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 September 2023

(Version 1.4)

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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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

Monthly Environmental Monitoring and Audit Report No. 47 (September 2023)

25 October 2023

BY EMAIL

Dear Sir,

We refer to email of 25 October 2023 attaching the Monthly Environmental Monitoring and Audit Report No. 47 prepared by the Environmental Team (ET) of the captioned.

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

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

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



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EXECUTIVE SUMMARY

Introduction

1. This is the 47th 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 September 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 Total Suspended Particulates (TSP) Monitoring	FLN-DMS1	N/A	N/A	4, 14, 20, 26 and 28 Sep 23	4, 14, 20, 26 and 28 Sep 23	N/A	N/A	N/A
	FLN-DMS3			N/A	N/A	4, 14, 20, 26 and 28 Sep 23		
	FLN-DMS5			7, 13, 19, 25 and 29 Sep 23	7, 13, 19, 25 and 29 Sep 23	N/A		
	KTN-DMS4(B)	7, 13, 19, 25 and 29 Sep 23		7, 13, 19, 25 and 29 Sep 23	N/A			
24-hr TSP Monitoring	FLN-DMS1	N/A	N/A	7, 19, 25 and 29 Sep 23	7, 19, 25 and 29 Sep 23	N/A	N/A	N/A
	FLN-DMS3			N/A	N/A	7, 13, 19, 25 and 29 Sep 23		
	FLN-DMS5A			7, 13, 19, 25 and 29 Sep 23	7, 13, 19, 25 and 29 Sep 23	N/A		
	KTN-DMS4(B)	7, 13, 19, 25 and 29 Sep 23		7, 13, 19, 25 and 29 Sep 23	N/A			
Noise Monitoring	CP-FLN-NMS1	N/A			4, 14, 20 and 26 Sep 23			N/A
	CP-FLN-NMS2	N/A				4, 14, 20 and 26 Sep 23	N/A	
	CP-KTN-NMS2	7, 13, 19 and 25 Sep 23	N/A	N/A				
	CP-KTN-NMS3							
	CP-KTN-NMS5							
	CP-KTN-NMS6	N/A	7, 13, 19 and 25 Sep 23					
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, 11, 12, 18, 20, 26 and 27 Sep 23	5, 11, 18 and 26 Sep 23	N/A*	N/A*	N/A*
	Monitoring of Measures to Minimise Impacts to Ma Tso Lung Stream and Siu Hang San Tsuen Stream	15 Sep 23	N/A*	15 Sep 23	15 Sep 23	N/A*	N/A*	N/A*

EM&A Activities	Monitoring Station (s)	Works Contracts						
		ND/2019/01	**ND/2019/02**	**ND/2019/03**	**ND/2019/04**	**ND/2019/05**	**ND/2019/06**	**ND/2019/07**
	Monitoring of Measures to Minimise Impacts on Ecological Sensitive Habitats from Disturbance and Pollution	14 and 21 Sep 23	14 and 21 Sep 23	21 Sep 23	21 Sep 23	21 Sep 23	N/A*	N/A*
Egretry Monitoring		N/A	N/A	N/A	N/A	N/A	N/A	N/A
24-hr RSP (Ambient Arsenic) Monitoring for Land Contamination		6, 12, 18, 22 and 28 Sep 23	N/A	6, 12, 18, 22 and 28 Sep 23	N/A	N/A	N/A	N/A
Water Quality Monitoring		N/A	4, 6, 11, 13, 15, 18, 20, 22, 25, 27 and 29 Sep 23	N/A	4, 6, 11, 13, 15, 18, 20, 22, 25, 27 and 29 Sep 23	N/A	N/A	N/A
Landfill Gas Monitoring		28 Sep 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		5, 12, 18 and 26 Sep 23	6, 13, 22 and 27 Sep 23	14, 19 and 29 Sep 23	7, 13, 21 and 28 Sep 23	4, 14, 18 and 26 Sep 23	7, 13, 21 and 28 Sep 23	15, 19 and 25 Sep 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 exceeds500m, 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	3	3	0	0	0
	Turbidity	0	2	2	0	0	0
	SS	0	0	0	0	0	0
	Arsenic	1	0	1	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	0	0	0	0	0
	Non-aquatic fauna	1	1	2	0	0	0

Air Quality

5. All construction air quality monitoring was conducted as scheduled in the reporting month except 1 and 8 September 2023 due to adverse weather, and 13 September 2023 due to power failure. 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 except 1 and 8 September 2023 due to the adverse weather (Typhoon Signal No. 8 on 1 Sep and Black Rainstorm Warning Signal on 8 Sep). Three (3) Limit Level for DO, Two (2) Limit Level for turbidity, and One (1) Action Level for Arsenic of impact water quality monitoring were recorded. No construction of channel for alternation of natural streams was carried out in the reporting month. Therefore, no water quality monitoring was conducted according to the Updated EM&A Manual and Baseline Water Quality Monitoring Report (KTN & FLN NDA). Relevant details are given in Section 5.

Land Contamination

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

Landfill Gas Monitoring

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

Built Heritage Monitoring

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

Ecological Monitoring

11. All ecological monitoring was conducted as scheduled in the reporting month. One (1) action level exceedance and one (1) limit level exceedance for non-aquatic fauna were recorded at T3. 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. The ecological monitoring result in the Reporting Month is shown in **Appendix L**.

Complaint Log

12. One environmental complaint was received in the reporting month. The complaint regarding soil/muddy water discharged is for ND/2019/04, which was referred by EPD on 4 September 2023 for the complaint case received by EPD on the same day. On 11 September 2023, supplementary information of the same case was referred by EPD also.

Notification of Summons and Successful Prosecutions

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

Reporting Changes

14. 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

15. 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 (October to December 2023)
ND/2019/01	(a) Drainage works and sheet pile in Portion 1a (b) Site formation 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, watermains works in Portion 6a (h) Operation of HAC treatment facility in Portion 6b (i) Sheet piling, excavation and 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 and drainage works in Portion 8a (k) Trenchless work, excavation and watermain works in Portion 8b (l) Sheet piling, excavation, drainage works and watermain works in Portion 9b (m) Site clearance, tree felling and removal of existing structure in Portion 13
ND/2019/02	(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	(a) Portion 1 & Portion 1A - Road & Drainage works and watermains works at Yin Kong Road - Construction of Pavilion at Yin Kong Road (b) Portion 2 to Portion 20C - 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	(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 to December 2023)
ND/2019/05	(a) North Team Works - ELS works and Pile cap construction at B2-01 - 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 construction at D2-01 & B2-01 - Pier head construction at D2-01 - Cross head construction at B2-02 & B2-03 (b) Viaduct Works - Segment fabrication for bridge C2, D1, D2& E1 - Segments erection by LG at bridges C3, C2 - Segments erection by crane at bridge D1 and E1 - SOP construction at E2-01, E2-03, D2-01 - Construction of pile cap and installation of bridge rotation components at pier D2-01 - Design and fabrication of falsework for Bridge B1 - Parapet skin fabrication and parapet construction (c) South Team Works - 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 – Form Road L201, BBI Steelworks, relocation of existing BBI and road diversion - 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, E3-04b, E4-01 and E4-02 – cap construction. - NB109 – Bay 11~12 base slab construction. Bay 5 to 12 wall construction. - NB69 – Bay 5~6 base slap construction. - NB110 – Bay 8 ELS and base slab construction. (d) Form Traveler - E3-03 – construction 2nd to 4th pair - E2-02 – construction 10th to 14th pair - D2-02 – construction 1st to 5th pair - D2-03 – erection of form traveler no. 4 and construction 1st to 2nd pair - E2-01 - Fabrication & 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 (October to December 2023)
ND/2019/07	(a) Road works at Portion 1, 4 and 5 (b) C&D waste disposal at Portion 1, 2, 4 and 5 (c) 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) Mini piling works at Portion 4 (h) Construction of noise barrier at Portion 4 and 5 (i) 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 47th EM&A Report which summarises the key findings of the EM&A programme in September 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 - s**ummarises 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 egretry sites in the FLN NDA and enhancement works to an existing egretry site in the KTN NDA;
   iii) site formation of land for a village resite area and a district police station in the KTN NDA;
   iv) engineering infrastructure works including roads, drainage, sewerage, waterbirds, and landscape works; and
   v) implementation of environmental mitigation measures and environmental monitoring and audit (EM&A) programme for the works mentioned in (i) to (iv) above.

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 **2.1.b**.

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 m3 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 3,600m3/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. Raymond Cheng	3619 3919	3547 1658
Supervisor / Supervisor's Representative (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
Contract No. ND/2019/01 Contractor (Build King – Richwell Engineering Joint Venture)	Site Agent	Mr. Ivan Leung	9640 8340	--
	Environmental Officer	Mr. Edward Tam	9287 8270	
Contract No. ND/2019/02 Contractor (Chun Wo – Kwan Lee Joint Venture.)	Site Agent	Mr. Andy Chan	3485 9780	--
	Environmental Officer	Mr. Wesley So	9144 1643	
Contract No. ND/2019/03 Contractor (Sang Hing Kuly Joint Venture)	Site Agent	Mr. Tang Wing Kai	9300 7037	--
	Environmental Officer	Mr. Ken Cheung	9803 5297	
Contract No. ND/2019/04 Contractor (Daewoo – Chun Wo – Kwan Lee Joint Venture)	Site Agent	Mr. Eric Wu	9786 8630	--
	Environmental Manager	Mr. Jimmy Cheng	9609 5916	
	Environmental Officer	Mr. Sam Lam	6178 3179	
Contract No. ND/2019/05 Contractor (CRCC – Paul Y. Joint Venture)	Site Agent	Mr. Darvin Lo	9467 5891	--
	Environmental Manager	Mr. Pan Fong	9436 9435	
	Environmental Officer	Ms. Louise Poon	5272 5709	
Contract No. ND/2019/06 Contractor (New Concepts Engineering Development Ltd.)	Project Manager	Mr. Joe Cheng	9861 0060	--
	Environmental Officer	Mr. Alex Choy	6360 3236	
Contract No. ND/2019/07 Contractor (China Road and Bridge Corporation)	Site Agent	Mr. Daniel Wong	5335 9572	--
	Environmental Officer	Mr. K. M. Lui	5113 8223	
	Environmental Supervisor	Mr. Attlee Chau	6386 9018	

Summary of Construction Works Undertaken During Reporting Month

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

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

Contract No.	Site Activities (September 2023)
ND/2019/01	(a) Drainage works at Portion 1a (b) Portion 1b was handed over (c) Site formation and socket-H piling at Portion 1c (d) Temporary storage of material at Portion 1e (e) Site clearance, site formation, construction of subway, drainage works and road works at Portion 2 (f) Sheet piling, drainage works and watermain works at Portion 3 (g) Watermains works at Portion 5 (h) Drainage works and backfilling at Portion 6a (i) Operation of HAC soil treatment facility at Portion 6b (j) Excavation and drainage works at Portion 7 (k) Construction of retaining wall, RC construction of fresh water service reservoir, construction of WSD's maintenance access, drainage works and backfilling works at Portion 8a (l) Pipe jacking at LWSC's car park, trenchless work and watermain construction at Portion 8b (m) Sheet piling, excavation, drainage and watermain works at Portion 9b (n) Site clearance and removal of existing structures at Portion 13
ND/2019/02	(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	(a) Portion 1 & Portion 1A - Road & Drainage works and watermains works at Yin Kong Road - Construction of Pavilion at Yin Kong Road (b) Portion 2 to Portion 20C - 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	(a) Tree Felling (b) Pile Cap (c) Back Filling (d) Excavation (e) Grouting (f) Sheet Piling (g) Road works (h) Formwork Erection

Contract No.	Site Activities (September 2023)
	(i) Rebar Fixing (j) Pre-drill (k) Bore pile (l) ELS
ND/2019/05	(a) The segment erection using launching gantry is critical to completion of section 4. (b) The pier D2-01 with bridge rotation system is critical to completion of section 5. (c) The erection of 3rd form traveler at D2-02 is in progress. (d) 5th set of form traveler is under fabrication off-site to be used at E2-01.
ND/2019/06	The construction phase was completed and handed over to AFCD since 4 April 2022.
ND/2019/07	(a) Road works at Portion 1, 4 and 5 (b) C&D waste disposal at Portion 1, 2, 4 and 5 (c) Drainage works, Sewerage works at Portion 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-RN0414-23	13/05/2023	12/09/2023	Expired in reporting month
	GW-RN0727-23	26/07/2023	25/11/2023	Cancelled and Superseded by GW-RN0966-23 in reporting month

Contract No.	Permit / Licence No.	Valid Period		Status
		From	To	
	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	Valid
	GW-RN0877-23	01/09/2023	29/02/2024	Valid
ND/2019/02	GW-RN0534-23	08/06/2023	07/11/2023	Valid
	GW-RN0747-23	01/08/2023	31/10/2023	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-RN0595-23	23/06/2023	22/09/2023	Expired in reporting month
	GW-RN0714-23	07/07/2023	11/09/2023	Expired in reporting month
	GW-RN0709-23	13/07/2023	12/10/2023	Valid
	GW-RN0761-23	01/08/2023	31/10/2023	Valid
	GW-RN0799-23	06/08/2023	31/10/2023	Valid
	GW-RN0800-23	06/08/2023	31/10/2023	Valid
	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
ND/2019/05	GW-RN0631-23	19/06/2023	18/09/2023	Expired in reporting month
	GW-RN0785-23	01/08/2023	30/09/2023	Expired in reporting month
	GW-RN0765-23	18/07/2023	17/10/2023	Valid
	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
	GW-RN0897-23	01/09/2023	29/02/2024	Valid
	GW-RN0600-23	22/06/2023	21/09/2023	Cancelled and Superseded by GW-RN0899-23 in reporting month
	GW-RN0899-23	01/09/2023	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

Contract No.	Permit / Licence No.	Valid Period		Status
		From	To	
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
	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	8
FLN-DMS1 FLN-DMS3	Dust Monitor (1-hour TSP)			
	HVS Sampler (TSP) (24-hour TSP)	Tisch	TISCH Model: TE-5170	2

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

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

Monitoring Parameters, Frequency and Duration

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

Table 3.3 Impact Dust Monitoring Parameters, Frequency and Duration

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

Monitoring Methodology and QA/QC Procedure

1-hour and 24-hour TSP Air Quality Monitoring

Instrumentation

3.13 Direct reading dust meter was deployed for the air quality monitoring as shown in **Table 3.2**.

3.14 The measuring procedures of the dust meters were in accordance with the Manufacturer's Instruction Manual as follows:

(AEROCET-831)

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

Maintenance/Calibration

3.15 The following maintenance/calibration was required for the direct dust meters:

- Check and calibrate the meters by HVS to check the validity and accuracy of the results measured by direct reading method at 2-month intervals throughout all stages of the air quality monitoring.

24-hour TSP Air Quality Monitoring

Instrumentation

(TISCH Model: TE-5170)

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

HVS Installation

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

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

Filters Preparation

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

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

Operating/Analytical Procedures

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

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

with swing bolts. The applied pressure should be sufficient to avoid air leakage at the edges;

- The shelter lid was closed and secured with the aluminum strip;
- The timer was then programmed. Information was recorded on the record sheet, which included the starting time, the weather condition and the filter number (the initial weight of the filter paper can be found out by using the filter number);
- After sampling, the filter was removed and kept in a clean and tightly sealed plastic bag. The filter paper was then returned to the HOKLAS accredited laboratory (Wellab Ltd.) for reconditioning in the humidity-controlled chamber followed by accurate weighting by an electronic balance with a readout down to 0.1mg. The elapsed time was also recorded; and
- Before weighing, all filters were equilibrated in a conditioning environment for 24 hours. The conditioning environment temperature should be between 25°C and 30°C and did not vary by more than ±3°C; the RH should be < 50% and did not vary by more than ±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 (µg/m^3)		Action Level, µg/m^3	Limit Level, µg/m^3
	Average	Range		
FLN-DMS1	53.5	19.8 – 81.3	303	500
FLN-DMS3	44.9	18.9 – 86.3	301	500
FLN-DMS5	31.1	15.3 – 64.3	279	500
KTN-DMS4(B)	49.5	30.9 – 104.5	297	500

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

Monitoring Station	Concentration (μg/m³)		Action Level, μg/m³	Limit Level, μg/m³
	Average	Range		
FLN-DMS1	73.1	33.2 – 114.4	150	260
FLN-DMS3	23.4	14.9 – 28.8	165	260
FLN-DMS5A	34.5	24.0 – 50.8	153	260
KTN-DMS4(B)	35.3	28.5 – 47.3	192	260

3.23 All 1-hour and 24-hour TSP monitoring was conducted as scheduled in the reporting month except both 1-hr and 24-hr TSP monitoring were cancelled on 1 Sep due to Typhoon Signal No.8, 1-hr TSP was cancelled on 8 Sep due to Black Rainstorm Warning Signal, and 24-hr was cancelled at FLN-DMS1 on 13 Sep due to power supply failure. 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

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.

L_{10} is the level exceeded for 10% of the time. For 10% of the time, the sound or noise has a sound pressure level above L_{10}. L_{90} is the level exceeded for 90% of the time. For 90% of the time, the noise level is above this level.

[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 min.) dB(A) (as six consecutive $L_{eq,\ 5min}$ 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]	65.4 – 68.9	69.9	75
ND/2019/04				
ND/2019/05				
	CP-FLN-NMS2[2]	53.4 – 67.2	59.6	
ND/2019/01	CP-KTN-NMS2[3]	55.1 – 58.1	58.6	
	CP-KTN-NMS3[4]	49.4 – 55.4	51.6	
ND/2019/01	CP-KTN-NMS5	58.2 – 62.4	57.2	
ND/2019/02	CP-KTN-NMS6	56.4 – 61.8	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
• Temperature(°C) • pH(pH unit) • turbidity (NTU) • water depth (m) • salinity (ppt) • DO (mg/L and % of saturation) • SS (mg/L) • Ammonia Nitrogen (NH_3-N) (mg NH_3-N/L) • Unionized Ammonia (UIA) (mg/L) • Nitrate-nitrogen (NO_3-N) (mg NO_3^--N/L) • Ortho-phosphate (PO_4) (mg PO_4^{3-}-P/L)	• 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 Equipment

Instrumentation

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

Dissolved Oxygen (DO) and Temperature Measuring Equipment

5.13 The instrument for measuring dissolved oxygen and temperature should be portable and weatherproof complete with cable, sensor, and use DC power source. The equipment was capable of measuring:

- A dissolved oxygen level in the range of 0-20mg/L and 0-200% saturation; and
- The temperature within 0-45 degree Celsius.

5.14 The equipment had a membrane electrode with automatic temperature compensation complete with a cable.

5.15 Sufficient stocks of spare electrodes and cables were available for replacement where necessary.

5.16 Salinity compensation was built-in in the DO equipment. *In-situ* salinity was measured to calibrate the DO equipment prior to each DO measurement.

Turbidity

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

Salinity

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

Water Depth Detector

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

pH

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

Water Sampling for Laboratory Analysis

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

Sample Container and Storage

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

Calibration of In Situ Instruments

5.23 The pH meter, DO meter and turbidimeter were checked and calibrated before use. DO meter and turbidimeter were certified by WELLAB Limited before use and subsequently re-calibrated at quarterly basis throughout all stage of water quality monitoring programme. Response of sensors and electrodes were checked with certified standard solutions before each use. Wet bulb calibration for a DO meter was carried out before measurement at each monitoring station.

5.24 For on-site calibration of field equipment (Multi-parameter Water Quality System), the standard BS 1427:2009 "Guide to on-site test methods for analysis of waters" was observed.

Back-up Equipment

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

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

Table 5.3 Water Quality Monitoring Equipment

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

Monitoring Parameters and Frequency

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

Table 5.4 Additional Water Quality Monitoring Parameters and Frequency

Monitoring Station(s)		Parameters, unit	Depth	Frequency
River Beas	SYR-CS1 SYR-IS1	• 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)	• 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	NTR-CS1 NTR-IS1 SHST-IS2 MWR-IS3	• 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 except 1 and 8 September 2023 due to the adverse weather (Typhoon Signal No.8 and Black Rainstorm Warning Signal). The water quality monitoring schedule for this reporting month is shown in **Appendix D**.

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

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

Table 5.6 Summary of Water Quality Exceedances

Station	Exceedance Level	DO	Turbidity	SS	Arsenic	Total number of Non-project Related Exceedances	Total number of project Related Exceedances
SYR-IS1	Action Level	0	0	0	1	1	0
	Limit Level	1	1	0	0	2	0
NTR-IS1	Action Level	0	0	0	N/A	0	0
	Limit Level	0	1	0		1	0
SHST-IS2	Action Level	0	0	0		0	0
	Limit Level	0	0	0		0	0
MWR-IS3	Action Level	0	0	0		0	0
	Limit Level	2	0	0		2	0
Total	Action Level	0	0	0	1	1	0
	Limit Level	3	2	0	0	5	0

* Exceedances record date: 11/09/2023, 13/09/2013

Three (3) Limit Level for DO, Two (2) Limit Level for turbidity, and One (1) Action Level for Arsenic of impact water quality monitoring were recorded. Exceedances were recorded on 11 and 13 September 2023. After investigation, the exceedance was considered due to the other external factors rather than the contract works due to the following reasons:

1. No pollution discharged was observed from land-based site area;
2. Water quality mitigation measures at the nearby construction sites (i.e. Contract No. ND/2019/02 and ND/2019/04) were observed properly maintained including covering the exposed soil/slope, silt curtain and cofferdam also deployed and maintained well.
3. Bunds and paved slope around the works area (Contract No. ND/2019/04) were observed properly maintained.
4. Influx of muddy water from nullah or upstream was observed. Organic material is anticipated in adverse water quality causing a reduction in DO levels due to the

decomposition of organic matter by microorganisms. No soil exposed works at the nearby construction site next to the Ma Wat River.

5. Control Station's DO Value already exceed either the Action or Limit Levels.
6. After Typhoon Saola reached Hong Kong in the first few days of September, Amber, Red and Black rainstorm warning signal was enforced from 7 to 8 September 2023, which is a record-breaking rainstorm in Hong Kong, following with Amber rainstorm warning signal was enforced on 10 September 2023. Heavy Rainfall in Northern District was recorded before the water quality monitoring which may led to increased surface runoff and hence adverse water quality.

Event and Action Plan

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

6. LAND CONTAMINATION (AMBIENT ARSENIC MONITORING)

Monitoring Requirements

6.1 According to Section 7.5 of the updated EM&A Manual, an ambient arsenic monitoring is required to be conducted in KTN during the clean-up processes of arsenic containing soil and the construction phase.

6.2 The Respirable Suspended Particulate (RSP, or PM10) was measured by High Volume Sampler (HVS) equipped with PM10 selector following the "Reference Method for the Determination of Particulate Matter as PM10 in the Atmosphere" Part 50 Chapter 1 Appendix J, Title 40 of the Code of Federal Regulations of the USEPA.

6.3 The Dust-laden air was drawn through PM10 HVS fitted with a conditioned pre-weighting filter paper, at a controlled rate. After sampling for 24-hour (details on measurement period are provided in Section 9.5.5), the filter paper with retained PM10 particulates was collected and returned to the laboratory for drying in a desiccators followed by accurate weighting. 24-hour average RSP levels were calculated from the ratio of the mass of PM10 particulates retained on the filter paper to the total volume of air sampled.

6.4 The weighted filter paper was prepared for arsenic testing through a "Hot Acid Extraction Procedure". The extracted material was tested for arsenic by using Inductively Coupled Plasma/Mass Spectrometry (ICP/MS). The extraction and testing was referenced to the following methods:

- Compendium Method 1O-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 1O-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 m^3/min. and 1.4 m^3/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)
06/09/2023	KTN-DMS4(A)	1.03	9.36	11.7
12/09/2023		4.63		
18/09/2023		5.13		
22/09/2023		5.91		
28/09/2023		5.84		

6.15 All ambient arsenic monitoring was conducted as scheduled in the reporting month. During the reporting month, 1,826.9m^3 of arsenic soil transported to soil treatment plant and 2,526.3m^3 treated. No Action/Limit Level exceedances were recorded.

Event and Action Plan

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

7. LANDFILL GAS MONITORING

Monitoring Requirement

7.1 In accordance with the updated EM&A Manual, monitoring of landfill gas (LFG) is required for the construction works within the Ma Tso Lung Landfill (MTLL, close to KTN NDA) during the construction phase. This section presents the results of landfill gas measurements performed by the Contractor. **Appendix B** shows the Limit Levels for the monitoring works.

7.2 The MTLL is situated in the vicinity of the KTN NDA. A portion of the development falls within the MTLL and its 250m Consultation Zone.

Monitoring Parameters and Frequency

7.3 Monitoring parameters for Landfill gas monitoring include Methane, Carbon dioxide and Oxygen.

7.4 According to the mitigation measures of the updated EM&A Manual, measurements of the following frequencies should be carried out according to the monitoring requirements and procedures specified in Paragraphs 8.23 to 8.28 of EPD's Guidance Note, "LANDFILL GAS HAZARD ASSESSMENT GUIDANCE NOTE".

7.5 The frequency of monitoring of LFG was made reference to the updated EM&A Manual - Monitoring of any LFG which may be migrated to the site should be undertaken during construction of the infrastructure and the development within the Consultation Zone and within MTLL when the works involve confined spaces. Routine gas monitoring should be undertaken during groundwork construction and in all excavations. Monthly gas monitoring should also be conducted for set up on site such as offices, stores etc.

Monitoring Locations

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

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

Monitoring Equipment

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

Table 7.1 Landfill Gas Monitoring Equipment

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

Results and Observations

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

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

Event and Action Plan

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

8. BUILT HERITAGE MONITORING

Monitoring Requirement

8.1 In accordance with the updated EM&A Manual, baseline condition survey and baseline vibration impact assessment shall be conducted for identified built heritage prior to the commencement of construction works. Baseline condition survey and baseline vibration impact assessment shall be conducted by a qualified building surveyor or qualified structural engineer to define the vibration limit (a vibration limit at 7.5mm/s and 15mm/s could be adopted for graded historical buildings and historical buildings respectively) and to evaluate if construction vibration monitoring and structural strengthening measures are required during construction phase to ensure the construction performance meets the vibration standard stated in the EIA report.

8.2 According to the condition survey report from cultural heritage condition survey for 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 when pile driving operation was conducted within assessment area of the construction works. The location of the construction vibration monitoring stations was summarised in **Table 8.1** and shown in **Appendix K**.

Table 8.1 Location of Construction Vibration Monitoring

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

Monitoring Parameters and Frequency

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

Table 8.2 Vibration Monitoring Plan

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

Remark:
[1] Baseline condition survey was conducted for built heritage features at 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, FL27, FL31, FL33 and FL36 were not within the assessment area of the related construction work, no construction

vibration monitoring was conducted for the built heritage in the reporting month.

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

Monitoring Equipment

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

Results and Observations

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

Event and Action Plan

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

Table 8.3 Vibration Limits for Construction Vibration Monitoring

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

Remarks:
* peak particle velocity
# as cultural heritages are sensitive receivers, vibration monitoring should be classified as vibration-sensitive

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

9 ECOLOGICAL MONITORING

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

Monitoring Requirements and Protocol

9.1 As required under Section 12.3.2.5 of the Updated EM&A Manual, where development under the NDAs project is undertaken within 200m (the maximum distance at which it is predicted there may be some disturbance, and hence a reduction in numbers of large waterbirds) of Sheung Yue River and Long Valley, weekly transect at both high and low tides should be followed (It is considered high tide when the tidal levels are above 1.5m and low tide when the tidal levels are below 1.5m at Tsim Bei Tsui Station).

9.2 The purpose of the survey is to identify and enumerate all bird species utilizing the river channels and Long Valley Nature Park (LVNP) and identify any sources of actual or potential disturbance to birds due to construction activities throughout the construction period according to the methodology specified in Table 12.1 in the Updated EM&A Manual.

9.3 Monitoring in Long Valley followed the methodology adopted by the regular HKBWS bird monitoring programme in order to obtain comparable results and a complete coverage of the area in the shortest possible time.

Monitoring Frequency

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

Date of avifauna monitoring:	5, 6, 11, 12, 18, 20, 26 and 27 September 2023
Date of night-time monitoring:	12 and 27 September 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, 58 species of birds were recorded during the bird surveys within assessment area. Among the recorded birds, there were 26 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
Mean abundance of large water birds* using Ng Tung River, Sheung Yue River and Shek Sheung River	84.25	16	11	8
Mean abundance of *Ardeola bacchus* using Ng Tung River, Sheung Yue River and Shek Sheung River	17	14	10	7
Mean Abundance of Bird recorded in LVNP	823.75	567	397	284
Mean Abundance of *Ardeola bacchus* recorded in LVNP	19	18	12	9
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:
Ardea alba, *Ardea cinerea*, *Egretta eulophotes*, *Egretta garzetta*, *Ardea intermedia* and *Phalacrocorax carbo*

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.

Date of aquatic fauna monitoring: 15th September 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 18 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 *Orechromis mossambicus.*

9.29 For the monitoring on 15th September 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	1	1	NA	NA
MS_04, MS_06 & MS_07	3	2	NA	1
MS_05	0	0	NA	NA
MS_08, MS_09 & MS_10	4	1	NA	NA
MS_11	0	0	NA	NA
MS_12	0	0	NA	NA
MS_13 & MS_14	1	1	NA	NA
MS_15	1	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	1	NA	NA
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 No Action or 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 form 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: 14, 21 September 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 6 mammal species were recorded from transects. Three (3) species of conservation importance were recorded, namely *Callosciurus erythraeus*, *Cynopterus sphinx* and *Pipistrellus abramus.*

9.45 Domestic dogs, *Canis lupus familiaris*, were commonly found at transect T1, T4, T5 and T6, where associated with human settlements, whilst domestic cats, *Felis catus*, were found at T1 and T5.

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 T4. *Pipistrellus abramus* was recorded in flight at nighttime at all transect.

Herpetofauna (Amphibians and Reptiles)

9.50 Among the transects, a total of 12 herpetofauna species were observed. One (1) species recorded was of conservation importance, namely *Oligodon formosanus*. 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 47 butterfly species were recorded from transects. Six (6) species of butterfly recorded was of particular conservation interest, namely *Hypolimnas misippus, Lexias pardalis, Jamides alecto, Jamides celeno, Aeromachus jhora* and *Catochrysops strabo*. Transect T1 had recorded the highest butterfly diversity among all transects.

9.52 20 species of odonata were recorded in the reporting month. Two (2) species recorded was of particular conservation interest, namely *Potamarcha congener* and *Urothemis signata*. 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	1	1	NA	NA
T3	1	0	NA	NA
T4	2	1	NA	NA
T5	2	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	10	11	8	6
T3	4	6	4	3
T4	4	4	3	2
T5	5	5	4	3
T6	5	7	5	4

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	32	18	13	9
T3	10	11	8	6
T4	18	14	10	7
T5	21	12	8	6
T6	11	14	10	7

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	12	11	8	6
T3	2	11	8	6
T4	6	4	3	2
T5	10	10	7	5
T6	8	11	8	6

9.58 One (1) Action Level exceedance and One (1) Limit Level exceedance was recorded in non-aquatic fauna monitoring during the reporting month.

9.59 For the monitoring conducted on 21 September 2023 at Transect T5, a section of the transect route was found located within a private property and hence not accessible. Another section of transect T5 was found blocked by a new accumulation of fallen trees. The inaccessible part are shown in **Photo 1** and **Photo 2** below. The adjusted accessible transect route is shown in **Figure 11**.

	
Photo 1. Inaccessible part of transect T5 located within a private property.	Photo 2. Inaccessible part of transect T5 blocked by fallen trees.

Results and Observation

Action and Limit Level Exceedance

9.60 One (1) action level exceedance and one (1) limit level exceedance for non-aquatic fauna were recorded at T3. The exceedance were considered non-project related.

9.61 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 inhabitance of 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. No on site observation, nor environmental monitoring result suggest the impact were project-related.

Details of the Influencing Factors

Major Activities

9.62 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.

9.63 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..

9.64 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.

9.65 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

9.66 According to the observation during survey, temperature and the rain flow records in the reporting month (Reference: http://www.weather.gov.hk/wxinfo/pastwx/metob202309.htm), weather conditions might pose influence towards the monitoring results.

9.67 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 *Supervisor's* Representative and the Contractor	5, 12, 18 and 26 Sep 23	6, 13, 22 and 27 Sep 23	14, 19 and 29 Sep 23	7, 13, 21 and 28 Sep 23	4, 14, 18 and 26 Sep 23	7, 13, 21 and 28 Sep 23	15, 19 and 25 Sep 23
Joint Site Audit with representative of the *Supervisor's* Representative, the Contractor and IEC	5 and 18 Sep 23	22 Sep 23	19 Sep 23	13 Sep 23	14 Sep 23	N/A	19 Sep 23

Remarks: Due to adverse weather on 1 September 2023 (Friday) forecasted by HKO, the scheduled weekly site audits of ND/2019/03 and ND/2019/07 were rescheduled to late August. The Black Rainstorm Warning Signal was in force on 8 September 2023 (Friday). Due to safety reasons, the scheduled weekly site audits for ND/2019/03 and ND/2019/07 were cancelled.

10.2 During site inspections in the reporting month, no non-conformance was identified. The observations and recommendations made during the audit sessions are summarised in **Table 10.2**.

10.3 All construction activities with significant environmental impact undertaken by Contract No. ND/2019/06 was substantially completed in March 2022 and the majority of outstanding works were also completed in April 2022 with defect rectification works remained. The outstanding installation works were the short-duration works which would be completed within 2 months during the 1-year defect correction period, originally estimated.

10.4 Due to problems in material deliveries from Mainland China in 2022, the completion date of the outstanding works would be extended to June 2023 tentatively. However, in June 2023, more defects were found during the handover inspection so the rectification works will continue for another week or two. In July 2023, all works have been completed and waiting for the confirmation of the authority.

10.5 The weekly site inspection and EM&A Reporting for ND/2019/06 will be maintained until the termination proposal for ND/2019/06 has been endorsed by the IEC, the Engineer and the Project Proponent followed by approval from EPD 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	18/09/2023	Sandbag barriers along the site boundary at Portion 2 should be enhanced to prevent surface runoff discharge.	Improvement/Rectification was observed during follow-up audit session on 26 Sep 2023.
	18/09/2023	Temporary ditches should be provided for runoff discharge into appropriate watercourse.	Item remarked as 230926-R02. Follow-up action is needed to be review.
	26/09/2023	Water pump failure causing muddy water overflow within the site boundary near Pak Shek Au should be fixed immediately.	Follow-up action is needed to be reported in the following month.
	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.	Follow-up action is needed to be reported in the following month.
Air Quality	26/09/2023	The Contractor was reminded to provide sufficient water-spraying to enhance dust suppression measures.	Follow-up action is needed to be reported in the following month.
Contract No.: ND/2019/02			
Water Quality	30/08/2023	Exposed slope surfaces along the riverside should be covered by tarpaulin sheets securely and properly as soon as possible before raining/typhoon.	Improvement/Rectification was observed during follow-up audit session on 6 Sep 2023.
	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.	Follow-up action is needed to be reported in the following month.
	27/09/2023	Exposed slope surface should be covered by tarpaulin sheets properly.	Follow-up action is needed to be reported in the following month.
Ecology	13/09/2023	The silt curtain under the bridge should be maintained properly and regularly.	Item remarked as 230922-R03. Follow-up action is needed to be review.
	22/09/2023		Item remarked as 230927-R03. Follow-up action is needed to be review.
	27/09/2023		Follow-up action is needed to be reported in the following month.
Landscape and Visual	30/08/2023	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 230906-R01. Follow-up action is needed to be review.
	06/09/2023		Item remarked as 230913-R01. Follow-up action is needed to be review.

Parameters	Date	Observations and Recommendations	Follow-up
	13/09/2023		Item remarked as 230922-R01. Follow-up action is needed to be review.
	22/09/2023		Item remarked as 230927-R01. Follow-up action is needed to be review.
	27/09/2023		Follow-up action is needed to be reported in the following month.
	30/08/2023	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.	Item remarked as 230906-R02. Follow-up action is needed to be review.
	06/09/2023		Item remarked as 230913-R02. Follow-up action is needed to be review.
	13/09/2023		Item remarked as 230922-R02. Follow-up action is needed to be review.
	22/09/2023		Item remarked as 230927-R02. Follow-up action is needed to be review.
	27/09/2023		Follow-up action is needed to be reported in the following month.
Contract No.: ND/2019/03			
Air Quality	31/08/2023	Dusty stockpiles should be covered with tarpaulin sheets.	Item remarked as 230914-R01. Follow-up action is needed to be review.
	14/09/2023		Item remarked as 230919-R01. Follow-up action is needed to be review.
	19/09/2023		Item remarked as 230929-R01. Follow-up action is needed to be review.
	29/09/2023		Follow-up action is needed to be reported in the following month.
Water Quality	31/08/2023	Provide adequate wheel-washing facilities for each vehicle exits.	Item remarked as 230914-O01. Follow-up action is needed to be review.
	14/09/2023		Item remarked as 230919-O01. Follow-up action is needed to be review.
	19/09/2023		Item remarked as 230929-O01. Follow-up action is needed to be review.
	29/09/2023		Follow-up action is needed to be reported in the following month.

Parameters	Date	Observations and Recommendations	Follow-up
	31/08/2023	Provide sand bags to prevent muddy water discharge.	Item remarked as 230914-R02. Follow-up action is needed to be review.
	14/09/2023		Item remarked as 230919-R02. Follow-up action is needed to be review.
	19/09/2023		Item remarked as 230929-R02. Follow-up action is needed to be review.
	29/09/2023		Follow-up action is needed to be reported in the following month.
Contract No.: ND/2019/04			
Water Quality	31/08/2023	All vehicles should be cleaned of earth, mud and debris before leaving the site.	Item remarked as 230907-R01. Follow-up action is needed to be review.
	07/09/2023		Item remarked as 230913-R01. Follow-up action is needed to be review.
	13/09/2023		Item remarked as 230921-R01. Follow-up action is needed to be review.
	21/09/2023		Item remarked as 230928-R01. Follow-up action is needed to be review.
	28/09/2023		Follow-up action is needed to be reported in the following month.
	31/08/2023	Stockpile of dusty materials should be covered properly and securely during rainstorm.	Item remarked as 230907-R02. Follow-up action is needed to be review.
	07/09/2023		Improvement/Rectification was observed during follow-up audit session on 13 Sep 2023.
	07/09/2023	Earth bunds or sand bag barriers around the construction site next to Ma Wut River should be provided to prevent surface runoff through the site boundary.	Item remarked as 230913-O01. Follow-up action is needed to be review.
	13/09/2023		Improvement/Rectification was observed during follow-up audit session on 21 Sep 2023.
	28/09/2023	Water quality mitigation measures along Ng Tung River should be provided, e.g. sand bag barrier.	Follow-up action is needed to be reported in the following month.
Ecology	13/09/2023	The silt curtain deployed around platform F02 should be maintained properly.	Improvement/Rectification was observed during follow-up audit session on 21 Sep 2023.

Parameters	Date	Observations and Recommendations	Follow-up
	28/09/2023	Silt curtain at Bridge F should be fully enclosed.	Follow-up action is needed to be reported in the following month.
Air Quality	21/09/2023	Stockpile of dusty materials should be covered by tarpaulin sheets.	Improvement/Rectification was observed during follow-up audit session on 28 Sep 2023.
	28/09/2023	Sufficient water-spraying should be provided regularly.	Follow-up action is needed to be reported in the following month.
Noise	28/09/2023	Noise barrier should be maintained properly.	Follow-up action is needed to be reported in the following month.
Contract No.: ND/2019/05			
Water Quality	28/08/2023	The design of the on-site drainage should be enhanced to prevent runoff going through site surface at On Lok Garden.	Improvement/Rectification was observed during follow-up audit session on 04 Sep 2023.
	28/08/2023	Temporary ditches should be provided for vehicle washing spaces to avoid wastewater discharge into inappropriate watercourse.	Improvement/Rectification was observed during follow-up audit session on 04 Sep 2023.
	28/08/2023	Blue hose attached to water pump should be kept away from the riverside.	Improvement/Rectification was observed during follow-up audit session on 04 Sep 2023.
	26/09/2023	Blue hose attached to water pump should be kept away from the riverside.	Follow-up action is needed to be reported in the following month.
Air Quality	18/09/2023	Provide maintenance for excavator to avoid black smoke emission.	Improvement/Rectification was observed during follow-up audit session on 26 Sep 2023.
Contract No.: ND/2019/06			
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Contract No.: ND/2019/07			
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Implementation Status of Environmental Mitigation Measures

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

Table 10.3 Photographic Records and Implementation Status of Measures

EP No.	Condition	Photographic Record	Implementation Status
EP-466/2013/A	2.9	  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.	Λ[1]
EP-467/2013/A	2.9	  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.	Λ[1]
EP-468/2013/A	2.11	  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.	Λ[1]
EP-469/2013	2.7	  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.	Λ[1]

EP-473/2013/A	2.13	  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.	^[1]
EP-475/2013/A	2.7	  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.	^[1]
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		

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

Implementation Status of Water Quality Mitigation Measures

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

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

Works Contracts	Photographic Records	
ND/2019/01	 Hard paved exposed slope surface	 Hydroseeding for slope area
ND/2019/02	 Hard paved exposed haul road	 Hard paved exposed slope surface
ND/2019/03	 Hard paved exposed haul road	 Watering the main haul road regularly.
ND/2019/04	 Hard paved exposed slope surface	 Deployment of silt curtain around works area in Ng Tung River

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

Solid and Liquid Waste Management Status

10.8 Waste generated from Contract Nos. ND/2019/01, ND/2019/02, ND/2019/03, ND/2019/04, ND/2019/05 and ND/2019/07 included inert construction and demolition (C&D) materials and non-inert C&D wastes in the reporting month. The site of ND/2019/06 was handed over to AFCD for operation since 4 April 2022.

10.9 The amount of wastes generated by the construction works of the Contract Nos. ND/2019/01, ND/2019/02, ND/2019/03, ND/2019/04, ND/2019/05 and ND/2019/07 during the reporting month are shown in **Appendix R**. The site of ND/2019/06 was handed over to AFCD for operation since 4 April 2022.

10.10 The Contractors are advised to minimise the wastes generated through recycling or reusing. All mitigation measures stipulated in the Updated EM&A Manual and waste management plans shall be fully implemented. The status of implementation of waste management and

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

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

10.11 Based on the findings of the EIA Report, the area of Long Valley has been assessed as of high to very high ecological value and is the largest contiguous area of freshwater wetland habitats in Hong Kong. To safeguard the ecological value of Long Valley, about 37 hectares of land in Long Valley has been proposed to develop into Long Valley Nature Park (LVNP) for conserving and enhancing the ecologically important environment as well as for compensation of the wetland loss due to the NDA development.

10.12 LVNP is developed according to the approved Habitat Creation and Management Plan (HCMP) submitted under EP-468/2013/A. HCMP provides a framework and specifications for development and management of LVNP and guides the development to maintain and enhance the 37 hectares of low-lying wetland habitats.

10.13 Regarding the design, the zoning of land use in LVNP is intended to maintain the existing mosaic pattern of wet and dry agriculture, while controlling the activities that could potentially disturb target habitats and species. LVNP will be divided into three broad zones of land use as below:

- Biodiversity Zone of about 21 hectares largely designated for biodiversity conservation through cultivation of specified crops and habitat management.
- Agricultural Zone of about 11 hectares designated for commercially focuses crop production and eco-friendly agricultural practice for farming.
- Visitor Zone of about 5 hectares designed to accommodate visitors as well as storage and other facilities and for educational purposes.

10.14 The construction of LVNP started in late 2019 and was expected to be completed in 2023. During the construction period, the progress of construction and wetland enhancement works has been under observation by different stakeholders including AFCD and green groups. Close communication between AFCD and CEDD were conducted to exchange views on conservation, restoration and management of habitats as well as on the planning and design of the park. In addition, advices from green groups, Hong Kong Bird Watching Society (HKBWS) and The Conservancy Association (CA), have been taken on habitat management of Long Valley and potential effects on habitat and wildlife of each individual work conducted in Long Valley. The last meeting was held on 18 November 2022 to share the progress of LVNP with different stakeholders, including CEDD, AFCD, CA, HKBWS, Contractor, ET, IEC and farmers.

10.15 Proposals on wetland creation and restoration, dry agricultural land creation, pond creation, water treatment wetland and design of irrigation channel were submitted by the Contractor to achieve the objectives stated in HCMP and accepted by the Engineer with consent from AFCD before implementation. The Contractor would consult the stakeholders for recommendations and suggestions on mitigation measures to minimise the environmental impacts arising from construction works. The progress of works would be arranged to minimise impacts to avifauna and maintain the habitat for avifauna. The photographic records of site activities in LVNP are presented in **Table 10.5**.

Table 10.5 Photographic Records of Site Activities in LVNP



Continuing agricultural practice in existing farmland to maintain habitats in Long Valley



Open water Habitat



Open water Habitat

Creation of wetland with designated habitat for biodiversity conservation





Planting of paddy rice to provide foraging ground for Yellow-breasted Bunting





Enhancement of irrigation channel to provide reliable water source for farmland in Long Valley



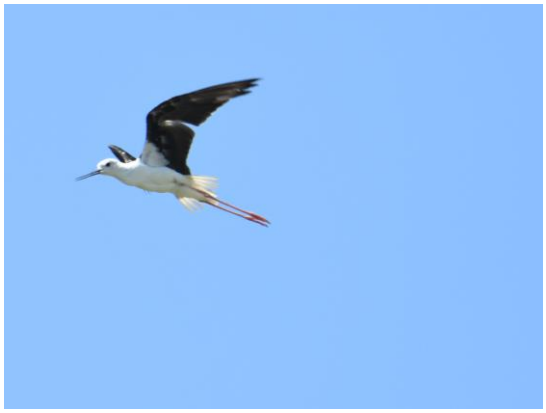
Provision of bird island (hidden area)



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 Three (3) Limit Level for DO, Two (2) Limit Level for turbidity, and One (1) Action Level for Arsenic of impact water quality monitoring were recorded. After investigation, the exceedance was considered due to the other external factors rather than the contract works.

11.2 No Action/Limit Level exceedance for air quality, construction noise, ambient arsenic, built heritage and landfill gas monitoring was recorded in the reporting month. The summary of exceedance record in the reporting month is shown in **Appendix O**.

11.3 Ecological monitoring was carried out in the reporting month. One (1) action level exceedance and one (1) limit level exceedance for non-aquatic fauna were recorded at T3. The exceedance were considered non-project related.

11.4 Should the monitoring results of the environmental monitoring parameters at any designated monitoring stations indicate that Action / Limit Levels are exceeded, the actions in accordance with the Event/Action Plan in **Appendix N** would be carried out.

Summary of Environmental Non-Compliance

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

Summary of Environmental Complaint

11.6 One environmental complaint was received in the reporting month. The complaint is for ND/2019/04. The Cumulative Complaint Log since the commencement of the Project is presented in Appendix S.

Summary of Environmental Summon and Successful Prosecution

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

12 FUTURE KEY ISSUES

Key Issues in the Coming Three Months

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

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

Contract No.	Major Site Activities (October to December 2023)	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		- 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. **Water** - 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. **Waste / Chemical Management** - 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) Sheet piling / ELS	Portion 1c, 5, 7, 9b		

				- 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	- 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. - Dull green barrier and ecological measures should be implemented according to the Ecological protection plan.
	(b) Backfilling	Portion 3, 4 & 5	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 3, 4, CH982-1046	Air, Noise, Water, Waste	
	(g) Cut and Fill of Slope	Portion 3, 4	Air, Noise, Water, Waste	

ND/2019/03	(a) Excavation & ELS	Portion 1, 1A, 2, 3, 4, 4A, 4B, 5, 5A	- Waste - Air pollution - Noise pollution	- 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	- Waste - Air pollution - Noise pollution	
	(c) Tree Felling	Sections 6, 7, 8 and 9	- Waste - Air pollution - Noise pollution	
ND/2019/04	(a) Sheet piling	Portion H, F, K and Bridge A101	- Air, Noise, Waste	- 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
	(b) Pile cap	Bridge A1, A2 and A3	- Air, Noise, Water, Waste	
	(c) Grouting	Bridge F, A2, A3 and Portion J, A, B, K, H	- Air, Noise, Water, Waste	
	(d) Bore pile	Bridge G	- Air, Noise, Water, Waste	
	(e) Excavation & ELS	Portion J, F, H, K, X, S, Bridge A1, A2 and A3	- Air, Noise, Waste	
	(f) Road works	Portion J, H, Q, R, U and VY	- Air, Noise, Waste	

	(g) Pre-drilling	Portion C (A301)	- Air, Noise, Water, Waste	must be desilted before discharging according to water discharge license.
	(h) Tree felling	Portion A and R	- Air, Noise, Waste	
	(i) UU diversion	Portion J and K	- Air, Noise, Waste	
ND/2019/05	(a) ELS & Pile Cap Construction	B2-01, B2-03, D2-01	- Construction Dust Impact - Noise Impact - Water Quality Impact (Construction Phase) - Waste Management (Construction Waste) - Landscape and Visual - Cultural Heritage	Regular watering on exposed worksites and haul road. - Stockpiling area should be provided with covers and water spraying system. - Only well maintained plant to be operated on site. - plant known to emit noise strongly in one direction, where possible, be orientated so that the noise is directed away from nearby NSRs. - mobile plant to be sited as far away from NSRs as possible practicable. - All open stockpiles of construction materials of more than 50m3 to be cove red with tarpaulin. - Manholes to be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris being washed into the drainage system. - All vehicles and plant to be cleaned before leaving a construction site to ensure no earth, mud, debris and the like is deposited by them on roads. - Segregate and store different types of waste in different containers, skip or
	(b) Pier/Pier head Construction	D2-01 & B2-03; C2-04b, D2-01; E3-04a, E3-05M, E4-01 and E4-02		
	(c) Cross head construction	NIL		
	(d) Slope works	NIL		
	(e) Fabrication for segment	C2, D1, D2 & E1		
	(f) Fabrication for Form Traveler	3rd and 4th set of form traveler; 4th and 5th set of form traveler		
	(g) Construction of Abutment wall	B1		
	(h) Segment Erection by Launching Girder & Crane	bridges C4,C3; bridge D1 and E1		
	(i) SOP construction (precast & in-situ cast in type)	E3-02, D2-03, E2-01, E2-03		
	(j) T-span construction by Form Traveler	Pier E2-02, E3-03, D2-02, E3-01;		

		D2-03, E2-03		stockpiles to enhance reuse or recycling of materials and their proper disposal. - Sort out demolition debris and ex cavated 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 ca nnot 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 - Tree Protection & Preservation Exiting trees to be retained within the Project Site should be carefully protected during construction. In particular OVTs will be
	(k) Installation of bridge rotation components	Pier D2-01		
	(l) Road construction	TWSRW, TWSRE		
	(m) Base slab construction	NB110 – bay 3~5; NB69 – bay 6~8		
	(n) Tree Works	All works areas		

				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	- Construction Dust Impact - Noise Impact - Water Quality Impact (Construction Phase) - Waste Management (Construction Waste) - Landscape and Visual	- Regular watering on exposed worksites and haul road. - Stockpiling area should be provided with covers and water spraying system. - Only well-maintained plant to be operated on-site. - plant known to emit noise strongly in one direction, where possible, be orientated so that the noise is directed away from nearby NSRs. - mobile plant to be sited as far away from NSRs as possible practicable. - All open stockpiles of construction materials of more than 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.
	(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) Mini piling works	Portion 4		
	(j) Waterworks	Portion 1, 2, 4		

				- 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 another licensed facility, in accordance with the Waste Disposal (Chemical Waste) (General) Regulation.

				- Tree Protection & Preservation – Exiting trees to be retained within the Project Site should be carefully protected during construction. In particular OVTs will be preserved according to ETWB Technical Circular (Works) No. 29/2004. - 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.

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 September 2023 in accordance with the Updated EM&A Manual.

13.2 Three (3) Limit Level for DO, Two (2) Limit Level for turbidity, and One (1) Action Level for Arsenic of impact water quality monitoring were recorded.

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

13.4 One (1) non-project related action level exceedance and one (1) non-project related limit level exceedance for non-aquatic fauna were recorded.

Contract No. ND/2019/01

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

Contract No. ND/2019/02

13.6 Environmental site inspections were conducted on 6, 13, 22 and 27 Sep 23 by ET in the reporting month.

Contract No. ND/2019/03

13.7 Environmental site inspections were conducted on 14, 19 and 29 Sep 23 by ET in the reporting month.

Contract No. ND/2019/04

13.8 Environmental site inspections were conducted on 7, 13, 21 and 28 Sep 23 by ET in the reporting month.

Contract No. ND/2019/05

13.9 Environmental site inspections were conducted on 4, 14, 18 and 26 Sep 23 by ET in the reporting month.

Contract No. ND/2019/06

13.10 Environmental site inspections were conducted on 7, 13, 21 and 28 Sep 23 by ET in the reporting month.

Contract No. ND/2019/07

13.11 Environmental site inspections were conducted on 15, 19 and 25 Sep 23 by ET in the reporting month.

13.12 One environmental complaints was received in the reporting month. No notification of summons or successful prosecutions was received in the reporting month.

13.13 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

13.14 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 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 minimise runoff.

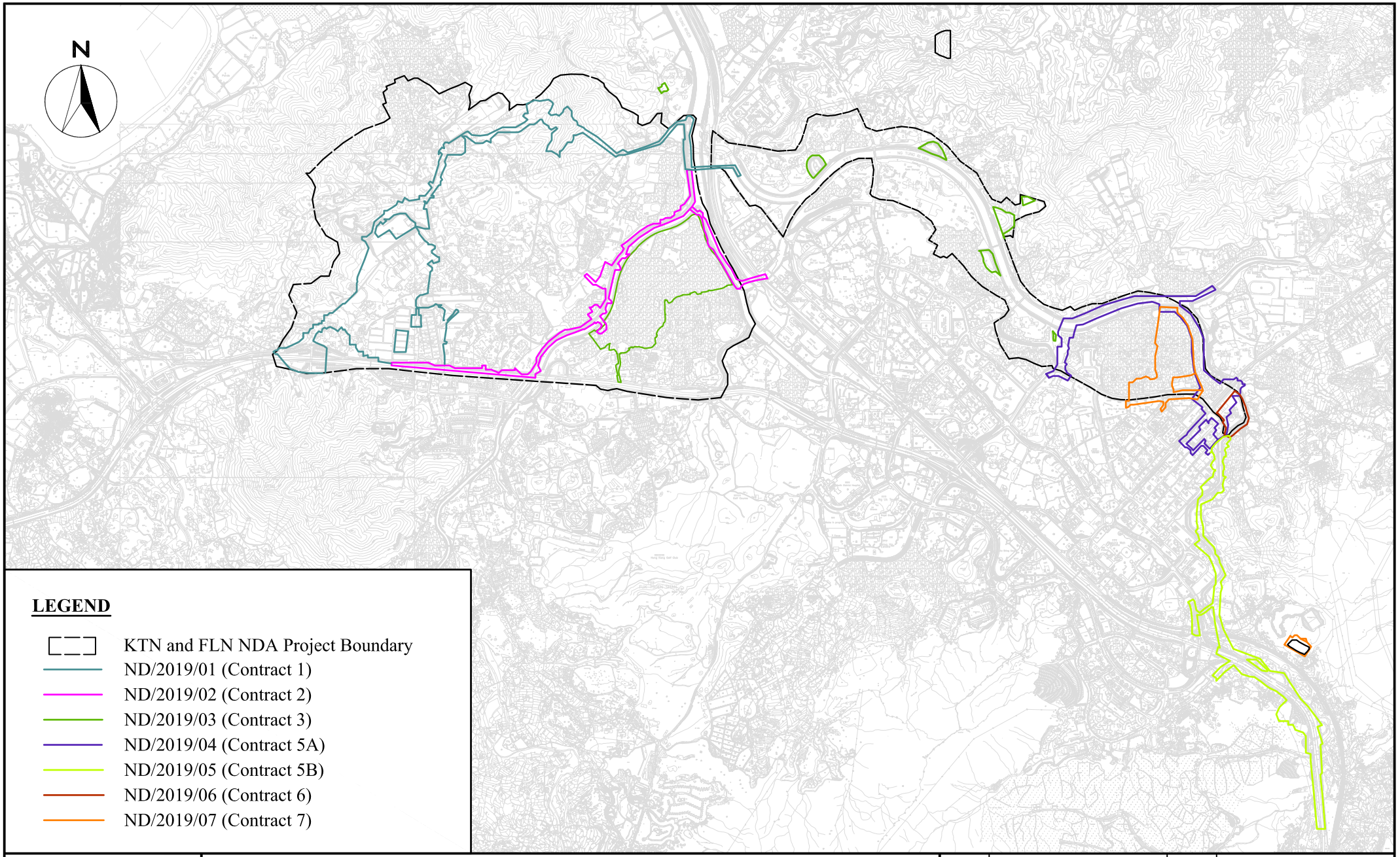
Ecology

- 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)



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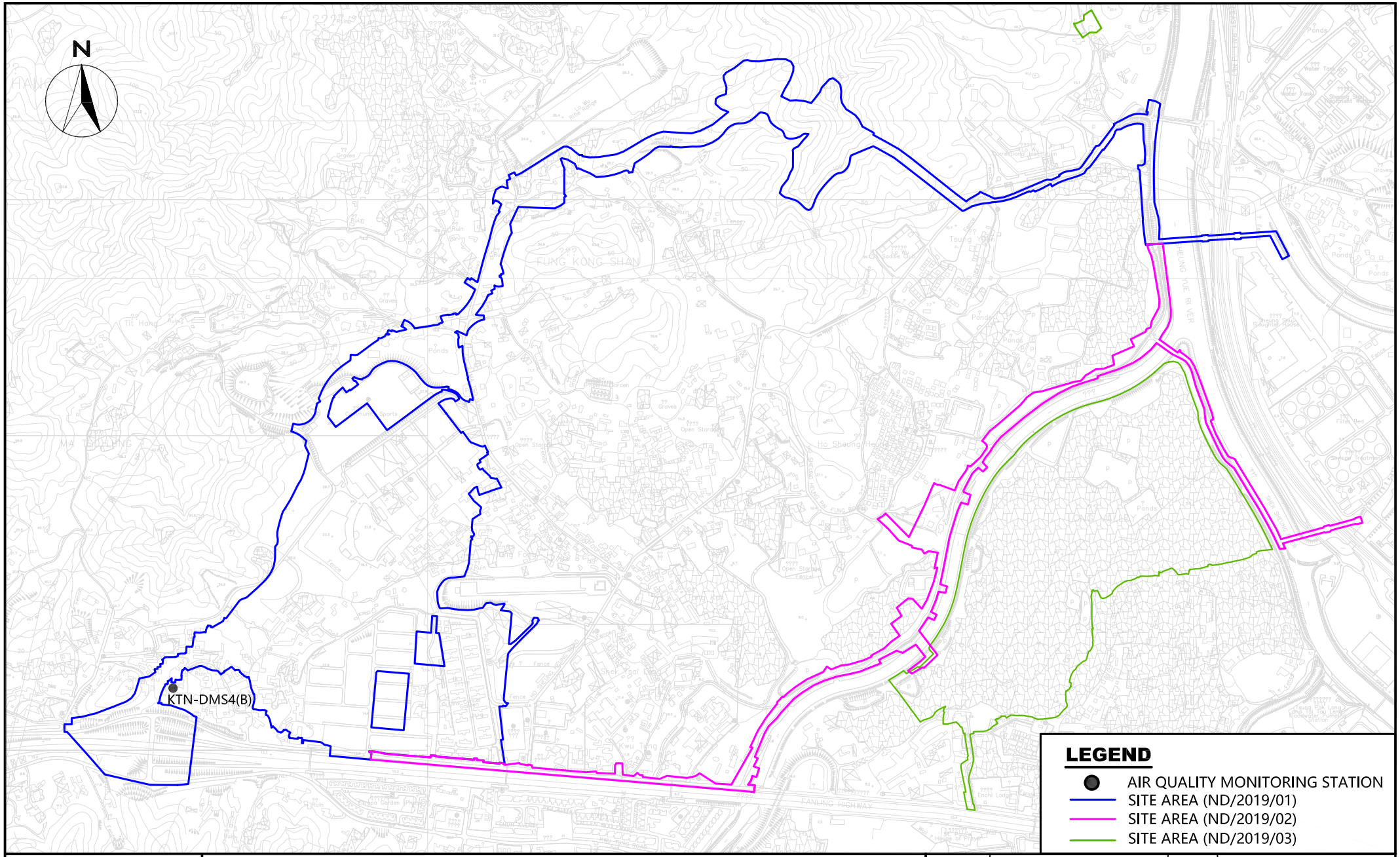
Service Contract No. NDO 04/2019 Environmental Team for EM&A Works in Construction Phase for the First Phase Development of KTN and FLN NDAs

Project Boundary for the Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas

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

FIGURE(S)



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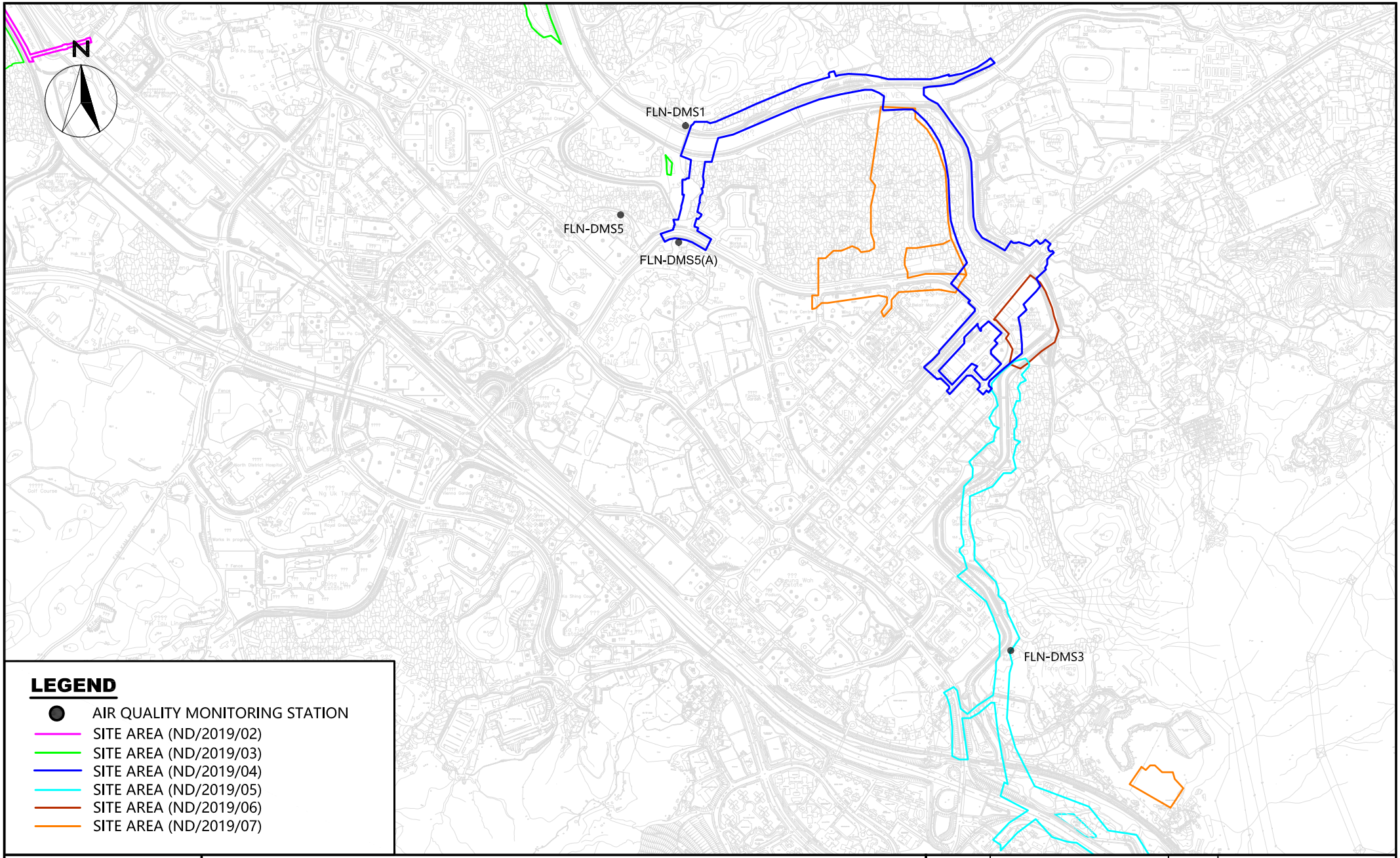
Service Contract No. NDO 04/2019 Environmental Team for EM&A Works in Construction Phase for the First Phase Development of KTN and FLN NDAs

Location of Air Quality Monitoring Station (KTN)

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



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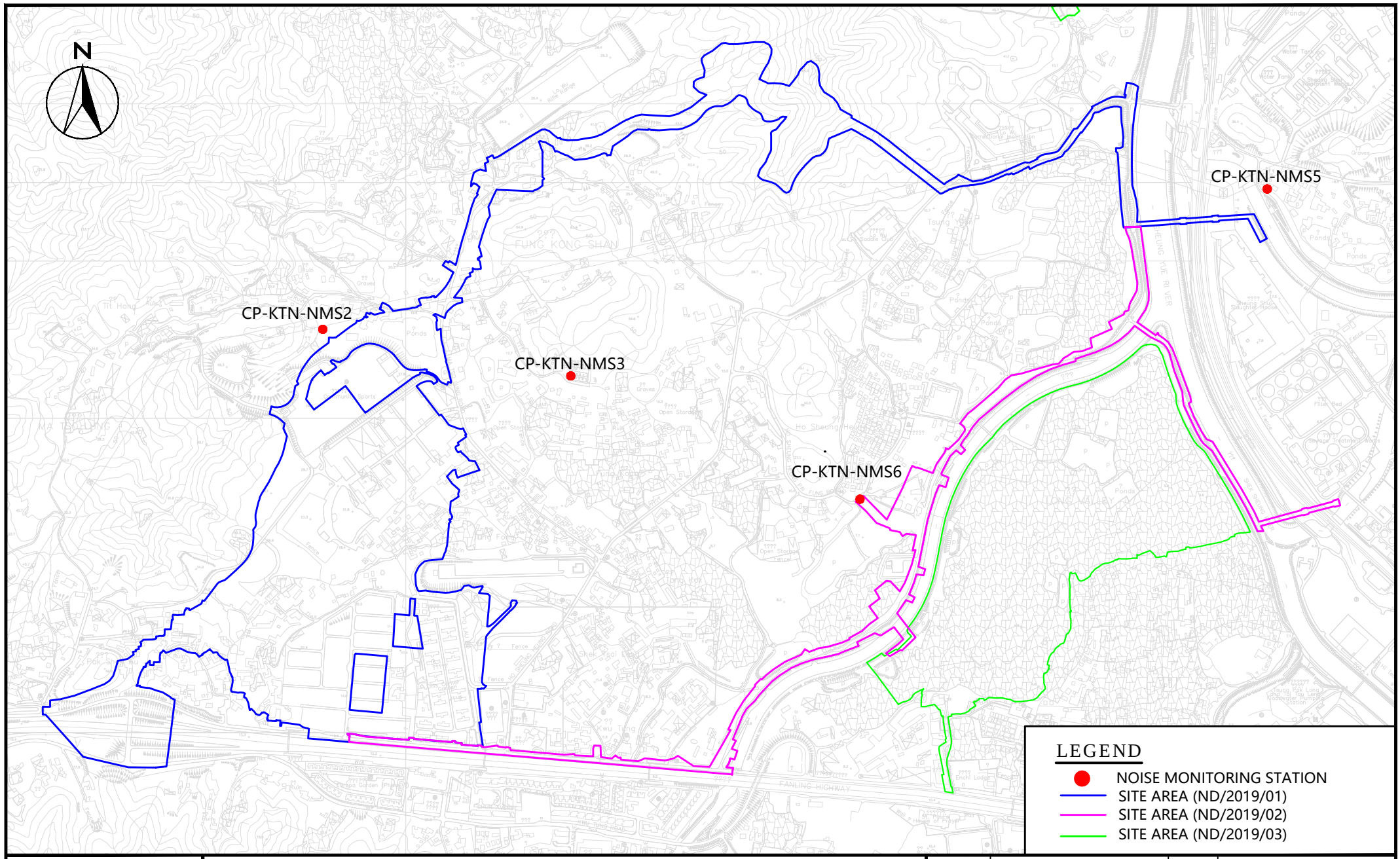
Service Contract No. NDO 04/2019 Environmental Team for EM&A Works in Construction Phase for the First Phase Development of KTN and FLN NDAs

Location of Air Quality Monitoring Station (FLN)

SCALE	A4 @ 1:40000	DATE	DEC 2021
CHECK	IT	DRAWN	ML
PROJECT No.	WMA20002	FIGURE NO.	2
		REV	—



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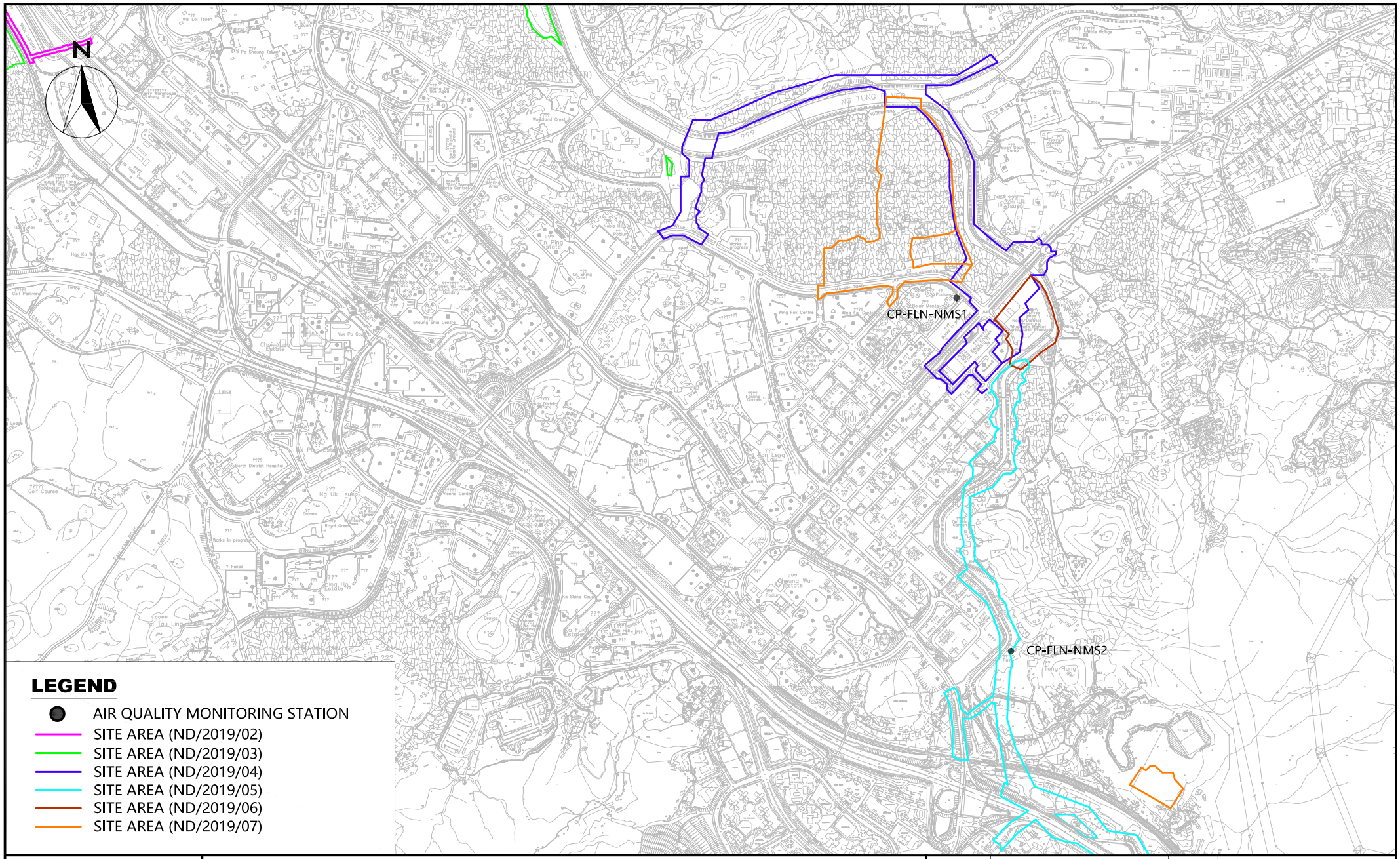
Service Contract No. NDO 04/2019 Environmental Team for EM&A Works in Construction Phase for the First Phase Development of KTN and FLN NDAs

Location of Noise Monitoring Station (KTN)

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



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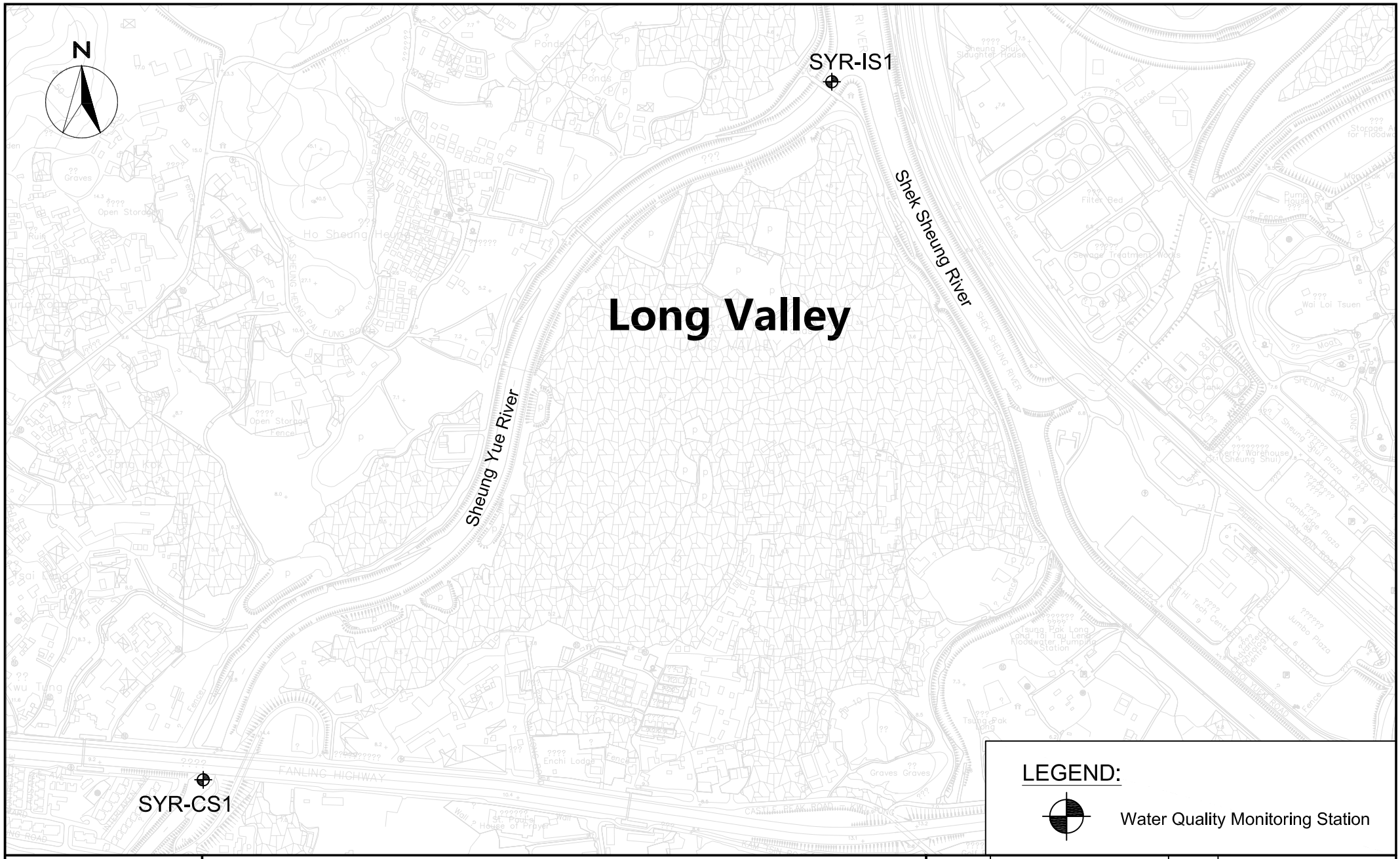
Service Contract No. NDO 04/2019 Environmental Team for EM&A Works in Construction Phase for the First Phase Development of KTN and FLN NDAs

Location of Noise Monitoring Stations (FLN)

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



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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 —



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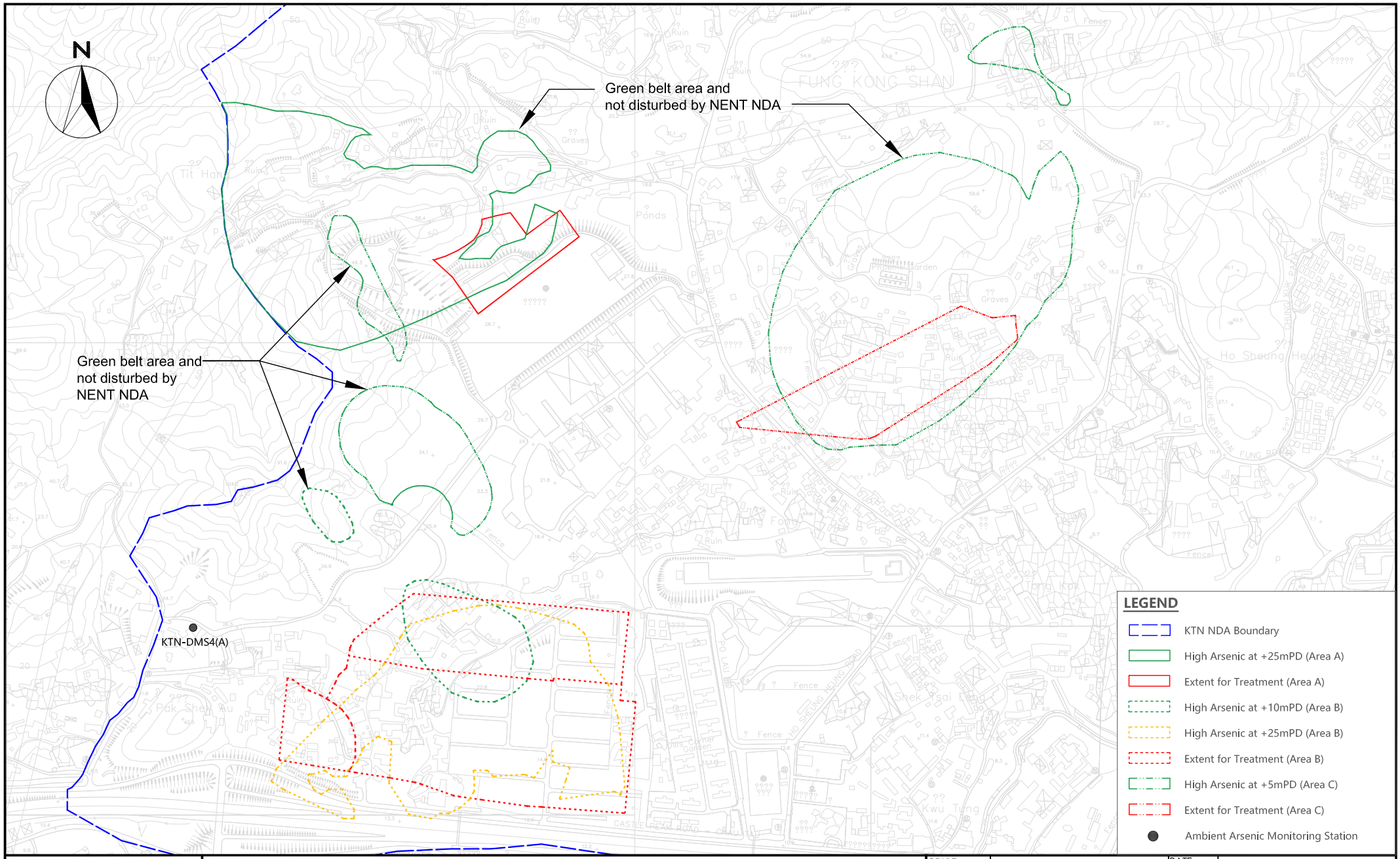
Service Contract No. NDO 04/2019 Environmental Team for EM&A Works in Construction Phase for the First Phase Development of KTN and FLN NDAs

Location of Additional Water Quality Monitoring Stations at River Indus and near Siu Hang San Tsuen Stream

SCALE	A4 @ 1:20000	DATE	FEB 2021
CHECK	KL	DRAWN	NL
PROJECT No.	WMA20002	FIGURE NO. 6	REV —



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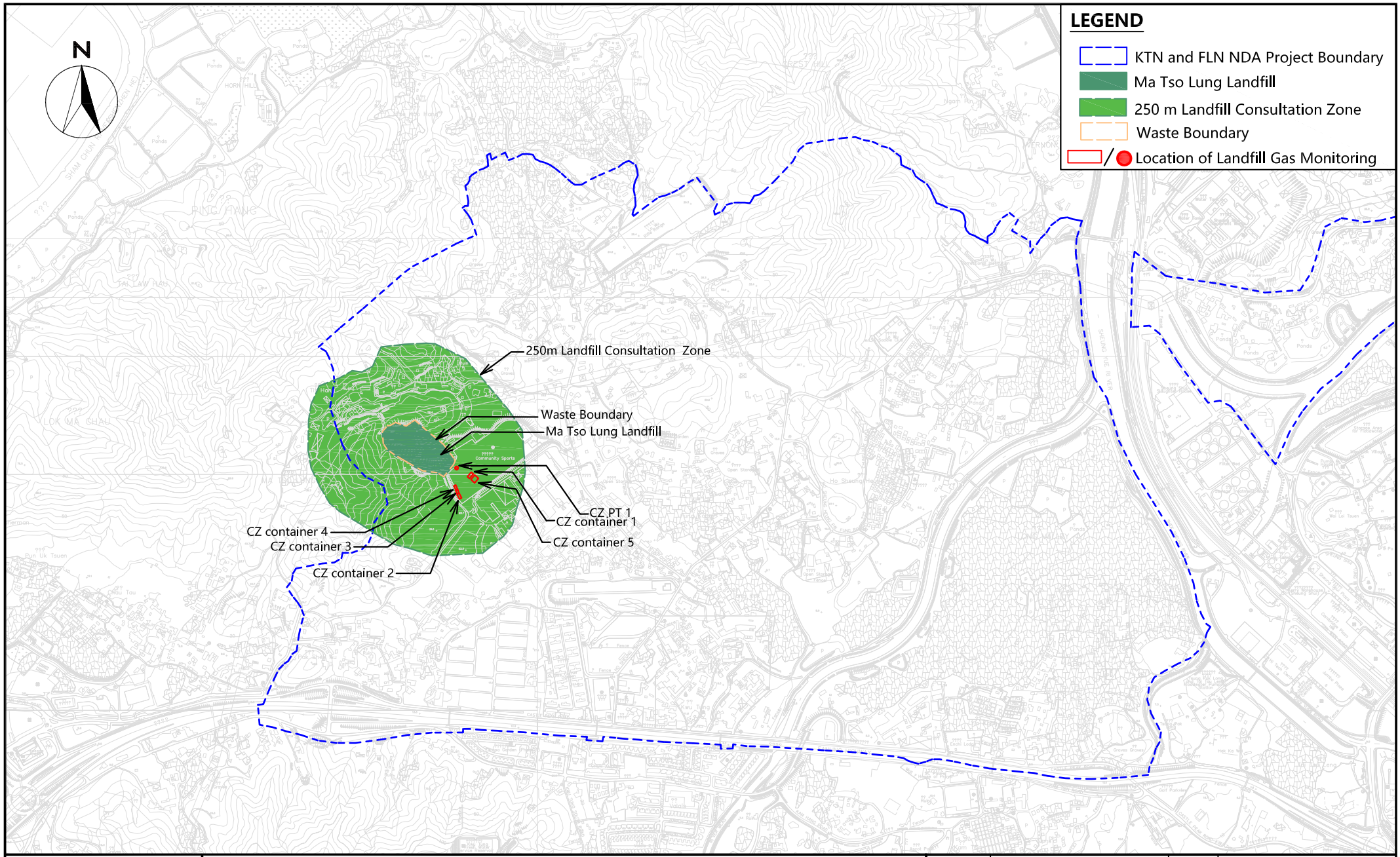
Service Contract No. NDO 04/2019 Environmental Team for EM&A Works in Construction Phase for the First Phase Development of KTN and FLN NDAs

Location of Ambient Arsenic Monitoring Station

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



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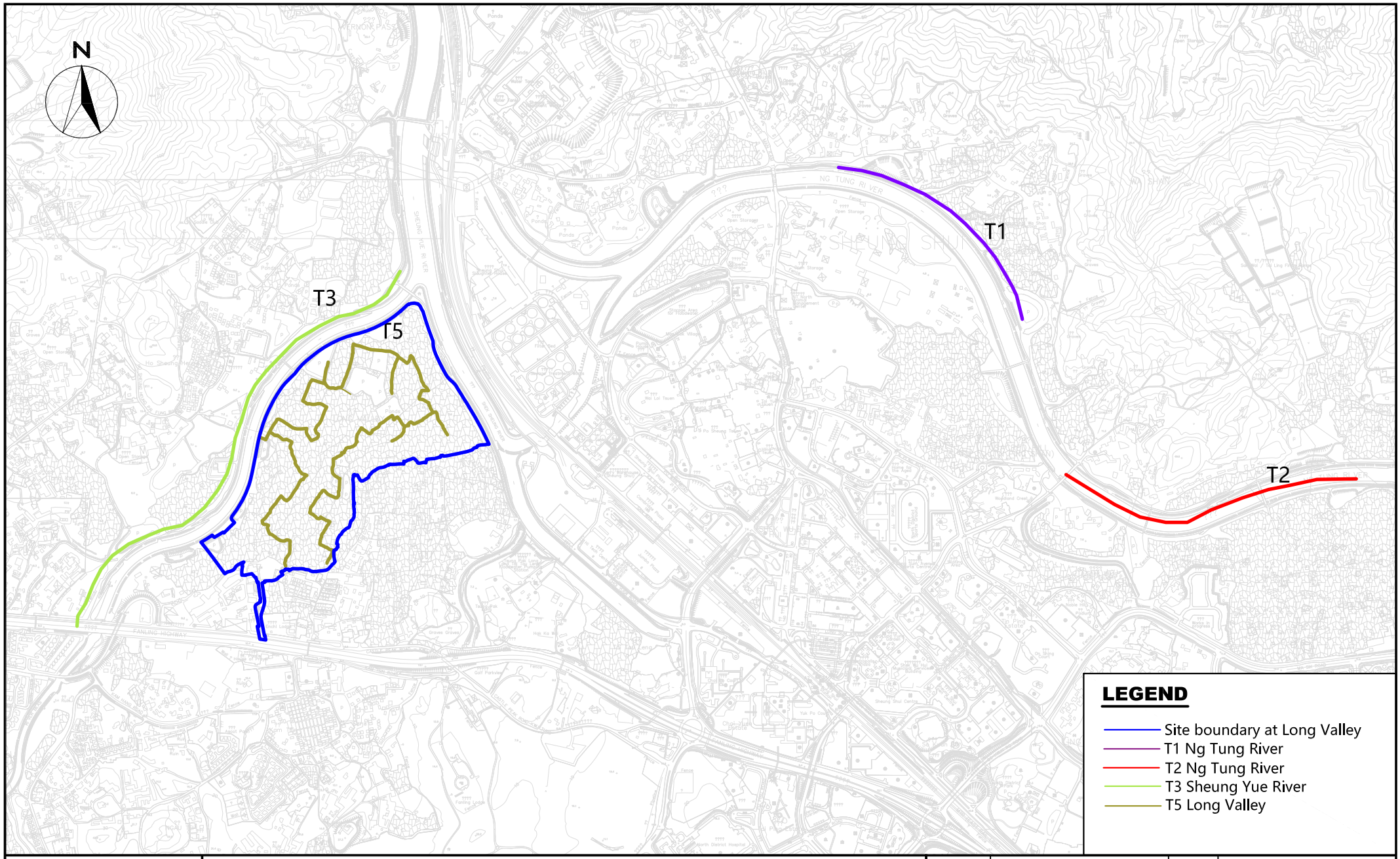
Service Contract No. NDO 04/2019 Environmental Team for EM&A Works in Construction Phase for the First Phase Development of KTN and FLN NDAs

Location of Landfill Gas Monitoring

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



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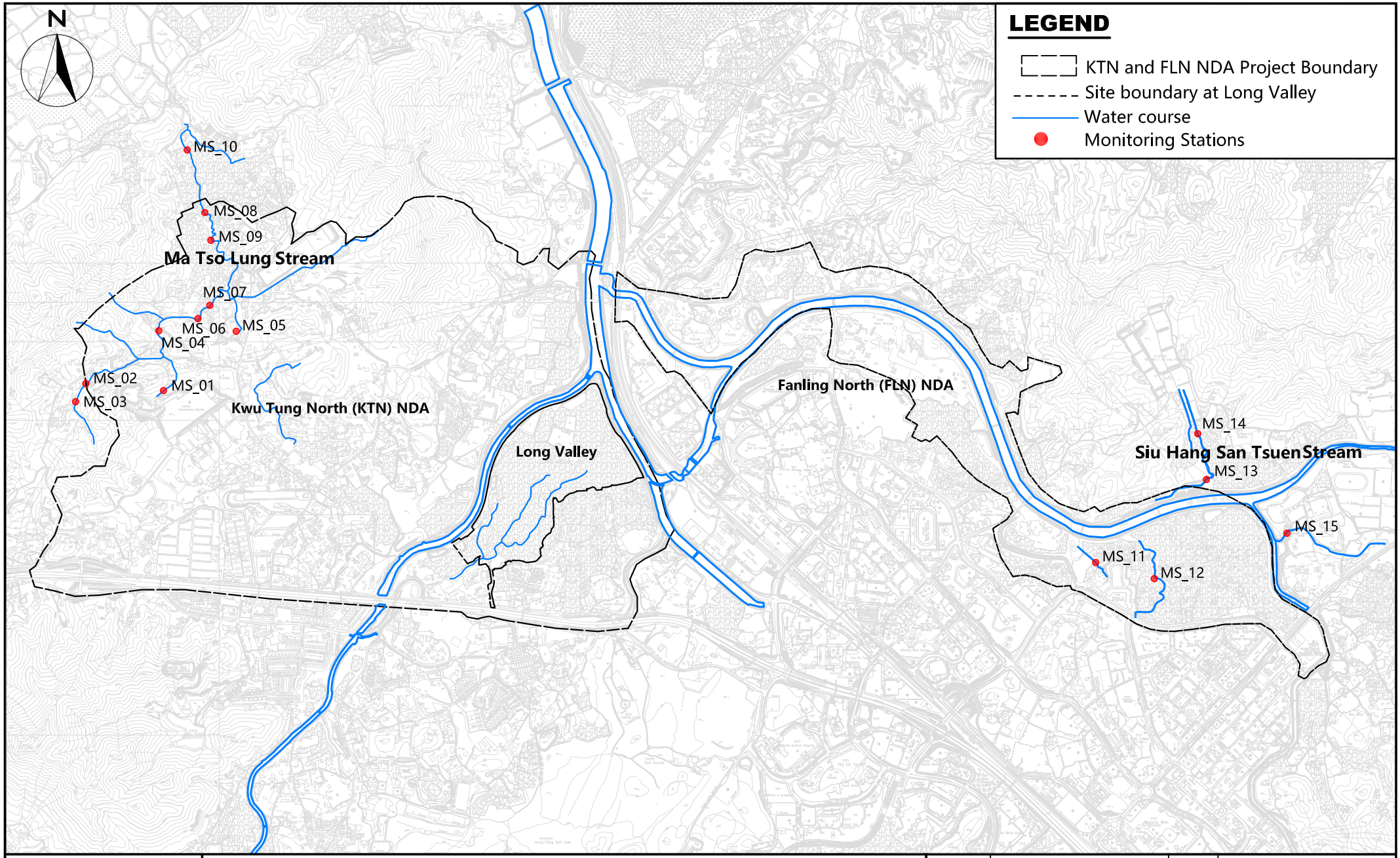
Service Contract No. NDO 04/2019 Environmental Team for EM&A Works in Construction Phase for the First Phase Development of KTN and FLN NDAs

Monitoring of Measures to Minimise Disturbance to Water Birds on Ng Tung, Sheung Yue and Long Valley (Transect Routes for T1 - T3 & T5)

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



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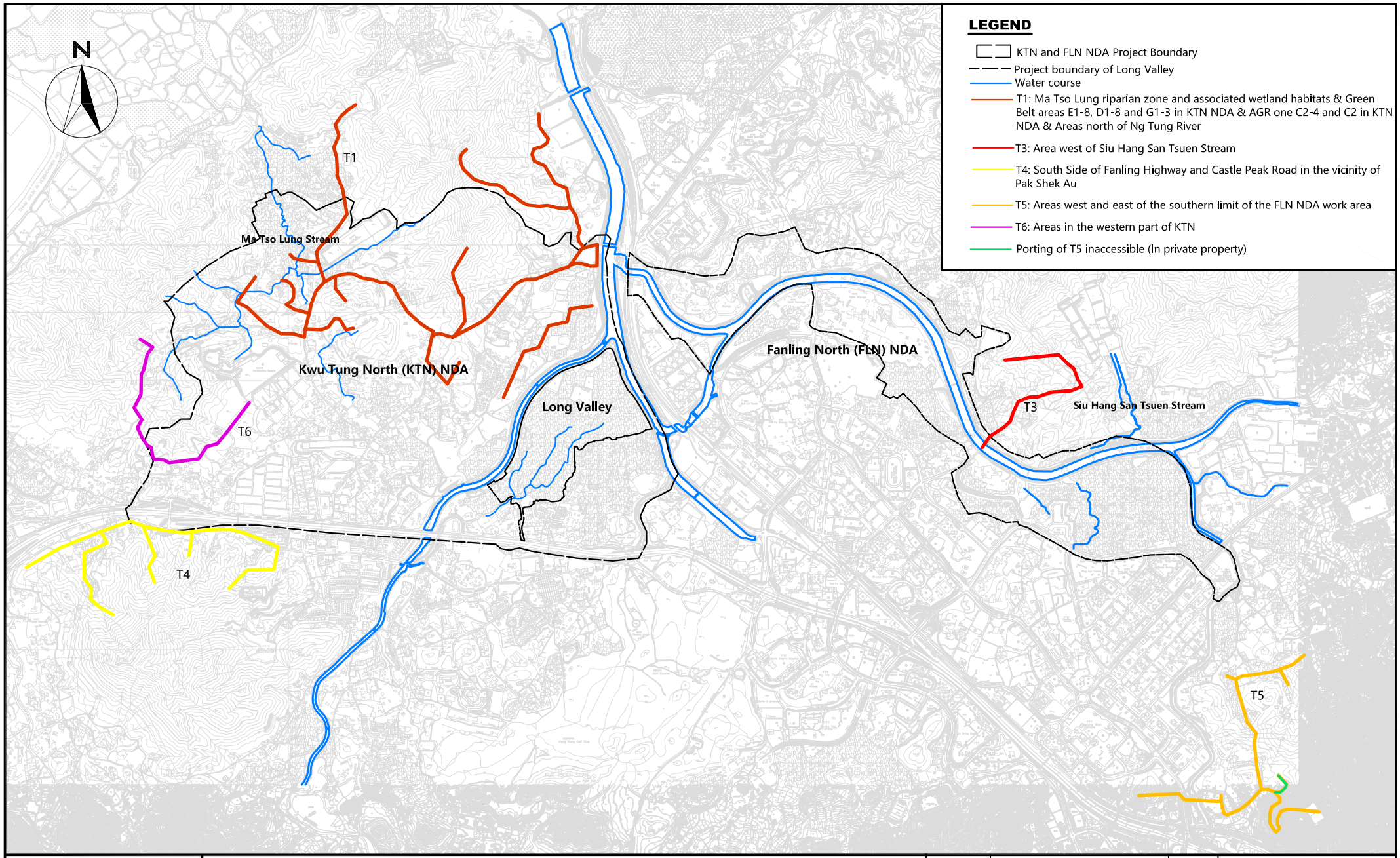
Service Contract No. NDO 04/2019 Environmental Team for EM&A Works in Construction Phase for the First Phase Development of KTN and FLN NDAs

Location of Monitoring Stations at Ma Tso Lung Stream and Siu Hang San Tsuen Stream

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



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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

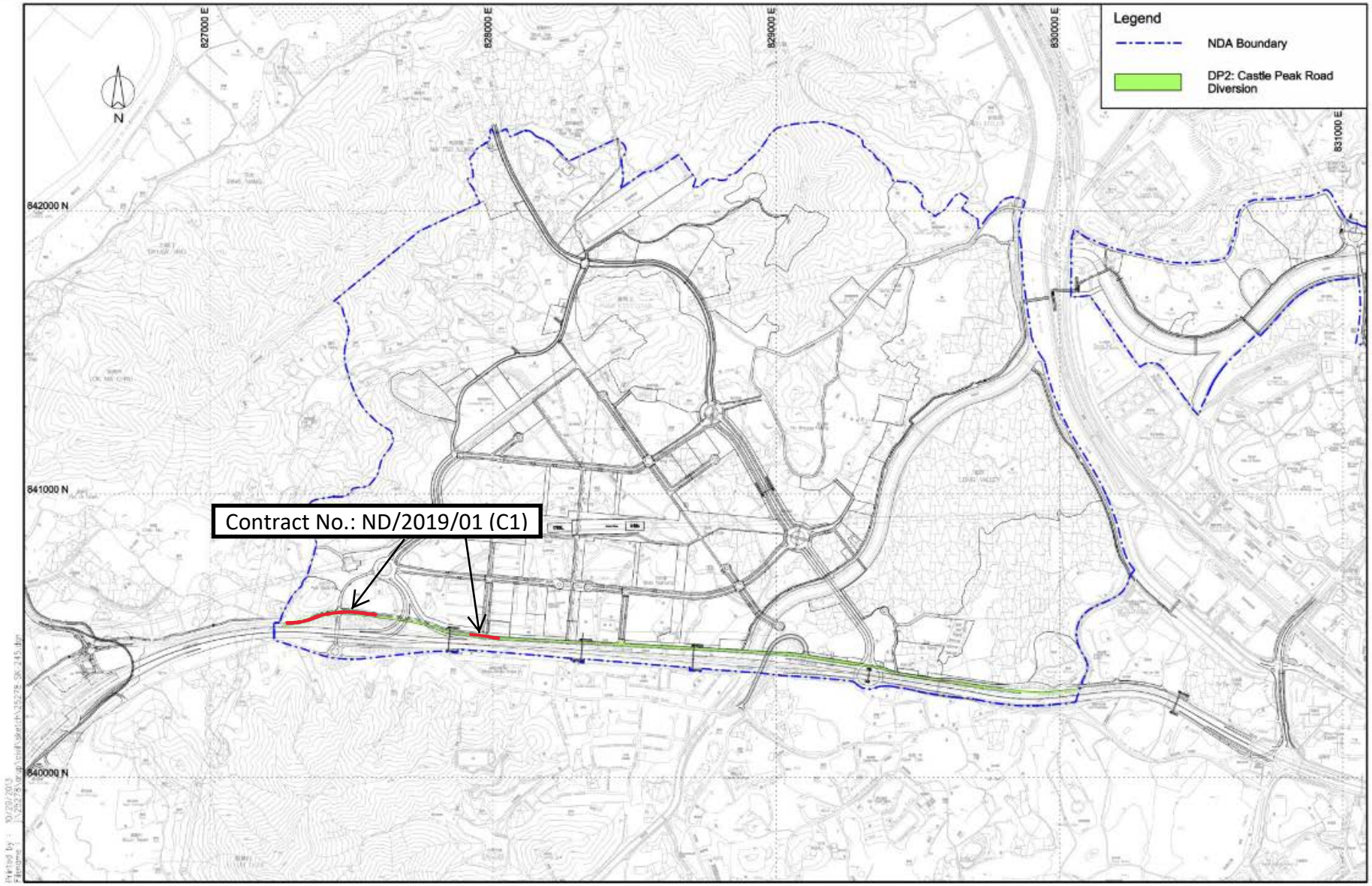
Location of Transect Route of Ecological Sensitive Habitats (Non-Aquatic Fauna) Transects (T1, T3-T6)

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

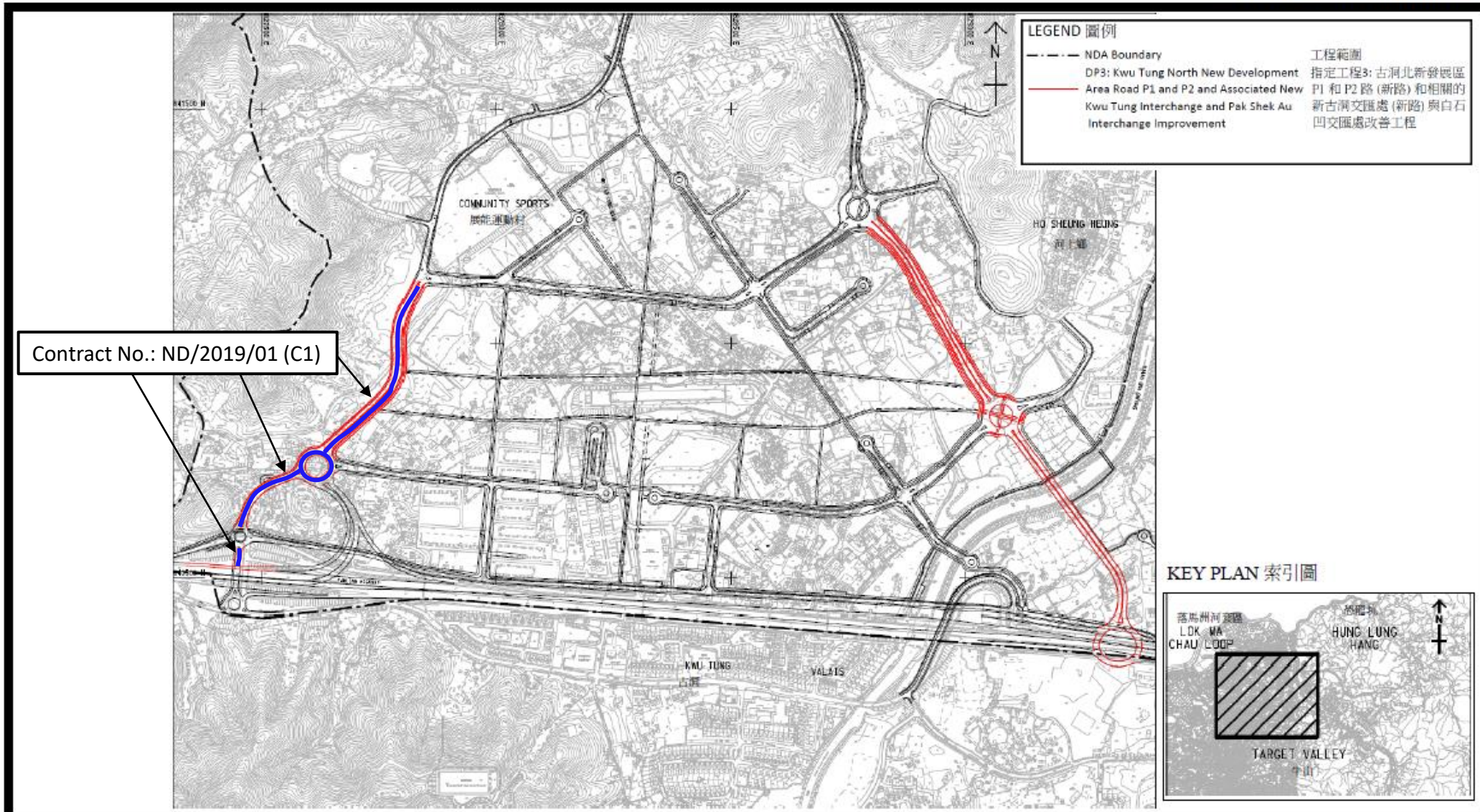
(Extracted from Drawing No. SK/245 of North East New Territories New Development Area Planning and Engineering Study)

Environmental Permit No: EP-466/2013/A

Figure 13

Site Layout Plan of Contract ND/2019/01

under EP-467-2013-A



Project Title: 工程名稱:	**Kwu Tung North New Development Area Road P1 and P2 and Associated New Kwu Tung Interchange and Pak Shek Au Interchange Improvement** 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

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

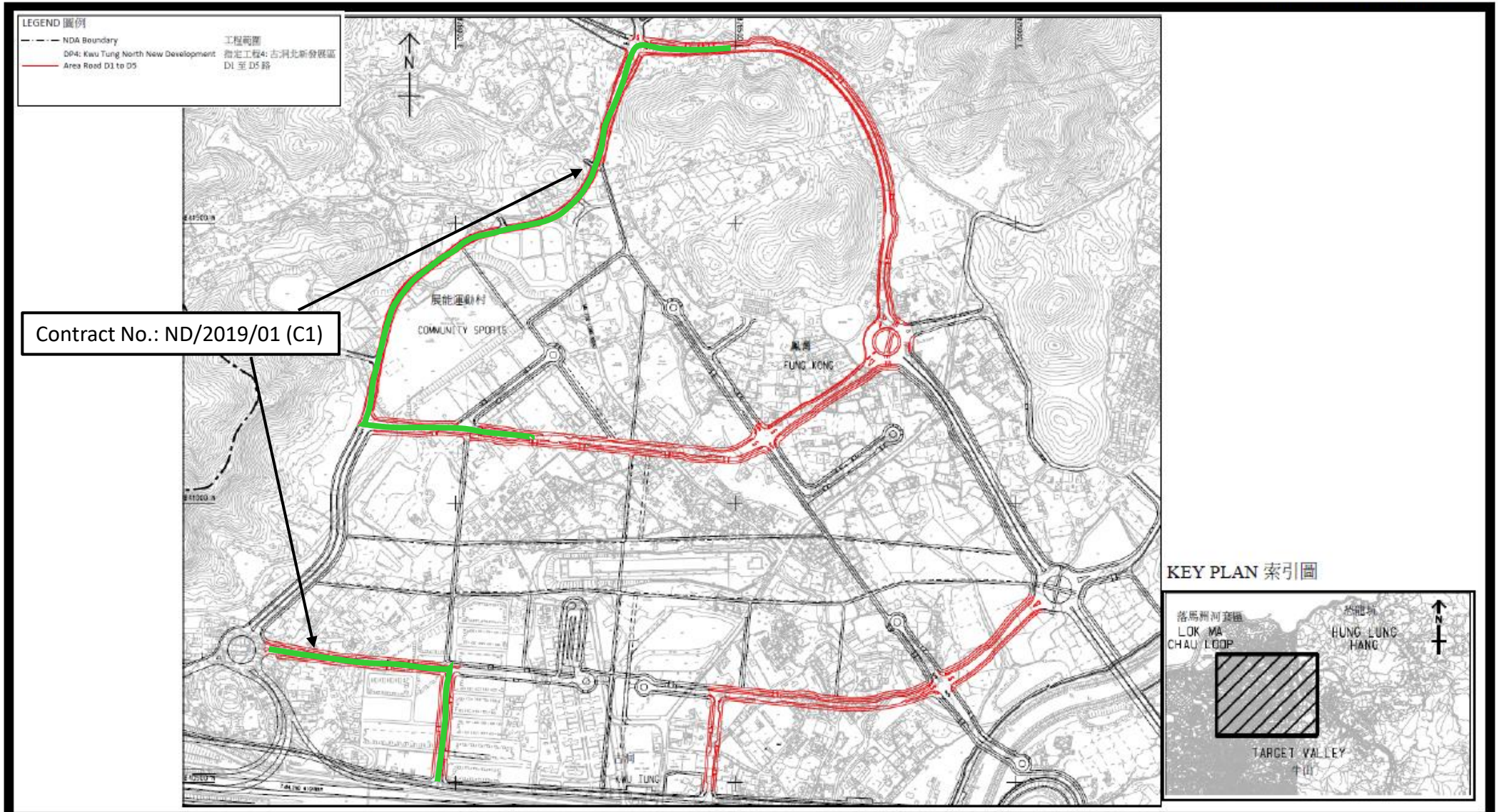
圖1：交匯處改善工程位置 (示意圖)
(本圖是根據申請更改環境許可證(編號: VEP-523/2016)圖1.2編制)

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

Figure 14

Site Layout Plan of Contract ND/2019/01

under EP-468-2013-A



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

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)

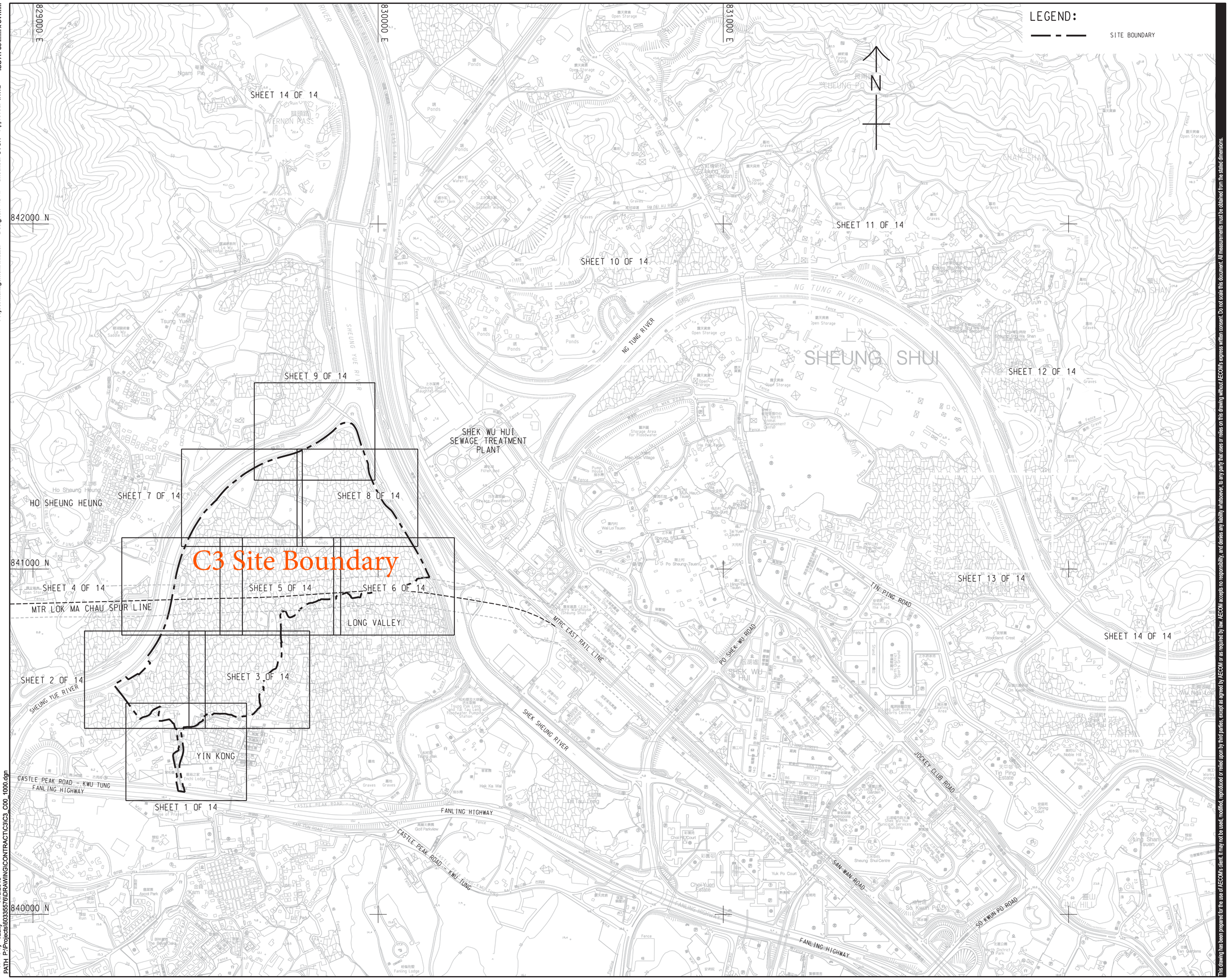
Environmental Permit No:
EP-468/2013/A
環境許可證編號：
EP-468/2013/A

Figure 15

Site Layout Plan of Contract ND/2019/03

under EP-468-2013-A

Project Management Initials: Designer: KCTL Checked: CYCH Approved: IHWL ISO A1 594mm x 841mm



Sang Hing - Kuly Venture

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

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
修訂

I/R 修訂	DATE 日期	DESCRIPTION 內容摘要	CHK. 複核
-	JUN-19	TENDER DRAWING	CYCH

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/2019/03

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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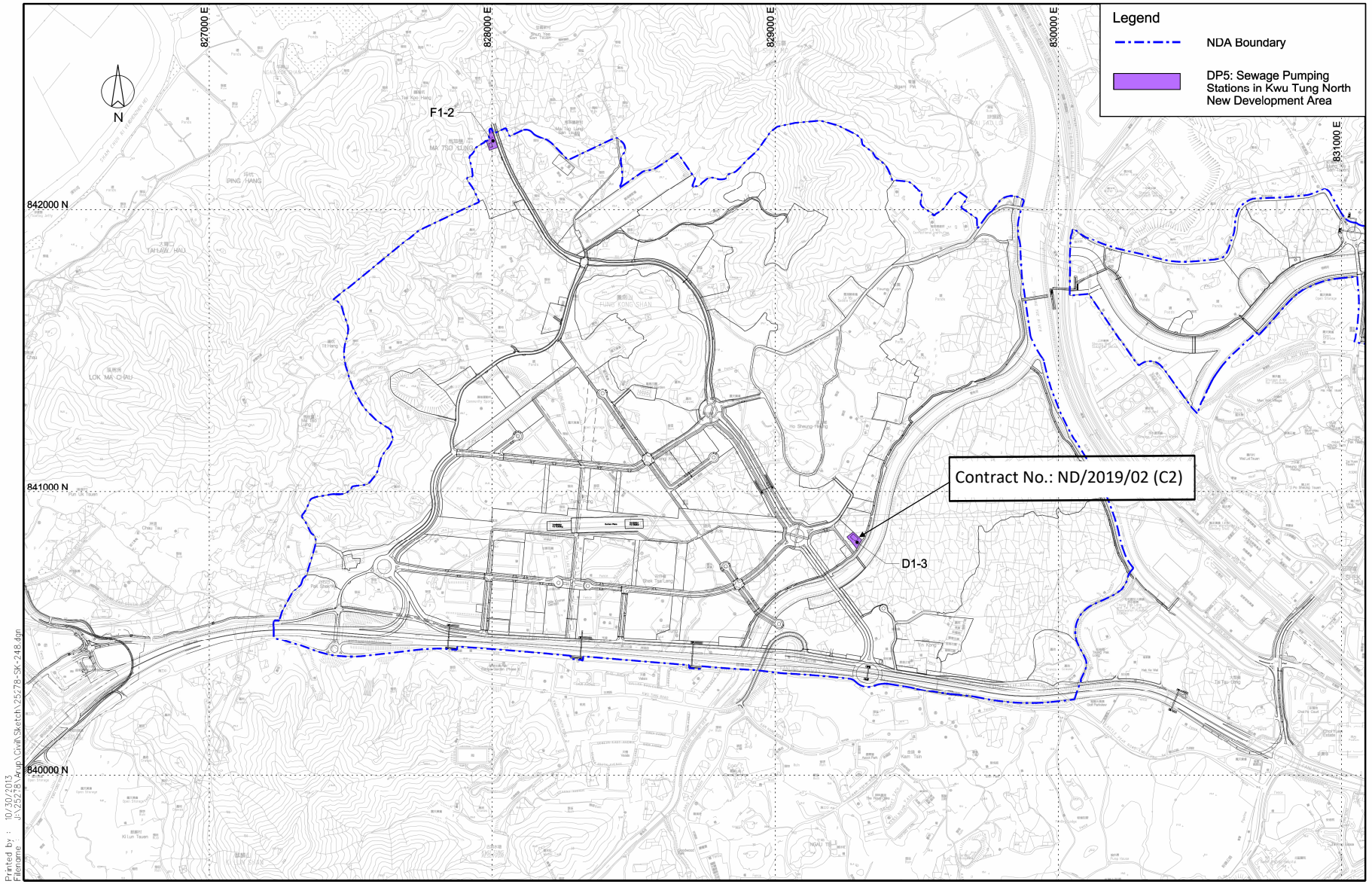
Plot File by: Yauky
PATH: P:\Projects\60335576\DRAWING\CONTRACT\C3\C3_C00_1000.dgn
11/6/2019

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

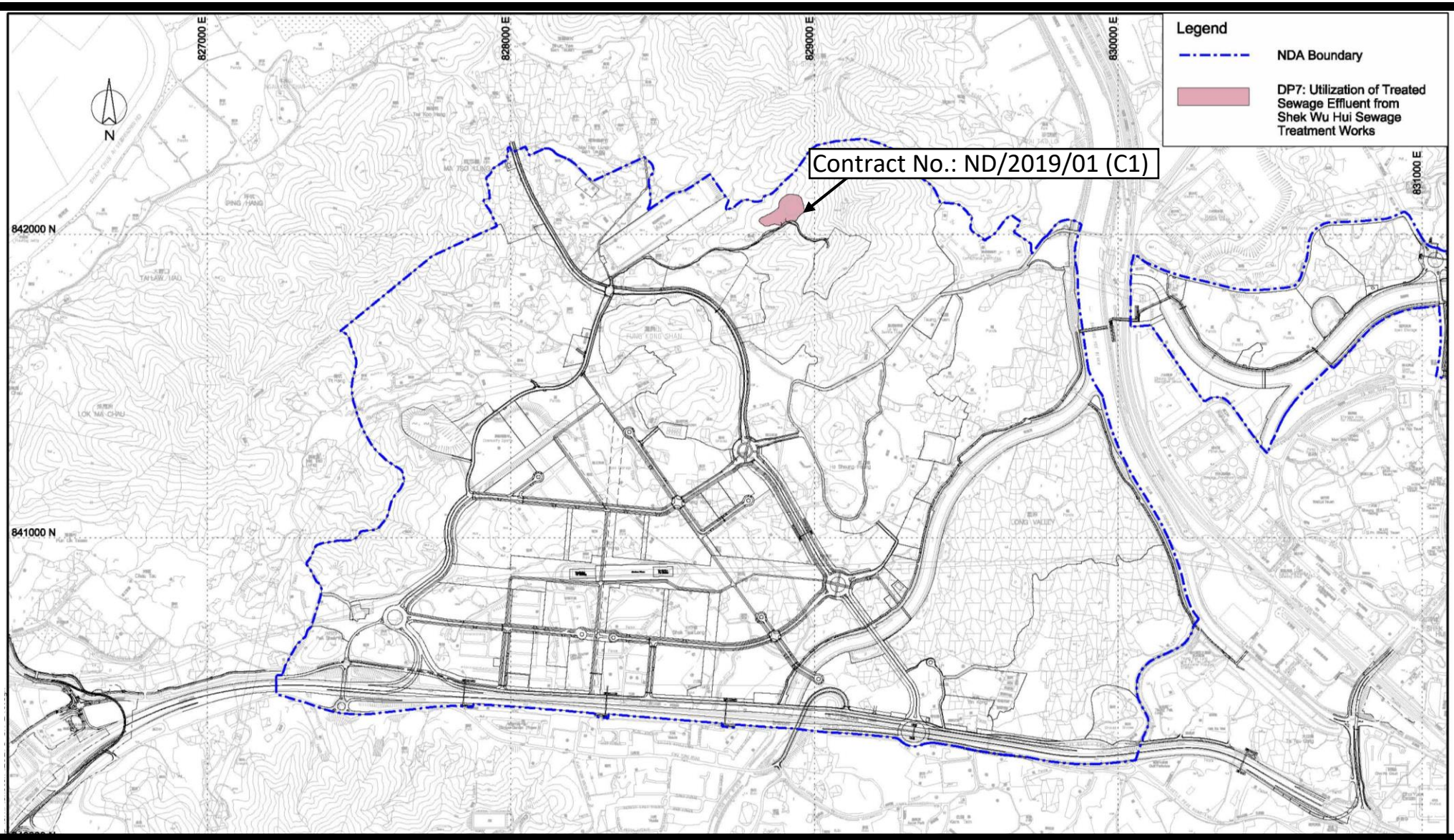
(Extracted from Drawing No. SK/248 of North East New Territories New Development Area Planning and Engineering Study)

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

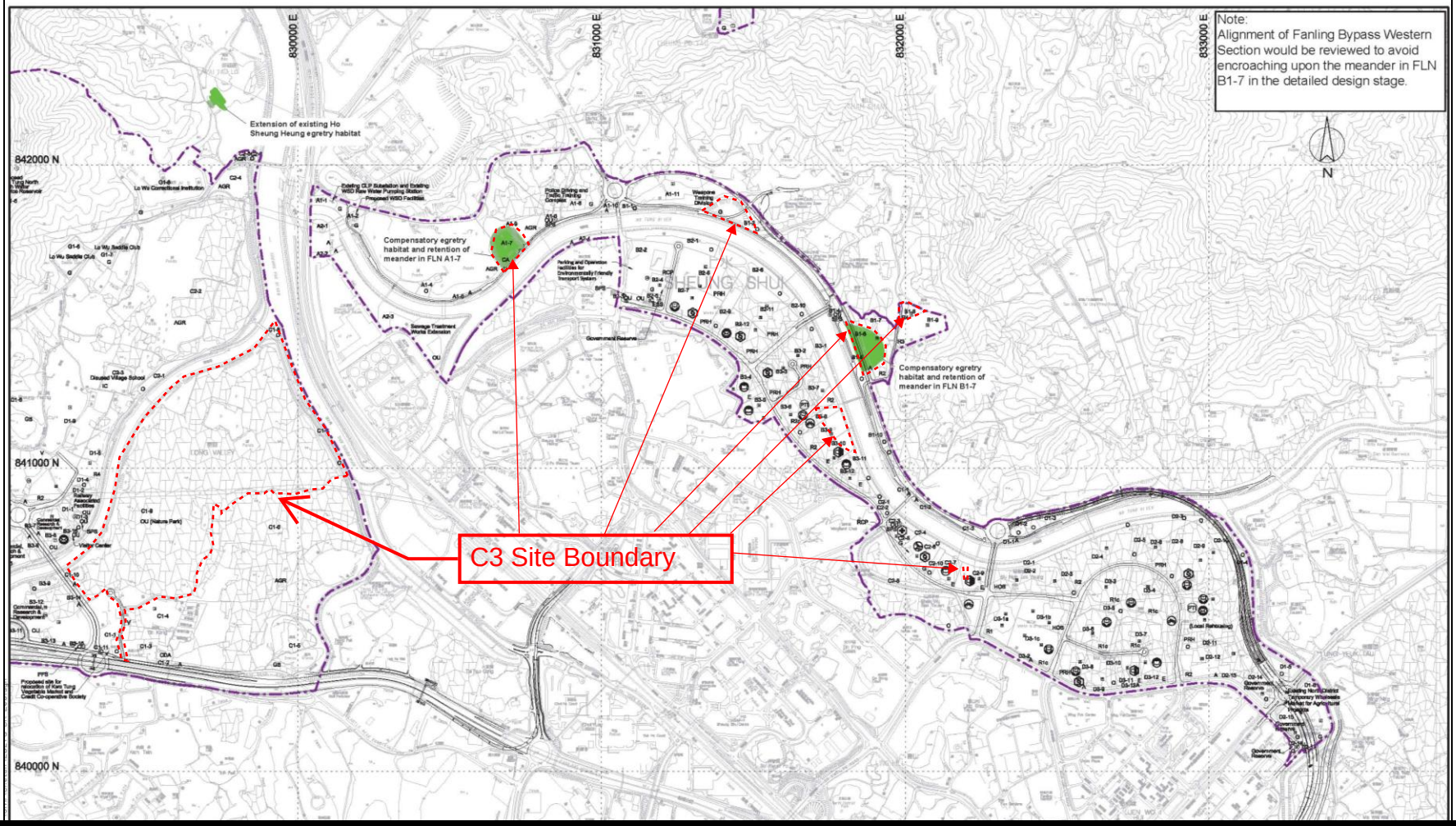
(Extracted from Drawing No. SK/249 of North East New Territories New Development Area Planning and Engineering Study)

Environmental Permit No: EP-470/2013/A

Figure 18

Site Layout Plan of Contract ND/2019/03

under EP-473-2013-A



Project Title: 工程名稱:	**Fanling Bypass Eastern Section** 粉嶺繞道東段
Figure 2: 圖 2:	**Location of Alternative Egretry Sites and Retained Meanders** 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)

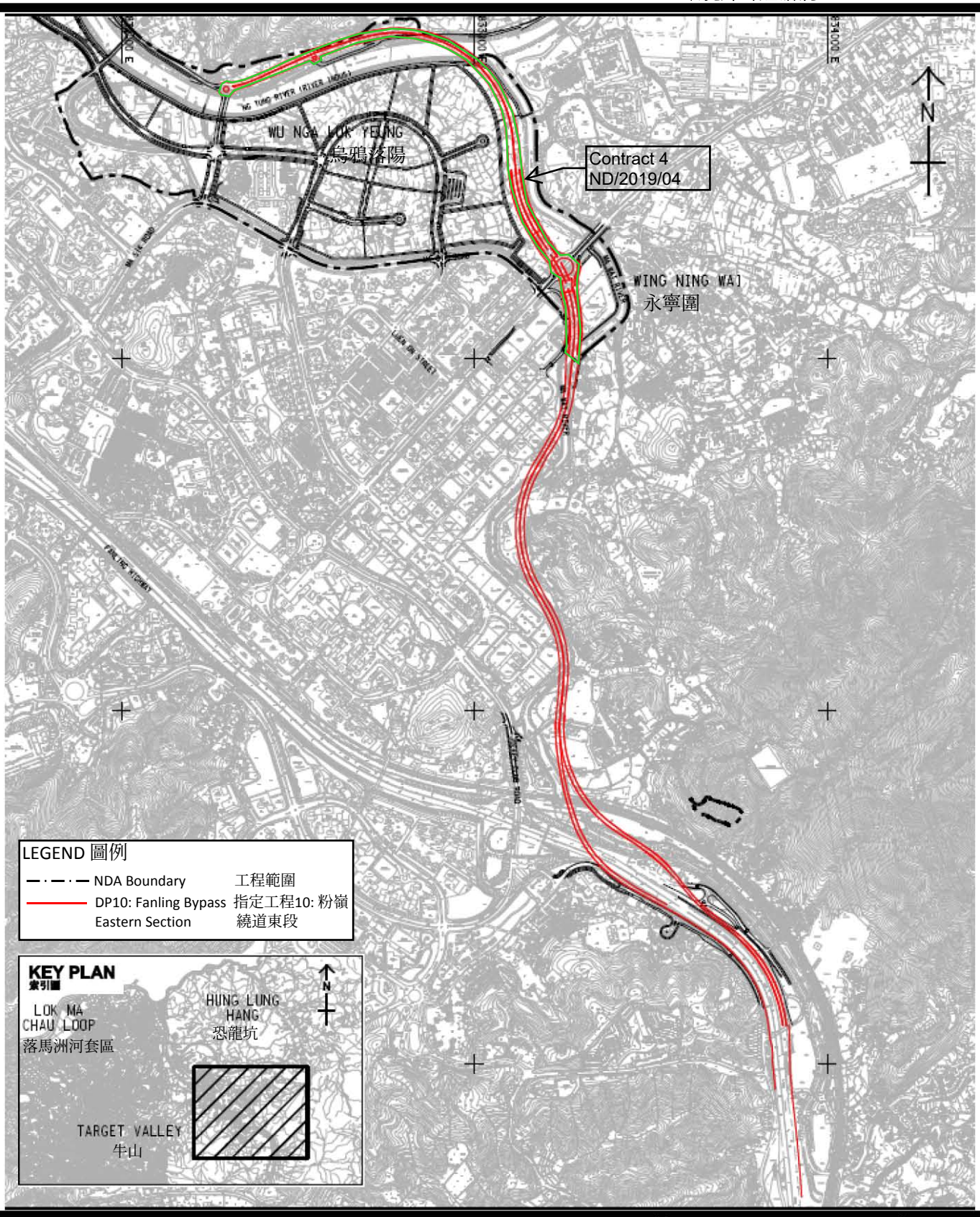
(摘錄自新界東北新發展區規劃及工程研究 圖: SK/254)

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

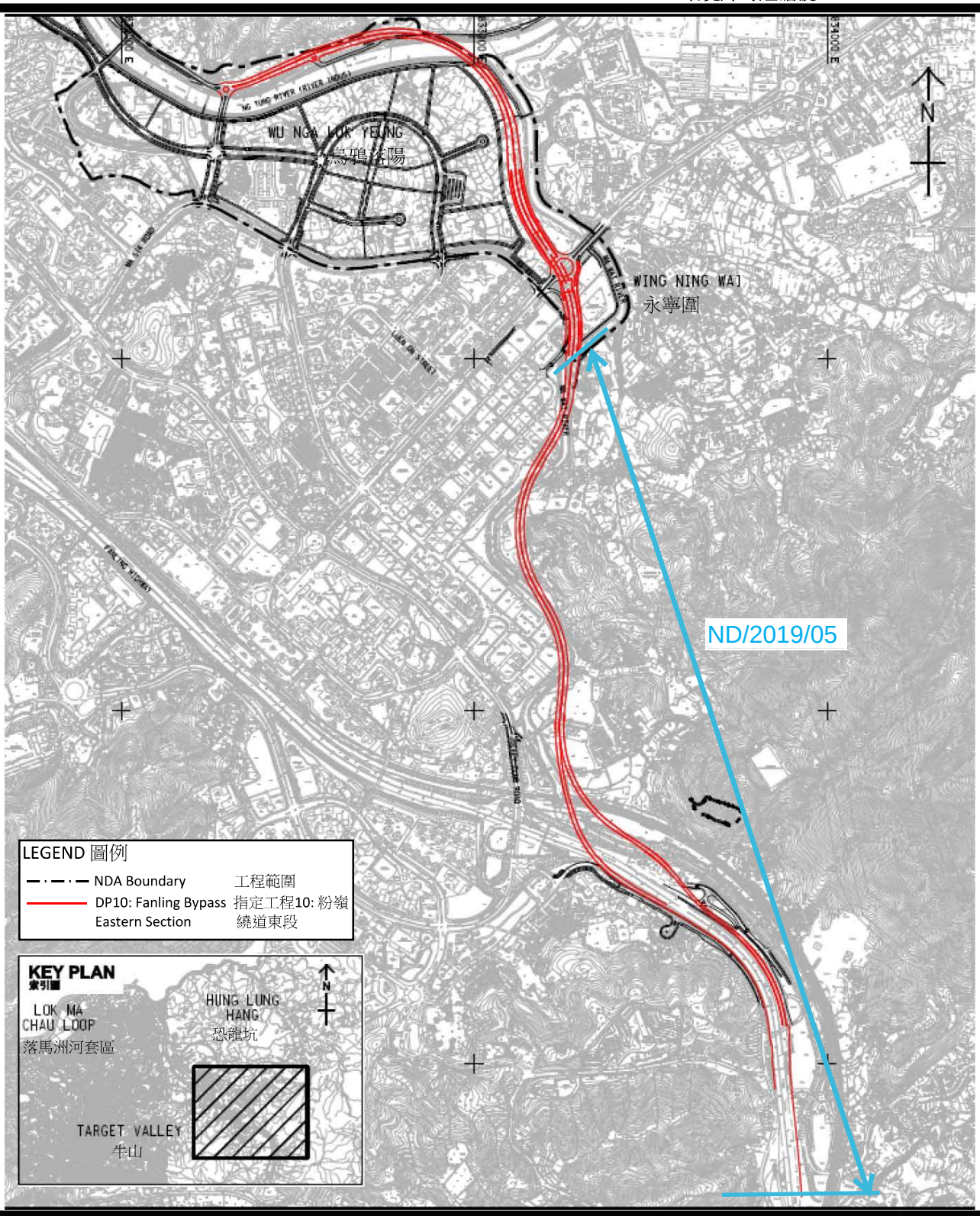
Environmental Permit No: EP-473/2013/A

環境許可證編號: EP-473/2013/A

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

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

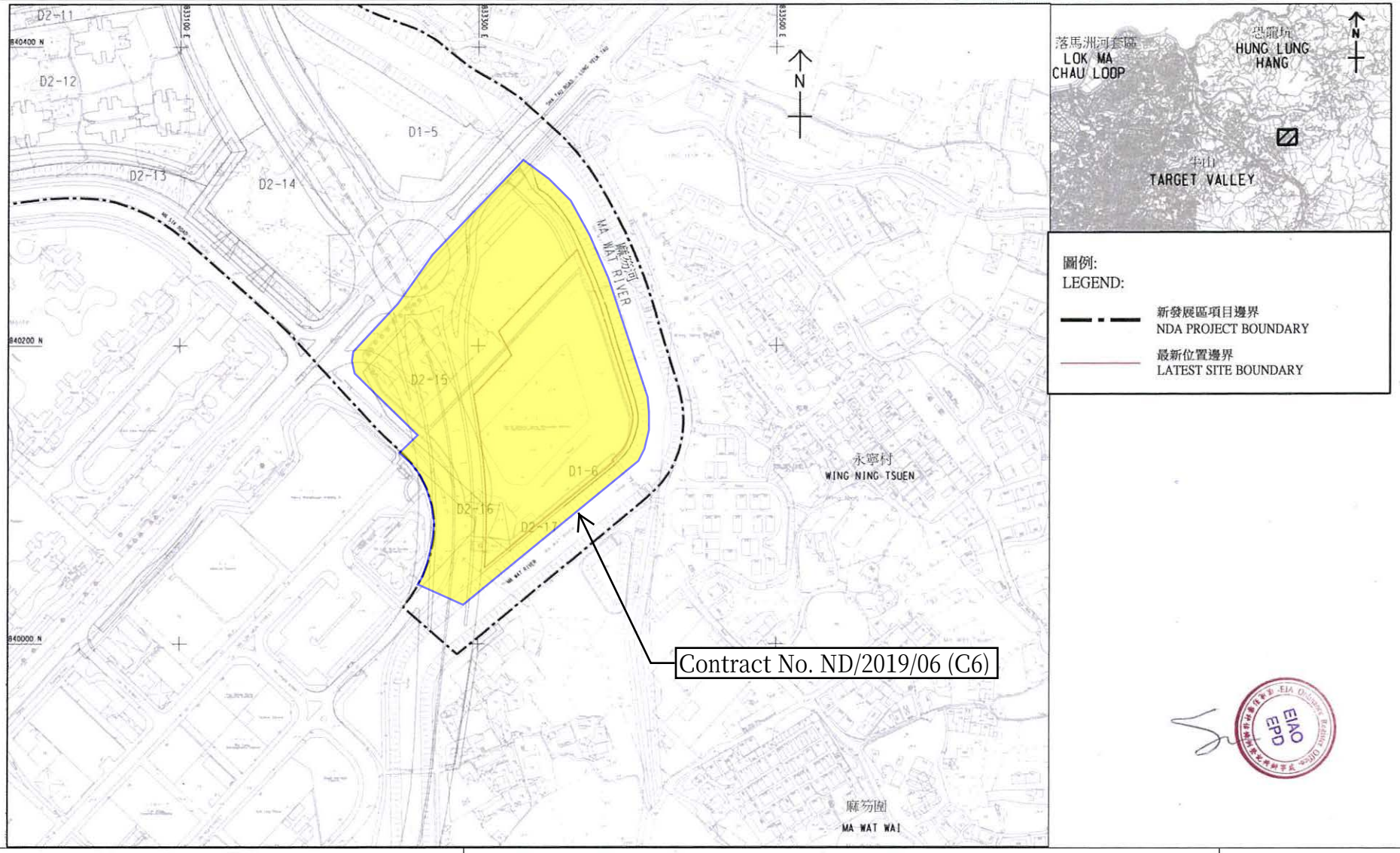
This figure was prepared based on Figure 1.1 of VEP application (No.:VEP-526/2016)
本圖是根據申請更改環境許可證(編號: VEP-526/2016)圖1.1編制

Environmental Permit No: EP-473/2013/A
環境許可證編號: EP-473/2013/A

Figure 21

Site Layout Plan of Contract ND/2019/06

under EP-475-2013-A



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

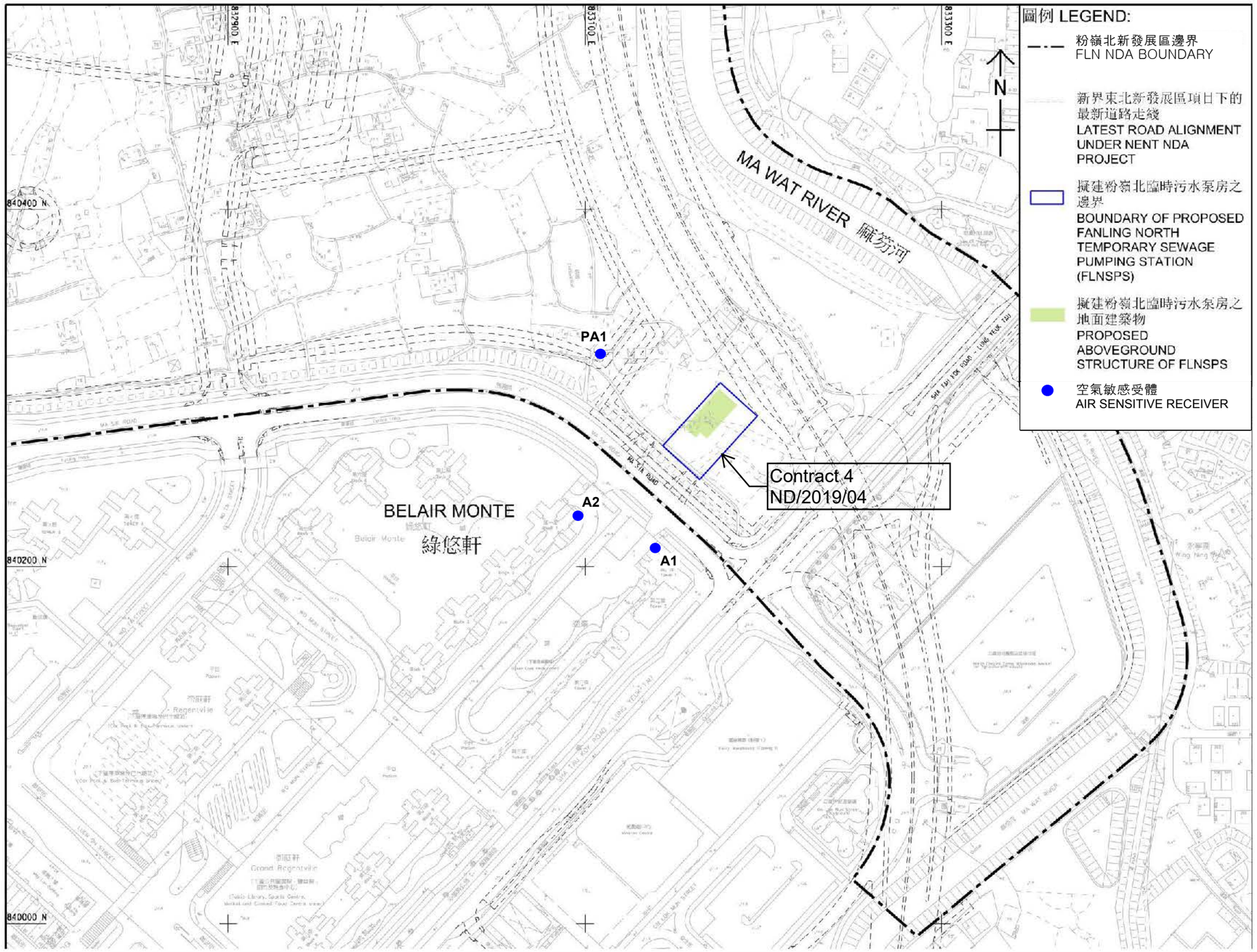
Environmental Permit No.: EP-475/2013/A
環境許可證編號 ：EP-475/2013/A

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

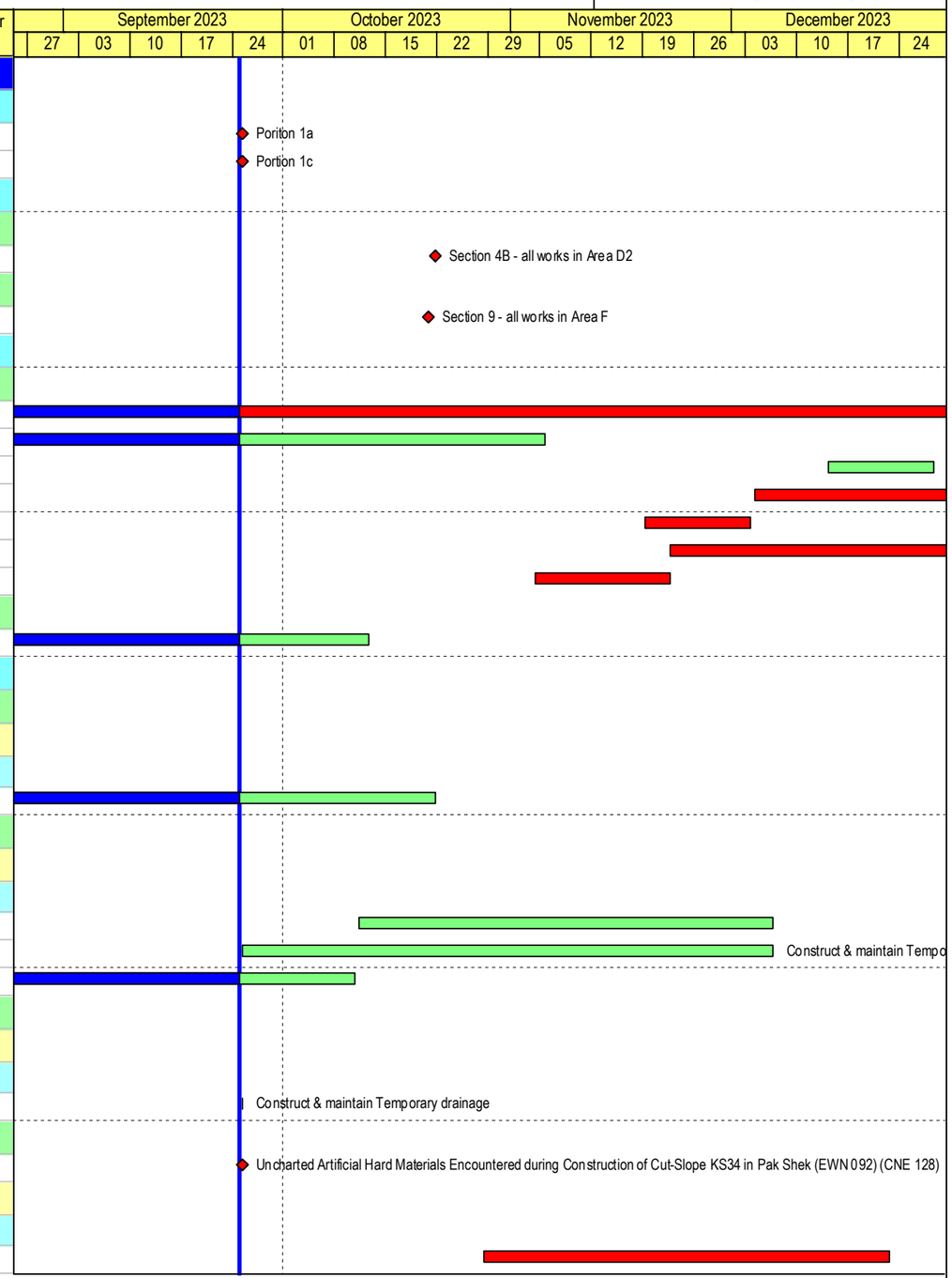
Construction Programme of ND/2019/01

AECOM

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

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

Activity ID	Activity Name	Remaining Duration	Start	Finish	Total Float	Calendar
Revised Programme (2023-09-25) Rev.0						
2.0 - Site Access Dates						
AD-1000	Poriton 1a	0	25-Sep-23*		-811	CD(7d)
AD-1020	Portion 1c	0	25-Sep-23*		-627	CD(7d)
3.0 - Site Completion Dates						
3.1 Sectional Work Completion (Orignial Contract Completion Date)						
SC0-1050	Section 4B - all works in Area D2	0		21-Oct-23*	0	CD(7d)
3.2 Planned Sectional Work Completeion						
SC-1130	Section 9 - all works in Area F	0		20-Oct-23*	-409	CD(7d)
6.0 - Prelimiaries and General Requirements						
6.2 - General Submissions						
GS-1290	Preparation and Submission of Fully Corodinated BIM	886	21-Aug-20 A	12-Sep-26*	-219	CD(7d)
GS-1230	Submission of Major Method Statements	42	06-Dec-19 A	05-Nov-23	400	CD(7d)
GS-1310	Water Supply to WSD for Irrigation System (Road D1-1) - WWO542 Submission	15	14-Dec-23	28-Dec-23	152	CD(7d)
GS-1420.0	Water Supply to WSD for Irrigation System (Road D5) - East Bound Footpath - WWO542 Approval	30	04-Dec-23	02-Jan-24	-184	CD(7d)
GS-1420	Water Supply to WSD for Irrigation System (Road D5) - East Bound Footpath - WWO542 Submission	15	19-Nov-23	03-Dec-23	-184	CD(7d)
GS-1430.0	Water Supply to WSD for Irrigation System (Road D5) - West Bound Footpath - WWO542 Approval	38	22-Nov-23	30-Dec-23	-184	CD(7d)
GS-1430	Water Supply to WSD for Irrigation System (Road D5) - West Bound Footpath - WWO542 Submission	19	04-Nov-23	22-Nov-23	-184	CD(7d)
6.3 - Subletting Packages						
SP-1210	Landscaping Works	18	05-Jun-23 A	12-Oct-23	317	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	21-Oct-23	708	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	11-Oct-23	06-Dec-23	615	WD(6d)
S3P1a-2000	Construct & maintain Temporary drainage	60	01-Mar-23 A	06-Dec-23	615	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	10-Oct-23	393	WD(6d)
Section 4C						
Portion 1b in Area D3 (Soil Treatment & Interface with ArchSD's Contractors)						
Soil Treatment						
S4CP1b-2000	Construct & maintain Temporary drainage	0	25-Sep-23	25-Sep-23	973	WD(6d)
Section 8						
S8-1022	Uncharted Artificial Hard Materials Encountered during Construction of Cut-Slope KS34 in Pak Shek (EWN092) (CNE 128)	0		25-Sep-23	-642	CD(7d)
Portion 2 in Area A (Soil Treatment & Construction of Pak Shek Au Junction)						
Soil Treatment						
S8P2-2020	Backfilling to the formation levels	48	28-Oct-23	22-Dec-23	-438	WD(6d)



Build King – Richwell Engineering Joint Venture

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

ND/2019/01 - 3 Month Rolling Programme (2023-09)

Data Date: 25-Sep-23

Run Date: 29-Sep-2023

Project ID: ND201901-RP-43
Lauyout: ND201901-3MRP with logo

REVISED PROGRAMME (2023-09)

Date	Revision	Checked	Approved
29-Sep-23	Rev.0	SC	BY

Activity ID	Activity Name	Remaining Duration	Start	Finish	Total Float	Calendar
S8P2-2010	Remove soil (original assumed 6898m3) (0/1 EGI completed, interim soil to be excavated / treated : 0m3/0m3) Clean Soil	26	25-Sep-23	27-Oct-23	-438	WD(6d)
Civil Work						
Construction of Pak Shek Au Junction						
S8P2-4100.30	Cut slope KS34 - Construct Maintenance Access	24	16-Dec-23	16-Jan-24	-450	WD(6d)
S8P2-4100.40	Cut slope KS34 - Construct Slope Drainage	24	16-Dec-23	16-Jan-24	-468	WD(6d)
S8P2-4100	Cut slope KS34 - Cut Slope	0	16-Aug-23 A	07-Sep-23 A		WD(6d)
S8P2-4100.20	Cut slope KS34 - Row AC, AB & AA Soil Nail & Soil Nail head (36 + 55 + 59)	50	18-Oct-23	15-Dec-23	-500	WD(6d)
S8P2-4100.10	Cut slope KS34 - Row AE & AD Soil Nail & Soil Nail head (27 + 20)	18	22-Sep-23 A	17-Oct-23	-500	WD(6d)
Portion 1a in Area A (Soil Treatment, Slope, Retaining Wall, Noise Barrier, Drainage & Roadwork)						
Preparation work						
S8P1a-1040	Arsenic Treatment Plan	36	25-Sep-23	08-Nov-23	-456	WD(6d)
S8P1a-0100	Delay in the Access to and Use of Portions 1a & 12 of the Site (CNE 034) (CE 108)	0		25-Sep-23	-811	CD(7d)
S8P1a-1015	Ground investigation (4 / 7 GI completed)	12	05-Nov-22 A	10-Oct-23	-441	WD(6d)
S8P1a-1030	Prepare Arsenic Assessment Report	36	25-Sep-23	08-Nov-23	-456	WD(6d)
S8P1a-1010	Site clearance & Tree Felling	10	05-Oct-22 A	07-Oct-23	-441	WD(6d)
S8P1a-0112	Strong Objection for a Grave on the Construction Works in the vicinity of the Road P1-1 and Roundabout C3 at 1 (CNE 109)	0		25-Sep-23	-514	CD(7d)
S8P1a-0114	Unavailability of Access to and Use of the Remaining Land near New Feature No. KS32 in Area A at Portion 1a (CNE 131)	0		25-Sep-23	-123	CD(7d)
S8P1a-0110	Unexpected Long Approval Process for Tech Submission for Works in MTRC Zone Portion 12, 1a & 1b (EWN 090) (CNE 115)	0		25-Sep-23	-530	CD(7d)
S8P1a-1025	Verification of Ground Condition & Design Review by Project Manager	60	11-Oct-23	09-Dec-23	-544	CD(7d)
Soil Treatment						
S8P1a-2020	Backfilling to the formation levels	35	07-Dec-23	19-Jan-24	-282	WD(6d)
S8P1a-2010	Remove soil (original assumed 10988m3) (0 / 6 EGI completed, interim soil to be excavated / treated : 0m3 / 0m3)	24	09-Nov-23	06-Dec-23	-456	WD(6d)
Civil Work						
South of Roundabout C3						
S8P1a-2340	Backfill to Road Formation	120	21-Nov-23	19-Apr-24	-166	WD(6d)
S8P1a-2300	Construction of Drainage SMH KT 1103 to 1105 (2 / 3 M/H complete)	16	03-May-23 A	14-Oct-23	-99	WD(6d)
S8P1a-2320	Construction of Sewerage FMH KT 3.01A to 3.01B (0 / 2 M/H complete)	36	28-Sep-23	11-Nov-23	-99	WD(6d)
S8P1a-2310	Laying Fresh Watermains CHA 290 to CHA 370	10	07-Jul-23 A	07-Oct-23	-70	WD(6d)
S8P1a-2330	Laying Fresh Watermains CHAA 150 to CH 266	36	13-Nov-23	23-Dec-23	-99	WD(6d)
S8P1a-2050.0	Site Formation for Draiange Works SMH KT 1106 to 1109 (0 / 4 M/H complete)	18	12-Dec-23	04-Jan-24	-166	WD(6d)
S8P1a-2070	Slopeworks for new feature KS34 - Slope Drainage and Maintenance Access	64	12-Dec-23	01-Mar-24	-62	WD(6d)
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)
S8P1a-2042	Slopeworks for new feature KS34 Lower Bench - Remaining Cut Slope	15	03-Nov-23	20-Nov-23	-166	WD(6d)
S8P1a-2050	Slopeworks for new feature KS34 Lower Bench - Soil Nail Installation & Soil Nail Head Rows BC+BB+BA (7 + 7 +7 Nos)	18	21-Nov-23	11-Dec-23	-166	WD(6d)
S8P1a-2030	Slopeworks for new feature KS34 Upper Bench - Cut Slope (Rock Fill changed to Soil Nail)	6	09-Oct-23	14-Oct-23	-166	WD(6d)
S8P1a-2032	Slopeworks for new feature KS34 Upper Bench - Soil Nail Installation & Soil Nail Head Rows BD+BE (30 + 32 Nos)	30	16-Oct-23	20-Nov-23	-166	WD(6d)
Roundabout C3						
S8P1a-5500	DCS Works by Others (Start Date to be Confirmed)	150	25-Sep-23	21-Feb-24	28	CD(7d)
S8P1a-5200	Divert Haul Road	0		19-Oct-23	-240	WD(6d)
S8P1a-5230	Laying Fresh Watermains CHA 365 to CHA 400	48	20-Oct-23	15-Dec-23	-32	WD(6d)
S8P1a-5020	Retaining wall KW17 - Construction of retaining wall KW17 (0 / 7 bays complete)	124	09-Dec-23	14-May-24	-240	WD(6d)
S8P1a-5010	Retaining wall KW17 - Excavation for retaining wall KW17	24	11-Nov-23	08-Dec-23	-240	WD(6d)
S8P1a-5000	Site clearance	18	20-Oct-23	10-Nov-23	-240	WD(6d)
S8P1a-5220	Underground Roundabout Drainage M1.82 to M1.84 and Primary drainage pipe laying (0 / 6 Completed)	60	02-Dec-23	16-Feb-24	-134	WD(6d)
S8P1a-5212	Underground Roundabout Drainage SMHKT 1011 and Pipe Laying to SKT 1103 (0 / 1 Completed)	36	20-Oct-23	01-Dec-23	-134	WD(6d)
S8P1a-5210	Underground Roundabout Drainage SMHKT 1013 and Pipe Laying to SKT 1103A (0 / 1 Completed)	18	01-Aug-23 A	17-Oct-23	-240	WD(6d)
Within MTRC Protection Zone						



Build King – Richwell Engineering Joint Venture

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

ND/2019/01 - 3 Month Rolling Programme (2023-09)

Data Date: 25-Sep-23

Run Date: 29-Sep-2023

Project ID: ND201901-RP-43
Lauyout: ND201901-3MRP with logo

REVISED PROGRAMME (2023-09)

Date	Revision	Checked	Approved
29-Sep-23	Rev.0	SC	BY

Activity ID	Activity Name	Remaining Duration	Start	Finish	Total Float	Calendar
S8P1a-4210	Construction of Sewerage FMH KT 3.01D to 3.01E (0 / 2 M/H complete)	48	20-Oct-23	15-Dec-23	-134	WD(6d)
S8P1a-6000	DCS Works by Others (Start Date to be Confirmed)	150	25-Sep-23	21-Feb-24	-32	CD(7d)
S8P1a-4030	New Formed Cut Slope KS03 to Road Formation level	24	21-Dec-23	20-Jan-24	-456	WD(6d)
S8P1a-4020	New Formed Cut Slope KS53 to Road Formation level	24	07-Dec-23	06-Jan-24	-456	WD(6d)
S8P1a-4010	Site Clearance & Tree Fellling	24	09-Nov-23	06-Dec-23	-456	WD(6d)
S8P1a-4220	Underground Roundabout Drainage M1.81 to M1.83 and Primary drainage pipe laying (0 / 3 Completed)	48	16-Dec-23	16-Feb-24	-134	WD(6d)
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-Sep-23	30	CD(7d)
Civil Work						
S8P3-3002	Backfill to Road Formation Level	30	11-Oct-23	15-Nov-23	-273	WD(6d)
S8P3-3000	Construct & maintain Temporary drainage	450	25-Sep-23	02-Apr-25	-355	WD(6d)
S8P3-3005.	New Feature KS53 - Cut slope	68	16-Nov-23	06-Feb-24	-273	WD(6d)
S8P3-3010.30	Underground Drainage work (M2.70a to & Including KT1008 backdrop) (0 / 1 Completed)	12	01-Aug-23 A	10-Oct-23	-273	WD(6d)
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-Sep-23	-384	CD(7d)
S8P5-0108	Increased Risk for Damages to Existing Donjiang Raw Water Mains (DJRWMs) (CNE 060)	0		25-Sep-23	-357	CD(7d)
S8P5-0110	Potential Changes of the Scope of Noise Barriers (AECOM EWN PM-003)	0		25-Sep-23	36	CD(7d)
S8P5-0000	The footing detail for Roadside Directional Sign ADS30 at Portion 5 (EWN 043)	0		25-Sep-23	-24	CD(7d)
Construction according to CSD for Alternative on Bored Pile Wall						
S8P5-2005	Construct & maintain Temporary drainage	423	25-Sep-23	01-Mar-25	-298	WD(6d)
Civil Work						
S8P5-5000	DCS Works by Others (Stage 1 - Anticipated Start Date Sep 2023) (Northh bound CH 490 - CH 520) "To be Confirmed"	90	17-Nov-23	14-Feb-24	128	CD(7d)
S8P5-4060	Pipe Jacking across DJ watermain - 2 Nos 1200 dia Conc Pipe	64	12-Dec-23	01-Mar-24	-298	WD(6d)
S8P5-4048.20	Pipe Jacking across DJ watermain - Jacking Pit Excavation	28	04-Oct-23*	06-Nov-23	-298	WD(6d)
S8P5-4050	Pipe Jacking across DJ watermain - Mobilization and Set Up Pipe Jacking Equipment (CNE 060, EC-1086)	30	07-Nov-23	11-Dec-23	-298	WD(6d)
S8P5-4048.10	Pipe Jacking across DJ watermain - Received Instructions	0		25-Sep-23*	-631	WD(6d)
S8P5-4012.04	Road Works and Traffic Diversion (To South bound Carriageway CH 490 - CH 510)	12	03-Nov-23	16-Nov-23	-135	WD(6d)
S8P5-4004.20	Underground Fresh & Flushing watermains (South bound Carriageway) CHD 345 to 448 & CHQ 332 to 436	37	30-Jul-22 A	09-Nov-23	-264	WD(6d)
S8P5-4004.10	Underground Fresh watermain (North bound Carriageway) CHA 750 to 770	10	12-Sep-23 A	07-Oct-23	-104	WD(6d)
S8P5-4012	Underground utilitiies (South bound CH 400 - CH 530)	72	17-Nov-23	15-Feb-24	-135	WD(6d)
Portion 6a & 6b in Area A (Soil Treatment, Bored Pile Wall, Drainage & Roadwork)						
S8P6a-0002	Details of DCS pipe at D4-1 & D5 Road (EWN 030)	0		25-Sep-23	-384	CD(7d)
S8P6a-0005	Further Changes to the Works Information for the Construction of DCS Pipes at Road D4-1 (PMI 155 CE157) (CNE 095)	0		25-Sep-23	-384	CD(7d)
Preparation work/Tree Survey/Site Clearance/GI						
S8P6a-1010	Site Clearance & Tree Felling	18	15-Feb-20 A	17-Oct-23	-85	WD(6d)
Construction according to CSD for Alternative on Bored Pile Wall						
S8P6a-2004	Construct & maintain Temporary drainage	474	25-Sep-23	07-May-25	-313	WD(6d)
Civil Work						
S8P6a-7040	KB01 (Bay 1 to 12) - Backfiiling to formation level	42	28-Sep-23*	18-Nov-23	-16	WD(6d)
S8P6a-7030	Road D4 - Backfill to Road Formation CH 290 to CH 400	72	28-Oct-23	23-Jan-24	-105	WD(6d)
S8P6a-6030	Road D4 - Construct North bound Road & Traffic Diversion (CH 100 to CH 190)	24	14-Dec-23	13-Jan-24	-313	WD(6d)
S8P6a-6010	Road D4 - Laying DCS Pipes (CH 156 to CH 190)	24	04-Nov-23	01-Dec-23	-303	WD(6d)
S8P6a-7012	Road D4 - Testing and Commissioning (T&C) for DCS Works CH 230 to CH 550	50	16-Nov-23	04-Jan-24	7	CD(7d)
S8P6a-7020	Road D4 - Underground Fresh Watermain CHD 690 to CH 810	26	15-Jul-23 A	27-Oct-23	-105	WD(6d)



Build King – Richwell Engineering Joint Venture

Planned Work
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ND/2019/01 - 3 Month Rolling Programme (2023-09)

Data Date: 25-Sep-23

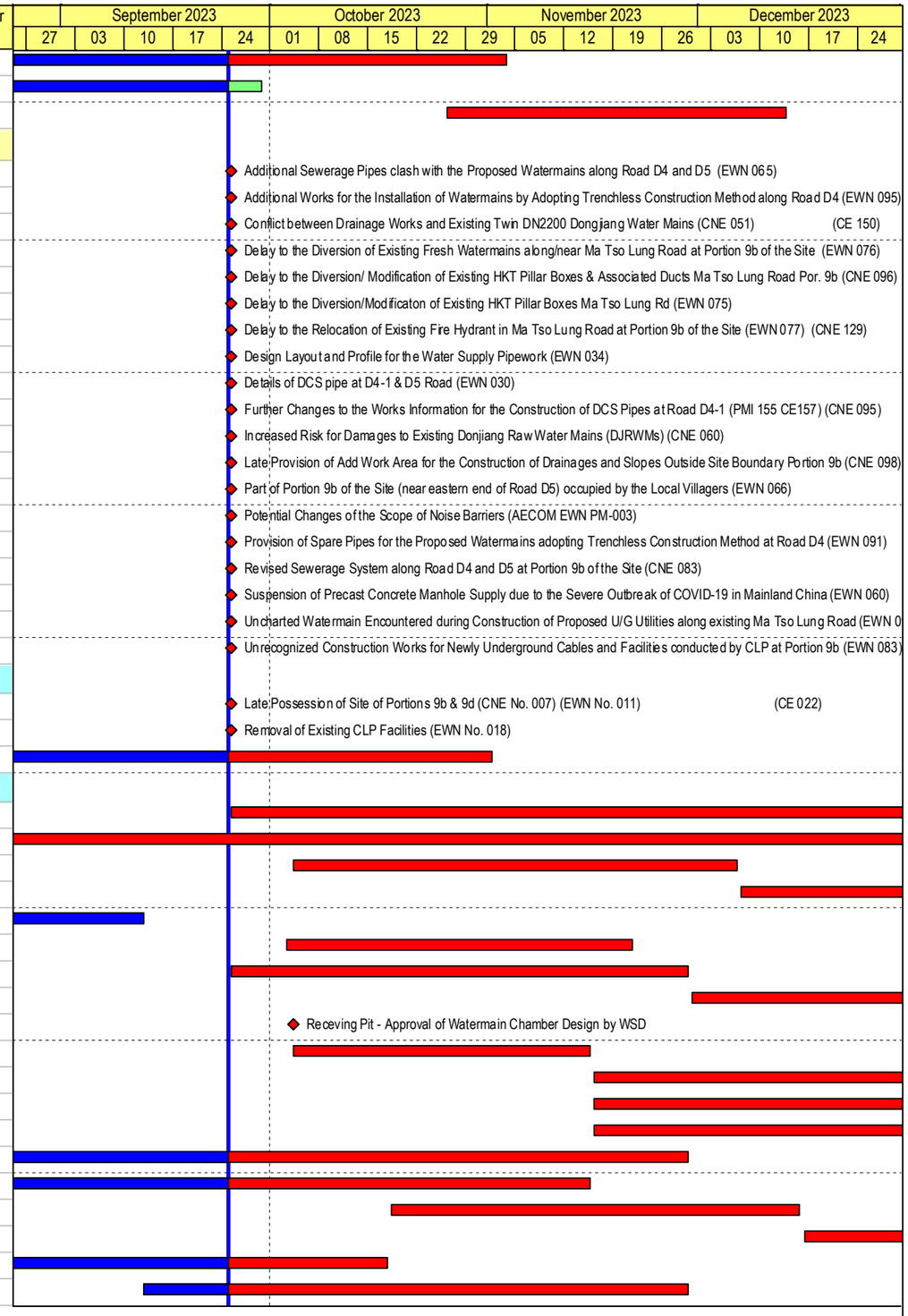
Run Date: 29-Sep-2023

Project ID: ND201901-RP-43
Lauyout: ND201901-3MRP with logo

REVISED PROGRAMME (2023-09)

Date	Revision	Checked	Approved
29-Sep-23	Rev.0	SC	BY

Activity ID	Activity Name	Remaining Duration	Start	Finish	Total Float	Calendar
S8P6a-6012	Road D4 -Construct DCS Chamber @ CH 164.7	32	25-Aug-23 A	03-Nov-23	-313	WD(6d)
S8P6a-4060	Road D4 Underground Fresh Watermain CHA 1100 to CH 1200	5	10-Aug-23 A	29-Sep-23	157	WD(6d)
S8P6a-6020	Road D4 Underground Fresh Watermain CHA 915 to CH 1000 & Chamber Construction	42	26-Oct-23	13-Dec-23	-313	WD(6d)
Portion 9b & 9d in Area A (Soil Treatment, Slope, Retaining Wall, Drainage & Roadwork)						
S8P9b-3128	Additional Sewerage Pipes clash with the Proposed Watermains along Road D4 and D5 (EWN 065)	0		25-Sep-23	-496	CD(7d)
S8P9b-3900	Additional Works for the Installation of Watermains by Adopting Trenchless Construction Method along Road D4 (EWN 095)	0		25-Sep-23	-117	CD(7d)
S8P9b-3112	Conflict between Drainage Works and Existing Twin DN2200 Dongjiang Water Mains (CNE 051) (CE 150)	0		25-Sep-23	-775	CD(7d)
S8P9b-3142	Delay to the Diversion of Existing Fresh Watermains along/near Ma Tso Lung Road at Portion 9b of the Site (EWN 076)	0		25-Sep-23	-264	CD(7d)
S8P9b-3150	Delay to the Diversion/ Modification of Existing HKT Pillar Boxes & Associated Ducts Ma Tso Lung Road Por. 9b (CNE 096)	0		25-Sep-23	-287	CD(7d)
S8P9b-3140	Delay to the Diversion/Modificaton of Existing HKT Pillar Boxes Ma Tso Lung Rd (EWN 075)	0		25-Sep-23	-381	CD(7d)
S8P9b-3144	Delay to the Relocation of Existing Fire Hydrant in Ma Tso Lung Road at Portion 9b of the Site (EWN 077) (CNE 129)	0		25-Sep-23	-276	CD(7d)
S8P9b-0004	Design Layout and Profile for the Water Supply Pipework (EWN 034)	0		25-Sep-23	-496	CD(7d)
S8P9b-0003	Details of DCS pipe at D4-1 & D5 Road (EWN 030)	0		25-Sep-23	-612	CD(7d)
S8P9b-3148	Further Changes to the Works Information for the Construction of DCS Pipes at Road D4-1 (PMI 155 CE157) (CNE 095)	0		25-Sep-23	-612	CD(7d)
S8P9b-3126	Increased Risk for Damages to Existing Donjiang Raw Water Mains (DJRWMs) (CNE 060)	0		25-Sep-23	-775	CD(7d)
S8P9b-3154	Late Provision of Add Work Area for the Construction of Drainages and Slopes Outside Site Boundary Portion 9b (CNE 098)	0		25-Sep-23	-231	CD(7d)
S8P9b-3130	Part of Portion 9b of the Site (near eastern end of Road D5) occupied by the Local Villagers (EWN 066)	0		25-Sep-23	-203	CD(7d)
S8P9b-3132	Potential Changes of the Scope of Noise Barriers (AECOM EWN PM-003)	0		25-Sep-23	-276	CD(7d)
S8P9b-3156	Provision of Spare Pipes for the Proposed Watermains adopting Trenchless Construction Method at Road D4 (EWN 091)	0		25-Sep-23	-775	CD(7d)
S8P9b-3146	Revised Sewerage System along Road D4 and D5 at Portion 9b of the Site (CNE 083)	0		25-Sep-23	-430	CD(7d)
S8P9b-3124	Suspension of Precast Concrete Manhole Supply due to the Severe Outbreak of COVID-19 in Mainland China (EWN 060)	0		25-Sep-23	-430	CD(7d)
S8P9b-3158	Uncharted Watermain Encountered during Construction of Proposed U/G Utilities along existing Ma Tso Lung Road (EWN 094)	0		25-Sep-23	-430	CD(7d)
S8P9b-3152	Unrecognized Construction Works for Newly Underground Cables and Facilities conducted by CLP at Portion 9b (EWN 083)	0		25-Sep-23	-775	CD(7d)
Preparation work/Tree Survey/Site Clearance/GI						
S8P9b-0005	Late Possession of Site of Portions 9b & 9d (CNE No. 007) (EWN No. 011) (CE 022)	0		25-Sep-23	-287	CD(7d)
S8P9b-0006	Removal of Existing CLP Facilities (EWN No. 018)	0		25-Sep-23	-172	CD(7d)
S8P9b-1010	Site clearance & Tree Felling	30	25-Jun-22 A	01-Nov-23	-233	WD(6d)
Civil Work						
S8P9b-3000	Construct & maintain Temporary drainage	792	25-Sep-23	30-May-26	-637	WD(6d)
S8P9b-3101	Duration of TTA	168	25-Apr-23 A	22-Apr-24	-361	WD(6d)
S8P9b-3262.01	Jacking Pit - Driving pipe pile for jacking pipe	54	04-Oct-23	06-Dec-23	-637	WD(6d)
S8P9b-3262.02	Jacking Pit - Excavation & ELS works for cofferdam (11m depth)	80	07-Dec-23	15-Mar-24	-637	WD(6d)
S8P9b-3106	Ma Tso Lung Road D4-2 - Construction of Underground Sewerage FMH 7.14 to 7.15 (1/2 MH Complete) & Plug end	0	11-May-23 A	13-Sep-23 A		WD(6d)
S8P9b-3108	Ma Tso Lung Road D4-2 - Construction Underground Drainage M 3.91 pipe to KT 7110 and KT 7108 to M.395 (0 / 5 Complete)	42	03-Oct-23	21-Nov-23	-357	WD(6d)
S8P9b-3108.10	Ma Tso Lung Road D4-2 - Laying Watermains (CH 994 to Rd W1)	54	25-Sep-23 A	29-Nov-23	-364	WD(6d)
S8P9b-3108.20	Ma Tso Lung Road D4-2 -DCS Works by Others (CH 994 to Rd W1) (Anticipated Commencement Date Nov-2023)	105	30-Nov-23	13-Mar-24	-447	CD(7d)
S8P9b-3262.110	Receving Pit - Approval of Watermain Chamber Design by WSD	0	04-Oct-23*		-601	WD(6d)
S8P9b-3262.11	Receving Pit - Construct Temporary Road E2 and Implement TTA	36	04-Oct-23*	15-Nov-23	-637	WD(6d)
S8P9b-3262.12	Receving Pit - Driving Pipe Pile	60	16-Nov-23	27-Jan-24	-637	WD(6d)
S8P9b-3262.111	Receving Pit - Duration of TTA	807	16-Nov-23	30-Jan-26	-787	CD(7d)
S8P9b-3057.14	Road D4 (CH 400 - CH 625) - Backfill to Road Formation	48	16-Nov-23	13-Jan-24	-140	WD(6d)
S8P9b-3057.08	Road D4 (CH 400 - CH 625) - Underground Fresh Watermains	54	12-Jan-23 A	29-Nov-23	-140	WD(6d)
S8P9b-3057.10	Road D4 (CH 400 to CH 625) - Laying DCS Pipes	42	31-May-23 A	15-Nov-23	-140	WD(6d)
S8P9b-3010	Road D4 (CH 780 to CH 970) - Construction of Underground Drainage SMH KT5009 to SMH KT5016 (0/8 MH Complete)	50	18-Oct-23	15-Dec-23	-233	WD(6d)
S8P9b-3012.10	Road D4 (CH 780 to CH 970) - Backfill & Constuct Temp Road	12	16-Dec-23	02-Jan-24	-233	WD(6d)
S8P9b-3008	Road D4 (CH 780 to CH 970) - Construction of Underground Sewerage Manhole FMH 7.10 to 7.13 (0/4 MH Complete)	18	15-Mar-23 A	17-Oct-23	-233	WD(6d)
S8P9b-3012	Road D4 (CH 780 to CH 970) - Laying Watermains	54	13-Sep-23 A	29-Nov-23	-220	WD(6d)



Build King – Richwell Engineering Joint Venture

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ND/2019/01 - 3 Month Rolling Programme (2023-09)

Data Date: 25-Sep-23

Run Date: 29-Sep-2023

Project ID: ND201901-RP-43
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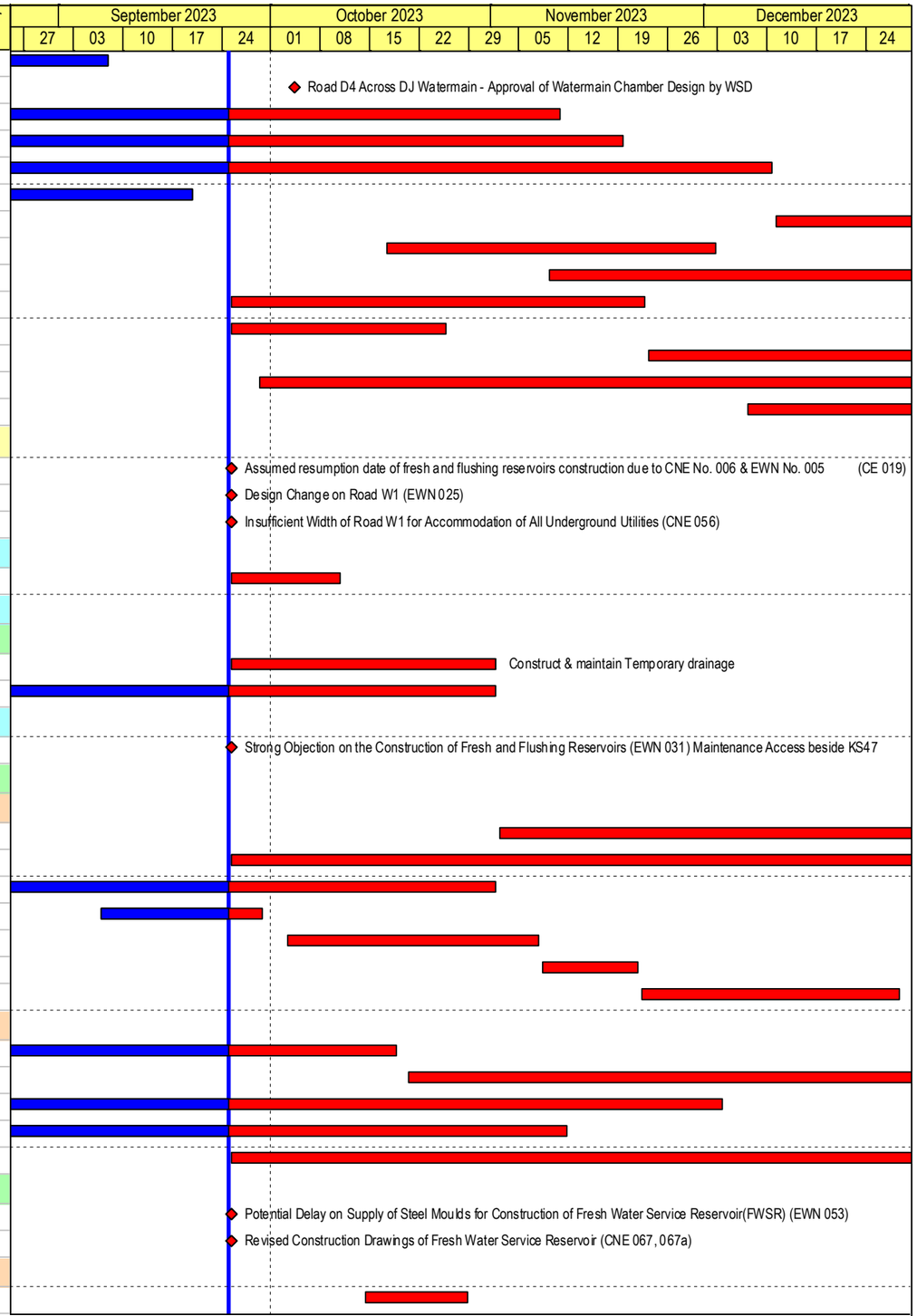
REVISED PROGRAMME (2023-09)

Date	Revision	Checked	Approved
29-Sep-23	Rev. 0	SC	BY

Activity ID	Activity Name	Remaining Duration	Start	Finish	Total Float	Calendar
S8P9b-3160	Road D4 - Laying DCS Pipes (CH 970 to CH 994)	0	16-Aug-23 A	08-Sep-23 A		WD(6d)
S8P9b-3262	Road D4 Across DJ Watermain - Approval of Watermain Chamber Design by WSD	0	04-Oct-23*		-637	WD(6d)
S8P9b-3058.20	Road D5 - DCS Works by Others Portion A1 (Commencement Date Jul-2023)	47	13-Jul-23 A	10-Nov-23	-184	CD(7d)
S8P9b-3058.24	Road D5 - DCS Works by Others Portion A2 (Commencement Date Aug-2023)	56	07-Aug-23 A	19-Nov-23	-184	CD(7d)
S8P9b-3058.22	Road D5 - DCS Works by Others Portion B (Commencement Date Jul-2023)	77	13-Jul-23 A	10-Dec-23	-256	CD(7d)
S8P9b-3058.080	Road D5 - Laying Drainage Pipe between SMHK KT7103 and KT7104	0	25-May-23 A	20-Sep-23 A		WD(6d)
S8P9b-3058.105	Road D5 - Laying Remaining Watermains (CH D & CH QB) After DCS Works	36	11-Dec-23	24-Jan-24	-208	WD(6d)
S8P9b-3058.100	Road D5 - Laying Watermains (CH PA, CH ZB & CH H)	40	17-Oct-23	02-Dec-23	-166	WD(6d)
S8P9b-6080	Road D5 - New Formed Sloping Ground KS20 Cut	48	09-Nov-23	06-Jan-24	-113	WD(6d)
S8P9b-3030.06	Road W1 (CH100 to CH310) - Backfilling to Formation Level	48	25-Sep-23	22-Nov-23	-246	WD(6d)
S8P9b-3030.04	Road W1 (CH100 to CH310) - Pressure test for Fresh & Flushing watermains	24	25-Sep-23	25-Oct-23	-222	WD(6d)
S8P9b-3032	Road W1 (CH100 to CH310) - Underground Utilities by others	60	23-Nov-23	03-Feb-24	-246	WD(6d)
S8P9b-3001.04	Slopeworks for new feature KS19 - Berm, Stairs & Maintenance Access Construction	88	29-Sep-23	16-Jan-24	-113	WD(6d)
S8P9b-3262.100	Underground Primary Drainage Works SMHKT 5005 - KT 5007b (0 / 3 MH complete)	72	07-Dec-23	06-Mar-24	-303	WD(6d)
Portion 8a in Area A (Soil Treatment, Reservoirs, Slope, Drainage & Roadwork)						
S8P8a-1100	Assumed resumption date of fresh and flushing reservoirs construction due to CNE No. 006 & EWN No. 005 (CE 019)	0		25-Sep-23	-604	CD(7d)
S8P8a-1106	Design Change on Road W1 (EWN 025)	0		25-Sep-23	-18	CD(7d)
S8P8a-3090	Insufficient Width of Road W1 for Accommodation of All Underground Utilities (CNE 056)	0		25-Sep-23	-317	CD(7d)
Preparation work/Tree Survey/Site Clearance/GI						
S8P8a-1035	Remaining Ground investigation (0 / 1 GI completed) to Fresh Water Service Reservoir	12	25-Sep-23	10-Oct-23	-240	WD(6d)
Forming Site Access and Site Formation						
Stage 1 General Excavation near Flushing Water Servie Reservior (Excavation Volume 52834 m3)						
S8P8a-1105	Construct & maintain Temporary drainage	30	25-Sep-23	01-Nov-23	-258	WD(6d)
S8P8a-1160	General excavation for remaining of Road W1	30	11-Jun-20 A	01-Nov-23	-258	WD(6d)
KD8 - complete all works for fresh water and flushing water services reservoirs, pipe laying & road						
S8K8-6002	Strong Objection on the Construction of Fresh and Flushing Reservoirs (EWN 031) Maintenance Access beside KS47	0		25-Sep-23	-604	CD(7d)
Construction of Kwu Tung North Flushing Water Service Reservoir (KTN FLWSR)						
Civil Works						
S8K8-1040	Backfilling (6559m3)	108	02-Nov-23	13-Mar-24	-78	WD(6d)
S8K8-1005	Construct & maintain Temporary drainage	138	25-Sep-23	13-Mar-24	-78	WD(6d)
S8K8-1038	Install Watermains inside Chambers	30	22-Feb-23 A	01-Nov-23	-78	WD(6d)
S8K8-1110	Tank No. 1 - Water Tightness Test	5	07-Sep-23 A	29-Sep-23	-75	CD(7d)
S8K8-1120	Tank No. 2 - Fill up Tank No. 2 for Water Tightness Test	30	03-Oct-23	07-Nov-23	-65	WD(6d)
S8K8-1130	Tank No. 2 - Water Tightness Test	14	08-Nov-23	21-Nov-23	-79	CD(7d)
S8K8-1140	Whole Structure - Fill up Tank No.1 & 2 for Water Tightness Test	30	22-Nov-23	28-Dec-23	-65	WD(6d)
E&M Works						
S8K8-2010	Design and Approval for E&M works for KTN FLWSR	24	01-Feb-21 A	18-Oct-23	-69	CD(7d)
S8K8-2050	Installation of E&M equipment for KTN FLWSR	200	20-Oct-23	25-Jun-24	-100	WD(6d)
S8K8-2030	Procurement of E&M equipment for KTN FLWSR	54	15-Aug-22 A	03-Dec-23	-69	CD(7d)
S8K8-2020	Submission and Approval of E&M plants & materials for KTN FLWSR	48	01-Feb-21 A	11-Nov-23	-69	CD(7d)
S8K8-2040	Supply, Factory Acceptance Test (FAT) & Delivery of E&M equipment for KTN FLWSR	120	25-Sep-23	21-Feb-24	-100	WD(6d)
Construction of Kwu Tung North Freshwater Service Reservoir (KTN FWSR)						
S8K8-6044	Potential Delay on Supply of Steel Moulds for Construction of Fresh Water Service Reservoir(FWSR) (EWN 053)	0		25-Sep-23	-286	CD(7d)
S8K8-6034	Revised Construction Drawings of Fresh Water Service Reservoir (CNE 067, 067a)	0		25-Sep-23	-286	CD(7d)
Civil Works						
S8K8-1030	Back Filling for Construction of Intlet Chamber	12	14-Oct-23*	28-Oct-23	-157	WD(6d)



Build King – Richwell Engineering Joint Venture

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ND/2019/01 - 3 Month Rolling Programme (2023-09)

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Project ID: ND201901-RP-43
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REVISED PROGRAMME (2023-09)			
Date	Revision	Checked	Approved
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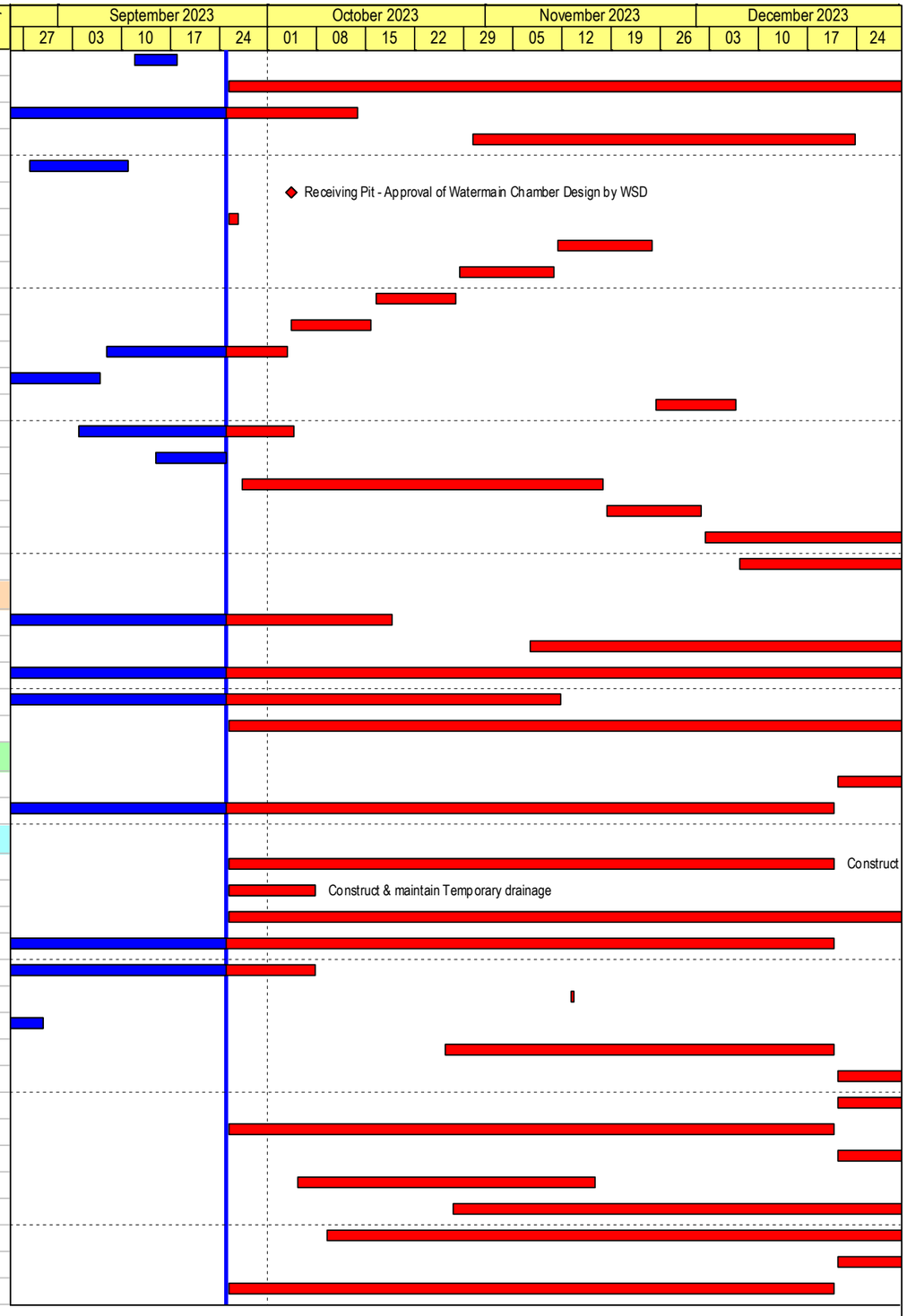
Activity ID	Activity Name	Remaining Duration	Start	Finish	Total Float	Calendar
S8K8-1000.62	Columns (2 nos)	0	12-Sep-23 A	18-Sep-23 A		WD(6d)
S8K8-3000	Construct & maintain Temporary drainage	275	25-Sep-23	29-Aug-24	-108	WD(6d)
S8K8-1028	Construct Roding Pit (3 Nos)	15	10-May-23 A	13-Oct-23	-157	WD(6d)
S8K8-1032	Construction of Intlet Chamber	48	30-Oct-23	23-Dec-23	-108	WD(6d)
S8K8-1000.46	Cover Slab - No. 15 Stage 3 (at Tower Crane Location)	0	28-Aug-23 A	11-Sep-23 A		WD(6d)
S8K8-3054	Receiving Pit - Approval of Watermain Chamber Design by WSD	0	04-Oct-23*		-438	WD(6d)
S8K8-1002.80	Remove Tower Crane	2	25-Sep-23	26-Sep-23	-35	WD(6d)
S8K8-3052.10	Road W5 - Cut Slope & Install Soil Nail Row C & B (123 Nos)	14	11-Nov-23	24-Nov-23	-604	CD(7d)
S8K8-3052.08	Road W5 - Cut Slope & Install Soil Nail Row E & D (120 Nos)	14	28-Oct-23	10-Nov-23	-604	CD(7d)
S8K8-3052.06	Road W5 - Cut Slope & Install Soil Nail Row G & F (89 Nos)	12	16-Oct-23	27-Oct-23	-604	CD(7d)
S8K8-3052.04	Road W5 - Cut Slope & Install Soil Nail Row I & H (78 Nos)	12	04-Oct-23	15-Oct-23	-604	CD(7d)
S8K8-3052.02	Road W5 - Cut Slope & Install Soil Nail Row K & J (52 Nos)	9	08-Sep-23 A	03-Oct-23	-604	CD(7d)
S8K8-3052.00	Road W5 - Cut Slope & Install Soil Nail Row M & L (42 Nos)	0	21-Aug-23 A	07-Sep-23 A		CD(7d)
S8K8-3052.20	Road W5 - Cut Slope & Install Soil Nail Row A (72 Nos)	12	25-Nov-23	06-Dec-23	-604	CD(7d)
S8K8-1002.52	Roof - bay 5	7	04-Sep-23 A	04-Oct-23	-232	WD(6d)
S8K8-1002.54	Roof - bay 6	0	15-Sep-23 A	25-Sep-23 A		WD(6d)
S8K8-3040.10	Tank No. 1 - Fill up Tank No. 1 for Water Tightness Test & Water Sterility Test	42	27-Sep-23	17-Nov-23	-26	WD(6d)
S8K8-3040.20	Tank No. 1 - Water Tightness Test & Water Sterility Test	14	18-Nov-23	01-Dec-23	-31	CD(7d)
S8K8-3040.30	Tank No. 2 - Fill up Tank No. 2 for Water Tightness Test & Water Sterility Test	42	02-Dec-23	23-Jan-24	-27	WD(6d)
S8K8-3060	Up Hill Recieving Pit - Excavation & Construction	82	07-Dec-23	18-Mar-24	-492	WD(6d)
E&M Works						
S8K8-4010	Design and Approval for E&M works for KTN FWSR	24	20-Dec-21 A	18-Oct-23	-115	CD(7d)
S8K8-4050	Installation of E&M equipment for KTN FWSR	200	07-Nov-23	12-Jul-24	-114	WD(6d)
S8K8-4030	Procurement of E&M equipment for KTN FWSR	54	15-Aug-22 A	04-Jan-24	-139	CD(7d)
S8K8-4020	Submission and Approval of E&M plants & materials for KTN FWSR	48	15-Mar-22 A	11-Nov-23	-139	CD(7d)
S8K8-4040	Supply, Factory Acceptance Test (FAT) & Delivery of E&M equipment for KTN FWSR	140	25-Sep-23	15-Mar-24	-114	WD(6d)
Remaining pipe laying work and roadworks within Road W1						
S8K8-4102	Road W1 - Backfilling to Formation Level of Watermain (SMH KT 8105 to 8103)	48	21-Dec-23	21-Feb-24	-259	WD(6d)
S8K8-4100	Road W1 - Construction of Drainage Manhole SMH KT 8105 to 8103 (0 / 8 M/H complete)	72	15-May-23 A	20-Dec-23	-259	WD(6d)
Remaining Civil Work in Portion 8a Area A						
S8P8a-2558	Construct & maintain Temporary drainage	72	25-Sep-23	20-Dec-23	-333	WD(6d)
S8P8a-2598	Construct & maintain Temporary drainage	10	25-Sep-23	07-Oct-23	-319	WD(6d)
S8P8a-3046	Construct & maintain Temporary drainage	500	25-Sep-23	07-Jun-25	-333	WD(6d)
S8P8a-2562	Construction of retaining wall KW06 bay 1 - bay 7 (bays 6/7 Base Slab & 0/7 Walls completed)	72	21-Jun-23 A	20-Dec-23	-333	WD(6d)
S8P8a-2602	Construction of retaining wall KW05 bay 7 - bay 16 (Base Slab 10/10 completed, Stem Wall 8/10 completed)	10	12-Nov-22 A	07-Oct-23	-319	WD(6d)
S8P8a-5032	Divert Traffic to Road A5	1	13-Nov-23	13-Nov-23	-97	WD(6d)
S8P8a-2560	Excavation for retaining wall KW06 bay 1 - bay 7 (bays 7/7 Completed)	0	06-Jun-23 A	30-Aug-23 A		WD(6d)
S8P8a-6020	KW05 at CH400 to CH500 - Backfilling to Formation Level For Drainage Construction SMH KT 7016 to 7015 to 7014 Connection	48	26-Oct-23	20-Dec-23	-333	WD(6d)
S8P8a-6022	KW05 at CH400 to CH500 - Construction of Drainage Manhole SMH KT 7016 to 7015 to 7014 Connection(0 / 3 M/H complete)	96	21-Dec-23	22-Apr-24	-333	WD(6d)
S8P8a-6008	KW06 at CH600 to CH700 - Backfilling to Formation Level of Watermain (SMH KT 7011A to 7009 to 7008A Connection)	24	21-Dec-23	20-Jan-24	-187	WD(6d)
S8P8a-6006	KW06 at CH600 to CH700 - Construction of Drainage Manhole SMH KT 7011A to 7009 to 7008A Connection (0 / 5 M/H compl	72	25-Sep-23	20-Dec-23	-187	WD(6d)
S8P8a-6012	KW06 atCH500 to CH600 - Backfilling to Formation Level For Drainage Construction SMH KT 7014 to 7012 to 7011A Connection	48	21-Dec-23	21-Feb-24	-309	WD(6d)
S8P8a-6000.10	KW11 at CH770 to CH850 - Backfill to level of utilities laying (SMH KT 7006B to 7004)	36	05-Oct-23	16-Nov-23	-258	WD(6d)
S8P8a-6001	KW11 at CH770 to CH850 - Construction of Drainage Manhole SMH KT 7006B to 7004 (0 / 4 M/H complete)	72	27-Oct-23	22-Jan-24	-258	WD(6d)
S8P8a-2604	Retaining wall KW05 - Drainage Construction	90	09-Oct-23	25-Jan-24	-83	WD(6d)
S8P8a-2564	Retaining wall KW06 - Drainage Construction	90	21-Dec-23	15-Apr-24	-145	WD(6d)
S8P8a-2664	Retaining wall KW11 - Drainage Construction	72	25-Sep-23	20-Dec-23	-55	WD(6d)



Build King – Richwell Engineering Joint Venture

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ND/2019/01 - 3 Month Rolling Programme (2023-09)

Data Date: 25-Sep-23

Run Date: 29-Sep-2023

Project ID: ND201901-RP-43
Lauyout: ND201901-3MRP with logo

REVISED PROGRAMME (2023-09)

Date	Revision	Checked	Approved
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Activity ID	Activity Name	Remaining Duration	Start	Finish	Total Float	Calendar
S8P8a-5020	Road A5 - New Formed Rock Fill Slope KS52	36	25-Apr-23 A	25-Nov-23	-120	WD(6d)
S8P8a-5030	Road A5 - Road Works	24	14-Oct-23	11-Nov-23	-240	WD(6d)
S8P8a-5000	Road A5 - Site Formation Works	15	23-Mar-23 A	13-Oct-23	-240	WD(6d)
S8P8a-6040.20	Road W1 - Backfilling to Formation Level of Watermain (SMH KT 7001 to 7004 Connection)	48	26-Oct-23	20-Dec-23	-153	WD(6d)
S8P8a-6040.10	Road W1 - Construction of Drainage Manhole SMH KT 7001 to 7004 Connection (0 / 4 M/H complete)	24	01-Jun-23 A	25-Oct-23	-153	WD(6d)
S8P8a-6028	Road W1 - Construction of Drainage Manhole SMH KT 7019A Connection to 7017 to 7016 Connection (0 / 5 M/H complete)	72	13-Nov-23	07-Feb-24	-240	WD(6d)
S8P8a-6040.30	Road W1 - Laying Fresh and Flushing Watermains	48	21-Dec-23	21-Feb-24	-153	WD(6d)
S8P8a-5022	Slopeworks for KS52 - Construct Slope Drainage	12	27-Nov-23	09-Dec-23	-120	WD(6d)
S8P8a-4000	Slopeworks for new feature KS25 - Remaing Cut Slope	12	11-Dec-23	23-Dec-23	-120	WD(6d)
Portion 8b in Area A (Soil Treatment & Install Watermains by Trenchless / Open Trench Method)						
S8P8b-1002	Assumed resumption date of fresh and flushing reservoirs construction due to CNE No. 006 & EWN No. 005 (CE 019)	0		25-Sep-23	-475	CD(7d)
S8P8b-1008	Change of Road Layout of Ho Sheung Heung Road after the Works by DSD Contract DC/2019/06 (CNE 072b)	0		25-Sep-23	-627	CD(7d)
S8P8b-8170	Increased Risk for Suspension of Pipe Jacking Flushing Watermains underneath MTRC Zone Portion 8b (EWN 080) (CNE 092)	0		25-Sep-23	-156	CD(7d)
Construction of Watermains						
Construction of watermains by trenchless method						
S8P8b-4000	Construct & maintain Temporary drainage	404	25-Sep-23	07-Feb-25	-259	WD(6d)
S8P8b-4012.22	GPR & Micrometemor Survey, Reporting & Approval	54	27-Dec-22 A	29-Nov-23	-317	WD(6d)
S8P8b-4012.24	Ground Treatment	134	30-Nov-23	17-May-24	-317	WD(6d)
S8P8b-4013.00	SYR Rescue Pit - Excavate Trial Pit	6	09-Nov-23	15-Nov-23	-287	WD(6d)
S8P8b-4013.02	SYR Rescue Pit - Mobilization & Set up for Pipe Piling Works	6	16-Nov-23	22-Nov-23	-287	WD(6d)
S8P8b-4013.04	SYR Rescue Pit - Pipe Piling Works	40	23-Nov-23	11-Jan-24	-287	WD(6d)
S8P8b-4013	SYR Rescue Pit - Prepare, Submit and Approval of Method Statement & Temp Design	36	01-Aug-23 A	08-Nov-23	-287	WD(6d)
S8P8b-4120	Up Hill Pipe Jacking - 2100 dia Pipe Sleeve For Flushing Water	110	30-Aug-23 A	06-Feb-24	-323	WD(6d)
S8P8b-4110	Up Hill Pipe Jacking - 2500 dia Pipe Sleeve For Fresh Water	84	02-Aug-23 A	06-Jan-24	-323	WD(6d)
Construction of watermains by open trench method						
S8P8b-5002.2	DSD Maintenance Road - Construct Inspection Manhole (0 / 2 complete)	12	21-Aug-23 A	10-Oct-23	-344	WD(6d)
S8P8b-5004	DSD Maintenance Road - Stage 2 Laying flushing water main - CHY 1047 to 1143	110	11-Oct-23	23-Feb-24	-344	WD(6d)
S8P8b-5006.04	Government Land - Laying Flushing water main - CHY 921 to 931	26	18-Sep-23 A	27-Oct-23	-248	WD(6d)
S8P8b-5006.06	Government Land - Laying Flushing water main - CHY 987 to 1040 (Waiting for Handover from DLO)	26	25-Sep-23	27-Oct-23	-248	WD(6d)
S8P8b-8180.20	Ho Sheung Heung Road Fresh water main - Approval of TTA Revised to Expose existing Watermain (2ndAttempt)	30	14-Nov-23	13-Dec-23	-484	CD(7d)
S8P8b-7120	Ho Sheung Heung Road Fresh water main - Combine Chamber Construction (CHO 752 to 775)	29	29-Apr-23 A	31-Oct-23	-431	WD(6d)
S8P8b-7104	Ho Sheung Heung Road Fresh water main - Excavation, Laying Pipes and Backfilling (CHO 520 to 555)	48	21-Dec-23	21-Feb-24	-510	WD(6d)
S8P8b-7102	Ho Sheung Heung Road Fresh water main - Excavation, Laying Pipes and Backfilling (CHO 550 to 553)	48	26-Oct-23	20-Dec-23	-510	WD(6d)
S8P8b-7100	Ho Sheung Heung Road Fresh water main - Excavation, Laying Pipes and Backfilling (CHO 553 to 569)	24	30-Aug-23 A	25-Oct-23	-510	WD(6d)
S8P8b-7134	Ho Sheung Heung Road Fresh water main - Excavation, Laying Pipes and Backfilling(CHO 635 to 680)	48	09-Oct-23*	04-Dec-23	-340	WD(6d)
S8P8b-7130	Ho Sheung Heung Road Fresh water main - Excavation, Laying Pipes and Backfilling(CHO 720 to 761)	48	01-Nov-23	28-Dec-23	-431	WD(6d)
S8P8b-8180.	Ho Sheung Heung Road Fresh water main - Implement TTA to Expose existing Watermain for Connection (1st Attempt)	7	04-Sep-23 A	04-Oct-23	-396	WD(6d)
S8P8b-8180.30	Ho Sheung Heung Road Fresh water main - Implement TTA to Expose existing Watermain for Connection (2nd Attempt)	12	14-Dec-23	29-Dec-23	-396	WD(6d)
S8P8b-8180.10	Ho Sheung Heung Road Fresh water main - Prepare Revised TTA Scheme to Expose existing Watermain (2nd Attempt)	24	16-Oct-23	13-Nov-23	-396	WD(6d)
S8P8b-7094	Preparation & Implement TTA (CHO 553 to 569)	0	28-Aug-23 A	29-Aug-23 A		WD(6d)
Section 9						
S9-1000	Planned Completion Date of Section 9	0		20-Oct-23	-409	CD(7d)
S9-1004	Unexpected Long Approval Process for Tech Submission for Works in MTRC Zone Portion 12, 1a & 1b (EWN 090) (CNE 115)	0		25-Sep-23	-503	CD(7d)
Portion 12 in Area F (Soil Treatment & Interface with EMSD's Contractors)						
Soil Treatment						
S9P12-3030	Approval of CIA, Tunnel Monitoring Proposal and Analysis	48	18-May-23 A	11-Nov-23	-551	CD(7d)
S9P12-2020	Backfilling to the formation levels	9	18-Sep-23 A	06-Oct-23	-409	WD(6d)



