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 August 2021

(Version 1.0)

Certified By

Dr. Priscilla Choy

(Environmental Team Leader)

REMARKS:

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

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

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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. 22 (August 2021)

14 September 2021

BY EMAIL

Dear Sir,

We refer to email of 14 September 2021 attaching the Monthly Environmental Monitoring and Audit Report No. 22 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, EP-467/2013/A, EP-468/2013/A, EP-469/2013, EP-470/2013, EP-473/2013/A, EP-475/2013/A and EP-546/2017.

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

Yours faithfully,

For and on behalf of the

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EXECUTIVE SUMMARY

Introduction

- 1. This is the 22nd monthly Environmental Monitoring and Audit (EM&A) Report under First Phase Development of Kwu Tung North (KTN) and Fanling North (FLN) New Development Areas (NDAs), comprising the Advance Works and First Stage Works (the Project). This report was 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 Environmental Monitoring and Audit (EM&A) work conducted in August 2021.
- 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	Designated Project	Commencement	
	Permit No.	(DP)	date of construction	
	EP-466/2013	Castle Peak Road Diversion	12 th August 2020	
Contract No. ND/2019/01 - Kwu Tung North New Development Area, Phase 1: Site Formation and Infrastructure Works	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 th August 2020	
	EP-468/2013/A	Kwu Tung North New Development Area Road D1 to D5	1 st June 2020	
	EP-470/2013	Utilization of Treated Sewage Effluent (TSE) from Shek Wu Hui Sewage Treatment Works	23 rd 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 th October 2020	
Contract No. ND/2019/03 - Kwu Tung North New	EP-468/2013/A	Kwu Tung North New Development Area Road D1 to D5	3 rd July 2020	

Works Contracts	Environmental Permit No.	Designated Project (DP)	Commencement date of construction
Development Area, Phase 1: Development of Long Valley Nature Park	EP-473/2013/A	Fanling Bypass Eastern Section (New Road)	6 th October 2020
Contract No. ND/2019/04 – Fanling North New	EP-473/2013/A	Fanling Bypass Eastern Section (New Road)	23 rd February 2021
Development Area, 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 th February 2021
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 st 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 th October 2019
Contract No. ND/2019/07 – Fanling North New Development Area, Phase 1: Site Formation and Infrastructure Works	Works area Environmental Po Project.	1 st 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			W	orks Contra	cts		
	ND/2019/	ND/2019/	ND/2019/	ND/2019/	ND/2019/	ND/2019/	ND/2019/
	01	02	03	04	05	06	07
1-hr Total Suspended	2, 6, 12,	N/A	2, 4, 6,	2, 4, 6,	4, 10, 16,	N/A	N/A
Particulates (TSP)	18, 24		10, 12,	10, 12,	20, and		
Monitoring	and 30		16, 18,	16, 18,	26 August		
	August		20, 24, 26	20, 24, 26	2021		
	2021		and 30	and 30			
			August	August			
			2021	2021			
24-hr TSP Monitoring	2, 6, 12,	N/A	2, 3, 6, 9,	2, 3, 6, 9,	3, 9, 13,	N/A	N/A
	18, 24		12, 13,	12, 13,	19, 25		
	and 30		18, 19,	18, 19,	and 31		
	August		24, 25, 30	24, 25, 30	August		
	2021		and 31	and 31	2021		

EM&A	Activities	Works Contracts									
		ND/2019/ 01	ND/2019/ 02	ND/2019/ 03	ND/2019/ 04	ND/2019/ 05	ND/2019/ 06	ND/2019/ 07			
				August 2021	August 2021						
24-hr RSF Arsenic) for Contamina	P (Ambient Monitoring Land tion	5, 11, 17, 23 and 27 August 2021	N/A	5, 11, 17, 23 and 27 August 2021	N/A	N/A	N/A	N/A			
Noise Mon	itoring		24 and 30 st 2021	N/A	4, 10, 20	and 26 Aug	ust 2021	N/A			
Water Monitoring	Quality	N/A	3, 5, 7, 9, 11, 13, 16, 18, 20, 23, 25, 27 and 30 August 2021	N/A	3, 5, 7, 9, 11, 13, 16, 18, 20, 23, 25, 27 and 30 August 2021	N/A	N/A	N/A			
Landfill Ga Monitoring		20 August 2021	N/A	N/A	N/A	N/A	N/A	N/A			
Built Monitoring	Heritage	N/A	N/A	N/A	N/A	Daily assessment subject to construction works conducted within assessment area	N/A	N/A			
	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, 13, 19, 20, 26, 27 August 2021	5, 13, 19, 26 August 2021	N/A*	N/A*	N/A*			
Ecologic- al Survey	Monitoring of Measures to Minimise Impacts to Ma Tso Lung Stream and Siu Hang San Tsuen Stream	12 August 2021	N/A*	12 August 2021	12 August 2021	N/A*	N/A*	N/A*			
	Monitoring of Measures to Minimise Impacts on Ecological Sensitive	10, 17 August 2021	10, 17 August 2021	10 August 2021	10 August 2021	10 August 2021	N/A*	N/A*			

EM&A	Activities	Works Contracts								
		ND/2019/ 01	ND/2019/ 02	ND/2019/ 03	ND/2019/ 04	ND/2019/ 05	ND/2019/ 06	ND/2019/ 07		
	Habitats from Disturbance and Pollution									
Environme Inspection	ntal Site	3, 10, 17, 23 and 31 August 2021	4, 11, 18 and 25 August 2021	6, 13, 20 and 24 August 2021	5, 12, 19 and 26 August 2021	2, 11, 16, 23 and 30 August 2021	5, 12, 19 and 26 August 2021	6, 13, 20 and 27 August 2021		

Remark:

- N/A No relevant monitoring is required according to updated EM&A Manual
- N/A* No relevant monitoring is required according to 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	
		Action Level	Limit Level	Exceedances	Action Level	Limit Level	Contract	
	1-hr TSP	0	0	0	0	0	0	
	24-hr TSP	0	0	0	0	0	0	
Air Quality	24-hr RSP (Ambient Arsenic)	0	0	0	0	0	0	

Noise	L _{eq(30min)}	0	0	0	0	0	0
	DO	0	4	4	0	1	1
W . O . P. [1]	Turbidity	0	7	7	0	2	2
Water Quality ^[1]	SS	0	5	5	0	2	2
	Arsenic	2	0	2	0	0	0
	O_2	0	0	0	0	0	0
Landfill Gas	CH ₄						
	CO ₂						
Cultural heritage	Built Heritage Monitoring	0	0	0	0	0	0

Air Quality

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

Construction Noise

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

Water Quality

7. All additional water quality monitoring was conducted as scheduled in the reporting month. Five (5) Limit Level exceedances for dissolved oxygen, nine (9) Limit level exceedances for turbidity, seven (7) Limit Level exceedances for suspended solids and two (2) Action Level exceedance for arsenic of impact water quality monitoring were recorded. After investigation, one (1) Limit Level exceedances for dissolved oxygen, two (2) Limit Level exceedances for turbidity and two (2) Limit Level exceedances for suspended solids at monitoring station, SHST-IS2, were found due to Contract No. ND/2019/04. Other exceedances were considered non-projected related. No construction of channel for alternation of natural streams was carried out in the reporting month. Therefore, no water quality monitoring according to pre-construction ET's Updated EM&A Manual and Baseline Water Quality Monitoring Report (KTN & FLN NDA) was conducted. For the details, please refer to 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 gases 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 in the reporting month was carried out 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. Action and limit level will be compared after the issue of Final Baseline Ecological Report. The ecological monitoring result in the Reporting Month is shown in **Appendix L**.

Complaint Log

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

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 two months are shown in **Table IV**.

Fable IV Summary Table for Site Activities in the coming Two Months

Table IV	Summary Table for Site Activities in the coming Two Months
Contract No.	Site Activities (September 2021 and October 2021)
ND/2019/01	(a) Site clearance, ground investigation in Portion 1b
	(b) Site clearance, site formation, additional road opening at 1f
	(c) Site clearance, ground investigation, tree felling and temporary road construction in Portion 2
	(d) Site clearance, excavation, sheetpiling and excavation, tree felling and pipes laying in Portion 3
	(e) Site clearance, stockpile of soil, construction of KW01 retaining wall, sheetpiling and excavation, pipes laying, water mains laying, backfilling and tree felling in Portion 5
	(f) Site Clearance, sheetpiling and excavation, pipes laying, backfilling, construction of KW01 retaining wall, construction of KB01 retaining wall, and haul road construction in Portion 6a
	(g) Arsenic soil treatment works in Portion 6b
	(h) Site clearance, sheetpiling and excavation, pipes laying and construction of APLR in Portion 7
	(i) Construction of retaining wall, slope cutting, soil nailing, slope drainage and maintenance access construction, excavation for Fresh Water Service Reservoir, RC construction of Flushing Water Service Reservoir in Portion
	8a
	(j) Sheetpiling for jacking pit, trenchless works, excavation, EGI, drill and grouting for jacking pit and site clearance in Portion 8b

	(k) Sheetpiling and excavation, pipes laying and demolition of existing
	structures in Portion 9b
	(l) Stockpile of soil and excavation in Portion 9c
	(m) Excavation, sheetpiling for ELS, pipes laying, noise barrier footing in Portion 10a
	(n) Sheetpiling and excavation, pipes laying in Portion 10b
	(o) Construction of MBR at 11b
	(p) Construction of temporary sewage pumping station in Portion 14
ND/2019/02	
ND/2019/02	(a) Pre-bored Socketed H-pile
	(b) Tree felling
	(c) ELS
	(d) Pipe Jacking
	(e) Hoarding erection
	(f) Construction of Pile Cap
ND/2019/03	(a) Underground Utilities Laying in Portion 1;
	(b) Portion 2 to Portion 20
	- Erection of Permanent Boundary Structure
	- Construction of Irrigation Channel
	- Geotechnical Works in Long Valley (Trail Pits)
	- Construction of Temporary Road in Long Valley
	- Asbestos Removal in Long Valley
	- Demolition of Existing Construction in Handed over Area
	- Construction of Type 2 Storage House
	- Construction of Outdoor Composting Facility
	- Construction of Bird Hide
	- Construction of Outdoor Classroom
	Construction of Storage ShedsWetland Creation & Restoration works
ND/2019/04	
ND/2019/04	(a) Site clearance(b) Tree felling
	(c) Predrill
	(d) Socket H-piling
	(e) Bored piling
	(f) Excavation
	(g) Sheet piling
	(h) ELS
ND/2019/05	(a) Bridge Foundation Works
	- Pre-drilling for bored piles at B1(Portion I), B2 (Portion II), C1-01 &
	C1-02 (Portion II), C2-02, E2-01
	- Bored piling at B1 (Portion 1), C2-01, C2-04aM, C3-01a, C3-04bM, D1-
	02, E2-01, D2-01, C1-04a, C2-03a, C1-04b, C2-03b.
	- ELS and Pile cap construction at C4-03, C4-04, D1-01, E1-01, C3-03b,
	HKY-AB1 pile cap.
	- Footing construction at C4-01a and C4-01b.
	(b) Viaduct Works
	- 1 st Segment Mould installation and 2st Segment Mould fabrication.
	- Segment production line and segment storage yard establishment
	- First batch of precast segment production
	- Rebar cage jig fabrication
	- Segment shop drawing and bar bending schedule preparation for bridge
	C4 Typical pier column mould fabrication

	- Falsework & steel platform design for Portion C4-01 and C3-04 Pier
	column trial panel at CTC yard
	- M.J.S.O.P. erect method statement
	- Temporary SOP support design for Bridge C4
	- Bearing fabrication for bridge C2, C3 and C4
	- CTC storage yard establishment
	(c) Jockey Club Road
	- Inspection pit digging and UU diversion
	- Erect of temporary steel decking for site access
	- Commencement of rock fill slope work for 3SW-C/F63
	- Commencement of cut slope work and soil nail for 3SW-A/C149
	(d) Tai Wo Service Road West
	- Road widening for D2-03
	- Erection for 1650 dia drain and manhole in Portion XIII
	- HKT draw pit construction in Portion XIII
	- CLP cross road duct joint bay AND uu LAYING in Portion XII
	- Conduct vibration monitoring
	- TTA implementation & demolish of HKY staircase
	(e) Tai Wo Service Road East
	- Drainage, watermain and road works in Ch100-200
	- Site clearance and formation start in Ch200-450
	- Drainage works at Portion XII
	- HKY FB Abutment commencement AB1
	- HKY FB Lift shaft and column commencement LT1 and P02
	(f) Fanling Highway
	- Road works for Diversion of Fanling Highway for Pier D2-03
	Construction
ND/2019/06	(a) Finishing works and E&M installations for the Management Office Building
	(MOB) at Portion 4.
	(b) Erection of the steel members and seam roof of steel canopy at Portion 3.
	(c) E&M installations for the steel canopy at Portion 3.
	(d) Construction of ground slab of the market stall area at Portion 3.
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	(c) C&D waste disposal at Portion 1 and 2.
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	(e) Construction of box culvert at Portion 2.
	(f) Filling works at Portion1 and 2.
	(g) Tree felling/ Disposal of yard waste at Portion 1, 2 and 3.
	(h) Construction of site haul road at Portion 1.
	(i) Trial pit at Ma Sik Road.
	(j) Demolition of villager's houses at Portion 1, 2 and 4.
	(k) Removal of asbestoses containing material at Portion 1, 2 and 4.
	(1) Drainage Works at Portion 1 and 3.
	(1) Dramage works at rotton rand 3.

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 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 comply with the requirements specified in the Environmental Permits (EPs), Updated Environmental Monitoring & Audit (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 22nd EM&A Report which summarises the key findings of the EM&A programme in August 2021.

Structure of the report

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

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- 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 summarized in **Table 2.1**.

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

EP No.	Designated Project	C 1	C2	С3	C5 A	C5 B	C6	C 7
EP-466/2013	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	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				✓			

Note: 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

- 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**.

Project Organization

- 2.6 Different parties with different levels of involvement in the Project organization include:
 - Project Proponent Civil Engineering and Development Department (CEDD)
 - Supervisor / Supervisor's Representative AECOM
 - Environmental Team (ET) Wellab Limited
 - Independent Environmental Checker (IEC) Mott MacDonald Hong Kong Ltd (MottMac)
- 2.7 The key personnel contact names and numbers 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. Felix Fan	3152 3551	3547 1658
Supervisor / Supervisor's Representative (AECOM)	Chief Resident Engineer	I Mr Alan Lee		2645 3900
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 –	Site Agent	Mr. Ivan Leung	9640 8340	
Richwell Engineering Joint Venture)	Environmental Officer	Mr. Edward Tam	9287 8270	
Contract No. ND/2019/02	Site Agent	Mr. Andy Chan	3485 9780	
Contractor (Chun Wo – Kwan Lee Joint Venture.)	Environmental Officer	Mr. Ng Tao, Richard	9802 9577	
	Site Agent	Mr. Tang Wing Kai	9300 7037	
Contract No. ND/2019/03 Contractor (Sang Hing Kuly Joint Venture)	Environmental Officer	Mr. Chow Ka Wing	9184 6351	
John Venture)	Environmental Supervisor	Mr. Vincent Hung	6742 5596	
Contract No. ND/2019/04	Site Agent	Mr. Bear Ding	6483 6198	
Contractor (Daewoo – Chun Wo – Kwan Lee Joint	Environmental Officer	Ms. Donna Tso	9283 7167	
Venture)	Environmental Supervisor	Ms. Peggie Hon	9714 3308	
	Site Agent	Mr. Darvin Lo	9467 5891	
Contract No. ND/2019/05 Contractor (CRCC – Paul Y. Joint Venture)	Environmental Manager	Mr. Pan Fong	9436 9435	
voint vointaio)	Environmental Officer	Ms. Louise Poon	5272 5709	
Contract No. ND/2019/06	Site Agent	Mr. Anson Chan	9349 1320	
Contractor (New Concepts Engineering Development	Environmental Officer	Mr. Alex Choy	9409 9608	2363 2162
Ltd.)	Environmental Coordinator	Ms. Mildred Hung	9460 2745	

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Contract No. ND/2019/07	Site Agent	Mr. Daniel Wong	5335 9572	
Contractor (China Road and	Environmental Officer	Mr. K. M. Lui	5113 8223	
Bridge Corporation)	Environmental Supervisor	Mr. Attlee Chau	6386 9018	

Summary of Construction Works Undertaken During Reporting Month

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

Table 2.3	Summary Table for Major Site Activities in the Reporting Month				
Contract No.	Site Activities (August 2021)				
ND/2019/01	 (a) Site clearance, excavation and backfilling in Portion 3 (b) Site Clearance, stockpile of soil, construction of KW01 retaining wall, sheetpiling and excavation, pipes laying and backfilling in Portion 5 (c) Site Clearance, sheetpiling and excavation, pipes laying, construction of KW01 retaining wall in Portion 6a (d) Arsenic soil treatment works in Portion 6b (e) Site Clearance, Construction of temporary road for alternative Po Lau Road, Construction of site accommodation in Area T2 and T3, sheetpiling and excavation, pipes laying, footing of Noise Barriers in Portion 7 (f) Construction of Retaining Wall, slope cutting, soil nailing, slope drainage and maintenance access construction, excavation for Fresh Water Service Reservoir, RC construction of Flushing Water Service Reservoir in Portion 8a (g) Drill and grouting for jacking pit, EGI and site clearance in Portion 8b (h) Sheetpiling and excavation, pipes laying and demolition of existing structures in Portion 9b (i) Stockpile of soil and excavation in Portion 9c 				
	 (j) Excavation, sheetpiling for ELS, excavation, pipes laying and noise barriers footing in Portion 10a (k) Sheetpiling and excavation in Portion 10b (l) Laying of rising mains, construction of MBR in Portion 11b (m) Sheetpiling and excavation, Construction of temporary sewage pumping station in Portion 14 				
	(n) Construction of CLC in Portion 16				
ND/2019/02	 (a) Pre-bored Socketed H-pile (b) Tree felling (c) ELS (d) Hoarding erection (e) Construction of pile cap 				
ND/2019/03	 (a) Underground Utilities Laying in Portion 1; (b) Portion 2 to Portion 20 Erection of Permanent Boundary Structure Construction of Irrigation Channel Geotechnical Works in Long Valley (Trail Pits) Construction of Temporary Road in Long Valley Asbestos Removal in Long Valley Demolition of Existing Construction in Handed over Area Construction of Storage Shed and Type 2 Storage House 				

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Contract No.	Site Activities (August 2021)
	- Construction of Bird Hide
	- Construction of Outdoor Classroom
	- Wetland Creation & Restoration works
	(a) Site clearance
	(b) Tree felling
	(c) Predrill
ND/2019/04	(d) Socket H-piling
	(e) Bored piling
	(f) Excavation
	(g) Sheet piling
	(a) Pre-drilling of B1 and B2
	(b) Bored Piles of E2-03, C2-01 and P4
ND/2019/05	(c) E2-02 pile cap concreting
	(d) Pier cap work for LT1, PO2 and AB1
	(e) TWSR-West widening road works for the pier D2-03 construction
	(a) Finishing works and E&M installations for the Management Office Building
	(MOB) at Portion 4
	(b) Erection of the steel members of steel canopy at Portion 3
	(c) E&M installation for the steel canopy at Portion 3.
	(d) Construction of ground slab of the market stall area and concrete carriageway
ND/2019/06	at Portion 3
	(e) Construction of underground utilities in the final stage market at Portion 3
	(f) Installation of sheet piles for ELS for footings of additional carriageway steel
	cover at Portion 3
	(g) Construction of footings of additional carriageway steel cover at Portion 3
	(h) Relocation of Container Type Temporary Public Toilet
	(a) Site clearance at Portion 1 and 2.
	(b) Erection of site hoarding at Portion 1.
	(c) C&D waste disposal in Portion 1 and 2.
	(d) G.I. works at Portion 1.
	(e) Construction of box culvert in Portion 2.
ND/2019/07	(f) Filling works in Portion 1 and 2.
	(g) Tree felling / Disposal of yard waste in Portion 1 and 2
	(h) Construction of site haul road in Portion 1.
	(i) Trial pit at Ma Sik Road.
	(j) Demolition of villager's houses in Portion 1 and 2.
	(k) Removal of asbestos containing materials in Portion 1 and 2.

Construction Programme

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

Status of Environmental Licences, Notifications and Permits

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

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 Monthly EM&A Report – August 2021

Table 2.4 Status of Environmental Licenses, Notifications and Permits

		Valid Period		_
Contract No.	Permit / License No.	From	То	Status
Environmental Per	rmit (EP)			
	EP-466/2013	21/11/2013	N/A	Valid
NID /2010/01	EP-467/2013/A	27/01/2017	N/A	Valid
ND/2019/01	EP-468/2013/A	27/01/2017	N/A	Valid
	EP-470/2013	21/11/2013	N/A	Valid
ND/2019/02	EP-469/2013	21/11/2013	N/A	Valid
	EP-468/2013/A	27/01/2017	N/A	Valid
ND/2019/03	EP-473/2013/A	27/01/2017	N/A	Valid
	EP/473/2013/A	27/01/2017	N/A	Valid
ND/2019/04	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		13/01/201/	1 1/ 1 1	, and
Construction Indise	GW-RN0411-21	25/06/2021	24/09/2021	Valid
	GW-RN0487-21	01/09/2021	31/12/2021	Valid
	GW-RN0478-21	17/07/2021	16/01/2022	Valid
ND/2019/01	GW-RN0381-21	08/06/2021	07/09/2021	Valid
ND/2019/01	GW-RN0436-21	30/06/2021	29/09/2021	Valid
	GW-RN0143-21	16/03/2021	15/09/2021	Valid
	GW-RN0224-21	07/04/2021	06/10/2021	Valid
	GW-RN0413-21	23/06/2021	17/12/2021	Valid
ND/2019/02	GW-RN0413-21 GW-RN0574-21	11/08/2021	31/01/2022	Valid
ND/2019/02 ND/2019/03	GW-RN0374-21 GW-RN0131-21	01/03/2021	31/08/2021	Valid
ND/2019/03	GW-RN0131-21 GW-RN0564-21	16/08/2021	15/10/2021	Valid
ND/2019/04	GE-RN0608-21	18/08/2021	21/10/2021	Valid Valid
	GE-RN0008-21 GW-RN0275-21		02/11/2021	Valid Valid
NID/2010/05		05/05/2021		
ND/2019/05	GW-RN0476-21 GW-RN0497-21	05/07/2021	04/10/2021	Valid
ΔΤ , 0 ρ 00 , 0		30/07/2021	29/10/2021	Valid
	ant to Air Pollution Con			77 1' 1
ND/2019/01 ND/2019/02	451792 454012	11/12/2019 05/03/2020	N/A N/A	<u>Valid</u> Valid
ND/2019/02	452216	24/12/2019	N/A	Valid Valid
ND/2019/03	452332	31/12/2019	N/A	Valid Valid
ND/2019/03	452333	31/12/2019	N/A	Valid
ND/2019/04	461184	23/10/2020	N/A	Valid
ND/2019/05	454323	13/03/2020	N/A	Valid
ND/2019/06	449369	24/09/2019	N/A	Valid
ND/2019/07	459393	28/08/2020	N/A	Valid
	r Disposal of Construction			· with
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

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 Monthly EM&A Report – August 2021

D 1 4 4 ACI	1 1 1 T 1 T 1			
	emical Waste Producer	10/01/0000	77/4	77.11.1
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 P	Pollution Control	Ordinance	
	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
NID /2010/01	WT00036076-2020	22/06/2020	30/06/2025	Valid
ND/2019/01	WT00037191-2020	02/02/2021	28/02/2025	Valid
	WT00037204-2020	02/02/2021	28/02/2025	Valid
	WT00037412-2021	15/04/2021	30/04/2026	Valid
	WT00037564-2021	19/04/2021	30/04/2026	Valid
	WT00037886-2021	28/06/2021	30/06/2026	Valid
NID /2010/02	WT00036584-2020	21/10/2020	31/10/2025	Valid
ND/2019/02	WT00036952-2020	17/12/2020	31/12/2025	Valid
ND/2019/03	WT00035847-2020	12/08/2020	31/08/2025	Valid
ND/2019/04	WT00037539-2021	16/04/2021	30/04/2026	Valid
ND/2019/05	WT00036996-2020	22/12/2020	31/12/2025	Valid
ND/2019/06	WT00035415-2019	20/03/2020	31/03/2025	Valid
ND/2019/07	WT00037526-2021	04/05/2021	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 were conducted to monitor the air quality for the Works Contracts. **Appendix B** shows the established Action/Limit Levels for the air quality monitoring works.
- 3.2 Impact 1-hour TSP monitoring was conducted for at least three times every 6 days, while the impact 24-hour TSP monitoring was conducted for at least once every 6 days at one air quality monitoring station.

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). **Table 3.1** describes the location of the air quality monitoring station.

Table 3.1 Location for Air Quality Monitoring Locations

EP No.	Contract No.	Monitoring Station	Location	
	ND/2019/03	FLN-DMS1 ^[2]	Scattered Village Houses	
	ND/2019/04	FLN-DMS1 ²³	North of Proposed Potential Ecopark	
EP-473/2013/A	ND/2019/05	FLN-DMS3 ^[3]	House near Tong Hang	
	ND/2019/03	FLN-DMS5 ^[4]	NI 11 IIII	
	ND/2019/04		Noble Hill	
EP-466/2013				
EP-467/2013/A	ND/2019/01	IZTNI DNAGA	Temporary Structure near	
EP-468/2013/A		KTN-DMS4	Fanling Highway (near Pak Shek Au)	
EP-468/2013/A	ND/2019/03		Shek Au)	

Remark:

Monitoring Equipment

- 3.4 As the power supply for High Volume Sample (HVS) for TSP monitoring at FLN-DMS 5 and KTN-DMS 4 were rejected, direct reading dust meter was used to measure both 1-hour and 24-hour average TSP levels:-
 - The proposal for alternative monitoring equipment (i.e. direct reading dust meter) for TSP monitoring was approved by EPD according to approved Baseline Air Quality Monitoring Report (KTN & FLN NDA); and
 - Adopt same measurement methodology (i.e. direct reading dust meter) as baseline monitoring for reliable comparison.

^{[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 the 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

- 3.5 The proposed use of portable direct reading dust meters was submitted to IEC and obtained agreement from the IEC as stated in Section 2.4.5 of the Updated EM&A Manual.
- 3.6 HVS for 24-hr TSP monitoring will be adopted once secured supply of electricity become available at FLN-DMS 5 and KTN-DMS 4.
- 3.7 **Table 3.2** summarizes 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 KTN-DMS4	Dust Monitor (1-hour and 24- hour TSP)	Met One Instruments	AEROCET-831	5
FLN-DMS1	Dust Monitor (1-hour TSP)			
FLN-DMS3	HVS Sampler (TSP) (24-hour TSP)	Tisch	TISCH Model: TE-5170	2

- 3.8 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 ten meters in compliance with the general setting up requirement. Furthermore, this station also provides other meteorological information, such as the humidity, rainfall, air pressure and temperature etc.
- 3.9 The general weather conditions (i.e. sunny, cloudy or rainy) were recorded by the field staffs during the monitoring day.

Monitoring Parameters, Frequency and Duration

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

 Table 3.3
 Impact Dust Monitoring Parameters, Frequency and Duration

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

Monitoring Methodology and QA/QC Procedure

1-hour and 24-hour TSP Air Quality Monitoring

Instrumentation

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

(AEROCET-831)

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

Maintenance/Calibration

- 3.13 The following maintenance/calibration was required for the direct dust meters:
 - Check and calibrate the meter 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)

3.14 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

- 3.15 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; and
 - A secured supply of electricity was provided to operate the samplers.

Filters Preparation

- 3.16 Wellab Limited (HOKLAS Registration No.083) is the HOKLAS accredited laboratory and responsible for the preparation of 24-hr conditioned and pre-weighed filter papers for monitoring team.
- 3.17 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

- 3.18 Operating/analytical procedures for the air quality monitoring were highlighted as follows:
 - Prior to the commencement of the dust sampling, the flow rate of the HVS was properly set (between 1.1 m³/min. and 1.4 m³/min.) in accordance with the manufacturer's instruction to within the range recommended in USEPA Standard Title 40, CFR Part 50;
 - The power supply was checked to ensure the sampler worked properly;
 - On sampling, the sampler was operated for 5 minutes to establish thermal equilibrium before placing any filter media at the designated air quality monitoring station;
 - The filter holding frame was then removed by loosening the four nuts and carefully a weighted and conditioned filter was centered with the stamped number upwards, on a supporting screen;
 - The filter was aligned on the screen so that the gasket formed an airtight seal on the outer edges of the filter. Then the filter holding frame was 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 be returned to the HOKLAS 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 not vary by more than ±3°C; the RH should be < 50% and 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

- 3.19 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 condition; and
 - All HVS were calibrated (five point calibration) using Calibration Kit prior to the commencement of the baseline monitoring and thereafter at bi-monthly intervals.

Results and Observations

3.20 The monitoring results for 1-hour TSP and 24-hour TSP are summarized in **Table 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		centration ug/m³)	Action Level,	Limit Level,	
	Average	Range	μg/m ³	μg/m³	
FLN -DMS1	60.4	45.2 - 85.2	303	500	
FLN -DMS3	58.8	44.9 - 83.4	301	500	
FLN-DMS5	17.3	6.1 - 28.4	279	500	
KTN-DMS4	48.9	14.6 - 140.4	297	500	

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

11 1 8 1 1					
Monitoring	Concentration (µg/m³)		Action Level,	Limit Level,	
Station	Average	Range	$\mu g/m^3$	μg/m ³	
FLN -DMS1	57.0	47.5 – 64.4	150	260	
FLN -DMS3	30.6	26.2 - 33.4	165	260	
FLN-DMS5	19.4	10.0 - 26.4	153	260	
KTN-DMS4	95.3	31.4 – 149.1	192	260	

- 3.21 All 1-hour and 24-hour TSP monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedances were recorded.
- 3.22 According to our field observations, the major dust source identified at the designated air quality monitoring stations in the reporting month are shown in **Table 3.6**:

Table 3.6 Observation at Dust Monitoring Stations

Monitoring Station	Major Dust Source	
FLN-DMS1	Excavator, dump truck, mobile crane, crane, road traffic	
FLN-DMS3	Excavator, mobile crane, sheeting piling, road traffic	
FLN-DMS5	Road traffic	
KTN-DMS4	Road traffic	

Event and Action Plan

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

4 NOISE MONITORING

Monitoring Requirements

4.1 In accordance with Updated EM&A Manual, construction noise monitoring was 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 shall be on a weekly basis and conduct one set of measurements between 0700 and 1900 hours on normal weekdays. **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 **Figure 3** and 4 according to Table 1.1 of 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		
ND/2019/04	CP-FLN-NMS1 ^[2]	Belair Monte
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
ND/2019/01	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:

Monitoring Equipment

4.3 Integrating Sound Level Meter was used for impact noise monitoring. The meters are 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 also complied with International Electrotechnical Commission Publications 651:1979 (Type 1) and 804:1985 (Type 1) specifications. **Table 4.2** summarizes the noise monitoring equipment being used. Copies of calibration certificates are attached in **Appendix C**.

^{[1]:} Noting that construction phase noise monitoring at the other proposed monitoring stations (e.g. planned), where access is permitted, will be conducted during the 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.

Table 4.2 Noise Monitoring Equipment

Equipment	Manufacturer	Model	Quantity	
Sound Level Meter	BSWA	BSWA 308	4	
A constitut Calibration	SVANTEK	SV30A	2	
Acoustical Calibrator	Brüel & Kjær	4231	3	

Monitoring Parameters, Frequency and Duration

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

Table 4.3 Noise Monitoring Parameters, Duration and Frequency

1 able 4.5 Noise Monitoring Parameters, Duration and Frequency					
Contract No.	Monitoring Stations	Parameter	Duration	Frequency	Measurement
ND/2019/06					
ND/2019/04	CP-FLN-NMS1 ^[3]				Façade
ND/2019/05	CP-FLN-NMS2 ^[4]				
ND/2010/01	CP-KTN NMS2 ^[5]	$\begin{array}{c} L_{10(30 \text{ min.})} dB(A) \\ L_{90(30 \text{ min.})} dB(A) \\ L_{eq(30 \text{ min.})} dB(A) \end{array}$	0700-1900 hrs on	Once per	
ND/2019/01	CP-KTN NMS3 ^[6]	(as six consecutive $L_{eq, 5min}$ readings)	normal weekdays	week	Free-field ^[1]
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, the time weighting and the measurement time were set as follows:

frequency weightingtime weightingFast

time measurement : $L_{eq}(30 \text{ min.}) dB(A)$

(as six consecutive $L_{eq, 5min}$ readings) during non-restricted hours (i.e. 0700-1900 hrs on normal weekdays)

- Prior to and after each noise measurement, the meter was calibrated using a Calibrator for 94.0 dB at 1000 Hz. If the difference in the calibration level before and after measurement was more than 1.0 dB, the measurement would be considered invalid and repeat of noise measurement would be required after re- calibration or repair of the equipment;
- During the monitoring period, the L_{eq} , L_{90} and L_{10} were recorded. In addition, site conditions and noise sources were recorded on a standard record sheet;
- Noise measurement was paused temporarily during periods of high intrusive noise (e.g. dog barking, helicopter noise) if possible and observation record during measurement period should be provided; and
- Noise monitoring was cancelled in the presence of fog, rain, and wind with a steady speed exceeding 5 m/s, or wind with gusts exceeding 10 m/s. The wind speed should be checked with a portable wind speed meter capable of measuring the wind speed in m/s.

Maintenance and Calibration

- 4.5 The microphone head of the sound level meter and calibrator were cleaned with a soft cloth at quarterly intervals.
- 4.6 The sound level meter and calibrator 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 summarized 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 summarized in **Appendix M**.

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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				
ND/2019/04	CP-FLN-NMS1 ^[1]	62.9 – 71.5	69.9	
ND/2019/05	CP-FLN-NMS2 ^[2]	56.7 - 62.1	56.7 - 62.1 59.6	
ND /2010 /01	CP-KTN NMS2 ^[3]	52.7 – 60.2	58.6	75
ND/2019/01	CP-KTN NMS3 ^[4]	51.7 – 62.7	51.6	
ND/2019/01	CP-KTN NMS5	53.6 – 59.6	57.2	
ND/2019/02	CP-KTN-NMS6	55.3 – 60.5	55.1	

Remarks:

- 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 source 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			Dump truck, excavator,
ND/2019/04	CP-FLN-NMS1 ^[1]	Belair Monte (Existing)	mobile crane, piling, road
			tranic
ND/2019/05	CP-FLN-NMS2 ^[2]	Scattered Village House in Tong Hang (Existing)	Excavator, 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

^{[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.

ND/2019/01	CP-KTN-NMS5	N/A	Road traffic, other sites, train 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, other sites

Remarks:

Event and Action Plan

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

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^{[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.

5 WATER QUALTY 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 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 shall be 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 pre-construction ET's Updated EM&A Manual and Baseline Water Quality Monitoring Report (KTN & FLN NDA).

Monitoring Parameters, Frequency

5.4 **Table 5.1** summarized 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 (NH₃-N) (mg NH₃-N/L) Unionized Ammonia (UIA) (mg/L) Nitrate-nitrogen (NO₃-N) (mg NO₃-N/L) Ortho-phosphate (PO₄) (mg PO₄³-P/L) 	 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 the Section 5.6.1.2 of 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 ecological importance 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 were recorded, including monitoring location / position, time, water depth, weather conditions and any special phenomena or work underway at the construction site.
- 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 are less than 3m in depth, only the mid depth sample was taken. Should the water depth is less than 6m, in which case the mid-depth station may be 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 is summarised in **Table 5.2**. The location of monitoring stations are shown in **Figure 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				
SYR-IS1	Impact Station	Downstream of river	along River Beas and construction of footbridge across River Beas				
River Indu	River Indus and near Siu Hang San Tsuen Stream						
NTR-CS1	Control Station	Upstream of river					
NTR-IS1	Impact Station	Downstream of river					
SHST-IS2	Impact Station	Water sensitive receiver at near Siu Hang San Tsuen Stream	During construction of bridge across River Indus				
MWR-IS3	Impact Station	Water sensitive receiver at near Ma Wat River					

Monitoring Equipment

Instrumentation

5.12 A multi-parameter meters (Model YSI EXO) was 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.

pН

5.20 The instrument was consisting 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 sample were delivered to WELLAB Limited (HOKLAS Registration No.083) 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 recalibrated 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 the on-site calibration of field equipment (Multi-parameter Water Quality System), the BS 1427:2009, "Guide to on-site test methods for analysis of waters" was observed.

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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 can proceed uninterrupted even when some equipment is under maintenance, calibration, etc.
- 5.26 **Table 5.3** summarizes the equipment used in the water quality monitoring program. The copies of the calibration certificates of multi-parameter water quality system are shown in the **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	3

Monitoring Parameters and Frequency

5.27 **Table 5.4** summarizes 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, middepth and 1m above river bed. If the water depth was 	3 days per week, for 2 weeks prior to the
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) 	less than 3m, mid-depth sampling only. If water depth was less than 6m, mid-depth might be omitted.	commencement of construction works

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

Monitoring Methodology

Instrumentation

5.29 A multi-parameter meters (Model YSI EXO) was 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 are required for all parameter. Analysis of suspended solids and arsenic were carried out by WELLAB Ltd. and comprehensive quality assurance and control procedures in place in order to ensure the quality and consistency in results. The reporting limit and detection limit 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 the 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 programme were performed by WELLAB Ltd. for every batch of 20 samples:
 - One method blank; and
 - One set of QC sample.

Results and Observations

- 5.35 All additional water quality monitoring was conducted as scheduled in the reporting month. The water quality monitoring schedule for this reporting month is shown in **Appendix D**.
- 5.36 The monitoring results and graphical presentation of additional water quality monitoring at the monitoring stations are shown in **Appendix G**.
- 5.37 During the reporting month, five (5) Limit Level exceedances for dissolved oxygen, nine (9) Limit level exceedances for turbidity, seven (7) Limit Level exceedances for suspended solids and two (2) Action Level exceedance for arsenic of impact water quality monitoring were recorded. The summary of exceedance records is shown in **Table 5.6** and **Table 5.7**.

Table 5.6 Summary of Exceedance Records of Water Quality Monitoring in the Reporting Month

Date	Monitoring	Parameter (unit)	Depth-averaged	Excee	dances	Exceedances due to the
Date	Stations	rarameter (umt)	Measured Value	AL	LL	Contract
	SHST-IS2	Turb. (NTU)	21.0		✓	No
2.4	SHS1-152	SS (mg/L)	14.5		✓	No
3 August 2021		DO (mg/L)	7.9		✓	
2021	MWR-IS3	Turb. (NTU)	49.9		✓	No
		SS (mg/L)	110.0		✓	
	SYR-IS1	Arsenic	11.5	✓		No
	NTR-IS1	Turb. (NTU)	13.3		✓	No
		DO (mg/L)	6.6		✓	***
5 August	SHST-IS2	Turb. (NTU)	33.2		✓	Yes (ND/2019/04)
2021		SS (mg/L)	21.0		✓	
	MWR-IS3	DO (mg/L)	7.5		✓	No
		Turb. (NTU)	30.0		✓	
		SS (mg/L)	25.5		✓	
	SYR-IS1	Arsenic	13.5	✓		No
7.	CHET ICA	Turb. (NTU)	21.4		✓	Yes
7 August 2021	SHST-IS2	SS (mg/L)	13.0		✓	(ND/2019/04)
2021	MWR-IS3	DO (mg/L)	7.8		✓	No
	W K-155	Turb. (NTU)	16.8		✓	No
	NTR-IS1	Turb. (NTU)	41.5		✓	No
	N1K-151	SS (mg/L)	28.0		✓	INO
9 August 2021		DO (mg/L)	8.2		✓	No
2021	MWR-IS3	Turb. (NTU)	45.4		✓	
		SS (mg/L)	45.5	T	✓	.4 0 -1:4-

Abbreviation: AL - Action Level, LL - Limit Level, DO - Dissolved Oxygen, Turb. - Turbidity, SS - Suspended Solids

Table 5.7 Summary of Exceedance Records of Water Quality Monitoring in the Reporting Month

-	Reporting Month							
Parameter	No. of non-project related Exceedances		Total No. of non- project related Works		of dance to the cuction of the tract	Total No. of Exceedance related to the Construction Works of the		
	Action Level	Limit Level		Action Level	Limit Level	Contract		
Dissolved Oxygen	0	4	4	0	1	1		
Turbidity	0	7	7	0	2	2		
Suspended Solids	0	5	5	0	2	2		
Arsenic	2	0	2	0	0	0		

5.38 Notifications of exceedance were issued to relevant parties upon confirmation of the monitoring results. Investigation for the exceedances recorded were conducted by ET accordingly. After investigation, one (1) Limit Level exceedances for dissolved oxygen, two (2) Limit Level exceedances for turbidity and two (2) Limit Level exceedances for suspended solids at monitoring station, SHST-IS2, were found due to Contract No. ND/2019/04. Other exceedances were considered non-projected related. The investigation results and summary of exceedances are summarised in **Table 5.8**. The summary of exceedance recorded in the reporting month is shown in **Appendix O**.

Table 5.8 Summary of Investigation on Water Quality Monitoring Exceedance Records in the Reporting Month

Date	Monitoring Stations	Parameters	Investigation Summary
5, 7 August 2021	SYR-IS1	Arsenic	An influx of muddy water from a channel outside the Project site boundary to River Beas during monitoring day. No pollution discharge from construction activity was observed and water mitigation measures (under Contract No. ND/2019/02) were observed maintained properly. Control Station value already exceeded either the Action or Limit Levels. Rainfall was recorded during and before monitoring which led to increased surface runoff and hence adverse water quality. The exceedances are considered due to the external factors rather than the contract works and non-project related.
5, 9 August 2021	NTR-IS1	Turbidity, SS	An influx of muddy water from a tributary (out of Project boundary) to Ma Wat River and then to River Indus was observed which affect the water quality of River Indus during the monitoring day. Water mitigation measures near monitoring station (under Contract No. ND/2019/04) were observed maintained properly. No pollution discharge from construction activity under the Project was observed. Control Station value already exceeded either the Action or Limit Levels. Rainfall was recorded during and before monitoring which led to increased surface runoff and hence adverse water quality. The exceedances are considered due to the external factors rather than the contract works and non-project related.

3 August 2021	SHST-IS2	Turbidity, SS	No pollution discharge from construction activity was observed and water mitigation measures (under Contract No. ND/2019/04) were observed maintained properly for directing site runoff into site drainage system. Control Station value already exceeded either the Action or Limit Levels. Water from upstream of Siu Hang San Tsuen outside the project site boundary was observed muddy also rainfall was recorded during and before monitoring which led to increased surface runoff and erosion from natural habitat along the Siu Hang San Tsuen Stream, and also may cause the dispersion of riverbed sediment to the monitoring station. The exceedances are considered due to the external factors rather than the contract works and non-project related.
5, 7 August 2021	SHST-IS2	DO, Turbidity and SS	Water from upstream of Siu Hang San Tsuen was observed muddy. Rainfall was recorded during and before monitoring which led to increased surface runoff and erosion from natural habitat along the Siu Hang San Tsuen Stream, and also may cause the dispersion of riverbed sediment to the monitoring station. During monitoring, muddy surface runoff was found overflow at periphery drainage (under Contract No. ND/2019/04) which his considered as a partial source of water pollution. Control Station value already exceeded either the Action or Limit Levels. The exceedances are considered due to the contract works and the following recommendations on remedial measures should be taken to avoid further exceedance. 1) To regularly clear the slurry and sediment trapped in site channel; 2) To review the capacity of periphery drainage to direct all surface runoff to wastewater treatment facilities; 3) To properly erect and maintain the green water barriers with desilting materials deployed along Siu Hang San Tsuen Stream. 4) To provide spare pumps for emergency use to pump muddy surface runoff to wastewater treatment facilities during and after rainstorm; 5) To frequently check and ensure desilting materials for protection of Siu Hang San Tsuen Stream are intact and in good condition; 6) To ensure the drainage facilities would not be clogged with sediment of Siu Hang San Tsuen Stream are intact and in good condition. The effectiveness of remedial measures implemented by the Contractor would be continuously checked and reviewed during water quality monitoring and weekly site inspection.
3, 5, 7, 9, August 2021	MWR-IS3	DO, Turbidity and SS	Influx of muddy water from a tributary (out of Project boundary) to Ma Wat River and then to the monitoring stations was observed which affect the water quality of Ma Wat River during the monitoring days. No pollution discharge from construction activity under the Project was observed. Rainfall was recorded during and before monitoring which led to increased surface runoff and hence adverse water quality. For exceedances recorded on DO, DO value at control station were measured lower than the water quality criteria at MWR-IS3. Water temperature recorded were relatively higher that that during baseline monitoring and led to low oxygen solubility in water. The exceedances are considered due to the external factors rather than the contract works and non-project related.

Event and Action Plan

5.39 Should any project related non-compliance of the criteria occur, action in accordance with the 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 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) should be 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 should be drawn through PM10 HVS fitted with a conditioned preweighting filter paper, at a controlled rate. After sampling for 24-hour (refer Section 9.5.5 for details on measurement period), the filter paper with retained PM10 particulates shall be collected and returned to the laboratory for drying in a desiccators followed by accurate weighting. 24-hour average RSP levels shall be 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 shall be prepared for arsenic testing through a "Hot Acid Extraction Procedure". The extracted material shall be tested for arsenic by using Inductively Coupled Plasma/Mass Spectrometry (ICP/MS). The extraction and testing will be 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 under the Work Contract, as shown in **Figure 5**. **Table 6.1** describes the locations 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 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		120

Remarks:

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

Monitoring Equipment

6.6 **Table 6.2** summarizes 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
KTN-DMS-4A	HVS Sampler (RSP)	TISCH Model: TE-6070X	1

Monitoring Parameters, Frequency and Duration

6.7 **Table 6.3** summarizes 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 is 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 will be properly set (between 1.1 m³/min. and 1.4 m³/min.) in accordance with the manufacturer's instruction to within the range recommended in USEPA Standard Title 40, CFR Part 50.
- The power supply was checked to ensure the sampler worked properly. On sampling, the sampler was operated for 5 minutes to establish thermal equilibrium before placing any filter media at the designated air monitoring station.
- The filter holding frame was then removed by loosening the four nuts and a weighted and conditioned filter will be 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. Then the filter holding frame was tightened to the filter holder with swing bolts. The applied pressure were 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 not vary by more than ±3°C; the relative humidity (RH) was < 50% and 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., is responsible for the preparation of 24-hr conditioned and preweighed 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. 083), is 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 summarized 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/m³)	Action Level (ng/m³)	Limit Level, (ng/m³)
05/08/2021		6.64		
11/08/2021		2.54		
17/08/2021	KTN-DMS4(A)	2.01	9.36	11.7
23/08/2021		1.27		
27/08/2021		1.04		

6.15 All ambient arsenic monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedances were recorded.

Event and Action Plan

6.16 Should project-related non-compliance of the criteria occur, action in accordance with the 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 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 are conducted referring to the updated EM&A Manual Monitoring of any LFG which may be migrated to the site should be undertaken during the construction of 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 offices, stores etc. set up on site.

Monitoring Locations

7.6 Monitoring of oxygen, methane and carbon dioxide was performed for construction of infrastructure and the development within the Consultation Zone and within MTLL when the works involve 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** summarizes 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	Rasi 700 BIO (Serial No. 330055)	1

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Results and Observations

7.8 In the reporting month, landfill gas monitoring was carried out by the Contractor at the aforesaid locations on 1 occasion with 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 project related non-compliance of the criteria occur, action in accordance with the 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 with the vibration standard stated in the EIA report.
- 8.2 According to the condition survey report from cultural heritage condition survey for Fanling Bypass Eastern Section under EP-473/2013/A, 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 feature at FL02 when pile driving operation was conducted within assessment area of 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

_		200000000000000000000000000000000000000				
	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 were conducted within the assessment area of construction works.

Table 8.2 Vibration Monitoring Plan

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

Remarks:

[1] Baseline condition survey was conducted for built heritage features at HFL05, FL02, FL04, FL24, FL27 and FL36 under ND/2019/05 for EP-473/2013/A. As HFL05, FL04, FL24, FL27 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 The copies of calibration certificate of the monitoring equipment employed by the Contractor for 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 feature at FL02 on a daily basis when pile driving operation was conducted within 50m of 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 limit for construction vibration monitoring for surveyed cultural heritage.

Table 8.3 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		

Remarks:

8.9 If any exceedance of limit have been found or damage to either structural or non-structural elements of the historic buildings have been identified, the construction works should stop immediately and seek structural engineer's advices for any remedial work.

^{*} peak particle velocity

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

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 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 was 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 Methodology specified in Table 12.1 in Updated EM&A Manual.
- 9.3 Monitoring in Long Valley should follow the methodology adopted by the regular HKBWS bird monitoring programme in order to obtain comparable results and complete coverage of the area in the shortest time possible.

Monitoring Frequency

9.4 High tide and low tide avifauna monitoring is required to be carried out on weekly basis.

Additional night-time avifauna monitoring in Long Valley is required to be carried out twice monthly from September to April.

Date of avifauna monitoring: 5th, 6th, 11th, 13th, 19th, 20th, 26th, 27th August 2021

Monitoring Location

- 9.5 The avifauna monitoring was carried out at Ng Tung River, Sheung Yue River and Long Valley in reporting month according to construction works. 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

As the sensitive receivers (large waterbirds) are easily visible, the transect route will only need to follow one bank of the rivers.

9.6 The location of Transects T1, T2, T3 and T5 is shown in **Figure 9** for reference.

Monitoring Parameters

- 9.7 The monitoring parameters and survey methodology for each transect are described below:
 - Abundance of birds
 - Types of habitat of which birds in use
 - Notable bird behaviours such as roosting, feeding, nesting and presence of juveniles
 - Birds heard though birdcalls that could not be located would be marked as "heard", while birds flying over the survey area would be marked as "flight". Species of conservation significance would be specified.
- 9.8 Other information at the time of survey such as weather condition, tidal condition, tide level and noticeable natural or anthropogenic activities would be documented.
- 9.9 For Avifauna survey, Ornithological nomenclature would make reference to The Avifauna of Hong Kong (Carey *et al.* 2001), The Birds of Hong Kong and South China (Viney *et al.* 2005), and the most recent updated list from other sources (e.g. Hong Kong Bird Watching Society).

Monitoring Result

- 9.10 In total, 40 species of birds were recorded during the bird surveys within assessment area. Among the recorded birds, there were 15 species of waterbirds. The detailed list of waterbirds and all recorded birds are shown in **Appendix L1i and L1j** respectively.
- 9.11 Among the four transects, the transect T5 had a higher species diversity and abundance due to its diverse habitat types within Long Valley. Species such as *Ardeola bacchus* and *Egretta garzetta* were commonly found roosting and foraging at wetland habitats such as agricultural lands and shallow water habitats.
- 9.12 Along the transect T5 in Long Valley, species with conservation interest such as *Himantopus himantopus*, which is a passage migrant, and *Tringa glareola*, which is a passage migrant and winter visitor, were commonly observed in swallow water habitat. Juvenile of *Himantopus humantopus* were also recorded.
- 9.13 Construction works were observed in T5 in the reporting month.
- 9.14 Transect T3 was conducted along the Sheung Yue River. Bird species such as *Ardeola bacchus* and *Egretta garzetta* were commonly observed feeding and roosting on the river bank and river bed. Construction works were observed beside Sheung Yue River.
- 9.15 Transect 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, while construction activities were observed beside T2 during the avifauna monitoring.
- 9.16 Avifauna monitoring in construction phase was conducted during the reporting month and the detailed results are attached in **Appendix L1**.

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

Monitoring Requirements and Protocol

- 9.17 As required under Section 12.3.2.14 of Updated EM&A Manual, aquatic faunal monitoring should be carried out during the construction phase.
- 9.18 Larger organisms such as fish should be monitored by direct counting, while kick-netting and sweep-netting should be used for invertebrate sampling. There should be three replicates for invertebrate sampling at each sampling point. For kick-netting, the net should be placed with the opening facing the water current, and the substrate should be disturbed by kicking to dislodge organisms from the stream bed. Sweep-netting should be conducted when kick-netting is not feasible, such as in area with no water current. Small organisms that could not be identified with naked eye should be brought to the laboratory for identification under the dissecting microscope.

Monitoring Frequency

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

Date of aquatic fauna monitoring: 12th August 2021

Monitoring Location

9.20 During wet season, the monitoring location required to be carried out in Ma Tso Lung Stream according to construction works are as follow:

•	MS_01	•	MS_02	•	MS_03	•	MS_04	•	MS_05
•	MS_06	•	MS_07	•	MS_08	•	MS_09	•	MS_10
•	MS_11	•	MS_12	•	MS_13	•	MS_14	•	MS_15

9.21 The location of Monitoring Stations shown in **Figure 10** for reference.

Monitoring Parameters

- 9.22 The monitoring parameters and survey methodology for each monitoring station are described below:
 - Species composition
 - Abundance
 - Distribution for invertebrates and fish fauna
 - Species of conservation significance would be specified
- 9.23 Other information at the time of survey such as weather condition and noticeable natural or anthropogenic activities would be recorded.

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Monitoring Status

- 9.24 In the survey of aquatic fauna, a total of 12 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. No aquatic macroinvertebrate species of conservation importance was recorded. *Rhodeus ocellatus*, which is fish species of conservation importance, was recorded in Siu Hang San Tsuen Stream.
- 9.25 Aquatic faunal monitoring in construction phase was conducted during the reporting month and the results are attached in **Appendix L2 to L3**

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

Monitoring Requirements and Protocol

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

Mammal survey

- 9.28 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.
- 9.29 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)

- 9.30 Amphibian surveys should be conducted whenever possible on evenings following or during periods of rainfall, focusing on areas suitable for amphibians (e.g. forest, shrublands, grasslands, streams, ponds, marshes, etc.). Calling amphibians should be recorded, supplemented by visual observation of eggs, tadpoles, adult frogs, and toads.
- 9.31 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)

9.32 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

9.33 Monitoring surveys of ecological sensitive receivers such as mammals, insects (butterflies and dragonflies), and herpetofauna should be undertaken on a monthly bases.

Date of Monitoring surveys of ecological sensitive receivers: 10th, 17th August 2021

Monitoring Location

- 9.34 The transect routes in the Reporting Month according to 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
- 9.35 The location of Transects is shown in **Figure 11** for reference.

Monitoring Parameters

- 9.36 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 Result

Mammal

- 9.37 During the survey, a total of 4 mammal species were recorded from transects T1, T3, T4, T5 and T6. A total of 2 species of conservation importance were recorded, namely bats *Pipistrellus abramus* and *Cynopterus sphinx*.
- 9.38 Domestic cat, *Felis catus* was found at T1, T3, T4 and T5. Domestic dog, *Canis lupus familiaris*, was found at T1, T3, T4, T5 and T6, where associated with human settlements.
- 9.39 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).
- 9.40 Identification of bat species encountered in the surveys was made with consideration to the possible bat species suggested by the bat detector, the distribution of the 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).
- 9.41 *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).
- 9.42 Bat species, *Cynopterus sphinx* was observed roosting in the tent-shaped shelter under fronds of Chinese Fan-palm during the monitoring at T1, T3 and T4. *Pipistrellus abramus* was recorded in flight at nighttime at T1, T4, and T5.
 - Herpetofauna (Amphibians and Reptiles)
- 9.43 Along the transects, a total of 9 herpetofauna species were observed. One species of conservation importance, *Kalophrynus interlineatus*, was recorded at T1. Species including frogs, toad, lizards and gecko were recorded near wetland habitats and watercourse. Transect T1 had higher species diversity and abundance than other transects.
 - *Insects (Butterfly and Dragonfly)*
- 9.44 During the insect survey, a total of 27 butterfly species and 17 odonata species were recorded from the transects, with all butterfly species being common or very common. No Species of conservation importance for butterfly was recorded. Transect T1 had higher butterfly species diversity than other transects.
- 9.45 Transect T1 had higher dragonfly species recorded in the reporting month. All of the dragonfly species recorded, were common and abundant in Hong Kong. Species of conservation importance, *Potamarcha congener*, was recorded on T1.
- 9.46 Ecological sensitive receivers such as mammals, insects (butterflies and dragonflies), and herpetofauna monitoring in construction phase was conducted during the reporting month and the results are attached in **Appendix L4 to L7**.
- 9.47 For the monitoring conducted on 10th August 2021 on Transect T5, a section of the transect route was found located within private property, and was not accessible. Another section on transect T5 was found blocked by 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**.

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



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

Results and Observation

Details of the Influencing Factors

Major Activities

- 9.48 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.
- 9.49 The anthropogenic activities affected only a small area of habitat in Long Valley during the monitoring and would only pose minor disturbances to the birds. Several *Acridotheres cristatellus* and *Acridotheres tristis* were observed foraging near the excavators.
- 9.50 During the survey of Monitoring of Measures to Minimise Disturbance to Water Birds in Ng Tung River, anthropogenic activities including construction works beside T2, and recreational fishing by fishing rod at both T1 and T2 were observed.

Weather Conditions

- 9.51 According to the observation during survey, temperature and the rain flow record in the Reporting Month (Reference: http://www.weather.gov.hk/wxinfo/pastwx/metob202108.htm), weather condition might pose influence towards the monitoring result.
- 9.52 Since the Final Baseline Ecological Monitoring Report has not been issued yet during the Reporting Month, the Action and Limit Level of ecological monitoring will be compared with the monitoring results in the Reporting Month and track back exceedance reporting (if any) after the Final Baseline Ecological Monitoring Report has been issued.
- 9.53 The detailed Ecological monitoring results are attached in **Appendix L**.

Reference

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 weekly basis to monitor the timely implementation of proper environmental management practices and mitigation measures on the Contract site. The summaries of site audits are presented in **Table 10.1** and **Appendix P**.

Table 10.1 Summary of Site Audit

	Tuble 10.1 Summary of Site Fracti						
Environmental			W	orks Contrac	ets		
Site Inspection	ND/2019/	ND/2019/	ND/2019/	ND/2019/	ND/2019/	ND/2019/	ND/2019/
	01	02	03	04	05	06	07
Weekly site audit with representative of the Supervisor's Representative and the Contractor	3, 10, 17, 23 and 31 August 2021	4, 11, 18 and 25 August 2021	6, 13, 20 and 24 August 2021	5, 12, 19 and 26 August 2021	2, 11, 16, 23 and 30 August 2021	5, 12, 19 and 26 August 2021	6, 13, 20 and 27 August 2021
Joint Site Audit with representative of the Supervisor's Representative, the Contractor and IEC	23 August 2021	18 August 2021	24 August 2021	19 August 2021	11 August 2021	12 August 2021	13 August 2021

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**.

Table 10.2 Observations and Recommendations during Site Audits

Table 10.2 Observations and Recommendations during Site Audits						
	Date	Observations and Recommendations	Follow-up			
Contract No.: NI	D/2019/01					
	3/7/2021	NRMM Label was observed faded, Contractor was reminded to display valid NRMM label on regulated machine (Portion 9b).	Improvement/Rectification was observed during follow- up audit session on 10 August 2021.			
Air Quality	23/8/2021	To enhance dust mitigation measures especially dusty haul road at Portion 8.	Improvement/Rectification was observed during follow-up audit session on 31 August 2021.			
	31/8/2021	Stockpile of dusty materials should be covered entirely by impervious sheeting.	Follow-up action is needed to be reported in the following month.			
Water Quality	27/7/2021	Wastewater treatment facility was observed not operating and no water discharge was observed. Contractor was reminded to ensure proper operation and functioning of the waste water treatment facility at Portion 9B.	Improvement/Rectification was observed during follow-up audit session on 3 August 2021.			
Contract No.: N	D/2019/02					
	28/7/2021	NRMM Label should be displayed on the regulated machines.	Improvement/Rectification was observed during follow-up audit session on 4 August 2021.			
Air Quality	25/8/2021	Stockpile of dusty material should covered by impervious sheeting. (North Bridge)	Follow-up action is needed to be reported in the following month.			
	25/8/2021	NRMM Label was observed faded, Contractor was reminded to display valid NRMM label on regulated machine. (North Bridge)	Follow-up action is needed to be reported in the following month.			
	28/7/2021	Provide berm to prevent any muddy water flow offsite.	Improvement/Rectification was observed during follow-up audit session on 4 August 2021.			
	4/8/2021	Provide temporary ditches for runoff discharge into appropriate watercourse.	Item was remarked as 2108011-R03. Follow-up action is needed to be reviewed.			
Water Quality	11/8/2021	Muddy surface runoff from site area should be directed to and properly treated in treatment facility, and discharged in compliance with WPCO licences. (Portion 1)	Improvement/Rectification was observed during follow-up audit session on 18 August 2021.			
	11/8/2021	Enhance and maintain the bunding to minimise washing out of any muddy runoff and soil materials into site drainage (Portion 1).	Improvement/Rectification was observed during follow-up audit session on 18 August 2021.			

	T	
11/8/2021	Provide temporary ditches for runoff directed to wastewater treatment facilities. (North Bridge)	Item was remarked as 210818-R01. Follow-up action is needed to be reviewed.
18/8/2021	Provide temporary ditches for runoff directed to wastewater treatment facilities. (North Bridge)	Item was remarked as 210825-R01. Follow-up action is needed to be reviewed.
25/8/2021	Provide temporary ditches for runoff directed to wastewater treatment facilities. (North Bridge)	Follow-up action is needed to be reported in the following month.
28/7/2021	Chemical waste should be stored properly.	Improvement/Rectification was observed during follow-up audit session on 4 August 2021.
28/7/2021	Clear the stagnant water and maintain drip tray well.	Item was remarked as 210804-R03. Follow-up action is needed to be reviewed.
4/8/2021	Drip tray should be provided for chemical storage.	Improvement/Rectification was observed during follow- up audit session on 11 August 2021.
4/8/2021	Clear the stagnant water and maintain drip tray well.	Improvement/Rectification was observed during follow-up audit session on 11 August 2021.
25/8/2021	Contractor was reminded to clear the leaked oil under the drilling machine. (North Bridge)	Follow-up action is needed to be reported in the following month.
D/2019/03		
30/7/2021	Regularly clear the water in wheel washing facilities.	Improvement/Rectification was observed during follow-up audit session on 6 August 2021.
6/8/2021	Provide chemical storage area for the oil containers.	Improvement/Rectification was observed during follow-up audit session on 13 August 2021.
24/8/2021	Drip tray should be provided for chemical storage.	Follow-up action is needed to be reported in the following month.
30/7/2021	Avoid stockpiling of construction materials near retained trees at SS05.	Improvement/Rectification was observed during follow-up audit session on 6 August 2021.
D/2019/04		
26/8/2021	To provide noise mitigation measure for sheet piling work at Portion H.	Follow-up action is needed to be reported in the following month.
	25/8/2021 28/7/2021 28/7/2021 4/8/2021 4/8/2021 25/8/2021 25/8/2021 6/8/2021 24/8/2021 30/7/2021	to wastewater treatment facilities. (North Bridge) 18/8/2021 Provide temporary ditches for runoff directed to wastewater treatment facilities. (North Bridge) 25/8/2021 Provide temporary ditches for runoff directed to wastewater treatment facilities. (North Bridge) 28/7/2021 Chemical waste should be stored properly. 28/7/2021 Clear the stagnant water and maintain drip tray well. 4/8/2021 Drip tray should be provided for chemical storage. 4/8/2021 Clear the stagnant water and maintain drip tray well. 25/8/2021 Contractor was reminded to clear the leaked oil under the drilling machine. (North Bridge) D/2019/03 30/7/2021 Regularly clear the water in wheel washing facilities. 6/8/2021 Provide chemical storage area for the oil containers. 24/8/2021 Drip tray should be provided for chemical storage. 30/7/2021 Avoid stockpiling of construction materials near retained trees at SS05.

		T	T =
	29/7/2021	Enhance sediment control measures for site runoff after rainstorm event at Portion H.	Item was remarked as 210805-O02. Follow-up action is needed to be reviewed.
	29/7/2021	Clear the sediments at channels along water barriers near Siu Hang San Tsuen Stream to ensure proper function. (Bridge A2)	Item was remarked as 210805-O03. Follow-up action is needed to be reviewed.
	29/7/2021	Properly erect and maintain the desilting materials along green barriers at Bridge A2.	Item was remarked as 210805-O01. Follow-up action is needed to be reviewed.
	5/8/2021	Enhance sediment control measures for site runoff after rainstorm event at Portion H.	Improvement/Rectification was observed during follow-up audit session on 12 August 2021.
	5/8/2021	Clear the sediments at channels along water barriers near Siu Hang San Tsuen Stream to ensure proper function. (Bridge A2)	Item was remarked as 210812-O02. Follow-up action is needed to be reviewed.
	5/8/2021	Properly erect and maintain the desilting materials along green barriers at Bridge A2.	Item was remarked as 210812-O03. Follow-up action is needed to be reviewed.
Water Quality	12/8/2021	Clear the sediments at channels along water barriers near Siu Hang San Tsuen Stream to ensure proper function. (Bridge A2)	Item was remarked as 210819-O02. Follow-up action is needed to be reviewed.
	12/8/2021	Properly erect and maintain the desilting materials along green barriers at Bridge A2.	Item was remarked as 210819-O03. Follow-up action is needed to be reviewed.
	12/8/2021	To ensure the silt curtain at Portion C is properly deployed and avoid any leakage of muddy water from site area.	Improvement/Rectification was observed during follow-up audit session on 19 August 2021.
	19/8/2021	Clear the sediments at channels along water barriers near Siu Hang San Tsuen Stream to ensure proper function. (Bridge A2)	Item was remarked as 210826-O02. Follow-up action is needed to be reviewed.
	19/8/2021	Properly erect and maintain the desilting materials along green barriers at Bridge A2.	Item was remarked as 210826-O03. Follow-up action is needed to be reviewed.
	26/8/2021	Clear the sediments at channels along water barriers near Siu Hang San Tsuen Stream to ensure proper function. (Bridge A2)	Follow-up action is needed to be reported in the following month.
	26/8/2021	Properly erect and maintain the desilting materials along green barriers at Bridge A2.	Follow-up action is needed to be reported in the following month.

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	26/8/2021	To ensure all vehicles cleared of mud before leaving the site (Portion H).	Follow-up action is needed to be reported in the following month.
	29/7/2021	Oil stain was observed at site area and should be properly cleared at Portion W.	Improvement/Rectification was observed during follow-up audit session on 5 August 2021.
Waste/Chemical Management	19/8/2021	Drip tray should be provided for chemical storage.	Improvement/Rectification was observed during follow- up audit session on 26 August 2021.
	19/8/2021	To provide receptacles for waste collection.	Improvement/Rectification was observed during follow- up audit session on 26 August 2021.
Landscape and Visual	29/7/2021	Stockpile of construction materials should be avoided at retained tree. Tree protection zone should be erected at Portion W.	Improvement/Rectification was observed during follow-up audit session on 5 August 2021.
	29/7/2021	Properly erect and maintain 2m high solid barriers for lower reaches of Siu Hang San Tsuen Stream.	Item was remarked as 210805-O04. Follow-up action is needed to be reviewed.
	5/8/2021	Properly erect and maintain 2m high solid barriers for lower reaches of Siu Hang San Tsuen Stream.	Item was remarked as 210812-O01. Follow-up action is needed to be reviewed.
Ecology	12/8/2021	Properly erect and maintain 2m high solid barriers for lower reaches of Siu Hang San Tsuen Stream.	Item was remarked as 210819-O01. Follow-up action is needed to be reviewed.
	19/8/2021	Properly erect and maintain 2m high solid barriers for lower reaches of Siu Hang San Tsuen Stream.	Item was remarked as 210826-O01. Follow-up action is needed to be reviewed.
	26/8/2021	Properly erect and maintain 2m high solid barriers for lower reaches of Siu Hang San Tsuen Stream.	Follow-up action is needed to be reported in the following month.
Contract No.: NI	0/2019/05		
	2/8/2021	Stockpile of dusty materials should be covered properly.	Improvement/Rectification was observed during follow- up audit session on 11 August 2021.
Air Quality	23/8/2021	To enhance the dust suppression measure on site especially for the dust generation activities.	Improvement/Rectification was observed during follow-up audit session on 30 August 2021.
	30/8/2021	Stockpile should be covered with impervious material properly in Portion 11 and Portion 12.	Follow-up action is needed to be reported in the following month.

	26/7/2021	Muddy water should be directed to the wastewater treatment facilities and avoid any untreated wastewater discharge to public road.	Improvement/Rectification was observed during follow-up audit session on 2 August 2021.
	26/7/2021	Site runoff should be directed to waste water treatment facilities.	Item was remarked as 210802-O01. Follow-up action is needed to be reviewed.
	26/7/2021	Provide mitigation measures to prevent debris and dusty materials drop into nearby storm drain.	Item was remarked as 210802-O02. Follow-up action is needed to be reviewed.
	2/8/2021	Site runoff should be directed to waste water treatment facilities.	Improvement/Rectification was observed during follow-up audit session on 11 August 2021.
Water Quality	2/8/2021	Provide mitigation measures to prevent debris and dusty materials drop into nearby storm drain.	Item was remarked as 210811-O01. Follow-up action is needed to be reviewed.
	11/8/2021	Provide mitigation measures to prevent debris and dusty materials drop into nearby storm drain.	Improvement/Rectification was observed during follow-up audit session on 16 August 2021.
	11/8/2021	Regularly clear the mud in sedimentation tank to avoid overflow.	Improvement/Rectification was observed during follow-up audit session on 16 August 2021.
	11/8/2021	Contractor was reminded to inspect/ maintain the Wetsep regularly and ensure the pH level complied with WPCO license before discharge.	Improvement/Rectification was observed during follow-up audit session on 16 August 2021.
	16/8/2021	Contractor was reminded to ensure the pH level of the wastewater is complied with WPCO license before discharged.	Improvement/Rectification was observed during follow- up audit session on 23 August 2021.
Waste / Chemical Management	2/8/2021	Clear the oil stain on the ground	Improvement/Rectification was observed during follow-up audit session on 11 August 2021.
Landscape and Visual	26/7/2021	Stockpile of dusty materials should be avoided at trees protection zone.	Improvement/Rectification was observed during follow-up audit session on 2 August 2021.

Contract No.: N	Contract No.: ND/2019/06						
Air Quality	5/8/2021	Stockpile of dusty materials should be covered properly.	Improvement/Rectification was observed during follow-up audit session on 12 August 2021.				
	26/8/2021	Stockpile of dusty materials should be covered properly.	Follow-up action is needed to be reported in the following month.				
Ecology	12/8/2021	2m high solid dull green site barrier fences should be erected and maintained properly to minimize the ecological impact to the nearby habitats.	Improvement/Rectification was observed during follow- up audit session on 19 August 2021.				
Contract No.: I	Contract No.: ND/2019/07						
		-					

Implementation Status of Environmental Mitigation Measures

10.3 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 EP 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	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.(Figure 12)	^ [1]		
EP- 468/2013/ <u>A</u>	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.(Figure 14)	^ _[1]		
<u>EP-</u> 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.(Figure 15)	^ [1]		
EP- 473/2013/ <u>A</u>	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.(Figure 16)	^ [1]		

EP- 475/2013/ <u>A</u>	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.(Figure 17)	√ [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		

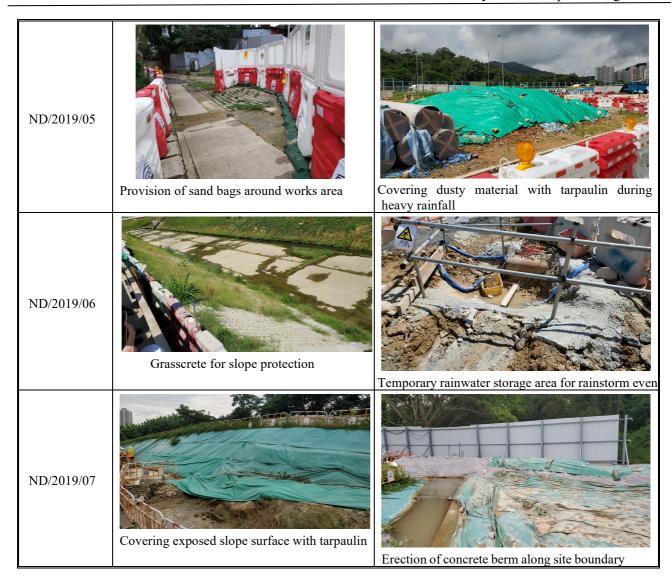
- [1]: Barrier fences might be subjected to change according to phasing plan designed at detailed design stage
- 10.4 Under EP-467/2013/A (Condition 2.9), to minimise adverse impacts on habitats of ecological importance in the vicinity of the Project, 2m high solid dull green site barrier fences shall be erected around all active works areas. As the Works programme under above EPs were still under preparation work and the barrier fences erection was still progressing in the Reporting Month, 2m high solid dull green site barrier fences will be checked once in place. The Hoarding Plan of the above EPs is shown in **Figure 13**.

Implementation Status of Water Quality Mitigation Measures

10.5 According to the EIA Report and the Updated EM&A Manual, the water quality mitigation measures detailed in the documents 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

W. J.						
Works Contracts	Photographic Records					
ND/2019/01	Temporary rainwater storage area for rainstorm event	Hydroseeding for slope area				
ND/2019/02	Provision of sand bags around works area	Temporary ditches to direct storm water to wastewater treatment facilities				
ND/2019/03		Regular clearance of water for wheel washing facility				
ND/2019/04	Surface channels and earth bunds to direct storm water to wastewater treatment facilities for works area near Siu Hang San Tsuen Stream	Deployment of silt curtain around works area in Ng Tung Rive				



Solid and Liquid Waste Management Status

- 10.6 Waste generated from Contract No. ND/2019/01, ND/2019/02, ND/2019/03, ND/2019/04, ND/2019/05, ND/2019/06 and ND/2019/07 include inert construction and demolition (C&D) materials and non-inert C&D wastes in the Reporting Month.
- 10.7 The amount of wastes generated by the construction works of the Contract No. ND/2019/01, ND/2019/02, ND/2019/03, ND/2019/04, ND/2019/05, ND/2019/06 and ND/2019/07 during the reporting month are shown in **Appendix R**.
- 10.8 The Contractors are advised to minimize the wastes generated through the 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 summitted in **Appendix Q**.

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

- 10.9 From the findings of 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.
- 10.10 LVNP is developed according to approved Habitat Creation and Management Plan (HCMP) submitted under EP-468/2013/A. The HCMP provides a framework and specifications for development and management of the LVNP and guides the development to maintain and enhance the 37ha of low-lying wetland habitats.
- 10.11 Regarding to the design, the zoning of land use in the 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. The LVNP will divide 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.
- 10.12 The construction of the LVNP started in late 2019 and is expected to be completed in 2023. During construction period, the progress of construction and wetland enhancement works are under observation by different stakeholders including AFCD and green groups. Close communication between AFCD and CEDD are conducted to exchange views on conservation, restoration and management of habitats as well as on the planning and design of the park. Also, advices from green groups, Hong Kong Bird Watching Society (HKBWS) and The Conservancy Association (CA), are taken on habitat management of Long Valley and potential effects on habitat and wildlife of each individual work conducted in Long Valley. Regular meeting are held monthly on 20th August 2021 in the reporting month to share the progress of LVNP with different stakeholders, including CEDD, AFCD, CA, HKBWS, Contractor, ET, IEC and farmers.
- 10.13 Proposals on wetland creation and restoration, dry agricultural land creation, pond creation, water treatment wetland and design of irrigation channel are submitted by the Contractor to achieve the objectives stated in HCMP and accepted by the Engineer with consent from AFCD before implementation. The Contractor will consult with the stakeholders for recommendations and suggestions on mitigation measures to minimise the environmental impacts arising from construction works. The progress of works will 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





Agricultural practice are continued in existing farmland to maintain habitats in Long Valley







Lotus pond

Open water Habitat

Chinese arrowhead pond

Creation of wetland with designated habitat for biodiversity conservation





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



Retention of washing bay for amphibians breeding



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



Pair of Tringa glareola were recorded



Provision of wastewater treatment facilities



Provision of noise barrier for noisy works in Long Valle

11 ENVIRONMENTAL NON-CONFORMANCE

Summary of Exceedances

- 11.1 Five (5) Limit Level exceedances for dissolved oxygen, nine (9) Limit level exceedances for turbidity, seven (7) Limit Level exceedances for suspended solids and two (2) Action Level exceedance for arsenic of impact water quality monitoring were recorded. After investigation, one (1) Limit Level exceedances for dissolved oxygen, two (2) Limit Level exceedances for turbidity and two (2) Limit Level exceedances for suspended solids at monitoring station, SHST-IS2, were found due to Contract No. ND/2019/04. Other exceedances were considered non-projected related.
- 11.2 No exceedance of Action and Limit Levels of air quality, construction noise, ambient arsenic and landfill gas monitoring in the reporting month. The summary of exceedance record in reporting month is shown in **Appendix O**.
- 11.3 Ecological monitoring was carried out in the reporting month. The Action and Limit Level will be compared after the issue of Final Baseline Ecological Report.
- 11.4 Should the monitoring results of the environmental monitoring parameters at any designated monitoring stations indicate that the Action / Limit Levels are exceeded, the actions in accordance with the Event and Action Plans in **Appendix 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 No environmental complaint was received in the reporting month. The Cumulative Complaint Log since the commencement of the Project is presented in **Appendix S**.

Summary of Environmental Summon and Successful Prosecution

11.7 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 Two Months

12.1 The major site activities, potential environmental impacts and recommended mitigation measures for the coming two 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 Two Months

Contract	Major Site Activities	Location/	Potential	
No.	(September and November 2021)	Working Period	Environmental Impact	Recommended Mitigation Measures
ND/2019/01	(a) Site clearance (b) GI works (c) Excavation	Portion 1f, 2, 3, 5, 6a, 7 Portion 2, 9b Portion 3, 5, 6a, 7, 8a, 9b, 9c, 10a,	 Construction Dust impact Noise Impact (Construction Phase) Water Quality Impact (Construction Phase) 	Air - Watering on exposed earth and haul road. - Cover the stockpiles or dusty materials. - Deploy water browsers to water the haul road. - Deploy mist-cannon on site - Install sprinkler system for dust suppression.
	(d)Construction of retaining wall (e)Soil nailing	Portion 5, 6a, 8a Portion 8a	- Waste Management (Construction Waste)	 Provide shelter with top and 3-sides for cement production activities. Entirely cover the Arsenic-containing soil. Store the bulk cement in enclosed silo tank for
	(f) Demolition of existing structure	Portion 9b		Solidification / Stabilization treatment Close the mechanical cover of the vehicles used
	(g)Construction of temporary site haul road	Portion2, 6a, 1f		for transporting dusty materials. - Establish vehicle wheel washing facilities at
	(h)Arsenic soil treatment works(i) Tree felling	Portion 6b Portion 2, 5		vehicle exit points. - Speed control of site vehicles. - Erect solid site hoarding.
	(j) Sheetpiling	Portion3, 7, 8b, 9b, 10a		

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Noise
- Regular inspect of construction plants in good
condition
- 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 and 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 bin on site, encourage reuse and
recycle as much as possible.
- Provide drip tray for chemical containers.
- Chemical spill kit available on site.
- Chemical waste cabinet available on site.

ND/2010/02				Monthly EM&A Report – August 2021 Chemical wastes to be stored in appropriate containers and collected by a licensed chemical waste collector. Delivery of yard waste to Y-Park for reuse/upcycling or agreed alternative site.
ND/2019/02	(a) Hoarding erection (b) Tree Felling (c) Pre-bored Socketed H-pile (d) ELS (e) Construction of Pile Cap	Portion 10 Portion 7 Portion 7, 9, 10 Portion 1, 9 Portion 9	Air, Noise, Waste Air, Noise, Water, Waste, Ecology	 Dusty works should be spray water or 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. 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
ND/2019/03	(a) Excavation of irrigation channel	Long Valley	- C&D waste - Air pollution - Noise pollution	 protection plan. Watering exposed earth regularly Cover C&D material by tarpaulin Adopt QPME for excavation
	(b) Excavation of trench in Yin Kong Road	Portion 1 and Portion 1A	- C&D waste - Air pollution - Noise pollution	 Watering exposed earth regularly Cover C&D material by tarpaulin Noise barrier for screening from source of noise

					Monthly EM&A Report – August 2021
			- Water pollution	-	Wastewater will be treated before discharging to channel
	(c) Demolition of existing structure	Long Valley	- C&D material - Air Pollution	-	Cover C&D material by tarpaulin Watering while demolish the structure
	(d) Construction works of storage shed and Type 2 Storage House	Long Valley	- C&D material - Air Pollution	-	Watering exposed earth regularly Cover C&D material by tarpaulin
	(e) Asbestos Removal in Long Valley	Long Valley	- Air Pollution	-	Removing the asbestos containing material according to requirement of COP
ND/2019/04	(a) Socket H-piling	Portion N	- Air, Noise, Water, Waste	-	Dusty works should be sprayed with water or stockpile should be covered by tarpaulin properly.
	(b) Sheet piling	Portion H	- Air, Noise, Waste	-	Plants should have maintenance to prevent dark
	(c) Bored piling	Bridge A2, A3, F	- Air, Noise, Water, Waste		smoke and oil leakage. Idle plant should be turned off.
	(d) Excavation	Bridge F	- Air, Noise, Waste	-	Drip tray should be provided for all chemical and
	(e) Site clearance	Portion A, B	- Air, Noise, Waste		stationary plants.
	(f) Tree felling	Portion A,B	- Air, Noise, Waste] -	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.
	(a) Pre drilling for bored	B1(Portion I),	- Construction Dust	<u> </u>	Regular watering on exposed worksites and haul
ND/2019/05	piles	B2(Portion II)	Impact		road
2.27.2027,00	prics	C1-01, C1-	- Noise Impact	-	Stockpiling area should be provided with covers
		02(Portion II),			and water spraying system
		C2-02, E2-01		-	Only well-maintained plant to be operated on-site

			-		Monthly EM&A Report – August 2021
(b)	Bored piling	B1(Portion I),	- Water Quality	-	Plant known to emit noise strongly in one
		C2-01, C2-04aM,	Impact (Construction		direction, where possible, be orientated so that the
		C3-01a, C3-	Phase)		noise is directed away from nearby NSRs;
		04bM, D1-02,	- Waste Management	-	Mobile plant to be sited as far away from NSRs as
		E2-01, D2-01,	(Construction Waste)		possible practicable
		C1-04a, C2-03a,	- Landscape and	-	All open stockpiles of construction materials of
		C1-04b, C2-03b	Visual		more than 50m ³ to be covered with tarpaulin
			- Cultural Heritage	-	Manholes to be adequately covered and
(c)	Soil Nail	Jockey Club Road			temporarily sealed so as to prevent silt,
(d)	Pile Cap Construction	C4-03, C4-04,			construction materials or debris being washed into
		D1-01, E1-01,			the drainage system
		C3-03b, HKY-		-	All vehicles and plant to be cleaned before leaving
		AB1pile cap			a construction site to ensure no earth, mud, debris
(e)	Footing Construction	C4-01a and C4-			and the like is deposited by them on roads.
		01b		-	Segregate and store different types of waste in
(f)	Site Formation/	TWSRW			different containers, skip or stockpiles to enhance
	Clearance				reuse or recycling of materials and their proper disposal
(g)	Utitilies Diversion Works	TWSRW, Jockey			Sort out demolition debris and excavated materials
	and Permanent Road	Club Road		-	from demolition works to recover
	Works				reusable/recyclable portions
(h)	Tree work	TWSRW, Jockey		_	Provide training to workers on appropriate waste
		Club Road			management procedures, including waste
(i)	TTA	Jockey Club Road			reduction, reuse and recycling
. ,		•		_	To adopt other good site practice, such as
(j)	Drainage & Water Mains	Box culvert BC5,			arrangements for collection and effective disposal
	construction	TWSRE			to an appropriate facility, of all wastes generated at
(k)	UU diversion	Tai Wo Service			the site and regular cleaning and maintenance
		Road West			programme for drainage
(1)	Gas main diversion	Jockey Club Road		-	Chemical wastes to be stored in appropriate
					containers and collected by a licensed chemical
(m)	Road works for	D2-03, Portion			waste Contractor. Chemical wastes (e.g. spent
	temporary road diversion	XI			lubricant oil) should be recycled at an appropriate

					Monthly EM&A Report – August 2021
	 (n) Retaining wall construction (o) Slope construction (p) Footbridge staircase demolition 	FW04, FW05, FW06, FW52 C363, FS04, Jockey Club Road Ho Ka Yuen Footbridge			facility as far as possible, while the chemical waste that cannot be recycled should be disposed of at either the Chemical Waste Treatment Centre, or another licensed facility, in accordance with the Waste Disposal (Chemical Waste) (General) Regulation Conducting Construction Vibration Monitoring 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 – Tree unavoidably affected by the Project works should be transplanted where practical. Tree should be transplanted straight to their final receptor site and not held in a temporary nursey as far as possible. Erect 2m high dull green site boundary fence.
				-	Light Control – Construction day and night time should be controlled to minimize glare impact to adjacent VSRs during the Construction phase.
ND/2019/06	(a) Construction of finishing works and E&M works for the Management Office Building (MOB)	Portion 4	Noise pollutionWater pollution	-	Adopt noise barrier in screening noise Wastewater generated after wheel washing of vehicles should be treated properly before discharge
	(b) Erect of the steel members and seam roof of steel canopy	Portion 3	Air pollutionNoise pollution	-	Adopt "Approved" NRMM Label Adopt noise barrier in screening noise
	(c) Construction of ground slab and concrete carriageway	Portion 3	Air pollutionNoise pollution	-	Adopt QPME for excavator Washing the truck wheel before leaving the site

					Monthly EM&A Report – August 2021								
	(d) Construction of underground utilities in the final stage market	Portion 3	Noise pollutionC&D wasteAir pollution	- -	Adopt QPME for excavator Cover C&D waste by impervious sheeting Washing the truck wheel before leaving the site								
	(e) Installation of sheet piles for ELS for footing od additional carriageway steel cover	Portion 3	- Noise pollution - C&D waste - Air pollution	-	Adopt "Approved" NRMM Label Water Spraying to the dusty materials								
	(f) Construction of footing of additional carriageway steel cover	Portion 3	Noise pollutionC&D wasteAir pollution	- - -	Adopt QPME for excavator Disposal to Fill bank Washing the truck wheel before leaving the site								
	(g) Relocation of containers	Portion3	- Air pollution - Noise pollution -	-	Unloading materials shall be kept in minimum height and speed Adopt "Approved" NRMMM\Label								
	(h) E&M installations for the steel canopy	Portion 3	- Air pollution	-	Adopt ultra-low Sulphur diesels								
ND/2019/07	 (a) Site clearance (b) Erection of site hoarding (c) C&D waste disposal (d) Ground investigation works 	Portion 1, 2 Portion 1 Portion 1, 2 Portion 1	 Construction Dust Impact Noise Impact Water Quality Impact (Construction Phase) 	-	Regular watering on exposed worksites and haul road. Stockpiling area should be provided with covers and water s praying system. Only well maintained plant to be operated on site.								
	(e) Construction of box culvert	Portion 2	Waste Management (Construction Waste)Landscape and	-	Plant known to emit noise strongly in one direction, where possible, be orientated so that the noise is directed away from nearby NSRs.								
	(f) Filing works (g) Tree felling/ disposal of yard waste	Portion 1, 2 Portion 1, 2, 3	— Visual	- Visual	- Visual	- Visual	- Visual	- Visual	Visual	Visual	Visual	-	Mobile plant to be sited as far away from NSRs a possible practicable. All open stockpiles of construction materials of
	(h) Construction of site haul road	Portion 1		-	more than 50m ³ to be covered with tarpaulin. Manholes to be adequately covered and								
	(i) Trial pit (j) Demolition of villager's houses	Ma Sik Road Portion 1, 2, 4			temporarily sealed so as to prevent silt, construction materials or debris being washed into the drainage system.								
	(k) Drainage Works	Portion 1, 3											

		Monthly EM&A Report – August 2021
	-	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 – Existing trees to
		be retained within the Project Site should be
		carefully protected during construction. In
		particular OVTs will be preserved according to
		ETWB Technical Circular (Works) No. 29/2004.

			Monthly EM&A Report – August 2021
		-	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 two months is shown in **Table IV**.

Monitoring Schedule for the Next Month

12.3 The tentative environmental monitoring schedule for 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 August 2021 in accordance with Updated EM&A Manual.
- 13.2 Five (5) Limit Level exceedances for dissolved oxygen, nine (9) Limit level exceedances for turbidity, seven (7) Limit Level exceedances for suspended solids and two (2) Action Level exceedance for arsenic of impact water quality monitoring were recorded. After investigation, one (1) Limit Level exceedances for dissolved oxygen, two (2) Limit Level exceedances for turbidity and two (2) Limit Level exceedances for suspended solids at monitoring station, SHST-IS2, were found due to Contract No. ND/2019/04. Other exceedances were considered non-projected related.
- 13.3 No Action/Limit Level exceedance were recorded for air quality, construction noise, ambient arsenic and landfill gas monitoring in the reporting month

Contract No. ND/2019/01

13.4 Environmental site inspection were conducted on 3rd, 10th, 17th, 23rd and 31st August 2021 by ET in the reporting month.

Contract No. ND/2019/02

13.5 Environmental site inspection were conducted on 4th, 11th, 18th and 25th August 2021 by ET in the reporting month.

Contract No. ND/2019/03

13.6 Environmental site inspection were conducted on 6th, 13th, 20th and 24th August 2021 by ET in the reporting month.

Contract No. ND/2019/04

Environmental site inspection were conducted on 5th, 12th, 19th and 26th August 2021 by ET in the reporting month.

Contract No. ND/2019/05

13.8 Environmental site inspections were conducted on 2nd, 11th, 16th, 23rd and 30th August 2021 by ET in the reporting month.

Contract No. ND/2019/06

13.9 Environmental site inspections were conducted on 5th, 12th, 19th and 26th August 2021 by ET in the reporting month.

Contract No. ND/2019/07

- 13.10 Environmental site inspections were conducted on 6th, 13th, 20th and 27th August 2021 by ET in the reporting month.
- 13.11 There were no environmental complaints, no notification of summons or successful prosecutions 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 maintain the impervious material to entirely cover the stockpile of dusty materials;
- To cover dusty stockpile with impervious materials;
- To cover or shelter every stock of more than 20 bags of cement on top and 3 sides;
- To water the exposed worksites regularly;
- To ensure all regulated machines displayed with valid Non-road Mobile Machinery (NRMM) labels; and
- To keep public road near work site area clean and free of dust.

Construction Noise Impact

• To operate compressor with doors closed.

Water Impact

- To regularly maintain and ensure water treatment facilities proper operation and functioning;
- To prevent any surface runoff discharge into nearby drainage or stream;
- To provide sandbags or construct berm to prevent any outflow of muddy water from site area:
- To regularly review the capacity of sump pit for sediment control;
- To ensure all vehicle clear of earth and mud before leaving site;
- To regularly clear the water in wheel washing facilities;
- To divert all the water generated from construction site to de-silting facilities with sufficient handling capacity before discharge;
- To ensure silt curtain properly deployed around work area in water or near water;
- To ensure the drainage facilities would not be clogged with waste to avoid overflow;
- To regularly check the condition of desilting materials for ensuring proper function.
- To cover the exposed site area with tarpaulin to minimise muddy runoff during rainy season

Waste/Chemical Management

- To dispose of general refuse properly;
- To clear and avoid the oil stain at site area;
- To provide proper storage area for chemical storage; and
- To maintain drip tray for chemical storage well.

Landscape & Visual Impact

• Retained trees should be carefully protected.

Landfill Gas Hazard

• "No Smoking" and "No Naked Flame" notices in Chinese and English should be posted prominently around the construction site.

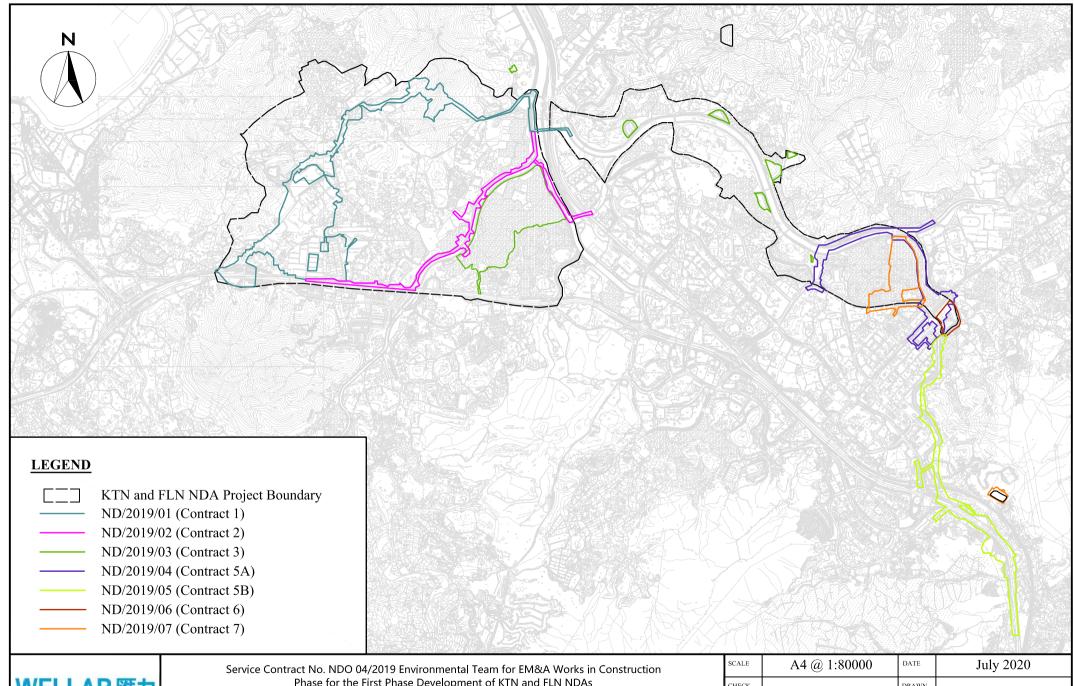
Land Contamination

• 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 minimize runoff.

Ecology

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

DRAWING(S)



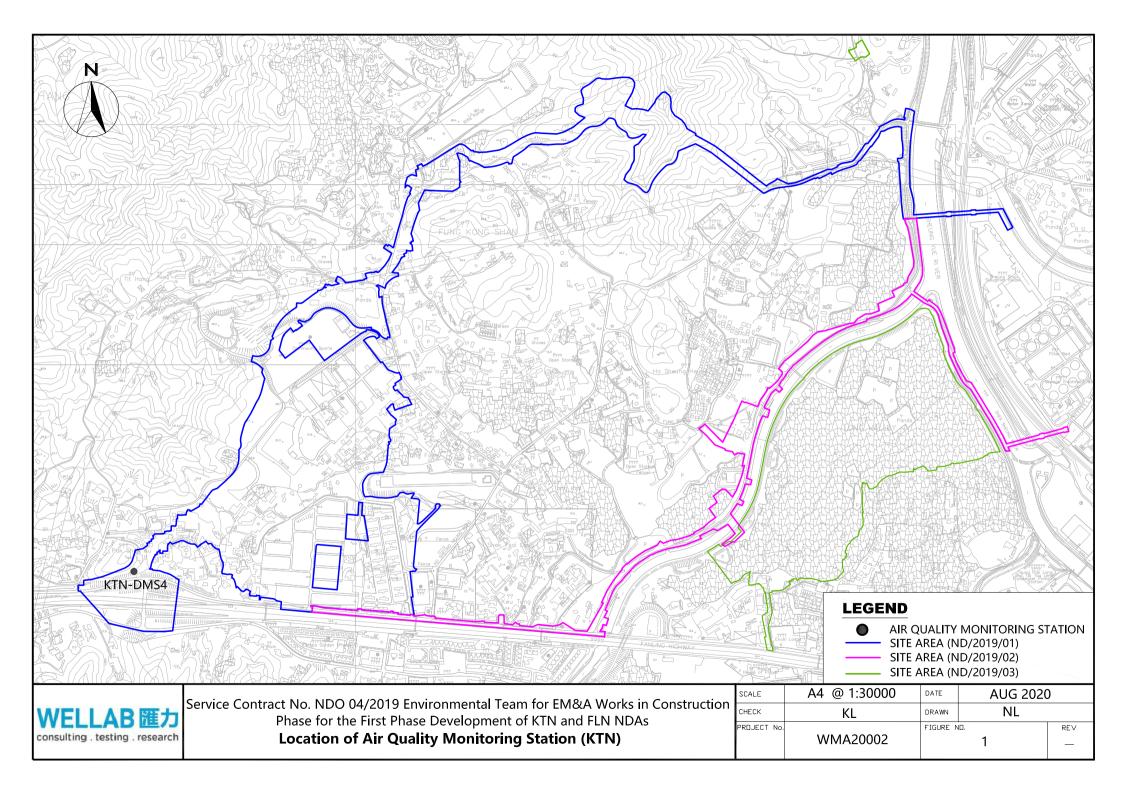
consulting . testing . research

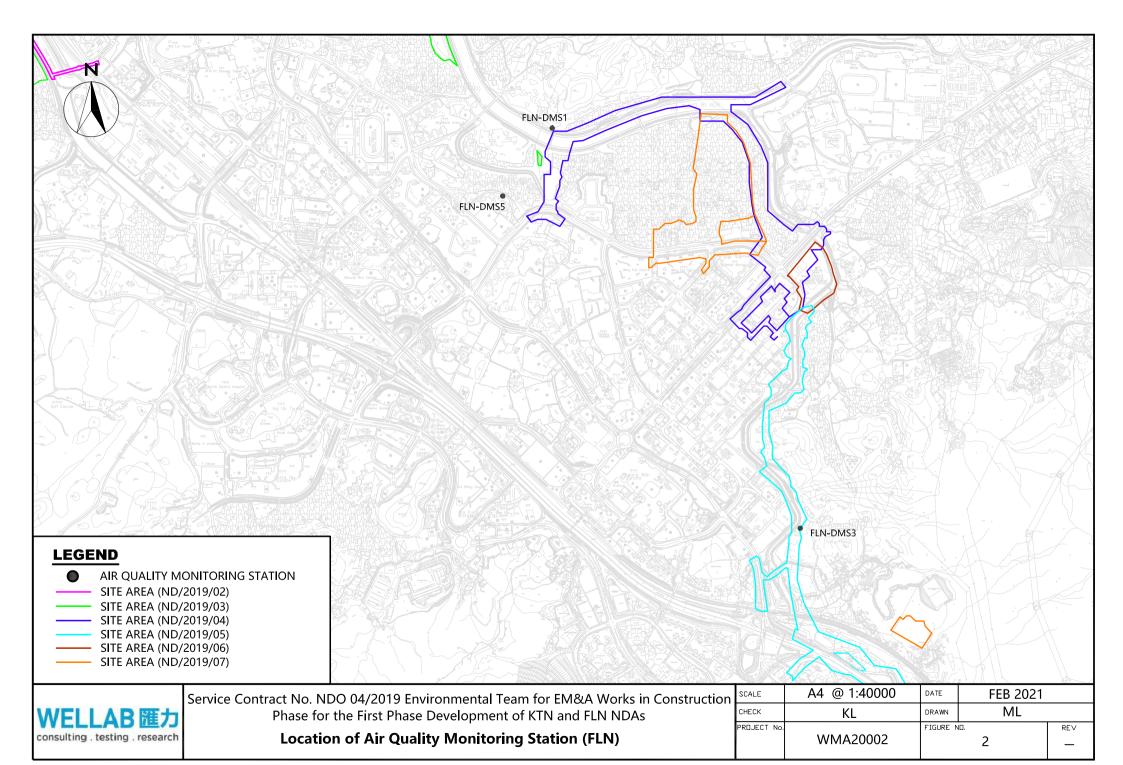
Phase for the First Phase Development of KTN and FLN NDAs

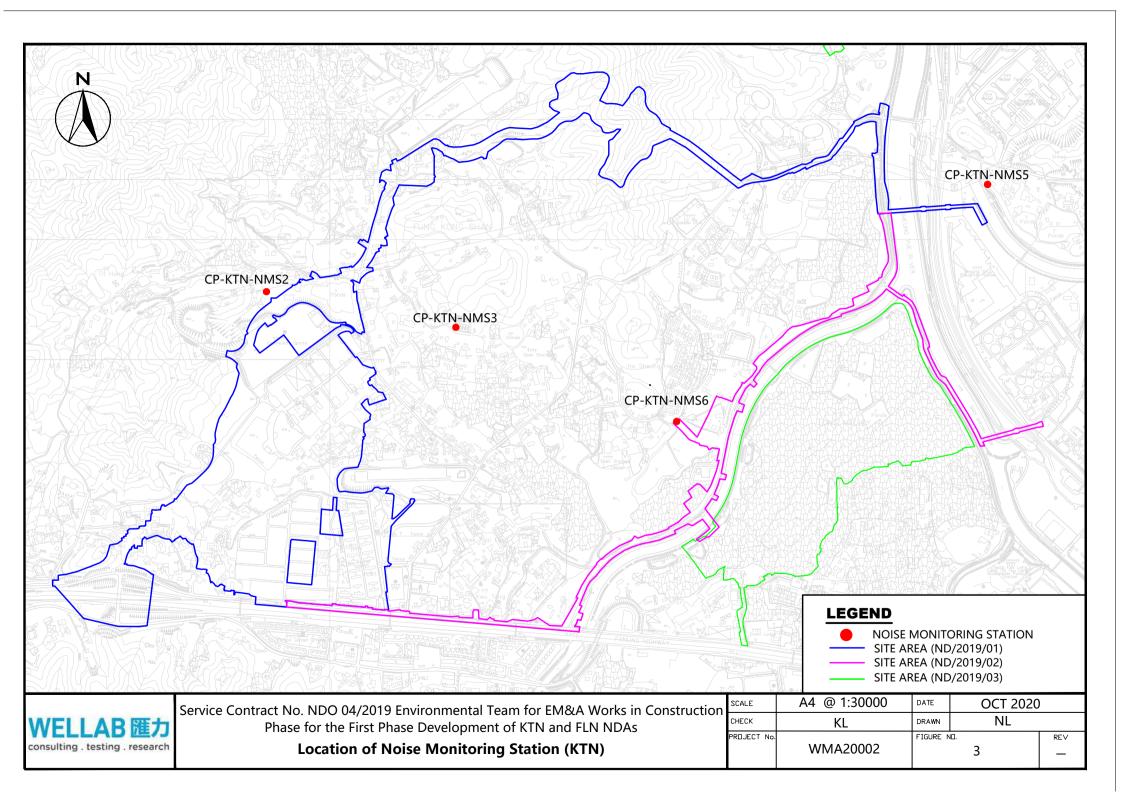
Project Boundary for the Advance and First Stage Works of Kwu Tung North and **Fanling North New Development Areas**

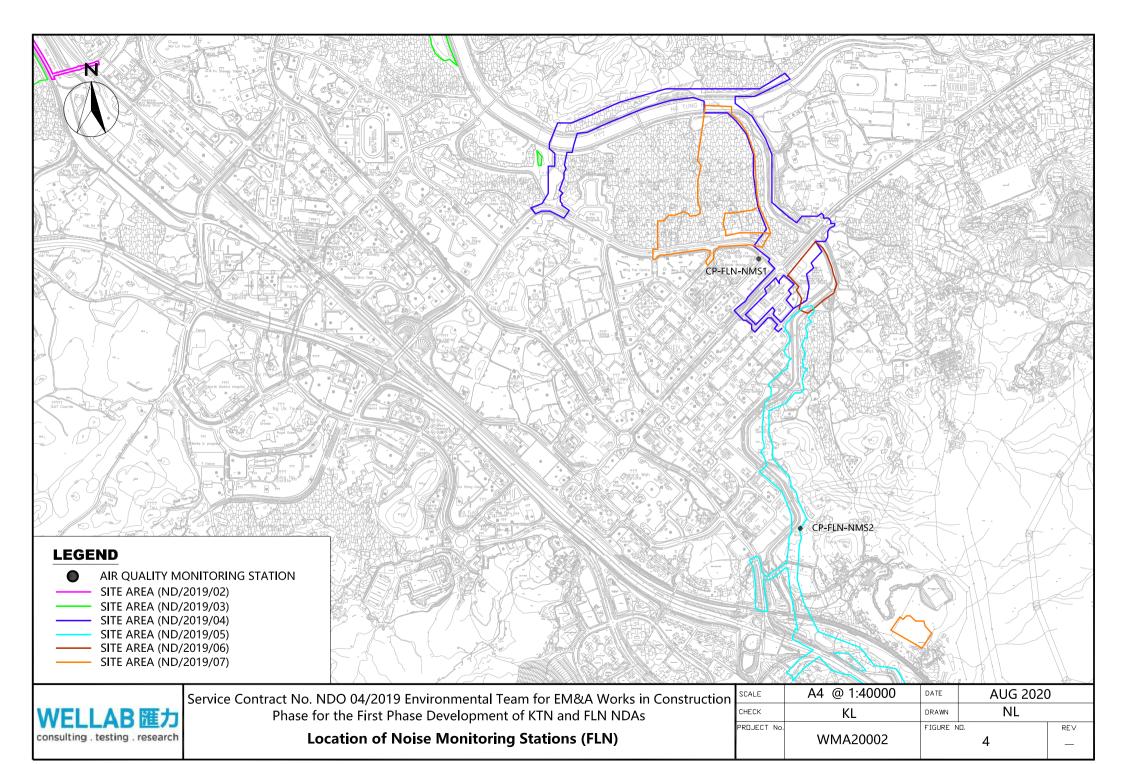
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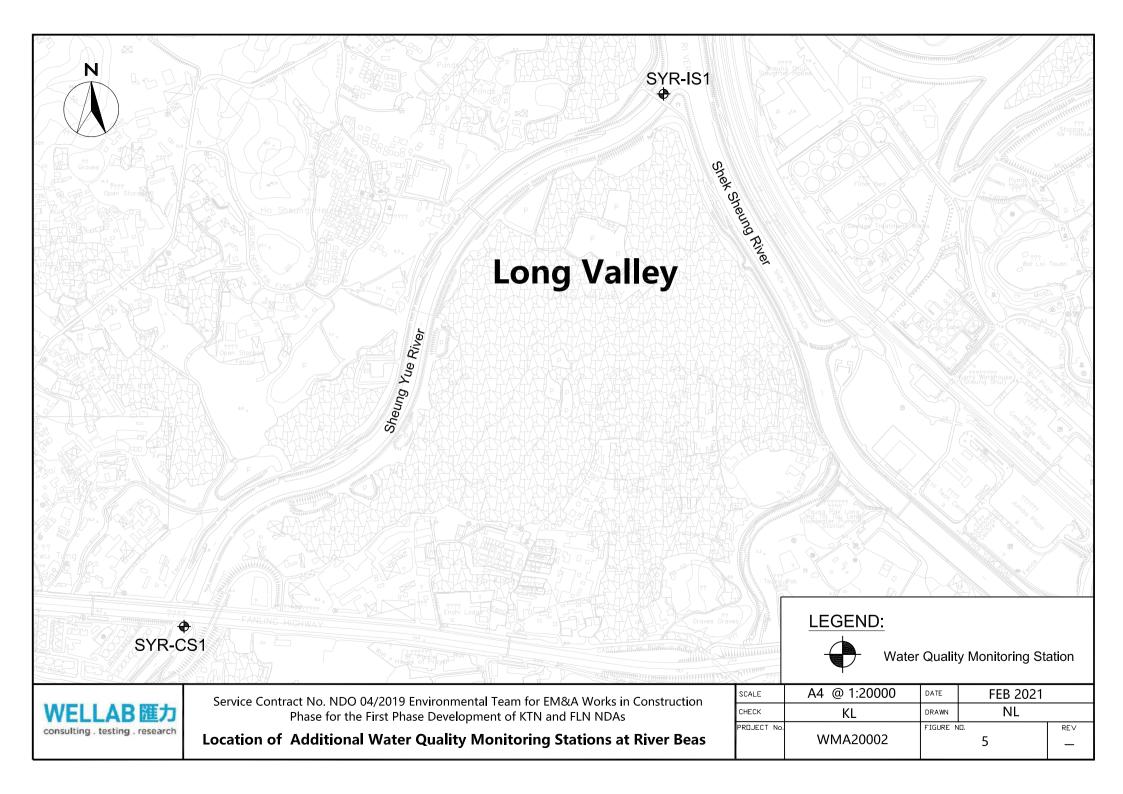
FIGURE(S)

