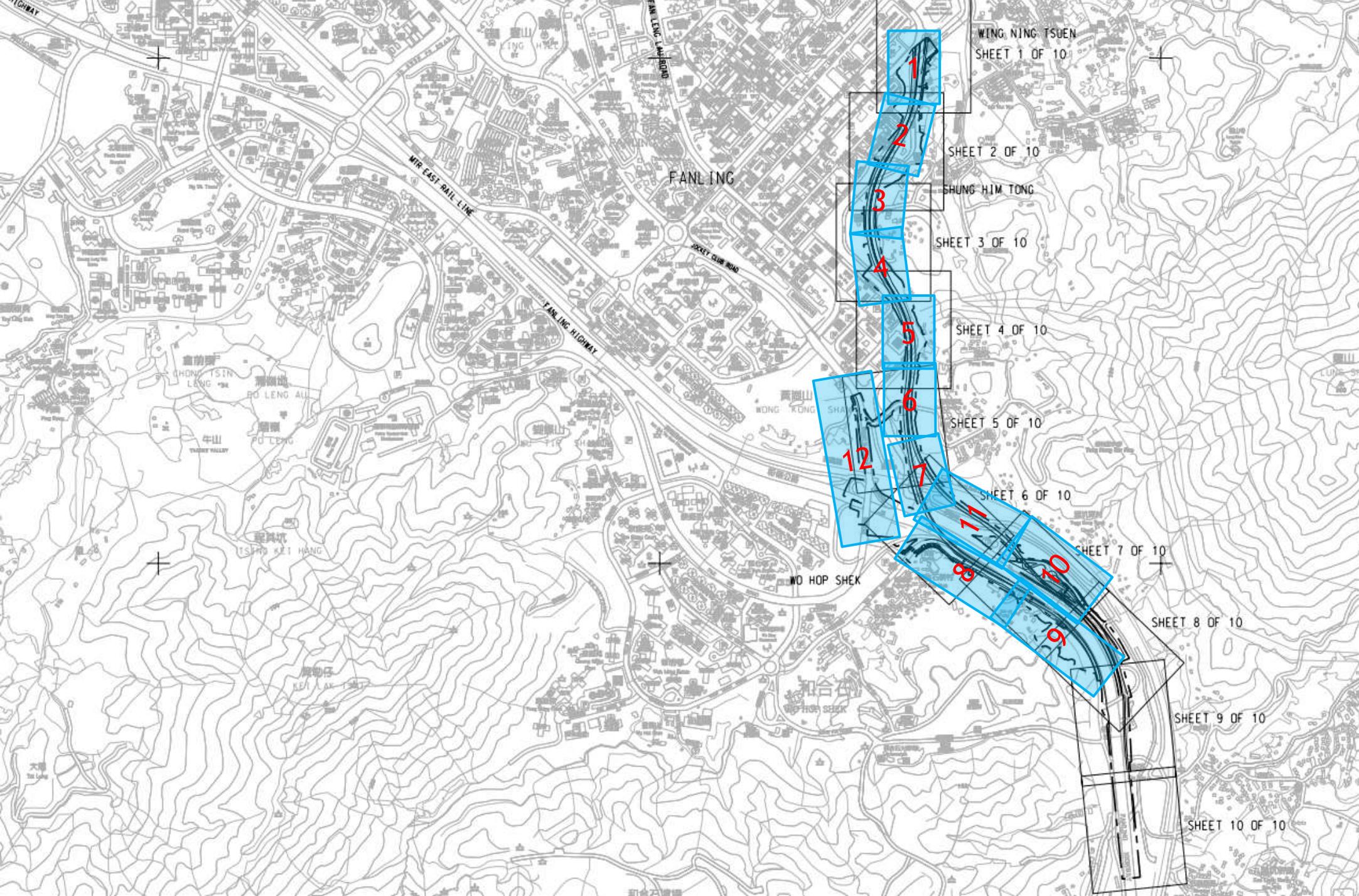
Activity ID	Activity Name	Rem Dur	Early Start	Early Finish	October 2023					November 2023				December 2023				January 2024						
					01	08	15	22	29	05	12	19	26	03	10	17	24	31	07	14	21	28		
JCR-2195	THV Junction N/B - Box Culvert, Ret Wall FW51 and FS25	96	08-Nov-23	05-Mar-24																				
JCR-2580	JCR Traffic Island - Site Clearance	12	26-Sep-23 A	14-Nov-23																				
JCR-2585	JCR Traffic Island - Utility Install/Traffic Signal Civil Provision	60	15-Nov-23	26-Jan-24																				
JCR-2590	JCR Traffic Island - Kerb/Central Barrier/Paving	36	13-Dec-23	26-Jan-24																				
JCR-2695	JCR Traffic Island - S/B Cross Road Traffic Signal Ducts (TTA Stage 2A)	18	06-Dec-23	28-Dec-23																				
JCR-2705	JCR N/B - FS05 Slope Drainage (TTA Stage 2B)	48	29-Dec-23	27-Feb-24																				
JCR-2710	JCR N/B - DN 150 Expose Pipe - PMI 258	48	02-Oct-23 A	28-Dec-23																				
JCR-2715	JCR N/B - Slope F63 Top Soil and Slope Drainage (TTA Stage 2C)	60	29-Dec-23	12-Mar-24																				
6.0 - TCSS Works																								
6.2 - Key Date 3A and Section 9A																								
TCS-331	Section 9A TCSS - Ducts/Drawpit at BBI Entry	36	14-Aug-23 A	12-Dec-23																				
TCS-332	Section 9A TCSS - Ducts/Drawpit at Road D400 Ch175 to Ch275	42	20-Dec-23	09-Feb-24																				
6.4 - Section 9C																								
TCS-451	Section 9C TCSS - Ducts/Drawpit at BBI Entry	42	01-Nov-23	19-Dec-23																				
TCS-452	Section 9C TCSS - Ducts/Drawpit at Road D400 Ch175 to Ch275	42	20-Dec-23	09-Feb-24																				
7.0 - Miscellaneous Works																								
MIS-100	Preservation and Protection of Trees	228	28-Oct-20 A	08-Aug-24																				

- Actual Work
- Non-critical
- Critical
- Milestone

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CONSULTANT
2019124

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SUB-CONSULTANTS
2019124-4

ISSUE/REVISION
01

NO.	DATE	DESCRIPTION	CHK.

NO.	DATE	DESCRIPTION	CHK.

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

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1 Pier & Portal Team

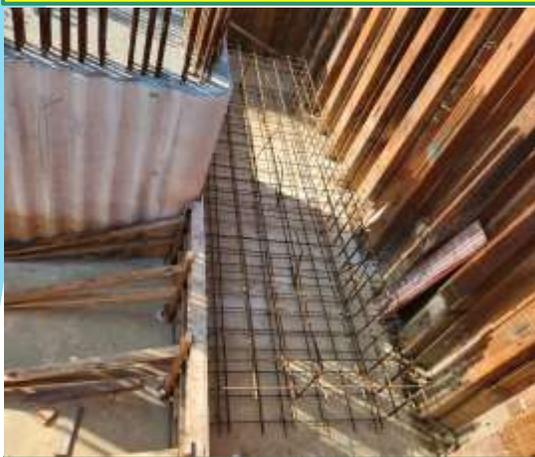
Area Highlighted - B1-02 Portal Beam

Portion 1 (On Kui St)
- B1-02 Portal Beam concreting completed on 28/08/23
- ES:28/08/23 EF:26/10/24
- LS:15/07/24 LF:19/11/24
- **Ahead against R16**

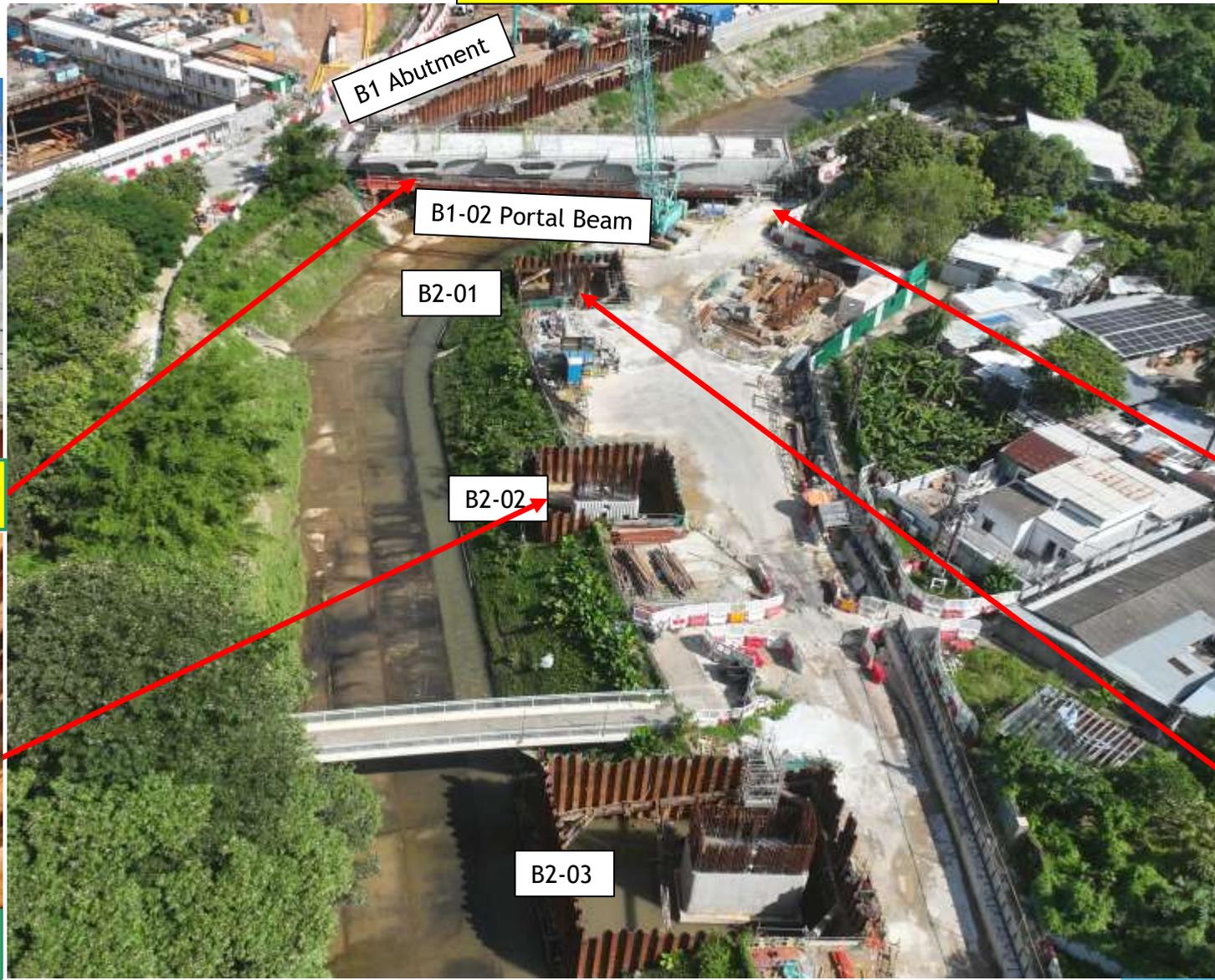
Portion 1 (On Kui St)
- B2-01 Pier concreting completed on 04/10/23
- ES:03/11/23 EF: 07/12/23
- LS:06/03/24 LF: 13/04/24
- **Ahead against R16**



Dismantling of formwork at B1-02 portal completed 21/09/23



Mass concrete for B2-02 cross head construction completed on 16/10/23



Stressing tendon at B1-02 portal beam completed on 09/09/23



B2-01 pier construction completed on 04/10/23

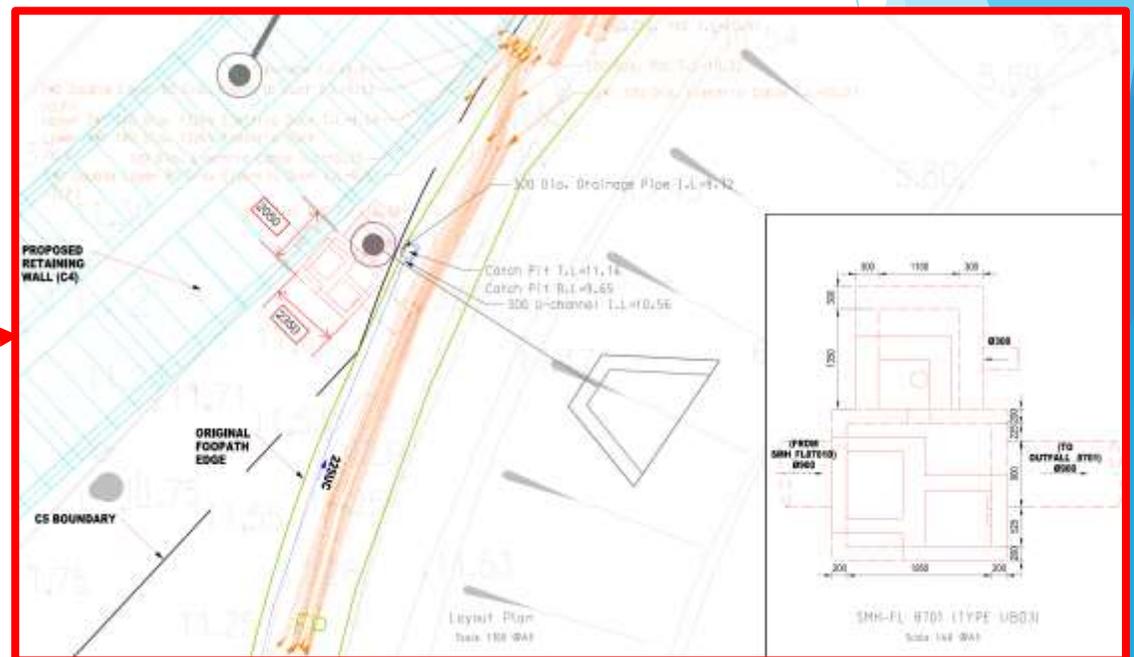
1 North Team



900 dia. drain pipe and manhole FL8701 (On Kui St)
- Trial pit for 900mm dia. drain pipe construction commenced on 06/10/23



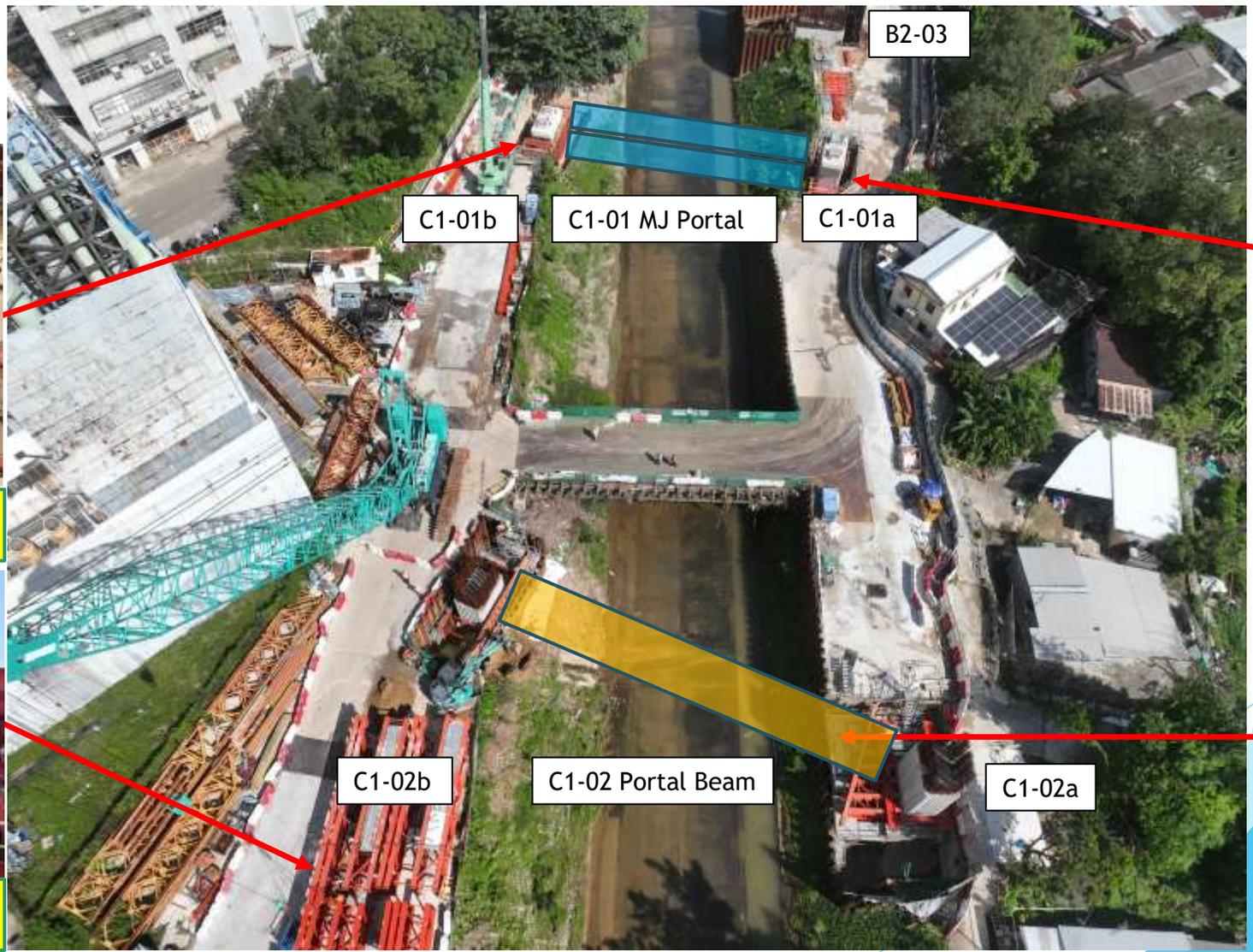
Trial pit for 900mm dia. drain pipe construction commenced on 06/10/23. In progress.



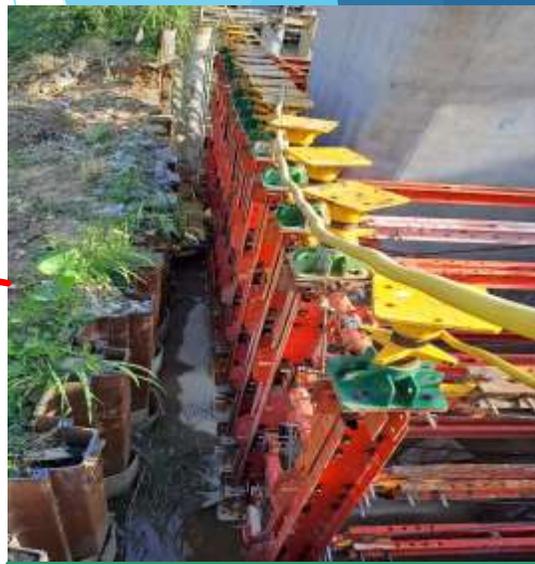
2 Pier & Portal Team
 Area Highlighted - C1-02 Portal Beam
 C1-01 MJ Portal

C1-02 Portal Beam
 - ES: 01/08/23 EF: 16/12/24
 - LS: 24/01/24 LF: 18/06/24
 - Target truss erection by 25/10/23
 - On Track against R16

C1-01 MJ Portal Beam
 - ES: 22/08/23 EF: 05/02/24
 - LS: 29/01/24 LF: 19/07/24
 - Target truss erection by 16/11/23
 - On Track against R16



VST tower erection at C1-01b in progress



VST tower erection at C1-01a in progress



Truss assembly for C1-02 portal beam construction in progress



Installation of steel bracket at C1-02a completed on 06/10/23

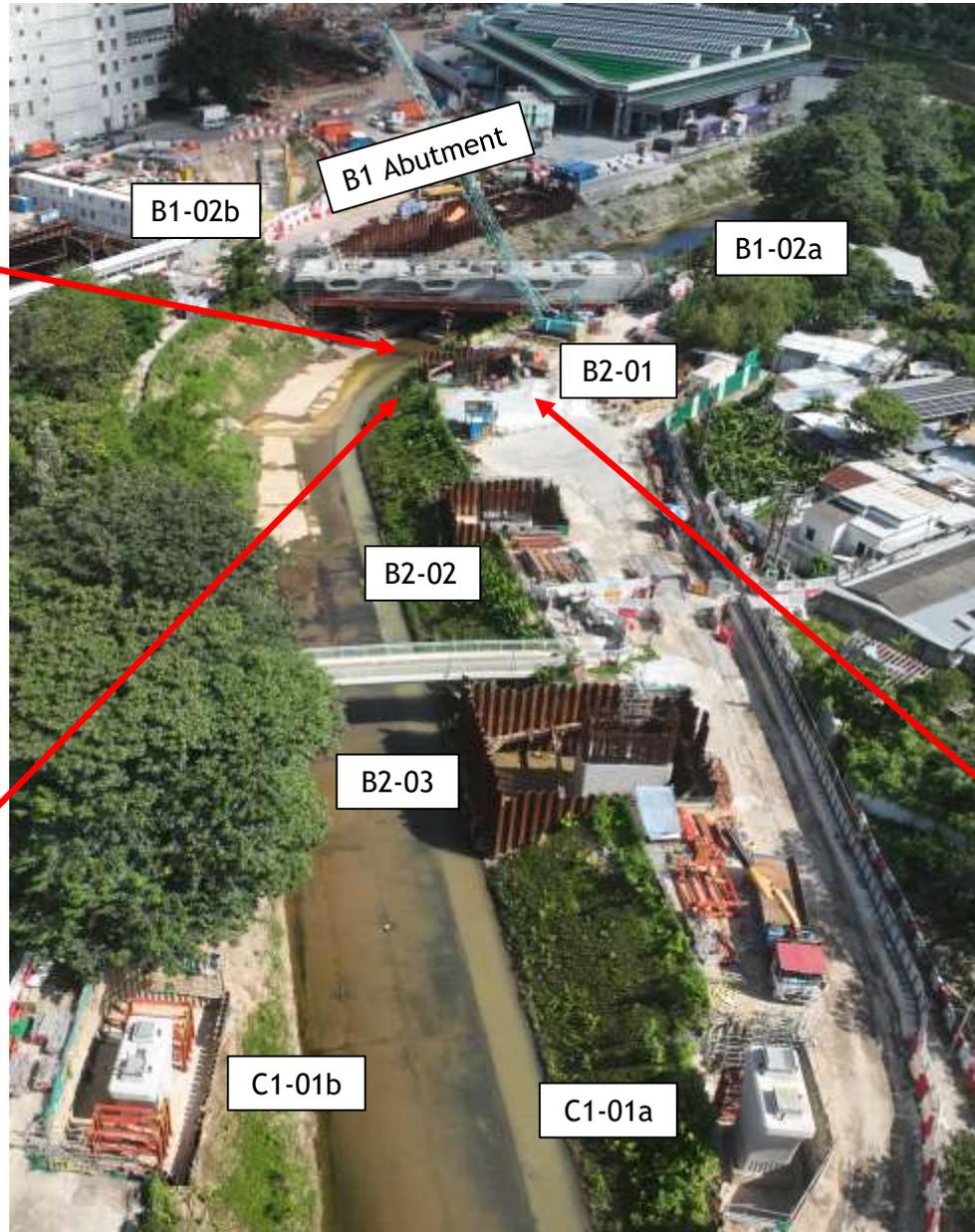
2 North Team



Works area hand overed to pier team on 27/09/23



B2-01 pile cap cast on 23/09/23



Portion 2 (Shum Him Tong)

B2-01

- Pile cap concreted on 23/09/23
- Works area hand overed to pier team on 27/09/23

- ELS & Pile Cap - ES: 01/08/23 EF: 02/11/23
LS: 29/12/23 LF: 06/04/24

- On Track against R16



Rebar fixing for pile cap started on 19/09/23 and completed on 23/09/23

3 North Team



Upper u-channel construction in progress



Setting out for upper u-channel done on 06/10/23



Portion 5 (On Lok Garden)

FS28

- Arranged to apply hydroseeding on 12/10/23

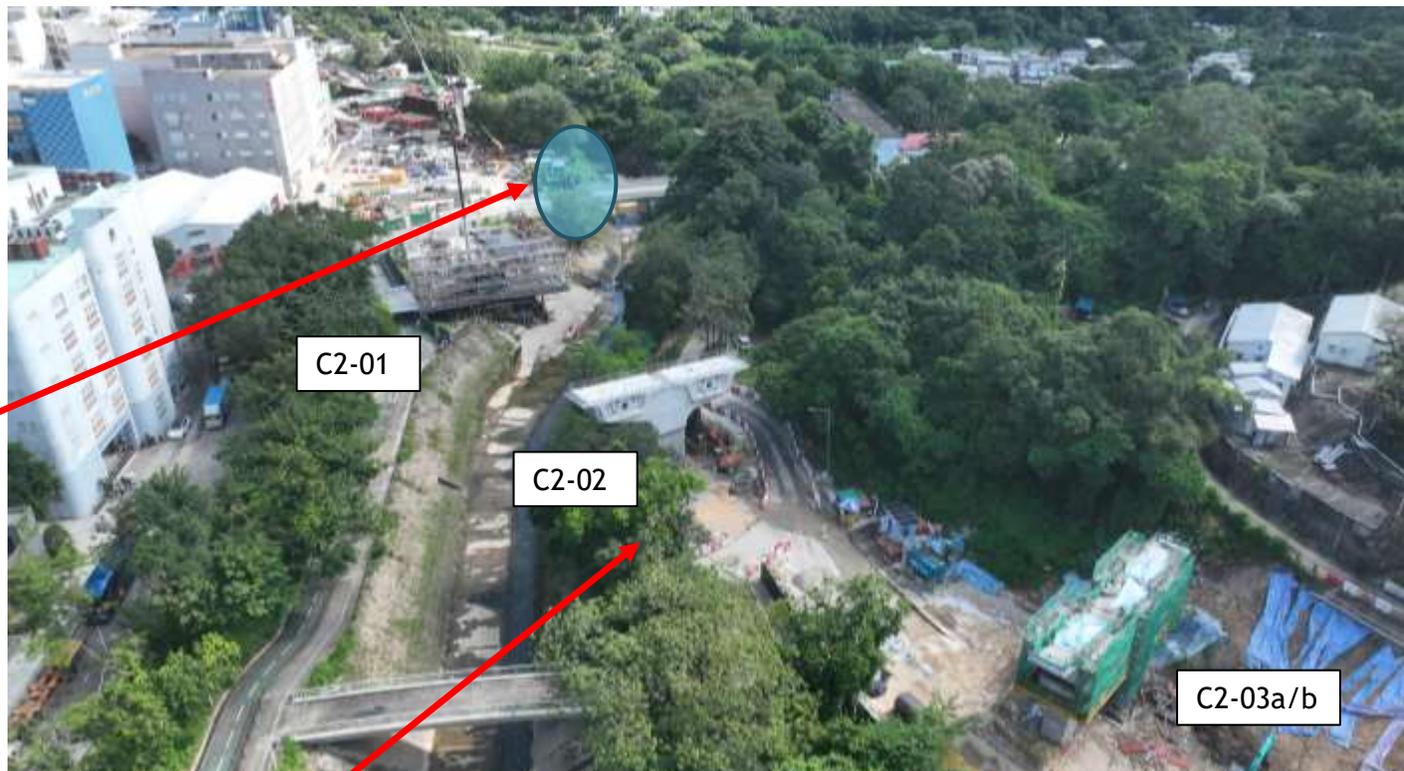
FS30

- Revised drainage design approved on 05/10/23
- Setting out for upper u-channel done on 06/10/23
- U-channel construction in progress



Laying biodegradable erosion control mat on slope FS28 completed on 09/10/23

3 North Team



Near C1-04 (Proposed DSD river gauge)
- Pre final handover inspection conducted on 6/10.

C2-02 (On Lok Garden)
- Backfilling to 600mm below EGL at ELS cofferdam completed on 03/10/23
- Sheet pile extraction in progress



proposed DSD river gauge



C2-02 ELS cofferdam sheet pile extraction in progress



Backfilling to 600mm below EGL at ELS cofferdam completed on 03/10/23

3 Pier & Portal Team

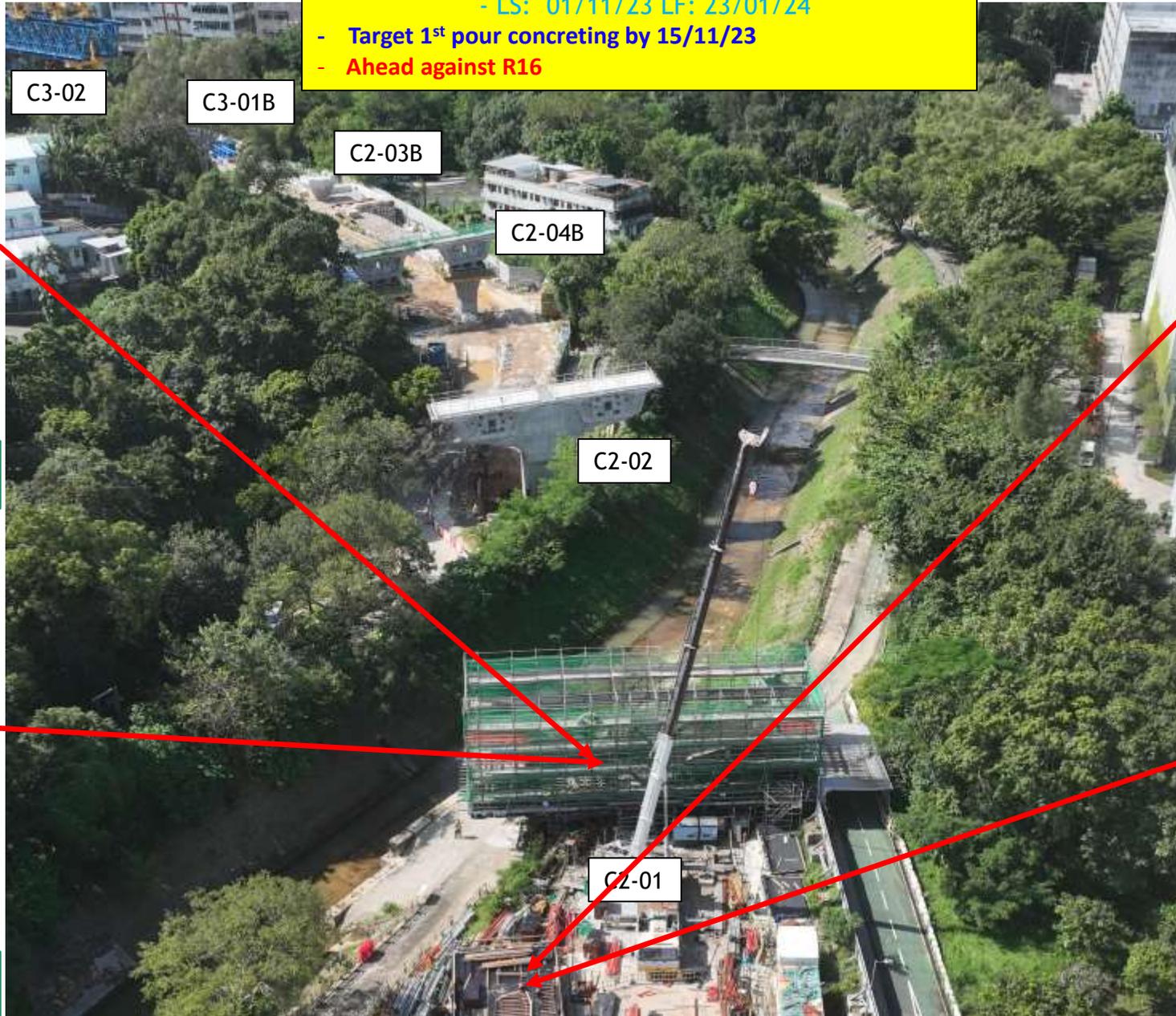
Portion 4
C2-01 cross head construction
- Cross head - ES: 31/08/23 EF: 10/01/24
- LS: 01/11/23 LF: 23/01/24
- Target 1st pour concreting by 15/11/23
- Ahead against R16



Temporary support beam at C2-01 cross head completed on 27/09/23



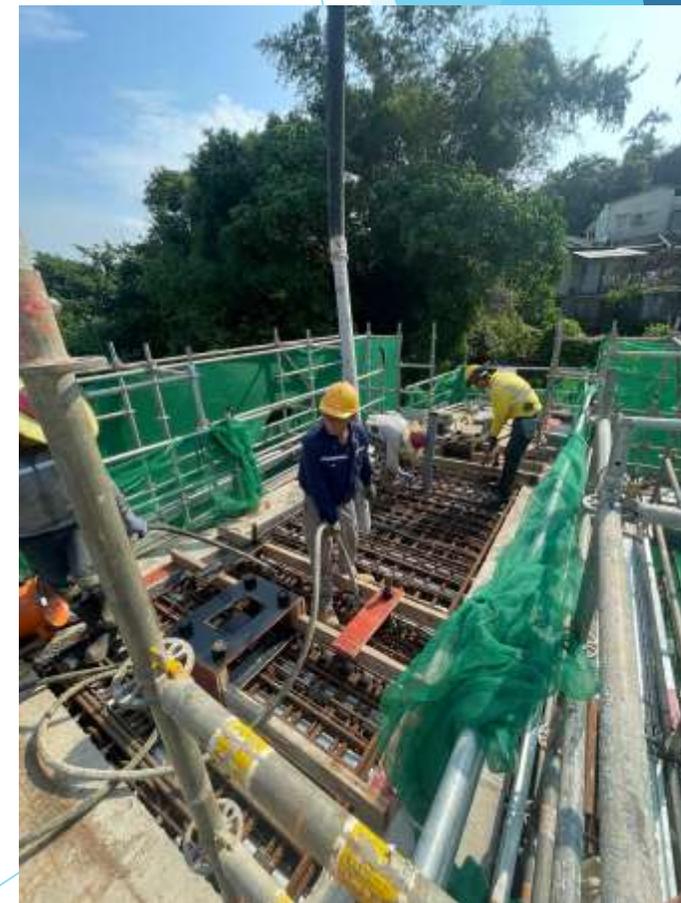
Bottom steel mould at C2-01 cross head completed on 13/10/23



Side formwork erection in progress

▶ Viaduct

- Precast cell at C2-03 casted concrete on 22 Sep 2023.
- Total 10/14 completed.



C2-03a

▶ Viaduct Construction of temporary support for LG front leg



▶ Viaduct Launching Girder

- Total 248 segments erected by LG up to 14 Oct 2023.



Hanger Beam is used for first pair segment erection



TTA for segment erection above cycle track



LG launched to C3-01 on 16 Oct 2023

▶ Viaduct

Segment Precast Works- Up to 11 2023

Fabricated	Delivery to Site	Erected
655	426	381



▶ Viaduct

External tendon installation



Bridge	Threaded	Stressed
C4L	0/10	0/10
C4R	6/10	4/10
D1	2/10	0/10
E1	0/10	0/10

▶ Viaduct

Bridge Rotation

- D2-01 upper turntable casted concrete on 17 Oct 2023



▶ Viaduct

Bridge Rotation

- D2-01 upper turntable casted concrete on 17 Oct 2023



7 North Team



Removal of debris and concrete blocks from Ma Wat River near D2-01 in progress.



Removal of damaged concrete blocks platform at D2-01

- Works commenced on 05/10/23



7 Form Traveller Team

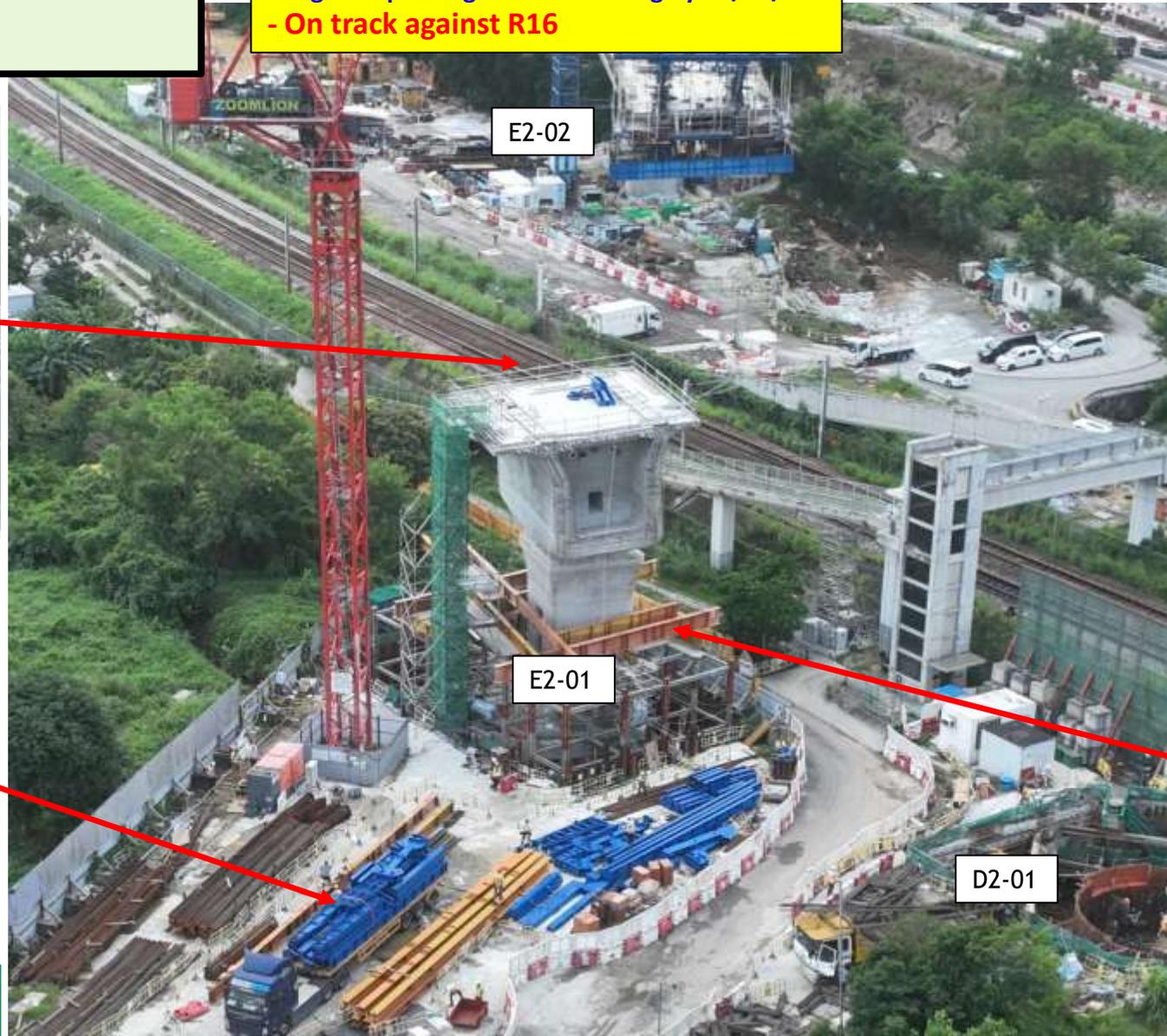
Area Highlighted

- FT5 (E2-01 T -Span)

FT5: E2-01
- FT Assembly
- ES: 13/10/23 EF: 12/12/23
LS: 13/10/23 LF: 12/12/24
-Target 1st pair segment concreting by 13/12/23
- On track against R16



Rail beam, main frame, portal frame & upper beam arrived on site on 11/10/23



Rail beam for FT erection completed on 14/10/23



Temporary working platform for FT bottom mould erection in progress

8 Form Traveler Team

Area Highlighted

- FT3 (D2-02 T-Span)

FT3: D2-02

- Installation of FT3 completed on 05/09/23
- Installation of FT3
 - ES: 06/05/23 EF: 24/08/23
 - LS: 19/05/23 LF: 04/08/23
- Slippage against R16



S01 segment (Down Chainage) completed on 13/09/23



S01 segment (Up Chainage) completed on 16/09/23



D2-02



S02 segment (Down Chainage) completed on 04/10/23



S02 segment (Up Chainage) completed on 06/10/23

▶ South Team

FS04 Bottom Berm Drainage

TSW 1150 (R16) ES: 31/08/22 EF:27/09/23

- Middle berm and UC construction work(CH720 – CH750) completed, CH680 – CH720 will commence after the JUs(CLP, Telecoms etc.) laying works.
- Temp. working platform is dismantled and leveling ground for CLP 11kv cable laying.



Telecoms ducts laying



CLP 11kv cable laying



Rock breaking and trench excavation work on FS04(P800 CH610 – CH760) For CLP and Telecoms ducts laying



9 South Team - Highlight

UU work at TWSRW



Telecoms cable ducts laying
(near FS21) in Progress



CLP 11kv cable laying
(near FW06) in Progress



CLP 11kv cable laying
(Between K.Kee and Venton Factory)



Gas pipe laying(MP250 & LP250)
(near Ho Ka Yuen Village)



Lighting ducts laying and light poles installation
(near FS21)



▶ South Team



Road construction work
-SRT (Footpath CH385 – CH410)
-Footpath – concrete pavement and Carriageway - Bitumen (CH235 – CH250)



Road and Drainage construction work
(Drainage, Footpath and Cycle Track)
near Wo Hop Shek Village



C430
Slope repair work



LT2 (Mini-pile)
Grout Trial

10 Form Traveller Team

Area Highlighted

- FT1 (E2-02 T -Span)

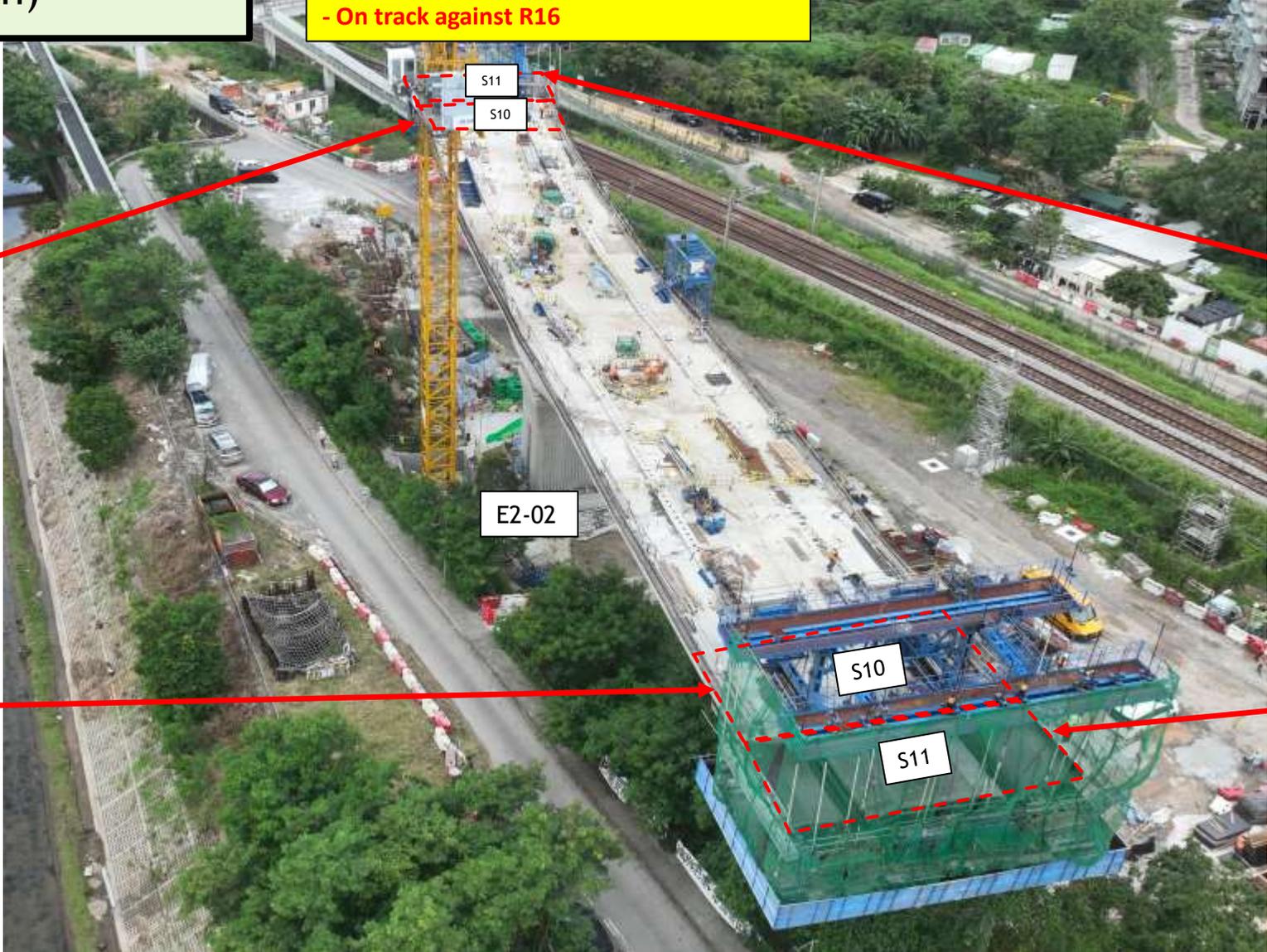
FT1: E2-02
- S10 segment completed on 29/09/23
- E2-02 T-Span (S01 to S014)
 ES: 02/11/22 EF: 14/11/23
 LS: 02/11/22 LF: 22/11/23
- Target S11 concreting by 18/10/23
- On track against R16



S10 segment (Down Chainage) completed on 28/09/23



S10 segment (Up Chainage) completed on 29/09/23



S11 segment (Down Chainage) in progress



S11 segment (Up Chainage) in progress

10 Form Traveller Team

Area Highlighted

- FT2 (E3-01 T -Span)

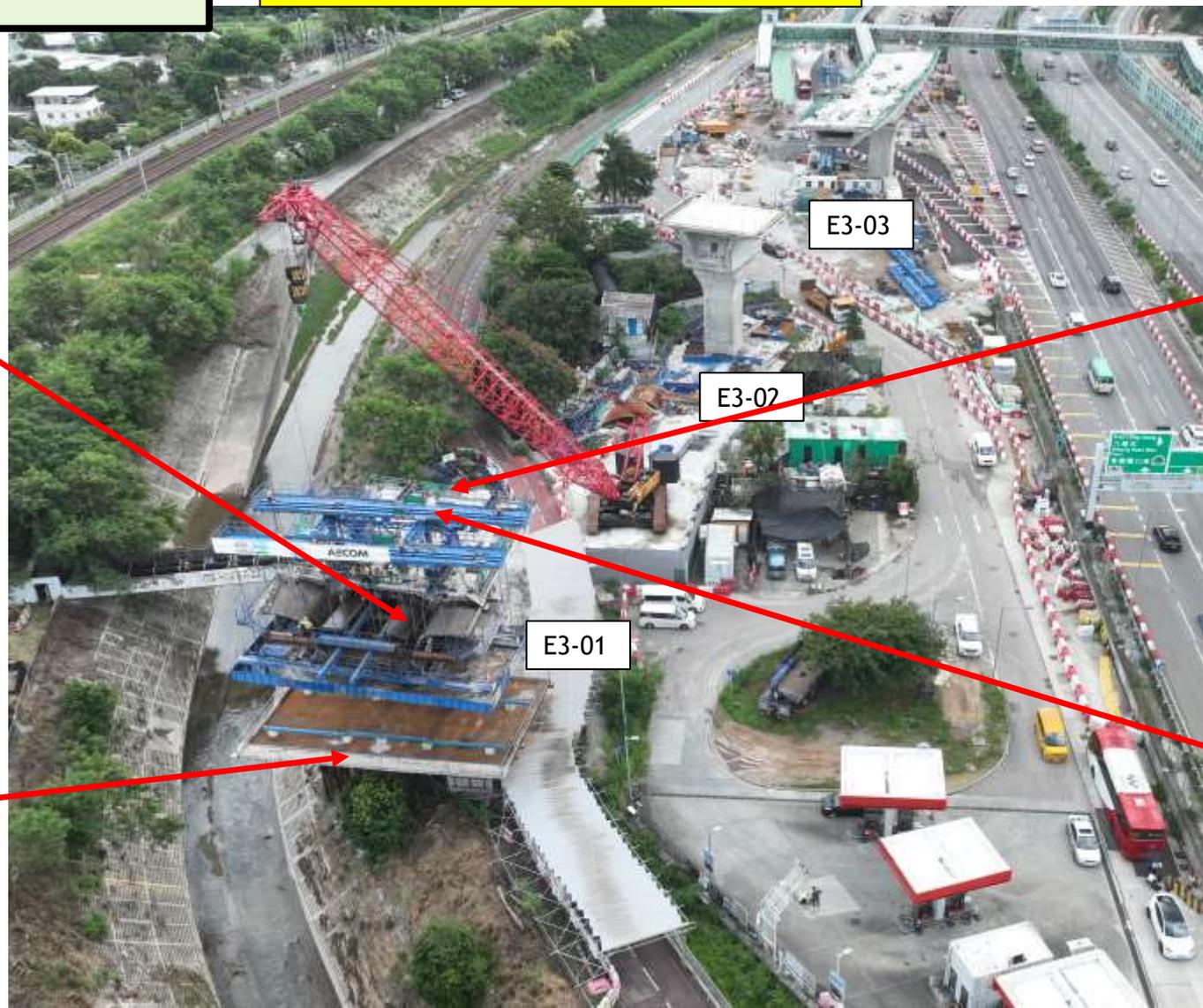
FT1: E3-01
- FT Assembly in progress
- ES: 09/08/23 EF: 25/10/23
LS: 05/01/24 LF: 22/03/24
- Target 1st pair segment concreting by 04/11/23
- On track against R16



Installation of bottom formwork (Down) completed on 16/09/23



Rebar fixing at S02 segment (Down Chainage) in progress



Installation of Main Frame (up) completed on 13/10/23



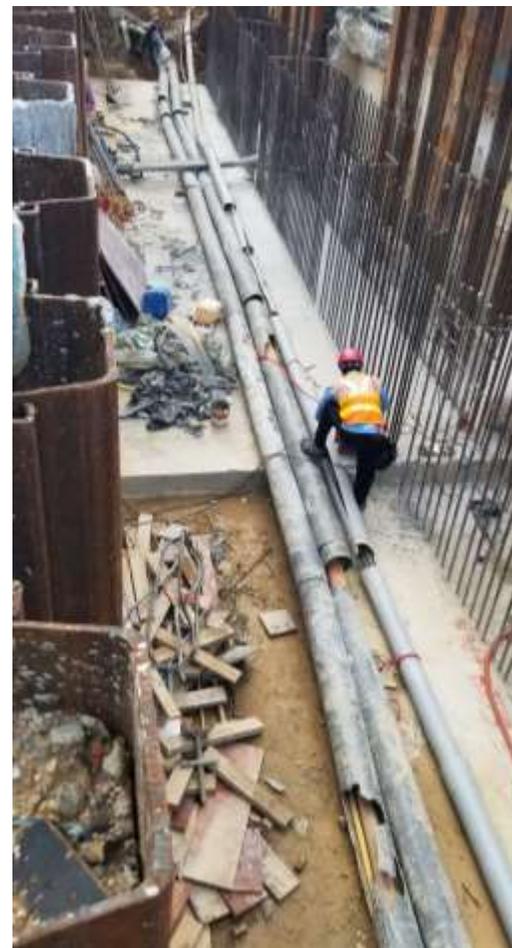
Installation of Portal Frame (up) completed on 14/10/23

► South Team

7. Noise Barrier NB 69 Bay 6-8 Footing

TSE-1520 (R15) ES: 14/08/23 EF:09/09/23

- Bay 5 Footing casted on 15/9, 1st Wall Target 24/10
- Bay 6 Footing casted on 20/9, 1st Wall Target 30/10



Bay 6 Footing casted on 20/9



Bay 6 Footing casted on 15/9

▶ South Team

8. Noise Barrier NB 110 Bay 5 Footing and Wall

TSE-1311 (R16) ES: 01/08/23 EF:28/08/23

- Bay 3 to 5 completed on 15/9
- Bay 8 – Waiting for SRT Result



Bay 5 Wall casted on 15/9



Bay 3 Wall Casted on 15/9



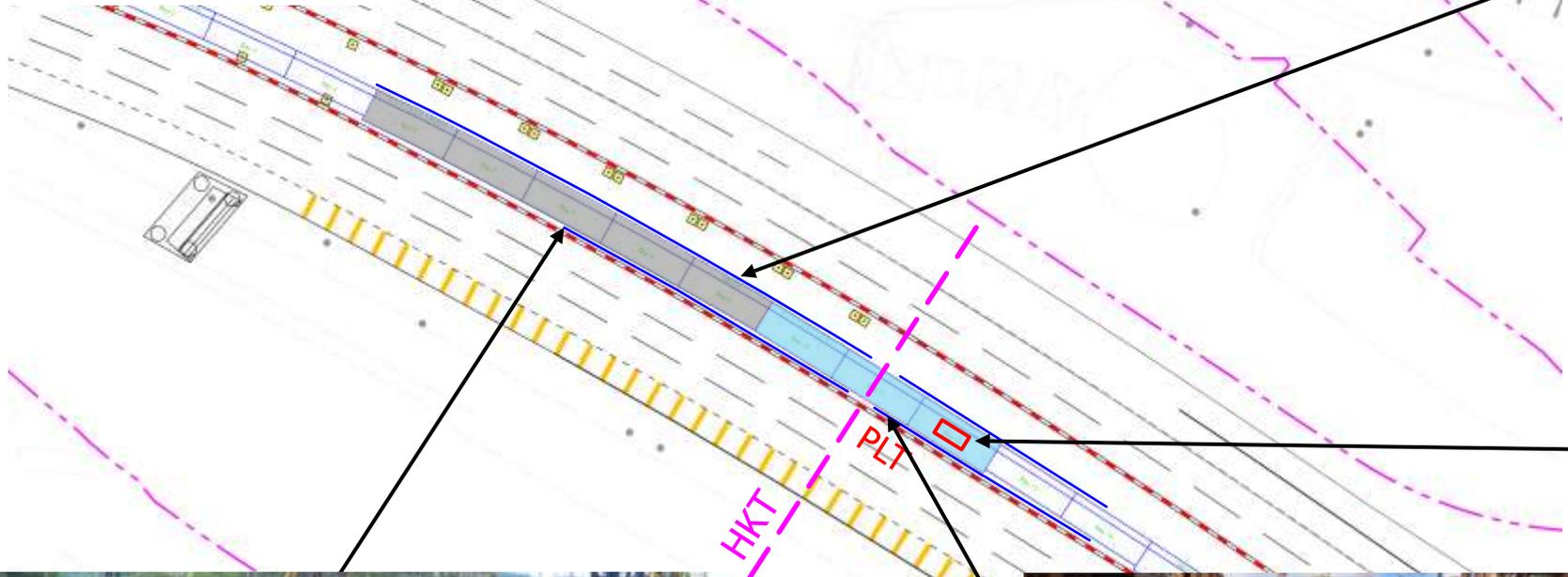
SRT carried out on 16/10. Footing Target 24/10



6. Noise Barrier NB 109 Bay5-13 Stem Wall
 FHY 1517 (R16) ES: 08/08/23 EF:04/10/23

- Bay 09 Wall 1st Portion casted 20/9
- Bay 10 Wall 1st Portion to be casted 25/10
- Bay 05,07,08 Wall 2nd Portion to be casted 26/10

▶ South Team



Bay 9 1st Wall casted on 28/9



Bay 12 - Ready for PLT on 16/10



Bay 11 - Blinding Layer on 20/9



Bay 5-8 Stem Wall. Preparing for 2nd Pour

Plan

1. HKY FB ABWF and BS Work
 FBE-1355 (R16) ES:01/08/23 EF:17/10/23

- Subframe/Roof – In Progress
- FMJ – 4 out of 4 completed by Alga on 9/9

2. BBI Road L201 up to Ch200
 BBI-1320 (R15) ES:08/08/23 EF:28/08/23

- Implemented TTA315 on 7/10



Bus Trial carried out on 4/10



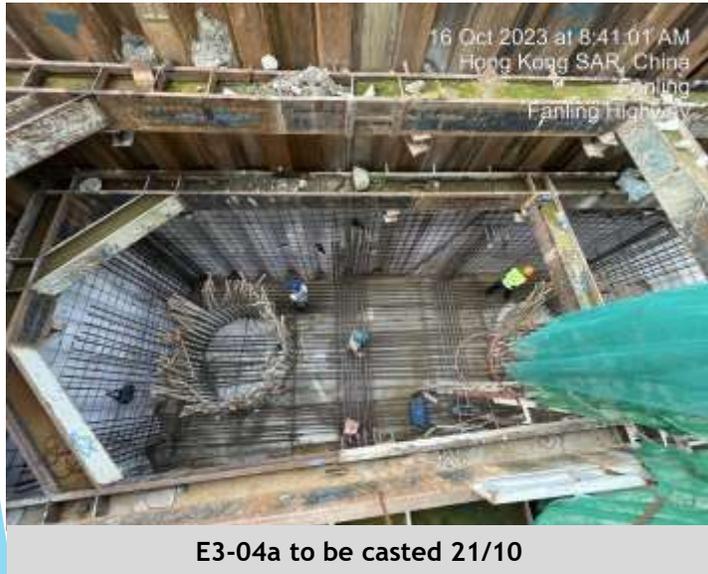
Road Marking carried out on 5/10



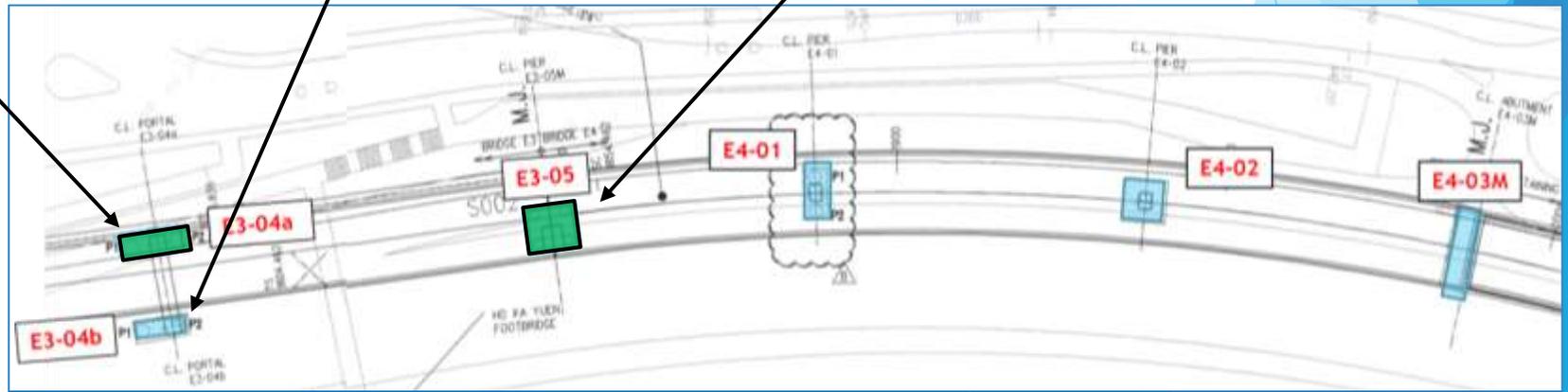
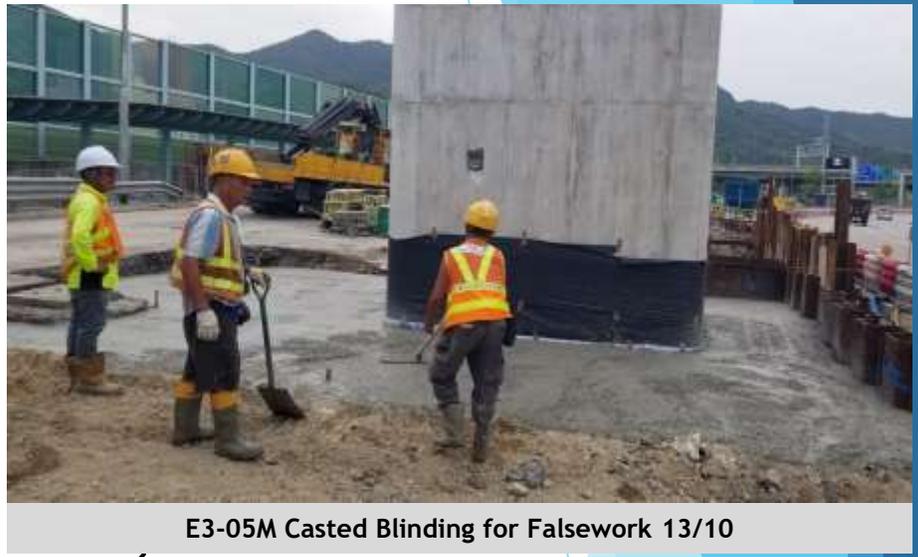
TTA346 to TTA315 on 6-7/10