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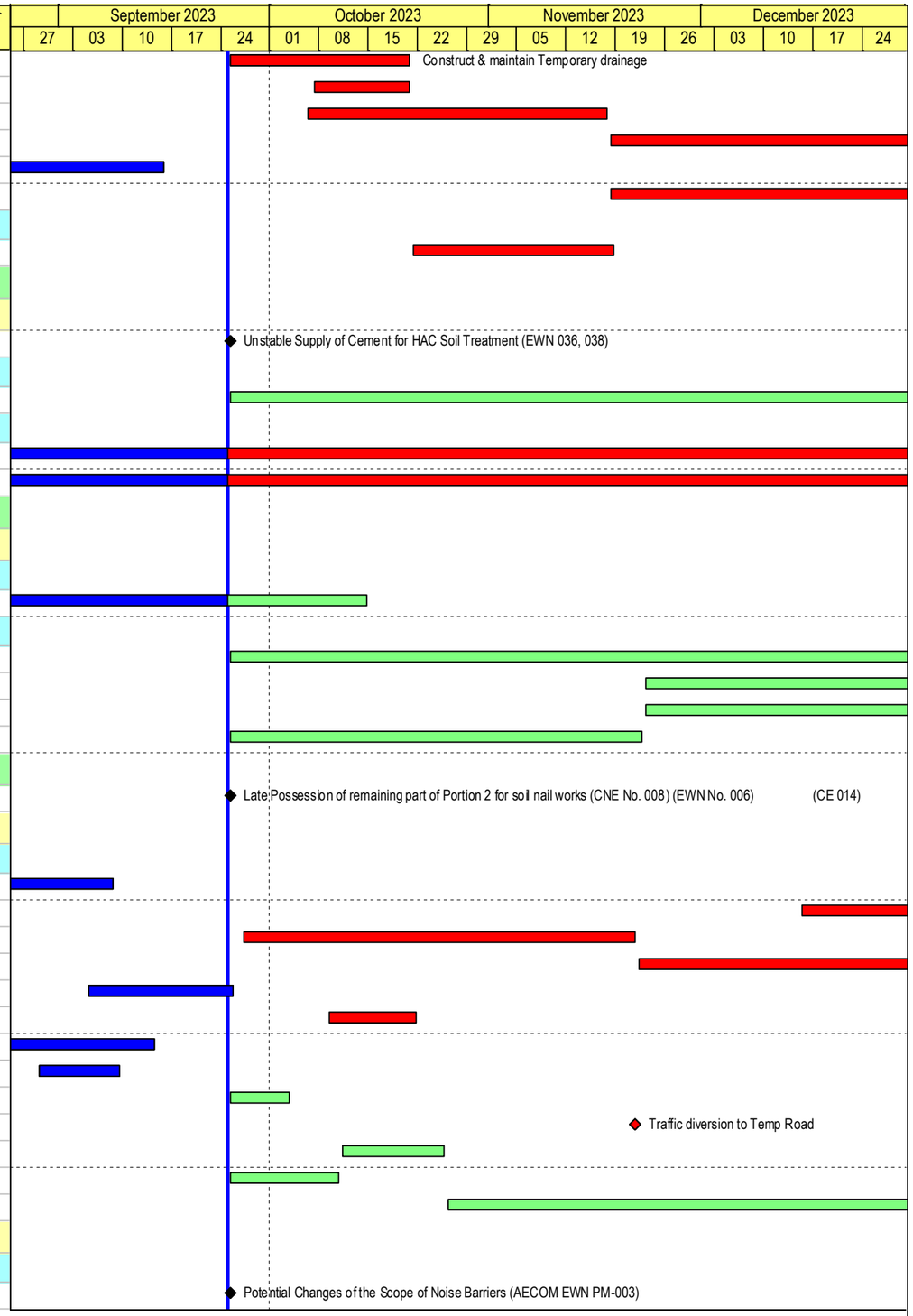
S9P12-2000	Construct & maintain Temporary drainage	21	25-Sep-23	20-Oct-23	-409	WD(6d)
S9P12-2025	Erect Chain Link Fence	12	07-Oct-23	20-Oct-23	-409	WD(6d)
S9P12-3040	Installation of Tunnel Monitoring Instrumentation	36	06-Oct-23*	17-Nov-23	-456	WD(6d)
S9P12-3050	Remaining Remove Soil for Treatment After Set up for Tunnel Monitoring (EMSD Contractor)	48	18-Nov-23	16-Jan-24	-456	WD(6d)
S9P12-2010	Remove soil (original assumed 10432m3) - Outside MTR Zone Grid SAG8 & SAG9 only	0	20-Jul-23 A	16-Sep-23 A		WD(6d)
S9P12-3060	Tunnel Monitoring during Construction Works within MTRC Protectiion Zone in Portion 1a	508	18-Nov-23	08-Aug-25	-456	WD(6d)
Interface with EMSD's Contractor to carry out GI						
S9P12-3010	EMSD's Contractor to carry out GI	24	21-Oct-23	18-Nov-23	-409	WD(6d)
Section 11						
Portion 6b in Area B (Soil Treatment & Operation of HAC Soil Treatment Plant)						
S11P6b-1002	Unstable Supply of Cement for HAC Soil Treatment (EWN 036, 038)	0		25-Sep-23	361	CD(7d)
KD4 - Setting up and T&C of the High Arsenic-containing Soil Treatment Plant						
S11P6b-2005	Construct & maintain Temporary drainage	551	25-Sep-23	07-Aug-25	124	WD(6d)
Operation and Dismantling of the Soil Treatment Plant						
S11P6b-3010	Provide treatment to high arsenic-containing soil	405	03-Dec-20 A	08-Feb-25*	0	WD(6d)
S11P6b-3000	Provide treatment to Imported high arsenic-containing soil (Estimated Qty 90,000m3)	352	01-Mar-23 A	30-Nov-24	0	WD(6d)
Section 12A						
Portion 10b in Area L1 (Soil Treatment, Drainage & Roadwork)						
Soil Treatment						
S12P10b-2020	Backfilling to the formation levels	16	25-Mar-23 A	14-Oct-23	182	WD(6d)
Civil Work						
S12P10b-3000	Construct & maintain Temporary drainage	226	25-Sep-23	03-Jul-24	32	WD(6d)
S12P10b-3014	Laying Underground Fresh & Flushing Watermains	48	23-Nov-23	20-Jan-24	31	WD(6d)
S12P10b-3016	Laying Underground utilities	48	23-Nov-23	20-Jan-24	31	WD(6d)
S12P10b-3012	Underground Secondary Drainage work (0 / 2 SM/H)	48	25-Sep-23	22-Nov-23	31	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-Sep-23	276	CD(7d)
Portion 2 in Area N (Soil Treatment, Slope, Drainage & Pak Shek Au Junction)						
Civil Works						
S13P2- 6502	East Quadrant - Preparation Works for Drainage Works (water barrier, mobilization, etc)	0	17-Jul-23 A	08-Sep-23 A		WD(6d)
S13P2- 4054	East Quadrant - Construct Temp Road To Divert Exit Road 9A	24	15-Dec-23	15-Jan-24	0	WD(6d)
S13P2- 4052.00	East Quadrant - Construct Temp Road To Divert Kwu Tung Road	45	27-Sep-23	21-Nov-23	0	WD(6d)
S13P2- 4052.10	East Quadrant - Construction of Road Drainage M6.31 to 6.34 (0 / 5 MH Completed)	44	22-Nov-23	15-Jan-24	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- 6504	East Quadrant - Laying Drainage Pipe (MH M6.22E to M6.35)	12	09-Oct-23	21-Oct-23	0	WD(6d)
S13P2- 4030.00	Retaining Wall KW37 - Backfill to Formation level	0	26-Jun-23 A	14-Sep-23 A		WD(6d)
S13P2- 4030.20	Retaining Wall KW37 - Construct Maintenance Access	0	29-Aug-23 A	09-Sep-23 A		WD(6d)
S13P2- 4030.30	Retaining Wall KW37 - Construct Maintenance Stair Case	6	25-Sep-23	03-Oct-23	167	WD(6d)
S13P2- 4052.02	Traffic diversion to Temp Road	0		21-Nov-23	0	CD(7d)
S13P2- 4048	West Quadrant - Remaining Installation of smart road lightings system	12	11-Oct-23	25-Oct-23	161	WD(6d)
S13P2- 4034.06	West Quadrant - Construction of Footpath (After Remaining Draiange & Backfilling KW37)	12	25-Sep-23	10-Oct-23	161	WD(6d)
S13P2- 4049	West Quadrant - Road Widening Works along Kwu Tung Road	60	26-Oct-23	06-Jan-24	161	WD(6d)
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-Sep-23	602	CD(7d)



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Soil Treatment						
S13P1a-2020	Backfilling to the formation levels	30	26-Oct-23	29-Nov-23	19	WD(6d)
S13P1a-2010	Remove soil (original assumed 14182m3) (0 / 4 EGI completed, interim soil to be excavated / treated : 0m3 / 0m3)	24	25-Sep-23	25-Oct-23	19	WD(6d)
Civil Work						
S13P1a-3000	Construct & maintain Temporary drainage	612	25-Sep-23	20-Oct-25	3	WD(6d)
S13P1a-4000	Road D1 - DCS Works by Others (Anticipated Commencement Date Dec-2023)	120	19-Dec-23*	16-Apr-24	3	CD(7d)
S13P1a-3012	Underground Primary Drainage work SMH KT1015 - KT1013 pipe connection (0 / 4 MH Completed)	70	20-Apr-23 A	18-Dec-23	3	WD(6d)
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-Sep-23	835	CD(7d)
S13P7-0000	Potential Changes of the Scope of Noise Barriers (AECOM EWN PM-003)	0		25-Sep-23	628	CD(7d)
Civil Work						
Underground Utilities						
S13P7-3000	Construct & maintain Temporary drainage	367	25-Sep-23	18-Dec-24	218	WD(6d)
S13P7-4020	DCS Works by Others - Area Adjacent to Junction of Road D1-1 & Road L1 (Commencement Date 27-Sep-2023)	45	27-Sep-23*	10-Nov-23	315	CD(7d)
S13P7-4010	Underground Secondary drainage (0 / 5 M/H completed)	48	28-Oct-23	22-Dec-23	219	WD(6d)
S13P7-3012	Underground sewage FMHKT 3.05 to 1.18 (3/ 4 M/H completed)	26	03-Aug-23 A	27-Oct-23	219	WD(6d)
S13P7-3013	Underground watermains	156	23-Dec-23	08-Jul-24	219	WD(6d)
Portion 1b in Area N (Soil Treatment, Drainage & Roadwork)						
Civil Work						
S13P1b-3000	Construct & maintain Temporary drainage	565	25-Sep-23	23-Aug-25	50	WD(6d)
S13P1b-4000	DCS Works by Others (Anticipated Commencement Date Sep-2023)	120	03-Oct-23*	30-Jan-24	47	CD(7d)
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-Sep-23	-60	CD(7d)
S13P6a-1004	Increased Risk for Damages to Existing Donjiang Raw Water Mains (DJRWMs) (CNE 060)	0		25-Sep-23	-60	CD(7d)
S13P6a-1005	Potential Changes of the Scope of Noise Barriers (AECOM EWN PM-003)	0		25-Sep-23	619	CD(7d)
Soil Treatment						
S13P6a-2020	Backfilling to the formation levels	60	02-Nov-23	13-Jan-24	-45	WD(6d)
S13P6a-2010	Remove soil (original assumed 566m3) (1 / 1 EGI completed, interim soil to be excavated / treated : 0m3 /0m3) Clean Soil	30	25-Sep-23	01-Nov-23	-45	WD(6d)
Civil Work						
S13P6a-3000	Construct & maintain Temporary drainage	666	25-Sep-23	23-Dec-25	-51	WD(6d)
S13P6a-3012	Pipe Jacking across DJ watermain (CNE 060, EC-1086) - Jacking Pit ELS & Excavation	48	25-Sep-23	22-Nov-23	-51	WD(6d)
S13P6a-3012.00	Pipe Jacking across DJ watermain (CNE 060, EC-1086) - Receiving Pit ELS & Excavation	48	23-Nov-23	20-Jan-24	-51	WD(6d)
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-Sep-23	218	CD(7d)
Preparation work/Tree Survey/Site Clearance/GI						
S13P1c-0102	Potential Changes of the Scope of Noise Barriers (AECOM EWN PM-003)	0		25-Sep-23	57	CD(7d)
S13P1c-1000	Potential Late Access to and Use of the Site (Portions 1c & 9a) (EWN 49) (CNE 058) (CE 175)	0		25-Sep-23	835	CD(7d)
Civil Work						
S13P1c-3000	Construct & maintain Temporary drainage	424	25-Sep-23	03-Mar-25	161	WD(6d)
S13P1c-4000	DCS Works by Others CH D3 122 to 186 (Commencement May-2023, Return Delayed from Sep to Oct 2023)	37	29-May-23 A	31-Oct-23	353	CD(7d)
S13P1c-5000	DCS Works by Others CH D3 66 to 122 (Anticipated Commencement Sep 2023)	120	05-Oct-23*	01-Feb-24	201	CD(7d)
S13P1c-3050	Laying of Fresh Watermain CH J & Flushing Watermain CH T (After DCS Works CH D3 122 to 186)	48	01-Nov-23	28-Dec-23	286	WD(6d)
Portion 9a in Area N (Soil Treatment, Noise Barrier, Drainage & Roadwork)						
S13P9a-0100	Potential Changes of the Scope of Noise Barriers (AECOM EWN PM-003)	0		25-Sep-23	638	CD(7d)



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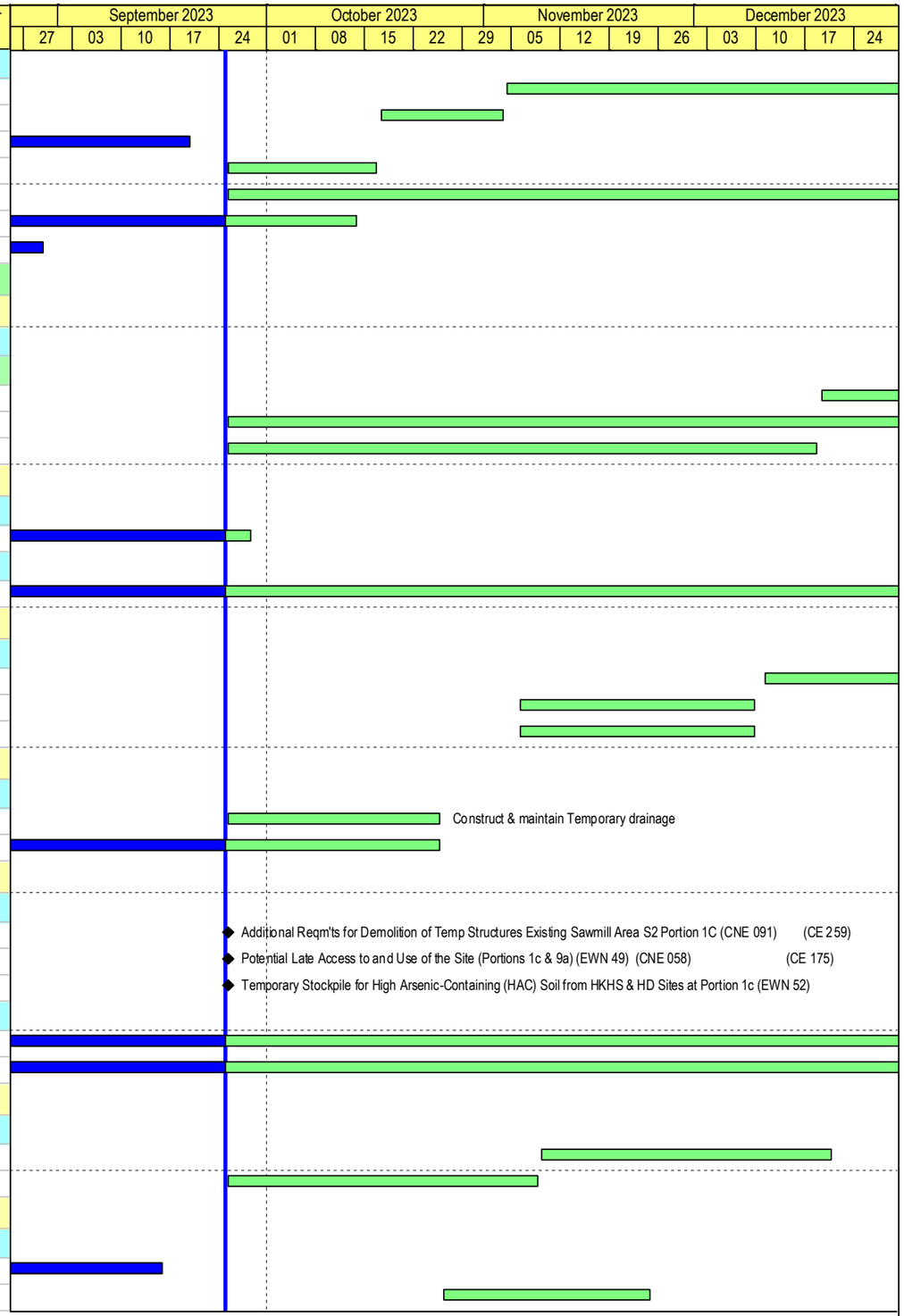
Civil Work						
S13P9a-3084	Additional Noise barrier NB04 - Footing Construction (0 / 5 bays complete)	48	04-Nov-23	02-Jan-24	46	WD(6d)
S13P9a-3082.20	Additional Noise barrier NB04 - Pile Head welding & Proof Drilling	15	17-Oct-23	03-Nov-23	46	WD(6d)
S13P9a-3082	Additional Noise barrier NB04 - Piling Works (19 / 30 Mini H piles complete)	0	07-Jul-23 A	20-Sep-23 A		WD(6d)
S13P9a-3082.10	Additional Noise barrier NB04 - Preparation and Carry out Load Test	17	25-Sep-23 A	16-Oct-23	46	WD(6d)
S13P9a-3000	Construct & maintain Temporary drainage	554	25-Sep-23	11-Aug-25	61	WD(6d)
S13P9a-3012	Construct Underground Sewerage FMH 1.07	15	15-May-23 A	13-Oct-23	318	WD(6d)
S13P9a-3012.00	Construct Underground Sewerage FMH 1.08	0	15-Jun-23 A	30-Aug-23 A		WD(6d)
Section 14						
Portion 7 in Area P (Soil Treatment & KD3 - Tree Felling, General Site Clearance)						
KD3 - Tree felling, general site clearance (including the berm removal / levelling and general site						
Soil Treatment						
S14P7P-2020	Backfill with treated soil	140	19-Dec-23	13-Jun-24	417	WD(6d)
S14P7P-2000	Construct & maintain Temporary drainage	258	25-Sep-23	09-Aug-24	417	WD(6d)
S14P7P-2010	Remove soil (original assumed 17368m3) (2 / 2 EGI completed, interim soil to be excavated / treated : 0m3 / 0m3)	70	25-Sep-23	18-Dec-23	417	WD(6d)
Portion 7 in Area S3 (Soil Treatment & Operation of HAC Soil Treatment Plant)						
KD4 - Setting up and T&C of the High Arsenic-containing Soil Treatment Plant						
S14P7S3-2010	Set up, testing and commissioning high arsenic-containing soil treatment plant (KD4) (CSD for Treated soil Stock pile)	4	06-Oct-20 A	28-Sep-23	184	WD(6d)
Operation and Dismantling of the Soil Treatment Plant						
S14P7S3-3010	Stock Pile of Treated Soil	289	20-Nov-20 A	20-Sep-24	184	WD(6d)
Portion 7 in Area T1, T2, T3 (Soil Treatment & Temp. Noise Barrier along Castle Peak Road)						
Preparation work/Tree Survey/Site Clearance/GI						
S14P7T-1012	Ground investigation (0 / 1 GI completed) (Area T1)	30	11-Dec-23	17-Jan-24	582	WD(6d)
S14P7T-1020	Site clearance (Area T1)	30	06-Nov-23	09-Dec-23	582	WD(6d)
S14P7T-1024	Tree felling works (Area T1)	30	06-Nov-23	09-Dec-23	582	WD(6d)
Portion 1b in Area S2 (Soil Treatment)						
Soil Treatment						
S14P1b-2000	Construct & maintain Temporary drainage	24	25-Mar-23 A	25-Oct-23	651	WD(6d)
S14P1b-2020	Site Formation Works & Erecting Hoarding	24	03-Apr-23 A	25-Oct-23	651	WD(6d)
Portion 1c & 9a in Area S2 (Soil Treatment)						
Preparation work/Tree Survey/Site Clearance/GI						
S14P1c-1003	Additional Reqm'ts for Demolition of Temp Structures Existing Sawmill Area S2 Portion 1C (CNE 091) (CE 259)	0		25-Sep-23	503	CD(7d)
S14P1c-1000	Potential Late Access to and Use of the Site (Portions 1c & 9a) (EWN 49) (CNE 058) (CE 175)	0		25-Sep-23	503	CD(7d)
S14P1c-1001	Temporary Stockpile for High Arsenic-Containing (HAC) Soil from HKHS & HD Sites at Portion 1c (EWN 52)	0		25-Sep-23	503	CD(7d)
Soil Treatment						
S14P1c-2020	Backfilling to the formation level	104	27-Jan-23 A	30-Jan-24	571	WD(6d)
S14P1c-2030	Permanent Stock Pile for Clean Soil from other Projects	104	31-Jul-23 A	30-Jan-24	571	WD(6d)
Portion 6a in Area S2 (Soil Treatment)						
Preparation work/Tree Survey/Site Clearance/GI						
S14P6a-1050	Arsenic Treatment Plan	36	09-Nov-23	20-Dec-23	309	WD(6d)
S14P6a-1040	Prepare Arsenic Assessment Report	36	25-Sep-23	08-Nov-23	309	WD(6d)
Portion 6b in Area S2 (Soil Treatment)						
Preparation work/Tree Survey/Site Clearance/GI						
S14P6b-2140	Additional Tree survey	0	21-Aug-23 A	16-Sep-23 A		WD(6d)
S14P6b-2160	Approval & Acceptance of Tree felling Application	30	26-Oct-23	24-Nov-23	371	CD(7d)



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ND/2019/01 - 3 Month Rolling Programme (2023-09)

Data Date: 25-Sep-23

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Project ID: ND201901-RP-43
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REVISED PROGRAMME (2023-09)			
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S14P6b-2150	Prepare & Submit Tree Felling and Transplant Report	24	18-Sep-23 A	25-Oct-23	301	WD(6d)
S14P6b-1017	Tree felling	30	25-Nov-23	02-Jan-24	301	WD(6d)
Portion 1f in Area R (Soil Treatment & Construction of Interim CLC)						
Preparation work/Tree Survey/Site Clearance/GI						
S14P1f-1050	Arsenic Treatment Plan	36	09-Nov-23	20-Dec-23	369	WD(6d)
S14P1f-1040	Prepare Arsenic Assessment Report	36	25-Sep-23	08-Nov-23	369	WD(6d)
Interim Community Liaison Centre (CLC)						
S14P1f-2040	Dismantling of interim CLC	12	25-Sep-23	10-Oct-23	369	WD(6d)
Portion 9c in Area S1 (Soil Treatment)						
Preparation work/Tree Survey/Site Clearance/GI						
S14P9c-1001	Suspension of Works at Portions 9c (CNE No. 010) (CE 030)	0		25-Sep-23	150	CD(7d)
S14P9c-1014	Tree felling	15	19-Jul-21 A	13-Oct-23	376	WD(6d)
Portion 13 in Area S4 (Soil Treatment)						
Preparation work/Tree Survey/Site Clearance/GI						
S14P13-1012	Approval & Acceptance of Tree felling Application	33	23-May-23 A	04-Nov-23	-44	WD(6d)
S14P13-1020	Remaining Site clearance & Tree felling	70	06-Nov-23	29-Jan-24	-44	WD(6d)
S14P13-1014	Site clearance (Before Tree Felling Approval)	0	15-May-23 A	31-Aug-23 A		WD(6d)
Cycle Track from Area H to Area N						
S14CT-0100	Suspension of Precast Concrete Manhole Supply due to the Severe Outbreak of COVID-19 in Mainland China (EWN 060)	0		25-Sep-23	-18	CD(7d)
Underground Utilities underneath Cycle Track						
S14CT-1000	Construct & maintain Temporary drainage	672	25-Sep-23	02-Jan-26	3	WD(6d)
S14CT-1060	Construct Underground Primary Drainage in Portion 5 - Stage 2 (only Pipe laying) 'Inside MTRC Protection Zone'	48	25-Sep-23	22-Nov-23	167	WD(6d)
S14CT-1010	Construct Underground Primary Drainage in Portion 7 (0 / 1 MH completed)	18	12-Jun-23 A	17-Oct-23	-15	WD(6d)
S14CT-1070	Construct Underground Sewerage in Portion 5 - Stage 2 (0 / 1 MH completed)	90	23-Nov-23	13-Mar-24	167	WD(6d)
S14CT-1010.04	Construct Underground Sewerage in Portion 7 (0 / 2 MH completed)	90	18-Oct-23	03-Feb-24	-15	WD(6d)
S14CT-1100	Laying Underground Utilities by Others in Portion 5 (Stage 1) & 9a	90	20-Dec-23	13-Apr-24	351	WD(6d)
S14CT-1028.30	Laying Underground Watermain in Portion 5 - Stage 1 (After Repairing of Damaged Hoarding)	24	22-Nov-23	19-Dec-23	351	WD(6d)
S14CT-1046	Laying Underground Watermain in Portion 9a (After Repairing Damaged Hoarding)	24	22-Nov-23	19-Dec-23	351	WD(6d)
S14CT-1028.20	Repair Damaged Hoarding Adjacent to 19 W	48	25-Oct-23	19-Dec-23	351	WD(6d)
S14CT-1028.10	Waiting for Approval to Repair Damaged Hoarding Adjacent to 19 W	30	31-Jul-23 A	24-Oct-23	432	CD(7d)
Portion 1b (Soil Treatment & Civil Works)						
Preparation work/Tree Survey/Site Clearance/GI						
S14P1b-1004	Unexpected Long Approval Process for Tech Submission for Works in MTRC Zone Portion 12, 1a & 1b (EWN 090) (CNE 115)	0		25-Sep-23	442	CD(7d)
S14P1b-1006	Waste & Muddy Water Discharged from the Construction Site operated by the Contractor in Area C1 in Portion 5 (CNE 127)	0		25-Sep-23	972	WD (6d)
Soil Treatment						
S14P1b-1200	Construct & maintain Temporary drainage	178	25-Sep-23	04-May-24	400	WD(6d)
S14P1b-1202	Remove soil (original assumed 4992m3) (0 / 4 EGI completed, interim soil to be excavated / treated : 0m3 / 0m3)	34	18-Nov-23	29-Dec-23	327	WD(6d)
Civil Works						
S14P1b-1318	Construct Underground Watermain Wash Out	24	31-Oct-23	27-Nov-23	331	WD(6d)
S14P1b-1316	Laying Remaining Underground Watermain CHX and CHL 198 - 222	24	31-Oct-23	27-Nov-23	331	WD(6d)
S14P1b-1320	Pressure test for Fresh & Flushing watermains	30	28-Nov-23	27-Dec-23	409	CD(7d)
Portion 3 (Soil Treatment & Civil Works)						
S14P3-0010	Waste & Muddy Water Discharged from the Construction Site operated by the Contractor in Area C1 in Portion 5 (CNE 127)	0		25-Sep-23	675	WD (6d)
Soil Treatment						
S14P3-1200	Construct & maintain Temporary drainage	58	25-Sep-23	04-Dec-23	617	WD(6d)



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Civil Works						
S14P3-4000	DCS Works by Others (Anticipated Commencement Date Sep-2023) "To be Confirmed"	120	25-Sep-23	22-Jan-24	715	CD(7d)
S14P3-1304	Pressure test for Fresh & Flushing watermains	30	31-Oct-23	04-Dec-23	617	WD(6d)
S14P3-1302	Underground Fresh & Flushing watermains (around 100m)	28	28-Aug-23 A	30-Oct-23	617	WD(6d)
Portion 5 (Soil Treatment & Civil Works)						
S14P5-0010	Waste & Muddy Water Discharged from the Construction Site operated by the Contractor in Area C1 in Portion 5 (CNE 127)	0		25-Sep-23	675	WD (6d)
Soil Treatment						
S14P5-1190	Construct & maintain Temporary drainage	76	25-Sep-23	27-Dec-23	599	WD(6d)
Civil Works						
S14P5-4000	DCS Works by Others (Anticipated Commencement Date Nov-2023)	180	21-Nov-23*	18-May-24	598	CD(7d)
S14P5-1304	Pressure test for Fresh & Flushing watermains	30	21-Nov-23	27-Dec-23	599	WD(6d)
S14P5-1300	Underground Drainage (1 / 2 MH completed)	28	16-Dec-22 A	30-Oct-23	331	WD(6d)
S14P5-1302	Underground Fresh & Flushing watermains (around 100m)	18	31-Oct-23	20-Nov-23	337	WD(6d)
Portion 1e (Soil Treatment)						
Soil Treatment						
S14P1e-2080	Backfilling to the formation levels	90	07-Nov-23	26-Feb-24	551	WD(6d)
S14P1e-3000	Construct & maintain Temporary drainage	124	25-Sep-23	26-Feb-24	551	WD(6d)
S14P1e-2070	Remove soil (original assumed 860m3) (0 / 1 EGI completed, interim soil to be excavated / treated : 0m3 / 0m3)	34	25-Sep-23	06-Nov-23	371	WD(6d)
Section 15						
S15-1000	Presevation and protection of tree	808	06-Dec-19 A	10-Dec-25	27	CD(7d)
Section 18 (Subject to excision)						
S18-1040	Watermain laying work in Portion 5	200	20-Sep-21 A	31-May-24	17	WD(6d)
S18-1050	Watermain laying work in Portion 6a & 6b	198	18-Jul-22 A	29-May-24	19	WD(6d)
S18-1020	Watermain laying work in Protion 1a	264	07-Jul-23 A	16-Aug-24	-47	WD(6d)
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-Sep-23	-731	CD(7d)
S20-1030	Unexpected Underground Conditions Encountered during Construction of Pak Shek Au Pedestrian Subway (EWN 093) (CNE 1	0		25-Sep-23	-656	CD(7d)
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	09-Dec-23	18-Mar-24	-574	WD(6d)
S20S2-7462.10	Bay No. 10 - Waterproofing Membrane & Mass Concrete Fill To walls	10	27-Sep-23	10-Oct-23	-234	WD(6d)
S20S2-7462	Bay No. 10 - RC Structure (Walls)	2	28-Aug-23 A	26-Sep-23	-244	WD(6d)
S20S2-7462.20	Bay No. 10 - Waterproofing Membrane & 120mm Brick Work To walls	10	11-Oct-23	21-Oct-23	-234	WD(6d)
S20S2-7482.20	Bay No. 11 - Waterproofing Membrane & 120mm Brick Work To walls	10	09-Oct-23	19-Oct-23	-232	WD(6d)
S20S2-7482.10	Bay No. 11 - Waterproofing Membrane & Mass Concrete Fill To walls	10	25-Sep-23	07-Oct-23	-232	WD(6d)
S20S2-7510	Bay No. 12 - Excavation, Blinding & Waterproofing	6	21-Dec-23	29-Dec-23	-320	WD(6d)
S20S2-7430.10	Bay No. 13 - Waterproofing Membrane & Mass Concrete Fill To walls	10	24-Oct-23	03-Nov-23	-234	WD(6d)
S20S2-7430.20	Bay No. 13 - Waterproofing Membrane & 120mm Brick Work To walls	10	04-Nov-23	15-Nov-23	-234	WD(6d)
S20S2-7820.10	Bay No. 14 - Waterproofing Membrane & 120mm Brick Work To walls	12	23-Nov-23	06-Dec-23	-594	WD(6d)
S20S2-7820	Bay No. 14 - RC Structure	48	25-Sep-23	22-Nov-23	-594	WD(6d)
S20S2-7820.20	Bay No. 14 - Waterproofing Membrane & 50mm Screeding To Roof Slab	8	07-Dec-23	15-Dec-23	-594	WD(6d)
S20S2-7840	Bay No. 15 - RC Structure	48	16-Dec-23	16-Feb-24	-594	WD(6d)
S20S2-7560	Bay No. 2 - RC Structure	75	30-Nov-23	02-Mar-24	-561	WD(6d)
S20S2-7580	Bay No. 3 - RC Structure	80	18-Nov-23	26-Feb-24	-564	WD(6d)
S20S2-7780	Bay No. 7 - RC Structure	60	18-Dec-23	02-Mar-24	-565	WD(6d)
S20S2-7508.10	Bay No. 9a & 9b - Waterproofing Membrane & 120mm Brick Work To walls	12	21-Dec-23	06-Jan-24	-284	WD(6d)



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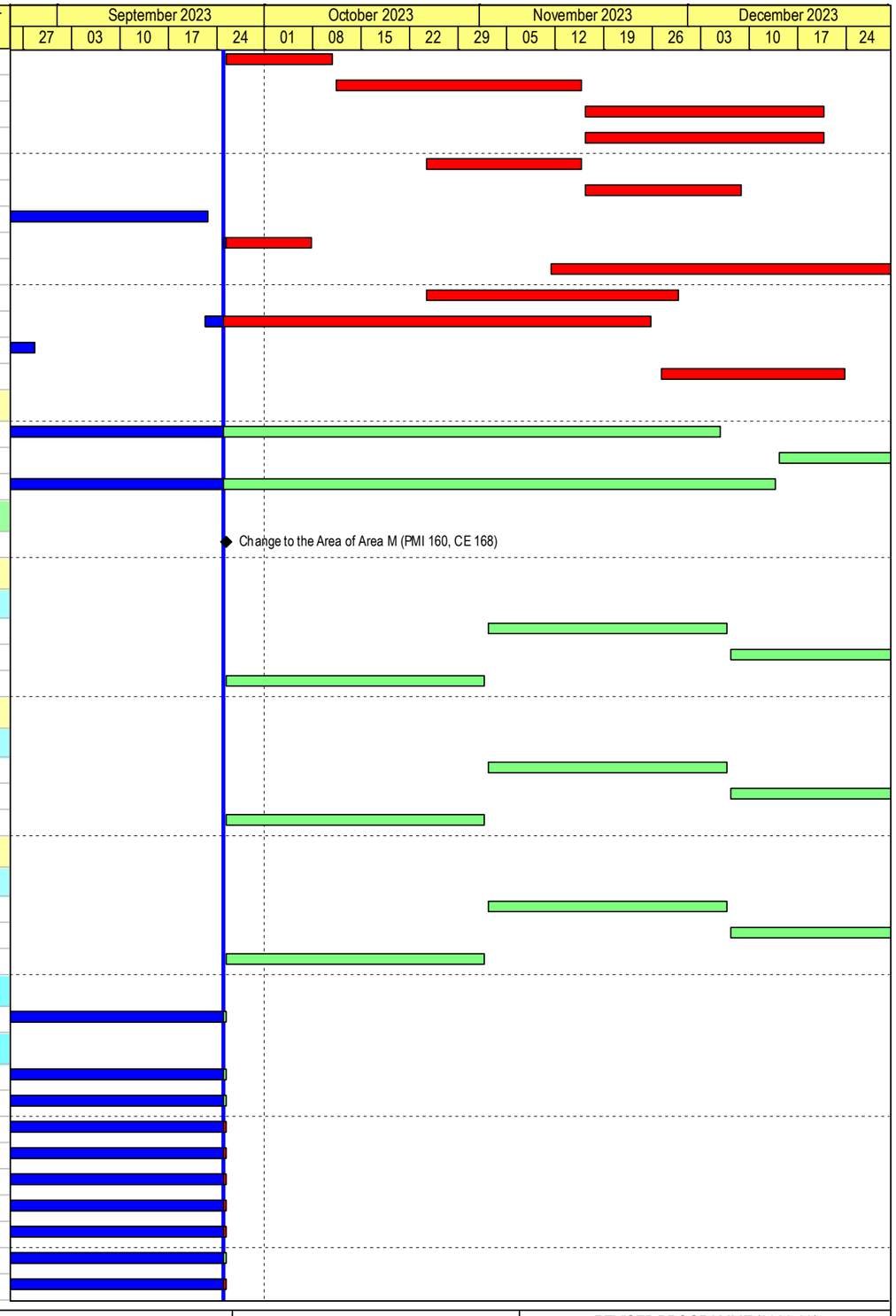
S20S2-7504	Bay No. 9a - Excavation, Blinding & Waterproofing	12	25-Sep-23 A	10-Oct-23	-320	WD(6d)
S20S2-7506	Bay No. 9a - RC Structure (Base Slab)	30	11-Oct-23	15-Nov-23	-320	WD(6d)
S20S2-7508	Bay No. 9a - RC Structure (Walls)	30	16-Nov-23	20-Dec-23	-320	WD(6d)
S20S2-7502	Bay No. 9b - RC Structure (Walls)	30	16-Nov-23	20-Dec-23	-284	WD(6d)
S20S2-7320.30	Subway Bay (1 & 2) South Face - Driving Sheet Pile	20	24-Oct-23	15-Nov-23	-574	WD(6d)
S20S2-7320.40	Subway Bay (1 & 2) South Face - ELS & Excavation	20	16-Nov-23	08-Dec-23	-574	WD(6d)
S20S2-7320	Subway Bay (14 - 16) - ELS & Excavation (Including Plate Load Test)	0	27-Mar-23 A	22-Sep-23 A		WD(6d)
S20S2-7320.10	Subway Bay (14 - 16) - Lift Shaft & Sump Pit Excavation	10	25-Sep-23 A	07-Oct-23	-536	WD(6d)
S20S2-6060	Subway Bay (3 - 8) - ELS & Excavation	48	11-Nov-23	09-Jan-24	-565	WD(6d)
S20S2-6050	Subway Bay (3 - 8) North Face - Driving Sheet Pile	32	24-Oct-23	29-Nov-23	-574	WD(6d)
S20S2-6040	Subway Bay (3 - 8) North Face - Preboring for Sheet Pile	51	22-Sep-23 A	25-Nov-23	-574	WD(6d)
S20S2-6020	Subway Bay (3 - 8) South Face - Driving Sheet Pile	0	12-Jun-23 A	28-Aug-23 A		WD(6d)
S20S2-6010	Subway Bay 8 (Remaining) South Face - Preboring for Sheet Pile	24	27-Nov-23	23-Dec-23	-562	WD(6d)
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	05-Dec-23	400	CD(7d)
S20ELF-1030	Procurement of Lighting, E&M equipment	60	14-Dec-23	11-Feb-24	392	CD(7d)
S20ELF-1020	Submission and Approval of Lighting, E&M plants & materials	80	17-Feb-23 A	13-Dec-23	392	CD(7d)
Section 21 (Subject to excision)						
S21-1013	Change to the Area of Area M (PMI 160, CE 168)	0		25-Sep-23	218	CD(7d)
Portion 1b in Area M (Soil Treatment)						
Preparation work						
S21P1b-1012	Approval & Acceptance of Tree felling Application	30	02-Nov-23	06-Dec-23	174	WD(6d)
S21P1b-1020	Site Clearance & Tree Felling	60	07-Dec-23	21-Feb-24	174	WD(6d)
S21P1b-1010	Tree survey and prepare tree felling and transplant report	30	25-Sep-23	01-Nov-23	174	WD(6d)
Portion 1d in Area M (Soil Treatment & Demolition of Existing CLC)						
Preparation work						
S21P1d-1012	Approval & Acceptance of Tree felling Application	30	02-Nov-23	06-Dec-23	174	WD(6d)
S21P1d-1020	Site Clearance & Tree Felling	60	07-Dec-23	21-Feb-24	174	WD(6d)
S21P1d-1010	Tree survey and prepare tree felling and transplant report	30	25-Sep-23	01-Nov-23	174	WD(6d)
Portion 11a in Area M (Soil Treatment)						
Preparation work						
S21P11a-1012	Approval & Acceptance of Tree felling Application	30	02-Nov-23	06-Dec-23	169	WD(6d)
S21P11a-1020	Site Clearance & Tree Felling	60	07-Dec-23	21-Feb-24	169	WD(6d)
S21P11a-1010	Tree survey and prepare tree felling and transplant report	30	25-Sep-23	01-Nov-23	169	WD(6d)
8.0 - PMI / CE						
PC-1012	Change to the Area of Area M (PMI 160, CE 168)	0	22-Dec-21 A	25-Sep-23	218	CD(7d)
9.0 - Major EWN / CNE						
EC-1120	Additional Reqm'ts for Demolition of Temp Structures Existing Sawmill Area S2 Portion 1C (CNE 091) (CE 259)	0	25-Oct-22 A	25-Sep-23	503	CD(7d)
EC-1129	Additional Requirements for all the Lifting Operations within the Working Areas (EWN 086)	0	13-Feb-23 A	25-Sep-23	1200	CD(7d)
EC-1089	Additional Sewerage Pipes clash with the Proposed Watermains along Road D4 and D5 (EWN 065)	0	27-Apr-22 A	25-Sep-23	-496	CD(7d)
EC-1156	Additional Works for the Installation of Watermains by Adopting Trenchless Construction Method along Road D4 (EWN 095)	0	02-Aug-23 A	25-Sep-23	-117	CD(7d)
EC-1087	Change of Road Layout of Ho Sheung Heung Road after the Works by DSD Contract DC/2019/06 (CNE 072b)	0	20-Apr-22 A	25-Sep-23	-627	CD(7d)
EC-1067	Conflict between Drainage Works and Existing Twin DN2200 Dongjiang Water Mains (CNE 051) (CE 150)	0	29-Nov-21 A	25-Sep-23	-775	CD(7d)
EC-1068	Conflict between Drainage Works and Water Mains in Road W1 (CNE 052)	0	02-Dec-21 A	25-Sep-23	-303	CD(7d)
EC-1079	Delay in Supply of Precast Concrete Pipe due to the Severe Outbreak of Omicron (EWN 056)	0	16-Feb-22 A	25-Sep-23	1200	CD(7d)
EC-1046	Delay in the Access to and Use of Portions 1a & 12 of the Site (CNE 034) (CE 108)	0	06-Jul-21 A	25-Sep-23	-811	CD(7d)



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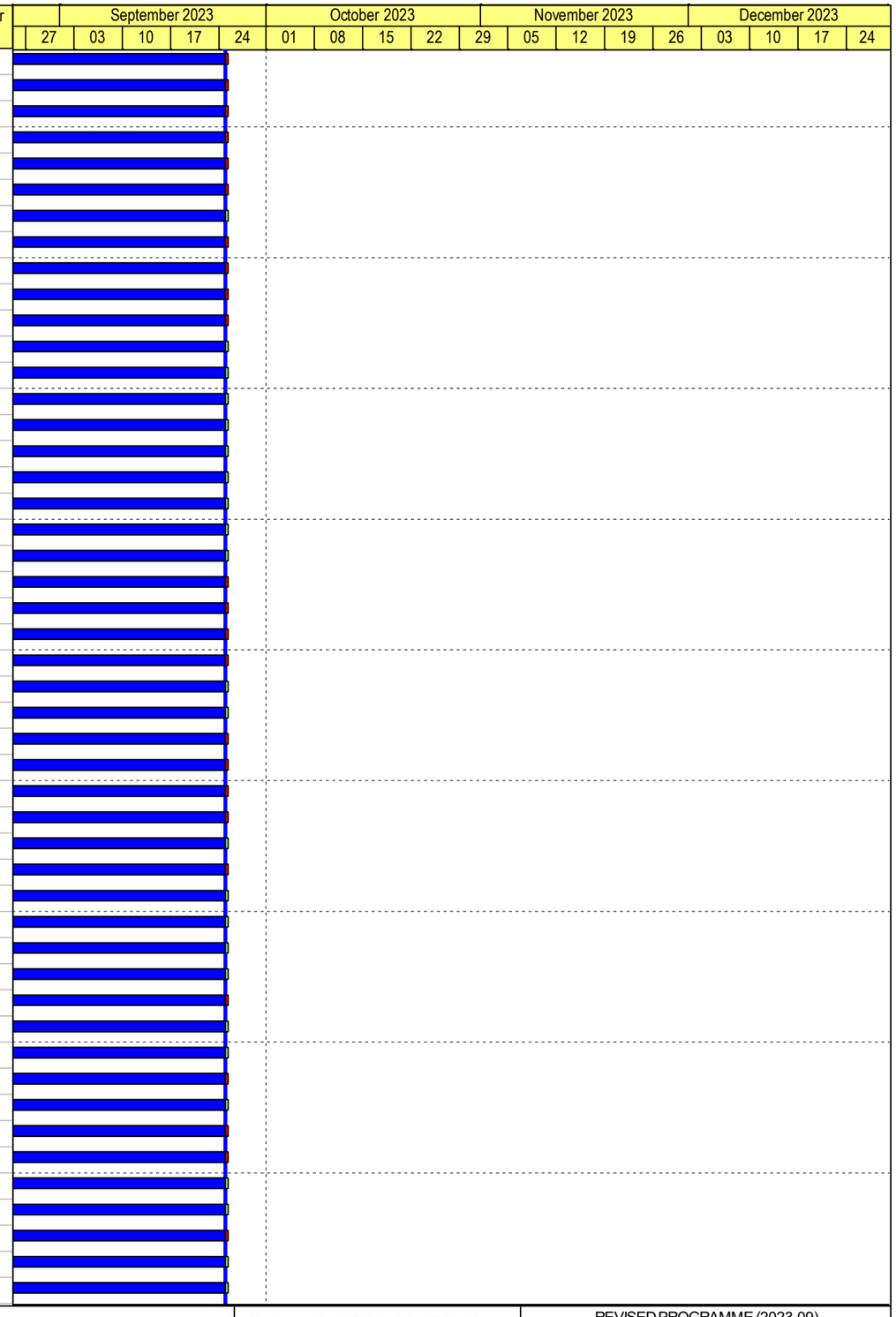
EC-1101	Delay to the Diversion of Existing Fresh Watermains along/near Ma Tso Lung Road at Portion 9b of the Site (EWN 076)	0	19-Jul-22 A	25-Sep-23	-264	CD(7d)
EC-1125	Delay to the Diversion/ Modification of Existing HKT Pillar Boxes & Associated Ducts Ma Tso Lung Road Por. 9b (CNE 096)	0	14-Nov-22 A	25-Sep-23	-287	CD(7d)
EC-1100	Delay to the Diversion/Modificaton of Existing HKT Pillar Boxes & Associated ducts in Ma Tso Lung Rd (EWN 075) (CNE 096)	0	15-Jul-22 A	25-Sep-23	-381	CD(7d)
EC-1102	Delay to the Relocation of Existing Fire Hydrant in Ma Tso Lung Road at Portion 9b of the Site (EWN 077) (CNE 129)	0	19-Jul-22 A	25-Sep-23	-276	CD(7d)
EC-1099	Delayed to the Removal and or Diversion of Existing CLP Cable and Facilities in Portion 9b of the Site (EWN 073)	0	31-Mar-22 A	25-Sep-23	-775	CD(7d)
EC-1039	Design Change on Road W1 (EWN 025)	0	22-Mar-21 A	25-Sep-23	-18	CD(7d)
EC-1088	Design Changes to the Permanent Street Lighting Works (CNE 074)	0	04-Mar-22 A	25-Sep-23	1200	CD(7d)
EC-1050	Design Layout and Profile for the Water Supply Pipework (EWN 034)	0	17-Sep-21 A	25-Sep-23	-496	CD(7d)
EC-1042	Details of DCS pipe at D4-1 & D5 Road (EWN 030)	0	21-May-21 A	25-Sep-23	-612	CD(7d)
EC-1064	Extra Time on Production and Delivery of Road Lighting Products (EWN 51)	0	13-Dec-21 A	25-Sep-23	-76	CD(7d)
EC-1122	Further Changes to the Works Information for the Construction of DCS Pipes at Road D4-1 (PMI 155 CE157) (CNE 095)	0	08-Nov-22 A	25-Sep-23	-612	CD(7d)
EC-1026	Handling of Unlawful Occupied Property Affected by the Works (CNE No. 014)	0	21-Aug-20 A	25-Sep-23	1200	CD(7d)
EC-1027	Handling of Unlawful Occupied Property Affected by the Works within the SIte (CNE No. 015)	0	31-Aug-20 A	25-Sep-23	1200	CD(7d)
EC-1106	Indemant Weather in June 2022 (CNE 080) (CE 216)	0	02-Jun-22 A	25-Sep-23	1200	CD(7d)
EC-1112	Indement Weather in August 2022 (CNE 087) (CE 236)	0	03-Aug-22 A	25-Sep-23	1200	CD(7d)
EC-1108	Indement Weather in July 2022 (CNE 082) (CE 227)	0	02-Jul-22 A	25-Sep-23	1200	CD(7d)
EC-1104	Indement Weather in May 2022 (CNE 078) (CE 212)	0	11-May-22 A	25-Sep-23	1200	CD(7d)
EC-1116	Indement Weather in October 2022 (CNE 093) (CE 273)	0	07-Oct-22 A	25-Sep-23	1200	CD(7d)
EC-1114	Indement Weather in September 2022 (CNE 089) (CE 244)	0	19-Sep-22 A	25-Sep-23	1200	CD(7d)
EC-1056	Indement Weather on 8th October 2021 (CNE 036) (CE 163)	0	08-Oct-21 A	25-Sep-23	1200	CD(7d)
EC-1092	Increased Difficulty for the Construction of Pak Shek Au Pedestrian Subway Cum Cycle Track (EWN 068) (CNE 116)	0	25-May-22 A	25-Sep-23	-731	CD(7d)
EC-1086	Increased Risk for Damages to Existing Donjiang Raw Water Mains (DJRWMs) (CNE 060)	0	31-Mar-22 A	25-Sep-23	-775	CD(7d)
EC-1118	Increased Risk for Suspension of Pipe Jacking Flushing Watermains underneath MTRC Zone Portion 8b (EWN 080) (CNE 092)	0	18-Oct-22 A	25-Sep-23	-156	CD(7d)
EC-1070	Insufficient Width of Road W1 for Accommodation of All Underground Utilities (CNE 056)	0	04-Jan-22 A	25-Sep-23	-317	CD(7d)
EC-1162	Late Completion for the EMSD's District Cooling System (DCS) Works (Contract No. 1330EM20A) along Road D1-2 (CNE 122)	0	11-Jul-23 A	25-Sep-23	835	CD(7d)
EC-1007	Late Possession of remaining part of Portion 2 for soil nail works (CNE No. 008) (EWN No. 006) (CE 014)	0	06-Jan-20 A	25-Sep-23	276	CD(7d)
EC-1005	Late Possession of Site of Portion 3 (CNE No. 005) (CE 015)	0	06-Apr-20 A	25-Sep-23	-334	CD(7d)
EC-1013	Late Possession of Site of Portions 9b & 9d (CNE No. 007) (EWN No. 011) (CE 014) (CE 022)	0	06-Jul-20 A	25-Sep-23	-287	CD(7d)
EC-1131	Late Provision of Add Work Area for the Construction of Drainages and Slopes Outside Site Boundary Portion 9b (CNE 098)	0	03-Jan-23 A	25-Sep-23	-231	CD(7d)
EC-1090	Part of Portion 9b of the Site (near eastern end of Road D5) occupied by the Local Villagers (EWN 066)	0	03-May-22 A	25-Sep-23	-203	CD(7d)
EC-1080	Possible Suspension of Concrete Supply due to the Severe Outbreak of COVID-19 (EWN 059)	0	02-Mar-22 A	25-Sep-23	1200	CD(7d)
EC-1094	Potential Changes of the Scope of Noise Barriers (AECOM EWN PM-003)	0	23-May-22 A	25-Sep-23	-276	CD(7d)
EC-1123	Potential Delay due to Aggregate Supply Chain Shortage before Chinese New Year 2023 (EWN 082)	0	22-Nov-22 A	25-Sep-23	1200	CD(7d)
EC-1128	Potential Delay due to Shortage Supply of Manpower after Chinese New Year 2023 (EWN 085)	0	18-Jan-23 A	25-Sep-23	1200	CD(7d)
EC-1124	Potential Delay due to the Increased Difficulties and Uncertainties in Conc Supply in Coming Years (EWN 084) (CNE 100)	0	14-Dec-22 A	25-Sep-23	1200	CD(7d)
EC-1053	Potential Delay on Production and Supply of Precast Concrete Pipes (EWN 040) (CNE 047)	0	06-Oct-21 A	25-Sep-23	835	CD(7d)
EC-1076	Potential Delay on Supply of Steel Moulds for Construction of Fresh Water Service Reservoir(FWSR) (EWN 053)	0	18-Feb-22 A	25-Sep-23	-286	CD(7d)
EC-1062	Potential Late Access to and Use of the Site (Portions 1c & 9a) (EWN 49) (CNE 058) (CE 175)	0	13-Dec-21 A	25-Sep-23	503	CD(7d)
EC-1110	Provision of Fill Materials for Contract Nos. ND/2019/05 and ND/2019/07 (CNE 084)	0	17-Aug-22 A	25-Sep-23	1200	CD(7d)
EC-1144	Provision of Spare Pipes for the Proposed Watermains adopting Trenchless Construction Method at Road D4 (EWN 091)	0	20-Jun-23 A	25-Sep-23	-775	CD(7d)
EC-1148	Re-provision of Temporary Noise Barriers along Castle Peak Road - Chau Tau in Area K at Portion 4 of the Site (CNE 114)	0	21-Jun-23 A	25-Sep-23	1200	CD(7d)
EC-1085	Requesting for Additional Concrete Vehicular Access by the Local Villager adjacent 9b of the Site (EWN 064)	0	25-Apr-22 A	25-Sep-23	-204	CD(7d)
EC-1071	Revised Construction Drawings of Fresh Water Service Reservoir (CNE 067, 067a)	0	14-Dec-21 A	25-Sep-23	-286	CD(7d)
EC-1138	Revised Drawings for the Construction of Street Furniture in various Positions of the Site (CNE 108)	0	15-Mar-23 A	25-Sep-23	1200	CD(7d)
EC-1119	Revised Noise Barrier Works at Road D3 in Portion 1C of the Site (EWN 081)	0	19-Oct-22 A	25-Sep-23	218	CD(7d)
EC-1109	Revised Sewerage System along Road D4 and D5 at Portion 9b of the Site (CNE 083)	0	02-Aug-22 A	25-Sep-23	-430	CD(7d)
EC-1066	Shortage of Aggregate Supply before Chinese New Year 2022 (CNE 048) (EWN 001.6, 001.8)	0	29-Nov-21 A	25-Sep-23	1200	CD(7d)
EC-1052	Shortage of Cement Supply due to "Energy Consumption Dual Control Policy" (EWN 039) (CNE 049)	0	06-Oct-21 A	25-Sep-23	1200	CD(7d)



Build King – Richwell Engineering Joint Venture

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

ND/2019/01 - 3 Month Rolling Programme (2023-09)

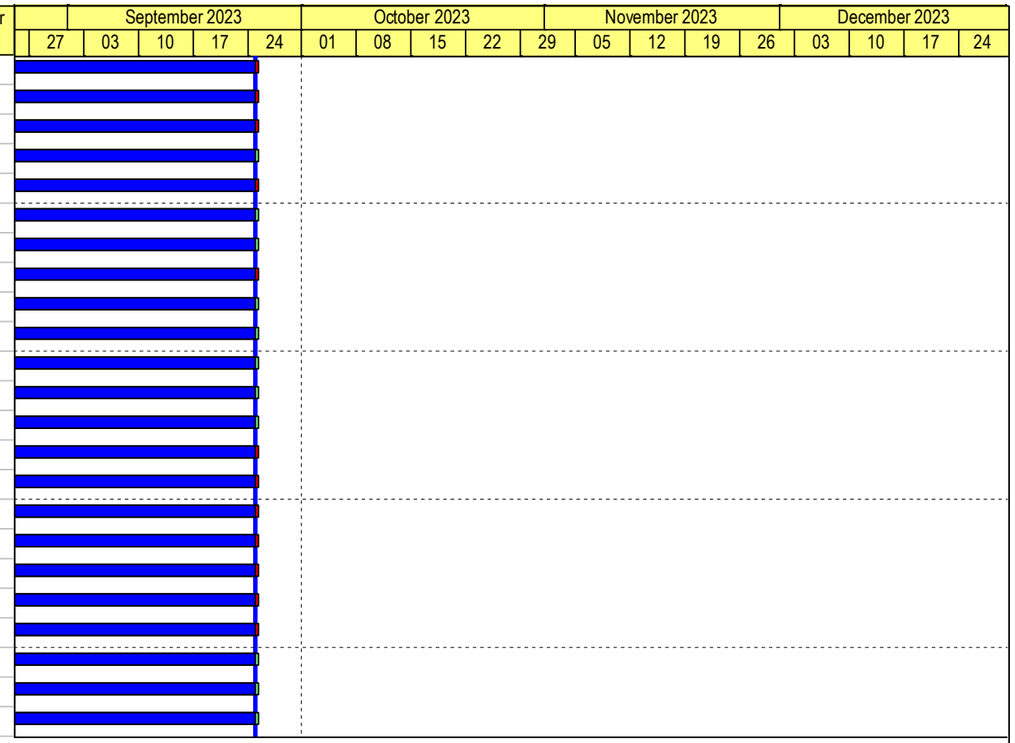
Data Date: 25-Sep-23 Run Date: 29-Sep-2023

Project ID: ND201901-RP-43
Lauyout: ND201901-3MRP with logo

REVISED PROGRAMME (2023-09)

Date	Revision	Checked	Approved
29-Sep-23	Rev. 0	SC	BY

Activity ID	Activity Name	Remaining Duration	Start	Finish	Total Float	Calendar
EC-1139	Strong Objection for a Grave on the Construction Works in the vicinity of the Road P1-1 and Roundabout C3 at 1 (CNE 109)	0	20-Mar-23 A	25-Sep-23	-514	CD(7d)
EC-1043	Strong Objection on the Construction of Fresh and Flushing Reservoir at Portions 8a and 8b (EWN 031) Maintenance Access	0	09-Jun-21 A	25-Sep-23	-604	CD(7d)
EC-1006	Strong Objection on the Construction of Service Reservoirs at Portions 8a & 8b (CNE No. 006) (EWN No. 005) (CE 019)	0	18-Mar-20 A	25-Sep-23	-604	CD(7d)
EC-1061	Suspension of Concretes Supply due to Cement Shortage (EWN 045) (CNE 046)	0	02-Nov-21 A	25-Sep-23	1200	CD(7d)
EC-1081	Suspension of Precast Concrete Manhole Supply due to the Severe Outbreak of COVID-19 in Mainland China (EWN 060)	0	14-Mar-22 A	25-Sep-23	-430	CD(7d)
EC-1022	Suspension of Works at Part of Portions 9c (CNE no. 010) (CE 030)	0	21-Jul-20 A	25-Sep-23	150	CD(7d)
EC-1065	Temporary Stockpile for High Arsenic-Containing (HAC) Soil from HKHS & HD Sites at Portion 1c (EWN 052)	0	04-Jan-22 A	25-Sep-23	503	CD(7d)
EC-1059	The footing detail for Roadside Directional Sign ADS30 at Portion 5 (EWN 043)	0	22-Oct-21 A	25-Sep-23	-24	CD(7d)
EC-1105	Tropical Cyclone Warning Signal No.8 from 1st to 2nd July 2022 (CNE 079) (CE 214)	0	01-Jul-22 A	25-Sep-23	1200	CD(7d)
EC-1113	Tropical Cyclone Warning Signal No.8 from 24th to 25th Auguest 2022 (CNE 086) (CE 232)	0	24-Aug-22 A	25-Sep-23	1200	CD(7d)
EC-1121	Tropical Cyclone Warning Signal No.8 from 2nd to 3rd November 2022 (CNE 094) (CE 274)	0	02-Nov-22 A	25-Sep-23	1200	CD(7d)
EC-1058	Tropical Cyclone Warning Signal No.8 on 13th October 2021 (CNE 040) (CE 165)	0	12-Oct-21 A	25-Sep-23	1200	CD(7d)
EC-1057	Tropical Cyclone Warning Signal No.8 on 9th October 2021 (CNE 039) (CE 164)	0	09-Oct-21 A	25-Sep-23	1200	CD(7d)
EC-1166	Unavailability of Access to and Use of the Remaining Land near New Feature No. KS32 in Area A at Portion 1a (CNE 131)	0	22-Aug-23 A	25-Sep-23	-123	CD(7d)
EC-1072	Unavailability of Vehicular Access and Movement towards Receiving Pit (CNE 068)	0	29-Dec-21 A	25-Sep-23	-389	CD(7d)
EC-1150	Uncharted Artificial Hard Materials Encountered during Construction of Cut-Slope KS34 in Pak Shek (EWN 092) (CNE 128)	0	28-Jul-23 A	25-Sep-23	-642	CD(7d)
EC-1154	Uncharted Watermain Encountered during Construction of Proposed U Utilities along existing Ma Tso Lung Road (EWN 094)	0	14-Aug-23 A	25-Sep-23	-430	CD(7d)
EC-1135	Unexpected Long Approval Process for Tech Submission for Works in MTRC Zone Portion 12, 1a & 1b (EWN 090) (CNE 115)	0	29-Mar-23 A	25-Sep-23	-530	CD(7d)
EC-1152	Unexpected Underground Conditions Encountered during Construction of Pak Shek Au Pedestrian Subway (EWN 093) (CNE 1:	0	24-Jul-23 A	25-Sep-23	-656	CD(7d)
EC-1127	Unrecognized Construction Works for Newly Underground Cables and Facilities conducted by CLP at Portion 9b (EWN 083)	0	03-Jan-23 A	25-Sep-23	-775	CD(7d)
EC-1051	Unstable Supply of Cement for HAC Soil Treatment (EWN 036, 038) (CNE 049)	0	27-Sep-21 A	25-Sep-23	361	CD(7d)
EC-1168	Waste & Muddy Water Discharged from the Construction Site operated by the Contractor in Area C1 in Portion 5 (CNE 127)	0	01-Jun-23 A	25-Sep-23	835	CD(7d)
EC-1075	Works affecred by the Sever Outbreak of Omicron (CNE 073) (EWN 058)	0	25-Feb-22 A	25-Sep-23	1200	CD(7d)



Build King – Richwell Engineering Joint Venture

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

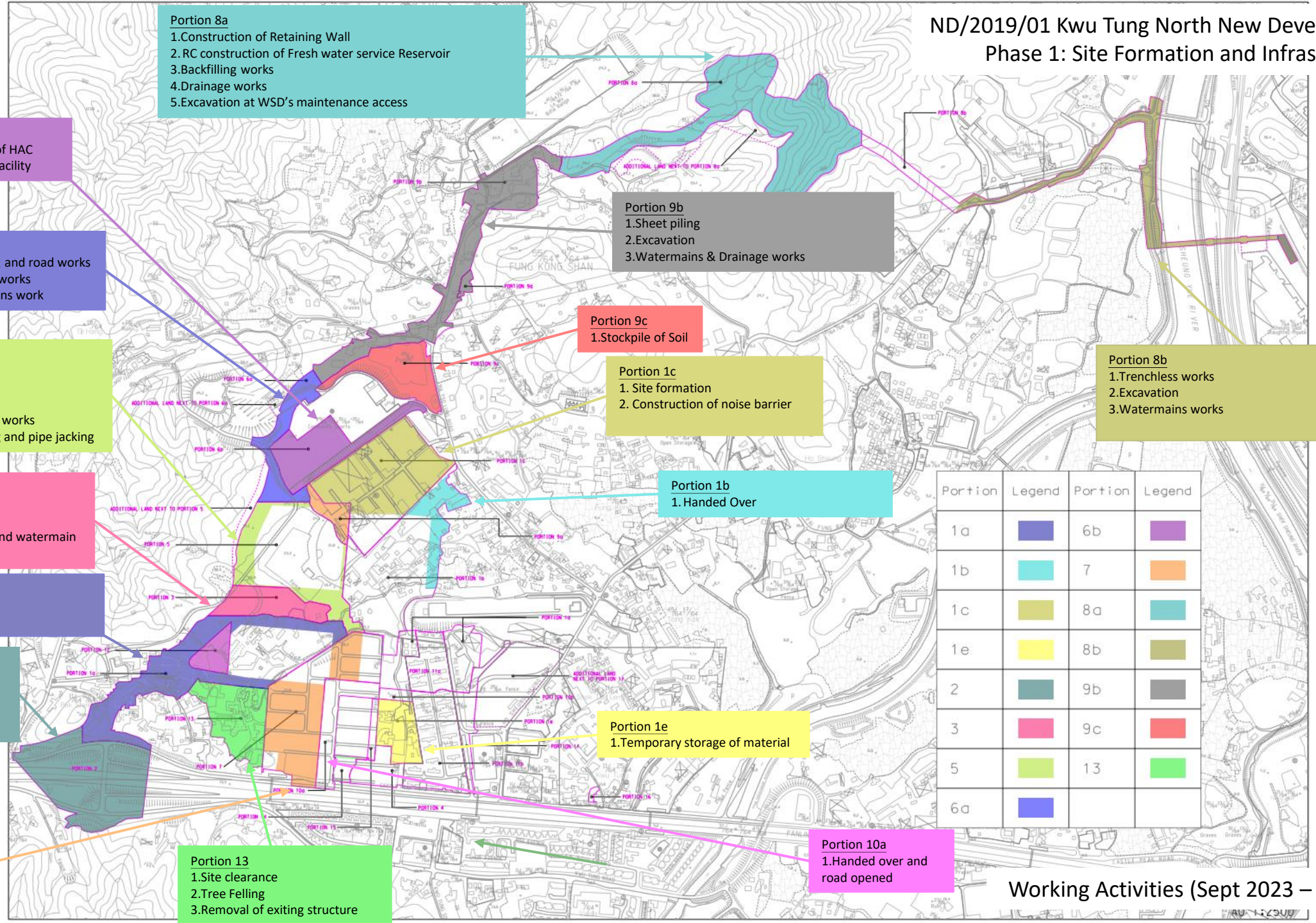
ND/2019/01 - 3 Month Rolling Programme (2023-09)

Data Date: 25-Sep-23 Run Date: 29-Sep-2023

Project ID: ND201901-RP-43
Lauyout: ND201901-3MRP with logo

REVISED PROGRAMME (2023-09)			
Date	Revision	Checked	Approved
29-Sep-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

Portion 6b
1. Operation of HAC treatment facility

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

Portion 5
1.Excavation
2.Backfilling
3.road works
4.Watermain 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.Site formation
2.Sheet piling
3.Excavation
4.Drainage and watermainworks

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

Portion 1b
1. Handed Over

Portion 1e
1.Temporary storage of material

Portion 10a
1.Handed over and road opened

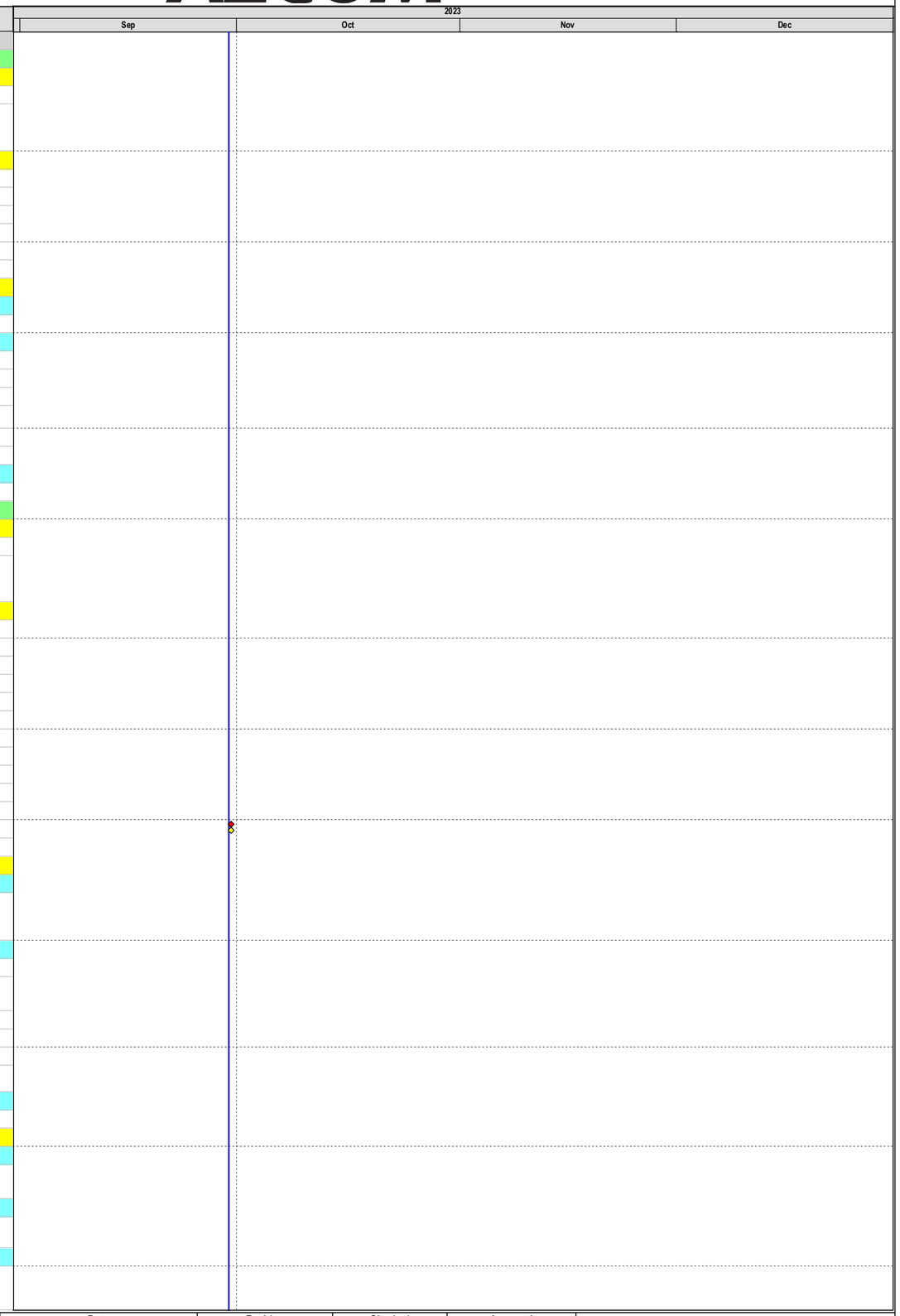
Portion 8b
1.Trenchless works
2.Excavation
3.Watermains works

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

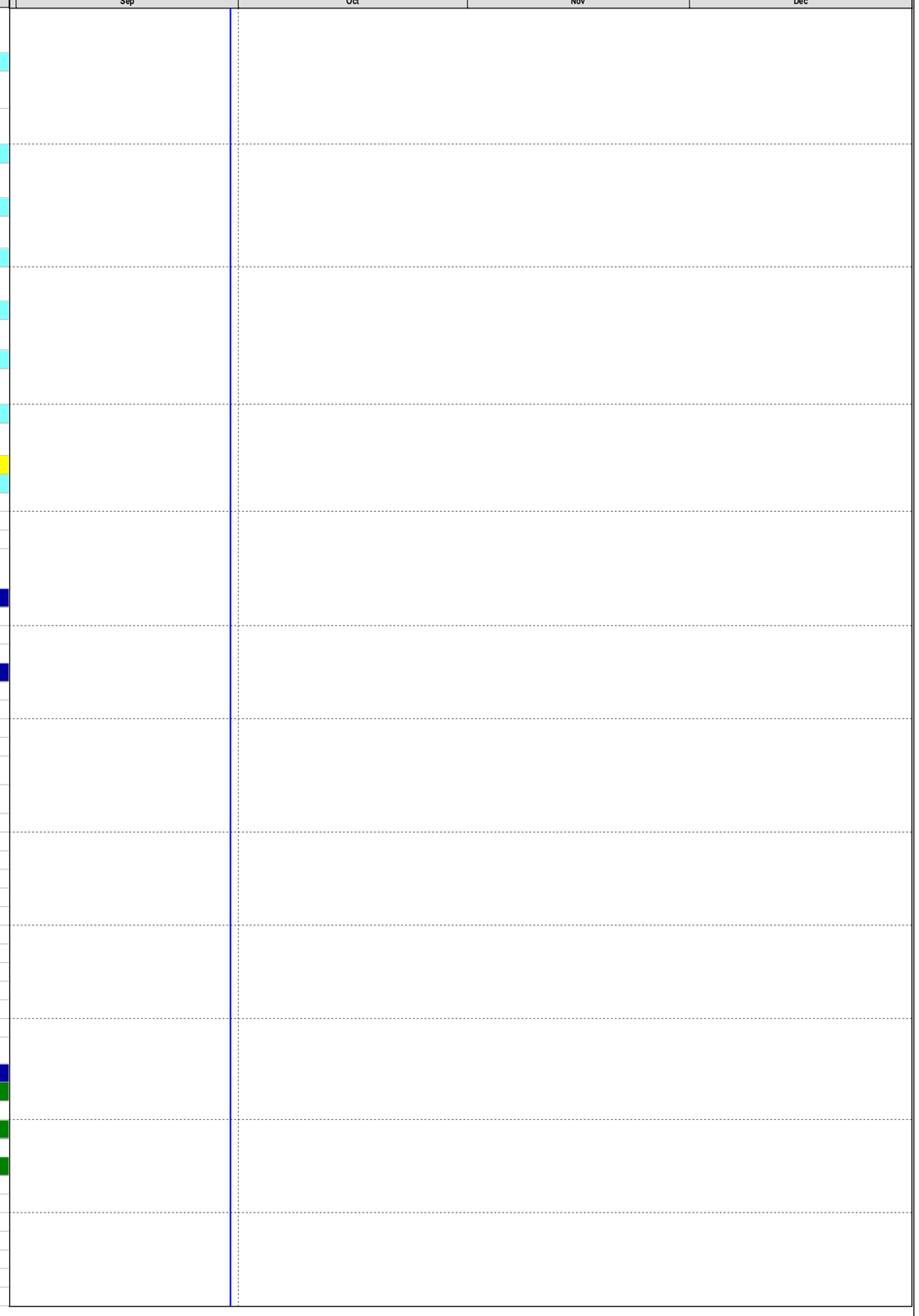
Working Activities (Sept 2023 – Dec 2023)

Construction Programme of ND/2019/02

#	Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Duration % Complete
1	DRM Planned Programme ND-2019-02 KTNNDA Phase 1		2489	1154	03-Feb-2020 A	27-Nov-2026	0	53.63%
2	Contract Data		2489	999	03-Feb-2020 A	27-Nov-2026	0	59.86%
3	Date for commencement		14	0	03-Feb-2020 A	17-Feb-2020 A		100%
4	CD-1150	Contract Date (3 Feb 2020)	0	0	03-Feb-2020 A			100%
5	CD-1160	Starting Date (17 Feb 2020)	0	0	17-Feb-2020 A			100%
6	Access Dates		1555	0	18-Mar-2020 A	20-Jun-2024	890	100%
7	CD-1170	Portion 1 & 2 (90 days after Starting Date) (17 May 20)	0	0	03-Aug-2020 A			100%
8	CD-1180	Portion 3, 4, 5, 8 & 9 (60 d after Starting Date) (17 Apr 20)	0	0	03-Aug-2020 A			100%
9	CD-1190	Portion 6 (1585 d after Starting Date) (20 Jun 24)	0	0	20-Jun-2024*		0	0%
10	CD-1200	Portion 7, 10 & 11 (183 d after Starting Date) (18 Aug 20)	0	0	03-Aug-2020 A			100%
11	CD-1210	WA 1 (365 d after Starting Date) (16 Feb 21)	0	0	30-Nov-2021 A			100%
12	CD-1220	WA 2 (30 d after Starting Date) (18 Mar 20)	0	0	18-Mar-2020 A			100%
13	Completion Obligation		1701	999	06-Feb-2022 A	27-Nov-2026	0	41.27%
14	The Whole of the Works		0	0	26-May-2025	26-May-2025	0	0%
15	CD-1300	Completion date for the whole of the works (1773 days after starting date) (25 Dec 24)	0	0		26-May-2025*	0	0%
16	Sectional Completion		1701	896	06-Feb-2022 A	27-Nov-2026	0	47.3%
17	CD-1240	Section1 (720 days after starting date) (6 Feb 22) - Works in P1	0	0		06-Feb-2022 A		100%
18	CD-1250	Section2 (1773 days after starting date) (25 Dec 24) - Works in P2,3,4,5,6 & 7	0	0		22-Sep-2025*	-119	0%
19	CD-1260	Section3 (1110 days after starting date) (3 Mar 23) - Works P8 & P9	0	0		13-Jun-2024*	-316	0%
20	CD-1270	Section4 (1773 days after starting date) (25 Dec 24) - Works in P10	0	0		03-Dec-2025*	-193	0%
21	CD-1280	Section4A (2138 days after starting date) (25 Dec 25) - Establishment Works in P1,2,3 & 4	0	0		27-Nov-2026*	-182	0%
22	CD-1290	Section5 (1584 days after starting date) (19 Jun 24) - Works in P11	0	0		22-Dec-2024*	-145	0%
23	Specified Parts of the works		0	0	03-Mar-2024	03-Mar-2024	0	0%
24	CD-1230	Portion10 (1323 days after starting date)- Works in P10 excl. switch back to permanent sewerage system	0	0		03-Mar-2024*	0	0%
25	Programme Data		2489	1154	03-Feb-2020 A	27-Nov-2026	0	53.63%
26	Date for commencement		8	0	03-Feb-2020 A	17-Feb-2020 A		100%
27	PD1000	Contract Date (LOA:3 Feb 2020)	0	0	03-Feb-2020 A			100%
28	PD1010	Starting Date (17 Feb 2020)	0	0	17-Feb-2020 A			100%
29	Access Dates		1555	264	18-Mar-2020 A	20-Jun-2024	890	83.02%
30	PD1100	Portion 1 (90 days after Starting Date) (17 May 20)	0	0	03-Aug-2020 A			100%
31	PD1105	Portion 2 (90 days after Starting Date) (17 May 20)	0	0	03-Aug-2020 A			100%
32	PD1110	Portion 3 (60 d after Starting Date) (17 Apr 20)	0	0	03-Aug-2020 A			100%
33	PD1112	Portion 4 (60 d after Starting Date) (17 Apr 20)	0	0	03-Aug-2020 A			100%
34	PD1113	Portion 5 (60 d after Starting Date) (17 Apr 20)	0	0	16-Apr-2020 A			100%
35	PD1114	Portion 8 (60 d after Starting Date) (17 Apr 20)	0	0	03-Aug-2020 A			100%
36	PD1115	Portion 9 (60 d after Starting Date) (17 Apr 20)	0	0	03-Aug-2020 A			100%
37	PD1120	Portion 6 (1585 d after Starting Date) (20 Jun 24)	0	0	20-Jun-2024*		0	0%
38	PD1130	Portion 7 (183 d after Starting Date) (18 Aug 20)	0	0	03-Aug-2020 A			100%
39	PD1131	Portion 10 (183d after Starting Date) (18 Aug 20)	0	0	03-Aug-2020 A			100%
40	PD1132	Portion 11 (183d after Starting Date) (18 Aug 20)	0	0	30-Nov-2020 A			100%
41	PD1140	WA 1 (365 d after Starting Date) (16 Feb 21)	0	0	30-Sep-2023*		-226	0%
42	PD1150	WA 2 (30 d after Starting Date) (18 Mar 20)	0	0	18-Mar-2020 A			100%
43	Completion Obligation		1457	998	30-Nov-2022 A	27-Nov-2026	0	31.5%
44	The Whole of the Works		0	0	26-May-2025	26-May-2025	0	0%
45	PD1020	Completion date for the whole of the works (1773 days after starting date) (25 Dec 24)	0	0		26-May-2025*	0	0%
46	Sectional Completion		1457	896	30-Nov-2022 A	27-Nov-2026	0	38.48%
47	PD1040	Section 1 (30 Nov 22) - Works in P1	0	0		30-Nov-2022 A		100%
48	PD1050	Section 2 (1773 days after starting date) (25 Dec 24) - Works in P2,3,4,5,6 & 7	0	0		22-Sep-2025	-68	0%
49	PD1060	Section 3 (1110 days after starting date) (3 Mar 23) - Works P8 & P9	0	0		13-Jun-2024*	-181	0%
50	PD1070	Section 4 (1773 days after starting date) (25 Dec 24) - Works in P10	0	0		03-Dec-2025*	-110	0%
51	PD1080	Section 4A (2138 days after starting date) (25 Dec 25) - Establishment Works in P1,2,3 & 4	0	0		27-Nov-2026*	-182	0%
52	PD1090	Section 5 (1584 days after starting date) (19 Jun 24) - Works in P11	0	0		22-Dec-2024*	-145	0%
53	Specified Parts of the works		0	0	04-Mar-2024	04-Mar-2024	0	0%
54	PD1030	Portion 10 (1323 days after starting date) - Works in P10 excl. switch back to permanent sewerage system	0	0		04-Mar-2024*	0	0%
55	Compensation Event		55	0	25-Feb-2021 A	24-Nov-2021 A		100%
56	CE-017 Unforseen Ground Condition At Footbridge FK2		0	0	25-Feb-2021 A	25-Feb-2021 A		0%
57	CE0017-1	CE-017 Unforeseen Ground Condition at Footbridge FK2	0	0	25-Feb-2021 A			100%
58	CE-018 Unforseen Ground Condition At Visitor Center		0	0	25-Feb-2021 A	25-Feb-2021 A		0%
59	CE0018-1	CE-018 Unforeseen Ground Condition at visitor Centre	0	0	25-Feb-2021 A			100%
60	CE-023 Revised Alignment for Drainage and Sewerage Pipes outside Future CLP ESS Site		55	0	12-Apr-2021 A	31-May-2021 A		100%
61	CE0023-1	CE-023 Revised Alignment for Drainage and Sewerage Pipe Outside Future CLP ESS Site - PMI 009 received	0	0	12-Apr-2021 A			100%



#	Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Duration % Complete
62	CE0023-2	CE-023 Revised Alignment for Drainage and Sewerage Pipe Outside Future CLP ESS Site	0	0	31-May-2021 A			100%
63	**CE-026 Stage 1 Advanced Works for Extension of Cycle Track Outside Dills Corner Garden**		0	0	17-May-2021 A	05-Oct-2021 A		0%
64	CE0026-1	CE-026 Extension of Cycle Track Outside Dills Corner Garden - PMI 010 received	0	0	17-May-2021 A			100%
65	CE0026-2	CE-026 Extension of Cycle Track Outside Dills Corner Garden	0	0	17-May-2021 A	05-Oct-2021 A		100%
66	**CE-067 Revised Alignment for drainage at DSD maintenance access (SMH_KT6005A to OF 6013)**		0	0	29-Sep-2021 A	29-Sep-2021 A		0%
67	CE0067-1	CE-067 - PMI 049 received	0	0	29-Sep-2021 A			100%
68	**CE-068 Revised Alignment for drainage at DSD maintenance access (FMH_KT1.33A to 1.37A)**		0	0	29-Sep-2021 A	29-Sep-2021 A		0%
69	CE0068-1	CE-068 - PMI 050 received	0	0	29-Sep-2021 A			100%
70	**CE-071 Revised Alignment for Sewerage at Sheung Yue River (FMH_KT1.40A to 1.41A)**		0	0	20-Oct-2021 A	20-Oct-2021 A		0%
71	CE0071-1	CE-071 - PMI 054 received	0	0	20-Oct-2021 A			100%
72	**CE-074 Revised Alignment for Sewerage at Sheung Yue River (FMH_KT1.38A to 1.40A)**		0	0	26-Oct-2021 A	26-Oct-2021 A		0%
73	CE0074-1	CE-074 - PMI 056 received	0	0	26-Oct-2021 A			100%
74	**CE-075 Revised Alignment for Sewerage at Sheung Yue River (FMH_KT1.37A to 1.38A)**		0	0	25-Oct-2021 A	25-Oct-2021 A		0%
75	CE0075-1	CE-075 - PMI 057 received	0	0	25-Oct-2021 A			100%
76	**CE-076 Revised Alignment for Sewerage at Sheung Yue River (FMH_KT1.41A to 1.48A)**		0	0	24-Nov-2021 A	24-Nov-2021 A		0%
77	CE0076-1	CE-076 - PMI 058 received	0	0	24-Nov-2021 A			100%
78	**Preliminaries**		2247	946	15-Feb-2020 A	04-May-2026	207	57.91%
79	**Subletting**		1078	0	15-Feb-2020 A	31-Aug-2023 A		100%
80	SC-0000	Preparation and submission of Sub-letting procedure (ACC Clause C9(6))	28	0	15-Feb-2020 A	13-Mar-2020 A		100%
81	SC-0010	Review of Sub-letting procedure by PM	14	0	13-Mar-2020 A	26-Mar-2020 A		100%
82	SC-0020	Resubmission of Sub-Letting Procedure	7	0	26-Mar-2020 A	01-Apr-2020 A		100%
83	SC-0030	Acceptance of Sub-Letting Procedure	14	0	01-Apr-2020 A	16-Apr-2020 A		100%
84	**Consultancy Services**		0	0	16-Jun-2020 A	14-Sep-2020 A		0%
85	DIA-1000	Award of consultant - Drainage Impact Assessment	0	0		26-Jun-2020 A		100%
86	ICE-1000	Award of consultant - Independent Checking Engineer	0	0		14-Sep-2020 A		100%
87	TTM-1000	Award of consultant - Temporary Traffic Management	0	0		16-Jun-2020 A		100%
88	**Specialist Subcontractors**		846	0	16-Jun-2020 A	31-Oct-2022 A		100%
89	SC-0035	Award of subcontract - Trial Pits and Inspection Pits	0	0		16-Jun-2020 A		100%
90	SC-0040	Award of subcontract - Utilities Detection	0	0		24-Jun-2020 A		100%
91	SC-0060	Award of subcontract - Landscape (incl. Tree Protection, Tree survey, etc)	0	0		26-Jun-2020 A		100%
92	SC-0070	Award of subcontract - Ground Investigation	0	0		28-Jul-2020 A		100%
93	SC-1075	Award of subcontract - E&M Works	0	0		06-Jan-2021 A		100%
94	SC-1080	Award of subcontract - Earthworks & Roadworks	0	0		16-Feb-2021 A		100%
95	SC-1085	Award of subcontract - Footbridge & Structure	0	0		19-Apr-2021 A		100%
96	SC-1090	Award of subcontract - Pipejacking (Section under PMI-009)	0	0		28-Jul-2021 A		100%
97	SC-1095	Award of subcontract - Structural Design for Pai Lau	0	0		30-Sep-2021 A		100%
98	SC-1100	Award of subcontract - Bearing and MJ at Footbridge	0	0		08-Oct-2021 A		100%
99	SC-1105	Award of subcontract - Waterproofing	0	0		23-Nov-2021 A		100%
100	SC-1115	Award of subcontract - Lift Installation at Visitor Center	0	0		07-Dec-2021 A		100%
101	SC-1160	Award of subcontract - Pai Lau Construction	0	0		07-Dec-2021 A		100%
102	SC-1180	Award of subcontract - Dewatering Works for SPS	0	0		16-Dec-2021 A		100%
103	SC-1190	Award of subcontract - Specialist for lighting proposal at KT1.40A to KT1.41A	0	0		21-Mar-2022 A		100%
104	SC-1205	Award of subcontract - Construction of Temporary Sewerage System	0	0		30-Aug-2022 A		100%
105	SC-1210	Award of subcontract - Grout Curtain of SPS	0	0		23-Aug-2022 A		100%
106	SC-1215	Award of subcontract - Hard Landscape	0	0		31-Oct-2022 A		100%
107	SC-1220	Award of subcontract - Soft Landscape	0	0		31-Oct-2022 A		100%
108	**ABWF**		184	0	08-Sep-2022 A	31-Mar-2023 A		100%
109	**Package 1 - Gold Success**		0	0	02-Dec-2022 A	02-Dec-2022 A		0%
110	SC-1195-1	Award of subcontract - ABWF works (Package 1 - Int / Ext Finishes, Brickwork and Plastering)	0	0		02-Dec-2022 A		100%
111	**Package 2 - Gold Success**		0	0	02-Dec-2022 A	02-Dec-2022 A		0%
112	SC-1195-2	Award of subcontract - ABWF works (Package 2 - Painting)	0	0		02-Dec-2022 A		100%
113	**Package 3 - Sanway**		0	0	08-Sep-2022 A	08-Sep-2022 A		0%
114	SC-1195-137	Award of subcontract - ABWF works (Package 3 - Timber Deck)	0	0		08-Sep-2022 A		100%
115	SC-1195-147	Award of subcontract - ABWF works (Package 3 - Suspended Ceiling)	0	0		08-Sep-2022 A		100%
116	SC-1195-157	Award of subcontract - ABWF works (Package 3 - Raised Floor)	0	0		08-Sep-2022 A		100%
117	SC-1195-167	Award of subcontract - ABWF works (Package 3 - Plastic laminate wall panel)	0	0		08-Sep-2022 A		100%
118	SC-1195-177	Award of subcontract - ABWF works (Package 3 - Thermal Insulation Board)	0	0		08-Sep-2022 A		100%
119	SC-1195-187	Award of subcontract - ABWF works (Package 3 - Glass Wall)	0	0		08-Sep-2022 A		100%
120	SC-1195-197	Award of subcontract - ABWF works (Package 3 - Movable Partition)	0	0		08-Sep-2022 A		100%



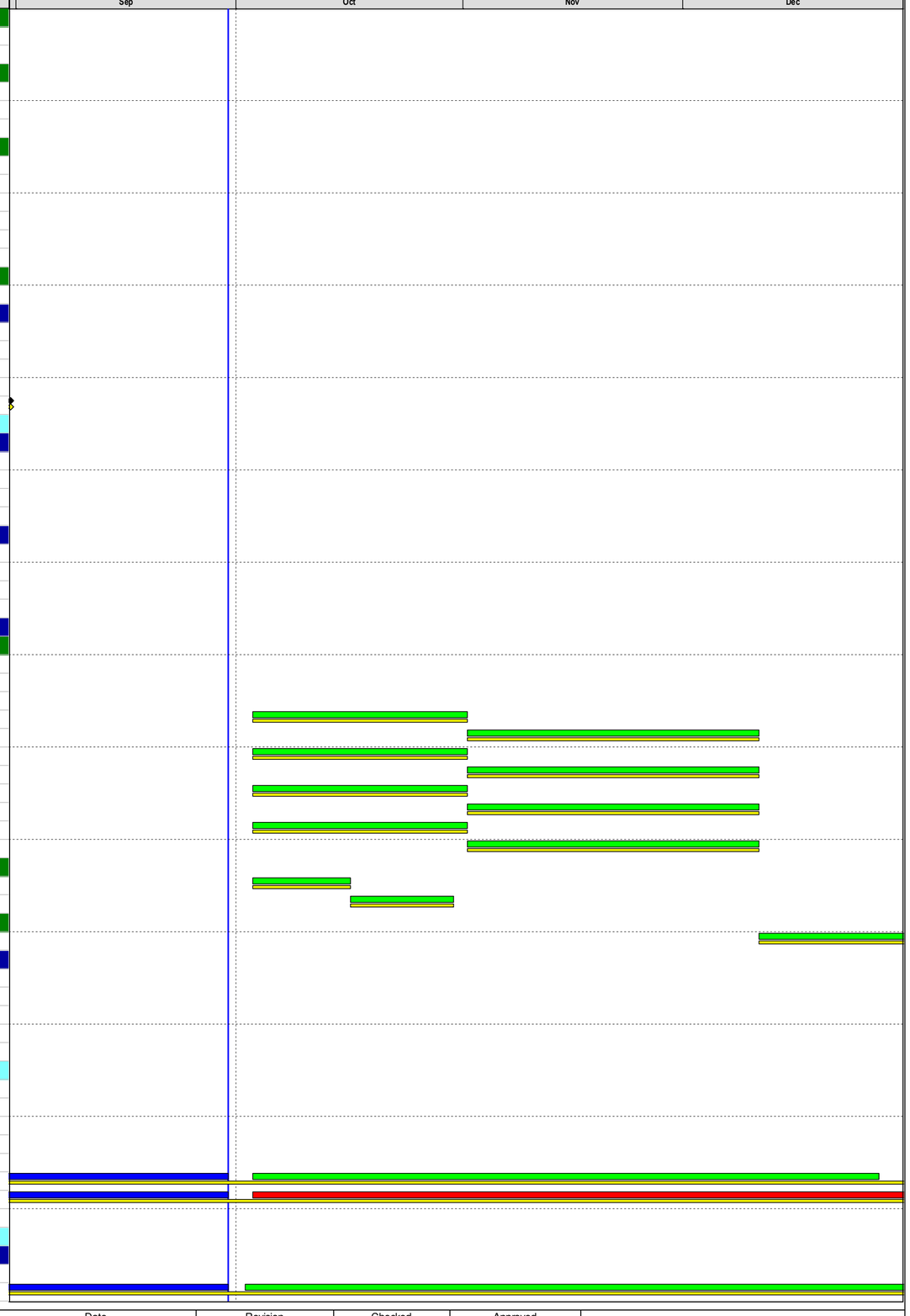
Primary Baseline
Actual Work
Remaining Work
Critical Remaining Work
Baseline Milestone
Critical Milestone
Non-Critical Milestone

Data Date: 30-Sep-2023
Project Start: 03-Feb-2020
Project End: 27-Nov-2026
Baseline: Aug 2023 Monthly Programme Update

4M Rolling Programme (Sep-Dec 2023)

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

#	Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Duration % Complete
121		**Package 4 - Sanway**	0	0	02-Dec-2022 A	02-Dec-2022 A		0%
122	SC-1195-4	Award of subcontract - ABWF works (Package 4 - Timber Door)	0	0		02-Dec-2022 A		100%
123	SC-1195-67	Award of subcontract - ABWF works (Package 4 - Fitting and fixtures)	0	0		02-Dec-2022 A		100%
124		**Package 5 - De Heng**	0	0	22-Nov-2022 A	22-Nov-2022 A		0%
125	SC-1195-50	Award of subcontract - ABWF works (Package 5 - Window)	0	0		22-Nov-2022 A		100%
126	SC-1195-51	Award of subcontract - ABWF works (Package 5 - Aluminium Grilles)	0	0		22-Nov-2022 A		100%
127	SC-1195-52	Award of subcontract - ABWF works (Package 5 - Louvre)	0	0		22-Nov-2022 A		100%
128		**Package 6**	0	0	31-Mar-2023 A	31-Mar-2023 A		0%
129	SC-1195-107	Award of subcontract - ABWF works (Package 6 - Fences, Handrail, Guardrail, Parapet & Gate)	0	0		31-Mar-2023 A		100%
130	SC-1195-117	Award of subcontract - ABWF works (Package 6 - Roller Shutter)	0	0		31-Mar-2023 A		100%
131	SC-1195-207	Award of subcontract - ABWF works (Package 6 - Steel Door)	0	0		31-Mar-2023 A		100%
132	SC-1195-6	Award of subcontract - ABWF works (Package 6 - Skylight)	0	0		31-Mar-2023 A		100%
133	SC-1195-87	Award of subcontract - ABWF works (Package 6 - Fall Arrest System	0	0		31-Mar-2023 A		100%
134	SC-1195-97	Award of subcontract - ABWF works (Package 6 - Sundries Metal Works)	0	0		31-Mar-2023 A		100%
135		**Package 7 - Jibpool**	0	0	22-Dec-2022 A	22-Dec-2022 A		0%
136	SC-1195-7	Award of subcontract - ABWF works (Package 7 - Toilet Cubicles and Shower Cubicles)	0	0		22-Dec-2022 A		100%
137		**Others**	836	0	29-Apr-2021 A	31-Aug-2023 A		100%
138	SC-0090	CE-023 Subletting for Pipejacking (Phase 1)	90	0	29-Apr-2021 A	28-Jul-2021 A		100%
139	SC-1185	Award of subcontract - Pipe jacking phase 2 (VTECH)	0	0		23-Feb-2022 A		100%
140	SC-1230	Award of subcontract - Pipe jacking phase 3 (Portion 4,5,6) - Yee Hop	0	0		30-Nov-2022 A		100%
141	SC-1240	Award of subcontract - Rising Main Construction (CHA 1028 to 1735) (Excl. CHA 1250 to 1298)	0	0		30-Nov-2022 A		100%
142	SC-1250	Award of subcontract - Ground Investigation Works of Portion 11	0	0		31-Aug-2023 A		100%
143		**Statutory Submission**	1242	132	27-Apr-2020 A	08-Feb-2024	1039	89.37%
144		**HyD**	743	0	27-Apr-2020 A	15-Sep-2022 A		100%
145	XP-1000	Capital works excavation permit (CWXP) application for Portion 1 & 2	160	0	27-Apr-2020 A	01-Aug-2020 A		100%
146	XP-1010	Excavation permit (XP) application for Portion 4	90	0	31-Mar-2022 A	23-May-2022 A		100%
147	XP-1020	Excavation permit (XP) application for Portion 5	113	0	18-Jun-2022 A	15-Sep-2022 A		100%
148	XP-1030	Excavation permit (XP) application for Portion 8	113	0	18-Jun-2022 A	15-Sep-2022 A		100%
149		**DSD**	89	0	30-Aug-2020 A	31-Aug-2020 A		100%
150	DSD-1000	Preparation and submission of Construction Drainage Impact Assessment (CDIA)	14	0	30-Aug-2020 A	31-Aug-2020 A		100%
151	DSD-1010	Review and comment by PM	14	0	30-Aug-2020 A	31-Aug-2020 A		100%
152	DSD-1020	Submission to DSD	60	0	30-Aug-2020 A	31-Aug-2020 A		100%
153	DSD-1030	Re-submission to DSD	28	0	30-Aug-2020 A	31-Aug-2020 A		100%
154		**MTRC**	502	132	21-Mar-2022 A	08-Feb-2024	68	73.71%
155		**Method Statement Submission and Approval**	442	72	21-Mar-2022 A	11-Dec-2023	68	83.71%
156	MTRC-0700	Preparation of Method Statement for pipe laying work of rising main nearby MTRC area (MS-659)	17	0	21-Mar-2022 A	09-Apr-2022 A		100%
157	MTRC-0800	Submission and Review of Method Statement for pipe laying work of rising main nearby MTRC area	14	0	11-Apr-2022 A	28-Apr-2022 A		100%
158	MTRC-0900	Re-submission and Approval of Method Statement for pipe laying work of rising main nearby MTRC area	21	0	03-Oct-2022 A	27-Oct-2022 A		100%
159	MTRC-1000	Preparation of Method Statement for pipe jacking work underneath East Rail Line	30	30	03-Oct-2023*	01-Nov-2023	68	0%
160	MTRC-1010	Approval of Method Statement for pipe jacking work underneath East Rail Line	42	42	01-Nov-2023	11-Dec-2023	68	0%
161	MTRC-1020	Preparation of material and plants for pipe jacking work underneath East Rail Line	30	30	03-Oct-2023*	01-Nov-2023	68	0%
162	MTRC-1030	Approval of material and plants for pipe jacking work underneath East Rail Line	42	42	01-Nov-2023	11-Dec-2023	68	0%
163	MTRC-1040	Preparation of contingency plan for pipe jacking work underneath East Rail Line	30	30	03-Oct-2023*	01-Nov-2023	68	0%
164	MTRC-1050	Approval of contingency plan for pipe jacking work underneath East Rail Line	42	42	01-Nov-2023	11-Dec-2023	68	0%
165	MTRC-1060	Preparation of Method Statement for manhole construction work underneath East Rail Line	30	30	03-Oct-2023*	01-Nov-2023	68	0%
166	MTRC-1070	Approval of Method Statement for manhole construction work underneath East Rail Line	42	42	01-Nov-2023	11-Dec-2023	68	0%
167		**Pre-condition Survey & Report**	28	28	03-Oct-2023	30-Oct-2023	112	0%
168	MTRC-1110	Preparation of Pre-condition Survey report before construction work underneath East Rail Line	14	14	03-Oct-2023*	16-Oct-2023	112	0%
169	MTRC-1120	Approval of Pre-condition report before construction work underneath East Rail Line	14	14	16-Oct-2023	30-Oct-2023	112	0%
170		**Notification of commencement of works**	60	60	11-Dec-2023	08-Feb-2024	68	0%
171	MTRC-1130	Preparation and Submission of Written Notice to MTRCL for the notification of commencement of works	60	60	11-Dec-2023	08-Feb-2024	68	0%
172		**TPRP**	480	0	17-May-2021 A	14-Sep-2022 A		100%
173	TPRP-1010	TPRP Submission for CE-026 - 1st submission & review	90	0	17-May-2021 A	22-May-2021 A		100%
174	TPRP-1020	TPRP Submission for CE-026 - response to comment and resubmission	14	0	23-May-2021 A	31-May-2021 A		100%
175	TPRP-1030	TPRP Submission for CE-026 - 2nd submission & approval	21	0	01-Jun-2021 A	21-Jun-2021 A		100%
176	TPRP-1040	Tree Felling Proposal Submission and Approval for FMH1.30A (CSF-477)	232	0	07-Dec-2021 A	12-Aug-2022 A		100%
177	TPRP-1050	Tree Felling (26 nos)	24	0	22-Aug-2022 A	14-Sep-2022 A		100%
178		**BIM Submission**	1626	593	19-Oct-2020 A	12-May-2025	578	63.53%
179	BIM1000	Submission of Execution Plan	0	0	19-Oct-2020 A			100%
180	BIM1010	1st Review and Comment by PM	18	0	20-Oct-2020 A	04-Nov-2020 A		100%
181	BIM1020	Re-submission of Execution Plan	18	0	05-Nov-2020 A	23-Nov-2020 A		100%
182	BIM1030	2nd Review and Comment by PM	18	0	26-Nov-2020 A	14-Dec-2020 A		100%
183	BIM1040	Preparation and Submission of Initial BIM Model	18	0	02-Dec-2020 A	17-Dec-2020 A		100%
184	BIM1045	Preparation and Submission of BIM Model for Bar Bending Schedule	880	88	30-Oct-2021 A	27-Dec-2023	140	90%
185	BIM1047	Preparation and Submission of BIM Model for updating CSD and CBWD	1318	593	01-Nov-2021 A	12-May-2025	-125	55%
186	BIM1050	Submission of Fully Coordinated BIM Model (As-built)	0	0	17-Mar-2025		70	0%
187		**Site Offices & Preliminaries**	1167	540	18-Mar-2020 A	04-May-2026	119	53.69%
188		**Temporary office for RE**	1068	442	18-Mar-2020 A	12-Nov-2025	114	58.64%
189	SP-1000a	Erection of container office in WA2	6	0	18-Mar-2020 A	24-Mar-2020 A		100%
190	SP-1000b	Maintenance of container office	1739	435	30-Sep-2020 A	30-Oct-2025	114	75%



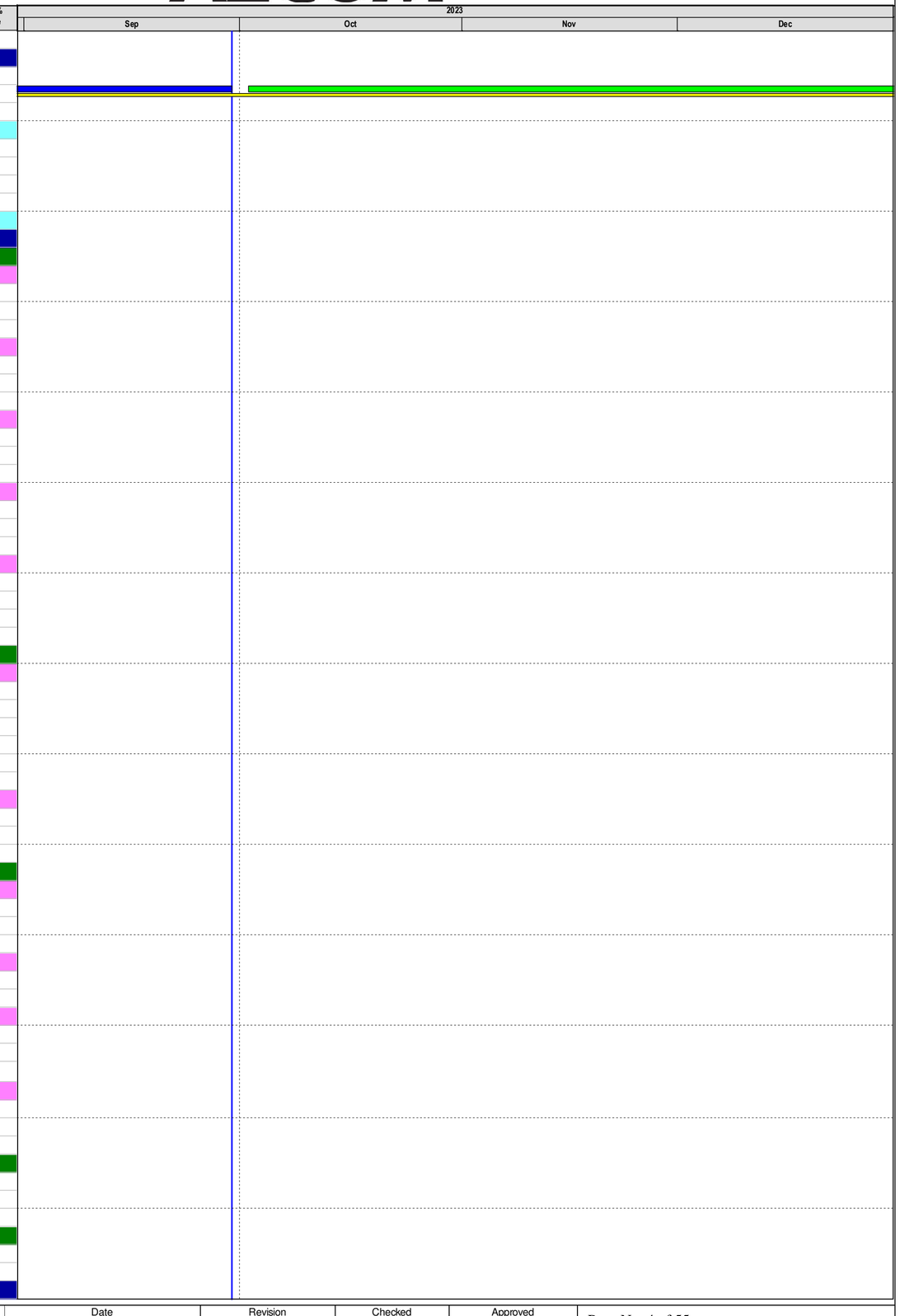
Primary Baseline
Actual Work
Remaining Work
Critical Remaining Work
Baseline Milestone
Critical Milestone
Non-Critical Milestone

Data Date: 30-Sep-2023
Project Start: 03-Feb-2020
Project End: 27-Nov-2026
Baseline: Aug 2023 Monthly Programme Update

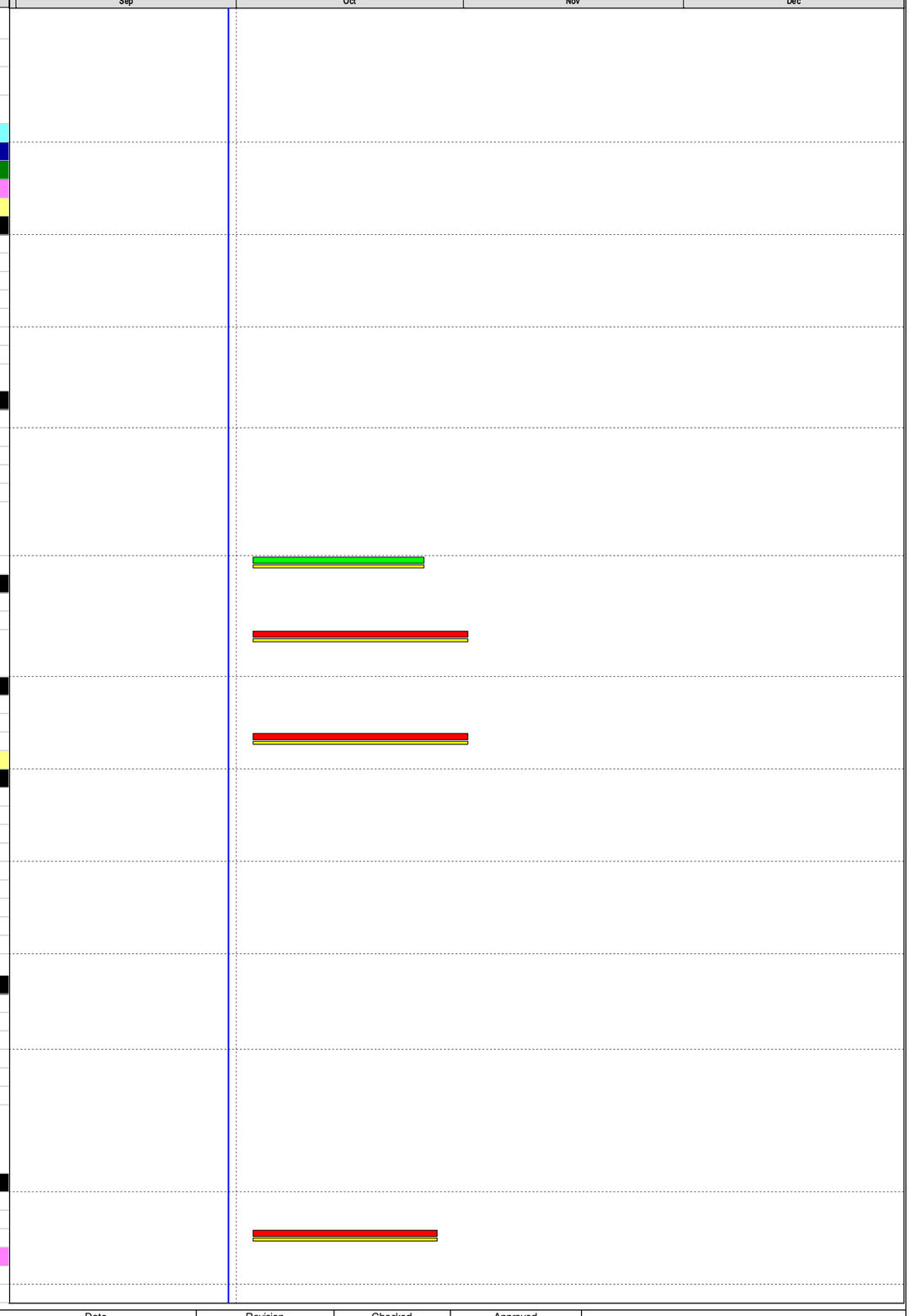
4M Rolling Programme (Sep-Dec 2023)

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

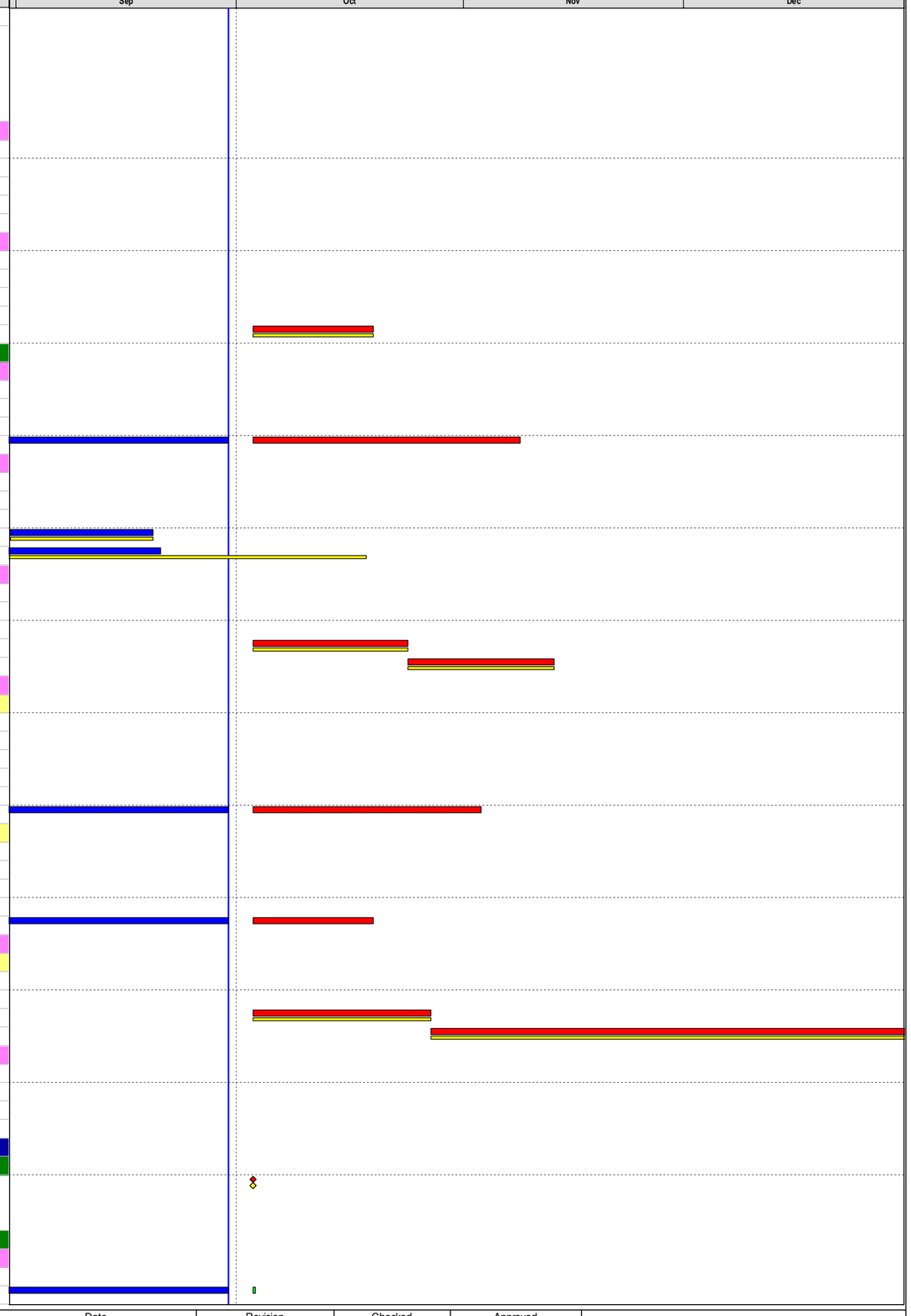
#	Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Duration % Complete
191	SP-1000c	Removal of container office in WA2	7	7	30-Oct-2025*	12-Nov-2025	114	0%
192	**Temporary office for Contractor**		670	540	16-Feb-2023 A	04-May-2026	119	19.34%
193	SP-1010a	Erection of container office in WA1	72	0	16-Feb-2023 A	16-May-2023 A		100%
194	SP-1010b	Maintenance of container office	1076	538	17-May-2023 A	29-Apr-2026	119	50%
195	SP-1010c	Removal of container office in WA1	2	2	29-Apr-2026	04-May-2026	119	0%
196	**Tree Survey**		121	0	03-Jul-2020 A	13-Jan-2021 A		100%
197	TS-1000	Tree Survey Works - Preparation of Document	14	0	03-Jul-2020 A	25-Aug-2020 A		100%
198	TS-1010	Tree Survey Works - Submission to Project Manager (PM)	28	0	26-Aug-2020 A	21-Sep-2020 A		100%
199	TS-1020	Tree Survey Works - Re-submission to PM	30	0	22-Sep-2020 A	30-Oct-2020 A		100%
200	TS-1030	Tree Survey Works - Submission to EPD by PM	60	0	02-Nov-2020 A	13-Jan-2021 A		100%
201	**Contractor's Design**		2036	0	06-Nov-2020 A	22-Feb-2023 A		100%
202	**Temporary Works Design**		2036	0	06-Nov-2020 A	22-Feb-2023 A		100%
203	**Footbridge FK2**		642	0	06-Nov-2020 A	22-Feb-2023 A		100%
204	**ELS Design**		21	0	06-Nov-2020 A	28-Sep-2021 A		100%
205	TWD-1120	ELS Design - 1st submission to PM & review	21	0	06-Nov-2020 A	21-Dec-2020 A		100%
206	TWD-1130	ELS Design - Review and Resubmission	14	0	22-Dec-2020 A	30-Jan-2021 A		100%
207	TWD-1140	ELS Design - 2nd submission to PM & Approval	21	0	23-Jun-2021 A	28-Sep-2021 A		100%
208	**Formwork Design (Abutrment Wall) - CSF475**		52	0	03-Nov-2021 A	22-Jan-2022 A		100%
209	TWD-1150	Formwork and Falsework Design (FK2 Abutment)- 1st submission to PM & review	21	0	03-Nov-2021 A	15-Nov-2021 A		100%
210	TWD-1160	Formwork and Falsework Design (FK2 Abutment) - Review and Resubmission	14	0	16-Nov-2021 A	29-Nov-2021 A		100%
211	TWD-1170	Formwork and Falsework Design (FK2 Abutment) - 2nd submission to PM & Approval	21	0	30-Nov-2021 A	22-Jan-2022 A		100%
212	**Formwork Design (Bridge Pier) - CSF576**		70	0	19-Feb-2022 A	06-Jul-2022 A		100%
213	TWD-1310	Formwork and Falsework Design (Bridge Pier)- 1st submission to PM & review	11	0	19-Feb-2022 A	02-Mar-2022 A		100%
214	TWD-1320	Formwork and Falsework Design (Bridge Pier) - Review and Resubmission	24	0	03-Mar-2022 A	16-Mar-2022 A		100%
215	TWD-1330	Formwork and Falsework Design (Bridge Pier) - 2nd submission to PM & Approval	11	0	08-Jun-2022 A	06-Jul-2022 A		100%
216	**Falsework Design (End Bridge Deck) - CSF584**		117	0	07-Mar-2022 A	21-Jul-2022 A		100%
217	TWD-1340	Falsework Design (Bridge Deck)- 1st submission to PM & review	17	0	07-Mar-2022 A	23-Mar-2022 A		100%
218	TWD-1350	Falsework Design (Bridge Deck) - Review and Resubmission	24	0	24-Mar-2022 A	18-Apr-2022 A		100%
219	TWD-1360	Falsework Design (Bridge Deck) - 2nd submission to PM & Approval	16	0	06-Jul-2022 A	21-Jul-2022 A		100%
220	**Falsework Design (Mid Span Bridge Deck) - CSF894**		251	0	21-Jun-2022 A	22-Feb-2023 A		100%
221	TWD-1400	Falsework Design (Bridge Deck)- 1st submission to PM	17	0	21-Jun-2022 A	08-Jul-2022 A		100%
222	TWD-1405	Falsework Design (Bridge Deck)- 1st round PM comment	27	0	09-Jul-2022 A	05-Aug-2022 A		100%
223	TWD-1410	Falsework Design (Bridge Deck) - Review and Resubmission	24	0	03-Jan-2023 A	30-Jan-2023 A		100%
224	TWD-1420	Falsework Design (Bridge Deck) - 2nd round submission to PM & Approval	24	0	31-Jan-2023 A	22-Feb-2023 A		100%
225	**Sewage Pumping Station**		1987	0	29-Jun-2021 A	09-Nov-2022 A		100%
226	**ELS Design**		1987	0	29-Jun-2021 A	09-Nov-2022 A		100%
227	TWD-1000	ELS Design - 1st submission to PM & review	21	0	29-Jun-2021 A	14-Jul-2021 A		100%
228	TWD-1010	ELS Design - Review and Resubmission	27	0	15-Jul-2021 A	27-Aug-2021 A		100%
229	TWD-1020	ELS Design - 2nd submission to PM & review	21	0	28-Aug-2021 A	10-Sep-2021 A		100%
230	TWD-1025	ELS Design - 3rd submission to PM & Approval	18	0	11-Sep-2021 A	29-Sep-2021 A		100%
231	TWD-1450	ELS Design - submission of Design Review for Early Strut Removal of Early Construction of Valve Chamber wall	19	0	29-Aug-2022 A	16-Sep-2022 A		100%
232	TWD-1460	ELS Design - submission of ICE19F for Early Strut Removal of Early Construction of Valve Chamber wall	54	0	17-Sep-2022 A	09-Nov-2022 A		100%
233	**Formwork Design (CSF 675)**		96	0	01-Apr-2022 A	09-Jul-2022 A		100%
234	TWD-1030	Column Formwork and Falsework Design - 1st submission to PM & review	19	0	01-Apr-2022 A	19-Apr-2022 A		100%
235	TWD-1040	Column Formwork and Falsework Design - Review and Resubmission	51	0	20-Apr-2022 A	09-Jun-2022 A		100%
236	TWD-1050	Column Formwork and Falsework Design - 2nd submission to PM & Approval	30	0	10-Jun-2022 A	09-Jul-2022 A		100%
237	**Visitor Centre**		299	0	29-Jun-2021 A	24-May-2022 A		100%
238	**ELS Design - CSF273**		72	0	29-Jun-2021 A	29-Sep-2021 A		100%
239	TWD-1060	ELS Design - 1st submission to PM & review	21	0	29-Jun-2021 A	12-Jul-2021 A		100%
240	TWD-1070	ELS Design - Review and Resubmission	14	0	13-Jul-2021 A	24-Sep-2021 A		100%
241	TWD-1080	ELS Design - 2nd submission to PM & Approval	18	0	25-Sep-2021 A	29-Sep-2021 A		100%
242	**Vertical Blinding Design - CSF439**		49	0	31-Dec-2021 A	11-Feb-2022 A		100%
243	TWD-1280	Formwork Design for Vertical Blinding - 1st submission to PM & review	21	0	31-Dec-2021 A	21-Jan-2022 A		100%
244	TWD-1290	Formwork Design for Vertical Blinding - Review and Approval	7	0	22-Jan-2022 A	11-Feb-2022 A		100%
245	**Single Side Formwork Design for Base slab - CSF454**		92	0	04-Jan-2022 A	28-Jan-2022 A		100%
246	TWD-1090	Formwork and Falsework Design - 1st submission to PM & review	21	0	04-Jan-2022 A	12-Jan-2022 A		100%
247	TWD-1100	Formwork and Falsework Design - Review and Resubmission	7	0	13-Jan-2022 A	27-Jan-2022 A		100%
248	TWD-1110	Formwork and Falsework Design - 2nd submission to PM & Approval	14	0	28-Jan-2022 A	28-Jan-2022 A		100%
249	**Formwork Design for Superstructure - CSF598**		65	0	25-Feb-2022 A	24-May-2022 A		100%
250	TWD-1370	Formwork and Falsework Design - 1st submission to PM & review	14	0	25-Feb-2022 A	04-Mar-2022 A		100%
251	TWD-1380	Formwork and Falsework Design - Review and Resubmission	21	0	05-Mar-2022 A	22-Apr-2022 A		100%
252	TWD-1390	Formwork and Falsework Design - 2nd submission to PM & Approval	14	0	18-Apr-2022 A	24-May-2022 A		100%
253	**Pipeworks**		100	0	01-Jun-2021 A	17-Aug-2021 A		100%
254	TWD-1180	ELS Design - 1st submission to PM & review	21	0	01-Jun-2021 A	15-Jun-2021 A		100%
255	TWD-1185	ELS Design - Review and Resubmission	7	0	16-Jun-2021 A	19-Jul-2021 A		100%
256	TWD-1187	ELS Design - 2nd submission to PM & Approval	21	0	20-Jul-2021 A	17-Aug-2021 A		100%
257	**3m Dia. Drain (CSF 828 & 834)**		43	0	21-May-2022 A	06-Jul-2022 A		100%
258	TWD-1430	ELS Design - 1st submission to PM & review	21	0	21-May-2022 A	15-Jun-2022 A		100%
259	TWD-1440	ELS Design - Review and and Approval	17	0	16-Jun-2022 A	06-Jul-2022 A		100%
260	**CE-026 Extension of Cycle Track outside Dills Corner Garden**		52	0	01-Aug-2021 A	05-Oct-2021 A		100%



#	Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Duration % Complete
261	TWD-1240	Preparation of Design for Extension of Cycle Track Outside Dills Corner Garden	28	0	01-Aug-2021 A	10-Aug-2021 A		100%
262	TWD-1250	Design for Extension of Cycle Track Outside Dills Corner Garden - 1st submission to PM & review	21	0	11-Aug-2021 A	13-Sep-2021 A		100%
263	TWD-1260	Design for Extension of Cycle Track Outside Dills Corner Garden - review and resubmission	14	0	14-Sep-2021 A	22-Sep-2021 A		100%
264	TWD-1270	Design for Extension of Cycle Track Outside Dills Corner Garden - 2nd submission to PM & Approval	21	0	23-Sep-2021 A	05-Oct-2021 A		100%
265	**E&M Submission**		1030	334	13-Nov-2021 A	27-Aug-2024	837	67.58%
266	**Visitor Centre**		791	95	13-Nov-2021 A	04-Jan-2024	1076	87.99%
267	**BS Shop Drawings Submission (Visitor Centre)**		726	30	13-Nov-2021 A	01-Nov-2023	1141	95.87%
268	**CSD/ CBWD**		726	30	13-Nov-2021 A	01-Nov-2023	1141	95.87%
269	**CSD**		726	30	13-Nov-2021 A	01-Nov-2023	1141	95.87%
270	**Basement (CSF 495)**		327	0	13-Nov-2021 A	03-Oct-2022 A		100%
271	CSD-VC1000	CSD Preparation and submission for Visitor Centre (Rev.0)	60	0	13-Nov-2021 A	13-Jan-2022 A		100%
272	CSD-VC1010	PM review & 1st round comment	12	0	14-Jan-2022 A	26-Jan-2022 A		100%
273	CSD-VC1020	CSD Preparation and submission for Visitor Centre (Rev.1)	55	0	27-Jan-2022 A	04-Apr-2022 A		100%
274	CSD-VC1030	PM review & 2nd round comment	17	0	06-Apr-2022 A	25-Apr-2022 A		100%
275	CSD-VC1040	CSD Preparation and submission for Visitor Centre (Rev.2)	93	0	26-Apr-2022 A	15-Aug-2022 A		100%
276	CSD-VC1050	PM review & 3rd round comment	13	0	16-Aug-2022 A	31-Aug-2022 A		100%
277	CSD-VC1100	CSD Preparation and submission for Visitor Centre (Rev.3)	21	0	31-Aug-2022 A	20-Sep-2022 A		100%
278	CSD-VC1110	PM review & 4th round comment	13	0	20-Sep-2022 A	03-Oct-2022 A		100%
279	**G/F (CSF 758)**		720	24	19-Mar-2022 A	26-Oct-2023	1147	96.67%
280	CSD-VC1060	CSD Preparation and submission for Visitor Centre (Rev.0)	60	0	19-Mar-2022 A	19-May-2022 A		100%
281	CSD-VC1070	PM review & 1st round comment	16	0	20-May-2022 A	08-Jun-2022 A		100%
282	CSD-VC1080	CSD Preparation and submission for Visitor Centre (Rev.1)	63	0	09-Jun-2022 A	22-Aug-2022 A		100%
283	CSD-VC1090	PM review & 2nd round comment	17	0	23-Aug-2022 A	10-Sep-2022 A		100%
284	CSD-VC1120	CSD Preparation and submission for Visitor Centre (Rev.2)	24	0	01-Dec-2022 A	23-Dec-2022 A		100%
285	CSD-VC1130	PM review & 3rd round comment	17	0	30-Dec-2022 A	11-Jan-2023 A		100%
286	CSD-VC1200	CSD Preparation and submission for Visitor Centre (Rev.3)	24	24	03-Oct-2023	26-Oct-2023	1147	0%
287	**1/F (CSF 1027)**		460	30	05-Aug-2022 A	01-Nov-2023	-203	93.48%
288	CSD-VC1140	CSD Preparation and submission for Visitor Centre (Rev.0)	29	0	05-Aug-2022 A	07-Sep-2022 A		100%
289	CSD-VC1150	PM review & 1st round comment	12	0	08-Sep-2022 A	21-Sep-2022 A		100%
290	CSD-VC1160	CSD Preparation and submission for Visitor Centre (Rev.1)	30	30	03-Oct-2023	01-Nov-2023	-203	0%
291	**R/F (CSF 1046)**		423	30	09-Sep-2022 A	01-Nov-2023	-183	92.9%
292	CSD-VC1170	CSD Preparation and submission for Visitor Centre (Rev.0)	24	0	09-Sep-2022 A	10-Oct-2022 A		100%
293	CSD-VC1180	PM review & 1st round comment	11	0	11-Oct-2022 A	22-Oct-2022 A		100%
294	CSD-VC1190	CSD Preparation and submission for Visitor Centre (Rev.1)	30	30	03-Oct-2023	01-Nov-2023	-183	0%
295	**CBWD**		684	26	20-Dec-2021 A	28-Oct-2023	-76	96.2%
296	**Basement (CSF-508)**		302	0	20-Dec-2021 A	17-Oct-2022 A		100%
297	CBW-VC1000	CBW Preparation and submission for Visitor Centre (Rev.0)	24	0	20-Dec-2021 A	18-Jan-2022 A		100%
298	CBW-VC1010	PM review & 1st round comment	19	0	19-Jan-2022 A	12-Feb-2022 A		100%
299	CBW-VC1020	CBW Preparation and submission for Visitor Centre (Rev.1)	62	0	14-Feb-2022 A	27-Apr-2022 A		100%
300	CBW-VC1110	PM review & 2nd round comment	11	0	28-Apr-2022 A	11-May-2022 A		100%
301	CBW-VC1120	CBW Preparation and submission for Visitor Centre (Rev.2)	39	0	12-May-2022 A	27-Jun-2022 A		100%
302	CBW-VC1180	PM review & 3rd round comment	12	0	28-Jun-2022 A	12-Jul-2022 A		100%
303	CBW-VC1190	CBW Preparation and submission for Visitor Centre (Rev.3)	30	0	13-Jul-2022 A	16-Aug-2022 A		100%
304	CBW-VC1200	PM review & 4th round comment	21	0	17-Aug-2022 A	29-Aug-2022 A		100%
305	CBW-VC1290	CSD Preparation and submission for Visitor Centre (Rev.4)	30	0	29-Aug-2022 A	26-Sep-2022 A		100%
306	CBW-VC1300	PM review & 5th round comment	21	0	26-Sep-2022 A	17-Oct-2022 A		100%
307	**G/F (CSF 537)**		288	0	27-Apr-2022 A	04-Feb-2023 A		100%
308	CBW-VC1210	CBW Preparation and submission for Visitor Centre (Rev.0)	27	0	27-Apr-2022 A	28-May-2022 A		100%
309	CBW-VC1220	PM review & 1st round comment	8	0	30-May-2022 A	08-Jun-2022 A		100%
310	CBW-VC1230	CBW Preparation and submission for Visitor Centre (Rev.1)	58	0	09-Jun-2022 A	16-Aug-2022 A		100%
311	CBW-VC1240	PM review & 2nd round comment	16	0	17-Aug-2022 A	05-Sep-2022 A		100%
312	CBW-VC1310	CBW Preparation and submission for Visitor Centre (Rev.2)	24	0	01-Dec-2022 A	22-Dec-2022 A		100%
313	CBW-VC1320	PM review & 3rd round comment	16	0	30-Dec-2022 A	18-Jan-2023 A		100%
314	CBW-VC1330	CBW Preparation and submission for Visitor Centre (Rev.3)	24	0	10-Jan-2023 A	04-Feb-2023 A		100%
315	**R/F (CSF 1097)**		405	26	23-Sep-2022 A	28-Oct-2023	-479	93.58%
316	CBW-VC1420	CBW Preparation and submission for Visitor Centre (Rev.0)	26	0	23-Sep-2022 A	25-Oct-2022 A		100%
317	CBW-VC1430	PM review & 1st round comment	21	0	26-Oct-2022 A	10-Nov-2022 A		100%
318	CBW-VC1440	CBW Preparation and submission for Visitor Centre (Rev.1)	26	26	03-Oct-2023*	28-Oct-2023	-479	0%
319	**MVAC (CSF 451)**		272	0	06-Dec-2021 A	28-Feb-2023 A		100%
320	MVAC-VC1070	Shop Drawing Preparation and submission for Visitor Centre (MVAC)	24	0	06-Dec-2021 A	04-Jan-2022 A		100%
321	MVAC-VC1080	PM review & 1st round comment	12	0	05-Jan-2022 A	18-Jan-2022 A		100%



#	Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Duration % Complete
322	MVAC-VC1090	CBW Preparation and submission for Visitor Centre (Rev.1)	126	0	19-Jan-2022 A	21-Jun-2022 A		100%
323	MVAC-VC1095	PM review & 2nd round comment	76	0	22-Jun-2022 A	28-Feb-2023 A		100%
324	**Lift (CSF-643)**		245	0	04-Mar-2022 A	02-Dec-2022 A		100%
325	LT-VC1000	Shop Drawing Preparation and submission for Visitor Centre (Lift)	27	0	04-Mar-2022 A	04-Apr-2022 A		100%
326	LT-VC1010	1st submission to PM & review	17	0	06-Apr-2022 A	25-Apr-2022 A		100%
327	LT-VC1020	2nd submission to PM & review	20	0	08-Jul-2022 A	28-Jul-2022 A		100%
328	LT-VC1070	3rd submission to PM & review	21	0	20-Oct-2022 A	01-Nov-2022 A		100%
329	LT-VC1080	4th submission to PM & approval	7	0	25-Nov-2022 A	02-Dec-2022 A		100%
330	**PV Panel (CSF-909)**		504	18	13-Jun-2022 A	19-Oct-2023	-91	96.43%
331	ABWF-P3-1300	Shop Drawing Submission - PV Panel	25	0	13-Jun-2022 A	12-Jul-2022 A		100%
332	ABWF-P3-1310	Shop Drawing Submission - PV Panel - 1st round comment by PM & review	11	0	13-Jul-2022 A	25-Jul-2022 A		100%
333	ABWF-P3-1320	Shop Drawing Submission - PV Panel - 2nd submission to PM & review	6	0	26-Sep-2022 A	03-Oct-2022 A		100%
334	ABWF-P3-1690	Shop Drawing Submission - PV Panel - 3rd submission to PM & review	18	0	21-Dec-2022 A	12-Jan-2023 A		100%
335	ABWF-P3-1730	Shop Drawing Submission - PV Panel - 4th submission to PM & review	18	18	03-Oct-2023*	19-Oct-2023	-91	0%
336	**BS Materials Submission & Procurement (Visitor Centre)**		729	95	14-Jan-2022 A	04-Jan-2024	1076	86.96%
337	**PD (CSF-607)**		274	38	17-Mar-2022 A	08-Nov-2023	-45	86.11%
338	PD-VC1000	Material Submission - Submersible Pump	25	0	17-Mar-2022 A	29-Mar-2022 A		100%
339	PD-VC1010	Submersible Pump - 1st round comment by PM & review	25	0	30-Mar-2022 A	20-Apr-2022 A		100%
340	PD-VC1020	Submersible Pump - 2nd submission to PM & approval	9	0	09-Nov-2022 A	18-Nov-2022 A		100%
341	PD-VC1030	Procurement & Delivery of Submersible Pump (16wks)	96	38	19-Nov-2022 A	08-Nov-2023	-45	60.42%
342	**FS (CSF-980)**		473	0	12-Jul-2022 A	20-Sep-2023 A		100%
343	FS-VC1000	Material Submission - Sprinkler Pump & Local Control Panel	28	0	12-Jul-2022 A	12-Aug-2022 A		100%
344	FS-VC1010	Sprinkler Pump & Local Control Panel - 1st round comment by PM & review	16	0	13-Aug-2022 A	31-Aug-2022 A		100%
345	FS-VC1020	Sprinkler Pump & Local Control Panel - 2nd submission to PM	21	0	03-Oct-2022 A	24-Oct-2022 A		100%
346	FS-VC1040	Sprinkler Pump & Local Control Panel - 3rd submission to PM	21	0	31-Aug-2023 A	19-Sep-2023 A		100%
347	FS-VC1050	Procurement & Delivery of Sprinkler Pump & Local Control Panel (24wks)	144	0	01-Jun-2023 A	20-Sep-2023 A		100%
348	**MVAC (CSF-676)**		382	42	02-May-2022 A	13-Nov-2023	-42	89.01%
349	MVAC-VC1100	Material Submission - AC Split Type	21	0	02-May-2022 A	30-May-2022 A		100%
350	MVAC-VC1110	AC Split Type - 1st round comment by PM & review	21	0	31-May-2022 A	15-Jun-2022 A		100%
351	MVAC-VC1120	AC Split Type - 2nd submission to PM & review	14	0	19-Dec-2022 A	05-Jan-2023 A		100%
352	MVAC-VC1130	AC Split Type - 3rd submission to PM & approval	21	21	03-Oct-2023	24-Oct-2023	-42	0%
353	MVAC-VC1140	Procurement & Delivery of - AC Split Type (12wks)	21	21	24-Oct-2023	13-Nov-2023	-42	0%
354	**ELE**		365	32	22-Feb-2022 A	03-Nov-2023	1139	91.23%
355	**Genset (CSF-620)**		365	32	22-Feb-2022 A	03-Nov-2023	1139	91.23%
356	ELE-VC1000	Material Submission - Genset	25	0	22-Feb-2022 A	29-Mar-2022 A		100%
357	ELE-VC1010	Genset - 1st round comment by PM & review	18	0	30-Mar-2022 A	20-Apr-2022 A		100%
358	ELE-VC1020	Genset - 2nd submission to PM	110	0	21-Apr-2022 A	23-Aug-2022 A		100%
359	ELE-VC1025	Genset - 3rd submission to PM and review	10	0	01-Nov-2022 A	11-Nov-2022 A		100%
360	ELE-VC1027	Genset - 4th submission to PM and Approval	30	0	01-Dec-2022 A	06-Jan-2023 A		100%
361	ELE-VC1030	Procurement & Delivery of - Genset (16wks)	96	32	12-Nov-2022 A	03-Nov-2023	-123	66.67%
362	**Switchboard (CSF-879)**		246	18	04-Jun-2022 A	19-Oct-2023	-177	92.68%
363	ELV-VC1040	Material Submission - Switchboard	25	0	04-Jun-2022 A	04-Jul-2022 A		100%
364	ELV-VC1050	Switchboard - 1st round comment by PM & review	13	0	05-Jul-2022 A	19-Jul-2022 A		100%
365	ELV-VC1060	Switchboard - 2nd submission to PM & review	16	0	29-Aug-2022 A	13-Sep-2022 A		100%
366	ELV-VC1065	Switchboard - 3rd submission to PM & approval	11	0	14-Oct-2022 A	26-Oct-2022 A		100%
367	ELV-VC1070	Procurement & Delivery of Switchboard (16wks)	96	18	27-Oct-2022 A	19-Oct-2023	-177	81.25%
368	**ELV**		479	95	19-Sep-2022 A	04-Jan-2024	-143	80.16%
369	**PABX System (CSF-1086)**		479	95	19-Sep-2022 A	04-Jan-2024	-143	80.16%
370	ELE-VC1040	Material Submission - PABX System	23	0	19-Sep-2022 A	18-Oct-2022 A		100%
371	ELE-VC1050	PABX System - 1st round comment by PM & review	21	0	19-Oct-2022 A	01-Nov-2022 A		100%
372	ELE-VC1060	PABX System - 2nd submission to PM and approval	25	25	03-Oct-2023	27-Oct-2023	-143	0%
373	ELE-VC1070	Procurement & Delivery of - PABX System (10wks)	70	70	27-Oct-2023	04-Jan-2024	-143	0%
374	**Lift (CSF-539)**		599	0	14-Jan-2022 A	31-May-2023 A		100%
375	LT-VC1030	Material Submission - Lift and Equipment	25	0	14-Jan-2022 A	15-Feb-2022 A		100%
376	LT-VC1040	Lift and Equipment - 1st round comment by PM & review	14	0	16-Feb-2022 A	03-Mar-2022 A		100%
377	LT-VC1050	Lift and Equipment - 2nd submission to PM & approval	30	0	01-May-2023 A	31-May-2023 A		100%
378	LT-VC1060	Procurement & Delivery of - Lift Car and Equipment	132	0	31-May-2023 A	31-May-2023 A		100%
379	**Sewerage Pumping Station**		718	334	19-Sep-2022 A	27-Aug-2024	837	53.47%
380	**PMI Issuance**		0	0	03-Oct-2023	03-Oct-2023	-219	0%
381	SPS-PMI-1000	Confirmation for the Flow Rate of Pump at SPS from 1000L/s to 1500L/s	0	0		03-Oct-2023*	-219	0%
382	**BS Shop Drawings Submission (SPS)**		404	65	02-Nov-2022 A	04-Dec-2023	1106	83.9%
383	**CSD (CSF 1267)**		306	15	16-Dec-2022 A	17-Oct-2023	1156	95.1%
384	CSD-SPS1000	Shop Drawing Preparation and submission for Sewage Pumping Station (CSD)	30	0	16-Dec-2022 A	21-Jan-2023 A		100%
385	CSD-SPS1010	Sewage Pumping Station - 1st round comment by PM & review	21	1	28-Jan-2023 A	03-Oct-2023	1156	95.24%



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: 27-Nov-2026
Baseline: Aug 2023 Monthly Programme Update

4M Rolling Programme (Sep-Dec 2023)

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

#	Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Duration % Complete
386	CSD-SPS1020	Sewage Pumping Station - 2nd submission to PM & approval	14	14	03-Oct-2023	17-Oct-2023	1156	0%
387	**CBWD**		65	65	03-Oct-2023	04-Dec-2023	1106	0%
388	CBW-SPS1000	Shop Drawing Preparation and submission for Sewage Pumping Station (CBWD)	30	30	03-Oct-2023	01-Nov-2023	1106	0%
389	CBW-SPS1010	Sewage Pumping Station - 1st round comment by PM & review	21	21	01-Nov-2023	21-Nov-2023	1106	0%
390	CBW-SPS1020	Sewage Pumping Station - 2nd submission to PM & approval	14	14	21-Nov-2023	04-Dec-2023	1106	0%
391	**Conduit Layout**		65	65	03-Oct-2023	04-Dec-2023	1106	0%
392	CL-SPS1000	Shop Drawing Preparation and submission for Sewage Pumping Station (Conduit Layout)	30	30	03-Oct-2023	01-Nov-2023	1106	0%
393	CL-SPS1010	Sewage Pumping Station - 1st round comment by PM & review	21	21	01-Nov-2023	21-Nov-2023	1106	0%
394	CL-SPS1020	Sewage Pumping Station - 2nd submission to PM & approval	14	14	21-Nov-2023	04-Dec-2023	1106	0%
395	**MVAC**		65	65	03-Oct-2023	04-Dec-2023	1106	0%
396	MVAC-SPS1010	Shop Drawing Preparation and submission for Sewage Pumping Station (MVAC)	30	30	03-Oct-2023	01-Nov-2023	1106	0%
397	MVAC-SPS1020	Sewage Pumping Station - 1st submission to PM & review	21	21	01-Nov-2023	21-Nov-2023	1106	0%
398	MVAC-SPS1030	Sewage Pumping Station - 2nd submission to PM & approval	14	14	21-Nov-2023	04-Dec-2023	1106	0%
399	**FS**		65	65	03-Oct-2023	04-Dec-2023	1106	0%
400	FS-SPS1010	Shop Drawing Preparation and submission for Sewage Pumping Station (FS)	30	30	03-Oct-2023	01-Nov-2023	1106	0%
401	FS-SPS1020	Sewage Pumping Station - 1st submission to PM & review	21	21	01-Nov-2023	21-Nov-2023	1106	0%
402	FS-SPS1030	Sewage Pumping Station - 2nd submission to PM & approval	14	14	21-Nov-2023	04-Dec-2023	1106	0%
403	**PD**		65	65	03-Oct-2023	04-Dec-2023	1106	0%
404	PD-SPS1000	Shop Drawing Preparation and submission for Sewage Pumping Station (PD)	30	30	03-Oct-2023	01-Nov-2023	1106	0%
405	PD-SPS1010	Sewage Pumping Station - 1st submission to PM & review	21	21	01-Nov-2023	21-Nov-2023	1106	0%
406	PD-SPS1020	Sewage Pumping Station - 2nd submission to PM & approval	14	14	21-Nov-2023	04-Dec-2023	1106	0%
407	**SPS Design**		65	65	03-Oct-2023	04-Dec-2023	1106	0%
408	SD-SPS1000	Shop Drawing Preparation and submission for Sewage Pumping Station (SPS Design)	30	30	03-Oct-2023	01-Nov-2023	1106	0%
409	SD-SPS1010	Sewage Pumping Station - 1st submission to PM & review	21	21	01-Nov-2023	21-Nov-2023	1106	0%
410	SD-SPS1020	Sewage Pumping Station - 2nd submission to PM & approval	14	14	21-Nov-2023	04-Dec-2023	1106	0%
411	**ELE (CSF-1182)**		353	14	02-Nov-2022 A	16-Oct-2023	1157	96.03%
412	ELE-SPS1000	Shop Drawing Preparation and submission for Sewage Pumping Station (Electrical Installation for LV SB)	30	0	02-Nov-2022 A	06-Dec-2022 A		100%
413	ELE-SPS1010	Sewage Pumping Station - 1st submission to PM & review	13	0	07-Dec-2022 A	21-Dec-2022 A		100%
414	ELE-SPS1020	Sewage Pumping Station - 2nd submission to PM & approval	14	14	03-Oct-2023	16-Oct-2023	1157	0%
415	**ELV**		65	65	03-Oct-2023	04-Dec-2023	1106	0%
416	ELV-SPS1000	Shop Drawing Preparation and submission for Sewage Pumping Station (ELV)	30	30	03-Oct-2023	01-Nov-2023	1106	0%
417	ELV-SPS1010	Sewage Pumping Station - 1st submission to PM & review	21	21	01-Nov-2023	21-Nov-2023	1106	0%
418	ELV-SPS1020	Sewage Pumping Station - 2nd submission to PM & approval	14	14	21-Nov-2023	04-Dec-2023	1106	0%
419	**Chemical Dosing System (CSF-1173)**		352	14	03-Nov-2022 A	16-Oct-2023	335	96.02%
420	ELV-SPS1100	Shop Drawing Preparation and submission for Sewage Pumping Station (Chemical Dosing System)	26	0	03-Nov-2022 A	02-Dec-2022 A		100%
421	ELV-SPS1110	Sewage Pumping Station - 1st submission to PM & review	16	0	03-Dec-2022 A	21-Dec-2022 A		100%
422	ELV-SPS1120	Sewage Pumping Station - 2nd submission to PM & approval	14	14	03-Oct-2023*	16-Oct-2023	335	0%
423	**BS Materials Submission & Procurement (SPS)**		718	334	19-Sep-2022 A	27-Aug-2024	837	53.47%
424	**Subletting**		26	26	03-Oct-2023	28-Oct-2023	-21	0%
425	SWP-SPS1560	Subletting Procedure for Material Procurement	26	26	03-Oct-2023	28-Oct-2023	-21	0%
426	**SWP**		718	334	19-Sep-2022 A	27-Aug-2024	837	53.47%
427	**Surge Analysis**		60	60	28-Oct-2023	23-Dec-2023	1085	0%
428	SWP-SPS1400	Preparation and Submission of Surge Analysis Report	60	60	28-Oct-2023*	23-Dec-2023	1085	0%
429	**Submersible Pump (40wks)**		308	308	28-Oct-2023	27-Aug-2024	13	0%
430	SWP-SPS1000	Material Submission - Submersible Pump	25	25	28-Oct-2023	21-Nov-2023	13	0%
431	SWP-SPS1010	Submersible Pump - 1st round comment by PM & review	30	30	21-Nov-2023	19-Dec-2023	13	0%
432	SWP-SPS1020	Submersible Pump - 2nd submission to PM & approval	21	21	19-Dec-2023	11-Jan-2024	13	0%
433	SWP-SPS1030	Procurement & Delivery of Submersible Pump (40wks)	232	232	11-Jan-2024	27-Aug-2024	13	0%
434	**Motorized Gate Valve,Check Valve and Actuator (36wks)**		286	286	28-Oct-2023	07-Aug-2024	23	0%
435	SWP-SPS1040	Material Submission - Motorized Gate Valve,Check Valve and Actuator	25	25	28-Oct-2023*	21-Nov-2023	23	0%
436	SWP-SPS1050	Motorized Gate Valve,Check Valve and Actuator - 1st round comment by PM & review	27	27	21-Nov-2023	15-Dec-2023	23	0%
437	SWP-SPS1060	Motorized Gate Valve,Check Valve and Actuator - 2nd submission to PM & approval	22	22	15-Dec-2023	09-Jan-2024	23	0%
438	SWP-SPS1070	Procurement & Delivery of Motorized Gate Valve,Check Valve and Actuator (36wks)	212	212	09-Jan-2024	07-Aug-2024	23	0%
439	**Lifting Appliance (36wks)**		286	286	28-Oct-2023	07-Aug-2024	3	0%
440	SWP-SPS1160	Material Submission - Lifting Appliance	25	25	28-Oct-2023*	21-Nov-2023	3	0%
441	SWP-SPS1170	Lifting Appliance - 1st round comment by PM & review	27	27	21-Nov-2023	15-Dec-2023	3	0%
442	SWP-SPS1180	Lifting Appliance - 2nd submission to PM & approval	22	22	15-Dec-2023	09-Jan-2024	3	0%
443	SWP-SPS1190	Procurement & Delivery of Lifting Appliance (36wks)	212	212	09-Jan-2024	07-Aug-2024	3	0%
444	**Mechanical raked bar screen (36wks)**		286	286	28-Oct-2023	07-Aug-2024	63	0%
445	SWP-SPS1320	Material Submission - Mechanical raked bar screen	25	25	28-Oct-2023*	21-Nov-2023	63	0%
446	SWP-SPS1330	Mechanical raked bar screen - 1st round comment by PM & review	27	27	21-Nov-2023	15-Dec-2023	63	0%
447	SWP-SPS1340	Mechanical raked bar screen - 2nd submission to PM & approval	22	22	15-Dec-2023	09-Jan-2024	63	0%
448	SWP-SPS1350	Procurement & Delivery of Mechanical raked bar screen (36wks)	212	212	09-Jan-2024	07-Aug-2024	63	0%
449	**LMCP for Deodourisation System (36wks)**		286	286	28-Oct-2023	07-Aug-2024	-5	0%



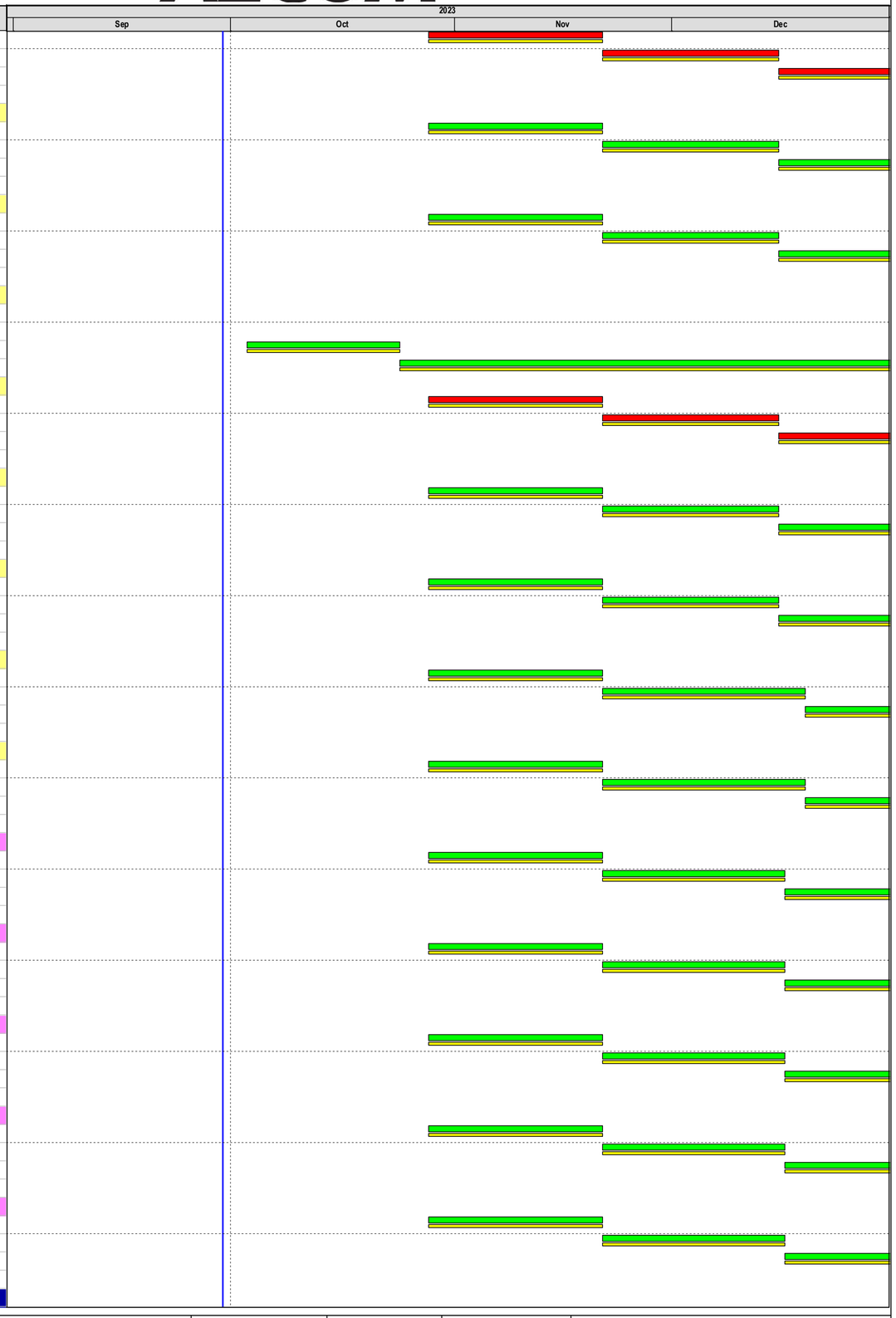
Primary Baseline
Actual Work
Remaining Work
Critical Remaining Work
Baseline Milestone
Critical Milestone
Non-Critical Milestone

Data Date: 30-Sep-2023
Project Start: 03-Feb-2020
Project End: 27-Nov-2026
Baseline: Aug 2023 Monthly Programme Update

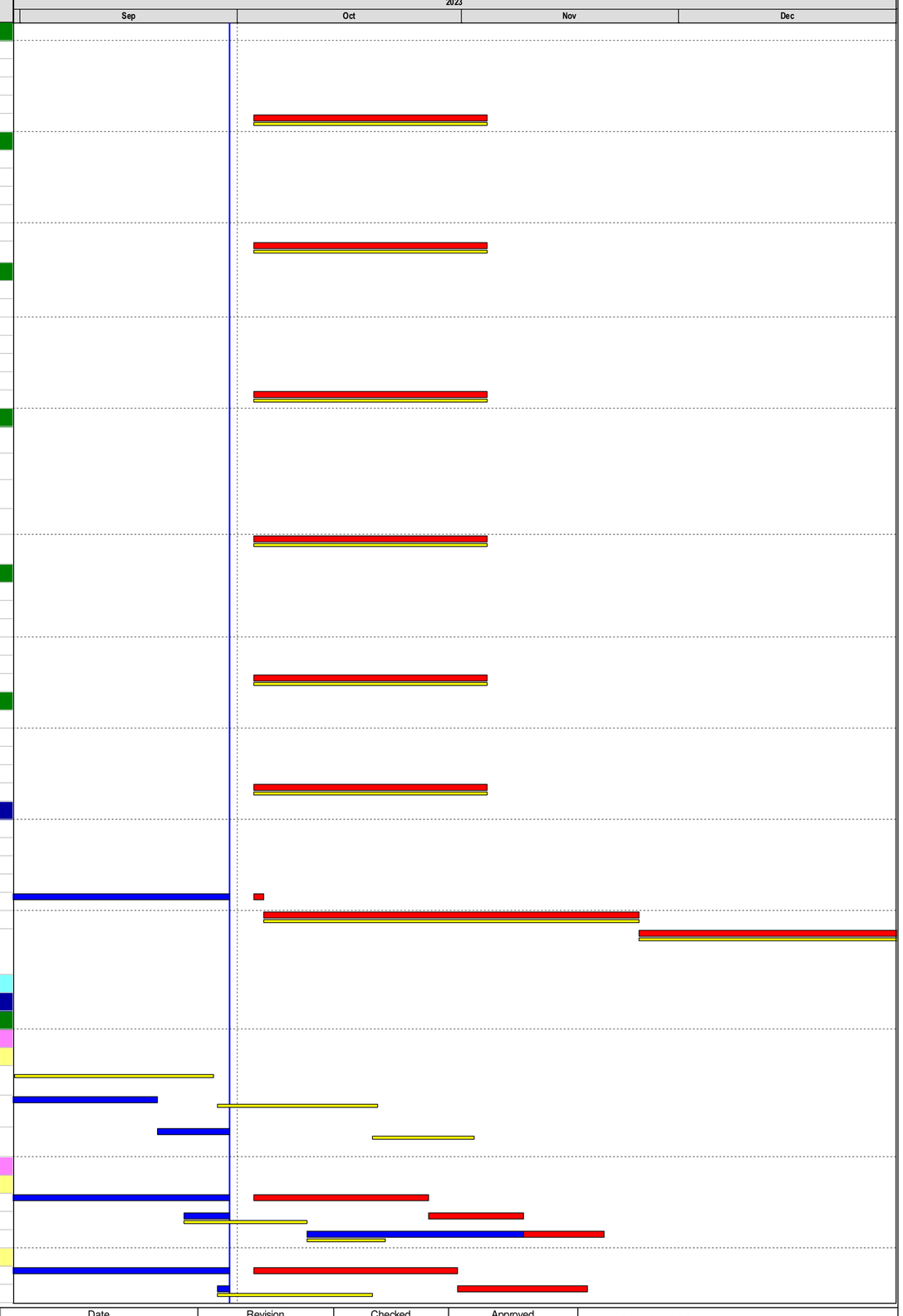
4M Rolling Programme (Sep-Dec 2023)

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

#	Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Duration % Complete
450	SWP-SPS1360	Material Submission - LMCP for Deodourisation System	25	25	28-Oct-2023*	21-Nov-2023	-5	0%
451	SWP-SPS1370	LMCP for Deodourisation System - 1st round comment by PM & review	27	27	21-Nov-2023	15-Dec-2023	-5	0%
452	SWP-SPS1380	LMCP for Deodourisation System - 2nd submission to PM & approval	22	22	15-Dec-2023	09-Jan-2024	-5	0%
453	SWP-SPS1390	Procurement & Delivery of LMCP for Deodourisation System (36wks)	212	212	09-Jan-2024	07-Aug-2024	-5	0%
454	**DI Pipe and fittings (30 wks)**		250	250	28-Oct-2023	04-Jul-2024	59	0%
455	SWP-SPS1080	Material Submission - DI Pipe and fittings	25	25	28-Oct-2023*	21-Nov-2023	59	0%
456	SWP-SPS1090	DI Pipe and fittings - 1st round comment by PM & review	27	27	21-Nov-2023	15-Dec-2023	59	0%
457	SWP-SPS1100	DI Pipe and fittings - 2nd submission to PM & approval	21	21	15-Dec-2023	08-Jan-2024	59	0%
458	SWP-SPS1110	Procurement & Delivery of DI Pipe and fittings (30wks)	177	177	08-Jan-2024	04-Jul-2024	59	0%
459	**Penstock and Stop Log (30wks)**		250	250	28-Oct-2023	04-Jul-2024	127	0%
460	SWP-SPS1120	Material Submission - Penstock and Stop Log	25	25	28-Oct-2023	21-Nov-2023	127	0%
461	SWP-SPS1130	Penstock and Stop Log - 1st round comment by PM & review	27	27	21-Nov-2023	15-Dec-2023	127	0%
462	SWP-SPS1140	Penstock and Stop Log - 2nd submission to PM & approval	21	21	15-Dec-2023	08-Jan-2024	127	0%
463	SWP-SPS1150	Procurement & Delivery of Penstock and Stop Log(30 wks)	177	177	08-Jan-2024	04-Jul-2024	127	0%
464	**Deodourisation System (30wks) (CSF-1094)**		582	198	19-Sep-2022 A	17-Apr-2024	109	65.96%
465	SWP-SPS1200	Material Submission - Deodourisation System	23	0	19-Sep-2022 A	18-Oct-2022 A		100%
466	SWP-SPS1210	Deodourisation System - 1st round comment by PM & review	27	0	19-Oct-2022 A	18-Nov-2022 A		100%
467	SWP-SPS1220	Deodourisation System - 2nd submission to PM & approval	21	21	03-Oct-2023*	24-Oct-2023	109	0%
468	SWP-SPS1230	Procurement & Delivery of Deodourisation System (30wks)	177	177	24-Oct-2023	17-Apr-2024	109	0%
469	**Odour Ductwork (30wks)**		250	250	28-Oct-2023	04-Jul-2024	-21	0%
470	SWP-SPS1240	Material Submission - Odour Ductwork	25	25	28-Oct-2023*	21-Nov-2023	-21	0%
471	SWP-SPS1250	Odour Ductwork - 1st round comment by PM & review	27	27	21-Nov-2023	15-Dec-2023	-21	0%
472	SWP-SPS1260	Odour Ductwork - 2nd submission to PM& approval	21	21	15-Dec-2023	08-Jan-2024	-21	0%
473	SWP-SPS1270	Procurement & Delivery of Odour Ductwork (30wks)	177	177	08-Jan-2024	04-Jul-2024	-21	0%
474	**Sensors and Instruments (30wks)**		250	250	28-Oct-2023	04-Jul-2024	71	0%
475	SWP-SPS1280	Material Submission - Sensors and Instruments	25	25	28-Oct-2023*	21-Nov-2023	71	0%
476	SWP-SPS1290	Sensors and Instruments - 1st round comment by PM & review	27	27	21-Nov-2023	15-Dec-2023	71	0%
477	SWP-SPS1300	Sensors and Instruments - 2nd submission to PM & approval	21	21	15-Dec-2023	08-Jan-2024	71	0%
478	SWP-SPS1310	Procurement & Delivery of Sensors and Instruments (30wks)	177	177	08-Jan-2024	04-Jul-2024	71	0%
479	**Chemical Dosing System (30wks)**		250	250	28-Oct-2023	04-Jul-2024	73	0%
480	SWP-SPS1520	Material Submission - Chemical Dosing System	25	25	28-Oct-2023*	21-Nov-2023	73	0%
481	SWP-SPS1530	Chemical Dosing System - 1st round comment by PM & review	27	27	21-Nov-2023	15-Dec-2023	73	0%
482	SWP-SPS1540	Chemical Dosing System - 2nd submission to PM & approval	21	21	15-Dec-2023	08-Jan-2024	73	0%
483	SWP-SPS1550	Procurement & Delivery of Chemical Dosing System (30wks)	177	177	08-Jan-2024	04-Jul-2024	73	0%
484	**Davit (24wks)**		200	200	28-Oct-2023	16-May-2024	89	0%
485	SWP-SPS1480	Material Submission - Davit	25	25	28-Oct-2023*	21-Nov-2023	89	0%
486	SWP-SPS1490	Davit - 1st round comment by PM & review	30	30	21-Nov-2023	19-Dec-2023	89	0%
487	SWP-SPS1500	Davit - 2nd submission to PM & approval	21	21	19-Dec-2023	11-Jan-2024	89	0%
488	SWP-SPS1510	Procurement & Delivery of Davit (24wks)	124	124	11-Jan-2024	16-May-2024	89	0%
489	**A-frame (20wks)**		193	193	28-Oct-2023	08-May-2024	96	0%
490	SWP-SPS1440	Material Submission - A-frame	25	25	28-Oct-2023*	21-Nov-2023	96	0%
491	SWP-SPS1450	A-frame - 1st round comment by PM & review	30	30	21-Nov-2023	19-Dec-2023	96	0%
492	SWP-SPS1460	A-frame - 2nd submission to PM & approval	21	21	19-Dec-2023	11-Jan-2024	96	0%
493	SWP-SPS1470	Procurement & Delivery of A-frame (20wks)	117	117	11-Jan-2024	08-May-2024	96	0%
494	**PD (16wks)**		170	170	28-Oct-2023	16-Apr-2024	179	0%
495	PD-SPS1110	Material Submission - Sand Filter and Activated Carbon Filter	25	25	28-Oct-2023*	21-Nov-2023	179	0%
496	PD-SPS1120	Sand Filter and Activated Carbon Filter - 1st round comment by PM & review	28	28	21-Nov-2023	16-Dec-2023	179	0%
497	PD-SPS1130	Sand Filter and Activated Carbon Filter - 2nd submission to PM & approval	21	21	16-Dec-2023	09-Jan-2024	179	0%
498	PD-SPS1140	Procurement & Delivery of Sand Filter and Activated Carbon Filter (16wks)	96	96	09-Jan-2024	16-Apr-2024	179	0%
499	**FS (24wks)**		218	218	28-Oct-2023	01-Jun-2024	125	0%
500	FS-SPS1070	Material Submission - Local Control Panel	25	25	28-Oct-2023*	21-Nov-2023	125	0%
501	FS-SPS1080	Local Control Panel - 1st round comment by PM & review	28	28	21-Nov-2023	16-Dec-2023	125	0%
502	FS-SPS1090	Local Control Panel - 2nd submission to PM & approval	21	21	16-Dec-2023	09-Jan-2024	125	0%
503	FS-SPS1100	Procurement & Delivery of Local Control Panel (24wks)	144	144	09-Jan-2024	01-Jun-2024	125	0%
504	**MVAC (12wks)**		146	146	28-Oct-2023	20-Mar-2024	113	0%
505	MVAC-SPS1040	Material Submission - AC Unit spilit type	25	25	28-Oct-2023*	21-Nov-2023	113	0%
506	MVAC-SPS1050	AC Unit spilit type - 1st round comment by PM & review	28	28	21-Nov-2023	16-Dec-2023	113	0%
507	MVAC-SPS1060	AC Unit spilit type - 2nd submission to PM & approval	21	21	16-Dec-2023	09-Jan-2024	113	0%
508	MVAC-SPS1070	Procurement & Delivery of AC Unit spilit type (12wks)	72	72	09-Jan-2024	20-Mar-2024	113	0%
509	**ELE (16wks)**		170	170	28-Oct-2023	16-Apr-2024	89	0%
510	ELE-SPS1060	Material Submission - PV System	25	25	28-Oct-2023*	21-Nov-2023	89	0%
511	ELE-SPS1070	PV System - 1st round comment by PM & review	28	28	21-Nov-2023	16-Dec-2023	89	0%
512	ELE-SPS1080	PV System - 2nd submission to PM & approval	21	21	16-Dec-2023	09-Jan-2024	89	0%
513	ELE-SPS1090	Procurement & Delivery of PV System (16wks)	96	96	09-Jan-2024	16-Apr-2024	89	0%
514	**ELV (16wks)**		170	170	28-Oct-2023	16-Apr-2024	173	0%
515	ELV-SPS1060	Material Submission - SCADA	25	25	28-Oct-2023*	21-Nov-2023	173	0%
516	ELV-SPS1070	SCADA - 1st round comment by PM & review	28	28	21-Nov-2023	16-Dec-2023	173	0%
517	ELV-SPS1080	SCADA - 2nd submission to PM & approval	21	21	16-Dec-2023	09-Jan-2024	173	0%
518	ELV-SPS1090	Procurement & Delivery of SCADA (16wks)	96	96	09-Jan-2024	16-Apr-2024	173	0%
519	**Footbridge FK2 Road lighting**		709	34	03-Dec-2021 A	04-Nov-2023	-277	95.24%



#	Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Duration % Complete
520	**Electrical schematic (CSF-445)**		709	34	03-Dec-2021 A	04-Nov-2023	-277	95.24%
521	RD-ES1000	Preparation and submission of Footbridge Electrical Schematic	30	0	03-Dec-2021 A	04-Jan-2022 A		100%
522	RD-ES1010	Footbridge Electrical Schematic - 1st submission to PM & review	15	0	05-Jan-2022 A	19-Jan-2022 A		100%
523	RD-ES1020	Footbridge Electrical Schematic - 2nd submission to PM & approval	36	0	26-Jul-2022 A	31-Aug-2022 A		100%
524	RD-ES1030	Footbridge Electrical Schematic - 1st submission to HyD	24	0	05-Oct-2022 A	28-Oct-2022 A		100%
525	RD-ES1040	Footbridge Electrical Schematic - Re-submission to HyD and approval	34	34	03-Oct-2023	04-Nov-2023	-277	0%
526	**EL System - Electrical and lighting layout (CSF-494)**		699	34	13-Dec-2021 A	04-Nov-2023	-277	95.17%
527	RD-EL1000	Preparation of Electrical and lighting layout (PS section 30)	30	0	13-Dec-2021 A	13-Jan-2022 A		100%
528	RD-EL1010	Electrical and lighting layout - 1st submission to PM & review	11	0	14-Jan-2022 A	25-Jan-2022 A		100%
529	RD-EL1020	Electrical and lighting layout - 2nd submission to PM & review	16	0	02-Aug-2022 A	17-Aug-2022 A		100%
530	RD-EL1025	Electrical and lighting layout - 3rd submission to PM & approval	43	0	18-Aug-2022 A	03-Oct-2022 A		100%
531	RD-EL1030	Electrical and lighting layout - 1st submission to HyD	34	0	05-Oct-2022 A	28-Oct-2022 A		100%
532	RD-EL1040	Electrical and lighting layout - Re-submission to HyD and approval	34	34	03-Oct-2023	04-Nov-2023	-277	0%
533	**Materials Submission (CSF-693)**		580	34	11-Apr-2022 A	04-Nov-2023	-277	94.18%
534	RD-MS1000	Preparation and submission of material of footbridge (PS section 30)	29	0	11-Apr-2022 A	11-May-2022 A		100%
535	RD-MS1010	Material Submission - 1st round comment by PM	14	0	12-May-2022 A	25-May-2022 A		100%
536	RD-MS1020	Material Submission - 2nd submission to PM	19	0	15-Jul-2022 A	03-Aug-2022 A		100%
537	RD-MS1025	Material Submission - 3rd submission to PM and comment	45	0	04-Aug-2022 A	13-Sep-2022 A		100%
538	RD-MS1027	Material Submission - 4th submission to PM and Approval	17	0	14-Sep-2022 A	03-Oct-2022 A		100%
539	RD-MS1030	Material Submission - 1st submission to HyD	24	0	05-Oct-2022 A	28-Oct-2022 A		100%
540	RD-MS1040	Material Submission - Re-submission to HyD and approval	34	34	03-Oct-2023	04-Nov-2023	-277	0%
541	**Drawing Submission of Road Lighting Layout (CSF-703)**		586	34	04-Apr-2022 A	04-Nov-2023	-277	94.24%
542	RD-RL1000	Preparation & submission of Road Lighting Layout (PS section 30)	27	0	04-Apr-2022 A	03-May-2022 A		100%
543	RD-RL1010	Road Lighting Layout - 1st round comment by PM	21	0	04-May-2022 A	25-May-2022 A		100%
544	RD-RL1020	Road Lighting Layout - 2nd submission to PM & approval	20	0	10-Sep-2022 A	03-Oct-2022 A		100%
545	RD-RL1030	Road Lighting Layout - 1st submission to HyD	24	0	05-Oct-2022 A	29-Oct-2022 A		100%
546	RD-RL1040	Road Lighting Layout - Re-submission to HyD and approval	34	34	03-Oct-2023	04-Nov-2023	-277	0%
547	**Lux Simulation Report (CSF-717)**		585	34	06-Apr-2022 A	04-Nov-2023	-277	94.23%
548	RD-LUX1000	Preparation and submission of Lux Simulation Report (PS section 30)	29	0	06-Apr-2022 A	06-May-2022 A		100%
549	RD-LUX1010	Lux Simulation Report - 1st submission to PM & review	18	0	07-May-2022 A	25-May-2022 A		100%
550	RD-LUX1020	Lux Simulation Report - 2nd submission to PM & approval	11	0	23-Aug-2022 A	08-Sep-2022 A		100%
551	RD-LUX1025	Lux Simulation Report - 3rd submission to PM & approval	21	0	09-Sep-2022 A	03-Oct-2022 A		100%
552	RD-LUX1030	Lux Simulation Report - 1st submission to HyD	24	0	05-Oct-2022 A	28-Oct-2022 A		100%
553	RD-LUX1040	Lux Simulation Report - Re-submission to HyD and approval	34	34	03-Oct-2023	04-Nov-2023	-277	0%
554	**Internal Arrangement of PB-01 (CSF-726)**		578	34	13-Apr-2022 A	04-Nov-2023	-277	94.16%
555	RD-PB1000	Preparation of Internal Arrangement drawings of PB-01 (PS section 30)	29	0	13-Apr-2022 A	13-May-2022 A		100%
556	RD-PB1010	Internal Arrangement drawings of PB-01 - 1st submission to PM & review	21	0	14-May-2022 A	06-Jun-2022 A		100%
557	RD-PB1020	Internal Arrangement drawings of PB-01 - 2nd submission to PM & approval	16	0	15-Sep-2022 A	03-Oct-2022 A		100%
558	RD-PB1030	Internal Arrangement drawings of PB-01 - 1st submission to HyD	24	0	05-Oct-2022 A	28-Oct-2022 A		100%
559	RD-PB1040	Internal Arrangement drawings of PB-01 - Re-submission to HyD and approval	34	34	03-Oct-2023	04-Nov-2023	-277	0%
560	**Irrigation System (CSF-634)**		699	110	01-Mar-2022 A	18-Jan-2024	-239	84.23%
561	IS-1000	Preparation & submission of Irrigation System drawings (PS section 3)	29	0	01-Mar-2022 A	30-Mar-2022 A		100%
562	IS-1010	Irrigation System drawings- 1st submission to PM & review	77	0	31-Mar-2022 A	21-Jun-2022 A		100%
563	IS-1020	Irrigation System drawings - 2nd submission to PM & review	14	0	22-Jun-2022 A	06-Jul-2022 A		100%
564	IS-1025	Irrigation System drawings - 3rd submission to PM & approval	56	0	07-Jul-2022 A	29-Aug-2022 A		100%
565	IS-1027	Irrigation System drawings - 4th submission to PM & approval	56	2	01-Dec-2022 A	04-Oct-2023	-239	96%
566	IS-1030	Irrigation System drawings - 1st submission to AFCD, DSD, ASD, & EMSD, WSD & LCSD	54	54	04-Oct-2023	25-Nov-2023	-239	0%
567	IS-1040	Irrigation System drawings - Re-submission to AFCD, DSD, ASD, & EMSD, WSD & LCSD and approval	54	54	25-Nov-2023	18-Jan-2024	-239	0%
568	**ABWF Submission and Mock Up**		589	224	03-Oct-2022 A	13-May-2024	927	61.97%
569	**Visitor Centre**		514	149	03-Oct-2022 A	29-Feb-2024	1002	70.96%
570	**ABWF Shop Drawing / Method Statement / ITP Submission**		257	72	01-Apr-2023 A	11-Dec-2023	1099	71.98%
571	**Package 1**		64	0	01-Jun-2023 A	30-Sep-2023 A		100%
572	**Tile Setting Out Drawing / Block Wall Frame Shop Drawings**		64	0	01-Jun-2023 A	30-Sep-2023 A		100%
573	ABWF-P1-1190	Shop Drawing / Method Statement / ITP Submission	30	0	01-Jun-2023 A	30-Aug-2023 A		100%
574	ABWF-P1-1195	Shop Drawing / Method Statement / ITP Submission - 1st round comment by PM & review	21	0	30-Aug-2023 A	20-Sep-2023 A		100%
575	ABWF-P1-1200	2nd submission to PM & approval	14	0	20-Sep-2023 A	30-Sep-2023 A		100%
576	**Package 3**		257	72	01-Apr-2023 A	11-Dec-2023	997	71.98%
577	**Suspended Ceiling**		147	50	01-Jun-2023 A	20-Nov-2023	-254	65.84%
578	ABWF-P3-1055	Shop Drawing / Method Statement / ITP Submission - Suspended Ceiling	26	25	01-Jun-2023 A	27-Oct-2023	-254	5%
579	ABWF-P3-1060	Suspended Ceiling - 1st round comment by PM & review	15	14	23-Sep-2023 A	09-Nov-2023	-254	5%
580	ABWF-P3-1080	Suspended Ceiling - 2nd submission to PM & approval	12	11	10-Oct-2023 A	20-Nov-2023	-254	5%
581	**Raised Flooring**		166	68	01-Jun-2023 A	07-Dec-2023	-135	58.89%
582	ABWF-P3-1475	Shop Drawing / Method Statement / ITP Submission - Raised Flooring	30	29	01-Jun-2023 A	31-Oct-2023	-135	5%
583	ABWF-P3-1480	Raised Flooring - 1st round comment by PM & review	21	20	28-Sep-2023 A	18-Nov-2023	-135	5%



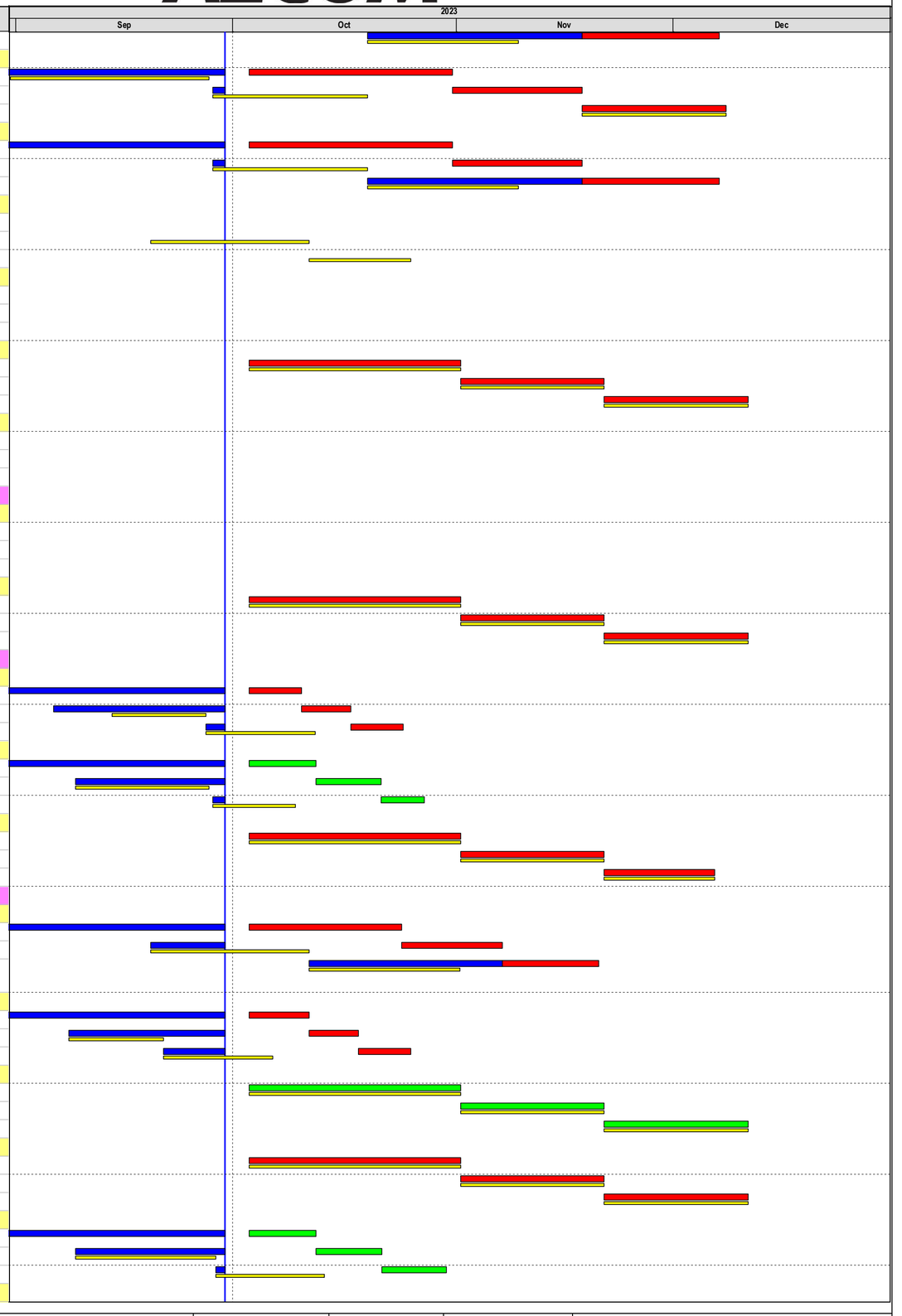
Primary Baseline
Actual Work
Remaining Work
Critical Remaining Work
Baseline Milestone
Critical Milestone
Non-Critical Milestone

Data Date: 30-Sep-2023
Project Start: 03-Feb-2020
Project End: 27-Nov-2026
Baseline: Aug 2023 Monthly Programme Update

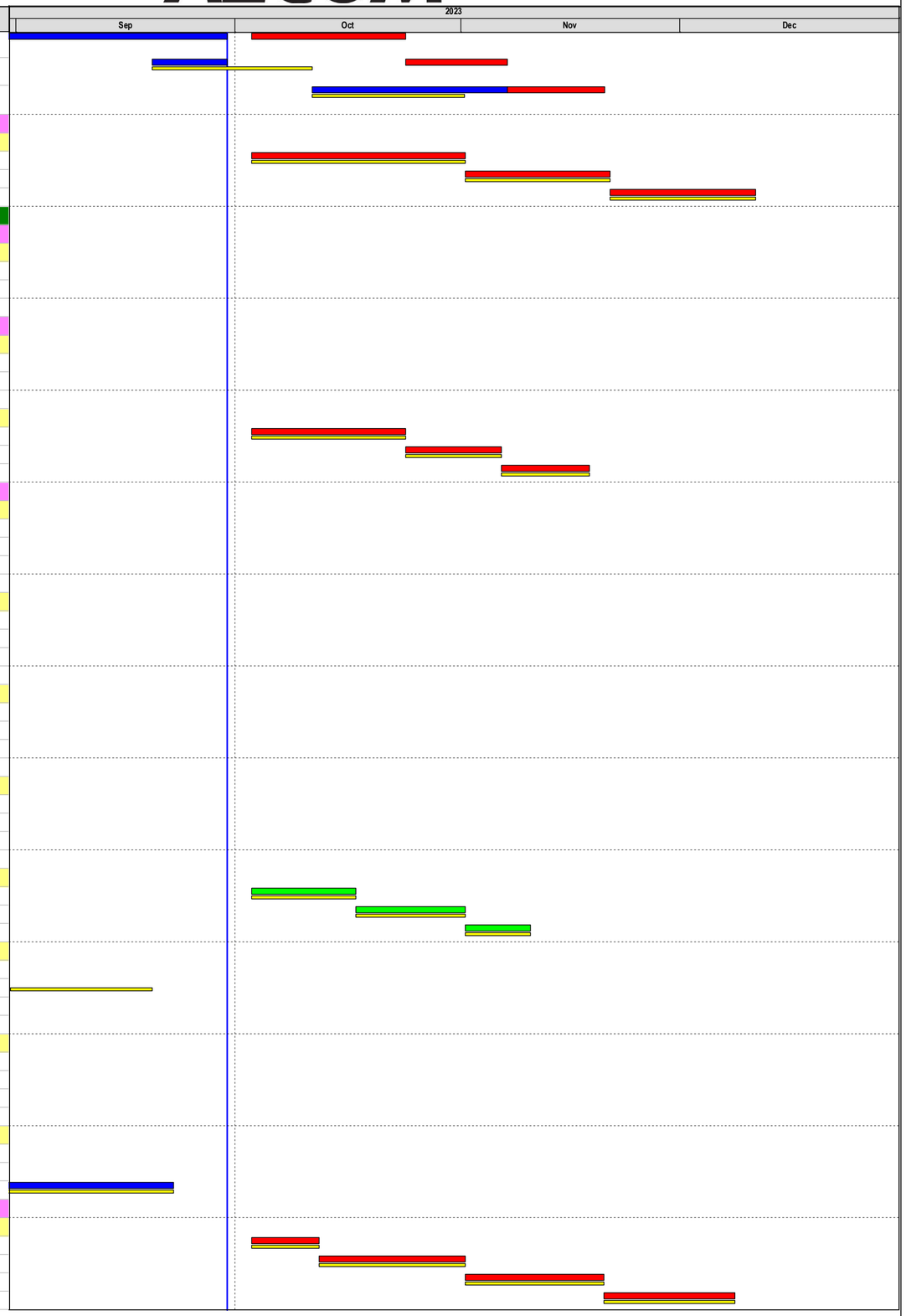
4M Rolling Programme (Sep-Dec 2023)

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

#	Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Duration % Complete
584	ABWF-P3-1500	Raised Flooring - 2nd submission to PM & approval	21	20	19-Oct-2023 A	07-Dec-2023	-135	5%
585	**Plastic Laminate Wall Panels**		102	69	01-Jun-2023 A	08-Dec-2023	-130	31.88%
586	ABWF-P3-1505	Shop Drawing / Method Statement / ITP Submission - Plastic Laminate Wall Panel	30	29	01-Jun-2023 A	31-Oct-2023	-130	5%
587	ABWF-P3-1510	Plastic Laminate Wall Panel - 1st round comment by PM & review	21	20	28-Sep-2023 A	18-Nov-2023	-130	5%
588	ABWF-P3-1530	Plastic Laminate Wall Panel - 2nd submission to PM & approval	21	21	18-Nov-2023	08-Dec-2023	-130	0%
589	**Thermal Insulation Board**		104	68	01-Aug-2023 A	07-Dec-2023	-264	34.15%
590	ABWF-P3-1535	Shop Drawing / Method Statement / ITP Submission - Thermal insulation Board	30	29	01-Aug-2023 A	31-Oct-2023	-264	5%
591	ABWF-P3-1540	Thermal insulation Board - 1st round comment by PM & review	21	20	28-Sep-2023 A	18-Nov-2023	-264	5%
592	ABWF-P3-1560	Thermal insulation Board - 2nd submission to PM & approval	21	20	19-Oct-2023 A	07-Dec-2023	-264	5%
593	**Glass Wall**		150	0	01-Jun-2023 A	25-Jul-2023 A		100%
594	ABWF-P3-1565	Shop Drawing / Method Statement / ITP Submission - Glass Wall	21	0	01-Jun-2023 A	20-Jun-2023 A		100%
595	ABWF-P3-1570	Glass Wall - 1st round comment by PM & review	21	0	20-Jun-2023 A	12-Jul-2023 A		100%
596	ABWF-P3-1590	Glass Wall - 2nd submission to PM & approval	14	0	12-Jul-2023 A	25-Jul-2023 A		100%
597	**Movable Partition**		71	0	01-Apr-2023 A	13-Jun-2023 A		100%
598	ABWF-P3-1595	Shop Drawing / Method Statement / ITP Submission - Movable Partition	30	0	01-Apr-2023 A	04-May-2023 A		100%
599	ABWF-P3-1600	Movable Partition - 1st round comment by PM & review	21	0	04-May-2023 A	23-May-2023 A		100%
600	ABWF-P3-1620	Movable Partition - 2nd submission to PM & approval	21	0	23-May-2023 A	13-Jun-2023 A		100%
601	**Timber Deck**		72	72	03-Oct-2023	11-Dec-2023	-19	0%
602	ABWF-P3-1655	Shop Drawing / Method Statement / ITP Submission - Timber Deck	30	30	03-Oct-2023*	01-Nov-2023	-19	0%
603	ABWF-P3-1660	Timber Deck - 1st round comment by PM & review	21	21	01-Nov-2023	21-Nov-2023	-19	0%
604	ABWF-P3-1680	Timber Deck - 2nd submission to PM & approval	21	21	21-Nov-2023	11-Dec-2023	-19	0%
605	**Roof Hatch**		64	0	01-Jun-2023 A	01-Aug-2023 A		100%
606	ABWF-P3-1698	Shop Drawing / Method Statement / ITP Submission - Roof Hatch	30	0	01-Jun-2023 A	29-Jun-2023 A		100%
607	ABWF-P3-1700	Roof Hatch - 1st round comment by PM & review	15	0	29-Jun-2023 A	13-Jul-2023 A		100%
608	ABWF-P3-1720	Roof Hatch - 2nd submission to PM & approval	21	0	13-Jul-2023 A	01-Aug-2023 A		100%
609	**Package 4**		200	72	01-Jun-2023 A	11-Dec-2023	1099	63.91%
610	**Timber Door**		57	0	01-Jun-2023 A	26-Jul-2023 A		100%
611	ABWF-P1-1090	Shop Drawing / Method Statement / ITP Submission - Timber Door and Ironmongeries - 1st round comment by PM & review	14	0	01-Jun-2023 A	14-Jun-2023 A		100%
612	ABWF-P4-1085	Shop Drawing / Method Statement / ITP Submission- Timber Door and Ironmongeries	30	0	14-Jun-2023 A	13-Jul-2023 A		100%
613	ABWF-P4-1110	Shop Drawing / Method Statement / ITP Submission - Timber Door and Ironmongeries - 2nd submission to PM & approval	14	0	13-Jul-2023 A	26-Jul-2023 A		100%
614	**Fitting & Fixtures**		72	72	03-Oct-2023	11-Dec-2023	-172	0%
615	ABWF-P4-1625	Shop Drawing / Method Statement / ITP Submission - Fitting & Fixture	30	30	03-Oct-2023*	01-Nov-2023	-172	0%
616	ABWF-P4-1630	Fitting & Fixture - 1st round comment by PM & review	21	21	01-Nov-2023	21-Nov-2023	-172	0%
617	ABWF-P4-1650	Fitting & Fixture - 2nd submission to PM & approval	21	21	21-Nov-2023	11-Dec-2023	-172	0%
618	**Package 5**		196	68	01-Jun-2023 A	06-Dec-2023	183	65.22%
619	**Window**		137	22	01-Jun-2023 A	24-Oct-2023	-206	84.35%
620	ABWF-P5-1145	Shop Drawing / Method Statement / ITP Submission - Window	15	8	01-Jun-2023 A	10-Oct-2023	-206	50%
621	ABWF-P5-1150	Window - 1st round comment by PM & review	14	7	06-Sep-2023 A	17-Oct-2023	-206	50%
622	ABWF-P5-1170	Window - 2nd submission to PM & approval	14	7	27-Sep-2023 A	24-Oct-2023	-206	50%
623	**Louvre**		134	25	01-Jun-2023 A	27-Oct-2023	226	81.4%
624	ABWF-P5-1025	Shop Drawing / Method Statement / ITP Submission - Lourve	20	10	01-Jun-2023 A	12-Oct-2023	226	50%
625	ABWF-P5-1030	Shop Drawing / Method Statement / ITP Submission - Lourve - 1st round comment by PM & review	20	10	09-Sep-2023 A	21-Oct-2023	226	50%
626	ABWF-P5-1050	Shop Drawing Submission - Lourve - 2nd submission to PM & approval	10	5	28-Sep-2023 A	27-Oct-2023	226	50%
627	**Aluminium Grilles**		68	68	03-Oct-2023	06-Dec-2023	-155	0%
628	ABWF-P5-1115	Shop Drawing / Method Statement / ITP Submission- Aluminium Grilles	30	30	03-Oct-2023*	01-Nov-2023	-155	0%
629	ABWF-P5-1120	Shop Drawing / Method Statement / ITP Submission - Aluminium Grilles - 1st round comment by PM & review	21	21	01-Nov-2023	21-Nov-2023	-155	0%
630	ABWF-P5-1140	Shop Drawing / Method Statement / ITP Submission - Aluminium Grilles 2nd submission to PM & approval	17	17	21-Nov-2023	06-Dec-2023	-155	0%
631	**Package 6**		199	72	01-Jun-2023 A	11-Dec-2023	1098	63.73%
632	**Fence / Handrail / Parapet**		156	50	01-Jun-2023 A	20-Nov-2023	-176	67.77%
633	ABWF-P6-1180	Shop Drawing / Method Statement / ITP Submission - Fence / Handrail / Parapet	30	21	01-Jun-2023 A	24-Oct-2023	-176	30%
634	ABWF-P6-1190	Fence / Handrail / Parapet - 1st round comment by PM & review	21	15	19-Sep-2023 A	07-Nov-2023	-176	30%
635	ABWF-P6-1200	Fence / Handrail / Parapet - 2nd submission to PM & approval	21	15	11-Oct-2023 A	20-Nov-2023	-176	30%
636	**Skylight**		131	23	01-Jun-2023 A	25-Oct-2023	-230	82.44%
637	ABWF-P3-1000	Shop Drawing / Method Statement / ITP Submission - Skylight	18	9	01-Jun-2023 A	11-Oct-2023	-230	50%
638	ABWF-P3-1010	Shop Drawing / Method Statement / ITP Submission - Skylight - 1st round comment by PM & review	14	7	08-Sep-2023 A	18-Oct-2023	-230	50%
639	ABWF-P3-1020	Shop Drawing / Method Statement / ITP Submission - Skylight - 2nd submission to PM & approval	14	7	21-Sep-2023 A	25-Oct-2023	-230	50%
640	**Roller Shutters**		72	72	03-Oct-2023	11-Dec-2023	246	0%
641	ABWF-P3-1210	Shop Drawing / Method Statement / ITP Submission - Shutter	30	30	03-Oct-2023*	01-Nov-2023	246	0%
642	ABWF-P3-1220	Shop Drawing / Method Statement / ITP Submission - Shutter - 1st round comment by PM & review	21	21	01-Nov-2023	21-Nov-2023	246	0%
643	ABWF-P3-1230	Shop Drawing / Method Statement / ITP Submission - Shutter - 2nd submission to PM & approval	21	21	21-Nov-2023	11-Dec-2023	246	0%
644	**Fall Arrest system**		72	72	03-Oct-2023	11-Dec-2023	-46	0%
645	ABWF-P3-1240	Shop Drawing / Method Statement / ITP Submission- Fall Arrest System	30	30	03-Oct-2023*	01-Nov-2023	-46	0%
646	ABWF-P3-1250	Shop Drawing / Method Statement / ITP Submission - 1st round comment by PM & review	21	21	01-Nov-2023	21-Nov-2023	-46	0%
647	ABWF-P3-1260	Shop Drawing / Method Statement / ITP Submission- Fall Arrest System - 2nd submission to PM & approval	21	21	21-Nov-2023	11-Dec-2023	-46	0%
648	**Steel Doors**		138	28	01-Jun-2023 A	30-Oct-2023	1142	80.13%
649	ABWF-P3-1325	Shop Drawing / Method Statement / ITP Submission - Steel Doors and Ironmongeries	20	10	01-Jun-2023 A	12-Oct-2023	1142	50%
650	ABWF-P3-1330	Shop Drawing / Method Statement / ITP Submission - Steel Doors and Ironmongeries - 1st round comment by PM & review	21	11	09-Sep-2023 A	21-Oct-2023	1142	50%
651	ABWF-P3-1350	Shop Drawing / Method Statement / ITP Submission - Steel Doors and Ironmongeries - 2nd submission to PM & approval	14	7	28-Sep-2023 A	30-Oct-2023	1142	50%
652	**Sundry Metal Works (Covers / Cat Ladder / Steel Staircase)**		156	50	01-Jun-2023 A	20-Nov-2023	-97	67.77%