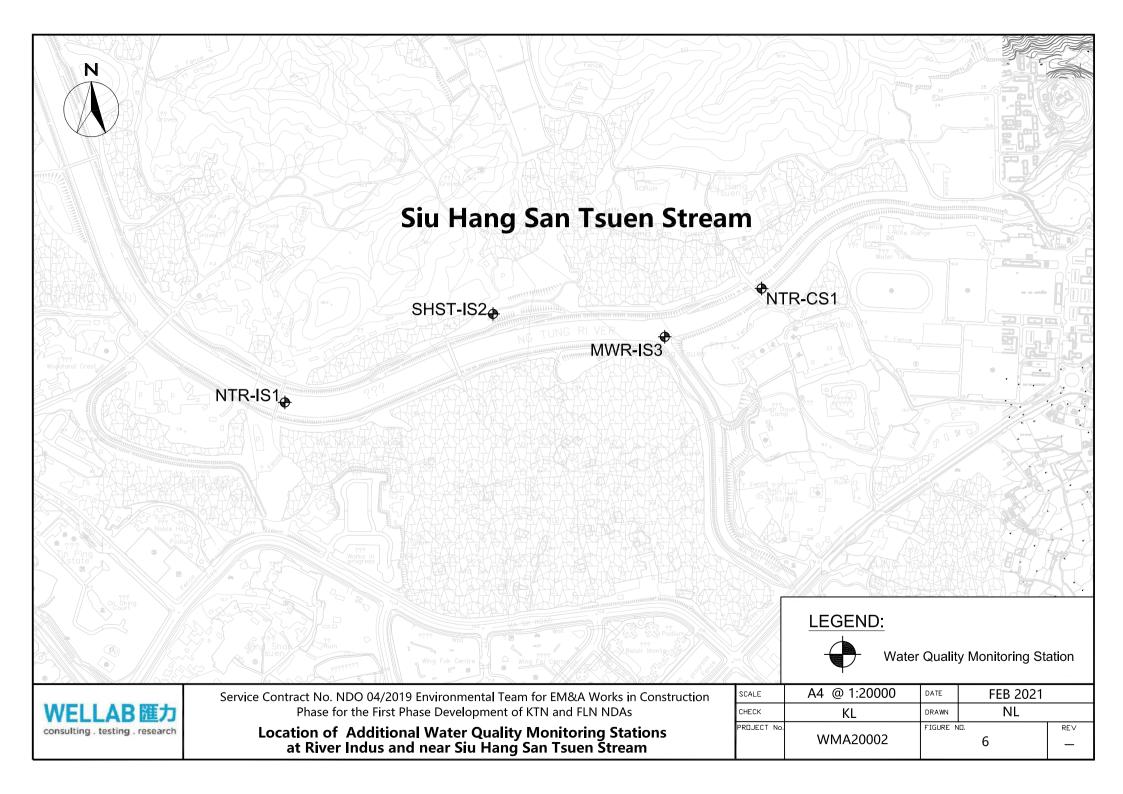


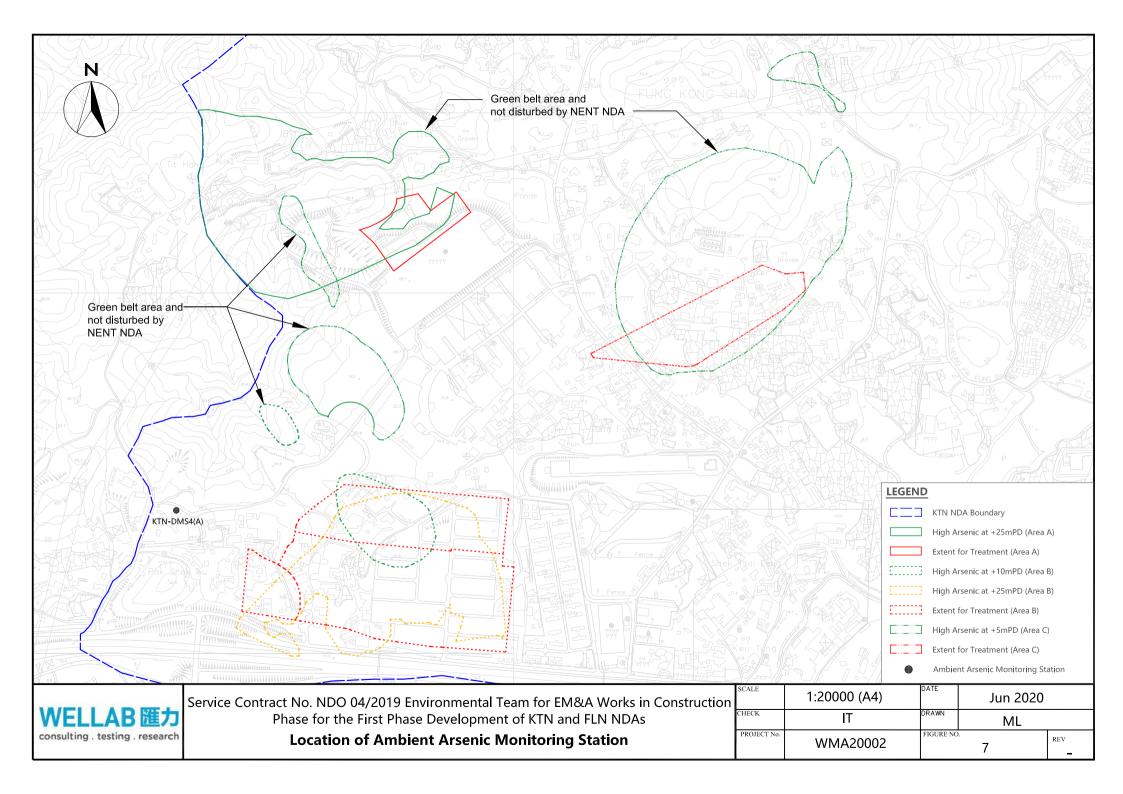


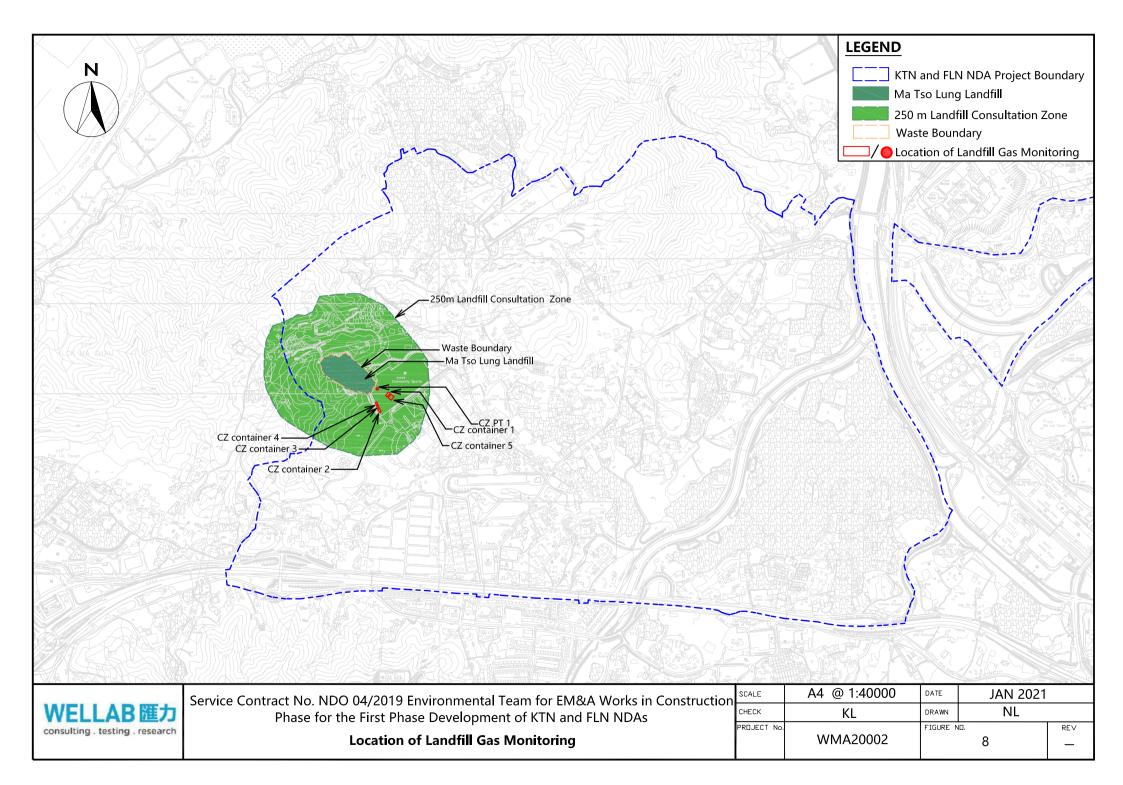


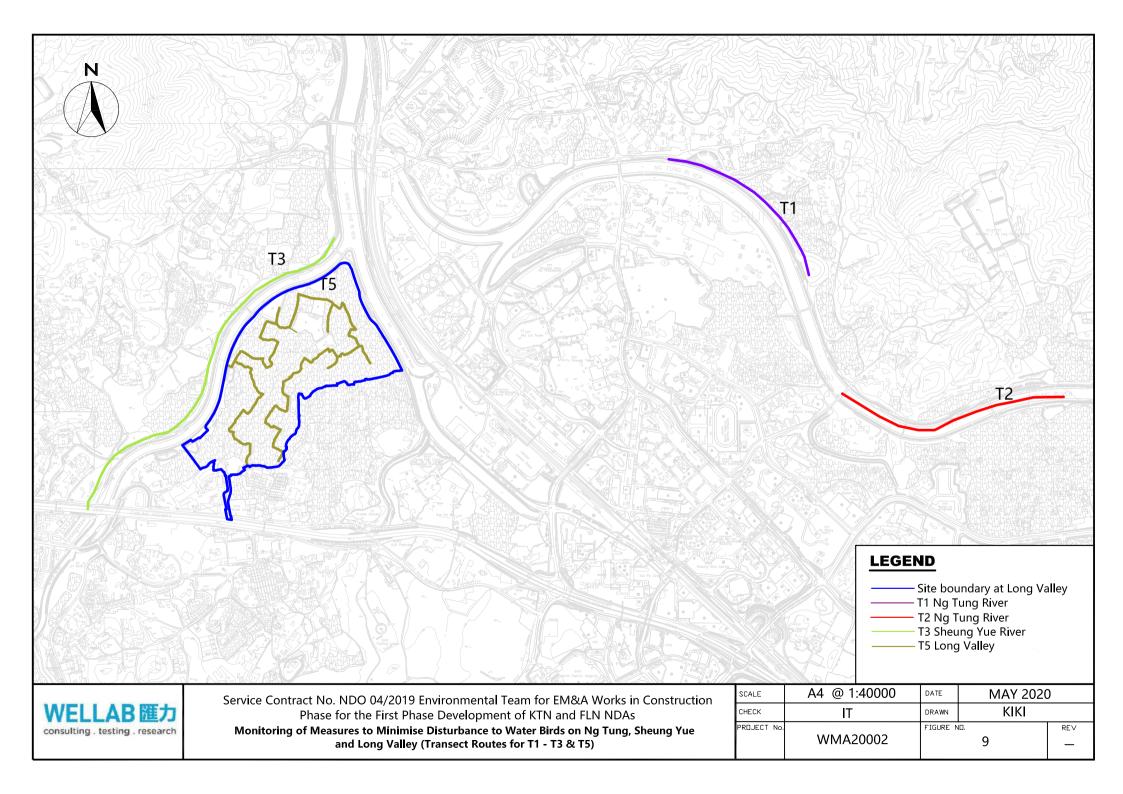


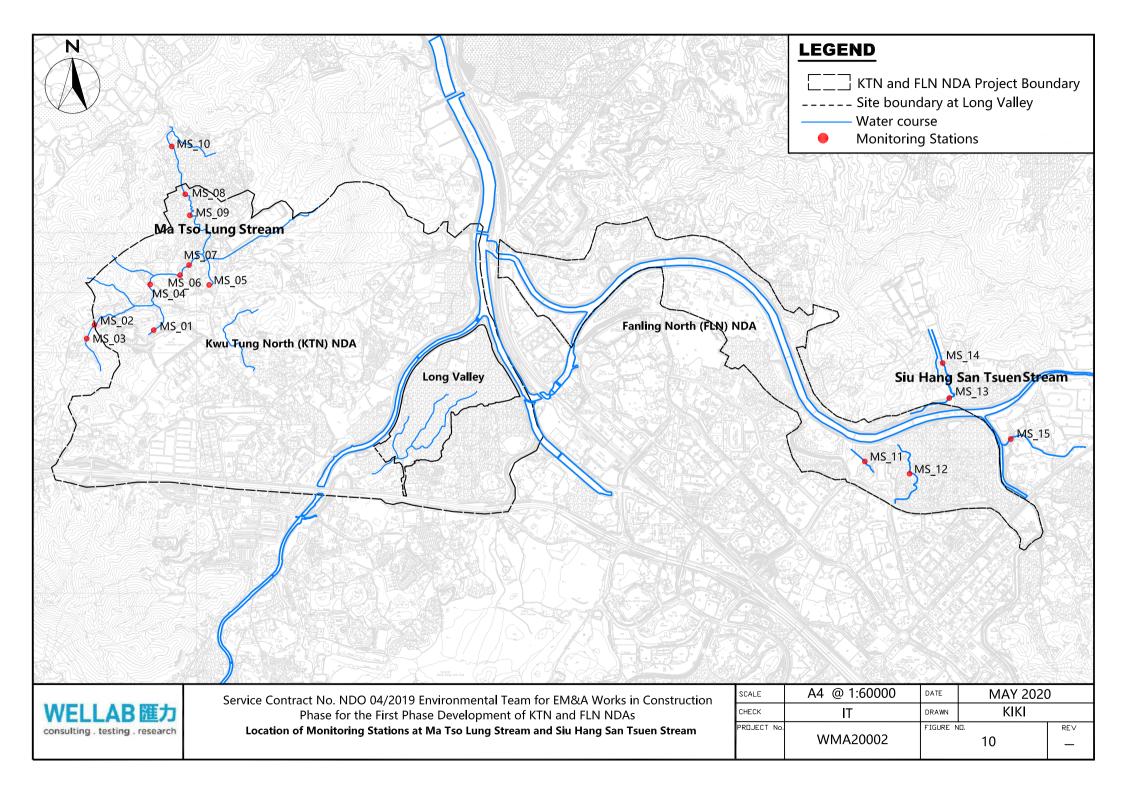












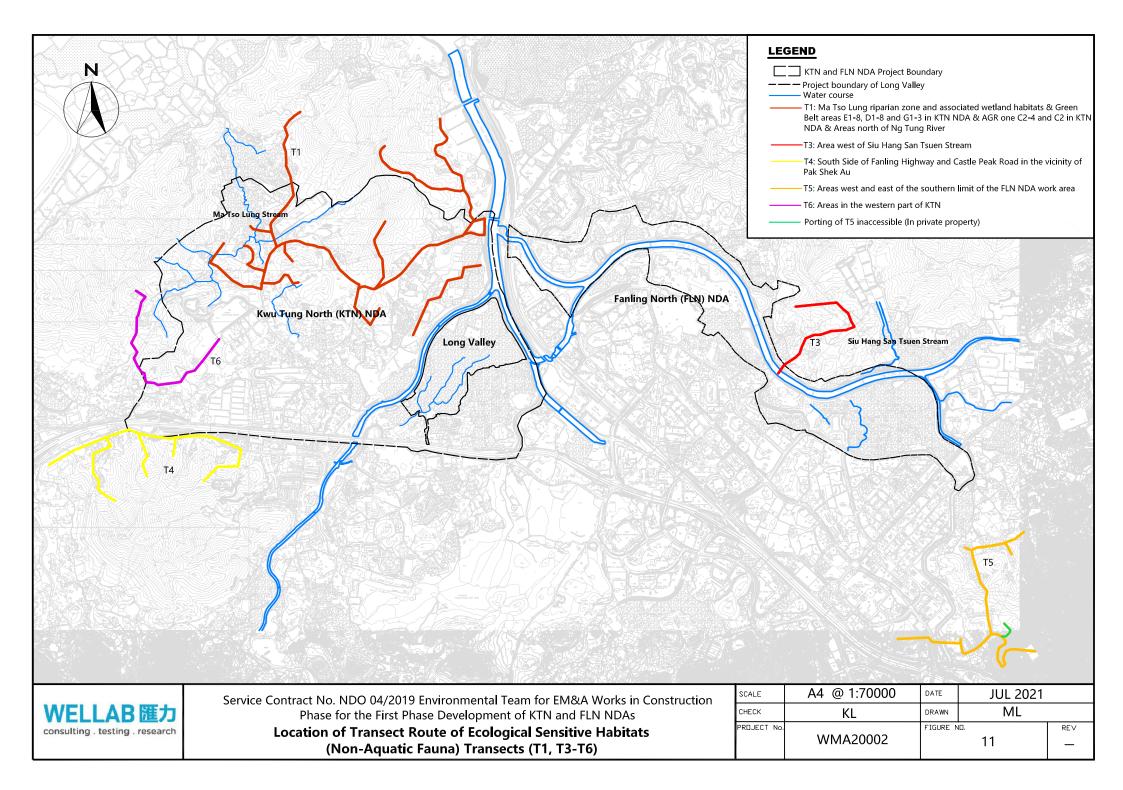
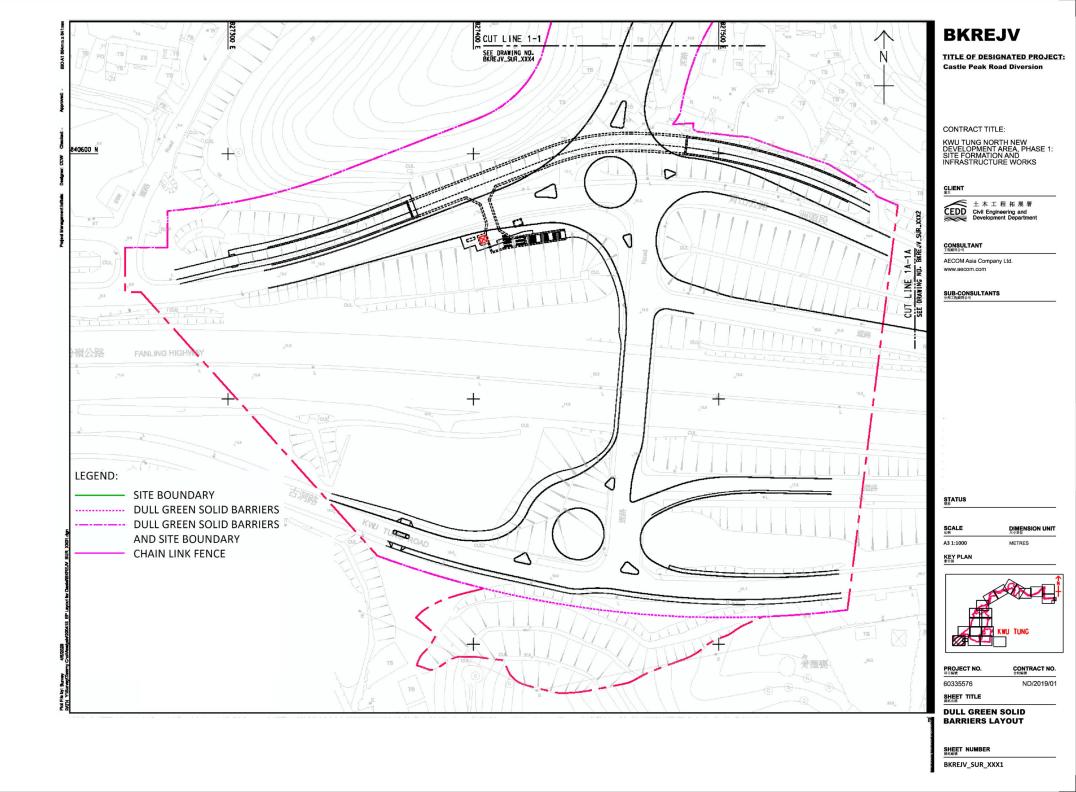
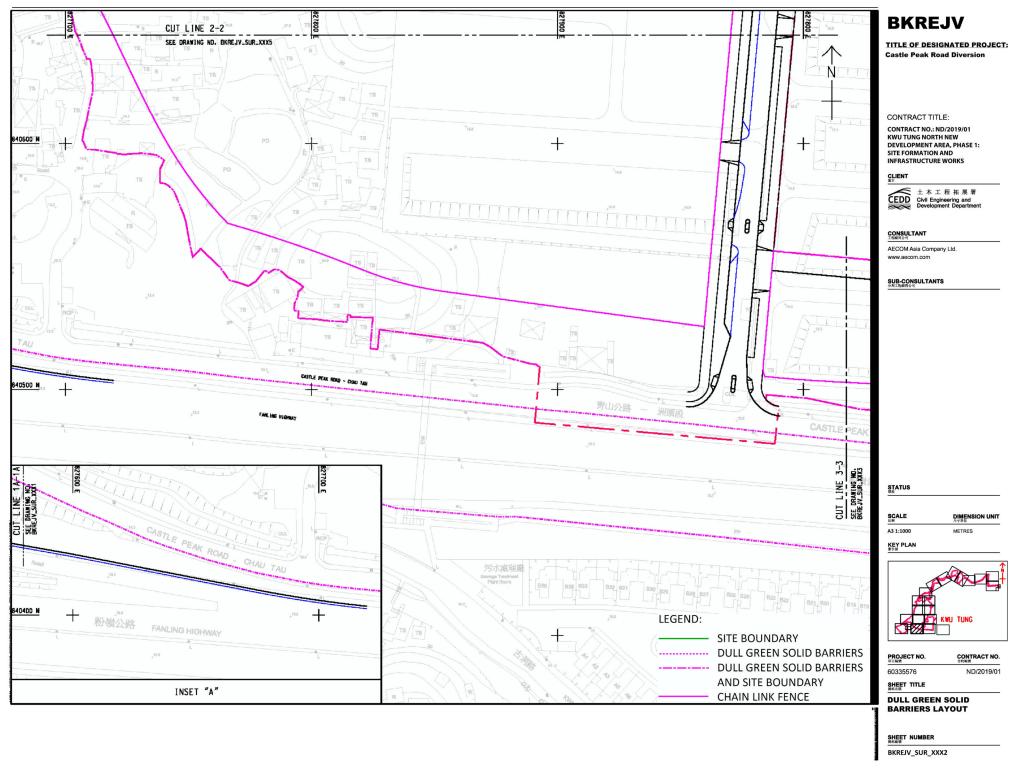


Figure 12

Hoarding Plan

EP-466/2013





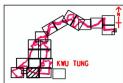
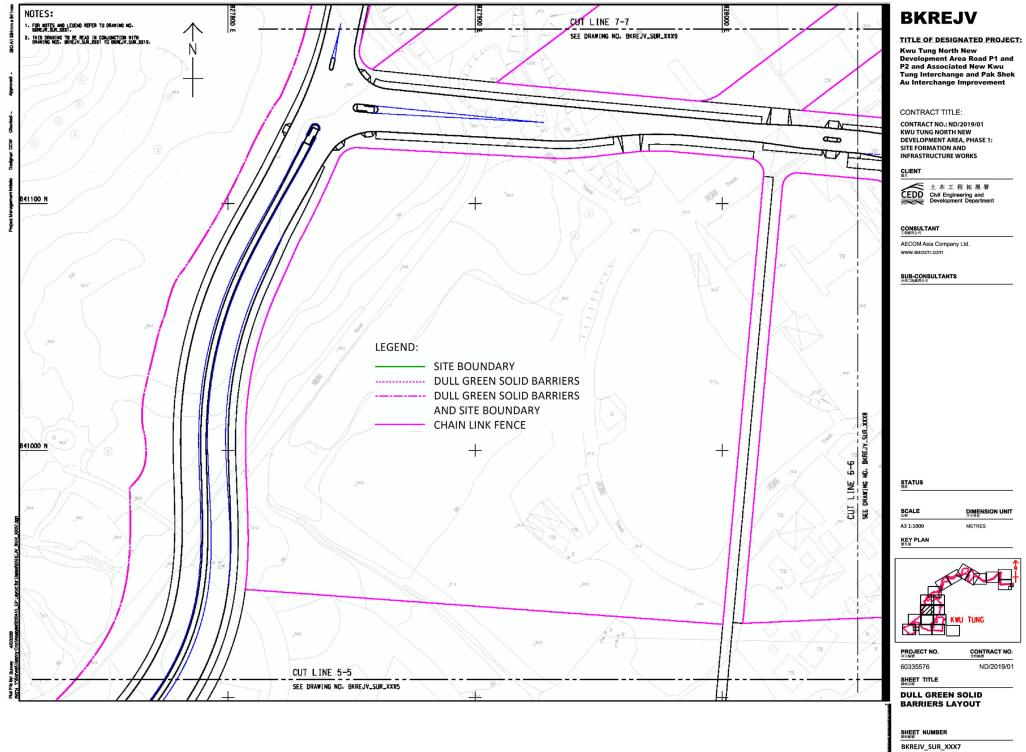
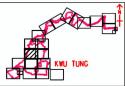


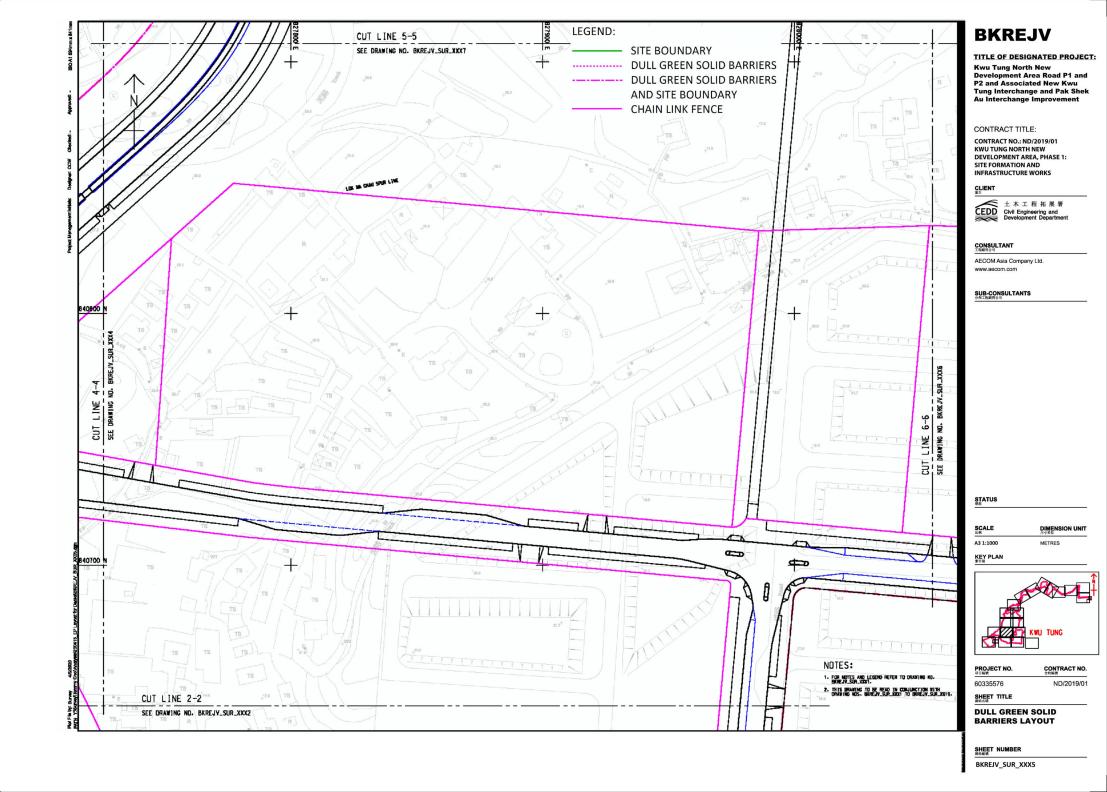
Figure 13

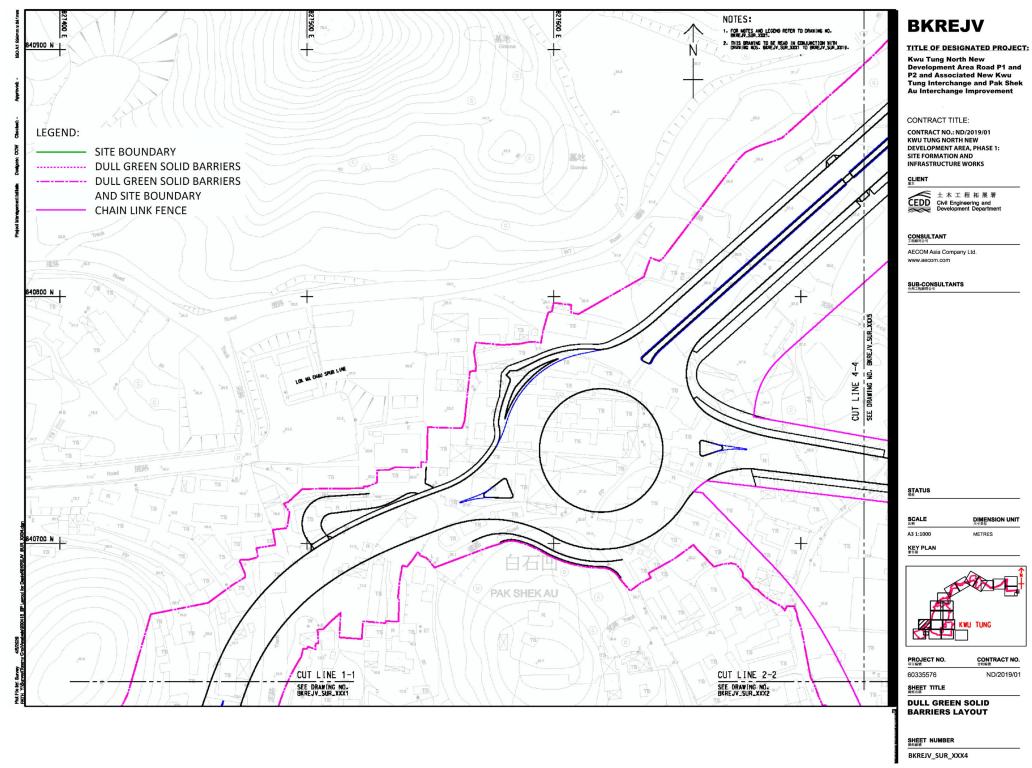
Hoarding Plan

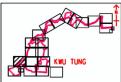
EP-467/2013/A

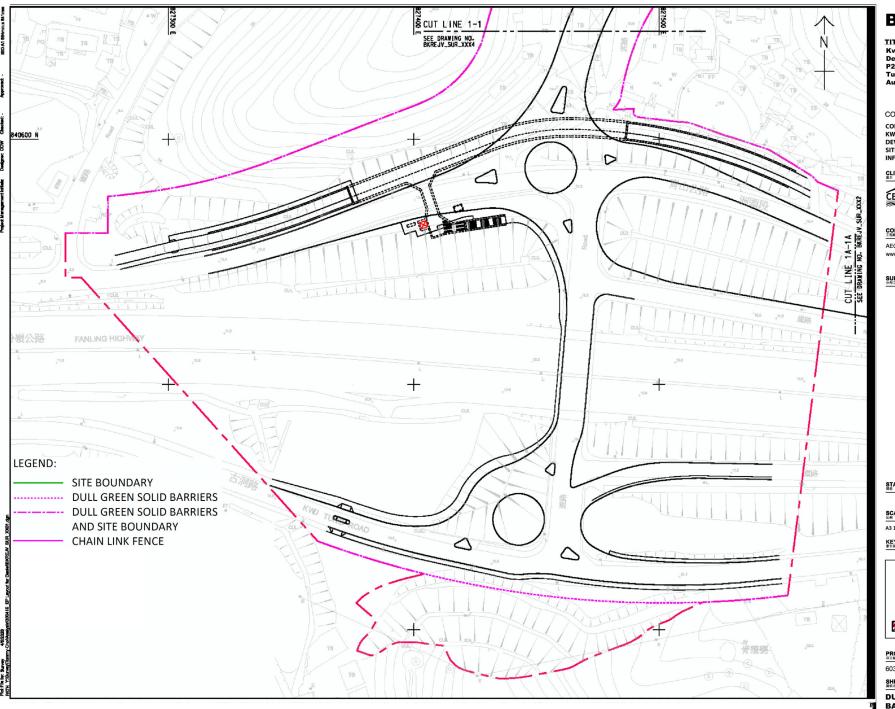












BKREJV

TITLE OF DESIGNATED PROJECT: Kwu Tung North New Development Area Road P1 and P2 and Associated New Kwu Tung Interchange and Pak Shek Au Interchange Improvement

CONTRACT TITLE:

CONTRACT NO.: ND/2019/01 KWU TUNG NORTH NEW DEVELOPMENT AREA, PHASE 1: SITE FORMATION AND INFRASTRUCTURE WORKS

CLIENT



CONSULTANT

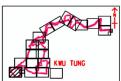
AECOM Asia Company Ltd.

SUB-CONSULTANTS

STATUS

SCALE 比例	DIMENSION UNI 尺寸単位
A3 1:1000	METRES

KEY PLAN 素引展



PROJECT NO. 項用編號	CONTRACT N
60335576	ND/2019/

SHEET TITLE

DULL GREEN SOLID BARRIERS LAYOUT

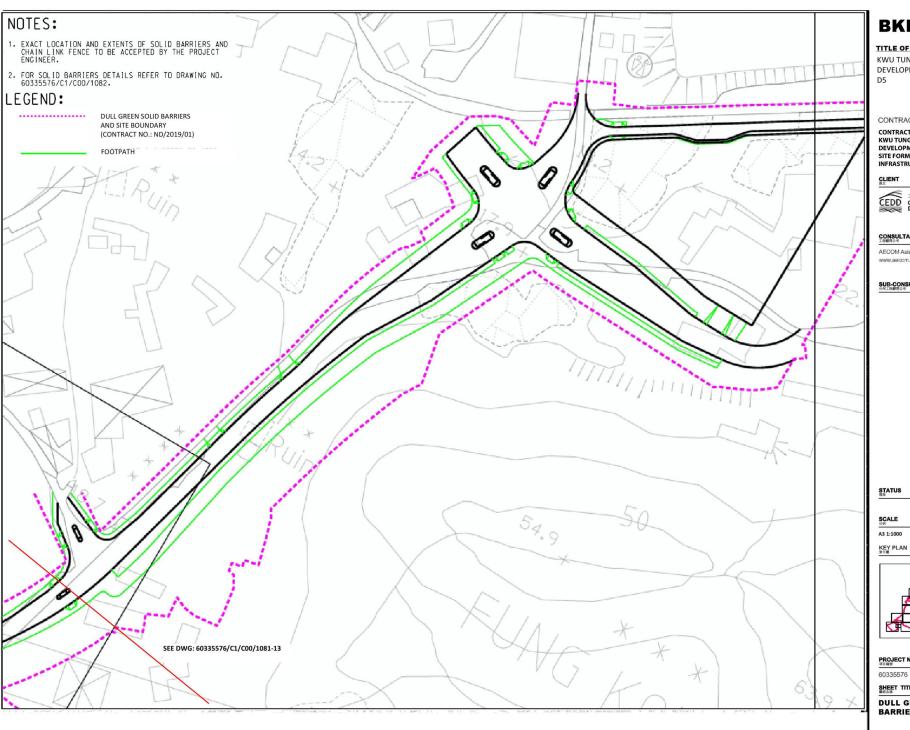
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Figure 14

Hoarding Plan

EP-468/2013/A



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KWU TUNG NORTH NEW DEVELOPMENT AREA ROAD D1 TO

CONTRACT TITLE:

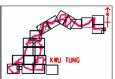
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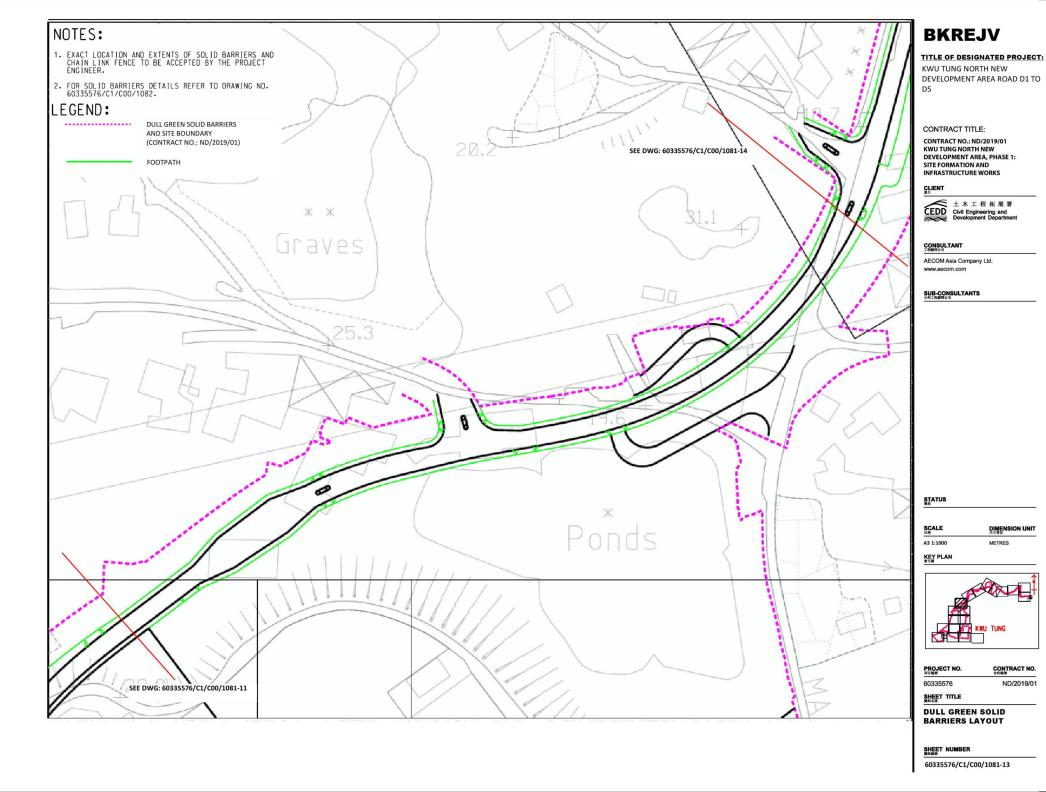
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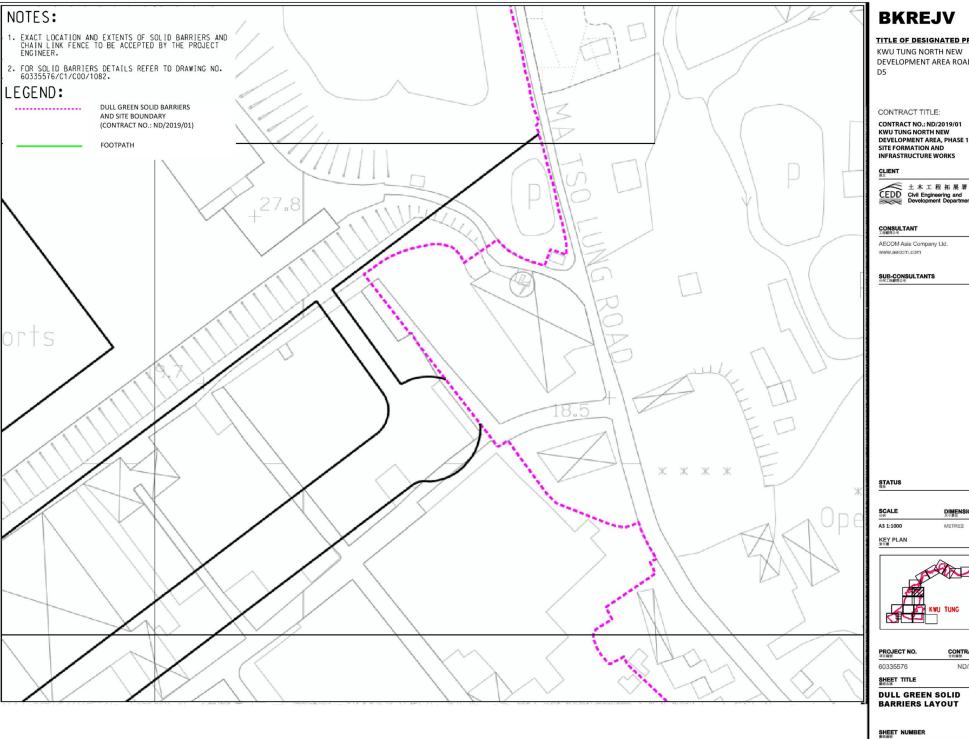
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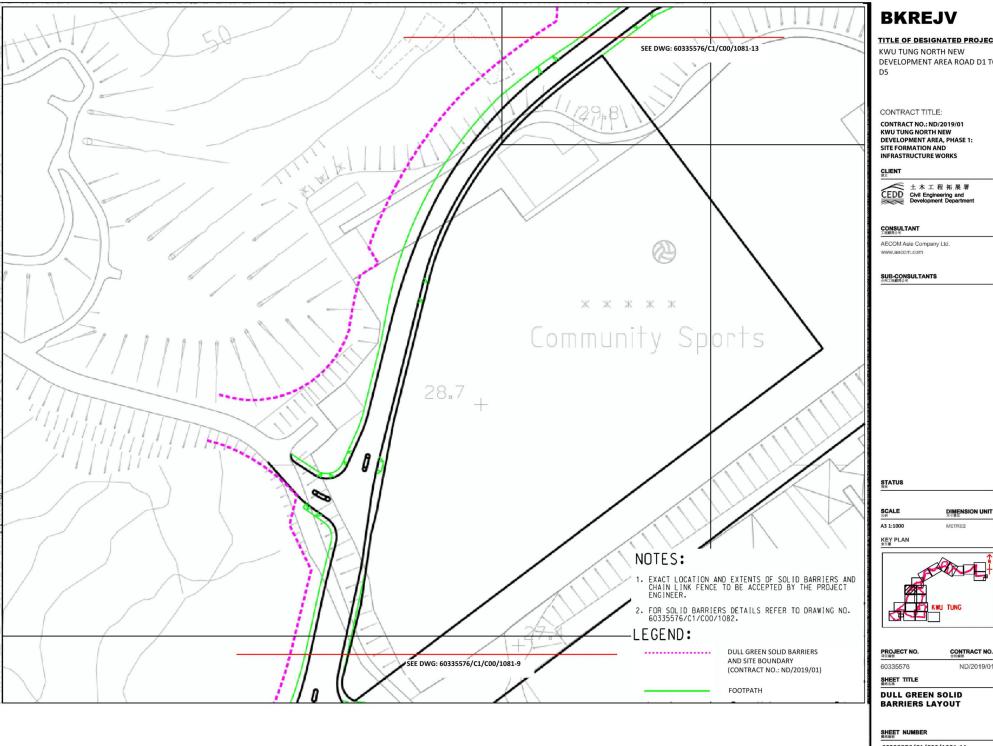
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CONTRACT NO. ND/2019/01



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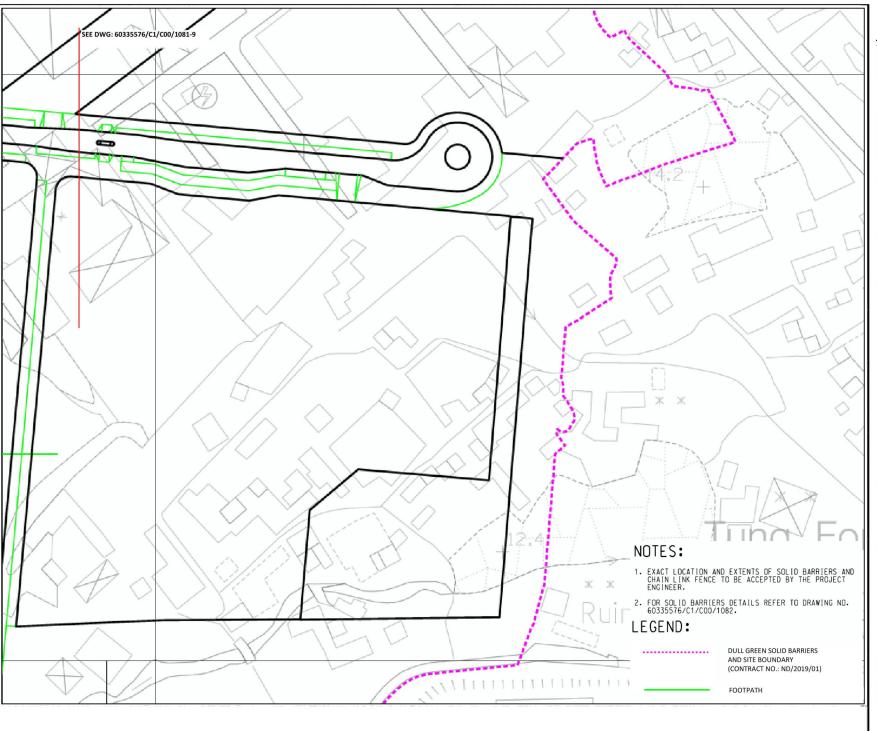
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CONTRACT NO. ND/2019/01

DULL GREEN SOLID BARRIERS LAYOUT



TITLE OF DESIGNATED PROJECT:

KWU TUNG NORTH NEW DEVELOPMENT AREA ROAD D1 TO

CONTRACT TITLE:

CONTRACT NO.: ND/2019/01 KWU TUNG NORTH NEW DEVELOPMENT AREA, PHASE 1: SITE FORMATION AND INFRASTRUCTURE WORKS



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

CONSULTANT

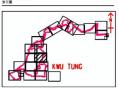
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STATUS

DIMENSION UNIT A3 1:1000

KEY PLAN 余引度



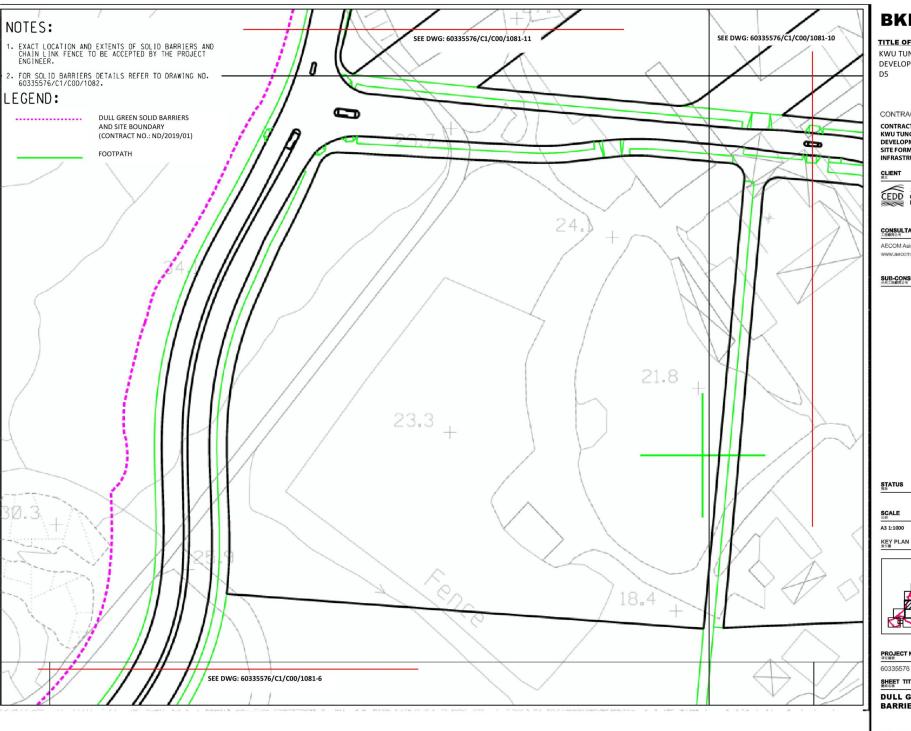
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SHEET TITLE

DULL GREEN SOLID BARRIERS LAYOUT

SHEET NUMBER



TITLE OF DESIGNATED PROJECT:

KWU TUNG NORTH NEW DEVELOPMENT AREA ROAD D1 TO

CONTRACT TITLE:

CONTRACT NO.: ND/2019/01 KWU TUNG NORTH NEW DEVELOPMENT AREA, PHASE 1: SITE FORMATION AND INFRASTRUCTURE WORKS



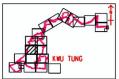
CONSULTANT

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SUB-CONSULTANTS

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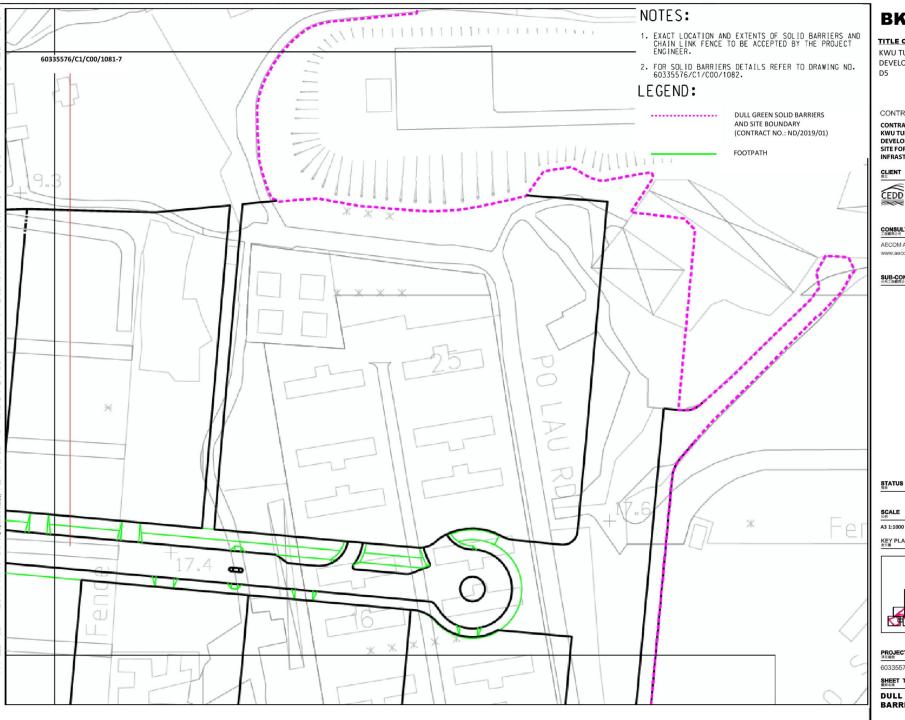
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DULL GREEN SOLID BARRIERS LAYOUT

SHEET NUMBER



TITLE OF DESIGNATED PROJECT:

KWU TUNG NORTH NEW DEVELOPMENT AREA ROAD D1 TO

CONTRACT TITLE:

CONTRACT NO.: ND/2019/01 KWU TUNG NORTH NEW DEVELOPMENT AREA, PHASE 1: SITE FORMATION AND INFRASTRUCTURE WORKS



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

CONSULTANT 工程網開公司

AECOM Asia Company Ltd.

SUB-CONSULTANTS

DIMENSION UNIT A3 1:1000

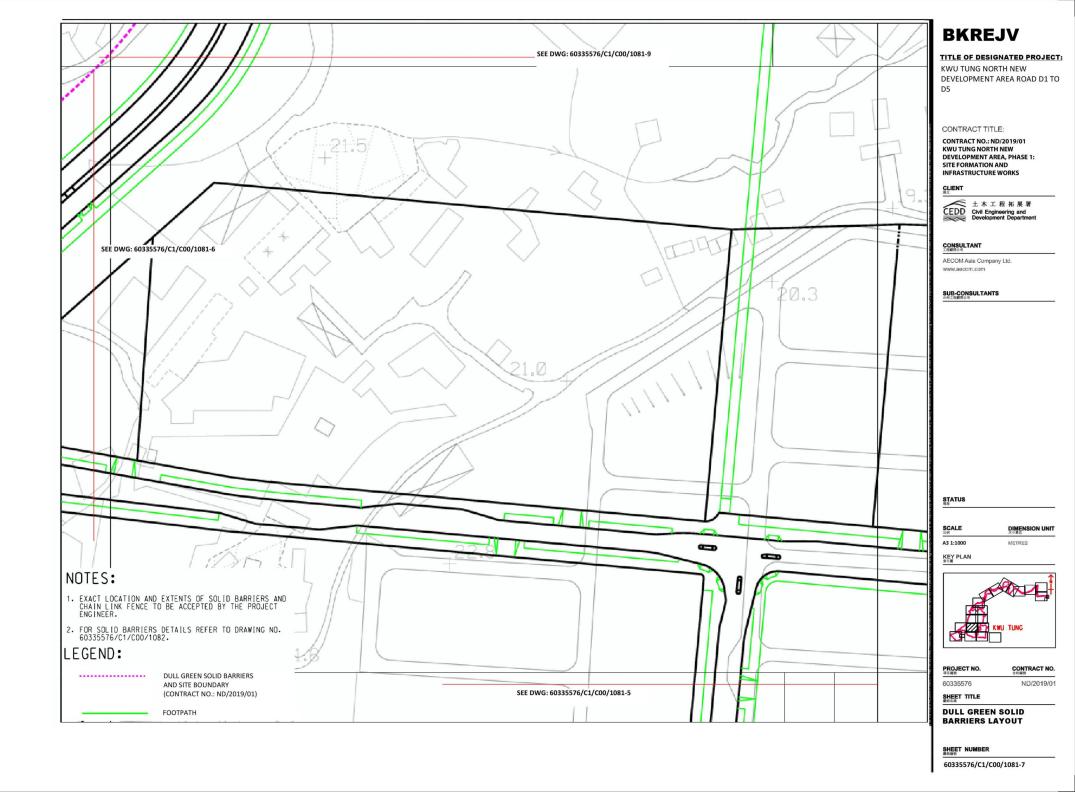


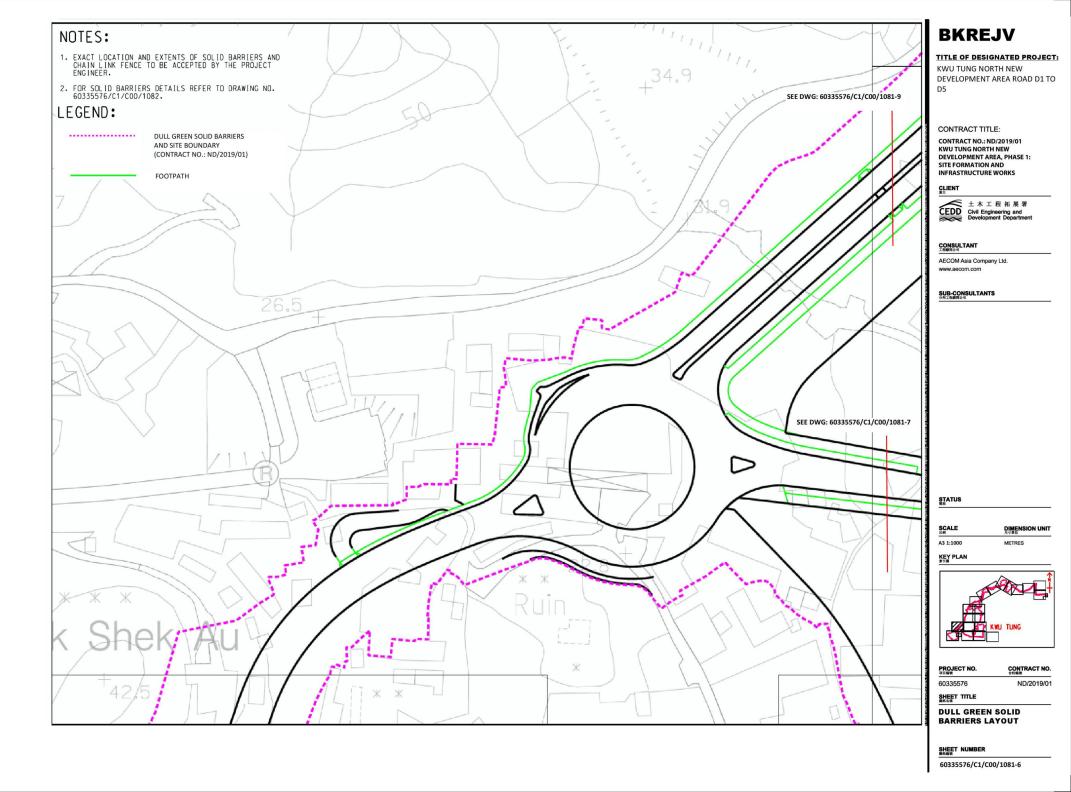
PROJECT NO. 項目輸號	CONTRACT NO		
60335576	ND/2019/0		

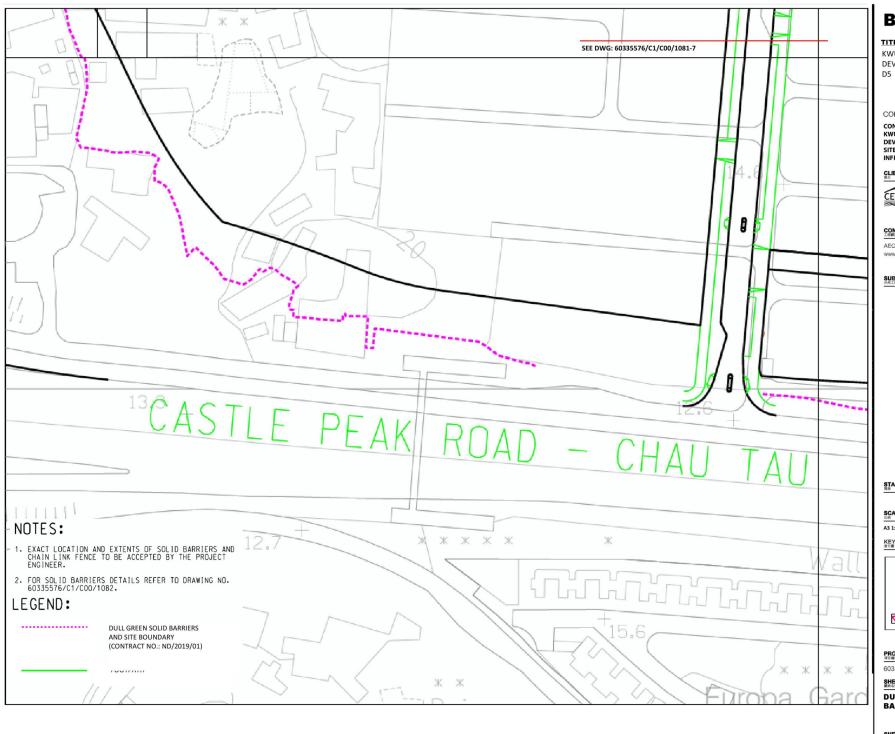
SHEET TITLE **E**無名第

DULL GREEN SOLID BARRIERS LAYOUT

SHEET NUMBER







TITLE OF DESIGNATED PROJECT:

KWU TUNG NORTH NEW DEVELOPMENT AREA ROAD D1 TO

CONTRACT TITLE:

CONTRACT NO.: ND/2019/01 KWU TUNG NORTH NEW DEVELOPMENT AREA, PHASE 1: SITE FORMATION AND INFRASTRUCTURE WORKS



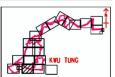
CONSULTANT

AECOM Asia Company Ltd. www.aecom.com

SUB-CONSULTANTS

STATUS

DIMENSION UNIT A3 1:1000

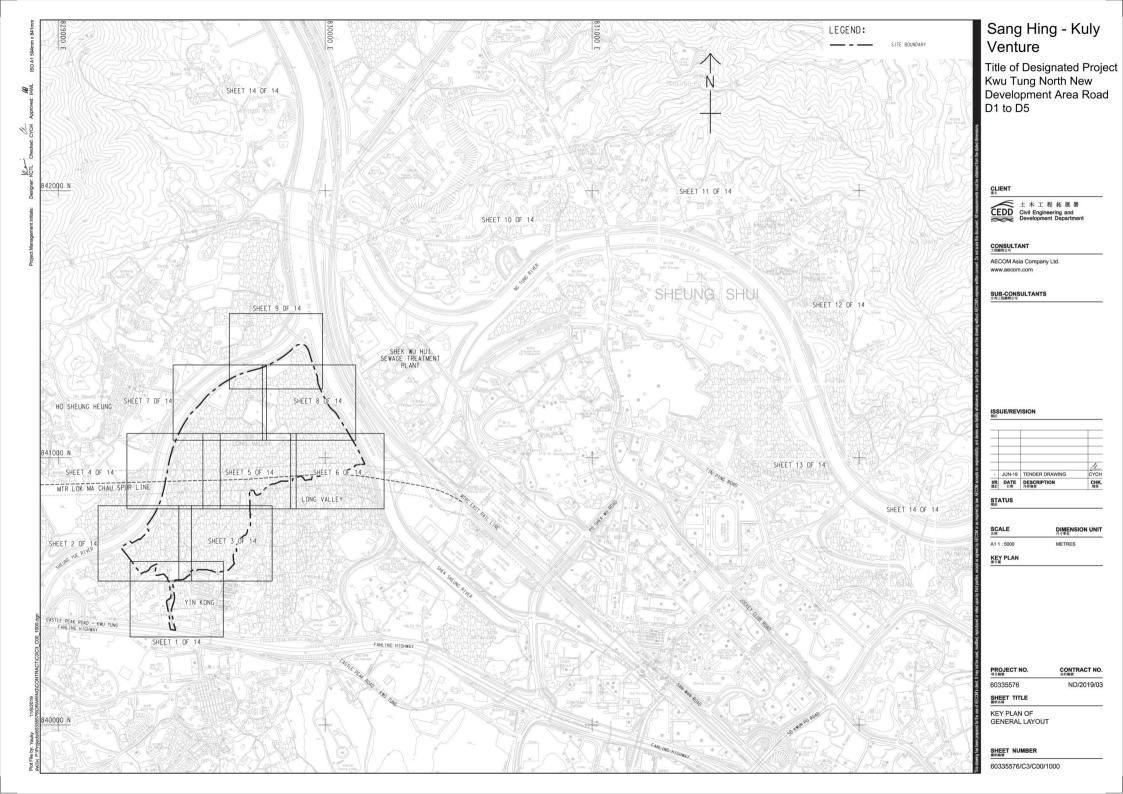


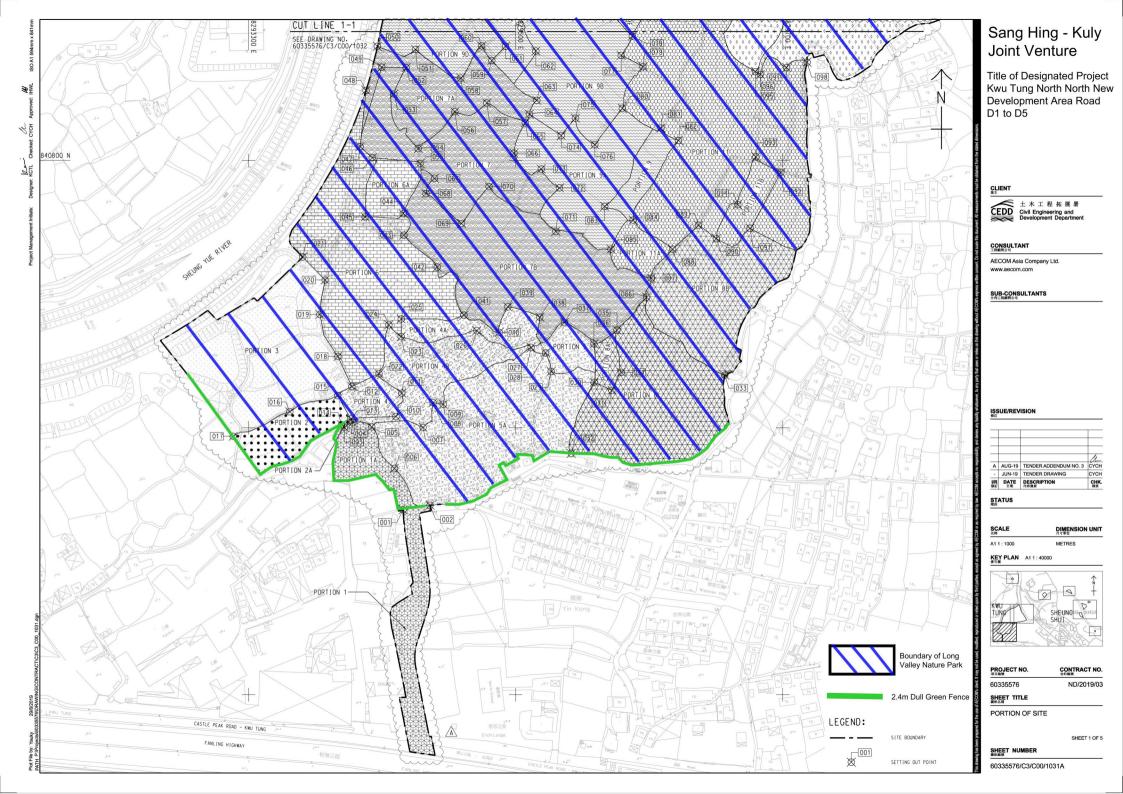
PROJECT NO. CONTRACT NO. 60335576 ND/2019/01

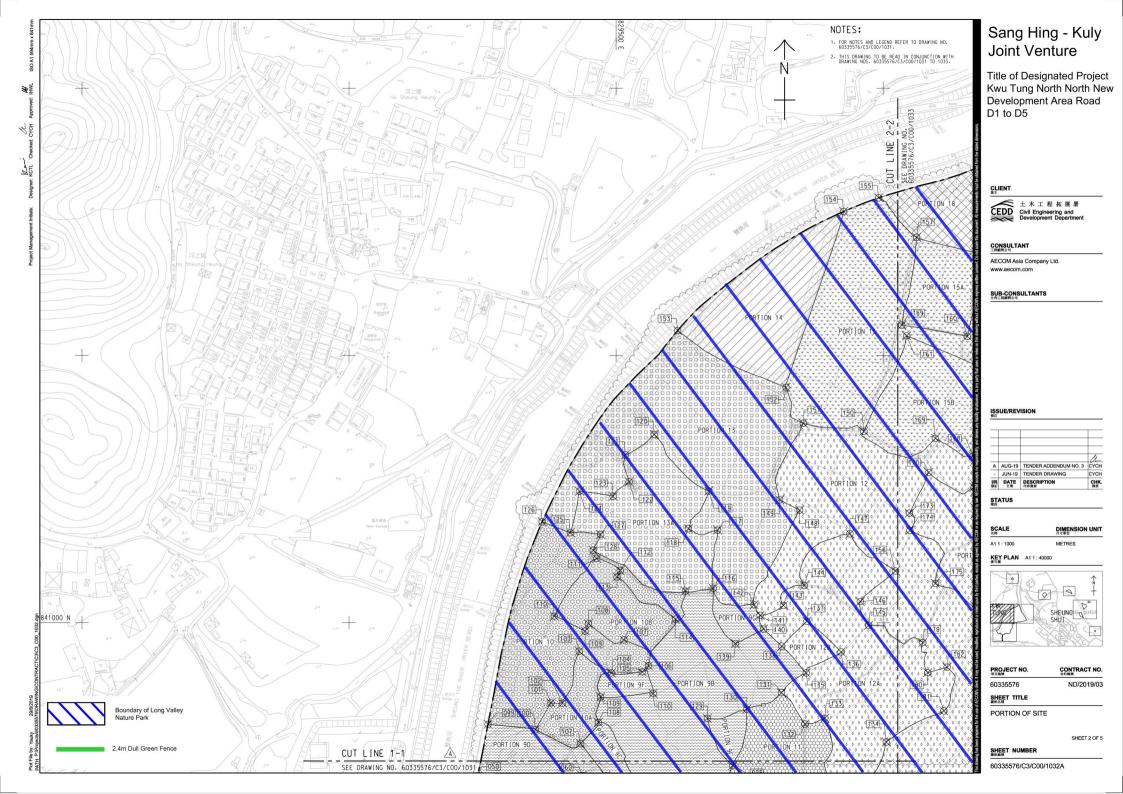
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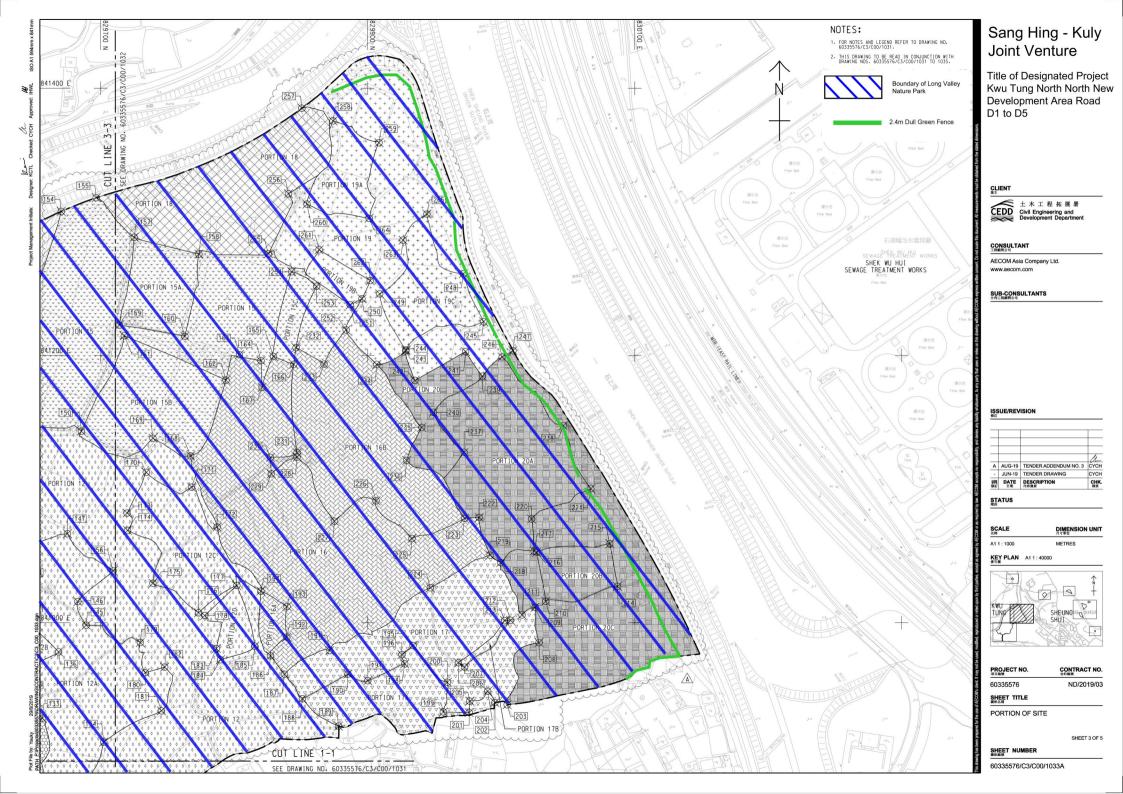
DULL GREEN SOLID BARRIERS LAYOUT

SHEET NUMBER









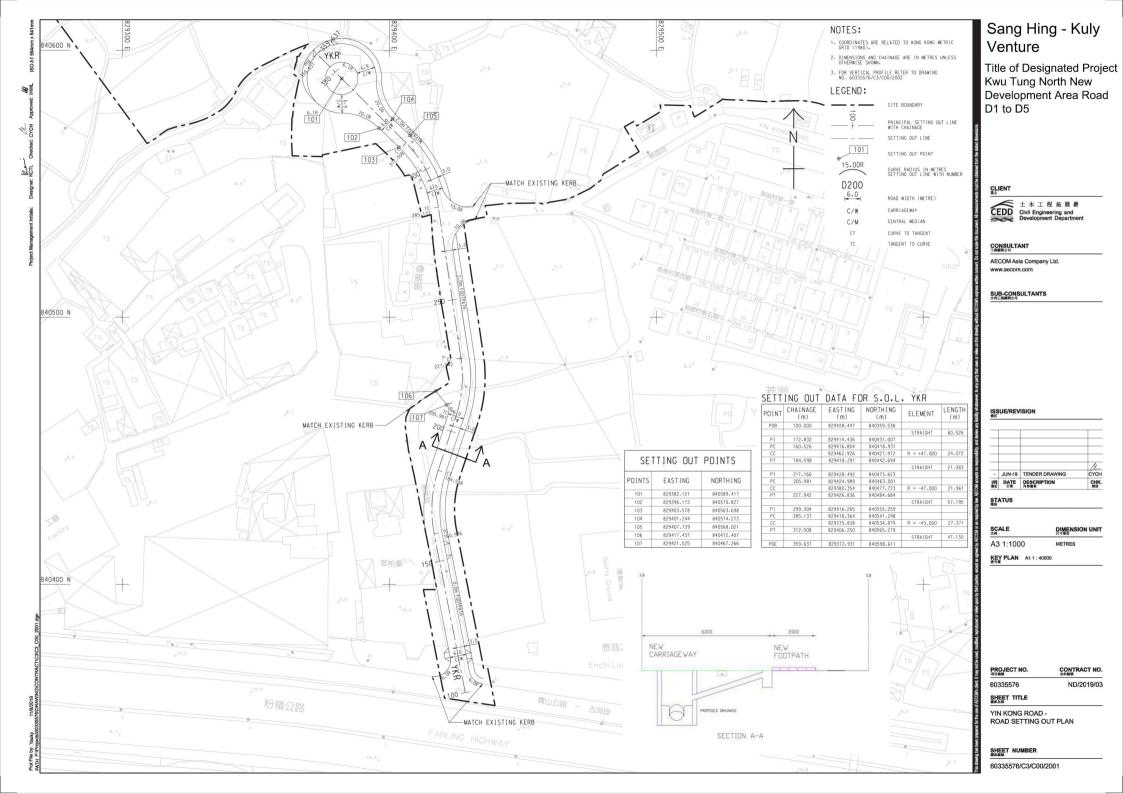
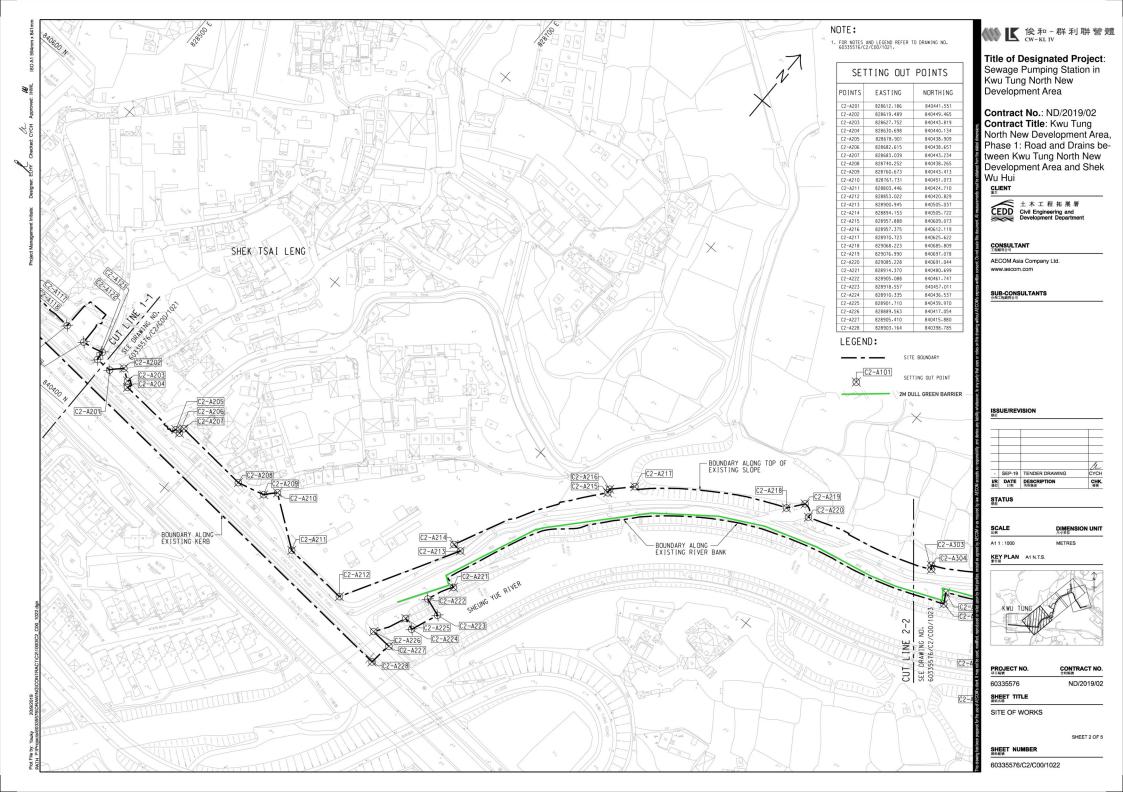
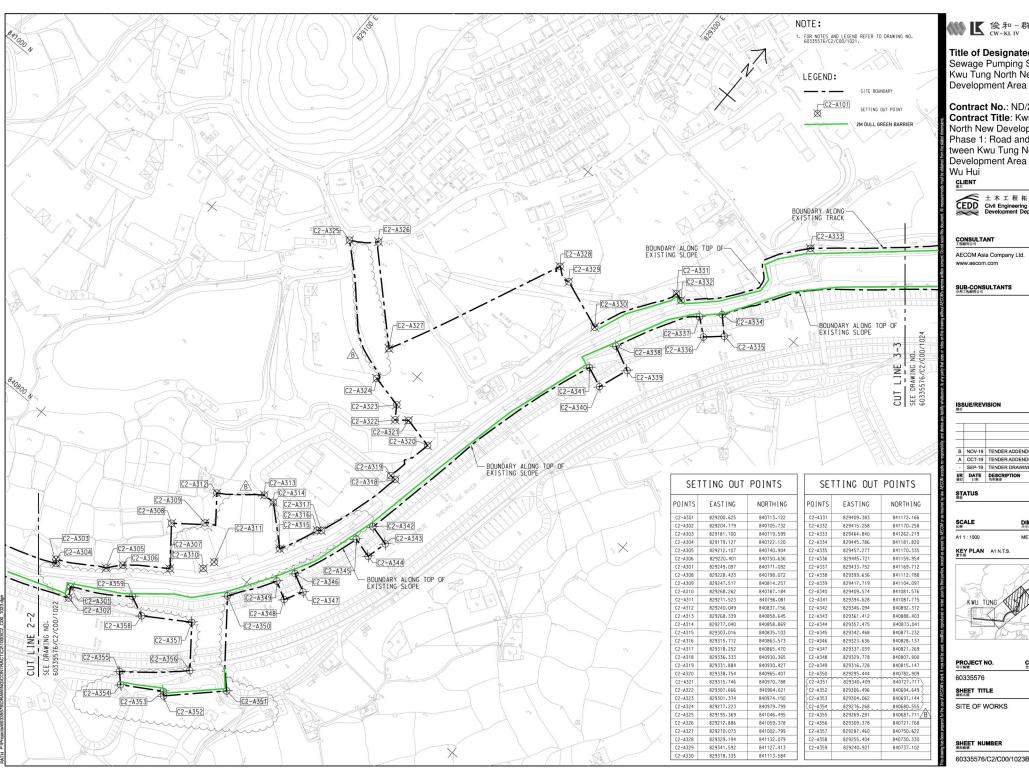


Figure 15

Hoarding Plan

EP-469/2013





3€

《数 L 俊和-群利聯營體 cw-kL IV

Title of Designated Project:

Sewage Pumping Station in Kwu Tung North New Development Area

Contract No.: ND/2019/02 Contract Title: Kwu Tung North New Development Area, Phase 1: Road and Drains between Kwu Tung North New Development Area and Shek



AECOM Asia Company Ltd.

SUB-CONSULTANTS

ISSUE/REVISION

-	SEP-19	TENDER DRAWING	CYC
Α	OCT-19	TENDER ADDENDUM NO. 2	CYC
В	NOV-19	TENDER ADDENDUM NO. 3	CYC
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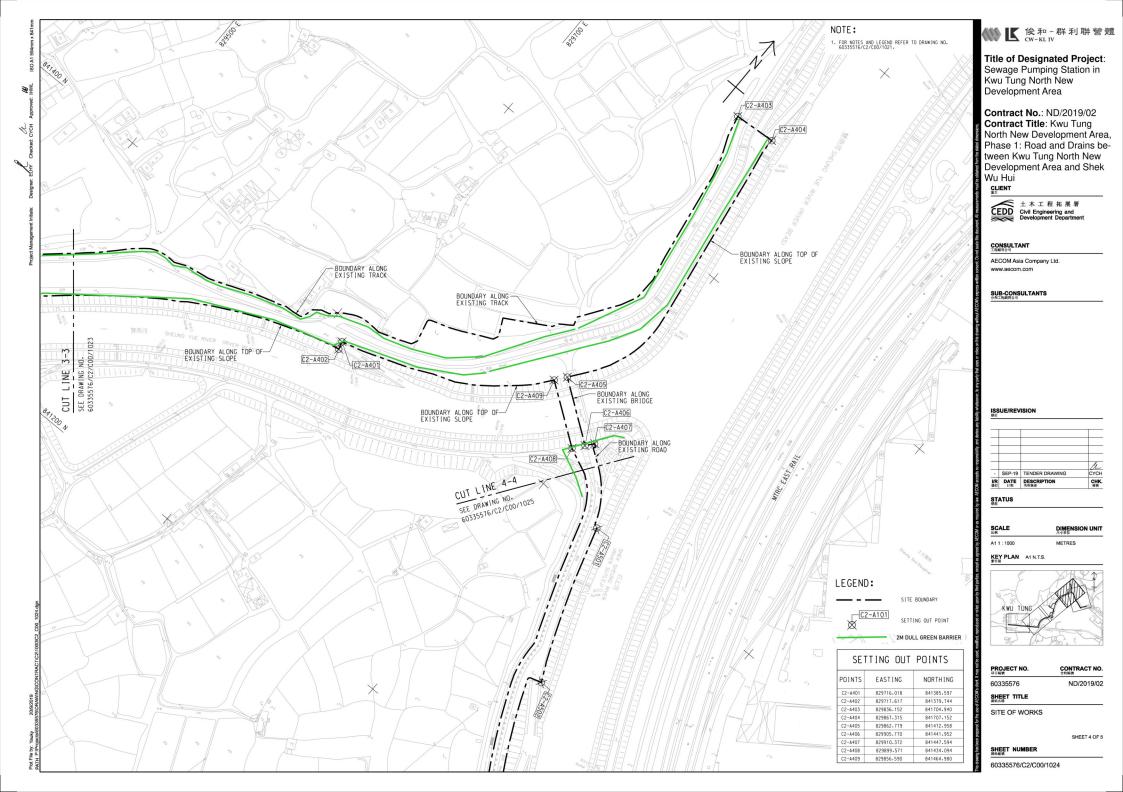
SCALE	DIMENSION UN	
A1 1 : 1000	METRES	

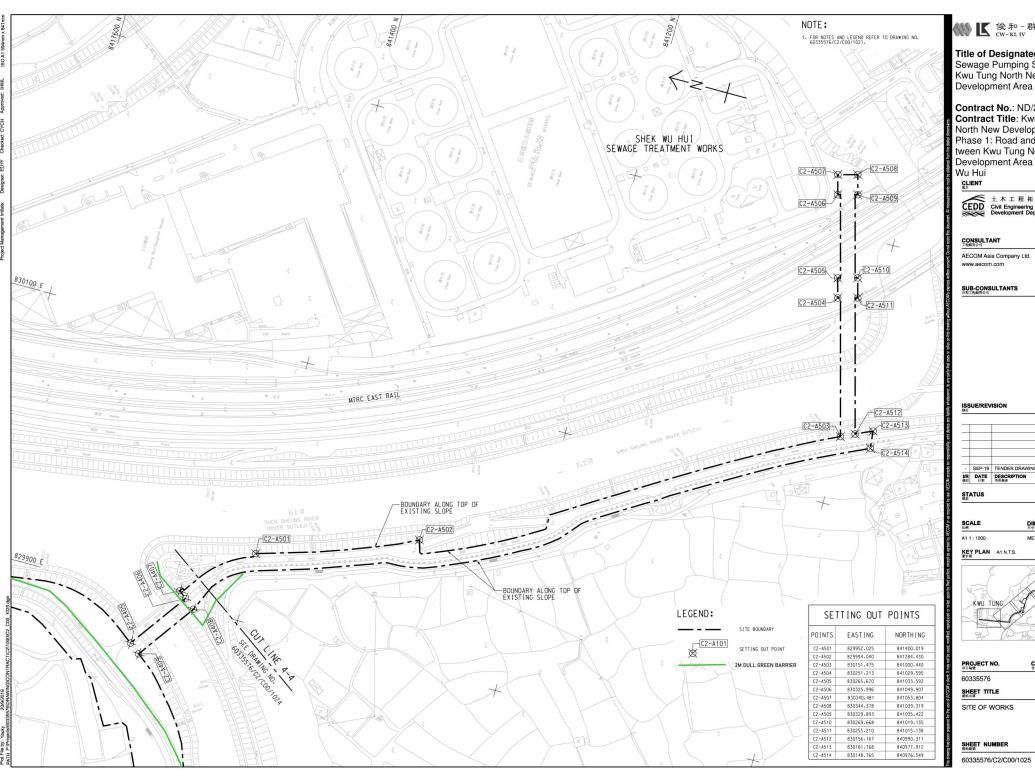
PROJECT NO.	CONTRACT NO.
60335576	ND/2019/02
SHEET TITLE ^{組織名編}	

SITE OF WORKS

SHEET 3 OF 5

SHEET NUMBER





《 後和 - 群利聯營體 cw-ki jv

Title of Designated Project:

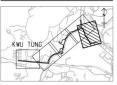
Sewage Pumping Station in Kwu Tung North New

Contract No.: ND/2019/02 Contract Title: Kwu Tung North New Development Area, Phase 1: Road and Drains be-tween Kwu Tung North New Development Area and Shek



VR 修訂	DATE 日期	DESCRIPTION 内容摘要	CHK 夜枝
-	SEP-19	TENDER DRAWING	CYCH
			a

SCALE	DIMENSION UN	
A1 1 : 1000	METRES	



PROJECT NO. 項目編號	CONTRACT NO
60335576	ND/2019/02
SHEET TITLE 網紙名稱	
OUTE OF WORKS	

SHEET 5 OF 5

Figure 16

Hoarding Plan

EP-473/2013/A

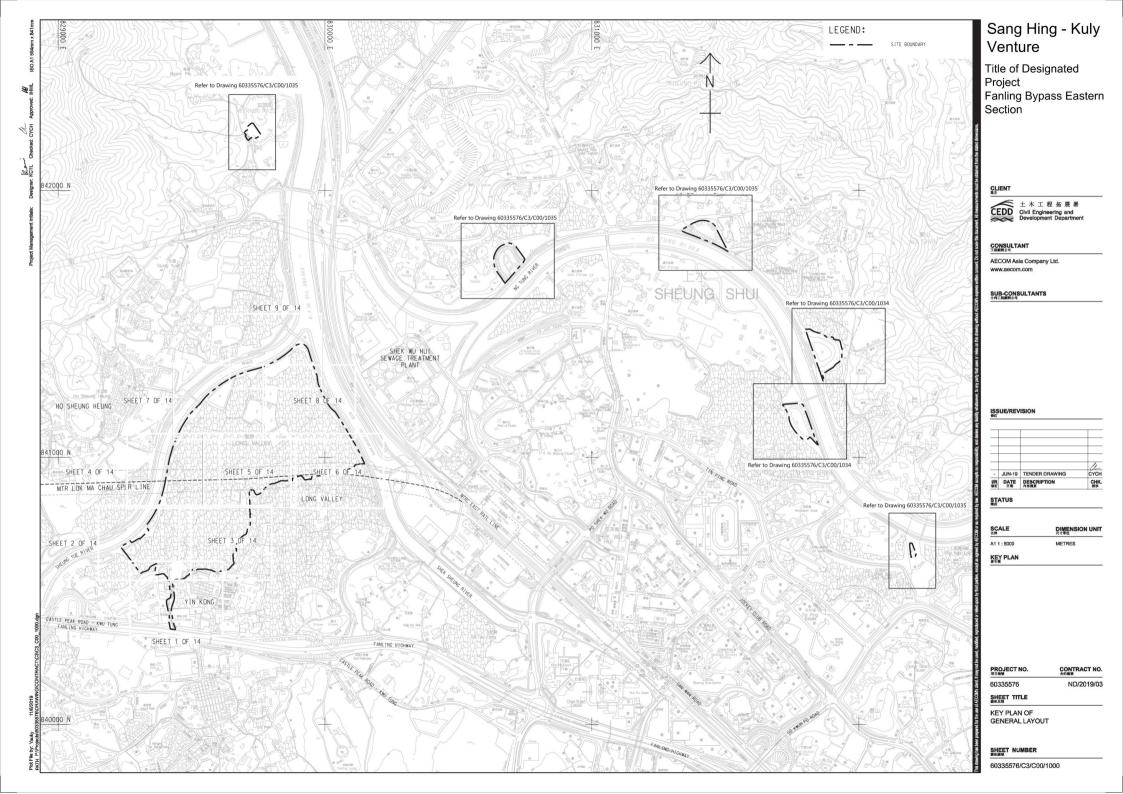
Summary of submission (EP-473/2013/A)

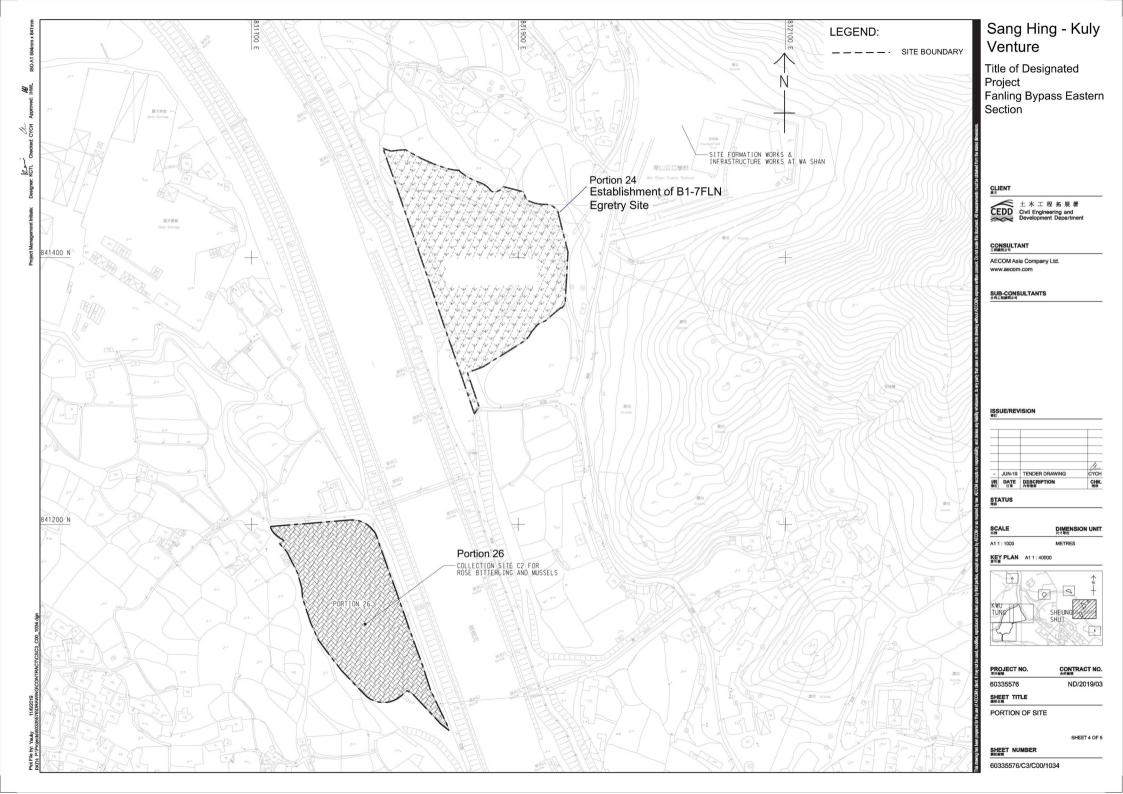
Submission of Layout Plan

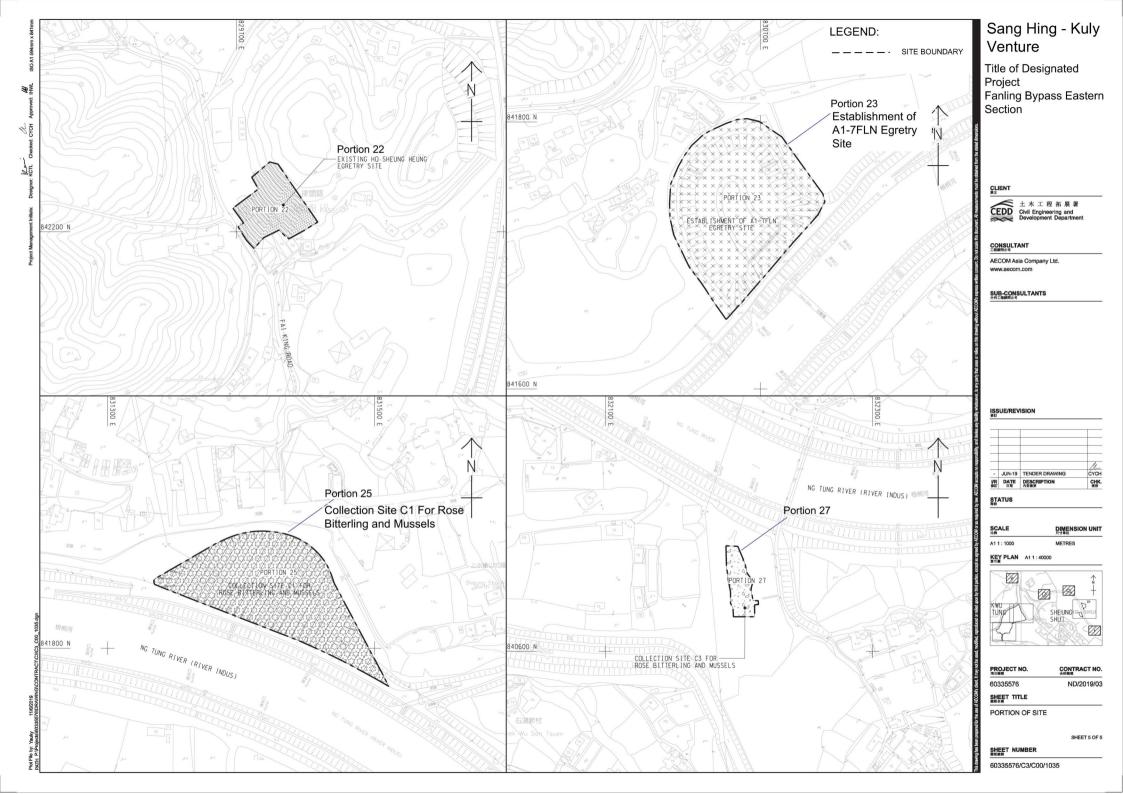
EP's Condition 2.5: The Permit shall, no later than 2 weeks before the commencement of construction of the Project, deposit four hard copies and one electronic copy of location plan(s) of the Project with a scale of 1:1000 or other appropriate scale as agreed with the Director. The plans shall include the details the works boundaries, works areas, vertical and horizontal alignments of the roads and any other major facilities; and the locations of key environmental mitigation measures.

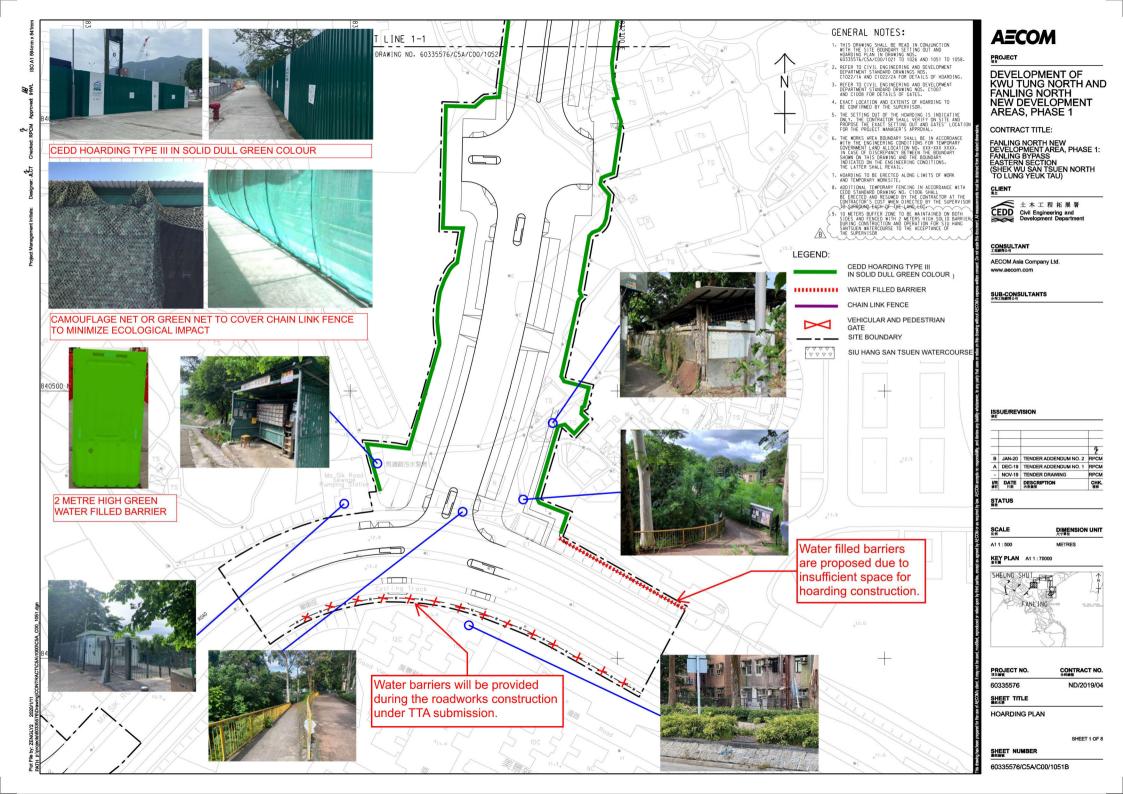
Table of Summary of Submission

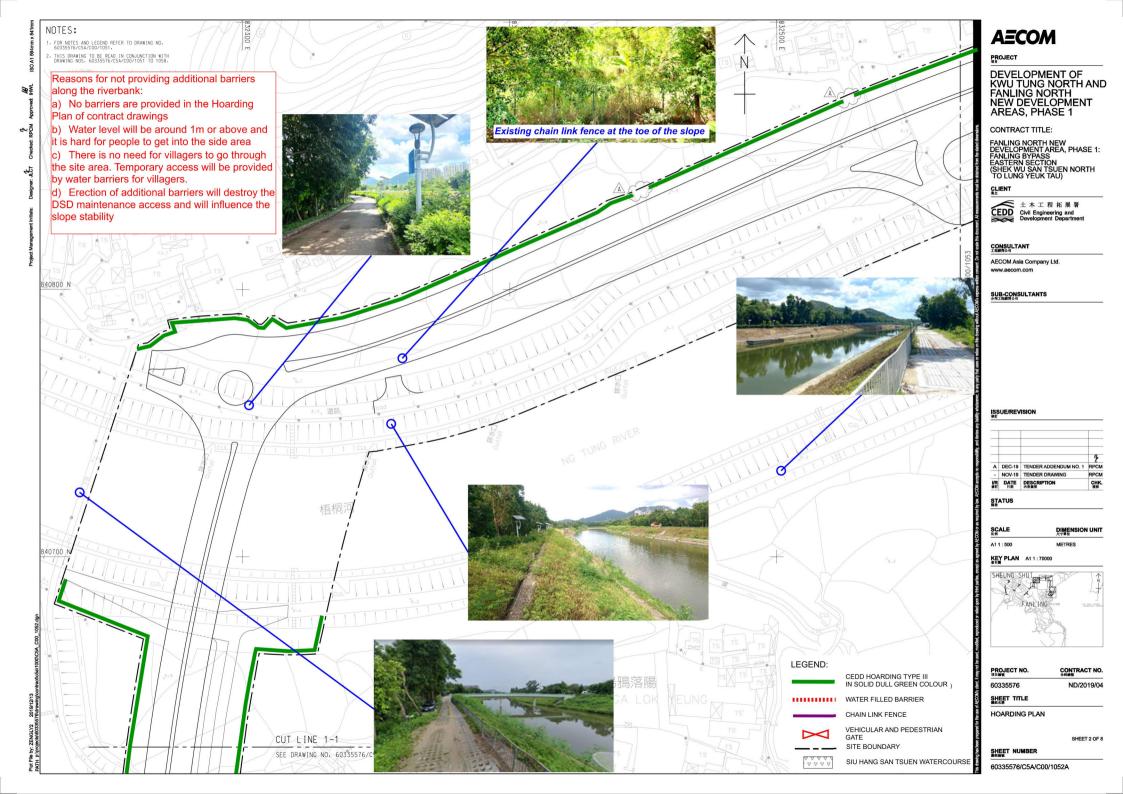
EP required detail	Layout Details			
EP required detail	Detail	Reference No.	Scale	Remarks
Works Boundaries and Works Areas	Key Plan	60335576/C3/C00/1000	A1 1:5000	Scale Not in 1:1000 For indication of following layout plans only
	Portion 24, 26	60335576/C3/C00/1034	A1 1:1000	
	Portion 22, 23, 25, 27	60335576/C3/C00/1035	A1 1:1000	
The location of key environmental	Relocation Plan for Rose Bitterling (Condition 2.6) Portion 23, 24, 25, 26, 27	60335576/C3/C00/1034 60335576/C3/C00/1035	A1 1:1000	No dull green fence shall be erected in Portion 23 and 24 advised by AFCD No construction works will be carried out in Portion 23, 24, 25, 26 and 27
mitigation measure	Alternative Egretry site (Condition 2.7) Portion 22, 23, 24	60335576/C3/C00/1034 60335576/C3/C00/1035	A1 1:1000	No dull green fence shall be erected in Portion 23 and 24 advised by AFCD No construction works will be carried out in Portion 22, 23 and 24

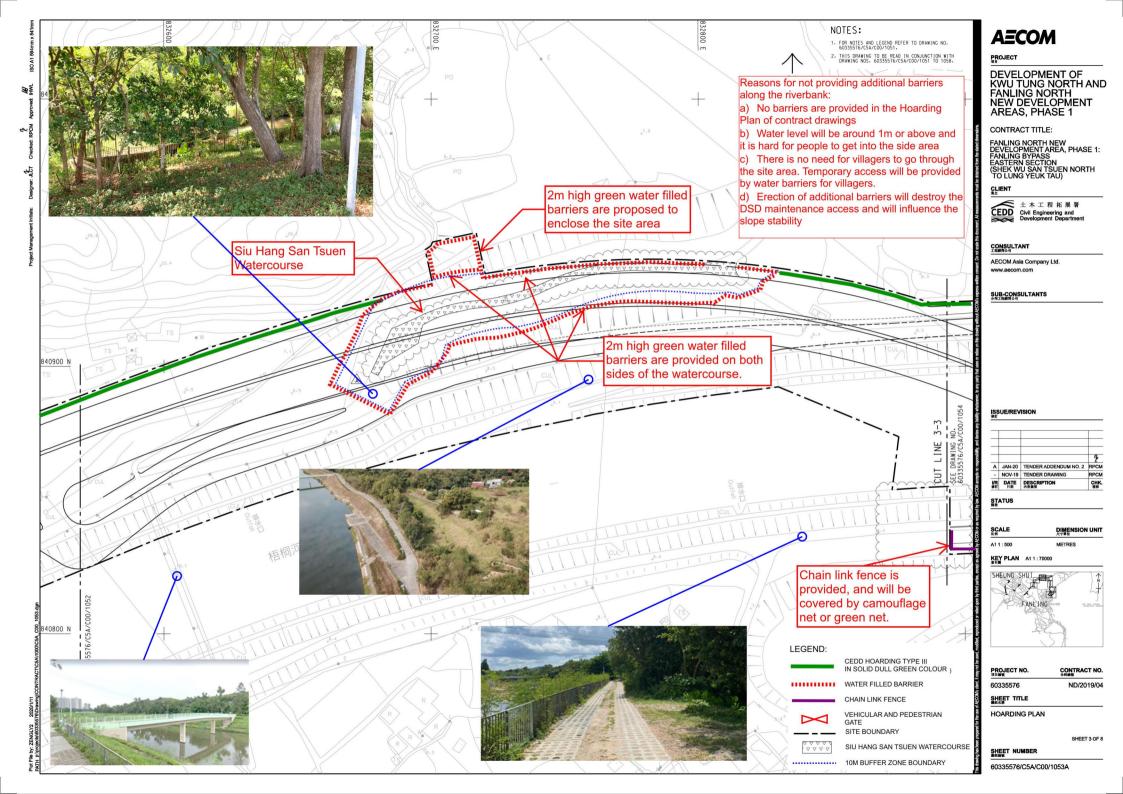


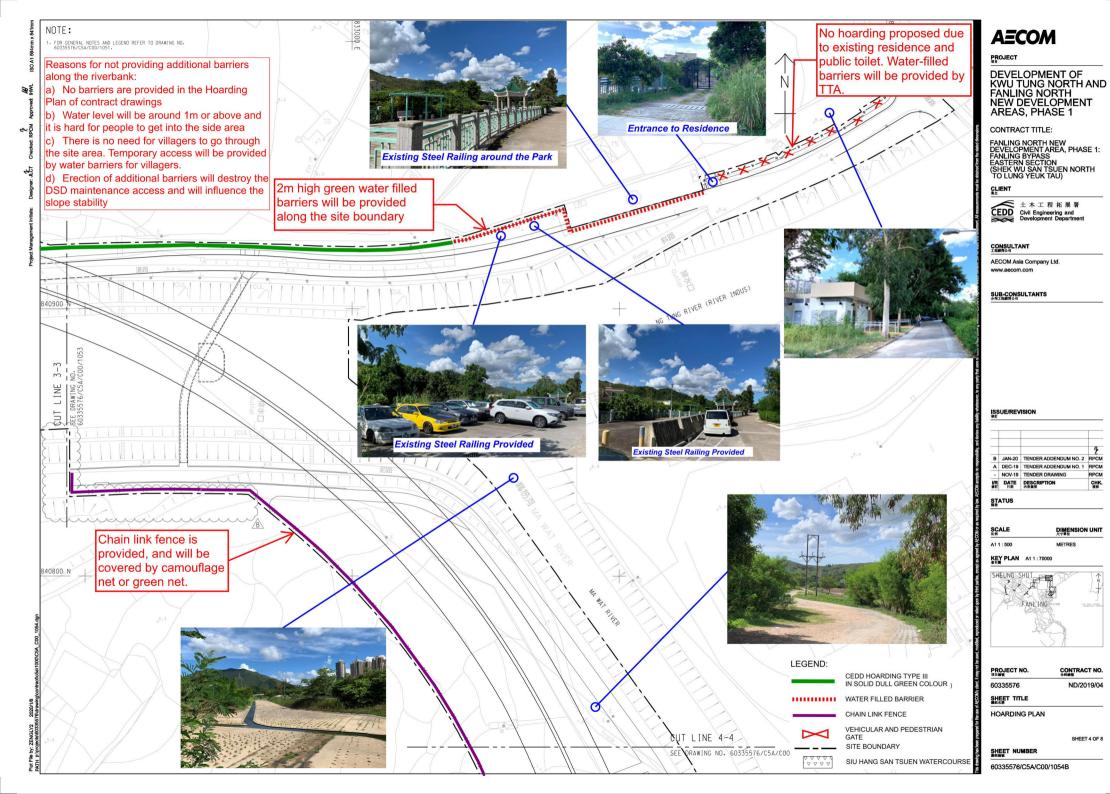


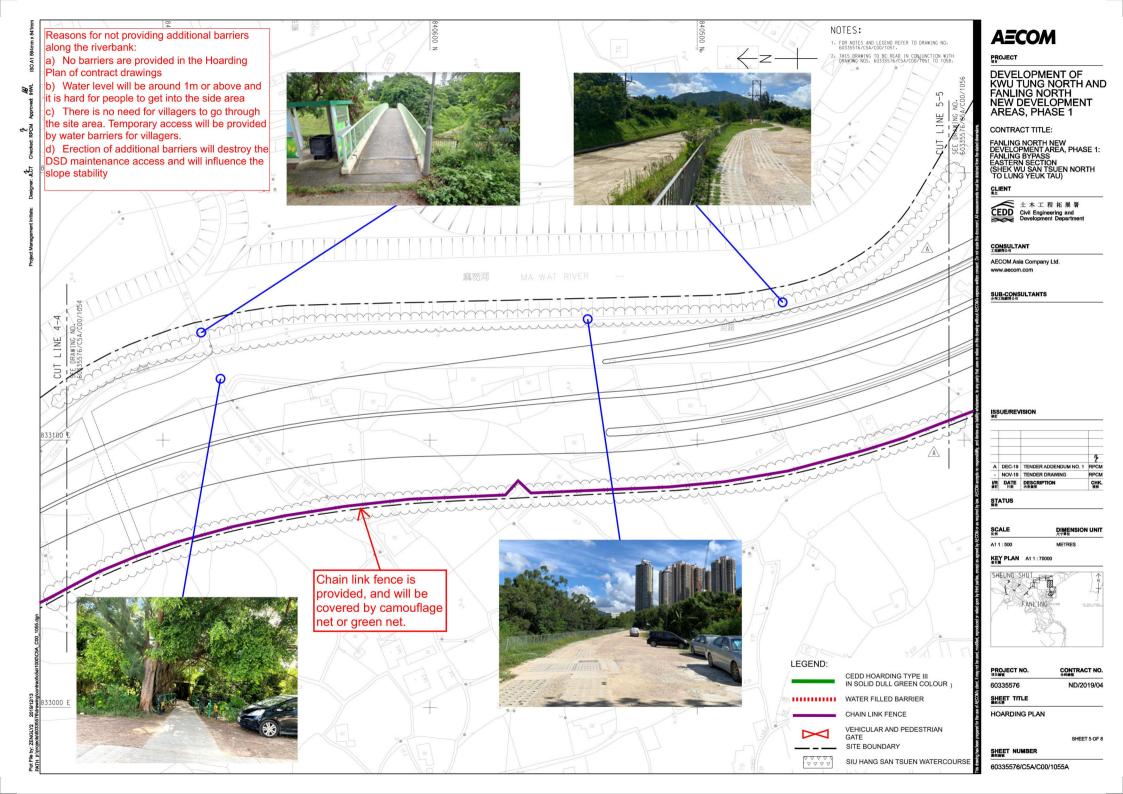


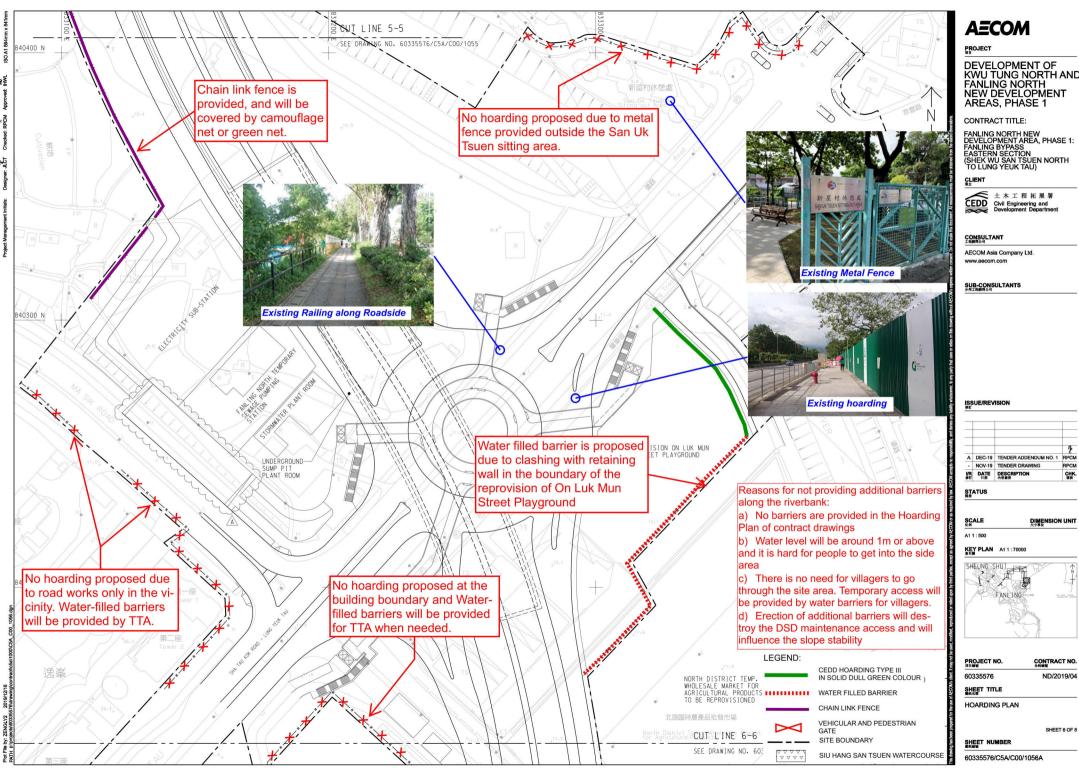










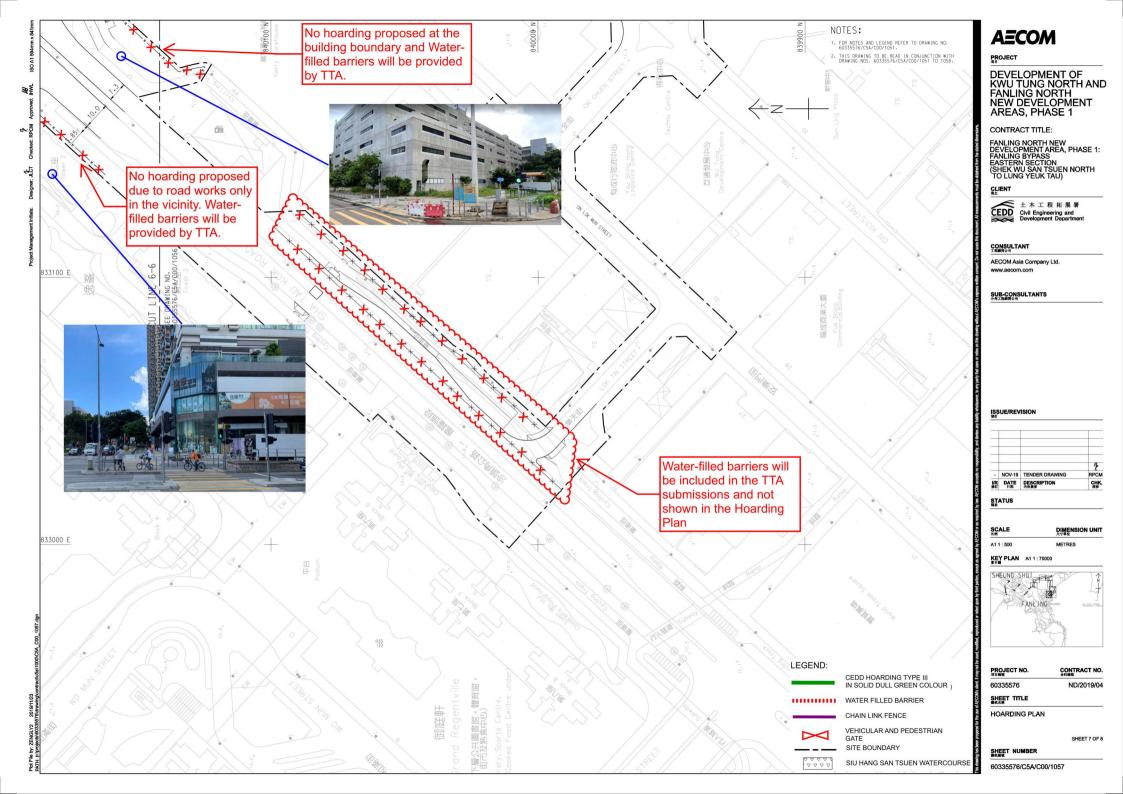


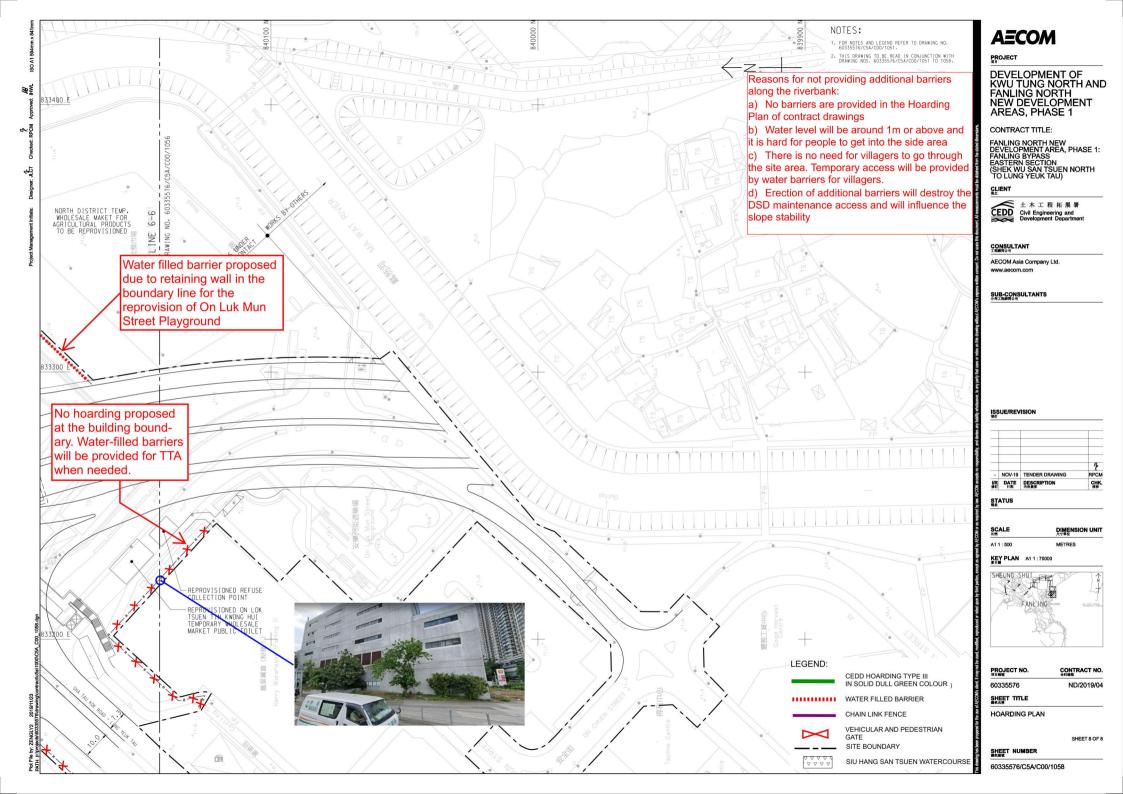
DEVELOPMENT OF KWU TUNG NORTH AND FANLING NORTH NEW DEVELOPMENT AREAS, PHASE 1

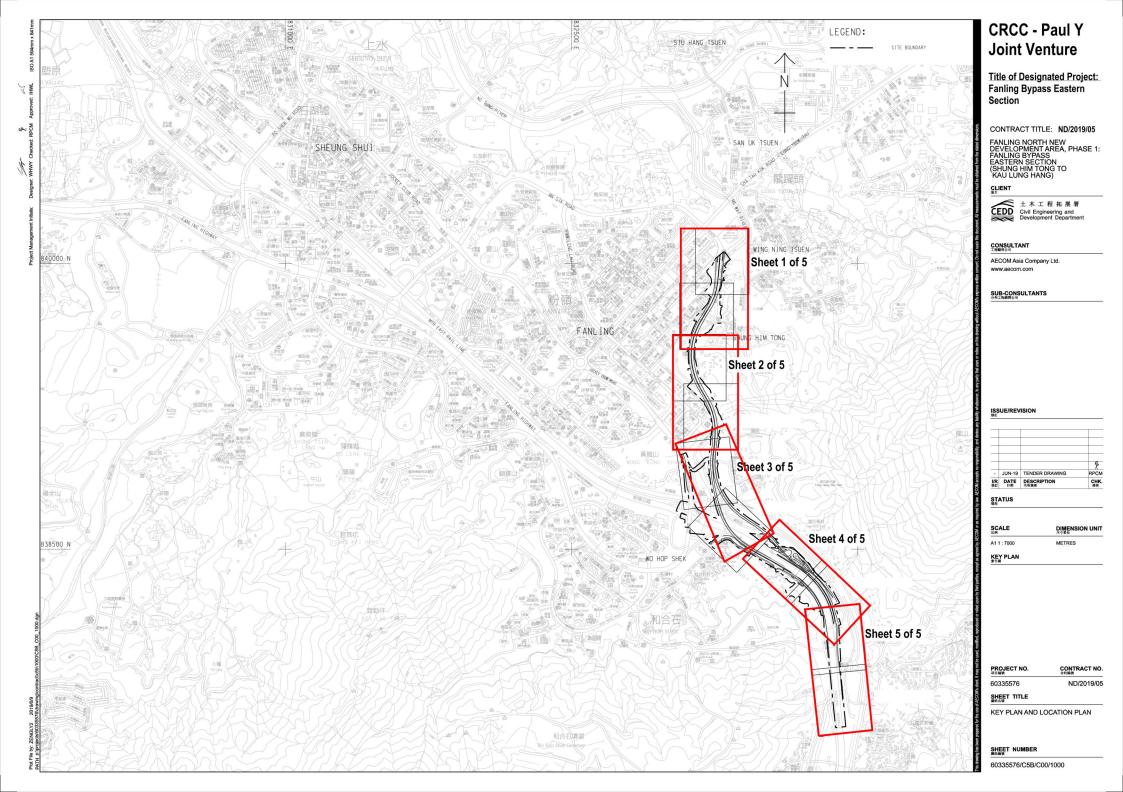
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Α	DEC-19	TENDER ADDENDUM NO. 1	RPCM
-	NOV-19	TENDER DRAWING	RPCM
I/R 修訂	DATE 日期	DESCRIPTION 内容換英	CHK. 被救

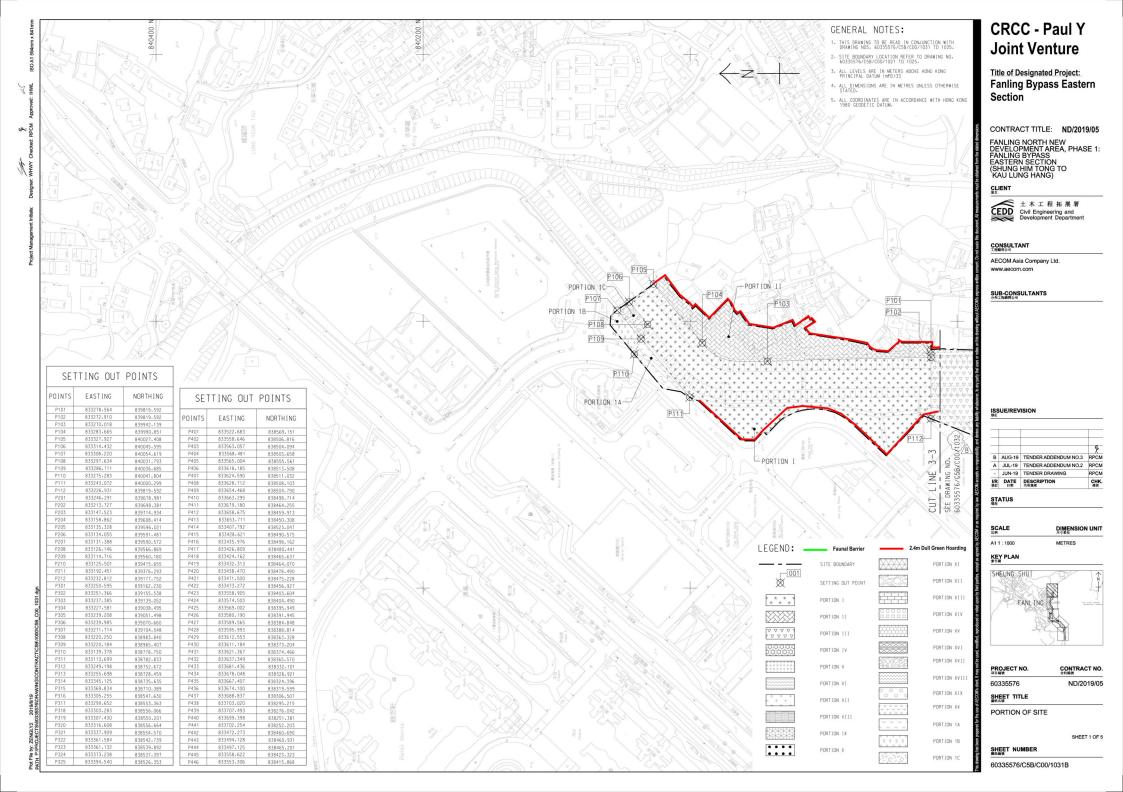


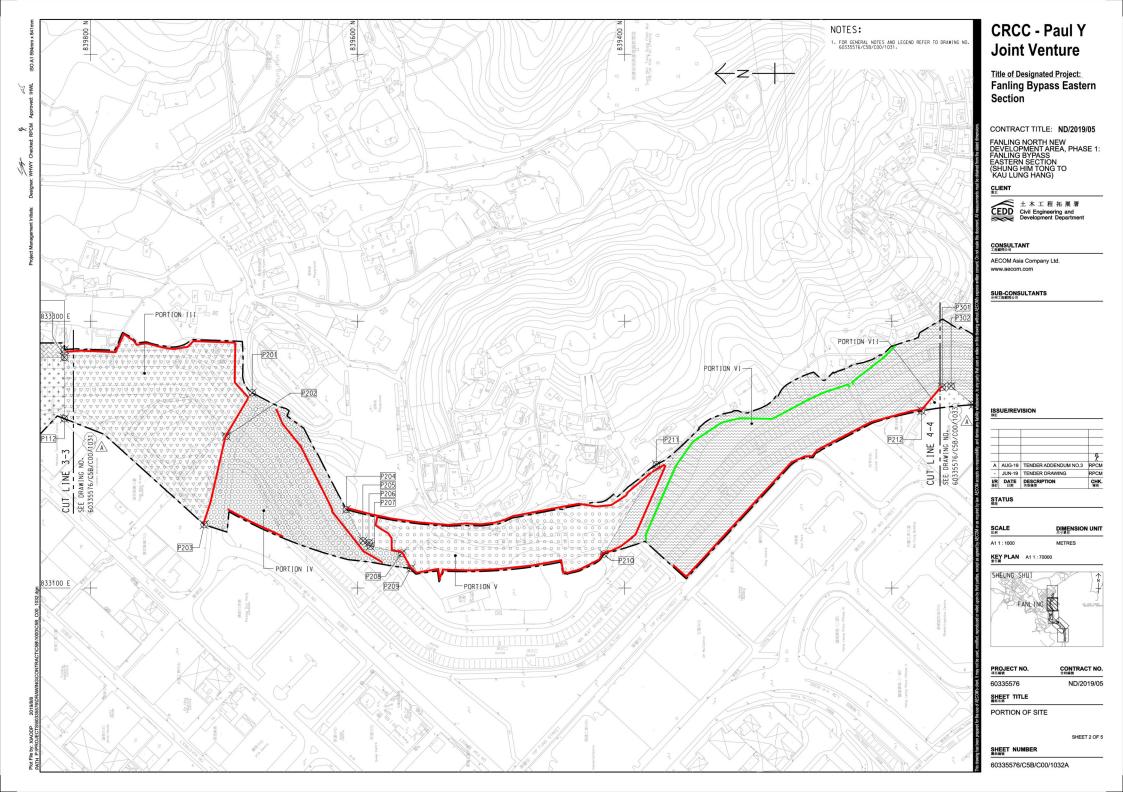
CONTRACT NO.