10 South Team

3. E3-04a Pile Cap
E3-7470 (R16) ES:15/08/23 EF:11/09/23
• Pile Cap to be completed by 21/10/23



4. E3-05M Pier Head
E3-5612 (R16) ES:22/08/23 EF:18/09/23
• Pier Head Target 15/11



▶ Viaduct Segment On Pier (SOP)

- E2-03 SOP 2nd pour casted concrete on 5 Oct 2023.
- Total 9/10 completed



11 South Team

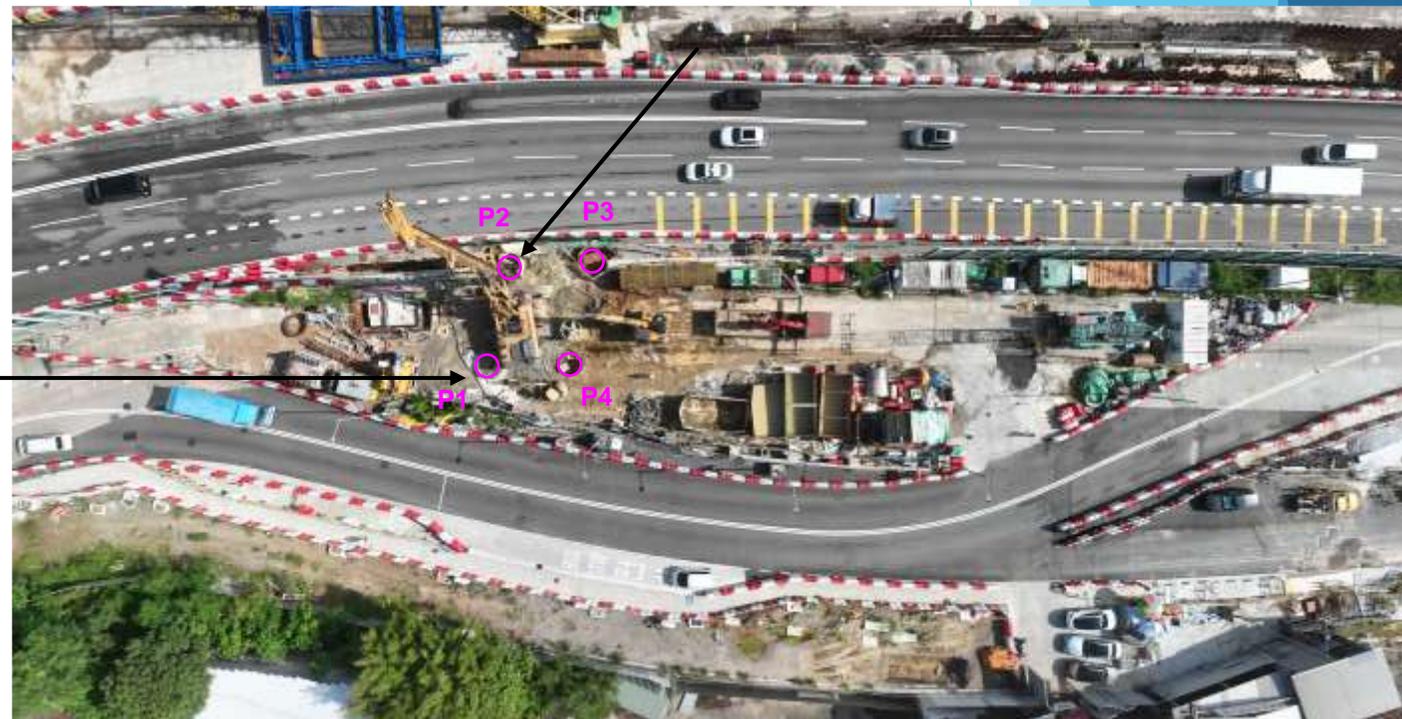
- 5. D204 Bored Piles
- D2-1280 (R16) ES:12/09/23 EF:07/12/23
- P1 Target reach Founding Level 16/9
- P4 Start on 18/9



Reached Founding 13/10, Target Concrete 18/10



D2-04M-P1 Concreted on 26/9



1 Form Traveler Team

Area Highlighted

- FT4 (D2-03 T-Span)

FT4: D2-04

- Installation of FT4
- ES: 01/08/23 EF: 02/11/23
- LS: 17/08/23 LF: 22/11/23

Target completion of FT assembly by 20/10/23

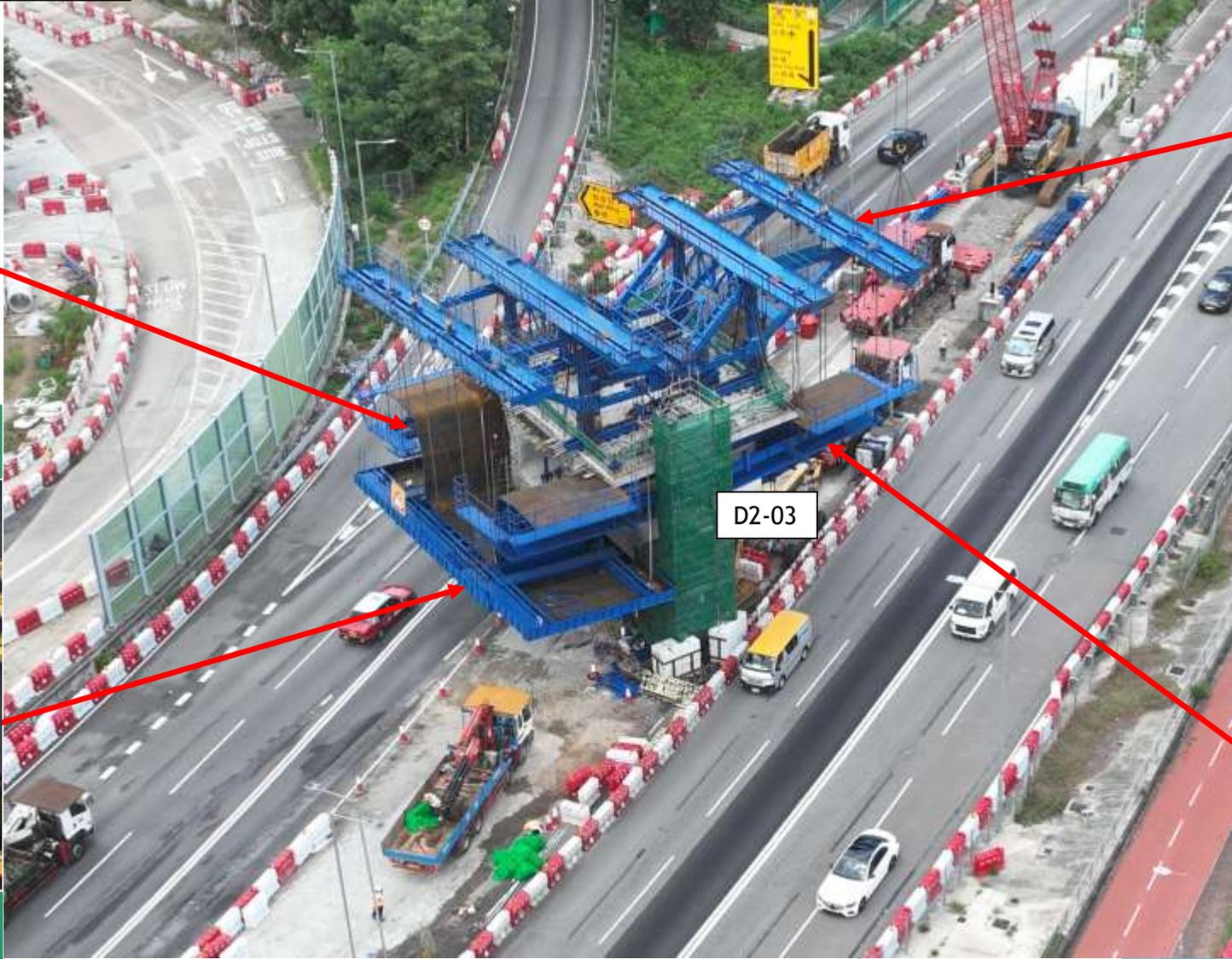
- On Track against R16



Installation of outer mould completed on 19/09/23 (Up Chainage)



Installation of bottom mould completed on 28/9/23 (Up Chainage)



Installation of outer mould completed on 26/09/23 (Down Chainage)



Installation of bottom mould (down chainage) in progress.

12 North Team



Traffic diversion completed

Jockey Club Road

Jockey Club Road - northbound

- Permanent & temporary Road works
- Diversion of slow lane completed.
- Construction bitumen pavement road joint in progress.
- ES: 01/08/23; EF: 14/08/23
- LS: 01/09/23 ; LF : 14/09/23
- **Slippage against R16**
- Construction of DN 150 exposed pipe concrete footing in progress.



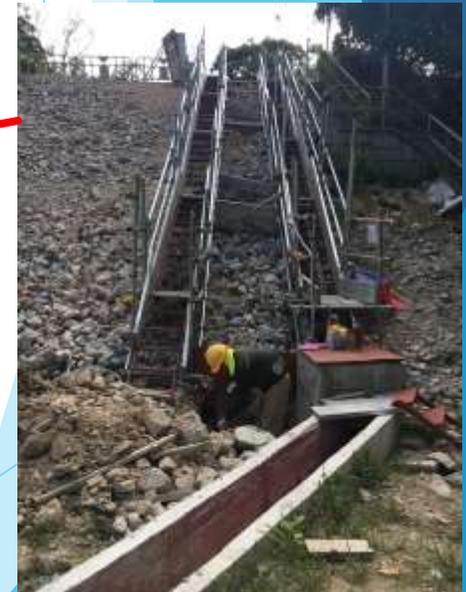
Breaking of existing road kerb & gully



Construction of bitumen pavement joint in progress



Safety Anchorage point for slope works completed



Construction of DN 150 exposed pipe concrete footing in progress.

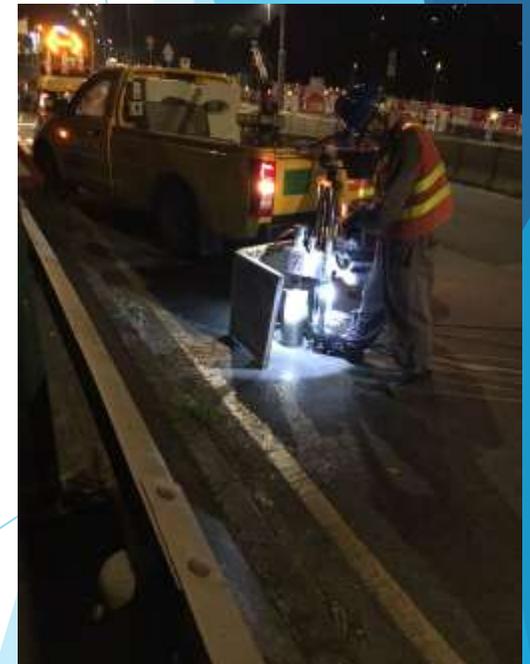
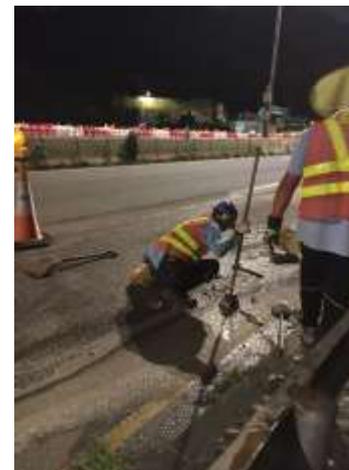
12 North Team



Construction of footpath completed



Coring bitumen pavement sampling for testing



Coring bitumen pavement sampling for testing

Jockey Club Road

Jockey Club Road (THV & Southbound)

- Construction of box-culvert & RW
- ES: 5/9/23 EF:15/1/24
- LF: 5/9/23 LF: 15/1/24
- **Slippage against R16**
- Construction of footpath completed.
- Workshop for construction works of box culvert extension and retaining wall conducted.
- Core existing bitumen pavement for testing (CSD) was 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	Oct	Nov	Dec	Jan	Feb
Fanling North New Development Area, Phase 1: Site Formation and Infrastructure Works										
Key Dates and Sectional Completion of the Works										
Contractual Key Dates		0.0	08-Oct-23	08-Oct-23	-10.5					
KDS1000	KD1 - Completion of all works within Portion V of the Site necessary for the opening of partial Road L1	0.0	08-Oct-23	08-Oct-23*	-100.0					
Contractual Sectional Completion of the Works		0.0	08-Oct-23	08-Oct-23	-10.5					
KDS1040	Section 4- Completion of site formation and infrastructure works in Works Area D	0.0	08-Oct-23	08-Oct-23*	-10.5					
Preliminaries, Contractor's Design, Method Statement Submission and Approval										
General Submission		411.0	10-Aug-22 A	22-Jan-24	-96.0					
PGS1260	TTA Scheme for UU along MSK Road	150.0	01-Jan-23 A	14-Oct-23	-195.0					
Tendering and Procurement for Major Subcontractor		411.0	10-Aug-22 A	22-Jan-24	-96.0					
Procurement for NB Post and Panel		411.0	10-Aug-22 A	22-Jan-24	-96.0					
TDS1170-1	Place Order and Delivery for fabrication of NB steel posts	364.0	10-Aug-22 A	11-Nov-23	-141.0					
TDS1180-1	Fabrication and Delivery to site - NB62 steel post and panel for mock up (1st)	12.0	12-Nov-23	23-Nov-23	-141.0					
TDS1180-2	Fabrication and Delivery to site - NB63 post and panel (Bay18 - Bay21)	36.0	18-Dec-23	22-Jan-24	-96.0					
TDS1180-3	Fabrication and Delivery to site - NB62 post and panel (remaining)	24.0	24-Nov-23	17-Dec-23	-96.0					
Section 1- Site Formation and Infrastructure Works in Area A										
Site Formation (Portion II- Area A 21900m2)		201.0	16-May-23 A	21-Feb-24	172.0					
Site Formation Works in South Part of Portion II		201.0	16-May-23 A	21-Feb-24	172.0					
S1-SF1417	Site formation works part 3 (12577m3) and Removal of temporary works, haul road and temporary accesses	78.0	16-May-23 A	06-Dec-23	-47.0					
S1-SF1420	Construction of open channel (180m)	60.0	07-Dec-23	21-Feb-24	172.0					
Site Formation (Portion III- Area A 4900m2)		15.0	09-Oct-23	26-Oct-23	222.0					
S1-SF1546	Removal of existing feature 3SW-A/F85	15.0	09-Oct-23	26-Oct-23	222.0					
Site Formation (Portion IV- Area A 3800m2)		30.0	09-Oct-23	13-Nov-23	-137.0					
S1-SF1870	Site formation works (2391m3) (after site formation in Area D)	30.0	09-Oct-23	13-Nov-23	-137.0					
Slope Works		42.0	14-Nov-23	04-Jan-24	210.0					
S1-SW1010	Forming new slope feature FS06 and construction of slope drainage	42.0	14-Nov-23	04-Jan-24	210.0					
Box Culvert BC3 and Outfall 10		84.0	09-Oct-23	18-Jan-24	177.0					
Box Culvert BC3 (CH264 to CH282.799) and Outfall 10		84.0	09-Oct-23	18-Jan-24	177.0					
Revised Outfall		24.0	19-Dec-23	18-Jan-24	177.0					
S1-BC1340	Outfall - Reinstate over-cut portions of Outfall	24.0	19-Dec-23	18-Jan-24	177.0					
Bay 22 to 24		80.0	09-Oct-23	13-Jan-24	-18.0					
S1-BC1130-1	Sheet piling, excavation, hanging of twin sewers and excavation to formation level	60.0	09-Oct-23	18-Dec-23	-18.0					
S1-BC1180	Laying of geotextile filter, grade 200 rockfill, polythene sheet	10.0	19-Dec-23	02-Jan-24	-18.0					
S1-BC1190	Concreting for the blinding layer	10.0	03-Jan-24	13-Jan-24	-18.0					
Drainage, Sewerage, Waterworks and Road Works		376.0	04-Jan-23 A	03-May-24	52.0					
Along Ma Sik Road		79.0	16-Oct-23	19-Jan-24	-63.0					
TTA - Closure of Ma Sik Road Eastbound Slow Lane between Wo Tai Street and Site Boundary		69.0	16-Oct-23	08-Jan-24	-158.0					
S1-CS1240	Implement TTA	10.0	16-Oct-23	27-Oct-23	-158.0					
S1-CS1260	UU detection and trial pit	10.0	28-Oct-23	08-Nov-23	-158.0					
S1-CS1270	Utility works by others	30.0	09-Nov-23	13-Dec-23	-158.0					
S1-CS1293	Fresh water main works (10m) (In dry season)	30.0	09-Nov-23	13-Dec-23	-158.0					
S1-CS1295	Flushing water main works (10m) (In dry season)	30.0	09-Nov-23	13-Dec-23	-158.0					
S1-CS1300	Reinstatement of road pavement and road marking	12.0	14-Dec-23	29-Dec-23	-158.0					
S1-CS1305	Street furniture, road lighting and signage installation	7.0	30-Dec-23	08-Jan-24	-158.0					
TTA - Closure of Ma Sik Road Eastbound Fast Lane for water main works		10.0	09-Jan-24	19-Jan-24	-63.0					
S1-CS1680	Implement TTA	10.0	09-Jan-24	19-Jan-24	-63.0					
Along Proposed Cycletrack and Footpath		376.0	04-Jan-23 A	03-May-24	52.0					
Works in Portion I		318.0	04-Jan-23 A	02-Feb-24	3.0					
Works in Portion I CT73 (Ch400 to Ch649)		306.0	04-Jan-23 A	19-Jan-24	-35.0					
S1-CS1472	Irrigation system (CT73 Ch400 to Ch649 total 249m)	85.0	09-Oct-23	19-Jan-24	-35.0					
S1-CS1473	Fresh water main works (CT73 Ch400 to Ch649 total 249m)	85.0	04-Jan-23 A	28-Oct-23	-35.0					
S1-CS1474	Flushing water main works (CT73 Ch400 to Ch649 total 249m)	85.0	04-Jan-23 A	28-Oct-23	-35.0					
S1-CS1475	U-Channel along the Cycletrack(CT73 Ch400 to Ch649 total 249m)	85.0	09-Oct-23	19-Jan-24	-35.0					
Works in Portion I CT74		80.0	30-Oct-23	02-Feb-24	3.0					
S1-CS1493	Fresh water main works (CT74 Ch100 to Ch281 total 181m)	80.0	30-Oct-23	02-Feb-24	3.0					
S1-CS1495	Flushing water main works (CT74 Ch100 to Ch281 total 181m)	80.0	30-Oct-23	02-Feb-24	3.0					
Works in Portion II CT71 (Ch100 to Ch369.376)		161.0	09-Jan-23 A	03-May-24	52.0					
S1-CS1520	Drainage work (MNH_FL5.29 to MNH_FL5.26 229m) After box culvert back filling Bay1 to Bay22	85.0	09-Jan-23 A	11-Nov-23	134.0					
S1-CS1530	Fresh water main works (269m)	85.0	10-Jul-23 A	03-May-24	52.0					
S1-CS1540	Flushing water main works (269m)	85.0	10-Jul-23 A	03-May-24	52.0					
Works in Portion III CT76 (Ch100 to Ch298.277)		96.0	09-Oct-23	01-Feb-24	16.0					
Sewerage		96.0	09-Oct-23	01-Feb-24	-17.0					
S1-CS1820-3	CE149 - Sewerage DN600 - Construction of permanent manhole FMH_FL1.19	48.0	09-Oct-23	04-Dec-23	-76.0					
S1-CS1820-4	CE149 - Sewerage DN600 - Removal of sheetpiles and backfilling at FMH_FL1.19	12.0	05-Dec-23	18-Dec-23	19.0					
S1-CS1820-5	CE149 - Sewerage DN600 - Construction of permanent manhole FMH_FL1.19A	48.0	05-Dec-23	01-Feb-24	-76.0					
Remaining Works (next to Portion V - approx 64m)		33.0	19-Dec-23	29-Jan-24	19.0					
S1-CS1575-1	Drainage work (SMH_FL2005 to SMH_FL2008 Remaining 64m) (CE027 Original:1nos Manhole)	33.0	19-Dec-23	29-Jan-24	19.0					
Section 4- Site Formation and Infrastructure Works in Area D										
S4-SF1120	Site formation works (10276m3)	80.0	04-Feb-22 A	26-Oct-23	-122.5					
S4-SF1125	Construction of open channel (257m)	70.0	27-Oct-23	19-Jan-24	-72.5					
S4-SF1130	Irrigation system (250m)	50.0	27-Oct-23	23-Dec-23	-122.5					
S4-SF1140	Erection of chain link fence (382m)	50.0	27-Dec-23	27-Feb-24	-122.5					
Section 5- Site Formation and Infrastructure Works in Area E and Remainder of the Works										
Road L1		427.0	09-Mar-22 A	22-Feb-24	-63.0					
Road L1 in Portion V (P600 CH100 to CH194)		344.9	11-Oct-22 A	14-Feb-24	-217.0					
S5-RD1345	Construction of drainage works (8nos Manholes 235m)	80.0	30-Nov-22 A	01-Nov-23	-217.0					

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



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

Page : 1 of 2

Date	Revision	Checked	Approved
08-Oct-23	RDWPC1	ST	CLX

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	2023				2024		
						Oct	Nov	Dec	Jan	Feb		
SS-RD1350	Construction of sewerage works (4nos Manholes)	46.0	11-Oct-22 A	10-Oct-23	-199.0	Construction of sewerage works (4nos Manholes)						
SS-RD1360	Construction of irrigation system (184m)	48.0	02-Nov-23	29-Dec-23	-217.0				Construction of irrigation system (184m)			
SS-RD1370	Fresh water main works (184m)	48.0	11-Sep-23 A	29-Nov-23	-188.0	Fresh water main works (184m)						
SS-RD1375	Flushing water main works (184m)	48.0	11-Sep-23 A	29-Nov-23	-188.0	Flushing water main works (184m)						
SS-RD1380	Utility service by others	24.0	08-Dec-23	08-Jan-24	-202.0				Utility service by others			
SS-RD1390	Construction of planters	24.0	30-Dec-23	27-Jan-24	-212.0				Construction of planters			
SS-RD1395	Construction of road pavement works	36.0	30-Dec-23	14-Feb-24	-217.0				Construction of road pavement works			
Road L1 in Portion IV (P600 CH194 to CH393, P700 CH100 to CH175)		427.0	09-Mar-22 A	22-Feb-24	-63.0							
SS-RD1180	Construction of drainage (17nos Manholes 630m)	85.0	09-Mar-22 A	16-Oct-23	-99.0	Construction of drainage (17nos Manholes 630m)						
SS-RD1185	Construction of irrigation system (489m)	70.0	17-Oct-23	10-Jan-24	-99.0				Construction of irrigation system (489m)			
SS-RD1200	Fresh water main works (489m)	70.0	23-Feb-23 A	06-Nov-23	-42.0	Fresh water main works (489m)						
SS-RD1210	Flushing water main works (489m)	70.0	23-Feb-23 A	06-Nov-23	-42.0	Flushing water main works (489m)						
SS-RD1220	Road pavement works	75.0	10-Jun-23 A	22-Feb-24	-63.0	Road pavement works						
Road L2		268.0	13-Dec-22 A	03-Apr-24	-95.0							
SS-RD1500	Construction of drainage works (13nos manholes 320m)	80.0	13-Dec-22 A	17-Oct-23	-30.0	Construction of drainage works (13nos manholes 320m)						
SS-RD1520	Fresh water main works (298m)	80.0	10-Aug-23 A	03-Apr-24	-95.0				Fresh water main works (298m)			
SS-RD1530	Flushing water main works (298m)	80.0	10-Aug-23 A	03-Apr-24	-95.0				Flushing water main works (298m)			
Noise Barrier NB62		407.9	14-Nov-22 A	14-Mar-24	-118.0							
SS-NB1060	Excavation and construction of base slabs and wall stems (Bay 1 - Bay 6)	70.0	14-Nov-22 A	01-Nov-23	-149.0	Excavation and construction of base slabs and wall stems (Bay 1 - Bay 6)						
SS-NB1080	Installation of noise barrier steel posts	60.0	02-Jan-24	14-Mar-24	-118.0				Installation of noise barrier steel posts			
SS-NB1080-1	Installation of noise barrier steel posts and panel for mock up	30.0	24-Nov-23	30-Dec-23	-118.0				Installation of noise barrier steel posts and panel for mock up			
Noise Barrier NB63		196.0	10-May-23 A	04-Mar-24	-111.0							
Noise Barrier NB63 (Bay 18 to Bay 21)		42.0	09-Aug-23 A	15-Dec-23	-49.0							
S1-NB1275	Excavation and construction of base slab (Bay 18 - Bay 21)	42.0	09-Aug-23 A	15-Dec-23	-49.0	Excavation and construction of base slab (Bay 18 - Bay 21)						
Noise Barrier NB63 (Bay 13 to Bay 17)		100.0	09-Oct-23	06-Feb-24	-101.0							
S1-NB1200	Installation of sheet piles (Bay 13 - Bay 17)	50.0	09-Oct-23	06-Dec-23	-121.0	Installation of sheet piles (Bay 13 - Bay 17)						
S1-NB1210	Excavation and installation of lateral support (Bay13 - Bay17)	50.0	07-Dec-23	06-Feb-24	-101.0	Excavation and installation of lateral support (Bay13 - Bay17)						
Noise Barrier NB63 (Bay 7 to Bay 12)		40.0	08-Nov-23	23-Dec-23	-121.0							
S1-NB1205	Installation of sheet piles (Bay 7 - Bay 12)	40.0	08-Nov-23	23-Dec-23	-121.0	Installation of sheet piles (Bay 7 - Bay 12)						
Noise Barrier NB63 (Bay 1 to Bay 6)		196.0	10-May-23 A	04-Mar-24	-126.0							
S1-NB1050	Installation of Mini Piles Bay 1 to Bay 6 (32 nos) (CSD) (after trees transplanted) (Original:36nos H-pile, 72days)	90.0	10-May-23 A	18-Dec-23	-126.0	Installation of Mini Piles Bay 1 to Bay 6 (32 nos) (CSD) (after trees transplanted) (Original:36nos H-pile, 72days)						
S1-NB1100	Installation of sheet piles	60.0	19-Dec-23	04-Mar-24	-126.0	Installation of sheet piles						
Section 6- Completion of Preservation And Protection Of Existing Trees		1146.0	31-Aug-20 A	11-Jan-25	-93.0							
S6-CS1000	Preservation and protection of trees	1146.0	31-Aug-20 A	11-Jan-25	-93.0	Preservation and protection of trees						

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



Date	Revision	Checked	Approved
08-Oct-23	RDWPC1	ST	CLX

Portion	Legend
I	
II	
III	
IV	
V	

PORTION II

1. C&D waste disposal
2. Construction of box culvert
3. Filling works
4. Waterworks
5. Drainage works

PORTION I

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

PORTION IV

1. Drainage works
2. Sewerage works
3. C&D waste disposal
4. Filling works
5. Construction of site haul road
6. Construction of noise barrier
7. Road works
8. 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 (Oct 2023 – Jan 2024)

**APPENDIX B
ACTION AND LIMIT LEVELS**

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

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

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

Monitoring station	Action Level (ug/m ³)	Limit Level (ug/m ³)
FLN-DMS1	150	260
FLN-DMS3	165	
FLN-DMS5A	153	
KTN-DMS4	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⁽¹⁾

Parameters	Action Level	Limit Level
DO in mg/L (depth average) ^{#+}	5 percentile of baseline data.	4 mg/L or 1 percentile of baseline data.
SS in mg/L (depth averaged) ^{*&}	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) ^{*^}	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) ^{*~}	95 percentile of baseline data or 120% of upstream control station.	0.021mg/L or 99 percentile of baseline data or 130% of 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)⁽¹⁾

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
	Max	Min	Average	95 Percentile	99 Percentile
Turbidity in NTU	72.4	4.59	10.88	62.2	72.2
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
River Beas (SYR-IS1)		
DO in mg/L (depth average) ^[1]	SYR-IS1: <u>6.1</u> ^[2]	SYR-IS1: <u>6.0</u> ^[2]
SS in mg/L (depth average) ^[1]	SYR-IS1: <u>75.6</u> or 120% of upstream control station, whichever is higher ^[3]	SYR-IS1: <u>83.1</u> or 130% of upstream control station, whichever is higher ^[3]
Turbidity in NTU (depth average) ^[1]	SYR-IS1: <u>48.2</u> or 120% of upstream control station, whichever is higher ^[3]	SYR-IS1: <u>50.9</u> or 130% of upstream control station, whichever is higher ^[3]
Arsenic in µg/L (depth average) ^[2]	SYR-IS1: <u>5.4</u> or 120% of upstream control station, whichever is higher ^[3]	SYR-IS1: 50 µg/L ^[4]
River Indus and near Siu Hang San Tsuen Stream (NTR-IS1, SHST-IS2, MWR-IS3)		
DO in mg/L (depth average) ^[1]	NTR-IS1: <u>5.8</u> ^[2] SHST-IS2: <u>7.0</u> ^[2] MWR-IS3: <u>8.6</u> ^[2]	NTR-IS1: <u>5.7</u> ^[2] SHST-IS2: <u>6.8</u> ^[2] MWR-IS3: <u>8.5</u> ^[2]
SS in mg/L (depth average) ^[1]	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 ^[3]	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 ^[3]
Turbidity in NTU (depth average) ^[1]	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 ^[3]	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 ^[3]

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	9.36ng/m³ - 80% of 11.7ng/m ³ – the highest ambient arsenic concentration predicted during the construction phase with mitigation measures implemented)	11.7ng/m³ - 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 ₂	<19% v/v	Increase underground ventilation to restore O ₂ to >19% v/v
	<18% v/v	Stop works, evacuate all personnel, prohibit entry, and increase ventilation to restore O ₂ level to >19%
CH ₄	>10% LEL	Prohibit hot works, increase ventilation to restore CH ₄ to <10% LEL
	>20% LEL	Stop works, evacuate all personnel, increase ventilation further to restore CH ₄ to <10% LEL
CO ₂	>0.5% v/v	Increase ventilation to restore C O ₂ to <0.5% v/v
	>1.5% v/v	Stop works, evacuate all personnel, increase ventilation further to restore CO ₂ 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 for Avifauna Monitoring and General Site Inspection in the LVNP during Construction Phase – October

Monitoring Parameter	Action Level	Limit Level
Mean abundance of bird	472	337
Mean abundance of <i>Ardeola bacchus</i>	14	10
General site inspection	Activity likely to cause unacceptable environmental disturbance or damage	Activity causing unacceptable environmental disturbance or damage

Table B-8.2 Action and Limit Levels of Disturbance to Waterbirds using in Ng Tung, Sheung Yue and Shek Sheung Rivers – October

Monitoring Parameter	Action Level	Limit Level
Mean abundance of birds*	10	7
Mean abundance of <i>Ardeola bacchus</i>	6	4
*Large waterbirds: <i>Ardea alba</i> , <i>Ardea cinerea</i> , <i>Ardea intermedia</i> , <i>Egretta eulophotes</i> , <i>Egretta garzetta</i> and <i>Phalacrocorax carbo</i>		

Table B-8.3 Action and Limit Levels of Declines in Aquatic Fauna– October

Monitoring Station		Action Level (Species richness of native species)	Limit Level (Species richness of native species)
MS_01	Macroinvertebrates	NA	NA
	Fish	NA	NA
MS_02 & MS_03	Macroinvertebrates	NA	NA
	Fish	NA	NA
MS_04, MS_06 & MS_07	Macroinvertebrates	NA	NA
	Fish	NA	1
MS_05	Macroinvertebrates	NA	NA
	Fish	NA	NA
MS_08, MS_09 & MS_10	Macroinvertebrates	2	1
	Fish	NA	NA
MS_11	Macroinvertebrates	NA	NA
	Fish	NA	NA
MS_12	Macroinvertebrates	NA	NA
	Fish	NA	NA

MS_13 & MS_14	Macroinvertebrates	NA	NA
	Fish	NA	NA
MS_15	Macroinvertebrates	NA	NA
	Fish	NA	NA

Table B-8.4 Action and Limit Levels of Declines in the Seasonal Non-aquatic Fauna (Herpetofauna, Butterfly and Odonates) in Ecologically Sensitive Habitats – October

Monitoring Parameter	Transect	Action Level	Limit Level
Monthly species richness of native species of herpetofauna	T1	6	4
	T3	4	3
	T4	3	2
	T5	3	2
	T6	3	2
Monthly species richness of butterflies	T1	16	12
	T3	9	7
	T4	8	6
	T5	10	7
	T6	11	8
Month species richness of native species of odonates	T1	8	6
	T3	8	6
	T4	4	3
	T5	7	5
	T6	8	6

Table B-8.5 Action and Limit Levels of Declines in the Non-seasonal Non-aquatic Fauna (Mammals) in Ecologically Sensitive Habitats – October

Monitoring Parameter	Transect	Action Level	Limit Level
Monthly species richness of native species of mammals	T1	NA	NA
	T3	NA	NA
	T4	NA	NA
	T5	NA	NA
	T6	NA	NA

**APPENDIX C
COPIES OF CALIBRATION
CERTIFICATES**

TEST REPORT

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

Test Report No.:	38946
Date of Issue:	2023-09-11
Date Received:	2023-09-09
Date Tested:	2023-09-09
Date Completed:	2023-09-11
Next Due Date:	2023-11-10

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)	1.115
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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:	9-Sep-23	9-Sep-23
Location:	Wellab Office (Calibration Room)	

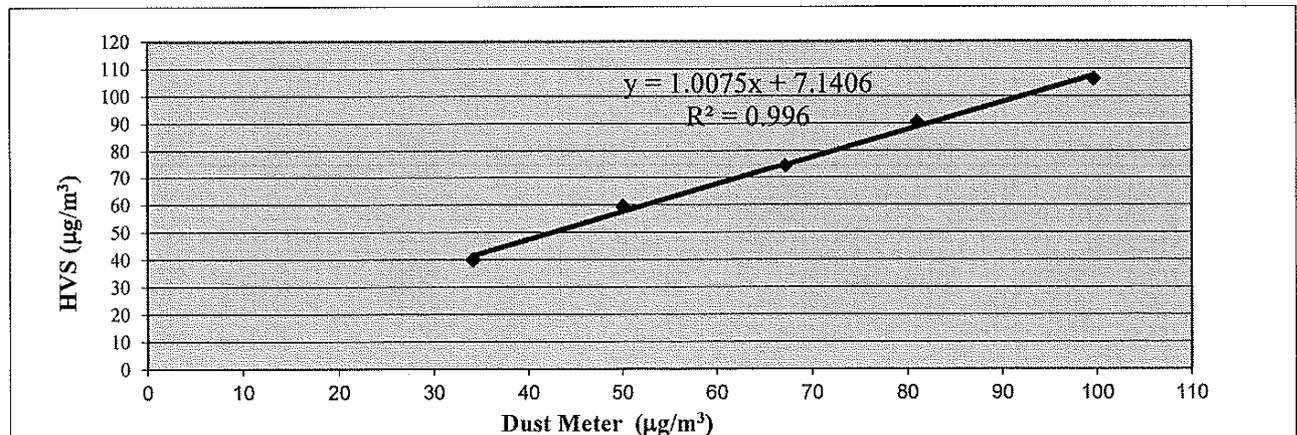
Calibration of 1 hr TSP		
Calibration Point	Dust Meter	HVS
	Mass Concentration ($\mu\text{g}/\text{m}^3$) X-axis	Mass concentration ($\mu\text{g}/\text{m}^3$) Y-axis
1	34	40
2	50	59
3	67	74
4	81	91
5	100	106
Average	66.5	74.1

By Linear Regression of Y on X
 Slope, mw = 1.0075 Intercept, bw = 7.1406
 Correlation coefficient* = 0.9980

*If Correlation Coefficient < 0.90, check and recalibrate.

Set Correlation Factor	
Particulate Concentration by High Volume Sampler ($\mu\text{g}/\text{m}^3$)	74.1
Particulate Concentration by Dust Meter ($\mu\text{g}/\text{m}^3$)	66.5
Measuring time, (min)	60

Set Correlation Factor, SCF
 SCF = [K=High Volume Sampler / Dust Meter, ($\mu\text{g}/\text{m}^3$)] 1.115



QC Reviewer: Lizy Myn Hrv Signature: his Date: 9/9/23

TEST REPORT

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

Test Report No.:	38946A
Date of Issue:	2023-09-11
Date Received:	2023-09-09
Date Tested:	2023-09-09
Date Completed:	2023-09-11
Next Due Date:	2023-11-10

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)	1.094
-------------------------	-------

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:	9-Sep-23	9-Sep-23
Location:	Wellab Office (Calibration Room)	

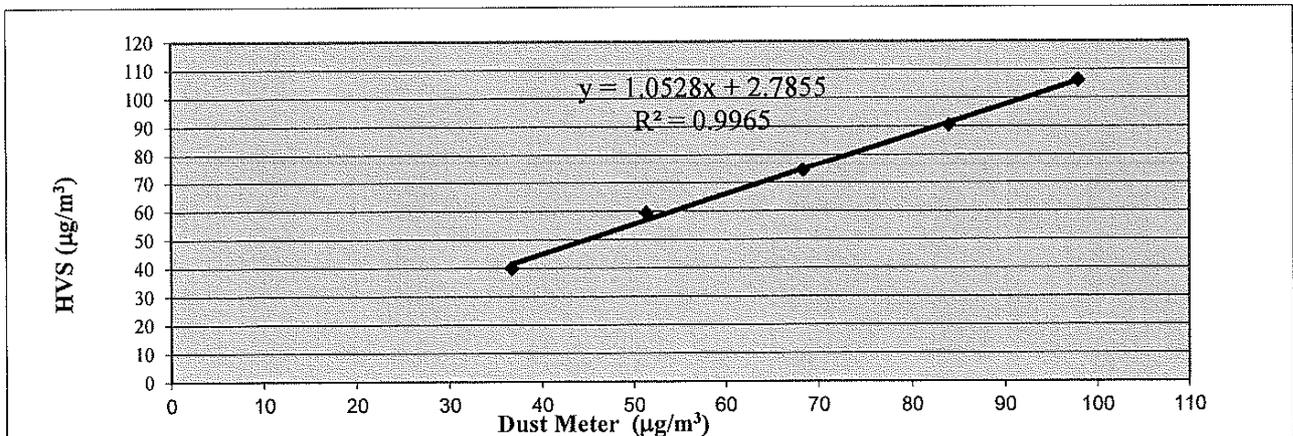
Calibration of 1 hr TSP		
Calibration Point	Dust Meter	HVS
	Mass Concentration ($\mu\text{g}/\text{m}^3$) X-axis	Mass concentration ($\mu\text{g}/\text{m}^3$) Y-axis
1	37	40
2	51	59
3	68	74
4	84	91
5	98	106
Average	67.7	74.1

By Linear Regression of Y on X
 Slope, mw = 1.0528 Intercept, bw = 2.7855
 Correlation coefficient* = 0.9982

*If Correlation Coefficient < 0.90, check and recalibrate.

Set Correlation Factor	
Particulate Concentration by High Volume Sampler ($\mu\text{g}/\text{m}^3$)	74.1
Particulate Concentration by Dust Meter ($\mu\text{g}/\text{m}^3$)	67.7
Measuring time, (min)	60

Set Correlation Factor, SCF
 SCF = [K=High Volume Sampler / Dust Meter, ($\mu\text{g}/\text{m}^3$)] 1.094



QC Reviewer: LGE MDN HZ Signature: hes Date: 9/9/23

TEST REPORT

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

Test Report No.:	38946B
Date of Issue:	2023-09-11
Date Received:	2023-09-09
Date Tested:	2023-09-09
Date Completed:	2023-09-11
Next Due Date:	2023-11-10

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)	1.147
-------------------------	-------

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:	9-Sep-23	9-Sep-23
Location:	Wellab Office (Calibration Room)	

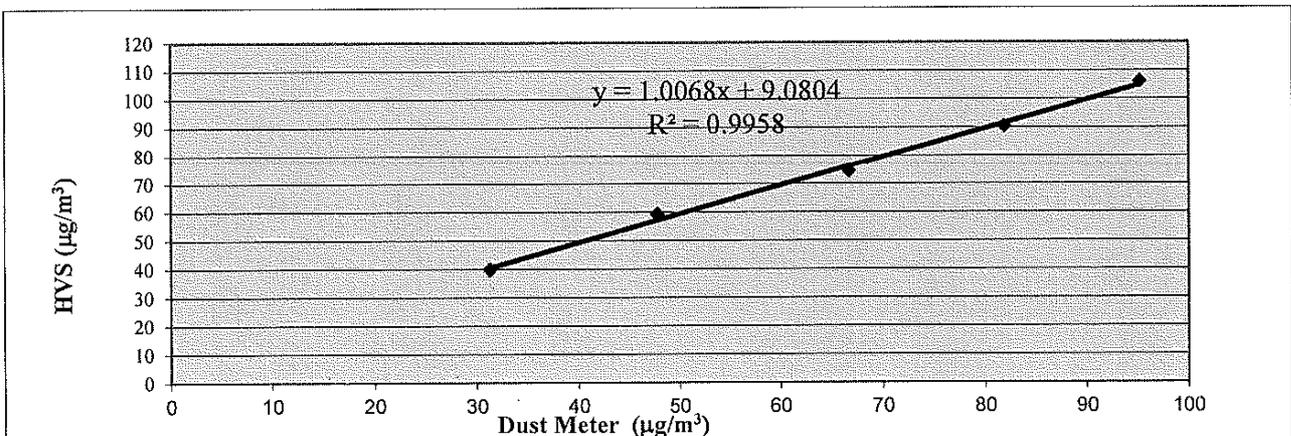
Calibration of 1 hr TSP		
Calibration Point	Dust Meter	HVS
	Mass Concentration ($\mu\text{g}/\text{m}^3$) X-axis	Mass concentration ($\mu\text{g}/\text{m}^3$) Y-axis
1	31	40
2	48	59
3	67	74
4	82	91
5	95	106
Average	64.6	74.1

By Linear Regression of Y on X
 Slope, mw = 1.0068 Intercept, bw = 9.0804
 Correlation coefficient* = 0.9979

*If Correlation Coefficient < 0.90, check and recalibrate.

Set Correlation Factor	
Particulate Concentration by High Volume Sampler ($\mu\text{g}/\text{m}^3$)	74.1
Particulate Concentration by Dust Meter ($\mu\text{g}/\text{m}^3$)	64.6
Measuring time, (min)	60

Set Correlation Factor, SCF
 SCF = [K=High Volume Sampler / Dust Meter, ($\mu\text{g}/\text{m}^3$)] 1.147



QC Reviewer: BB MBN HEB Signature: hcs Date: 9/9/23

TEST REPORT

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

Test Report No.:	38751
Date of Issue:	2023-08-24
Date Received:	2023-08-23
Date Tested:	2023-08-23
Date Completed:	2023-08-24
Next Due Date:	2023-10-23

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)	1.093
-------------------------	-------

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:	23-Aug-23	23-Aug-23
Location:	Wellab Office (Calibration Room)	

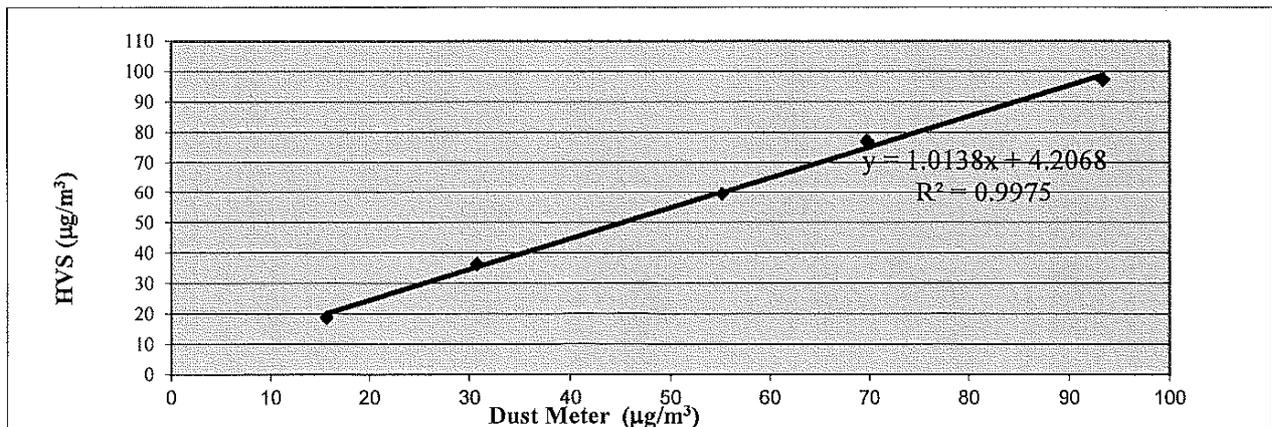
Calibration of 1 hr TSP		
Calibration Point	Dust Meter	HVS
	Mass Concentration ($\mu\text{g}/\text{m}^3$) X-axis	Mass concentration ($\mu\text{g}/\text{m}^3$) Y-axis
1	16	19
2	31	36
3	55	60
4	70	77
5	93	97
Average	53.0	57.9

By Linear Regression of Y on X
 Slope, mw = 1.0138 Intercept, bw = 4.2068
 Correlation coefficient* = 0.9987

*If Correlation Coefficient < 0.90, check and recalibrate.

Set Correlation Factor	
Particulate Concentration by High Volume Sampler ($\mu\text{g}/\text{m}^3$)	57.9
Particulate Concentration by Dust Meter ($\mu\text{g}/\text{m}^3$)	53.0
Measuring time, (min)	60

Set Correlation Factor, SCF
 SCF = [K=High Volume Sampler / Dust Meter, ($\mu\text{g}/\text{m}^3$)] 1.093



QC Reviewer: W. Man H. H. Signature: he Date: 24/8/23

TEST REPORT

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

Test Report No.:	38751A
Date of Issue:	2023-08-24
Date Received:	2023-08-23
Date Tested:	2023-08-23
Date Completed:	2023-08-24
Next Due Date:	2023-10-23

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)	1.108
-------------------------	-------

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:	23-Aug-23	23-Aug-23
Location:	Wellab Office (Calibration Room)	

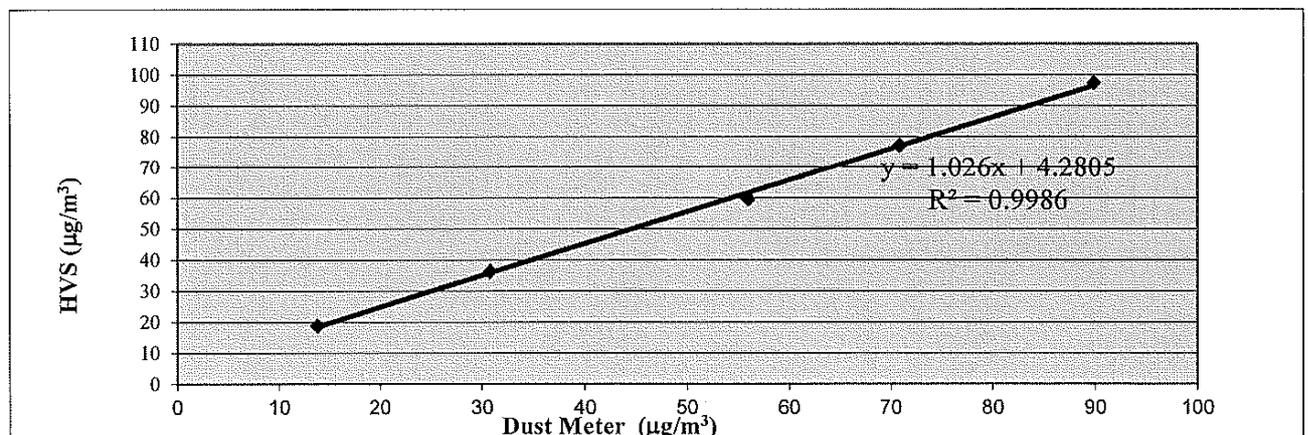
Calibration of 1 hr TSP		
Calibration Point	Dust Meter	HVS
	Mass Concentration ($\mu\text{g}/\text{m}^3$) X-axis	Mass concentration ($\mu\text{g}/\text{m}^3$) Y-axis
1	14	19
2	31	36
3	56	60
4	71	77
5	90	97
Average	52.3	57.9

By Linear Regression of Y on X
 Slope, mw = 1.0260 Intercept, bw = 4.2805
 Correlation coefficient* = 0.9993

*If Correlation Coefficient < 0.90, check and recalibrate.

Set Correlation Factor	
Particulate Concentration by High Volume Sampler ($\mu\text{g}/\text{m}^3$)	57.9
Particulate Concentration by Dust Meter ($\mu\text{g}/\text{m}^3$)	52.3
Measuring time, (min)	60

Set Correlation Factor, SCF
 SCF = [K=High Volume Sampler / Dust Meter, ($\mu\text{g}/\text{m}^3$)] 1.108



QC Reviewer: Eva Ann Lopez Signature: hes Date: 24/8/23

TEST REPORT

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

Test Report No.:	38946D
Date of Issue:	2023-09-11
Date Received:	2023-09-09
Date Tested:	2023-09-09
Date Completed:	2023-09-11
Next Due Date:	2023-11-10

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)	1.087
-------------------------	-------

PREPARED AND CHECKED BY:

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



PATRICK TSE
General Manager

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

Dust Meter	Dust Meter	High Volume Sampler
Equipment No.:	WA-01-07	WA-12-09
Model No.:	AEROCET-831	TE-5170
Serial No.	X24475	2203
Calibration Date:	9-Sep-23	9-Sep-23
Location:	Wellab Office (Calibration Room)	

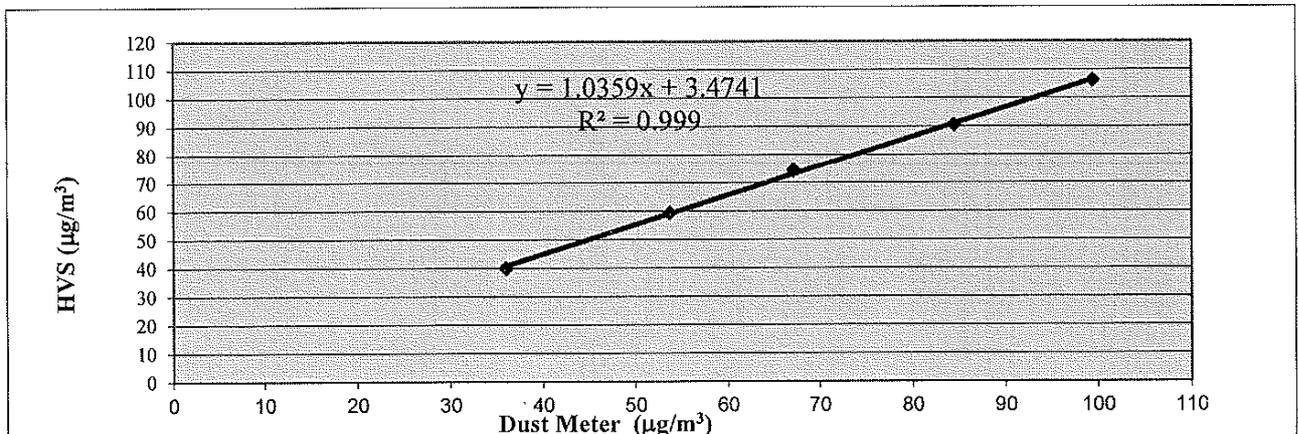
Calibration of 1 hr TSP		
Calibration Point	Dust Meter	HVS
	Mass Concentration ($\mu\text{g}/\text{m}^3$) X-axis	Mass concentration ($\mu\text{g}/\text{m}^3$) Y-axis
1	36	40
2	54	59
3	67	74
4	85	91
5	100	106
Average	68.2	74.1

By Linear Regression of Y on X
 Slope, mw = 1.0359 Intercept, bw = 3.4741
 Correlation coefficient* = 0.9995

*If Correlation Coefficient < 0.90, check and recalibrate.

Set Correlation Factor	
Particulate Concentration by High Volume Sampler ($\mu\text{g}/\text{m}^3$)	74.1
Particulate Concentration by Dust Meter ($\mu\text{g}/\text{m}^3$)	68.2
Measuring time, (min)	60

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



QC Reviewer: LBE MDR HBE Signature: he Date: 9/9/23

TEST REPORT

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

Test Report No.:	38751B
Date of Issue:	2023-08-24
Date Received:	2023-08-23
Date Tested:	2023-08-23
Date Completed:	2023-08-24
Next Due Date:	2023-10-23

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.	: 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:

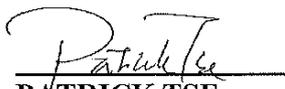
1. Instruction and Operation Manual High Volume Sampler, Tisch Environmental Inc.
2. In-house method in according to the instruction manual: The Dust Monitor was compared with a calibrated High Volume Sampler and the result was used to generate the Correlation Factor (CF) between the Dust Monitor and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

Results:

Correlation Factor (CF)	1.137
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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:	23-Aug-23	23-Aug-23
Location:	Wellab Office (Calibration Room)	

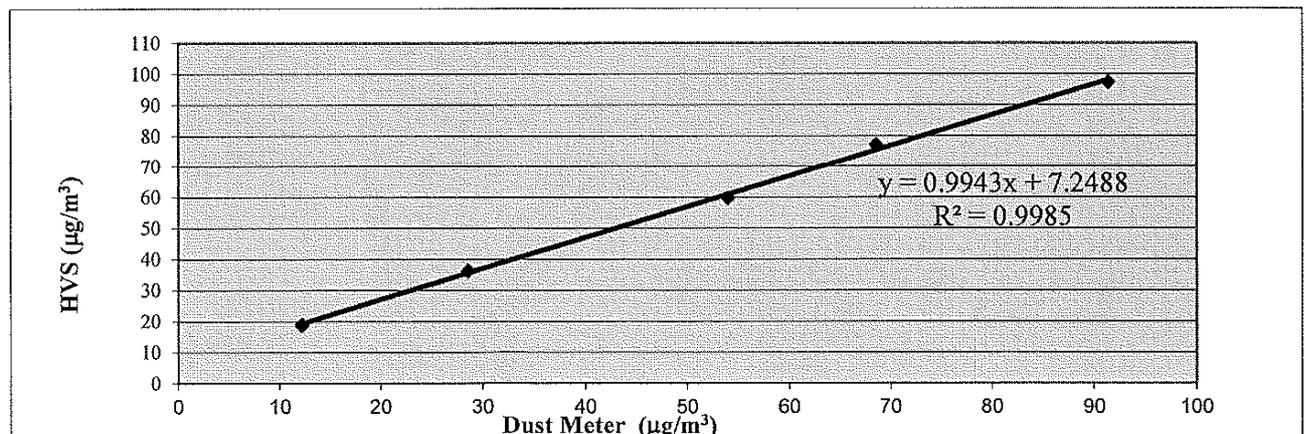
Calibration of 1 hr TSP		
Calibration Point	Dust Meter	HVS
	Mass Concentration ($\mu\text{g}/\text{m}^3$) X-axis	Mass concentration ($\mu\text{g}/\text{m}^3$) Y-axis
1	12	19
2	29	36
3	54	60
4	69	77
5	91	97
Average	51.0	57.9

By Linear Regression of Y on X
 Slope, mw = 0.9943 Intercept, bw = 7.2488
 Correlation coefficient* = 0.9993

*If Correlation Coefficient < 0.90, check and recalibrate.

Set Correlation Factor	
Particulate Concentration by High Volume Sampler ($\mu\text{g}/\text{m}^3$)	57.9
Particulate Concentration by Dust Meter ($\mu\text{g}/\text{m}^3$)	51.0
Measuring time, (min)	60

Set Correlation Factor, SCF
 SCF = [K=High Volume Sampler / Dust Meter, ($\mu\text{g}/\text{m}^3$)] 1.137



QC Reviewer: L72 MAN MB2 Signature: hej Date: 24/8/23

TEST REPORT

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

Test Report No.:	39078B
Date of Issue:	2023-10-24
Date Received:	2023-10-21
Date Tested:	2023-10-21
Date Completed:	2023-10-24
Next Due Date:	2023-12-23

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. : 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)	1.123
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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:	21-Oct-23	21-Oct-23
Location:	Wellab Office (Calibration Room)	

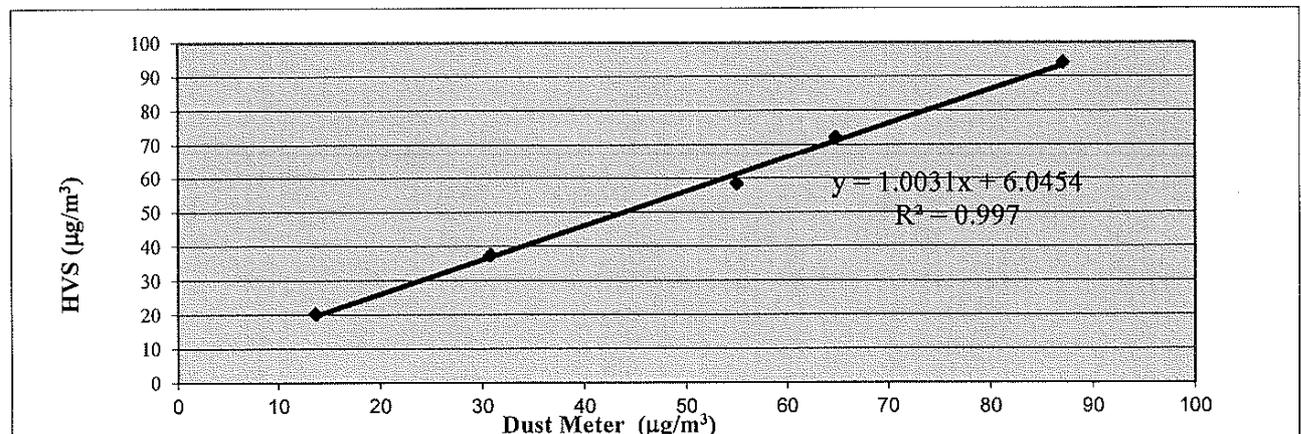
Calibration of 1 hr TSP		
Calibration Point	Dust Meter	HVS
	Mass Concentration ($\mu\text{g}/\text{m}^3$) X-axis	Mass concentration ($\mu\text{g}/\text{m}^3$) Y-axis
1	14	20
2	31	38
3	55	58
4	65	72
5	87	94
Average	50.3	56.5

By Linear Regression of Y on X
 Slope, mw = 1.0031 Intercept, bw = 6.0454
 Correlation coefficient* = 0.9985

*If Correlation Coefficient < 0.90, check and recalibrate.