#	Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Duration % Complete
653	ABWF-P4-1000	Shop Drawing / Method Statement / ITP Submission - Sundry Metal Works	30	21	01-Jun-2023 A	24-Oct-2023	-97	30%
654	ABWF-P4-1010	Shop Drawing / Method Statement / ITP Submission- Sundry Metal Works - 1st round comment by PM & review	21	15	19-Sep-2023 A	07-Nov-2023	-97	30%
655	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	-97	30%
656	**Pacakge 7**		72	72	03-Oct-2023	11-Dec-2023	-168	0%
657	**Toilet Cubicle & Shower Cubicle**		72	72	03-Oct-2023	11-Dec-2023	-168	0%
658	ABWF-P3-1270	Shop Drawing / Method Statement / ITP Submission - Toilet Cubicle	30	30	03-Oct-2023*	01-Nov-2023	-168	0%
659	ABWF-P3-1280	Shop Drawing / Method Statement / ITP Submission - Toilet Cubicle - 1st round comment by PM & review	21	21	01-Nov-2023	21-Nov-2023	-168	0%
660	ABWF-P3-1290	Shop Drawing / Method Statement / ITP Submission - Toilet Cubicle - 2nd submission to PM & approval	21	21	21-Nov-2023	11-Dec-2023	-168	0%
661	**ABWF Material Submission**		460	95	03-Oct-2022 A	06-Jan-2024	958	79.33%
662	**Package 1**		48	0	02-May-2023 A	16-Jun-2023 A		100%
663	**Concrete Block**		48	0	02-May-2023 A	16-Jun-2023 A		100%
664	ABWF-VC3110	Material & Sample Submission - Gypsum Block	14	0	02-May-2023 A	15-May-2023 A		100%
665	ABWF-VC3120	Material & Sample Submission - Gypsum Block - 1st round comment by PM & review	21	0	15-May-2023 A	03-Jun-2023 A		100%
666	ABWF-VC3130	Material & Sample Submission - Gypsum Block - 2nd submission to PM & approval	14	0	03-Jun-2023 A	16-Jun-2023 A		100%
667	**Package 2**		268	49	01-Mar-2023 A	18-Nov-2023	-78	81.7%
668	**Internal Wall Painting**		48	0	01-Mar-2023 A	19-Apr-2023 A		100%
669	ABWF-VC3000	Material & Sample Submission - Internal Wall Painting	21	0	01-Mar-2023 A	20-Mar-2023 A		100%
670	ABWF-VC3010	Material & Sample Submission - Internal Wall Painting - 1st round comment by PM & review	14	0	20-Mar-2023 A	01-Apr-2023 A		100%
671	ABWF-VC3020	Material & Sample Submission - Internal Wall Painting - 2nd submission to PM & approval	14	0	01-Apr-2023 A	19-Apr-2023 A		100%
672	**External Wall Painting**		49	49	03-Oct-2023	18-Nov-2023	-167	0%
673	ABWF-VC3180	Material & Sample Submission - External Wall Painting	21	21	03-Oct-2023*	24-Oct-2023	-167	0%
674	ABWF-VC3190	Material & Sample Submission - External Wall Painting - 1st round comment by PM & review	14	14	24-Oct-2023	06-Nov-2023	-167	0%
675	ABWF-VC3200	Material & Sample Submission - External Wall Painting - 2nd submission to PM & approval	14	14	06-Nov-2023	18-Nov-2023	-167	0%
676	**Package 3**		410	40	03-Oct-2022 A	10-Nov-2023	1029	90.24%
677	**External suspended Baffle Ceiling (CSF-1103)**		212	0	03-Oct-2022 A	02-May-2023 A		100%
678	ABWF-VC3250	Material & Sample Submission - External Suspended Baffle Ceiling	20	0	03-Oct-2022 A	26-Oct-2022 A		100%
679	ABWF-VC3260	Material & Sample Submission 1st round comment by PM & review	18	0	27-Oct-2022 A	16-Nov-2022 A		100%
680	ABWF-VC3270	Material & Sample Submission, 2nd round comment by PM & approval	20	0	01-Feb-2023 A	18-Feb-2023 A		100%
681	ABWF-VC3280	Material Procurement of External Suspended Baffle Ceiling	72	0	18-Feb-2023 A	02-May-2023 A		100%
682	**Movable Folding Partition (CSF-1104)**		163	0	03-Oct-2022 A	11-Mar-2023 A		100%
683	ABWF-VC3650	Material & Sample Submission - Movable Folding Partition	26	0	03-Oct-2022 A	02-Nov-2022 A		100%
684	ABWF-VC3660	Material & Sample Submission 1st round comment by PM & review	21	0	03-Nov-2022 A	18-Nov-2022 A		100%
685	ABWF-VC3670	Material & Sample Submission, 2nd round comment by PM & approval	21	0	01-Feb-2023 A	20-Feb-2023 A		100%
686	ABWF-VC3680	Material Procurement of Movable Folding Partition	21	0	20-Feb-2023 A	11-Mar-2023 A		100%
687	**Internal Acoustic Ceiling (CSF-1105)**		151	0	03-Oct-2022 A	28-Feb-2023 A		100%
688	ABWF-VC3290	Material & Sample Submission - Acoustic Ceiling	26	0	03-Oct-2022 A	02-Nov-2022 A		100%
689	ABWF-VC3300	Material & Sample Submission 1st round comment by PM & review	17	0	03-Nov-2022 A	22-Nov-2022 A		100%
690	ABWF-VC3310	Material & Sample Submission, 2nd round comment by PM & approval	10	0	01-Feb-2023 A	09-Feb-2023 A		100%
691	ABWF-VC3320	Material Procurement of Acoustic Ceiling	21	0	09-Feb-2023 A	28-Feb-2023 A		100%
692	**Raised Floor (CSF-1118)**		107	0	05-Dec-2022 A	21-Mar-2023 A		100%
693	ABWF-VC3210	Material & Sample Submission - Raised Floor	25	0	05-Dec-2022 A	04-Jan-2023 A		100%
694	ABWF-VC3220	Material & Sample Submission 1st round comment by PM & review	21	0	01-Feb-2023 A	20-Feb-2023 A		100%
695	ABWF-VC3230	Material & Sample Submission, 2nd round comment by PM & approval	10	0	20-Feb-2023 A	01-Mar-2023 A		100%
696	ABWF-VC3240	Material Procurement of Raised Floor	21	0	01-Mar-2023 A	21-Mar-2023 A		100%
697	**Glass Wall**		40	40	03-Oct-2023	10-Nov-2023	1029	0%
698	ABWF-VC3330	Material & Sample Submission - Glass Wall	15	15	03-Oct-2023*	17-Oct-2023	1029	0%
699	ABWF-VC3340	Material & Sample Submission 1st round comment by PM & review	15	15	17-Oct-2023	01-Nov-2023	1029	0%
700	ABWF-VC3350	Material & Sample Submission, 2nd round comment by PM & approval	10	10	01-Nov-2023	10-Nov-2023	1029	0%
701	**Timber Deck**		116	0	01-Jun-2023 A	31-Jul-2023 A		100%
702	ABWF-VC3370	Material & Sample Submission - Timber Deck	10	0	01-Jun-2023 A	09-Jun-2023 A		100%
703	ABWF-VC3380	Material & Sample Submission - 1st round comment by PM & review	21	0	09-Jun-2023 A	30-Jun-2023 A		100%
704	ABWF-VC3390	Material & Sample Submission -, 2nd round comment by PM & approval	10	0	30-Jun-2023 A	11-Jul-2023 A		100%
705	ABWF-VC3400	Material Procurement of Timber Deck	21	0	11-Jul-2023 A	31-Jul-2023 A		100%
706	**Timber Flooring**		58	0	23-Mar-2023 A	22-May-2023 A		100%
707	ABWF-VC3610	Material & Sample Submission - Timber Flooring	10	0	23-Mar-2023 A	31-Mar-2023 A		100%
708	ABWF-VC3620	Material & Sample Submission - 1st round comment by PM & review	21	0	31-Mar-2023 A	24-Apr-2023 A		100%
709	ABWF-VC3630	Material & Sample Submission -, 2nd round comment by PM & approval	10	0	21-Apr-2023 A	02-May-2023 A		100%
710	ABWF-VC3640	Material Procurement of Timber Deck	21	0	02-May-2023 A	22-May-2023 A		100%
711	**Roof Hatch**		120	0	01-Jun-2023 A	22-Sep-2023 A		100%
712	ABWF-VC3690	Material & Sample Submission - Roof Hatch	10	0	01-Jun-2023 A	09-Jun-2023 A		100%
713	ABWF-VC3700	Material & Sample Submission - 1st round comment by PM & review	21	0	09-Jun-2023 A	29-Jun-2023 A		100%
714	ABWF-VC3720	Material Procurement and Delivery of Roof Hatch	90	0	29-Jun-2023 A	22-Sep-2023 A		100%
715	**Package 4**		85	85	03-Oct-2023	22-Dec-2023	-131	0%
716	**Timber Door**		70	70	03-Oct-2023	08-Dec-2023	-116	0%
717	ABWF-VC3410	Material & Sample Submission - Timber Doors	10	10	03-Oct-2023*	12-Oct-2023	-116	0%
718	ABWF-VC3420	Material & Sample Submission - 1st round comment by PM & review	20	20	12-Oct-2023	01-Nov-2023	-116	0%
719	ABWF-VC3430	Material & Sample Submission - , 2nd round comment by PM & approval	20	20	01-Nov-2023	20-Nov-2023	-116	0%
720	ABWF-VC3440	Material Procurement of Timber Doors	20	20	20-Nov-2023	08-Dec-2023	-116	0%



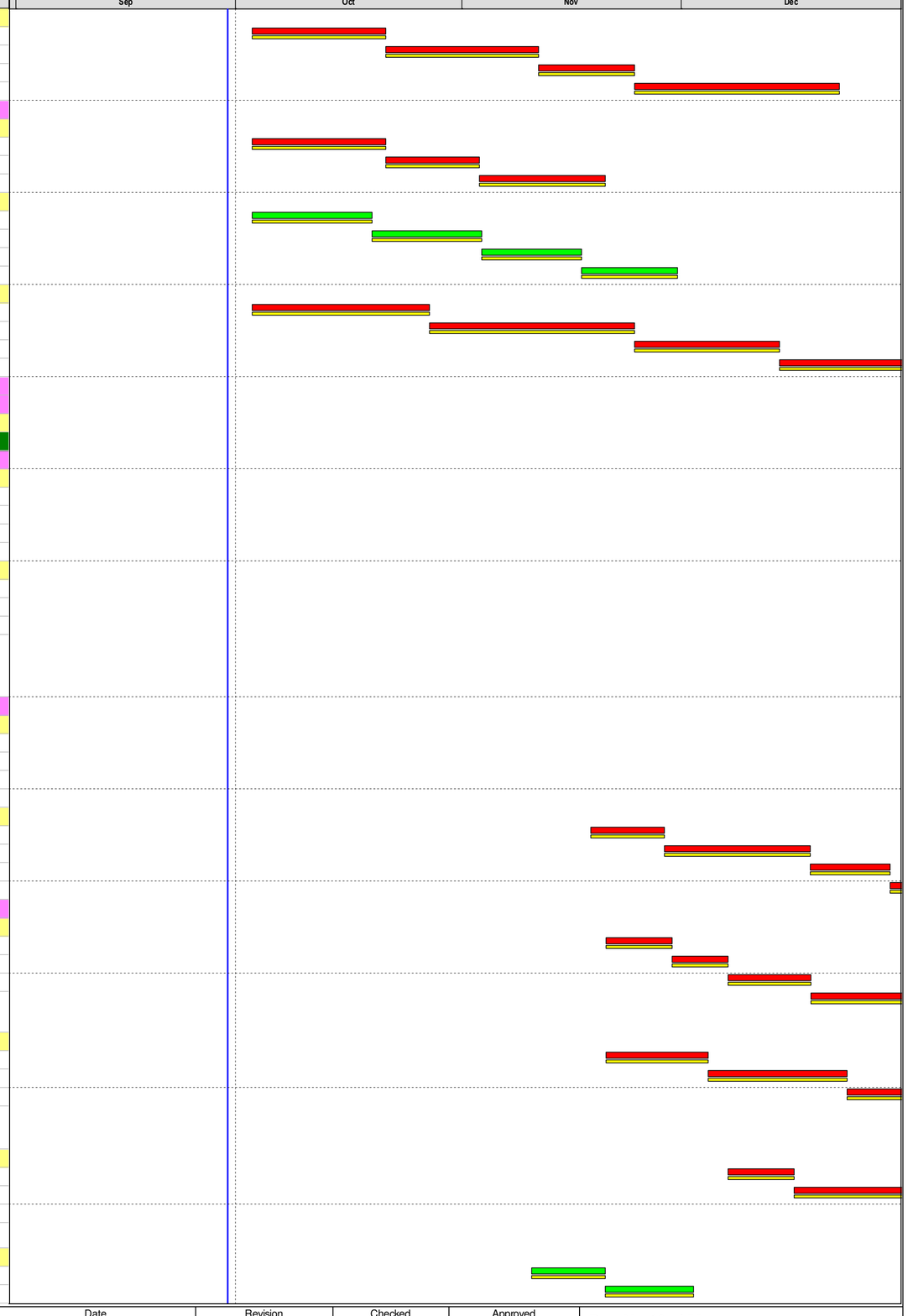
Primary Baseline
Actual Work
Remaining Work
Critical Remaining Work
Baseline Milestone
Critical Milestone
Non-Critical Milestone

Data Date: 30-Sep-2023
Project Start: 03-Feb-2020
Project End: 27-Nov-2026
Baseline: Aug 2023 Monthly Programme Update

4M Rolling Programme (Sep-Dec 2023)

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

#	Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Duration % Complete
721		**Fitting and Fixtures**	85	85	03-Oct-2023	22-Dec-2023	-185	0%
722	ABWF-VC3450	Material & Sample Submission - Fitting and Fixtures	20	20	03-Oct-2023*	21-Oct-2023	-185	0%
723	ABWF-VC3460	Material & Sample Submission - 1st round comment by PM & review	21	21	21-Oct-2023	11-Nov-2023	-185	0%
724	ABWF-VC3470	Material & Sample Submission - , 2nd round comment by PM & approval	14	14	11-Nov-2023	24-Nov-2023	-185	0%
725	ABWF-VC3480	Material Procurement of - Fitting and Fixtures	30	30	24-Nov-2023	22-Dec-2023	-185	0%
726		**Package 5**	97	97	03-Oct-2023	06-Jan-2024	154	0%
727		**Windows**	50	50	03-Oct-2023	20-Nov-2023	-235	0%
728	ABWF-VC3530	Material & Sample Submission - Window	20	20	03-Oct-2023*	21-Oct-2023	-235	0%
729	ABWF-VC3540	Material & Sample Submission - 1st round comment by PM & review	12	12	21-Oct-2023	03-Nov-2023	-235	0%
730	ABWF-VC3550	Material & Sample Submission -, 2nd round comment by PM & approval	18	18	03-Nov-2023	20-Nov-2023	-235	0%
731		**Lourves**	61	61	03-Oct-2023	30-Nov-2023	190	0%
732	ABWF-VC3490	Material & Sample Submission - Lourves	18	18	03-Oct-2023*	19-Oct-2023	190	0%
733	ABWF-VC3500	Material & Sample Submission 1st round comment by PM & review	15	15	19-Oct-2023	03-Nov-2023	190	0%
734	ABWF-VC3510	Material & Sample Submission , 2nd round comment by PM & approval	14	14	03-Nov-2023	17-Nov-2023	190	0%
735	ABWF-VC3520	Material Procurement of Lourves	14	14	17-Nov-2023	30-Nov-2023	190	0%
736		**Alumninum Grilles**	97	97	03-Oct-2023	06-Jan-2024	-184	0%
737	ABWF-VC3570	Material & Sample Submission - Aluminium Grilles	25	25	03-Oct-2023*	27-Oct-2023	-184	0%
738	ABWF-VC3580	Material & Sample Submission 1st round comment by PM & review	30	30	27-Oct-2023	24-Nov-2023	-184	0%
739	ABWF-VC3590	Material & Sample Submission , 2nd round comment by PM & approval	21	21	24-Nov-2023	14-Dec-2023	-184	0%
740	ABWF-VC3600	Material Procurement of Window / Lourves	21	21	14-Dec-2023	06-Jan-2024	-184	0%
741		**Package 6**	0	0			0	0%
742		**Package 7**	0	0			0	0%
743		**Toilet Cubicle & Shower Cubicle**	0	0			0	0%
744		**Mock Up**	389	128	11-Feb-2023 A	29-Feb-2024	1020	67.05%
745		**Package 1**	40	0	11-Feb-2023 A	21-Mar-2023 A		100%
746		**Plastering / Tile Adhesive**	40	0	11-Feb-2023 A	21-Mar-2023 A		100%
747	ABWF-VC1000	Fabrication of Mock Up - Plastering / Tile Adhesive	10	0	11-Feb-2023 A	20-Feb-2023 A		100%
748	ABWF-VC1010	Mock Up 1st round comment by PM & review	10	0	20-Feb-2023 A	28-Feb-2023 A		100%
749	ABWF-VC1020	Mock Up modification, 2nd round comment by PM & approval	10	0	28-Feb-2023 A	08-Mar-2023 A		100%
750	ABWF-VC1030	Material Procurement of Plastering material / Tile Adhesive	14	0	08-Mar-2023 A	21-Mar-2023 A		100%
751		**Internal tiling works**	40	0	11-Feb-2023 A	21-Mar-2023 A		100%
752	ABWF-VC1160	Fabrication of Mock Up - Internal tiling works	10	0	11-Feb-2023 A	20-Feb-2023 A		100%
753	ABWF-VC1170	Mock Up 1st round comment by PM & review	10	0	20-Feb-2023 A	28-Feb-2023 A		100%
754	ABWF-VC1180	Mock Up modification, 2nd round comment by PM & approval	10	0	28-Feb-2023 A	08-Mar-2023 A		100%
755	ABWF-VC1190	Material Procurement of Internal tiling works	14	0	08-Mar-2023 A	21-Mar-2023 A		100%
756		**Package 2**	305	55	17-Mar-2023 A	12-Jan-2024	-133	81.98%
757		**Internal Wall Painting**	54	0	17-Mar-2023 A	11-May-2023 A		100%
758	ABWF-VC1960	Fabrication of Mock Up - Internal Wall Painting	10	0	17-Mar-2023 A	25-Mar-2023 A		100%
759	ABWF-VC1970	Mock Up 1st round comment by PM & review	21	0	25-Mar-2023 A	18-Apr-2023 A		100%
760	ABWF-VC1980	Mock Up modification, 2nd round comment by PM & approval	10	0	18-Apr-2023 A	27-Apr-2023 A		100%
761	ABWF-VC1990	Material Procurement for Internal Wall Painting	14	0	27-Apr-2023 A	11-May-2023 A		100%
762		**External Wall Painting**	55	55	18-Nov-2023	12-Jan-2024	-167	0%
763	ABWF-VC3140	Fabrication of Mock Up - External Wall Painting	10	10	18-Nov-2023	28-Nov-2023	-167	0%
764	ABWF-VC3150	Mock Up 1st round comment by PM & review	21	21	28-Nov-2023	18-Dec-2023	-167	0%
765	ABWF-VC3160	Mock Up modification, 2nd round comment by PM & approval	10	10	18-Dec-2023	29-Dec-2023	-167	0%
766	ABWF-VC3170	Material Procurement for External Wall Painting	14	14	29-Dec-2023	12-Jan-2024	-167	0%
767		**Package 3**	102	102	10-Nov-2023	21-Feb-2024	1029	0%
768		**External suspended Baffle Ceiling**	50	50	20-Nov-2023	09-Jan-2024	-254	0%
769	ABWF-VC1360	Fabrication of Mock Up - External Suspended Baffle Ceiling	10	10	20-Nov-2023	29-Nov-2023	-254	0%
770	ABWF-VC1370	Mock Up 1st round comment by PM & review	8	8	29-Nov-2023	07-Dec-2023	-254	0%
771	ABWF-VC1380	Mock Up modification, 2nd round comment by PM & approval	12	12	07-Dec-2023	18-Dec-2023	-254	0%
772	ABWF-VC1390	Material Procurement of External Suspended Baffle Ceiling	20	20	18-Dec-2023	09-Jan-2024	-254	0%
773		**Internal Acoustic Ceiling**	67	67	20-Nov-2023	25-Jan-2024	-204	0%
774	ABWF-VC1400	Fabrication of Mock Up - Acoustic Ceiling	15	15	20-Nov-2023	04-Dec-2023	-204	0%
775	ABWF-VC1410	Mock Up 1st round comment by PM & review	21	21	04-Dec-2023	23-Dec-2023	-204	0%
776	ABWF-VC1420	Mock Up modification, 2nd round comment by PM & approval	10	10	23-Dec-2023	05-Jan-2024	-204	0%
777	ABWF-VC1430	Material Procurement of Acoustic Ceiling	21	21	05-Jan-2024	25-Jan-2024	-204	0%
778		**Raised Floor**	62	62	07-Dec-2023	06-Feb-2024	-135	0%
779	ABWF-VC1080	Fabrication of Mock Up - Raised Floor	10	10	07-Dec-2023	16-Dec-2023	-135	0%
780	ABWF-VC1090	Mock Up 1st round comment by PM & review	21	21	16-Dec-2023	09-Jan-2024	-135	0%
781	ABWF-VC1100	Mock Up modification, 2nd round comment by PM & approval	10	10	09-Jan-2024	18-Jan-2024	-135	0%
782	ABWF-VC1110	Material Procurement of Raised Floor	21	21	18-Jan-2024	06-Feb-2024	-135	0%
783		**Glass Wall**	102	102	10-Nov-2023	21-Feb-2024	1029	0%
784	ABWF-VC3030	Fabrication of Mock Up - Glass Wall	10	10	10-Nov-2023	20-Nov-2023	1029	0%
785	ABWF-VC3040	Mock Up 1st round comment by PM & review	14	14	20-Nov-2023	02-Dec-2023	1029	0%



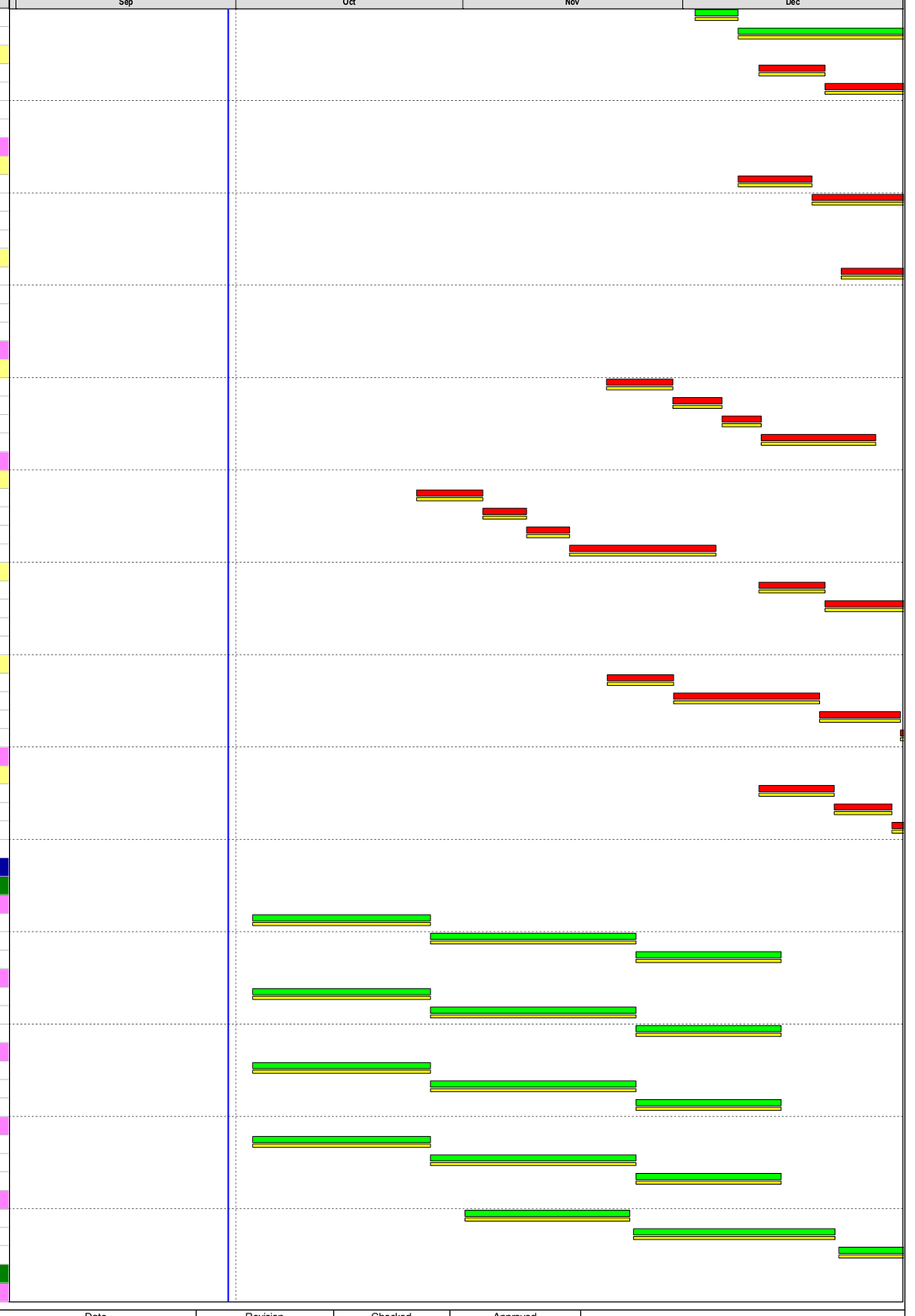
Primary Baseline
Actual Work
Remaining Work
Critical Remaining Work
Baseline Milestone
Critical Milestone
Non-Critical Milestone

Data Date: 30-Sep-2023
Project Start: 03-Feb-2020
Project End: 27-Nov-2026
Baseline: Aug 2023 Monthly Programme Update

4M Rolling Programme (Sep-Dec 2023)

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

#	Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Duration % Complete
786	ABWF-VC3050	Mock Up modification, 2nd round comment by PM & approval	6	6	02-Dec-2023	08-Dec-2023	1029	0%
787	ABWF-VC3060	Material Procurement of Glass Wall	72	72	08-Dec-2023	21-Feb-2024	1029	0%
788	**Timber Deck**		62	62	11-Dec-2023	09-Feb-2024	-19	0%
789	ABWF-VC3070	Fabrication of Mock Up - Timber Deck	10	10	11-Dec-2023	20-Dec-2023	-19	0%
790	ABWF-VC3080	Mock Up 1st round comment by PM & review	21	21	20-Dec-2023	11-Jan-2024	-19	0%
791	ABWF-VC3090	Mock Up modification, 2nd round comment by PM & approval	10	10	11-Jan-2024	20-Jan-2024	-19	0%
792	ABWF-VC3100	Material Procurement of Timber Deck	21	21	20-Jan-2024	09-Feb-2024	-19	0%
793	**Package 4**		81	81	08-Dec-2023	29-Feb-2024	-127	0%
794	**Timber Door**		70	70	08-Dec-2023	19-Feb-2024	-116	0%
795	ABWF-VC1520	Fabrication of Mock Up - Timber Doors	10	10	08-Dec-2023	18-Dec-2023	-116	0%
796	ABWF-VC1530	Mock Up 1st round comment by PM & review	20	20	18-Dec-2023	09-Jan-2024	-116	0%
797	ABWF-VC1540	Mock Up modification, 2nd round comment by PM & approval	20	20	09-Jan-2024	27-Jan-2024	-116	0%
798	ABWF-VC1550	Material Procurement of Timber Doors	20	20	27-Jan-2024	19-Feb-2024	-116	0%
799	**Fitting and Fixtures**		66	66	22-Dec-2023	29-Feb-2024	-185	0%
800	ABWF-VC1640	Fabrication of Mock Up - Fitting and Fixtures	10	10	22-Dec-2023	04-Jan-2024	-185	0%
801	ABWF-VC1650	Mock Up 1st round comment by PM & review	21	21	04-Jan-2024	24-Jan-2024	-185	0%
802	ABWF-VC1660	Mock Up modification, 2nd round comment by PM & approval	14	14	24-Jan-2024	06-Feb-2024	-185	0%
803	ABWF-VC1670	Material Procurement of - Fitting and Fixtures	21	21	06-Feb-2024	29-Feb-2024	-185	0%
804	**Package 5**		37	37	20-Nov-2023	27-Dec-2023	-235	0%
805	**Windows / Lourves**		37	37	20-Nov-2023	27-Dec-2023	-235	0%
806	ABWF-VC1800	Fabrication of Mock Up - Window / Lourves	10	10	20-Nov-2023	29-Nov-2023	-235	0%
807	ABWF-VC1810	Mock Up 1st round comment by PM & review	7	7	29-Nov-2023	06-Dec-2023	-235	0%
808	ABWF-VC1820	Mock Up modification, 2nd round comment by PM & approval	6	6	06-Dec-2023	11-Dec-2023	-235	0%
809	ABWF-VC1830	Material Procurement of Window / Lourves	14	14	11-Dec-2023	27-Dec-2023	-235	0%
810	**Package 6**		120	120	25-Oct-2023	21-Feb-2024	-46	0%
811	**Skylight**		43	43	25-Oct-2023	05-Dec-2023	-230	0%
812	ABWF-VC1200	Fabrication of Mock Up - Skylight	10	10	25-Oct-2023	03-Nov-2023	-230	0%
813	ABWF-VC1210	Mock Up 1st round comment by PM & review	6	6	03-Nov-2023	09-Nov-2023	-230	0%
814	ABWF-VC1220	Mock Up modification, 2nd round comment by PM & approval	6	6	09-Nov-2023	15-Nov-2023	-230	0%
815	ABWF-VC1230	Material Procurement of Skylight	21	21	15-Nov-2023	05-Dec-2023	-230	0%
816	**Fall Arrest System**		71	71	11-Dec-2023	21-Feb-2024	-46	0%
817	ABWF-VC1480	Fabrication of Mock Up - Fall Arrest System	10	10	11-Dec-2023	20-Dec-2023	-46	0%
818	ABWF-VC1490	Mock Up 1st round comment by PM & review	21	21	20-Dec-2023	11-Jan-2024	-46	0%
819	ABWF-VC1500	Mock Up modification, 2nd round comment by PM & approval	10	10	11-Jan-2024	20-Jan-2024	-46	0%
820	ABWF-VC1510	Material Procurement of Fall Arrest System	30	30	20-Jan-2024	21-Feb-2024	-46	0%
821	**Timber Wall / Fences**		62	62	20-Nov-2023	20-Jan-2024	-176	0%
822	ABWF-VC1040	Fabrication of Mock Up - Timber Wall	10	10	20-Nov-2023	29-Nov-2023	-176	0%
823	ABWF-VC1050	Mock Up 1st round comment by PM & review	21	21	29-Nov-2023	19-Dec-2023	-176	0%
824	ABWF-VC1060	Mock Up modification, 2nd round comment by PM & approval	10	10	19-Dec-2023	30-Dec-2023	-176	0%
825	ABWF-VC1070	Material Procurement of Timber Wall	21	21	30-Dec-2023	20-Jan-2024	-176	0%
826	**Package 7**		46	46	11-Dec-2023	25-Jan-2024	-168	0%
827	**Toilet Cubicle & Shower Cubicle**		46	46	11-Dec-2023	25-Jan-2024	-168	0%
828	ABWF-VC2040	Fabrication of Mock Up - Toilet and Shower Cubicles	12	12	11-Dec-2023	21-Dec-2023	-168	0%
829	ABWF-VC2050	Mock Up 1st round comment by PM & review	6	6	21-Dec-2023	29-Dec-2023	-168	0%
830	ABWF-VC2060	Mock Up modification, 2nd round comment by PM & approval	14	14	29-Dec-2023	12-Jan-2024	-168	0%
831	ABWF-VC2070	Material Procurement of Toilet and Shower Cubicles	14	14	12-Jan-2024	25-Jan-2024	-168	0%
832	**Sewerage Pumping Station**		224	224	03-Oct-2023	13-May-2024	192	0%
833	**ABWF Shop Drawings Submission**		105	105	03-Oct-2023	13-Jan-2024	213	0%
834	**Recycled Composite Wood**		76	76	03-Oct-2023	14-Dec-2023	152	0%
835	ABWF-SPS1040	Shop Drawing Submission - Recycled Composite Wood	25	25	03-Oct-2023*	27-Oct-2023	152	0%
836	ABWF-SPS1050	Recycled Composite Wood - 1st round comment by PM & review	30	30	27-Oct-2023	24-Nov-2023	152	0%
837	ABWF-SPS1060	Recycled Composite Wood - 2nd submission to PM & approval	21	21	24-Nov-2023	14-Dec-2023	152	0%
838	**Fences and Gates**		76	76	03-Oct-2023	14-Dec-2023	192	0%
839	ABWF-SPS1140	Shop Drawing Submission - Fences and Gates	25	25	03-Oct-2023*	27-Oct-2023	192	0%
840	ABWF-SPS1150	Fences and Gates - 1st round comment by PM & review	30	30	27-Oct-2023	24-Nov-2023	192	0%
841	ABWF-SPS1160	Fences and Gates - 2nd submission to PM & approval	21	21	24-Nov-2023	14-Dec-2023	192	0%
842	**Window and Lourves**		76	76	03-Oct-2023	14-Dec-2023	49	0%
843	ABWF-SPS1170	Shop Drawing Submission - Window and Lourves	25	25	03-Oct-2023*	27-Oct-2023	49	0%
844	ABWF-SPS1180	Shop Drawing Submission Window and Lourves - 1st round comment by PM & review	30	30	27-Oct-2023	24-Nov-2023	49	0%
845	ABWF-SPS1190	Shop Drawing Submission Window and Lourves - 2nd submission to PM & approval	21	21	24-Nov-2023	14-Dec-2023	49	0%
846	**Claddings**		76	76	03-Oct-2023	14-Dec-2023	106	0%
847	ABWF-SPS1200	Shop Drawing Submission - Claddings	25	25	03-Oct-2023*	27-Oct-2023	106	0%
848	ABWF-SPS1210	Shop Drawing Submission Claddings - 1st round comment by PM & review	30	30	27-Oct-2023	24-Nov-2023	106	0%
849	ABWF-SPS1220	Shop Drawing Submission Claddings - 2nd submission to PM & approval	21	21	24-Nov-2023	14-Dec-2023	106	0%
850	**Shutters**		76	76	01-Nov-2023	13-Jan-2024	213	0%
851	ABWF-SPS1320	Shop Drawing Submission - Shutters	25	25	01-Nov-2023*	23-Nov-2023	213	0%
852	ABWF-SPS1330	Shop Drawing Submission Shutters - 1st round comment by PM & review	30	30	24-Nov-2023	21-Dec-2023	213	0%
853	ABWF-SPS1340	Shop Drawing Submission Shutters - 2nd submission to PM & approval	21	21	22-Dec-2023	13-Jan-2024	213	0%
854	**ABWF Material Submission & Procurement**		76	76	03-Oct-2023	14-Dec-2023	242	0%
855	**Recycled Composite Wood**		76	76	03-Oct-2023	14-Dec-2023	152	0%



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: 27-Nov-2026
Baseline: Aug 2023 Monthly Programme Update

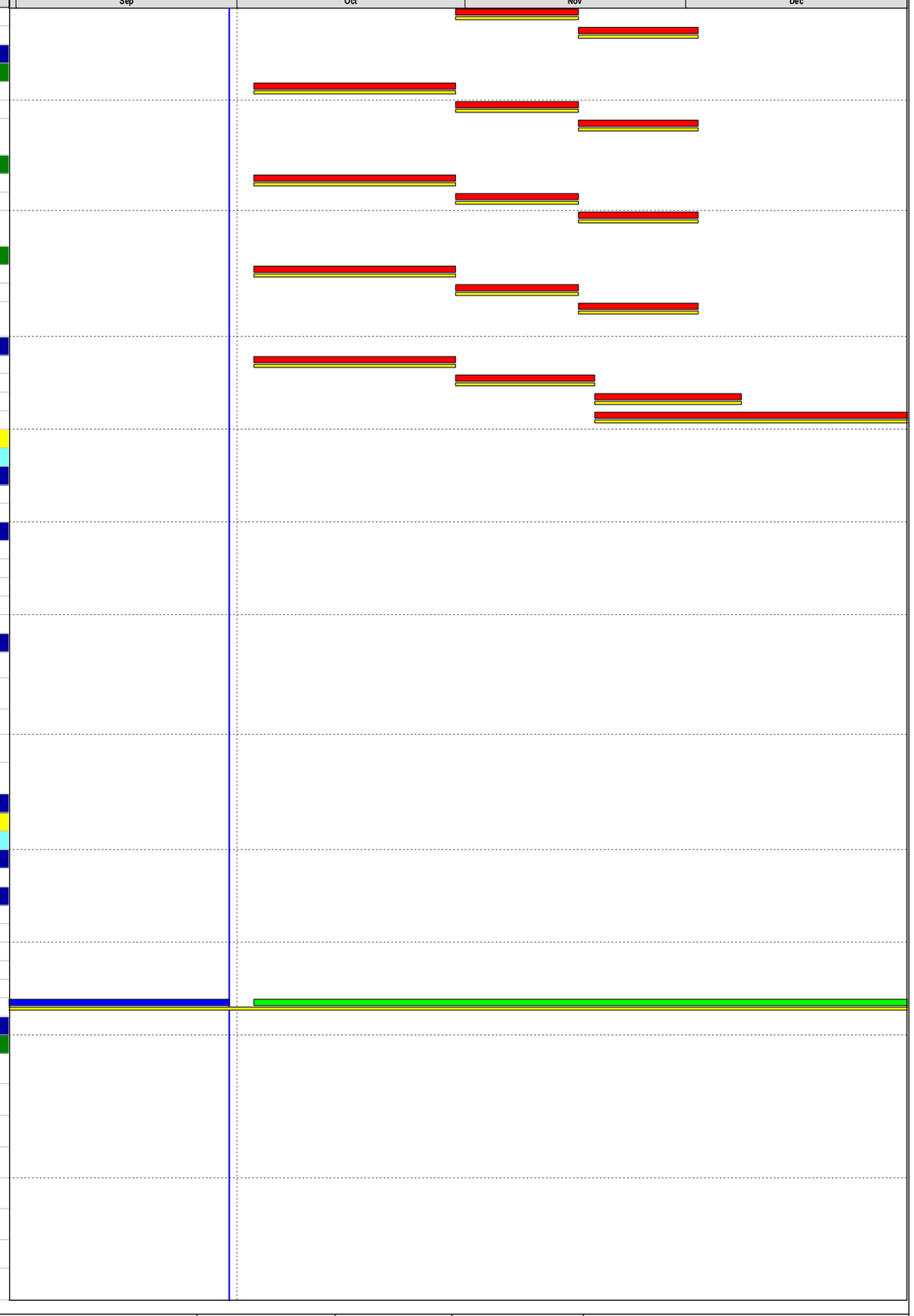
4M Rolling Programme (Sep-Dec 2023)

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

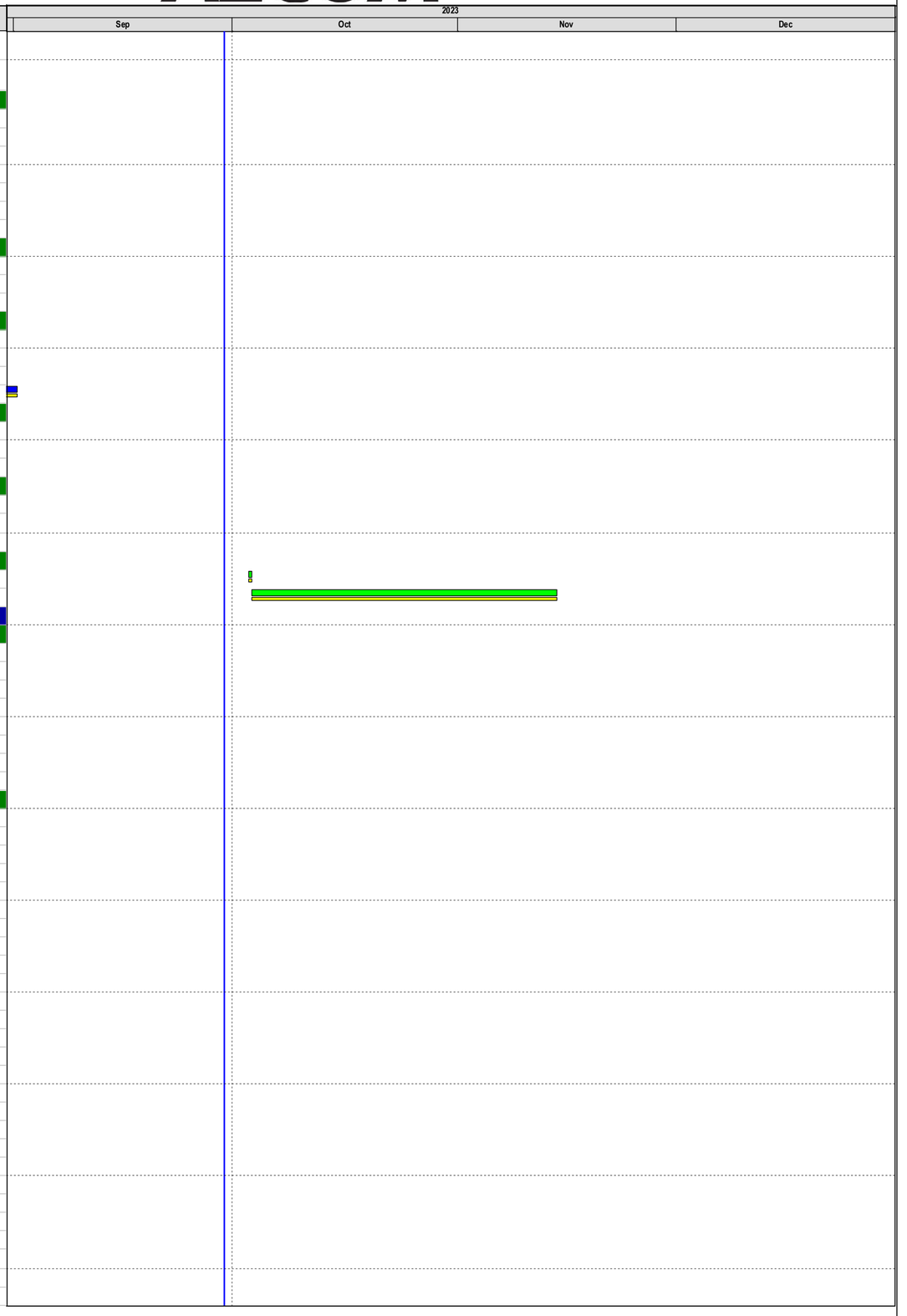
#	Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Duration % Complete
856	ABWF-SPS1110	Material Submission - Recycled Composite Wood	25	25	03-Oct-2023*	27-Oct-2023	152	0%
857	ABWF-SPS1120	Material Submission - Recycled Composite Wood - 1st round comment by PM & review	30	30	27-Oct-2023	24-Nov-2023	152	0%
858	ABWF-SPS1130	Material Submission - Recycled Composite Wood - 2nd submission to PM & approval	21	21	24-Nov-2023	14-Dec-2023	152	0%
859	**Fences and Gates**		76	76	03-Oct-2023	14-Dec-2023	192	0%
860	ABWF-SPS1230	Material Submission - Fences and Gates	25	25	03-Oct-2023*	27-Oct-2023	192	0%
861	ABWF-SPS1240	Material Submission - Fences and Gates - 1st round comment by PM & review	30	30	27-Oct-2023	24-Nov-2023	192	0%
862	ABWF-SPS1250	Material Submission - Fences and Gates - 2nd submission to PM & approval	21	21	24-Nov-2023	14-Dec-2023	192	0%
863	**Window and Lourves**		76	76	03-Oct-2023	14-Dec-2023	49	0%
864	ABWF-SPS1260	Material Submission - Windows and Lourves	25	25	03-Oct-2023*	27-Oct-2023	49	0%
865	ABWF-SPS1270	Material Submission - Windows and Lourves - 1st round comment by PM & review	30	30	27-Oct-2023	24-Nov-2023	49	0%
866	ABWF-SPS1280	Material Submission - Windows and Lourves - 2nd submission to PM & approval	21	21	24-Nov-2023	14-Dec-2023	49	0%
867	**Claddings**		76	76	03-Oct-2023	14-Dec-2023	106	0%
868	ABWF-SPS1290	Material Submission - Claddings	25	25	03-Oct-2023*	27-Oct-2023	106	0%
869	ABWF-SPS1300	Material Submission - Claddings - 1st round comment by PM & review	30	30	27-Oct-2023	24-Nov-2023	106	0%
870	ABWF-SPS1310	Material Submission - Claddings - 2nd submission to PM & approval	21	21	24-Nov-2023	14-Dec-2023	106	0%
871	**Shutters**		76	76	03-Oct-2023	14-Dec-2023	242	0%
872	ABWF-SPS1350	Material Submission - FRR Shutters	25	25	03-Oct-2023*	27-Oct-2023	242	0%
873	ABWF-SPS1360	Material Submission - FRR Shutters - 1st round comment by PM & review	30	30	27-Oct-2023	24-Nov-2023	242	0%
874	ABWF-SPS1370	Material Submission - FRR Shutters - 2nd submission to PM & approval	21	21	24-Nov-2023	14-Dec-2023	242	0%
875	**Mock Up**		148	148	14-Dec-2023	13-May-2024	192	0%
876	**Recycled Composite Wood**		148	148	14-Dec-2023	13-May-2024	152	0%
877	ABWF-SPS1070	Fabrication of Mock Up - Recycled Composite Wood	25	25	14-Dec-2023	10-Jan-2024	152	0%
878	ABWF-SPS1080	Mock Up 1st round comment by PM & review	30	30	10-Jan-2024	07-Feb-2024	152	0%
879	ABWF-SPS1090	Mock Up modification, 2nd round comment by PM & approval	21	21	07-Feb-2024	01-Mar-2024	152	0%
880	ABWF-SPS1100	Material Procurement of Recycled Composite Wood	72	72	01-Mar-2024	13-May-2024	152	0%
881	**Fences and Gates**		148	148	14-Dec-2023	13-May-2024	192	0%
882	ABWF-SPS1380	Fabrication of Mock Up - Fences and Gates	25	25	14-Dec-2023	10-Jan-2024	192	0%
883	ABWF-SPS1390	Mock Up 1st round comment by PM & review	30	30	10-Jan-2024	07-Feb-2024	192	0%
884	ABWF-SPS1400	Mock Up modification, 2nd round comment by PM & approval	21	21	07-Feb-2024	01-Mar-2024	192	0%
885	ABWF-SPS1410	Material Procurement of Fences and Gates	72	72	01-Mar-2024	13-May-2024	192	0%
886	**Window and Lourves**		148	148	14-Dec-2023	13-May-2024	49	0%
887	ABWF-SPS1420	Fabrication of Mock Up - Window and Lourvres	25	25	14-Dec-2023	10-Jan-2024	49	0%
888	ABWF-SPS1430	Mock Up 1st round comment by PM & review	30	30	10-Jan-2024	07-Feb-2024	49	0%
889	ABWF-SPS1440	Mock Up modification, 2nd round comment by PM & approval	21	21	07-Feb-2024	01-Mar-2024	49	0%
890	ABWF-SPS1450	Material Procurement of Window and Lourvres	72	72	01-Mar-2024	13-May-2024	49	0%
891	**Claddings**		148	148	14-Dec-2023	13-May-2024	106	0%
892	ABWF-SPS1460	Fabrication of Mock Up - Claddings	25	25	14-Dec-2023	10-Jan-2024	106	0%
893	ABWF-SPS1470	Mock Up 1st round comment by PM & review	30	30	10-Jan-2024	07-Feb-2024	106	0%
894	ABWF-SPS1480	Mock Up modification, 2nd round comment by PM & approval	21	21	07-Feb-2024	01-Mar-2024	106	0%
895	ABWF-SPS1490	Material Procurement of Claddings	72	72	01-Mar-2024	13-May-2024	106	0%
896	**Footbridge FK2**		76	76	03-Oct-2023	14-Dec-2023	-226	0%
897	**ABWF Shop Drawings Submission**		76	76	03-Oct-2023	14-Dec-2023	-226	0%
898	**Footbridge Deck Paving**		62	62	03-Oct-2023	01-Dec-2023	-268	0%
899	ABWF-FK2-1000	Shop Drawing Submission - Footbridge Deck Paving	20	20	03-Oct-2023*	21-Oct-2023	-268	0%
900	ABWF-FK2-1010	Shop Drawing Submission - Footbridge Deck Paving - 1st round comment by PM & review	21	21	21-Oct-2023	11-Nov-2023	-268	0%
901	ABWF-FK2-1020	Shop Drawing Submission - Footbridge Deck Paving - 2nd submission to PM & approval	21	21	11-Nov-2023	01-Dec-2023	-268	0%
902	**Handrail**		76	76	03-Oct-2023	14-Dec-2023	-256	0%
903	ABWF-FK2-1060	Shop Drawing Submission - Handrail	25	25	03-Oct-2023*	27-Oct-2023	-256	0%
904	ABWF-FK2-1070	Shop Drawing Submission - Handrail - 1st round comment by PM & review	30	30	27-Oct-2023	24-Nov-2023	-256	0%
905	ABWF-FK2-1080	Shop Drawing Submission - Handrail - 2nd submission to PM & approval	21	21	24-Nov-2023	14-Dec-2023	-256	0%
906	**Ramp Staircase Finishes**		76	76	03-Oct-2023	14-Dec-2023	-226	0%
907	ABWF-FK2-1090	Shop Drawing Submission - Ramp Staircase Finishes	25	25	03-Oct-2023*	27-Oct-2023	-226	0%
908	ABWF-FK2-1100	Shop Drawing Submission - Ramp Staircase Finishes - 1st round comment by PM & review	30	30	27-Oct-2023	24-Nov-2023	-226	0%
909	ABWF-FK2-1110	Shop Drawing Submission - Ramp Staircase Finishes - 2nd submission to PM & approval	21	21	24-Nov-2023	14-Dec-2023	-226	0%
910	**ABWF Material Submission & Procurement**		76	76	03-Oct-2023	14-Dec-2023	-226	0%
911	**Footbridge Deck Paving**		76	76	03-Oct-2023	14-Dec-2023	-282	0%
912	ABWF-FK2-1030	Material Submission - Footbridge Deck Paving	25	25	03-Oct-2023*	27-Oct-2023	-282	0%
913	ABWF-FK2-1040	Material Submission - Footbridge Deck Paving - 1st round comment by PM & review	30	30	27-Oct-2023	24-Nov-2023	-282	0%
914	ABWF-FK2-1050	Material Submission - Footbridge Deck Paving - 2nd submission to PM & approval	21	21	24-Nov-2023	14-Dec-2023	-282	0%
915	**Handrail**		76	76	03-Oct-2023	14-Dec-2023	-256	0%
916	ABWF-FK2-1120	Material Submission - Handrail	25	25	03-Oct-2023*	27-Oct-2023	-256	0%
917	ABWF-FK2-1130	Material Submission - Handrail - 1st round comment by PM & review	30	30	27-Oct-2023	24-Nov-2023	-256	0%
918	ABWF-FK2-1140	Material Submission - Handrail - 2nd submission to PM & approval	21	21	24-Nov-2023	14-Dec-2023	-256	0%
919	**Ramp Staircase Finishes**		76	76	03-Oct-2023	14-Dec-2023	-226	0%
920	ABWF-FK2-1150	Material Submission - Ramp Staircase Finishes	25	25	03-Oct-2023*	27-Oct-2023	-226	0%
921	ABWF-FK2-1160	Material Submission - Ramp Staircase Finishes - 1st round comment by PM & review	30	30	27-Oct-2023	24-Nov-2023	-226	0%
922	ABWF-FK2-1170	Material Submission - Ramp Staircase Finishes - 2nd submission to PM & approval	21	21	24-Nov-2023	14-Dec-2023	-226	0%
923	**Landscape Works Submission**		109	109	03-Oct-2023	17-Jan-2024	-198	0%
924	**Landscape Method Statement Submission**		64	64	03-Oct-2023	02-Dec-2023	-153	0%
925	LA-SPS1090	Method Statement of Planting and Soil Mixing - 1st submission to Project Manager	28	28	03-Oct-2023*	30-Oct-2023	-153	0%



#	Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Duration % Complete
926	LA-SPS1100	Method Statement of Planting and Soil Mixing - 1st submission to PM & review	18	18	30-Oct-2023	16-Nov-2023	-153	0%
927	LA-SPS1110	Method Statement of Planting and Soil Mixing - 2nd submission to PM & approval	18	18	16-Nov-2023	02-Dec-2023	-153	0%
928	**Landscape Material Submission & Test Report**		64	64	03-Oct-2023	02-Dec-2023	-153	0%
929	**Plant Specimen & Origin**		64	64	03-Oct-2023	02-Dec-2023	-153	0%
930	LA-SPS1000	Plant Nursery and Specimen Photos - 1st submission to Project Manager	28	28	03-Oct-2023*	30-Oct-2023	-153	0%
931	LA-SPS1010	Plant Nursery and Specimen Photos - 1st submission to PM & review	18	18	30-Oct-2023	16-Nov-2023	-153	0%
932	LA-SPS1020	Plant Nursery and Specimen Photos - 2nd submission to PM & approval	18	18	16-Nov-2023	02-Dec-2023	-153	0%
933	**Soil Mix**		64	64	03-Oct-2023	02-Dec-2023	-153	0%
934	LA-SPS1030	Soil Mix Test Report - 1st submission to Project Manager	28	28	03-Oct-2023*	30-Oct-2023	-153	0%
935	LA-SPS1040	Soil Mix Test Report - 1st submission to PM & review	18	18	30-Oct-2023	16-Nov-2023	-153	0%
936	LA-SPS1050	Soil Mix Test Report - 2nd submission to PM & approval	18	18	16-Nov-2023	02-Dec-2023	-153	0%
937	**Soil Conditioners**		64	64	03-Oct-2023	02-Dec-2023	-153	0%
938	LA-SPS1060	Soil Conditioners Test Report & Samples - 1st submission to Project Manager	28	28	03-Oct-2023*	30-Oct-2023	-153	0%
939	LA-SPS1070	Soil Conditioners Test Report & Samples - 1st submission to PM & review	18	18	30-Oct-2023	16-Nov-2023	-153	0%
940	LA-SPS1080	Soil Conditioners Test Report & Samples - 2nd submission to PM & approval	18	18	16-Nov-2023	02-Dec-2023	-153	0%
941	**Landscape Design Submission**		109	109	03-Oct-2023	17-Jan-2024	-299	0%
942	LA-SPS1160	Landscape Design Submission for FK2 - 1st submission to Project Manager	28	28	03-Oct-2023*	30-Oct-2023	-299	0%
943	LA-SPS1165	Landscape Design Submission for FK2 - 1st submission to PM & review	21	21	30-Oct-2023	18-Nov-2023	-299	0%
944	LA-SPS1170	Landscape Design Submission for FK2 - 2nd submission to PM & approval	21	21	18-Nov-2023	08-Dec-2023	-260	0%
945	LA-SPS1180	Landscape Design Submission for FK2 - Submission to Govt Dept for approval	60	60	18-Nov-2023	17-Jan-2024	-299	0%
946	**Works in Section 1**		792	0	26-Jun-2020 A	30-Nov-2022 A		100%
947	**Portion 1 - Road & Drains**		792	0	26-Jun-2020 A	30-Nov-2022 A		100%
948	**Site Possession**		122	0	03-Aug-2020 A	16-Apr-2021 A		100%
949	P1-1000	Site Possession - Portion 1	0	0	03-Aug-2020 A			100%
950	P1-1005	Site Possession - Additional Working Area from C1 (KT2003)	0	0	16-Apr-2021 A			100%
951	**Pre-construction works**		803	0	26-Jun-2020 A	30-Nov-2022 A		100%
952	P1-1010	Utilities Detection in Portion 1	20	0	26-Jun-2020 A	20-Jul-2020 A		100%
953	P1-1020	Circulation & Approval of TTAs	14	0	03-Aug-2020 A	31-Aug-2020 A		100%
954	P1-1050	Environmental GI & Submission of Lab Report (EGI-9G-01)	21	0	07-Jan-2021 A	30-Jan-2021 A		100%
955	P1-1580	Removal of Existing Stormwater Drains / channels next to Dill Corner Garden	18	0	03-Jan-2022 A	20-Jan-2022 A		100%
956	P1-1590	Completion of Works at Portion 1	0	0	30-Nov-2022 A	30-Nov-2022 A		100%
957	**CE-026 Extension of Cycle Track outside Dills Corner Garden**		34	0	23-Jun-2021 A	30-Oct-2021 A		100%
958	P1-2000	Tree Felling Works	8	0	23-Jun-2021 A	29-Jun-2021 A		100%
959	P1-2020	Structural works for sand trap	16	0	20-Aug-2021 A	03-Sep-2021 A		100%
960	P1-2030	Installation of Steel Frame	5	0	20-Sep-2021 A	23-Sep-2021 A		100%
961	P1-2040	Laying Anti Skid Layer of Carriageway	8	0	24-Sep-2021 A	30-Sep-2021 A		100%
962	P1-2050	RA Notification of Carriageway open to public	34	0	01-Oct-2021 A	30-Oct-2021 A		100%
963	**Utilities and Signage Works**		0	0			0	0%
964	**Works in Section 2**		1992	721	10-Apr-2020 A	22-Sep-2025	431	63.82%
965	**Portion 2 - Road & Drains**		1738	582	21-Jul-2020 A	07-May-2025	569	66.5%
966	**Site Possession**		0	0	03-Aug-2020 A	03-Aug-2020 A		0%
967	P2-1000	Site Possession - Portion 2	0	0	03-Aug-2020 A			100%
968	**Pre-construction works**		1313	398	21-Jul-2020 A	14-Dec-2024	643	69.67%
969	P2-1010	Utilities Detection in Portion 2	27	0	21-Jul-2020 A	24-Aug-2020 A		100%
970	P2-1020	Circulation & Approval of TTAs	19	0	01-Aug-2020 A	31-Aug-2020 A		100%
971	P2-1030	Inspection Pit	36	0	30-Sep-2020 A	13-Nov-2020 A		100%
972	P2-1050	Environmental GI & Submission of Lab report	19	0	21-Sep-2020 A	30-Jan-2021 A		100%
973	P2-1060	Borehole (2nos.), Submission & Approval of GI Report	66	0	07-Jan-2021 A	30-Jan-2021 A		100%
974	P2-1070	Tree Protection and Preservation	1327	398	03-Aug-2020 A	14-Dec-2024	643	70%
975	**ELS**		944	43	15-Apr-2021 A	14-Nov-2023	1108	95.46%
976	**Launching shaft for SMH_KT6003A and FMH_KT1.26A**		114	0	30-Apr-2021 A	23-Nov-2021 A		100%
977	P2-8000	Preparation of Works	12	0	22-May-2021 A	19-Jun-2021 A		100%
978	P2-8005	UU Detection	4	0	30-Apr-2021 A	03-May-2021 A		100%
979	P2-8010	Inspection Pit	3	0	29-Jun-2021 A	30-Jun-2021 A		100%
980	P2-8015	Handover the Works Area from C1	0	0	21-May-2021 A			100%
981	P2-8020	Coordination with UU owner to arrange diversion / abandon	6	0	30-Jun-2021 A	10-Jul-2021 A		100%
982	P2-8025	Dismantle of Existing Noise Barriers & Hoarding (Instructed by PM)	6	0	21-Jun-2021 A	26-Jun-2021 A		100%
983	P2-8035	Sheetpiling for launching shaft at SMH_KT6003A	7	0	12-Jul-2021 A	17-Jul-2021 A		100%
984	P2-8040	Coordination with ND/2019/01 Contractor to divert the Rising Main	19	0	19-Jul-2021 A	12-Aug-2021 A		100%



#	Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Duration % Complete
985	P2-8045	Remaining Sheetpiling for launching shaft at SMH_KT6003A	20	0	12-Aug-2021 A	14-Aug-2021 A		100%
986	P2-8050	Excavation for Launching Shaft at SMH_KT6003A	78	0	16-Aug-2021 A	23-Nov-2021 A		100%
987	**Combined Shaft for SMH_KT2003 and FMH_KT1.23**		120	0	15-Apr-2021 A	06-Dec-2021 A		100%
988	P2-8055	Handover the Works Area from C1	0	0	16-Apr-2021 A			100%
989	P2-8060	Set Up TTA at Castle Peak Road Footpath	3	0	20-May-2021 A	22-May-2021 A		100%
990	P2-8065	Preparation Works	13	0	15-Apr-2021 A	29-Apr-2021 A		100%
991	P2-8070	UU Detection	4	0	30-Apr-2021 A	03-May-2021 A		100%
992	P2-8075	Inspection Pit Excavation	5	0	04-May-2021 A	10-May-2021 A		100%
993	P2-8080	Coordination with UU owner for uncharted concrete structure	20	0	10-May-2021 A	31-May-2021 A		100%
994	P2-8085	ELS for Receiving Pit	54	0	05-Jun-2021 A	06-Dec-2021 A		100%
995	**Launching shaft at FMH_KT1.30A**		93	0	01-Sep-2022 A	23-Dec-2022 A		100%
996	P2-3140	Set up works area for tree felling & ELS works	1	0	01-Sep-2022 A	01-Sep-2022 A		100%
997	P2-3150	ELS for launching shaft at FMH_KT1.30A	77	0	21-Sep-2022 A	22-Dec-2022 A		100%
998	P2-3160	Install decking at KT1.30A	1	0	23-Dec-2022 A	23-Dec-2022 A		100%
999	**Receiving shaft at FMH_KT1.32A**		152	0	10-Jan-2023 A	01-Sep-2023 A		100%
1000	P2-7185	Dismantling of existing planter and diversion of utilities with laying of temp pedestrian walkway	29	0	10-Jan-2023 A	25-Feb-2023 A		100%
1001	P2-7190	Set up TTA at Castle Peak Road Carriageway (westbound)	25	0	01-Apr-2023 A	20-May-2023 A		100%
1002	P2-7200	ELS for inspection shaft at FMH_KT1.32A	38	0	27-May-2023 A	26-Aug-2023 A		100%
1003	P2-7210	Install decking at KT1.32A	1	0	30-Aug-2023 A	01-Sep-2023 A		100%
1004	**Combined shaft for SMH_KT6005A & FMH_KT1.33A**		40	0	01-Mar-2023 A	24-Apr-2023 A		100%
1005	P2-4000	Set up TTA at Castle Peak Road Footpath	1	0	01-Mar-2023 A	01-Mar-2023 A		100%
1006	P2-4005	ELS of combined pit for SMH_KT6005A & FMH_KT1.33A	38	0	01-Mar-2023 A	22-Apr-2023 A		100%
1007	P2-4010	Install decking at KT1.33A & release TTA	1	0	22-Apr-2023 A	24-Apr-2023 A		100%
1008	**Combined shaft for SMH_KT6003B & FMH_KT1.27A**		60	0	03-Apr-2023 A	02-Jun-2023 A		100%
1009	P2-8225	Site Possession (Assume 03-Apr-2023)	0	0		04-Apr-2023 A		100%
1010	P2-8230	Set up TTA at Castle Peak Road Carriageway	1	0	03-Apr-2023 A	06-Apr-2023 A		100%
1011	P2-8235	ELS of combined pit for SMH_KT6003B & FMH_KT1.27A	38	0	06-Apr-2023 A	02-Jun-2023 A		100%
1012	**Combined shaft for SMH_KT6004A & FMH_KT1.29A**		39	39	03-Oct-2023	14-Nov-2023	64	0%
1013	P2-3000	Set up TTA at Castle Peak Road Carriageway	1	1	03-Oct-2023	03-Oct-2023	18	0%
1014	P2-3010	ELS of combined pit for SMH_KT6004A & FMH_KT1.29A	38	38	03-Oct-2023	14-Nov-2023	64	0%
1015	**Pipe Jacking**		1150	478	24-Nov-2021 A	23-Jan-2025	673	58.42%
1016	**(KT1.26A to KT1.23) (IL: 5.1-5.7mPD) 800mm dia**		86	0	24-Nov-2021 A	28-Feb-2022 A		100%
1017	P2-8090	Set up Pipe jacking TBM (For DN800 Pipe)	19	0	24-Nov-2021 A	21-Dec-2021 A		100%
1018	P2-8095	Pipe Jacking from FMH_KT1.26A to FMH_KT1.23 (DN800 Pipe) (110m ~3m/day) (94.2m completed)	27	0	22-Dec-2021 A	27-Jan-2022 A		100%
1019	P2-8100	TBM reach the sheet pile at receiving pit	2	0	28-Jan-2022 A	29-Jan-2022 A		100%
1020	P2-8105	Pre- treatment grouting, setup the exit ring, cutting sheet pile	5	0	04-Feb-2022 A	09-Feb-2022 A		100%
1021	P2-8110	TBM break through, setup guide rail, lifting out the TBM, jacking the remaining pipe to designated location, air test	2	0	10-Feb-2022 A	11-Feb-2022 A		100%
1022	P2-8115	Demolish & removal of the slurry pipe, power cable inside the jacking pipe,	10	0	12-Feb-2022 A	19-Feb-2022 A		100%
1023	P2-8120	Demolish the guide rail, Breaking the thrust wall at Jacking Pit	7	0	23-Feb-2022 A	26-Feb-2022 A		100%
1024	P2-8125	Demolish & removal the hoisting frame at Jacking Pit	3	0	25-Feb-2022 A	28-Feb-2022 A		100%
1025	**(KT6003A to KT2003) (IL: 6.0-6.4mPD) 2100mm dia**		216	0	18-Feb-2022 A	21-Sep-2022 A		100%
1026	P2-8130	Relocate working platform	1	0	01-Mar-2022 A	01-Mar-2022 A		100%
1027	P2-8135	Dismantle remaining waling	1	0	02-Mar-2022 A	02-Mar-2022 A		100%
1028	P2-8140	Handover the site to VTEC	1	0	03-Mar-2022 A	03-Mar-2022 A		100%
1029	P2-8145	Pipe Jacking set up on hold due to VTEC staffs suffer COVID-19	20	0	18-Feb-2022 A	12-Mar-2022 A		100%
1030	P2-8150	Setting up 5 tonne hosting frame	2	0	14-Mar-2022 A	16-Mar-2022 A		100%
1031	P2-8155	Pre-treatment grouting works	3	0	17-Mar-2022 A	22-Mar-2022 A		100%
1032	P2-8160	Setup guide rail & entrance ring	3	0	24-Mar-2022 A	26-Mar-2022 A		100%
1033	P2-8160-2	Con't Setup guide rail & entrance ring	3	0	29-Mar-2022 A	31-Mar-2022 A		100%
1034	P2-8165	Setup working platform	2	0	01-Apr-2022 A	04-Apr-2022 A		100%
1035	P2-8170	Setup Thrust Wall	6	0	01-Apr-2022 A	07-Apr-2022 A		100%
1036	P2-8175	Install Slurry Pipe and Power Cable	7	0	07-Apr-2022 A	08-Apr-2022 A		100%
1037	P2-8180	Dismantle 5 tonnes hoisting frame	1	0	08-Apr-2022 A	09-Apr-2022 A		100%
1038	P2-8183	Strut Modification of Jacking Pit to suit TBM Set Up	6	0	28-Apr-2022 A	05-May-2022 A		100%
1039	P2-8185	Target date of deliver 2.1m dia TBM to site	0	0		18-May-2022 A		100%
1040	P2-8190	Set Up Pipe Jacking TBM	7	0	19-May-2022 A	26-May-2022 A		100%
1041	P2-8190-2	Con't Set Up Pipe Jacking TBM	19	0	28-May-2022 A	20-Jun-2022 A		100%
1042	P2-8195	Pipe Jacking from KT6003A to KT2003 (2.1 dia) (115m ~3m/day)	38	0	21-Jun-2022 A	27-Jul-2022 A		100%
1043	P2-8200	Pre-treatment grouting at receiving pit, set up exit ring and form opening	5	0	29-Jul-2022 A	03-Aug-2022 A		100%
1044	P2-8200.2	Pre-treatment grouting at receiving pit, set up exit ring and form opening	3	0	06-Aug-2022 A	08-Aug-2022 A		100%
1045	P2-8375	Lift Out TBM at receiving pit	1	0	13-Aug-2022 A	13-Aug-2022 A		100%
1046	P2-8385	Pushing the remaining pipeline to designated location at receiving pit	1	0	15-Aug-2022 A	15-Aug-2022 A		100%
1047	P2-8395	Demolish and remove slurry pipe, power cable, lubrication pipe	1	0	16-Aug-2022 A	16-Aug-2022 A		100%
1048	P2-8395.2	Demolish and remove slurry pipe, power cable, lubrication pipe	6	0	18-Aug-2022 A	24-Aug-2022 A		100%
1049	P2-8405	Lining Welding works	13	0	26-Aug-2022 A	09-Sep-2022 A		100%
1050	P2-8415	Air Test	2	0	10-Sep-2022 A	12-Sep-2022 A		100%
1051	P2-8425	Demolish and removal of Guide Rail and Working Platform, breaking thrust wall	5	0	13-Sep-2022 A	17-Sep-2022 A		100%
1052	P2-8435	Cleaning of Launching pit	3	0	19-Sep-2022 A	21-Sep-2022 A		100%



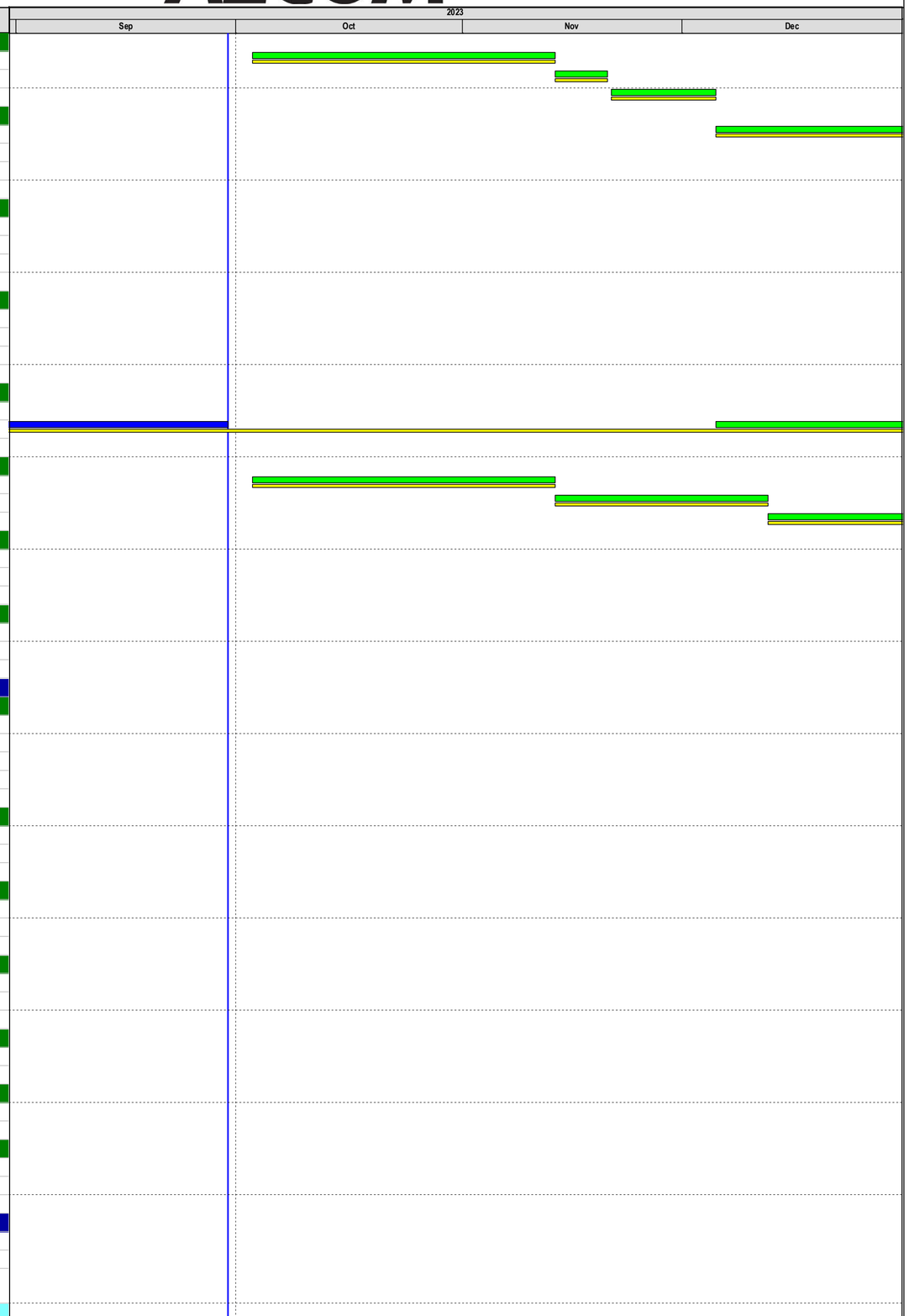
Primary Baseline
Actual Work
Remaining Work
Critical Remaining Work
Baseline Milestone
Critical Milestone
Non-Critical Milestone

Data Date: 30-Sep-2023
Project Start: 03-Feb-2020
Project End: 27-Nov-2026
Baseline: Aug 2023 Monthly Programme Update

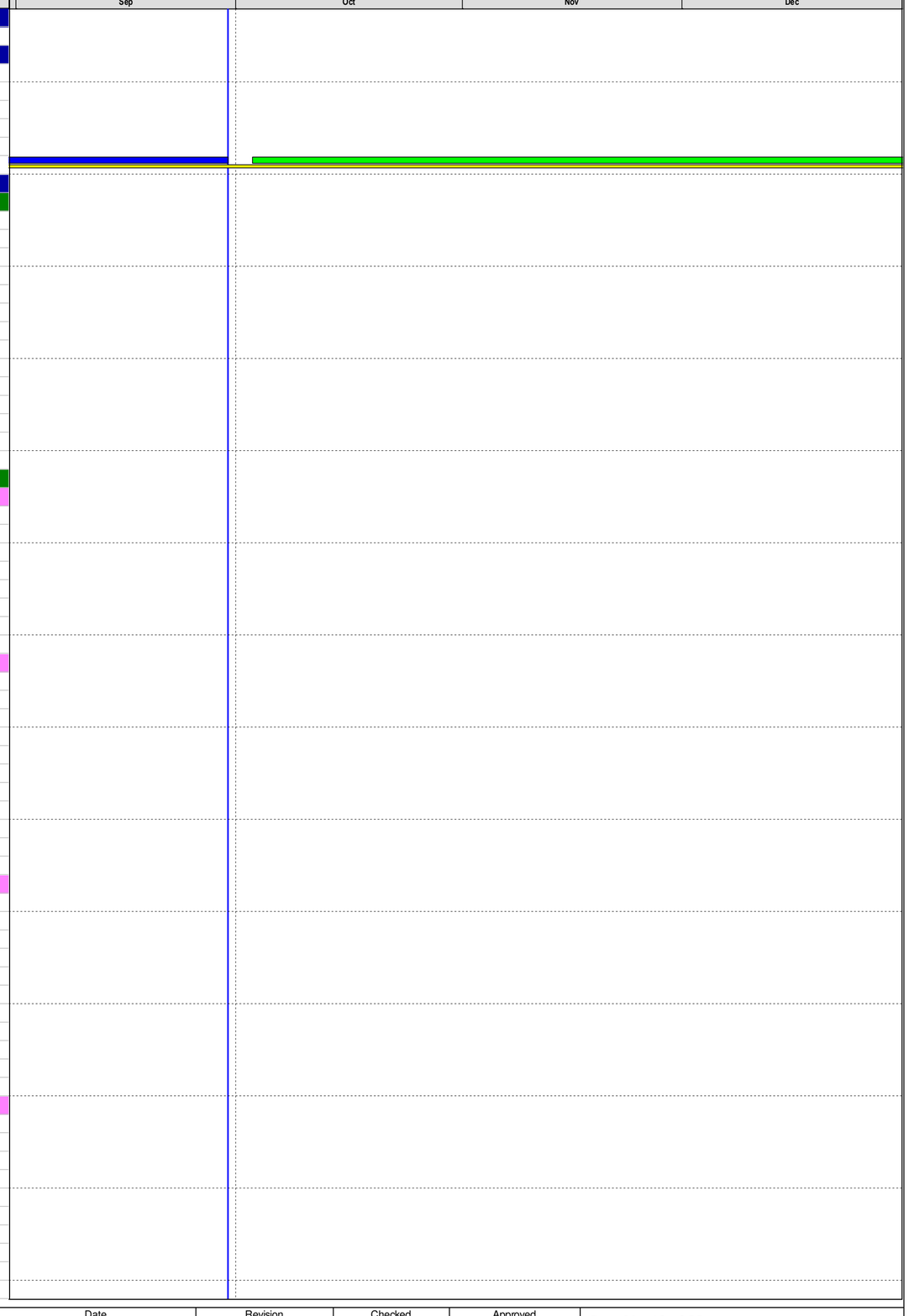
4M Rolling Programme (Sep-Dec 2023)

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

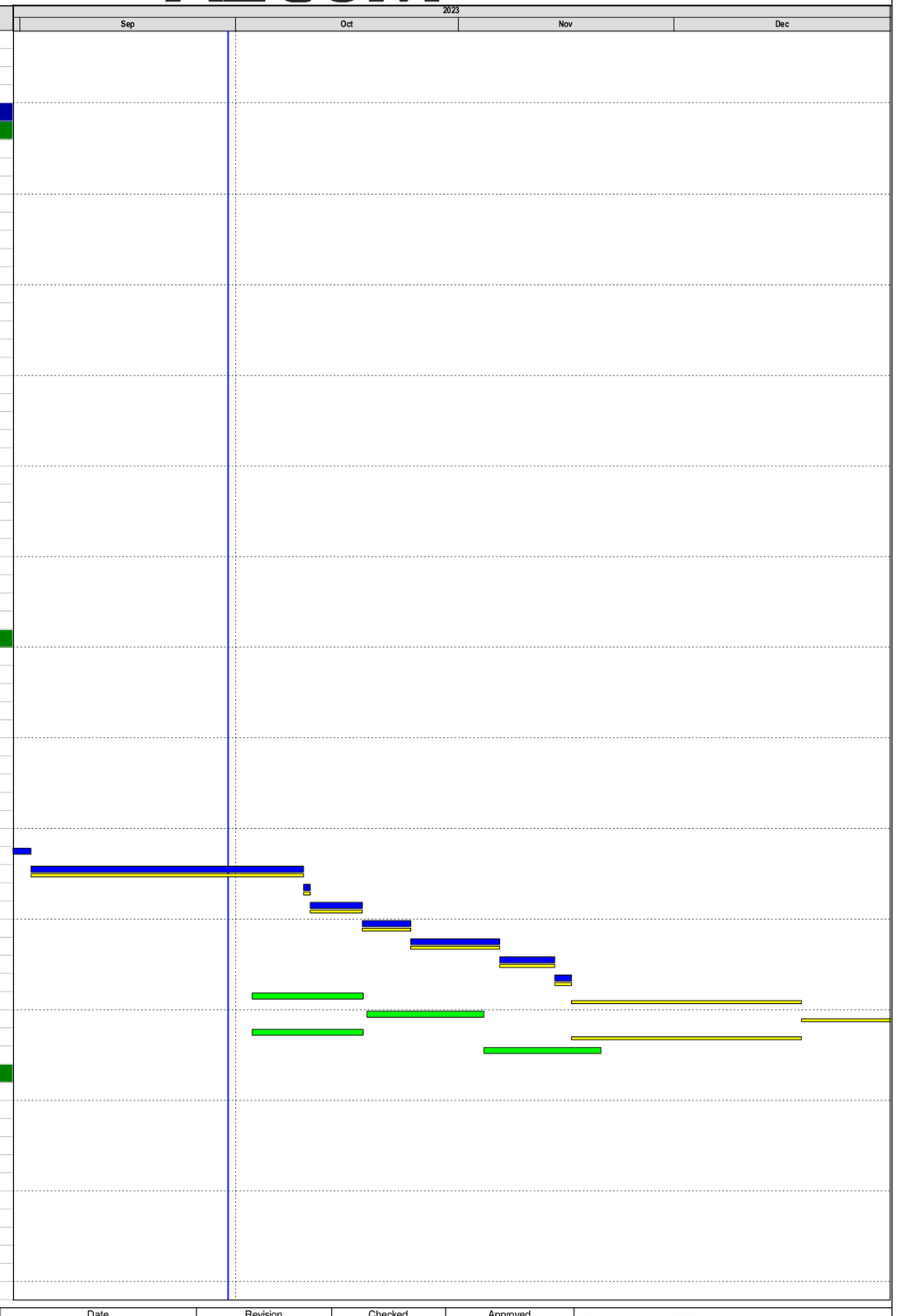
#	Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Duration % Complete
1053		**(KT1.30A to KT1.32A) (IL:3.8-3.6mPD) 800mm dia**	59	59	03-Oct-2023	05-Dec-2023	44	0%
1054	P2-3170	Set up and assembly of TBM (0.8m dia.)	38	38	03-Oct-2023	13-Nov-2023	44	0%
1055	P2-3180	Pipe Jacking from FMH_KT1.30A to FMH_KT1.32A (20m, 3m/day)	7	7	13-Nov-2023	20-Nov-2023	44	0%
1056	P2-3185	Removal of TBM (0.8m dia.) from FMH_KT1.32A	14	14	21-Nov-2023	05-Dec-2023	44	0%
1057		**(KT1.29A to KT1.27A) (IL: 4.1-4.6mPD) 800mm dia**	81	81	05-Dec-2023	06-Mar-2024	44	0%
1058	P2-8205	Set up and Assembly of TBM (0.8m dia.)	38	38	05-Dec-2023	17-Jan-2024	44	0%
1059	P2-8210	Pipe Jacking from FMH_KT1.29A to FMH_KT1.27A (85m, 3m/day)	28	28	17-Jan-2024	19-Feb-2024	44	0%
1060	P2-8215	Dismantling TBM at KT1.27A (0.8m dia.)	14	14	20-Feb-2024	05-Mar-2024	44	0%
1061	P2-8220	Install decking at KT1.29A & release TTA	1	1	05-Mar-2024	06-Mar-2024	44	0%
1062		**(KT1.26A to KT1.27A) (IL:5.1-4.6mPD) 800mm dia**	90	90	06-Mar-2024	17-Jun-2024	44	0%
1063	P2-8240	Set up and Assembly of TBM (0.8m dia.)	38	38	06-Mar-2024	19-Apr-2024	44	0%
1064	P2-8245	Pipe Jacking from FMH_KT1.26A to FMH_KT1.27A (85m, 3m/day)	28	28	19-Apr-2024	21-May-2024	44	0%
1065	P2-8250	Dismantling TBM (0.8m dia.)	21	21	21-May-2024	13-Jun-2024	44	0%
1066	P2-8255	Install decking at KT1.27A & release TTA	3	3	13-Jun-2024	17-Jun-2024	44	0%
1067		**(KT1.30A to KT1.29A) (IL:4.1-3.8mPD) 800mm dia**	70	70	17-Jun-2024	30-Aug-2024	44	0%
1068	P2-3070	Set up TTA for drilling from FMH_KT1.29A to FMH_KT1.30A	1	1	17-Jun-2024	18-Jun-2024	44	0%
1069	P2-3080	Set up and assembly of TBM (0.8m dia.)	38	38	18-Jun-2024	29-Jul-2024	44	0%
1070	P2-3090	Pipe Jacking from FMH_KT1.30A to FMH_KT1.29A (30m, 3m/day)	10	10	29-Jul-2024	08-Aug-2024	44	0%
1071	P2-3100	Removal of TBM (1.2m dia.) at FMH_KT1.29A	21	21	08-Aug-2024	30-Aug-2024	44	0%
1072		**(KT1.33A to KT1.32A) (IL: 3.6mPD) 1500mm dia**	283	126	24-Apr-2023 A	27-Apr-2024	159	55.28%
1073	P2-4020	Set up and assembly of TBM (1.5m dia.)	38	0	24-Apr-2023 A	06-Jul-2023 A		100%
1074	P2-4030	Pipe Jacking from FMH_KT1.33A to FMH_KT1.32A (557m, 3m/day)	186	106	01-Aug-2023 A	06-Apr-2024	159	42.8%
1075	P2-4040	Removal of TBM (1.5m dia.) at FMH_KT1.32A	20	20	06-Apr-2024	27-Apr-2024	159	0%
1076		**(KT6003A to KT6003B) (IL: 6.0-5.7mPD) 2100mm dia**	87	87	03-Oct-2023	06-Jan-2024	18	0%
1077	P2-8260	Set up and Assembly TBM (2.1m dia.) at SMH_KT6003A	38	38	03-Oct-2023	13-Nov-2023	18	0%
1078	P2-8265	Pipe Jacking from SMH_KT6003A to SMH_KT6003B (85m, 3m/day)	28	28	13-Nov-2023	12-Dec-2023	18	0%
1079	P2-8270	Removal of TBM (2.1m dia.) at SMH_KT6003B	21	21	12-Dec-2023	06-Jan-2024	18	0%
1080		**(KT6004A to KT6003B) (IL: 5.3-5.7mPD) 2100mm dia**	86	86	06-Jan-2024	15-Apr-2024	18	0%
1081	P2-8275	Set up and Assembly TBM (2.1m dia.) at SMH_KT6004A	38	38	06-Jan-2024	19-Feb-2024	18	0%
1082	P2-8280	Pipe Jacking from SMH_KT6004A to SMH_KT6003B (80m, 3m/day)	27	27	20-Feb-2024	19-Mar-2024	18	0%
1083	P2-8285	Dismantle TBM at SMH_KT6003B	21	21	19-Mar-2024	15-Apr-2024	18	0%
1084		**(KT6004A to KT6005A) (IL: 5.9mPD) 2100mm dia**	259	259	15-Apr-2024	23-Jan-2025	18	0%
1085	P2-2170	Set up and Assembly TBM (2.1m dia.) at SMH_KT6004A	38	38	15-Apr-2024	27-May-2024	18	0%
1086	P2-2180	Pipe Jacking from SMH_KT6004A to SMH_KT6005A (599m, 3m/day)	200	200	27-May-2024	31-Dec-2024	18	0%
1087	P2-2190	Remove TBM (2.1m dia.) from SMH_KT6005A	21	21	31-Dec-2024	23-Jan-2025	18	0%
1088		**Manhole Construction**	873	337	11-Apr-2022 A	07-May-2025	519	61.46%
1089		**FMH_KT1.23**	81	0	11-Apr-2022 A	26-Aug-2022 A		100%
1090	P2-8286	Erection of Working Platform	9	0	11-Apr-2022 A	16-Apr-2022 A		100%
1091	P2-8288	Modification of Strut for Manhole FMH_KT1.23 construction	5	0	18-Apr-2022 A	22-Apr-2022 A		100%
1092	P2-8290	Manhole FMH_KT1.23 construction	21	0	19-May-2022 A	08-Aug-2022 A		100%
1093	P2-8291	Reinstatement of Combined Pit	23	0	01-Aug-2022 A	24-Aug-2022 A		100%
1094	P2-8293	Handover cofferdam to C1	0	0		26-Aug-2022 A		100%
1095		**SMH_KT6003A & FMH_KT1.26A**	120	120	17-Jun-2024	25-Oct-2024	90	0%
1096	P2-8305	Manhole FMH_KT1.26A construction	30	30	17-Jun-2024	19-Jul-2024	90	0%
1097	P2-8310	Manhole SMH_KT6003A construction	30	30	19-Jul-2024	20-Aug-2024	90	0%
1098	P2-8315	Backfill and reinstatement	60	60	20-Aug-2024	25-Oct-2024	90	0%
1099		**SMH_KT6003B & FMH_KT1.27A**	120	120	17-Jun-2024	25-Oct-2024	130	0%
1100	P2-8335	Manhole FMH_KT1.27A construction	30	30	17-Jun-2024	19-Jul-2024	96	0%
1101	P2-8340	Manhole SMH_KT6003B construction	30	30	19-Jul-2024	20-Aug-2024	96	0%
1102	P2-8350	Backfill and reinstatement	60	60	20-Aug-2024	25-Oct-2024	130	0%
1103		**SMH_KT6004A & FMH_KT1.29A**	222	222	30-Aug-2024	07-May-2025	18	0%
1104	P2-8320	Manhole FMH_KT1.29A construction	30	30	30-Aug-2024	03-Oct-2024	86	0%
1105	P2-8325	Manhole SMH_KT6004A construction	30	30	23-Jan-2025	27-Feb-2025	18	0%
1106	P2-8355	Backfill and reinstatement	60	60	27-Feb-2025	07-May-2025	18	0%
1107		**FMH_KT1.32A**	90	90	27-Apr-2024	05-Aug-2024	159	0%
1108	P2-4060	Manhole FMH_KT1.32A construction	30	30	27-Apr-2024	31-May-2024	159	0%
1109	P2-8365	Backfill and reinstatement	60	60	31-May-2024	05-Aug-2024	159	0%
1110		**FMH_KT1.30A**	90	90	30-Aug-2024	06-Dec-2024	44	0%
1111	P2-3190	Manhole FMH_KT1.30A construction	30	30	30-Aug-2024	03-Oct-2024	44	0%
1112	P2-3200	Backfill and reinstatement	60	60	03-Oct-2024	06-Dec-2024	44	0%
1113		**SMH_KT6005A & FMH_KT1.33A**	132	132	06-Dec-2024	07-May-2025	18	0%
1114	P2-2200	Manhole FMH_KT1.33A construction	30	30	06-Dec-2024	10-Jan-2025	44	0%
1115	P2-4065	Manhole SMH_KT6005A construction	30	30	23-Jan-2025	27-Feb-2025	18	0%
1116	P2-4070	Backfill and reinstatement	60	60	27-Feb-2025	07-May-2025	18	0%
1117		**Utilities Works and Signage**	192	192	03-Oct-2024	07-May-2025	18	0%
1118	P2-7095	Reinstatement works of Disturbed landscape area	100	100	13-Jan-2025	07-May-2025	18	0%
1119	P2-7100	Installation of Branch Pipe (NS250 PE Pipe) to KT1.29A	24	24	03-Oct-2024	30-Oct-2024	86	0%
1120	P2-7120	UU (UG 11kV Cable) and signage works	100	100	13-Jan-2025	07-May-2025	18	0%
1121		**Portion 3 - Road & Drains**	1738	582	13-Jul-2020 A	07-May-2025	569	66.5%



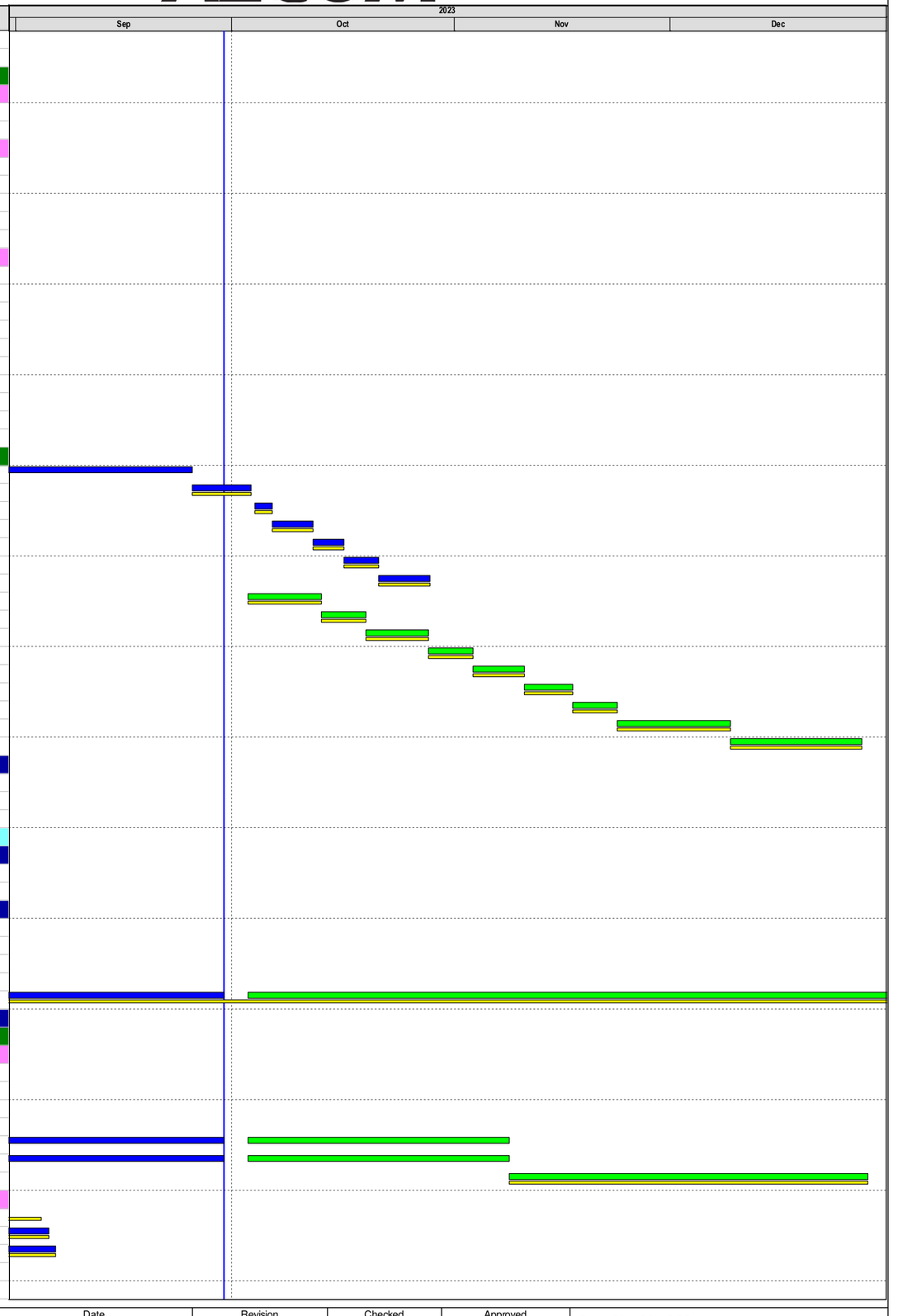
#	Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Duration % Complete
1122	**Site Possession**		0	0	03-Aug-2020 A	03-Aug-2020 A		0%
1123	P3-1000	Possession of site - Portion 3	0	0	03-Aug-2020 A			100%
1124	**Pre-construction works**		1313	504	13-Jul-2020 A	14-Apr-2025	536	61.59%
1125	P3-1010	Utilities Detection in Portion 3	27	0	13-Jul-2020 A	17-Aug-2020 A		100%
1126	P3-1020	Inspection Pit	36	0	03-Aug-2020 A	18-Sep-2020 A		100%
1127	P3-1030	Coordination with UU owner to arrange diversion / abandon	27	0	19-Sep-2020 A	30-Sep-2020 A		100%
1128	P3-1040	Environmental GI & submission of Lab report (PS:1.138)	19	0	18-Aug-2020 A	11-Sep-2020 A		100%
1129	P3-1050	Circulation & Approval of TTAs	14	0	30-Nov-2021 A	15-Dec-2021 A		100%
1130	P3-1060	Tree Protection and Preservation	1327	504	03-Aug-2020 A	14-Apr-2025	536	62%
1131	**Drainage Outfall_6013 constuction by Open Cut (By CE-067)**		274	0	15-Oct-2021 A	03-Dec-2022 A		100%
1132	**Outfall_6013**		125	0	29-Nov-2021 A	26-Mar-2022 A		100%
1133	P3-4005	Sheet Pile Installation at Outfall	26	0	29-Nov-2021 A	20-Dec-2021 A		100%
1134	P3-4010	Formation of Tempoary haul road	6	0	21-Dec-2021 A	23-Dec-2021 A		100%
1135	P3-4020-02	Excavation to 1st strut level	5	0	04-Jan-2022 A	08-Jan-2022 A		100%
1136	P3-4020-04	Installation 1st level strut and testing	14	0	04-Jan-2022 A	19-Jan-2022 A		100%
1137	P3-4020-06	Excavation to 2nd strut level	10	0	20-Jan-2022 A	25-Jan-2022 A		100%
1138	P3-4020-08	Installation 2nd level strut and testing	14	0	07-Feb-2022 A	12-Feb-2022 A		100%
1139	P3-4020-10	Excavation to Formation Level	2	0	12-Feb-2022 A	14-Feb-2022 A		100%
1140	P3-4020-20	Backfilling and Blinding works to outfall	1	0	15-Feb-2022 A	16-Feb-2022 A		100%
1141	P3-4020-30	Allow 7 days for concrete strength development	7	0	17-Feb-2022 A	24-Feb-2022 A		100%
1142	P3-4020-40	Dismantle 2nd Layer Strut	1	0	25-Feb-2022 A	28-Feb-2022 A		100%
1143	P3-4020-50	Outfall Baseslab (Incl concreting)	3	0	01-Mar-2022 A	03-Mar-2022 A		100%
1144	P3-4020-60	Dismantle Base slab Formwork	2	0	04-Mar-2022 A	05-Mar-2022 A		100%
1145	P3-4020-70	Outfall Wall (Incl concreting)	14	0	07-Mar-2022 A	22-Mar-2022 A		100%
1146	P3-4020-80	Dismantle Wall Formwork	3	0	24-Mar-2022 A	26-Mar-2022 A		100%
1147	**Manhole SMH_KT6013A & FMH_KT1.36A**		244	0	15-Oct-2021 A	03-Dec-2022 A		100%
1148	**ELS**		94	0	15-Oct-2021 A	22-Mar-2022 A		100%
1149	P3-5220	Sheet Pile Installation of combined shaft (KT1.36A & KT6013A)	15	0	15-Oct-2021 A	02-Nov-2021 A		100%
1150	P3-5230	Soft Excavation to 1st strut level	6	0	03-Jan-2022 A	08-Jan-2022 A		100%
1151	P3-5230.1	Installation of strut S1	12	0	11-Jan-2022 A	22-Jan-2022 A		100%
1152	P3-5240	Soft Excavation to 2nd strut level	3	0	27-Jan-2022 A	29-Jan-2022 A		100%
1153	P3-5240.1	Installation of strut S2	4	0	10-Feb-2022 A	19-Feb-2022 A		100%
1154	P3-5250	Soft Excavation to 3rd strut level	5	0	23-Feb-2022 A	26-Feb-2022 A		100%
1155	P3-5250.1	Installation of strut S3	12	0	28-Feb-2022 A	12-Mar-2022 A		100%
1156	P3-5260	Soft Excavation to F.L ; (approx. 8.5m depth) with blinding casting	8	0	14-Mar-2022 A	22-Mar-2022 A		100%
1157	**FMH_KT1.36A**		38	0	26-Mar-2022 A	28-May-2022 A		100%
1158	P3-5280	Formwork erection of manhole of KT1.36A (lower portion: +0.022mPD)	1	0	26-Mar-2022 A	26-Mar-2022 A		100%
1159	P3-5280-2	Formwork erection of manhole of KT1.36A (lower portion: +0.022mPD)	3	0	29-Mar-2022 A	31-Mar-2022 A		100%
1160	P3-5290	Rebar fixing for manhole of KT1.36A (lower portion: +0.022mPD)	5	0	01-Apr-2022 A	08-Apr-2022 A		100%
1161	P3-5295	Concreting of manhole KT1.36A (lower portion: +0.022mPD)	1	0	09-Apr-2022 A	09-Apr-2022 A		100%
1162	P3-5297	Dismantle of formwork	2	0	11-Apr-2022 A	12-Apr-2022 A		100%
1163	P3-5310	Formwork erection of manhole KT1.36A:(Middle portion)	4	0	13-Apr-2022 A	23-Apr-2022 A		100%
1164	P3-5320	Rebar fixing of manhole KT1.36A:(Middle portion)	9	0	25-Apr-2022 A	05-May-2022 A		100%
1165	P3-5330	Concreting of manhole KT1.36A:(Middle portion)	1	0	12-May-2022 A	12-May-2022 A		100%
1166	P3-5760	Formwork erection of manhole KT1.36A (Top portion)	3	0	14-May-2022 A	17-May-2022 A		100%
1167	P3-5770	Rebar fixing of manhole KT1.36A (Top portion)	8	0	18-May-2022 A	26-May-2022 A		100%
1168	P3-5780	Concreting of manhole KT1.36A (Top portion)	1	0	28-May-2022 A	28-May-2022 A		100%
1169	**SMH_KT6013A**		42	0	07-Jun-2022 A	25-Jul-2022 A		100%
1170	P3-5335	Dismantle of scaffolding of manhole KT1.36A	5	0	07-Jun-2022 A	11-Jun-2022 A		100%
1171	P3-5340	Mass Concrete of manhole KT6013A	6	0	13-Jun-2022 A	18-Jun-2022 A		100%
1172	P3-5345	Dismantle 3rd Layer Strut	2	0	20-Jun-2022 A	21-Jun-2022 A		100%
1173	P3-5610	Formwork erection of manhole KT6013A (lower portion)	4	0	22-Jun-2022 A	25-Jun-2022 A		100%
1174	P3-5620	Rebar fixing of manhole KT6013A (lower portion)	4	0	27-Jun-2022 A	30-Jun-2022 A		100%
1175	P3-5620-2	Rebar fixing of manhole KT6013A (lower portion)	3	0	05-Jul-2022 A	07-Jul-2022 A		100%
1176	P3-5630	Concreting of manhole KT6013A (lower portion)	1	0	08-Jul-2022 A	08-Jul-2022 A		100%
1177	P3-5640	Dismantle of formwork (lower portion)	1	0	09-Jul-2022 A	09-Jul-2022 A		100%
1178	P3-5730	Formwork erection of supporting Block for 3m Drain	4	0	11-Jul-2022 A	14-Jul-2022 A		100%
1179	P3-5740	Rebar fixing of supporting Block for 3m Drain	8	0	15-Jul-2022 A	23-Jul-2022 A		100%
1180	P3-5750	Concreting of supporting Block for 3m Drain	1	0	25-Jul-2022 A	25-Jul-2022 A		100%
1181	**Drainage Installation**		93	0	26-Jul-2022 A	03-Dec-2022 A		100%
1182	P3-5670	ELS modification between Manhole KT6013A to Outfall	4	0	26-Jul-2022 A	29-Jul-2022 A		100%
1183	P3-5680	3m dia. Pipe Laying	4	0	30-Jul-2022 A	03-Aug-2022 A		100%
1184	P3-5680.2	3m dia. Pipe Laying	2	0	06-Aug-2022 A	08-Aug-2022 A		100%
1185	P3-5680.4	3m dia. Pipe Laying	1	0	11-Aug-2022 A	11-Aug-2022 A		100%
1186	P3-5680.6	3m dia. Pipe Laying	3	0	13-Aug-2022 A	16-Aug-2022 A		100%
1187	P3-5690	Backfill drain trench to 2nd Layer Strut level	4	0	19-Aug-2022 A	23-Aug-2022 A		100%
1188	P3-5700	Dismantle 2nd layer strut	4	0	26-Aug-2022 A	30-Aug-2022 A		100%
1189	P3-6250	Falsework erection of manhole KT6013A (Upper portion)	8	0	31-Aug-2022 A	06-Sep-2022 A		100%
1190	P3-6255	1st side Formwork erection of manhole KT6013A (Upper portion)	4	0	07-Sep-2022 A	11-Oct-2022 A		100%
1191	P3-6260	Rebar fixing of manhole KT6013A (Upper portion)	5	0	13-Sep-2022 A	17-Sep-2022 A		100%



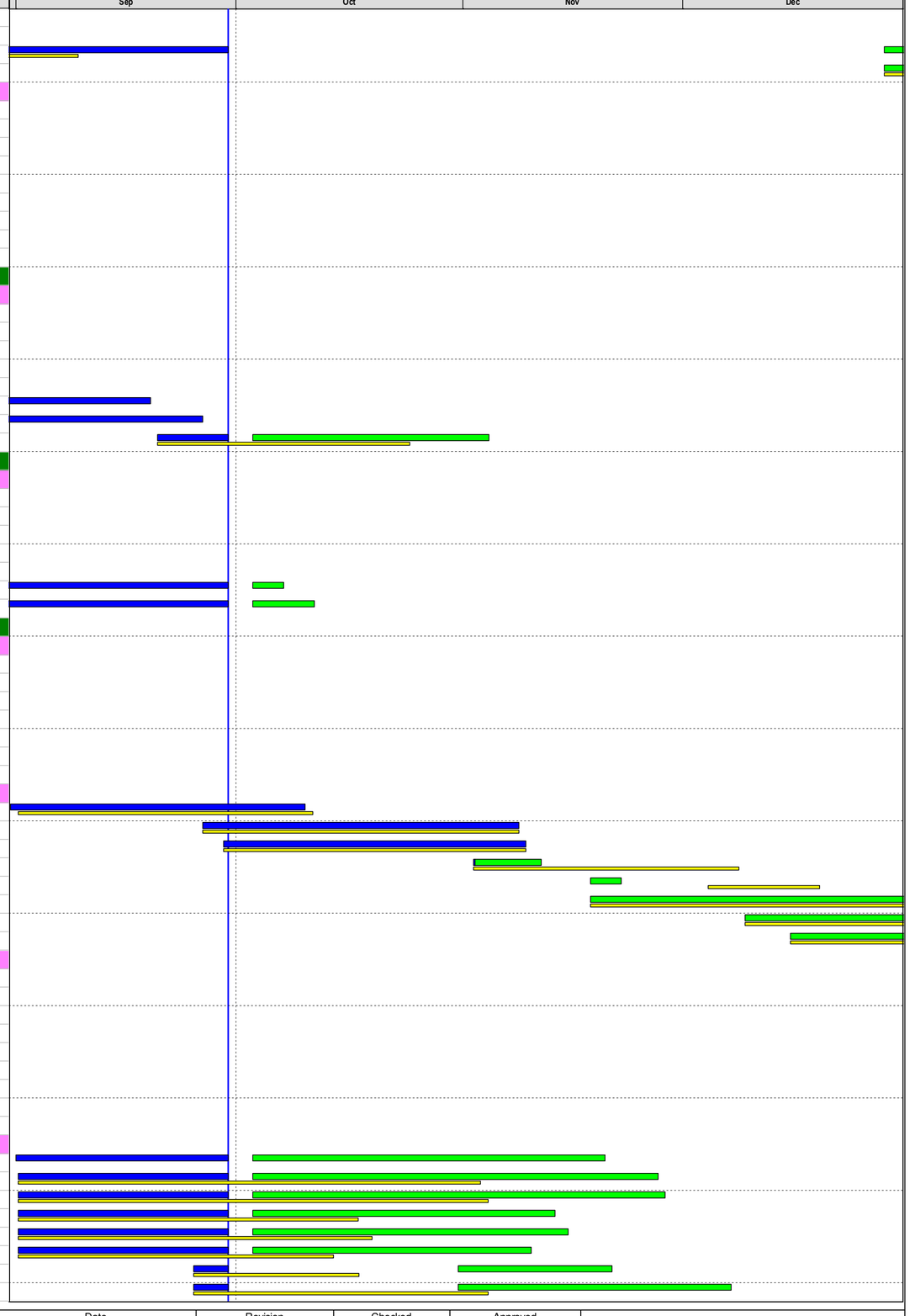
#	Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Duration % Complete
1192	P3-6265	2nd side Formwork erection of manhole KT6013A (Upper portion)	4	0	19-Sep-2022 A	22-Sep-2022 A		100%
1193	P3-6270	Concreting of manhole KT6013A (Upper portion)	1	0	24-Sep-2022 A	24-Sep-2022 A		100%
1194	P3-6275	Backfill to 1st strut level and Dismantle 1st layer strut	41	0	18-Oct-2022 A	22-Nov-2022 A		100%
1195	P3-6280	Backfill to original ground level and remove Sheet Pile	10	0	23-Nov-2022 A	03-Dec-2022 A		100%
1196	**Sewer Pipeline Installation (KT1.33A to KT1.41A)**		596	78	07-Dec-2021 A	27-Dec-2023	963	86.91%
1197	**KT1.39A - KT1.38A (99m) (Pipe Jacking by CE-074)**		273	0	07-Dec-2021 A	23-Dec-2022 A		100%
1198	P3-2500	Expose Utilites by Hand excavation	6	0	07-Dec-2021 A	14-Dec-2021 A		100%
1199	P3-2510	KT1.39A Sheet Pile Installation for lauching shaft	8	0	15-Dec-2021 A	23-Dec-2021 A		100%
1200	P3-2520	KT1.39A Soft Excavation to 1st strut level & Installation of strut S1	9	0	31-Dec-2021 A	11-Jan-2022 A		100%
1201	P3-2530	KT1.39A Soft Excavation to 2nd strut level & Installation of strut S2	8	0	12-Jan-2022 A	20-Jan-2022 A		100%
1202	P3-2540	KT1.39A Soft Excavation to 3rd strut level & Installation of strut S3	8	0	21-Jan-2022 A	29-Jan-2022 A		100%
1203	P3-2550	KT1.39A Soft Excavation to F.L ; (approx. 8.5m depth)	5	0	15-Feb-2022 A	19-Feb-2022 A		100%
1204	P3-2552	TBM Works On Hold Due to Pipe Jacking Workers suffered Covid-19	26	0	19-Feb-2022 A	24-Mar-2022 A		100%
1205	P3-2555	Set up Pipe Jacking Equipment (1st pipe)	30	0	25-Mar-2022 A	29-Apr-2022 A		100%
1206	P3-2556	Pipe Jacking of 800 Concrete Pipe (1.39A to 1.38A) (99m ~ 3m/d)	3	0	07-May-2022 A	10-May-2022 A		100%
1207	P3-2556.17	Pipe Jacking of 800 Concrete Pipe (1.39A to 1.38A) (99m ~ 3m/d)	11	0	14-May-2022 A	26-May-2022 A		100%
1208	P3-2556.19	Pipe Jacking of 800 Concrete Pipe (1.39A to 1.38A) (99m ~ 3m/d)	6	0	28-May-2022 A	04-Jun-2022 A		100%
1209	P3-2556.21	Pipe Jacking of 800 Concrete Pipe (1.39A to 1.38A) (99m ~ 3m/d)	1	0	10-Jun-2022 A	10-Jun-2022 A		100%
1210	P3-2556.23	Pipe Jacking of 800 Concrete Pipe (1.39A to 1.38A) (99m ~ 3m/d)	1	0	13-Jun-2022 A	13-Jun-2022 A		100%
1211	P3-3000	TBM reach the sheet pile at receiving pit	1	0	14-Jun-2022 A	14-Jun-2022 A		100%
1212	P3-3002	Pre- treatment grouting, setup the exit ring, cutting sheet pile	5	0	16-Jun-2022 A	21-Jun-2022 A		100%
1213	P3-3004	TBM break through, setup guide rail, lifting out the TBM, jacking the remaining pipe to designated location, air test	2	0	22-Jun-2022 A	23-Jun-2022 A		100%
1214	P3-3006	Demolish & removal of the slurry pipe, power cable inside the jacking pipe,	5	0	24-Jun-2022 A	29-Jun-2022 A		100%
1215	P3-3010	Set up Pipe Jacking Equipment (2nd pipe)	3	0	02-Jul-2022 A	05-Jul-2022 A		100%
1216	P3-3020	Pipe Jacking of 800 Concrete Pipe (1.39A to 1.38A) (99m ~ 3m/d)	21	0	05-Jul-2022 A	28-Jul-2022 A		100%
1217	P3-5790	TBM reach the sheet pile at receiving pit	1	0	29-Jul-2022 A	29-Jul-2022 A		100%
1218	P3-5800	Pre- treatment grouting, setup the exit ring, cutting sheet pile	5	0	01-Aug-2022 A	05-Aug-2022 A		100%
1219	P3-5810	TBM break through, setup guide rail, lifting out the TBM, jacking the remaining pipe to designated location, air test	2	0	06-Aug-2022 A	08-Aug-2022 A		100%
1220	P3-5820	Demolish & removal of the slurry pipe, power cable inside the jacking pipe,	10	0	09-Aug-2022 A	19-Aug-2022 A		100%
1221	P3-5830	Demolish the guide rail, Breaking the thrust wall at Jacking Pit	7	0	20-Aug-2022 A	27-Aug-2022 A		100%
1222	P3-5835	Modify the hoisting frame at Jacking Pit	3	0	15-Sep-2022 A	17-Sep-2022 A		100%
1223	P3-5840	Construction of Manhole KT1.38A	24	0	14-Sep-2022 A	15-Nov-2022 A		100%
1224	P3-5842	Backfilling to at grade level KT1.38A	20	0	01-Dec-2022 A	23-Dec-2022 A		100%
1225	**KT1.39A - KT1.40A (99m) (Pipe Jacking by CE-074)**		596	45	15-Dec-2021 A	20-Nov-2023	405	92.45%
1226	P3-5450	Sheet Pile Installation for lauching shaft KT1.40A	21	0	15-Dec-2021 A	23-Dec-2021 A		100%
1227	P3-5460	KT1.40A Soft Excavation to 1st strut level & Installation of strut S1	16	0	31-Dec-2021 A	11-Jan-2022 A		100%
1228	P3-5470	KT1.40A Soft Excavation to 2nd strut level & Installation of strut S2	8	0	02-Mar-2022 A	10-Mar-2022 A		100%
1229	P3-5480	KT1.40A Soft Excavation to 3rd strut level & Installation of strut S3	8	0	24-Mar-2022 A	31-Mar-2022 A		100%
1230	P3-5490	KT1.40A Soft Excavation to F.L ; (approx. 8.5m depth)	8	0	01-Apr-2022 A	09-Apr-2022 A		100%
1231	P3-5550	Set up Pipe Jacking Equipment (1st pipe)	15	0	19-Sep-2022 A	11-Oct-2022 A		100%
1232	P3-5560	Pipe Jacking of 800 Concrete Pipe (1.39A to 1.40A) (99m ~ 3m/d)	33	0	12-Oct-2022 A	18-Nov-2022 A		100%
1233	P3-5856	TBM reach the sheet pile at receiving pit	1	0	19-Nov-2022 A	19-Nov-2022 A		100%
1234	P3-5866	Pre- treatment grouting, setup the exit ring, cutting sheet pile	5	0	21-Nov-2022 A	25-Nov-2022 A		100%
1235	P3-5876	TBM break through, setup guide rail, lifting out the TBM, jacking the remaining pipe to designated location, air test	2	0	26-Nov-2022 A	26-Nov-2022 A		100%
1236	P3-5886	Demolish & removal of the slurry pipe, power cable inside the jacking pipe,	10	0	26-Nov-2022 A	07-Dec-2022 A		100%
1237	P3-6030	Set up Pipe Jacking Equipment (2nd pipe)	15	0	31-Jan-2023 A	02-Sep-2023 A		100%
1238	P3-6040	Pipe Jacking of 800 Concrete Pipe (1.39A to 1.40A) (99m ~ 3m/d)	33	0	02-Sep-2023 A	10-Oct-2023 A		100%
1239	P3-6050	TBM reach the sheet pile at receiving pit	1	0	10-Oct-2023 A	11-Oct-2023 A		100%
1240	P3-6060	Pre- treatment grouting, setup the exit ring, cutting sheet pile	7	0	11-Oct-2023 A	18-Oct-2023 A		100%
1241	P3-6070	TBM break through, setup guide rail, lifting out the TBM, jacking the remaining pipe to designated location, air test	5	0	18-Oct-2023 A	25-Oct-2023 A		100%
1242	P3-6080	Demolish & removal of the slurry pipe, power cable inside the jacking pipe,	12	0	25-Oct-2023 A	06-Nov-2023 A		100%
1243	P3-6090	Demolish the guide rail, Breaking the thrust wall at Jacking Pit	7	0	06-Nov-2023 A	14-Nov-2023 A		100%
1244	P3-6100	Demolish and removal the hoisting frame at Jacking Pit	3	0	14-Nov-2023 A	16-Nov-2023 A		100%
1245	P3-6105	Construction of Manhole KT1.39A	30	15	16-Nov-2023 A	18-Oct-2023	405	50%
1246	P3-6107	Backfilling to at grade level KT1.39A	30	15	18-Dec-2023 A	04-Nov-2023	405	50%
1247	P3-6110	Construction of Manhole KT1.40A	30	15	16-Nov-2023 A	18-Oct-2023	420	50%
1248	P3-6120	Backfilling to at grade level KT1.40A	30	15	22-Jan-2024 A	20-Nov-2023	405	50%
1249	**KT1.38A - KT1.37A (99m) (Open Cut by CE-075)**		274	0	20-Dec-2021 A	28-Dec-2022 A		100%
1250	P3-2200	Sheet Pile Installation for open trench at KT1.38A - KT1.37A	49	0	20-Dec-2021 A	19-Feb-2022 A		100%
1251	P3-2210	Soft Excavation to 1st strut level (99m @12m / Bay)	72	0	20-Jan-2022 A	30-Mar-2022 A		100%
1252	P3-2210.1	Installation of strut S1 (99m @12m / Bay)	75	0	24-Jan-2022 A	04-Apr-2022 A		100%
1253	P3-2220	Soft Excavation to 2nd strut level (99m @12m / Bay)	75	0	11-Feb-2022 A	07-Apr-2022 A		100%
1254	P3-2220.1	Installation of strut S2 (99m @12m / Bay)	61	0	01-Mar-2022 A	21-Apr-2022 A		100%
1255	P3-2250	Soft Excavation to F.L ; (99m @12m / Bay)	59	0	10-Mar-2022 A	25-Apr-2022 A		100%
1256	P3-2253	Receipt from manufacturer's notification for delay of delivery due to Covid-19	51	0	01-Mar-2022 A	29-Apr-2022 A		100%
1257	P3-2255	Impacted Delivery Date of Concrete Pipe	0	0	05-May-2022 A	05-May-2022 A		100%
1258	P3-2260	Bedding & Pipe Laying (Twins 800 Concrete Pipe)	5	0	05-May-2022 A	10-May-2022 A		100%
1259	P3-2263	Bedding & Pipe Laying (Twins 800 Concrete Pipe)	10	0	14-May-2022 A	25-May-2022 A		100%
1260	P3-2265	Backfilling of drain to at grade level KT1.37A	40	0	30-May-2022 A	16-Jul-2022 A		100%
1261	P3-2270	Construction of Manhole KT1.37A	24	0	13-Jun-2022 A	15-Nov-2022 A		100%



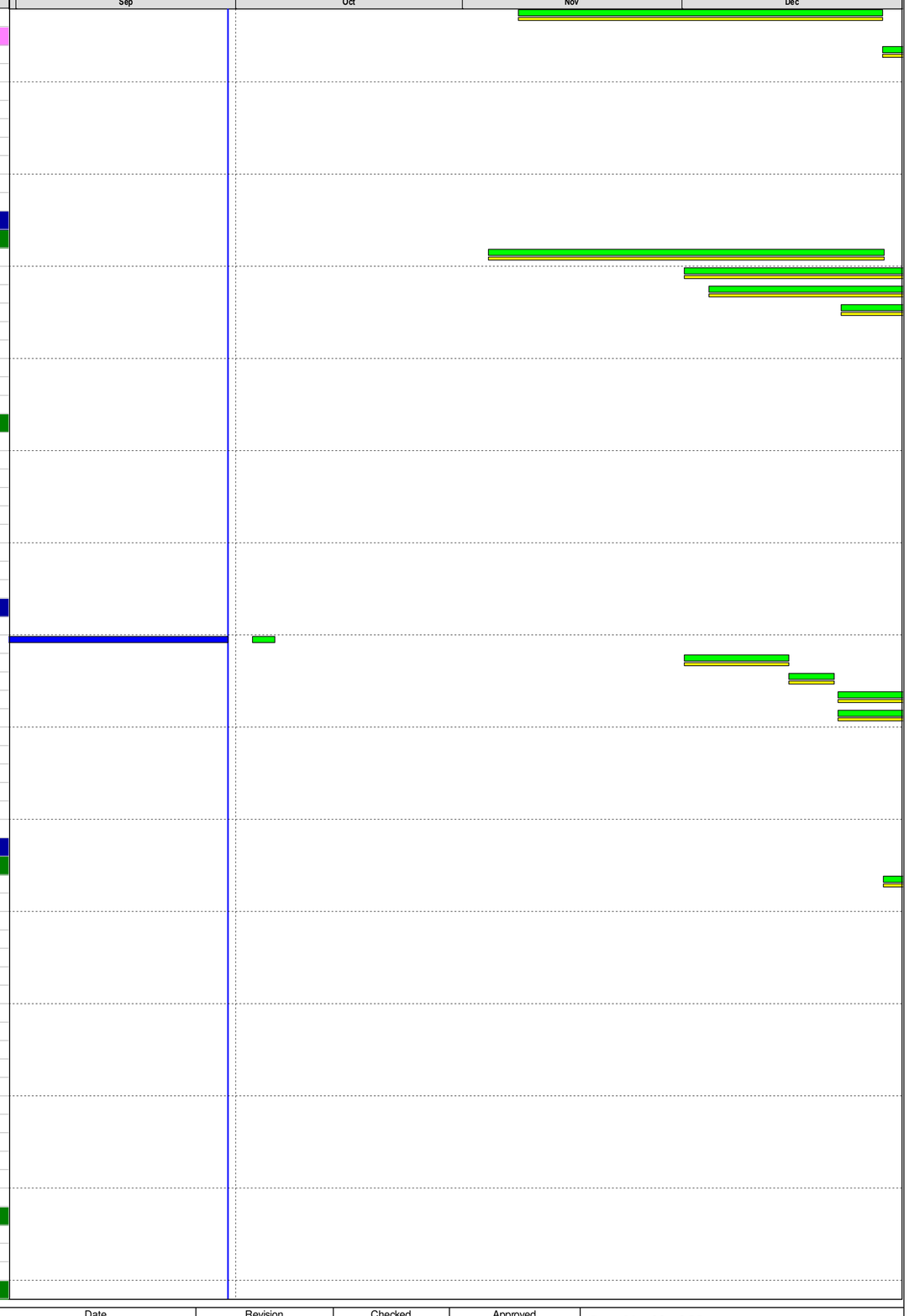
#	Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Duration % Complete
1262	P3-2275	Extract Sheet Pile along trench	27	0	15-Jul-2022 A	15-Aug-2022 A		100%
1263	P3-2280	Backfilling of manhole to at grade level KT1.37A	49	0	01-Nov-2022 A	28-Dec-2022 A		100%
1264	**KT1.37A - KT1.36A (90m) (Open Cut by CE-068)**		245	0	03-Jan-2022 A	06-Dec-2022 A		100%
1265	**Before Tree Removal**		25	0	04-Feb-2022 A	03-Mar-2022 A		100%
1266	P3-2000	Expose Utilites by Hand excavation	7	0	04-Feb-2022 A	11-Feb-2022 A		100%
1267	P3-2005	Sheet Pile Installation for open trench at KT1.37A - KT1.36A (River side before tree removal)	17	0	12-Feb-2022 A	03-Mar-2022 A		100%
1268	**Tree Removal**		135	0	03-Jan-2022 A	15-Jul-2022 A		100%
1269	P3-2009.1	RFI 076 for the Clashing of Pipe Trench of KT1.37A to KT1.36A	0	0		03-Jan-2022 A		100%
1270	P3-2009.2	Waiting Period from Project Manager of RFI 076	45	0	04-Jan-2022 A	28-Feb-2022 A		100%
1271	P3-2009.3	Receipt of Project Reply of RFI 076 for felling the tree T0937	0	0	01-Mar-2022 A			100%
1272	P3-2009.4	Application and Approval for tree felling of T0937	78	0	01-Mar-2022 A	01-Jun-2022 A		100%
1273	P3-2009.5	Tree felling works of T0937 to release working space for sheet piling	2	0	14-Jul-2022 A	15-Jul-2022 A		100%
1274	**After Tree Removal**		196	0	04-Mar-2022 A	06-Dec-2022 A		100%
1275	P3-2009.6	Sheet Pile Installation for open trench at KT1.37A - KT1.36A (River side avoid abandoned tree location)	21	0	08-Jun-2022 A	02-Jul-2022 A		100%
1276	P3-2009.7	Sheet Pile Installation for open trench at KT1.37A - KT1.36A (Cycle Track Side to close the entire trench)	103	0	04-Mar-2022 A	06-Jul-2022 A		100%
1277	P3-2010	Soft Excavation to 1st strut level	30	0	15-Jun-2022 A	20-Jul-2022 A		100%
1278	P3-2010.1	Installation of strut S1	32	0	29-Jun-2022 A	29-Jul-2022 A		100%
1279	P3-2020	Soft Excavation to 2nd strut level	30	0	06-Jul-2022 A	25-Aug-2022 A		100%
1280	P3-2020.1	Installation of strut S2	32	0	19-Jul-2022 A	29-Aug-2022 A		100%
1281	P3-2070	Soft Excavation to F.L with blinding cast; (approx. 8.5m depth)	24	0	05-Sep-2022 A	05-Oct-2022 A		100%
1282	P3-2110	Bedding & Pipe Laying (Twins 800 Concrete Pipe)	20	0	19-Sep-2022 A	14-Oct-2022 A		100%
1283	P3-2115	Backfilling of drain to at grade level with dismantling strut	40	0	06-Oct-2022 A	21-Nov-2022 A		100%
1284	P3-6290	Sheet Pile Extraction	30	0	02-Nov-2022 A	06-Dec-2022 A		100%
1285	**KT1.36A - KT1.33A (23m) (Open Cut by CE-068)**		274	78	20-Dec-2022 A	27-Dec-2023	356	71.54%
1286	P3-5025	Hand Dig Excavation to identiy the routing of existing utilities with diversion	56	0	20-Dec-2022 A	25-Sep-2023 A		100%
1287	P3-5030	Sheet Pile Installation of combined shaft (KT1.33A & KT6005A)	6	0	25-Sep-2023 A	03-Oct-2023 A		100%
1288	P3-5040	Soft Excavation to 1st strut level	3	0	04-Oct-2023 A	06-Oct-2023 A		100%
1289	P3-5040.1	Installation of strut S1	5	0	06-Oct-2023 A	12-Oct-2023 A		100%
1290	P3-5050	Soft Excavation to 2nd strut level	4	0	12-Oct-2023 A	16-Oct-2023 A		100%
1291	P3-5050.1	Installation of strut S2	5	0	16-Oct-2023 A	21-Oct-2023 A		100%
1292	P3-5070	Soft Excavation to F.L ; (approx. 8.5m depth)	6	0	21-Oct-2023 A	28-Oct-2023 A		100%
1293	P3-6130	Sheet pile installation of Trench for 800 dia. and 2100 dia. pipe installation	10	10	03-Oct-2023	13-Oct-2023	356	0%
1294	P3-6140	Soft Excavation to to 1st Strut Level	6	6	13-Oct-2023	19-Oct-2023	356	0%
1295	P3-6150	Install 1st Level Strut	7	7	19-Oct-2023	28-Oct-2023	356	0%
1296	P3-6160	Soft Excavation to to 2nd Strut Level	6	6	28-Oct-2023	03-Nov-2023	356	0%
1297	P3-6170	Install 2nd Level Strut	7	7	03-Nov-2023	10-Nov-2023	356	0%
1298	P3-6200	Excavate to FEL	6	6	10-Nov-2023	17-Nov-2023	356	0%
1299	P3-6210	Bedding & 800 Dia. Concrete Pipe Laying	6	6	17-Nov-2023	23-Nov-2023	356	0%
1300	P3-6220	Backfill to base level of 2100 dia pipe, bedding and pipe laying	15	15	23-Nov-2023	09-Dec-2023	356	0%
1301	P3-6230	Backfill to formation and reinstatement	15	15	09-Dec-2023	27-Dec-2023	356	0%
1302	**Reinstatement**		90	90	23-Jan-2025	07-May-2025	18	0%
1303	P3-5005	Remaining Pipe Connection to Manhole (After Pipe Jacking)	10	10	25-Apr-2025	07-May-2025	18	0%
1304	P3-5010	Underground Utilities & Road works	90	90	23-Jan-2025	07-May-2025	18	0%
1305	P3-5020	Reinstatement of Road, disturbed landscape area and Tree Planting (83nos.)	40	40	20-Mar-2025	07-May-2025	18	0%
1306	**Portion 4 - Road & Drains**		1671	516	16-Apr-2020 A	01-Mar-2025	635	69.14%
1307	**Site Possession**		174	0	16-Apr-2020 A	03-Aug-2020 A		100%
1308	P4-1070	Possession of site - Part of Portion 4	0	0	16-Apr-2020 A			100%
1309	P4-1075	Possession of site - Remaining Part of Portion 4	0	0	03-Aug-2020 A			100%
1310	**Pre-construction works**		1313	464	13-Jul-2020 A	01-Mar-2025	576	64.62%
1311	P4-1010	Utilities Detection in Portion 4	27	0	13-Jul-2020 A	17-Aug-2020 A		100%
1312	P4-1020	Inspection Pit	36	0	18-Aug-2020 A	22-Sep-2020 A		100%
1313	P4-1030	Coordination with UU owner to arrange diversion / abandon	27	0	23-Sep-2020 A	30-Sep-2020 A		100%
1314	P4-1040	Environmental GI & submission of Lab report (PS:1.138)	27	0	19-Aug-2020 A	22-Sep-2020 A		100%
1315	P4-1050	Tree Protection and Preservation	1327	464	03-Aug-2020 A	01-Mar-2025	576	65%
1316	**Rising Main Installation by Open Cut (CHB 50 to 493 & CHB515 to 974)**		605	267	24-May-2022 A	26-Jul-2024	273	55.9%
1317	**Gang 1**		605	267	24-May-2022 A	26-Jul-2024	118	55.9%
1318	**Rising Main CHB255 to CHB371 (116M) Gang 1-1**		417	79	24-May-2022 A	28-Dec-2023	112	81.13%
1319	P4-3210	Sheet Pile Installation for open trench (600 pcs)	49	0	24-May-2022 A	21-Jul-2022 A		100%
1320	P4-3212	Soft Excavation to 1st strut level	57	0	23-Jun-2022 A	28-Jul-2022 A		100%
1321	P4-3214	Installation of strut S1	58	0	05-Jul-2022 A	18-Aug-2022 A		100%
1322	P4-3220	Soft Excavation to F.L.	136	0	09-Aug-2022 A	19-Jan-2023 A		100%
1323	P4-3222	Bedding and Pipe Laying (Twins DN700)	112	34	27-Sep-2022 A	08-Nov-2023	112	70%
1324	P4-3223	RC Works Inspection Chamber and Air Valve Chamber	112	34	27-Sep-2022 A	08-Nov-2023	112	70%
1325	P4-3224	Backfilling of drain to at grade level	45	45	08-Nov-2023	28-Dec-2023	112	0%
1326	**Rising Main CHB180 to CHB255 (75M) Gang 1-2**		191	45	05-Jun-2023 A	17-Feb-2024	118	76.4%
1327	P4-6480	Sheet Pile Installation for open trench	49	0	05-Jun-2023 A	28-Aug-2023 A		100%
1328	P4-6490	Soft Excavation to 1st strut level	57	0	05-Jun-2023 A	05-Sep-2023 A		100%
1329	P4-6500	Installation of strut S1	58	0	05-Jun-2023 A	06-Sep-2023 A		100%
1330	P4-6510	Soft Excavation to 2nd strut level	42	0	05-Jun-2023 A	21-Aug-2023 A		100%
1331	P4-6520	Installation of strut S2	44	0	05-Jun-2023 A	22-Aug-2023 A		100%



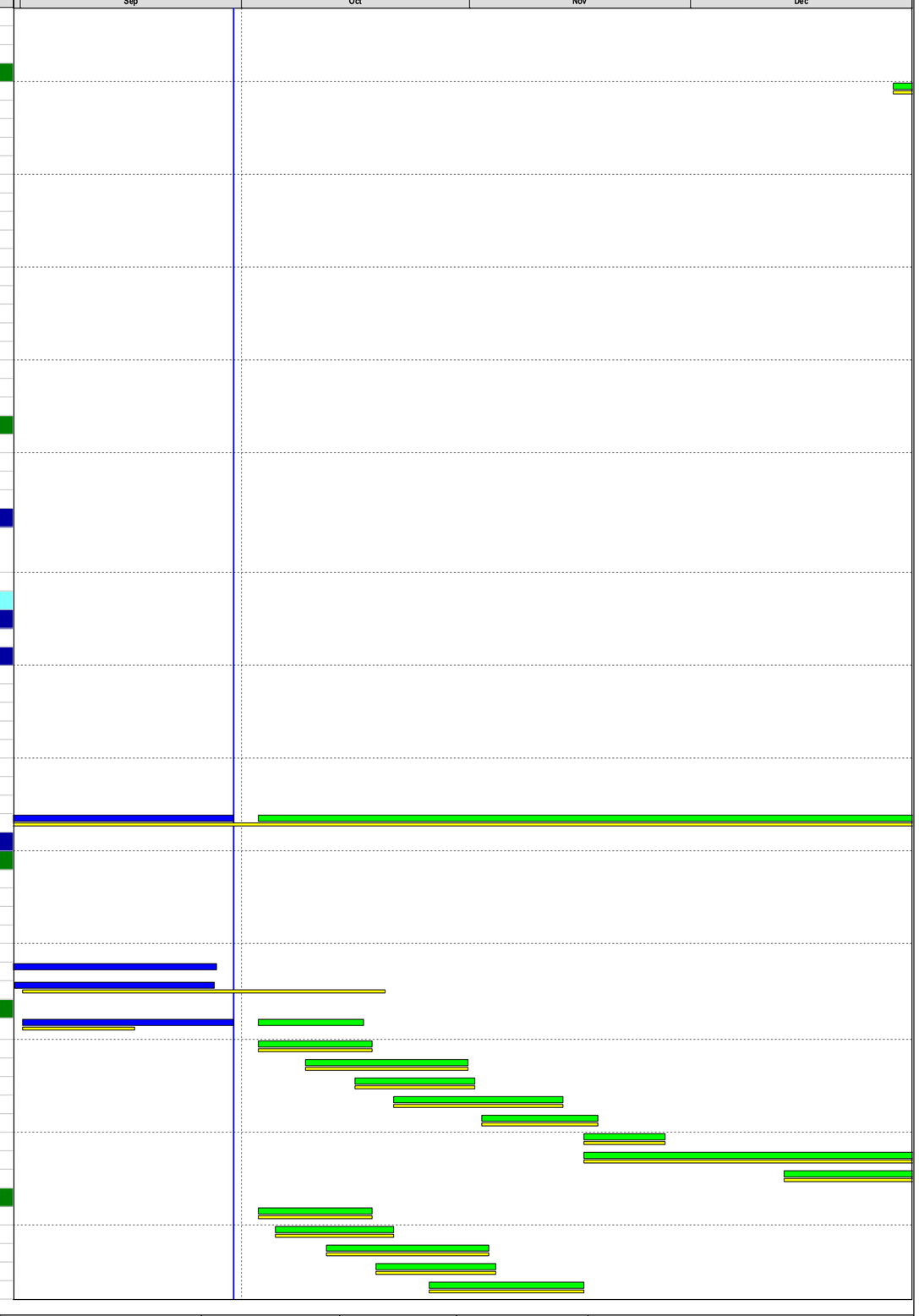
#	Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Duration % Complete
1332	P4-6530	Soft Excavation to F.L.	39	0	05-Jun-2023 A	17-Aug-2023 A		100%
1333	P4-6540	Bedding and Pipe Laying (Twins DN700)	20	0	21-Jul-2023 A	17-Aug-2023 A		100%
1334	P4-6545	RC Works Inspection Chamber and Air Valve Chamber	45	45	21-Jul-2023 A	17-Feb-2024	118	0%
1335	P4-6550	Backfilling of drain to at grade level	45	45	28-Dec-2023	17-Feb-2024	118	0%
1336	**Rising Main CHB515 to CHB589 (74M) Gang 1-3**		143	143	17-Feb-2024	26-Jul-2024	118	0%
1337	P4-5920	Sheet Pile Installation for open trench	36	36	17-Feb-2024	27-Mar-2024	118	0%
1338	P4-5930	Soft Excavation to 1st strut level	38	38	15-Mar-2024	29-Apr-2024	118	0%
1339	P4-5940	Installation of strut S1	36	36	18-Mar-2024	30-Apr-2024	118	0%
1340	P4-5950	Soft Excavation to 2nd strut level	30	30	11-Apr-2024	14-May-2024	118	0%
1341	P4-5960	Installation of strut S2	30	30	23-Apr-2024	27-May-2024	118	0%
1342	P4-5970	Soft Excavation to F.L.	35	35	27-Apr-2024	06-Jun-2024	118	0%
1343	P4-5980	Bedding and Pipe Laying (Twins DN700)	20	20	22-May-2024	13-Jun-2024	118	0%
1344	P4-5985	RC Works Inspection Chamber and Air Valve Chamber	45	45	22-May-2024	10-Jul-2024	133	0%
1345	P4-5990	Backfilling of drain to at grade level	45	45	06-Jun-2024	26-Jul-2024	118	0%
1346	**Gang 2**		312	30	02-Aug-2022 A	04-Nov-2023	76	90.38%
1347	**Rising Main CHB120 to CHB180 (60M) Gang 2-1**		312	30	02-Aug-2022 A	04-Nov-2023	76	90.38%
1348	P4-6000	Sheet Pile Installation for open trench	49	0	02-Aug-2022 A	28-Sep-2022 A		100%
1349	P4-6010	Soft Excavation to 1st strut level	57	0	20-Sep-2022 A	19-Nov-2022 A		100%
1350	P4-6020	Installation of strut S1	58	0	03-Oct-2022 A	09-Dec-2022 A		100%
1351	P4-6050	Soft Excavation to F.L.	50	0	25-Oct-2022 A	21-Dec-2022 A		100%
1352	P4-6060	Bedding and Pipe Laying (Twins DN700)	20	0	04-Jan-2023 A	30-Jan-2023 A		100%
1353	P4-6065	RC Works Inspection Chamber and Air Valve Chamber	63	0	04-Jan-2023 A	19-Sep-2023 A		100%
1354	P4-6070	Backfilling of drain to at grade level	40	0	11-Jan-2023 A	26-Sep-2023 A		100%
1355	P4-6320	Sheet Pile Extraction	30	30	20-Sep-2023 A	04-Nov-2023	76	0%
1356	**Gang 3**		136	8	05-Aug-2022 A	11-Oct-2023	251	94.06%
1357	**Rising Main CHB589 to CHB699 (88M) Gang 3-1**		136	8	05-Aug-2022 A	11-Oct-2023	251	94.06%
1358	P4-5600	Sheet Pile Installation for open trench	42	0	05-Aug-2022 A	23-Sep-2022 A		100%
1359	P4-5610	Soft Excavation to 1st strut level	40	0	15-Aug-2022 A	30-Sep-2022 A		100%
1360	P4-5620	Installation of strut S1	25	0	07-Sep-2022 A	08-Oct-2022 A		100%
1361	P4-5650	Soft Excavation to F.L.	34	0	14-Sep-2022 A	26-Oct-2022 A		100%
1362	P4-5660	Bedding and Pipe Laying (Twins DN700)	7	0	04-Nov-2022 A	11-Nov-2022 A		100%
1363	P4-5665	RC Works Inspection Chamber and Air Valve Chamber	45	5	04-Nov-2022 A	07-Oct-2023	251	89%
1364	P4-5670	Backfilling of drain to at grade level	45	8	16-Dec-2022 A	11-Oct-2023	251	82%
1365	**Gang 4**		488	230	29-Sep-2022 A	17-Jun-2024	310	52.93%
1366	**Rising Main CHB50 to CHB120 (70M) Gang 4-1**		117	0	29-Sep-2022 A	29-Aug-2023 A		100%
1367	P4-6080	Sheet Pile Installation for open trench	49	0	29-Sep-2022 A	25-Nov-2022 A		100%
1368	P4-6090	Soft Excavation to 1st strut level	57	0	17-Oct-2022 A	21-Dec-2022 A		100%
1369	P4-6100	Installation of strut S1	58	0	24-Oct-2022 A	24-Dec-2022 A		100%
1370	P4-6110	Soft Excavation to F.L.	42	0	28-Oct-2022 A	30-Dec-2022 A		100%
1371	P4-6140	Bedding and Pipe Laying (Twins DN700)	20	0	10-Dec-2022 A	02-Aug-2023 A		100%
1372	P4-6145	RC Works Inspection Chamber and Air Valve Chamber	45	0	10-Dec-2022 A	07-Aug-2023 A		100%
1373	P4-6150	Backfilling of drain to at grade level	45	0	03-Jan-2023 A	29-Aug-2023 A		100%
1374	**Rising Main CHB371 to CHB493 (122M) Gang 4-2**		127	71	31-Aug-2023 A	19-Jan-2024	200	44.05%
1375	P4-6410	Sheet Pile Installation for open trench	36	0	31-Aug-2023 A	10-Oct-2023 A		100%
1376	P4-6420	Soft Excavation to 1st strut level	38	0	26-Sep-2023 A	08-Nov-2023 A		100%
1377	P4-6430	Installation of strut S1	36	0	29-Sep-2023 A	09-Nov-2023 A		100%
1378	P4-6440	Soft Excavation to F.L.	35	9	02-Nov-2023 A	11-Nov-2023	200	75%
1379	P4-6450	Bedding and Pipe Laying (Twins DN700)	15	4	04-Dec-2023 A	22-Nov-2023	200	75%
1380	P4-6455	RC Works Inspection Chamber and Air Valve Chamber	45	45	18-Nov-2023	08-Jan-2024	200	0%
1381	P4-6460	Backfilling of drain to at grade level	30	30	09-Dec-2023	13-Jan-2024	200	0%
1382	P4-6470	Sheet Pile Extraction	30	30	15-Dec-2023	19-Jan-2024	200	0%
1383	**Rising Main CHB699 to CHB749 (50M) Gang 4-3**		86	86	19-Jan-2024	27-Apr-2024	200	0%
1384	P4-5680	Sheet Pile Installation for open trench	15	15	19-Jan-2024	05-Feb-2024	200	0%
1385	P4-5690	Soft Excavation to 1st strut level	15	15	23-Jan-2024	07-Feb-2024	200	0%
1386	P4-5700	Installation of strut S1	20	20	29-Jan-2024	22-Feb-2024	200	0%
1387	P4-5710	Soft Excavation to 2nd strut level	15	15	05-Feb-2024	23-Feb-2024	200	0%
1388	P4-5720	Installation of strut S2	20	20	14-Feb-2024	06-Mar-2024	200	0%
1389	P4-5730	Soft Excavation to F.L.	15	15	24-Feb-2024	12-Mar-2024	200	0%
1390	P4-5740	Bedding and Pipe Laying (Twins DN700)	10	10	09-Mar-2024	20-Mar-2024	200	0%
1391	P4-5745	RC Works Inspection Chamber and Air Valve Chamber	36	36	09-Mar-2024	20-Apr-2024	200	0%
1392	P4-5750	Backfilling of drain to at grade level	25	25	27-Mar-2024	27-Apr-2024	200	0%
1393	**Rising Main CHB749 to CHB867 (118M) Gang 4-4**		233	79	01-Sep-2023 A	28-Dec-2023	306	66.34%
1394	P4-5760	Sheet Pile Installation for open trench	49	44	01-Sep-2023 A	20-Nov-2023	306	10%
1395	P4-5770	Soft Excavation to 1st strut level	57	51	01-Sep-2023 A	27-Nov-2023	306	10%
1396	P4-5780	Installation of strut S1	58	52	01-Sep-2023 A	28-Nov-2023	306	10%
1397	P4-5790	Soft Excavation to 2nd strut level	42	38	01-Sep-2023 A	13-Nov-2023	306	10%
1398	P4-5800	Installation of strut S2	44	40	01-Sep-2023 A	15-Nov-2023	306	10%
1399	P4-5810	Soft Excavation to F.L.	39	35	01-Sep-2023 A	10-Nov-2023	306	10%
1400	P4-5820	Bedding and Pipe Laying (Twins DN700)	20	20	25-Sep-2023 A	21-Nov-2023	306	0%
1401	P4-5825	RC Works Inspection Chamber and Air Valve Chamber	36	36	25-Sep-2023 A	07-Dec-2023	324	0%



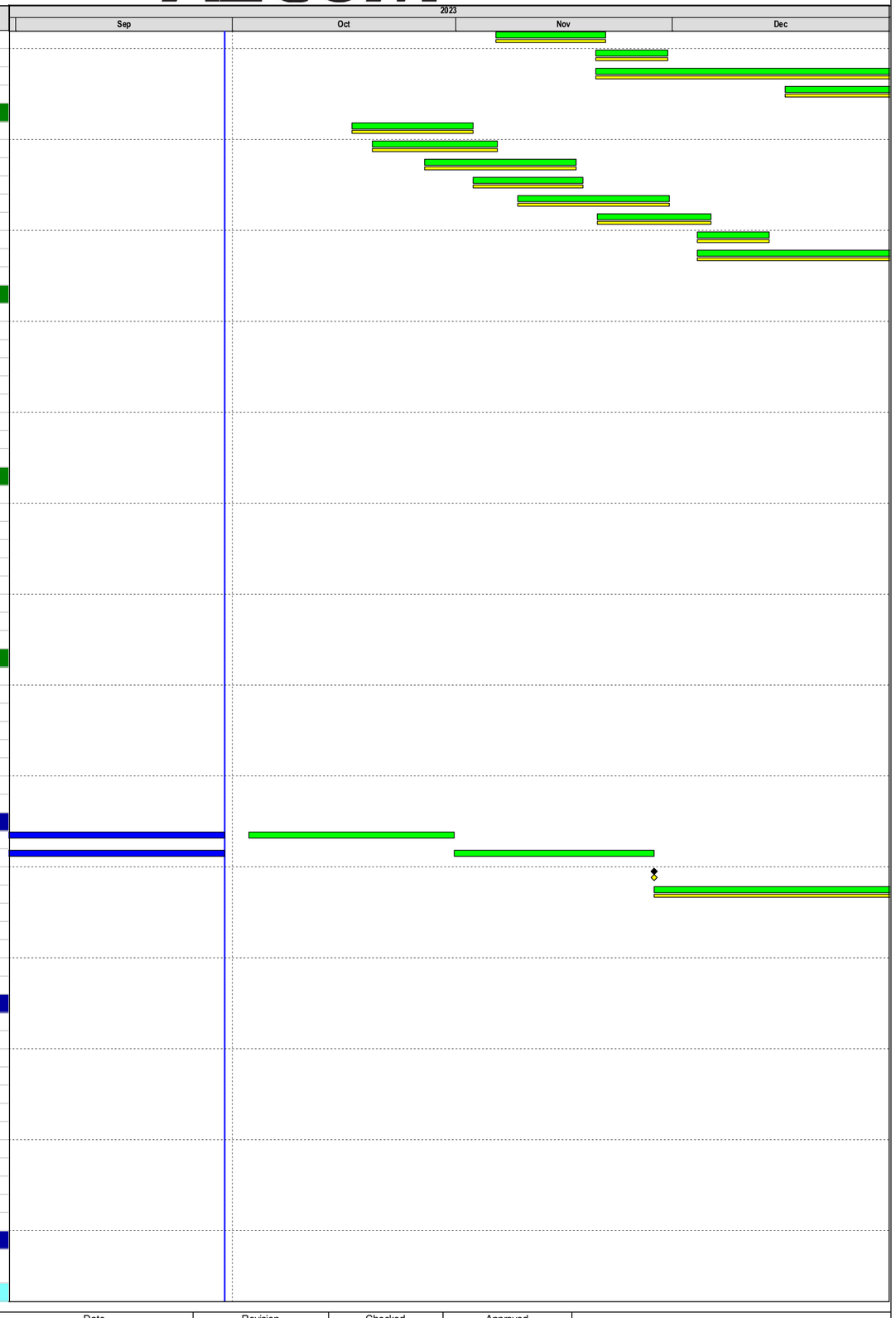
#	Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Duration % Complete
1402	P4-5830	Backfilling of drain to at grade level	45	45	08-Nov-2023	28-Dec-2023	306	0%
1403	**Rising Main CHB867 to CHB974 (107M) Gang 4-5**		151	151	28-Dec-2023	17-Jun-2024	310	0%
1404	P4-6330	Sheet Pile Installation for open trench	49	49	28-Dec-2023	22-Feb-2024	310	0%
1405	P4-6340	Soft Excavation to 1st strut level	57	57	19-Jan-2024	22-Mar-2024	310	0%
1406	P4-6350	Installation of strut S1	56	56	23-Jan-2024	26-Mar-2024	310	0%
1407	P4-6360	Soft Excavation to 2nd strut level	42	42	16-Feb-2024	05-Apr-2024	310	0%
1408	P4-6370	Installation of strut S2	44	44	27-Feb-2024	18-Apr-2024	310	0%
1409	P4-6380	Soft Excavation to F.L.	39	39	06-Mar-2024	22-Apr-2024	310	0%
1410	P4-6390	Bedding and Pipe Laying (Twins DN700)	20	20	11-Apr-2024	03-May-2024	310	0%
1411	P4-6395	RC Works Inspection Chamber and Air Valve Chamber	45	45	11-Apr-2024	30-May-2024	319	0%
1412	P4-6400	Backfilling of drain to at grade level	45	45	26-Apr-2024	17-Jun-2024	310	0%
1413	**NS 250 PE Pipe Installation (From KT6.03A to KT6.01)**		279	279	04-Nov-2023	09-Sep-2024	76	0%
1414	**Sewer Pipeline FMH_KT6.03A to FMH_KT6.02A (Gang 5-1)**		153	153	04-Nov-2023	25-Apr-2024	76	0%
1415	P4-6240	Sheet Pile Installation for open trench	49	49	04-Nov-2023*	28-Dec-2023	76	0%
1416	P4-6250	Soft Excavation to 1st strut level	57	57	01-Dec-2023	02-Feb-2024	76	0%
1417	P4-6260	Installation of strut S1	58	58	04-Dec-2023	06-Feb-2024	76	0%
1418	P4-6270	Soft Excavation to 2nd strut level	42	42	22-Dec-2023	08-Feb-2024	76	0%
1419	P4-6280	Installation of strut S2	44	44	05-Jan-2024	24-Feb-2024	76	0%
1420	P4-6290	Soft Excavation to F.L.	39	39	15-Jan-2024	28-Feb-2024	76	0%
1421	P4-6300	Bedding and Pipe Laying (NS 250 PE Pipe)	20	20	17-Feb-2024	09-Mar-2024	76	0%
1422	P4-6305	RC Works of KT6.03A	45	45	17-Feb-2024	09-Apr-2024	85	0%
1423	P4-6310	Backfilling of drain to at grade level	45	45	04-Mar-2024	25-Apr-2024	76	0%
1424	**Sewer Pipeline FMH_KT6.02A to FMH_KT6.01 (Gang 5-2)**		126	126	25-Apr-2024	09-Sep-2024	76	0%
1425	P4-6160	Sheet Pile Installation for open trench	49	49	25-Apr-2024	19-Jun-2024	76	0%
1426	P4-6170	Soft Excavation to 1st strut level	57	57	13-May-2024	15-Jul-2024	76	0%
1427	P4-6180	Installation of strut S1	58	58	17-May-2024	19-Jul-2024	76	0%
1428	P4-6190	Soft Excavation to 2nd strut level	42	42	28-May-2024	13-Jul-2024	76	0%
1429	P4-6200	Installation of strut S2	44	44	07-Jun-2024	25-Jul-2024	76	0%
1430	P4-6210	Soft Excavation to F.L.	39	39	17-Jun-2024	29-Jul-2024	76	0%
1431	P4-6220	Bedding and Pipe Laying (NS 250 PE Pipe)	20	20	15-Jul-2024	03-Aug-2024	76	0%
1432	P4-6225	RC Works of KT6.02A and KT6.01	45	45	15-Jul-2024	30-Aug-2024	80	0%
1433	P4-6230	Backfilling of drain to at grade level	45	45	24-Jul-2024	09-Sep-2024	76	0%
1434	**Rising Main Installation by Pipe Jacking CHB493 to CHB514 (21M)**		465	231	31-Oct-2022 A	18-Jun-2024	179	50.37%
1435	P4-5405	Tentative Completion Date of Ho Sheung Heung Pai Lau	0	0		31-Oct-2022 A		100%
1436	P4-5407	Haul Road Modification	24	4	16-Dec-2022 A	06-Oct-2023	230	85%
1437	P4-5410	Site Setup, Set up TTA & Plant Mobilization	14	14	01-Dec-2023*	15-Dec-2023	179	0%
1438	P4-5420	Instrumentation Installation and Monitoring Works	6	6	15-Dec-2023	21-Dec-2023	179	0%
1439	P4-5430	ELS for Launching Pit (3 layers of strut)	38	38	22-Dec-2023	03-Feb-2024	179	0%
1440	P4-5440	ELS for Receiving Pit (3 layers of strut)	38	38	22-Dec-2023	03-Feb-2024	179	0%
1441	P4-5460	Set up and Assembly TBM (2.1m dia.)	38	38	03-Feb-2024	18-Mar-2024	179	0%
1442	P4-5470	Pipe Jacking from CHB493 to CHB514 (20m, 2.7m/day)	10	10	18-Mar-2024	28-Mar-2024	179	0%
1443	P4-5480	Removal of TBM	21	21	28-Mar-2024	24-Apr-2024	179	0%
1444	P4-5490	Rising main pipe jacking & grouting	6	6	24-Apr-2024	30-Apr-2024	179	0%
1445	P4-5500	Construction of Switch Over chamber	18	18	30-Apr-2024	21-May-2024	179	0%
1446	P4-5510	Backfilling to at grade level	25	25	21-May-2024	18-Jun-2024	179	0%
1447	**Drainage Outfall constuction by Open Cut**		194	194	28-Dec-2023	01-Aug-2024	112	0%
1448	**Outfall_5105**		65	65	28-Dec-2023	09-Mar-2024	112	0%
1449	P4-OF1650	Removal of Grasscrete and concrete materials	10	10	28-Dec-2023	09-Jan-2024	112	0%
1450	P4-OF1660	Excavation to formation level	3	3	09-Jan-2024	11-Jan-2024	112	0%
1451	P4-OF1670	Laying of silt curtain and delivery of concrete block	5	5	11-Jan-2024	17-Jan-2024	112	0%
1452	P4-OF1680	Pour Concrete Blinding	4	4	17-Jan-2024	22-Jan-2024	112	0%
1453	P4-OF1690	Erect formwork for Vertical blinding for base slab shear key	5	5	24-Jan-2024	30-Jan-2024	112	0%
1454	P4-OF1700	Pour Concrete shear key blinding	2	2	30-Jan-2024	01-Feb-2024	112	0%
1455	P4-OF1710	Strip off formwork for shear key	1	1	01-Feb-2024	01-Feb-2024	112	0%
1456	P4-OF1720	Erect formwork for Shear key	7	7	01-Feb-2024	09-Feb-2024	112	0%
1457	P4-OF1730	Erect formwork for oufall base slab	1	1	09-Feb-2024	14-Feb-2024	112	0%
1458	P4-OF1740	Erect formwork for oufall Wall (1st side)	3	3	14-Feb-2024	16-Feb-2024	112	0%
1459	P4-OF1750	Rebar fixing for oufall base slab	2	2	16-Feb-2024	19-Feb-2024	112	0%
1460	P4-OF1760	Outfall Baseslab concreting	5	5	19-Feb-2024	24-Feb-2024	112	0%
1461	P4-OF1770	Dismantle Base slab Formwork	3	3	24-Feb-2024	27-Feb-2024	112	0%
1462	P4-OF1780	Rebar fixing for oufall Wall	4	4	27-Feb-2024	02-Mar-2024	112	0%
1463	P4-OF1790	Erect formwork for oufall Wall (2nd side)	3	3	02-Mar-2024	06-Mar-2024	112	0%
1464	P4-OF1800	Outfall Wall concreting	2	2	06-Mar-2024	07-Mar-2024	112	0%
1465	P4-OF1810	Dismantle Wall Formwork	2	2	07-Mar-2024	09-Mar-2024	112	0%
1466	P4-OF1850	Report Completion of Drainage works	0	0		09-Mar-2024	112	0%
1467	**Manhole SMH_KT5105**		67	67	09-Mar-2024	27-May-2024	112	0%
1468	P4-5060	Trench excavation between KT5105 and Outfall_5105 (30m)	21	21	09-Mar-2024	05-Apr-2024	112	0%
1469	P4-5070	Pipe Laying (2100 Concrete Pipe)	16	16	05-Apr-2024	23-Apr-2024	112	0%
1470	P4-5080	Manhole SMH_KT5105 Construction & Backfill	30	30	23-Apr-2024	27-May-2024	112	0%
1471	**Manhole SMH_KT5105A**		62	62	27-May-2024	01-Aug-2024	112	0%



#	Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Duration % Complete
1472	P4-5090	Trench excavation between KT5105 and Outfall_5015A (20m)	20	20	27-May-2024	18-Jun-2024	112	0%
1473	P4-5100	Pipe Laying (600 Concrete Pipe)	12	12	18-Jun-2024	29-Jun-2024	112	0%
1474	P4-5110	Manhole SMH_KT5105A Construction & Backfill	30	30	29-Jun-2024	01-Aug-2024	112	0%
1475	**Outfall_5104**		70	70	28-Dec-2023	15-Mar-2024	196	0%
1476	P4-OF1860	Removal of Grasscrete and concrete materials	10	10	28-Dec-2023	09-Jan-2024	196	0%
1477	P4-OF1870	Excavation to formation level	3	3	09-Jan-2024	11-Jan-2024	196	0%
1478	P4-OF1880	Laying of silt curtain and delivery of concrete block	5	5	11-Jan-2024	17-Jan-2024	196	0%
1479	P4-OF1890	Pour Concrete Blinding	4	4	17-Jan-2024	22-Jan-2024	196	0%
1480	P4-OF1900	Erect formwork for Vertical blinding for base slab shear key	5	5	24-Jan-2024	30-Jan-2024	196	0%
1481	P4-OF1910	Pour Concrete shear key blinding	2	2	30-Jan-2024	01-Feb-2024	196	0%
1482	P4-OF1920	Strip off formwork for shear key	1	1	01-Feb-2024	01-Feb-2024	196	0%
1483	P4-OF1930	Erect formwork for Shear key	7	7	01-Feb-2024	09-Feb-2024	196	0%
1484	P4-OF1940	Erect formwork for oufall base slab	1	1	09-Feb-2024	14-Feb-2024	196	0%
1485	P4-OF1950	Erect formwork for oufall Wall (1st side)	3	3	14-Feb-2024	16-Feb-2024	196	0%
1486	P4-OF1960	Rebar fixing for oufall base slab	2	2	16-Feb-2024	19-Feb-2024	196	0%
1487	P4-OF1970	Outfall Baseslab concreting	5	5	19-Feb-2024	24-Feb-2024	196	0%
1488	P4-OF1980	Dismantle Base slab Formwork	3	3	24-Feb-2024	27-Feb-2024	196	0%
1489	P4-OF1990	Rebar fixing for oufall Wall	4	4	27-Feb-2024	02-Mar-2024	196	0%
1490	P4-OF2000	Erect formwork for outfall Wall (2nd side)	3	3	02-Mar-2024	06-Mar-2024	196	0%
1491	P4-OF2010	Outfall Wall concreting	2	2	06-Mar-2024	07-Mar-2024	196	0%
1492	P4-OF2020	Dismantle Wall Formwork	2	2	07-Mar-2024	09-Mar-2024	196	0%
1493	P4-OF2050	Remove remining side sheet pile & rock fill	5	5	09-Mar-2024	15-Mar-2024	196	0%
1494	**Manhole SMH_KT5104**		40	40	15-Mar-2024	02-May-2024	196	0%
1495	P4-5120	Trench excavation between KT5104 and Outfall_5104 (30m)	16	16	15-Mar-2024	05-Apr-2024	196	0%
1496	P4-5130	Pipe Laying (900 Concrete Pipe)	8	8	05-Apr-2024	13-Apr-2024	196	0%
1497	P4-5140	Manhole SMH_KT5104 Construction & Backfill	16	16	13-Apr-2024	02-May-2024	196	0%
1498	P4-5145	Report Completion of Drainage works	0	0		02-May-2024	196	0%
1499	**Reinstatement**		155	155	09-Sep-2024	01-Mar-2025	76	0%
1500	P4-5150	Utilities Works(Telecom & electricity)	95	95	09-Sep-2024	21-Dec-2024	76	0%
1501	P4-5160	Reinstatement of Road, disturbed landscape area, and Tree Planting (2nos.)	60	60	21-Dec-2024	01-Mar-2025	76	0%
1502	**Portion 5 - Sewage Rising Main**		1817	546	10-Apr-2020 A	01-Apr-2025	605	69.94%
1503	**Site Possession**		0	0	16-Apr-2020 A	16-Apr-2020 A		0%
1504	P5-1000	Possession of site - Portion 5	0	0	16-Apr-2020 A			100%
1505	**Preparation Works**		1408	441	10-Apr-2020 A	05-Feb-2025	600	68.69%
1506	P5-1010	Utilities Detection in Portion 5	27	0	26-Jun-2020 A	31-Jul-2020 A		100%
1507	P5-1020	Inspection Pit	36	0	01-Aug-2020 A	08-Aug-2020 A		100%
1508	P5-1030	Coordination with UU owner to arrange diversion / abandon / protection	27	0	10-Aug-2020 A	17-Aug-2020 A		100%
1509	P5-1040	Provision of alternative Route / Preparation for TTA	16	0	18-Aug-2020 A	08-Sep-2020 A		100%
1510	P5-1050	Circulation & Approval of TTAs	18	0	08-Sep-2020 A	03-Nov-2020 A		100%
1511	P5-5010	Application for the relocation of existing Board Band Cable and Street Light	95	0	11-Jul-2022 A	01-Nov-2022 A		100%
1512	P5-5015	Application of excavation Permit for the relocation of existing Board Band Cable and Street Light	95	0	11-Jul-2022 A	01-Nov-2022 A		100%
1513	P5-5020	Relocation work of existing Board Band Cable and Street Light	97	0	02-Dec-2022 A	31-Aug-2023 A		100%
1514	P5-5030	Tree Protection and Preservation	1422	441	10-Apr-2020 A	05-Feb-2025	600	69%
1515	**Sewage Rising Main Installation by Open Cut (CHB1056 to CHB 1557)**		679	387	02-Aug-2022 A	03-Dec-2024	93	43.04%
1516	**CHB1200 - CHB1300 (100m)**		309	0	02-Aug-2022 A	27-Sep-2023 A		100%
1517	P5-2000	Sheet Pile Installation for open trench	43	0	02-Aug-2022 A	20-Sep-2022 A		100%
1518	P5-2010	Soft Excavation to 1st strut level	35	0	15-Aug-2022 A	24-Sep-2022 A		100%
1519	P5-2020	Installation of strut S1	26	0	01-Sep-2022 A	03-Oct-2022 A		100%
1520	P5-2050	Soft Excavation to F.L.	48	0	15-Sep-2022 A	12-Nov-2022 A		100%
1521	P5-2060	Bedding & Pipe Laying (Twins DN700)	20	0	10-Dec-2022 A	04-Jan-2023 A		100%
1522	P5-2065	RC Works Inspection Chamber and Air Valve Chamber	45	0	10-Dec-2022 A	27-Sep-2023 A		100%
1523	P5-2070	Backfilling to at grade level	45	0	31-Aug-2023 A	27-Sep-2023 A		100%
1524	**CHB1056 - CHB1102 (46m)**		120	92	01-Sep-2023 A	12-Jan-2024	388	23.19%
1525	P5-2300	Sheet Pile Installation for open trench	15	14	01-Sep-2023 A	17-Oct-2023	93	10%
1526	P5-2310	Soft Excavation to 1st strut level	15	15	03-Oct-2023	18-Oct-2023	388	0%
1527	P5-2320	Installation of strut S1	20	20	09-Oct-2023	31-Oct-2023	388	0%
1528	P5-2330	Soft Excavation to 2nd strut level	15	15	16-Oct-2023	01-Nov-2023	388	0%
1529	P5-2340	Installation of strut S2	20	20	21-Oct-2023	13-Nov-2023	388	0%
1530	P5-2350	Soft Excavation to F.L.	15	15	02-Nov-2023	18-Nov-2023	388	0%
1531	P5-2360	Bedding and Pipe Laying (Twins DN700)	10	10	16-Nov-2023	27-Nov-2023	388	0%
1532	P5-2365	RC Works Inspection Chamber and Air Valve Chamber	45	45	16-Nov-2023	05-Jan-2024	388	0%
1533	P5-2370	Backfilling to at grade level	25	25	13-Dec-2023	12-Jan-2024	388	0%
1534	**CHB1102 - CHB1151 (49m)**		95	95	03-Oct-2023	15-Jan-2024	93	0%
1535	P5-2100	Sheet Pile Installation for open trench	15	15	03-Oct-2023	18-Oct-2023	93	0%
1536	P5-2110	Soft Excavation to 1st strut level	15	15	05-Oct-2023	21-Oct-2023	93	0%
1537	P5-2120	Installation of strut S1	20	20	12-Oct-2023	03-Nov-2023	93	0%
1538	P5-2130	Soft Excavation to 2nd strut level	15	15	19-Oct-2023	04-Nov-2023	93	0%
1539	P5-2140	Installation of strut S2	20	20	26-Oct-2023	16-Nov-2023	93	0%



#	Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Duration % Complete
1540	P5-2150	Soft Excavation to F.L.	15	15	06-Nov-2023	21-Nov-2023	93	0%
1541	P5-2160	Bedding and Pipe Laying (Twins DN700)	10	10	20-Nov-2023	30-Nov-2023	93	0%
1542	P5-2165	RC Works Inspection Chamber and Air Valve Chamber	45	45	20-Nov-2023	09-Jan-2024	93	0%
1543	P5-2170	Backfilling to at grade level	25	25	16-Dec-2023	15-Jan-2024	93	0%
1544	**CHB1151 - CHB1200 (49m)**		95	95	17-Oct-2023	30-Jan-2024	149	0%
1545	P5-2200	Sheet Pile Installation for open trench	15	15	17-Oct-2023	03-Nov-2023	149	0%
1546	P5-2210	Soft Excavation to 1st strut level	15	15	20-Oct-2023	06-Nov-2023	149	0%
1547	P5-2220	Installation of strut S1	20	20	27-Oct-2023	17-Nov-2023	149	0%
1548	P5-2230	Soft Excavation to 2nd strut level	15	15	03-Nov-2023	18-Nov-2023	149	0%
1549	P5-2240	Installation of strut S2	20	20	09-Nov-2023	30-Nov-2023	149	0%
1550	P5-2250	Soft Excavation to F.L.	15	15	20-Nov-2023	06-Dec-2023	149	0%
1551	P5-2260	Bedding & Pipe Laying (Twins DN700)	10	10	04-Dec-2023	14-Dec-2023	149	0%
1552	P5-2265	RC Works Inspection Chamber and Air Valve Chamber	45	45	04-Dec-2023	23-Jan-2024	149	0%
1553	P5-2270	Backfilling to at grade level	20	20	09-Jan-2024	30-Jan-2024	149	0%
1554	**CHB1300 - CHB 1359 (59m)**		95	95	30-Jan-2024	18-May-2024	149	0%
1555	P5-2400	Sheet Pile Installation for open trench	15	15	30-Jan-2024	17-Feb-2024	149	0%
1556	P5-2410	Soft Excavation to 1st strut level	15	15	01-Feb-2024	21-Feb-2024	149	0%
1557	P5-2420	Installation of strut S1	20	20	08-Feb-2024	04-Mar-2024	149	0%
1558	P5-2430	Soft Excavation to 2nd strut level	15	15	17-Feb-2024	05-Mar-2024	149	0%
1559	P5-2440	Installation of strut S2	20	20	24-Feb-2024	16-Mar-2024	149	0%
1560	P5-2450	Soft Excavation to F.L.	15	15	06-Mar-2024	21-Mar-2024	149	0%
1561	P5-2460	Bedding and Pipe Laying (Twins DN700)	10	10	19-Mar-2024	02-Apr-2024	149	0%
1562	P5-2465	RC Works Inspection Chamber and Air Valve Chamber	45	45	19-Mar-2024	11-May-2024	149	0%
1563	P5-2470	Backfilling to at grade level	25	25	20-Apr-2024	18-May-2024	149	0%
1564	**CHB1359 - CHB 1478 (119m)**		164	164	16-Jan-2024	18-Jul-2024	93	0%
1565	P5-5035	Sheet Pile Installation for open trench	49	49	16-Jan-2024	11-Mar-2024	93	0%
1566	P5-5040	Soft Excavation to 1st strut level	57	57	14-Feb-2024	18-Apr-2024	93	0%
1567	P5-5050	Installation of strut S1	58	58	17-Feb-2024	23-Apr-2024	93	0%
1568	P5-5060	Soft Excavation to 2nd strut level	42	42	07-Mar-2024	25-Apr-2024	93	0%
1569	P5-5070	Installation of strut S2	44	44	18-Mar-2024	08-May-2024	93	0%
1570	P5-5080	Soft Excavation to F.L.	39	39	26-Mar-2024	11-May-2024	93	0%
1571	P5-5090	Bedding and Pipe Laying (Twins DN700)	20	20	30-Apr-2024	23-May-2024	93	0%
1572	P5-5095	RC Works Inspection Chamber and Air Valve Chamber	45	45	23-May-2024	12-Jul-2024	93	0%
1573	P5-5110	Backfilling to at grade level	20	20	26-Jun-2024	18-Jul-2024	93	0%
1574	**CHB1478 - CHB 1557 (79m)**		128	128	18-Jul-2024	03-Dec-2024	93	0%
1575	P5-5115	Sheet Pile Installation for open trench	49	49	18-Jul-2024	07-Sep-2024	93	0%
1576	P5-5120	Soft Excavation to 1st strut level	57	57	14-Aug-2024	16-Oct-2024	93	0%
1577	P5-5130	Installation of strut S1	58	58	16-Aug-2024	19-Oct-2024	93	0%
1578	P5-5140	Soft Excavation to 2nd strut level	42	42	05-Sep-2024	22-Oct-2024	93	0%
1579	P5-5150	Installation of strut S2	44	44	16-Sep-2024	04-Nov-2024	93	0%
1580	P5-5160	Soft Excavation to F.L.	39	39	25-Sep-2024	07-Nov-2024	93	0%
1581	P5-5170	Bedding and Pipe Laying (Twins DN700)	20	20	28-Oct-2024	18-Nov-2024	93	0%
1582	P5-5190	Backfilling to at grade level	20	20	12-Nov-2024	03-Dec-2024	93	0%
1583	**Sewage Rising Main Installation across Sheung Yue River by Pipejacking (CHB 982-1046)**		463	271	24-Dec-2022 A	31-Jul-2024	209	41.43%
1584	P5-3020	ELS for Launching Pit (CHB 982) (4.5m x 3.5m; 10 layers of strut)	52	26	24-Dec-2022 A	31-Oct-2023	47	50%
1585	P5-3030	ELS for Receiving Pit (CHB 1046) (7m x 3.5m; 10 layers of strut)	52	26	11-Jan-2023 A	28-Nov-2023	47	50%
1586	P5-3040	TBM Available for delivery to Portion 5	0	0	28-Nov-2023*		47	0%
1587	P5-3050	Set up and Assembly TBM (2.1m dia.)	36	36	28-Nov-2023	08-Jan-2024	47	0%
1588	P5-3060	Pipe Jacking from CHB 982 to CHB 1046 (64m, 2.7m/day)	31	31	08-Jan-2024	09-Feb-2024	47	0%
1589	P5-3070	Removal of TBM (2.1m dia) & Transfer to Launching Pit at Shek Sheung River	12	12	09-Feb-2024	26-Feb-2024	47	0%
1590	P5-3080	Rising main pipe laying (3x80m long DN 700DI, 2.6m/day) & grouting	80	80	26-Feb-2024	27-May-2024	209	0%
1591	P5-3090	Construction of Switch Over chamber	20	20	27-May-2024	18-Jun-2024	209	0%
1592	P5-3100	Backfilling to at grade level	40	40	18-Jun-2024	31-Jul-2024	209	0%
1593	**Sewage Rising Main Installation across Shek Sheung River by Pipejacking (CHB 1569-1748)**		355	355	26-Feb-2024	24-Mar-2025	47	0%
1594	P5-4000	Site Setup, Set up TTA & Plant Mobilization	24	24	26-Feb-2024	21-Mar-2024	47	0%
1595	P5-4010	Instrumentation Installation and Monitoring Works for MTRC Structures & Railway Track	24	24	26-Feb-2024	21-Mar-2024	47	0%
1596	P5-4020	ELS for Launching Pit (CHB 1569) (7m x 3.5m; 5 layers of strut)	40	40	22-Mar-2024	08-May-2024	47	0%
1597	P5-4030	ELS for Receiving Pit (CHB 1748) (6m x 4m; 5 layers of strut)	40	40	09-May-2024	21-Jun-2024	47	0%
1598	P5-4040	Set up and Assembly TBM - C1 (2.1m dia.)	38	38	22-Jun-2024	02-Aug-2024	47	0%
1599	P5-4050	Pipe Jacking between CHB 1569 to CHB 1700 (131m, 3m/day)	46	46	02-Aug-2024	20-Sep-2024	47	0%
1600	P5-4060	Pipe Jacking between CHB 1700 to CHB 1720 (TBM crossing MTRC East Rail) (20m, 0.5m/day)	40	40	20-Sep-2024	04-Nov-2024	47	0%
1601	P5-4070	Pipe Jacking between CHB 1720 to CHB 1748 (28m, 2.7m/day)	9	9	04-Nov-2024	13-Nov-2024	47	0%
1602	P5-4080	Removal of TBM - C1 (2.1m dia)	20	20	13-Nov-2024	04-Dec-2024	47	0%
1603	P5-4090	Rising main pipe laying (3x190m long DN700DI, 2.6m/day) & grouting	60	60	04-Dec-2024	12-Feb-2025	47	0%
1604	P5-4100	Construction of Switch Over chamber	20	20	12-Feb-2025	05-Mar-2025	47	0%
1605	P5-4110	Backfilling to at grade level	18	18	05-Mar-2025	24-Mar-2025	47	0%
1606	**Reinstatement**		60	60	24-Jan-2025	01-Apr-2025	47	0%
1607	P5-5000	Underground Utilities & Road reinstatement with disturbed landscape area	60	60	24-Jan-2025	01-Apr-2025	47	0%
1608	**Portion 6 - Sewage Discharge Manhole Type SSM1**		169	169	20-Jun-2024	06-Dec-2024	721	0%



Primary Baseline
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Remaining Work
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Non-Critical Milestone

Data Date: 30-Sep-2023
Project Start: 03-Feb-2020
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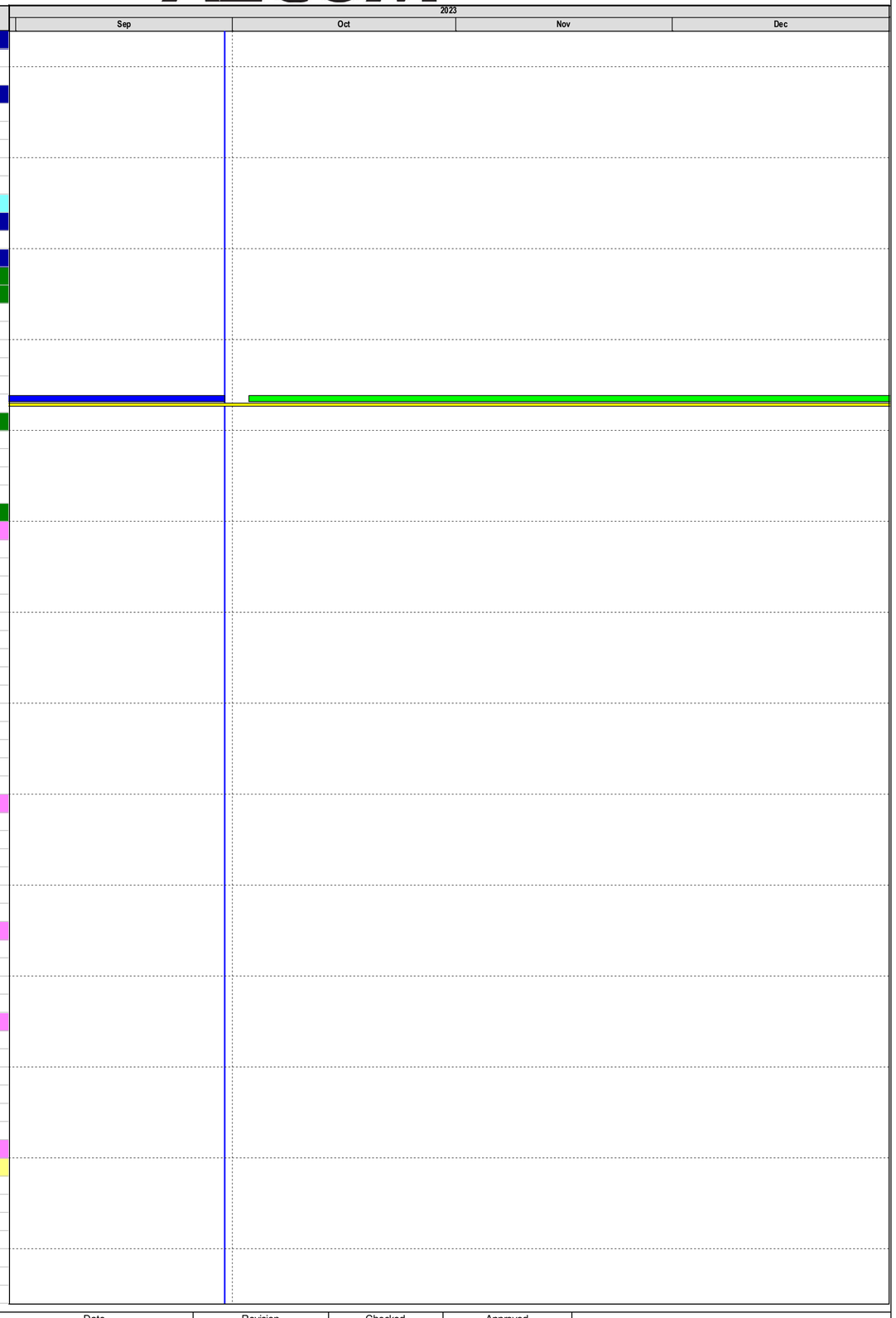
4M Rolling Programme (Sep-Dec 2023)

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

#	Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Duration % Complete
1609	**Site Possession**		169	169	20-Jun-2024	06-Dec-2024	721	0%
1610	P6-1000	Possession of site - Portion 6	0	0	20-Jun-2024		93	0%
1611	P6-1005	Tree Protection and Preservation	157	157	20-Jun-2024	06-Dec-2024	651	0%
1612	**Sewerage Works**		157	157	20-Jun-2024	06-Dec-2024	150	0%
1613	P6-1010	Site Setup and ELS of Receving Pit	27	27	20-Jun-2024	19-Jul-2024	150	0%
1614	P6-1020	Construction of Sewage Discharge Manhole SSM1 to +0.63mPD at CHB 1752	40	40	19-Jul-2024	30-Aug-2024	150	0%
1615	P6-1030	Construction of Sewage Discharge Manhole SSM1 at CHB 1752 to Road Level	40	40	30-Aug-2024	15-Oct-2024	150	0%
1616	P6-1040	Joint Inspection with others for connection to sewer pipe	16	16	15-Oct-2024	31-Oct-2024	150	0%
1617	P6-1050	Reinstatement of disturbed landscape area	34	34	31-Oct-2024	06-Dec-2024	150	0%
1618	**Portion 7 - Kwu Tung North Sewage Pumping station**		1877	721	03-Aug-2020 A	22-Sep-2025	431	61.6%
1619	**Site Poession**		0	0	03-Aug-2020 A	03-Aug-2020 A		0%
1620	P7-1000	Possession of site - Portion 7	0	0	03-Aug-2020 A			100%
1621	**Sewage Pumping Station**		1877	721	03-Aug-2020 A	22-Sep-2025	431	61.6%
1622	**Submission**		0	0			0	0%
1623	**Site Preparation**		1313	451	03-Aug-2020 A	15-Feb-2025	589	65.63%
1624	P7-1001	Temporary haul road	27	0	26-Aug-2020 A	30-Sep-2020 A		100%
1625	P7-1004	Initial Site Set Up and mobilizatoin (Temp. Power & Water, Wet Set, Wheel Wash facility)	16	0	05-Sep-2020 A	01-Feb-2021 A		100%
1626	P7-1005	Installation of Dull Green Barrier / Hoarding	18	0	22-Dec-2020 A	30-Jan-2021 A		100%
1627	P7-1010	Environmental GI & Submission of Lap Report (PS:1.138)	21	0	21-Sep-2020 A	30-Sep-2020 A		100%
1628	P7-1030	Borehole (1 nos.), Submission & Approval of GI Report	59	0	21-Nov-2020 A	30-Jan-2021 A		100%
1629	P7-1040	Tree Protection and Preservation	1327	451	03-Aug-2020 A	15-Feb-2025	589	66%
1630	**Foundation**		211	0	15-Oct-2020 A	01-Sep-2021 A		100%
1631	P7-2000	Pre-Drilling (~11nos.)	16	0	15-Oct-2020 A	30-Nov-2020 A		100%
1632	P7-2010	Install H-pile (62 nos.; 8 nos. / month /rig, 1 rig)	165	0	14-Dec-2020 A	26-Jun-2021 A		100%
1633	P7-2020	Pile Load Test	28	0	17-Aug-2021 A	30-Aug-2021 A		100%
1634	P7-2030	Proof Drilling	5	0	30-Aug-2021 A	01-Sep-2021 A		100%
1635	**Excavation**		395	0	27-Jun-2021 A	22-Dec-2022 A		100%
1636	**1st Stage**		262	0	27-Jun-2021 A	02-Jun-2022 A		100%
1637	P7-2900	Installation of King Posts (4nos.)	12	0	27-Jun-2021 A	09-Jul-2021 A		100%
1638	P7-3000	Sheetpile installation (~135m; approx. 675nos;)	21	0	15-Sep-2021 A	23-Sep-2021 A		100%
1639	P7-3020	Stop Works Instruction from PM (MTRC Complaints Issue)	12	0	24-Sep-2021 A	08-Oct-2021 A		100%
1640	P7-3110	Sheetpile installation (~135m; approx. 675nos;)	117	0	09-Oct-2021 A	28-Feb-2022 A		100%
1641	P7-3115	Soft Excavation from +5.5mPD to 1st strut level (+3.8mPD for Portion 1 & 2) (~500cu.m)	6	0	22-Jan-2022 A	31-Jan-2022 A		100%
1642	P7-3117	Installation of strut S1 (+4.5mPD for for Portion 1 & 2)	10	0	08-Feb-2022 A	19-Feb-2022 A		100%
1643	P7-3119	Soft Excavation to 2nd strut level (+1.47mPD for Portion 1 & 2, ~600cu.m)	6	0	01-Mar-2022 A	07-Mar-2022 A		100%
1644	P7-3120	Installation of strut S2 (+2.2mPD for for Portion 1 & 2)	9	0	08-Mar-2022 A	17-Mar-2022 A		100%
1645	P7-3124	Excavate down to level suit for driving Middle Part Sheet Pile Wall	6	0	31-Mar-2022 A	07-Apr-2022 A		100%
1646	P7-3125	Sheetpile Installation for Middle part wall (~24m; approx. 60nos)	15	0	08-Apr-2022 A	16-May-2022 A		100%
1647	P7-3125.4	Cut and Fill of slope to form platform for installation of strut at Portion 4,5	8	0	09-Apr-2022 A	18-Apr-2022 A		100%
1648	P7-3125.5	Installation of strut S1 (+4.5mPD) at Portion 5	7	0	19-Apr-2022 A	26-Apr-2022 A		100%
1649	P7-3125.6	Soft Excavation to FEL (-0.3mPD for Portion 1 & 2, ~600cu.m)	7	0	26-Apr-2022 A	19-May-2022 A		100%
1650	P7-3125.8	Blinding Casting of Portion 1 & 2	1	0	02-Jun-2022 A	02-Jun-2022 A		100%
1651	**2nd Stage Portion 3-6 1st level (+4.5mPD)**		30	0	14-May-2022 A	09-Jul-2022 A		100%
1652	P7-3126.2	Cut and Fill of slope to form platform for installation of strut at Portion 3	3	0	14-May-2022 A	19-May-2022 A		100%
1653	P7-3126.3	Installation of strut at Portion 3 (+4.5mPD)	6	0	28-May-2022 A	04-Jun-2022 A		100%
1654	P7-3127	Soft Excavation and extend the slope to Portion 4 (600cu m)	14	0	20-May-2022 A	06-Jun-2022 A		100%
1655	P7-3130	Installation of strut S1 (+4.5mPD) at Portion 4	18	0	20-May-2022 A	10-Jun-2022 A		100%
1656	P7-3250	Soft Excavation and extend the slope to Portion 6 (200cu m)	7	0	11-Jun-2022 A	18-Jun-2022 A		100%
1657	P7-3260	Installation of strut S1 (+4.5mPD) at Portion 6	6	0	04-Jul-2022 A	09-Jul-2022 A		100%
1658	**3rd Stage Portion 3-6 2nd level (+2.2mPD)**		31	0	01-Jun-2022 A	22-Jul-2022 A		100%
1659	P7-3130.1	Soft Excavation to 2nd level of strut at Portion 3 (+1.47mPD)	6	0	01-Jun-2022 A	04-Jun-2022 A		100%
1660	P7-3131	Installation of 2nd level of strut at Portion 3 (+2.2mPD)	7	0	02-Jun-2022 A	13-Jun-2022 A		100%
1661	P7-3132	Soft Excavation to 2nd strut level (+1.47mPD) at Portion 4 to 6 (~980cu.m)	6	0	13-Jun-2022 A	18-Jun-2022 A		100%
1662	P7-3132.1	Installation of 2nd level of strut at Portion 4-6 (+2.2mPD)	31	0	16-Jun-2022 A	22-Jul-2022 A		100%
1663	**4th Stage Portion 3-6 3rd level (-0.5mPD)**		28	0	14-Jun-2022 A	18-Aug-2022 A		100%
1664	P7-3160	Soft Excavation from +1.47mPD to -1.5mPD at Portion 3 (~1730 cu.m)	6	0	14-Jun-2022 A	20-Jun-2022 A		100%
1665	P7-3170	Installation of strut S3 (-0.5mPD) at Portion 3	7	0	25-Jul-2022 A	01-Aug-2022 A		100%
1666	P7-3180	Soft Excavation from +1.47mPD to -1.5mPD at Portion 4 (~1730 cu.m)	6	0	23-Jul-2022 A	29-Jul-2022 A		100%
1667	P7-3190	Installation of strut S3 (-0.5mPD) at Portion 4	20	0	27-Jul-2022 A	18-Aug-2022 A		100%
1668	P7-3200	Soft Excavation from +1.47mPD to -1.5mPD at Portion 5-6	6	0	01-Aug-2022 A	06-Aug-2022 A		100%
1669	P7-3210	Installation of strut S3 (-0.5mPD) at Portion 5-6	7	0	08-Aug-2022 A	15-Aug-2022 A		100%
1670	**5th Stage Portion 3-4**		27	0	08-Aug-2022 A	20-Sep-2022 A		100%
1671	**Grout Curtain**		27	0	23-Aug-2022 A	20-Sep-2022 A		100%
1672	P7-3162	Plant mobilization of Grout Curtain Installation	0	0	23-Aug-2022 A			100%
1673	P7-3164	Drilling and Installation of TAM Pipe with Sleeve Grout (GHA1 to GHA11: 11nos)	6	0	24-Aug-2022 A	30-Aug-2022 A		100%
1674	P7-3166	Inject Bentonite Cement Grout	2	0	09-Sep-2022 A	10-Sep-2022 A		100%
1675	P7-3167	Inject Chemical Grout	2	0	12-Sep-2022 A	13-Sep-2022 A		100%
1676	P7-3168	Drilling and Installation of TAM Pipe with Sleeve Grout (GHB to GHC : 23nos)	7	0	03-Sep-2022 A	10-Sep-2022 A		100%
1677	P7-4190	Inject Bentonite Cement Grout	4	0	12-Sep-2022 A	15-Sep-2022 A		100%
1678	P7-4200	Inject Chemical Grout	4	0	16-Sep-2022 A	20-Sep-2022 A		100%



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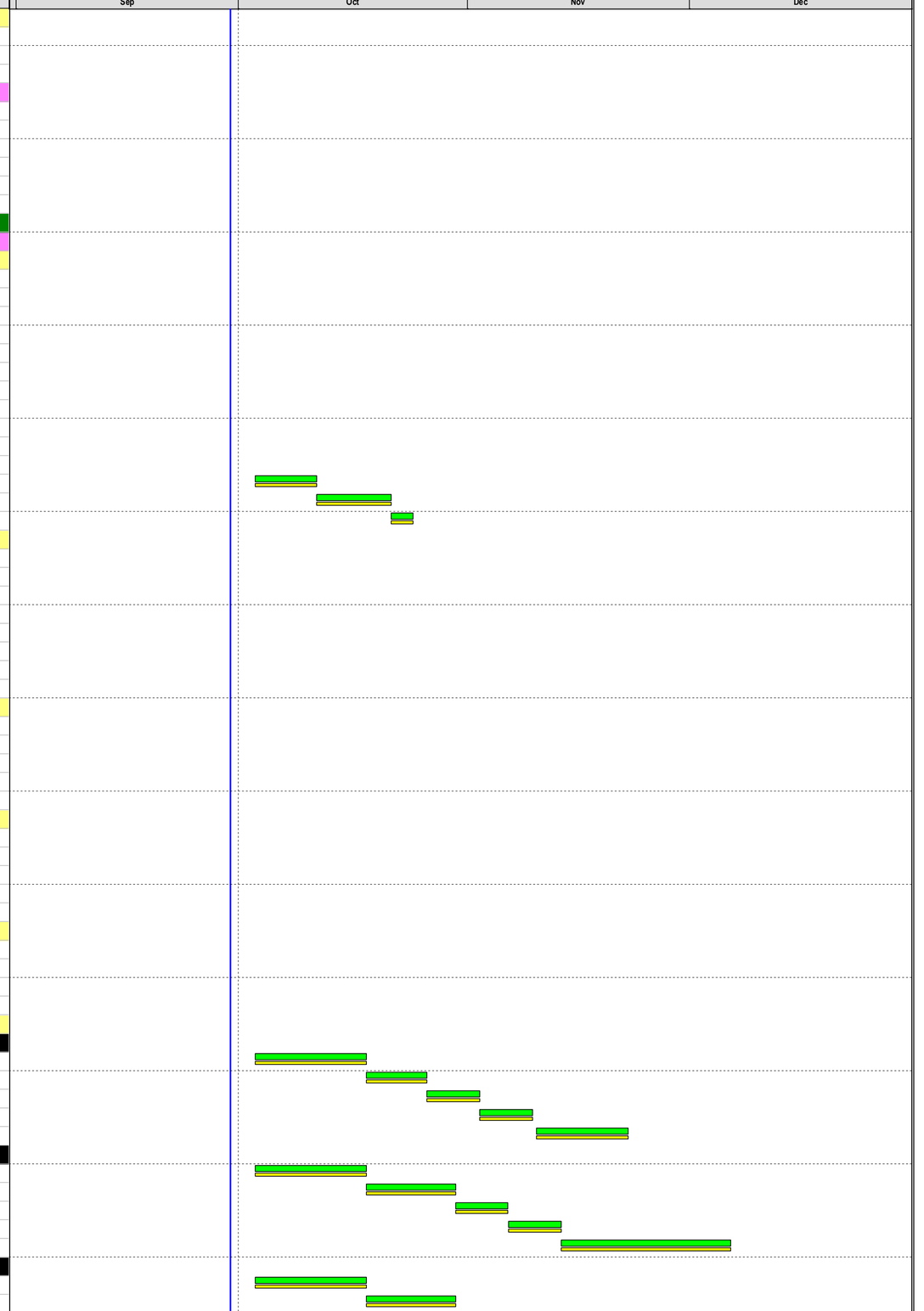
1679		**Excavation**	11	0	08-Aug-2022 A	31-Aug-2022 A		100%
1680	P7-3220	Soft Excavation from -1.5mPD to -2.5mPD at Portion 3 (~600 cu.m)	7	0	08-Aug-2022 A	15-Aug-2022 A		100%
1681	P7-3280	Soft Excavation from -1.5mPD to -2.5mPD at Portion 4(~600 cu.m)	7	0	16-Aug-2022 A	23-Aug-2022 A		100%
1682	P7-3300	Soft Excavation from -1.5mPD to -2.5mPD at Portion 5-6(~600 cu.m)	7	0	24-Aug-2022 A	31-Aug-2022 A		100%
1683		**6th Stage Portion 3-4 5th & 5a level (-4.3mPD & -5.9mPD)**	69	0	03-Oct-2022 A	22-Dec-2022 A		100%
1684	P7-3320	Soft Excavation from -2.5mPD to -4.8mPD at Portion 3-6	7	0	03-Oct-2022 A	13-Oct-2022 A		100%
1685	P7-3330	Installation of strut S5 (-4.3mPD) at Portion 3	11	0	08-Nov-2022 A	01-Dec-2022 A		100%
1686	P7-3500	Soft Excavation from -4.8mPD to -6.4mPD at Portion 3	7	0	02-Dec-2022 A	09-Dec-2022 A		100%
1687	P7-3505	Installation of Corner Strut (-5.9mPD) at Portion 3	4	0	10-Dec-2022 A	22-Dec-2022 A		100%
1688	P7-3507	Soft Excavation from -6.4mPD to -7.785mPD at Portion 3	2	0	02-Dec-2022 A	09-Dec-2022 A		100%
1689	P7-3510	Concrete Blinding at Portion 3	1	0	09-Dec-2022 A	09-Dec-2022 A		100%
1690		**Station Structure**	450	119	17-May-2022 A	09-Feb-2024	922	73.58%
1691		**Basement to G/F Wall & G/F Slab**	411	80	17-May-2022 A	29-Dec-2023	961	80.55%
1692		**+1.55mPD (1st Pour)**	350	19	17-May-2022 A	24-Oct-2023	988	94.58%
1693	P7-BF1270	Grout Breaking of Socket H Piles (12nos)	2	0	17-May-2022 A	19-May-2022 A		100%
1694	P7-BF1280	Cutting Pile Head and Capping Plate Installation	2	0	13-Jun-2022 A	14-Jun-2022 A		100%
1695	P7-BF1280.2	Con't Cutting Pile Head and Capping Plate Installation	12	0	16-Jun-2022 A	29-Jun-2022 A		100%
1696	P7-BF1330	Rebar fixing of basement Slab	15	0	09-Jul-2022 A	22-Jul-2022 A		100%
1697	P7-BF1340	Base Slab Shutters	6	0	23-Jul-2022 A	29-Jul-2022 A		100%
1698	P7-BF1350	Base Slab (+1.55mPD) Concreting (+2.7mPD) (312m3)	1	0	08-Aug-2022 A	08-Aug-2022 A		100%
1699	P7-BF1360	Welding for steel channel for facilitating the dismantle of Strut S1 & S2	9	0	18-Oct-2022 A	27-Oct-2022 A		100%
1700	P7-BF1370	Dismantle of strut S2 at +2.2mPD & strut S1 at +4.5mPD	14	0	28-Oct-2022 A	12-Nov-2022 A		100%
1701	P7-BF1380	Falsework Erection for Grid A Wall construction	15	0	02-Dec-2022 A	19-Dec-2022 A		100%
1702	P7-BF1390	Formwork and Rebar Fixing of Grid A Wall	10	0	20-Dec-2022 A	31-Dec-2022 A		100%
1703	P7-BF1400	Grid A Wall Concreting (1st Pour up to +4.5mPD)	1	0	04-Jan-2023 A	04-Jan-2023 A		100%
1704	P7-BF2180	Falsework Erection for Grid A Wall construction	8	8	03-Oct-2023	11-Oct-2023	134	0%
1705	P7-BF2190	Formwork and Rebar Fixing of Grid A Wall	10	10	11-Oct-2023	21-Oct-2023	134	0%
1706	P7-BF2200	Grid A Wall Concreting (1st Pour up to +7.65mPD with Cantilever Slab)	1	1	21-Oct-2023	24-Oct-2023	134	0%
1707		**-2.05mPD (1st Pour)**	78	0	14-Oct-2022 A	19-Jan-2023 A		100%
1708	P7-BF2100	Concrete Blinding at Portion 5 & 6	1	0	14-Oct-2022 A	14-Oct-2022 A		100%
1709	P7-BF2110	Grout Breaking Pile Head treatment and of Socket H Piles (24nos)	6	0	15-Oct-2022 A	21-Oct-2022 A		100%
1710	P7-BF2115	Capping Plate Installation (24nos)	10	0	07-Nov-2022 A	24-Nov-2022 A		100%
1711	P7-BF2120	Rebar fixing of basement Slab	16	0	24-Nov-2022 A	12-Dec-2022 A		100%
1712	P7-BF2130	Formwork and Base Slab Shutters	5	0	13-Dec-2022 A	17-Dec-2022 A		100%
1713	P7-BF2130-1	Request for RC details for basement slab for construction	30	0	21-Nov-2022 A	24-Dec-2022 A		100%
1714	P7-BF2130-2	Rebar fixing resued of basement Slab	18	0	27-Dec-2022 A	17-Jan-2023 A		100%
1715	P7-BF2140	Base Slab & Wall Kickers Concreting (-2.05mPD) (460M3)	1	0	19-Jan-2023 A	19-Jan-2023 A		100%
1716		**-6.21mPD**	100	0	19-Dec-2022 A	24-Apr-2023 A		100%
1717	P7-BF0900	Grout Breaking of Socket H Piles (18nos)	5	0	19-Dec-2022 A	23-Dec-2022 A		100%
1718	P7-BF1000	Low Level Pile Head treatment and Capping Plate Installation	6	0	24-Dec-2022 A	19-Jan-2023 A		100%
1719	P7-BF1050	Rebar fixing of basement Slab (1.5m thk)	12	0	23-Mar-2023 A	12-Apr-2023 A		100%
1720	P7-BF1060	Base Slab Shutters	7	0	12-Apr-2023 A	22-Apr-2023 A		100%
1721	P7-BF1070	Base Slab Concreting (1st Bay, -6.21mPD) (340M3)	1	0	24-Apr-2023 A	24-Apr-2023 A		100%
1722		**-2.05mPD (2nd Pour)**	33	0	26-Apr-2023 A	06-Jul-2023 A		100%
1723	P7-BF1080	Dismantling base slab formwork and soil backfill to -4.15mPD with testing	10	0	26-Apr-2023 A	06-May-2023 A		100%
1724	P7-BF1090	Dismantle of strut S5 & S4	14	0	06-May-2023 A	25-May-2023 A		100%
1725	P7-BF1170	Rebar fixing of basement Slab	12	0	25-May-2023 A	23-Jun-2023 A		100%
1726	P7-BF1180	Base Slab Shutters	5	0	23-Jun-2023 A	06-Jul-2023 A		100%
1727	P7-BF1190	Base Slab, Wall of wet well and wall Kickers for screen chamber Concreting (-2.05mPD to -0.5mPD)	1	0	06-Jul-2023 A	06-Jul-2023 A		100%
1728		**+1.55mPD (2nd Pour)**	29	0	06-Jul-2023 A	26-Aug-2023 A		100%
1729	P7-BF2000	Dismantling base slab formwork and soil backfill to -0.5mPD with testing	10	0	06-Jul-2023 A	21-Jul-2023 A		100%
1730	P7-BF2010	Dismantle of strut S3 at -0.5mPD	7	0	21-Jul-2023 A	01-Aug-2023 A		100%
1731	P7-BF2060	Remove Intermediate Sheet Pile separating Portion 1,2 & 3	14	0	01-Aug-2023 A	15-Aug-2023 A		100%
1732	P7-BF2070	Construct Remaining Portion of +1.55mPD B/F Slab (137m3)	12	0	15-Aug-2023 A	26-Aug-2023 A		100%
1733		**+7.50mPD (G/F Slab)**	80	80	03-Oct-2023	29-Dec-2023	75	0%
1734		**Bay 1**	47	47	03-Oct-2023	22-Nov-2023	106	0%
1735	P7-BF1401	Backfill & Dismantle of strut S2 at +2.2mPD	14	14	03-Oct-2023	18-Oct-2023	6	0%
1736	P7-BF1403	Wall Extend to +4.5mPD along Grid A & B	7	7	18-Oct-2023	26-Oct-2023	6	0%
1737	P7-BF1405	Backfill to +4.5mPD	7	7	26-Oct-2023	02-Nov-2023	106	0%
1738	P7-BF1409	Dismantle of Strut S1 at +4.5mPD	7	7	02-Nov-2023	09-Nov-2023	106	0%
1739	P7-BF2150	Wall & Slab Construction (along Grid B up to +7.65mPD)	12	12	10-Nov-2023	22-Nov-2023	106	0%
1740		**Bay 2**	60	60	03-Oct-2023	06-Dec-2023	53	0%
1741	P7-BF1423	Backfill & Dismantle of strut S2 at +2.2mPD	14	14	03-Oct-2023	18-Oct-2023	6	0%
1742	P7-BF1425	Wall Extend to +4.5mPD along Grid B & C	10	10	18-Oct-2023	30-Oct-2023	6	0%
1743	P7-BF1437	Backfill to +4.5mPD	7	7	30-Oct-2023	06-Nov-2023	53	0%
1744	P7-BF1439	Dismantle of Strut S1 at +4.5mPD	7	7	06-Nov-2023	13-Nov-2023	53	0%
1745	P7-BF2160	Ground Beam & Slab Construction (along Grid B to D)	22	22	13-Nov-2023	06-Dec-2023	53	0%
1746		**Bay 3**	60	60	03-Oct-2023	06-Dec-2023	95	0%
1747	P7-BF1433	Dismantle of strut S2 at +2.2mPD	14	14	03-Oct-2023	18-Oct-2023	6	0%
1748	P7-BF1435	Wall Extend to +4.5mPD along Grid D & F	10	10	18-Oct-2023	30-Oct-2023	6	0%