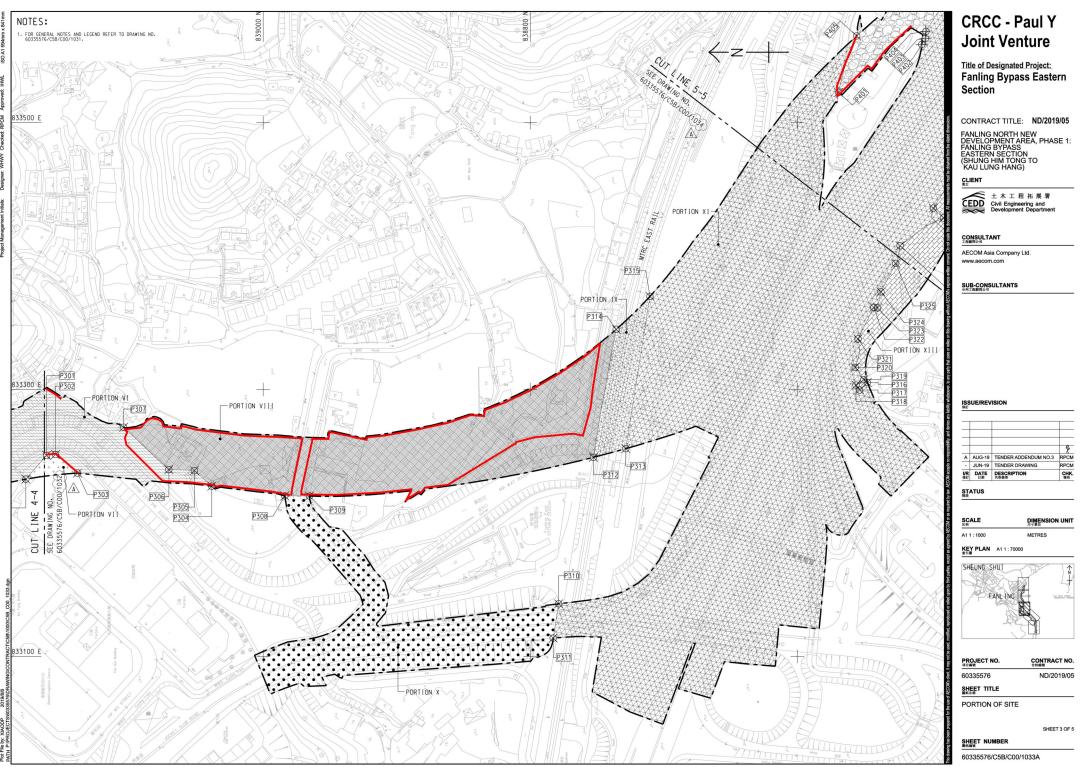




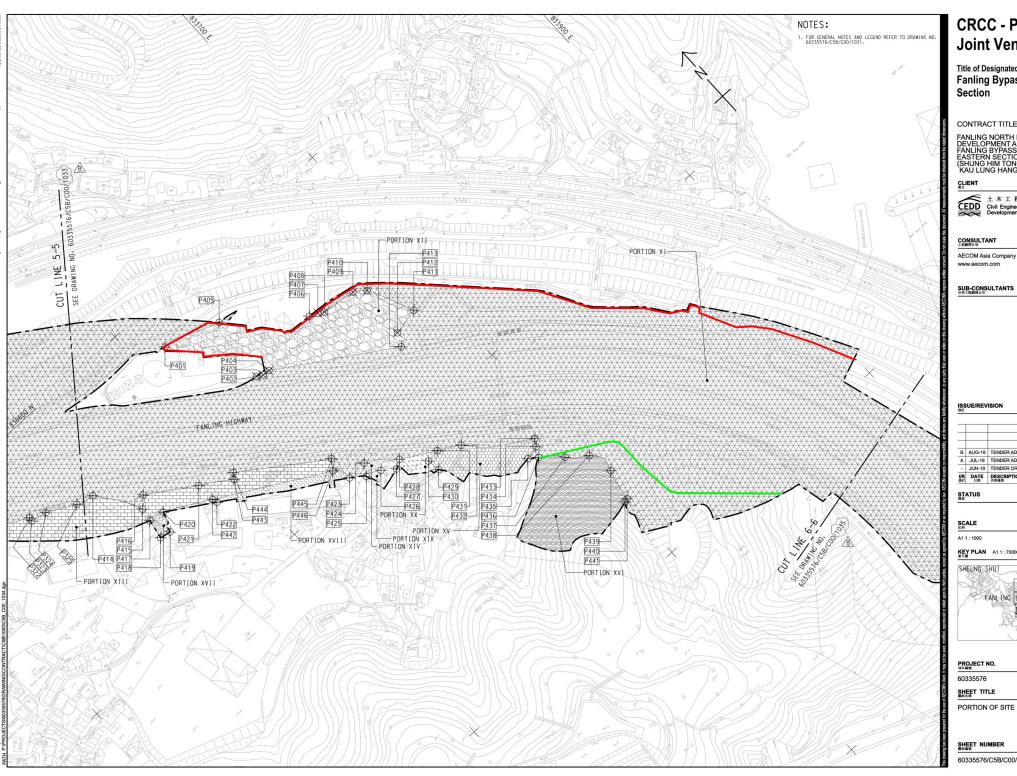












CRCC - Paul Y Joint Venture

Title of Designated Project: Fanling Bypass Eastern

CONTRACT TITLE: ND/2019/05

FANLING NORTH NEW DEVELOPMENT AREA, PHASE 1: FANLING BYPASS EASTERN SECTION (SHUNG HIM TONG TO KAU LUNG HANG)



AECOM Asia Company Ltd.

I/D	DATE	DESCRIPTION	СНК
-	JUN-19	TENDER DRAWING	RPCN
Α	JUL-19	TENDER ADDENDUM NO.2	RPCN
В	AUG-19	TENDER ADDENDUM NO.3	RPC
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KEY PLAN A1 1:70000



CONTRACT NO. ND/2019/05

SHEET 4 OF 5

60335576/C5B/C00/1034B

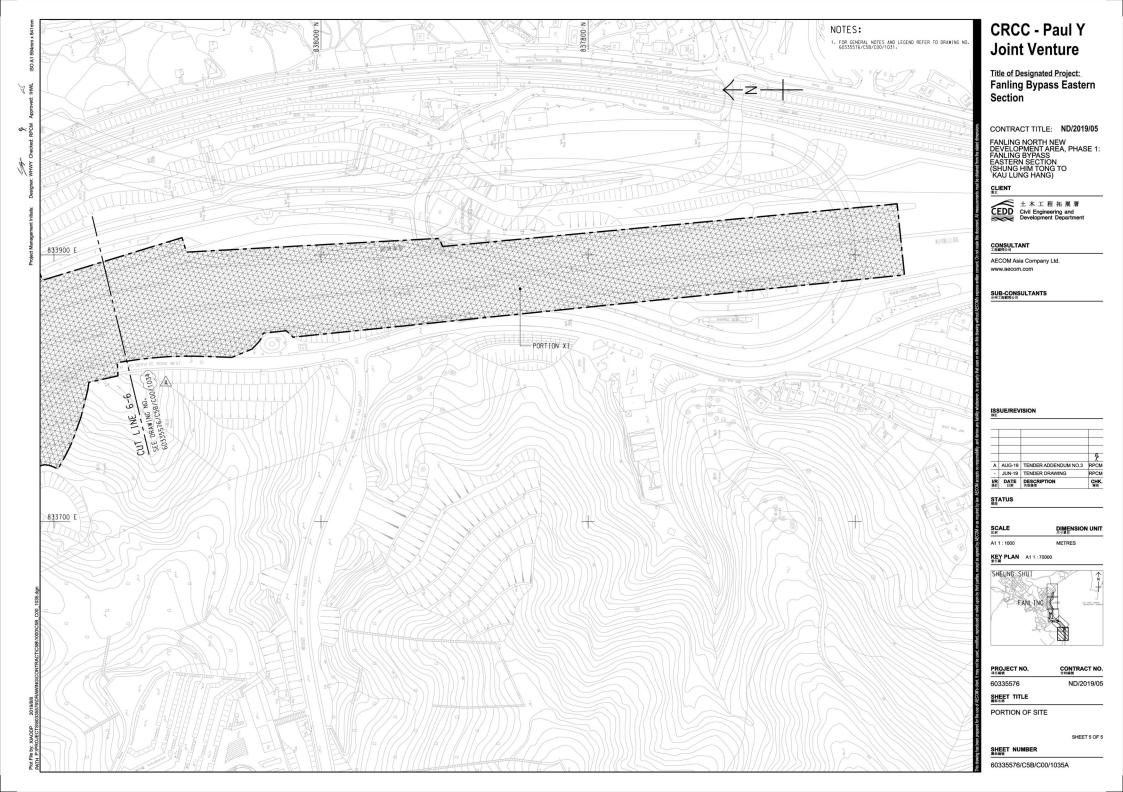
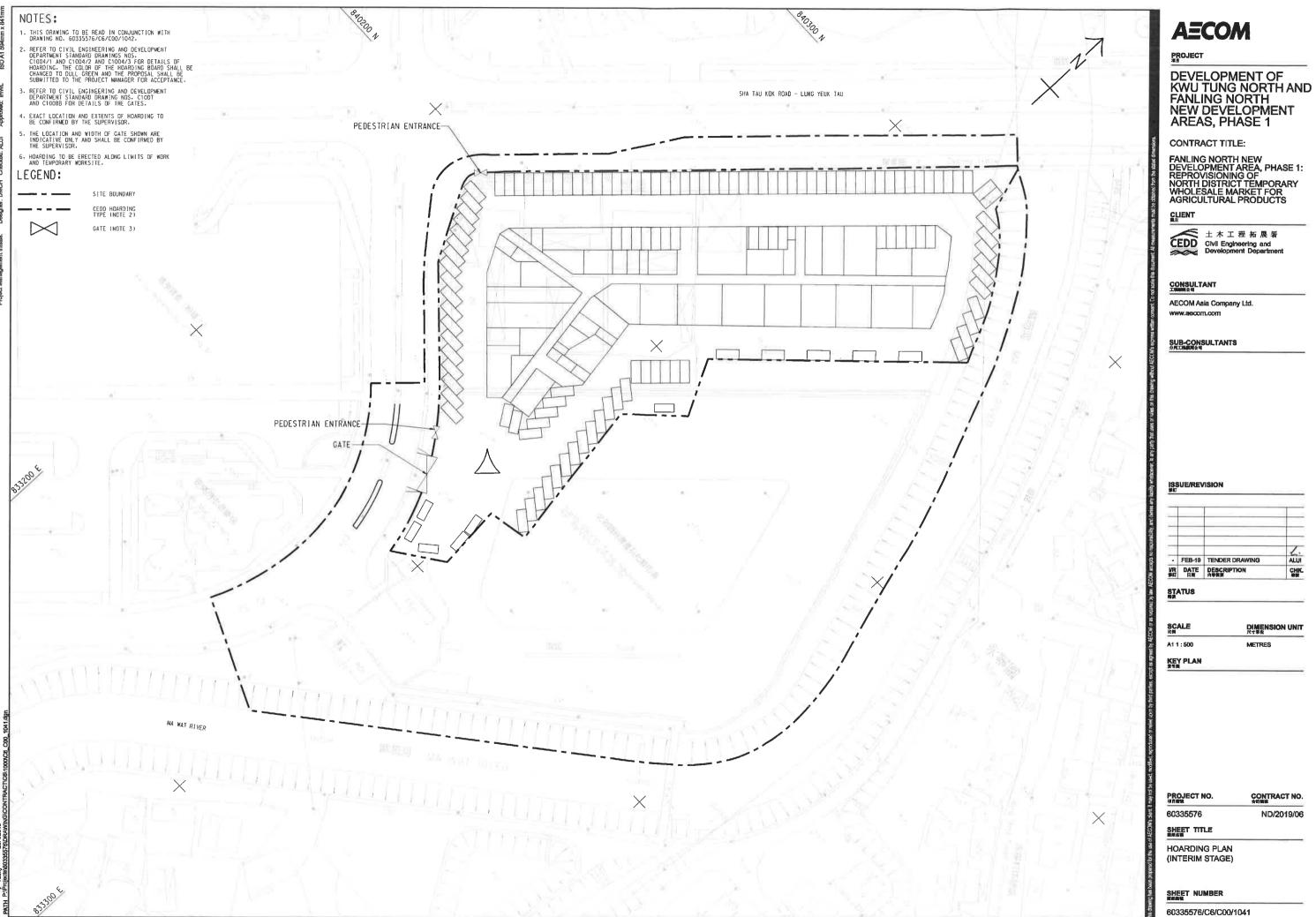
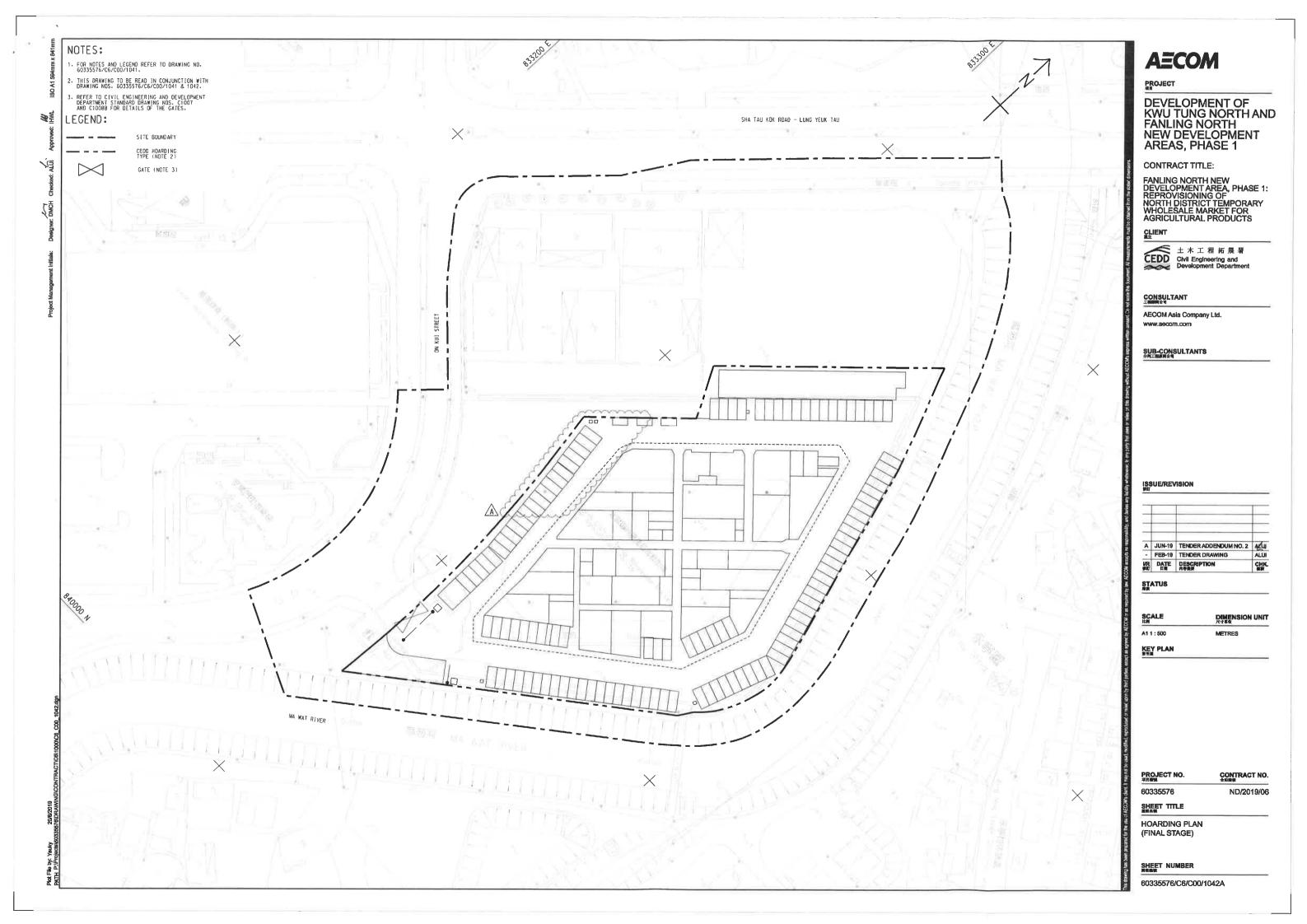


Figure 17

Hoarding Plan

EP-475/2013/A





APPENDIX A CONSTRUCTION PROGRAMME



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



	Activity Name	Remaining Duration	Start	Finish	Total Calenda Float	August 2021 25 01 08 15	September 2021 October 2021 November 2021 22 29 05 12 19 26 03 10 17 24 31 07 14
evised Proc	gramme (2021-08-25) Rev.0	,					
.0 - Site Ac	cess Dates						
D-1000	Poriton 1a	0.00	25-Aug-21*		-50.00 CD(7d)		Poriton 1a
D-1010	Portion 1b - (Minor Area Handovered on 7 May 2020)	0.00	25-Aug-21*		-50.00 CD(7d)		◆ Portion 1b - (Minor Area Handovered on 7 May 2020)
D-1040	Portion 1e - (Minor Area Handovered on 20 Feb 2020)	0.00	25-Aug-21*		141.00 CD(7d)		▶ Portion 1e - (Minor Area Hando vered on 20 F,eb 2020)
D-1230	Poriton 12	0.00	25-Aug-21*		-50.00 CD(7d)		Poriton 12
0 - Site Co	mpletion Dates						
.0 - Key Da	ates						
4.1 Key Da	te Completion (Orignial Contract Completion Date)						
KD0-1000	KD1 609 days after starting date	0.00		06-Aug-21 A	CD(7d)	◆ KD1 609 days afte	r starting date
KD0-1010	KD2 655 days after starting date	0.00		21-Sep-21*	0.00 CD(7d)		♦ KD2 655 days after starting date
4.2 Planne	d Key Date Completion						
KD-1010	KD2 655 days after starting date	0.00		21-Sep-21*	0.00 CD(7d)	_	♦ KD2 655 days after starting date
KD-1060	KD7 517 days after starting date	0.00		29-Sep-21*	146.00 CD(7d)		♦ KD7 517 days after starting date
.0 - Prelimia	aries and General Requirements						
6.2 - Genera	al Submissions						
GS-1230	Submission of Major Metho d Statements	42.00	06-Dec-19 A	05-Oct-21)71.00 CD(7d)		1
GS-1260	Acceptance of Archaeological Action Plan and Issuance of Licence to Excavate and Search for Antiquities	0.00	08-Sep-20 A	19-Aug-21 A	CD(7d)		
GS-1290	Preparation and Submission of Fully Corodinated BIM	1618.00	21-Aug-20 A	28-Jan-26*	8.00 CD(7d)		
6.3 - Sublet	ting Packages		<u> </u>				
SP-1320	Tree Survey for STPRP for Portion 2-Slope	30.00	02-Aug-21 A	23-Sep-21	-83.00 CD(7d)		
.0 Construc		00.00	02 / tag 2 i / t	20 00p 21	00.00 OD(14)		
Section 1							
S1-1012	Opening of Cycle Track at Portion 10a (EWN No. 017)	0.00		25-Aug-21	372.00 CD(7d)		Opening of Cycle Track at Portion 10a (EWN No. 017)
	E # B # 0/D C N O I D # (ENAM) 000)	0.00					
S1-1018	Excavation Permit (XP) for New Cycle Path (EWN No. 021)	0.00		25-Aug-21	372.00 CD(7d)		Excavation Permit (XP) for New Cycle Path (EWN No. 021)
S1-1018 S1-1020	Additional Temporary Rd Diversion at the Junction of Alternative Access for Po Lau Rd and Castle Peak Rd (CNE 030)	0.00		25-Aug-21 25-Aug-21	372.00 CD(7d) 372.00 CD(7d)		Excavation Permit (XP) for New Cycle Path (EWN No. 021) Additional Temporary Rd Diversion at the Junction of Alternative Access for Po Lau Rd and Castle Peak Rd (CNE
\$1-1018 \$1-1020 Portion 10	Additional Temporary Rd Diversion at the Junction of Alternative Access for Po Lau Rd and Castle Peak Rd (CNE 030) a in Area H, H1, H2 (Soil Treatment & Provision of Site Access & EVA to N	0.00		-			
\$1-1018 \$1-1020 Portion 10	Additional Temporary Rd Diversion at the Junction of Alternative Access for Po Lau Rd and Castle Peak Rd (CNE 030)	0.00		-			
\$1-1018 \$1-1020 Portion 10	Additional Temporary Rd Diversion at the Junction of Alternative Access for Po Lau Rd and Castle Peak Rd (CNE 030) a in Area H, H1, H2 (Soil Treatment & Provision of Site Access & EVA to Note of Site Access and EVA to MWSC	0.00		-			
\$1-1018 \$1-1020 Portion 10 2 KD1 - Prov Civil Worl	Additional Temporary Rd Diversion at the Junction of Alternative Access for Po Lau Rd and Castle Peak Rd (CNE 030) a in Area H, H1, H2 (Soil Treatment & Provision of Site Access & EVA to Notice of Site Access and EVA to MWSC ks	0.00		-			◆ Additional Temporary Rd Diversion at the Juriction of Alternative Access for Po Lau Rd and Castle Peak Rd (CNE
\$1-1018 \$1-1020 Portion 10 2 KD1 - Prov Civil Worl	Additional Temporary Rd Diversion at the Junction of Alternative Access for Po Lau Rd and Castle Peak Rd (CNE 030) a in Area H, H1, H2 (Soil Treatment & Provision of Site Access & EVA to Note of Site Access and EVA to MWSC	0.00	25-Aug-21	-			
S1-1018 S1-1020 Portion 10a KD1 - Prov Civil Worl Road D1	Additional Temporary Rd Diversion at the Junction of Alternative Access for Po Lau Rd and Castle Peak Rd (CNE 030) a in Area H, H1, H2 (Soil Treatment & Provision of Site Access & EVA to Notice of Site Access and EVA to MWSC ks (Stage 1)	0.00 IWSC)	25-Aug-21 25-Aug-21	25-Aug-21	372.00 CD(7d)		◆ Additional Temporary Rd Diversion at the Juriction of Alternative Access for Po Lau Rd and Castle Peak Rd (CNE
\$1-1018 \$1-1020 Portion 10 2 KD1 - Prov Civil Work Road D1 \$1K1-2000	Additional Temporary Rd Diversion at the Junction of Alternative Access for Po Lau Rd and Castle Peak Rd (CNE 030) a in Area H, H1, H2 (Soil Treatment & Provision of Site Access & EVA to Notice Access and EVA to MWSC ks (Stage 1) Construct & maintain Temporary drainage	0.00 IWSC) 105.00 18.00 46.00		25-Aug-21 30-Dec-21	372.00 CD(7d)		◆ Additional Temporary Rd Diversion at the Juriction of Alternative Access for Po Lau Rd and Castle Peak Rd (CNE
\$1-1018 \$1-1020 Portion 10: KD1 - Prov Civil Work Road D1 \$1K1-2000 \$1K1-2007 \$1K1-2009 \$1K1-2009.0°	Additional Temporary Rd Diversion at the Junction of Alternative Access for Po Lau Rd and Castle Peak Rd (CNE 030) a in Area H, H1, H2 (Soil Treatment & Provision of Site Access & EVA to Novision of Site Access and EVA to MWSC ks (Stage 1) Construct & maintain Temporary drainage Underground Drainage Manhole M1.70 - M1.71 Underground Fresh & Flushing watermains (under footpath) 1 Underground Fresh & Flushing watermains (under carriageway)	0.00 IWSC) 105.00 18.00 46.00 24.00	25-Aug-21 14-Aug-21 A 20-Sep-21	30-Dec-21 14-Sep-21 20-Oct-21 20-Oct-21	-93.00 WD(6d) 176.00 WD(6d) 204.00 WD(6d) 134.00 WD(6d)		◆ Additional Temporary Rd Diversion at the Juriction of Alternative Access for Po Lau Rd and Castle Peak Rd (CNE
\$1-1018 \$1-1020 Portion 10 3 KD1 - Prov Civil Worl Road D1 \$1K1-2000 \$1K1-2007 \$1K1-2009 \$1K1-2009.0° \$1K1-2010	Additional Temporary Rd Diversion at the Junction of Alternative Access for Po Lau Rd and Castle Peak Rd (CNE 030) a in Area H, H1, H2 (Soil Treatment & Provision of Site Access & EVA to Novision of Site Access and EVA to MWSC ks (Stage 1) Construct & maintain Temporary drainage Underground Drainage Manhole M1.70 - M1.71 Underground Fresh & Flushing watermains (under carriageway) Pressure test for Fresh & Flushing watermains (around 190 m)	0.00 IWSC) 105.00 18.00 46.00 24.00 12.00	25-Aug-21 14-Aug-21 A 20-Sep-21 21-Oct-21	30-Dec-21 14-Sep-21 20-Oct-21 20-Oct-21 03-Nov-21	-93.00 WD(6d) 176.00 WD(6d) 204.00 WD(6d) 134.00 WD(6d)		◆ Additional Temporary Rd Diversion at the Juriction of Alternative Access for Po Lau Rd and Castle Peak Rd (CNE
S1-1018 S1-1020 Portion 10a KD1 - Prov Civil Worl Road D1 S1K1-2000 S1K1-2009 S1K1-2009 S1K1-2010 S1K1-2010	Additional Temporary Rd Diversion at the Junction of Alternative Access for Po Lau Rd and Castle Peak Rd (CNE 030) a in Area H, H1, H2 (Soil Treatment & Provision of Site Access & EVA to Novision of Site Access and EVA to MWSC ks (Stage 1) Construct & maintain Temporary drainage Underground Drainage Manhole M1.70 - M1.71 Underground Fresh & Flushing watermains (under footpath) 1 Underground Fresh & Flushing watermains (under carriageway) Pressure test for Fresh & Flushing watermains (around 190 m) Underground utilities (under footpath)	0.00 IWSC) 105.00 18.00 46.00 24.00 12.00 62.00	25-Aug-21 14-Aug-21 A 20-Sep-21 21-Oct-21 03-May-21 A	30-Dec-21 14-Sep-21 20-Oct-21 20-Oct-21 03-Nov-21	-93.00 WD(6d) 176.00 WD(6d) 204.00 WD(6d) 134.00 WD(6d) 134.00 WD(6d) 138.00 WD(6d)		◆ Additional Temporary Rd Diversion at the Juriction of Alternative Access for Po Lau Rd and Castle Peak Rd (CNE
S1-1018 S1-1020 Portion 10a KD1 - Prov Civil Work Road D1 S1K1-2000 S1K1-2007 S1K1-2009 S1K1-2010 S1K1-2014 S1K1-2014	Additional Temporary Rd Diversion at the Junction of Alternative Access for Po Lau Rd and Castle Peak Rd (CNE 030) a in Area H, H1, H2 (Soil Treatment & Provision of Site Access & EVA to Novision of Site Access and EVA to MWSC ks (Stage 1) Construct & maintain Temporary drainage Underground Drainage Manhole M1.70 - M1.71 Underground Fresh & Flushing watermains (under footpath) 1 Underground Fresh & Flushing watermains (around 190 m) Underground utilities (under footpath) 1 Underground utilities (under carriageway)	0.00 IWSC) 105.00 18.00 46.00 24.00 12.00 62.00 24.00	25-Aug-21 14-Aug-21 A 20-Sep-21 21-Oct-21 03-May-21 A 27-Sep-21	30-Dec-21 14-Sep-21 20-Oct-21 20-Oct-21 03-Nov-21 08-Nov-21 26-Oct-21	-93.00 WD(6d) 176.00 WD(6d) 204.00 WD(6d) 134.00 WD(6d) 138.00 WD(6d) 139.00 WD(6d)		◆ Additional Temporary Rd Diversion at the Juriction of Alternative Access for Po Lau Rd and Castle Peak Rd (CNE
\$1-1018 \$1-1020 Portion 10a KD1 - Prov Civil Worl Road D1 \$1K1-2000 \$1K1-2009 \$1K1-2009 \$1K1-2010 \$1K1-2014 \$1K1-2014 \$1K1-2016	Additional Temporary Rd Diversion at the Junction of Alternative Access for Po Lau Rd and Castle Peak Rd (CNE 030) a in Area H, H1, H2 (Soil Treatment & Provision of Site Access & EVA to Notice Access and EVA to MWSC ks (Stage 1) Construct & maintain Temporary drainage Underground Drainage Manhole M1.70 - M1.71 Underground Fresh & Flushing watermains (under footpath) 1 Underground Fresh & Flushing watermains (under carriageway) Pressure test for Fresh & Flushing watermains (around 190 m) Underground utilities (under footpath) 1 Underground utilities (under carriageway) Road works - Formation & Sub base	0.00 IWSC) 105.00 18.00 46.00 24.00 12.00 62.00 24.00 18.00	25-Aug-21 14-Aug-21 A 20-Sep-21 21-Oct-21 03-May-21 A 27-Sep-21 27-Oct-21	30-Dec-21 14-Sep-21 20-Oct-21 20-Oct-21 03-Nov-21 08-Nov-21 26-Oct-21 16-Nov-21	-93.00 WD(6d) 176.00 WD(6d) 204.00 WD(6d) 134.00 WD(6d) 134.00 WD(6d) 138.00 WD(6d) 129.00 WD(6d) 129.00 WD(6d)		◆ Additional Temporary Rd Diversion at the Juriction of Alternative Access for Po Lau Rd and Castle Peak Rd (CNE
\$1-1018 \$1-1020 Portion 10a KD1 - Prov Civil Worl 81K1-2000 \$1K1-2009 \$1K1-2009.00 \$1K1-2010 \$1K1-2014 \$1K1-2014 \$1K1-2016 \$1K1-2018	Additional Temporary Rd Diversion at the Junction of Alternative Access for Po Lau Rd and Castle Peak Rd (CNE 030) a in Area H, H1, H2 (Soil Treatment & Provision of Site Access & EVA to Novision of Site Access and EVA to MWSC ks (Stage 1) Construct & maintain Temporary drainage Underground Drainage Manhole M1.70 - M1.71 Underground Fresh & Flushing watermains (under footpath) 1 Underground Fresh & Flushing watermains (under carriageway) Pressure test for Fresh & Flushing watermains (around 190 m) Underground utilities (under footpath) 1 Underground utilities (under carriageway) Road works - Formation & Sub base Road works - Road kerb	0.00 IWSC) 105.00 18.00 46.00 24.00 12.00 62.00 24.00 18.00 18.00 18.00	25-Aug-21 14-Aug-21 A 20-Sep-21 21-Oct-21 03-May-21 A 27-Sep-21 27-Oct-21 17-Nov-21	30-Dec-21 14-Sep-21 20-Oct-21 20-Oct-21 03-Nov-21 08-Nov-21 26-Oct-21 16-Nov-21 07-Dec-21	-93.00 WD(6d) 176.00 WD(6d) 204.00 WD(6d) 134.00 WD(6d) 134.00 WD(6d) 138.00 WD(6d) 129.00 WD(6d) 129.00 WD(6d) 111.00 WD(6d)		◆ Additional Temporary Rd Diversion at the Juriction of Alternative Access for Po Lau Rd and Castle Peak Rd (CNE
S1-1018 S1-1020 Portion 10a KD1 - Prov Civil Worl S1K1-2000 S1K1-2009 S1K1-2009 S1K1-2010 S1K1-2014 S1K1-2014 S1K1-2016 S1K1-2018 S1K1-2060	Additional Temporary Rd Diversion at the Junction of Alternative Access for Po Lau Rd and Castle Peak Rd (CNE 030) a in Area H, H1, H2 (Soil Treatment & Provision of Site Access & EVA to Novision of Site Access and EVA to MWSC ks (Stage 1) Construct & maintain Temporary drainage Underground Drainage Manhole M1.70 - M1.71 Underground Fresh & Flushing watermains (under footpath) 1 Underground Fresh & Flushing watermains (under carriageway) Pressure test for Fresh & Flushing watermains (around 190 m) Underground utilities (under footpath) 1 Underground utilities (under carriageway) Road works - Formation & Sub base Road works - Road kerb Noise barrier NB35 footing Stage 2 (2 / 6 bays)	0.00 IWSC) 105.00 18.00 46.00 24.00 12.00 62.00 24.00 18.00	25-Aug-21 14-Aug-21 A 20-Sep-21 21-Oct-21 03-May-21 A 27-Sep-21 27-Oct-21	30-Dec-21 14-Sep-21 20-Oct-21 20-Oct-21 03-Nov-21 08-Nov-21 26-Oct-21 16-Nov-21	-93.00 WD(6d) 176.00 WD(6d) 204.00 WD(6d) 134.00 WD(6d) 134.00 WD(6d) 138.00 WD(6d) 129.00 WD(6d) 129.00 WD(6d)		◆ Additional Temporary Rd Diversion at the Juriction of Alternative Access for Po Lau Rd and Castle Peak Rd (CNE
S1-1018 S1-1020 Portion 10a KD1 - Prov Civil Work Road D1 S1K1-2000 S1K1-2009 S1K1-2009 S1K1-2010 S1K1-2014 S1K1-2014 S1K1-2016 S1K1-2018 S1K1-2060 Road D1	Additional Temporary Rd Diversion at the Junction of Alternative Access for Po Lau Rd and Castle Peak Rd (CNE 030) a in Area H, H1, H2 (Soil Treatment & Provision of Site Access & EVA to Novision of Site Access and EVA to MWSC ks (Stage 1) Construct & maintain Temporary drainage Underground Drainage Manhole M1.70 - M1.71 Underground Fresh & Flushing watermains (under footpath) 1 Underground Fresh & Flushing watermains (under carriageway) Pressure test for Fresh & Flushing watermains (around 190 m) Underground utilities (under footpath) 1 Underground utilities (under carriageway) Road works - Formation & Sub base Road works - Road kerb Noise barrier NB35 footing Stage 2 (2 /6 bays) (Stage 2) Castle Peak road junction	0.00 IWSC) 105.00 18.00 46.00 24.00 12.00 62.00 24.00 18.00 18.00 5.00	25-Aug-21 14-Aug-21 A 20-Sep-21 21-Oct-21 03-May-21 A 27-Sep-21 27-Oct-21 17-Nov-21 25-Jun-21 A	30-Dec-21 14-Sep-21 20-Oct-21 20-Oct-21 03-Nov-21 08-Nov-21 16-Nov-21 07-Dec-21 30-Aug-21	-93.00 WD(6d) 176.00 WD(6d) 204.00 WD(6d) 134.00 WD(6d) 138.00 WD(6d) 129.00 WD(6d) 129.00 WD(6d) 111.00 WD(6d) 163.00 WD(6d)		◆ Additional Temporary Rd Diversion at the Juriction of Alternative Access for Po Lau Rd and Castle Peak Rd (CNE
\$1-1018 \$1-1020 Portion 10a KD1 - Prov Civil Work Road D1 \$1K1-2000 \$1K1-2007 \$1K1-2009 \$1K1-2010 \$1K1-2014 \$1K1-2014 \$1K1-2016 \$1K1-2018 \$1K1-2060 Road D1 \$1K1-2024	Additional Temporary Rd Diversion at the Junction of Alternative Access for Po Lau Rd and Castle Peak Rd (CNE 030) a in Area H, H1, H2 (Soil Treatment & Provision of Site Access & EVA to Novision of Site Access and EVA to MWSC ks (Stage 1) Construct & maintain Temporary drainage Underground Drainage Manhole M1.70 - M1.71 Underground Fresh & Flushing watermains (under footpath) 1 Underground Fresh & Flushing watermains (under carriageway) Pressure test for Fresh & Flushing watermains (around 190 m) Underground utilities (under carriageway) Road works - Formation & Sub base Road works - Road kerb Noise barrier NB35 footing Stage 2 (2 / 6 bays) (Stage 2) Castle Peak road junction Construct & maintain Temporary drainage	0.00 IWSC) 105.00 18.00 46.00 24.00 12.00 62.00 24.00 18.00 18.00 5.00	25-Aug-21 14-Aug-21 A 20-Sep-21 21-Oct-21 03-May-21 A 27-Sep-21 27-Oct-21 17-Nov-21 25-Jun-21 A	30-Dec-21 14-Sep-21 20-Oct-21 20-Oct-21 03-Nov-21 08-Nov-21 16-Nov-21 07-Dec-21 30-Aug-21	-93.00 WD(6d) 176.00 WD(6d) 204.00 WD(6d) 134.00 WD(6d) 134.00 WD(6d) 138.00 WD(6d) 129.00 WD(6d) 129.00 WD(6d) 111.00 WD(6d) 163.00 WD(6d)		◆ Additional Temporary Rd Diversion at the Juriction of Alternative Access for Po Lau Rd and Castle Peak Rd (CNE
\$1-1018 \$1-1020 Portion 10a KD1 - Prov Civil Worl 81K1-2000 \$1K1-2009 \$1K1-2009 \$1K1-2010 \$1K1-2014 \$1K1-2014 \$1K1-2016 \$1K1-2018 \$1K1-2018 \$1K1-2060 Road D1 \$1K1-2024 \$1K1-2024	Additional Temporary Rd Diversion at the Junction of Alternative Access for Po Lau Rd and Castle Peak Rd (CNE 030) a in Area H, H1, H2 (Soil Treatment & Provision of Site Access & EVA to Novision of Site Access and EVA to MWSC ks (Stage 1) Construct & maintain Temporary drainage Underground Drainage Manhole M1.70 - M1.71 Underground Fresh & Flushing watermains (under footpath) 1 Underground Fresh & Flushing watermains (under carriageway) Pressure test for Fresh & Flushing watermains (around 190 m) Underground utilities (under footpath) 1 Underground utilities (under carriageway) Road works - Formation & Sub base Road works - Road kerb Noise barrier NB35 footing Stage 2 (2 /6 bays) (Stage 2) Castle Peak road junction Construct & maintain Temporary drainage Underground Drainage ELS & Excavation (around 40 m)	0.00 IWSC) 105.00 18.00 46.00 24.00 12.00 62.00 24.00 18.00 18.00 5.00	25-Aug-21 14-Aug-21 A 20-Sep-21 21-Oct-21 03-May-21 A 27-Sep-21 27-Oct-21 17-Nov-21 25-Jun-21 A 25-Aug-21	30-Dec-21 14-Sep-21 20-Oct-21 20-Oct-21 03-Nov-21 08-Nov-21 16-Nov-21 07-Dec-21 30-Aug-21	-93.00 WD(6d) 176.00 WD(6d) 204.00 WD(6d) 134.00 WD(6d) 134.00 WD(6d) 138.00 WD(6d) 129.00 WD(6d) 129.00 WD(6d) 111.00 WD(6d) 163.00 WD(6d) 163.00 WD(6d) 302.00 WD(6d)		◆ Additional Temporary Rd Diversion at the Juriction of Alternative Access for Po Lau Rd and Castle Peak Rd (CNE
\$1-1018 \$1-1020 Portion 10a KD1 - Prov Civil Work Road D1 \$1K1-2000 \$1K1-2007 \$1K1-2009 \$1K1-2010 \$1K1-2014 \$1K1-2014 \$1K1-2016 \$1K1-2018 \$1K1-2060 Road D1 \$1K1-2024	Additional Temporary Rd Diversion at the Junction of Alternative Access for Po Lau Rd and Castle Peak Rd (CNE 030) a in Area H, H1, H2 (Soil Treatment & Provision of Site Access & EVA to Novision of Site Access and EVA to MWSC ks (Stage 1) Construct & maintain Temporary drainage Underground Drainage Manhole M1.70 - M1.71 Underground Fresh & Flushing watermains (under footpath) 1 Underground Fresh & Flushing watermains (under carriageway) Pressure test for Fresh & Flushing watermains (around 190 m) Underground utilities (under carriageway) Road works - Formation & Sub base Road works - Road kerb Noise barrier NB35 footing Stage 2 (2 / 6 bays) (Stage 2) Castle Peak road junction Construct & maintain Temporary drainage	0.00 IWSC) 105.00 18.00 46.00 24.00 12.00 62.00 24.00 18.00 18.00 5.00	25-Aug-21 14-Aug-21 A 20-Sep-21 21-Oct-21 03-May-21 A 27-Sep-21 27-Oct-21 17-Nov-21 25-Jun-21 A	30-Dec-21 14-Sep-21 20-Oct-21 20-Oct-21 03-Nov-21 08-Nov-21 16-Nov-21 07-Dec-21 30-Aug-21	-93.00 WD(6d) 176.00 WD(6d) 204.00 WD(6d) 134.00 WD(6d) 134.00 WD(6d) 138.00 WD(6d) 129.00 WD(6d) 129.00 WD(6d) 111.00 WD(6d) 163.00 WD(6d)		◆ Additional Temporary Rd Diversion at the Juriction of Alternative Access for Po Lau Rd and Castle Peak Rd (CNE



Joint Venture

Critical Work
Actual Work

Milestone

Milestone Critical

ND/2019/01 - 3 Month Rolling Programme (2021-08)

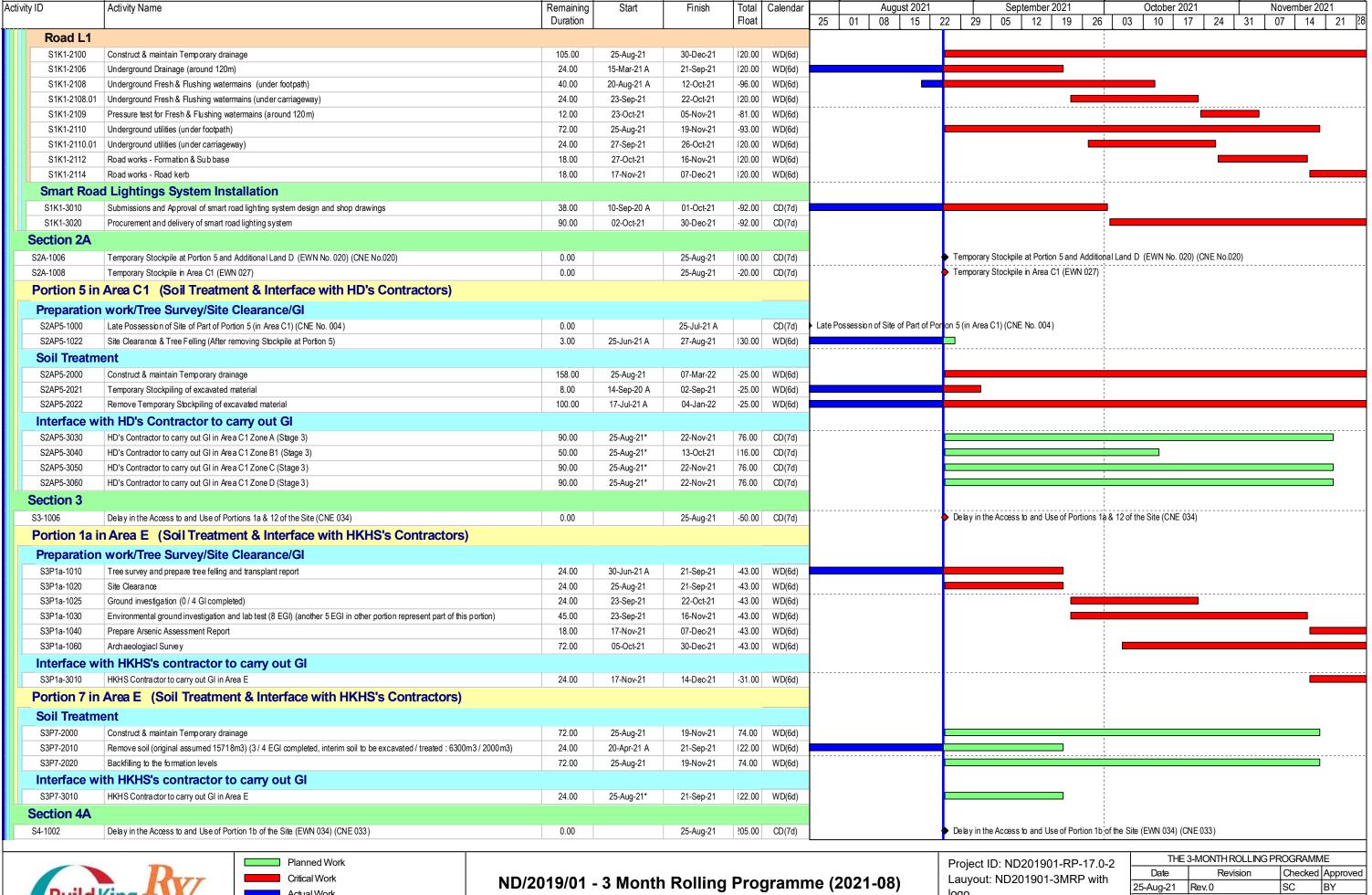
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Run Date: 28-Aug-21

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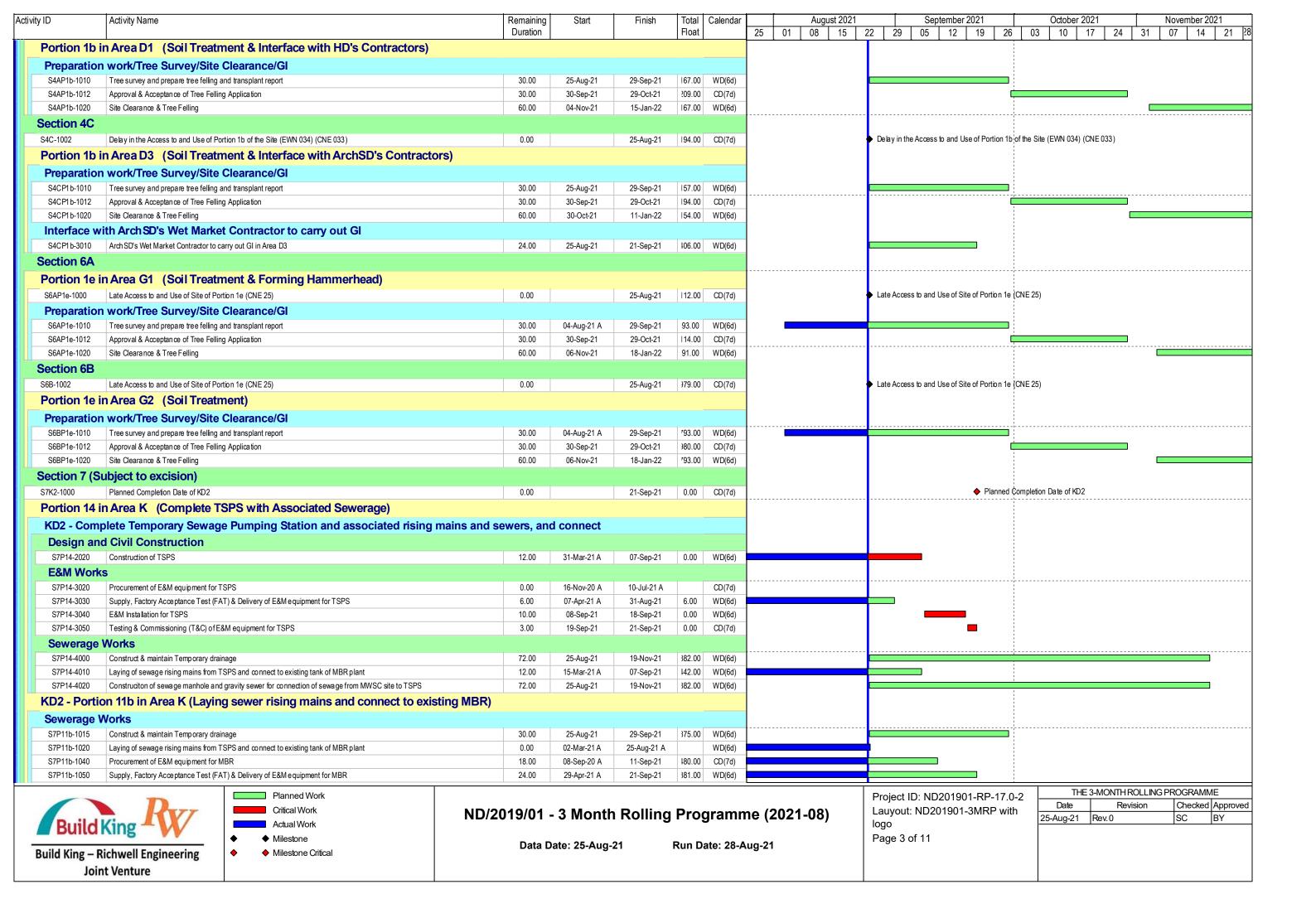


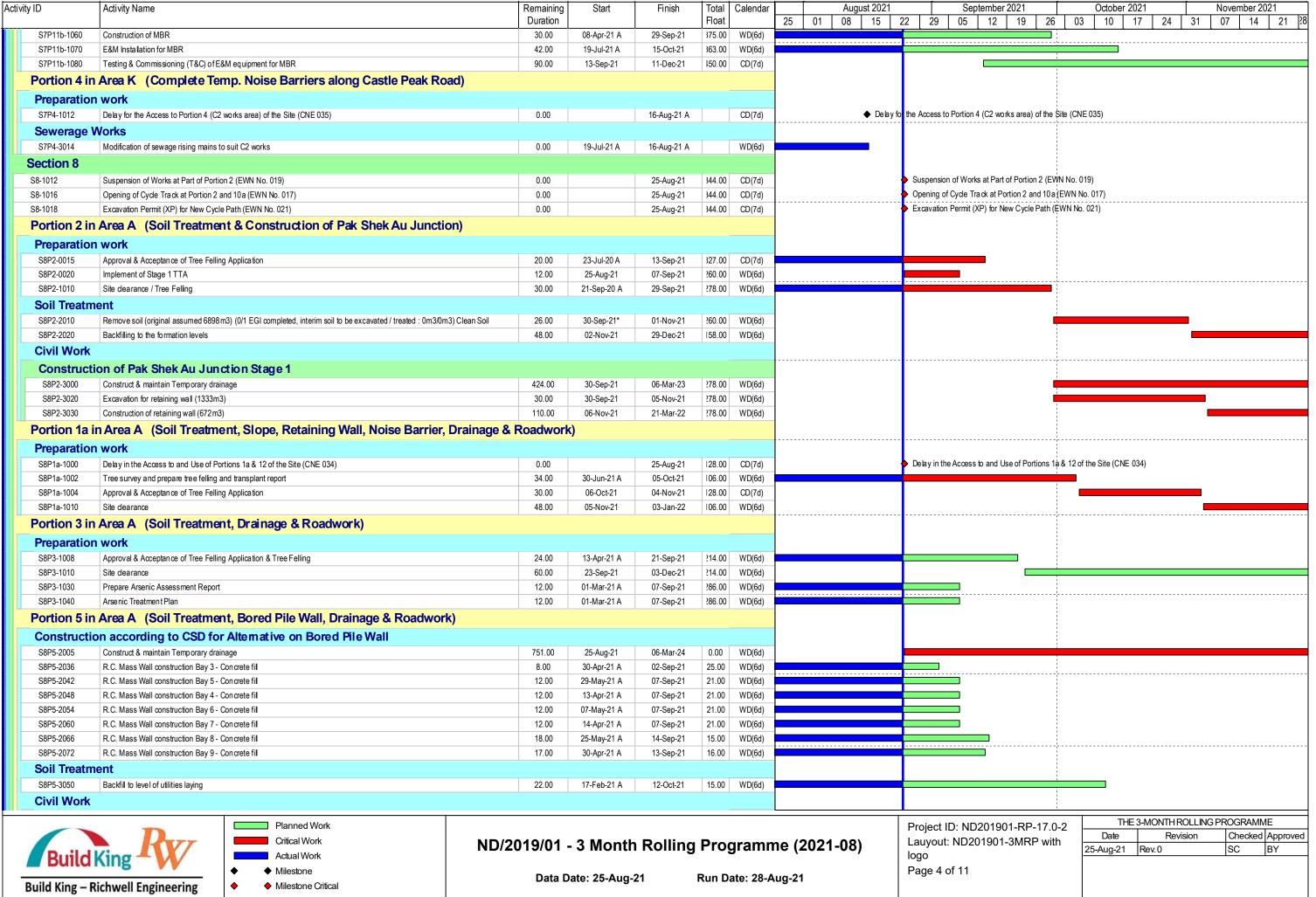


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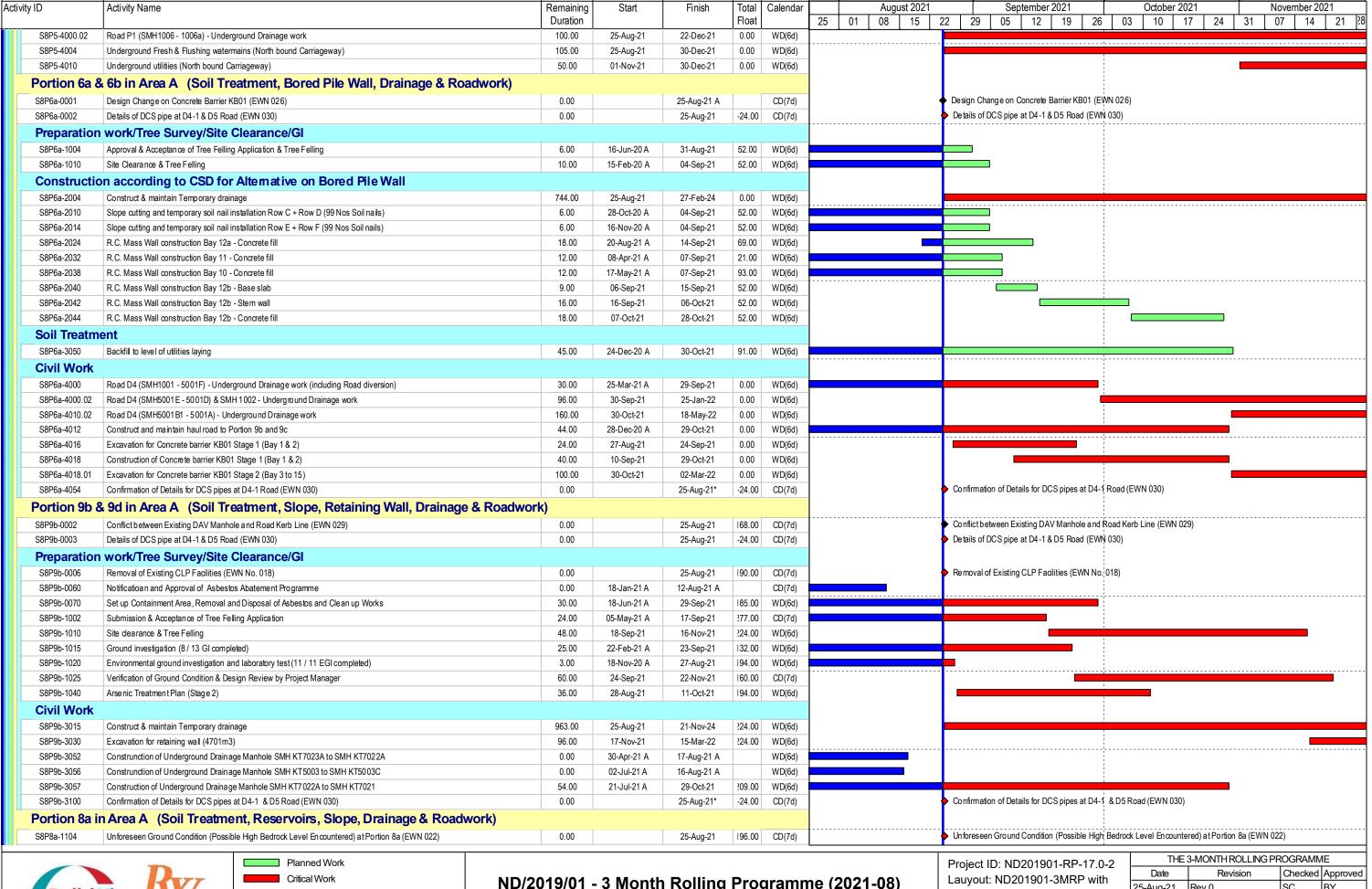
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ND/2019/01 - 3 Month Rolling Programme (2021-08)

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THE 3-MONTH ROLLING PROGRAMME			
Date	Revision	Checked	Approved
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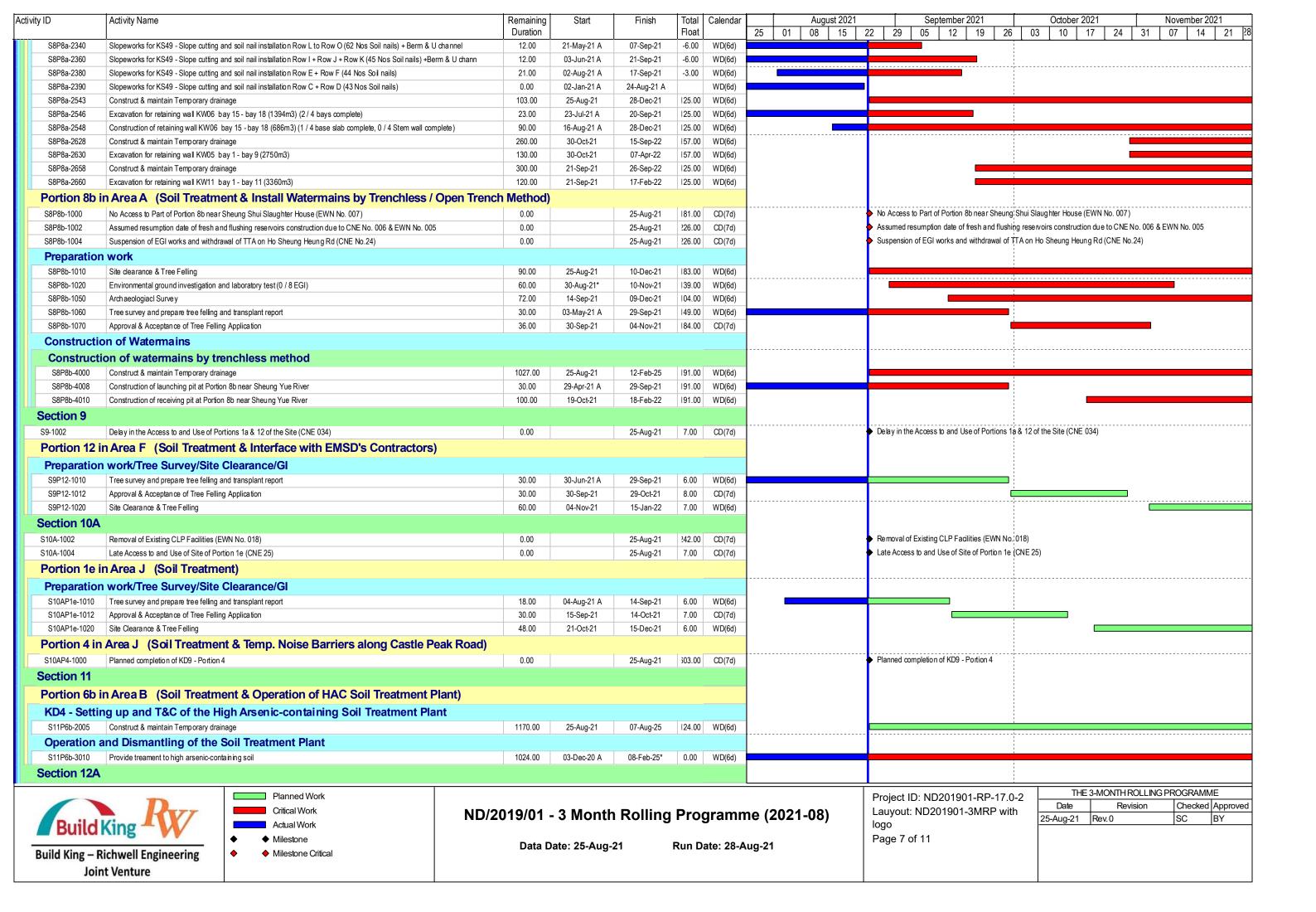


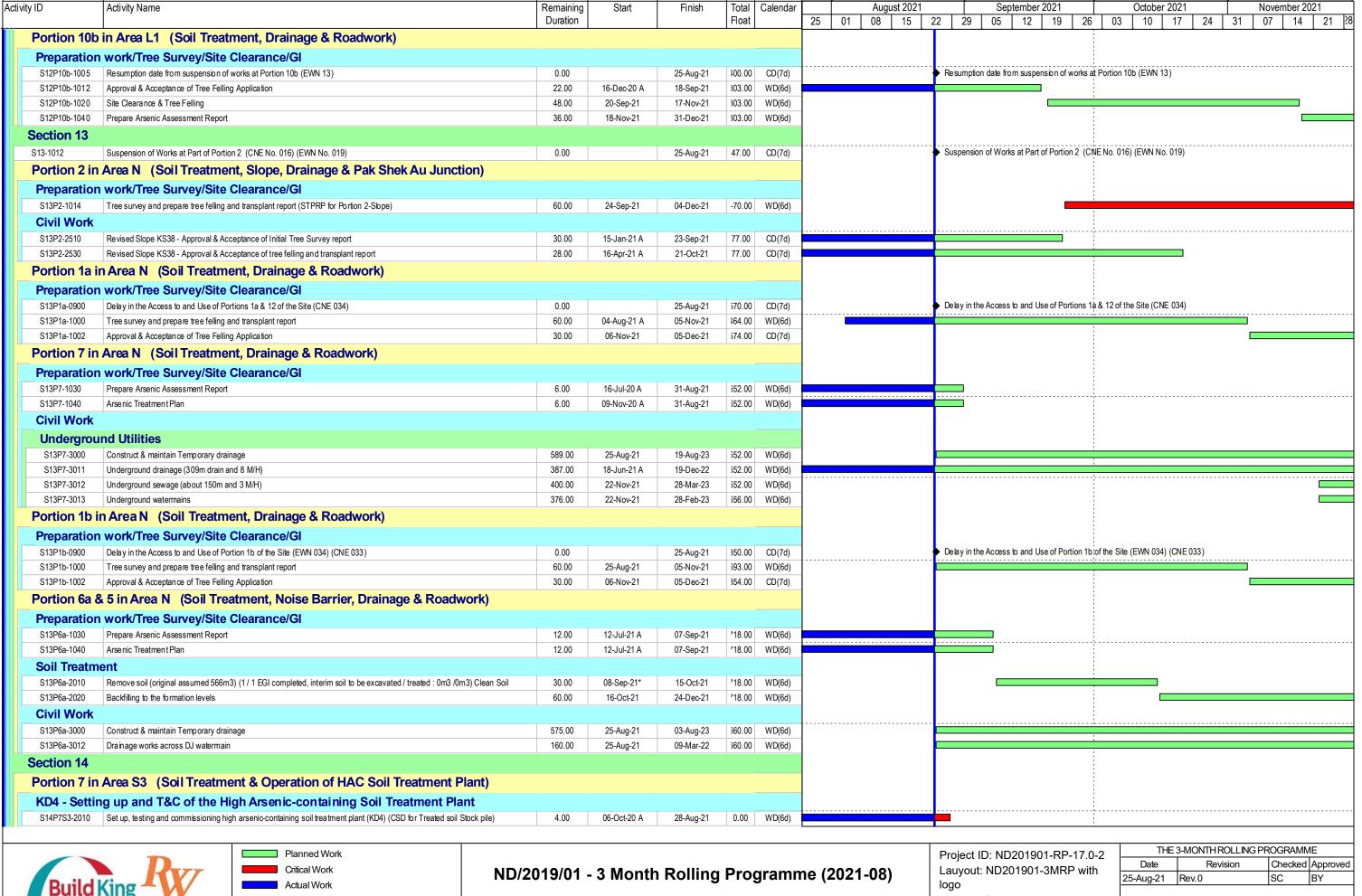
Actual Work ◆ Milestone Milestone Critical

Run Date: 28-Aug-21 Data Date: 25-Aug-21

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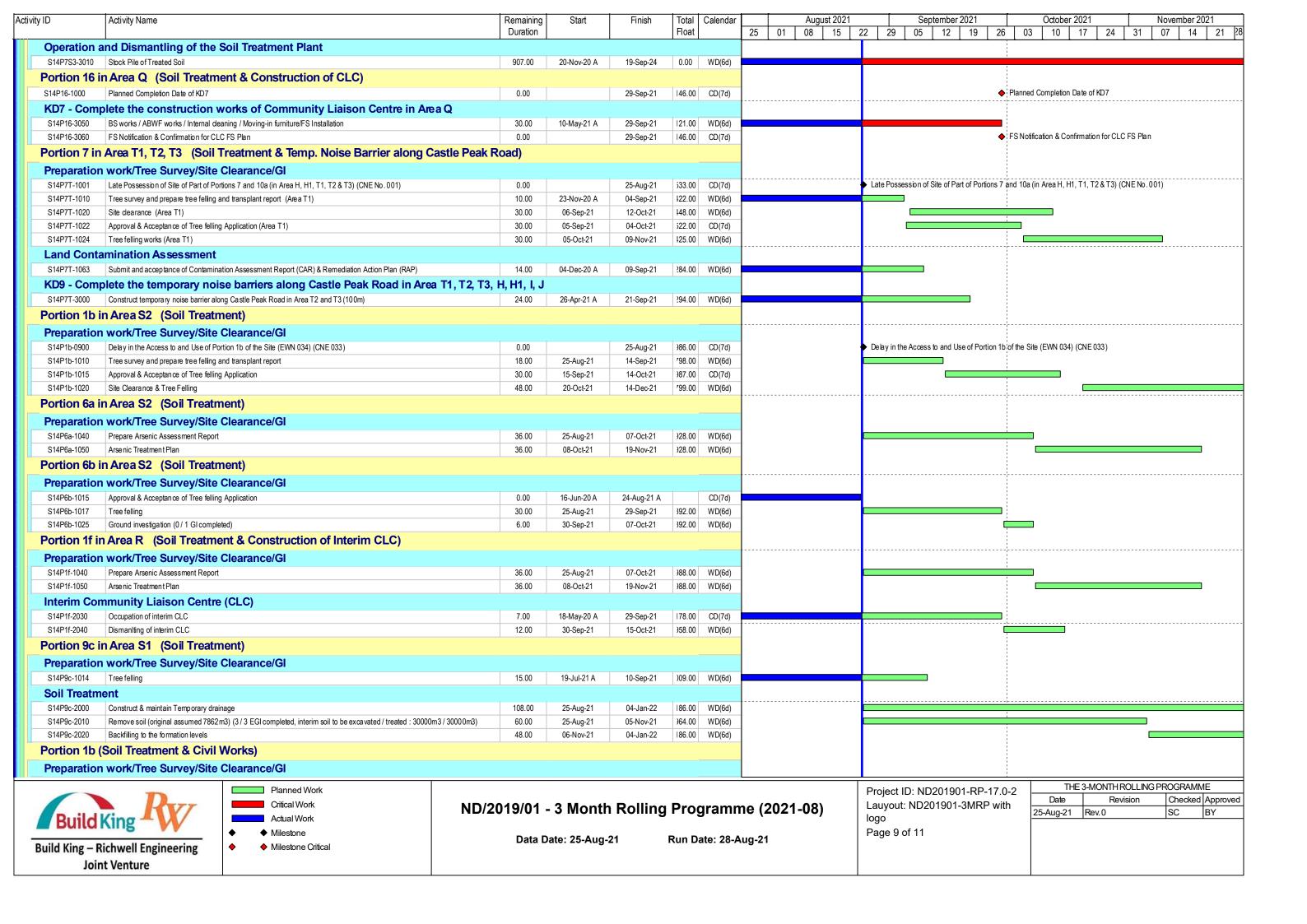


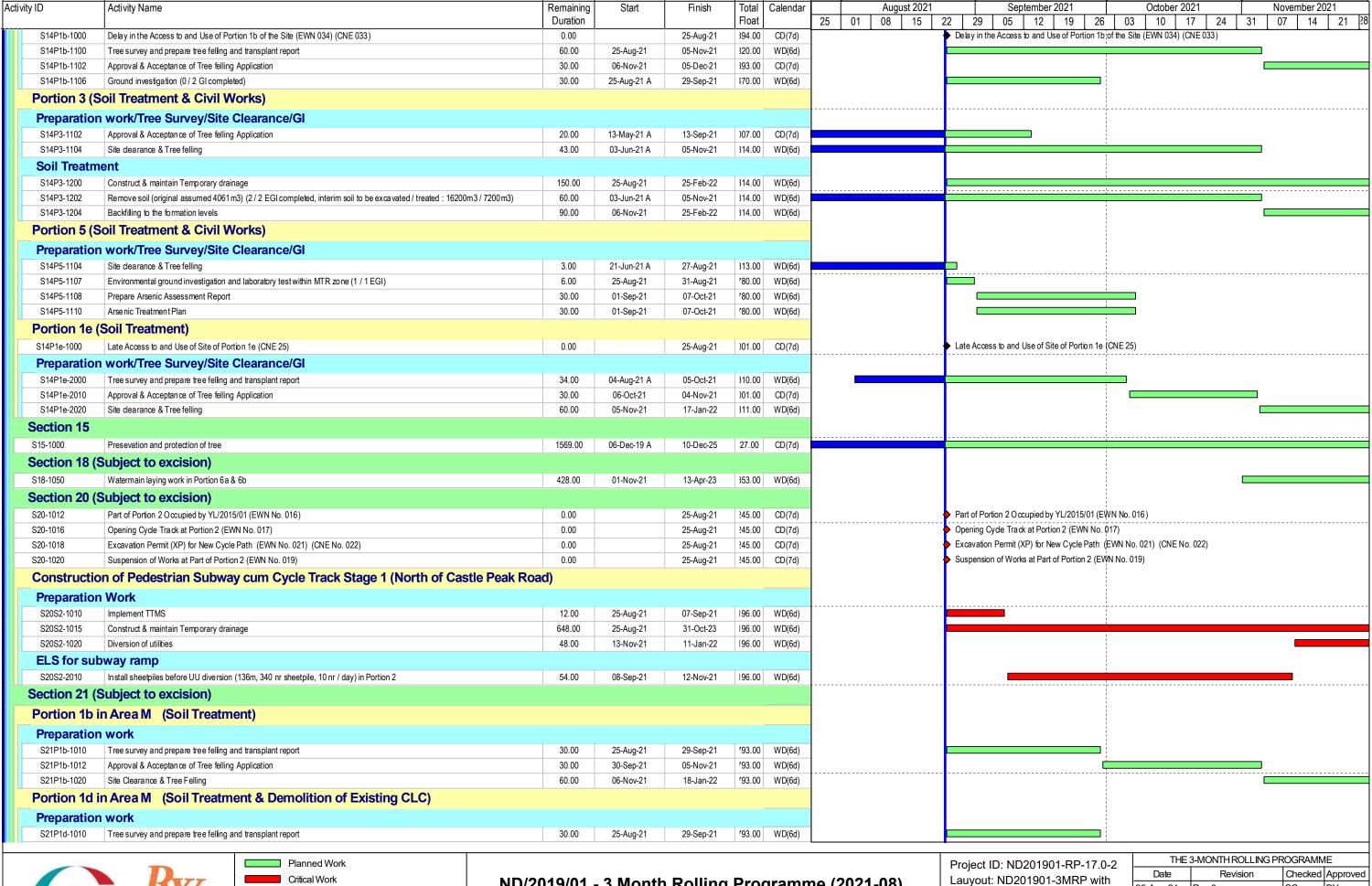


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Actual Work ◆ Milestone Milestone Critical

ND/2019/01 - 3 Month Rolling Programme (2021-08)

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THE 3-MONTH ROLLING PROGRAMIME			
Date	Revision	Checked	Approved
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ctivity ID	Activity Name	Remaining	Start	Finish	Total	Calendar		August 2021				September 2021					Oc	October 2021			Novem	November 2021	
<u> </u>	·	Duration			Float		25	01	08	15	22	29	05	12	19	26	03	10 1	7 24	31	07	14 2	
S21P1d-1012	Approval & Acceptance of Tree felling Application	30.00	30-Sep-21	05-Nov-21	793.00	WD(6d)			•	•						<u> </u>					•	•	
S21P1d-1020	Site Clearance & Tree Felling	60.00	06-Nov-21	18-Jan-22	793.00	WD(6d)	1									-							
Portion 11a	in Area M (Soil Treatment)																						
Preparation	n work																						
S21P11a-1010		30.00	25-Aug-21	29-Sep-21	788.00	WD(6d)																	
S21P11a-1012	Approval & Acceptance of Tree felling Application	30.00	30-Sep-21	05-Nov-21	788.00	WD(6d)										Ė							
S21P11a-1020	Site Clearance & Tree Felling	60.00	06-Nov-21	18-Jan-22	788.00	WD(6d)	1																
9.0 - Major E	WN / CNE															1							
EC-1004	Late Possession of Site of Part of Portion 5 (in Area C1) (CNE No. 004)	0.00	06-Apr-20 A	25-Jul-21 A		CD(7d)																	
EC-1006	Strong Objection on the Construction of Service Reservoirs at Portions 8a & 8b (CNE No. 006) (EWN No. 005)	0.00	18-Mar-20 A	25-Aug-21	226.00	CD(7d)										1							
EC-1008	No Access to Part of Portion 8b near Sheung Shui Slaughter House (EWN No. 007)	0.00	06-May-20 A	25-Aug-21	181.00	CD(7d)																	
EC-1014	Part of Portion 2 Occupied by YL/2015/01 (EWN No. 016) (CNE No. 022)	0.00	23-Dec-19 A	25-Aug-21	245.00	CD(7d)																	
EC-1016	Suspension of Works at Portion 10b (EWN No. 013)	0.00	02-Jul-20 A	25-Aug-21	100.00	CD(7d)																	
EC-1018	Opening of Cycle Track at Portion 2 and 10 a (EWN No. 017) (CNE No. 022) (CNE 030)	0.00	04-Aug-20 A	25-Aug-21	372.00	CD(7d)										i							
EC-1021	Removal of Existing CLP Facilities - (both Overhead and Underground) within Portion 5, 6a, 7, 9b and 10a (EWN No. 018)	0.00	02-Apr-20 A	25-Aug-21	372.00	CD(7d)																	
EC-1026	Handling of Unlawful Occupied Property Affected by the Works (CNE No. 014)	0.00	21-Aug-20 A	25-Aug-21	361.00	CD(7d)										1							
EC-1027	Handling of Unlawful Occupied Property Affected by the Works within the SIte (CNE No. 015)	0.00	31-Aug-20 A	25-Aug-21	361.00	CD(7d)										1							
EC-1028	Suspension of Works at Part of Portion 2 (CNE No. 016) (EWN No. 019)	0.00	31-Aug-20 A	25-Aug-21	344.00	CD(7d)										- 1							
EC-1029	Temporary Stockpile at Portion 5 and Additional Land D (EWN No. 020) (CNE No. 020)	0.00	15-Sep-20 A	25-Aug-21	196.00	CD(7d)																	
EC-1030	Excavation Permit (XP) for New Cycle Path (EWN No. 021) (CNE No. 022) (CNE 030)	0.00	19-Oct-20 A	25-Aug-21	372.00	CD(7d)										i							
EC-1032	Unforeseen Ground Condition (Possible High Bedrock Level Encountered) at Portion 8a (EWN 022)	0.00	13-Nov-20 A	25-Aug-21	196.00	CD(7d)																	
EC-1036	Suspension of EGI works and withdrawal of TTA on Ho Sheung Heung Rd (CNE No.24)	0.00	08-Jan-21 A	25-Aug-21	226.00	CD(7d)																	
EC-1037	Design Change on Concrete Barrier KB01 (EWN 026)	0.00	22-Mar-21 A	25-Jul-21 A		CD(7d)																	
EC-1038	Late Access to and Use of Site of Portion 1e (EWN 024) (CNE 25)	0.00	06-Apr-21 A	25-Aug-21	7.00	CD(7d)										- 1							
EC-1039	Design Change on Road W1 (EWN 025)	0.00	22-Mar-21 A	25-Aug-21	124.00	CD(7d)										1							
EC-1040	Temporary Stockpile in Area C1 (EWN 027)	0.00	31-May-21 A	25-Aug-21	-20.00	CD(7d)																	
EC-1041	Conflict between Existing DAV Manhole and Road Kerb Line (EWN 029)	0.00	21-May-21 A	25-Aug-21	168.00	CD(7d)																	
EC-1042	Details of DCS pipe at D4-1 & D5 Road (EWN 030)	0.00	21-May-21 A	25-Aug-21	-24.00	CD(7d)																	
EC-1043	Strong Objection on the Construction of Fresh and Flushing Reservoir at Portions 8a and 8b (EWN 031) Maintenance Access	0.00	09-Jun-21 A	25-Aug-21	7.00	CD(7d)										1							
EC-1044	Delay on Delivery of Ductile Iron Fitting (EWN 032)	0.00	01-Jun-21 A	25-Aug-21	108.00	CD(7d)										1							
EC-1045	Delay in the Access to and Use of Portion 1b of the Site (EWN 034) (CNE 033)	0.00	06-Jul-21 A	25-Aug-21	194.00	CD(7d)																	
EC-1046	Delay in the Access to and Use of Portions 1a & 12 of the Site (CNE 034)	0.00	06-Jul-21 A	25-Aug-21	128.00	CD(7d)																	
EC-1047	Delay for the Access to Portion 4 (C2 works area) of the Site (CNE 035)	0.00	09-Jul-21 A	16-Aug-21 A		CD(7d)																	
EC-1048	Additional Temporary Rd Diversion at the Junction of Alternative Access for Po Lau Rd and Castle Peak Rd (CNE 030)	0.00	28-May-21 A	25-Aug-21	372.00	CD(7d)										- 1							
EC-1049	Entrustment of Works for Installation of District Cooling System (DCS) pipelines along Road D4-1 (EWN 033)	0.00	18-Aug-21 A	25-Aug-21	361.00	CD(7d)																	





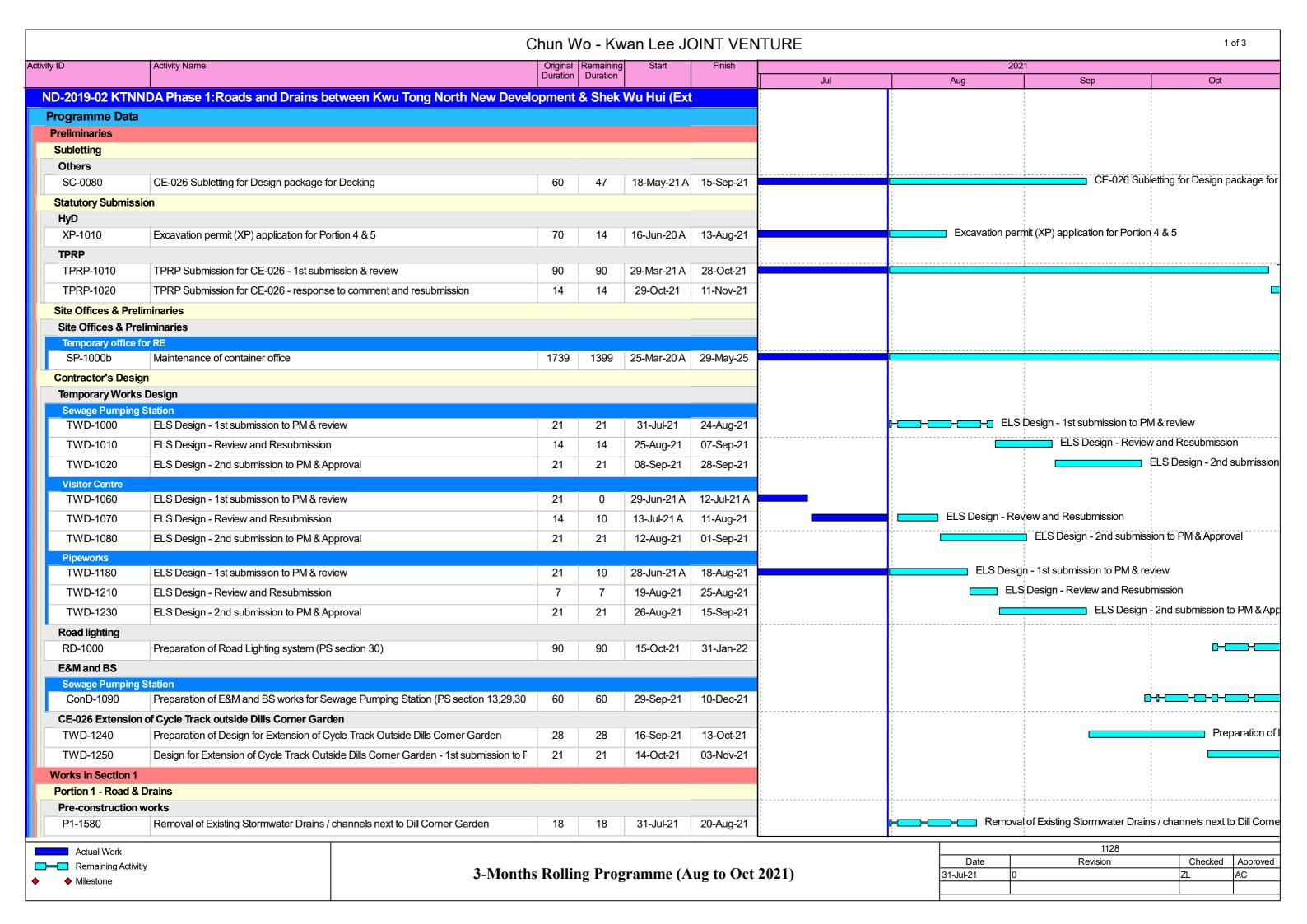
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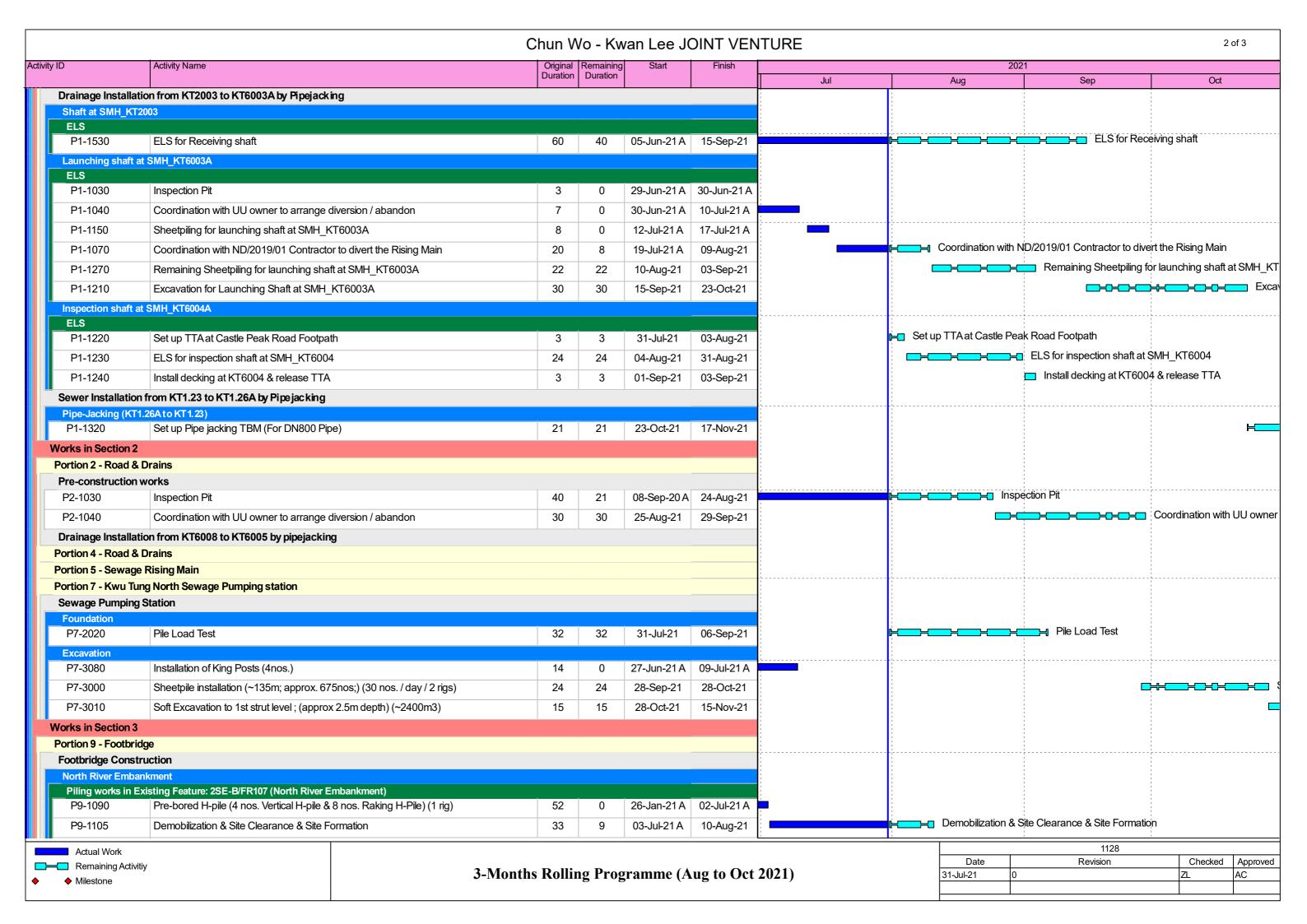
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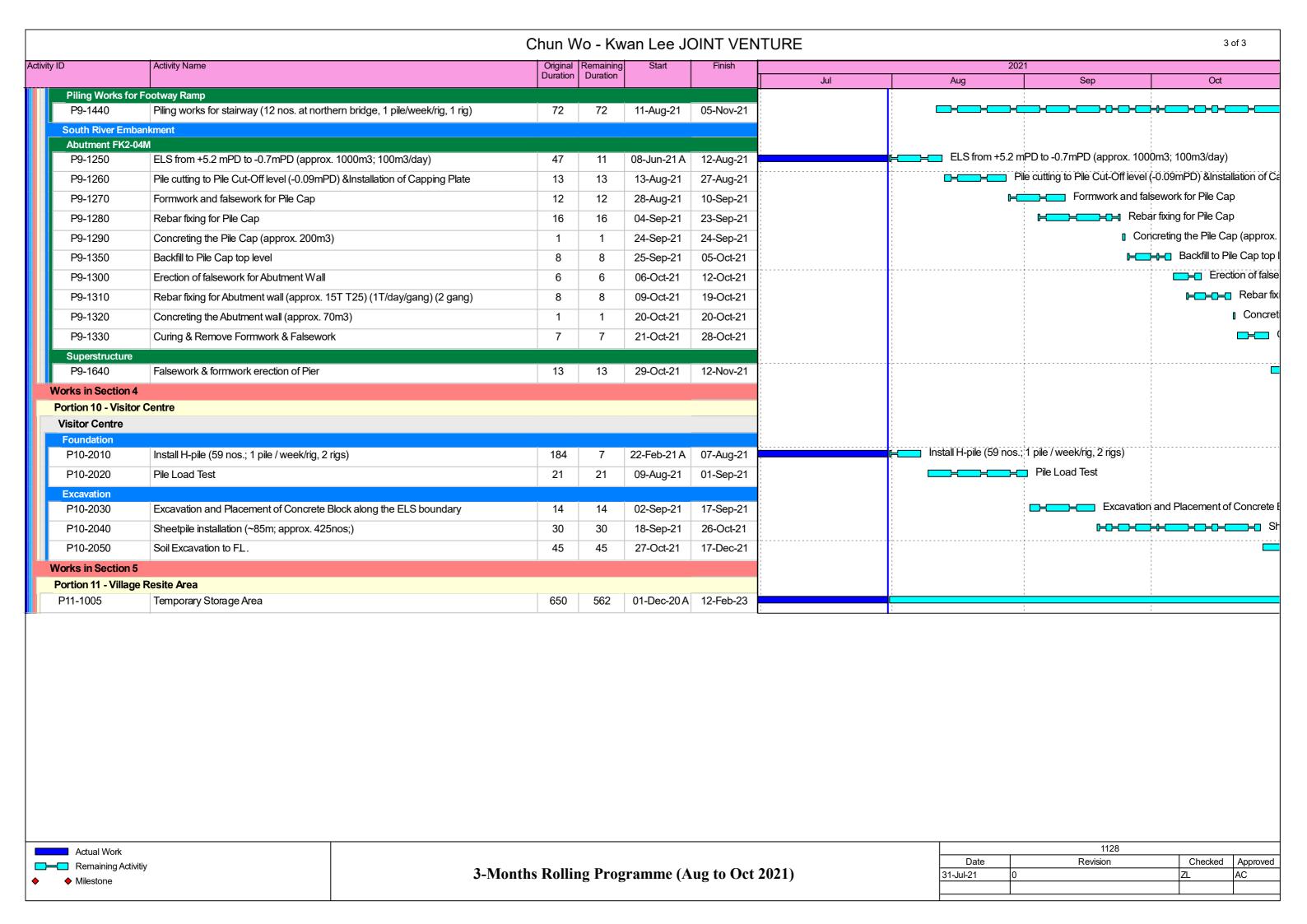
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Project ID: ND201901-RP-17.0-2 Lauyout: ND201901-3MRP with logo Page 11 of 11

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Contract No. ND/2019/03

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

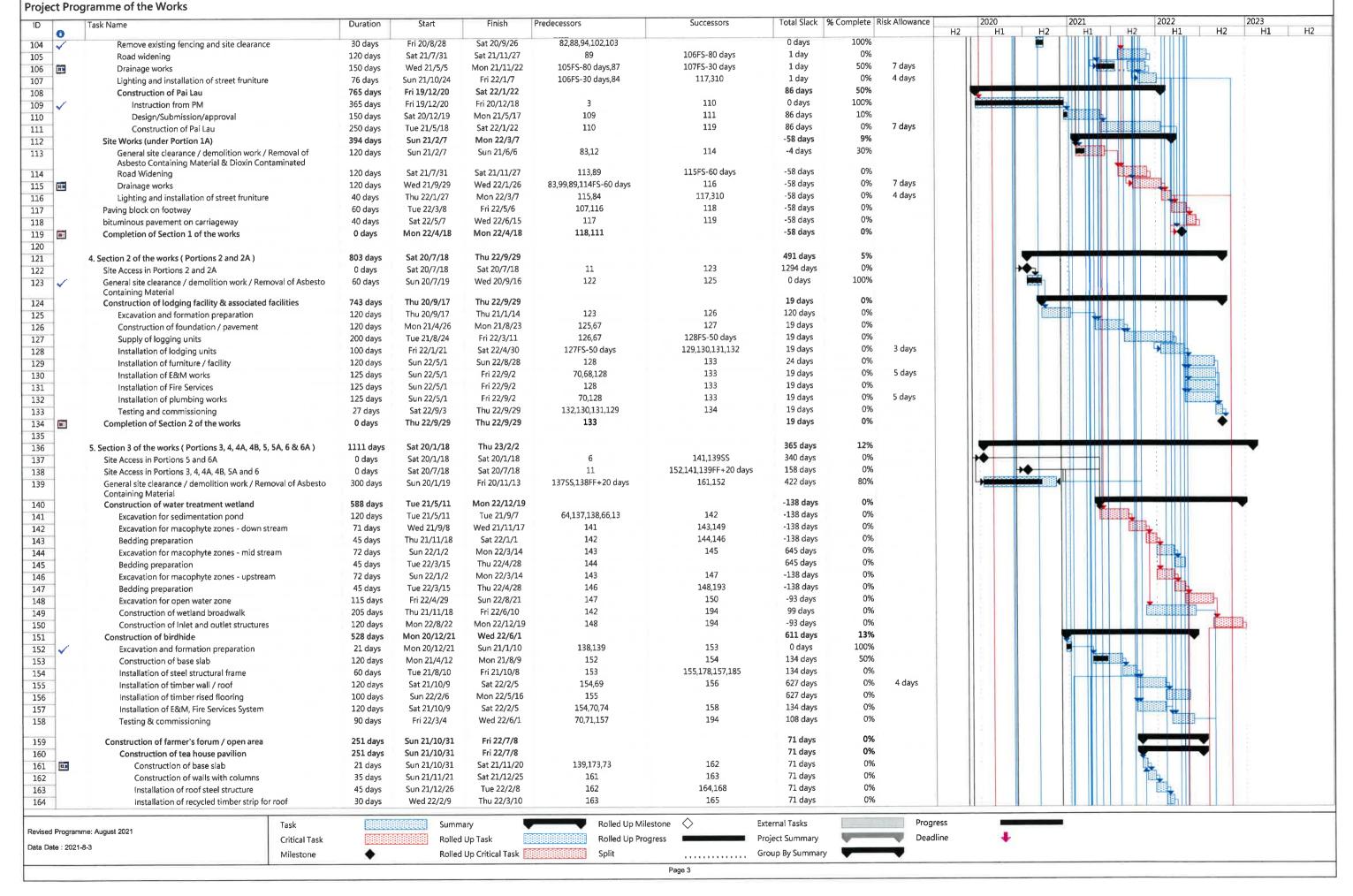
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0		0	Tue 19/12/10	Tue 19/12/10			1516 days	0%	H2 H1	H2 H1	H2	H1 H2 H1	1
	Contract Key Dates	0 days		Tue 19/12/10			1516 days	0%	X				
	1.1 Contract Date	0 days	Tue 19/12/10			.59,61,62,63,42,5,57,45,47,44,43,3		0%	:- V				
111	1.2 Starting Date	1 day	Thu 19/12/19	Thu 19/12/19		days,6FS+30 days,7FS+60	-107 days	076					
						days,8FS+121 days,11FS+212							
						days,14FS+304							
						days,19,17FS+396							
						days,55,56,22FS+851							
						days,23FS+1034 days,24FS+1003		l)					
						days, 26FS+273 days, 27FS+394							
						days,28FS+528 days,29FS+592							
						days,30FS+572							
									R I				
UE	1.3 Site Access Dates	0 days	Thu 19/12/19	Thu 19/12/19			1507 days	0%					
1	Portions 25, 26, 27	0 days	Thu 19/12/19	Thu 19/12/19	3		1506 days	0%					
	Portions 1, 5, 6A, 7, 8A, 9A, 9C, 9E, 9F, 9G, 10A, 10B, 11A, 11B, 12A, 12C,	0 days	Sat 20/1/18	Sat 20/1/18	3FS+30 days	3,70,71,73,82,137,220,237,255,281,8	332 days	0%					
	12D, 13A, 15B, 15C, 16, 17, 19A, 19B, 19C, 20A, 20B	0 22,5	331 - 3, -, - 3	****	, -	days,77FS+30 days,78,79	•						
	120, 131, 130, 130, 10, 11, 121, 130, 130, 130, 131, 1												
									—				
1	Portions 23, 24	0 days	Mon 20/2/17	Mon 20/2/17	3FS+60 days	315	1446 days	0%	•				
1	Portions 15A, 18, 19, 20, 20C, 22	0 days	Sat 20/4/18	Sat 20/4/18	3FS+121 days	9,10	1360 days	0%	A				
123	Delay of Site Access Dates: Portion 15A, 18, 19, 20 (Structure has not	19 days	Sun 20/4/19	Thu 20/5/7	8	201,256,282	1366 days	0%					
	been handed over)	13 days	3411 20/7/13	20/3/1	Ü								
	Delay of Site Access Dates: Portion 22 (Structure has not been	25 days	Sun 20/4/19	Wed 20/5/13	8	316	1360 days	0%					
144	handed over)	25 days	30.1 20/-1/13	20, 3, 13									
101	Portions 1A, 2, 2A, 3, 4, 4A, 4B, 5A, 6, 8, 7A, 7B	0 days	Sat 20/7/18	Sat 20/7/18	3FS+212 days	83,122,138,221,257,39,12,13	-138 days	0%		▶			
140		203 days	Sun 20/7/19	Sat 21/2/6	11	113	36 days	0%		8 8 8 8 8 8 4			
	Delay of Site Access for Area with Structure & Tudigong in Portion 1A	205 days	3un 20///19	341 21/2/0	11	113	30 days	3,3					
1	Delay of Site Access Dates: 4B,5A	296 days	Sun 20/7/19	Mon 21/5/10	11	141	-138 days	0%			A		
pinger	•			Sun 20/10/18	3FS+304 days	213,238,283,15,16	164 days	0%		•,			
111	Portions 8B, 9, 9B, 9D, 10, 11, 12, 12B, 13, 14	0 days	Sun 20/10/18				•	0%		150 50 50 50 50			
	Delay of Site Access Date: Portion 9D	151 days	Mon 20/10/19	Thu 21/3/18	14	222,225	1050.1 days						
Ī	Delay of Site Access for Area with Structure in Portion 8B, 9B	167 days	Mon 20/10/19	Sat 21/4/3	14	222,229	164 days	0%					
=	Portions 15, 16A, 16B, 17A, 17B, 21	0 days	Mon 21/1/18	Mon 21/1/18	3FS+396 days	300,239,258,284,18	-187 days	0%		•			
	Delay of Site Access for Area with Structure in Portion 16B	79 days	Tue 21/1/19	Wed 21/4/7	17	246	100 days	0%					
+	Works Area WA1	0 days	Thu 19/12/19	Thu 19/12/19	3		1506 days	0%					
-	WOINS Alea WAI	o days	1110 25, 22, 05				•						
			m 404040	TI 10/13/10	3		1506 days	0%					
==	1.4 Completion of the works	0 days	Thu 19/12/19	Thu 19/12/19	-			0%					
	Section 1	0 days	Mon 22/4/18	Mon 22/4/18	3FS+851 days		655 days					V	
	Section 2	0 days	Tue 22/10/18	Tue 22/10/18	3FS+1034 days		472 days	0%				1	
1	Section 3	0 days	Sat 22/9/17	Sat 22/9/17	3FS+1003 days		503 days	0%				•	
1	Section 3A	0 days	Sun 23/9/17	Sun 23/9/17	3FS+1368 days		138 days	0%					
1	Section 4	0 days	Wed 20/10/21	Wed 20/10/21	3FS+273 days		0 days	100%					
4				Sat 21/1/16	3FS+394 days		0 days	100%		Y 🐍			
4	Section 5	0 days	Sat 21/1/16					0%					
	Section 6	0 days	Sun 21/5/30	Sun 21/5/30	3FS+528 days		978 days						
	Section 7	0 days	Mon 21/8/2	Mon 21/8/2	3FS+592 days		914 days	0%			 		
1	Section 8	0 days	Tue 21/7/13	Tue 21/7/13	3FS+572 days		934 days	0%			 ♥ ↓		
1	Section 9	0 days	Sat 21/11/6	Sat 21/11/6	3FS+688 days		818 days	0%			•	.	
	Section 10	0 days	Thu 22/6/30	Thu 22/6/30	3FS+924 days		582 days	0%				•	
			Sun 22/12/18	Sun 22/12/18	3FS+1095 days		411 days	0%				*	
-	Section 11	0 days			•		46 days	0%				Alli	
	Section 11A	0 days	Mon 23/12/18	Mon 23/12/18	3FS+1460 days								
	Section 12	0 days	Fri 20/12/18	Fri 20/12/18	3FS+365 days		1141 days	0%					
1												_	
1	2. Preliminary works	805 days	Fri 19/12/20	Thu 22/3/3			701 days	70%	Militi			₹.	
1	Set up Project Manager's Accommodation in WA1 (1st part)	14 days	Wed 20/6/17	Tue 20/6/30			0 days	100%		<u> </u>			
1	Set up Project Manager's Accommodation in Portion 3 (2nd part)	14 days	Mon 21/3/8	Sun 21/3/21	11		1048 days	50%					
	Set up Project Manager's Accommodation in Portion's (2nd part)	in days	111011 21/3/0	Juli Caf Jf Ca	**								
/	Prepare, submit & Approve ICE	30 days	Mon 20/2/3	Tue 20/3/3	3	171	0 days	100%			411-1		
	· · · · · · · · · · · · · · · · · · ·	30 days	Wed 20/1/1	Thu 20/1/30	3	85	0 days	100%			/11U1 8		
4	Prepare, submit & Approve Traffic Consultant				3	75	0 days	100%					
Y	Prepare, submit & Approve Landscape Team Leader	100 days	Mon 20/2/3	Tue 20/5/12		13		100%	***************************************				
4	Prepare, submit & Approve Agricultural Specialist	30 days	Fri 19/12/20	Sat 20/1/18	3		0 days						
V	Prepare, submit & Approve Constructed / Treatment Wetland	30 days	Fri 20/2/28	Sat 20/3/28	3	64	0 days	100%					
	Specialist						0.4.	100%					
1	Prepare, submit & Approve Ecological Team Leader	30 days	Fri 19/12/20	Sat 20/1/18	3	47	0 days	100%	5 <u>4</u> 1				
1	Habitat Survey	112 days	Sun 20/1/19	Sat 20/5/9			0 days	100%					
1	Submission/approval of Habitat Surveys Method Statement	40 days	Sun 20/1/19	Thu 20/2/27	3,45	48	0 days	100%					
	and Programme	,	,										
1	Habitat Surveys	30 days	Fri 20/2/28	Sat 20/3/28	47	49	0 days	100%					
-		Datasas				11t	nal Tarle	Descrip					
Program	mme: August 2021		Summ	ary	Rolled Up Mi	•	rnal Tasks	Progres					
_	Critical Task	£4545545555	Rolled	Up Task	Rolled Up Pro	ogress Proje	ect Summary	Deadlin	ne 👢				
to : 202	21-8-3			Up Critical Task	Split	•	ip By Summan						
to . LUL	Milestone					,,,,,,,,,,,, Grot							

Contract No. ND/2019/03
Kwu Tung North and Fanling North New Development Areas, Phase 1 : Development of Long Valley Nature Park

	amme of the Works	Duration	Start	Finish	Predecessors	Successors	Total Slack	% Complete Risk Allowance	2020 2021 2022
0								H2	
V	Submission of Habitat Record	14 days	Sun 20/3/29	Sat 20/4/11	48	50	0 days	100%	
V /	Approval of Habitat Survey Record	28 days	Sun 20/4/12	Sat 20/5/9	49	53,51	0 days	100%	
V	Prepare and Submit Wetland Restoration Proposal	50 days	Sun 20/5/10	Sun 20/6/28	50	52	0 days	100%	
	Approval of Wetland Restoration Proposal	180 days	Mon 20/6/29	Fri 20/12/25	51	225,242,261,287	207 days	90%	
V	Prepare and Submit Wetland Creation Proposal	50 days	Sun 20/5/10	Sun 20/6/28	50	54	0 days	100%	
	Approval of Wetland Cretation Proposal	180 days	Mon 20/6/29	Fri 20/12/25	53	225,242,261,287	207 days	90%	
1	Prepare and Submit Ecological Protection Plan	14 days	Fri 19/12/20	Thu 20/1/2	3		0 days	100%	
-	Prepare, Submit and Approval of Maintenance Proposal for Stage	204 days	Fri 19/12/20	Fri 20/7/10	3		0 days	100%	
~	1 Maintenance Works			-, ,					
7 🗸	Prepare, submit & Approve G.I. Contractor	90 days	Wed 20/7/15	Mon 20/10/12	3		0 days	100%	
7	Prepare and submit Smart Card Sysytem	30 days	Fri 19/12/20	Sat 20/1/18	3	75	0 days	100%	
	Prepare, submit Draft Safety Plan	14 days	Fri 19/12/20	Thu 20/1/2	3	60	0 days	100%	
	Review & Approve Safety Plan	35 days	Fri 20/1/3	Thu 20/2/6	59	75	0 days	100%	
	Prepare, Submit Draft Environmental Management Plan	21 days	Fri 19/12/20	Thu 20/1/9	3	62	0 days	100%	
- ×	Review & Approve Environmental Management Plan	45 days	Fri 20/1/10	Sun 20/2/23	3,61	75	0 days	100%	
	Prepare, submit & Approve Site Management Plan for Trip Ticket	45 days	Fri 19/12/20	Sun 20/2/2	3		0 days	100%	
√	System	-5 uays	111 13/12/20	2011 20/2/2	,		,-		
	Submission and Approval of Construction Method for water	90 days	Tue 20/9/15	Sun 20/12/13	44	141	10 days	50%	
	treatment wetland		, -,	,,					
₩	Submission of Proposal for Source of Water for Water Treatment	120 days	Fri 19/12/20	Fri 20/4/17	3	66	0 days	100%	
	Wetland	,						1000/	
√	Approval of Source of Water for Water Treatment, Wetland	90 days	Sat 20/4/18	Thu 20/7/16	65	141	0 days	100%	
7	Design/submission/approval of Lodging Facilities	300 days	Tue 20/6/30	Sun 21/4/25	6	127,68SS,126	19 days	50%	
3 🔚	Design / Submission / approval of Sewerage System of Lodging	150 days	Wed 20/9/16	Fri 21/2/12	67SS	130	461 days	50%	
	Facilities	•							
1 1	Design/submission/approval of alluminium roofing system,	180 days	Tue 21/3/30	Sat 21/9/25	6	155	640 days	10%	
	timber for wall/floor/soffit for Birdhide					120176467426456457	220 45	F.09/	<u> </u>
111	Design/submission/approval of E&M works for Facilities	180 days	Wed 20/9/30	Sun 21/3/28	6	130,176,167,132,158,157	328 days	50%	
	Design/submission/approval of Plumbing works for Facilities	240 days	Wed 21/7/7	Thu 22/3/3	6	158,167	108 days	50%	
1	Design/submission/approval and supply of Lighting	180 days	Tue 20/6/30	Sat 20/12/26	6		1133 days	0%	
121	Design/submission/approval and supply of park facilities	180 days	Sun 20/8/30	Thu 21/2/25	6	161	318 days	30%	
a	Submission and Approval for Fire Extinguisher	50 days	Wed 21/4/14	Wed 21/6/2	3	157,167,183,190,270,176	1 day	0%	
7	Tree survey and submission	450 days	Wed 20/5/13	Thu 21/8/5	42,60,62,58	76SS+30 days	0 days	100%	
	Tree felling / Site clearance	450 days	Fri 20/6/12	Sat 21/9/4	75SS+30 days		881 days	95%	
	Design/submission/approval of Entrance gantry signages	180 days	Wed 21/9/1	Sun 22/2/27	6FS+30 days	169	142 days	0%	
111	Design/submission/approval of Irrigation system for landscape	180 days	Thu 21/4/1	Mon 21/9/27	6		858 days	50%	
14.5	softworks	100 days	22, 7, 1						
	Design/submission/approval of Irrigation Channel and other	130 days	Tue 20/9/1	Fri 21/1/8	6	232,249,275,294	178 days	97%	
	associated facilities							, in the second	
								200	
	Section 1 of the works (Portions 1 and 1A)	909 days	Fri 19/12/20	Wed 22/6/15			-58 days	38%	
V	Site Access in Portion 1	0 days	Sat 20/1/18	Sat 20/1/18	6	85,104,90FS+30 days,103,102,88	0 days	100%	
V	Site Access in Portion 1A	0 days	Sat 20/7/18	Sat 20/7/18	11	115,113,97	0 days	100%	
	Design/submission/approval and supply of Road Lighting System	180 days	Tue 20/6/30	Sat 20/12/26	6FS+30 days	107,116	302 days	20%	
	along Yin Kong Road							1004	
5	Application for XP for construction of Yin Kong Road	400 days	Fri 20/1/31	Fri 21/3/5	41,82	86SS+45 days,87	158 days	49%	
5	Prepare TTA for TMLG and approval from TD and RMO	90 days	Mon 20/3/16	Sat 20/6/13	85SS+45 days	87	423 days	70%	
,	Application of Traffic Advice and Road Work Advice	30 days	Sat 21/3/6	Sun 21/4/4	85,86	106	158 days	0%	
3 🗸	Submission of Utilities Detection Report	30 days	Wed 20/7/29	Thu 20/8/27	82	104	0 days	100%	
9	Additional Widening works for Yin Kong Road (to be approved by	30 days	Thu 21/7/1	Fri 21/7/30		105,115,114	-58 days	0%	
	Relevant Department)	, -	, ,						
	Relocation of Utilities (by Others)	335 days	Sun 20/3/1	Fri 21/1/29	82FS+30 days		184 days	50%	
· /	Relocation of CLP Pole at Yin Kong Road in (Portion 1)	195 days	Sun 20/3/1	Fri 20/9/11			0 days	100%	
	Planning for Relocation	60 days	Sun 20/3/1	Wed 20/4/29		93	0 days	100%	
· ·	Construction of New Pole	60 days	Thu 20/4/30	Sun 20/6/28	92	94	0 days	100%	
~	Outage and Diversion of Underground Cable	75 days	Mon 20/6/29	Fri 20/9/11	93	104	0 days	100%	
	Outage and precision of onderground capie	. J days		, _ , _ ,	•		,-		
	Delecation of CLD Balant Vin Kong Board (Barting 14)	105 dava	Sup 20/7/10	Fri 21/1/29			184 days	0%	
,	Relocation of CLP Pole at Yin Kong Road (Portion 1A)	195 days	Sun 20/7/19		02	98	184 days	0%	
	Planning for Relocation	60 days	Sun 20/7/19	Wed 20/9/16	83		-	0%	
	Construction of New Pole	60 days	Thu 20/9/17	Sun 20/11/15	97	99	184 days		
	Outage and Diversion of Underground Cable	75 days	Mon 20/11/16	Fri 21/1/29	98	115	184 days	0%	
0							25.1	450/	
1	Site Works (under Portion 1)	765 days	Fri 19/12/20	Sat 22/1/22			86 days	45%	M St. I I I I I I I I I I I I I I I I I I I
02 🗸	Compensation Event No. 002 - Construction of Chain Link	21 days	Thu 20/4/16	Wed 20/5/6	82	104	0 days	100%	
	Fence and Gate adjacent to Yin Kong Road			TI 00:00:00	20	304	0 4	1009/	
03 🗸	Compensation Event No. 003 - Reprovision of Hoarding and	30 days	Wed 20/4/22	Thu 20/5/21	82	104	0 days	100%	
	gate at Enchi Lodge								
		Name of the	***********				1= 1		
ised Programme:	August 2021		Summ	ary 🤻	Rolled Up N	Milestone 🔷 Exter	nal Tasks	Progress	
sea Liodismile;	August 2021 Critical Task		Rolled	Up Task	Rolled Up F	Progress Proje	ct Summary	Deadline	↓
	1 Citical lask								
Date: 2021-8-3	Milestone	_		Up Critical Task	Split	Grou	p By Summary		