Set Correlation Factor	
Particulate Concentration by High Volume Sampler ($\mu\text{g}/\text{m}^3$)	56.5
Particulate Concentration by Dust Meter ($\mu\text{g}/\text{m}^3$)	50.3
Measuring time, (min)	60

Set Correlation Factor, SCF
 SCF = [K=High Volume Sampler / Dust Meter, ($\mu\text{g}/\text{m}^3$)] 1.123



QC Reviewer: LEE MAN HEE Signature: lee Date: 21/10/23

TEST REPORT

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

Test Report No.:	38751C
Date of Issue:	2023-08-24
Date Received:	2023-08-23
Date Tested:	2023-08-23
Date Completed:	2023-08-24
Next Due Date:	2023-10-23

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)	1.099
-------------------------	-------

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:	23-Aug-23	23-Aug-23
Location:	Wellab Office (Calibration Room)	

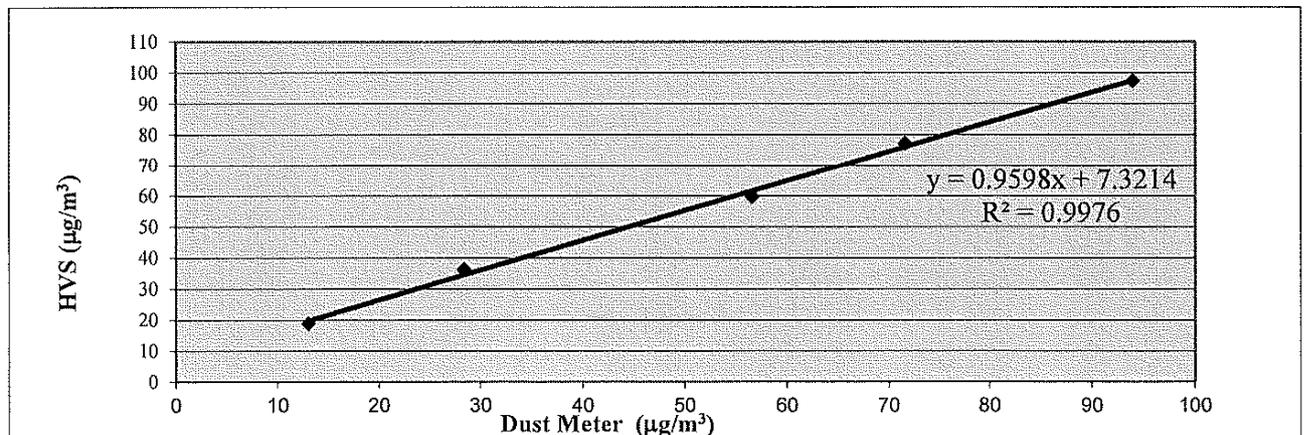
Calibration of 1 hr TSP		
Calibration Point	Dust Meter	HVS
	Mass Concentration ($\mu\text{g}/\text{m}^3$) X-axis	Mass concentration ($\mu\text{g}/\text{m}^3$) Y-axis
1	13	19
2	28	36
3	57	60
4	72	77
5	94	97
Average	52.7	57.9

By Linear Regression of Y on X
 Slope , mw = 0.9598 Intercept, bw = 7.3214
 Correlation coefficient* = 0.9988

*If Correlation Coefficient < 0.90, check and recalibrate.

Set Correlation Factor	
Particulate Concentration by High Volume Sampler ($\mu\text{g}/\text{m}^3$)	57.9
Particulate Concentration by Dust Meter ($\mu\text{g}/\text{m}^3$)	52.7
Measuring time, (min)	60

Set Correlation Factor , SCF
 SCF = [K=High Volume Sampler / Dust Meter, ($\mu\text{g}/\text{m}^3$)] 1.099



QC Reviewer: LBZ MAM UBV Signature: hej Date: 24/8/23

TEST REPORT

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

Test Report No.:	38751Ds
Date of Issue:	2023-08-24
Date Received:	2023-08-23
Date Tested:	2023-08-23
Date Completed:	2023-08-24
Next Due Date:	2023-10-23

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.	: X24478
Flow rate	: 0.1 cfm
Zero Count Test	: 0 count per 1 minute
Equipment No.	: WA-01-10

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)	1.179
-------------------------	-------

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-01-10	WA-12-09
Model No. :	AEROCET-831	TE-5170
Serial No.	X24478	2203
Calibration Date:	23-Aug-23	23-Aug-23
Location:	Wellab Office (Calibration Room)	

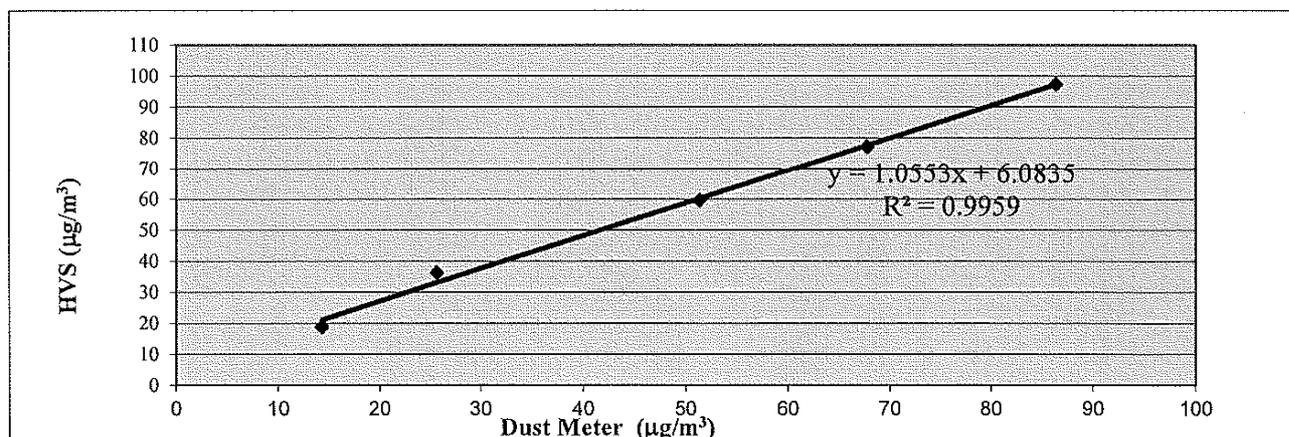
Calibration of 1 hr TSP		
Calibration Point	Dust Meter	HVS
	Mass Concentration ($\mu\text{g}/\text{m}^3$) X-axis	Mass concentration ($\mu\text{g}/\text{m}^3$) Y-axis
1	14	19
2	26	36
3	51	60
4	68	77
5	86	97
Average	49.1	57.9

By Linear Regression of Y on X

Slope, $m_w =$ 1.0553 Intercept, $b_w =$ 6.0835
 Correlation coefficient* = 0.9980

*If Correlation Coefficient < 0.90, check and recalibrate.

Set Correlation Factor	
Particulate Concentration by High Volume Sampler ($\mu\text{g}/\text{m}^3$)	57.9
Particulate Concentration by Dust Meter ($\mu\text{g}/\text{m}^3$)	49.1
Measuring time, (min)	60
Set Correlation Factor, SCF	
SCF = [$K = \text{High Volume Sampler} / \text{Dust Meter}, (\mu\text{g}/\text{m}^3)$]	<u>1.179</u>



QC Reviewer: BB May 11/22 Signature: hes Date: 24/8/23

TEST REPORT

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

Test Report No.:	39078D
Date of Issue:	2023-10-24
Date Received:	2023-10-21
Date Tested:	2023-10-21
Date Completed:	2023-10-24
Next Due Date:	2023-12-23

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.	: X24478
Flow rate	: 0.1 cfm
Zero Count Test	: 0 count per 1 minute
Equipment No.	: WA-01-10

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)	1.139
-------------------------	-------

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-01-10	WA-12-09
Model No. :	AEROCET-831	TE-5170
Serial No.	X24478	2203
Calibration Date:	21-Oct-23	21-Oct-23
Location:	Wellab Office (Calibration Room)	

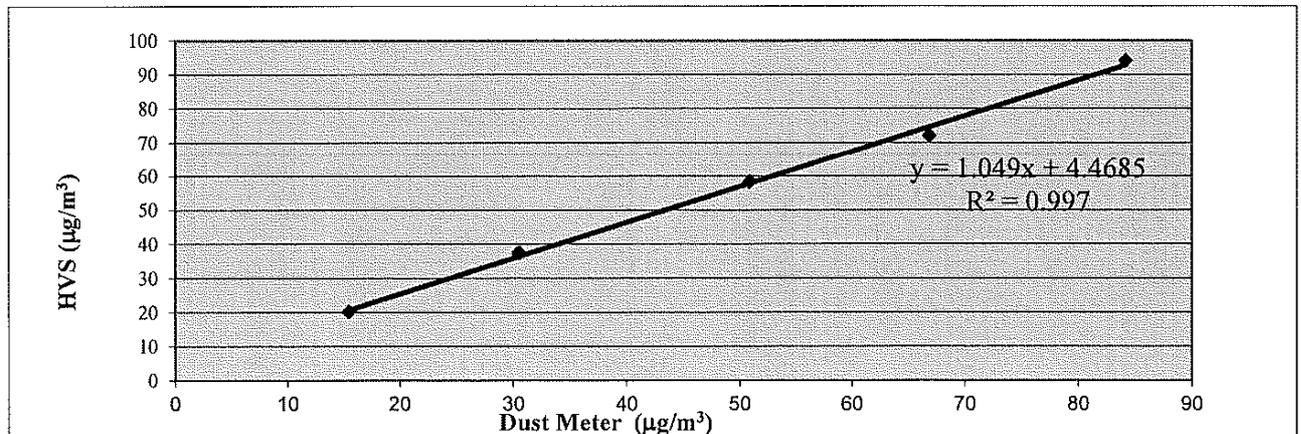
Calibration of 1 hr TSP		
Calibration Point	Dust Meter	HVS
	Mass Concentration ($\mu\text{g}/\text{m}^3$) X-axis	Mass concentration ($\mu\text{g}/\text{m}^3$) Y-axis
1	16	20
2	31	38
3	51	58
4	67	72
5	84	94
Average	49.6	56.5

By Linear Regression of Y on X
 Slope, $m_w =$ 1.0490 Intercept, $b_w =$ 4.4685
 Correlation coefficient* = 0.9985

*If Correlation Coefficient < 0.90, check and recalibrate.

Set Correlation Factor	
Particulate Concentration by High Volume Sampler ($\mu\text{g}/\text{m}^3$)	56.5
Particulate Concentration by Dust Meter ($\mu\text{g}/\text{m}^3$)	49.6
Measureing time, (min)	60

Set Correlation Factor, SCF
 $\text{SCF} = [K = \text{High Volume Sampler} / \text{Dust Meter}, (\mu\text{g}/\text{m}^3)]$ 1.139



QC Reviewer: LEE KIM HAZ Signature: Lee Date: 21/10/23

High-Volume TSP Sampler 5-POINT CALIBRATION DATA SHEET

File No. Cal./230909

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

Serial No. 2203
Cal. Date: 9-Sep-23

Ambient Condition			
Temperature, Ta (K)	293	Pressure, Pa (mmHg)	758.6

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	
	ΔH (orifice), in. of water	$[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$	Qstd (CFM) X - axis	ΔW (HVS), in. of water	$[\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$ Y-axis
1	11.0	3.34	58.92	7.6	2.78
2	9.6	3.12	55.10	6.5	2.57
3	8.5	2.94	51.89	5.7	2.41
4	6.0	2.47	43.71	4.2	2.06
5	3.8	1.96	34.94	2.7	1.66

By Linear Regression of Y on X

Slope, mw = 0.0460

Intercept, bw : 0.0466

Correlation coefficient* = 0.9991

*If Correlation Coefficient < 0.990, check and recalibrate.

Set Point Calculation

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

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

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

Therefore, Set Point; W = $(mw \times Qstd + bw)^2 \times (760 / Pa) \times (Ta / 298) =$ 4.03

Remarks: _____

Conducted by: Chh Min Hov
Checked by: Ho Ka Lam

Signature: [Signature]
Signature: [Signature]

Date: 9/9/2023
Date: 9/9/2023

High-Volume TSP Sampler 5-POINT CALIBRATION DATA SHEET

Station <u>FLN-DMS1 - Scattered Village Houses North of Proposed Potential Ecopark</u>	File No. <u>WMA20002/20/0021</u>
Date: <u>6-Oct-23</u>	Next Due Date: <u>5-Dec-23</u>
Model No. <u>TE-5170</u>	Operator: <u>HL</u>
Equipment No.: <u>WA-12-20</u>	Serial No. <u>3223</u>

Ambient Condition			
Temperature, Ta (K)	304.4	Pressure, Pa (mmHg)	760.3

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	
	ΔH (orifice), in. of water	$[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$	Qstd (CFM) X - axis	ΔW (HVS), in. of water	$[\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$ Y-axis
1	14.7	3.79	66.80	10.1	3.15
2	12.5	3.50	61.66	8.6	2.90
3	9.7	3.08	54.41	7.0	2.62
4	5.8	2.38	42.24	4.1	2.00
5	3.7	1.90	33.89	2.6	1.60

By Linear Regression of Y on X
 Slope, mw = 0.0471 Intercept, bw : 0.0151
 Correlation coefficient* = 0.9993
 *If Correlation Coefficient < 0.990, check and recalibrate.

Set Point Calculation

From the TSP Field Calibration Curve, take Qstd = 43 CFM
 From the Regression Equation, the "Y" value according to

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

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

Remarks: _____

Conducted by: <u>Lik Man Hui</u>	Signature: _____	Date: <u>6/10/2023</u>
Checked by: <u>Ho Ka Chun</u>	Signature: _____	Date: <u>6/10/23</u>

**High-Volume TSP Sampler
5-POINT CALIBRATION DATA SHEET**

Station FLN-DMS3 - House near Tong Hang
Date: 11-Aug-23
Model No. TE-5170
Equipment No.: WA-12-17

File No. WMA20002/17/0020
Next Due Date: 10-Oct-23
Operator: HL
Serial No. 3218

Ambient Condition			
Temperature, Ta (K)	298	Pressure, Pa (mmHg)	755.5

Orifice Transfer Standard Information					
Serial No.	0993	Slope, mc	0.0574	Intercept, bc	-0.04292
Last Calibration Date:	16-Jan-23	$mc \times Qstd + bc = [\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$ $Qstd = \{[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2} - bc\} / mc$			
Next Calibration Date:	16-Jan-24				

Calibration of TSP Sampler					
Calibration Point	Orifice			HVS	
	ΔH (orifice), in. of water	$[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$	Qstd (CFM) X - axis	ΔW (HVS), in. of water	$[\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$ Y-axis
1	14.4	3.78	66.61	9.4	3.06
2	11.7	3.41	60.12	8.3	2.87
3	9.8	3.12	55.09	6.8	2.60
4	6.2	2.48	43.97	4.3	2.07
5	3.5	1.87	33.22	2.4	1.54

By Linear Regression of Y on X

Slope, mw = 0.0465 Intercept, bw = 0.0206
Correlation coefficient* = 0.9975

*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 = $(mw \times Qstd + bw)^2 \times (760 / Pa) \times (Ta / 298) =$ 4.10

Remarks: _____

Conducted by: Lee Man Hei Signature: _____ Date: 11/8/2023
Checked by: Ho Ka Chun Signature: _____ Date: 11/8/2023

**RSP - Respirable Suspended Particulates Sampler (PM 10)
Field Calibration Report**

Station KTN-DMS4A - Temporary Structure at Pak Shek Au
Date: 4-Sep-23
Model No. TE-6070X
Equipment No.: WA-11-03

File No. WMA20002/03/0020
Next Due Date: 3-Nov-23
Operator: HL
Serial No. 3225

Ambient Condition			
Temperature, Ta (K)	300.8	Pressure, Pa (mmHg)	755.3

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	
	ΔH (orifice), in. of water	Del Hc ⁽¹⁾	Qstd ⁽²⁾ (CFM)	Qa ⁽³⁾ (CFM)	Qa ⁽³⁾ (m ³ /min)	ΔW (HVS), in. of water	$[\Delta W \times (Ta + 30) / Pa]^{1/2}$ Y-axis
1	11.6	11.42	59.58	60.52	1.71	8.4	1.92
2	9.2	9.06	53.14	53.98	1.53	6.3	1.66
3	6.8	6.70	45.79	46.51	1.32	5.1	1.49
4	5.3	5.22	40.52	41.15	1.16	4.2	1.36
5	2.2	2.17	26.37	26.78	0.76	2	0.94

By Linear Regression of Y on X

Slope, mw = 0.0283 Intercept, bw = 0.1789
Correlation coefficient* = 0.9973

- (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 x (Ta / Pa) x (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>40.56</u>
Sampler Well - Type Manometer Set Point, SSP	
SSP = $[(mw \times SFR + bw)^2 \times Pa] / (Ta + 30) =$	<u>4.01</u>

Remarks: _____

Conducted by: Lee Kwok Hei
Checked by: Ho Ka Tin

Signature: [Signature]
Signature: [Signature]

Date: 4/9/2023
Date: 4/9/2023

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: 0993		

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
QSTD	m=	2.02881	QA	m=	1.27041
	b=	-0.04292		b=	-0.02681
	r=	0.99998		r=	0.99998

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.:	37893C
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.	: 580006
Equipment No.	: WN-01-04

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.:	38750
Date of Issue:	2023-08-21
Date Received:	2023-08-18
Date Tested:	2023-08-18
Date Completed:	2023-08-21
Next Due Date:	2024-08-20

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.:	38981
Date of Issue:	2023-10-03
Date Received:	2023-09-29
Date Tested:	2023-09-29
Date Completed:	2023-10-03
Next Due Date:	2024-10-02

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.: 38750A
Date of Issue: 2023-08-21
Date Received: 2023-08-18
Date Tested: 2023-08-18
Date Completed: 2023-08-21
Next Due Date: 2024-08-20

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 Temperatre : 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.:	38985
Date of Issue:	2023-09-22
Date Received:	2023-09-21
Date Tested:	2023-09-21 to 2023-09-22
Date Completed:	2023-09-22

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.:	38985
Date of Issue:	2023-09-22
Date Received:	2023-09-21
Date Tested:	2023-09-21 to 2023-09-22
Date Completed:	2023-09-22
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 $\mu\text{S}/\text{cm}$)	13400	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	20.001	-0.001	N/A

pH performance checking

	Instrument Readings (pH unit)	Acceptance Criteria	Comment
pH QC buffer 4.00	4.03	4.00 ± 0.10	Pass
pH QC buffer 6.86	6.88	6.86 ± 0.10	Pass
pH QC buffer 9.18	9.24	9.18 ± 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

Winkler Titration value (mg/L)	Instrument Readings (mg/L)	Acceptance Criteria	Comment
8.24	8.11	Difference between Titration value and instrument reading $<0.2\text{mg}/\text{L}$	Pass

Turbidity performance checking

Turbidity stock solution	Instrument Readings (NTU)	Acceptance Criteria	Comment
10 NTU	10.12	9.0-11.0	Pass
50 NTU	51.21	45.0-55.0	Pass
100 NTU	100.6	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.:	38985D
Date of Issue:	2023-09-22
Date Received:	2023-09-21
Date Tested:	2023-09-21 to 2023-09-22
Date Completed:	2023-09-22

ATTN: Miss Mei Ling Tang

Page: 1 of 2

Certificate of Calibration

Item for calibration:

YSI EXO1 Multiparameter Sondes	Equipment No.: SW-08-129	
Manufacturer:	YSI Incorporated, a Xylem brand	
Description:	Model No.	Serial No.
- EXO1 Sonde, 100 meter Depth, 4 Sensor ports	599502-24	17B101455
- EXO Optical DO Sensor, Ti	599100-01	17M101337
- EXO conductivity/Temperature Sensor, Ti	599870	17B100784
- EXO Turbidity Sensor, Ti	599101-01	16J101112
- EXO pH Sensor Assembly, Guarded, Ti	599701	16J100565

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.:	38985D
Date of Issue:	2023-09-22
Date Received:	2023-09-21
Date Tested:	2023-09-21 to 2023-09-22
Date Completed:	2023-09-22
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 $\mu\text{S}/\text{cm}$)	12900	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	19.999	+0.001	N/A

pH performance checking

	Instrument Readings (pH unit)	Acceptance Criteria	Comment
pH QC buffer 4.00	4.01	4.00 ± 0.10	Pass
pH QC buffer 6.86	6.87	6.86 ± 0.10	Pass
pH QC buffer 9.18	9.16	9.18 ± 0.10	Pass

D.O. performance checking

	Instrument Readings (mg/L)	Acceptance Criteria	Comment
Zero DO solution	0.08	$<0.1\text{mg}/\text{L}$	Pass

	Instrument Readings (mg/L)	Acceptance Criteria	Comment
Winkler Titration value (mg/L)			
8.24	8.13	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	10.03	9.0-11.0	Pass
50 NTU	50.41	45.0-55.0	Pass
100 NTU	101.2	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*****

CALIBRATION CERTIFICATE

Product Name: Portable Biogas Analyzer

Model: IRCD4 **Serial:** M230814007

Ambient Temperature: 25°C **Ambient Humidity:** 45%

Atmospheric Pressure: 1018hpa **Calibration Date:** 08.24.2023

Recommended calibration period: CH₄, CO₂: 6-12 months; H₂S, O₂: 3-6 months

Calibration result:

Notice: Uncertainty of standard gases CH₄:±2%, CO₂:±2%, H₂S:±2%, O₂:±1%

Content	Standard gas	Testing result	Qualification “√” or “×”	Standards for each gas
CH ₄ (%vol)	50	49	√	(1-100)%vol: ±0.5%vol of displayed value
	70	69	√	
	100	100	√	
CO ₂ (%vol)	30	29	√	(0-100)%vol: ±5%vol of standard gas
	50	49	√	
	100	100	√	
O ₂ (%vol)	5.0	5.1	√	0.0-5.0:±0.5%vol 5.0-30.0:±0.9%vol
	15.0	15.1	√	
	25.0	24.9	√	
H ₂ S (ppm)	50	50	√	0-49:±3ppm 50-100:±10% (0-2000)ppm:±5FS
	80	81	√	
	199	199	√	

Calibration carried out by: Zhang Lu **Result reviewed by:** He Yang

Note:

1. The device should be calibrated immediately once it is repaired well
2. During using, if any doubts regarding technical parameter are aroused, please calibration it again.



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 ± 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

**APPENDIX D
ENVIRONMENTAL MONITORING
SCHEDULES**

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 (October 2023)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1-Oct	2-Oct	3-Oct	4-Oct	5-Oct	6-Oct	7-Oct
		<p style="text-align: center;">1hr TSP* X3 FLN-DMS1, FLN-DMS3 Noise CP-FLN-NMS1, CP-FLN-NMS2</p>	<p style="text-align: center;">24hr RSP (Arsenic) KTN-DMS4A</p>	<p style="text-align: center;">1hr TSP* X3 KTN-DMS4(B), FLN-DMS5 24hr TSP* KTN-DMS4(B), FLN-DMS5A Noise CP-KTN-NMS2, CP-KTN-NMS3, CP-KTN-NMS5, CP-KTN-NMS6 24hr TSP FLN-DMS1, FLN-DMS3</p>	<p style="text-align: center;">1hr TSP* X3 FLN-DMS1, FLN-DMS3</p>	
8-Oct	9-Oct	10-Oct	11-Oct	12-Oct	13-Oct	14-Oct
		<p style="text-align: center;">24hr RSP (Arsenic) KTN-DMS4A</p>	<p style="text-align: center;">1hr TSP* X3 KTN-DMS4(B), FLN-DMS5 24hr TSP* KTN-DMS4(B), FLN-DMS5A Noise CP-KTN-NMS2, CP-KTN-NMS3, CP-KTN-NMS5, CP-KTN-NMS6 24hr TSP FLN-DMS1, FLN-DMS3</p>	<p style="text-align: center;">1hr TSP* X3 FLN-DMS1, FLN-DMS3 Noise CP-FLN-NMS1, CP-FLN-NMS2</p>		
15-Oct	16-Oct	17-Oct	18-Oct	19-Oct	20-Oct	21-Oct
	<p style="text-align: center;">24hr RSP (Arsenic) KTN-DMS4A</p>	<p style="text-align: center;">1hr TSP* X3 KTN-DMS4(B), FLN-DMS5 24hr TSP* KTN-DMS4(B), FLN-DMS5A Noise CP-KTN-NMS2, CP-KTN-NMS3, CP-KTN-NMS5, CP-KTN-NMS6 24hr TSP FLN-DMS1, FLN-DMS3</p>	<p style="text-align: center;">1hr TSP* X3 FLN-DMS1, FLN-DMS3 Noise CP-FLN-NMS1, CP-FLN-NMS2</p>		<p style="text-align: center;">1hr TSP* X3 KTN-DMS4(B), FLN-DMS5 24hr TSP* KTN-DMS4(B), FLN-DMS5A 24hr RSP (Arsenic) KTN-DMS4A 24hr TSP FLN-DMS1, FLN-DMS3</p>	
22-Oct	23-Oct	24-Oct	25-Oct	26-Oct	27-Oct	28-Oct
		<p style="text-align: center;">1hr TSP* X3 FLN-DMS1, FLN-DMS3 Noise CP-FLN-NMS1, CP-FLN-NMS2</p>		<p style="text-align: center;">1hr TSP* X3 KTN-DMS4(B), FLN-DMS5 24hr TSP* KTN-DMS4(B), FLN-DMS5A Noise CP-KTN-NMS2, CP-KTN-NMS3, CP-KTN-NMS5, CP-KTN-NMS6 24hr RSP (Arsenic) KTN-DMS4A 24hr TSP FLN-DMS1, FLN-DMS3</p>	<p style="text-align: center;">1hr TSP* X3 FLN-DMS1, FLN-DMS3</p>	
29-Oct	30-Oct	31-Oct				

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	1hr TSP and 24hr TSP 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	24hr RSP (Arsenic) KTN-DMS4A - Temporary Structure at Pak Shek Au	--
EP-468/2013/A	ND/2019/03		
EP-467/2013/A EP-468/2013/A ⁽¹⁾	ND/2019/01	--	CP-KTN-NMS2 - Residential Buildings at Ma Tso Lung
EP-468/2013/A ⁽²⁾	ND/2019/01	--	CP-KTN-NMS3 -Fung Kong Garden
EP-469/2013 ⁽³⁾	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 ⁽⁴⁾	ND/2019/03	1hr TSP and 24hr TSP FLN-DMS1 - Scattered Village Houses North of Proposed Potential Ecopark	--
	ND/2019/04		--
EP-473/2013/A ⁽⁵⁾	ND/2019/05	1hr TSP and 24hr TSP FLN-DMS3 - House near Tong Hang	--
EP-473/2013/A ⁽⁶⁾	ND/2019/03	1hr TSP FLN-DMS5 - Noble Hill	--
	ND/2019/04	24hr TSP FLN-DMS5A - Good View New Village	--
EP-473/2013/A ⁽⁷⁾	ND/2019/05	--	CP-FLN-NMS2 - Scattered Village Houses in Tong Hang
EP-473/2013/A ⁽⁸⁾	ND/2019/04	--	CP-FLN-NMS1 - Belair Monte
	ND/2019/05	--	
EP-475/2013/A	ND/2019/06	--	
Remarks: 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 (October 2023)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1-Oct	2-Oct	3-Oct	4-Oct	5-Oct	6-Oct	7-Oct
		Water Quality Monitoring River Beas, River Indus and near Siu Hang San Tsuen Stream		Water Quality Monitoring River Beas, River Indus and near Siu Hang San Tsuen Stream		Water Quality Monitoring River Beas, River Indus and near Siu Hang San Tsuen Stream
8-Oct	9-Oct	10-Oct	11-Oct	12-Oct	13-Oct	14-Oct
	Water Quality Monitoring River Beas, River Indus and near Siu Hang San Tsuen Stream		Water Quality Monitoring River Beas, River Indus and near Siu Hang San Tsuen Stream		Water Quality Monitoring River Beas, River Indus and near Siu Hang San Tsuen Stream	
15-Oct	16-Oct	17-Oct	18-Oct	19-Oct	20-Oct	21-Oct
	Water Quality Monitoring River Beas, River Indus and near Siu Hang San Tsuen Stream		Water Quality Monitoring River Beas, River Indus and near Siu Hang San Tsuen Stream		Water Quality Monitoring River Beas, River Indus and near Siu Hang San Tsuen Stream	
22-Oct	23-Oct	24-Oct	25-Oct	26-Oct	27-Oct	28-Oct
		Water Quality Monitoring River Beas, River Indus and near Siu Hang San Tsuen Stream		Water Quality Monitoring River Beas, River Indus and near Siu Hang San Tsuen Stream		Water Quality Monitoring River Beas, River Indus and near Siu Hang San Tsuen Stream
29-Oct	30-Oct	31-Oct				
	Water Quality Monitoring River Beas, River Indus and near Siu Hang San Tsuen Stream					

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>River Beas</u> SYR-CS1 - Upstream of river SYR-IS1 - Downstream of river
EP-473/2013/A	ND/2019/04	<u>River Indus and near Siu Hang San Tsuen Stream</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 (October 2023)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1-Oct	2-Oct	3-Oct	4-Oct	5-Oct	6-Oct	7-Oct
				Monitoring of Measures to Minimise Disturbance to Water Birds in Ng Tung River T1 T2 High tide: Start time: 14:00 Low tide: Start time: 09:00	Monitoring of Measures to Minimise Disturbance to Water Birds in Sheung Yue River and Long Valley #T3 T5 High tide: Start time: 16:00 Low tide: Start time: 10:00	
8-Oct	9-Oct	10-Oct	11-Oct	12-Oct	13-Oct	14-Oct
	Monitoring of Measures to Minimise Impacts to Ma Tso Lung and Siu Hang San Tsuen Stream MS 01 - MS 15*	Monitoring of Measures to Minimise Disturbance to Water Birds in Ng Tung River T1 T2 High tide: Start time: 09:00 Low tide: Start time: 14:00	Monitoring of Measures to Minimise Disturbance to Water Birds in Sheung Yue River and Long Valley T3 T5 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 T1, T6		
15-Oct	16-Oct	17-Oct	18-Oct	19-Oct	20-Oct	21-Oct
	Monitoring of Measures to Minimise Disturbance to Water Birds in Sheung Yue River and Long Valley #T3 T5 High tide: Start time: 10:00 Low tide: Start time: 15:00	Monitoring of Measures to Minimise Disturbance to Water Birds in Ng Tung River T1 T2 High tide: Start time: 10:00 Low tide: Start time: 16:00	Monitoring of Measures to Minimise Impacts on Ecological Sensitive Habitats from Disturbance and Pollution T3, T4, T5	Monitoring of Measures to Minimise Impacts to Ma Tso Lung and Siu Hang San Tsuen Stream MS 01 - MS 15		
22-Oct	23-Oct	24-Oct	25-Oct	26-Oct	27-Oct	28-Oct
					Monitoring of Measures to Minimise Disturbance to Water Birds in Ng Tung River T1 T2 High tide: Start time: 09:00 Low tide: Start time: 14:00 Monitoring of Measures to Minimise Disturbance to Water Birds in Sheung Yue River and Long Valley T3 T5 High tide: Start time: 09:00 Low tide: Start time: 14:00	
29-Oct	30-Oct	31-Oct				

#Night-time avifauna monitoring in Long Valley

*Typhoon Signal no.9 was in force, ecological monitoring was postponed to 19 Oct 2023 due to safety concern.

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 October 2023

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1-Oct	2-Oct	3-Oct	4-Oct	5-Oct	6-Oct	7-Oct
		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)	
8-Oct	9-Oct	10-Oct	11-Oct	12-Oct	13-Oct	14-Oct
		Site Inspection (ND/2019/05)	Site Inspection (ND/2019/02) Site Inspection (ND/2019/01)	Site Inspection (ND/2019/04) Site Inspection (ND/2019/06)	Site Inspection (ND/2019/03) Site Inspection (ND/2019/07)	
15-Oct	16-Oct	17-Oct	18-Oct	19-Oct	20-Oct	21-Oct
		Site Inspection (ND/2019/01) Site Inspection (ND/2019/03)	Site Inspection (ND/2019/02) Site Inspection (ND/2019/04) Site Inspection (ND/2019/06)	Site Inspection (ND/2019/05)	Site Inspection (ND/2019/07)	
22-Oct	23-Oct	24-Oct	25-Oct	26-Oct	27-Oct	28-Oct
		Site Inspection (ND/2019/01) Site Inspection (ND/2019/05)		Site Inspection (ND/2019/04)	Site Inspection (ND/2019/03) Site Inspection (ND/2019/07) Site Inspection (ND/2019/02)	
29-Oct	30-Oct	31-Oct				
	Site Inspection (ND/2019/05)	Site Inspection (ND/2019/01)				

*The Termination of the Construction Phase EM&A Programme for ND/2019/06 was approved by EPD on 19 Oct 2023, no more weekly site audits have been required since then.

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 (November 2023)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1-Nov	2-Nov	3-Nov	4-Nov
			<p style="text-align: center;">1hr TSP* X3 KTN-DMS4(B), FLN-DMS5 24hr TSP* KTN-DMS4(B), FLN-DMS5A Noise CP-KTN-NMS2, CP-KTN-NMS3, CP-KTN-NMS5, CP-KTN-NMS6 24hr RSP (Arsenic) KTN-DMS4A 24hr TSP FLN-DMS1, FLN-DMS3</p>	<p style="text-align: center;">1hr TSP* X3 FLN-DMS1, FLN-DMS3 Noise CP-FLN-NMS1, CP-FLN-NMS2</p>		
5-Nov	6-Nov	7-Nov	8-Nov	9-Nov	10-Nov	11-Nov
		<p style="text-align: center;">1hr TSP* X3 KTN-DMS4(B), FLN-DMS5 24hr TSP* KTN-DMS4(B), FLN-DMS5A Noise CP-KTN-NMS2, CP-KTN-NMS3, CP-KTN-NMS5, CP-KTN-NMS6 24hr RSP (Arsenic) KTN-DMS4A 24hr TSP FLN-DMS1, FLN-DMS3</p>	<p style="text-align: center;">1hr TSP* X3 FLN-DMS1, FLN-DMS3 Noise CP-FLN-NMS1, CP-FLN-NMS2</p>			
12-Nov	13-Nov	14-Nov	15-Nov	16-Nov	17-Nov	18-Nov
	<p style="text-align: center;">1hr TSP* X3 KTN-DMS4(B), FLN-DMS5 24hr TSP* KTN-DMS4(B), FLN-DMS5A Noise CP-KTN-NMS2, CP-KTN-NMS3, CP-KTN-NMS5, CP-KTN-NMS6 24hr RSP (Arsenic) KTN-DMS4A 24hr TSP FLN-DMS1, FLN-DMS3</p>	<p style="text-align: center;">1hr TSP* X3 FLN-DMS1, FLN-DMS3 Noise CP-FLN-NMS1, CP-FLN-NMS2</p>		<p style="text-align: center;">1hr TSP* X3 KTN-DMS4(B), FLN-DMS5 24hr TSP* KTN-DMS4(B), FLN-DMS5A 24hr RSP (Arsenic) KTN-DMS4A 24hr TSP FLN-DMS1, FLN-DMS3</p>		
19-Nov	20-Nov	21-Nov	22-Nov	23-Nov	24-Nov	25-Nov
	<p style="text-align: center;">1hr TSP* X3 FLN-DMS1, FLN-DMS3 Noise CP-FLN-NMS1, CP-FLN-NMS2</p>			<p style="text-align: center;">1hr TSP* X3 KTN-DMS4(B), FLN-DMS5 24hr TSP* KTN-DMS4(B), FLN-DMS5A Noise CP-KTN-NMS2, CP-KTN-NMS3, CP-KTN-NMS5, CP-KTN-NMS6 24hr RSP (Arsenic) KTN-DMS4A 24hr TSP FLN-DMS1, FLN-DMS3</p>	<p style="text-align: center;">1hr TSP* X3 FLN-DMS1, FLN-DMS3</p>	
26-Nov	27-Nov	28-Nov	29-Nov	30-Nov		
			<p style="text-align: center;">1hr TSP* X3 KTN-DMS4(B), FLN-DMS5 24hr TSP* KTN-DMS4(B), FLN-DMS5A Noise CP-KTN-NMS2, CP-KTN-NMS3, CP-KTN-NMS5, CP-KTN-NMS6 24hr RSP (Arsenic) KTN-DMS4A 24hr TSP FLN-DMS1, FLN-DMS3</p>	<p style="text-align: center;">1hr TSP* X3 FLN-DMS1, FLN-DMS3 Noise 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	1hr TSP and 24hr TSP 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	24hr RSP (Arsenic) KTN-DMS4A - Temporary Structure at Pak Shek Au	--
EP-468/2013/A	ND/2019/03		
EP-467/2013/A EP-468/2013/A ⁽¹⁾	ND/2019/01	--	CP-KTN-NMS2 - Residential Buildings at Ma Tso Lung
EP-468/2013/A ⁽²⁾	ND/2019/01	--	CP-KTN-NMS3 -Fung Kong Garden
EP-469/2013 ⁽³⁾	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 ⁽⁴⁾	ND/2019/03	1hr TSP and 24hr TSP FLN-DMS1 - Scattered Village Houses North of Proposed Potential Ecopark	--
	ND/2019/04		--
EP-473/2013/A ⁽⁵⁾	ND/2019/05	1hr TSP and 24hr TSP FLN-DMS3 - House near Tong Hang	--
EP-473/2013/A ⁽⁶⁾	ND/2019/03	1hr TSP FLN-DMS5 - Noble Hill	--
	ND/2019/04	24hr TSP FLN-DMS5A - Good View New Village	--
EP-473/2013/A ⁽⁷⁾	ND/2019/05	--	CP-FLN-NMS2 - Scattered Village Houses in Tong Hang
EP-473/2013/A ⁽⁸⁾	ND/2019/04	--	CP-FLN-NMS1 - Belair Monte
	ND/2019/05	--	
EP-475/2013/A	ND/2019/06	--	
Remarks: 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 (November 2023)**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1-Nov	2-Nov	3-Nov	4-Nov
			<u>Water Quality Monitoring</u> River Beas, River Indus and near Siu Hang San Tsuen Stream		<u>Water Quality Monitoring</u> River Beas, River Indus and near Siu Hang San Tsuen Stream	
5-Nov	6-Nov	7-Nov	8-Nov	9-Nov	10-Nov	11-Nov
	<u>Water Quality Monitoring</u> River Beas, River Indus and near Siu Hang San Tsuen Stream		<u>Water Quality Monitoring</u> River Beas, River Indus and near Siu Hang San Tsuen Stream		<u>Water Quality Monitoring</u> River Beas, River Indus and near Siu Hang San Tsuen Stream	
12-Nov	13-Nov	14-Nov	15-Nov	16-Nov	17-Nov	18-Nov
	<u>Water Quality Monitoring</u> River Beas, River Indus and near Siu Hang San Tsuen Stream		<u>Water Quality Monitoring</u> River Beas, River Indus and near Siu Hang San Tsuen Stream		<u>Water Quality Monitoring</u> River Beas, River Indus and near Siu Hang San Tsuen Stream	
19-Nov	20-Nov	21-Nov	22-Nov	23-Nov	24-Nov	25-Nov
	<u>Water Quality Monitoring</u> River Beas, River Indus and near Siu Hang San Tsuen Stream		<u>Water Quality Monitoring</u> River Beas, River Indus and near Siu Hang San Tsuen Stream		<u>Water Quality Monitoring</u> River Beas, River Indus and near Siu Hang San Tsuen Stream	
26-Nov	27-Nov	28-Nov	29-Nov	30-Nov		
	<u>Water Quality Monitoring</u> River Beas, River Indus and near Siu Hang San Tsuen Stream		<u>Water Quality Monitoring</u> 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>River Beas</u> SYR-CS1 - Upstream of river SYR-IS1 - Downstream of river
EP-473/2013/A	ND/2019/04	<u>River Indus and near Siu Hang San Tsuen Stream</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 (November 2023)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1-Nov	2-Nov	3-Nov	4-Nov
			Monitoring of Measures to Minimise Disturbance to Water Birds in Ng Tung River <u>T1 T2</u> High tide: Start time: 13:00 Low tide: Start time: 08:30	Monitoring of Measures to Minimise Disturbance to Water Birds in Sheung Yue River and Long Valley #T3 T5 High tide: Start time: 13:00 Low tide: Start time: 09:00		
5-Nov	6-Nov	7-Nov	8-Nov	9-Nov	10-Nov	11-Nov
				Monitoring of Measures to Minimise Disturbance to Water Birds in Ng Tung River <u>T1 T2</u> High tide: Start time: 09:00 Low tide: Start time: 14:00	Monitoring of Measures to Minimise Disturbance to Water Birds in Sheung Yue River and Long Valley <u>T3 T5</u> High tide: Start time: 09:00 Low tide: Start time: 14:00	
12-Nov	13-Nov	14-Nov	15-Nov	16-Nov	17-Nov	18-Nov
	Monitoring of Measures to Minimise Disturbance to Water Birds in Sheung Yue River and Long Valley <u>T3 T5</u> 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 <u>T1, T6</u>		Monitoring of Measures to Minimise Disturbance to Water Birds in Ng Tung River <u>T1 T2</u> High tide: Start time: 13:00 Low tide: Start time: 08:00		
19-Nov	20-Nov	21-Nov	22-Nov	23-Nov	24-Nov	25-Nov
	Monitoring of Measures to Minimise Impacts on Ecological Sensitive Habitats from Disturbance and Pollution <u>T3, T4, T5</u>			Monitoring of Measures to Minimise Disturbance to Water Birds in Ng Tung River <u>T1 T2</u> High tide: Start time: 08:00 Low tide: Start time: 14:00	Monitoring of Measures to Minimise Disturbance to Water Birds in Sheung Yue River and Long Valley #T3 T5 High tide: Start time: 08:00 Low tide: Start time: 14:00	
26-Nov	27-Nov	28-Nov	29-Nov	30-Nov		
	Monitoring of Measures to Minimise Disturbance to Water Birds in Sheung Yue River and Long Valley <u>T3 T5</u> High tide: Start time: 09:00 Low tide: Start time: 14:00	Monitoring of Measures to Minimise Disturbance to Water Birds in Ng Tung River <u>T1 T2</u> High tide: Start time: 10:00 Low tide: Start time: 15:00				

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

#Night-time avifauna monitoring in Long Valley

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 November 2023

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1-Nov	2-Nov	3-Nov	4-Nov
			Site Inspection (ND/2019/02)	Site Inspection (ND/2019/04)	Site Inspection (ND/2019/03) Site Inspection (ND/2019/07)	
5-Nov	6-Nov	7-Nov	8-Nov	9-Nov	10-Nov	11-Nov
	Site Inspection (ND/2019/05)	Site Inspection (ND/2019/01)	Site Inspection (ND/2019/02)	Site Inspection (ND/2019/04)	Site Inspection (ND/2019/03) Site Inspection (ND/2019/07)	
12-Nov	13-Nov	14-Nov	15-Nov	16-Nov	17-Nov	18-Nov
	Site Inspection (ND/2019/05)	Site Inspection (ND/2019/01)	Site Inspection (ND/2019/02)	Site Inspection (ND/2019/04)	Site Inspection (ND/2019/03) Site Inspection (ND/2019/07)	
19-Nov	20-Nov	21-Nov	22-Nov	23-Nov	24-Nov	25-Nov
	Site Inspection (ND/2019/05)	Site Inspection (ND/2019/01)	Site Inspection (ND/2019/02)	Site Inspection (ND/2019/04)	Site Inspection (ND/2019/03) Site Inspection (ND/2019/07)	
26-Nov	27-Nov	28-Nov	29-Nov	30-Nov		
	Site Inspection (ND/2019/05)	Site Inspection (ND/2019/01)	Site Inspection (ND/2019/02)	Site Inspection (ND/2019/04)		

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

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

Appendix E - 1-hour TSP Monitoring Results

Location FLN-DMS1 - Scattered Village Houses North of Proposed Potential Ecopark			
Date	Time	Weather	Particulate Concentration ($\mu\text{g}/\text{m}^3$)
3-Oct-23	13:00	Cloudy	63.0
3-Oct-23	14:00	Cloudy	66.4
3-Oct-23	15:00	Cloudy	68.2
6-Oct-23	9:00	Fine	111.6
6-Oct-23	10:00	Fine	126.3
6-Oct-23	11:00	Fine	132.6
12-Oct-23	13:00	Sunny	52.3
12-Oct-23	14:00	Sunny	57.1
12-Oct-23	15:00	Sunny	53.6
18-Oct-23	9:00	Cloudy	65.0
18-Oct-23	10:00	Cloudy	113.2
18-Oct-23	11:00	Cloudy	104.8
24-Oct-23	13:00	Sunny	72.1
24-Oct-23	14:00	Sunny	78.1
24-Oct-23	15:00	Sunny	68.0
27-Oct-23	8:30	Sunny	46.6
27-Oct-23	9:30	Sunny	35.2
27-Oct-23	10:30	Sunny	38.7
		Minimum	35.2
		Maximum	132.6
		Average	75.2

Location FLN-DMS3 - House near Tong Hang			
Date	Time	Weather	Particulate Concentration ($\mu\text{g}/\text{m}^3$)
3-Oct-23	13:00	Cloudy	57.5
3-Oct-23	14:00	Cloudy	61.7
3-Oct-23	15:00	Cloudy	51.4
6-Oct-23	9:00	Fine	85.1
6-Oct-23	10:00	Fine	95.1
6-Oct-23	11:00	Fine	98.2
12-Oct-23	9:00	Sunny	51.3
12-Oct-23	10:00	Sunny	55.1
12-Oct-23	11:00	Sunny	53.4
18-Oct-23	13:00	Cloudy	57.4
18-Oct-23	14:00	Cloudy	68.8
18-Oct-23	15:00	Cloudy	71.5
24-Oct-23	8:35	Sunny	76.5
24-Oct-23	9:35	Sunny	65.2
24-Oct-23	10:35	Sunny	58.5
27-Oct-23	13:00	Sunny	40.9
27-Oct-23	14:00	Sunny	35.1
27-Oct-23	15:00	Sunny	35.6
		Minimum	35.1
		Maximum	98.2
		Average	62.1

Appendix E - 1-hour TSP Monitoring Results

Location FLN-DMS5 - Noble Hill			
Date	Time	Weather	Particulate Concentration ($\mu\text{g}/\text{m}^3$)
5-Oct-23	13:00	Fine	93.9
5-Oct-23	14:00	Fine	96.9
5-Oct-23	15:00	Fine	62.9
11-Oct-23	14:00	Cloudy	41.9
11-Oct-23	15:00	Cloudy	44.0
11-Oct-23	16:00	Cloudy	45.4
17-Oct-23	9:00	Cloudy	65.2
17-Oct-23	10:00	Cloudy	63.3
17-Oct-23	11:00	Cloudy	69.0
20-Oct-23	14:00	Cloudy	39.8
20-Oct-23	15:00	Cloudy	45.6
20-Oct-23	16:00	Cloudy	34.9
26-Oct-23	13:00	Sunny	45.4
26-Oct-23	14:00	Sunny	39.6
26-Oct-23	15:00	Sunny	34.7
		Minimum	34.7
		Maximum	96.9
		Average	54.8

Location KTN-DMS4(B) - Temporary Structure at Pak Shek Au			
Date	Time	Weather	Particulate Concentration ($\mu\text{g}/\text{m}^3$)
5-Oct-23	13:00	Fine	96.4
5-Oct-23	14:00	Fine	98.0
5-Oct-23	15:00	Fine	58.7
11-Oct-23	13:00	Cloudy	46.1
11-Oct-23	14:00	Cloudy	44.8
11-Oct-23	15:00	Cloudy	32.2
17-Oct-23	13:00	Cloudy	135.2
17-Oct-23	14:00	Cloudy	147.5
17-Oct-23	15:00	Cloudy	137.6
20-Oct-23	13:00	Cloudy	60.8
20-Oct-23	14:00	Cloudy	44.9
20-Oct-23	15:00	Cloudy	46.4
26-Oct-23	13:00	Sunny	64.4
26-Oct-23	14:00	Sunny	36.7
26-Oct-23	15:00	Sunny	45.2
		Minimum	32.2
		Maximum	147.5
		Average	73.0

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 ³ /min.)		Av. flow (m ³ /min)	Total vol. (m ³)	Conc. (µg/m ³)
			Initial	Final		Initial	Final		Initial	Final			
5-Oct-23	Sunny	301.8	2.8129	2.9429	0.1300	8426.8	8450.8	24.0	1.22	1.21	1.22	1752.5	74.2
11-Oct-23	Sunny	295.6	2.9911	3.0719	0.0808	8450.8	8474.8	24.0	1.23	1.23	1.23	1773.2	45.6
17-Oct-23	Cloudy	298.5	2.9210	3.0793	0.1583	8474.8	8498.8	24.0	1.23	1.22	1.22	1763.3	89.8
20-Oct-23	Cloudy	297.6	3.0562	3.1494	0.0932	8498.8	8522.8	24.0	1.23	1.23	1.23	1766.0	52.8
26-Oct-23	Sunny	298.3	2.9019	3.0637	0.1618	8522.9	8546.9	24.0	1.23	1.22	1.23	1764.3	91.7
												Min	45.6
												Max	91.7
												Average	70.8

Location FLN-DMS3 - House near Tong Hang

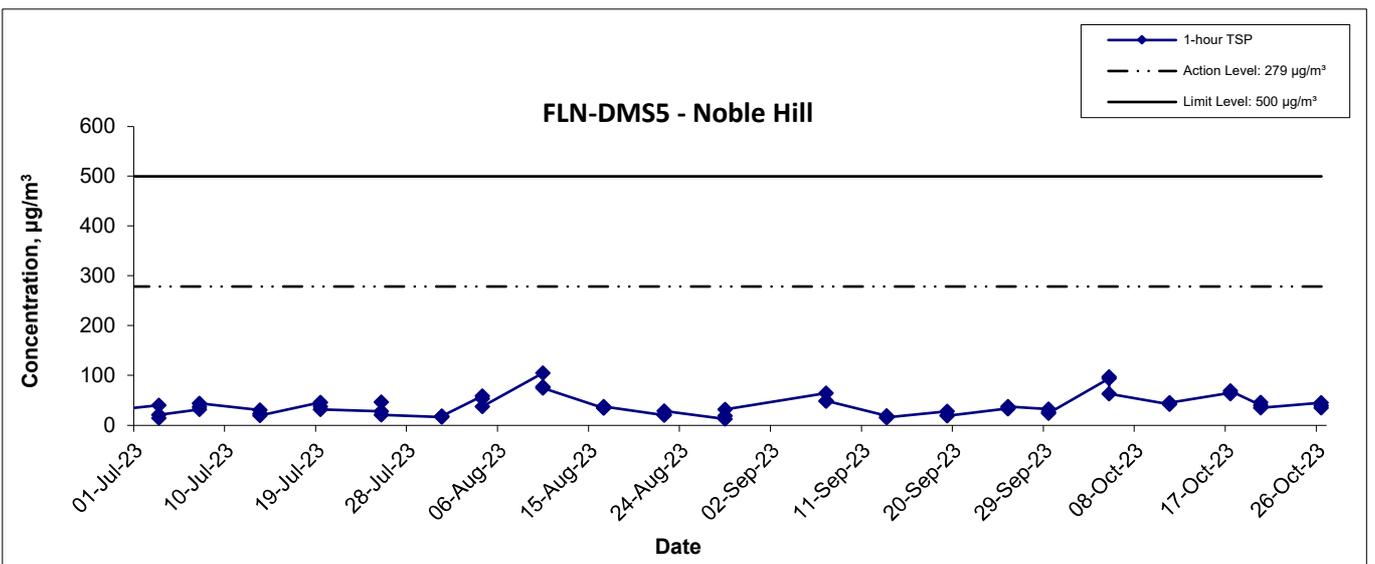
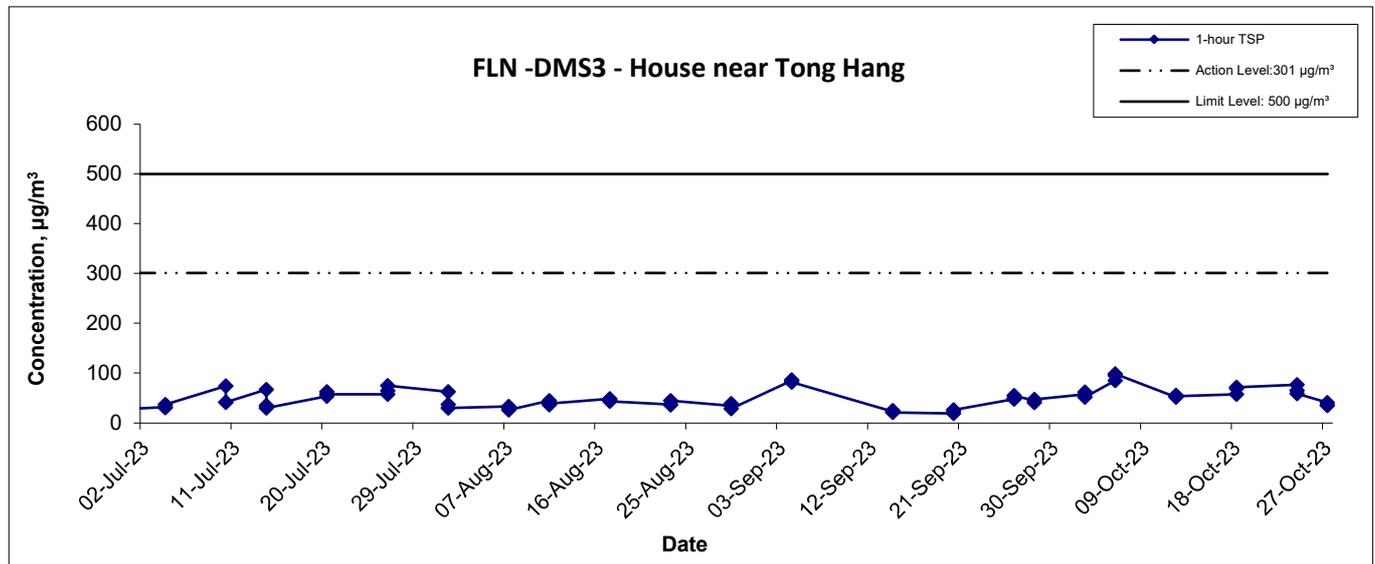
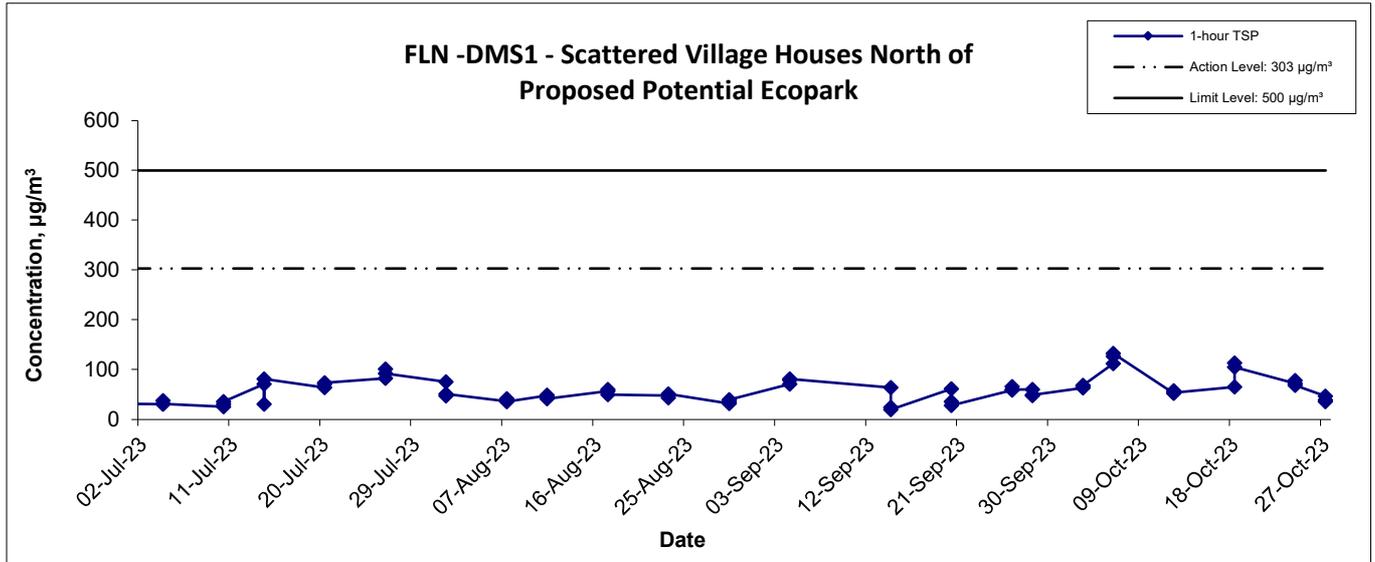
Start Date	Weather Condition	Air Temp. (K)	Filter Weight (g)		Particulate weight (g)	Elapse Time		Sampling Time(hrs.)	Flow Rate (m ³ /min.)		Av. flow (m ³ /min)	Total vol. (m ³)	Conc. (µg/m ³)
			Initial	Final		Initial	Final		Initial	Final			
5-Oct-23	Sunny	301.8	2.9054	2.9938	0.0884	9613.4	9637.4	24.0	1.21	1.21	1.21	1744.9	50.7
11-Oct-23	Sunny	295.6	2.9094	2.9774	0.0680	9637.4	9661.4	24.0	1.24	1.23	1.24	1779.8	38.2
17-Oct-23	Cloudy	298.5	2.9165	3.0119	0.0954	9661.4	9685.4	24.0	1.23	1.23	1.23	1769.9	53.9
20-Oct-23	Cloudy	297.6	3.0833	3.1426	0.0593	9685.4	9709.4	24.0	1.23	1.23	1.23	1772.5	33.5
26-Oct-23	Sunny	298.3	2.7778	2.8340	0.0562	9709.4	9733.4	24.0	1.23	1.23	1.23	1770.8	31.7
												Min	31.7
												Max	53.9
												Average	41.6

Appendix E - 24-hour TSP Monitoring Results

Location FLN-DMS5A - Good View New Village			
Date	Time	Weather	Particulate Concentration ($\mu\text{g}/\text{m}^3$)
5-Oct-23	10:00	Fine	67.0
11-Oct-23	11:00	Cloudy	35.8
17-Oct-23	9:00	Cloudy	64.2
20-Oct-23	9:00	Cloudy	59.4
26-Oct-23	11:30	Sunny	56.6
		Minimum	35.8
		Maximum	67.0
		Average	56.6

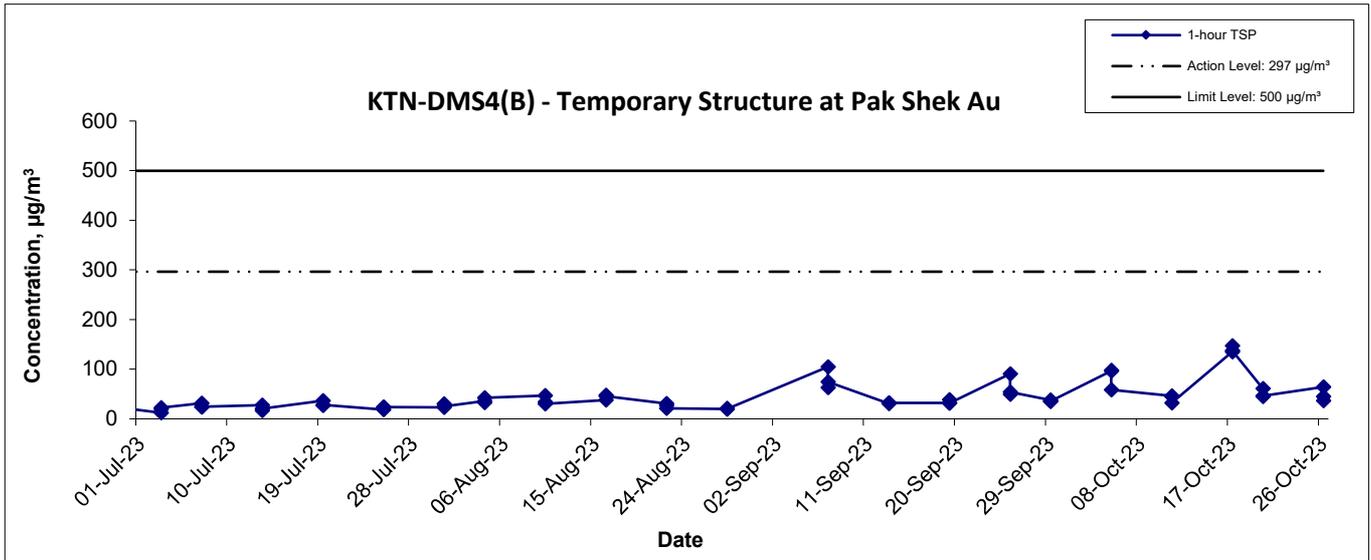
Location KTN-DMS4(B) - Temporary Structure at Pak Shek Au			
Date	Time	Weather	Particulate Concentration ($\mu\text{g}/\text{m}^3$)
5-Oct-23	9:30	Fine	49.9
11-Oct-23	9:30	Cloudy	30.7
17-Oct-23	10:00	Cloudy	100.0
20-Oct-23	9:00	Cloudy	68.5
26-Oct-23	15:55	Sunny	34.6
		Minimum	30.7
		Maximum	100.0
		Average	56.7