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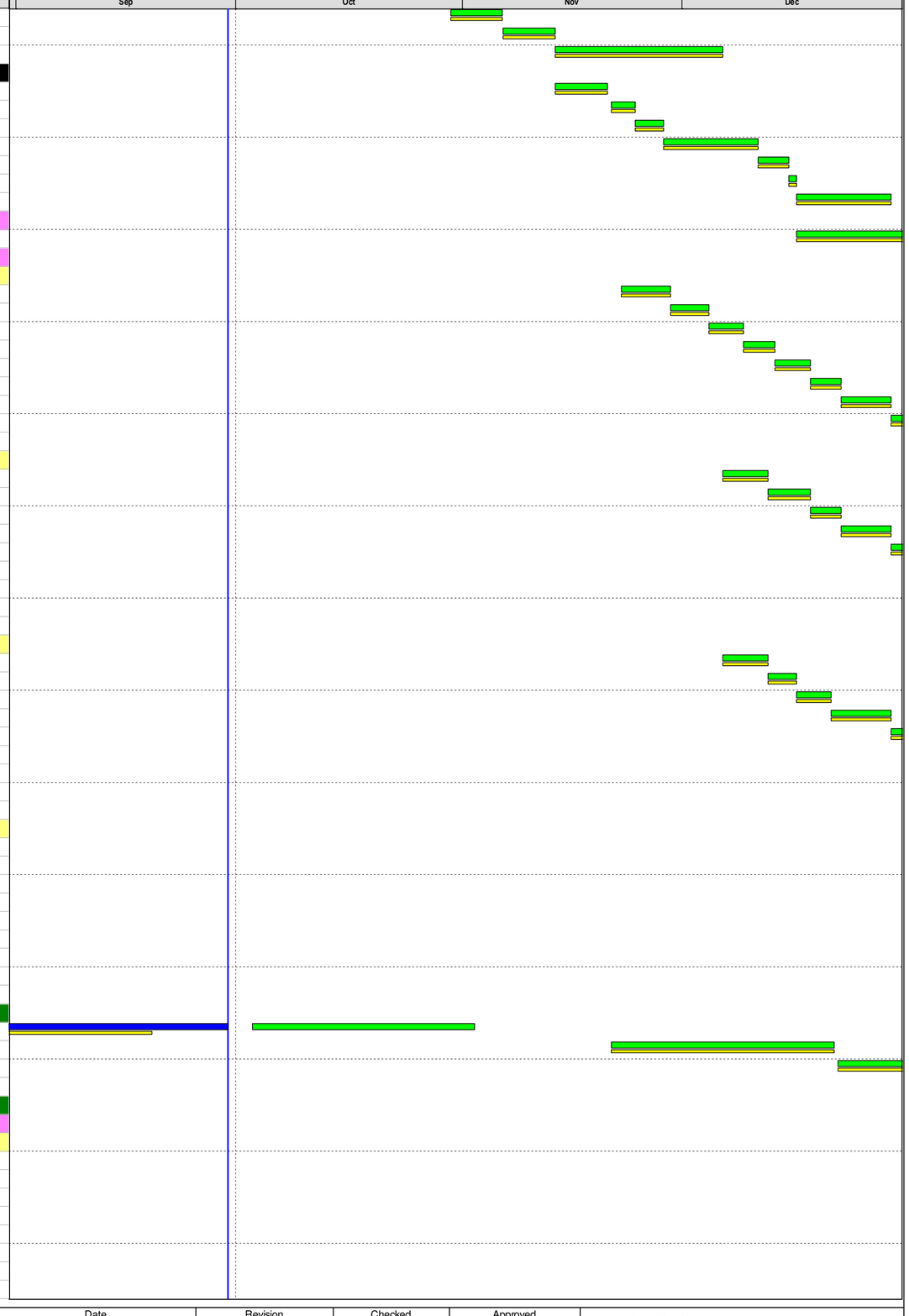
1749	P7-BF1440	Backfill to +4.5mPD	7	7	30-Oct-2023	06-Nov-2023	6	0%
1750	P7-BF1447	Dismantle of Strut S1 at +4.5mPD	7	7	06-Nov-2023	13-Nov-2023	6	0%
1751	P7-BF2170	Wall & Slab Construction (along Grid D to E)	22	22	13-Nov-2023	06-Dec-2023	95	0%
1752	**Bay 4**		42	42	13-Nov-2023	29-Dec-2023	16	0%
1753	P7-BF1445	Soil backfill to +5.35mPD with testing	7	7	13-Nov-2023	20-Nov-2023	6	0%
1754	P7-BF1465	Grout Breaking of Socket H Piles (8nos)	4	4	21-Nov-2023	24-Nov-2023	6	0%
1755	P7-BF1475	Low Level Pile Head treatment and Capping Plate Installation	3	3	24-Nov-2023	28-Nov-2023	6	0%
1756	P7-BF1525	Rebar fixing of basement Slab	12	12	28-Nov-2023	11-Dec-2023	6	0%
1757	P7-BF1535	Base Slab Shutters	5	5	11-Dec-2023	15-Dec-2023	6	0%
1758	P7-BF1545	Concreting of Base Slab (+7.5mPD)	1	1	15-Dec-2023	16-Dec-2023	6	0%
1759	P7-BF1555	Backfill to +7.5mPD at the side of Base slab	10	10	16-Dec-2023	29-Dec-2023	16	0%
1760	**Tx Room Double Slab at +12.55mPD**		20	20	16-Dec-2023	10-Jan-2024	6	0%
1761	P7-Tx1000	Construction of Tx Rm Double Slab at +12.55mPD	20	20	16-Dec-2023	10-Jan-2024	6	0%
1762	**Roof Slab**		72	72	22-Nov-2023	09-Feb-2024	84	0%
1763	**Bay 1**		36	36	22-Nov-2023	03-Jan-2024	106	0%
1764	P7-RF1000	Erection of falsework and working platform for G/F to R/F wall	6	6	22-Nov-2023	29-Nov-2023	106	0%
1765	P7-RF1010	Erection of One Side Formwork for G/F to R/F Wall	5	5	29-Nov-2023	04-Dec-2023	106	0%
1766	P7-RF1020	Rebar Fixing for G/F to R/F Wall	5	5	04-Dec-2023	09-Dec-2023	106	0%
1767	P7-RF1030	Erection of remaining side formwork for G/F to R/F Wall	4	4	09-Dec-2023	13-Dec-2023	106	0%
1768	P7-RF1040	Erection of falsework and working platform for R/F Slab	4	4	13-Dec-2023	18-Dec-2023	106	0%
1769	P7-RF1050	Erection of Formwork for R/F Slab	5	5	18-Dec-2023	22-Dec-2023	106	0%
1770	P7-RF1060	Rebar Fixing for R/F Slab	4	4	22-Dec-2023	29-Dec-2023	106	0%
1771	P7-RF1070	R/F Slab Shutters	2	2	29-Dec-2023	02-Jan-2024	106	0%
1772	P7-RF1080	R/F Slab & G/F to R/F wall Concreting	1	1	02-Jan-2024	03-Jan-2024	106	0%
1773	**Bay 2**		37	37	06-Dec-2023	17-Jan-2024	53	0%
1774	P7-RF1090	Erection of falsework and working platform for G/F to R/F wall	6	6	06-Dec-2023	12-Dec-2023	53	0%
1775	P7-RF1100	Erection of One Side Formwork for G/F to R/F Wall	5	5	12-Dec-2023	18-Dec-2023	53	0%
1776	P7-RF1110	Rebar Fixing for G/F to R/F Wall	5	5	18-Dec-2023	22-Dec-2023	53	0%
1777	P7-RF1120	Erection of remaining side formwork for G/F to R/F Wall	4	4	22-Dec-2023	29-Dec-2023	53	0%
1778	P7-RF1130	Erection of falsework and working platform for R/F Slab	4	4	29-Dec-2023	04-Jan-2024	53	0%
1779	P7-RF1140	Erection of Formwork for R/F Slab	5	5	04-Jan-2024	09-Jan-2024	53	0%
1780	P7-RF1150	Rebar Fixing for R/F Slab	5	5	09-Jan-2024	15-Jan-2024	53	0%
1781	P7-RF1160	R/F Slab Shutters	2	2	15-Jan-2024	16-Jan-2024	53	0%
1782	P7-RF1170	R/F Slab & G/F to R/F wall Concreting	1	1	16-Jan-2024	17-Jan-2024	53	0%
1783	**Bay 3**		36	36	06-Dec-2023	16-Jan-2024	95	0%
1784	P7-RF1180	Erection of falsework and working platform for G/F to R/F wall	6	6	06-Dec-2023	12-Dec-2023	95	0%
1785	P7-RF1190	Erection of One Side Formwork for G/F to R/F Wall	4	4	12-Dec-2023	16-Dec-2023	95	0%
1786	P7-RF1200	Rebar Fixing for G/F to R/F Wall	4	4	16-Dec-2023	21-Dec-2023	95	0%
1787	P7-RF1210	Erection of remaining side formwork for G/F to R/F Wall	6	6	21-Dec-2023	29-Dec-2023	95	0%
1788	P7-RF1220	Erection of falsework and working platform for R/F Slab	4	4	29-Dec-2023	04-Jan-2024	95	0%
1789	P7-RF1230	Erection of Formwork for R/F Slab	4	4	04-Jan-2024	08-Jan-2024	95	0%
1790	P7-RF1240	Rebar Fixing for R/F Slab	4	4	08-Jan-2024	12-Jan-2024	95	0%
1791	P7-RF1250	R/F Slab Shutters	3	3	12-Jan-2024	15-Jan-2024	95	0%
1792	P7-RF1260	R/F Slab & G/F to R/F wall Concreting	1	1	16-Jan-2024	16-Jan-2024	95	0%
1793	**Bay 4**		29	29	10-Jan-2024	09-Feb-2024	84	0%
1794	P7-RF1270	Erection of falsework and working platform for G/F to R/F wall	4	4	10-Jan-2024	15-Jan-2024	84	0%
1795	P7-RF1280	Erection of One Side Formwork for G/F to R/F Wall	4	4	15-Jan-2024	18-Jan-2024	84	0%
1796	P7-RF1290	Rebar Fixing for G/F to R/F Wall	4	4	18-Jan-2024	23-Jan-2024	84	0%
1797	P7-RF1300	Erection of remaining side formwork for G/F to R/F Wall	4	4	23-Jan-2024	26-Jan-2024	84	0%
1798	P7-RF1310	Erection of falsework and working platform for R/F Slab	5	5	26-Jan-2024	01-Feb-2024	84	0%
1799	P7-RF1320	Erection of Formwork for R/F Slab	2	2	01-Feb-2024	03-Feb-2024	84	0%
1800	P7-RF1330	Rebar Fixing for R/F Slab	3	3	03-Feb-2024	06-Feb-2024	84	0%
1801	P7-RF1340	R/F Slab Shutters	2	2	06-Feb-2024	08-Feb-2024	84	0%
1802	P7-RF1350	R/F Slab & G/F to R/F wall Concreting	1	1	08-Feb-2024	09-Feb-2024	84	0%
1803	**Retaining Wall & U trough**		171	134	14-Aug-2023 A	29-Feb-2024	98	21.69%
1804	P7-RW1209	Construction of U Trough RC Structure wall (KW08 Type B)(Wall Founding level +5.6mPD)	35	28	14-Aug-2023 A	02-Nov-2023	115	20%
1805	P7-RW1211	Soil backfill From +5.3mPD to +6.2mPD with testing	30	30	21-Nov-2023	21-Dec-2023	98	0%
1806	P7-RW1213	Construction of U Trough RC Structure wall (KW08 Type A)(Wall Founding level +6.2mPD)	45	45	22-Dec-2023	14-Feb-2024	98	0%
1807	P7-RW1214	Backfill to formation level to +7.5mPD	30	30	25-Jan-2024	29-Feb-2024	98	0%
1808	**ABWF/ E&M Works**		483	483	16-Jan-2024	12-May-2025	-80	0%
1809	**Basement Floor**		272	272	16-Jan-2024	12-Nov-2024	11	0%
1810	**Valve Chamber**		236	236	01-Feb-2024	23-Oct-2024	21	0%
1811	P7-VC0900	Dismantling Falsework from R/F to B/F	12	12	01-Feb-2024	17-Feb-2024	106	0%
1812	P7-VC1000	Access Date of Valve Chamber Builders works	0	0	17-Feb-2024		106	0%
1813	P7-VC1005	Concrete Defect Repairing	5	5	17-Feb-2024	22-Feb-2024	106	0%
1814	P7-VC1100	Concrete Plinth for resting the twins rising mains	7	7	22-Feb-2024	29-Feb-2024	106	0%
1815	P7-VC1200	Waterproofing works of Valve Chamber	4	4	01-Mar-2024	05-Mar-2024	106	0%
1816	P7-VC1210	Flooding Test and Infra Red test after waterproofing	4	4	05-Mar-2024	09-Mar-2024	106	0%
1817	P7-VC1220	Floor Screed	1	1	09-Mar-2024	11-Mar-2024	106	0%
1818	P7-VC1225	Erect working platform from +1.55mPD to +7.65mPD for Steel Staircase Installation	12	12	11-Mar-2024	22-Mar-2024	106	0%



#	Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Duration % Complete
1819	P7-VC1227	Steel Staircase Installation (+1.55mPD to +4.35mPD)	10	10	22-Mar-2024	06-Apr-2024	106	0%
1820	P7-VC1230	Twins rising mains Installation with connection to wet well and outside external area	70	70	07-Aug-2024	23-Oct-2024	21	0%
1821	**Wet Well**		262	262	16-Jan-2024	01-Nov-2024	11	0%
1822	P7-WW1000	Access Date of Wet Well Builders works	0	0	16-Jan-2024		199	0%
1823	P7-WW1100	Scaffolding and working platform modification	5	5	16-Jan-2024	20-Jan-2024	199	0%
1824	P7-WW1110	Wall and Ceiling Waterproofing, testing and screeding	9	9	20-Jan-2024	30-Jan-2024	199	0%
1825	P7-WW1120	Submersible Sewerage Pump Installation and Pipe Connection to Valve Chamber	40	40	27-Aug-2024	10-Oct-2024	11	0%
1826	P7-WW1130	Cat Ladder Installation	10	10	10-Oct-2024	22-Oct-2024	11	0%
1827	P7-WW1140	Filling of Void of wet well	10	10	22-Oct-2024	01-Nov-2024	11	0%
1828	**Screen Chamber & Retention Tank**		236	236	26-Feb-2024	12-Nov-2024	11	0%
1829	P7-SC1000	Access Date of Screen Chamber Builders works	0	0	26-Feb-2024		182	0%
1830	P7-SC1010	Scaffolding and working platform erection	10	10	26-Feb-2024	07-Mar-2024	182	0%
1831	P7-SC1020	Wall and Ceiling Waterproofing and testing	10	10	07-Mar-2024	18-Mar-2024	182	0%
1832	P7-SC1030	Pipe work Installation and Bar Screen Installation	25	25	07-Aug-2024	02-Sep-2024	56	0%
1833	P7-SC1040	Cat Ladder / Penstock Installation	10	10	02-Sep-2024	12-Sep-2024	56	0%
1834	P7-SC1050	T&C for Basement Floor Equipment	10	10	01-Nov-2024	12-Nov-2024	11	0%
1835	**Ground Floor**		467	467	01-Feb-2024	12-May-2025	-126	0%
1836	**Tx Room / Switch Room**		217	217	20-Feb-2024	24-Sep-2024	7	0%
1837	P7-Tx3000	Access Date of G/F Tx Room / Switch Room Fitting Out	0	0	20-Feb-2024		4	0%
1838	**ABWF**		83	83	20-Feb-2024	23-May-2024	37	0%
1839	P7-Tx3010	Setting Out	2	2	20-Feb-2024	21-Feb-2024	7	0%
1840	P7-Tx3020	Access Date of Tx Room Double Slab Builders works	0	0	20-Feb-2024		6	0%
1841	P7-Tx3025	Formwork dismantling and touch up works	6	6	20-Feb-2024	26-Feb-2024	6	0%
1842	P7-Tx3030	Waterproofing works of Tx Room Double Slab	6	6	26-Feb-2024	02-Mar-2024	6	0%
1843	P7-Tx3040	Flooding Test and Infra Red test after waterproofing	6	6	02-Mar-2024	09-Mar-2024	6	0%
1844	P7-Tx3050	Erect Scaffolding for wall and ceiling finishes of Tx Rm	3	3	21-Feb-2024	24-Feb-2024	7	0%
1845	P7-Tx3060	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	12	12	26-Feb-2024	09-Mar-2024	6	0%
1846	P7-Tx3070	Wall Finishes (Wall plastering, Lourve Frame, Wall Tiling, Skim Coat and 1st Coat Painting)	12	12	09-Mar-2024	21-Mar-2024	6	0%
1847	P7-Tx3080	Cable Trench Plastering	12	12	15-Mar-2024	28-Mar-2024	6	0%
1848	P7-Tx3090	Cable Trench Angle Frame Installation	7	7	28-Mar-2024	09-Apr-2024	6	0%
1849	P7-Tx3100	Floor Screeding	5	5	09-Apr-2024	15-Apr-2024	6	0%
1850	P7-Tx3110	Metal Door Frame Installation	3	3	15-Apr-2024	17-Apr-2024	37	0%
1851	P7-Tx3120	Ceiling And Wall Painting (Final Coat)	6	6	17-Apr-2024	24-Apr-2024	37	0%
1852	P7-Tx3130	Chequer Plate Installation	6	6	24-Apr-2024	30-Apr-2024	37	0%
1853	P7-Tx3135	Lourves Installation	2	2	24-Apr-2024	26-Apr-2024	41	0%
1854	P7-Tx3140	Painting to Chequer Plate	5	5	30-Apr-2024	07-May-2024	37	0%
1855	P7-Tx3150	Floor Dust Proof Coating	10	10	07-May-2024	18-May-2024	37	0%
1856	P7-Tx3160	Durasteel Installation to Air Duct	3	3	18-May-2024	21-May-2024	37	0%
1857	P7-Tx3170	Metal Door Leaf Installation	2	2	21-May-2024	23-May-2024	37	0%
1858	**BS Works**		149	149	15-Apr-2024	24-Sep-2024	6	0%
1859	**Electrical Works**		66	66	15-Apr-2024	26-Jun-2024	6	0%
1860	P7-Tx3190	Intallation (Electrical) of Conduit at Tx Room	4	4	15-Apr-2024	18-Apr-2024	6	0%
1861	P7-Tx3200	Cable Wiring at Tx Room	3	3	18-Apr-2024	22-Apr-2024	6	0%
1862	P7-Tx3210	Installation of Light Fitting at Tx Room	4	4	22-Apr-2024	26-Apr-2024	6	0%
1863	P7-Tx3220	Delivery of Cable Tray	3	3	26-Apr-2024	29-Apr-2024	6	0%
1864	P7-Tx3230	Installation of Cable Tray over ceiling	6	6	29-Apr-2024	07-May-2024	6	0%
1865	P7-Tx3240	Intallation (Electrical) of Conduit at Switch Room	5	5	07-May-2024	11-May-2024	6	0%
1866	P7-Tx3250	Cable Wiring at Switch Room	5	5	11-May-2024	18-May-2024	6	0%
1867	P7-Tx3260	Installation of Light Fitting at Switch Room	5	5	18-May-2024	23-May-2024	6	0%
1868	P7-Tx3270	FAT of Switchboard	3	3	23-May-2024	27-May-2024	6	0%
1869	P7-Tx3280	Delivery and assembly of Switchboard at Switch Room	23	23	27-May-2024	21-Jun-2024	6	0%
1870	P7-Tx3290	SAT of Switchboard	1	1	21-Jun-2024	21-Jun-2024	6	0%
1871	P7-Tx3300	Installation of MCB Board	4	4	07-May-2024	10-May-2024	18	0%
1872	P7-Tx3310	Installation of Earthing System at Tx Room and Switch Room	5	5	10-May-2024	17-May-2024	18	0%
1873	P7-Tx3320	System T&C (Electrical Works)	5	5	17-May-2024	22-May-2024	18	0%
1874	P7-Tx3330	Installation of Lighting conductors	7	7	22-May-2024	30-May-2024	18	0%
1875	P7-Tx3340	Installation of Lightning Pits	4	4	30-May-2024	03-Jun-2024	18	0%
1876	P7-Tx3350	Installation of Earthing Pits	5	5	17-Jun-2024	21-Jun-2024	6	0%
1877	P7-Tx3360	Earthing and Lightning T&C	4	4	22-Jun-2024	26-Jun-2024	6	0%
1878	**MVAC Works**		28	28	15-Apr-2024	16-May-2024	44	0%
1879	P7-Tx3380	Intallation (MVAC) of Conduit at Tx Room	4	4	15-Apr-2024	18-Apr-2024	44	0%
1880	P7-Tx3390	Cable Wiring (MVAC) of Conduit at Tx Room	2	2	18-Apr-2024	20-Apr-2024	44	0%
1881	P7-Tx3400	Installation of Fan and Air Duct at Tx Room	5	5	20-Apr-2024	26-Apr-2024	44	0%
1882	P7-Tx3410	Installation of Fan Controller at Tx Room	3	3	26-Apr-2024	29-Apr-2024	44	0%
1883	P7-Tx3420	Installation of Fan and Air Duct at Switchroom	5	5	29-Apr-2024	06-May-2024	44	0%
1884	P7-Tx3430	Installation of LMCP at Switchroom	2	2	06-May-2024	08-May-2024	44	0%
1885	P7-Tx3440	System T&C (MVAC Works)	7	7	08-May-2024	16-May-2024	44	0%
1886	**FS Works**		35	35	15-Apr-2024	23-May-2024	37	0%
1887	P7-Tx3450	Intallation (FS) of Conduit at Tx Room	4	4	15-Apr-2024	18-Apr-2024	37	0%



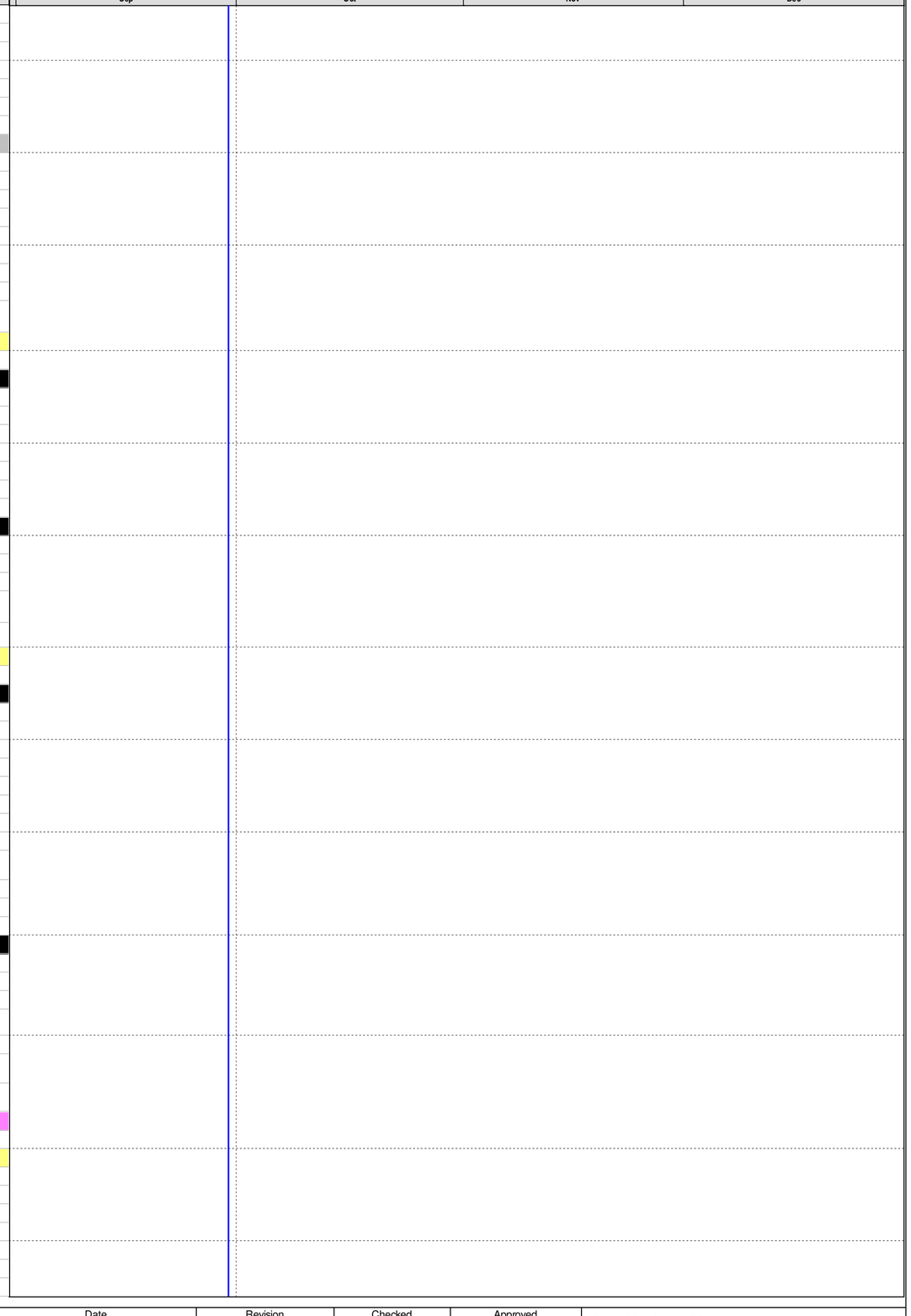
Primary Baseline
Actual Work
Remaining Work
Critical Remaining Work
Baseline Milestone
Critical Milestone
Non-Critical Milestone

Data Date: 30-Sep-2023
Project Start: 03-Feb-2020
Project End: 27-Nov-2026
Baseline: Aug 2023 Monthly Programme Update

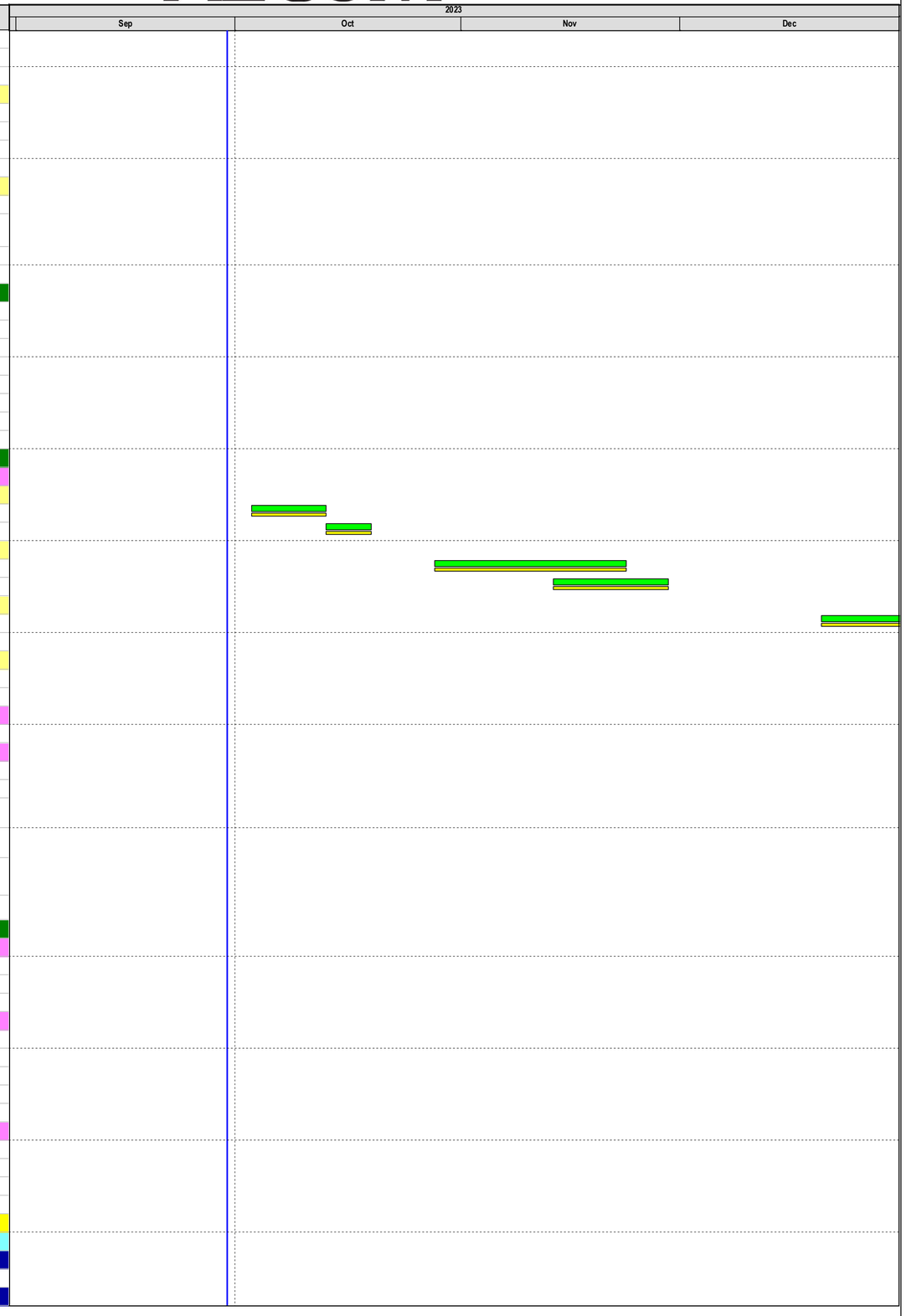
4M Rolling Programme (Sep-Dec 2023)

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

#	Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Duration % Complete
1888	P7-Tx3460	Cable Wiring (FS) of Conduit at Tx Room	2	2	18-Apr-2024	20-Apr-2024	37	0%
1889	P7-Tx3470	Installation of Heat Detector at Tx Room	5	5	20-Apr-2024	26-Apr-2024	37	0%
1890	P7-Tx3480	Installation of (FS) Conduit at Switchroom	3	3	26-Apr-2024	29-Apr-2024	37	0%
1891	P7-Tx3490	Cable Wiring (FS) of Conduit at Switchroom	5	5	29-Apr-2024	06-May-2024	37	0%
1892	P7-Tx3500	Installation of Heat Detector at Switchroom	2	2	06-May-2024	08-May-2024	37	0%
1893	P7-Tx3510	Installation of AFA panel and audio / visual alarm equipment	7	7	08-May-2024	16-May-2024	37	0%
1894	P7-Tx3520	System T&C (FS Works)	7	7	16-May-2024	23-May-2024	37	0%
1895	**CLP works & Statutory Inspection**		83	83	26-Jun-2024	24-Sep-2024	6	0%
1896	P7-Tx3525	Submit WR1	6	6	26-Jun-2024	03-Jul-2024	6	0%
1897	P7-Tx3550	1st CLP Inspection of Tx Room	1	1	04-Jul-2024	04-Jul-2024	6	0%
1898	P7-Tx3560	1st Defect Rectification	6	6	04-Jul-2024	11-Jul-2024	6	0%
1899	P7-Tx3570	2nd CLP Inspection of Tx Room	1	1	11-Jul-2024	12-Jul-2024	6	0%
1900	P7-Tx3580	2nd Defect Rectification	6	6	12-Jul-2024	18-Jul-2024	6	0%
1901	P7-Tx3590	Handover Inspection with CLP	1	1	18-Jul-2024	19-Jul-2024	6	0%
1902	P7-Tx3600	CLP Installation Works	60	60	19-Jul-2024	21-Sep-2024	6	0%
1903	P7-Tx3610	Energization of Tx Equipment	1	1	21-Sep-2024	23-Sep-2024	6	0%
1904	P7-Tx3620	CLP Meter Installation	1	1	23-Sep-2024	24-Sep-2024	6	0%
1905	**DO Room**		316	316	01-Feb-2024	13-Dec-2024	-19	0%
1906	P7-DO1000	Access Date of G/F DO Room Fitting Out	0	0	01-Feb-2024		62	0%
1907	**ABWF**		98	98	01-Feb-2024	24-May-2024	94	0%
1908	P7-DOFO1020	Concrete defect recfication and repairing	6	6	01-Feb-2024	07-Feb-2024	94	0%
1909	P7-DOFO1030	Ceiling Plastering	10	10	07-Feb-2024	21-Feb-2024	94	0%
1910	P7-DOFO1040	Wall Plastering and Door Frame Installation	6	6	21-Feb-2024	28-Feb-2024	94	0%
1911	P7-DOFO1050	Floor Screeding	8	8	28-Feb-2024	07-Mar-2024	107	0%
1912	P7-DOFO1060	Wall Finishes and Door Installation	10	10	07-Mar-2024	18-Mar-2024	132	0%
1913	P7-DOFO1070	Floor Finishes	10	10	18-Mar-2024	28-Mar-2024	132	0%
1914	P7-DOFO1080	Window / Lourvre Installation with grouting and water testing	10	10	13-May-2024	24-May-2024	94	0%
1915	**BS Works**		151	151	04-Jul-2024	13-Dec-2024	-18	0%
1916	P7-DOBS1010	BS 1st Fixing (Elec, FS, DO Equipment)	21	21	04-Jul-2024	26-Jul-2024	-18	0%
1917	P7-DOBS1020	BS 2nd Fixing (Elec, FS, DO Equipment)	25	25	26-Jul-2024	21-Aug-2024	-18	0%
1918	P7-DOBS1030	BS final Fixing & DO Equipment Installation	30	30	21-Aug-2024	23-Sep-2024	-18	0%
1919	P7-DOBS1035	FRR Shutter Installation	45	45	23-Sep-2024	12-Nov-2024	-18	0%
1920	P7-DOBS1040	T&C of DO Room Euipments	30	30	12-Nov-2024	13-Dec-2024	-18	0%
1921	**Pump Hall**		441	441	27-Feb-2024	12-May-2025	-126	0%
1922	P7-PH1000	Access Date of G/F Pump Hall Fitting Out	0	0	27-Feb-2024		35	0%
1923	**ABWF**		193	193	27-Feb-2024	27-Sep-2024	3	0%
1924	P7-PH1012	Concrete defect recfication and repairing	6	6	27-Feb-2024	04-Mar-2024	53	0%
1925	P7-PH1014	Ceiling Plastering	10	10	04-Mar-2024	14-Mar-2024	53	0%
1926	P7-PH1016	Wall Plastering and Door Frame Installation	6	6	14-Mar-2024	21-Mar-2024	53	0%
1927	P7-PH1018	Floor Screeding	8	8	21-Mar-2024	02-Apr-2024	80	0%
1928	P7-PH1020	Wall Finishes and Door Installation	10	10	02-Apr-2024	13-Apr-2024	80	0%
1929	P7-PH1022	Floor Finishes	10	10	13-Apr-2024	24-Apr-2024	80	0%
1930	P7-PH1024	Window / Lourvre Installation with grouting and water testing	10	10	13-May-2024	24-May-2024	63	0%
1931	P7-PH1028	Steel Staircase Installation (+4.35mPD to +7.65mPD)	8	8	24-May-2024	01-Jun-2024	63	0%
1932	P7-PH1030	Overhead traveling crane Installation at the ceiling of Pump Hall	20	20	07-Aug-2024	28-Aug-2024	3	0%
1933	P7-PH1040	Lifting Chain Installation	10	10	28-Aug-2024	07-Sep-2024	3	0%
1934	P7-PH1060	Handrail Installation surrounding opening of pump hall	6	6	07-Sep-2024	13-Sep-2024	3	0%
1935	P7-PH1075	Steel Covers of opening of pump hall (30nos.)	12	12	13-Sep-2024	27-Sep-2024	3	0%
1936	**BS Works**		373	373	21-Mar-2024	12-May-2025	-111	0%
1937	P7-PH1015	BS 1st Fixing (Elec, FS)	21	21	21-Mar-2024	16-Apr-2024	53	0%
1938	P7-PH1025	BS 2nd Fixing (Elec, FS, PLC)	25	25	17-Apr-2024	14-May-2024	53	0%
1939	P7-PH1035	BS final Fixing	30	30	14-May-2024	17-Jun-2024	53	0%
1940	P7-PH1045	FRR Shutters Installation (3nos)	45	45	17-Jun-2024	03-Aug-2024	53	0%
1941	P7-PH1050	Bund Wall and Chemical Storage Tank Installation	12	12	07-Sep-2024	20-Sep-2024	3	0%
1942	P7-PH1070	T&C of Pump Hall Equipments & connection of AFA system to Megalink	50	50	27-Sep-2024	21-Nov-2024	3	0%
1943	P7-PH1085	Overall System T&C before FSD Inspection	38	38	27-Mar-2025	12-May-2025	-111	0%
1944	**Roof Floor**		236	236	28-Feb-2024	14-Nov-2024	88	0%
1945	P7-RF2000	Access Date of Roof Fitting Out	0	0	28-Feb-2024		84	0%
1946	**ABWF**		161	161	28-Feb-2024	24-Aug-2024	98	0%
1947	P7-RF2010	Setting Out	2	2	28-Feb-2024	29-Feb-2024	84	0%
1948	P7-RF2020	Roof RC Structure Water Testing before waterproofing	12	12	01-Mar-2024	13-Mar-2024	84	0%
1949	P7-RF2030	Remedial and touch up works before applying waterproofing	6	6	13-Mar-2024	20-Mar-2024	84	0%
1950	P7-RF2040	Applying Roof waterproofing Membrane	10	10	20-Mar-2024	03-Apr-2024	84	0%
1951	P7-RF2050	Water Testing & Infra red testing	6	6	03-Apr-2024	10-Apr-2024	84	0%
1952	P7-RF2060	Laying Insulation board with protection floor screed	10	10	10-Apr-2024	20-Apr-2024	84	0%
1953	P7-RF2070	Laying Floor finishes	30	30	20-Apr-2024	24-May-2024	84	0%



#	Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Duration % Complete
1954	P7-RF2080	Roof water tank Installation & testing	40	40	24-May-2024	08-Jul-2024	98	0%
1955	P7-RF2090	Roof Skylight Installation	30	30	08-Jul-2024	08-Aug-2024	98	0%
1956	P7-RF2100	Roof Balustrade & Fall Arrest system Installation	30	30	24-Jul-2024	24-Aug-2024	98	0%
1957	**BS Works**		179	179	20-Mar-2024	05-Oct-2024	46	0%
1958	P7-RF2140	BS 1st Fixing (Elec, Water, Irrigation piping)	30	30	20-Mar-2024	25-Apr-2024	110	0%
1959	P7-RF2150	BS 2nd Fixing (Elec, Water, Irrigation System connection)	35	35	24-May-2024	03-Jul-2024	84	0%
1960	P7-RF2160	BS final Fixing	40	40	03-Jul-2024	14-Aug-2024	84	0%
1961	P7-RF2170	T&C of Roof BS System	10	10	24-Sep-2024	05-Oct-2024	46	0%
1962	**Landscape Works**		125	125	03-Jul-2024	14-Nov-2024	88	0%
1963	P7-RF2105	Roof Planters Drainages, irrigation pipe, Artiifcal Granite Tile Installation	30	30	03-Jul-2024	03-Aug-2024	88	0%
1964	P7-RF2110	Soil Backfilling to Roof Planters	45	45	03-Aug-2024	20-Sep-2024	88	0%
1965	P7-RF2120	Shurbs Planting works to roof floor (5,802 nos)	60	60	24-Aug-2024	30-Oct-2024	88	0%
1966	P7-RF2130	Water Points installation for irrigation	28	28	16-Oct-2024	14-Nov-2024	88	0%
1967	**External Finishes**		190	190	29-Feb-2024	26-Sep-2024	94	0%
1968	P7-1300	Modify external scaffolding	25	25	29-Feb-2024	26-Mar-2024	98	0%
1969	P7-1310	Waterproofing & Window / Lourve Glazing Works	36	36	26-Mar-2024	08-May-2024	98	0%
1970	P7-1320	Fin Cladding Installation	36	36	13-May-2024	22-Jun-2024	94	0%
1971	P7-1325	RC Staircase Finishes works	20	20	05-Jun-2024	27-Jun-2024	94	0%
1972	P7-1330	Door and external wall Recycle Timber Composite installation	25	25	27-Jun-2024	25-Jul-2024	94	0%
1973	P7-1335	FRR Shutters Installation	36	36	17-Jul-2024	24-Aug-2024	94	0%
1974	P7-1337	Fence Wall Gate Installation	36	36	06-Aug-2024	12-Sep-2024	94	0%
1975	P7-1340	Removal of external scaffolding	12	12	12-Sep-2024	26-Sep-2024	94	0%
1976	**External Works**		479	479	03-Oct-2023	17-Mar-2025	37	0%
1977	**Drainage and Site Formation**		364	364	03-Oct-2023	08-Nov-2024	18	0%
1978	**Sewerage pipe KT1.47A to KT1.48A**		16	16	03-Oct-2023	19-Oct-2023	317	0%
1979	P7-1333	Open Trench formation for sewerage pipe KT1.47A to KT1.48A (12m long, -1.96mPD)	10	10	03-Oct-2023	13-Oct-2023	317	0%
1980	P7-1336	Sewerage Pipe laying KT1.47A to KT1.48A (12m) (DN1050)	6	6	13-Oct-2023	19-Oct-2023	317	0%
1981	**Rising main CHB0.0 to CHB50**		30	30	28-Oct-2023	29-Nov-2023	245	0%
1982	P7-1350	Open Trench formation for rising main CHB0.0 to CHB50 (50m long 4m Depth, 1.6-2mPD)	25	25	28-Oct-2023	23-Nov-2023	245	0%
1983	P7-1360	Rising main laying (50m) (Twins DN700)	15	15	13-Nov-2023	29-Nov-2023	245	0%
1984	**DN1050 Overflow Pipe**		27	27	20-Dec-2023	20-Jan-2024	208	0%
1985	P7-1375	Open Trench formation for DN1050 Overflow Pipe(24m long +5.3mPD)	15	15	20-Dec-2023	08-Jan-2024	208	0%
1986	P7-1377	Overflow Pipe laying (24m) (DN1050)	12	12	08-Jan-2024	20-Jan-2024	208	0%
1987	**DN1050 Pipe Under SPS EVA**		27	27	10-Oct-2024	08-Nov-2024	18	0%
1988	P7-4170	Open Trench formation for DN1050 Pipe(Under SPS EVA)	15	15	10-Oct-2024	28-Oct-2024	18	0%
1989	P7-4180	Pipe laying (DN1050)	12	12	28-Oct-2024	08-Nov-2024	18	0%
1990	**EVA Construction**		36	36	09-Nov-2024	17-Dec-2024	18	0%
1991	P7-4160	Construction of EVA and Parking Spaces	36	36	09-Nov-2024	17-Dec-2024	18	0%
1992	**Landscape Works**		214	214	25-Jul-2024	17-Mar-2025	37	0%
1993	P7-LA0090	Climber Installation with Vertical Planting	30	30	25-Jul-2024	26-Aug-2024	111	0%
1994	P7-LA0095	Placing irrigation pipe and Planting Soil near main entrance of SPS	20	20	26-Sep-2024	19-Oct-2024	94	0%
1995	P7-LA1000	Placing irrigation pipe and Planting Soil Near Retaining Wall RW-08	20	20	17-Dec-2024	10-Jan-2025	18	0%
1996	P7-LA1010	Tree Planting (7nos. Tm & 7nos Tp) Near Retaining Wall RW-08	24	24	10-Jan-2025	07-Feb-2025	37	0%
1997	P7-LA1030	Tree Planting (4nos. BJ, 4nos VO & 1no. of WB) after wooden fence installation	25	25	08-Feb-2025	06-Mar-2025	37	0%
1998	P7-LA1040	Shrubs Planting (Tja, Rex, cte, oja etc.....) Total 2,229 nos.	25	25	19-Feb-2025	17-Mar-2025	37	0%
1999	**Statutory Inspection**		231	231	10-Jan-2025	22-Sep-2025	-111	0%
2000	**WSD Inspection (Irrigation Water Supply)**		69	69	10-Jan-2025	27-Mar-2025	18	0%
2001	P7-WSD1000	Submit Form WWO046 Part IV For WSD Inspection - Irrigation Water Supply	1	1	10-Jan-2025	11-Jan-2025	18	0%
2002	P7-WSD1010	WSD Inspection - Irrigation Water Supply	7	7	15-Feb-2025	22-Feb-2025	18	0%
2003	P7-WSD1020	Issue Water Certificate (Part V) - Irrigation Water Supply	1	1	26-Mar-2025	27-Mar-2025	18	0%
2004	**FSD Inspection**		91	91	12-May-2025	18-Aug-2025	-111	0%
2005	P7-FSD2090	Submit FS Form 314 / 501 For FSD Inspection	1	1	12-May-2025	13-May-2025	-111	0%
2006	P7-FSD2100	FS Inspection	7	7	10-Jun-2025	17-Jun-2025	-111	0%
2007	P7-FSD2105	Defect retification and Submit Form for Re-inspection	25	25	17-Jun-2025	14-Jul-2025	-111	0%
2008	P7-FSD2107	2nd round FS Inspection	7	7	05-Aug-2025	12-Aug-2025	-111	0%
2009	P7-FSD2110	Issue Fire Certificate (Form 172)	1	1	16-Aug-2025	18-Aug-2025	-111	0%
2010	**CEDD / DSD Inspection**		33	33	18-Aug-2025	22-Sep-2025	-111	0%
2011	P7-CEDD1020	Overall System T&C before CEDD / DSD Inspection	9	9	18-Aug-2025	27-Aug-2025	-111	0%
2012	P7-CEDD1030	Submit Inspection Form For CEDD /DSD Inspection	1	1	27-Aug-2025	28-Aug-2025	-111	0%
2013	P7-CEDD1040	CEDD / DSD Inspection	7	7	05-Sep-2025	12-Sep-2025	-111	0%
2014	P7-CEDD1050	Issue Completion Certificate by CEDD and handover to DSD for operation	1	1	20-Sep-2025	22-Sep-2025	-111	0%
2015	**Works in Section 3**		1640	471	16-Apr-2020 A	15-Jan-2025	680	71.28%
2016	**Portion 8 - Roads & Drains**		1640	471	29-Jun-2020 A	15-Jan-2025	680	71.28%
2017	**Site Possession**		0	0	03-Aug-2020 A	03-Aug-2020 A		0%
2018	P8-1000	Possession of site - Portion 8	0	0	03-Aug-2020 A			100%
2019	**Pre-construction works**		1313	425	29-Jun-2020 A	15-Jan-2025	616	67.66%



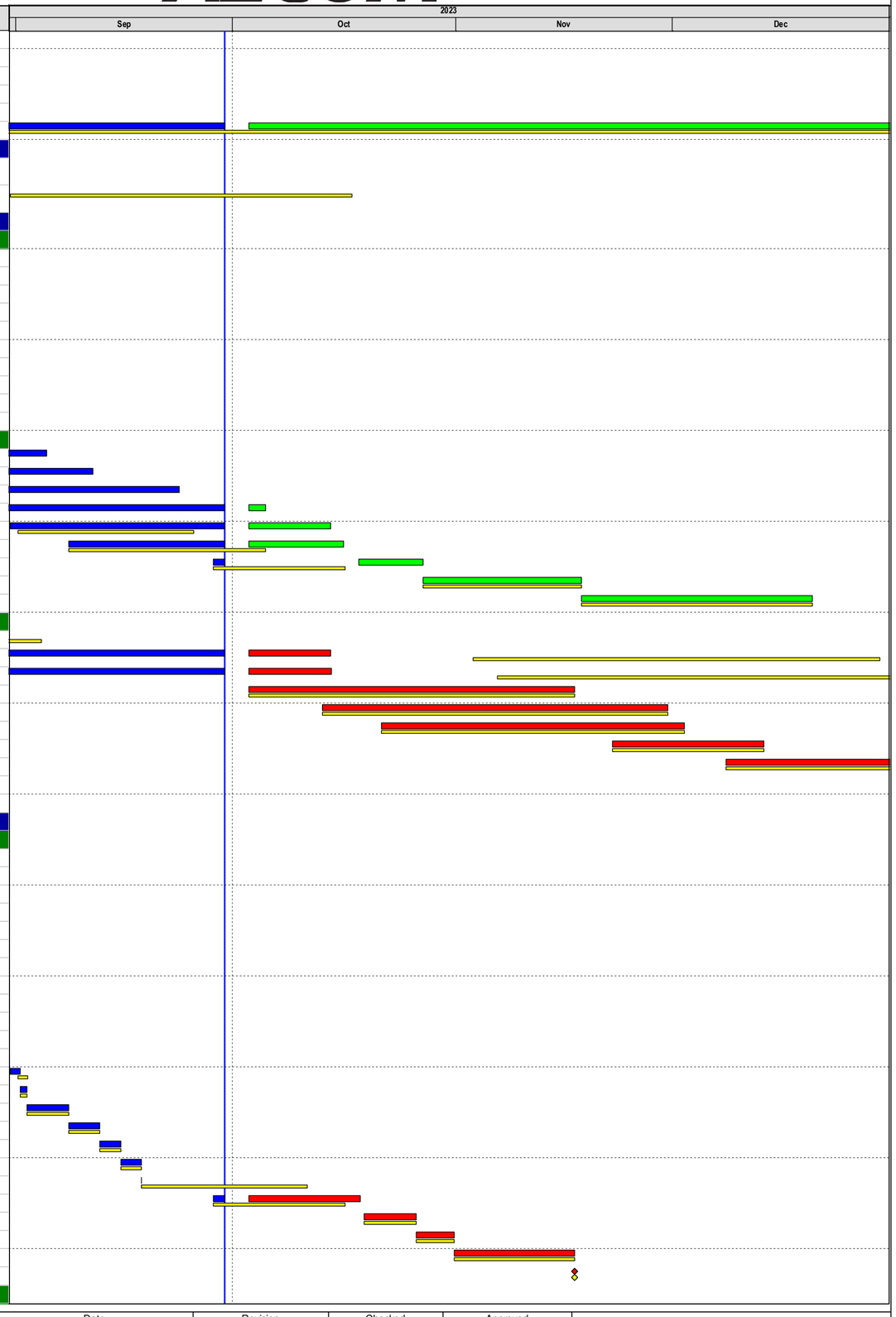
Primary Baseline
Actual Work
Remaining Work
Critical Remaining Work
Baseline Milestone
Critical Milestone
Non-Critical Milestone

Data Date: 30-Sep-2023
Project Start: 03-Feb-2020
Project End: 27-Nov-2026
Baseline: Aug 2023 Monthly Programme Update

4M Rolling Programme (Sep-Dec 2023)

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

#	Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Duration % Complete
2020	P8-1010	Utilities Detection in Portion 8	11	0	29-Jun-2020 A	14-Jul-2020 A		100%
2021	P8-1020	Inspection Pit	16	0	04-Aug-2020 A	25-Aug-2020 A		100%
2022	P8-1030	Coordination with UU owner to arrange diversion / abandon	16	0	25-Aug-2020 A	01-Sep-2020 A		100%
2023	P8-1040	Circulation & Approval of TTAs	19	0	18-Aug-2020 A	19-Sep-2020 A		100%
2024	P8-1050	Formation of Temporary Haul Road & Entrance to Portion 7 & Portion 10	27	0	21-Sep-2020 A	14-Nov-2020 A		100%
2025	P8-1055	Tree Protection and Preservation	1327	425	03-Aug-2020 A	15-Jan-2025	616	68%
2026	**Cycle Track and Footpath Diversion (For KT1.41A to KT1.47A Construction)**		62	0	01-Jun-2023 A	30-Jun-2023 A		100%
2027	P8-5850	North Bridge Ramp Landing Completion	0	0		30-Jun-2023 A		100%
2028	P8-5900	Cycle Track Shifting to the top of North Bridge Ramp (After North Bridge Ramp Completion)	48	0	01-Jun-2023 A	30-Jun-2023 A		100%
2029	**Sewer Pipeline Installation**		457	141	04-Jul-2022 A	07-Mar-2024	140	69.15%
2030	**KT1.40A - KT1.43.7 (50m)**		165	0	04-Jul-2022 A	14-Feb-2023 A		100%
2031	P8-5140	Sheet Pile Installation for open trench (Open Trench from 1.40A to 1.43.7)	23	0	04-Jul-2022 A	29-Jul-2022 A		100%
2032	P8-5150	Soft Excavation to 1st strut level	22	0	18-Jul-2022 A	11-Aug-2022 A		100%
2033	P8-5160	Installation of strut S1	23	0	05-Aug-2022 A	30-Aug-2022 A		100%
2034	P8-5170	Soft Excavation to 2nd strut level	18	0	07-Sep-2022 A	06-Oct-2022 A		100%
2035	P8-5180	Installation of strut S2	23	0	14-Sep-2022 A	14-Oct-2022 A		100%
2036	P8-5190	Soft Excavation to F.L.	25	0	24-Sep-2022 A	27-Oct-2022 A		100%
2037	P8-5200	Bedding & Pipe Laying (800 Concrete Pipe)	15	0	31-Oct-2022 A	21-Nov-2022 A		100%
2038	P8-5205	Construction of Manhole KT1.43.7	19	0	23-Nov-2022 A	16-Dec-2022 A		100%
2039	P8-5210	Backfilling of drain to at grade level with dismantling strut	20	0	16-Dec-2022 A	09-Jan-2023 A		100%
2040	P8-5220	Extraction of sheet pile and reinstatement	40	0	28-Dec-2022 A	14-Feb-2023 A		100%
2041	**KT1.43.7 - KT1.41A (60m)**		282	73	05-Dec-2022 A	20-Dec-2023	208	74.07%
2042	P8-9090	Sheet Pile Installation for open trench (Open Trench from 1.43.7 to 1.41A)	23	0	05-Dec-2022 A	05-Sep-2023 A		100%
2043	P8-9100	Soft Excavation to 1st strut level	22	0	17-Dec-2022 A	11-Sep-2023 A		100%
2044	P8-9110	Installation of strut S1	23	0	21-Dec-2022 A	23-Sep-2023 A		100%
2045	P8-9120	Soft Excavation to 2nd strut level	31	3	30-Jan-2023 A	05-Oct-2023	208	90%
2046	P8-9130	Installation of strut S2	23	12	31-Aug-2023 A	14-Oct-2023	208	50%
2047	P8-9140	Soft Excavation to F.L.	24	12	08-Sep-2023 A	16-Oct-2023	208	50%
2048	P8-9150	Bedding & Pipe Laying (1200 Concrete Pipe)	15	8	28-Sep-2023 A	27-Oct-2023	208	50%
2049	P8-9155	Construction of Manhole KT1.41A	21	21	27-Oct-2023	18-Nov-2023	208	0%
2050	P8-9160	Backfilling of drain to at grade level & Sheet Pile Extraction	30	30	18-Nov-2023	20-Dec-2023	208	0%
2051	**KT1.41A - KT1.47A (100m) (Open Cut by CE-076)**		199	141	05-Jul-2023 A	07-Mar-2024	-212	29.3%
2052	P8-6000	Sheet Pile Installation for open trench (after Completion of Temp. Cycle Track and Footpath)	49	0	05-Jul-2023 A	25-Aug-2023 A		100%
2053	P8-6010	Soft Excavation to 1st strut level	52	11	26-Aug-2023 A	14-Oct-2023	-212	78.08%
2054	P8-6020	Installation of strut S1	53	12	26-Aug-2023 A	14-Oct-2023	-212	78.11%
2055	P8-6030	Soft Excavation to 2nd strut level	42	42	03-Oct-2023	17-Nov-2023	-212	0%
2056	P8-6040	Installation of strut S2	44	44	13-Oct-2023	30-Nov-2023	-212	0%
2057	P8-6050	Soft Excavation to F.L.	39	39	21-Oct-2023	02-Dec-2023	-212	0%
2058	P8-6060	Bedding & Pipe Laying (Twins 1200 Concrete Pipe)	20	20	22-Nov-2023	13-Dec-2023	-212	0%
2059	P8-6070	Backfilling of drain to at grade level	45	45	08-Dec-2023	27-Jan-2024	-212	0%
2060	P8-6100	Construction of Manhole KT1.47A	21	21	27-Jan-2024	22-Feb-2024	-212	0%
2061	P8-6110	Backfilling to at grade level	30	30	01-Feb-2024	07-Mar-2024	-212	0%
2062	**Drainage Outfall constuction by Open Cut**		494	221	19-Dec-2022 A	10-May-2024	930	55.3%
2063	**Outfall 5100A**		228	42	19-Dec-2022 A	17-Nov-2023	999	81.61%
2064	P8-OF3530	Removal of Grasscrete and concrete materials	2	0	19-Dec-2022 A	20-Dec-2022 A		100%
2065	P8-OF3531	Excavation to formation level	1	0	21-Dec-2022 A	21-Dec-2022 A		100%
2066	P8-OF3541	Laying of silt curtain and delivery of concrete block	1	0	22-Dec-2022 A	22-Dec-2022 A		100%
2067	P8-OF3551	Pour Concrete Blinding	1	0	24-Dec-2022 A	24-Dec-2022 A		100%
2068	P8-OF3553	Erect formwork for Vertical blinding for base slab shear key	1	0	29-Dec-2022 A	29-Dec-2022 A		100%
2069	P8-OF3555	Pour Concrete shear key blinding	1	0	30-Dec-2022 A	30-Dec-2022 A		100%
2070	P8-OF3557	Strip off formwork for shear key	1	0	05-Jan-2023 A	05-Jan-2023 A		100%
2071	P8-OF3559	Erect formwork for Shear key	1	0	07-Jan-2023 A	07-Jan-2023 A		100%
2072	P8-OF3561	Erect formwork for oufall base slab	1	0	09-Jan-2023 A	09-Jan-2023 A		100%
2073	P8-OF3563	Erect formwork for oufall Wall (1st side)	9	0	09-Jan-2023 A	18-Jan-2023 A		100%
2074	P8-OF3565	Rebar fixing for oufall base slab	8	0	10-Jan-2023 A	18-Jan-2023 A		100%
2075	P8-OF3611	Outfall Baseslab concreting	1	0	19-Jan-2023 A	19-Jan-2023 A		100%
2076	P8-OF3621	Dismantle Base slab Formwork	2	0	31-Aug-2023 A	01-Sep-2023 A		100%
2077	P8-OF3623	Rebar fixing for oufall Wall	1	0	01-Sep-2023 A	02-Sep-2023 A		100%
2078	P8-OF3631	Erect formwork for oufall Wall (2nd side)	5	0	02-Sep-2023 A	08-Sep-2023 A		100%
2079	P8-OF3651	Outfall Wall concreting	4	0	08-Sep-2023 A	12-Sep-2023 A		100%
2080	P8-OF3661	Dismantle Wall Formwork	3	0	12-Sep-2023 A	15-Sep-2023 A		100%
2081	P8-OF3671	Reintatement by Rockfill	2	0	15-Sep-2023 A	18-Sep-2023 A		100%
2082	P8-OF3731	Sheet Pile Installation from Outfall 5100A to SMH_KTCP5100A	20	0	18-Sep-2023 A	18-Sep-2023 A		100%
2083	P8-OF3741	ELS of open trench from Outfall 5100A to SMH_KTCP5100A	15	15	28-Sep-2023 A	18-Oct-2023	-113	0%
2084	P8-OF3751	Drain Laying from Outfall 5100A to SMH_KTCP5100A	6	6	19-Oct-2023	26-Oct-2023	-113	0%
2085	P8-OF3756	Remove remining side sheet pile & rock fill	5	5	26-Oct-2023	31-Oct-2023	-113	0%
2086	P8-OF3761	Backfilling to at grade level	16	16	31-Oct-2023	17-Nov-2023	-113	0%
2087	P8-OF3766	Report Completion of Drainage works	0	0		17-Nov-2023	-113	0%
2088	**Outfall 5101**		319	62	19-Jan-2023 A	04-Dec-2023	-187	80.56%



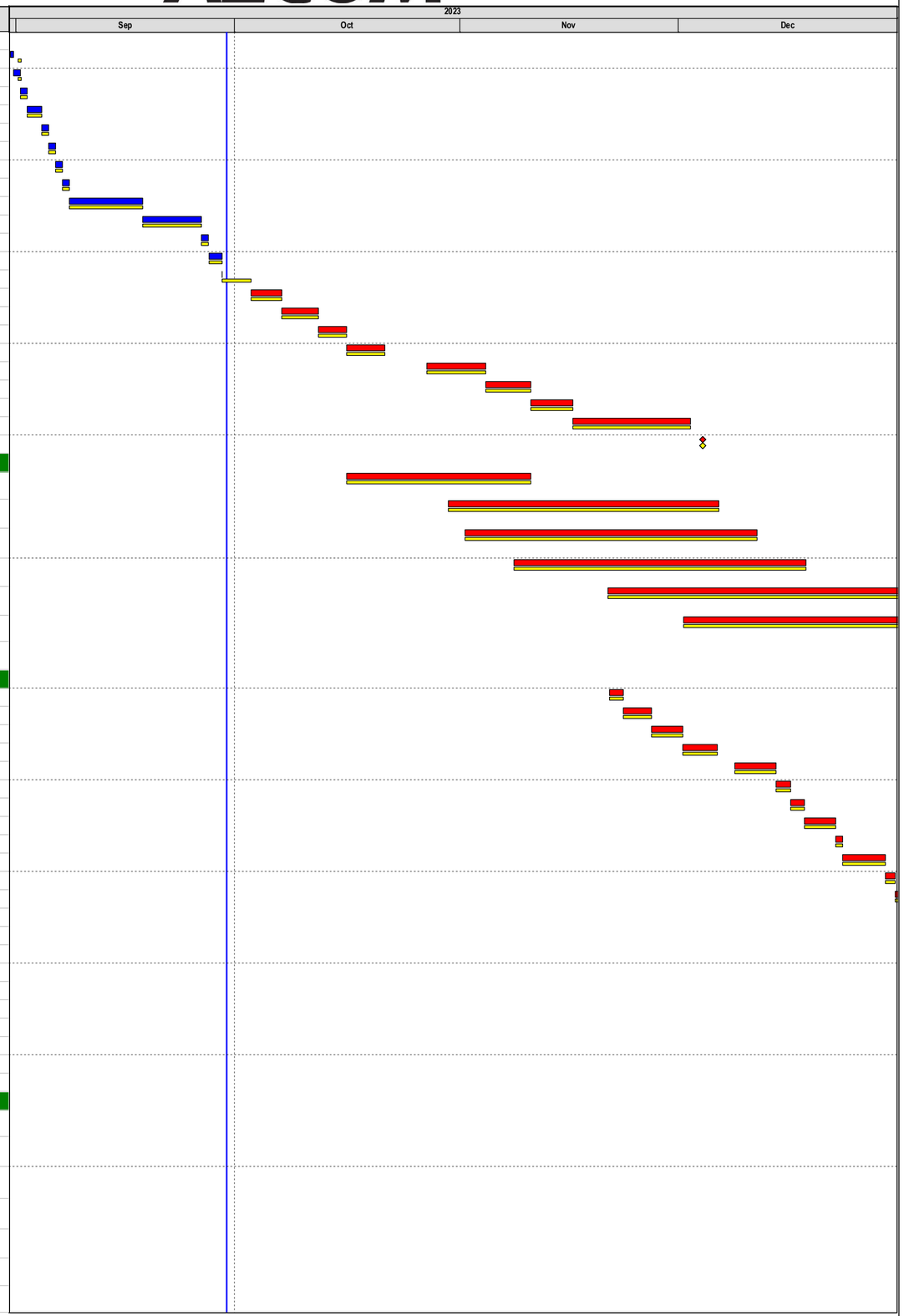
Primary Baseline
Actual Work
Remaining Work
Critical Remaining Work
Baseline Milestone
Critical Milestone
Non-Critical Milestone

Data Date: 30-Sep-2023
Project Start: 03-Feb-2020
Project End: 27-Nov-2026
Baseline: Aug 2023 Monthly Programme Update

4M Rolling Programme (Sep-Dec 2023)

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

#	Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Duration % Complete
2089	P8-OF3896	Removal of Grasscrete and concrete materials	2	0	19-Jan-2023 A	20-Jan-2023 A		100%
2090	P8-OF3906	Excavation to formation level	1	0	31-Aug-2023 A	31-Aug-2023 A		100%
2091	P8-OF3916	Laying of silt curtain and delivery of concrete block	1	0	31-Aug-2023 A	01-Sep-2023 A		100%
2092	P8-OF3926	Pour Concrete Blinding	1	0	01-Sep-2023 A	02-Sep-2023 A		100%
2093	P8-OF3936	Erect formwork for Vertical blinding for base slab shear key	1	0	02-Sep-2023 A	04-Sep-2023 A		100%
2094	P8-OF3946	Pour Concrete shear key blinding	1	0	04-Sep-2023 A	05-Sep-2023 A		100%
2095	P8-OF3956	Strip off formwork for shear key	1	0	05-Sep-2023 A	06-Sep-2023 A		100%
2096	P8-OF3966	Erect formwork for Shear key	1	0	06-Sep-2023 A	07-Sep-2023 A		100%
2097	P8-OF3976	Erect formwork for oufall base slab	1	0	07-Sep-2023 A	08-Sep-2023 A		100%
2098	P8-OF3986	Erect formwork for oufall Wall (1st side)	9	0	08-Sep-2023 A	18-Sep-2023 A		100%
2099	P8-OF3996	Rebar fixing for oufall base slab	8	0	18-Sep-2023 A	26-Sep-2023 A		100%
2100	P8-OF4006	Outfall Baseslab concreting	1	0	26-Sep-2023 A	27-Sep-2023 A		100%
2101	P8-OF4016	Dismantle Base slab Formwork	2	0	27-Sep-2023 A	29-Sep-2023 A		100%
2102	P8-OF4026	Rebar fixing for oufall Wall	1	0	29-Sep-2023 A	29-Sep-2023 A		100%
2103	P8-OF4036	Erect formwork for oufall Wall (2nd side)	5	5	03-Oct-2023	07-Oct-2023	-197	0%
2104	P8-OF4046	Outfall Wall concreting	4	4	07-Oct-2023	12-Oct-2023	-197	0%
2105	P8-OF4056	Dismantle Wall Formwork	3	3	12-Oct-2023	16-Oct-2023	-197	0%
2106	P8-OF4066	Sheet Pile Installation from Outfall 5101A to SMH_KT5101A	6	6	16-Oct-2023	21-Oct-2023	-128	0%
2107	P8-OF4076	ELS of open trench from Outfall 5101A to SMH_KT5101A	8	8	27-Oct-2023	04-Nov-2023	-128	0%
2108	P8-OF4086	Drain Laying from Outfall 5101A to SMH_KT5101A	6	6	04-Nov-2023	10-Nov-2023	-128	0%
2109	P8-OF4096	Remove remaining side sheet pile & rock fill	5	5	10-Nov-2023	16-Nov-2023	-128	0%
2110	P8-OF4106	Backfilling to at grade level	16	16	16-Nov-2023	02-Dec-2023	-128	0%
2111	P8-OF4116	Report Completion of Drainage works	0	0		04-Dec-2023	-106	0%
2112	**Sewer Installation at SMH_KT5101A to OF5101(50m) (Open Cut)**		114	114	16-Oct-2023	20-Feb-2024	-197	0%
2113	P8-3010	Sheet Pile Installation	24	24	16-Oct-2023*	10-Nov-2023	-197	0%
2114	P8-3020	Soft Excavation to 1st strut level	36	36	30-Oct-2023	06-Dec-2023	-197	0%
2115	P8-3025	Installation of strut S1	38	38	01-Nov-2023	11-Dec-2023	-197	0%
2116	P8-3030	Soft Excavation to 2nd strut level	38	38	08-Nov-2023	18-Dec-2023	-197	0%
2117	P8-3035	Installation of strut S2	40	40	21-Nov-2023	04-Jan-2024	-197	0%
2118	P8-3040	Soft Excavation to F.L ; (approx. 6.5m depth)	36	36	01-Dec-2023	12-Jan-2024	-197	0%
2119	P8-3060	Bedding and Pipe Laying (Twins DN700)	34	34	12-Jan-2024	20-Feb-2024	-197	0%
2120	**Outfall 5103**		88	88	21-Nov-2023	28-Feb-2024	-221	0%
2121	P8-OF1640	Removal of Grasscrete and concrete materials	2	2	21-Nov-2023	23-Nov-2023	-268	0%
2122	P8-OF1650	Excavation to formation level	3	3	23-Nov-2023	27-Nov-2023	-268	0%
2123	P8-OF1660	Laying of silt curtain and delivery of concrete block	5	5	27-Nov-2023	01-Dec-2023	-268	0%
2124	P8-OF1670	Pour Concrete Blinding	4	4	01-Dec-2023	06-Dec-2023	-268	0%
2125	P8-OF1680	Erect formwork for Vertical blinding for base slab shear key	5	5	08-Dec-2023	14-Dec-2023	-268	0%
2126	P8-OF1690	Pour Concrete shear key blinding	2	2	14-Dec-2023	16-Dec-2023	-268	0%
2127	P8-OF1700	Strip off formwork for shear key	1	1	16-Dec-2023	18-Dec-2023	-268	0%
2128	P8-OF1710	Erect formwork for Shear key	5	5	18-Dec-2023	22-Dec-2023	-268	0%
2129	P8-OF1720	Erect formwork for oufall base slab	1	1	22-Dec-2023	23-Dec-2023	-268	0%
2130	P8-OF1730	Erect formwork for oufall Wall (1st side)	3	3	23-Dec-2023	29-Dec-2023	-268	0%
2131	P8-OF1740	Rebar fixing for oufall base slab	2	2	29-Dec-2023	30-Dec-2023	-268	0%
2132	P8-OF1750	Outfall Baseslab concreting	5	5	30-Dec-2023	06-Jan-2024	-268	0%
2133	P8-OF1760	Dismantle 1st pour Wall Formwork	3	3	06-Jan-2024	10-Jan-2024	-268	0%
2134	P8-OF1770	Dismantle Base slab Formwork	4	4	10-Jan-2024	13-Jan-2024	-268	0%
2135	P8-OF1780	Rebar fixing for oufall Wall	3	3	13-Jan-2024	17-Jan-2024	-268	0%
2136	P8-OF1790	Erect formwork for oufall Wall (2nd side)	2	2	17-Jan-2024	19-Jan-2024	-268	0%
2137	P8-OF1800	Outfall Wall concreting	2	2	19-Jan-2024	22-Jan-2024	-268	0%
2138	P8-OF1810	Dismantle Wall Formwork	2	2	22-Jan-2024	23-Jan-2024	-268	0%
2139	P8-OF3836	Sheet Pile Installation from Outfall 5103 to SMH_KT5103	20	20	23-Jan-2024	16-Feb-2024	-268	0%
2140	P8-OF3846	ELS of open trench from Outfall 5103 to SMH_KT5103	10	10	02-Feb-2024	16-Feb-2024	-221	0%
2141	P8-OF3856	Drain Laying from Outfall 5103 to SMH_KT5103	6	6	16-Feb-2024	23-Feb-2024	-221	0%
2142	P8-OF3866	Remove remining side sheet pile & rock fill	5	5	23-Feb-2024	28-Feb-2024	-221	0%
2143	**Sewer Installation at SMH_KT5103 to OF 5103 (50m) (Open Cut)**		84	84	16-Feb-2024	10-May-2024	-346	0%
2144	P8-3210	Sheet Pile Installation	15	15	16-Feb-2024	04-Mar-2024	-268	0%
2145	P8-3220	Soft Excavation to 1st strut level	12	12	21-Feb-2024	05-Mar-2024	-268	0%
2146	P8-3225	Installation of strut S1	15	15	27-Feb-2024	14-Mar-2024	-268	0%
2147	P8-3230	Soft Excavation to 2nd strut level	12	12	02-Mar-2024	15-Mar-2024	-268	0%
2148	P8-3235	Installation of strut S2	15	15	07-Mar-2024	22-Mar-2024	-268	0%
2149	P8-3240	Soft Excavation to F.L ; (approx. 6.5m depth)	10	10	13-Mar-2024	23-Mar-2024	-268	0%
2150	P8-3250	Bedding & Pipe Laying (Level -1.64mPD to -0.027mPD)	20	20	08-Mar-2024	02-Apr-2024	-268	0%



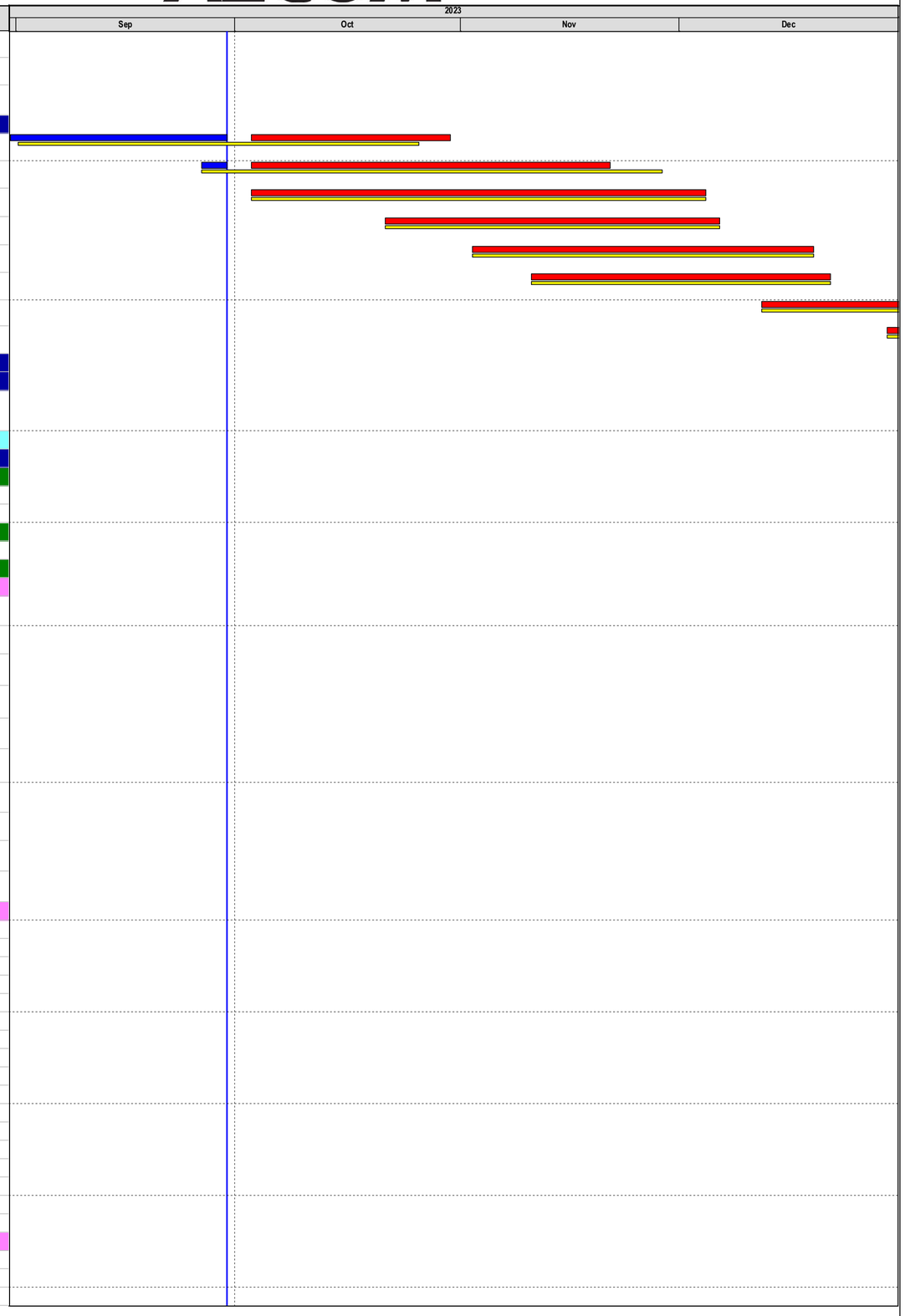
Primary Baseline
Actual Work
Remaining Work
Critical Remaining Work
Baseline Milestone
Critical Milestone
Non-Critical Milestone

Data Date: 30-Sep-2023
Project Start: 03-Feb-2020
Project End: 27-Nov-2026
Baseline: Aug 2023 Monthly Programme Update

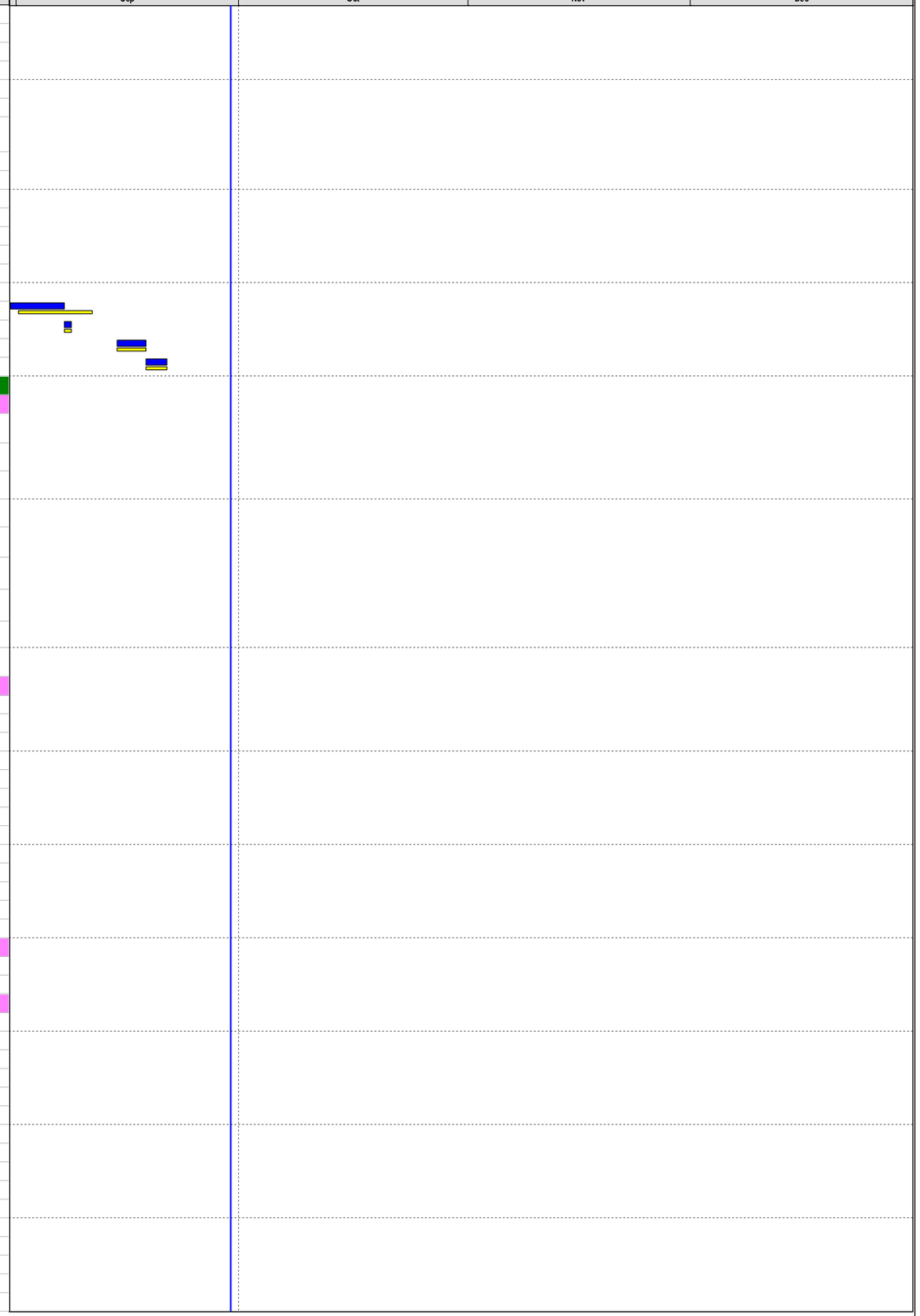
4M Rolling Programme (Sep-Dec 2023)

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

#	Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Duration % Complete
2151	P8-3270	Construction of Manhole SMH_KT 5103	18	18	02-Apr-2024	23-Apr-2024	-268	0%
2152	P8-OF3876	Backfilling to at grade level	16	16	23-Apr-2024	10-May-2024	-268	0%
2153	P8-OF3886	Report Completion of Drainage works	0	0		10-May-2024	-198	0%
2154	**NS 250 PE Pipe Installation (From KT1.47A to KT6.03A)**		153	125	31-Aug-2023 A	19-Feb-2024	-196	18.18%
2155	P8-6900	Sheet Pile Installation for open trench	49	25	31-Aug-2023 A	30-Oct-2023	-268	50%
2156	P8-7000	Soft Excavation to 1st strut level	57	46	26-Sep-2023 A	21-Nov-2023	-268	20%
2157	P8-7010	Installation of strut S1	58	58	03-Oct-2023	04-Dec-2023	-196	0%
2158	P8-7020	Soft Excavation to 2nd strut level	42	42	21-Oct-2023	06-Dec-2023	-196	0%
2159	P8-7030	Installation of strut S2	44	44	02-Nov-2023	19-Dec-2023	-196	0%
2160	P8-7040	Soft Excavation to F.L.	39	39	10-Nov-2023	21-Dec-2023	-196	0%
2161	P8-7050	Bedding and Pipe Laying (NS 250 PE Pipe)	20	20	12-Dec-2023	04-Jan-2024	-196	0%
2162	P8-7060	Backfilling of drain to at grade level	45	45	29-Dec-2023	19-Feb-2024	-196	0%
2163	**Underground Utilities**		0	0			0	0%
2164	**Reinstatement**		30	30	10-May-2024	13-Jun-2024	-268	0%
2165	P8-9000	Road formation, reinstatement of disturbed landscape area & Tree Planting (35nos)	30	30	10-May-2024	13-Jun-2024	-268	0%
2166	**Portion 9 - Footbridge**		1290	192	16-Apr-2020 A	11-Apr-2024	960	85.15%
2167	**Footbridge Construction**		1290	192	16-Apr-2020 A	11-Apr-2024	960	85.15%
2168	**Site Posession**		174	0	16-Apr-2020 A	21-Aug-2020 A		100%
2169	P9-1000	Possession of site - Portion 9 (N)	0	0	16-Apr-2020 A			100%
2170	P9-1005	Possession of site - Portion 9 (S)	0	0	21-Aug-2020 A			100%
2171	**Site Preparation**		21	0	18-Aug-2020 A	19-Sep-2020 A		100%
2172	P9-1010	Circulation & Approval of TTAs	21	0	18-Aug-2020 A	19-Sep-2020 A		100%
2173	**South River Embankment**		1086	0	21-Sep-2020 A	21-Sep-2023 A		100%
2174	**Piling works Existing Feature: 2SE-B/FR104 (South River Embankment)**		234	0	21-Sep-2020 A	07-Jun-2021 A		100%
2175	P9-1181	Site Setup, Setup TTA & Plant Mobilization	16	0	21-Sep-2020 A	31-Oct-2020 A		100%
2176	P9-1190	Erection of temporary retaining wall (3m height; 63nos. concrete blocks)	3	0	30-Oct-2020 A	30-Oct-2020 A		100%
2177	P9-1200	Site formation to existing ground level (+5.2mPD)	9	0	02-Nov-2020 A	28-Nov-2020 A		100%
2178	P9-1210	Sheet pile (130nos.12m long ; 10nos./day/rig) (2rig)	6	0	30-Nov-2020 A	22-Dec-2020 A		100%
2179	P9-1220	Pre-Drilling (3 nos.) (4days/nos/rig) (2 rigs)	7	0	21-Dec-2020 A	31-Dec-2020 A		100%
2180	P9-1225	Footpath / Village raod widening & Setup for wheel washing Bay	4	0	05-Jan-2021 A	23-Jan-2021 A		100%
2181	P9-1228	Setup for Piling Works	4	0	25-Jan-2021 A	20-Feb-2021 A		100%
2182	P9-1230	Pre-bored H-pile (4 nos. Vertical H-pile & 8 nos. Raking H-Pile) (1 rig)	27	0	22-Feb-2021 A	22-May-2021 A		100%
2183	P9-1235	Proof Drill	6	0	03-Jun-2021 A	07-Jun-2021 A		100%
2184	P9-1245	Demobilization of piling rig & site clearance	10	0	24-May-2021 A	02-Jun-2021 A		100%
2185	**Abutment FK2-04M**		194	0	08-Jun-2021 A	09-Mar-2022 A		100%
2186	P9-1250	ELS from +5.2 mPD to -0.7mPD (approx. 1000m3; 100m3/day)	42	0	08-Jun-2021 A	28-Oct-2021 A		100%
2187	P9-1260	Pile cutting to Pile Cut-Off level (-0.09mPD) & Installation of Capping Plate	12	0	29-Oct-2021 A	21-Nov-2021 A		100%
2188	P9-1270	Formwork and falsework for Pile Cap	5	0	30-Nov-2021 A	06-Dec-2021 A		100%
2189	P9-1280	Rebar fixing for Pile Cap	9	0	30-Nov-2021 A	09-Dec-2021 A		100%
2190	P9-1290	Concreting the Pile Cap (approx. 200m3)	1	0	15-Dec-2021 A	15-Dec-2021 A		100%
2191	P9-1293	Curing & Remove Formwork for Pile Cap	12	0	16-Dec-2021 A	29-Dec-2021 A		100%
2192	P9-1295	Rebar fixing for Abutment wall for 1st pour	3	0	30-Dec-2021 A	03-Jan-2022 A		100%
2193	P9-1300	Erection of formwork and falsework for Abutment Wall for 1st pour	5	0	04-Jan-2022 A	11-Jan-2022 A		100%
2194	P9-1310	Concreting the Abutment wall (1st pour)	1	0	12-Jan-2022 A	12-Jan-2022 A		100%
2195	P9-1311	Erection of falsework and working platform for Abutment Wall for 2nd pour	6	0	18-Jan-2022 A	21-Jan-2022 A		100%
2196	P9-1313	Rebar fixing for Abutment wall for 2nd pour	6	0	25-Jan-2022 A	26-Jan-2022 A		100%
2197	P9-1314.1	Bursting Reinforcement fixing	5	0	10-Feb-2022 A	15-Feb-2022 A		100%
2198	P9-1314.5	Cast-in UPVC Pipe delivery	1	0	15-Feb-2022 A	15-Feb-2022 A		100%
2199	P9-1314.7	Cast-in UPVC Pipe installation	2	0	17-Feb-2022 A	18-Feb-2022 A		100%
2200	P9-1314.9	Formwork Erection of abutment wall	4	0	19-Feb-2022 A	25-Feb-2022 A		100%
2201	P9-1315	Concreting the Abutment wall (2nd pour)	1	0	26-Feb-2022 A	26-Feb-2022 A		100%
2202	P9-1320	Curing, Remove Formwork for Abutment wall & modify Falsework for bridge deck construction	10	0	28-Feb-2022 A	09-Mar-2022 A		100%
2203	**Superstructure**		570	0	28-Feb-2022 A	21-Sep-2023 A		100%
2204	P9-1634	Original date of delivery of pier formwork	0	0	04-Mar-2022 A			100%
2205	P9-1636	Receipt from manufacturer's notification for delay of delivery due to Covid-19	67	0	28-Feb-2022 A	18-May-2022 A		100%
2206	P9-1637	Delivery of pier mould (South Portion)	0	0	19-May-2022 A			100%



#	Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Duration % Complete
2207	P9-1639.01	Modification of Pier mould	7	0	19-May-2022 A	26-May-2022 A		100%
2208	P9-1639.03	Modification of Pier mould	6	0	28-May-2022 A	04-Jun-2022 A		100%
2209	P9-1639.05	Modification of Pier mould	1	0	10-Jun-2022 A	10-Jun-2022 A		100%
2210	P9-1639.07	Modification of Pier mould	2	0	13-Jun-2022 A	14-Jun-2022 A		100%
2211	P9-1639.09	Modification of Pier mould	9	0	16-Jun-2022 A	25-Jun-2022 A		100%
2212	P9-1639.13	Modification of Working Platform for Pier construction	19	0	31-May-2022 A	16-Jun-2022 A		100%
2213	P9-1640	Falsework & formwork erection of Pier	3	0	27-Jun-2022 A	29-Jun-2022 A		100%
2214	P9-1640.2	Cont; Falsework & formwork erection of Pier	18	0	05-Jul-2022 A	25-Jul-2022 A		100%
2215	P9-1650	Rebar Fixing of Pier	8	0	14-Jul-2022 A	22-Jul-2022 A		100%
2216	P9-1660	Concreting the Pier	1	0	26-Jul-2022 A	26-Jul-2022 A		100%
2217	P9-1664	Erection of Falsework and Soffit Formwork for Bridge Deck	18	0	15-Sep-2022 A	01-Dec-2022 A		100%
2218	P9-1670	Formwork of Bridge Deck (1st Pour)	12	0	02-Dec-2022 A	15-Dec-2022 A		100%
2219	P9-1680	Rebar Fixing for Bridge Deck (1st Pour)	14	0	16-Dec-2022 A	03-Jan-2023 A		100%
2220	P9-1690	Concreting of Bridge Deck (1st Pour)	1	0	04-Jan-2023 A	04-Jan-2023 A		100%
2221	P9-1770	Formwork of Bridge Deck (2nd Pour)	16	0	05-Jan-2023 A	31-Jan-2023 A		100%
2222	P9-1780	Rebar Fixing for Bridge Deck (2nd Pour)	9	0	31-Aug-2023 A	07-Sep-2023 A		100%
2223	P9-1790	Concreting of Bridge Deck (2nd Pour)	1	0	07-Sep-2023 A	08-Sep-2023 A		100%
2224	P9-1850	Dismantling of falsework and props	3	0	14-Sep-2023 A	18-Sep-2023 A		100%
2225	P9-1860	Dismantling of formwork	3	0	18-Sep-2023 A	21-Sep-2023 A		100%
2226	**North River Embankment**		797	0	21-Sep-2020 A	26-Jul-2023 A		100%
2227	**Piling works in Existing Feature: 2SE-B/FR107 (North River Embankment)**		355	0	21-Sep-2020 A	17-Dec-2021 A		100%
2228	P9-1020	Site Setup, Setup TTA & Plant Mobilization	16	0	21-Sep-2020 A	31-Oct-2020 A		100%
2229	P9-1050	Erection of temporary retaining wall (3m height; 63nos. concrete blocks)	3	0	30-Oct-2020 A	30-Oct-2020 A		100%
2230	P9-1060	Site formation to existing ground level (+5.2mPD)	9	0	02-Nov-2020 A	16-Nov-2020 A		100%
2231	P9-1070	Sheet pile (130nos.12m long ; 10nos./day/rig) (2rig)	5	0	30-Nov-2020 A	24-Dec-2020 A		100%
2232	P9-1080	Pre-Drilling (6 nos.) (4days/nos/rig) (3 rigs)	7	0	17-Nov-2020 A	31-Dec-2020 A		100%
2233	P9-1085	Site Setup for Piling works (incl. assembly of crawler crane)	16	0	05-Jan-2021 A	25-Jan-2021 A		100%
2234	P9-1090	Pre-bored H-pile (4 nos. Vertical H-pile & 8 nos. Raking H-Pile) (1 rig)	46	0	26-Jan-2021 A	02-Jul-2021 A		100%
2235	P9-1093	Demobilization & Site Clearance & Site Formation	30	0	03-Jul-2021 A	13-Aug-2021 A		100%
2236	P9-1095	Proof Drill	4	0	09-Dec-2021 A	17-Dec-2021 A		100%
2237	**Abutment FK2-01M**		108	0	05-Jan-2022 A	23-May-2022 A		100%
2238	P9-1110	ELS from +5.2 mPD to -0.7mPD (approx. 1000m3; 100m3/day)	29	0	05-Jan-2022 A	17-Feb-2022 A		100%
2239	P9-1120	Pile cutting to Pile Cut-Off level & Install Capping Plate (-0.09mPD)	16	0	01-Mar-2022 A	18-Mar-2022 A		100%
2240	P9-1130	Formwork and falsework for Pile Cap	10	0	15-Mar-2022 A	25-Mar-2022 A		100%
2241	P9-1140	Rebar fixing for Pile Cap	10	0	19-Mar-2022 A	11-Apr-2022 A		100%
2242	P9-1150	Concreting the Pile Cap (approx. 200m3)	1	0	12-Apr-2022 A	12-Apr-2022 A		100%
2243	P9-1155	Curing & Remove Formwork for Pile Cap	6	0	13-Apr-2022 A	19-Apr-2022 A		100%
2244	P9-1160	Rebar fixing for Abutment wall for 1st pour	5	0	03-May-2022 A	07-May-2022 A		100%
2245	P9-1170	Formwork and falsework for Abutment Wall for 1st pour	4	0	03-May-2022 A	06-May-2022 A		100%
2246	P9-1180	Concreting the Abutment wall (1st pour)	1	0	04-May-2022 A	04-May-2022 A		100%
2247	P9-1185	Curing & Remove Formwork	5	0	05-May-2022 A	10-May-2022 A		100%
2248	P9-1189	Rebar fixing for Abutment wall for 2nd pour	3	0	14-May-2022 A	17-May-2022 A		100%
2249	P9-1193	Formwork and falsework for Abutment Wall for 2nd pour	4	0	18-May-2022 A	21-May-2022 A		100%
2250	P9-1197	Concreting the Abutment wall (2nd pour)	1	0	23-May-2022 A	23-May-2022 A		100%
2251	**Piling Works for Footway Ramp**		119	0	25-Aug-2021 A	24-Dec-2021 A		100%
2252	P9-1440	Piling works for stairway (12 nos. at northern bridge, 1 pile/week/rig, 1 rig)	64	0	25-Aug-2021 A	22-Nov-2021 A		100%
2253	P9-1450	Pile Load Test (including set up)	6	0	18-Dec-2021 A	24-Dec-2021 A		100%
2254	**Superstructure**		310	0	01-Jun-2022 A	26-Jul-2023 A		100%
2255	P9-1597	Delivery of pier formwork (North Portion)	0	0	17-Jun-2022 A			100%
2256	P9-1598	Erection of Working Platform for Pier construction	3	0	01-Jun-2022 A	04-Jun-2022 A		100%
2257	P9-1598.03	Erection of Working Platform for Pier construction	1	0	10-Jun-2022 A	10-Jun-2022 A		100%
2258	P9-1598.05	Erection of Working Platform for Pier construction	2	0	13-Jun-2022 A	14-Jun-2022 A		100%
2259	P9-1598.07	Modification of Pier mould	11	0	17-Jun-2022 A	29-Jun-2022 A		100%
2260	P9-1598.13	Modification of Pier mould	9	0	05-Jul-2022 A	14-Jul-2022 A		100%
2261	P9-1600	Falsework & formwork erection of Pier	17	0	11-Jul-2022 A	29-Jul-2022 A		100%
2262	P9-1610	Rebar Fixing of Pier	5	0	25-Jul-2022 A	29-Jul-2022 A		100%
2263	P9-1620	Concreting the Pier	1	0	02-Aug-2022 A	02-Aug-2022 A		100%
2264	P9-1624	Erection of Falsework and Soffit Formwork for Bridge Deck	18	0	15-Sep-2022 A	22-Nov-2022 A		100%
2265	P9-1625	Formwork of Bridge Deck (1st Pour)	10	0	23-Nov-2022 A	02-Dec-2022 A		100%
2266	P9-1635	Rebar Fixing for Bridge Deck (1st Pour)	17	0	03-Dec-2022 A	22-Dec-2022 A		100%
2267	P9-1645	Concreting of Bridge Deck (1st Pour)	1	0	23-Dec-2022 A	23-Dec-2022 A		100%
2268	P9-1800	Formwork of Bridge Deck (2nd Pour)	16	0	24-Dec-2022 A	19-Jan-2023 A		100%
2269	P9-1810	Rebar Fixing for Bridge Deck (2nd Pour)	7	0	14-Jan-2023 A	28-Jan-2023 A		100%
2270	P9-1820	Concreting of Bridge Deck (2nd Pour)	1	0	30-Jan-2023 A	30-Jan-2023 A		100%



Primary Baseline
Actual Work
Remaining Work
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Data Date: 30-Sep-2023
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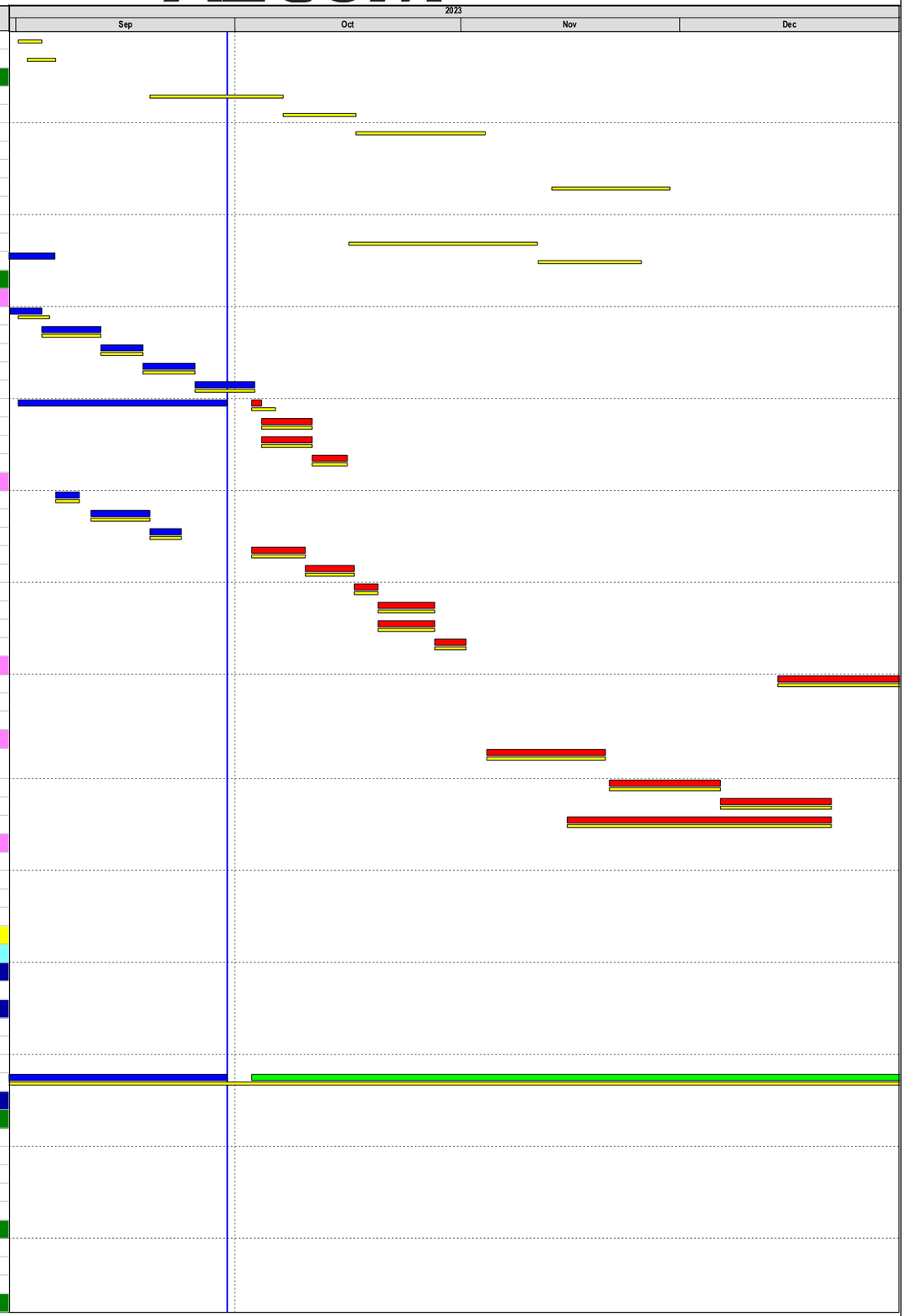
4M Rolling Programme (Sep-Dec 2023)

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

#	Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Duration % Complete
2271	P9-1830	Dismantling of falsework and props	3	0	17-Jul-2023 A	24-Jul-2023 A		100%
2272	P9-1840	Dismantling of formwork	3	0	24-Jul-2023 A	26-Jul-2023 A		100%
2273	**Middle Bridge Deck**		144	0	01-Mar-2023 A	06-Sep-2023 A		100%
2274	P9-1590	Erection of middle truss for Middle Deck construction	16	0	01-Mar-2023 A	17-Mar-2023 A		100%
2275	P9-1710	Soffit Formwork Erection	9	0	18-Mar-2023 A	31-Mar-2023 A		100%
2276	P9-1720	Rebar Fixing for Middle Deck (1st Pour)	16	0	01-Apr-2023 A	03-May-2023 A		100%
2277	P9-1730	Internal Formwork Erection for Middle Deck (1st Pour)	7	0	04-May-2023 A	18-May-2023 A		100%
2278	P9-1745	Concreting for Middle Deck (1st Pour)	1	0	19-May-2023 A	19-May-2023 A		100%
2279	P9-1746	Internal Formwork Erection for Middle Deck (2nd Pour)	16	0	20-May-2023 A	02-Jun-2023 A		100%
2280	P9-1747	Rebar Fixing for Middle Deck (2nd Pour)	7	0	02-Jun-2023 A	21-Jun-2023 A		100%
2281	P9-1748	Concreting for Middle Deck (2nd Pour)	1	0	22-Jun-2023 A	23-Jun-2023 A		100%
2282	P9-1750	Curing & Remove all temporary works	24	0	24-Jun-2023 A	15-Aug-2023 A		100%
2283	P9-1760	Backfilling the cofferdam & Remove sheet pile	14	0	15-Aug-2023 A	06-Sep-2023 A		100%
2284	**Remaining Footbridge Works**		198	170	31-Aug-2023 A	11-Apr-2024	-211	14.05%
2285	**Northern Footway Ramp / Staircase**		40	12	31-Aug-2023 A	16-Oct-2023	-126	69.83%
2286	P9-NR1000	Excavate to formation level +5.2mPD	4	0	31-Aug-2023 A	04-Sep-2023 A		100%
2287	P9-NR1010	RC Works for Lower Portion of ramp foundation	8	0	04-Sep-2023 A	12-Sep-2023 A		100%
2288	P9-NR1020	Formwork dismantle and backfill to finishing ground level	5	0	12-Sep-2023 A	18-Sep-2023 A		100%
2289	P9-NR1030	RC Works for Upper portion of ramp wall, staircase and parapet and Lower ground level U Channel	7	0	18-Sep-2023 A	25-Sep-2023 A		100%
2290	P9-NR1040	Placing drainage materials and Compacted Fill to the void of ramp	6	0	25-Sep-2023 A	03-Oct-2023 A		100%
2291	P9-NR1050	Construction of Upper level U Channel	4	2	01-Sep-2023 A	04-Oct-2023	-126	50%
2292	P9-NR1060	Laying concrete pavement layer and finishing layer	6	6	04-Oct-2023*	11-Oct-2023	-126	0%
2293	P9-NR1070	Installation of steel Railing	6	6	04-Oct-2023*	11-Oct-2023	-126	0%
2294	P9-NR1080	Installation of Gabion Wall	4	4	11-Oct-2023	16-Oct-2023	-126	0%
2295	**Southern Footway Ramp / Staircase**		50	27	06-Sep-2023 A	01-Nov-2023	-141	45.88%
2296	P9-SR1000	Excavate to formation level +5.2mPD	4	0	06-Sep-2023 A	09-Sep-2023 A		100%
2297	P9-SR1010	RC Works for Lower Portion of ramp foundation	8	0	11-Sep-2023 A	19-Sep-2023 A		100%
2298	P9-SR1020	Formwork dismantle and backfill to finishing ground level	5	0	19-Sep-2023 A	23-Sep-2023 A		100%
2299	P9-SR1030	RC Works for Upper portion of ramp wall, staircase and parapet and Lower ground level U Channel	7	7	03-Oct-2023	10-Oct-2023	-141	0%
2300	P9-SR1040	Placing drainage materials and Compacted Fill to the void of ramp	6	6	10-Oct-2023	17-Oct-2023	-141	0%
2301	P9-SR1050	Construction of Upper level U Channel	4	4	17-Oct-2023	20-Oct-2023	-141	0%
2302	P9-SR1060	Laying concrete pavement layer and finishing layer	6	6	20-Oct-2023	28-Oct-2023	-141	0%
2303	P9-SR1070	Installation of steel Railing	6	6	20-Oct-2023	28-Oct-2023	-141	0%
2304	P9-SR1080	Installation of Gabion Wall	4	4	28-Oct-2023	01-Nov-2023	-141	0%
2305	**ABWF Works**		60	60	14-Dec-2023	22-Feb-2024	-194	0%
2306	P9-1613	Laying of footbridge deck pavings	20	20	14-Dec-2023	08-Jan-2024	-194	0%
2307	P9-1621	Metal Parapet and Handrail Installation	20	20	08-Jan-2024	29-Jan-2024	-194	0%
2308	P9-1631	Laying of staircase finishes	20	20	29-Jan-2024	22-Feb-2024	-194	0%
2309	**BS Works**		45	45	04-Nov-2023	21-Dec-2023	-189	0%
2310	P9-1595	Bridge Pillar Box Installation	15	15	04-Nov-2023	20-Nov-2023	-189	0%
2311	P9-1601	Bridge Cable Laying for Lamp Post	15	15	21-Nov-2023	06-Dec-2023	-189	0%
2312	P9-1602	Bridge Lamp Post Installation	15	15	06-Dec-2023	21-Dec-2023	-189	0%
2313	P9-1603	South Bridge Drainage works	35	35	15-Nov-2023	21-Dec-2023	-189	0%
2314	**Landscape Works**		73	73	17-Jan-2024	11-Apr-2024	-211	0%
2315	P9-1615	Formation of Slope profile by rock fill	14	14	17-Jan-2024	01-Feb-2024	-211	0%
2316	P9-1617	Placing soil erosion control system (Incl. control mats, geotextile and soil fill)	20	20	01-Feb-2024	26-Feb-2024	-211	0%
2317	P9-1619	Paving block laying to finished floor level	14	14	26-Feb-2024	11-Mar-2024	-211	0%
2318	P9-1623	Hydroseeding and tree planting works (11nos)	25	25	11-Mar-2024	11-Apr-2024	-211	0%
2319	**Works in Section 4**		1948	792	03-Aug-2020 A	03-Dec-2025	359	59.34%
2320	**Portion 10 - Visitor Centre**		1948	792	03-Aug-2020 A	03-Dec-2025	359	59.34%
2321	**Site Possession**		0	0	03-Aug-2020 A	03-Aug-2020 A		0%
2322	P10-1000	Possession of site - Portion 10	0	0	03-Aug-2020 A			100%
2323	**Pre-construction works**		1314	411	03-Aug-2020 A	31-Dec-2024	629	68.7%
2324	P10-1010	Temporary haul road	27	0	26-Aug-2020 A	30-Oct-2020 A		100%
2325	P10-1020	Environmental GI & Submission of Lab report (EGI-7B-01)	18	0	25-Aug-2020 A	22-Sep-2020 A		100%
2326	P10-1030	Borehole (1nos.), submission & approval of GI Report	59	0	22-Sep-2020 A	15-Dec-2020 A		100%
2327	P10-1040	Tree Protection and Preservation	1327	411	03-Aug-2020 A	31-Dec-2024	629	69%
2328	**Visitor Centre**		1813	792	06-Oct-2020 A	03-Dec-2025	359	56.31%
2329	**Foundation**		244	0	06-Oct-2020 A	28-Aug-2021 A		100%
2330	P10-2000	Pre-Drilling (~10nos.)	18	0	06-Oct-2020 A	31-Dec-2020 A		100%
2331	P10-2005	Tree Removal & Site Setup	30	0	05-Jan-2021 A	20-Feb-2021 A		100%
2332	P10-2010	Install H-pile (59 nos.; 1 pile / week/rig, 2 rigs)	164	0	20-Feb-2021 A	03-Aug-2021 A		100%
2333	P10-2020	Pile Load Test	19	0	04-Aug-2021 A	17-Aug-2021 A		100%
2334	P10-2070	Proof Drilling	9	0	18-Aug-2021 A	28-Aug-2021 A		100%
2335	**Excavation**		75	0	28-Sep-2021 A	28-Dec-2021 A		100%
2336	P10-2030	Excavation and Placement of Concrete Block along the ELS boundary	9	0	28-Sep-2021 A	06-Oct-2021 A		100%
2337	P10-2040	Sheetpile installation (~85m; approx. 425nos;)	6	0	08-Dec-2021 A	15-Dec-2021 A		100%
2338	P10-2050	Soil Excavation to F.L. for low level Pile Cap (~3840cu.m)	27	0	10-Dec-2021 A	28-Dec-2021 A		100%
2339	**Substructure**		302	0	17-Dec-2021 A	15-Feb-2023 A		100%



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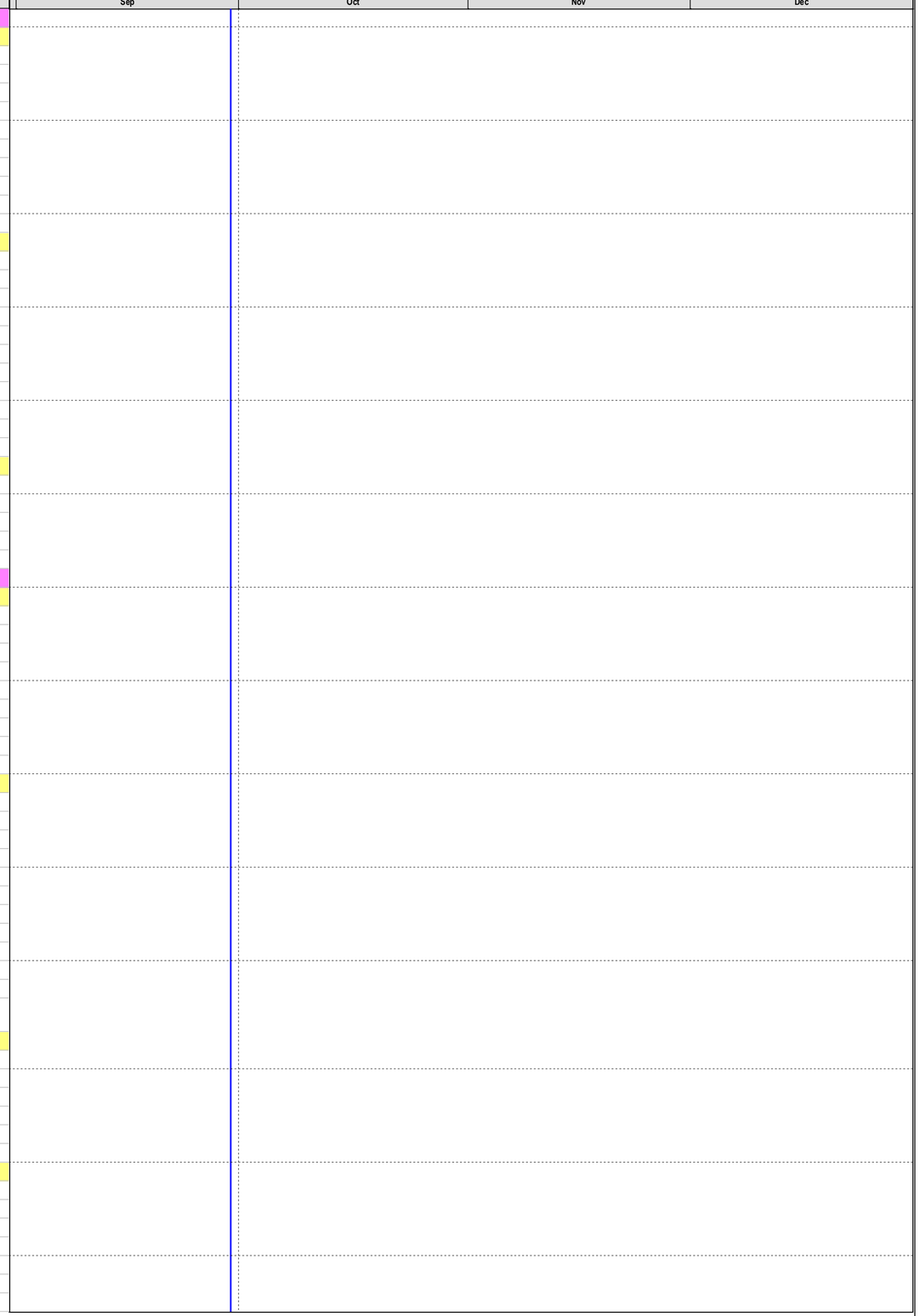
#	Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Duration % Complete
2340	**Low Level Pile Cap and Basement Slab**		113	0	17-Dec-2021 A	20-May-2022 A		100%
2341	**Bay 1**		101	0	17-Dec-2021 A	01-Apr-2022 A		100%
2342	P10-2060	Grout Breaking of Socket H Piles (23nos)	6	0	17-Dec-2021 A	22-Dec-2021 A		100%
2343	P10-2060-1	Low Level Pile Head treatment and Capping Plate Installation	6	0	30-Dec-2021 A	07-Jan-2022 A		100%
2344	P10-2110.11	Backfill with Grade 200 Rockfill	5	0	17-Jan-2022 A	21-Jan-2022 A		100%
2345	P10-2110.13	Erection of formwork for Vertical Blinding	13	0	22-Jan-2022 A	08-Feb-2022 A		100%
2346	P10-2110.23	Concreting of Vertical Blinding	1	0	09-Feb-2022 A	09-Feb-2022 A		100%
2347	P10-2110.24	Patching and remedial works for concrete blinding before waterproofing laying	6	0	10-Feb-2022 A	16-Feb-2022 A		100%
2348	P10-2110.32	Laying of Waterproofing Membrane and testing	12	0	28-Feb-2022 A	14-Mar-2022 A		100%
2349	P10-2110.33	Rebar fixing of Pile Cap and Slab	14	0	15-Mar-2022 A	30-Mar-2022 A		100%
2350	P10-2110.43	Base Slab Shutters	3	0	29-Mar-2022 A	31-Mar-2022 A		100%
2351	P10-2110.53	Base Slab and Pile Cap Concreting (1st Bay)	1	0	01-Apr-2022 A	01-Apr-2022 A		100%
2352	**Bay 2 (Excl. Sump Pump)**		112	0	30-Dec-2021 A	20-May-2022 A		100%
2353	P10-2110.043	Grout Breaking of Socket H Piles (19nos)	3	0	30-Dec-2021 A	04-Jan-2022 A		100%
2354	P10-2110.053	Low Level Pile Head treatment and Capping Plate Installation	12	0	03-Jan-2022 A	15-Jan-2022 A		100%
2355	P10-2110.063	Backfill with Grade 200 Rockfill	4	0	17-Jan-2022 A	21-Jan-2022 A		100%
2356	P10-2110.073	Erection of formwork for Vertical Blinding	8	0	31-Jan-2022 A	11-Feb-2022 A		100%
2357	P10-2110.083	Concreting of Vertical Blinding	1	0	09-Feb-2022 A	09-Feb-2022 A		100%
2358	P10-2110.084	Patching and remedial works for concrete blinding before waterproofing laying	6	0	10-Feb-2022 A	16-Feb-2022 A		100%
2359	P10-2110.093	Laying of Waterproofing Membrane and testing (Excl. sump pump location)	8	0	09-Mar-2022 A	17-Mar-2022 A		100%
2360	P10-2110.103	Rebar fixing of Pile Cap and Slab	7	0	03-May-2022 A	10-May-2022 A		100%
2361	P10-2110.109	Rebar fixing of Pile Cap and Slab	2	0	14-May-2022 A	16-May-2022 A		100%
2362	P10-2110.113	Base Slab Shutters	3	0	17-May-2022 A	19-May-2022 A		100%
2363	P10-2110.123	Base Slab and Pile Cap Concreting (2nd Bay)	1	0	20-May-2022 A	20-May-2022 A		100%
2364	**Bay 3 (Incl. Sump Pump)**		65	0	01-Mar-2022 A	20-May-2022 A		100%
2365	P10-2110.511	Patching and remedial works for concrete blinding before waterproofing laying of sump pump location	30	0	01-Mar-2022 A	01-Apr-2022 A		100%
2366	P10-2110.513	Laying of Waterproofing Membrane and testing of sump pump location	5	0	02-Apr-2022 A	07-Apr-2022 A		100%
2367	P10-2110.543	Rebar fixing of Pile Cap and Slab	7	0	03-May-2022 A	10-May-2022 A		100%
2368	P10-2110.553	Base Slab Shutters	5	0	14-May-2022 A	19-May-2022 A		100%
2369	P10-2110.563	Base Slab and Pile Cap Concreting (3rd Bay)	1	0	20-May-2022 A	20-May-2022 A		100%
2370	**Basement Walls & Columns**		162	0	02-Apr-2022 A	07-Dec-2022 A		100%
2371	**Basement Retaining Wall Bay 1**		37	0	02-Apr-2022 A	02-Jun-2022 A		100%
2372	P10-2120.19	Dismantle formwork of Basement Slab	4	0	02-Apr-2022 A	06-Apr-2022 A		100%
2373	P10-2120.21	Dismantle of Corner strut at +3.5mPD	2	0	07-Apr-2022 A	08-Apr-2022 A		100%
2374	P10-2120.31	Basement wall (1st side) Formwork to +7.6mPD	7	0	09-Apr-2022 A	20-Apr-2022 A		100%
2375	P10-2120.35	Basement wall Falsework and working platform to +7.6mPD	16	0	12-Apr-2022 A	29-Apr-2022 A		100%
2376	P10-2120.41	Basement wall Rebar Fixing to +7.6mPD	22	0	18-Apr-2022 A	10-May-2022 A		100%
2377	P10-2120.47	Basement wall Rebar Fixing to +7.6mPD	3	0	14-May-2022 A	17-May-2022 A		100%
2378	P10-2120.51	Basement wall (2nd side) Formwork to +7.6mPD	8	0	18-May-2022 A	26-May-2022 A		100%
2379	P10-2120.51.2	Basement wall (2nd side) Formwork to +7.6mPD	4	0	28-May-2022 A	01-Jun-2022 A		100%
2380	P10-2120.61	Concreting of Basement wall to +7.6mPD	1	0	02-Jun-2022 A	02-Jun-2022 A		100%
2381	**Basement Retaining Wall Bay 2**		25	0	21-May-2022 A	07-Jul-2022 A		100%
2382	P10-2120.106	Basement wall (1st side) Formwork to +7.6mPD	5	0	21-May-2022 A	26-May-2022 A		100%
2383	P10-2120.110	Basement wall (1st side) Formwork to +7.6mPD	2	0	28-May-2022 A	30-May-2022 A		100%
2384	P10-2120.116	Basement wall Falsework and working platform to +7.6mPD	12	0	31-May-2022 A	14-Jun-2022 A		100%
2385	P10-2120.126	Basement wall Rebar Fixing to +7.6mPD	1	0	04-Jun-2022 A	04-Jun-2022 A		100%
2386	P10-2120.131	Basement wall Rebar Fixing to +7.6mPD	1	0	10-Jun-2022 A	10-Jun-2022 A		100%
2387	P10-2120.133	Basement wall Rebar Fixing to +7.6mPD	2	0	13-Jun-2022 A	14-Jun-2022 A		100%
2388	P10-2120.135	Basement wall Rebar Fixing to +7.6mPD	9	0	16-Jun-2022 A	25-Jun-2022 A		100%
2389	P10-2120.136	Basement wall (2nd side) Formwork to +7.6mPD	1	0	10-Jun-2022 A	10-Jun-2022 A		100%
2390	P10-2120.140	Basement wall (2nd side) Formwork to +7.6mPD	2	0	13-Jun-2022 A	14-Jun-2022 A		100%
2391	P10-2120.146	Basement wall (2nd side) Formwork to +7.6mPD	12	0	16-Jun-2022 A	29-Jun-2022 A		100%
2392	P10-2120.150	Basement wall (2nd side) Formwork to +7.6mPD	2	0	05-Jul-2022 A	06-Jul-2022 A		100%
2393	P10-2120.152	Concreting of Basement wall to +7.6mPD	1	0	07-Jul-2022 A	07-Jul-2022 A		100%
2394	**Column C4, C5, C8, C9, C12, C13 & C17**		25	0	07-Jul-2022 A	11-Aug-2022 A		100%
2395	P10-2120.636	Basement Column Rebar Fixing to +7.6mPD	3	0	07-Jul-2022 A	09-Jul-2022 A		100%
2396	P10-2120.646	Basement Column Formwork to +7.6mPD	3	0	11-Jul-2022 A	13-Jul-2022 A		100%
2397	P10-2120.656	Concreting of Columns to +7.6mPD (C4, C8, C9, C13, C17)	1	0	14-Jul-2022 A	14-Jul-2022 A		100%
2398	P10-2120.657	Rebar and Formwork of Columns to +7.6mPD (C5, C12)	17	0	15-Jul-2022 A	03-Aug-2022 A		100%
2399	P10-2120.658	Rebar and Formwork of Columns to +7.6mPD (C5, C12)	2	0	06-Aug-2022 A	08-Aug-2022 A		100%
2400	P10-2120.659	Concreting of Columns to +7.6mPD (C5, C12)	1	0	11-Aug-2022 A	11-Aug-2022 A		100%
2401	**Basement Retaining Wall Bay 3**		55	0	21-May-2022 A	31-Aug-2022 A		100%
2402	P10-2120.666	Basement wall (1st side) Formwork to +7.6mPD	5	0	21-May-2022 A	26-May-2022 A		100%
2403	P10-2120.676	Basement wall Falsework and working platform to +7.6mPD	6	0	28-May-2022 A	04-Jun-2022 A		100%
2404	P10-2120.686	Basement wall Rebar Fixing to +7.6mPD	1	0	10-Jun-2022 A	10-Jun-2022 A		100%
2405	P10-2120.686-2	Basement wall Rebar Fixing to +7.6mPD	2	0	13-Jun-2022 A	14-Jun-2022 A		100%
2406	P10-2120.686-4	Basement wall Rebar Fixing to +7.6mPD	12	0	16-Jun-2022 A	29-Jun-2022 A		100%
2407	P10-2120.686-7	Basement wall Rebar Fixing to +7.6mPD	5	0	05-Jul-2022 A	09-Jul-2022 A		100%
2408	P10-2120.696	Basement wall (2nd side) Formwork to +7.6mPD	17	0	11-Jul-2022 A	29-Jul-2022 A		100%



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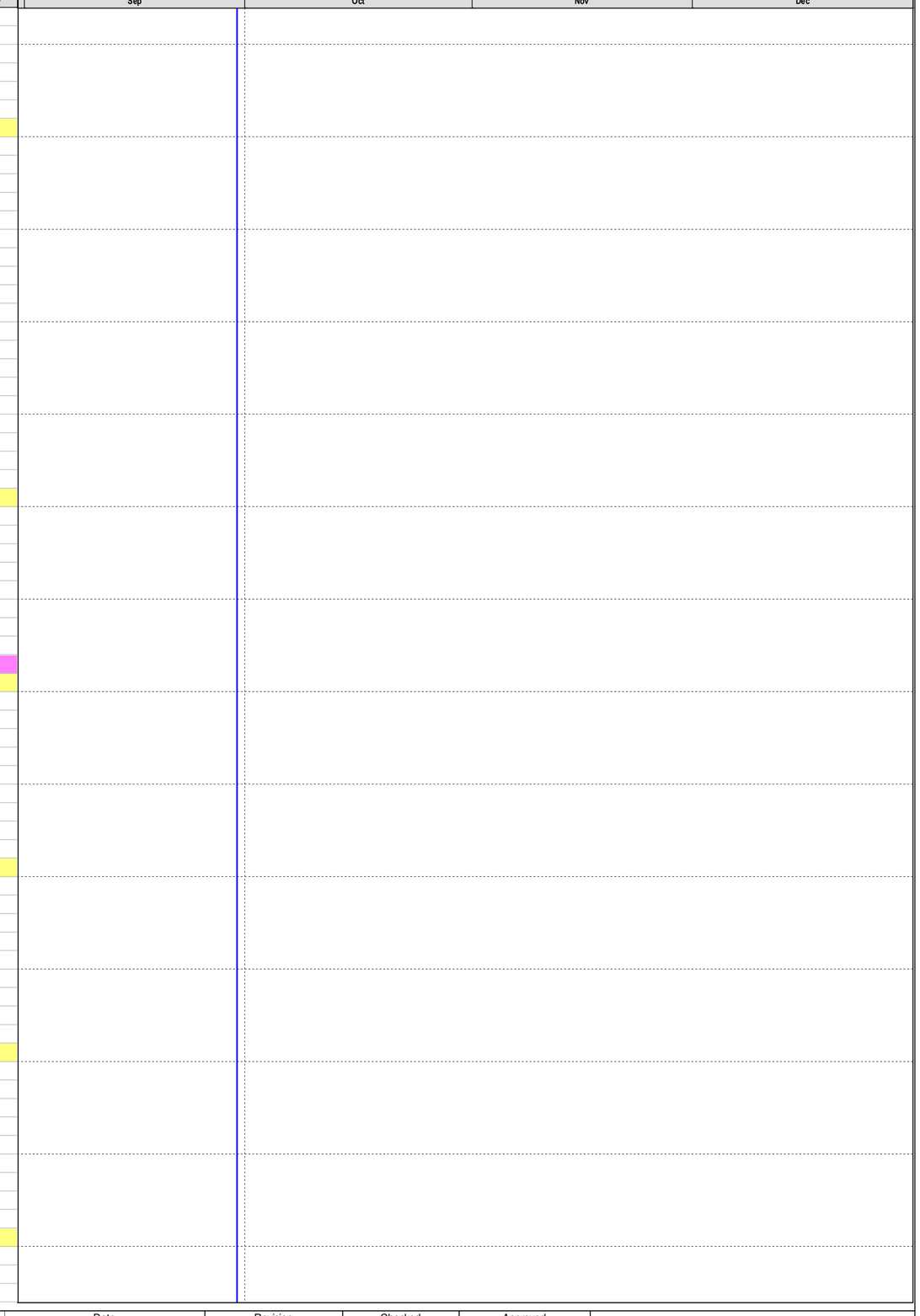
2409	P10-2120.696-2	Basement wall (2nd side) Formwork to +7.6mPD	3	0	01-Aug-2022 A	03-Aug-2022 A		100%
2410	P10-2120.706	Concreting of Basement wall to +7.6mPD	1	0	04-Aug-2022 A	04-Aug-2022 A		100%
2411	P10-2120.836	Dismantling of Basement wall formwork	2	0	06-Aug-2022 A	08-Aug-2022 A		100%
2412	P10-2120.846	Concrete rectification and Touch Up works	3	0	13-Aug-2022 A	16-Aug-2022 A		100%
2413	P10-2120.856	Basement Wall Waterproofing & Testing	6	0	18-Aug-2022 A	24-Aug-2022 A		100%
2414	P10-2120.856-3	Basement Wall Waterproofing & Testing	5	0	26-Aug-2022 A	31-Aug-2022 A		100%
2415	**Basement Internal Wall & Staircase**		134	0	21-May-2022 A	07-Dec-2022 A		100%
2416	P10-2120.866	Basement wall (1st side) Formwork to +7.6mPD	5	0	21-May-2022 A	26-May-2022 A		100%
2417	P10-2120.876	Basement wall Falsework and working platform to +7.6mPD	11	0	28-May-2022 A	11-Jun-2022 A		100%
2418	P10-2120.886	Basement wall Rebar Fixing to +7.6mPD	13	0	01-Jun-2022 A	14-Jun-2022 A		100%
2419	P10-2120.886-02	Basement wall Rebar Fixing to +7.6mPD	13	0	16-Jun-2022 A	29-Jun-2022 A		100%
2420	P10-2120.886-06	Basement wall Rebar Fixing to +7.6mPD	24	0	05-Jul-2022 A	29-Jul-2022 A		100%
2421	P10-2120.886-08	Basement wall Rebar Fixing to +7.6mPD	4	0	01-Aug-2022 A	04-Aug-2022 A		100%
2422	P10-2120.886-10	Basement wall Rebar Fixing to +7.6mPD	4	0	06-Aug-2022 A	08-Aug-2022 A		100%
2423	P10-2120.886-12	Basement wall Rebar Fixing to +7.6mPD	1	0	11-Aug-2022 A	11-Aug-2022 A		100%
2424	P10-2120.886-14	Basement wall Rebar Fixing to +7.6mPD	4	0	13-Aug-2022 A	16-Aug-2022 A		100%
2425	P10-2120.886-16	Basement wall Rebar Fixing to +7.6mPD	6	0	18-Aug-2022 A	24-Aug-2022 A		100%
2426	P10-2120.886-18	Basement wall Rebar Fixing to +7.6mPD	13	0	26-Aug-2022 A	10-Sep-2022 A		100%
2427	P10-2120.896	Basement staircase Formwork to +7.6mPD	15	0	12-Sep-2022 A	29-Sep-2022 A		100%
2428	P10-2120.896-2	Basement staircase Formwork to +7.6mPD	4	0	03-Oct-2022 A	06-Oct-2022 A		100%
2429	P10-2120.896-4	Basement staircase Formwork to +7.6mPD	6	0	10-Oct-2022 A	15-Oct-2022 A		100%
2430	P10-2120.896-6	Basement staircase Formwork to +7.6mPD	11	0	19-Oct-2022 A	31-Oct-2022 A		100%
2431	P10-2120.906	Concreting of Basement Internal wall and Staircase to +7.6mPD (1st Pour)	1	0	01-Nov-2022 A	01-Nov-2022 A		100%
2432	P10-2120.908	Removal of excessive concrete from 1st Pour	24	0	03-Nov-2022 A	30-Nov-2022 A		100%
2433	P10-2120.910	Erect falsework for 2nd Pour concreting	5	0	01-Dec-2022 A	06-Dec-2022 A		100%
2434	P10-2120.912	Concreting of Basement Internal wall and Staircase to +7.6mPD (2nd Pour)	1	0	07-Dec-2022 A	07-Dec-2022 A		100%
2435	**Basement to G/F Lift Shaft Wall**		64	0	08-Jul-2022 A	22-Aug-2022 A		100%
2436	P10-2120.1116	Basement Lift Shaft wall (1st side) Formwork to +7.6mPD	5	0	08-Jul-2022 A	13-Jul-2022 A		100%
2437	P10-2120.1126	Basement Lift Shaft wall Falsework and working platform to +7.6mPD	10	0	14-Jul-2022 A	25-Jul-2022 A		100%
2438	P10-2120.1136	Basement Lift Shaft wall Rebar Fixing to +7.6mPD	5	0	22-Jul-2022 A	27-Jul-2022 A		100%
2439	P10-2120.1146	Basement Lift Shaft wall (2nd side) Formwork to +7.6mPD	5	0	25-Jul-2022 A	29-Jul-2022 A		100%
2440	P10-2120.1156	Original Concreting of Basement Lift Shaft wall to +7.6mPD	1	0	01-Aug-2022 A	01-Aug-2022 A		100%
2441	P10-2120.1176	Receipt Reply of RFI-176 & 178 for the change of dimension of lift core wall	1	0	02-Aug-2022 A	02-Aug-2022 A		100%
2442	P10-2120.1186	Dismantling of Basement wall formwork and rebar, and re-construct the new lift shaft	16	0	03-Aug-2022 A	20-Aug-2022 A		100%
2443	P10-2120.1196	Deferred Concreting of Basement Lift Shaft wall to +7.6mPD	1	0	22-Aug-2022 A	22-Aug-2022 A		100%
2444	**Basement Water Tank**		70	0	15-Aug-2022 A	19-Nov-2022 A		100%
2445	**Sprinkler Tank**		65	0	19-Aug-2022 A	16-Nov-2022 A		100%
2446	P10-2120.916	Dismantle formwork for retaining wall	4	0	19-Aug-2022 A	23-Aug-2022 A		100%
2447	P10-2120.926	Water Tanks Slab formwork	5	0	24-Aug-2022 A	29-Aug-2022 A		100%
2448	P10-2120.936	Water Tanks Slab Rebar Fixing	4	0	27-Aug-2022 A	31-Aug-2022 A		100%
2449	P10-2120.946	Water Tanks Wall formwork	6	0	01-Sep-2022 A	07-Sep-2022 A		100%
2450	P10-2120.956	Water Tanks Wall Rebar Fixing	6	0	08-Sep-2022 A	12-Sep-2022 A		100%
2451	P10-2120.966	Concreting of Water Tank Base Slab & 1st portion of Wall	1	0	13-Sep-2022 A	13-Sep-2022 A		100%
2452	P10-2120.976	Erect Props for supporting water tank top slab soffit formwork & 2nd portion wall formwork	5	0	04-Nov-2022 A	09-Nov-2022 A		100%
2453	P10-2120.986	Water tank top slab Rebar Fixing	5	0	10-Nov-2022 A	15-Nov-2022 A		100%
2454	P10-2120.996	Water tank wall and top slab concreting	1	0	16-Nov-2022 A	16-Nov-2022 A		100%
2455	**FS Water Tank**		58	0	24-Aug-2022 A	11-Nov-2022 A		100%
2456	P10-2120.1006	Dismantle formwork for retaining wall	4	0	24-Aug-2022 A	27-Aug-2022 A		100%
2457	P10-2120.1016	Water Tanks Wall formwork	3	0	29-Aug-2022 A	31-Aug-2022 A		100%
2458	P10-2120.1026	Water Tanks Wall Rebar Fixing	5	0	01-Sep-2022 A	06-Sep-2022 A		100%
2459	P10-2120.1036	Water Tanks Slab formwork	4	0	07-Sep-2022 A	10-Sep-2022 A		100%
2460	P10-2120.1046	Water Tanks Slab Rebar Fixing	4	0	12-Sep-2022 A	15-Sep-2022 A		100%
2461	P10-2120.1056	Concreting of Water Tanks Base Slab & Wall	1	0	16-Sep-2022 A	16-Sep-2022 A		100%
2462	P10-2120.1066	Erect Props for supporting water tank top slab soffit formwork & 2nd portion wall formwork	5	0	31-Oct-2022 A	04-Nov-2022 A		100%
2463	P10-2120.1076	Water tank top slab Rebar Fixing	5	0	05-Nov-2022 A	10-Nov-2022 A		100%
2464	P10-2120.1086	Water tank wall and top slab concreting	1	0	11-Nov-2022 A	11-Nov-2022 A		100%
2465	**Rain Water Tank**		68	0	15-Aug-2022 A	17-Nov-2022 A		100%
2466	P10-2120.446	Dismantle formwork for retaining wall	4	0	15-Aug-2022 A	18-Aug-2022 A		100%
2467	P10-2120.456	Water Tanks Slab formwork	5	0	19-Aug-2022 A	24-Aug-2022 A		100%
2468	P10-2120.466	Water Tanks Slab Rebar Fixing	4	0	23-Aug-2022 A	26-Aug-2022 A		100%
2469	P10-2120.486	Water Tanks Wall formwork	4	0	27-Aug-2022 A	31-Aug-2022 A		100%
2470	P10-2120.536	Water Tanks Wall Rebar Fixing	3	0	01-Sep-2022 A	03-Sep-2022 A		100%
2471	P10-2120.546	Concreting of Water Tanks Base Slab & Wall	1	0	13-Sep-2022 A	13-Sep-2022 A		100%
2472	P10-2120.556	Erect Props for supporting water tank top slab soffit formwork & 2nd portion wall formwork	5	0	05-Nov-2022 A	10-Nov-2022 A		100%
2473	P10-2120.566	Water tank top slab Rebar Fixing	5	0	11-Nov-2022 A	16-Nov-2022 A		100%
2474	P10-2120.576	Water tank wall and top slab concreting	1	0	17-Nov-2022 A	17-Nov-2022 A		100%
2475	**Irrigation water Tank**		68	0	16-Aug-2022 A	19-Nov-2022 A		100%
2476	P10-2120.1096	Receipt E-mail from Project Manager for the change of dimensions of water tank	0	0		16-Aug-2022 A		100%
2477	P10-2120.1106	Works hold up until further notice	25	0	20-Aug-2022 A	17-Sep-2022 A		100%
2478	P10-2120.496	Dismantle formwork for retaining wall	4	0	19-Sep-2022 A	23-Sep-2022 A		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: 27-Nov-2026
Baseline: Aug 2023 Monthly Programme Update

4M Rolling Programme (Sep-Dec 2023)

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

#	Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Duration % Complete
2479	P10-2120.506	Water Tanks wall formwork	5	0	12-Oct-2022 A	17-Oct-2022 A		100%
2480	P10-2120.516	Water Tanks wall Rebar Fixing	4	0	18-Oct-2022 A	21-Oct-2022 A		100%
2481	P10-2120.526	Water Tanks slab formwork	8	0	22-Oct-2022 A	31-Oct-2022 A		100%
2482	P10-2120.586	Water Tanks slab Rebar Fixing	5	0	05-Nov-2022 A	10-Nov-2022 A		100%
2483	P10-2120.596	Concreting of Water Tank 1st Portion of wall & Base Slab	1	0	11-Nov-2022 A	11-Nov-2022 A		100%
2484	P10-2120.606	Erect Props for supporting water tank top slab soffit formwork	3	0	14-Nov-2022 A	16-Nov-2022 A		100%
2485	P10-2120.616	Water tank top slab Rebar Fixing	2	0	17-Nov-2022 A	18-Nov-2022 A		100%
2486	P10-2120.626	Water tank wall and top slab concreting	1	0	19-Nov-2022 A	19-Nov-2022 A		100%
2487	**High Level Pile Cap & Column**		164	0	08-Jul-2022 A	15-Feb-2023 A		100%
2488	**C20 to C22**		164	0	08-Jul-2022 A	15-Feb-2023 A		100%
2489	P10-2120.156	Dismantling of Basement wall formwork	6	0	08-Jul-2022 A	13-Jul-2022 A		100%
2490	P10-2120.166	Concrete rectification and Touch Up works	3	0	14-Jul-2022 A	16-Jul-2022 A		100%
2491	P10-2120.176	Basement Wall Waterproofing & Testing	6	0	18-Jul-2022 A	23-Jul-2022 A		100%
2492	P10-2120.196	Backfill of Temp. Slope & level formation of high level slab	19	0	08-Aug-2022 A	29-Aug-2022 A		100%
2493	P10-2120.206	Grout Breaking of Socket H Piles	3	0	30-Aug-2022 A	01-Sep-2022 A		100%
2494	P10-2120.216	High Level Pile Head treatment and Capping Plate Installation (8nos)	8	0	02-Sep-2022 A	10-Sep-2022 A		100%
2495	P10-2120.226	Casting of Vertical Blinding	10	0	12-Sep-2022 A	23-Sep-2022 A		100%
2496	P10-2120.266	Rebar fixing of Pile Cap and Columns	5	0	24-Sep-2022 A	29-Sep-2022 A		100%
2497	P10-2120.276	Pile Cap Formwork erection	7	0	05-Oct-2022 A	14-Oct-2022 A		100%
2498	P10-2120.286	High Level Pile Cap Concreting	1	0	15-Oct-2022 A	15-Oct-2022 A		100%
2499	P10-2120.366	Erect Working Platform from Pile Cap Level to 1/F	5	0	01-Feb-2023 A	06-Feb-2023 A		100%
2500	P10-2120.376	Columns Rebar Fixing from Pile Cap Level to 1/F	5	0	07-Feb-2023 A	11-Feb-2023 A		100%
2501	P10-2120.386	Columns formwork from Pile Cap Level to 1/F	3	0	11-Feb-2023 A	14-Feb-2023 A		100%
2502	P10-2120.396	Concreting of Columns to 1/F	1	0	15-Feb-2023 A	15-Feb-2023 A		100%
2503	**C19**		62	0	01-Dec-2022 A	15-Feb-2023 A		100%
2504	P10-2120.1272	Excavation to expose remaining pile head of C19 Pile Cap	3	0	01-Dec-2022 A	03-Dec-2022 A		100%
2505	P10-2120.1276	Grout Breaking of Socket H Piles	3	0	05-Dec-2022 A	07-Dec-2022 A		100%
2506	P10-2120.1286	High Level Pile Head treatment (2nos)	3	0	08-Dec-2022 A	10-Dec-2022 A		100%
2507	P10-2120.1296	Capping Plate Installation (1no)	3	0	12-Dec-2022 A	14-Dec-2022 A		100%
2508	P10-2120.1302	Rebar fixing of Pile Cap and Columns	4	0	03-Jan-2023 A	07-Jan-2023 A		100%
2509	P10-2120.1304	Pile Cap Formwork erection	3	0	09-Jan-2023 A	09-Jan-2023 A		100%
2510	P10-2120.1305	High Level Pile Cap Concreting	1	0	10-Jan-2023 A	10-Jan-2023 A		100%
2511	P10-2120.1307	Dismantling Formwork and install waterproofing Membrane	5	0	11-Jan-2023 A	16-Jan-2023 A		100%
2512	P10-2120.1309	Backfill to formation for erecton of working platform	1	0	17-Jan-2023 A	31-Jan-2023 A		100%
2513	P10-2120.1314	Erect Working Platform from Pile Cap Level to 1/F	5	0	01-Feb-2023 A	06-Feb-2023 A		100%
2514	P10-2120.1316	Columns Rebar Fixing from Pile Cap Level to 1/F	5	0	06-Feb-2023 A	10-Feb-2023 A		100%
2515	P10-2120.1326	Columns formwork from Pile Cap Level to 1/F	3	0	11-Feb-2023 A	14-Feb-2023 A		100%
2516	P10-2120.1336	Concreting of Columns to 1/F	1	0	15-Feb-2023 A	15-Feb-2023 A		100%
2517	**C3, C6**		92	0	24-Oct-2022 A	15-Feb-2023 A		100%
2518	P10-2120.318	Excavation to re-expose remaining pile head of Pile Caps	7	0	24-Oct-2022 A	31-Oct-2022 A		100%
2519	P10-2120.322	Grout Breaking of Socket H Piles	3	0	03-Nov-2022 A	07-Nov-2022 A		100%
2520	P10-2120.324	Remaining High Level Pile Head treatment and Capping Plate Installation	2	0	08-Nov-2022 A	10-Nov-2022 A		100%
2521	P10-2120.326	Casting of Vertical Blinding	2	0	26-Nov-2022 A	28-Nov-2022 A		100%
2522	P10-2120.336	Rebar fixing of Pile Cap, Column starter and Strap Beam	2	0	29-Nov-2022 A	30-Nov-2022 A		100%
2523	P10-2120.346	Pile Cap Formwork erection	2	0	30-Nov-2022 A	01-Dec-2022 A		100%
2524	P10-2120.356	High Level Pile Cap, Strap Beam & column kickers Concreting	1	0	02-Dec-2022 A	02-Dec-2022 A		100%
2525	P10-2120.406	Erect Working Platform from Pile Cap Level to 1/F	5	0	01-Feb-2023 A	06-Feb-2023 A		100%
2526	P10-2120.416	Columns Rebar Fixing from Pile Cap Level to 1/F	5	0	07-Feb-2023 A	11-Feb-2023 A		100%
2527	P10-2120.426	Columns formwork from Pile Cap Level to 1/F	3	0	11-Feb-2023 A	14-Feb-2023 A		100%
2528	P10-2120.436	Concreting of Columns to 1/F	1	0	15-Feb-2023 A	15-Feb-2023 A		100%
2529	**C10, C14 & C18**		62	0	01-Dec-2022 A	15-Feb-2023 A		100%
2530	P10-2120.1360	Excavation to expose remaining pile head of Pile Caps	3	0	01-Dec-2022 A	03-Dec-2022 A		100%
2531	P10-2120.1376	Capping Plate Installation	20	0	05-Dec-2022 A	28-Dec-2022 A		100%
2532	P10-2120.1386	Rebar fixing of Pile Cap, Column starter and Strap Beam	4	0	04-Jan-2023 A	07-Jan-2023 A		100%
2533	P10-2120.1396	Pile Cap Formwork erection	3	0	09-Jan-2023 A	11-Jan-2023 A		100%
2534	P10-2120.1406	High Level Pile Cap, Strap Beam & column kickers Concreting	1	0	12-Jan-2023 A	12-Jan-2023 A		100%
2535	P10-2120.1446	Erect Working Platform from Pile Cap Level to 1/F	5	0	01-Feb-2023 A	06-Feb-2023 A		100%
2536	P10-2120.1456	Columns Rebar Fixing from Pile Cap Level to 1/F	4	0	07-Feb-2023 A	10-Feb-2023 A		100%
2537	P10-2120.1466	Columns formwork from Pile Cap Level to 1/F	3	0	11-Feb-2023 A	14-Feb-2023 A		100%
2538	P10-2120.1476	Concreting of Columns to 1/F	1	0	15-Feb-2023 A	15-Feb-2023 A		100%
2539	**Superstructure**		350	23	10-Nov-2022 A	25-Oct-2023	-180	93.5%
2540	**Ground Floor to Roof Floor**		350	23	10-Nov-2022 A	25-Oct-2023	-180	93.5%
2541	**B/F to G/F Wall and G/F Slab**		278	0	10-Nov-2022 A	12-Aug-2023 A		100%
2542	**Bay 1**		29	0	21-Nov-2022 A	29-Dec-2022 A		100%
2543	P10-2350	Erection of falsework and working platform for B/F to G/F	3	0	21-Nov-2022 A	28-Nov-2022 A		100%
2544	P10-2390	Erection of falsework for G/F Slab	7	0	29-Nov-2022 A	06-Dec-2022 A		100%
2545	P10-2400	Erection of Formwork for G/F Slab	7	0	07-Dec-2022 A	14-Dec-2022 A		100%
2546	P10-2410	Rebar Fixing for G/F Slab	7	0	15-Dec-2022 A	22-Dec-2022 A		100%
2547	P10-2420	G/F Slab Shutters	4	0	23-Dec-2022 A	28-Dec-2022 A		100%
2548	P10-2430	G/F Slab & B/F to G/F wall Concreting	1	0	29-Dec-2022 A	29-Dec-2022 A		100%

2023: Sep | Oct | Nov | Dec

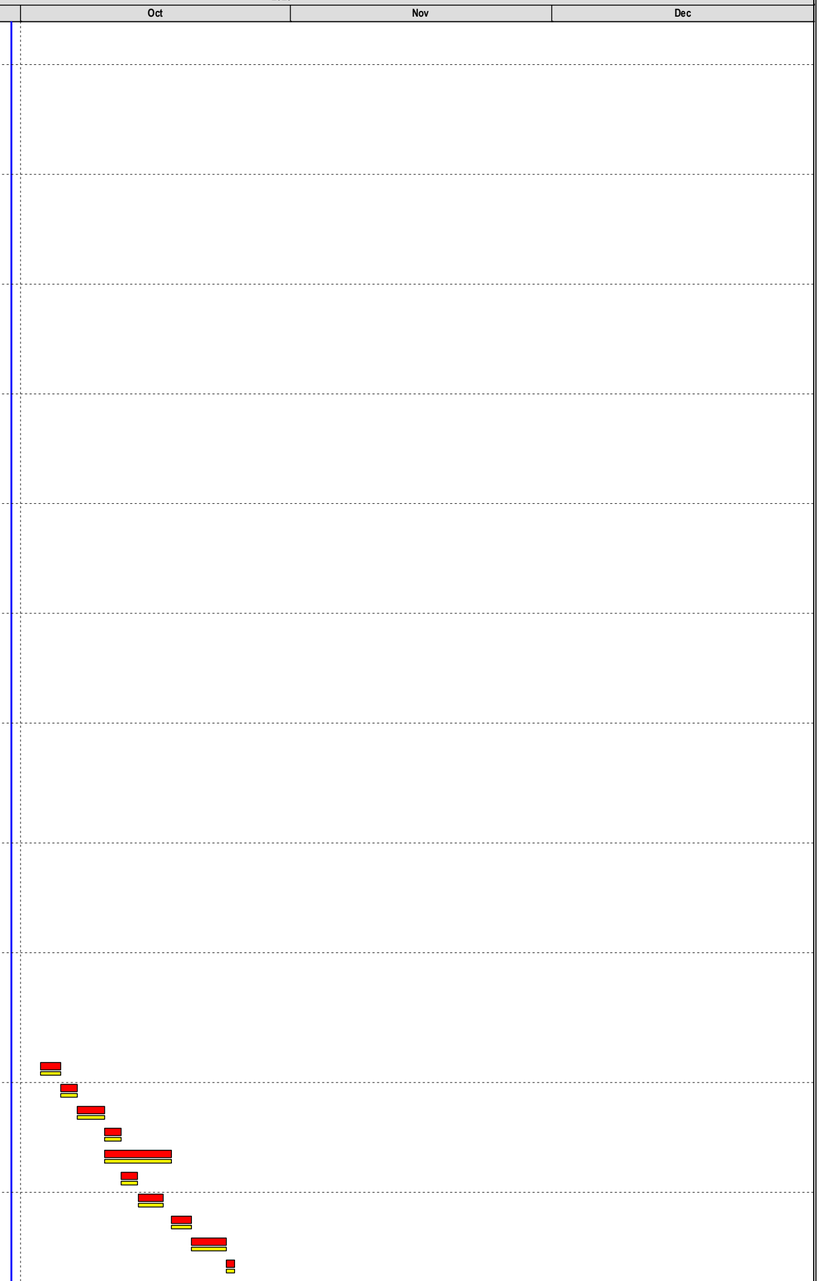
Primary Baseline
Actual Work
Remaining Work
Critical Remaining Work
Baseline Milestone
Critical Milestone
Non-Critical Milestone

Data Date: 30-Sep-2023
Project Start: 03-Feb-2020
Project End: 27-Nov-2026
Baseline: Aug 2023 Monthly Programme Update

4M Rolling Programme (Sep-Dec 2023)

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

#	Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Duration % Complete
2549		**Bay 2**	35	0	10-Nov-2022 A	20-Dec-2022 A		100%
2550		**Tx Room Cable Trench and slab**	25	0	10-Nov-2022 A	07-Dec-2022 A		100%
2551	P10-2120.776	Trench base slab Falsework / formwork supporting cable trench	7	0	10-Nov-2022 A	17-Nov-2022 A		100%
2552	P10-2120.786	Trench base slab Rebar fixing supporting cable trench	6	0	18-Nov-2022 A	24-Nov-2022 A		100%
2553	P10-2120.792	Trench side formwork	5	0	25-Nov-2022 A	26-Nov-2022 A		100%
2554	P10-2120.796	Trench base slab concreting supporting cable trench	1	0	28-Nov-2022 A	28-Nov-2022 A		100%
2555	P10-2120.806	Cable trench Wall / Cover slab formwork	4	0	29-Nov-2022 A	02-Dec-2022 A		100%
2556	P10-2120.816	Cable trench Wall / Cover slab Rebar fixing	2	0	05-Dec-2022 A	06-Dec-2022 A		100%
2557	P10-2120.826	Cable trench Wall / Cover slab Concreting	1	0	07-Dec-2022 A	07-Dec-2022 A		100%
2558		**G/F Slab**	10	0	08-Dec-2022 A	20-Dec-2022 A		100%
2559	P10-4170	Erection of Formwork for G/F Slab	4	0	08-Dec-2022 A	12-Dec-2022 A		100%
2560	P10-4180	Rebar Fixing for G/F Slab	3	0	13-Dec-2022 A	15-Dec-2022 A		100%
2561	P10-4190	G/F Slab Shutters	3	0	16-Dec-2022 A	19-Dec-2022 A		100%
2562	P10-4200	G/F Slab oncreting	1	0	20-Dec-2022 A	20-Dec-2022 A		100%
2563		**Bay 4 (On Grade Slab) (Toilet)**	28	0	20-Jun-2023 A	12-Aug-2023 A		100%
2564	P10-2110.112	Dismantle falseworks from G/F to 1/F	6	0	20-Jun-2023 A	06-Jul-2023 A		100%
2565	P10-2110.143	Laying Underground Drainage and testing	20	0	06-Jul-2023 A	04-Aug-2023 A		100%
2566	P10-2110.153	Backfilling of Drainages	1	0	05-Aug-2023 A	05-Aug-2023 A		100%
2567	P10-2110.173	Rebar fixing of on grade Slab	5	0	05-Aug-2023 A	10-Aug-2023 A		100%
2568	P10-2110.183	Base Slab formwork shutters	2	0	10-Aug-2023 A	11-Aug-2023 A		100%
2569	P10-2110.193	G/F On Grade Slab Concreting	1	0	12-Aug-2023 A	12-Aug-2023 A		100%
2570		**Bay 5 (On Grade Slab) (Tx Room)**	0	0			0	0%
2571		**G/F to 1/F Wall and 1/F Slab**	216	20	21-Dec-2022 A	25-Oct-2023	-138	90.76%
2572		**Bay 1**	180	0	30-Dec-2022 A	25-Feb-2023 A		100%
2573	P10-2620	Erection of falsework and working platform for G/F to 1/F wall	3	0	30-Dec-2022 A	03-Jan-2023 A		100%
2574	P10-2630	Erection of One Side Formwork for G/F to 1/F Wall	3	0	13-Jan-2023 A	16-Jan-2023 A		100%
2575	P10-2640	Rebar Fixing for G/F to 1/F Wall	3	0	17-Jan-2023 A	19-Jan-2023 A		100%
2576	P10-2650	Erection of remaining side formwork for G/F to 1/F Wall	3	0	20-Jan-2023 A	26-Jan-2023 A		100%
2577	P10-2655	G/F to 1/F Wall & Columns Concreting	30	0	12-Jan-2023 A	16-Feb-2023 A		100%
2578	P10-2660	Erection of falsework and working platform for 1/F Slab	3	0	16-Feb-2023 A	18-Feb-2023 A		100%
2579	P10-2670	Erection of Formwork for 1/F Slab	3	0	18-Feb-2023 A	21-Feb-2023 A		100%
2580	P10-2680	Rebar Fixing for 1/F Slab	3	0	21-Feb-2023 A	23-Feb-2023 A		100%
2581	P10-2690	1/F Slab Shutters	2	0	23-Feb-2023 A	24-Feb-2023 A		100%
2582	P10-2700	1/F Slab Concreting	1	0	25-Feb-2023 A	25-Feb-2023 A		100%
2583		**Bay 2**	63	0	21-Dec-2022 A	06-Mar-2023 A		100%
2584	P10-2710	Erection of falsework and working platform for G/F to 1/F wall	15	0	21-Dec-2022 A	09-Jan-2023 A		100%
2585	P10-2720	Erection of One Side Formwork for G/F to 1/F Wall	17	0	22-Dec-2022 A	12-Jan-2023 A		100%
2586	P10-2730	Rebar Fixing for G/F to 1/F Wall	4	0	27-Dec-2022 A	17-Jan-2023 A		100%
2587	P10-2740	Erection of remaining side formwork for G/F to 1/F Wall	5	0	18-Jan-2023 A	26-Jan-2023 A		100%
2588	P10-2745	G/F to 1/F Wall & Columns Concreting	30	0	18-Jan-2023 A	21-Feb-2023 A		100%
2589	P10-2750	Erection of falsework and working platform for 1/F Slab	4	0	21-Feb-2023 A	24-Feb-2023 A		100%
2590	P10-2760	Erection of Formwork for 1/F Slab	4	0	25-Feb-2023 A	01-Mar-2023 A		100%
2591	P10-2770	Rebar Fixing for 1/F Slab	4	0	02-Mar-2023 A	06-Mar-2023 A		100%
2592	P10-2780	1/F Slab Shutters	3	0	02-Mar-2023 A	04-Mar-2023 A		100%
2593	P10-2790	1/F Slab Concreting	1	0	04-Mar-2023 A	04-Mar-2023 A		100%
2594		**Bay 3**	20	20	03-Oct-2023	25-Oct-2023	-138	0%
2595	P10-2800	Erection of falsework and working platform for G/F to 1/F wall	3	3	03-Oct-2023	05-Oct-2023	-138	0%
2596	P10-2810	Erection of One Side Formwork for G/F to 1/F Wall	2	2	05-Oct-2023	07-Oct-2023	-138	0%
2597	P10-2820	Rebar Fixing for G/F to 1/F Wall	2	2	07-Oct-2023	10-Oct-2023	-138	0%
2598	P10-2830	Erection of remaining side formwork for G/F to 1/F Wall	2	2	10-Oct-2023	12-Oct-2023	-137	0%
2599	P10-2835	G/F to 1/F Wall & Columns Concreting	7	7	10-Oct-2023	18-Oct-2023	-138	0%
2600	P10-2840	Erection of falsework and working platform for 1/F Slab	2	2	12-Oct-2023	14-Oct-2023	-137	0%
2601	P10-2850	Erection of Formwork for 1/F Slab	2	2	14-Oct-2023	17-Oct-2023	-137	0%
2602	P10-2860	Rebar Fixing for 1/F Slab	3	3	18-Oct-2023	20-Oct-2023	-138	0%
2603	P10-2870	1/F Slab Shutters	2	2	20-Oct-2023	24-Oct-2023	-138	0%
2604	P10-2880	1/F Slab Concreting	1	1	24-Oct-2023	25-Oct-2023	-138	0%
2605		**1/F to +12.850mPD wall and +12.850mPD slab**	35	0	06-Mar-2023 A	22-Apr-2023 A		100%
2606		**Bay 1**	35	0	06-Mar-2023 A	22-Apr-2023 A		100%
2607	P10-3250	Erection of props for dwarf wall	3	0	06-Mar-2023 A	08-Mar-2023 A		100%
2608	P10-3260	Erection of One Side Formwork for dwarf wall	2	0	08-Mar-2023 A	09-Mar-2023 A		100%
2609	P10-3270	Rebar Fixing for dwarf wall	2	0	09-Mar-2023 A	10-Mar-2023 A		100%
2610	P10-3280	Erection of remaining side formwork for dwarf wall	2	0	10-Mar-2023 A	11-Mar-2023 A		100%
2611	P10-3290	Concreting of drawf wall	1	0	13-Mar-2023 A	13-Mar-2023 A		100%
2612	P10-3300	Dismantling formwork of drawf wall	3	0	14-Mar-2023 A	16-Mar-2023 A		100%
2613	P10-3310	Erection of formwork for double slab	2	0	16-Mar-2023 A	17-Mar-2023 A		100%
2614	P10-3320	Double slab Rebar fixing	2	0	17-Mar-2023 A	18-Mar-2023 A		100%
2615	P10-3330	Double Slab Shutters	1	0	20-Mar-2023 A	20-Mar-2023 A		100%
2616	P10-3340	Double Slab Concreting	1	0	22-Apr-2023 A	22-Apr-2023 A		100%
2617		**Bay 2**	19	0	06-Mar-2023 A	24-Mar-2023 A		100%



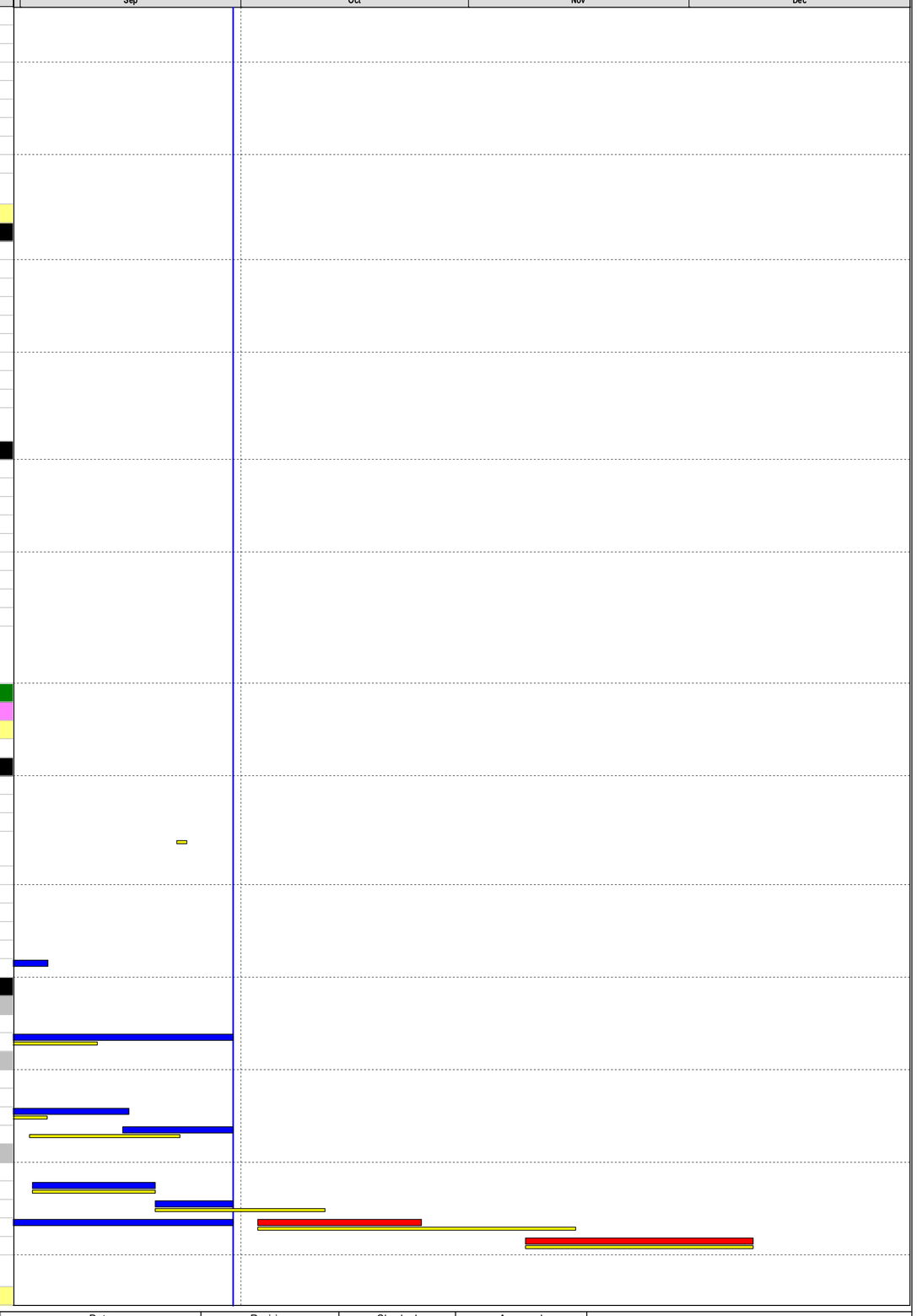
Primary Baseline
Actual Work
Remaining Work
Critical Remaining Work
Baseline Milestone
Critical Milestone
Non-Critical Milestone

Data Date: 30-Sep-2023
Project Start: 03-Feb-2020
Project End: 27-Nov-2026
Baseline: Aug 2023 Monthly Programme Update

4M Rolling Programme (Sep-Dec 2023)

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

#	Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Duration % Complete
2618	P10-3350	Erection of props for dwarf wall	3	0	06-Mar-2023 A	08-Mar-2023 A		100%
2619	P10-3360	Erection of One Side Formwork for dwarf wall	2	0	08-Mar-2023 A	09-Mar-2023 A		100%
2620	P10-3370	Rebar Fixing for dwarf wall	2	0	09-Mar-2023 A	10-Mar-2023 A		100%
2621	P10-3380	Erection of remaining side formwork for dwarf wall	2	0	10-Mar-2023 A	11-Mar-2023 A		100%
2622	P10-3390	Concreting of drawf wall	1	0	13-Mar-2023 A	13-Mar-2023 A		100%
2623	P10-3400	Dismantling formwork of drawf wall	3	0	14-Mar-2023 A	16-Mar-2023 A		100%
2624	P10-3410	Erection of formwork for double slab	3	0	16-Mar-2023 A	18-Mar-2023 A		100%
2625	P10-3420	Double slab Rebar fixing	3	0	20-Mar-2023 A	22-Mar-2023 A		100%
2626	P10-3430	Double Slab Shutters	1	0	23-Mar-2023 A	23-Mar-2023 A		100%
2627	P10-3440	Double Slab Concreting	1	0	24-Mar-2023 A	24-Mar-2023 A		100%
2628	**1/F to R/F Wall and R/F Slab**		28	0	02-May-2023 A	12-Jun-2023 A		100%
2629	**Bay 1**		28	0	02-May-2023 A	12-Jun-2023 A		100%
2630	P10-3810	Erection of falsework and working platform from Double Slab to R/F wall	3	0	02-May-2023 A	04-May-2023 A		100%
2631	P10-3820	Erection of One Side Formwork from Double Slab to R/F wall	3	0	05-May-2023 A	09-May-2023 A		100%
2632	P10-3830	Rebar Fixing from Double Slab to R/F wall	3	0	10-May-2023 A	12-May-2023 A		100%
2633	P10-3840	Erection of remaining side formwork from Double Slab to R/F wall	3	0	13-May-2023 A	19-May-2023 A		100%
2634	P10-3845	Double Slab to R/F wall Concreting	1	0	20-May-2023 A	20-May-2023 A		100%
2635	P10-3850	Erection of falsework and working platform for R/F Slab	4	0	22-May-2023 A	27-May-2023 A		100%
2636	P10-3860	Erection of Formwork for R/F Slab	2	0	29-May-2023 A	30-May-2023 A		100%
2637	P10-3870	Rebar Fixing for R/F Slab	2	0	02-Jun-2023 A	03-Jun-2023 A		100%
2638	P10-3880	R/F Slab Shutters	2	0	05-Jun-2023 A	08-Jun-2023 A		100%
2639	P10-3890	R/F Slab Concreting	1	0	12-Jun-2023 A	12-Jun-2023 A		100%
2640	**Bay 2**		24	0	02-May-2023 A	02-Jun-2023 A		100%
2641	P10-3900	Erection of falsework and working platform from Double Slab to R/F wall	3	0	02-May-2023 A	04-May-2023 A		100%
2642	P10-3910	Erection of One Side Formwork from Double Slab to R/F wall	3	0	04-May-2023 A	06-May-2023 A		100%
2643	P10-3920	Rebar Fixing from Double Slab to R/F wall	3	0	06-May-2023 A	10-May-2023 A		100%
2644	P10-3930	Erection of remaining side formwork from Double Slab to R/F wall	3	0	10-May-2023 A	12-May-2023 A		100%
2645	P10-3935	Double Slab to R/F wall Concreting	1	0	13-May-2023 A	13-May-2023 A		100%
2646	P10-3940	Erection of falsework and working platform for R/F Slab	3	0	16-May-2023 A	20-May-2023 A		100%
2647	P10-3950	Erection of Formwork for R/F Slab	3	0	22-May-2023 A	25-May-2023 A		100%
2648	P10-3960	Rebar Fixing for R/F Slab	2	0	27-May-2023 A	29-May-2023 A		100%
2649	P10-3970	R/F Slab Shutters	2	0	30-May-2023 A	31-May-2023 A		100%
2650	P10-3980	R/F Slab Concreting	1	0	02-Jun-2023 A	02-Jun-2023 A		100%
2651	**ABWF / E&M Works**		534	332	15-Mar-2023 A	29-Aug-2024	819	37.83%
2652	**Basement Floor**		363	161	15-Mar-2023 A	11-Mar-2024	990	55.65%
2653	**Rainwater Harvesting Tank / Irrigation Pump Room**		270	145	15-Mar-2023 A	11-Mar-2024	896	46.4%
2654	P10-BFRH-1000	Access Date of B/F Rainwater and Irrigation Room Fitting Out	0	0	15-Mar-2023 A			100%
2655	**ABWF**		119	0	15-Mar-2023 A	04-Sep-2023 A		100%
2656	P10-BFRH-1010	Setting Out	2	0	15-Mar-2023 A	16-Mar-2023 A		100%
2657	P10-BFRH-1020	Water Tanks Props and formwork removal	12	0	17-Mar-2023 A	31-Mar-2023 A		100%
2658	P10-BFRH-1030	Water Tanks water testing before waterproofing and touch up works	6	0	01-Apr-2023 A	13-Apr-2023 A		100%
2659	P10-BFRH-1040	Erect Scaffolding for wall and ceiling finishes	2	0	14-Apr-2023 A	15-Apr-2023 A		100%
2660	P10-BFRH-1050	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	12	0	17-Apr-2023 A	05-May-2023 A		100%
2661	P10-BFRH-1060	Wall Finishes (Wall waterproofing, plastering, Skim Coat and 1st Coat Painting)	21	0	06-May-2023 A	05-Jun-2023 A		100%
2662	P10-BFRH-1070	Water tanks waterproofing and tiling	12	0	08-Jun-2023 A	08-Jul-2023 A		100%
2663	P10-BFRH-1080	Concrete Plinth Casting and finishes	12	0	10-Jul-2023 A	28-Jul-2023 A		100%
2664	P10-BFRH-1090	Floor Screeding	2	0	01-Aug-2023 A	03-Aug-2023 A		100%
2665	P10-BFRH-1100	Access Panel and Cat Ladder Installation to water tank and door installation	10	0	03-Aug-2023 A	04-Sep-2023 A		100%
2666	**BS Works**		247	145	17-Apr-2023 A	11-Mar-2024	896	41.32%
2667	**MVAC**		24	0	01-Aug-2023 A	30-Sep-2023 A		100%
2668	P10-BFRH-1110	Setting out for all equipment / MOS inspection	3	0	01-Aug-2023 A	21-Aug-2023 A		100%
2669	P10-BFRH-1120	Air Duct installation	21	0	21-Aug-2023 A	30-Sep-2023 A		100%
2670	**PD**		95	0	17-Apr-2023 A	30-Sep-2023 A		100%
2671	P10-BFRH-1130	setting out for all equipment / MOS inspection	10	0	17-Apr-2023 A	09-May-2023 A		100%
2672	P10-BFRH-1140	Installation of inertia block, FRP water tank, pressure pipe	30	0	09-May-2023 A	11-Jul-2023 A		100%
2673	P10-BFRH-1150	Installation of pipework, pumps, LMCP and accessories	35	0	11-Jul-2023 A	15-Sep-2023 A		100%
2674	P10-BFRH-1220	Sump Pit Installation	20	0	15-Sep-2023 A	30-Sep-2023 A		100%
2675	**EL**		247	145	17-Apr-2023 A	11-Mar-2024	896	41.32%
2676	P10-BFRH-1160	Setting out for all equipment / MOS inspection	2	0	17-Apr-2023 A	22-Apr-2023 A		100%
2677	P10-BFRH-1170	Installation of cable containments	15	0	02-Sep-2023 A	19-Sep-2023 A		100%
2678	P10-BFRH-1180	Cable wiring	20	0	19-Sep-2023 A	30-Sep-2023 A		100%
2679	P10-BFRH-1190	Installation of Lighting fitting and small power provision	40	20	03-Aug-2023 A	25-Oct-2023	-26	50%
2680	P10-BFRH-1200	Plants Installation	30	30	08-Nov-2023*	09-Dec-2023	-40	0%
2681	P10-BFRH-1210	T&C of rain harvesting & Irrigation Plants	6	6	05-Mar-2024	11-Mar-2024	-115	0%
2682	**Sprinkler & FS Pump Room**		361	159	15-Mar-2023 A	09-Mar-2024	-173	55.96%



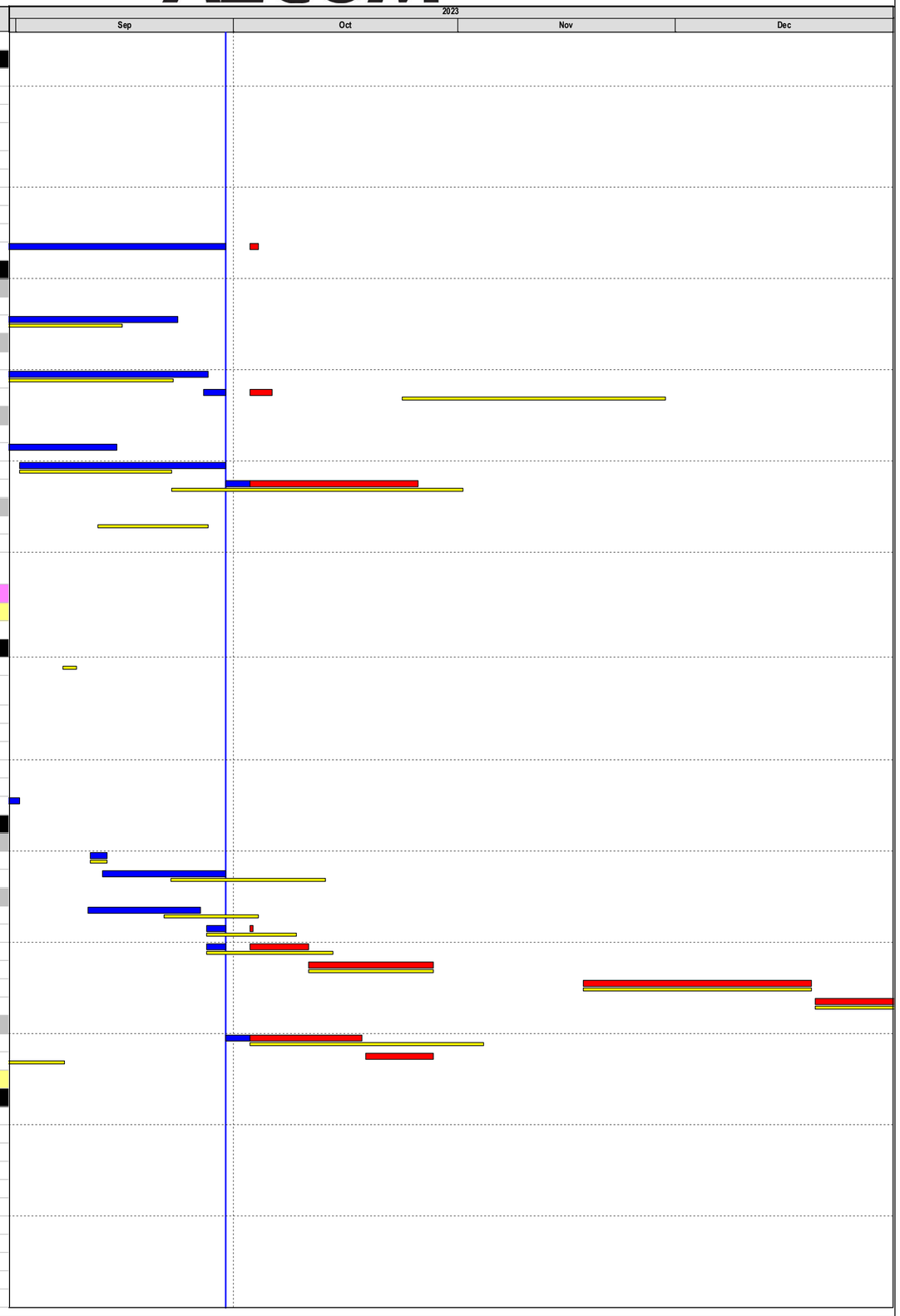
Primary Baseline
Actual Work
Remaining Work
Critical Remaining Work
Baseline Milestone
Critical Milestone
Non-Critical Milestone

Data Date: 30-Sep-2023
Project Start: 03-Feb-2020
Project End: 27-Nov-2026
Baseline: Aug 2023 Monthly Programme Update

4M Rolling Programme (Sep-Dec 2023)

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

#	Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Duration % Complete
2683	P10-BFFS-1000	Access Date of B/F Sprinkler and FS Pump Room Fitting Out	0	0	15-Mar-2023 A			100%
2684	**ABWF**		87	2	15-Mar-2023 A	04-Oct-2023	-18	98.28%
2685	P10-BFFS-1100	Water Tanks Props and formwork removal	2	0	15-Mar-2023 A	16-Mar-2023 A		100%
2686	P10-BFFS-1110	Setting Out	12	0	17-Mar-2023 A	31-Mar-2023 A		100%
2687	P10-BFFS-1120	Water Tanks water testing before waterproofing and touch up works	6	0	01-Apr-2023 A	13-Apr-2023 A		100%
2688	P10-BFFS-1130	Erect Scaffolding for wall and ceiling finishes	2	0	14-Apr-2023 A	15-Apr-2023 A		100%
2689	P10-BFFS-1140	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	12	0	17-Apr-2023 A	05-May-2023 A		100%
2690	P10-BFFS-1150	Wall Finishes (Wall waterproofing, plastering, Skim Coat and 1st Coat Painting)	14	0	06-May-2023 A	25-May-2023 A		100%
2691	P10-BFFS-1160	Water tanks waterproofing and tiling	12	0	27-May-2023 A	21-Jun-2023 A		100%
2692	P10-BFFS-1170	Concrete Plinth Casting and finishes	12	0	23-Jun-2023 A	21-Jul-2023 A		100%
2693	P10-BFFS-1180	Floor Screeding	2	0	22-Jul-2023 A	25-Jul-2023 A		100%
2694	P10-BFFS-1200	Access Panel and Cat Ladder Installation to water tank and door installation	10	2	26-Jul-2023 A	04-Oct-2023	-18	85%
2695	**BS Works**		246	144	17-Apr-2023 A	09-Mar-2024	-155	41.49%
2696	MVAC		21	0	21-Aug-2023 A	23-Sep-2023 A		100%
2697	P10-BFFS-1010	Setting out for all equipment / MOS inspection	3	0	21-Aug-2023 A	24-Aug-2023 A		100%
2698	P10-BFFS-1020	Air Duct installation	18	0	24-Aug-2023 A	23-Sep-2023 A		100%
2699	PD		90	4	02-Aug-2023 A	06-Oct-2023	-20	96.13%
2700	P10-BFFS-1030	Setting out for all equipment / MOS inspection	10	0	02-Aug-2023 A	23-Aug-2023 A		100%
2701	P10-BFFS-1040	Installation of inertia block, FRP water tank, pressure	30	0	23-Aug-2023 A	27-Sep-2023 A		100%
2702	P10-BFFS-1050	Installation of pipework, pumps, LMCP and accessories	35	4	27-Sep-2023 A	06-Oct-2023	-20	90%
2703	EL		129	21	17-Apr-2023 A	26-Oct-2023	-37	83.73%
2704	P10-BFFS-1060	Setting out for all equipment / MOS inspection	10	0	17-Apr-2023 A	03-May-2023 A		100%
2705	P10-BFFS-1070	Installation of cable containment	5	0	25-Aug-2023 A	15-Sep-2023 A		100%
2706	P10-BFFS-1080	Cable wiring	20	0	01-Sep-2023 A	30-Sep-2023 A		100%
2707	P10-BFFS-1090	Installation of Lighting fitting and small power provision	35	21	30-Sep-2023 A	26-Oct-2023	-37	40%
2708	FS		215	5	01-May-2023 A	09-Mar-2024	-155	97.68%
2709	P10-BFFS-1190	FS 1st Fixing	15	0	01-May-2023 A	29-May-2023 A		100%
2710	P10-BFFS-1220	FS Sprinkler Pump Installation	14	0	31-May-2023 A	10-Jul-2023 A		100%
2711	P10-BFFS-1230	T&C of FS Plants	5	5	05-Mar-2024	09-Mar-2024	-155	0%
2712	**Ground Floor**		510	315	22-Mar-2023 A	13-Aug-2024	836	38.2%
2713	**Generator Room**		254	92	24-Apr-2023 A	02-Jan-2024	-106	63.78%
2714	P10-GFGS1000	Access Date of G/F Generator Room Fitting Out	0	0	24-Apr-2023 A			100%
2715	**ABWF**		78	0	24-Apr-2023 A	01-Sep-2023 A		100%
2716	P10-GFGS1010	Setting Out	2	0	24-Apr-2023 A	26-Apr-2023 A		100%
2717	P10-GFGS1020	Erect Scaffolding for wall and ceiling finishes	2	0	27-Apr-2023 A	28-Apr-2023 A		100%
2718	P10-GFGS1030	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	12	0	29-Apr-2023 A	13-May-2023 A		100%
2719	P10-GFGS1040	Wall Finishes (Wall plastering, Tiling, Skim Coat and 1st Coat Painting)	18	0	16-May-2023 A	20-Jun-2023 A		100%
2720	P10-GFGS1050	Concrete Plinth Casting and finishes	12	0	21-Jun-2023 A	12-Jul-2023 A		100%
2721	P10-GFGS1060	Floor Screeding	2	0	13-Jul-2023 A	14-Jul-2023 A		100%
2722	P10-GFGS1070	Access Panel Installation to Generator Room	6	0	21-Jul-2023 A	28-Jul-2023 A		100%
2723	P10-GFGS1080	Floor epoxy Painting & door installation	10	0	01-Aug-2023 A	01-Sep-2023 A		100%
2724	**BS Works**		118	83	11-Sep-2023 A	02-Jan-2024	-94	30.05%
2725	MVAC		29	0	11-Sep-2023 A	30-Sep-2023 A		100%
2726	P10-GFGS1110	Setting out for all equipment / MOS inspection	3	0	11-Sep-2023 A	13-Sep-2023 A		100%
2727	P10-GFGS1120	Air Duct installation	18	0	13-Sep-2023 A	30-Sep-2023 A		100%
2728	EL		91	83	11-Sep-2023 A	02-Jan-2024	-99	9.26%
2729	P10-GFGS1130	Setting out for all equipment / MOS inspection	10	0	11-Sep-2023 A	26-Sep-2023 A		100%
2730	P10-GFGS1140	Installation of cable containment	10	1	27-Sep-2023 A	03-Oct-2023	-79	90%
2731	P10-GFGS1150	Cable wiring	15	8	27-Sep-2023 A	11-Oct-2023	-79	50%
2732	P10-GFGS1160	Installation of Lighting fitting and small power provision	16	16	11-Oct-2023*	28-Oct-2023	-79	0%
2733	P10-GFGS1170	Genset Installation	30	30	18-Nov-2023*	19-Dec-2023	-99	0%
2734	P10-GFGS1180	T&C of Genset	10	10	20-Dec-2023*	02-Jan-2024	-99	0%
2735	FS		66	23	30-Sep-2023 A	28-Oct-2023	-34	64.31%
2736	P10-GFGS1090	FS Piping, cable containment Installation	30	15	30-Sep-2023 A	18-Oct-2023	-34	50%
2737	P10-GFGS1100	FS Sprinkler head, Alarm smoke detector, heat detector installation	21	8	25-Nov-2023 A	28-Oct-2023	-34	60%
2738	**Tx Room / Switch Room**		343	154	28-Mar-2023 A	05-Mar-2024	997	55.04%
2739	**ABWF**		255	57	28-Mar-2023 A	07-Dec-2023	1085	77.69%
2740	P10-Tx1000	Access Date of G/F Tx Room / Switch Room Fitting Out	0	0	28-Mar-2023 A			100%
2741	P10-Tx1100	Setting Out	2	0	18-Apr-2023 A	24-Apr-2023 A		100%
2742	P10-Tx1105	Access Date of Tx Room Double Slab Builders works	0	0	24-Apr-2023 A			100%
2743	P10-Tx1107	Formwork dismantling and touch up works	3	0	01-May-2023 A	02-May-2023 A		100%
2744	P10-Tx1108	Waterproofing works of Tx Room Double Slab	3	0	03-May-2023 A	05-May-2023 A		100%
2745	P10-Tx1109	Flooding Test and Infra Red test after waterproofing	2	0	06-May-2023 A	09-May-2023 A		100%
2746	P10-Tx1110	Erect Scaffolding for wall and ceiling finishes of Tx Rm	1	0	10-May-2023 A	10-May-2023 A		100%
2747	P10-Tx1120	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	5	0	11-May-2023 A	18-May-2023 A		100%
2748	P10-Tx1130	Wall Finishes (Wall plastering, Lourve Frame, Wall Tiling, Skim Coat and 1st Coat Painting)	4	0	19-May-2023 A	23-May-2023 A		100%
2749	P10-Tx1140	Cable Trench Plastering	5	0	23-May-2023 A	30-May-2023 A		100%
2750	P10-Tx1150	Cable Trench Angle Frame Installation	2	0	30-May-2023 A	31-May-2023 A		100%



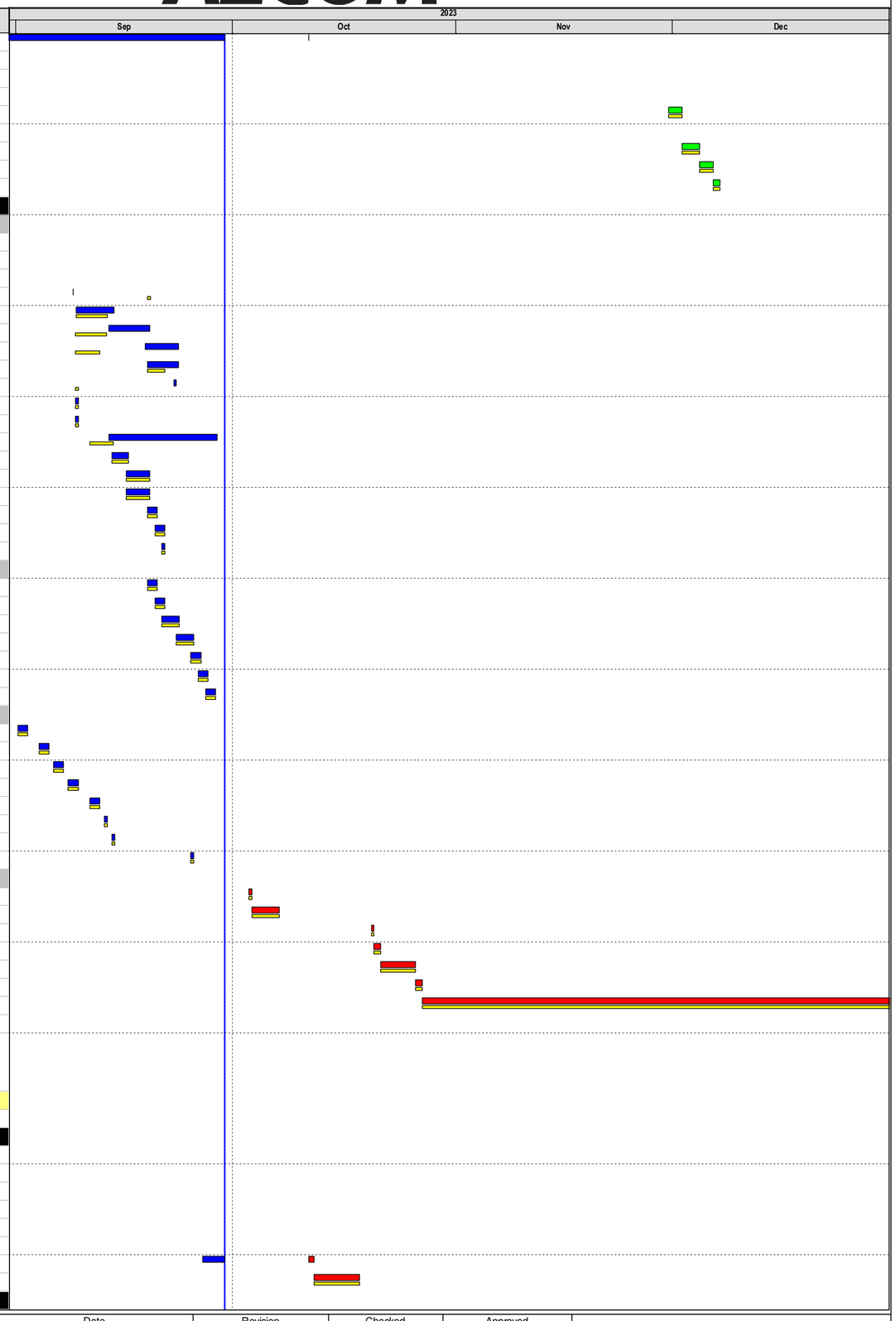
Primary Baseline
Actual Work
Remaining Work
Critical Remaining Work
Baseline Milestone
Critical Milestone
Non-Critical Milestone

Data Date: 30-Sep-2023
Project Start: 03-Feb-2020
Project End: 27-Nov-2026
Baseline: Aug 2023 Monthly Programme Update

4M Rolling Programme (Sep-Dec 2023)

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

#	Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Duration % Complete
2751	P10-Tx1160	Floor Screeding	2	0	01-Jul-2023 A	11-Oct-2023	1026	100%
2752	P10-Tx1170	Metal Door Frame Installation	2	0	06-Jul-2023 A	08-Jul-2023 A		100%
2753	P10-Tx1180	Ceiling And Wall Painting (Final Coat)	2	0	10-Jul-2023 A	14-Jul-2023 A		100%
2754	P10-Tx1190	Chequer Plate Installation	2	0	10-Jul-2023 A	13-Jul-2023 A		100%
2755	P10-Tx1195	Lourves Installation	2	2	30-Nov-2023	02-Dec-2023	979	0%
2756	P10-Tx1200	Painting to Chequer Plate	2	0	09-Aug-2023 A	16-Aug-2023 A		100%
2757	P10-Tx1210	Floor Dust Proof Coating	2	2	02-Dec-2023	04-Dec-2023	979	0%
2758	P10-Tx1220	Durasteel Installation to Air Duct	2	2	04-Dec-2023	06-Dec-2023	979	0%
2759	P10-Tx1230	Metal Door Leaf Installation	1	1	06-Dec-2023	07-Dec-2023	979	0%
2760	**BS Works**		277	154	02-Jun-2023 A	05-Mar-2024	-185	44.34%
2761	**Electrical Works**		63	0	02-Jun-2023 A	29-Sep-2023 A		100%
2762	P10-Tx1240	Intallation (Electrical) of Conduit / Cable Containment at Tx Room	10	0	02-Jun-2023 A	26-Jun-2023 A		100%
2763	P10-Tx1250	Cable Wiring at Tx Room	10	0	26-Jun-2023 A	12-Jul-2023 A		100%
2764	P10-Tx1260	Installation of Light Fitting at Tx Room	4	0	12-Jul-2023 A	21-Jul-2023 A		100%
2765	P10-Tx1270	Delivery of Cable Tray	1	0	09-Sep-2023 A	09-Sep-2023 A		100%
2766	P10-Tx1530	Installation of Cable Tray over ceiling	4	0	09-Sep-2023 A	14-Sep-2023 A		100%
2767	P10-Tx1540	Installation (Electrical) of Conduit at Switch Room	4	0	14-Sep-2023 A	19-Sep-2023 A		100%
2768	P10-Tx1550	Cable Wiring at Switch Room	3	0	19-Sep-2023 A	23-Sep-2023 A		100%
2769	P10-Tx1560	Installation of Light Fitting at Switch Room	3	0	19-Sep-2023 A	23-Sep-2023 A		100%
2770	P10-Tx1570	FAT of Switchboard	1	0	23-Sep-2023 A	23-Sep-2023 A		100%
2771	P10-Tx1580	Delivery and assembly of Switchboard at Switch Room	1	0	09-Sep-2023 A	09-Sep-2023 A		100%
2772	P10-Tx1590	SAT of Switchboard	1	0	09-Sep-2023 A	09-Sep-2023 A		100%
2773	P10-Tx1600	Installation of MCB Board	4	0	14-Sep-2023 A	29-Sep-2023 A		100%
2774	P10-Tx1610	Installation of Earthing System at Tx Room and Switch Room	3	0	14-Sep-2023 A	16-Sep-2023 A		100%
2775	P10-Tx1620	System T&C (Electrical Works)	3	0	16-Sep-2023 A	19-Sep-2023 A		100%
2776	P10-Tx1630	Installation of Lighting conductors	3	0	16-Sep-2023 A	19-Sep-2023 A		100%
2777	P10-Tx1640	Installation of Lightning Pits	2	0	19-Sep-2023 A	20-Sep-2023 A		100%
2778	P10-Tx1650	Installation of Earthing Pits	2	0	20-Sep-2023 A	21-Sep-2023 A		100%
2779	P10-Tx1660	Earthing and Lightning T&C	1	0	21-Sep-2023 A	21-Sep-2023 A		100%
2780	**MVAC Works**		10	0	19-Sep-2023 A	28-Sep-2023 A		100%
2781	P10-Tx1680	Intallation (MVAC) of Conduit at Tx Room	2	0	19-Sep-2023 A	20-Sep-2023 A		100%
2782	P10-Tx1690	Cable Wiring & Cable Containment (MVAC) of Conduit at Tx Room	2	0	20-Sep-2023 A	21-Sep-2023 A		100%
2783	P10-Tx1700	Installation of Fan and Air Duct at Tx Room	3	0	21-Sep-2023 A	23-Sep-2023 A		100%
2784	P10-Tx1710	Installation of Fan Controller at Tx Room	2	0	23-Sep-2023 A	25-Sep-2023 A		100%
2785	P10-Tx1720	Installation of Fan and Air Duct at Switchroom	2	0	25-Sep-2023 A	26-Sep-2023 A		100%
2786	P10-Tx1730	Installation of LMCP at Switchroom	2	0	26-Sep-2023 A	27-Sep-2023 A		100%
2787	P10-Tx1740	System T&C (MVAC Works)	2	0	27-Sep-2023 A	28-Sep-2023 A		100%
2788	**FS Works**		23	0	01-Sep-2023 A	25-Sep-2023 A		100%
2789	P10-Tx1770	Intallation (FS) of Conduit at Tx Room	2	0	01-Sep-2023 A	02-Sep-2023 A		100%
2790	P10-Tx1780	Cable Wiring (FS) of Conduit at Tx Room	2	0	04-Sep-2023 A	05-Sep-2023 A		100%
2791	P10-Tx1790	Installation of Heat Detector at Tx Room	2	0	06-Sep-2023 A	07-Sep-2023 A		100%
2792	P10-Tx1800	Installation of (FS) Conduit at Switchroom	2	0	08-Sep-2023 A	09-Sep-2023 A		100%
2793	P10-Tx1810	Cable Wiring (FS) of Conduit at Switchroom	2	0	11-Sep-2023 A	12-Sep-2023 A		100%
2794	P10-Tx1820	Installation of Heat Detector at Switchroom	1	0	13-Sep-2023 A	13-Sep-2023 A		100%
2795	P10-Tx1830	Installation of AFA panel and audio / visual alarm equipment	1	0	14-Sep-2023 A	14-Sep-2023 A		100%
2796	P10-Tx1840	System T&C (FS Works)	1	0	25-Sep-2023 A	25-Sep-2023 A		100%
2797	**CLP works & Statutory Inspection**		154	154	03-Oct-2023	05-Mar-2024	-185	0%
2798	P10-Tx2000	1st CLP Preinspection of Tx Room	1	1	03-Oct-2023	03-Oct-2023	-98	0%
2799	P10-Tx2010	1st Defect Rectification	4	4	03-Oct-2023	07-Oct-2023	-98	0%
2800	P10-Tx2015	Submit WR1	1	1	20-Oct-2023	20-Oct-2023	-171	0%
2801	P10-Tx2020	2nd CLP Inspection of Tx Room	1	1	20-Oct-2023	21-Oct-2023	-110	0%
2802	P10-Tx2030	2nd Defect Rectification	3	3	21-Oct-2023	26-Oct-2023	-110	0%
2803	P10-Tx2040	Handover Inspection with CLP	1	1	26-Oct-2023	27-Oct-2023	-110	0%
2804	P10-Tx2050	CLP Installation Works	60	60	27-Oct-2023	02-Jan-2024	-110	0%
2805	P10-Tx2055	Energization of Tx Equipment	1	1	02-Mar-2024*	04-Mar-2024	-165	0%
2806	P10-Tx2060	CLP Meter Installation (Permenant Power On)	1	1	04-Mar-2024*	05-Mar-2024	-165	0%
2807	**FS Control Room**		343	166	18-Apr-2023 A	25-Mar-2024	-189	51.6%
2808	P10-GFFS1020	Access Date of G/F FS control Room Fitting Out	0	0	18-Apr-2023 A			100%
2809	**ABWF**		115	7	22-Apr-2023 A	18-Oct-2023	-86	94.29%
2810	P10-GFFS1050	Setting Out	2	0	22-Apr-2023 A	24-Apr-2023 A		100%
2811	P10-GFFS1060	Erect Scaffolding for wall and ceiling finishes	2	0	26-Apr-2023 A	27-Apr-2023 A		100%
2812	P10-GFFS1070	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	8	0	27-Apr-2023 A	09-May-2023 A		100%
2813	P10-GFFS1080	Wall Finishes (Wall plastering, Skim Coat and 1st Coat Painting)	8	0	10-May-2023 A	23-May-2023 A		100%
2814	P10-GFFS1090	Floor Screeding	2	0	02-Jun-2023 A	03-Jun-2023 A		100%
2815	P10-GFFS1100	Concrete Plinth Casting and finishes	8	0	05-Jun-2023 A	07-Jul-2023 A		100%
2816	P10-GFFS1110	Access Panel Installation to FS control Room	4	1	27-Sep-2023 A	12-Oct-2023	-86	86.11%
2817	P10-GFFS1120	Floor epoxy Painting & door installation	6	6	12-Oct-2023	18-Oct-2023	-86	0%
2818	**BS Works**		170	150	15-Sep-2023 A	25-Mar-2024	-169	11.88%



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4M Rolling Programme (Sep-Dec 2023)

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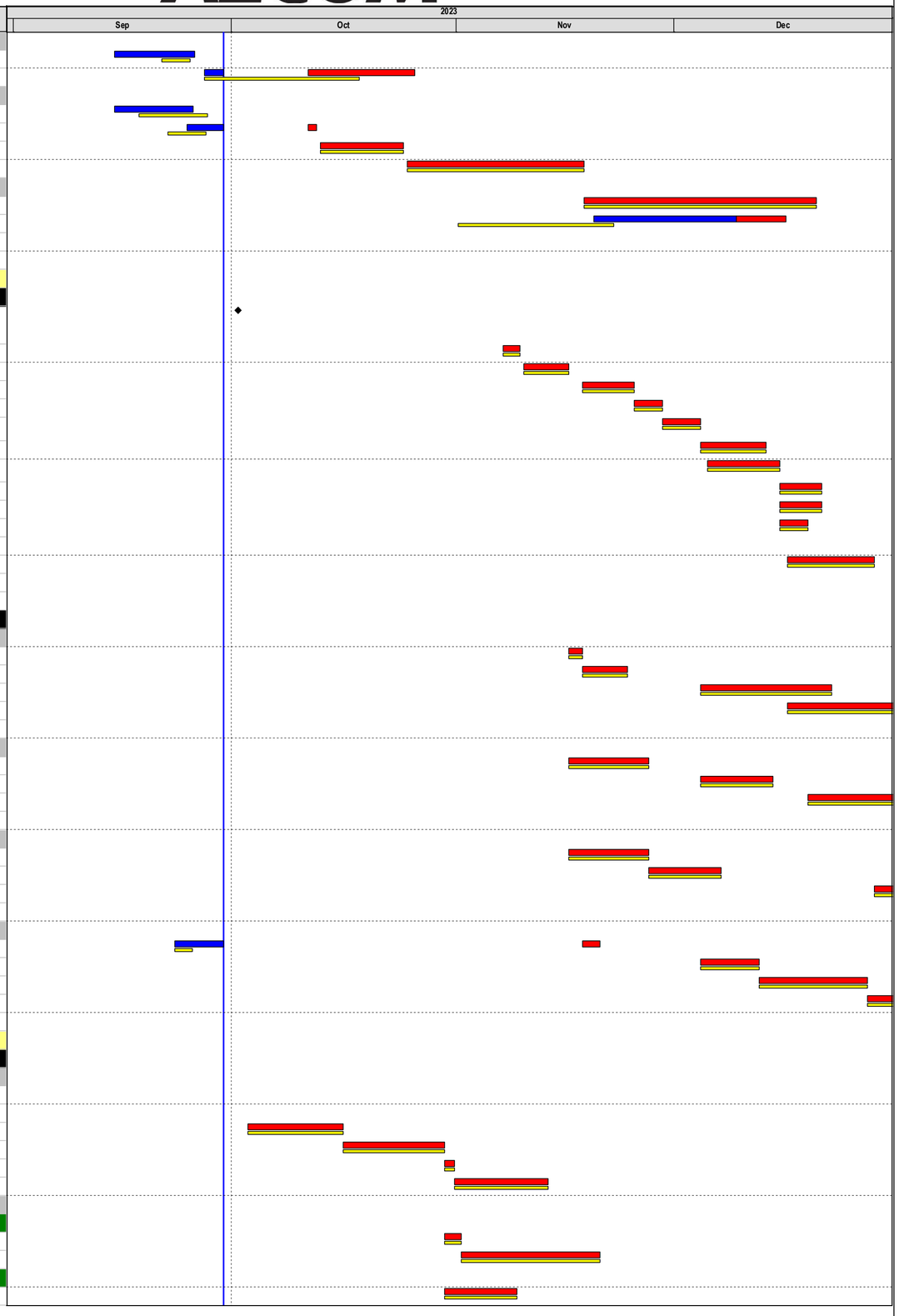
#	Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Duration % Complete
2819		**MVAC**	23	13	15-Sep-2023 A	26-Oct-2023	-92	45.46%
2820	P10-GFFS1150	Setting out for all equipment / MOS inspection	3	0	15-Sep-2023 A	26-Sep-2023 A		100%
2821	P10-GFFS1160	Air Duct installation	18	13	27-Sep-2023 A	26-Oct-2023	-92	30%
2822		**EL**	56	35	15-Sep-2023 A	18-Nov-2023	-114	36.33%
2823	P10-GFFS1170	Setting out for all equipment / MOS inspection	10	0	15-Sep-2023 A	25-Sep-2023 A		100%
2824	P10-GFFS1180	Installation of cable containment	5	1	25-Sep-2023 A	12-Oct-2023	-114	71.11%
2825	P10-GFFS1190	Cable wiring	10	10	13-Oct-2023	24-Oct-2023	-114	0%
2826	P10-GFFS1200	Installation of Lighting fitting and small power provision	24	24	25-Oct-2023	18-Nov-2023	-114	0%
2827		**FS**	132	115	18-Nov-2023 A	25-Mar-2024	-169	13.14%
2828	P10-GFFS1130	FS Piping, cable containment Installation	30	30	18-Nov-2023	20-Dec-2023	-114	0%
2829	P10-GFFS1140	FS Sprinkler head, Alarm smoke detector, heat detector installation	21	6	20-Nov-2023 A	16-Dec-2023	-114	70%
2830	P10-GFFS1210	FS Control Panel / Direct Link Installation	15	15	22-Feb-2024*	09-Mar-2024	-169	0%
2831	P10-GFFS1220	T&C of FS Control Euipments	15	15	09-Mar-2024	25-Mar-2024	-169	0%
2832	**Ground Floor Male / Female / U-Toilet**		206	121	23-Sep-2023 A	07-Mar-2024	-123	41.42%
2833	**ABWF**		205	120	02-Oct-2023 A	06-Mar-2024	-174	41.6%
2834	P10-GT1000	Access Date of G/F Toilet Fitting Out	0	0	02-Oct-2023 A			100%
2835	P10-GT1010	Site Survey and setting out	3	3	07-Nov-2023	09-Nov-2023	-115	0%
2836	P10-GT1020	Block Wall Erection	6	6	10-Nov-2023	16-Nov-2023	-115	0%
2837	P10-GT1040	Waterproofing & testing	7	7	18-Nov-2023*	25-Nov-2023	-115	0%
2838	P10-GT1050	Protected screed	3	3	25-Nov-2023*	29-Nov-2023	-115	0%
2839	P10-GT1060	Ceiling Grid Installation	5	5	29-Nov-2023*	04-Dec-2023	-115	0%
2840	P10-GT1070	Wall finishes and furring wall installation	9	9	04-Dec-2023*	13-Dec-2023	-115	0%
2841	P10-GT1080	Floor finishes with protection	10	10	05-Dec-2023*	15-Dec-2023	-115	0%
2842	P10-GT1085	Ceiling Board Installation	5	5	15-Dec-2023*	21-Dec-2023	-102	0%
2843	P10-GT1090	Vanity Counter Installation	5	5	15-Dec-2023*	21-Dec-2023	-115	0%
2844	P10-GT1100	Door installation	3	3	15-Dec-2023*	19-Dec-2023	-94	0%
2845	P10-GT1110	Cubical installation	7	7	25-Jan-2024*	02-Feb-2024	-134	0%
2846	P10-GT1120	Sanitary fitting installation	9	9	16-Dec-2023*	28-Dec-2023	-115	0%
2847	P10-GT1130	Signage, accessories, air grille installation	5	5	02-Feb-2024*	07-Feb-2024	-134	0%
2848	P10-GT1140	Inspection & cleaning	1	1	05-Mar-2024	06-Mar-2024	-156	0%
2849	**BS Works**		147	100	23-Sep-2023 A	07-Mar-2024	-111	32.35%
2850		**MVAC**	100	100	16-Nov-2023	07-Mar-2024	-152	0%
2851	P10-GT1030	Setting out for all equipment / Conduit / Switches	2	2	16-Nov-2023*	18-Nov-2023	-115	0%
2852	P10-GT1150	MEP Conduit embedment	6	6	18-Nov-2023*	24-Nov-2023	-93	0%
2853	P10-GT1160	Air Duct installation	18	18	04-Dec-2023*	22-Dec-2023	-101	0%
2854	P10-GT1300	MVAC unit, Exhaust fans installation	18	18	16-Dec-2023*	08-Jan-2024	-101	0%
2855	P10-GT1310	T&C of MVAC system	2	2	05-Mar-2024	07-Mar-2024	-152	0%
2856		**FS**	100	100	16-Nov-2023	07-Mar-2024	-152	0%
2857	P10-GT1180	FS Piping, cable containment Installation	10	10	16-Nov-2023*	27-Nov-2023	-84	0%
2858	P10-GT1190	FS Sprinkler pipe overhead with ceiling installation	10	10	04-Dec-2023*	14-Dec-2023	-91	0%
2859	P10-GT1195	FS Sprinkler head, Alarm smoke detector, heat detector installation	10	10	19-Dec-2023*	02-Jan-2024	-95	0%
2860	P10-GT1200	T&C of FS system	2	2	05-Mar-2024	07-Mar-2024	-152	0%
2861		**PD**	100	100	16-Nov-2023	07-Mar-2024	-111	0%
2862	P10-GT1210	setting out for pipeworks / San fit, & Installation of pipework at ceiling level	10	10	16-Nov-2023*	27-Nov-2023	-43	0%
2863	P10-GT1220	Installation of pipework connection to underground drainage	10	10	27-Nov-2023*	07-Dec-2023	-43	0%
2864	P10-GT1230	Installation of pipework connection to sanitary fitting	10	10	28-Dec-2023*	09-Jan-2024	-61	0%
2865	P10-GT1240	T&C of PD system	2	2	05-Mar-2024	07-Mar-2024	-111	0%
2866		**EL**	147	98	23-Sep-2023 A	07-Mar-2024	-157	33.71%
2867	P10-GT1250	Setting out for all equipment / MOS inspection	2	2	23-Sep-2023 A	20-Nov-2023	-93	0%
2868	P10-GT1260	Installation of cable containment	8	8	04-Dec-2023*	12-Dec-2023	-106	0%
2869	P10-GT1270	Cable wiring	12	12	12-Dec-2023*	27-Dec-2023	-106	0%
2870	P10-GT1280	Installation of Lighting fitting and small power provision	10	10	27-Dec-2023*	08-Jan-2024	-106	0%
2871	P10-GT1290	T&C of Electrical System	2	2	05-Mar-2024	07-Mar-2024	-157	0%
2872	**BOH**		364	169	22-Mar-2023 A	20-Mar-2024	-123	53.53%
2873	**Material Recovery**		219	100	22-Mar-2023 A	20-Jan-2024	-57	54.25%
2874		**ABWF**	157	38	22-Mar-2023 A	13-Nov-2023	-100	75.73%
2875	P10-GF-MR1000	Setting Out	2	0	22-Mar-2023 A	23-Mar-2023 A		100%
2876	P10-GF-MR1010	Erect Scaffolding for wall and ceiling finishes	2	0	12-Jul-2023 A	21-Jul-2023 A		100%
2877	P10-GF-MR1020	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	12	12	03-Oct-2023	16-Oct-2023	-107	0%
2878	P10-GF-MR1030	Wall Finishes (Wall plastering, tiling)	12	12	16-Oct-2023	30-Oct-2023	-107	0%
2879	P10-GF-MR1040	Floor Screeding	2	2	30-Oct-2023	31-Oct-2023	-100	0%
2880	P10-GF-MR1050	Floor quarry Tiles & door installation	12	12	31-Oct-2023	13-Nov-2023	-100	0%
2881		**BS Works**	76	76	30-Oct-2023	20-Jan-2024	-57	0%
2882		**MVAC**	21	21	30-Oct-2023	20-Nov-2023	-107	0%
2883	P10-GF-MR1080	Setting out for all equipment / MOS inspection	3	3	30-Oct-2023	01-Nov-2023	-107	0%
2884	P10-GF-MR1090	Air Duct installation	18	18	01-Nov-2023	20-Nov-2023	-107	0%
2885		**EL**	49	49	30-Oct-2023	20-Dec-2023	-89	0%
2886	P10-GF-MR1100	Setting out for all equipment / MOS inspection	10	10	30-Oct-2023	09-Nov-2023	-89	0%