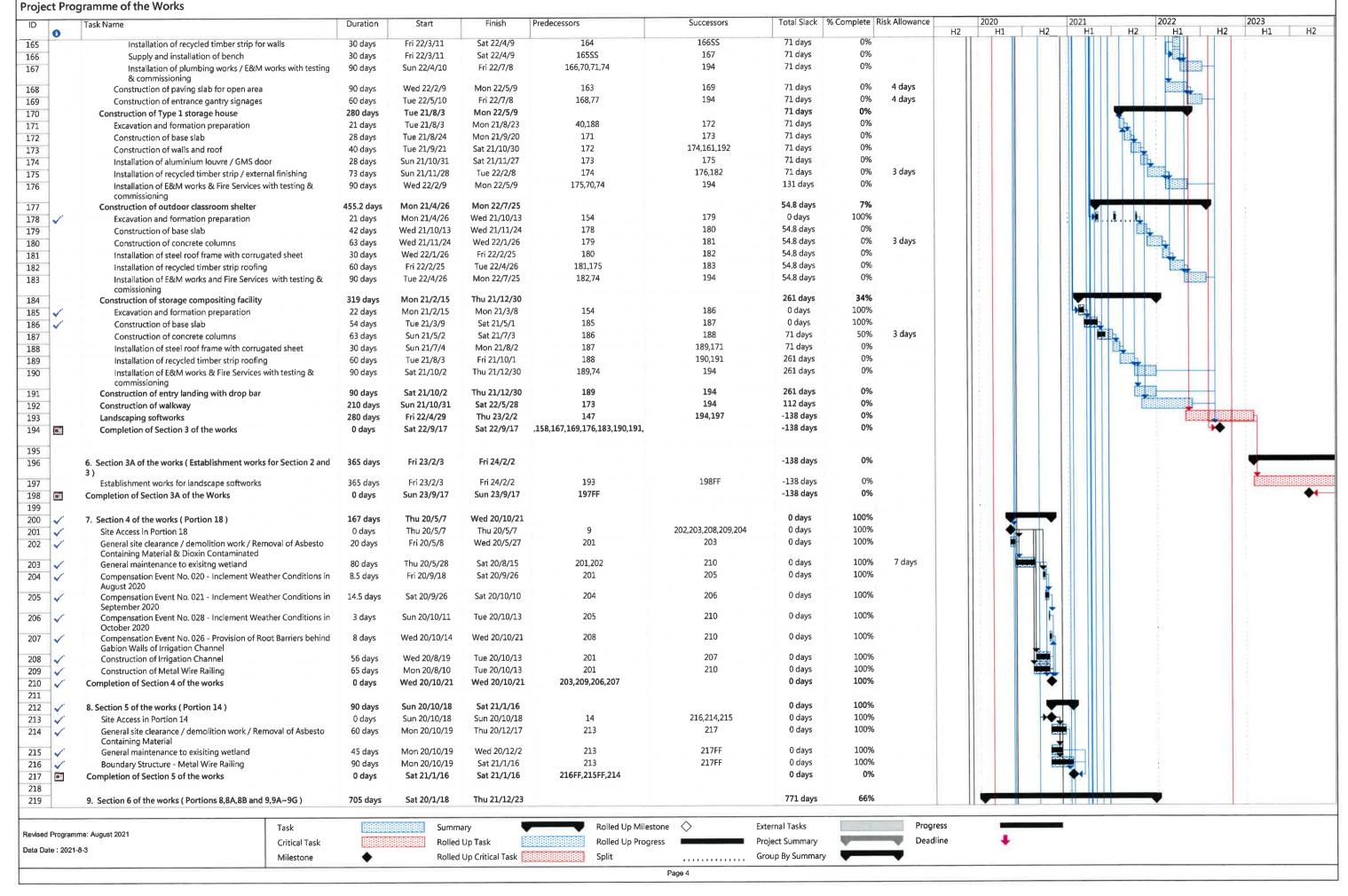
Contract No. ND/2019/03

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



Contract No. ND/2019/03

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



Contract No. ND/2019/03

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

	Task Name	Duration	Start	Finish	Predecessors	Successors	Total Slack	% Complete R	sk Allowance	2020	
0						225 2225			H2	H1	11 H2 H1 H2 H1 H2 H1
_ <	Site Access in Portions 8A, 9A, 9C, 9E, 9F, 9G	0 days	Sat 20/1/18	Sat 20/1/18	6	225,223SS	0 days	100%		1	
V	Site Access in Portion 8	0 days	Sat 20/7/18	Sat 20/7/18	11	223FF+10 days,225	0 days	100%			10
V	Site Access in Portions 8B, 9, 9B, 9D	0 days	Sun 20/10/18	Sun 20/10/18	15,16	223FF+10 days,225,229	0 days	100%			
V	General site clearance / demolition work / Removal of Asbesto	150 days	Fri 20/7/3	Sun 20/11/29	220SS,221FF+10	234	0 days	100%		1	**************************************
1	Containing Material & Dioxin Contaminated				days,222FF+10 days						
	Wetland Restoration / Wetland Creation	200 days	Fri 21/3/19	Mon 21/10/4			851 days	92%			
20	Excavation	90 days	Fri 21/3/19	Wed 21/6/16	220,54,52,221,222,15	226SS+30 days	961 days	99%		11: 1	
-	Backfilling	60 days	Sun 21/4/18	Wed 21/6/16	225SS+30 days	227SS+90 days,229,232,233	20 days	99%		11: 1	
	Agricultural Planting	80 days	Sat 21/7/17	Mon 21/10/4	226SS+90 days	234	0 days	80%			
	5	-			22000 : 50 days	231	-40 days	36%			
	Construction of Storage Sheds	190 days	Thu 21/6/17	Thu 21/12/23		02050 20 1 224	-		A alacia		
	Construction of concrete structure	150 days	Thu 21/6/17	Sat 21/11/13	226,222,16	230FS-30 days,231	0 days	60%	4 days		
	Installation of Alluminium Window/Lourvre and GMS Door with recycle timber decoration	60 days	Fri 21/10/15	Mon 21/12/13	229FS-30 days	234	-197 days	0%			
	Installation of GMS roofing structure with recycle timber	40 days	Sun 21/11/14	Thu 21/12/23	229	234	-207 days	0%			
	Construction of Channel	70 days	Thu 21/6/17	Wed 21/8/25	226,79	234	0 days	80%	7 days		
	Construction of walkway	100 days	Thu 21/6/17	Fri 21/9/24	226	234	0 days	20%	7 days		
	Completion of Section 6 of the works	0 days	Sun 21/5/30	Sun 21/5/30	227,231,232,233,223,230		-207 days	0%			
100.5	Completion of Section 6 of the Works	o days	5411 22/ 5/ 50	0411 = 2, 0, 00	,		,			11.5	
-										11.2	
+	10. Section 7 of the works (Portions 10,10A,10B, 13,13A and	620 days	Sat 20/1/18	Wed 21/9/29			856 days	70%			
	10. Section 7 of the works (Portions 10,10A,10B, 13,13A and 16,16A,16B)	ozo days	Jat 20/1/10	VVCU 21/3/23			Coo days	. 070		12-4	
+ /	Site Access in Portions 10A, 10B, 13A, 16	0 days	Sat 20/1/18	Sat 20/1/18	6	242,240SS	0 days	100%		10	
1		-		Sun 20/10/18	14	240FF+20 days	0 days	100%			
4	Site Access in Portions 10, 13	0 days	Sun 20/10/18					100%			
~	Site Access in Portions 16A, 16B	0 days	Mon 21/1/18	Mon 21/1/18	17	240FF+20 days	0 days				(35 2000 MAKE 0105)
V	General site clearance / demolition work / Removal of Asbesto	300 days	Tue 20/4/14	Sun 21/2/7	237SS,238FF+20	252	0 days	100%			And annual annua
	Containing Material & Dioxin Contaminated				days,239FF+20 days		067.4	830/			
	Wetland Restoration / Wetland Creation	167 days	Sat 20/12/26	Thu 21/6/10			967 days	83%			To the second se
	Excavation	100 days	Sat 20/12/26	Sun 21/4/4	237,54,52	243SS+47 days,249	112 days	95%		3	1-mann
	Backfilling	60 days	Thu 21/2/11	Sun 21/4/11	242SS+47 days	244SS+60 days	1027 days	95%			
-	Agricultural Planting	60 days	Mon 21/4/12	Thu 21/6/10	243SS+60 days	252	53 days	50%			
-	Construction of storage sheds	180 days	Sat 21/4/3	Wed 21/9/29	í		-30 days	50%			
	Construction of storage streets Construction of concrete structure	150 days	Sat 21/4/3	Mon 21/8/30	18	247SS+90 days,248	-58 days	70%			The state of the s
		-			246SS+90 days	248SS+30 days	-28 days	0%		11 3	
	Installation of Alluminium Window/Lourvre and GMS Door	30 days	Fri 21/7/2	Sat 21/7/31	24055+90 days	24633+30 days	-20 days	070		11 8 1	43
	with recycle timber decoration	20 4	T 21 /0 /21	14/-4 21 (0/20	247SS+30 days,246	252	-58 days	0%			
	Installation of GMS roofing structure with recycle timber	30 days	Tue 21/8/31	Wed 21/9/29	-				7 4		Table 1
	Construction of Channel	80 days	Mon 21/4/5	Wed 21/6/23	79,242	250SS,252	40 days	90%	7 days	11 8	
	Construction of walkway	90 days	Mon 21/4/5	Sat 21/7/3	249SS	251FF-15 days,252	30 days	0%	6 days		
	Construction of entry landing with drop bar	45 days	Wed 21/5/5	Fri 21/6/18	250FF-15 days	252	45 days	0%			
	Completion of Section 7 of the works	0 days	Mon 21/8/2	Mon 21/8/2	244,248,249,250,251,240		-58 days	0%			
										11 3 1	
	11. Section 8 of the works (Portions 7,7A,7B, 17,17A,17B,	541 days	Sat 20/1/18	Mon 21/7/12			935 days	68%			
	19,19A,19B,19C, 20,20A,20B&20C)	J-12 day 3	541 20/ 1/ 10	11101122/1/22						100	
-	Site Access in Portions 7, 17, 19A, 19B, 19C, 20A, 20B	0 days	Sat 20/1/18	Sat 20/1/18	6	261,259SS	0 days	100%		10	
		0 days	Thu 20/5/7	Thu 20/5/7	9	259FF+20 days	0 days	100%			
Y	Site Access in Portions 19, 20, 20C			Sat 20/7/18	11	259FF+20 days	0 days	100%			
Y	Site Access in Portions 7A, 7B	0 days	Sat 20/7/18			•		100%			
-	Site Access in Portions 17A, 17B	0 days	Mon 21/1/18	Mon 21/1/18	17	259FF+20 days	0 days			1	45,
V	General site clearance / demolition work / Removal of Asbesto	350 days	Mon 20/2/24	Sun 21/2/7	255SS,256FF+20		0 days	100%		-	nana nana nana nana na na na na na na na
	Containing Material & Dioxin Contaminated				days,257FF+20 days,258FF+20					l ii	
					days		ce ti	660/			
	Wetland Restoration / Wetland Creation	135 days	Sat 20/12/26	Sun 21/5/9			65 days	99%			
1	Excavation	80 days	Sat 20/12/26	Mon 21/3/15	255,54,52	262SS+25 days,272SS+60	0 days	100%			[4-3-2-3
						days,265SS,275SS		1000/			
■ ✓	Backfilling	80 days	Wed 21/1/20	Fri 21/4/9	261SS+25 days	263SS+60 days	0 days	100%			
	Agricultural Planting	50 days	Sun 21/3/21	Sun 21/5/9	262SS+60 days	278	65 days	95%		10	
	Construction of Type 2 storage house	199 days	Sat 20/12/26	Mon 21/7/12			935 days	48%			
	Excavation and formation preparation	21 days	Sat 20/12/26	Fri 21/1/15	261SS	266	0 days	100%		2.1	
1		28 days	Sat 21/1/16	Fri 21/2/12	265	267	0 days	100%		1 1	
Y	Construction of base slab	-		Fri 21/4/23	266	268,269	0 days	100%			
	Construction of walls and roof	70 days	Sat 21/2/13				•				
	Installation of aluminium louvre / GMS door	30 days	Sat 21/4/24	Sun 21/5/23	267	270	11 days	0%		÷	
	Installation of recycled timber strip / external finishing	60 days	Sat 21/4/24	Tue 21/6/22	267		955 days	0%			
7	Installation of E&M works with testing & commissioning	40 days	Thu 21/6/3	Mon 21/7/12	268,74	278	1 day	0%			
	Construction of storage sheds	120 days	Wed 21/2/24	Wed 21/6/23			20 days	30%			
	Construction of concrete structure	90 days	Wed 21/2/24	Mon 21/5/24	261SS+60 days	273SS+60 days,274	20 days	50%			
	Installation of Alluminium Window/Lourvre and GMS Door	30 days	Sun 21/4/25	Mon 21/5/24	272SS+60 days	274SS+21 days	29 days	0%			
	with recycle timber decoration	JU Udys	Juli 21/4/23	IVIOII 21/3/24	27233700 days	2,733 · 21 days	cays				
d Program	nme: August 2021		Summ	ary	Rolled Up Mile	•	ernal Tasks		Progress		
-	Critical Task		Rolled	Up Task 📙	Rolled Up Prog	gress Pro	ject Summary	4	Deadline		•
Date: 2021	1-8-3 Milestone	_		Up Critical Task	Split	Gro	oup By Summary				

Contract No. ND/2019/03

Sang Hing - Kuly Joint Venture

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

Tas	sk Name	Duration	Start	Finish	Predecessors	Successors	Total Slack	% Complete	Risk Allowance	H2	020 H1	2021 H2 H1	2022 H2 H	1 H2	2023 H1
	Installation of GMS roofing structure with recycle timber	30 days	Tue 21/5/25	Wed 21/6/23	273SS+21 days,272	278	20 days	0%		11			112		, , , ,
	Construction of Channel	80 days	Sat 21/1/9	Mon 21/3/29	79,261SS	276SS,278	106 days	90%	7 days			- Indiana	t.		
	Construction of walkway	90 days	Sat 21/1/9	Thu 21/4/8	275SS	277FF,278	96 days	0%	7 days			4			
	•		Tue 21/2/23	Thu 21/4/8	276FF	278	96 days	0%		14		1981	,		
-	Construction of entry landing with drop bar	45 days				270		0%				1333	*		
II.	Completion of Section 8 of the works	0 days	Mon 21/7/12	Mon 21/7/12	263,270,274,275,276,277		1 day	0%		1 3			4		
										11.22					
12.	. Section 9 of the works (Portions 11,11A,11B, 12,12A~12D, and	637 days	Sat 20/1/18	Sat 21/10/16			839 days	51%					_		
15,	,15A~15C)				_	007 00500		4000							
	Site Access in Portions 11A, 11B, 12A, 12C, 12D, 15B, 15C	0 days	Sat 20/1/18	Sat 20/1/18	6	287,285SS	0 days	100%		140					
7	Site Access in Portion 15A	0 days	Thu 20/5/7	Thu 20/5/7	9	285FF+20 days	0 days	100%		118	•				
1	Site Access in Portions 11, 12, 12B	0 days	Sun 20/10/18	Sun 20/10/18	14	285FF+20 days	0 days	100%				*			
7	Site Access in Portion 15	0 days	Mon 21/1/18	Mon 21/1/18	17	285FF+20 days	0 days	100%				*			
7	General site clearance / demolition work / Removal of Asbesto	320 days	Wed 20/3/25	Sun 21/2/7	281SS,282FF+20	297	0 days	100%		1 4	No.				
	Containing Material & Dioxin Contaminated	JZO days	Wed 20/3/23	301121/2/7	days,283FF+20 days,284FF+20		0 44,5	20470							
	Containing Material & Dioxin Containinated				days										
	Wetland Restoration / Wetland Creation	265 days	Sat 20/12/26	Thu 21/9/16			869 days	60%							
25		150 days	Sat 20/12/26	Mon 21/5/24	281,54,52	288SS+45 days,291SS+80 days	984 days	70%				-	3 30 0		
	Excavation	*				•	-	70%		1.0			1		
	Backfilling	150 days	Tue 21/2/9	Thu 21/7/8	287SS+45 days	289SS+120 days,294SS+100 days	939 days						हरा कर । इ.स.च्या		4
	Agricultural Planting	100 days	Wed 21/6/9	Thu 21/9/16	288SS+120 days	297	51 days	30%							1
	Construction of storage sheds	210 days	Tue 21/3/16	Mon 21/10/11			75 days	29%				C A COLUMN	1		
	Construction of concrete structure	180 days	Tue 21/3/16	Sat 21/9/11	287SS+80 days	292SS+45 days,293	26 days	50%							
	Installation of Alluminium Window/Lourvre and GMS Door	100 days	Fri 21/4/30	Sat 21/8/7	291SS+45 days	293SS+21 days	140 days	0%							
	with recycle timber decoration		, , , , , ,	, -, .			,						1		
	Installation of GMS roofing structure with recycle timber	30 days	Sun 21/9/12	Mon 21/10/11	292SS+21 days,291	297	26 days	0%	3 days				→ I h		
	Construction of Channel	150 days	Thu 21/5/20	Sat 21/10/16	288SS+100 days,79	295SS,297	21 days	30%	4 days						
			Thu 21/5/20	Sat 21/10/16	294SS	296FF,297	21 days	0%	4 days			No.			
	Construction of walkway	150 days							4 days			15000	E 3		
	Construction of entry landing with drop bar	45 days	Thu 21/9/2	Sat 21/10/16	295FF	297	21 days	0%							
I	Completion of Section 9 of the works	0 days	Sat 21/10/16	Sat 21/10/16	289,293,294,295,296,285		21 days	0%				l i	•		
										1		4			
13.	. Section 10 of the works (Portion 21)	715 days	Mon 21/1/18	Tue 23/1/3			-187 days	0%							
	Site Access in Portion 21	0 days	Mon 21/1/18	Mon 21/1/18	17	301	-187 days	0%				100			
	Local Objection for commencement of Works	197 days	Tue 21/1/19	Tue 21/8/3	300	302	-187 days	0%					3.		
	•				301	303	-187 days	0%				Facatatatatata	7		
	General site clearance / demolition work / Removal of Asbesto	14 days	Wed 21/8/4	Tue 21/8/17	301	303	-107 days	078		1.7			E		
	Containing Material	14 days	Wed 21/8/18	Tue 21/8/31	302	305	-187 days	0%					1		
	Erect site hoarding	14 days			302	303		0%					Ы		
	Archaeological Impacts Mitigation Measures	180 days	Wed 21/9/1	Sun 22/2/27	***		-187 days						elanana 1		
	Archaeological survey	120 days	Wed 21/9/1	Wed 21/12/29	303	306	-187 days	0%					888888B		
	Archaeological impact assessment	60 days	Thu 21/12/30	Sun 22/2/27	305	308	-187 days	0%					建		
	Site formation work and infrastructure works at Wa Shan	310 days	Mon 22/2/28	Tue 23/1/3			-187 days	0%							•
	Site formation / slope works	150 days	Mon 22/2/28	Wed 22/7/27	306	309	-187 days	0%	4 days				1 1		
	Drainage works	100 days	Thu 22/7/28	Fri 22/11/4	308	310	-187 days	0%	4 days	1 7				BBBB.	
	Paving block on footway	30 days	Sat 22/11/5	Sun 22/12/4	107,116,309	311	-187 days	0%							1
	•					312FF	-187 days	0%						L	The second
_	bituminous pavement on carriageway	30 days	Mon 22/12/5	Tue 23/1/3	310	21ZFF							1	A.	النتا
19	Completion of Section 10 of the works	0 days	Thu 22/6/30	Thu 22/6/30	311FF		-187 days	0%					1	•	
										974					1
14.	. Section 11 of the works (Portions 22, 23, 24 and remainder	706 days	Tue 19/12/31	Sun 21/12/5			488 days	71%							-
	orks)	•													
/	Site Access in Portions 23, 24	0 days	Tue 19/12/31	Tue 19/12/31	7	318	0 days	100%		1	¬ ↓	8			7
	Site Access in Portion 22	0 days	Wed 20/5/13	Wed 20/5/13	10	329,331	0 days	100%		100 mg	•	- W			
•	Egretray Site Protion 23 & 24	657 days	Tue 20/2/18	Sun 21/12/5			488 days	65%							
					715	319	0 days	100%			14		~		
V	General site clearance	30 days	Tue 20/2/18	Wed 20/3/18	315		-						ì		
√	Erect site hoarding (Deleted)	30 days	Thu 20/3/19	Fri 20/4/17	318	320	0 days	100%							
	Preliminary Survey	40 days	Sat 20/4/18	Wed 20/5/27	319	321	0 days	100%							
7	Submission of mehtodology for translocation	60 days	Thu 20/5/28	Sun 20/7/26	320	322	0 days	100%							
	Approval of Methodology for Translocation	130 days	Mon 20/7/27	Thu 20/12/3	321	323,342	0 days	100%							
/	Translocation works	30 days	Fri 20/12/4	Sat 21/1/2	322,343	324	0 days	100%				24			
				Tue 21/6/8	323	325	0 days	100%				TA 1			
V	Planting in Portion 23 & 24	30 days	Mon 21/5/10					60%				, ,			
	Provision of Railing and Gate at Portion 23 (Under PMI 026 /	90 days	Wed 21/6/9	Mon 21/9/6	324	326	488 days	60%				_			
	CE 019)			6 6- 4-0/-	225	22755 200 4	400 -1	001	10 days				P21212070		
	Establishmnet of A1-7FLN Egretray Site (Portion 23)	90 days	Tue 21/9/7	Sun 21/12/5	325	327FS-200 days	488 days	0%	10 days			TV POOR	[335355] ered		Į.
	Establishment of B1-7FLN Egretray Site (Portion 24)	90 days	Thu 21/5/20	Tue 21/8/17	326FS-200 days	332	488 days	0%	10 days	ĺ		9	eeth ·		
												1			
/	Preparation Works for Landscaping work at existing Ho Sheung	60 days	Wed 20/11/25	Sat 21/1/23	316,331	332,330	0 days	100%	10 days			9020	7		
*	Heung Egretry Site (Portion 22)	, -		,	•				-	1					1
	Planting for Ho Sheung Heung Egretry Site	14 days	Sun 21/1/24	Sat 21/2/6	329		0 days	100%					1		

Task Summary Revised Programme: August 2021 Rolled Up Task Critical Task Data Date : 2021-8-3 Milestone Rolled Up Critical Task Rolled Up Milestone 🔷 Rolled Up Progress Split

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Project Summary Group By Summary

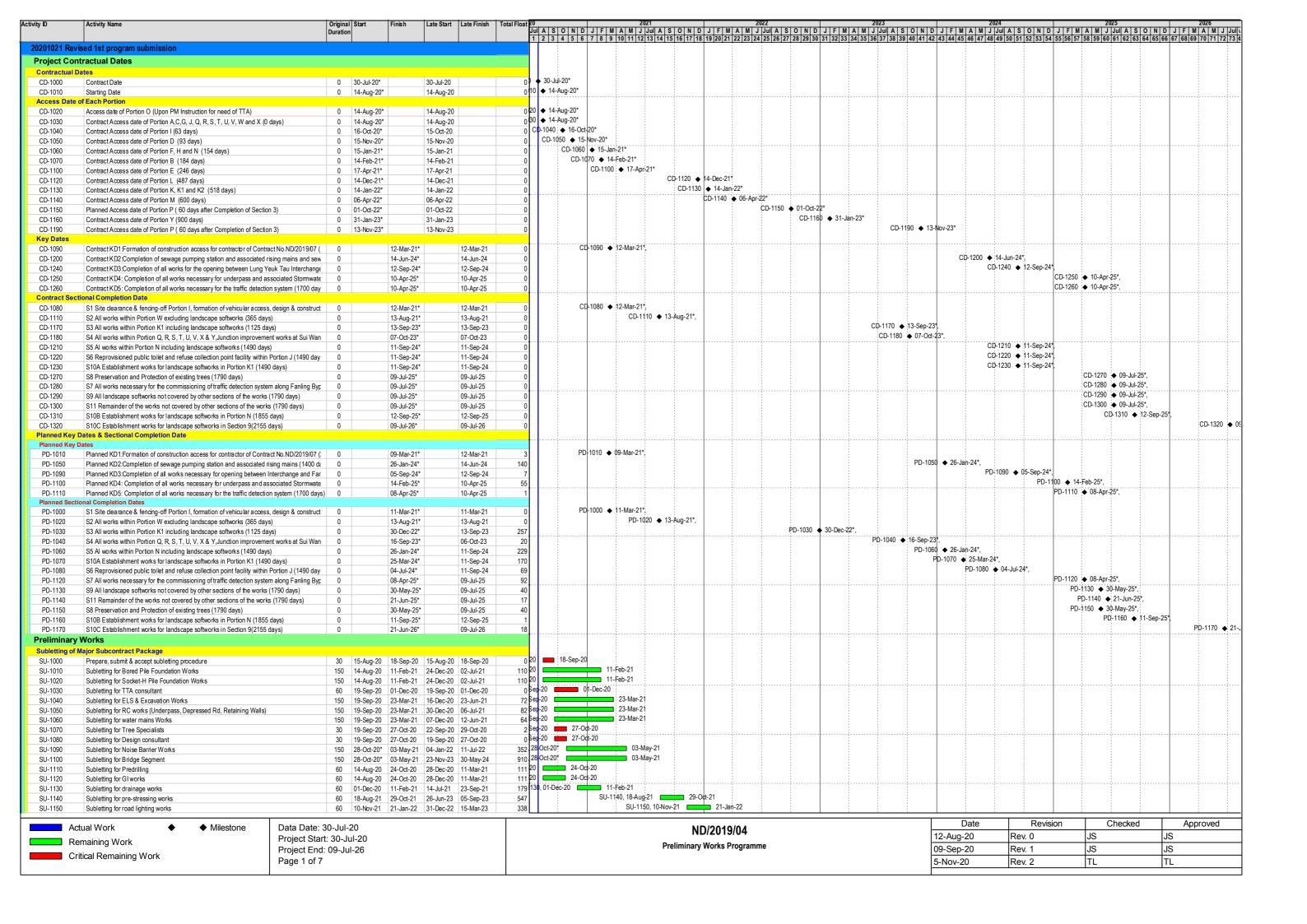


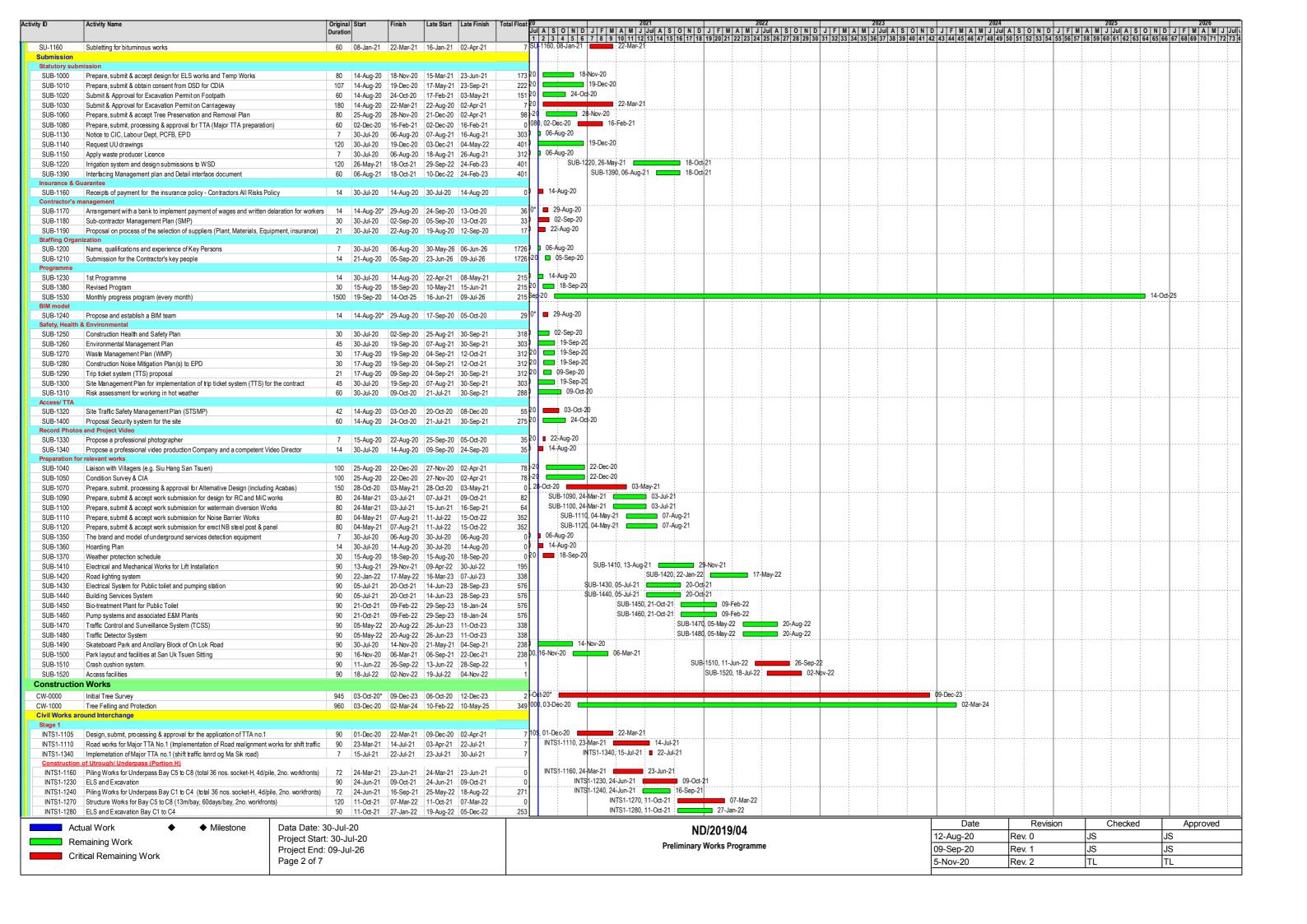
Progress Deadline Contract No. ND/2019/03

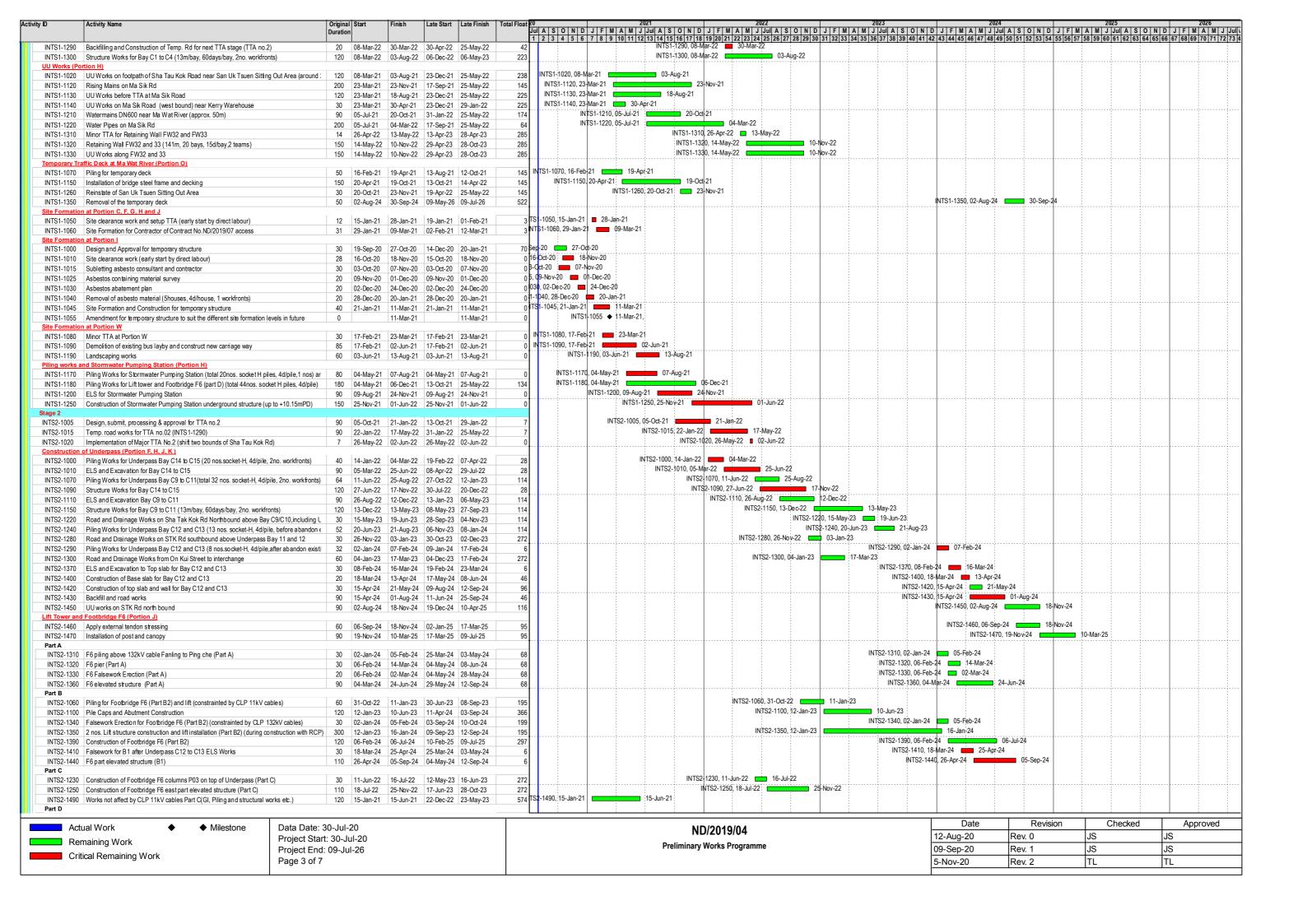
Sang Hing - Kuly Joint Venture

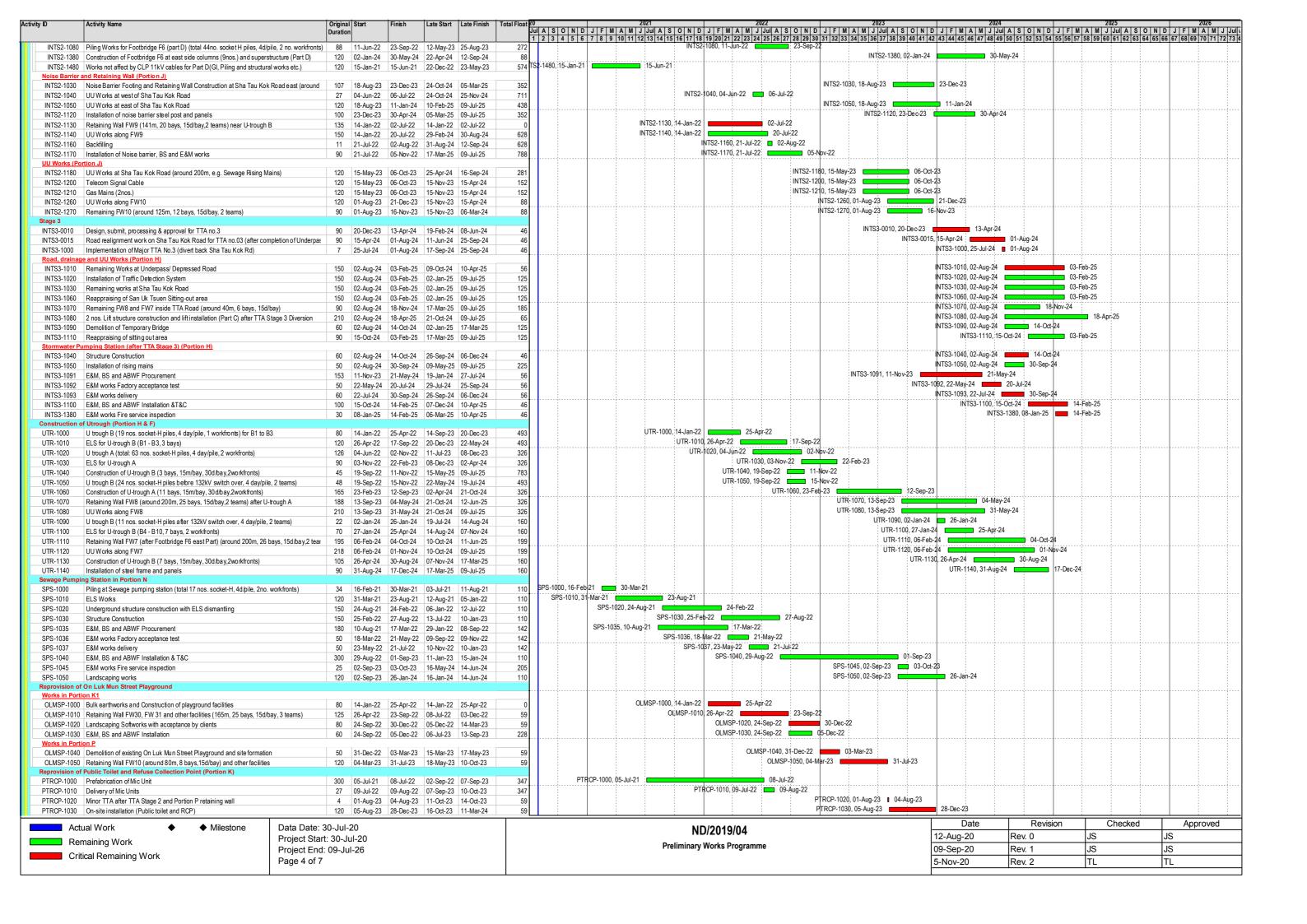
Kwu Tung North and Fanling North New Development Areas, Phase 1 : Development of Long Valley Nature Park Project Programme of the Works

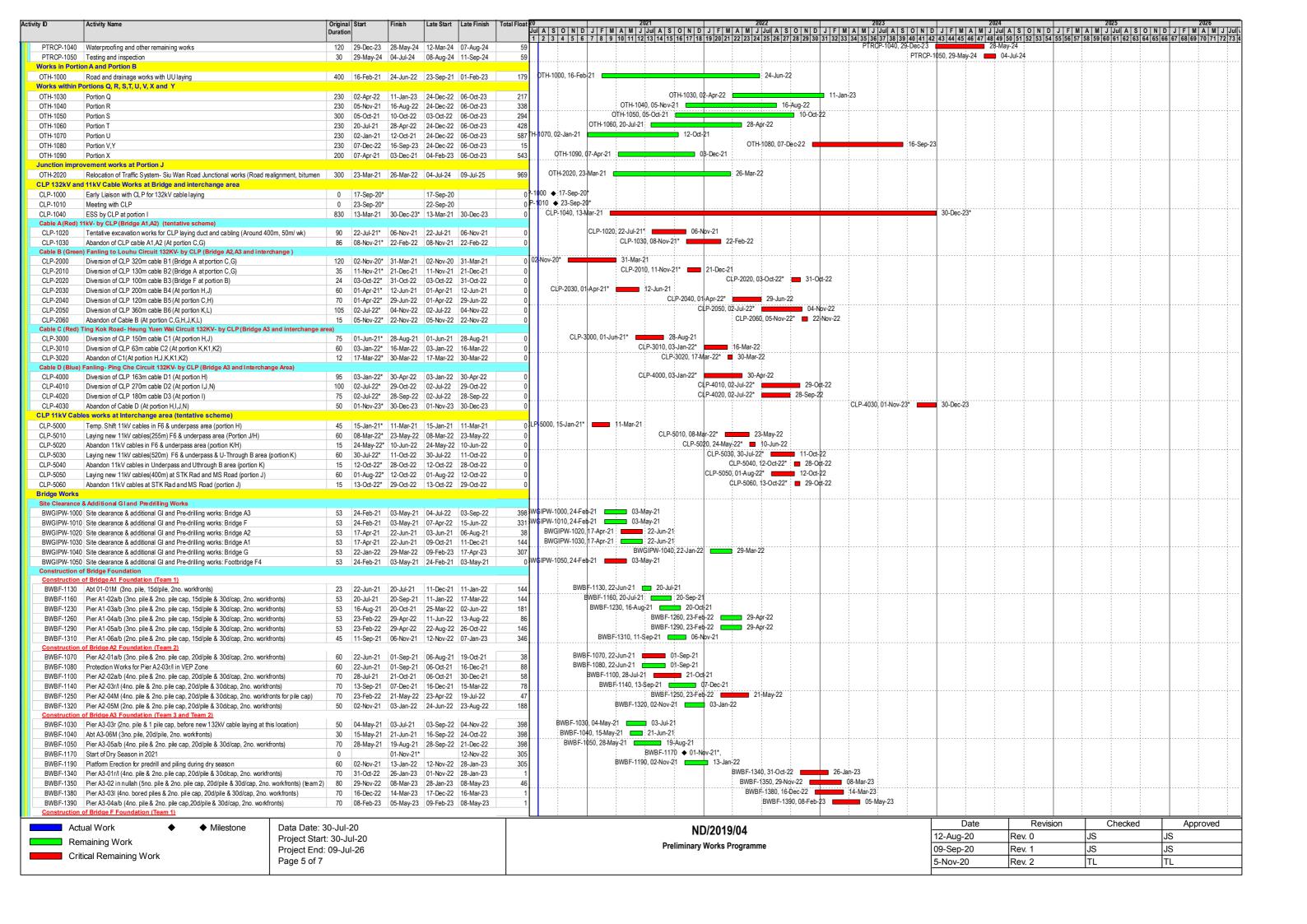
ID.		Task Name	Duration	Start	Finish	Predecessors	Successors	Total Slack	% Complete	Risk Allowance		2020		2021		2022		2023	
"	0	183K (Valle	Daration	O.G.							H2	<u>H1</u>	H2	H1	H2	H1	H2	H1	H2
31	√	Compensation Event No. 017 - Removal of Existing Unsafe Sheds	50 days	Tue 20/10/6	Tue 20/11/24	316	329	0 days	100%										
132		Completion of Section 11 of the works	0 days	Tue 21/8/17	Tue 21/8/17	329,327	335	488 days	0%						*				
334		15. Section 11A of the works (Establishment works for Section 11)	1050 days	Fri 21/1/1	Thu 23/11/16			78 days	79%				*						
335		Establishment works	365 days	Wed 21/8/18	Wed 22/8/17	332		534 days	20%			1							
	V	Compensation Event No. 15 Provisionof Decoys and Broadcast of Bird Sound in Portions 23 & 24	1050 days	Fri 21/1/1	Thu 23/11/16		337	0 days	100%										
337 338		Completion of Section 11A of the works	0 days	Thu 23/11/16	Thu 23/11/16	336		32 days	0%	-									
339	1	16. Section 12 of the works (Portions 25, 26 and 27)	284 days	Wed 20/3/18	Sun 20/12/27			0 days	100%				_						
40	1	Site Access in Portions 25, 26, 27	0 days	Wed 20/3/18	Wed 20/3/18	3FS+90 days	341FS+60 days	0 days	100%			•							
41	1	Boundary Site Area	60 days	Mon 20/5/18	Thu 20/7/16	340FS+60 days		0 days	100%										
142	V	Preparation for translocation works	4 days	Fri 20/12/4	Mon 20/12/7	322	346,343	0 days	100%				l l						
143	1	Compensation Event No. 11 - Translocation of Rose Bitterling	20 days	Tue 20/12/8	Sun 20/12/27	342	323	0 days	100%				ì	P.					
344	1	Collection site C1 (Portion 25)	5 days	Mon 20/12/14	Fri 20/12/18	345	347FF	0 days	100%				Į.			is .			
345	1	Collection site C2 (Portion 26)	3 days	Fri 20/12/11	Sun 20/12/13	346	347FF,344	0 days	100%				E						
46	1	Collcetion site C3 (Portion 27)	3 days	Tue 20/12/8	Thu 20/12/10	342	347FF,345	0 days	100%				F						
347	1	Completion of Section 12 of the works	0 days	Fri 20/12/18	Fri 20/12/18	344FF,345FF,346FF		0 days	100%				•	4				1	

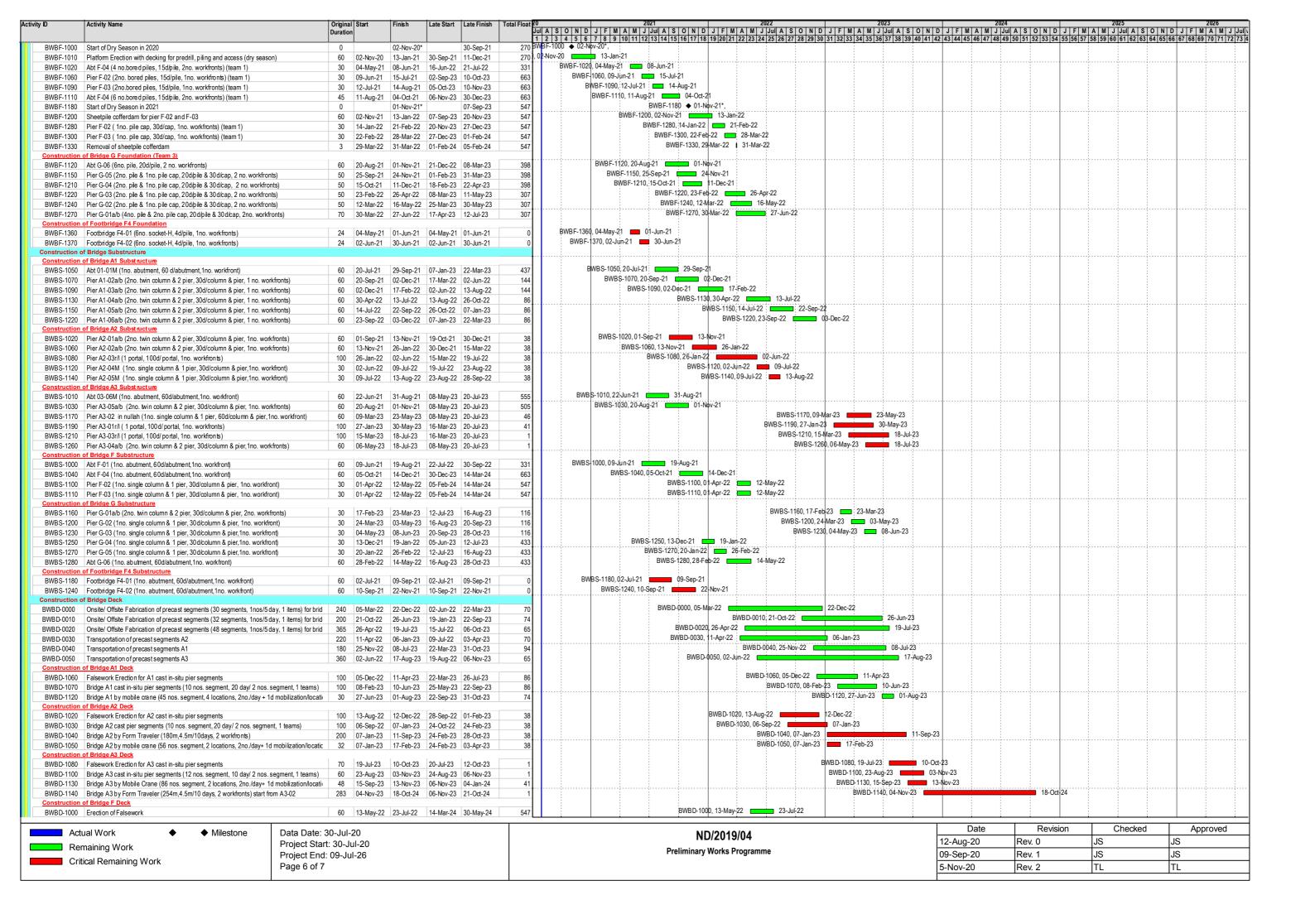


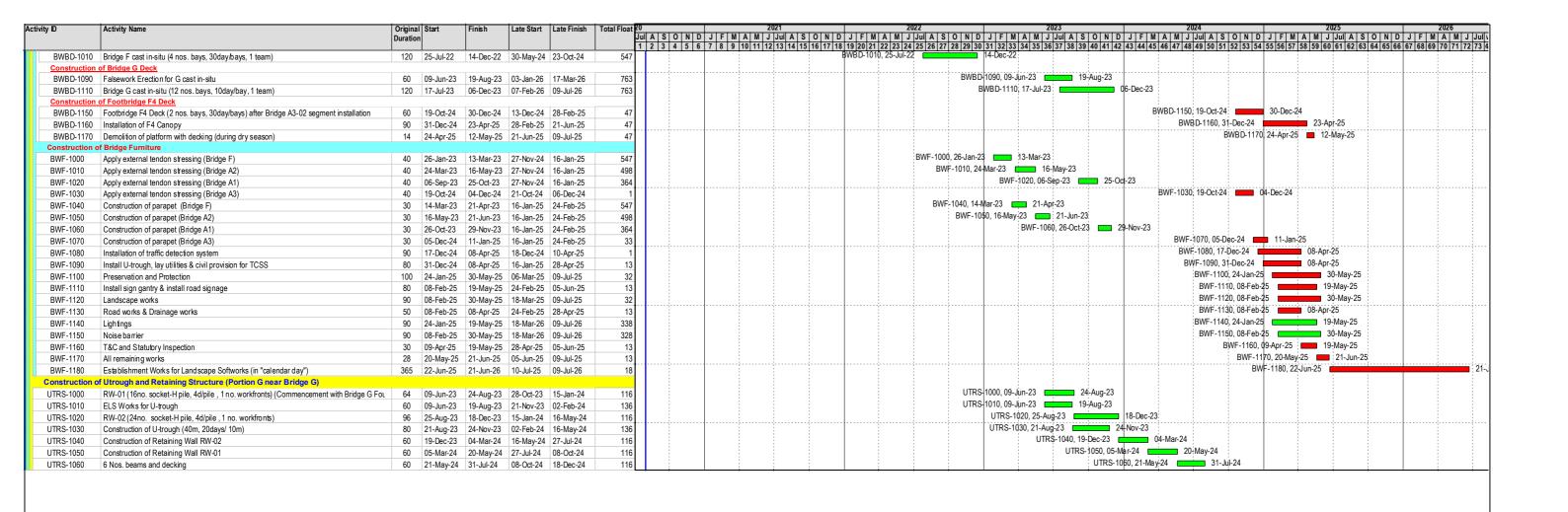












Actual Work

Remaining Work

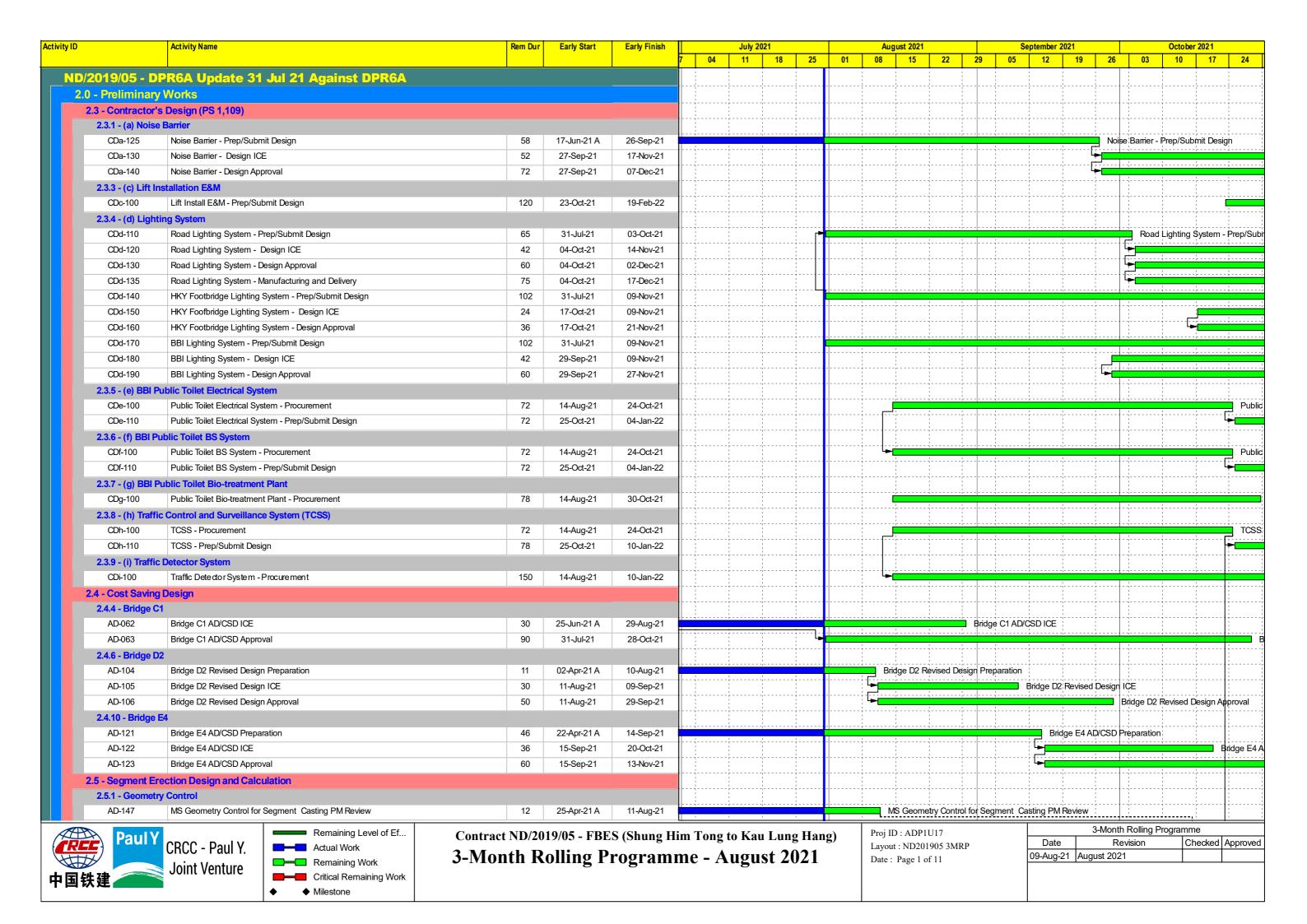
Critical Remaining Work

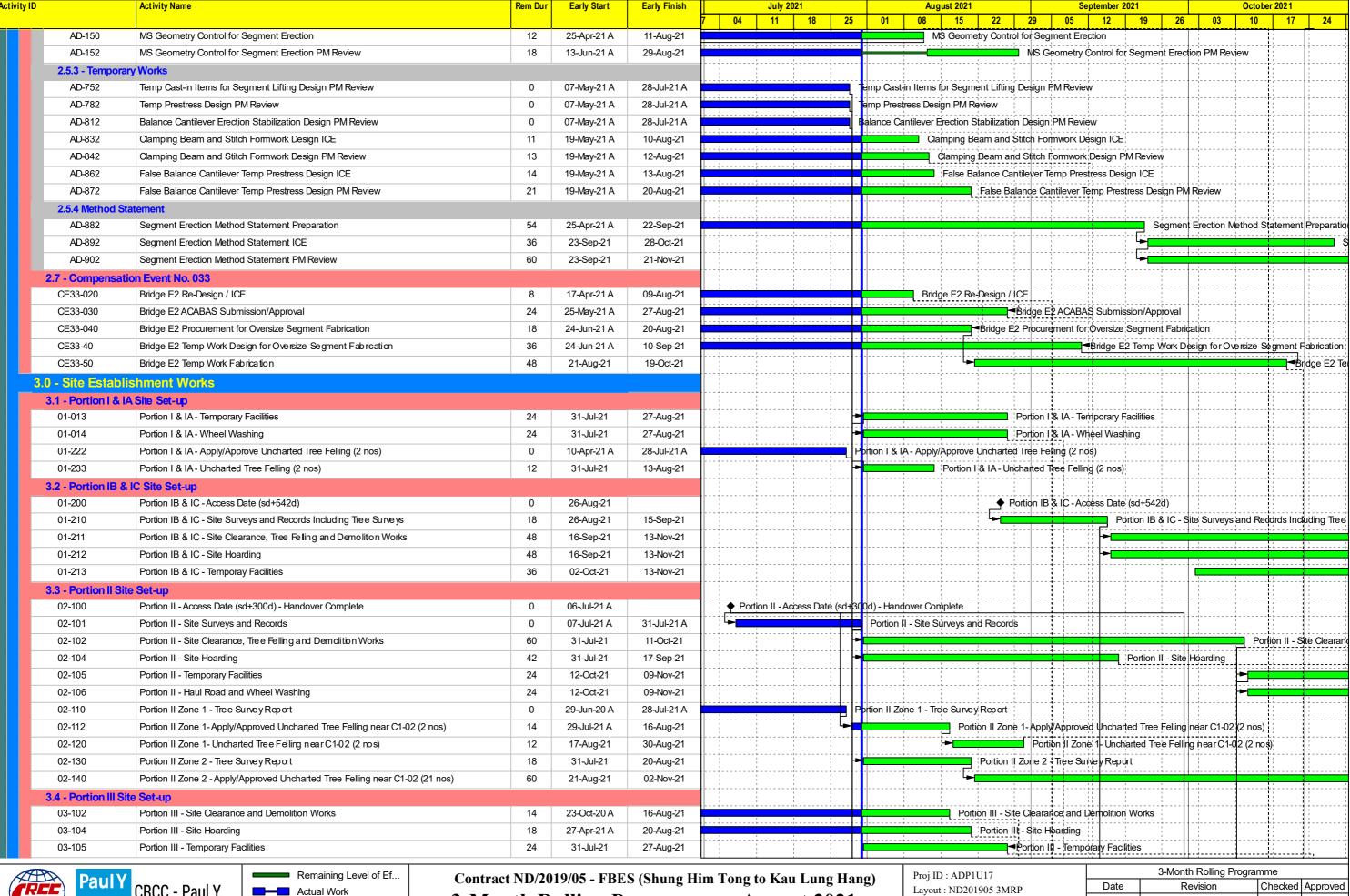
Data Date: 30-Jul-20 Project Start: 30-Jul-20 Project End: 09-Jul-26 Page 7 of 7

Milestone

ND/2019/04
Preliminary Works Programme

Revision	Checked	Approved
Rev. 0	JS	JS
Rev. 1	JS	JS
Rev. 2	TL	TL
	Rev. 0 Rev. 1	Rev. 0 JS Rev. 1 JS





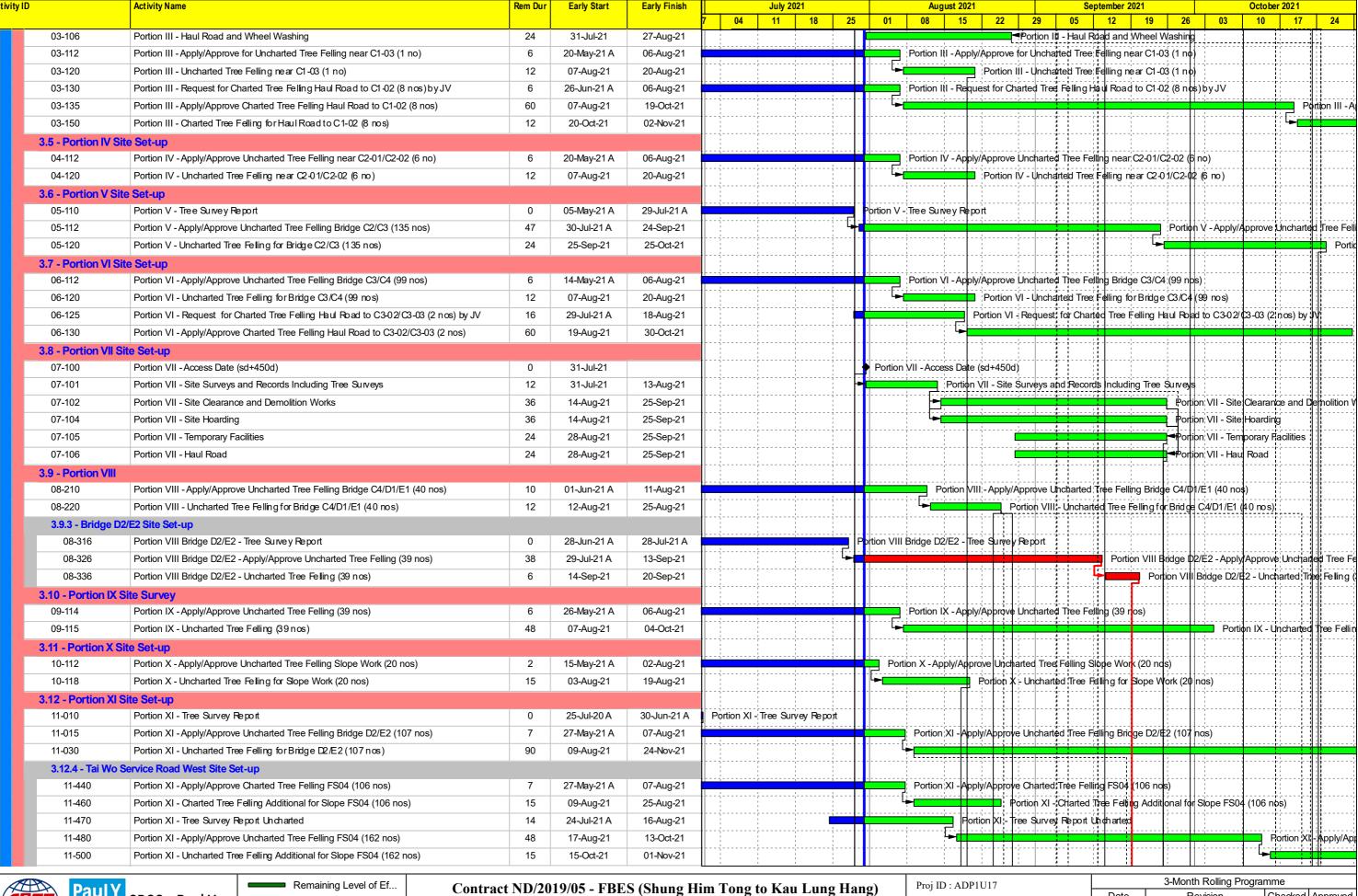


Critical Remaining Work Milestone

3-Month Rolling Programme - August 2021

Date: Page 2 of 11

09-Aug-21 | August 2021



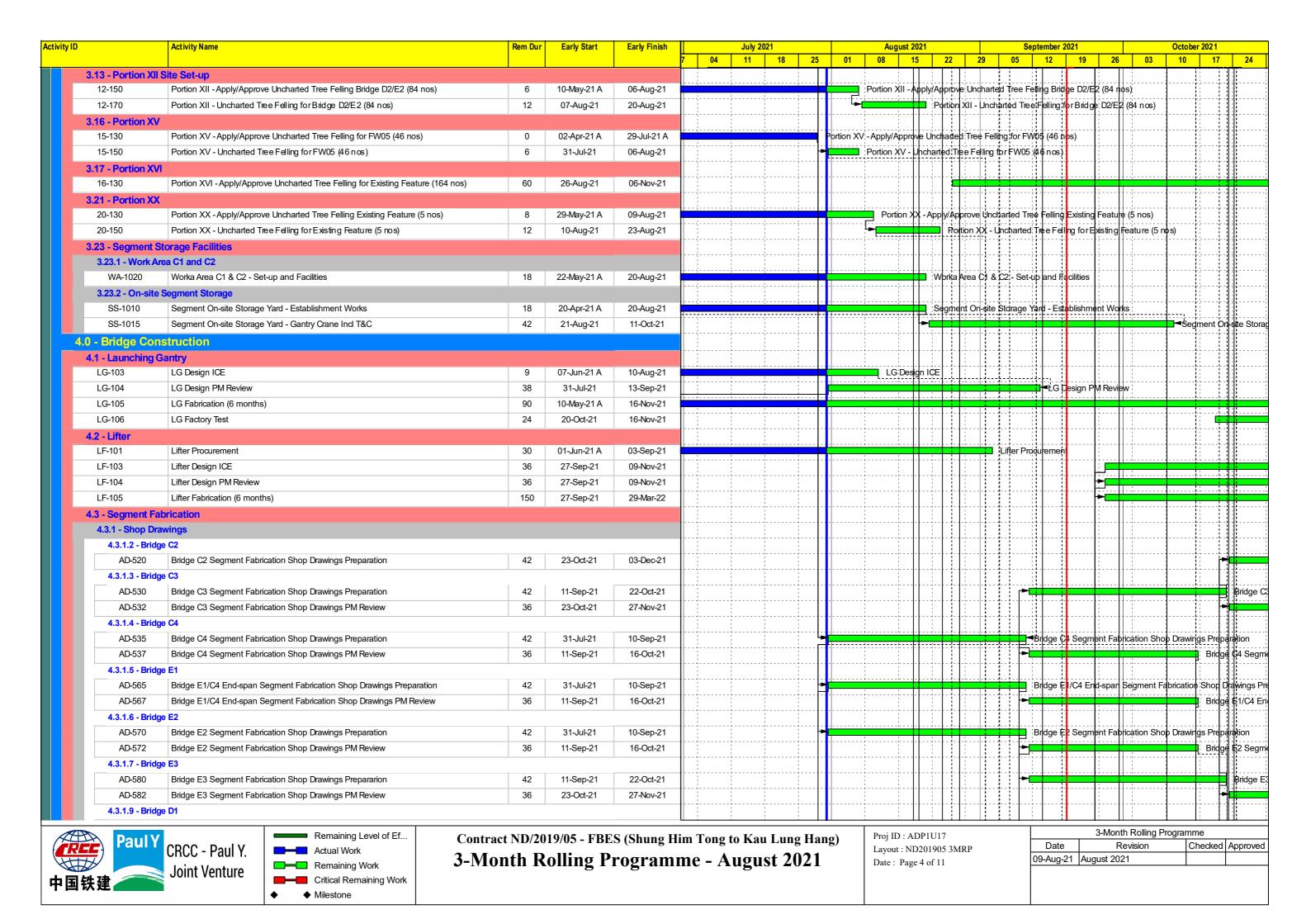


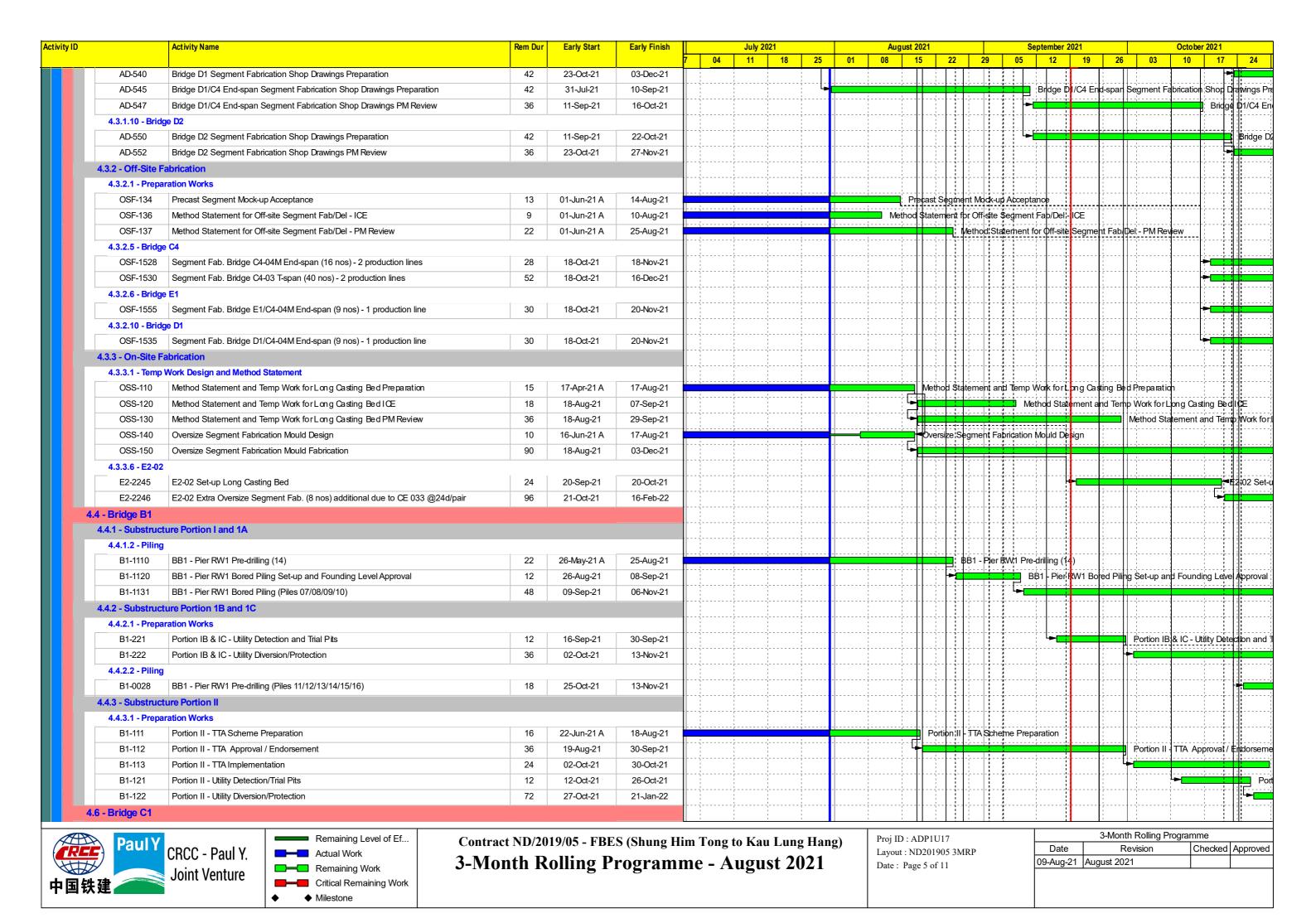
Actual Work Critical Remaining Work Milestone

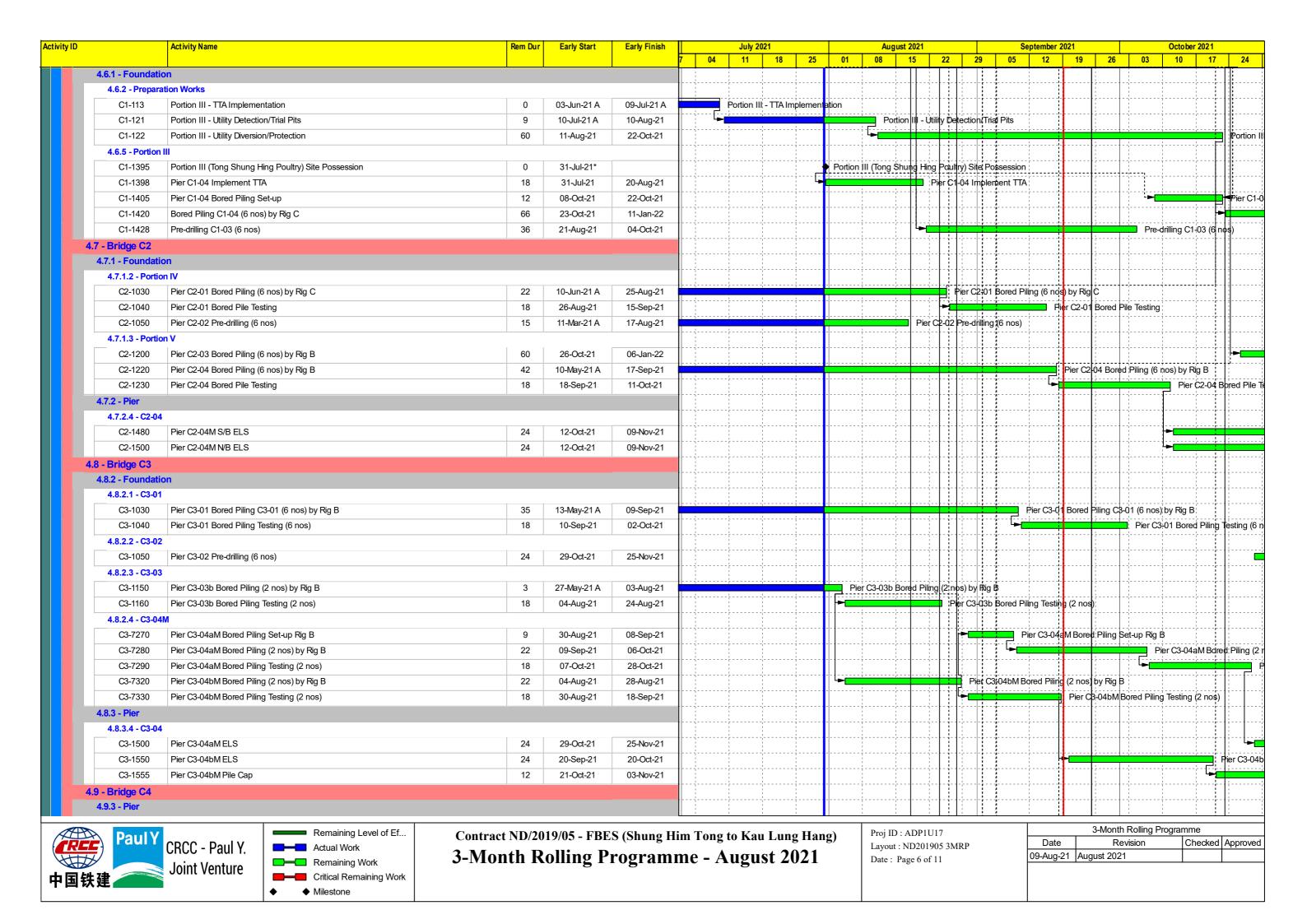
3-Month Rolling Programme - August 2021

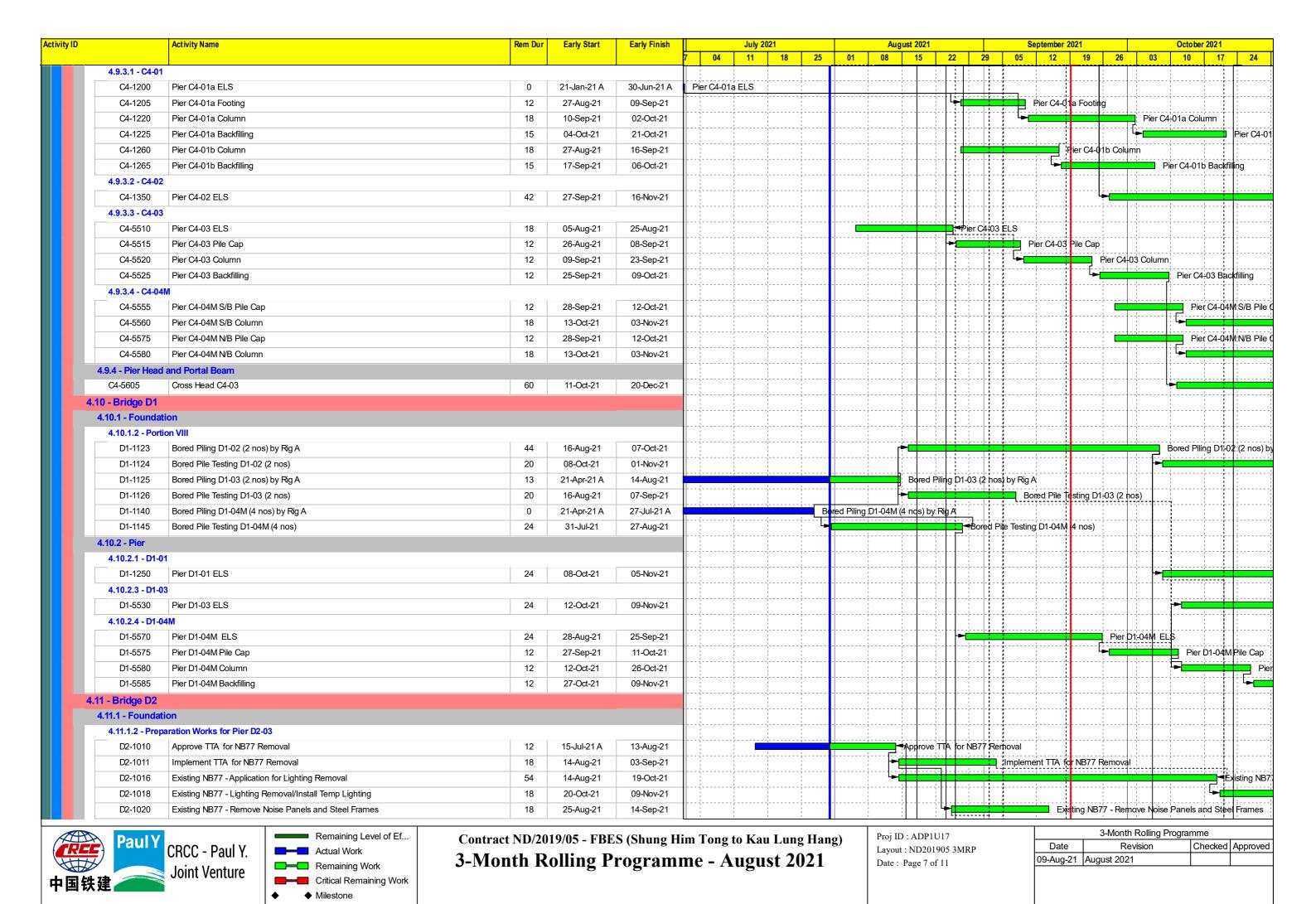
Layout: ND201905 3MRP Date: Page 3 of 11

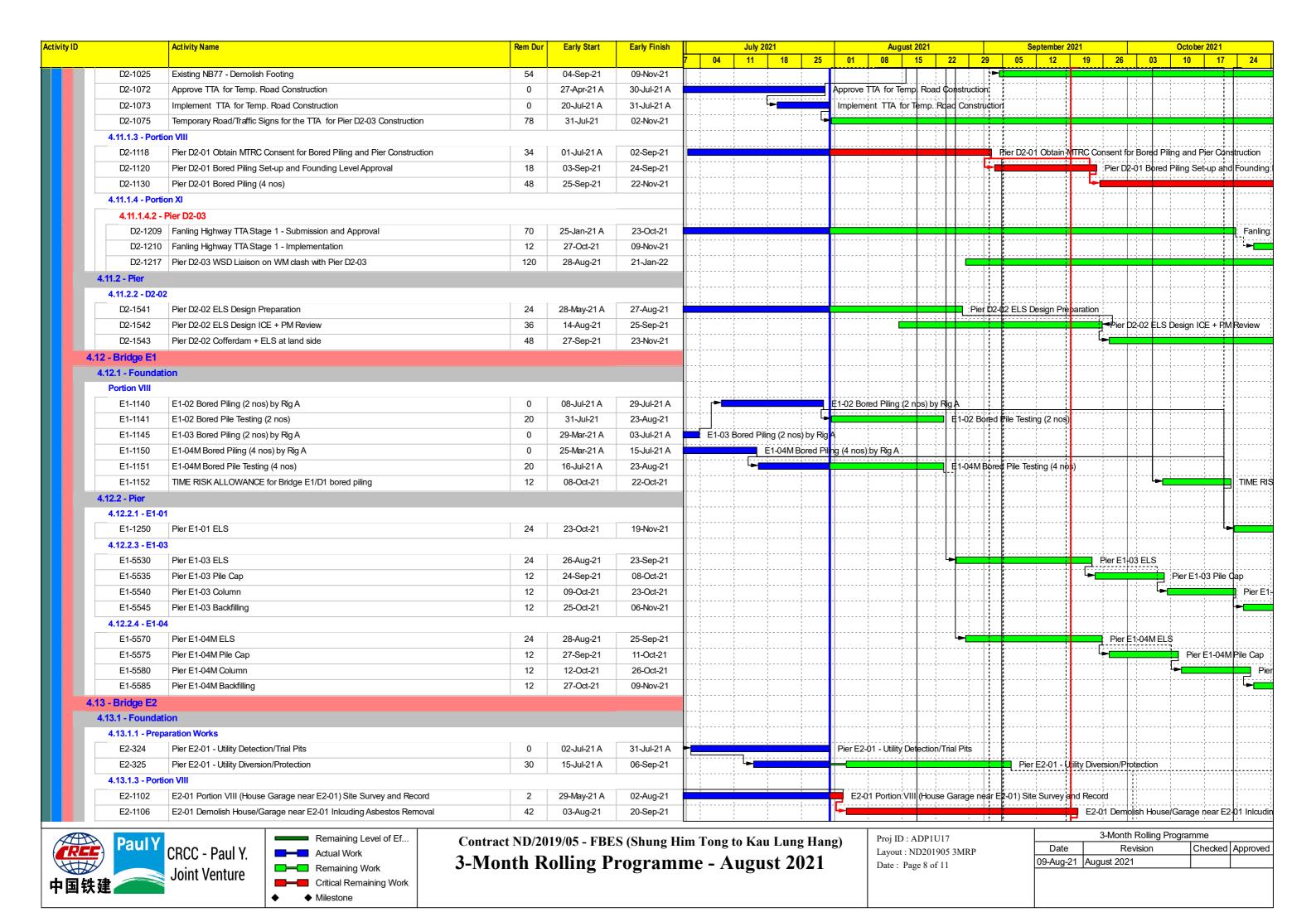
Revision Checked Approved 09-Aug-21 | August 2021

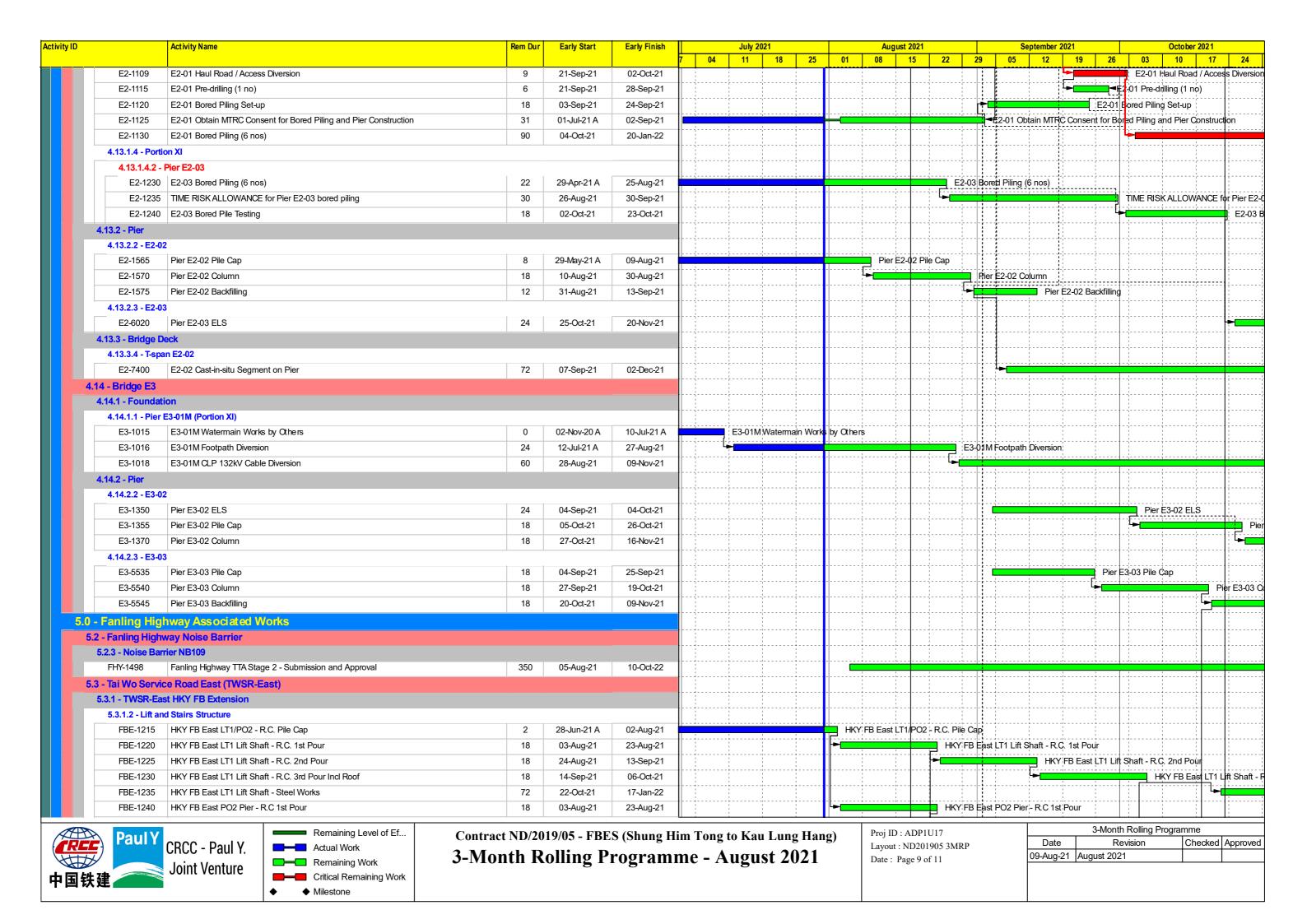


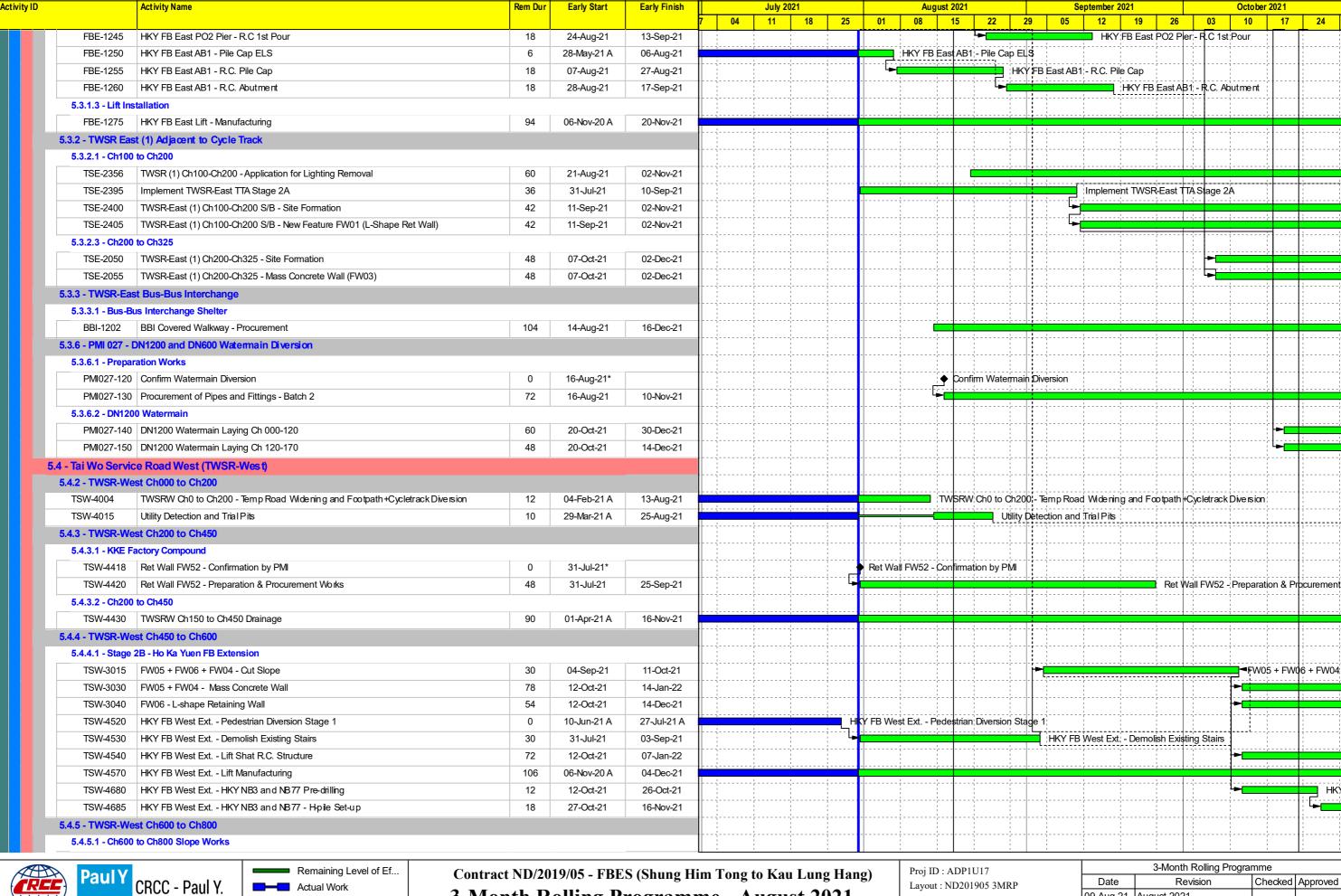












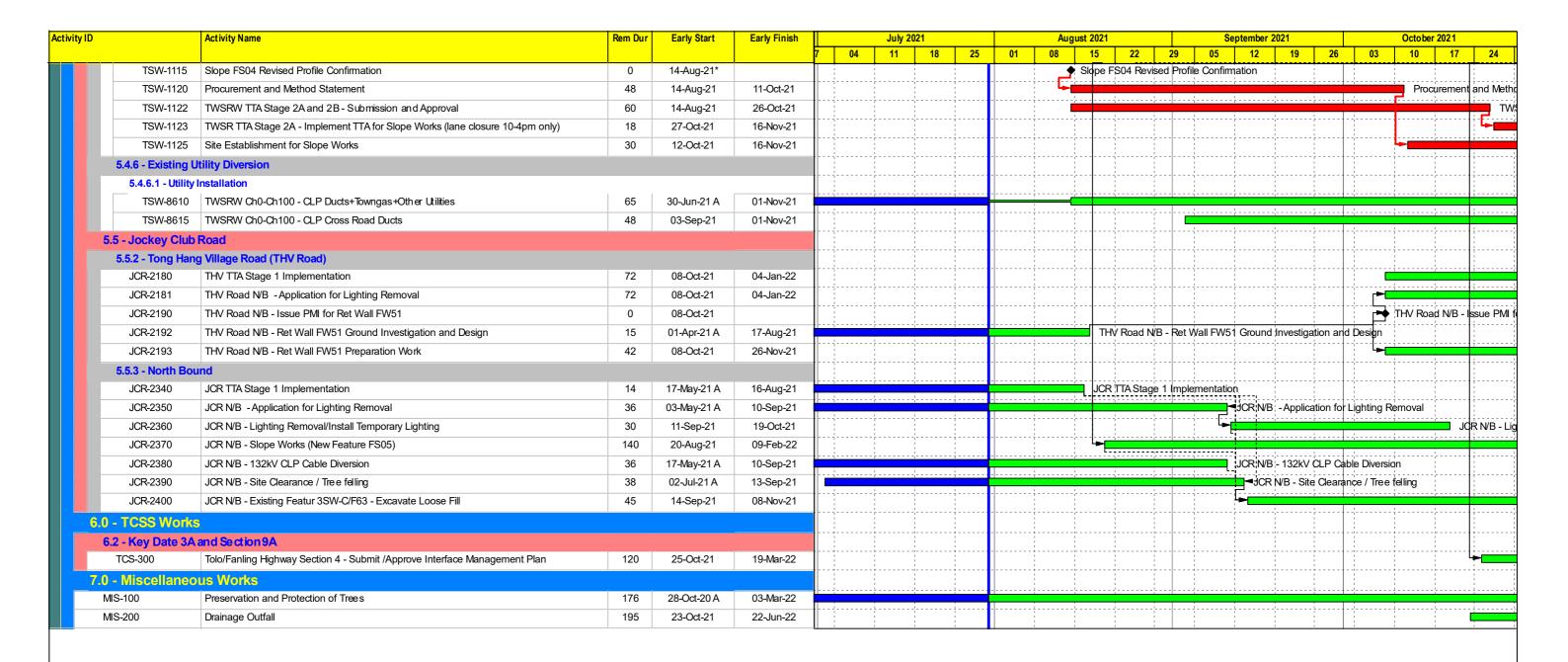


Critical Remaining Work Milestone

3-Month Rolling Programme - August 2021

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09-Aug-21 | August 2021







Contract ND/2019/05 - FBES (Shung Him Tong to Kau Lung Hang)
3-Month Rolling Programme - August 2021

Proj ID : ADP1U17 Layout : ND201905 3MRP Date : Page 11 of 11

	3-Month Rolling Prograi	mme	
Date	Revision	Checked	Approved
09-Aug-21	August 2021		

Contract No. ND/2019/06
Development of Kwu Tung North and Fanling North New E Ist Quarter 2nd Quarter 2nd Quarter 2nd Quarter 2nd Quarter 3nd Quarter 3nd Quarter 3nd Quarter 2nd Quarter 3nd Qu ND/2019/06 Contract Period 1053 days Fri 27/9/19 Sun 14/8/22 0 days Starting Date 0 days Fri 27/9/19 Fri 27/9/19 1053 days Preliminaries 944 days Fri 27/9/19 Wed 27/4/22 109 days Project Manager and Supervisor's site accommodation 944 days Fri 27/9/19 Wed 27/4/22 109 days Refurnishing the existing site office and provision of furniture and equipment 30 days Fri 27/9/19 Sat 26/10/19 1023 days Provision of regular service to the accommodation (up to completion of DLP) 944 days Fri 27/9/19 Wed 27/4/22 109 days Contractor's site accommodation 59 days Fri 27/9/19 Sun 24/11/19 994 days Searching and rental arrangement 45 days Fri 27/9/19 Sun 10/11/19 0 days Set up of site office 14 days Mon 11/11/19 Sun 24/11/19 994 days Maintenance of land traffic flow 579 days Fri 27/9/19 Tue 27/4/21 474 days Arrangement of TMLG in different stages 210 days Fri 27/9/19 Thu 23/4/20 843 days Application of TTA/ XP 180 days Fri 27/9/19 Tue 24/3/20 0 days Implementation of TTA/ XP in different stages 399 days Wed 25/3/20 Tue 27/4/21 474 days Maintenance of traffic flow in interim construction stage 184 days Fri 27/9/19 Sat 28/3/20 0 days Maintenance of traffic flow in final construction stage 395 days Sun 29/3/20 Tue 27/4/21 474 days Provision of insurances 60 days Fri 27/9/19 Mon 25/11/19993 days Third party insurance 30 days Fri 27/9/19 Sat 26/10/19 1023 days 60 days Fri 27/9/19 Mon 25/11/19 993 days Land transport for the use of the Project Manager and Supervisor 944 days Fri 27/9/19 Wed 27/4/22 109 days Provision of vehicles 30 days Fri 27/9/19 Sat 26/10/19 0 days -Provision of transportation service with drivers (including DLP) 914 days Sun 27/10/19 Wed 27/4/22 109 days Miscellaneous items 579 days Fri 27/9/19 Tue 27/4/21 474 days Contract computer facilities for the Project Manager and Supervisor 60 days Fri 27/9/19 Mon 25/11/19 993 days Provision of progress photographs 579 days Fri 27/9/19 Tue 27/4/21 474 days Installation of security system for the site 45 days Fri 27/9/19 Sun 10/11/19 1008 days Interface management and public relation works 579 days Fri 27/9/19 Tue 27/4/21 474 days BIM works 579 days Fri 27/9/19 Tue 27/4/21 474 days Upkeep of the employer's store 579 days Fri 27/9/19 Tue 27/4/21 474 days Emergency unit and weather protection scheme 579 days Fri 27/9/19 Tue 27/4/21 474 days General site clearance 21 days Fri 27/9/19 Thu 17/10/19 1032 days Hoadings, temporary fences and signboards 384 days Sun 17/11/19 Fri 4/12/20 618 days Hoadings, temporary fences and signboards at Interim stage 45 days Sun 17/11/19 Tue 31/12/19 957 days Hoadings, temporary fences and signboards at Final stage 30 days Thu 5/11/20 Fri 4/12/20 618 days Environmental management, mitigation and monitoring 579 days Fri 27/9/19 Tue 27/4/21 474 days Environmental management measures 579 days Fri 27/9/19 Tue 27/4/21 474 days Environmental mitigation measures 579 days Fri 27/9/19 Tue 27/4/21 474 days Environmental monitoring measures 579 days Fri 27/9/19 Tue 27/4/21 474 days Site Management plan for trip ticket system 21 days Fri 27/9/19 Thu 17/10/19 1032 days Air pollution abatement 579 days Fri 27/9/19 Tue 27/4/21 474 days Noise pollution abatement 579 days Fri 27/9/19 Tue 27/4/21 474 days Wastewater pollution abatement 579 days Fri 27/9/19 Tue 27/4/21 474 days Waste Management 579 days Fri 27/9/19 Tue 27/4/21 474 days Monitoring the use of ultra low sulphur diesel 579 days Fri 27/9/19 Tue 27/4/21 474 days Temporarory drainage management plan 30 days Fri 27/9/19 Sat 26/10/19 1023 days Survey of the Site 579 days Fri 27/9/19 Tue 27/4/21 474 days Initial survey 30 days Fri 27/9/19 Sat 26/10/19 0 days Conditional survey 30 days Fri 27/9/19 Sat 26/10/19 0 days Monitoring survey 549 days Sun 27/10/19 Tue 27/4/21 474 days As-build survey 65 days Mon 22/2/21 Tue 27/4/21 474 days Section 1 of the Works 697 days Fri 27/9/19 Mon 23/8/21 180 days Works for Portion 4 697 days Fri 27/9/19 Mon 23/8/21 356 days 68 days Fri 27/9/19 Tue 3/12/19 502 days General for Portion 4 Access date of Portion 4 0 days Fri 27/9/19 Fri 27/9/19 0 days Site clearance and tree felling 30 days Fri 27/9/19 Sat 26/10/19 0 days 20 days Sun 27/10/19 Fri 15/11/19 0 days Breaking up existing paving Excavation for management office building 18 days Sat 16/11/19 Tue 3/12/19 0 days Management Office Building 697 days Fri 27/9/19 Mon 23/8/21 356 days Civil and strucutral works 382 days Wed 4/12/19 Sat 19/12/20 446 days Construction of foundation from G.L. E-H / 1-3 60 days Wed 4/12/19 Sat 1/2/20 925 days 60 Idling due to COVID-9 infection 120 days Sat 1/2/20 Sat 30/5/20 0 days Construction of foundation from G.L. A-F / 1-3 14 days Sun 31/5/20 Sat 13/6/20 0 days Construction of G/F slabs from G.L. E-H / 1-3 25 days Sun 14/6/20 Wed 8/7/20 0 days Construction for G/F slabs from G.L. A-E/1-3 25 days Sun 14/6/20 Wed 8/7/20 0 days Construction for G/F to R/F columns and wall from G.L. A-E/1-3 30 days Thu 9/7/20 Fri 7/8/20 0 days 63 30 days Sat 8/8/20 Sun 6/9/20 0 days Construction for R/F slabs and beams from G.L. A-E/1-3 Construction for transformer room upper slab, columns and walls at G.L. B-C/1-3 30 days Mon 7/9/20 Tue 6/10/20 0 days 66SS+15 days Construction for UR/F slabs and beams at G.L. B-C/1-3 30 days Tue 22/9/20 Wed 21/10/20 45 days Construction of columns and walls from G/F to R/F for G.L. E-H/1-3 30 days Thu 9/7/20 Fri 7/8/20 0 days Construction of slabs and beams for R/F for G.L. E-H/1-3 30 days Sat 8/8/20 Sun 6/9/20 0 days 68 30 days Mon 7/9/20 Tue 6/10/20 0 days Construction of water tanks at R/F from G.L. E-H/1-3 69 Construction of R/F to UR/F columns and walls from G.L. C-H/1-3 30 days Wed 7/10/20 Thu 5/11/20 0 days Construction of UR/F beams and slabs from G.L. C-H/1-3 30 days Fri 6/11/20 Sat 5/12/20 0 days Construction of Parapet walls 14 days Sun 6/12/20 Sat 19/12/20 0 days Roofing works 98 days Sun 20/12/20 Sat 27/3/21 505 days Cememt sand screeding on roof slab 21 days Sun 20/12/20 Sat 9/1/21 0 days -4 21 days Sun 10/1/21 Sat 30/1/21 0 days Waterproofing works for roof 75 Construction of 40mm insulation laver 21 days Sun 31/1/21 Sat 20/2/21 0 days __ Construction of 40mm cement sand rendering 21 days Sun 21/2/21 Sat 13/3/21 0 days 77 Project: ND/2019/06 Data Date: 2021-01-01 Summary Inactive Task Inactive Summary Duration-only Manual Summary Finish-only External Milestone Revised Programme (Rev. 5) Page 1

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Development of Kwu Tung North and Fanling North New De 4th Quarter Ist Quarter Ist Quarter Ist Quarter 2nd Quarter 2nd Quarter 3rd Qu 0 14 days Sun 14/3/21 Sat 27/3/21 505 days 4 External walls and internal walls 135 days Mon 7/9/20 Tue 19/1/21 527 days --External wall block work and finishing 45 days Sun 6/12/20 Tue 19/1/21 0 days 67.72 -5 Internal wall block and finishing 45 days Mon 7/9/20 Wed 21/10/20 0 days Installation of windows and doors 135 days Thu 22/10/20 Fri 5/3/21 527 days Installation of external windows and doors 45 days Wed 20/1/21 Fri 5/3/21 527 days Installation of internal doors 45 days Thu 22/10/20 Sat 5/12/20 617 days -Interior fitting-out, finishes and fixtures 90 days Wed 20/1/21 Mon 19/4/21 461 days 60 days Wed 20/1/21 Sat 20/3/21 0 days Erection of interior fitting-out and finishes Installation of fixtures 30 days Sun 21/3/21 Mon 19/4/21 0 days 21 days Tue 20/4/21 Mon 10/5/21 461 days **Building services works for Wholesale Market** 697 days Fri 27/9/19 Mon 23/8/21 356 days Submissions of BS equipment and materials (including BS items of Wholesale Market) 180 days Fri 27/9/19 Tue 24/3/20 0 days 53 Approval for BS equipment and materials 21 days Wed 25/3/20 Tue 14/4/20 0 days Submissions of CBWD and CSD drawings 90 days Wed 15/4/20 Mon 13/7/20 0 days Approval for CBWD and CSD drawings 21 days Tue 14/7/20 Mon 3/8/20 0 days Approval and confirmed all construction drawings 21 days Tue 4/8/20 Mon 24/8/20 0 days -5 Production of BIM model 60 days Tue 25/8/20 Fri 23/10/20 0 days Submission of BIM model 30 days Sat 24/10/20 Sun 22/11/20 0 days Approval for BIM model 21 days Mon 23/11/20 Sun 13/12/20 609 days Production and delivery of BS equipment (including BS items of Wholesale Market) 210 days Wed 15/4/20 Tue 10/11/20 115 days 100 Installation of BS equipment 260 days Fri 6/11/20 Fri 23/7/21 387 days 99SS+90 days,71,66 Materials preparation for MVAC box 60 days Fri 6/11/20 Mon 4/1/21 0 days 99SS+90 days,71,66 60 days Tue 5/1/21 Fri 5/3/21 0 days MVAC box installation -Materials preparation for electical installation 60 days Wed 20/1/21 Sat 20/3/21 0 days 102SS+15 days -5 60 days Sun 21/3/21 Wed 19/5/21 452 days Electical installation 103 105 Materials preparation for fire services installation 60 days Mon 25/1/21 Thu 25/3/21 0 days 102SS+20 days 106 Fire services installation 60 days Fri 26/3/21 Mon 24/5/21 0 days Materials preparation for plumbing and drainage works 60 days Sun 25/4/21 Wed 23/6/21 0 days 106SS+30 days -5 Plumbing and drainage installation 30 days Thu 24/6/21 Fri 23/7/21 387 days 107 Installation of switch panel 21 days Sat 6/3/21 Fri 26/3/21 0 days 102 Installation of emergency generator 21 days Sat 27/3/21 Fri 16/4/21 42 days 109 Testing and commissioning of BS equipmen 30 days Sat 29/5/21 Sun 27/6/21 0 days 110,133,324SS+60 days 112 Inspection of BS installations inclunding Fire Services by Authorities 30 days Mon 28/6/21 Tue 27/7/21 0 days 111,329 13 days Wed 28/7/21 Mon 9/8/21 0 days Remedial works after inspection 112 114 -Re-insepction of BS installations by Authorities 14 days Tue 10/8/21 Mon 23/8/21 356 days 113 Transformer Room 542 days Wed 4/12/19 Fri 28/5/21 443 days 116 -9 Coordination with CLP for power supply and cable entry 180 days Wed 4/12/19 Sun 31/5/20 64 days Construction for power supply and cable entry 105 days Tue 4/8/20 Mon 16/11/200 days 116,94 -Inform CLP for cable laying Thu 4/2/21 Thu 4/2/21 556 days 1 day 119 16 days Thu 15/4/21 Fri 30/4/21 0 days Cable laving by CLP -5 Interior finishing for transformer room 13 days Fri 18/9/20 Wed 30/9/20 0 days 117SS+45 days.64.63.65 121 -5 13 days Thu 1/10/20 Tue 13/10/20 0 days Fitting-out and E&M works 120.94 122 -Installation of power panel 7 days Wed 14/10/20 Tue 20/10/20 0 days 121 123 7 days Wed 21/10/20 Tue 27/10/20 656 days 122 124 Inform CLP for inspection Wed 6/1/21 Thu 14/1/21 0 days 9 days 125 -5 Inspection for transformer room 1 day Fri 15/1/21 Fri 15/1/21 0 days 124 Rectification works to the inspection results 16 days Sat 16/1/21 Sun 31/1/21 0 days 125 Re-inform CLP for inspection 3 days Mon 1/2/21 Wed 3/2/21 0 days 126 128 Re-inspection for transformer room 1 day Thu 4/2/21 Thu 4/2/21 0 days 127 129 Confirm from CLP for transformer and switchboard delivery 21 days Fri 5/2/21 Thu 25/2/21 0 days Delivery of CLP transformer and switchboard 14 days Fri 26/2/21 Thu 11/3/21 0 days 129 131 14 days Fri 12/3/21 Thu 25/3/21 36 days Cable testing CLP 130 4 Installation of power meter by CLP 14 days Sat 1/5/21 Fri 14/5/21 0 days 131.119 133 4 Power feeding by CLP 14 days Sat 15/5/21 Fri 28/5/21 0 days 132,119 134 Works for Portion 3 697 days Fri 27/9/19 Mon 23/8/21 180 days 135 Idling due to COVID-9 infection 105 days Sat 1/2/20 Fri 15/5/20 53 days General for Portion 3 120 days Tue 7/7/20 Wed 4/11/20 0 days 137 4 Access date of Portion 3 (184 days after starting date) 0 days Tue 7/7/20 Tue 7/7/20 0 days 494.135 Site clearance and tree felling 120 days Wed 8/7/20 Wed 4/11/20 0 days 137 139 Construction for fencing to the final stage 21 days Wed 8/7/20 Tue 28/7/20 0 days 137 140 -Construction for ground investigation according to drawing no. 60335576/C6/C00/7501 30 days Wed 29/7/20 Thu 27/8/20 717 days Site formation 294 days Wed 22/7/20 Tue 11/5/21 383 days 142 494,139SS+14 days 45 days Wed 22/7/20 Fri 4/9/20 0 days Breaking up existing paving -5 Excavation for underground drainage and pipeline construction 267 days Tue 18/8/20 Tue 11/5/21 383 days -5 90 days Tue 18/8/20 Sun 15/11/20 637 days FMH-1.03 -> FMH-1.04 and FMH-1.02 - > FMH-1.01 90 days Tue 18/8/20 Sun 15/11/20 0 days C6_1.5 -> C6_2.2 -> C6_2.3 -> C6_2.4 FMH-2.06 -> FMH-2.05 -> FMH-2.04 90 days Fri 28/8/20 Wed 25/11/200 days 147 C6_1.4 -> C6_1.3 -> C6_1.2 90 days Tue 1/9/20 Sun 29/11/20 0 days 146SS+4 days FMH-2.04 -> FMH-2.03 -> FMH-2.02 -> FMH-2.01 90 days Fri 4/9/20 Wed 2/12/20 620 days 146FF+7 days.196 C6 1.2 -> C6 1.1B -> C6 1.1 -> C6 1.1A 90 days Mon 30/11/20 Sat 27/2/21 533 days 147.197 DP2.21 -> C6 2.1 -> C6 2.1A -> C6 1.1A 90 days Wed 14/10/20 Mon 11/1/21 0 days 151 DP2.21 with U-channel construction near MOB 120 days Tue 12/1/21 Tue 11/5/21 460 days 150,63 152 C6_2.4 -> C6_2.5 120 days Mon 16/11/20 Mon 15/3/21 0 days 145,63 153 Excavation for footing construction 73 days Wed 29/7/20 Fri 9/10/20 0 days 154 F5 -> F4 -> F3 -> F2 -> F1 10 days Wed 29/7/20 Fri 7/8/20 0 days 142SS+7 days.494 -, F11 and F10 -> F17 and F16 8 days Sat 8/8/20 Sat 15/8/20 0 days 154 Project: ND/2019/06 Data Date: 2021-01-01 Summary Inactive Task Inactive Summary Manual Summary Finish-only External Milestone Revised Programme (Rev. 5) Page 2

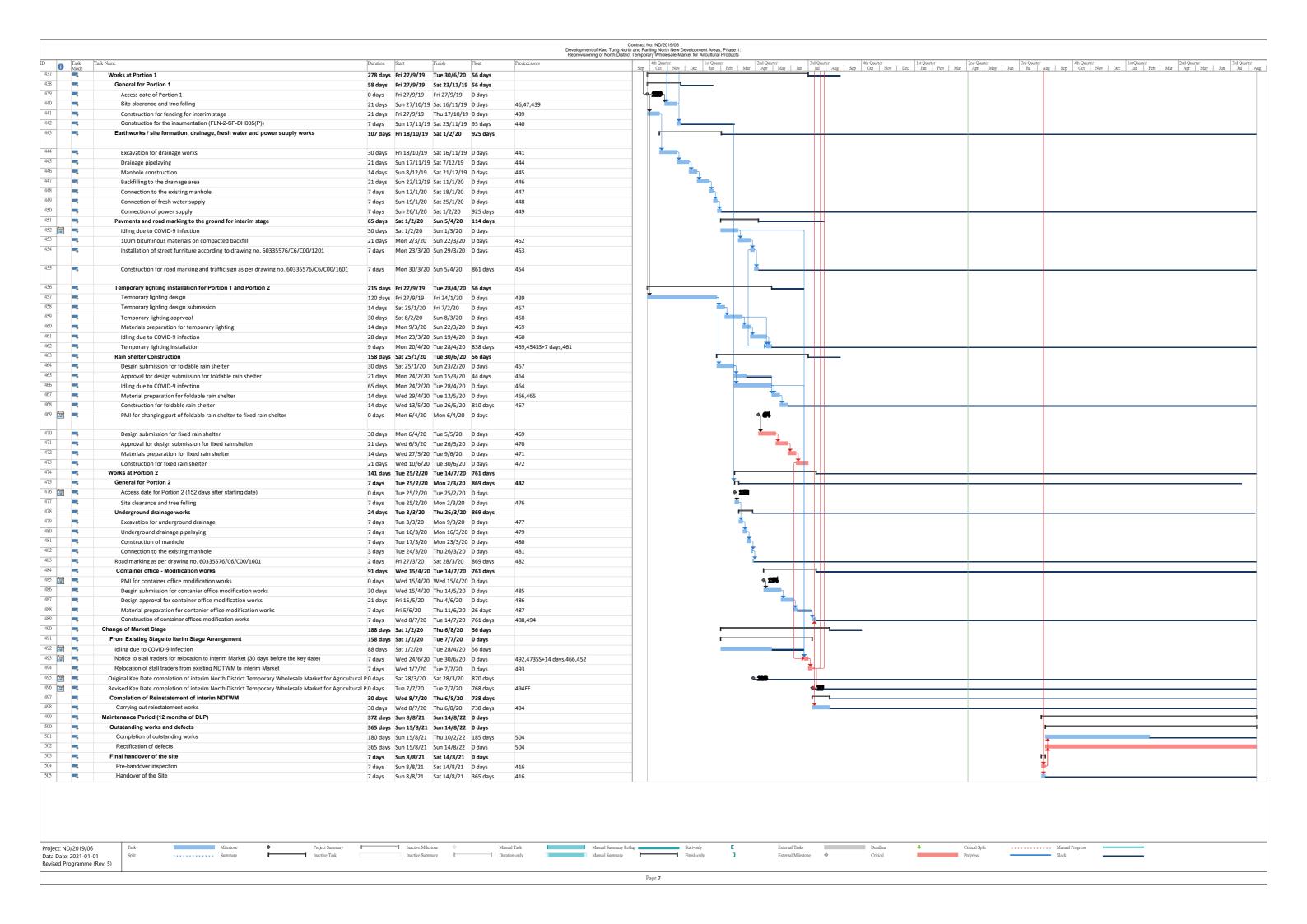
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Development of Kwu Tung North and Fanling North New I 4th Quarter 1st Quarter 2nd Quarter 3rd Quarter 4th Quarter 1st Quarter 2nd Quarter 3rd Quarter 4ug Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug 0 7 days Sun 16/8/20 Sat 22/8/20 0 days 155 -4 F27 -> F26 - > F25 -> F24 10 days Sun 23/8/20 Tue 1/9/20 0 days 156 158 F9 -> F8 -> F7 8 days Wed 2/9/20 Wed 9/9/20 0 days 157 159 -5 F16 -> F15 -> F14 -> F13 Thu 10/9/20 Thu 17/9/20 0 days 158 160 F22 -> F21 -> F20 -> F19 Fri 18/9/20 Fri 25/9/20 0 days 161 F6 -> F12 -> F18 -> F23 14 days Sat 26/9/20 Fri 9/10/20 0 days 162 Underground drainage construction 134 days Tue 16/3/21 Tue 27/7/21 383 days Remaining U-channel and drainage construction 120 days Tue 16/3/21 Tue 13/7/21 0 days 152 Connection to the existing manhole 14 days Wed 14/7/21 Tue 27/7/21 383 days 163 165 Footing construction 73 days Sun 2/8/20 Tue 13/10/20 383 days Vertical blinding and blind layers construction 67 days Sun 2/8/20 Wed 7/10/20 383 days 167 10 days Sun 2/8/20 Tue 11/8/20 0 days F5 -> F4 -> F3 -> F2 -> F1 154SS+4 days F11. F10 and F9 -> F17 and F16 10 days Wed 12/8/20 Fri 21/8/20 0 days 155SS+4 days Sun 23/8/20 Wed 26/8/20 0 days 4 days Thu 27/8/20 Thu 3/9/20 0 days F27 -> F26 - > F25 -> F24 8 days 157SS+4 days F8 -> F7 4 days Sun 6/9/20 Wed 9/9/20 0 days 158SS+4 days 172 F16 -> F15 -> F14 -> F13 Mon 14/9/20 Mon 21/9/20 0 days 159SS+4 days 8 days F22 -> F21 -> F20 -> F19 Tue 22/9/20 Tue 29/9/20 0 days 160SS+4 days 8 days 174 F6 -> F12 -> F18 -> F23 8 days Wed 30/9/20 Wed 7/10/20 0 days 161SS+4 days Steel fixing for footings 67 days Tue 4/8/20 Fri 9/10/20 383 days 176 167SS+2 days F5 -> F4 -> F3 -> F2 -> F1 10 days Tue 4/8/20 Thu 13/8/20 0 days 177 F11, F10 and F9 -> F17 and F16 10 days Fri 14/8/20 Sun 23/8/20 0 days 168SS+2 days 178 Tue 25/8/20 Fri 28/8/20 0 days 169SS+2 days 4 days 179 F27 -> F26 - > F25 -> F24 Sat 29/8/20 Sat 5/9/20 0 days 170SS+2 days 8 days -F8 -> F7 4 days Tue 8/9/20 Fri 11/9/20 0 days 171SS+2 days F16 -> F15 -> F14 -> F13 8 days Wed 16/9/20 Wed 23/9/20 0 days 172SS+2 days 182 F22 -> F21 -> F20 -> F19 Thu 24/9/20 Thu 1/10/20 0 days 173SS+2 days 183 Fri 2/10/20 Fri 9/10/20 0 days F6 -> F12 -> F18 -> F23 8 days 174SS+2 days 184 Formwork erection for footings 67 days Thu 6/8/20 Sun 11/10/20 383 days F5 -> F4 -> F3 -> F2 -> F1 10 days Thu 6/8/20 Sat 15/8/20 0 days 176SS+2 days F11. F10 and F9 -> F17 and F16 10 days Sun 16/8/20 Tue 25/8/20 0 days 177SS+2 days 4 days Thu 27/8/20 Sun 30/8/20 0 days 178SS+2 days 188 F27 -> F26 - > F25 -> F24 8 days Mon 31/8/20 Mon 7/9/20 0 days 179SS+2 days F8 -> F7 4 days Thu 10/9/20 Sun 13/9/20 0 days 180SS+2 days F16 -> F15 -> F14 -> F13 Fri 18/9/20 Fri 25/9/20 0 days 181SS+2 days 8 days 191 F22 -> F21 -> F20 -> F19 Sat 26/9/20 Sat 3/10/20 0 days 8 days 182SS+2 days F6 -> F12 -> F18 -> F23 8 days Sun 4/10/20 Sun 11/10/20 0 days 183SS+2 days Casting concrete for footings 61 days Fri 14/8/20 Tue 13/10/20 383 days 194 Fri 14/8/20 Mon 17/8/20 0 days F5 -> F4 -> F3 -> F2 -> F1 4 days F11, F10 and F9 -> F17 and F16 4 days Mon 24/8/20 Thu 27/8/20 0 days 186FF+2 days 196 Tue 1/9/20 Tue 1/9/20 2 days 187FF+2 days 1 day F27 -> F26 - > F25 -> F24 2 days Tue 8/9/20 Wed 9/9/20 81 days 188FF+2 days Mon 14/9/20 Tue 15/9/20 0 days F8 -> F7 2 days 189FF+2 days 199 F16 -> F15 -> F14 -> F13 2 days Sat 26/9/20 Sun 27/9/20 686 days 190FF+2 days 200 F22 -> F21 -> F20 -> F19 2 days Sun 4/10/20 Mon 5/10/20 678 days 191FF+2 days 201 F6 -> F12 -> F18 -> F23 Mon 12/10/20 Tue 13/10/20 0 days 192FF+2 days 2 days 202 Construction for Steel Canopy 588 days Fri 27/9/19 Thu 6/5/21 465 days Searching for steel fabricator 120 days Fri 27/9/19 Fri 24/1/20 0 days 439SS 204 Preparation for shop drawing of steel canopy 45 days Sat 25/1/20 Mon 9/3/20 0 days 203 205 Shop drawing submission for approval 21 days Tue 10/3/20 Mon 30/3/20 80 days 204 206 Idling due to COVID-9 infection 70 days Sat 1/2/20 Fri 10/4/20 0 days Change of steel fabricator 14 days Sat 11/4/20 Fri 24/4/20 0 days 206 208 -5 Re-preparation for shop drawing of steel canopy 55 days Sat 25/4/20 Thu 18/6/20 0 days 207 Re-Shop drawing submission for approval 21 days Fri 19/6/20 Thu 9/7/20 0 days 208 210 Approval of shop drawings 21 days Fri 10/7/20 Thu 30/7/20 0 days 209 30 days Sun 19/7/20 Mon 17/8/20 0 days Material preparation for steel canopy (materials testing in Mainland China) 212 120 days Tue 18/8/20 Tue 15/12/20 0 days Fabrication and delivery for steel colum (under +18.1mPD) Updated information provided for steel column (above +18.1mPD) 1 day Thu 22/10/20 Thu 22/10/20 0 days 120 days Fri 23/10/20 Fri 19/2/21 0 days Fabrication and delivery for steel colum (above +18.1mPD) 212SS+60 days.213 -5 Fabrication and delivery for steel frame and truss 120 days Mon 7/12/20 Mon 5/4/21 0 days 214SS+45 days Fabrication and delivery for bracing and secondary steel member 120 days Mon Mon 26/4/21 0 days 215SS+21 days 28/12/20 Fabrication for skylight steel frame structure 65 days Tue 12/1/21 Wed 17/3/21 0 days 216SS+15 days,264 218 95 days Tue 15/9/20 Fri 18/12/20 0 days Installation for steel column (under +18.1mPD) 219 Area 1 - F5, F4, F3, F11, F10, F9 18 days Tue 15/9/20 Fri 2/10/20 0 days 194SS+28 days,212SS+28 days -Area 2 - F17, F16, F28 8 days Sat 3/10/20 Sat 10/10/20 1 day 195SS+30 days,219 221 Area 3 -F1, F2, F7, F8 5 days Mon 12/10/20 Fri 16/10/20 23 days 194FF+28 days.220.198SS+28 days 222 Area 3 -F6 2 days Mon 9/11/20 Tue 10/11/20 81 days 201SS+28 days.221 223 Area 4 -F12, F13, F14, F15 8 days Wed 11/11/20 Wed 18/11/20 0 days 201SS+30 days.220 224 Area 5 - F18, F19, F20, F21, F22 10 days Thu 19/11/20 Sat 28/11/20 12 days 201SS+30 days,223 Area 6 - F23, F24, F25, F26, F27 8 days Fri 11/12/20 Fri 18/12/20 73 days 201FF+30 days,224,212FF+3 days 226 Installation for steel column (above +18.1mPD) 58 days Mon 11/1/21 Tue 9/3/21 370 days Area 1 - F5, F4, F3, F11, F10, F9 5 days Mon 11/1/21 Fri 15/1/21 0 days 214SS+80 days 228 Area 2 - F17, F16, F28 3 days Thu 21/1/21 Sat 23/1/21 1 day 214SS+90 days,220 229 Area 3 -F1, F2, F6, F7, F8 Sun 31/1/21 Thu 4/2/21 0 days 214SS+100 days,221,222 230 Area 4 -F12, F13, F14, F15 8 days Wed 10/2/21 Wed 17/2/21 2 days 214SS+110 days,223 231 Area 5 - F18, F19, F20, F21, F22 10 days Sat 20/2/21 Mon 1/3/21 5 days 214SS+120 days,224 Project: ND/2019/06 Data Date: 2021-01-01 Inactive Task Inactive Summary Finish-only External Milestone Critical Revised Programme (Rev. 5) Page 3