1-hr TSP Concentration Levels



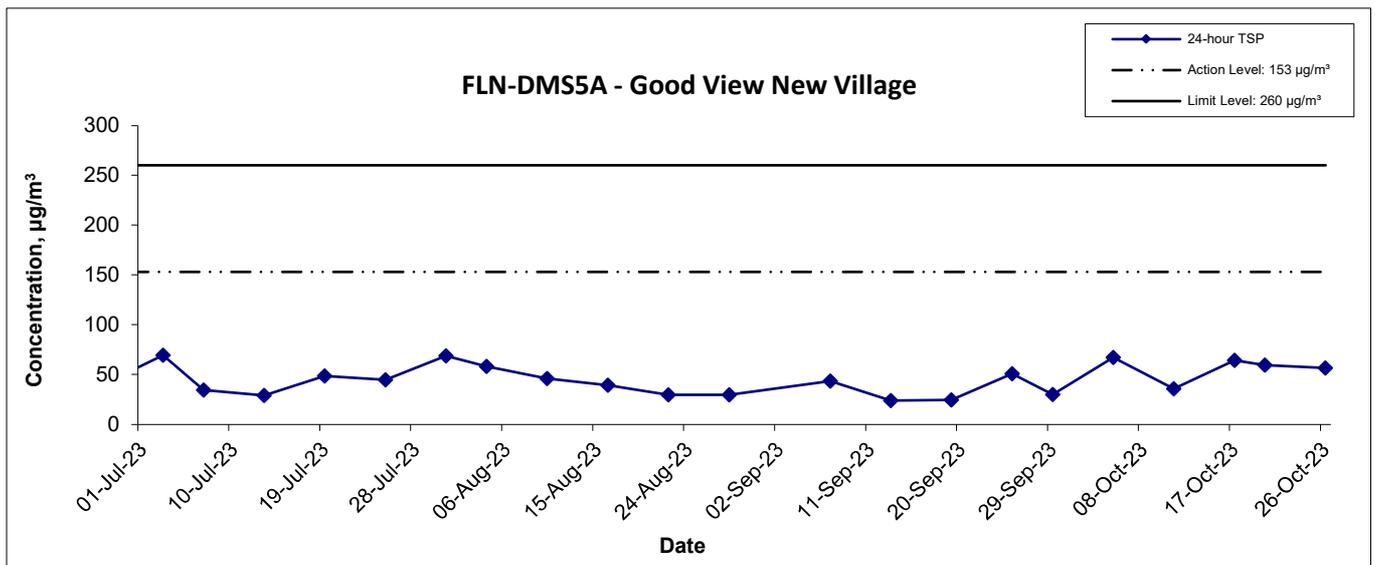
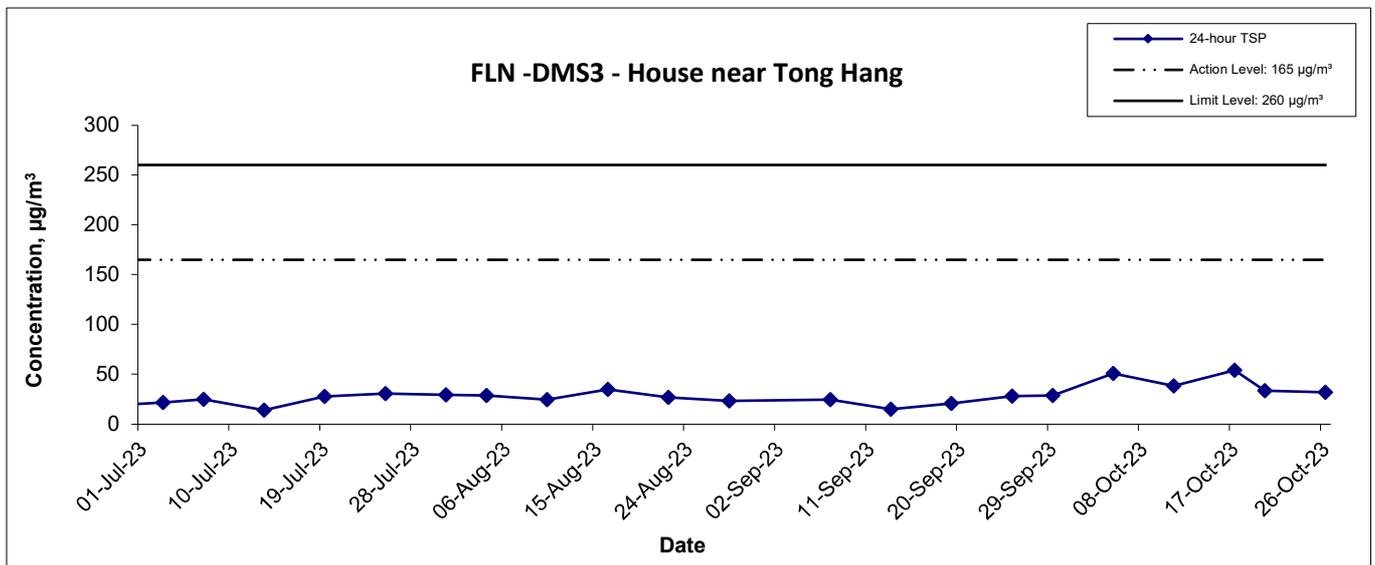
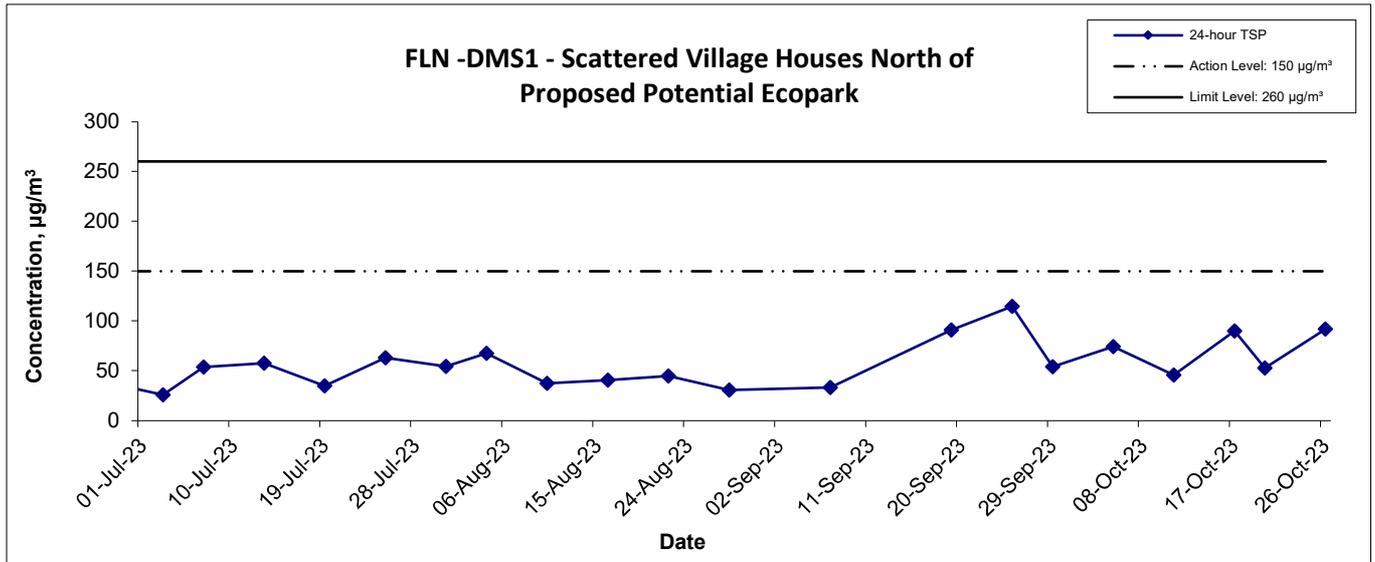
Title Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas Graphical Presentation of 1-hour TSP Monitoring Results	Scale	Project No.	 consulting . testing . research
	Date	Appendix	
	N.T.S	WMA20002	
	Oct 23	E	

1-hr TSP Concentration Levels



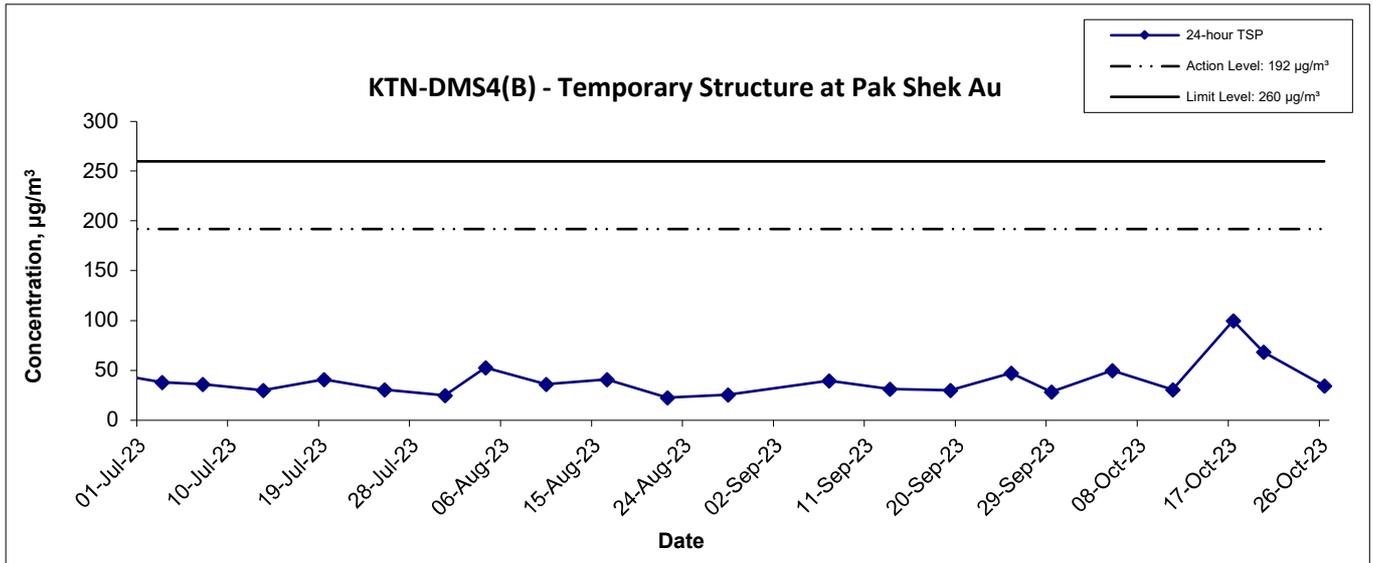
Title Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas Graphical Presentation of 1-hour TSP Monitoring Results	Scale	Project No.	 consulting . testing . research
	Date	Appendix	
	N.T.S	WMA20002	
	Oct 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
	Date	Appendix	
	N.T.S	WMA20002	
	Oct 23	E	

24-hr TSP Concentration Levels

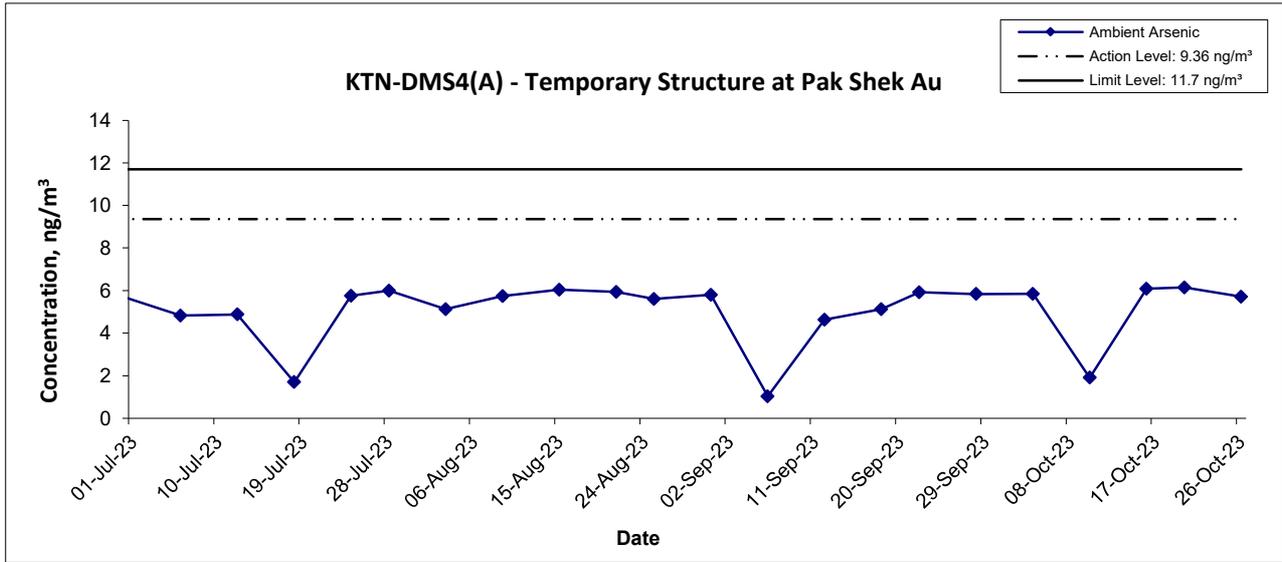


Title Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas Graphical Presentation of 24-hour TSP Monitoring Results	Scale N.T.S	Project No. WMA20002	consulting . testing . research
	Date Oct 23	Appendix E	

Appendix E - Ambient Arsenic Monitoring Results

Location KTN-DMS4(A) - Temporary Structure at Pak Shek Au			
Date	Arsenic (μg)	Standard Volume, Vstd (m^3)	Ambient Arsenic Concentration (ng/m^3)
4-Oct-23	9.6	1641.1	5.85
10-Oct-23	3.1	1621.8	1.91
16-Oct-23	9.9	1628.2	6.08
20-Oct-23	10.0	1628.5	6.14
26-Oct-23	9.3	1629.3	5.71

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	Oct 23	Appendix	E

TEST REPORT

APPLICANT: Wellab (EM&A)
RM 1808, Technology Park,
18 On Lai Street,
Shatin, N.T., Hong Kong

Report No.:	38982
Date of Issue:	2023-10-11
Date Received:	2023-10-05
Date Tested:	2023-10-05
Date Completed:	2023-10-11

ATTN: Ms Ivy Tam

Page: 1 of 1

Sample Description : 1 sample as received from customer said to be quartz filter
Laboratory No. : 38982
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	230525/011
Sample No.	38982-1
Arsenic (µg)	9.6

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 KongReport No.: QC38982
Date of Issue: 2023-10-11
Date Received: 2023-10-05
Date Tested: 2023-10-05
Date Completed: 2023-10-11**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)	0.06	N/A

Laboratory control spike/ Method QC

Parameter	MQC	Acceptance
Arsenic (%)	112	80-120

Calibration check

Parameter	CCV	Acceptance
Arsenic (%)	91	90-110

Interference check solution A

Parameter	ICS A	Acceptance
Arsenic (μg)	<0.036	<0.036

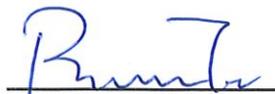
Interference check solution AB

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 38982

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


PATRICK TSE
General Manager

TEST REPORT

Report No.:	QC38982
Date of Issue:	2023-10-11
Date Received:	2023-10-05
Date Tested:	2023-10-05
Date Completed:	2023-10-11

Page: 2 of 2

QC report:

Matrix Spike

Parameter	Matrix Spike	Acceptance
Arsenic (%)	109	75-125

Filter Duplicate

Parameter	Filter Duplicate	Acceptance
Arsenic (%)	6	RPD \leq 20%

Serial dilution check

Parameter	Serial dilution check	Acceptance
Arsenic (%)	94	90-110

Remarks: 1) < = less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 38982

*****END OF REPORT*****

TEST REPORT**APPLICANT:** Wellab (EM&A)
RM 1808, Technology Park,
18 On Lai Street,
Shatin, N.T., Hong Kong

Report No.:	38983
Date of Issue:	2023-10-17
Date Received:	2023-10-12
Date Tested:	2023-10-12
Date Completed:	2023-10-17

ATTN: Ms Ivy Tam

Page: 1 of 1

Sample Description : 1 sample as received from customer said to be quartz filter
Laboratory No. : 38983
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	230525/012
Sample No.	38983-1
Arsenic (µg)	3.1

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.:	QC38983
Date of Issue:	2023-10-17
Date Received:	2023-10-12
Date Tested:	2023-10-12
Date Completed:	2023-10-17

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)	0.06	N/A

Laboratory control spike/ Method QC

Parameter	MQC	Acceptance
Arsenic (%)	110	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 (%)	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 38983

PREPARED AND CHECKED BY:

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


PATRICK TSE
General Manager

TEST REPORT

Report No.:	QC38983
Date of Issue:	2023-10-17
Date Received:	2023-10-12
Date Tested:	2023-10-12
Date Completed:	2023-10-17
Page:	2 of 2

QC report:
Matrix Spike

Parameter	Matrix Spike	Acceptance
Arsenic (%)	86	75-125

Filter Duplicate

Parameter	Filter Duplicate	Acceptance
Arsenic (%)	10	RPD _≤ 20%

Serial dilution check

Parameter	Serial dilution check	Acceptance
Arsenic (%)	97	90-110

Remarks: 1) < = less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 38983

*****END OF REPORT*****

TEST REPORT

APPLICANT: Wellab (EM&A)
RM 1808, Technology Park,
18 On Lai Street,
Shatin, N.T., Hong Kong

Report No.:	39022
Date of Issue:	2023-10-24
Date Received:	2023-10-17
Date Tested:	2023-10-17
Date Completed:	2023-10-24

ATTN: Ms Ivy Tam

Page: 1 of 1

Sample Description : 1 sample as received from customer said to be quartz filter
Laboratory No. : 39022
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	230525/013
Sample No.	39022-1
Arsenic (µg)	9.9

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.:	QC39022
Date of Issue:	2023-10-24
Date Received:	2023-10-17
Date Tested:	2023-10-17
Date Completed:	2023-10-24

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)	0.06	N/A

Laboratory control spike/ Method QC

Parameter	MQC	Acceptance
Arsenic (%)	107	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 (%)	90	70-130

Remarks: 1) < = less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 39022

PREPARED AND CHECKED BY:

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


PATRICK TSE
General Manager

TEST REPORT

Report No.:	QC39022
Date of Issue:	2023-10-24
Date Received:	2023-10-17
Date Tested:	2023-10-17
Date Completed:	2023-10-24

Page: 2 of 2

QC report:

Matrix Spike

Parameter	Matrix Spike	Acceptance
Arsenic (%)	92	75-125

Filter Duplicate

Parameter	Filter Duplicate	Acceptance
Arsenic (%)	3	RPD \leq 20%

Serial dilution check

Parameter	Serial dilution check	Acceptance
Arsenic (%)	104	90-110

Remarks: 1) < = less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 39022

*****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.:	39072
Date of Issue:	2023-10-30
Date Received:	2023-10-24
Date Tested:	2023-10-24
Date Completed:	2023-10-30

ATTN: Ms Ivy Tam

Page: 1 of 1

Sample Description : 1 sample as received from customer said to be quartz filter
Laboratory No. : 39072
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	230525/014
Sample No.	39072-1
Arsenic (µg)	10

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 KongReport No.: QC39072
Date of Issue: 2023-10-30
Date Received: 2023-10-24
Date Tested: 2023-10-24
Date Completed: 2023-10-30**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)	0.06	N/A

Laboratory control spike/ Method QC

Parameter	MQC	Acceptance
Arsenic (%)	111	80-120

Calibration check

Parameter	CCV	Acceptance
Arsenic (%)	94	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 (%)	109	70-130

Remarks: 1) < = less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 39072

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


PATRICK TSE
 General Manager

TEST REPORT

Report No.:	QC39072
Date of Issue:	2023-10-30
Date Received:	2023-10-24
Date Tested:	2023-10-24
Date Completed:	2023-10-30

Page: 2 of 2

QC report:
Matrix Spike

Parameter	Matrix Spike	Acceptance
Arsenic (%)	97	75-125

Filter Duplicate

Parameter	Filter Duplicate	Acceptance
Arsenic (%)	5	RPD \leq 20%

Serial dilution check

Parameter	Serial dilution check	Acceptance
Arsenic (%)	102	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 39072

*****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.:	39073
Date of Issue:	2023-11-02
Date Received:	2023-10-27
Date Tested:	2023-10-27
Date Completed:	2023-11-02

ATTN: Ms Ivy Tam

Page: 1 of 1

Sample Description : 1 sample as received from customer said to be quartz filter
Laboratory No. : 39073
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	230525/015
Sample No.	39073-1
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.:	QC39073
Date of Issue:	2023-11-02
Date Received:	2023-10-27
Date Tested:	2023-10-27
Date Completed:	2023-11-02

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)	0.06	N/A

Laboratory control spike/ Method QC

Parameter	MQC	Acceptance
Arsenic (%)	110	80-120

Calibration check

Parameter	CCV	Acceptance
Arsenic (%)	107	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 (%)	109	70-130

Remarks: 1) < = less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 39073

PREPARED AND CHECKED BY:

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


PATRICK TSE
General Manager

TEST REPORT

Report No.:	QC39073
Date of Issue:	2023-11-02
Date Received:	2023-10-27
Date Tested:	2023-10-27
Date Completed:	2023-11-02

Page: 2 of 2

QC report:
Matrix Spike

Parameter	Matrix Spike	Acceptance
Arsenic (%)	86	75-125

Filter Duplicate

Parameter	Filter Duplicate	Acceptance
Arsenic (%)	9	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 39073

*****END OF REP ORT*****

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

Appendix F - Noise Monitoring Results

Location CP-FLN-NMS1 - Belair Monte (Existing)							
Date	Weather	Time	Unit: dB (A) (5-min)			Average	Baseline Level
			L _{eq}	L ₁₀	L ₉₀	L _{eq}	L _{eq}
3-Oct-23	Cloudy	13:30	69.8	72.4	63.5	68.6	69.9
		13:35	71.2	75.0	63.6		
		13:40	66.7	69.1	62.3		
		13:45	67.3	70.3	62.5		
		13:50	68.0	70.9	62.1		
13:55	66.7	69.3	62.0				
12-Oct-23	Sunny	14:05	66.8	70.5	60.2	63.4	
		14:10	61.9	64.1	58.7		
		14:15	63.8	65.1	59.4		
		14:20	61.4	63.2	59.0		
		14:25	59.5	60.9	58.2		
14:30	63.5	66.4	59.9				
18-Oct-23	Cloudy	10:00	70.6	71.2	65.9	70.2	
		10:05	68.6	70.1	66.7		
		10:10	71.9	73.4	68.5		
		10:15	71.4	72.8	69.8		
		10:20	70.0	72.1	65.1		
10:25	66.6	69.6	62.3				
24-Oct-23	Cloudy	10:20	68.3	72.1	61.9	68.9	
		10:25	69.4	72.6	60.3		
		10:30	68.8	72.6	60.8		
		10:35	68.0	71.7	61.6		
		10:40	68.7	72.6	61.7		
10:45	69.8	73.0	63.7				

Location CP-FLN-NMS2 - Scattered Village House in Tong Hang (Existing)							
Date	Weather	Time	Unit: dB (A) (5-min)			Average	Baseline Level
			L _{eq}	L ₁₀	L ₉₀	L _{eq}	L _{eq}
3-Oct-23	Cloudy	14:50	66.3	67.4	65.2	67.2	59.6
		14:55	67.7	70.3	65.8		
		15:00	65.7	66.3	65.1		
		15:05	65.9	66.3	65.2		
		15:10	67.4	69.8	65.2		
15:15	69.0	69.1	65.3				
12-Oct-23	Sunny	09:15	57.2	59.4	52.9	58.4	
		09:20	57.4	59.8	53.4		
		09:25	55.0	57.0	52.7		
		09:30	60.0	61.0	54.6		
		09:35	59.5	60.6	53.0		
09:40	59.5	61.5	53.6				
18-Oct-23	Cloudy	13:30	55.9	60.0	48.6	54.5	
		13:35	50.0	51.5	48.5		
		13:40	55.1	58.7	48.0		
		13:45	53.7	54.9	48.1		
		13:50	52.2	55.1	48.3		
13:55	56.7	60.2	48.5				
24-Oct-23	Sunny	11:05	68.1	68.9	66.9	67.9	
		11:10	67.9	68.6	67.1		
		11:15	68.2	68.7	67.1		
		11:20	67.7	68.3	67.0		
		11:25	67.6	68.3	67.0		
11:30	68.1	68.6	67.0				

Appendix F - Noise Monitoring Results

Location CP-KTN-NMS2 - Residential Buildings at Ma Tso Lung (Existing)							
Date	Weather	Time	Unit: dB (A) (5-min)			Average	Baseline Level
			L _{eq}	L ₁₀	L ₉₀	L _{eq}	L _{eq}
5-Oct-23	Sunny	10:30	58.1	58.6	57.2	57.9	58.6
		10:35	57.7	58.1	57.3		
		10:40	57.6	57.9	57.2		
		10:45	57.8	58.2	57.3		
		10:50	57.9	58.5	57.6		
10:55	58.1	58.8	57.4				
11-Oct-23	Cloudy	10:45	55.1	55.3	53.6	55.8	
		10:50	54.9	55.1	53.7		
		10:55	59.2	63.1	53.5		
		11:00	53.9	54.4	53.4		
		11:05	54.7	54.9	53.6		
11:10	54.6	55.4	53.9				
17-Oct-23	Sunny	09:45	54.1	58.4	47.4	54.8	
		09:50	54.6	58.6	49.9		
		09:55	54.7	58.4	48.7		
		10:00	55.8	58.0	49.4		
		10:05	55.6	57.6	47.3		
10:10	53.9	57.9	48.8				
26-Oct-23	Sunny	09:45	53.4	55.2	50.8	53.8	
		09:50	52.2	53.7	50.8		
		09:55	52.3	54.0	50.6		
		10:00	53.3	54.1	49.9		
		10:05	57.4	58.1	50.0		
10:10	50.9	52.7	48.3				

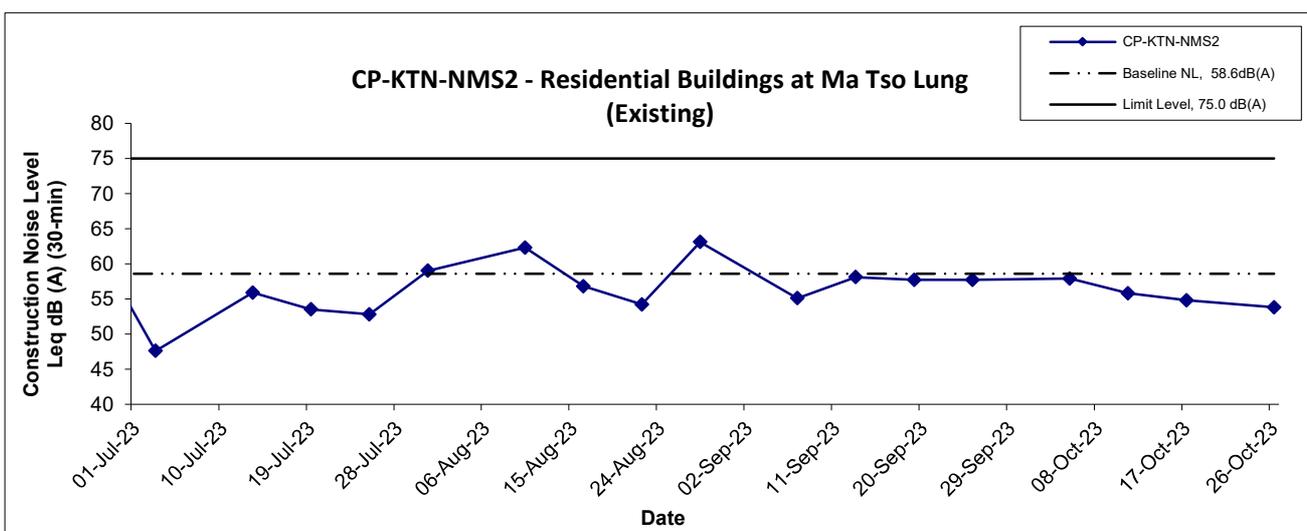
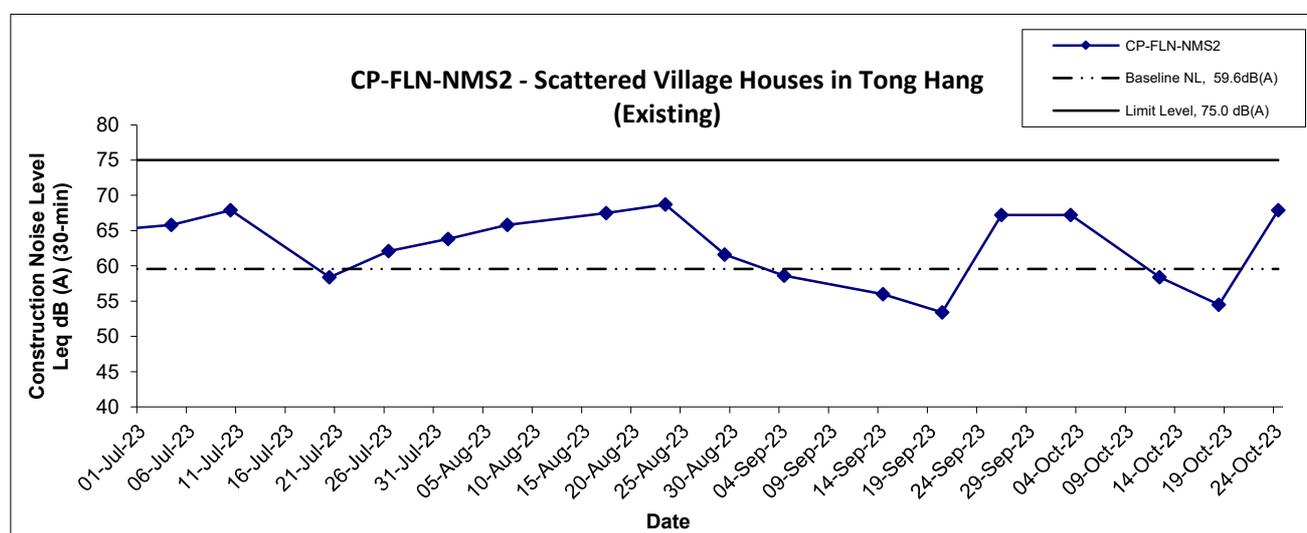
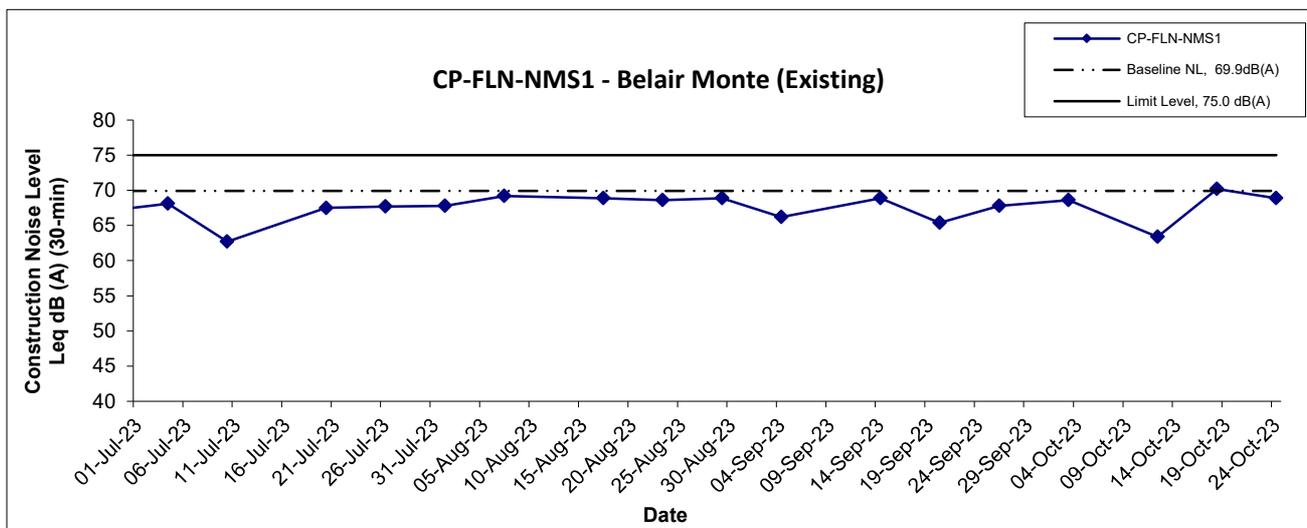
Location CP-KTN-NMS3 - Fung Kong Garden (Existing)							
Date	Weather	Time	Unit: dB (A) (5-min)			Average	Baseline Level
			L _{eq}	L ₁₀	L ₉₀	L _{eq}	L _{eq}
5-Oct-23	Sunny	09:45	51.4	53.8	49.2	51.7	51.6
		09:50	49.9	50.7	49.4		
		09:55	55.3	57.0	51.2		
		10:00	51.4	54.1	49.5		
		10:05	49.7	50.1	49.3		
10:10	49.6	49.9	49.2				
11-Oct-23	Cloudy	10:00	52.9	55.0	50.6	51.4	
		10:05	51.7	52.6	50.1		
		10:10	51.0	51.3	50.1		
		10:15	50.9	51.8	50.0		
		10:20	50.6	50.9	49.9		
10:25	50.7	51.0	49.9				
17-Oct-23	Sunny	09:55	55.5	57.8	53.4	55.7	
		10:00	55.7	57.9	53.9		
		10:05	55.5	56.5	53.9		
		10:10	55.5	56.7	54.0		
		10:15	57.0	57.9	54.1		
10:20	54.9	56.0	53.8				
26-Oct-23	Sunny	10:25	48.4	50.6	45.5	55.1	
		10:30	56.7	59.5	46.4		
		10:35	51.8	58.0	45.3		
		10:40	49.9	51.8	44.7		
		10:45	59.7	62.4	50.7		
10:50	53.5	59.3	44.4				

Appendix F - Noise Monitoring Results

Location CP-KTN-NMS5 - N/A							
Date	Weather	Time	Unit: dB (A) (5-min)			Average	Baseline Level
			L _{eq}	L ₁₀	L ₉₀	L _{eq}	L _{eq}
5-Oct-23	Sunny	11:25	59.5	60.1	59.0	59.4	57.2
		11:30	59.0	59.5	58.9		
		11:35	59.7	60.3	59.2		
		11:40	59.5	59.9	59.1		
		11:45	59.4	59.5	58.7		
		11:50	59.3	59.8	58.9		
11-Oct-23	Cloudy	09:05	55.5	56.2	54.5	55.4	
		09:10	55.2	56.0	54.5		
		09:15	55.9	56.2	54.2		
		09:20	54.8	55.7	54.1		
		09:25	55.3	56.0	54.4		
		09:30	55.4	56.4	54.0		
17-Oct-23	Sunny	11:30	59.0	60.7	57.0	60.3	
		11:35	59.8	60.1	55.1		
		11:40	61.7	64.3	56.2		
		11:45	60.4	64.0	55.2		
		11:50	60.1	62.8	54.5		
		11:55	60.6	63.0	55.1		
26-Oct-23	Sunny	11:15	58.3	61.0	55.2	59.4	
		11:20	58.1	60.7	54.1		
		11:25	56.1	58.3	53.5		
		11:30	60.1	61.9	56.8		
		11:35	61.2	63.3	57.7		
		11:40	60.7	62.7	55.5		

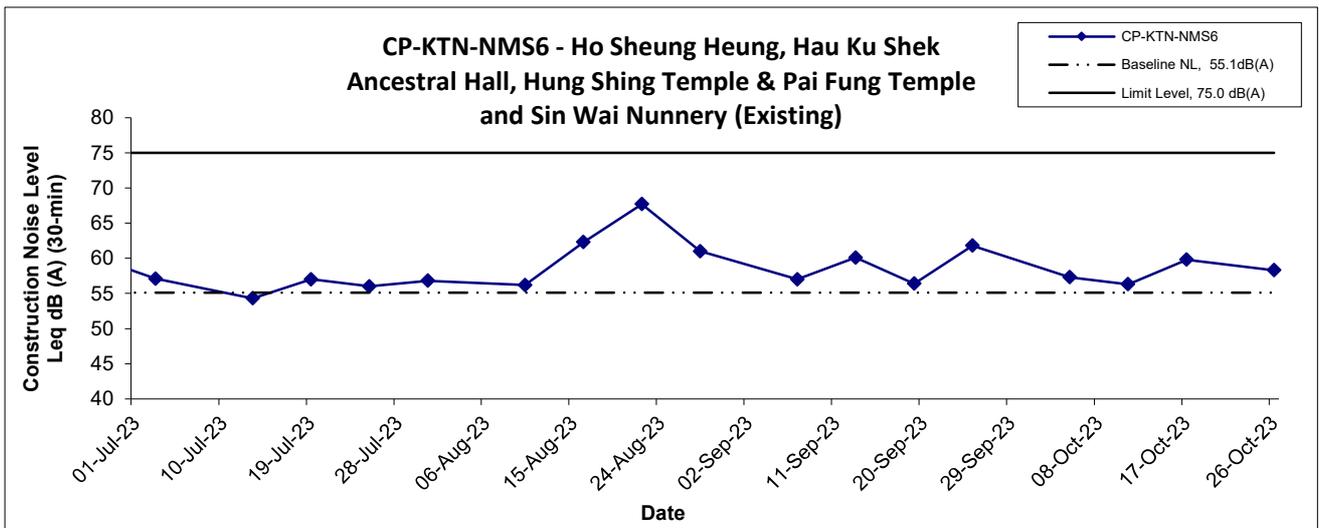
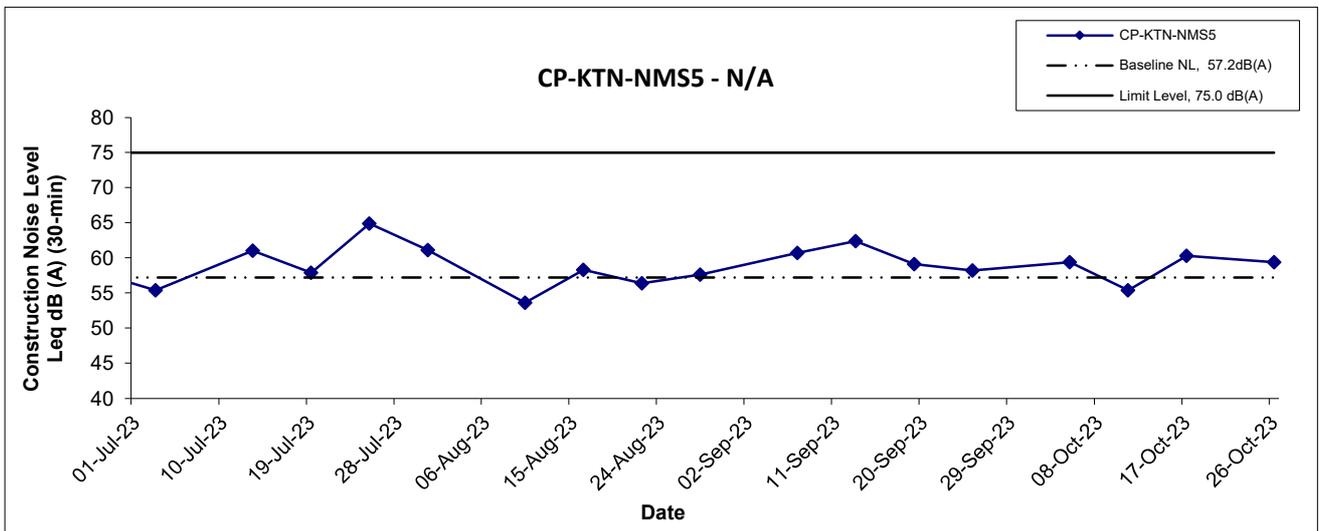
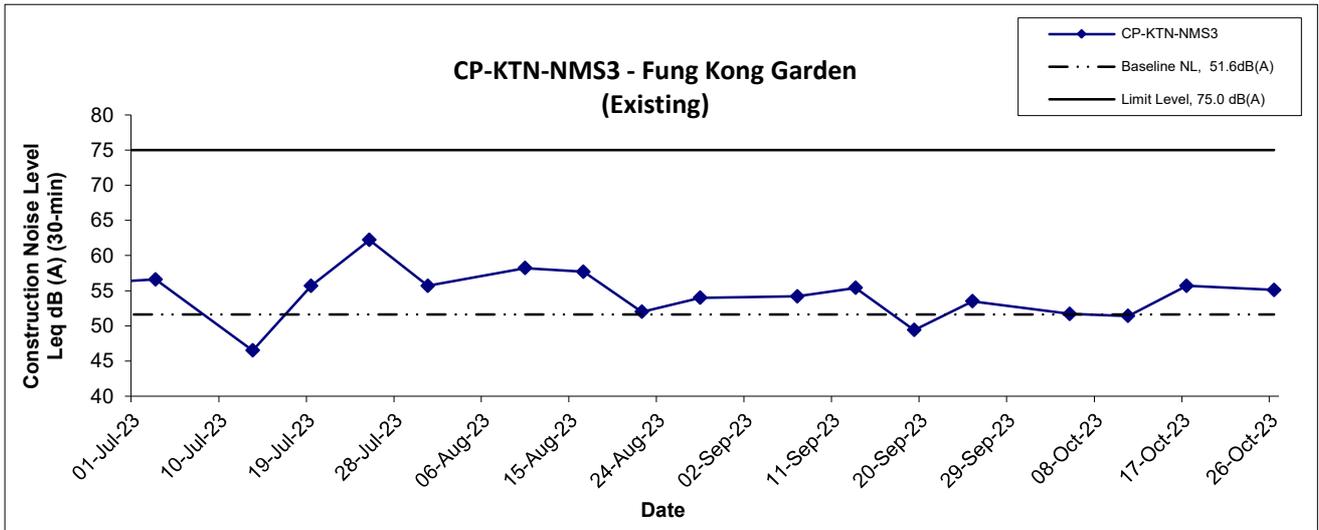
Location CP-KTN-NMS6 - Ho Sheung Heung, Hau Ku Shek Ancestral Hall, Hung Shing Temple & Pai Fung Temple and Sin Wai Nunnery (Existing)							
Date	Weather	Time	Unit: dB (A) (5-min)			Average	Baseline Level
			L _{eq}	L ₁₀	L ₉₀	L _{eq}	L _{eq}
5-Oct-23	Sunny	13:00	57.4	60.2	54.3	57.3	55.1
		13:05	56.7	59.0	54.1		
		13:10	55.2	58.0	52.6		
		13:15	58.2	61.1	52.4		
		13:20	57.3	59.4	52.6		
		13:25	58.4	62.0	53.2		
11-Oct-23	Cloudy	11:30	57.8	58.7	54.3	56.3	
		11:35	55.7	56.6	54.2		
		11:40	56.3	57.6	54.3		
		11:45	55.8	56.6	54.1		
		11:50	56.0	57.3	54.9		
		11:55	56.0	56.7	54.8		
17-Oct-23	Sunny	10:40	57.2	59.7	54.4	59.8	
		10:45	58.2	61.3	54.5		
		10:50	61.4	65.6	54.8		
		10:55	60.8	63.2	54.7		
		11:00	59.7	62.7	54.8		
		11:05	60.3	63.6	55.4		
26-Oct-23	Sunny	09:00	59.1	60.6	48.3	58.3	
		09:05	57.9	62.1	47.7		
		09:10	57.3	60.0	47.7		
		09:15	56.2	58.9	47.2		
		09:20	59.4	60.5	48.6		
		09:25	59.1	62.5	52.8		

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 Oct 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 Oct 23	Appendix F	

**APPENDIX G
WATER QUALITY MONITORING
RESULTS AND GRAPHICAL
PRESENTATIONS**

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-Oct-23	Cloudy	09:58	Middle	0.2	28.6	28.6	8.0	8.0	0.1	0.1	62.3	61.9	4.8	4.8	9.1	9.1	11	11.0	13	12.5
					28.6		8.0		0.1		61.5		4.8		9.1		11		12	
5-Oct-23	Fine	10:21	Middle	0.1	28.4	28.4	7.6	7.6	0.1	0.1	83.6	83.5	6.5	6.5	5.6	5.6	4	4.5	12	11.5
					28.4		7.6		0.1		83.4		6.5		5.6		5		11	
7-Oct-23	Cloudy	12:16	Middle	0.1	26.2	26.2	7.4	7.4	0.1	0.1	61.6	61.5	5.0	5.0	14.9	14.9	19	19.0	10	10.0
					26.2		7.3		0.1		61.4		5.0		14.8		19		10	
9-Oct-23	Rainy	17:15	Middle	0.3	23.3	23.3	7.7	7.7	0.04	0.04	89.5	89.5	7.6	7.6	36.1	35.5	30	31.0	7	7.0
					23.3		7.7		0.04		89.4		7.6		34.8		32		7	
11-Oct-23	Sunny	11:25	Middle	0.1	24.5	24.5	7.7	7.7	0.1	0.1	96.2	96.2	8.0	8.0	5.8	5.9	5	5.0	8	7.5
					24.5		7.7		0.1		96.1		8.0		5.9		5		7	
13-Oct-23	Sunny	13:26	Middle	0.2	30.5	30.5	7.7	7.7	0.1	0.1	81.5	81.5	6.1	6.1	8.2	8.3	6	6.5	8	8.0
					30.5		7.7		0.1		81.5		6.1		8.3		7		8	
16-Oct-23	Sunny	13:00	Middle	0.1	25.5	25.6	7.1	7.1	0.1	0.1	86.5	86.5	7.1	7.1	5.8	5.8	5	4.5	8	8.0
					25.6		7.1		0.1		86.5		7.1		5.8		4		8	
18-Oct-23	Cloudy	12:57	Middle	0.1	23.8	23.8	7.0	7.0	0.1	0.1	83.6	83.5	7.1	7.1	4.3	4.4	5	5.0	8	8.0
					23.7		7.0		0.1		83.4		7.1		4.4		5		8	
20-Oct-23	Cloudy	09:31	Middle	0.1	25.8	25.8	7.5	7.6	0.1	0.1	92.3	92.2	7.5	7.5	4.9	4.9	12	12.0	10	10.0
					25.8		7.6		0.1		92.0		7.5		4.8		12		10	
24-Oct-23	Sunny	13:12	Middle	0.1	26.4	26.4	7.4	7.5	0.1	0.1	76.9	76.9	6.2	6.2	3.1	3.1	12	11.5	10	10.0
					26.4		7.5		0.1		76.8		6.2		3.1		11		10	
26-Oct-23	Sunny	13:50	Middle	0.1	26.5	26.5	7.4	7.4	0.1	0.1	71.9	71.9	5.8	5.8	3.5	3.5	5	5.5	11	11.0
					26.5		7.4		0.1		71.8		5.8		3.5		6		11	
28-Oct-23	Sunny	10:36	Middle	0.2	25.7	25.7	7.7	7.7	0.1	0.1	79.6	79.4	6.5	6.5	4.4	4.4	<2.5	<2.5	7	7.5
					25.7		7.6		0.1		79.2		6.5		4.4		<2.5		8	
30-Oct-23	Sunny	11:19	Middle	0.2	25.2	25.2	7.1	7.1	0.1	0.1	65.2	65.2	5.4	5.4	4.0	4.0	<2.5	2.8	9	9.0
					25.2		7.1		0.1		65.1		5.4		4.0		3		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-Oct-23	Cloudy	10:09	Middle	0.4	30.6	30.6	7.2	7.2	0.1	0.1	89.7	89.6	6.7	6.7	27.8	27.8	54	55.0	7	6.5
					30.6		7.2		0.1		89.5		6.7		27.7		56		6	
5-Oct-23	Fine	10:33	Middle	0.1	31.1	31.1	7.5	7.5	0.1	0.1	104.2	104.2	7.7	7.7	21.7	21.8	42	45.0	10	10.0
					31.1		7.5		0.1		104.2		7.7		21.8		48		10	
7-Oct-23	Cloudy	12:29	Middle	0.2	26.1	26.1	7.6	7.6	0.1	0.1	86.8	86.8	7.0	7.0	22.7	22.6	35	33.5	12	11.5
					26.1		7.6		0.1		86.7		7.0		22.5		32		11	
9-Oct-23	Rainy	16:57	Middle	0.7	23.1	23.1	7.8	7.8	0.03	0.03	96.2	96.2	8.2	8.2	42.2	42.1	45	45.5	7	7.0
					23.1		7.8		0.03		96.2		8.2		41.9		46		7	
11-Oct-23	Sunny	11:06	Middle	0.4	24.7	24.7	7.8	7.8	0.1	0.1	86.0	86.0	7.2	7.2	16.3	16.3	13	13.5	8	7.5
					24.7		7.8		0.1		86.0		7.1		16.3		14		7	
13-Oct-23	Sunny	13:45	Middle	0.4	31.7	31.7	7.0	7.0	0.1	0.1	89.4	89.6	6.6	6.6	13.7	13.7	10	9.5	8	8.0
					31.7		7.0		0.1		89.7		6.6		13.6		9		8	
16-Oct-23	Sunny	13:17	Middle	0.5	26.9	26.9	7.4	7.4	0.1	0.1	77.1	77.3	6.2	6.2	19.4	19.5	19	17.5	7	7.0
					26.9		7.4		0.1		77.4		6.2		19.6		16		7	
18-Oct-23	Cloudy	13:18	Middle	0.4	25.2	25.2	6.7	6.7	0.2	0.2	78.2	78.5	6.4	6.5	15.5	15.5	11	11.5	6	5.5
					25.2		6.7		0.2		78.7		6.5		15.4		12		5	
20-Oct-23	Cloudy	09:46	Middle	0.4	26.9	26.9	7.2	7.2	0.1	0.1	80.4	80.3	6.4	6.4	11.2	11.2	25	23.5	12	11.5
					26.9		7.2		0.1		80.2		6.4		11.2		22		11	
24-Oct-23	Sunny	13:29	Middle	0.1	30.2	30.2	7.6	7.6	0.1	0.1	116.1	116.2	8.8	8.8	16.0	16.3	24	25.0	11	11.0
					30.2		7.6		0.1		116.2		8.8		16.5		26		11	
26-Oct-23	Sunny	14:01	Middle	0.2	29.6	29.6	7.6	7.6	0.1	0.1	120.5	120.6	9.2	9.2	20.4	20.8	36	37.5	12	12.0
					29.6		7.6		0.1		120.6		9.2		21.1		39		12	
28-Oct-23	Sunny	10:48	Middle	0.5	27.4	27.4	7.2	7.2	0.3	0.3	83.2	83.3	6.6	6.6	12.2	12.3	<2.5	<2.5	3	3.0
					27.4		7.2		0.3		83.3		6.6		12.3		<2.5		3	
30-Oct-23	Sunny	11:36	Middle	0.5	27.2	27.2	7.1	7.1	0.2	0.2	83.0	83.1	6.6	6.6	23.0	23.1	11	10.5	3	3.0
					27.2		7.1		0.2		83.1		6.6		23.1		10		3	

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	Value
3-Oct-23	Cloudy	11:28	Middle	0.2	31.2	31.2	7.8	7.8	0.1	0.1	118.3	118.6	8.8	8.8	9.4	9.4	11	11	11.0
					31.2		7.8		0.1		118.8		8.8		9.3		11		
5-Oct-23	Fine	11:51	Middle	0.2	31.5	31.5	7.1	7.1	0.1	0.1	122.7	122.7	9.0	9.0	8.8	8.8	12	12	12.0
					31.5		7.1		0.1		122.7		9.0		8.8		12		
7-Oct-23	Cloudy	13:33	Middle	0.2	25.3	25.3	7.3	7.3	0.1	0.1	93.3	93.3	7.7	7.7	12.5	12.3	13	13	13.0
					25.3		7.3		0.1		93.3		7.7		12.1		13		
9-Oct-23	Rainy	15:25	Middle	0.3	23.3	23.3	7.6	7.6	0.03	0.03	95.9	95.9	8.2	8.2	30.5	30.7	39	44	41.5
					23.3		7.5		0.03		95.9		8.2		30.8		44		
11-Oct-23	Sunny	10:11	Middle	0.2	25.2	25.2	7.6	7.6	0.1	0.1	97.8	97.8	8.1	8.1	8.3	8.5	9	8	8.5
					25.2		7.6		0.1		97.8		8.1		8.6		8		
13-Oct-23	Sunny	15:01	Middle	0.2	29.7	29.8	7.5	7.5	0.1	0.1	95.7	95.7	7.3	7.3	6.5	6.6	15	15	15.0
					29.8		7.5		0.1		95.7		7.3		6.6		15		
16-Oct-23	Sunny	14:29	Middle	0.2	28.6	28.6	6.1	6.2	0.1	0.1	120.8	120.9	9.4	9.4	7.5	7.6	7	7	7.0
					28.6		6.2		0.1		120.9		9.4		7.6		7		
18-Oct-23	Cloudy	10:27	Middle	0.2	24.7	24.7	7.1	7.1	0.1	0.1	108.8	108.9	9.1	9.1	5.5	5.5	6	6	6.0
					24.6		7.1		0.1		109.0		9.1		5.5		6		
20-Oct-23	Cloudy	10:51	Middle	0.2	27.6	27.7	7.0	7.1	0.1	0.1	100.0	100.0	7.9	7.9	7.1	7.1	9	10	9.5
					27.7		7.1		0.1		100.0		7.9		7.1		10		
24-Oct-23	Sunny	15:36	Middle	0.2	29.6	29.6	7.3	7.3	0.1	0.1	114.6	114.7	8.7	8.7	8.7	8.7	13	13	13.0
					29.6		7.3		0.1		114.7		8.7		8.7		13		
26-Oct-23	Sunny	15:16	Middle	0.2	29.1	29.1	7.3	7.3	0.1	0.1	122.2	122.3	9.4	9.4	8.5	8.6	8	9	8.5
					29.1		7.3		0.1		122.3		9.4		8.6		9		
28-Oct-23	Sunny	12:52	Middle	0.2	28.4	28.4	7.5	7.5	0.1	0.1	138.0	138.0	10.7	10.7	8.5	8.5	<2.5	<2.5	<2.5
					28.4		7.5		0.1		138.0		10.7		8.5		<2.5		
30-Oct-23	Sunny	13:52	Middle	0.2	28.3	28.3	7.6	7.6	0.1	0.1	122.9	123.1	9.6	9.6	12.6	12.6	12	11	11.5
					28.3		7.5		0.1		123.2		9.6		12.6		11		

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-Oct-23	Cloudy	10:50	Middle	0.2	30.5	30.5	7.7	7.7	0.1	0.1	108.9	108.9	8.2	8.2	7.3	7.3	13	12.5
					30.5		7.7		0.1		108.9		8.2		7.3			
5-Oct-23	Fine	11:15	Middle	0.1	32.0	32.0	6.5	6.6	0.1	0.1	131.7	131.8	9.6	9.6	7.2	7.2	11	10.5
					32.0		6.6		0.1		131.9		9.6		7.2			
7-Oct-23	Cloudy	13:12	Middle	0.2	24.9	24.9	7.6	7.6	0.1	0.1	101.1	101.1	8.4	8.4	11.7	11.9	15	14.5
					24.9		7.6		0.1		101.1		8.4		12.0			
9-Oct-23	Rainy	16:01	Middle	0.8	23.2	23.2	7.4	7.5	0.02	0.02	96.8	96.8	8.3	8.3	30.8	31.4	40	42.5
					23.2		7.5		0.02		96.8		8.3		31.9			
11-Oct-23	Sunny	10:48	Middle	0.1	26.5	26.5	7.4	7.4	0.1	0.1	103.6	103.7	8.3	8.3	6.8	6.8	7	7.5
					26.5		7.4		0.1		103.7		8.3		6.7			
13-Oct-23	Sunny	14:26	Middle	0.2	31.5	31.5	7.2	7.2	0.1	0.1	98.5	98.5	7.3	7.3	7.1	7.1	16	16.0
					31.5		7.2		0.1		98.5		7.3		7.1			
16-Oct-23	Sunny	13:59	Middle	0.2	27.8	27.8	6.8	6.8	0.1	0.1	124.8	124.9	9.8	9.8	8.0	8.1	8	7.5
					27.8		6.8		0.1		125.0		9.8		8.1			
18-Oct-23	Cloudy	11:15	Middle	0.2	23.9	23.9	7.1	7.1	0.1	0.1	95.1	95.0	8.0	8.0	6.0	6.1	5	5.0
					23.9		7.1		0.1		94.9		8.0		6.1			
20-Oct-23	Cloudy	10:20	Middle	0.2	27.8	27.8	7.1	7.1	0.1	0.1	103.8	103.8	8.2	8.2	6.4	6.4	10	10.0
					27.8		7.1		0.1		103.8		8.2		6.3			
24-Oct-23	Sunny	14:52	Middle	0.4	28.8	28.8	7.3	7.3	0.1	0.1	118.3	118.4	9.1	9.2	9.3	9.5	14	14.0
					28.7		7.3		0.1		118.4		9.2		9.6			
26-Oct-23	Sunny	14:42	Middle	0.3	28.6	28.6	7.5	7.6	0.1	0.1	130.4	130.5	10.1	10.1	8.7	8.8	8	8.0
					28.6		7.6		0.1		130.5		10.1		8.8			
28-Oct-23	Sunny	11:19	Middle	0.4	25.9	25.9	7.5	7.5	0.1	0.1	74.5	74.7	6.1	6.1	4.8	4.8	5	5.5
					25.9		7.4		0.1		74.8		6.1		4.7			
30-Oct-23	Sunny	13:09	Middle	0.3	27.8	27.8	7.5	7.5	0.1	0.1	119.5	119.5	9.4	9.4	13.0	13.1	3	2.8
					27.8		7.5		0.1		119.5		9.4		13.2		<2.5	