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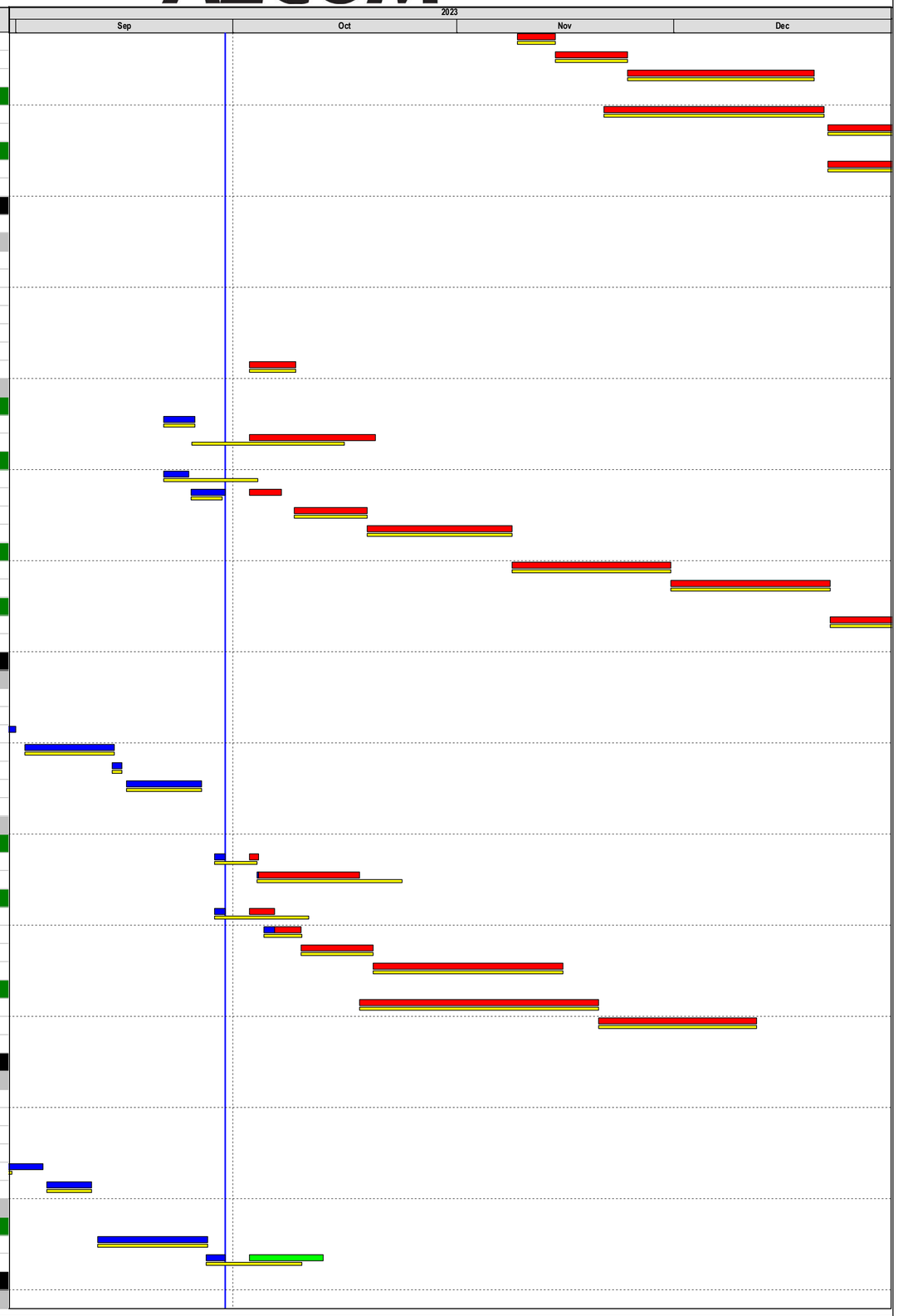
#	Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Duration % Complete
2887	P10-GF-MR1110	Installation of cable containment	5	5	09-Nov-2023	14-Nov-2023	-89	0%
2888	P10-GF-MR1120	Cable wiring	10	10	14-Nov-2023	24-Nov-2023	-89	0%
2889	P10-GF-MR1130	Installation of Lighting fitting and small power provision	24	24	24-Nov-2023	20-Dec-2023	-89	0%
2890	**FS**		51	51	21-Nov-2023	16-Jan-2024	-107	0%
2891	P10-GF-MR1060	FS Piping, cable containment Installation	30	30	21-Nov-2023	21-Dec-2023	-107	0%
2892	P10-GF-MR1070	FS Sprinkler head, Alarm smoke detector, heat detector installation	21	21	22-Dec-2023	16-Jan-2024	-107	0%
2893	**PD**		25	25	22-Dec-2023	20-Jan-2024	-57	0%
2894	P10-GF-MR1140	Water piping works Installation	15	15	22-Dec-2023	10-Jan-2024	-57	0%
2895	P10-GF-MR1150	Surface Channel formation	10	10	10-Jan-2024	20-Jan-2024	-57	0%
2896	**Security Control Room**		356	161	22-Mar-2023 A	11-Mar-2024	-175	54.78%
2897	P10-GFSC1190	Access Date of G/F security control Room Fitting Out	0	0	22-Mar-2023 A			100%
2898	**ABWF**		123	6	23-Mar-2023 A	09-Oct-2023	-80	95.14%
2899	P10-GFSC1030	Setting Out	2	0	23-Mar-2023 A	24-Mar-2023 A		100%
2900	P10-GFSC1040	Erect Scaffolding for wall and ceiling finishes	2	0	01-Apr-2023 A	03-Apr-2023 A		100%
2901	P10-GFSC1050	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	9	0	06-Apr-2023 A	22-Apr-2023 A		100%
2902	P10-GFSC1060	Wall plastering	9	0	24-Apr-2023 A	05-May-2023 A		100%
2903	P10-GFSC1070	Floor Screeding	2	0	02-Jun-2023 A	03-Jun-2023 A		100%
2904	P10-GFSC1090	Wall Skim Coat and 1st Coat Painting	6	0	05-Jul-2023 A	11-Jul-2023 A		100%
2905	P10-GFSC1100	Floor epoxy Painting & door installation	6	6	03-Oct-2023	09-Oct-2023	-80	0%
2906	**BS Works**		153	145	21-Sep-2023 A	11-Mar-2024	-156	5.52%
2907	**MVAC**		20	17	21-Sep-2023 A	20-Oct-2023	-91	16.36%
2908	P10-GFSC1130	Setting out for all equipment / MOS inspection	4	0	21-Sep-2023 A	25-Sep-2023 A		100%
2909	P10-GFSC1140	Air Duct installation	18	17	05-Oct-2023 A	20-Oct-2023	-91	5%
2910	**EL**		42	34	21-Sep-2023 A	08-Nov-2023	-108	20.11%
2911	P10-GFSC1150	Setting out for all equipment / MOS inspection	10	0	21-Sep-2023 A	25-Sep-2023 A		100%
2912	P10-GFSC1160	Installation of cable containment	5	6	25-Sep-2023 A	07-Oct-2023	-108	0%
2913	P10-GFSC1170	Cable wiring	10	10	09-Oct-2023*	19-Oct-2023	-108	0%
2914	P10-GFSC1180	Installation of Lighting fitting and small power provision	18	18	19-Oct-2023*	08-Nov-2023	-108	0%
2915	**FS**		42	42	08-Nov-2023	22-Dec-2023	-108	0%
2916	P10-GFSC1110	FS Piping, cable containment Installation	21	21	08-Nov-2023*	30-Nov-2023	-108	0%
2917	P10-GFSC1120	FS Sprinkler head, Alarm smoke detector, heat detector installation	21	21	30-Nov-2023*	22-Dec-2023	-108	0%
2918	**Security System**		69	69	22-Dec-2023	11-Mar-2024	-156	0%
2919	P10-GFSC1210	Security System Installation	15	15	22-Dec-2023	10-Jan-2024	-108	0%
2920	P10-GFSC1220	T&C of Security System	6	6	05-Mar-2024	11-Mar-2024	-156	0%
2921	**Main Distribution Frame Room**		269	153	24-Mar-2023 A	20-Mar-2024	-164	43.19%
2922	**ABWF**		269	4	24-Mar-2023 A	20-Mar-2024	-164	98.51%
2923	P10-GF-MDF1000	Setting Out	2	0	24-Mar-2023 A	28-Mar-2023 A		100%
2924	P10-GF-MDF1010	Erect Scaffolding for wall and ceiling finishes	2	0	05-Jul-2023 A	10-Jul-2023 A		100%
2925	P10-GF-MDF1020	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	12	0	01-Aug-2023 A	01-Sep-2023 A		100%
2926	P10-GF-MDF1030	Wall Finishes (Wall plastering, Skim Coat and 1st Coat Painting)	12	0	02-Sep-2023 A	14-Sep-2023 A		100%
2927	P10-GF-MDF1040	Floor Screeding	2	0	14-Sep-2023 A	15-Sep-2023 A		100%
2928	P10-GF-MDF1050	Floor epoxy Painting	10	0	16-Sep-2023 A	26-Sep-2023 A		100%
2929	P10-GF-MDF1150	Door installation	4	4	15-Mar-2024	20-Mar-2024	-164	0%
2930	**BS Works**		151	149	28-Sep-2023 A	15-Mar-2024	-160	1.18%
2931	**MVAC**		20	14	28-Sep-2023 A	18-Oct-2023	-76	29.57%
2932	P10-GF-MDF1080	Setting out for all equipment / MOS inspection	3	2	28-Sep-2023 A	04-Oct-2023	-76	40%
2933	P10-GF-MDF1090	Air Duct installation	18	13	04-Oct-2023 A	18-Oct-2023	-76	30%
2934	**EL**		42	40	28-Sep-2023 A	15-Nov-2023	-56	4.21%
2935	P10-GF-MDF1100	Setting out for all equipment / MOS inspection	10	4	28-Sep-2023 A	06-Oct-2023	-62	56%
2936	P10-GF-MDF1110	Installation of cable containment	5	2	05-Oct-2023 A	10-Oct-2023	-56	60%
2937	P10-GF-MDF1120	Cable wiring	10	10	10-Oct-2023*	20-Oct-2023	-56	0%
2938	P10-GF-MDF1130	Installation of Lighting fitting and small power provision	24	24	20-Oct-2023*	15-Nov-2023	-56	0%
2939	**FS**		135	135	18-Oct-2023	15-Mar-2024	-160	0%
2940	P10-GF-MDF1060	FS Piping, cable containment Installation	30	30	18-Oct-2023	20-Nov-2023	-76	0%
2941	P10-GF-MDF1070	FS Sprinkler head, Alarm smoke detector, heat detector installation	21	21	20-Nov-2023	12-Dec-2023	-76	0%
2942	P10-GF-MDF1140	FTNS telephone line and network installation	21	21	22-Feb-2024	15-Mar-2024	-164	0%
2943	**Water Meter Cabinet**		123	10	24-Mar-2023 A	13-Oct-2023	20	91.87%
2944	**ABWF**		98	0	24-Mar-2023 A	11-Sep-2023 A		100%
2945	P10-GF-WMC1000	Setting Out	2	0	24-Mar-2023 A	28-Mar-2023 A		100%
2946	P10-GF-WMC1010	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	12	0	05-Jul-2023 A	24-Jul-2023 A		100%
2947	P10-GF-WMC1020	Wall Finishes (Wall plastering, Skim Coat and 1st Coat Painting)	12	0	25-Jul-2023 A	22-Aug-2023 A		100%
2948	P10-GF-WMC1030	Floor Screeding	2	0	23-Aug-2023 A	24-Aug-2023 A		100%
2949	P10-GF-WMC1040	Double Leaf Door Installation to water meter cabinet	6	0	25-Aug-2023 A	04-Sep-2023 A		100%
2950	P10-GF-WMC1050	Floor epoxy Painting & door installation	6	0	05-Sep-2023 A	11-Sep-2023 A		100%
2951	**BS Works**		24	10	12-Sep-2023 A	13-Oct-2023	20	59.09%
2952	**PD**		24	10	12-Sep-2023 A	13-Oct-2023	20	59.09%
2953	P10-GF-WMC1060	Water piping works Installation	15	0	12-Sep-2023 A	27-Sep-2023 A		100%
2954	P10-GF-WMC1070	Water Meter Installation	10	10	27-Sep-2023 A	13-Oct-2023	20	0%
2955	**Equipment Room**		117	98	19-Sep-2023 A	26-Jan-2024	-117	16.32%
2956	**ABWF**		59	40	19-Sep-2023 A	23-Nov-2023	-110	32.33%



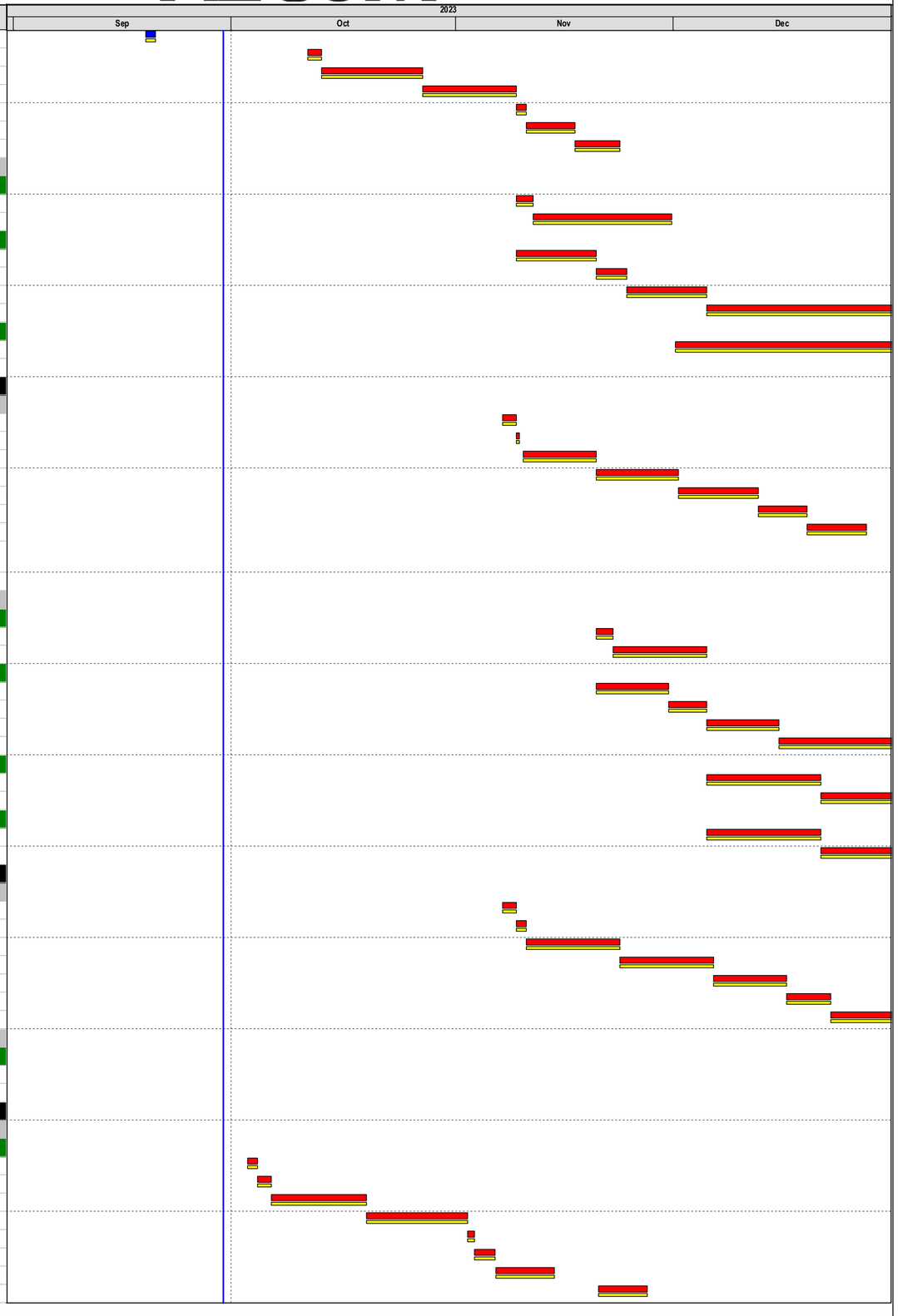
Primary Baseline
Actual Work
Remaining Work
Critical Remaining Work
Baseline Milestone
Critical Milestone
Non-Critical Milestone

Data Date: 30-Sep-2023
Project Start: 03-Feb-2020
Project End: 27-Nov-2026
Baseline: Aug 2023 Monthly Programme Update

4M Rolling Programme (Sep-Dec 2023)

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

#	Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Duration % Complete
2957	P10-GFER1000	Setting Out	2	0	19-Sep-2023 A	20-Sep-2023 A		100%
2958	P10-GFER1010	Erect Scaffolding for wall and ceiling finishes	2	2	11-Oct-2023*	13-Oct-2023	-117	0%
2959	P10-GFER1020	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	12	12	13-Oct-2023*	27-Oct-2023	-117	0%
2960	P10-GFER1030	Wall Finishes (Wall plastering, Skim Coat and 1st Coat Painting)	12	12	27-Oct-2023*	09-Nov-2023	-117	0%
2961	P10-GFER1040	Floor Screeding	2	2	09-Nov-2023*	10-Nov-2023	-110	0%
2962	P10-GFER1050	Access Panel Installation	6	6	10-Nov-2023*	17-Nov-2023	-110	0%
2963	P10-GFER1060	Floor epoxy Painting & door installation	6	6	17-Nov-2023*	23-Nov-2023	-110	0%
2964	BS Works		72	72	09-Nov-2023	26-Jan-2024	-117	0%
2965	MVAC		21	21	09-Nov-2023	30-Nov-2023	-117	0%
2966	P10-GFER1090	Setting out for all equipment / MOS inspection	3	3	09-Nov-2023	11-Nov-2023	-117	0%
2967	P10-GFER1100	Air Duct installation	18	18	11-Nov-2023	30-Nov-2023	-117	0%
2968	EL		49	49	09-Nov-2023	03-Jan-2024	-99	0%
2969	P10-GFER1110	Setting out for all equipment / MOS inspection	10	10	09-Nov-2023	20-Nov-2023	-99	0%
2970	P10-GFER1120	Installation of cable containment	5	5	20-Nov-2023	24-Nov-2023	-99	0%
2971	P10-GFER1130	Cable wiring	10	10	24-Nov-2023	05-Dec-2023	-99	0%
2972	P10-GFER1140	Installation of Lighting fitting and small power provision	24	24	05-Dec-2023	03-Jan-2024	-99	0%
2973	FS		51	51	01-Dec-2023	26-Jan-2024	-117	0%
2974	P10-GFER1070	FS Piping, cable containment Installation	30	30	01-Dec-2023	04-Jan-2024	-117	0%
2975	P10-GFER1080	FS Sprinkler head, Alarm smoke detector, heat detector installation	21	21	05-Jan-2024	26-Jan-2024	-117	0%
2976	Cleaners Store		73	73	07-Nov-2023	25-Jan-2024	-89	0%
2977	ABWF		73	73	07-Nov-2023	25-Jan-2024	-89	0%
2978	P10-GFCS1000	Setting Out	2	2	07-Nov-2023*	09-Nov-2023	-109	0%
2979	P10-GFCS1010	Erect Scaffolding for wall and ceiling finishes	1	1	09-Nov-2023*	09-Nov-2023	-109	0%
2980	P10-GFCS1020	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	9	9	10-Nov-2023*	20-Nov-2023	-109	0%
2981	P10-GFCS1030	Floor Waterproofing, testing and Protective Screeding	12	12	20-Nov-2023*	01-Dec-2023	-74	0%
2982	P10-GFCS1040	Wall Finishes (Wall plastering, Skim Coat and 1st Coat Painting)	10	10	01-Dec-2023*	12-Dec-2023	-74	0%
2983	P10-GFCS1060	Ceiling Grid Installation	6	6	12-Dec-2023*	19-Dec-2023	-74	0%
2984	P10-GFCS1070	Floor epoxy Painting	6	6	19-Dec-2023*	27-Dec-2023	-74	0%
2985	P10-GFCS1180	Ceiling Board Installation	8	8	13-Jan-2024	22-Jan-2024	-89	0%
2986	P10-GFCS1190	Door Installation	4	4	22-Jan-2024*	25-Jan-2024	-89	0%
2987	BS Works		49	49	20-Nov-2023	13-Jan-2024	-104	0%
2988	MVAC		15	15	20-Nov-2023	05-Dec-2023	-104	0%
2989	P10-GFCS1100	Setting out for all equipment / MOS inspection	3	3	20-Nov-2023	22-Nov-2023	-109	0%
2990	P10-GFCS1110	Air Duct installation	12	12	22-Nov-2023	05-Dec-2023	-104	0%
2991	EL		49	49	20-Nov-2023	13-Jan-2024	-109	0%
2992	P10-GFCS1120	Setting out for all equipment / MOS inspection	10	10	20-Nov-2023	30-Nov-2023	-109	0%
2993	P10-GFCS1130	Installation of cable containment	5	5	30-Nov-2023	05-Dec-2023	-109	0%
2994	P10-GFCS1140	Cable wiring	10	10	05-Dec-2023	15-Dec-2023	-109	0%
2995	P10-GFCS1150	Installation of Lighting fitting and small power provision	24	24	15-Dec-2023	13-Jan-2024	-109	0%
2996	FS		30	30	05-Dec-2023	09-Jan-2024	-100	0%
2997	P10-GFCS1080	FS Piping, cable containment Installation	15	15	05-Dec-2023	21-Dec-2023	-104	0%
2998	P10-GFCS1090	FS Sprinkler head, Alarm smoke detector, heat detector installation	15	15	21-Dec-2023	09-Jan-2024	-100	0%
2999	PD		25	25	05-Dec-2023	04-Jan-2024	-104	0%
3000	P10-GFCS1160	Water piping works Installation	15	15	05-Dec-2023	21-Dec-2023	-104	0%
3001	P10-GFCS1170	Floor Drain Installation	10	10	21-Dec-2023	04-Jan-2024	-104	0%
3002	Maintenance Corridor		66	66	07-Nov-2023	18-Jan-2024	-118	0%
3003	ABWF		50	50	07-Nov-2023	02-Jan-2024	-118	0%
3004	P10-GF-MC1020	Setting Out	2	2	07-Nov-2023*	09-Nov-2023	-118	0%
3005	P10-GF-MC1030	Erect Scaffolding for wall and ceiling finishes	2	2	09-Nov-2023*	10-Nov-2023	-118	0%
3006	P10-GF-MC1040	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	12	12	10-Nov-2023*	23-Nov-2023	-118	0%
3007	P10-GF-MC1050	Floor Waterproofing, testing and Protective Screeding	12	12	23-Nov-2023*	06-Dec-2023	-118	0%
3008	P10-GF-MC1060	Wall Finishes (Wall plastering, Skim Coat and 1st Coat Painting)	10	10	06-Dec-2023*	16-Dec-2023	-118	0%
3009	P10-GF-MC1070	Access Panel Installation	6	6	16-Dec-2023*	22-Dec-2023	-118	0%
3010	P10-GF-MC1080	Floor epoxy Painting	6	6	22-Dec-2023*	02-Jan-2024	-118	0%
3011	BS Works		16	16	02-Jan-2024	18-Jan-2024	-118	0%
3012	PD		16	16	02-Jan-2024	18-Jan-2024	-118	0%
3013	P10-GF-MC1000	Water piping works Installation	10	10	02-Jan-2024*	12-Jan-2024	-118	0%
3014	P10-GF-MC1010	Floor Drain Installation	6	6	12-Jan-2024*	18-Jan-2024	-118	0%
3015	Staircase		132	132	03-Oct-2023	27-Feb-2024	-89	0%
3016	ST-02		126	126	03-Oct-2023	21-Feb-2024	-83	0%
3017	ABWF		126	126	03-Oct-2023	21-Feb-2024	-103	0%
3018	P10-GF-ST2-1020	Setting Out	2	2	03-Oct-2023	04-Oct-2023	-102	0%
3019	P10-GF-ST2-1030	Erect Scaffolding for wall and ceiling finishes	2	2	04-Oct-2023	06-Oct-2023	-102	0%
3020	P10-GF-ST2-1040	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	12	12	06-Oct-2023	19-Oct-2023	-102	0%
3021	P10-GF-ST2-1050	Wall Finishes (Wall plastering, Skim Coat and 1st Coat Painting)	12	12	19-Oct-2023	02-Nov-2023	-102	0%
3022	P10-GF-ST2-1055	Dismantle Scaffolding	1	1	02-Nov-2023	03-Nov-2023	-102	0%
3023	P10-GF-ST2-1060	Staircase Screeding	2	2	03-Nov-2023	06-Nov-2023	-102	0%
3024	P10-GF-ST2-1070	Staircase Tiling / Tactile Installation	8	8	06-Nov-2023	14-Nov-2023	-35	0%
3025	P10-GF-ST2-1080	Staircase Handrail installation	6	6	20-Nov-2023	27-Nov-2023	-41	0%



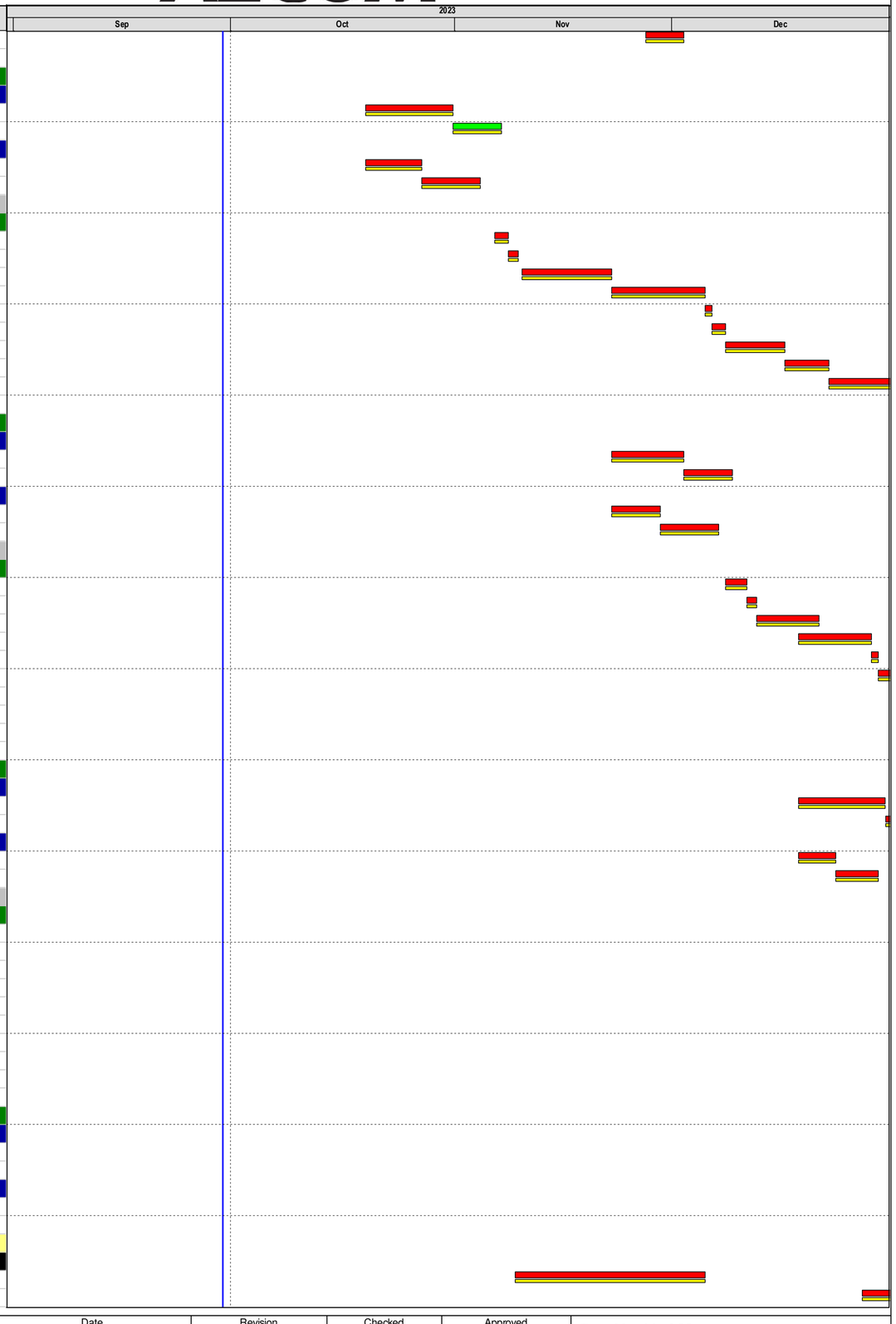
Primary Baseline
Actual Work
Remaining Work
Critical Remaining Work
Baseline Milestone
Critical Milestone
Non-Critical Milestone

Data Date: 30-Sep-2023
Project Start: 03-Feb-2020
Project End: 27-Nov-2026
Baseline: Aug 2023 Monthly Programme Update

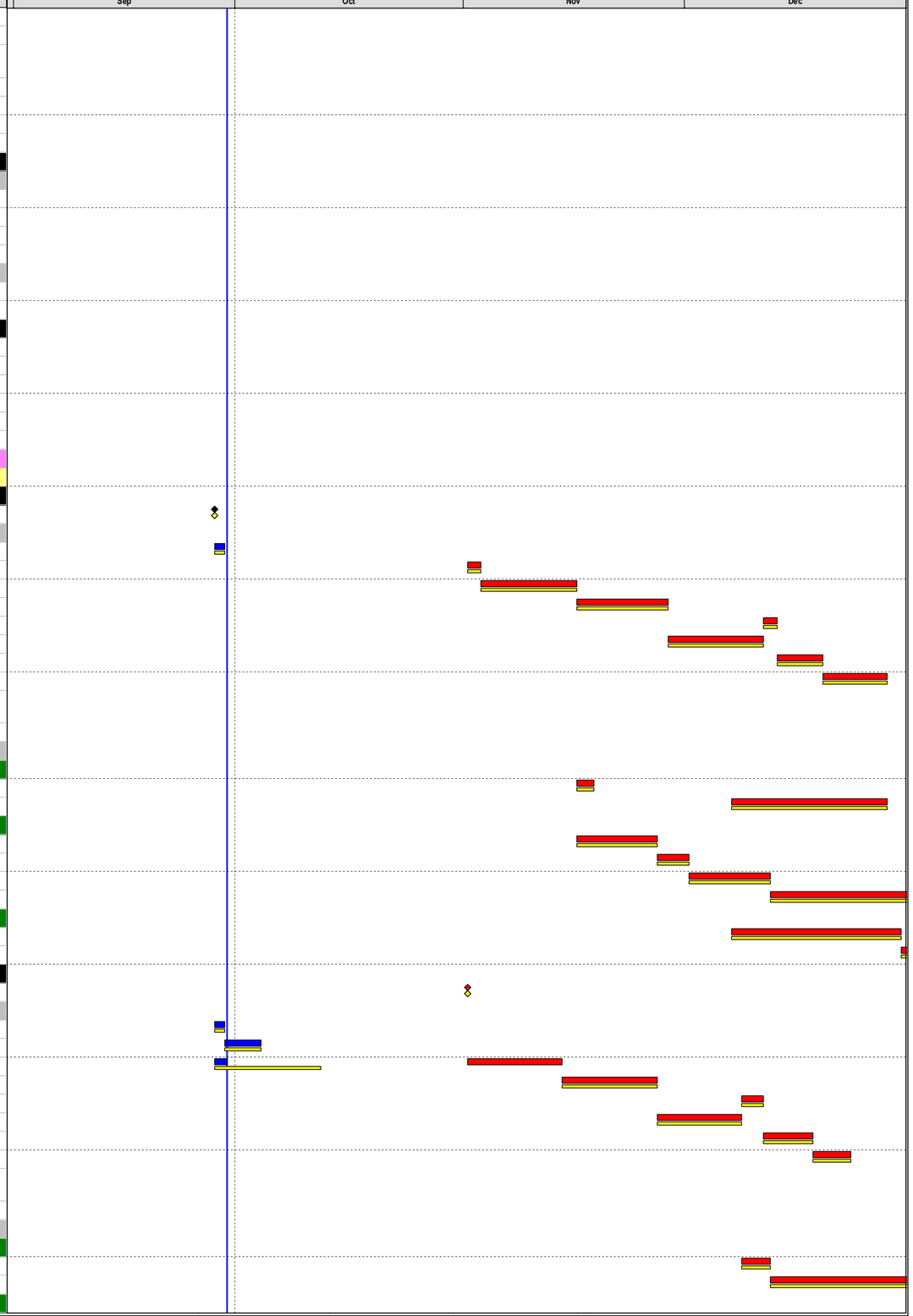
4M Rolling Programme (Sep-Dec 2023)

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

#	Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Duration % Complete
3026	P10-GF-ST2-1090	Staircase Wall Painting	6	6	27-Nov-2023	02-Dec-2023	-41	0%
3027	P10-GF-ST2-1240	Staircase Door Installation	2	2	19-Feb-2024	21-Feb-2024	-103	0%
3028	**BS Works**		16	16	19-Oct-2023	07-Nov-2023	11	0%
3029	**PD**		16	16	19-Oct-2023	07-Nov-2023	11	0%
3030	P10-GF-ST2-1000	Water piping works Installation	10	10	19-Oct-2023	31-Oct-2023	-41	0%
3031	P10-GF-ST2-1010	Floor Drain Installation	6	6	31-Oct-2023	07-Nov-2023	11	0%
3032	**FS**		14	14	19-Oct-2023	04-Nov-2023	-41	0%
3033	P10-GF-ST2-1100	FS Piping, cable containment Installation	6	6	19-Oct-2023	27-Oct-2023	-41	0%
3034	P10-GF-ST2-1110	FS Sprinkler head, Alarm smoke detector, heat detector installation	8	8	27-Oct-2023	04-Nov-2023	-41	0%
3035	ST-03		97	97	06-Nov-2023	23-Feb-2024	-85	0%
3036	**ABWF**		97	97	06-Nov-2023	23-Feb-2024	-103	0%
3037	P10-GF-ST3-1000	Setting Out	2	2	06-Nov-2023	08-Nov-2023	-102	0%
3038	P10-GF-ST3-1010	Erect Scaffolding for wall and ceiling finishes	2	2	08-Nov-2023	09-Nov-2023	-102	0%
3039	P10-GF-ST3-1020	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	12	12	10-Nov-2023	22-Nov-2023	-102	0%
3040	P10-GF-ST3-1030	Wall Finishes (Wall plastering, Skim Coat and 1st Coat Painting)	12	12	22-Nov-2023	05-Dec-2023	-102	0%
3041	P10-GF-ST3-1035	Dismantle Scaffolding	1	1	05-Dec-2023	06-Dec-2023	-102	0%
3042	P10-GF-ST3-1040	Staircase Screeding	2	2	06-Dec-2023	08-Dec-2023	-102	0%
3043	P10-GF-ST3-1050	Staircase Tiling / Tactile Installation	8	8	08-Dec-2023	16-Dec-2023	-66	0%
3044	P10-GF-ST3-1060	Staircase Handrail installation	6	6	16-Dec-2023	22-Dec-2023	-66	0%
3045	P10-GF-ST3-1070	Staircase Wall Painting	6	6	22-Dec-2023	02-Jan-2024	-66	0%
3046	P10-GF-ST3-1075	Staircase Door Installation	2	2	21-Feb-2024	23-Feb-2024	-103	0%
3047	**BS Works**		16	16	22-Nov-2023	09-Dec-2023	-20	0%
3048	**PD**		16	16	22-Nov-2023	09-Dec-2023	-20	0%
3049	P10-GF-ST3-1100	Water piping works Installation	10	10	22-Nov-2023	02-Dec-2023	-72	0%
3050	P10-GF-ST3-1110	Floor Drain Installation	6	6	02-Dec-2023	09-Dec-2023	-20	0%
3051	**FS**		14	14	22-Nov-2023	07-Dec-2023	-72	0%
3052	P10-GF-ST3-1080	FS Piping, cable containment Installation	6	6	22-Nov-2023	29-Nov-2023	-72	0%
3053	P10-GF-ST3-1090	FS Sprinkler head, Alarm smoke detector, heat detector installation	8	8	29-Nov-2023	07-Dec-2023	-72	0%
3054	ST-04		68	68	08-Dec-2023	24-Feb-2024	-87	0%
3055	**ABWF**		68	68	08-Dec-2023	24-Feb-2024	-103	0%
3056	P10-GF-ST4-1000	Setting Out	2	2	08-Dec-2023	11-Dec-2023	-102	0%
3057	P10-GF-ST4-1010	Erect Scaffolding for wall and ceiling finishes	2	2	11-Dec-2023	12-Dec-2023	-102	0%
3058	P10-GF-ST4-1020	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	8	8	12-Dec-2023	21-Dec-2023	-102	0%
3059	P10-GF-ST4-1030	Wall Finishes (Wall plastering, Skim Coat and 1st Coat Painting)	8	8	18-Dec-2023	28-Dec-2023	-102	0%
3060	P10-GF-ST4-1035	Dismantle Scaffolding	1	1	28-Dec-2023	29-Dec-2023	-102	0%
3061	P10-GF-ST4-1040	Staircase Screeding	2	2	29-Dec-2023	02-Jan-2024	-102	0%
3062	P10-GF-ST4-1050	Staircase Tiling / Tactile Installation	8	8	02-Jan-2024	10-Jan-2024	-86	0%
3063	P10-GF-ST4-1060	Staircase Handrail installation	6	6	10-Jan-2024	16-Jan-2024	-86	0%
3064	P10-GF-ST4-1070	Staircase Wall Painting	6	6	16-Jan-2024	23-Jan-2024	-86	0%
3065	P10-GF-ST4-1075	Staircase Door Installation	2	2	23-Feb-2024	24-Feb-2024	-103	0%
3066	**BS Works**		16	16	18-Dec-2023	06-Jan-2024	-44	0%
3067	**PD**		16	16	18-Dec-2023	06-Jan-2024	-44	0%
3068	P10-GF-ST4-1100	Water piping works Installation	10	10	18-Dec-2023	30-Dec-2023	-91	0%
3069	P10-GF-ST4-1110	Floor Drain Installation	6	6	30-Dec-2023	06-Jan-2024	-44	0%
3070	**FS**		9	9	18-Dec-2023	29-Dec-2023	-91	0%
3071	P10-GF-ST4-1080	FS Piping, cable containment Installation	6	6	18-Dec-2023	23-Dec-2023	-91	0%
3072	P10-GF-ST4-1090	FS Sprinkler head, Alarm smoke detector, heat detector installation	3	3	23-Dec-2023	29-Dec-2023	-91	0%
3073	ST-05		50	50	02-Jan-2024	27-Feb-2024	-89	0%
3074	**ABWF**		50	50	02-Jan-2024	27-Feb-2024	-103	0%
3075	P10-GF-ST5-1000	Setting Out	2	2	02-Jan-2024	04-Jan-2024	-102	0%
3076	P10-GF-ST5-1010	Erect Scaffolding for wall and ceiling finishes	2	2	04-Jan-2024	05-Jan-2024	-102	0%
3077	P10-GF-ST5-1020	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	8	8	05-Jan-2024	15-Jan-2024	-102	0%
3078	P10-GF-ST5-1030	Wall Finishes (Wall plastering, Skim Coat and 1st Coat Painting)	12	12	15-Jan-2024	26-Jan-2024	-102	0%
3079	P10-GF-ST5-1035	Dismantle Scaffolding	1	1	26-Jan-2024	27-Jan-2024	-102	0%
3080	P10-GF-ST5-1040	Staircase Screeding	2	2	27-Jan-2024	30-Jan-2024	-102	0%
3081	P10-GF-ST5-1050	Staircase Tiling / Tactile Installation	8	8	30-Jan-2024	07-Feb-2024	-102	0%
3082	P10-GF-ST5-1060	Staircase Handrail installation	6	6	07-Feb-2024	17-Feb-2024	-102	0%
3083	P10-GF-ST5-1070	Staircase Wall Painting	6	6	17-Feb-2024	23-Feb-2024	-102	0%
3084	P10-GF-ST5-1075	Staircase Door Installation	2	2	24-Feb-2024	27-Feb-2024	-103	0%
3085	**BS Works**		16	16	15-Jan-2024	31-Jan-2024	-67	0%
3086	**PD**		16	16	15-Jan-2024	31-Jan-2024	-67	0%
3087	P10-GF-ST5-1100	Water piping works Installation	10	10	15-Jan-2024	25-Jan-2024	-87	0%
3088	P10-GF-ST5-1110	Floor Drain Installation	6	6	25-Jan-2024	31-Jan-2024	-67	0%
3089	**FS**		9	9	15-Jan-2024	24-Jan-2024	-87	0%
3090	P10-GF-ST5-1080	FS Piping, cable containment Installation	6	6	15-Jan-2024	20-Jan-2024	-87	0%
3091	P10-GF-ST5-1090	FS Sprinkler head, Alarm smoke detector, heat detector installation	3	3	20-Jan-2024	24-Jan-2024	-87	0%
3092	**External wall and External Area**		249	249	09-Nov-2023	13-Aug-2024	-164	0%
3093	**ABWF**		152	152	09-Nov-2023	29-Apr-2024	-152	0%
3094	P10-GF-EXT1000	Erection of external scaffolding	25	25	09-Nov-2023	05-Dec-2023	-127	0%
3095	P10-GF-EXT1010	Waterproofing & Window / Louvre Glazing Works	28	28	27-Dec-2023	26-Jan-2024	-162	0%



#	Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Duration % Complete
3096	P10-GF-EXT1020	Aluminium Baffle Ceiling Grid Installation	28	28	09-Jan-2024	07-Feb-2024	-164	0%
3097	P10-GF-EXT1030	Wooden Fence Installation	40	40	12-Jan-2024	27-Feb-2024	-153	0%
3098	P10-GF-EXT1040	External wall Painting and Metal Grilles Installation	35	35	02-Feb-2024	14-Mar-2024	-153	0%
3099	P10-GF-EXT1050	Aluminium Baffle Ceiling Board Installation	35	35	22-Feb-2024	02-Apr-2024	-153	0%
3100	P10-GF-EXT1060	Removal of external wall scaffolding	4	4	02-Apr-2024	08-Apr-2024	-153	0%
3101	P10-GF-EXT1070	Eco Pavers Laying / Stainless Steel Tactile	20	20	08-Apr-2024	29-Apr-2024	-152	0%
3102	P10-GF-EXT1080	Staircase Finishes and door installation	10	10	12-Apr-2024	23-Apr-2024	-152	0%
3103	**BS Works**		31	31	07-Feb-2024	14-Mar-2024	-159	0%
3104	**EL**		31	31	07-Feb-2024	14-Mar-2024	-164	0%
3105	P10-GF-EXT1130	Setting out for all equipment / MOS inspection	6	6	07-Feb-2024	17-Feb-2024	-164	0%
3106	P10-GF-EXT1140	Installation of cable containment	5	5	17-Feb-2024	22-Feb-2024	-164	0%
3107	P10-GF-EXT1150	Cable wiring	10	10	22-Feb-2024	04-Mar-2024	-164	0%
3108	P10-GF-EXT1160	Installation of Lighting fitting and small power provision	10	10	04-Mar-2024	14-Mar-2024	-164	0%
3109	**FS**		30	30	07-Feb-2024	13-Mar-2024	-158	0%
3110	P10-GF-EXT1090	FS Piping, cable containment Installation	15	15	07-Feb-2024	27-Feb-2024	-158	0%
3111	P10-GF-EXT1100	FS Sprinkler head, Alarm smoke detector, heat detector installation	15	15	27-Feb-2024	13-Mar-2024	-158	0%
3112	**Landscape Works**		201	201	02-Jan-2024	13-Aug-2024	-164	0%
3113	P10-GF-EXT1490	Planters Structural works	20	20	02-Jan-2024	23-Jan-2024	-95	0%
3114	P10-GF-EXT1495	Planters RC defect retification	6	6	23-Jan-2024	29-Jan-2024	-95	0%
3115	P10-GF-EXT1500	Planters Waterproofing	18	18	08-Apr-2024	26-Apr-2024	-153	0%
3116	P10-GF-EXT1510	Irrigation Pipes, Sub-soil Drainage installation	11	11	11-Apr-2024	23-Apr-2024	-153	0%
3117	P10-GF-EXT1520	Placing Planting Soil	9	9	15-Apr-2024	24-Apr-2024	-153	0%
3118	P10-GF-EXT1530	Shurbs Planting works (1,804 nos)	25	25	17-Jul-2024	13-Aug-2024	-164	0%
3119	**1st Floor**		337	323	28-Sep-2023 A	29-Aug-2024	-196	4.15%
3120	**Zone 1**		163	128	28-Sep-2023 A	08-Mar-2024	-141	21.35%
3121	**Multi Purpose Room 1 & 2**		140	105	28-Sep-2023 A	14-Feb-2024	-118	24.82%
3122	P10-1FMP-1000	Access Date of 1/FMulti Purpose Room (1&2) Fitting Out	0	0	28-Sep-2023 A			100%
3123	**ABWF**		123	94	28-Sep-2023 A	14-Feb-2024	-104	23.58%
3124	P10-1F-MP1010	Setting Out	2	0	28-Sep-2023 A	29-Sep-2023 A		100%
3125	P10-1F-MP1020	Erect Scaffolding for wall and ceiling finishes	2	2	01-Nov-2023	03-Nov-2023	-112	0%
3126	P10-1F-MP1030	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	12	12	03-Nov-2023	16-Nov-2023	-112	0%
3127	P10-1F-MP1040	Wall Finishes (Wall plastering, Skim Coat and 1st Coat Painting)	12	12	16-Nov-2023	28-Nov-2023	-112	0%
3128	P10-1F-MP1050	Floor Screeding	2	2	11-Dec-2023	13-Dec-2023	-112	0%
3129	P10-1F-MP1060	Timber Flooring	12	12	28-Nov-2023	11-Dec-2023	-112	0%
3130	P10-1F-MP1070	Ceiling Grid Installation	6	6	13-Dec-2023	19-Dec-2023	-112	0%
3131	P10-1F-MP1080	Plastic Laminate / Glass Partition Wall Installation	6	6	19-Dec-2023	28-Dec-2023	-112	0%
3132	P10-1F-MP1170	Ceiling Board Installation	8	8	25-Jan-2024	02-Feb-2024	-104	0%
3133	P10-1F-MP1180	Movable Partition / Glass Door Installation	8	8	02-Feb-2024	14-Feb-2024	-104	0%
3134	**BS Works**		60	60	16-Nov-2023	22-Jan-2024	-112	0%
3135	**MVAC**		38	38	16-Nov-2023	28-Dec-2023	-112	0%
3136	P10-1F-MP1110	Setting out for all equipment / MOS inspection	3	3	16-Nov-2023	18-Nov-2023	-106	0%
3137	P10-1F-MP1120	Air Duct installation	18	18	07-Dec-2023	28-Dec-2023	-112	0%
3138	**EL**		49	49	16-Nov-2023	10-Jan-2024	-106	0%
3139	P10-1F-MP1130	Setting out for all equipment / MOS inspection	10	10	16-Nov-2023	27-Nov-2023	-106	0%
3140	P10-1F-MP1140	Installation of cable containment	5	5	27-Nov-2023	01-Dec-2023	-106	0%
3141	P10-1F-MP1150	Cable wiring	10	10	01-Dec-2023	12-Dec-2023	-106	0%
3142	P10-1F-MP1160	Installation of Lighting fitting and small power provision	24	24	12-Dec-2023	10-Jan-2024	-106	0%
3143	**FS**		40	40	07-Dec-2023	22-Jan-2024	-112	0%
3144	P10-1F-MP1090	FS Piping, cable containment Installation	20	20	07-Dec-2023	30-Dec-2023	-112	0%
3145	P10-1F-MP1100	FS Sprinkler head, Alarm smoke detector, heat detector installation	20	20	30-Dec-2023	22-Jan-2024	-112	0%
3146	**Storage Room**		163	128	28-Sep-2023 A	08-Mar-2024	-141	21.35%
3147	P10-1F-SR0900	Access Date of 1/FStorage Room Fitting Out	0	0	01-Nov-2023		-113	0%
3148	**ABWF**		144	116	28-Sep-2023 A	08-Mar-2024	-126	20%
3149	P10-1F-SR1000	Setting Out	2	0	28-Sep-2023 A	29-Sep-2023 A		100%
3150	P10-1F-SR1010	Erect Scaffolding for wall and ceiling finishes	2	0	29-Sep-2023 A	04-Oct-2023 A		100%
3151	P10-1F-SR1020	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	12	12	28-Sep-2023 A	14-Nov-2023	-128	0%
3152	P10-1F-SR1030	Wall Finishes (Wall plastering, Skim Coat and 1st Coat Painting)	12	12	14-Nov-2023	27-Nov-2023	-128	0%
3153	P10-1F-SR1040	Floor Screeding	2	2	08-Dec-2023	11-Dec-2023	-110	0%
3154	P10-1F-SR1050	Timber Flooring	12	12	27-Nov-2023	08-Dec-2023	-128	0%
3155	P10-1F-SR1060	Ceiling Grid Installation	6	6	11-Dec-2023	18-Dec-2023	-110	0%
3156	P10-1F-SR1070	Plastic Laminate Installation	6	6	18-Dec-2023	23-Dec-2023	-110	0%
3157	P10-1F-SR1160	Ceiling Board Installation	8	8	02-Feb-2024	14-Feb-2024	-112	0%
3158	P10-1F-SR1170	Movable Partition / Glass Door Installation	8	8	29-Feb-2024	08-Mar-2024	-126	0%
3159	**BS Works**		49	49	08-Dec-2023	01-Feb-2024	-123	0%
3160	**MVAC**		21	21	08-Dec-2023	03-Jan-2024	-117	0%
3161	P10-1F-SR1100	Setting out for all equipment / MOS inspection	3	3	08-Dec-2023	12-Dec-2023	-128	0%
3162	P10-1F-SR1110	Air Duct installation	18	18	12-Dec-2023	03-Jan-2024	-117	0%
3163	**EL**		49	49	08-Dec-2023	01-Feb-2024	-128	0%



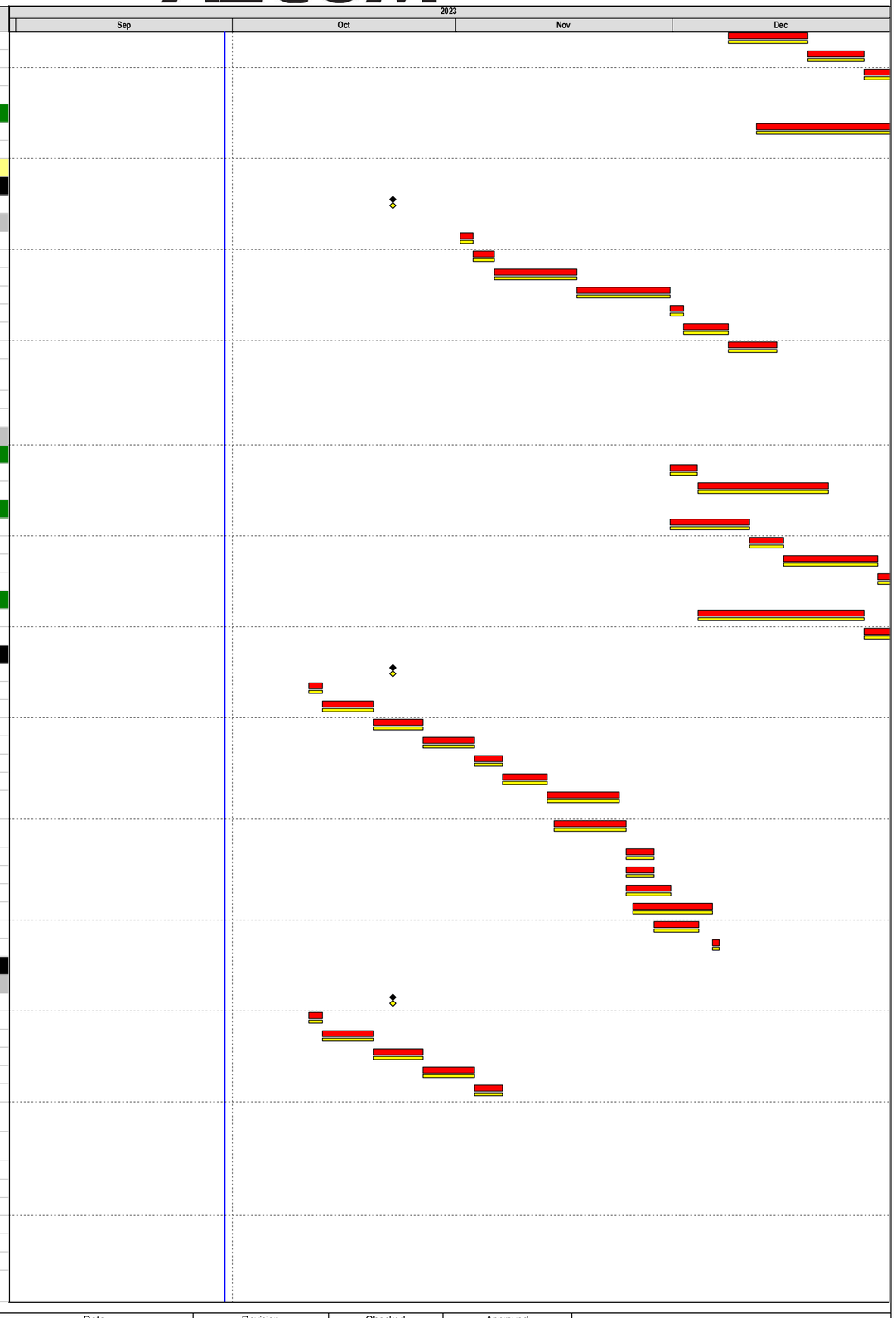
Primary Baseline
Actual Work
Remaining Work
Critical Remaining Work
Baseline Milestone
Critical Milestone
Non-Critical Milestone

Data Date: 30-Sep-2023
Project Start: 03-Feb-2020
Project End: 27-Nov-2026
Baseline: Aug 2023 Monthly Programme Update

4M Rolling Programme (Sep-Dec 2023)

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

#	Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Duration % Complete
3164	P10-1F-SR1120	Setting out for all equipment / MOS inspection	10	10	08-Dec-2023	19-Dec-2023	-128	0%
3165	P10-1F-SR1130	Installation of cable containment	5	5	19-Dec-2023	27-Dec-2023	-128	0%
3166	P10-1F-SR1140	Cable wiring	10	10	27-Dec-2023	08-Jan-2024	-128	0%
3167	P10-1F-SR1150	Installation of Lighting fitting and small power provision	24	24	08-Jan-2024	01-Feb-2024	-128	0%
3168	**FS**		40	40	12-Dec-2023	26-Jan-2024	-117	0%
3169	P10-1F-SR1080	FS Piping, cable containment Installation	20	20	12-Dec-2023	05-Jan-2024	-117	0%
3170	P10-1F-SR1090	FS Sprinkler head, Alarm smoke detector, heat detector installation	20	20	05-Jan-2024	26-Jan-2024	-117	0%
3171	**Zone 2**		153	153	11-Oct-2023 A	13-Mar-2024	-116	0%
3172	**Workshop**		138	128	23-Oct-2023 A	08-Mar-2024	-141	7.08%
3173	P10-1F-WS1000	Access Date of 1/F Workshop & Printer Room Fitting Out	0	0	23-Oct-2023 A			100%
3174	**ABWF**		116	116	01-Nov-2023	08-Mar-2024	-126	0%
3175	P10-1F-WS1010	Setting Out	2	2	01-Nov-2023	03-Nov-2023	-120	0%
3176	P10-1F-WS1020	Erect Scaffolding for wall and ceiling finishes	2	2	03-Nov-2023	06-Nov-2023	-120	0%
3177	P10-1F-WS1030	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	12	12	06-Nov-2023	17-Nov-2023	-120	0%
3178	P10-1F-WS1040	Wall Finishes (Wall plastering, Skim Coat and 1st Coat Painting)	12	12	17-Nov-2023	30-Nov-2023	-120	0%
3179	P10-1F-WS1050	Floor Screeding	2	2	30-Nov-2023	02-Dec-2023	-103	0%
3180	P10-1F-WS1070	Ceiling Grid Installation	6	6	02-Dec-2023	08-Dec-2023	-103	0%
3181	P10-1F-WS1080	Plastic Laminate Installation	6	6	08-Dec-2023	15-Dec-2023	-103	0%
3182	P10-1F-WS1170	Ceiling Board Installation	8	8	25-Jan-2024	02-Feb-2024	-116	0%
3183	P10-1F-WS1175	Raised Floor Installation	12	12	06-Feb-2024	22-Feb-2024	-120	0%
3184	P10-1F-WS1180	Cabinet Installation	8	8	29-Feb-2024	08-Mar-2024	-126	0%
3185	**BS Works**		49	49	30-Nov-2023	24-Jan-2024	-116	0%
3186	**MVAC**		21	21	30-Nov-2023	22-Dec-2023	-110	0%
3187	P10-1F-WS1110	Setting out for all equipment / MOS inspection	3	3	30-Nov-2023	04-Dec-2023	-120	0%
3188	P10-1F-WS1120	Air Duct installation	18	18	04-Dec-2023	22-Dec-2023	-110	0%
3189	**EL**		49	49	30-Nov-2023	24-Jan-2024	-120	0%
3190	P10-1F-WS1130	Setting out for all equipment / MOS inspection	10	10	30-Nov-2023	11-Dec-2023	-120	0%
3191	P10-1F-WS1140	Installation of cable containment	5	5	11-Dec-2023	16-Dec-2023	-120	0%
3192	P10-1F-WS1150	Cable wiring	10	10	16-Dec-2023	29-Dec-2023	-120	0%
3193	P10-1F-WS1160	Installation of Lighting fitting and small power provision	24	24	29-Dec-2023	24-Jan-2024	-120	0%
3194	**FS**		40	40	04-Dec-2023	18-Jan-2024	-110	0%
3195	P10-1F-WS1090	FS Piping, cable containment Installation	20	20	04-Dec-2023	27-Dec-2023	-110	0%
3196	P10-1F-WS1100	FS Sprinkler head, Alarm smoke detector, heat detector installation	20	20	27-Dec-2023	18-Jan-2024	-110	0%
3197	**Pantry**		57	57	11-Oct-2023 A	07-Dec-2023	-79	0%
3198	P10-PTRY-1000	Access Date of Pantry Fitting Out	0	0	23-Oct-2023 A			100%
3199	P10-PTRY-1010	Site Survey and setting out	2	2	11-Oct-2023	13-Oct-2023	-72	0%
3200	P10-PTRY-1020	Block Wall Erection	7	7	13-Oct-2023	20-Oct-2023	-72	0%
3201	P10-PTRY-1030	MEP Conduit embedment	5	5	20-Oct-2023	27-Oct-2023	-72	0%
3202	P10-PTRY-1040	Waterproofing & testing	7	7	27-Oct-2023	03-Nov-2023	-72	0%
3203	P10-PTRY-1050	Protected screed	3	3	03-Nov-2023	07-Nov-2023	-72	0%
3204	P10-PTRY-1060	Ceiling finishes	6	6	07-Nov-2023	13-Nov-2023	-72	0%
3205	P10-PTRY-1070	Floor finishes	10	10	13-Nov-2023	23-Nov-2023	-72	0%
3206	P10-PTRY-1080	Wall finishes	10	10	14-Nov-2023	24-Nov-2023	-72	0%
3207	P10-PTRY-1090	Cabinet installation	3	3	24-Nov-2023	28-Nov-2023	-70	0%
3208	P10-PTRY-1100	Door installation	3	3	24-Nov-2023	28-Nov-2023	-70	0%
3209	P10-PTRY-1110	Vanity Counter Installation	6	6	24-Nov-2023	30-Nov-2023	-72	0%
3210	P10-PTRY-1120	Sanitary fitting installation	10	10	25-Nov-2023	06-Dec-2023	-72	0%
3211	P10-PTRY-1130	Signage, false ceiling panels, Lighting and air grille installation	6	6	28-Nov-2023	04-Dec-2023	-70	0%
3212	P10-PTRY-1140	Inspection, T&C, cleaning	1	1	06-Dec-2023	07-Dec-2023	-72	0%
3213	**Female Toilets / Disabled Toilet / Male Toilet / Baby Care Room**		153	153	11-Oct-2023 A	13-Mar-2024	-129	0%
3214	**ABWF**		153	153	11-Oct-2023 A	13-Mar-2024	-181	0%
3215	P10-1T1000	Access Date of Toilet Fitting Out	0	0	23-Oct-2023 A			100%
3216	P10-1T1010	Site Survey and setting out	2	2	11-Oct-2023	13-Oct-2023	-85	0%
3217	P10-1T1020	Block Wall Erection	7	7	13-Oct-2023	20-Oct-2023	-85	0%
3218	P10-1T1030	MEP Conduit embedment	5	5	20-Oct-2023	27-Oct-2023	-85	0%
3219	P10-1T1040	Waterproofing & testing	7	7	27-Oct-2023	03-Nov-2023	-85	0%
3220	P10-1T1050	Protected screed	3	3	03-Nov-2023	07-Nov-2023	-85	0%
3221	P10-1T1060	Ceiling Grid Installation	5	5	25-Jan-2024	30-Jan-2024	-157	0%
3222	P10-1T1070	Floor finishes	10	10	30-Jan-2024	09-Feb-2024	-157	0%
3223	P10-1T1075	Ceiling Grid Installation	5	5	09-Feb-2024	19-Feb-2024	-146	0%
3224	P10-1T1080	Wall finishes	10	10	31-Jan-2024	14-Feb-2024	-157	0%
3225	P10-1T1090	Vanity Counter Installation	6	6	29-Feb-2024	06-Mar-2024	-162	0%
3226	P10-1T1100	Door installation	3	3	14-Feb-2024	17-Feb-2024	-154	0%
3227	P10-1T1110	Cubical installation	6	6	14-Feb-2024	21-Feb-2024	-157	0%
3228	P10-1T1120	Sanitaryfitting installation	10	10	01-Mar-2024	12-Mar-2024	-162	0%
3229	P10-1T1130	Signage, false ceiling panels, Lighting and air grille installation	4	4	21-Feb-2024	24-Feb-2024	-157	0%



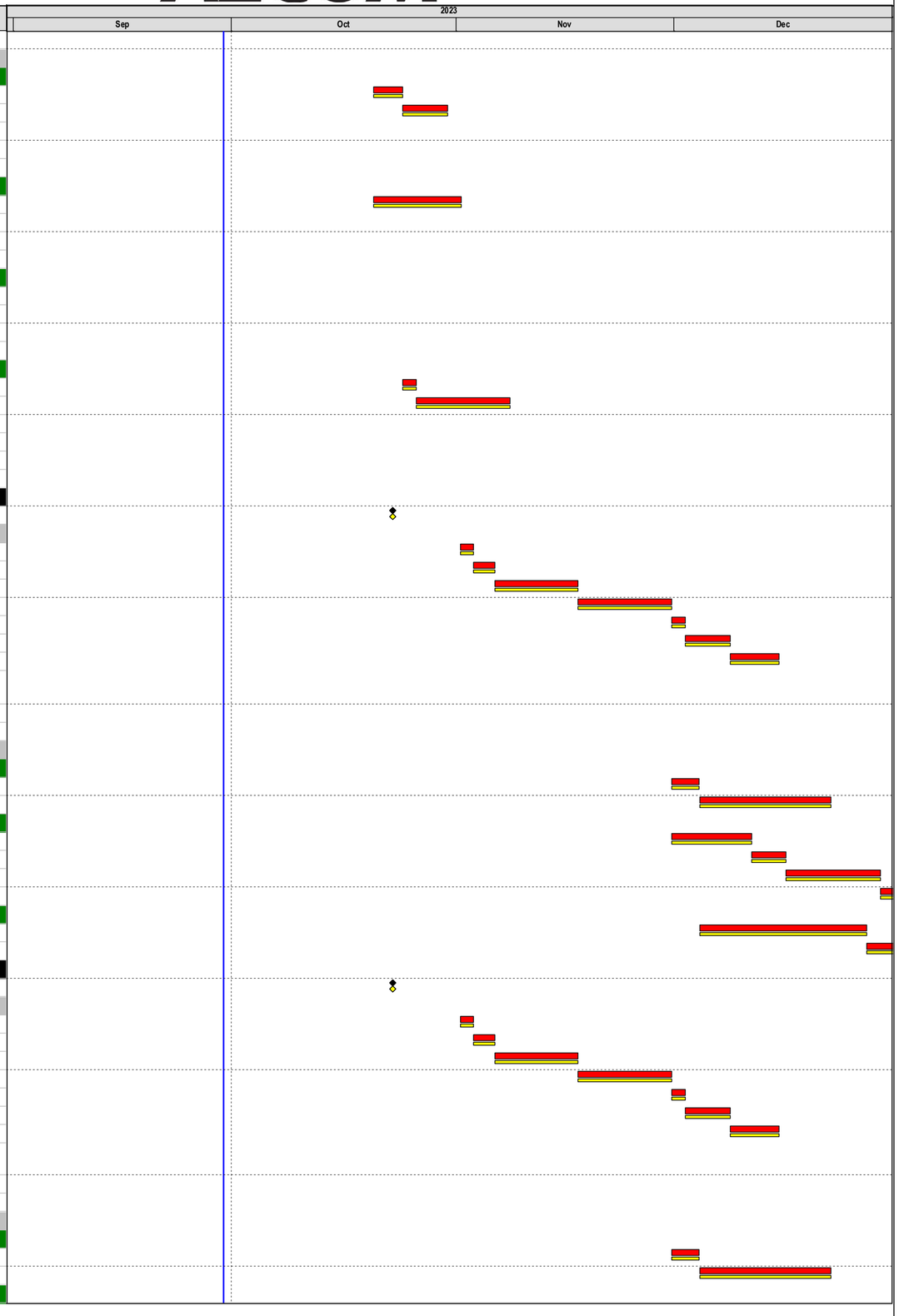
Primary Baseline
Actual Work
Remaining Work
Critical Remaining Work
Baseline Milestone
Critical Milestone
Non-Critical Milestone

Data Date: 30-Sep-2023
Project Start: 03-Feb-2020
Project End: 27-Nov-2026
Baseline: Aug 2023 Monthly Programme Update

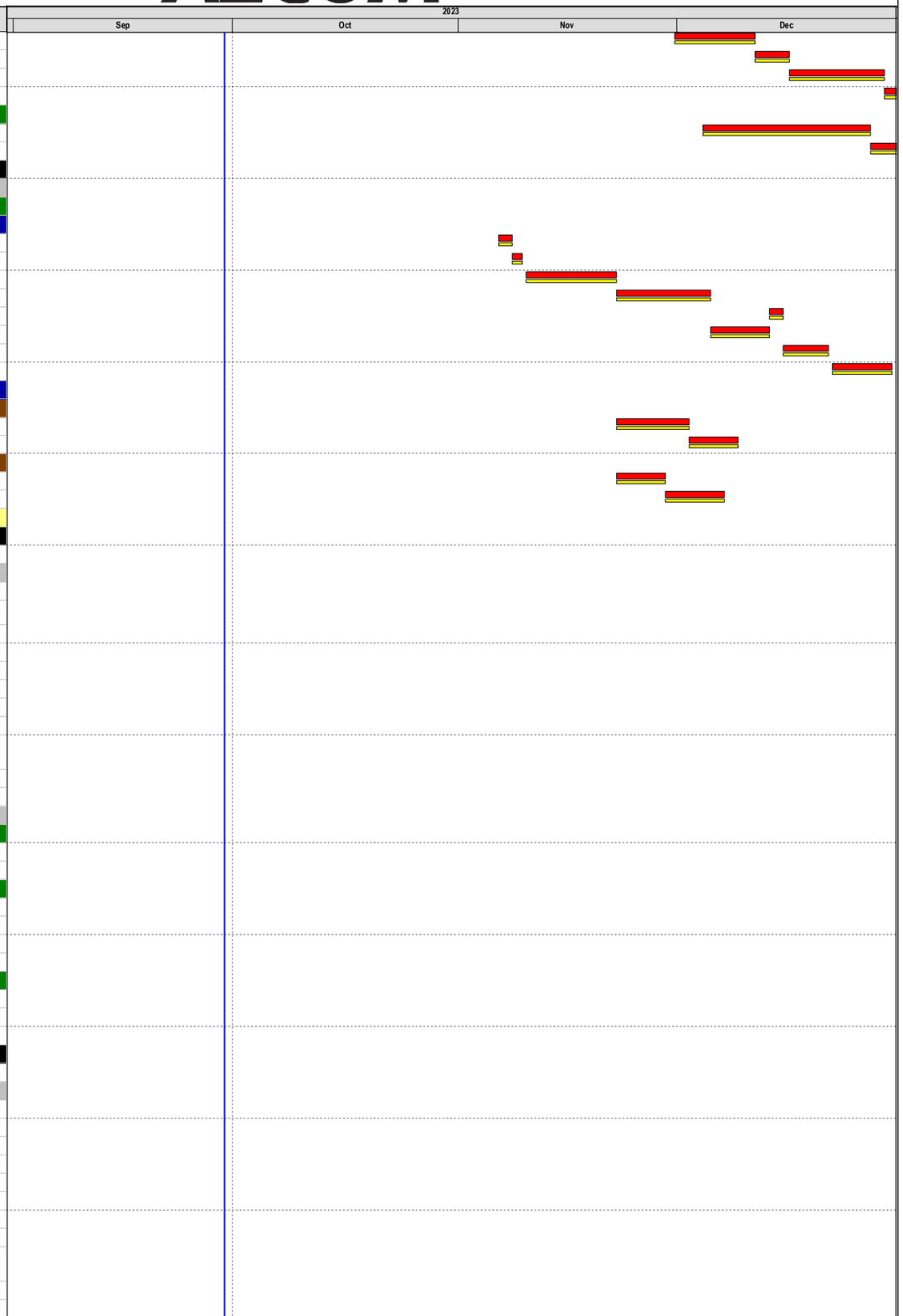
4M Rolling Programme (Sep-Dec 2023)

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

#	Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Duration % Complete
3230	P10-1T1140	Inspection & cleaning	1	1	12-Mar-2024	13-Mar-2024	-162	0%
3231	BS Works		129	129	20-Oct-2023	13-Mar-2024	-116	0%
3232	MVAC		129	129	20-Oct-2023	13-Mar-2024	-157	0%
3233	P10-1T1150	Setting out for all equipment / Conduit / Switches	2	2	20-Oct-2023	24-Oct-2023	-73	0%
3234	P10-1T1180	MEP Conduit embedment	6	6	24-Oct-2023	30-Oct-2023	-73	0%
3235	P10-1T1190	Air Duct installation	18	18	30-Jan-2024	22-Feb-2024	-152	0%
3236	P10-1T1310	MVAC unit, Exhaust fans installation	18	18	21-Feb-2024	11-Mar-2024	-157	0%
3237	P10-1T1320	T&C of MVAC system	2	2	11-Mar-2024	13-Mar-2024	-157	0%
3238	FS		126	126	20-Oct-2023	08-Mar-2024	-154	0%
3239	P10-1T1160	FS Piping, cable containment Installation	10	10	20-Oct-2023	01-Nov-2023	-62	0%
3240	P10-1T1170	FS Sprinkler pipe overhead with ceiling installation	10	10	30-Jan-2024	09-Feb-2024	-144	0%
3241	P10-1T1290	FS Sprinkler head, Alarm smoke detector, heat detector installation	10	10	21-Feb-2024	02-Mar-2024	-151	0%
3242	P10-1T1300	T&C of FS system	4	4	05-Mar-2024	08-Mar-2024	-154	0%
3243	PD		32	32	30-Jan-2024	07-Mar-2024	-111	0%
3244	P10-1T1240	setting out for pipeworks / San fit, & Installation of pipework at ceiling level	10	10	30-Jan-2024	09-Feb-2024	-111	0%
3245	P10-1T1250	Installation of pipework connection to drainage	10	10	09-Feb-2024	23-Feb-2024	-111	0%
3246	P10-1T1260	Installation of pipework connection to sanitary fitting	10	10	23-Feb-2024	05-Mar-2024	-111	0%
3247	P10-1T1270	T&C of PD system	2	2	05-Mar-2024	07-Mar-2024	-111	0%
3248	EL		122	122	24-Oct-2023	07-Mar-2024	-157	0%
3249	P10-1T1200	Setting out for all equipment / MOS inspection	2	2	24-Oct-2023	26-Oct-2023	-73	0%
3250	P10-1T1205	Electrical conduit installation	12	12	26-Oct-2023	08-Nov-2023	-73	0%
3251	P10-1T1210	Installation of cable containment	8	8	30-Jan-2024	08-Feb-2024	-157	0%
3252	P10-1T1220	Cable wiring	12	12	08-Feb-2024	23-Feb-2024	-157	0%
3253	P10-1T1230	Installation of Lighting fitting and small power provision	10	10	23-Feb-2024	05-Mar-2024	-157	0%
3254	P10-1T1280	T&C of Electrical System	2	2	05-Mar-2024	07-Mar-2024	-157	0%
3255	Senior Forestry Officer Office		131	121	23-Oct-2023 A	01-Mar-2024	-134	7.44%
3256	P10-1F-SFO1180	Access Date of 1/F SFO Office Fitting Out	0	0	23-Oct-2023 A			100%
3257	ABWF		109	109	01-Nov-2023	01-Mar-2024	-120	0%
3258	P10-1F-SFO1000	Setting Out	2	2	01-Nov-2023	03-Nov-2023	-120	0%
3259	P10-1F-SFO1010	Erect Scaffolding for wall and ceiling finishes	2	2	03-Nov-2023	06-Nov-2023	-120	0%
3260	P10-1F-SFO1020	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	12	12	06-Nov-2023	17-Nov-2023	-120	0%
3261	P10-1F-SFO1030	Wall Finishes (Wall plastering, Skim Coat and 1st Coat Painting)	12	12	17-Nov-2023	30-Nov-2023	-120	0%
3262	P10-1F-SFO1040	Floor Screeding	2	2	30-Nov-2023	02-Dec-2023	-103	0%
3263	P10-1F-SFO1060	Ceiling Grid Installation	6	6	02-Dec-2023	08-Dec-2023	-103	0%
3264	P10-1F-SFO1070	Plastic Laminate Installation	6	6	08-Dec-2023	15-Dec-2023	-103	0%
3265	P10-1F-SFO1160	Ceiling Board Installation	8	8	25-Jan-2024	02-Feb-2024	-116	0%
3266	P10-1F-SFO1165	Raised Floor Installation	12	12	06-Feb-2024	22-Feb-2024	-120	0%
3267	P10-1F-SFO1170	Loose Furniture Installation	8	8	22-Feb-2024	01-Mar-2024	-120	0%
3268	BS Works		49	49	30-Nov-2023	24-Jan-2024	-116	0%
3269	MVAC		21	21	30-Nov-2023	22-Dec-2023	-110	0%
3270	P10-1F-SFO1100	Setting out for all equipment / MOS inspection	3	3	30-Nov-2023	04-Dec-2023	-120	0%
3271	P10-1F-SFO1110	Air Duct installation	18	18	04-Dec-2023	22-Dec-2023	-110	0%
3272	EL		49	49	30-Nov-2023	24-Jan-2024	-120	0%
3273	P10-1F-SFO1120	Setting out for all equipment / MOS inspection	10	10	30-Nov-2023	11-Dec-2023	-120	0%
3274	P10-1F-SFO1130	Installation of cable containment	5	5	11-Dec-2023	16-Dec-2023	-120	0%
3275	P10-1F-SFO1140	Cable wiring	10	10	16-Dec-2023	29-Dec-2023	-120	0%
3276	P10-1F-SFO1150	Installation of Lighting fitting and small power provision	24	24	29-Dec-2023	24-Jan-2024	-120	0%
3277	FS		40	40	04-Dec-2023	18-Jan-2024	-110	0%
3278	P10-1F-SFO1080	FS Piping, cable containment Installation	20	20	04-Dec-2023	27-Dec-2023	-110	0%
3279	P10-1F-SFO1090	FS Sprinkler head, Alarm smoke detector, heat detector installation	20	20	27-Dec-2023	18-Jan-2024	-110	0%
3280	Server Room		128	118	23-Oct-2023 A	27-Feb-2024	-131	7.63%
3281	P10-1F-SER1180	Access Date of 1/F Server Room Fitting Out	0	0	23-Oct-2023 A			100%
3282	ABWF		106	106	01-Nov-2023	27-Feb-2024	-116	0%
3283	P10-1F-SER1000	Setting Out	2	2	01-Nov-2023	03-Nov-2023	-120	0%
3284	P10-1F-SER1010	Erect Scaffolding for wall and ceiling finishes	2	2	03-Nov-2023	06-Nov-2023	-120	0%
3285	P10-1F-SER1020	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	12	12	06-Nov-2023	17-Nov-2023	-120	0%
3286	P10-1F-SER1030	Wall Finishes (Wall plastering, Skim Coat and 1st Coat Painting)	12	12	17-Nov-2023	30-Nov-2023	-120	0%
3287	P10-1F-SER1040	Floor Screeding	2	2	30-Nov-2023	02-Dec-2023	-103	0%
3288	P10-1F-SER1060	Ceiling Grid Installation	6	6	02-Dec-2023	08-Dec-2023	-103	0%
3289	P10-1F-SER1070	Plastic Laminate Installation	6	6	08-Dec-2023	15-Dec-2023	-103	0%
3290	P10-1F-SER1160	Ceiling Board Installation	8	8	25-Jan-2024	02-Feb-2024	-116	0%
3291	P10-1F-SER1165	Floor Carpet Installation	12	12	02-Feb-2024	19-Feb-2024	-116	0%
3292	P10-1F-SER1170	Loose Furniture Installation	8	8	19-Feb-2024	27-Feb-2024	-116	0%
3293	BS Works		49	49	30-Nov-2023	24-Jan-2024	-116	0%
3294	MVAC		21	21	30-Nov-2023	22-Dec-2023	-110	0%
3295	P10-1F-SER1100	Setting out for all equipment / MOS inspection	3	3	30-Nov-2023	04-Dec-2023	-120	0%
3296	P10-1F-SER1110	Air Duct installation	18	18	04-Dec-2023	22-Dec-2023	-110	0%
3297	EL		49	49	30-Nov-2023	24-Jan-2024	-120	0%



#	Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Duration % Complete
3298	P10-1F-SER1120	Setting out for all equipment / MOS inspection	10	10	30-Nov-2023	11-Dec-2023	-120	0%
3299	P10-1F-SER1130	Installation of cable containment	5	5	11-Dec-2023	16-Dec-2023	-120	0%
3300	P10-1F-SER1140	Cable wiring	10	10	16-Dec-2023	29-Dec-2023	-120	0%
3301	P10-1F-SER1150	Installation of Lighting fitting and small power provision	24	24	29-Dec-2023	24-Jan-2024	-120	0%
3302	FS		40	40	04-Dec-2023	18-Jan-2024	-110	0%
3303	P10-1F-SER1080	FS Piping, cable containment Installation	20	20	04-Dec-2023	27-Dec-2023	-110	0%
3304	P10-1F-SER1090	FS Sprinkler head, Alarm smoke detector, heat detector installation	20	20	27-Dec-2023	18-Jan-2024	-110	0%
3305	BOH		50	50	06-Nov-2023	30-Dec-2023	-38	0%
3306	Staircase		50	50	06-Nov-2023	30-Dec-2023	-38	0%
3307	ST-06		50	50	06-Nov-2023	30-Dec-2023	-38	0%
3308	ABWF		50	50	06-Nov-2023	30-Dec-2023	-65	0%
3309	P10-1F-ST6-1000	Setting Out	2	2	06-Nov-2023	08-Nov-2023	-72	0%
3310	P10-1F-ST6-1010	Erect Scaffolding for wall and ceiling finishes	2	2	08-Nov-2023	09-Nov-2023	-72	0%
3311	P10-1F-ST6-1020	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	12	12	10-Nov-2023	22-Nov-2023	-72	0%
3312	P10-1F-ST6-1030	Wall Finishes (Wall plastering, Skim Coat and 1st Coat Painting)	12	12	22-Nov-2023	05-Dec-2023	-65	0%
3313	P10-1F-ST6-1040	Staircase Screeding	2	2	13-Dec-2023	15-Dec-2023	-65	0%
3314	P10-1F-ST6-1050	Staircase Tiling / Tactile Installation	8	8	05-Dec-2023	13-Dec-2023	-65	0%
3315	P10-1F-ST6-1060	Staircase Handrail installation	6	6	15-Dec-2023	21-Dec-2023	-65	0%
3316	P10-1F-ST6-1070	Staircase Wall Painting	6	6	22-Dec-2023	30-Dec-2023	-65	0%
3317	BS Works		16	16	22-Nov-2023	09-Dec-2023	-20	0%
3318	PD		16	16	22-Nov-2023	09-Dec-2023	-20	0%
3319	P10-1F-ST6-1100	Water piping works Installation	10	10	22-Nov-2023	02-Dec-2023	-72	0%
3320	P10-1F-ST6-1110	Floor Drain Installation	6	6	02-Dec-2023	09-Dec-2023	-20	0%
3321	FS		14	14	22-Nov-2023	07-Dec-2023	-72	0%
3322	P10-1F-ST6-1080	FS Piping, cable containment Installation	6	6	22-Nov-2023	29-Nov-2023	-72	0%
3323	P10-1F-ST6-1090	FS Sprinkler head, Alarm smoke detector, heat detector installation	8	8	29-Nov-2023	07-Dec-2023	-72	0%
3324	Zone 3		224	224	16-Jan-2024	27-Aug-2024	-199	0%
3325	Office & Office Room 1 & 2		215	215	16-Jan-2024	17-Aug-2024	-199	0%
3326	P10-1FOF-1000	Access Date of 1/F Office Room 1 & 2 Fitting Out	0	0	16-Jan-2024*		-141	0%
3327	ABWF		193	193	16-Jan-2024	17-Aug-2024	-177	0%
3328	P10-1FOF-1010	Setting Out	2	2	16-Jan-2024	17-Jan-2024	-178	0%
3329	P10-1FOF-1020	Erect Scaffolding for wall and ceiling finishes	2	2	17-Jan-2024	19-Jan-2024	-178	0%
3330	P10-1FOF-1030	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	21	21	19-Jan-2024	14-Feb-2024	-178	0%
3331	P10-1FOF-1040	Wall Finishes (Wall plastering, Skim Coat and 1st Coat Painting)	24	24	14-Feb-2024	11-Mar-2024	-178	0%
3332	P10-1FOF-1050	Floor Screeding	4	4	11-Mar-2024	14-Mar-2024	-178	0%
3333	P10-1FOF-1060	Ceiling Grid Installation	24	24	14-Mar-2024	13-Apr-2024	-178	0%
3334	P10-1FOF-1065	Motorized Roller Blind Installation at Office Skylight	14	14	13-Apr-2024	27-Apr-2024	-178	0%
3335	P10-1FOF-1070	Ceiling Board Installation & Take Down Working Platform	30	30	18-Apr-2024	22-May-2024	-178	0%
3336	P10-1FOF-1160	Plastic Laminate Installation	8	8	17-Jul-2024	26-Jul-2024	-177	0%
3337	P10-1FOF-1170	Raised Floor Installation	12	12	26-Jul-2024	07-Aug-2024	-177	0%
3338	P10-1FOF-1180	Loose Furniture Installation	10	10	07-Aug-2024	17-Aug-2024	-177	0%
3339	BS Works		55	55	19-Jan-2024	20-Mar-2024	-165	0%
3340	MVAC		20	20	19-Jan-2024	09-Feb-2024	-130	0%
3341	P10-1FOF-1100	Setting out for all equipment / MOS inspection	2	2	19-Jan-2024	22-Jan-2024	-130	0%
3342	P10-1FOF-1110	Air Duct installation	18	18	22-Jan-2024	09-Feb-2024	-130	0%
3343	EL		44	44	19-Jan-2024	09-Mar-2024	-159	0%
3344	P10-1FOF-1120	Setting out for all equipment / MOS inspection	2	2	19-Jan-2024	22-Jan-2024	-159	0%
3345	P10-1FOF-1130	Installation of cable containment	12	12	22-Jan-2024	03-Feb-2024	-159	0%
3346	P10-1FOF-1140	Cable wiring	12	12	03-Feb-2024	19-Feb-2024	-159	0%
3347	P10-1FOF-1150	Installation of Lighting fitting and small power provision	18	18	20-Feb-2024	09-Mar-2024	-159	0%
3348	FS		55	55	19-Jan-2024	20-Mar-2024	-165	0%
3349	P10-1FOF-1080	FS Piping, cable containment Installation	20	20	19-Jan-2024	09-Feb-2024	-160	0%
3350	P10-1FOF-1090	FS Sprinkler head, Alarm smoke detector, heat detector installation	15	15	09-Feb-2024	29-Feb-2024	-160	0%
3351	P10-1FOF-1190	T&C of FS provision at Office Room Area	15	15	05-Mar-2024	20-Mar-2024	-165	0%
3352	Main Office		222	222	17-Jan-2024	27-Aug-2024	-199	0%
3353	P10-1FOF1010	Access Date of 1/F Main Office Fitting Out	0	0	17-Jan-2024*		-139	0%
3354	ABWF		199	199	17-Jan-2024	27-Aug-2024	-177	0%
3355	P10-1FOF1160	Setting Out	2	2	17-Jan-2024	19-Jan-2024	-178	0%
3356	P10-1FOF1170	Erect Scaffolding for wall and ceiling finishes	2	2	19-Jan-2024	22-Jan-2024	-178	0%
3357	P10-1FOF1180	Ceiling Finishes (Touch up, Skim Coat and 1st coat Painting)	20	20	22-Jan-2024	15-Feb-2024	-178	0%
3358	P10-1FOF1190	Wall Finishes (Wall plastering, Skim Coat and 1st Coat Painting)	20	20	25-Jan-2024	19-Feb-2024	-178	0%
3359	P10-1FOF1200	Floor Screeding	10	10	09-Feb-2024	23-Feb-2024	-178	0%
3360	P10-1FOF1210	Ceiling Grid Installation	28	28	21-Feb-2024	21-Mar-2024	-178	0%
3361	P10-1FOF1215	Motorized Roller Blind Installation at Office Skylight	12	12	21-Mar-2024	08-Apr-2024	-178	0%
3362	P10-1FOF1220	Ceiling Board Installation & Take Down Working Platform	40	40	08-Apr-2024	22-May-2024	-178	0%
3363	P10-1FOF1230	Plastic Laminate Installation (after FS Inspection)	10	10	17-Jul-2024	27-Jul-2024	-177	0%
3364	P10-1FOF1245	Raised Floor Installation (after FS Inspection)	18	18	30-Jul-2024	17-Aug-2024	-177	0%
3365	P10-1FOF1250	Loose Furniture Installation (after FS Inspection)	8	8	17-Aug-2024	27-Aug-2024	-177	0%



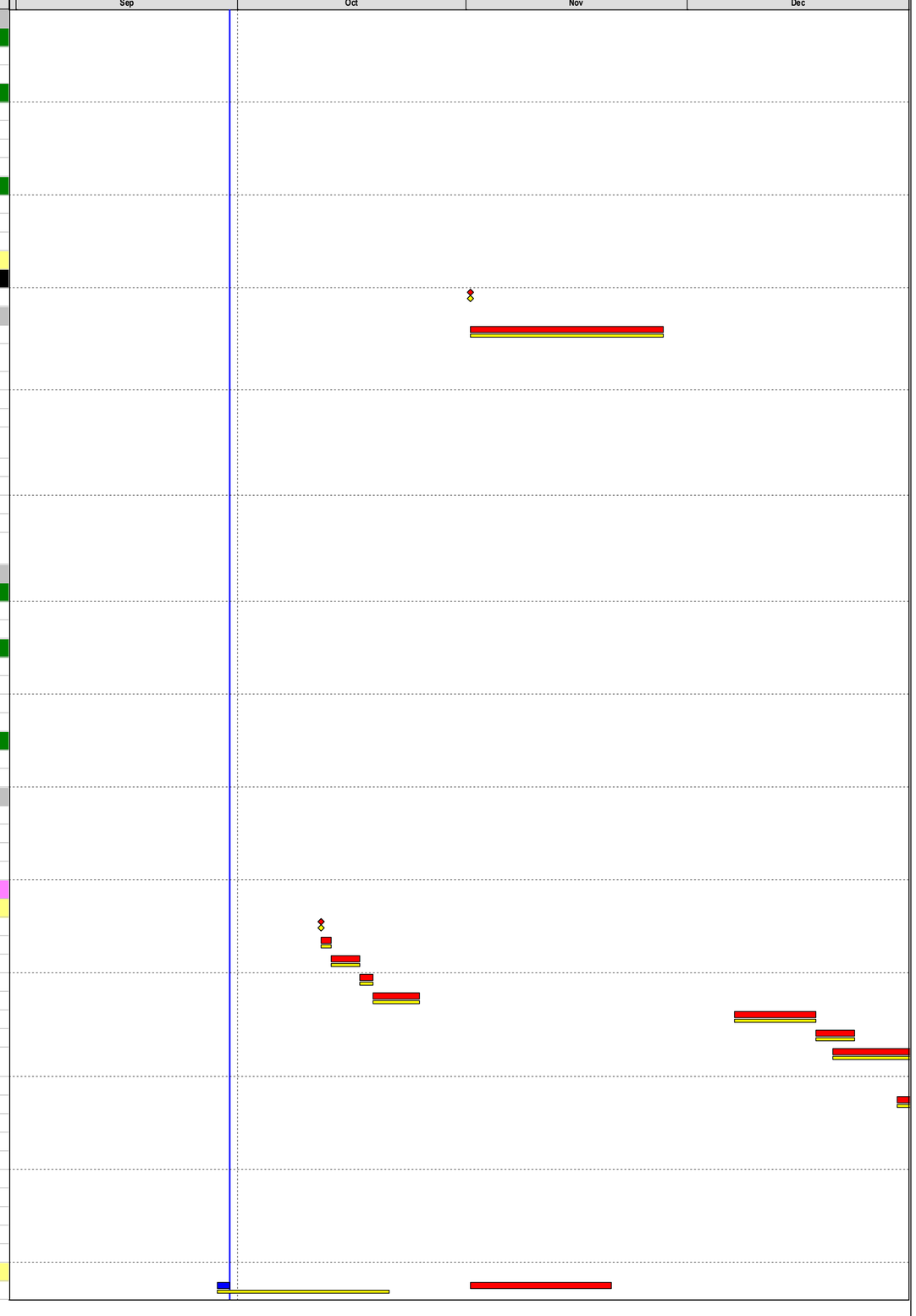
Primary Baseline
Actual Work
Remaining Work
Critical Remaining Work
Baseline Milestone
Critical Milestone
Non-Critical Milestone

Data Date: 30-Sep-2023
Project Start: 03-Feb-2020
Project End: 27-Nov-2026
Baseline: Aug 2023 Monthly Programme Update

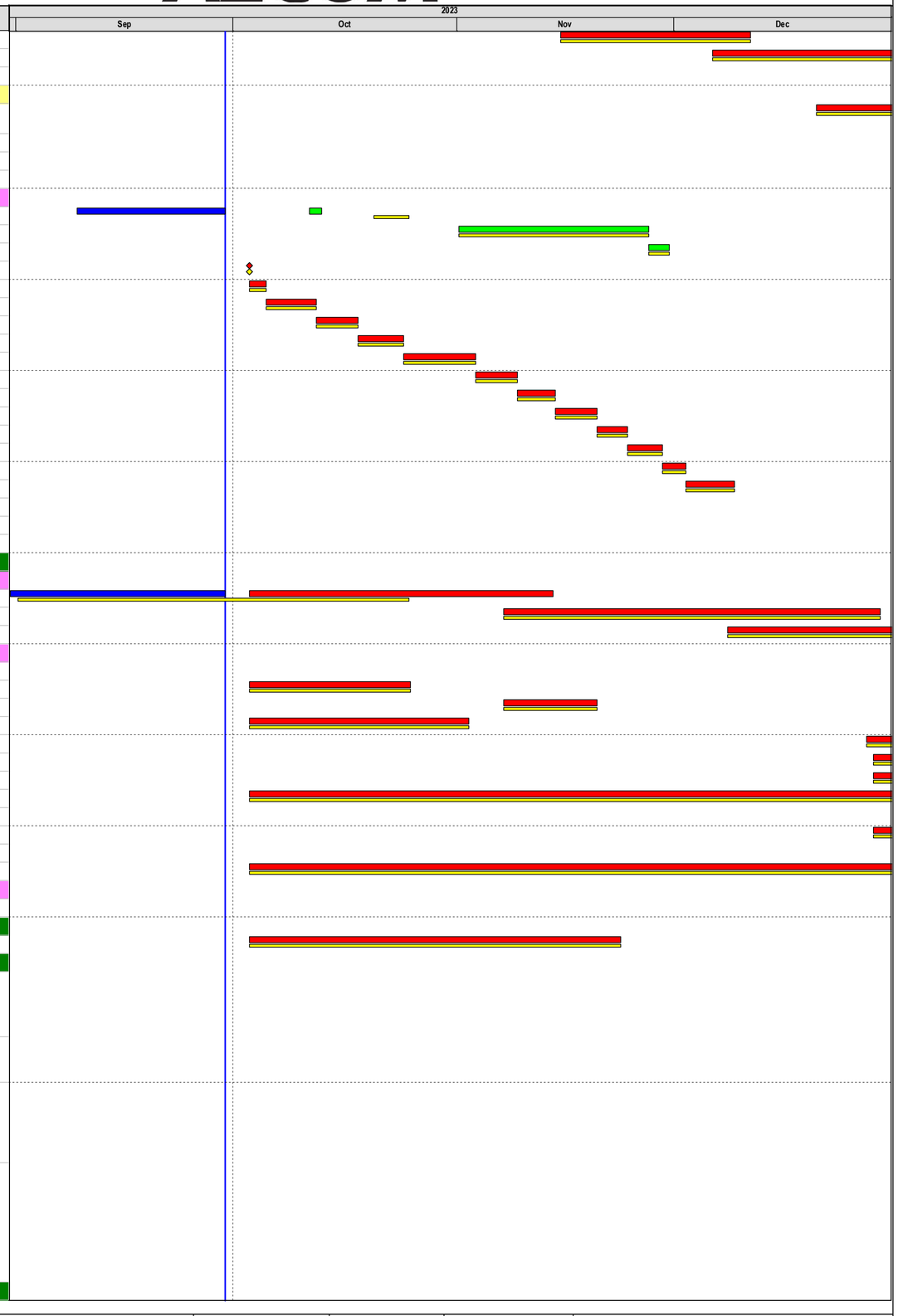
4M Rolling Programme (Sep-Dec 2023)

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

#	Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Duration % Complete
3366		BS Works	53	53	22-Jan-2024	20-Mar-2024	-165	0%
3367		MVAC	47	47	22-Jan-2024	14-Mar-2024	-159	0%
3368	P10-1F-OF1280	Setting out for all equipment / MOS inspection	2	2	22-Jan-2024	24-Jan-2024	-156	0%
3369	P10-1F-OF1290	Air Duct installation	21	21	21-Feb-2024	14-Mar-2024	-159	0%
3370		EL	39	39	22-Jan-2024	06-Mar-2024	-156	0%
3371	P10-1F-OF1300	Setting out for all equipment / MOS inspection	2	2	22-Jan-2024	24-Jan-2024	-156	0%
3372	P10-1F-OF1310	Installation of cable containment	10	10	25-Jan-2024	05-Feb-2024	-156	0%
3373	P10-1F-OF1320	Cable wiring	20	20	05-Feb-2024	29-Feb-2024	-156	0%
3374	P10-1F-OF1330	Installation of Lighting fitting and small power provision	20	20	14-Feb-2024	06-Mar-2024	-156	0%
3375		FS	53	53	22-Jan-2024	20-Mar-2024	-165	0%
3376	P10-1F-OF1260	FS Piping, cable containment Installation	10	10	22-Jan-2024	01-Feb-2024	-143	0%
3377	P10-1F-OF1270	FS Sprinkler head, Alarm smoke detector, heat detector installation	6	6	24-Feb-2024	01-Mar-2024	-162	0%
3378	P10-1FOF-1200	T&C of FS provision at Office Room Area	15	15	05-Mar-2024	20-Mar-2024	-165	0%
3379		Zone 4	302	302	01-Nov-2023	29-Aug-2024	-196	0%
3380		External Area	302	302	01-Nov-2023	29-Aug-2024	-196	0%
3381	P10-1F-EXT1000	Access Date of 1/F External Area Fitting Out	0	0	01-Nov-2023*		-113	0%
3382		ABWF	262	262	01-Nov-2023	17-Aug-2024	-166	0%
3383	P10-1F-EXT1010	Erection of external scaffolding	25	25	01-Nov-2023	27-Nov-2023	-128	0%
3384	P10-1F-EXT1020	Aluminium Baffle Ceiling Grid Installation	36	36	09-Jan-2024	20-Feb-2024	-178	0%
3385	P10-1F-EXT1030	Aluminium Baffle Ceiling Board Installation	36	36	20-Feb-2024	28-Mar-2024	-178	0%
3386	P10-1F-EXT1043	External Wall metal grille Installation	18	18	20-Feb-2024	09-Mar-2024	-178	0%
3387	P10-1F-EXT1045	Steel Staircase (ST-01) Installation	25	25	09-Mar-2024	09-Apr-2024	-178	0%
3388	P10-1F-EXT1050	Removal of external wall scaffolding	6	6	09-Apr-2024	16-Apr-2024	-178	0%
3389	P10-1F-EXT1120	Floor Drainage Laying	20	20	16-Apr-2024	08-May-2024	-178	0%
3390	P10-1F-EXT1130	Waterproofing, testing and placing insulation with protection screed	20	20	22-Apr-2024	14-May-2024	-178	0%
3391	P10-1F-EXT1140	Steel Staircase (ST-01) Finishes	20	20	29-Apr-2024	22-May-2024	-178	0%
3392	P10-1F-EXT1150	Glass Balustrade Installation	20	20	17-Jul-2024	07-Aug-2024	-166	0%
3393	P10-1F-EXT1160	Timber Deck Installation	20	20	27-Jul-2024	17-Aug-2024	-166	0%
3394		BS Works	47	47	09-Jan-2024	02-Mar-2024	-146	0%
3395		MVAC	18	18	09-Jan-2024	27-Jan-2024	-160	0%
3396	P10-1F-EXT1060	Setting out for all equipment / MOS inspection	3	3	09-Jan-2024	12-Jan-2024	-178	0%
3397	P10-1F-EXT1070	Air Duct installation	15	15	12-Jan-2024	27-Jan-2024	-160	0%
3398		EL	41	41	16-Jan-2024	02-Mar-2024	-146	0%
3399	P10-1F-EXT1080	Setting out for all equipment / MOS inspection	6	6	16-Jan-2024	22-Jan-2024	-178	0%
3400	P10-1F-EXT1090	Installation of cable containment	5	5	22-Jan-2024	27-Jan-2024	-159	0%
3401	P10-1F-EXT1100	Cable wiring	10	10	27-Jan-2024	07-Feb-2024	-146	0%
3402	P10-1F-EXT1110	Installation of Lighting fitting and small power provision	20	20	07-Feb-2024	02-Mar-2024	-146	0%
3403		FS	30	30	16-Jan-2024	20-Feb-2024	-178	0%
3404	P10-1F-EXT1300	FS Piping, cable containment Installation	15	15	16-Jan-2024	31-Jan-2024	-178	0%
3405	P10-1F-EXT1310	FS Sprinkler head, Alarm smoke detector, heat detector installation	15	15	31-Jan-2024	20-Feb-2024	-178	0%
3406		Landscape Works	119	119	22-Apr-2024	29-Aug-2024	-177	0%
3407	P10-1F-EXT1320	Planters Waterproofing	20	20	22-Apr-2024	14-May-2024	-174	0%
3408	P10-1F-EXT1330	Irrigation Pipes, Sub-soil Drainage installation	15	15	30-Apr-2024	18-May-2024	-174	0%
3409	P10-1F-EXT1340	Placing Planting Soil	24	24	17-Jul-2024	12-Aug-2024	-177	0%
3410	P10-1F-EXT1350	Shurbs Planting works (1,595nos)	30	30	29-Jul-2024	29-Aug-2024	-177	0%
3411		Roof Floor	313	299	28-Sep-2023 A	06-Aug-2024	-194	4.47%
3412		ABWF	299	299	12-Oct-2023	06-Aug-2024	-194	0%
3413	P10-RF1000	Access Date of Roof Fitting Out	0	0	12-Oct-2023		-123	0%
3414	P10-RF1010	Setting Out	2	2	12-Oct-2023	13-Oct-2023	-138	0%
3415	P10-RF1020	Roof RC Structure Water Testing before waterproofing	3	3	13-Oct-2023	17-Oct-2023	-138	0%
3416	P10-RF1030	Remedial and touch up works before applying waterproofing	2	2	17-Oct-2023	19-Oct-2023	-138	0%
3417	P10-RF1040	Applying Roof waterproofing Membrane	5	5	19-Oct-2023	25-Oct-2023	-138	0%
3418	P10-RF1050	Water Testing & Infra red testing	10	10	07-Dec-2023	18-Dec-2023	-179	0%
3419	P10-RF1060	Laying Insulation board with protection floor screed	6	6	18-Dec-2023	23-Dec-2023	-179	0%
3420	P10-RF1070	Laying Floor finishes	18	18	20-Dec-2023	12-Jan-2024	-179	0%
3421	P10-RF1080	Roof Dog House BS Installation	20	20	12-Jan-2024	02-Feb-2024	-138	0%
3422	P10-RF1081	Roof Skylight Steelwork / Frame Installation (Top of Main Office: 4nos)	10	10	29-Dec-2023	10-Jan-2024	-178	0%
3423	P10-RF1082	Roof Skylight Steelwork / Frame Installation (Top of Office Room 1 & 2: 2nos)	5	5	05-Jan-2024	11-Jan-2024	-179	0%
3424	P10-RF1083	Roof Skylight Steelwork / Frame Installation (Ext. Area: 4nos)	10	10	12-Jan-2024	23-Jan-2024	-118	0%
3425	P10-RF1084	Roof Skylight Glazing Installation (Top of Main Office: 4nos)	7	7	10-Jan-2024	17-Jan-2024	-178	0%
3426	P10-RF1085	Roof Skylight Glazing Installation (Top of Office Room 1 & 2: 2nos)	4	4	11-Jan-2024	15-Jan-2024	-179	0%
3427	P10-RF1086	Roof Skylight Glazing Installation (Ext. Area: 4nos)	6	6	23-Jan-2024	29-Jan-2024	-118	0%
3428	P10-RF1090	Hatch Door and Cat Ladder Installation	10	10	12-Jan-2024	23-Jan-2024	-16	0%
3429	P10-RF1095	PV Panel Installation	30	30	12-Jan-2024	16-Feb-2024	-138	0%
3430	P10-RF1100	Roof Balustrade & Fall Arrest system Installation	18	18	17-Jul-2024	06-Aug-2024	-172	0%
3431		BS Works	102	73	28-Sep-2023 A	19-Jan-2024	-115	28.42%
3432	P10-RF1150	BS 1st Fixing (Elec, Water, Irrigation piping, AC Ducting and piping)	20	18	28-Sep-2023 A	20-Nov-2023	-115	10%



#	Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Duration % Complete
3433	P10-RF1160	BS 2nd Fixing (Elec, Water, Irrigation System connection, AC VOU Units and connection)	25	25	15-Nov-2023	11-Dec-2023	-115	0%
3434	P10-RF1165	BS final Fixing	30	30	06-Dec-2023	09-Jan-2024	-115	0%
3435	P10-RF1170	T&C of Roof BS System	10	10	10-Jan-2024	19-Jan-2024	-115	0%
3436	**Landscape Works**		94	94	20-Dec-2023	09-Apr-2024	-138	0%
3437	P10-RF1115	Roof Planters Drainages, irrigation pipe, Artiifcal Granite Tile Installation	30	30	20-Dec-2023	24-Jan-2024	-129	0%
3438	P10-RF1120	Soil Backfilling to Roof Planters	45	45	18-Jan-2024	09-Mar-2024	-138	0%
3439	P10-RF1130	Shurbs Planting works to roof floor (4,290 nos)	20	20	28-Feb-2024	20-Mar-2024	-138	0%
3440	P10-RF1180	Water Points installation for irrigation	20	20	14-Mar-2024	09-Apr-2024	-138	0%
3441	**Lift Installation**		151	151	09-Sep-2023 A	18-Mar-2024	890	0%
3442	P10-LT0900	Builder's works before handover to Cladding contractor installation	3	2	09-Sep-2023 A	13-Oct-2023	1003	50%
3443	P10-LT1000	Lift External wall Cladding Installation	25	25	01-Nov-2023*	27-Nov-2023	987	0%
3444	P10-LT1005	Erection of Scaffolding and Lift Shaft checking	3	3	27-Nov-2023*	30-Nov-2023	987	0%
3445	P10-LT1007	Commence Lift Installation	0	0	03-Oct-2023*		-77	0%
3446	P10-LT1010	Lift Shaft Plumbing	3	3	03-Oct-2023	05-Oct-2023	-77	0%
3447	P10-LT1020	Guide Rail Brackets, Guide Rail and Door Frame Installation	6	6	05-Oct-2023	12-Oct-2023	-77	0%
3448	P10-LT1030	Grouting of Lift Door Frame	5	5	12-Oct-2023	18-Oct-2023	-77	0%
3449	P10-LT1040	Car Sling, Hoisting ropes, and counter weight frame	5	5	18-Oct-2023	24-Oct-2023	-77	0%
3450	P10-LT1050	Lift Cart Assembly	10	10	24-Oct-2023	03-Nov-2023	-77	0%
3451	P10-LT1060	Landing Door Installation	5	5	03-Nov-2023	09-Nov-2023	-77	0%
3452	P10-LT1070	Machine controller and Governor Installation	5	5	09-Nov-2023	14-Nov-2023	-77	0%
3453	P10-LT1080	Trunking and Conduit in lift Shaft	5	5	14-Nov-2023	20-Nov-2023	-77	0%
3454	P10-LT1090	Lift Shaft Wiring	5	5	20-Nov-2023	24-Nov-2023	-77	0%
3455	P10-LT1100	Removing of Scaffolding, Erect lift plinth and install cat ladder	4	4	24-Nov-2023	29-Nov-2023	-77	0%
3456	P10-LT1110	Pit Equipments	4	4	29-Nov-2023	02-Dec-2023	-77	0%
3457	P10-LT1120	Wiring outside lift shaft for lift supervision panel	6	6	02-Dec-2023	09-Dec-2023	-77	0%
3458	P10-LT1130	Builders Works (Call Button, indicator Panel) prior to LE5 Submission	6	6	05-Mar-2024	11-Mar-2024	-153	0%
3459	P10-LT1140	T&C (Low Speed)	3	3	11-Mar-2024	14-Mar-2024	-153	0%
3460	P10-LT1150	T&C (High Speed)	3	3	14-Mar-2024	18-Mar-2024	-153	0%
3461	**External Works**		400	173	15-Nov-2022 A	13-Apr-2024	-143	56.82%
3462	**Retaining wall**		120	92	31-Aug-2023 A	12-Jan-2024	-112	23.19%
3463	P10-4140	Construction of U trough Structure KW-09 (6 Bays @ 7.5m / Bay)	48	38	31-Aug-2023 A	14-Nov-2023	-88	20%
3464	P10-4145	Construction of Retaining Wall KW-14 (11 Bays @ 7.5m / Bay)	48	48	07-Nov-2023	29-Dec-2023	-112	0%
3465	P10-4150	Backfill to +7.5mPD	30	30	08-Dec-2023	12-Jan-2024	-112	0%
3466	**Underground Utilities Connection**		364	137	15-Nov-2022 A	02-Mar-2024	-107	62.44%
3467	P10-2301	Construction of Manhole SMH-04 for connection of rainwater Tank	15	0	15-Nov-2022 A	01-Dec-2022 A		100%
3468	P10-2311	Underground Drainage and sewerage installation near U trough Structure KW-09	20	20	03-Oct-2023	25-Oct-2023	-38	0%
3469	P10-2311.1	Underground sewerage Installation and Temp. Sewerage Tank connection	12	12	07-Nov-2023	20-Nov-2023	-64	0%
3470	P10-2312	ELS, Trench excavation for drainage pipe (65m long, -0.72mPD to -1.03mPD)	28	28	03-Oct-2023*	02-Nov-2023	-55	0%
3471	P10-2313	Sewerage pipe laying (65m) (DN1050)	20	20	27-Dec-2023	18-Jan-2024	-118	0%
3472	P10-2314	Connection of fresh water to existing watermains	7	7	28-Dec-2023	05-Jan-2024	-56	0%
3473	P10-2315	Connection of Salt water to existing watermains	7	7	28-Dec-2023	05-Jan-2024	-115	0%
3474	P10-2316	Installation of 11KV Cables along sub-station from HSH Pai Lau to Vistor Centre EVA (~500m @ 2wks/50m)	107	107	03-Oct-2023*	27-Jan-2024	-165	0%
3475	P10-2317	Underground Cables Laying (Under EVA)	30	30	27-Jan-2024	02-Mar-2024	-165	0%
3476	P10-2318	Connection of Main pipe to Street Hydrant outside premises	7	7	28-Dec-2023	05-Jan-2024	-115	0%
3477	P10-2320	Install Street Hydrant outside premises	14	14	05-Jan-2024	20-Jan-2024	-115	0%
3478	P10-4160	Installation of FTNS Cables from HSH Pai Lau to Vistor Centre MDF Room (~500m @ 2wks/50m)	128	128	03-Oct-2023*	22-Feb-2024	-169	0%
3479	**EVA Construction**		36	36	02-Mar-2024	13-Apr-2024	-157	0%
3480	P10-2330	Construction of EVA and Parking Spaces	36	36	02-Mar-2024	13-Apr-2024	-157	0%
3481	**Signage Works**		48	48	03-Oct-2023	23-Nov-2023	-32	0%
3482	P10-SG-1000	Placing Statutory Signages and ready for FS Inspection	48	48	03-Oct-2023*	23-Nov-2023	-32	0%
3483	**Building Services T&C**		60	60	14-Mar-2024	23-May-2024	-138	0%
3484	P10-4080	Overall Building Services T&C (MVAC System)	40	40	20-Mar-2024	07-May-2024	-164	0%
3485	P10-4100	Overall Building Services T&C (Water Supply System)	40	40	09-Apr-2024	23-May-2024	-138	0%
3486	P10-4110	Overall Building Services T&C (Electrical System)	32	32	14-Mar-2024	22-Apr-2024	-164	0%
3487	P10-4120	Overall Building Services T&C (FS System)	27	27	25-Mar-2024	26-Apr-2024	-169	0%
3488	**Statutory Inspection**		345	345	20-Jan-2024	30-Dec-2024	145	0%



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: 27-Nov-2026
Baseline: Aug 2023 Monthly Programme Update

4M Rolling Programme (Sep-Dec 2023)

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

#	Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Duration % Complete
3489		**EMSD Inspection (Lift)**	18	18	18-Mar-2024	10-Apr-2024	-153	0%
3490	P10-LT2000	Submit Form LE5 For EMSD Inspection	1	1	18-Mar-2024*	18-Mar-2024	-153	0%
3491	P10-LT2010	EMSD Inspection	2	2	26-Mar-2024*	28-Mar-2024	-153	0%
3492	P10-LT2020	Issue Lift Certificate (Form LE6)	1	1	09-Apr-2024*	10-Apr-2024	-153	0%
3493		**DSD Inspection**	37	37	31-Jan-2024	13-Mar-2024	-67	0%
3494	P10-WSD1090	Submit Form for DSD Inspection	1	1	31-Jan-2024	01-Feb-2024	-67	0%
3495	P10-WSD1100	DSD Inspection	7	7	20-Feb-2024	27-Feb-2024	-67	0%
3496	P10-WSD1110	Issue Drainage Completion Certificate by DSD	1	1	12-Mar-2024	13-Mar-2024	-67	0%
3497		**WSD Inspection**	157	157	20-Jan-2024	16-Jul-2024	-138	0%
3498		**Fresh Water / Salt Water / Cleansing Water / Irrigation Water Supply**	49	49	23-May-2024	16-Jul-2024	-138	0%
3499	P10-WSD1000	Submit Form WWO046 Part IV For WSD Inspection - Fresh Water Supply	1	1	23-May-2024	24-May-2024	-138	0%
3500	P10-WSD1010	WSD Inspection - Fresh Water Supply	7	7	15-Jun-2024	22-Jun-2024	-138	0%
3501	P10-WSD1020	Issue Water Certificate (Part V) - Fresh Water Supply	1	1	15-Jul-2024	16-Jul-2024	-138	0%
3502		**FS Water Supply**	81	81	09-Mar-2024	11-Jun-2024	-107	0%
3503	P10-WSD1060	Submit Form WWO046 Part IV For WSD Inspection - FS Water Supply	1	1	09-Mar-2024	11-Mar-2024	-107	0%
3504	P10-WSD1070	WSD Inspection - FS Water Supply	7	7	23-Apr-2024	30-Apr-2024	-107	0%
3505	P10-WSD1080	Issue Water Certificate (Part V) - FS Water Supply	1	1	08-Jun-2024	11-Jun-2024	-107	0%
3506		**FS Street Hydrant**	31	31	20-Jan-2024	26-Feb-2024	-115	0%
3507	P10-WSD1120	Submit Form WWO1082 For WSD Inspection - FS Street Hydrant	1	1	20-Jan-2024	22-Jan-2024	-115	0%
3508	P10-WSD1130	WSD Inspection - FS Street Hydrant	1	1	06-Feb-2024	06-Feb-2024	-115	0%
3509	P10-WSD1140	Issue Completion Certificate for the connection of FS Street Hydrant	1	1	24-Feb-2024	26-Feb-2024	-115	0%
3510		**FSD Inspection**	100	100	27-Apr-2024	15-Aug-2024	-166	0%
3511	P10-FSD1000	Submit FS Form 314 / 501 For FSD Inspection	1	1	27-Apr-2024	27-Apr-2024	-169	0%
3512	P10-FSD1100	1st round FS Inspection	7	7	22-May-2024	30-May-2024	-178	0%
3513	P10-FSD1210	Defect retification and Submit Form for Re-inspection	25	25	30-May-2024	26-Jun-2024	-178	0%
3514	P10-FSD1220	2nd round FS Inspection	7	7	10-Jul-2024	17-Jul-2024	-178	0%
3515	P10-FSD1230	Issue Fire Certificate (Form 172)	1	1	14-Aug-2024	15-Aug-2024	-166	0%
3516		**BEAM PLUS Final Assessment**	100	100	27-Apr-2024	15-Aug-2024	-166	0%
3517	P10-BP0090	Period of Collecting BEAM PLUS related documents, certificates	60	60	27-Apr-2024	03-Jul-2024	-144	0%
3518	P10-BP1000	Submit Inspection Form	1	1	04-Jul-2024	04-Jul-2024	-144	0%
3519	P10-BP1010	BEAM PLUS Inspection	2	2	12-Jul-2024	13-Jul-2024	-144	0%
3520	P10-BP1020	Issue Certificate	1	1	14-Aug-2024	15-Aug-2024	-166	0%
3521		**CEDD, ASD & EMSD Inspection**	56	56	17-Jul-2024	11-Sep-2024	-197	0%
3522	P10-CED0850	Post FSD Inspection Fitting out works	18	18	17-Jul-2024	06-Aug-2024	-178	0%
3523	P10-CED0900	Overall System T&C before Inspection	6	6	06-Aug-2024	12-Aug-2024	-178	0%
3524	P10-CED1000	Submit Inspection Form	1	1	12-Aug-2024	13-Aug-2024	-178	0%
3525	P10-CED1100	CEDD / ASD / EMSD Inspection	3	3	27-Aug-2024	30-Aug-2024	-178	0%
3526	P10-CED1200	Issue Completion Certificate	1	1	10-Sep-2024	11-Sep-2024	-178	0%
3527	P10-CED1300	Achieve KD1	0	0		11-Sep-2024*	-178	0%
3528		**BEE Ordinance Submission**	99	99	11-Sep-2024	30-Dec-2024	129	0%
3529	P10-CED1210	Submit document to EMSD for fulfilling Building Energy Efficiency Ordinance	99	99	11-Sep-2024	30-Dec-2024	129	0%
3530		**Switching Sewerage System**	405	405	11-Sep-2024	03-Dec-2025	-178	0%
3531	P10-TS2260	Operation and decommissioning works for temporary sewerage system	400	400	11-Sep-2024	27-Nov-2025	-178	0%
3532	P10-TS2270	Switch back to permanent system	5	5	27-Nov-2025	03-Dec-2025	-178	0%
3533		**Works in Section 4A**	656	656	02-Dec-2024	27-Nov-2026	-167	0%
3534		**Landscape Method Statement Submission**	57	57	02-Dec-2024	06-Feb-2025	107	0%
3535	LA-SPS1120	Method Statement of Establishment Works - 1st submission to Project Manager	25	25	02-Dec-2024*	30-Dec-2024	107	0%
3536	LA-SPS1130	Method Statement of Establishment Works - 1st submission to PM & review	16	16	30-Dec-2024	16-Jan-2025	107	0%
3537	LA-SPS1140	Method Statement oof Establishment Works - 2nd submission to PM & approval	16	16	16-Jan-2025	06-Feb-2025	107	0%
3538		**Establishment Works**	324	324	03-Dec-2025	27-Nov-2026	-167	0%
3539	B4a-1000	Establishment for landscape works in Section 1-4 and aftercare to old and valuable trees in Portion 2	324	324	03-Dec-2025	27-Nov-2026	-167	0%
3540		**Works in Section 5**	1453	446	30-Dec-2020 A	21-Dec-2024	-145	69.3%
3541		**Portion 11 - Village Resite Area**	1453	446	30-Dec-2020 A	21-Dec-2024	-145	69.3%
3542		**Preliminary Works**	721	0	30-Dec-2020 A	21-Dec-2022 A		100%
3543	P11-1000	PMI Issuance for execution of the Works (1039 from Starting Date) (21 Dec 22)	0	0	21-Dec-2022 A			100%
3544	P11-1005	Temporary Storage Area	669	0	30-Dec-2020 A	19-Dec-2022 A		100%
3545		**Ground Investigation Works**	270	31	03-Jan-2023 A	02-Nov-2023	-153	88.39%
3546	P11-1007	Site Formation of existing soil for Ground Investigation	19	0	03-Jan-2023 A	31-Aug-2023 A		100%

2023: Sep | Oct | Nov | Dec

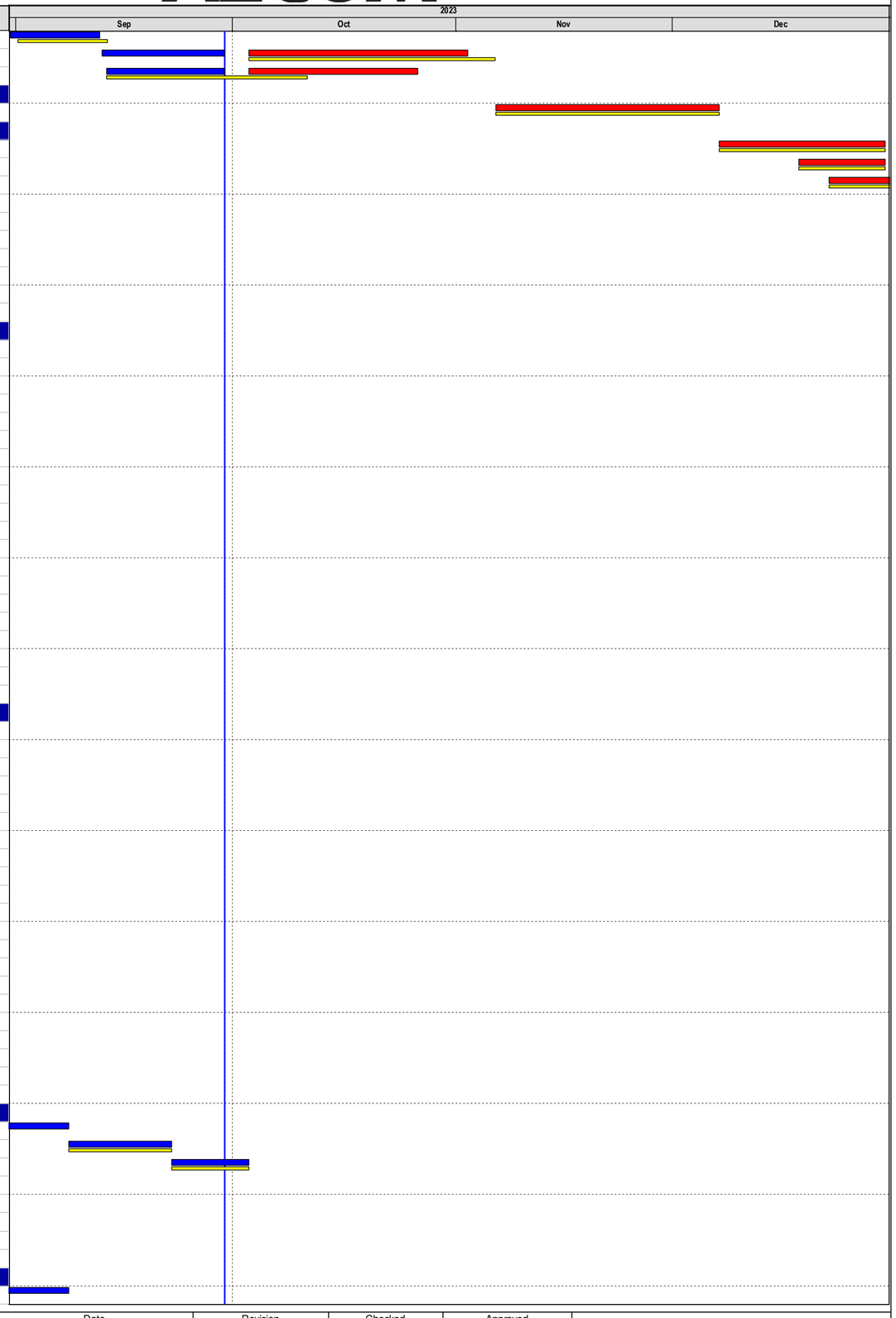
Primary Baseline
Actual Work
Remaining Work
Critical Remaining Work
Baseline Milestone
Critical Milestone
Non-Critical Milestone

Data Date: 30-Sep-2023
Project Start: 03-Feb-2020
Project End: 27-Nov-2026
Baseline: Aug 2023 Monthly Programme Update

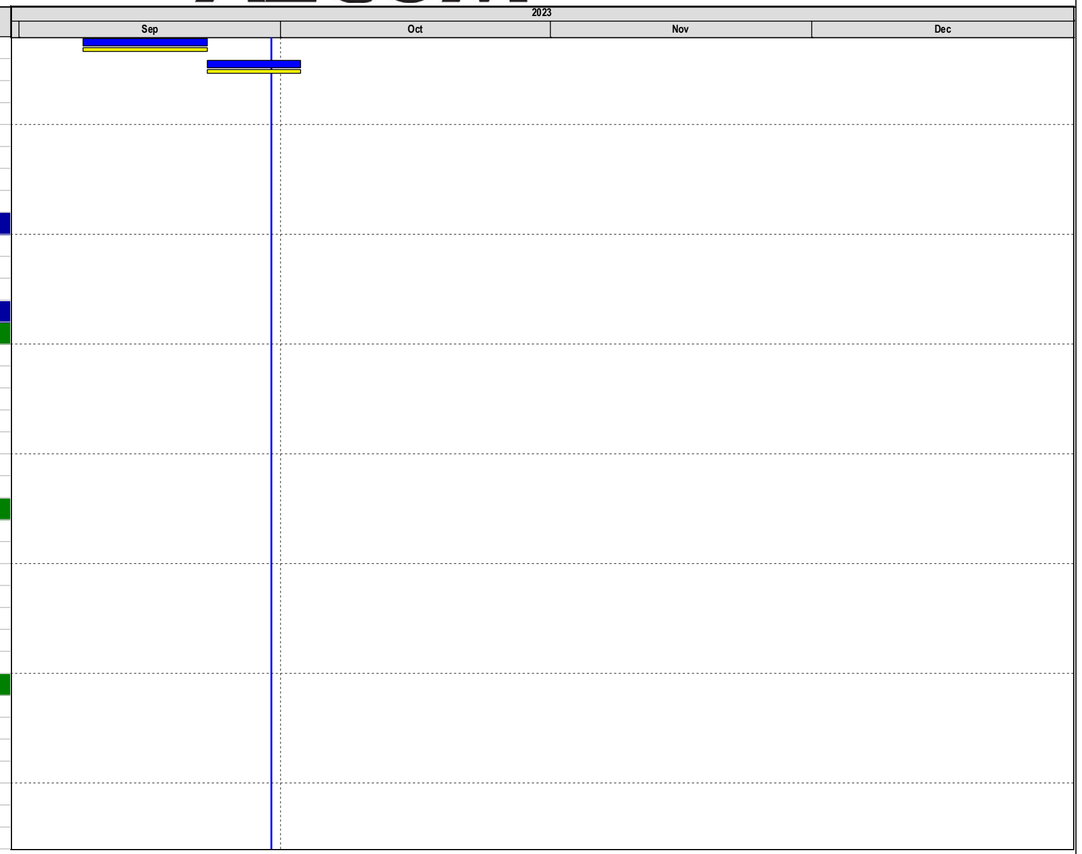
4M Rolling Programme (Sep-Dec 2023)

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

#	Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Duration % Complete
3547	P11-1010	Engineering GI x 3nos.	14	0	31-Aug-2023 A	12-Sep-2023 A		100%
3548	P11-1015	Environmental GI & Trial Pit: 4nos. & Submission of report	35	31	13-Sep-2023 A	02-Nov-2023	-153	10%
3549	P11-1020	Submission and approval of GI report	27	24	13-Sep-2023 A	26-Oct-2023	-132	10%
3550	**Site Formation**		34	34	06-Nov-2023	07-Dec-2023	-153	0%
3551	P11-1030	Excavation and Cart Away High Arsenic Content Soil (Subjected to actual GI Result) (3000m3 @100m3/d)	34	34	06-Nov-2023	07-Dec-2023	-153	0%
3552	**Drainage Works (Level: (IL +5mPD to +6.25mPD)**		73	73	07-Dec-2023	20-Feb-2024	-153	0%
3553	P11-1040	Sheet Pile installation (total length 140m with assume using type 4 sheet pile with 350pcs)	23	23	07-Dec-2023	30-Dec-2023	-153	0%
3554	P11-1042	Soft Excavation to 1st strut level	11	11	18-Dec-2023	30-Dec-2023	-153	0%
3555	P11-1044	Installation of 1st level strut S1	14	14	22-Dec-2023	08-Jan-2024	-153	0%
3556	P11-1046	Soft Excavation to F.L	11	11	02-Jan-2024	12-Jan-2024	-153	0%
3557	P11-1048	Bedding & Pipe Laying (Twins 225 and 300mm)	14	14	08-Jan-2024	20-Jan-2024	-153	0%
3558	P11-1090	Construction of Drainage Manhole M6.01	11	11	15-Jan-2024	25-Jan-2024	-153	0%
3559	P11-1100	Construction of Drainage Manhole M6.02	14	14	19-Jan-2024	01-Feb-2024	-153	0%
3560	P11-1110	Construction of Drainage Manhole M6.03	14	14	25-Jan-2024	06-Feb-2024	-153	0%
3561	P11-1120	Construction of Drainage Manhole M6.04	14	14	30-Jan-2024	15-Feb-2024	-153	0%
3562	P11-1130	Backfill to Level +6.0mPD for fresh water works	14	14	05-Feb-2024	20-Feb-2024	-153	0%
3563	**Outfall 6.04**		83	83	20-Jan-2024	16-Apr-2024	-22	0%
3564	P11-OF0900	Sheet Pile Installation at Outfall	11	11	20-Jan-2024	31-Jan-2024	-22	0%
3565	P11-OF1000	Excavation to 1st strut level	3	3	31-Jan-2024	03-Feb-2024	-22	0%
3566	P11-OF1010	Installation 1st level strut and testing	6	6	03-Feb-2024	08-Feb-2024	-22	0%
3567	P11-OF1020	Excavation to 2nd strut level	5	5	08-Feb-2024	16-Feb-2024	-22	0%
3568	P11-OF1030	Installation 2nd level strut and testing	6	6	20-Feb-2024	24-Feb-2024	-22	0%
3569	P11-OF1040	Excavation to Formation Level	2	2	24-Feb-2024	27-Feb-2024	-22	0%
3570	P11-OF1050	Backfilling and Blinding works to outfall	1	1	27-Feb-2024	28-Feb-2024	-22	0%
3571	P11-OF1060	Allow 7 days for concrete strength development	8	8	28-Feb-2024	06-Mar-2024	-22	0%
3572	P11-OF1070	Dismantle Strut	1	1	06-Mar-2024	07-Mar-2024	-22	0%
3573	P11-OF1080	Outfall Baseslab (Incl concreting)	3	3	07-Mar-2024	11-Mar-2024	-22	0%
3574	P11-OF1090	Dismantle Base slab Formwork	2	2	11-Mar-2024	12-Mar-2024	-22	0%
3575	P11-OF1100	Outfall Wall (Incl concreting)	6	6	12-Mar-2024	18-Mar-2024	-22	0%
3576	P11-OF1110	Dismantle 1st pour Wall Formwork	3	3	18-Mar-2024	21-Mar-2024	-22	0%
3577	P11-OF1120	Outfall Wall 2nd pour (Incl concreting)	5	5	21-Mar-2024	25-Mar-2024	-22	0%
3578	P11-OF1130	Dismantle 2nd pour Wall Formwork	3	3	25-Mar-2024	28-Mar-2024	-22	0%
3579	P11-OF1140	Partillay Reintatement (Rockfill)	2	2	28-Mar-2024	03-Apr-2024	-22	0%
3580	P11-OF1150	Dismantle 1st Layer of Strut	2	2	03-Apr-2024	05-Apr-2024	-22	0%
3581	P11-OF1160	Remove Riverside sheet pile	2	2	06-Apr-2024	08-Apr-2024	-22	0%
3582	P11-OF1170	Casting of outfall (River Side)	2	2	08-Apr-2024	10-Apr-2024	-22	0%
3583	P11-OF1200	Remove remining side sheet pile & rock fill	6	6	10-Apr-2024	16-Apr-2024	-22	0%
3584	**Outfall 5104**		83	83	16-Apr-2024	06-Jul-2024	-22	0%
3585	P11-OF1220	Sheet Pile Installation at Outfall	11	11	16-Apr-2024	26-Apr-2024	-22	0%
3586	P11-OF1230	Excavation to 1st strut level	3	3	26-Apr-2024	29-Apr-2024	-22	0%
3587	P11-OF1240	Installation 1st level strut and testing	6	6	29-Apr-2024	06-May-2024	-22	0%
3588	P11-OF1250	Excavation to 2nd strut level	5	5	06-May-2024	09-May-2024	-22	0%
3589	P11-OF1260	Installation 2nd level strut and testing	6	6	13-May-2024	20-May-2024	-22	0%
3590	P11-OF1270	Excavation to Formation Level	2	2	20-May-2024	21-May-2024	-22	0%
3591	P11-OF1280	Backfilling and Blinding works to outfall	1	1	21-May-2024	22-May-2024	-22	0%
3592	P11-OF1290	Allow 7 days for concrete strength development	8	8	22-May-2024	30-May-2024	-22	0%
3593	P11-OF1300	Dismantle Strut	1	1	30-May-2024	30-May-2024	-22	0%
3594	P11-OF1310	Outfall Baseslab (Incl concreting)	3	3	31-May-2024	03-Jun-2024	-22	0%
3595	P11-OF1320	Dismantle Base slab Formwork	2	2	03-Jun-2024	05-Jun-2024	-22	0%
3596	P11-OF1330	Outfall Wall (Incl concreting)	6	6	05-Jun-2024	11-Jun-2024	-22	0%
3597	P11-OF1340	Dismantle 1st pour Wall Formwork	3	3	12-Jun-2024	14-Jun-2024	-22	0%
3598	P11-OF1350	Outfall Wall 2nd pour (Incl concreting)	5	5	14-Jun-2024	19-Jun-2024	-22	0%
3599	P11-OF1360	Dismantle 2nd pour Wall Formwork	3	3	19-Jun-2024	21-Jun-2024	-22	0%
3600	P11-OF1370	Partillay Reintatement (Rockfill)	2	2	22-Jun-2024	24-Jun-2024	-22	0%
3601	P11-OF1380	Dismantle 1st Layer of Strut	2	2	24-Jun-2024	26-Jun-2024	-22	0%
3602	P11-OF1390	Remove Riverside sheet pile	2	2	26-Jun-2024	28-Jun-2024	-22	0%
3603	P11-OF1400	Casting of outfall (River Side)	2	2	28-Jun-2024	02-Jul-2024	-22	0%
3604	P11-OF1410	Remove remining side sheet pile & rock fill	6	6	02-Jul-2024	06-Jul-2024	-22	0%
3605	P11-OF1420	Report Completion of Drainage works	0	0		06-Jul-2024	-22	0%
3606	**Fresh Water Pipeworks (Level: (IL +6mPD to +7.0mPD)**		502	136	03-Jan-2023 A	03-Jul-2024	-153	72.9%
3607	P11-1031	Submission and approval of Form WWO542 for application to WSD (Fresh Water Works)	34	0	03-Jan-2023 A	08-Sep-2023 A		100%
3608	P11-1032	Submissionl of Form WWO46 Part 1,2 to WSD for application of Water works (Fresh Water Works)	16	0	08-Sep-2023 A	22-Sep-2023 A		100%
3609	P11-1033	Reply with Form WWO46 Part 3 from WSD for application of Water works (Fresh Water Works)	8	0	22-Sep-2023 A	03-Oct-2023 A		100%
3610	P11-1050	Fresh water pipe works (100m)	28	28	19-Feb-2024	15-Mar-2024	-153	0%
3611	P11-1160	Connection to exisiting fresh water main at both ends	17	17	15-Mar-2024	05-Apr-2024	-153	0%
3612	P11-WSD1030	Submit Form WWO046 Part 4 For WSD Inspection	1	1	05-Apr-2024	05-Apr-2024	-153	0%
3613	P11-WSD1040	WSD Inspection	8	8	16-May-2024	23-May-2024	-153	0%
3614	P11-WSD1050	Issue Water Certificate (Part 5)	1	1	03-Jul-2024	03-Jul-2024	-153	0%
3615	**Salt Water Pipeworks**		514	119	03-Jan-2023 A	13-Jul-2024	-153	76.78%
3616	P11-1065	Submission and approval of Form WWO542 for application to WSD (Salt Water Works)	34	0	03-Jan-2023 A	08-Sep-2023 A		100%



#	Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Duration % Complete
3617	P11-1067	Submission and approval of Form WWO46 Part 1,2 to WSD for application of Water works (Salts Water Works)	16	0	08-Sep-2023 A	22-Sep-2023 A		100%
3618	P11-1069	Reply with Form WWO46 Part 3 from WSD for application of Water works (Salt Water Works)	8	0	22-Sep-2023 A	03-Oct-2023 A		100%
3619	P11-1070	Salt water pipe works (20m)	11	11	15-Mar-2024	26-Mar-2024	-153	0%
3620	P11-1170	Connection to exisiting fresh water main	6	6	26-Mar-2024	05-Apr-2024	-153	0%
3621	P11-1182	Submit Form WWO046 Part 4 For WSD Inspection	1	1	05-Apr-2024	05-Apr-2024	-153	0%
3622	P11-1184	WSD Inspection	8	8	16-May-2024	23-May-2024	-153	0%
3623	P11-1186	Issue Water Certificate (Part 5)	1	1	03-Jul-2024	03-Jul-2024	-153	0%
3624	P11-1200	Backfill to Level +7.0mPD for Surface Channel and Utilities works	11	11	04-Jul-2024	13-Jul-2024	-153	0%
3625	**Utilities Works**		45	45	15-Jul-2024	24-Aug-2024	-29	0%
3626	P11-1180	Twins 11KV Cables Connection	17	17	15-Jul-2024	30-Jul-2024	-29	0%
3627	P11-1190	Surface U Channel Construction (4 nos.)	34	34	15-Jul-2024	14-Aug-2024	-29	0%
3628	P11-1250	Backfill to Level Final Formation Level	11	11	15-Aug-2024	24-Aug-2024	-29	0%
3629	**Road A6 Works (Total 100m @ 10m/Bay)**		169	169	15-Jul-2024	21-Dec-2024	-153	0%
3630	**1st Cycle (4 Bays)**		56	56	15-Jul-2024	04-Sep-2024	-153	0%
3631	P11-1060	Formation of Sub-Grade	8	8	15-Jul-2024	22-Jul-2024	-153	0%
3632	P11-1210	Laying of Sub-Base	7	7	22-Jul-2024	27-Jul-2024	-153	0%
3633	P11-1220	Laying of Road-Base	7	7	27-Jul-2024	03-Aug-2024	-153	0%
3634	P11-1230	Laying of Base Course	6	6	03-Aug-2024	08-Aug-2024	-153	0%
3635	P11-1240	Laying of Wearing Course	6	6	08-Aug-2024	14-Aug-2024	-153	0%
3636	P11-1260	Concrete Kerbs, Edging, Pavement Works & Power Connection to Road Lighting	17	17	14-Aug-2024	29-Aug-2024	-153	0%
3637	P11-1270	Road Furniture, Guard Rail, Road Lighting and Road Marking	7	7	29-Aug-2024	04-Sep-2024	-153	0%
3638	**2nd Cycle (4 Bays)**		56	56	05-Sep-2024	30-Oct-2024	-153	0%
3639	P11-1280	Formation of Sub-Grade	8	8	05-Sep-2024	12-Sep-2024	-153	0%
3640	P11-1290	Laying of Sub-Base	7	7	12-Sep-2024	19-Sep-2024	-153	0%
3641	P11-1300	Laying of Road-Base	7	7	19-Sep-2024	26-Sep-2024	-153	0%
3642	P11-1310	Laying of Base Course	6	6	26-Sep-2024	02-Oct-2024	-153	0%
3643	P11-1320	Laying of Wearing Course	6	6	02-Oct-2024	08-Oct-2024	-153	0%
3644	P11-1330	Concrete Kerbs, Edging, Pavement Works & Power Connection to Road Lighting	17	17	08-Oct-2024	24-Oct-2024	-153	0%
3645	P11-1340	Road Furniture, Guard Rail, Road Lighting and Road Marking	7	7	24-Oct-2024	30-Oct-2024	-153	0%
3646	**3rd Cycle (3 Bays)**		56	56	31-Oct-2024	21-Dec-2024	-153	0%
3647	P11-1350	Formation of Sub-Grade	8	8	31-Oct-2024	07-Nov-2024	-153	0%
3648	P11-1360	Laying of Sub-Base	7	7	07-Nov-2024	13-Nov-2024	-153	0%
3649	P11-1370	Laying of Road-Base	7	7	13-Nov-2024	20-Nov-2024	-153	0%
3650	P11-1380	Laying of Base Course	6	6	20-Nov-2024	25-Nov-2024	-153	0%
3651	P11-1390	Laying of Wearing Course	6	6	25-Nov-2024	30-Nov-2024	-153	0%
3652	P11-1400	Concrete Kerbs, Edging, Pavement Works & Power Connection to Road Lighting	17	17	30-Nov-2024	16-Dec-2024	-153	0%
3653	P11-1410	Road Furniture, Guard Rail, Road Lighting and Road Marking	7	7	16-Dec-2024	21-Dec-2024	-153	0%



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: 27-Nov-2026
Baseline: Aug 2023 Monthly Programme Update

4M Rolling Programme
(Sep-Dec 2023)

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

Project Management Initials: Designer: ELHY Checked: CYCH Approved: IHWL

ISO A1 594mm x 841mm

LEGEND:

SITE BOUNDARY

N

828000 E

829000 E

830000 E

842000 N

841000 N

840000 N

MA TSO LUNG
馬草壟

FUNG KONG SHAN
鳳崗山

HO SHEUNG HEUNG

LONG VALLEY

KWU TUNG

PAK SHEK AU

SHEK TSAI LENG

SHEK WU HUI SEWAGE TREATMENT WORKS

SHEUNG YUE RIVER

NG TUNG RIVER

SHEK SHEUNG RIVER

MTRC EAST RAIL LINE

CASTLE PEAK ROAD - CHAU TAU

CASTLE PEAK ROAD - KWU TUNG

FANLING HIGHWAY

SHEET 1 OF 10

SHEET 2 OF 10

SHEET 3 OF 10

SHEET 6 OF 10

SHEET 7 OF 10

SHEET 8 OF 10

SHEET 9 OF 10

SHEET 10 OF 10

Portion 1

Portion 2

Portion 3

Portion 4

Portion 5

Portion 6

Portion 7

Portion 8

Portion 9

Portion 10

Portion 11

WA2



Portion 1 (LP, ELS and Pipe Jacking)



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



Footbridge (Portion 9N, Pile cap)

Plot File by: ZENGLY2 2019/10/25
PATH p:\projects\60335576\drawing\contract\c21000\C2_C00_1000.dgn

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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

土木工程拓展署
CEDD 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
修訂

			CJ
A	OCT-19	TENDER ADDENDUMN NO. 2	CYCH
-	SEP-19	TENDER DRAWING	CYCH
I/R 修訂	DATE 日期	DESCRIPTION 內容摘要	CHK. 複核

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

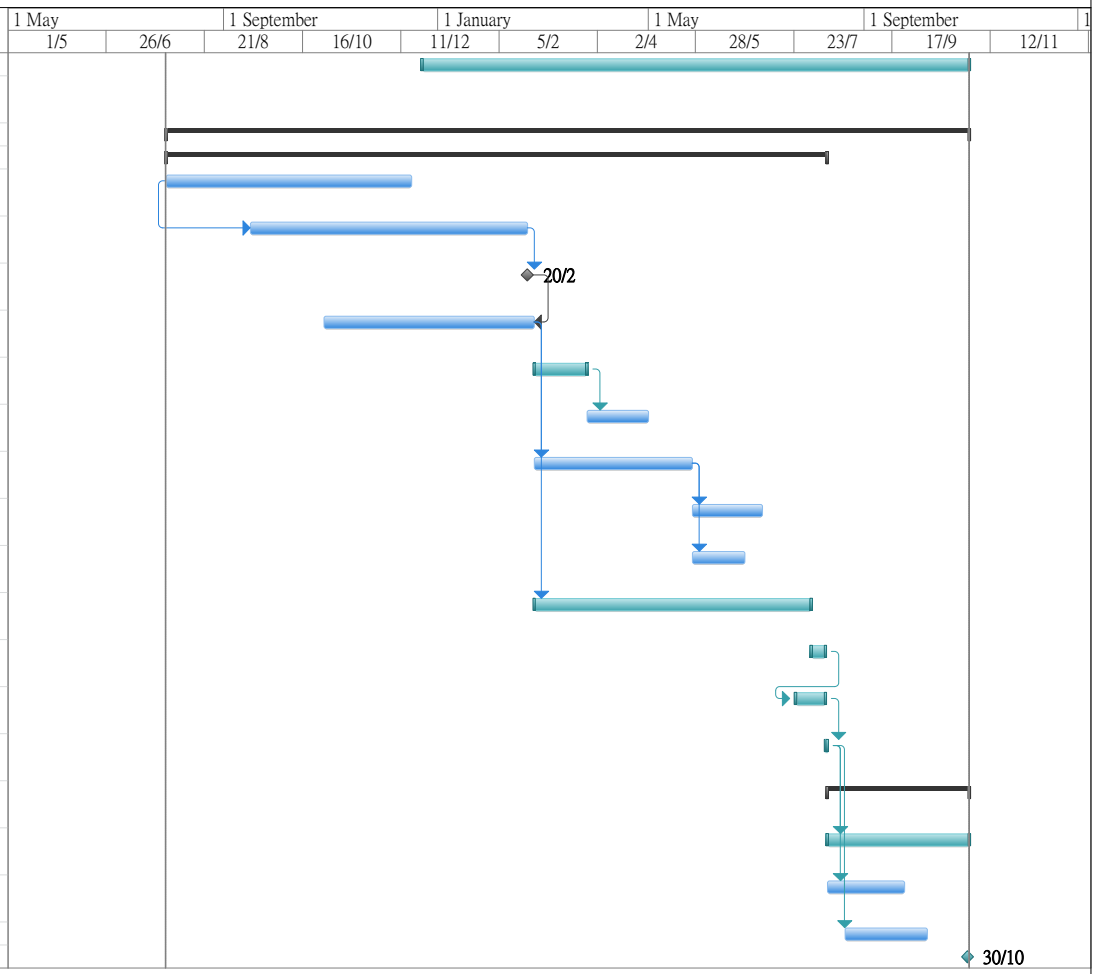
SHEET NUMBER
圖紙編號

60335576/C2/C00/1000A

Construction Programme of ND/2019/03

ND/2019/03
Programme for Construction in Section 2

ID	Task Name	Duration	Start	Finish
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
Split
Milestone
Summary
Project Summary
External Tasks
External Milestone
Inactive Task
Inactive Milestone
Inactive Summary
Manual Task
Duration-only
Manual Summary Rollup
Manual Summary
Start-only
Finish-only
Deadline
Progress
Manual Progress

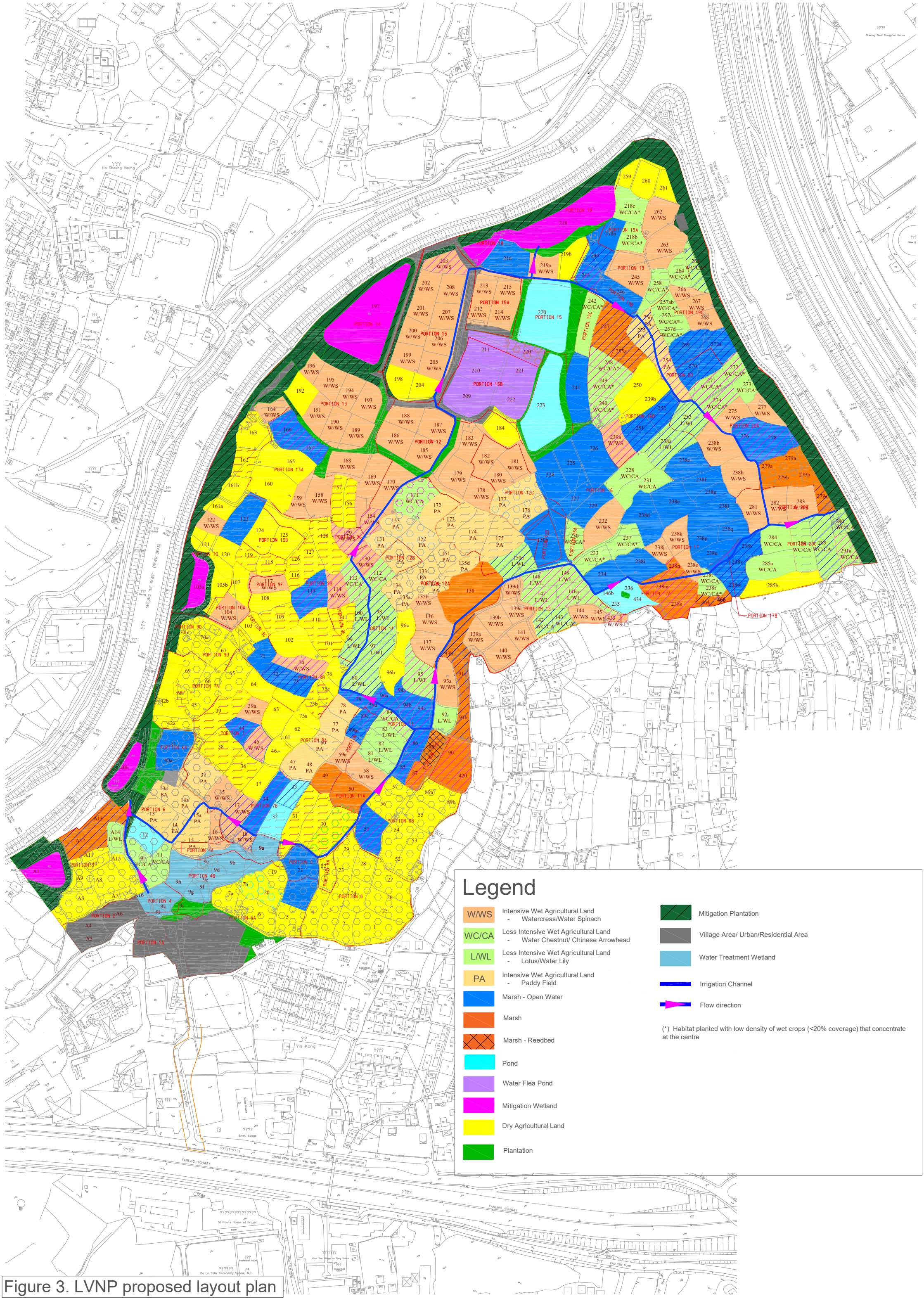


Figure 3. LVNP proposed layout plan

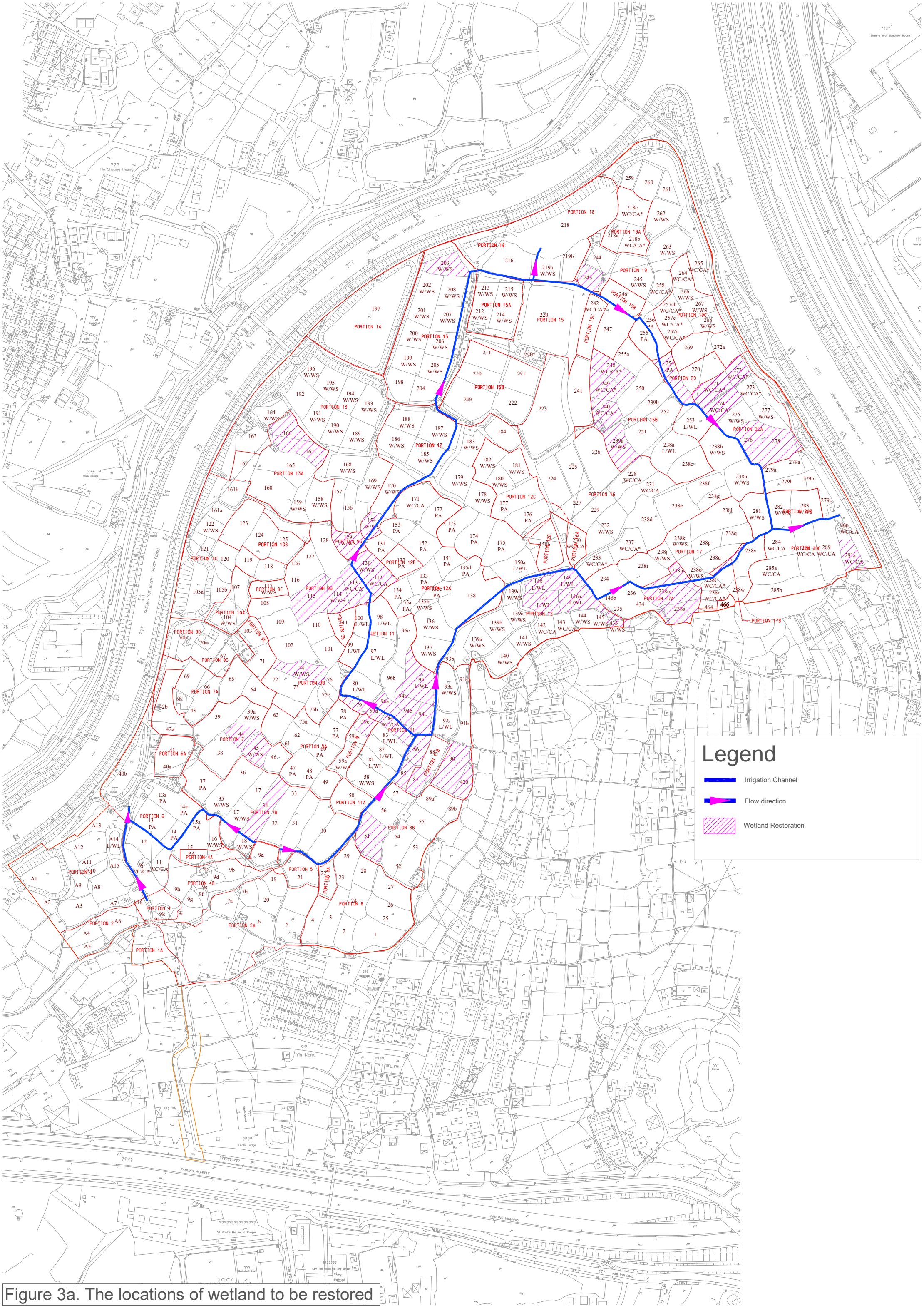


Figure 3a. The locations of wetland to be restored

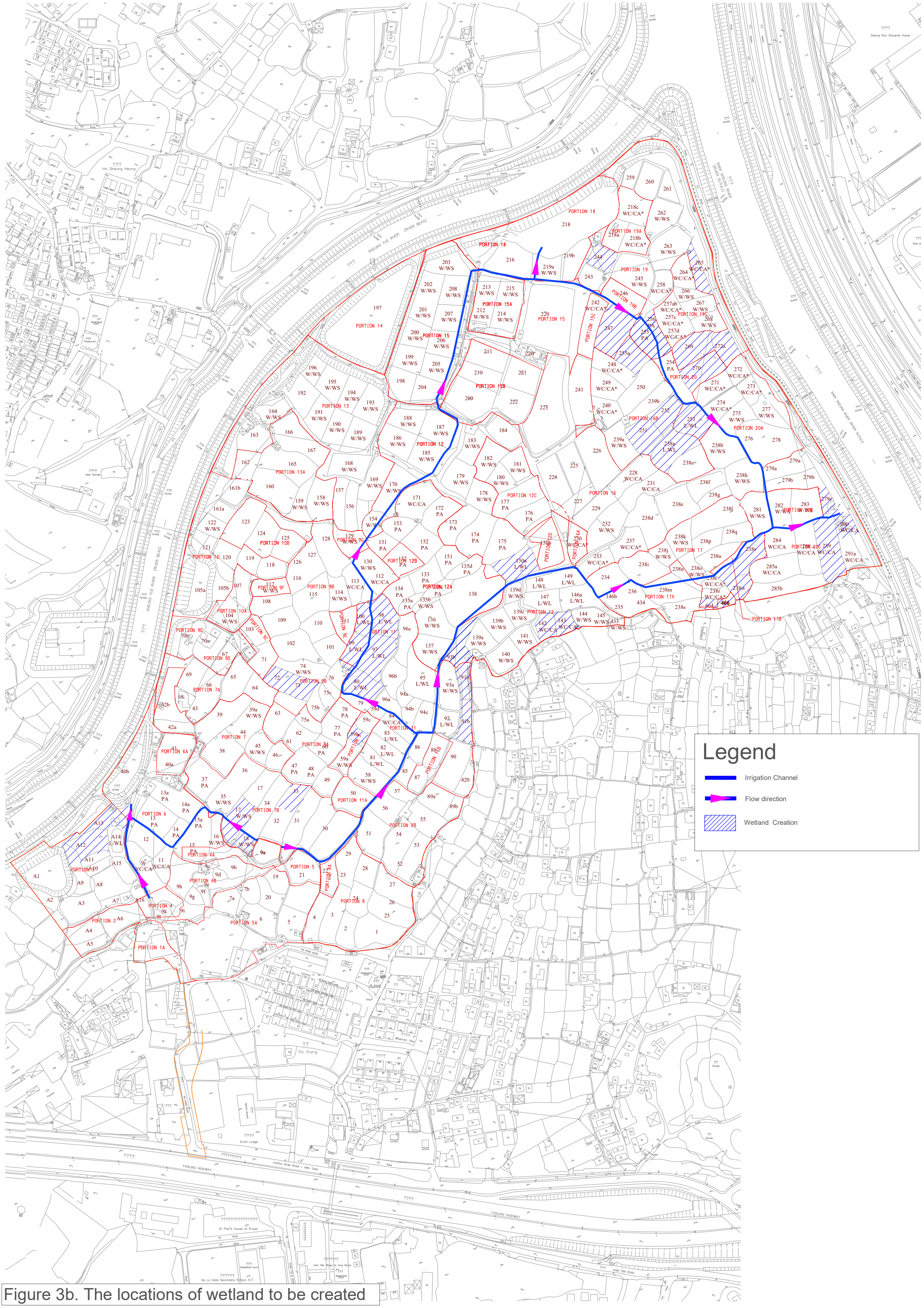


Figure 3b. The locations of wetland to be created

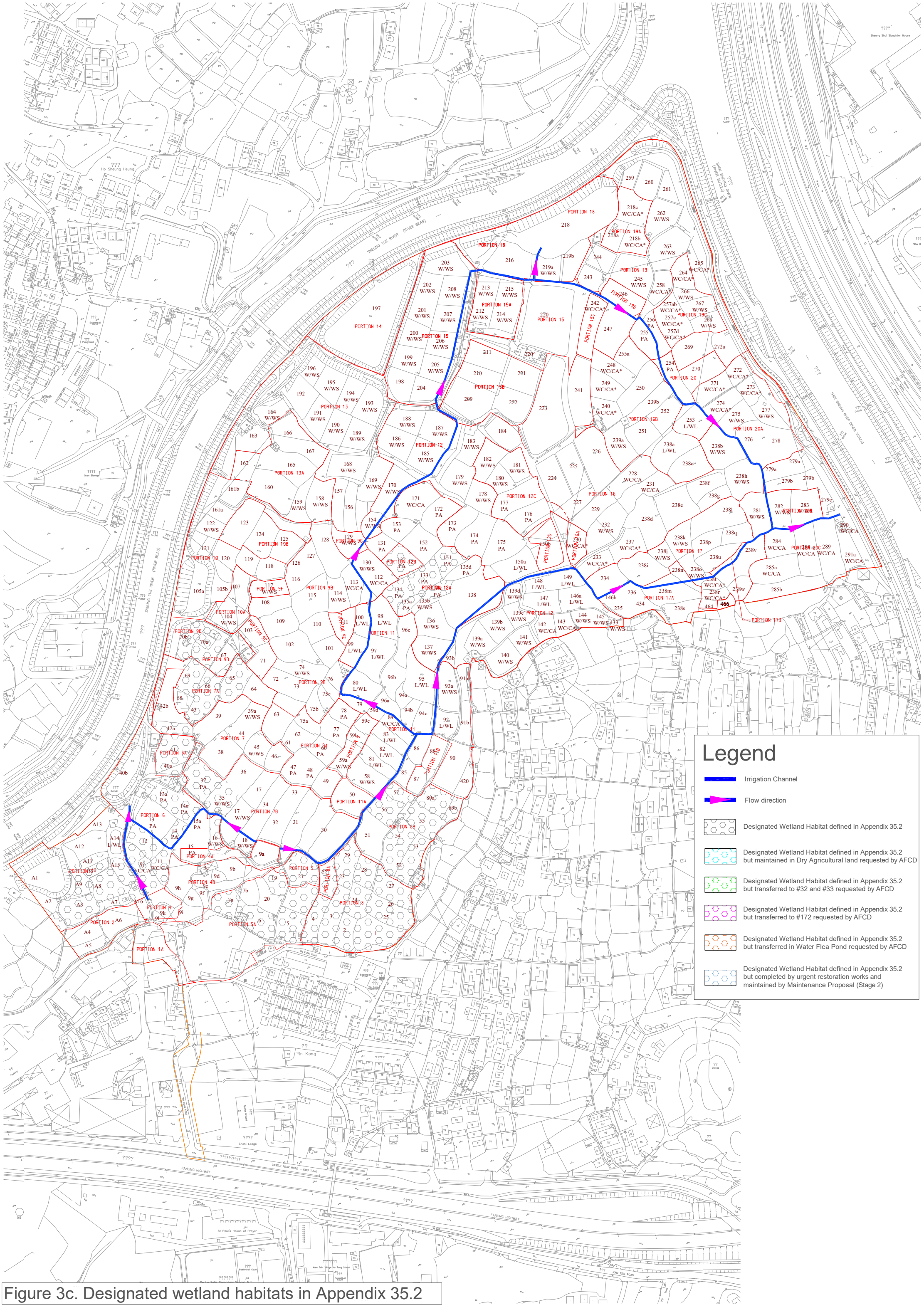


Figure 3c. Designated wetland habitats in Appendix 35.2

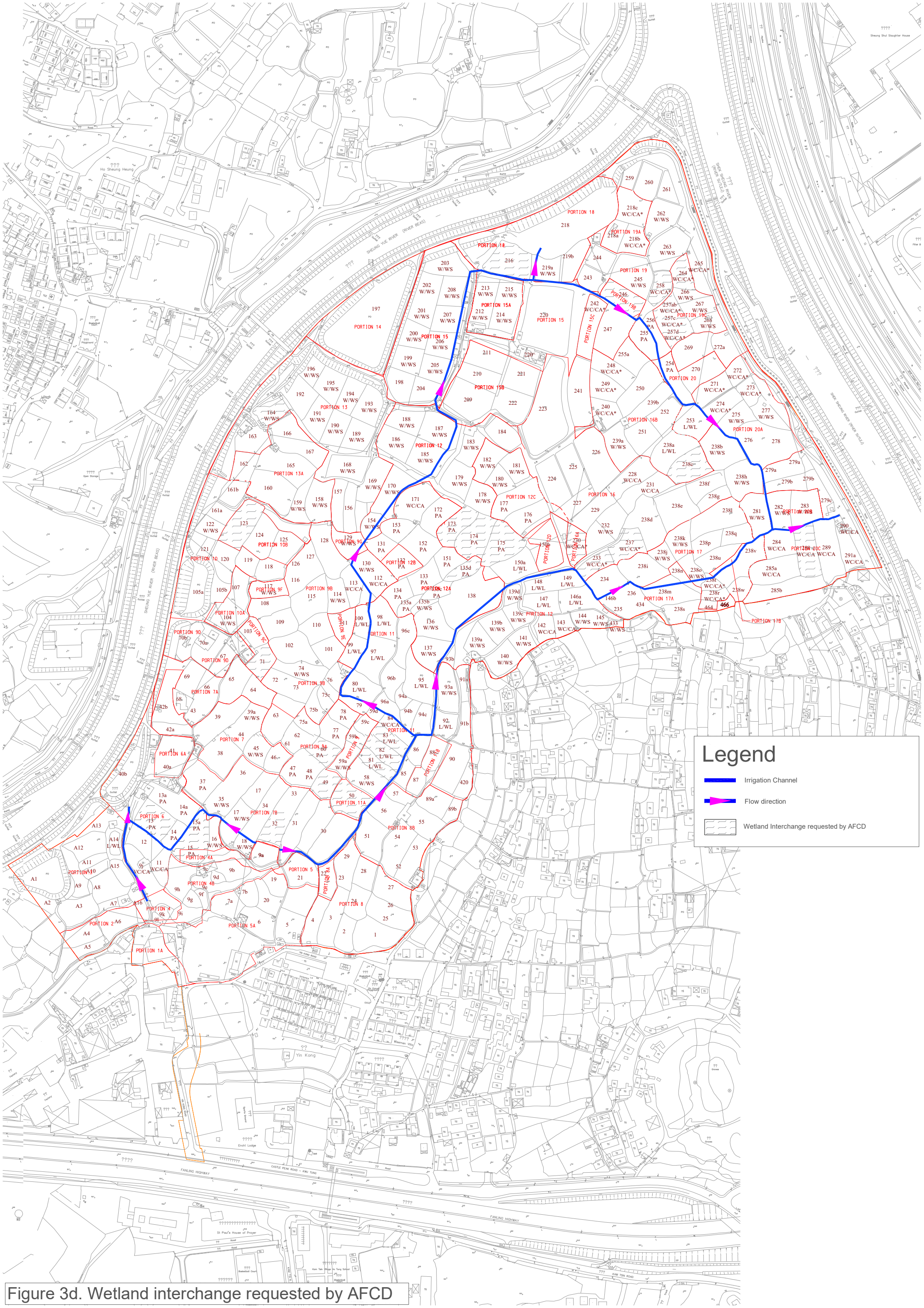
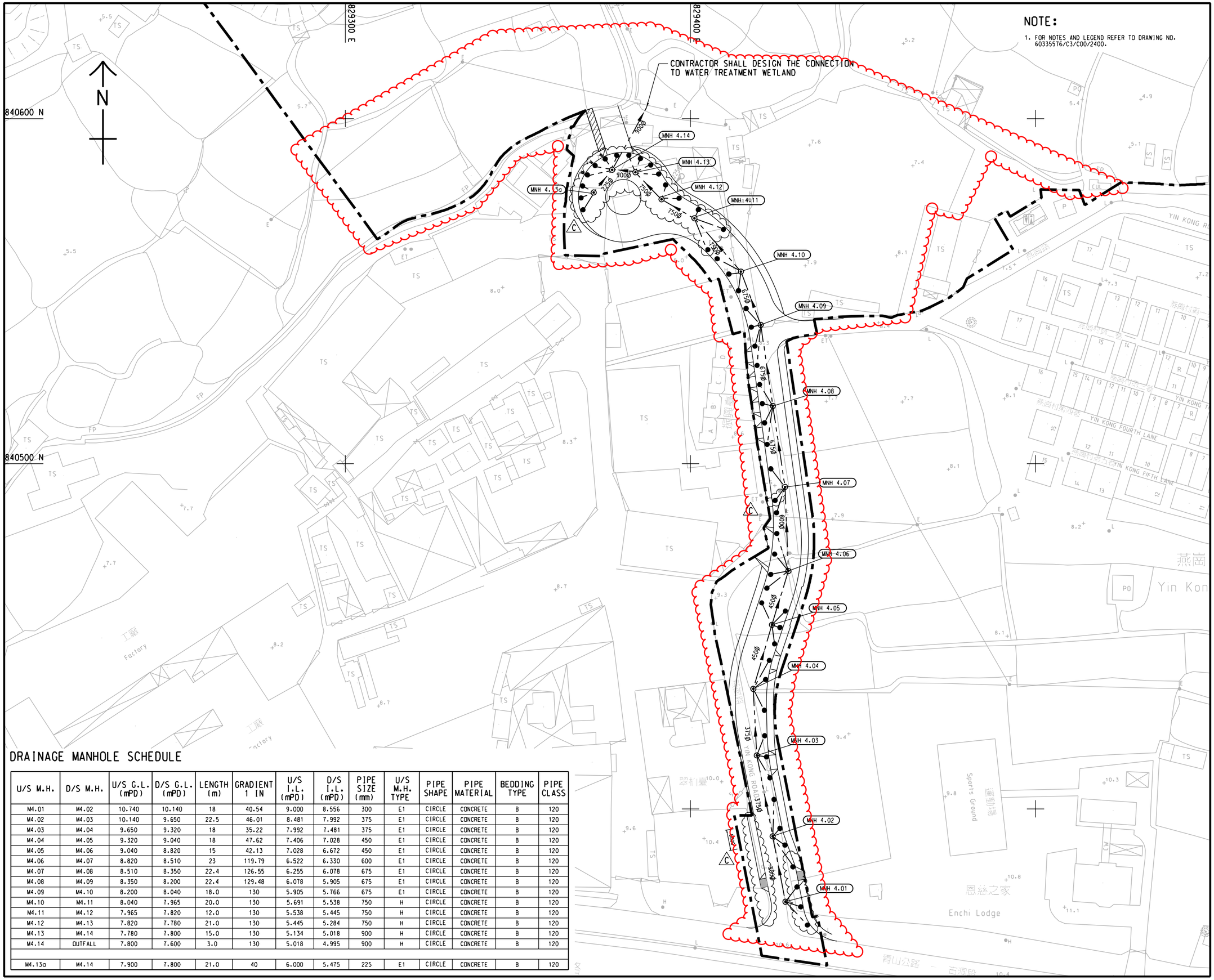


Figure 3d. Wetland interchange requested by AFCD



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

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

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

CONSULTANT
AECOM

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

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

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

TITLE
YIN KONG ROAD - ROAD DRAINAGE LAYOUT

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

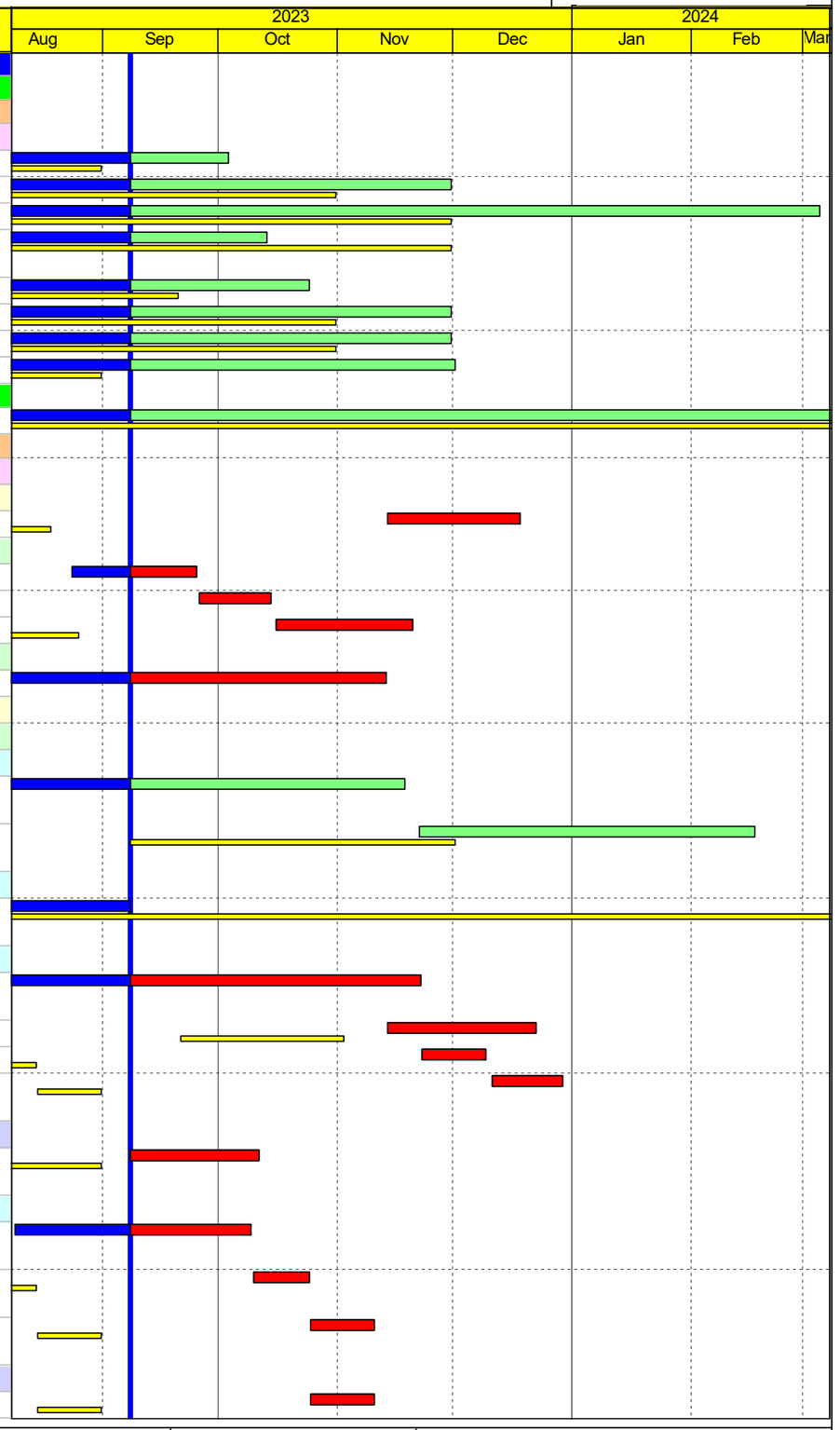
26/8/2021 Y:\TO\TO_ND_2019_03\C3_Site Sketch\C3_SK0052C.dgn

Construction Programme of ND/2019/04

Contract No: ND/2019/04 - Fanling Northh New Development Area Phase 1, Fanling Bypass Eastern Section
(Shek Wu San Tsuen North to Lung Yeuk Tau)

CEDD | AECOM | DCK JV

Activity ID	Activity Name	Orig. Dur.	Rem. Dur.	Start	Finish	BL Start RP06(1)	BL Finish RP06(1)	Total Float	Activity % Complete
2023-08 Monthly Update (based on RP06(1) Submitted on 23 Jun 2023)									
Preliminary Works									
Submission									
Preparation for relevant works									
SUB-1090	Prepare, submit & accept work submission for design for RC and MiC works	80	20	08-Mar-21 A	03-Oct-23	08-Mar-21	31-Aug-23	6	75%
SUB-1120	Prepare, submit & accept work submission for erect NB steel post and panel	146	69	08-Aug-23 A	30-Nov-23	08-May-23	31-Oct-23	19	52.74%
SUB-1410	Electrical and Mechanical Works for Lift Installation	80	145	08-Jun-22 A	05-Mar-24	08-Jun-22	30-Nov-23	65	0%
SUB-1420	Road lighting system - Design, lux, civil requirement, CLP pillar box(including gantry anf directional sign)	80	29	17-Sep-22 A	13-Oct-23	17-Sep-22	30-Nov-23	171	63.75%
SUB-1450	Bio-treatment Plant for Public Toilet	90	37	08-Aug-22 A	24-Oct-23	08-Aug-22	20-Sep-23	34	58.89%
SUB-1470	Traffic Control and Surveillance System (TCSS)	90	69	08-Aug-22 A	30-Nov-23	08-Aug-22	31-Oct-23	168	23.33%
SUB-1480	Traffic Detector System	90	69	08-Aug-22 A	30-Nov-23	08-Aug-22	31-Oct-23	168	23.33%
SUB-1510	Crash cushion system.	90	70	08-Aug-22 A	01-Dec-23	08-Aug-22	31-Aug-23	133	22.22%
Construction Works									
CW-1010	Protection of tree at different portions (S8)	429	454	08-Aug-23 A	20-Mar-25	01-Aug-23	08-Jan-25	6	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	14-Nov-23	18-Dec-23	15-Jul-23	18-Aug-23	-71	0%
Underpass - Bay C1									
INTS1-1s	Structure Works for Bay C1 - Slab	15	15	24-Aug-23 A	25-Sep-23	15-Jun-23	04-Jul-23	-18	0%
INTS1-1s1	Structure Works for Bay C1 - Wall	15	15	26-Sep-23	14-Oct-23	05-Jul-23	21-Jul-23	-18	0%
INTS1-1s2	Structure Works for Bay C1 - Roof	30	30	16-Oct-23	20-Nov-23	22-Jul-23	25-Aug-23	-18	0%
Underpass - Bay C2									
INTS1-2s1	Structure Works for Bay C2 - Roof	24	54	15-Jun-23 A	13-Nov-23	15-Jun-23	14-Jul-23	-71	0%
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	59	11-Feb-23 A	18-Nov-23	11-Feb-23	18-Jul-23	112	15.71%
INTS1-1120b	Rising Mains on Ma Sik Rd (From STK Rd to Ma Sik Rd down stream near C7)	70	70	22-Nov-23	17-Feb-24	08-Sep-23	01-Dec-23	102	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	95	08-Dec-22 A	29-Jul-24	08-Dec-22	15-Apr-24	-69	0%
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	62	18-Apr-23 A	22-Nov-23	18-Apr-23	27-Jul-23	-225	25.3%
INTS1-113(	900 stormwater pipe near On Kui St (underneath CLP132 Ping Che joint bay)	34	34	14-Nov-23	22-Dec-23	21-Sep-23	02-Nov-23	-123	0%
INTS1-113(	Testing of remaining 1350 stormwater pipe at Ma Sik rd	15	15	23-Nov-23	09-Dec-23	28-Jul-23	14-Aug-23	-225	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	15-Aug-23	31-Aug-23	-225	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	27	08-Sep-23 A	11-Oct-23	01-Aug-23	31-Aug-23	-160	0%
Water Main Works									
INTS1-1220	Watermain at STK Rd (Part 1) near Part C of Footbridge F6- 600MS, 600DI, 300DI	34	25	09-Aug-23 A	09-Oct-23	20-Jun-23	31-Jul-23	-146	26.47%
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	01-Aug-23	14-Aug-23	-133	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	15-Aug-23	31-Aug-23	-53	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	15-Aug-23	31-Aug-23	-53	0%



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

Project ID: RP06a(1)-MU08-2023

Three Months Rolling Programme (08 September 2023 to 31 December 2023)

Data Date: 08-Sep-23
Printed: 11-Sep-23 17:09
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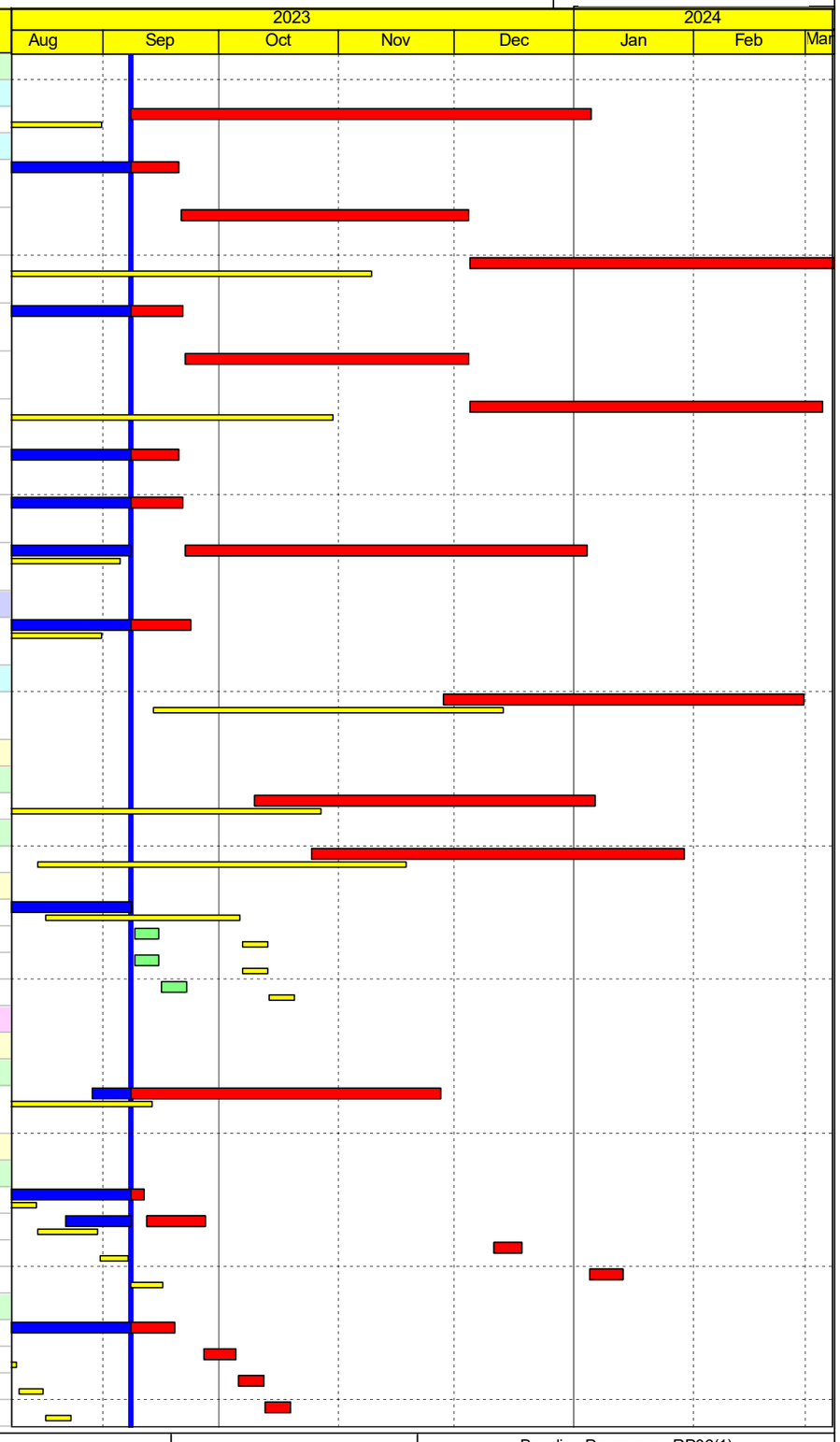
TASK filter: 3 Months Lookahead.