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F5, F4, F3, F11, F10, F9 7 days Wed 27/1/21 Tue 2/2/21 537 days 242 Area 2 - F17, F16, F28 7 days Thu 11/2/21 Wed 17/2/21 522 days 235,216SS+45 days 243 Area 3 -F1, F2, F6, F7, F8 7 days Fri 26/2/21 Thu 4/3/21 507 days 236,216SS+60 days Area 4 -F12, F13, F14, F15 7 days Sat 13/3/21 Fri 19/3/21 492 days 237.216SS+75 days Area 5 - F18, F19, F20, F21, F22 7 days Sun 28/3/21 Sat 3/4/21 477 days 238.216SS+90 days Area 6 - F23, F24, F25, F26, F27 7 days Fri 30/4/21 Thu 6/5/21 444 days 239,216FF+10 days 247 Installation for skylight system steel frame structure 86 days Wed 27/1/21 Thu 22/4/21 0 days 248 Area 1 - F5, F4, F3, F11, F10, F9 7 days Wed 27/1/21 Tue 2/2/21 0 days 234,217SS+15 days Area 2 - F17, F16, F28 7 days Mon 1/2/21 Sun 7/2/21 553 days 235.217SS+20 days.248SS+5 days 250 Area 3 -F1, F2, F6, F7, F8 7 days Sun 14/2/21 Sat 20/2/21 6 days 236.217SS+25 days Area 4 -F12, F13, F14, F15 7 days Sat 27/2/21 Fri 5/3/21 10 days 237,217SS+30 days,250 252 Area 5 - F18, F19, F20, F21, F22 7 days Tue 16/3/21 Mon 22/3/21 24 days 238,217SS+35 days,251 253 Area 6 - F23, F24, F25, F26, F27 Fri 16/4/21 Thu 22/4/21 479 days 239,217SS+40 days,252 7 days 254 Construction for steel staircase 240 days Fri 10/7/20 Sat 6/3/21 526 days 255 60 days Fri 10/7/20 Mon 7/9/20 0 days Design for steel staircase 205.209 -Submission for steel staircase 14 days Tue 8/9/20 Mon 21/9/20 0 days 255 Approval for steel staircase 21 days Tue 22/9/20 Mon 12/10/20 69 days 256 258 Fabrication for steel staircase 45 days Mon 21/12/20 Wed 3/2/21 0 days 257,236FF-10 days Delivery for steel staircase 14 days Thu 4/2/21 Wed 17/2/21 543 days 260SS-14 days, 258 260 Installation for steel staircase 21 days Sun 14/2/21 Sat 6/3/21 4 days 258,236 227 days Fri 19/6/20 Sun 31/1/21 456 days Design issues for roof of steel canopy -5 Skylight secondary steelwork members design and their fixing 30 days Fri 19/6/20 Sat 18/7/20 0 days 205.208 -5 Submission for skylight secondary steelwork members design and their fixing 14 days Sun 19/7/20 Sat 1/8/20 0 days 262 264 -4 Approval for the desing of skylight secondary steelwork members and their fixing 21 days Sun 2/8/20 Sat 22/8/20 142 days 263 265 -5 30 days Fri 31/7/20 Sat 29/8/20 0 days Design for glazing panel with Aluminum frame 14 days Sun 30/8/20 Sat 12/9/20 0 days Submission for glazing panel with Aluminum frame 21 days Sun 13/9/20 Sat 3/10/20 680 days Approval for design for glazing panel with Aluminum frame 266 __ Design for Purlin cleat and layout drawing 30 days Fri 31/7/20 Sat 29/8/20 0 days 205.210 Submission for Purlin cleat and layout drawing 7 days Sun 30/8/20 Sat 5/9/20 0 days 268 21 days Sun 6/9/20 Sat 26/9/20 0 days Approval for design for Purlin cleat and layout drawing 271 -5 Design for metal roof cladding system and PMMA skylight system design calculation and shop 30 days Fri 31/7/20 Sat 29/8/20 0 days 205,210 272. -5 Submission for metal roof cladding system and PMMA skylight system design calculation and 7 days Sun 30/8/20 Sat 5/9/20 0 days 271 273 Approval for metal roof cladding system and PMMA skylight system design calculation and shop 21 days Sun 6/9/20 Sat 26/9/20 0 days 272 -5 Design for sliding roof hatch or hydraulic swing hatch door 60 days Fri 31/7/20 Mon 28/9/20 0 days 205.210 Submission for sliding roof hatch or hydraulic swing hatch door 14 days Tue 29/9/20 Mon 12/10/200 days 274 276 Approval for sliding roof hatch or hydraulic swing hatch door 21 days Tue 13/10/20 Mon 2/11/20 122 days 275 90 days Tue 29/9/20 Sun 27/12/20 0 days Design for guardrail for roof 274 278 Submission for guardrail for roof 14 days Mon 28/12/20 Sun 10/1/21 0 days Approval for guardrail for roof 21 days Mon 11/1/21 Sun 31/1/21 0 days 278 Design for solar pannel and the steel supporting frame 60 days Fri 31/7/20 Mon 28/9/20 0 days 210 Submission for solar pannel and the steel supporting frame 14 days Tue 29/9/20 Mon 12/10/20 0 days 280 Approval for solar pannel and the steel supporting frame 21 days Tue 13/10/20 Mon 2/11/20 142 days 281 283 Construction for roof of steel canopy 319 days Sun 27/9/20 Wed 11/8/21 368 days 284 Fabrication and delivery for glazing panel with Aluminum frame 45 days Tue 19/1/21 Thu 4/3/21 0 days 217SS+7 days,266 -45 days Wed 10/2/21 Fri 26/3/21 506 days Installation for glazing panel with Aluminum frame 284SS+14 days.247SS+14 days -5 Materials preparation and delivery for Purlin cleat, rockwood insulation. skylight PMMA 274 days Sun 27/9/20 Sun 27/6/21 37 days Purlin cleat steel raw 15 days Sun 27/9/20 Sun 11/10/20 672 days 270,273 288 -5 Prepare fabrication drawing 15 days Sun 27/9/20 Sun 11/10/20 0 days 270,273 289 Under Liner 60 days Mon 12/10/20 Thu 10/12/20 0 days 200 60 days Mon 12/10/20 Thu 10/12/20 94 days Alum Halter 288 291 Rockwool insulation 60 days Wed 14/4/21 Sat 12/6/21 0 days 299FS+30 days Top Liner (Coil) 60 days Wed 14/4/21 Sat 12/6/21 0 days 299FS+30 days Skylight PMMA Panel (expected for glazing panel) 45 days Mon 12/10/20 Wed 25/11/20 0 days 294 30 days Sun 27/9/20 Mon 26/10/20 99 days 289FF-45 days GMS. Gutter in mill finish 30 days Sun 27/9/20 Mon 26/10/20 99 days 289FF-45 days 296 45 days Mon 12/10/20 Wed 25/11/20 174 days Skylight GMS edge capping w/. PE coating -4 60 days Thu 29/4/21 Sun 27/6/21 0 days Main Roof GMS. Edge capping w/. PE coating 292SS+15 days -5 Installation for Purlin cleat, rockwood insulation, skylight PMMA Pannel 190 days Wed 3/2/21 Wed 11/8/21 120 days 294,248 Install purlin 40 days Wed 3/2/21 Sun 14/3/21 0 days 300 Install gutter 40 days Wed 3/2/21 Sun 14/3/21 0 days 295.248 301 60 days Mon 15/3/21 Thu 13/5/21 458 days 289.299.300 302 60 days Mon 15/3/21 Thu 13/5/21 458 days Install alum. halter 290,299,300 Louvre Install complete 40 days Tue 4/5/21 Sat 12/6/21 0 days 292FF Project: ND/2019/06 Data Date: 2021-01-01 Summary Inactive Task Inactive Summary Manual Summary Finish-only External Milestone Critical Revised Programme (Rev. 5)

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Development of Kwu Tung North and Fanling North New E Duration | 1st Quarter | 2nd Quarter | 3rd Quarter | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul 0 291,303 60 days Sun 13/6/21 Wed 11/8/21 368 days Install rockwoo 305 -4 -4 Install top liner 60 days Thu 3/6/21 Sun 1/8/21 0 days 2925S+30 days.3035S+30 days Install skylight PMMA pane 90 days Wed 3/2/21 Mon 3/5/21 468 days 293.248 -5 40 days Wed 19/5/21 Sun 27/6/21 413 days 296,303SS+15 days,248 Install Skylight edge capping 308 60 days Sat 29/5/21 Tue 27/7/21 383 days Install Main roof edge capping 297SS+30 days,303SS+15 days 300 Fabrication and delivery for guardrail for roof 21 days Mon 1/2/21 Sun 21/2/21 140 days 279,286SS+90 days 310 Installation of guardrail for roof 21 days Mon 12/7/21 Sun 1/8/21 378 days 298SS+7 days.309.305FF -Fabrication and delivery for sliding roof hatch or hydraulic swing hatch door 20 days Fri 5/3/21 Wed 24/3/21 0 days 276 284 __ Installation for sliding roof hatch or hydraulic swing hatch door 21 days Sat 3/7/21 Fri 23/7/21 387 days 311,247SS+14 days,298SS+30 days,305SS+30 313 -Fabrication for steel supporting frame for solar pannel 20 days Thu 25/3/21 Tue 13/4/21 80 days 282,311 314 21 days Sat 3/7/21 Fri 23/7/21 387 days Installation for solar pannel and the steel supporting frame 313,240,305SS+30 days 315 206 days Tue 13/10/20 Thu 6/5/21 361 days Hanging fan and lighting system for steel canopy 316 21 days Tue 13/10/20 Mon 2/11/20 0 days Design for hanging fan and lighting system -Submission for hanging fan and lighting system 21 days Tue 3/11/20 Mon 23/11/20 0 days 316 Approval for hanging fan and lighting system 21 days Tue 24/11/20 Mon 14/12/20 53 days 317 319 Installation for hanging fan and lighting system 90 days Sat 6/2/21 Thu 6/5/21 0 days 318,233SS+21 days 320 Interior fitting-out, finishes and fixtures 105 days Sat 20/2/21 Fri 4/6/21 436 days 321 Erection of interior fitting-out and finishes 60 days Sat 20/2/21 Tue 20/4/21 0 days 319SS+14 days Installation of fixtures 90 days Sun 7/3/21 Fri 4/6/21 436 days 321SS+15 days 323 Building services works 184 days Sun 21/2/21 Mon 23/8/21 356 days Installation of BS equipment 95 days Sun 21/2/21 Wed 26/5/21 0 days 319SS+14 days 325 60 days Sun 21/2/21 Wed 21/4/21 0 days 319SS+15 days 326 Electical installation 60 days Mon 8/3/21 Thu 6/5/21 381 days 325SS+15 days Fire services installation 60 days Fri 26/2/21 Mon 26/4/21 0 days 319SS+20 days 328 Plumbing and drainage installation 60 days Sun 28/3/21 Wed 26/5/21 361 days 327SS+30 days Testing and commissioning of BS equipment 30 days Sat 29/5/21 Sun 27/6/21 0 days 133.110.324SS+60 days 330 _5 Inspection of BS installations inclunding Fire Services by Authorities 30 days Mon 28/6/21 Tue 27/7/21 0 days 329 331 -13 days Wed 28/7/21 Mon 9/8/21 0 days 332 Re-insepction of BS installations by Authorities 14 days Tue 10/8/21 Mon 23/8/21 0 days 331 213 days Wed 8/7/20 Fri 5/2/21 0 days Demolision and re-provision works for toilet and RCB 334 Undergound Utilities detection 14 days Wed 8/7/20 Tue 21/7/20 0 days 137 PR plan for relocation of toilet and RCB 14 days Wed 22/7/20 Tue 4/8/20 0 days 334 -Re-provision of toilet and RCB before demolish the existing toilet and RCB 21 days Wed 5/8/20 Tue 25/8/20 0 days 335 337 TTA submission for temporary diversion of public footpath near Ma Wat River 60 days Wed 26/8/20 Sat 24/10/20 0 days Temporay diversion of public footpath near Ma Wat River 19 days Sun 25/10/20 Thu 12/11/20 0 days Re-opening of public footpath near Ma Wat River according to AECOM instruction 1 day Fri 13/11/20 Fri 13/11/20 0 days 338 Instruction from AECOM for tree trimming and additional lighting provided for the footpath at 27 days Sat 14/11/20 Thu 10/12/20 0 days 339 341 -Arrangement for trees trimming between Wing Ning Wai Footbridge and the footbridge at On 7 days Fri 11/12/20 Thu 17/12/20 0 days 340 Chuen Street adjacent to Shung Him Tong Village along Ma Wat River -Arrangement of temporary solar lighting between Wing Ning Wai Footbridge and the footbridge 7 days at On Chuen Street adjacent to Shung Him Tong Village along Ma Wat River 16/12/ Tue 22/12/20 0 days 34155+5 days Re-temporary diversion of public footpath near Ma Wat River 2 days Wed 23/12/20 Thu 24/12/20 0 days 342 344 Temporary enclosure for demolish the existing public toilet 3 days Sat 14/11/20 Mon 16/11/200 days Demolish the existing toilet 21 days Tue 17/11/20 Mon 7/12/20 0 days Construction of temporary 900mm dia. Stormwater drain next to the existing public toilet 60 days Tue 8/12/20 Fri 5/2/21 23 days 345 347 Site formation and mini-pile works 197 days Fri 13/11/20 Fri 28/5/21 84 days -5 Site formation for mini-pile works 7 days Fri 19/2/21 Thu 25/2/21 0 days 398.345.343 -Pre-drill works 21 days Fri 13/11/20 Thu 3/12/20 84 days 350 Temporary fence off for pre-drill works due to unable for temporary diversion of public Sat 14/11/20 Sat 14/11/20 0 days 339 footpath near Ma Wat River 351 Mobilization of S.I. Drilling Rig 2 days Fri 13/11/20 Sat 14/11/20 0 days Pre-Drill works (4nos) 12 days Sun 15/11/20 Thu 26/11/20 0 days 351 353 Completion Log Report 7 days Fri 27/11/20 Thu 3/12/20 84 days 352 Mini Pile Works 53 days Fri 26/2/21 Mon 19/4/21 0 days Mobilization of Percussive Drilling Rig 3 days Fri 26/2/21 Sun 28/2/21 0 days 353 348 356 Drilling Works by 2 rigs (40nos.) 40 days Mon 1/3/21 Fri 9/4/21 0 days 355,346 Grouting works (40nos.) 35 days Tue 16/3/21 Mon 19/4/21 482 days 356SS+15 days 358 6 days Sun 11/4/21 Fri 16/4/21 0 days Post Drilling (2nos.) 356FF+7 days -Loading test 42 days Sat 17/4/21 Fri 28/5/21 0 days -5 Allow for the mini piles to gain sufficient strength of the grout selection of the test pile by 28 days Sat 17/4/21 Fri 14/5/21 0 days 358 -3 Setup loading test platform by Kentledge Method 4 days Sat 15/5/21 Tue 18/5/21 0 days 362 Loading Test Reading (1nos. Of load test pile) 4 days Wed 19/5/21 Sat 22/5/21 0 days 363 4 days Sun 23/5/21 Wed 26/5/21 0 days Demobilization of loading test platform 364 4 days Tue 25/5/21 Fri 28/5/21 0 days Site Clearance 363SS+2 days Ramp structure and road works 80 days Sat 29/5/21 Mon 16/8/21 363 days 366 Cutting mini-pile and provide anchorage reinforcements from mini piles to base slab of the ramp 14 days Sat 29/5/21 Fri 11/6/21 0 days Construction for ramp structure 45 days Sat 12/6/21 Mon 26/7/21 0 days Inactive Milestone Project: ND/2019/06 Data Date: 2021-01-01 Summary Inactive Task Inactive Summary Manual Summary Finish-only External Milestone Revised Programme (Rev. 5) Page 5

Contract No. ND/2019/06
Development of Kwu Tung North and Fanling North New D Task Mode 3rd Quarter 4th Quarter 1st Quarter 1st Quarter 2nd Quarter 3rd Quarter 4th Quarter 1st Quarter 2nd Quarter 3rd Qu | 1st Quarter | 2nd Quarter | 3rd Qu | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Jul | 21 days Tue 27/7/21 Mon 16/8/21 363 days 367,413 Backfilling to the adjacent road level due to revised drawings (around +11.6mPD) -4 21 days Tue 27/7/21 Mon 16/8/21 363 days Construction of steel vehicle paraget and thrie bear 231 days Fri 28/8/20 Thu 15/4/21 236 days Road works and On-grade slab Backfilling to the bottom of on-grade slab 120 days Tue 29/9/20 Tue 26/1/21 0 days 218SS+14 days 120 days Sat 28/11/20 Sat 27/3/21 0 days 371SS+60 days Cable draw pits constrcution 120 days Sat 28/11/20 Sat 27/3/21 0 days Construction for Cable trough 371SS+60 days 120 days Sat 28/11/20 Sat 27/3/21 505 days Cable ducts laving 372FF.373FF 120 days Tue 13/10/20 Tue 9/2/21 551 days Construction for water trench as per revised drawings 371SS+14 days Laying of the power cables 60 days Wed 27/1/21 Sat 27/3/21 505 days 373SS+60 days -Submission for paneling of on-grade slab and carriageway works 60 days Fri 28/8/20 Mon 153SS+30 days 26/10/20 378 -5 21 days Tue 27/10/20 Mon 16/11/20 0 days Approval for paneling of on-grade slab and carriageway works 379 Casting concrete for on-grade slab and carriagewway 150 days Tue 17/11/20 Thu 15/4/21 41 days 371SS+30 days,378 84 days Thu 27/5/21 Wed 18/8/21 361 days Street furniture and road marking Construction for Street furniture as per drawing no. 60335576/C6/C00/1202 35 days Thu 27/5/21 Wed 30/6/21 0 days 324.379 Construction for road lighting 40 days Thu 1/7/21 Mon 9/8/21 370 days 381 Road marking as per drawing no. 60335576/C6/C00/1602 14 days Thu 1/7/21 Wed 14/7/21 396 days 381 384 Miscellouces installation such as flag posts and mail boxes 14 days Thu 5/8/21 Wed 18/8/21 361 days Orignal Completion date of Section 1 of the Works 0 days Mon 26/4/21 Mon 26/4/21 476 days Revised completion date of Section 1 of the Works 0 days Mon 23/8/21 Mon 23/8/21 356 days 332FF Section 2 of the Works 690 days Fri 27/9/19 Mon 16/8/21 125 days Works for Portion 6 690 days Fri 27/9/19 Mon 16/8/21 125 days General for Portion 6 400 days Fri 27/9/19 Fri 30/10/20 125 days Access date of Portion 6 0 days Fri 27/9/19 Fri 27/9/19 1053 days 400 days Fri 27/9/19 Fri 30/10/20 0 days Construction for geotechnical instrumentation (D57 and D37) 21 days Fri 11/10/19 Thu 31/10/19 0 days 391SS+14 days -Construction for ground investigation (7 nos.) according to drawing no. 60335576/C6/C00/7501 49 days Fri 1/11/19 Thu 19/12/19 0 days 281 days Sat 26/9/20 Sat 3/7/21 90 days Slope and landscape works 395 Excavation from exsiting level to +5mPD by open cut method 21 days Fri 25/12/20 Thu 14/1/21 0 days Replacement of existing soil to Grade 200 rock fill under FW21 as per revised drawing 7 days Fri 15/1/21 Thu 21/1/21 0 days Rockfill to the bottom of FW21 14 days Fri 22/1/21 Thu 4/2/21 0 days 14 days Fri 5/2/21 Thu 18/2/21 0 days Backfilling from bottom to Ramp structure bottom level -5 Trail pit construction as per drawing no. I/ND/2019/06/60335576/C6/C00/7501 15 days Sat 26/9/20 Sat 10/10/20 0 days 393SS+330 days Confirmed design review of the slope improvement 21 days Sun 11/10/20 Sat 31/10/20 0 days Excavation for the loose fill materials from CH 108 to CH 266 125 days Sun 1/11/20 Fri 5/3/21 0 days Replace the loose fill to rockfill from CH 108 to CH 266 60 days Tue 1/12/20 Fri 29/1/21 0 days 401SS+30 days Installation of grasscrete from CH 108 to CH 266 45 days Fri 15/1/21 Sun 28/2/21 0 days 402SS+45 days -Construction of walkway along the slope crest from CH 108 to CH 266 90 days Mon 1/3/21 Sat 29/5/21 442 days 403SS+45 days Excavation for the loose fill materials from CH 30 to CH 100 60 days Fri 25/12/20 Mon 22/2/21 0 days Replace the loose fill to rockfill from CH 30 to CH 100 45 days Sun 24/1/21 Tue 9/3/21 0 days 405SS+30 days Installation of grasscrete from CH 0 to CH 108 20 days Wed 10/3/21 Mon 29/3/21 0 days 406SS+45 days 408 -5 Construction of walkway along the slope crest from CH 30 to CH100 60 days Sat 24/4/21 Tue 22/6/21 418 days 407SS+45 days 409 96 days Tue 30/3/21 Sat 3/7/21 0 days Landscape and planting works 403,407 FW21 and road works 133 days Tue 6/4/21 Mon 16/8/21 53 days 411 Preparation of formation to FW21 3 days Sat 29/5/21 Mon 31/5/21 0 days 397.364 Blinding concrete casting for FW21 2 days Tue 1/6/21 Wed 2/6/21 0 days 411 -Construction for new feature FW21 45 days Thu 3/6/21 Sat 17/7/21 0 days 412 414 Backfilling to adjacent road level as per revised drawing (around +11.6mPD) 21 days Tue 27/7/21 Mon 16/8/21 0 days 413.367 415 60 days Tue 6/4/21 Fri 4/6/21 96 days 409SS+7 days,378 Construction of fence with footing 416 Construction of steel vehicle parapet and thrie bear 21 days Sun 18/7/21 Sat 7/8/21 0 days 415SS+7 days,413 Road works construction at On Kui Street 530 days Mon 16/12/19Fri 28/5/21 443 days 418 TTA and XP granted 0 days Mon 16/12/19 Mon 16/12/19 0 days TTA set up for revising shoulder to suit for interim stage 120 days Mon 16/12/19 Mon 13/4/20 0 days Demolish the existing shoulder 14 days Tue 14/4/20 Mon 27/4/20 0 days 421 Re-construction the shoulder as per drawing no. 60335576/C6/C00/1001 14 days Tue 28/4/20 Mon 11/5/20 0 days 420 422 Construction for street furniture as per drawing no. 60335576/C6/C00/1201 11 days Tue 12/5/20 Fri 22/5/20 0 days 423 Fence construction along Ma Wai River 30 days Thu 29/4/21 Fri 28/5/21 443 days 409SS+30 days 378 424 Road marking as per drawing no. 60335576/C6/C00/1601 7 days Sat 23/5/20 Fri 29/5/20 807 days 425 -5 Works for Portion 5 678 days Fri 27/9/19 Wed 4/8/21 375 days 426 General for Portion 5 285 days Fri 27/9/19 Tue 7/7/20 760 days 0 days Tue 7/7/20 Tue 7/7/20 768 days Access date of Portion 5 (184 days after starting date) 439SS+184 days,137 90 days Fri 27/9/19 Wed 25/12/190 days Farthworks -5 588 days Thu 26/12/19 Wed 4/8/21 375 days Street furniture and road marking 33 days Thu 26/12/19 Mon 27/1/20 0 days -4 Removal of exisiting gate 431 Construction for Street furniture as per drawing no. 60335576/C6/C00/1202 110 days Tue 28/1/20 Sat 16/5/20 0 days 432 Construction of road lighting 35 days Thu 1/7/21 Wed 4/8/21 0 days Road marking as per drawing no. 60335576/C6/C00/1602 60 days Sun 17/5/20 Wed 15/7/20 760 days 434 -3 Orignal Completion date of Section 2 of the Works 0 days Mon 26/4/21 Mon 26/4/21 476 days Revised completion date of Section 2 of the Works 1 day Mon 16/8/21 Mon 16/8/21 363 days 414FF Section 3 of the Works 292 days Fri 27/9/19 Tue 14/7/20 56 days Project: ND/2019/06 Summary Inactive Task Inactive Summary Duration-only Finish-only External Milestone Revised Programme (Rev. 5) Page 6



Contract No. ND/2019/07 Fanling North New Development Area, Phase 1: Site Formation and Infrastructure Works Fanling North New Development Area, Phase 1: Site Formation and Infrastructure Works 7 08-Jul-21 15-Jul-21 0 Actual Access Date Possesion of Portion I (CE008) (Possession date TBC) 08-Jul-21 Possesion of Portion I (CE008) (Possession date TBC) ACD1010 Possesion of Portion II (South Part) (CE016) (Possession date TBC) 0 08-Jul-21* -121 Possesion of Portion II (South Part) (CE016) (Possession date TBC) ACD1020 Possesion of Portion III (Possession date TBC) 0 08-Jul-21* Possesion of Portion III (Possession date TBC) ACD1030 Possesion of Portion IV 0 15-Jul-21* Presession of Portion IV ACD1040 Possesion of Portion V Possesion of Portion V Preliminaries, Contractor's Design, Method Statement Submission and Approval 435 16-Sep-20 A 24-Nov-21 36 General Submission PGS1200 Preparation and approval of TTA scheme and traffic impact assessment(PS1.16) 290 30-Dec-20 A 15-Oct-21 0 Preparation and approval of TTA scheme and traffic impact ■ Prepare & submit the Temporary Drainage Management Plan(PS 1.24) PGS1210 Prepare & submit the Temporary Drainage Management Plan(PS 1,24) 180 09-Feb-21 A 07-Aug-21 -2 PGS1230 Submission of construction impact assessment (CIA) (PS 1 108) 45 08-Jul-21 21-Aug-21 83 Submission of construction impact assessment (CIA) (PS 1.108) Design for road lighting system 04-Oct-21 11-Oct-21 288 Time risk allowance for Design for road lighting system PWD1025 PWD1030 30-Aug-21 24-Nov-21 315 Design for irrigation system 83 08-Jul-21 12-Oct-21 178 Major Temporary Works Design TWD1030 ELS design for pipe laying works on Ma Sik Road 08-Jul-21 15-Sep-21 39 ■ Time risk allowance for ELS design for pipe laying works on Ma Sik Road TWD1035 Time risk allowance for ELS design for pipe laving works on Ma Sik Road 7 16-Sep-21 23-Sep-21 39 TWD1050 ELS design for construction of foundation of noise barrier 60 04-Aug-21 12-Oct-21 178 TWD1060 Formwork design for construction of noise barrier 45 20-Aug-21 11-Oct-21 179 Formwork design for construction of noise barrier Major Construction Works Method Statement Method Statement for tree transplanting works MS1560 Method statement submission and approval for construction of drainage and sewerage works 60 08-Jul-21 15-Sep-21 109 Method statement submission and approval for construction of drainage and sewerage works Method statement submission and approval for piling works MS1570 Method statement submission and approval for piling works 35 05-Aug-21 14-Sep-21 149 Method statement submission and approval for construction of noise barrier 60 15-Sep-21 23-Nov-21 149 Tendering and Procurement for Major Subcontractor TDS1067 140 16-Mar-21 A 25-Aug-21 310 Subletting for piling works TDS1070 Subletting for road works 120 26-Mar-21 A 12-Aug-21 28 100 05-May-21 A 28-Aug-21 315 TDS1110 Subletting for irrigation system works Subletting for irrigation system works Subletting for supply and installation of noise barrier post and panels TDS1140 50 09-Sep-21 05-Nov-21 107 Tree Works and Submission of the tree survey report and tree preservation and removal propi 347 29-Jan-21 A 10-Jan-22 224 Prepare & submit the tree survey report and tree preservation and removal proposal (TPRP) (FL-G14.7) (Partial) 63i 132 26-Apr-21 A 02-Oct-21 Prepare & submit the tree survey report and tree preservation and removal proposal (TPRP) (F TWS0920 30 04-Oct-21 08-Nov-21 44 Tree felling works (FL-G14.7) (Partial) 63nos Tree survey and tree risk assessment (FL-G14.7) (Remaining) TWS0930 Tree survey and tree risk assessment (FL-G14.7) (Remaining) 15-Jul-21 23-Jul-21 2 TWS0940 Prepare & submit the tree survey report and tree preservation and removal proposal (TPRP) (FL-G14.7) (Remaining 108 24-Jul-21 30-Nov-21 24 Tree Works in Area FL-G14.9 Prepare & submit the tree preservation and removal proposal (TPRP) (FL-G14.9) TWS1070 Prepare & submit the tree preservation and removal proposal (TPRP) (FL-G14.9) 140 29-Jan-21 A 23-Jul-21 -58 Tree felling works (FL-G14.9 TWS1080 Tree felling works (FL-G14.9) 30 24-Jul-21 27-Aug-21 -58 Tree Works in Area FL-G14.10 TWS1100 Prepare & submit the tree survey report and tree preservation and removal proposal (TPRP) (FL-G14.10) 150 01-Feb-21 A 06-Aug-21 -15 Prepare & submit the tree survey report and tree preservation and removal proposal (TPRP) (FL-G14.10) TWS1110 Tree felling works (FL-G14 10) 30 07-Aug-21 10-Sep-21 -152 Prepare & submit the tree survey report and tree preservation and removal proposal (TPRP) (FL-G14.) TWS1140 Tree Works in Area FL-G14.1 TWS1170 Tree felling works (FL-G14.1) 36 30-Sep-21 12-Nov-21 -22 Tree Works on Ma Sik Road Tree felling works (Ma Sik Road) (before Noise Barrier Construction) 80 05-Oct-21 10-Jan-22 18 TWS1210 Tree transplanting works at the side of road (9nos) (before noise barrier construction) 80 25-Sep-21 13-Dec-21 235 180 11-May-21 A 13-Dec-21 230 Section 1- Site Formation and Infrastructure Works in Area A Site Formation (Portion II- Area A 21900m2) Diversion of existing utilities and services (84m LV Cables to be abandon 75 11-May-21 A 09-Aug-21 -47 Diversion of existing utilities and services (250m PCCW Ducts to be abandor S1-SF1304 Diversion of existing utilities and services (250m PCCW Ducts to be abandon) S1-SF1392 Erection of hoarding along the site boundary (339m) (After tree felled) 50 11-Sep-21 11-Nov-21 S1-SF1394 Site clearance (Southern part) 11-Sep-21 07-Dec-21 -152 S1-SF1396 Construction of haul road (Southern part 72 17-Sep-21 13-Dec-21 -152 Site Formation (Portion III- Area A 4900m2) S1-SF1440 Cordon off work areas along the site boundary 08-Jul-21 19-Jul-21 224 Cordon off work areas along the site boundary S1-SF1450 Erection of hoarding along the site boundary (173m) 20-Jul-21 23-Aun-21 254 Erection of hoarding along the site boundary (173m) S1-SF1530 Existing utilities and services detection 20-Jul-21 30-Jul-21 224 Existing utilities and services detection S1-SF1535 Diversion of existing utilities and services if necessary 60 31-Jul-21 11-Oct-21 224 Diversion of existing utilities and services if necessar Cordon off work areas along the site boundar S1-SF1750 15-Jul-21 26-Jul-21 130 Existing utilities and services detection S1-SF1760 Existing utilities and services detection 15-Jul-21 26-Jul-21 287 S1-SF1765 27-Jul-21 10-Sep-21 30 Erection of hoarding along the site boundary (515m Erection of hoarding along the site boundary (515m) Prepare & submit the tress preservation and removal proposal (TPRP) S1-SF1768 75 27-Jul-21 25-Oct-21 130 S1-SF1770 Diversion of existing utilities and services (59m LV Cables to be abandon) 60 27-Jul-21 06-Oct-21 28 Date Revision Checked Approved Actual Work Three Month Rolling Programme (Data Date: 08-Jul-21) 中國路橋工程有阻責任公司 15-Jul-21 LDS CLX Remaining Work Page: 1 of 2 Critical Remaining Work CHINA ROAD AND BRIDGE CORPORATION Milestone

Contract No. ND/2019/07 Fanling North New Development Area, Phase 1: Site Formation and Infrastructure Works 95 08-Jul-21 29-Oct-21 -15 Box Culvert BC3 and Outfall 10 95 08-Jul-21 29-Oct-21 -158 Box Culvert BC3 (CH168 to CH216) Construction of the box culvert side wall and top slab Bay 17 (CH192 to CH204) 08-Jul-21 S1-BC0850 Construction of the box culvert side wall and top slab Bay 15 (CH168 to CH180) 20 31-Jul-21 23-Aug-21 -158 Construction of the box culvert side wall and top slab Bay 15 (CH168 to CH180) Construction of the box culvert side wall and top slab Bay 16 (CH180 to CH192) 20 24-Aug-21 15-Sep-21 -158 Construction of the box culvert side wall and top slab Bay 16 (CH180 to CH192) S1-BC0860 Construction of the box culvert base slab Bay 18 (CH214 to CH216) S1-BC0870 Construction of the box culvert base slab Bay 18 (CH214 to CH216) 15 16-Sep-21 05-Oct-21 -158 S1-BC0880 Construction of the box culvert side wall and too slab Bay 18 (CH214 to CH216) 20 06-Oct-21 29-Oct-21 -158 Section 2- Site Formation and Infrastructure Works in Area B 234 01-Mar-21 A 10-Dec-21 -48 Site Formation and Infrastructure Works in Area B1 & B2 Site formation works Area B part 1 (16623m3) 127 01-Mar-21 A 04-Aug-21 80 06-Sep-21 10-Dec-21 -58 Site Formation Works after trees felled in FL-G14.9 33 28-Aug-21 07-Oct-21 6 S2-SF2282 Site clearance (after trees felled in FL-G14.9) 28-Aug-21 04-Sep-21 -58 Construction of haul road (after trees felled in FL-G14.9) S2-SF2302 Construction of haul road (after trees felled in FL-G14.9) 11 31-Aug-21 11-Sep-21 6 S2-SF2360 Demolition of existing structure(8nos 244m2) 20 13-Sep-21 07-Oct-21 6 Demolition of existing structure(8nos 244m2) Section 3- Site Formation and Infrastructure Works in Area C 135 15-Jul-21 22-Dec-21 10: 23-Aug-21 03-Sep-21 Diversion of existing utilities and services (27m LV Cables to be abandon Diversion of existing utilities and services (142m PCCW Ducts to be abandon) S3-SF1195 Site clearance 15-Jul-21 12-Aug-21 110 S3-SF1200 Construction of haul road 13-Aug-21 06-Sep-21 110 S3-SF1210 45 07-Sep-21 01-Nov-21 125 Trial pit and temporary diversion of utilities S3-SF1220 Asbestos survey 15-Jul-21 18-Aug-21 10 S3-SF1230 Prepare and submit asbestos report and asbestos abatement plan 25 19-Aug-21 16-Sep-21 10 Prepare and submit asbestos report and asbestos abatement plan S3-SF1240 Demolition of existing structure(21nos 1465m2) 80 17-Sep-21 22-Dec-21 10 Section 4- Site Formation and Infrastructure Works in Area D 15-Jul-21 17-Nov-21 208 S4-SF1000 27-Jul-21 10-Sep-21 45 Erection of hoarding (515m) S4-SF1010 Tree survey and tree risk assessment 27-Jul-21 18-Aug-21 -1 Prepare & submit the tree preservation and removal proposal (TPRP) 19-Aug-21 17-Nov-21 -10 S4-SF1015 S4-SF1020 Utilities detection and trial pit 21 27-Jul-21 19-Aug-21 67 S4-SF1025 Diversion of existing utilities and services (410m LV Cables to be abandon) 60 20-Aug-21 01-Nov-21 222 S4-SF1030 Diversion of existing utilities and services (165m PCCW Ducts to be abandon) 60 20-Aug-21 01-Nov-21 222 135 08-Jul-21 19-Nov-21 225 Section 5- Site Formation and Infrastructure Works in Area E and Remainder of the Works Road L1 94 08-Jul-21 28-Oct-21 127 Road L1 in Portion I (P700 CH 175 to CH245) S5-RD1036 Trial pit (1nos) (PMI005) after Demolition of existing structure 08-Jul-21 50 28-Aug-21 28-Oct-21 117 S5-RD1037 Site clearance (after trees felled in FL-G14.9) Road L1 in Portion IV (P600 CH 194 to CH393, P700 CH100 to CH175) 107 15-Jul-21 19-Nov-21 15 S5-RD1140 UU detection and trial pit 23-Aug-21 07-Sep-21 123 S5-RD1141 Tree survey and tree risk assessment 15-Jul-21 30-Jul-21 90 Tree survey and tree risk assessment S5-RD1142 Prepare & submit the tree preservation and removal proposal (TPRP) 15-Jul-21 19-Oct-21 90 S5-RD1143 Asbestos survey for the existing structures 15-Jul-21 30-Jul-21 128 Asbestos survey for the existing structures S5-RD1144 Prepare and submit asbestos report and asbestos abatement plan for the existing structures 28 31-Jul-21 01-Sep-21 128 Prepare and submit asbestos report and asbestos abatement plan for the existing structures S5-RD1148 Diversion of existing utilities and services (112m LV Cables to be abandon) 60 08-Sep-21 19-Nov-21 157 S5-RD1149 Diversion of existing utilities and services (17m PCCW Ducts to be abandon) Road L1 in Portion V (P600 CH 100 to CH194) 108 15-Jul-21 30-Oct-21 -84 Possession of Portion V S5-RD1266 Tree survey and tree risk assessment 15-Jul-21 Prepare & submit the tree preservation and removal proposal (TPRP) 30-Oct-21 -123 S5-RD1267 02-Aug-21 15-Jul-21 30-Jul-21 -89 S5-RD1270 UU detection and trial pit 50 Diversion of existing utilities and services (139m PCCW Ducts to be abandon S5-RD1278 Diversion of existing utilities and services (139m PCCW Ducts to be abandon) 31-Jul-21 28-Sep-21 -43 S5-RD1280 Asbestos survey 28 31-Jul-21 01-Sep-21 -8 Asbestos survey S5-RD1290 Prepare and submit asbestos report and asbestos abatement plan 28 02-Sep-21 06-Oct-21 -89 Prepare and submit asbestos report and asbestos abatement plan Road L2 Tree survey and tree risk assessment 15-Jul-21 18-Aug-21 71 Tree survey and tree risk assessment S5-RD1460 UU detection and trial pit 14 27-Jul-21 11-Aug-21 67 UU detection and trial pit S5-RD1480 Site clearance and tree felling works Diversion of existing utilities and services (83m PCCW Ducts to be abandon) S5-RD1485 12-Aug-21 15 12-Aug-21 28-Aug-21 247 1146 31-Aug-20 A 16-Jul-24 -158 Section 6-Completion of Preservation And Protection Of Existing Trees S6-CS1000 1146 31-Aug-20 A 16-Jul-24 -158





Three Month Rolling Programme (Data Date: 08-Jul-21)
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Date	Revision	Checked	Approved
15-Jul-21	1	LDS	CLX

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/m³)	Limit Level (ug/m³)
FLN-DMS1	303	
FLN-DMS3	301	500
FLN-DMS5	279	500
KTN-DMS4	297	

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

Monitoring station	Action Level (ug/m³)	Limit Level (ug/m³)
FLN-DMS1	150	
FLN-DMS3	165	260
FLN-DMS5	153	260
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	20 mg/L or 99 percentile of
	or 120% of upstream control	baseline data or 130% of
	station.	upstream control station.
Turbidity in NTU (depth averaged)*^	95 percentile of baseline data	99 percentile of baseline data
	or 120% of upstream control	or 130% of upstream control
	station.	station.
Unionized ammonia in mg/L	95 percentile of baseline data	0.021mg/L or 99 percentile of
(depth averaged)*~	or 120% of upstream control	baseline data or 130% of
	station.	upstream control station.

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Nitrate nitrogen in mg/L	95 percentile of baseline data	99 percentile of baseline data	
(depth averaged)*^	or 120% of upstream control	or 130% of upstream control	
	station.	station.	
Orthophosphate in mg/L (depth	95 percentile of baseline data	99 percentile of baseline data	
averaged)*^	or 120% of upstream control	or 130% of upstream control	
	station.	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.
- \sim 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 20 mg/L.

Table B-4.2 Summary of Baseline Water Quality Monitoring Results (KTN NDA)⁽¹⁾

Table 2 112 Summary of Buseline (Victor Quarte) Interneting Resource (IRII) (1991)						
	Monitoring Parameter					
Location		KTN-CS1				
Parameter	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	KTN-IS1					
Parameter	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	

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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:

Table B-4.3 Action and Limit Levels for Additional Water Quality Monitoring

Whichever is higher ^[3] Whichever is higher ^[3] Turbidity in NTU (depth average) ^[1] or 120% of upstream control station, whichever is higher ^[3] or 130% of upstream control station, whichever is higher ^[3] or 120% of upstream control station, whichever is higher SYR-IS1: 5.4 or 120% of upstream control station, whichever is higher 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) SHST-IS2: 7.0 [2] SHST-IS2: 6.8 [2] MWR-IS3: 8.6 [2] MWR-IS3: 8.5 [2] SS in mg/L (depth average) SHST-IS2: 4.0 MWR-IS3: 14.4 or 120% of upstream control station, whichever is higher ^[3] or 130% of upstream control station, whichever is higher ^[3] Turbidity in NTU (depth average) NTR-IS1: 6.0 SHST-IS2: 4.7 MWR-IS3: 11.1 MWR-IS3: 10.1 MWR-IS3: 11.1	Parameters	Action Level	Limit Level
SYR-IS1: 6.1 SYR-IS1: 6.1 SYR-IS1: 6.0 SYR-IS1: 6.1 SYR-IS1: 6.0 SYR-IS1: 6.1 SYR-IS1: 50.9 SYR-IS1:	River Beas (SYR-I		
average) [1] or 120% of upstream control station, whichever is higher [3] whichever is higher [3] syrIS1: 48.2 syrIS1: 50.9 or 120% of upstream control station, whichever is higher [3] or 120% of upstream control station, whichever is higher [3] or 120% of upstream control station, whichever is higher [3] or 120% of upstream control station, whichever is higher [3] or 120% of upstream control station, whichever is higher [3] syrIS1: 50.9 or 130% of upstream control station, whichever is higher [3] or 120% of upstream control station, whichever is higher [3] syrIS1: 50 μg/L [4] syrIS1: 50.9 or 120% of upstream control station, whichever is higher [3] syrIS2: 4.8 syrIS2: 4.9 syrIS1: 5.8 syrIS2: 4.9 syrIS1: 5.9 syrIS1: 50.9 syrIS1		SYR-IS1: <u>6.1</u> ^[2]	SYR-IS1: <u>6.0</u> ^[2]
Whichever is higher ^[3] Whichever is higher ^[3] Turbidity in NTU (depth average) ^[1] or 120% of upstream control station, whichever is higher ^[3] or 130% of upstream control station, whichever is higher ^[3] or 120% of upstream control station, whichever is higher SYR-IS1: 5.4 or 120% of upstream control station, whichever is higher 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) SHST-IS2: 7.0 [2] SHST-IS2: 6.8 [2] MWR-IS3: 8.6 [2] MWR-IS3: 8.5 [2] SS in mg/L (depth average) SHST-IS2: 4.0 MWR-IS3: 14.4 or 120% of upstream control station, whichever is higher ^[3] or 130% of upstream control station, whichever is higher ^[3] Turbidity in NTU (depth average) NTR-IS1: 6.0 SHST-IS2: 4.7 MWR-IS3: 11.1 MWR-IS3: 10.1 MWR-IS3: 11.1		SYR-IS1: <u>75.6</u>	SYR-IS1: 83.1
Turbidity in NTU (depth average) [1] or 120% of upstream control station, whichever is higher [3] whichever is higher [3] whichever is higher [3] whichever is higher [3] are not ready of upstream control station, whichever is higher [3] are not ready of upstream control station, whichever is higher [3] are not ready of upstream control station, whichever is higher [3] are not ready of upstream control station, whichever is higher [3] are not ready of upstream control station, whichever is higher [3] are not ready of upstream (NTR-IS1; 5.4) are not ready of upstream (NTR-IS1; 5.5) are not ready of upstream (NTR-IS1; 5.7) are not ready of upstream (NTR-IS1; 5.8) are not ready of upstream (NTR-IS1; 5.8) are not ready of upstream control station, whichever is higher [3] are not ready of upstream control station, whichever is higher [3] are not ready of upstream control station, whichever is higher [3] are not ready of upstream control station, whichever is higher [3] are not ready of upstream control station, whichever is higher [3] are not ready of upstream control station, whichever is higher [3] are not ready of upstream control station, whichever is higher [3] are not ready of upstream control station, whichever is higher [3] are not ready of upstream control station, whichever is higher [3] are not ready of upstream control station, whichever is higher [3] are not ready of upstream control station, whichever is higher [3] are not ready of upstream control station, whichever is higher [3] are not ready of upstream control station, whichever is higher [3] are not ready of upstream control station, whichever is higher [3] are not ready of upstream control station, whichever is higher [3] ar	average) [1]		or 130% of upstream control station,
(depth average) [1] or 120% of upstream control station, whichever is higher [3] or 130% of upstream control station, whichever is higher [3] Arsenic in μg/L (depth average) [2] 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) NTR-IS1: 5.8 [2] NTR-IS1: 5.7 [2] DO in mg/L (depth average) [1] SHST-IS2: 7.0 [2] SHST-IS2: 6.8 [2] MWR-IS3: 8.6 [2] MWR-IS3: 8.5 [2] SS in mg/L (depth average) [1] NTR-IS1: 8.9 (2) NTR-IS1: 9.0 (2) MWR-IS3: 14.0 (120% of upstream control station, whichever is higher [3] MWR-IS3: 14.4 (120% (120% of upstream control station, whichever is higher [3] Turbidity in NTU (depth average) [1] NTR-IS1: 6.0 (120% of upstream control station, whichever is higher [3] NTR-IS1: 6.1 (120% of upstream control station, whichever is higher [3] Turbidity in NTU (depth average) [1] NTR-IS1: 6.0 (20% of upstream control station, whichever is higher [3] NTR-IS1: 6.1 (20% of upstream control station, whichever is higher [3]		whichever is higher ^[3]	whichever is higher ^[3]
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		SYR-IS1: <u>48.2</u>	SYR-IS1: <u>50.9</u>
Arsenic in $\mu g/L$ (depth average) [2] or 120% of upstream control station, whichever is higher [3] $ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	(depth average) [1]	or 120% of upstream control station,	or 130% of upstream control station,
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] NTR-IS1: 5.7 [2] SS in mg/L (depth average) [1] SHST-IS2: 7.0 [2] SHST-IS2: 6.8 [2] SS in mg/L (depth average) [1] NTR-IS1: 8.9 (2] NTR-IS1: 9.0 (2] SHST-IS2: 4.0 (12) SHST-IS2: 4.0 (2) SHST-IS2: 4.0 (2) MWR-IS3: 14.0 (2) MWR-IS3: 14.4 (2) MWR-IS3: 14.4 (2) Turbidity in NTU (depth average) [1] NTR-IS1: 6.0 (2) NTR-IS1: 6.1 (2) MWR-IS3: 10.1 (2) SHST-IS2: 4.7 (2) SHST-IS2: 4.7 (2) MWR-IS3: 11.1 MWR-IS3: 11.1 MWR-IS3: 11.1		whichever is higher ^[3]	whichever is higher ^[3]
Whichever is higher Silver Indus and near Siu Hang San Tsuen Stream (NTR-IS1, SHST-IS2, MWR-IS3)	Arsenic in µg/L	SYR-IS1: <u>5.4</u>	
River Indus and near Siu Hang San Tsuen Stream (NTR-IS1, SHST-IS2, MWR-IS3)DO in mg/L (depth average) [1]NTR-IS1: $\underline{5.8}$ [2]NTR-IS1: $\underline{5.7}$ [2]SHST-IS2: $\underline{7.0}$ [2]SHST-IS2: $\underline{6.8}$ [2]MWR-IS3: $\underline{8.6}$ [2]MWR-IS3: $\underline{8.5}$ [2]SS in mg/L (depth average) [1]NTR-IS1: $\underline{8.9}$ NTR-IS1: $\underline{9.0}$ SHST-IS2: $\underline{4.0}$ MWR-IS3: $\underline{14.4}$ or 120% of upstream control station, whichever is higher [3]MWR-IS3: $\underline{14.4}$ or 130% of upstream control station, whichever is higher [3]Turbidity in NTU (depth average) [1]NTR-IS1: $\underline{6.0}$ NTR-IS1: $\underline{6.1}$ SHST-IS2: $\underline{4.7}$ MWR-IS3: $\underline{10.1}$ NTR-IS1: $\underline{6.1}$ SHST-IS2: $\underline{4.7}$ MWR-IS3: $\underline{11.1}$	(depth average) [2]	or 120% of upstream control station,	SYR-IS1: 50 μg/L ^[4]
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		whichever is higher [3]	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	River Indus and n	ear Siu Hang San Tsuen Stream (NT	R-IS1, SHST-IS2, MWR-IS3)
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	DO in mg/L	NTR-IS1: <u>5.8</u> ^[2]	NTR-IS1: <u>5.7</u> ^[2]
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	(depth average) [1]		SHST-IS2: <u>6.8</u> ^[2]
average) [1] SHST-IS2: $\overline{4.0}$ MWR-IS3: $\overline{14.4}$ or 120% of upstream control station, whichever is higher [3] whichever is higher [3] whichever is higher [3] Turbidity in NTU (depth average) [1] SHST-IS2: $\overline{4.4}$ SHST-IS2: $\overline{4.7}$ MWR-IS3: $\overline{10.1}$ MWR-IS3: $\overline{11.1}$		MWR-IS3: <u>8.6</u> ^[2]	MWR-IS3: <u>8.5</u> ^[2]
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		NTR-IS1: <u>8.9</u>	NTR-IS1: <u>9.0</u>
or 120% of upstream control station, whichever is higher ^[3] or 130% of upstream control station whichever is higher ^[3] Turbidity in NTU (depth average) ^[1] SHST-IS2: $\underline{\textbf{4.4}}$ SHST-IS2: $\underline{\textbf{4.7}}$ MWR-IS3: $\underline{\textbf{10.1}}$ MWR-IS3: $\underline{\textbf{11.1}}$	average) [1]	SHST-IS2: <u>4.0</u>	SHST-IS2: <u>4.0</u>
whichever is higher [3]whichever is higher [3]Turbidity in NTU (depth average) [1]NTR-IS1: $\underline{\textbf{6.0}}$ NTR-IS1: $\underline{\textbf{6.1}}$ SHST-IS2: $\underline{\textbf{4.4}}$ SHST-IS2: $\underline{\textbf{4.7}}$ MWR-IS3: $\underline{\textbf{10.1}}$ MWR-IS3: $\underline{\textbf{11.1}}$		MWR-IS3: <u>14.0</u>	MWR-IS3: <u>14.4</u>
Turbidity in NTU (depth average) [1] NTR-IS1: $\underline{6.0}$ NTR-IS1: $\underline{6.1}$ SHST-IS2: $\underline{4.4}$ SHST-IS2: $\underline{4.7}$ MWR-IS3: $\underline{10.1}$ MWR-IS3: $\underline{11.1}$		or 120% of upstream control station,	or 130% of upstream control station,
(depth average) [1]SHST-IS2: $\overline{4.4}$ SHST-IS2: $\overline{4.7}$ MWR-IS3: $\underline{10.1}$ MWR-IS3: $\underline{11.1}$		whichever is higher ^[3]	whichever is higher ^[3]
MWR-IS3: <u>10.1</u> MWR-IS3: <u>11.1</u>		NTR-IS1: <u>6.0</u>	NTR-IS1: <u>6.1</u>
	(depth average) [1]	SHST-IS2: <u>4.4</u>	SHST-IS2: <u>4.7</u>
			or 130% of upstream control station,
whichever is higher ^[3] whichever is higher ^[3]		whichever is higher ^[3]	whichever is higher ^[3]

⁽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).

^{[1] &}quot;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	11.7ng/m ³
	- 80% of 11.7ng/m3 – the	- the highest ambient arsenic
	highest ambient arsenic	concentration predicted
	concentration predicted	during the construction
	during the construction	phase with mitigation
	phase with mitigation	measures implemented
	measures implemented)	

Table B-6 Action level in the event of LFG being detected

Tubic B 0	Treation level in the event of Er & 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 and Responses to Evidence of Disturbance to Waterbirds using in Ng Tung, Sheung Yue and Shek Sheung Rivers

Action Level	Response	Limit Level	Response
Construction Phase			
Decline in numbers	Investigate cause and	Decline in numbers	Investigate cause
of all waterbird	if	of all waterbird	and if caused
species relative to	cause identified as	species relative to	identified as related
numbers during	related to NDAs	numbers during	to NDAs project
Baseline Monitoring	project	Baseline Monitoring	instigate remedial
such that the Action	instigate remedial	such that the Limit	action. Review and
Level response is	action to remove or	Level response is	adjust LVNP
triggered.	reduce source of	triggered.	management

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	disturbance.		maggires to improve
	disturbance.		measures to improve conditions for
D 1: : 1		Decline in numbers	affected species.
	Decline in numbers Investigate cause and		Investigate cause
of any one waterbird	if	of any one waterbird	and if caused
species occurring in	cause identified as	species occurring in	identified as related
significant numbers*	related to NDAs	significant numbers*	to NDAs project
during Baseline	project	during Baseline	instigate remedial
Monitoring such that	instigate remedial	Monitoring such that	action. Review and
the Action Level	action to remove or	the Limit Level	adjust LVNP
response is	reduce source of	response is	management
triggered.	disturbance.	triggered.	measures to improve
			conditions for
			affected species.
Operational Phase			
Decline in numbers	Investigate cause and	Decline in numbers	Investigate cause and
of all waterbird	if cause identified as	of all waterbird	if cause identified as
species relative to	related to NDAs	species relative to	related to NDAs
numbers during	review and adjust	numbers during	consider and
Baseline Monitoring	LVNP management	Baseline Monitoring	implement additional
such that the Action	measures to improve	such that the Limit	mitigation measures
Level response is	conditions for	Level response is	(e.g. additional
triggered.	affected species in	triggered.	screening and screen
	LVNP.		planting, adjustments
			to infrastructure
			design).
Decline in numbers	Investigate cause and	Decline in numbers	Investigate cause and
of any one waterbird	if cause identified as	of any one waterbird	if cause identified as
species occurring in	related to NDAs	species occurring in	related to NDAs
significant numbers*	review and adjust	significant numbers*	consider and
during Baseline	LVNP management	during Baseline	implement additional
Monitoring such that	measures to improve	Monitoring such that	mitigation measures
the Action Level	conditions for	the Limit Level	(e.g. additional
response is triggered.	affected species.	response is triggered.	screen planting,
1 38 111	1	1 86	adjustments to
			infrastructure
			design).
			4001511).

^{*} Whether numbers are significant will depend on species and season and should be determined following collection and evaluation of Baseline survey data.

Table B-8.2 Action and Limit Levels and Responses to Evidence of Declines in Aquatic Fauna

Table B 0.2 Retion and Elimit Ecreis and Responses to Evidence of Decimes in Aquatic 1 adna						
Action Level Response		Limit Level	Response			
Construction Phase						
Reduction in species	Investigate cause and if	Reduction in taxa	Investigate cause and if			
diversity such that Action	cause identified as	diversity such that Limit	caused identified as			
Level response is	related to Project	Level response is	related to Project			
triggered.	instigate remedial action	triggered.	instigate remedial action.			
	to remove or reduce					
	source of disturbance.					

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Table B-8.3 Action and Limit Levels and Responses to Evidence of Declines in non-aquatic Fauna

Action Level	Level Response Limit Level		Response	
Construction Phase				
Reduction in species diversity such that Action Level response is triggered.	Investigate cause and if cause identified as related to Project instigate remedial action to remove or reduce source of disturbance.	Reduction in taxa diversity such that Limit Level response is triggered.	Investigate cause and if caused identified as related to Project instigate remedial action.	

^{*} Whether numbers are significant will depend on species and season. Significance threshold for each species should be reviewed following collection of Baseline survey data.

^{*} Whether numbers are significant will depend on species and season. Significance threshold for each species should be reviewed following collection of Baseline survey data.

APPENDIX C COPIES OF CALIBRATION CERTIFCATES



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.: 35376A
Date of Issue: 2021-07-05

Date of Issue:
Date Received:

2021-07-02

Date Tested:

2021-07-02

Date Completed: Next Due Date:

2021-07-05 2021-09-04

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 : 0.1 cfm

Flow rate

, U.I CIIII

Zero Count Test Equipment No. : 0 count per 1 minute : 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:

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRICK TSE



consulting . testing . research

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.:
 35375A

 Date of Issue:
 2021-06-28

 Date Received:
 2021-06-25

 Date Tested:
 2021-06-25

 Date Completed:
 2021-06-28

Page:

Next Due Date:

1 of 1

2021-08-27

ATTN:

Ms. Meiling Tang

Certificate of Calibration

Item for Calibration:

Description

: Dust Monitor

Manufacturer

: Met One Instruments

Model No.

: AEROCET-831

Serial No. Flow rate

: X24477

110W Tate

: 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) 1.097

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRICK TSE



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.: 35659A
Date of Issue: 2021-08-30
Date Received: 2021-08-27

Date Tested: 2021-08-27 Date Completed: 2021-08-30

Next Due Date:

Page:

2021-10-29

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) 1.076

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRICK TSE



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.:
 35376D

 Date of Issue:
 2021-07-05

 Date Received:
 2021-07-02

 Date Tested:
 2021-07-02

 Date Completed:
 2021-07-05

Next Due Date: Page:

1 of 1

2021-09-04

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) 1.082

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRICK TSE General Manager



consulting . testing . research

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.: 35375B Date of Issue: 2021-06-28 Date Received: 2021-06-25 Date Tested: 2021-06-25 2021-06-28 Date Completed:

Next Due Date: Page:

2021-08-27 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. Flow rate

: X24479 : 0.1 cfm

: 0 count per 1 minute

Zero Count Test 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) 1.116

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRICK TSE



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.: 35375D

Date of Issue: 2021-06-28

Date Received: 2021-06-25 Date Tested: 2021-06-25

Date Completed: 2021-06-28 Next Due Date: 2021-08-27

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 : X24478

Serial No. 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.

Regulter

Correlation Factor (CF)

1.076

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRICK TSE



File No. WMA20002/20/0007

High-Volume TSP Sampler 5-POINT CALIBRATION DATA SHEET

Station	on FLN-DMS1 - Scattered Village Houses North of Proposed Potential Ecopark					Operator:	HL
Date:	19-Jul-21				Next	Due Date:	18-Sep-21
Equipment No.:	WA-12-20					Serial No	3223
			Ambient	Condition	· · · · · · · · · · · · · · · · · · ·		
Temperat	ure, Ta (K)	300	300 Pressure, Pa (mmHg)		<u> </u>	754.4	
	,,			<i>\(\(\(\) \)</i>			
	transfer to the second	(Prifice Transfer St	andard Informat	ion		
Seria	al No.	0993	Slope, mc	0.0569	Intercept,		-0.01398
Last Calib	ration Date: 28 -Jan-21 $mc \times Qstd + bc = [\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$						
Next Calib	oration Date:	28-Jan-22		Qstd = {[ΔH	x (Pa/760) x (298	B/Ta)] ^{1/2} -bc} /	me
		•				···	
			Calibration o	f TSP Sampler			
Calibration		Orf	ice			HVS	
Point	ΔH (orifice), in. of water	[ΔH x (Pa/76	[ΔH x (Pa/760) x (298/Ta)] ^{1/2}		ΔW (HVS), in. of water	[ΔW x (Pa/76	50) x (298/Ta)] ^{1/2} Y-axis
1	13.4	:	3.63	64,15	10.1		3.16
2	10.2		3,17	56.00	7.9		2.79
3	7.6		2.74	48.37	5.7		2.37
4	5.3		2.29	40.44	4.2		2.04
5	3,4	1.83		32.44	2.8		1.66
By Linear Regr Slope , mw =	ression of Y on X 0.0474			Intercept, bw	0.1150)	
	coefficient* =	0.9	1993	• ,	•		
	_	check and recalibrate	ð.				
			Set Point 0	Calculation			
From the TSP Fi	ield Calibration Cur	ve, take Qstd = 43 C					
		Y" value according					
	,						
		mw x	$Qstd + bw = [\Delta W$	x (Pa/760) x (298	3/Ta)] ^{1/2}		
T1	Cat Dalast, W	$mw \times Qstd + bw)^2$	(760 / Pa) v. (Ta	/200) -	4.70		
i nereio	ore, Set Point; w = (mw x Qsia + bw)	x (/00 / Fa) x (Fa	.1 290)	4.70		
Remarks:							

		2,1,445				.,	***************************************
Conducted by:	13th MAIN 1962	Signature:	he,	ì		Date: /	9-7-2021
	Vo Ka clen		1	0,_	•	Date:	P-7-20M
	- L-1/- L-V	Ų ·		/	•		

File No. WMA20002/17/0007

High-Volume TSP Sampler 5-POINT CALIBRATION DATA SHEET

Station	FLN-DMS3 - Hou	se near Tong Hang		Operator:				
Date:	29-Jul-21				Next	Due Date:	28-Sep-21	
Equipment No.:	WA-12-17					Scrial No.	3218	
			Ambient (Condition				1 11 1
Temperatu	re, Ta (K)	299.6	Pressure, Pa (mmHg)			751.8		
								
		O	rifice Transfer Sta	ındard Informat	ion			
Seria	Serial No. 0993		Slope, mc	0.0569	Intercept,		-0.01398	
Last Calibra	ation Date:	28-Jan-21	me x Qstd + be = $[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$					
Next Calibr	ation Date:	28-Jan-22	Qstd = $\{ [\Delta H \times (Pa/760) \times (298/Ta)]^{1/2} -bc \} / mc$					
						* . *		1
eng zesznig Site			Calibration of	TSP Sampler				
Calibration		Orfic	e	Qstd (CFM)		HVS	3	
Point	ΔH (orifice), in. of water	[ΔH x (Pa/760	$[\Delta H \times (Pa/760) \times (298/\Gamma a)]^{1/2}$		ΔW (HVS), in. of water	[ΔW x (Pa/7	(60) x (298/Ta)] ^{1/2}	Y-axis
1	14.4	3.	.76	66.42	9.4		3.04	
2	11.6	3.	.38	59.64	7.6		2.73	
3	9.9	3.	.12	55,12	6.8		2.59	
4	6.8	2.	.59	45.72	4.5	ļ	2.10	
5	3.5	1.86		32.87	2.3		1.50	
By Linear Regre				Tutoucout hyer	0.0021			
Slope, mw = _	0.0460	0 .9 9	200	Intercept, bw	0.0021			
Correlation c	· —							
"II Correlation Co	beincient < 0.990, o	check and recalibrate.						
	The second section (Sec	parting process	Set Point C	Calculation		perfet in research	e te esplication de	
From the TSP Fie	ld Calibration Curv	ve, take Qstd = 43 CF	M					
From the Regressi	ion Equation, the "	Y" value according to						
_	_				1/2			
		mw x ($Qstd + bw = [\Delta W]$	x (Pa/760) x (298	3/Ta)]***			
Therefor	e Set Point: W = ($mw \times Qstd + bw)^2 \times$	(760 / Pa) x (Ta.	/ 298) =	3.99			
THOTOIGE	e, ser ronn, w	mir x Qsia · ovi) x	(700714) N (14	250)	3.77			
	•				,			
Remarks:								
_				1				
Conducted by: 1	et MON Her	Signature:	$\bigcap h$	l'	-	Date: 2	19-7-2021 19-7-201	
Checked by:	Ho Da dun	Signature:	Vi-	~	_	Date: 2	P-7-2m	
-		_			•		1	



File No. WMA20002/03/0007 Operator: KC

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

KTN-DMS4A - Temporary Structure at Pak Shek Au

Station

Date:

Date:	2-Aug-21			_	Ne	ext Due Date:	1-Oct-21
Equipment No.:	WA-11-03						3225
	E ((1)			Ambient Condition		<u> </u>	751.6
Temperatur	re, Ta (K)	3	03	Pressure, Pa	(mmHg)		751.6
			Orifice T	ransfer Standard	Information		
Serial	No.:	09	993	Slope, mc	0.0569	Interc	ept, bc -0.01398
Last Calibra			an-21	Next Calibra	tion Date:		28-Jan-22
			Cali	ibration of RSP Sa	ımpler		
Calibration			ORIF				HVS
Point	ΔH(orifice),	Del Hc ⁽¹⁾	Qstd (2)	Qa ⁽³⁾ (CFM)	Qa ⁽³⁾ (m ³ /min)		$[\Delta W \times (Ta + 30) / Pa]^{1/2}$
	in. of water		(CFM)	X -axis	X -axis	in. of water	Y-axis 2.04
1	8.3	8.07	50.20	51.61	1.46	9.4	1.95
2	7.6	7.39	48.04	49.40	1.40	8.6 7.1	1.77
3	5.4	5.25	40.54	41.68	1.18		1.55
5	2.8	3.50 2.72	33.14 29.26	34.08 30.08	0.96 0.85	5,4 4.6	1.43
<u> </u>	2.0	2.12	29,20	30.08	0.05	4.0	X,1,0
By Linear Regi	ression of V o	n X					
Slope, mw =				Intercep	t. hw ==	0.5	984
Correlation co			0.998	_	.,		
			*****		•		
(1) DEL He =	= ΔH x (Pa/70	60*298/Ta)					
	ΔH x (Pa/760] ^{1/2} - bc}/mc	c (m3/min)			
	d x (Ta / Pa)						
*If Correlation (Coefficient < ().990, check	and recalibi	rate.			
				Set Point Calculat	ion		
Set Point Flow I	Rate., SFR						
SFR = 1.13 x	(760/Pa) x (T	(a/298) =		41.05		,	
Sampler Well - '							
SSP = [(mw)]	x SFR + bw) ² x Pa] / (J	(a+30) =		6.83		
Remarks:							
		1		/)			
a 1	uh /	/ //	a!	\mathcal{U}_{\cdot}	ſ		D / / / 2.1
Conducted by:	no ya	٠.	Signature:			•	Date: $\frac{\gamma / \delta (\gamma_0 \gamma)}{2}$
Checked by:	166 Man 1	ior	Signature:	ner			Date: 2-8-202



RECALIBRATION **DUE DATE:**

January 28, 2022

ertificate of

Calibration Certification Information

Cal. Date: January 28, 2021

Rootsmeter S/N: 438320

Ta: 294

°K

Operator: Jim Tisch

Pa: 763.5

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	1.4160	3.3	2.00
2	3	4	1	0.9980	6.4	4.00
3	5	6	1	0.8890	8.0	5.00
4	7	8	1	0.8500	8.8	5.50
5	9	10	1	0.7020	12.9	8.00

	Data Tabulation				
Vstd	Qstd	$\sqrt{\Delta H \left(\frac{Pa}{Pstd}\right) \left(\frac{Tstd}{Ta}\right)}$		Qa	$\sqrt{\Delta H \Big({ m Ta/Pa} \Big)}$
(m3)	(x-axis)	(y-axis)	Va	(x-axis)	(y-axis)
1.0139	0.7160	1.4271	0.9957	0.7032	0.8776
1.0098	1.0118	2.0182	0.9916	0.9936	1.2411
1.0076	1.1334	2.2564	0.9895	1.1131	1.3875
1.0066	1.1842	2.3666	0.9885	1.1629	1,4553
1.0011	1.4261	2.8542	0.9831	1.4004	1.7551
Ĭ	m=	2.00902		m=	1.25802
QSTD	b=	-0.01398	QA [b=	-0.00860
	r=	0.99997		r=	0.99997

	Calculation	s	
Vstd=	ΔVol((Pa-ΔP)/Pstd)(Tstd/Ta)	Va=	ΔVol((Pa-ΔP)/Pa)
Qstd=	Vstd/ΔTime	Qa=	Va/ΔTime
	For subsequent flow rat	e calculatio	ns:
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	ĺ
	Key	
	manometer reading (in H2O)	
ΔP: rootsmete	er manometer reading (mm Hg)	ĺ
	olute temperature (°K)	ĺ
Pa: actual bar	ometric pressure (mm Hg)	
b: intercept	•	- 40.0
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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WELLAB LIMITED Room 1701, Technology Park, 18 On Lai Street, Shatin, N.T., Hong Kong. Tel: 2898 7388 Fax: 2898 7076 Website: www.wellab.com.hk

TEST REPORT

APPLICANT: Wellab Limited

(EM&A Department)

Room 1701, Technology Park,

18 On Lai Street,

Shatin, NT, Hong Kong

Test Report No.:	34872C
Date of Issue:	2021-03-08
Date Received:	2021-03-05
Date Tested:	2021-03-05
Date Completed:	2021-03-08
Next Due Date:	2022-03-07

Page:

1 of 1

ATTN:

Mr. W. K. Tang

Certificate of Calibration

Item for calibration:

Description

: Sound Level Meter

Manufacturer Model No.

:BSWA : BSWA 308 : 580006

Serial No. 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



WELLAB LIMITED Room 1701, Technology Park, 18 On Lai Street, Shatin, N.T., Hong Kong. Tel: 2898 7388 Fax: 2898 7076

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

TEST REPORT

APPLICANT: Wellab Limited

(EM&A Department)

Room 1701, Technology Park,

18 On Lai Street,

Shatin, NT, Hong Kong

 Test Report No.:
 34873

 Date of Issue:
 2021-03-15

 Date Received:
 2021-03-12

 Date Tested:
 2021-03-12

 Date Completed:
 2021-03-15

 Next Due Date:
 2022-03-14

Page:

1 of 1

ATTN:

Mr. W. K. Tang

Certificate of Calibration

Item for calibration:

Description

: Sound Level Meter

Manufacturer Model No.

: BSWA : BSWA 308 : 580011

Serial No. 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



WELLAB LIMITED Room 1701, Technology Park, 18 On Lai Street, Shatin, N.T., Hong Kong. Tel: 2898 7388 Fax: 2898 7076 Website: www.wellab.com.hk

TEST REPORT

APPLICANT: Wellab Limited

(EM&A Department)

Room 1701, Technology Park,

18 On Lai Street,

Shatin, NT, Hong Kong

 Test Report No.:
 34873A

 Date of Issue:
 2021-03-15

 Date Received:
 2021-03-12

 Date Tested:
 2021-03-12

 Date Completed:
 2021-03-15

 Next Due Date:
 2022-03-14

Page:

1 of 1

ATTN:

Mr. W. K. Tang

Certificate of Calibration

Item for calibration:

Description

: Sound Level Meter

Manufacturer Model No. Serial No.

: BSWA : BSWA 308 : 580013

Equipment No.

: WN-01-09

Test conditions:

Room Temperature

: 17-22 degree Celsius

Relative Humidity

: 40-70%

Test Specifications:

Performance checking at 94 and 114 dB

Methodology:

In-house method, according to manufacturer instruction manual

Results:

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

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRICK TSE General Manager



WELLAB LIMITED

Room 1701, Technology Park, 18 On Lai Street, Shatin, N.T., Hong Kong.

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

TEST REPORT

APPLICANT: Wellab Limited

(EM&A Department)

Room 1701, Technology Park,

18 On Lai Street,

Shatin, NT, Hong Kong

 Test Report No.:
 34873B

 Date of Issue:
 2021-03-15

 Date Received:
 2021-03-12

 Date Tested:
 2021-03-12

 Date Completed:
 2021-03-15

 Next Due Date:
 2022-03-14

Page:

1 of 1

ATTN:

Mr. W. K. Tang

Certificate of Calibration

Item for calibration:

Description

: Sound Level Meter

Manufacturer Model No.

: BSWA : BSWA 308 : 580017

Serial No. Equipment No.

: WN-01-10

Test conditions:

Room Temperature

: 17-22 degree Celsius

Relative Humidity

: 40-70%

Test Specifications:

Performance checking at 94 and 114 dB

Methodology:

In-house method, according to manufacturer instruction manual

Results:

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

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRICK TSE General Manager

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Website: www.wellab.com.hk

TEST REPORT

APPLICANT: Wellab Limited

(EM&A Department)

Room 1701, Technology Park,

18 On Lai Street,

Shatin, NT, Hong Kong

Test Report No.: 33963 Date of Issue: 2020-08-21 Date Received: 2020-08-19 Date Tested: 2020-08-19 Date Completed: 2020-08-21 Next Due Date: 2021-08-20

Page:

1 of 1

ATTN:

Mr. W. K. Tang

Certificate of Calibration

Item for Calibration:

Description

: Acoustical Calibrator

Manufacturer

: Brüel & Kjær

Model No.

: 4231

Serial No. Equipment No. : 2412367 : N-02-03

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 ± 0.1dB
At 114 dB SPL	114.0	114.0 ± 0.1dB

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

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

General Manager



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WELLAB LIMITED Room 1701, Technology Park, 18 On Lai Street, Shatin, N.T., Hong Kong.

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

TEST REPORT

APPLICANT: Wellab Limited

(EM&A Department)

Room 1701, Technology Park,

18 On Lai Street,

Shatin, NT, Hong Kong

Test Report No.:	34136
Date of Issue:	2020-10-03
Date Received:	2020-09-29
Date Tested:	2020-09-29
Date Completed:	2020-10-03
Next Due Date:	2021-10-02

Page:

1 of 1

ATTN:

Mr. W. K. Tang

Certificate of Calibration

Item for calibration:

Description

: Acoustical Calibrator

Manufacturer

: SVANTEK

Model No.

: SV30A : 24803

Serial No. 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.

General Manager



WELLAB LIMITED

Room 1701, Technology Park, 18 On Lai Street, Shatin, N.T., Hong Kong.

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

TEST REPORT

APPLICANT: Wellab Limited

(EM&A Department)

Room 1701, Technology Park,

18 On Lai Street,

Shatin, NT, Hong Kong

Test Report No.: 34136A

Date of Issue: 2020-10-03 Date Received: 2020-09-29

Date Tested: 2020-09-29 Date Completed: 2020-10-03 Next Due Date: 2021-10-02

Page:

1 of 1

ATTN:

Mr. W. K. Tang

Certificate of Calibration

Item for calibration:

Description

: Acoustical Calibrator

Manufacturer

: SVANTEK

Model No. Serial No.

: SV30A : 24780

Equipment No.

: N-09-05

Test conditions:

Room Temperature

: 17-22 degree Celsius

Relative Humidity

: 40-70%

Methodology:

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

Results:

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

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

General Manager

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

TEST REPORT

APPLICANT:

Wellab Limited (EM&A)

RM 1808, Technology Park,

18 On Lai Street,

Shatin, N.T., Hong Kong

Test Report No.: Date of Issue: 35612 2021-08-23

Date Received:

2021-08-20

Date Tested:

2021-08-20 to 2021-08-23

Date Completed:

2021-08-23 2021-08-23

ATTN:

Miss Mei Ling Tang

Page:

1 of 2

Certificate of Calibration

Item for calibration:

YSI EXO1 Multiparameter Sondes	Equipment No.:	SW-08-40
Manufacturer:	YSI Incorporated	, a Xylem brand
Description:	Model No.	Serial No.
- EXO1 Sonde, 100 meter Depth, 4 Sensor ports	599502-24	16J102312
- EXO Optical DO Sensor, Ti	599100-01	17K101624
- EXO conductivity/Temperature Sensor, Ti	599870	17B100806
- EXO Turbidity Sensor, Ti	599101-01	16H102461
- EXO pH Sensor Assembly, Guarded, Ti	599701	16J101293

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



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

TEST REPORT

 Test Report No.:
 35612

 Date of Issue:
 2021-08-23

 Date Received:
 2021-08-20

 Date Tested:
 2021-08-20 to 2021-08-23

 Date Completed:
 2021-08-23

Page:

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Certificate of Calibration

Results:

Conductivity performance checking

	Instrument Readings (µS/cm)	Accetance Criteria	Comment
KCl stock solution	13200	12246-13534	Pass
(12890 μS/cm)			

Temperature performance checking

Reference thermometer-	Instrument Readings (°C)	Correction (°C)	Comment
E431 Readings (°C)			
20.0	20.002	-0.002	N/A

pH performance checking

	Instrument Readings Accetance Criteria		Comment
	(pH unit)		
pH QC buffer 4.00	4.04	4.00 ± 0.10	Pass
pH QC buffer 6.86	6.88	6.86 ± 0.10	Pass
pH QC buffer 9.18	9.17	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	Instrument Readings (mg/L)	Accetance Criteria	Comment
(mg/L)			
7.88	8.02	Difference between	Pass
4		Titration value and	
		instrument reading	
		<0.2mg/L	

Turbidity performance checking

	Turbidity stock solution	Instrument Readings (NTU)	Accetance Criteria	Comment
	10 NTU	10.48	9.0-11.0	Pass
ı	50 NTU	51.22	45.0-55.0	Pass
Ì	100 NTU	103.4	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



WELLAB LIMITED Room 1701, Technology Park, 18 On Lai Street, Shatin, N.T., Hong Kong. Tel: 2898 7388 Fax: 2898 7076 Website: www.wellab.com.hk

TEST REPORT

APPLICANT:

Wellab Limited (EM&A)

RM 1808, Technology Park,

18 On Lai Street,

Shatin, N.T., Hong Kong

Test Report No.: Date of Issue:

35322 2021-06-22

Date Received: Date Tested:

2021-06-21 2021-06-21 to

2021-06-22

Date Completed:

2021-06-22

ATTN:

Miss Mei Ling Tang

Page:

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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 ************************************

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

PATRICK TSE General Manager



WELLAB LIMITED Room 1701, Technology Park, 18 On Lai Street, Shatin, N.T., Hong Kong. Tel: 2898 7388 Fax: 2898 7076

Website: www.wellab.com.hk

TEST REPORT

 Test Report No.:
 35322

 Date of Issue:
 2021-06-22

 Date Received:
 2021-06-21

 Date Tested:
 2021-06-21 to

 2021-06-22
 2021-06-22

 Date Completed:
 2021-06-22

Page:

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Certificate of Calibration

Results:

Conductivity performance checking

	Instrument Readings (µS/cm)	Accetance Criteria	Comment
KCl stock solution	12800	12246-13534	Pass
(12890 μS/cm)			
70			

Temperature performance checking

Reference thermometer-	Instrument Readings (°C)	Correction (°C)	Comment
E431 Readings (°C)			
20.0	19.996	+0.004	N/A

pH performance checking

	Instrument Readings (pH unit)	Accetance Criteria	Comment
pH QC buffer 4.00	4.00	4.00 ± 0.10	Pass
pH QC buffer 6.86	6.88	6.86 <u>+</u> 0.10	Pass
pH QC buffer 9.18	9.17	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
8.00	8.18	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	9.28	9.0-11.0	Pass
50 NTU	51.70	45.0-55.0	Pass
100 NTU	101.6	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



WELLAB LIMITED Room 1701, Technology Park, 18 On Lai Street, Shatin, N.T., Hong Kong. Tel: 2898 7388 Fax: 2898 7076 Website: www.wellab.com.hk

TEST REPORT

APPLICANT:

Wellab Limited (EM&A)

RM 1808, Technology Park,

18 On Lai Street,

Shatin, N.T., Hong Kong

Test Report No.: Date of Issue:

35529 2021-06-30

Date Received:

2021-06-28

Date Tested:

2021-06-28 to

2021-06-30

Date Completed:

2021-06-30

Page:

1 of 2

ATTN:

Miss Mei Ling Tang

Certificate of Calibration

Item for calibration:

YSI EXO1 Multiparameter Sondes	Equipment No.:	SW-08-65
Manufacturer:	YSI Incorporated, a 2	Xylem brand
Description:	Model No.	Serial No.
- EXO1 Sonde, 100 meter Depth, 4 Sensor ports	599502-24	16J102337
- EXO Optical DO Sensor, Ti	599100-01	17B102224
- EXO conductivity/Temperature Sensor, Ti	599870	16H100179
- EXO Turbidity Sensor, Ti	599101-01	20J103605
- EXO pH Sensor Assembly, Guarded, Ti	599701	17B103653

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.

General Manager



WELLAB LIMITED Room 1701, Technology Park, 18 On Lai Street, Shatin, N.T., Hong Kong. Tel: 2898 7388 Fax: 2898 7076

Website: www.wellab.com.hk

TEST REPORT

Test Report No.: 35529 Date of Issue: 2021-06-30 Date Received: 2021-06-28 Date Tested: 2021-06-28 to 2021-06-30 Date Completed: 2021-06-30

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Certificate of Calibration

Results:

Conductivity performance checking

	Instrument Readings (μS/cm)	Accetance Criteria	Comment
KCl stock solution	12600	12246-13534	Pass
(12890 μS/cm)			
TI 6			·

Temperature performance checking

Reference thermometer-	Instrument Readings (°C)	Correction (°C)	Comment
E431 Readings (°C)			
20.0	19.997	+0.003	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	6.84	6.86 ± 0.10	Pass
pH QC buffer 9.18	9.22	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	Instrument Readings (mg/L)	Accetance Criteria	Comment
(mg/L)			<u> </u>
8.06	8.21	Difference between	Pass
		Titration value and	
		instrument reading	
		<0.2mg/L	

Turbidity performance checking

Turbidity stock solution	Instrument Readings (NTU)	Accetance Criteria	Comment
10 NTU	10.31	9.0-11.0	Pass
50 NTU	52.42	45.0-55.0	Pass
100 NTU	103.2	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



Eurotron Instruments (UK) Ltd

Unit 18 Austin Way Royal Oak Industrial Estate Daventry, NN 11 8QY

T: +44 (0)1327 871044, F: +44 (0)1327 301255 E: sales@Eurotronuk.com www.eurotronuk.com

CALIBRATION CERTIFICATE

For Gas Analyser:

Rasi 700 BIO

With Serial Number:

330055

The adjustment and calibration of the flue gas analyser is due to a measurement with certified test gases. Other measuring procedures correspond with the technical regulations and norms valid at the time of the measurement. Traceability is guaranteed by nation normative!

Measuring Installations:

Measurement with certified test gases:

CO/02

Cylinder-nr. 88772

NO

Cylinder-nr. 72126

CO/H2/O2 Cylinder-nr. D5CPTH5

NO2

Cylinder-nr. 88778

CO2/CH4/H2S Cylinder nr. 1421177

MRU-Pressure calibrator DK1500 S/N 285943 MRU-Temp calibrator TT2, I-Nr.:T024

Gas mixing unit #v010

Measuring Results:

El. Chemical	Nominal Value	Tolerance	Actual Value
		Value	
O2 in Vol. %	0,00	+/- 0,2	0.02
O2 in Vol. %	2.01	+/- 0,2	2.02
O2 in Vol. %	10.00	+/-0,3	10.03
NDIR:			
CH4 in Vol%	60.0	+/-1.8	60.0
CO2 in Vol%	40.0	+/-1.2	40.0
T Air in °C	125.0	+/- 1,0	124.7
T Gas in °C	250.0	+/- 2,0	249.6
Draft in hPa	Measuring range	+/- 0,03	Values are within
	are according to		specified
	specifications		tolerances
Pressure in Hpa	Measuring range	+/-0.03	Not installed
	are according to		
	specifications		

Special Remarks

Date of Calibration: 16/03/21 carried out by:

Calibration Due:

16/03/22

Europron Instruments (UK) Ltd Unit 18, Austin Way NN11 00 Tel: 01327 871044 Company No. 5501255

Calibration Item: Micromate System ISEE (Calibration with

Geophone UM17121)

Model No.: 721A2501 Serial No.: UM17121

Calibration Date: 8 January 2021 Next Calibration Date: 8 January 2022

Method Used: In-house Method B3-001

In-house Testing Procedure No.: B3-001

Test References	Model	Serial No.
Blastmate III	714A0801	BA15521
ISEE Triaxial Geophone	714A9701	BG14463
GLOBAL SPECIALISTS 3MHz*	2030	256812
Stanford Spectrum Analyzer	SR760	41550
Aglient Multimeter*	34410A	MY47011119
HP Distortion Meter*	339A	810699
Bruel & Kjaer Accelerometer*	4370	30323
Bruel & Kjaer Charge Amplifier*	2647	2518810
Bruel & Kjaer Conditional Amplifier*	269	2152173
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:

(Wong, Keefe Solomon)

Calibration Item: TRIAXIAL GEOPHONE (Calibration with

main unit UM17121)

Part Number: 721A2901 Serial No.: UM17121

Calibration Date: 8 January 2021 Next Calibration Date: 8 January 2022

Method Used: In-house Method B3-001

In-house Testing Procedure No.: B3-001

Test References	Model	Serial No.
Blastmate III	714A0801	BA15521
ISEE Triaxial Geophone	714A9701	BG14463
GLOBAL SPECIALISTS 3MHz*	2030	256812
Stanford Spectrum Analyzer	SR760	41550
Aglient Multimeter*	34410A	MY47011119
HP Distortion Meter*	339A	810699
Bruel & Kjaer Accelerometer*	4370	30323
Bruel & Kjaer Charge Amplifier*	2647	2518810
Bruel & Kjaer Conditional Amplifier*	269	2152173
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:

(Wong, Keefe Solomon)

Calibration Item: Micromate System ISEE (Calibration with

Geophone UM17124)

Model No .:

721A2501

Serial No .:

UM17124

Calibration Date:

8 January 2021

Next Calibration Date:

8 January 2022

Method Used:

In-house Method B3-001

In-house Testing Procedure No.:

B3-001

Test References	Model	Serial No.
Blastmate III	714A0801	BA15521
ISEE Triaxial Geophone	714A9701	BG14463
GLOBAL SPECIALISTS 3MHz*	2030	256812
Stanford Spectrum Analyzer	SR760	41550
Aglient Multimeter*	34410A	MY47011119
HP Distortion Meter*	339A	810699
Bruel & Kjaer Accelerometer*	4370	30323
Bruel & Kjaer Charge Amplifier*	2647	2518810
Bruel & Kjaer Conditional Amplifier*	269	2152173
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:

(Wong, Keefe Solomon)

Calibration Item:

TRIAXIAL GEOPHONE (Calibration with

main unit UM17124)

Part Number:

721A290.1

Serial No .:

UM17124

Calibration Date:

8 January 2021

Next Calibration Date:

8 January 2022

Method Used:

In-house Method B3-001

In-house Testing Procedure No.:

B3-001

Test References	Model	Serial No.
Blastmate III	714A0801	BA15521
ISEE Triaxial Geophone	714A9701	BG14463
GLOBAL SPECIALISTS 3MHz*	2030	256812
Stanford Spectrum Analyzer	SR760	41550
Aglient Multimeter*	34410A	MY47011119
HP Distortion Meter*	339A	810699
Bruel & Kjaer Accelerometer*	4370	30323
Bruel & Kjaer Charge Amplifier*	2647	2518810
Bruel & Kjaer Conditional Amplifier*	269	2152173
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:

(Wong, Keefe Solomon)

Calibration Item: Micromate System ISEE (Calibration with

Geophone UM17126)

Model No.:

721A2501

Serial No.:

UM17126

Calibration Date:

8 January 2021

Next Calibration Date:

8 January 2022

Method Used:

In-house Method B3-001

In-house Testing Procedure No.: B3-001

Test References	Model	Serial No.
Blastmate III	714A0801	BA15521
ISEE Triaxial Geophone	714A9701	BG14463
GLOBAL SPECIALISTS 3MHz*	2030	256812
Stanford Spectrum Analyzer	SR760	41550
Aglient Multimeter*	34410A	MY47011119
HP Distortion Meter*	339A	810699
Bruel & Kjaer Accelerometer*	4370	30323
Bruel & Kjaer Charge Amplifier*	2647	2518810
Bruel & Kjaer Conditional Amplifier*	269	2152173
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:

(Wong, Keefe Solomon)

Calibration Item: TRIAXIAL GEOPHONE (Calibration with

main unit UM17126)

Part Number:

721A2901

Serial No.:

UM17126

Calibration Date:

8 January 2021

Next Calibration Date:

8 January 2022

Method Used:

In-house Method B3-001

In-house Testing Procedure No.: B3-001

Test References	Model	Serial No.
Blastmate III	714A0801	BA15521
ISEE Triaxial Geophone	714A9701	BG14463
GLOBAL SPECIALISTS 3MHz*	2030	256812
Stanford Spectrum Analyzer	SR760	41550
Aglient Multimeter*	34410A	MY47011119
HP Distortion Meter*	339A	810699
Bruel & Kjaer Accelerometer*	4370	30323
Bruel & Kjaer Charge Amplifier*	2647	2518810
Bruel & Kjaer Conditional Amplifier*	269	2152173
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:

(Wong, Keefe Solomon)

APPENDIX D ENVIRONMENTAL MONITORING SCHEDULES

Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas Impact Air Quality and Noise Monitoring Schedule (August 2021)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1-Aug		3-Aug	4-Aug		6-Aug	7-Aug
	1hr TSP* X3, 24hr TSP* KTN-DMS4, FLN-DMS5	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	Ihr TSP* X3, 24hr TSP* KTN-DMS4, FLN-DMS5 Noise CP-KTN-NMS2, CP-KTN-NMS3, CP- KTN-NMS5, CP-KTN-NMS6	
8-Aug	9-Aug	10-Aug	11-Aug	12-Aug	13-Aug	14-Aug
	24hr TSP FLN-DMS1, FLN-DMS3	Ihr TSP* X3 FLN-DMS1, FLN-DMS3 Noise CP-FLN-NMS1, CP-FLN-NMS2	24hr RSP (Arsenic) KTN-DMS4A	Ihr TSP* X3, 24hr TSP* KTN-DMS4, FLN-DMS5 Noise CP-KTN-NMS2, CP-KTN-NMS3, CP- KTN-NMS5, CP-KTN-NMS6	24hr TSP FLN-DMS1, FLN-DMS3	
15-Aug	16-Aug	17-Aug	18-Aug	19-Aug	20-Aug	21-Aug
	1hr TSP* X3 FLN-DMS1, FLN-DMS3	24hr RSP (Arsenic) KTN-DMS4A	Ihr TSP* X3, 24hr TSP* KTN-DMS4, FLN-DMS5 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	
22-Aug	23-Aug	24-Aug	25-Aug	26-Aug	27-Aug	28-Aug
	<u>24hr RSP (Arsenic)</u> KTN-DMS4A	Ihr TSP* X3, 24hr TSP* KTN-DMS4, FLN-DMS5 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	
29-Aug	30-Aug	31-Aug				
	1hr TSP* X3, 24hr TSP* KTN-DMS4, FLN-DMS5 Moise CP-KTN-NMS2, CP-KTN-NMS3, CP- KTN-NMS5, CP-KTN-NMS6	24hr TSP FLN-DMS1, FLN-DMS3				

Remarks:

^{*}Monitoring session would be conducted by portable TSP monitor.

Environmental Permit(s)	Contract No.	Air Quality Stations	Noise Stations
EP-466/2013 EP-467/2013/A EP-468/2013/A	ND/2019/01	1hr TSP and 24hr TSP KTN-DMS4 - Temporary Structure near Fanling Highway	
EP-468/2013/A	ND/2019/03	(near Pak Shek Au)	
EP-466/2013 EP-467/2013/A EP-468/2013/A	ND/2019/01	24hr RSP (Arsenic) KTN-DMS4A - Temporary Structure at	-
EP-468/2013/A	ND/2019/03	Pak Shek Au	
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	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	
Li -4/3/2013/A	ND/2019/04	of Proposed Potential Ecopark	
EP-473/2013/A ⁽⁵⁾	ND/2019/05	1hr TSP and 24hr TSP FLN-DMS3 - House near Tong Hang	1
ED 473/2013/4 ⁽⁶⁾	ND/2019/03	1hr TSP and 24hr TSP	4
EP-473/2013/A ⁽⁶⁾	ND/2019/04	FLN-DMS5 - Noble Hill	
EP-473/2013/A ⁽⁷⁾	ND/2019/05		CP-FLN-NMS2 - Scattered Village Houses in Tong Hang
(8)	ND/2019/04		
EP-473/2013/A ⁽⁸⁾	ND/2019/05		CP-FLN-NMS1 - Belair Monte
EP-475/2013/A	ND/2019/06		

Remarks:

- 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
- 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
- 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
- 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.
- 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.

Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas Impact Water Quality Monitoring Schedule (August 2021)

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

Water Quality Monitoring Stations

River Beas: SYR-CS1 - Upstream of river, SYR-IS1 - Downstream of river

River Indus and near Siu Hang San Tsuen Stream: NTR-CS1 - Upstream of river, NTR-IS1 - Downstream of river, SHST-IS2 - Water sensitive receiver at near Siu Hang San Tsuen Stream,

MWR-IS3 - Water sensitive receiver at near Ma Wat River

Environmental Permit(s)	Contract No.	Water Quality Stations
EP-469/2013	ND/2019/02	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

Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas Impact Ecological Monitoring Schedule (August 2021)

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

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

Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas Weekly Site Inspection Schedule for August 2021

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

Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas Tentative Impact Air Quality and Noise Monitoring Schedule (September 2021)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		-	1-Sep	2-Sep	3-Sep	4-Sep
			1hr TSP* X3 FLN-DMS1, FLN-DMS3 Noise CP-FLN-NMS1, CP-FLN-NMS2	24hr RSP (Arsenic) KTN-DMS4A	1hr TSP* X3, 24hr TSP* KTN-DMS4, FLN-DMS5	
5-Se _I	6-Sep	7-Sep	8-Sep	9-Sep	10-Sep	11-Sep
	24hr TSP FLN-DMS1, FLN-DMS3	Ihr TSP* X3 FLN-DMS1, FLN-DMS3 Noise CP-FLN-NMS1, CP-FLN-NMS2	24hr RSP (Arsenic) KTN-DMS4A	1hr TSP* X3, 24hr TSP* KTN-DMS4, FLN-DMS5 Noise CP-KTN-NMS2, CP-KTN-NMS3, CP- KTN-NMS5, CP-KTN-NMS6	24hr TSP FLN-DMS1, FLN-DMS3	
12-Se _I	13-Sep	14-Sep	15-Sep	16-Sep	17-Sep	18-Sep
	1hr TSP* X3 FLN-DMS1, FLN-DMS3	<u>24hr RSP (Arsenic)</u> KTN-DMS4A	<u>Ihr TSP* X3, 24hr TSP*</u> KTN-DMS4, FLN-DMS5 <u>Noise</u> CP-KTN-NMS2, CP-KTN-NMS3, CP- KTN-NMS5, CP-KTN-NMS6	<u>24hr TSP</u> FLN-DMS1, FLN-DMS3	1hr TSP* X3 FLN-DMS1, FLN-DMS3 Noise CP-FLN-NMS1, CP-FLN-NMS2	
19-Sep	20-Sep	21-Sep	22-Sep		24-Sep	25-Sep
	<u>24hr RSP (Arsenic)</u> KTN-DMS4A	1hr TSP* X3, 24hr TSP* KTN-DMS4, FLN-DMS5 Noise CP-KTN-NMS2, CP-KTN-NMS3, CP- KTN-NMS5, CP-KTN-NMS6 24hr TSP FLN-DMS1, FLN-DMS3		Ihr TSP* X3 FLN-DMS1, FLN-DMS3 Noise CP-FLN-NMS1, CP-FLN-NMS2	24hr RSP (Arsenic) KTN-DMS4A	
26-Se _I			29-Sep	30-Sep		
	Ihr TSP* X3, 24hr TSP* KTN-DMS4, FLN-DMS5 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 TSP FLN-DMS1, FLN-DMS3 24hr RSP (Arsenic) KTN-DMS4A		

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 EP-467/2013/A EP-468/2013/A	ND/2019/01	1hr TSP and 24hr TSP KTN-DMS4 - Temporary Structure near Fanling Highway		
EP-468/2013/A	ND/2019/03	(near Pak Shek Au)		
EP-466/2013 EP-467/2013/A EP-468/2013/A	ND/2019/01	24hr RSP (Arsenic) KTN-DMS4A - Temporary Structure at		
EP-468/2013/A	ND/2019/03	Pak Shek Au		
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 Nunner	
EP-470/2013	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		
E1 -4/3/2013/A	ND/2019/04	of Proposed Potential Ecopark		
EP-473/2013/A ⁽⁵⁾	ND/2019/05	1hr TSP and 24hr TSP FLN-DMS3 - House near Tong Hang	1	
ED 473/2013/4 (6)	ND/2019/03	1hr TSP and 24hr TSP	+	
EP-473/2013/A ⁽⁶⁾	ND/2019/04	FLN-DMS5 - Noble Hill		
EP-473/2013/A ⁽⁷⁾	ND/2019/05		CP-FLN-NMS2 - Scattered Village Houses in Tong Hang	
ED 452 (23.5.) (8)	ND/2019/04			
EP-473/2013/A ⁽⁸⁾	ND/2019/05		CP-FLN-NMS1 - Belair Monte	
EP-475/2013/A	ND/2019/06			

Remarks:

- 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
- 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
- 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
- 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.
- 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.

Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas Tentative Impact Water Quality Monitoring Schedule (September 2021)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1-Sep	2-Sep	3-Sep	4-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	
5-Sep	6-Sep	7-Sep	8-Sep	9-Sep	10-Sep	11-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	
12-Sep	13-Sep	14-Sep	15-Sep	16-Sep	17-Sep	18-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	
19-Sep	20-Sep	21-Sep	22-Sep	23-Sep	24-Sep	25-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
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		

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

Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas Tentative Impact Ecological Monitoring Schedule (September 2021)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Sunday 5-Sep	6-Sep	Tuesday 7-Sep Monitoring of Measures to	Wednesday 1-Sep 8-Sep	2-Sep Monitoring of Measures to Minimise Disturbance to Water Birds in Ng Tung River T1 T2 High tide: Start time: 9:00 Low tide: Start time: 14:00	Friday 3-Sep 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 10-Sep Monitoring of Measures to Minimise	Saturday 4-Sep
	Monitoring of Measures to Minimise Disturbance to Water Birds in Ng Tung River T1 T2 High tide: Start time: 11:00 Low tide: Start time: 16:00	Minimise Impacts on Ecological Sensitive Habitats from Disturbance and Pollution T1, T6		Minimise Impacts on Ecological Sensitive Habitats from Disturbance and Pollution T3, T4, T5	Disturbance to Water Birds in Sheung Yue River and Long Valley T3 T5# High tide: Start time: 10:00 Low tide: Start time: 17:00	
12-Sep	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: 10:00	Monitoring of Measures to Minimise Impacts to Ma Tso Lung and Siu Hang San Tsuen Stream MS_01 - MS_15	15-Sep	16-Sep	Monitoring of Measures to Minimise Disturbance to Water Birds in Sheung Yue River and Long Valley T3 T5 High tide: Start time: 9:00 Low tide: Start time: 13:00	18-Sep
19-Sep		21-Sep	22-Sep	Monitoring of Measures to Minimise Disturbance to Water Birds in Ng Tung River T1 T2 High tide: Start time: 11:00 Low tide: Start time: 16:00	24-Sep 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: 16:00	25-Sep
26-Sep	27-Sep Monitoring of Measures to Minimise Disturbance to Water Birds in Sheung Yue River and Long Valley T3 T5 High tide: Start time: 13:00 Low tide: Start time: 10:00	28-Sep Monitoring of Measures to Minimise Disturbance to Water Birds in Ng Tung River T1 T2 High tide: Start time: 15:00 Low tide: Start time: 11:00	29-Sep	30-Sep		

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 September 2021

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

copark			
Date	Time	Weather	Particulate Concentration (µg/m³)
4-Aug-21	9:00	Cloudy	60.0
4-Aug-21	10:00	Cloudy	76.2
4-Aug-21	11:00	Cloudy	80.2
10-Aug-21	8:40	Cloudy	78.7
10-Aug-21	9:40	Cloudy	85.2
10-Aug-21	16:40	Cloudy	77.0
16-Aug-21	9:00	Sunny	48.0
16-Aug-21	10:00	Sunny	57.8
16-Aug-21	11:00	Sunny	46.4
20-Aug-21	13:00	Sunny	46.2
20-Aug-21	14:00	Sunny	56.1
20-Aug-21	15:00	Sunny	45.5
26-Aug-21	9:00	Sunny	45.6
26-Aug-21	10:00	Sunny	57.6
26-Aug-21	11:00	Sunny	45.4
		Average	60.4
		Maximum	85.2
		Minimum	45.4

Location FLN-DMS3 - House near Tong Hang						
Date	Time	Weather	Particulate Concentration (μg/m³)			
4-Aug-21	14:00	Cloudy	73.4			
4-Aug-21	15:00	Cloudy	83.4			
4-Aug-21	16:00	Cloudy	82.6			
10-Aug-21	13:00	Cloudy	66.2			
10-Aug-21	14:00	Cloudy	65.6			
10-Aug-21	15:00	Cloudy	65.9			
16-Aug-21	13:00	Sunny	46.5			
16-Aug-21	14:00	Sunny	56.0			
16-Aug-21	15:00	Sunny	45.1			
20-Aug-21	9:00	Sunny	47.1			
20-Aug-21	10:00	Sunny	56.5			
20-Aug-21	11:00	Sunny	45.6			
26-Aug-21	13:00	Sunny	46.4			
26-Aug-21	14:00	Sunny	56.7			
26-Aug-21	15:00	Sunny	44.9			
		Average	58.8			
		Maximum	83.4			
		Minimum	44.9			

WMA20002\1-hr TSP Results Wellab

Appendix E - 1-hour TSP Monitoring Results

Location FLN-DMS5 - Noble Hill							
Date	Time	Weather	Particulate Concentration (µg/m³)				
2-Aug-21	8:00	Cloudy	19.4				
2-Aug-21	9:00	Cloudy	15.0				
2-Aug-21	10:00	Cloudy	13.2				
6-Aug-21	9:00	Windy	23.1				
6-Aug-21	10:00	Windy	27.0				
6-Aug-21	11:00	Windy	28.4				
12-Aug-21	13:00	Cloudy	24.8				
12-Aug-21	14:00	Cloudy	27.1				
12-Aug-21	15:00	Cloudy	17.9				
18-Aug-21	8:10	Sunny	7.8				
18-Aug-21	9:10	Sunny	9.0				
18-Aug-21	10:10	Sunny	9.7				
24-Aug-21	8:15	Sunny	11.2				
24-Aug-21	9:15	Sunny	7.7				
24-Aug-21	10:15	Sunny	6.1				
30-Aug-21	9:30	Fine	24.5				
30-Aug-21	10:30	Fine	22.1				
30-Aug-21	13:00	Fine	17.3				
		Average	17.3				
		Maximum	28.4				
		Minimum	6.1				

Location KTN-DMS4 - Temporary Structure near Fanling Highway (near Pak Shek Au)							
Date	Time	Weather	Particulate Concentration (µg/m³)				
2-Aug-21	8:30	Cloudy	46.6				
2-Aug-21	9:30	Cloudy	56.5				
2-Aug-21	10:30	Cloudy	60.4				
6-Aug-21	9:00	Windy	140.4				
6-Aug-21	10:00	Windy	105.8				
6-Aug-21	11:00	Windy	102.6				
12-Aug-21	9:00	Cloudy	58.7				
12-Aug-21	10:00	Cloudy	49.0				
12-Aug-21	11:00	Cloudy	38.3				
18-Aug-21	8:30	Sunny	33.2				
18-Aug-21	9:30	Sunny	32.8				
18-Aug-21	10:30	Sunny	35.6				
24-Aug-21	8:30	Sunny	16.1				
24-Aug-21	9:30	Sunny	15.1				
24-Aug-21	10:30	Sunny	14.6				
30-Aug-21	9:35	Fine	35.2				
30-Aug-21	10:35	Fine	25.1				
30-Aug-21	13:00	Fine	14.7				
		Average	48.9				
		Maximum	140.4				
		Minimum	14.6				

WMA20002\1-hr TSP Results Wellab

Appendix E - 24-hour TSP Monitoring Results

Location FLN-DMS1 - Scattered Village Houses North of Proposed Potential Ecopark

Start Date	Weather	Air	Filter W	eight (g)	Particulate	Elapse	Time	Sampling	Flow Rate	(m³/min.)	Av. flow	Total vol.	Conc.
Start Date	Condition	Temp. (K)	Initial	Final	weight (g)	Initial	Final	Time(hrs.)	Initial	Final	(m ³ /min)	(m^3)	(µg/m³)
3-Aug-21	Rainy	300.2	3.5003	3.5833	0.0830	4999.2	5023.2	24.0	1.21	1.21	1.21	1747.0	47.5
9-Aug-21	Cloudy	299.4	3.4817	3.5869	0.1052	5023.2	5047.2	24.0	1.22	1.22	1.22	1756.9	59.9
13-Aug-21	Sunny	300.4	3.5072	3.6146	0.1074	5047.2	5071.2	24.0	1.22	1.22	1.22	1754.6	61.2
19-Aug-21	Sunny	298.6	3.4902	3.6036	0.1134	5071.2	5095.2	24.0	1.22	1.22	1.22	1761.8	64.4
25-Aug-21	Sunny	300.4	3.3605	3.4575	0.0970	5095.2	5119.2	24.0	1.22	1.22	1.22	1757.1	55.2
31-Aug-21	Cloudy	300.1	3.3719	3.4662	0.0943	5119.2	5143.2	24.0	1.22	1.22	1.22	1759.3	53.6
												Min	47.5
												Max	64.4
												Average	57.0

Location FLN-DMS3 - House near Tong Hang

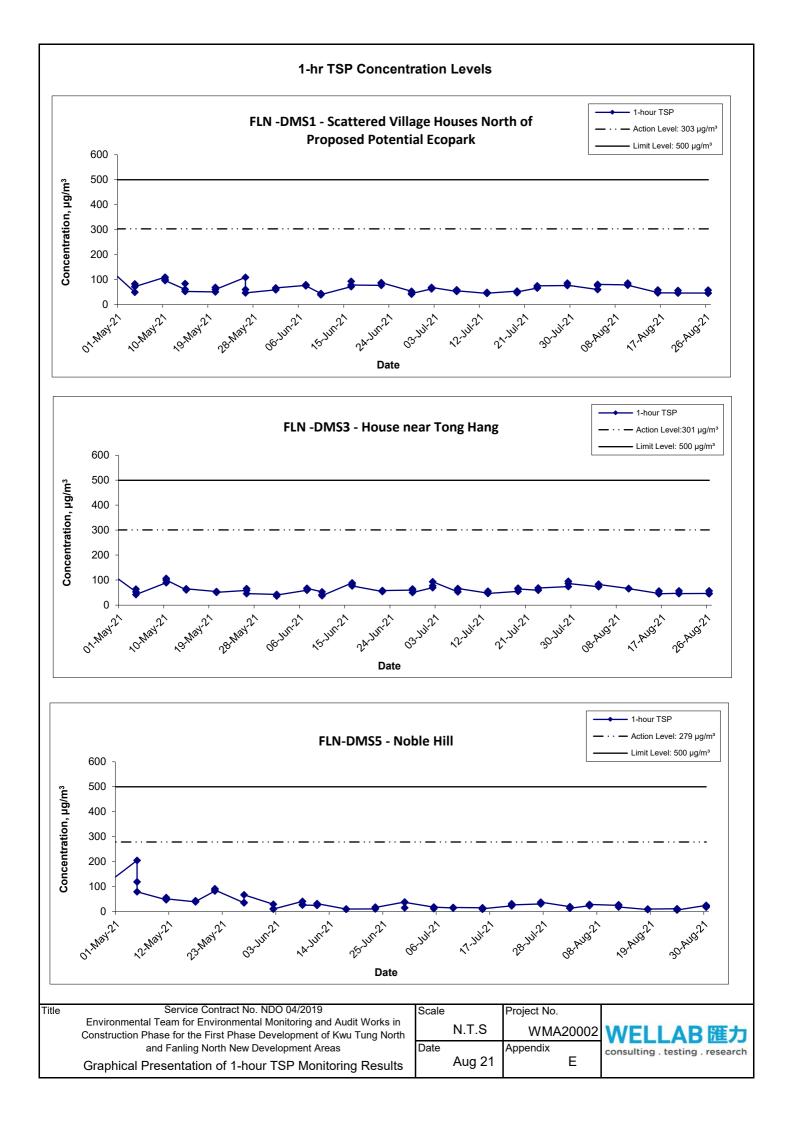
Start Date	Weather	Air	Filter W	eight (g)	Particulate	Elapse	Time	Sampling	Flow Rate	(m³/min.)	Av. flow	Total vol.	Conc.
Start Date	Condition	Temp. (K)	Initial	Final	weight (g)	Initial	Final	Time(hrs.)	Initial	Final	(m ³ /min)	(m ³)	(µg/m ³)
3-Aug-21	Rainy	300.2	3.5024	3.5483	0.0459	6032.3	6056.3	24.0	1.22	1.22	1.22	1752.8	26.2
9-Aug-21	Cloudy	299.4	3.4832	3.5411	0.0579	6056.3	6080.3	24.0	1.22	1.22	1.22	1762.2	32.9
13-Aug-21	Sunny	300.4	3.4798	3.5335	0.0537	6080.3	6104.3	24.0	1.22	1.22	1.22	1760.0	30.5
19-Aug-21	Sunny	298.6	3.5309	3.5900	0.0591	6104.3	6128.3	24.0	1.23	1.23	1.23	1766.9	33.4
25-Aug-21	Sunny	300.4	3.3799	3.4292	0.0493	6128.3	6152.3	24.0	1.22	1.22	1.22	1762.5	28.0
31-Aug-21	Cloudy	300.1	3.3575	3.4154	0.0579	6162.6	6186.6	24.0	1.22	1.23	1.23	1764.5	32.8
												Min	26.2
												Max	33.4
												Average	30.6

WMA20002\24-hr TSP Results Wellab

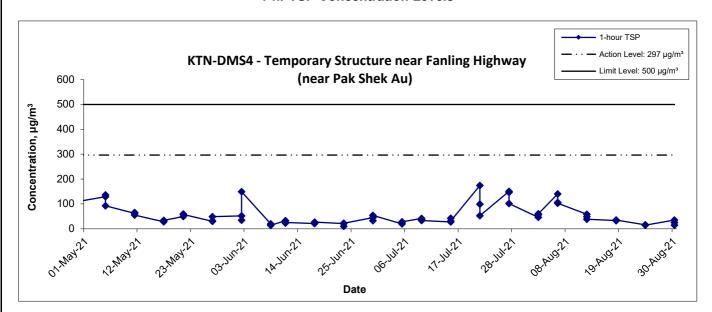
Appendix E - 24-hour TSP Monitoring Results

Location FLN-DMS5 - Noble Hill								
Date	Time	Weather	Particulate Concentration (μg/m³)					
2-Aug-21	8:00	Cloudy	18.3					
6-Aug-21	9:00	Windy	22.4					
12-Aug-21	12:00	Cloudy	26.4					
18-Aug-21	8:10	Sunny	17.4					
24-Aug-21	8:15	Sunny	10.0					
30-Aug-21	9:30	Fine	22.1					
		Minimum	10.0					
		Maximum	26.4					
			19.4					

Location KTN-DMS4 - Temporary Structure near Fanling Highway (near Pak Shek Au)						
Date	Time	Weather	Particulate Concentration (μg/m³)			
2-Aug-21	8:30	Cloudy	129.4			
6-Aug-21	9:00	Windy	149.1			
12-Aug-21	9:00	Cloudy	79.7			
18-Aug-21	8:30	Sunny	134.3			
24-Aug-21	8:30	Sunny	31.4			
30-Aug-21	9:35	Fine	48.0			
-	-	Minimum	31.4			
		Maximum	149.1			
		Average	95.3			



1-hr TSP Concentration Levels



Title Service Contract No. NDO 04/2019
Environmental Team for Environmental Monitoring and Audit Works in
Construction Phase for the First Phase Development of Kwu Tung North
and Fanling North New Development Areas
Graphical Presentation of 1-hour TSP Monitoring Results

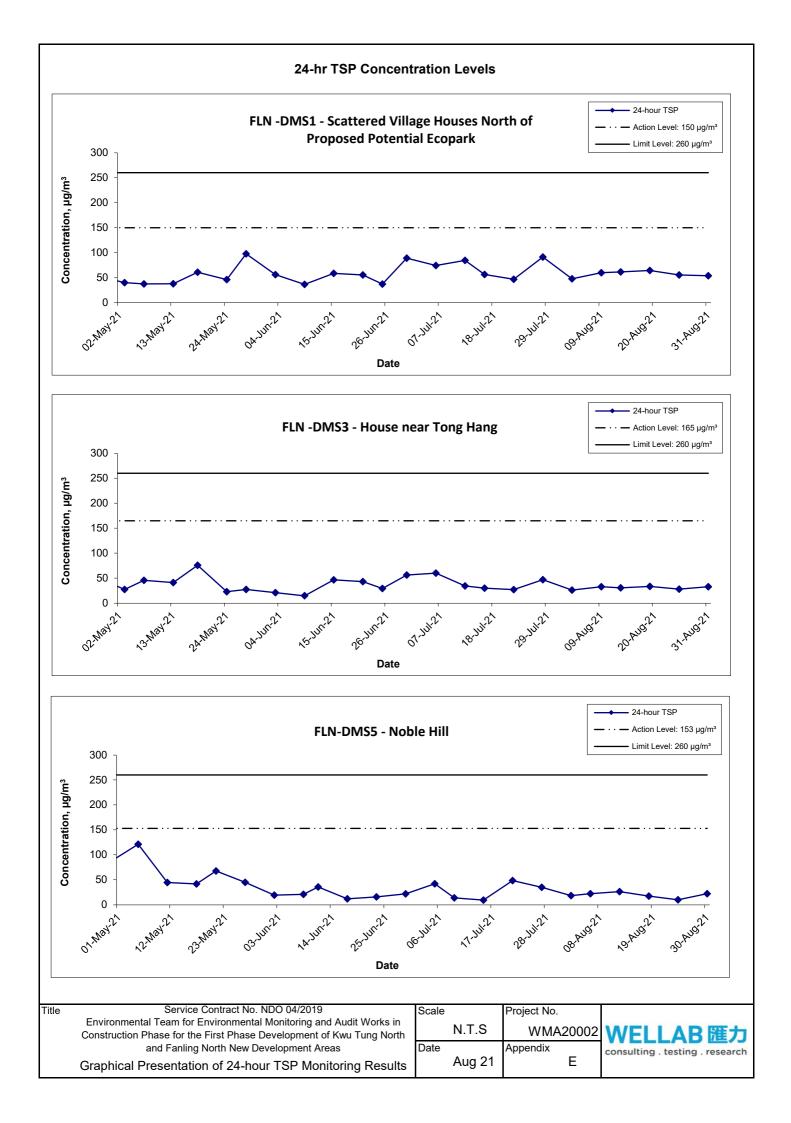
 Scale
 Project No.

 N.T.S
 WMA20002

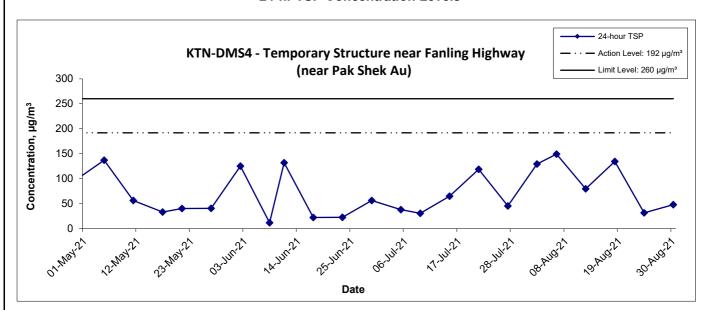
 Date
 Appendix

 Aug 21
 E





24-hr TSP Concentration Levels



Title Service Contract No. NDO 04/2019
Environmental Team for Environmental Monitoring and Audit Works in
Construction Phase for the First Phase Development of Kwu Tung North
and Fanling North New Development Areas
Graphical Presentation of 24-hour TSP Monitoring Results

 Scale
 Project No.