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: SHST-IS2

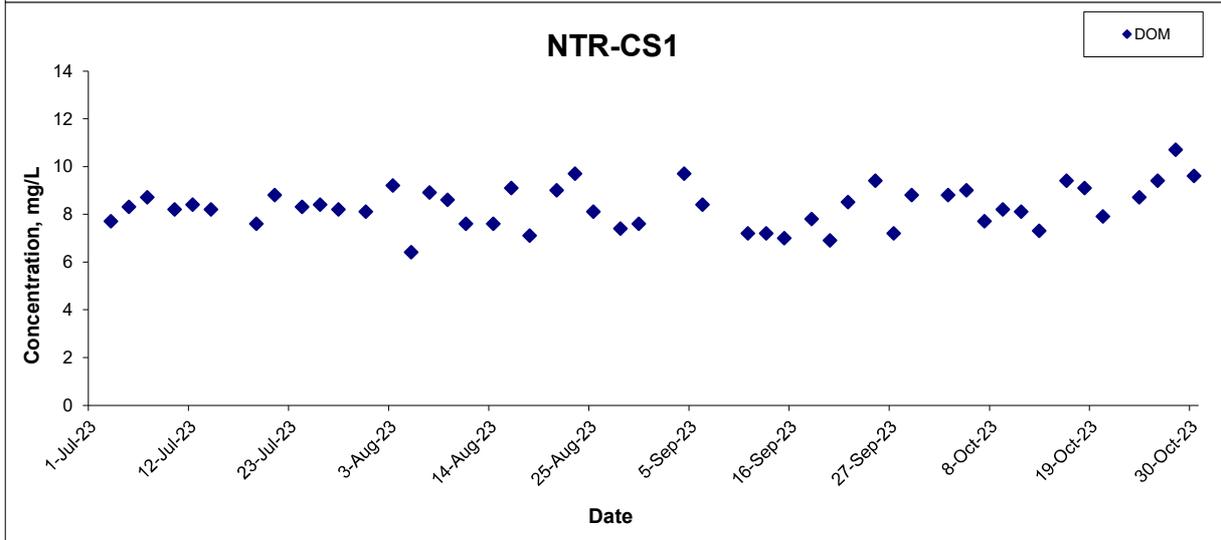
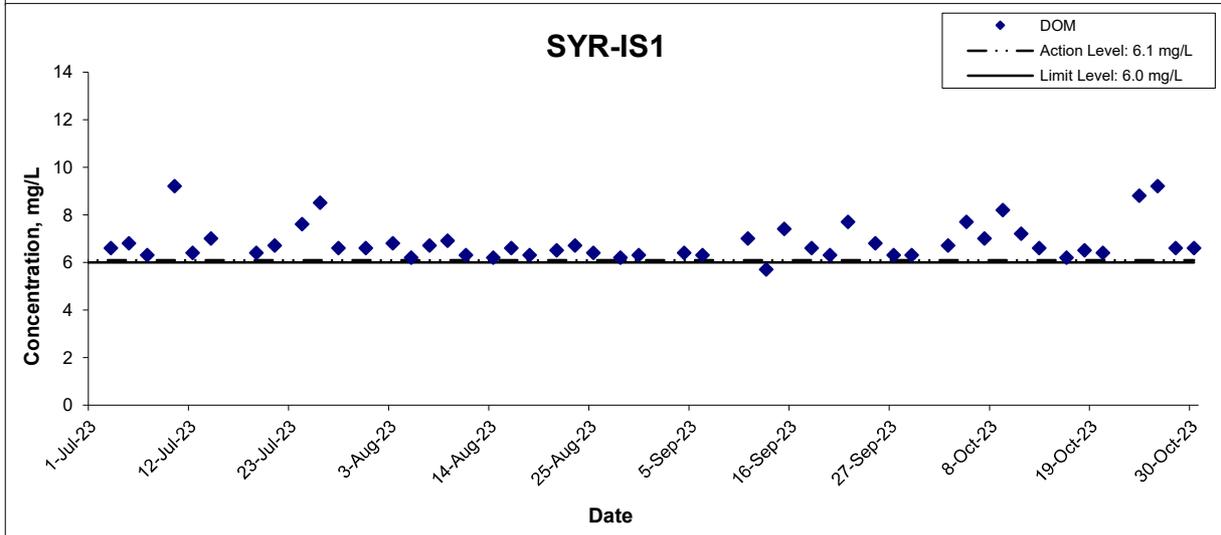
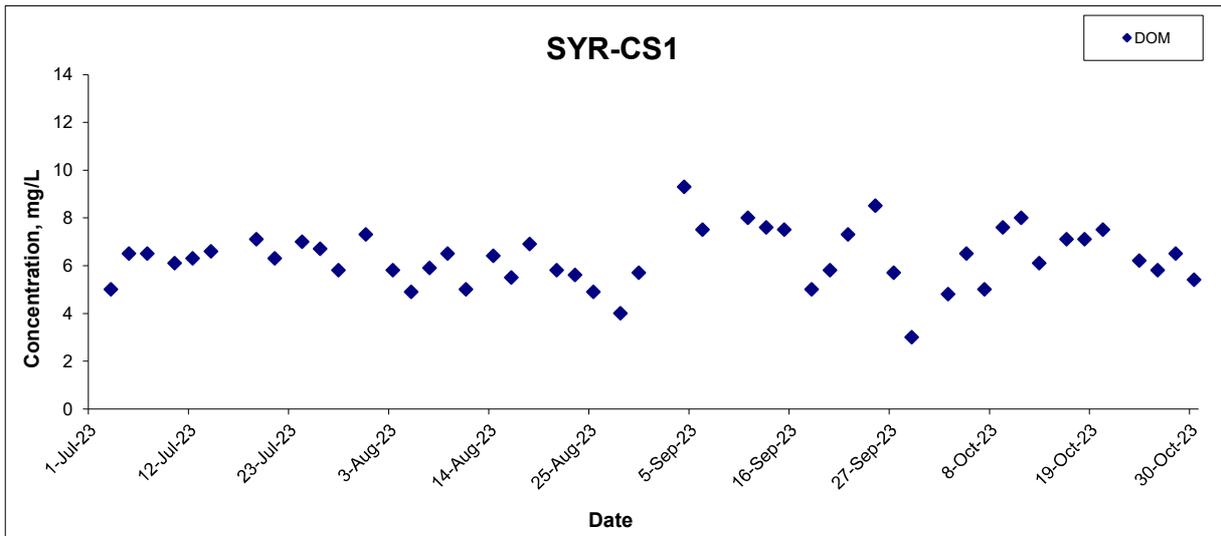
Date	Weather Condition	Start Time	Sampling Depth (m)		Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)	
					Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
3-Oct-23	Cloudy	10:39	Middle	0.4	27.3	27.3	7.8	7.8	0.1	0.1	97.2	97.0	7.7	7.7	6.2	6.2	5	5.0
					27.3		7.8		0.1		96.7		7.7		6.2		5	
5-Oct-23	Fine	11:01	Middle	0.3	30.5	30.6	7.4	7.4	0.1	0.1	97.2	97.2	7.3	7.3	6.4	6.4	4	4.5
					30.6		7.4		0.1		97.2		7.3		6.3		5	
7-Oct-23	Cloudy	12:54	Middle	0.3	24.4	24.4	7.6	7.6	0.1	0.1	89.4	89.4	7.5	7.5	12.4	12.4	6	5.5
					24.4		7.6		0.1		89.3		7.5		12.4		5	
9-Oct-23	Rainy	15:50	Middle	0.3	22.9	22.9	7.4	7.4	0.03	0.03	92.9	92.9	8.0	8.0	35.2	35.4	42	44.0
					22.9		7.4		0.03		92.8		8.0		35.6		46	
11-Oct-23	Sunny	10:34	Middle	0.2	24.5	24.5	7.4	7.4	0.1	0.1	93.4	93.5	7.8	7.8	9.5	9.7	10	9.5
					24.5		7.4		0.1		93.5		7.8		9.8		9	
13-Oct-23	Sunny	14:11	Middle	0.3	27.7	27.8	7.6	7.6	0.1	0.1	93.4	93.7	7.3	7.4	6.9	6.9	11	10.5
					27.8		7.6		0.1		93.9		7.4		6.8		10	
16-Oct-23	Sunny	13:45	Middle	0.3	25.9	25.9	7.1	7.1	0.04	0.04	93.9	93.9	7.6	7.6	7.5	7.5	4	4.5
					25.9		7.1		0.04		93.9		7.6		7.5		5	
18-Oct-23	Cloudy	11:06	Middle	0.3	23.9	23.9	7.2	7.2	0.04	0.04	91.9	91.9	7.8	7.8	5.4	5.4	5	5.5
					23.9		7.1		0.04		91.8		7.7		5.3		6	
20-Oct-23	Cloudy	10:06	Middle	0.3	26.2	26.3	7.4	7.4	0.04	0.04	96.6	96.7	7.8	7.8	5.6	5.6	7	7.0
					26.3		7.4		0.04		96.7		7.8		5.6		7	
24-Oct-23	Sunny	14:37	Middle	0.2	26.9	26.9	7.4	7.4	0.1	0.1	95.1	95.2	7.6	7.6	7.3	7.2	6	6.5
					26.9		7.4		0.1		95.2		7.6		7.1		7	
26-Oct-23	Sunny	14:31	Middle	0.2	26.2	26.2	7.4	7.4	0.1	0.1	95.6	95.6	7.7	7.7	7.8	7.8	4	4.5
					26.2		7.4		0.1		95.5		7.7		7.7		5	
28-Oct-23	Sunny	11:28	Middle	0.2	25.3	25.3	7.5	7.5	0.1	0.1	90.6	90.5	7.5	7.5	9.6	9.6	<2.5	<2.5
					25.2		7.5		0.1		90.4		7.4		9.6		<2.5	
30-Oct-23	Sunny	13:18	Middle	0.2	25.7	25.7	7.6	7.6	0.1	0.1	94.7	94.7	7.7	7.7	8.4	8.4	11	11.0
					25.7		7.6		0.1		94.7		7.7		8.4		11	

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

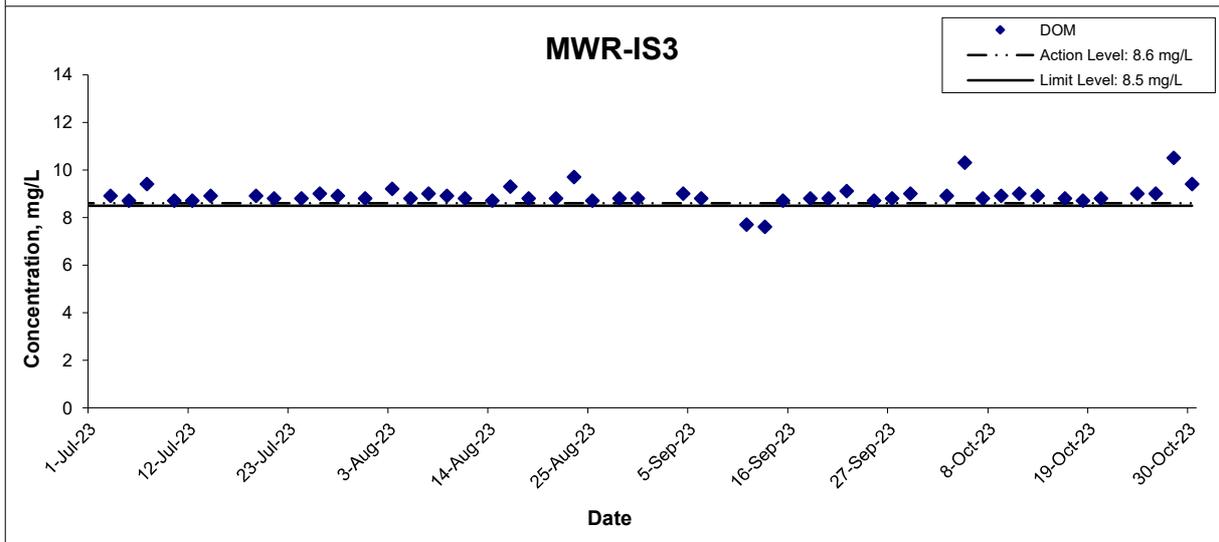
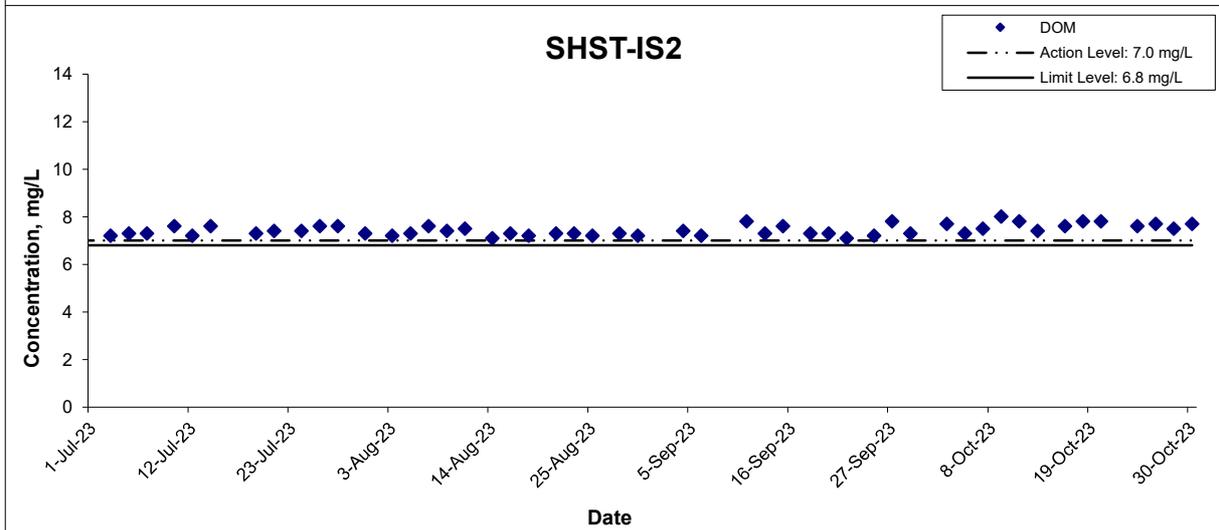
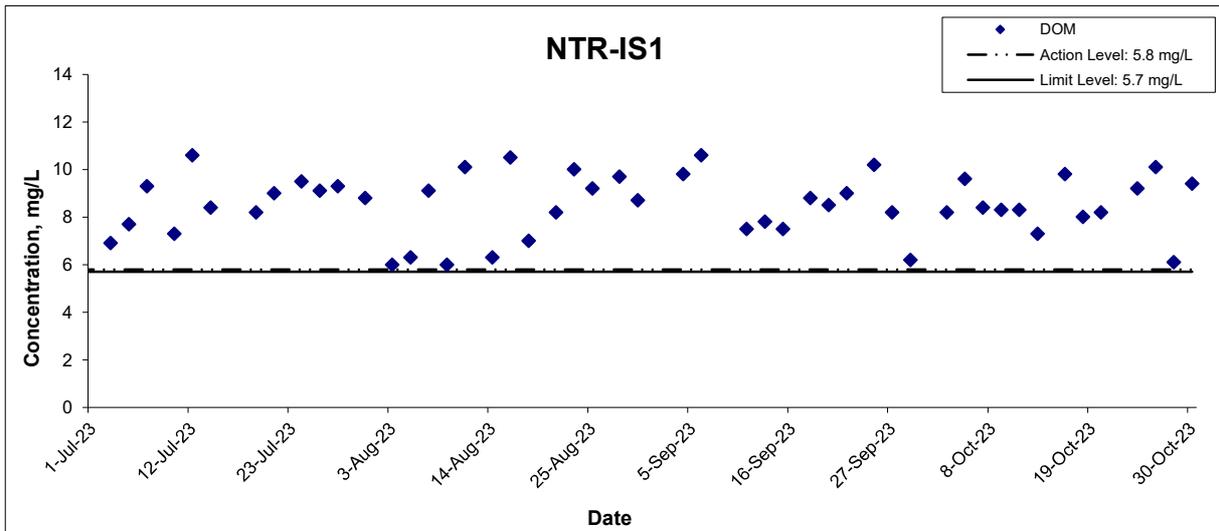
Date	Weather Condition	Start Time	Sampling Depth (m)		Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)	
					Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
3-Oct-23	Cloudy	11:45	Middle	0.2	30.4	30.4	7.7	7.7	0.1	0.1	118.3	118.2	8.9	8.9	10.1	10.1	12	12.0
					30.4		7.7		0.1		118.1		8.9		10.1		12	
5-Oct-23	Fine	12:15	Middle	0.2	31.6	31.6	6.9	6.9	0.1	0.1	139.1	139.5	10.2	10.3	10.1	10.1	13	13.0
					31.6		6.9		0.1		139.8		10.3		10.0		13	
7-Oct-23	Cloudy	13:48	Middle	0.2	24.9	24.9	7.4	7.4	0.1	0.1	105.9	106.1	8.8	8.8	7.9	7.9	10	10.5
					24.9		7.4		0.1		106.2		8.8		7.9		11	
9-Oct-23	Rainy	15:06	Middle	0.3	23.3	23.3	7.6	7.6	0.1	0.1	104.0	104.4	8.9	8.9	28.7	29.1	27	27.5
					23.3		7.6		0.1		104.7		8.9		29.4		28	
11-Oct-23	Sunny	09:54	Middle	0.2	25.0	25.0	7.6	7.6	0.1	0.1	108.6	108.3	9.0	9.0	8.3	8.4	8	8.5
					24.9		7.6		0.1		107.9		8.9		8.5		9	
13-Oct-23	Sunny	15:14	Middle	0.2	30.2	30.2	7.6	7.6	0.1	0.1	117.7	117.5	8.9	8.9	6.8	6.8	12	12.5
					30.2		7.6		0.1		117.3		8.8		6.7		13	
16-Oct-23	Sunny	14:44	Middle	0.3	27.5	27.5	7.0	7.0	0.1	0.1	110.4	110.8	8.7	8.8	8.1	8.1	7	7.0
					27.4		7.0		0.1		111.2		8.8		8.1		7	
18-Oct-23	Cloudy	10:36	Middle	0.2	24.5	24.5	6.9	6.9	0.1	0.1	104.2	104.3	8.7	8.7	5.7	5.7	6	5.5
					24.5		6.9		0.1		104.4		8.7		5.7		5	
20-Oct-23	Cloudy	11:00	Middle	0.2	28.6	28.6	6.9	6.9	0.1	0.1	113.1	113.4	8.8	8.8	7.4	7.4	10	10.5
					28.6		6.9		0.1		113.6		8.8		7.4		11	
24-Oct-23	Sunny	15:22	Middle	0.2	28.6	28.6	7.4	7.5	0.1	0.1	115.9	116.1	9.0	9.0	7.9	7.7	14	14.5
					28.6		7.5		0.1		116.2		9.0		7.5		15	
26-Oct-23	Sunny	15:01	Middle	0.2	28.0	28.0	7.9	7.9	0.1	0.1	114.0	114.3	8.9	9.0	8.9	9.0	4	4.0
					28.0		7.9		0.1		114.6		9.0		9.0		4	
28-Oct-23	Sunny	12:42	Middle	0.2	28.4	28.4	8.0	8.0	0.1	0.1	135.5	135.6	10.5	10.5	8.5	8.8	5	5.0
					28.4		8.0		0.1		135.6		10.5		9.0		5	
30-Oct-23	Sunny	13:46	Middle	0.2	27.8	27.8	7.7	7.7	0.1	0.1	118.9	119.0	9.3	9.4	14.6	14.7	13	13.0
					27.8		7.7		0.1		119.0		9.4		14.7		13	

Dissolved Oxygen (Middle)



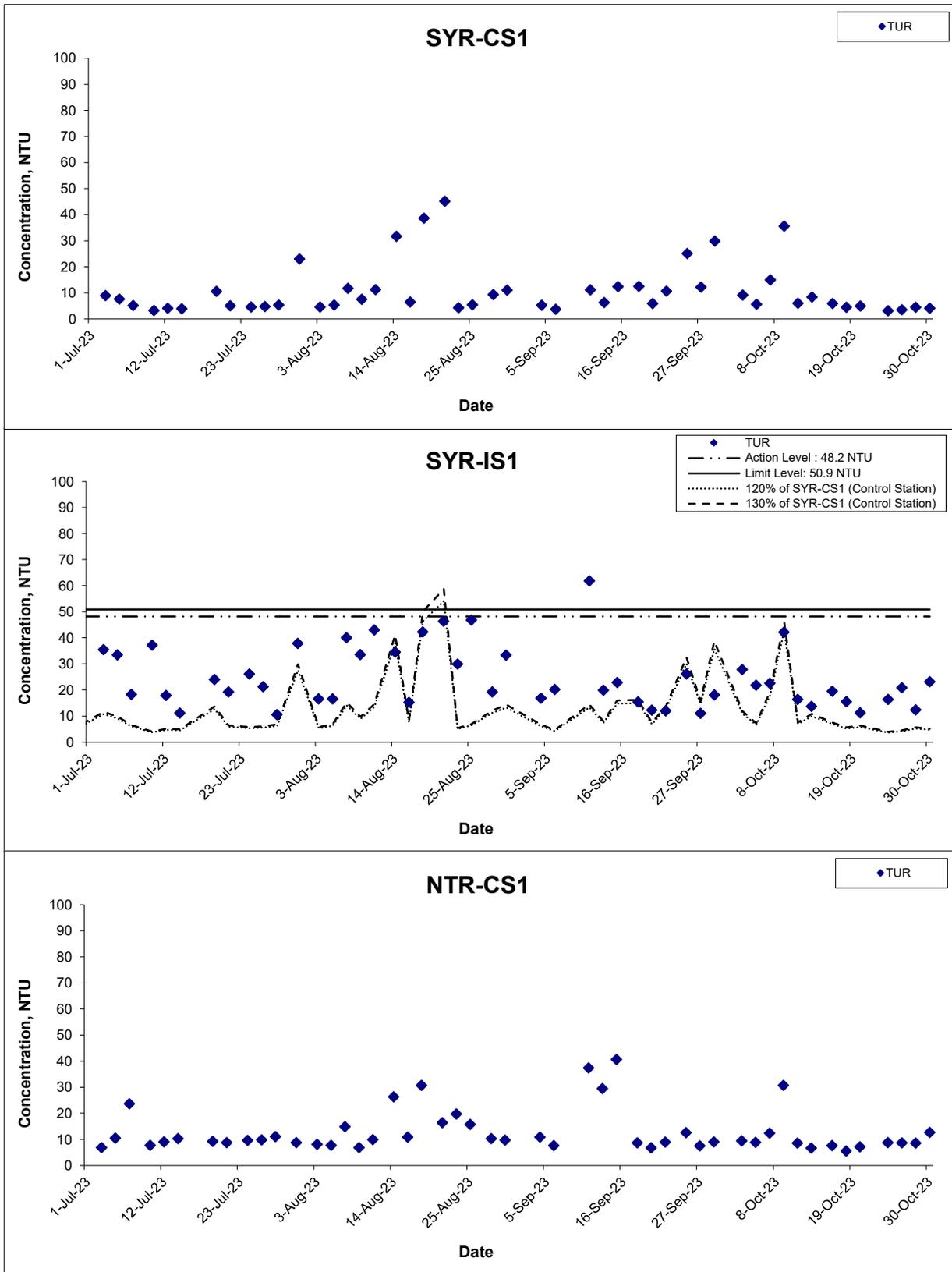
Title Contract No. NDO 04/2019 Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas Graphical Presentation of Water Quality Monitoring Results	Scale N.T.S	Project No. WMA20002	consulting . testing . research
	Date Oct 23	Appendix G	

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 Oct 23	Appendix G	

Turbidity (Depth-averaged)



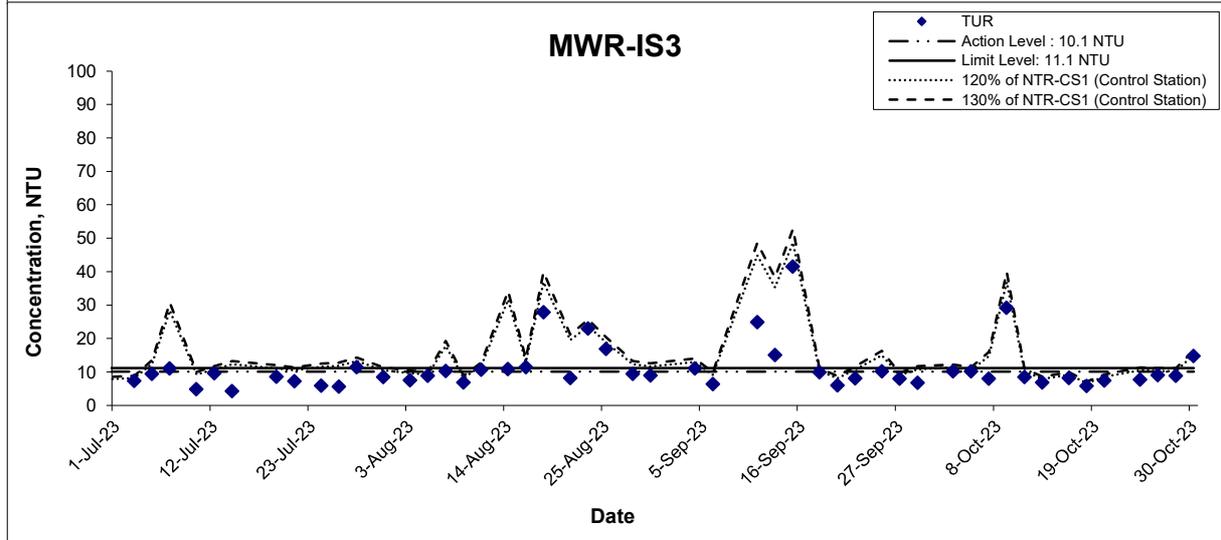
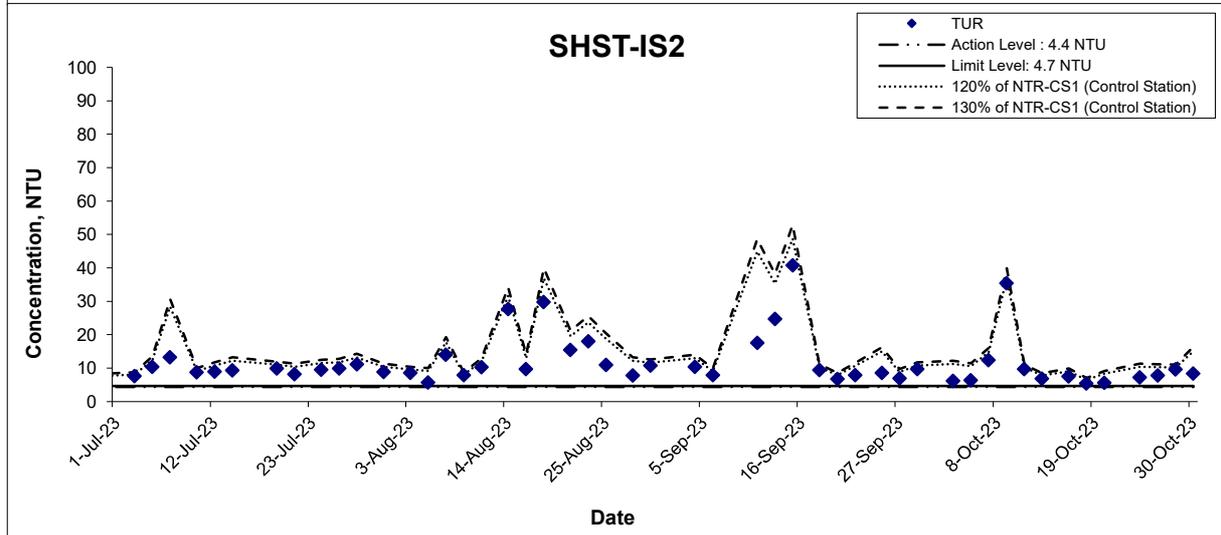
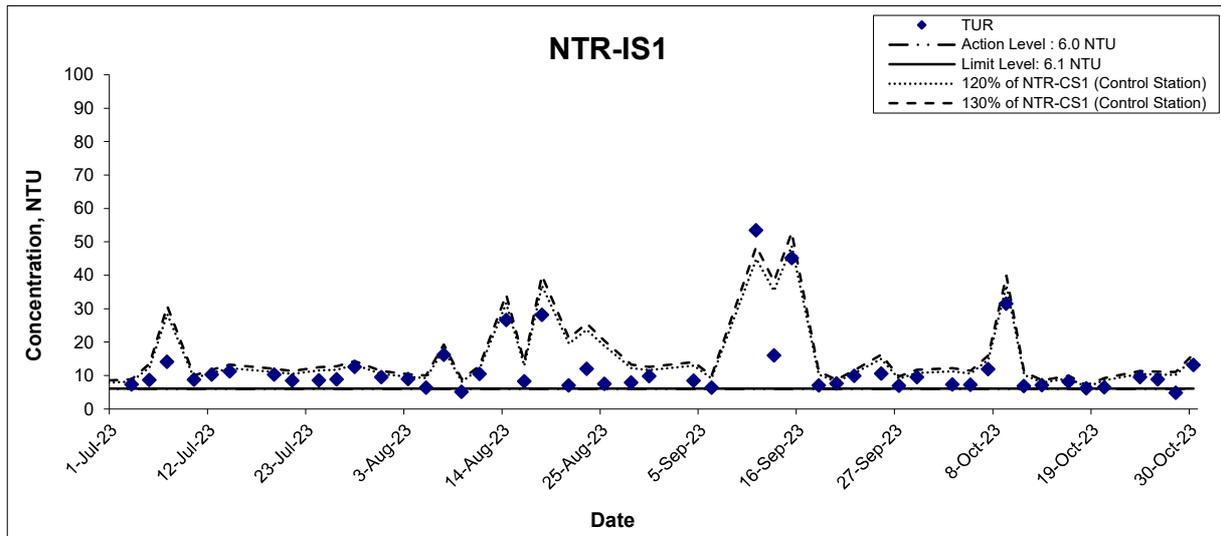
Title
 Contract No. NDO 04/2019
 Advance and First Stage Works of Kwu Tung North and Fanling
 North New Development Areas
 Graphical Presentation of Water Quality Monitoring
 Results

Scale
 N.T.S
 Date
 Oct 23

Project
 No. WMA20002
 Appendix
 G

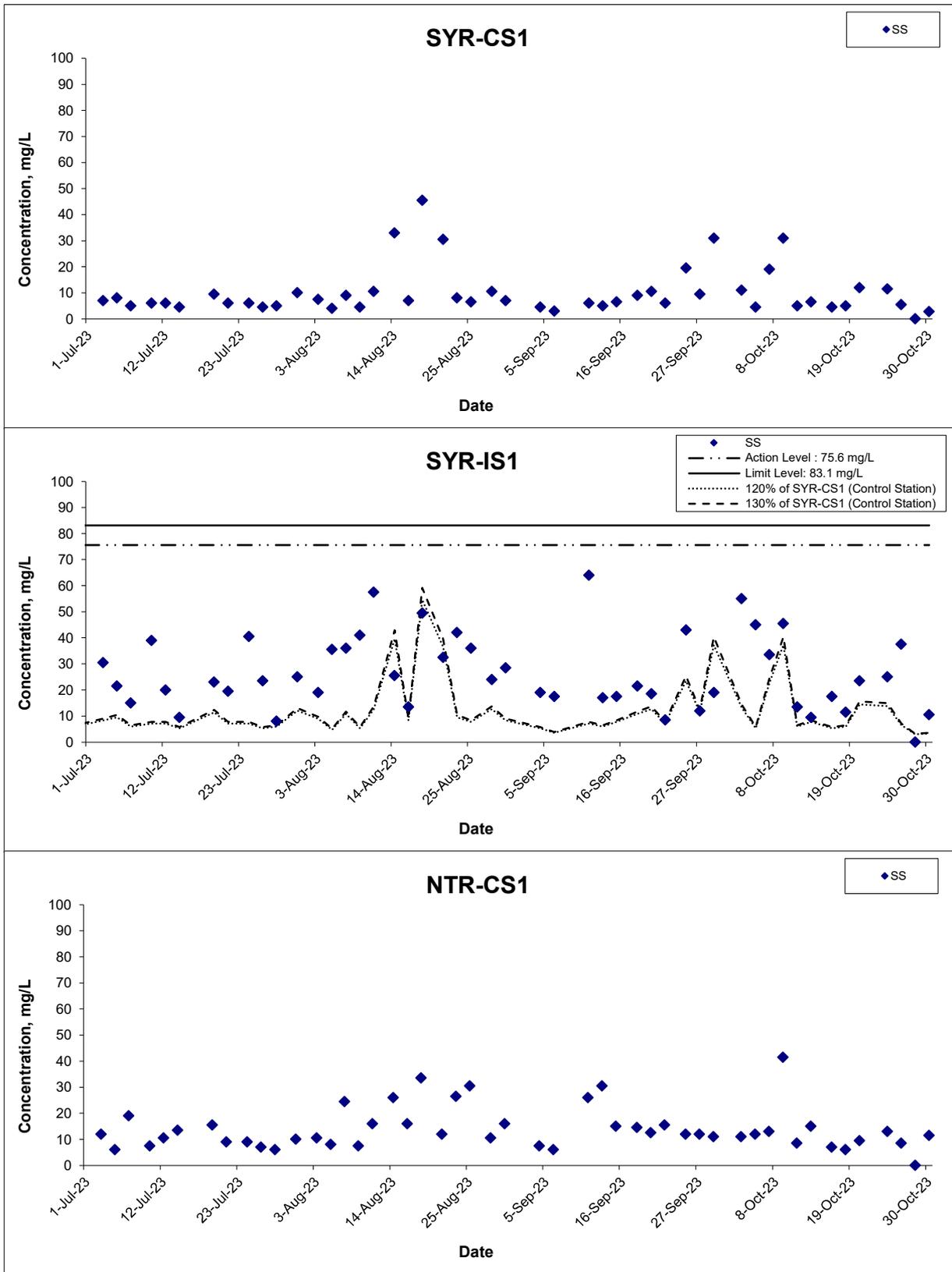


Turbidity (Depth-averaged)



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 Oct 23	Appendix G	

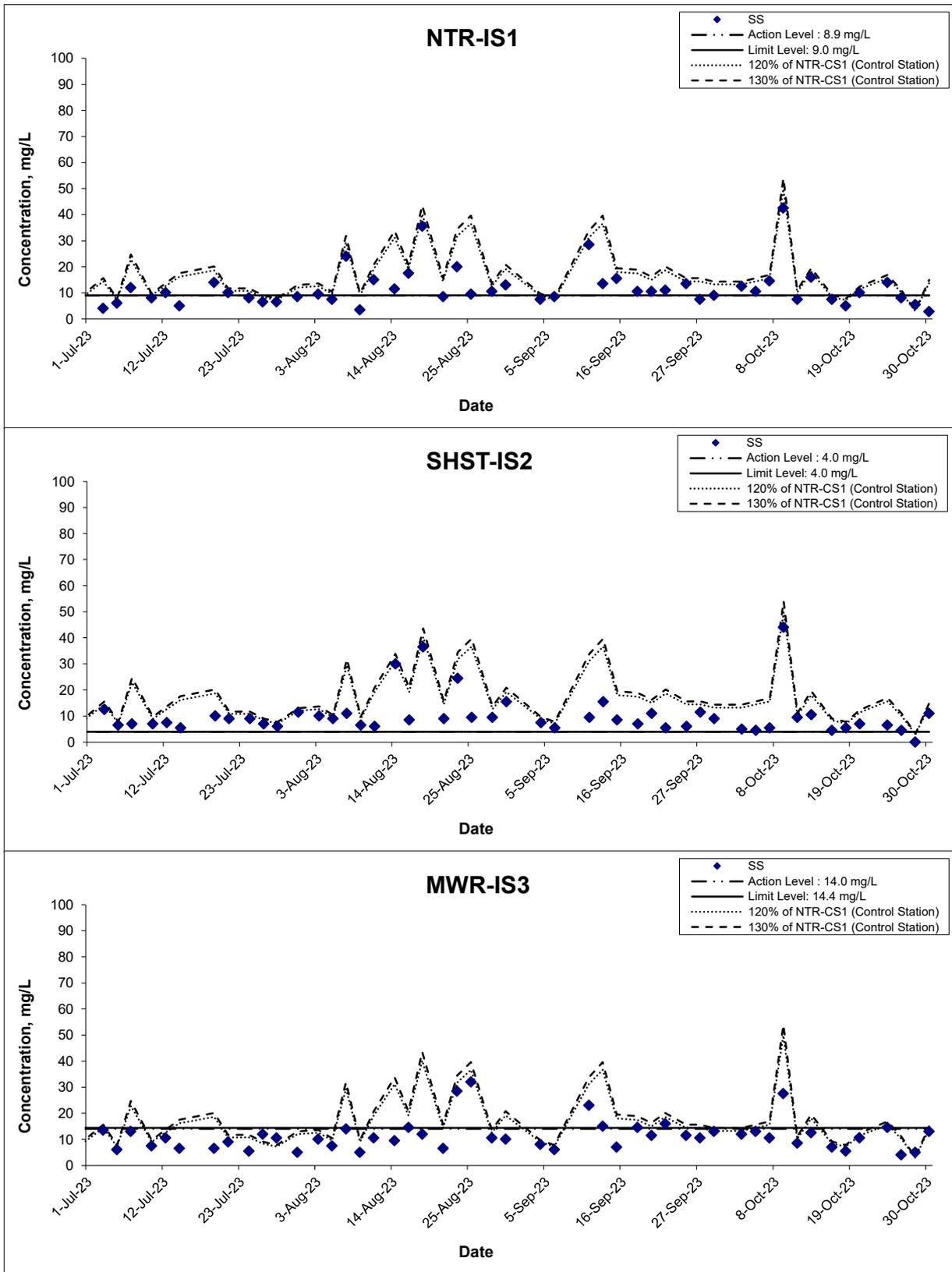
Suspended Solids (Depth-averaged)



Remark: The graphical point at zero concentration is presented as <2.5 mg/L

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 Oct 23	Appendix G	

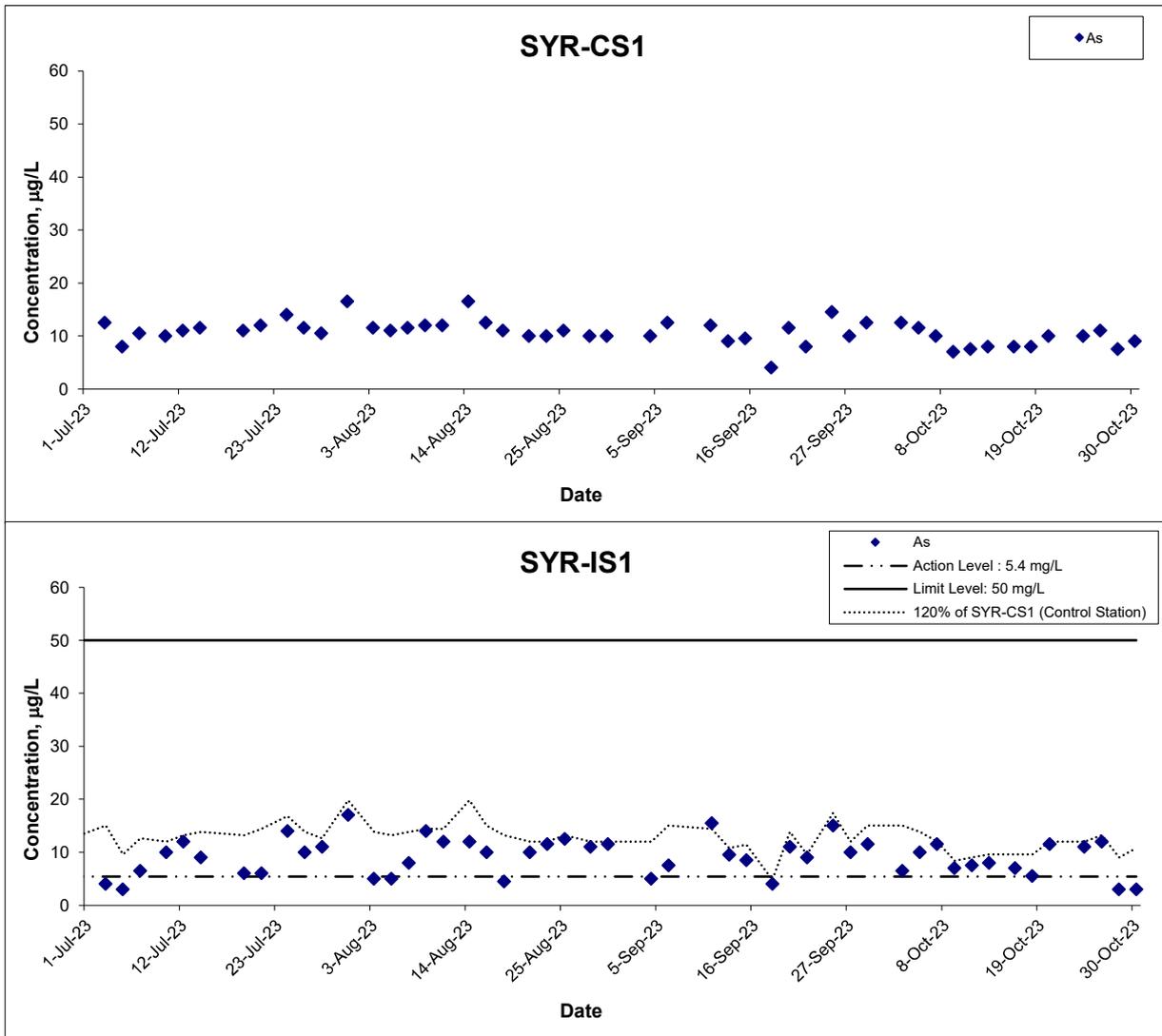
Suspended Solids (Depth-averaged)



Remark: The graphical point at zero concentration is presented as <2.5 mg/L

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	Oct 23	Appendix	

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	匯力 consulting . testing . research
	Date Oct 23	Appendix G	

**APPENDIX H
LABORATORY TESTING REPORTS FOR
LABORATORY ANALYSIS**

TEST REPORT

APPLICANT: Wellab Limited (EM&A Department)
Rm 1714, Technology Park,
18 On Lai Street,
Shatin, N.T.

Report No.:	38889
Date of Issue:	2023-10-09
Date Received:	2023-10-03
Date Tested:	2023-10-03
Date Completed:	2023-10-09

ATTN: Mr. Marco Ma

Page: 1 of 1

Sample Description : 4 liquid samples as received from client said to be water
Laboratory No. : 38889
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. : WMA20002/231003
Sampling Date : 2023-10-03

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.	38889-2	38889-3	38889-5	38889-6
Total Suspended Solids dried at 103-105°C (mg/L)	11	11	54	56
Arsenic (µg/L)	13	12	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.:	38889A
Date of Issue:	2023-10-09
Date Received:	2023-10-03
Date Tested:	2023-10-03
Date Completed:	2023-10-09

ATTN: Mr. Marco Ma

Page: 1 of 1

Sample Description : 8 liquid samples as received from client said to be water
Laboratory No. : 38889A
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. : WMA20002/231003
Sampling Date : 2023-10-03

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.	38889-8	38889-9	38889-11	38889-12
Total Suspended Solids dried at 103-105°C (mg/L)	11	11	13	12

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	38889-14	38889-15	38889-17	38889-18
Total Suspended Solids dried at 103-105°C (mg/L)	5	5	12	12

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.:	38896
Date of Issue:	2023-10-11
Date Received:	2023-10-05
Date Tested:	2023-10-05
Date Completed:	2023-10-11

ATTN: Mr. Marco Ma

Page: 1 of 1

Sample Description : 4 liquid samples as received from client said to be water
Laboratory No. : 38896
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. : WMA20002/231005
Sampling Date : 2023-10-05

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.	38896-2	38896-3	38896-5	38896-6
Total Suspended Solids dried at 103-105°C (mg/L)	4	5	42	48
Arsenic (µg/L)	12	11	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.:	38896A
Date of Issue:	2023-10-11
Date Received:	2023-10-05
Date Tested:	2023-10-05
Date Completed:	2023-10-11

ATTN: Mr. Marco Ma

Page: 1 of 1

Sample Description : 8 liquid samples as received from client said to be water
Laboratory No. : 38896A
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. : WMA20002/231005
Sampling Date : 2023-10-05

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.	38896-8	38896-9	38896-11	38896-12
Total Suspended Solids dried at 103-105°C (mg/L)	12	12	11	10

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	38896-14	38896-15	38896-17	38896-18
Total Suspended Solids dried at 103-105°C (mg/L)	4	5	13	13

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.:	38903
Date of Issue:	2023-10-12
Date Received:	2023-10-07
Date Tested:	2023-10-07
Date Completed:	2023-10-12

ATTN: Mr. Marco Ma

Page: 1 of 1

Sample Description : 4 liquid samples as received from client said to be water
Laboratory No. : 38903
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. : WMA20002/231007
Sampling Date : 2023-10-07

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.	38903-2	38903-3	38903-5	38903-6
Total Suspended Solids dried at 103-105°C (mg/L)	19	19	35	32
Arsenic (µg/L)	10	10	12	11

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.:	38903A
Date of Issue:	2023-10-12
Date Received:	2023-10-07
Date Tested:	2023-10-07
Date Completed:	2023-10-12

ATTN: Mr. Marco Ma

Page: 1 of 1

Sample Description : 8 liquid samples as received from client said to be water
Laboratory No. : 38903A
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. : WMA20002/231007
Sampling Date : 2023-10-07

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.	38903-8	38903-9	38903-11	38903-12
Total Suspended Solids dried at 103-105°C (mg/L)	13	13	15	14

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	38903-14	38903-15	38903-17	38903-18
Total Suspended Solids dried at 103-105°C (mg/L)	6	5	10	11

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.:	38924
Date of Issue:	2023-10-13
Date Received:	2023-10-09
Date Tested:	2023-10-09
Date Completed:	2023-10-13

ATTN: Mr. Marco Ma

Page: 1 of 1

Sample Description : 4 liquid samples as received from client said to be water
Laboratory No. : 38924
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. : WMA20002/231009
Sampling Date : 2023-10-09

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.	38924-2	38924-3	38924-5	38924-6
Total Suspended Solids dried at 103-105°C (mg/L)	30	32	45	46
Arsenic (µg/L)	7	7	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.: 38924A
Date of Issue: 2023-10-13
Date Received: 2023-10-09
Date Tested: 2023-10-09
Date Completed: 2023-10-13

ATTN: Mr. Marco Ma

Page: 1 of 1

Sample Description : 8 liquid samples as received from client said to be water
Laboratory No. : 38924A
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. : WMA20002/231009
Sampling Date : 2023-10-09

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.	38924-8	38924-9	38924-11	38924-12
Total Suspended Solids dried at 103-105°C (mg/L)	39	44	40	45

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	38924-14	38924-15	38924-17	38924-18
Total Suspended Solids dried at 103-105°C (mg/L)	42	46	27	28

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.:	38931
Date of Issue:	2023-10-17
Date Received:	2023-10-11
Date Tested:	2023-10-11
Date Completed:	2023-10-17

ATTN: Mr. Marco Ma

Page: 1 of 1

Sample Description : 4 liquid samples as received from client said to be water
Laboratory No. : 38931
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. : WMA20002/231011
Sampling Date : 2023-10-11

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.	38931-2	38931-3	38931-5	38931-6
Total Suspended Solids dried at 103-105°C (mg/L)	5	5	13	14
Arsenic (µg/L)	8	7	8	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.:	38931A
Date of Issue:	2023-10-17
Date Received:	2023-10-11
Date Tested:	2023-10-11
Date Completed:	2023-10-17

ATTN: Mr. Marco Ma

Page: 1 of 1

Sample Description : 8 liquid samples as received from client said to be water
 Laboratory No. : 38931A
 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. : WMA20002/231011
 Sampling Date : 2023-10-11

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.	38931-8	38931-9	38931-11	38931-12
Total Suspended Solids dried at 103-105°C (mg/L)	9	8	7	8

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	38931-14	38931-15	38931-17	38931-18
Total Suspended Solids dried at 103-105°C (mg/L)	10	9	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.:	38938
Date of Issue:	2023-10-17
Date Received:	2023-10-13
Date Tested:	2023-10-13
Date Completed:	2023-10-17

ATTN: Mr. Marco Ma

Page: 1 of 1

Sample Description : 4 liquid samples as received from client said to be water
Laboratory No. : 38938
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. : WMA20002/231013
Sampling Date : 2023-10-13

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.	38938-2	38938-3	38938-5	38938-6
Total Suspended Solids dried at 103-105°C (mg/L)	6	7	10	9
Arsenic (µg/L)	8	8	8	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.:	38938A
Date of Issue:	2023-10-17
Date Received:	2023-10-13
Date Tested:	2023-10-13
Date Completed:	2023-10-17

ATTN: Mr. Marco Ma

Page: 1 of 1

Sample Description : 8 liquid samples as received from client said to be water
Laboratory No. : 38938A
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. : WMA20002/231013
Sampling Date : 2023-10-13

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.	38938-8	38938-9	38938-11	38938-12
Total Suspended Solids dried at 103-105°C (mg/L)	15	15	16	16

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	38938-14	38938-15	38938-17	38938-18
Total Suspended Solids dried at 103-105°C (mg/L)	11	10	12	13

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.:	38955
Date of Issue:	2023-10-20
Date Received:	2023-10-16
Date Tested:	2023-10-16
Date Completed:	2023-10-20

ATTN: Mr. Marco Ma

Page: 1 of 1

Sample Description : 4 liquid samples as received from client said to be water
Laboratory No. : 38955
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. : WMA20002/231016
Sampling Date : 2023-10-16

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:

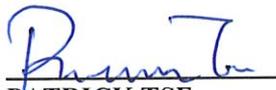
Sample ID	SYR-CS1-a	SYR-CS1-b	SYR-IS1-a	SYR-IS1-b
Sample No.	38955-2	38955-3	38955-5	38955-6
Total Suspended Solids dried at 103-105°C (mg/L)	5	4	19	16
Arsenic (µg/L)	8	8	7	7

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.:	38955A
Date of Issue:	2023-10-20
Date Received:	2023-10-16
Date Tested:	2023-10-16
Date Completed:	2023-10-20

ATTN: Mr. Marco Ma

Page: 1 of 1

Sample Description : 8 liquid samples as received from client said to be water
Laboratory No. : 38955A
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. : WMA20002/231016
Sampling Date : 2023-10-16

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.	38955-8	38955-9	38955-11	38955-12
Total Suspended Solids dried at 103-105°C (mg/L)	7	7	8	7

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	38955-14	38955-15	38955-17	38955-18
Total Suspended Solids dried at 103-105°C (mg/L)	4	5	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.:	38963
Date of Issue:	2023-10-24
Date Received:	2023-10-18
Date Tested:	2023-10-18
Date Completed:	2023-10-24

ATTN: Mr. Marco Ma

Page: 1 of 1

Sample Description : 4 liquid samples as received from client said to be water
Laboratory No. : 38963
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. : WMA20002/231018
Sampling Date : 2023-10-18

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.	38963-2	38963-3	38963-5	38963-6
Total Suspended Solids dried at 103-105°C (mg/L)	5	5	11	12
Arsenic (µg/L)	8	8	6	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.:	38963A
Date of Issue:	2023-10-24
Date Received:	2023-10-18
Date Tested:	2023-10-18
Date Completed:	2023-10-24

ATTN: Mr. Marco Ma

Page: 1 of 1

Sample Description : 8 liquid samples as received from client said to be water
Laboratory No. : 38963A
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. : WMA20002/231018
Sampling Date : 2023-10-18

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.	38963-8	38963-9	38963-11	38963-12
Total Suspended Solids dried at 103-105°C (mg/L)	6	6	5	5

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	38963-14	38963-15	38963-17	38963-18
Total Suspended Solids dried at 103-105°C (mg/L)	5	6	6	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.:	38972
Date of Issue:	2023-10-27
Date Received:	2023-10-20
Date Tested:	2023-10-20
Date Completed:	2023-10-27

ATTN: Mr. Marco Ma

Page: 1 of 1

Sample Description : 4 liquid samples as received from client said to be water
Laboratory No. : 38972
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. : WMA20002/231020
Sampling Date : 2023-10-20

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:

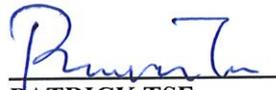
Sample ID	SYR-CS1-a	SYR-CS1-b	SYR-IS1-a	SYR-IS1-b
Sample No.	38972-2	38972-3	38972-5	38972-6
Total Suspended Solids dried at 103-105°C (mg/L)	12	12	25	22
Arsenic (µg/L)	10	10	12	11

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.:	38972A
Date of Issue:	2023-10-27
Date Received:	2023-10-20
Date Tested:	2023-10-20
Date Completed:	2023-10-27

ATTN: Mr. Marco Ma

Page: 1 of 1

Sample Description : 8 liquid samples as received from client said to be water
Laboratory No. : 38972A
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. : WMA20002/231020
Sampling Date : 2023-10-20

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.	38972-8	38972-9	38972-11	38972-12
Total Suspended Solids dried at 103-105°C (mg/L)	9	10	10	10

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	38972-14	38972-15	38972-17	38972-18
Total Suspended Solids dried at 103-105°C (mg/L)	7	7	10	11

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.:	38996
Date of Issue:	2023-10-30
Date Received:	2023-10-24
Date Tested:	2023-10-24
Date Completed:	2023-10-30

ATTN: Mr. Marco Ma

Page: 1 of 1

Sample Description : 4 liquid samples as received from client said to be water
Laboratory No. : 38996
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. : WMA20002/231024
Sampling Date : 2023-10-24

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.	38996-2	38996-3	38996-5	38996-6
Total Suspended Solids dried at 103-105°C (mg/L)	12	11	24	26
Arsenic (µg/L)	10	10	11	11

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.:	38996A
Date of Issue:	2023-10-30
Date Received:	2023-10-24
Date Tested:	2023-10-24
Date Completed:	2023-10-30

ATTN: Mr. Marco Ma

Page: 1 of 1

Sample Description : 8 liquid samples as received from client said to be water
Laboratory No. : 38996A
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. : WMA20002/231024
Sampling Date : 2023-10-24

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.	38996-8	38996-9	38996-11	38996-12
Total Suspended Solids dried at 103-105°C (mg/L)	13	13	14	14

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	38996-14	38996-15	38996-17	38996-18
Total Suspended Solids dried at 103-105°C (mg/L)	6	7	14	15

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.:	38998
Date of Issue:	2023-11-01
Date Received:	2023-10-26
Date Tested:	2023-10-26
Date Completed:	2023-11-01

ATTN: Mr. Marco Ma

Page: 1 of 1

Sample Description : 4 liquid samples as received from client said to be water
Laboratory No. : 38998
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. : WMA20002/231026
Sampling Date : 2023-10-26

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.	38998-2	38998-3	38998-5	38998-6
Total Suspended Solids dried at 103-105°C (mg/L)	5	6	36	39
Arsenic (µg/L)	11	11	12	12

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.:	38998A
Date of Issue:	2023-11-01
Date Received:	2023-10-26
Date Tested:	2023-10-26
Date Completed:	2023-11-01

ATTN: Mr. Marco Ma

Page: 1 of 1

Sample Description : 8 liquid samples as received from client said to be water
Laboratory No. : 38998A
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. : WMA20002/231026
Sampling Date : 2023-10-26

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.	38998-8	38998-9	38998-11	38998-12
Total Suspended Solids dried at 103-105°C (mg/L)	8	9	8	8

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	38998-14	38998-15	38998-17	38998-18
Total Suspended Solids dried at 103-105°C (mg/L)	4	5	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.:	39000
Date of Issue:	2023-11-02
Date Received:	2023-10-28
Date Tested:	2023-10-28
Date Completed:	2023-11-02

ATTN: Mr. Marco Ma

Page: 1 of 1

Sample Description : 4 liquid samples as received from client said to be water
Laboratory No. : 39000
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. : WMA20002/231028
Sampling Date : 2023-10-28

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.	39000-2	39000-3	39000-5	39000-6
Total Suspended Solids dried at 103-105°C (mg/L)	<2.5	<2.5	<2.5	<2.5
Arsenic (µg/L)	7	8	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.:	39000A
Date of Issue:	2023-11-02
Date Received:	2023-10-28
Date Tested:	2023-10-28
Date Completed:	2023-11-02

ATTN: Mr. Marco Ma

Page: 1 of 1

Sample Description : 8 liquid samples as received from client said to be water
 Laboratory No. : 39000A
 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. : WMA20002/231028
 Sampling Date : 2023-10-28

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.	39000-8	39000-9	39000-11	39000-12
Total Suspended Solids dried at 103-105°C (mg/L)	<2.5	<2.5	5	6

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	39000-14	39000-15	39000-17	39000-18
Total Suspended Solids dried at 103-105°C (mg/L)	<2.5	<2.5	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.:	39036
Date of Issue:	2023-11-03
Date Received:	2023-10-30
Date Tested:	2023-10-30
Date Completed:	2023-11-03

ATTN: Mr. Marco Ma

Page: 1 of 1

Sample Description : 4 liquid samples as received from client said to be water
Laboratory No. : 39036
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. : WMA20002/231030
Sampling Date : 2023-10-30

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.	39036-2	39036-3	39036-5	39036-6
Total Suspended Solids dried at 103-105°C (mg/L)	<2.5	3	11	10
Arsenic (µg/L)	9	9	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.:	39036A
Date of Issue:	2023-11-03
Date Received:	2023-10-30
Date Tested:	2023-10-30
Date Completed:	2023-11-03

ATTN: Mr. Marco Ma

Page: 1 of 1

Sample Description : 8 liquid samples as received from client said to be water
 Laboratory No. : 39036A
 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. : WMA20002/231030
 Sampling Date : 2023-10-30

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.	39036-8	39036-9	39036-11	39036-12
Total Suspended Solids dried at 103-105°C (mg/L)	12	11	3	<2.5

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	39036-14	39036-15	39036-17	39036-18
Total Suspended Solids dried at 103-105°C (mg/L)	11	11	13	13

Remarks: 1) < = less than

*****END OF REPORT*****

PREPARED AND CHECKED BY:

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


PATRICK TSE
 General Manager

**APPENDIX I
QUALITY CONTROL REPORTS FOR SS
AND ARSENIC LABORATORY
ANALYSIS**

TEST REPORT

APPLICANT: Wellab Limited (EM&A Department)
Rm 1714, Technology Park,
18 On Lai Street,
Shatin, N.T.

Report No.:	QC38889
Date of Issue:	2023-10-09
Date Received:	2023-10-03
Date Tested:	2023-10-03
Date Completed:	2023-10-09

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 (%)	114	91	80-120
Arsenic (%)	93	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 (%)	3	3	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 38889.

*****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.:	QC38896
Date of Issue:	2023-10-11
Date Received:	2023-10-05
Date Tested:	2023-10-05
Date Completed:	2023-10-11

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	96	80-120
Arsenic (%)	106	N/A	80-120

Sample Spike

Parameter	Sample Spike 1	Sample Spike 2	Acceptance
Total Suspended Solids (%)	N/A	N/A	N/A
Arsenic (%)	100	N/A	80-120

Sample Duplicate

Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	2	4	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 38896.

*****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.:	QC38903
Date of Issue:	2023-10-12
Date Received:	2023-10-07
Date Tested:	2023-10-07
Date Completed:	2023-10-12

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 (%)	98	96	80-120
Arsenic (%)	115	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 (%)	4	4	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 38903.

*****END OF REPORT*****

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


PATRICIA TSE
General Manager

TEST REPORT

APPLICANT: Wellab Limited (EM&A Department)
Rm 1714, Technology Park,
18 On Lai Street,
Shatin, N.T.

Report No.:	QC38924
Date of Issue:	2023-10-13
Date Received:	2023-10-09
Date Tested:	2023-10-09
Date Completed:	2023-10-13

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 (%)	96	98	80-120
Arsenic (%)	95	N/A	80-120

Sample Spike

Parameter	Sample Spike 1	Sample Spike 2	Acceptance
Total Suspended Solids (%)	N/A	N/A	N/A
Arsenic (%)	87	N/A	80-120

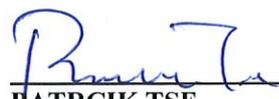
Sample Duplicate

Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	4	1	RPD≤5%
Arsenic (%)	10	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 38924.

*****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.:	QC38931
Date of Issue:	2023-10-17
Date Received:	2023-10-11
Date Tested:	2023-10-11
Date Completed:	2023-10-17

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 (%)	102	96	80-120
Arsenic (%)	111	N/A	80-120

Sample Spike

Parameter	Sample Spike 1	Sample Spike 2	Acceptance
Total Suspended Solids (%)	N/A	N/A	N/A
Arsenic (%)	97	N/A	80-120

Sample Duplicate

Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	1	2	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 38931.