Baseline Programme RP06(1)

Date	Revision	Ch...	Approved
08-sEP-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
	South of Sha Tau Kok Road								
	Rising Main Works								
INTS1-1400	Rising main installation (underneath CLP 132 Ping Che joint bay)	97	97	08-Sep-23	05-Jan-24	08-May-23	31-Aug-23	-132	0%
	Sewerage Works								
INTS1-1300a	Sewerage works including ELSW (near Portion M), from FMH_FL5.06 to FMH_FL5.08	80	11	08-Dec-22 A	20-Sep-23	08-Dec-22	19-May-23	-31	86.25%
INTS1-1300a	Sewerage works including ELSW (On Kiu St), from FMH_FL5.08 to FMH_FL5.09 (Part 1)	61	61	21-Sep-23	04-Dec-23	20-May-23	02-Aug-23	-31	0%
INTS1-1300a	Sewerage works including ELSW (On Kiu St), from FMH_FL5.08 to FMH_FL5.09 (Part 2)	82	82	05-Dec-23	15-Mar-24	03-Aug-23	09-Nov-23	-31	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-Sep-23	08-Dec-22	20-May-23	-22	80%
INTS1-1300a	Sewerage works including ELSW (On Chuen St), from FMH_FL5.09 to FMH1004470 (Part 2)	60	60	22-Sep-23	04-Dec-23	22-May-23	02-Aug-23	-22	0%
INTS1-1300a	Sewerage works including ELSW (On Chuen St), from FMH_FL5.09 to FMH1004470 (Part 3)	73	73	05-Dec-23	05-Mar-24	03-Aug-23	30-Oct-23	-22	0%
INTS1-1300b	Sewerage works including ELSW (Portion K), from FMH_FL5.05 to FMH_FL5.06	93	11	08-Dec-22 A	20-Sep-23	08-Dec-22	20-Jul-23	-112	88.17%
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-Sep-23	14-Jan-23	27-May-23	-153	76%
INTS1-1300c	Sewerage works including ELSW (STK Road), from FMH_FL5.00 to FMH_FL5.02 (Part 2)	84	84	29-May-23 A	04-Jan-24	29-May-23	05-Sep-23	-153	0%
	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	14	31-Jul-23 A	23-Sep-23	31-Jul-23	31-Aug-23	-71	50%
	Stormwater 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	14-Sep-23	13-Dec-23	-48	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	01-Aug-23	27-Oct-23	-146	0%
	Footbridge F6 (Part D)								
INTS1-9020	ELS for F6 Part D	80	80	25-Oct-23	29-Jan-24	15-Aug-23	18-Nov-23	-133	0%
	CLC								
CLC-1050	Installation of prefabricated panel, including E&M	42	1	08-Aug-23 A	08-Sep-23	17-Aug-23	06-Oct-23	283	97.62%
CLC-1060	Connection of electricity supply	6	6	09-Sep-23	15-Sep-23	07-Oct-23	13-Oct-23	283	0%
CLC-1070	Connection of water supply	6	6	09-Sep-23	15-Sep-23	07-Oct-23	13-Oct-23	283	0%
CLC-1080	Site clearance works and handover	6	6	16-Sep-23	22-Sep-23	14-Oct-23	20-Oct-23	283	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	66	29-Aug-23 A	27-Nov-23	30-May-23	13-Sep-23	-48	26.67%
	Construction of Underpass (Portion H, J, K)								
	Pipe Pile Installation (Underpass Bay 9 - Bay 11)								
INTS2-4040	Pipe piling (A4)	10	3	03-Aug-23 A	11-Sep-23	03-Aug-23	14-Aug-23	-81	70%
INTS2-4050	Pipe piling (B3)	14	14	22-Aug-23 A	27-Sep-23	15-Aug-23	30-Aug-23	-81	0%
INTS2-4060	Pipe piling (B4b)	7	7	11-Dec-23	18-Dec-23	31-Aug-23	07-Sep-23	-141	0%
INTS2-4070	Pipe piling (A6)	8	8	05-Jan-24	13-Jan-24	08-Sep-23	16-Sep-23	-153	0%
	ELSW for Underpass Bay 9- Bay 11								
INTS2-4100	King post installation	14	10	08-Aug-23 A	19-Sep-23	18-Jul-23	02-Aug-23	-176	28.57%
INTS2-4110	Excavation to below 1st layer of strut	6	6	27-Sep-23	05-Oct-23	03-Aug-23	09-Aug-23	-182	0%
INTS2-4120	Install 1st layer of strut	6	6	06-Oct-23	12-Oct-23	10-Aug-23	16-Aug-23	-182	0%
INTS2-4130	Excavation to below 2nd layer of strut	6	6	13-Oct-23	19-Oct-23	17-Aug-23	23-Aug-23	-182	0%



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Milestone
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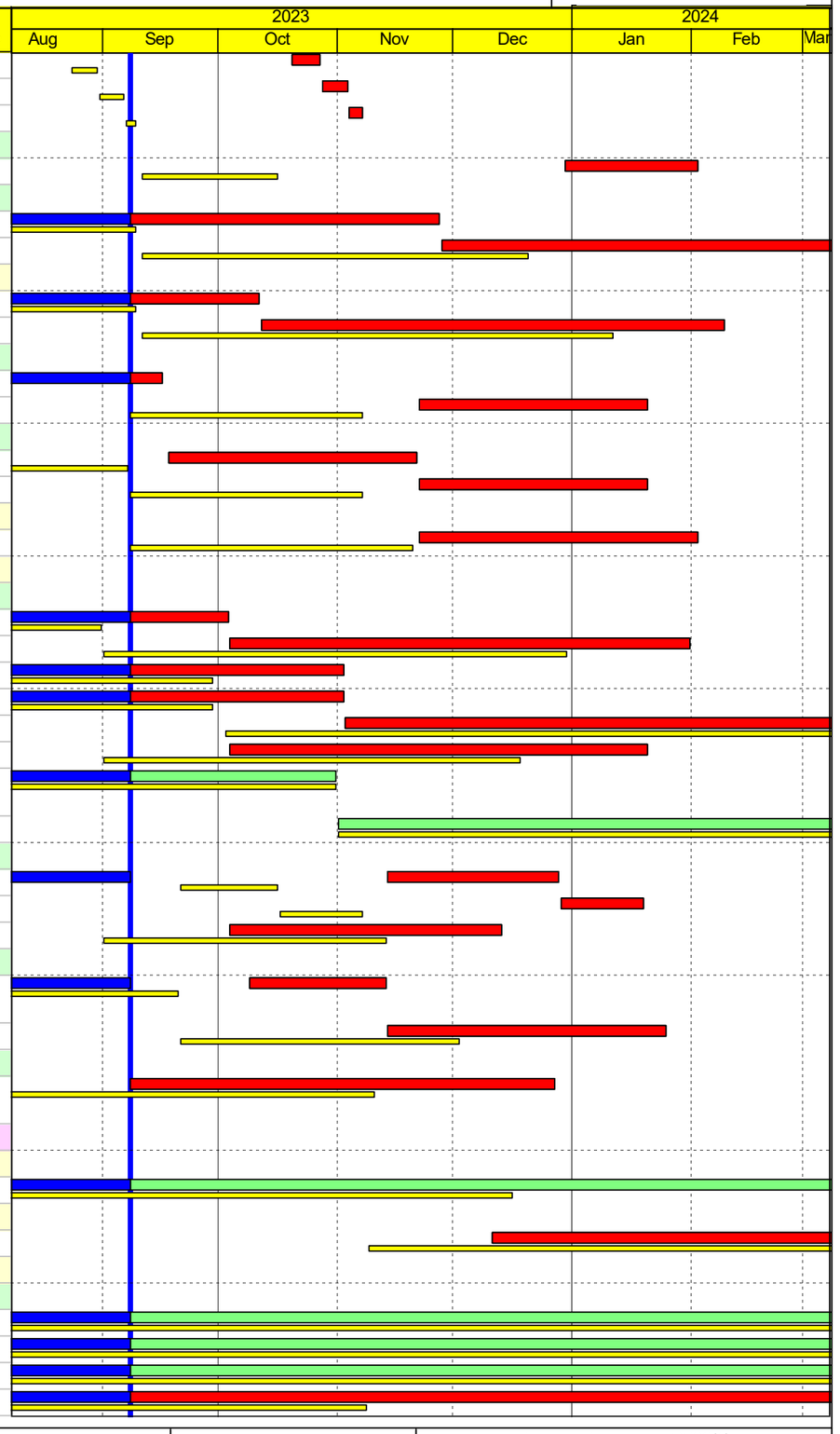
Activity ID	Activity Name	Orig. Dur.	Rem. Dur.	Start	Finish	BL Start RP06(1)	BL Finish RP06(1)	Total Float	Activity % Complete
INTS2-4140	Install 2nd layer of strut	6	6	20-Oct-23	27-Oct-23	24-Aug-23	30-Aug-23	-182	0%
INTS2-4150	Excavate to founding level	6	6	28-Oct-23	03-Nov-23	31-Aug-23	06-Sep-23	-182	0%
INTS2-4160	Formation and blinding	3	3	04-Nov-23	07-Nov-23	07-Sep-23	09-Sep-23	-182	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	11-Sep-23	16-Oct-23	-225	0%
Underpass C14-C15									
INTS2-1010-1	ELS for Bay C14 to C15 (13m/bay, 60days/bay, 2no. workfronts)-Part 2	50	66	08-Aug-23 A	27-Nov-23	14-Jul-23	09-Sep-23	-94	0%
INTS2-1090	Structure Works for Bay C15	84	84	28-Nov-23	11-Mar-24	11-Sep-23	20-Dec-23	-94	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	11-Oct-23	10-Jul-23	09-Sep-23	-39	50%
INTS2-2000b	Fabrication of noise enclosure material	100	100	12-Oct-23	09-Feb-24	11-Sep-23	11-Jan-24	-39	0%
Noise Barrier FLN-SE22 (Near Sha Tau Kok)									
INTS2-1030	Noise Barrier Footing-Northbound	50	8	08-May-23 A	16-Sep-23	08-May-23	07-Jul-23	-114	84%
INTS2-1030-1	Noise Barrier Footing-Central Median	49	49	22-Nov-23	20-Jan-24	08-Sep-23	07-Nov-23	-114	0%
Noise Barrier FLN-SE21 (Near Fanling)									
INTS2-1030a	Noise Barrier Footing-Northbound	53	53	18-Sep-23	21-Nov-23	08-Jul-23	07-Sep-23	-114	0%
INTS2-1030	Noise Barrier Footing-Central Median	49	49	22-Nov-23	20-Jan-24	08-Sep-23	07-Nov-23	-114	0%
UU works (Portion J)									
INTS2-1040	UU Works (drainage) - Northbound of Sha Tau Kok Road (after TTA2)-Part 1	60	60	22-Nov-23	02-Feb-24	08-Sep-23	20-Nov-23	-24	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	03-Oct-23	11-Apr-23	31-Aug-23	-156	94.1%
INTS2-1450-0	Fabrication and delivery of steel element an canopy for Footbridge F6	99	99	04-Oct-23	31-Jan-24	01-Sep-23	30-Dec-23	-106	0%
INTS2-1450-1	Combined Builder Works for lift shaft	111	45	08-May-23 A	02-Nov-23	08-May-23	29-Sep-23	0	59.46%
INTS2-1450	Installation drawing for lift	111	45	08-May-23 A	02-Nov-23	08-May-23	29-Sep-23	0	59.46%
INTS2-1450	Fabrication for lift	165	165	03-Nov-23	27-May-24	03-Oct-23	24-Apr-24	0	0%
INTS2-1450	Design and Approval of bearing for Footbridge F6	90	90	04-Oct-23	20-Jan-24	01-Sep-23	18-Dec-23	-156	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	31-Oct-23	08-May-23	31-Oct-23	1	70.55%
INTS2-1450	Procurement of lighting items and E&M items	144	144	01-Nov-23	27-Apr-24	01-Nov-23	27-Apr-24	1	0%
Part A (Cable D)									
INTS2-1310	F6 piling (Part A)(remaining 10 nos Hpiles, 3 piles/wk)	20	37	30-Jul-23 A	28-Dec-23	21-Sep-23	16-Oct-23	-120	0%
INTS2-1310a	Loading test of socketed H pile	18	18	29-Dec-23	19-Jan-24	17-Oct-23	07-Nov-23	-120	0%
INTS2-3000c	F6 pier works C01, C02 (2 Piers), 1WF	60	60	04-Oct-23	13-Dec-23	01-Sep-23	13-Nov-23	-27	0%
Part B (Some part After Cable D)									
INTS2-1060	Piling for Footbridge F6 (Part B2) and lift (constrainted by CLP 11kV cables), remaining no.=24 nos.at 3 piles/wk)	64	30	05-Sep-22 A	13-Nov-23	05-Sep-22	20-Sep-23	-184	53.13%
INTS2-1060a	ELS for pile cap and pier at P07, P08, C03 (3 locations)	60	60	14-Nov-23	25-Jan-24	21-Sep-23	02-Dec-23	-184	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-Sep-23	27-Dec-23	26-Jul-23	10-Nov-23	-43	0%
Stage 3									
TTA no.3									
INTS3-0010	Design, submit, processing & approval for TTA no.3	180	153	15-May-23 A	14-Mar-24	15-May-23	16-Dec-23	62	15%
Road, drainage and UU Works (Portion H)									
INTS3-101	Lighting, E&M and BS Procurement	200	200	11-Dec-23	15-Aug-24	09-Nov-23	15-Jul-24	-21	0%
Stormwater Pumping Station (after TTA Stage 3) (Portion H)									
Statutory Submission and Design									
INTS3-103	FS design (Stormwater pumping station)	268	192	08-May-23 A	04-May-24	08-May-23	28-Mar-24	33	28.36%
INTS3-103-1	Submersible pump design (Stormwater pumping station)	268	192	08-May-23 A	04-May-24	08-May-23	28-Mar-24	33	28.36%
INTS3-103-2	Scada design (Stormwater pumping station)	268	192	08-May-23 A	04-May-24	08-May-23	28-Mar-24	33	28.36%
INTS3-103-4	Lighting and E&M for Stormwater Pumping Station	153	153	08-May-23 A	14-Mar-24	08-May-23	08-Nov-23	-14	0%



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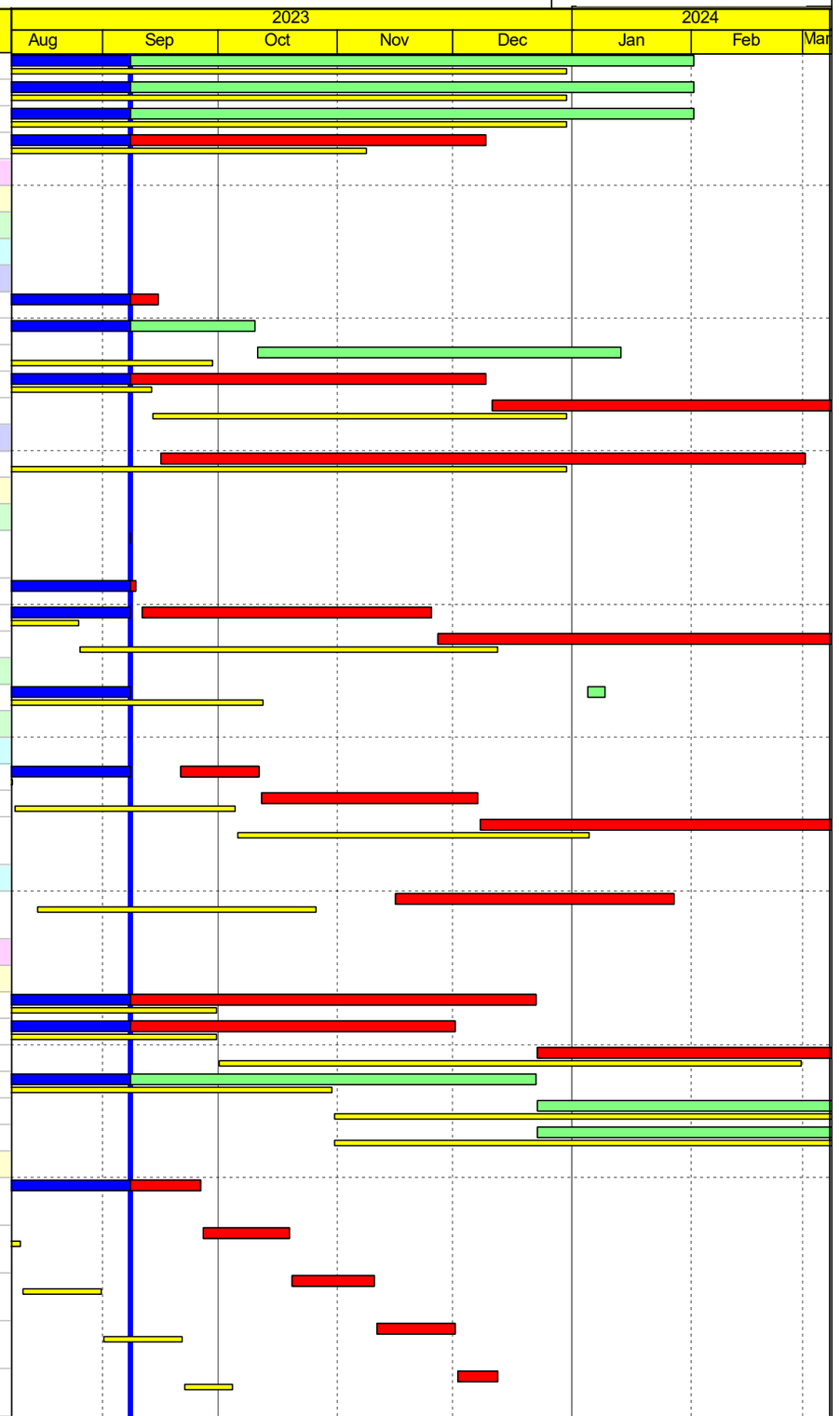
INTS3-104	Flood alarm system design (Underpass)	196	120	08-May-23 A	01-Feb-24	08-May-23	30-Dec-23	5	38.78%
INTS3-104-1	Flood alarm system civil requirement (Underpass)	196	120	08-May-23 A	01-Feb-24	08-May-23	30-Dec-23	5	38.78%
INTS3-104-2	FS radio communication system (Underpass)	196	120	08-May-23 A	01-Feb-24	08-May-23	30-Dec-23	5	38.78%
INTS3-104-4	Lighting system and E&M (underpass)	153	77	08-May-23 A	09-Dec-23	08-May-23	08-Nov-23	-21	49.67%
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	15-Sep-23	08-May-23	20-Jul-23	-37	88.52%
UTRA-1003	Excavation and ELS Installation (4-9)	26	26	30-May-23 A	10-Oct-23	30-May-23	29-Jun-23	26	0%
UTRA-1004	Structure (5-9)	78	78	11-Oct-23	13-Jan-24	30-Jun-23	29-Sep-23	26	0%
UTRA-1006	Excavation and ELS Installation (9-12)	77	77	08-Jul-23 A	09-Dec-23	14-Jun-23	13-Sep-23	-35	0%
UTRA-1007	Structure (10-12) including all wall construction and backfill, removal of strut	88	88	11-Dec-23	28-Mar-24	14-Sep-23	30-Dec-23	-35	0%
Retaining Wall									
UTRA-2001	Retaining wall FW29	135	135	16-Sep-23	01-Mar-24	21-Jul-23	30-Dec-23	-37	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	0	0	08-Sep-23	08-Sep-23	08-May-23	08-May-23	0	0%
UTR-1000a	Sheet pile installation for U-trough B (B1-B3)	60	2	13-Jun-22 A	09-Sep-23	13-Jun-22	09-May-23	-2	96.67%
UTR-1010	ELS for U-trough B (B1 - B3, 3 bays)	90	63	10-May-23 A	25-Nov-23	10-May-23	25-Aug-23	-2	30%
UTR-1040	Construction of U-trough B (3 bays, 15m/bay, 30d/bay,1workfronts)	90	90	27-Nov-23	16-Mar-24	26-Aug-23	12-Dec-23	-2	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	09-Jan-24	13-Jun-22	12-Oct-23	9	96.36%
Remaining Works at Depressed road and Slip Road at both side of Depressed Road B									
Slip Road from Interchange to Fanling Highway									
UTR-3100	Retaining Wall FW9 (13 bays, 15d/bay,2 teams)-Part 1	50	16	06-Mar-23 A	11-Oct-23	06-Mar-23	08-Aug-23	-112	68%
UTR-3100a	Retaining Wall FW9 (13 bays, 15d/bay,2 teams)-Part 2	48	48	12-Oct-23	07-Dec-23	09-Aug-23	05-Oct-23	-112	0%
UTR-3110	UU works along FW9 (including backfilling, drainage, watermain along slip road)-Part 1	75	75	08-Dec-23	11-Mar-24	06-Oct-23	05-Jan-24	-112	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	16-Nov-23	27-Jan-24	15-Aug-23	26-Oct-23	-168	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	106	08-May-23 A	22-Dec-23	08-May-23	30-Sep-23	-48	27.4%
SPS-102	Submission and approval of FS design and Flame detector	365	85	01-Dec-22 A	01-Dec-23	01-Dec-22	30-Sep-23	-27	76.71%
SPS-103	Submission and approval of DDA to DSD	152	152	23-Dec-23	22-May-24	01-Oct-23	29-Feb-24	-48	0%
SPS-105	Submission and approval of WWO 542 (FS and Portable / Flushing)	365	106	08-Aug-22 A	22-Dec-23	08-Aug-22	30-Oct-23	15	70.96%
SPS-106	Mega Link Application	180	180	23-Dec-23	19-Jun-24	31-Oct-23	27-Apr-24	15	0%
SPS-107	Direct Link Application	180	180	23-Dec-23	19-Jun-24	31-Oct-23	27-Apr-24	15	0%
Excavation and ELS									
SPS-1010b	Excavate (existing GL to +7.35mPD) to and Install L1 ELS @ +7.850 mPD between PP2 and PP3 only; Qty:463 m3 @ 300 m3/d)	11	16	22-Jul-23 A	26-Sep-23	05-Jul-23	20-Jul-23	-69	0%
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	18	27-Sep-23	19-Oct-23	21-Jul-23	10-Aug-23	-69	0%
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	10-Nov-23	11-Aug-23	31-Aug-23	-69	0%
SPS-1010e	Excavate (-1.65mPD to -3.985 mPD) between PP2 and PP3 to FEL (Qty: 485m3 @ 175m3/d)	18	18	11-Nov-23	01-Dec-23	01-Sep-23	21-Sep-23	-69	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	02-Dec-23	12-Dec-23	22-Sep-23	04-Oct-23	-69	0%



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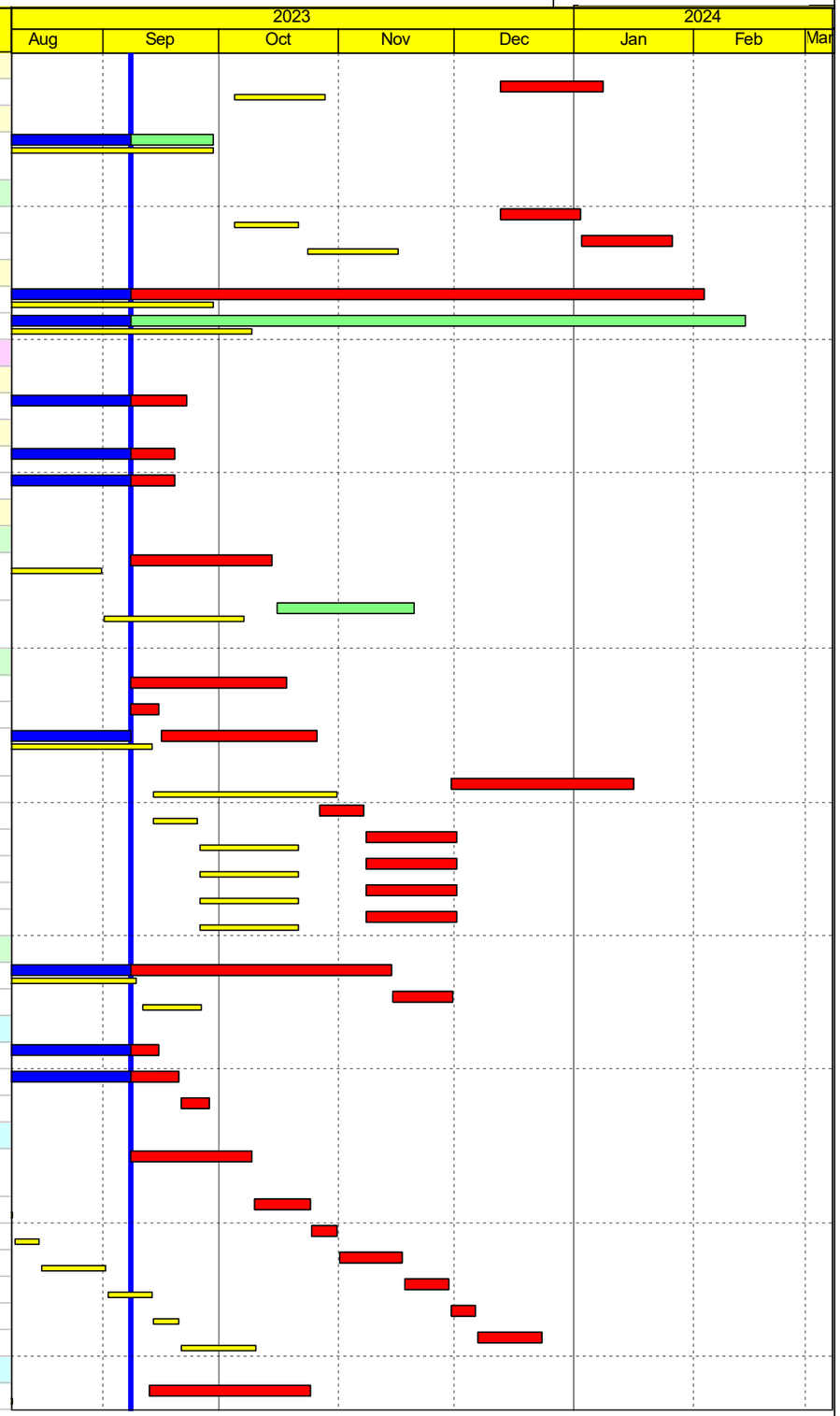
Structural Works									
SPS-1030a	Construct Base Slab plus kicker (Wet Well) and remove L3 strut	20	20	13-Dec-23	08-Jan-24	05-Oct-23	28-Oct-23	-69	0%
Transformer Room, Switch Room									
SPS-1020	Transformer room civil requirement and Tx room and LV switch room electrical layout design (by CLP)	122	19	08-May-23 A	29-Sep-23	08-May-23	29-Sep-23	15	84.43%
Tx and Switch Rooms - Structures									
SPS-1020-01	Construct Base Slab for Tx Room and Switch Room	15	15	13-Dec-23	02-Jan-24	05-Oct-23	21-Oct-23	-45	0%
SPS-1020-02	Construct Wall and Columns for Tx Room and Switch Room	21	21	03-Jan-24	26-Jan-24	24-Oct-23	16-Nov-23	-45	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	122	08-Aug-22 A	03-Feb-24	08-Aug-22	29-Sep-23	-179	61.51%
SPS-1035	E&M, BS and ABWF Procurement	227	128	07-Nov-22 A	14-Feb-24	07-Nov-22	09-Oct-23	11	43.61%
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	22-Sep-23	26-Jun-23	11-Jul-23	-111	0%
Sublet and Design for Ancillary and Services Block									
OLMSP-100b	Submission & Approval - Shop Drawing	60	12	21-Nov-22 A	19-Sep-23	21-Nov-22	20-May-23	-154	80%
OLMSP-100b	Submission & Approval - Materials	94	12	21-Nov-22 A	19-Sep-23	21-Nov-22	19-May-23	-119	87.23%
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	08-Sep-23	14-Oct-23	08-Dec-22	31-Aug-23	-64	0%
OLMSP-500b	Dismantle existing water main supply to wholesale market (for subsequent construction of Depressed Rd B - Bay 4-10)	30	30	16-Oct-23	20-Nov-23	01-Sep-23	07-Oct-23	45	0%
Public Area									
OLMSP-600	Construction of fence wall (Part 1)	33	33	08-Sep-23	18-Oct-23	26-Jun-23	03-Aug-23	-59	0%
OLMSP-600a	Construction of fence wall (Part 2)	7	7	08-Sep-23	15-Sep-23	26-Jun-23	04-Jul-23	-111	0%
OLMSP-610	External cable drawpits and cable ducting for E&M services includign CLP and direct link	61	32	05-Jul-23 A	26-Oct-23	05-Jul-23	13-Sep-23	-111	47.54%
OLMSP-610a	Cabling (by CLP)	38	38	30-Nov-23	16-Jan-24	14-Sep-23	31-Oct-23	-140	0%
OLMSP-620	Backfilling works	10	10	27-Oct-23	07-Nov-23	14-Sep-23	25-Sep-23	-65	0%
OLMSP-630	U channel and catchpit	21	21	08-Nov-23	01-Dec-23	26-Sep-23	21-Oct-23	-65	0%
OLMSP-640	Staircase	21	21	08-Nov-23	01-Dec-23	26-Sep-23	21-Oct-23	-65	0%
OLMSP-650	Granite tiling	21	21	08-Nov-23	01-Dec-23	26-Sep-23	21-Oct-23	-65	0%
OLMSP-670	Builder works (Gate, railing, footpath, arbour, signage etc)	21	21	08-Nov-23	01-Dec-23	26-Sep-23	21-Oct-23	-65	0%
New Skateboard Park									
OLMSP-126	Submission and Approval of General Building Plan (GBP)	105	55	08-May-23 A	14-Nov-23	08-May-23	09-Sep-23	-103	47.62%
OLMSP-126	Submission of Form 501	14	14	15-Nov-23	30-Nov-23	11-Sep-23	26-Sep-23	-103	0%
Site Formation and UUs									
OLMSP-10	Stormwater drainage works within the park	90	7	08-Dec-22 A	15-Sep-23	08-Dec-22	15-Jul-23	-105	92.22%
OLMSP-10	Retaining Wall FW31 (13 bays, 15d/bay, 3 teams)	69	11	09-Aug-22 A	20-Sep-23	09-Aug-22	20-Jul-23	-104	84.06%
OLMSP-10	Backfilling behind retaining wall	7	7	21-Sep-23	28-Sep-23	21-Jul-23	28-Jul-23	-104	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	08-Sep-23	09-Oct-23	26-Jun-23	25-Jul-23	-123	0%
OLMSP-10	Install vertical wall	12	12	10-Oct-23	24-Oct-23	26-Jul-23	08-Aug-23	-123	0%
OLMSP-10	Install steps	6	6	25-Oct-23	31-Oct-23	09-Aug-23	15-Aug-23	-123	0%
OLMSP-10	Install transition and banks	15	15	01-Nov-23	17-Nov-23	16-Aug-23	01-Sep-23	-123	0%
OLMSP-10	Install flat works	10	10	18-Nov-23	29-Nov-23	02-Sep-23	13-Sep-23	-123	0%
OLMSP-10	All other remaining works (inspection and rectify defect)	6	6	30-Nov-23	06-Dec-23	14-Sep-23	20-Sep-23	-123	0%
OLMSP-10	BS works (lighting installation by Kum Shing)	15	15	07-Dec-23	23-Dec-23	21-Sep-23	10-Oct-23	-123	0%
Landscape Area									
OLMSP-102	Construction of fence wall	33	33	13-Sep-23	24-Oct-23	30-Jun-23	08-Aug-23	-87	0%



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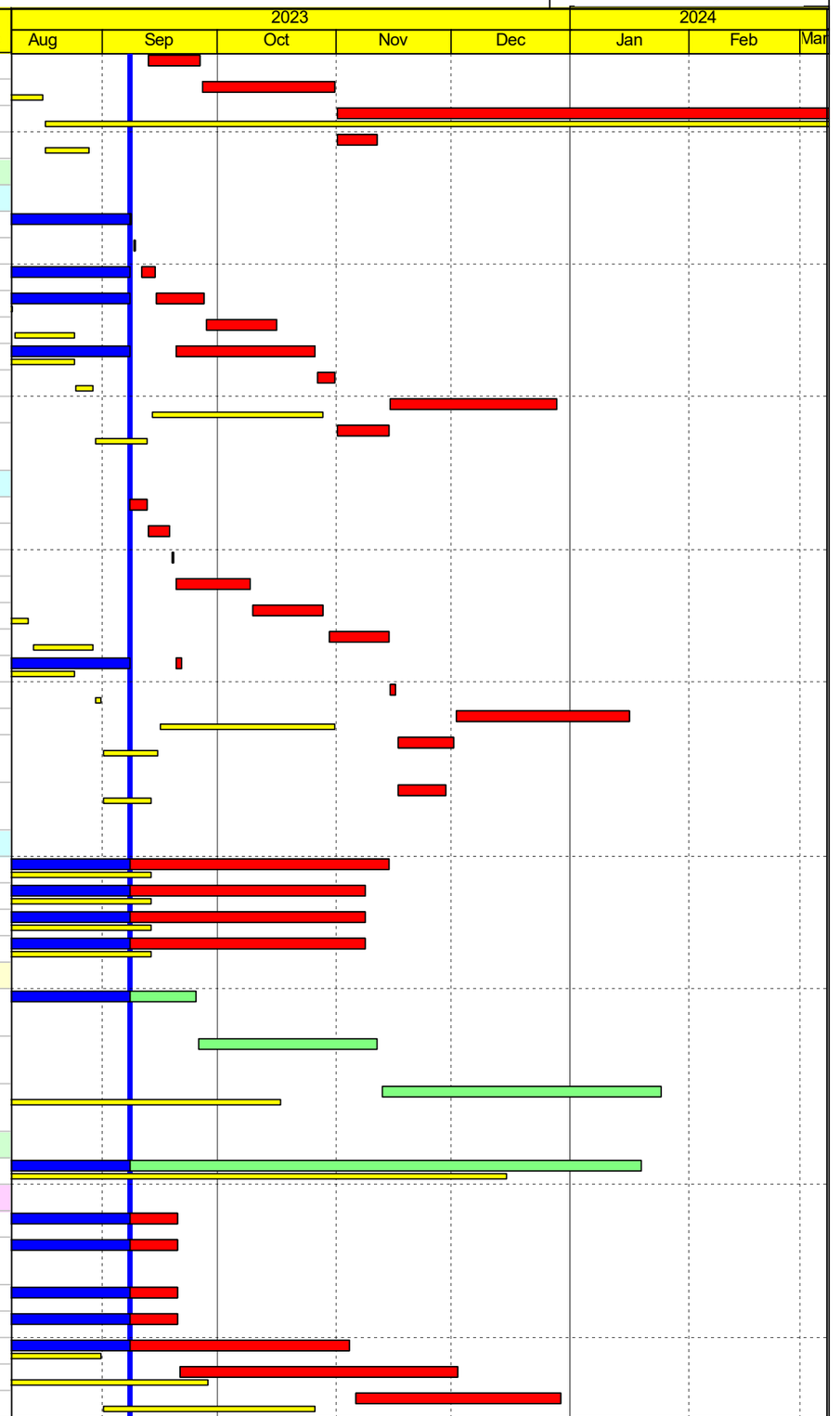
Activity ID	Activity Name	Orig. Dur.	Rem. Dur.	Start	Finish	BL Start RP06(1)	BL Finish RP06(1)	Total Float	Activity % Complete
OLMSP-10	Construction of concrete access	12	12	13-Sep-23	26-Sep-23	30-Jun-23	14-Jul-23	-87	0%
OLMSP-10	Landscaping Softworks with acceptance by clients (S3)	27	27	27-Sep-23	31-Oct-23	17-Jul-23	16-Aug-23	-87	0%
OLMSP-10	Establishment works	365	365	01-Nov-23	30-Oct-24	17-Aug-23	15-Aug-24	-48	0%
OLMSP-10	BS works (lighting installation by Kum Shing and irrigation system)	10	10	01-Nov-23	11-Nov-23	17-Aug-23	28-Aug-23	-87	0%
Ancillary Block & Service Block and other facility									
Ancillary Block									
OLMSP-12	Construction of Ancillary Block (Foundation)-rebar fixing	5	1	20-Jun-23 A	08-Sep-23	20-Jun-23	26-Jun-23	-120	80%
OLMSP-12	Construction of Ancillary Block (Foundation)-concreting	1	1	09-Sep-23	09-Sep-23	27-Jun-23	27-Jun-23	-120	0%
OLMSP-12	Bearing wall construction and pump room main structure	15	4	28-Jun-23 A	14-Sep-23	28-Jun-23	15-Jul-23	-120	73.33%
OLMSP-12	Building drainage	20	11	08-Jul-23 A	27-Sep-23	17-Jul-23	08-Aug-23	-120	45%
OLMSP-12	Backfilling works	14	14	28-Sep-23	16-Oct-23	09-Aug-23	24-Aug-23	-120	0%
OLMSP-12	Construction of Ancillary Block (Fabrication) including structural and ABWF	51	29	26-Jun-23 A	26-Oct-23	26-Jun-23	24-Aug-23	-128	43.14%
OLMSP-12	Construction of Ancillary Block (Installation)	4	4	27-Oct-23	31-Oct-23	25-Aug-23	29-Aug-23	-128	0%
OLMSP-12	BS work (Lighitng, flushing/cleansing pump, plumbing, hose reel)	36	36	15-Nov-23	28-Dec-23	14-Sep-23	28-Oct-23	-125	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	01-Nov-23	14-Nov-23	30-Aug-23	12-Sep-23	-125	0%
Service Block									
OLMSP-123	Construction of Service Block (Foundation)-formworks erection	4	4	08-Sep-23	12-Sep-23	26-Jun-23	29-Jun-23	-140	0%
OLMSP-12	Construction of Service Block (Foundation)-rebar fixing	5	5	13-Sep-23	18-Sep-23	30-Jun-23	06-Jul-23	-140	0%
OLMSP-12	Construction of Service Block (Foundation)-concreting	1	1	19-Sep-23	19-Sep-23	07-Jul-23	07-Jul-23	-140	0%
OLMSP-12	Bearing wall construction	15	15	20-Sep-23	09-Oct-23	08-Jul-23	25-Jul-23	-140	0%
OLMSP-12	Building drainage	16	16	10-Oct-23	28-Oct-23	26-Jul-23	12-Aug-23	-140	0%
OLMSP-12	Backfilling works	14	14	30-Oct-23	14-Nov-23	14-Aug-23	29-Aug-23	-140	0%
OLMSP-12	Construction of Service Block (Fabrication) including structural and ABWF	51	2	26-Jun-23 A	21-Sep-23	26-Jun-23	24-Aug-23	-97	96.08%
OLMSP-12	Construction of Service Block (Installation)	2	2	15-Nov-23	16-Nov-23	30-Aug-23	31-Aug-23	-140	0%
OLMSP-12	BS work (Lighting, FS pump, plumbing, AC for switch room and call point)	36	36	02-Dec-23	16-Jan-24	16-Sep-23	31-Oct-23	-140	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-Nov-23	01-Dec-23	01-Sep-23	15-Sep-23	-140	0%
OLMSP-123(	Works required by CLP at Meter room (meter board and lock for the door of meter room)	11	11	17-Nov-23	29-Nov-23	01-Sep-23	13-Sep-23	-140	0%
Material Submissions (MEP)									
OLMSP-25	Procurement of MVAC item	62	68	14-Jul-23 A	14-Nov-23	14-Jul-23	13-Sep-23	-152	0%
OLMSP-25	Procurement of FS (including FS pump) item	62	62	14-Jul-23 A	08-Nov-23	14-Jul-23	13-Sep-23	-146	0%
OLMSP-25	Procurement of Pumping and Drainageitem	62	62	14-Jul-23 A	08-Nov-23	14-Jul-23	13-Sep-23	-146	0%
OLMSP-25	Procurement of Electrical item	62	62	14-Jul-23 A	08-Nov-23	14-Jul-23	13-Sep-23	-146	0%
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	25-Sep-23	08-May-23	20-Jun-23	15	59.46%
OLMSP-1050a	Retaining Wall FW10 (around 75m, 10 bays,15d/bay, 2 team) and other facilities-Part 2	38	38	26-Sep-23	11-Nov-23	21-Jun-23	05-Aug-23	15	0%
OLMSP-1100	Backfilling work to Retaining Wall FW10 & remaining area (between abutment (by Contract C5) and Depressed road B)	60	60	13-Nov-23	24-Jan-24	07-Aug-23	17-Oct-23	15	0%
Temporary Skateboard Park Scheme									
OLMSP-2570	Operation of mini Skateboard Park	140	109	03-Jul-23 A	19-Jan-24	03-Jul-23	15-Dec-23	157	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-Sep-23	11-Apr-23	20-Jul-23	-45	98.17%
PTRCP-100-11	Submission and approval of E&M design for RCP and Toilet (Civil requirement, MVAC, Plumbling, Electrical)	602	11	11-Apr-23 A	20-Sep-23	11-Apr-23	20-Jul-23	-45	98.17%
PTRCP-100-21	Submission and approval of UU and drainage design for RCP and Toilet	602	11	11-Apr-23 A	20-Sep-23	11-Apr-23	20-Jul-23	-45	98.17%
PTRCP-100-31	Submission and approval of ABWF for RCP and Toilet	602	11	11-Apr-23 A	20-Sep-23	11-Apr-23	20-Jul-23	-45	98.17%
PTRCP-100-41	Submission and approval of material submission for RCP and Toilet	97	47	08-May-23 A	04-Nov-23	08-May-23	31-Aug-23	-21	51.55%
PTRCP-100-61	Submission and Consent for RCP and Toilet (ASD and FEHD)	60	60	21-Sep-23	02-Dec-23	21-Jul-23	28-Sep-23	-45	0%
PTRCP-100-71	Procurement of builder works and E&M items	45	45	06-Nov-23	29-Dec-23	01-Sep-23	26-Oct-23	-21	0%



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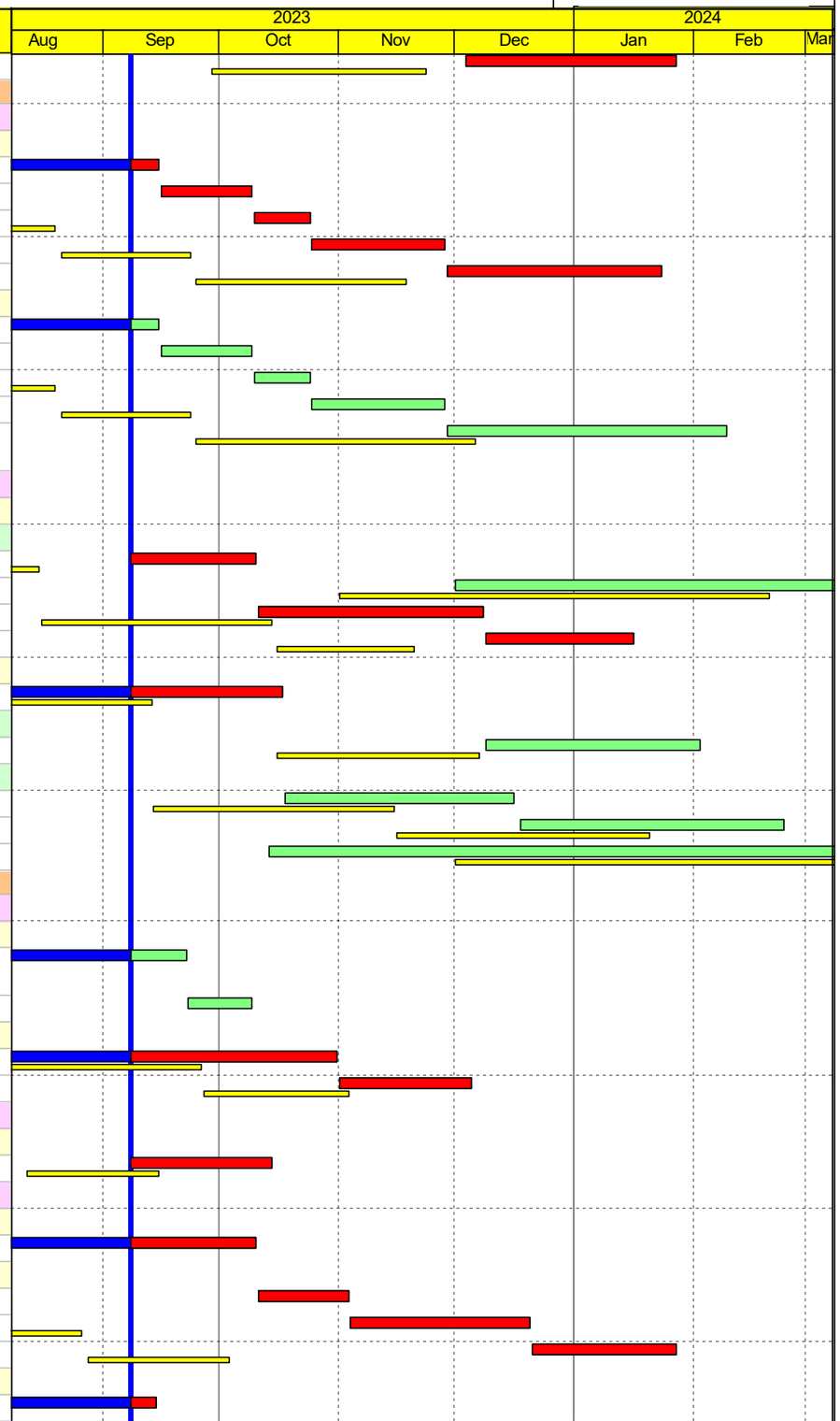
PTRCP-1000	Prefabrication of Mic Unit	45	45	04-Dec-23	27-Jan-24	29-Sep-23	23-Nov-23	-45	0%
Works in Portion A and Portion B (KD5)									
Portion A									
Noise Barrier NB91									
OTH-A-500	TTA and RA	57	7	08-May-23 A	15-Sep-23	08-May-23	15-Jul-23	-7	87.72%
OTH-A-500.1	UU detection and trial pits	18	18	16-Sep-23	09-Oct-23	17-Jul-23	05-Aug-23	-7	0%
OTH-A-500.2	Break planter, cast concrete footpath	12	12	10-Oct-23	24-Oct-23	07-Aug-23	19-Aug-23	-7	0%
OTH-A-500.3	Noise barrier 91- ELSW for pile cap	30	30	25-Oct-23	28-Nov-23	21-Aug-23	23-Sep-23	-7	0%
OTH-A-5000	Noise barrier 91- Footing (Stage 1)	45	45	29-Nov-23	23-Jan-24	25-Sep-23	18-Nov-23	-7	0%
Noise Barrier NB53									
OTH-A-400	TTA and RA	57	7	08-May-23 A	15-Sep-23	08-May-23	15-Jul-23	193	87.72%
OTH-A-400.1	UU detection and trial pits	18	18	16-Sep-23	09-Oct-23	17-Jul-23	05-Aug-23	193	0%
OTH-A-400.2	Break planter, cast concrete footpath	12	12	10-Oct-23	24-Oct-23	07-Aug-23	19-Aug-23	193	0%
OTH-A-400.3	Noise barrier 53- ELSW for piling platform and pile cap	30	30	25-Oct-23	28-Nov-23	21-Aug-23	23-Sep-23	193	0%
OTH-A-4000	Noise barrier 53- Piling - Assume CSD approved- mini pile : 80 nos, 1.5 day / pile (Stage 1)	60	60	29-Nov-23	09-Feb-24	25-Sep-23	06-Dec-23	193	0%
Portion B									
South Part of L3 Road									
Southbound									
OTH-B-403C	Wall of NB52	26	26	08-Sep-23	10-Oct-23	17-Jul-23	15-Aug-23	-32	0%
OTH-B-403C	Fabrication of Steel works and panel for noise barrier NB51 & NB52	90	90	01-Dec-23	21-Mar-24	01-Nov-23	20-Feb-24	211	0%
OTH-B-4040	Backfilling for drainage works	50	50	11-Oct-23	08-Dec-23	16-Aug-23	14-Oct-23	-32	0%
OTH-B-4050	Temporary access	30	30	09-Dec-23	16-Jan-24	16-Oct-23	20-Nov-23	-32	0%
North Part of L3 Road									
OTH-B-600	Assembling and Storage area for FT	108	32	08-May-23 A	17-Oct-23	08-May-23	13-Sep-23	-11	70.37%
Southbound									
OTH-B-6000	ELS for drainage works	45	45	09-Dec-23	02-Feb-24	16-Oct-23	07-Dec-23	60	0%
Northbound									
OTH-B-7000	Excavation for U-trough	51	51	18-Oct-23	16-Dec-23	14-Sep-23	15-Nov-23	112	0%
OTH-B-7010	Slab of U-trough	54	54	18-Dec-23	24-Feb-24	16-Nov-23	20-Jan-24	112	0%
OTH-B-7070a	Procurement of Lighting for gantry	199	199	14-Oct-23	18-Jun-24	01-Dec-23	05-Aug-24	171	0%
Works within Portions Q, R, S,T, U, V, X and Y (S4)									
Portion R									
Area 6									
OTH-1046-1	Stage 2 - Demolish and modify central divider, relocate public lightning, traffic signal	26	13	19-Jun-23 A	22-Sep-23	19-Jun-23	20-Jul-23	10	50%
OTH-1046-1a	Carriageway pavement and road markings	12	12	23-Sep-23	09-Oct-23	21-Jul-23	03-Aug-23	10	0%
Portion R Additional Work (Ducting Works)									
OTH-1046-7b	XP application and permit (3 months), TTA, RA	90	43	03-May-23 A	31-Oct-23	03-May-23	26-Sep-23	-98	52.22%
OTH-1046-7d	Additional ducting	30	30	01-Nov-23	05-Dec-23	27-Sep-23	03-Nov-23	-98	0%
Portion Q									
Portion Q Additional Work									
OTH-1032-1c	Additional ducting	30	30	08-Sep-23	14-Oct-23	12-Aug-23	15-Sep-23	-85	0%
Portion U									
Area 2 (Traffic Island)									
OTH-1070-2f	Set back the existing traffic island	14	26	31-May-23 A	10-Oct-23	31-May-23	15-Jun-23	-96	0%
Area 4									
OTH-1070-2g	Demolition of existing central divider	20	20	11-Oct-23	03-Nov-23	16-Jun-23	11-Jul-23	-96	0%
OTH-1070-2h	Drainage	40	40	04-Nov-23	20-Dec-23	12-Jul-23	26-Aug-23	-96	0%
OTH-1070-2i	Construction of new central divider	30	30	21-Dec-23	27-Jan-24	28-Aug-23	03-Oct-23	-96	0%
Area 3									
OTH-1070-2	Drainage works and temporary walkway	30	6	06-Apr-23 A	14-Sep-23	06-Apr-23	16-Jun-23	-86	80%



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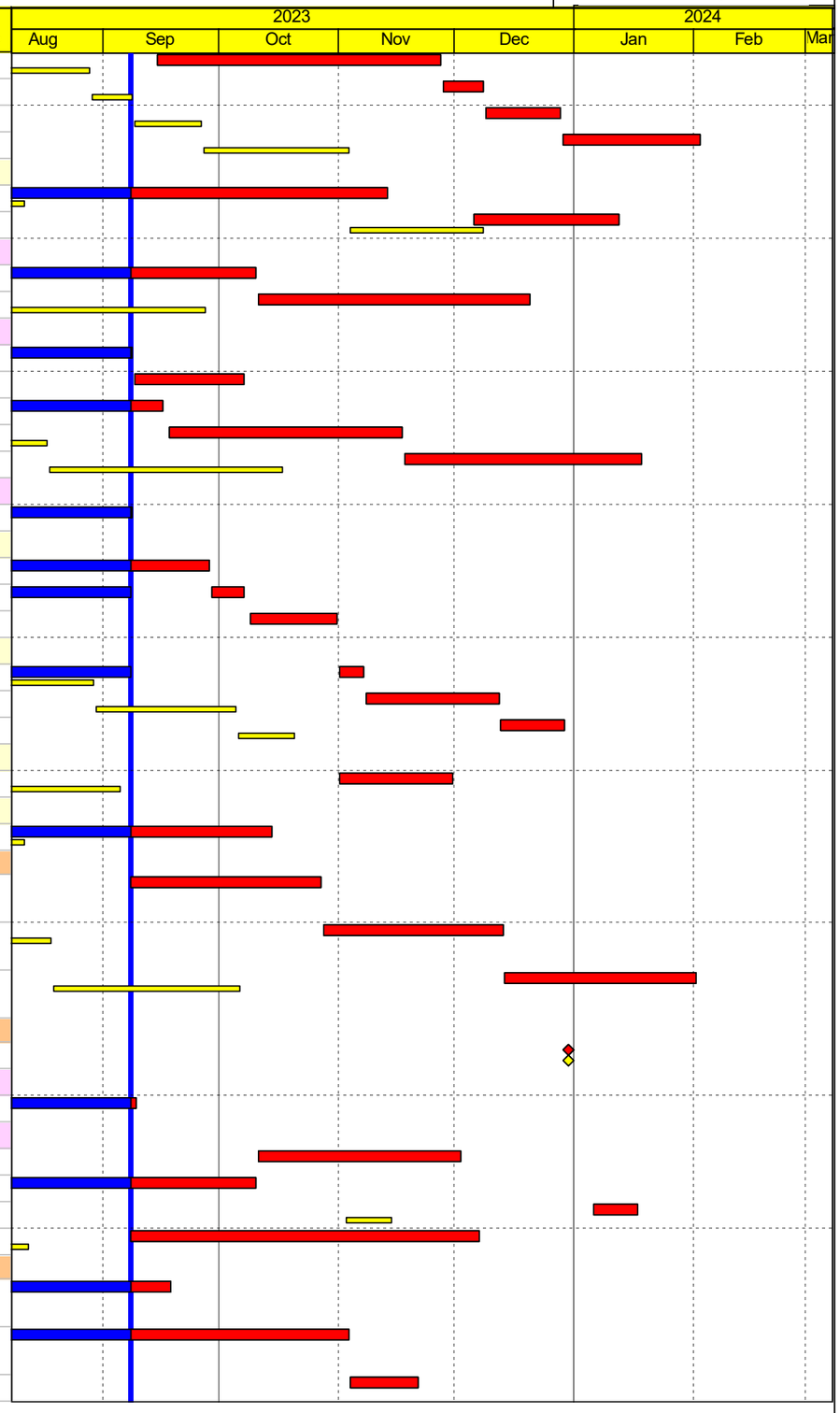
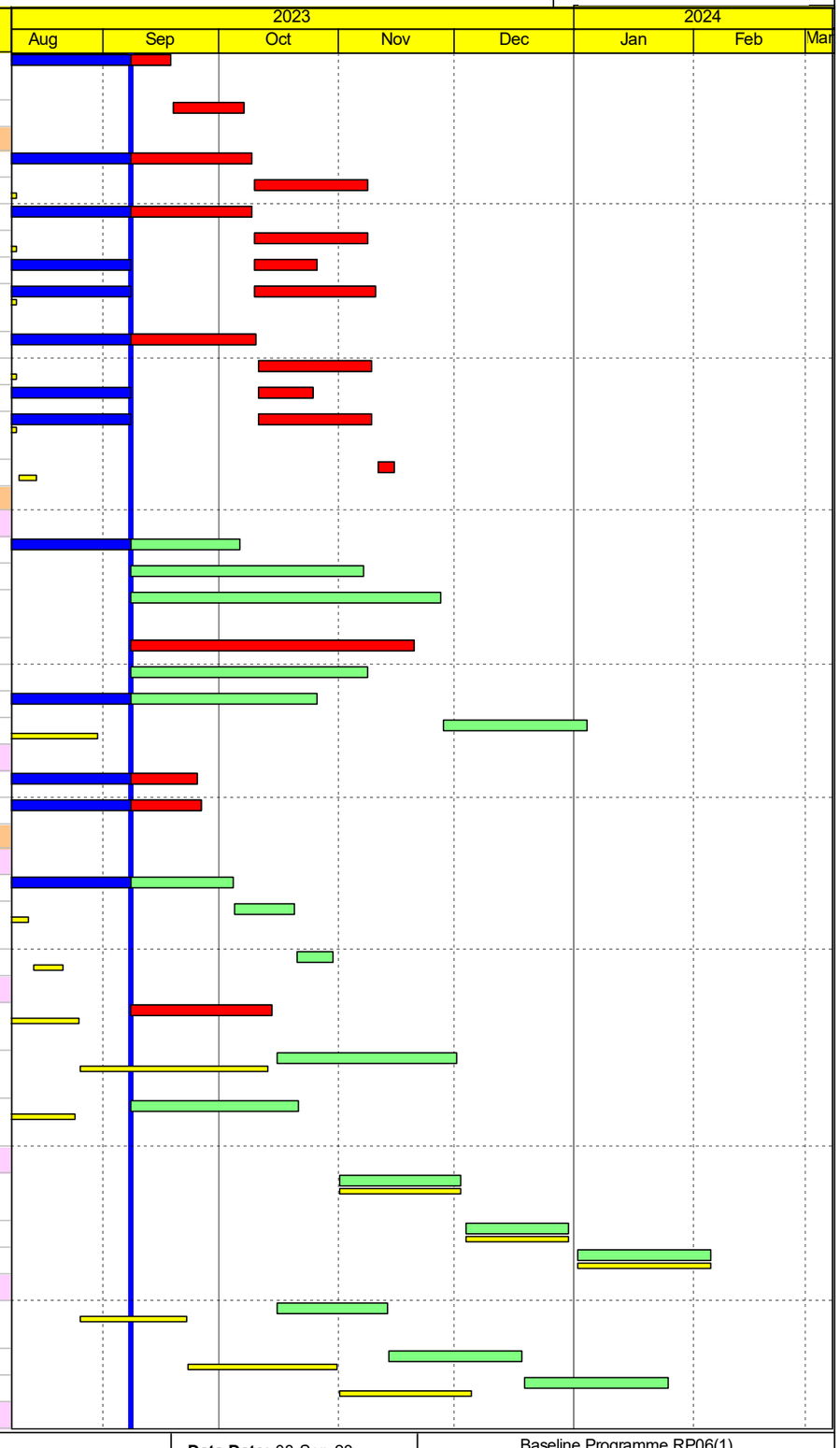
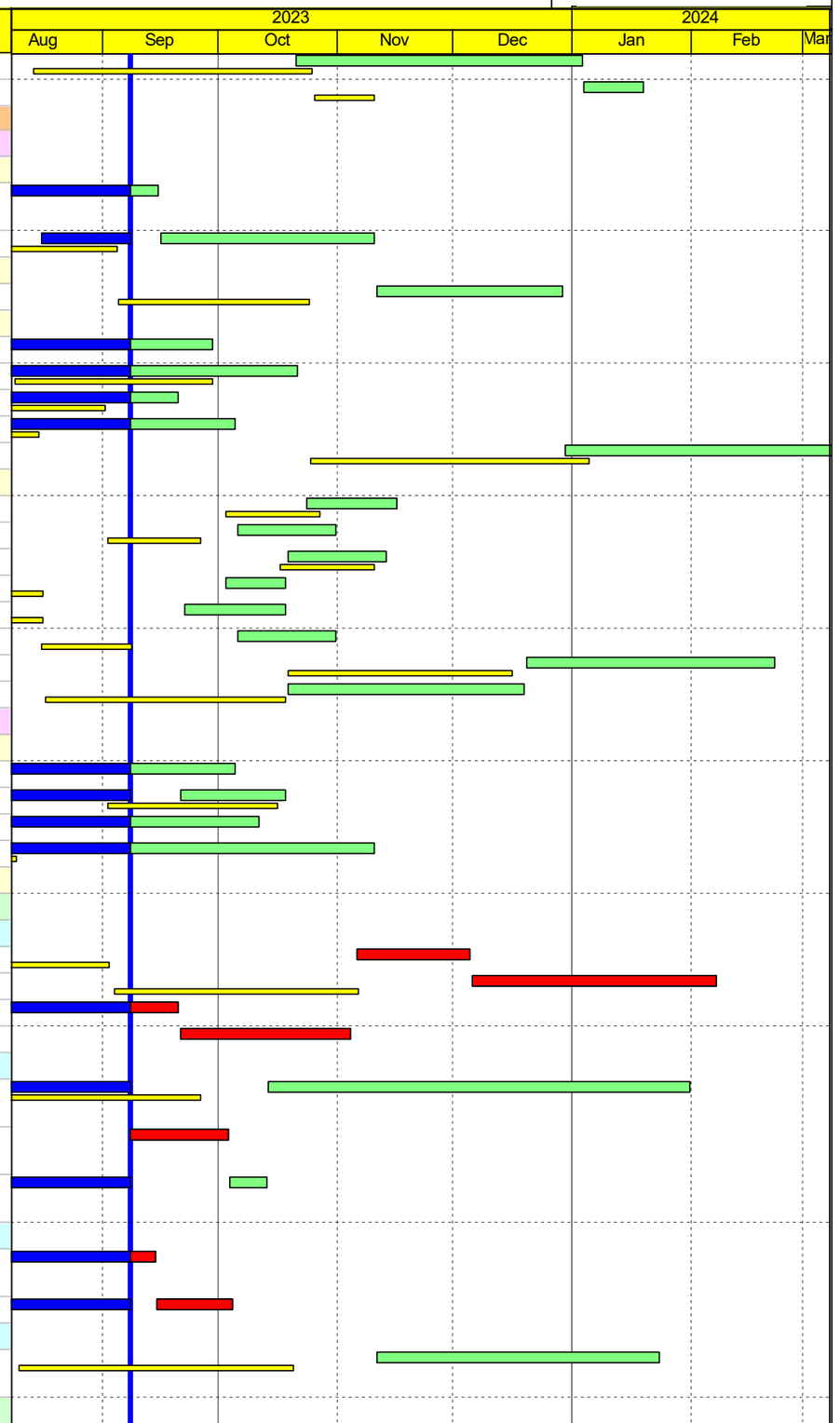
OTH-1070-3a	Construct top slab	60	60	15-Sep-23	27-Nov-23	17-Jun-23	28-Aug-23	-86	0%
OTH-1070-3c	Set back road kerb	10	10	28-Nov-23	08-Dec-23	29-Aug-23	08-Sep-23	-86	0%
OTH-1070-3d	Street furniture	15	15	09-Dec-23	28-Dec-23	09-Sep-23	26-Sep-23	-86	0%
OTH-1070-3e	Construction of carriageway	30	30	29-Dec-23	02-Feb-24	27-Sep-23	03-Nov-23	-86	0%
Portion U Additional Works									
OTH-1070-4a	XP, TTA and RA	0	54	03-May-23 A	13-Nov-23	03-May-23	11-Aug-23	-79	0%
OTH-1070-4c	Additional ducting	30	30	06-Dec-23	12-Jan-24	04-Nov-23	08-Dec-23	-98	0%
Portion S									
OTH-1050a	Subway extension (Stage 1)	60	26	15-May-23 A	10-Oct-23	15-May-23	19-Jul-23	-51	56.67%
OTH-1050b	Subway extension (Stage 2)	60	60	11-Oct-23	20-Dec-23	20-Jul-23	27-Sep-23	-51	0%
Portion X									
OTH-2030	Site formation, wing wall, retaining wall, draft wall (Part 1)	50	1	01-May-23 A	08-Sep-23	01-May-23	17-Jun-23	-66	98%
OTH-2030a	Site formation, wing wall, retaining wall, draft wall (Part 2)	23	23	09-Sep-23	07-Oct-23	19-Jun-23	17-Jul-23	-66	0%
OTH-2030b	Modify subway	50	8	15-May-23 A	16-Sep-23	15-May-23	17-Jun-23	-100	84%
OTH-2030c	Relocate public lighting, relocate directional sign	50	50	18-Sep-23	17-Nov-23	19-Jun-23	17-Aug-23	-100	0%
OTH-2040	Construct new pavement at carriageway	50	50	18-Nov-23	18-Jan-24	18-Aug-23	17-Oct-23	-100	0%
Portion V,Y									
OTH-1075	TTA application for Portion VY	209	1	27-Apr-22 A	08-Sep-23	27-Apr-22	24-Jun-23	-9	99.52%
Area 1 (New Footpath Area)									
OTH-1080-1b	Relocate Fire Hydrant	30	18	15-May-23 A	28-Sep-23	15-May-23	19-Jun-23	-57	40%
OTH-1080-1c	Drainage	20	6	20-Jun-23 A	07-Oct-23	20-Jun-23	14-Jul-23	-57	70%
OTH-1080-1d	Carriageway	19	19	09-Oct-23	31-Oct-23	15-Jul-23	05-Aug-23	-57	0%
Area 2 (Pedestrian Crossing)									
OTH-1080-2c	Demolish existing central divider	20	6	07-Aug-23 A	07-Nov-23	07-Aug-23	29-Aug-23	-57	70%
OTH-1080-2d	Construct new central divider and traffic island	30	30	08-Nov-23	12-Dec-23	30-Aug-23	05-Oct-23	-57	0%
OTH-1080-2f	Carriageway	13	13	13-Dec-23	29-Dec-23	06-Oct-23	20-Oct-23	-57	0%
Area 3 (New Pedestrian Crossing Island)									
OTH-1080-2g	Form Pedestrian Crossing and Island	26	26	01-Nov-23	30-Nov-23	07-Aug-23	05-Sep-23	-47	0%
Portion VY Additional Work									
OTH-1080-4a	XP, TTA and RA	0	30	08-May-23 A	14-Oct-23	08-May-23	11-Aug-23	-25	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	08-Sep-23	27-Oct-23	15-May-23	03-Jul-23	-85	0%
OTH-2020a	Relocation of Traffic System- Siu Wan Road Junctional works (road realignment)	40	40	28-Oct-23	13-Dec-23	04-Jul-23	18-Aug-23	-85	0%
OTH-2020b	Relocation of Traffic System- Siu Wan Road Junctional works (paving works etc)	40	40	14-Dec-23	01-Feb-24	19-Aug-23	06-Oct-23	-85	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	-80	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	09-Sep-23	08-Jun-23	26-Jun-23	-68	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	11-Oct-23	02-Dec-23	08-Jun-23	01-Aug-23	-96	0%
CLP-4005	Diversion of CLP 163m cable D1 (At portion H)(outside Underpass)	50	26	08-Dec-22 A	10-Oct-23	08-Dec-22	07-Jun-23	-96	48%
CLP-4010a	Diversion of CLP 270m cable D2 (At portion I,J,N)-at STK Rd (after TTA 2)	10	10	06-Jan-24	17-Jan-24	03-Nov-23	14-Nov-23	-132	0%
CLP-4020	Diversion of CLP 180m cable D3 -after TTA 2	75	75	08-Sep-23	07-Dec-23	15-May-23	12-Aug-23	-100	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-Sep-23	08-Dec-22	19-Jun-23	-175	85%
CLP-5030	Laying new 11kV cables(520m) F6 & underpass & U-Through B area (portion K)	60	46	08-May-23 A	03-Nov-23	08-May-23	19-Jul-23	-113	23.33%
CLP-5040	Abandon 11kV cables in Underpass and Uthrough B area (portion K)	15	15	04-Nov-23	21-Nov-23	20-Jul-23	05-Aug-23	-113	0%



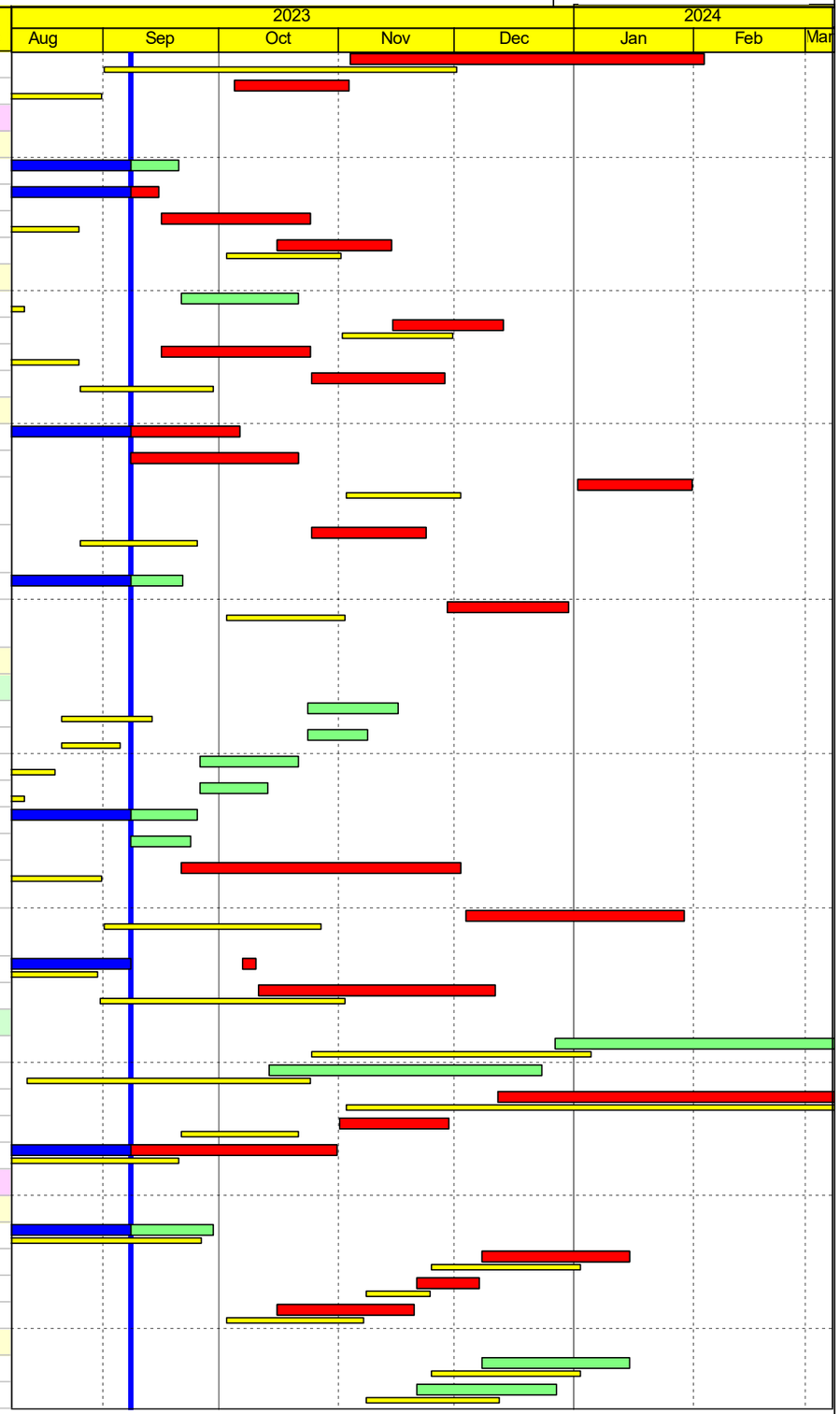
Activity ID	Activity Name	Orig. Dur.	Rem. Dur.	Start	Finish	BL Start RP06(1)	BL Finish RP06(1)	Total Float	Activity % Complete
CLP-5050	Laying new 11kV cables(400m) at STK Road and MS Road (portion J)(after TTA 2)	38	9	15-May-23 A	18-Sep-23	15-May-23	29-Jun-23	-184	76.32%
CLP-5060	Abandon 11kV cables at STK Rad and MS Road (portion J)	15	15	19-Sep-23	07-Oct-23	30-Jun-23	18-Jul-23	-184	0%
Towngas (By others)									
TG-1000	IPA gas main laying (Above Underpass C8 and along STK Rd)	45	25	11-Apr-23 A	09-Oct-23	11-Apr-23	09-Jun-23	-166	44.44%
TG-1000a	IPA gas main laying (after pipe pile underpass C9-C10)	25	25	10-Oct-23	08-Nov-23	12-Jul-23	09-Aug-23	-166	0%
TG-1010	MP gas main laying-stage 1 (Above Underpass C8 and along STK Rd)	45	25	11-Apr-23 A	09-Oct-23	11-Apr-23	09-Jun-23	-168	44.44%
TG-1010a	MP gas main laying-stage 1 (after pipe pile underpass C9-C10)	25	25	10-Oct-23	08-Nov-23	12-Jul-23	09-Aug-23	-166	0%
TG-1020	MP gas main laying-stage 2 (portion J/K, near Toilet/ RCP)	35	14	10-Jun-23 A	26-Oct-23	10-Jun-23	22-Jul-23	-155	60%
TG-1030	MP gas main laying-stage 3 (Portion P, near Playground, Data centre, On Chuen St)	50	27	10-Jun-23 A	10-Nov-23	10-Jun-23	09-Aug-23	-168	46%
TG-1040	LBG gas main laying-stage 1(Above Underpass C8 and along STK Rd)	47	26	11-Apr-23 A	10-Oct-23	11-Apr-23	09-Jun-23	-167	44.68%
TG-1040a	LBG gas main laying-stage 1 (after pipe pile underpass C9-C10)	25	25	11-Oct-23	09-Nov-23	12-Jul-23	09-Aug-23	-167	0%
TG-1050	LBG gas main laying-stage 2 (portion J/K, near Toilet/ RCP)	35	12	10-Jun-23 A	25-Oct-23	10-Jun-23	22-Jul-23	-154	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	09-Nov-23	10-Jun-23	09-Aug-23	-167	50%
TG-1070	Abandon existing gas main	4	4	11-Nov-23	15-Nov-23	10-Aug-23	14-Aug-23	-168	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	06-Oct-23	08-May-23	07-Jul-23	52	54%
TL-1010	HGC/HKBN/HKBNES/PCCW diversion -stage 2 (after TTA)	49	49	08-Sep-23	07-Nov-23	15-May-23	13-Jul-23	26	0%
TL-1020	HGC/HKBN/HKBNES/PCCW diversion -stage 3 (after RW9, near existing market and new playground)	66	66	08-Sep-23	27-Nov-23	08-May-23	26-Jul-23	9	0%
TL-1030	HGC/HKBN/HKBNES/PCCW diversion -stage 4 (near Portion M)	60	60	08-Sep-23	20-Nov-23	15-May-23	26-Jul-23	-97	0%
TL-1040	PCCW diversion-stage 5 (near the toilet and RCP)	50	50	08-Sep-23	08-Nov-23	08-May-23	07-Jul-23	21	0%
TL-1050	PCCW diversion-stage 6 (near the On Luk Min St playground)	66	39	08-May-23 A	26-Oct-23	08-May-23	26-Jul-23	36	40.91%
TL-1060	Abandon of existing cables of UUs	30	30	28-Nov-23	04-Jan-24	27-Jul-23	30-Aug-23	9	0%
Towngas/telecom									
TL-3000	Towngas telecom diversion -stage 1 (after C5 to C8)	50	15	01-Aug-23 A	25-Sep-23	08-May-23	07-Jul-23	-181	70%
TL-3010	HGC/HKBN/HKBNES diversion -stage 2 (after TTA)	49	16	01-Aug-23 A	26-Sep-23	15-May-23	13-Jul-23	-182	67.35%
Bridge F(MS)									
Stage 7 Bridge Deck Construction & Formation work ard abutment in N.side									
BWFW-7020a	Submission and approval of post tension method statement and material	90	21	08-Dec-22 A	04-Oct-23	08-Dec-22	28-Jun-23	79	76.67%
BWFW-7030	Post tensioning slab tendons (include 7 days for required concrete strength) F-03 to F-04M	14	14	05-Oct-23	20-Oct-23	28-Jul-23	12-Aug-23	79	0%
BWFW-7040	Remove false work	7	7	21-Oct-23	30-Oct-23	14-Aug-23	21-Aug-23	156	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	30	08-Sep-23	14-Oct-23	22-Jul-23	25-Aug-23	-10	0%
BWFW-9020a	Interface coring, sonic test, and grouting for bored pile construction at abutment pier F-02	40	40	16-Oct-23	01-Dec-23	26-Aug-23	13-Oct-23	32	0%
BWFW-9030a	Interface coring, sonic test, and grouting for bored pile construction at abutment F-01M	36	36	08-Sep-23	21-Oct-23	14-Jul-23	24-Aug-23	118	0%
Stage 10 ELS installation & Excavation and Pile Cap & piers in S.side									
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	01-Nov-23*	02-Dec-23	01-Nov-23	02-Dec-23	9	0%
BWFW-10010	ELS and install wailing and strut F-02	22	22	04-Dec-23	30-Dec-23	04-Dec-23	30-Dec-23	9	0%
BWFW-10020	F-02 Pile cap construction (1nos, 30d/ cap, 1 workfront)	30	30	02-Jan-24	05-Feb-24	02-Jan-24	05-Feb-24	9	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	16-Oct-23	13-Nov-23	26-Aug-23	22-Sep-23	70	0%
BWFW-11010	ELS and install wailing and strut F-01	30	30	14-Nov-23	18-Dec-23	23-Sep-23	31-Oct-23	70	0%
BWFW-11020	F-01 Pile cap construction (1nos, 30d/ cap, 1 workfront)	30	30	19-Dec-23	25-Jan-24	01-Nov-23	05-Dec-23	70	0%
Stage 12 Falsework erection in Middle of Ng Tung River (dry season)									



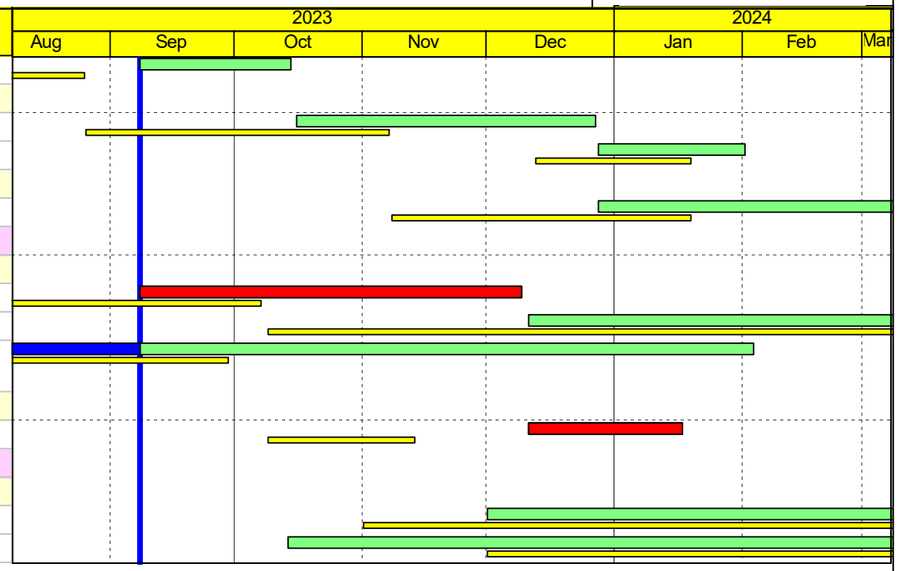
Activity ID	Activity Name	Orig. Dur.	Rem. Dur.	Start	Finish	BL Start RP06(1)	BL Finish RP06(1)	Total Float	Activity % Complete
BWFW-12000	Erect steel platform between pier F-02 and F-03 (after F-03 and F-04 Deck)	60	60	21-Oct-23	03-Jan-24	14-Aug-23	25-Oct-23	79	0%
BWFW-12010	Erect falsework onto the platform for the construction of bridge deck F-02, F-	14	14	04-Jan-24	19-Jan-24	26-Oct-23	10-Nov-23	79	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	15-Sep-23	08-May-23	31-Jul-23	100	76.67%
BWBE-1050	ELS for Pier A1-01M	30	45	16-Aug-23 A	10-Nov-23	01-Aug-23	04-Sep-23	100	0%
Pile cap of Bridge A1 Foundation									
BWBC-1050	Pile cap for Abt A1-01M (1 no. pile cap, 45d/cap, 1no. workfront)	40	40	11-Nov-23	29-Dec-23	05-Sep-23	24-Oct-23	100	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	29-Sep-23	20-Jan-23	31-Jul-23	56	68.33%
BWBS-1070	Pier A1-02a/b (2nos. column, 36d/column, 1 no. workfront)	45	36	08-Aug-23 A	21-Oct-23	09-Aug-23	29-Sep-23	184	20%
BWBS-1090	Pier A1-03a/b (2nos. column, 36d/column, 1 no. workfront, 2 nos. pier mould)	36	11	26-Jul-23 A	20-Sep-23	22-Jul-23	01-Sep-23	159	69.44%
BWBS-1130	Pier A1-04a/b (2nos. column, 36d/column, 1 no. workfront, 2 nos. pier mould)	36	22	09-Jul-23 A	05-Oct-23	05-Jul-23	15-Aug-23	98	38.89%
BWBS-1220	Abt A1-01M (1no. abutment, ~60 d/abutment,1no. workfront)	60	60	30-Dec-23	13-Mar-24	25-Oct-23	05-Jan-24	100	0%
Construction of Bridge A1 Deck									
BWBD-1061	Falsework Erection for A1 cast in-situ decking (A1-02 to A1-03)	21	21	24-Oct-23	16-Nov-23	03-Oct-23	27-Oct-23	184	0%
BWBD-1062	Falsework Erection for A1 cast in-situ decking (A1-03 to A1-04)	21	21	06-Oct-23	31-Oct-23	02-Sep-23	26-Sep-23	148	0%
BWBD-1063	Falsework Erection for A1 cast in-situ decking (A1-06 to A2-01 and remainin	21	21	19-Oct-23	13-Nov-23	17-Oct-23	10-Nov-23	302	0%
BWBD-1063-1	Bearing installation at A1-06	14	14	03-Oct-23	18-Oct-23	01-Aug-23	16-Aug-23	56	0%
BWBD-1064	Falsework Erection for A1 cast in-situ decking (A1-05 to A1-06)	21	21	22-Sep-23	18-Oct-23	24-Jul-23	16-Aug-23	56	0%
BWBD-1065	Falsework Erection for A1 cast in-situ decking (A1-04 to A1-05)	21	21	06-Oct-23	31-Oct-23	16-Aug-23	08-Sep-23	98	0%
BWBD-1080c	Cast in-site Bridge Deck (From A1-04 to A1-05) 60days/span	50	50	20-Dec-23	22-Feb-24	19-Oct-23	16-Dec-23	56	0%
BWBD-1080d	Cast in-site Bridge Deck (From A1-06 to A1-05) 60days/span	52	52	19-Oct-23	19-Dec-23	17-Aug-23	18-Oct-23	56	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	05-Oct-23	13-Jun-23	26-Jul-23	15	38.89%
BWBS-1060	Pier A2-01a/b (2nos. column, 36d/column, 1no. workfronts, 2 nos. pier mould)	36	22	24-Jun-23 A	18-Oct-23	02-Sep-23	16-Oct-23	302	38.89%
BWBS-1085	Pier A2-03l (1 no. column, 50d/column, 1no. workfront)	45	27	08-Aug-23 A	11-Oct-23	02-Jun-23	26-Jul-23	49	40%
BWBS-1140a	Pier A2-05M (1no. crosshead, 26d RMD + 52d Crosshead,1no. workfront)	78	52	09-Jul-23 A	10-Nov-23	08-May-23	09-Aug-23	102	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	06-Nov-23	05-Dec-23	04-Aug-23	02-Sep-23	-10	0%
BWBD-102	Bridge A2 cast in-situ pier table at A2-02	52	52	06-Dec-23	07-Feb-24	04-Sep-23	06-Nov-23	-10	0%
BWBD-102	Design of FWK &Falsework Erection for A2 cast in situ pier table - A2-02	37	11	08-Jul-23 A	20-Sep-23	08-May-23	20-Jun-23	-20	70.27%
BWBD-102	Fabrication of FWK &Falsework Erection for A2 cast in situ pier table - A2-02	36	36	21-Sep-23	04-Nov-23	21-Jun-23	03-Aug-23	-10	0%
A2-03									
BWBD-1023	Falsework Erection for A2 cast in-situ portal - A2-03l and A2-03r (include RMD platform)	90	90	26-Jun-23 A	31-Jan-24	12-Jun-23	26-Sep-23	10	0%
BWBD-1023	Design of FWK &Falsework Erection for A2 cast in-situ portal - A2-03l and A2-03r	20	20	08-Sep-23	03-Oct-23	08-May-23	31-May-23	-10	0%
BWBD-1023	Fabrication of FWK &Falsework Erection for A2 cast in-situ portal - A2-03l and A2-03r	9	9	26-Jun-23 A	13-Oct-23	01-Jun-23	10-Jun-23	10	0%
A2-04									
BWBD-1027	Falsework Erection for A2 cast in-situ pier table - A2-04 (include RMD platform)	26	6	03-May-23 A	14-Sep-23	03-May-23	31-May-23	-7	76.92%
BWBD-102	Bridge A2 cast in-situ pier table at A2-04	52	15	05-Jul-23 A	04-Oct-23	01-Jun-23	02-Aug-23	-7	71.15%
A2-05									
BWBD-1024	Falsework Erection for A2 cast in-situ pier table - A2-05 (include RMD platform)	60	60	11-Nov-23	23-Jan-24	10-Aug-23	20-Oct-23	102	0%
Form Traveller and Segment Erection Works									



Activity ID	Activity Name	Orig. Dur.	Rem. Dur.	Start	Finish	BL Start RP06(1)	BL Finish RP06(1)	Total Float	Activity % Complete
BWBD-1041	Bridge A2 by Form Traveler - Stage 1 (at Pier A2-04), Team A	76	76	04-Nov-23	03-Feb-24	01-Sep-23	01-Dec-23	-7	0%
BWBD-2090	Setup traveler	25	25	05-Oct-23	03-Nov-23	03-Aug-23	31-Aug-23	-7	0%
Bridge A3									
ELS of Bridge A3 Foundation									
BWBE-3000-1	ELS for Pier A3-01l	25	11	30-Jun-23 A	20-Sep-23	12-Jun-23	13-Jul-23	9	56%
BWBE-3020	ELS for Pier A3-03r	30	7	30-Jun-23 A	15-Sep-23	15-Jun-23	21-Jul-23	-48	76.67%
BWBE-3030	ELS for Pier A3-03l	30	30	16-Sep-23	24-Oct-23	22-Jul-23	25-Aug-23	-48	0%
BWBF-1340a	ELS for Pier A3-01r	25	25	16-Oct-23	14-Nov-23	03-Oct-23	01-Nov-23	-9	0%
Pile cap of Bridge A3 Foundation									
BWBC-3000	Pile cap for A3-01l (2nos. pile cap, 25d/cap, 1nos. workfronts)	25	25	21-Sep-23	21-Oct-23	13-Jul-23	11-Aug-23	9	0%
BWBC-3000a	Pile cap for A3-01r (1nos. pile cap, 25d/cap, 1 workfronts)	25	25	15-Nov-23	13-Dec-23	02-Nov-23	30-Nov-23	-9	0%
BWBC-3020	Pile cap for A3-03r (1no. pile cap, 30d/cap, 1no. workfront)	30	30	16-Sep-23	24-Oct-23	22-Jul-23	25-Aug-23	-48	0%
BWBC-3030	Pile cap for A3-03l (1no. pile cap, 30d/cap, 1no. workfront)	30	30	25-Oct-23	28-Nov-23	26-Aug-23	29-Sep-23	-48	0%
Construction of Bridge A3 Substructure									
BWBS-1170	Pier A3-02 in nullah (1no. column, 60d/column,1no. workfront)	60	23	19-Apr-23 A	06-Oct-23	19-Apr-23	19-Jun-23	-32	61.67%
BWBS-1194-1	Fabrication of FWK and Falseworks for Pier A3-01 and A3-03	36	36	08-Sep-23	21-Oct-23	23-Jun-23	04-Aug-23	-43	0%
BWBS-1195	Pier A3-01l (1 no. column, 26d/column, portal, 2nos. workfront, 1 steel mould)- Stage 1	26	26	02-Jan-24	31-Jan-24	03-Nov-23	02-Dec-23	-48	0%
BWBS-1210	Pier A3-03r (1 no. column, 26d/column, portal, 2nos. workfront, 1 steel mould)-stage 1	26	26	25-Oct-23	23-Nov-23	26-Aug-23	25-Sep-23	-44	0%
BWBS-1215	Pier A3-04a/b (2nos. column, 30d/column,1no. workfront)	60	12	29-Sep-22 A	21-Sep-23	29-Sep-22	19-Jul-23	250	80%
BWBS-1260	Pier A3-03l (1 no. column, 26d/column, portal, 2nos. workfront, 1 steel mould)-stage 2	26	26	29-Nov-23	30-Dec-23	03-Oct-23	02-Nov-23	-48	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	24-Oct-23	16-Nov-23	21-Aug-23	13-Sep-23	226	0%
BWBD-1081	Bearing installation at A3-04	14	14	24-Oct-23	08-Nov-23	21-Aug-23	05-Sep-23	226	0%
BWBD-1082	Falsework Erection for A3 cast in-situ decking (A3-05 to A3-04)	21	21	26-Sep-23	21-Oct-23	27-Jul-23	19-Aug-23	187	0%
BWBD-1082	Bearing installation at A3-05	14	14	26-Sep-23	13-Oct-23	27-Jul-23	11-Aug-23	187	0%
BWBD-1083	Falsework Erection for A3 cast in-situ decking (A3-06 to A3-05)	21	15	25-Jul-23 A	25-Sep-23	03-Jul-23	26-Jul-23	187	28.57%
BWBD-1083	Bearing installation at A3-06	14	14	08-Sep-23	23-Sep-23	03-Jul-23	18-Jul-23	202	0%
BWBD-1084	Design of FWK and Falsework Erection for A3 cast in-situ pier table & column (A3-01 & A3-03)	60	60	21-Sep-23	02-Dec-23	21-Jun-23	31-Aug-23	-20	0%
BWBD-1084-1	Fabrication of FWK and Falsework Erection for A3 cast in-situ pier table (A3-01 & A3-03)	46	46	04-Dec-23	29-Jan-24	01-Sep-23	27-Oct-23	-20	0%
BWBD-1087	Falsework Erection for A3 cast in-situ pier table (A3-02) include RMD platfor	60	3	20-Jun-23 A	10-Oct-23	20-Jun-23	30-Aug-23	-32	95%
BWBD-1087a	Bridge A3 cast in-situ pier table (A3-02)	52	52	11-Oct-23	11-Dec-23	31-Aug-23	02-Nov-23	-32	0%
Form Traveller and Segment Erection Works									
BWBD-1091a	Cast in Bridge Deck (From A3-04 to A3-05) 60days/span	60	60	27-Dec-23	09-Mar-24	25-Oct-23	05-Jan-24	187	0%
BWBD-1091b	Cast in Bridge Deck (From A3-05 to A3-06) 60days/span	60	60	14-Oct-23	23-Dec-23	12-Aug-23	24-Oct-23	187	0%
BWBD-2110	Bridge A3 by Form Traveler Stage 5 (at Pier A3-02), Team B	114	114	12-Dec-23	04-May-24	03-Nov-23	21-Mar-24	-32	0%
BWBD-2150	Setup traveler	25	25	01-Nov-23	29-Nov-23	21-Sep-23	21-Oct-23	-22	0%
BWBD-2150a	Procurement of 2nd Set Form Traveller (4 nos)	25	43	08-May-23 A	31-Oct-23	08-May-23	20-Sep-23	-22	0%
Bridge G									
Construction of Bridge G Foundation (Team 3) CSD									
BWBF-1180	ELS for bored pile works at G-02 to G-06	87	19	15-Jun-23 A	29-Sep-23	15-Jun-23	26-Sep-23	1	78.16%
BWBF-1210	Pier G-04 (2 nos. pile, 15d/pile, 1 no. workfront)	30	30	08-Dec-23	15-Jan-24	25-Nov-23	02-Jan-24	-10	0%
BWBF-1220	Pier G-03 (1 no. pile, 15d/pile, 1 no. workfront)	15	15	21-Nov-23	07-Dec-23	08-Nov-23	24-Nov-23	-10	0%
BWBF-1240	Pier G-02 (2 nos. pile, 15d/pile, 1 no. workfront)	30	30	16-Oct-23	20-Nov-23	03-Oct-23	07-Nov-23	-10	0%
ELS of Bridge G Foundation									
BWBE-4030	ELS for Pier G-03	30	30	08-Dec-23	15-Jan-24	25-Nov-23	02-Jan-24	130	0%
BWBE-4040	ELS for Pier G-02	30	30	21-Nov-23	27-Dec-23	08-Nov-23	12-Dec-23	115	0%



Activity ID	Activity Name	Orig. Dur.	Rem. Dur.	Start	Finish	BL Start RP06(1)	BL Finish RP06(1)	Total Float	Activity % Complete
BWBE-4050	ELS for Pier G-01	30	30	08-Sep-23	14-Oct-23	22-Jul-23	25-Aug-23	85	0%
Pile cap of Bridge G Foundation									
BWBC-4000	Pile cap for G-01 (2nos. pile cap, 30d/cap, 1no. workfront)	60	60	16-Oct-23	27-Dec-23	26-Aug-23	07-Nov-23	85	0%
BWBC-4010	Pile cap for G-02 (1no. pile cap, 30d/cap, 1no. workfront)	30	30	28-Dec-23	01-Feb-24	13-Dec-23	19-Jan-24	115	0%
Construction of Bridge G Substructure									
BWBS-1160	Pier G-01a/b (2nos. column, 30d/column, 1no. workfront)	60	60	28-Dec-23	11-Mar-24	08-Nov-23	19-Jan-24	85	0%
Footbridge F4									
Design and Fabrication (Steel Footbridge F4 and Lighting)									
BWBF-136-1	Approval of Design (AIP, DDA and Acabas)	77	77	08-Sep-23	09-Dec-23	08-Jul-23	07-Oct-23	-41	0%
BWBF-136-2	Fabritation of steel element for Footbridge F4	165	165	11-Dec-23	05-Jul-24	09-Oct-23	30-Apr-24	98	0%
BWBF-136-3	Lighting design (Civil requirement, Pillar box arrangement, Electrical Design, lighting and earthing, Lux simulation)	24	122	08-May-23 A	03-Feb-24	08-May-23	29-Sep-23	104	0%
Construction of Footbridge F4 Foundation									
BWBF-1360a	ELS for Footbridge F4-01	30	30	11-Dec-23	17-Jan-24	09-Oct-23	13-Nov-23	-41	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-Nov-23	12-Jun-24	168	0%
BWF-1140-2	Procurement of Lightings items	180	180	14-Oct-23	25-May-24	01-Dec-23	13-Jul-24	237	0%



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

Project ID: RP06a(1)-MU08-2023

Three Months Rolling Programme (08 September 2023 to 31 December 2023)

Data Date: 08-Sep-23
Printed: 11-Sep-23 17:09
Layout: 3 MRP Layout
TASK filter: 3 Months Lookahead.

Baseline Programme RP06(1)			
Date	Revision	Ch...	Approved
08-sEP-23	Data Date		



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 (SHEK WU SAN TSUEN NORTH TO LUNG YEUK TAU)

CLIENT

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

CONSULTANT

AECOM Asia Company Ltd.
www.aecom.com

SUB-CONSULTANTS

ISSUE/REVISION

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

STATUS

SCALE
A1 1 : 7000

DIMENSION UNIT
METRES

KEY PLAN

PROJECT NO.
60335576

CONTRACT NO.
ND/2019/04

SHEET TITLE
KEY PLAN AND LOCATION PLAN

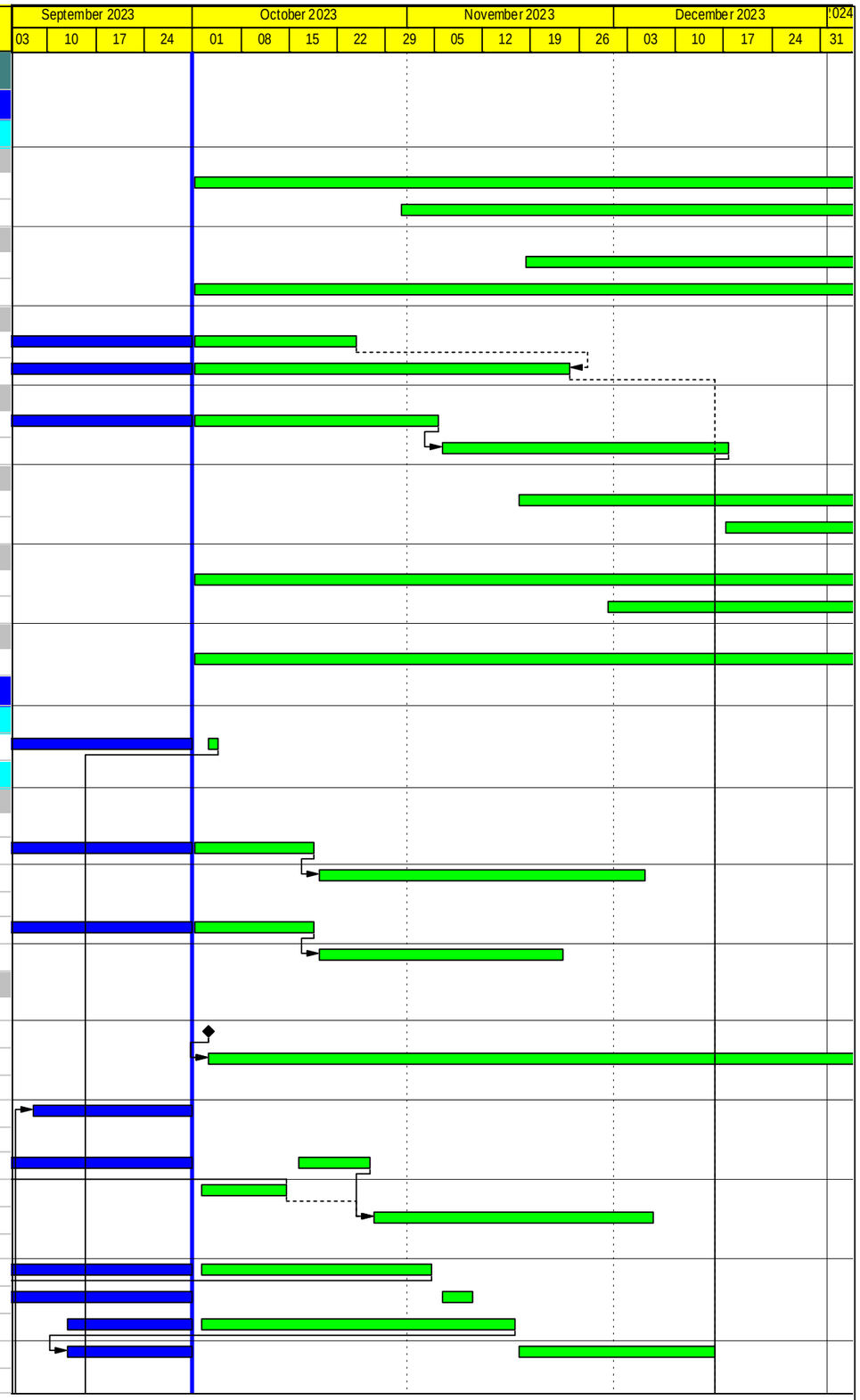
SHEET NUMBER
60335576/C5A/C00/1000

Project Management Initials: Designer: JLDT Checked: RPCM Approved: HWL ISO A1 594mm x 841mm

Plot File by: ZENGXU2 2019/11/23
PATH: J:\Projects\60335576\Environmental\cad\ex1000\C5A_C00_1000.dgn

Construction Programme of ND/2019/05

Activity ID	Activity Name	Rem Dur	Early Start	Early Finish
3MRP No. 43 (Oct 2023)				
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-Oct-23	07-Feb-24
CDb-130	Irrigation System - Design Approval	130	31-Oct-23	08-Mar-24
2.3.4 - (d) Lighting System				
CDd-135	Road Lighting System - Manufacturing and Delivery	90	18-Nov-23	15-Feb-24
CDd-200	Bridge Deck Void Lighting System - Prep/Submit Design	180	01-Oct-23	28-Mar-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-Oct-23
CDf-130	Public Toilet BS and MVAC System - Design Approval	55	01-May-22 A	24-Nov-23
2.3.7 - (g) BBI Public Toilet Bio-treatment Plant				
CDg-110	Public Toilet Bio-treatment Plant - Prep/Submit Design	36	01-Mar-22 A	05-Nov-23
CDg-130	Public Toilet Bio-treatment Plant - Design Approval	42	06-Nov-23	17-Dec-23
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-Oct-23	27-Feb-24
CDi-130	Traffic Detector System - Design Approval	120	30-Nov-23	28-Mar-24
2.3.11 - (k) Deck Girdder Access Facilities				
CDk-100	Access Facilities - Procurement	150	01-Oct-23	27-Feb-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	04-Oct-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-Oct-23
AD-502	Bridge B2 Segment Fabrication Shop Drawings PM Review	48	19-Oct-23	05-Dec-23
- Bridge E4				
AD-590	Bridge E4 Segment Fabrication Shop Drawings Preparation	18	14-Aug-23 A	18-Oct-23
AD-592	Bridge E4 Segment Fabrication Shop Drawings PM Review	36	19-Oct-23	23-Nov-23
4.3.2 - Off-Site Fabrication				
- Preparation Works				
OSF-190	TG B2 Precast Yard Commence Preparation for Segment Fab (4 sets)	0	03-Oct-23*	
OSF-195	TG B2 Precast Yard Set-up and Establishment	115	03-Oct-23	21-Feb-24
- C1/B2 End-span				
OSF-0240	Seg Fab - C1-01ML-C1-02 S01 to S09 (9 nos) M2-1	25	08-Sep-23 A	29-Feb-24
- C1-02 T-span				
OSF-0273	Seg Fab - C1-02R-C1-01 S03 to S09 (7 nos) M3-2	10	01-Sep-23 A	26-Oct-23
OSF-0275	Seg Fab - C1-02R-C1-03 S01 and S02 (2 nos) M3-2	12	02-Oct-23	14-Oct-23
OSF-0290	Seg Fab - C1-02R-C1-03 S03 to S09 (7 nos) M3-2	35	27-Oct-23	06-Dec-23
- C1-03 T-span				
OSF-0343	Seg Fab - C1-03L-C1-02 S02 to S10 (9 nos) M1-2	30	02-Sep-23 A	04-Nov-23
OSF-0347	Seg Fab - C1-03L-C1-04 S02 to S10 (9 nos) M1-2	5	01-Sep-23 A	10-Nov-23
OSF-0370	Seg Fab - C1-03R-C1-02 S02 to S10 (9 nos) M1-1	40	13-Sep-23 A	16-Nov-23
OSF-0375	Seg Fab - C1-03R-C1-04 S02 to S10 (9 nos) M1-1	25	13-Sep-23 A	15-Dec-23
- C2/C1-04M End-span				



Actual Work
Non-critical
Critical
Milestone

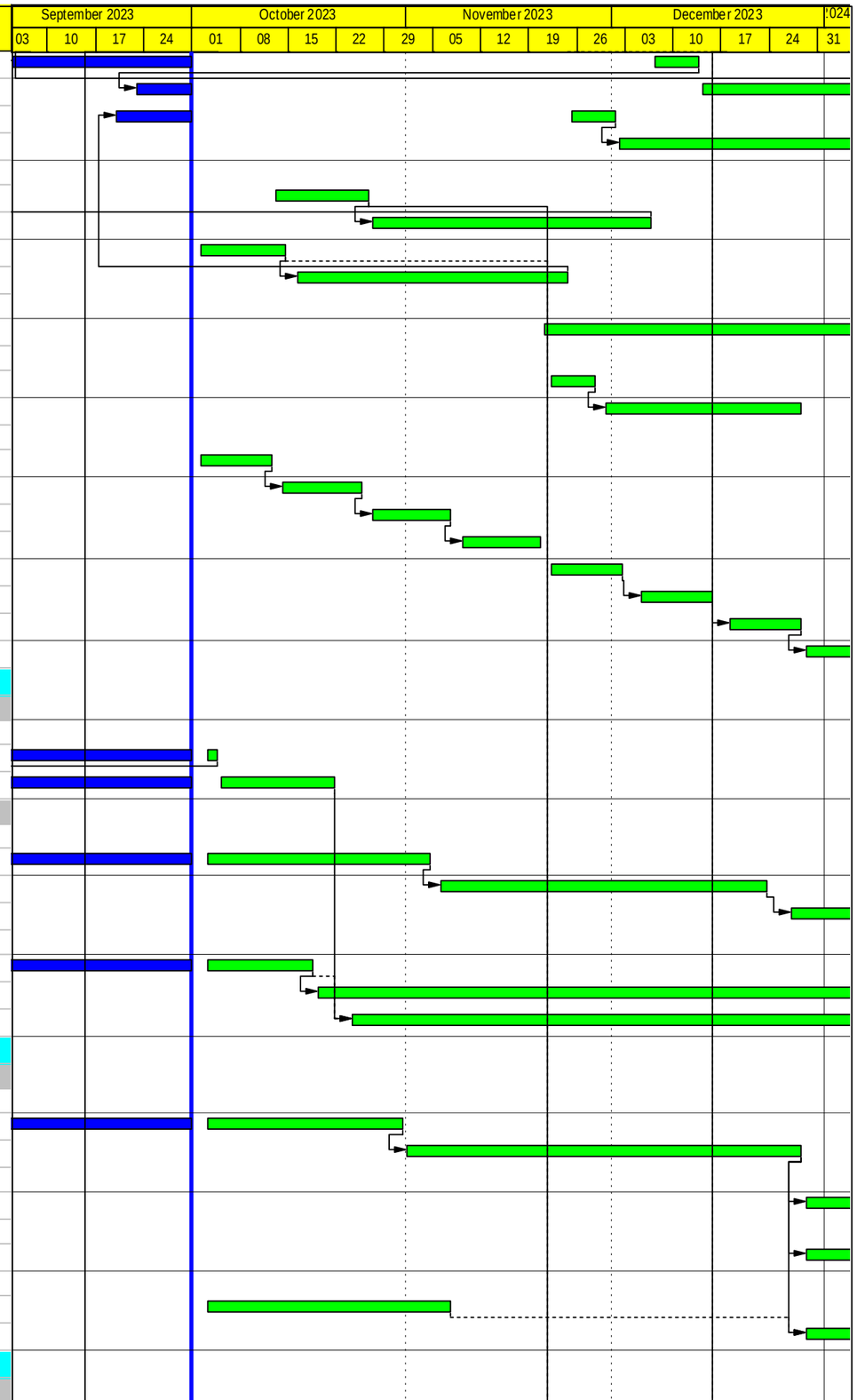
Contract ND/2019/05 - FBES (Shung Him Tong to Kau Lung Hang)

Three-Month Rolling Programme

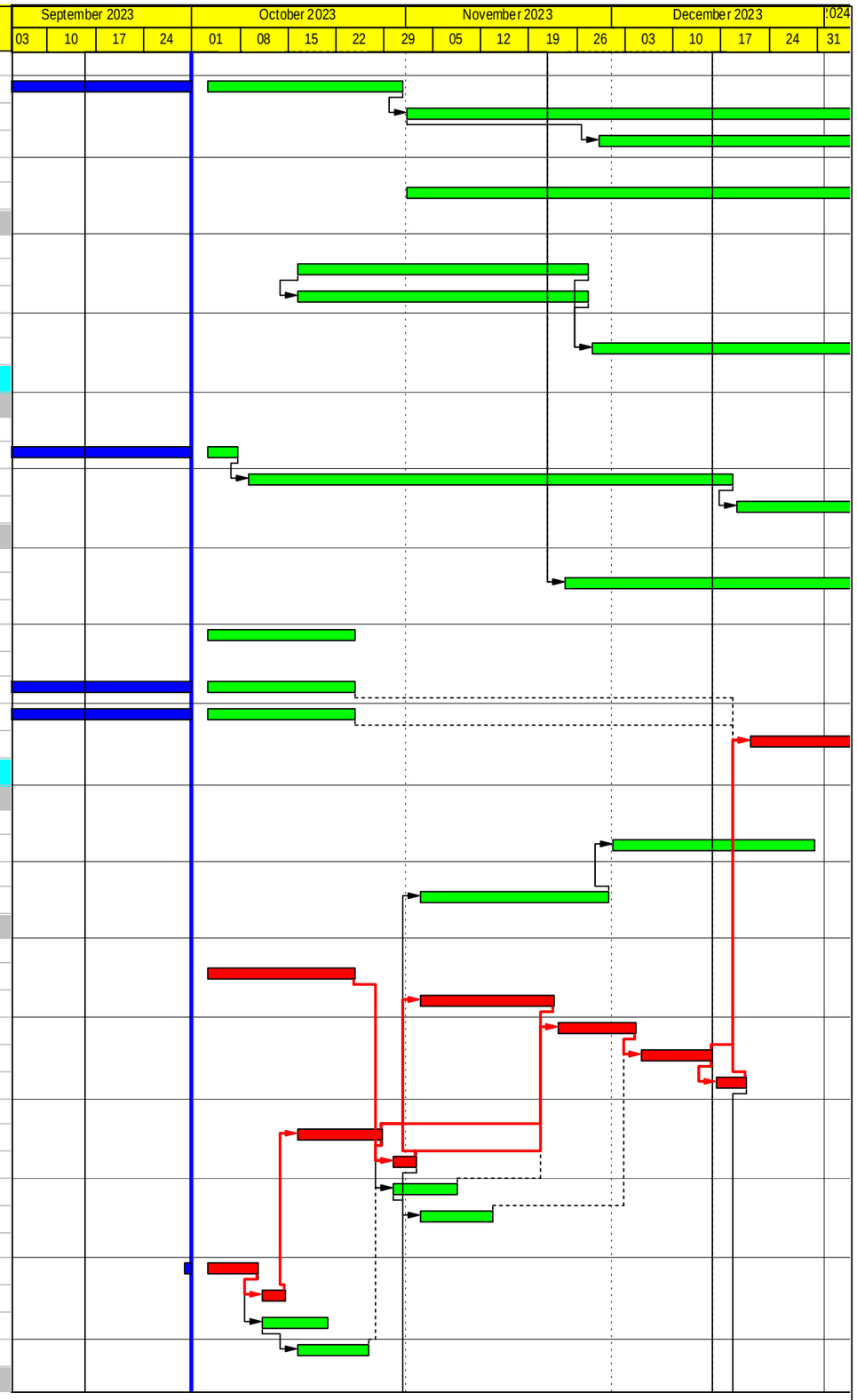
Project ID : U43DPr16-3
Layout : 3MRP
Date : 05-Oct-23 / Page 1 of 8

3MRP			
Date	Revision	Check...	Approved
01-Oct-23	Draft		

Activity ID	Activity Name	Rem Dur	Early Start	Early Finish
OSF-0300	Seg Fab - C1-04ML-C1-03 S01 and S02 (2 nos) M2-1	6	05-Sep-23 A	13-Dec-23
OSF-0305	Seg Fab - C1-04ML-C1-03 S03 to S09 (7 nos) M2-1	30	23-Sep-23 A	17-Jan-24
OSF-0310	Seg Fab - C1-04MR-C1-03 S01 and S02 (2 nos) M4-2	6	20-Sep-23 A	01-Dec-23
OSF-0330	Seg Fab - C1-04MR-C1-03 S03 to S09 (7 nos) M4-2	35	02-Dec-23	11-Jan-24
- C1/C2 End-span				
OSF-0380	Seg Fab - C1-04ML-C2-01 S01 and S02 (2 nos) M2-1	12	13-Oct-23	26-Oct-23
OSF-0383	Seg Fab - C1-04Ml-C2-01 S03 to S10 (8 nos) M2-1	35	27-Oct-23	06-Dec-23
OSF-0390	Seg Fab - C1-04MR-C2-01 S01 and S02 (2 nos) M4-2	12	02-Oct-23	14-Oct-23
OSF-0410	Seg Fab - C1-04MR-C2-01 S03 to S10 (8 nos) M4-2	35	16-Oct-23	24-Nov-23
- D2/D1 End-span				
OSF-1270	Seg Fab - D1-04M-D2-01 S03 to S10 (8 nos) M4-1	40	21-Nov-23	05-Jan-24
- D2-04M End-span				
OSF-1280	Seg Fab - D2-04M-D2-03 S01 (1 nos) M3-1	6	22-Nov-23	28-Nov-23
OSF-1290	Seg Fab - D2-04M-D2-03 S02 to S06 (5 nos) M3-1	25	30-Nov-23	28-Dec-23
- Segment on Pier (SOP)				
OSF-1380	Seg Fab SOP C1-04ML-C2-01 M2-2	10	02-Oct-23	12-Oct-23
OSF-1390	Seg Fab SOP C1-04MR-C2-01 M2-2	10	14-Oct-23	25-Oct-23
OSF-1400	Seg Fab SOP C1-04ML-C1-03 M2-2	10	27-Oct-23	07-Nov-23
OSF-1410	Seg Fab SOP C1-04MR-C1-03 M2-2	10	09-Nov-23	20-Nov-23
OSF-1460	Seg Fab SOP E3-05M-E3-04 M2-2	10	22-Nov-23	02-Dec-23
OSF-1470	Seg Fab SOP E3-05M-E4-01 M2-2	10	05-Dec-23	15-Dec-23
OSF-1480	Seg Fab SOP E4-03M-E4-02 M2-2	10	18-Dec-23	28-Dec-23
OSF-1500	Modify SOP Mould to Typical	36	29-Dec-23	22-Feb-24
4.4 - Bridge B1				
4.4.1 - Substructure Portion I and 1A				
- Pier				
B1-0014	B1 - Abutment B1-01M Wall	2	01-Mar-23 A	04-Oct-23
B1-0014a	B1 - Abutment B1-01M Backfilling	15	05-May-23 A	21-Oct-23
4.4.4 - Bridge Deck				
- Portal Beam				
B1-0055	B1 - Deck Method Statement Preparation	28	01-Feb-23 A	04-Nov-23
B1-0056	B1 - Deck Method Statement ICE	42	06-Nov-23	23-Dec-23
B1-0057	B1 - Deck Method Statement PM Review	42	27-Dec-23	17-Feb-24
- Precast Beam				
B1-0101	B1 - Temp LG Support -Obtain CLP Agreement on Design/Scheme	14	01-Jul-23 A	18-Oct-23
B1-0102	B1 - Temp LG Support - Offsite Fabrication/Delivery	120	19-Oct-23	14-Mar-24
B1-0103	B1 - Temp LG Support - Construct Foundation	124	24-Oct-23	22-Mar-24
4.5 - Bridge B2				
4.5.1 - Substructure				
- Preparation Works				
B2-0015	B2 Temporary Work - Approval/Consent by Authority	24	25-Oct-22 A	31-Oct-23
B2-0020	B2 Temporary Work - Procurement/Fabrication	48	01-Nov-23	28-Dec-23
- Pier B2-03				
B2-0232	B2-03 Cross Head Falseworks	30	29-Dec-23	02-Feb-24
- Pier B2-02				
B2-0272	B2-02 Cross Head Falseworks	30	29-Dec-23	02-Feb-24
- Pier B2-01				
B2-0300	B2-01 Column	30	03-Oct-23	07-Nov-23
B2-0312	B2-01 Cross Head Falseworks	30	29-Dec-23	02-Feb-24
4.6 - Bridge C1				
4.6.3 - Portal Beam				



Activity ID	Activity Name	Rem Dur	Early Start	Early Finish
- C1-01M				
C1-3011	C1-01M Portal Beam - Falsework Erection	24	23-Aug-23 A	31-Oct-23
C1-3012	C1-01M Portal Beam - C1 Beam	60	01-Nov-23	12-Jan-24
C1-3015	C1-01M Portal Beam - B2 Beam	60	29-Nov-23	09-Feb-24
- C1-02				
C1-3114	C1-02 Portal Beam - Construction	72	01-Nov-23	26-Jan-24
4.6.4 - Bridge Deck				
- T-span C1-03				
C1-2305	C1-03 N/B Segment on Pier by crane	36	16-Oct-23	27-Nov-23
C1-2310	C1-03 S/B Segment on Pier by crane	36	16-Oct-23	27-Nov-23
- T-span C1-04				
C1-2525	C2/C1-04M End-span Erect Support Frame and SOP by crane	36	28-Nov-23	11-Jan-24
4.7 - Bridge C2				
4.7.3 - Cross Head				
- C2-01				
C2-1752	C2-01 Cross Head Falseworks	5	26-Aug-23 A	07-Oct-23
C2-1755	C2-01 Cross Head Construction	60	09-Oct-23	18-Dec-23
C2-1758	C2-01 Cross Head Remove Temp Works	18	19-Dec-23	11-Jan-24
4.7.4 - Bridge Deck				
- End-span C2/C1-04M				
C2-2015	C2/C1-04M S/B and N/B SOP (4 nos) by Crane	48	24-Nov-23	22-Jan-24
- T-span C2-02				
C2-2219	C2-02 Intall Hanger Beam	18	03-Oct-23	24-Oct-23
- T-span C2-03				
C2-2300	C2-03 S/B Segment on Pier by Crane	18	28-Jul-23 A	24-Oct-23
C2-2310	C2-03 N/B Segment on Pier by Crane	18	28-Jul-23 A	24-Oct-23
C2-2320	C2-03 S/B and N/B Segment Erection T-span (20+20 nos)	12	21-Dec-23	06-Jan-24
4.8 - Bridge C3				
4.8.3 - Pier				
- C3-03				
C3-1475	Pier C3-03b Backfilling	24	01-Dec-23	30-Dec-23
- C3-04M				
C3-1575	Pier C3-04bM Backfilling	24	03-Nov-23	30-Nov-23
4.8.5 - Bridge Deck				
- End-span C3/C2-04M				
C3-2005	C3/C2-04M Temporary Support for LG / End-span falsework	18	03-Oct-23	24-Oct-23
C3-2010	C3/C2-04M S/B + N/B SOP (4 nos)	17	03-Nov-23	22-Nov-23
C3-2020	C3/C2-04M S/B End-span (10 nos) + Stitching + Stressing	10	23-Nov-23	04-Dec-23
C3-2030	C3/C2-04M N/B End-span (10 nos) + Stitching + Stressing	10	05-Dec-23	15-Dec-23
C3-2035	Walk Launching Gantry to C2-03	4	16-Dec-23	20-Dec-23
- T-span C3-01				
C3-2130	C3-01 S/B and N/B Segment Erection T-span (19+19 nos)	11	16-Oct-23	28-Oct-23
C3-2135	Walk Launching Gantry to C2-04M	4	30-Oct-23	02-Nov-23
C3-2140	C3-01 S/B Mid-span Stitch and Stressing	9	30-Oct-23	08-Nov-23
C3-2142	C3-01 N/B Mid-span Stitch and Stressing	9	03-Nov-23	13-Nov-23
- T-span C3-02				
C3-2220	C3-02 S/B and N/B Segment Erection T-span (16+18 nos)	7	30-Sep-23 A	10-Oct-23
C3-2222	Walk Launching Gantry to C3-01	4	11-Oct-23	14-Oct-23
C3-2225	C3-02 S/B Mid-span Stitch and Stressing	9	11-Oct-23	20-Oct-23
C3-2227	C3-02 N/B Mid-span Stitch and Stressing	9	16-Oct-23	26-Oct-23
4.8.7 - Bridge C3 Ground Level Works				



Actual Work
Non-critical
Critical
Milestone

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

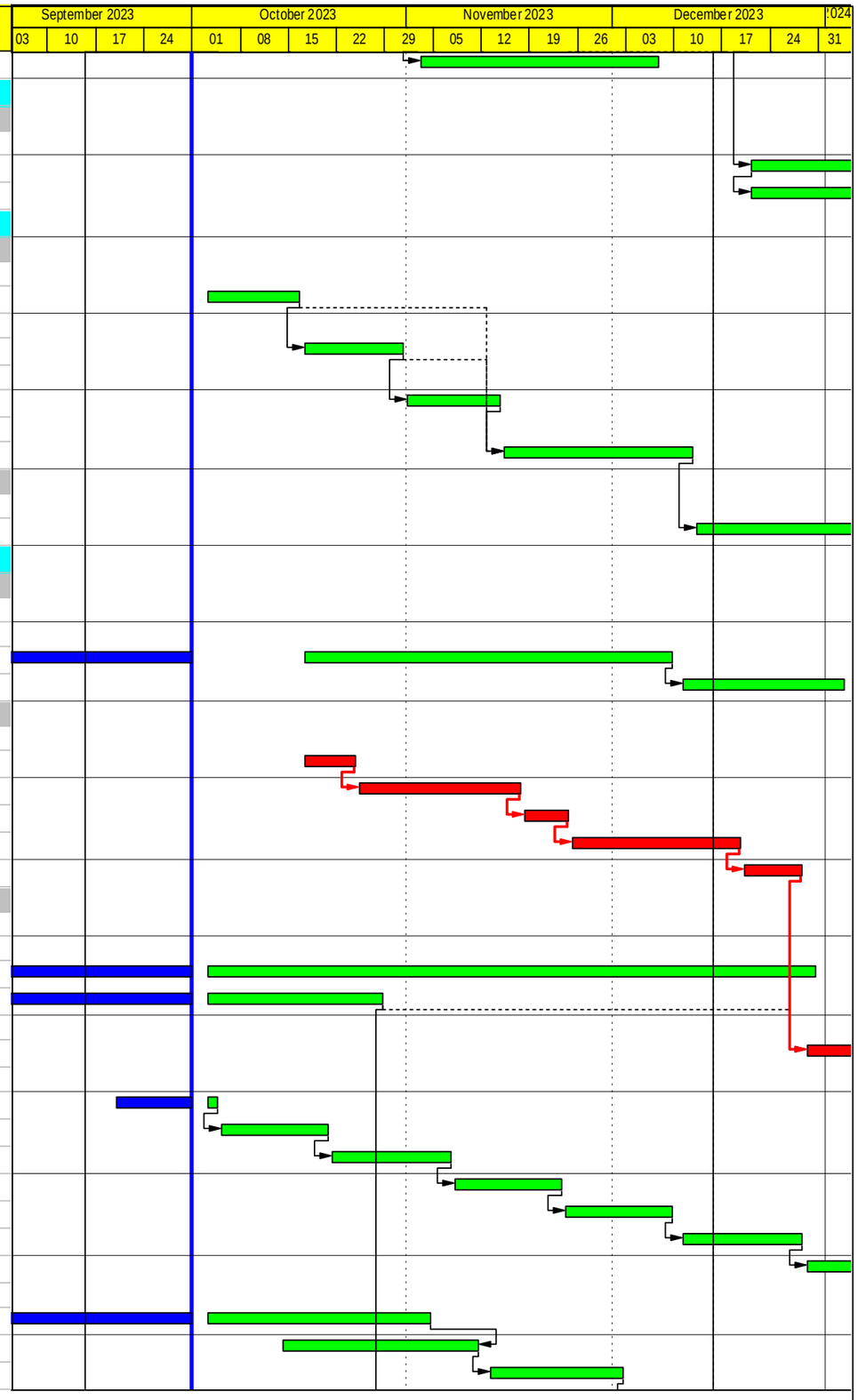
Three-Month Rolling Programme

Project ID : U43DPr16-3
Layout : 3MRP
Date : 05-Oct-23 / Page 3 of 8

3MRP

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

Activity ID	Activity Name	Rem Dur	Early Start	Early Finish
C3-7340	C3 Grd Lev - Temp Ramp/Haul Road Construction	30	03-Nov-23	07-Dec-23
4.9 - Bridge C4				
4.9.5 - Bridge Deck				
- Stitch and Stress				
C4-2650	C4 Stress External Tendon E S/B	36	21-Dec-23	03-Feb-24
C4-2750	C4 Stress External Tendon E N/B	36	21-Dec-23	03-Feb-24
4.10 - Bridge D1				
4.10.4 - Bridge Deck				
- T-span D1-02				
D1-2275	D1-02/D1-01 Mid-span Stitch and Stress Bottom Tendon	12	03-Oct-23	16-Oct-23
- T-span D1-03				
D1-2375	D1-03/D1-02 Mid-span Stitch and Stress Bottom Tendon	12	17-Oct-23	31-Oct-23
- End-span D1-04M				
D1-2475	D1-04M/D1-03 Stitch and Stress Bottom Tendon	12	01-Nov-23	14-Nov-23
- Stitch and Stress				
D1-2750	D1 Stress External Tendon E	24	15-Nov-23	12-Dec-23
4.10.5 - Road Works and Furniture				
- Furnitures and Misc Works				
D1-4520	D1 Void Lighting System and Access Facilities	36	13-Dec-23	26-Jan-24
4.11 - Bridge D2				
4.11.1 - Foundation				
- Portion XI				
- Pier D2-04M				
D2-1280	Abutment D2-04M Bored Piling (4 nos) by Rotary Rig	46	15-Aug-23 A	09-Dec-23
D2-1290	Abutment D2-04M Bored Pile Testing	18	11-Dec-23	03-Jan-24
4.11.2 - Pier				
- D2-01				
D2-1521	Pier D2-01 Pile Cap Upper Remove Formwork and Backfilling	6	17-Oct-23	24-Oct-23
D2-1530	Pier D2-01 Pier/Column	21	25-Oct-23	17-Nov-23
D2-1535	Pier D2-01 Pier/Column Formwork Removal	6	18-Nov-23	24-Nov-23
D2-1540	Pier D2-01 Pier Head (Typ 4/4A)	21	25-Nov-23	19-Dec-23
D2-1545	Pier D2-01 Pier Head Curing/Formwork Removal	6	20-Dec-23	28-Dec-23
4.11.3 - Bridge Deck				
- D2-01				
- Prep Work				
D2-2151	Existing Lift - Submit/Approve Pedestrian Diversion/Lift Suspension	74	02-Jan-23 A	30-Dec-23
D2-2159	D2-01 Obtain MTRC Consent for Deck Construction	22	15-May-23 A	28-Oct-23
- T-span				
D2-2154	D2-01 Cast-in-situ SOP / Table Top	54	29-Dec-23	05-Mar-24
- D2-02				
D2-7575a	D2-02 T-span by Form Traveler (2nd pair) - FT3	2	20-Sep-23 A	04-Oct-23
D2-7575b	D2-02 T-span by Form Traveler (3rd pair) - FT3	14	05-Oct-23	20-Oct-23
D2-7575c	D2-02 T-span by Form Traveler (4th pair) - FT3	14	21-Oct-23	07-Nov-23
D2-7575d	D2-02 T-span by Form Traveler (5th pair) - FT3	14	08-Nov-23	23-Nov-23
D2-7575e	D2-02 T-span by Form Traveler (6th pair) - FT3	14	24-Nov-23	09-Dec-23
D2-7575g	D2-02 T-span by Form Traveler (7th pair) - FT3	14	11-Dec-23	28-Dec-23
D2-7575h	D2-02 T-span by Form Traveler (8th pair) - FT3	14	29-Dec-23	15-Jan-24
- D2-03				
D2-2362	D2-03 Form Traveler Installation - FT4	28	09-Aug-23 A	04-Nov-23
D2-2362a	D2-03 T-span by Form Traveler (1st pair of 11) - FT4	24	14-Oct-23	11-Nov-23
D2-2362b	D2-03 T-span by Form Traveler (2nd pair) - FT4	18	13-Nov-23	02-Dec-23



Actual Work
Non-critical
Critical
Milestone

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

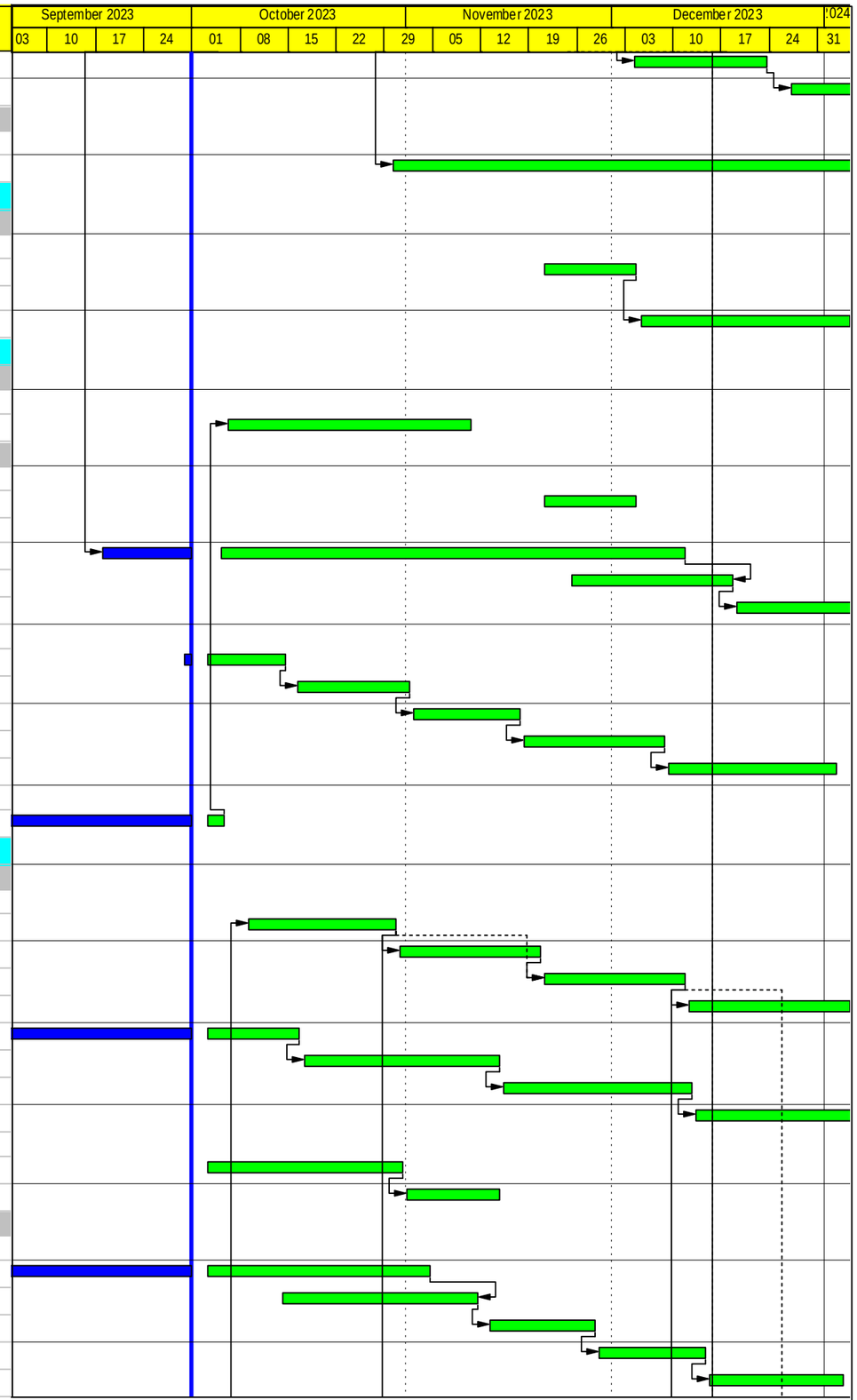
Three-Month Rolling Programme

Project ID : U43DPr16-3
Layout : 3MRP

3MRP

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

Activity ID	Activity Name	Rem Dur	Early Start	Early Finish
D2-2362c	D2-03 T-span by Form Traveler (3rd pair) - FT4	18	04-Dec-23	23-Dec-23
D2-2362d	D2-03 T-span by Form Traveler (4th pair) - FT4	18	27-Dec-23	17-Jan-24
4.11.4 - Road Works and Furniture				
- Parapet				
D2-3050	D2 Obtain MTRC Consent for Parepet Construction	90	30-Oct-23	17-Feb-24
4.12 - Bridge E1				
4.12.4 - Bridge Deck				
- T-span E1-04M				
E1-2700	E1-04M/E1-03 Stitch and Stress Bottom Tendon	12	21-Nov-23	04-Dec-23
- Stitch and Stress				
E1-2750	Stress External Tendon	24	05-Dec-23	04-Jan-24
4.13 - Bridge E2				
4.13.2 - Pier				
- E2-03				
E2-6035	Pier E2-03 Backfilling	30	06-Oct-23	10-Nov-23
4.13.3 - Bridge Deck				
- End-span E2/E1-05M				
E2-2060	E2/E1-04M Segment Erection End-span (4 nos) by Crane	12	21-Nov-23	04-Dec-23
- T-span E2-01				
E2-7450	E2-01 Form Traveler Installation - FT5	57	18-Sep-23 A	11-Dec-23
E2-7453	E2-01 Cast-in-situ T-span by Form Traveler (1st pair of 16) - FT5	20	25-Nov-23	18-Dec-23
E2-7453a	E2-01 Cast-in-situ T-span by Form Traveler (2nd pair) - FT5	14	19-Dec-23	06-Jan-24
- T-span E2-02				
E2-7440c	E2-02 T-span by Form Traveler)11th pair) - FT2	11	30-Sep-23 A	14-Oct-23
E2-7440d	E2-02 T-span by Form Traveler (12th pair) - FT2	14	16-Oct-23	01-Nov-23
E2-7440e	E2-02 T-span by Form Traveler (13th pair) - FT2	14	02-Nov-23	17-Nov-23
E2-7440f	E2-02 T-span by Form Traveler (14th segment E2-03) - FT2	18	18-Nov-23	08-Dec-23
E2-7448	E2-02 Form Traveler Dismantle - FT2	18	09-Dec-23	02-Jan-24
- T-span E2-03				
E2-2460	E2-03 Cast-in-situ Segment on Pier / Table Top	3	10-Jul-23 A	05-Oct-23
4.14 - Bridge E3				
4.14.2 - Pier				
- E3-04				
E3-5570	Pier E3-04b ELS - Sheetpiling	18	09-Oct-23	30-Oct-23
E3-5572	Pier E3-04b ELS - Excavation	18	31-Oct-23	20-Nov-23
E3-5575	Pier E3-04b Pile Cap	18	21-Nov-23	11-Dec-23
E3-5580	Pier E3-04b Column	18	12-Dec-23	04-Jan-24
E3-7465	Pier E3-04a ELS - Excavation	12	12-Jun-23 A	16-Oct-23
E3-7470	Pier E3-04a Pile Cap	24	17-Oct-23	14-Nov-23
E3-7480	Pier E3-04a Column	24	15-Nov-23	12-Dec-23
E3-7490	Pier E3-04a Backfilling	18	13-Dec-23	05-Jan-24
- E3-05M				
E3-5612	Pier E3-05M Pier Head (Typ 5M)	24	03-Oct-23	31-Oct-23
E3-5615	Pier E3-05M Backfilling	12	01-Nov-23	14-Nov-23
4.14.4 - Bridge Deck				
- T-span E3-01M-1				
E3-2152	E3-01M Form Traveller Installation (FT1)	28	31-Jul-23 A	04-Nov-23
E3-2153	E3-01M E-span False Balance Cantilever by FT1 (2nd pair)	24	14-Oct-23	11-Nov-23
E3-2153a	E3-01M E-span False Balance Cantilever by FT1 (3rd pair)	14	13-Nov-23	28-Nov-23
E3-2153a10	E3-01M E-span False Balance Cantilever by FT1 (4th pair)	14	29-Nov-23	14-Dec-23
E3-2153a20	E3-01M E-span False Balance Cantilever by FT1 (5th pair)	14	15-Dec-23	03-Jan-24



Actual Work
Non-critical
Critical
Milestone

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

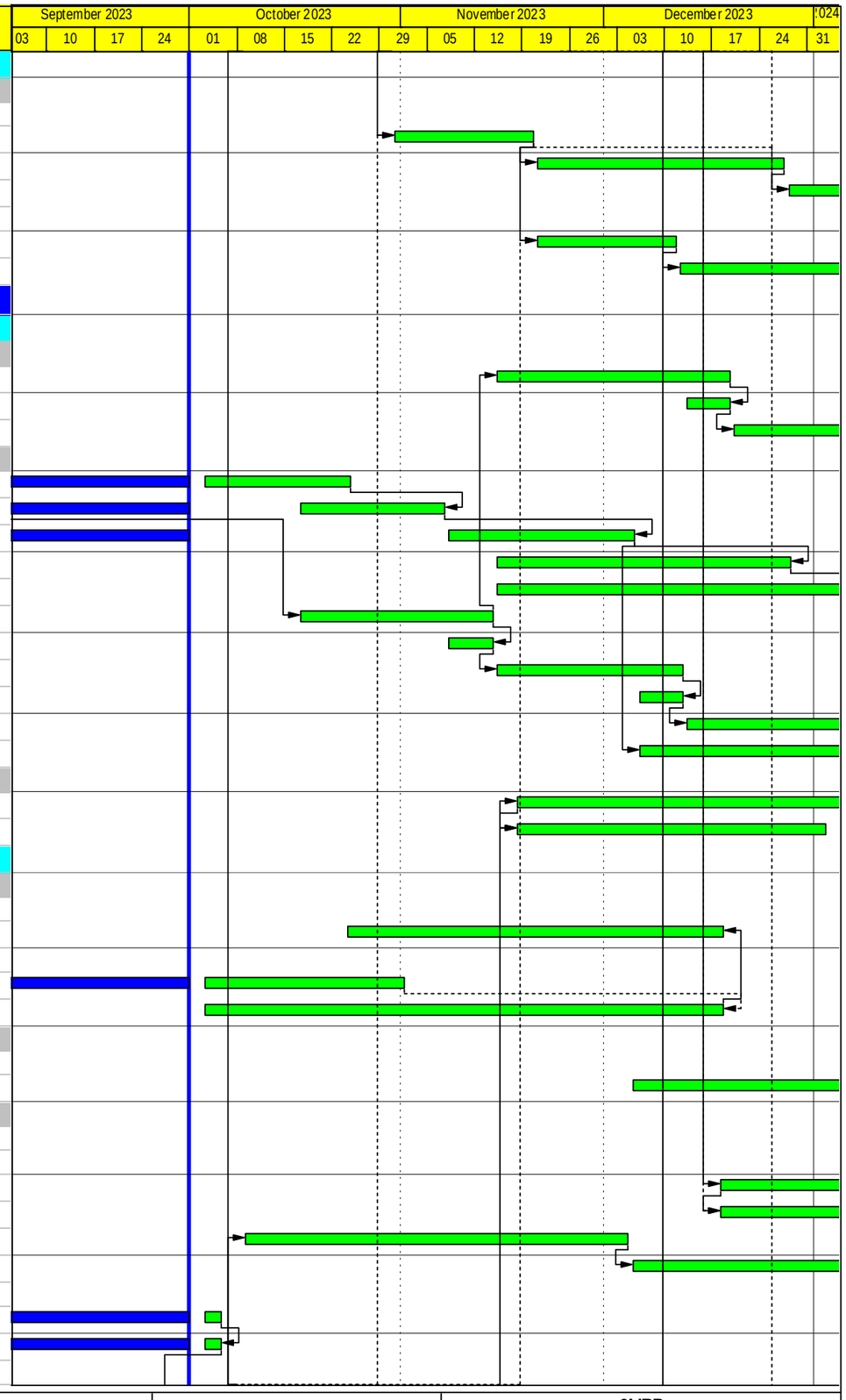
Three-Month Rolling Programme

Project ID : U43DPr16-3
Layout : 3MRP

3MRP

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

Activity ID	Activity Name	Rem Dur	Early Start	Early Finish
4.15 - Bridge E4				
4.15.2 - Pier				
- E4-01				
E4-1310	Pier E4-01 ELS - Sheetpiling	18	31-Oct-23	20-Nov-23
E4-1312	Pier E4-01 ELS - Excavation	30	21-Nov-23	27-Dec-23
E4-1315	Pier E4-01 Pile Cap	24	28-Dec-23	25-Jan-24
- E4-02				
E4-1350	Pier E4-02 ELS - Sheetpiling	18	21-Nov-23	11-Dec-23
E4-1352	Pier E4-02 ELS - Excavation	30	12-Dec-23	18-Jan-24
5.0 - Fanling Highway Associated Works				
5.2 - Fanling Highway Noise Barrier				
5.2.2 - Noise Barrier NB70				
FHY-1391	FH TTA Stage 3 - Preparation / 1st Submission	30	15-Nov-23	19-Dec-23
FHY-1392	FH TTA Stage 3 - TMLG Initial Comment	6	13-Dec-23	19-Dec-23
FHY-1393	FH TTA Stage 3 - 2nd Submission	34	20-Dec-23	31-Jan-24
5.2.3 - Noise Barrier NB109				
FHY-1513	Noise Barrier NB109 - Bay 5-13 Excavation	18	06-Feb-23 A	24-Oct-23
FHY-1515	Noise Barrier NB109 - Bay 5-13 Footing	18	24-Apr-23 A	07-Nov-23
FHY-1517	Noise Barrier NB109 - Bay 5-13 Stem Wall	24	15-May-23 A	05-Dec-23
FHY-1519	Noise Barrier NB109 - Bay 5-13 Backfilling and Reinstatement	36	15-Nov-23	28-Dec-23
FHY-1520	Noise Barrier NB109 - Bay 5-13 Road Works	48	15-Nov-23	12-Jan-24
FHY-1521a	FH TTA Stage 2A - Preparation / 1st Submission	24	17-Oct-23	14-Nov-23
FHY-1521b	FH TTA Stage 2A - TMLG Initial Comment	6	08-Nov-23	14-Nov-23
FHY-1521c	FH TTA Stage 2A - 2nd Submission	24	15-Nov-23	12-Dec-23
FHY-1521d	FH TTA Stage 2A - TMLG Final Comment	6	06-Dec-23	12-Dec-23
FHY-1521e	FH TTA Stage 2A - 3rd Submission	24	13-Dec-23	12-Jan-24
FHY-1555	Noise Barrier NB109 - Fabrication and Delivery	180	06-Dec-23	18-Jul-24
5.2.5 - Fanling Bypass N/B Slip Road				
TSW-4176	Existing NB29 - Demolition	90	18-Nov-23	08-Mar-24
TSW-4200	Noise Barrier NB29 U-shaped (bays 7 to 15) - Site Clearance	36	18-Nov-23	02-Jan-24
5.3 - Tai Wo Service Road East (TWSR-East)				
5.3.1 - TWSR-East HKY FB Extension				
- Lift and Stairs Structure				
FBE-1235	HKY FB East LT1 Lift Shaft - Steel Works	48	24-Oct-23	18-Dec-23
- HKY FB Extension Deck				
FBE-1352	HKY FB East - Lighting System Procurement and Delivery	25	01-Aug-22 A	01-Nov-23
FBE-1355	HKY FB East - ABWF and BS Works	65	03-Oct-23	18-Dec-23
5.3.2 - TWSR East (1) Adjacent to Cycle Track				
- Ch325 to Ch400				
TSE-2102	TWSR Ch325-Ch550 - Application for Lighting Removal	60	05-Dec-23	19-Feb-24
5.3.3 - TWSR-East Bus-Bus Interchange				
- Bus-Bus Interchange Shelter				
- Public Toilet				
BBI-1015	BBI Public Toilet - Bio-treatment Plant Procurement/Delivery	120	18-Dec-23	18-May-24
BBI-1018	BBI Public Toilet - Lighting+Elec+BS+Fit-out Procurement/Delivery	90	18-Dec-23	11-Apr-24
BBI-1020	BBI Public Toilet - G/F Slab	48	09-Oct-23	04-Dec-23
BBI-1030	BBI Public Toilet - Wall and Roof	72	05-Dec-23	04-Mar-24
- TWSR East (2) Entry to BBI from Fanling Highway				
BBI-1440	BBI Entry from FH - Roadworks and Furniture	3	24-Jul-23 A	05-Oct-23
BBI-1441	BBI Entry from FH - Road Lighting including Cabling	3	21-Aug-23 A	05-Oct-23
- TWSR East (2) BBI Exit to Fanling Highway				



Actual Work
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Critical
Milestone

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

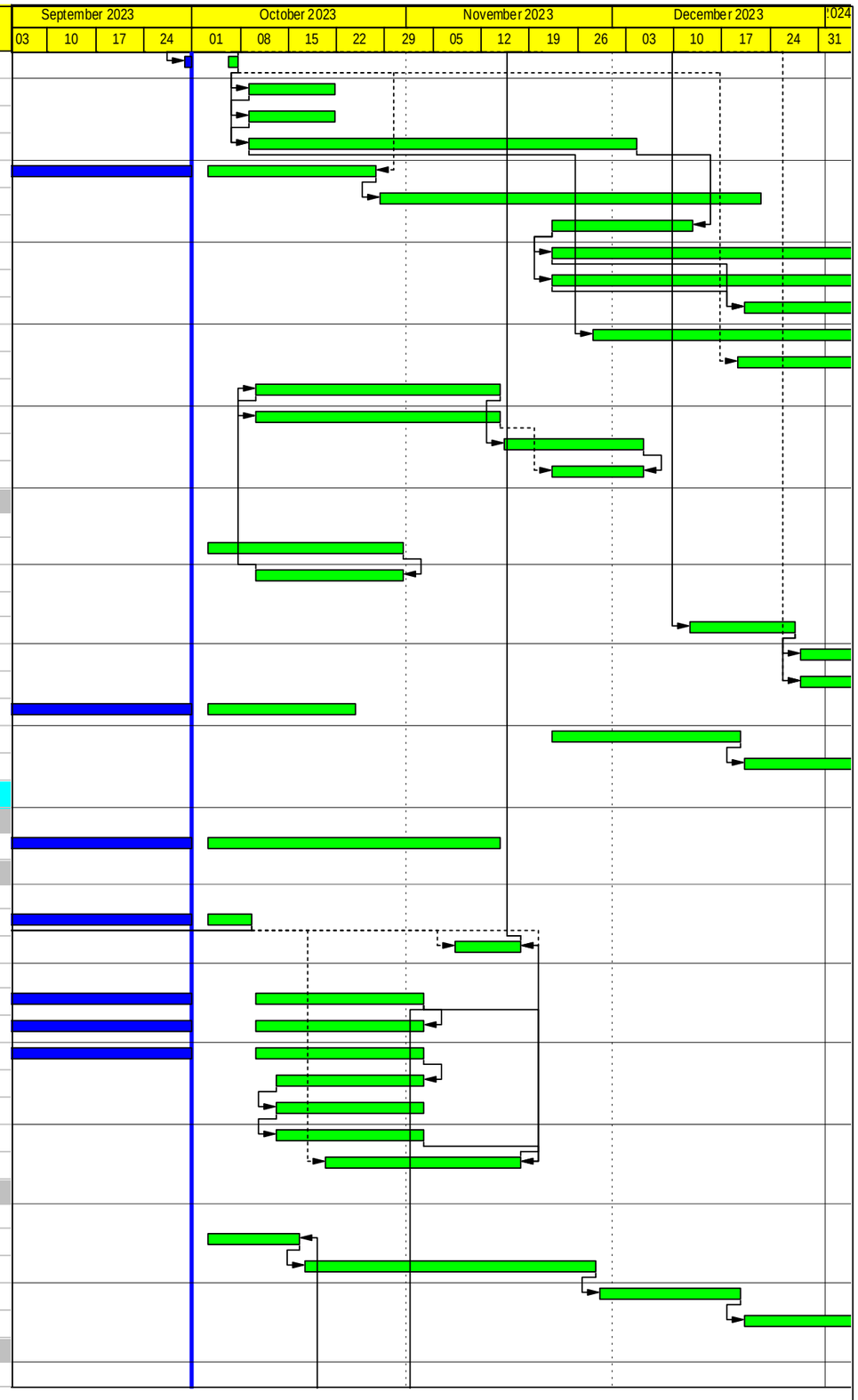
Three-Month Rolling Programme

Project ID : U43DPr16-3
Layout : 3MRP
Date : 05-Oct-23 / Page 6 of 8

3MRP

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

Activity ID	Activity Name	Rem Dur	Early Start	Early Finish
BBI-1500	BBI TTA Stage 2 - Relocate BBI	2	30-Sep-23 A	07-Oct-23
BBI-1503	NB74 Panels - Removal	12	09-Oct-23	21-Oct-23
BBI-1504	NB74 Panels - Store for Reuse	12	09-Oct-23	21-Oct-23
BBI-1505	NB74 Foundation Demolition	48	09-Oct-23	04-Dec-23
BBI-1522	Road D400 Ch300-Ch430 - Application for Lighting Removal	21	31-Jul-23 A	27-Oct-23
BBI-1523	Road D400 Ch300-Ch430 - Lighting Removal/Install Temp Lighting	48	28-Oct-23	22-Dec-23
BBI-1525	Road D400 Ch300-Ch430 - Site Formation	18	22-Nov-23	12-Dec-23
BBI-1530	Road D400 Ch300-Ch430 - Drainage, Sewerage and Utilities	36	22-Nov-23	05-Jan-24
BBI-1532	Road D400 Ch300-Ch430 - DN150 Watermain	36	22-Nov-23	05-Jan-24
BBI-1540	Road D400 Ch300-Ch430 - Roadworks and Furniture	36	20-Dec-23	02-Feb-24
BBI-1543	BBI Road L201 Retaining Wall FW02	36	28-Nov-23	11-Jan-24
BBI-1545	BBI Road L201 Ch200-Ch225 Stage 1	42	19-Dec-23	08-Feb-24
BBI-1710	Road D400 Ch450-Ch475 - Drainage, Sewerage and Utilities	30	10-Oct-23	14-Nov-23
BBI-1715	E-DS64 Sign Temporary Relocation	30	10-Oct-23	14-Nov-23
BBI-1720	Road D400 Ch450-Ch475 - Roadworks and Furniture	18	15-Nov-23	05-Dec-23
BBI-1730	Road D400 Ch450-Ch475 - Road Lighting including Cabling	12	22-Nov-23	05-Dec-23
5.3.5 - TWSR-East Noise Barrier				
- Noise Barrier NB110 (Typ FV3)				
TSE-1303	E-FADS 11 Foundation (left)	24	03-Oct-23	31-Oct-23
TSE-1312	Noise Barrier NB110 - Bay 3-5 Backfilling and Reinstatement	18	10-Oct-23	31-Oct-23
- Noise Barrier NB69				
TSE-1472	Noise Barrier NB69 - Bay 2 Sheet Piles	12	12-Dec-23	27-Dec-23
TSE-1473	Noise Barrier NB69 - Bay 2 Excavation	12	28-Dec-23	11-Jan-24
TSE-1480	Noise Barrier NB69 - Bay 1 and 3-6 Sheet Piles	24	28-Dec-23	25-Jan-24
TSE-1515	Noise Barrier NB69 - Bay 6-8 Excavation	18	22-May-23 A	24-Oct-23
TSE-1525	Noise Barrier NB69 - Bay 6-8 Stem Wall	24	22-Nov-23	19-Dec-23
TSE-1530	Noise Barrier NB69 - Bay 6-8 Backfilling and Reinstatement	24	20-Dec-23	19-Jan-24
5.4 - Tai Wo Service Road West (TWSR-West)				
5.4.2 - TWSR-West Ch000 to Ch200				
TSW-4350	TWSRW Ch150-Ch200 S/B - Roadworks+Footpath	36	01-Nov-22 A	14-Nov-23
5.4.3 - TWSR-West Ch200 to Ch450				
- Ch200 to Ch400				
TSW-4450	TWSRW Ch200-Ch400 Road Works+Footpath	6	15-Nov-22 A	09-Oct-23
TSW-4464	TWSRW Ch200-Ch400 TWSRW Diversion	9	08-Nov-23	17-Nov-23
- Ch400 to Ch450				
TSW-4453	TWSRW Ch400-Ch450 Utility - Gasmain S/B Lane	21	22-Aug-23 A	03-Nov-23
TSW-4455	TWSRW Ch400-Ch450 Drainage 1500dia.	21	22-Aug-23 A	03-Nov-23
TSW-4457	TWSRW Ch400-Ch450 Sewerage DN600	21	22-Aug-23 A	03-Nov-23
TSW-4459	TWSRW Ch400-Ch450 Utility - Gasmain N/B Lane	18	13-Oct-23	03-Nov-23
TSW-4461	TWSRW Ch400-Ch450 Utility - HKT Ducts	18	13-Oct-23	03-Nov-23
TSW-4462	TWSRW Ch400-Ch450 Utility - CTG+HGC+NWT+HKBN+CCTV Ducts	18	13-Oct-23	03-Nov-23
TSW-4463	TWSRW Ch400-Ch450 Road Works+Footpath	24	20-Oct-23	17-Nov-23
5.4.4 - TWSR-West Ch450 to Ch600				
- Lift				
TSW-4536	HKYFB West HKY-NB3/HKY-LT2 Predrilling	12	03-Oct-23	16-Oct-23
TSW-4537	HKYFB West HKY-LT2 Mini-pile Install (19 nos)	36	17-Oct-23	28-Nov-23
TSW-4538	HKYFB West HKY-LT2 Mini-pile Testing	18	29-Nov-23	19-Dec-23
TSW-4540	HKYFB West - Lift Sheet Piles	12	20-Dec-23	05-Jan-24
5.4.5 - TWSR-West Ch600 to Ch800				
- Ch600 to Ch800 Slope Works				



Actual Work
Non-critical
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Milestone

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

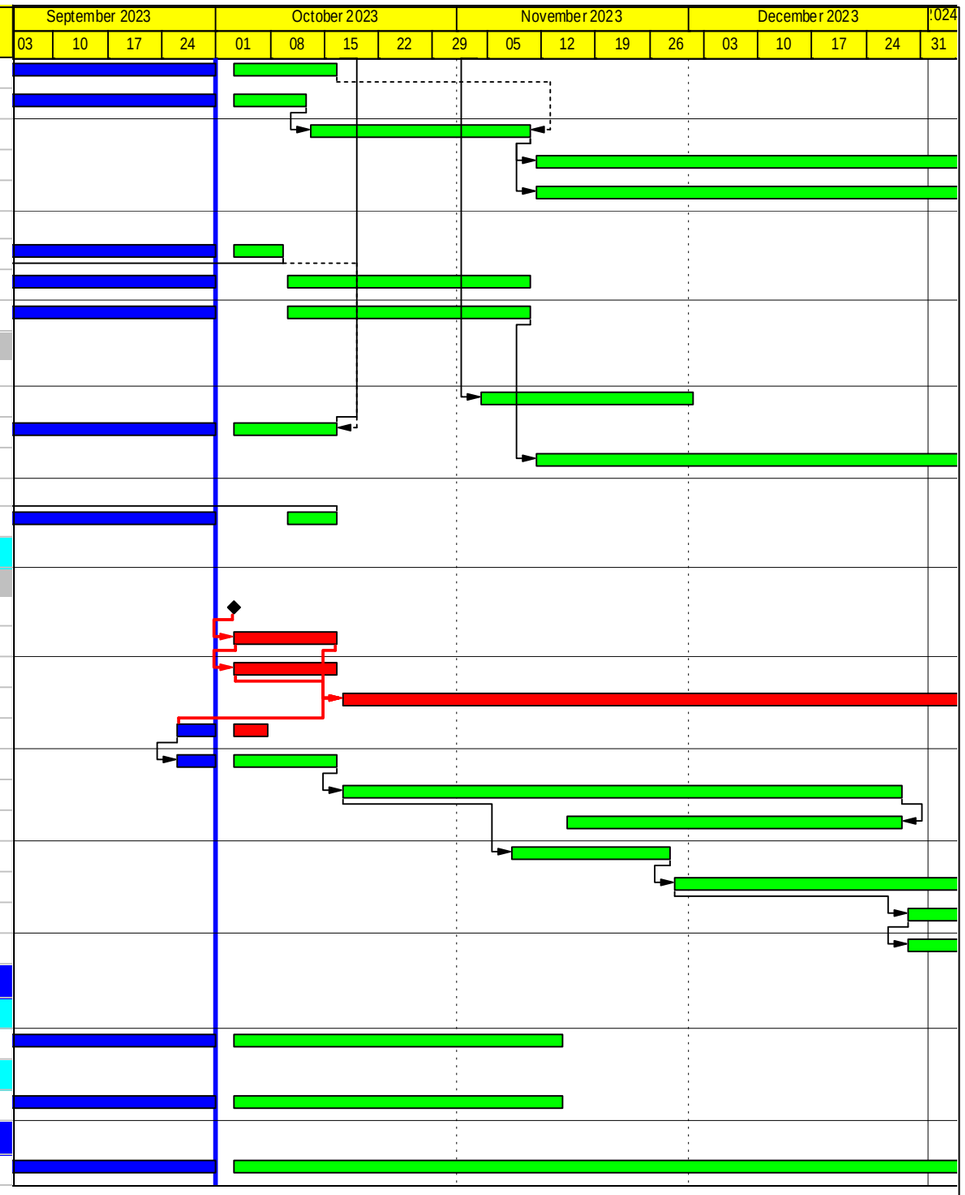
Three-Month Rolling Programme

Project ID : U43DPr16-3
Layout : 3MRP
Date : 05-Oct-23 / Page 7 of 8

3MRP

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

Activity ID	Activity Name	Rem Dur	Early Start	Early Finish
TSW-1140	Slope FS04 - Top Slope Berm Drainage	12	15-Aug-23 A	16-Oct-23
TSW-1149	Slope FS04 - Bottom Slope Hydroseeding	9	15-Aug-23 A	12-Oct-23
TSW-1150	Slope FS04 - Bottom Slope Berm Drainage	24	13-Oct-23	10-Nov-23
TSW-1155	Existing Feature 3SW-C/C360 Soil Nail	120	11-Nov-23	10-Apr-24
TSW-1160	Existing Feature 3SW-C/C430 Soil Nail	120	11-Nov-23	10-Apr-24
- Ch600 to Ch800 Road Works				
TSW-1178	TWSRW Ch600-Ch800 Utility - CLP Ducts 11KV	6	02-Aug-23 A	09-Oct-23
TSW-1180	TWSRW Ch600-Ch800 Utility - HKT Ducts	27	30-Aug-23 A	10-Nov-23
TSW-1181	TWSRW Ch600-Ch800 Utility - CTG+HGC+NWT+HKBN+CCTV Ducts	27	30-Aug-23 A	10-Nov-23
5.4.6 - Existing Utility Diversion				
- TWSRW Divert Existing Utilities				
TSW-8810	TWSRW Gasmain Diversion Stage 1	24	04-Nov-23	01-Dec-23
TSW-8845	TWSRW CLP 11kV - Cable Diversion	12	02-May-23 A	16-Oct-23
TSW-8850	TWSRW Telecom - Cable Diversion	225	11-Nov-23	15-Aug-24
- Sewerage Diversion				
TSW-8860	TWSRW Existing Sewerage Diversion Stage 1	6	22-Aug-23 A	16-Oct-23
5.5 - Jockey Club Road				
5.5.3 - TTA Stage 2				
JCR-2190	THV Junction N/B - Issue PMI for Ret Wall FW51	0	03-Oct-23	
JCR-2193	THV Junction N/B - Ret Wall FW51 Preparation Work	12	03-Oct-23	16-Oct-23
JCR-2194	THV Road N/B Footpath - Site Clearance	12	03-Oct-23	16-Oct-23
JCR-2195	THV Junction N/B - Box Culvert, Ret Wall FW51 and FS25	96	17-Oct-23	09-Feb-24
JCR-2560	JCR TTA Stage 2 Implementation	5	26-Sep-23 A	07-Oct-23
JCR-2580	JCR Traffic Island - Site Clerance	12	26-Sep-23 A	16-Oct-23
JCR-2585	JCR Traffic Island - Utility Install/Traffic Signal Civil Provision	60	17-Oct-23	28-Dec-23
JCR-2590	JCR Traffic Island - Kerb/Central Barrier/Paving	36	15-Nov-23	28-Dec-23
JCR-2695	JCR Traffic Island - S/B Cross Road Traffic Signal Ducts (TTA Stage 2A)	18	08-Nov-23	28-Nov-23
JCR-2705	JCR N/B - FS05 Slope Drainage (TTA Stage 2B)	48	29-Nov-23	26-Jan-24
JCR-2710	JCR N/B - DN 150 Expose Pipe - PMI 258 (TTA Stage 2B)	60	29-Dec-23	12-Mar-24
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	14-Nov-23
6.4 - Section 9C				
TCS-451	Section 9C TCSS - Ducts/Drawpit at BBI Entry	36	14-Aug-23 A	14-Nov-23
7.0 - Miscellaneous Works				
MIS-100	Preservation and Protection of Trees	255	28-Oct-20 A	12-Aug-24



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Three-Month Rolling Programme

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3MRP			
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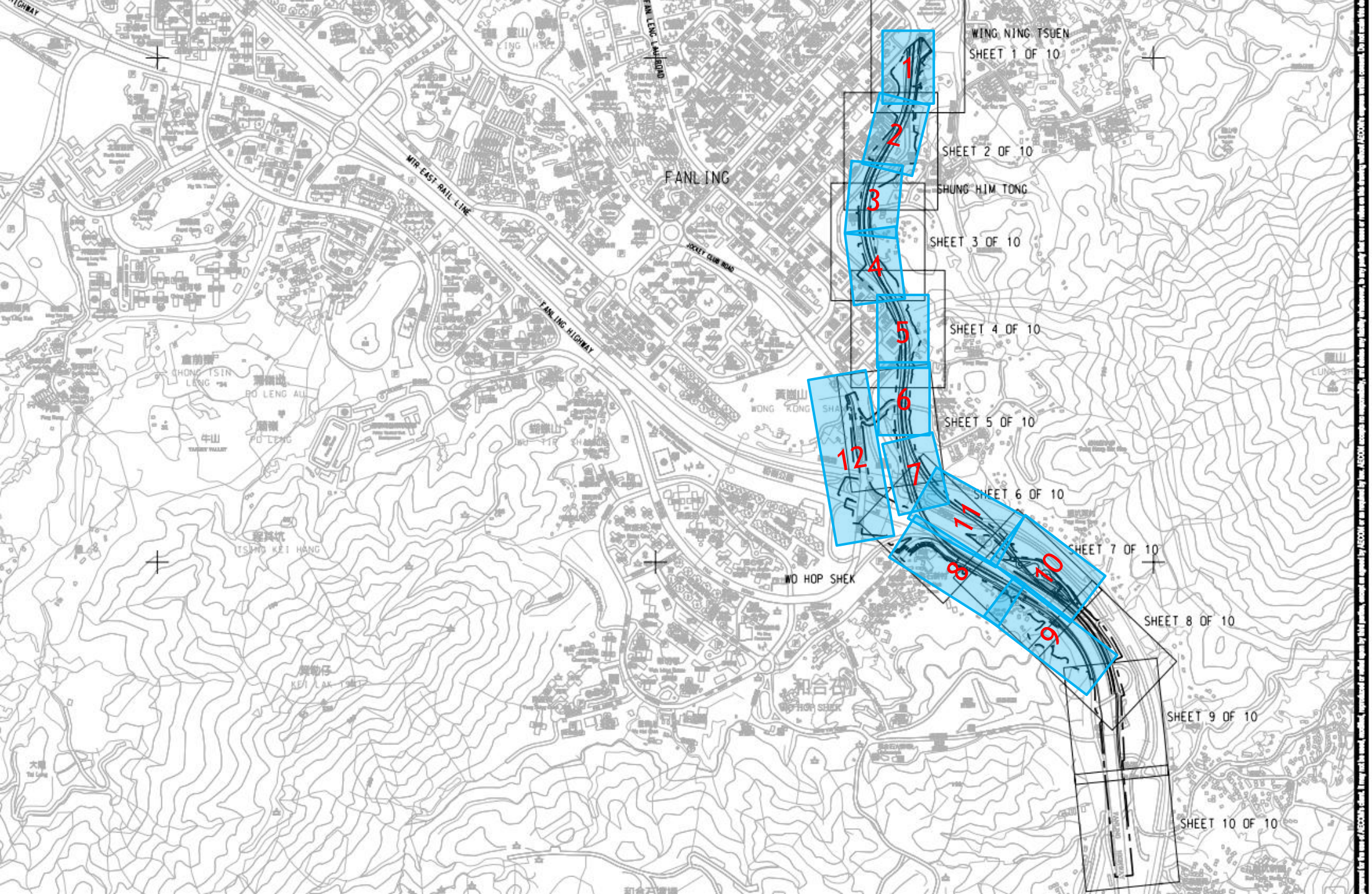

CONSULTANT

AECOM Asia Company Ltd.
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SUB-CONSULTANTS

ISSUE/REVISION

-	JUN-19	TENDER DRAWING	RPCM
REV.	DATE	DESCRIPTION	CHK.

STATUS

SCALE
A1 1 : 7000

DIMENSION UNIT
METRES

KEY PLAN

PROJECT NO.
60335576

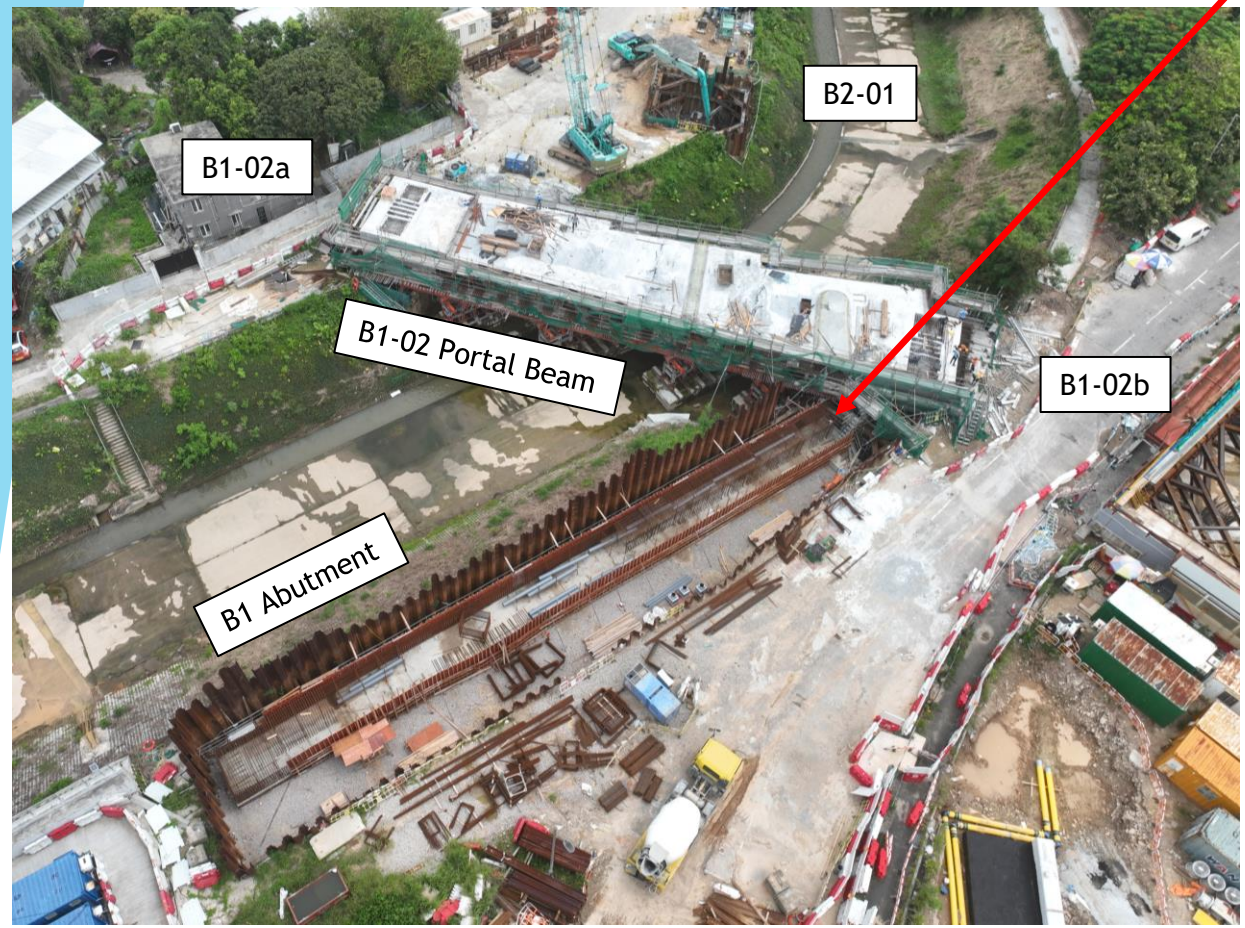
CONTRACT NO.
ND/2019/05

SHEET TITLE
KEY PLAN AND LOCATION PLAN

1 North Team

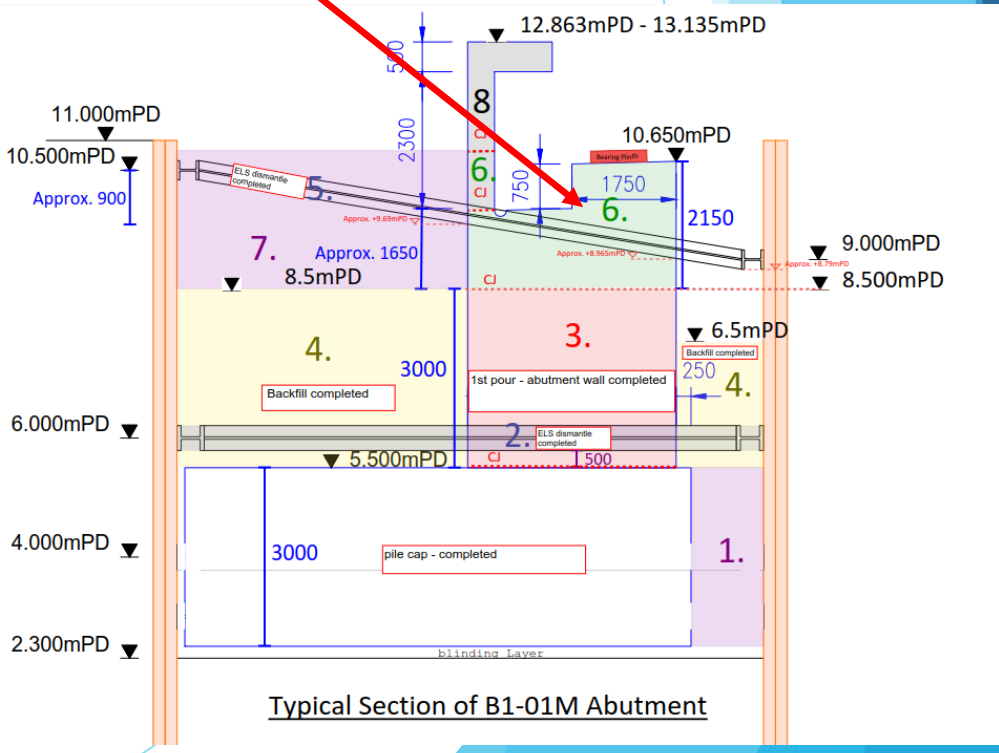
B1-01M (On Kui St)
- Rebar fixing and uPVC pipe fixing in progress
- Target to cast abutment wall (2nd pour, part 1) on 21/09/23

- Wall - ES: 01/03/23 EF: 18/09/23
  LS: 04/03/24 LF: 23/03/24
- **Slippage against R16**





Rebar fixing and uPVC pipe fixing in progress, target to cast abutment wall (2nd pour, part 1) on 21/09/23



Typical Section of B1-01M Abutment

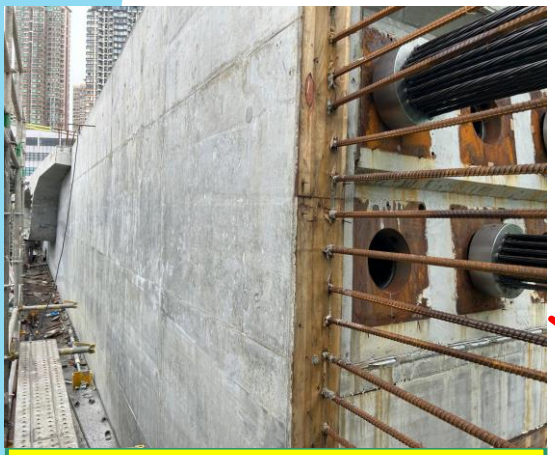
1

- Pier & Portal Team

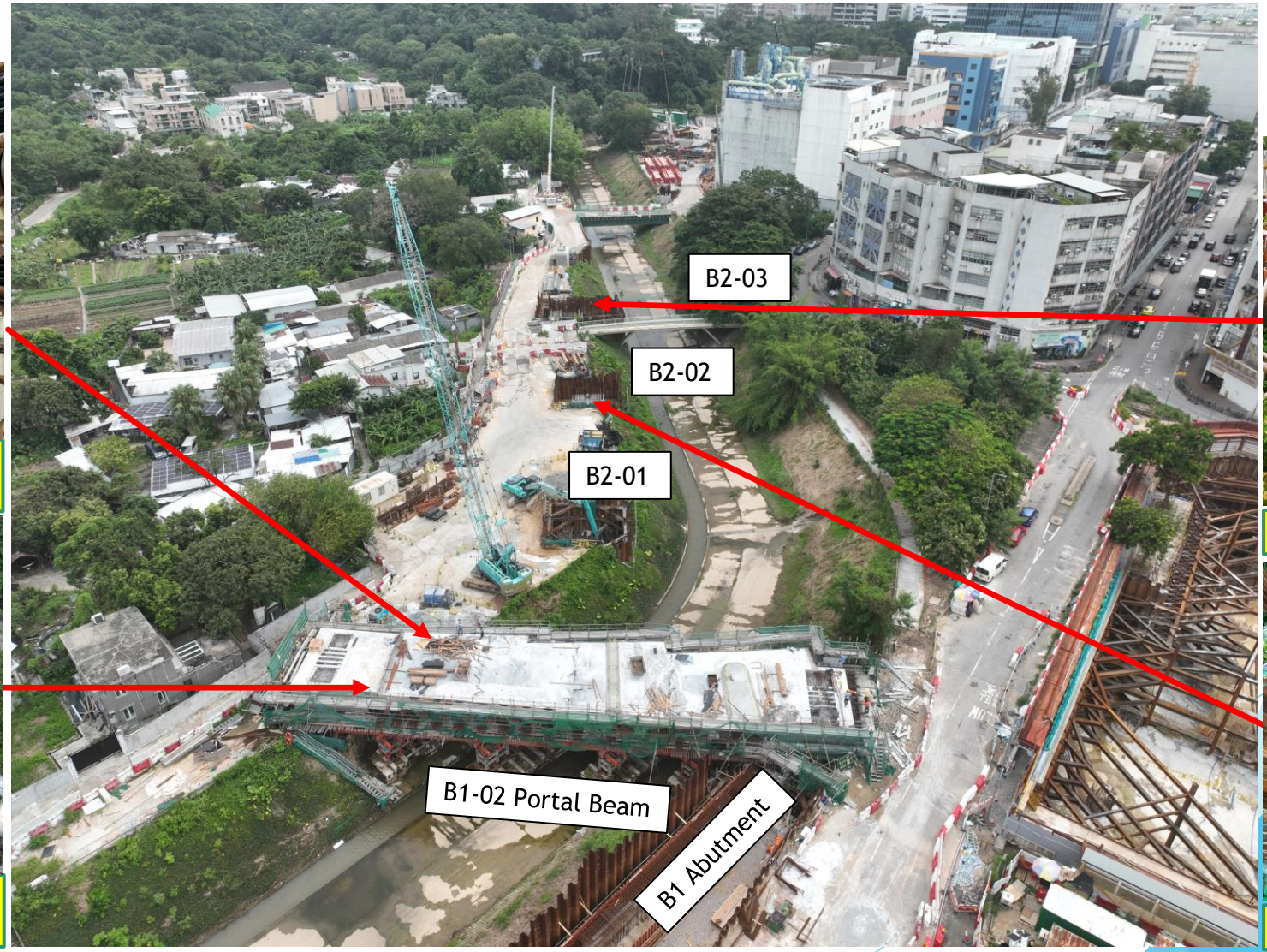
Area Highlighted – B1-02 Portal Beam

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)
- B2-03 Pier concreting completed on 10/08/23
- ES:03/08/23 EF: 06/09/23
- LS:06/03/24 LF: 13/04/24
- **Ahead against R16**



Dismantling of formwork at B1-02 portal in progress





B1-02 portal beam concreting completed on 28/8/23

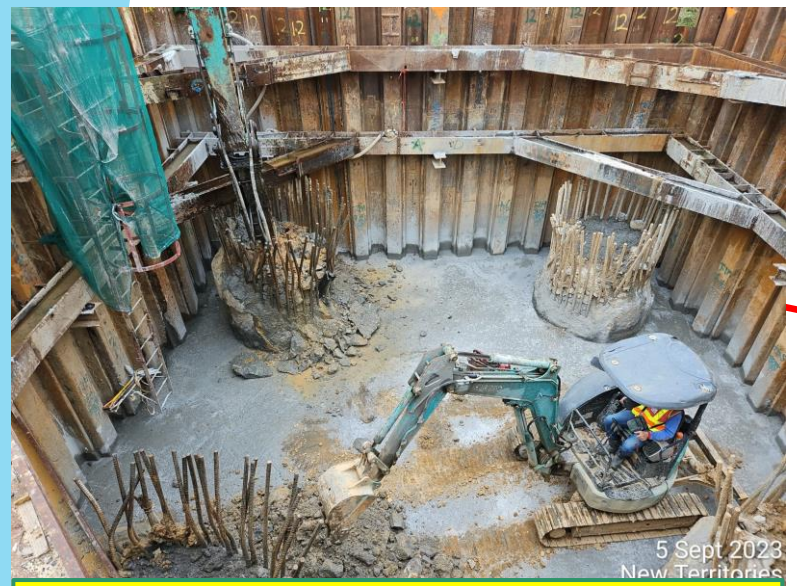


B2-03 pier completed on 10/08/23



B2-02 pier construction completed

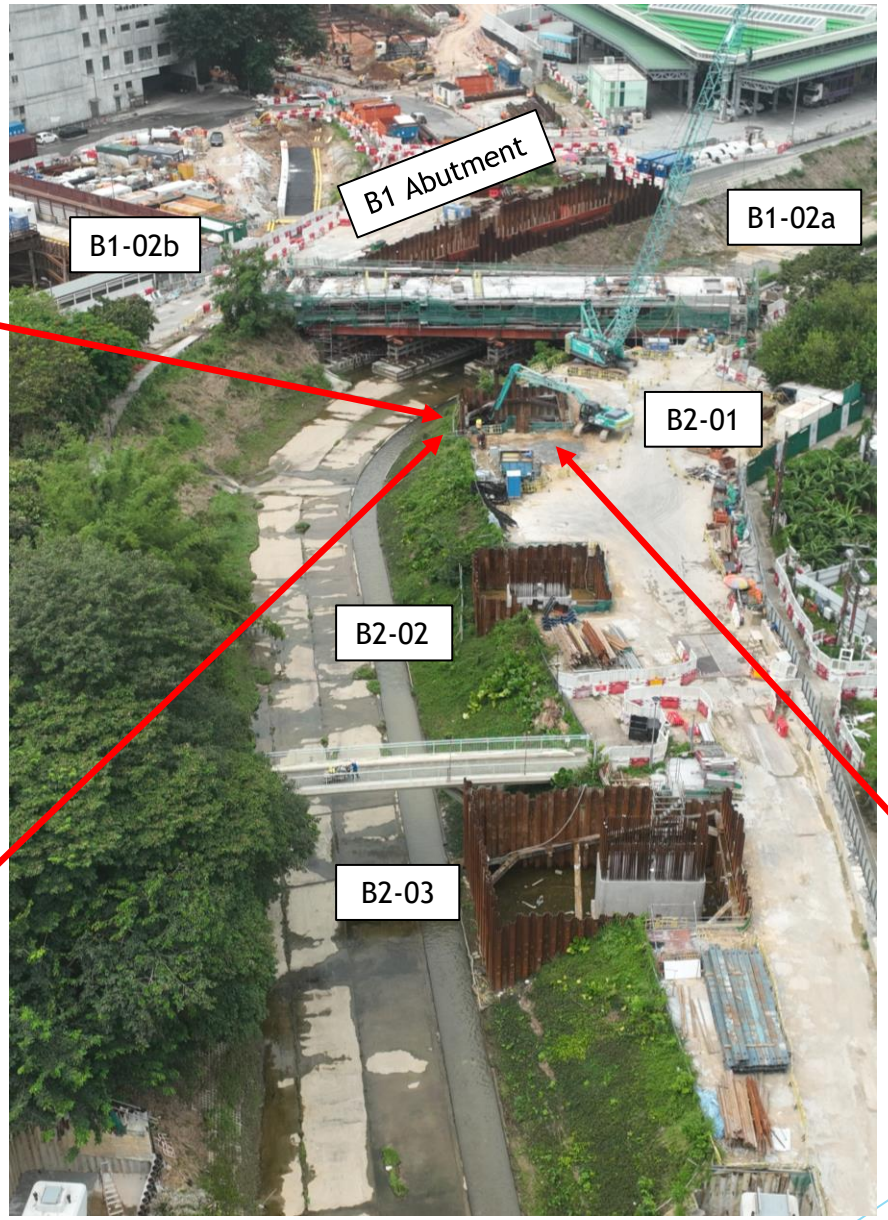
2 North Team



B2-01 breaking pile head in progress



B2-01 2nd layer strut and waling completed on 28/08/23



Portion 2 (Shum Him Tong)

B2-01
- 2nd layer strut and waling completed on 28/08/23
- Blinding layer cast on 04/09/23
- Pile head breaking in progress
- Target to cast pile cap on 18/09/23

- ELS & Pile Cap – ES: 01/08/23 EF: 02/11/23
  LS: 29/12/23 LF: 06/04/24
- **On Track against R16**



B2-01 blinding layer cast on 04/09/23

2

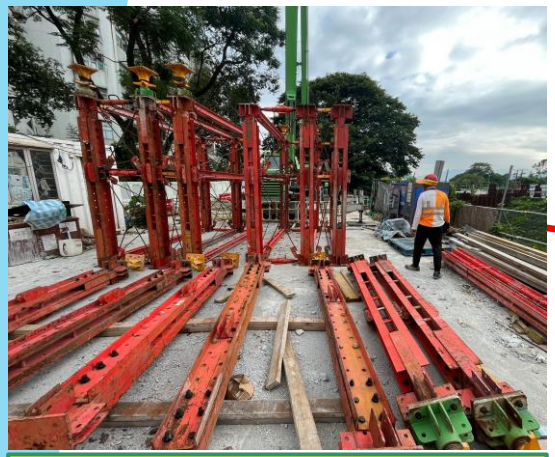
- Pier & Portal Team

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 25/09/23**
- **On Track against R16**

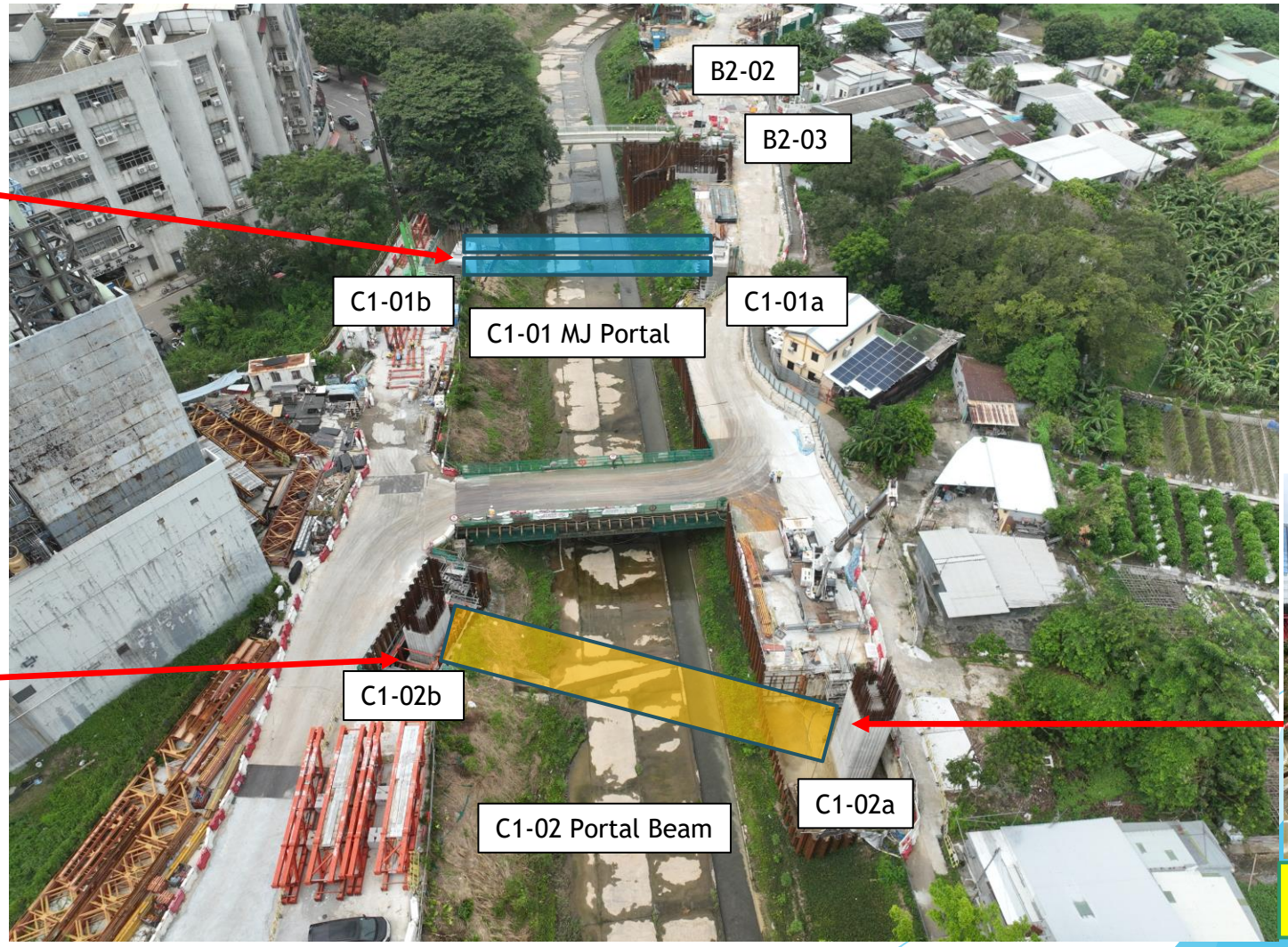
C1-01 MJ Portal Beam
- ES: 22/08/23 EF: 05/02/24
- LS: 29/01/24 LF: 19/07/24
- **Target truss erection by 16/10/23**
- **On Track against R16**



VST tower erection at C1-01b in progress



VST tower at C1-02b completed on 23/08/23

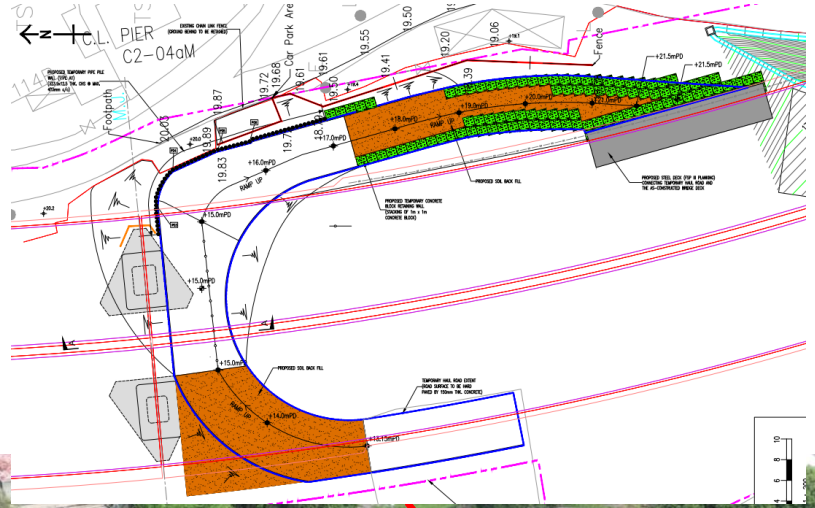






Installation of steel bracket at C1-02a in progress

3 North Team



Portion 5 (On Lok Garden)

Haul Road to Bridge Deck (near C2-04a)

- Pipe piling commenced on 18/08/23 and completed on 06/09/23

- Temp Ramp/Haul Road Construction
- ES: 25/10/23 EF: 28/11/23
  LS: 09/12/24 LF: 15/01/25

Ahead against R16





Pipe piling for haul road commenced on 18/08/23 and completed on 06/09/23

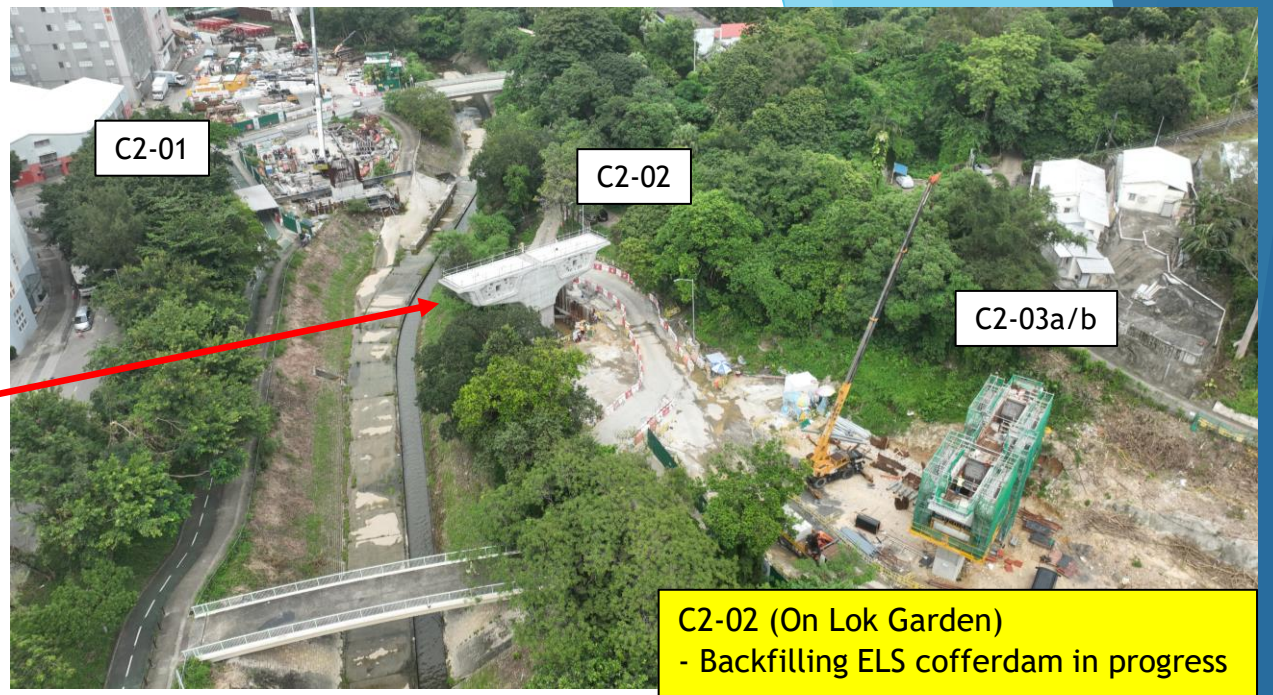
3 North Team



C2-02 ELS cofferdam backfilling in progress

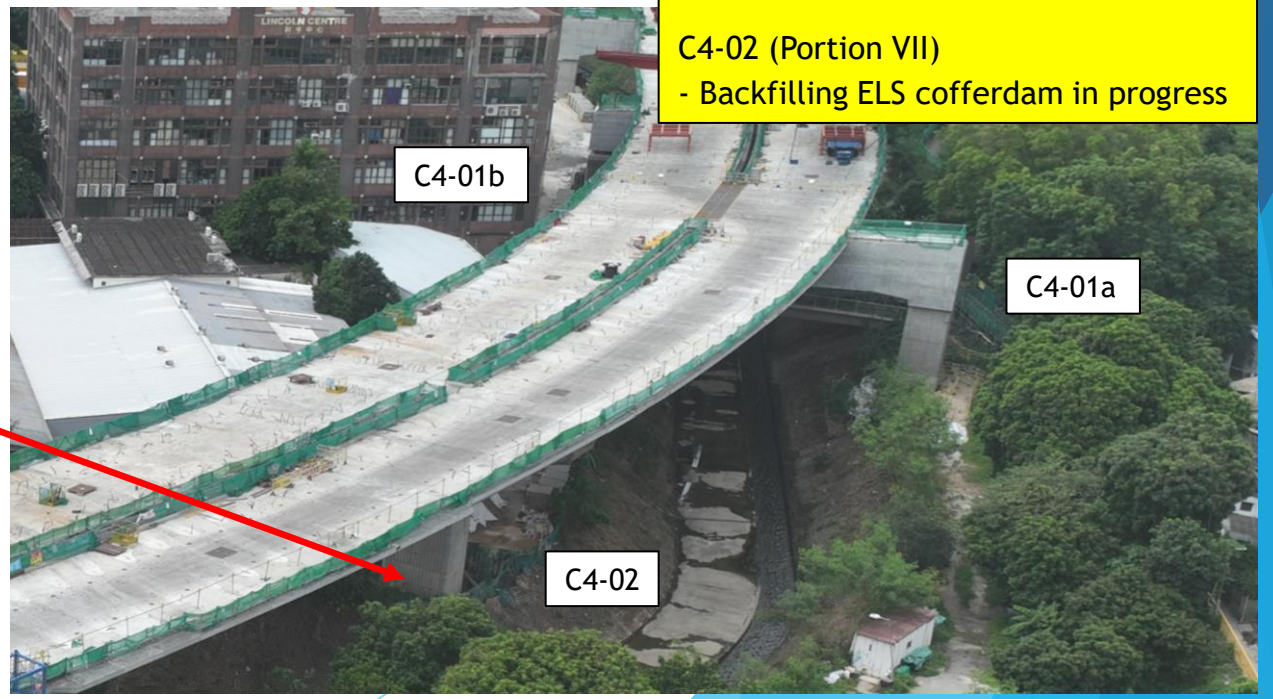


C4-02 ELS cofferdam backfilling in progress



C2-02 (On Lok Garden)
- Backfilling ELS cofferdam in progress

C4-02 (Portion VII)
- Backfilling ELS cofferdam in progress



3 Pier & Portal Team

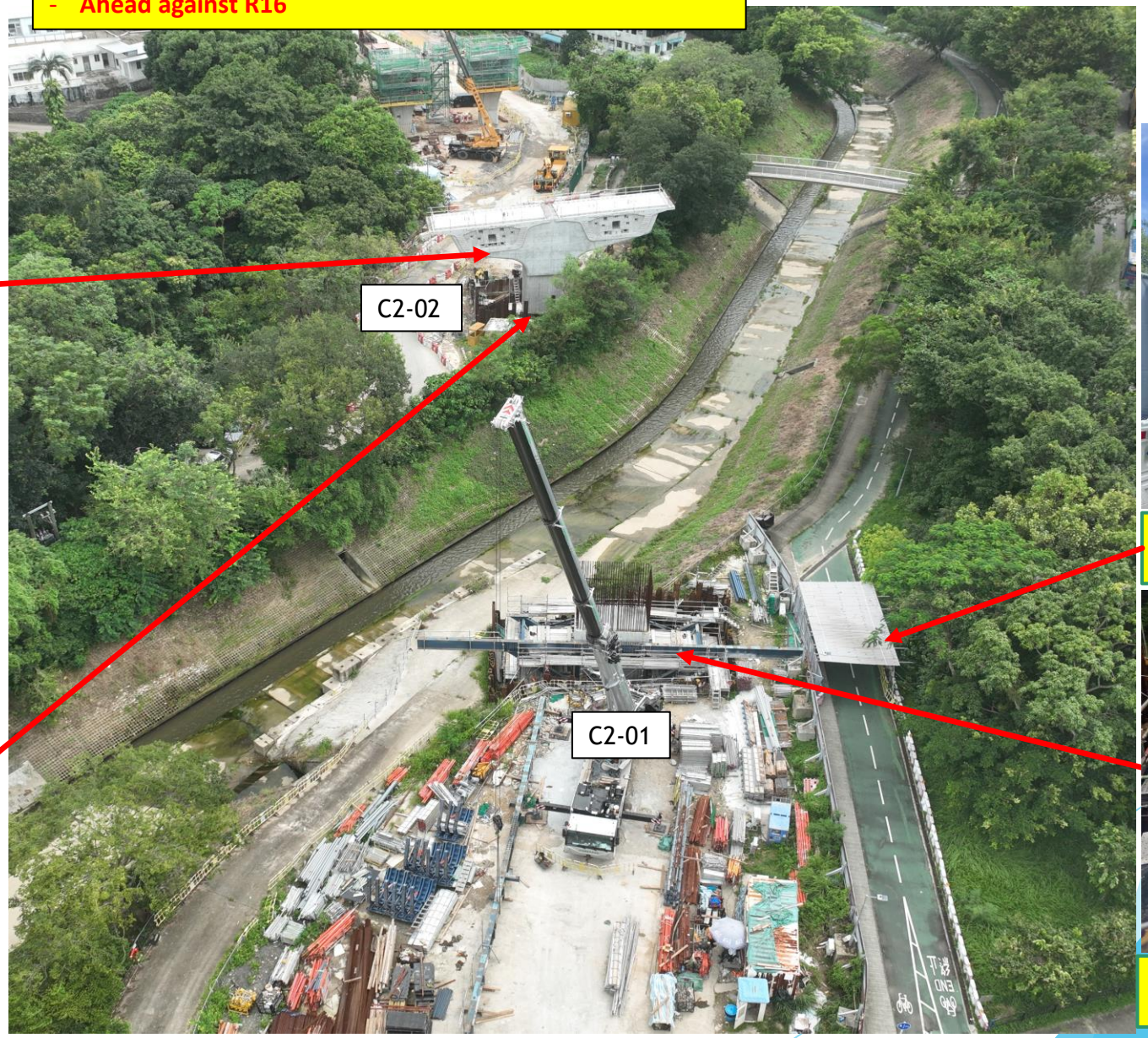
Portion 4
Concreting at C2-02 cross head completed on 04/07/23
- Cross head - ES: 31/08/23 EF: 10/01/24
  - LS: 01/11/23 LF: 23/01/24
- **Ahead against R16**



Dismantling of temporary steel support beam at C2-02 cross head completed on 21/08/23



C2-02 cross head hand over for backfilling works on 04/09/23





Covered walkway & cycle track at C2-01 cross head completed on 21/08/23



Temporary steel support beam at C2-01 cross head completed on 06/09/23

CEDD Contract no. ND/2019/05
Fanling North New Development Areas,
Phase 1 : Fanling Bypass Eastern Section (Shung Him Tong to Kau Lung Hang)

Viaduct

- Precast cell installation at C2-03 on 29 July 2023




C2-03b


C2-03a

CEDD Contract no. ND/2019/05
Fanling North New Development Areas,
Phase 1 : Fanling Bypass Eastern Section (Shung Him Tong to Kau Lung Hang)

Viaduct

Construction of temporary support for LG front leg



CEDD Contract no. ND/2019/05
Fanling North New Development Areas,
Phase 1 : Fanling Bypass Eastern Section (Shung Him Tong to Kau Lung Hang)

Viaduct **Launching Girder (Bridge C4)**

- Up to 11 Sep Total 210 segments erected by LG.





LG launching to C3-02

CEDD Contract no. ND/2019/05
Fanling North New Development Areas,
Phase 1 : Fanling Bypass Eastern Section (Shung Him Tong to Kau Lung Hang)

Viaduct

Segment Precast Works- Up to 11 Sep 2023

Fabricated	Delivery to Site	Erected
602	394	343





CEDD Contract no. ND/2019/05
Fanling North New Development Areas,
Phase 1 : Fanling Bypass Eastern Section (Shung Him Tong to Kau Lung Hang)

Viaduct

Segments Erection by Crane (Bridge E1 and D1)



Bridge D1 & E1 Segment erection completed on 31 Aug 2023



The falsework for D1-04 &E1-04 end span



Segment installation at D1-03 T-span

CEDD Contract no. ND/2019/05
Fanling North New Development Areas,
Phase 1 : Fanling Bypass Eastern Section (Shung Him Tong to Kau Lung Hang)

Viaduct

Bridge Rotation

- D2-01 upper turntable target cast concrete on 8 Oct 2023









Viaduct

Bridge Rotation

- Rotation system inspection carried out after black rainstorm, components of spherical bearing/Shear support/Sand box/ Station are in good condition.









Rotation system for D2-01









Rotation system for E2-01

CEDD Contract no. ND/2019/05
Fanling North New Development Areas,
Phase 1 : Fanling Bypass Eastern Section (Shung Him Tong to Kau Lung Hang)

Viaduct

Segment On Pier (SOP)

- E2-01 2nd pour casted on 30 Aug 2023 , removing formwork in progress.









8

- Form Traveler Team Area Highlighted
  - FT3 (D2-02 T –Span)

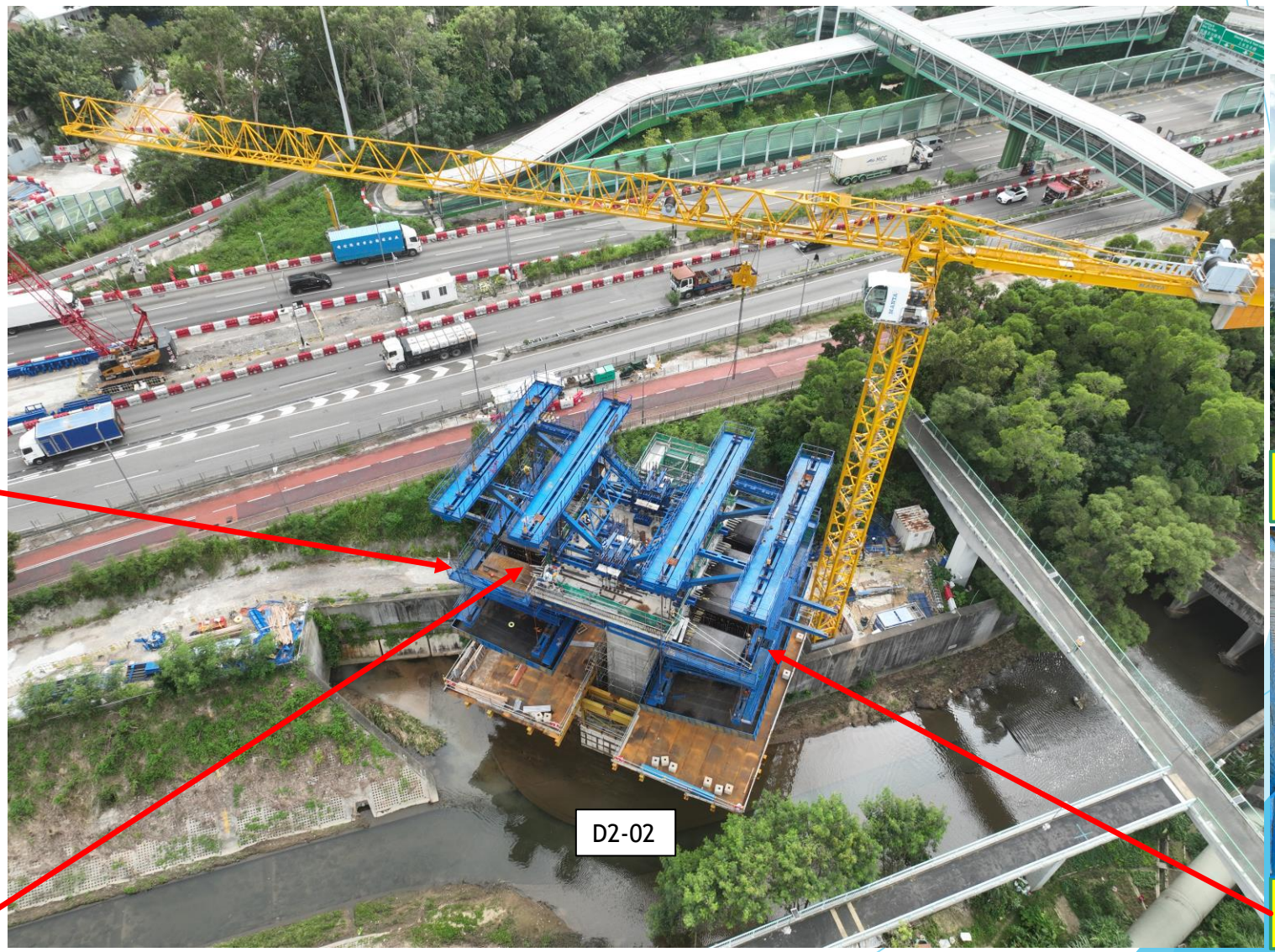
FT3: D2-02
- **Installation of FT3 completed on 05/09/23**
- Installation of FT3
  - ES: 06/05/23 EF: 24/08/23
  - LS: 19/05/23 LF: 04/08/23
- **Slippage against R16**



D2-02 FT assembly completed on 05/09/23 (Up Chainage)



Rebar Fixing at S01 segment in progress (Up Chainage)





D2-02 FT assembly completed on 25/08/23 (Down Chainage)



Rebar Fixing at S01 segment in progress (Down Chainage)

FS04

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 UUs(CLP, Telecoms etc.) laying works.**
- **Temp. working platform is dismantled and leveling ground for CLP 11kv cable laying.**





Clearing Debris off Bottom Portion FS04



Middle Berm & U-Channel (CH720-750) Completed

HKY Access

TWSRW (CH200 to 400) TWRSW Diversion
TSW 4450 (R16) ES: 16/10/23 EF:26/10/23
- **Road work affected by UU laying work, Inclement Weather**



Backfilling and Concreting Footpath in Progress.
(Target Completion 7/10)



Pavement Works in Progress
(Target Completion 20/10)



Backfilling sub-base and compaction for SRT(98%)
(Target completion 16/9)
*Affected by adverse weather



450 dia. Fresh water tee pipe
(Target completion 16/9)





CLP 11kv cable ducts laying
(near FS21) in Progress
(Target complete on 16/9/2023)

FS06

TWSRW (CH200 to 400) Road Works & Footpath
TSW 4450 (R16) ES: 15/11/22 EF:28/08/23

- **Road work affected by UU laying work.**



CLP 11kv cable laying
(near FW06) in Progress
(Target complete on 16/9)



150/300 dia. Flush/Fresh water tee pipe
(Completed on 31/8)





Gas pipe laying(IPA400 & HP600)
connection point - Trial pit excavation
(near Ho Ka Yuen Footbridge)
(Target complete on 16/9)

- South Team



Road and Drainage construction work
(Drainage, Footpath and Cycle Track)
near Wo Hop Shek Village
(Target completion – Oct 2023)



Gas pipe laying
(IPA400 and HP600)
connection point





MH9110 completed on 23/8

Form Traveller Team Area Highlighted

- FT1 (E2-02 T -Span)

FT1: E2-02
- S09 segment completed on 19/8/23
- E2-02 T-Span (S01 to S014)
  ES: 02/11/22 EF: 14/11/23
  LS: 02/11/22 LF: 22/11/23
- **On track against R16**

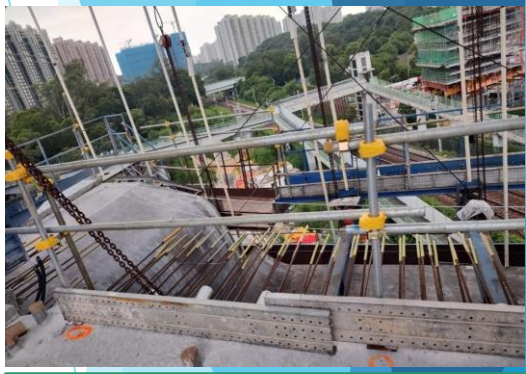


S09 segment (Down Chainage) completed on 19/08/23



S09 segment (Up Chainage) completed on 19/08/23





S10 segment (Down Chainage) in progress



S10 segment (Up Chainage) in progress

Form Traveller Team

Area Highlighted

- FT2 (E3-03 & E3-01 T -Span)

FT1: E3-01

- **FT Assembly**
- ES: 09/08/23 EF: 25/10/23
  LS: 05/01/24 LF: 22/03/24

Target 1st pair segment concreting by 01/11/23

- On track against R16



Installation of bottom formwork (Down)



Temporary working platform at E3-01 completed on 05/09/23



1. TWSRE – BBI Cover walkway Steelworks/Roof
BBI-1225 (R16) ES:17/07/22 EF:21/08/23
- BBI Columns 11 out of 20 installed
- Roof Sheeting to be delivered by 19/09

2. 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

3. BBI Road L201 up to Ch200
BBI-1320 (R15) ES:08/08/23 EF:28/08/23
- Bus Layby Concrete Slab completed on 11/9
- Backfilling to East Road completed



Bus Layby Completed on 11/9

Roof Movement Joint Completed on 9/9

Pavement (Road Base) started on 7/9

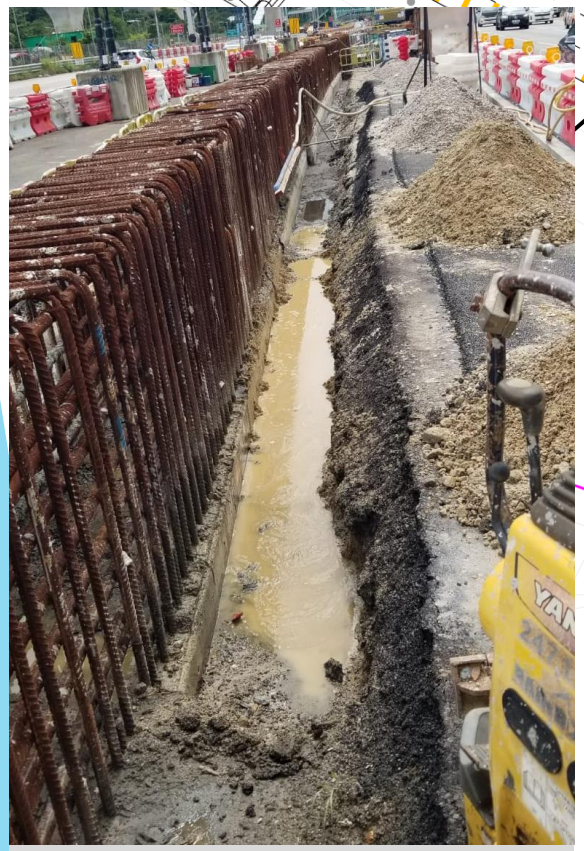
Bus Layby Completed on 11/9

HKY Roof Sheeting in Progress

South Team

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

- **Bay 10 Footing casted on 17/8**
- **Bay 09 Wall 1st Portion to be cast 18/9**
- **Bay 05-08 Wall 2nd Portion to be casted 28/9**



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

NB109 Layout Plan



Bay 10 Footing Casted on 17/8



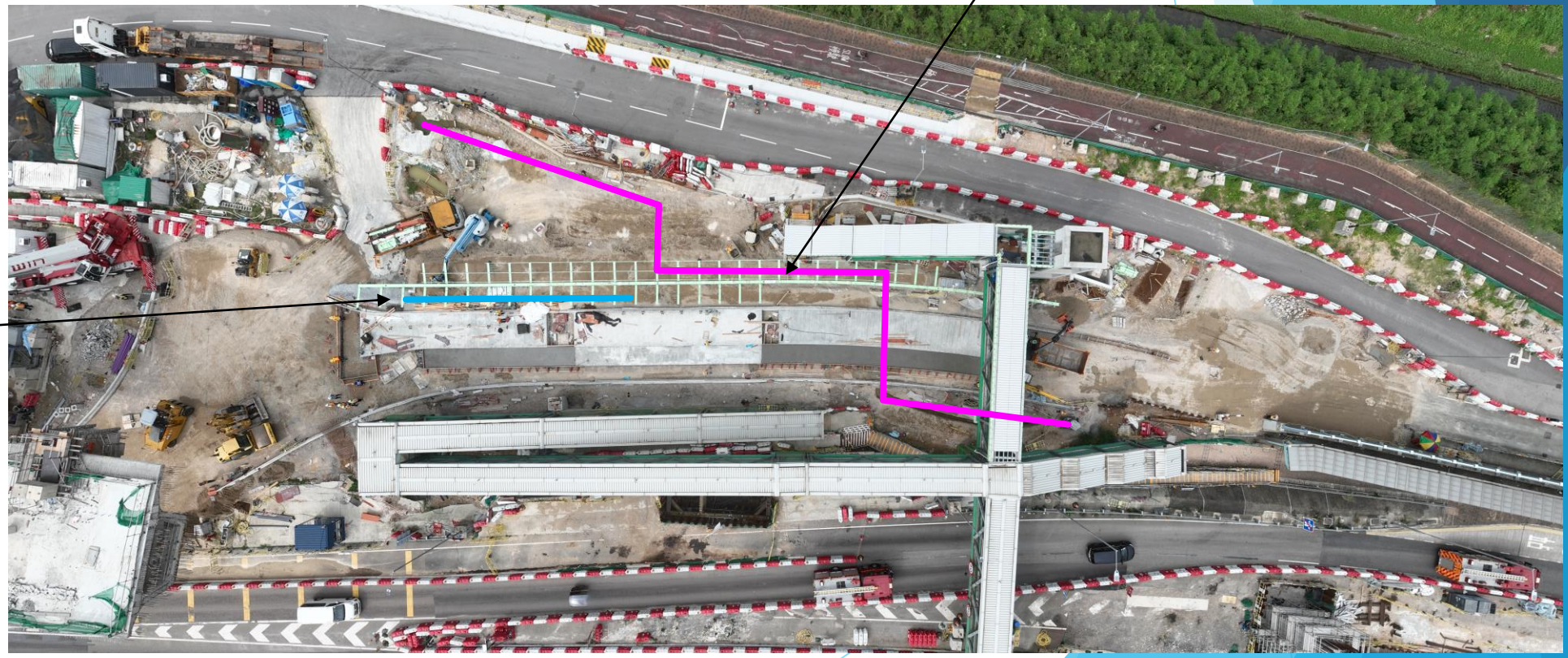
Bay 11 Replace G200 Rockfill



CLP 11kV - 7/9 Lay LV Cable, 9/9 Connection Completed

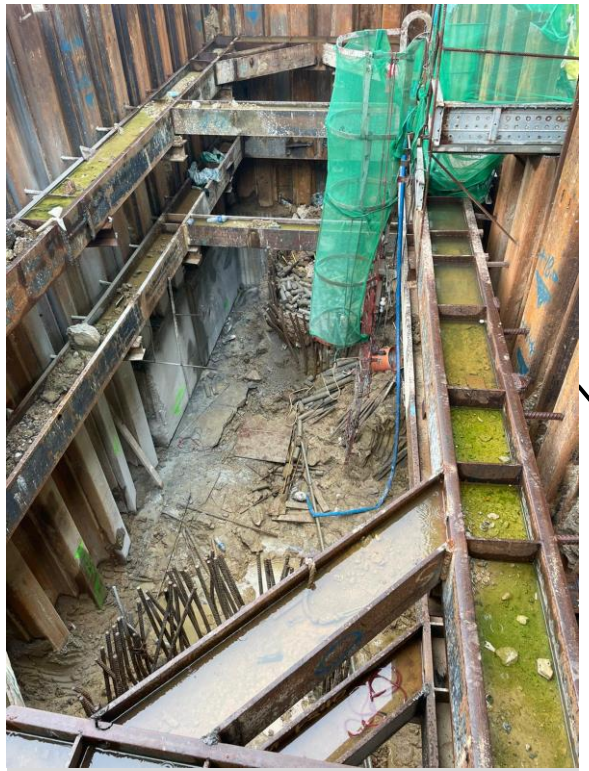


7/9 Installed 150PE Watermain



South Team

4. E3-04a Pile Cap
E3-7470 (R16) ES:15/08/23 EF:11/09/23
- **Pile Cap to be completed by 28/09/23**



E3-04a Obstruction Removed on 6/9

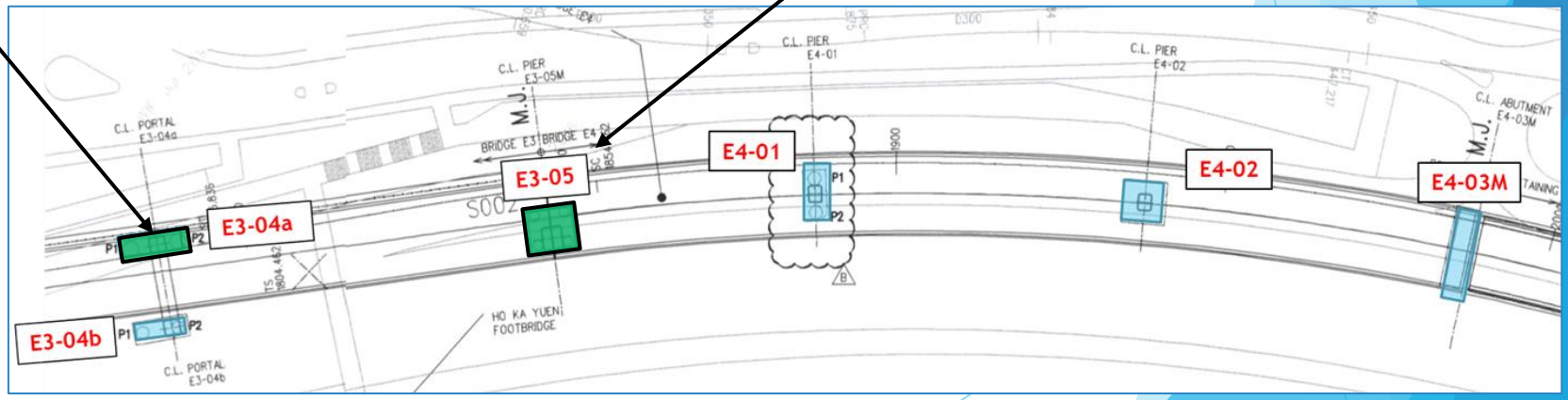


E3-05M 5m Vertical Pier
Concreted on 22/8

5. E3-05M Pier Head
E3-5612 (R16) ES:22/08/23 EF:18/09/23
- **2nd Pour (5m) to be casted on 22/08/23**
- **3rd Pour wait for BBI Diversion**



E3-05M Pier Steel Mould delivered on 11/9



South Team

9. Noise Barrier NB 110 Bay 5 Footing and Wall
TSE-1311 (R16) ES: 01/08/23 EF:28/08/23

- **Bay 4 Wall casted on 26/08**
- **Bay 3 Wall Target on 16/09**
- **Bay 5 Wall Target on 16/09**



Bay 5 Formwork completed. Waiting HDB Installation



Bay 4 Stem Wall Casted on 26/8



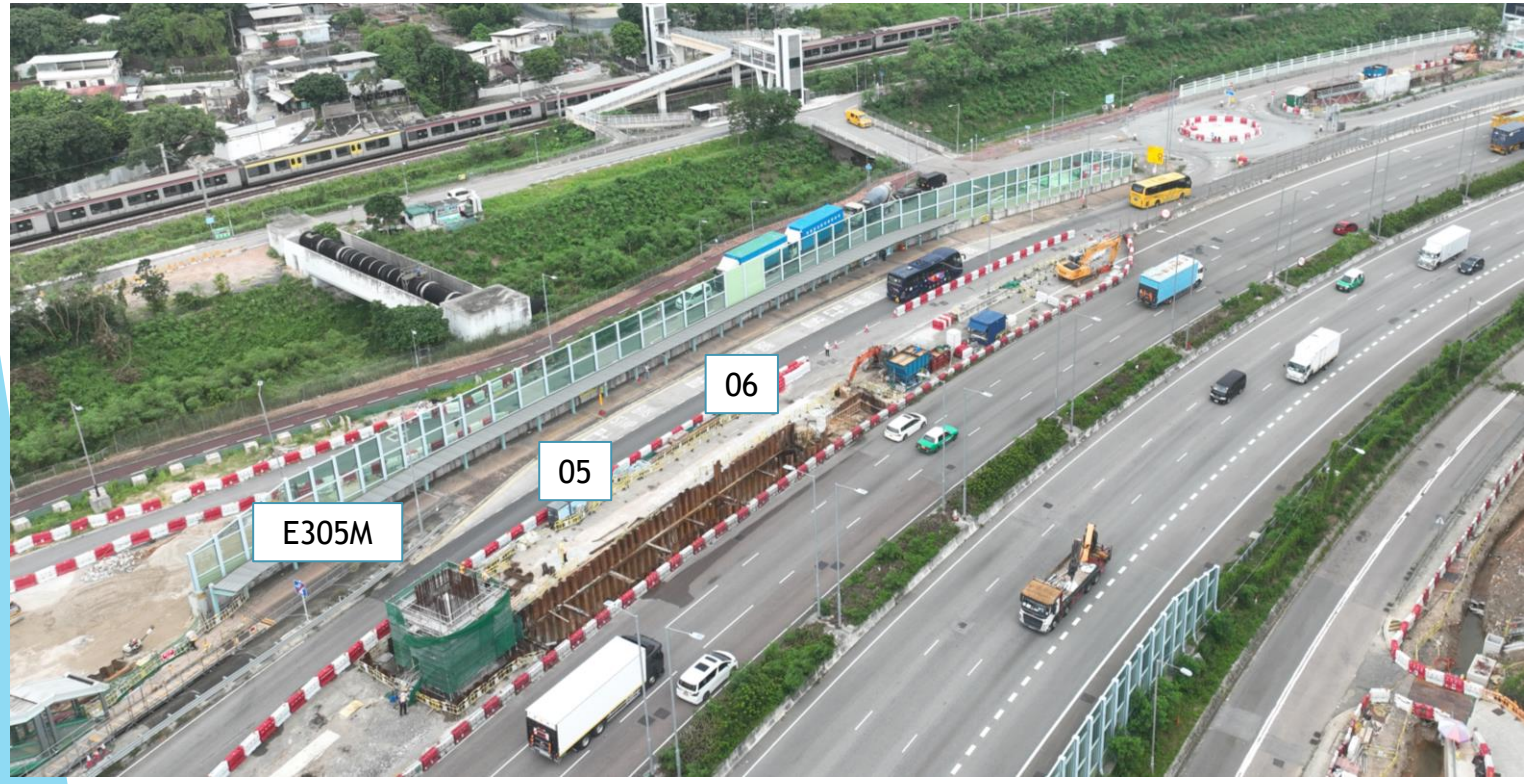


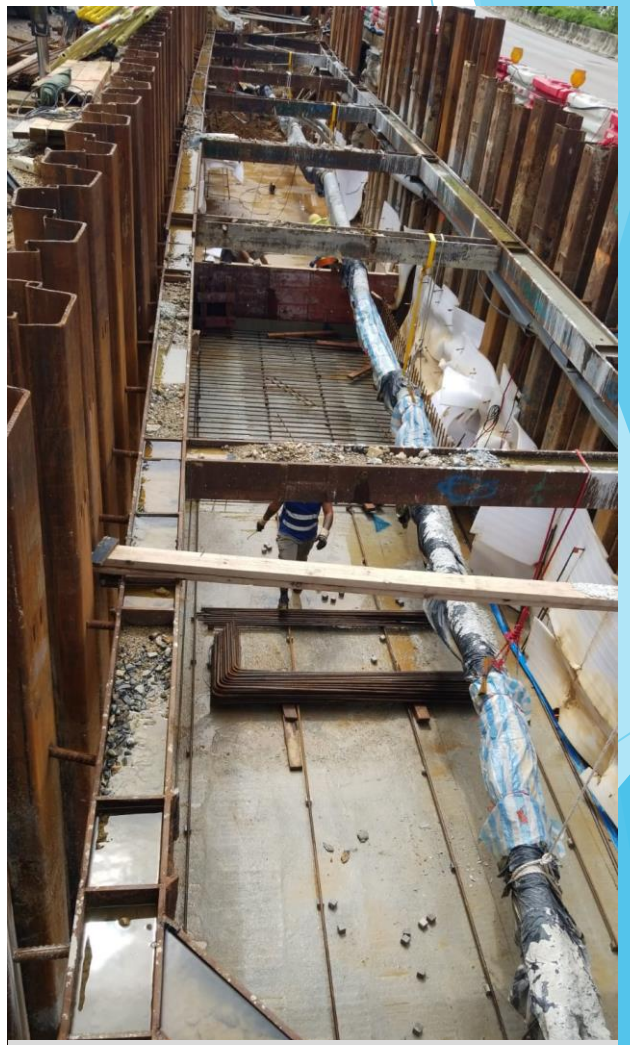
Bay 3 Formwork completed. Waiting HDB Installation

South Team

8. Noise Barrier NB 69 Bay 6-8 Footing
TSE-1520 (R15) ES: 14/08/23 EF:09/09/23

- **Blinding casted on 31/8**
- **Bay 5 Footing Target 16/9**
- **Bay 6 Footing Target 23/9**





Bay 5 Rebar Fixing in Progress

- 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 26/10/23

- On Track against R16



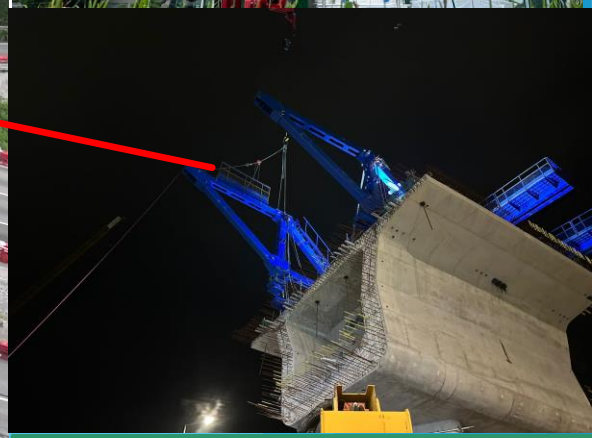
Installation of main frame & middle portal completed on 29/08/23 (Up Chainage)



Installation of upper beam completed on 31/08/23 (Up Chainage)







Installation of main frame & middle portal completed on 07/09/23 (Down Chainage)

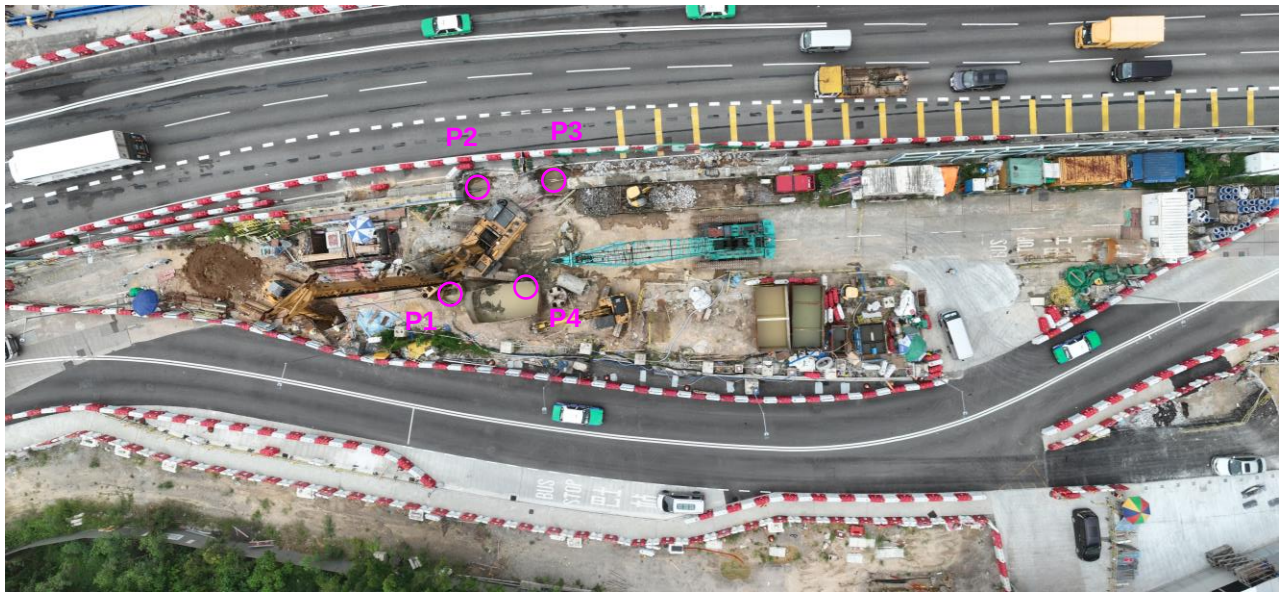
11 South Team

6. 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**



D2-04M-P1 Piling in Progress





Slewing HKT Cable in Progress

CEDD Contract no. ND/2019/05
Fanling North New Development Areas,
Phase 1 : Fanling Bypass Eastern Section (Shung Him Tong to Kau Lung Hang)

Viaduct

Segment On Pier (SOP)

- Target of E2-03 2nd pour concrete will be end of September.