 N.T.S
 WMA20002

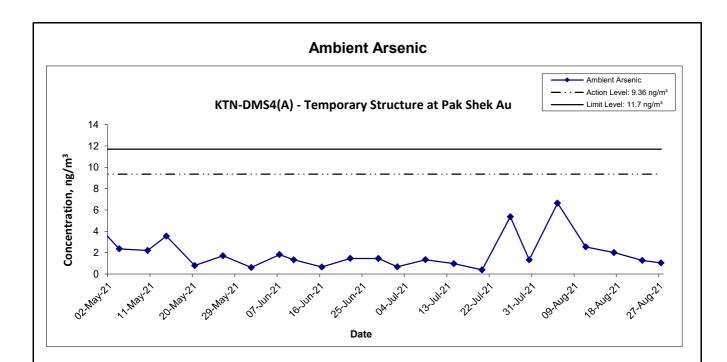
 Date
 Appendix

 Aug 21
 E



Appendix E - Ambient Arsenic Monitoring Results

Location KTN-DMS4(A) - Temporary Structure at Pak Shek Au								
Date	Arsenic (µg)	Standard Volume, Vstd (m³)	Ambient Arsenic Concentration (ng/m³)					
5-Aug-21	11.0	1657.0	6.64					
11-Aug-21	4.2	1650.8	2.54					
17-Aug-21	3.3	1641.1	2.01					
23-Aug-21	2.1	1648.2	1.27					
27-Aug-21	1.7	1636.2	1.04					



Title Service Contract No. NDO 04/2019
Environmental Team for Environmental Monitoring ar

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 Project No.
N.T.S WMA20002

Date Appendix E



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



Table I - Ambient Arsenic Concentration on 5th August 2021

Parameter	Monitoring Station	Arsenic (Refer to Report No.: 35541)	Standard Volume, Vstd = Qstd _{avg} x Total Time (Refer to the 24-hr RSP Field Operation Data Log Sheet)	Ambient Arsenic Concentration	Exceedance (Refer to Table II for Action and Limit Level)
Ambient Arsenic Concentration, ng/m³	KTN-DMS4(A) - Temporary Structure at Pak Shek Au	11 μg	1657.0 m ³	6.64 ng/m³	No

Table II - Action and Limit Levels for Ambient Arsenic Monitoring

Parameters	Action Level	Limit Level
Ambient Arsenic Concentration	9.36 ng/m ³ 80% of 11.7ng/m ³ —the highest ambient concentration predicted during the construction phase with mitigation measures implemented	11.7 ng/m ³ - the highest ambient arsenic concentration predicted during the construction phase with mitigation measures implemented

	Name	Signature	Date
Prepared by:	Meiling Tang	Meily	7 th September 2021
Checked by:	Anson Tong	7/2	7 th September 2021



TEST REPORT

APPLICANT:

Wellab (EM&A)

RM 1808, Technology Park,

18 On Lai Street,

Shatin, N.T., Hong Kong

 Report No.:
 35541

 Date of Issue:
 2021-08-10

 Date Received:
 2021-08-06

 Date Tested:
 2021-08-06

 Date Completed:
 2021-08-10

ATTN:

Ms Ivy Tam

Page:

1 of 1

Sample Description

1 sample as received from customer said to be quartz filter

Laboratory No.

35541

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:

	louology.	
Parameters	Ref. Method	Limit of reporting
Arsenic	In-house method SOP036 (ICP-MS)	0.18 μg
	arameters rsenic	t 1 1 the 1 CODO26 (ICD MC)

Results:

210105/035	
35541-1	
11	
-	

Remarks: 1) \leq = less than

2) Results for the test material reported as received

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



TEST REPORT

APPLICANT:

Wellab (EM&A)

RM 1808, Technology Park,

18 On Lai Street,

Shatin, N.T., Hong Kong

Report No.: Date of Issue: QC 35541

Date Received:

2021-08-10 2021-08-06

Date Tested:
Date Completed:

2021-08-06 2021-08-06 2021-08-10

Page:

1 of 2

ATTN:

Ms Ivy Tam

QC report:

Method Blank

TAVILOU DAMAIL		
Parameter	Method Blank	Acceptance
Arsenic (µg)	< 0.036	< 0.036

Filter Lot Blank

Parameter	Filter Lot Blank	Acceptance
Arsenic (μg)	0.05	N/A

Laboratory control spike/ Method OC

Emboratory control spike, Method QC		
Parameter	MQC	Acceptance
Arsenic (%)	. 95	80-120

Calibration check

Parameter	CCV	Acceptance
Arsenic (%)	99	90-110

Interference check solution A

interior cheek solution 1x		
Parameter	ICS A	Acceptance
Arsenic (µg)	< 0.036	< 0.036

Interference check solution AB

Parameter	ICS AB	Acceptance
Arsenic (%)	102	70-130

Remarks: 1) \leq = less than

- 2) N/A = Not applicable
- 3) This report is the summary of quality control data for report number 35541

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



TEST REPORT

 Report No.:
 QC 35541

 Date of Issue:
 2021-08-10

 Date Received:
 2021-08-06

 Date Tested:
 2021-08-06

 Date Completed:
 2021-08-10

Page:

2 of 2

QC report:

Vlatrix Spike		
Parameter	Matrix Spike	Acceptance
Arsenic (%)	88	75-125

Filter Duplicate

Filter Duplicate	Acceptance
3	RPD≤20%
	Filter Duplicate

Serial dilution check

Scriai dilution check		
Parameter	Serial dilution check	Acceptance
Arsenic (%)	99	90-110
/ 113cmc (70)		

Remarks: 1) \leq = less than

2) N/A = Not applicable

Contract No. NDO 04/2019 Advance and First Stage Works of

WELLAB匯力

consulting , testing , research

Kwu Tung North and Fanling North New Development Areas

24-hr RSP Air Quality Monitoring (Project No.: WMA20002)

Field Operation Data Log Sheet

Station:	KTN-DM	S4A - Temporary Structu	re at Pak Sl	nek Au			
Sampling Date &	Time:	From: 58-2021	(0	? : W))	Collec	tion Date: 6-from
Operators:	<u> </u>	a ll	Weather Wind:	Sunny Strong	Cloudy Mild	Windy Calph	Rainy
		~ 1	Model no),			TE-6070X
H	igh Volun	ne Sampler	Blower N	Aotor Seria	al no.		3)1/2
		RSP - Respirable S	Sucnandad	Particula	tes Samnle		
Equipment	No			1 at ticuia		Point	6.83
Equipment Slope, n		Q.	11,03			cept. b	0 5/84
310pe, 11	1		1	Initial,			Final, f
Ambient Pressure	(mmHg).	Pa		74	7.3		351.3
Ambient Tempera				20	(-C		3001
Delta (in. of Wat				6.	8		6-8
Y = $[W \times (Ta+30)/Pa]^{1/2}$			1.728		6	ht 1.730	
Standard flow, Qstd $(m^3/min) = (Y - b)*0.0283/m$			1.17	Ù		L152	
Elapsed Timer Inc	dicator (H	ours), T	131	53.81		131	71.86
Filter Identification	n no.			- 1 N 0	2101	08/038	/2
Weight of Filter (g)		4	1. KH			(6526)
Weight of Particu					0.08	t4	
Mean Standard Fl)	121	
$Qstd_{avg} = (Qstd_i - Total Time,$	- Qsta _f)/2	- Andrews				1.2	
Total Time, Total Time = (Tf Standard Volume	- Ti) x 60				140	10.00	
Standard Volume	, v Total	Time				57-0	
$Vstd (m^3) = Qstd_6$		2					
Particulate Cond	entration	(μg/m³)			<u>&</u>	57.7	
Observed Construction	М	ain Construction Site	Nh				
Activities	Ot	her Construction Site	NA				
Remarks:	Road	Intlic					
Conducted by	the la	· W	Signatur		1	Date	: 6-fr 25m
Checked by		mely 7am	Signatu	<u>·e:</u>	ne.by	_ Date	: PISILON

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



Table I - Ambient Arsenic Concentration on 11th August 2021

Parameter	Monitoring Station	Arsenic (Refer to Report No.: 35572)	Standard Volume, Vstd = Qstd _{avg} x Total Time (Refer to the 24-hr RSP Field Operation Data Log Sheet)	Ambient Arsenic Concentration	Exceedance (Refer to Table II for Action and Limit Level)
Ambient Arsenic	KTN-DMS4(A) - Temporary	4.2 μg	1650.8 m ³	2.54 ng/m ³	No
Concentration, ng/m ³	Structure at Pak Shek Au				

Table II – Action and Limit Levels for Ambient Arsenic Monitoring

Parameters	Action Level	Limit Level
Ambient Arsenic Concentration	9.36 ng/m ³ 80% of 11.7ng/m ³ —the highest ambient concentration predicted during the construction phase with mitigation measures implemented	11.7 ng/m ³ - the highest ambient arsenic concentration predicted during the construction phase with mitigation measures implemented

	Name	Signature	Date
Prepared by:	Meiling Tang	Melm	7 th September 2021
Checked by:	Anson Tong	7/3	7 th September 2021



TEST REPORT

APPLICANT:

Wellab (EM&A)

RM 1808, Technology Park,

18 On Lai Street,

Shatin, N.T., Hong Kong

Report No.: 35572

Date of Issue: 2021-08-17

Date Received: 2021-08-12
Date Tested: 2021-08-12

Date Completed:

2021-08-17

ATTN:

Ms Ivy Tam

Page:

1 of 1

Sample Description:

1 sample as received from customer said to be quartz filter

Laboratory No. :

35572

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:

I Coto I	ests requested & Methodology.		
Item	Parameters	Ref. Method	Limit of reporting
1	Arsenic	In-house method SOP036 (ICP-MS)	0.18 μg

Results:

results.		
Sample ID	210105/036	
Sample No.	35572-1	
Arsenic (µg)	4.2	

Remarks: 1) \leq = less than

2) Results for the test material reported as received

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



TEST REPORT

APPLICANT:

Wellab (EM&A)

RM 1808, Technology Park,

18 On Lai Street,

Shatin, N.T., Hong Kong

Report No.: Date of Issue: QC 35572

Date Received:

2021-08-17 2021-08-12

Date Tested:
Date Completed:

2021-08-12

Page:

2021-08-17 1 of 2

ATTN:

Ms Ivy Tam

QC report:

Method Blank

Tethou Dittin		
Parameter	Method Blank	Acceptance
Arsenic (µg)	< 0.036	< 0.036

Filter Lot Blank

Parameter	Filter Lot Blank	Acceptance
Arsenic (µg)	0.05	N/A

Laboratory control spike/ Method OC

Demonstrate Property of the Pr		Assautones
Parameter	MQC	Acceptance
Arsenic (%)	97	80-120

Calibration check

Parameter	CCV	Acceptance
Arsenic (%)	96	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 (%)	102	70-130

Remarks: 1) \leq = less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 35572

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



TEST REPORT

 Report No.:
 QC 35572

 Date of Issue:
 2021-08-17

 Date Received:
 2021-08-12

 Date Tested:
 2021-08-12

 Date Completed:
 2021-08-17

Page:

2 of 2

QC report:

Matrix SpikeParameterMatrix SpikeAcceptanceArsenic (%)10475-125

Filter Duplicate

Parameter	Filter Duplicate	Acceptance
Arsenic (%)	5	RPD≤20%

Serial dilution check

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

Remarks: 1) \leq = less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 35572

Contract No. NDO 04/2019 Advance and First Stage Works of

WELLAB匯力

consulting , testing , research

Kwu Tung North and Fanling North New Development Areas

24-hr RSP Air Quality Monitoring (Project No.: WMA20002)

Field Operation Data Log Sheet

Station:	KTN-DM:	S4A - Tem	oorary Structur	e at Pak Sh	iek Au			
Sampling Date &	Time:	From: 11	18/2021	(0 0	; 00)		Collec	tion Date: 12/8/202
Operators:		Ka c	hun	_Weather_ Wind:	Sunny Strong	Cloudy Mild	Windy Calm	Rainy
High Volume Sampler		Model no.			TE-6070X			
		Blower M	lotor Seria	ıl no.		3125		
		RSP	- Respirable S	uspended		tes Sampler	•	
Equipment	No.		IL FIW			Set F		6-53
Slope, m			0-02		-	Interc	ept. b	0-4/14
					Initial, I			Final, f
Ambient Pressure	(mmHg), l	Pa			301	4		746-c
Ambient Tempera	ture (K), T	`a			301	. 0		300, 8
Delta (in. of Wate	er), W				<u></u> 6.8	}		6.1'
$Y = [W \times (Ta+30)]$)/Pa] ^{1/2}				1.744 1.72		13 M	
Standard flow, Qs	td (m³/min	(Y - b)	*0.0283/m		1.14	<u>e6</u>		1.147
Elapsed Timer Inc	licator (Ho	urs), T		13177.89 132-1.89				
Filter Identificatio	n no.				3	2/0/	105/03	6
Weight of Filter (g)		h	¥ 4.2	0.00		k3264		
Weight of Particul		···				O O p	12	
Mean Standard Flo Qstd _{avg} = $($ Qstd _i +		•		1.146				
Total Time, Total Time = (Tf - Standard Volume,	- Ti) x 60					14	lyoso	
Standard Volume, $Vstd(m^2) = Qstd_a$	_{vg} x Total 7	Γime		16209				
Particulate Conc	entration	(μg/m³)				1).	. Q	
Observed Construction	Ma	in Construc	ction Site	Executor, Sungtonell, crosse			craue	
Activities	Oth	er Constru	ction Site				NA	
Remarks:	Ron d	pulh	`د					
Conducted by:	VEE	pg~	Mil	_Signature	s: /	и _л .	Date:	12/8/2021
Checked by:	l	hely	Tany	_Signature	: Me	eh)	Date:	13/8/2021 13/8/204

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



Table I - Ambient Arsenic Concentration on 17th August 2021

Parameter	Monitoring Station	Arsenic (Refer to Report No.: 35583)	Standard Volume, Vstd = Qstd _{avg} x Total Time (Refer to the 24-hr RSP Field Operation Data Log Sheet)	Ambient Arsenic Concentration	Exceedance (Refer to Table II for Action and Limit Level)
Ambient Arsenic Concentration,	KTN-DMS4(A) - Temporary Structure at Pak	3.3 µg	1641.1 m ³	2.01 ng/m ³	No
ng/m ³	Shek Au				

Table II - Action and Limit Levels for Ambient Arsenic Monitoring

Parameters	Action Level	Limit Level
Ambient Arsenic Concentration	9.36 ng/m ³ 80% of 11.7ng/m ³ —the highest ambient concentration predicted during the construction phase with mitigation measures implemented	11.7 ng/m ³ - the highest ambient arsenic concentration predicted during the construction phase with mitigation measures implemented

	Name	Signature	Date
Prepared by:	Meiling Tang	ine:h	7 th September 2021
Checked by:	Anson Tong	3/8	7 th September 2021



TEST REPORT

APPLICANT:

Wellab (EM&A)

RM 1808, Technology Park,

18 On Lai Street,

Shatin, N.T., Hong Kong

Report No.: 35583

Date of Issue: 2021-08-24

Date Received: 2021-08-18 Date Tested: 2021-08-18 Date Completed: 2021-08-24

Page:

1 of 1

ATTN:

Ms Ivy Tam

1 sample as received from customer said to be quartz filter

Laboratory No.

Sample Description

35583

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	210105/037	
Sample No.	35583-1	
Arsenic (μg)	3.3	

Remarks: 1) \leq = less than

2) Results for the test material reported as received

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

General Manager



TEST REPORT

APPLICANT:

Wellab (EM&A)

RM 1808, Technology Park,

18 On Lai Street,

Shatin, N.T., Hong Kong

Report No.: QC 35583 Date of Issue: 2021-08-24

Date Received: 2021-08-18

Date Tested: 2021-08-18 2021-08-24

Date Completed:

ATTN:

Ms Ivy Tam

Page:

1 of 2

QC report:

Method Blank

Parameter	Method Blank	Acceptance
Arsenic (μg)	< 0.036	< 0.036

Filter Lot Blank

Parameter	Filter Lot Blank	Acceptance
Arsenic (μg)	0.05	N/A

Laboratory control spike/ Method OC

Parameter	MQC	Acceptance
Arsenic (%)	103	80-120

Calibration check

Parameter	CCV	Acceptance
Arsenic (%)	98	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 (%)	104	70-130

Remarks: 1) \leq = less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 35583

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRICK TSE General Manager



TEST REPORT

 Report No.:
 QC 35583

 Date of Issue:
 2021-08-24

 Date Received:
 2021-08-18

 Date Tested:
 2021-08-18

 Date Completed:
 2021-08-24

Page:

2 of 2

QC report:

Matrix SpikeParameterMatrix SpikeAcceptanceArsenic (%)9175-125

Filter Duplicate

rinter Duplicate		
Parameter	Filter Duplicate	Acceptance
Arsenic (%)	1	RPD≤20%

Serial dilution check

Parameter	Serial dilution check	Acceptance
Arsenic (%)	106	90-110

Remarks: 1) \leq = less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 35583

Contract No. NDO 04/2019 Advance and First Stage Works of

WELLAB 匯力

consulting . testing . research

Kwu Tung North and Fanling North New Development Areas

24-hr RSP Air Quality Monitoring (Project No.: WMA20002)

Field Operation Data Log Sheet

Station:	KTN-DM	S4A - Temporary Structur	re at Pak Shek Au			
Sampling Date &	Time:	From: 17-8-2021	(0: W)	Collec	ction Date: 19/8/ 2021
Operators:	Hei		Weather Sunry Wind: Strong	Cloudy Mild	Windy Calm	Rainy
Н	igh Volum	e Sampler	Model no. Blower Motor Seri	al no.		TE-6070X 3 フレケ
		RSP - Respirable S	uspended Particula	ites Samplei	*	
Equipment 1	No			T	Point	6.13
Slope, m		20)	78		ept. b	0-5184
вторе, п	I	<u> </u>	Initial,		I	Final, f
Ambient Pressure	(mmHa) 1	D ₉	761	```		7387
Ambient Tempera			701 300	- 		3010
Delta (in. of Wate		CL	6.8			68
$Y = [W \times (Ta+30)]$				lΨ	1	201
Standard flow, Qstd $(m^3/min) = (Y - b)*0.0283/m$		7-13	h	į	163	
Elapsed Timer Indicator (Hours), T		13201.90	<u> </u>	1322	C Po	
Filter Identification no.		I	210105/0		4,10	
Weight of Filter (g)		11.4	210105/0 660 0.0}	Ť [†]	4.3252	
Weight of Particulate (g)		4.71	0.07	Pr	- The state of the	
Mean Standard Fl				, ,		enonement of the
$Qstd_{avg} = (Qstd_i +$	- Qstd _f)/2			1-10	(O	
Total Time, Total Time = (Tf - Standard Volume, Vstd (m³) = Qstd _a	•	Гime		164	10 0-00 161	
Particulate Conc				4.	g. 3	
Observed Construction	Ma	in Construction Site	N/A			
Activities	Oth	er Construction Site	N/A			
Remarks:	Road	traffic				
Conducted by: Checked by:	-	x Chin Me·loy Vary	Signature:	h. e'hj		: 18/8/2024 : 18/8/104

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



Table I - Ambient Arsenic Concentration on 23rd August 2021

Parameter	Monitoring Station	Arsenic (Refer to Report No.: 35627)	Standard Volume, Vstd = Qstd _{avg} x Total Time (Refer to the 24-hr RSP Field Operation Data Log Sheet)	Ambient Arsenic Concentration	Exceedance (Refer to Table II for Action and Limit Level)
Ambient Arsenic Concentration,	KTN-DMS4(A) - Temporary Structure at Pak	2.1 µg	1648.2 m ³	1.27 ng/m³	No
ng/m³	Shek Au			No.	

Table II - Action and Limit Levels for Ambient Arsenic Monitoring

Parameters	Action Level	Limit Level
Ambient Arsenic Concentration	6070 of 11.711g/iii the ingliest anterent concernation process	

	Name	Signature	Date
Prepared by:	Meiling Tang	Welm	7 th September 2021
Checked by:	Anson Tong	3/4	7 th September 2021



TEST REPORT

APPLICANT:

Wellab (EM&A)

RM 1808, Technology Park,

18 On Lai Street,

Shatin, N.T., Hong Kong

Report No.: 35627

Date of Issue: 2021-09-01

Date Received: 2021-08-26

Date Tested:
Date Completed:

2021-08-26

2021-09-01

ATTN:

Ms Ivy Tam

Page:

1 of 1

Sample Description :

1 sample as received from customer said to be quartz filter

Laboratory No.

35627

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	Item Parameters Ref. Method		Limit of reporting
1	Arsenic	In-house method SOP036 (ICP-MS)	0.18 μg

Results:

results.	
Sample ID	210105/038
Sample No.	35627-1
Arsenic (µg)	2.1

Remarks: 1) <= less than

2) Results for the test material reported as received

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



TEST REPORT

APPLICANT:

Wellab (EM&A)

RM 1808, Technology Park,

18 On Lai Street,

Shatin, N.T., Hong Kong

Report No.: QC 35627 Date of Issue: 2021-09-01 Date Received: 2021-08-26

Date Tested:
Date Completed:

2021-08-26 2021-08-26 2021-09-01

Page:

1 of 2

ATTN:

Ms Ivy Tam

QC report:

Method Blank

THE CANON DISCHARE		
Parameter	Method Blank	Acceptance
Arsenic (μg)	< 0.036	< 0.036

Filter Lot Blank

Parameter	Filter Lot Blank	Acceptance
Arsenic (µg)	0.05	N/A

Laboratory control spike/ Method OC

Parameter	MQC	Acceptance
Arsenic (%)	107	80-120

Calibration check

Candi ation check		
Parameter	CCV	Acceptance
Arsenic (%)	109	90-110

Interference check solution A

interior chee eneck solution is		
Parameter	ICS A	Acceptance
Arsenic (µg)	< 0.036	< 0.036

Interference check solution AB

Parameter	ICS AB	Acceptance
Arsenic (%)	98	70-130

Remarks: 1) \leq = less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 35627

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



TEST REPORT

 Report No.:
 QC 35627

 Date of Issue:
 2021-09-01

 Date Received:
 2021-08-26

 Date Tested:
 2021-08-26

 Date Completed:
 2021-09-01

Page:

2 of 2

QC report:

Matrix Spike

Parameter	Matrix Spike	Acceptance	
Arsenic (%)	94	75-125	

Filter Duplicate

Parameter	Filter Duplicate	Acceptance
Arsenic (%)	8	RPD≤20%

Serial dilution check

Parameter	Serial dilution check	Acceptance
Arsenic (%)	105	90-110

Remarks: 1) <= less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 35627

Contract No. NDO 04/2019 Advance and First Stage Works of

WELLAB匯力

consulting . testing . research

Kwu Tung North and Fanling North New Development Areas

24-hr RSP Air Quality Monitoring (Project No.: WMA20002)

Field Operation Data Log Sheet

Station:	KTN-DM	S4A - Temporary Structur	e at Pak Shek Au				
Sampling Date &	Time:	From: 23/8/204	(0 :00))	Collec	tion Date: 24/8/2021	
Operators:	K	z Chin	Weather Sunny Wind: Strong	Cloudy Mild	Windy (Calm)	Rainy	
Н	igh Volum	e Sampler	Model no. Blower Motor Seria	al no.		TE-6070X く) レブ	
		RSP - Respirable S	uspended Particula	tes Sampler	•	<u> </u>	
Equipment	No.		1.03	Set F		6.53	
Slope, m			0218	Interc		0-1984	
	<u>. </u>		Initial, I		· pv. c	Final, f	
Ambient Pressure	(mmHg), I	Pa	7 1	~		758.3	
Ambient Tempera	-		300			3924	
Delta (in. of Wate	·····		6-		,	bed	
$Y = [W \times (Ta+30)]$			1	24		しずひし	
<u> </u>		(Y - b)*0.0283/m	1.146		[_	[143	
Elapsed Timer Inc			13225-90	-	13248.90		
Filter Identificatio	n no.		210/0+/03f.				
Weight of Filter (ġ)		4.2482	4.2482 4.2631			
Weight of Particulate (g)			0,04	48			
Mean Standard Fl	ow,	-			•		
$Qstd_{avg} = (Qstd_i +$	- Qstd _f)/2			1.10	65		
Total Time, Total Time = (Tf - Ti) x 60 Standard Volume,		1640. V 27. V					
$Vstd (m^3) = Qstd_a$	vg x Total T	ime :	164d.V				
Particulate Conc				2	7.2		
Observed Construction	Ma	in Construction Site	<i>4</i> / <i>A</i>				
Activities	Oth	er Construction Site	MA				
Remarks:	Road	Cattic					
		Λ		<u> </u>			
Conducted by:	Ho by	Un	Signature:	<u>`</u>	Date:	28/8/2021	
Checked by:		just any	Signature: μ	rety	Date:	24/8/2021	

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



Table I - Ambient Arsenic Concentration on 27th August 2021

Parameter	Monitoring Station	Arsenic (Refer to Report No.: 35654)	Standard Volume, Vstd = Qstd _{avg} x Total Time (Refer to the 24-hr RSP Field Operation Data Log Sheet)	Ambient Arsenic Concentration	Exceedance (Refer to Table II for Action and Limit Level)
Ambient Arsenic	KTN-DMS4(A) - Temporary	1.7 μg	1636.2 m ³	1.04 ng/m ³	No
Concentration, ng/m ³	Structure at Pak Shek Au				

Table II - Action and Limit Levels for Ambient Arsenic Monitoring

Parameters	Action Level	Limit Level
Ambient Arsenic Concentration	9.36 ng/m ³ 80% of 11.7ng/m ³ –the highest ambient concentration predicted during the construction phase with mitigation measures implemented	11.7 ng/m³ - the highest ambient arsenic concentration predicted during the construction phase with mitigation measures implemented

	Name	Signature	Date
Prepared by:	Meiling Tang	the lay	7 th September 2021
Checked by:	Anson Tong	3/2	7 th September 2021



TEST REPORT

APPLICANT:

Wellab (EM&A)

RM 1808, Technology Park,

18 On Lai Street,

Shatin, N.T., Hong Kong

Report No.:	35654
Date of Issue:	2021-09-03
Date Received:	2021-08-30
Date Tested:	2021-08-30
Date Completed:	2021-09-03

ATTN:

Ms Ivy Tam

Page:

1 of 1

Sample Description :

1 sample as received from customer said to be quartz filter

Laboratory No.

35654

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:

results.	
Sample ID	210105/039
Sample No.	35654-1
Arsenic (µg)	1.7

Remarks: 1) \leq = less than

2) Results for the test material reported as received

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



TEST REPORT

APPLICANT:

Wellab (EM&A)

RM 1808, Technology Park,

18 On Lai Street,

Shatin, N.T., Hong Kong

Report No.: QC 35654
Date of Issue: 2021-09-03
Date Received: 2021-08-30

Date Tested: 2021-08-30
Date Completed: 2021-09-03

ATTN:

Ms Ivy Tam

Page:

1 of 2

OC veneut

WIS IVY TAI

QC report: Method Blank

Parameter	Method Blank	Acceptance
Arsenic (μg)	< 0.036	< 0.036

Filter Lot Blank

ALLEY MOU DIWING		
Parameter	Filter Lot Blank	Acceptance
Arsenic (µg)	0.05	N/A

Laboratory control spike/ Method OC

Laboratory control spike/ wice	nou QC	
Parameter	MQC	Acceptance
Arsenic (%)	105	80-120

Calibration check

Parameter	CCV	Acceptance
Arsenic (%)	104	90-110

Interference check solution A

interference eneck solution A		
Parameter	ICS A	Acceptance
Arsenic (µg)	< 0.036	< 0.036

Interference check solution AB

Parameter	ICS AB	Acceptance
Arsenic (%)	98	70-130

Remarks: 1) \leq = less than

2) N/A = Not applicable

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



TEST REPORT

 Report No.:
 QC 35654

 Date of Issue:
 2021-09-03

 Date Received:
 2021-08-30

 Date Tested:
 2021-08-30

 Date Completed:
 2021-09-03

Page:

2 of 2

QC report:

Matrix SpikeParameterMatrix SpikeAcceptanceArsenic (%)9075-125

Filter Duplicate

Parameter	Filter Duplicate	Acceptance
Arsenic (%)	3	RPD≤20%

Serial dilution check

Parameter	Serial dilution check	Acceptance
Arsenic (%)	112	90-110

Remarks: 1) \leq = less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 35654

Contract No. NDO 04/2019 Advance and First Stage Works of

Kwu Tung North and Fanling North New Development Areas

24-hr RSP Air Quality Monitoring (Project No.: WMA20002) Field Operation Data Log Sheet

Station:	KTN-DM	1S4A - Temporary Structur	e at Pak Sh	ek Au			th Ex
Sampling Date &	Time:	From: 27/8/2021	(0	:00)	Collec	tion Date: 27/8/22 21
Operators:	NAME OF THE PROPERTY OF THE PR	Kaller	_Weather_ Wind: _	Sunny Strong	Cloudy Mild	Windy Calm	Rainy
II	iah Valuu	na Camplan	Model no.			·····	TE-6070X
П	ign voiu	ne Sampler	Blower M	otor Seria	al no.		3))2
		RSP - Respirable S	uspended I		tes Samnler		
Equipment	No	WA WA			Set P		6.33
Equipment			22 to 3		1		0-7 614
Slope, m	1		1	Initial, 1	Interce	pi. 0	Final, f
Ambient Pressure	(mmHa)	Do.		77	1.4)(1)
Ambient Tempera					0(8	щ	@ 206. +
Delta (in. of Wate		ıa			8		61
$Y = [W \times (Ta+30)]$. •			1		708
		(y - b)*0.0283/m	1				Ling
Elapsed Timer Inc		, , ,	1724	P. 90		1327	7.90
Filter Identificatio		1	1 1 2 - 1	, , ,	2/0101/3	7	
Weight of Filter (g	g)		(42253			2784
Weight of Particul	late (g)				0-053	\	, ,
Mean Standard Flo							
$Qstd_{avg} = (Qstd_i +$	- Qstd _f)/2				(-1/5)	o	······································
Total Time, Total Time = (Tf -	- Ti) x 60				144	0. ee	
Standard Volume,		77			1-131 144 1631	la >	
$Vstd (m^3) = Qstd_a$	_{vg} x Total	1 ime					
Particulate Conc	entration	(μg/m ³)			32.	<u>t</u>	
Observed Construction	М	ain Construction Site	N/A				
Activities	Ot	her Construction Site	Aly				
Remarks:	Road	1 traffic	· 				
Conducted by:	Ho	Ka Alm	_Signature:		lin	Date:	20/8/2021
Checked by:		mech lay	_Signatur <u>e</u> :	<i>l</i>	ue.h	Date:	318164

APPENDIX F NOISE MONITORING RESULTS AND GRAPHICAL PRESENTATION

Appendix F - Noise Monitoring Results

Location CP-FI	LN-NMS1 - Be	elair Monte (l	Existing)				
Date	Weather	Time	Un	it: dB (A) (5-r	nin)	Average	Baseline Level
			L _{eq}	L ₁₀	L 90	L _{eq}	L _{eq}
		13:00	65.4	69.6	56.4		
		13:05	65.0	68.4	55.6		
4-Aug-21	Cloudy	13:10	62.9	66.4	56.5	64.9	
4-Aug-21	Cloudy	13:15	64.2	67.2	57.2	04.9	
		13:20	65.7	69.3	59.4		
		13:25	65.5	68.8	60.1		
		10:21	70.7	73.6	66.4		
		10:26	72.1	75.5	66.2		
10-Aug-21	Cloudy	10:31	71.9	74.8	66.5	71.5	
10-Aug-21	Cloudy	10:36	71.9	74.7	67.7	71.5	
		10:41	70.6	73.1	66.6		
		10:46	71.7	74.7	67.0		00.0
		13:30	62.8	65.0	59.6		69.9
		13:35	60.9	62.5	59.4		
20 Aug 21	Cummi	13:40	63.4	67.2	60.2	62.9	
20-Aug-21	Sunny	13:45	63.3	65.2	61.5	02.9	
		13:50	61.5	63.6	59.1		
		13:50	64.5	65.1	60.1		
		10:00	68.4	71.1	64.1		
		10:05	67.3	70.7	62.6		
00 4 04	C	10:10	66.0	68.8	60.3	07 F	
26-Aug-21	Sunny	10:15	67.9	71.3	62.1	67.5	
		10:20	66.8	70.8	59.1		
		10:25	68.0	71.2	59.1		

Location CP-F	LN-NMS2 - Sc	cattered Villa	ge House in	Tong Hang	(Existing)		
Date	Weather	Time	Un	it: dB (A) (5-r	nin)	Average	Baseline Level
			L _{eq}	L ₁₀	L 90	L _{eq}	L _{eq}
		14:00	59.3	59.7	57.1	·	
		14:05	58.5	58.9	57.7		
4 Aug 21	Cloudy	14:10	57.7	58.4	56.6	59.0	
4-Aug-21	Cloudy	14:15	59.4	59.8	58.1	59.0	
		14:20	59.6	60.5	58.2		
		14:25	59.4	59.6	58.2		
		13:12	61.7	62.5	60.9		
		13:17	61.1	61.9	60.1		
10-Aug-21	Cloudy	13:22	61.5	62.4	60.5	61.6	
10-Aug-21	Cloudy	13:27	61.8	62.5	60.9	01.0	
		13:32	61.9	62.9	60.8		
		13:37	61.5	62.4	60.6		59.6
		09:15	64.2	68.1	59.1		59.0
		09:20	60.5	62.1	58.7		
20-Aug-21	Sunny	09:25	61.2	62.7	59.7	62.1	
20-Aug-21	Suring	09:30	64.1	66.7	60.4	02.1	
		09:35	60.1	63.3	57.2		
		09:40	60.3	62.4	57.8		
		13:05	52.7	58.8	43.7		
		13:10	48.9	52.3	44.7		
26-Aug-21	Sunny	13:15	57.3	58.4	48.2	56.7	
20-Aug-21	Suring	13:20	58.2	58.6	57.9	50.7	
		13:25	58.3	58.7	57.8		
		13:30	58.2	58.6	57.8		

WMA20002 - Noise Results Wellab

Appendix F - Noise Monitoring Results

Date	Weather	Time	Un	it: dB (A) (5-r	nin)	Average	Baseline Leve
Dato	Wodinor	711110	L _{eq}	L ₁₀	L 90	L _{eq}	L _{eq}
		10:00	58.8	57.2	56.3	·	
		10:05	62.0	65.9	52.5		
6 112 21	Claudy	10:10	56.7	57.2	56.2	58.6	
6-Aug-21	Cloudy	10:15	57.8	59.5	56.1	36.0	
		10:20	56.5	57.0	56.1		
		10:25	56.9	57.7	56.3		
		13:00	56.3	56.8	55.7		
		13:05	56.4	57.0	55.8		
12-Aug-21	Cloudy	13:10	56.1	56.5	55.7	56.4	
12-Aug-21	Cloudy	13:15	56.5	57.2	55.7	50.4	
		13:20	56.6	57.4	56.0		
		13:25	56.3	57.0	55.7		
		09:15	58.0	60.2	57.8		
		09:20	58.7	60.1	57.5		
18-Aug-21	Sunny	09:25	58.4	58.8	57.5	58.4	50.0
10-Aug-21	Suring	09:30	58.4	59.0	57.7	36.4	58.6
		09:35	58.7	59.4	58.0		
		09:40	58.4	58.9	57.7		
		13:40	57.4	58.0	44.0		
		13:45	52.7	53.8	44.6		
24-Aug-21	Sunny	13:50	49.3	52.9	44.8	52.7	
24-Aug-21	Suring	13:55	49.1	52.1	43.5	52.1	
		14:00	48.6	49.4	42.7		
		14:05	51.8	55.6	42.3		
		13:55	61.5	62.1	51.6		
		14:00	61.6	56.3	50.2		
30-Aug-21	Suppy	14:05	54.5	56.3	50.4	60.2	
30-Aug-21	Sunny	14:10	57.5	58.8	52.2	0∪.∠	
		14:15	62.7	66.0	57.8		
		14:20	58.3	59.0	57.7		

Location CP-K	TN-NMS3 - Fi	ung Kong Ga	arden (Existi	ng)			
Date	Weather	Time	Un	it: dB (A) (5-n	nin)	Average	Baseline Level
			L _{eq}	L ₁₀	L 90	L _{eq}	L _{eq}
		10:40	52.6	54.6	50.0		
		10:45	51.7	52.3	50.0		
6 Aug 21	Claudy	10:50	51.2	52.4	50.0	62.7	
6-Aug-21	Cloudy	10:55	69.8	69.0	51.3	02.7	
		11:00	57.2	59.1	53.0		
		11:05	57.7	57.9	51.0		
		13:45	53.6	54.1	53.2		
		13:50	61.1	65.1	53.1		
10 10 01	Cloudy	13:55	55.9	56.7	53.3	56.9	
12-Aug-21	Cloudy	14:00	55.2	55.6	53.5	30.9	
		14:05	55.2	55.6	54.5		
		14:10	55.6	56.2	54.8		
		10:00	54.2	58.9	47.2		1
		10:05	54.5	57.3	47.3		
40 4 04	C	10:10	51.5	51.8	46.9	54.0	
18-Aug-21	Sunny	10:15	48.3	49.5	47.0	51.9	51.6
		10:20	49.0	50.7	47.1		
		10:25	50.1	53.0	47.2		
		13:45	53.8	60.1	48.5		
		13:50	46.3	47.1	43.9		
04 4 04	0	13:55	56.3	60.4	43.8	54.7	
24-Aug-21	Sunny	14:00	49.2	50.4	42.4	51.7	
		14:05	48.7	50.1	43.5		
		14:10	44.3	45.4	43.9		
		14:46	53.7	56.8	49.0		1
		14:51	58.9	64.4	51.0		
00 4 6:		14:56	59.3	65.6	49.5	50.0	
30-Aug-21	Sunny	15:01	52.1	53.8	49.9	56.2	
		15:06	54.9	53.8	48.7		
		15:11	51.5	53.5	49.3		

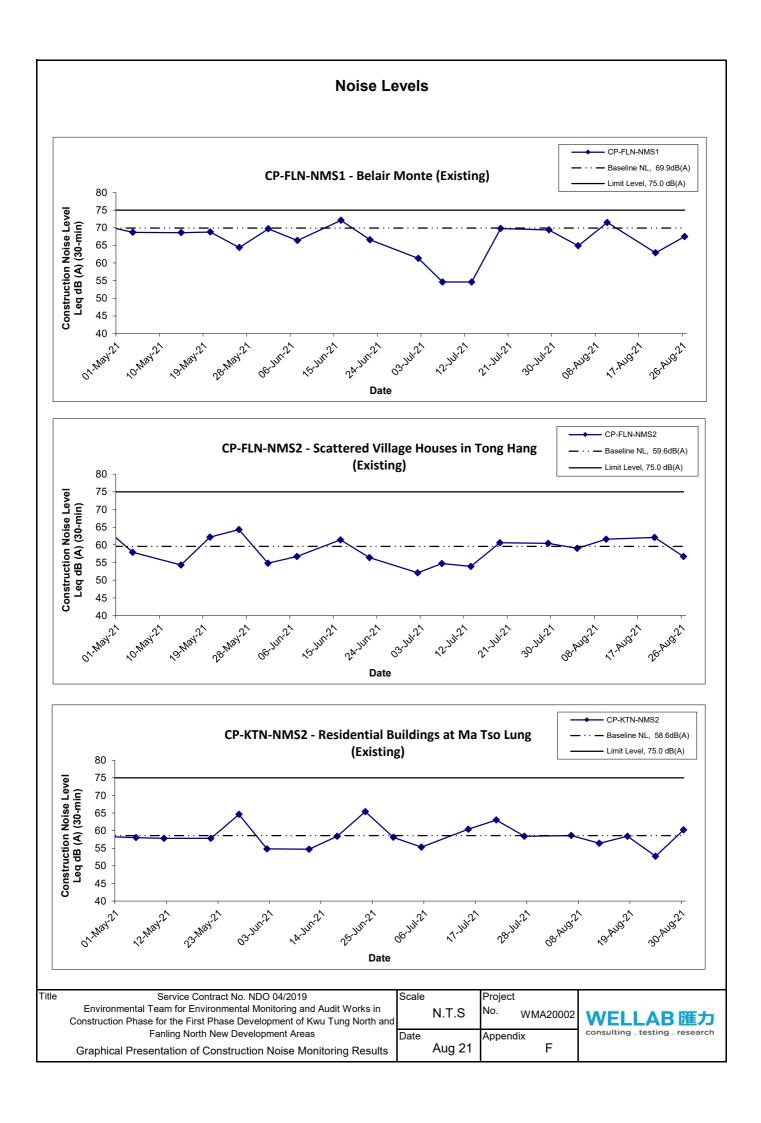
WMA20002 - Noise Results Wellab

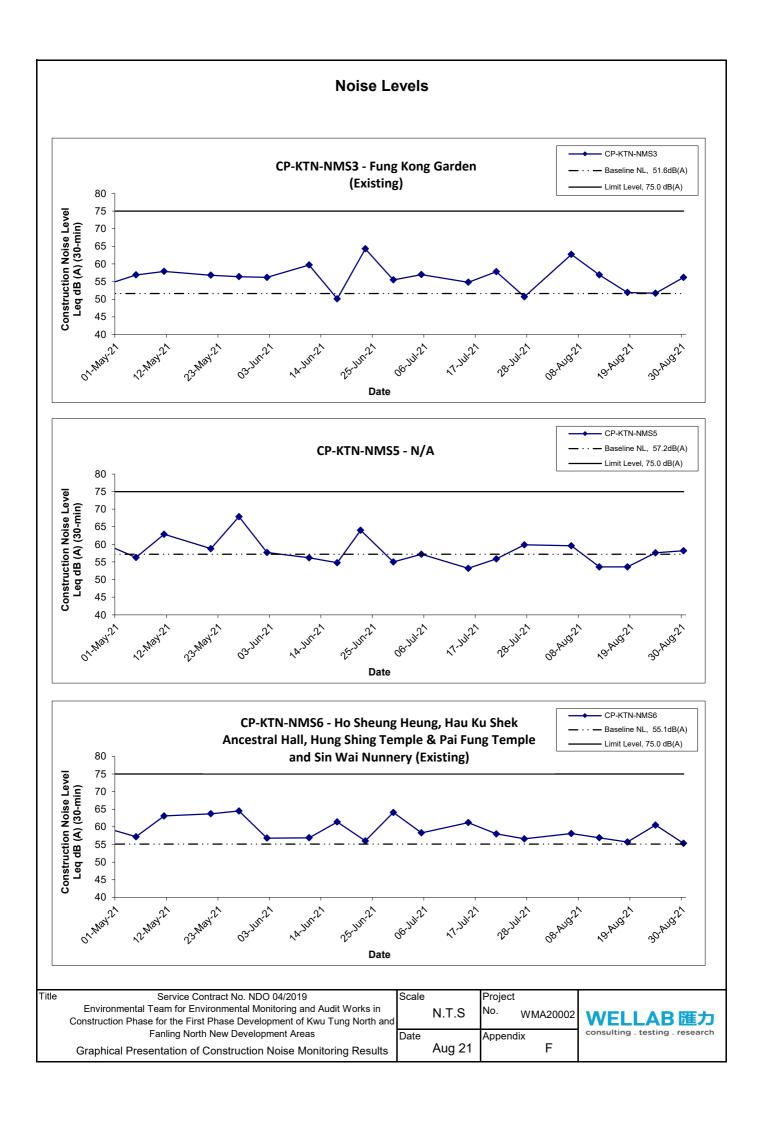
Appendix F - Noise Monitoring Results

Location CP-K	111.1111100-11		11	:t. JD (A) /5 ::	:\	A	Danalina I
Date	Weather	Time	Un	it: dB (A) (5-r	nin)	Average	Baseline Leve
			L _{eq}	L ₁₀	L 90	L _{eq}	L _{eq}
		13:15	54.3	56.5	51.2		
		13:20	61.0	64.3	51.8		
6-Aug-21	Cloudy	13:25	63.1	63.4	53.7	59.6	
0-Aug-21	Cloudy	13:30	58.2	59.7	56.9	59.0	
		13:35	58.2	59.3	56.9		
		13:40	57.3	58.4	55.7		
		10:15	55.7	55.9	52.8		
		10:20	47.9	49.9	46.2		
12-Aug-21	Cloudy	10:25	51.7	56.8	46.4	53.6	
12-Aug-21	Cloudy	10:30	52.8	54.2	48.6	55.0	
		10:35	53.4	54.7	50.1		
		10:40	55.8	59.2	50.0		
		08:10	54.7	57.8	50.3		
		08:15	51.8	51.9	49.7		
18-Aug-21	Sunny	08:20	53.7	56.4	49.8	53.6	57.0
16-Aug-21	Suring	08:25	53.8	54.4	49.9	55.0	57.2
		08:30	52.5	53.5	48.7		
		08:35	54.4	56.7	50.7		
		15:40	55.1	58.4	49.3		
		15:45	61.3	64.2	49.9		
24 Aug 24	Cuppu	15:50	54.8	55.9	50.9	57.6	
24-Aug-21	Sunny	15:55	56.3	58.6	52.4	57.6	
		16:00	57.7	59.1	55.4		
		16:05	57.0	58.7	55.0		
		16:35	62.3	65.8	56.3		
		16:40	56.2	55.7	52.8		
00 4 01	Olava I	16:45	59.1	61.5	51.9	50.0	
30-Aug-21	Cloudy	16:50	57.2	60.0	51.0	58.2	
		16:55	53.0	53.6	51.0		
		17:00	55.4	59.4	51.0		

Date	Weather	Time	Uni	it: dB (A) (5-r	nin)	Average	Baseline Leve
			L _{eq}	L ₁₀	L 90	L _{eq}	L _{eq}
		11:30	54.9	57.3	52.7		
		11:35	55.7	57.9	52.6		
6-Aug-21	Cloudy	11:40	61.9	64.3	53.7	58.1	
0-Aug-21	Cloudy	11:45	57.4	60.2	52.6	30.1	
		11:50	57.7	61.3	51.6		
		11:55	56.9	60.2	49.5		
		11:30	52.8	53.7	51.7		
		11:35	60.9	63.1	57.2		
12-Aug-21	Cloudy	11:40	58.4	62.0	53.4	56.9	
12 / tag 2 i	Cloudy	11:45	55.2	56.9	50.6	00.0	
		11:50	54.3	57.2	.9 50.6 .2 50.0 .4 49.6 .5 50.6 .4 50.2		
		11:55	53.6	54.4	49.6		
		10:50	53.9	56.5	50.6		
		10:55	58.2	59.4	50.2		
18-Aug-21	Sunny	11:00	58.2	59.7	50.4	55.7	55.1
10-Aug-21	Outling	11:05	54.6	55.8	48.8	33.1	55.1
		11:10	52.6	52.8	47.5		
		11:15	53.1	54.6	49.9		
		11:05	58.7	60.6	49.5		
		11:10	61.4	64.8	53.1		
24-Aug-21	Sunny	11:15	58.9	61.6	51.0	60.5	
27-Muy-21	Suring	11:20	63.7	68.4	51.8	00.5	
		11:25	59.4	61.6	51.8		
		11:30	58.3	60.8	50.3		_
		15:35	54.4	57.3	47.0		
		15:40	50.5	50.4	46.2		
30-Aug-21	Sunny	15:45	52.3	53.1	47.1	55.3	
30-Aug-21	Suring	15:50	53.9	54.4	47.1	33.3	
		15:55	54.0	55.1	51.8		
		16:00	59.9	61.7	48.5		

WMA20002 - Noise Results Wellab





APPENDIX G WATER QUALITY MONITORING RESULTS AND GRAPHICAL PRESENTATIONS

Location: SYR-CS1

Date	Weather	Start	Sampling	Depth (m)	Tempera	ature (°C)	p	Н	Salin	ity ppt	DO Satu	ration (%)	Dissolved O	xygen (mg/L)	Turbidi	ity(NTU)	Suspended	Solids (mg/L)	Arseni	ic (μg/L)
Date	Condition	Time	Gampling	Deptil (III)	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
3-Aug-21	Rainy	10:41	Middle	0.3	30.3 30.3	30.3	7.5 7.5	7.5	0.1 0.1	0.1	62.5 62.7	62.6	4.7 4.7	4.7	22.5 22.6	22.6	12 10	11.0	16 15	15.5
5-Aug-21	Rainy	09:48	Middle	0.2	27.2 27.2	27.2	7.4 7.4	7.4	0.1 0.1	0.1	86.2 86.0	86.1	6.8 6.8	6.8	14.5 14.6	14.6	9	8.5	8	8.5
7-Aug-21	Cloudy	09:37	Middle	0.2	27.0 27.0	27.0	7.3 7.3	7.3	0.1 0.1	0.1	86.7 86.3	86.5	6.9 6.9	6.9	9.3 9.6	9.5	8 8	8.0	10 10	10.0
9-Aug-21	Cloudy	12:39	Middle	0.3	31.2 31.3	31.3	7.6 7.6	7.6	0.1 0.1	0.1	112.7 112.8	112.8	8.3 8.3	8.3	8.6 8.9	8.8	9 8	8.5	12 12	12.0
11-Aug-21	Cloudy	09:25	Middle	0.1	27.7 27.7	27.7	7.4 7.4	7.4	0.1 0.1	0.1	73.7 73.3	73.5	5.8 5.8	5.8	22.4 23.0	22.7	26 21	23.5	11 11	11.0
13-Aug-21	Cloudy	10:17	Middle	0.3	29.9 29.9	29.9	7.5 7.5	7.5	0.1 0.1	0.1	95.1 95.1	95.1	7.2 7.2	7.2	6.3 6.5	6.4	7 7	7.0	13 14	13.5
16-Aug-21	Rainy	13:27	Middle	0.1	29.6 29.6	29.6	7.1 7.1	7.1	0.1 0.1	0.1	74.0 74.0	74.0	5.6 5.6	5.6	113.1 112.4	112.8	88 100	94.0	38 38	38.0
18-Aug-21	Cloudy	14:53	Middle	0.3	30.6 30.7	30.7	7.3 7.3	7.3	0.1 0.1	0.1	95.3 95.3	95.3	7.1 7.1	7.1	7.7 7.5	7.6	13 13	13.0	15 14	14.5
20-Aug-21	Sunny	12:28	Middle	0.2	28.5 28.5	28.5	7.4 7.4	7.4	0.1 0.1	0.1	90.3 90.2	90.3	7.0 7.0	7.0	8.8 8.7	8.8	5 5	5.0	13 14	13.5
23-Aug-21	Sunny	10:14	Middle	0.2	27.9 27.9	27.9	7.1 7.2	7.2	0.1 0.1	0.1	88.1 87.0	87.6	6.9 6.8	6.9	4.6 4.6	4.6	8 10	9.0	13 13	13.0
25-Aug-21	Cloudy	13:58	Middle	0.2	29.4 29.3	29.4	7.5 7.5	7.5	0.1 0.1	0.1	69.7 68.9	69.3	5.3 5.3	5.3	4.4 4.2	4.3	7	7.0	12 13	12.5
27-Aug-21	Rainy	11:16	Middle	0.2	28.0 28.0	28.0	7.2 7.2	7.2	0.1 0.1	0.1	69.5 69.4	69.5	5.4 5.4	5.4	6.3 6.2	6.3	9	9.0	11 12	11.5
30-Aug-21	Sunny	08:14	Middle	0.3	27.4 27.4	27.4	7.6 7.6	7.6	0.4 0.4	0.4	70.0 69.7	69.9	5.5 5.5	5.5	10.7 10.8	10.8	9 9	9.0	13 14	13.5

Location: SYR-IS1

Date	Weather	Start	Sampling	Depth (m)	Tempera	ature (°C)	р	Н	Salin	ity ppt	DO Satu	ration (%)	Dissolved O	xygen (mg/L)	Turbidi	ty(NTU)	Suspended	Solids (mg/L)	Arseni	c (μg/L)
Date	Condition	Time	Sampling	Deptil (III)	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
3-Aug-21	Rainy	11:08	Middle	0.4	30.4 30.4	30.4	7.6 7.6	7.6	0.1 0.1	0.1	82.7 82.7	82.7	6.2 6.2	6.2	23.7 23.6	23.7	17 18	17.5	18 18	18.0
5-Aug-21	Rainy	10:09	Middle	0.6	27.1 27.1	27.1	7.3 7.3	7.3	0.1 0.1	0.1	84.8 84.8	84.8	6.7 6.7	6.7	25.1 25.1	25.1	11 12	11.5	11 12	11.5
7-Aug-21	Cloudy	09:55	Middle	0.6	28.2 28.1	28.2	7.2 7.2	7.2	0.1 0.1	0.1	79.8 79.6	79.7	6.2 6.2	6.2	33.4 33.5	33.5	20 21	20.5	13 14	13.5
9-Aug-21	Cloudy	12:04	Middle	0.5	30.7 30.7	30.7	7.5 7.5	7.5	0.2 0.2	0.2	88.7 88.7	88.7	6.6 6.6	6.6	25.5 25.3	25.4	12 13	12.5	12 12	12.0
11-Aug-21	Cloudy	09:46	Middle	0.5	28.6 28.6	28.6	7.3 7.3	7.3	0.1 0.1	0.1	83.1 83.9	83.5	6.4 6.5	6.5	14.9 14.9	14.9	24 29	26.5	7 8	7.5
13-Aug-21	Cloudy	09:44	Middle	0.5	30.3 30.3	30.3	7.7 7.7	7.7	0.4 0.4	0.4	83.8 83.7	83.8	6.3 6.3	6.3	12.3 11.9	12.1	12 11	11.5	9 10	9.5
16-Aug-21	Rainy	14:14	Middle	0.3	30.8 30.8	30.8	7.4 7.4	7.4	0.1 0.1	0.1	85.7 85.5	85.6	6.4 6.4	6.4	66.6 67.1	66.9	66 65	65.5	14 14	14.0
18-Aug-21	Cloudy	14:20	Middle	0.2	33.6 33.6	33.6	7.8 7.8	7.8	0.1 0.1	0.1	135.4 135.4	135.4	9.6 9.6	9.6	6.9 6.9	6.9	10 12	11.0	17 17	17.0
20-Aug-21	Sunny	12:49	Middle	0.6	30.2 30.1	30.2	7.5 7.5	7.5	0.1 0.1	0.1	95.8 95.6	95.7	7.2 7.2	7.2	22.8 23.2	23.0	17 15	16.0	10 11	10.5
23-Aug-21	Sunny	10:33	Middle	0.7	30.3 30.3	30.3	7.2 7.2	7.2	0.3 0.3	0.3	83.0 82.8	82.9	6.2 6.2	6.2	21.1 21.2	21.2	21 23	22.0	4 4	4.0
25-Aug-21	Cloudy	14:12	Middle	0.6	30.8 30.8	30.8	7.5 7.5	7.5	0.2 0.2	0.2	83.0 83.0	83.0	6.2 6.2	6.2	13.2 12.9	13.1	13 15	14.0	10 10	10.0
27-Aug-21	Rainy	11:33	Middle	0.6	29.5 29.6	29.6	7.3 7.3	7.3	0.2 0.2	0.2	83.7 83.6	83.7	6.4 6.4	6.4	24.8 25.5	25.2	37 31	34.0	6 6	6.0
30-Aug-21	Sunny	08:27	Middle	0.2	28.2 28.2	28.2	7.5 7.5	7.5	0.3 0.3	0.3	78.5 78.4	78.5	6.1 6.1	6.1	13.4 13.6	13.5	14 12	13.0	16 16	16.0

Location: NTR-CS1

Date	Weather	Start	Sampling	Depth (m)	Tempera	ature (°C)	ŗ	Н	Salin	ity ppt	DO Satu	ration (%)	Dissolved O	xygen (mg/L)	Turbidi	ty(NTU)	Suspended	Solids (mg/L)
Date	Condition	Time	Sampling	Deptil (III)	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
3-Aug-21	Rainy	12:23	Middle	0.2	28.4 28.4	28.4	7.4 7.4	7.4	0.1 0.1	0.1	103.2 103.1	103.2	8.0 8.0	8.0	10.3 10.2	10.3	8 10	9.0
5-Aug-21	Rainy	11:54	Middle	0.1	27.0 27.0	27.0	7.3 7.2	7.3	0.1 0.1	0.1	84.2 84.2	84.2	6.7 6.7	6.7	9.9 9.9	9.9	7 6	6.5
7-Aug-21	Cloudy	11:58	Middle	0.1	28.7 28.7	28.7	7.3 7.3	7.3	0.1 0.1	0.1	98.8 98.8	98.8	7.6 7.6	7.6	7.2 7.1	7.2	5 5	5.0
9-Aug-21	Cloudy	10:24	Middle	0.2	27.6 27.6	27.6	7.7 7.7	7.7	0.6 0.6	0.6	100.0 99.9	100.0	7.9 7.9	7.9	17.4 17.3	17.4	10 10	10.0
11-Aug-21	Cloudy	11:22	Middle	0.1	28.1 28.1	28.1	7.3 7.3	7.3	0.1 0.1	0.1	101.0 101.0	101.0	7.9 7.9	7.9	9.5 9.6	9.6	11 10	10.5
13-Aug-21	Cloudy	11:11	Middle	0.2	29.0 29.0	29.0	7.4 7.4	7.4	0.1 0.1	0.1	102.2 102.2	102.2	7.9 7.9	7.9	6.9 6.9	6.9	5 4	4.5
16-Aug-21	Sunny	15:56	Middle	0.2	29.7 29.8	29.8	7.2 7.2	7.2	0.1 0.1	0.1	91.9 92.2	92.1	7.0 7.0	7.0	58.8 56.1	57.5	58 56	57.0
18-Aug-21	Cloudy	11:41	Middle	0.2	31.5 31.6	31.6	7.2 7.2	7.2	0.1 0.1	0.1	112.8 112.9	112.9	8.3 8.3	8.3	10.0 9.9	10.0	5 6	5.5
20-Aug-21	Sunny	14:59	Middle	0.1	30.6 30.6	30.6	7.3 7.3	7.3	0.1 0.1	0.1	110.0 110.0	110.0	8.2 8.2	8.2	10.0 10.2	10.1	5 5	5.0
23-Aug-21	Sunny	12:22	Middle	0.1	28.7 28.7	28.7	7.5 7.5	7.5	0.1 0.1	0.1	104.7 104.7	104.7	8.1 8.1	8.1	9.9 9.7	9.8	4 4	4.0
25-Aug-21	Cloudy	15:36	Middle	0.1	30.6 30.6	30.6	7.4 7.3	7.4	0.1 0.1	0.1	98.7 98.7	98.7	7.4 7.4	7.4	13.8 14.0	13.9	12 12	12.0
27-Aug-21	Rainy	14:34	Middle	0.1	26.5 26.5	26.5	7.1 7.1	7.1	0.1 0.1	0.1	77.7 76.6	77.2	6.2 6.2	6.2	27.1 26.6	26.9	26 25	25.5
30-Aug-21	Sunny	16:27	Middle	0.2	30.1 30.1	30.1	7.5 7.4	7.5	0.1 0.1	0.1	106.4 106.6	106.5	8.0 8.0	8.0	26.4 26.5	26.5	15 16	15.5

Location: NTR-IS1

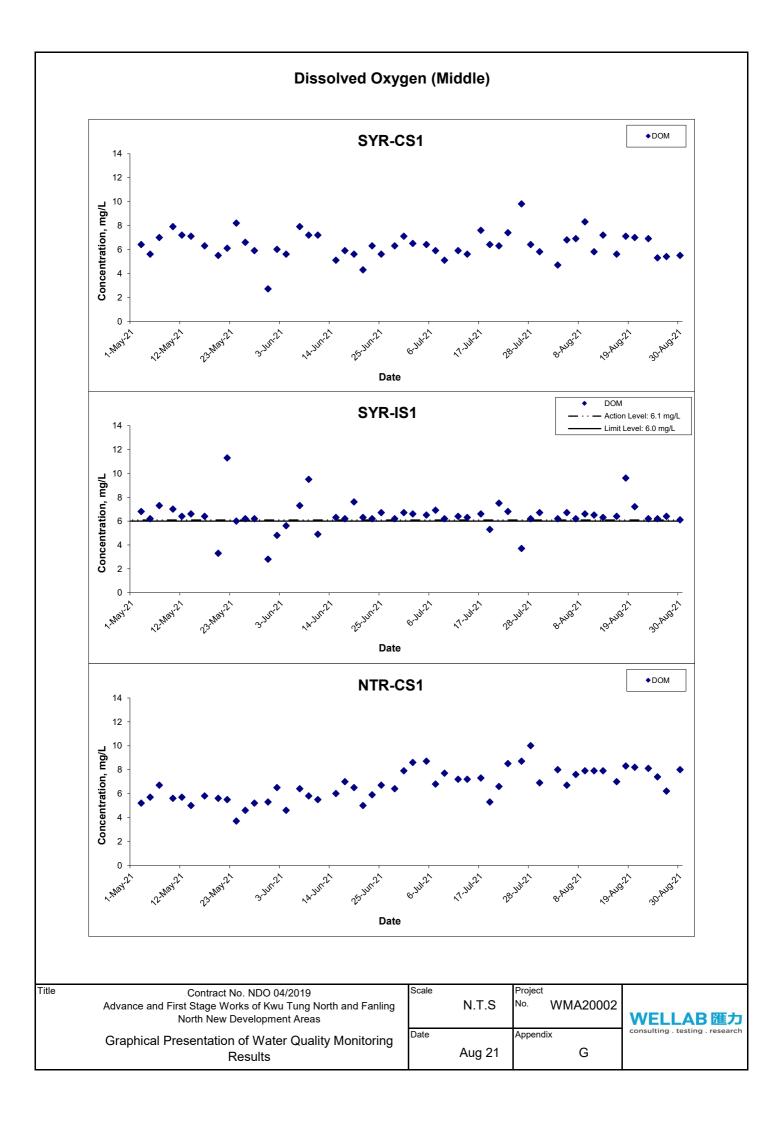
Date	Weather	Start	Sampling	Donth (m)	Tempera	ature (°C)	ı	Н	Salin	ity ppt	DO Satu	ration (%)	Dissolved O	xygen (mg/L)	Turbidi	ty(NTU)	Suspended	Solids (mg/L)
Date	Condition	Time	Sampling	Deptil (III)	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
3-Aug-21	Rainy	11:41	Middle	0.3	28.7 28.7	28.7	7.5 7.5	7.5	0.1 0.1	0.1	81.6 81.4	81.5	6.3 6.3	6.3	11.0 11.1	11.1	9 11	10.0
5-Aug-21	Rainy	10:36	Middle	0.6	27.0 27.0	27.0	7.5 7.5	7.5	0.1 0.1	0.1	85.2 85.0	85.1	6.8 6.8	6.8	13.2 13.3	13.3	7 6	6.5
7-Aug-21	Cloudy	10:39	Middle	0.5	28.3 28.2	28.3	7.2 7.2	7.2	0.1 0.1	0.1	86.1 85.9	86.0	6.7 6.7	6.7	5.8 5.9	5.9	5 4	4.5
9-Aug-21	Cloudy	11:40	Middle	0.3	30.2 30.2	30.2	8.6 8.6	8.6	0.1 0.1	0.1	103.7 103.7	103.7	7.8 7.8	7.8	41.4 41.5	41.5	30 26	28.0
11-Aug-21	Cloudy	10:15	Middle	0.5	27.7 27.7	27.7	7.5 7.5	7.5	0.1 0.1	0.1	80.4 80.2	80.3	6.3 6.3	6.3	8.1 8.2	8.2	7 6	6.5
13-Aug-21	Cloudy	12:58	Middle	0.3	28.3 28.3	28.3	7.5 7.5	7.5	0.1 0.1	0.1	97.8 97.7	97.8	7.6 7.6	7.6	6.2 6.2	6.2	4 4	4.0
16-Aug-21	Sunny	14:41	Middle	0.7	31.0 31.1	31.1	7.3 7.3	7.3	0.1 0.1	0.1	91.5 91.5	91.5	6.8 6.8	6.8	50.5 48.5	49.5	43 44	43.5
18-Aug-21	Cloudy	12:50	Middle	0.3	30.5 30.5	30.5	7.1 7.1	7.1	0.1 0.1	0.1	94.1 94.1	94.1	7.1 7.1	7.1	7.7 7.5	7.6	5 4	4.5
20-Aug-21	Sunny	13:37	Middle	0.5	30.6 30.5	30.6	8.6 8.6	8.6	0.1 0.1	0.1	86.1 86.0	86.1	6.4 6.4	6.4	6.3 6.4	6.4	4 4	4.0
23-Aug-21	Sunny	11:00	Middle	0.6	28.6 28.6	28.6	7.3 7.2	7.3	0.1 0.1	0.1	84.0 83.8	83.9	6.5 6.5	6.5	6.5 6.5	6.5	4 4	4.0
25-Aug-21	Cloudy	14:37	Middle	0.6	29.7 29.7	29.7	7.5 7.5	7.5	0.1 0.1	0.1	77.3 77.0	77.2	5.9 5.9	5.9	5.5 5.4	5.5	5 5	5.0
27-Aug-21	Rainy	12:47	Middle	0.6	27.3 27.3	27.3	7.4 7.4	7.4	0.1 0.1	0.1	84.7 83.9	84.3	6.7 6.7	6.7	10.1 9.9	10.0	8 8	8.0
30-Aug-21	Sunny	16:03	Middle	0.3	30.2 30.2	30.2	7.6 7.6	7.6	0.1 0.1	0.1	99.9 99.9	99.9	7.5 7.5	7.5	8.6 8.6	8.6	6 5	5.5

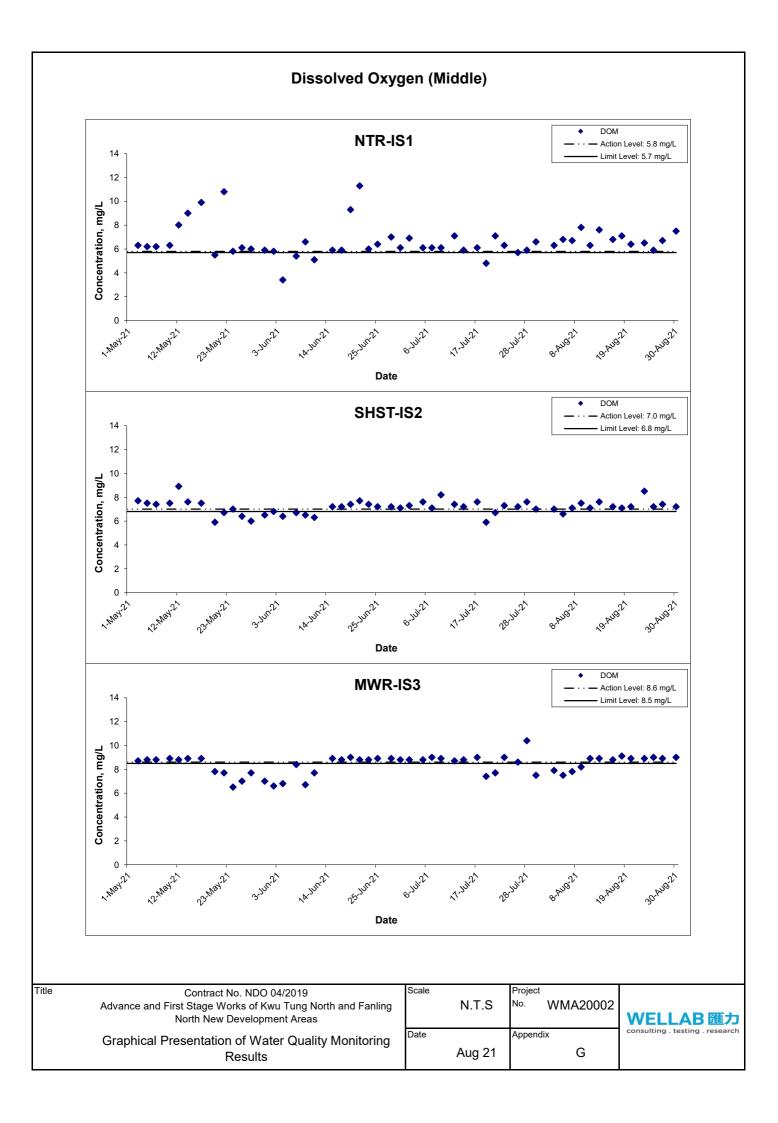
Location: SHST-IS2

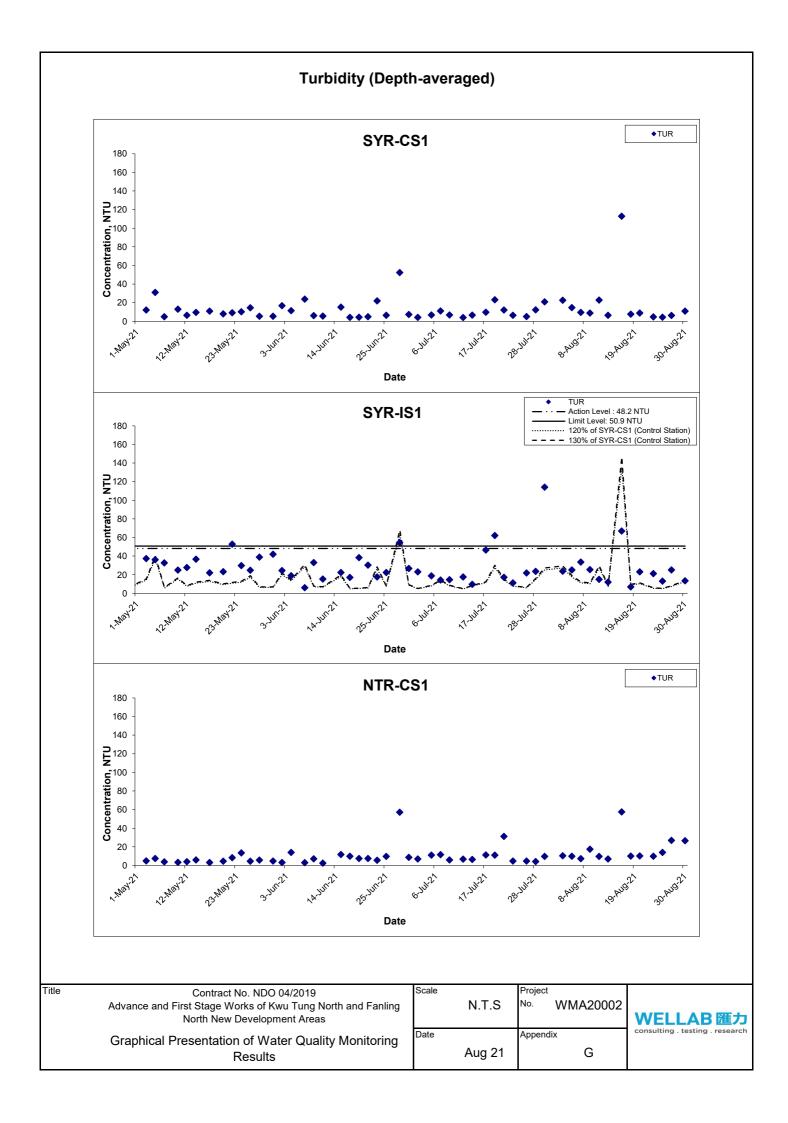
Date	Weather	Start	Sampling	Depth (m)	Tempera	ature (°C)	1	рΗ	Salin	ity ppt	DO Satu	ration (%)	Dissolved O	xygen (mg/L)	Turbidi	ty(NTU)	Suspended	Solids (mg/L)
Date	Condition	Time	Sampling	Deptil (III)	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
3-Aug-21	Rainy	12:56	Middle	0.3	27.7 27.7	27.7	7.6 7.5	7.6	0.1 0.1	0.1	89.1 89.1	89.1	7.0 7.0	7.0	21.3 20.7	21.0	14 15	14.5
5-Aug-21	Rainy	10:53	Middle	0.2	26.7 26.7	26.7	7.1 7.1	7.1	0.1 0.1	0.1	81.8 81.8	81.8	6.6 6.6	6.6	33.0 33.3	33.2	23 19	21.0
7-Aug-21	Cloudy	11:03	Middle	0.2	28.9 28.9	28.9	7.5 7.4	7.5	0.1 0.1	0.1	91.8 91.8	91.8	7.1 7.1	7.1	21.5 21.2	21.4	14 12	13.0
9-Aug-21	Cloudy	11:00	Middle	0.3	28.4 28.4	28.4	7.5 7.5	7.5	0.1 0.1	0.1	95.9 95.9	95.9	7.5 7.5	7.5	19.7 19.6	19.7	8 8	8.0
11-Aug-21	Cloudy	10:34	Middle	0.2	26.7 26.7	26.7	7.5 7.5	7.5	0.1 0.1	0.1	89.0 88.9	89.0	7.1 7.1	7.1	9.6 9.7	9.7	7 7	7.0
13-Aug-21	Cloudy	11:55	Middle	0.3	27.5 27.6	27.6	7.6 7.5	7.6	0.1 0.1	0.1	96.8 96.9	96.9	7.6 7.6	7.6	7.6 7.8	7.7	5 4	4.5
16-Aug-21	Sunny	15:00	Middle	0.1	30.1 30.1	30.1	7.2 7.2	7.2	0.1 0.1	0.1	95.0 95.0	95.0	7.2 7.2	7.2	62.6 64.1	63.4	66 65	65.5
18-Aug-21	Cloudy	12:25	Middle	0.3	30.3 30.3	30.3	7.1 7.1	7.1	0.1 0.1	0.1	94.1 94.3	94.2	7.1 7.1	7.1	11.4 11.4	11.4	6 6	6.0
20-Aug-21	Sunny	13:56	Middle	0.2	29.6 29.4	29.5	8.1 8.1	8.1	0.1 0.1	0.1	94.8 94.5	94.7	7.2 7.2	7.2	11.5 11.6	11.6	5 6	5.5
23-Aug-21	Sunny	11:23	Middle	0.2	27.0 27.0	27.0	7.4 7.4	7.4	0.1 0.1	0.1	106.2 106.2	106.2	8.5 8.5	8.5	10.9 10.9	10.9	4 4	4.0
25-Aug-21	Cloudy	14:52	Middle	0.2	28.4 28.4	28.4	7.8 7.7	7.8	0.1 0.1	0.1	91.7 92.5	92.1	7.1 7.2	7.2	13.5 13.7	13.6	13 14	13.5
27-Aug-21	Rainy	13:10	Middle	0.2	25.5 25.5	25.5	7.7 7.5	7.6	0.1 0.1	0.1	89.9 89.0	89.5	7.4 7.3	7.4	30.2 30.2	30.2	28 27	27.5
30-Aug-21	Sunny	17:12	Middle	0.3	29.4 29.4	29.4	7.9 7.8	7.9	0.1 0.1	0.1	94.7 94.5	94.6	7.2 7.2	7.2	28.1 28.2	28.2	16 18	17.0

Location: MWR-IS3

Date	Weather	Start	Sampling	Depth (m)	Tempera	ature (°C)	1	рΗ	Salin	ity ppt	DO Satu	ration (%)	Dissolved O	xygen (mg/L)	Turbidi	ty(NTU)	Suspended	Solids (mg/L)
Date	Condition	Time	Sampling	Deptil (III)	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
3-Aug-21	Rainy	12:32	Middle	0.2	28.9 28.9	28.9	8.0 8.0	8.0	0.1 0.1	0.1	102.6 102.6	102.6	7.9 7.9	7.9	49.3 50.5	49.9	110 110	110.0
5-Aug-21	Rainy	11:32	Middle	0.1	27.9 27.9	27.9	7.5 7.5	7.5	0.1 0.1	0.1	95.8 95.8	95.8	7.5 7.5	7.5	30.0 30.0	30.0	27 24	25.5
7-Aug-21	Cloudy	11:29	Middle	0.1	30.7 30.8	30.8	7.7 7.7	7.7	0.1 0.1	0.1	104.2 104.1	104.2	7.8 7.8	7.8	17.3 16.3	16.8	8 8	8.0
9-Aug-21	Cloudy	11:23	Middle	0.3	28.9 28.9	28.9	9.2 9.1	9.2	0.1 0.1	0.1	106.2 106.2	106.2	8.2 8.2	8.2	45.3 45.5	45.4	41 50	45.5
11-Aug-21	Cloudy	11:05	Middle	0.2	28.7 28.7	28.7	7.7 7.6	7.7	0.1 0.1	0.1	114.7 114.7	114.7	8.9 8.9	8.9	9.3 9.3	9.3	7 8	7.5
13-Aug-21	Cloudy	12:15	Middle	0.3	28.2 28.2	28.2	7.4 7.4	7.4	0.1 0.1	0.1	113.2 113.7	113.5	8.8 8.9	8.9	4.5 4.6	4.6	6 7	6.5
16-Aug-21	Sunny	15:31	Middle	0.2	30.4 30.4	30.4	7.4 7.4	7.4	0.1 0.1	0.1	115.5 117.5	116.5	8.7 8.8	8.8	31.7 31.0	31.4	32 34	33.0
18-Aug-21	Cloudy	12:04	Middle	0.2	30.8 30.9	30.9	7.5 7.5	7.5	0.1 0.1	0.1	121.7 121.9	121.8	9.1 9.1	9.1	10.6 10.6	10.6	7 7	7.0
20-Aug-21	Sunny	14:39	Middle	0.1	33.5 33.5	33.5	7.7 7.6	7.7	0.1 0.1	0.1	124.7 124.0	124.4	8.9 8.8	8.9	10.8 10.5	10.7	8 8	8.0
23-Aug-21	Sunny	12:01	Middle	0.1	29.4 29.5	29.5	7.9 7.9	7.9	0.1 0.1	0.1	115.5 117.4	116.5	8.8 9.0	8.9	9.9 9.9	9.9	8 10	9.0
25-Aug-21	Cloudy	15:27	Middle	0.1	31.1 31.1	31.1	7.4 7.4	7.4	0.1 0.1	0.1	121.7 121.9	121.8	9.0 9.0	9.0	6.4 6.4	6.4	8 8	8.0
27-Aug-21	Rainy	14:22	Middle	0.1	25.8 25.8	25.8	7.3 7.2	7.3	0.1 0.1	0.1	109.4 109.3	109.4	8.9 8.9	8.9	16.9 16.7	16.8	19 16	17.5
30-Aug-21	Sunny	16:44	Middle	0.2	30.1 30.1	30.1	7.8 7.8	7.8	0.1 0.1	0.1	118.8 119.0	118.9	9.0 9.0	9.0	15.2 15.4	15.3	16 15	15.5

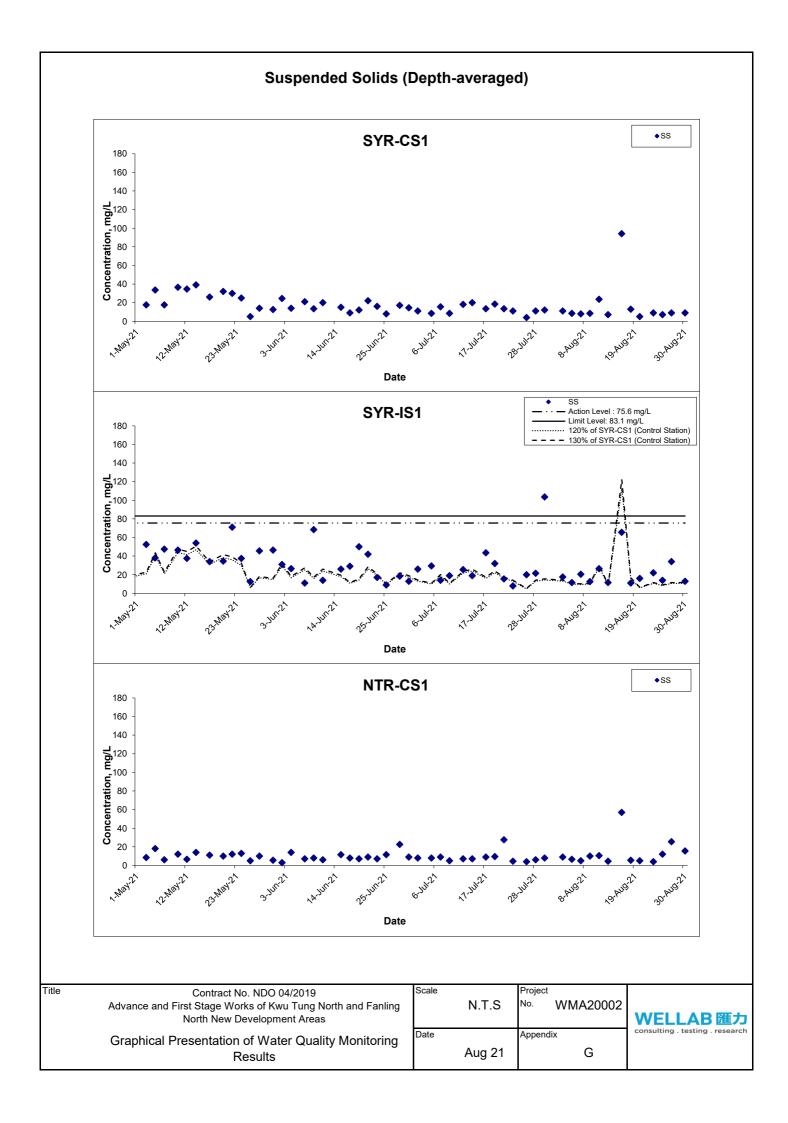






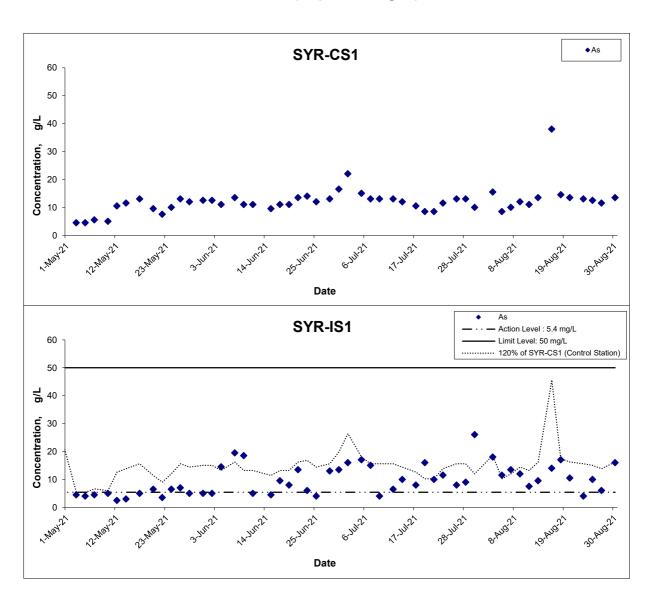
Turbidity (Depth-averaged) NTR-IS1 180 - - - 130% of NTR-CS1 (Control Station) 160 140 120 Concentration, 100 80 60 40 20 0 Date TUR SHST-IS2 Action Level : 4.4 NTU 1400 1200 1000 Concentration, NTU 800 600 400 200 0 12.May 21 3-Jun-21 6-Jul-27 , May 21 Date TUR MWR-IS3 180 160 140 Concentration, NTU 80 80 40 20 0 enny 30.Aug.2.1 Date

Title	Contract No. NDO 04/2019 Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas	Scale		Project No.	WMA20002	WELLAB 匯力
	Graphical Presentation of Water Quality Monitoring Results	Date	Aug 21	Append	G G	consulting . testing . research



Suspended Solids (Depth-averaged) SS NTR-IS1 Action Level : 8.9 mg/L Limit Level: 9.0 mg/L 120% of NTR-CS1 (Control Station) 180 - - - 130% of NTR-CS1 (Control Station) 160 140 20 0 Date SS SS - Action Level : 4.0 mg/L - Limit Level: 4.0 mg/L - 120% of NTR-CS1 (Control Station) - 130% of NTR-CS1 (Control Station) SHST-IS2 1600 1400 1200 Concentration, mg/L 1000 800 600 400 200 0 6-311-27 , May 22 Date Action Level : 14.0 mg/L Limit Level: 14.4 mg/L **MWR-IS3** 180 160 140 **J**120 100 Concentration, 80 60 40 20 0 30.Aug.2.1 Date Title Contract No. NDO 04/2019 Scale Project No. WMA20002 N.T.S Advance and First Stage Works of Kwu Tung North and Fanling WELLAB 匯力 consulting . testing . research North New Development Areas Date Appendix **Graphical Presentation of Water Quality Monitoring** G Aug 21 Results

Arsenic (Depth-averaged)



Title Contract No. NDO 04/2019 Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas		Project No. WMA20002	WELLAB匯力
Graphical Presentation of Water Quality Monitoring Results	Date Aug 21	Appendix G	consulting . testing . research

APPENDIX H LABORATORY TESTING REPORTS FOR LABORATORY ANALYSIS



TEST REPORT

APPLICANT:

Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T.

Report No.:	35513
Date of Issue:	2021-08-09
Date Received:	2021-08-03
Date Tested:	2021-08-03
Date Completed:	2021-08-09

1 of 1

ATTN:

Ms. Ivy Tam

4 liquid samples as received from client said to be water

Sample Description : Laboratory No.

35513

Project No. :

WMA20002

Project Name : Contract No. NDO 04/2019

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

Page:

Development Areas

Custody No.

WMA20002/210803

Sampling Date :

2021-08-03

Tests Requested & Methodology:

Item	Parameters	Ref. Method	Limit of reporting
1	Total Suspended Solids	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.	35513-2	35513-3	35513-5	35513-6
Total Suspended Solids (mg/L)	12	10	17	18
Arsenic (µg/L)	16	15	18	18

Remarks: 1) < = less than

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRICK TSE

General Manager



TEST REPORT

APPLICANT:

Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T.

 Report No.:
 35513A

 Date of Issue:
 2021-08-09

 Date Received:
 2021-08-03

 Date Tested:
 2021-08-03

 Date Completed:
 2021-08-09

1 of 1

ATTN:

Ms. Ivy Tam

Sample Description : 8 liquid samples as received from client said to be water

Laboratory No. : 35513A 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. : WMA20002/210803

Sampling Date : 2021-08-03

Tests Requested & Methodology:

T cara Y	equested & memodology.		
Item	Parameters	Ref. Method	Limit of reporting
1	Total Suspended Solids	APHA 17ed 2540 D	2.5 mg/L

Results:

Acsuits.			1	
Sample ID	NTR-CS1-a	NTR-CS1-b	NTR-IS1-a	NTR-IS1-b
Sample No.	35513-8	35513-9	35513-11	35513-12
Total Suspended Solids (mg/L)	8	10	9	11

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	35513-14	35513-15	35513-17	35513-18
Total Suspended Solids (mg/L)	14	15	110	110

Remarks: $1) \le less than$

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRICK TSE General Manager



TEST REPORT

APPLICANT:

Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T.

35522 Report No.: Date of Issue: 2021-08-10 2021-08-05 Date Received: 2021-08-05 Date Tested: 2021-08-10 Date Completed:

1 of 1

ATTN:

Ms. Ivy Tam

Page:

Sample Description

4 liquid samples as received from client said to be water

Laboratory No.

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.

WMA20002/210805

Sampling Date

2021-08-05

Tests Requested & Methodology:

Item	Parameters	Ref. Method	Limit of reporting
1	Total Suspended Solids	APHA 17ed 2540 D	2.5 mg/L
2	Arsenic	In-house method SOP022 (ICP-AES) and SOP076 (ICP-MS)	1 μg/L

Resulte.

Results:				1
Sample ID	SYR-CS1-a	SYR-CS1-b	SYR-IS1-a	SYR-IS1-b
Sample No.	35522-2	35522-3	35522-5	35522-6
Total Suspended Solids (mg/L)	9	8	11	13
Arsenic (µg/L)	8	9	11	12

Remarks: 1) < = less than

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

ATRICK TSE General Manager



TEST REPORT

APPLICANT:

Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T.

Date Completed: Page:

Report No.:

Date of Issue:

Date Tested:

Date Received:

2021-08-10 1 of 1

35522A

2021-08-10

2021-08-05

2021-08-05

ATTN:

Ms. Ivy Tam

Sample Description

8 liquid samples as received from client said to be water

Laboratory No.

35522A

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.

WMA20002/210805

Sampling Date

2021-08-05

Tests Requested & Methodology:

Item	Parameters	Ref. Method	Limit of reporting
1	Total Suspended Solids	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.	35522-8	35522-9	35522-11	35522-12
Total Suspended Solids (mg/L)	7	6	7	6

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	35522-14	35522-15	35522-17	35522-18
Total Suspended Solids (mg/L)	23	19	27	24

Remarks: $1) \le less than$

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRICK TSE

General Manager



TEST REPORT

APPLICANT: Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T.

 Report No.:
 35527

 Date of Issue:
 2021-08-10

 Date Received:
 2021-08-07

 Date Tested:
 2021-08-07

 Date Completed:
 2021-08-10

1 of 1

ATTN:

Ms. Ivy Tam

Sample Description: 4 liquid samples as received from client said to be water

Laboratory No. : 35527

Project No.: WMA20002

Project Name : Contract No. NDO 04/2019

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

Page:

Development Areas

Custody No. : WMA20002/210807

Sampling Date: 2021-08-07

Tests Requested & Methodology:

Item	Parameters	Ref. Method	Limit of reporting
1	Total Suspended Solids	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.	35527-2	35527-3	35527-5	35527-6
Total Suspended Solids (mg/L)	8	8	20	21
Arsenic (μg/L)	10	10	13	14

Remarks: 1) < = less than

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRICK TSE General Manager



TEST REPORT

APPLICANT:

Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T.

 Report No.:
 35527A

 Date of Issue:
 2021-08-10

 Date Received:
 2021-08-07

 Date Tested:
 2021-08-07

 Date Completed:
 2021-08-10

ATTN:

Ms. Ivy Tam

Page:

1 of 1

Sample Description :

8 liquid samples as received from client said to be water

Laboratory No.

35527A

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. :

WMA20002/210807

Sampling Date :

2021-08-07

Tests Requested & Methodology:

A COTO II	equestou et liternouelegj.		
Item	Parameters	Ref. Method	Limit of reporting
1	Total Suspended Solids	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.	35527-8	35527-9	35527-11	35527-12
Total Suspended Solids (mg/L)	5	5	5	4

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	35527-14	35527-15	35527-17	35527-18
Total Suspended Solids (mg/L)	14	12	8	8

Remarks: 1) < = less than

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRICK TSE

General Manager



TEST REPORT

APPLICANT:

Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T.

35537 Report No.: Date of Issue: 2021-08-13 Date Received: 2021-08-09 2021-08-09 Date Tested: 2021-08-13 Date Completed:

1 of 1

ATTN:

Ms. Ivy Tam

4 liquid samples as received from client said to be water

Sample Description Laboratory No.

35537

Project No.

WMA20002

Project Name

Contract No. NDO 04/2019

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

Page:

Development Areas

Custody No.

WMA20002/210809

Sampling Date

2021-08-09

Tests Requested & Methodology:

	equested & Methodology.	TO CALL J	Limit of reporting
Item	Parameters	Ref. Method	
1	Total Suspended Solids	APHA 17ed 2540 D	2.5 mg/L
2	Arsenic	In-house method SOP022 (ICP-AES) and SOP076 (ICP-MS)	1 μg/L
1		and bot ove (27-	

Results:

Results:	SYR-CS1-a	SYR-CS1-b	SYR-IS1-a	SYR-IS1-b
Sample ID	35537-2	35537-3	35537-5	35537-6
Sample No. Total Suspended Solids (mg/L)	9	8	12	13
Arsenic (µg/L)	12	12	12	12

Remarks: 1) < = less than

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

TRICK TSE eneral Manager



TEST REPORT

APPLICANT:

Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T.

35537A Report No.: Date of Issue: 2021-08-13 Date Received: 2021-08-09 Date Tested: 2021-08-09 2021-08-13 Date Completed:

ATTN:

Ms. Ivy Tam

Page:

1 of 1

Sample Description

8 liquid samples as received from client said to be water

Laboratory No.

35537A

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.

WMA20002/210809

Sampling Date

2021-08-09

Tests Requested & Methodology:

T CO CO X	equested of michigarity.		
Item	Parameters	Ref. Method	Limit of reporting
1	Total Suspended Solids	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.	35537-8	35537-9	35537-11	35537-12
Total Suspended Solids (mg/L)	10	10	30	26

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	35537-14	35537-15	35537-17	35537-18
Total Suspended Solids (mg/L)	8	8	41	50

Remarks: $1) \le less than$

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

ATRICK TSE General Manager



TEST REPORT

APPLICANT:

Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T.

35550 Report No.: 2021-08-17 Date of Issue:

Date Received: 2021-08-11 2021-08-11 Date Tested: Date Completed: 2021-08-17

ATTN:

Ms. Ivy Tam

Page:

1 of 1

Sample Description

4 liquid samples as received from client said to be water

Laboratory No.

35550

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.

WMA20002/210811

Sampling Date

2021-08-11

Tests Requested & Methodology:

Item	Parameters	Ref. Method	Limit of reporting
1	Total Suspended Solids	APHA 17ed 2540 D	2.5 mg/L
2	Arsenic	In-house method SOP022 (ICP-AES) and SOP076 (ICP-MS)	l μg/L

Dogulto

Results:				
Sample ID	SYR-CS1-a	SYR-CS1-b	SYR-IS1-a	SYR-IS1-b
Sample No.	35550-2	35550-3	35550-5	35550-6
Total Suspended Solids (mg/L)	26	21	24	29
Arsenic (µg/L)	11	11	7	8

Remarks: $1) \le less than$

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

TRICK TSE

General Manager



TEST REPORT

APPLICANT:

Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T. Report No.: Date of Issue: 35550A 2021-08-17

Date Received:

2021-08-11

Date Tested:
Date Completed:

2021-08-11 2021-08-17

ATTN:

Ms. Ivy Tam

Page:

1 of 1

Sample Description :

8 liquid samples as received from client said to be water

Laboratory No.

35550A

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.

WMA20002/210811

Sampling Date

2021-08-11

Tests Requested & Methodology:

Item	Parameters	Ref. Method	Limit of reporting
1	Total Suspended Solids	APHA 17ed 2540 D	2.5 mg/L

Results:

TCSUITS.		3 FFF GG1 1	NUTED TO 1	NITTO ICI L
Sample ID	NTR-CS1-a	NTR-CS1-b	NTR-IS1-a	NTR-IS1-b
Sample No.	35550-8	35550-9	35550-11	35550-12
Total Suspended Solids (mg/L)	11	10	7	6

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	35550-14	35550-15	35550-17	35550-18
Total Suspended Solids (mg/L)	7	7	7	8

Remarks: $1) \le less than$

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRICK TSE

General Manager



TEST REPORT

APPLICANT: Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T.

 Report No.:
 35554

 Date of Issue:
 2021-08-17

 Date Received:
 2021-08-13

 Date Tested:
 2021-08-13

 Date Completed:
 2021-08-17

Page

1 of 1

ATTN:

Ms. Ivy Tam

Sample Description: 4 liquid samples as received from client said to be water

Laboratory No. : 35554

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. : WMA20002/210813

Sampling Date: 2021-08-13

Tests Requested & Methodology:

Item	Parameters	Ref. Method	Limit of reporting
1	Total Suspended Solids	APHA 17ed 2540 D	2.5 mg/L
2	Arsenic	In-house method SOP022 (ICP-AES) and SOP076 (ICP-MS)	1 μg/L

Results

Resurts.				I
Sample ID	SYR-CS1-a	SYR-CS1-b	SYR-IS1-a	SYR-IS1-b
Sample No.	35554-2	35554-3	35554-5	35554-6
Total Suspended Solids (mg/L)	7	7	12	11
Arsenic (μg/L)	13	14	9	10

Remarks: 1) < = less than

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRICK TSE General Manager



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)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T.

 Report No.:
 35554A

 Date of Issue:
 2021-08-17

 Date Received:
 2021-08-13

 Date Tested:
 2021-08-13

 Date Completed:
 2021-08-17

ATTN:

Ms. Ivy Tam

Page:

1 of 1

Sample Description

8 liquid samples as received from client said to be water

Laboratory No.

35554A

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. :

WMA20002/210813

Sampling Date :

2021-08-13

Tests Requested & Methodology:

Item	Parameters	Ref. Method	Limit of reporting
1	Total Suspended Solids	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.	35554-8	35554-9	35554-11	35554-12
Total Suspended Solids (mg/L)	5	4	4	4

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	35554-14	35554-15	35554-17	35554-18
Total Suspended Solids (mg/L)	5	4	6	7

Remarks: $1) \le less than$

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRICK TSE General Manager



TEST REPORT

APPLICANT:

Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T.

Report No.: 35565 2021-08-20 Date of Issue: 2021-08-16 Date Received: Date Tested: 2021-08-16 Date Completed: 2021-08-20

ATTN:

Ms. Ivy Tam

Page:

1 of 1

Sample Description

4 liquid samples as received from client said to be water

Laboratory No.

35565

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.

WMA20002/210816

Sampling Date

2021-08-16

Tests Requested & Methodology:

Item	Parameters	Ref. Method	Limit of reporting
1	Total Suspended Solids	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.	35565-2	35565-3	35565-5	35565-6
Total Suspended Solids (mg/L)	88	100	66	65
Arsenic (μg/L)	38	38	14	14

Remarks: $1) \le less than$

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRIČK TSĚ General Manager



TEST REPORT

APPLICANT: Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T.

 Report No.:
 35565A

 Date of Issue:
 2021-08-20

 Date Received:
 2021-08-16

 Date Tested:
 2021-08-16

 Date Completed:
 2021-08-20

ATTN:

Ms. Ivy Tam

Page:

1 of 1

Sample Description :

8 liquid samples as received from client said to be water

Laboratory No. :

35565A

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. :

WMA20002/210816

Sampling Date

2021-08-16

Tests Requested & Methodology:

Item	Parameters	Ref. Method	Limit of reporting
1	Total Suspended Solids	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.	35565-8	35565-9	35565-11	35565-12
Total Suspended Solids (mg/L)	58	56	43	44

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	35565-14	35565-15	35565-17	35565-18
Total Suspended Solids (mg/L)	66	65	32	34

Remarks: $1) \le 1$ less than

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRÍCK TSE General Manager



TEST REPORT

APPLICANT:

Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T.

 Report No.:
 35570

 Date of Issue:
 2021-08-24

 Date Received:
 2021-08-18

 Date Tested:
 2021-08-18

Page:

Date Completed:

1 of 1

2021-08-24

ATTN:

Ms. Ivy Tam

Sample Description

4 liquid samples as received from client said to be water

Laboratory No.

35570

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.

WMA20002/210818

Sampling Date

2021-08-18

Tests Requested & Methodology:

Item	Parameters	Ref. Method	Limit of reporting
1	Total Suspended Solids	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.	35570-2	35570-3	35570-5	35570-6
Total Suspended Solids (mg/L)	13	13	10	12
Arsenic (µg/L)	15	14	17	17

Remarks: $1) \le 1$ less than

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRICK TSE

General Manager



TEST REPORT

APPLICANT: Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T.

 Report No.:
 35570A

 Date of Issue:
 2021-08-24

 Date Received:
 2021-08-18

 Date Tested:
 2021-08-18

 Date Completed:
 2021-08-24

1 of 1

ATTN:

Ms. Ivy Tam

Sample Description: 8 liquid samples as received from client said to be water

Laboratory No. : 35570A 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. : WMA20002/210818

Sampling Date: 2021-08-18

Tests Requested & Methodology:

I COLO I	1 ests ixequested & internatives.				
Item	Parameters	Ref. Method	Limit of reporting		
1	Total Suspended Solids	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.	35570-8	35570-9	35570-11	35570-12
Total Suspended Solids (mg/L)	5	6	5	4

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	35570-14	35570-15	35570-17	35570-18
Total Suspended Solids (mg/L)	6	6	7	7

Remarks: 1) < = less than

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



TEST REPORT

APPLICANT: Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T.

Report No.:	35580
Date of Issue:	2021-08-26
Date Received:	2021-08-20
Date Tested:	2021-08-20
Date Completed:	2021-08-26

1 of 1

ATTN:

Ms. Ivy Tam

4 liquid samples as received from client said to be water

Sample Description : 4 liquidate Laboratory No. : 35580

Project No.: WMA20002

Project Name : Contract No. NDO 04/2019

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

Page:

Development Areas

Custody No. : WMA20002/210820

Sampling Date : 2021-08-20

Tests Requested & Methodology:

Item	Parameters	Ref. Method	Limit of reporting
1	Total Suspended Solids	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.	35580-2	35580-3	35580-5	35580-6
Total Suspended Solids (mg/L)	5	5	17	15
Arsenic (μg/L)	13	14	10	11

Remarks: 1) <= less than

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



TEST REPORT

APPLICANT: Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T.

 Report No.:
 35580A

 Date of Issue:
 2021-08-26

 Date Received:
 2021-08-20

 Date Tested:
 2021-08-20

 Date Completed:
 2021-08-26

ATTN:

Ms. Ivy Tam

Page

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Sample Description :

8 liquid samples as received from client said to be water

Laboratory No.

35580A

Project No.

WMA20002 Contract No. NDO 04/2019

Project Name : Contract No. NDO 04/201

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

Development Areas

Custody No. :

WMA20002/210820

Sampling Date:

2021-08-20

Tests Requested & Methodology:

Item	Parameters	Ref. Method	Limit of reporting
1	Total Suspended Solids	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.	35580-8	35580-9	35580-11	35580-12
Total Suspended Solids (mg/L)	5	5	4	4

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	35580-14	35580-15	35580-17	35580-18
Total Suspended Solids (mg/L)	5	6	8	8

Remarks: $1) \le less than$

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



TEST REPORT

APPLICANT:

Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T.

Report No.: 35590

2021-08-27 Date of Issue: Date Received: 2021-08-23

Date Tested: 2021-08-23

Date Completed:

2021-08-27

ATTN:

Ms. Ivy Tam

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Sample Description

4 liquid samples as received from client said to be water

Laboratory No.

35590

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.

WMA20002/210823

Sampling Date :

2021-08-23

Tests Requested & Methodology:

Item	Parameters	Ref. Method	Limit of reporting
1	Total Suspended Solids	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.	35590-2	35590-3	35590-5	35590-6
Total Suspended Solids (mg/L)	8	10	21	23
Arsenic (μg/L)	13	13	4	4

Remarks: 1) < = less than

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



TEST REPORT

Wellab Limited (EM&A Department) APPLICANT:

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T.

Report No.: 35590A Date of Issue: 2021-08-27 Date Received: 2021-08-23 Date Tested: 2021-08-23 2021-08-27 Date Completed:

ATTN:

Ms. Ivy Tam

Page:

1 of 1

Sample Description :

8 liquid samples as received from client said to be water

Laboratory No.

35590A

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.

WMA20002/210823

Sampling Date

2021-08-23

Tests Requested & Methodology:

Item	Parameters	Ref. Method	Limit of reporting
1	Total Suspended Solids	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.	35590-8	35590-9	35590-11	35590-12
Total Suspended Solids (mg/L)	4	4	4	4

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	35590-14	35590-15	35590-17	35590-18
Total Suspended Solids (mg/L)	4	4	8	10

Remarks: 1) < = less than

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



TEST REPORT

APPLICANT: Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T.

Report No.:	35598
Date of Issue:	2021-08-30
Date Received:	2021-08-25
Date Tested:	2021-08-25
Date Completed:	2021-08-30

ATTN:

Ms. Ivy Tam

Page:

1 of 1

Sample Description :

4 liquid samples as received from client said to be water

Laboratory No.

35598

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.

WMA20002/210825

Sampling Date

2021-08-25

Tests Requested & Methodology:

Item	Parameters	Ref. Method	Limit of reporting
1	Total Suspended Solids	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.	35598-2	35598-3	35598-5	35598-6
Total Suspended Solids (mg/L)	7	7	13	15
Arsenic (µg/L)	12	13	10	10

Remarks: 1) \leq = less than

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



TEST REPORT

APPLICANT:

Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T.

Report No.: 35598A Date of Issue: 2021-08-30 Date Received: 2021-08-25 Date Tested: 2021-08-25 Date Completed: 2021-08-30

ATTN:

Ms. Ivy Tam

1 of 1

Sample Description :

8 liquid samples as received from client said to be water

Laboratory No.

35598A

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.

WMA20002/210825

Sampling Date

2021-08-25

Tests Requested & Methodology:

Item	Parameters	Ref. Method	Limit of reporting
1	Total Suspended Solids	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.	35598-8	35598-9	35598-11	35598-12
Total Suspended Solids (mg/L)	12	12	5	5

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	35598-14	35598-15	35598-17	35598-18
Total Suspended Solids (mg/L)	13	14	8	8

Remarks: 1) \leq = less than

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



TEST REPORT

APPLICANT: Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T.

Report No.:	35603
Date of Issue:	2021-09-02
Date Received:	2021-08-27
Date Tested:	2021-08-27
Date Completed:	2021-09-02

ATTN:

Ms. Ivy Tam

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Sample Description :

4 liquid samples as received from client said to be water

Laboratory No. :

35603

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.

WMA20002/210827

Sampling Date

2021-08-27

Tests Requested & Methodology:

Item	Parameters	Ref. Method	Limit of reporting
1	Total Suspended Solids	APHA 17ed 2540 D	2.5 mg/L
2	Arsenic	In-house method SOP022 (ICP-AES) and SOP076 (ICP-MS)	1 μg/L

Results:

Nesuits.				T
Sample ID	SYR-CS1-a	SYR-CS1-b	SYR-IS1-a	SYR-IS1-b
Sample No.	35603-2	35603-3	35603-5	35603-6
Total Suspended Solids (mg/L)	9	9	37	31
Arsenic (μg/L)	11	12	6	6

Remarks: 1) <= less than

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



TEST REPORT

APPLICANT: Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T.

 Report No.:
 35603A

 Date of Issue:
 2021-09-02

 Date Received:
 2021-08-27

 Date Tested:
 2021-08-27

 Date Completed:
 2021-09-02

 Page:
 1 of 1

ATTN:

Ms. Ivy Tam

Sample Description: 8 liquid samples as received from client said to be water

Laboratory No. : 35603A 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. : WMA20002/210827

Sampling Date : 2021-08-27

Tests Requested & Methodology:

Item	Parameters	Ref. Method	Limit of reporting
1	Total Suspended Solids	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.	35603-8	35603-9	35603-11	35603-12
Total Suspended Solids (mg/L)	26	25	8	8

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	35603-14	35603-15	35603-17	35603-18
Total Suspended Solids (mg/L)	28	27	19	16

Remarks: $1) \le 1$ less than

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



TEST REPORT

APPLICANT:

Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T.

Report No.:	35625
Date of Issue:	2021-09-02
Date Received:	2021-08-30
Date Tested:	2021-08-30
Date Completed:	2021-09-02

1 of 1

ATTN:

Ms. Ivy Tam

4 liquid samples as received from client said to be water

Sample Description : Laboratory No. :

35625

Project No.

WMA20002

Project Name :

Contract No. NDO 04/2019

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

Page:

Development Areas

Custody No. :

WMA20002/210830

Sampling Date :

2021-08-30

Tests Requested & Methodology:

Item	Parameters	Ref. Method	Limit of reporting
1	Total Suspended Solids	APHA 17ed 2540 D	2.5 mg/L
2	Arsenic	In-house method SOP022 (ICP-AES) and SOP076 (ICP-MS)	l μg/L

Results:

ACOUNT.				
Sample ID	SYR-CS1-a	SYR-CS1-b	SYR-IS1-a	SYR-IS1-b
Sample No.	35625-2	35625-3	35625-5	35625-6
Total Suspended Solids (mg/L)	9	9	14	12
Arsenic (μg/L)	13	14	16	16

Remarks: 1) \leq = less than

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



TEST REPORT

APPLICANT: Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T.

 Report No.:
 35625A

 Date of Issue:
 2021-09-02

 Date Received:
 2021-08-30

 Date Tested:
 2021-08-30

 Date Completed:
 2021-09-02

1 of 1

ATTN:

Ms. Ivy Tam

Page:

Sample Description : 8 liquid samples as received from client said to be water

Laboratory No. : 35625A 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. : WMA20002/210830

Sampling Date: 2021-08-30

Tests Requested & Methodology:

Item	Parameters	Ref. Method	Limit of reporting
1	Total Suspended Solids	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.	35625-8	35625-9	35625-11	35625-12
Total Suspended Solids (mg/L)	15	16	6	5

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	35625-14	35625-15	35625-17	35625-18
Total Suspended Solids (mg/L)	16	18	16	15

Remarks: $1) \le less than$

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

APPENDIX I QUALITY CONTROL REPORTS FOR SS AND ARSENIC LABORATORY ANALYSIS



TEST REPORT

APPLICANT:

Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T.

Report No.:	QC35513
Date of Issue:	2021-08-09
Date Received:	2021-08-03
Date Tested:	2021-08-03
Date Completed:	2021-08-09

ATTN:

Ms. Ivy Tam

Ivy Tam

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QC report

Method Diank			
Parameter	Method Blank 1	Method Blank 2	Acceptance
Total Suspended Solids (mg/L)	<0.5	<0.5	< 0.5
Arsenic (μg/L)	<0.2	N/A	< 0.2

Method QC

Parameter	MQC1	MQC2	Acceptance
Total Suspended Solids (%)	98	100	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 (%)	94	N/A	80-120

Sample Duplicate

Sample Dupileate			
Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	1	2	RPD≤5%
Arsenic (%)	7	N/A	RPD<20%

Remarks: 1) \leq = less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 35513.

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



TEST REPORT

APPLICANT:

Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T.

Report No.:	QC35522
Date of Issue:	2021-08-11
Date Received:	2021-08-05
Date Tested:	2021-08-05
Date Completed:	2021-08-11

ATTN:

Ms. Ivy Tam

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 (%)	100	106	80-120
Arsenic (%)	103	N/A	80-120

Sample Spike

Parameter	Sample Spike 1	Sample Spike 2	Acceptance
Total Suspended Solids (%)	N/A	N/A	N/A
Arsenic (%)	104	N/A	80-120

Sample Duplicate

Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	2	3	RPD≤5%
Arsenic (%)	1	N/A	RPD≤20%

Remarks: 1) \leq = less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 35522.

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



TEST REPORT

APPLICANT:

Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T.

Report No.:	QC35527
Date of Issue:	2021-08-10
Date Received:	2021-08-07
Date Tested:	2021-08-07
Date Completed:	2021-08-10

ATTN:

Ms. Ivy Tam

Page:

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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 (%)	103	102	80-120
Arsenic (%)	100	N/A	80-120

Sample Spike

Parameter	Sample Spike 1	Sample Spike 2	Acceptance
Total Suspended Solids (%)	N/A	N/A	N/A
Arsenic (%)	95	N/A	80-120

Sample Duplicate

Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	2	3	RPD≤5%
Arsenic (%)	1	N/A	RPD≤20%

Remarks: 1) <= less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 35527.

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



TEST REPORT

APPLICANT: Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T.

Report No.:	QC35537
Date of Issue:	2021-08-13
Date Received:	2021-08-09
Date Tested:	2021-08-09
Date Completed:	2021-08-13

Page:

1 of 1

ATTN:

Ms. Ivy Tam

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 (%)	97	95	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 (%)	95	N/A	80-120

Sample Duplicate

Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	3	5	RPD≤5%
Arsenic (%)	13	N/A	RPD≤20%

Remarks: 1) \leq = less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 35537.

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



TEST REPORT

APPLICANT: Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T. Date Received:
Date Tested:
Date Completed

Date of Issue:

Report No.:

QC35550 2021-08-17 2021-08-11 2021-08-11

Date Completed: 2021-08-17
Page: 1 of 1

ATTN:

Ms. Ivy Tam

QC report Method Blank

111CHIOU DIMIK			
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	104	80-120
Arsenic (%)	107	N/A	80-120

Sample Spike

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

Sample Duplicate

Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	1	2	RPD≤5%
Arsenic (%)	1	N/A	RPD≤20%

Remarks: 1) < = less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 35550.

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



TEST REPORT

Wellab Limited (EM&A Department) APPLICANT:

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T.

QC35554
2021-08-17
2021-08-13
2021-08-13
2021-08-17

Page:

1 of 1

ATTN: QC report Ms. Ivy Tam

Method Blank

MICHOU DIAMA			
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 (%)	100	103	80-120
Arsenic (%)	97	N/A	80-120

Sample Spike

Parameter	Sample Spike 1	Sample Spike 2	Acceptance
Total Suspended Solids (%)	N/A	N/A	N/A
Arsenic (%)	95	N/A	80-120

Sample Duplicate

Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	1	1	RPD≤5%
Arsenic (%)	6	N/A	RPD≤20%

Remarks: 1) <= less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 35554.

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



TEST REPORT

APPLICANT:

Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T.

 Report No.:
 QC35565

 Date of Issue:
 2021-08-20

 Date Received:
 2021-08-16

 Date Tested:
 2021-08-16

 Date Completed:
 2021-08-20

1 of 1

Page:

ATTN:

Ms. Ivy Tam

QC report Method Blank

THE CHICA DIMINA			
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 OC

Parameter	MQC1	MQC2	Acceptance
Total Suspended Solids (%)	97	99	80-120
Arsenic (%)	108	N/A	80-120

Sample Spike

Parameter	Sample Spike 1	Sample Spike 2	Acceptance
Total Suspended Solids (%)	N/A	N/A	N/A
Arsenic (%)	86	N/A	80-120

Sample Duplicate

Sample Duplicate			
Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	1	3	RPD≤5%
Arsenic (%)	13	N/A	RPD≤20%

Remarks: 1) \leq less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 35565.

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



TEST REPORT

APPLICANT:

Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T.

Report No.:	QC35570
Date of Issue:	2021-08-24
Date Received:	2021-08-18
Date Tested:	2021-08-18
Date Completed:	2021-08-24

ATTN:

Ms. Ivy Tam

Page:

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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	102	80-120
Arsenic (%)	108	N/A	80-120

Sample Spike

Parameter	Sample Spike 1	Sample Spike 2	Acceptance
Total Suspended Solids (%)	N/A	N/A	N/A
Arsenic (%)	105	N/A	80-120

Sample Duplicate

Sample Dupmente			
Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	1	4	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 35570.

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



TEST REPORT

APPLICANT:

Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T.

Report No.:	QC35580
Date of Issue:	2021-08-26
Date Received:	2021-08-20
Date Tested:	2021-08-20
Date Completed:	2021-08-26

Page:

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ATTN:

Ms. Ivy Tam

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 OC

Parameter	MQC1	MQC2	Acceptance
Total Suspended Solids (%)	104	102	80-120
Arsenic (%)	96	N/A	80-120

Sample Spike

Parameter	Sample Spike 1	Sample Spike 2	Acceptance
Total Suspended Solids (%)	N/A	N/A	N/A
Arsenic (%)	101	N/A	80-120

Sample Duplicate

Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	2	3	RPD≤5%
Arsenic (%)	8	N/A	RPD≤20%

Remarks: 1) <= less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 35580.

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



TEST REPORT

APPLICANT:

Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T.

 Report No.:
 QC35590

 Date of Issue:
 2021-08-27

 Date Received:
 2021-08-23

 Date Tested:
 2021-08-23

 Date Completed:
 2021-08-27

ATTN:

Ms. Ivy Tam

Page:

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QC report Method Blank

2,2002011 22111111			
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 OC

Parameter	MQC1	MQC2	Acceptance
Total Suspended Solids (%)	104	100	80-120
Arsenic (%)	104	N/A	80-120

Sample Spike

Parameter	Sample Spike 1	Sample Spike 2	Acceptance
Total Suspended Solids (%)	N/A	N/A	N/A
Arsenic (%)	106	N/A	80-120

Sample Duplicate

Sample Dapheate			
Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	3	1	RPD≤5%
Arsenic (%)	6	N/A	RPD≤20%

Remarks: 1) \leq less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 35590.

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



TEST REPORT

APPLICANT:

Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T.

Report No.:	QC35598
Date of Issue:	2021-08-30
Date Received:	2021-08-25
Date Tested:	2021-08-25
Date Completed:	2021-08-30

ATTN:

Ms. Ivy Tam

Page:

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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 QCParameterMQC1Total Suspended Solids (%)107

 MQC1
 MQC2
 Acceptance

 107
 105
 80-120

 103
 N/A
 80-120

Arsenic (%)
Sample Spike

Parameter	Sample Spike 1	Sample Spike 2	Acceptance
Total Suspended Solids (%)	N/A	N/A	N/A
Arsenic (%)	108	N/A	80-120

Sample Duplicate

Dampie Dupiteate			
Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	1	2	RPD≤5%
Arsenic (%)	9	N/A	RPD≤20%

Remarks: 1) \leq = less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 35598.

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



TEST REPORT

APPLICANT:

Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T.