*****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.:	QC38938
Date of Issue:	2023-10-17
Date Received:	2023-10-13
Date Tested:	2023-10-13
Date Completed:	2023-10-17

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 (%)	102	103	80-120
Arsenic (%)	86	N/A	80-120

Sample Spike

Parameter	Sample Spike 1	Sample Spike 2	Acceptance
Total Suspended Solids (%)	N/A	N/A	N/A
Arsenic (%)	103	N/A	80-120

Sample Duplicate

Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	1	2	RPD≤5%
Arsenic (%)	2	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 38938.

*****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.:	QC38955
Date of Issue:	2023-10-20
Date Received:	2023-10-16
Date Tested:	2023-10-16
Date Completed:	2023-10-20

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	103	80-120
Arsenic (%)	116	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	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 38955.

*****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.:	QC38963
Date of Issue:	2023-10-24
Date Received:	2023-10-18
Date Tested:	2023-10-18
Date Completed:	2023-10-24

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 (%)	101	101	80-120
Arsenic (%)	110	N/A	80-120

Sample Spike

Parameter	Sample Spike 1	Sample Spike 2	Acceptance
Total Suspended Solids (%)	N/A	N/A	N/A
Arsenic (%)	97	N/A	80-120

Sample Duplicate

Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	1	4	RPD≤5%
Arsenic (%)	3	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 38963.

*****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.:	QC38972
Date of Issue:	2023-10-27
Date Received:	2023-10-20
Date Tested:	2023-10-20
Date Completed:	2023-10-27

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 (%)	101	96	80-120
Arsenic (%)	116	N/A	80-120

Sample Spike

Parameter	Sample Spike 1	Sample Spike 2	Acceptance
Total Suspended Solids (%)	N/A	N/A	N/A
Arsenic (%)	83	N/A	80-120

Sample Duplicate

Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	2	3	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 38972.

*****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.:	QC38996
Date of Issue:	2023-10-30
Date Received:	2023-10-24
Date Tested:	2023-10-24
Date Completed:	2023-10-30

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	96	80-120
Arsenic (%)	105	N/A	80-120

Sample Spike

Parameter	Sample Spike 1	Sample Spike 2	Acceptance
Total Suspended Solids (%)	N/A	N/A	N/A
Arsenic (%)	96	N/A	80-120

Sample Duplicate

Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	4	3	RPD≤5%
Arsenic (%)	15	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 38996.

*****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.:	QC38998
Date of Issue:	2023-11-01
Date Received:	2023-10-26
Date Tested:	2023-10-26
Date Completed:	2023-11-01

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	95	80-120
Arsenic (%)	108	N/A	80-120

Sample Spike

Parameter	Sample Spike 1	Sample Spike 2	Acceptance
Total Suspended Solids (%)	N/A	N/A	N/A
Arsenic (%)	99	N/A	80-120

Sample Duplicate

Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	4	3	RPD≤5%
Arsenic (%)	13	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 38998.

*****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.:	QC39000
Date of Issue:	2023-11-02
Date Received:	2023-10-28
Date Tested:	2023-10-28
Date Completed:	2023-11-02

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 (%)	107	88	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 (%)	106	N/A	80-120

Sample Duplicate

Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	2	1	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 39000.

*****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.:	QC39036
Date of Issue:	2023-11-03
Date Received:	2023-10-30
Date Tested:	2023-10-30
Date Completed:	2023-11-03

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 (%)	112	92	80-120
Arsenic (%)	101	N/A	80-120

Sample Spike

Parameter	Sample Spike 1	Sample Spike 2	Acceptance
Total Suspended Solids (%)	N/A	N/A	N/A
Arsenic (%)	97	N/A	80-120

Sample Duplicate

Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	1	2	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 39036.

*****END OF REPORT*****

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


PATRICIK TSE
General Manager

**APPENDIX J
LANDFILL GAS MONITORING
RESULTS**

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 ₂ >19%	甲烷 CH ₄ <10% LEL	二氧化碳 CO ₂ <0.5%
24-10-2023 15:11	CZ PT 1		20.40	0.00	0.00
24-10-2023 15:13	CZ container 1		20.50	0.00	0.00
24-10-2023 15:05	CZ container 2		20.90	0.00	0.00
24-10-2023 15:07	CZ container 3		20.50	0.00	0.00
24-10-2023 15:09	CZ container 4		20.60	0.00	0.00
24-10-2023 15:15	CZ container 5		20.40	0.00	0.00

Prepared by : Y L Chan (Safety Officer)

Date : 24-10-2023

**APPENDIX K
BUILT HERITAGE MONITORING
RESULTS**

Summary of vibration readings at FL02 (C2-SEISM-01)

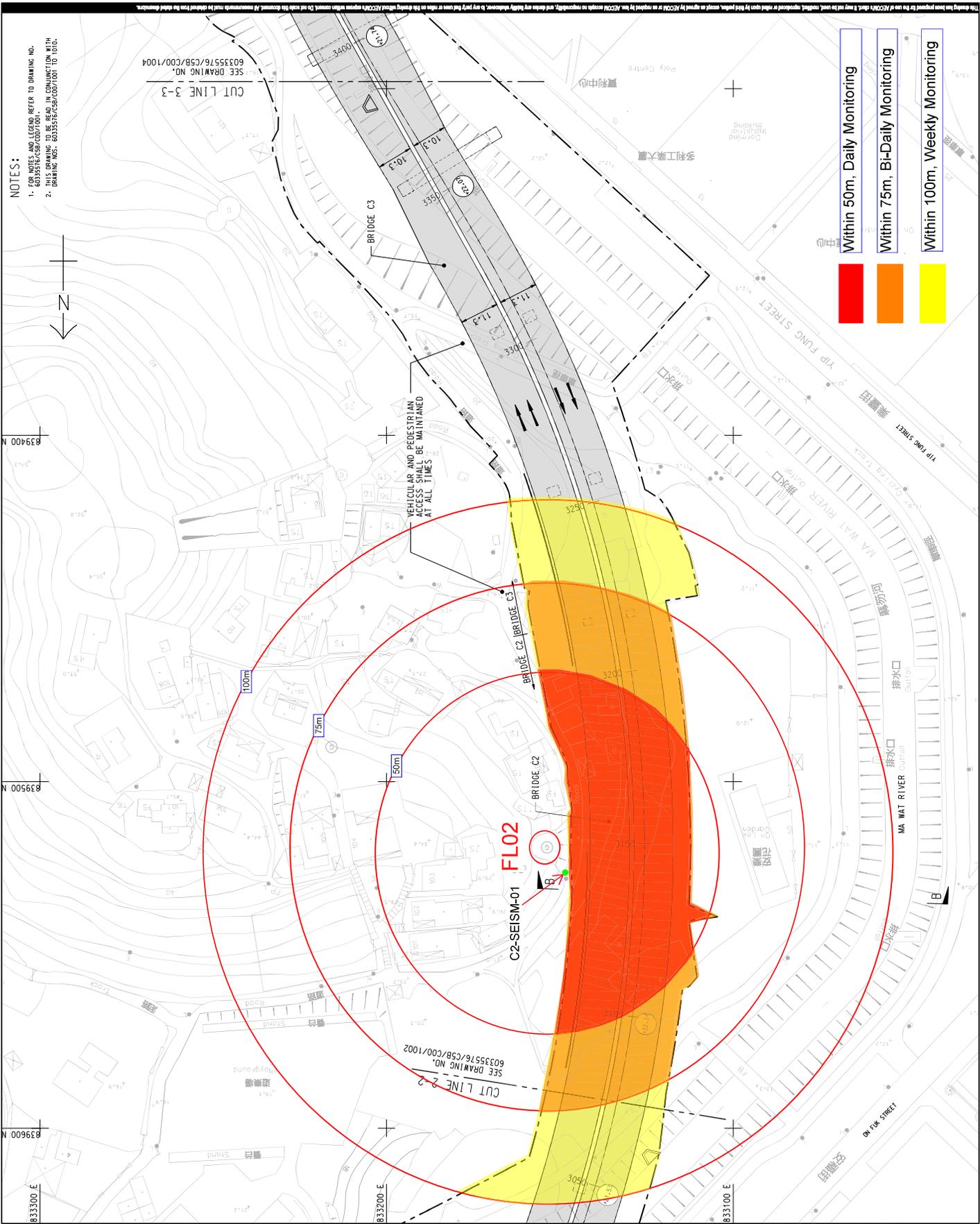
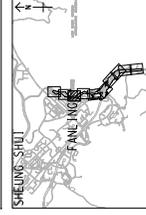


Table 2.3: Vibration Limit from PNAP APP-137 & PS 34.01(2)

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)
25-Oct-23	0.266	UM17121

NO.	DATE	DESCRIPTION
1	JAN/18	TENDER DRAWING
2	FEB/18	FOR INFORMATION



- Within 50m, Daily Monitoring
- Within 75m, Bi-Daily Monitoring
- Within 100m, Weekly Monitoring

Summary of vibration readings at FL27 (C1-SEISM-04)

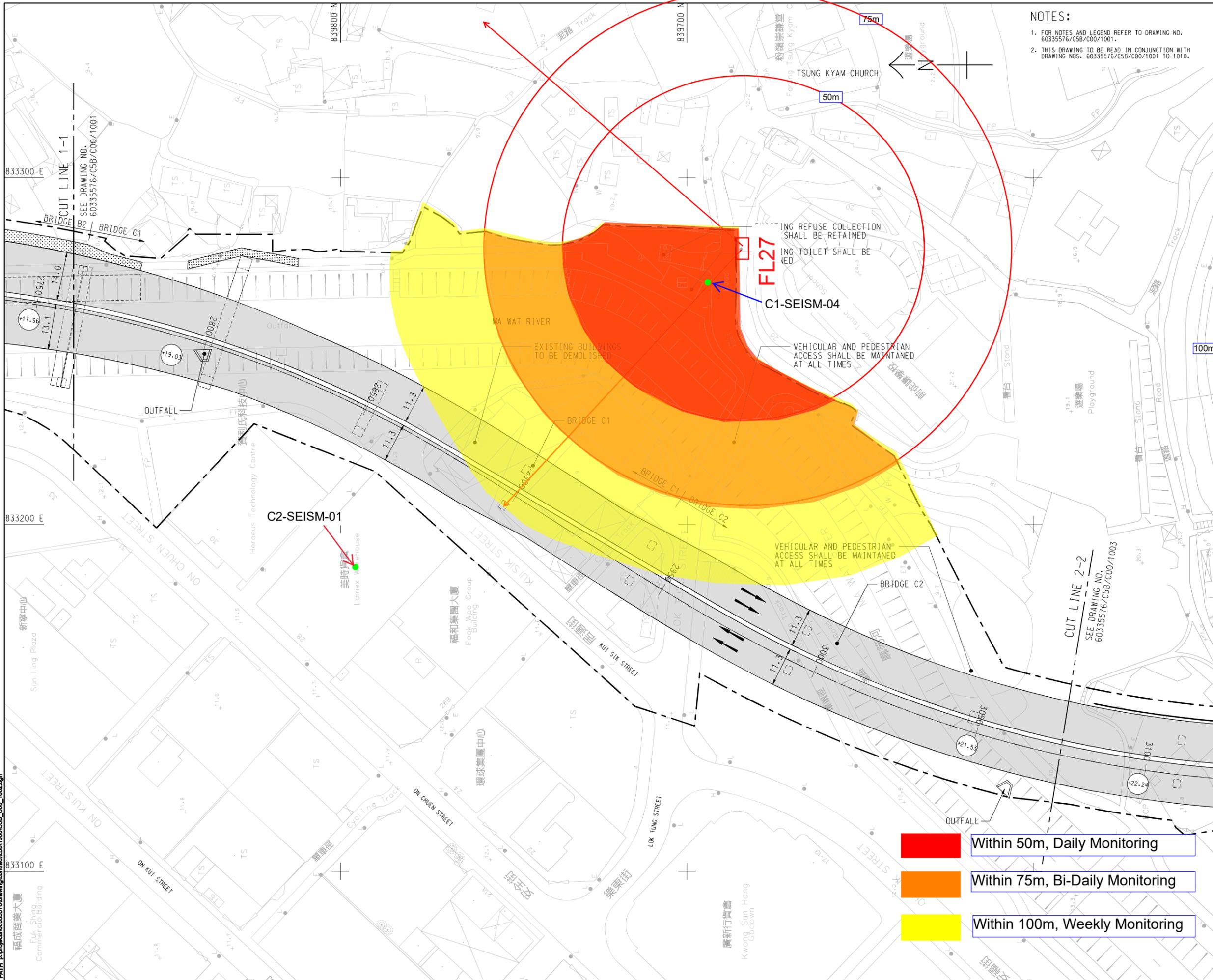


CRCC – Paul Y. Joint Venture

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)
2023/10/11	0.183	UM17121
2023/10/12	0.129	UM17121
2023/10/13	0.461	UM17121
2023/10/14	0.128	UM17121
2023/10/16	0.195	UM17121
2023/10/17	0.289	UM17121
2023/10/18	0.493	UM17121
2023/10/19	0.211	UM17121
2023/10/20	0.246	UM17121
2023/10/21	0.405	UM17121



NOTES:
 1. FOR NOTES AND LEGEND REFER TO DRAWING NO. 60335576/C5B/C00/1001.
 2. THIS DRAWING TO BE READ IN CONJUNCTION WITH DRAWING NOS. 60335576/C5B/C00/1001 TO 1010.

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
 CEDD Civil Engineering and Development Department

CONSULTANT
 工程師有限公司
 AECOM Asia Company Ltd.
 www.aecom.com

SUB-CONSULTANTS
 分判工程師有限公司

ISSUE/REVISION

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

STATUS
 圖則

SCALE
 比例
 A1 1:500

DIMENSION UNIT
 尺寸單位
 METRES

KEY PLAN A1 1:70000



- Within 50m, Daily Monitoring
- Within 75m, Bi-Daily Monitoring
- Within 100m, Weekly Monitoring

PROJECT NO.
 項目編號
 60335576

CONTRACT NO.
 合約編號
 ND/2019/05

SHEET TITLE
 圖則名稱
 GENERAL LAYOUT

SHEET NUMBER
 圖則編號
 60335576/C5B/C00/1002

SHEET 2 OF 10

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APPENDIX L
ECOLOGICAL MONITORING RESULTS

Appendix L1a. Avifauna Species Recorded for Water Birds Monitoring, 5 & 6 October 2023, High Tide

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date		5/10/2023 (T1 & T2), 6/10/2023 (T3 & T5)									
					Weather Condition		Fine, Sunny									
					Tidal Condition		High									
					Tide Level (m)		1.57, 1.52									
					Start Time		1400, 1600									
					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					2							
Black Drongo	<i>Dicrurus macrocercus</i>	黑卷尾	Sv						1							
Black-collared Starling	<i>Gracupica nigricollis</i>	黑領棕鳥	R		4				5							
Black-winged Stilt	<i>Himantopus himantopus</i>	黑翅長腳鸕	PM	RC				134								
Chinese Pond Heron	<i>Ardeola bacchus</i>	池鷺	R	PRC(RC)	2	4	1	2	10							
Common Greenshank	<i>Tringa nebularia</i>	青腳鸕	PM, WV	RC			1	18								
Common Kingfisher	<i>Alcedo atthis</i>	普通翠鳥	R		1											
Common Sandpiper	<i>Actitis hypoleucos</i>	磯鸕	WV, PM				3									
Common Snipe	<i>Gallinago gallinago</i>	扇尾沙錐	WV, PM										22			
Crested Goshawk	<i>Accipiter trivirgatus</i>	鳳頭鷹	R	(NT)									1			
Crested Myna	<i>Acridotheres cristatellus</i>	八哥	R		4				82							
Eastern Cattle Egret	<i>Bubulcus coromandus</i>	牛背鷺	R, PM	(LC)					2				3			
Eurasian Tree Sparrow	<i>Passer montanus</i>	樹麻雀	R						38							
Great Egret	<i>Ardea alba</i>	大白鷺	R, WV	PRC(RC)	2	3	7	1					4			

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date		5/10/2023 (T1 & T2), 6/10/2023 (T3 & T5)						
					Weather Condition		Fine, Sunny						
					Tidal Condition		High						
					Tide Level (m)		1.57, 1.52						
					Start Time		1400, 1600						
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					
			WAL	DAL	SWH	P	Heard	Flight					
Green Sandpiper	<i>Tringa ochropus</i>	白腰草鷸	UPM, WV			1							
Grey Heron	<i>Ardea cinerea</i>	蒼鷺	WV	PRC	1	1	3						
Little Egret	<i>Egretta garzetta</i>	小白鷺	R	PRC(RC)	4	9	7	5	5				
Marsh Sandpiper	<i>Tringa stagnatilis</i>	澤鷸	PM, WV	RC				1					
Masked Laughingthrush	<i>Pterorhinus perspicillatus</i>	黑臉噪鵲	R		2								
Pacific Golden Plover	<i>Pluvialis fulva</i>	太平洋金斑鵲	CPM, WV	LC								2	
Pheasant-tailed Jacana	<i>Hydrophasianus chirurgus</i>	水雉	M	LC				1					
Pied Kingfisher	<i>Ceryle rudis</i>	斑魚狗	UR	(LC)			1						
Pied Avocet	<i>Recurvirostra avosetta</i>	反嘴鷸	WV	RC				3					
Red-billed Blue Magpie	<i>Urocissa erythrorhyncha</i>	紅咀藍鵲	R									4	
Red-necked Phalarope	<i>Phalaropus lobatus</i>	紅頸瓣蹼鷸	R									2	
Red-whiskered Bulbul	<i>Pycnonotus jocosus</i>	紅耳鶉	R		2								
Rock Dove	<i>Columba livia</i>	原鴿	R			9			7				
Scaly-breasted Munia	<i>Lonchura punctulata</i>	斑文鳥	R						36			244	
Spotted Dove	<i>Streptopelia chinensis</i>	珠頸斑鳩	R				3		2				
White-rumped Munia	<i>Lonchura striata</i>	白腰文鳥	R						10			102	

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date		5/10/2023 (T1 & T2), 6/10/2023 (T3 & T5)									
					Weather Condition		Fine, Sunny									
					Tidal Condition		High									
					Tide Level (m)		1.57, 1.52									
					Start Time		1400, 1600									
					Abundance											
					Transect Walk											
					T1	T2	T3	T5								
			WAL	DAL	SWH	P	Heard	Flight								
White-throated Kingfisher	<i>Halcyon smyrnensis</i>	白胸翡翠	R	(LC)	1		1									
White Wagtail	<i>Motacilla alba</i>	白鵲鶉	PM, WV		5			3				2				
Wood Sandpiper	<i>Tringa glareola</i>	林鵲	PM, WV	LC				86				20				
Total No. of Species					11	6	9	11	12	0	0	0	11			
Total No. of Conservation Interest Species					5	4	7	9	4	0	0	0	5			

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; SaM - Scarce autumn migrant; USV - Uncommon Summer visitor; SpM – Spring migrant; Sv – Summer Visitor; Ssv – Spring & Summer Visitor; UR – Uncommon resident; RR – Rare resident; SWV – Scarce winter visitor; CWV - Common Winter Visitor; M - Spring and Autumn Migrant; 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
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 L1b. Avifauna Species Recorded for Water Birds Monitoring, 5 & 6 October 2023, Low Tide

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date		5/10/2023 (T1 & T2), 6/10/2023 (T3 & T5)						
					Weather Condition		Fine, Sunny						
					Tidal Condition		Low						
					Tide Level (m)		0.65, 0.83						
					Start Time		0900, 1000						
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					Heard
			WAL	DAL	SWH	P							
Amur Stonechat	<i>Saxicola stejnegeri</i>	黑喉石鵯	WV					3					2
Black Drongo	<i>Dicrurus macrocercus</i>	黑卷尾	Sv					2					
Black-collared Starling	<i>Gracupica nigricollis</i>	黑領棕鳥	R		2	3		2					
Black-winged Stilt	<i>Himantopus himantopus</i>	黑翅長腳鵞	PM	RC		3	12	11	137				
Chinese Pond Heron	<i>Ardeola bacchus</i>	池鷺	R	PRC(RC)	3	5	8	1	8				2
Common Snipe	<i>Gallinago gallinago</i>	扇尾沙錐	WV, PM			1	1						9
Cinereous Tit	<i>Parus cinereus</i>	蒼背山雀	R		1								
Collared Crow	<i>Corvus torquatus</i>	白頸鴉	UR	LC, VU									2
Common Greenshank	<i>Tringa nebularia</i>	青腳鵞	PM, WV	RC			2		2	2			
Common Kingfisher	<i>Alcedo atthis</i>	普通翠鳥	R			1							
Common Redshank	<i>Tringa totanus</i>	紅腳鵞	PM	RC			1						
Common Sandpiper	<i>Actitis hypoleucos</i>	磯鵞	WV, PM				2						
Crested Myna	<i>Acridotheres cristatellus</i>	八哥	R										8
Eastern Cattle Egret	<i>Bubulcus coromandus</i>	牛背鷺	R, PM	(LC)				2	8				
Eurasian Tree Sparrow	<i>Passer montanus</i>	樹麻雀	R										20
Garganey	<i>Spatula querquedula</i>	白眉鴨	PM							2			

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date		5/10/2023 (T1 & T2), 6/10/2023 (T3 & T5)							
					Weather Condition		Fine, Sunny							
					Tidal Condition		Low							
					Tide Level (m)		0.65, 0.83							
					Start Time		0900, 1000							
					Abundance									
					Transect Walk									
					T1	T2	T3	T5						Heard
			WAL	DAL	SWH	P								
Great Egret	<i>Ardea alba</i>	大白鷺	R, WV	PRC(RC)	1	4	5	3						1
Green Sandpiper	<i>Tringa ochropus</i>	白腰草鶺	UPM, WV				4		1	1				
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											2
Little Egret	<i>Egretta garzetta</i>	小白鷺	R	PRC(RC)	3	11	19	5	4	5				3
Little Ringed Plover	<i>Charadrius dubius</i>	金眶鶺	WV, PM	LC						1				5
Marsh Sandpiper	<i>Tringa stagnatilis</i>	澤鶺	PM, WV	RC						1				
Masked Laughingthrush	<i>Pterorhinus perspicillatus</i>	黑臉噪鶺	R				3						3	
Pacific Golden Plover	<i>Pluvialis fulva</i>	太平洋金斑鶺	CPM, WV	LC					3					
Pheasant-tailed Jacana	<i>Hydrophasianus chirurgus</i>	水雉	M	LC										1
Pied Avocet	<i>Recurvirostra avosetta</i>	反嘴鶺	WV	RC						5				
Plain Prinia	<i>Prinia inornata</i>	純色鷓鶺	R				2	4						4
Red-necked Phalarope	<i>Phalaropus lobatus</i>	紅頸瓣蹼鶺	R							1				
Red-whiskered Bulbul	<i>Pycnonotus jocosus</i>	紅耳鶺	R		3		2		2					
Rock Dove	<i>Columba livia</i>	原鶺	R			10			3					1
Scaly-breasted Munia	<i>Lonchura punctulata</i>	斑文鳥	R											2

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date		5/10/2023 (T1 & T2), 6/10/2023 (T3 & T5)								
					Weather Condition		Fine, Sunny								
					Tidal Condition		Low								
					Tide Level (m)		0.65, 0.83								
					Start Time		0900, 1000								
					Abundance										
					Transect Walk										
					T1	T2	T3	T5						Heard	Flight
			WAL	DAL	SWH	P									
Spotted Dove	<i>Streptopelia chinensis</i>	珠頸斑鳩	R				3	2	2		3				
Swinhoe's White-eye	<i>Zosterops simplex</i>	暗綠繡眼鳥	R						2						
White Wagtail	<i>Motacilla alba</i>	白鵲鴿	PM, WV				2	3	6		3			3	
White-breasted Waterhen	<i>Amaurornis phoenicurus</i>	白胸苦惡鳥	R							1				1	
White-rumped Munia	<i>Lonchura striata</i>	白腰文鳥	R											10	
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					2	8	39			1	
Total No. of Species							8	9	19	9	15	9	0	1	18
Total No. of Conservation Interest Species							4	4	9	6	7	6	0	0	7

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date		5/10/2023 (T1 & T2), 6/10/2023 (T3 & T5)									
					Weather Condition		Fine, Sunny									
					Tidal Condition		Low									
					Tide Level (m)		0.65, 0.83									
					Start Time		0900, 1000									
					Abundance											
					Transect Walk											
					T1	T2	T3	T5						Heard	Flight	
								WAL	DAL	SWH	P					

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; SaM - Scarce autumn migrant; USV - Uncommon Summer visitor; SpM – Spring migrant; Sv – Summer Visitor; SSv – Spring & Summer Visitor; UR – Uncommon resident; RR – Rare resident; SWV – Scarce winter visitor; CWV - Common Winter Visitor; M - Spring and Autumn Migrant; 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)
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, 10 & 11 October 2023, High Tide

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date		10/10/2023 (T1 & T2), 11/10/2023 (T3 & T5)							
					Weather Condition		Sunny, Sunny							
					Tidal Condition		High							
					Tide Level (m)		2.05, 2.23							
					Start Time		0900, 0900							
					Abundance									
					Transect Walk									
					T1	T2	T3	T5					Heard	Flight
								WAL	DAL	SWH	P			
Black Drongo	<i>Dicrurus macrocercus</i>	黑卷尾	Sv			1			3					
Black Kite	<i>Milvus migrans</i>	黑鳶	R, WV											
Black-collared Starling	<i>Gracupica nigricollis</i>	黑領椋鳥	R			6	2							
Black-winged Stilt	<i>Himantopus himantopus</i>	黑翅長腳鷸	PM	RC				104					12	
Chinese Bulbul	<i>Pycnonotus sinensis</i>	白頭鸚	R						2					
Chinese Pond Heron	<i>Ardeola bacchus</i>	池鷺	R	PRC(RC)			3	6					2	
Collared Crow	<i>Corvus torquatus</i>	白頸鴉	UR	LC, VU		3	3							
Common Greenshank	<i>Tringa nebularia</i>	青腳鷸	PM, WV	RC				6						
Common Kingfisher	<i>Alcedo atthis</i>	普通翠鳥	R		1				1					
Common Sandpiper	<i>Actitis hypoleucos</i>	磯鷸	WV, PM			2	2	8						
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						6				15	
Eastern Cattle Egret	<i>Bubulcus coromandus</i>	牛背鷺	R, PM	(LC)				13						
Eurasian Tree Sparrow	<i>Passer montanus</i>	樹麻雀	R			10								

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date		10/10/2023 (T1 & T2), 11/10/2023 (T3 & T5)						
					Weather Condition		Sunny, Sunny						
					Tidal Condition		High						
					Tide Level (m)		2.05, 2.23						
					Start Time		0900, 0900						
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					Heard
			WAL	DAL	SWH	P							
Garganey	<i>Spatula querquedula</i>	白眉鴨	PM			1		3					
Great Egret	<i>Ardea alba</i>	大白鷺	R, WV	PRC(RC)		2	5						
Green Sandpiper	<i>Tringa ochropus</i>	白腰草鷸	UPM, WV			1							
Little Egret	<i>Egretta garzetta</i>	小白鷺	R	PRC(RC)	2	5	59	15				3	
Marsh Sandpiper	<i>Tringa stagnatilis</i>	澤鷸	PM, WV	RC						3			
Masked Laughingthrush	<i>Pterorhinus perspicillatus</i>	黑臉噪鵲	R			4		5					
Pacific Golden Plover	<i>Pluvialis fulva</i>	太平洋金斑鴉	CPM, WV	LC				4					
Pied Avocet	<i>Recurvirostra avosetta</i>	反嘴鷸	WV	RC				8					
Red-whiskered Bulbul	<i>Pycnonotus jocosus</i>	紅耳鶉	R		4								
Rock Dove	<i>Columba livia</i>	原鴿	R			6			35				
Scaly-breasted Munia	<i>Lonchura punctulata</i>	斑文鳥	R									147	
Spotted Dove	<i>Streptopelia chinensis</i>	珠頸斑鳩	R						9				
Swinhoe's White-eye	<i>Zosterops simplex</i>	暗綠繡眼鳥	R		1				1				
White Wagtail	<i>Motacilla alba</i>	白鶺鴒	PM, WV		1	3	3	5					
White-breasted Waterhen	<i>Amaurornis phoenicurus</i>	白胸苦惡鳥	R						1				
White-rumped Munia	<i>Lonchura striata</i>	白腰文鳥	R									78	
Wood Sandpiper	<i>Tringa glareola</i>	林鷸	PM, WV	LC				6					

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date		10/10/2023 (T1 & T2), 11/10/2023 (T3 & T5)						
					Weather Condition		Sunny, Sunny						
					Tidal Condition		High						
					Tide Level (m)		2.05, 2.23						
					Start Time		0900, 0900						
					Abundance								
					Transect Walk								
					T1	T2	T3	T5				Heard	Flight
WAL	DAL	SWH	P										
Total No. of Species					6	12	6	14	8	1	0	0	6
Total No. of Conservation Interest Species					1	3	4	7	0	1	0	0	3

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
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, 10 & 11 October 2023, Low Tide

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date		10/10/2023 (T1 & T2), 11/10/2023 (T3 & T5)						
					Weather Condition		Rainy, Fine						
					Tidal Condition		Low						
					Tide Level (m)		0.65, 0.83						
					Start Time		1400, 1400						
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					Heard
			WAL	DAL	SWH	P							
Amur Stonechat	<i>Saxicola stejnegeri</i>	黑喉石鵲	WV				1	3					
Barn Swallow	<i>Hirundo rustica</i>	家燕	PM, Sv					3					
Black Drongo	<i>Dicrurus macrocerus</i>	黑卷尾	Sv										1
Black-collared Starling	<i>Gracupica nigricollis</i>	黑領椋鳥	R		3			6					
Black Drongo	<i>Dicrurus macrocerus</i>	黑卷尾	Sv		1								
Black-winged Stilt	<i>Himantopus himantopus</i>	黑翅長腳鵲	PM	RC			2	36	10	78			13
Black-winged Kite	<i>Elanus caeruleus</i>	黑翅鳶	OV	LC, (VU)									1
Chinese Pond Heron	<i>Ardeola bacchus</i>	池鷺	R	PRC(RC)	2	5	3	1	7	1			5
Chinese Bulbul	<i>Pycnonotus sinensis</i>	白頭鵲	R										2
Cinnamon Bittern	<i>Ixobrychus cinnamomeus</i>	栗葦鶉	UPM, SSV	LC					1				
Collared Crow	<i>Corvus torquatus</i>	白頸鵲	UR	LC, VU		1	1						
Common Greenshank	<i>Tringa nebularia</i>	青腳鵲	PM, WV	RC			1		1	4			
Common Kingfisher	<i>Alcedo atthis</i>	普通翠鳥	R				2						
Common Myna	<i>Acridotheres tristis</i>	家八哥	UR										3
Common Sandpiper	<i>Actitis hypoleucos</i>	磯鵲	WV, PM		3			1					

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date		10/10/2023 (T1 & T2), 11/10/2023 (T3 & T5)					
					Weather Condition		Rainy, Fine					
					Tidal Condition		Low					
					Tide Level (m)		0.65, 0.83					
					Start Time		1400, 1400					
					Abundance							
					Transect Walk							
					T1	T2	T3	T5				
			WAL	DAL	SWH	P	Heard	Flight				
Common Snipe	<i>Gallinago gallinago</i>	扇尾沙錐	WV, PM				11					
Crested Myna	<i>Acridotheres cristatellus</i>	八哥	R					25				
Eastern Cattle Egret	<i>Bubulcus coromandus</i>	牛背鷺	R, PM	(LC)	1		1	8				
Eastern Yellow Wagtail	<i>Motacilla tschutschensis</i>	東黃鶺鴒	PM, WV								3	
Eurasian Tree Sparrow	<i>Passer montanus</i>	樹麻雀	R			24		40				
Garganey	<i>Spatula querquedula</i>	白眉鴨	PM				2					
Great Egret	<i>Ardea alba</i>	大白鷺	R, WV	PRC(RC)	4	3	11					
Green Sandpiper	<i>Tringa ochropus</i>	白腰草鶺鴒	UPM, WV				2		2			
Grey Heron	<i>Ardea cinerea</i>	蒼鷺	WV	PRC	2	1	1					
Little Egret	<i>Egretta garzetta</i>	小白鷺	R	PRC(RC)	6	8	60	8	3	2		2
Little Ringed Plover	<i>Charadrius dubius</i>	金眶鸕	WV, PM	LC					15	2		
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				3				2
Masked Laughingthrush	<i>Pterorhinus perspicillatus</i>	黑臉噪鶺鴒	R						3			
Oriental Magpie	<i>Pica serica</i>	喜鵲	R						2			
Oriental Magpie-Robin	<i>Copsychus saularis</i>	鵲鴝	R			2	1		1			1

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date		10/10/2023 (T1 & T2), 11/10/2023 (T3 & T5)					
					Weather Condition		Rainy, Fine					
					Tidal Condition		Low					
					Tide Level (m)		0.65, 0.83					
					Start Time		1400, 1400					
					Abundance							
					Transect Walk							
					T1	T2	T3	T5				Heard
			WAL	DAL	SWH	P						
Pacific Golden Plover	<i>Pluvialis fulva</i>	太平洋金斑鵞	CPM, WV	LC				1				
Pheasant-tailed Jacana	<i>Hydrophasianus chirurgus</i>	水雉	M	LC								1
Pied Avocet	<i>Recurvirostra avosetta</i>	反嘴鷗	WV	RC					3			
Pied Kingfisher	<i>Ceryle rudis</i>	斑魚狗	UR	(LC)				3				
Plain Prinia	<i>Prinia inornata</i>	純色鷓鴣	R				1				1	1
Red Collared Dove	<i>Streptopelia tranquebarica</i>	火斑鳩	UPM					10				
Red-billed Blue Magpie	<i>Urocissa erythrorhyncha</i>	紅咀藍鵲	R			1						
Red-necked Phalarope	<i>Phalaropus lobatus</i>	紅頸瓣蹼鷗	R				1					
Red-throated Pipit	<i>Anthus cervinus</i>	紅喉鵲	CPM, WV	RC			6	1				
Red-whiskered Bulbul	<i>Pycnonotus jocosus</i>	紅耳鶯	R					3				
Rock Dove	<i>Columba livia</i>	原鴿	R			6	2		35			
Scaly-breasted Munia	<i>Lonchura punctulata</i>	斑文鳥	R					30				50
Spotted Dove	<i>Streptopelia chinensis</i>	珠頸斑鳩	R				4		13			1
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			6		3		8		1
White-rumped Munia	<i>Lonchura striata</i>	白腰文鳥	R						6			10

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date		10/10/2023 (T1 & T2), 11/10/2023 (T3 & T5)						
					Weather Condition		Rainy, Fine						
					Tidal Condition		Low						
					Tide Level (m)		0.65, 0.83						
					Start Time		1400, 1400						
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					
			WAL	DAL	SWH	P	Heard	Flight					
White-breasted Waterhen	<i>Amaurornis phoenicurus</i>	白胸苦惡鳥	R			1	1			1			
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	17	2	10			
Yellow-bellied Prinia	<i>Prinia flaviventris</i>	黃腹鷓鴣	R								2		
Total No. of Species					8	10	16	16	24	8	0	3	17
Total No. of Conservation Interest Species					5	5	9	7	10	7	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, 17 & 16 October 2023, High Tide

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date		17/10/2023 (T1 & T2), 16/10/2023 (T3 & T5)						
					Weather Condition		Fine, Fine						
					Tidal Condition		High						
					Tide Level (m)		1.69, 2.05						
					Start Time		1000, 1000						
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					Heard
			WAL	DAL	SWH	P							
Amur Stonechat	<i>Saxicola stejnegeri</i>	黑喉石鵯	WV			2	6	4					3
Black-collared Starling	<i>Gracupica nigricollis</i>	黑領椋鳥	R		3	4							1
Black Drongo	<i>Dicrurus macrocercus</i>	黑卷尾	Sv			1	2	10					
Black-winged Stilt	<i>Himantopus himantopus</i>	黑翅長腳鵯	PM	RC			36	21	99				16
Chinese Pond Heron	<i>Ardeola bacchus</i>	池鷺	R	PRC(RC)	2	6	3	1	3	4			5
Common Greenshank	<i>Tringa nebularia</i>	青腳鵯	PM, WV	RC			1		2				
Common Kingfisher	<i>Alcedo atthis</i>	普通翠鳥	R				1						
Common Redshank	<i>Tringa totanus</i>	紅腳鵯	PM	RC			1						
Common Sandpiper	<i>Actitis hypoleucos</i>	磯鵯	WV, PM				1						1
Common Snipe	<i>Gallinago gallinago</i>	扇尾沙錐	WV, PM				1	1					3
Crested Myna	<i>Acridotheres cristatellus</i>	八哥	R										3
Dunlin	<i>Calidris alpina</i>	黑腹濱鵯	WV, SPM	RC					1				
Dusky Warbler	<i>Phylloscopus fuscatus</i>	褐柳鶯	PM, WV					1					
Eastern Cattle Egret	<i>Bubulcus coromandus</i>	牛背鷺	R, PM	(LC)			1	15	4				1
Eastern Yellow Wagtail	<i>Motacilla tschutschensis</i>	東黃鵯鶯	PM, WV			2	1	1	8				1
Eurasian Tree Sparrow	<i>Passer montanus</i>	樹麻雀	R			6							26

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date		17/10/2023 (T1 & T2), 16/10/2023 (T3 & T5)						
					Weather Condition		Fine, Fine						
					Tidal Condition		High						
					Tide Level (m)		1.69, 2.05						
					Start Time		1000, 1000						
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					Heard
			WAL	DAL	SWH	P							
Grey Heron	<i>Ardea cinerea</i>	蒼鷺	WV	PRC	1	3							
Great Egret	<i>Ardea alba</i>	大白鷺	R, WV	PRC(RC)	2	2	2						
Green Sandpiper	<i>Tringa ochropus</i>	白腰草鶺	UPM, WV			1	2						1
Grey Wagtail	<i>Motacilla cinerea</i>	灰鶺鴒	WV						1				
Little Egret	<i>Egretta garzetta</i>	小白鷺	R	PRC(RC)	3	8	25	7		3			1
Little Ringed Plover	<i>Charadrius dubius</i>	金眶鸻	WV, PM	LC					14				
Long-tailed Shrike	<i>Lanius schach</i>	棕背伯勞	R			1							
Marsh Sandpiper	<i>Tringa stagnatilis</i>	澤鶺	PM, WV	RC						2			
Masked Laughingthrush	<i>Pterorhinus perspicillatus</i>	黑臉噪鶺	R				2						
Pallas's Leaf Warbler	<i>Phylloscopus proregulus</i>	黃腰柳鶺	WV						2				
Pied Avocet	<i>Recurvirostra avosetta</i>	反嘴鶺	WV	RC						3			
Plain Prinia	<i>Prinia inornata</i>	純色鷓鶺	R					2				4	
Red-necked Phalarope	<i>Phalaropus lobatus</i>	紅頸瓣蹼鶺	R							1			
Red-throated Pipit	<i>Anthus cervinus</i>	紅喉鶺	CPM, WV	RC					2	1			5
Red-whiskered Bulbul	<i>Pycnonotus jocosus</i>	紅耳鶺	R		3				1				
Richard's Pipit	<i>Anthus richardi</i>	理氏鶺	WV, PM						1				
Rock Dove	<i>Columba livia</i>	原鴿	R			8			14				

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date		17/10/2023 (T1 & T2), 16/10/2023 (T3 & T5)							
					Weather Condition		Fine, Fine							
					Tidal Condition		High							
					Tide Level (m)		1.69, 2.05							
					Start Time		1000, 1000							
					Abundance									
					Transect Walk									
					T1	T2	T3	T5					Heard	Flight
			WAL	DAL	SWH	P								
Scaly-breasted Munia	<i>Lonchura punctulata</i>	斑文鳥	R					10					5	
Spotted Dove	<i>Streptopelia chinensis</i>	珠頸斑鳩	R					5					3	
Swinhoe's White-eye	<i>Zosterops simplex</i>	暗綠繡眼鳥	R			4								
White Wagtail	<i>Motacilla alba</i>	白鶺鴒	PM, WV		1	2	2		16				3	
White-breasted Waterhen	<i>Amaurornis phoenicurus</i>	白胸苦惡鳥	R										1	
White-rumped Munia	<i>Lonchura striata</i>	白腰文鳥	R				30						10	
Wood Sandpiper	<i>Tringa glareola</i>	林鵲	PM, WV	LC				15		7			2	
Yellow-bellied Prinia	<i>Prinia flaviventris</i>	黃腹鷦鶯	R									1		
Total No. of Species					7	12	13	12	18	10	0	2	19	
Total No. of Conservation Interest Species					4	4	5	6	5	9	0	0	6	

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date		17/10/2023 (T1 & T2), 16/10/2023 (T3 & T5)									
					Weather Condition		Fine, Fine									
					Tidal Condition		High									
					Tide Level (m)		1.69, 2.05									
					Start Time		1000, 1000									
					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;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, 17 & 16 October 2023, Low Tide

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date		17/10/2023 (T1 & T2), 16/10/2023 (T3 & T5)						
					Weather Condition		Fine, Fine						
					Tidal Condition		Low						
					Tide Level (m)		1.36, 1.49						
					Start Time		1600, 1500						
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					Heard
			WAL	DAL	SWH	P							
Black Drongo	<i>Dicrurus macrocercus</i>	黑卷尾	Sv				1		2				
Black-collared Starling	<i>Gracupica nigricollis</i>	黑領椋鳥	R						3				11
Black-winged Stilt	<i>Himantopus himantopus</i>	黑翅長腳鷸	PM	RC			1	42	8	76			22
Chinese Pond Heron	<i>Ardeola bacchus</i>	池鷺	R	PRC(RC)	3		4	1	5	2			2
Common Greenshank	<i>Tringa nebularia</i>	青腳鷸	PM, WV	RC				1		4			1
Common Redshank	<i>Tringa totanus</i>	紅腳鷸	PM	RC			1						
Common Sandpiper	<i>Actitis hypoleucos</i>	磯鷸	WV, PM			2	1						
Common Snipe	<i>Gallinago gallinago</i>	扇尾沙錐	WV, PM					4					6
Collared Crow	<i>Corvus torquatus</i>	白頸鴉	UR	LC, VU			2						
Crested Myna	<i>Acridotheres cristatellus</i>	八哥	R					9	62				14
Eastern Cattle Egret	<i>Bubulcus coromandus</i>	牛背鷺	R, PM	(LC)				14					
Eurasian Tree Sparrow	<i>Passer montanus</i>	樹麻雀	R		3	23			44				
Great Cormorant	<i>Phalacrocorax carbo</i>	普通鸕鶿	CWV	PRC	2								
Great Egret	<i>Ardea alba</i>	大白鷺	R, WV	PRC(RC)	6	2	3		1	1			
Green Sandpiper	<i>Tringa ochropus</i>	白腰草鷸	UPM, WV				2						

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date		17/10/2023 (T1 & T2), 16/10/2023 (T3 & T5)							
					Weather Condition		Fine, Fine							
					Tidal Condition		Low							
					Tide Level (m)		1.36, 1.49							
					Start Time		1600, 1500							
					Abundance									
					Transect Walk									
					T1	T2	T3	T5				Heard	Flight	
			WAL	DAL	SWH	P								
Grey Heron	<i>Ardea cinerea</i>	蒼鷺	WV	PRC	1									
Little Egret	<i>Egretta garzetta</i>	小白鷺	R	PRC(RC)	10	3	22	6	2	4			3	
Little Ringed Plover	<i>Charadrius dubius</i>	金眶鸻	WV, PM	LC						11				
Masked Laughingthrush	<i>Pterorhinus perspicillatus</i>	黑臉噪鶇	R						8					
Marsh Sandpiper	<i>Tringa stagnatilis</i>	澤鵞	PM, WV	RC						1				
Oriental Magpie-Robin	<i>Copsychus saularis</i>	鵲鴝	R			1			3					
Pied Avocet	<i>Recurvirostra avosetta</i>	反嘴鵞	WV	RC						3				
Red-necked Phalarope	<i>Phalaropus lobatus</i>	紅頸瓣蹼鵞	R							1				
Red-whiskered Bulbul	<i>Pycnonotus jocosus</i>	紅耳鶇	R						2					
Rock Dove	<i>Columba livia</i>	原鴿	R			5			14					
Scaly-breasted Munia	<i>Lonchura punctulata</i>	斑文鳥	R						40					
Spotted Dove	<i>Streptopelia chinensis</i>	珠頸斑鳩	R			3	4							
White Wagtail	<i>Motacilla alba</i>	白鶇鶇	PM, WV		1	4	4		2				4	
White-breasted Waterhen	<i>Amaurornis phoenicurus</i>	白胸苦惡鳥	R											
White-rumped Munia	<i>Lonchura striata</i>	白腰文鳥	R						12					
White-throated Kingfisher	<i>Halcyon smyrnensis</i>	白胸翡翠	R	(LC)			1		1					
Wood Sandpiper	<i>Tringa glareola</i>	林鵞	PM, WV	LC				23						

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date		17/10/2023 (T1 & T2), 16/10/2023 (T3 & T5)							
					Weather Condition		Fine, Fine							
					Tidal Condition		Low							
					Tide Level (m)		1.36, 1.49							
					Start Time		1600, 1500							
					Abundance									
					Transect Walk									
					T1	T2	T3	T5					Heard	Flight
WAL	DAL	SWH	P											
Total No. of Species					8	8	11	8	16	9	0	0	8	
Total No. of Conservation Interest Species					5	2	7	6	5	8	0	0	4	

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 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, 27 & 27 October 2023, High Tide

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date		27/10/2023 (T1 & T2), 27/10/2023 (T3 & T5)						
					Weather Condition		Sunny, Sunny						
					Tidal Condition		High						
					Tide Level (m)		2.59, 2.59						
					Start Time		0900, 0900						
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					Heard
			WAL	DAL	SWH	P							
Amur Stonechat	<i>Saxicola stejnegeri</i>	黑喉石鵯	WV			1	2	3					
Barn Swallow	<i>Hirundo rustica</i>	家燕	PM, Sv		2							3	
Black-collared Starling	<i>Gracupica nigricollis</i>	黑領椋鳥	R		2	2							
Black Drongo	<i>Dicrurus macrocercus</i>	黑卷尾	Sv					2					
Black-winged Stilt	<i>Himantopus himantopus</i>	黑翅長腳鷸	PM	RC			77	1	57			2	
Chinese Bulbul	<i>Pycnonotus sinensis</i>	白頭鶇	R					1					
Chinese Pond Heron	<i>Ardeola bacchus</i>	池鷺	R	PRC(RC)	2	4		2	5	2		3	
Cinereous Tit	<i>Parus cinereus</i>	蒼背山雀	R			2							
Common Greenshank	<i>Tringa nebularia</i>	青腳鷸	PM, WV	RC			1	2		2			
Common Kingfisher	<i>Alcedo atthis</i>	普通翠鳥	R									1	
Common Redshank	<i>Tringa totanus</i>	紅腳鷸	PM	RC			1						
Common Sandpiper	<i>Actitis hypoleucos</i>	磯鷸	WV, PM				1	1					
Common Snipe	<i>Gallinago gallinago</i>	扇尾沙錐	WV, PM					1				3	
Crested Myna	<i>Acridotheres cristatellus</i>	八哥	R									1	
Dusky Warbler	<i>Phylloscopus fuscatus</i>	褐柳鶯	PM, WV				1	4					
Eastern Cattle Egret	<i>Bubulcus coromandus</i>	牛背鷺	R, PM	(LC)			1	14	1			1	

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date		27/10/2023 (T1 & T2), 27/10/2023 (T3 & T5)							
					Weather Condition		Sunny, Sunny							
					Tidal Condition		High							
					Tide Level (m)		2.59, 2.59							
					Start Time		0900, 0900							
					Abundance									
					Transect Walk									
					T1	T2	T3	T5					Heard	Flight
			WAL	DAL	SWH	P								
Eastern Yellow Wagtail	<i>Motacilla tschutschensis</i>	東黃鵲鴝	PM, WV		2		4	2						
Eurasian Tree Sparrow	<i>Passer montanus</i>	樹麻雀	R	5									50	
Garganey	<i>Spatula querquedula</i>	白眉鴨	PM				1		1					
Great Cormorant	<i>Phalacrocorax carbo</i>	普通鸕鶿	CWV	PRC	2								1	
Great Egret	<i>Ardea alba</i>	大白鷺	R, WV	PRC(RC)	1	2	4	4		2				
Green Sandpiper	<i>Tringa ochropus</i>	白腰草鷺	UPM, WV			1	2			1				
Grey Heron	<i>Ardea cinerea</i>	蒼鷺	WV	PRC		3	5							
Grey Wagtail	<i>Motacilla cinerea</i>	灰鵲鴝	WV					1						
Little Egret	<i>Egretta garzetta</i>	小白鷺	R	PRC(RC)	3	11	13	7	4	6				
Little Ringed Plover	<i>Charadrius dubius</i>	金眶鸻	WV, PM	LC					3	3			1	
Olive-backed Pipit	<i>Anthus hodgsoni</i>	樹鵲	WV				1							
Marsh Sandpiper	<i>Tringa stagnatilis</i>	澤鵲	PM, WV	RC				2		1				
Masked Laughingthrush	<i>Pterorhinus perspicillatus</i>	黑臉噪鵲	R				1					3		
Oriental Magpie-Robin	<i>Copsychus saularis</i>	鵲鴝	R		2							1		
Pied Avocet	<i>Recurvirostra avosetta</i>	反嘴鵲	WV	RC						31				
Plain Prinia	<i>Prinia inornata</i>	純色鷓鴣	R									3		
Red-throated Pipit	<i>Anthus cervinus</i>	紅喉鵲	CPM, WV	RC				4	5					

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date		27/10/2023 (T1 & T2), 27/10/2023 (T3 & T5)							
					Weather Condition		Sunny, Sunny							
					Tidal Condition		High							
					Tide Level (m)		2.59, 2.59							
					Start Time		0900, 0900							
					Abundance									
					Transect Walk									
					T1	T2	T3	T5						
			WAL	DAL	SWH	P	Heard	Flight						
Red-whiskered Bulbul	<i>Pycnonotus jocosus</i>	紅耳鸚	R			2		3						
Richard's Pipit	<i>Anthus richardi</i>	理氏鸚	WV, PM						4					
Rock Dove	<i>Columba livia</i>	原鴿	R				8		10					
Scaly-breasted Munia	<i>Lonchura punctulata</i>	斑文鳥	R					1						
Spotted Dove	<i>Streptopelia chinensis</i>	珠頸斑鳩	R			2	2	1	3				6	
Swinhoe's White-eye	<i>Zosterops simplex</i>	暗綠繡眼鳥	R					6	4					
White Wagtail	<i>Motacilla alba</i>	白鶺鴒	PM, WV				2	3	10					
White-breasted Waterhen	<i>Amaurornis phoenicurus</i>	白胸苦惡鳥	R										2	
Wood Sandpiper	<i>Tringa glareola</i>	林鵲	PM, WV	LC					18	1	4		4	
Yellow Bittern	<i>Ixobrychus sinensis</i>	黃葦鴉	USV, UPM	(LC)									1	
Yellow-bellied Prinia	<i>Prinia flaviventris</i>	黃腹鷦鶯	R									2		
Total No. of Species						10	10	17	17	16	11	0	4	14
Total No. of Conservation Interest Species						4	4	6	9	7	9	0	0	7

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date		27/10/2023 (T1 & T2), 27/10/2023 (T3 & T5)									
					Weather Condition		Sunny, Sunny									
					Tidal Condition		High									
					Tide Level (m)		2.59, 2.59									
					Start Time		0900, 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; 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, 27 & 27 October 2023, Low Tide

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date		27/10/2023 (T1 & T2), 27/10/2023 (T3 & T5)				
					Weather Condition		Sunny, Sunny				
					Tidal Condition		Low				
					Tide Level (m)		1.08, 1.08				
					Start Time		1400, 1400				
					Abundance						
					Transect Walk						
					T1	T2	T3	T5			
			WAL	DAL	SWH	P					
Black Kite	<i>Milvus migrans</i>	黑鳶	R, WV								
Black-collared Starling	<i>Gracupica nigricollis</i>	黑領棕鳥	R					26			
Black Drongo	<i>Dicrurus macrocerus</i>	黑卷尾	Sv					3			
Black-winged Stilt	<i>Himantopus himantopus</i>	黑翅長腳鷸	PM	RC			103				10
Chinese Pond Heron	<i>Ardeola bacchus</i>	池鷺	R	PRC(RC)	3	2	4	9			
Cinereous Tit	<i>Parus cinereus</i>	蒼背山雀	R		2						
Common Greenshank	<i>Tringa nebularia</i>	青腳鷸	PM, WV	RC			1				
Common Kingfisher	<i>Alcedo atthis</i>	普通翠鳥	R				4				
Common Sandpiper	<i>Actitis hypoleucos</i>	磯鷸	WV, PM				4	5			
Common Snipe	<i>Gallinago gallinago</i>	扇尾沙錐	WV, PM					2			
Crested Myna	<i>Acridotheres cristatellus</i>	八哥	R			2			32		14
Eastern Cattle Egret	<i>Bubulcus coromandus</i>	牛背鷺	R, PM	(LC)	1			14			
Eurasian Tree Sparrow	<i>Passer montanus</i>	樹麻雀	R						76		
Eastern Yellow Wagtail	<i>Motacilla tschutschensis</i>	東黃鵲鴝	PM, WV			2		6	4		
Great Cormorant	<i>Phalacrocorax carbo</i>	普通鸕鷀	CWV	PRC	2		1	2			

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date		27/10/2023 (T1 & T2), 27/10/2023 (T3 & T5)							
					Weather Condition		Sunny, Sunny							
					Tidal Condition		Low							
					Tide Level (m)		1.08, 1.08							
					Start Time		1400, 1400							
					Abundance									
					Transect Walk									
					T1	T2	T3	T5					Heard	Flight
			WAL	DAL	SWH	P								
Great Egret	<i>Ardea alba</i>	大白鷺	R, WV	PRC(RC)	1	2	2	2					4	
Green Sandpiper	<i>Tringa ochropus</i>	白腰草鶮	UPM, WV			1	3							
Grey Heron	<i>Ardea cinerea</i>	蒼鷺	WV	PRC	1		3							
Grey Wagtail	<i>Motacilla cinerea</i>	灰鵲鶯	WV		1		5							
Olive-backed Pipit	<i>Anthus hodgsoni</i>	樹鵲	WV					2						
Little Egret	<i>Egretta garzetta</i>	小白鷺	R	PRC(RC)	2	9	12	14	4					
Little Ringed Plover	<i>Charadrius dubius</i>	金眶鶮	WV, PM	LC					3	6				
Marsh Sandpiper	<i>Tringa stagnatilis</i>	澤鶮	PM, WV	RC				2						
Pied Avocet	<i>Recurvirostra avosetta</i>	反嘴鶮	WV	RC				38		7				
Red-throated Pipit	<i>Anthus cervinus</i>	紅喉鵲	CPM, WV	RC					4					
Red-whiskered Bulbul	<i>Pycnonotus jocosus</i>	紅耳鶮	R		7	3								
Rock Dove	<i>Columba livia</i>	原鴿	R						53				12	
Scaly-breasted Munia	<i>Lonchura punctulata</i>	斑文鳥	R		2	5								
White Wagtail	<i>Motacilla alba</i>	白鵲鶯	PM, WV		2	1		5					2	
White-breasted Waterhen	<i>Amaurornis phoenicurus</i>	白胸苦惡鳥	R					1						
White-throated Kingfisher	<i>Halcyon smyrnensis</i>	白胸翡翠	R	(LC)	1		2							
Wood Sandpiper	<i>Tringa glareola</i>	林鶮	PM, WV	LC				16					5	

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date		27/10/2023 (T1 & T2), 27/10/2023 (T3 & T5)						
					Weather Condition		Sunny, Sunny						
					Tidal Condition		Low						
					Tide Level (m)		1.08, 1.08						
					Start Time		1400, 1400						
					Abundance								
					Transect Walk								
					T1	T2	T3	T5				Heard	Flight
WAL	DAL	SWH	P										
Yellow-browed Warbler	<i>Phylloscopus inornatus</i>	黃眉柳鶯	WV, SpM		3								
Total No. of Species					14	9	11	14	10	2	0	0	6
Total No. of Conservation Interest Species					7	3	7	9	3	2	0	0	3

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, 6 October 2023, T5

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date: 6/10/2023					
					Start Time: 18:00					
					Abundance					
WAL	DAL	SWH	P	Heard	Flight					
Black-crowned Night Heron	<i>Nycticorax nycticorax</i>	夜鷺	R, WV	LC						15
Black-winged Stilt	<i>Himantopus himantopus</i>	黑翅長腳鷸	PM	RC	42					15
Chinese Pond Heron	<i>Ardeola bacchus</i>	池鷺	R	PRC(RC)	2					
Common Greenshank	<i>Tringa nebularia</i>	青腳鷸	PM, WV	RC	2					
Crested Myna	<i>Acridotheres cristatellus</i>	八哥	R			50				
Peregrine Falcon	<i>Falco peregrinus</i>	遊隼	SR, WV	Cap.586, LC						1
Pied Avocet	<i>Recurvirostra avosetta</i>	反嘴鷸	WV	RC	3					
White-breasted Waterhen	<i>Amaurornis phoenicurus</i>	白胸苦惡鳥	R		1					
Total No. of Species					5	1	0	0	0	3
Total No. of Conservation Interest Species					4	0	0	0	0	3
<p>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) CR: Rare 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.</p>										

Appendix L1j. Avifauna Species Recorded for Water Birds Monitoring, Night Survey, 16 October 2023, T5

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date: 16/10/2023					
					Start Time: 18:00					
					Abundance					
WAL	DAL	SWH	P	Heard	Flight					
Black-collared Starling	<i>Gracupica nigricollis</i>	黑領棕鳥	R							
Black-crowned Night Heron	<i>Nycticorax nycticorax</i>	夜鷺	R, WV	LC		1				6
Black-winged Stilt	<i>Himantopus himantopus</i>	黑翅長腳鷸	PM	RC	28		46			
Chinese Pond Heron	<i>Ardeola bacchus</i>	池鷺	R	PRC(RC)						2
Collared Crow	<i>Corvus torquatus</i>	白頸鴉	UR	LC, VU						2
Common Greenshank	<i>Tringa nebularia</i>	青腳鷸	PM, WV	RC			2		1	
Common Snipe	<i>Gallinago gallinago</i>	扇尾沙錐	WV, PM		2					11
Great Egret	<i>Ardea alba</i>	大白鷺	R, WV	PRC(RC)		2				8
Little Egret	<i>Egretta garzetta</i>	小白鷺	R	PRC(RC)	1	2	4			15
Rock Dove	<i>Columba livia</i>	原鴿	R							3
Spotted Dove	<i>Streptopelia chinensis</i>	珠頸斑鳩	R			2				4
Wood Sandpiper	<i>Tringa glareola</i>	林鷸	PM, WV	LC	15		4			
					4	4	4	0	1	8
Total No. of Conservation Interest Species					3	3	4	0	1	5
<p>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) 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.</p>										

Appendix L1k, Waterbirds Recorded in October 2023

Common Name	Species Name	Chinese Name	Conservation Status	Recorded habitat from the survey	Distribution in Hong Kong*
Black-winged Stilt	<i>Himantopus himantopus</i>	黑翅長腳鷸	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.
Cinnamon Bittern	<i>Ixobrychus cinnamomeus</i>	栗葦鶉	LC	T5: Dry Agricultural Land	Uncommon passage migrant and scarce summer visitor. Found in Deep Bay area, Long Valley, Tai Yuen (Sheung Shui), Pui O.
Common Greenshank	<i>Tringa nebularia</i>	青腳鷸	RC	T3: River bank, River bed, in flight T5: Wet Agricultural Land, Dry Agricultural Land, Shallow Water Habitat	Abundant winter visitor and migrant. Found in Deep Bay area.
Common Kingfisher	<i>Alcedo atthis</i>	普通翠鳥		T1: River bank, In flight T2: River bank, In flight T3: River bank, River bed, in flight T5: Dry Agricultural Land	Common passage migrant and winter visitor. Widely distributed in wetland habitat throughout Hong Kong.
Common Redshank	<i>Tringa totanus</i>	紅腳鷸	RC	T3: River bank	Abundant passage migrant and winter visitor. Found in Deep Bay area.
Common Sandpiper	<i>Actitis hypoleucos</i>	磯鷸		T1: River bank T2: River bank T3: River bank T5: Wet Agricultural Land, 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		T3: River bank T5: Wet Agricultural Land, Dry Agricultural Land, 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*
Dunlin	<i>Calidris alpina</i>	黑腹濱鷸	RC	T5: Shallow Water Habitat	Abundant winter visitor and scarce passage migrant. Found in Deep Bay area.
Eastern Cattle Egret	<i>Bubulcus coromandus</i>	牛背鷺	(LC)	T1: River bank, In flight T3: River bank, River bed, In flight T5: Wet Agricultural Land, Dry Agricultural Land, In flight	Resident and common passage migrant. Widely distributed in Hong Kong.
Garganey	<i>Spatula querquedula</i>	白眉鴨		T2: River bed T5: Wet Agricultural Land, Shallow Water Habitat	Common passage migrant. Found in Deep Bay area, Long Valley, Kam Tin.
Great Cormorant	<i>Phalacrocorax carbo</i>	普通鸕鶿	PRC	T1: River bed, In flight T3: River bed T5: Wet Agricultural Land, In flight	Common winter visitor. Widely distributed in coastal areas throughout Hong Kong.
Great Egret	<i>Ardea alba</i>	大白鷺	PRC(RC)	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 and winter visitor. Widely distributed in Hong Kong.
Green Sandpiper	<i>Tringa ochropus</i>	白腰草鷸		T2: River bank, In flight T3: River bank, River bed, In flight T5: Wet Agricultural Land, Dry Agricultural Land, In flight	Common 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, River bed, In flight T3: River bank, River bed, In flight	Common winter visitor. Found in Deep Bay area, Starling Inlet, Kowloon Park, Cape 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 T5: Wet Agricultural Land, Dry Agricultural Land, Shallow Water Habitat, In flight	Common resident. Widely distributed in coastal area throughout Hong Kong.
Little Ringed Plover	<i>Charadrius dubius</i>	金眶鷸	LC	T5: Dry Agricultural Land, Shallow Water Habitat, In flight	Resident, common winter visitor and passage migrant. Widely distributed in freshwater areas throughout Hong Kong.