12 North Team



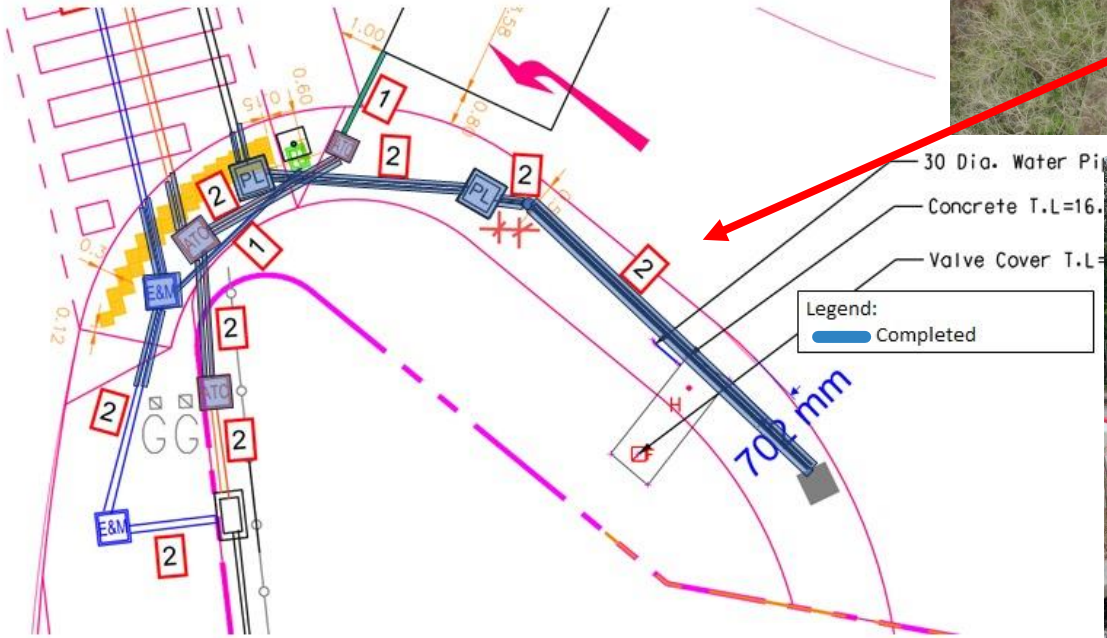
Installation of ducting in progress

Jockey Club Road (THV)

Cable duct laying & draw pit for traffic light , detection loop & street light in progress

- ES: 3/7/23 EF:14/9/23
- LF: 8/9/23 LF: 14/9/23
- **On track against R16**







Backfilling of footpath completed



Preparation of concreting of K1 kerb bedding

12 North Team



Construction of gully grating and overflow weir at J/O WKS & JCR completed



Laying of Road Base (Ch. 0 - J/O WKS & JCR) completed



Laying of Wearing Course (Ch. 0 - J/O WKS & JCR) completed

Jockey Club Road

Jockey Club Road 3SW-C/F63

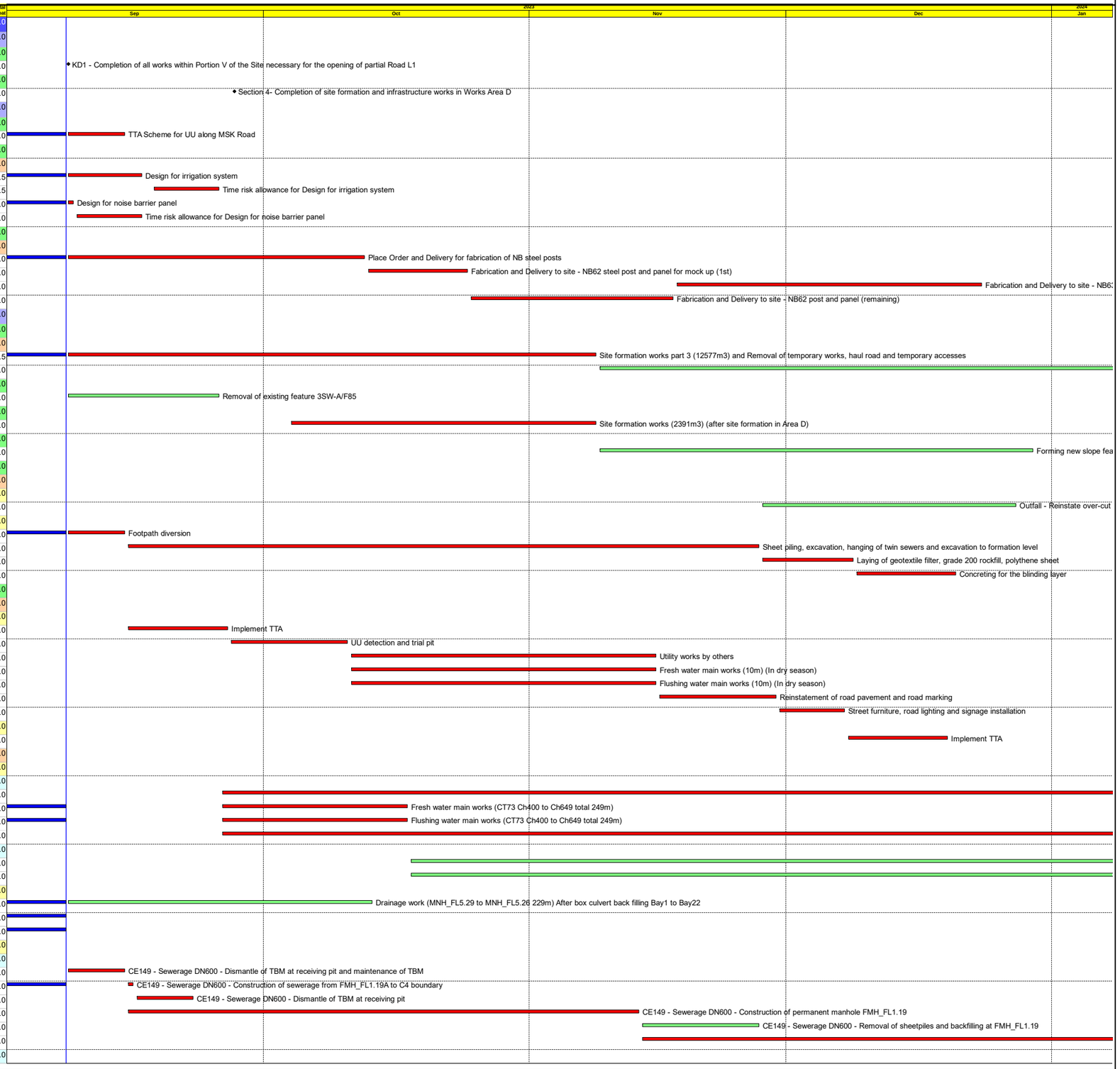
- Permanent & temporary Road works
- ES: 01/08/23; EF: 14/08/23
- LS: 01/09/23 ; LF : 14/09/23
- **Slippage against R16**
- Laying of Road Base (ch.0 - J/O WKS & JCR) completed.
- Laying of Base Course (ch.0 - J/O WKS & JCR) completed.
- Laying of Wearing Course completed.



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
Fanling North New Development Area, Phase 1: Site Formation and Infrastructure Works		1416.0	31-Aug-20 A	07-Jan-25	-110.0
Key Dates and Sectional Completion of the Works		19.5	08-Sep-23	27-Sep-23	0.0
Contractual Key Dates		0.0	08-Sep-23	08-Sep-23	-70.0
KDS1000	KD1 - Completion of all works within Portion V of the Site necessary for the opening of partial Road L1	0.0		08-Sep-23*	-70.0
Contractual Sectional Completion of the Works		0.0	27-Sep-23	27-Sep-23	0.0
KDS1040	Section 4- Completion of site formation and infrastructure works in Works Area D	0.0		27-Sep-23*	0.0
Preliminaries, Contractor's Design, Method Statement Submission and Approval		381.0	10-Aug-22 A	23-Dec-23	-66.0
General Submission		150.0	01-Jan-23 A	14-Sep-23	-165.0
PGS1260	TTA Scheme for UU along MSK Road	150.0	01-Jan-23 A	14-Sep-23	-165.0
Contractor's Design Submission and Approval		197.0	23-Nov-22 A	25-Sep-23	-40.0
Permanent Works Design		197.0	23-Nov-22 A	25-Sep-23	-40.0
PWD1030	Design for irrigation system	13.0	20-Jun-23 A	16-Sep-23	-100.5
PWD1035	Time risk allowance for Design for irrigation system	7.0	18-Sep-23	25-Sep-23	-100.5
PWD1040	Design for noise barrier panel	90.0	23-Nov-22 A	08-Sep-23	-33.0
PWD1045	Time risk allowance for Design for noise barrier panel	7.0	09-Sep-23	16-Sep-23	-33.0
Tendering and Procurement for Major Subcontractor		381.0	10-Aug-22 A	23-Dec-23	-66.0
Procurement for NB Post and Panel		381.0	10-Aug-22 A	23-Dec-23	-66.0
TDS1170-1	Place Order and Delivery for fabrication of NB steel posts	364.0	10-Aug-22 A	12-Oct-23	-111.0
TDS1180-1	Fabrication and Delivery to site - NB62 steel post and panel for mock up (1st)	12.0	13-Oct-23	24-Oct-23	-111.0
TDS1180-2	Fabrication and Delivery to site - NB63 post and panel (Bay18 - Bay21)	36.0	18-Nov-23	23-Dec-23	-66.0
TDS1180-3	Fabrication and Delivery to site - NB62 post and panel (remaining)	24.0	25-Oct-23	17-Nov-23	-66.0
Section 1- Site Formation and Infrastructure Works in Area A		376.0	04-Jan-23 A	11-Apr-24	133.0
Site Formation (Portion II- Area A 21900m2)		177.0	16-May-23 A	20-Jan-24	196.0
Site Formation Works in South Part of Portion II		177.0	16-May-23 A	20-Jan-24	196.0
S1-SF1417	Site formation works part 3 (12577m3) and Removal of temporary works, haul road and temporary accesses	78.0	16-May-23 A	08-Nov-23	-153.5
S1-SF1420	Construction of open channel (180m)	60.0	09-Nov-23	20-Jan-24	196.0
Site Formation (Portion III- Area A 4900m2)		15.0	08-Sep-23	25-Sep-23	246.0
S1-SF1546	Removal of existing feature 3SW-A/F85	15.0	08-Sep-23	25-Sep-23	246.0
Site Formation (Portion IV- Area A 3800m2)		30.0	04-Oct-23	08-Nov-23	-134.0
S1-SF1870	Site formation works (2391m3) (after site formation in Area D)	30.0	04-Oct-23	08-Nov-23	-134.0
Slope Works		42.0	09-Nov-23	29-Dec-23	214.0
S1-SW1010	Forming new slope feature FS06 and construction of slope drainage	42.0	09-Nov-23	29-Dec-23	214.0
Box Culvert BC3 and Outfall 10		84.0	18-Aug-23 A	27-Dec-23	195.0
Box Culvert BC3 (CH264 to CH282.799) and Outfall 10		84.0	18-Aug-23 A	27-Dec-23	195.0
Revised Outfall		24.0	28-Nov-23	27-Dec-23	195.0
S1-BC1340	Outfall - Reinstate over-cut portions of Outfall	24.0	28-Nov-23	27-Dec-23	195.0
Bay 22 to 24		80.0	18-Aug-23 A	20-Dec-23	0.0
S1-BC1121	Footpath diversion	7.0	18-Aug-23 A	14-Sep-23	0.0
S1-BC1130-1	Sheet piling, excavation, hanging of twin sewers and excavation to formation level	60.0	15-Sep-23	27-Nov-23	0.0
S1-BC1180	Laying of geotextile filter, grade 200 rockfill, polythene sheet	10.0	28-Nov-23	08-Dec-23	0.0
S1-BC1190	Concreting for the blinding layer	10.0	09-Dec-23	20-Dec-23	0.0
Drainage, Sewerage, Waterworks and Road Works		376.0	04-Jan-23 A	11-Apr-24	70.0
Along Ma Sik Road		79.0	15-Sep-23	19-Dec-23	-39.0
TTA - Closure of Ma Sik Road Eastbound Slow Lane between Wo Tai Street and Site Boundary		69.0	15-Sep-23	07-Dec-23	-134.0
S1-CS1240	Implement TTA	10.0	15-Sep-23	26-Sep-23	-134.0
S1-CS1260	UU detection and trial pit	10.0	27-Sep-23	10-Oct-23	-134.0
S1-CS1270	Utility works by others	30.0	11-Oct-23	15-Nov-23	-134.0
S1-CS1293	Fresh water main works (10m) (In dry season)	30.0	11-Oct-23	15-Nov-23	-134.0
S1-CS1295	Flushing water main works (10m) (In dry season)	30.0	11-Oct-23	15-Nov-23	-134.0
S1-CS1300	Reinstatement of road pavement and road marking	12.0	16-Nov-23	29-Nov-23	-134.0
S1-CS1305	Street furniture, road lighting and signage installation	7.0	30-Nov-23	07-Dec-23	-134.0
TTA - Closure of Ma Sik Road Eastbound Fast Lane for water main works		10.0	08-Dec-23	19-Dec-23	-39.0
S1-CS1680	Implement TTA	10.0	08-Dec-23	19-Dec-23	-39.0
Along Proposed Cycletrack and Footpath		376.0	04-Jan-23 A	11-Apr-24	70.0
Works in Portion I		309.0	04-Jan-23 A	23-Jan-24	12.0
Works in Portion I CT73 (Ch400 to Ch649)		297.0	04-Jan-23 A	09-Jan-24	-86.0
S1-CS1472	Irrigation system (CT73 Ch400 to Ch649 total 249m)	85.0	26-Sep-23	09-Jan-24	-86.0
S1-CS1473	Fresh water main works (CT73 Ch400 to Ch649 total 249m)	85.0	04-Jan-23 A	17-Oct-23	-86.0
S1-CS1474	Flushing water main works (CT73 Ch400 to Ch649 total 249m)	85.0	04-Jan-23 A	17-Oct-23	-86.0
S1-CS1475	U-Channel along the Cycletrack(CT73 Ch400 to Ch649 total 249m)	85.0	26-Sep-23	09-Jan-24	-86.0
Works in Portion I CT74		80.0	18-Oct-23	23-Jan-24	12.0
S1-CS1493	Fresh water main works (CT74 Ch100 to Ch281 total 181m)	80.0	18-Oct-23	23-Jan-24	12.0
S1-CS1495	Flushing water main works (CT74 Ch100 to Ch281 total 181m)	80.0	18-Oct-23	23-Jan-24	12.0
Works in Portion II CT71 (Ch100 to Ch369.376)		161.0	09-Jan-23 A	11-Apr-24	70.0
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	13-Oct-23	158.0
S1-CS1530	Fresh water main works (269m)	85.0	10-Jul-23 A	11-Apr-24	70.0
S1-CS1540	Flushing water main works (269m)	85.0	10-Jul-23 A	11-Apr-24	70.0
Works in Portion III CT76 (Ch100 to Ch298.277)		131.0	23-Jun-23 A	11-Jan-24	34.0
Sewerage		131.0	23-Jun-23 A	11-Jan-24	1.0
S1-CS1810-4	CE149 - Sewerage DN600 - Dismantle of TBM at receiving pit and maintenance of TBM	6.0	08-Sep-23	14-Sep-23	-58.0
S1-CS1810-6	CE149 - Sewerage DN600 - Construction of sewerage from FMH_FL1.19A to C4 boundary	26.0	23-Jun-23 A	15-Sep-23	-17.0
S1-CS1810-7	CE149 - Sewerage DN600 - Dismantle of TBM at receiving pit	6.0	16-Sep-23	22-Sep-23	-17.0
S1-CS1820-3	CE149 - Sewerage DN600 - Construction of permanent manhole FMH_FL1.19	48.0	15-Sep-23	13-Nov-23	-58.0
S1-CS1820-4	CE149 - Sewerage DN600 - Removal of sheetpiles and backfilling at FMH_FL1.19	12.0	14-Nov-23	27-Nov-23	37.0
S1-CS1820-5	CE149 - Sewerage DN600 - Construction of permanent manhole FMH_FL1.19A	48.0	14-Nov-23	11-Jan-24	-58.0
Remaining Works (next to Portion V - approx 64m)		33.0	28-Nov-23	08-Jan-24	37.0



Actual Work
Remaining Work
Critical Remaining Work
Milestone

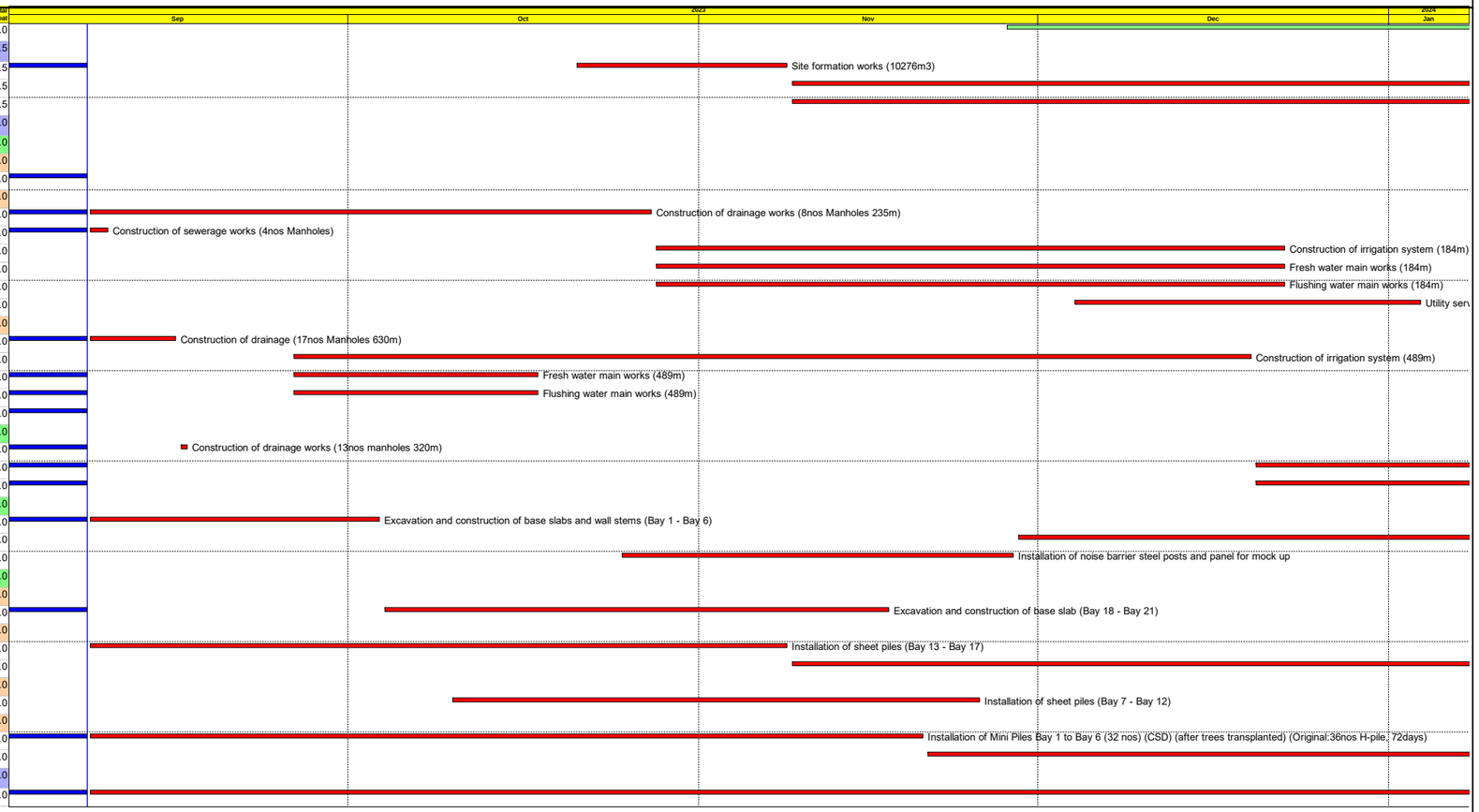
中國路橋工程有限責任公司
CHINA ROAD AND BRIDGE CORPORATION

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

Date	Revision	Checked	Approved
08-Sep-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
S1-CS1575-1	Drainage work (SMH_FL2005 to SMH_FL2008 Remaining 64m) (CE027 Original:1nos Manhole)	33.0	28-Nov-23	08-Jan-24	37.0
Section 4- Site Formation and Infrastructure Works in Area D		437.0	04-Feb-22 A	01-Feb-24	-153.5
S4-SF1120	Site formation works (10276m3)	80.0	04-Feb-22 A	08-Nov-23	-153.5
S4-SF1125	Construction of open channel (257m)	70.0	09-Nov-23	01-Feb-24	-153.5
S4-SF1130	Irrigation system (250m)	50.0	09-Nov-23	09-Jan-24	-133.5
Section 5- Site Formation and Infrastructure Works in Area E and Remainder of the Works		489.0	09-Mar-22 A	25-Mar-24	-42.0
Road L1		489.0	09-Mar-22 A	19-Mar-24	-37.0
Road L1 in Portion I (P700 CH175 to CH245)		59.0	09-Aug-23 A	19-Mar-24	-37.0
S5-RD1080	Road pavement works	59.0	09-Aug-23 A	19-Mar-24	-37.0
Road L1 in Portion V (P600 CH100 to CH194)		311.9	11-Oct-22 A	03-Jan-24	-198.0
S5-RD1345	Construction of drainage works (8nos Manholes 235m)	80.0	30-Nov-22 A	27-Oct-23	-213.0
S5-RD1350	Construction of sewerage works (4nos Manholes)	46.0	11-Oct-22 A	09-Sep-23	-175.0
S5-RD1360	Construction of irrigation system (184m)	48.0	28-Oct-23	22-Dec-23	-213.0
S5-RD1370	Fresh water main works (184m)	48.0	28-Oct-23	22-Dec-23	-208.0
S5-RD1375	Flushing water main works (184m)	48.0	28-Oct-23	22-Dec-23	-208.0
S5-RD1380	Utility service by others	24.0	04-Dec-23	03-Jan-24	-198.0
Road L1 in Portion IV (P600 CH194 to CH393, P700 CH100 to CH175)		427.0	09-Mar-22 A	17-Feb-24	-59.0
S5-RD1180	Construction of drainage (17nos Manholes 630m)	85.0	09-Mar-22 A	15-Sep-23	-82.0
S5-RD1185	Construction of irrigation system (489m)	70.0	26-Sep-23	19-Dec-23	-90.0
S5-RD1200	Fresh water main works (489m)	70.0	23-Feb-23 A	17-Oct-23	-37.0
S5-RD1210	Flushing water main works (489m)	70.0	23-Feb-23 A	17-Oct-23	-37.0
S5-RD1220	Road pavement works	75.0	10-Jun-23 A	17-Feb-24	-59.0
Road L2		268.0	13-Dec-22 A	25-Mar-24	-90.0
S5-RD1500	Construction of drainage works (13nos manholes 320m)	80.0	13-Dec-22 A	16-Sep-23	-13.0
S5-RD1520	Fresh water main works (298m)	80.0	10-Aug-23 A	25-Mar-24	-90.0
S5-RD1530	Flushing water main works (298m)	80.0	10-Aug-23 A	25-Mar-24	-90.0
Noise Barrier NB62		381.9	14-Nov-22 A	09-Feb-24	-92.0
S5-NB1060	Excavation and construction of base slabs and wall stems (Bay 1 - Bay 6)	70.0	14-Nov-22 A	03-Oct-23	-125.0
S5-NB1080	Installation of noise barrier steel posts	60.0	29-Nov-23	09-Feb-24	-92.0
S5-NB1080-1	Installation of noise barrier steel posts and panel for mock up	30.0	25-Oct-23	28-Nov-23	-92.0
Noise Barrier NB63		172.0	10-May-23 A	01-Feb-24	-87.0
Noise Barrier NB63 (Bay 18 to Bay 21)		42.0	09-Aug-23 A	17-Nov-23	-25.0
S1-NB1275	Excavation and construction of base slab (Bay 18 - Bay 21)	42.0	09-Aug-23 A	17-Nov-23	-25.0
Noise Barrier NB63 (Bay 13 to Bay 17)		100.0	08-Sep-23	09-Jan-24	-77.0
S1-NB1200	Installation of sheet piles (Bay 13 - Bay 17)	50.0	08-Sep-23	08-Nov-23	-97.0
S1-NB1210	Excavation and installation of lateral support (Bay13 - Bay17)	50.0	09-Nov-23	09-Jan-24	-77.0
Noise Barrier NB63 (Bay 7 to Bay 12)		40.0	10-Oct-23	25-Nov-23	-97.0
S1-NB1205	Installation of sheet piles (Bay 7 - Bay 12)	40.0	10-Oct-23	25-Nov-23	-97.0
Noise Barrier NB63 (Bay 1 to Bay 6)		172.0	10-May-23 A	01-Feb-24	-102.0
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	20-Nov-23	-102.0
S1-NB1100	Installation of sheet piles	60.0	21-Nov-23	01-Feb-24	-102.0
Section 6- Completion of Preservation And Protection Of Existing Trees		1146.0	31-Aug-20 A	07-Jan-25	-89.0
S6-CS1000	Preservation and protection of trees	1146.0	31-Aug-20 A	07-Jan-25	-89.0

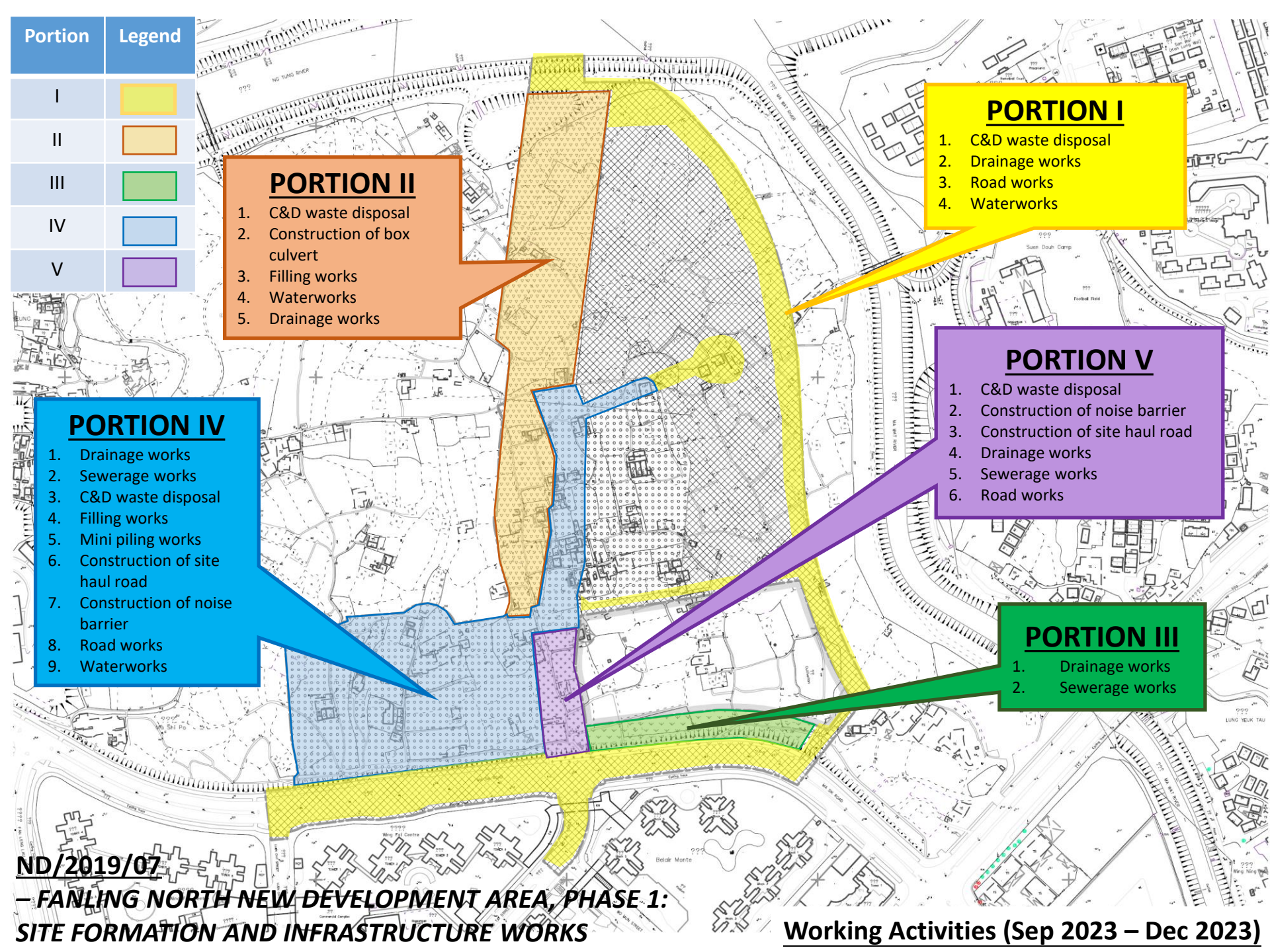


Actual Work
Remaining Work
Critical Remaining Work
Milestone

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

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

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



ND/2019/07

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

Working Activities (Sep 2023 – Dec 2023)

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: ***6.1*** [2]	SYR-IS1: ***6.0*** [2]
SS in mg/L (depth average) [1]	SYR-IS1: ***75.6*** or 120% of upstream control station, whichever is higher[3]	SYR-IS1: ***83.1*** or 130% of upstream control station, whichever is higher[3]
Turbidity in NTU (depth average) [1]	SYR-IS1: ***48.2*** or 120% of upstream control station, whichever is higher[3]	SYR-IS1: ***50.9*** or 130% of upstream control station, whichever is higher[3]
Arsenic in µg/L (depth average) [2]	SYR-IS1: ***5.4*** 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: ***5.8*** [2] SHST-IS2: ***7.0*** [2] MWR-IS3: ***8.6*** [2]	NTR-IS1: ***5.7*** [2] SHST-IS2: ***6.8*** [2] MWR-IS3: ***8.5*** [2]
SS in mg/L (depth average) [1]	NTR-IS1: ***8.9*** SHST-IS2: ***4.0*** MWR-IS3: ***14.0*** or 120% of upstream control station, whichever is higher[3]	NTR-IS1: ***9.0*** SHST-IS2: ***4.0*** MWR-IS3: ***14.4*** or 130% of upstream control station, whichever is higher[3]
Turbidity in NTU (depth average) [1]	NTR-IS1: ***6.0*** SHST-IS2: ***4.4*** MWR-IS3: ***10.1*** or 120% of upstream control station, whichever is higher[3]	NTR-IS1: ***6.1*** SHST-IS2: ***4.7*** MWR-IS3: ***11.1*** 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/m^3** - 80% of 11.7ng/m3 – the highest ambient arsenic concentration predicted during the construction phase with mitigation measures implemented)	**11.7ng/m^3** - 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 CH4 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 – September

Monitoring Parameter	Action Level	Limit Level
Mean abundance of bird	397	284
Mean abundance of *Ardeola bacchus*	12	9
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– September

Monitoring Parameter	Action Level	Limit Level
Mean abundance of birds*	11	8
Mean abundance of *Ardeola bacchus*	10	7
*Large waterbirds: *Ardea alba, Ardea cinerea, Ardea intermedia, Egretta eulophotes, Egretta garzetta* and *Phalacrocorax carbo*		

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

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	1
	Fish	NA	NA
MS_05	Macroinvertebrates	NA	NA
	Fish	NA	NA
MS_08, MS_09 & MS_10	Macroinvertebrates	NA	NA
	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 (Herptofauna, Butterfly and Odonates) in Ecologically Sensitive Habitats– September

Monitoring Parameter	Transect	Action Level	Limit Level
Monthly species richness of native species of herpetofauna	T1	8	6
	T3	4	3
	T4	3	2
	T5	4	3
	T6	5	4
Monthly species richness of butterflies	T1	13	9
	T3	8	6
	T4	10	7
	T5	8	6
	T6	10	7
Month species richness of native species of odonates	T1	8	6
	T3	8	6
	T4	3	2
	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– September

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 CERTIFCATES

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

TEST REPORT

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

Test Report No.:	38570
Date of Issue:	2023-07-10
Date Received:	2023-07-08
Date Tested:	2023-07-08
Date Completed:	2023-07-10
Next Due Date:	2023-09-09
Page:	1 of 1

ATTN: **Ms. Meiling Tang**

Certificate of Calibration

Item for Calibration:

Description	: Dust Monitor
Manufacturer	: Met One Instruments
Model No.	: AEROCET-831
Serial No.	: 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)	1.128

****

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



PATRICK TSE
General Manager

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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:	8-Jul-23	8-Jul-23
Location:	Wellab Office (Calibration Room)	

Calibration of 1 hr TSP		
Calibration Point	**Dust Meter**	**HVS**
	Mass Concentration (μg/m^3) **X-axis**	Mass concentration (μg/m^3) **Y-axis**
1	36	43
2	48	57
3	70	79
4	82	89
5	97	107
Average	**66.4**	**74.9**

By Linear Regression of Y on X

Slope , mw = **1.0195** **Intercept, bw =** **7.1880**

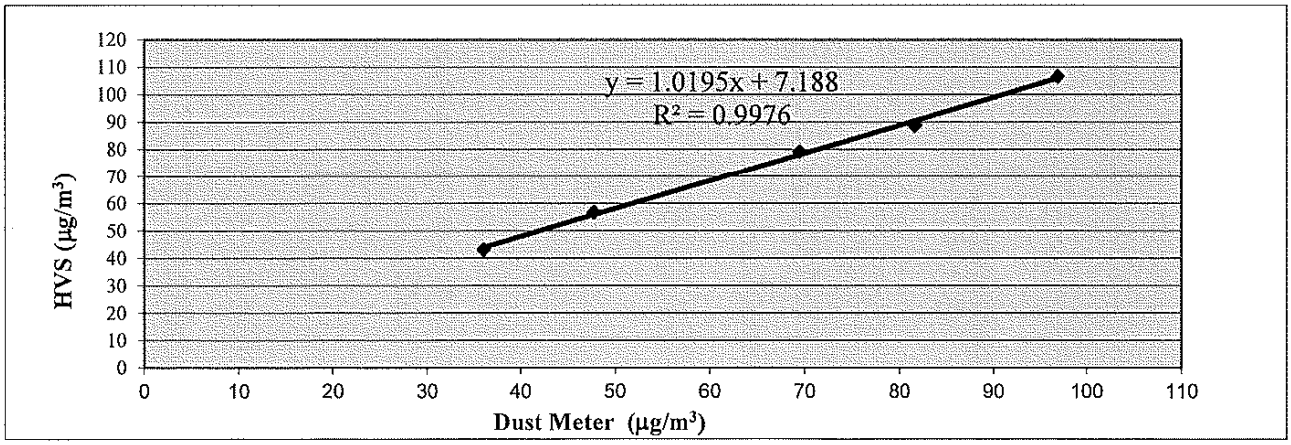
Correlation coefficient* = **0.9988**

*If Correlation Coefficient < 0.90, check and recalibrate.

Set Correlation Factor	
Particaulate Concentration by High Volume Sampler (μg/m^3)	74.9
Particaulate Concentration by Dust Meter (μg/m^3)	66.4
Measureing time, (min)	60

Set Correlation Factor , SCF

SCF = [K=High Volume Sampler / Dust Meter, (μg/m^3)] **1.128**



QC Reviewer: LEE MAN HEZ Signature: [signature] Date: 8/7/23

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Website : www.wellab.com.hk

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

****

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



PATRICK TSE
General Manager

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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 (μg/m^3) **X-axis**	Mass concentration (μg/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**

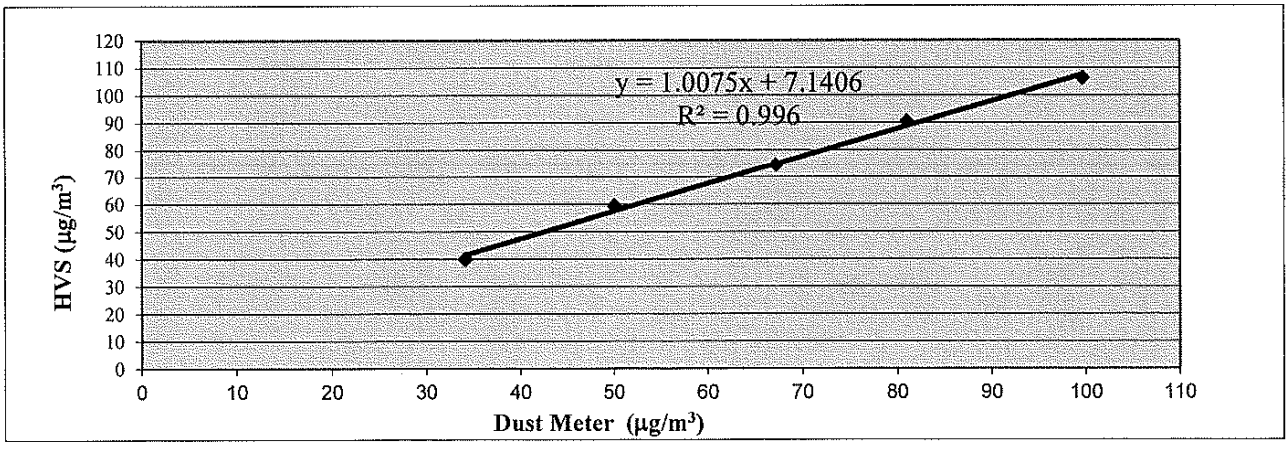
Correlation coefficient* = **0.9980**

*If Correlation Coefficient < 0.90, check and recalibrate.

Set Correlation Factor	
Particaulate Concentration by High Volume Sampler (μg/m^3)	74.1
Particaulate Concentration by Dust Meter (μg/m^3)	66.5
Measureing time, (min)	60

Set Correlation Factor , SCF

SCF = [K=High Volume Sampler / Dust Meter, (μg/m^3)] **1.115**



QC Reviewer: [illegible] Signature: [illegible] Date: 9/9/23

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Website : www.wellab.com.hk

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

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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 (µg/m^3) **X-axis**	Mass concentration (µg/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

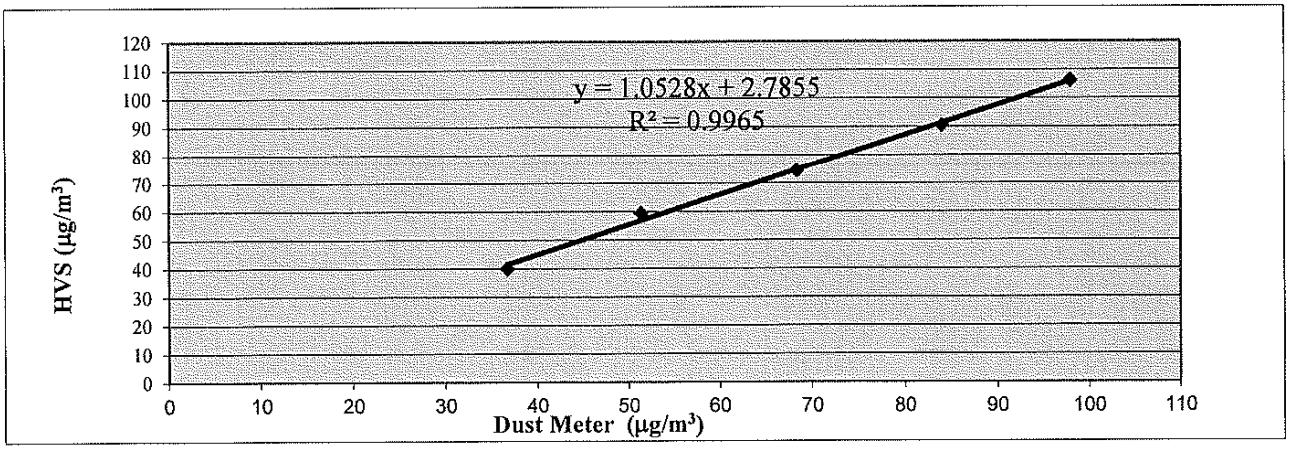
Correlation coefficient* = 0.9982

*If Correlation Coefficient < 0.90, check and recalibrate.

Set Correlation Factor	
Particaulate Concentration by High Volume Sampler (µg/m^3)	74.1
Particaulate Concentration by Dust Meter (µg/m^3)	67.7
Measureing time, (min)	60

Set Correlation Factor , SCF

SCF = [K=High Volume Sampler / Dust Meter, (µg/m^3)] **1.094**



QC Reviewer: LLL MBN LLL Signature: hes Date: 9/9/23

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Website : www.wellab.com.hk

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

****

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

PATRICK TSE
General Manager

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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		
	Dust Meter	**HVS**
Calibration Point	Mass Concentration (µg/m^3) **X-axis**	Mass concentration (µg/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**

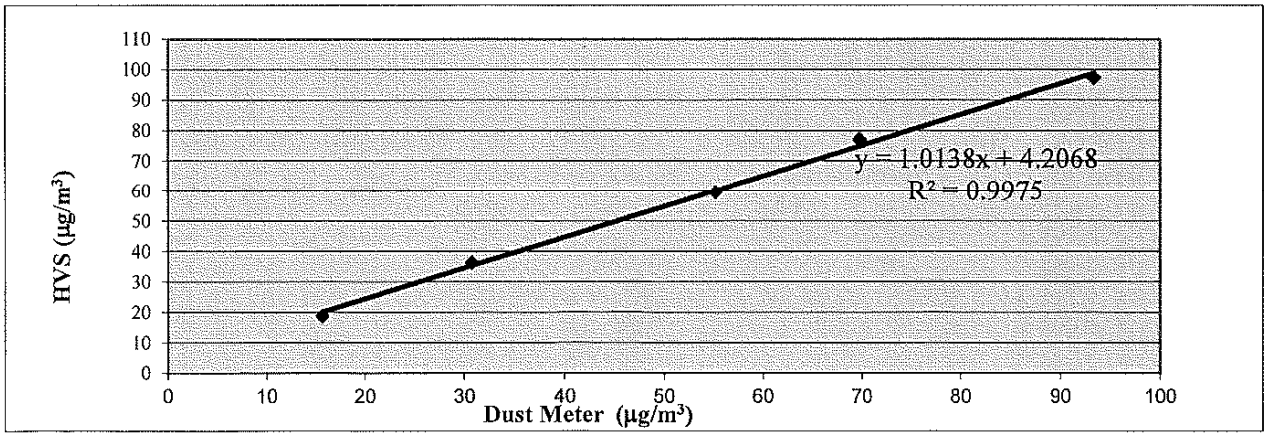
Correlation coefficient* = **0.9987**

*If Correlation Coefficient < 0.90, check and recalibrate.

Set Correlation Factor	
Particaulate Concentration by High Volume Sampler (µg/m^3)	57.9
Particaulate Concentration by Dust Meter (µg/m^3)	53.0
Measureing time, (min)	60

Set Correlation Factor , SCF

SCF = [K=High Volume Sampler / Dust Meter, (µg/m^3)] **1.093**



QC Reviewer: [illegible] Signature: [illegible] Date: 24/8/23

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Website : www.wellab.com.hk

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

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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		
	Dust Meter	**HVS**
Calibration Point	Mass Concentration ($\mu g/m^3$) **X-axis**	Mass concentration ($\mu g/m^3$) **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**

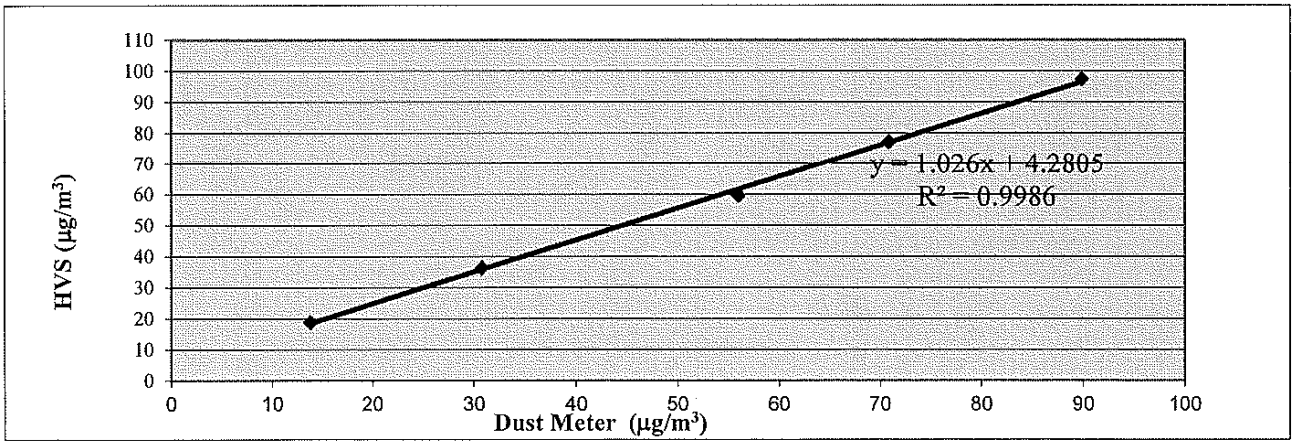
Correlation coefficient* = **0.9993**

*If Correlation Coefficient < 0.90, check and recalibrate.

Set Correlation Factor	
Particaulate Concentration by High Volume Sampler ($\mu g/m^3$)	57.9
Particaulate Concentration by Dust Meter ($\mu g/m^3$)	52.3
Measureing time, (min)	60

Set Correlation Factor , SCF

SCF = [K=High Volume Sampler / Dust Meter, ($\mu g/m^3$)] **1.108**



QC Reviewer: Ng Hon Hin Signature: hei Date: 24/8/23

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Website : www.wellab.com.hk

TEST REPORT

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

Test Report No.:	38570D
Date of Issue:	2023-07-10
Date Received:	2023-07-08
Date Tested:	2023-07-08
Date Completed:	2023-07-10
Next Due Date:	2023-09-09
Page:	1 of 1

ATTN: **Ms. Meiling Tang**

Certificate of Calibration

Item for Calibration:

Description	: Dust Monitor
Manufacturer	: Met One Instruments
Model No.	: AEROCET-831
Serial No.	: 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:

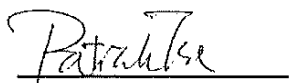
1. Instruction and Operation Manual High Volume Sampler, Tisch Environmental Inc.
2. In-house method in according to the instruction manual: The Dust Monitor was compared with a calibrated High Volume Sampler and the result was used to generate the Correlation Factor (CF) between the Dust Monitor and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

Results:

Correlation Factor (CF)	1.106

****

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



PATRICK TSE
General Manager

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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:	8-Jul-23	8-Jul-23
Location:	Wellab Office (Calibration Room)	

Calibration of 1 hr TSP		
Calibration Point	**Dust Meter**	**HVS**
	Mass Concentration (µg/m^3) **X-axis**	Mass concentration (µg/m^3) **Y-axis**
1	38	43
2	51	57
3	70	79
4	83	89
5	96	107
Average	**67.7**	**74.9**

By Linear Regression of Y on X

Slope , mw = **1.0676** **Intercept, bw =** **2.6230**

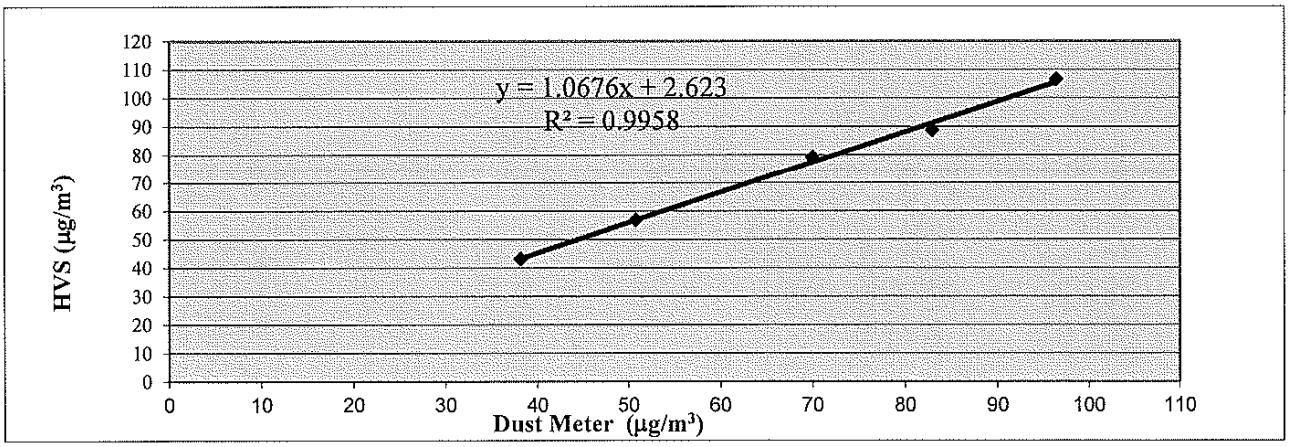
Correlation coefficient* = **0.9979**

*If Correlation Coefficient < 0.90, check and recalibrate.

Set Correlation Factor	
Particaulate Concentration by High Volume Sampler (µg/m^3)	74.9
Particaulate Concentration by Dust Meter (µg/m^3)	67.7
Measureing time, (min)	60

Set Correlation Factor , SCF

SCF = [K=High Volume Sampler / Dust Meter, (µg/m^3)] **1.106**



QC Reviewer: Lee Mun Hee Signature: hee Date: 8/7/23

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Website : www.wellab.com.hk

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

****

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



PATRICK TSE
General Manager

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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 (µg/m^3) **X-axis**	Mass concentration (µg/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**

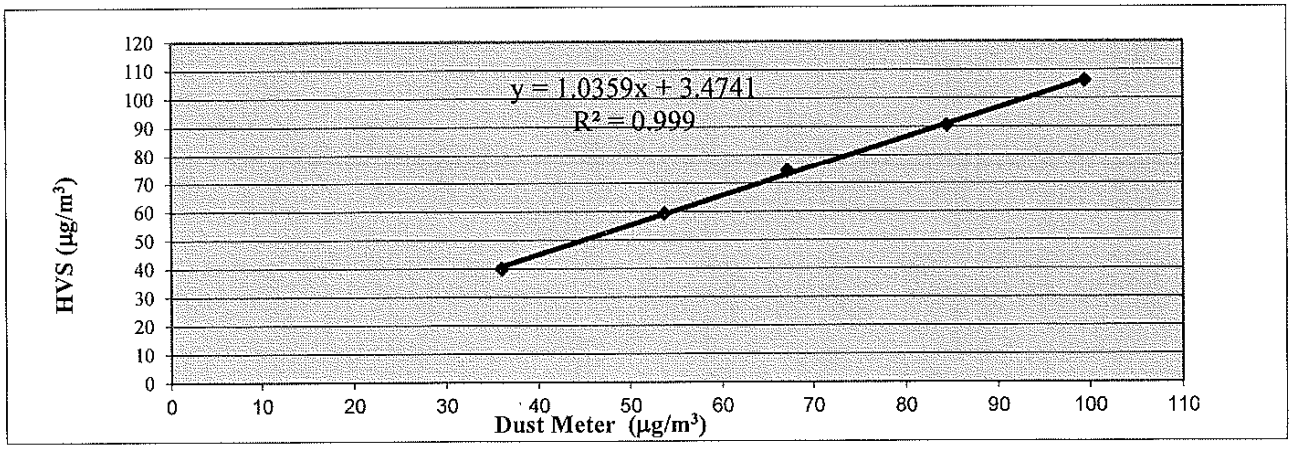
Correlation coefficient* = **0.9995**

*If Correlation Coefficient < 0.90, check and recalibrate.

Set Correlation Factor	
Particaulate Concentration by High Volume Sampler (µg/m^3)	74.1
Particaulate Concentration by Dust Meter (µg/m^3)	68.2
Measureing time, (min)	60

Set Correlation Factor , SCF

SCF = [K=High Volume Sampler / Dust Meter, (µg/m^3)] **1.087**



QC Reviewer: LLY MAN MBZ Signature: hei Date: 9/9/23

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New Territories, Hong Kong
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Website : www.wellab.com.hk

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

****

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



PATRICK TSE
General Manager

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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 (μg/m³) **X-axis**	Mass concentration (μg/m³) **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**

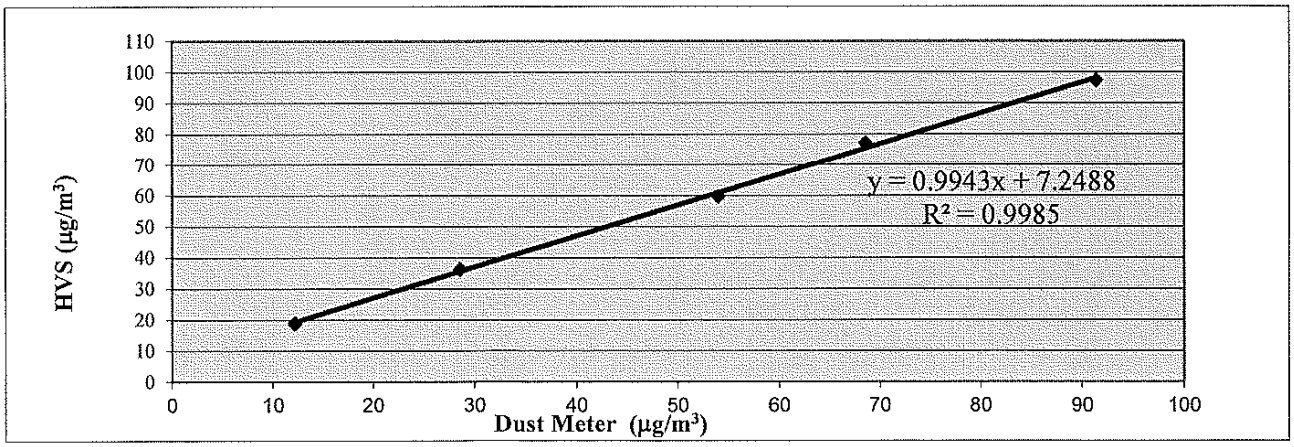
Correlation coefficient* = **0.9993**

*If Correlation Coefficient < 0.90, check and recalibrate.

Set Correlation Factor	
Particaulate Concentration by High Volume Sampler (μg/m³)	57.9
Particaulate Concentration by Dust Meter (μg/m³)	51.0
Measureing time, (min)	60

Set Correlation Factor , SCF

SCF = [K=High Volume Sampler / Dust Meter, (μg/m³)] **1.137**



QC Reviewer: LEE MAN MEZ Signature: lei Date: 24/8/23

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New Territories, Hong Kong
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Website : www.wellab.com.hk

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

****

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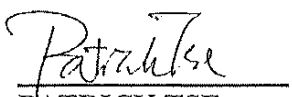
For and On Behalf of **WELLAB Ltd.**



PATRICK TSE
Laboratory Manager

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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 (μg/m^3) **X-axis**	Mass concentration (μg/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**

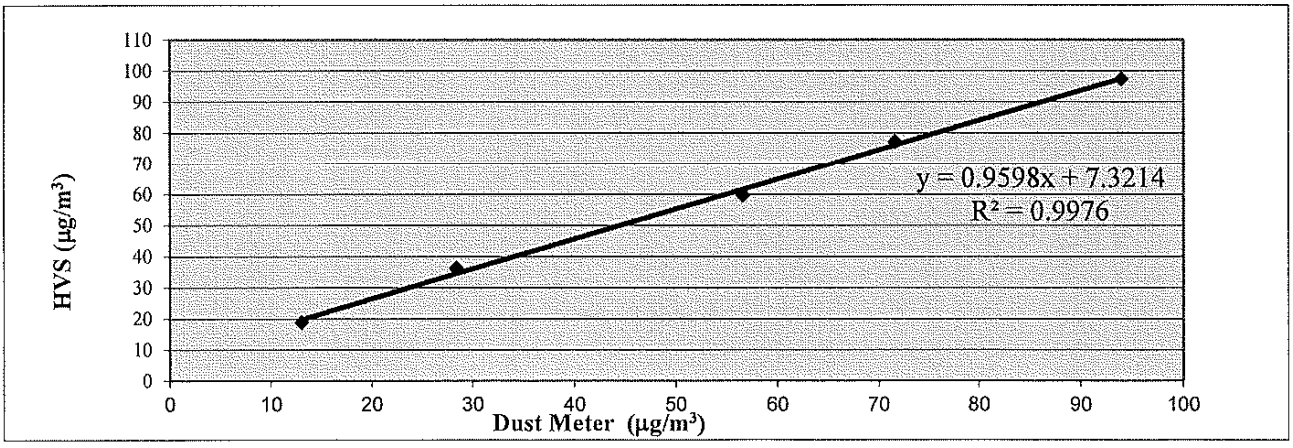
Correlation coefficient* = **0.9988**

*If Correlation Coefficient < 0.90, check and recalibrate.

Set Correlation Factor	
Particaulate Concentration by High Volume Sampler (μg/m^3)	57.9
Particaulate Concentration by Dust Meter (μg/m^3)	52.7
Measureing time, (min)	60

Set Correlation Factor , SCF

SCF = [K=High Volume Sampler / Dust Meter, (μg/m^3)] **1.099**



QC Reviewer: LEE MAN HEZ Signature: hej Date: 24/8/23

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

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:

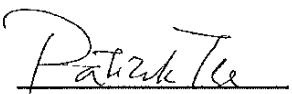
1. Instruction and Operation Manual High Volume Sampler, Tisch Environmental Inc.
2. In-house method in according to the instruction manual: The Dust Monitor was compared with a calibrated High Volume Sampler and the result was used to generate the Correlation Factor (CF) between the Dust Monitor and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

Results:

Correlation Factor (CF)	1.179

****

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



PATRICK TSE
General Manager

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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 (μg/m³) **X-axis**	Mass concentration (μg/m³) **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 , mw = **1.0553** **Intercept, bw =** **6.0835**

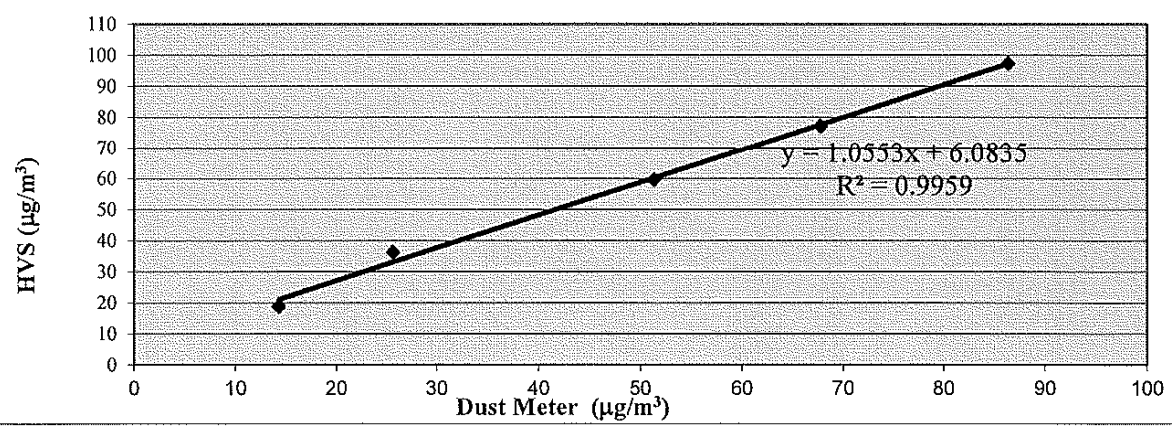
Correlation coefficient* = **0.9980**

*If Correlation Coefficient < 0.90, check and recalibrate.

Set Correlation Factor	
Particaulate Concentration by High Volume Sampler (μg/m³)	57.9
Particaulate Concentration by Dust Meter (μg/m³)	49.1
Measureing time, (min)	60

Set Correlation Factor , SCF

SCF = [K=High Volume Sampler / Dust Meter, (μg/m³)] **1.179**



QC Reviewer: LEE MAN HEZ Signature: hei Date: 24/8/23

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High-Volume TSP Sampler

5-POINT CALIBRATION DATA SHEET

File No. Cal./230708

Equipment No.: WA-12-09 Serial No. 2203

Model No. TE-5170 Cal. Date: 8-Jul-23

Operator: HL

Ambient Condition			
Temperature, Ta (K)	294	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 x 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	Orfice			HVS	
	ΔH (orifice), in. of water	$[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$	Qstd (CFM) **X - axis**	ΔW (HVS), in. of water	$[\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$ **Y-axis**
1	12.0	3.49	61.48	8.0	2.85
2	9.8	3.15	55.63	6.5	2.57
3	8.3	2.90	51.25	5.7	2.40
4	5.7	2.40	42.60	4.0	2.01
5	3.6	1.91	34.01	2.4	1.56

By Linear Regression of Y on X

Slope , mw = 0.0463 **Intercept, bw :** 0.0111

Correlation coefficient* = 0.9988

*If Correlation Coefficient < 0.990, check and recalibrate.

Set Point Calculation

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

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

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

Therefore, Set Point; $W = (mw \times Qstd + bw)^2 \times (760 / Pa) \times (Ta / 298) =$ 3.95

Remarks:

Conducted by: 許 明 煌 Signature: Date: 8/7/2023

Checked by: 盧 家 鼎 Signature: Date: 8/7/23

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High-Volume TSP Sampler

5-POINT CALIBRATION DATA SHEET

File No. Cal./230823

Equipment No.: WA-12-09 Serial No. 2203

Model No. TE-5170 Cal. Date: 23-Aug-23

Operator: HL

Ambient Condition			
Temperature, Ta (K)	293.6	Pressure, Pa (mmHg)	757.4

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	Orfice			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	11.4	3.40	59.86	7.4	2.74
2	9.9	3.16	55.84	6.3	2.52
3	8.6	2.95	52.09	5.5	2.36
4	5.9	2.44	43.28	4.0	2.01
5	4.0	2.01	35.77	2.6	1.62

By Linear Regression of Y on X

Slope , mw = 0.0450 **Intercept, bw :** 0.0290

Correlation coefficient* = 0.9986

*If Correlation Coefficient < 0.990, check and recalibrate.

Set Point Calculation

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

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

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

Therefore, Set Point; $W = (mw \times Qstd + bw)^2 \times (760 / Pa) \times (Ta / 298) =$ **3.81**

Remarks:

Conducted by: LEE MAN HEI Signature: Date: 23/8/2023

Checked by: Ho Ka Chun Signature: Date: 23/8/2023

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High-Volume TSP Sampler
5-POINT CALIBRATION DATA SHEET

File No. Cal./230909

Equipment No.: WA-12-09 Serial No. 2203
Model No. TE-5170 Cal. Date: 9-Sep-23
Operator: HL

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 x Qstd + bc = [ΔH x (Pa/760) x (298/Ta)]$^{1/2}$**			
Next Calibration Date:	16-Jan-24	**Qstd = {[ΔH x (Pa/760) x (298/Ta)]$^{1/2}$ -bc} / mc**			

Calibration of TSP Sampler

Calibration Point	Orfice			HVS	
	ΔH (orifice), in. of water	[ΔH x (Pa/760) x (298/Ta)]$^{1/2}$	Qstd (CFM) **X - axis**	ΔW (HVS), in. of water	[ΔW x (Pa/760) x (298/Ta)]$^{1/2}$ **Y-axis**
1	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 x Qstd + bw = [ΔW x (Pa/760) x (298/Ta)]$^{1/2}$

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

Remarks:

Conducted by: Chi Man Hei Signature: [signature] Date: 9/9/2023
Checked by: Ho Ka Chun Signature: [signature] Date: 9/9/2023

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High-Volume TSP Sampler
5-POINT CALIBRATION DATA SHEET

Station	FLN-DMS1 - Scattered Village Houses North of Proposed Potential Ecopark	File No.	WMA20002/20/0020
Date:	11-Aug-23	Next Due Date:	10-Oct-23
Model No.	TE-5170	Operator:	HL
Equipment No.:	WA-12-20	Serial No.	3223

Ambient Condition			
Temperature, Ta (K)	299.2	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	$mc \times Qstd + bc = [\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$			
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	Orfice			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	66.48	9.9	3.13
2	13.0	3.59	63.21	8.6	2.92
3	9.7	3.10	54.70	7.0	2.63
4	5.6	2.35	41.74	4.3	2.06
5	3.6	1.89	33.61	2.7	1.64

By Linear Regression of Y on X

Slope , mw = 0.0440 **Intercept, bw :** 0.1918

Correlation coefficient* = 0.9978

*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; $W = (mw \times Qstd + bw)^2 \times (760 / Pa) \times (Ta / 298) =$ 4.38

Remarks:

Conducted by: Chi Man Hui Signature: Date: 11/8/2023

Checked by: Ho Ka Chun Signature: Date: 11/8/2023

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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	$mc \times Qstd + bc = [\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$			
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	Orfice			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

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

Station	KTN-DMS4A - Temporary Structure at Pak Shek Au	File No.	WMA20002/03/0020
Date:	4-Sep-23	Next Due Date:	3-Nov-23
Model No.	TE-6070X	Operator:	HL
Equipment No.:	WA-11-03	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 = ΔH x (Pa/760*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 x (760/Pa) x (Ta/298) = **40.56**

Sampler Well - Type Manometer Set Point, SSP

SSP = [(mw x SFR + bw)^2 x Pa] / (Ta + 30) = **4.01**

Remarks:

Conducted by: Tse Hon Hei Signature: Date: 4/9/2023

Checked by: Ho Ka Lun Signature: Date: 4/9/2023

TISCH Environmental

RECALIBRATION DUE DATE:
January 16, 2024

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)	$\sqrt{\Delta H\left(Ta/Pa\right)}$ (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=	ΔVol((Pa-ΔP)/Pstd)(Tstd/Ta)	**Va=**	ΔVol((Pa-ΔP)/Pa)
Qstd=	Vstd/ΔTime	**Qa=**	Va/ΔTime

For subsequent flow rate calculations:

Qstd= $1/m\left(\left(\sqrt{\Delta H\left(\frac{Pa}{Pstd}\right)\left(\frac{Tstd}{Ta}\right)}\right)-b\right)$

Qa= $1/m\left(\left(\sqrt{\Delta H\left(Ta/Pa\right)}\right)-b\right)$

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

Tisch Environmental, Inc.
145 South Miami Avenue
Village of Cleves, OH 45002

www.tisch-env.com
TOLL FREE: (877)263-7610
FAX: (513)467-9009

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Tel: 2898 7388 Fax: 2898 7076
Website : www.wellab.com.hk

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

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WELLAB LIMITED
Room 1714, Technology Park
18 On Lai Street, Shatin
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Website : www.wellab.com.hk

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

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TEST REPORT

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

Test Report No.:	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

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

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

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TEST REPORT

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

Test Report No.:	37163
Date of Issue:	2022-10-02
Date Received:	2022-09-30
Date Tested:	2022-10-02
Date Completed:	2022-10-02
Next Due Date:	2023-10-01
Page:	1 of 1

ATTN: **Ms. Meiling Tang**

Certificate of Calibration

Item for calibration:

Description	: Acoustical Calibrator
Manufacturer	: SVANTEK
Model No.	: SV30A
Serial No.	: 24803
Equipment No.	: N-09-03

Test conditions:

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

Methodology:

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

Results:

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

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

Patrick Tse
PATRICK TSE
General Manager

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TEST REPORT

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

Test Report No.:	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

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TEST REPORT

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

ATTN: **Miss Mei Ling Tang**

Test Report No.:	38423
Date of Issue:	2023-06-21
Date Received:	2023-06-20
Date Tested:	2023-06-20 to 2023-06-21
Date Completed:	2023-06-21
Page:	1 of 2

Certificate of Calibration

Item for calibration:

YSI EXO1 Multiparameter Sondes	Equipment No.: SW-08-42	
Manufacturer:	YSI Incorporated, a Xylem brand	
Description:	Model No.	Serial No.
- EXO1 Sonde, 100 meter Depth, 4 Sensor ports	599502-24	16J102314
- EXO Optical DO Sensor, Ti	599100-01	16J100949
- EXO conductivity/Temperature Sensor, Ti	599870	17A105111
- EXO Turbidity Sensor, Ti	599101-01	16J101144
- EXO pH Sensor Assembly, Guarded, Ti	599701	16J101306

Test conditions:

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

Test Specifications:

Performance checking for Conductivity, Temperature, pH, Dissolved oxygen (D.O.) and Turbidity

Methodology:

According to manufacturer instruction manual, APHA 20e 4500-O C

****

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

PATRICK TSE
General Manager

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TEST REPORT

Test Report No.:	38423
Date of Issue:	2023-06-21
Date Received:	2023-06-20
Date Tested:	2023-06-20 to 2023-06-21
Date Completed:	2023-06-21
Page:	2 of 2

Certificate of Calibration

Results:

Conductivity performance checking

	Instrument Readings (μS/cm)	Accetance Criteria	Comment
KCl stock solution (12890 μS/cm)	13100	12246-13534	Pass

Temperature performance checking

Reference thermometer-E431 Readings (°C)	Instrument Readings (°C)	Correction (°C)	Comment
20.0	20.001	-0.001	N/A

pH performance checking

	Instrument Readings (pH unit)	Accetance Criteria	Comment
pH QC buffer 4.00	4.02	4.00 ± 0.10	Pass
pH QC buffer 6.86	6.88	6.86 ± 0.10	Pass
pH QC buffer 9.18	9.20	9.18 ± 0.10	Pass

D.O. performance checking

	Instrument Readings (mg/L)	Accetance Criteria	Comment
Zero DO soultion	0.09	<0.1mg/L	Pass

Winkler Titration value (mg/L)	Instrument Readings (mg/L)	Accetance Criteria	Comment
8.18	8.05	Difference between Titration value and instrument reading <0.2mg/L	Pass

Turbidity performance checking

Turbidity stock solution	Instrument Readings (NTU)	Accetance Criteria	Comment
10 NTU	10.04	9.0-11.0	Pass
50 NTU	50.22	45.0-55.0	Pass
100 NTU	101.5	90.0-110.0	Pass

Depth performance checking

Water Depth	Instrument Readings (m)	Accetance Criteria	Comment
0.5 meter	0.50	0.45-0.55	Pass

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

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TEST REPORT

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

ATTN: **Miss Mei Ling Tang**

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:	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

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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 (μS/cm)	Accetance Criteria	Comment
KCl stock solution (12890 μS/cm)	13400	12246-13534	Pass

Temperature performance checking

Reference thermometer-E431 Readings (°C)	Instrument Readings (°C)	Correction (°C)	Comment
20.0	20.001	-0.001	N/A

pH performance checking

	Instrument Readings (pH unit)	Accetance 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)	Accetance Criteria	Comment
Zero DO soultion	0.09	<0.1mg/L	Pass

Winkler Titration value (mg/L)	Instrument Readings (mg/L)	Accetance Criteria	Comment
8.24	8.11	Difference between Titration value and instrument reading <0.2mg/L	Pass

Turbidity performance checking

Turbidity stock solution	Instrument Readings (NTU)	Accetance 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)	Accetance Criteria	Comment
0.5 meter	0.50	0.45-0.55	Pass

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

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ALS Technichem (HK) Pty Ltd
11/F, Chung Shun Knitting Centre
1-3 Wing Yip Street, Kwai Chung
N.T., Hong Kong
T: +852 2610 1044 | F: +852 2610 2021

CERTIFICATE OF ANALYSIS

CONTACT:	MR FUNG	WORK ORDER:	HK2238648
CLIENT:	AECOM ASIA COMPANY LIMITED		
ADDRESS:	1501-10, 15/F, TOWER 1,	SUB BATCH:	0
	GRAND CENTRAL PLAZA,	LABORATORY:	HONG KONG
	138 SHATIN RURAL COMMITTEE ROAD,	DATE RECEIVED:	03-Oct-2022
	SHATIN, NEW TERRITORIES, HONG KONG	DATE OF ISSUE:	13-Oct-2022

SPECIFIC COMMENTS

Equipment information (Brand name, Model No., Serial No. and Equipment No.) is provided by client.
The performance of the equipment stated in this report is checked with independent reference material and results are compared against a calibrated secondary source.
The "Instrument Specification" quoted is the acceptance criteria applicable for similar equipment used by the laboratory or quoted from relevant international standards.
The "Date of next Calibration" is recommended according to best practice principles as practised by the laboratory or quoted from relevant international standards.
The validity of equipment/ meter performance only applies to the result(s) stated in the report.

Equipment Type:	Landfill Gas Analyser
Service Nature:	Performance Check
Scope:	Carbon dioxide, Methane and Oxygen
Brand Name/ Model No.:	OPTIMA7 Biogas
Serial No./Equipment No.:	331555
Date of Calibration:	11 October, 2022

GENERAL COMMENTS

This report superseded any previous report(s) with same work order number.

Ms Chan Ka Yu, Karen
Manager - Organics

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REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

Work Order: HK2238648
Sub-Batch: 0
Client: AECOM ASIA COMPANY LIMITED
Date of Issue: 13-Oct-2022

Equipment Type: Landfill Gas Analyser
Brand Name/ Model No.: OPTIMA7 Biogas
Serial No./ Equipment No.: 331555
Date of Calibration: 11 October, 2022 Date of next Calibration: 11 October, 2023

Parameters:

Methane

Calibrated Gas Standard, %	Monitor Readout, %	% error	Instrument Specification, %
0.0 (Nitrogen)	0.00	0.00	± 0.30
1.0	1.02	0.02	± 0.30
2.5	2.45	-0.05	± 0.30
50.0	48.57	-1.43	± 2.50

Carbon Dioxide

Calibrated Gas Standard, %	Monitor Readout, %	% error	Instrument Specification, %
0.0 (Nitrogen)	0.00	0.00	± 0.30
1.0	1.08	0.08	± 0.30
2.5	2.58	0.08	± 0.30
10.0	10.02	0.02	± 0.50
50.0	47.50	-2.50	± 2.50

Oxygen

Calibrated Gas Standard, %	Monitor Readout, %	% error	Instrument Specification, %
0.0 (Nitrogen)	0.00	0.00	± 0.20
0.5	0.43	-0.07	± 0.20
2.5	2.54	0.04	± 0.20
10.0	10.14	0.14	± 0.20

Ms Chan Ka Yu, Karen
Manager - Organics

FT Laboratories Ltd.
科達測檢試驗所有限公司

HOKLAS 071
TEST CAL

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 / Major Measurement Equipment	:	C/ACC/1 (CNAS Cert No.: 2HB21001704-0001)	Accelerometer
		C/OSC/2 (HKSCL Cert No.: RF210042)	Oscilloscope
		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.

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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 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

Hong Kong Accreditation Service (HKAS) has accredited FT Laboratories Ltd. (Reg. No. HOKLAS 071) under the Hong Kong Laboratory Accreditation Scheme (HOKLAS) for specific calibration activities as listed in the HOKLAS directory of accredited laboratories. The results shown in this report (or certificate, where appropriate) are traceable to the International System of Units SI)or recognized measurement standards. This report shall not be reproduced, except in full, without prior written approval from FT Laboratories Ltd.

FT Laboratories Ltd.
科達測檢試驗所有限公司
Calibration Report

HOKLAS 071 TEST CAL

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 Eqt 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 ± 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.**

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科達測檢試驗所有限公司
Calibration Report

HOKLAS 071 TEST CAL

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 referece 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 uc = U/k and their k values are given by t-distribution with its degrees of freedom ν_{efi}.

(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

Date: 14 Feb., 2023

Checked by: CH Chung

Date: 17 FEB 2023

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CALIBRATION CERTIFICATE

Calibration Item:	Micromate System ISEE (Calibration with Geophone UM17124)
Model No.:	721A2501
Serial No.:	UM17124
Calibration Date:	1 March 2023
Next Calibration Date:	1 March 2024
Method Used:	In-house Method B3-001
In-house Testing Procedure No.:	B3-001

Test References	Model	Serial No.
Minimate Pro 4	720A2301	MP12550
ISEE Triaxial Geophone	720A2001	SE12565
15MHz Function Generator*	33120A	US34003309
Stanford Spectrum Analyzer	SR760	41550
Keysight Multimeter*	34470A	MY57700765
HP Distortion Meter*	339A	2025A04515
Bruel & Kjaer Accelerometer*	4370	31474
Bruel & Kjaer Charge Amplifier*	2647	2731339
Bruel & Kjaer Conditional Amplifier*	2690	2437929
LDS Air Cooled Vibrator	V556	92794/1
LDS Field Power Supply	FPS10L	ARA 04/05
LDS Power Amplifier	PA1000L	ARA 07/06

*References are traceable to NIST or equivalent.

INSTANTEL INC. hereby certifies that this unit has been calibrated and that the results are consistent with the specifications published regarding this instrument. The SENSORCHECK feature of the unit is sufficiently reliable to indicate proper operation, although it is recommended that this unit be sent to INSTANTEL or an authorized service center for regular calibration.

Authorized by: _____

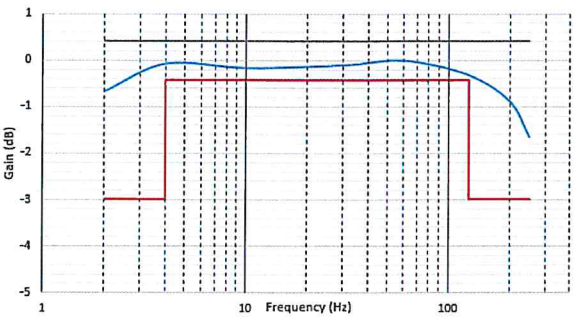
(Anson Kan)

Date: 1 March 2023

Frequency Responses of UM17124

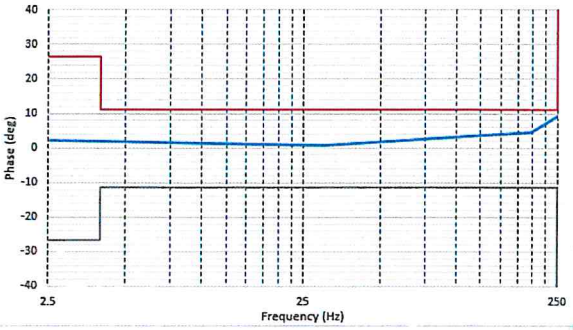
Vertical

Frequency Response of UM17124



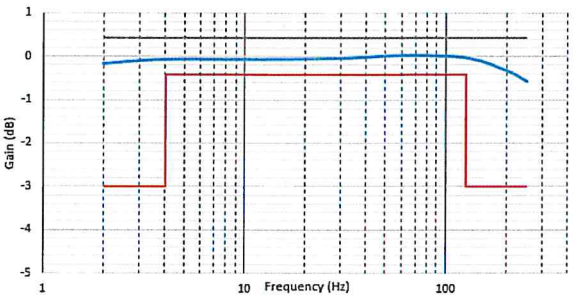
Vertical

Phase Response of UM17124



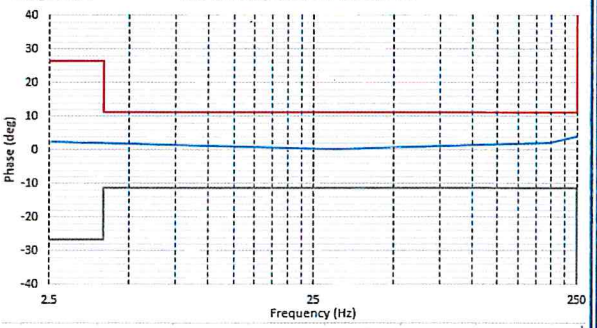
Longitudinal

Frequency Response of UM17124



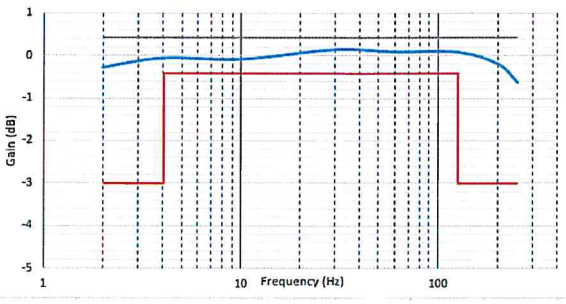
Longitudinal

Phase Response of UM17124



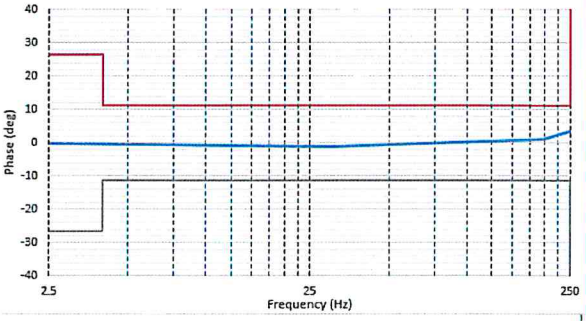
Transverse

Frequency Response of UM17124



Transverse

Phase Response of UM17124



CALIBRATION CERTIFICATE

Calibration Item:	TRIAXIAL GEOPHONE (Calibration with main unit UM17124)
Part Number:	721A2901
Serial No.:	UM17124
Calibration Date:	1 March 2023
Next Calibration Date:	1 March 2024
Method Used:	In-house Method B3-001
In-house Testing Procedure No.:	B3-001

Test References	Model	Serial No.
Minimate Pro 4	720A2301	MP12550
ISEE Triaxial Geophone	720A2001	SE12565
15MHz Function Generator*	33120A	US34003309
Stanford Spectrum Analyzer	SR760	41550
Keysight Multimeter*	34470A	MY57700765
HP Distortion Meter*	339A	2025A04515
Bruel & Kjaer Accelerometer*	4370	31474
Bruel & Kjaer Charge Amplifier*	2647	2731339
Bruel & Kjaer Conditional Amplifier*	2690	2437929
LDS Air Cooled Vibrator	V556	92794/1
LDS Field Power Supply	FPS10L	ARA 04/05
LDS Power Amplifier	PA1000L	ARA 07/06

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Authorized by: _____

(Anson Kan)

Date: 1 March 2023

CALIBRATION CERTIFICATE

Calibration Item:	Micromate System ISEE (Calibration with Geophone UM17126)
Model No.:	721A2501
Serial No.:	UM17126
Calibration Date:	17 February 2023
Next Calibration Date:	17 February 2024
Method Used:	In-house Method B3-001
In-house Testing Procedure No.:	B3-001

Test References	Model	Serial No.
Minimate Pro 4	720A2301	MP12550
ISEE Triaxial Geophone	720A2001	SE12565
15MHz Function Generator*	33120A	US34003309
Stanford Spectrum Analyzer	SR760	41550
Keysight Multimeter*	34470A	MY57700765
HP Distortion Meter*	339A	2025A04515
Bruel & Kjaer Accelerometer*	4370	31474
Bruel & Kjaer Charge Amplifier*	2647	2731339
Bruel & Kjaer Conditional Amplifier*	2690	2437929
LDS Air Cooled Vibrator	V556	92794/1
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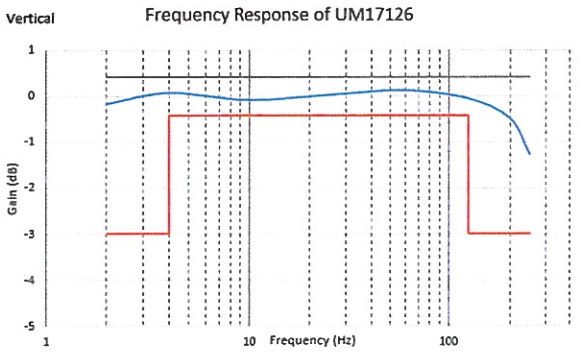
Authorized by: _____

(Anson Kan)

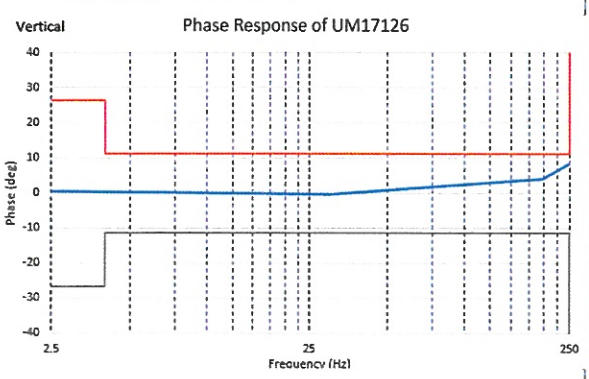
Date: 17 February 2023

Frequency Responses of UM17126

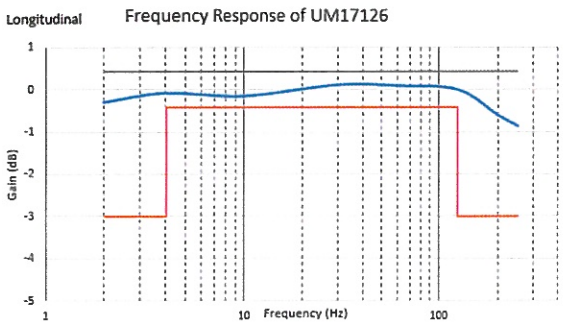
Vertical



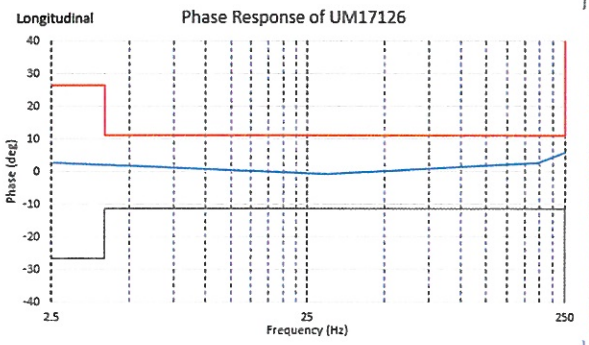
Vertical



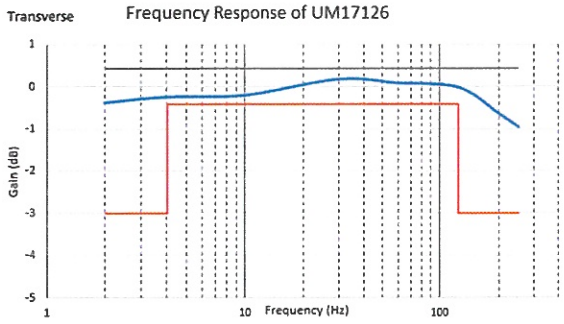
Longitudinal



Longitudinal



Transverse



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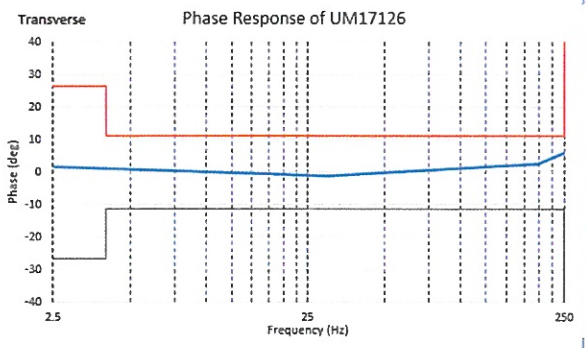

CALIBRATION CERTIFICATE

Calibration Item:	TRIAXIAL GEOPHONE (Calibration with main unit UM17126)
Part Number:	721A2901
Serial No.:	UM17126
Calibration Date:	17 February 2023
Next Calibration Date:	17 February 2024
Method Used:	In-house Method B3-001
In-house Testing Procedure No.:	B3-001

Test References	Model	Serial No.
Minimate Pro 4	720A2301	MP12550
ISEE Triaxial Geophone	720A2001	SE12565
15MHz Function Generator*	33120A	US34003309
Stanford Spectrum Analyzer	SR760	41550
Keysight Multimeter*	34470A	MY57700765
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Authorized by: _____

(Anson Kan)

Date: 17 February 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 (September 2023)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1-Sep	2-Sep
					~~**#1hr TSP* X3**~~ ~~KTN-DMS4(B), FLN-DMS5~~ ~~**#24hr TSP***~~ ~~KTN-DMS4(B), FLN-DMS5A~~ ~~**#24hr TSP**~~ ~~FLN-DMS1, FLN-DMS3~~	
3-Sep	4-Sep	5-Sep	6-Sep	7-Sep	8-Sep	9-Sep
	1hr TSP* X3 FLN-DMS1, FLN-DMS3 **Noise** CP-FLN-NMS1, CP-FLN-NMS2		**24hr RSP (Arsenic)** KTN-DMS4A	**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	~~**^1hr TSP* X3**~~ ~~FLN-DMS1, FLN-DMS3~~	
10-Sep	11-Sep	12-Sep	13-Sep	14-Sep	15-Sep	16-Sep
		24hr RSP (Arsenic) KTN-DMS4A	**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	**1hr TSP* X3** FLN-DMS1, FLN-DMS3 **Noise** CP-FLN-NMS1, CP-FLN-NMS2		
17-Sep	18-Sep	19-Sep	20-Sep	21-Sep	22-Sep	23-Sep
	24hr RSP (Arsenic) KTN-DMS4A	**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	**1hr TSP* X3** FLN-DMS1, FLN-DMS3 **Noise** CP-FLN-NMS1, CP-FLN-NMS2		**24hr RSP (Arsenic)** KTN-DMS4A	
24-Sep	25-Sep	26-Sep	27-Sep	28-Sep	29-Sep	**30-Sep**
	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	**1hr TSP* X3** FLN-DMS1, FLN-DMS3 **Noise** CP-FLN-NMS1, CP-FLN-NMS2		**1hr TSP* X3** FLN-DMS1, FLN-DMS3 **24hr RSP (Arsenic)** KTN-DMS4A	**1hr TSP* X3** KTN-DMS4(B), FLN-DMS5 **24hr TSP*** KTN-DMS4(B), FLN-DMS5A **24hr TSP** FLN-DMS1, FLN-DMS3	

Remarks:

*Monitoring session would be conducted by portable TSP monitor.

#Due to Typhoon signal no. 8 was in force, air quality monitoring was cancelled.

^Due to Black Rainstorm Warning Signal was in force, air quality monitoring was cancelled.

(##) 24 hr TSP monitoring at FLN-DMS1 on 13 September 2023 was cancelled due to power failure.

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 **24hr TSP** FLN-DMS5A - Good View New Village	--
	ND/2019/04		--
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 exceeds500m. 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 (September 2023)

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

*Due to Typhoon Signal no.8 was in force, Water Quality Monitoring was cancelled.

Due to Black Rainstorm Warning Signal was in force, Water Quality Monitoring was cancelled.

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	**River Beas** SYR-CS1 - Upstream of river SYR-IS1 - Downstream of river
EP-473/2013/A	ND/2019/04	**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

Contract No. NDO 04/2019
Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas
Impact Ecological Monitoring Schedule (September 2023)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1-Sep	2-Sep
3-Sep	4-Sep	5-Sep	6-Sep	7-Sep	8-Sep	9-Sep
		Monitoring of Measures to Minimise Disturbance to Water Birds in Ng Tung River **T1 T2** High tide: Start time: 13:00 Low tide: Start time: 08:00	Monitoring of Measures to Minimise Disturbance to Water Birds in Sheung Yue River and Long Valley **T3 T5** High tide: Start time: 14:00 Low tide: Start time: 09:00			
10-Sep	11-Sep	12-Sep	13-Sep	14-Sep	15-Sep	16-Sep
	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**	Monitoring of Measures to Minimise Impacts to Ma Tso Lung and Siu Hang San Tsuen Stream **MS_01 - MS_15**	
17-Sep	18-Sep	19-Sep	20-Sep	21-Sep	22-Sep	23-Sep
	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 Disturbance to Water Birds in Sheung Yue River and Long Valley **T3 T5** High tide: Start time: 14:00 Low tide: Start time: 08:00	Monitoring of Measures to Minimise Impacts on Ecological Sensitive Habitats from Disturbance and Pollution T3, T4, T5		
24-Sep	25-Sep	26-Sep	27-Sep	28-Sep	29-Sep	**30-Sep**
		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			

#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 September 2023

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

Remarks: Due to adverse weather on 1 September 2023 (Friday) forecasted by HKO, the scheduled weekly site audits of ND/2019/03 and ND/2019/07 were rescheduled to late August. The Black Rainstorm Warning Signal was in force on 8 September 2023 (Friday). Due to safety reasons, the scheduled weekly site audits for ND/2019/03 and ND/2019/07 were cancelled.

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 (October 2023)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1-Oct	**2-Oct**	3-Oct	4-Oct	5-Oct	6-Oct	7-Oct
		1hr TSP* X3 FLN-DMS1, FLN-DMS3 **Noise** CP-FLN-NMS1, CP-FLN-NMS2	**24hr RSP (Arsenic)** KTN-DMS4A	**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	**1hr TSP* X3** FLN-DMS1, FLN-DMS3	
8-Oct	9-Oct	10-Oct	11-Oct	12-Oct	13-Oct	14-Oct
		24hr RSP (Arsenic) KTN-DMS4A	**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	**1hr TSP* X3** FLN-DMS1, FLN-DMS3 **Noise** CP-FLN-NMS1, CP-FLN-NMS2		
15-Oct	16-Oct	17-Oct	18-Oct	19-Oct	20-Oct	21-Oct
	24hr RSP (Arsenic) KTN-DMS4A	**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	**1hr TSP* X3** FLN-DMS1, FLN-DMS3 **Noise** CP-FLN-NMS1, CP-FLN-NMS2		**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	
22-Oct	**23-Oct**	24-Oct	25-Oct	26-Oct	27-Oct	28-Oct
		1hr TSP* X3 FLN-DMS1, FLN-DMS3 **Noise** CP-FLN-NMS1, CP-FLN-NMS2		**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	**1hr TSP* X3** FLN-DMS1, FLN-DMS3	
29-Oct	30-Oct	31-Oct				

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 **24hr TSP** FLN-DMS5A - Good View New Village	--
	ND/2019/04		--
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 exceeds500m. 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.

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Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas

Tentative 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					

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	**River Beas** SYR-CS1 - Upstream of river SYR-IS1 - Downstream of river
EP-473/2013/A	ND/2019/04	**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

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 (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			
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: 16:00	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				
	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: 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				

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 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/2019/01)	Site Inspection (ND/2019/02)	Site Inspection (ND/2019/04) Site Inspection (ND/2019/06)	Site Inspection (ND/2019/03) Site Inspection (ND/2019/07)	
15-Oct	16-Oct	17-Oct	18-Oct	19-Oct	20-Oct	21-Oct
	Site Inspection (ND/2019/05)	Site Inspection (ND/2019/01)	Site Inspection (ND/2019/02)	Site Inspection (ND/2019/04) Site Inspection (ND/2019/06)	Site Inspection (ND/2019/03) Site Inspection (ND/2019/07)	
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/2019/02)	Site Inspection (ND/2019/04) Site Inspection (ND/2019/06)	Site Inspection (ND/2019/03) Site Inspection (ND/2019/07)	
29-Oct	30-Oct	31-Oct				
	Site Inspection (ND/2019/05)	Site Inspection (ND/2019/01)				

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 ($\mu g/m^3$)
4-Sep-23	9:00	Sunny	70.8
4-Sep-23	10:00	Sunny	78.6
4-Sep-23	11:00	Sunny	81.3
14-Sep-23	9:00	Cloudy	64.0
14-Sep-23	10:00	Cloudy	23.7
14-Sep-23	11:00	Cloudy	19.8
20-Sep-23	9:00	Sunny	61.1
20-Sep-23	10:00	Sunny	35.6
20-Sep-23	11:00	Sunny	27.7
26-Sep-23	9:00	Sunny	58.7
26-Sep-23	10:00	Sunny	65.4
26-Sep-23	11:00	Sunny	59.6
28-Sep-23	9:00	Sunny	59.7
28-Sep-23	10:00	Sunny	47.4
28-Sep-23	11:00	Sunny	49.0
		Minimum	19.8
		Maximum	81.3
		Average	53.5

Location FLN-DMS3 - House near Tong Hang			
Date	Time	Weather	Particulate Concentration ($\mu g/m^3$)
4-Sep-23	13:00	Sunny	84.7
4-Sep-23	14:00	Sunny	86.3
4-Sep-23	15:00	Sunny	81.4
14-Sep-23	13:00	Cloudy	22.4
14-Sep-23	14:00	Cloudy	24.6
14-Sep-23	15:00	Cloudy	21.1
20-Sep-23	9:00	Sunny	18.9
20-Sep-23	10:00	Sunny	24.4
20-Sep-23	11:00	Sunny	26.0
26-Sep-23	13:00	Sunny	47.7
26-Sep-23	14:00	Sunny	49.1
26-Sep-23	15:00	Sunny	55.0
28-Sep-23	13:00	Sunny	44.5
28-Sep-23	14:00	Sunny	40.9
28-Sep-23	15:00	Sunny	47.0
		Minimum	18.9
		Maximum	86.3
		Average	44.9

Remarks:
1-hr and 24-hr TSP monitoring were cancelled on 1 Sep due to Typhoon Signal No.8, 1-hr TSP was cancelled on 8 Sep due to Black Rainstorm Warning Signal, and 24-hr was cancelled at FLN-DMS1 on 13 Sep due to power supply failure.

Appendix E - 1-hour TSP Monitoring Results

Location FLN-DMS5 - Noble Hill			
Date	Time	Weather	Particulate Concentration ($\mu g/m^3$)
7-Sep-23	14:00	Cloudy	64.3
7-Sep-23	15:00	Cloudy	48.4
7-Sep-23	16:00	Cloudy	49.1
13-Sep-23	13:00	Cloudy	18.8
13-Sep-23	14:00	Cloudy	15.3
13-Sep-23	15:00	Cloudy	15.4
19-Sep-23	13:00	Cloudy	27.6
19-Sep-23	14:00	Cloudy	20.3
19-Sep-23	15:00	Cloudy	18.9
25-Sep-23	9:00	Sunny	33.8
25-Sep-23	10:00	Sunny	33.2
25-Sep-23	11:00	Sunny	37.5
29-Sep-23	9:00	Sunny	32.4
29-Sep-23	10:00	Sunny	26.8
29-Sep-23	11:00	Sunny	24.1
		Minimum	15.3
		Maximum	64.3
		Average	31.1

Location KTN-DMS4(B) - Temporary Structure at Pak Shek Au			
Date	Time	Weather	Particulate Concentration ($\mu g/m^3$)
7-Sep-23	13:00	Cloudy	104.5
7-Sep-23	14:00	Cloudy	63.3
7-Sep-23	15:00	Cloudy	74.8
13-Sep-23	13:00	Cloudy	30.9
13-Sep-23	14:00	Cloudy	31.2
13-Sep-23	15:00	Cloudy	32.0
19-Sep-23	13:00	Cloudy	32.0
19-Sep-23	14:00	Cloudy	38.4
19-Sep-23	15:00	Cloudy	31.5
25-Sep-23	13:00	Sunny	90.9
25-Sep-23	14:00	Sunny	49.4
25-Sep-23	15:00	Sunny	54.2
29-Sep-23	13:00	Sunny	37.8
29-Sep-23	14:00	Sunny	35.3
29-Sep-23	15:00	Sunny	35.6
		Minimum	30.9
		Maximum	104.5
		Average	49.5

Remarks:
1-hr and 24-hr TSP monitoring were cancelled on 1 Sep due to Typhoon Signal No.8, 1-hr TSP was cancelled on 8 Sep due to Black Rainstorm Warning Signal, and 24-hr was cancelled at FLN-DMS1 on 13 Sep due to power supply failure.

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. ($\mu g/m^3$)
			Initial	Final		Initial	Final		Initial	Final			
7-Sep-23	Rainy	300.6	2.8840	2.9421	0.0581	8330.8	8354.8	24.0	1.22	1.22	1.22	1752.4	33.2
19-Sep-23	Sunny	307.0	2.9475	3.1053	0.1578	8354.8	8378.8	24.0	1.21	1.21	1.21	1737.9	90.8
25-Sep-23	Sunny	301.9	2.8518	3.0523	0.2005	8378.8	8402.8	24.0	1.22	1.22	1.22	1752.7	114.4
29-Sep-23	Sunny	302.0	2.9774	3.0721	0.0947	8402.8	8426.8	24.0	1.22	1.22	1.22	1754.1	54.0
												Min	33.2
												Max	114.4
												Average	73.1

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. ($\mu g/m^3$)
			Initial	Final		Initial	Final		Initial	Final			
7-Sep-23	Rainy	300.6	2.9805	3.0235	0.0430	9493.4	9517.4	24.0	1.21	1.21	1.21	1744.8	24.6
13-Sep-23	Cloudy	299.3	2.9096	2.9356	0.0260	9517.4	9541.4	24.0	1.22	1.22	1.22	1750.1	14.9
19-Sep-23	Sunny	299.9	2.9992	3.0351	0.0359	9541.4	9565.4	24.0	1.22	1.22	1.22	1752.0	20.5
25-Sep-23	Sunny	301.9	2.8753	2.9243	0.0490	9565.4	9589.4	24.0	1.21	1.21	1.21	1745.1	28.1
29-Sep-23	Sunny	302.0	2.9945	3.0448	0.0503	9589.4	9613.4	24.0	1.21	1.21	1.21	1746.4	28.8
												Min	14.9
												Max	28.8
												Average	23.4

Remarks:
1-hr and 24-hr TSP monitoring were cancelled on 1 Sep due to Typhoon Signal No.8, 1-hr TSP was cancelled on 8 Sep due to Black Rainstorm Warning Signal, and 24-hr was cancelled at FLN-DMS1 on 13 Sep due to power supply failure.

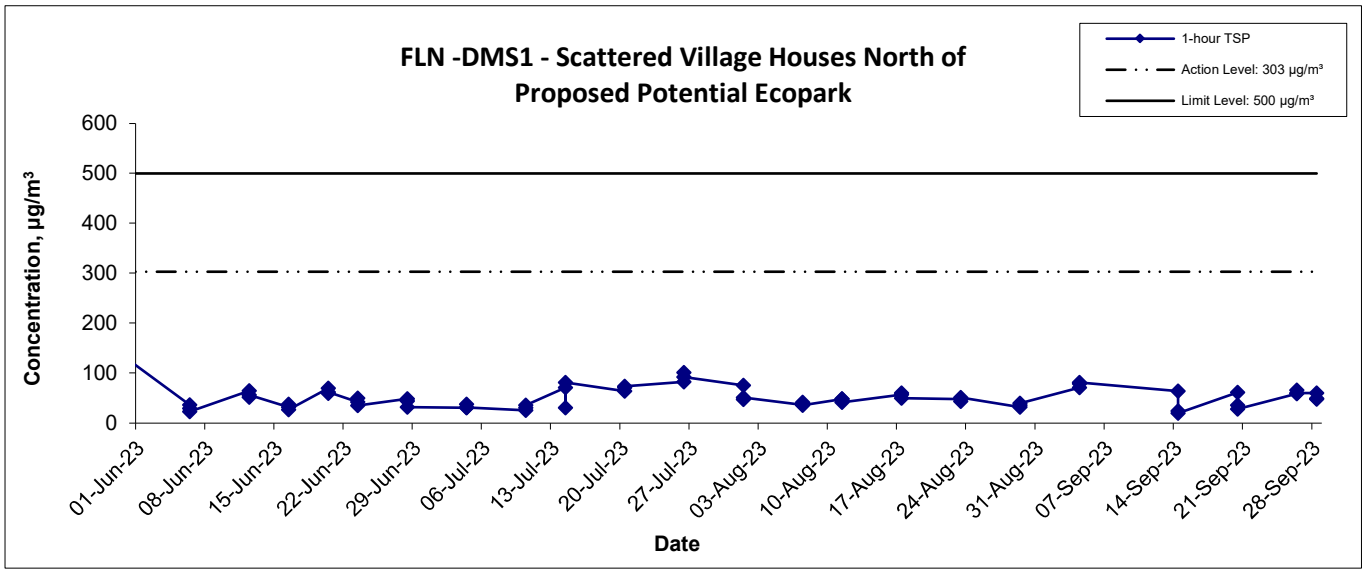
Appendix E - 24-hour TSP Monitoring Results

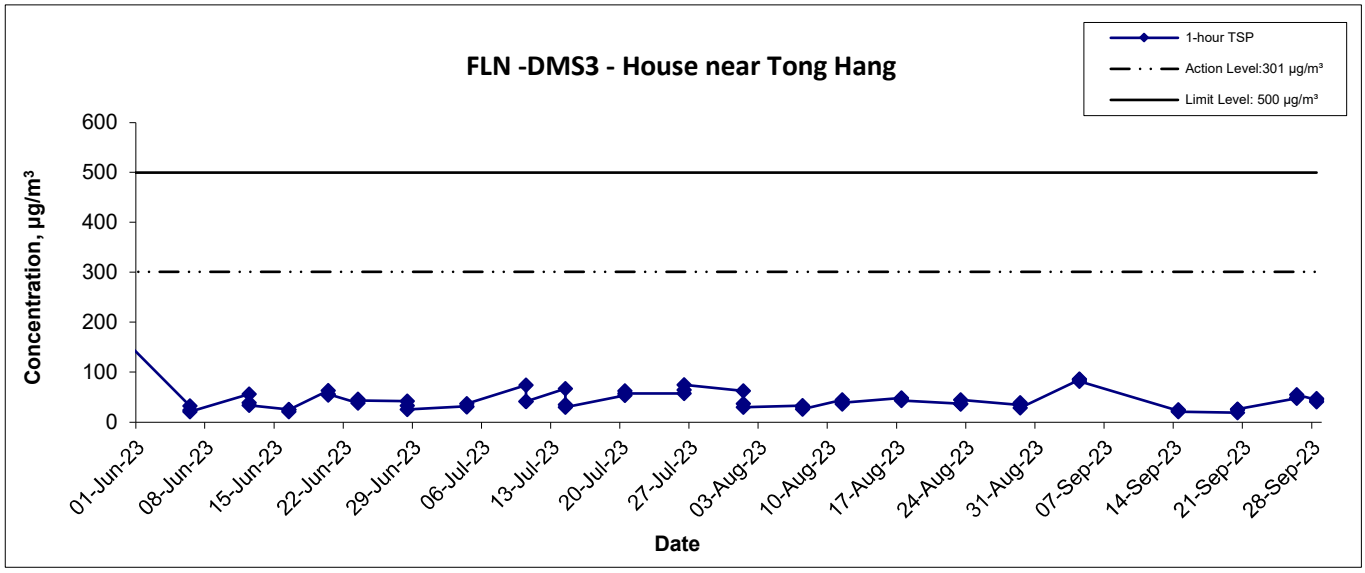
Location FLN-DMS5A - Good View New Village			
Date	Time	Weather	Particulate Concentration (μg/m^3)
7-Sep-23	9:00	Cloudy	43.4
13-Sep-23	10:30	Cloudy	24.0
19-Sep-23	9:00	Cloudy	24.6
25-Sep-23	10:30	Sunny	50.8
29-Sep-23	10:00	Sunny	29.8
		Minimum	24.0
		Maximum	50.8
		Average	34.5

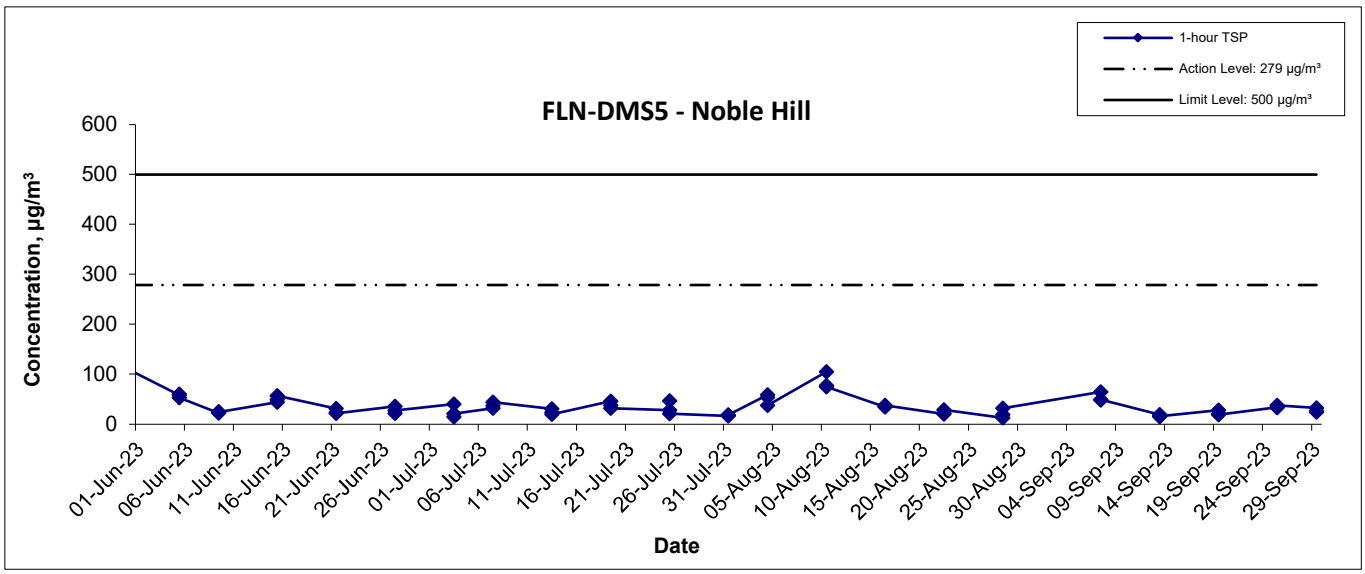
Location KTN-DMS4(B) - Temporary Structure at Pak Shek Au			
Date	Time	Weather	Particulate Concentration (μg/m^3)
7-Sep-23	9:00	Cloudy	39.6
13-Sep-23	11:00	Cloudy	31.3
19-Sep-23	9:30	Cloudy	29.9
25-Sep-23	11:00	Sunny	47.3
29-Sep-23	11:30	Sunny	28.5
		Minimum	28.5
		Maximum	47.3
		Average	35.3

Remarks:
1-hr and 24-hr TSP monitoring were cancelled on 1 Sep due to Typhoon Signal No.8, 1-hr TSP was cancelled on 8 Sep due to Black Rainstorm Warning Signal, and 24-hr was cancelled at FLN-DMS1 on 13 Sep due to power supply failure.

1-hr TSP Concentration Levels







Title	Scale	Project No.
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	N.T.S	WMA20002
	Date Sept 23	Appendix E

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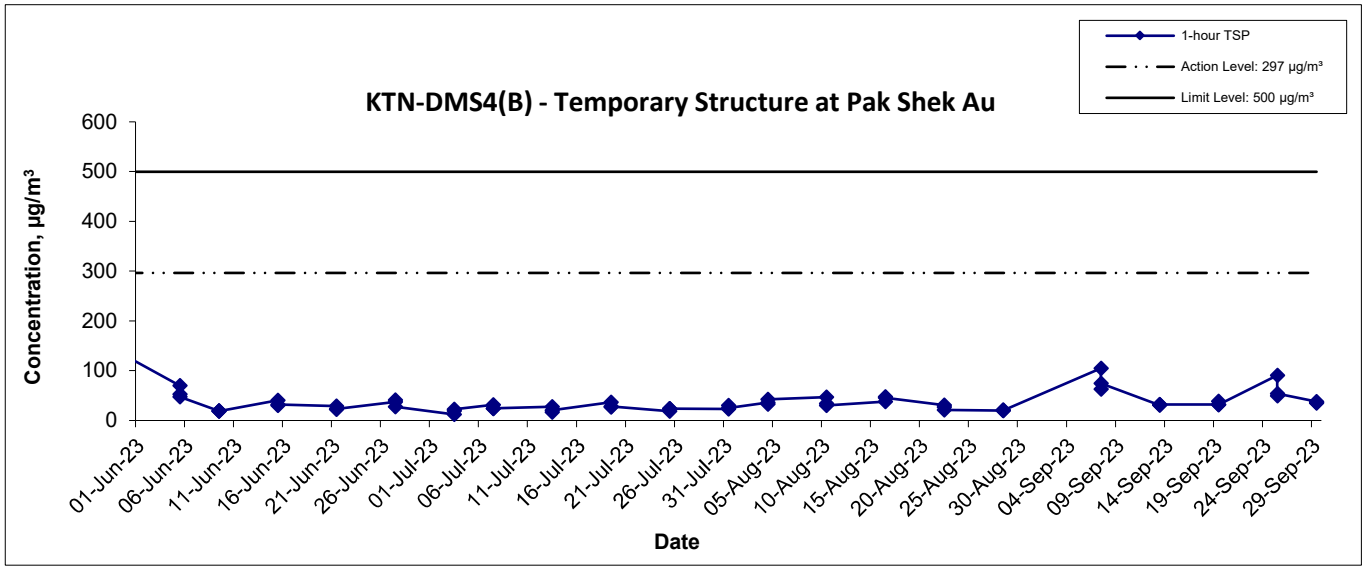
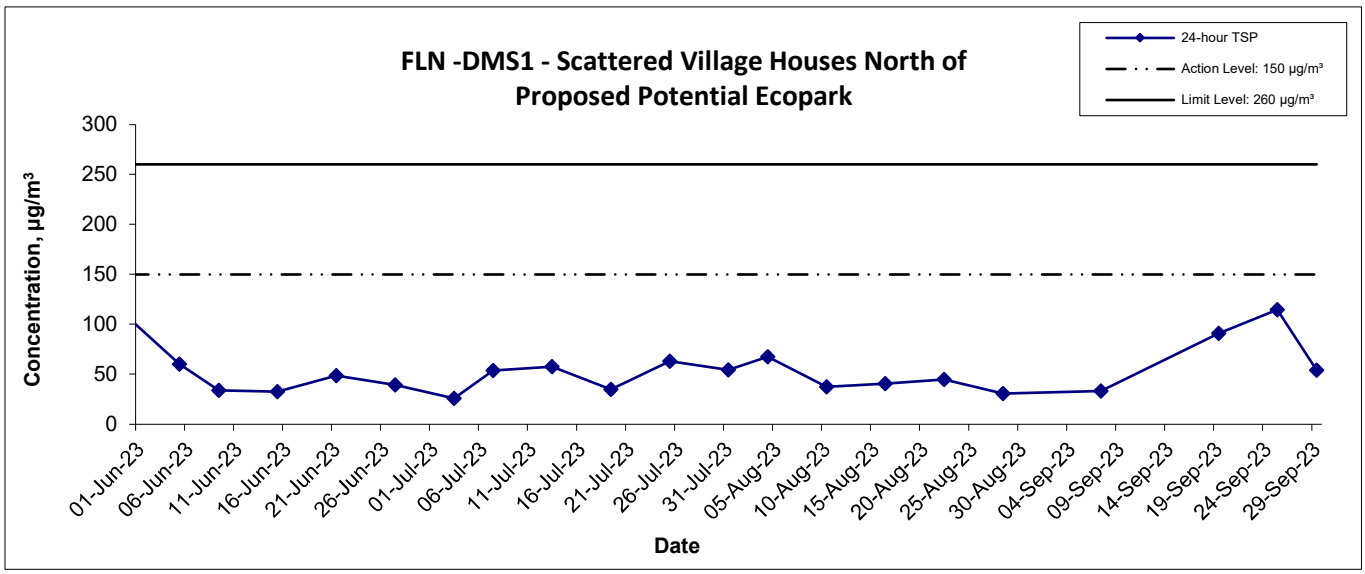
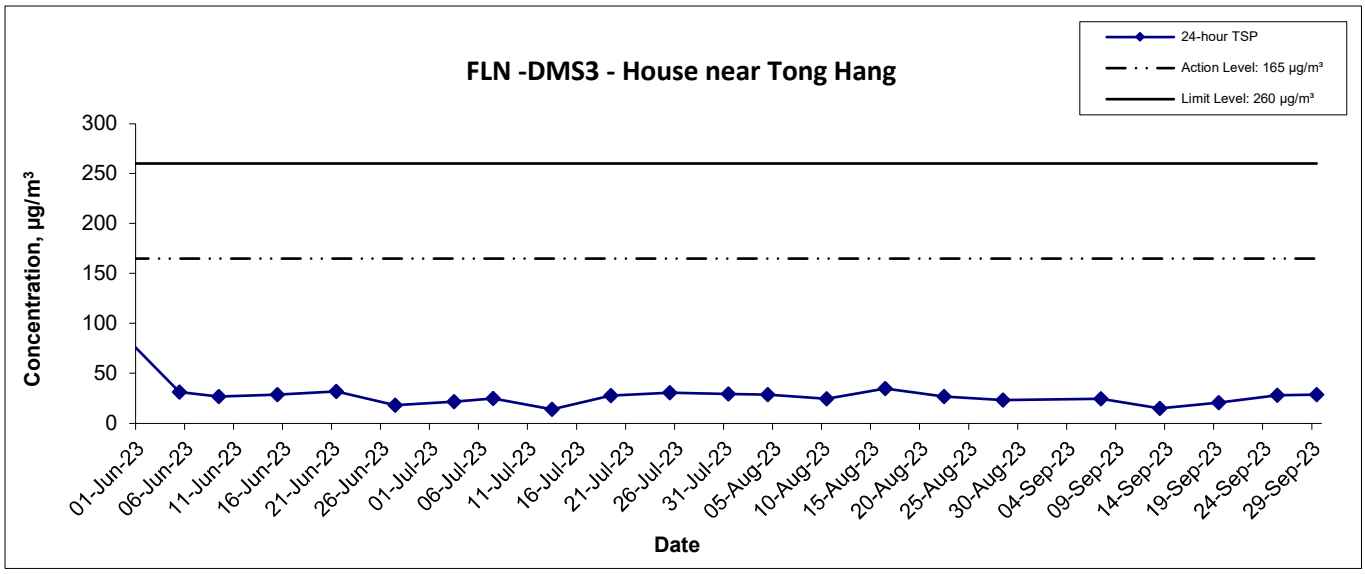
1-hr TSP Concentration Levels

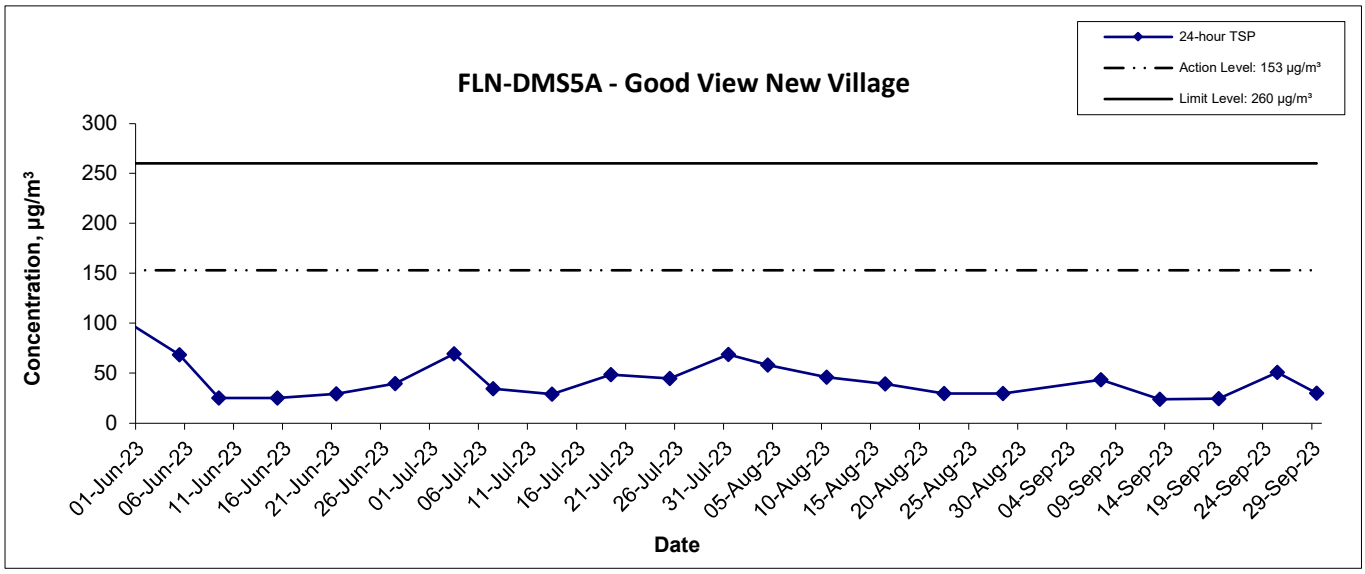


Title	Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas Graphical Presentation of 1-hour TSP Monitoring Results	Scale: N.T.S Date: Sept 23	Project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

24-hr TSP Concentration Levels

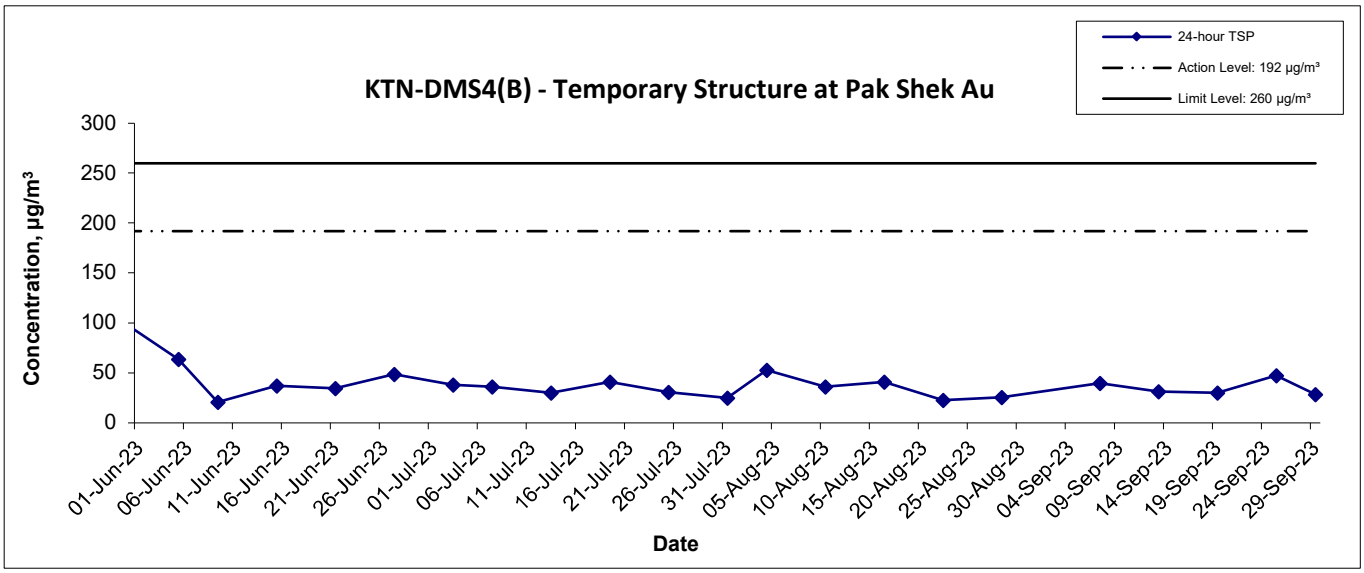






Title: Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas Graphical Presentation of 24-hour TSP Monitoring Results	Scale: N.T.S Date: Sept 23	Project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

24-hr TSP Concentration Levels

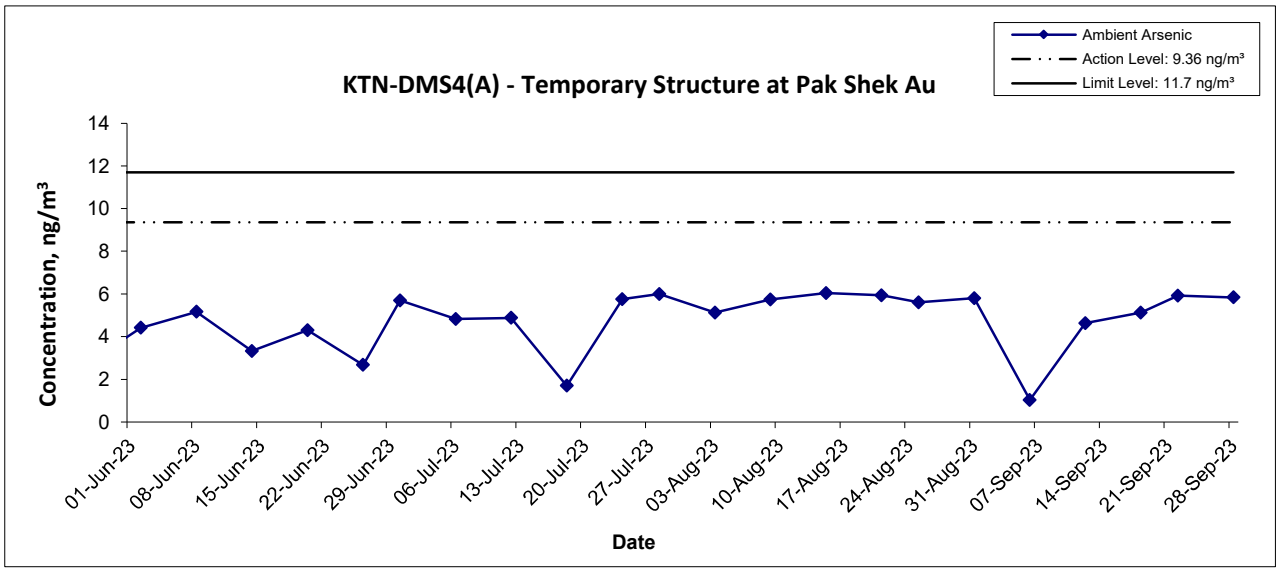


Title	Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas Graphical Presentation of 24-hour TSP Monitoring Results	Scale: N.T.S Date: Sept 23	Project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

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)
6-Sep-23	1.7	1645.9	1.03
12-Sep-23	7.6	1639.8	4.63
18-Sep-23	8.4	1638.2	5.13
22-Sep-23	9.7	1640.0	5.91
28-Sep-23	9.6	1644.4	5.84

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 Date: Sept 23	Project No.: WMA20002 Appendix: E	WELLAB 匯力 consulting . testing . research

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TEST REPORT

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

ATTN: **Ms Ivy Tam**

Report No.:	38843
Date of Issue:	2023-09-15
Date Received:	2023-09-11
Date Tested:	2023-09-11
Date Completed:	2023-09-15
Page:	1 of 1

Sample Description : 1 sample as received from customer said to be quartz filter
Laboratory No. : 38843
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	230525/006
Sample No.	38843-1
Arsenic (µg)	1.7

Remarks: 1) < = less than
2) Results for the test material reported as received

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

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General Manager

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TEST REPORT

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

Report No.:	QC38843
Date of Issue:	2023-09-15
Date Received:	2023-09-11
Date Tested:	2023-09-11
Date Completed:	2023-09-15

ATTN: **Ms Ivy Tam**

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 (%)	108	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 (%)	124	70-130

Remarks: 1) < = less than
2) N/A = Not applicable
3) This report is the summary of quality control data for report number 38843

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General Manager

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TEST REPORT

Report No.:	QC38843
Date of Issue:	2023-09-15
Date Received:	2023-09-11
Date Tested:	2023-09-11
Date Completed:	2023-09-15
Page:	2 of 2

QC report:

Matrix Spike

Parameter	Matrix Spike	Acceptance
Arsenic (%)	87	75-125

Filter Duplicate

Parameter	Filter Duplicate	Acceptance
Arsenic (%)	6	RPD≤20%

Serial dilution check

Parameter	Serial dilution check	Acceptance
Arsenic (%)	98	90-110

Remarks: 1) < = less than
2) N/A = Not applicable
3) This report is the summary of quality control data for report number 38843

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TEST REPORT

APPLICANT: **Wellab (EM&A)**
RM 1808, Technology Park,
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ATTN: **Ms Ivy Tam**

Report No.:	38844
Date of Issue:	2023-09-19
Date Received:	2023-09-13
Date Tested:	2023-09-13
Date Completed:	2023-09-19
Page:	1 of 1

Sample Description : 1 sample as received from customer said to be quartz filter
Laboratory No. : 38844
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	230525/007
Sample No.	38844-1
Arsenic (µg)	7.6

Remarks: 1) < = less than
2) Results for the test material reported as received

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TEST REPORT

PPLICANT: **Wellab (EM&A)**
RM 1808, Technology Park,
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Report No.:	QC38844
Date of Issue:	2023-09-19
Date Received:	2023-09-13
Date Tested:	2023-09-13
Date Completed:	2023-09-19

ATTN: **Ms Ivy Tam**

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 (%)	89	80-120

Calibration check

Parameter	CCV	Acceptance
Arsenic (%)	93	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 (%)	124	70-130

Remarks: 1) < = less than
2) N/A = Not applicable
3) This report is the summary of quality control data for report number 38844

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TEST REPORT

Report No.:	QC38844
Date of Issue:	2023-09-19
Date Received:	2023-09-13
Date Tested:	2023-09-13
Date Completed:	2023-09-19

QC report:

Matrix Spike

Parameter	Matrix Spike	Acceptance
Arsenic (%)	99	75-125

Filter Duplicate

Parameter	Filter Duplicate	Acceptance
Arsenic (%)	4	RPD≤20%

Serial dilution check

Parameter	Serial dilution check	Acceptance
Arsenic (%)	107	90-110

Remarks: 1) < = less than
2) N/A = Not applicable
3) This report is the summary of quality control data for report number 38844

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TEST REPORT

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

Report No.:	38916
Date of Issue:	2023-09-25
Date Received:	2023-09-19
Date Tested:	2023-09-19
Date Completed:	2023-09-25

ATTN: **Ms Ivy Tam**

Page: 1 of 1

Sample Description : 1 sample as received from customer said to be quartz filter
Laboratory No. : 38916
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	230525/008
Sample No.	38916-1
Arsenic (µg)	8.4

Remarks: 1) < = less than
2) Results for the test material reported as received

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PPLICANT: **Wellab (EM&A)**
RM 1808, Technology Park,
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Report No.:	QC38916
Date of Issue:	2023-09-25
Date Received:	2023-09-19
Date Tested:	2023-09-19
Date Completed:	2023-09-25

ATTN: **Ms Ivy Tam**

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 (%)	103	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 (%)	124	70-130

Remarks: 1) < = less than
2) N/A = Not applicable
3) This report is the summary of quality control data for report number 38916

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TEST REPORT

Report No.:	QC38916
Date of Issue:	2023-09-25
Date Received:	2023-09-19
Date Tested:	2023-09-19
Date Completed:	2023-09-25

QC report:

Matrix Spike

Parameter	Matrix Spike	Acceptance
Arsenic (%)	87	75-125

Filter Duplicate

Parameter	Filter Duplicate	Acceptance
Arsenic (%)	3	RPD≤20%

Serial dilution check

Parameter	Serial dilution check	Acceptance
Arsenic (%)	96	90-110

Remarks: 1) < = less than
2) N/A = Not applicable
3) This report is the summary of quality control data for report number 38916

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TEST REPORT

APPLICANT: **Wellab (EM&A)**
RM 1808, Technology Park,
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Shatin, N.T., Hong Kong

ATTN: **Ms Ivy Tam**

Report No.:	38917
Date of Issue:	2023-09-29
Date Received:	2023-09-25
Date Tested:	2023-09-25
Date Completed:	2023-09-29
Page:	1 of 1

Sample Description : 1 sample as received from customer said to be quartz filter
Laboratory No. : 38917
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	230525/009
Sample No.	38917-1
Arsenic (µg)	9.7

Remarks: 1) < = less than
2) Results for the test material reported as received

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TEST REPORT

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

Report No.:	QC38917
Date of Issue:	2023-09-29
Date Received:	2023-09-25
Date Tested:	2023-09-25
Date Completed:	2023-09-29

ATTN: **Ms Ivy Tam**

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 (%)	87	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 (%)	124	70-130

Remarks: 1) < = less than
2) N/A = Not applicable
3) This report is the summary of quality control data for report number 38917

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TEST REPORT

Report No.:	QC38917
Date of Issue:	2023-09-29
Date Received:	2023-09-25
Date Tested:	2023-09-25
Date Completed:	2023-09-29
Page:	2 of 2

QC report:

Matrix Spike

Parameter	Matrix Spike	Acceptance
Arsenic (%)	113	75-125

Filter Duplicate

Parameter	Filter Duplicate	Acceptance
Arsenic (%)	14	RPD≤20%

Serial dilution check

Parameter	Serial dilution check	Acceptance
Arsenic (%)	102	90-110

Remarks: 1) < = less than
2) N/A = Not applicable
3) This report is the summary of quality control data for report number 38917

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TEST REPORT

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

ATTN: **Ms Ivy Tam**

Report No.:	38918
Date of Issue:	2023-10-06
Date Received:	2023-09-29
Date Tested:	2023-09-29
Date Completed:	2023-10-06
Page:	1 of 1

Sample Description : 1 sample as received from customer said to be quartz filter
Laboratory No. : 38918
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	230525/010
Sample No.	38918-1
Arsenic (µg)	9.6

Remarks: 1) < = less than
2) Results for the test material reported as received

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TEST REPORT

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

Report No.:	QC38918
Date of Issue:	2023-10-06
Date Received:	2023-09-29
Date Tested:	2023-09-29
Date Completed:	2023-10-06

ATTN: **Ms Ivy Tam**

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 (%)	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 (%)	124	70-130

Remarks: 1) < = less than
2) N/A = Not applicable
3) This report is the summary of quality control data for report number 38918

****

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

PATRICK TSE
General Manager

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TEST REPORT

Report No.:	QC38918
Date of Issue:	2023-10-06
Date Received:	2023-09-29
Date Tested:	2023-09-29
Date Completed:	2023-10-06
Page:	2 of 2

QC report:

Matrix Spike

Parameter	Matrix Spike	Acceptance
Arsenic (%)	112	75-125

Filter Duplicate

Parameter	Filter Duplicate	Acceptance
Arsenic (%)	7	RPD≤20%

Serial dilution check

Parameter	Serial dilution check	Acceptance
Arsenic (%)	109	90-110

Remarks: 1) < = less than
2) N/A = Not applicable
3) This report is the summary of quality control data for report number 38918

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

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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}
4-Sep-23	Sunny	10:15	67.6	69.8	61.0	66.2	69.9
		10:20	64.0	67.4	60.0		
		10:25	67.5	71.9	62.3		
		10:30	65.5	68.8	62.4		
		10:35	65.8	68.4	62.1		
		10:40	65.6	68.1	62.0		
14-Sep-23	Cloudy	13:15	69.3	72.4	65.3	68.9	
		13:20	69.2	71.9	65.8		
		13:25	68.4	71.0	64.8		
		13:30	68.6	71.2	64.6		
		13:35	68.9	71.4	65.0		
		13:40	69.2	72.2	64.8		
20-Sep-23	Sunny	13:05	67.0	70.5	56.8	65.4	
		13:10	67.3	72.3	57.6		
		13:15	61.4	62.8	57.0		
		13:20	66.2	69.2	58.0		
		13:25	62.8	66.0	55.9		
		13:30	64.7	68.3	58.6		
26-Sep-23	Sunny	10:00	66.8	68.9	64.0	67.8	
		10:05	68.3	70.9	64.3		
		10:10	67.0	68.5	65.1		
		10:15	66.4	68.5	63.6		
		10:20	66.7	69.4	63.9		
		10:25	70.2	73.1	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}
4-Sep-23	Sunny	13:30	62.4	62.9	47.7	58.6	59.6
		13:35	58.4	59.6	48.5		
		13:40	59.3	62.7	50.0		
		13:45	54.8	59.1	47.3		
		13:50	53.1	56.6	47.0		
		13:55	57.5	61.2	48.8		
14-Sep-23	Cloudy	14:25	58.7	60.9	49.3	56.0	
		14:30	53.5	54.4	48.9		
		14:35	52.4	54.6	49.8		
		14:40	58.8	61.5	49.8		
		14:45	55.7	59.0	50.9		
		14:50	50.0	51.1	48.7		
20-Sep-23	Sunny	09:15	54.2	57.8	47.6	53.4	
		09:20	55.0	58.0	47.8		
		09:25	51.0	54.0	45.5		
		09:30	53.7	56.0	45.9		
		09:35	52.5	54.7	47.7		
		09:40	52.8	57.9	48.5		
26-Sep-23	Sunny	14:00	66.7	67.2	66.2	67.2	
		14:05	66.5	67.8	65.7		
		14:10	67.0	67.9	66.3		
		14:15	67.4	68.2	66.6		
		14:20	67.7	68.5	66.9		
		14:25	67.8	68.8	66.7		

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}
7-Sep-23	Cloudy	09:15	57.8	58.2	55.7	55.1	58.6
		09:20	57.0	58.0	55.8		
		09:25	54.2	55.1	53.3		
		09:30	53.2	54.0	52.4		
		09:35	52.9	53.6	52.2		
		09:40	52.7	53.4	52.2		
13-Sep-23	Cloudy	10:30	63.4	67.8	53.7	58.1	
		10:35	54.1	55.7	52.4		
		10:40	52.7	53.4	51.7		
		10:45	55.9	58.6	52.6		
		10:50	57.5	61.4	52.5		
		10:55	54.4	55.5	52.2		
19-Sep-23	Cloudy	10:05	58.5	59.1	57.2	57.7	
		10:10	57.4	57.6	56.7		
		10:15	57.4	58.0	56.6		
		10:20	57.3	58.2	56.4		
		10:25	56.8	57.5	56.3		
		10:30	58.4	59.4	56.3		
25-Sep-23	Sunny	09:05	62.9	63.5	54.2	57.7	
		09:10	54.4	55.2	53.6		
		09:15	54.8	56.0	53.8		
		09:20	54.9	55.9	53.8		
		09:25	55.7	57.2	54.2		
		09:30	55.0	55.9	54.1		

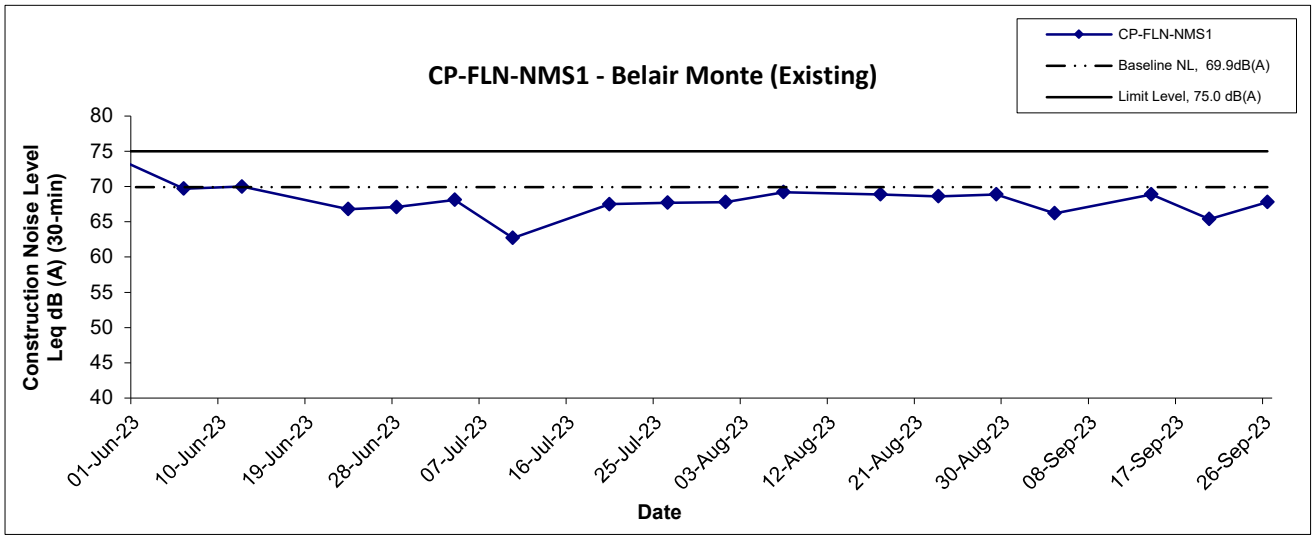
Location CP-KTN-NMS3 - Fung Kong Garden (Existing)							
Date	Weather	Time	Unit: dB (A) (5-min)			Average	Baseline Level
			L_{eq}	L_{10}	L_{90}	L_{eq}	L_{eq}
7-Sep-23	Cloudy	09:55	54.5	55.1	51.8	54.2	51.6
		10:00	52.7	53.1	51.6		
		10:05	55.3	58.2	52.2		
		10:10	55.9	58.8	52.0		
		10:15	52.4	53.7	51.4		
		10:20	53.0	54.5	51.5		
13-Sep-23	Cloudy	10:40	55.4	55.7	54.1	55.4	
		10:45	54.5	54.9	54.1		
		10:50	54.5	54.8	54.1		
		10:55	55.2	55.8	54.3		
		11:00	57.0	57.1	54.5		
		11:05	55.2	55.6	53.5		
19-Sep-23	Cloudy	10:45	50.1	51.1	48.4	49.4	
		10:50	49.8	51.2	48.5		
		10:55	49.0	49.5	48.5		
		11:00	49.0	49.7	48.3		
		11:05	49.5	50.0	48.8		
		11:10	49.1	49.4	48.6		
25-Sep-23	Sunny	09:45	52.3	52.8	51.0	53.5	
		09:50	54.2	55.1	51.6		
		09:55	54.8	55.4	54.3		
		10:00	54.5	55.0	53.1		
		10:05	52.7	54.5	50.9		
		10:10	51.3	52.4	49.5		

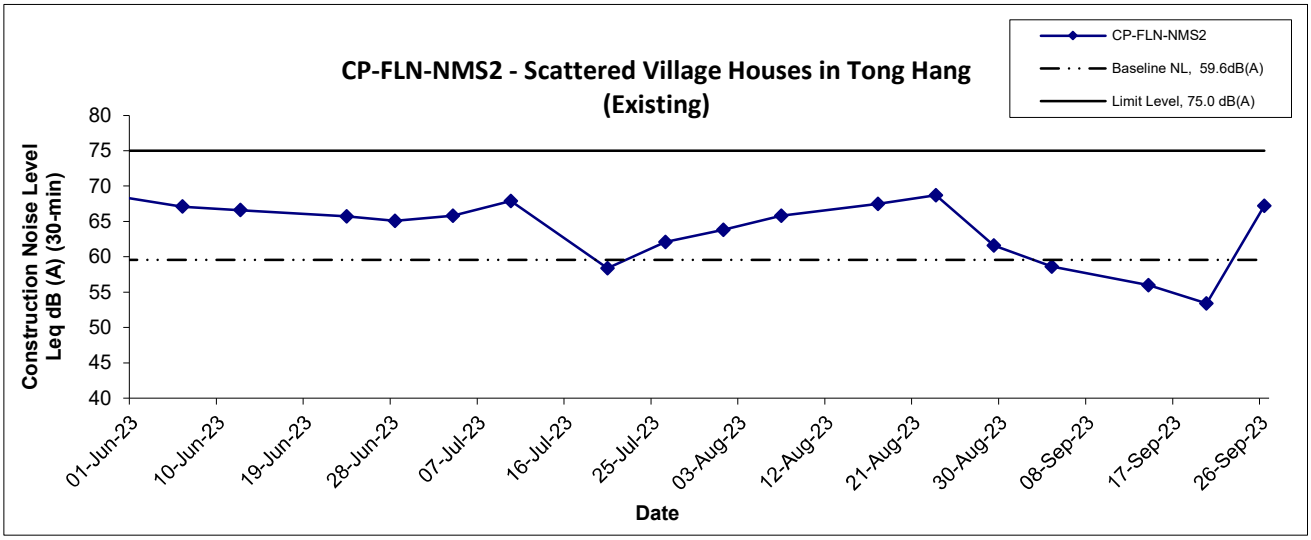
Appendix F - Noise Monitoring Results

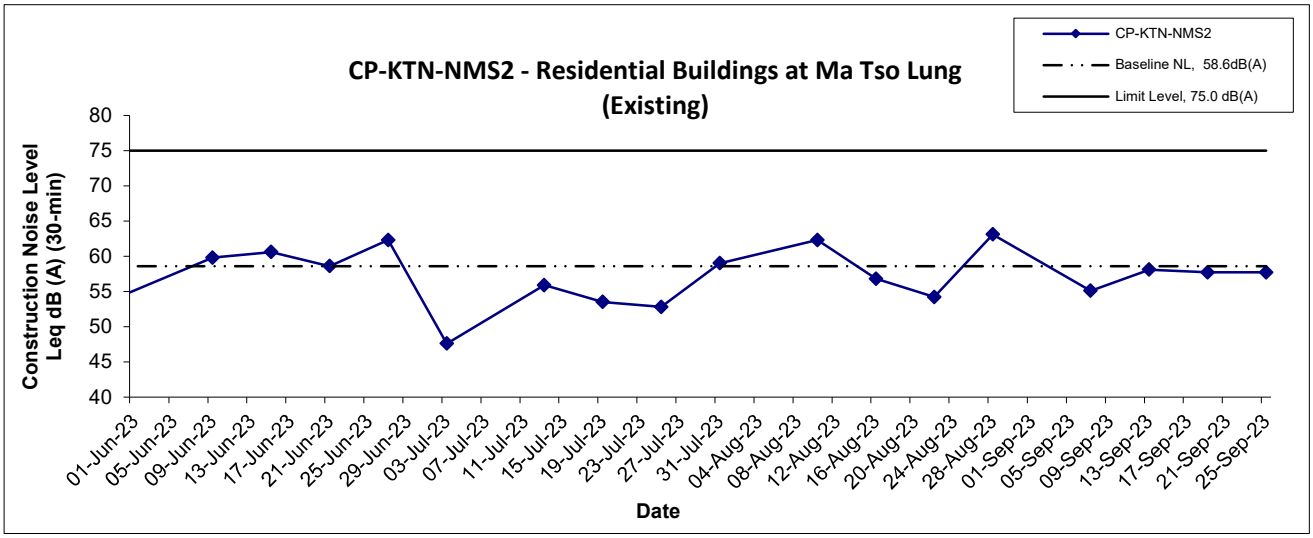
Location CP-KTN-NMS5 - N/A							
Date	Weather	Time	Unit: dB (A) (5-min)			Average	Baseline Level
			L_{eq}	L_{10}	L_{90}	L_{eq}	L_{eq}
7-Sep-23	Cloudy	11:30	63.3	66.0	58.8	60.7	57.2
		11:35	59.9	61.7	58.9		
		11:40	59.0	59.4	58.4		
		11:45	60.3	62.5	58.6		
		11:50	59.6	60.2	58.9		
		11:55	60.4	61.3	59.4		
13-Sep-23	Cloudy	15:00	57.6	59.3	55.0	62.4	
		15:05	61.8	64.8	55.6		
		15:10	62.0	64.2	57.5		
		15:15	67.3	67.9	57.1		
		15:20	58.0	60.1	56.0		
		15:25	58.4	60.9	55.2		
19-Sep-23	Cloudy	09:00	59.5	59.8	59.1	59.1	
		09:05	59.3	59.6	58.9		
		09:10	58.9	59.3	58.6		
		09:15	59.0	59.4	58.6		
		09:20	59.2	59.9	58.5		
		09:25	58.9	59.3	58.5		
25-Sep-23	Sunny	11:20	58.8	59.0	57.3	58.2	
		11:25	57.8	58.3	57.3		
		11:30	58.0	58.5	57.1		
		11:35	58.7	59.9	57.3		
		11:40	58.1	58.6	57.8		
		11:45	57.8	58.4	57.2		

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}
7-Sep-23	Cloudy	10:40	58.5	60.3	49.1	57.0	55.1
		10:45	56.7	61.7	48.8		
		10:50	55.9	57.8	48.6		
		10:55	59.7	50.1	48.6		
		11:00	55.3	58.9	42.8		
		11:05	52.4	53.2	42.1		
13-Sep-23	Cloudy	11:30	56.0	57.2	52.8	60.1	
		11:35	58.7	60.1	53.3		
		11:40	61.9	62.0	52.2		
		11:45	57.4	59.9	52.8		
		11:50	59.6	62.4	52.4		
		11:55	62.9	65.6	53.3		
19-Sep-23	Cloudy	11:30	52.8	54.9	50.7	56.4	
		11:35	53.2	55.0	51.1		
		11:40	53.1	54.5	51.0		
		11:45	59.5	63.3	52.2		
		11:50	60.0	64.2	45.7		
		11:55	49.9	53.4	45.5		
25-Sep-23	Sunny	10:30	61.2	63.2	57.5	61.8	
		10:35	63.3	67.0	57.7		
		10:40	62.6	65.2	56.3		
		10:45	61.2	63.0	57.1		
		10:50	60.9	63.0	58.0		
		10:55	60.8	64.4	56.4		

Noise Levels

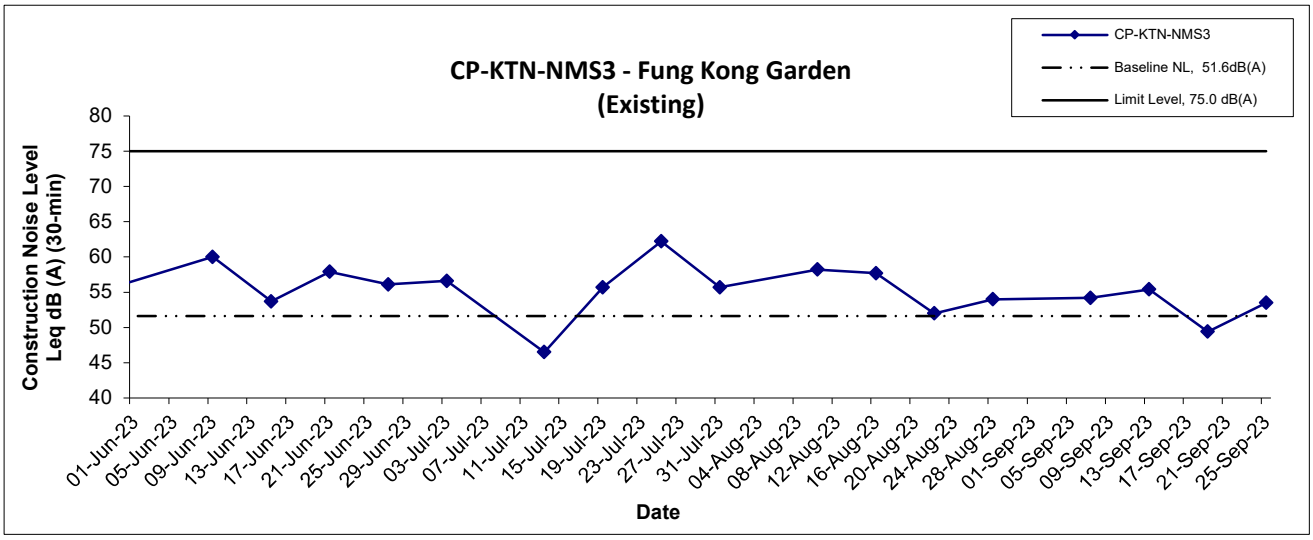


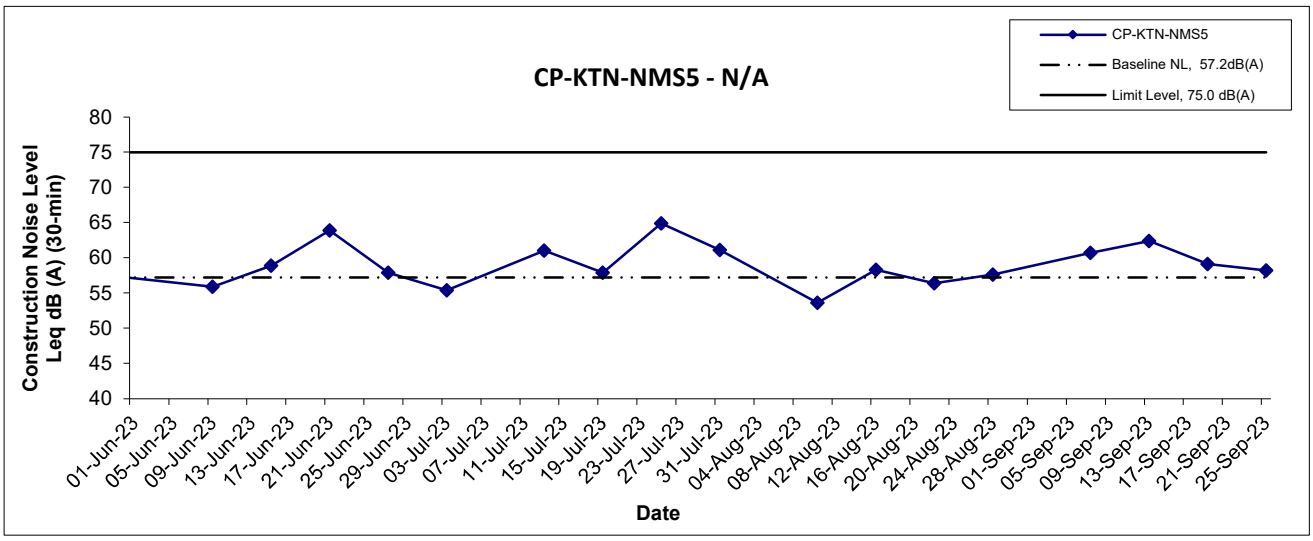


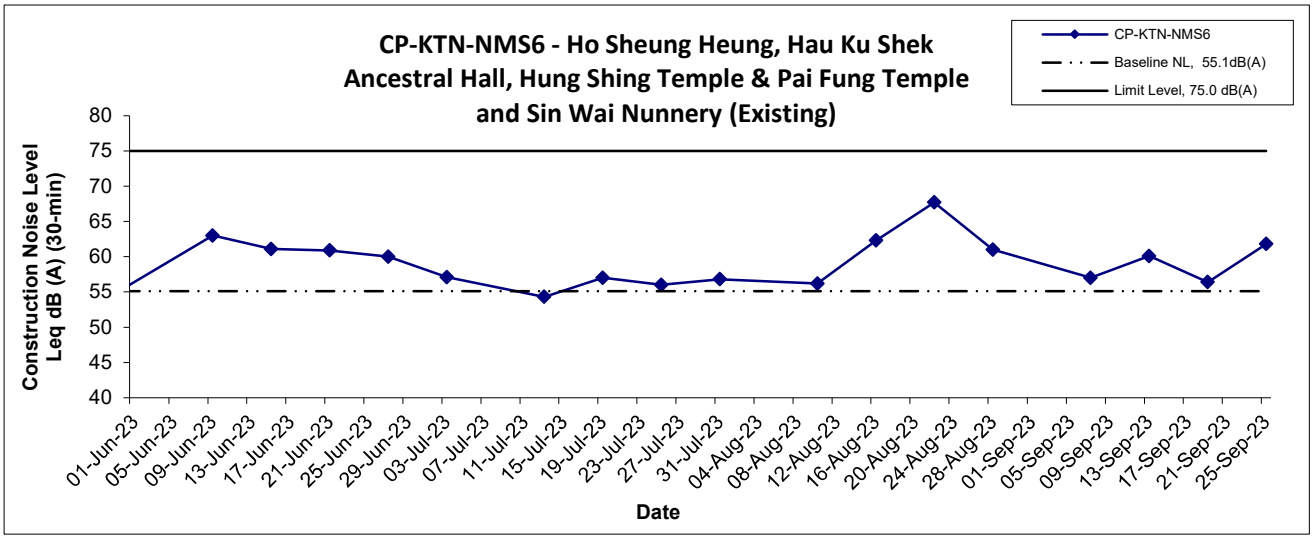


Title: Service Contract No. NDO 04/2019 Environmental Team for Environmental Monitoring and Audit Works in Construction Phase for the First Phase Development of Kwu Tung North and Fanling North New Development Areas Graphical Presentation of Construction Noise Monitoring Results	Scale: N.T.S Date: Sept 23	Project No.: WMA20002 Appendix: F	WELLAB 匯力 consulting . testing . research

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 Date: Sept 23	Project No.: WMA20002 Appendix: F	WELLAB 匯力 consulting . testing . research

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
4-Sep-23	Cloudy	12:38	Middle	0.1	31.3 31.3	31.3	8.2 8.2	8.2	0.1 0.1	0.1	125.4 125.4	125.4	9.3 9.3	9.3	5.2 5.1	5.2	5 4	4.5	10 10	10.0
6-Sep-23	Cloudy	14:08	Middle	0.2	28.5 28.5	28.5	7.9 7.9	7.9	0.1 0.1	0.1	96.8 96.8	96.8	7.5 7.5	7.5	3.6 3.5	3.6	3 3	3.0	13 12	12.5
11-Sep-23	Rainy	13:23	Middle	0.2	27.1 27.1	27.1	7.5 7.5	7.5	0.1 0.1	0.1	100.5 100.5	100.5	8.0 8.0	8.0	11.1 11.1	11.1	6 6	6.0	11 13	12.0
13-Sep-23	Cloudy	12:57	Middle	0.2	28.1 28.1	28.1	8.0 7.9	8.0	0.1 0.1	0.1	97.0 97.1	97.1	7.6 7.6	7.6	6.2 6.2	6.2	5 5	5.0	9 9	9.0
15-Sep-23	Cloudy	14:46	Middle	0.2	30.9 30.9	30.9	7.3 7.3	7.3	0.1 0.1	0.1	100.2 100.3	100.3	7.5 7.5	7.5	12.3 12.2	12.3	7 6	6.5	10 9	9.5
18-Sep-23	Sunny	12:20	Middle	0.2	28.9 28.9	28.9	7.1 7.1	7.1	0.1 0.1	0.1	65.3 65.0	65.2	5.0 5.0	5.0	12.4 12.3	12.4	9 9	9.0	4 4	4.0
20-Sep-23	Sunny	10:13	Middle	0.2	30.8 30.8	30.8	7.2 7.2	7.2	0.1 0.1	0.1	78.1 78.0	78.1	5.8 5.8	5.8	5.8 5.8	5.8	11 10	10.5	11 12	11.5
22-Sep-23	Cloudy	12:35	Middle	0.2	30.6 30.6	30.6	8.0 8.0	8.0	0.1 0.1	0.1	97.3 97.2	97.3	7.3 7.3	7.3	10.6 10.6	10.6	6 6	6.0	8 8	8.0
25-Sep-23	Sunny	14:08	Middle	0.1	32.1 32.1	32.1	7.4 7.3	7.4	0.1 0.1	0.1	115.3 116.2	115.8	8.4 8.5	8.5	24.9 25.1	25.0	21 18	19.5	15 14	14.5
27-Sep-23	Sunny	11:17	Middle	0.2	29.7 29.7	29.7	7.7 7.7	7.7	0.1 0.1	0.1	75.1 75.0	75.1	5.7 5.7	5.7	12.1 12.1	12.1	9 10	9.5	11 9	10.0
29-Sep-23	Sunny	11:41	Middle	0.1	28.7 28.7	28.7	7.8 7.8	7.8	0.1 0.1	0.1	38.6 38.5	38.6	3.0 3.0	3.0	29.7 29.9	29.8	30 32	31.0	13 12	12.5

Contract No. NDO 04/2019
Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas
Water Quality Monitoring Results SYR-IS1

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
4-Sep-23	Cloudy	12:56	Middle	0.4	29.3 29.3	29.3	7.2 7.2	7.2	0.1 0.1	0.1	82.9 83.5	83.2	6.3 6.4	6.4	16.8 16.8	16.8	18 20	19.0	5 5	5.0
6-Sep-23	Cloudy	14:20	Middle	0.4	30.7 30.7	30.7	8.2 8.2	8.2	0.2 0.2	0.2	84.9 84.4	84.7	6.3 6.3	6.3	20.2 20.1	20.2	17 18	17.5	7 8	7.5
11-Sep-23	Rainy	13:34	Middle	0.5	27.9 27.9	27.9	7.3 7.3	7.3	0.1 0.1	0.1	89.4 89.2	89.3	7.0 7.0	7.0	60.4 63.2	61.8	61 67	64.0	15 16	15.5
13-Sep-23	Cloudy	11:48	Middle	0.5	27.1 27.1	27.1	7.7 7.7	7.7	0.1 0.1	0.1	71.7 71.7	71.7	5.7 5.7	5.7	20.1 19.6	19.9	16 18	17.0	10 9	9.5
15-Sep-23	Cloudy	15:01	Middle	0.5	29.5 29.5	29.5	7.5 7.5	7.5	0.1 0.1	0.1	97.4 97.4	97.4	7.4 7.4	7.4	22.9 22.7	22.8	17 18	17.5	8 9	8.5
18-Sep-23	Sunny	12:35	Middle	1.1	29.7 29.7	29.7	6.8 6.8	6.8	0.2 0.2	0.2	86.1 86.3	86.2	6.5 6.6	6.6	15.4 15.3	15.4	23 20	21.5	4 4	4.0
20-Sep-23	Sunny	10:31	Middle	1.1	30.9 30.9	30.9	7.1 7.1	7.1	0.2 0.2	0.2	84.1 84.5	84.3	6.3 6.3	6.3	12.1 12.2	12.2	18 19	18.5	12 10	11.0
22-Sep-23	Cloudy	12:14	Middle	0.3	31.5 31.5	31.5	7.2 7.2	7.2	0.1 0.1	0.1	104.6 104.9	104.8	7.7 7.7	7.7	12.0 12.0	12.0	9 8	8.5	9 9	9.0
25-Sep-23	Sunny	14:24	Middle	0.1	33.2 33.1	33.2	7.9 7.9	7.9	0.2 0.2	0.2	93.2 95.8	94.5	6.7 6.9	6.8	26.1 26.0	26.1	41 45	43.0	15 15	15.0
27-Sep-23	Sunny	11:01	Middle	0.4	29.6 29.6	29.6	7.8 7.9	7.9	0.1 0.1	0.1	83.3 82.6	83.0	6.3 6.3	6.3	11.0 10.9	11.0	13 11	12.0	10 10	10.0
29-Sep-23	Sunny	11:17	Middle	0.5	30.9 30.9	30.9	7.8 7.8	7.8	0.3 0.3	0.3	84.6 83.9	84.3	6.3 6.2	6.3	18.2 18.0	18.1	18 20	19.0	12 11	11.5

Contract No. NDO 04/2019
Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas
Water Quality Monitoring Results NTR-CS1

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
4-Sep-23	Cloudy	14:08	Middle	0.2	30.2 30.2	30.2	7.3 7.3	7.3	0.1 0.1	0.1	128.3 128.3	128.3	9.7 9.7	9.7	10.7 10.9	10.8	8 7	7.5
6-Sep-23	Cloudy	15:35	Middle	0.2	28.7 28.7	28.7	7.5 7.5	7.5	0.1 0.1	0.1	109.1 109.3	109.2	8.4 8.4	8.4	7.6 7.5	7.6	6 6	6.0
11-Sep-23	Rainy	14:57	Middle	0.2	26.7 26.7	26.7	7.5 7.5	7.5	0.1 0.1	0.1	90.2 90.1	90.2	7.2 7.2	7.2	37.4 37.3	37.4	25 27	26.0
13-Sep-23	Cloudy	14:29	Middle	0.2	28.6 28.6	28.6	7.6 7.6	7.6	0.1 0.1	0.1	92.3 92.3	92.3	7.2 7.2	7.2	29.6 29.2	29.4	31 30	30.5
15-Sep-23	Cloudy	16:40	Middle	0.3	26.9 26.9	26.9	7.1 7.1	7.1	0.1 0.1	0.1	88.0 87.9	88.0	7.0 7.0	7.0	40.5 40.7	40.6	14 16	15.0
18-Sep-23	Sunny	11:02	Middle	0.2	29.0 29.0	29.0	7.1 7.1	7.1	0.1 0.1	0.1	101.5 101.5	101.5	7.8 7.8	7.8	8.6 8.6	8.6	14 15	14.5
20-Sep-23	Sunny	11:33	Middle	0.2	32.5 32.6	32.6	7.0 7.0	7.0	0.1 0.1	0.1	95.2 95.5	95.4	6.9 6.9	6.9	6.7 6.7	6.7	13 12	12.5
22-Sep-23	Cloudy	10:46	Middle	0.2	29.3 29.3	29.3	7.4 7.4	7.4	0.1 0.1	0.1	110.9 111.5	111.2	8.5 8.5	8.5	8.9 8.8	8.9	15 16	15.5
25-Sep-23	Sunny	15:25	Middle	0.1	32.0 32.0	32.0	7.2 7.2	7.2	0.1 0.1	0.1	128.6 128.3	128.5	9.4 9.4	9.4	12.4 12.5	12.5	12 12	12.0
27-Sep-23	Sunny	10:39	Middle	0.2	30.0 30.0	30.0	8.1 8.1	8.1	0.1 0.1	0.1	95.2 95.4	95.3	7.2 7.2	7.2	7.4 7.5	7.5	12 12	12.0
29-Sep-23	Sunny	10:20	Middle	0.2	29.0 28.9	29.0	7.5 7.5	7.5	0.1 0.1	0.1	114.4 114.4	114.4	8.8 8.8	8.8	9.0 9.0	9.0	10 12	11.0

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
4-Sep-23	Cloudy	13:18	Middle	0.4	30.6 30.6	30.6	7.8 7.8	7.8	0.1 0.1	0.1	129.9 130.4	130.2	9.7 9.8	9.8	8.3 8.5	8.4	8 7	7.5
6-Sep-23	Cloudy	15:01	Middle	0.1	29.4 29.4	29.4	7.4 7.4	7.4	0.1 0.1	0.1	138.2 138.2	138.2	10.6 10.6	10.6	6.2 6.3	6.3	8 9	8.5
11-Sep-23	Rainy	13:57	Middle	0.3	27.2 27.2	27.2	8.2 8.2	8.2	0.1 0.1	0.1	94.7 94.7	94.7	7.5 7.5	7.5	53.1 53.6	53.4	30 27	28.5
13-Sep-23	Cloudy	13:24	Middle	0.1	28.4 28.4	28.4	7.3 7.3	7.3	0.1 0.1	0.1	99.9 99.8	99.9	7.8 7.8	7.8	16.0 15.9	16.0	14 13	13.5
15-Sep-23	Cloudy	16:23	Middle	0.2	27.2 27.2	27.2	7.4 7.4	7.4	0.1 0.1	0.1	94.2 94.1	94.2	7.5 7.5	7.5	45.1 45.1	45.1	16 15	15.5
18-Sep-23	Sunny	11:53	Middle	0.2	29.5 29.5	29.5	6.7 6.7	6.7	0.1 0.1	0.1	115.3 115.4	115.4	8.8 8.8	8.8	7.0 7.0	7.0	11 10	10.5
20-Sep-23	Sunny	11:04	Middle	0.2	33.2 33.2	33.2	7.2 7.2	7.2	0.1 0.1	0.1	118.6 118.9	118.8	8.5 8.5	8.5	7.6 7.6	7.6	11 10	10.5
22-Sep-23	Cloudy	11:53	Middle	0.2	31.4 31.4	31.4	7.5 7.5	7.5	0.1 0.1	0.1	121.2 121.6	121.4	9.0 9.0	9.0	9.9 9.9	9.9	10 12	11.0
25-Sep-23	Sunny	14:59	Middle	0.1	33.6 33.6	33.6	7.9 7.9	7.9	0.1 0.1	0.1	143.5 143.9	143.7	10.2 10.2	10.2	10.5 10.5	10.5	13 14	13.5
27-Sep-23	Sunny	09:37	Middle	0.2	28.9 28.9	28.9	7.6 7.6	7.6	0.1 0.1	0.1	105.8 105.8	105.8	8.2 8.2	8.2	6.9 6.8	6.9	8 7	7.5
29-Sep-23	Sunny	10:42	Middle	0.4	28.8 28.8	28.8	7.4 7.4	7.4	0.1 0.1	0.1	79.9 79.8	79.9	6.2 6.2	6.2	9.6 9.3	9.5	9 9	9.0

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

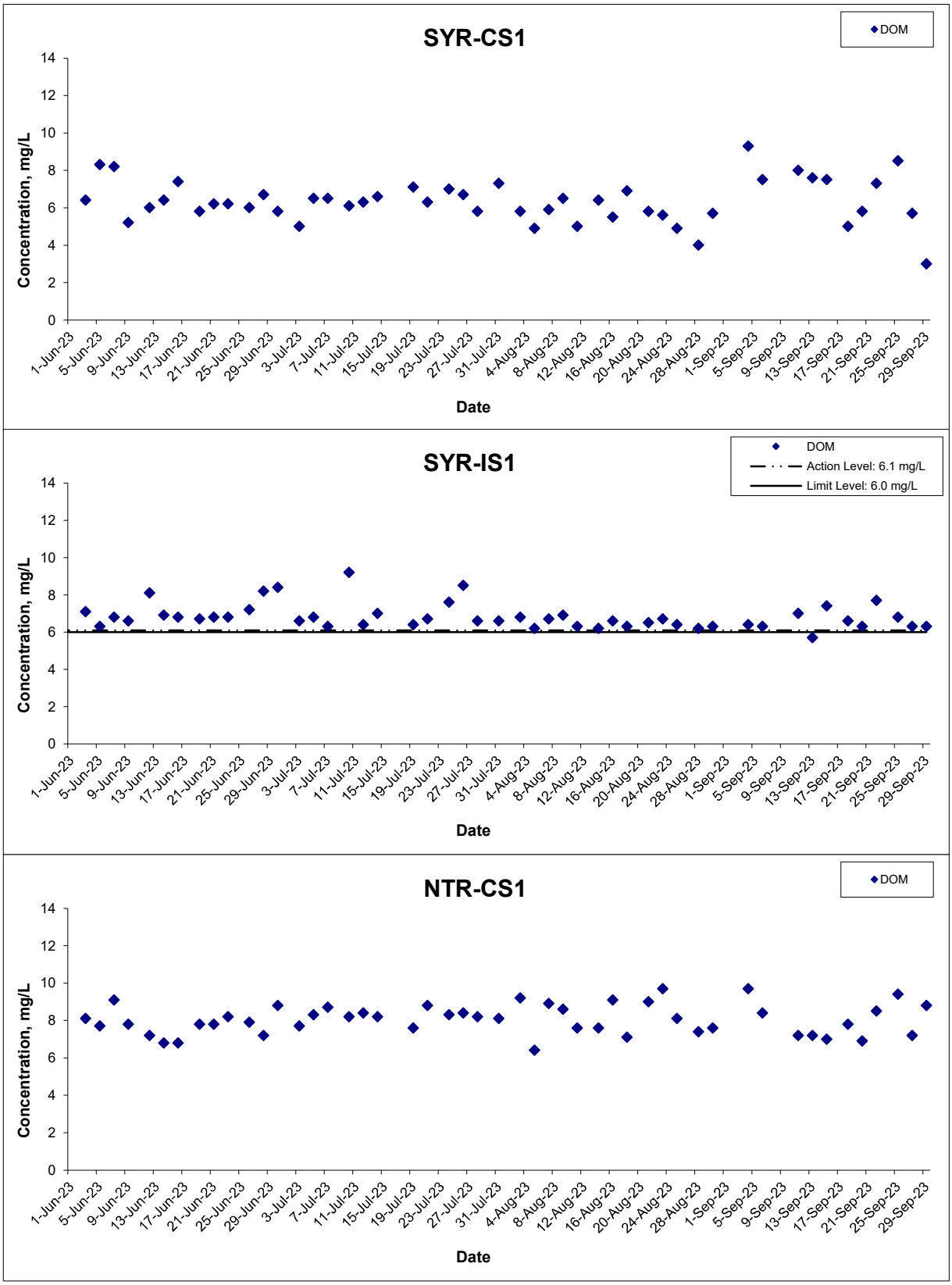
Date	Weather Condition	Start Time	Sampling Depth (m)		Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)	
					Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
4-Sep-23	Cloudy	13:28	Middle	0.2	27.7 27.7	27.7	7.6 7.6	7.6	0.1 0.1	0.1	93.7 93.7	93.7	7.4 7.4	7.4	10.4 10.4	10.4	7 8	7.5
6-Sep-23	Cloudy	14:47	Middle	0.2	27.2 27.2	27.2	7.7 7.7	7.7	0.1 0.1	0.1	90.9 90.9	90.9	7.2 7.2	7.2	7.8 7.9	7.9	6 5	5.5
11-Sep-23	Rainy	14:17	Middle	0.2	26.2 26.2	26.2	7.6 7.6	7.6	0.1 0.1	0.1	96.6 96.3	96.5	7.8 7.8	7.8	17.7 17.4	17.6	10 9	9.5
13-Sep-23	Cloudy	13:38	Middle	0.2	27.2 27.2	27.2	7.4 7.4	7.4	0.1 0.1	0.1	91.3 91.4	91.4	7.2 7.3	7.3	25.1 24.2	24.7	16 15	15.5
15-Sep-23	Cloudy	16:13	Middle	0.3	27.0 27.0	27.0	7.5 7.5	7.5	0.1 0.1	0.1	95.1 94.9	95.0	7.6 7.6	7.6	40.8 40.8	40.8	8 9	8.5
18-Sep-23	Sunny	11:43	Middle	0.3	29.0 29.0	29.0	7.6 7.6	7.6	0.1 0.1	0.1	95.4 94.7	95.1	7.3 7.3	7.3	9.6 9.2	9.4	7 7	7.0
20-Sep-23	Sunny	10:50	Middle	0.3	28.5 28.5	28.5	7.4 7.4	7.4	0.1 0.1	0.1	94.1 93.5	93.8	7.3 7.3	7.3	6.8 6.8	6.8	10 12	11.0
22-Sep-23	Cloudy	11:33	Middle	0.3	27.2 27.2	27.2	7.2 7.2	7.2	0.1 0.1	0.1	89.9 89.9	89.9	7.1 7.1	7.1	7.9 7.9	7.9	6 5	5.5
25-Sep-23	Sunny	14:48	Middle	0.3	28.5 28.5	28.5	7.8 7.7	7.8	0.1 0.1	0.1	92.7 92.6	92.7	7.2 7.2	7.2	8.6 8.6	8.6	6 6	6.0
27-Sep-23	Sunny	10:27	Middle	0.3	31.1 31.1	31.1	7.6 7.6	7.6	0.1 0.1	0.1	105.2 105.2	105.2	7.8 7.8	7.8	7.0 7.0	7.0	11 12	11.5
29-Sep-23	Sunny	10:55	Middle	0.2	27.3 27.2	27.3	7.5 7.5	7.5	0.1 0.1	0.1	91.5 91.6	91.6	7.3 7.3	7.3	9.6 9.7	9.7	9 9	9.0

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

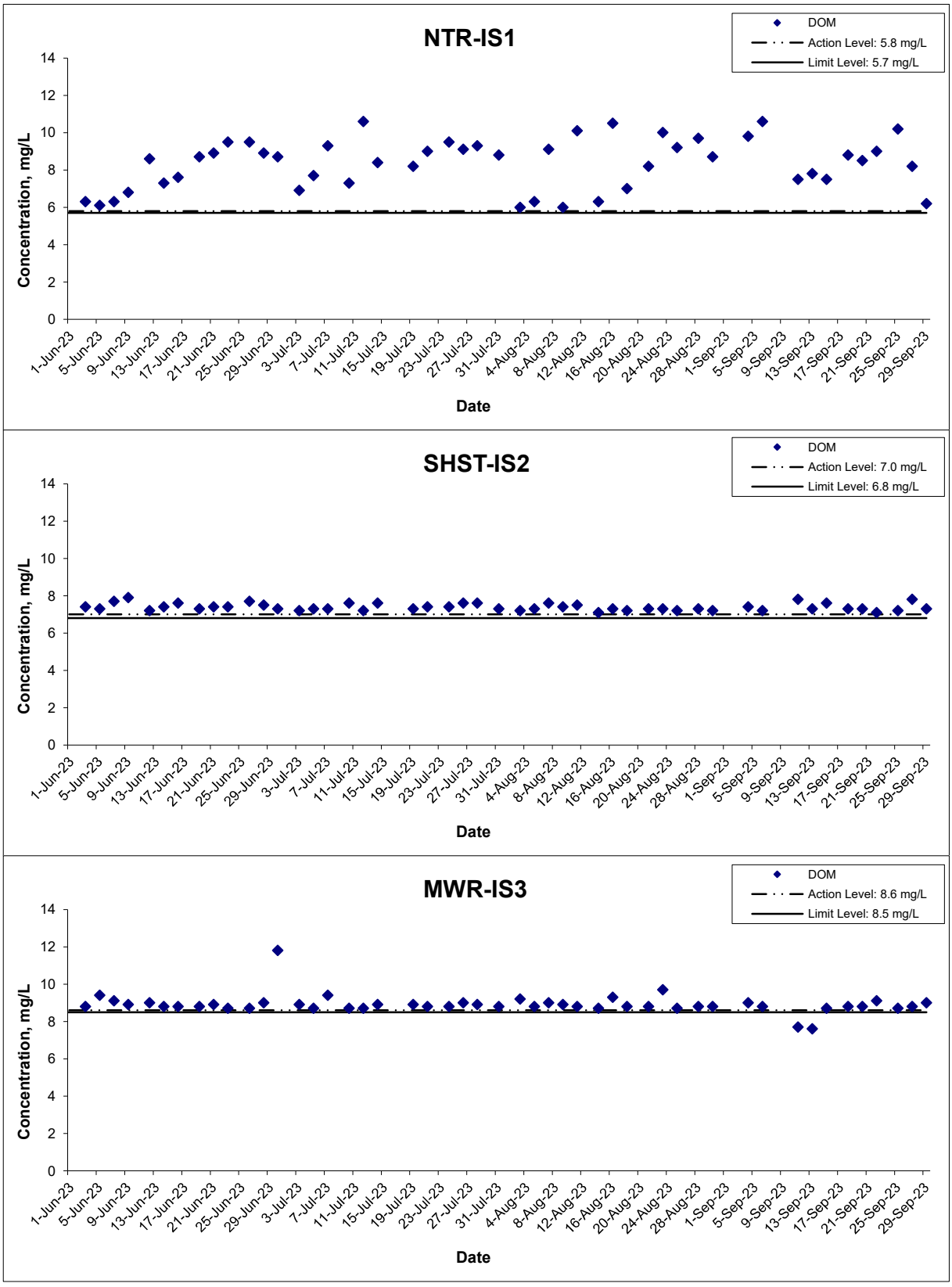
Date	Weather Condition	Start Time	Sampling Depth (m)		Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)	
					Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
4-Sep-23	Cloudy	13:59	Middle	0.2	30.5 30.5	30.5	7.7 7.7	7.7	0.1 0.1	0.1	120.1 120.2	120.2	9.0 9.0	9.0	11.0 11.0	11.0	8 8	8.0
6-Sep-23	Cloudy	15:23	Middle	0.2	28.7 28.7	28.7	7.8 7.9	7.9	0.1 0.1	0.1	114.1 113.7	113.9	8.8 8.8	8.8	6.1 6.4	6.3	6 6	6.0
11-Sep-23	Rainy	14:48	Middle	0.2	26.1 26.1	26.1	7.4 7.4	7.4	0.1 0.1	0.1	94.6 94.6	94.6	7.7 7.7	7.7	24.9 24.7	24.8	23 23	23.0
13-Sep-23	Cloudy	14:06	Middle	0.2	28.0 28.0	28.0	7.7 7.8	7.8	0.1 0.1	0.1	97.4 97.4	97.4	7.6 7.6	7.6	15.2 14.7	15.0	16 14	15.0
15-Sep-23	Cloudy	16:57	Middle	0.3	26.8 26.8	26.8	7.1 7.1	7.1	0.1 0.1	0.1	109.1 109.0	109.1	8.7 8.7	8.7	41.5 41.4	41.5	7 7	7.0
18-Sep-23	Sunny	10:46	Middle	0.2	28.8 28.8	28.8	8.0 8.0	8.0	0.3 0.3	0.3	112.6 114.1	113.4	8.7 8.8	8.8	9.9 9.9	9.9	14 15	14.5
20-Sep-23	Sunny	11:47	Middle	0.2	32.7 32.7	32.7	7.1 7.0	7.1	0.1 0.1	0.1	120.8 121.2	121.0	8.7 8.8	8.8	5.9 5.9	5.9	12 11	11.5
22-Sep-23	Cloudy	11:04	Middle	0.2	30.3 30.3	30.3	7.5 7.5	7.5	0.1 0.1	0.1	120.6 121.1	120.9	9.1 9.1	9.1	8.0 8.0	8.0	15 17	16.0
25-Sep-23	Sunny	15:32	Middle	0.1	31.3 31.2	31.3	7.4 7.4	7.4	0.1 0.1	0.1	119.5 116.1	117.8	8.8 8.6	8.7	10.0 10.1	10.1	11 12	11.5
27-Sep-23	Sunny	09:52	Middle	0.2	29.0 29.0	29.0	7.4 7.4	7.4	0.1 0.1	0.1	112.9 114.0	113.5	8.7 8.8	8.8	7.9 7.9	7.9	10 11	10.5
29-Sep-23	Sunny	10:05	Middle	0.2	28.6 28.6	28.6	7.6 7.6	7.6	0.1 0.1	0.1	115.9 115.9	115.9	9.0 9.0	9.0	6.6 6.8	6.7	13 13	13.0

Dissolved Oxygen (Middle)



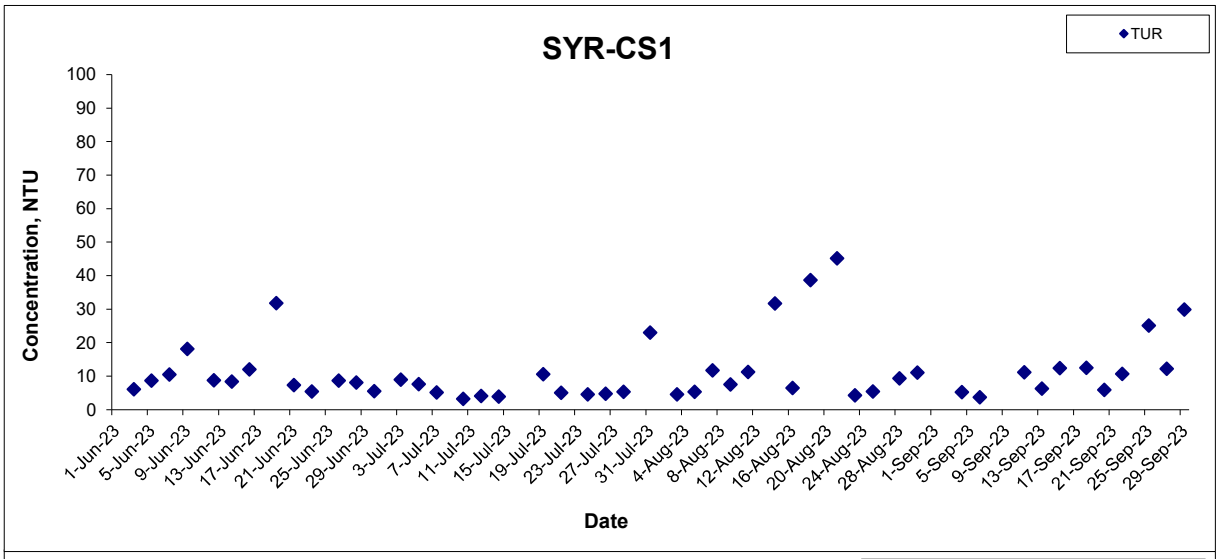
Title	Contract No. NDO 04/2019 Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas Graphical Presentation of Water Quality Monitoring Results	Scale: N.T.S	Project No.: WMA20002	WELLAB 匯力 consulting . testing . research
		Date: Sept 23	Appendix: G	

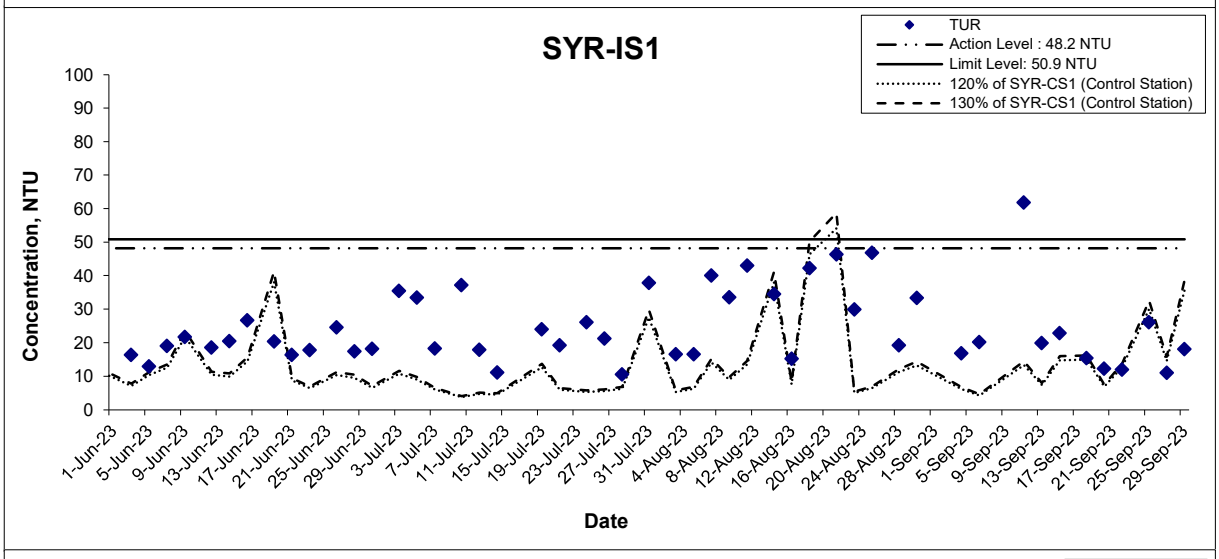
Dissolved Oxygen (Middle)

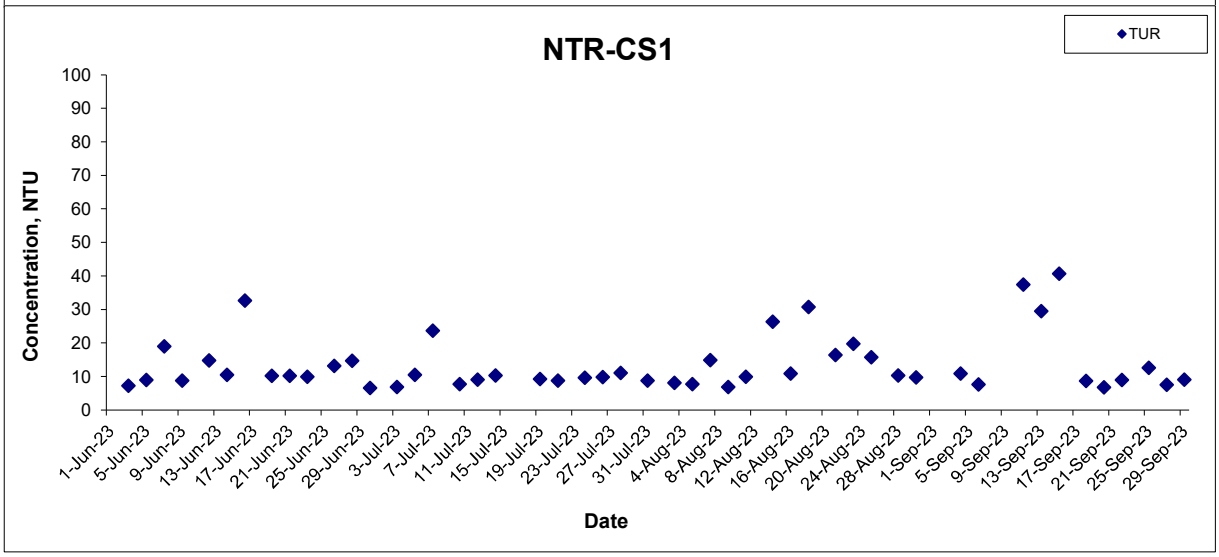


Title	Contract No. NDO 04/2019 Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas Graphical Presentation of Water Quality Monitoring Results	Scale: N.T.S	Project No.: WMA20002	WELLAB 匯力 consulting . testing . research
		Date: Sept 23	Appendix: G	

Turbidity (Depth-averaged)

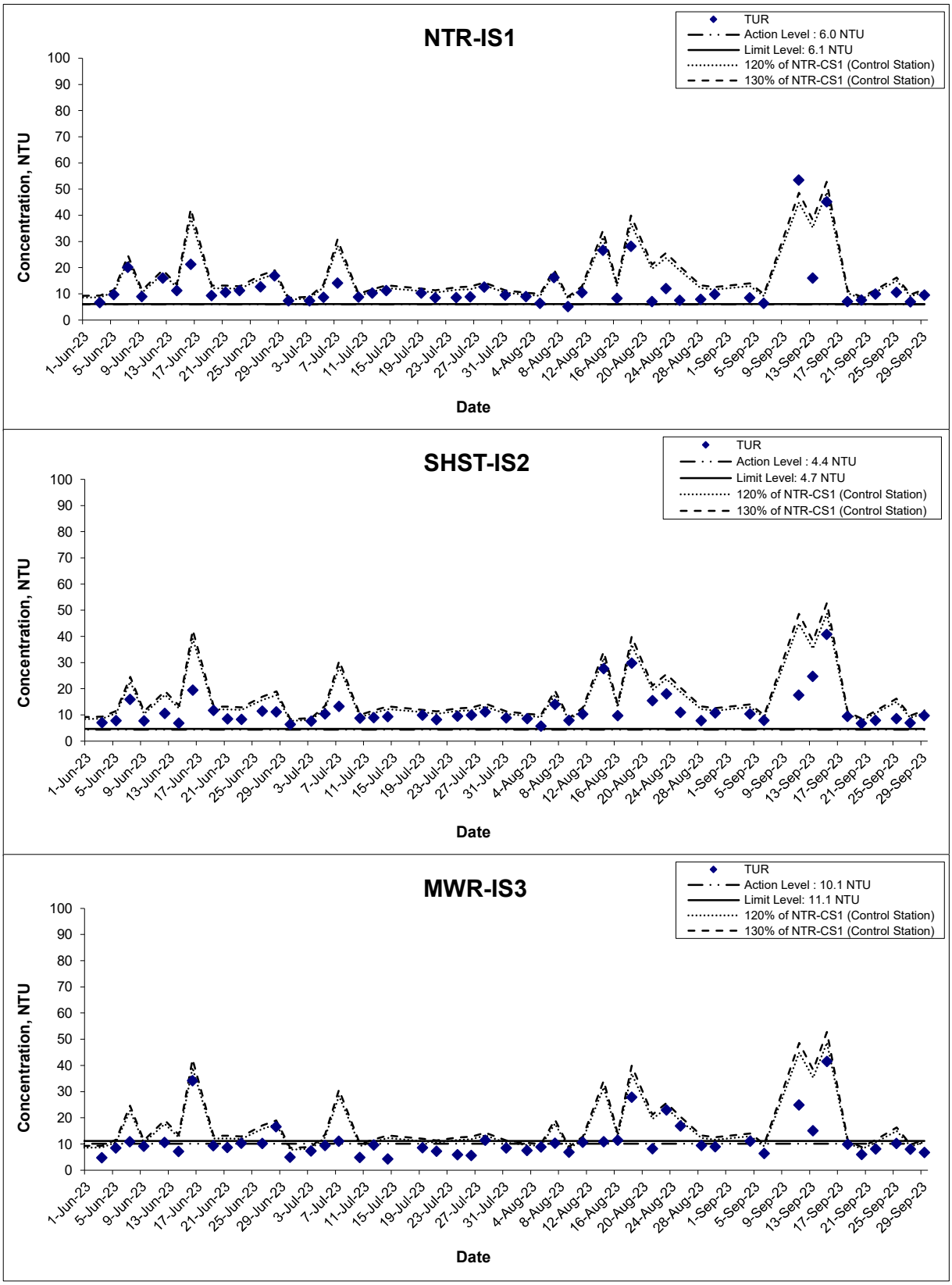






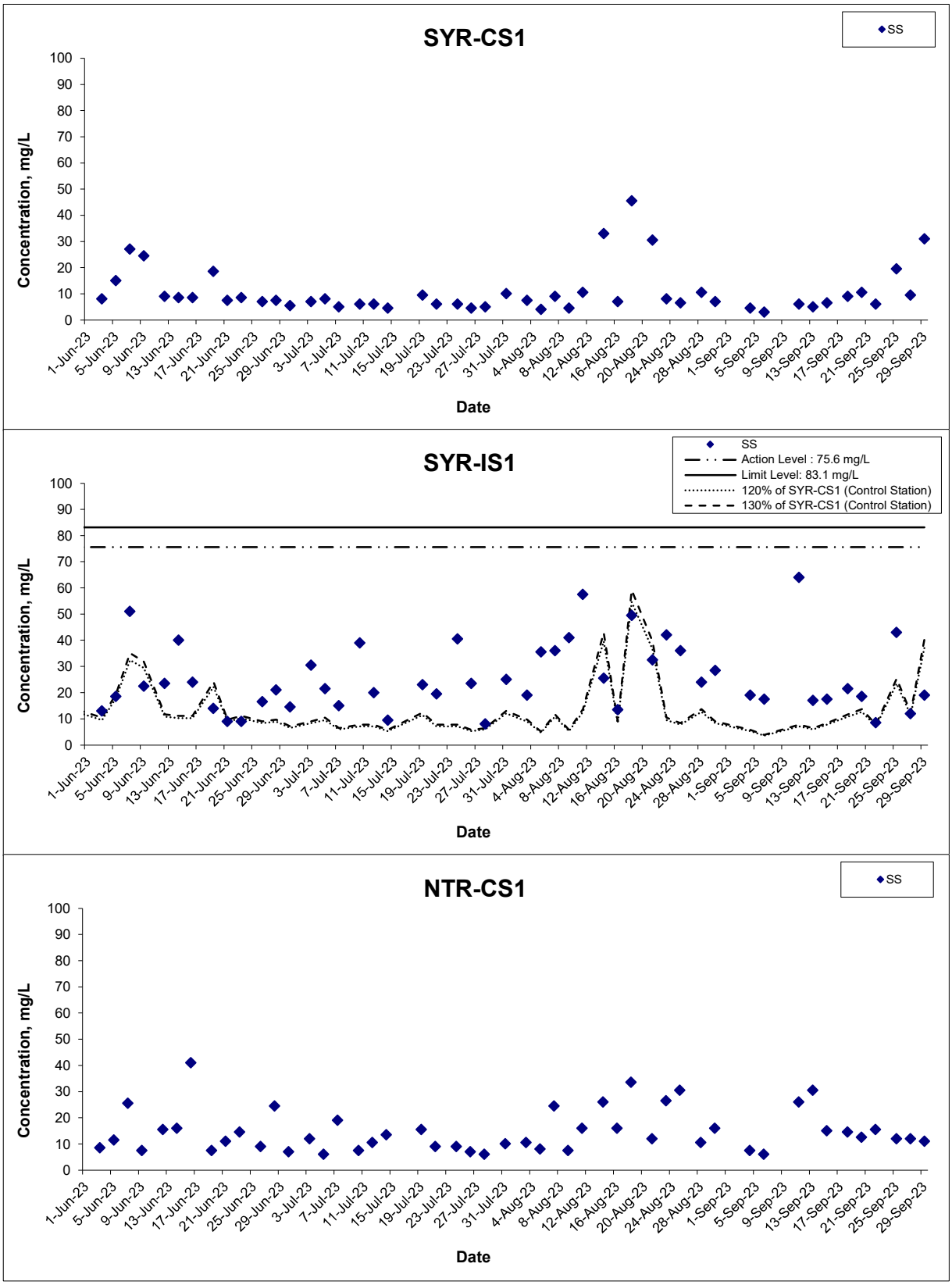
Title	Contract No. NDO 04/2019 Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas Graphical Presentation of Water Quality Monitoring Results	Scale: N.T.S	Project No.: WMA20002	WELLAB 匯力 consulting . testing . research
		Date: Sept 23	Appendix: G	

Turbidity (Depth-averaged)



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

Suspended Solids (Depth-averaged)



Title	Contract No. NDO 04/2019 Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas Graphical Presentation of Water Quality Monitoring Results	Scale: N.T.S	Project No.: WMA20002	WELLAB 匯力 consulting . testing . research
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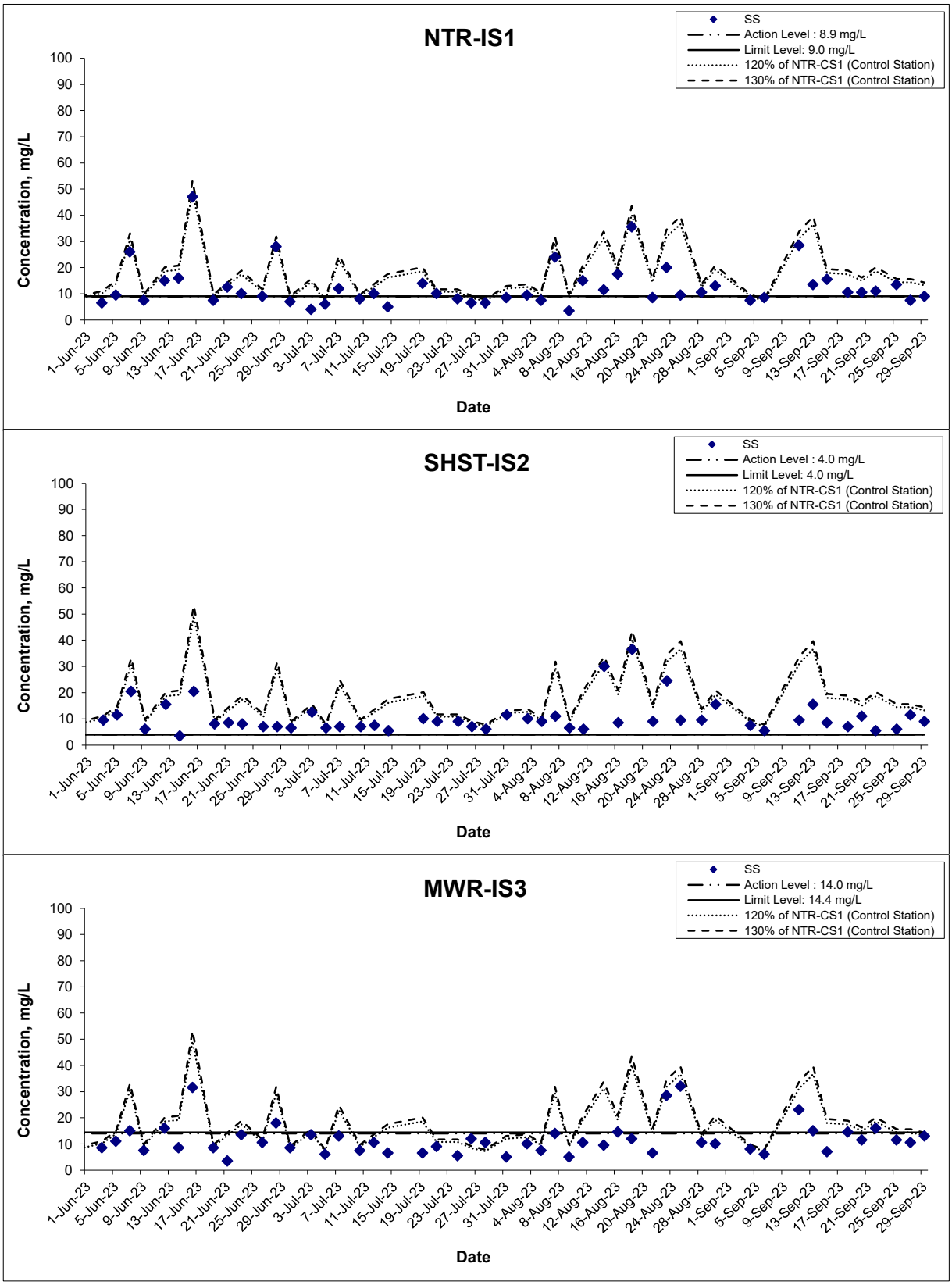
Suspended Solids (Depth-averaged)



Title	Contract No. NDO 04/2019 Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas Graphical Presentation of Water Quality Monitoring Results	Scale: N.T.S	Project No.: WMA20002	WELLAB 匯力 consulting . testing . research
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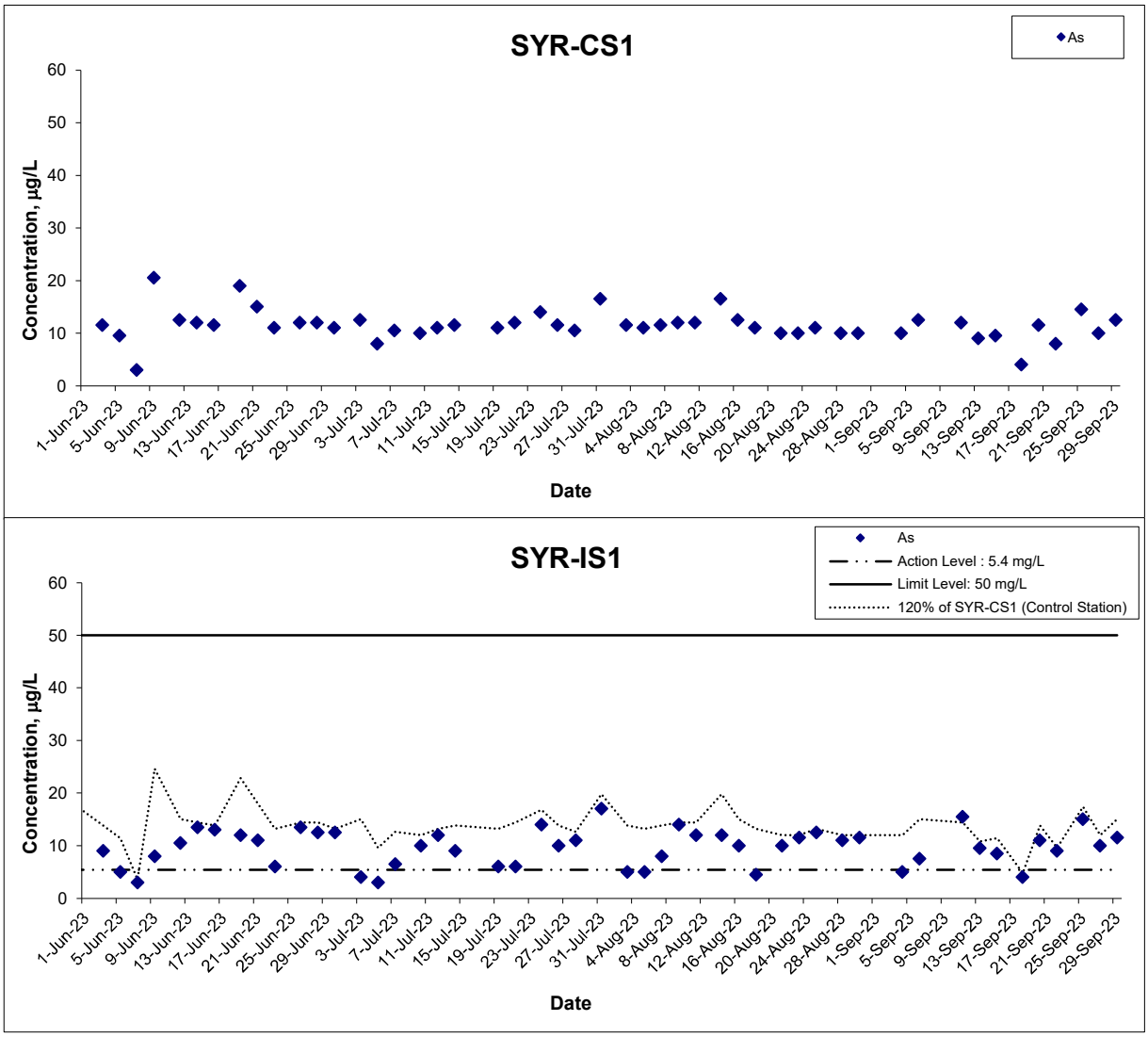
Arsenic (Depth-averaged)



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	WELLAB 匯力 consulting . testing . research
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APPENDIX H
LABORATORY TESTING REPORTS FOR LABORATORY ANALYSIS

WELLAB 匯力
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WELLAB LIMITED
Room 1714, Technology Park,
18 On Lai Street, Shatin,
New Territories, Hong Kong.
Tel: 2898 7388 Fax: 2898 7076
Website: http://www.wellab.com.hk

TEST REPORT

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

ATTN: **Mr. Marco Ma**

Report No.:	38785
Date of Issue:	2023-09-06
Date Received:	2023-09-04
Date Tested:	2023-09-04
Date Completed:	2023-09-06
Page:	1 of 1

Sample Description : 4 liquid samples as received from client said to be water
Laboratory No. : 38785
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. : WMA20002/230904
Sampling Date : 2023-09-04

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.	38785-2	38785-3	38785-5	38785-6
Total Suspended Solids dried at 103-105°C (mg/L)	5	4	18	20
Arsenic (µg/L)	10	10	5	5

Remarks: 1) < = less than

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

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

PATRICK TSE
General Manager

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WELLAB LIMITED
Room 1714, Technology Park,
18 On Lai Street, Shatin,
New Territories, Hong Kong.
Tel: 2898 7388 Fax: 2898 7076
Website: http://www.wellab.com.hk

TEST REPORT

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

ATTN: **Mr. Marco Ma**

Report No.:	38785A
Date of Issue:	2023-09-06
Date Received:	2023-09-04
Date Tested:	2023-09-04
Date Completed:	2023-09-06
Page:	1 of 1

Sample Description : 8 liquid samples as received from client said to be water
Laboratory No. : 38785A
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. : WMA20002/230904
Sampling Date : 2023-09-04

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.	38785-8	38785-9	38785-11	38785-12
Total Suspended Solids dried at 103-105°C (mg/L)	8	7	8	7

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	38785-14	38785-15	38785-17	38785-18
Total Suspended Solids dried at 103-105°C (mg/L)	7	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

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WELLAB LIMITED
Room 1714, Technology Park,
18 On Lai Street, Shatin,
New Territories, Hong Kong.
Tel: 2898 7388 Fax: 2898 7076
Website: http://www.wellab.com.hk

TEST REPORT

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

ATTN: **Mr. Marco Ma**

Report No.:	38789
Date of Issue:	2023-09-12
Date Received:	2023-09-06
Date Tested:	2023-09-06
Date Completed:	2023-09-12
Page:	1 of 1

Sample Description : 4 liquid samples as received from client said to be water
Laboratory No. : 38789
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. : WMA20002/230906
Sampling Date : 2023-09-06

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.	38789-2	38789-3	38789-5	38789-6
Total Suspended Solids dried at 103-105°C (mg/L)	3	3	17	18
Arsenic (µg/L)	13	12	7	8

Remarks: 1) < = less than

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

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

PATRICK TSE
General Manager

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TEST REPORT

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

ATTN: **Mr. Marco Ma**

Report No.:	38789A
Date of Issue:	2023-09-12
Date Received:	2023-09-06
Date Tested:	2023-09-06
Date Completed:	2023-09-12
Page:	1 of 1

Sample Description : 8 liquid samples as received from client said to be water
Laboratory No. : 38789A
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. : WMA20002/230906
Sampling Date : 2023-09-06

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.	38789-8	38789-9	38789-11	38789-12
Total Suspended Solids dried at 103-105°C (mg/L)	6	6	8	9

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	38789-14	38789-15	38789-17	38789-18
Total Suspended Solids dried at 103-105°C (mg/L)	6	5	6	6

Remarks: 1) < = less than

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TEST REPORT

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

ATTN: **Mr. Marco Ma**

Report No.:	38792
Date of Issue:	2023-09-15
Date Received:	2023-09-11
Date Tested:	2023-09-11
Date Completed:	2023-09-15
Page:	1 of 1

Sample Description : 4 liquid samples as received from client said to be water
Laboratory No. : 38792
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. : WMA20002/230911
Sampling Date : 2023-09-11

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.	38792-2	38792-3	38792-5	38792-6
Total Suspended Solids dried at 103-105°C (mg/L)	6	6	61	67
Arsenic (µg/L)	11	13	15	16

Remarks: 1) < = less than

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APPLICANT: **Wellab Limited (EM&A Department)**
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Shatin, N.T.