 Report No.:
 QC35603

 Date of Issue:
 2021-09-02

 Date Received:
 2021-08-27

 Date Tested:
 2021-08-27

 Date Completed:
 2021-09-02

ATTN:

Ms. Ivy Tam

Page:

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QC report Method Blank

TRUTTOU DIMININ			
Parameter	Method Blank 1	Method Blank 2	Acceptance
Total Suspended Solids (mg/L)	< 0.5	<0.5	<0.5
Arsenic (µg/L)	<0.2	N/A	<0.2

Method QC

Parameter	MQC1	MQC2	Acceptance
Total Suspended Solids (%)	107	107	80-120
Arsenic (%)	108	N/A	80-120

Sample Spike

Parameter	Sample Spike 1	Sample Spike 2	Acceptance
Total Suspended Solids (%)	N/A	N/A	N/A
Arsenic (%)	115	N/A	80-120

Sample Duplicate

Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	0	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 35603.

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



TEST REPORT

APPLICANT:

Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T.

Report No.:	QC35625
Date of Issue:	2021-09-03
Date Received:	2021-08-30
Date Tested:	2021-08-30
Date Completed:	2021-09-03

ATTN:

Ms. Ivy Tam

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 (%)	100	97	80-120
Arsenic (%)	1	N/A	80-120

Sample Spike

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

Sample Duplicate

Sample Duplicate			
Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	4	1	RPD≤5%
Arsenic (%)	5	N/A	RPD<20%

Remarks: 1) \leq less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 35625.

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

APPENDIX J LANDFILL GAS MONITORING RESULTS



Contract No. ND/2019/01

Development of Kwu Tung North & Fanling North New Development Area, Phase 1: Kwu Tung North New Development Area, Phase 1: Site formation & Infrastucture works

堆填區附近區域(Consultation Zone)每月氣體監察記錄

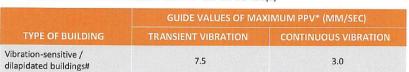
			氧氣 O2	甲烷 CH4	二氧化碳 CO2
日期及時間	位置	氣體及安全標 準	>19%	<10% LEL	<0.5%
20-08-2021 10:28	CZ PT 1		20.67	0.02	0.00
20-08-2021 10:40	CZ container 1		20.00	0.08	0.00
20-08-2021 10:34	CZ container 2		20.21	0.05	0.00
20-08-2021 10:36	CZ container 3		20.21	0.04	0.00
20-08-2021 10:38	CZ container 4		20.27	0.05	0.00
20-08-2021 10:48	CZ container 5		19.83	0.03	0.00

Prepared by: Y L Chan (Safety Officer) Date: 20-08-2021

APPENDIX K BUILT HERITAGE MONITORING RESULTS

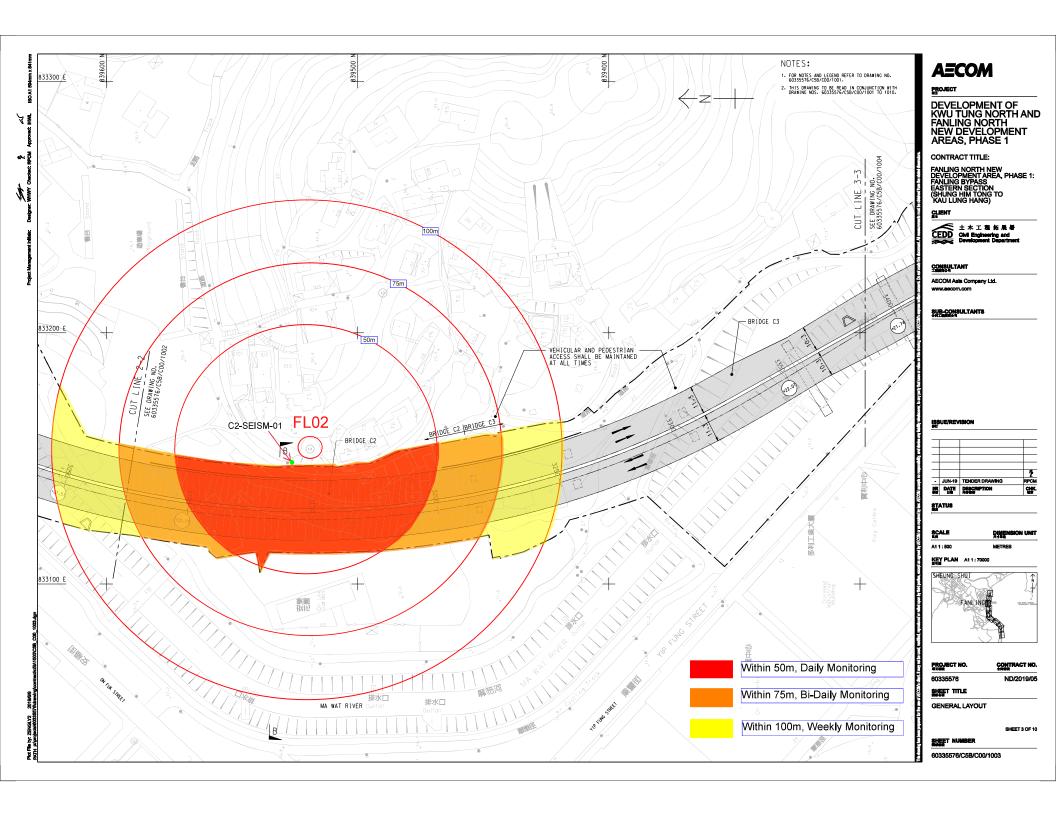
Summary of vibration readings at FL02 (C2-SEISM-01)







Date	Max. PPV recorded (mm/s)	Serial no. of device (Micromate/ Supergraph)
02 Aug 2021	0.076	UM17124
03 Aug 2021	0.594	UM17126
04 Aug 2021	0.090	UM17124
05 Aug 2021	0.326	UM17126
06 Aug 2021	0.234	UM17124
07 Aug 2021	0.070	UM17124
09 Aug 2021	0.750	UM17124
10 Aug 2021	0.304	UM17126
11 Aug 2021	0.277	UM17124
12 Aug 2021	0.252	UM17124
13 Aug 2021	0.364	UM17126
14 Aug 2021	0.100	UM17126
16 Aug 2021	0.070	UM17121
17 Aug 2021	0.087	UM17121
18 Aug 2021	0.103	UM17126
19 Aug 2021	0.056	UM17124
20 Aug 2021	0.085	UM17124
21 Aug 2021	0.065	UM17124
23 Aug 2021	0.072	UM17121
24 Aug 2021	0.078	UM17121
25 Aug 2021	0.068	UM17126
26 Aug 2021	0.665	UM17121
27 Aug 2021	0.293	UM17124
28 Aug 2021	0.189	UM17124
30 Aug 2021	0.448	UM17126
31 Aug 2021	0.207	UM17124



APPENDIX L ECOLOGICAL MONITORING RESULTS

Appendix L1a. Avifauna Species Recorded for Water Birds Monitoring, 5 & 6 August 2021, High Tide

		Chinese			Date					5/8/20	5/8/2021 (T1 & T2), 6/8/2021 (T3 & T5)			
						Weather Condition					Overcast, Overcast			
					Tidal Condition					High				
			Hong Kong	Conservation	Tide		Tide Level (m)				2.22, 2.47			
Common Name	Species Name	Name	Status Status	Status	Start Time					09:00, 09:00				
					Abundance									
					Tran					sect Walk				
					T4 T2 T		TT2			T5				
					11	T1 T2	Т3	WAL	DAL	SWH	P	Heard	Flight	
Asian Koel	Eudynamys scolopaceus	噪鵑	R		1	2								
Barn Swallow	Hirundo rustica	家燕	PM, Sv			3							3	
Black Kite	Milvus migrans	黑鳶	R, WV	(RC), Cap.586									1	
Black-crowned Night Heron	Nycticorax nycticorax	夜鷺	R, WV	LC			1							
Black-collared Starling	Gracupica nigricollis	黑領椋鳥	R		2	4	1		1					
Black-winged Stilt	Himantopus himantopus	黑翅長腳鷸	PM	RC						22				
Chestnut Munia	Lonchura atricapilla	栗腹文鳥	R						4					
Chinese Bulbul	Pycnonotus sinensis	白頭鵯	R			2			2					
Chinese Pond Heron	Ardeola bacchus	池鷺	R	PRC(RC)	6	4	6			1			3	
Common Kingfisher	Alcedo atthis	普通翠鳥	R				2							
Common Myna	Acridotheres tristis	家八哥	UR				11		2					
Common Sandpiper	Actitis hypoleucos	磯鷸	WV, PM							2				
Common Tailorbird	Orthotomus sutorius	長尾縫葉鶯	R						1					
Crested Myna	Acridotheres cristatellus	八哥	R		9	4	5		12				3	
Rock Dove	Columba livia	原鴿	R			2			15					

Common Name		Chinese Name	H V		Date					5/8/20	5/8/2021 (T1 & T2), 6/8/2021 (T3 & T5) Overcast, Overcast			
						Weather Condition								
						Tidal Condition				High				
				Conservation Status	Tide Level (m)				2.22, 2.47					
	Species Name		Status		Start Time						09:00, 09:00			
					Abundance									
						Tran				sect Walk				
					T1 T2	ТЭ	T2 T2	T:						
						Т3	WAL	DAL	SWH	P	Heard	Flight		
Eurasian Tree Sparrow	Passer montanus	樹麻雀	R		2	5	8		9					
Great Egret	Ardea alba	大白鷺	R, WV	PRC(RC)	1	2	1			3			1	
Grey Heron	Ardea cinerea	蒼鷺	WV	PRC			1							
Green Sandpiper	Tringa ochropus	白腰草鷸	UPM, WV							4				
Little Egret	Egretta garzetta	小白鷺	R	PRC(RC)	3	2	21	1	2	22			1	
Oriental Magpie	Pica serica	喜鵲	R										1	
Long-tailed Shrike	Lanius schach	棕背伯勞	R						2					
Oriental Magpie Robin	Copsychus saularis	鵲鴝	R				1		2					
Black-throated Laughingthrush	Pterorhinus perspicillatus	黑臉噪鶥	R				2		5					
Pied Kingfisher	Ceryle rudis	斑魚狗	UR	(LC)			2						1	
Plain Prinia	Prinia inornata	純色鷦鶯	R						5					
Spotted Dove	Streptopelia chinensis	珠頸斑鳩	R		4	5	2		6					
Spotted Munia	Lonchura punctulata	斑文鳥	R						80					
White-breasted Waterhen	Amaurornis phoenicurus	白胸苦惡鳥	R						2	3				
White-headed Munia	Lonchura maja	白頭文鳥	R						5					
Wood Sandpiper	Tringa glareola	林鷸	WV, PM	LC						10				

Common Name	Species Name					Date				5/8/20	021 (T1	& T2), 6/ & T5)	8/2021 (T3
					Weather Condition Tidal Condition Tide Level (m)			Overcast, Overcast					
			Hong Kong Status					High					
		Chinese		Concernation				2.22, 2.47					
		Name		Status	Start Time				09:00, 09:00				
					Ab					oundance			
					Trans				sect Walk				
					T1 T2 T3	т2	22		T5				
						12	13	WAL	DAL	SWH	P	Heard	Flight
White-throated Kingfisher	Halcyon smyrnensis	白胸翡翠	R	(LC)					1				
White Wagtail	Motacilla alba	白鶺鴒	PM, WV		1				4	3			1
Yellow-bellied Prinia	Prinia flaviventris	黄腹鷦鶯	R									2	
Total No. of Species						11	14	2	19	9	0	1	9
Total No. of Conservation Interest Species						3	6	2	2	5	0	0	5
Note:										_			

Common Name					Date	5/8/2021 (T1 & T2), 6/8/2021 (T3 & T5)					
					Weather Condition	Overcast, Overcast					
					Tidal Condition	High					
	Species Name	Chinese	Hong Kong	Conservation	Tide Level (m)	2.22, 2.47					
		Name		Status	Start Time	09:00, 09:00					
					Abundance						
					Trans	sect Walk					
					T1 T2 T2	T5					
					T1 T2 T3 WAL DAL	SWH P Heard Flight					

R – Resident; RR - Rare resident; WV – Winter visitor; PM – Passage migrant; CPM - Common Passage Migrant; UPM – Uncommon passage migrant; SPM - Scarce passage migrant; CaM - Common autumn migrant; USV - Uncommon Summer visitor; SpM – Spring migrant; Sv – Summer Visitor; UR – Uncommon resident; SWV – Scarce winter visitor; CWV - Common Winter Visitor; M - Spring and Autumn Migrant

Status was decided according to AFCD biodiversity website (www.hkbiodiversity.net)

Cap. 170: All bird species are under protection of Wild Animals Protection Ordinance

Cap.586: Endangered Species of Animals and Plants Ordinance (Cap.586)

(CR): Rare in China Red Data Book Status

VU: Vulnerable in IUCN Red List Status

(VU): Vulnerable in China Red Data Book Status

NT: Near Threatened in IUCN Red List Status

CR: Critically Endangered in IUCN Red List Status

RC=Regional Concern; LC=Local Concern; PRC=Potential Regional Concern; GC=Global Concern. 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 August 2021, Low Tide

Appendix L1b. Avitauna Spe	The second of th			Just 2021, 110	<u>, 110</u>		D	ate		5/8/20	21 (T1 &	T2), 6/8 T5)	3/2021 (T3 &
						We	ather	Conditio	on	Clou		lrizzle, (drizzle	Cloudy with
						Ti	dal C	ondition	l			Low	
		Chinese	Hong Kong	Conservation		T	ide L	evel (m)			1	37, 1.29	
Common Name	Species Name	Name	Status	Status			Star	t Time			12:	00, 13:0	0
									A	bundanc	e		
									Tra	nsect Wa	alk		
											T5		
					T1	T2	Т3	WAL	DAL	SWH	P	Heard	Flight
Asian Koel	Eudynamys scolopaceus	噪鵑	R			1							-
Barn Swallow	Hirundo rustica	家燕	PM, Sv		2		2						6
Black-crowned Night Heron	Nycticorax nycticorax	夜鷺	R, WV	LC			2						
Black-collared Starling	Gracupica nigricollis	黑領椋鳥	R		6	4	1		8				5
Black-winged Stilt	Himantopus himantopus	黑翅長腳鷸	PM	RC						44			2
Chestnut Munia	Lonchura atricapilla	栗腹文鳥	R						3				
Chinese Bulbul	Pycnonotus sinensis	白頭鵯	R						2				1
Chinese Pond Heron	Ardeola bacchus	池鷺	R	PRC(RC)	5	5	5	2		9			5
Common Kingfisher	Alcedo atthis	普通翠鳥	R						1				
Common Myna	Acridotheres tristis	家八哥	UR						2				
Common Sandpiper	Actitis hypoleucos	磯鷸	WV, PM				2			3			
Crested Myna	Acridotheres cristatellus	八哥	R		8	1	10		30				20
Rock Dove	Columba livia	原鴿	R		4	2	4		3				
Eurasian Tree Sparrow	Passer montanus	樹麻雀	R		4	8	3		4				
Great Egret	Ardea alba	大白鷺	R, WV	PRC(RC)	2	2	6			5			

							D	ate		5/8/20	21 (T1 &	T2), 6/8 T5)	8/2021 (T3 &
						We	ather	Conditio	on	Clou		drizzle, (drizzle	Cloudy with
						Ti	dal C	ondition	l			Low	
~		Chinese	Hong Kong	Conservation		T	ide L	evel (m)			1.	37, 1.29	
Common Name	Species Name	Name	Status	Status			Star	t Time			12:	00, 13:0	0
									A	bundanc	e		
									Tra	nsect Wa	alk		
									T5				
					T1	T2	Т3	WAL	DAL	SWH	P	Heard	Flight
Greater Coucal	Centropus sinensis	褐翅鴉鵑	R	(VU)					1				
Grey Heron	Ardea cinerea	蒼鷺	WV	PRC			1						
Green Sandpiper	Tringa ochropus	白腰草鷸	UPM, WV							1			
House Swift	Apus nipalensis	小白腰雨燕	SpM, R										2
Japanese White-eye	Zosterops japonicus	暗綠繡眼鳥	R						1				
Little Egret	Egretta garzetta	小白鷺	R	PRC(RC)	6	5	22	4	2	34	2		4
Oriental Magpie	Pica serica	喜鵲	R							2			
Long-tailed Shrike	Lanius schach	棕背伯勞	R						1				1
Oriental Magpie Robin	Copsychus saularis	鵲鴝	R				2		3				
Black-throated Laughingthrush	Pterorhinus perspicillatus	黑臉噪鶥	R				2		6				3
Pied Kingfisher	Ceryle rudis	斑魚狗	UR	(LC)	1		1						2
Plain Prinia	Prinia inornata	純色鷦鶯	R						2				
Spotted Dove	Streptopelia chinensis	珠頸斑鳩	R		2	3	8						5
Spotted Munia	Lonchura punctulata	斑文鳥	R						20				12
White-breasted Waterhen	Amaurornis phoenicurus	白胸苦惡鳥	R				1			5			
Wood Sandpiper	Tringa glareola	林鷸	WV, PM	LC						14			2

							D	ate		5/8/20	21 (T1 &	T2), 6/8 T5)	8/2021 (T3 &
						Wea	ather	Conditio	on	Clou		lrizzle, (Irizzle	Cloudy with
						Ti	dal C	ondition	l			Low	
c v		Chinese	Hong Kong	Conservation		Ti	ide L	evel (m)			1	37, 1.29	
Common Name	Species Name	Name	Status	Status			Star	t Time			12:0	00, 13:0	0
									A	bundanc	e		
									Tra	nsect Wa	alk		
					TC1	то	T 2				T5		
					T1	T2	Т3	WAL	DAL	SWH	P	Heard	Flight
White-throated Kingfisher	Halcyon smyrnensis	白胸翡翠	R	(LC)	2	1	1		2				2
White Wagtail	Motacilla alba	白鶺鴒	PM, WV		3	2	2			3			2
Yellow-bellied Prinia	Prinia flaviventris	黄腹鷦鶯	R									4	
	ecies			12	11	18	2	17	10	1	1	16	
Т	Total No. of Conservation Interest Species							2	3	5	1	0	6
Note:							-	-		-	•	-	

					Date	5/8/2021 (T1 & T2), 6/8/2021 (T3 & T5)
					Weather Condition	Cloudy with drizzle, Cloudy with drizzle
Camman Nama				Tidal Condition	Low	
	Chinese	Hong Kong	Conservation	Tide Level (m)	1.37, 1.29	
Common Name	ommon Name – Name Name	Name	Status	Status	Start Time	12:00, 13:00
					Al	oundance
					Tra	nsect Walk
					T1 T2 T3	T5
					WAL DAL	SWH P Heard Flight

R – Resident; WV – Winter visitor; PM – Passage migrant; CPM - Common Passage Migrant; UPM – Uncommon passage migrant; SPM - Scarce passage migrant; CaM - Common autumn migrant; USV - Uncommon Summer visitor; SpM – Spring migrant; Sv – Summer Visitor; UR – Uncommon resident; SWV – Scarce winter visitor;

CWV - Common Winter Visitor; M - Spring and Autumn Migrant

Status was decided according to AFCD biodiversity website (www.hkbiodiversity.net)

Cap. 170: All bird species are under protection of Wild Animals Protection Ordinance

Cap.586: Endangered Species of Animals and Plants Ordinance (Cap.586)

(CR): Rare in China Red Data Book Status

VU: Vulnerable in IUCN Red List Status

(VU): Vulnerable in China Red Data Book Status

NT: Near Threatened in IUCN Red List Status

CR: Critically Endangered in IUCN Red List Status

RC=Regional Concern; LC=Local Concern; PRC=Potential Regional Concern; GC=Global Concern. 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

Appendix L1c. Avifauna Species Recorded for Water Birds Monitoring, 11 & 13 August 2021, High Tide

							Da	ate		13/8/20)21 (T1	& T2), 11/8 & T5)	/2021 (T3
						Wea	ther	Conditio	n		Overc	ast, Overcas	st
						Tie	dal C	ondition				High	
		Chinese	Hong Kong	Conservation		Ti	de Le	evel (m)			2	.34, 2.56	
Common Name	Species Name	Name	Status	Status			Start	Time			12	:00, 13:00	
									Ab	undance	e		
									Tran	sect Wa	lk		
					T1	T2	Т3				T5		
					11	12	13	WAL	DAL	SWH	P	Heard	Flight
Asian Koel	Eudynamys scolopaceus	噪鵑	R		1	1							
Barn Swallow	Hirundo rustica	家燕	PM, Sv		2	1	3						8
Black Kite	Milvus migrans	黑鳶	R, WV	(RC), Cap.586			1						
Black-collared Starling	Gracupica nigricollis	黑領椋鳥	R		3	1	5		8				9
Black-winged Stilt	Himantopus himantopus	黑翅長腳鷸	PM	RC						30			6
Chestnut Munia	Lonchura atricapilla	栗腹文鳥	R						6				3
Chinese Bulbul	Pycnonotus sinensis	白頭鵯	R						5				
Chinese Pond Heron	Ardeola bacchus	池鷺	R	PRC(RC)	4	4	10			8			5
Common Myna	Acridotheres tristis	家八哥	UR				2		4				
Common Sandpiper	Actitis hypoleucos	磯鷸	WV, PM				1			2			
Common Tailorbird	Orthotomus sutorius	長尾縫葉鶯	R						1				
Red-whiskered bulbul	Pycnonotus jocosus	紅耳鵯	R						2				
Crested Myna	Acridotheres cristatellus	八哥	R		5	9	2		21				26
Rock Dove	Columba livia	原鴿	R			2			4				2
Eurasian Tree Sparrow	Passer montanus	樹麻雀	R		2	3			6				3

							Da	ate		13/8/20	21 (T1	& T2), 11/8 & T5)	8/2021 (T3
						Wea	ther	Conditio	n		Overc	ast, Overca	ıst
						Tie	dal C	ondition				High	
		Chinese	Hong Kong	Conservation		Ti	de Le	evel (m)			2	.34, 2.56	
Common Name	Species Name	Name	Status Status	Status			Start	Time			12	:00, 13:00	
									At	oundance	;		
									Trar	sect Wa	lk		
					T1	T2	Т3				T5		
					11	12	13	WAL	DAL	SWH	P	Heard	Flight
Great Egret	Ardea alba	大白鷺	R, WV	PRC(RC)	2	1	3			4			1
Grey Heron	Ardea cinerea	蒼鷺	WV	PRC			2						1
Green Sandpiper	Tringa ochropus	白腰草鷸	UPM, WV							2			
Little Egret	Egretta garzetta	小白鷺	R	PRC(RC)	2	1	5	3	4	20			8
Oriental Magpie	Pica serica	喜鵲	R						1				
Long-tailed Shrike	Lanius schach	棕背伯勞	R						3				
Oriental Magpie Robin	Copsychus saularis	鵲鴝	R		1	2			4				3
Black-throated Laughingthrush	Pterorhinus perspicillatus	黑臉噪鶥	R				2		4				3
Pied Kingfisher	Ceryle rudis	斑魚狗	UR	(LC)			1						2
Plain Prinia	Prinia inornata	純色鷦鶯	R						2				
Spotted Dove	Streptopelia chinensis	珠頸斑鳩	R		8	4	3		2				3
Spotted Munia	Lonchura punctulata	斑文鳥	R						10				30
White-breasted Waterhen	Amaurornis phoenicurus	白胸苦惡鳥	R					1	2	2			
White-headed Munia	Lonchura maja	白頭文鳥	R						5				
Wood Sandpiper	Tringa glareola	林鷸	WV, PM	LC						6			
White-throated Kingfisher	Halcyon smyrnensis	白胸翡翠	R	(LC)			2		2				1

							Da	nte		13/8/20		& T2), 11/8/ & T5)	2021 (T3
						Wea	ther (Conditio	n		Overca	ast, Overcast	
						Tio	dal C	ondition				High	
		Chinese	Hong Kong	Conservation		Ti	de Le	evel (m)			2.	34, 2.56	
Common Name	Species Name	Name	Status	Status			Start	Time			12:	00, 13:00	
									Ab	undance)		
									Tran	sect Wa	lk		
					T1	T2	Т3				T5		
					11	12	13	WAL	DAL	SWH	P	Heard	Flight
White Wagtail	Motacilla alba	白鶺鴒	PM, WV		1	1	1			3			2
Yellow-bellied Prinia	Prinia flaviventris	黃腹鷦鶯	R				1					4	
	Total No. of Specie				11	12	16	2	20	9	0	1	18
	Total No. of Conservation Interest Species						7	1	2	5	0	0	7
Note:									•	•			•

Common Name Species Name				Da	ate	13/8/2021 (T1 & T2), 11/8 & T5)	3/2021 (T3	
				Weather	Condition	Ov	ercast, Overca	st	
				Tidal C	Condition		High		
	Chinese	Hong Kong	Conservation	Tide Le	evel (m)		2.34, 2.56		
	Name		Status	Start	t Time		12:00, 13:00		
						A	bundance		
						Tra	nsect Walk		
					T1 T2 T2		T5		
					T1 T2 T3	WAL DAL	SWH P	Heard	Flight

R – Resident; WV – Winter visitor; PM – Passage migrant; CPM - Common Passage Migrant; UPM – Uncommon passage migrant; SPM - Scarce passage migrant; CaM - Common autumn migrant; USV - Uncommon Summer visitor; SpM – Spring migrant; Sv – Summer Visitor; UR – Uncommon resident; SWV – Scarce winter visitor; CWV

- Common Winter Visitor; M - Spring and Autumn Migrant

Status was decided according to AFCD biodiversity website (www.hkbiodiversity.net)

Cap. 170: All bird species are under protection of Wild Animals Protection Ordinance

Cap.586: Endangered Species of Animals and Plants Ordinance (Cap.586)

(CR): Rare in China Red Data Book Status

VU: Vulnerable in IUCN Red List Status

(VU): Vulnerable in China Red Data Book Status

NT: Near Threatened in IUCN Red List Status

CR: Critically Endangered in IUCN Red List Status

RC=Regional Concern; LC=Local Concern; PRC=Potential Regional Concern; GC=Global Concern. 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

Appendix L1d. Avifauna Species Recorded for Water Birds Monitoring, 11 & 13 August 2021, Low Tide

							Da	ate		13/8/2		& T2), 11 & T5)	1/8/2021
						Wea	ather	Conditio	n	Cloud	,	izzle,Clo izzle	udy with
						Ti	dal C	ondition			L	LOW	
Common Name	Charing Name	Chinese	Hong Kong	Conservation		Ti	ide Le	evel (m)			0.8	4, 1.1	
Common Name	Species Name	Name	Status	Status			Start	Time			8:00	, 17:00	
									Abu	ındance			
									Trans	ect Wall	ζ.		
					T1 T2 T3				T5				
					11	12	13	WAL	DAL	SWH	P	Heard	Flight
Asian Koel	Eudynamys scolopaceus	噪鵑	R		1								
Barn Swallow	Hirundo rustica	家燕	PM, Sv			4	10						11
Black Kite	Milvus migrans	黑鳶	R, WV	(RC), Cap.586			2						1
Black-crowned Night Heron	Nycticorax nycticorax	夜鷺	R, WV	LC			2						
Black-collared Starling	Gracupica nigricollis	黑領椋鳥	R		6	1	2		11				5
Black-winged Stilt	Himantopus himantopus	黑翅長腳鷸	PM	RC						43			2
Chestnut Munia	Lonchura atricapilla	栗腹文鳥	R						2				8
Chinese Bulbul	Pycnonotus sinensis	白頭鵯	R				2		1				
Chinese Pond Heron	Ardeola bacchus	池鷺	R	PRC(RC)	5	5	12			9			3
Common Myna	Acridotheres tristis	家八哥	UR				4		2				2
Common Sandpiper	Actitis hypoleucos	磯鷸	WV, PM							4			
Crested Myna	Acridotheres cristatellus	八哥	R		2	4			10				13
Rock Dove	Columba livia	原鴿	R		1	1			2				3
Eurasian Tree Sparrow	Passer montanus	樹麻雀	R		2	2	1		3				2
Great Egret	Ardea alba	大白鷺	R, WV	PRC(RC)	3	3	4			6			2

							D	ate		13/8/2		1 & T2), 1 3 & T5)	1/8/2021
						We	ather	Conditio	n	Cloud		lrizzle,Clo Irizzle	oudy with
						Ti	dal C	ondition	_			Low	
Common Name	Carrier Name	Chinese	Hong Kong	Conservation		T	ide L	evel (m)			0	84, 1.1	
Common Name	Species Name	Name	Status	Status			Star	t Time			8:0	0, 17:00	
									Abu	ındance			
									Trans	ect Wall	ζ.		
					Т1	TO	тэ				T5		
			$\begin{array}{ c c c c c c c c c c c c c c c c c c c$				DAL	SWH	P	Heard	Flight		
Grey Heron	Ardea cinerea	蒼鷺	WV	PRC			1						2
Green Sandpiper	Tringa ochropus	白腰草鷸	UPM, WV							2			
Little Egret	Egretta garzetta	小白鷺	R	PRC(RC)	5	1	10	5	4	25			6
Long-tailed Shrike	Lanius schach	棕背伯勞	R						1				2
Oriental Magpie Robin	Copsychus saularis	鵲鴝	R						2				1
Black-throated Laughingthrush	Pterorhinus perspicillatus	黑臉噪鶥	R						2				
Pied Kingfisher	Ceryle rudis	斑魚狗	UR	(LC)									1
Plain Prinia	Prinia inornata	純色鷦鶯	R						1				
Spotted Dove	Streptopelia chinensis	珠頸斑鳩	R		6	5	2		4				3
Spotted Munia	Lonchura punctulata	斑文鳥	R						3				20
White-breasted Waterhen	Amaurornis phoenicurus	白胸苦惡鳥	R					2		1			
Wood Sandpiper	Tringa glareola	林鷸	WV, PM	LC						15			
White-throated Kingfisher	Halcyon smyrnensis	白胸翡翠	R	(LC)			1						1
White Wagtail	Motacilla alba	白鶺鴒	PM, WV				1			2			1
Yellow-bellied Prinia	Prinia flaviventris	黄腹鷦鶯	R				1					1	
	Total No. of Species							2	14	9	0	1	20

							Da	ate		13/8/2	•	& T2), 11 & T5)	1/8/2021
						Wea	ather (Conditio	n	Cloudy		izzle,Cloı izzle	udy with
						Ti	dal C	ondition			L	ow	
Common Nome	Cassina Nama	Chinese	Hong Kong	Conservation		Ti	de Le	evel (m)			0.8	4, 1.1	
Common Name	Species Name	Name		Status			Start	Time			8:00	, 17:00	
									Abu	ndance			
									Trans	ect Walk	(
					T1 T2 T2						T5		
					T1	T2	Т3	WAL	DAL	SWH	P	Heard	Flight
	Total No. of Conservation	Interest Specie	s		3	3	7	1	1	5	0	0	8
Note:R – Resident; WV – W	inter visitor; PM – Passage r	nigrant; CPM -	Common Pas	sage Migrant; U	PM –	Unco	mmo	n passag	ge migra	nt; SPM	- Scarce	passage	

					I	Date	13/8/2021 (T1 & T2), 11/8/2021 (T3 & T5)
Common Name Species Name					Weather	r Condition	Cloudy with drizzle, Cloudy with drizzle
					Tidal (Condition	Low
	Spacias Nama	Chinese	Hong Kong	Conservation	Tide I	Level (m)	0.84, 1.1
	Species Name	Name		Status	Sta	art Time	8:00, 17:00
						Abui	ndance
						Transe	ect Walk
					T1 T2 T3		T5
						WAL DAL	SWH P Heard Flight

migrant; CaM - Common autumn migrant; USV - Uncommon Summer visitor; SpM - Spring migrant; Sv - Summer Visitor; UR - Uncommon resident; SWV - Scarce winter visitor; CWV - Common Winter Visitor; M - Spring and Autumn MigrantStatus was decided according to AFCD biodiversity website (www.hkbiodiversity.net)Cap. 170: All bird species are under protection of Wild Animals Protection OrdinanceCap.586: Endangered Species of Animals and Plants Ordinance (Cap.586)(CR): Rare in China Red Data Book StatusVU: Vulnerable in IUCN Red List Status(VU): Vulnerable in China Red Data Book StatusNT: Near Threatened in IUCN Red List StatusCR: Critically Endangered in IUCN Red List StatusRC=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 LandDAL: Dry Agricultural LandSWH: Shallow Water HabitatP: Pond

Appendix L1e. Avifauna Species Recorded for Water Birds Monitoring, 19 & 20 August 2021, High Tide

							D	ate		19/8/20	•	& T2), 20/8 & T5)	3/2021 (T3
						Wea	ather	Condition	on		Clou	dy, Sunny	
						Ti	dal C	ondition				High	
		Chinese	Hong Kong	Conservation		Ti	de L	evel (m)			2.:	24, 2.58	
Common Name	Species Name	Name	Status	Status			Star	t Time			9:	00, 9:00	
									Al	oundance	e		
						L		ı	Trai	nsect Wa	ılk		
					T1	T2	Т3				T5		
					11	12	13	WAL	DAL	SWH	P	Heard	Flight
Asian Koel	Eudynamys scolopaceus	噪鵑	R		1	3							
Barn Swallow	Hirundo rustica	家燕	PM, Sv			5	4						1
Black Kite	Milvus migrans	黑鳶	R, WV	(RC), Cap.586			2						1
Black-collared Starling	Gracupica nigricollis	黑領椋鳥	R		5	5			1				4
Black-winged Stilt	Himantopus himantopus	黑翅長腳鷸	PM	RC						13			
Chinese Pond Heron	Ardeola bacchus	池鷺	R	PRC(RC)	2	5	2	4					
Common Myna	Acridotheres tristis	家八哥	UR				2		3				
Common Sandpiper	Actitis hypoleucos	磯鷸	WV, PM							1			
Common Tailorbird	Orthotomus sutorius	長尾縫葉鶯	R						2				
Red-whiskered bulbul	Pycnonotus jocosus	紅耳鵯	R		3				2				
Crested Myna	Acridotheres cristatellus	八哥	R		6	5	1		11				3
Rock Dove	Columba livia	原鴿	R		4	3			5				
Eastern Cattle Egret	Bubulcus coromandus	牛背鷺	R, PM	(LC)				1					
Eurasian Tree Sparrow	Passer montanus	樹麻雀	R		9	20	3		12				
Great Egret	Ardea alba	大白鷺	R, WV	PRC(RC)	2	4	2	1		4			1

							D	ate		19/8/2		& T2), 20/8 & T5)	8/2021 (T3
						We	ather	Condition	on		Clou	dy, Sunny	
						Ti	dal C	Condition	1			High	
		Chinese	Hong Kong	Conservation		T	ide L	evel (m)			2.	24, 2.58	
Common Name	Species Name	Name	Status	Status			Star	t Time			9:	00, 9:00	
									Al	oundanc	e		
									Tra	nsect Wa	alk		
					T1	T2	Т3				T5		
					11	12	13	WAL	DAL	SWH	P	Heard	Flight
Grey Heron	Ardea cinerea	蒼鷺	WV	PRC			1						
Japanese White-eye	Zosterops japonicus	暗綠繡眼鳥	R						1				
Little Egret	Egretta garzetta	小白鷺	R	PRC(RC)	3	5	6			15			1
Oriental Magpie	Pica serica	喜鵲	R										1
Long-tailed Shrike	Lanius schach	棕背伯勞	R						1				1
Oriental Magpie Robin	Copsychus saularis	鵲鴝	R			1			1				
Black-throated Laughingthrush	Pterorhinus perspicillatus	黑臉噪鶥	R						6				
Plain Prinia	Prinia inornata	純色鷦鶯	R						2				
Sooty-headed Bulbul	Pycnonotus aurigaster	白喉紅臀鵯	UR						3				
Spotted Dove	Streptopelia chinensis	珠頸斑鳩	R		6	8	5		2			2	
Spotted Munia	Lonchura punctulata	斑文鳥	R		8		4		20				5
White-breasted Waterhen	Amaurornis phoenicurus	白胸苦惡鳥	R					1		2			
White-headed Munia	Lonchura maja	白頭文鳥	R						6				
Wood Sandpiper	Tringa glareola	林鷸	WV, PM	LC						5			
White-throated Kingfisher	Halcyon smyrnensis	白胸翡翠	R	(LC)									2
White Wagtail	Motacilla alba	白鶺鴒	PM, WV		1								2

							D	ate		19/8/20	-	& T2), 20/8 & T5)	3/2021 (T3
						We	ather	Conditio	n		Clou	dy, Sunny	
						Ti	dal C	ondition	l			High	
		Chinese	Hong Kong	Conservation		T	ide L	evel (m)			2.2	24, 2.58	
Common Name	Species Name	Name	Status Status	Status			Star	t Time			9:0	00, 9:00	
									Al	oundanc	e		
									Trai	nsect Wa	alk		
					T1	T2	T3				T5		
					11	12	13	WAL	DAL	SWH	P	Heard	Flight
Yellow-bellied Prinia	Prinia flaviventris	黃腹鷦鶯	R									4	
	Total No. of Species							3	16	6	0	2	11
	Total No. of Conservation Interest Species							2	0	4	0	0	4
Note:R – Resident; WV –	Winter visitor; PM – Passa	ge migrant; CPM	I - Common Pa	ssage Migrant; U	PM –	Unco	ommo	n passag	ge migra	nt; SPM	I - Scarce	passage n	nigrant;

					Date	19/8/2021 (T1 & T2), 20/8/2021 (T3 & T5)
					Weather Condition	Cloudy, Sunny
Common Name					Tidal Condition	High
		Chinese	Hong Kong	Conservation	Tide Level (m)	2.24, 2.58
	Species Name	Name	Status	Status	Start Time	9:00, 9:00
					Ab	undance
					Tran	sect Walk
					T1 T2 T3	T5
					WAL DAL	SWH P Heard Flight

CaM - Common autumn migrant; USV - Uncommon Summer visitor; SpM – Spring migrant; Sv – Summer Visitor; UR – Uncommon resident; SWV – Scarce winter visitor; CWV - Common Winter Visitor; M - Spring and Autumn MigrantStatus was decided according to AFCD biodiversity website (www.hkbiodiversity.net)Cap. 170: All bird species are under protection of Wild Animals Protection OrdinanceCap.586: Endangered Species of Animals and Plants Ordinance (Cap.586)(CR): Rare in China Red Data Book StatusVU: Vulnerable in IUCN Red List Status(VU): Vulnerable in China Red Data Book StatusNT: Near Threatened in IUCN Red List StatusCR: Critically Endangered in IUCN Red List StatusRC=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 LandDAL: Dry Agricultural LandSWH: Shallow Water HabitatP: Pond

Appendix L1f. Avifauna Species Recorded for Water Birds Monitoring, 19 & 20 August 2021, Low Tide

								ate			(T	1 & T2), 2 3 & T5)	
						We	ather	Condition	on	Clo	oudy with	h drizzle,	Cloudy
						Ti	idal C	Condition	Į.			Low	
		Chinese	Hong Kong	Conservation		T	ide L	evel (m)			1.	15, 0.79	
Common Name	Species Name	Name	Status	Status			Star	t Time			12:0	00, 14:00	
									Abı	undance			
						L	L	ı.	Trans	sect Wal	lk		
					T1	T2	T3				T5		
					11	12	13	WAL	DAL	SWH	P	Heard	Flight
Asian Koel	Eudynamys scolopaceus	噪鵑	R		2	2							
Barn Swallow	Hirundo rustica	家燕	PM, Sv		5	4	5						8
Black-crowned Night Heron	Nycticorax nycticorax	夜鷺	R, WV	LC			4						
Black-collared Starling	Gracupica nigricollis	黑領椋鳥	R		4	2		3	4				7
Black-winged Stilt	Himantopus himantopus	黑翅長腳鷸	PM	RC						34			4
Chinese Bulbul	Pycnonotus sinensis	白頭鵯	R			3							
Chinese Pond Heron	Ardeola bacchus	池鷺	R	PRC(RC)	4	2	9	1	1	10			8
Common Myna	Acridotheres tristis	家八哥	UR				2						
Common Sandpiper	Actitis hypoleucos	磯鷸	WV, PM				1						
Crested Myna	Acridotheres cristatellus	八哥	R		5	2			22				30
Rock Dove	Columba livia	原鴿	R		2	2							
Eurasian Tree Sparrow	Passer montanus	樹麻雀	R		7	8			20				
Great Egret	Ardea alba	大白鷺	R, WV	PRC(RC)	3	3	6			1			
Grey Heron	Ardea cinerea	蒼鷺	WV	PRC									1
Japanese White-eye	Zosterops japonicus	暗綠繡眼鳥	R						1				

							D	ate		19/8/2		& T2), 2 3 & T5)	20/8/2021
						We	ather	Condition	on	Clo	oudy with	n drizzle,	Cloudy
						Ti	idal C	Condition	l			Low	
		Chinese	Hong Kong	Conservation		T	ide L	evel (m)			1.1	5, 0.79	
Common Name	Species Name	Name	Status Status	Status			Star	t Time			12:0	00, 14:00	
									Ab	undance			
									Tran	sect Wal	k		
					T1	T2	Т3				T5		
					11	12	13	WAL	DAL	SWH	P	Heard	Flight
Little Egret	Egretta garzetta	小白鷺	R	PRC(RC)	6	6	18	1	1	25			14
Little Ringed Plover	Charadrius dubius	金眶鴴	WV, PM	(LC)						1			
Oriental Magpie Robin	Copsychus saularis	鵲鴝	R		1	1	1		1				1
Black-throated Laughingthrush	Pterorhinus perspicillatus	黑臉噪鶥	R				6		20				3
Plain Prinia	Prinia inornata	純色鷦鶯	R						3				
Spotted Dove	Streptopelia chinensis	珠頸斑鳩	R		5	5			3				
Spotted Munia	Lonchura punctulata	斑文鳥	R						20				20
White-breasted Waterhen	Amaurornis phoenicurus	白胸苦惡鳥	R						1	4			
Wood Sandpiper	Tringa glareola	林鷸	WV, PM	LC						9			
White-throated Kingfisher	Halcyon smyrnensis	白胸翡翠	R	(LC)			1		1				
White Wagtail	Motacilla alba	白鶺鴒	PM, WV		1								
Yellow-bellied Prinia	Prinia flaviventris	黄腹鷦鶯	R				3						
	Total No. of Species						11	3	13	7	0	0	10
	Total No. of Conservation I	nterest Specie	es		3	3	5	2	3	6	0	0	4
Note:									•		,		

					Date	19/8/2021 (T1 & T2), 20/8/2021 (T3 & T5)
					Weather Condition	Cloudy with drizzle, Cloudy
					Tidal Condition	Low
Common Name		Chinese	Hong Kong	Conservation	Tide Level (m)	1.15, 0.79
	Species Name	Name	Status Status	Status	Start Time	12:00, 14:00
					Abu	ndance
					Transe	ect Walk
					T1 T2 T3	T5
					WAL DAL	SWH P Heard Flight

R – Resident; WV – Winter visitor; PM – Passage migrant; CPM - Common Passage Migrant; UPM – Uncommon passage migrant; SPM - Scarce passage migrant; CaM - Common autumn migrant; USV - Uncommon Summer visitor; SpM – Spring migrant; Sv – Summer Visitor; UR – Uncommon resident; SWV – Scarce winter visitor; CWV - Common Winter Visitor; M - Spring and Autumn Migrant

Status was decided according to AFCD biodiversity website (www.hkbiodiversity.net)

Cap. 170: All bird species are under protection of Wild Animals Protection Ordinance

Cap.586: Endangered Species of Animals and Plants Ordinance (Cap.586)

(CR): Rare in China Red Data Book Status

VU: Vulnerable in IUCN Red List Status

(VU): Vulnerable in China Red Data Book Status

NT: Near Threatened in IUCN Red List Status

CR: Critically Endangered in IUCN Red List Status

RC=Regional Concern; LC=Local Concern; PRC=Potential Regional Concern; GC=Global Concern. 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

Appendix L1g. Avifauna Species Recorded for Water Birds Monitoring, 26 & 27 August 2021, High Tide

							D	ate		26/8/	•	1 & T2), 3 & T5)	27/8/2021
						We	ather	Condition	on		Over	cast, Rair	ny
						Ti	dal C	ondition	1			High	
		Chinese	Hong Kong	Conservation		T	ide L	evel (m)			2.2	24, 2.29	
Common Name	Species Name	Name	Status	Status			Star	t Time			14:0	00, 13:00	
									At	oundance	;		
									Tran	isect Wa	lk		
					T1	T2	Т3				T5		
					11	12	13	WAL	DAL	SWH	P	Heard	Flight
Asian Koel	Eudynamys scolopaceus	噪鵑	R		1	1							
Barn Swallow	Hirundo rustica	家燕	PM, Sv			3	5						10
Black-collared Starling	Gracupica nigricollis	黑領椋鳥	R		5	1	2		5				
Black-winged Stilt	Himantopus himantopus	黑翅長腳鷸	PM	RC						40			7
Chinese Pond Heron	Ardeola bacchus	池鷺	R	PRC(RC)	1	2	3	3	1	5			10
Common Myna	Acridotheres tristis	家八哥	UR			1							
Common Sandpiper	Actitis hypoleucos	磯鷸	WV, PM				1			1			
Crested Myna	Acridotheres cristatellus	八哥	R		6	3	2		42				6
Rock Dove	Columba livia	原鴿	R		4	1			7				
Eurasian Tree Sparrow	Passer montanus	樹麻雀	R		3	2			10				
Great Egret	Ardea alba	大白鷺	R, WV	PRC(RC)	1	1	7			3			
Grey Heron	Ardea cinerea	蒼鷺	WV	PRC			1						
Green Sandpiper	Tringa ochropus	白腰草鷸	UPM, WV							2			
Little Egret	Egretta garzetta	小白鷺	R	PRC(RC)	3	3	6			33	3		9
Oriental Magpie	Pica serica	喜鵲	R					2					

							D	ate		26/8/		1 & T2), 2 3 & T5)	27/8/2021
						Wea	ather	Conditio	on		Overd	east, Rain	y
						Ti	dal C	ondition	1			High	
		Chinese	Hong Kong	Conservation		T	ide L	evel (m)			2.2	24, 2.29	
Common Name	Species Name	Name	Status Status	Status			Star	t Time			14:0	00, 13:00	
									Ab	undance	;		
									Tran	sect Wa	lk		
					TD 1	T-2	TT2				T5		
					T1	T2	Т3	WAL	DAL	SWH	P	Heard	Flight
Long-tailed Shrike	Lanius schach	棕背伯勞	R						2				
Oriental Magpie Robin	Copsychus saularis	鵲鴝	R						7				
Black-throated Laughingthrush	Pterorhinus perspicillatus	黑臉噪鶥	R				2						
Pied Kingfisher	Ceryle rudis	斑魚狗	UR	(LC)			1						
Plain Prinia	Prinia inornata	純色鷦鶯	R						1				
Spotted Dove	Streptopelia chinensis	珠頸斑鳩	R		5	5	4						5
Spotted Munia	Lonchura punctulata	斑文鳥	R										7
White-breasted Waterhen	Amaurornis phoenicurus	白胸苦惡鳥	R				1		2	1			
Wood Sandpiper	Tringa glareola	林鷸	WV, PM	LC						12			3
White-throated Kingfisher	Halcyon smyrnensis	白胸翡翠	R	(LC)	1		2						2
White Wagtail	Motacilla alba	白鶺鴒	PM, WV			1	1			2			5
Yellow-bellied Prinia	Prinia flaviventris	黃腹鷦鶯	R									1	
	Total No. of Species						14	2	9	9	1	1	10
	Total No. of Conservation	Interest Speci	ies		4	3	6	1	1	5	1	0	5
Note:											•		

					Date	26/8/2021 (T1 & T2), 27/8/2021 (T3 & T5)
					Weather Condition	Overcast, Rainy
					Tidal Condition	High
		Chinese	Hong Kong	Conservation	Tide Level (m)	2.24, 2.29
Common Name	Species Name	Name	Status Status	Status	Start Time	14:00, 13:00
					Abu	ndance
					Trans	ect Walk
					T1 T2 T3	T5
					WAL DAL	SWH P Heard Flight

R – Resident; WV – Winter visitor; PM – Passage migrant; CPM - Common Passage Migrant; UPM – Uncommon passage migrant; SPM - Scarce passage migrant; CaM - Common autumn migrant; USV - Uncommon Summer visitor; SpM – Spring migrant; Sv – Summer Visitor; UR – Uncommon resident; SWV – Scarce winter visitor;

CWV - Common Winter Visitor; M - Spring and Autumn Migrant

Status was decided according to AFCD biodiversity website (www.hkbiodiversity.net)

Cap. 170: All bird species are under protection of Wild Animals Protection Ordinance

Cap.586: Endangered Species of Animals and Plants Ordinance (Cap.586)

(CR): Rare in China Red Data Book Status

VU: Vulnerable in IUCN Red List Status

(VU): Vulnerable in China Red Data Book Status

NT: Near Threatened in IUCN Red List Status

CR: Critically Endangered in IUCN Red List Status

RC=Regional Concern; LC=Local Concern; PRC=Potential Regional Concern; GC=Global Concern. 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

Appendix L1h. Avifauna Species Recorded for Water Birds Monitoring, 26 & 27 August 2021, Low Tide

							D	ate		26/8/2		& T2), 27 & T5)	7/8/2021
						We	ather	Conditio	on		Overca	st, Rainy	
						Ti	dal C	ondition	l		L	ow	
		Chinese	Hong Kong	Conservation		T	ide L	evel (m)			1.24	, 1.38	
Common Name	Species Name	Name	Status	Status			Star	t Time			17:00	, 17:00	
									Abu	ndance			
							r		Trans	ect Walk	<u> </u>		
					T1	T2	Т3				T5		
					11	12	13	WAL	DAL	SWH	P	Heard	Flight
Barn Swallow	Hirundo rustica	家燕	PM, Sv		3	2	4						5
Black-crowned Night Heron	Nycticorax nycticorax	夜鷺	R, WV	LC			2						
Black-collared Starling	Gracupica nigricollis	黑領椋鳥	R		3	2			5	1			1
Black-winged Stilt	Himantopus himantopus	黑翅長腳鷸	PM	RC				5		28			13
Chinese Pond Heron	Ardeola bacchus	池鷺	R	PRC(RC)	2	4	1			2			1
Common Kingfisher	Alcedo atthis	普通翠鳥	R						1				
Common Sandpiper	Actitis hypoleucos	磯鷸	WV, PM				2						
Crested Myna	Acridotheres cristatellus	八哥	R		3	2			19				
Rock Dove	Columba livia	原鴿	R		4								
Eurasian Tree Sparrow	Passer montanus	樹麻雀	R		6	4							
Great Egret	Ardea alba	大白鷺	R, WV	PRC(RC)	2	3				2			
Grey Heron	Ardea cinerea	蒼鷺	WV	PRC			1						
Green Sandpiper	Tringa ochropus	白腰草鷸	UPM, WV							1			
House Swift	Apus nipalensis	小白腰雨燕	SpM, R			1							
Little Egret	Egretta garzetta	小白鷺	R	PRC(RC)	2	1	16		2	4			8

							D	ate		26/8/2		& T2), 27 & T5)	7/8/2021
						We	ather	Conditio	n		Overca	st, Rainy	
						Ti	dal C	ondition			L	ow	
		Chinese	Hong Kong	Conservation		T	ide L	evel (m)			1.24	, 1.38	
Common Name	Species Name	Name	Status	Status			Star	t Time			17:00), 17:00	
									Abu	ndance			
									Trans	ect Walk			
					T 1	TO	тэ				T5		
		吉姫 P			T1	T2	Т3	WAL	DAL	SWH	P	Heard	Flight
Oriental Magpie	Pica serica	喜鵲	R										4
Long-tailed Shrike	Lanius schach	棕背伯勞	R						1				1
Oriental Magpie Robin	Copsychus saularis	鵲鴝	R										1
Black-throated Laughingthrush	Pterorhinus perspicillatus	黑臉噪鶥	R										1
Pied Kingfisher	Ceryle rudis	斑魚狗	UR	(LC)	1								
Spotted Dove	Streptopelia chinensis	珠頸斑鳩	R		7	5							
Spotted Munia	Lonchura punctulata	斑文鳥	R										32
White-breasted Waterhen	Amaurornis phoenicurus	白胸苦惡鳥	R										1
Wood Sandpiper	Tringa glareola	林鷸	WV, PM	LC						5			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	1		3			3
Yellow-bellied Prinia	Prinia flaviventris	黃腹鷦鶯	R									1	
	Total No. of Species						6	2	5	8	0	1	12
	Total No. of Conservation Interest Species						4	1	1	5	0	0	4
Note:												•	

					Date	26/8/2021 (T1 & T2), 27/8/2021 (T3 & T5)
					Weather Condition	Overcast, Rainy
					Tidal Condition	Low
	Chinese	Hong Kong	Conservation	Tide Level (m)	1.24, 1.38	
Common Name Species	Species Name	Name	Status Status	Status	Start Time	17:00, 17:00
					Abı	ındance
					Trans	sect Walk
					T1 T2 T2	T5
					T1 T2 T3 WAL DAL	SWH P Heard Flight

R – Resident; WV – Winter visitor; PM – Passage migrant; CPM - Common Passage Migrant; UPM – Uncommon passage migrant; SPM - Scarce passage migrant; CaM - Common autumn migrant; USV - Uncommon Summer visitor; SpM – Spring migrant; Sv – Summer Visitor; UR – Uncommon resident; SWV – Scarce winter visitor;

CWV - Common Winter Visitor; M - Spring and Autumn Migrant

Status was decided according to AFCD biodiversity website (www.hkbiodiversity.net)

Cap. 170: All bird species are under protection of Wild Animals Protection Ordinance

Cap.586: Endangered Species of Animals and Plants Ordinance (Cap.586)

(CR): Rare in China Red Data Book Status

VU: Vulnerable in IUCN Red List Status

(VU): Vulnerable in China Red Data Book Status

NT: Near Threatened in IUCN Red List Status

CR: Critically Endangered in IUCN Red List Status

RC=Regional Concern; LC=Local Concern; PRC=Potential Regional Concern; GC=Global Concern. 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

Appendix L1i. Waterbirds Recorded in August 2021

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	T3: River bank, river bed	Common resident and winter visitor. Widely distributed in Hong Kong.
Black-winged Stilt	Himantopus himantopus	黑翅長腳鷸	RC	T5: Wet 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 Kingfisher	Alcedo atthis	普通翠鳥		T3: In flight T5: Dry Agricultural Land	Common passage migrant and winter visitor. Widely distributed in wetland habitat throughout Hong Kong.
Common Sandpiper	Actitis hypoleucos	石幾 喬烏		T3: River bed T5: Swallow Water Habitat	Common passage migrant and winter visitor. Widely distributed in wetland area throughout Hong Kong.
Eastern Cattle Egret	Bubulcus coromandus	牛背鷺	(LC)	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: Wet Agricultural Land, Shallow Water Habitat, In flight	Common resident and winter visitor. Widely distributed in Hong Kong.
Green Sandpiper	Tringa ochropus	白腰草鷸		T5: Shallow Water Habitat	Uncommon passage migrant and winter visitor. Found in Deep Bay area, Shuen Wan, Long Valley, Kam Tin, Shek Kong, Ho Chung.
Grey Heron	Ardea cinerea	蒼鷺	PRC	T3: River bed, In flight T5: In flight	Common winter visitor. Found in Deep Bay area, Starling Inlet, Kowloon Park, Cape 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	Common resident. Widely distributed in coastal area throughout Hong Kong.

Common Name	Species Name	Chinese Name	Conservation Status	Recorded habitat from the survey	Distribution in Hong Kong*
				Habitat, In flight	
Little Ringed Plover	Charadrius dubius	金眶鴴	(LC)	T5: Shallow Water Habitat	Common winter visitor and passage migrant. Widely distributed in freshwater areas throughout Hong Kong.
Pied Kingfisher	Ceryle rudis	斑魚狗	(LC)	T1: In flight T3: In flight T5: In flight	Uncommon resident. Widely distributed in lakes and ponds throughout Hong Kong.
White-breasted Waterhen	Amaurornis phoenicurus	白胸苦惡鳥		T3: River bank T5: Wet Agricultural Land, Dry Agricultural Land, Shallow Water Habitat, In flight	Common resident. Widely distributed in wetland throughout Hong Kong.
White-throated Kingfisher	Halcyon smyrnensis	白胸翡翠	(LC)	T1: River bank T2: River bank T3: River bank T5: Dry Agricultural Land, In flight	Common resident. Widely distributed in coastal areas throughout Hong Kong.
Wood Sandpiper	Tringa glareola	林鷸	LC	T5: 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*
		_ 1002220	20000		

Note:

 $R-Resident;\ RR-Rare\ resident,\ WV-Winter\ visitor;\ PM-Passage\ migrant;\ CPM-Common\ Passage\ Migrant;\ UPM-Uncommon\ passage\ migrant;\ SPM-Scarce\ passage\ migrant;\ CaM-Common\ autumn\ migrant;\ USV-Uncommon\ Summer\ visitor;\ SpM-Spring\ migrant;\ Sv-Summer\ Visitor;\ UR-Uncommon\ resident;\ SWV-Scarce\ winter\ visitor;\ CWV-Common\ Winter\ Visitor;\ M-Spring\ and\ Autumn\ Migrant$

Status was decided according to AFCD biodiversity website (www.hkbiodiversity.net)

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Cap.586: Endangered Species of Animals and Plants Ordinance (Cap.586)

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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

*Source: Hong Kong Biodiversity Database, AFCD (https://www.afcd.gov.hk/English/conservation/hkbiodiversity/database/search.php)

Appendix L1j. Birds Recorded in August 2021

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status
Asian Koel	Eudynamys scolopacea	噪鵑	R	
Barn Swallow	Hirundo rustica	家燕	PM, Sv	
Black Kite	Milvus migrans	黑鳶	R, WV	(RC), Cap.586
Black-crowned Night Heron	Nycticorax nycticorax	夜鷺	R, WV	LC
Black-collared Starling	Gracupica nigricollis	黑領椋鳥	R	
Black-winged Stilt	Himantopus himantopus	黑翅長腳鷸	PM	RC
Chestnut Munia	Lonchura atricapilla	栗腹文鳥	R	
Chinese Bulbul	Pycnonotus sinensis	白頭鵯	R	
Chinese Pond Heron	Ardeola bacchus	池鷺	R	PRC(RC)
Common Kingfisher	Alcedo atthis	普通翠鳥	R	
Common Myna	Acridotheres tristis	家八哥	UR	
Common Sandpiper	Actitis hypoleucos	磯鷸	WV, PM	
Common Tailorbird	Orthotomus sutorius	長尾縫葉鶯	R	
Red-whiskered bulbul	Pycnonotus jocosus	紅耳鵯	R	
Crested Myna	Acridotheres cristatellus	八哥	R	
Rock Dove	Columba livia	原鴿	R	
Eastern Cattle Egret	Bubulcus coromandus	牛背鷺	R, PM	(LC)
Eurasian Tree Sparrow	Passer montanus	樹麻雀	R	
Great Egret	Ardea alba	大白鷺	R, WV	PRC(RC)
Green Sandpiper	Tringa ochropus	白腰草鷸	UPM, WV	
Grey Heron	Ardea cinerea	蒼鷺	WV	PRC
	•		•	

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status
House Swift	Apus nipalensis	小白腰雨燕	SpM, R	
Japanese White-eye	Zosterops japonicus	暗綠繡眼鳥	R	
Little Egret	Egretta garzetta	小白鷺	R	PRC(RC)
Little Ringed Plover	Charadrius dubius	金眶鴴	WV, PM	(LC)
Long-tailed Shrike	Lanius schach	棕背伯勞	R	
Oriental Magpie	Pica serica	喜鵲	R	
Oriental Magpie Robin	Copsychus saularis	鵲鴝	R	
Black-throated Laughingthrush	Pterorhinus perspicillatus	黑臉噪鶥	R	
Pied Kingfisher	Ceryle rudis	斑魚狗	UR	(LC)
Plain Prinia	Prinia inornata	純色鷦鶯	R	
Sooty-headed Bulbul	Pycnonotus aurigaster	白喉紅臀鵯	UR	
Spotted Dove	Streptopelia chinensis	珠頸斑鳩	R	
Spotted Munia	Lonchura punctulata	斑文鳥	R	
White-breasted Waterhen	Amaurornis phoenicurus	白胸苦惡鳥	R	
White-headed Munia	Lonchura maja	白頭文鳥	R	
White-throated Kingfisher	Halcyon smyrnensis	白胸翡翠	R	(LC)
White Wagtail	Motacilla alba	白鶺鴒	PM, WV	
Wood Sandpiper	Tringa glareola	林鷸	WV, PM	LC
Yellow-bellied Prinia	Prinia flaviventris	黃腹鷦鶯	R	

Note:

R – Resident; RR - Rare resident, WV – Winter visitor; PM – Passage migrant; CPM - Common Passage Migrant; UPM – Uncommon passage migrant; SPM – Scarce passage migrant; CaM - Common autumn migrant; USV - Uncommon Summer visitor; SpM – Spring migrant; Sv – Summer Visitor; UR – Uncommon resident; SWV – Scarce winter visitor; CWV - Common Winter Visitor; M - Spring and Autumn Migrant

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status

Status was decided according to AFCD biodiversity website (www.hkbiodiversity.net)

Cap. 170: All bird species are under protection of Wild Animals Protection Ordinance

Cap.586: Endangered Species of Animals and Plants Ordinance (Cap.586)

(CR): Rare in China Red Data Book Status

VU: Vulnerable in IUCN Red List Status

(VU): Vulnerable in China Red Data Book Status

NT: Near Threatened in IUCN Red List Status

CR: Critically Endangered in IUCN Red List Status

RC=Regional Concern; LC=Local Concern; PRC=Potential Regional Concern; GC=Global Concern. 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

Appendix L2. Freshwater Macroinvertebrate Species Recorded for Aquatic Fauna Monitoring

				August 202								
		Conservation	Weather:	Sunny for	most of the	day, with t	hundery sh	ower				
Common Name	Scientific Name	Status	Methods:	Kick-netti	ng, sweep n	etting and	direct obser	vation				
		Status	Abundan	ce								
			MS_01	MS_02	MS_03	MS_04	MS_05	MS_06	MS_07	MS_08	MS_09	MS_10
Apple Snail	Pomacea canaliculata	-								++	++	++
Atyid Shrimp	Caridina sp.	-									+	
Bladder Snail	Physella acuta	-	+							+		
Blood Worm	Chironomidae	-										
Chinese River Snail	Sinotaia guangdungensis	-								+	+	+
Freshwater Snail	Radix plicatulus	-		+		+			+			
Golden Freshwater Clam	Corbicula fluminea	-								+		
Leech	Hirudinea	-								+		
Ram's Horn Snail	Gyraulus convexiusculus	-		+	+							
Red-rimmed Melania	Melanoides tuberculata	-								+		
River Snail	Sinotaia quadrata	-			+					+	+	+
Skimmer Dragonfly	Orthetrum sp	-				+		+		+		
Total No. of species	s		1	2	2	2	0	1	1	8	4	3
Total No. of Conse	rvation Interest Specie	es	0	0	0	0	0	0	0	0	0	0

Note:

^{+:} 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 L2. Freshwater Macroinvertebrate Species Recorded for Aquatic Fauna Monitoring

			Date: 12 August 2021 Weather: Sunny for most of the day, with thundery shower									
		Conservation										
Common Name	Scientific Name	Status			ng, sweep n	etting and o	direct obser	vation				
			Abundan		1	1			1	1	1	
			MS_11	MS_12	MS_13	MS_14	MS_15					
Apple Snail	Pomacea canaliculata	-		+	++	+	+					
Atyid Shrimp	Caridina sp.	-				+						
Bladder Snail	Physella acuta	-	+									
Blood Worm	Chironomidae	-				+						
Chinese River Snail	Sinotaia guangdungensis	-			+							
Freshwater Snail	Radix plicatulus	-	+				++					
Golden Freshwater Clam	Corbicula fluminea	-				+						
Leech	Hirudinea	-										
Ram's Horn Snail	Gyraulus convexiusculus	-		++								
Red-rimmed Melania	Melanoides tuberculata	-			+++	+						
River Snail	Sinotaia quadrata	-	++		+							
Skimmer Dragonfly	Orthetrum sp	-				+						
Total No. of specie	S		3	2	5	6	2					
Total No. of Conse	rvation Interest Specie	es	0	0	0	0	0					

Appendix L3. Freshwater Fish Species Recorded for Aquatic Fauna Monitoring

FF	vacci i isii species itee			August 202	1								
				Weather: Sunny for most of the day, with thundery shower									
Common Name	Scientific Name	Conservation Status	Methods:	Methods: Kick-netting, sweep netting and direct observation									
		Status	Abundand	Abundance									
			MS_01	MS_02	MS_03	MS_04	MS_05	MS_06	MS_07	MS_08	MS_09	MS_10	
Chinese Barb	Barbodes semifasciolatus	-				+			+				
Mosquito Fish	Gambusia affinis	-				++				+	+		
Nile Tilapia	Oreochromis niloticus	-						+	+				
Rose Bitterling	Rhodeus ocellatus	LC											
Total No. of species			0	0	0	2	0	1	2	1	1	0	
Total No. of Conse	Total No. of Conservation Interest Species		0	0	0	0	0	0	0	0	0	0	

Note:

LC: Local Concern (Fellowes et al., 2002)

^{+:} 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 L3. Freshwater Fish Species Recorded for Aquatic Fauna Monitoring

	•	•	Date: 12 A	Date: 12 August 2021								
		Componentian	Weather:	Weather: Sunny for most of the day, with thundery shower								
Common Name	Scientific Name	Conservation Status	Methods:	Methods: Kick-netting, sweep netting and direct observation								
		2.000	Abundand	Abundance								
			MS_11	MS_12	MS_13	MS_14	MS_15					
Chinese Barb	Barbodes semifasciolatus	-										
Mosquito Fish	Gambusia affinis	-			++							
Nile Tilapia	Oreochromis niloticus	-										
Rose Bitterling	Rhodeus ocellatus	LC			+							
Total No. of specie	S		0	0	2	0	0					
Total No. of Conservation Interest Species			0	0	1	0	0					

Note:

LC: Local Concern (Fellowes et al., 2002)

^{+:} 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, 10 & 17 August 2021

				9/	Date: 10/8/20	21, 17/8/2021			
Common	Species	Chinese	Local	Conservation	Relative Abu	ndance			
Name	Name	Name	Restrictedness	Status	Transect Wall	k			
					T1	T3	T4	Т5	Т6
Domestic Cat	Felis catus	野貓	Uncommon	-	+	+	+	+	
Domestic Dog	Canis lupus familiaris	野狗	Common	-	+	+	+	+	+
Japanese Pipistrelle	Pipistrellus abramus	東亞家蝠	Very Common	Cap. 170	+		+	+	
Short-nosed Fruit Bat	Cynopterus sphinx	短吻果蝠	Very Common	Cap. 170, I, NT	++	+	+		+
Total No. of specie	es				4	3	4	3	2
Total No. of Conservation Interest Species						1	2	1	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

I: Indeterminate in China Red Data Book Status

+: species recorded within transect routes

++: species commonly recorded within transect routes

+++: dominant species within transect routes

Appendix L5. Herpetofauna Species Recorded for Ecologically Sensitive Habitat Monitoring, 10 & 17 August 2021

				Date: 10/8/20	021, 17/8/2021			
Common Name	Canada Nama	Chinese	Conservation	Relative Abundance				
	Species Name	Name	Status	Transect Walk				
				T1	Т3	T4	T5	T6
Amphibian								
Asian Common Toad	Bufo melanostictus	黑眶蟾蜍	-	++	+	+	+	+
Asian Painted Frog	Kaloula pulchra	花狹口蛙	-	+	+		+	
Brown Tree Frog	Polypedates megacephalus	斑腿泛樹蛙	-	+			+	
Greenhouse Frog	Eleutherodactylus planirostris	溫室蟾		+	+			
Gunther's Frog	Hylarana guentheri	沼蛙	-	+		+	+	+
Spotted Narrow-mouthed Frog	Kalophrynus interlineatus	花細狹口蛙	NT	+				
Reptile								
Bowring's Gecko	Hemidactylus bowringii	原尾蜥虎	-	+	+	+	+	
Chinese gecko	Gekko chinensis	中國壁虎	-	+	+	+	+	
Long-tailed Skink	Eutropis longicaudata	長尾南蜥	-	+				+
Total No. of species				9	5	4	6	3
Total No. of Conservation I	nterest Species			1	0	0	0	0

Note:

NT: Near Threatened in the Red List of China's 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, 10 & 17 August 2021

					Date: 10/8/202	21, 17/8/2021			
		Chinese	Local	Conservation	Relative Abundance				
Common Name	Species Name	Name	Restrictedness	Status	Transect Walk				
					T1	T3	T4	T5	T6
Angled Castor	Ariadne ariadne	波蛺蝶	Common	-	+				+
Blue Admiral	Kaniska canace	琉璃蛺蝶	Common	-				+	
Blue Tiger	Tirumala limniace	青斑蝶	Common	-	+			+	
Blue-spotted Crow	Euploea midamus	藍點紫斑蝶	Very common	-	++	+		+	+
Chocolate Pansy	Junonia iphita	鉤翅眼蛺蝶	Common	-		+	+		
Colour Sergeant	Athyma nefte	相思帶蛺蝶	Common	-	+				
Common Bluebottle	Graphium sarpedon	青鳳蝶	Very common	-	+				
Common Evening Brown	Melanitis leda leda	暮眼蝶	Common	-				+	
Common Five-ring	Ypthima baldus	矍眼蝶	Very common	-	+	+	+		
Common Grass Yellow	Eurema hecabe	寬邊黃粉蝶	Very common	-	++	+	+	++	+
Common Mime	Chilasa clytia	斑鳳蝶	Common	-	+				
Common Mormon	Papilio polytes	玉帶鳳蝶	Very common	-	++	+	+	+	+
Common Palmfly	Elymnias hypermnestra	翠袖锯眼蝶	Common	-	+				
Common Sailer	Neptis hylas	中環蛺蝶	Very common	-	+		+	+	
Common Tiger	Danaus genutia	虎斑蝶	Common	-				+	
Dark Brand Bush Brown	Mycalesis mineus	小眉眼蝶	Very common	-	+		+	++	
Great Egg-fly	Hypolimnas bolina	幻紫斑蛺蝶	Common	-	++			+	++
Great Mormon	Papilio memnon	美鳳蝶	Very common	-	+		+		+

					Date: 10/8/20	21, 17/8/2021			
C N		Chinese	Local	Conservation	Relative Abundance				
Common Name	Species Name	Name	Restrictedness	Status	Transect Wall	ζ			
					T1	T3	T4	T5	Т6
Indian Cabbage White	Pieris canidia	東方菜粉蝶	Very common	-	+	+	+	+	+
Lemon Emigrant	Catopsilia pomona	遷粉蝶	Common	-	+		+		
Long-tailed Blue	Lampides boeticus	亮灰蝶	Common	-	+				
Pale Grass Blue	Pseudozizeeria maha	酢漿灰碟	Very common	-	++	+	+	+	+
Paris Peacock	Papilio paris	巴黎翠鳳蝶	Very common	-	+		+	+	
Plum Judy	Abisara echerius	蛇目褐蜆蝶	Very Common	-	+		+		+
Red Helen	Papilio Helenus	玉斑鳳蝶	Very Common	-	+				
Spangle	Papilio protenor	藍鳳蝶	Very Common	-	+		+	+	
Transparent 6-line Blue	Nacaduba kurava	古樓娜灰蝶	Common	-	+			+	
Total No. of species					23	7	13	15	9
Total No. of Conserv	ration Interest Species				0	0	0	0	0

Note:

+: species recorded within transect routes

++: species commonly recorded within transect routes

+++: dominant species within transect routes

Appendix L7. Odonata Species Recorded for Ecologically Sensitive Habitat Monitoring 10 & 17 August 2021

	Appendix L7. Odonata Species Recorded to					021, 17/8/202	1		
		Chinese	Local	Conservation	Relative Abu				
Common Name	Species Name	Name	Restrictedness	Status	Transect Walk				
					T1	T3	T4	T5	Т6
Asian Amberwing	Brachythemis contaminata	黄翅蜻	Abundant	-	+		+	+	
Blue Chaser	Potamarcha congener	濕地狹翅蜻	Common	LC	+				
Blue Percher	Diplacodes trivialis	紋藍小蜻	Abundant	-	+				
Common Bluetail	Ischnura senegalensis	褐斑異痣蟌	Abundant	-	+			+	
Common Flangetail	Ictinogomphus pertinax	霸王葉春蜓	Common	-	+			+	
Common Red Skimmer	Orthetrum pruinosum	赤褐灰蜻	Abundant	-	+		+	+	
Crimson Darter	Crocothemis servilia	紅蜻	Abundant	-	+	+	+		
Crimson Dropwing	Trithemis aurora	曉褐蜻	Abundant	-			+		+
Green Skimmer	Orthetrum sabina	狹腹灰蜻	Abundant	-	++		+		
Indigo Dropwing	Trithemis festiva	慶褐蜻	Abundant	-	+				
Pied Skimmer	Pseudothemis zonata	玉帶蜻	Common	-	+				
Red-faced Skimmer	Orthetrum chrysis	華麗灰蜻	Abundant	-	+		+		
Russet Percher	Neurothemis fulvia	網脈蜻	Common	-	+			+	
Saddlebag Glider	Tramea virginia	華斜痣蜻	Abundant	-	+				+
Variegated Flutterer	Rhyothemis variegata	斑麗翅蜻	Common	-	+		+	+	+
Wandering Glider	Pantala flavescens	黄蜻	Abundant	-	++	+	+	+	+
Yellow Featherlegs	Copera marginipes	黄狹扇蟌	Abundant		+				
Total No. of species					16	2	8	7	4
Total No. of Conserva	ation Interest Species				2	0	0	0	0

Note:

LC: Local Concern (Fellowes et al., 2002)

+: species recorded within transect routes

++: species commonly recorded within transect routes

+++: dominant species within transect routes

APPENDIX M WEATHER CONDITION

APPENDIX M – GENERAL WEATHER CONDITIONS DURING THE MONITORING PERIOD

Date	Mean Air Temperature (°C)	Mean Relative Humidity (%)	Precipitation (mm)
1 August2021	29.4	83	11.6
2 August2021	30.0	80	Trace
3 August2021	28.2	88	19.7
4 August2021	28.2	85	41.9
5 August2021	27.6	90	28.1
6 August2021	28.3	89	31.0
7 August2021	28.8	85	-
8 August2021	29.3	85	3.1
9 August2021	29.1	85	36.3
10 August2021	29.0	87	17.3
11 August2021	29.5	84	3.0
12 August2021	29.0	82	1.0
13 August2021	28.6	83	5.4
14 August2021	28.0	85	2.2
15 August2021	27.3	87	5.7

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Date	Mean Air Temperature (°C)	Mean Relative	Precipitation
		Humidity (%)	(mm)
16 August2021	28.3	83	3.9
17 August2021	29.5	78	-
18 August2021	29.5	77	-
19 August2021	28.6	84	34.6
20 August2021	29.5	77	Trace
21 August2021	29.8	76	-
22 August2021	30.1	74	-
23 August2021	30.2	75	Trace
24 August2021	29.6	79	23.7
25 August2021	29.7	79	1.1
26 August2021	29.7	80	2.2
27 August2021	25.6	89	29.3
28 August2021	26.9	81	22.0
29 August2021	27.8	83	13.9
30 August2021	29.1	81	Trace
31 August2021	27.3	88	13.5

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

APPENDIX N EVENT ACTION PLANS

Appendix N:

Table N-1: Event / Action Plan for Air Quality

		ACTIO	N	
EVENT	ET	IEC	ER	CONTRACTOR
ACTION LEVE	L			
1. Exceedance for one sample	 Identify source, investigate the causes of exceedance and propose remedial measures; Inform IEC,ER and Contractor; Repeat measurement to confirm finding; and Increase monitoring frequency to daily. 	 Check monitoring data submitted by ET; Check Contractor's working method; and 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	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	 Check monitoring data submitted by ET; Check Contractor's working method; Discuss with ET and Contractor on possible remedial measures; Advise the ET and ER on the effectiveness of the proposed remedial measures; and Supervise 	 Confirm receipt of notification of failure in writing; Notify Contractor; and 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;	Implementation of		agreed proposals;
	5. Increase monitoring	remedial measures.		and
	frequency to daily;			4. Amend proposal if
	6. Discuss with IEC,			appropriate.
	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.			
LIMIT LEVEI				
		I	I	I
1.Exceedance	Identify source,	1. Check monitoring	1. Confirm receipt of	1. Identify source,
for one	investigate the causes	data submitted by	notification of failure	investigate the cause
sample	of exceedance and	ET;	in writing;	of exceedance and
	propose remedial	2. Check	2. Notify Contractor;	propose remedial
	measures;	Contractor's	and	measures;
	2. Inform ER, Contractor,	working method;	3. Supervise and ensure	2. Take immediate action
	IEC and EPD;	3. Discuss with ET,	remedial measures	to avoid
	3. Repeat measurement to	ER and Contractor	properly	further exceedance;
	confirm finding;	on possible	implemented.	3. Submit proposals for
	4. Increase monitoring	remedial		remedial actions to E
	frequency to daily;	measures;		with a copy to ET
	5. Assess effectiveness of	4. Advise the ER and		and IEC within 3
	Contractor's remedial	ET on the		working days of
	actions and keep IEC,	effectiveness of		notification;
	EPD and ER informed	the proposed		4. Implement the agreed
	of the results.	remedial		proposals; and
		measures;		5. Amend proposal if
		5. Supervise		appropriate.
		implementation of		
		remedial		

		measures.		
2.Exceedance	1. Notify IEC, ER,	1. Check monitoring	1. Confirm receipt of	1. Identify source,
for two or	Contractor and EPD;	data submitted by	notification of failure	investigate the causes
more	2. Identify source;	ET;	in writing;	of exceedance and
consecutive	3. Repeat measurement to	2. Check	2. Notify Contractor;	propose remedial
samples	confirm findings;	Contractor's	3. In consultation with	measures;
	4. Increase monitoring	working method;	the ET and IEC,	2. Take immediate action
	frequency to daily;	3. Discuss amongst	agree with the	to avoid
	5. Carry out analysis of	ER, ET, and	Contractor on the	further exceedance;
	Contractor's working	Contractor on the	remedial measures to	3. Submit proposals for
	procedures to	potential remedial	be implemented;	remedial actions to ER
	determine possible	actions;	4. Supervise and ensure	with a copy to ET
	mitigation to be	4. Review	remedial measures	and IEC within 3
	implemented;	Contractor's	properly	working days of
	6. Arrange meeting with	remedial actions	implemented; and	notification;
	IEC, Contractor and	whenever	5. If exceedance	4. Implement the agreed
	ER to discuss the	necessary to	continues, consider	proposals;
	remedial actions to be	assure their	what portion of the	5. Resubmit proposals if
	taken;	effectiveness and	work is responsible	problem still not under
	7. Assess effectiveness of	advise the ER	and instruct the	control;
	Contractor's remedial	accordingly; and	Contractor to stop	6. Stop the relevant
	actions and keep IEC,	5. Supervise the	that portion of work	portion of works as
	EPD and ER informed	implementation of	until the exceedance	determined by the ER
	of the results;	remedial	is abated.	until the exceedance is
	8. If exceedance stops,	measures.		abated.
	cease additional			
	monitoring.			

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

EVENT	ACTION						
	ET	IEC	ER	CONTRACTOR			
Action Level	 Notify IEC, ER and Contractor; Carry out investigation; Report the results of investigation to the IEC, ER and Contractor; Discuss jointly with the Contractor and formulate remedial measures; Increase monitoring frequency to check mitigation effectiveness. 	 Review the monitoring data submitted by the ET; 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; Supervise the implementation of remedial measures. 	 Confirm receipt of notification of failure in writing; Notify the Contractor; Require Contractor to propose remedial measures for the analysed noise problem; 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.	 Confirm receipt of notification of exceedance in writing; Notify the Contractor; Require the Contractor to propose remedial measures for the analysed noise problem; Ensure remedial measures are properly implemented; 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 to stop that	determined by the		
	Contractor's remedial		portion of work until	ER until		
	actions and keep IEC		the exceedance is	the exceedance is		
	informed of the results;		abated.	abated.		
	8. If exceedance stops, cease additional monitoring.					

Table N-3: Event / Action Plan for Water Quality

1. Inform IEC, Contractor and ER; 2. Check monitoring	IEC 1. Discuss with ET, ER and Contractor on the	ER 1. Discuss with IEC, ET and	CONTRACTOR 1. Identify source(s) of
and ER;	Contractor on the		1. Identify source(s) of
data, all plant, equipment and Contractor's working methods; and 3. Discuss remedial measures with IEC and Contractor and ER.	implemented mitigation measures; 2. Review proposals on 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.	Contractor on the Implemented mitigation measures; 2. Make agreement on the remedial measures to be implemented; 3. Supervise the implementation of agreed remedial measures.	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 purpose remedial measures to IEC and ER; and
	working methods; and 3. Discuss remedial measures with IEC and	working methods; and 3. Discuss remedial measures with IEC and Contractor and ER. contractor and ER.	working methods; and 3. Discuss remedial submitted by Contractor and advise the ER accordingly; and 3. Review and advise the ET and ER on the Effectiveness of the implemented the remedial measures to be implemented; 3. Supervise the implementation of agreed remedial measures.

EVENT		ACTIO	N	
	ET	IEC	ER	CONTRACTOR
Action level being exceeded by more than one consecutive sampling days	1. Repeat in-situ measurement on next day of exceedance to confirm findings; 2. Inform IEC, Contractor and ER; 3. Check monitoring data, all plant, equipment and Contractor's working methods; 4. Discuss remedial measures with IEC, contractor and ER 5. Ensure 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 proposed mitigation measures; 2. Make agreement on the remedial measures to be implemented; and 3. 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 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	 Repeat measurement on next day of exceedance to confirm findings; Inform IEC, Contractor and ER; Rectify unacceptable practice; 	Discuss with ET, Contractor and ER on the implemented mitigation measures; Review the proposed remedial measures submitted by Contractor and advise the ER	Discuss with ET, IEC and Contractor on the implemented remedial measures; Request Contractor to critically review the working methods; Make agreement on the	 Identify source(s) of impact; Inform the ER and confirm notification of the noncompliance in writing; Rectify unacceptable practice;

EVENT	ACTION					
	ET	IEC	ER	CONTRACTOR		
	plant, equipment and Contractor's working methods; 5. Consider changes of working methods; 6. Discuss mitigation measures with IEC, ER and Contractor; and 7. Ensure the agreed remedial measures are implemented	accordingly; and 3. Review and advise the ET and ER on the effectiveness of the implemented mitigation measures.	remedial measures to be implemented; and 4. Discuss with ET, IEC and Contractor on the effectiveness of the implemented remedial measures.	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.		
Limit level being exceeded by more than one consecutive sampling days	1. Inform IEC, contractor and ER; 2. Check monitoring data, all plant, equipment and Contractor's working methods; 3. Discuss mitigation measures with IEC, ER and Contractor; and 4. Ensure mitigation measures are implemented; and 5. Increase the monitoring frequency to daily until no exceedance of Limit Level for two consecutive days	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	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;		

EVENT	ACTION				
	ET	IEC	ER	CONTRACTOR	
			the dredging activities until no exceedance of Limit level.	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.	

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

	ACTION				
EVENT	ET	IEC	ER	CONTRACTOR	
ACTION LEVE	L				
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	 Identify source, investigate the causes of exceedance and propose remedial measures; Inform IEC,ER and Contractor; Advise the ER and Contractor on the effectiveness of the proposed remedial measures; Repeat measurements to confirm findings; Increase monitoring frequency to daily; Discuss with IEC, ER and Contractor on remedial 	 Check monitoring data submitted by ET; Check Contractor's working method; Discuss with ET and Contractor on possible remedial measures; Advise the ET and ER on the effectiveness of the proposed remedial measures; and 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.	 Submit proposals for remedial actions to ER with a copy to ET and IEC within 3 working days of notification; Implement the agreed proposals; and 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	 Identify source, investigate the causes of exceedance and propose remedial measures; Inform ER, Contractor, IEC and EPD; Repeat measurement to confirm finding; Increase monitoring frequency to daily; 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	 Notify IEC, ER, Contractor and EPD; Identify source; Repeat measurement to confirm findings; Increase monitoring frequency to daily; 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	their effectiveness	remedial	3. Implement the agreed
possible mitigation to be	and advise the ER	measures to be	proposals;
implemented;	accordingly;	implemented;	4. Resubmit proposals if
6. Arrange meeting with	3. Supervise the	4. Supervise and	problem still not under
IEC, Contractor and ER	implementation of	ensure remedial	control;
to discuss the remedial	remedial measures	measures properly	5. Stop the relevant
actions to be taken;		implemented; and	portion of works as
7. Assess effectiveness of		5. If exceedance	determined by the ER
Contractor's remedial		continues,	until the exceedance is
actions and keep IEC,		consider what	abated.
EPD and ER informed		portion of the	
of the results;		work is	
8. If exceedance stops,		responsible and	
cease additional		instruct the	
monitoring.		Contractor to stop	
		that portion of	
		work until	
		the exceedanceis	
		abated.	

Table N-6.1 Action and Limit Levels and Responses to Evidence of Disturbance to Waterbirds using in Ng Tung, Sheung Yue and Shek Sheung Rivers

Action Level	Response	Limit Level	Response
Construction Phase			
Decline in numbers	Investigate cause and	Decline in numbers	Investigate cause
of all waterbird	if	of all waterbird	and if caused
species relative to	cause identified as	species relative to	identified as related
numbers during	related to NDAs	numbers during	to NDAs project
Baseline Monitoring	project	Baseline Monitoring	instigate remedial
such that the Action	instigate remedial	such that the Limit	action. Review and
Level response is	action to remove or	Level response is	adjust LVNP
triggered.	reduce source of	triggered.	management
	disturbance.		measures to improve
			conditions for
			affected species.

Decline in numbers	Investigate cause and	Decline in numbers	Investigate cause
of any one waterbird	if	of any one waterbird	and if caused
species occurring in	cause identified as	species occurring in	identified as related
significant numbers*	related to NDAs	significant numbers*	to NDAs project
during Baseline	project	during Baseline	instigate remedial
Monitoring such that	instigate remedial	Monitoring such that	action. Review and
the Action Level	action to remove or	the Limit Level	adjust LVNP
response is	reduce source of	response is	management
triggered.	disturbance.	triggered.	measures to improve
			conditions for
			affected species.

^{*} Whether numbers are significant will depend on species and season and should be determined following collection and evaluation of Baseline survey data.

Table N-6.2 Action and Limit Levels and Responses to Evidence of Declines in Aquatic Fauna

Action Level	Response	Limit Level	Response
Construction Phase			
Reduction in species	Investigate cause and if	Reduction in taxa diversity	Investigate cause and if
diversity such that Action	cause identified as related	such that Limit Level	caused identified as related
Level response is triggered.	to Project instigate remedial	response is triggered.	to Project instigate remedial
	action to remove or reduce		action.
	source of disturbance.		

^{*} Whether numbers are significant will depend on species and season. Significance threshold for each species should be reviewed following collection of Baseline survey data.

Table N-6.3 Action and Limit Levels and Responses to Evidence of Declines in non-aquatic Fauna

Action Level	Response	Limit Level	Response
Construction Phase			
Reduction in species	Investigate cause and if	Reduction in taxa diversity	Investigate cause and if
diversity such that Action	cause identified as related	such that Limit Level	caused identified as related
Level response is triggered.	to Project instigate remedial	response is triggered.	to Project instigate remedial
	action to remove or reduce		action.
	source of disturbance.		

^{*} Whether numbers are significant will depend on species and season. Significance threshold for each species should be reviewed following collection of Baseline survey data.

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
	1-hr TSP	0	0	0	0
Air Quality	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		the Construct	ance related to ion Activities of ontract
Monitoring		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	_	project related the Construction Active this Contraction		on Activities of
6		Action Level	Limit Level	Action Level	Limit Level
Water Quality	DO	0	4	0	1
	Turbidity	0	7	0	2
	SS	0	5	0	2
	Arsenic	2	0	0	0

(D) Exceedance Report for Landfill Gas

Environmental Manitaring	Parameter	No. of no related Ex		the Construct	lance related to ion Activities of ontract
Monitoring		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		n-project xceedance	the Construct	ance related to ion Activities of ontract
Monitoring		Action Level	Limit Level	Action Level	Limit Level
Cultural Heritage	Built Heritage Monitoring	0	0	0	0

APPENDIX P SITE AUDIT SUMMARY

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

Checklist Reference Number	210803
Date	3 August 2021 (Tuesday)
Time	09:30-11:30

Ref. No.	Non-Compliance	Related Item No.
	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Air Quality	
210803-R01	NRMM label was observed faded. Contractor was reminded to display valid NRMM label on regulated machine (portion 9b).	B 24
	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.:210727), all identified environmental deficiency was observed improved/rectified by the Contractor.	

	Name	Signature	Date
Recorded by	Kenneth Leung	Len!	3 August 2021
Checked by	Dr. Priscilla Choy	-NI	3 August 2021

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

Checklist Reference Number	210810
Date	10 August 2021 (Tuesday)
Time	09:30-11:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	_
Ref. No.	Remarks/Observations	Related Item No
1401, 1401	B. Air Quality	TICHE TO
	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.:210803), all environmental deficiency was observed rectified/improved by the Contractor.	

	Name	Signature	Date
Recorded by	Kenneth Leung	Lacy	10 August 2021
Checked by	Dr. Priscilla Choy	WI	10 August 2021

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

Checklist Reference Number	210817
Date	17 August 2021 (Tuesday)
Time	09:30-11:30

Ref. No.	Non-Compliance	Related Item No
-	None identified	Atem No
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.:210810), no environmental deficiency was identified during site inspection.	

Name	Signature	Date
Anson Tong	飞	20 August 2021
Dr. Priscilla Choy	WI	20 August 2021
	Anson Tong	Anson Tong

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

Checklist Reference Number	210823
Date	23 August 2021 (Monday)
Time	14:00-15:30

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
		Related
Ref. No.	Remarks/Observations	Item No.
	B. Air Quality	
210823-R01	To enhance dust mitigation measures especially dusty haul road at portion 8.	B 1
	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.:210817), no environmental deficiency was identified during site inspection.	

	Name	Şignature	Date
Recorded by	Antony Leung)4	24 August 2021
Checked by	Dr. Priscilla Choy	With	24 August 2021

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

Checklist Reference Number	210831	
Date	31 August 2021 (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	
210831-R01	Stockpile of dusty materials should be covered entirely by impervious sheeting.	B 2
	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.:210823), all identified environmental deficiency was observed improved/rectified by the Contractor.	

	Name	Signature	Date
Recorded by	Antony Leung	SIC	31 August 2021
Checked by	Dr. Priscilla Choy	W-T	31 August 2021

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

Checklist Reference Number	210804
Date	4 August 2021 (Wednesday)
Time	09:30-10:30

		Related
Ref. No.	Non-Compliance	Item No.
-	None identified	
		Related
Ref. No.	Remarks/Observations	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	
210804-R02	Provide temporary ditches for runoff discharge into appropriate watercourse.	D 2i
	E. Waste / Chemical Management	
210804-R01	Drip tray should be provided for chemical storage.	E 14
210804-R03	Clear the stagnant water and maintain drip tray well.	E 14
	F. Cultural Heritage	
	No environmental deficiency was identified during site inspection.	
	G. Landscape and Visual	
	No environmental deficiency was identified during site inspection.	
	H. Ecology	
	No environmental deficiency was identified during site inspection.	
	I. Permits/Licences	
	No environmental deficiency was identified during site inspection.	
	L. Others	
	• Follow-up on previous audit section (Ref. No.:210728), item 210728-R04 was remarked as 210804-R03. Follow-up action is needed to be reviewed. Other items were observed improved/ rectified by the Contractor.	

	Name	Signature	Date
Recorded by	Howard Chan	X oward.	4 August 2021
Checked by	Dr. Priscilla Choy	WI	4 August 2021
	12.17.21.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2	7/	

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

Checklist Reference Number	210811
Date	11 August 2021 (Wednesday)
Time	09:30-11:30

Ref. No.	Non-Compliance	Related Item No.
-	None identified	RUILING.
Ref. No.	Remarks/Observations	Related Item No.
	B. Air Quality	ALCHA I (G
	No environmental deficiency was identified during site inspection.	
	C. Construction Noise Impact	
	No environmental deficiency was identified during site inspection.	
	D. Water Quality	
210811-001	 Muddy surface runoff from site area should be directed to and properly treated in treatment facility, and discharged in compliance with WPCO licences. (Portion 1) 	D 6
210811-R02	• Enhance and maintain the bunding to minimise washing out of any muddy runoff and soil materials into site drainage (Portion 1).	D 3
210811-R03	• Provide temporary ditches for runoff directed to wastewater treatment facility. (North Bridge)	D 4
•	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.	
	L. Others	
	• Follow-up on previous audit section (Ref. No.:210804), item 210804-R02 was remarked as 210811-R03. Follow-up action is needed to be reviewed. Other environmental deficiencies were observed improved/rectified by the Contractor.	1

	Name	Signature	Date
Recorded by	Kenneth Leung	- Lead	11 August 2021
Checked by	Dr. Priscilla Choy	WI	11 August 2021

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

Checklist Reference Number	210818
Date	18 August 2021 (Wednesday)
Time	14:00-15:30

		Related
Ref. No.	Non-Compliance	Item No.
-	None identified	-
		Related
Ref. No.	Remarks/Observations	Item No.
2.02.0	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	
010010 D01	• Provide temporary ditches for runoff directed to wastewater treatment facility. (North	D4
210818-R01	Bridge)	
	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.	
	THO CITYLORING METERS AND A STATE OF THE STA	
	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.:210811), item 210811-R03 was remarked as	
	210818-R01. Follow-up action is needed to be reviewed. Other environmental deficiencies	
	were observed improved/ rectified by the Contractor.	

	Name	Signature	Date
Recorded by	Howard Chan	Marine	23 August 2021
Checked by	Dr. Priscilla Choy	WI	23 August 2021

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

Checklist Reference Number	210825
Date	25 August 2021 (Wednesday)
Time	09:30-11:30

Ref. No.	Non-Compliance	Related Item No.
-	None identified	_
Ref. No.	Remarks/Observations	Related Item No.
010000001	B. Air Quality	
210825-O01	Stockpile of dusty material should covered by impervious sheeting.	B2&E5
210825-R02	NRMM labels was observed faded. Contractor was reminded to display valid NRMM label on regular machine.	B 24
	C. Construction Noise Impact	
F	No environmental deficiency was identified during site inspection.	
	D. Water Quality	
210825-R01	Provide temporary ditches for runoff directed to wastewater treatment facility.	D4
	E. Waste / Chemical Management	
210825-R03	Contractor was reminded to clear the leaked oil under the drilling machine.	E 13
	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.	
	L. Others	
	 Follow-up on previous audit section (Ref. No.:210818), item 210818-R01 was remarked as 210825-R01. Follow-up action is needed to be reviewed. 	

	Name	Signature	Date
Recorded by	Howard Chan	1 Namh	27 August 2021
Checked by	Dr. Priscilla Choy	NI	27 August 2021

ND/2019/03 – Kwu Tung North New Development Area, Phase 1: Development of Long Valley Nature Park

Checklist Reference Number	210806
Date	6 August 2021 (Friday)
Time	10:00 - 11:00

		Related
Ref. No.	Non-Compliance	Item No.
₩.	None identified	-
		Related
Ref. No.	Remarks/Observations	Item No.
	B. Air Quality	
	No environmental deficiency was identified during site inspection.	
	C. Construction Noise Junget	
	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	
210806-O01	Provide chemical storage area for the oil containers.	E 3i
	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.:210730), all identified environmental deficiencies were observed improved/rectified by the Contractor.	

	Name	Signature	Date
Recorded by	Kenneth Leung	Lemy	6 August 2021
Checked by	Dr. Priscilla Choy	NI	6 August 2021

ND/2019/03 – Kwu Tung North New Development Area, Phase 1: Development of Long Valley Nature Park

Checklist Reference Number	210813	
Date	13 August 2021 (Friday)	
Time	10:00 - 11:00	

Ref. No.	Non-Compliance	Related Item No.
	None identified	-
	TONG Identified	Related
Ref. No.	Remarks/Observations	Item No.
	B. Air Quality	
	No environmental deficiency was identified during site inspection.	
	C. Construction Noise Impact	
	No environmental deficiency was identified during site inspection.	
	D. Water Quality	
	No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	No environmental deficiency was identified during site inspection.	
	F. Landscape & Visual	
	No environmental deficiency was identified during site inspection.	
	G. Ecology	
	No environmental deficiency was identified during site inspection.	
	H. Permits/Licences	
	No environmental deficiency was identified during site inspection.	
	I. Others	
	• Follow-up on previous audit section (Ref. No.:210806), all identified environmental	
	deficiency was observed improved/rectified by the Contractor.	

	Name	Signature	Date
Recorded by	Anson Tong	7着	13 August 2021
Checked by	Dr. Priscilla Choy	WIZ	13 August 2021

ND/2019/03 – Kwu Tung North New Development Area, Phase 1: Development of Long Valley Nature Park

Checklist Reference Number	210820
Date	20 August 2021 (Friday)
Time	11:00 – 12:00

		Related
Ref. No.	Non-Compliance	Item No.
_	None identified	-
		Related
Ref. No.	Remarks/Observations	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.	
	• 140 GIVITOITING HEAT DETICIONEY Was Identified during site hispootion.	
	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.:210813), no major environmental deficiency was identified druing site inspection.	

	Name	Signature	Date
Recorded by	Howard Chan	1 Laword	23 August 2021
Checked by	Dr. Priscilla Choy	With	23 August 2021

ND/2019/03 – Kwu Tung North New Development Area, Phase 1: Development of Long Valley Nature Park

Checklist Reference Number	210824
Date	24 August 2021 (Tuesday)
Time	14:00 – 15:15

		Related
Ref. No.	Non-Compliance	Item No.
_	None identified	_
		Related
Ref. No.	Remarks/Observations	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.	
	• 140 environmental deficiency was identified during site hispection.	
-	E. Waste / Chemical Management	
210824-O01	Drip tray should be provided for chemical storage.	E 14
	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.:210820), no major environmental deficiency was identified during site inspection.	

	Name	Signature	Date
Recorded by	Howard Chan	(An)on	25 August 2021
Checked by	Dr. Priscilla Choy	WA	25 August 2021

ND/2019/04 – Fanling North New Development Area, Phase 1: Fanling Bypass Eastern Section (Shek Wu San Tsuen North to Lung Yeuk Tau)

Checklist Reference Number	210805
Date	5 August 2021 (Thursday)
Time	14:00 – 15:30

Ref. No.	Non-Compliance	Related Item No.
Nel. IVO.	None identified	7(01)
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	
210805-O02	Enhance sediment control measures for site runoff after rainstorm event at Portion H.	D 13i
210805-O03	• Clear the sediments at channels along water barriers near Siu Hang San Tsuen Stream to ensure proper function. (Bridge A2)	D 13ii
210805-O04	Properly erect and maintain the desilting materials along green barriers at Bridge A2.	D 13ii
Mar III a .	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	
210805-O01	Properly erect and maintain 2m high solid barriers for lower reaches of Siu Hang San Tsuen Stream.	Н3
	I. Permits/Licences	
	No environmental deficiency was identified during site inspection.	
	J. Others	
_	• Follow-up on previous audit section (Ref. No.: 210729), item 210729-O03, 210729-O04, 210729-O05, 210729-O06 was remarked as 210805-O02, 210805-O01, 210805-O03, 210805-O04. Follow-up action is needed to be reviewed. Other items were observed improved/rectified by Contractor.	

	Name	Signature	Date
Recorded by	Howard Chan	Xawan	6 August 2021
Checked by	Dr. Priscilla Choy	WI	6 August 2021

ND/2019/04 – Fanling North New Development Area, Phase 1: Fanling Bypass Eastern Section (Shek Wu San Tsuen North to Lung Yeuk Tau)

Checklist Reference Number	210812
Date	12 August 2021 (Thursday)
Time	14:00-15:30

		Related
Ref. No.	Non-Compliance	Item No.
_	None identified	- 10 1 4 3
D 4 N		Related
Ref. No.	Remarks/Observations	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	
	• Clear the sediments at channels along water barriers near Siu Hang San Tsuen Stream to	
210812-O02	ensure proper function. (Bridge A2)	D 13ii
210812-O03	Properly erect and maintain the desilting materials along green barriers at Bridge A2.	D 13ii
	To ensure silt curtain at Portion C is properly deployed and avoid any leakage of muddy	T) 10
210812-R04	water from site area	D 18
	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	
210812-O01	Properly erect and maintain 2m high solid barriers for lower reaches of Siu Hang San Tsuen	Н3
	Stream.	
	I. Permits/Licences	
	No environmental deficiency was identified during site inspection.	40.0
	J. Others	
	• Follow-up on previous audit section (Ref. No.: 210805), item 210805-O01, 210805-O03,	·
	210805-O04, were remarked as 210812-O01, 210812-O02, 210812-O03. Follow-up action	
	is needed to be reviewed. Other item was observed improved/ rectified by Contractor.	

	Name	Signature	Date
Recorded by	Howard Chan	T X away	13 August 2021
Checked by	Dr. Priscilla Choy		13 August 2021

ND/2019/04 – Fanling North New Development Area, Phase 1: Fanling Bypass Eastern Section (Shek Wu San Tsuen North to Lung Yeuk Tau)

Weekly Site Higheetton Irecord Bunio	, mi j
Checklist Reference Number	210819
Date	19 August 2021 (Thursday)
Time	09:30 – 11:30

		Related
Ref. No.	Non-Compliance	Item No.
_	None identified	
		Related
Ref. No.	Remarks/Observations	Item No.
	B. Air Quality	
	No environmental deficiency was identified during site inspection.	
	C. Noise	
	No environmental deficiency was identified during site inspection.	
	D. Wdow Overalles	
	 D. Water Quality Clear the sediments at channels along water barriers near Siu Hang San Tsuen Stream to 	D 13ii
210819-O02	angura proper function (Bridge A2)	D 1311
210819-O03	Properly erect and maintain the desilting materials along green barriers at Bridge A2.	D 13ii
210817-003	V Hopothy wood and manner	
<u></u>	E. Waste / Chemical Management	
210819-R04	Drip tray should be provided for chemical storage.	E 14
210819-R05	To provide receptacles for waste collection.	E 1ii
	F. Cultural Heritage	
	No environmental deficiency was identified during site inspection.	
<u> </u>	G. Landscape and Visual	
	No environmental deficiency was identified during site inspection.	
	H. Ecology	
	Properly erect and maintain 2m high solid barriers for lower reaches of Siu Hang San Tsuen	H 3
210819-001	Stream.	
	I. Permits/Licences	
	No environmental deficiency was identified during site inspection.	<u> </u>
	J. Others	
	Follow up on prayious guidit section (Ref. No.: 210812), item 210812-001, 210812-002,	
	210812-003 were remarked as 210819-001, 210819-002, 210819-003. Follow-up action	
	is needed to be reviewed. Other environmental derficiency was observed improved/rectified by Contractor.	

	Name	Signature	Date
Recorded by	Howard Chan	XXXXXXX	1 3 August 2021
Checked by	Dr. Priscilla Choy	KI	1 3 August 2021

ND/2019/04 – Fanling North New Development Area, Phase 1: Fanling Bypass Eastern Section (Shek Wu San Tsuen North to Lung Yeuk Tau)

Checklist Reference Number	210826
Date	26 August 2021 (Thursday)
Time	14:00 – 15:30

Non-Compliance	Related Item No.
None identified	
Remarks/Observations	Related Item No.
B. Air Quality	
No environmental deficiency was identified during site inspection.	
	C2&C6
• 10 provide noise mugation measure for sheetpining work at Portion 11.	C2&C0
D. Water Quality	
Clear the sediments at channels along water barriers near Siu Hang San Tsuen Stream to	D 13ii
Properly erect and maintain the desilting materials along green barriers at Bridge A2.	D 13ii
To ensure all vehicles cleared of mud before leaving the site (Portion H).	D 6
Regularly clear the U-channel and provide desilting materials as sediment control measure at Portion H.	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	
Properly erect and maintain 2m high solid barriers for lower reaches of Siu Hang San Tsuen Stream.	Н3
I. Permits/Licences	
No environmental deficiency was identified during site inspection.	- 11 - 12 - 12 - 12 - 12 - 12 - 12 - 12
J. Others	***
• Follow-up on previous audit section (Ref. No.: 210819), item 210819-O01, 210819-O02, 210819-O03, were remarked as 210826-O01, 210826-O02, 210826-O03. Follow-up action is needed to be reviewed. Other environmental derficiencies were observed improved/	
	Remarks/Observations B. Air Quality No environmental deficiency was identified during site inspection. C. Noise To provide noise mitigation measure for sheetpiling work at Portion H. D. Water Quality Clear the sediments at channels along water barriers near Siu Hang San Tsuen Stream to ensure proper function. (Bridge A2) Properly erect and maintain the desilting materials along green barriers at Bridge A2. Regularly clear the U-channel and provide desilting materials as sediment control measure at Portion H. 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 Properly erect and maintain 2m high solid barriers for lower reaches of Siu Hang San Tsuen Stream. I. Permits/Licences No environmental deficiency was identified during site inspection. J. Others Follow-up on previous audit section (Ref. No.: 210819), item 210819-001, 210819-002, 210819-003, were remarked as 210826-001, 210826-002, 210826-003. Follow-up action

	Name	, Signature	Date
Recorded by	Antony Leung	41	27 August 2021
Checked by	Dr. Priscilla Choy	Wife	27 August 2021

ND/2019/05 – Fanling North New Development Area, Phase 1: Fanling Bypass Eastern Section between Shung Him Tong to Kau Lung Hang

Checklist Reference Number	210802
Date	2 August 2021 (Monday)
Time	14:00-16:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	
Ref. No.	Remarks/Observations	Related Item No.
	B. Air Quality	
210802-R04	Stockpile of dusty materials should be covered properly.	В2
	C. Noise	
	No environmental deficiency was identified during site inspection.	
	D. Water Quality	
210802-O01	Site runoff should be directed to wastewater treatment facilities.	D 4
210802-O02	Provide mitigation measures to prevent debris and dusty materials drop into nearby storm drain.	D 17
	E. Waste / Chemical Management	
210802-R03	Clear the oil stain on the ground.	E 13
	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.: 210726), Item 210726-O02 and 210726-R03 were remarked as 210802-O01 and 210802-O02. Follow-up action is needed to be reviewed. Other items were observed improved/rectified by the Contractor.	

	Name	Şignature	Date
Recorded by	Howard Chan	Xawand	3 August 2021
Checked by	Dr. Priscilla Choy	W.	3 August 2021

ND/2019/05 – Fanling North New Development Area, Phase 1: Fanling Bypass Eastern Section between Shung Him Tong to Kau Lung Hang

Checklist Reference Number	210811
Date	11 August 2021 (Wednesday)
Time	09:30-11:00

Ref. No.	Non Compliance	Related Item No.
Kei, IVO.	Non-Compliance None identified	TIGHT 140.
-	140hc idoittificu	Related
Ref. No.	Remarks/Observations	Item No.
KCI. 110.	B. Air Quality	10010 110
	No environmental deficiency was identified during site inspection.	
	1 The circumstant deficiency was tachtried dating site inspection.	
	C. Noise	
	No environmental deficiency was identified during site inspection.	
	D. Water Quality	
210811-O01	Provide mitigation measures to prevent debris and dusty materials drop into nearby storm drain.	D 3
210811-R02	Regular clear the mud in sedimentation tank to avoid overflow.	D 5iv
210811-R03	Contractor was reminded to inspect/ maintain the Wetsep regularly and ensure the pH level complied with WPCO liense before discharge.	D 6
	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.: 210802), Item 210802-O02 was remarked as 210811-O01. Follow-up action is needed to be reviewed. Other items were observed improved/rectified by the Contractor.	

	Name	Signature	Date
Recorded by	Howard Chan	L X awant	11 August 2021
Checked by	Dr. Priscilla Choy	WI	11 August 2021

ND/2019/05 – Fanling North New Development Area, Phase 1: Fanling Bypass Eastern Section between Shung Him Tong to Kau Lung Hang

Checklist Reference Number	210816
Date	16 August 2021 (Monday)
Time	14:00 – 15:00

70. C.N.		Related Item No.
Ref. No.	Non-Compliance	110111 110.
	None identified	Related
Ref. No.	Remarks/Observations	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	
210816-R01	Contractor was reminded to ensure the pH level of the wastewater is complied with WPCO liense before discharged.	D 6
	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.: 210811), all identified environmental deficiency were observed improved / rectified by the Contracter.	

	Name	Signature	Date
Recorded by	Anson Tong	汤	17 August 2021
Checked by	Dr. Priscilla Choy	WI	17 August 2021

ND/2019/05 – Fanling North New Development Area, Phase 1: Fanling Bypass Eastern Section between Shung Him Tong to Kau Lung Hang

Checklist Reference Number	210823
Date	23 August 2021 (Monday)
Time	14:00 – 15:00

Dof No	Non Compliance	Related Item No.
Ref. No.	Non-Compliance None identified	Rem No.
-	None identified	Related
Ref. No.	Remarks/Observations	Item No.
	B. Air Quality	
210823-R01	To enhance the dust suppression measure on site especially for the dust generation activities	B 1
	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.: 210816), all identified environmental	
	deficiency was observed improved / rectified by the Contractor.	

	Name	Signature	Date
Recorded by	Anson Tong	3/3	24 August 2021
Checked by	Dr. Priscilla Choy	WI	24 August 2021

ND/2019/05 – Fanling North New Development Area, Phase 1: Fanling Bypass Eastern Section between Shung Him Tong to Kau Lung Hang

Checklist Reference Number	210830
Date	30 August 2021 (Monday)
Time	14:00 – 15:00

		Related
Ref. No.	Non-Compliance	Item No.
-	None identified	_
Ref. No.	Remarks/Observations	Related Item No.
	B. Air Quality	14011 110.
210830-R01	Stockpile should be covered with impervious material properly in portion 11 and portion 12.	B 2
	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.: 210823), all identified environmental deficiency was observed improved / rectified by the Contractor. 	

	Name	Signature	Date
Recorded by	Anson Tong	3	30 August 2021
Checked by	Dr. Priscilla Choy	WI	30 August 2021

ND/2019/06 – Fanling North New Development Area, Phase 1: Reprovisioning of North District Temporary Wholesale Market for Agricultural Products

Checklist Reference Number	210805
Date	5 August 2021 (Thursday)
Time	10:00-11:00

		Related
Ref. No.	Non-Compliance	Item No.
-	None identified	-
		Related
Ref. No.	Remarks/Observations	Item No.
	B. Air Quality	
210805-R01	Stockpile of dusty materials should be covered properly.	B 2
	C. Noise	
	No environmental deficiency was identified during site inspection.	
	D. Water Quality	
	No environmental deficiency was identified during site inspection.	
	• 140 challeng delicitors was identified during site hispection.	
	E. Waste / Chemical Management	
	No environmental deficiency was identified during site inspection.	
<u></u>	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.: 210729), no environmental deficiency was identified during site inspection.	

	Name	Signature	Date
Recorded by	Anson Tong	736	5 August 2021
Checked by	Dr. Priscilla Choy	MI	5 August 2021

ND/2019/06 – Fanling North New Development Area, Phase 1: Reprovisioning of North District Temporary Wholesale Market for Agricultural Products

Checklist Reference Number	210812
Date	12 August 2021 (Thursday)
Time	14:00-14:30

YS (2 N.T	N. C. P.	Related Item No.
Ref. No.	Non-Compliance	nem No.
-	None identified	-
		Related
Ref. No.	Remarks/Observations	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	
210812-R01	2m high solid dull green site barrier fences should be erected and maintained properly to minimize the ecological impact to the nearby habitats.	G 1
	H. Permits/Licences	
	No environmental deficiency was identified during site inspection.	
	I. Others	
	• Follow-up on previous audit section (Ref. No.: 210805), all identified environmental deficiency was observed improved/rectified by the Contracter.	

	Name	Signature	Date
Recorded by	Anson Tong	\sqrt{a}	12 August 2021
Checked by	Dr. Priscilla Choy	レ チ	12 August 2021

ND/2019/06 – Fanling North New Development Area, Phase 1: Reprovisioning of North District Temporary Wholesale Market for Agricultural Products

Checklist Reference Number	210819
Date	19 August 2021 (Thursday)
Time	10:00-10:30

D. C.NI	N. C. I	Related
Ref. No.	Non-Compliance	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.: 210812), all identified environmental deficiency was observed improved/rectified by the Contracter.	

	Name	Signature	Date
Recorded by	Anson Tong	灣	19 August 2021
Checked by	Dr. Priscilla Choy	WZ	19 August 2021

ND/2019/06 – Fanling North New Development Area, Phase 1: Reprovisioning of North District Temporary Wholesale Market for Agricultural Products

Checklist Reference Number	210826
Date	26 August 2021 (Thursday)
Time	10:00-10:30

Ref. No.	Non-Compliance	Related Item No.
Rei. 140.	None identified	Tem No.
Ref. No.	Remarks/Observations	Related Item No.
	B. Air Quality	
210826-R01	Stockpile of dusty materials should be covered properly.	B 2
	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.: 210819), no environmental deficiency was identified during site inspection.	

	Name	Signature	Date
Recorded by	Anson Tong	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	26 August 2021
Checked by	Dr. Priscilla Choy	WI	26 August 2021

ND/2019/07 – Fanling North New Development Area, Phase 1: Site Formation and Infrastructure Works

Checklist Reference Number	210806
Date	6 August 2021 (Friday)
Time	14:00 – 15:00

Ref. No.	Non-Compliance	Related Item No.
<u>.</u>	None identified	-
Ref. No.	Remarks/Observations	Related Item No
	B. Air Quality	
	No environmental deficiency was identified during site inspection.	45
	C. Construction Noise Impact	
	No environmental deficiency was identified during site inspection.	
17170	D. Water Quality	
	No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	No environmental deficiency was identified during site inspection.	gar.
	F. Landscape and Visual	
00000	No environmental deficiency was identified during site inspection.	
	G. Ecology	
0.0000000	No environmental deficiency was identified during site inspection.	
	H. Permits/Licences	
6	No environmental deficiency was identified during site inspection.	
	I. Others	
	 Follow-up on previous audit section (Ref. No.: 210730), no environmental deficiency was identified during site inspection. 	

	Name	Signature	Date
Recorded by	Anson Tong	43	6 August 2021
Checked by	Dr. Priscilla Choy	HI	6 August 2021

ND/2019/07 – Fanling North New Development Area, Phase 1: Site Formation and Infrastructure Works

Checklist Reference Number	210813
Date	13 August 2021 (Friday)
Time	14:00 – 14:30

		Related
Ref. No.	Non-Compliance	Item No.
-	None identified	-
		Related
Ref. No.	Remarks/Observations	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.	1
	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.: 210806), no environmental deficiency was identified during site inspection.	

	Name	Signature	Date
Recorded by	Howard Chan	X away	16 August 2021
Checked by	Dr. Priscilla Choy	if	16 August 2021

ND/2019/07 - Fanling North New Development Area, Phase 1: Site Formation and Infrastructure Works

Checklist Reference Number	210820
Date	20 August 2021 (Friday)
Time	14:00 – 15:00

		Related
Ref. No.	Non-Compliance	Item No.
-	None identified	-
		Related
Ref. No.	Remarks/Observations	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.: 210813), no environmental deficiency was identified during site inspection.	

	Name	Signature	Date
Recorded by	Anson Tong	3/3	20 August 2021
Checked by	Dr. Priscilla Choy	VI	20 August 2021

ND/2019/07 – Fanling North New Development Area, Phase 1: Site Formation and Infrastructure Works

Checklist Reference Number	210827
Date	27 August 2021 (Friday)
Time	14:00 – 15:00

		Related
Ref. No.	Non-Compliance	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.: 210820), no environmental deficiency was identified during site inspection.	