Common Name	Species Name	Chinese Name	Conservation Status	Recorded habitat from the survey	Distribution in Hong Kong*
Marsh Sandpiper	<i>Tringa stagnatilis</i>	澤鵞	RC	T5: Wet Agricultural Land, Shallow Water Habitat, In flight	Abundant winter visitor and migrant. Found in Deep Bay area, Shuen Wan, Long Valley, Kam Tin, Sai Kung.
Pacific Golden Plover	<i>Pluvialis fulva</i>	太平洋金斑鵞	LC	T5: Wet Agricultural Land, Dry Agricultural Land, In flight	Common migrant and winter visitor. Found in Deep Bay area, Chek Lap Kok, Long Valley.
Pheasant-tailed Jacana	<i>Hydrophasianus chirurgus</i>	水雉	LC	T5 Wet Agricultural Land, In flight	Uncommon migrant and rare winter visitor. Found in Deep Bay area, Kam Tin, Long Valley.
Pied Avocet	<i>Recurvirostra avosetta</i>	反嘴鵞	RC	T5: Wet Agricultural Land, Shallow Water Habitat	Abundant winter visitor. Found in Deep Bay area.
Pied Kingfisher	<i>Ceryle rudis</i>	斑魚狗	(LC)	T3: In flight T5: Dry Agricultural Land	Uncommon resident. Widely distributed in lakes and ponds throughout Hong Kong.
Red-necked Phalarope	<i>Phalaropus lobatus</i>	紅頸瓣蹼鵞		T5: Wet Agricultural Land, Shallow Water Habitat, In flight	Common passage migrant. Widely distributed in sea throughout Hong Kong.
White-breasted Waterhen	<i>Amaurornis phoenicurus</i>	白胸苦惡鳥		T3: River bank T5: Wet Agricultural Land, Dry Agricultural Land, Heard, In flight	Common resident. Widely distributed in wetland throughout Hong Kong.
White-throated Kingfisher	<i>Halcyon smyrnensis</i>	白胸翡翠	(LC)	T1: River bank, In flight T3: River bank, River bed, In flight T5: Wet Agricultural Land, Dry Agricultural Land, In flight	Common resident. Widely distributed in coastal areas throughout Hong Kong.
Wood Sandpiper	<i>Tringa glareola</i>	林鵞	LC	T3: River bank, River bed, In flight 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.
Yellow Bittern	<i>Ixobrychus sinensis</i>	黃葦鶉	(LC)	T5: In flight	Uncommon summer visitor and common passage migrant. Found in Deep Bay area, Chek Keng, Tai Long Wan.
<p>Note: Status was decided according to AFCD biodiversity website (www.hkbiodiversity.net) Cap. 170: All bird species are under protection of Wild Animals Protection Ordinance 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))</p>					

Common Name	Species Name	Chinese Name	Conservation Status	Recorded habitat from the survey	Distribution in Hong Kong*
*Source: Hong Kong Biodiversity Database, AFCD (https://www.afcd.gov.hk/English/conservation/hkbiodiversity/database/search.php)					

Appendix L1I. Birds Recorded in October 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	
Barn Swallow	<i>Hirundo rustica</i>	家燕	PM, Sv	
Black Drongo	<i>Dicrurus macrocercus</i>	黑卷尾	Sv	
Black Kite	<i>Milvus migrans</i>	黑鳶	R, WV	
Black-collared Starling	<i>Gracupica nigricollis</i>	黑領棕鳥	R	
Black-winged Kite	<i>Elanus caeruleus</i>	黑翅鳶	OV	LC, (VU)
Black-winged Stilt	<i>Himantopus himantopus</i>	黑翅長腳鵲	PM	RC
Chinese Bulbul	<i>Pycnonotus sinensis</i>	白頭鶇	R	
Chinese Pond Heron	<i>Ardeola bacchus</i>	池鷺	R	PRC(RC)
Cinereous Tit	<i>Parus cinereus</i>	蒼背山雀	R	
Cinnamon Bittern	<i>Ixobrychus cinnamomeus</i>	栗葦鶇	UPM, SSV	LC
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 Kingfisher	<i>Alcedo atthis</i>	普通翠鳥	R	
Common Myna	<i>Acridotheres tristis</i>	家八哥	UR	
Common Redshank	<i>Tringa totanus</i>	紅腳鵲	PM	RC
Common Sandpiper	<i>Actitis hypoleucos</i>	磯鵲	WV, PM	
Common Snipe	<i>Gallinago gallinago</i>	扇尾沙錐	WV, PM	
Common Tailorbird	<i>Orthotomus sutorius</i>	長尾縫葉鶇	R	
Crested Goshawk	<i>Accipiter trivirgatus</i>	鳳頭鷹	R	(NT)
Crested Myna	<i>Acridotheres cristatellus</i>	八哥	R	
Dunlin	<i>Calidris alpina</i>	黑腹濱鵲	WV, SPM	RC
Dusky Warbler	<i>Phylloscopus fuscatus</i>	褐柳鶇	PM, WV	
Dusky Warbler	<i>Phylloscopus fuscatus</i>	褐柳鶇	PM, WV	

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status
Eastern Cattle Egret	<i>Bubulcus coromandus</i>	牛背鷺	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	
Garganey	<i>Spatula querquedula</i>	白眉鴨	PM	
Great Cormorant	<i>Phalacrocorax carbo</i>	普通鸕鷀	CWV	PRC
Great Egret	<i>Ardea alba</i>	大白鷺	R, WV	PRC(RC)
Green Sandpiper	<i>Tringa ochropus</i>	白腰草鷺	UPM, WV	
Grey Heron	<i>Ardea cinerea</i>	蒼鷺	WV	PRC
Grey Wagtail	<i>Motacilla cinerea</i>	灰鵲鴝	WV	
House Swift	<i>Apus nipalensis</i>	小白腰雨燕	SpM, R	
Little Egret	<i>Egretta garzetta</i>	小白鷺	R	PRC(RC)
Little Ringed Plover	<i>Charadrius dubius</i>	金眶鸻	WV, PM	LC
Long-tailed Shrike	<i>Lanius schach</i>	棕背伯勞	R	
Marsh Sandpiper	<i>Tringa stagnatilis</i>	澤鷺	PM, WV	RC
Masked Laughingthrush	<i>Pterorhinus perspicillatus</i>	黑臉噪鷓	R	
Olive-backed Pipit	<i>Anthus hodgsoni</i>	樹鷓	WV	
Oriental Magpie	<i>Pica serica</i>	喜鵲	R	
Oriental Magpie-Robin	<i>Copsychus saularis</i>	鵲鴝	R	
Pacific Golden Plover	<i>Pluvialis fulva</i>	太平洋金斑鸻	CPM, WV	LC
Pallas's Leaf Warbler	<i>Phylloscopus proregulus</i>	黃腰柳鷺	WV	
Pheasant-tailed Jacana	<i>Hydrophasianus chirurgus</i>	水雉	M	LC
Pied Avocet	<i>Recurvirostra avosetta</i>	反嘴鷺	WV	RC
Pied Kingfisher	<i>Ceryle rudis</i>	斑魚狗	UR	(LC)
Plain Prinia	<i>Prinia inornata</i>	純色鷓鴣	R	
Red Collared Dove	<i>Streptopelia tranquebarica</i>	火斑鳩	UPM	
Red-billed Blue Magpie	<i>Urocissa erythrorhyncha</i>	紅咀藍鵲	R	
Red-necked Phalarope	<i>Phalaropus lobatus</i>	紅頸瓣蹼鷺	R	

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status
Red-throated Pipit	<i>Anthus cervinus</i>	紅喉鸚	CPM, WV	RC
Red-whiskered Bulbul	<i>Pycnonotus jocosus</i>	紅耳鸚	R	
Richard's Pipit	<i>Anthus richardi</i>	理氏鸚	WV, PM	
Rock Dove	<i>Columba livia</i>	原鴿	R	
Scaly-breasted Munia	<i>Lonchura punctulata</i>	斑文鳥	R	
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-rumped Munia	<i>Lonchura striata</i>	白腰文鳥	R	
White-throated Kingfisher	<i>Halcyon smyrnensis</i>	白胸翡翠	R	(LC)
Wood Sandpiper	<i>Tringa glareola</i>	林鵲	PM, WV	LC
Yellow Bittern	<i>Ixobrychus sinensis</i>	黃葦鶉	USV, UPM	(LC)
Yellow-bellied Prinia	<i>Prinia flaviventris</i>	黃腹鷓鴣	R	
Yellow-browed Warbler	<i>Phylloscopus inornatus</i>	黃眉柳鶯	WV, SpM	

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 (Fellows 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, 19 October 2023

Common Name	Scientific Name	Conservation Status	Occurrence Status	Date: 19 October 2023										
				Weather: Drizzle										
				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 sp.</i>	-	-											
Black Threadtail	<i>Prodasineura autumnalis</i>	-	Native									+		
Caddisfly	<i>Hydroptila sp.</i>	-	-								+	+		
Chinese River Snail	<i>Sinotaia guangdongensis</i>	-	Native		+									
Crimson Dropwing	<i>Trithemis aurora</i>	-	Native		+									
Emerald Cascader	<i>Zygonyx iris insignis</i>	-	Native										+	
Golden Freshwater Clam	<i>Corbicula fluminea</i>	-	Native									+	+	
Indigo Dropwing	<i>Trithemis festiva</i>	-	Native		+	+				+	+			
Red-rimmed Melania	<i>Melanoides tuberculata</i>	-	Introduced										++	+++
Water Strider	<i>Metrocoris sp.</i>		-		++	+	++					+++	++	
	<i>Microvelia sp.</i>	-	-			+	+					+++	++	
	<i>Ptilomera tigrina</i>		Native				+					+		
Yellow Featherleg	<i>Copera marginipes</i>	-	Native		+								+	
Total No. of species				0	5	3	3	0	0	1	6	8	1	

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: 19 October 2023				
				Weather: Drizzle				
				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 sp.</i>	-	-				++	
Black Threadtail	<i>Prodasineura autumnalis</i>	-	Native					
Caddisfly	<i>Hydroptila sp.</i>	-	-				+	
Chinese River Snail	<i>Sinotaia guangdongensis</i>	-	Native				+	+
Crimson Dropwing	<i>Trithemis aurora</i>	-	Native					
Emerald Cascader	<i>Zygonyx iris insignis</i>	-	Native					
Golden Freshwater Clam	<i>Corbicula fluminea</i>	-	Native				++	++
Indigo Dropwing	<i>Trithemis festiva</i>	-	Native					
Red-rimmed Melania	<i>Melanoides tuberculata</i>	-	Introduced					++
Water Strider	<i>Metrocoris sp.</i>	-	-					
	<i>Microvelia sp.</i>	-	-				+	
	<i>Ptilomera tigrina</i>	-	Native					
Yellow Featherleg	<i>Copera marginipes</i>	-	Native					
Total No. of species				1	1	1	5	4
Total No. of Conservation Interest Species				0	0	0	0	0

Appendix L3. Freshwater Fish Species Recorded for Aquatic Fauna Monitoring, 19 October 2023

Common Name	Scientific Name	Conservation Status	Occurrence Status	Date: 19 October 2023										
				Weather: Drizzle										
				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				++		+					
Redbelly Tilapia	<i>Tilapia zillii</i>	-	Introduced											
Total No. of species				0	0	0	1	0	2	0	0	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 (https://www.iucnredlist.org) +: 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: 19 October 2023				
				Weather: Drizzle				
				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					+
Redbelly Tilapia	<i>Tilapia zillii</i>	-	Introduced					+
Total No. of species				0	0	1	0	3
Total No. of Conservation Interest Species				0	0	0	0	1
<p>Note:</p> <p>VU: Vulnerable on IUCN Red List of Threatened Species.</p> <p>Occurrence Status was according to The IUCN Red List of Threatened Species website (https://www.iucnredlist.org)</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, 12 & 18 October 2023

Common Name	Species Name	Chinese Name	Conservation Status	Occurrence Status	Date: 12/10/2023 (T1,6), 18/10/2023 (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	+++		++		++
Domestic Ox	<i>Bos taurus</i>	黃牛		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					5	1	3	1	2
Total No. of Conservation Interest Species					2	1	1	1	1
Total No. of Native Species					2	1	1	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 (https://www.iucnredlist.org)</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, 12 & 18 October 2023

Common Name	Species Name	Chinese Name	Conservation Status	Occurrence Status	Date: 12/10/2023 (T1,6), 18/10/2023 (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	+				
Greenhouse Frog	<i>Eleutherodactylus planirostris</i>	溫室蟾	-	Introduced				+++	
Gunther's Frog	<i>Hylarana guentheri</i>	沼蛙	-	Native	+++	+	+	+	
Ornate Pigmy Frog	<i>Microhyla fissipes</i>	飾紋姬蛙	-	Native	+++				
Marbled Pigmy Frog	<i>Microhyla pulchra</i>	花姬蛙	-	Native	+			+	
Paddy Frog	<i>Fejervarya limnocharis</i>	澤蛙	-	Native	+++				
Spotted Narrow-mouthed Frog	<i>Kalophrynus interlineatus</i>	花細狹口蛙	-	Native	+				
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					+
Garnot's Gecko	<i>Hemidactylus garnotii</i>	鋸尾蜥虎	-	Native	+				
Long-tailed Skink	<i>Eutropis longicaudata</i>	長尾南蜥	-	Native	+				
Red-necked	<i>Rhabdophis subminiatus</i>	紅脖游蛇	-	Native			+		

Keelback	<i>helleri</i>								
Total No. of species					11	2	2	4	3
Total No. of Conservation Interest Species					0	0	0	0	0
Total No. of Native Species					11	2	2	3	3
<p>Note:</p> <p>Occurrence Status was according to The IUCN Red List of Threatened Species website (https://www.iucnredlist.org)</p> <p>(EN): Endangered in Red List of China Vertebrates</p> <p>(NT): Near Threatened in Red List of China Vertebrates</p> <p>+: species recorded within transect routes</p> <p>++: species commonly recorded within transect routes</p> <p>+++: dominant species within transect routes</p>									

Appendix L6. Butterfly Species Recorded Ecologically Sensitive Habitat Monitoring, 12 & 18 October 2023

Common Name	Species Name	Chinese Name	Conservation Status	Occurrence Status*	Date: 12/10/2023 (T1,6), 18/10/2023 (T3,4,5)				
					Relative Abundance				
					Transect Walk				
					T1	T3	T4	T5	T6
Angled Castor	<i>Ariadne ariadne</i>	波蛺蝶		-	++				+
Blue-spotted Crow	<i>Euploea midamus</i>	藍點紫斑蝶		-	++				+
Bush Hopper	<i>Ampittia dioscorides</i>	黃斑弄蝶		-		+	++		
Chestnut Bob	<i>Iambrix salsala</i>	雅弄蝶		-	++				
Chinese Dart	<i>Potanthus confucius</i>	孔子黃室弄蝶		-					+
Colour Sergeant	<i>Athyma nefte</i>	相思帶蛺蝶		-	+				
Common Bluebottle	<i>Graphium sarpedon</i>	青鳳蝶		-	+++			+	
Common Cerulean	<i>Jamides celeno</i>	錫冷雅灰蝶	R	-	+		+		
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 Mapwing	<i>Cyrestis thyodamas</i>	網絲蛺蝶		-	+				
Common Mormon	<i>Papilio polytes</i>	玉帶鳳蝶		-	+++		+++	+	+++
Common Onyx	<i>Horaga onyx</i>	斑灰蝶	R	-	+				
Common Sailer	<i>Neptis hylas</i>	中環蛺蝶		-	++		+	+	
Contiguous Swift	<i>Polytremis lubricans</i>	黃紋孔弄蝶		-	+				+
Danaid Eggfly	<i>Hypolimnas misippus</i>	金斑蛺蝶	LC	-	+				
Dark Brand Bush Brown	<i>Mycalasis mineus</i>	小眉眼蝶		-	+++		+	+	
Fluffy Tit	<i>Zeltus amasa</i>	珍灰蝶		-	+				

Common Name	Species Name	Chinese Name	Conservation Status	Occurrence Status*	Date: 12/10/2023 (T1,6), 18/10/2023 (T3,4,5)				
					Relative Abundance				
					Transect Walk				
					T1	T3	T4	T5	T6
Forget-me-not	<i>Catochrysops strabo strabo</i>	咖灰蝶	VR	-	+		++		
Grass Demon	<i>Udaspes folus</i>	薑弄蝶	R	-			+		
Great Egg-fly	<i>Hypolimnas bolina</i>	幻紫斑蛺蝶		-	+++		+		+
Great Mormon	<i>Papilio memnon</i>	美鳳蝶		-	+		+	+	+
Great Orange Tip	<i>Hebomoia glaucippe</i>	鶴頂粉蝶		-	+				+
Green Flash	<i>Artipe eryx</i>	綠灰蝶		-	+				
Grey Pansy	<i>Junonia atlites</i>	波紋眼蛺蝶		-	+				
Indian Palm Bob	<i>Suastus gremius</i>	素弄蝶		-	++				
Large Faun	<i>Faunis eumeus</i>	串珠環蝶		-	+				
Lemon Emigrant	<i>Catopsilia pomona</i>	遷粉蝶		-	+++		+		++
Long-banded Silverline	<i>Spindasis lohita</i>	銀線灰蝶		-	+				
Metallic Cerulean	<i>Jamides alecto</i>	素雅灰蝶	VR	-	+				
Pale Grass Blue	<i>Pseudozizeeria maha</i>	酢漿灰蝶		-	+		+		+
Paris Peacock	<i>Papilio paris</i>	巴黎翠鳳蝶		-	+++	+			+
Peacock Royal	<i>Tajuria cippus</i>	雙尾灰蝶	R	-	+				
Plain Tiger	<i>Danaus chrysippus</i>	金斑蝶		-		+			
Plum Judy	<i>Abisara echerius</i>	蛇目褐蛺蝶		-	+++	++			
Purple Sapphire	<i>Heliophorus epicles</i>	彩灰蝶		-				+	
Red Helen	<i>Papilio Helenus</i>	玉斑鳳蝶		-					+
Red Ring Skirt	<i>Hestina assimilis</i>	黑脈蛺蝶		-	+				
Slate Flash	<i>Rapala manea</i>	燕灰蝶		-	+	+			

Common Name	Species Name	Chinese Name	Conservation Status	Occurrence Status*	Date: 12/10/2023 (T1,6), 18/10/2023 (T3,4,5)				
					Relative Abundance				
					Transect Walk				
					T1	T3	T4	T5	T6
Small White	<i>Pieris rapae</i>	菜粉蝶	R	-			+		+
South China Bush Brown	<i>Mycalesis mineus</i>	平頂眉眼蝶		-	+	+		+	+
Spangle	<i>Papilio protenor</i>	藍鳳蝶		-	+++			++	+
Staff Sergeant	<i>Athyma selenophora</i>	新月帶蛺蝶		-	+	+			
Tailed Cupid	<i>Everes lacturnus</i>	長尾藍灰蝶		-	+				
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		-	++		++	+	+++
Tiny Grass Blue	<i>Zizula hylax</i>	長腹灰蝶	VR	-	+				
Water Snow Flat	<i>Tagiades litigiousus</i>	沾邊裙弄蝶		-	+		+		
White-edged Blue Baron	<i>Euthalia phemius</i>	尖翅翠蛺蝶		-	+			+	
Yellow Rajah	<i>Charaxes marmax</i>	螯蛺蝶	LC	-	++				
Total No. of species					43	8	16	13	19
Total No. of Conservation Interest Species					7	0	4	0	1
<p>Note:</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> <p>R: Rare (Chan et al. (2011))</p>									

Common Name	Species Name	Chinese Name	Conservation Status	Occurrence Status*	Date: 12/10/2023 (T1,6), 18/10/2023 (T3,4,5)				
					Relative Abundance				
					Transect Walk				
					T1	T3	T4	T5	T6
VR: Very Rare (Chan et al. (2011))									

Appendix L7. Odonata Species Recorded for Ecologically Sensitive Habitat Monitoring, 12 & 18 October 2023

Common Name	Species Name	Chinese Name	Conservation Status	Occurrence Status	Date: 12/10/2023 (T1,6) , 18/10/2023 (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 Bluetail	<i>Ischnura senegalensis</i>	褐斑異痣蟴		Native						+
Common Flangetail	<i>Ictinogomphus pertinax</i>	霸王葉春蜓		Native	+					
Common Red Skimmer	<i>Orthetrum pruinosum</i>	赤褐灰蜻		Native					+	++
Crimson Darter	<i>Crocothemis servilia</i>	紅蜻		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						+
Orange-tailed Sprite	<i>Ceriagrion auranticum</i>	翠胸黃蟴		Native	+				+	+
Pale-spotted Emperor	<i>Anax guttatus</i>	斑偉蜓		Native	+					+
Red-faced Skimmer	<i>Orthetrum chrysis</i>	華麗灰蜻		Native						+
Russet Percher	<i>Neurothemis fulvia</i>	網脈蜻		Native	+					

Common Name	Species Name	Chinese Name	Conservation Status	Occurrence Status	Date: 12/10/2023 (T1,6) , 18/10/2023 (T3,4,5)				
					Relative Abundance				
					Transect Walk				
					T1	T3	T4	T5	T6
Saddlebag Glider	<i>Tramea virginia</i>	華斜痣蜻		Native	+				
Variiegated Flutterer	<i>Rhyothemis variegata</i>	斑麗翅蜻		Native	+++				
Wandering Glider	<i>Pantala flavescens</i>	黃蜻		Native	+++	+	++	+	+++
Total No. of species					11	1	1	3	10
Total No. of Conservation Interest Species					0	0	0	0	0
Total No. of Native Species					11	1	1	3	10
<p>Note:</p> <p>Occurrence Status was according to The IUCN Red List of Threatened Species website (https://www.iucnredlist.org)</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 M
WEATHER CONDITION

**APPENDIX M –
GENERAL WEATHER CONDITIONS DURING THE MONITORING PERIOD**

Date	Mean Air Temperature (°C)	Mean Relative Humidity (%)	Precipitation (mm)
1 October 23	30	77	0
2 October 23	29.5	76	0.4
3 October 23	29.3	78	Trace
4 October 23	30.8	73	0
5 October 23	30.5	58	0
6 October 23	28.3	62	Trace
7 October 23	25.1	74	1.9
8 October 23	24.2	87	92.2
9 October 23	24.5	94	369.7
10 October 23	25.3	83	2.3
11 October 23	25.6	75	0
12 October 23	25.7	72	0
13 October 23	26.7	67	0
14 October 23	26.6	66	0
15 October 23	26.9	72	0.1

Date	Mean Air Temperature (°C)	Mean Relative Humidity (%)	Precipitation (mm)
16 October 23	26.5	70	0
17 October 23	25.8	61	Trace
18 October 23	24.6	85	38.3
19 October 23	25.3	91	27.9
20 October 23	25.9	82	0.2
21 October 23	23.3	76	Trace
22 October 23	24.5	71	Trace
23 October 23	26	77	Trace
24 October 23	26.8	76	0
25 October 23	26.6	80	0
26 October 23	26.2	78	0
27 October 23	26.6	81	0
28 October 23	25.8	85	9.5
29 October 23	25.3	79	3.5
30 October 23	26.1	77	Trace
31 October 23	25.8	70	0

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

**Trace means rainfall less than 0.05 mm.

APPENDIX N
EVENT ACTION PLANS

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

EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
ACTION LEVEL				
1. Exceedance for one sample	<ol style="list-style-type: none"> 1. Identify source, investigate the causes of exceedance and propose remedial measures; 2. Inform IEC,ER and Contractor; 3. Repeat measurement to confirm finding; and 4. Increase monitoring frequency to daily. 	<ol style="list-style-type: none"> 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. 	<ol style="list-style-type: none"> 1. Notify Contractor. 	<ol style="list-style-type: none"> 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	<ol style="list-style-type: none"> 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 	<ol style="list-style-type: none"> 1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET and Contractor on possible remedial measures; 4. Advise the ET and ER on the effectiveness of the proposed remedial measures; and 5. Supervise 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; and 3. Supervise and ensure remedial measures properly implemented. 	<ol style="list-style-type: none"> 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>
<p>LIMIT LEVEL</p>				
<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"> 1. Notify IEC, ER, Contractor and EPD; 2. Identify source; 3. Repeat measurement to confirm findings; 4. Increase monitoring frequency to daily; 5. Carry out analysis of Contractor’s working procedures to determine possible mitigation to be implemented; 6. Arrange meeting with IEC, Contractor and ER to discuss the remedial actions to be taken; 7. Assess effectiveness of Contractor’s remedial actions and keep IEC, EPD and ER informed of the results; 8. If exceedance stops, cease additional monitoring. 	<ol style="list-style-type: none"> 1. Check monitoring data submitted by ET; 2. Check Contractor’s working method; 3. Discuss amongst ER, ET, and Contractor on the potential remedial actions; 4. Review Contractor’s remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly; and 5. Supervise the implementation of remedial measures. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. In consultation with the ET and IEC, agree with the Contractor on the remedial measures to be implemented; 4. Supervise and ensure remedial measures properly implemented; and 5. If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated. 	<ol style="list-style-type: none"> 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; 5. Resubmit proposals if problem still not under control; 6. Stop the relevant portion of works as determined by the ER until the exceedance is abated.

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

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

EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
Action Level	<ol style="list-style-type: none"> 1. Notify IEC, ER and Contractor; 2. Carry out investigation; 3. Report the results of investigation to the IEC, ER and Contractor; 4. Discuss jointly with the Contractor and formulate remedial measures; 5. Increase monitoring frequency to check mitigation effectiveness. 	<ol style="list-style-type: none"> 1. Review the monitoring data submitted by the ET; 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; 3. Supervise the implementation of remedial measures. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of failure in writing; 2. Notify the Contractor; 3. Require Contractor to propose remedial measures for the analysed noise problem; 4. Ensure remedial measures are properly implemented 	<ol style="list-style-type: none"> 1. Submit noise mitigation proposals to ER and copy to the IEC and ET; 2. Implement noise mitigation proposals.
Limit Level	<ol style="list-style-type: none"> 1. Identify source; 2. Inform IEC, ER and Contractor; 3. Repeat measurements to confirm findings; 4. Increase the monitoring frequency; 5. Carry out analysis of Contractor's working procedures with the ER and Contractor to determine possible mitigation to be implemented; 6. Inform IEC, ER and Contractor the causes and actions taken for the exceedances; 	<ol style="list-style-type: none"> 1. Discuss amongst the ER, ET, and Contractor on the potential remedial actions; 2. Review the Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly; 3. Supervise the implementation of remedial measures. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of exceedance in writing; 2. Notify the Contractor; 3. Require the Contractor to propose remedial measures for the analysed noise problem; 4. Ensure remedial measures are properly implemented; 5. If exceedance continues, consider what portion of the work is responsible and instruct the 	<ol style="list-style-type: none"> 1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to the ER and copy to the ET and IEC within 3 working days of notification; 3. Implement the agreed proposals; 4. Resubmit proposals if problems still not under control; 5. Stop the relevant portion of works as

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"> 1. Conduct addition site investigation on the same day; 2. Inform IEC, Contractor and ER; 3. Check monitoring data, all plant, equipment, Contractor's working methods and other relative information; 4. Review proposals on remedial measures submitted by Contractor; 5. Discuss remedial measures with IEC and Contractor and ER; and 6. Review submit proposal and ensure the effectiveness of the implemented mitigation measures. 	<ol style="list-style-type: none"> 1. Discuss with ET, ER and Contractor on the implemented mitigation measures; 2. Review proposals on remedial measures submitted by Contractor and advise the ER accordingly; and 3. Review submit proposal and advise the ET and ER on the Effectiveness of the implemented mitigation measures. 	<ol style="list-style-type: none"> 1. Review proposals on remedial measures submitted by Contractor; 2. Discuss with IEC, ET and Contractor on the Implemented mitigation measures; 3. Make agreement on the remedial measures to be implemented; and 4. Supervise the implementation of agreed remedial measures. 	<ol style="list-style-type: none"> 1. Identify source(s) of impact; 2. Inform the ER and confirm notification of the noncompliance in writing; 3. Rectify unacceptable practice; 4. Check all plant and equipment; 5. Consider changes of working methods; 6. Discuss with ER, ET and IEC and submit proposal of remedial measures to ER and IEC; and 7. Implement the agreed mitigation measures.
Action level being exceeded by more than one consecutive sampling days	<ol style="list-style-type: none"> 1. Conduct addition site investigation on the same day; 2. Inform IEC, Contractor and ER; 3. Check monitoring data, all plant, equipment, 	<ol style="list-style-type: none"> 1. Discuss with ET, Contractor and ER on the implemented mitigation measures; 2. Review the proposed remedial measures submitted by Contractor and advise 	<ol style="list-style-type: none"> 1. Discuss with ET, IEC and Contractor on the proposed mitigation measures; 2. Make agreement on the remedial measures to be implemented; and 	<ol style="list-style-type: none"> 1. Identify source(s) of impact; 2. Inform the ER and confirm notification of the non-compliance in writing; 3. Rectify unacceptable

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"> 1. Conduct addition site investigation on the same day; 2. Inform IEC, contractor and ER; 3. Check monitoring data, all plant, equipment, Contractor's working methods and other relative information; 4. Discuss mitigation measures with IEC, ER and Contractor; and 5. Review the submit proposal and ensure the agreed remedial measures are implemented. 	<ol style="list-style-type: none"> 1. Discuss with ET, Contractor and ER on the implemented mitigation measures; 2. Review the proposed remedial measures submitted by Contractor and advise the ER accordingly; and 3. Review and advise the ET and ER on the effectiveness of the implemented mitigation measures. 	<ol style="list-style-type: none"> 1. Discuss with ET, IEC and Contractor on the implemented remedial measures 2. Request Contractor to critically review the working methods; 3. Make agreement on the remedial measures to be implemented; 4. Discuss with ET and IEC on the effectiveness of the implemented mitigation measures; and 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. 	<ol style="list-style-type: none"> 1. Identify source(s) of impact; 2. Inform the ER and confirm notification of the noncompliance in writing; 3. Rectify Unacceptable practice; 4. Check all plant and equipment and consider changes of working methods; 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 6. Implement the agreed remedial measures. 7. As directed by the ER, to slow down or stop all or part of the dredging activities until no exceedance of Limit level.

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 ₂	<19% v/v	Increase underground ventilation to restore O ₂ to >19% v/v
	<18% v/v	Stop works, evacuate all personnel, prohibit entry, and increase ventilation to restore O ₂ level to >19%
CH ₄	>10% LEL	Prohibit hot works, increase ventilation to restore CH ₄ to <10% LEL
	>20% LEL	Stop works, evacuate all personnel, increase ventilation further to restore CH ₄ to <10% LEL
CO ₂	>0.5% v/v	Increase ventilation to restore C O ₂ to <0.5% v/v
	>1.5% v/v	Stop works, evacuate all personnel, increase ventilation further to restore CO ₂ 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
ACTION LEVEL				
1. Exceedance for one sample	1. Identify source, investigate the causes of exceedance and propose remedial measures; 2. Inform IEC,ER and Contractor; 3. Repeat measurement to confirm finding; and 4. Increase monitoring frequency to daily.	1. Check monitoring data submitted by ET; 2. Check Contractor’s working method; 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.

	actions required; 7. If exceedance continues, arrange meeting with IEC and ER; and 8. If exceedance stops, cease additional monitoring.			
LIMIT LEVEL				
1.Exceedance for one sample	1. 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.	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 measures.	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. 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.
2.Exceedance for two or more consecutive samples	1. Notify IEC, ER, Contractor and EPD; 2. Identify source; 3. Repeat measurement to confirm findings; 4. Increase monitoring frequency to daily; 5. Carry out analysis of Contractor’s working	1. Discuss amongst ER, ET, and Contractor on the potential remedial actions; 2. Review Contractor’s remedial actions whenever necessary to assure	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. In consultation with the ET and IEC, agree with the Contractor on the	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to ER with a copy to ET and IEC within 3 working days of notification;

	<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
AVIFAUNA MONITORING				
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"> 1. Check monitoring data and repeat data analysis to confirm findings; 2. Identify potential source(s) of impact; 3. Immediately inform IEC, Contractor and PP. 4. Discuss with the Contractor on the remedial measure(s) to mitigate the impact(s) identified; 5. Discuss with the PP, IEC, and Contractor on the need for further mitigation measure(s); and 6. Conduct necessary site inspections/audits to ensure all remedial measures are properly 	<ol style="list-style-type: none"> 1. Check monitoring data, analysis and investigation by ET; 2. Discuss with the PP, ET, and Contractor on the need for further mitigation measure(s); 3. Review the effectiveness of the further mitigation measure(s) proposed and implemented by Contractor and advise the PP accordingly; 4. Review the remedial measure(s) proposed by the Contractor and advise the PP accordingly; and 5. Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP and 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of the exceedance of Limit Level in writing; 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 3. Propose and implement the remedial measures(s) to mitigate the impact(s) identified. 	<ol style="list-style-type: none"> 1. Check the monitoring results and findings from ET and IEC; 2. Discuss the need for increased site inspection and audit frequency proposed by ET with IEC and the Contractor; 3. Discuss and confirm the further mitigation measure(s) required with the ET, IEC, and Contractor; and 4. Supervise the instigated further mitigation measure(s).

	implemented by the Contractor, as agreed with the PP.	feedback the audit results to the PP.		
General Site Inspection				
Action Level exceeded.	<ol style="list-style-type: none"> Investigate if the activity identified is related to the construction works; Immediately inform IEC, Contractor and PP. Discuss with the Contractor on the remedial measure(s) to mitigate the impact(s) identified; and Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP. 	<ol style="list-style-type: none"> Check the investigation and findings of the ET; Review the remedial measure(s) proposed by the Contractor and advise the PP accordingly; and 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. 	<ol style="list-style-type: none"> Confirm receipt of notification of the exceedance of Action Level in writing; and Propose and implement the remedial measures(s) to mitigate the impact(s) of the activity identified. 	<ol style="list-style-type: none"> Check the investigation and findings of the ET and IEC; Discuss the need for increased site inspection/audit frequency proposed by ET with IEC and the Contractor; and Supervise the instigated further mitigation measure(s).
Limit Level exceeded	<ol style="list-style-type: none"> Investigate if the activity identified is related to the construction works; 	<ol style="list-style-type: none"> Check the investigation and findings or the ET; Discuss with the PP, 	<ol style="list-style-type: none"> Confirm receipt of notification of the exceedance of Limit Level in writing; 	<ol style="list-style-type: none"> Check the monitoring results and findings from ET and IEC; Discuss the need for

	<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
Construction Phase				
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"> 1. Check monitoring data and repeat data analysis to confirm findings; 2. Identify potential source(s) of impact; 3. Immediately inform IEC, Contractor and PP. 4. Discuss with the Contractor on the remedial measure(s) to mitigate the impact(s) identified; 5. Discuss with the PP, IEC, and Contractor on the need for further mitigation measure(s); and 6. Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP. 	<ol style="list-style-type: none"> 1. Check monitoring data, analysis and investigation by ET; 2. Discuss with the PP, ET, and Contractor on the need for further mitigation measure(s); 3. Review the effectiveness of the further mitigation measure(s) proposed and implemented by Contractor and advise the PP accordingly; 4. Review the remedial measure(s) proposed by the Contractor and advise the PP accordingly; and 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. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of the exceedance of Limit Level in writing; 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 3. Propose and implement the remedial measures(s) to mitigate the impact(s) identified. 	<ol style="list-style-type: none"> 1. Check the monitoring results and findings from ET and IEC; 2. Discuss the need for increased site inspection and audit frequency proposed by ET with IEC and the Contractor; 3. Discuss and confirm the further mitigation measure(s) required with the ET, IEC, and Contractor; and 4. Supervise the instigated further mitigation measure(s).
<p>Operational Phase</p>				
<p>Action Level</p>	<ol style="list-style-type: none"> 1. Check monitoring 	<ol style="list-style-type: none"> 1. Check monitoring 	<ol style="list-style-type: none"> 1. Confirm receipt of 	<ol style="list-style-type: none"> 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>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"> 1. Check monitoring data and repeat data analysis to confirm findings; 2. Identify potential source(s) of impact; 3. Immediately inform IEC, Contractor and PP. 4. Discuss with the Contractor on the remedial measure(s) to mitigate the impact(s) identified; 5. Discuss with the PP, IEC, and Contractor on the need for further mitigation measure(s); and 6. Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP. 	<ol style="list-style-type: none"> 1. Check monitoring data, analysis and investigation by ET; 2. Discuss with the PP, ET, and Contractor on the need for further mitigation measure(s); 3. Review the effectiveness of the further mitigation measure(s) proposed and implemented by Contractor and advise the PP accordingly; 4. Review the remedial measure(s) proposed by the Contractor and advise the PP accordingly; and 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. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of the exceedance of Limit Level in writing; 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 3. Propose and implement the remedial measures(s) to mitigate the impact(s) identified. 	<ol style="list-style-type: none"> 1. Check the monitoring results and findings from ET and IEC; 2. Discuss the need for increased site inspection and audit frequency proposed by ET with IEC and the Contractor; 3. Discuss and confirm the further mitigation measure(s) required with the ET, IEC, and Contractor; and 4. Supervise the instigated further mitigation measure(s).
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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
Construction Phase				
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"> 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; 6. Discuss with the PP, IEC, and Contractor on the need for further mitigation measure(s); and 	<ol style="list-style-type: none"> 1. Check monitoring data, analysis and investigation by ET; 2. Discuss with the PP, ET, and Contractor on the need for further mitigation measure(s); 3. Review the effectiveness of the further mitigation measure(s) proposed and implemented by Contractor and advise the PP accordingly; 4. Review the remedial measure(s) proposed by the Contractor and advise the PP accordingly; and 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 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of the exceedance of Limit Level in writing; 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 3. Propose and implement the remedial measures(s) to mitigate the impact(s) identified. 	<ol style="list-style-type: none"> 1. Check the monitoring results and findings from ET and IEC; 2. Discuss the need for increased site inspection and audit frequency proposed by ET with IEC and the Contractor; 3. Discuss and confirm the further mitigation measure(s) required with the ET, IEC, and Contractor; and 4. Supervise the instigated further mitigation measure(s).

	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.		
Operational Phase				
Action Level exceeded.	<ol style="list-style-type: none"> 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; 	<ol style="list-style-type: none"> 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. 	<ol style="list-style-type: none"> 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. 	<ol style="list-style-type: none"> 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).

	<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
Construction Phase				
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>
Operational Phase				

<p>Action Level exceeded.</p>	<ol style="list-style-type: none"> 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 implemented by the Contractor, as agreed with the PP. 	<ol style="list-style-type: none"> 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. 	<ol style="list-style-type: none"> 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. 	<ol style="list-style-type: none"> 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).
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<p>Limit Level exceeded.</p>	<ol style="list-style-type: none"> 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; 6. Discuss with the PP, IEC, and Contractor on the need for further mitigation measure(s); and 7. Conduct necessary 	<ol style="list-style-type: none"> 1. Check monitoring data, analysis and investigation by ET; 2. Discuss with the PP, ET, and Contractor on the need for further mitigation measure(s); 3. Review the effectiveness of the further mitigation measure(s) proposed and implemented by Contractor and advise the PP accordingly; 4. Review the remedial measure(s) proposed by the Contractor and advise the PP accordingly; and 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. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of the exceedance of Limit Level in writing; 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 3. Propose and implement the remedial measures(s) to mitigate the impact(s) identified. 	<ol style="list-style-type: none"> 1. Check the monitoring results and findings from ET and IEC; 2. Discuss the need for increased site inspection and audit frequency proposed by ET with IEC and the Contractor; 3. Discuss and confirm the further mitigation measure(s) required with the ET, IEC, and Contractor; and 4. Supervise the instigated further mitigation measure(s).

	site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP.			
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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
Construction Phase				
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.	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	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).

	<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>		
Operational Phase				
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

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	0	0	0
	Turbidity	0	0	0	0
	SS	0	0	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 ₂ (% v/v) CH ₄ (% LEL) CO ₂ (% 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

(F) Exceedance Report for Ecological 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
Ecological	Avifauna	0	0	0	0
	Aquatic Fauna	0	1	0	0
	Non-Aquatic Fauna	6	4	0	0
	General Site Inspection (LVNP)	0	0	0	0

APPENDIX P
SITE AUDIT SUMMARY

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	231003
Date	3 October 2023 (Tuesday)
Time	10:30 – 11:30

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Air Quality	
	• No environmental deficiency was identified during site inspection.	
	C. Noise	
	• No environmental deficiency was identified during site inspection.	
	D. Water Quality	
231003-R01a	• Enhance the adequacy of water pump usage.	D 6, D 13i
231003-R01b	• Barricade with geotextile should be installed surrounding the channels at RC3.	D 4
231003-R01c	• The capacity of temporary sedimentation pond should be increased.	D 5iii
231003-R02	• Enhance the trench surrounding the site at Pak Shek Au to prevent muddy runoff discharge.	D 1, D 2i
	E. Waste / Chemical Management	
	• No environmental deficiency was identified during site inspection.	
	F. Land Contamination	
	• No environmental deficiency was identified during site inspection.	
	G. Landfill Gas Hazard	
	• No environmental deficiency was identified during site inspection.	
	H. Cultural Heritage	
	• No environmental deficiency was identified during site inspection.	
	I. Landscape and Visual	
	• No environmental deficiency was identified during site inspection.	
	J. Ecology	
	• No environmental deficiency was identified during site inspection.	
	K. Permits/Licences	
	• No environmental deficiency was identified during site inspection.	
	L. Others	
	<ul style="list-style-type: none"> • Follow-up on previous audit section (Ref. No.:230926), item no. 230926-R01 was partially observed improved/rectified by the Contractor, the outstanding parts were remarked as 231003-R01a to R01c for easy reference. Item no. 230926-R02 and 230926-R03 were observed improved/rectified by the Contractor during the site inspection. • Muddy water overflow and discharge from the other site (SFK) towards the haul road near RC3 was observed during the site inspection. 	

	Name	Signature	Date
Recorded by	Marco Ma		3 October 2023
Checked by	Dr. Priscilla Choy		3 October 2023

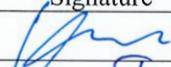
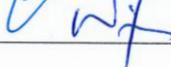
Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas

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

Weekly Site Inspection Record Summary

Checklist Reference Number	231011
Date	11 October 2023 (Wednesday)
Time	14:00 – 15:30

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Air Quality	
	• No environmental deficiency was identified during site inspection.	
	C. Noise	
	• No environmental deficiency was identified during site inspection.	
	D. Water Quality	
231011-R01	• Review the capacity of the sump pit at Portion 9b.	D 5iii
231011-R02	• Mitigation measures rectification works at RC2 and RC3 were noted. The performance and efficiency of these works will be kept in view in future inspections.	D 2i, D 13i
	E. Waste / Chemical Management	
	• No environmental deficiency was identified during site inspection.	
	F. Land Contamination	
	• No environmental deficiency was identified during site inspection.	
	G. Landfill Gas Hazard	
	• No environmental deficiency was identified during site inspection.	
	H. Cultural Heritage	
	• No environmental deficiency was identified during site inspection.	
	I. Landscape and Visual	
	• No environmental deficiency was identified during site inspection.	
	J. Ecology	
	• No environmental deficiency was identified during site inspection.	
	K. Permits/Licences	
	• No environmental deficiency was identified during site inspection.	
	L. Others	
	• Follow-up on previous audit section (Ref. No.:231003), item no. 231003-R01a, 231003-R01b and 231003-R01c were observed improved but still in doubt with their performance and efficiency. Item was remarked as 231011-R02. Follow-up action is needed to be reviewed. Item no. 231003-R02 was observed improved/rectified by the Contractor during the site inspection.	

	Name	Signature	Date
Recorded by	Marco Ma		11 October 2023
Checked by	Dr. Priscilla Choy		11 October 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	231017
Date	17 October 2023 (Tuesday)
Time	09:30 – 12:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Air Quality	
	• No environmental deficiency was identified during site inspection.	
	C. Noise	
	• No environmental deficiency was identified during site inspection.	
	D. Water Quality	
231017-R01	• Mitigation measures rectification works at RC2 and RC3 were noted. The performance and efficiency of these works will be kept in view in future inspections.	D(2i, 13i)
231017-R02	• Temporary drainage were blocked by concrete paving. Contractor are reminded to remove such paving and ensure the proper function of temporary drainage system.	D(2i ,13i)
	E. Waste / Chemical Management	
	• No environmental deficiency was identified during site inspection.	
	F. Land Contamination	
	• No environmental deficiency was identified during site inspection.	
	G. Landfill Gas Hazard	
	• No environmental deficiency was identified during site inspection.	
	H. Cultural Heritage	
	• No environmental deficiency was identified during site inspection.	
	I. Landscape and Visual	
	• No environmental deficiency was identified during site inspection.	
	J. Ecology	
	• No environmental deficiency was identified during site inspection.	
	K. Permits/Licences	
	• No environmental deficiency was identified during site inspection.	
	L. Others	
	• Follow-up on previous audit section (Ref. No.:231011), item no. 231011-R02, were observed improved but still in doubt with their performance and efficiency. Item was remarked as 231017-R01. Follow-up action is needed to be reviewed. Item no. 231011-R01 was observed improved/rectified by the Contractor during the site inspection.	

	Name	Signature	Date
Recorded by	Adrian Lam		20 October 2023
Checked by	Dr. Priscilla Choy		20 October 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	231024
Date	24 October 2023 (Tuesday)
Time	09:30 – 11:30

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Air Quality	
231024-O01	<ul style="list-style-type: none"> No enclosure on 3 sides and top shelter was provided for the dusty (cement) generation works and no cover for the temporary storage of cement bags at Portion 8A. The Contractor was reminded to provide appropriate dust suppression measures for these works. 	B14
231024-R01	<ul style="list-style-type: none"> The sediment at the paved haul road should be cleared (Portion 1B). 	B20
231024-R02	<ul style="list-style-type: none"> The bare soil next to the nullah at Portion 1B should be properly covered with tarpaulin sheet. 	B2
231024-R03	<ul style="list-style-type: none"> The inactive exposed slope at Pak Shek Au should be properly covered with tarpaulin sheet. 	B2
	C. Noise	
	<ul style="list-style-type: none"> No environmental deficiency was identified during site inspection. 	
	D. Water Quality	
231024-R02	<ul style="list-style-type: none"> The bare soil next to the nullah at Portion 1B should be properly covered with tarpaulin sheet. 	D7
231024-R03	<ul style="list-style-type: none"> The inactive exposed slope at Pak Shek Au should be properly covered with tarpaulin sheet. 	D7
231024-R04	<ul style="list-style-type: none"> The deposited sediment at the drainage channel at RC3 should be regularly cleared. 	D6
	E. Waste / Chemical Management	
	<ul style="list-style-type: none"> No environmental deficiency was identified during site inspection. 	
	F. Land Contamination	
	<ul style="list-style-type: none"> No environmental deficiency was identified during site inspection. 	
	G. Landfill Gas Hazard	
	<ul style="list-style-type: none"> No environmental deficiency was identified during site inspection. 	
	H. Cultural Heritage	
	<ul style="list-style-type: none"> No environmental deficiency was identified during site inspection. 	
	I. Landscape and Visual	
	<ul style="list-style-type: none"> No environmental deficiency was identified during site inspection. 	
	J. Ecology	
	<ul style="list-style-type: none"> No environmental deficiency was identified during site inspection. 	
	K. Permits/Licences	
	<ul style="list-style-type: none"> No environmental deficiency was identified during site inspection. 	
	L. Others	
	<ul style="list-style-type: none"> Follow-up on previous audit section (Ref. No.:231017), all environmental deficiencies have been improved/ rectified by the contractor. The effectiveness of the mitigation measures will be checked in the upcoming site inspection subject to the change of the site condition. 	

	Name	Signature	Date
Recorded by	Ivy Tam		24 October 2023
Checked by	Dr. Priscilla Choy		24 October 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	231031
Date	31 October 2023 (Tuesday)
Time	09:30 – 11:30

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Air Quality	
231031-O01	• Dusty debris was observed at 9b site exit. Contractor was reminded to clean it ASAP.	B9
231031-R02	• Cover the temporary storage of cement bags at Pak Shek Au.	B14
	C. Noise	
	• No environmental deficiency was identified during site inspection.	
	D. Water Quality	
	• No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
231031-R01	• Provide drip tray for the chemical/fuel containers at Portion 8A.	E14
	F. Land Contamination	
	• No environmental deficiency was identified during site inspection.	
	G. Landfill Gas Hazard	
	• No environmental deficiency was identified during site inspection.	
	H. Cultural Heritage	
	• No environmental deficiency was identified during site inspection.	
	I. Landscape and Visual	
	• No environmental deficiency was identified during site inspection.	
	J. Ecology	
	• No environmental deficiency was identified during site inspection.	
	K. Permits/Licences	
	• No environmental deficiency was identified during site inspection.	
	L. Others	
	• Follow-up on previous audit section (Ref. No.:231024), all environmental deficiencies have been improved/ rectified by the contractor.	

	Name	Signature	Date
Recorded by	Him Ng		31 October 2023
Checked by	Dr. Priscilla Choy		31 October 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	231004
Date	4 October 2023 (Wednesday)
Time	09:30 – 10:45

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Air Quality	
	• No environmental deficiency was identified during site inspection.	
	C. Construction Noise Impact	
	• No environmental deficiency was identified during site inspection.	
	D. Water Quality	
231004-R03	• Collected waste water should be properly diverted to waste water treatment facilities.	D 6
231004-R04	• Water mitigation measures should be provided to prevent material from the stockpile from falling into Shek Sheung River.	D (3 , 7)
231004-R05	• Vehicles should be properly cleaned before leaving the site.	D 11
	E. Waste / Chemical Management	
	• No environmental deficiency was identified during site inspection.	
	F. Cultural Heritage	
	• No environmental deficiency was identified during site inspection.	
	G. Landscape and Visual	
231004-R01	• The removed green hoarding along Sheung Yue River due to the construction works should be replaced and maintained properly as soon as possible.	G 2
	H. Ecology	
231004-R02	• The silt curtain under the bridge should be maintained properly.	H 4
	I. Permits/Licences	
	• No environmental deficiency was identified during site inspection.	
	L. Others	
	• Follow-up on previous audit section (Ref. No.:230927), item no. 230927-R01, 230927-R03 and 230927-R04 were remarked as 231004-R01, 231004-R02 and 231004-R03 respectively. Follow-up actions are needed to be reviewed.	

	Name	Signature	Date
Recorded by	Adrian Lam		4 October 2023
Checked by	Dr. Priscilla Choy		4 October 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	231011
Date	11 October 2023 (Wednesday)
Time	09:30 – 11:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Air Quality	
	• No environmental deficiency was identified during site inspection.	
	C. Construction Noise Impact	
	• No environmental deficiency was identified during site inspection.	
	D. Water Quality	
231011-R03	• Collected waste water should be properly diverted to waste water treatment facilities.	D 6
231011-R04	• Vehicles should be properly cleaned before leaving the site.	D 11
	E. Waste / Chemical Management	
	• No environmental deficiency was identified during site inspection.	
	F. Cultural Heritage	
	• No environmental deficiency was identified during site inspection.	
	G. Landscape and Visual	
231011-R01	• The removed green hoarding along Sheung Yue River due to the construction works should be replaced and maintained properly as soon as possible.	G 2
	H. Ecology	
231011-R02	• Small gap between the silt curtains should be covered by geotextile.	H 4
	I. Permits/Licences	
	• No environmental deficiency was identified during site inspection.	
	L. Others	
	• Follow-up on previous audit section (Ref. No.:231004), item no. 231004-R02 and 231004-R04 were improved/ rectified by Contractor. Item no. 231004-R01, 231004-R03 and 231004-R05 were remarked as 231011-R01, 231011-R03 and 231011-R04 respectively. Follow-up actions are needed to be reviewed.	

	Name	Signature	Date
Recorded by	Him Ng		11 October 2023
Checked by	Dr. Priscilla Choy		11 October 2023

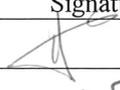
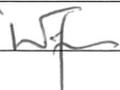
Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas

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	231018
Date	18 October 2023 (Wednesday)
Time	09:30 – 11:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Air Quality	
	• No environmental deficiency was identified during site inspection.	
	C. Construction Noise Impact	
	• No environmental deficiency was identified during site inspection.	
	D. Water Quality	
231018-R03	• Collected waste water should be properly diverted to waste water treatment facilities.	D 6
231018-R04	• Accumulated muddy silt were observed under wastewater treatment facilities. Contractor are reminded to provide water mitigation measures to ensure that there are no muddy runoff discharge into Sheung Yue River.	D 3
	E. Waste / Chemical Management	
	• No environmental deficiency was identified during site inspection.	
	F. Cultural Heritage	
	• No environmental deficiency was identified during site inspection.	
	G. Landscape and Visual	
231018-R01	• The removed green hoarding along Sheung Yue River due to the construction works should be replaced and maintained properly as soon as possible.	G 2
	H. Ecology	
231018-R02	• Small gap between the silt curtains should be covered by geotextile.	H 4
	I. Permits/Licences	
	• No environmental deficiency was identified during site inspection.	
	L. Others	
	• Follow-up on previous audit section (Ref. No.:231011), item no. 231011-R02 and 231011-R04 were improved/ rectified by Contractor. Item no. 231011-R01, 231011-R03 and 231011-R05 were remarked as 231018-R01, 231018-R03 and 231018-R04 respectively. Follow-up actions are needed to be reviewed.	

	Name	Signature	Date
Recorded by	Adrian Lam		20 October 2023
Checked by	Dr. Priscilla Choy		20 October 2023

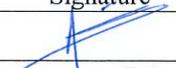
Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas

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	231027
Date	27 October 2023 (Friday)
Time	14:00 – 15:20

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	<i>B. Air Quality</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>C. Construction Noise Impact</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>D. Water Quality</i>	
231027-R02	• Contractor was reminded to enhance the existing mitigation measures to prevent muddy discharge outside of site boundary at the exit next to the cycling track.	D 3
231027-R04	• Wheel-washing facilities should be provided and used at vehicle exits at Ho Sheung Heung and Dills Corner site area to ensure that vehicles are cleaned before leaving the site.	D 11, 12i
	<i>E. Waste / Chemical Management</i>	
231027-R03	• Contractor was reminded to clear the chemical spillage.	E 13
	<i>F. Cultural Heritage</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>G. Landscape and Visual</i>	
231027-R01	• The removed green hoarding along Sheung Yue River due to the construction works should be replaced and maintained properly as soon as possible.	G 2
	<i>H. Ecology</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>I. Permits/Licences</i>	
231027-R05	• The Environmental permit should be displayed on site at Dills Corner site area.	I 5
	<i>L. Others</i>	
	• Follow-up on previous audit section (Ref. No.:231018), item no. 231018-R02, 231018-R03 and 231018-R04 were improved/ rectified by Contractor. Item no. 231018-R01 was remarked as 231027-R01. Follow-up actions are needed to be reviewed.	

	Name	Signature	Date
Recorded by	Adrian Lam		28 October 2023
Checked by	Dr. Priscilla Choy		28 October 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	231006
Date	6 October 2023 (Friday)
Time	10:00 – 11:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Air Quality	
231006-R01	• Dusty stockpiles should be covered with tarpaulin sheets.	B 2
	C. Construction Noise Impact	
	• No environmental deficiency was identified during site inspection.	
	D. Water Quality	
231006-O01	• Provide adequate wheel-washing facilities for each vehicle exits.	D 12 (i, ii, iv, v)
	E. Waste / Chemical Management	
	• No environmental deficiency was identified during site inspection.	
	F. Landscape & Visual	
	• No environmental deficiency was identified during site inspection.	
	G. Ecology	
	• No environmental deficiency was identified during site inspection.	
	H. Permits/Licences	
	• No environmental deficiency was identified during site inspection.	
	I. Others	
	Follow-up on previous audit section (Ref. No.:230929), item no. 230929-R02 was improved by the Contractor. Item no. 230929-R01 and 230929-O01 were remarked as 231006-R01 and 231006-O01 respectively. Follow-up actions need to be reviewed.	

	Name	Signature	Date
Recorded by	Him Ng		6 October 2023
Checked by	Dr. Priscilla Choy		6 October 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	231013
Date	13 October 2023 (Friday)
Time	09:30 – 10:30

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Air Quality	
231013-R01	• Dusty stockpiles should be covered with tarpaulin sheets.	B 2
	C. Construction Noise Impact	
	• No environmental deficiency was identified during site inspection.	
	D. Water Quality	
231013-O01	• Provide adequate wheel-washing facilities for each vehicle exits.	D 12 (i, ii, iv, v)
	E. Waste / Chemical Management	
	• No environmental deficiency was identified during site inspection.	
	F. Landscape & Visual	
	• No environmental deficiency was identified during site inspection.	
	G. Ecology	
	• No environmental deficiency was identified during site inspection.	
	H. Permits/Licences	
	• No environmental deficiency was identified during site inspection.	
	I. Others	
	Follow-up on previous audit section (Ref. No.:231006),item no. 231006-R01 and 231006-O01 were remarked as 231013-R01 and 231013-O01 respectively. Follow-up actions need to be reviewed.	