ATTN: **Mr. Marco Ma**

Report No.:	38792A
Date of Issue:	2023-09-15
Date Received:	2023-09-11
Date Tested:	2023-09-11
Date Completed:	2023-09-15
Page:	1 of 1

Sample Description : 8 liquid samples as received from client said to be water
Laboratory No. : 38792A
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. : WMA20002/230911
Sampling Date : 2023-09-11

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.	38792-8	38792-9	38792-11	38792-12
Total Suspended Solids dried at 103-105°C (mg/L)	25	27	30	27

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	38792-14	38792-15	38792-17	38792-18
Total Suspended Solids dried at 103-105°C (mg/L)	10	9	23	23

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APPLICANT: **Wellab Limited (EM&A Department)**
Rm 1714, Technology Park,
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Shatin, N.T.

ATTN: **Mr. Marco Ma**

Report No.:	38777
Date of Issue:	2023-09-19
Date Received:	2023-09-13
Date Tested:	2023-09-13
Date Completed:	2023-09-19
Page:	1 of 1

Sample Description : 4 liquid samples as received from client said to be water
Laboratory No. : 38777
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. : WMA20002/230913
Sampling Date : 2023-09-13

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.	38777-2	38777-3	38777-5	38777-6
Total Suspended Solids dried at 103-105°C (mg/L)	5	5	16	18
Arsenic (µg/L)	9	9	10	9

Remarks: 1) < = less than

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APPLICANT: **Wellab Limited (EM&A Department)**
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Shatin, N.T.

ATTN: **Mr. Marco Ma**

Report No.:	38777A
Date of Issue:	2023-09-19
Date Received:	2023-09-13
Date Tested:	2023-09-13
Date Completed:	2023-09-19
Page:	1 of 1

Sample Description : 8 liquid samples as received from client said to be water
Laboratory No. : 38777A
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. : WMA20002/230913
Sampling Date : 2023-09-13

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.	38777-8	38777-9	38777-11	38777-12
Total Suspended Solids dried at 103-105°C (mg/L)	31	30	14	13

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	38777-14	38777-15	38777-17	38777-18
Total Suspended Solids dried at 103-105°C (mg/L)	16	15	16	14

Remarks: 1) < = less than

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APPLICANT: **Wellab Limited (EM&A Department)**
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ATTN: **Mr. Marco Ma**

Report No.:	38809
Date of Issue:	2023-09-21
Date Received:	2023-09-15
Date Tested:	2023-09-15
Date Completed:	2023-09-21
Page:	1 of 1

Sample Description : 4 liquid samples as received from client said to be water
Laboratory No. : 38809
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. : WMA20002/230915
Sampling Date : 2023-09-15

Tests Requested & Methodology:

Item	Parameters	Ref. Method	Limit of reporting
1	Total Suspended Solids dried at 103-105°C	APHA 17ed 2540 D	2.5 mg/L
2	Arsenic	In-house method SOP022 (ICP-AES) and SOP076 (ICP-MS)	1 µg/L

Results:

Sample ID	SYR-CS1-a	SYR-CS1-b	SYR-IS1-a	SYR-IS1-b
Sample No.	38809-2	38809-3	38809-5	38809-6
Total Suspended Solids dried at 103-105°C (mg/L)	7	6	17	18
Arsenic (µg/L)	10	9	8	9

Remarks: 1) < = less than

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ATTN: **Mr. Marco Ma**

Report No.:	38809A
Date of Issue:	2023-09-21
Date Received:	2023-09-15
Date Tested:	2023-09-15
Date Completed:	2023-09-21
Page:	1 of 1

Sample Description : 8 liquid samples as received from client said to be water
Laboratory No. : 38809A
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. : WMA20002/230915
Sampling Date : 2023-09-15

Tests Requested & Methodology:

Item	Parameters	Ref. Method	Limit of reporting
1	Total Suspended Solids dried at 103-105°C	APHA 17ed 2540 D	2.5 mg/L

Results:

Sample ID	NTR-CS1-a	NTR-CS1-b	NTR-IS1-a	NTR-IS1-b
Sample No.	38809-8	38809-9	38809-11	38809-12
Total Suspended Solids dried at 103-105°C (mg/L)	14	16	16	15

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	38809-14	38809-15	38809-17	38809-18
Total Suspended Solids dried at 103-105°C (mg/L)	8	9	7	7

Remarks: 1) < = less than

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APPLICANT: **Wellab Limited (EM&A Department)**
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ATTN: **Mr. Marco Ma**

Report No.:	38819
Date of Issue:	2023-09-22
Date Received:	2023-09-18
Date Tested:	2023-09-18
Date Completed:	2023-09-22
Page:	1 of 1

Sample Description : 4 liquid samples as received from client said to be water
Laboratory No. : 38819
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. : WMA20002/230918
Sampling Date : 2023-09-18

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.	38819-2	38819-3	38819-5	38819-6
Total Suspended Solids dried at 103-105°C (mg/L)	9	9	23	20
Arsenic (µg/L)	4	4	4	4

Remarks: 1) < = less than

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ATTN: **Mr. Marco Ma**

Report No.:	38819A
Date of Issue:	2023-09-22
Date Received:	2023-09-18
Date Tested:	2023-09-18
Date Completed:	2023-09-22
Page:	1 of 1

Sample Description : 8 liquid samples as received from client said to be water
Laboratory No. : 38819A
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. : WMA20002/230918
Sampling Date : 2023-09-18

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.	38819-8	38819-9	38819-11	38819-12
Total Suspended Solids dried at 103-105°C (mg/L)	14	15	11	10

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	38819-14	38819-15	38819-17	38819-18
Total Suspended Solids dried at 103-105°C (mg/L)	7	7	14	15

Remarks: 1) < = less than

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APPLICANT: **Wellab Limited (EM&A Department)**
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ATTN: **Mr. Marco Ma**

Report No.:	38821
Date of Issue:	2023-09-26
Date Received:	2023-09-20
Date Tested:	2023-09-20
Date Completed:	2023-09-26
Page:	1 of 1

Sample Description : 4 liquid samples as received from client said to be water
Laboratory No. : 38821
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. : WMA20002/230920
Sampling Date : 2023-09-20

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.	38821-2	38821-3	38821-5	38821-6
Total Suspended Solids dried at 103-105°C (mg/L)	11	10	18	19
Arsenic (µg/L)	11	12	12	10

Remarks: 1) < = less than

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APPLICANT: **Wellab Limited (EM&A Department)**
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ATTN: **Mr. Marco Ma**

Report No.:	38821A
Date of Issue:	2023-09-26
Date Received:	2023-09-20
Date Tested:	2023-09-20
Date Completed:	2023-09-26
Page:	1 of 1

Sample Description : 8 liquid samples as received from client said to be water
Laboratory No. : 38821A
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. : WMA20002/230920
Sampling Date : 2023-09-20

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.	38821-8	38821-9	38821-11	38821-12
Total Suspended Solids dried at 103-105°C (mg/L)	13	12	11	10

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	38821-14	38821-15	38821-17	38821-18
Total Suspended Solids dried at 103-105°C (mg/L)	10	12	12	11

Remarks: 1) < = less than

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APPLICANT: **Wellab Limited (EM&A Department)**
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ATTN: **Mr. Marco Ma**

Report No.:	38824
Date of Issue:	2023-09-28
Date Received:	2023-09-22
Date Tested:	2023-09-22
Date Completed:	2023-09-28
Page:	1 of 1

Sample Description : 4 liquid samples as received from client said to be water
Laboratory No. : 38824
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. : WMA20002/230922
Sampling Date : 2023-09-22

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.	38824-2	38824-3	38824-5	38824-6
Total Suspended Solids dried at 103-105°C (mg/L)	6	6	9	8
Arsenic (µg/L)	8	8	9	9

Remarks: 1) < = less than

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TEST REPORT

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

ATTN: **Mr. Marco Ma**

Report No.:	38824A
Date of Issue:	2023-09-28
Date Received:	2023-09-22
Date Tested:	2023-09-22
Date Completed:	2023-09-28
Page:	1 of 1

Sample Description : 8 liquid samples as received from client said to be water
Laboratory No. : 38824A
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. : WMA20002/230922
Sampling Date : 2023-09-22

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.	38824-8	38824-9	38824-11	38824-12
Total Suspended Solids dried at 103-105°C (mg/L)	15	16	10	12

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	38824-14	38824-15	38824-17	38824-18
Total Suspended Solids dried at 103-105°C (mg/L)	6	5	15	17

Remarks: 1) < = less than

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General Manager

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Website: http://www.wellab.com.hk

TEST REPORT

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

ATTN: **Mr. Marco Ma**

Report No.:	38872
Date of Issue:	2023-09-29
Date Received:	2023-09-25
Date Tested:	2023-09-25
Date Completed:	2023-09-29
Page:	1 of 1

Sample Description : 4 liquid samples as received from client said to be water
Laboratory No. : 38872
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. : WMA20002/230925
Sampling Date : 2023-09-25

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.	38872-2	38872-3	38872-5	38872-6
Total Suspended Solids dried at 103-105°C (mg/L)	21	18	41	45
Arsenic (μg/L)	15	14	15	15

Remarks: 1) < = less than

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TEST REPORT

APPLICANT: **Wellab Limited (EM&A Department)**
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Shatin, N.T.

ATTN: **Mr. Marco Ma**

Report No.:	38872A
Date of Issue:	2023-09-29
Date Received:	2023-09-25
Date Tested:	2023-09-25
Date Completed:	2023-09-29
Page:	1 of 1

Sample Description : 8 liquid samples as received from client said to be water
Laboratory No. : 38872A
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. : WMA20002/230925
Sampling Date : 2023-09-25

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.	38872-8	38872-9	38872-11	38872-12
Total Suspended Solids dried at 103-105°C (mg/L)	12	12	13	14

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	38872-14	38872-15	38872-17	38872-18
Total Suspended Solids dried at 103-105°C (mg/L)	6	6	11	12

Remarks: 1) < = less than

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APPLICANT: **Wellab Limited (EM&A Department)**
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ATTN: **Mr. Marco Ma**

Report No.:	38874
Date of Issue:	2023-10-04
Date Received:	2023-09-27
Date Tested:	2023-09-27
Date Completed:	2023-10-04
Page:	1 of 1

Sample Description : 4 liquid samples as received from client said to be water
Laboratory No. : 38874
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. : WMA20002/230927
Sampling Date : 2023-09-27

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.	38874-2	38874-3	38874-5	38874-6
Total Suspended Solids dried at 103-105°C (mg/L)	9	10	13	11
Arsenic (μg/L)	11	9	10	10

Remarks: 1) < = less than

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ATTN: **Mr. Marco Ma**

Report No.:	38874A
Date of Issue:	2023-10-04
Date Received:	2023-09-27
Date Tested:	2023-09-27
Date Completed:	2023-10-04
Page:	1 of 1

Sample Description : 8 liquid samples as received from client said to be water
Laboratory No. : 38874A
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. : WMA20002/230927
Sampling Date : 2023-09-27

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.	38874-8	38874-9	38874-11	38874-12
Total Suspended Solids dried at 103-105°C (mg/L)	12	12	8	7

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	38874-14	38874-15	38874-17	38874-18
Total Suspended Solids dried at 103-105°C (mg/L)	11	12	10	11

Remarks: 1) < = less than

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APPLICANT: **Wellab Limited (EM&A Department)**
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ATTN: **Mr. Marco Ma**

Report No.:	38876
Date of Issue:	2023-10-06
Date Received:	2023-09-29
Date Tested:	2023-09-29
Date Completed:	2023-10-06
Page:	1 of 1

Sample Description : 4 liquid samples as received from client said to be water
Laboratory No. : 38876
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. : WMA20002/230929
Sampling Date : 2023-09-29

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.	38876-2	38876-3	38876-5	38876-6
Total Suspended Solids dried at 103-105°C (mg/L)	30	32	18	20
Arsenic (µg/L)	13	12	12	11

Remarks: 1) < = less than

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Shatin, N.T.

ATTN: **Mr. Marco Ma**

Report No.:	38876A
Date of Issue:	2023-10-06
Date Received:	2023-09-29
Date Tested:	2023-09-29
Date Completed:	2023-10-06
Page:	1 of 1

Sample Description : 8 liquid samples as received from client said to be water
Laboratory No. : 38876A
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. : WMA20002/230929
Sampling Date : 2023-09-29

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.	38876-8	38876-9	38876-11	38876-12
Total Suspended Solids dried at 103-105°C (mg/L)	10	12	9	9

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	38876-14	38876-15	38876-17	38876-18
Total Suspended Solids dried at 103-105°C (mg/L)	9	9	13	13

Remarks: 1) < = less than

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APPENDIX I
QUALITY CONTROL REPORTS FOR SS AND ARSENIC LABORATORY ANALYSIS

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APPLICANT: **Wellab Limited (EM&A Department)**
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Report No.:	QC38785
Date of Issue:	2023-09-06
Date Received:	2023-09-04
Date Tested:	2023-09-04
Date Completed:	2023-09-06
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 (%)	118	105	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 (%)	86	N/A	80-120

Sample Duplicate

Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	2	3	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 38785.

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APPLICANT: **Wellab Limited (EM&A Department)**
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ATTN: **Mr. Marco Ma**

Report No.:	QC38789
Date of Issue:	2023-09-12
Date Received:	2023-09-06
Date Tested:	2023-09-06
Date Completed:	2023-09-12
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 (%)	104	93	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 (%)	83	N/A	80-120

Sample Duplicate

Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	4	3	RPD≤5%
Arsenic (%)	9	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 38789.

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APPLICANT: **Wellab Limited (EM&A Department)**
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ATTN: **Mr. Marco Ma**

Report No.:	QC38792
Date of Issue:	2023-09-15
Date Received:	2023-09-11
Date Tested:	2023-09-11
Date Completed:	2023-09-15
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 (%)	91	83	80-120
Arsenic (%)	98	N/A	80-120

Sample Spike

Parameter	Sample Spike 1	Sample Spike 2	Acceptance
Total Suspended Solids (%)	N/A	N/A	N/A
Arsenic (%)	90	N/A	80-120

Sample Duplicate

Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	1	1	RPD≤5%
Arsenic (%)	7	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 38792.

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APPLICANT: **Wellab Limited (EM&A Department)**
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ATTN: **Mr. Marco Ma**

Report No.:	QC38777
Date of Issue:	2023-09-19
Date Received:	2023-09-13
Date Tested:	2023-09-13
Date Completed:	2023-09-19
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 (%)	94	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 (%)	3	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 38777.

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APPLICANT: **Wellab Limited (EM&A Department)**
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Report No.:	QC38809
Date of Issue:	2023-09-21
Date Received:	2023-09-15
Date Tested:	2023-09-15
Date Completed:	2023-09-21
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	93	80-120
Arsenic (%)	98	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 (%)	4	3	RPD≤5%
Arsenic (%)	9	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 38809.

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Report No.:	QC38819
Date of Issue:	2023-09-22
Date Received:	2023-09-18
Date Tested:	2023-09-18
Date Completed:	2023-09-22
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	98	80-120
Arsenic (%)	85	N/A	80-120

Sample Spike

Parameter	Sample Spike 1	Sample Spike 2	Acceptance
Total Suspended Solids (%)	N/A	N/A	N/A
Arsenic (%)	117	N/A	80-120

Sample Duplicate

Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	1	1	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 38819.

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ATTN: **Mr. Marco Ma**

Report No.:	QC38821
Date of Issue:	2023-09-26
Date Received:	2023-09-20
Date Tested:	2023-09-20
Date Completed:	2023-09-26
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	89	80-120
Arsenic (%)	117	N/A	80-120

Sample Spike

Parameter	Sample Spike 1	Sample Spike 2	Acceptance
Total Suspended Solids (%)	N/A	N/A	N/A
Arsenic (%)	90	N/A	80-120

Sample Duplicate

Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	4	4	RPD≤5%
Arsenic (%)	5	N/A	RPD≤20%

Remarks: 1) < = less than
2) N/A = Not applicable
3) This report is the summary of quality control data for report number 38821.

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APPLICANT: **Wellab Limited (EM&A Department)**
Rm 1714, Technology Park,
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ATTN: **Mr. Marco Ma**

Report No.:	QC38824
Date of Issue:	2023-09-28
Date Received:	2023-09-22
Date Tested:	2023-09-22
Date Completed:	2023-09-28
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	94	80-120
Arsenic (%)	89	N/A	80-120

Sample Spike

Parameter	Sample Spike 1	Sample Spike 2	Acceptance
Total Suspended Solids (%)	N/A	N/A	N/A
Arsenic (%)	85	N/A	80-120

Sample Duplicate

Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	2	3	RPD≤5%
Arsenic (%)	12	N/A	RPD≤20%

Remarks: 1) < = less than
2) N/A = Not applicable
3) This report is the summary of quality control data for report number 38824.

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

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

PATRCIK TSE
General Manager

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WELLAB LIMITED
Room 1714, Technology Park,
18 On Lai Street, Shatin,
New Territories, Hong Kong.
Tel: 2898 7388 Fax: 2898 7076
Website: http://www.wellab.com.hk

TEST REPORT

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

ATTN: **Mr. Marco Ma**

Report No.:	QC38872
Date of Issue:	2023-09-29
Date Received:	2023-09-25
Date Tested:	2023-09-25
Date Completed:	2023-09-29
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 (%)	99	101	80-120
Arsenic (%)	119	N/A	80-120

Sample Spike

Parameter	Sample Spike 1	Sample Spike 2	Acceptance
Total Suspended Solids (%)	N/A	N/A	N/A
Arsenic (%)	82	N/A	80-120

Sample Duplicate

Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	1	2	RPD≤5%
Arsenic (%)	9	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 38872.

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

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General Manager

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Website: http://www.wellab.com.hk

TEST REPORT

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

ATTN: **Mr. Marco Ma**

Report No.:	QC38874
Date of Issue:	2023-10-04
Date Received:	2023-09-27
Date Tested:	2023-09-27
Date Completed:	2023-10-04
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	94	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 (%)	82	N/A	80-120

Sample Duplicate

Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	1	4	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 38874.

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

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

PATRCIK TSE
General Manager

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TEST REPORT

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

ATTN: **Mr. Marco Ma**

Report No.:	QC38876
Date of Issue:	2023-10-06
Date Received:	2023-09-29
Date Tested:	2023-09-29
Date Completed:	2023-10-06
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 (%)	104	93	80-120
Arsenic (%)	117	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	3	RPD≤5%
Arsenic (%)	7	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 38876.

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

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

PATRCIK TSE
General Manager

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APPENDIX J
LANDFILL GAS MONITORING RESULTS

堆填區附近區域(Consultation Zone)每月氣體監察記錄

			氧氣 O2	甲烷 CH4	二氧化碳 CO_2
日期及時間	位置	氣體及安全標準	>19%	<10% LEL	<0.5%
28-09-2023 9:27	CZ PT 1		20.59	0.00	0.02
28-09-2023 9:29	CZ container 1		20.44	0.00	0.02
28-09-2023 9:21	CZ container 2		20.83	0.02	0.03
28-09-2023 9:23	CZ container 3		20.79	0.00	0.04
28-09-2023 9:25	CZ container 4		20.72	0.01	0.04
28-09-2023 9:31	CZ container 5		20.43	0.00	0.01

Prepared by : Y L Chan (Safety Officer) Date : 28-09-2023

APPENDIX K
BUILT HERITAGE MONITORING RESULTS

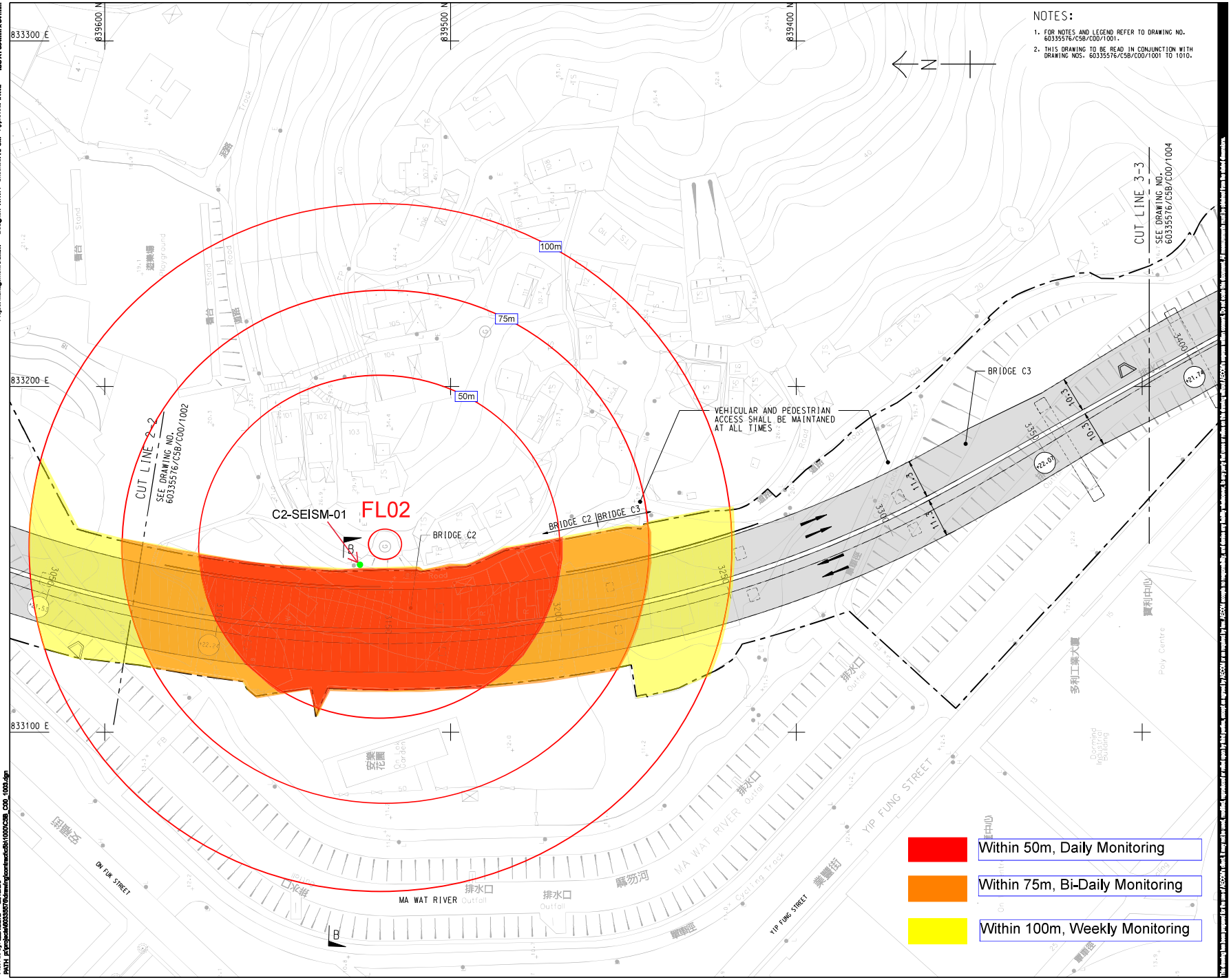
Summary of vibration readings at FL02
(C2-SEISM-01)

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)
4-Sep-23	0.131	UM17121
5-Sep-23	0.095	UM17121
6-Sep-23	0.824	UM17121



Project Management Initials: Designer: WHWY Checked: RPCM Approved: WHWL ISO A1 594mm x 841mm

Plot File by: ZENGXU2 20/08/09
PATH: p:\projects\60335576\working\cmd\acd\c1000\C5B_C00_1003.dgn

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

CONSULTANT
AECOM Asia Company Ltd.
www.aecom.com

SUB-CONSULTANTS

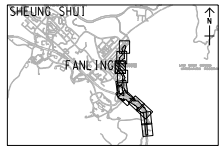
ISSUE/REVISION

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

STATUS

SCALE: A1 1 : 500
DIMENSION UNIT: METRES

KEY PLAN A1 1 : 70000



PROJECT NO.: 60335576
CONTRACT NO.: ND/2019/05

SHEET TITLE
GENERAL LAYOUT

SHEET 3 OF 10

SHEET NUMBER
60335576/C5B/C00/1003

APPENDIX L
ECOLOGICAL MONITORING RESULTS

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

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			5/9/2023 (T1 & T2), 6/9/2023 (T3 & T5)					
					Weather Condition			Fine, Sunny					
					Tidal Condition			High					
					Tide Level (m)			2.01, 1.65					
					Start Time			1400, 1400					
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					
								WAL	DAL	SWH	P	Heard	Flight
Alexandrine Parakeet	*Psittacula eupatria*	亞歷山大鸚鵡	RR	NT, Cap. 586	8								2
Asian Koel	*Eudynamys scolopacea*	噪鵑	R		1								
Black Drongo	*Dicrurus macrocercus*	黑卷尾	Sv						1				
Black-collared Starling	*Gracupica nigricollis*	黑領椋鳥	R		2	1	1		4				
Black-winged Stilt	*Himantopus himantopus*	黑翅長腳鷸	PM	RC			8	45	4	99			3
Chinese Bulbul	*Pycnonotus sinensis*	白頭鵐	R						1				
Chinese Pond Heron	*Ardeola bacchus*	池鷺	R	PRC(RC)	2	3	10	2	9				1
Collared Crow	*Corvus torquatus*	白頸鴉	UR	LC, VU					1				
Common Greenshank	*Tringa nebularia*	青腳鷸	PM, WV	RC			1	2		2			
Common Kingfisher	*Alcedo atthis*	普通翠鳥	R				2						
Common Sandpiper	*Actitis hypoleucos*	磯鷸	WV, PM		2	1	3		1				
Common Snipe	*Gallinago gallinago*	扇尾沙錐	WV, PM					2					2
Crested Myna	*Acridotheres cristatellus*	八哥	R				7		3				10
Eastern Cattle Egret	*Bubulcus coromandus*	牛背鷺	R, PM	(LC)				9					

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			5/9/2023 (T1 & T2), 6/9/2023 (T3 & T5)					
					Weather Condition			Fine, Sunny					
					Tidal Condition			High					
					Tide Level (m)			2.01, 1.65					
					Start Time			1400, 1400					
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					
								WAL	DAL	SWH	P	Heard	Flight
Eurasian Tree Sparrow	*Passer montanus*	樹麻雀	R						1				90
Great Egret	*Ardea alba*	大白鷺	R, WV	PRC(RC)	8	3		3		1			
Green Sandpiper	*Tringa ochropus*	白腰草鷸	UPM, WV				3						
Grey Heron	*Ardea cinerea*	蒼鷺	WV	PRC	2								
House Swift	*Apus nipalensis*	小白腰雨燕	SpM, R										1
Large-billed Crow	*Corvus macrorhynchus*	大嘴烏鴉	R		1								
Little Egret	*Egretta garzetta*	小白鷺	R	PRC(RC)	6	11	24	7	6	17			5
Little Grebe	*Tachybaptus ruficollis*	小䴙䴘	R	LC						2			
Little Ringed Plover	*Charadrius dubius*	金眶鴴	WV, PM	LC					6				
Long-tailed Shrike	*Lanius schach*	棕背伯勞	R						1				
Masked Laughingthrush	*Pterorhinus perspicillatus*	黑臉噪鶥	R			1	3		3				2
Oriental Magpie-Robin	*Copsychus saularis*	鵲鴝	R						1				
Plain Prinia	*Prinia inornata*	純色鷦鶯	R		1		2					5	
Red-necked Phalarope	*Phalaropus lobatus*	紅頸瓣蹼鷸	R					2		9			
Red-rumped Swallow	*Cecropis daurica*	金腰燕	UPM										1
Red-whiskered Bulbul	*Pycnonotus jocosus*	紅耳鵯	R				1		3				
Rock Dove	*Columba livia*	原鴿	R						54				3

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			5/9/2023 (T1 & T2), 6/9/2023 (T3 & T5)					
					Weather Condition			Fine, Sunny					
					Tidal Condition			High					
					Tide Level (m)			2.01, 1.65					
					Start Time			1400, 1400					
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					
								WAL	DAL	SWH	P	Heard	Flight
Scaly-breasted Munia	*Lonchura punctulata*	斑文鳥	R					30	1				30
Spotted Dove	*Streptopelia chinensis*	珠頸斑鳩	R		1	3	2		15				6
Swinhoe's White-eye	*Zosterops simplex*	暗綠繡眼鳥	R		4		3						13
White-breasted Waterhen	*Amaurornis phoenicurus*	白胸苦惡鳥	R		1			3				1	
White-throated Kingfisher	*Halcyon smyrnensis*	白胸翡翠	R	(LC)	1								
White Wagtail	*Motacilla alba*	白鶺鴒	PM, WV		2	2	2						4
Wood Sandpiper	*Tringa glareola*	林鷸	PM, WV	LC				8		6			1
Yellow-bellied Prinia	*Prinia flaviventris*	黃腹鷦鶯	R									1	
Total No. of Species					15	8	15	11	18	7	0	3	16
Total No. of Conservation Interest Species					6	3	4	7	5	6	0	0	5

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			5/9/2023 (T1 & T2), 6/9/2023 (T3 & T5)					
					Weather Condition			Fine, Sunny					
					Tidal Condition			High					
					Tide Level (m)			2.01, 1.65					
					Start Time			1400, 1400					
					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; 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 visitorStatus 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 September 2023, Low Tide

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			5/9/2023 (T1 & T2), 6/9/2023 (T3 & T5)					
					Weather Condition			Fine, Sunny					
					Tidal Condition			Low					
					Tide Level (m)			0.68, 0.72					
					Start Time			0800, 0900					
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					
								WAL	DAL	SWH	P	Heard	Flight
Black-collared Starling	*Gracupica nigricollis*	黑領椋鳥	R		1	1			2				
Black-winged Stilt	*Himantopus himantopus*	黑翅長腳鷸	PM	RC				64		74			1
Chinese Bulbul	*Pycnonotus sinensis*	白頭鵐	R		2								
Chinese Pond Heron	*Ardeola bacchus*	池鷺	R	PRC(RC)	2	2	7	3	2				
Common Greenshank	*Tringa nebularia*	青腳鷸	PM, WV	RC			1						
Common Snipe	*Gallinago gallinago*	扇尾沙錐	WV, PM										1
Cinereous Tit	*Parus cinereus*	蒼背山雀	R			1							
Collared Crow	*Corvus torquatus*	白頸鴉	UR	LC, VU	1	1	3						
Common Kingfisher	*Alcedo atthis*	普通翠鳥	R		1								
Common Sandpiper	*Actitis hypoleucos*	磯鷸	WV, PM		1	2							1
Common Tailorbird	*Orthotomus sutorius*	長尾縫葉鶯	R		2	2							
Eastern Cattle Egret	*Bubulcus coromandus*	牛背鷺	R, PM	(LC)	2			12					
Eastern Yellow Wagtail	*Motacilla tschutschensis*	東黃鶺鴒	PM, WV					1					
Eurasian Tree Sparrow	*Passer montanus*	樹麻雀	R						70				
Great Egret	*Ardea alba*	大白鷺	R, WV	PRC(RC)	3								
Grey Heron	*Ardea cinerea*	蒼鷺	WV	PRC	1								

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			5/9/2023 (T1 & T2), 6/9/2023 (T3 & T5)					
					Weather Condition			Fine, Sunny					
					Tidal Condition			Low					
					Tide Level (m)			0.68, 0.72					
					Start Time			0800, 0900					
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					
								WAL	DAL	SWH	P	Heard	Flight
Little Egret	*Egretta garzetta*	小白鷺	R	PRC(RC)	3	3	22	8		5			
Little Ringed Plover	*Charadrius dubius*	金眶鴴	WV, PM	LC				8					
Little Grebe	*Tachybaptus ruficollis*	小䴙䴘	R	LC				1		1			
Long-tailed Shrike	*Lanius schach*	棕背伯勞	R						1				
Masked Laughingthrush	*Pterorhinus perspicillatus*	黑臉噪鶥	R		3								
Oriental Magpie-Robin	*Copsychus saularis*	鵲鴝	R						1				
Red-whiskered Bulbul	*Pycnonotus jocosus*	紅耳鵯	R		8	2							
Rock Dove	*Columba livia*	原鴿	R			20			9				
Scaly-breasted Munia	*Lonchura punctulata*	斑文鳥	R										
Spotted Dove	*Streptopelia chinensis*	珠頸斑鳩	R		5				37				3
Swinhoe's White-eye	*Zosterops simplex*	暗綠繡眼鳥	R		6	3							
White Wagtail	*Motacilla alba*	白鶺鴒	PM, WV		2	2			5				
White-breasted Waterhen	*Amaurornis phoenicurus*	白胸苦惡鳥	R		1				2				
Wood Sandpiper	*Tringa glareola*	林鷸	PM, WV	LC				4					
Total No. of Species					17	11	4	8	9	3	0	0	4
Total No. of Conservation Interest Species					6	4	4	7	1	3	0	0	1

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			5/9/2023 (T1 & T2), 6/9/2023 (T3 & T5)					
					Weather Condition			Fine, Sunny					
					Tidal Condition			Low					
					Tide Level (m)			0.68, 0.72					
					Start Time			0800, 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; 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 visitorStatus 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, 11 & 12 September 2023, High Tide

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			11/9/2023 (T1 & T2), 12/9/2023 (T3 & T5)					
					Weather Condition			Sunny, Sunny					
					Tidal Condition			High					
					Tide Level (m)			2.22, 2.42					
					Start Time			0900, 0900					
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					
								WAL	DAL	SWH	P	Heard	Flight
Asian Koel	*Eudynamys scolopacea*	噪鵑	R				2						
Barn Swallow	*Hirundo rustica*	家燕	PM, Sv				2						
Black Kite	*Milvus migrans*	黑鳶	R, WV										1
Black-collared Starling	*Gracupica nigricollis*	黑領椋鳥	R		2				3				
Black-winged Stilt	*Himantopus himantopus*	黑翅長腳鷸	PM	RC				54	1	101			
Chinese Bulbul	*Pycnonotus sinensis*	白頭鵐	R						2				
Chinese Pond Heron	*Ardeola bacchus*	池鷺	R	PRC(RC)	3		1	1	1				1
Collared Crow	*Corvus torquatus*	白頸鴉	UR	LC, VU			2						
Common Greenshank	*Tringa nebularia*	青腳鷸	PM, WV	RC			2	1		1			
Common Kingfisher	*Alcedo atthis*	普通翠鳥	R						1				
Common Sandpiper	*Actitis hypoleucos*	磯鷸	WV, PM		1		2	1	1				
Common Snipe	*Gallinago gallinago*	扇尾沙錐	WV, PM					1					
Common Tailorbird	*Orthotomus sutorius*	長尾縫葉鶯	R		1	2							
Eastern Cattle Egret	*Bubulcus coromandus*	牛背鷺	R, PM	(LC)			1	1					
Eastern Yellow Wagtail	*Motacilla tschutschensis*	東黃鶺鴒	PM, WV										1

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			11/9/2023 (T1 & T2), 12/9/2023 (T3 & T5)					
					Weather Condition			Sunny, Sunny					
					Tidal Condition			High					
					Tide Level (m)			2.22, 2.42					
					Start Time			0900, 0900					
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					
								WAL	DAL	SWH	P	Heard	Flight
Eurasian Tree Sparrow	*Passer montanus*	樹麻雀	R				1		40				
Great Egret	*Ardea alba*	大白鷺	R, WV	PRC(RC)	1	2	2						
Green Sandpiper	*Tringa ochropus*	白腰草鷸	UPM, WV					1					3
Little Egret	*Egretta garzetta*	小白鷺	R	PRC(RC)	3	4	24	12	4	13			5
Little Ringed Plover	*Charadrius dubius*	金眶鴴	WV, PM	LC					5	12			
Long-toed Stint	*Calidris subminuta*	長趾濱鷸	CPM, SWV	LC				1					
Masked Laughingthrush	*Pterorhinus perspicillatus*	黑臉噪鶥	R										1
Plain Prinia	*Prinia inornata*	純色鱲鶯	R				2		1			3	
Red-billed Blue Magpie	*Urocissa erythrorhyncha*	紅咀藍鵲	R										1
Red-necked Phalarope	*Phalaropus lobatus*	紅頸瓣蹼鷸	R					1		4			
Red-rumped Swallow	*Cecropis daurica*	金腰燕	UPM			1							
Red-whiskered Bulbul	*Pycnonotus jocosus*	紅耳鵯	R		2	1	6		10				
Rock Dove	*Columba livia*	原鴿	R			33			3				5
Scaly-breasted Munia	*Lonchura punctulata*	斑文鳥	R										
Spotted Dove	*Streptopelia chinensis*	珠頸斑鳩	R		1	6			3				
Swinhoe's White-eye	*Zosterops simplex*	暗綠繡眼鳥	R			2							2
White Wagtail	*Motacilla alba*	白鶺鴒	PM, WV			2	2		1				4

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			11/9/2023 (T1 & T2), 12/9/2023 (T3 & T5)					
					Weather Condition			Sunny, Sunny					
					Tidal Condition			High					
					Tide Level (m)			2.22, 2.42					
					Start Time			0900, 0900					
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					
								WAL	DAL	SWH	P	Heard	Flight
White-breasted Waterhen	*Amaurornis phoenicurus*	白胸苦惡鳥	R				1		4				
White-rumped Munia	*Lonchura striata*	白腰文鳥	R					3					
White-throated Kingfisher	*Halcyon smyrnensis*	白胸翡翠	R	(LC)		1							
Wood Sandpiper	*Tringa glareola*	林鷸	PM, WV	LC				6		10			2
Yellow-bellied Prinia	*Prinia flaviventris*	黃腹鷦鶯	R		1								
Total No. of Species					9	10	14	12	15	6	0	1	11
Total No. of Conservation Interest Species					3	3	6	7	4	5	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, 11 & 12 September 2023, Low Tide

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			11/9/2023 (T1 & T2), 12/9/2023 (T3 & T5)					
					Weather Condition			Rainy, Fine					
					Tidal Condition			Low					
					Tide Level (m)			0.72, 0.96					
					Start Time			1400, 1400					
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					
								WAL	DAL	SWH	P	Heard	Flight
Alexandrine Parakeet	*Psittacula eupatria*	亞歷山大鸚鵡	RR	NT, Cap. 586									6
Asian Koel	*Eudynamys scolopacea*	噪鵑	R				1						
Barn Swallow	*Hirundo rustica*	家燕	PM, Sv										2
Black-collared Starling	*Gracupica nigricollis*	黑領椋鳥	R		2				28				
Black-crowned Night Heron	*Nycticorax nycticorax*	夜鷺	R, WV	LC									4
Black-winged Stilt	*Himantopus himantopus*	黑翅長腳鷸	PM	RC				124					12
Black-winged Kite	*Elanus caeruleus*	黑翅鳶	OV	LC, (VU)									1
Chinese Pond Heron	*Ardeola bacchus*	池鷺	R	PRC(RC)	4		8	11	9				1
Common Kingfisher	*Alcedo atthis*	普通翠鳥	R						1				
Common Moorhen	*Gallinula chloropus*	黑水雞	R					1					
Common Sandpiper	*Actitis hypoleucos*	磯鷸	WV, PM		1			1					
Common Snipe	*Gallinago gallinago*	扇尾沙錐	WV, PM					4					
Common Tailorbird	*Orthotomus sutorius*	長尾縫葉鶯	R		1	2							
Crested Myna	*Acridotheres cristatellus*	八哥	R						5				3
Eastern Cattle Egret	*Bubulcus coromandus*	牛背鷺	R, PM	(LC)				4					

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			11/9/2023 (T1 & T2), 12/9/2023 (T3 & T5)					
					Weather Condition			Rainy, Fine					
					Tidal Condition			Low					
					Tide Level (m)			0.72, 0.96					
					Start Time			1400, 1400					
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					
								WAL	DAL	SWH	P	Heard	Flight
Eastern Yellow Wagtail	*Motacilla tschutschensis*	東黃鶺鴒	PM, WV					1					
Eurasian Tree Sparrow	*Passer montanus*	樹麻雀	R						74				10
Great Egret	*Ardea alba*	大白鷺	R, WV	PRC(RC)	1	2	1	4					
Little Egret	*Egretta garzetta*	小白鷺	R	PRC(RC)	3	4	15	17	3				
Little Ringed Plover	*Charadrius dubius*	金眶鴴	WV, PM	LC				5					
Long-tailed Shrike	*Lanius schach*	棕背伯勞	R						1				
Masked Laughingthrush	*Pterorhinus perspicillatus*	黑臉噪鶥	R			1							
Oriental Magpie-Robin	*Copsychus saularis*	鵲鴝	R				1						
Pied Kingfisher	*Ceryle rudis*	斑魚狗	UR	(LC)									2
Red-necked Phalarope	*Phalaropus lobatus*	紅頸瓣蹼鷸	R					2					
Red-whiskered Bulbul	*Pycnonotus jocosus*	紅耳鵯	R		2	1							
Rock Dove	*Columba livia*	原鴿	R			33			8				
Scaly-breasted Munia	*Lonchura punctulata*	斑文鳥	R					230					30
Spotted Dove	*Streptopelia chinensis*	珠頸斑鳩	R		1	5			14				
Swinhoe's White-eye	*Zosterops simplex*	暗綠繡眼鳥	R		1	2							
White Wagtail	*Motacilla alba*	白鶺鴒	PM, WV			2		6					
White-rumped Munia	*Lonchura striata*	白腰文鳥	R					80					

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			11/9/2023 (T1 & T2), 12/9/2023 (T3 & T5)					
					Weather Condition			Rainy, Fine					
					Tidal Condition			Low					
					Tide Level (m)			0.72, 0.96					
					Start Time			1400, 1400					
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					
								WAL	DAL	SWH	P	Heard	Flight
White-breasted Waterhen	*Amaurornis phoenicurus*	白胸苦惡鳥	R					9					
White-shouldered Starling	*Sturnia sinensis*	灰背椋鳥							3				
White-throated Kingfisher	*Halcyon smyrnensis*	白胸翡翠	R	(LC)		1							
Wood Sandpiper	*Tringa glareola*	林鷸	PM, WV	LC				14					
Yellow-bellied Prinia	*Prinia flaviventris*	黃腹鷦鶯	R		1								
Total No. of Species					10	10	5	16	10	0	0	0	10
Total No. of Conservation Interest Species					3	3	3	7	2	0	0	0	6

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, 18 & 20 September 2023, High Tide

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			18/9/2023 (T1 & T2), 20/9/2023 (T3 & T5)					
					Weather Condition			Fine, Sunny					
					Tidal Condition			High					
					Tide Level (m)			1.87, 1.9					
					Start Time			1000, 1400					
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					
								WAL	DAL	SWH	P	Heard	Flight
Barn Swallow	*Hirundo rustica*	家燕	PM, Sv			3							3
Black-collared Starling	*Gracupica nigricollis*	黑領椋鳥	R		5	3			18				
Black Drongo	*Dicrurus macrocercus*	黑卷尾	Sv						1				
Black-winged Kite	*Elanus caeruleus*	黑翅鳶	OV	LC, (VU)					2				
Black-winged Stilt	*Himantopus himantopus*	黑翅長腳鷸	PM	RC				136					12
Chinese Bulbul	*Pycnonotus sinensis*	白頭鵐	R						2				
Chinese Pond Heron	*Ardeola bacchus*	池鷺	R	PRC(RC)	3	2	4	12					3
Common Greenshank	*Tringa nebularia*	青腳鷸	PM, WV	RC				24					
Collared Crow	*Corvus torquatus*	白頸鴉	UR	LC, VU			4						
Common Kingfisher	*Alcedo atthis*	普通翠鳥	R		1								
Common Redshank	*Tringa totanus*	紅腳鷸	PM	RC				1					
Common Sandpiper	*Actitis hypoleucos*	磯鷸	WV, PM				1	5					
Crested Myna	*Acridotheres cristatellus*	八哥	R			2			16				
Eastern Cattle Egret	*Bubulcus coromandus*	牛背鷺	R, PM	(LC)				4					
Eastern Yellow Wagtail	*Motacilla tschutschensis*	東黃鶺鴒	PM, WV					12					3
Eurasian Tree Sparrow	*Passer montanus*	樹麻雀	R		6	4			8				

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			18/9/2023 (T1 & T2), 20/9/2023 (T3 & T5)					
					Weather Condition			Fine, Sunny					
					Tidal Condition			High					
					Tide Level (m)			1.87, 1.9					
					Start Time			1000, 1400					
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					
								WAL	DAL	SWH	P	Heard	Flight
Great Egret	*Ardea alba*	大白鷺	R, WV	PRC(RC)	1	1	1	2					
Greater Painted-snipe	*Rostratula benghalensis*	彩鷸	R	LC				1					
Little Egret	*Egretta garzetta*	小白鷺	R	PRC(RC)	5	8	23						
Little Ringed Plover	*Charadrius dubius*	金眶鴴	WV, PM	LC				25					
Long-tailed Shrike	*Lanius schach*	棕背伯勞	R						2				
Marsh Sandpiper	*Tringa stagnatilis*	澤鷸	PM, WV	RC				1	1				
Masked Laughingthrush	*Pterorhinus perspicillatus*	黑臉噪鸝	R						5				
Pied Avocet	*Recurvirostra avosetta*	反嘴鷸	WV	RC				1					
Red-whiskered Bulbul	*Pycnonotus jocosus*	紅耳鵯	R		5								
Rock Dove	*Columba livia*	原鴿	R			6		56					5
Scaly-breasted Munia	*Lonchura punctulata*	斑文鳥	R					65					29
Spotted Dove	*Streptopelia chinensis*	珠頸斑鳩	R				4		9				
Swinhoe's White-eye	*Zosterops simplex*	暗綠繡眼鳥	R										
White Wagtail	*Motacilla alba*	白鶺鴒	PM, WV			1	4	2					
White-breasted Waterhen	*Amaurornis phoenicurus*	白胸苦惡鳥	R					2					
White-rumped Munia	*Lonchura striata*	白腰文鳥	R										37
Wood Sandpiper	*Tringa glareola*	林鷸	PM, WV	LC				15					

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			18/9/2023 (T1 & T2), 20/9/2023 (T3 & T5)					
					Weather Condition			Fine, Sunny					
					Tidal Condition			High					
					Tide Level (m)			1.87, 1.9					
					Start Time			1000, 1400					
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					
								WAL	DAL	SWH	P	Heard	Flight
Total No. of Species					7	9	7	17	10	0	0	0	7
Total No. of Conservation Interest Species					3	3	4	11	2	0	0	0	2

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, 18 & 20 September 2023, Low Tide

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			18/9/2023 (T1 & T2), 20/9/2023 (T3 & T5)					
					Weather Condition			Fine, Sunny					
					Tidal Condition			Low					
					Tide Level (m)			1.42, 0.65					
					Start Time			1600, 0800					
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					
								WAL	DAL	SWH	P	Heard	Flight
Barn Swallow	*Hirundo rustica*	家燕	PM, Sv										4
Black Drongo	*Dicrurus macrocercus*	黑卷尾	Sv						1				
Black-collared Starling	*Gracupica nigricollis*	黑領椋鳥	R									2	3
Black-winged Stilt	*Himantopus himantopus*	黑翅長腳鷸	PM	RC				54		69			4
Chinese Bulbul	*Pycnonotus sinensis*	白頭鵐	R						4				
Chinese Pond Heron	*Ardeola bacchus*	池鷺	R	PRC(RC)		2			3	2			4
Common Greenshank	*Tringa nebularia*	青腳鷸	PM, WV	RC						3			
Common Redshank	*Tringa totanus*	紅腳鷸	PM	RC						1			
Common Sandpiper	*Actitis hypoleucos*	磯鷸	WV, PM				1			3			
Common Snipe	*Gallinago gallinago*	扇尾沙錐	WV, PM										1
Collared Crow	*Corvus torquatus*	白頸鴉	UR	LC, VU			1						
Crested Myna	*Acridotheres cristatellus*	八哥	R										2
Eastern Cattle Egret	*Bubulcus coromandus*	牛背鷺	R, PM	(LC)	1			7					1
Eurasian Tree Sparrow	*Passer montanus*	樹麻雀	R			8							
Eurasian Wryneck	*Jynx torquilla*	蟻鴷	UPM, WV						1				

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			18/9/2023 (T1 & T2), 20/9/2023 (T3 & T5)					
					Weather Condition			Fine, Sunny					
					Tidal Condition			Low					
					Tide Level (m)			1.42, 0.65					
					Start Time			1600, 0800					
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					
								WAL	DAL	SWH	P	Heard	Flight
Great Egret	*Ardea alba*	大白鷺	R, WV	PRC(RC)	5	2	1	1	1				3
Green Sandpiper	*Tringa ochropus*	白腰草鷸	UPM, WV				3			1			
Little Egret	*Egretta garzetta*	小白鷺	R	PRC(RC)	7	4	22	13	5	2			
Little Ringed Plover	*Charadrius dubius*	金眶鴴	WV, PM	LC						14			
Masked Laughingthrush	*Pterorhinus perspicillatus*	黑臉噪鶥	R						4				
Marsh Sandpiper	*Tringa stagnatilis*	澤鷸	PM, WV	RC						3			
Oriental Magpie-Robin	*Copsychus saularis*	鵲鴝	R		1						1		
Pied Avocet	*Recurvirostra avosetta*	反嘴鷸	WV	RC						1			
Plain Prinia	*Prinia inornata*	純色鷦鶯	R					2				1	
Red-billed Blue Magpie	*Urocissa erythrorhyncha*	紅咀藍鵲	R				1						
Red-necked Phalarope	*Phalaropus lobatus*	紅頸瓣蹼鷸	R							3			2
Red-whiskered Bulbul	*Pycnonotus jocosus*	紅耳鵯	R			1	1						
Scaly-breasted Munia	*Lonchura punctulata*	斑文鳥	R										7
Spotted Dove	*Streptopelia chinensis*	珠頸斑鳩	R				4	3	10				4
Swinhoe's White-eye	*Zosterops simplex*	暗綠繡眼鳥	R		1	1			2				
White Wagtail	*Motacilla alba*	白鶺鴒	PM, WV			1	1						2
White-breasted Waterhen	*Amaurornis phoenicurus*	白胸苦惡鳥	R						3				

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			18/9/2023 (T1 & T2), 20/9/2023 (T3 & T5)					
					Weather Condition			Fine, Sunny					
					Tidal Condition			Low					
					Tide Level (m)			1.42, 0.65					
					Start Time			1600, 0800					
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					
								WAL	DAL	SWH	P	Heard	Flight
White-rumped Munia	*Lonchura striata*	白腰文鳥	R										1
White-throated Kingfisher	*Halcyon smyrnensis*	白胸翡翠	R	(LC)			2						
White-shouldered Starling	*Sturnia sinensis*	灰背椋鳥	M, WV, Sv	LC									1
Wood Sandpiper	*Tringa glareola*	林鷸	PM, WV	LC			1	16		4			
Total No. of Species					5	7	11	7	10	12	1	2	14
Total No. of Conservation Interest Species					3	3	5	5	3	8	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;; 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, 26 & 27 September 2023, High Tide

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			26/9/2023 (T1 & T2), 27/9/2023 (T3 & T5)					
					Weather Condition			Sunny, Sunny					
					Tidal Condition			High					
					Tide Level (m)			2.33, 2.73					
					Start Time			0900, 0900					
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					
								WAL	DAL	SWH	P	Heard	Flight
Barn Swallow	*Hirundo rustica*	家燕	PM, Sv		4								
Black-collared Starling	*Gracupica nigricollis*	黑領椋鳥	R		3	4							
Black Drongo	*Dicrurus macrocercus*	黑卷尾	Sv						2				
Black-winged Stilt	*Himantopus himantopus*	黑翅長腳鷸	PM	RC				35		81			7
Chinese Bulbul	*Pycnonotus sinensis*	白頭鵐	R		1								
Chinese Pond Heron	*Ardeola bacchus*	池鷺	R	PRC(RC)			3	2	2				
Common Greenshank	*Tringa nebularia*	青腳鷸	PM, WV	RC				1	2			1	
Common Snipe	*Gallinago gallinago*	扇尾沙錐	WV, PM						2				
Eastern Cattle Egret	*Bubulcus coromandus*	牛背鷺	R, PM	(LC)				6					2
Eastern Yellow Wagtail	*Motacilla tschutschensis*	東黃鶺鴒	PM, WV					2	2				
Eurasian Tree Sparrow	*Passer montanus*	樹麻雀	R			9			4				
Great Egret	*Ardea alba*	大白鷺	R, WV	PRC(RC)	4	2	1						
Green Sandpiper	*Tringa ochropus*	白腰草鷸	UPM, WV			3							
Intermediate Egret	*Ardea intermedia*	中白鷺	CPM	RC					3				
Little Egret	*Egretta garzetta*	小白鷺	R	PRC(RC)	8	12	10	7	2	20			1
Little Ringed Plover	*Charadrius dubius*	金眶鴴	WV, PM	LC				5	7				1

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			26/9/2023 (T1 & T2), 27/9/2023 (T3 & T5)					
					Weather Condition			Sunny, Sunny					
					Tidal Condition			High					
					Tide Level (m)			2.33, 2.73					
					Start Time			0900, 0900					
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					
								WAL	DAL	SWH	P	Heard	Flight
Long-tailed Shrike	*Lanius schach*	棕背伯勞	R						2				
Marsh Sandpiper	*Tringa stagnatilis*	澤鷸	PM, WV	RC				1	1	1			
Oriental Magpie-Robin	*Copsychus saularis*	鵲鴝	R		1								1
Red-billed Blue Magpie	*Urocissa erythrorhyncha*	紅咀藍鵲	R						1				
Red-necked Phalarope	*Phalaropus lobatus*	紅頸瓣蹼鷸	R							4			
Red-whiskered Bulbul	*Pycnonotus jocosus*	紅耳鵯	R		4								
Rock Dove	*Columba livia*	原鴿	R		2	12							
Scaly-breasted Munia	*Lonchura punctulata*	斑文鳥	R					35					
Spotted Dove	*Streptopelia chinensis*	珠頸斑鳩	R					4					3
White Wagtail	*Motacilla alba*	白鶺鴒	PM, WV		1	2	1						
White-throated Kingfisher	*Halcyon smyrnensis*	白胸翡翠	R	(LC)									1
Wood Sandpiper	*Tringa glareola*	林鷸	PM, WV	LC				9					9
Total No. of Species					9	7	4	11	12	4	0	1	8
Total No. of Conservation Interest Species					2	2	3	8	4	3	0	0	5

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			26/9/2023 (T1 & T2), 27/9/2023 (T3 & T5)					
					Weather Condition			Sunny, Sunny					
					Tidal Condition			High					
					Tide Level (m)			2.33, 2.73					
					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, 26 & 27 September 2023, Low Tide

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			26/9/2023 (T1 & T2), 27/9/2023 (T3 & T5)					
					Weather Condition			Sunny, Sunny					
					Tidal Condition			Low					
					Tide Level (m)			0.51, 0.82					
					Start Time			1400, 1400					
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					
								WAL	DAL	SWH	P	Heard	Flight
Barn Swallow	*Hirundo rustica*	家燕	PM, Sv			3							
Black-collared Starling	*Gracupica nigricollis*	黑領椋鳥	R		3				2				2
Black Drongo	*Dicrurus macrocercus*	黑卷尾	Sv						4				
Black-winged Stilt	*Himantopus himantopus*	黑翅長腳鷸	PM	RC			60	67	4	60			
Chinese Pond Heron	*Ardeola bacchus*	池鷺	R	PRC(RC)		7	5	1	2	2			2
Common Greenshank	*Tringa nebularia*	青腳鷸	PM, WV	RC				1		2			
Common Sandpiper	*Actitis hypoleucos*	磯鷸	WV, PM			3							
Common Sandpiper	*Actitis hypoleucos*	磯鷸	WV, PM					1					
Common Snipe	*Gallinago gallinago*	扇尾沙錐	WV, PM					1					
Crested Myna	*Acridotheres cristatellus*	八哥	R						50				
Eastern Cattle Egret	*Bubulcus coromandus*	牛背鷺	R, PM	(LC)				6					2
Eurasian Tree Sparrow	*Passer montanus*	樹麻雀	R			12							
Great Egret	*Ardea alba*	大白鷺	R, WV	PRC(RC)	7	5	1						
Grey Heron	*Ardea cinerea*	蒼鷺	WV	PRC	1		2						
Intermediate Egret	*Ardea intermedia*	中白鷺	CPM	RC				2					

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			26/9/2023 (T1 & T2), 27/9/2023 (T3 & T5)					
					Weather Condition			Sunny, Sunny					
					Tidal Condition			Low					
					Tide Level (m)			0.51, 0.82					
					Start Time			1400, 1400					
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					
								WAL	DAL	SWH	P	Heard	Flight
Little Egret	*Egretta garzetta*	小白鷺	R	PRC(RC)	14	18	24	6	1	7			5
Marsh Sandpiper	*Tringa stagnatilis*	澤鷸	PM, WV	RC				3					
Masked Laughingthrush	*Pterorhinus perspicillatus*	黑臉噪鶥	R			5							
Red-billed Blue Magpie	*Urocissa erythrorhyncha*	紅咀藍鵲	R						1				
Red-whiskered Bulbul	*Pycnonotus jocosus*	紅耳鵯	R			3							
Rock Dove	*Columba livia*	原鴿	R		4	1			20				
Scaly-breasted Munia	*Lonchura punctulata*	斑文鳥	R										25
Spotted Dove	*Streptopelia chinensis*	珠頸斑鳩	R						2				
White Wagtail	*Motacilla alba*	白鶺鴒	PM, WV		1	2			2				
White-breasted Waterhen	*Amaurornis phoenicurus*	白胸苦惡鳥	R							1			
White-throated Kingfisher	*Halcyon smyrnensis*	白胸翡翠	R	(LC)					2				
Wood Sandpiper	*Tringa glareola*	林鷸	PM, WV	LC				15		2			
Total No. of Species					6	10	5	10	11	6	0	0	5
Total No. of Conservation Interest Species					3	4	5	8	4	5	0	0	3

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			26/9/2023 (T1 & T2), 27/9/2023 (T3 & T5)					
					Weather Condition			Sunny, Sunny					
					Tidal Condition			Low					
					Tide Level (m)			0.51, 0.82					
					Start Time			1400, 1400					
					Abundance								
					Transect Walk								
					T1	T2	T3	T5					
								WAL	DAL	SWH	P	Heard	Flight

Note:
R – Resident; WV – Winter visitor; PM – Passage migrant; CPM - Common Passage Migrant; UPM – Uncommon passage migrant; SPM - Scarce Passage Migrant; CaM - Common autumn migrant;; USV - Uncommon Summer visitor; SpM – Spring migrant; UR – Uncommon resident; SWV – Scarce winter visitor; CWV - Common Winter Visitor.
Status was decided according to AFCD biodiversity website (www.hkbiodiversity.net)
Cap. 170: All bird species are under protection of Wild Animals Protection Ordinance
Cap.586 : Endangered Species of Animals and Plants Ordinance (Cap.586)
VU: Vulnerable in IUCN Red List Status
RC=Regional Concern; LC=Local Concern; PRC=Potential Regional Concern; GC=Global Concern; PGC=Potential Global Concern. Letters in parentheses indicate that the assessment is on the basis of restrictedness in breeding and/or roosting sites rather than in general occurrence (Fellowes et al. (2002)
WAL: Wet Agricultural Land
DAL: Dry Agricultural Land
SWH: Shallow Water Habitat
P: Pond

Appendix L1i. Avifauna Species Recorded for Water Birds Monitoring, Night Survey, 12 September 2023, T5

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date: 12/9/2023					
					Start Time: 18:15					
					Abundance					
					WAL	DAL	SWH	P	Heard	Flight
Black-collared Starling	*Gracupica nigricollis*	黑領椋鳥	R			4				6
Black-crowned Night Heron	*Nycticorax nycticorax*	夜鷺	R, WV	LC						6
Black-winged Stilt	*Himantopus himantopus*	黑翅長腳鷸	PM	RC	4	2	28			5
Chinese Pond Heron	*Ardeola bacchus*	池鷺	R	PRC(RC)						4
Common Greenshank	*Tringa nebularia*	青腳鷸	PM, WV	RC			2			
Common Snipe	*Gallinago gallinago*	扇尾沙錐	WV, PM							4
Eastern Cattle Egret	*Bubulcus coromandus*	牛背鷺	R, PM	(LC)		9				
Great Egret	*Ardea alba*	大白鷺	R, WV	PRC(RC)						3
Little Egret	*Egretta garzetta*	小白鷺	R	PRC(RC)			4			18
Red-necked Phalarope	*Phalaropus lobatus*	紅頸瓣蹼鷸	R				2			
Rock Dove	*Columba livia*	原鴿	R			11				
Spotted Dove	*Streptopelia chinensis*	珠頸斑鳩	R							13
Wood Sandpiper	*Tringa glareola*	林鷸	PM, WV	LC	12		2			
Total No. of Species					2	4	5	0	0	8
Total No. of Conservation Interest Species					2	2	4	0	0	5

Note:
R – Resident; WV – Winter visitor; PM – Passage migrant; CPM - Common Passage Migrant; UPM – Uncommon passage migrant; CaM - Common autumn migrant;; SpM – Spring migrant; UR – Uncommon resident; CWV - Common Winter Visitor
Status was decided according to AFCD biodiversity website (www.hkbiodiversity.net)
Cap. 170: All bird species are under protection of Wild Animals Protection Ordinance
Cap.586 : Endangered Species of Animals and Plants Ordinance (Cap.586)
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 L1j. Avifauna Species Recorded for Water Birds Monitoring, Night Survey, 27 September 2023, T5

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date: 27/9/2023					
					Start Time: 18:10					
					Abundance					
					WAL	DAL	SWH	P	Heard	Flight
Barn Swallow	*Hirundo rustica*	家燕	PM, Sv							5
Black-collared Starling	*Gracupica nigricollis*	黑領椋鳥	R			8			2	4
Black-crowned Night Heron	*Nycticorax nycticorax*	夜鷺	R, WV	LC						16
Black-winged Stilt	*Himantopus himantopus*	黑翅長腳鷸	PM	RC	19	11	46			
Chinese Pond Heron	*Ardeola bacchus*	池鷺	R	PRC(RC)						6
Collared Crow	*Corvus torquatus*	白頸鴉	UR	LC, VU		2				1
Common Greenshank	*Tringa nebularia*	青腳鷸	PM, WV	RC			4			1
Common Snipe	*Gallinago gallinago*	扇尾沙錐	WV, PM		4					11
Great Egret	*Ardea alba*	大白鷺	R, WV	PRC(RC)			3			18
Little Egret	*Egretta garzetta*	小白鷺	R	PRC(RC)		3	4			21
Rock Dove	*Columba livia*	原鴿	R			26				
Spotted Dove	*Streptopelia chinensis*	珠頸斑鳩	R			5				12
Wood Sandpiper	*Tringa glareola*	林鷸	PM, WV	LC	18		8			
Total No. of Species					3	6	5	0	1	10
Total No. of Conservation Interest Species					2	3	5	0	0	6

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.

Appendix L1k, Waterbirds Recorded in September 2023

Common Name	Species Name	Chinese Name	Conservation Status	Recorded habitat from the survey	Distribution in Hong Kong*
Black-crowned Night Heron	*Nycticorax nycticorax*	夜鷺	LC	T5: In flight	Common resident and winter visitor. Widely distributed in Hong Kong.
Black-winged Stilt	*Himantopus himantopus*	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	*Ardeola bacchus*	池鷺	PRC(RC)	T1: River bank, In flight T2: River bank, In flight T3: River bank, River bed, in flight T5: Wet Agricultural Land, Dry Agricultural Land, Shallow Water Habitat, In flight	Common resident. Widely distributed in Hong Kong.
Common Greenshank	*Tringa nebularia*	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	*Alcedo atthis*	普通翠鳥		T1: 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 Moorhen	*Gallinula chloropus*	黑水雞		T5: Wet Agricultural Land	Common winter visitor, resident and migrant. Found in Deep Bay area, Shuen Wan, Starling Inlet.
Common Redshank	*Tringa totanus*	紅腳鷸	RC	T5: Wet Agricultural Land, Shallow Water Habitat	Abundant passage migrant and winter visitor. Found in Deep Bay area.
Common Sandpiper	*Actitis hypoleucos*	磯鷸		T1: River bank T2: River bank T3: River bank T5: Wet Agricultural Land, Dry Agricultural Land, Shallow Water Habitat, In flight	Common passage migrant and winter visitor. Widely distributed in wetland area throughout Hong Kong.

Common Name	Species Name	Chinese Name	Conservation Status	Recorded habitat from the survey	Distribution in Hong Kong*
Common Snipe	*Gallinago gallinago*	扇尾沙錐		T5: Shallow Water Habitat, In flight	Common passage migrant and winter visitor. Found in Long Valley, Chau Tau, Sai Kung.
Eastern Cattle Egret	*Bubulcus coromandus*	牛背鷺	(LC)	T1: River bank, In flight T3: River bank, River bed, In flight T5: Wet Agricultural Land	Resident and common passage migrant. Widely distributed in Hong Kong.
Great Egret	*Ardea alba*	大白鷺	PRC(RC)	T1: River bank, In flight T2: River bank, In flight T3: River bank, River bed, In flight T5: Shallow Water Habitat, Pond, In flight	Common resident and winter visitor. Widely distributed in Hong Kong.
Greater Painted-snipe	*Rostratula benghalensis*	彩鷸	LC	T5: Wet Agricultural Land	Locally common resident. Found in Ha Tsuen, Lok Ma Chau, Kam Tin, Long Valley, Hong Kong Wetland Park.
Green Sandpiper	*Tringa ochropus*	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	*Ardea cinerea*	蒼鷺	PRC	T1: River bank, In flight T3: River bank, River bed, In flight	Common winter visitor. Found in Deep Bay area, Starling Inlet, Kowloon Park, Cape D'Aguilar.
Intermediate Egret	*Ardea intermedia*	中白鷺	RC	T5: Wet Agricultural Land, Dry Agricultural Land,	Resident and passage migrant. Found in Deep Bay area, Tai Long Wan, Starling Inlet, Tai O, Cap D'Aguilar.
Little Egret	*Egretta garzetta*	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 Grebe	*Tachybaptus ruficollis*	小鸊鷉	LC	T5: Wet Agricultural Land, Shallow Water Habitat, Pond	Common resident. Found in Deep Bay area.

Common Name	Species Name	Chinese Name	Conservation Status	Recorded habitat from the survey	Distribution in Hong Kong*
Little Ringed Plover	*Charadrius dubius*	金眶鴴	LC	T5: Wet Agricultural Land, Dry Agricultural Land, Shallow Water Habitat, In flight	Resident, common winter visitor and passage migrant. Widely distributed in freshwater areas throughout Hong Kong.
Long-toed Stint	*Calidris subminuta*	長趾濱鷸	LC	T5: Wet Agricultural Land	Common passage migrant and scarce winter visitor. Found in Long Valley, Ma Tso Lung, Tsim Bei Tsui, Kam Tin, Pui O, Shuen Wan.
Marsh Sandpiper	*Tringa stagnatilis*	澤鷸	RC	T5: Wet Agricultural Land, Dry Agricultural Land, Shallow Water Habitat	Abundant winter visitor and migrant. Found in Deep Bay area, Shuen Wan, Long Valley, Kam Tin, Sai Kung.
Pied Avocet	*Recurvirostra avosetta*	反嘴鷸	RC	T5: Wet Agricultural Land, Shallow Water Habitat	Abundant winter visitor. Found in Deep Bay area.
Pied Kingfisher	*Ceryle rudis*	斑魚狗	(LC)	T2: In flight T3: In flight	Uncommon resident. Widely distributed in lakes and ponds throughout Hong Kong.
Red-necked Phalarope	*Phalaropus lobatus*	紅頸瓣蹼鷸		T5: Wet Agricultural Land, Shallow Water Habitat, In flight	Common passage migrant. Widely distributed in sea throughout Hong Kong.
White-breasted Waterhen	*Amaurornis phoenicurus*	白胸苦惡鳥		T1: River bank T3: River bank, River bed, In flight T5: Wet Agricultural Land, Dry Agricultural Land, Shallow Water Habitat	Common resident. Widely distributed in wetland throughout Hong Kong.
White-throated Kingfisher	*Halcyon smyrnensis*	白胸翡翠	(LC)	T1: River bank, In flight T2: River bank, In flight T3: River bank, River bed, In flight T5: Dry Agricultural Land, In flight	Common resident. Widely distributed in coastal areas throughout Hong Kong.
Wood Sandpiper	*Tringa glareola*	林鷸	LC	T3: River bank, River bed, In flight T5: Wet Agricultural Land, Shallow Water Habitat, In flight	Common migrant and winter visitor. Widely distributed in wetland area throughout Hong Kong.

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 (Fellowes et al. (2002)
*Source: Hong Kong Biodiversity Database, AFCD (https://www.afcd.gov.hk/English/conservation/hkbiodiversity/database/search.php)

Appendix L1l. Birds Recorded in September 2023

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status
Alexandrine Parakeet	*Psittacula eupatria*	亞歷山大鸚鵡	RR	NT, Cap. 586
Asian Koel	*Eudynamys scolopacea*	噪鵑	R	
Barn Swallow	*Hirundo rustica*	家燕	PM, Sv	
Black Drongo	*Dicrurus macrocercus*	黑卷尾	Sv	
Black Kite	*Milvus migrans*	黑鳶	R, WV	(RC), Cap.586
Black-collared Starling	*Gracupica nigricollis*	黑領椋鳥	R	
Black-crowned Night Heron	*Nycticorax nycticorax*	夜鷺	R, WV	LC
Black-winged Kite	*Elanus caeruleus*	黑翅鳶	OV	LC, (VU)
Black-winged Stilt	*Himantopus himantopus*	黑翅長腳鷸	PM	RC
Chinese Bulbul	*Pycnonotus sinensis*	白頭鵯	R	
Chinese Pond Heron	*Ardeola bacchus*	池鷺	R	PRC(RC)
Cinereous Tit	*Parus cinereus*	蒼背山雀	R	
Collared Crow	*Corvus torquatus*	白頸鴉	UR	LC, VU
Common Greenshank	*Tringa nebularia*	青腳鷸	PM, WV	RC
Common Kingfisher	*Alcedo atthis*	普通翠鳥	R	
Common Moorhen	*Gallinula chloropus*	黑水雞	R	
Common Redshank	*Tringa totanus*	紅腳鷸	PM	RC
Common Sandpiper	*Actitis hypoleucos*	磯鷸	WV, PM	
Common Snipe	*Gallinago gallinago*	扇尾沙錐	WV, PM	
Common Tailorbird	*Orthotomus sutorius*	長尾縫葉鶯	R	
Crested Myna	*Acridotheres cristatellus*	八哥	R	

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status
Eastern Cattle Egret	*Bubulcus coromandus*	牛背鷺	R, PM	(LC)
Eastern Yellow Wagtail	*Motacilla tschutschensis*	東黃鶺鴒	PM, WV	
Eurasian Tree Sparrow	*Passer montanus*	樹麻雀	R	
Eurasian Wryneck	*Jynx torquilla*	蟻鴷	UPM, WV	
Great Egret	*Ardea alba*	大白鷺	R, WV	PRC(RC)
Greater Painted-snipe	*Rostratula benghalensis*	彩鷸	R	LC
Green Sandpiper	*Tringa ochropus*	白腰草鷸	UPM, WV	
Grey Heron	*Ardea cinerea*	蒼鷺	WV	PRC
House Swift	*Apus nipalensis*	小白腰雨燕	SpM, R	
Intermediate Egret	*Ardea intermedia*	中白鷺	CPM	RC
Large-billed Crow	*Corvus macrorhynchus*	大嘴烏鴉	R	
Little Egret	*Egretta garzetta*	小白鷺	R	PRC(RC)
Little Grebe	*Tachybaptus ruficollis*	小鸊鷉	R	LC
Little Ringed Plover	*Charadrius dubius*	金眶鴴	WV, PM	LC
Long-tailed Shrike	*Lanius schach*	棕背伯勞	R	
Long-toed Stint	*Calidris subminuta*	長趾濱鷸	CPM, SWV	LC
Marsh Sandpiper	*Tringa stagnatilis*	澤鷸	PM, WV	RC
Masked Laughingthrush	*Pterorhinus perspicillatus*	黑臉噪鶥	R	
Oriental Magpie-Robin	*Copsychus saularis*	鵲鴝	R	
Pied Avocet	*Recurvirostra avosetta*	反嘴鷸	WV	RC
Pied Kingfisher	*Ceryle rudis*	斑魚狗	UR	(LC)

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status
Plain Prinia	*Prinia inornata*	純色鷦鶯	R	
Red-billed Blue Magpie	*Urocissa erythrorhyncha*	紅咀藍鵲	R	
Red-necked Phalarope	*Phalaropus lobatus*	紅頸瓣蹼鷸	R	
Red-rumped Swallow	*Cecropis daurica*	金腰燕	UPM	
Red-whiskered bulbul	*Pycnonotus jocosus*	紅耳鵯	R	
Rock Dove	*Columba livia*	原鴿	R	
Scaly-breasted Munia	*Lonchura punctulata*	斑文鳥	R	
Spotted Dove	*Streptopelia chinensis*	珠頸斑鳩	R	
Swinhoe's White-eye	*Zosterops simplex*	暗綠繡眼鳥	R	
White Wagtail	*Motacilla alba*	白鶺鴒	PM, WV	
White-breasted Waterhen	*Amaurornis phoenicurus*	白胸苦惡鳥	R	
White-rumped Munia	*Lonchura striata*	白腰文鳥	R	
White-shouldered Starling	*Sturnia sinensis*	灰背椋鳥	M, WV, Sv	LC
White-throated Kingfisher	*Halcyon smyrnensis*	白胸翡翠	R	(LC)
Wood Sandpiper	*Tringa glareola*	林鷸	PM, WV	LC
Yellow-bellied Prinia	*Prinia flaviventris*	黃腹鷦鶯	R	

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status
Note: R – Resident; WV – Winter visitor; PM – Passage migrant; CPM - Common Passage Migrant; UPM – Uncommon passage migrant; UR – Uncommon resident; SPM - Scarce Passage Migrant; SpM – Spring Migrant; ; USV - Uncommon Summer visitor; Sv – Summer Visitor; SSv – Spring & Summer Visitor; SWV – Scarce winter visitor; Cap.586 : Endangered Species of Animals and Plants Ordinance (Cap.586) VU: Vulnerable on IUCN Red List of Threatened Species. (VU): Vulnerable in China Red Data Book Status (EN): Endangered in China Red Data Book Status RC=Regional Concern; LC=Local Concern; PRC=Potential Regional Concern; GC=Global Concern; PGC=Potential Global Concern. Letters in parentheses indicate that the assessment is on the basis of restrictedness in breeding and/or roosting sites rather than in general occurrence (Fellowes et al. (2002) WAL: Wet Agricultural Land DAL: Dry Agricultural Land SWH: Shallow Water Habitat P: Pond				

Appendix L2. Freshwater Macroinvertebrate Species Recorded for Aquatic Fauna Monitoring, 15 September, 2023

Common Name	Scientific Name	Conservation Status	Occurrence Status	Date: 15 September 2023									
				Weather: Storm									
				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	*Pomacea canaliculata*	-	Introduced								+++	+	++
Atyid shrimp	*Caridina* sp.	-	-										
Black Threadtail	*Prodasineura autumnalis*	-	Native		+					+			
Bladder Snail	*Physella acuta*	-	-		+		++		+	+			
Blood Worm	Chironomidae	-	-										
Caddisfly	*Hydroptila* sp.	-	-								++		
Chinese River Snail	*Sinotaia guangdungensis*	-	Native				+		+				
Crimson Dropwing	*Trithemis aurora*	-	Native								+		
Emerald Cascader	*Zygonyx iris insignis*	-	Native								+		
Freshwater Snail	*Radix plicatulus*	-	-		+								+
Golden Freshwater Clam	*Corbicula fluminea*	-	Native								++	++	
Leech	*Hirudinea*	-	-								+		
Mayfly	*Baetis* sp.	-	-								++	+	
Ram's Horn Snail	*Gyraulus convexiusculus*	-	Introduced		++	++							
Red-rimmed Melania	*Melanoides tuberculata*	-	Introduced		++	++							
Water Strider	*Metrocoris sp.*	-	-		+		+++		++	+++	+++	++	++

	Microvelia sp.	-	-		++		+++		+	+	+++	++	++
	Ptilomera tigrina	-	Native				+				+		
Total No. of species				0	7	2	5	0	4	4	10	5	4
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	Occurece Status	Date: 15 September 2023				
				Weather: Storm				
				Methods: Kick-netting, sweep netting and direct observation				
				Abundance				
				MS_11	MS_12	MS_13	MS_14	MS_15
Apple Snail	*Pomacea canaliculata*	-	Introduced		+++	++	+	++
Atyid shrimp	*Caridina* sp.	-	-			++	++	
Black Threadtail	*Prodasineura autumnalis*	-	Native					
Bladder Snail	*Physella acuta*	-	-					+++
Blood Worm	Chironomidae	-	-					
Caddisfly	*Hydroptila* sp.	-	-					
Chinese River Snail	*Sinotaia guangdungensis*	-	Native					
Crimson Dropwing	*Trithemis aurora*	-	Native					
Emerald Cascader	*Zygonyx iris insignis*	-	Native					
Freshwater Snail	*Radix plicatulus*	-	-					
Golden Freshwater Clam	*Corbicula fluminea*	-	Native			+++	+	++
Leech	*Hirudinea*	-	-					+
Mayfly	*Baetis* sp.	-	-					
Ram's Horn Snail	*Gyraulus convexiusculus*	-	Introduced					
Red-rimmed Melania	*Melanoides tuberculata*	-	Introduced					
Water Strider	*Metrocoris sp.*	-	-					
	Microvelia sp.	-	-					
	Ptilomera tigrina	-	Native					
Total No. of species				0	1	3	3	4
Total No. of Conservation Interest Species				0	0	0	0	0

Appendix L3. Freshwater Fish Species Recorded for Aquatic Fauna Monitoring, 15 September 2023

Common Name	Scientific Name	Conservation Status	Occurrence Status	Date: 15 September 2023									
				Weather: Storm									
				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	*Gambusia affinis*	-	Introduced										
Mozambique Tilapia	*Oreochromis mossambicus*	VU	Introduced				+				+		
Nile Tilapia	*Oreochromis niloticus*	-	Introduced				+				+		
Redbelly Tilapia	*Tilapia zillii*	-	Introduced										
Total No. of species				0	0	0	2	0	0	0	2	0	0
Total No. of Conservation Interest Species				0	0	0	1	0	1	0	2	0	0

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)

Common Name	Scientific Name	Conservation Status	Occurrence Status	Date: 15 September 2023				
				Weather: Storm				
				Methods: Kick-netting, sweep netting and direct observation				
				Abundance				
				MS_11	MS_12	MS_13	MS_14	MS_15
Mosquito Fish	*Gambusia affinis*	-	Introduced			++		
Mozambique Tilapia	*Oreochromis mossambicus*	VU	Introduced					+++
Nile Tilapia	*Oreochromis niloticus*	-	Introduced					+++
Redbelly Tilapia	*Tilapia zillii*	-	Introduced					+
Total No. of species				0	0	1	0	3
Total No. of Conservation Interest Species				0	0	0	0	1

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)

Appendix L4. Mammal Species Recorded for Ecologically Sensitive Habitat Monitoring, 14 & 21 September 2023

Common Name	Species Name	Chinese Name	Conservation Status	Occurrence Status	Date: 14/9/2023 (T1,6) , 21/9/2023 (T3,4,5)				
					Relative Abundance				
					Transect Walk				
					T1	T3	T4	T5	T6
Domestic Cat	*Felis catus*	野貓		Introduced	+			+	
Domestic Dog	*Canis lupus familiaris*	野狗		Introduced	+++		+++	+	++
Eurasian Wild Pig	*Sus scrofa*	野豬		Native				++	
Japanese Pipistrelle	*Pipistrellus abramus*	東亞家蝠	Cap. 170	Native	+++	+++	+++	+++	+++
Pallas's Squirrel	*Callosciurus erythraeus*	赤腹松鼠	Cap. 170	Introduced	++				
Short-nosed Fruit Bat	*Cynopterus sphinx*	短吻果蝠	Cap. 170, (NT)	Native			+		
Total No. of species					4	1	3	4	2
Total No. of Conservation Interest Species					2	1	2	1	2
Total No. of Native Species					1	1	2	2	1

Note:

Cap. 170: Species under protection of Wild Animals Protection Ordinance (Cap. 170)

(NT): Near Threatened in the Red List of China's Vertebrates

Occurrence Status was according to The IUCN Red List of Threatened Species website (https://www.iucnredlist.org)

+: species recorded within transect routes

++: species commonly recorded within transect routes

+++: dominant species within transect routes

Local Restrictedness Column has been removed as said information is no longer available.

Appendix L5. Herpetofauna Species Recorded for Ecologically Sensitive Habitat Monitoring, 14 & 21 September 2023

Common Name	Species Name	Chinese Name	Conservation Status	Occurrence Status	Date: 14/9/2023 (T1,6) , 21/9/2023 (T3,4,5)				
					Relative Abundance				
					Transect Walk				
					T1	T3	T4	T5	T6
Amphibian									
Asian Common Toad	*Bufo melanostictus*	黑眶蟾蜍	-	Native	+++	+	++	+++	+
Brown Tree Frog	*Polypedates megacephalus*	斑腿泛樹蛙	-	Native	++	+		+	+
Butler's Pigmy Frog	*Microhyla butleri*	粗皮姬蛙	-	Native	+++				
Greenhouse Frog	*Eleutherodactylus planirostris*	溫室蟾	-	Introduced	+			+++	
Gunther's Frog	*Hylarana guentheri*	沼蛙	-	Native	+			++	
Paddy Frog	*Fejervarya limnocharis*	澤蛙	-	Native	+++	+		+	
Reptile									
Bowring’s Gecko	*Hemidactylus bowringii*	原尾蜥虎	-	Native	+				+
Common Wolf Snake	*Lycodon capucinus*	白環蛇	-	Native			+		
Changeable Lizard	*Calotes versicolor*	變色樹蜥	-	Native	+			+	
Chinese gecko	*Gekko chinensis*	中國壁虎	-	Native	+	+	+		+
Long-tailed Skink	*Eutropis longicaudata*	長尾南蜥	-	Native	+		+		+
Taiwan Kukri Snake	*Oligodon formosanus*	台灣小頭蛇	(NT)	Native	+				
Total No. of species					11	4	4	6	5
Total No. of Conservation Interest Species					1	0	0	0	0

Total No. of Native Species	10	4	4	5	5

Note:
Occurrence Status was according to The IUCN Red List of Threatened Species website (https://www.iucnredlist.org)
(EN): Endangered in Red List of China Vertebrates
(NT): Near Threatened in Red List of China Vertebrates
+: species recorded within transect routes
++: species commonly recorded within transect routes
+++: dominant species within transect routes

Appendix L6. Butterfly Species Recorded Ecologically Sensitive Habitat Monitoring, 14 & 21 September 2023

Common Name	Species Name	Chinese Name	Conservation Status	Occurrence Status*	Date: 14/9/2023 (T1,6) , 21/9/2023 (T3,4,5)				
					Relative Abundance				
					Transect Walk				
					T1	T3	T4	T5	T6
Angled Castor	*Ariadne ariadne*	波蛺蝶		-	+		+		+
Baron	*Euthalia aconthea*	矛翠蛺蝶		-		+			
Black Prince	*Rohana parisatis*	羅蛺蝶		-	+				
Blue-spotted Crow	*Euploea midamus*	藍點紫斑蝶		-	+		+		
Chestnut Bob	*Iambrix salsala*	雅弄蝶		-	+++			+	
Chocolate Pansy	*Junonia iphita*	鉤翅眼蛺蝶		-	+				
Common Archduke	*Lexias pardalis*	小豹律蛺蝶	R	-				+	
Common Bluebottle	*Graphium sarpedon*	青鳳蝶		-			+		
Common Cerulean	*Jamides celeno*	錫冷雅灰蝶	R	-	+				
Common Five-ring	*Ypthima baldus*	矍眼蝶		-	+	+		++	+
Common Grass Yellow	*Eurema hecabe*	寬邊黃粉蝶		-	+++	+	++	++	+
Common Indian Crow	*Euploea core*	幻紫斑蝶		-	+	+	+		
Common Lascar	*Pantoporia hordonia*	金蟠蛺蝶		-				+	
Common Mime	*Chilasa clytia*	斑鳳蝶		-			+		
Common Mormon	*Papilio polytes*	玉帶鳳蝶		-	+++		++	++	++
Common Onyx	*Horaga onyx*	斑灰蝶		-	+				
Common Palmfly	*Elymnias hypermnestra*	翠袖鋸眼蝶		-	+	+			
Common Rose	*Pachliopta aristolochiae*	紅珠鳳蝶		-	+				

Common Name	Species Name	Chinese Name	Conservation Status	Occurrence Status*	Date: 14/9/2023 (T1,6) , 21/9/2023 (T3,4,5)				
					Relative Abundance				
					Transect Walk				
					T1	T3	T4	T5	T6
Common Sailer	*Neptis hylas*	中環蛺蝶			+	+	++		
Danaid Eggfly	*Hypolimnas misippus*	金斑蛺蝶	LC	-				+	
Dark Brand Bush Brown	*Mycalesis mineus*	小眉眼蝶		-	++			++	+
Five-bar Swordtail	*Pathysa antiphates*	綠鳳蝶		-				+	
Forest Hopper	*Astictopterus jama*	腌翅弄蝶		-			+		
Forget-me-not	*Catochrysops strabo strabo*	咖灰蝶	VR	-	+		++		
Great Egg-fly	*Hypolimnas bolina*	幻紫斑蛺蝶		-	+++	+	++	+	
Great Mormon	*Papilio memnon*	美鳳蝶		-			+		+
Green Flash	*Artipe eryx*	綠灰蝶		-	+			+	
Grey Scrub Hopper	*Aeromachus jhora*	寬鍔弄蝶	R	-				+	
Indian Cabbage White	*Pieris canidia*	東方菜粉蝶		-	+				+
Indian Palm Bob	*Suastus gremius*	素弄蝶		-				+	
Lemon Emigrant	*Catopsilia pomona*	遷粉蝶		-	++		+		+
Lemon Pansy	*Junonia lemonias*	蛇眼蛺蝶		-			+		
Metallic Cerulean	*Jamides alecto*	素雅灰蝶	R	-	+		+	+	
Paris Peacock	*Papilio paris*	巴黎翠鳳蝶		-	+		+	+	
Plum Judy	*Abisara echerius*	蛇目褐蜆蝶		-	+	+		+	+
Purple Sapphire	*Heliophorus epicles*	彩灰蝶		-				+	
Red Helen	*Papilio Helenus*	玉斑鳳蝶		-	+				
Red Ring Skirt	*Hestina assimilis*	黑脈蛺蝶			+				

Common Name	Species Name	Chinese Name	Conservation Status	Occurrence Status*	Date: 14/9/2023 (T1,6) , 21/9/2023 (T3,4,5)				
					Relative Abundance				
					Transect Walk				
					T1	T3	T4	T5	T6
Silver Royal	*Ancema blanka*	白襯安灰蝶				+			
Small White	*Pieris rapae*	菜粉蝶			+	+			
South China Bush Brown	*Mycalesis mineus*	平頂眉眼蝶			+++			+	+
Southern Sullied Sailer	*Neptis clinia*	珂環蛺蝶			+				
Spangle	*Papilio protenor*	藍鳳蝶			++			++	+
Tailed Jay	*Graphium agamemnon*	統帥青鳳蝶			++			++	
Tawny Rajah	*Charaxes bernardus*	白帶螯蛺蝶					+		
Three-spot Grass Yellow	*Eurema blanda*	劈黃粉蝶			+		+	+	
Transparent 6-line Blue	*Nacaduba kurava*	古樓娜灰蝶			+				
Total No. of species					32	10	18	21	11
Total No. of Conservation Interest Species					3	0	2	3	0

Note:

*Very limited data are available for the occurrence status (being native to Hong Kong) of butterflies

+: species recorded within transect routes

++: species commonly recorded within transect routes

+++: dominant species within transect routes

LC: Local Concern (Fellowes et al., 2002)
R: Rare (Chan et al. (2011))
VR: Very Rare (Chan et al. (2011))

Appendix L7. Odonata Species Recorded for Ecologically Sensitive Habitat Monitoring, 14 & 21 September 2023

Common Name	Species Name	Chinese Name	Conservation Status	Occurrence Stauts	Date: 14/9/2023 (T1,6) , 21/9/2023 (T3,4,5)				
					Relative Abundance				
					Transect Walk				
					T1	T3	T4	T5	T6
Amber-winged Glider	Hydrobasileus croceus	臀斑楔翅蜻					+		
Asian Amberwing	Brachythemis contaminata	黃翅蜻		Native	+			+	
Blue Chaser	*Potamarcha congener*	濕地狹翅蜻	LC	Native	+++		+		
Blue Dasher	*Brachydiplax flavovittata*	藍額疏脈蜻		Native					+
Common Blue Skimmer	*Orthetrum glaucum*	黑尾灰蜻		Native	++		+	+	+
Common Bluetail	*Ischnura senegalensis*	褐斑異痣蟌		Native				+	
Common Flangetail	*Ictinogomphus pertinax*	霸王葉春蜓		Native	+				
Common Red Skimmer	*Orthetrum pruinosum*	赤褐灰蜻		Native	++		+	++	+
Crimson Darter	*Crocothemis servilia*	紅蜻		Native				+	
Crimson Dropwing	*Trithemis aurora*	曉褐蜻		Native					+
Elusive Adjutant	*Aethriamanta brevipennis*	紅腹異蜻		Non-native					+
Green Skimmer	*Orthetrum sabina*	狹腹灰蜻		Native	+			+	+

Common Name	Species Name	Chinese Name	Conservation Status	Occurrence Stauts	Date: 14/9/2023 (T1,6) , 21/9/2023 (T3,4,5)				
					Relative Abundance				
					Transect Walk				
					T1	T3	T4	T5	T6
Indigo Dropwing	*Trithemis festiva*	慶褐蜻		Native	++				+
Pale-spotted Emperor	*Anax guttatus*	斑偉蜓		Native	+				
Pied Skimmer	*Pseudothemis zonata*	玉帶蜻		Native	+			+	+
Russet Percher	*Neurothemis fulvia*	網脈蜻		Native				+	
Saddlebag Glider	*Tramea virginia*	華斜痣蜻		Native		+			
Scarlet Basker	*Urothemis signata*	赤斑曲鈎脈蜻	LC	Native	+			+	
Variegated Flutterer	*Rhyothemis variegata*	斑麗翅蜻		Native	++		+		
Wandering Glider	*Pantala flavescens*	黃蜻		Native	+++	+	+++	+++	++
Total No. of species					12	2	6	10	9
Total No. of Conservation Interest Species					2	0	1	0	0
Total No. of Native Species					12	2	6	10	8

Common Name	Species Name	Chinese Name	Conservation Status	Occurrence Stauts	Date: 14/9/2023 (T1,6) , 21/9/2023 (T3,4,5)				
					Relative Abundance				
					Transect Walk				
					T1	T3	T4	T5	T6

Note:

Occurrence Status was according to The IUCN Red List of Threatened Species website (https://www.iucnredlist.org)

+: species recorded within transect routes

++: species commonly recorded within transect routes

+++: dominant species within transect routes

LC: Local Concern (Fellowes et al., 2002)

APPENDIX M
WEATHER CONDITION

APPENDIX M –
GENERAL WEATHER CONDITIONS DURING THE MONITORING PERIOD

Date	Mean Air Temperature (°C)	Mean Relative Humidity (%)	Precipitation (mm)
1 September 23	26.9	81	98.9
2 September 23	26.2	92	80.4
3 September 23	29.4	76	0.1
4 September 23	29.9	73	Trace
5 September 23	29.1	73	0.4
6 September 23	29.4	72	0
7 September 23	27.7	89	215.7
8 September 23	25.7	94	425
9 September 23	26.2	92	9.8
10 September 23	25.8	93	67.4
11 September 23	26.5	93	20.5
12 September 23	27	89	0.9
13 September 23	27.9	88	2.5
14 September 23	26.9	92	103.5
15 September 23	27.3	89	28.5

Date	Mean Air Temperature (°C)	Mean Relative Humidity (%)	Precipitation (mm)
16 September 23	**27.1**	**89**	**4.3**
17 September 23	**28.5**	**85**	**0**
18 September 23	**29.2**	**80**	**0**
19 September 23	**29.5**	**79**	**0**
20 September 23	**29.6**	**76**	**0**
21 September 23	**30**	**77**	**0**
22 September 23	**30.2**	**75**	**Trace**
23 September 23	**30.1**	**74**	**0**
24 September 23	**29.9**	**75**	**0**
25 September 23	**29.8**	**76**	**1.5**
26 September 23	**30**	**75**	**0**
27 September 23	**30.3**	**72**	**Trace**
28 September 23	**30.3**	**71**	**0**
29 September 23	**29.8**	**78**	**7.7**
30 September 23	**30**	**75**	**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	1. Identify source, investigate the causes of exceedance and propose remedial measures; 2. Inform IEC,ER and Contractor; 3. Repeat measurement to confirm finding; and 4. Increase monitoring frequency to daily.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; and 3. Review and advise the ET and ER on the effectiveness of the proposed remedial measures.	1. Notify Contractor.	1. Identify source, investigate the causes of exceedance and propose remedial measures 2. Rectify any unacceptable practice and implement remedial measures; and 3. Amend working methods agreed with ER if appropriate.
2. Exceedance for two or more consecutive samples	1. Identify source, investigate the causes of exceedance and propose remedial measures; 2. Inform IEC,ER and Contractor; 3. Advise the ER and Contractor on the effectiveness of the proposed remedial measures; 4. Repeat measurements	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET and Contractor on possible remedial measures; 4. Advise the ET and ER on the effectiveness of the proposed remedial measures; and 5. Supervise	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; and 3. Supervise and ensure remedial measures properly implemented.	1. Identify source, investigate the causes of exceedance and propose remedial measures 2. Submit proposals for remedial actions to ER with a copy to ET and IEC within 3 working days of notification; 3. Implement the

	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.	Implementation of remedial measures.		agreed proposals; and 4. Amend proposal if appropriate.
LIMIT LEVEL				
1.Exceedance for one sample	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	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.

		measures.		
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 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.	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.	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.	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	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.	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.	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	1. Submit noise mitigation proposals to ER and copy to the IEC and ET; 2. Implement noise mitigation proposals.
Limit Level	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;	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.	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	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	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.	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.	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.	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	1. Conduct addition site investigation on the same day; 2. Inform IEC, Contractor and ER; 3. Check monitoring data, all plant, equipment,	1. Discuss with ET, Contractor and ER on the implemented mitigation measures; 2. Review the proposed remedial measures submitted by Contractor and advise	1. Discuss with ET, IEC and Contractor on the proposed mitigation measures; 2. Make agreement on the remedial measures to be implemented; and	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**
	Contractor's working methods and other relative information; 4. Discuss remedial measures with IEC, contractor and ER; and 5. Review submit proposal and ensure the agreed remedial measures are implemented	the ER accordingly; and 3. Review and advise the ET and ER on the effectiveness of the implemented mitigation measures.	3. Discuss with ET, IEC and Contractor on the effectiveness of the implemented remedial measures	practice; 4. Check all plant and equipment and consider changes of working methods; 5. Discuss with ET, IEC and ER and submit proposal of remedial measures to ER and IEC within 3 working days of notification; and 6. Implement the agreed mitigation measures.
Limit level being exceeded by one sampling day	1. Conduct addition site investigation on the same day; 2. Inform IEC, Contractor and ER; 3. Rectify unacceptable practice; 4. Check monitoring data, all plant, equipment, Contractor's working methods and other relative information; 5. Consider changes of working methods; 6. Discuss mitigation measures with IEC, ER and Contractor; 7. Review the submit	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.	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; and 4. Discuss with ET, IEC and Contractor on the effectiveness of the implemented remedial measures.	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

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	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.	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.	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.	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 CH4 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;

	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.	their effectiveness and advise the ER accordingly; 3. Supervise the implementation of remedial measures	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 exceedanceis abated.	3. Implement the agreed proposals; 4. Resubmit proposals if problem still not under control; 5. Stop the relevant portion of works as determined by the ER until the exceedance is abated.

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

Table 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.	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	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	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.	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.	1. Investigate if the activity identified is related to the construction works; 2. Immediately inform IEC, Contractor and PP. 3. Discuss with the Contractor on the remedial measure(s) to mitigate the impact(s) identified; and 4. Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP.	1.Check the investigation and findings of the 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) of the activity identified.	1. Check the investigation and findings of the 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).
Limit Level exceeded	1. Investigate if the activity identified is related to the construction works;	1. Check the investigation and findings or the ET; 2. Discuss with the PP,	1. Confirm receipt of notification of the exceedance of Limit Level in writing;	1. Check the monitoring results and findings from ET and IEC; 2. Discuss the need for

	2. Immediately inform IEC, Contractor and PP. 3. Discuss with the Contractor on the remedial measure(s) to mitigate the impact(s) identified; 4. Discuss with the PP, IEC, and Contractor on the need for further mitigation measure(s); and 5. Conduct necessary site inspections/ audits to ensure all remedial measures are properly implemented by the Contractor, as agreed 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.	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.	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).

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

exceeded.	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.	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.	notification of the exceedance of Action Level in writing; and 2. Propose and implement the remedial measures(s) to mitigate the impact(s) identified.	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).

Limit Level Exceeded.	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.	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.	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.	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).
Operational Phase				
Action Level	1. Check monitoring	1.Check monitoring	1. Confirm receipt of	1. Check the monitoring

exceeded.	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.	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.	notification of the exceedance of Action Level in writing; and 2. Propose and implement the remedial measures(s) to mitigate the impact(s) identified.	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).

Limit Level exceeded.	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.	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.	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.	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).

Table N-6.3 Action and Limit Levels and Responses to Evidence of Declines in Aquatic Fauna

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.	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	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	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.	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.	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;	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).

	and 6. Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP.			
Limit 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	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	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.	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).

	impact(s) identified; 6. Discuss with the PP, IEC, and Contractor on the need for further mitigation measure(s); and 7. Conduct necessary site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP.	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.		

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.	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	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	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

	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.	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.		3. Supervise the instigated further mitigation measure(s).
Limit 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	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);	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),	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

	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 site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with the PP.	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.	then propose and implement the further mitigation measure(s); and 3. Propose and implement the remedial measures(s) to mitigate the impact(s) identified.	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).
Operational 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 implemented by the Contractor, as agreed with the 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 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).

Limit 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; 6. Discuss with the PP, IEC, and Contractor on the need for further mitigation measure(s); and 7. Conduct necessary	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.	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.	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.			

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).

	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.	results to the PP.		
Limit 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. 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	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.	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).

	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 site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed with 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.		
Operational Phase				
Action Level exceeded.	1. Check monitoring data and repeat data analysis to confirm findings; 2. Review relevant ecological data to	1.Check monitoring data, analysis and investigation by ET; 2.Review the remedial measure(s) proposed by the Contractor and	1. Confirm receipt of notification of the exceedance of Action Level in writing; and 2. Propose and implement the	1. Check the monitoring results and findings from ET and IEC; 2. Discuss the need for increased site inspection/audit

	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.	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.	remedial measures(s) to mitigate the impact(s) identified.	frequency proposed by ET with IEC and the Contractor; and 3. Supervise the instigated further mitigation measure(s).
Limit Level exceeded.	1. Check monitoring data and repeat data analysis to confirm findings;	1. Check monitoring data, analysis and investigation by ET;	1. Confirm receipt of notification of the exceedance of Limit Level in writing;	1. Check the monitoring results and findings from ET and IEC;

	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 site inspections/audits to ensure all remedial measures are properly implemented by the Contractor, as agreed	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.	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.	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).

	with the PP.			

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	$L_{eq(30\ min.)}$ 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	3	0	0
	Turbidity	0	2	0	0
	SS	0	0	0	0
	Arsenic	1	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	0	0	0
	Non-Aquatic Fauna	1	1	0	0
	General Site Inspection (LVNP)	0	0	0	0

APPENDIX P
SITE AUDIT SUMMARY

Weekly Site Inspection Record Summary

Checklist Reference Number	230905
Date	5 September 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	
	• 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.:230823), all environmental deficiencies were observed improved/rectified by the Contractor during the site inspection.	

	Name	Signature	Date
Recorded by	Marco Ma		6 September 2023
Checked by	Dr. Priscilla Choy		6 September 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

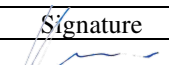
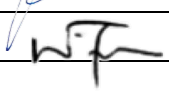
ND/2019/01 – Kwu Tung North New Development Area, Phase 1: Site Formation and Infrastructure Work

Weekly Site Inspection Record Summary

Checklist Reference Number	230912
Date	12 September 2023 (Tuesday)
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. Noise	
	• 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. 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.:230905), all environmental deficiencies were observed improved/rectified by the Contractor during the site inspection.	

	Name	Signature	Date
Recorded by	Marco Ma		12 September 2023
Checked by	Dr. Priscilla Choy		12 September 2023

Weekly Site Inspection Record Summary

Checklist Reference Number	230918
Date	18 September 2023 (Monday)
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	
230918-R01	• Sand Bag barriers along the site boundary at Portion 2 should be enhanced to prevent surface runoff discharge.	D 3
230918-R02	• Temporary ditches should be provided for runoff discharge into appropriate watercourse.	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	
	• Follow-up on previous audit section (Ref. No.:230912), no environmental deficiency was identified during the site inspection.	

	Name	Signature	Date
Recorded by	Marco Ma		19 September 2023
Checked by	Dr. Priscilla Choy		19 September 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	230926
Date	26 September 2023 (Tuesday)
Time	09:30 – 11:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	**Remarks/Observations**	**Related Item No.**
	B. Air Quality	
230926-R03	• The Contractor was reminded to provide sufficient water-spraying to enhance dust suppression measures.	B 1
	C. Noise	
	• No environmental deficiency was identified during site inspection.	
	D. Water Quality	
230926-R01	• 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.	D 3, D 4, D 5ii, D 5iv, D 13i and D 13ii
230926-R02	• Water pump failure causing muddy water overflow within the site boundary near Pak Shek Au should be fixed immediately.	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	
	• Follow-up on previous audit section (Ref. No.:230918), item no. 230918-R01 was observed improved/rectified by the Contractor. Item no. 230918-R02 was remarked as 230926-R02. Follow-up action is needed to be review.	

	Name	Signature	Date
Recorded by	Marco Ma		26 September 2023
Checked by	Dr. Priscilla Choy		26 September 2023

Weekly Site Inspection Record Summary

Checklist Reference Number	230906
Date	6 September 2023 (Wednesday)
Time	09:30 – 10:30

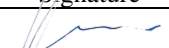
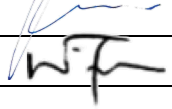
Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	**Remarks/Observations**	**Related Item No.**
	B. Air Quality	
	• No environmental deficiency was identified during site inspection.	
	C. Construction Noise Impact	
	• No environmental deficiency was identified during site inspection.	
	D. Water Quality	
	• No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	• No environmental deficiency was identified during site inspection.	
	F. Cultural Heritage	
	• No environmental deficiency was identified during site inspection.	
	G. Landscape and Visual	
230906-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
230906-R02	• Tree protection zone should be maintained properly and regularly.	G 1
	H. Ecology	
	• No environmental deficiency was identified during site inspection.	
	I. Permits/Licences	
	• No environmental deficiency was identified during site inspection.	
	L. Others	
	• Follow-up on previous audit section (Ref. No.:230830), item no. 230830-R03 was observed improved/rectified by the Contractor during the site inspection. Item 230830-R01 and 230830-R02 were remarked as 230906-R01 and 230906-R02 respectively. Follow-up actions are needed to be reviewed.	

	Name	Signature	Date
Recorded by	Marco Ma		6 September 2023
Checked by	Dr. Priscilla Choy		6 September 2023

Weekly Site Inspection Record Summary

Checklist Reference Number	230913
Date	13 September 2023 (Wednesday)
Time	09:30 – 10:30

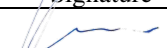
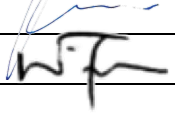
Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	**Remarks/Observations**	**Related Item No.**
	B. Air Quality	
	• No environmental deficiency was identified during site inspection.	
	C. Construction Noise Impact	
	• No environmental deficiency was identified during site inspection.	
	D. Water Quality	
	• No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	• No environmental deficiency was identified during site inspection.	
	F. Cultural Heritage	
	• No environmental deficiency was identified during site inspection.	
	G. Landscape and Visual	
230913-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
230913-R02	• Tree protection zone should be maintained properly and regularly.	G 1
	H. Ecology	
230913-R03	• 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.:230906), item no. 230906-R01 and 230906-R02 were remarked as 230913-R01 and 230913-R02 respectively. Follow-up actions are needed to be reviewed.	

	Name	Signature	Date
Recorded by	Marco Ma		14 September 2023
Checked by	Dr. Priscilla Choy		14 September 2023

Weekly Site Inspection Record Summary

Checklist Reference Number	230922
Date	22 September 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	
	• No environmental deficiency was identified during site inspection.	
	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	
230922-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
230922-R02	• Tree protection zone should be maintained properly and regularly.	G 1
	H. Ecology	
230922-R03	• 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.:230913), item no. 230913-R01, 230913-R02 and 230913-R03 were remarked as 230922-R01, 230922-R02 and 230922-R03 respectively. Follow-up actions are needed to be reviewed.	

	Name	Signature	Date
Recorded by	Marco Ma		22 September 2023
Checked by	Dr. Priscilla Choy		22 September 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	230927
Date	27 September 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	
230927-R04	• Drainage system should be maintained properly along the riverside and VC, mitigation measures including fully enclosed sand bag barrier should be implemented.	D 4, D 6
230927-R05	• Exposed slope surface should be covered by tarpaulin sheets properly.	D 7
	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	
230927-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
230927-R02	• Construction works of the VC exceeding site boundary causing damage to trees within 2m from site boundaries.	G 1
	H. Ecology	
230927-R03	• 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.:230922), item no. 230922-R01, 230922-R02 and 230922-R03 were remarked as 230927-R01, 230927-R02 and 230927-R03 respectively. Follow-up actions are needed to be reviewed.	

	Name	Signature	Date
Recorded by	Marco Ma		27 September 2023
Checked by	Dr. Priscilla Choy		27 September 2023

Weekly Site Inspection Record Summary

Checklist Reference Number	230914
Date	14 September 2023 (Thursday)
Time	9:30 - 10:30

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	**Remarks/Observations**	**Related Item No.**
	B. Air Quality	
230914-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	
230914-R02	• Provide sand bags to prevent muddy water discharge.	D 3
230914-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.:230914), item no. 230831-R01, 230831-R02 and 230831-O01 were remarked as 230914-R01, 230914-R02 and 230914-O01 respectively. Follow-up actions are needed to be reviewed.	

	Name	Signature	Date
Recorded by	Him Ng		18 September 2023
Checked by	Dr. Priscilla Choy		18 September 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	230919
Date	19 September 2023 (Tuesday)
Time	9:30 - 10:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	**Remarks/Observations**	**Related Item No.**
	B. Air Quality	
230919-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	
230919-R02	• Provide sand bags to prevent muddy water discharge.	D 3
230919-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.:230919), item no. 230914-R01, 230914-R02 and 230914-O01 were remarked as 230919-R01, 230919-R02 and 230919-O01 respectively. Follow-up actions are needed to be reviewed.	

	Name	Signature	Date
Recorded by	Adrian Lam		19 September 2023
Checked by	Dr. Priscilla Choy		19 September 2023

Weekly Site Inspection Record Summary

Checklist Reference Number	230929
Date	29 September 2023 (Friday)
Time	10:00 - 10:30

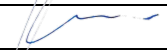
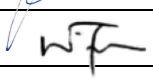
Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	**Remarks/Observations**	**Related Item No.**
	B. Air Quality	
230929-R01	• Dusty stockpiles should be covered with tarpaulin sheets.	B 2
	C. Construction Noise Impact	
	• No environmental deficiency was identified during site inspection.	
	D. Water Quality	
230929-R02	• Provide sand bags to prevent muddy water discharge.	D 3
230929-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.:230919), item no. 230919-R01, 230919-R02 and 230919-O01 were remarked as 230929-R01, 230929-R02 and 230929-O01 respectively. Follow-up actions are needed to be reviewed.	

	Name	Signature	Date
Recorded by	Adrian Lam		29 September 2023
Checked by	Dr. Priscilla Choy		29 September 2023

Weekly Site Inspection Record Summary

Checklist Reference Number	230907
Date	7 September 2023 (Thursday)
Time	14:00 – 15:00

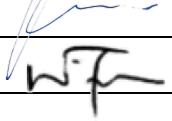
Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	**Remarks/Observations**	**Related Item No.**
	B. Air Quality	
	• No environmental deficiency was identified during site inspection.	
	C. Noise	
	• No environmental deficiency was identified during site inspection.	
	D. Water Quality	
230907-R01	• All vehicles should be cleaned of earth, mud and debris before leaving the site.	D 11
230907-R02	• Stockpiles of dusty materials should be covered properly and securely during rainstorm.	D 8
230907-O01	• Earth bunds or sand bag barriers around the construction site next to Ma Wat River should be provided to prevent surface runoff discharge through the site boundary.	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.: 230831), item no. 230831-R01 and 230831-R02 were remarked as 230907-R01 and 230907-R02 respectively. Follow-up actions are needed to be reviewed.	

	Name	Signature	Date
Recorded by	Marco Ma		8 September 2023
Checked by	Dr. Priscilla Choy		8 September 2023

Weekly Site Inspection Record Summary

Checklist Reference Number	230913
Date	13 September 2023 (Wednesday)
Time	14:00 – 15:00

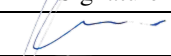
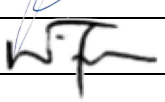
Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	**Remarks/Observations**	**Related Item No.**
	B. Air Quality	
	• No environmental deficiency was identified during site inspection.	
	C. Noise	
	• No environmental deficiency was identified during site inspection.	
	D. Water Quality	
230913-R01	• All vehicles should be cleaned of earth, mud and debris before leaving the site.	D 11
230913-O01	• Earth bunds or sand bag barriers around the construction site next to Ma Wat River should be fully enclosed to prevent surface runoff discharge through the site boundary.	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	
230913-R02	• The silt curtain deployed around platform F02 should be maintained properly.	H 4
	I. Permits/Licences	
	• No environmental deficiency was identified during site inspection.	
	J. Others	
	Follow-up on previous audit section (Ref. No.: 230907), item on. 230907-R02 was observed improved/rectified by the Contractor during the site inspection. Item no. 230907-R01 and 230907-O01 were remarked as 230913-R01 and 230913-O01 respectively. Follow-up actions are needed to be reviewed.	

	Name	Signature	Date
Recorded by	Marco Ma		14 September 2023
Checked by	Dr. Priscilla Choy		14 September 2023

Weekly Site Inspection Record Summary

Checklist Reference Number	230921
Date	21 September 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	
230921-R02	• Stockpile of dusty materials should be covered by tarpaulin sheets.	B 2
	C. Noise	
	• No environmental deficiency was identified during site inspection.	
	D. Water Quality	
230921-R01	• All vehicles should be cleaned of earth, mud and debris 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	
	• 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.: 230913), item on. 230913-R02 and 230913-O01 were observed improved/rectified by the Contractor during the site inspection. Item no. 230913-R01 was remarked as 230921-R01. Follow-up action is needed to be reviewed.	

	Name	Signature	Date
Recorded by	Marco Ma		22 September 2023
Checked by	Dr. Priscilla Choy		22 September 2023

Weekly Site Inspection Record Summary

Checklist Reference Number	230928
Date	28 September 2023 (Thursday)
Time	14:00 – 15:30

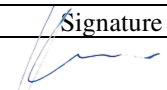
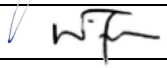
Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	**Remarks/Observations**	**Related Item No.**
	B. Air Quality	
230928-R04	• Sufficient water-spraying should be provided regularly.	B 1
	C. Noise	
230928-R03	• Noise barrier should be maintained properly.	C 6
	D. Water Quality	
230928-R01	• All vehicles should be cleaned of earth, mud and debris before leaving the site.	D 11
230928-R05	• Water quality mitigation measures along Ng Tung River should be provided, e.g. sand bag barrier.	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	
230928-R02	• Silt curtain at Bridge F should be fully enclosed.	H 5
	I. Permits/Licences	
	• No environmental deficiency was identified during site inspection.	
	J. Others	
	Follow-up on previous audit section (Ref. No.: 230921), item on. 230921-R02 was observed improved/rectified by the Contractor during the site inspection. Item no. 230921-R01 was remarked as 230928-R01. Follow-up action is needed to be reviewed.	

	Name	Signature	Date
Recorded by	Marco Ma		28 September 2023
Checked by	Dr. Priscilla Choy		28 September 2023

Weekly Site Inspection Record Summary

Checklist Reference Number	230904
Date	4 September 2023 (Monday)
Time	14:00 – 15:00

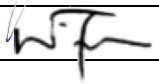
Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	**Remarks/Observations**	**Related Item No.**
	B. Air Quality	
	• No environmental deficiency was identified during site inspection.	
	C. Noise	
	• No environmental deficiency was identified during site inspection.	
	D. Water Quality	
	• No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	• 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.: 230828), all the environmental deficiencies were observed improved/rectified by the Contractor during the site inspection.	

	Name	Signature	Date
Recorded by	Marco Ma		4 September 2023
Checked by	Dr. Priscilla Choy		4 September 2023

Weekly Site Inspection Record Summary

Checklist Reference Number	230914
Date	14 September 2023 (Thursday)
Time	09:00 – 10:00

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	
	• 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.: 230904), no majot environmental deficiency was observed during the site inspection.	

	Name	Signature	Date
Recorded by	Marco Ma		14 September 2023
Checked by	Dr. Priscilla Choy		14 September 2023

Weekly Site Inspection Record Summary

Checklist Reference Number	230918
Date	18 September 2023 (Monday)
Time	14:00 – 15:00

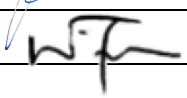
Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	**Remarks/Observations**	**Related Item No.**
	B. Air Quality	
230918-R01	• Provide maintenance for excavator to avoid black smoke emission.	A 23
	C. Noise	
	• No environmental deficiency was identified during site inspection.	
	D. Water Quality	
	• No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	• 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.: 230914), no major environmental deficiency was observed during the site inspection.	

	Name	Signature	Date
Recorded by	Him Ng		19 September 2023
Checked by	Dr. Priscilla Choy		19 September 2023

Weekly Site Inspection Record Summary

Checklist Reference Number	230926
Date	26 September 2023 (Tuesday)
Time	14:00 – 15:00

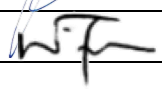
Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	**Remarks/Observations**	**Related Item No.**
	B. Air Quality	
	• No environmental deficiency was identified during site inspection.	
	C. Noise	
	• No environmental deficiency was identified during site inspection.	
	D. Water Quality	
230926-R01	• Blue hose attached to waterpump should be kept away from the riverside.	D 1
	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.: 230918), item no. 230918-R01 was observed improved/rectified by the Contractor during the site inspection.	

	Name	Signature	Date
Recorded by	Marco Ma		26 September 2023
Checked by	Dr. Priscilla Choy		26 September 2023

Weekly Site Inspection Record Summary

Checklist Reference Number	230907
Date	7 September 2023 (Thursday)
Time	13:30-14:00

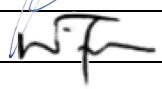
Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	**Remarks/Observations**	**Related Item No.**
	B. Air Quality	
	• No environmental deficiency was identified during site inspection.	
	C. Noise	
	• No environmental deficiency was identified during site inspection.	
	D. Water Quality	
	• No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	• 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.: 230831), no environmental deficiency was identified during site inspection.	

	Name	Signature	Date
Recorded by	Marco Ma		7 September 2023
Checked by	Dr. Priscilla Choy		7 September 2023

Weekly Site Inspection Record Summary

Checklist Reference Number	230913
Date	13 September 2023 (Wednesday)
Time	13:30-14:00

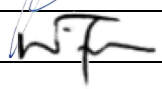
Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	**Remarks/Observations**	**Related Item No.**
	B. Air Quality	
	• No environmental deficiency was identified during site inspection.	
	C. Noise	
	• No environmental deficiency was identified during site inspection.	
	D. Water Quality	
	• No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	• 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.: 230907), no environmental deficiency was identified during site inspection.	

	Name	Signature	Date
Recorded by	Marco Ma		14 September 2023
Checked by	Dr. Priscilla Choy		14 September 2023

Weekly Site Inspection Record Summary

Checklist Reference Number	230921
Date	21 September 2023 (Thursday)
Time	13:30-14:00

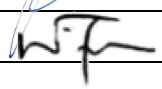
Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	**Remarks/Observations**	**Related Item No.**
	B. Air Quality	
	• No environmental deficiency was identified during site inspection.	
	C. Noise	
	• No environmental deficiency was identified during site inspection.	
	D. Water Quality	
	• No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	• 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.: 230913), no environmental deficiency was identified during site inspection.	

	Name	Signature	Date
Recorded by	Marco Ma		25 September 2023
Checked by	Dr. Priscilla Choy		25 September 2023

Weekly Site Inspection Record Summary

Checklist Reference Number	230928
Date	28 September 2023 (Thursday)
Time	13:30-14:00

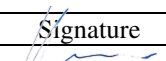
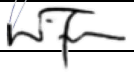
Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	**Remarks/Observations**	**Related Item No.**
	B. Air Quality	
	• No environmental deficiency was identified during site inspection.	
	C. Noise	
	• No environmental deficiency was identified during site inspection.	
	D. Water Quality	
	• No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	• 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.: 230921), no environmental deficiency was identified during site inspection.	

	Name	Signature	Date
Recorded by	Marco Ma		28 September 2023
Checked by	Dr. Priscilla Choy		28 September 2023

Weekly Site Inspection Record Summary

Checklist Reference Number	230915
Date	15 September 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. 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.: 230831), no major environmental deficiency was observed during site inspection.	

	Name	Signature	Date
Recorded by	Marco Ma		15 September 2023
Checked by	Dr. Priscilla Choy		15 September 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	230919
Date	19 September 2023 (Tuesday)
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.: 230915), no major environmental deficiency was observed during site inspection.	

	Name	Signature	Date
Recorded by	Marco Ma		19 September 2023
Checked by	Dr. Priscilla Choy		19 September 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	230925
Date	25 September 2023 (Monday)
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	
	• 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.: 230919), no major environmental deficiency was observed during site inspection.	

	Name	Signature	Date
Recorded by	Marco Ma		25 September 2023
Checked by	Dr. Priscilla Choy		25 September 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/m2 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	Following dust suppression measures should also be incorporated by the Contractor to control the dust nuisance throughout the construction Phase • Any excavated or stockpile of dusty material should be covered entirely by impervious sheeting or sprayed with water to maintain the entire surface wet and then removed or backfilled or reinstated where practicable within 24 hours of the excavation or unloading; • 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
		hoarding of not less than 2.4m high should be provided as far as practicable along the site boundary with provision for public crossing. Good site practice shall also be adopted by the Contractor to ensure the conditions of the hoardings are properly maintained throughout the construction period. • The portion of any road leading only to construction site that is within 30m of a vehicle entrance or exit should be 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					^ ^ ^ ^ ^ 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
		• 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: • 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
		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; • 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
			representative locations		noise monitoring stations		
Water Quality Impact (Construction Phase)							
S5.7	W1	Construction Runoff and Site Drainage In accordance with the Practice Note for Professional Persons on Construction Site Drainage, Environmental Protection Department, 1994 (ProPECC PN 1/94), construction phase mitigation measures should be provided and the Storm Water Pollution Control Plan is given below. where appropriate, should include the following: **Stormwater Pollution Control Plan** • At the start of site establishment, perimeter cut-off drains to direct off-site water around the site should be constructed with internal drainage works and erosion and sedimentation control facilities implemented. Channels (both temporary and permanent drainage pipes and culverts), earth bunds or sand bag barriers should be provided on site to direct stormwater to silt removal facilities. The design of the temporary on-site drainage system will be undertaken by the Contractor prior to the commencement of construction. • Diversion of natural stormwater should be provided as far as possible. The design of temporary on-site drainage should prevent runoff going through site surface, construction machinery and equipments in order to avoid or minimize polluted runoff. Sedimentation tanks with sufficient capacity, constructed from pre-formed individual cells of approximately 6 to 8m^3 capacities, are recommended as a general mitigation measure which can be used for settling surface runoff prior to disposal. The system capacity shall be flexible and able to handle multiple	Control construction runoff	Contractor	All construction sites	Construction phase	^ #

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		inputs from a variety of sources and suited to applications where the influent is pumped. • 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					^ ^ # * ^

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
		foundation excavations should be discharged into storm drains via silt removal facilities. • All open stockpiles of construction materials (for example, aggregates, sand and fill material) of more than $50m^3$ 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					^ ^ ^ #

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
		public roads and drains. • Oil interceptors should be provided in the drainage system downstream of any oil/fuel pollution sources. The oil interceptors should be emptied and cleaned regularly to prevent the release of oil and grease into the storm water drainage system after accidental spillage. A bypass should be provided for the oil interceptors to prevent flushing during heavy rain. • 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.					N/A ^ ^ ^
S5.7	W2	<u>*Stream Diversion*</u> • 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	*Groundwater from Contaminated Area* • For other inaccessible sites, site investigation is required when they are resumed and handed over to the Project Proponent to identify if contaminated groundwater is found. • 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 N/A
S5.7	W4	*Sewage from Workforce* Portable chemical toilets and sewage holding tanks should be provided for	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
		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. Notices should be posted at conspicuous locations to remind the workers not to discharge any sewage or wastewater into the nearby environment during the construction phase of the Project. Regular environmental audit on the construction site should be conducted in order to provide an effective control of any malpractices and achieve continual improvement of environmental performance on site. It is anticipated that sewage generation during the construction phase of the Project would not cause water quality impact after undertaking all required measures.					
Waste Management (Construction Waste)							
S7.6	WM1	<u>*Waste Reduction Measures*</u> Waste reduction is best achieved at the planning and design phase, as well as by ensuring the implementation of good site practices. The following recommendations are proposed to achieve reduction: • segregate and store different types of waste in different containers, skip or stockpiles to enhance reuse or recycling of materials and their proper disposal; • 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	^ ^

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; • 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	*Good Site Practice* The following good site practices are recommended throughout the construction activities: • Nomination of an approved personnel, such as a site manager, to be responsible for the implementation of good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site; • 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
		• 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;					^ ^ *
S7.6	WM4	*Storage of Waste* The following recommendation should be implemented to minimize the impacts: • 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	^ ^ ^
S7.6	WM5	*Collection and Transportation of Waste* The following recommendation should be implemented to minimize the	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: • 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: • 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
		recycled and disposed of for checking; 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. Wheel wash facilities have to be provided at the site entrance before the trucks leaving the works area.					N/A ^
S7.6	WM7	*Contaminated Soil* As a precaution, it is recommended that standard good site practice should be implemented during the construction phase to minimize any potential exposure to contaminated soils or groundwater. The details of river measures to minimize the potential environmental implications arising from the handling of contaminated materials refer to Land Contamination Section.	Remediate contaminated soil	Contractor	All construction sites where applicable	Construction phase	^
S7.6	WM8	*Chemical Waste* If chemical wastes are produced at the construction site, the Contractors should register with EPD as chemical waste producers. Chemical wastes should be stored in appropriate containers and collected by a licensed	Control the chemical waste and ensure proper storage, handling and disposal	Contractor	All construction sites	Construction phase	^

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		chemical waste Contractor. Chemical wastes (e.g. spent lubricant oil) should be recycled at an appropriate facility as far as possible, while the chemical waste that cannot be recycled should be disposed of at either the Chemical Waste Treatment Centre, or another licensed facility, in accordance with the Waste Disposal (Chemical Waste) (General) Regulation.					
S7.6	WM9	*General Waste* • General refuse should be stored in enclosed bins separately from construction and chemical wastes. Recycling bins should also be placed to encourage recycling. • 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	*Sewage* • The WMP should document the locations and number of portable chemical toilets depending on the number of workers, land availability, site condition and activities. • 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

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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

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
					contaminated or could not be accessed for visual inspection during the site survey as listed in the CAP		
S 8.7.2 and Appendix 8.4	LC6	Treatment of arsenic-containing soil "Solidification/Stabilization" (S/S) treatment method was proposed for the treatment of arsenic-containing soil. Toxicity Characteristic Leaching Procedure (TCLP) test should be undertaken after S/S in order to ensure that the contaminant will not leach to the environment. Unconfined Compressive Strength (UCS) test should be conducted, and not less than 1MPa should be met prior to the backfilling or stockpiled for future reuse within the study area.	To treat the arsenic containing soil	Government Developer/ Contractor	KTN NDA	Prior to commencement of construction works within KTN NDA	N/A
S 8.7.2 and Appendix 8.4	LC7	Excavation and Transportation • 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
		possible to minimize runoff from excavated soils; • 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	Solidification/Stabilization • 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 ^ ^

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
		practicable from the nearby noise sensitive receivers; • 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 bunded. Stockpiles should be properly covered by impermeable sheeting to reduce dust emission during dry season or site run-off during rainy season; and If necessary, there should be clear and separated areas for stockpiling of untreated and treated materials.					^ ^ *
S 8.7.2 and Appendix 8.4	LC9	<u>Safety Measures</u> • 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

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
		necessary; • 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 Eating, drinking and smoking should not be allowed in the excavation areas and treatment area to avoid inadvertent ingestion of arsenic containing soil.					
Landfill Gas Hazard							
S10.6	LFG1	• 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
		include the use of membranes in floors or walls, or in trenches, coupled with high permeability vents such as nofines gravel in trenches or voids/permeable layers below structures. • The need and practicality of incorporating such measures should be reviewed in the detailed Qualitative LFG Hazards Assessment (QLFGHA) during the detailed design stage for developments within the 250m Consultation Zone and within MTLL. Recommendations on the detailed precautionary and protection measures to be adopted should be given in the QLFGHA. • The design and construction method of the proposed development within MTLL (i.e. the proposed recreational area in site E1-1) should be provided to EPD for agreement in the design stage to ensure compatibility with the landfill restoration facilities and aftercare works within MTLL, such that these facilities and works will not be affected by the construction or operation of the proposed development.					
S10.6	LFG2	• During all works, safety procedures should be implemented to minimize the risks of fires and explosions, asphyxiation of workers (especially in confined space) and toxicity effects resulting from contact with contaminated soils and groundwater. • Safety officers, specifically trained with regard to LFG and leachate related hazards and the appropriate actions to take in	To minimize the risk of LFG hazards to the staff and visitors within MTLL and its 250m Consultation Zone	Contractor	Construction sites within MTLL and its 250m Consultation Zone	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
		adverse circumstances, should be present on all worksites throughout the works. • 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 premizes, 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.					^ ^ ^ ^ ^

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
		• 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.					N/A
		• During the construction works, adequate fire extinguishers and breathing apparatus sets should be made available on site and appropriate training given in their use.					^

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		• Ongoing gas monitoring should be considered for offices, stores etc set up on site.					^
S10.6	LFG3	Utility Companies • 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. Building Management • 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	To minimize the risk of LFG hazards to the occupants, maintenance personnel, visitors and other users within MTLL and its 250m Consultation Zone	Government / Developer within MTLL and its 250m Consultation Zone	Buildings within MTLL and its 250m Consultation Zone	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
		precautions required to be taken. • 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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		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. • 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 QLFGHA before the occupation of the building and implemented during its operational					

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		phase.					
Cultural Heritage (Pre-construction Phase)							
S11.6.1	CH1	<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 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.	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	Undertaking Survey-cum-Rescue Excavation 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 3 and In FLN NDA for Site 5.	After land resumption but before construction commencement of the zone	N/A
S11.6.1	CH3	Undertaking Preservation in-situ for Site 7 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. 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	To preserve the archaeological resources as far as possible.	Project Proponent/ Contractor/ Qualified Archaeologist	Site 7 in FLN NDA	After land resumption prior to preconstruction stage of the proposed Central Park (Area C2-8, Zoning O)	N/A

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		Authority under the AM Ordinance.					
S11.6.1	CH4	Undertaking Induction Training 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.	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	Undertaking Archaeological Impact Assessment before Construction at A1 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	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	Undertaking Archaeological Impact Assessment before Construction within A1 but except Area B1-8 and B1-9 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.	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	Undertaking baseline condition survey and baseline vibration impact assessment 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	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	Undertaking baseline condition survey and baseline vibration impact assessment 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.	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	Conducting Photographic and Cartographic Records Prior to Removal/Relocation of Impacted Built Heritages Prior to removal/relocation of the directly impacted historical buildings and cultural/historical landscape features, photographic and cartographic	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	Conducting Photographic and Cartographic Records Prior to Removal/Relocation of Impacted Built Heritages Prior to removal/relocation of the directly impacted historical buildings and cultural/historical landscape features, photographic and cartographic records should be conducted to preserve them by record. Liaison with and obtaining agreement from the descendants of these features will be carried out by the Project Proponent.	To preserve the directly impacted sites by record prior to their removal / relocation	Project Proponent/ Contractor	KT12 and KT61	Prior to Removal / Relocation of features before commencement of construction works	N/A
S11.6.2	CH11	Relocation of Built Heritages Relocation of built heritages to a reasonable location nearby may be required.	To preserve the directly impacted sites by relocation	Project Proponent/ Contractor	HKT01, HKT02, Entrance Gate of HKT03	After the photographic and cartographic records and before commencement of	N/A

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						construction works	
S11.6.2	CH12	Drainage System and Access Route Design For the retained built heritage items in developable area, drainage system and access route would be designed to prevent the persevered flooding and maintain the accessibility to the built heritage.	To prevent the persevered flooding and maintain the accessibility to the built heritage	Contractor /Detailed Design consultant	The retained built heritage items	Pre-construction phase	N/A
Cultural Heritage (Construction Phase)							
S11.6.1	CH13	Inform Upon Archaeological Discovery Pursuant to the Antiquities and Monuments Ordinance, the construction Contractor should inform the AMO immediately in case of discovery of antiquities or supposed antiquities in the course of excavation works in construction phase.	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	Watertable Monitoring Since the construction works and development activities may induce change in the watertable. It is recommended the Contractor should ensure that the change of watertable induced by the construction works and development activities will not result in settlement of built heritage.	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	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	Contractor	Identified potential vibration impacted built heritage features	Construction phase, with details specified in baseline condition survey and baseline vibration impact assessment	^
Landscape and Visual Impact (Detailed Design, Prior to Construction, Construction and Operation Phases)							
S.12.9	LV1	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 the areas become available, to achieve early establishment	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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		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.					
S12.9 MM14.4	LV 4	Avoid affecting Watercourses – In the detailed design, consideration should be made of watercourses, to minimize any impacts e.g. at new bridge crossings, viaducts, road alignment etc. Guidelines stated should be followed. For example, for the stream at Siu Hang San Tsuen in FLN NDA, much of the stream is located underneath the viaduct for the proposed Fanling Bypass. In order to avoid impacts to the stream, the detailed	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 – Exiting trees to be retained within the Project Site should be carefully protected during construction. In particular OVTs will be preserved according to ETWB Technical Circular (Works) No. 29/2004. Detailed Tree Protection Specification shall be provided in the Contract Specification. Under this specification, the Contractor shall be required to submit, for approval, a detailed working method statement for the protection of trees prior to undertaking any works adjacent to all retained trees, including trees in Contractor's works areas.	Protect and Preserve Trees	Government / Detailed Design Consultant/ Contractor	Onsite	Prior to Construction and Construction Phase	N/A

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		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					
S.12.9 MM5	LV7	Tree Transplantation – Trees unavoidably affected by the Project works should be transplanted where practical. Trees should be transplanted straight to their final receptor site and not held in a temporary nursery as far as possible. A detailed Tree Transplanting Specification shall be provided in the Contract Specification, where applicable. Sufficient time for necessary tree root and crown preparation periods shall be allowed in the project programme. A detailed transplanting proposal will be submitted to relevant government departments for approval in accordance with ETWBTC 2/2004 and 3/2006 and final locations of transplanted trees should be agreed prior to commencement of the work. For trees associated with highways e.g. roadside planting along highways, that are unavoidably affected and should be transplanted,	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	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	Onsite	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
S.12.9 MM7	LV9	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	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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		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 *Melastoma malabathricum, Diospyros vaccinioides, Gardenia jasminoides, Ixora chinensis, Ligustrum sinense, Litsea rotundifolia, Melastoma dodecandrum, Atalantia buxifolia, Rhodomyrtus tomentosa, Rhaphiolepis indica, and Rhododendron simsii* are suggested.					
S.12.9 MM8	LV10	Woodland Compensatory Planting –Specific Woodland compensatory planting is proposed for any areas of quality woodland that are unavoidably affected by the Project. The location and design of the woodland compensatory planting will principally be within habitats of lower value such as upland grassland. The proposed locations are identified, for example, on the foothills of Tai Shek Mo, and on the higher ground of Fung Kong Shan in KTN NDA; along Fanling Bypass; and a small area in the northern FLN NDA. The intention of the compensatory woodland will be to recreate areas of quality woodland, not necessarily to compensate for loss of trees on a like for like basis (See E18 & E27 also). Native tree species are suggested for planting in the appropriate					N/A

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		locations, including *Ailanthus fordii, Bischofia javanica, Castanopsis fissa, Celtis sinensis, Cinnamomum burmannii, Cinnamomum camphora, Xanthoxlyum avicennaeHibiscus 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, Rhaphiolepis indica, and Rhododendron simsii*. 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.					

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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	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 / 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	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 along the embankments and beds of modified/ reprovisioned watercourses.	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	Reprovision of Natural Stream – Where natural streams are unavoidably affected along some of their length, they can be diverted to avoid the proposed new developments and retain the integrity of the whole stream. Detailed design of any stream diversion should follow the Guidelines in ETWB Technical Circular (Works) No. 5/2005 (Protection of natural streams/rivers from adverse impacts arising from construction works) and appropriate construction methods should be used. Two short stretches of the Ma Tso Lung Stream will be affected by Project in the KTN NDA; by the LMC Eastern Connection Road on the western border of Site F1-3 and further upstream by Site E-2. At both these locations, the stream will be reprovisioned and maintain the flow between unaffected sections of the stream. The reprovisioned stream will be provided with a natural bed and banks, as well as having an area of marsh/ pool next to it and trees and shrubs further from the banks. (See E2, E14 and E24 also)	Achieve a natural stream, similar to existing, including wetland planting provision for embankments	Government / Developer/ Detailed Design Consultant/ Contractor	Streams and channelized watercourses e.g. a Ma Tso Lung and Siu Han San Tsuen	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
S12.9 MM14.2	LV17	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.	Protect natural streams	Government / Developer/ Detailed Design Consultant/ Contractor	Streams and channelized watercourses e.g. a Ma Tso Lung and Siu Han	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A

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		For the stream at Ma Tso Lung in KTN NDA, the middle and upper sections will be designated as Green Belt zone where there is a general presumption against development as buffer to the stream. For the stream at Siu Hang San Tsuen in FLN NDA, within the NDA boundary much of the stream would be located underneath the viaduct for the proposed Fanling Bypass. To the south of the viaduct the stream flows through an Open Space area D1-3. In this Open Space zone a 10m buffer is proposed in which natural vegetation will be retained and enhanced and human activities will be limited in order to avoid direct impacts to the stream bed and to minimize potential indirect impacts to the stream and riparian corridor. (See E3 also)			San Tsuen		
S12.9 MM14.3	LV18	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.	Minimize the necessity of watercourse modification, protect watercourses where possible and enhance channelized watercourses	Government / Developer/ Detailed Design Consultant/ Contractor	Channelized watercourse, particularly the Ma Wat River Channel Diversion	Prior to Construction, Construction Phase & Maintenance in Operation Phase	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	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
S.12.9 MM16	LV20	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	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
Ecology (Prior to Construction Phase or throughout the project)							
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 egretry.	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 egretry. 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 egretry 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	Preparation and implementation of Guidelines for building design measures to minimize mortality and light and glare impacts to fauna. Guidelines to address the following measures: Use opaque, non-transparent, non-reflective noise barriers for all developments associated with the Project. Measures to include the following: • 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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		• 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/Detailed 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	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. 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. 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.	Minimize disturbance impacts (including cumulative impacts with cycle track project) to flight-lines of breeding ardeids.	Project Proponent/ Detailed Design Consultant Contractor	Along and within Sheung Yue and Ng Tung Rivers, Long Valley, Long Valley and watercourse upstream areas including KTN area B3-12	Detailed design/ construction phase.	^

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Ecology (Construction Phase)							
S13.9	E12	Compensatory egretry habitat provision and establishment. Review condition and location of egretries before commencement of works. Formulate and implement additional mitigation measures as appropriate. Phasing of works near and within Man Kam To Road Egretry outside breeding season	Compensate for loss of Man Kam To Road egretry habitat. Avoid mortality of breeding egrets	Project Proponent/ Detailed Design Consultant/ Contractor	FLN area A1-7 500m from Man Kam To Road Egretry.	Construction phase.	^
S13.9	E13	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. 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) Provision of alternative foraging habitat along main river channels for large waterbirds.	Minimize impacts on rivers and disturbance and fragmentation impacts on fauna	Project Proponent/ Detailed Design Consultant/ Contractor	Along and within the Sheung Yue, Ng Tung and Shek Sheung Rivers	Detailed design and construction phases.	^

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S13.9	E14	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. 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. 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 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.	PlanD/ Project Proponent/ Developer/ Detailed Design Consultant/ Contractor. (Design of Ma Tso Lung Stream diversion and buffer zone habitat restoration measures)	KTN areas H1-1, F12 and F1-3 and Lok Ma Chau Loop Eastern Connection Road.	Detailed design and construction phases.	N/A

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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.	#

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
S13.9	E17	Design and erection of 2m high solid dull green site barrier fence between active works areas and all areas/habitats of ecological importance on edge of development areas, including along any roads adjacent to or penetrating into areas/habitats of ecological importance. Erection of a 2m high dull green site barrier fence at the edge of the works area or 30m from Ma Tso Lung Stream and tributaries, whichever distance is the greater.	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	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	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
					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

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
		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, Pre-site clearance of construction sites in Crest Hill area, KTN areas D1-7, D1-11 and G1-5 (where Eurasian Hobby was recorded) and on Cheung Po Tau, FLN area A3-1 (where Grey Nightjar was recorded) for presence of any breeding birds/breeding sites. If any are found consider adjustments to avoid, minimize and/or compensate for impacts; including adjustments to design, timing of works, transplantation and translocation. Seek agreement of relevant authorities including AFCD in respect of proposed measures, then implement. Pre-site clearance check on all construction sites for presence of Chinese Bullfrog, translocation to suitable areas including LVNP.	avoid, minimize and/or compensate for impacts; including adjustments to design, timing of works, transplantation and translocation.				
S13.9	E21	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	Minimize impacts to flora and fauna of conservation significance. Minimize impacts to protected fauna and flora species. Consider	Government/ Developer/ Contractor/ Ecologist	All construction sites.	Prior to clearance of vegetation and structures.	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
		translocation. Seek agreement of relevant authorities including AFCD in respect of proposed measures, then implement. Pre-site clearance check on all construction sites for presence of reptile species of conservation significance, capture and translocate to receptor site; review translocation options in respect to species in Ma Tso Lung area and determine whether release locally or elsewhere is appropriate. Seek agreement of relevant authorities including AFCD in respect of proposed measures then implement Pre-works commencement check on watercourses to be physically and/or hydrologically impacted by construction activities for presence of Small Snakehead and *Sommaniathelphusa zanklon*. Capture any *Sommaniathelphusa zanklon* found and translocate to Ma Tso Lung Stream/ other suitable areas including LVNP	and implement adjustments to avoid, minimize or compensate for impacts; including adjustments to design, timing of works, transplantation and translocation				
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
Specific Mitigation Measures for Designated Projects							
DP2- Castle Peak Road Diversion (Major Improvement)							
Landscape and Visual (Detailed Design, Prior to Construction, Construction and Operational Phases)							

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
S.12.A9	LV1-DP2	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.A9 MM14.4	LV4-DP2	Avoid affecting Watercourses – In the detailed design, consideration should be made of watercourses, to minimize any impacts e.g. at new bridge crossings, viaducts, road alignment etc. Guidelines stated should be followed. For example, for the stream at Siu Hang San Tsuen in FLN NDA, much of the stream is located underneath the viaduct for the proposed Fanling Bypass. In order to avoid impacts to the stream, the detailed final design of the viaduct should follow guidelines and ensure that no viaduct footings or other structures are placed in the stream. Bridges and box culverts should also be used to minimize the necessity of watercourse modification and protect the watercourses where necessary.	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 – Exiting trees to be retained within the Project Site should be carefully protected during construction.	Protect and Preserve Trees	Government/ Detailed	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
		In particular OVTs will be preserved according to ETWB Technical Circular (Works) No. 29/2004. Detailed Tree Protection Specification shall be provided in the Contract Specification. Under this specification, the Contractor shall be required to submit, for approval, a detailed working method statement for the protection of trees prior to undertaking any works adjacent to all retained trees, including trees in Contractor‟s works areas. A detailed tree survey will be carried out for the Tree Removal Application (TRA) process which will be carried out at the later detailed design stage of the Project. The detailed tree survey will propose which trees should be retained, transplanted or felled and will include details of tree protection measures for those trees to be retained.		Design Consultant/ Contractor		and Construction Phase	
S.12.A9 MM5	LV6-DP2	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.	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

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
		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 VegetationMaintenance 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	*Onsite*	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
S.12.A9 MM8	LV9-DP2	Woodland Compensatory Planting –Specific Woodland compensatory planting is proposed for any areas of quality woodland that are unavoidably affected by the Project. The location and design of the woodland compensatory planting will principally be within habitats of lower value such as upland grassland. The proposed locations are identified, for example, on the foothills of Tai Shek Mo, and on the higher ground of Fung Kong Shan in KTN NDA; along Fanling Bypass; and a small area in the northern FLN NDA.	Reprovide areas of woodland to compensate for those areas of quality woodland lost.	Project Proponent/ Detailed Design Consultant/ Contractor/ Maintenance Authority	*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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		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 *Ailanthus fordii, Bischofia javanica, Castanopsis fissa, Celtis sinensis, Cinnamomum burmannii, Cinnamomum camphora, Xanthoxlyum avicennaeHibiscus 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, Rhaphiolepis indica, and Rhododendron simsii.* 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.					
S.12.A9	LV10-	Vertical Greening – Planting of climbers to grow up vertical surfaces were	Soften hard surfaces and	Government	*On appropriate*	Prior to	N/A

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MM9	DP2	appropriate (e.g. viaduct piers, noise barriers).	facilities	Detailed Design Consultant/ Contractor	*structures*	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	*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
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	*On viaducts or along roads.*	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A

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		forms and textural finishes which improve aesthetics. For at grade roads, planting should be considered along central dividers and on road islands e.g. in the middle of roundabouts. (Roadside planting i.e. at the road edge and not in the central divider or road island, is considered part of Screen Planting)					
S.12.A9 MM13 & EIA Annex 13	LV13-DP2	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) Also see LV16, LV17, and LV18 as wetland planting should be provided along the embankments and beds of modified/ reprovisioned watercourses.	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
S.12.A9 MM14.3	LV14-DP2	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 asconsideration of the best materials for the channel lining (e.g. gabion). All measures must also ensure any necessary	Minimize the necessity of watercourse modification, protect watercourses where possible and enhance channelized watercourses	Government / Detailed Design Consultant/ Contractor	*Channelized watercourse, particularly the Ma Wat River Channel Diversion*	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A

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		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.					
S.12.A9 MM15	LV15-DP2	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
Landscape and Visual (Construction)							
S.12.A9 MM16	LV16-DP2	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	^

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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

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			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	^

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MM14.4	DP3	be made of watercourses, to minimize any impacts e.g. at new bridge crossings, viaducts, road alignment etc. Guidelines stated should be followed. For example, for the stream at Siu Hang San Tsuen in FLN NDA, much of the stream is located underneath the viaduct for the proposed Fanling Bypass. In order to avoid impacts to the stream, the detailed final design of the viaduct should follow guidelines and ensure that no viaduct footings or other structures are placed in the stream. Bridges and box culverts should also be used to minimize the necessity of watercourse modification and protect the watercourses where necessary.	watercourses	Design Consultant/ Contractor	*particularly the stream at Siu Hang San Tsuen that will flow under the Fanling Bypass Eastern Section*	And Construction Phase	
S.12.A9 MM4	LV5-DP3	Tree Protection & Preservation – Exiting trees to be retained within the Project Site should be carefully protected during construction. In particular OVTs will be preserved according to ETWB Technical Circular (Works) No. 29/2004. Detailed Tree Protection Specification shall be provided in the Contract Specification. Under this specification, the Contractor shall be required to submit, for approval, a detailed working method statement for the protection of trees prior to undertaking any works adjacent to all retained trees, including trees in Contractor˝s works areas. A detailed tree survey will be carried out for the Tree Removal Application (TRA) process which will be carried out at the later detailed design stage of the Project. The detailed tree survey will	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
		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	Tree Transplantation – Trees unavoidably affected by the Project works should be transplanted where practical. Trees should be transplanted straight to their final receptor site and not held in a temporary nursery as far as possible. A detailed Tree Transplanting Specification shall be provided in the Contract Specification, where applicable. Sufficient time for necessary tree root and crown preparation periods shall be allowed in the project programme. A detailed transplanting proposal will be submitted to relevant government departments for approval in accordance with ETWBTC 2/2004 and 3/2006 and final locations of transplanted trees should be agreed prior to commencement of the work. For trees associated with highways e.g. roadside planting along highways, that are unavoidably affected and should be transplanted, HyD HQ/GN/13 „Interim Guidelines for Tree Transplanting Works under Highways Department's Vegetation Maintenance Ambit" should be referred to.	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.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/	*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
		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.	subsequent loss of landscape resources and character. To ensure man-made slopes are as visually amenable as possible.	Contractor		Maintenance in Operation Phase	
S.12.A9 MM7	LV8-DP3	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. 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 *Melastoma malabathricum, Diospyros vaccinioides, Gardenia jasminoides, Ixora chinensis, Ligustrum sinense, Litsea rotundifolia, Melastoma dodecandrum, Atalantia buxifolia, Rhodomyrtus tomentosa, Rhaphiolepis indica,* and *Rhododendron simsii* are suggested.	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
S.12.A9	LV9-	Woodland Compensatory Planting –Specific Woodland compensatory	Reprovide areas of	Project	*In areas*	Prior to	N/A

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MM8	DP3	planting is proposed for any areas of quality woodland that are unavoidably affected by the Project. The location and design of the woodland compensatory planting will principally be within habitats of lower value such as upland grassland. The proposed locations are identified, for example, on the foothills of Tai Shek Mo, and on the higher ground of Fung Kong Shan in KTN NDA; along Fanling Bypass; and a small area in the northern FLN NDA. The intention of the compensatory woodland will be to recreate areas of quality woodland, not necessarily to compensate for loss of trees on a like for like basis (See E18 & E27 also). Native tree species are suggested for planting in the appropriate locations, including *Ailanthus fordii, Bischofia javanica, Castanopsis fissa, Celtis sinensis, Cinnamomum burmannii, Cinnamomum camphora, Xanthoxlyum avicennaeHibiscus 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, Rhaphiolepis indica, and Rhododendron simsii.* 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	woodland to compensate for those areas of quality woodland lost.	Proponent/ Detailed Design Consultant/ Contractor/ Maintenance Authority	*identified in the EIA Landscape Mitigation Plans and as agreed with AFCD*	Construction, Construction Phase & Maintenance in Operation 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
		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	*On appropriate structures*	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	*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
S.12.A9	LV12-	Road Greening –For viaducts, soft landscaping should be provided to soften	To soften the hard,	Government	*On viaducts or*	Prior to	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
MM12	DP3	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)	straight edges and provide greening along roads.	Detailed Design Consultant/ Contractor	*along roads.*	Construction, Construction Phase & Maintenance in Operation Phase	
S.12.A9 MM13 EIA Annex 13	LV13-DP3	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) Also see LV16, LV17, and LV18 as wetland planting should be provided along the embankments and beds of modified/ reprovisioned watercourses.	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
S.12.A9 MM14.3	LV14-DP3	Enhancement Planting along Embankment - For channelized watercourses, if these are modified, the Drainage Services Department Practice Note No.1/2005 – Guidelines on Environmental Considerations for River Channel	Minimize the necessity of watercourse modification,	Government / Detailed Design	*Channelized watercourse, particularly the*	Prior to Construction, Construction	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		Design, should be considered and appropriate mitigation measures included ensuring the new watercourses match the existing as far as possible. Measures can include enhancement planting to upgrade the channels as appropriate, including consideration of wetland planting along embankments where appropriate; as well as consideration of the best materials for the channel lining (e.g. gabion). All measures must also ensure any necessary maintenance work can be carried out and that the channel meets all its requirements for water flow, etc. For example, a stretch of the Ma Wat River Channel in the south of FLN NDA will have to be diverted for the construction of the Fanling Bypass Eastern Section. This measure will be particularly relevant in this area.	protect watercourses where possible and enhance channelized watercourses	Consultant/ Contractor	*Ma Wat River Channel Diversion*	Phase & Maintenance in Operation Phase	
S.12.A9 MM15	LV15-DP3	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.		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
Landscape and Visual (Construction)							
S.12.A9 MM16	LV16-DP3	Screen Hoarding –Screen hoarding shall be erected along areas of the construction works site boundary where the works site borders publically	To screen undesirable views	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
		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).	of the works site.				
S.12.A9 MM17	LV17-DP3	Light Control – Construction day and night time lighting should be controlled to minimize glare impact to adjacent VSRs during the Construction phase. Street and night time lighting shall also be controlled to minimize glare impact to adjacent VSRs during the operation phase.	To minimize glare impact to adjacent VSRs	Government / Contractor	*Throughout NDAs*	Construction and Operation Phases	N/A
Ecology (Detailed Design, Construction and Operational Phases)							
S13.9	E3-DP3	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.	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/	Throughout NDAs,	Prior to Construction, Construction & for all	N/A

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		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.		Contractor		planting, this should be installed as soon as the areas become available, to achieve early establishment	
S.12.A9 MM1	LV2-DP4	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.A9 MM2	LV3-DP4	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	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

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		Guidelines. The form, textures, finishes and colours of the proposed development components should aim to be compatible with the existing surroundings. To improve visual amenity designs should be aesthetically pleasing and treatment of structures also improve visual amenity. For example, natural building materials such as stone and timber, should be considered for architectural features, and light earthy tone colours such as shades of green, shades of grey, shades of brown and off-white should also be considered to reduce the visibility of the development components, including all roadwork, buildings and noise barriers. In addition, the design of structures should consider green roofs were feasible, following stated guidelines. All Noise barriers, particularly noise barriers but also any barriers proposed for ecological impact mitigation, should be kept to a practical minimum, and be of such a designed as to integrate as well as possible into the surrounding visual context and be as low as practical to minimize blocking views. Noise barrier design, including vertical, cantilever or curved, and noise enclosures including semi-enclosure and full enclosure, at grade and/ or elevated, should follow the guidelines stated. Construction time frame should also be considered and designs seek to keep it to a practical minimum.	into the surrounding landscape				
S.12.A9	LV4-	Tree Protection & Preservation – Exiting trees to be retained within the	Protect and Preserve Trees	Government /	Onsite	Prior to Construction	^

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MM4	DP4	Project Site should be carefully protected during construction. In particular OVTs will be preserved according to ETWB Technical Circular (Works) No. 29/2004. Detailed Tree Protection Specification shall be provided in the Contract Specification. Under this specification, the Contractor shall be required to submit, for approval, a detailed working method statement for the protection of trees prior to undertaking any works adjacent to all retained trees, including trees in Contractor's works areas. A detailed tree survey will be carried out for the Tree Removal Application (TRA) process which will be carried out at the later detailed design stage of the Project. The detailed tree survey will propose which trees should be retained, transplanted or felled and will include details of tree protection measures for those trees to be retained.		Detailed Design Consultant/ Contractor		and Construction Phase	
S.12.A9 MM5	LV5-DP4	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	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

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		2/2004 and 3/2006 and final locations of transplanted trees should be agreed prior to commencement of the work. For trees associated with highways e.g. roadside planting along highways, that are unavoidably affected and should be transplanted, HyD HQ/GN/13 „Interim Guidelines for Tree Transplanting Works under Highways Department's Vegetation Maintenance Ambit' should be referred to.					
S.12.A9 MM6	LV6-DP4	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	Onsite	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
S.12.A9 MM7	LV7-DP4	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	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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		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 Melastoma malabathricum, Diospyros vaccinioides, Gardenia jasminoides, Ixora chinensis, Ligustrum sinense, Litsea rotundifolia, Melastoma dodecandrum, Atalantia buxifolia, Rhodomyrtus tomentosa, Rhaphiolepis indica, and Rhododendron simsii are suggested..					
S.12.A9 MM8	LV8-DP4	Woodland Compensatory Planting –Specific Woodland compensatory planting is proposed for any areas of quality woodland that are unavoidably affected by the Project. The location and design of the woodland compensatory planting will principally be within habitats of lower value such as upland grassland. The proposed locations are identified, for example, on the foothills of Tai Shek Mo, and on the higher ground of Fung Kong Shan in KTN NDA; along Fanling Bypass; and a small area in the northern FLN NDA. The intention of the compensatory woodland will be to recreate areas of quality woodland, not necessarily to compensate for loss of trees on a like for like basis (See E18 & E27 also). Native tree species are suggested for planting in the appropriate locations, including Ailanthus fordii, Bischofia javanica, Castanopsis fissa, Celtis sinensis, Cinnamomum burmannii, Cinnamomum camphora,	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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		Xanthoxlyum avicennaeHibiscus 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, Rhaphiolepis indica, and Rhododendron simsii. 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.					
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
Landscape and Visual (Construction)							
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	Throughout NDAs	Construction and Operation Phases	N/A

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		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
		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.		Archaeologist	potential located within the work extent of DP4		
S11.6.1	CH3-DP4	<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	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

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 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	Conducting Photographic and Cartographic Records Prior to Removal/Relocation of Impacted Built Heritages 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	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	Undertaking baseline condition survey and baseline vibration impact assessment 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	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	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	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	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	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

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.				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
		textures, finishes and colours of the proposed development components should aim to be compatible with the existing surroundings. To improve visual amenity designs should be aesthetically pleasing and treatment of structures also improve visual amenity. For example, natural building materials such as stone and timber, should be considered for architectural features, and light earthy tone colours such as shades of green, shades of grey, shades of brown and off-white should also be considered to reduce the visibility of the development components, including all roadwork, buildings and noise barriers. In addition, the design of structures should consider green roofs were feasible, following stated guidelines. All Noise barriers, particularly noise barriers but also any barriers proposed for ecological impact mitigation, should be kept to a practical minimum, and be of such a designed as to integrate as well as possible into the surrounding visual context and be as low as practical to minimize blocking views. Noise barrier design, including vertical, cantilever or curved, and noise enclosures including semi-enclosure and full enclosure, at grade and/ or elevated, should follow the guidelines stated Construction time frame should also be considered.	general and integrate as best possible into the surrounding landscape				
S.12.B9 MM4	LV4-DP5	Tree Protection & Preservation – Exiting trees to be retained within the Project Site should be carefully protected during construction. In particular OVTs will be preserved according to ETWB Technical Circular	Protect and Preserve Trees	Government Detailed Design	Onsite	Prior to 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
		(Works) No. 29/2004. Detailed Tree Protection Specification shall be provided in the Contract Specification. Under this specification, the Contractor shall be required to submit, for approval, a detailed working method statement for the protection of trees prior to undertaking any works adjacent to all retained trees, including trees in Contractor‟s works areas. A detailed tree survey will be carried out for the Tree Removal Application (TRA) process which will be carried out at the later detailed design stage of the Project. The detailed tree survey will propose which trees should be retained, transplanted or felled and will include details of tree protection measures for those trees to be retained.		Consultant/ Contractor		Construction Phase	
S.12.B9 MM5	LV5-DP5	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.	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

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
		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

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
		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 *Melastoma malabathricum, Diospyros vaccinioides, Gardenia jasminoides, Ixora chinensis, Ligustrum sinense, Litsea rotundifolia, Melastoma dodecandrum, Atalantia buxifolia, Rhodomyrtus tomentosa, Rhaphiolepis indica,* and *Rhododendron simsii* are suggested.					
S.12.B9 MM8	LV8-DP5	Woodland Compensatory Planting –Specific Woodland compensatory planting is proposed for any areas of quality woodland that are unavoidably affected by the Project. The location and design of the woodland compensatory planting will principally be within habitats of lower value such as upland grassland. The proposed locations are identified, for example, on the foothills of Tai Shek Mo, and on the higher ground of Fung Kong Shan in KTN NDA; along Fanling Bypass; and a small area in the northern FLN NDA. The intention of the compensatory woodland will be to recreate areas of quality woodland, not necessarily to compensate for loss of trees on a like for like basis (See E18 & E27 also). Native tree species are suggested for planting in the appropriate locations, including *Ailanthus fordii, Bischofia javanica, Castanopsis fissa, Celtis sinensis, Cinnamomum burmannii, Cinnamomum camphora, Xanthoxlyum*	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
		avicennaeHibiscus 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 omentosa, Rhaphiolepis indica, and Rhododendron simsii. 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.					
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	*On appropriate structures*	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
S.12.B9 MM10	LV10-DP5	Green Roof – Roof greening where appropriate should be established on proposed buildings as per the guidelines stated. These guidelines provide further details including information regarding structural loading, design, maintenance, etc. considerations as well as providing information on what types of plants might be suitable.	Reduce exposure to untreated concrete surfaces and particularly mitigate visual impact to VSRs at high levels. Provide greening.	Government / Detailed Design Consultant/ Contractor	*On appropriate buildings*	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	*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
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	*Channelized watercourse, particularly the Ma Wat River Channel Diversion*	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures (What Measures)	Objectives of the recommended Measures & Main Concerns to address (What Requirements)	Who to implement the measures? (Who)	Location of the measures (Where)	When to Implement the measures? (When)	Implementation Status
		channel lining (e.g. gabion). All measures must also ensure any necessary maintenance work can be carried out and that the channel meets all its requirements for water flow, etc. For example, a stretch of the Ma Wat River Channel in the south of FLN NDA will have to be diverted for the construction of the Fanling Bypass Eastern Section. This measure will be particularly relevant in this area.					
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	*Throughout NDAs*	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	*Throughout NDAs*	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.	*Interface*	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.		*between areas/habitats of ecological importance and works areas (all sides of KTN area F1-2).*		
DP7-Utilization of Treated Sewage Effluent (TSE) from Shek Wu Hui Sewage Treatment Works (SWHSTW)							
Landscape and Visual (Construction Phase and Operational Phase)							
S.12.9 MM4	LV1-DP7	Tree Protection & Preservation – Exiting trees to be retained within the Project Site should be carefully protected during construction. In particular OVTs will be preserved according to ETWB Technical Circular (Works) No. 29/2004. Detailed Tree Protection Specification shall be provided in the Contract Specification. Under this specification, the Contractor shall be required to submit, for approval, a detailed working method statement for the protection of trees prior to undertaking any works adjacent to all retained trees, including trees in Contractor's works areas. A detailed tree survey will be carried out for the Tree Removal Application (TRA) process which will be carried out at the later detailed design stage of the Project. The detailed tree survey will propose which trees should be retained, transplanted or felled and will include details of	Protect and Preserve Trees	Government / Detailed Design Consultant/ Contractor	*Onsite*	Prior to Construction and Construction Phase	N/A

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		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	*On appropriate structures*	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	*On appropriate buildings*	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	*Throughout NDAs,*	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	*Throughout NDAs, particularly for reservoirs*	Prior to Construction	N/A
S.12.D9 MM4	LV3-DP10	Tree Protection & Preservation – Exiting trees to be retained within the Project Site should be carefully protected during construction. In particular OVTs will be preserved according to ETWB Technical Circular (Works) No. 29/2004. Detailed Tree Protection Specification shall be provided in the Contract Specification. Under this specification, the Contractor shall be required to submit, for approval, a detailed working method statement for the protection of trees prior to undertaking any	Protect and Preserve Trees	Government/ Detailed Design Consultant/ Contractor	*Onsite*	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
		works adjacent to all retained trees, including trees in Contractor's works areas. A detailed tree survey will be carried out for the Tree Removal Application (TRA) process which will be carried out at the later detailed design stage of the Project. The detailed tree survey will propose which trees should be retained, transplanted or felled and will include details of tree protection measures for those trees to be retained.					
S.12.D9 MM5	LV4-DP10	Tree Transplantation – Trees unavoidably affected by the Project works should be transplanted where practical. Trees should be transplanted straight to their final receptor site and not held in a temporary nursery as far as possible. A detailed Tree Transplanting Specification shall be provided in the Contract Specification, where applicable. Sufficient time for necessary tree root and crown preparation periods shall be allowed in the project programme. A detailed transplanting proposal will be submitted to relevant government departments for approval in accordance with ETWBTC 2/2004 and 3/2006 and final locations of transplanted trees should be agreed prior to commencement of the work. For trees associated with highways e.g. roadside planting along highways, that are unavoidably affected and should be transplanted, HyD HQ/GN/13 'Interim Guidelines for Tree Transplanting Works under Highways Department's Vegetation Maintenance Ambit' should be	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

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	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	*Onsite*	Prior to Construction, Construction Phase & Maintenance in Operation Phase	N/A
S.12.D9 MM7	LV6-DP10	Compensatory Planting – Compensatory tree planting for felled trees shall be provided to the satisfaction of relevant Government departments. Required numbers and locations of compensatory trees shall be determined and agreed separately with Government during the Tree Removal Application process under ETWBTC 3/2006. Compensatory planting is proposed at the potential open areas such as open spaces, amenity areas, open areas of the streetscapes, as well as the open areas within development lots. Compensatory planting for shrubs should be considered in suitable locations. Native species such as *Melastoma malabathricum, Diospyros vaccinioides, Gardenia jasminoides, Ixora chinensis, Ligustrum sinense, Litsea rotundifolia, Melastoma*	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
		dodecandrum, Atalantia buxifolia, Rhodomyrtus tomentosa, Rhaphiolepis indica, and Rhododendron simsii are suggested.					
S.12.D9 MM8	LV7-DP10	Woodland Compensatory Planting –Specific Woodland compensatory planting is proposed for any areas of quality woodland that are unavoidably affected by the Project. The location and design of the woodland compensatory planting will principally be within habitats of lower value such as upland grassland. The proposed locations are identified, for example, on the foothills of Tai Shek Mo, and on the higher ground of Fung Kong Shan in KTN NDA; along Fanling Bypass; and a small area in the northern FLN NDA. The intention of the compensatory woodland will be to recreate areas of quality woodland, not necessarily to compensate for loss of trees on a like for like basis (See E18 & E27 also). Native tree species are suggested for planting in the appropriate locations, including *Ailanthus fordii, Bischofia javanica, Castanopsis fissa, Celtis sinensis, Cinnamomum burmannii, Cinnamomum camphora, Xanthoxlyum avicennaeHibiscus 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,*	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
		Rhaphiolepis indica, and Rhododendron simsii. *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.*					
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	*On appropriate structures*	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	*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
S.12.D9M	LV10-	Road Greening –For viaducts, soft landscaping should be provided to	To soften the hard, straight	Government/	*On viaducts or*	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	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)	edges and provide greening along roads.	Detailed Design Consultant/ Contractor	*along roads.*	Construction Phase & Maintenance in Operation Phase	
S.12.D9 MM14.3	LV11-DP10	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	Minimize the necessity of watercourse modification, protect watercourses where possible and enhance channelized watercourses	Government/ Detailed Design Consultant/ Contractor	*Channelized watercourse, particularly the Ma Wat River Channel Diversion*	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	*Throughout NDAs*	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	*Throughout NDAs*	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/	*Throughout NDAs*	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.	*FLN area D1-3.*	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.	*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).*	Construction phase.	^
Cultural Heritage (Construction Phase)							
S11.6.2	CH4-DP10	Conducting Construction Vibration Monitoring and Structural Strengthening Measures Construction vibration monitoring and structural strengthening measures	To minimize the potential impacts during Construction phase on any	Contractor.	*Identified potential vibration impacted built*	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		*heritage features*	survey and baseline vibration impact assessment,	
DP12-Reprovision of temporary wholesale market in FLN NDA							
Landscape and Visual (Detailed Design, Prior to Construction, Construction and Operational Phases)							
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	Detailed Design (Visual) –The footprint and massing of development components and the works area should also be kept to a practical minimum and the detailed design of development components for Construction phase should follow the Sustainable Building Design Guidelines. The form, textures, finishes and colours of the proposed development components should aim to be compatible with the existing surroundings. To improve visual amenity designs should be aesthetically pleasing and treatment of structures also improve visual amenity. For example, natural building materials such as stone and timber, should be considered for architectural features, and light earthy tone colours such as shades of green, shades of grey, shades of brown and off-white should also be considered to reduce the visibility of the development components, including all roadwork, buildings and noise barriers. In addition, the design of structures should consider green roofs were feasible, following stated guidelines. All Noise barriers, particularly noise barriers but also any barriers	Improve visual amenity of the new buildings, NDAs in general and integrate as best possible into the surrounding landscape	Detailed Design Consultant	Throughout NDAs	Prior to Construction	N/A

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
		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.					
S.12.D9 MM4	LV4-DP12	Tree Protection & Preservation – Exiting trees to be retained within the Project Site should be carefully protected during construction. In particular OVTs will be preserved according to ETWB Technical Circular (Works) No. 29/2004. Detailed Tree Protection Specification shall be provided in the Contract Specification. Under this specification, the Contractor shall be required to submit, for approval, a detailed working method statement for the protection of trees prior to undertaking any works adjacent to all retained trees, including trees in Contractor's works areas. A detailed tree survey will be carried out for the Tree Removal Application (TRA) process which will be carried out at the later detailed design stage of the Project. The detailed tree survey will propose which	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	Tree Transplantation – Trees unavoidably affected by the Project works should be transplanted where practical. Trees should be transplanted straight to their final receptor site and not held in a temporary nursery as far as possible. A detailed Tree Transplanting Specification shall be provided in the Contract Specification, where applicable. Sufficient time for necessary tree root and crown preparation periods shall be allowed in the project programme. A detailed transplanting proposal will be submitted to relevant government departments for approval in accordance with ETWBTC 2/2004 and 3/2006 and final locations of transplanted trees should be agreed prior to commencement of the work. For trees associated with highways e.g. roadside planting along highways, that are unavoidably affected and should be transplanted, HyD HQ/GN/13 'Interim Guidelines for Tree Transplanting Works under Highways Department's Vegetation Maintenance Ambit' should be referred to.	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
		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 prevent erosion and subsequent loss of landscape resources and character. To ensure man-made slopes are as visually amenable as possible.	Consultant/ Contractor		Maintenance in Operation Phase	
S.12.D9 MM7	LV7-DP12	Compensatory Planting – Compensatory tree planting for felled trees shall be provided to the satisfaction of relevant Government departments. Required numbers and locations of compensatory trees shall be determined and agreed separately with Government during the Tree Removal Application process under ETWBTC 3/2006. Compensatory planting is proposed at the potential open areas such as open spaces, amenity areas, open areas of the streetscapes, as well as the open areas within development lots. Compensatory planting for shrubs should be considered in suitable locations. Native species such as *Melastoma malabathricum, Diospyros vaccinioides, Gardenia jasminoides, Ixora chinensis, Ligustrum sinense, Litsea rotundifolia, Melastoma dodecandrum, Atalantia buxifolia,*	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
		Rhodomyrtus tomentosa, Rhaphiolepis indica, and *Rhododendron simsii* 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	Light Control – Construction day and night time lighting should be controlled to minimize glare impact to adjacent VSRs during the Construction phase. Street and night time lighting shall also be controlled to minimize glare impact to adjacent VSRs during the operation phase.	To minimize glare impact to adjacent VSRs	Government / Contractor	Throughout NDAs	Construction and Operation Phases	N/A

Implementation status:

^ Mitigation measure was fully implemented

* Observation/reminder was made during site audit but improved/rectified by the contractor

\# Observation/reminder was made during site audit but not yet improved/rectified by the contractor

X Non-compliance of mitigation measure

• Non-compliance but rectified by the contractor

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

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	0.225
October											
November											
December											
Total	13.865	0.000	8.495	0.000	5.369	43.194	2.940	2.623	0.059	24.036	3.338

*Remark: The records of "Disposed as Public Fill" and "Others, e.g. general refuse" in September are up to 24 September 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 50,000m^3.
(5) Conversion factors for reporting purpose:
in-situ: rock = 2.5 tonnes/m^3; soil = 2.0 tonnes/m^3
excavated: rock = 2.0 tonnes/m^3; soil = 1.8 tonnes/m^3
broken concrete and bitumen = 2.4 tonnes/m^3
C&D Waste = 0.9 tonnes/m^3
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											
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	507.32
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	1,103.04

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 (see Note 2)	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)
Total:	234,210	8,400	2,500	0	231,710	600	100	1.0	0.5	0.5	375

Sang Hing – Kuly Joint Venture
Contract No.: ND/2019/03
Kwu Tung North and Fanling North New Development Areas, Phase 1:
Development of Long Valley Nature Park

Name of Department: CEDD

Monthly Summary Waste Flow Table for 2023 (Year)

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly				
	Total Quantity Generated	Hard Rock and Large Broken	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											
Nov											
Dec											
Total	3.72	0.00	0.00	0.82	2.90	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].

DCK JV

Appendix F
Contract No.: ND/2019/04

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												
Nov												
Dec												
Sub-total	5,922.44	0.00	0.00	4,377.34	1,164.08	0.00	0.00	0.05	0.00	0.01	0.00	380.96
Total	59,209.36	0.00	0.00	34,700.68	21,573.68	1,794.18	62.72	0.24	0.01	0.01	0.00	1,077.84

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

DCK JV

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	210.840
Oct-23												
Nov-23												
Dec-23												
Total in 2023	15.203	0.000	3.264	0.000	11.939	0.000	4.308	7.243	0.217	20.760	0.000	838.120
Total of the Project since 2020	108.545	0.000	13.983	2.857	91.705	5.110	142.012	16.675	4.037	803.573	24.882	3927.030

*Approx. estimation for each dump truck is 6m3/truck or 12 ton/truck

Total Quantity of Inert C&D Materials Generated: 108.545 (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											
Nov											
Dec											
Total	0.212	0.000	0.000	0.000	0.212	52.865	0.000	0.000	0.001	0.000	0.178

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 Gernerated = 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)	13th 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)	11th 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)	27th 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)	7th 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 *Supervisor*, 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)	13th 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)	22nd 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)	28th 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

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
			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)	4th February 2021	A complaint was received from EPD call on 2nd February 2021 regarding a noise complaint from a Tong Hang villager about noise from CTC storage yard at around 19:00 – 20:00 on 1st 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 1st 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)	16th February 2021	A complaint was received from EPD call on 10th February 2021 regarding a noise complaint from a Tong Hang villager about some impact noise from CTC Storage yard at Sunday's daytime (7th February 2021).	Under investigation, erection of chain link fence for separating works area and adjacent village house was conducted by a sub-contractor on 7th 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)	2nd March 2021	A complaint was received from EPD call on 24th 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

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
			and dust from CTC Storage yard. Joint site inspection of the Contractor, the *supervisor* 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)	1st 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)	15th March 2021	A complaint was received from EPD call and an inspection by EPD was conducted on 9th 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

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
			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)	9th 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 24th and 25th 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)	9th 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

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
				snipe was found; 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)	23rd 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.	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. The following mitigation measures will keep implemented and inspected: 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

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
				several locations of the site area; 4. Bund/seal off works area near river and set up with dewatering system; 5. Spare water pumps and sand bags for emergency use during heavy rain; 6. Regular training to the operators of wastewater treatment facilities; and 7. Regular checking and maintenance of the wastewater treatment facilities and desilting tank.	
COM-2021-04-03	Near Shek Wu San Tsuen, Sheung Shui (ND/2019/04)	28th April 2021	A complaint was referred from EPD regarding to construction dust arising from dump trucks from construction sites near Shek Wu San Tsuen.	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. 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.	Closed
COM-2021-05-01	Near Tong Hang section of Ma Wat River (ND/2019/05)	17th 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

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
				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)	2nd 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.	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. 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. The Contractor has been implement following mitigation measure upon received the complaint: • 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

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
COM-2021-09-02	Not specified (ND/2019/01)	3rd September 2021	A complaint was referred by EPD regarding C&D waste stored on site.	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. The Contractor has been implement following mitigation measure upon received the complaint: • 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. 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.	Closed
COM-2021-11-01	Close to Shek Wu San Tsuen (ND/2019/04)	3rd November 2021	A complaint was referred from EPD on 22th November 2021, about various issues including suspected environmental nuisances from the captioned Project from a member of public on 3rd Nov 2021. He followed-up again on 19th Nov 2021.	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. Air quality monitoring was carried out at location FLN-DMS1 - Scattered Village	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
				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. The Contractor has been implement following mitigation measure upon received the complaint: • 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)	13rd 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。"	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: • 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 The Contractor has been implement following mitigation measure upon received the complaint: • 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 • 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)	13rd 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

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
			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)	28th 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，產生很大的嗓音及很多廢氣。 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

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
				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)	17th February 2022	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. Details of complaint case received on 13 Feb 2022: 「本人途經唔上水悟洞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」 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。」	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. 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. In addition, it is reported that suspected contaminated water was discharging to Ma Wat River from surrounding industrial buildings near C5 contract site. Based on the findings of investigation, no foam	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
				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)	2nd 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 "	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. 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.	Closed
COM-2022-03-02	Near Ho Sheung Heung (ND/2019/02)	23rd 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

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
			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 "	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 Portion11. 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. 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. 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. Based on the findings of investigation, all plants	

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
				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)	5th July 2022	A complaint was received from EPD on 15 June 2022 from a public member regarding "本人住在梧桐河多年，每天都會到河邊兩岸進行晨運或會經河邊出外購物。由年頭開始，兩岸邊有些小型機械在進行工程，開始時還好，但近期發現機械所發出的黑煙比以前多，有時發現有些污水，泥水和油污流道出行人道來。本人有一次發現有些泥水和油污落到溝渠和地面，便好心跟現場人員講叫他們小心。但是他們沒有理會，因為梧桐河是一個非常美麗的地方，假日也有很多人來遊玩。避免意外發生，希望貴處能代為處理。"	Investigation was conducted by contractor and reply as follow: "工程團隊經常及日後亦會加緊巡視地盤範圍，同時敦促工程人員注重機械及挖掘機的廢氣排放，以及工程污水或泥水流出，減少對周邊環境的影響。" Air monitoring was conducted on 2, 8, 14, 20, 24 and 30 June 2022, including AM and PM period. No exceedance of air monitoring was found. One exceedance of Water Quality Monitoring was found on 13 June 2022, but based on the investigation report, there was no direct evidence showing that the exceedance recorded at the 3 nearby monitoring stations were due to Contract. For dark smoke emission, the contractor would collect and test the Ultra Low Sulphur Diesel(ULSD) content monthly. For monitoring of any muddy water discharging from construction activities, the contractor would collect and test the suspended solids from Ng Tung River monthly, also collect and test pH, suspended solids and	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
				COD of wastewater sampling at wastewater treatment plant monthly.	
COM-2022-06-28	Near Ng Tung River, adjacent to Shek Wu San Tsuen North (ND/2019/04)	5th 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松並無異常，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)	5th 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冇，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)	21st July 2022	EPD received a public complaint on 14 July 2022 from nearby villagers regarding noise and odour nuisance from generators. Complaint detail is as follow:	Investigation was conducted by contractor and clarify a few points as follow: 1. Instead of four generators being used simultaneously from the complaint, there shall be actually two generators being used	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
			"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冇人工作.故亦不一需要長時間開發電機，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"	alternatively (one is solely for standby purpose) for power supply of site works and containers. 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. 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). 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 For odour mitigation measures, on top of currently	

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				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)	27th 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"	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. EPD carried out complaint investigation at Portion 1b / 1c on 26 July 2022 at 11:00, no adverse comment was given. 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. 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.	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)	29th July 2022	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. Based on peripheral inspection, the muddy water was spotted.	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. 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. Meanwhile, below are some JV's regular preventive measures for water pollution control: 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)	8th August 2022	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. The complaint content: "近電燈柱	**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	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
			EB1339 沿麻荏河一帶，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。"	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. **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. 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.	
COM-2022-08-16a	Ma Wat River near Lamp Post EB1339 (ND/2019/05)	16th 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
			August 2022. EPD forwarded the case to ET through email on 17 August 2022. The complaint content: " 本人留意到近麻荏村的麻荏河有大量水泥水流入河，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，建築物和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。"	investigation are focusing on these two works area locations. 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
				submitted to EPD. 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. 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. 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.	
COM-2022-08-16b	Ma Sik Road and Sha Tau Kok Road near Lung Yeuk Tau (ND/2019/04)	16th 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)	1st 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
				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." 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.	
COM-2022-09-29	Construction site nearby Dills Corner Garden Blk 5 (ND/2019/02)	29th 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！"	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. 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	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)	7th October 2022	Complaint received by EPD on 6 Oct 2022 and forwarded to ET on 7 Oct 2022. "近電燈柱 EB1339 近麻荏河，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、麻荏村、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)	17th 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	28th 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
				monitored. 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.	
COM-2022-10-31	near Po Lau Road, Kwu Tung (ND/2019/01)	31st 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"	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. 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
				6. Dust monitoring was carried out at KTN-DMS4(B) on 21 Oct 2022 and 27 Oct 2022, no exceedance was recorded. 7. Cover the slope surface with impervious sheeting. 8. Addition water browser with capacity 20,000L was deployed on site on 01 November 2022. 9. Hydroseeding to exposed soil once the formation level reached. 10. Keep closely monitoring on the concerned area.	
COM-2022-11-10	Construction site near Shek Wu San Tsuen North (ND/2019/04)	10th 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."	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. 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.	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)	7th December 2022	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? 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荏河流中，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。 高空掉建築物很危險"	The investigation results are as follows: 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: 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. 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.	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)	12th 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. From Contract Number (ND/2019/01): 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
				accumulated mud and cause the wastewater become turbid / muddy. 9. Visual comparison was conducted with ET on17 January 2023, the colour of the glass bottle collected from wastewater treatment plant looks clear when compare with the standard solution. 10. During the ad-hoc inspection on 27 January 2023, inadequate treated wastewater discharge from nearby private construction site was observed. Mitigation Measures and Follow-Up Actions: 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. <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	

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
				complaint location. 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 workfront 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.Conclusion: Based on the findings of investigation, CW-KL	

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)	3rd 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.	The investigation result as follows: 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. 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
				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. 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.	

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)	8th 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)	3rd 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	The investigation result as follows: 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, (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 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.	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)	9th August 2023	EPD received a complaint with ref.: N07/RN/00018620-23 on 4 Aug 2023. 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"	The investigation result as follows: **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 tendoning) 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. **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: - 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 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	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)	25th August 2023	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. 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/ktnnda/D_KTN_1A_BW_SD_compress_1.pdf) 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	The investigation result as follows: - 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
			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. 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. 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	boundary, no follow up action is proposed. 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. However, BKREJV are responsible to monitor the condition alongside the boundary of construction site regularly.	

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
			myriad of biodiversity dependent on this vital water source. ... 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."		
COM-2023-09-04	Construction site near the junction of Sha Tau Kok Road and Ma Sik Road (ND/2019/04)	4th September 2023, 7th September 2023	EPD received a complaint with ref: N07/RN/00021148-23 on 4 Sep 2023. 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" Supplementary detail received by EPD with the same ref on 7 Sep 2023. Complaint detail: "在 7/9/2023 下午,該地盤再次排出大量黃泥水"	The investigation result as follows: 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. 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.	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				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. <u>Note:</u> 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 Approva**l - 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 Sumbissions**			**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				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 consturction	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 lanscape 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				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 <u>Note:</u> 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 Approva**l - 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
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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				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 th 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
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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				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
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DP10	EP-473/2013/A	Fanling Bypass Eastern Section				
Construction commencement date		**1 August 2020**				
Operation commencement date		**tbc**				
EP Condition		**Requirements and Submissions**			**Submission Status**	**Remarks**
		Period	**Action**	**Timeframe**		
1.12	Commencement date of construction	Before construction		no later than 8 weeks prior to the commencement of construction	Notified 8 September 2020	
2.1	Establish of ET	Before construction	**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				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	Egretry 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 <u>Note:</u> 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 Approva**l - 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
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DP12	EP-475/2013/A	Reprovision of Temporary Wholesale Market in Fanling North New Development Area				
Construction commencement date		**29 October 2019**				
Operation commencement date		**tbc**				
EP Condition		**Requirements and Submissions**			**Submission Status**	**Remarks**
		Period	**Action**	**Timeframe**		
1.12	Commencement date of construction	Before construction		no later than 8 weeks prior to the commencement of construction	Notified 15 October 2019	
2.1	Establish of ET	Before construction	**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				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	Submited 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	