	Name	Signature	Date
Recorded by	Him Ng		13 October 2023
Checked by	Dr. Priscilla Choy		13 October 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	231017
Date	17 October 2023 (Tuesday)
Time	14:00 – 15:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	<i>B. Air Quality</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>C. Construction Noise Impact</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>D. Water Quality</i>	
231017-001	• Provide adequate wheel-washing facilities for each vehicle exits.	D 12 (i, ii, iv, v)
	<i>E. Waste / Chemical Management</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>F. Landscape & Visual</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>G. Ecology</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>H. Permits/Licences</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>I. Others</i>	
	Follow-up on previous audit section (Ref. No.:231013),item no. 231013-R01 was improved/rectified by the Contractor. Item no. 231013-001 was remarked as 231017-001. Follow-up actions need to be reviewed.	

	Name	Signature	Date
Recorded by	Him Ng		19 October 2023
Checked by	Dr. Priscilla Choy		19 October 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	231027
Date	27 October 2023 (Friday)
Time	10:00 – 11:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Air Quality	
	• No environmental deficiency was identified during site inspection.	
	C. Construction Noise Impact	
	• No environmental deficiency was identified during site inspection.	
	D. Water Quality	
	• No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	• No environmental deficiency was identified during site inspection.	
	F. Landscape & Visual	
	• No environmental deficiency was identified during site inspection.	
	G. Ecology	
	• No environmental deficiency was identified during site inspection.	
	H. Permits/Licences	
	• No environmental deficiency was identified during site inspection.	
	I. Others	
	Follow-up on previous audit section (Ref. No.:231017),item no. 231017-O01 was improved/rectified by the Contractor.	

	Name	Signature	Date
Recorded by	Him Ng		28 October 2023
Checked by	Dr. Priscilla Choy		28 October 2023

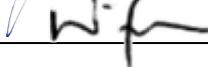
Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas

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	231005
Date	5 October 2023 (Thursday)
Time	14:00 – 15:30

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Air Quality	
231005-R03	• Dusty stockpile should be covered by impervious sheeting or sprayed with water.	B 2
231005-R05	• More than 20 bags of cement should be covered properly.	B 14
	C. Noise	
231005-R02	• Noise barrier should be maintained properly.	C 6
	D. Water Quality	
231005-R01	• All vehicles should be cleaned of earth, mud and debris before leaving the site.	D 11
	E. Waste / Chemical Management	
231005-R04	• Drip trays should be provided with adequate capacity.	E 14
	F. Cultural Heritage	
	• No environmental deficiency was identified during site inspection.	
	G. Landscape and Visual	
	• No environmental deficiency was identified during site inspection.	
	H. Ecology	
	• No environmental deficiency was identified during site inspection.	
	I. Permits/Licences	
	• No environmental deficiency was identified during site inspection.	
	J. Others	
	Follow-up on previous audit section (Ref. No.: 230928), item on. 230928-R02, 230928-R04 and 230928-R05 were observed improved/rectified by the Contractor during the site inspection. Item no. 230928-R01 and 230928-R03 were remarked as 231005-R01 and 231005-R02 respectively. Follow-up actions are needed to be reviewed.	

	Name	Signature	Date
Recorded by	Marco Ma		5 October 2023
Checked by	Dr. Priscilla Choy		5 October 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	231012
Date	12 October 2023 (Thursday)
Time	14:00 – 15:30

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Air Quality	
	• No environmental deficiency was identified during site inspection.	
	C. Noise	
231012-R02	• Noise barrier should be maintained properly.	C 6
	D. Water Quality	
231012-R01	• Wheel washing facilities should be provided at every site exit.	D 12i
	E. Waste / Chemical Management	
	• No environmental deficiency was identified during site inspection.	
	F. Cultural Heritage	
	• No environmental deficiency was identified during site inspection.	
	G. Landscape and Visual	
	• No environmental deficiency was identified during site inspection.	
	H. Ecology	
	• No environmental deficiency was identified during site inspection.	
	I. Permits/Licences	
	• No environmental deficiency was identified during site inspection.	
	J. Others	
	Follow-up on previous audit section (Ref. No.: 231005), item no. 231005-R03, 231005-R04 and 231005-R05 were observed improved/rectified by the Contractor during the site inspection. Item no. 231005-R01 and 231005-R02 were remarked as 231012-R01 and 231012-R02 respectively. Follow-up actions are needed to be reviewed.	

	Name	Signature	Date
Recorded by	Marco Ma		12 October 2023
Checked by	Dr. Priscilla Choy		12 October 2023

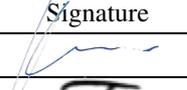
Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas

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	231018
Date	18 October 2023 (Wednesday)
Time	14:00 – 15:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Air Quality	
	• No environmental deficiency was identified during site inspection.	
	C. Noise	
231018-R02	• Noise barrier should be maintained properly.	C 6
	D. Water Quality	
231018-R01	• Wheel washing facilities should be provided at every site exit.	D 12i
231018-R03	• Mitigation measures should be enhanced to avoid surface runoff discharge into Ng Tung River.	D 3
	E. Waste / Chemical Management	
	• No environmental deficiency was identified during site inspection.	
	F. Cultural Heritage	
	• No environmental deficiency was identified during site inspection.	
	G. Landscape and Visual	
	• No environmental deficiency was identified during site inspection.	
	H. Ecology	
	• No environmental deficiency was identified during site inspection.	
	I. Permits/Licences	
	• No environmental deficiency was identified during site inspection.	
	J. Others	
	Follow-up on previous audit section (Ref. No.: 231012), item no. 231012-R01 and 231012-R02 were remarked as 231018-R01 and 231018-R02 respectively. Follow-up actions are needed to be reviewed.	

	Name	Signature	Date
Recorded by	Marco Ma		18 October 2023
Checked by	Dr. Priscilla Choy		18 October 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	231026
Date	26 October 2023 (Thursday)
Time	14:00 – 15:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Air Quality	
	• No environmental deficiency was identified during site inspection.	
	C. Noise	
231026-R02	• Noise barrier should be maintained properly.	C 6
	D. Water Quality	
231026-R01	• Wheel washing facilities should be provided at every site exit.	D 12i
231026-R03	• Mitigation measures should be enhanced to avoid surface runoff discharge into Ng Tung River.	D 3
	E. Waste / Chemical Management	
231026-R04	• General refuse should be disposed of regularly and properly.	E 1iii
	F. Cultural Heritage	
	• No environmental deficiency was identified during site inspection.	
	G. Landscape and Visual	
	• No environmental deficiency was identified during site inspection.	
	H. Ecology	
	• No environmental deficiency was identified during site inspection.	
	I. Permits/Licences	
	• No environmental deficiency was identified during site inspection.	
	J. Others	
	Follow-up on previous audit section (Ref. No.: 231018), item no. 231018-R01, 231018-R02 and 231018-R03 were remarked as 231026-R01, 231026-R02 and 231026-R03 respectively. Follow-up actions are needed to be reviewed.	

	Name	Signature	Date
Recorded by	Marco Ma		26 October 2023
Checked by	Dr. Priscilla Choy		26 October 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	231003
Date	3 October 2023 (Tuesday)
Time	14:00 – 15:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Air Quality	
	• No environmental deficiency was identified during site inspection.	
	C. Noise	
	• No environmental deficiency was identified during site inspection.	
	D. Water Quality	
	• No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
231003-R01	• Drip tray for the chemical/fuel containers should be provided at Portion 2.	E 14
	F. Cultural Heritage	
	• No environmental deficiency was identified during site inspection.	
	G. Landscape and Visual	
	• No environmental deficiency was identified during site inspection.	
	H. Ecology	
	• No environmental deficiency was identified during site inspection.	
	I. Permits/Licences	
	• No environmental deficiency was identified during site inspection.	
	J. Others	
	• Follow-up on previous audit section (Ref. No.: 230926), item no. 230926-R01 was observed improved/rectified by the Contractor during the site inspection.	

	Name	Signature	Date
Recorded by	Marco Ma		3 October 2023
Checked by	Dr. Priscilla Choy		3 October 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	231010
Date	10 October 2023 (Tuesday)
Time	14:00 – 15:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	<i>B. Air Quality</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>C. Noise</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>D. Water Quality</i>	
231010-R03	• Provide maintenance of impervious sheeting for the exposed slope at Portion 3.	D 7
	<i>E. Waste / Chemical Management</i>	
231010-R01	• Provide drip tray for chemical/ fuel containers at Portion 3.	E 14
231010-R02	• Keep clean and tidy at portion 3.	E 12
	<i>F. Cultural Heritage</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>G. Landscape and Visual</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>H. Ecology</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>I. Permits/Licences</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>J. Others</i>	
	• Follow-up on previous audit section (Ref. No.: 231003), item no. 231003-R01 was observed improved/rectified by the Contractor during the site inspection.	

	Name	Signature	Date
Recorded by	Him Ng		11 October 2023
Checked by	Dr. Priscilla Choy		11 October 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	231019
Date	19 October 2023 (Thursday)
Time	09:00 – 11:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Air Quality	
231019-R02	• Faded NRMM label on the generator located at E2-02 should be replaced.	B 24
	C. Noise	
	• No environmental deficiency was identified during site inspection.	
	D. Water Quality	
231019-R03	• Drainage management of the E2-02 exit should be enhanced to avoid surface runoff discharge into inappropriate watercourse.	D 2i
	E. Waste / Chemical Management	
231019-R01	• Keep clean and tidy at Portion 3.	E 12
	F. Cultural Heritage	
	• No environmental deficiency was identified during site inspection.	
	G. Landscape and Visual	
	• No environmental deficiency was identified during site inspection.	
	H. Ecology	
	• No environmental deficiency was identified during site inspection.	
	I. Permits/Licences	
	• No environmental deficiency was identified during site inspection.	
	J. Others	
	• Follow-up on previous audit section (Ref. No.: 231010), item no. 231010-R02 was remarked as 231019-R01. Follow-up action is needed to be review.	

	Name	Signature	Date
Recorded by	Marco Ma		19 October 2023
Checked by	Dr. Priscilla Choy		19 October 2023

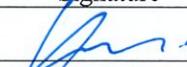
Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas

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	231024
Date	24 October 2023 (Tuesday)
Time	14:00 – 15:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Air Quality	
231024-R02	<ul style="list-style-type: none"> Dusty stockpile should be covered properly, or removed from the area near the exit of E2-02. 	B 2
	C. Noise	
	<ul style="list-style-type: none"> No environmental deficiency was identified during site inspection. 	
	D. Water Quality	
231024-R03	<ul style="list-style-type: none"> Drainage management of the E2-02 exit should be enhanced to avoid surface runoff discharge into inappropriate watercourse. 	D 2i
	E. Waste / Chemical Management	
231024-R01	<ul style="list-style-type: none"> Keep clean and tidy at Portion 3. 	E 12
	F. Cultural Heritage	
	<ul style="list-style-type: none"> No environmental deficiency was identified during site inspection. 	
	G. Landscape and Visual	
	<ul style="list-style-type: none"> No environmental deficiency was identified during site inspection. 	
	H. Ecology	
	<ul style="list-style-type: none"> No environmental deficiency was identified during site inspection. 	
	I. Permits/Licences	
	<ul style="list-style-type: none"> No environmental deficiency was identified during site inspection. 	
	J. Others	
	<ul style="list-style-type: none"> Follow-up on previous audit section (Ref. No.: 231019), item no. 231019-R02 was observed improved/rectified by the Contractor during the site inspection. 	

	Name	Signature	Date
Recorded by	Marco Ma		25 October 2023
Checked by	Dr. Priscilla Choy		25 October 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	231030
Date	30 October 2023 (Monday)
Time	14:00 – 15:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	<i>B. Air Quality</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>C. Noise</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>D. Water Quality</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>E. Waste / Chemical Management</i>	
231030-R01	• Keep clean and tidy at Portion 3.	E 12
	<i>F. Cultural Heritage</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>G. Landscape and Visual</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>H. Ecology</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>I. Permits/Licences</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>J. Others</i>	
	• Follow-up on previous audit section (Ref. No.: 231024), item no. 231024-R01 was remarked as 231030-R01. Follow-up action is needed to be reviewed. Item no. 231024-R02 and 231024-R03 were observed improved/rectified by the Contractor during the site inspection.	

	Name	Signature	Date
Recorded by	Marco Ma		30 October 2023
Checked by	Dr. Priscilla Choy		30 October 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	231005
Date	5 October 2023 (Thursday)
Time	13:30-14:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	<i>B. Air Quality</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>C. Noise</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>D. Water Quality</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>E. Waste / Chemical Management</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>F. Landscape and Visual</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>G. Ecology</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>H. Permits/Licences</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>I. Others</i>	
	• Follow-up on previous audit section (Ref. No.: 230928), no environmental deficiency was identified during site inspection.	

	Name	Signature	Date
Recorded by	Marco Ma		5 October 2023
Checked by	Dr. Priscilla Choy		5 October 2023

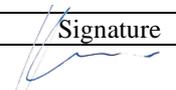
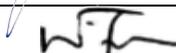
Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas

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	231012
Date	12 October 2023 (Thursday)
Time	13:30-14:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	<i>B. Air Quality</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>C. Noise</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>D. Water Quality</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>E. Waste / Chemical Management</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>F. Landscape and Visual</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>G. Ecology</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>H. Permits/Licences</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>I. Others</i>	
	• Follow-up on previous audit section (Ref. No.: 231005), no environmental deficiency was identified during site inspection.	

	Name	Signature	Date
Recorded by	Marco Ma		12 October 2023
Checked by	Dr. Priscilla Choy		12 October 2023

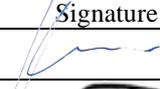
Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas

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	231018
Date	18 October 2023 (Wednesday)
Time	13:30-14:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	<i>B. Air Quality</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>C. Noise</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>D. Water Quality</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>E. Waste / Chemical Management</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>F. Landscape and Visual</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>G. Ecology</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>H. Permits/Licences</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>I. Others</i>	
	• Follow-up on previous audit section (Ref. No.: 231012), no environmental deficiency was identified during site inspection.	

	Name	Signature	Date
Recorded by	Marco Ma		18 October 2023
Checked by	Dr. Priscilla Choy		18 October 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	231006
Date	6 October 2023 (Friday)
Time	14:00 – 15:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	<i>B. Air Quality</i>	
231006-R01	<ul style="list-style-type: none"> Dusty stockpile should be covered properly to avoid dust generation. 	B 2
	<i>C. Construction Noise Impact</i>	
	<ul style="list-style-type: none"> No environmental deficiency was identified during site inspection. 	
	<i>D. Water Quality</i>	
	<ul style="list-style-type: none"> No environmental deficiency was identified during site inspection. 	
	<i>E. Waste / Chemical Management</i>	
	<ul style="list-style-type: none"> No environmental deficiency was identified during site inspection. 	
	<i>F. Landscape and Visual</i>	
	<ul style="list-style-type: none"> No environmental deficiency was identified during site inspection. 	
	<i>G. Ecology</i>	
	<ul style="list-style-type: none"> No environmental deficiency was identified during site inspection. 	
	<i>H. Permits/Licences</i>	
	<ul style="list-style-type: none"> No environmental deficiency was identified during site inspection. 	
	<i>I. Others</i>	
	<ul style="list-style-type: none"> Follow-up on previous audit section (Ref. No.: 230925), no major environmental deficiency was observed during site inspection. 	

	Name	Signature	Date
Recorded by	Marco Ma		6 October 2023
Checked by	Dr. Priscilla Choy		6 October 2023

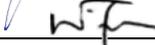
Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas

ND/2019/07 – Fanling North New Development Area, Phase 1: Site Formation and Infrastructure Works

Weekly Site Inspection Record Summary

Checklist Reference Number	231013
Date	13 October 2023 (Friday)
Time	14:00 – 15:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Air Quality	
	• No environmental deficiency was identified during site inspection.	
	C. Construction Noise Impact	
	• No environmental deficiency was identified during site inspection.	
	D. Water Quality	
231013-R01	• Exposed slope surface should be covered properly to avoid surface runoff.	D 7
	E. Waste / Chemical Management	
	• No environmental deficiency was identified during site inspection.	
	F. Landscape and Visual	
	• No environmental deficiency was identified during site inspection.	
	G. Ecology	
	• No environmental deficiency was identified during site inspection.	
	H. Permits/Licences	
	• No environmental deficiency was identified during site inspection.	
	I. Others	
	• Follow-up on previous audit section (Ref. No.: 231006), item no. 231006-R01 was observed improved/rectified by the contractor during the site inspection.	

	Name	Signature	Date
Recorded by	Marco Ma		13 October 2023
Checked by	Dr. Priscilla Choy		13 October 2023

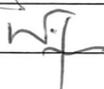
Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas

ND/2019/07 – Fanling North New Development Area, Phase 1: Site Formation and Infrastructure Works

Weekly Site Inspection Record Summary

Checklist Reference Number	231020
Date	20 October 2023 (Friday)
Time	09:30 – 10:30

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Air Quality	
	• No environmental deficiency was identified during site inspection.	
	C. Construction Noise Impact	
	• No environmental deficiency was identified during site inspection.	
	D. Water Quality	
	• No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	• No environmental deficiency was identified during site inspection.	
	F. Landscape and Visual	
	• No environmental deficiency was identified during site inspection.	
	G. Ecology	
	• No environmental deficiency was identified during site inspection.	
	H. Permits/Licences	
	• No environmental deficiency was identified during site inspection.	
	I. Others	
	• Follow-up on previous audit section (Ref. No.: 231013), item no. 231013-R01 was observed improved/rectified by the contractor during the site inspection.	

	Name	Signature	Date
Recorded by	Adrian Lam		20 October 2023
Checked by	Dr. Priscilla Choy		20 October 2023

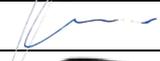
Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas

ND/2019/07 – Fanling North New Development Area, Phase 1: Site Formation and Infrastructure Works

Weekly Site Inspection Record Summary

Checklist Reference Number	231027
Date	27 October 2023 (Friday)
Time	09:00 – 10:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	<i>B. Air Quality</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>C. Construction Noise Impact</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>D. Water Quality</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>E. Waste / Chemical Management</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>F. Landscape and Visual</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>G. Ecology</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>H. Permits/Licences</i>	
	• No environmental deficiency was identified during site inspection.	
	<i>I. Others</i>	
	• Follow-up on previous audit section (Ref. No.: 231020), no major environmental deficiency was identified during the site inspection..	

	Name	Signature	Date
Recorded by	Marco Ma		27 October 2023
Checked by	Dr. Priscilla Choy		27 October 2023

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

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 Dust Impact							
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 ² 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"> • 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; • Any dusty materials remaining after a stockpile is removed should be wetted with water and cleared from the surface of roads; • A stockpile of dusty material should not be extend beyond the pedestrian barriers, fencing or traffic cones; • 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; • Where practicable, vehicle washing facilities with high pressure water jet should be provided at every discernible or designated vehicle exit point. The area where vehicle washing takes place and the road section between the washing facilities and the exit point should be paved with concrete, bituminous materials or hardcores; • When there are open excavation and reinstatement works, 	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"> • 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; • Surfaces where any pneumatic or power-driven drilling, cutting, polishing or other mechanical breaking operation takes place should be sprayed with water or a dust suppression chemical continuously; • Any area that involves demolition activities should be sprayed with water or a dust suppression chemical immediately prior to, during and immediately after the activities so as to maintain the entire surface wet; • Where a scaffolding is erected around the perimeter of a building under construction, effective dust screens, sheeting or netting should be provided to enclose the scaffolding from the ground floor level of the building, or a canopy should be provided from the first floor level up to the highest level of the scaffolding; • Any skip hoist for material transport should be totally enclosed by impervious sheeting; • 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; • 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; • 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 					<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"> 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. 					^
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	^
Noise Impact (Construction Phase)							
S4.9	N1	Implement the following good site management practices: <ul style="list-style-type: none"> Only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction programme; Machines and plant (such as trucks, cranes) that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum; Plant known to emit noise strongly in one direction, where 	Control construction airborne noise	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>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"> • Mobile plant should be sited as far away from NSRs as possible and practicable; • Material stockpiles, mobile container site office and other structures should be effectively utilised, where practicable, to screen noise from on-site construction activities. 					^
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
		<p>inputs from a variety of sources and suited to applications where the influent is pumped.</p> <ul style="list-style-type: none"> • The dikes or embankments for flood protection should be implemented around the boundaries of earthwork areas. Temporary ditches should be provided to facilitate the runoff discharge into an appropriate watercourse, through a silt/sediment trap. The silt/sediment traps should be incorporated in the permanent drainage channels to enhance deposition rates. • The design of efficient silt removal facilities should be based on the guidelines in Appendix A1 of ProPECC PN 1/94. The detailed design of the sand/silt traps should be undertaken by the contractor prior to the commencement of construction. • Construction works should be programmed to minimize surface excavation works during the rainy seasons (April to September). All exposed earth areas should be completed and vegetated as soon as possible after earthworks have been completed. If excavation of soil cannot be avoided during the rainy season, or at any time of year when rainstorms are likely, exposed slope surfaces should be covered by tarpaulin or other means. • All drainage facilities and erosion and sediment control structures should be regularly inspected and maintained to ensure proper and efficient operation at all times and particularly following rainstorms. Deposited silt and grit should be removed regularly and disposed of by spreading evenly over stable, vegetated areas. • 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 					<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
		<p>foundation excavations should be discharged into storm drains via silt removal facilities.</p> <ul style="list-style-type: none"> • All open stockpiles of construction materials (for example, aggregates, sand and fill material) of more than 50m³ should be covered with tarpaulin or similar fabric during rainstorms. Measures should be taken to prevent the washing away of construction materials, soil, silt or debris into any drainage system. • 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. • 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. • 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 					<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"> 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. Construction solid waste, debris and rubbish on site should be collected, handled and disposed of properly to avoid water quality impacts. All fuel tanks and storage areas should be provided with locks and sited on sealed areas, within bunds of a capacity equal to 110% of the storage capacity of the largest tank to prevent spilled fuel oils from reaching water sensitive receivers nearby. Regular environmental audit on the construction site should be carried out in order to prevent any malpractices. Notices should be posted at conspicuous locations to remind the workers not to discharge any sewage or wastewater into the meander, wetlands and fish ponds. 					<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"> 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. 	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"> 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. 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. 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. 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. 	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>					
Waste Management (Construction Waste)							
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"> • segregate and store different types of waste in different containers, skip or stockpiles to enhance reuse or recycling of materials and their proper disposal; • proper storage and site practices to minimize the potential for 	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"> • plan and stock construction materials carefully to minimize amount of waste generated and avoid unnecessary generation of waste; • sort out demolition debris and excavated materials from demolition works to recover reusable/recyclable portions (i.e. soil, broken concrete, metal etc); • provide training to workers on the importance of appropriate waste management procedures, including waste reduction, reuse and recycling. 					^ 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"> • 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; • Training of site personnel in site cleanliness, appropriate waste management procedures and concepts of waste reduction, reuse and recycling; 	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"> Provision of sufficient waste disposal points and regular collection for disposal; Appropriate measures to minimise windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers; Regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors; 					<p>^</p> <p>^</p> <p>*</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"> Waste such as soil should be handled and stored well to ensure secure containment; Stockpiling area should be provided with covers and water spraying system to prevent materials from wind-blown or being washed away; Different locations should be designated to stockpile each material to enhance reuse; 	Minimize waste impacts from storage	Contractor	All construction sites	Construction phase	<p>^</p> <p>^</p> <p>^</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"> • Remove waste in timely manner; • Employ the trucks with cover or enclosed containers for waste transportation; • Obtain relevant waste disposal permits from the appropriate authorities; and • Disposal of waste should be done at licensed waste disposal facilities. 	from storage		sites	phase	^ ^ ^ ^
S7.6	WM6	<u>Excavated and C&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"> • Maintain temporary stockpiles and reuse excavated fill material for backfilling; • Carry out on-site sorting; • Deliver surplus artificial hard materials to Tuen Mun Area 38 recycling plant or its successor for recycling into subsequent useful products; • Make provisions in the Contract documents to allow and promote the use of recycled aggregates where appropriate; and • Implement a recording system for the amount of waste generated, 	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&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	^

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		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"> General refuse should be stored in enclosed bins separately from construction and chemical wastes. Recycling bins should also be placed to encourage recycling. 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. A reputable waste collector should be employed to remove general refuse on a daily basis. 	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"> The WMP should document the locations and number of portable chemical toilets depending on the number of workers, land availability, site condition and activities. Regularly collection by licensed collectors should be arranged to minimize potential environmental impacts. 	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
Land Contamination							
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

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

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					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"> • Excavation profiles must be properly designed and executed with attention to the relevant requirements for environment, health and safety; • In case the soil to be excavated is situated beneath the groundwater table, it may be necessary to lower the groundwater table; • Excavation should be carried out during dry season as far as 	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"> • 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; • 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; • 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. 					^
S 8.7.2 and Appendix 8.4	LC8	<p>Solidification/Stabilization</p> <ul style="list-style-type: none"> • The loading, unloading, handling, transfer or storage of cement should be carried out in an enclosed system; • Mixing process and other associated material handling activities should be properly scheduled to minimize potential noise impact and dust emission; • The mixing facilities should be sited as far apart as 	To minimize the potential environmental impacts arising from the handling of contaminated materials	Contractor	KTN NDA	The course of treatment	N/A ^ ^

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		<p>practicable from the nearby noise sensitive receivers;</p> <ul style="list-style-type: none"> • Mixing of soil and cement / water / other additive(s) should be undertaken at a solidification plant to minimize the potential for leaching; • Runoff from the solidification / stabilization area should be prevented by constructing a concrete bund along the perimeter of the solidification / stabilization area; • 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 <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"> • Set up a list of safety measures for site workers; • Provide written information and training on safety for site workers; • Keep a log-book and plan showing the zones requiring treatment and clean zones; • Maintain a hygienic working environment; • Avoid dust generation; • Provide face and respiratory protection gear to site workers if 	To minimize the potential adverse effects on health and safety of construction workers	Contractor	KTN NDA	The course of treatment	N/A

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		<p>necessary;</p> <ul style="list-style-type: none"> • Provide personal protective clothing (e.g. chemical resistant jackboot, liquid tight gloves) to site workers if necessary; • Provide first aid training and materials to site worker; • Bulk earth moving equipment should be utilized as much as possible to minimize worker <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>					
Landfill Gas Hazard							
S10.6	LFG1	<ul style="list-style-type: none"> • 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. • Buildings or structures within the MTLL should be at ground level with raised floor slabs which are less prone to gas ingress. • 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. • For the low risk category, the provision of barriers to the movement of gas is recommended. Measures recommended 	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"> • 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. • 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. • 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. • 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. • 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. 					<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"> • 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. • 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. • During the construction works, adequate fire extinguishers and breathing apparatus sets should be made available on site and appropriate training given in their use. 					<p style="text-align: center;">^</p> <p style="text-align: center;">N/A</p> <p style="text-align: center;">^</p>

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		<ul style="list-style-type: none"> Ongoing gas monitoring should be considered for offices, stores etc set up on site. 					^
S10.6	LFG3	<p>Utility Companies</p> <ul style="list-style-type: none"> 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. 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. 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. <p>Building Management</p> <ul style="list-style-type: none"> 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 	<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"> • 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. • 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. • Any proposed modifications or additions to the building structure should be subject to a further assessment of LFG hazard, 					

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		<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"> 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. 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 					

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		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

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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

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		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

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		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

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 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
<i>Cultural Heritage (Construction Phase)</i>							
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>	^
<i>Landscape and Visual Impact (Detailed Design, Prior to Construction, Construction and Operation Phases)</i>							
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>		Detailed design consultant/ Contractor	Throughout NDAs,	<p>Prior to Construction, Construction & for all planting, this should be installed as the areas become available, to achieve early establishment</p>	N/A

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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	^

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		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		
Landscape and Visual (Construction)							
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>	Government / Detailed Design Consultant/ Contractor	Onsite	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
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>	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>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 & 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>. 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 & 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 & 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 & 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
<i>Ecology (Prior to Construction Phase or throughout the project)</i>							
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

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		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

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			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

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					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"> • 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; • Angled glass to be used only for smaller panes in buildings with a limited amount of glass; • The use of glass that reflects UV light (primarily visible to birds, but not to humans) to reduce collisions; • 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; 	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

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		<ul style="list-style-type: none"> 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 					
	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>

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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.	#

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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>

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		<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
<i>Specific Mitigation Measures for Designated Projects</i>							
<i>DP2- Castle Peak Road Diversion (Major Improvement)</i>							
<i>Landscape and Visual (Detailed Design, Prior to Construction, Construction and Operational Phases)</i>							

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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.	Reproviding 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

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		<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 & 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

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		<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

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		<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
<i>Landscape and Visual (Construction)</i>							
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>

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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	^
Ecology (Detailed Design, Construction and Operational Phases)							
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.	^
Ecology (Construction Phase)							
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.	
Cultural Heritage (Construction Phase)							
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
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)							
Landscape and Visual (Detailed Design, Prior to Construction, Construction and Operational Phases)							
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 & 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	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	To avoid substantial slope cutting and fill slopes. To prevent erosion and	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	<i>Onsite where possible. Otherwise consider offsite locations</i>	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 & 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 & 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

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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	<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</p>	Minimize the necessity of watercourse modification,	Government / Detailed Design	<i>Channelized watercourse, particularly the</i>	Prior to Construction, Construction	N/A

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		<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 & 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
Landscape and Visual (Construction)							
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

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		<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
Ecology (Detailed Design, Construction and Operational Phases)							
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.	^
Ecology (Construction Phase)							
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

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				(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
DP4- KTN NDA Road D1 to D5 (New Road)							
Landscape and Visual (Detailed Design, Prior to Construction, Construction and Operational Phases)							
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 & 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>	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>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

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
			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
<i>Landscape and Visual (Construction)</i>							
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.					
Ecology (Prior to Detailed Design Prior to Construction Phase)							
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
Ecology (Detailed Design, Construction and Operational Phases)							
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
Ecology (Construction Phase)							
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

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
			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
Cultural Heritage (Pre-construction Phase)							
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 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>		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

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 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
Cultural Heritage (Construction Phase)							
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
DP5- New sewage pumping stations (SPSs) in KTN NDA							
Landscape and Visual (Detailed Design, Prior to Construction, Construction and Operational Phases)							
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

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>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 & 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>

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		<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 & 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

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		<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

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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

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		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.					
Landscape and Visual (Construction)							
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	^
Ecology (Construction Phase)							
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

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
		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>		
<i>DP7-Utilization of Treated Sewage Effluent (TSE) from Shek Wu Hui Sewage Treatment Works (SWHSTW)</i>							
<i>Landscape and Visual (Construction Phase and Operational Phase)</i>							
S.12.9 MM4	LV1- DP7	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. 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	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
DP10- Fanling Bypass Eastern Section (New Road)							
Landscape and Visual (Detailed Design, Prior to Construction, Construction and Operational Phases)							
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 & 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 & 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>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 & 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

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>Rhaphiolepis indica, and Rhododendron simsii.</i></p> <p><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></p>					
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

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
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

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
		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.					
Landscape and Visual (Construction)							
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	^
Ecology (Detailed Design, Construction and Operational Phases)							
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	^

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
				Contractor Maintenance Authority.		Operation phases.	
Ecology (Construction Phase)							
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.	^
Cultural Heritage (Construction Phase)							
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

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
		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,	
<i>DPI2-Reprovision of temporary wholesale market in FLN NDA</i>							
<i>Landscape and Visual (Detailed Design, Prior to Construction, Construction and Operational Phases)</i>							
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

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
		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	<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 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</p>	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

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>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 & 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	Slope Landscaping – Site formation should be reduced as far as possible. Seeding of modified slopes should be done as soon as grading works are	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 & 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
Landscape and Visual (Construction)							
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	<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	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

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

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 ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m ³)
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	0.000	0.000	0.000	0.000	0.000	0.103	0.003	0.255	0.003	11.550	0.398
June	0.285	0.000	0.000	0.000	0.285	0.000	0.004	0.390	0.009	10.540	0.191
Sub-total	10.977	0.000	7.422	0.000	3.555	17.228	2.922	1.458	0.032	23.370	2.560
July	0.262	0.000	0.000	0.000	0.262	2.991	0.006	0.308	0.005	0.666	0.366
August	0.957	0.000	0.000	0.000	0.957	21.832	0.003	0.414	0.007	0.000	0.187
September	1.669	0.000	1.073	0.000	0.596	1.142	0.008	0.443	0.014	0.000	0.307
October*	3.661	0.000	3.661	0.000	0.000	0.911	0.004	0.239	0.008	0.000	0.183
November											
December											
Total	17.526	0.000	12.157	0.000	5.369	44.105	2.944	2.862	0.067	24.036	3.604

Remark: The records of "Disposed as Public Fill" and "Others, e.g. general refuse" in October are up to 19 October 2023.

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 ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m ³)
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 50,000m³.
 (5) Conversion factors for reporting purpose:
 in-situ: rock = 2.5 tonnes/m³; soil = 2.0 tonnes/m³
 excavated: rock = 2.0 tonnes/m³; soil = 1.8 tonnes/m³
 broken concrete and bitumen = 2.4 tonnes/m³
 C&D Waste = 0.9 tonnes/m³
 Slurry = 1.0 tonnes/m³
 (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) = (d)+(e)	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)	Reused in the Contract (c)	Reused in other Projects (d)	Disposed as Public Fill* (e)	Imported Fill (f)	Metals	Paper/ cardboard packaging	Plastics (see Note 2)	Chemical 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)
Jan	3,700.28	0.00	0.00	3,700.28	0.00	0.00	0.00	0.00	0.00	0.00	126.34
Feb	7,033.84	0.00	0.00	7,033.84	0.00	0.00	0.00	0.12	0.00	0.00	102.69
Mar	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	106.73
Apr	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	34.63
May	0.00	0.00	0.00	0.00	0.00	2,789.72	0.00	0.00	0.00	0.00	135.98
June	0.00	0.00	0.00	0.00	0.00	2,607.42	0.0017	0.00	0.0068	0.054	89.35
Sub-total	10,734.11	0.00	5,000.00	10,734.11	0.00	5,397.14	0.0017	0.12	0.0068	0.054	595.72
July	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	190.32
Aug	0.00	0.00	1,230.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00	151.88
Sept	0.00	0.00	700.00	0.00	0.00	0.0	0.000	0.00	0.00	0.00	165.12
Oct	0.00	0.00	0.00	0.00	0.00	0.0	0.000	0.00	0.00	0.00	138.59
Nov											
Dec											
Sub-total	0.00	0.00	3,030.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00	645.91
Total	10,734.11	0.00	8,030.00	10,734.11	0.00	5,397.14	0.00	0.20	0.01	0.05	1,241.63

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)
Total:	234,210	8,400	2,500	0	231,710	600	100	1.0	0.5	0.5	375

Sang Hing – Kuly Joint Venture

Name of Department: CEDD

Contract No.: ND/2019/03

Kwu Tung North and Fanling North New Development Areas, Phase 1:

Development of Long Valley Nature Park

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	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 ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m ³)
Jan	0.24	0.00	0.00	0.17	0.07	0.00	0.00	0.00	0.00	0.00	0.00
Feb	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Mar	0.03	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
Apr	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
May	1.57	0.00	0.00	0.34	1.23	0.00	0.00	0.00	0.00	0.00	0.00
Jun	0.11	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.00
Sub-Total	1.97	0.00	0.00	0.50	1.46	0.00	0.00	0.00	0.00	0.00	0.00
Jul	0.07	0.00	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00
Aug	0.06	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00
Sep	1.63	0.00	0.00	0.32	1.31	0.00	0.00	0.00	0.00	0.00	0.00
Oct	0.90	0.00	0.00	0.01	0.89	0.00	0.00	0.00	0.00	0.00	0.00
Nov											
Dec											
Total	4.62	0.00	0.00	0.83	3.79	0.00	0.00	0.00	0.00	0.00	0.00

*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*

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 ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m ³)
9.00	2.00	1.00	1.00	6.00	10.00	3.00	3.00	1.00	1.00	3.00

*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)	Glass (i)	Chemical Waste (j)	Others, e.g. general refuse (k)
	(in tonnes)	(in tonnes)	(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	1648.04	0.00	62.72	0.00	0.00	0.00	0.00	110.78
Feb	5,111.83	0.00	0.00	1,432.80	3,268.73	289.95	0.0006	0.0668	0.0007	0.00	0.00	120.28
Mar	16,696.38	0.00	0.00	11,792.39	4,675.20	0.00	0.00	0.04	0.00	0.00	0.00	228.75
Apr	10,098.42	0.00	0.00	7,469.40	2,562.44	0.00	0.00	0.00	0.00	0.00	0.00	66.58
May	16,517.90	0.00	0.00	8,880.68	7,135.46	421.66	0.00	0.00	0.00	0.00	0.00	80.10
June	3,040.85	0.00	0.00	748.07	1,119.73	1,082.57	0.0009	0.0781	0.0014	0.0055	0.00	90.39
Sub-total	53,286.91	0.00	0.00	30,323.34	20,409.60	1,794.18	62.72	0.18	0.002	0.006	0.00	696.88
July	677.11	0.00	0.00	0.00	537.28	0.00	0.00	0.00	0.00	0.00	0.00	139.83
Aug	557.34	0.00	0.00	0.00	442.58	0.00	0.001	0.0512	0.0029	0.0082	0.00	114.70
Sept	4,687.99	0.00	0.00	4,377.34	184.22	0.00	0.00	0.00	0.00	0.00	0.00	126.43
Oct	15,396.95	0.00	0.00	13,690.00	1,178.14	291.13	0.00	0.00	0.00	0.00	0.00	237.68
Nov												
Dec												
Sub-total	21,319.39	0.00	0.00	18,067.34	2,342.22	291.13	0.00	0.05	0.00	0.01	0.00	618.64
Total	74,606.30	0.00	0.00	48,390.68	22,751.82	2,085.31	62.72	0.24	0.01	0.01	0.00	1,315.52

Remarks:

The cut off date for the data is 19 Oct 2023 according to the latest cwcds data provided by EPD

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: Connie Yuen (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 ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(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	2.752	0.000	0.750	0.000	2.002	0.000	0.006	0.448	0.006	1.610	0.000	71.310
Jun-23	1.964	0.000	0.174	0.000	1.790	0.000	0.034	1.157	0.046	7.890	0.000	87.340
Sub-total	12.614	0.000	2.718	0.000	9.896	0.000	4.277	4.489	0.185	15.490	0.000	431.990
Jul-23	1.025	0.000	0.234	0.000	0.791	0.000	0.016	0.815	0.010	0.000	0.000	94.220
Aug-23	1.031	0.000	0.276	0.000	0.755	0.000	0.015	1.121	0.020	0.000	0.000	101.070
Sep-23	0.533	0.000	0.036	0.000	0.497	0.000	0.000	0.818	0.002	5.270	0.000	227.200
Oct-23	0.680	0.000	0.228	0.000	0.452	0.000	0.035	1.327	0.033	1.490	0.000	72.260
Nov-23												
Dec-23												
Total in 2023	15.883	0.000	3.492	0.000	12.391	0.000	4.343	8.570	0.250	22.250	0.000	926.740
Total of the Project since 2020	109.225	0.000	14.211	2.857	92.157	5.110	142.047	18.002	4.070	805.063	24.882	4015.650

*Approx. estimation for each dump truck is 6m³/truck or 12 ton/truck

Total Quantity of Inert C&D Materials Generated: 109.225 (in '000m³) (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	0	0	0	0	0	6.492	0	0	0	0	0.015
Jun	0	0	0	0	0	0.439	0	0	0	0	0.018
Sub-total	0.212	0.000	0.000	0.000	0.212	27.382	0.000	0.000	0.001	0.000	0.101
Jul	0	0	0	0	0	8.396	0	0	0	0	0.030
Aug	0	0	0	0	0	15.000	0	0	0	0	0.030
Sep	0	0	0	0	0	2.087	0	0	0	0	0.017
Oct	0	0	0	0	0	9.268	0	0	0	0	0.040
Nov											
Dec											
Total	0.212	0.000	0.000	0.000	0.212	62.133	0.000	0.000	0.001	0.000	0.218

- 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..

**APPENDIX S
COMPLAINT LOG**

Appendix S - Complaint Log

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
COM-2020-07-01	Public Road at Portion 6a (ND/2019/01)	13 th 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 th 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

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
			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 th 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 th 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

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
COM-2021-01-02	Ma Tso Lung Road (Near L/P VD5622) (ND/2019/01)	13 th 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 nd 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 th 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 th February 2021	A complaint was received from EPD call on 2 nd 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 st 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 st 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 th February 2021	A complaint was received from EPD call on 10 th February 2021 regarding a noise complaint from a Tong Hang villager about some impact noise from CTC Storage yard at Sunday's daytime (7 th 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 th 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 nd March 2021	A complaint was received from EPD call on 24 th 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 st 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 th March 2021	A complaint was received from EPD call and an inspection by EPD was conducted on 9 th 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 th 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 th and 25 th 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 th 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"> 2. Arrange concrete pump for concreting works to minimise noise impact; 3. Provide water spraying on the exposed earth to dampen the dusty surface; 4. Provide shade cloth to separate works area and marsh where Greater Painted-snipe were found; 5. Demarcation of temporary vehicle access to prohibit vehicle across the farmland; 6. Provide 2m dull green site boundary fence along Long Valley work areas; and 7. Block the main accesses by temporary barrier to avoid human disturbance. 	
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 rd 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"> 1. Installation of silt curtain, geotextiles and concrete blocks for excavation works at Ng Tung River with regular inspection; 2. Exposed slope paved with concrete to prevent muddy runoff; 3. Setting up wastewater treatment plants at 	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 th 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 28th and 29th 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 th 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 nd 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"> • Rearranged the traffic route and informed the concrete lorry drivers not to use Chau Tau Road; • Keep monitoring the effectiveness of the wheel washing facilities at site exist; and • Clean up the public road immediately if soil deposit was observed. 	Closed

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COM-2021-09-02	Not specified (ND/2019/01)	3 rd 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&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 3rd September 2021, all C&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"> • Sort out the non-inert waste from the felled trees; • Remove the general refuse if possible, otherwise, coved by tarpaulin sheet; and • Relocate or transport the yard waste to other places which are not easy visible by public. <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 rd November 2021	A complaint was referred from EPD on 22 th November 2021, about various issues including suspected environmental nuisances from the captioned Project from a member of public on 3 rd Nov 2021. He followed-up again on 19 th Nov 2021.	<p>Site inspection was conducted by contractor and EPD inspectors on 25th 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

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
				<p>Houses North of Proposed Potential Ecopark and Location FLN-DMS5 - Noble Hill near Shek Wu San Tsuen in accordance with the EM&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"> • 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 • 增加自動灑水系統 	
COM-2021-12-01	On Kui Street along Ma Wat River (ND/2019/05)	13 rd 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"> • Tightness of flexible pipe joint • Worker's awareness and knowledge on proper handling of pipe leakage • Readiness of contingency tools and equipment for the pipe leakage <p>The Contractor has been implement following mitigation measure upon received the complaint:</p> <ul style="list-style-type: none"> • Doubling pipe clamps at each joint to strengthen the connection tightness and 	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
				seal <ul style="list-style-type: none"> • Briefing workers for proper spillage handling • Well readiness of contingency tools and equipment for handling of leakage • Designating responsible supervisor for regular pipeline condition check and monitoring • Daily inspection for pipeline condition by responsible supervisors before works • Erection of bunding/sandbags along the works area to effectively stop any potential leakage/surface runoff • 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 • Specific trainings of proper handling of leakage adjacent to the river/drainage for JV managerial and supervisory staff 	
COM-2022-01-01	Close to Shek Wu San Tsuen (ND/2019/04)	13 rd 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 th 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 th 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 & 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 nd 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 rd 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 th 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

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				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 th 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 th 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 st 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

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			<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"> 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). 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. <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 th 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 th 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"> 1. 18 nos. of wastewater treatment facilities are operating for different working areas including B2-03 and C2-02; 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. 	Closed
COM-2022-08-08	Ma Wat River near Lamp Post EB1339 (ND/2019/05)	8 th 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>Noise 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>Air 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 th 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"> 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. 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 & C4-02 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 	

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 th 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 st 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 th 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 th 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 th 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 th 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 st 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"> 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. 2. Two water browsers were deployed for regularly watering of main haul road. 3. Mist cannon was provided on site for dust suppression. 4. Manual water spraying was provided to maintain site condition in a damp condition. 5. Once the level of stockpile reached the formation level, hydroseeding was applied. 	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
				<p>6. Dust monitoring was carried out at KTN-DMS4(B) on 21 Oct 2022 and 27 Oct 2022, no exceedance was recorded.</p> <p>7. Cover the slope surface with impervious sheeting.</p> <p>8. Addition water browser with capacity 20,000L was deployed on site on 01 November 2022.</p> <p>9. Hydroseeding to exposed soil once the formation level reached.</p> <p>10. Keep closely monitoring on the concerned area.</p>	
COM-2022-11-10	Construction site near Shek Wu San Tsuen North (ND/2019/04)	10 th 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 th 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"> 1. The works area vicinity to lamp post VD6513 is Piers C4-03. There are viaduct construction works above the concerned lamp post. 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"> A. Cleaned up the expanding foam and metal nails, B. Tightened and securely fixed the safety net, C. Sealed up those water-filled barriers without lids and their damaged parts. <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 th 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"> 1. Properly store the chemical with covered tarpaulin to prevent lumping; 2. A refresher training for WWTP operation and maintenance by supplier was provided to foreman and designated workers; 3. Repair the damaged u-channel; 4. Arrange to clear the accumulated sludge in the channel; and 5. Keep closely monitoring such as daily visual inspection on the WWTP and clear the accumulated sludge in the channel. <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"> 1. Joint inspection for the issue was conducted by EPD and DSD on 11 January 2023. 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. 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. 4. Checking and maintenance of wastewater treatment facilities have been carried out by supplier before the joint inspection by EPD and DSD. 5. Training on proper wastewater treatment and discharge has been provided for site staff to raise the awareness of site staff at all levels. <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 rd 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 & VIII) from upper stream of Ma Wat River.</p> <ol style="list-style-type: none"> 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. 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, 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. 	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 th 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 rd 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"> 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. 2. There are stockpiling works for the temporary storage, internal transferring and sorting of inert materials in the concerned area. 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. 4. Resources allocation is listed as below, <ul style="list-style-type: none"> (a) Four full-time workers and one supervisory staff (b) Wheel washing bay supplemented with water pipes (c) Proper temporary drainage system (cutoff drain, water pumps, sump pits, bunding, etc.,) (d) One set of wastewater treatment facilities (e) Fully hard paved haul road <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		

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
COM-2023-08-09	Construction site next to Tong Hang near L/P No. VD6513 (ND/2019/05)	9 th August 2023	<p>EPD received a complaint with ref.: N07/RN/00018620-23 on 4 Aug 2023.</p> <p>Complaint detail: "本人於今個星期日(30.07.2023), 再次行經粉嶺龍山近塘坑村附近, 近電燈柱 VD6513 附近, 發覺強烈油積味, 相信有機器流油, 同時亦發覺油積連水流至行人路, 使路濕滑, 一部份油流入河流"</p>	<p>The investigation result as follows:</p> <p>1. Site activities at Piers C4-03 The works area vicinity to lamp post VD6513 is Piers C4-03. Superstructure works for viaduct construction were conducted above the concerned lamp post. It was precast segment erection works (only involve lifting, transporting and tendonning) and no operation of heavy machinery/plants was conducted at ground level during the complaint period. No wastewater/chemicals were generated in the surrounding works.</p> <p>2. Preventive measures for wastewater or chemical leakage/overflowing; There were plenty of preventive measures for wastewater or chemical leakage/overflowing from site listing as below: <ul style="list-style-type: none"> - All ground area were totally hard paved - Edges of all site boundaries were entirely enclosed and embanked - All openings of segment structures were fully closed - Chemical waste storage cabinet was provided in the concerned area for storage of chemical waste </p> <p>Based on the above findings, it is concluded that the complaint was not related to the Contract. JV will continue daily monitoring on our site condition and the nearby drainage and river condition to prevent any water pollution. In addition, JV will regularly conduct morning briefing</p>	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
				and tool-box training to the frontline for keeping refresh their awareness on water pollution control.	
COM-2023-08-25	Ma Tso Lung Stream, near L/P No. VD7574 (ND/2019/01)	25 th August 2023	<p>EPD received a complaint with ref.: N07/RN/00020185-23 on 22 Aug 2023. Complaint detail: "I am writing to express my deep concerns about the water pollution in Ma Tso Lung Stream, which is a result of the illegal dumping of construction waste.</p> <p>Following heavy rain, the Advance Site Formation and Engineering Infrastructure Works at Kwu Tung North and Fanling North New Development Areas have significantly impacted the upstream of the Ma Tso Lung Stream, specifically at the location marked by government lamppost VD7574. For further clarity on the location, you can refer to: (https://www.landsd.gov.hk/doc/en/nda/ktnda/D_KTN_1A_BW_SD_compress_1.pdf)</p> <p>Due to the vast amounts of construction waste, the stream's drainage has been severely obstructed. This was particularly evident after last week's Special Announcement on Flooding in the Northern New Territories. The</p>	<p>The investigation result as follows:</p> <ul style="list-style-type: none"> - The suspected complaint location was found at Ma Tso Lung Stream, about 200 meters outside the site boundary of Kwu Tung North New Development Area. - BKREJV carried out investigation accompanied by AECOM RSS on 31 August 2023, no construction activity was observed nearby. - During the investigation, no illegal dumping was identified upstream. The water of the stream looks clear, therefore, pollution downstream (complaint location) generated from the project is unlikely. The C&D material on the stream believed accumulated by nature. - No accumulation of C&D waste along the upstream of Ma Tso Lung Stream was observed during the investigation. The stream is free from blockage. - By comparing the photos from complainant provided and the photos taken on 31 August 2023, there are no major differences observed. - As the mentioned location which is outside the site 	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
			<p>stream's blockage from the waste has prevented efficient water drainage, posing a serious threat to the lives of the residents living by its banks.</p> <p>It's noteworthy that the KWU TUNG NORTH OUTLINE DEVELOPMENT PLAN No. D/KTN/1 (https://www.pland.gov.hk/pland_en/info_serv/tp_plan/adopted/ES/D_KTN_1_en.pdf) had previously emphasized the importance of the Ma Tso Lung Stream. It serves as a crucial corridor for numerous fauna of conservation importance, including the Three-banded Box Terrapin. The stream, along with its surrounding riparian vegetation, has been designated under the "Green Belt" zoning for protection in the Outline Development Plan (ODP). The recent infrastructural developments have gravely affected this ecosystem and the habitat of the rare Three-banded Box Terrapin.</p> <p>In addition to the aforementioned concerns, the engineering works have significantly reduced surface water flow. As a result, the Ma Tso Lung Stream faces not only pollution but also the alarming threat of becoming a dry streambed. This drastically impacts the ecological balance and endangers the</p>	<p>boundary, no follow up action is proposed.</p> <p>Based on the above findings, it is concluded that the accumulated C&D material on the stream likely accumulated by nature instead of illegal dumping by project. It is concluded that the complaint is not project related.</p> <p>However, BKREJV are responsible to monitor the condition alongside the boundary of construction site regularly.</p>	

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
			<p>myriad of biodiversity dependent on this vital water source.</p> <p>...</p> <p>Enclosed are comparative photos from July to August 2022 juxtaposed with the current state in August 2023, capturing the stark degradation of the stream over a year."</p>		
COM-2023-09-04	Construction site near the junction of Sha Tau Kok Road and Ma Sik Road (ND/2019/04)	4 th September 2023, 7 th September 2023	<p>EPD received a complaint with ref: N07/RN/00021148-23 on 4 Sep 2023.</p> <p>Complaint detail: “沙頭角公路與馬適路交界的地盤排放泥水到附近河道造成污染”</p> <p>Supplementary detail received by EPD with the same ref on 7 Sep 2023.</p> <p>Complaint detail: “在 7/9/2023 下午,該地盤再次排出大量黃泥水”</p>	<p>The investigation result as follows:</p> <p>For the complaint received on 4 September 2023, the cause of the silty water entering Ma Wat River was mainly due to the malfunctioning of wetsep, which was damaged due to electric short during the adverse weather, no.1, no.3, no.8, no.9 and no.10 and 5 hours of amber warning signal, caused by Super typhoon Saola on 1 and 2 September 2023. The wetsep was repaired immediately after Saola left and resumed the function on 4 September 2023 afternoon and no more silty water was observed entering Ma Wat River. The water quality observed on 5 September 2023 was normal and complied with the legal requirement of discharge licence.</p> <p>For 7 September 2023, the major cause of the incident was the accumulated soil at the existing outfall overflow to the river due to the continuous rainy weather, which was not discharge from the construction site.</p>	Closed

**APPENDIX T
SUMMARY OF SUCCESSFUL
PROSECUTION**

Appendix T - Summary of Successful Prosecution

Date of Successful Prosecution	Details of the Successful Prosecution	Status	Follow Up
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**APPENDIX U
SUMMARY TABLE FOR REQUIRED
SUBMISSION UNDER
ENVIRONMENTAL PERMIT**

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
DP2	EP-466/2013/A	Castle Peak Road Diversion	1	12-Aug-20	C1-DP2						
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	1	12-Aug-20	C1-DP3						
DP4	EP-468/2013/A	Kwu Tung North New Development Area Road D1 to D5	1	1-Jun-20 (for C1) 3-Jul-20 (for C3)	C1-DP4		C3-DP4				
DP5	EP-469/2013	Sewage Pumping Stations in Kwu Tung North New Development Area	1	28-Oct-20		C2-DP5					
DP7	EP-470/2013	Utilization of Treated Sewage Effluent (TSE) from Shek Wu Hui Sewage Treatment Works	1	23-Mar-20	C1-DP7						
DP10	EP-473/2013/A	Fanling Bypass Eastern Section	1	6-Oct-20 (for C3) 23-Feb-21 (for C4) 1-Aug-20 (for C5)			C3-DP10	C4-DP10	C5-DP10		
DP12	EP-475/2013/A	Reprovision of temporary Wholesale Market in Fanling North New Development Area	1	29-Oct-19						C6-DP12	
DP14	EP-546/2017	Fanling North Temporary Sewage Pumping Station	1	16-Feb-21				C4-DP14			

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	Establish - 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	Deposit	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	Inform in writing	no later than 2 weeks before the commencement of construction.	Deposited 27 July 2020	
2.5	Layout Plan	Before construction	Deposit	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	To Conduct - A baseline condition survey and baseline vibration impact assessment by a qualified building surveyor or a qualified structural engineer. Note: 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	Comments by EPD on 20 Dec 2022
2.7	Cultural Heritage Impact -- Photographic and Cartographic Records/ Proposals on relocation of any building	Others	Deposit - 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	For Approval - 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	Deposit	at least 6 weeks before the commencement of the corresponding parts of landscape and visual mitigation measures of the Project.	Resubmitted to EPD on 14 July 2023	
2.10	Traffic Noise Mitigation Plan	Before construction	Submit	At least one month before commencement of construction	To be submitted before commencement of Remaining Phase works	
3.3	Baseline Monitoring Report	Before construction	Submit	at least 2 weeks before the commencement of construction.	Submitted by Pre-Construction ET	by Fugro
3.4	Monthly EM&A Report	During construction	Submit	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	Set up and Notify in writing -- 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	Upload -- 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	
			Maintain	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	Establish - 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	Deposit	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	Inform in writing	no later than 2 weeks before the commencement of construction	Deposited 27 July 2020	
2.5	Layout Plan	Before construction	Deposit	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	For Approval	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	Deposit - 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	Deposit	at least 6 weeks before the commencement of the corresponding parts of landscape and visual mitigation measures of the Project	Deposited 19 December 2022	Resubmitted to EPD on 14 July 2023
3.3	Baseline Monitoring Report	Before construction	Submit	at least 2 weeks before the commencement of construction	Submitted by Pre-Construction ET	by Fugro
3.4	Monthly EM&A Report	During construction	Submit	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	Set up and Notify in writing -- 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	Upload -- 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	
			Maintain	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	Establish - 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	Deposit	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	Inform in writing	no later than 2 weeks before the commencement of construction	Deposited 14 May 2020	
2.5	Layout Plan	Before construction	Deposit	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	To Conduct - A baseline condition survey and baseline vibration impact assessment by a qualified building surveyor or a qualified structural engineer Note: 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	Comments by EPD on 20 December 2022
2.7	Cultural Heritage Impact -- Photographic and Cartographic Records/ Proposals on relocation of any building	Others	Deposit - 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	For Approval - 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	For Approval	prior to the commencement of construction	Resubmitted 17 August 2022	EPD approved 31 August 2022
2.9	Habitat Creation and Management Plan	Others	For Approval	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	For Approval	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	Submit	at least 2 weeks before the commencement of construction	Submitted by Pre-Construction ET	by Fugro
3.4	Monthly EM&A Report	During construction	Submit	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	Set up and Notify in writing -- 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	Upload -- 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	
			Maintain	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	Establish - 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	Deposit	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	Inform in writing	no later than 2 weeks before the commencement of construction	Deposited 17 September 2020	
2.5	Location Plans	Before construction	Deposit	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	Deposit	at least 6 weeks before the commencement of the corresponding parts of landscape and visual mitigation measures	Deposited 9 August 2022	Resubmitted to EPD on 5 July 2023
3.3	Baseline Monitoring Report	Before construction	Submit	at least 2 weeks before the commencement of construction	Submitted by Pre-construction ET	by Fugro
3.4	Monthly EM&A Report	During construction	Submit	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	Set up and Notify in writing -- 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	Upload -- 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	
			Maintain	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	Establish - 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	Deposit	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	Inform in writing	no later than 2 weeks before the commencement of construction	Deposited 14 May 2020	
2.5	Layout Plan	Before construction	Deposit	no later than 2 weeks before the commencement of construction	Deposited 14 May 2020	
3.3	Baseline Monitoring Report	Before construction	Submit	at least 2 weeks before the commencement of construction	Submitted by Pre-Construction ET	by Fugro
3.4	Monthly EM&A Report	During construction	Submit	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	Set up and Notify in writing -- 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	Upload -- 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	
			Maintain	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

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	Establish - 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	Deposit	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	Inform in writing	no later than 2 weeks before the commencement of construction	Deposited 17 March 2021	
2.5	Location Plans	Before construction	Deposit	no later than 2 weeks before the commencement of construction	Deposited 10 December 2020	
2.6	Relocation Plan for Rose Bitterling	Before construction	Approval	before the commencement of construction	N/A	
2.7	Egretty Habitat Creation and Management Plan	Before construction	Approval	before the commencement of construction	N/A	
2.8	Detailed Design of Siu Hang San Tsuen Stream	Before construction	Deposit	before the commencement of construction	Deposited 5 May 2022	EPD Satisfied 18 May 2022
2.9	Traffic Noise Mitigation Plan	Before construction	Approval	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	To Conduct - A baseline condition survey and baseline vibration impact assessment by a qualified building surveyor or a qualified structural engineer Note: 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	Deposit - 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	For Approval - 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	Submit	at least 2 weeks before the commencement of construction	Submitted by Pre-Construction ET	by Fugro
3.4	Monthly EM&A Report	During construction	Submit	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	Set up and Notify in writing -- 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	Upload -- 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	
			Maintain	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

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	Establish - 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	Deposit	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	Inform in writing	no later than 2 weeks before the commencement of construction	Deposited 14 October 2019	
2.5	Layout Plan	Before construction	Deposit	no later than 2 weeks before the commencement of construction	Deposited 14 October 2019	
2.6	Landscape Plan	Others	Deposit	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	Submit	at least 2 weeks before the commencement of construction	Submitted by Pre-construction ET	by Fugro
3.4	Monthly EM&A Report	During construction	Submit	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	Set up and Notify in writing -- 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	Upload -- 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	
			Maintain	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

DP14	EP-546/2017	Fanling North Temporary Sewage Pumping Station				
Construction commencement date		16 February 2021				
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 1 month prior to the commencement of construction	Notified 8 September 2020	
1.14	Commencement date of operation	Before operation	Notify in writing	no later than 1 month prior to the commencement of operation	N/A	
2.4	IEC Audit Report	After construction	Deposit	within one month upon completion of the construction works	N/A	