	Name	Signature	Date
Recorded by	Anson Tong	湯	27 August 2021
Checked by	Dr. Priscilla Choy	WA	27 August 2021

APPENDIX Q ENVIRONMENTAL MITIGATION IMPLEMENTATION SCHEDULE (EMIS)

EIA Ref. E	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	Implementation
L	Log Ref	(What Measures)	recommended Measures &	implement the	measures	Implement the	Status
			Main Concerns to address	measures?	(Where)	measures?	
			(What Requirements)	(Who)		(When)	
Construction	Dust Im	ppact					
S3.8 D	DI	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 D	02	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	۸
S3.8 D	03	 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 	Minimize dust impact at the nearby sensitive receivers	Contractor	All construction sites	Construction phase	* ^ ^

	When there are open excavation and reinstatement works,			
	hoarding of not less than 2.4m high should be provided as far as			
	practicable along the site boundary with provision for public			٨
	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			٨
	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			N/A
	allowed;			IV/A
•	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;			N/A
	and			
•	Exposed earth should be properly treated by compaction,			
	turfing, hydroseeding, vegetation planting or sealing with latex,			
	vinyl, bitumen, shortcrete or other suitable surface stabiliser		 	

		within six months after the last construction activity on the construction site or part of the construction site where the exposed earth lies.					^
S3.8	D4	Implement regular dust monitoring under EM&A programme during	Monitoring of dust impact	Contractor	Selected	Construction	۸
		the construction stage.			representative dust	phase	
					monitoring station		
Noise Imp	act (Constr	uction Phase)					
S4.9	N1	Implement the following good site management practices:	Control construction airborne	Contractor	All construction	Construction	
		Only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction programme;	noise		sites	phase	۸
		 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; 					۸
		 Plant known to emit noise strongly in one direction, where 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; 					۸
		 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	Reduce the construction noise	Contractor	All construction	Construction	^
		conditions of the hoardings shall be properly maintained throughout	levels at low-level zone of		sites where	phase	
		the construction period.	NSRs through partial screening.		practicable		
S4.9	N3	Install movable noise barriers and full enclosure and acoustic mat,	Screen the noisy plant items to	Contractor	All construction	Construction	^
		screen the noisy plants including air compressor and generator.	be used at all construction sites		sites where	phase	
					practicable		
S4.9	N4	Use of "Quiet" Plant and Working Methods	Reduce the noise levels of plant	Contractor	All construction	Construction	N/A
			items		sites where	phase	

					practicable		
S4.9	N5	Sequencing operation of construction plants where practicable.	Operate sequentially within the	Contractor	All construction	Construction	^
			same work site to reduce the		sites where	phase	
			construction airborne noise		practicable		
S4.9	N6	Implement a noise monitoring under EM&A programme.	Monitor the construction noise	Contractor	Selected	Construction	^
			levels at the selected		representative noise	phase	
			representative locations		monitoring stations		
Water Quali	lity Impact ((Construction Phase)	-				1
S5.7	W1	Construction Runoff and Site Drainage	Control construction runoff	Contractor	All construction	Construction	
		In accordance with the Practice Note for Professional Persons on Construction Site Drainage, Environmental Protection Department,			sites	phase	
		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					
		measure which can be used for settling surface runoff prior to					
		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					

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	sposal. The system capacity shall be flexible and able to			
	andle multiple inputs from a variety of sources and suited to			
_	pplications where the influent is pumped.			
	ne dikes or embankments for flood protection should be			
	aplemented around the boundaries of earthwork areas.			*
Te	emporary ditches should be provided to facilitate the runoff			
dis	scharge into an appropriate watercourse, through a			
sil	It/sediment trap. The silt/sediment traps should be			
inc	corporated in the permanent drainage channels to enhance			
de	eposition rates.			
• Th	ne design of efficient silt removal facilities should be based			٨
on	the guidelines in Appendix A1 of ProPECC PN 1/94. The			
de	etailed design of the sand/silt traps should be undertaken by			
the	e contractor prior to the commencement of construction.			
· Co	onstruction works should be programmed to minimize			
su	rface excavation works during the rainy seasons (April to			
Se	eptember). All exposed earth areas should be completed and			*
ve	egetated as soon as possible after earthworks have been			
co	ompleted. If excavation of soil cannot be avoided during the			
	iny season, or at			
an	by time of year when rainstorms are likely, exposed slope			
	rfaces should be covered by tarpaulin or other means.			
	Il drainage facilities and erosion and sediment control			#
	ructures should be regularly inspected and maintained to			
	sure proper and efficient operation at all times and			
	articularly following rainstorms. Deposited silt and grit			
	ould be removed regularly and disposed of by spreading			
	venly over stable, vegetated areas.			*
	easures should be taken to minimise the ingress of site			
	rainage into excavations. If the excavation of trenches in wet			
	eriods is necessary, it should be dug and backfilled in short			
_	ctions wherever practicable. Water pumped out from			
	enches or foundation excavations should be discharged into			
	orm drains via silt removal facilities.			٨
. Al	ll open stockpiles of construction materials (for example,			

aggregates, sand and fill material) of more than 50m3 should	
be covered with tarpaulin or similar fabric during rainstorms.	
Measures should be taken to prevent the washing away of	
construction materials, soil, silt or debris into any drainage	
system.	
Manholes (including newly constructed ones) should always be	
adequately covered and temporarily sealed so as to prevent silt,	
construction materials or debris being washed into the drainage	
system and storm runoff being directed into foul sewers.	
Precautions to be taken at any time of year when rainstorms are #	
likely, actions to be taken when a rainstorm is imminent or	
forecasted, and actions to be taken during or after rainstorms	
are summarized in Appendix A2 of ProPECC PN 1/94.	
Particular attention should be paid to the control of silty	
surface runoff during storm events.	
All vehicles and plant should be cleaned before leaving a	
construction site to ensure no earth, mud, debris and the like is	
deposited by them on roads. An adequately designed and sited	
wheel washing facilities should be provided at every	
construction site exit where practicable. Wash-water should	
have sand and silt settled out and removed at least on a weekly	
basis to ensure the continued efficiency of the process. The	
section of access road leading to, and exiting from, the wheel-	
wash bay to the public road should be paved with sufficient	
backfall toward the wheel-wash bay to prevent vehicle tracking	
of soil and silty water to public roads and drains.	
Oil interceptors should be provided in the drainage system	
downstream of any oil/fuel pollution sources. The oil N/A	
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. 					^
S5.7	W2	Stream Diversion	Minimize water quality impact	Contractor	All streams that	Construction	
		In order to prevent sediment transport during riverbank works,	due to stream diversion		required diversion	phase	N/A
		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.					
S5.7	W3	Groundwater from Contaminated Area	Minimize water quality impact	Contractor	All identified	Construction	
		For other inaccessible sites, site investigation is required when	due to potential groundwater		groundwater-	phase	N/A
		they are resumed and handed over to the Project Proponent to	from contaminated area		contaminated areas		
		identify if contaminated groundwater is found.					
		If the investigation results indicated that the groundwater to be					
		generated from construction works would be contaminated, the					N/A
		contaminated groundwater should be either discharged into					
		recharged wells, or properly treated in compliance with the					
		requirements of Technical Memorandum on Standards for					

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		Effluents Discharged into Drainage on Sewerage Systems,					
		Inland and Coastal Waters.					
		If recharged well method were used, the groundwater quality in					N/A
		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					N/A
		interceptor, should be submitted to the EPD and a discharge					
		license should be obtained under the WPCO through the					
		Regional Offices of EPD.					
S5.7	W4	Sewage from Workforce	Handling of site sewage	Contractor	All construction	Construction	
		Portable chemical toilets and sewage holding tanks should be provided			sites	Phase	
		for handling the construction sewage generated by the workforce. A					۸
		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 Mana	agement (C	onstruction Waste)					

S7.6	WM1	Waste Reduction Measures	Reduce waste generation	Contractor	All construction	Prior to the	
		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:			sites where practicable	commencement of	
		segregate and store different types of waste in different containers, skip or stockpiles to enhance reuse or recycling of materials and their proper disposal;					۸
		 proper storage and site practices to minimize the potential for damage and contamination of construction materials; 					#
		plan and stock construction materials carefully to minimize amount of waste generated and avoid unnecessary generation of waste;					۸
		sort out demolition debris and excavated materials from demolition works to recover reusable/recyclable portions (i.e. soil, broken concrete, metal etc);					N/A
		 provide training to workers on the importance of appropriate waste management procedures, including waste reduction, reuse and recycling. 					۸
S7.6	WM2	Prepare Waste Management Plan and submit to the Engineer for approval	Minimize waste generation during construction	Contractor	All construction	Construction phase	۸
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 	Minimize waste generation during construction	Contractor	All construction sites	Construction phase	۸
		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					۸

		 management procedures and concepts of waste reduction, reuse and recycling; 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	Minimize waste impacts from	Contractor	All construction	Construction	
		The following recommendation should be implemented to minimize the impacts:	storage		sites	phase	
		Waste such as soil should be handled and stored well to ensure secure containment;					٨
		Stockpiling area should be provided with covers and water					
		spraying system to prevent materials from wind-blown or being					۸
		washed away;					
		Different locations should be designated to stockpile each					۸
		material to enhance reuse;					
S7.6	WM5	Collection and Transportation of Waste	Minimize waste impact from	Contractor	All construction	Construction	
		The following recommendation should be implemented to minimize the impacts:	storage		sites	phase	
		the impacts:Remove waste in timely manner;					*
		Employ the trucks with cover or enclosed containers for waste					۸

		transportation;					
		Obtain relevant waste disposal permits from the appropriate					۸
		authorities; and					
		Disposal of waste should be done at licensed waste disposal					^
		facilities.					
S7.6	WM6	Excavated and C&D Material	Minimize waste impacts from	Contractor	All construction	Construction	
		Wherever practicable, C&D materials should be segregated from other	excavated and C&D material		sites	phase	^
		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:					
							۸
		Maintain temporary stockpiles and reuse excavated fill material					
		for backfilling;					N/A
		Carry out on-site sorting;					N/A
		Deliver surplus artificial hard materials to Tuen Mun Area 38					IVA
		recycling plant or its successor for recycling into subsequent					
		useful products;					27/
		Make provisions in the Contract documents to allow and					N/A
		promote the use of recycled aggregates where appropriate; and					
		Implement a recording system for the amount of waste					
		generated, 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					N/A
		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					٨
		the trucks leaving the works area.					
S7.6	WM7	Contaminated Soil	Remediate contaminated soil	Contractor	All construction	Construction phase	
		As a precaution, it is recommended that standard good site practice			sites where		۸
		should be implemented during the construction phase to minimize			applicable		
		any potential exposure to contaminated soils or groundwater. The					
		details of mitigation measures to minimize the potential					
		environmental implications arising from the handling of					
		contaminated materials refer to Land Contamination Section.					
S7.6	WM8	Chemical Waste	Control the chemical waste and	Contractor	All construction	Construction phase	
		If chemical wastes are produced at the construction site, the Contractors	ensure proper storage, handling		sites		۸
		should register with EPD as chemical waste producers. Chemical	and disposal				
		wastes should be stored in appropriate containers and collected by a					
		licensed chemical waste Contractor. Chemical wastes (e.g. spent					
		lubricant oil) should be recycled at an appropriate facility as far as					
		possible, while the chemical waste that cannot be recycled should be					
		disposed of at either the Chemical Waste Treatment Centre, or another					
		licensed facility, in accordance with the Waste Disposal (Chemical					
		Waste) (General) Regulation.					
S7.6	WM9	General Waste	Minimize production of the	Contractor	All construction	Construction phase	
		General refuse should be stored in enclosed bins separately from	general refuse and avoid odour,		sites		*
		construction and chemical wastes. Recycling bins should also be	pest and litter impacts				
		placed to encourage recycling.					
		Preferably enclosed and covered areas should be provided for					۸
		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					۸

		general refuse on a daily basis.					
S7.6	WM10	The WMP should document the locations and number of portable chemical toilets depending on the number of workers,	Minimize production of sewage impacts	Contractor	All construction sites	Construction phase	N/A
		 land availability, site condition and activities. Regularly collection by licensed collectors should be arranged to minimize potential environmental impacts. 					N/A
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 Cont	amination						
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	All inaccessible potentially contaminated sites in 2 NDAs as listed in	After the land is resumed and handed over to the Project	N/A
S 8.5	LC3	Preparation and submission of supplementary Contamination	Present the findings of SI	Contractor Project	the CAP All inaccessible	Proponent Prior to the	N/A
		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	and evaluate the potential environmental and human health impacts Recommend appropriate mitigation measures for the contaminated soil and	Proponent/ Detailed Design Consultant	potentially contaminated sites in 2 NDAs as listed in the CAP	commencement of any proposed construction works if land contamination	
			groundwater identified in			is confirmed	

						1 1 1	
			the assessment if remediation			and remediation is	
			is required			required	
S 8.5	LC4	Preparation and submission of Remediation Report to EPD for agreement	Demonstrate that the	Project	All inaccessible	Prior to the	N/A
			decontamination work is	Proponent/	potentially	commencement of	
			adequate and is carried out	Detailed	contaminated sites	any	
			in accordance with the	Design	in	proposed	
			endorsed supplementary	Consultant	2 NDAs as listed	construction	
			CAR and RAP		in the CAP	works if land	
						contamination	
						is confirmed	
						and remediation is	
						required	
S 8.6	LC5	Re-appraisal of surveyed sites (if they become part of the land requirement	Verify the land contamination	Project	All surveyed sites	After the land is	N/A
		for NDA development) that were not identified as potentially contaminated	potential due to potential	Proponent/	(if they become	resumed and	
		or could not be accessed for visual inspection during the site survey	change of land uses before the	Detailed	part of the land	handed over to the	
			commencement of	Design	requirement for	Project Proponent.	
			construction	Consultant	NDA development		
					(that were not		
					identified as		
					potentially		
					contaminated or		
					could not be		
					accessed for visual		
					inspection during		
					the site survey as		

					listed in the CAP		
S 8.7.2	LC6	Treatment of arsenic-containing soil	To treat the arsenic	Government	KTN NDA	Prior to	N/A
and		"Solidification/Stabilization" (S/S) treatment method was proposed for the	containing	Developer/		commencement of	
Appendix		treatment of arsenic-containing soil. Toxicity Characteristic	soil	Contractor		construction	
8.4		Leaching Procedure (TCLP) test should be undertaken after S/S in order to				works within	
		ensure that the contaminant will not leach to the environment. Unconfined				KTN NDA	
		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.					
S 8.7.2	LC7	Excavation and Transportation	To minimize the potential	Contractor	KTN NDA	Prior to	N/A
and		Excavation profiles must be properly designed and executed	environmental impacts			commencement of	
Appendix		with attention to the relevant requirements for environment,	arising from the handling of			construction	
8.4		health and safety;	contaminated materials			works within	
		In case the soil to be excavated is situated beneath the groundwater				KTN NDA	
		table, it may be necessary to lower the groundwater table;					
		Excavation should be carried out during dry season as far as					
		possible to minimize runoff from excavated soils;					
		Stockpiling site(s) should be lined with impermeable sheeting					
		and bunded. Stockpiles should be properly covered by					۸
		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					

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		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	LC8	Solidification/Stabilization	To minimize the potential	Contractor	KTN NDA	The course of	
and		The loading, unloading, handling, transfer or storage of	environmental impacts			treatment	N/A
Appendix		cement should be carried out in an enclosed system;	arising from the handling of				
8.4		Mixing process and other associated material handling	contaminated materials				۸
		activities should be properly scheduled to minimize potential					
		noise impact and dust emission;					
		The mixing facilities should be sited as far apart as					۸
		practicable from the nearby noise sensitive receivers;					
		Mixing of soil and cement / water / other additive(s) should be					۸
		undertaken at a solidification plant to minimize the					
		potential for leaching;					
		Runoff from the solidification / stabilization area should be					۸
		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.					۸
		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	LC9	Safe	ty Measures	To minimize the potential	Contractor	KTN NDA	The course of	N/A
and		•	Set up a list of safety measures for site workers;	adverse effects on health			treatment	
Appendix		•	Provide written information and training on safety for site workers;	and safety of construction				
8.4		•	Keep a log-book and plan showing the zones requiring treatment	workers				
			and clean zones;					
		•	Maintain a hygienic working environment;					
		•	Avoid dust generation;					
		•	Provide face and respiratory protection gear to site workers if					
			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					
		Eatin	ng, drinking and smoking should not be allowed in the					
		exca	vation areas and treatment area to avoid inadvertent ingestion					
		of ar	rsenic containing soil.					
Landfill Ga	as Hazard							
S10.6	LFG1	•	Underground rooms or void should be avoided as far as	To minimize the risk of LFG	Government /	Buildings within	Detailed	N/A
			practicable in the proposed developments within the	hazards to occupants within	Developer/	MTLL	design phase	
			Consultation Zone and should be avoided totally in the proposed	MTLL and its 250m	Detailed	and its 250m		
			developments within the MTLL.	Consultation Zone	Design	Consultation Zone		
			Buildings or structures within the MTLL should be at ground		Consultant			
			level with raised floor slabs which are less prone to gas ingress.		within MTLL			
			For the high risk category, the use of active control of gas,		and its 250m			
			including barriers and detection systems are recommended.		Consultation			
			These measures include the control of gas by mechanical means		Zone			

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			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					
			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	To minimize the risk of LFG	Contractor	Construction sites	Construction	^
			minimize the risks of fires and explosions, asphyxiation of	hazards to the staff and		within MTLL and its	phase	
			workers (especially in confined space) and toxicity effects	visitors within MTLL and its		250m Consultation		
			resulting from contact with contaminated soils and groundwater.	250m Consultation Zone		Zone		
			Safety officers, specifically trained with regard to LFG and					
			leachate related hazards and the appropriate actions to take in					^

	adverse circumstances, should be present on all worksites			
	throughout the works.			
	All personnel who work on site and all visitors to the site should	1		
	be made aware of the possibility of ignition of gas in the vicinit			^
	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	r		^
	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.			^
	Smoking and naked flames should be prohibited within confine	i		
	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	,		
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			potential hazards.					
		•	Welding, flame-cutting or other hot works may only be carried					٨
			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					N/A
			progress. The procedure should also require the presence of an					
			appropriately qualified person who shall be responsible for					
			reviewing the gas measurements as they are made, and who					
			shall have executive responsibility for suspending the work in					
			the event of unacceptable or hazardous conditions. Only those					
			workers who are appropriately trained and fully aware of the					
			potentially hazardous conditions which may arise should be					
			permitted to carry out hot works in confined areas.					
		•	During the construction works, adequate fire extinguishers and					۸
			breathing apparatus sets should be made available on site and					
			appropriate training given in their use.					
		•	Ongoing gas monitoring should be considered for offices, stores					۸
			etc set up on site.					
S10.6	LFG3		Utility Companies	To minimize the risk of LFG	Government /	Buildings within	Operation	N/A
		•	The developers should make the utility companies aware of the	hazards to the occupants,	Developer	MTLL	phase	
			location and features of the site within the Consultation Zone	maintenance personnel,	within MTLL	and its 250m		
			during the respective detailed design stage as part of the	visitors and other users	and its 250m	Consultation Zone		
			QLFGHA.	within MTLL and its 250m	Consultation			
		•	The utilities companies should have a responsibility to train and	Consultation Zone	Zone			
			ensure their staff to take appropriate precautions at all times					

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, 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

Areas findings of the EIA Contractor/ surveyed-areas with resum potential located in should be implemented after land resumption to confirm and verify the findings of the EIA Contractor/ surveyed-areas with resum potential located in the areas with proposed development as presented in Figure 11.9 findings of the EIA Contractor/ surveyed-areas with resum potential located in the areas with proposed development as presented in Figure 11.9 findings of the EIA Contractor/ surveyed-areas with resum potential located in the areas with proposed development as presented in Figure 11.9 findings of the EIA Contractor/ surveyed-areas with resum potential located in the areas with proposed development as presented in Figure 11.9 findings of the EIA Contractor/ surveyed-areas with proposed development as presented in Figure 11.9 findings of the EIA Contractor/ surveyed-areas with proposed development as presented in Figure 11.9 findings of the EIA Contractor/ surveyed-areas with proposed development as presented in Figure 11.9 findings of the EIA Contractor/ surveyed-areas with proposed development as presented in Figure 11.9 findings of the EIA Contractor/ surveyed-areas with proposed development as presented in Figure 11.9 findings of the EIA Contractor/ surveyed-areas with proposed development as presented in Figure 11.9 findings of the EIA Contractor/ surveyed-areas with proposed development as presented in Figure 11.9 findings of the EIA Contractor/ surveyed-areas with proposed development as presented in Figure 11.9 findings of the EIA Contractor/ surveyed-areas with proposed development as presented in Figure 11.9 findings of the EIA Contractor/ surveyed-areas with proposed development as presented in Figure 11.9 findings of the EIA Contractor/ surveyed-areas with proposed development as presented in Figure 11.9 findings of the EIA Contractor/ surveyed-areas with proposed development as presented in Figure 11.9 findings of the EIA Contractor/ surveyed-areas with proposed development as presented in Figure 11.9 findin	ter land N/A aption but construction
before the occupation of the building and implemented during its operational phase. Cultural Heritage (Pre-construction Phase) S11.6.1 CH1 Undertaking Further Archaeological Survey to Cover the Outstanding Areas findings of the EIA Contractor/ surveyed-areas with resun pot-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 strength of the areas within should be implemented after land resumption to confirm and verify the large and l	pption but
its operational phase. Cultural Heritage (Pre-construction Phase) S11.6.1 CH1 Undertaking Further Archaeological Survey to Cover the Outstanding Areas 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 little areas within should be implemented after land resumption to confirm and verify the little areas within large and large areas with large areas within large areas with large areas wi	pption but
S11.6.1 CH1 Undertaking Further Archaeological Survey to Cover the Outstanding Areas 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 CH1 Undertaking Further Archaeological Survey to Cover the Outstanding Froject Proponent/ In the not-yet-surveyed-area with resum findings of the EIA Contractor/ Qualified Archaeologist archaeological potential located in the areas within	pption but
S11.6.1 CH1 Undertaking Further Archaeological Survey to Cover the Outstanding Areas 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 Undertaking Further Archaeological Survey to Cover the Outstanding findings of the EIA Contractor/ Qualified Archaeologist archaeological potential located in the areas within	pption but
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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 Qualified Archaeologist archaeological potential located in the areas within	•
not-yet-surveyed-area with medium archaeological potential located in the areas with proposed development as presented in Figure 11.9 potential located in should be implemented after land resumption to confirm and verify the	construction
the areas with proposed development as presented in Figure 11.9 should be implemented after land resumption to confirm and verify the the areas within	
should be implemented after land resumption to confirm and verify the	
findings of the EIA. The survey should be conducted by a Areas D1-11, A3-5,	
professional archaeologist and prior to fieldwork commencement, the A3-6, B1-1, and B1-	
archaeologist should obtain a Licence to Excavate and Search for 7,	
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.	
S11.6.1 CH2 <u>Undertaking Survey-cum-Rescue Excavation</u> To define the precise Project Proponent/ In KTN NDA, for Af	er land N/A
A Survey-cum-Rescue Excavation should be conducted after land archaeological deposits extent Contractor/ Site 3 and In FLN resum	nption but
resumption and before the commencement of construction works to and to preserve the Qualified NDA for Site 5. before of	construction
define the precise archaeological deposits extent and to preserve the archaeological resources as far Archaeologist commen	ncement of

		archaeological resources by record. The excavation should be	as possible			the zone	
		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.					
S11.6.1	СНЗ	Undertaking Preservation in-situ for Site 7	To preserve the archaeological	Project Proponent/	Site 7 in FLN NDA	After land	N/A
		Preservation in-situ of the cultivation deposits in Site 7 is proposed.	resources as far as possible.	Contractor/		resumption prior to	
		If disturbance to the site by the design of the Central Park is		Qualified		preconstruction stage	
		unavoidable, further archaeological survey should be conducted after		Archaeologist		of the proposed	
		land resumption prior to the pre-construction stage to assess the				Central Park (Area	
		feasibility to incorporate Site 7 into the design of the development plan				C2-8, Zoning O)	
		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 Authority under the AM Ordinance.					
S11.6.1	CH4	<u>Undertaking Induction Training</u>	To preserve the archaeological	Project Proponent/	Spots A, D, F to H	Before the	N/A
		Induction training should be provided to the construction Contractor	resources as far as possible	Contractor/		commencement of	
		before the commencement of the excavation works in Spots A, D, F to		Qualified		the excavation works	
		H. An induction will be conducted as part of the environmental		Archaeologist		and before site staff	
		health and safety induction programme to all site staff before they are				are deployed on site	
		deployed on site. The induction will include an introduction on the					
		historical development of the Site, the possible archaeological remains					

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		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.					
S11.6.1	CH5	Undertaking Archaeological Impact Assessment before Construction at	To define the precise	Project Proponent/	Area B1-8 and B1-9	After land	N/A
		<u>A1</u>	archaeological deposits extent	Contractor/	zoned as R4 and R3	resumption but	
			and to preserve the	Qualified	in A1	before construction	
		It is recommended that an Archaeological Impact Assessment to be	archaeological resources as far	Archaeologist			
		conducted in the impacted area in Area B1-8 and B1-9 at A1 (Sheung	as possible				
		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.					
S11.6.1	СН6	Undertaking Archaeological Impact Assessment before Construction	To define the precise	Project Proponent/	Area within A1	After land	N/A
		within A1 but except Area B1-8 and B1-9	archaeological deposits extent	Contractor/	except Area B1-8	resumption but	
		Should there be any development work within the Sheung Shui Wa	and to preserve the	Qualified	and B1-9 in R4	before construction	
		Shan Site of Archaeological Interest, it is recommended that an	archaeological resources as far	Archaeologist	&R3 zoning		
		Archaeological Impact Assessment is required after land resumption	as possible.				
		and before construction when detail construction work information is					
		available to determine the need for further archaeological follow up					
		actions.					
		•	•				•

S11.6.2	CH7	Undertaking baseline condition survey and baseline vibration impact	To minimize the vibration	Project Proponent/	G303 and G308	Preconstruction stage	N/A
		assessment	impacts during preconstruction	Contractor		before	
		In case any potential vibration impact on any nearby built heritage	stage on any identified potential			commencement of	
		features are identified during the pre-construction stage of the Project,	vibration impacted built			construction works	
		prior to commencement of construction works, a baseline condition	heritage features			during Schedule 3	
		survey and baseline vibration impact assessment should be conducted				study	
		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 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	To minimize the vibration	Project Proponent/	KT57, FL05, FL18,	Preconstruction stage	N/A
		assessment	impacts during preconstruction	Contractor	and FL2	before commenceme	
		In case any potential vibration impact on any nearby built heritage	stage on any identified potential			nt of construction	
		features are identified during the pre-construction stage of the Project,	vibration impacted built			works	
		prior to commencement of construction works, a baseline condition	heritage features				
		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.					
S11.6.2	СН9	Conducting Photographic and Cartographic Records Prior to	To preserve the directly	Project Proponent/	Ancillary structures	Prior to Removal /	N/A
		Removal/Relocation of Impacted Built Heritages	impacted sites by record prior	Contractor	of G303, HKT01,	Relocation of	
		Prior to removal/relocation of the directly impacted historical buildings	to their removal / relocation		HKT02, Entrance	features before	
		and cultural/historical landscape features, photographic and			Gate of HKT03,	commenceme nt of	
		cartographic records should be conducted to preserve them by record.			HKT04, KT01 to	construction works	
		Liaison with and obtaining agreement from the descendants of these			KT10, KT13, KT36,	during Schedule 3	
		features will be carried out the Project Proponent.			KT39, KT40, KT41,	study	
					KT43, KT45,		
					KT47, KT50, KT54,		
					KT62 to KT63,		
					KT69, FL01, FL16,		
					and FL35		
S11.6.2	CH10	Conducting Photographic and Cartographic Records Prior to	To preserve the directly	Project Proponent/	KT12 and KT61	Prior to Removal /	N/A
		Removal/Relocation of Impacted Built Heritages	impacted sites by record prior	Contractor		Relocation of	
		Prior to removal/relocation of the directly impacted historical buildings	to their removal / relocation			features before	
		and cultural/historical landscape features, photographic and				commencement of	
		cartographic records should be conducted to preserve them by record.				construction works	
		Liaison with and obtaining agreement from the descendants of these					
		features will be carried out by the Project Proponent.					
S11.6.2	CH11	Relocation of Built Heritages Relocation of built heritages to a	To preserve the directly	Project Proponent/	HKT01, HKT02,	After the	N/A
		reasonable location nearby may be required.	impacted sites by relocation	Contractor	Entrance Gate of	photographic and	
					НКТ03	cartographic records	
						and before	
						commencement of	
						construction works	

S11.6.2	CH12	Drainage System and Access Route Design For the retained built	To prevent the persevered	Contractor	The retained built	Pre-construction	N/A
		heritage items in developable area, drainage system and access route	flooding and maintain the	/Detailed Design	heritage items	phase	
		would be designed to prevent the persevered flooding and maintain the	accessibility to the built	consultant			
1		accessibility to the built heritage.	heritage				
Cultural H	Ieritage (Ca	onstruction Phase)					
S11.6.1	CH13	Inform Upon Archaeological Discovery	Special attention should be	Contractor	All soil excavation	Immediately upon	
1		Pursuant to the Antiquities and Monuments Ordinance, the construction	given to areas evaluated to have		works	discovery during	N/A
		Contractor should inform the AMO immediately in case of discovery of	archaeological potential or			excavation works	
1		antiquities or supposed antiquities in the course of excavation works in	significance.				
		construction phase.					
S11.6.2	CH14	Watertable Monitoring	To minimize the potential	Contractor	Within NDAs	Construction phase	
		Since the construction works and development activities may induce	impacts to the built heritage				N/A
		change in the watertable. It is recommended the Contractor should	items by the change of				
		ensure that the change of watertable induced by the construction works	watertable induced by the				
		and development activities will not result in settlement of built heritage.	works during the Construction				
			phase				
S11.6.2	CH15	Conducting Construction Vibration Monitoring and Structural	To minimize the potential	Contractor	Identified potential	Construction phase,	
		Strengthening Measures	impacts during Construction		vibration impacted	with details specified	۸
		Construction vibration monitoring and structural strengthening	phase on any identified		built heritage	in baseline condition	
		measures should be conducted during Construction phase based on the	potential vibration impacted		features	survey and baseline	
		assessment result of baseline condition survey and baseline vibration	built heritage features			vibration impact	
		impact assessment, so as to ensure the construction performance meets				assessment	
		with the vibration standard stated in the EIA report.					
Landscape	and Visua	l Impact (Detailed Design, Prior to Construction, Construction and Opera	tion Phases)				
S.12.9	LV1	General Good Practice Measures - For areas unavoidably disturbed by		Detailed design	Throughout NDAs,	Prior to	N/A
1		the Project on a short term basis e.g. works areas, the general principle		consultant/		Construction,	
		to try and restore these to their former state to suit future land use,		Contractor		Construction & for	

		should be adhered to.				all planting, this	
		With regard to topsoil, where identified, it should be stripped, treated				should be installed	
		appropriately, and where suitable and practical stored for re-use in the				as the areas become	
		construction of the soft landscape works such as roadside amenity				available, to achieve	
		strips, and open space sites.				early establishment	
S.12.9	LV2	Minimum Topographical Change –To minimize landscape and visual	Reduce topographical changes	Government /	Throughout NDAs,	Prior to Construction	N/A
MM1		impacts, the footprint and elevation of such elements should be	and minimize land resumption	Detailed Design	particularly for		
		optimized to reduce topographical/ landform changes, as well as reduce		Consultant/	reservoirs		
		land take and interference with natural terrain. Where there is a need to		Contractor			
		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.					
S.12.9	LV3	Detailed Design (Visual) -The footprint and massing of	Improve visual amenity of the	Detailed Design	Throughout NDAs	Prior to Construction	N/A
MM2		development components and the works area should also be kept	new buildings, NDAs in	Consultant			
		to a practical minimum and the detailed design of development	general and integrate as best				
		components for Construction phase should follow the Sustainable	possible into the surrounding				
		Building Design Guidelines. The form, textures, finishes and	landscape				
		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					
		<u> </u>					

	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.					
LV 4	Avoid affecting Watercourses - In the detailed design,	Avoid direct impacts to	Detailed Design	All watercourses,	Prior to Construction	۸
	consideration should be made of watercourses, to minimize any	watercourses	Consultant/	particularly the	and Construction	
	impacts e.g. at new bridge crossings, viaducts, road alignment etc.		Contractor	stream at Siu Hang	Phase	
	Guidelines stated should be followed.			San Tsuen that will		
	For example, for the stream at Siu Hang San Tsuen in FLN NDA,			flow under the		
	much of the stream is located underneath the viaduct for the			Fanling Bypass		
	proposed Fanling Bypass. In order to avoid impacts to the stream,			Eastern Section		
	the detailed final design of the viaduct should follow guidelines and					
	ensure that no viaduct footings or other structures are placed in the					
	1	İ	i .	1	i e	
	LV 4	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. 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 final design of the viaduct should follow guidelines and	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. 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		Bridges and box culverts should also be used to minimize the					
		necessity of watercourse modification and protect the watercourses					
		where necessary.					
Landscape	and Visual	(Construction)	T	T	T	T	
S.12.9	LV5	Open Space Provision - the principles adopted in the RODP	Reprovision of open space.	Government	Onsite as stipulated	Prior to Construction	N/A
MM3		planning ensure that public open space systems are incorporated.	Enhance visual amenity of the	Developer/	in the planning	and Construction	
		All requirements for open space areas stipulated in the planning	area and improve the overall	Detailed Design	documents for the	Phas	
		documents for the formulation of the Preliminary Layout Plan	landscape character	Consultant/	formulation of the		
		should be adhered to.		Contractor/	Preliminary Layout		
					Plan		
S.12.9	LV6	Tree Protection & Preservation – Exiting trees to be retained within	Protect and Preserve Trees	Government /	Onsite	Prior to Construction	#
MM4		the Project Site should be carefully protected during construction.		Detailed Design		and Construction	
		In particular OVTs will be preserved according to ETWB Technical		Consultant/		Phase	
		Circular (Works) No. 29/2004. Detailed Tree Protection		Contractor			
		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					
S.12.9	LV7	Tree Transplantation - Trees unavoidably affected by the Project	Transplant Trees where suitable	Government /	Onsite where	Prior to	N/A
MM5		works should be transplanted where practical. Trees should be	for transplantation	Detailed Design	possible.	Construction,	

		transplanted straight to their final receptor site and not held in a		Consultant/	Otherwise consider	Construction Phase	
		temporary nursery as far as possible.		Contractor	offsite locations	& Maintenance in	
						Operation Phase	
		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.					
S.12.9	LV8	Slope Landscaping - Site formation should be reduced as far as	To avoid substantial slope	Government /	Onsite	Prior to	N/A
MM6		possible. Seeding of modified slopes should be done as soon as	cutting and fill slopes.	Detailed Design		Construction,	
		grading works are completed to prevent erosion and subsequent loss	To prevent erosion and	Consultant/		Construction Phase	
		of landscape resources and character. Woodland tree seedlings	subsequent loss of landscape	Contractor		& Maintenance in	
		and/ or shrubs should be planted where slope gradient and site	resources and character.			Operation Phase	
		conditions allow.	To ensure man-made slopes are				
			as visually amenable as				
		In addition, landscape planting should be provided for the retaining	possible.				
		structures associated with modified slopes where conditions allow.					
		All slope landscaping works should comply with GEO Publication					

		No. 1/2011-Technical Guidelines on Landscape Treatment for					
		Slopes.					
S.12.9	LV9	Compensatory Planting - Compensatory tree planting for felled	Compensate for trees and	Government /	Onsite where	Prior to	N/A
MM7		trees shall be provided to the satisfaction of relevant Government	shrubs lost due to the Project.	Detailed Design	possible.	Construction,	
		departments. Required numbers and locations of compensatory		Consultant/	Otherwise consider	Construction Phase	
		trees shall be determined and agreed separately with Government		Contractor	offsite locations	& Maintenance in	
		during the Tree Removal Application process under ETWBTC				Operation Phase	
		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.					
S.12.9	LV10	Woodland Compensatory Planting -Specific Woodland					N/A
MM8		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.					

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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.12.9	LV11	Vertical Greening - Planting of climbers to grow up vertical	Soften hard surfaces and	Government /	On appropriate	Prior to	N/A
MM9		surfaces were appropriate (e.g. building edges, piers).	facilities	Developer/	structures	Construction,	
				Detailed Design		Construction Phase	
				Consultant/		& Maintenance in	
				Contractor		Operation Phase	
S.12.9	LV12	Green Roof - Roof greening where appropriate should be	Reduce exposure to untreated	Government /	On appropriate	Prior to	N/A
MM10		established on proposed buildings as per the guidelines stated.	concrete surfaces and	Developer/	buildings	Construction,	
		These guidelines provide further details including information	particularly mitigate visual	Detailed Design		Construction Phase	
		regarding structural loading, design, maintenance, etc.	impact to VSRs at high levels.	Consultant/		& Maintenance in	
		considerations as well as providing information on what types of	Provide greening.	Contractor		Operation Phase	
		plants might be suitable.					
S.12.9	LV13	Screen Planting – Tall screen/buffer trees and shrubs should be planted.	To screen proposed structures	Government /	Along roads, around	Prior to	N/A
MM11		This measure may additionally form part of the compensatory planting.	such as roads and buildings.	Detailed Design	suitable built	Construction,	
			Improve compatibility with the	Consultant/	structures, or around	Construction Phase	
			surrounding environment and	Contractor	VSRs to contain	& Maintenance in	
			create a pleasant pedestrian		their view out to the	Operation Phase	
			environment		NDA structures.		

S.12.9	LV14	Road Greening –For viaducts, soft landscaping should be provided to	To soften the hard, straight	Government /	On viaducts or	Prior to	N/A
MM12		soften the hard, straight edges (for climbers used to cover the vertical,	edges and provide greening	Developer/	along roads	Construction,	
		hard surfaces of the piers – see MM9 Vertical Greening) and shade	along roads.	Detailed Design		Construction Phase	
		tolerant plants should be planted, where light is sufficient, to improve		Consultant/		& Maintenance in	
		aesthetic value of areas under viaducts. Both at grade planting and use		Contractor		Operation Phase	
		of elevated planters should be considered for the soft landscaping of					
		viaducts, taking into account the preference to minimize the overall					
		viaduct bulk and integrate architectural forms and textural finishes					
		which improve aesthetics.					
		For at grade roads, planting should be considered along central					
		dividers and on road islands e.g. in the middle of roundabouts.					
		(Roadside planting i.e. at the road edge and not in the central divider or					
		road island, is considered part of Screen Planting)					
S.12.9	LV15	Marsh/Wetland Compensation -The proposed Long Valley Nature Park	Compensate for Marsh/	Project Proponent/	Onsite where	Prior to	N/A
MM13 &		(LVNP) will be designed and implemented to enhance on- wetland	Wetland lost due to the Project.	Detailed Design	possible. Otherwise	Construction,	
EIA Annex		areas within the LVNP. (See E4,E15 and E25 also)		Consultant/	consider offsite	Construction Phase	
13		Also see LV16, LV17, and LV18 as wetland planting should be		Contractor/	locations	& Maintenance in	
		provided along the embankments and beds of modified/ reprovisioned		Maintenance		Operation Phase	
		watercourses.		Authority			

S.12.9	LV16	Reprovision of Natural Stream – Where natural streams are	Achieve a natural stream,	Government /	Streams and	Prior to	N/A
MM14.1		unavoidably affected along some of their length, they can be diverted	similar to existing, including	Developer/	channelized	Construction,	
		to avoid the proposed new developments and retain the integrity of the	wetland planting provision for	Detailed Design	watercourses	Construction Phase	
		whole stream. Detailed design of any stream diversion should follow	embankments	Consultant/	e.g. a Ma Tso Lung	& Maintenance in	
		the Guidelines in ETWB Technical Circular (Works) No. 5/2005		Contractor	and Siu Han San	Operation Phase	
		(Protection of natural streams/rivers from adverse impacts arising from			Tsuen		
		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)					
S12.9	LV17	Stream Buffer Planting –Providing a minimum 10 m buffer with	Protect natural streams	Government /	Streams and	Prior to	N/A
MM14.2		planting (where there is a general presumption against any		Developer/	channelized	Construction,	
		development taking place) along streams where they flow close to		Detailed Design	watercourses	Construction Phase	
		developments, confers a degree of protection to the stream course and		Consultant/	e.g. a Ma Tso Lung	& Maintenance in	
		its associated vegetation.		Contractor	and Siu Han San	Operation Phase	
					Tsuen		
		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.					

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		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)					
S12.9	LV18	Enhancement Planting along Embankment - For channelized	Minimize the necessity of	Government /	Channelized	Prior to	N/A
MM14.3		watercourses, if these are modified, the Drainage Services Department	watercourse modification,	Developer/	watercourse,	Construction,	
		Practice Note No.1/2005 – Guidelines on Environmental	protect watercourses where	Detailed Design	particularly the Ma	Construction Phase	
		Considerations for River Channel Design, should be considered and	possible and enhance	Consultant/	Wat River Channel	& Maintenance in	
		appropriate mitigation measures included ensuring the new	channelized watercourses	Contractor	Diversion	Operation Phase	
		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.					
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S12.9	LV19	Pond Replacement –Principles adopted in the design of the NDAs	Reprovision for ponds lost due	Project Proponent/	E1-7 and C1-9	Prior to	N/A
MM15		ensure that they incorporate ponds within the RODPs.	to the Project.	Detailed Design	(LVNP) in KNT	Construction,	
				Consultant/	NDA and generally	Construction Phase	
		All requirements for ponds stipulated in the planning documents for		Contractor/	throughout NDA	Maintenance in	
		the formulation of the Preliminary Layout Plan (e.g. at Fung Kong		Maintenance		Operation Phase	
		Shan Park in E1-7 of KNT ND) should be adhered to.		Authority			
S.12.9	LV20	Screen Hoarding –Screen hoarding shall be erected along areas of the	To screen undesirable views of	Contractor	Throughout NDAs	Construction Phase	٨
MM16		construction works site boundary where the works site borders	the works site.				
		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).					
S.12.9	LV21	Light Control – Construction day and night time lighting should be	To minimize glare impact to	Government /	Throughout NDAs	Construction and	N/A
MM17		controlled to minimize glare impact to adjacent VSRs during the	adjacent VSRs	Developer/		Operation Phases	
		Construction phase.		Contractor			
		Street and night time lighting shall also be controlled to minimize glare					
		impact to adjacent VSRs during the operation phase.					

Ecology (Prior to Co	onstruction Phase or throughout the project)		T			
S. 13.9	E1	Egretry Habitat Creation & Management Plan (EHCMP) and	Compensate for loss of Man	Project Proponent/	FLN area A1-7	Detailed design	N/A
		Woodland Planting and Management Plan (WPMP)	Kam To Road egretry.	Detailed Design	(egretry	phase	
			Compensate for loss of	Consultant	compensation).		
			secondary woodland and	(EHCMP and	KTN areas E1-8 and		
			hillside plantation of ecological	WPMP).	G1-3 (woodland		
			significance.		compensation).		
S. 13.9	E2	Detailed design of development along lower reaches of Ma Tso Lung	Minimize impacts on Ma Tso	Project Proponent/	KTN areas F1-2 and	Detailed design and	N/A
		Stream and Ma Tso Lung San Tsuen Stream in OU zones F1-2 and F1-	Lung Stream and Ma Tso Lung	Detailed Design	F1-3 and LMC	construction phases.	
		3 and detailed design of LMC Loop Eastern Connection Road with	San Tsuen Stream and riparian	Consultant.	Loop Eastern	r	
		restoration of diverted stream and riparian corridor, permanent barrier	corridor of importance to	(design of Ma Tso	Connection Road.		
		and underpass on the at-grade section	species of conservation	Lung Stream			
			significance.	diversion and			
		Compensation for the loss of seasonally wet grassland at Ma Tso Lung		buffer zone habitat			
		by habitat restoration and enhancement along diverted section of Ma		restoration			
		Tso Lung Stream		measures)			
S13.9	E3	Detailed design, implementation and management of Siu Hang San	Minimize impacts on Siu Hang	PlanD, Project	FLN area D1-3.	Detailed design,	*
		Tsuen Stream to have 10m wide vegetated buffer in Open Space zone	San Tsuen Stream and stream	Proponent/		construction and	
		D1-3, Fanling Bypass to cross stream on viaduct.	fauna.	Detailed Design		operation phases.	
				Consultant/			
				Contractor/			
				Maintenance			
				Authority			

Detailed design phase	N/A
phase	
Detailed design	N/A
phase	

S13.9	E6	Planning for creation of Green Corridors along the Sheung Yue, Ng	Minimize disturbance to large	Project Proponent/	Area along Ng	Detailed design,	N/A
		Tung and Shek Sheung Rivers, retention and provision of screen	waterbirds using Ng Tung,	Detailed Design	Tung, Sheung Yue	construction and	
		plantings where feasible; and detailed design of Open Space areas and	Sheung Yue and Shek Sheung	Consultant/	and Shek Sheung	operational phases.	
		development areas along river corridors.	River channels.	Contractor/	River		
				Maintenance			
			Maintain ecological linkages	Authority			
			within NDA Project Area and				
			between Project Area and Deep				
			Bay ecosystem, especially for				
			Long Valley and waterbirds.				
S13.9	E7	Building setback and mounding in locations near Long Valley.	Minimization of disturbance	PlanD	KTN area B3-12	Detailed design	N/A
			impacts to fauna using Long		(30m setback from	phase	
		KTN area B3-12 (30m setback from road D3) and KTN area C1-1	Valley.		road D3) and KTN		
		(15m setback and mounding along northern and northeastern			area C1-1 (15m		
		boundaries).			setback and		
					mounding along		
					northern and		
					northeastern		
					boundaries.		
S13.9	E8	Preparation and implementation of Guidelines for building design	Minimize mortality and	PlanD/ Project	Near Long Valley	Detailed design	N/A
		measures to minimize mortality and light and glare impacts to fauna.	disturbance impacts on fauna,	Proponent/		phase	
		Guidelines to address the following measures:	especially mammals and birds.	Developer/			
		Use opaque, non-transparent, non-reflective noise barriers for all		Detailed Design			
		developments associated with the Project.		Consultant			
		Measures to include the following:					
		Fritting, or the placement of ceramic lines or dots on glass,					

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		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;					
		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	Minimize loss of secondary	Project	KTN areas D1-11a	Detailed design	N/A
		KTN areas D1-11a and G1-5 to avoid/minimize direct and indirect	woodland and shrubland of	Proponent/Detaile	and G1-5 to	phase	
		impacts on secondary woodland at Ho Sheung Heung and shrubland at	ecological value.	d Design	avoid/minimize		
		Crest Hill.		Consultant	direct and indirect		
					impacts on		
					secondary woodland		
					at Ho Sheung		
					Heung and		
					Crest Hill		

G12.0		N				5 . 11 . 1	
S13.9	E11	No construction during ardeid breeding season (1 March to 31 July)	Minimize disturbance impacts	Project Proponent/	Along and within	Detailed design/	^
		along Sheung Yue River north or east of KTN D1-5 and east of D1-9	(including cumulative impacts	Detailed Design	Sheung Yue and Ng	construction phase.	
		and C2-3, construction hours restricted to 09.00 to 17.30 during 1	with cycle track project) to	Consultant	Tung Rivers, Long		
		March to 31 July on new pedestrian bridge over the Sheung Yue River,	flight-lines of breeding ardeids.	Contractor	Valley, Long Valley		
		new pedestrian bridge over the tidal section of the Ng Tung River and			and watercourse		
		existing bridge between KTN areas C2-2 and C1-8.			upstream areas		
					including KTN area		
		Review Design and construction methods for all bridges especially			B3-12		
		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.					

Ecology (Constructio	on Phase)					
S13.9	E12	Compensatory egretry habitat provision and establishment.	Compensate for loss of Man Kam To Road egretry habitat.	Project Proponent/ Detailed Design	FLN area A1-7 500m from Man	Construction phase.	۸
		Review condition and location of egretries before commencement of		Consultant/	Kam To Road		
		works. Formulate and implement additional mitigation measures as	Avoid mortality of breeding	Contractor	Egretry.		
		appropriate.	egrets				
		Phasing of works near and within Man Kam To Road Egretry outside breeding season					
S13.9	E13	Review design and construction methods for bridges, especially those	Minimize impacts on rivers and	Project Proponent/	Along and within	Detailed design and	۸
		on the Sheung Yue and tidal Ng Tung Rivers, and adopt measures	disturbance and fragmentation	Detailed Design	the Sheung Yue, Ng	construction phases.	
		which minimize impacts on rivers and disturbance and fragmentation	impacts on fauna	Consultant/	Tung and Shek		
		impacts on fauna.		Contractor	Sheung Rivers		
		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.					

S13.9	E14	Buffer zone of 15-30m as appropriate on both sides (not less than 45m	Minimize impacts direct and	PlanD/ Project	KTN areas H1-1,	Detailed design and	N/A
		total width) of Ma Tso Lung Stream north of the point where it is	indirect impacts of habitat loss,	Proponent/	F12 and F1-3 and	construction phases.	
		crossed by the LMC Loop Eastern Connection Road, and Ma Tso Lung	disturbance, pollution and	Developer/	Lok Ma Chau Loop		
		Stream diversion during construction of the LMC Loop Eastern	fragmentation on Ma Tso Lung	Detailed Design	Eastern Connection		
		Connection Road; development along lower reaches of Ma Tso Lung	Stream and marsh and riparian	Consultant/	Road.		
		Stream and Ma Tso Lung San Tsuen Stream in OU zones in KTN areas	corridor of importance to	Contractor.			
		F1-2 and F1-3 to be set back beyond buffer.	species of conservation	(Design of Ma Tso			
			significance.	Lung Stream			
		Construction and maintenance of permanent 1.2m high solid faunal		diversion and			
		barrier at all at-grade sections of LMC Loop eastern connection Road		buffer zone habitat			
		north of junction with road D4 within 15-30m as appropriate of Ma		restoration			
		Tso Lung Stream buffer and construction of faunal underpass beneath		measures)			
		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.					
S.13.9	E15	Creation and enhancement of proposed Long Valley Nature Park and	Compensate for wetland loss	Project Proponent/	Long Valley, (KTN	Construction phase.	۸
		creation and enhancement of wetland and buffer planting within LVNP.	arising from the project	Contractor (LVNP	area C1-9).		
				Detailed Habitat			
				Creation &			
				Management			
				Plan)			

S13.9	E16	Creation of Green Corridors along the Sheung Yue, Ng Tung and Shek	Minimize disturbance to	Detailed Design	Ng Tung, Sheung	Detailed design and	۸
		Sheung Rivers, retention and provision of screen plantings where	waterbirds using Ng Tung,	Consultant/	Yue and Shek	Construction phases.	
		feasible; provision of Open Space areas and development areas along	Sheung Yue and Shek Sheung	Contractor	Sheung Rivers		
		river corridors;	River channels.				
		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.					
S13.9	E17	Design and erection of 2m high solid dull green site barrier fence	Minimize dust, disturbance,	Contractor	Interface between	Construction phase.	N/A
		between active works areas and all areas/habitats of ecological	mortality and other adverse		areas/habitats/		
		importance on edge of development areas, including along any roads	ecological impacts on habitats,		fauna/ flora of		
		adjacent to or penetrating into areas/habitats of ecological importance.	flora and fauna. Measures to		ecological		
			minimize flight- line impacts to		importance (e.g.		
I		Erection of a 2m high dull green site barrier fence at the edge of the	birds, especially breeding		KTN areas B1-3,		
		works area or 30m from Ma Tso Lung Stream and tributaries,	ardeids.		C1-5, C1-6, C1-9,		
		whichever distance is the greater.			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		

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					Fanling Bypass and		
					north of the Ng		
					Tung River west of		
					the western		
					terminus of the		
					Fanling Bypass.		
					Riparian corridor of		
					Ma Tso Lung		
					Stream and		
					tributaries.		
S13.9	E18	Compensatory woodland planting, management and maintenance.	Compensate for loss of	Project Proponent/	KTN areas E1-8 and	Construction phase.	N/A
			secondary woodland and	Contractor	G1-3.		
			hillside plantation of ecological				
			significance.				
S13.9	E19	Use opaque, non-transparent, non-reflective noise barriers for all	Minimize mortality impacts on	Contractor	All construction	Construction phase.	۸
		construction sites.	birds.		sites		
		Unnecessary lighting should be avoided.					
S13.9	E20	Pre-site clearance check for presence of flora or fauna of conservation	Minimize impacts to flora and	Government/	All construction	Prior to clearance of	N/A
		significance and bat roosts. If any are found, measures should be	fauna of conservation	Developer/	sites.	vegetation and	
		proposed and implemented to avoid, minimize and/or compensate for	significance. Minimize impacts	Contractor/		structures.	
		impacts; including adjustments to design, timing of works,	to protected fauna and flora	Ecologist			
		transplantation and translocation. Seek agreement of relevant	species. Formulate and				
		authorities including AFCD in respect of proposed measures, then	implement mitigation measures				
		implement.	to avoid, minimize and/or				
			compensate for impacts;				

		Pre-site clearance check on all construction sites and pre –works	including adjustments to				
		commencement check on watercourses to be physically and/or	design, timing of works,				
		hydrologically impacted by construction activities for presence of	transplantation and				
		protected plant species/specimens of conservation significance. If any	translocation.				
		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.					
S13.9	E21	Pre-works commencement check on watercourses to be physically	Minimize impacts to flora and	Government/	All construction	Prior to clearance of	N/A
		and/or hydrologically impacted by construction activities for presence	fauna of conservation	Developer/	sites.	vegetation and	
		of flora or fauna of conservation significance and bat roosts. If any are	significance. Minimize impacts	Contractor/		structures.	
		found consider adjustments to avoid, minimize and/or compensate for	to protected fauna and flora	Ecologist			
		impacts; including adjustments to design, timing of works,	species. Consider and				
		transplantation and translocation. Seek agreement of relevant	implement adjustments to				
		authorities including AFCD in respect of proposed measures, then	avoid, minimize or compensate				
		implement.	for impacts; including				
			adjustments to design, timing of				

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		Pre-site clearance check on all construction sites for presence of reptile	works, transplantation and				
		species of conservation significance, capture and translocate to	translocation				
		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					
S13.9	E22	Prevention of dust, run-off and pollutants impacting Deep Bay	Avoid increase to pollution	Contractor	All construction	Construction	N/A
		catchment area and areas of ecological importance.	entering ecologically sensitive		sites.		
			Deep Bay ecosystem.				
	1	Specific Mitiga	ution Measures for Designated	Projects			
		DP2- Castle Pea	nk Road Diversion (Major Imp	rovement)			
Landscape	and Visua	l (Detailed Design, Prior to Construction, Construction and Operational P	hases)				
S.12.A9	LV1-	General Good Practice Measures - For areas unavoidably		Detailed	Throughout	Prior to	N/A
	DP2	disturbed by the Project on a short term basis e.g. works areas,		Design	NDAs,	Construction,	
		the general principle to try and restore these to their former state		Consultant/		Construction &	
		to suit future land use, should be adhered to.		Contractor		for all planting,	
		With regard to topsoil, where identified, it should be stripped,				this should be	
		treated appropriately, and where suitable and practical stored for				installed as	
		re-use in the construction of the soft landscape works such as				soon as the	

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		roadside amenity strips, and open space sites.				areas become	
						available, to	
						achieve early	
						establishment	
S.12.A9	LV4-	Avoid affecting Watercourses – In the detailed design,	Avoid direct impacts to	Detailed	All watercourses,	Prior to	N/A
MM14.4	DP2	consideration should be made of watercourses, to minimize any	watercourses	Design	particularly the	Construction	
		impacts e.g. at new bridge crossings, viaducts, road alignment etc.		Consultant/	stream at Siu	and	
		Guidelines stated should be followed.		Contractor	Hang	Construction	
		For example, for the stream at Siu Hang San Tsuen in FLN NDA,			San Tsuen that	Phase	
		much of the stream is located underneath the viaduct for the			will		
		proposed Fanling Bypass. In order to avoid impacts to the stream, the			flow under the		
		detailed final design of the viaduct should follow guidelines and ensure			Fanling Bypass		
		that no viaduct footings or other structures are placed in the stream.			Eastern Section		
		Bridges and box culverts should also be used to minimize the necessity					
		of watercourse modification and protect the watercourses where					
		necessary.					
S.12.A9	LV5-	Tree Protection & Preservation – Exiting trees to be retained within the	Protect and Preserve Trees	Government/	Onsite	Prior to	N/A
MM4	DP2	Project Site should be carefully protected during construction.		Detailed		Construction	
		In particular OVTs will be preserved according to ETWB Technical		Design		and	
		Circular (Works) No. 29/2004. Detailed Tree Protection		Consultant/		Construction	
		Specification shall be provided in the Contract Specification. Under		Contractor		Phase	
		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.					
S.12.A9	LV6-	Tree Transplantation – Trees unavoidably affected by the Project	Transplant Trees where	Government	Onsite where	Prior to	N/A
MM5	DP2	works should be transplanted where practical. Trees should be	suitable for transplantation	Detailed	possible, otherwise	Construction,	
		transplanted straight to their final receptor site and not held in a		Design	consider offsite	Construction	
		temporary nursery as far as possible. A detailed Tree Transplanting		Consultant/	locations	Phase &	
		Specification shall be provided in the Contract Specification, where		Contractor		Maintenance	
		applicable. Sufficient time for necessary tree root and crown				in Operation	
		preparation periods shall be allowed in the project programme.				Phase	
		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.					
S.12.A9	LV7-	Slope Landscaping – Site formation should be reduced as far as	To avoid substantial slope	Government	Onsite	Prior to	N/A
MM6	DP2	possible. Seeding of modified slopes should be done as soon as	cutting and fill slopes.	Detailed		Construction,	
		grading works are completed to prevent erosion and subsequent	To prevent erosion and	Design		Construction	
		loss of landscape resources and character. Woodland tree	subsequent loss of landscape	Consultant/		Phase &	
		seedlings and/ or shrubs should be planted where slope gradient and site	resources and character.	Contractor		Maintenance in	
		conditions allow. In addition, landscape planting should be provided for the	To ensure man-made slopes			Operation	
		retaining structures associated with modified slopes where conditions	are as visually amenable as			Phase	

		allow. All slope landscaping works should comply with GEO Publication	possible.				
		No. 1/2011-Technical Guidelines on Landscape Treatment for Slopes.					
S.12.A9	LV9-	Woodland Compensatory Planting -Specific Woodland	Reprovide areas of	Project	In areas identified	Prior to	N/A
MM8	DP2	compensatory planting is proposed for any areas of quality	woodland to compensate for	Proponent/	in	Construction,	
		woodland that are unavoidably affected by the Project. The	those areas of quality	Detailed	the EIA Landscape	Construction	
		location and design of the woodland compensatory planting will	woodland lost.	Design	Mitigation Plans	Phase &	
		principally be within habitats of lower value such as upland		Consultant/	and	Maintenance	
		grassland. The proposed locations are identified, for example, on		Contractor/	as agreed with	in Operation	
		the foothills of Tai Shek Mo, and on the higher ground of Fung		Maintenance	AFCD	Phase	
		Kong Shan in KTN NDA; along Fanling Bypass; and a small area		Authority			
		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					

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		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	Soften hard surfaces and	Government	On appropriate	Prior to	N/A
MM9	DP2	surfaces were appropriate (e.g. viaduct piers, noise barriers).	facilities	Detailed	structures	Construction,	
				Design		Construction	
				Consultant/		Phase &	
				Contractor		Maintenance	
						in Operation	
						Phase	
S.12.A9	LV11-	Screen Planting – Tall screen/buffer trees and shrubs should be	To screen proposed	Government	Along roads,	Prior to	N/A
MM11	DP2	planted. This measure may additionally form part of the	structures such as roads and	Detailed	around	Construction,	
		compensatory planting.	buildings. Improve	Design	suitable built	Construction	
			compatibility with the	Consultant/	structures, or	Phase &	
			surrounding environment	Contractor	around	Maintenance	
			and create a pleasant		VSRs to contain	in Operation	
			pedestrian environment		their view out to	Phase	
					the		
					NDA structures.		
S.12.A9	LV12-	Road Greening –For viaducts, soft landscaping should be provided	To soften the hard, straight	Government	On viaducts or	Prior to	N/A
MM12	DP2	to soften the hard, straight edges (for climbers used to cover the	edges and provide greening	Detailed	along	Construction,	
		vertical, hard surfaces of the piers – see MM9 Vertical Greening)	along roads.	Design	roads.	Construction	

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		and shade tolerant plants should be planted, where light is		Consultant/		Phase &	
		sufficient, to improve aesthetic value of areas under viaducts. Both		Contractor		Maintenance	
		at grade planting and use of elevated planters should be				in Operation Phase	
		considered for the soft landscaping of viaducts, taking into account the					
		preference to minimize the overall viaduct bulk and integrate					
		architectural forms and textural finishes which improve aesthetics.					
		For at grade roads, planting should be considered along central					
		dividers and on road islands e.g. in the middle of roundabouts.					
		(Roadside planting i.e. at the road edge and not in the central					
		divider or road island, is considered part of Screen Planting)					
S.12.A9	LV13-	Marsh/Wetland Compensation -The proposed Long Valley Nature	Compensate for Marsh/	Project	Onsite where	Prior to	N/A
MM13 &	DP2	Park (LVNP) will be designed and implemented to enhance onwetland	Wetland lost due to the	Proponent/	possible. Otherwise	Construction,	
EIA		areas within the LVNP. (See E4,E15 and E25 also)	Project.	Detailed	consider offsite	Construction	
Annex 13		Also see LV16, LV17, and LV18 as wetland planting should be		Design	locations	Phase &	
		provided along the embankments and beds of modified/ reprovisioned		Consultant/		Maintenance	
		watercourses.		Contractor/		in Operation	
				Maintenance		Phase	
				Authority			
S.12.A9	LV14-	Enhancement Planting along Embankment - For channelized	Minimize the necessity of	Government /	Channelized	Prior to	N/A
MM14.3	DP2	watercourses, if these are modified, the Drainage Services	watercourse modification,	Detailed	watercourse,	Construction,	
		Department Practice Note No.1/2005 – Guidelines on	protect watercourses where	Design	particularly the Ma	Construction	
		Environmental Considerations for River Channel Design, should be	possible and enhance	Consultant/	Wat River Channel	Phase &	
		considered and appropriate mitigation measures included ensuring	channelized watercourses	Contractor	Diversion	Maintenance	
		the new watercourses match the existing as far as possible.				in Operation	
		Measures can include enhancement planting to upgrade the				Phase	
		channels as appropriate, including consideration of wetland					
		planting along embankments where appropriate; as well as					

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		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.					
S.12.A9	LV15-	Pond Replacement –Principles adopted in the design of the NDAs	Reprovision for ponds lost	Project	E1-7 and C1-9	Prior to	N/A
MM15	DP2	ensure that they incorporate ponds within the RODPs.	due to the Project.	Proponent/	(LVNP) in KNT	Construction,	
		All requirements for ponds stipulated in the planning documents		Detailed Design	NDA	Construction	
		for the formulation of the Preliminary Layout Plan (e.g. at Fung		Consultant/	and generally	Phase	
		Kong Shan Park in E1-7 of KNT ND) should be adhered to.		Contractor/	throughout NDA	Maintenance	
				Maintenance		in Operation	
				Authority		Phase	
Landscape	and Visual ((Construction)					
S.12.A9	LV16-	Screen Hoarding –Screen hoarding shall be erected along areas of	To screen undesirable views	Contractor	Throughout NDAs	Construction	۸
MM16	DP2	the construction works site boundary where the works site borders	of the works site.			Phase	
		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).					
S.12.A9	LV17-	Light Control – Construction day and night time lighting should be	To minimize glare impact to	Government /	Throughout NDAs	Construction	٨
MM17	DP2	controlled to minimize glare impact to adjacent VSRs during the	adjacent VSRs	Contractor		and Operation	
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		Contraction above				Dl	
		Construction phase.				Phases	
		Street and night time lighting shall also be controlled to minimize					
		glare impact to adjacent VSRs during the operation phase.					
Ecology (D	etailed Desig	n, Construction and Operational Phases)					
S13.9	E2-DP2	Use opaque, non-transparent, non-reflective noise barriers.	Minimize mortality impacts	Detailed	Within NDA.	Detailed	۸
		Unnecessary lighting should be avoided.	on birds.	Design		design phase,	
				Consultant/		Construction	
				Contractor/		phase and	
				Maintenance		Operation	
				Authority		phase.	
Ecology (Co	onstruction F	Phase)					
S.13.9	E3-DP2	Design and erection of 2m high solid dull green site barrier fence	Minimize dust, disturbance,	Contractor.	Interface between	Construction	N/A
		between active works areas and all areas/habitats of ecological	mortality and other adverse		areas/habitats of	phase.	
		importance.	ecological impacts on		ecological		
			habitats, flora and fauna.		importance (KTN		
					area B1-3) and		
					works areas.		
S13.9	E4-DP2	Compensatory native woodland planting.	Compensate for loss of	Project	KTN NDA areas	Construction	N/A
			plantation of ecological	Proponent /	E1-	phase.	
			significance.	Contractor	8 and G1-3.		
Cultural He	eritage (Cons	truction Phase)	<u>'</u>	1	-	1	
S11.6.2	CH5-	Conducting Construction Vibration Monitoring and Structural	To minimize the potential	Project	Identified potential	Construction	N/A
	DP2	Strengthening Measures	impacts during Construction	Proponent/	vibration impacted	phase, with	
		Construction vibration monitoring and structural strengthening	phase on any identified	Contractor	built heritage	details	
		measures should be conducted during Construction phase based	potential vibration impacted		features	specified in	
		on the assessment result of baseline condition survey and	built heritage features			baseline	
		baseline vibration impact assessment, so as to ensure the				condition	

		construction performance meets with the vibration standard stated				survey and	
		in the EIA report.				baseline	
						vibration	
						impact	
						assessment,	
		DP3- KTN NDA Road P1 and P2 (New Road) and associated new Kwu T	Tung Interchange (New Road) ar	nd Pak Shek Au Inte	rchange Improvement	(Major Improvement)	
Landscape a	ınd Visual (L	Detailed Design, Prior to Construction, Construction and Operational Phases))				
S.12.A9	LV1-	General Good Practice Measures - For areas unavoidably		Detailed	Throughout NDAs,	Prior to	۸
	DP3	disturbed by the Project on a short term basis e.g. works areas,		Design		Construction,	
		the general principle to try and restore these to their former state		Consultant/		Construction &	
		to suit future land use, should be adhered to.		Contractor		for all planting,	
		With regard to topsoil, where identified, it should be stripped,				this should be	
		treated appropriately, and where suitable and practical stored for				installed as	
		re-use in the construction of the soft landscape works such as				soon as the	
		roadside amenity strips, and open space sites.				areas become	
						available, to	
						achieve early	
						establishment	
S.12.A9	LV4-	Avoid affecting Watercourses - In the detailed design,	Avoid direct impacts to	Detailed	All watercourses,	Prior to	۸
MM14.4	DP3	consideration should be made of watercourses, to minimize any	watercourses	Design	particularly the	Construction	
		impacts e.g. at new bridge crossings, viaducts, road alignment etc.		Consultant/	stream at Siu Hang	and	
		Guidelines stated should be followed.		Contractor	San Tsuen that will	Construction	
		For example, for the stream at Siu Hang San Tsuen in FLN NDA,			flow under the	Phase	
		much of the stream is located underneath the viaduct for the			Fanling Bypass		
		proposed Fanling Bypass. In order to avoid impacts to the stream,			Eastern Section		
		the detailed final design of the viaduct should follow guidelines and					
		ensure that no viaduct footings or other structures are placed in the					

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		stream.					
		Bridges and box culverts should also be used to minimize the					
		necessity of watercourse modification and protect the watercourses					
		where necessary.					
S.12.A9	LV5-	Tree Protection & Preservation – Exiting trees to be retained within	Protect and Preserve Trees	Government	Onsite	Prior to	N/A
MM4	DP3	the Project Site should be carefully protected during construction.		Detailed		Construction	
		In particular OVTs will be preserved according to ETWB Technical		Design		and	
		Circular (Works) No. 29/2004. Detailed Tree Protection		Consultant/		Construction	
		Specification shall be provided in the Contract Specification. Under		Contractor		Phase	
		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.					
S.12.A9	LV6-	Tree Transplantation – Trees unavoidably affected by the Project	Transplant Trees where	Government	Onsite where	Prior to	N/A
MM5	DP3	works should be transplanted where practical. Trees should be	suitable for transplantation	Detailed	possible. Otherwise	Construction,	
		transplanted straight to their final receptor site and not held in a		Design	consider offsite	Construction	
		temporary nursery as far as possible. A detailed Tree Transplanting		Consultant/	locations.	Phase &	
		Specification shall be provided in the Contract Specification, where		Contractor		Maintenance	
		applicable. Sufficient time for necessary tree root and crown				in Operation	
		preparation periods shall be allowed in the project programme.				Phase	
		A detailed transplanting proposal will be submitted to relevant					

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		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.					
S.12.A9	LV7-	Slope Landscaping – Site formation should be reduced as far as	To avoid substantial slope	Government	Onsite	Prior to	N/A
MM6	DP3	possible. Seeding of modified slopes should be done as soon as	cutting and fill slopes.	Detailed		Construction,	
		grading works are completed to prevent erosion and subsequent	To prevent erosion and	Design		Construction	
		loss of landscape resources and character. Woodland tree	subsequent loss of	Consultant/		Phase &	
		seedlings and/ or shrubs should be planted where slope gradient	landscape resources and	Contractor		Maintenance	
		and site conditions allow.	character.			in Operation	
		In addition, landscape planting should be provided for the	To ensure man-made slopes			Phase	
		retaining structures associated with modified slopes where	are as visually amenable as				
		conditions allow. All slope landscaping works should comply with	possible.				
		GEO Publication No. 1/2011-Technical Guidelines on Landscape					
		Treatment for Slopes.					
S.12.A9	LV8-	Compensatory Planting – Compensatory tree planting for felled	Compensate for trees and	Government	Onsite where	Prior to	N/A
MM7	DP3	trees shall be provided to the satisfaction of relevant Government	shrubs lost due to the	Detailed	possible. Otherwise	Construction,	
		departments. Required numbers and locations of compensatory	Project.	Design	consider offsite	Construction	
		trees shall be determined and agreed separately with Government		Consultant/	locations	Phase &	
		during the Tree Removal Application process under ETWBTC		Contractor		Maintenance	
		3/2006.				in Operation	
		Compensatory planting is proposed at the potential open areas				Phase	
		such as open spaces, amenity areas, open areas of the					
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		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	LV9-	Woodland Compensatory Planting –Specific Woodland compensatory	Reprovide areas of	Project	In areas identified	Prior to	N/A
MM8	DP3	planting is proposed for any areas of quality woodland that are unavoidably	woodland to compensate for	Proponent/	in	Construction,	
		affected by the Project. The location and design of the woodland	those areas of quality	Detailed	the EIA Landscape	Construction	
		compensatory planting will principally be within habitats of lower value	woodland lost.	Design	Mitigation Plans	Phase &	
		such as upland grassland. The proposed locations are identified, for		Consultant/	and	Maintenance	
		example, on the foothills of Tai Shek Mo, and on the higher ground of		Contractor/	as agreed with	in Operation	
		Fung Kong Shan in KTN NDA; along Fanling Bypass; and a small area in		Maintenance	AFCD	Phase	
		the northern FLN NDA.		Authority			
		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	Soften hard surfaces and	Government	On appropriate	Prior to	N/A
MM9	DP3	surfaces were appropriate (e.g. viaduct piers, noise barriers).	facilities	Detailed	structures	Construction,	
				Design		Construction	
				Consultant/		Phase &	
				Contractor		Maintenance	
						in Operation	
						Phase	
S.12.A9	LV11-	Screen Planting – Tall screen/buffer trees and shrubs should be	To screen proposed	Government	Along roads,	Prior to	N/A
MM11	DP3	planted. This measure may additionally form part of the	structures such as roads and	Detailed	around	Construction,	
		compensatory planting.	buildings. Improve	Design	suitable built	Construction	
			compatibility with the	Consultant/	structures, or	Phase &	
			surrounding environment	Contractor	around	Maintenance	
			and create a pleasant		VSRs to contain	in Operation	
			pedestrian environment		their view out to	Phase	
					the		
					NDA structures.		
S.12.A9	LV12-	Road Greening -For viaducts, soft landscaping should be provided to	To soften the hard, straight	Government	On viaducts or	Prior to	N/A
MM12	DP3	soften the hard, straight edges (for climbers used to cover the vertical, hard	edges and provide greening	Detailed	along roads.	Construction,	
		surfaces of the piers – see MM9 Vertical Greening) and shade tolerant	along roads.	Design		Construction	

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		plants should be planted, where light is sufficient, to improve aesthetic		Consultant/		Phase &	
		value of areas under viaducts. Both at grade planting and use of elevated		Contractor		Maintenance in	
		planters should be considered for the soft landscaping of viaducts, taking				Operation Phase	
		into account the preference to minimize the overall viaduct bulk and					
		integrate architectural forms and textural finishes which improve aesthetics.					
		For at grade roads, planting should be considered along central dividers and					
		on road islands e.g. in the middle of roundabouts. (Roadside planting i.e. at					
		the road edge and not in the central divider or road island, is considered					
		part of Screen Planting)					
S.12.A9	LV13-	Marsh/Wetland Compensation -The proposed Long Valley Nature	Compensate for Marsh/	Project	Onsite where	Prior to	N/A
MM13	DP3	Park (LVNP) will be designed and implemented to enhance onwetland	Wetland lost due to the	Proponent/	possible. Otherwise	Construction,	
EIA		areas within the LVNP. (See E4,E15 and E25 also)	Project.	Detailed	consider offsite	Construction	
Annex 13		Also see LV16, LV17, and LV18 as wetland planting should be		Design	locations	Phase &	
		provided along the embankments and beds of modified/ reprovisioned		Consultant/		Maintenance	
		watercourses.		Contractor/		in Operation	
				Maintenance		Phase	
				Authority			
S.12.A9	LV14-	Enhancement Planting along Embankment - For channelized watercourses,	Minimize the necessity of	Government /	Channelized	Prior to	N/A
MM14.3	DP3	if these are modified, the Drainage Services Department Practice Note	watercourse modification,	Detailed	watercourse,	Construction,	
		No.1/2005 – Guidelines on Environmental Considerations for River	protect watercourses where	Design	particularly the Ma	Construction	
		Channel Design, should be considered and appropriate mitigation measures	possible and enhance	Consultant/	Wat River Channel	Phase &	
		included ensuring the new watercourses match the existing as far as	channelized watercourses	Contractor	Diversion	Maintenance	
		possible. Measures can include enhancement planting to upgrade the				in Operation	
		channels as appropriate, including consideration of wetland planting along				Phase	
		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					

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		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	LV15-	Pond Replacement –Principles adopted in the design of the NDAs		Project	E1-7 and C1-9	Prior to	N/A
MM15	DP3	ensure that they incorporate ponds within the RODPs.		Proponent/	(LVNP) in KNT	Construction,	
		All requirements for ponds stipulated in the planning documents for the		Detailed	NDA	Construction Phase	
		formulation of the Preliminary Layout Plan (e.g. at Fung Kong Shan Park		Design	and generally	Maintenance	
		in E1-7 of KNT ND) should be adhered to.		Consultant/	throughout NDA	in Operation	
				Contractor/		Phase	
				Maintenance			
				Authority			
Landscape	and Visual ((Construction)					
S.12.A9	LV16-	Screen Hoarding –Screen hoarding shall be erected along areas of	To screen undesirable views	Contractor	Throughout NDAs	Construction	N/A
MM16	DP3	the construction works site boundary where the works site borders	of the works site.			Phase	
		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).					
S.12.A9	LV17-	Light Control – Construction day and night time lighting should be	To minimize glare impact to	Government /	Throughout NDAs	Construction	N/A
MM17	DP3	controlled to minimize glare impact to adjacent VSRs during the	adjacent VSRs	Contractor		and Operation	
		Construction phase.				Phases	
		Street and night time lighting shall also be controlled to minimize					
		glare impact to adjacent VSRs during the operation phase.					

Ecology (L	Detailed Desig	n, Construction and Operational Phases)					
S13.9	E3-DP3	Use opaque, non-transparent, non-reflective noise barriers.	Minimize mortality impacts	Detailed	Throughout.	Detailed	۸
		Unnecessary lighting should be avoided.	on birds.	Design		design,	
				Consultant/		Construction	
				Contractor		and Operation	
				Maintenance		phases.	
				Authority.			
Ecology (C	Construction 1	Phase)					
S.13.9	E4-DP3	Creation of proposed Long Valley Nature Park and creation and	Compensate for wetland loss	Project	Long Valley	Construction	N/A
		enhancement of wetland and woodland areas and buffer planting	arising from the project.	Proponent/		phase.	
		within LVNP.		Contractor			
				(LVNP			
				Detailed			
				Habitat			
				Creation &			
				Management			
				Plan).			
S.13.9	E5-DP3	Design and erection of 2m high solid dull green site barrier fence	Minimize dust, disturbance,	Contractor.	Interface between	Construction	N/A
		between active works areas and all areas/habitats of ecological	mortality and other adverse		areas/habitats of	phase.	
		importance on edge of development areas, including along any	ecological impacts on		ecological		
		roads adjacent to or penetrating into areas/habitats of ecological	habitats, flora and fauna.		importance (KTN		
		importance.	Measures to minimize		areas B1-3, H1-1)		
			flightline		and works areas.		
			impacts to birds,				
S13.9	E6-DP3	Compensatory native woodland planting.	Compensate for loss of	Project	KTN areas E1-8	Construction	N/A
			plantation of ecological	Proponent /	and	phase.	
			significance.	Contractor	G1-3.		

		DP4- KTN	NDA Road D1 to D5 (New Ro	pad)			
Landscape	and Visual	(Detailed Design, Prior to Construction, Construction and Operational P	hases)				
S.12.A9	LV1-	General Good Practice Measures - For areas unavoidably disturbed by		Detailed Design	Throughout NDAs,	Prior to	N/A
	DP4	the Project on a short term basis e.g. works areas, the general principle		Consultant/		Construction,	
		to try and restore these to their former state to suit future land use,		Contractor		Construction & for	
		should be adhered to.				all planting, this	
		With regard to topsoil, where identified, it should be stripped, treated				should be installed	
		appropriately, and where suitable and practical stored for re-use in the				as soon as the areas	
		construction of the soft landscape works such as roadside amenity				become available, to	
		strips, and open space sites.				achieve early	
						establishment	
S.12.A9	LV2-	Minimum Topographical Change –To minimize landscape and visual	Reduce topographical changes	Government /	Throughout NDAs,	Prior to	N/A
MM1	DP4	impacts, the footprint and elevation of such elements should be	and minimize land resumption	Detailed Design	particularly for	Construction	
		optimized to reduce topographical/ landform changes, as well as		Consultant/	reservoirs		
		reduce land take and interference with natural terrain. Where there is a		Contractor/			
		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.					
S.12.A9	LV3-	Detailed Design (Visual) –The footprint and massing of development	Improve visual amenity of	Detailed	Throughout NDAs	Prior to	N/A
MM2	DP4	components and the works area should also be kept to a practical	the new buildings, NDAs in	Design		Construction	
		minimum and the detailed design of development components for	general and integrate as best	Consultant/			
		Construction phase should follow the Sustainable Building Design	possible into the surrounding				

		Guidelines. The form, textures, finishes and colours of the proposed	landscape				
		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.					
S.12.A9	LV4-	Tree Protection & Preservation – Exiting trees to be retained within the	Protect and Preserve Trees	Government /	Onsite	Prior to	٨
MM4	DP4	Project Site should be carefully protected during construction. In		Detailed Design		Construction and	
		particular OVTs will be preserved according to ETWB Technical		Consultant/		Construction Phase	
		Circular (Works) No. 29/2004. Detailed Tree Protection Specification		Contractor			
		shall be provided in the Contract Specification. Under this					
		specification, the Contractor shall be required to submit, for approval,					

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		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.					
S.12.A9	LV5-	Tree Transplantation – Trees unavoidably affected by the Project works	Transplant Trees where suitable	Government /	Onsite possible.	Prior to	N/A
MM5	DP4	should be transplanted where practical. Trees should be transplanted	for transplantation	Detailed Design	Consider locations	Construction,	
		straight to their final receptor site and not held in a temporary nursery		Consultant/	where Otherwise	Construction Phase	
		as far as possible. A detailed Tree Transplanting Specification shall be		Contractor	offsite locations	& Maintenance in	
		provided in the Contract Specification, where applicable. Sufficient				Operation Phase	
		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.					
S.12.A9	LV6-	Slope Landscaping – Site formation should be reduced as far as	To avoid substantial slope	Government	Onsite	Prior to	N/A
MM6	DP4	possible. Seeding of modified slopes should be done as soon as	cutting and fill slopes.	Detailed Design		Construction,	

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. S.12.A9 LV7- Compensatory Planting – Compensatory tree planting for felled trees shrubs lost due to the Project. MM7 DP4 shall be provided to the satisfaction of relevant Government shrubs lost due to the Project. To prevent erosion and subsequent loss of landscape subsequent loss of landscape subsequent loss of landscape as unbeautions of landscape. Contractor To prevent erosion and subsequent loss of landscape as unbeautions of landscape. Contractor To prevent erosion and subsequent loss of landscape as unbeautions of landscape. Contractor To prevent erosion and subsequent loss of landscape as unbeautions of landscape. Contractor To prevent erosion and subsequent loss of landscape as unbeautions of landscape. Contractor To ensure man-made slopes are as visually amenable as possible. In addition, landscape planting should be provided for the retaining as visually amenable as possible. In addition, landscape planting should be provided for the retaining as visually amenable as possible. In addition, landscape planting should be provided for the retaining as visually amenable as possible. In addition, landscape planting should be provided for the retaining as visually amenable as possible. In addition, landscape planting should be provided for the retaining as visually amenable as possible. In addition, landscape planting should be provided for the retaining as visually amenable as possible. In addition, landscape planting should be provided for the retaining as visually amenable as possible. In addition, landscape planting shou	
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MM7 DP4 shall be provided to the satisfaction of relevant Government shrubs lost due to the Project. Detailed Design possible. Otherwise Construction,	
	N/A
departments. Required numbers and locations of compensatory trees Consultant/ Consider offsite Construction Phase	
shall be determined and agreed separately with Government during the Contractor locations & Maintenance in	
Tree Removal Application process under ETWBTC 3/2006. Operation Phase	
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	
S.12.A9 LV8- Woodland Compensatory Planting - Specific Woodland compensatory Reprovide areas of woodland Project Proponent/ In areas identified in Prior to	N/A
MM8 DP4 planting is proposed for any areas of quality woodland that are to compensate for those areas Detailed Design the EIA Landscape Construction,	
unavoidably affected by the Project. The location and design of the of quality woodland lost. Consultant/ Mitigation Plans and Construction Phase	
woodland compensatory planting will principally be within habitats of Contractor/ as agreed with & Maintenance in	
lower value such as upland grassland. The proposed locations are Maintenance AFCD Operation Phase	

		identified, for example, on the foothills of Tai Shek Mo, and on the		Authority			
		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 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	LV9-	Vertical Greening – Planting of climbers to grow up vertical surfaces	Soften hard surfaces and	Government /	On appropriate	Prior to	N/A
MM9	DP4	were appropriate (e.g. viaduct piers, noise barriers).	facilities	Detailed Design	structures	Construction,	

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				Consultant/		Construction Phase	
				Contractor		& Maintenance in	
						Operation Phase	
S.12.A9	LV10-	Screen Planting – Tall screen/buffer trees and shrubs should be planted.	To screen proposed structures	Government /	Along roads, around	Prior to	N/A
MM11	DP4	This measure may additionally form part of the compensatory planting.	such as roads and buildings.	Detailed Design	suitable built	Construction,	
			Improve compatibility with the	Consultant/	structures, or	Construction Phase	
			surrounding environment and	Contractor	around VSRs to	& Maintenance in	
			create a pleasant pedestrian		contain their view	Operation Phase	
			environment		out to the NDA		
					structures.		
S.12.A9	LV11-	Road Greening –For viaducts, soft landscaping should be provided to	To soften the hard, straight	Government	On viaducts or along	Prior to	N/A
MM12	DP4	soften the hard, straight edges (for climbers used to cover the vertical,	edges and provide greening	Detailed Design	roads.	Construction,	
		hard surfaces of the piers – see MM9 Vertical Greening) and shade	along roads.	Consultant/		Construction Phase	
		tolerant plants should be planted, where light is sufficient, to improve		Contractor		& Maintenance in	
		aesthetic value of areas under viaducts. Both at grade planting and use				Operation Phase	
		of elevated planters should be considered for the soft landscaping of					
		viaducts, taking into account the preference to minimize the overall					
		viaduct bulk and integrate architectural forms and textural finishes					
		which improve aesthetics.					
		For at grade roads, planting should be considered along central					
		dividers and on road islands e.g. in the middle of roundabouts.					
		(Roadside planting i.e. at the road edge and not in the central divider or					
		road island, is considered part of Screen Planting)					
S.12.A9	LV12-	Marsh/Wetland Compensation -The proposed Long Valley Nature Park	Compensate for Marsh/	Project Proponent/	Onsite where	Prior to	N/A
MM13 &	DP4	(LVNP) will be designed and implemented to enhance on-wetland	Wetland lost due to the	Detailed Design	possible. Otherwise	Construction,	
EIA		areas within the LVNP. (See E4,E15 and E25 also)	Project.	Consultant/	consider offsite	Construction Phase	
Annex 13		Also see LV16, LV17, and LV18 as wetland planting should be		Contractor/	locations	& Maintenance in	

		provided along the embankments and beds of modified/re-provisioned		Maintenance		Operation Phase	
		watercourses.		Authority			
S.12.A9	LV13-	Pond Replacement –Principles adopted in the design of the NDAs	Reprovision for ponds lost due	Project Proponent/	E1-7 and C1-9	Prior to	N/A
MM15	DP4	ensure that they incorporate ponds within the RODPs.	to the Project.	Detailed Design	(LVNP) in KNT	Construction,	
		All requirements for ponds stipulated in the planning documents for		Consultant/	NDA and generally	Construction Phase	
		the formulation of the Preliminary Layout Plan (e.g. at Fung Kong		Contractor/	throughout NDA	Maintenance in	
		Shan Park in E1-7 of KNT ND) should be adhered to.		Maintenance		Operation Phase	
				Authority			
Landscape	and Visual	(Construction)	l				
S.12.A9	LV14-	Screen Hoarding –Screen hoarding shall be erected along areas of the	To screen undesirable views of	Contractor			N/A
MM16	DP4	construction works site boundary where the works site borders	the works site.				
		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).					
S.12.A9	LV15-	Light Control – Construction day and night time lighting should be	To minimize glare impact to	Government /	Throughout NDAs	Construction and	N/A
MM17	DP4	controlled to minimize glare impact to adjacent VSRs during the	adjacent VSRs	Contractor		Operation Phases	
		Construction phase.					
		Street and night time lighting shall also be controlled to minimize					
		glare impact to adjacent VSRs during the operation phase.					
Ecology (F	Prior to Deta	iled Design Prior to Construction Phase)					
S. 13.9	E1-DP4	Egretry Habitat Creation & Management Plan (EHCMP) and	Compensate for loss of Man	Project Proponent/	FLN area A1-7	Detailed design	N/A
		Woodland Planting and Management Plan (WPMP)	Kam To Road egretry.	Detailed Design	(egretry	phase.	
			Compensate for loss of	Consultant	compensation).		

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			secondary woodland and	(EHCMP and	KTN areas E1-8 and		
			hillside plantation of ecological	WPMP).	G1-3 (woodland		
			significance.		compensation).		
Ecology (D	etailed Desi	gn, Construction and Operational Phases)					
S13.9	E2-DP4	Use opaque, non-transparent, non-reflective noise barriers.	Minimize mortality impacts on	Detailed Design	Throughout.	Throughout.	N/A
		Unnecessary lighting should be avoided.	birds.	Consultant/			
				Contractor			
				Maintenance			
				Authority.			
Ecology (C	Construction	Phase)					
S.13.9	E3-DP4	Design and erection of 2m high solid dull green site barrier fence	Minimize dust, disturbance,	Contractor.	Interface between	Construction phase.	N/A
		between active works areas and all areas/habitats of ecological	mortality and other adverse		areas/habitats of		
		importance.	ecological impacts on habitats,		ecological		
			flora and fauna.		importance (KTN		
					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	Project Proponent	KTN areas E1-8 and	Construction phase.	N/A
			plantation of ecological	/ Contractor	G1-3.		
			significance.				
S13.8	E5-DP4	Maintenance of compensatory native woodland planting.	Compensate for loss of	Maintenance	KTN areas E1-8 and	Operation	N/A
			plantation of ecological	Authority.	G1-3.	phase	
			significance.				
Cultural H	eritage (Pre	-construction Phase)					
S11.6.1	CH1-	Undertaking Survey-cum-Rescue Excavation	To define the precise	Project Proponent	In KTN NDA, for	After land	N/A
	DP4	A Survey-cum-Rescue Excavation should be conducted after land	archaeological deposits extent	/ Contractor/	Site 1	resumption but	
		resumption and before the commencement of construction works to	and to preserve the	Qualified		before Construction	

		define the precise archaeological deposits extent and to preserve the	archaeological resources as far	Archaeologist		commencement of	
		archaeological resources by record. The excavation should be	as possible.			the zones	
		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.					
S11.6.1	CH2-	Undertaking Further Archaeological Survey to Cover the	To confirm and verify the	Project Proponent/	In the not-yet-	After land	N/A
	DP4	Outstanding Areas	findings of the EIA	Contractor/	surveyed- areas with	resumption but	
		Further archaeological surveys to cover the outstanding areas of the		Qualified	medium	before construction	
		not-yet-surveyed-area with medium archaeological potential located		Archaeologist	archaeological		
		with areas with proposed development as presented in Figure 11.9			potential located		
		should be implemented after land resumption to confirm and verify the			within the work		
		findings of the EIA. The survey should be conducted by a professional			extent of DP4		
		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.					
S11.6.1	СН3-	<u>Undertaking Induction Training</u>	To preserve the archaeological	Project Proponent/	Spot E	Before the	N/A
	DP4	Induction training should be provided to the construction Contractor	resources as far as possible	Contractor/		commencement of	
		before the commencement of the excavation works in Spot E. An		Qualified		the excavation	
		induction will be conducted as part of the environmental health and		Archaeologist		works and before	

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		safety induction programme to all site staff before they are deployed				site staff are	
		on site. The induction will include an introduction on the historical				deployed on site	
		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.					
S11.6.2	CH4-	Conducting Photographic and Cartographic Records Prior to	To preserve the directly	Project	Entrance Gate of	Prior to Removal /	N/A
	DP4	Removal/Relocation of Impacted Built Heritages	impacted sites by record prior	Proponent/	HKT03, KT16,	Relocation of	
		Prior to removal/relocation of the directly impacted historical buildings	to their removal / relocation	Contractor	KT17 and KT18	features before	
		and cultural/historical landscape features, photographic and				commencement of	
		cartographic records should be conducted to preserve them by record.				construction	
		Liaison with and obtaining agreement from the descendants of these				works	
		features will be carried out by the Project Proponent.					
S11.6.2	CH5-	Undertaking baseline condition survey and baseline vibration	To minimize the vibration	Project Proponent/	HKT03 (Main	Preconstruction	N/A
	DP4	impact assessment	impacts during preconstruction	Contractor	Building) and G308	stage before	
		In case any potential vibration impact on any nearby built heritage	stage on any identified			commencement of	
		features are identified during the pre-construction stage of the Project,	potential vibration impacted			construction works	
		prior to commencement of construction works, a baseline condition	built heritage features				
		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 phase so as to ensure the construction performance meets					
		with the vibration standard stated in the EIA report.					
S11.6.2	СН6-	Relocation of Built Heritages	To preserve the directly	Project Proponent/	Entrance Gate of	After the	N/A
	DP4	Relocation of built heritages to a reasonable location nearby may be	impacted sites by relocation	Contractor	НКТ03	photographic and	
		required.				cartographic records	
						and before	
						commencement of	
						construction works	
Cultural H	⊥ Ieritage (Co	onstruction Phase)	L			<u> </u>	
S11.6.2	CH7-	Conducting Construction Vibration Monitoring and Structural	To minimize the potential	Contractor	Identified potential	Construction phase,	N/A
	DP4	Strengthening Measures	impacts during Construction		vibration impacted	with details	
		Construction vibration monitoring and structural strengthening	phase on any identified		built heritage	specified in baseline	
		measures should be conducted during Construction phase based on the	potential vibration impacted		features	condition survey	
		assessment result of baseline condition survey and baseline vibration	built heritage features			and baseline	
		impact assessment, so as to ensure the construction performance meets				vibration impact	
		with the vibration standard stated in the EIA report.				assessment,	
		DDC N	· · · · · (CDC) ·	WEN NO.			
Landscane	and Visual	(Detailed Design, Prior to Construction, Construction and Operational Phases	ge pumping stations (SPSs) in	KIN NDA			
S.12.B9	S.12.B9	General Good Practice Measures - For areas unavoidably disturbed by the	,	Detailed	Throughout NDAs,	Prior to	N/A
5.12.D)	5.12.6	Project on a short term basis e.g. works areas, the general principle to try		Design	imoughout 112716,	Construction,	14/1
		and restore these to their former state to suit future land use, should be		Consultant/		Construction &	
		adhered to. With regard to topsoil, where identified, it should be stripped,		Contractor/		for all planting,	
		treated appropriately, and where suitable and practical stored for re-use in		Contractor		this should be	
		the construction of the soft landscape works such as roadside amenity				installed as	
		strips, and open space sites.				soon as the	
		outpo, and open space sites.				Soon as the	

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						areas become	
						available, to	
						achieve early	
						establishment	
S.12.B9	LV2-	Minimum Topographical Change -To minimize landscape and visual	Reduce topographical	Government /	Throughout NDAs,	Prior to	N/A
MM1	DP5	impacts, the footprint and elevation of such elements should be optimized	changes and minimize land	Detailed	particularly for	Construction	
		to reduce topographical/ landform changes, as well as reduce land take and	resumption	Design	reservoirs		
		interference with natural terrain. Where there is a need to significantly cut		Consultant/			
		into the existing landform, retaining walls should be considered as well as		Contractor/			
		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.					
S.12.B9	LV3-	Detailed Design (Visual) -The footprint and massing of development	Improve visual amenity of	Detailed	Throughout NDAs	Throughout NDAs	N/A
MM2	DP5	components and the works area should also be kept to a practical minimum	the new buildings, NDAs in	Design			
		and the detailed design of development components for Construction phase	general and integrate as best	Consultant/			
		should follow the Sustainable Building Design Guidelines. The form,	possible into the surrounding				
		textures, finishes and colours of the proposed development components	landscape				
		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.					
S.12.B9	LV4-	Tree Protection & Preservation – Exiting trees to be retained within	Protect and Preserve Trees	Government	Onsite	Prior to	۸
MM4	DP5	the Project Site should be carefully protected during construction.		Detailed		Construction	
		In particular OVTs will be preserved according to ETWB Technical		Design		and	
		Circular (Works) No. 29/2004. Detailed Tree Protection Specification shall		Consultant/		Construction Phase	
		be provided in the Contract Specification. Under this specification, the		Contractor			
		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.					
S.12.B9	LV5-	Tree Transplantation – Trees unavoidably affected by the Project	Transplant Trees where	Government	Onsite where	Prior to	N/A
MM5	DP5	works should be transplanted where practical. Trees should be	suitable for transplantation	Detailed	possible.	Construction,,	
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		transplanted straight to their final receptor site and not held in a		Design	Otherwise consider	Construction	
		temporary nursery as far as possible. A detailed Tree Transplanting		Consultant/	offsite location.	Phase &	
		Specification shall be provided in the Contract Specification, where		Contractor		Maintenance	
		applicable. Sufficient time for necessary tree root and crown				in Operation Phase	
		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.					
S.12.B9	LV6-	Slope Landscaping – Site formation should be reduced as far as possible.	To avoid substantial slope	Government/	Onsite	Prior to	N/A
MM6	DP5	Seeding of modified slopes should be done as soon as grading works are	cutting and fill slopes.	Detailed		Construction,	
		completed to prevent erosion and subsequent loss of landscape resources		Design		Construction Phase	
		and character. Woodland tree seedlings and/ or shrubs should be planted	To prevent erosion and	Consultant/		& Maintenance	
		where slope gradient and site conditions allow.	subsequent loss of			in Operation	
			landscape resources and			Phase	
		In addition, landscape planting should be provided for the retaining	character.				
		structures associated with modified slopes where conditions allow. All					
		slope landscaping works should comply with GEO Publication No. 1/2011-	To ensure man-made slopes				
		Technical Guidelines on Landscape Treatment for Slopes.	are as visually amenable as				
			possible.				
S.12.B9	LV7-	Compensatory Planting – Compensatory tree planting for felled trees shall	Compensate for trees and	Government/	Onsite where	Prior to	N/A

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MM7	DP5	be provided to the satisfaction of relevant Government departments.	shrubs lost due to the	Detailed	possible.	Construction,	
		Required numbers and locations of compensatory trees shall be determined	Project.	Design		Construction Phase	
		and agreed separately with Government during the Tree Removal		Consultant/	Otherwise consider	& Maintenance in	
		Application process under ETWBTC 3/2006.		Contractor	offsite locations	Operation Phase	
		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.					
S.12.B9	LV8-	Woodland Compensatory Planting –Specific Woodland compensatory	Reprovide areas of	Project	In areas identified	Prior to	N/A
MM8	DP5	planting is proposed for any areas of quality woodland that are unavoidably	woodland to compensate for	Proponent/	in the EIA	Construction,	
		affected by the Project. The location and design of the woodland	those areas of quality	Detailed	Landscape	Construction	
		compensatory planting will principally be within habitats of lower value	woodland lost.	Design	Mitigation Plans	Phase &	
		such as upland grassland. The proposed locations are identified, for		Consultant/	and as agreed with	Maintenance	
		example, on the foothills of Tai Shek Mo, and on the higher ground of		Contractor/	AFCD	in Operation	
		Fung Kong Shan in KTN NDA; along Fanling Bypass; and a small area in		Maintenance		Phase	
		the northern FLN NDA.		Authority			
		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 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	LV9-	Vertical Greening – Planting of climbers to grow up vertical	Soften hard surfaces and	Government /	On appropriate	Prior to	N/A
MM9	DP5	surfaces were appropriate (e.g. viaduct piers, noise barriers).	facilities	Detailed	structures	Construction,	
				Design		Construction	
				Consultant/		Phase &	
				Contractor		Maintenance	
						in Operation	
						Phase	
S.12.B9	LV10-	Green Roof – Roof greening where appropriate should be	Reduce exposure to	Government /	On appropriate	Prior to	N/A

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MM10	DP5	established on proposed buildings as per the guidelines stated. These	untreated concrete surfaces	Detailed	buildings	Construction,	
		guidelines provide further details including	and particularly mitigate	Design		Construction	
		information regarding structural loading, design,	visual impact to VSRs at	Consultant/		Phase &	
		maintenance, etc. considerations as well as providing	high levels. Provide	Contractor		Maintenance	
		information on what types of plants might be suitable.	greening.			in Operation	
						Phase	
S.12.B9	LV11-	Screen Planting – Tall screen/buffer trees and shrubs should be	To screen proposed	Government /	Along roads,	Prior to	N/A
MM11	DP5	planted. This measure may additionally form part of the	structures such as roads and	Detailed	around	Construction,	
		compensatory planting.	buildings. Improve	Design	suitable built	Construction	
			compatibility with the	Consultant/	structures, or	Phase &	
			surrounding environment	Contractor	around	Maintenance	
			and create a pleasant		VSRs to contain	in Operation	
			pedestrian environment		their view out to	Phase	
					the		
					NDA structures.		
S.12.B9	LV12-	Enhancement Planting along Embankment - For channelized	Minimize the necessity of	Government /	<u>Channelized</u>	Prior to	N/A
MM14.3	DP5	watercourses, if these are modified, the Drainage Services	watercourse modification,	Detailed	<u>watercourse,</u>	Construction,	
		Department Practice Note No.1/2005 – Guidelines on	protect watercourses where	Design	particularly the Ma	Construction	
		Environmental Considerations for River Channel Design, should be	possible and enhance	Consultant/	Wat River Channel	Phase &	
		considered and appropriate mitigation measures included ensuring	channelized watercourses	Contractor	<u>Diversion</u>	Maintenance	
		the new watercourses match the existing as far as possible.				in Operation	
		Measures can include enhancement planting to upgrade the				Phase	
		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.					
Landscape	and Visual (Construction)					
S.12.B9	LV13-	Screen Hoarding –Screen hoarding shall be erected along areas of	To screen undesirable views	Contractor	Throughout NDAs	Construction	N/A
MM16	DP5	the construction works site boundary where the works site borders	of the works site.			Phase	
		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).					
S.12.B9	LV14-	Light Control – Construction day and night time lighting should be	To minimize glare impact to	Government /	Throughout NDAs	Construction	۸
MM17	DP5	controlled to minimize glare impact to adjacent VSRs during the	adjacent VSRs	Contractor		and Operation	
		Construction phase.				Phases	
		Street and night time lighting shall also be controlled to					
		minimize glare impact to adjacent VSRs during the operation					
		phase.					
Ecology (Co	onstruction l	Phase)	•	•			
S.13.9	E1-DP5	Design and erection of 2m high solid dull green site barrier fence	Minimize dust, disturbance,	Contractor.	Interface between	Construction	N/A
		between active works areas and all areas/habitats of ecological	mortality and other adverse		areas/habitats of	phase.	

		importance.	ecological impacts on		ecological		
			habitats, flora and fauna.		importance and		
					works areas (all		
					sides of KTN area		
					F1-2).		
		DP7-Utilization of Treated Sewage Effluer	nt (TSE) from Shek Wu Hui Se	wage Treatment We	orks (SWHSTW)		
Landscape	and Visual	(Construction Phase and Operational Phase)					
S.12.9	LV1-	Tree Protection & Preservation – Exiting trees to be retained within the	Protect and Preserve Trees	Government /	<u>Onsite</u>	Prior to	N/A
MM4	DP7	Project Site should be carefully protected during construction. In		Detailed		Construction and	
		particular OVTs will be preserved according to ETWB Technical		Design		Construction Phase	
		Circular (Works) No. 29/2004. Detailed Tree Protection Specification		Consultant/			
		shall be provided in the Contract Specification. Under this		Contractor			
		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.					
S.12.9	LV2-	Vertical Greening – Planting of climbers to grow up vertical surfaces	Soften hard surfaces and	Government /	On appropriate	Prior to	N/A
MM9	DP7	were appropriate (e.g. building edges, piers).	facilities	Detailed	<u>structures</u>	Construction,	
				Design		Construction	
				Consultant/		Phase &	
				Contractor		Maintenance	

						in Operation	
						Phase	
S.12.9	LV3-	Green Roof – Roof greening where appropriate should be established	Reduce exposure to	Government /	On appropriate	Prior to	N/A
MM10	DP7	on proposed buildings as per the guidelines stated.	untreated concrete surfaces	Detailed	<u>buildings</u>	Construction,	
		These guidelines provide further details including information	and particularly mitigate	Design		Construction	
		regarding structural loading, design, maintenance, etc.	visual impact to VSRs at	Consultant/		Phase &	
		considerations as well as providing information on what types of	high levels. Provide	Contractor		Maintenance	
		plants might be suitable.	greening.			in Operation	
						Phase	
		DP10- Fanlin	g Bypass Eastern Section (New	v Road)			
Landscape	and Visua	l (Detailed Design, Prior to Construction, Construction and Operational Pa	hases)				
S.12.D9	LV1-	General Good Practice Measures - For areas unavoidably disturbed by		Detailed Design	Throughout NDAs,	Prior to	٨
	DP10	the Project on a short term basis e.g. works areas, the general principle		Consultant/		Construction,	
		to try and restore these to their former state to suit future land use,		Contractor		Construction & for	
		should be adhered to.				all planting, this	
		With regard to topsoil, where identified, it should be stripped, treated				should be installed	
		appropriately, and where suitable and practical stored for re-use in the				as soon as the areas	
		construction of the soft landscape works such as roadside amenity				become available, to	
		strips, and open space sites.				achieve early	
						establishment	
S.12.D9	LV2-	Minimum Topographical Change –To minimize landscape and visual	Reduce topographical changes	Government/	Throughout NDAs,	Prior to	N/A
MM1	DP10	impacts, the footprint and elevation of such elements should be	and minimize land resumption	Detailed Design	particularly for	Construction	
		optimized to reduce topographical/ landform changes, as well as reduce		Consultant/	<u>reservoirs</u>		
		land take and interference with natural terrain. Where there is a need to		Contractor			
		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.					
S.12.D9	LV3-	Tree Protection & Preservation – Exiting trees to be retained within the	Protect and Preserve Trees	Government/	<u>Onsite</u>	Prior to	۸
MM4	DP10	Project Site should be carefully protected during construction. In		Detailed Design		Construction and	
		particular OVTs will be preserved according to ETWB Technical		Consultant/		Construction Phase	
		Circular (Works) No. 29/2004. Detailed Tree Protection Specification		Contractor			
		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.					
S.12.D9	LV4-	Tree Transplantation – Trees unavoidably affected by the Project works	Transplant Trees where suitable	Government/	Onsite where	Prior to	N/A
MM5	DP10	should be transplanted where practical. Trees should be transplanted	for transplantation	Detailed Design	possible. Otherwise	Construction,	
		straight to their final receptor site and not held in a temporary nursery		Consultant/	<u>consider offsite</u>	Construction Phase	
		as far as possible. A detailed Tree Transplanting Specification shall be		Contractor	<u>locations</u>	& Maintenance in	
		provided in the Contract Specification, where applicable. Sufficient				Operation Phase	
		time for necessary tree root and crown preparation periods shall be					
		allowed in the project programme.					

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		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.					
S.12.D9	LV5-	Slope Landscaping – Site formation should be reduced as far as	To avoid substantial slope	Government/	<u>Onsite</u>	Prior to	N/A
MM6	DP10	possible. Seeding of modified slopes should be done as soon as grading	cutting and fill slopes.	Detailed Design		Construction,	
		works are completed to prevent erosion and subsequent loss of	To prevent erosion and	Consultant/		Construction Phase	
		landscape resources and character. Woodland tree seedlings and/ or	subsequent loss of landscape	Contractor		& Maintenance in	
		shrubs should be planted where slope gradient and site conditions	resources and character.			Operation Phase	
		allow.	To ensure man-made slopes are				
		In addition, landscape planting should be provided for the retaining	as visually amenable as				
		structures associated with modified slopes where conditions allow. All	possible.				
		slope landscaping works should comply with GEO Publication No.					
		1/2011-Technical Guidelines on Landscape Treatment for Slopes.					
S.12.D9	LV6-	Compensatory Planting – Compensatory tree planting for felled trees	Compensate for trees and	Government/	Onsite where	Prior to	N/A
MM7	DP10	shall be provided to the satisfaction of relevant Government	shrubs lost due to the Project.	Detailed Design	possible. Otherwise	Construction,	
		departments. Required numbers and locations of compensatory trees		Consultant/	consider offsite	Construction Phase	
		shall be determined and agreed separately with Government during the		Contractor	<u>locations</u>	& Maintenance in	
		Tree Removal Application process under ETWBTC 3/2006.				Operation Phase	
		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.					
S.12.D9	LV7-	Woodland Compensatory Planting -Specific Woodland compensatory	Reprovide areas of woodland to	Project Proponent/	In areas identified in	Prior to	N/A
MM8	DP10	planting is proposed for any areas of quality woodland that are	compensate for those areas of	Detailed Design	the EIA Landscape	Construction,	
		unavoidably affected by the Project. The location and design of the	quality woodland lost.	Consultant/	Mitigation Plans	Construction Phase	
		woodland compensatory planting will principally be within habitats of		Contractor/	and as agreed with	& Maintenance in	
		lower value such as upland grassland. The proposed locations are		Maintenance	<u>AFCD</u>	Operation Phase	
		identified, for example, on the foothills of Tai Shek Mo, and on the		Authority			
		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.					

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		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	LV8-	Vertical Greening – Planting of climbers to grow up vertical surfaces	Soften hard surfaces and	Government/	On appropriate	Prior to	N/A
MM9	DP10	were appropriate (e.g. viaduct piers, noise barriers).	facilities	Detailed Design	<u>structures</u>	Construction,	
				Consultant/		Construction Phase	
				Contractor		& Maintenance in	
						Operation Phase	
S.12.D9	LV9-	Screen Planting – Tall screen/buffer trees and shrubs should be planted.	To screen proposed structures	Government/	Along roads, around	Prior to	N/A
MM11	DP10	This measure may additionally form part of the compensatory planting.	such as roads and buildings.	Detailed Design	suitable built	Construction,	
			Improve compatibility with the	Consultant/	structures, or	Construction Phase	
			surrounding environment and	Contractor	around VSRs to	& Maintenance in	
			create a pleasant pedestrian		contain their view	Operation Phase	
			environment		out to the NDA		
					structures.		
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	N/A
M12	DP10	soften the hard, straight edges (for climbers used to cover the vertical,	edges and provide greening	Detailed Design	along roads.	Construction,	
		hard surfaces of the piers – see MM9 Vertical Greening) and shade	along roads.	Consultant/		Construction Phase	
		tolerant plants should be planted, where light is sufficient, to improve		Contractor		& Maintenance in	
		aesthetic value of areas under viaducts. Both at grade planting and use				Operation Phase	
		of elevated planters should be considered for the soft landscaping of					

		viaducts, taking into account the preference to minimize the overall					
		viaduct bulk and integrate architectural forms and textural finishes					
		which improve aesthetics.					
		For at grade roads, planting should be considered along central dividers					
		and on road islands e.g. in the middle of roundabouts. (Roadside					
		planting i.e. at the road edge and not in the central divider or road					
		island, is considered part of Screen Planting)					
S.12.D9	LV11-	Enhancement Planting along Embankment - For channelized	Minimize the necessity of	Government/	<u>Channelized</u>	Prior to	N/A
MM14.3	DP10	watercourses, if these are modified, the Drainage Services Department	watercourse modification,	Detailed Design	<u>watercourse,</u>	Construction,	
		Practice Note No.1/2005 – Guidelines on Environmental	protect watercourses where	Consultant/	particularly the Ma	Construction Phase	
		Considerations for River Channel Design, should be considered and	possible and enhance	Contractor	Wat River Channel	& Maintenance in	
		appropriate mitigation measures included ensuring the new	channelized watercourses		<u>Diversion</u>	Operation Phase	
		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.					
Landscape	and Visual	l (Construction)		•			
S.12.D9	LV12-	Screen Hoarding –Screen hoarding shall be erected along areas of the	To screen undesirable views of	Contractor	Throughout NDAs	Construction Phase	۸
MM16	DP10	construction works site boundary where the works site borders	the works site.				
		publically accessible routes and/or is close to visually sensitive					
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		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).					
S.12.D9	LV13-	Light Control – Construction day and night time lighting should be	To minimize glare impact to	Government /	Throughout NDAs	Construction	۸
MM17	DP10	controlled to minimize glare impact to adjacent VSRs during the	adjacent VSRs	Contractor		and Operation	
		Construction phase.				phases	
		Street and night time lighting shall also be controlled to minimize glare					
		impact to adjacent VSRs during the operation phase.					
Ecology (L	etailed Des	sign, Construction and Operational Phases)					
S13.8	E1-	Use opaque, non-transparent, non-reflective noise barriers.	Minimize mortality impacts on	Detailed Design	Throughout NDAs	Detailed design,	۸
	DP10	Unnecessary lighting should be avoided.	birds.	Consultant/		construction and	
				Contractor		Operation phases.	
				Maintenance			
				Authority.			
Ecology (C	Construction	n Phase)					
S13.9	E3-	Lower reaches of Siu Hang San Tsuen Stream to have 10m wide	Minimize impacts on Siu Hang	Contractor.	FLN area D1-3.	Construction phase.	*
	DP10	vegetated buffer in Open Space Zone D1-3 and Fanling Bypass to cross	San Tsuen Stream and stream				
		stream on viaduct.	fauna.				
S.13.9	E4-	Design and erection of 2m high solid dull green site barrier fence	Minimize dust, disturbance,	Contractor.	Interface between	Construction phase.	N/A
	DP10	between active works areas and all areas/habitats of ecological	mortality and other adverse		areas/habitats of		
		importance.	ecological impacts on habitats,		<u>ecological</u>		
			flora and fauna.		importance and		
			Measures to minimize flight-		works areas (all of		
			line impacts to birds, especially		the north side of the		
			•				

			breeding ardeids.		Bypass works areas		_
			breeding arderes.		west of interchange		
					with Sha Tau Kok		
					<u>Road).</u>		
		onstruction Phase)		T		T T	
S11.6.2	CH4-	Conducting Construction Vibration Monitoring and Structural	To minimize the potential	Contractor.	<u>Identified potential</u>	Construction phase,	N/A
	DP10	Strengthening Measures	impacts during Construction		vibration impacted	with details	
		Construction vibration monitoring and structural strengthening	phase on any identified		<u>built heritage</u>	specified in baseline	
		measures should be conducted during Construction phase based on the	potential vibration impacted		<u>features</u>	condition survey and	
		assessment result of baseline condition survey and baseline vibration	built heritage features			baseline vibration	
		impact assessment, so as to ensure the construction performance meets				impact assessment,	
		with the vibration standard stated in the EIA report.					
		DP12-Reprovision o	f temporary wholesale market	in FLN NDA			
Landscape	and Visual	(Detailed Design, Prior to Construction, Construction and Operational P	hases)				
S.12.D9	LV1-	General Good Practice Measures - For areas unavoidably disturbed by		Detailed design	Throughout NDAs,	Prior to	N/A
	DP12	the Project on a short term basis e.g. works areas, the general principle		consultant/		Construction,	
		to try and restore these to their former state to suit future land use,		Contractor		Construction & for	
		should be adhered to.				all planting, this	
		With regard to topsoil, where identified, it should be stripped, treated				should be installed	
		appropriately, and where suitable and practical stored for re-use in the				as soon as the areas	
		construction of the soft landscape works such as roadside amenity				become available, to	
		strips, and open space sites.				achieve early	
						establishment	
S.12.D9	LV2-	Minimum Topographical Change –To minimize landscape and visual	Reduce topographical changes	Government /	Throughout NDAs,	Prior to Construction	N/A
MM1	DP12	impacts, the footprint and elevation of such elements should be	and minimize land resumption	Detailed Design	particularly for		
		optimized to reduce topographical/ landform changes, as well as		Consultant/	reservoirs		
		reduce land take and interference with natural terrain. Where there is a		Contractor			

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		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.					
S.12.D9	LV3-	Detailed Design (Visual) -The footprint and massing of development	Improve visual amenity of the	Detailed Design	Throughout NDAs	Prior to Construction	N/A
MM2	DP12	components and the works area should also be kept to a practical	new buildings, NDAs in	Consultant			
		minimum and the detailed design of development components for	general and integrate as best				
		Construction phase should follow the Sustainable Building Design	possible into the surrounding				
		Guidelines. The form, textures, finishes and colours of the proposed	landscape				
		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					

	_		T			1	
		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	LV4-	Tree Protection & Preservation – Exiting trees to be retained within the	Protect and Preserve Trees	Government /	Onsite	Prior to Construction	N/A
MM4	DP12	Project Site should be carefully protected during construction. In		Detailed Design		and Construction	
		particular OVTs will be preserved according to ETWB Technical		Consultant/		Phase	
		Circular (Works) No. 29/2004. Detailed Tree Protection Specification		Contractor			
		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.					
S.12.D9	LV5-	Tree Transplantation – Trees unavoidably affected by the Project works	Transplant Trees where suitable	Government /	Onsite where	Prior to	N/A
MM5	DP12	should be transplanted where practical. Trees should be transplanted	for transplantation	Detailed Design	possible.	Construction,	
		straight to their final receptor site and not held in a temporary nursery		Consultant/	Otherwise consider	Construction Phase	
-		•	•				

	1	T	Т				T
		as far as possible. A detailed Tree Transplanting Specification shall be		Contractor	offsite locations	& Maintenance in	
		provided in the Contract Specification, where applicable. Sufficient				Operation Phase	
		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.					
S.12.D9	LV6-	Slope Landscaping – Site formation should be reduced as far as	To avoid substantial slope	Government /	Onsite	Prior to	N/A
MM6	DP12	possible. Seeding of modified slopes should be done as soon as	cutting and fill slopes.	Detailed Design		Construction,	
		grading works are completed to prevent erosion and subsequent loss of	To prevent erosion and	Consultant/		Construction Phase	
		landscape resources and character. Woodland tree seedlings and/ or	subsequent loss of landscape	Contractor		& Maintenance in	
		shrubs should be planted where slope gradient and site conditions	resources and character.			Operation Phase	
		allow.	To ensure man-made slopes are				
			as visually amenable as				
		In addition, landscape planting should be provided for the retaining	possible.				
		structures associated with modified slopes where conditions allow.					
		All slope landscaping works should comply with GEO Publication No.					
		1/2011-Technical Guidelines on Landscape Treatment for Slopes.					
S.12.D9	LV7-	Compensatory Planting – Compensatory tree planting for felled trees	Compensate for trees and	Government /	Onsite where	Prior to	N/A
							•

App Q - IMPLEMENTATION SCHEDULE AND RECOMMENDED MITIGATION MEASURES

August 2021

140.47	DP12		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	D (1 1 1 D)	*1.1	G:	
MM7	DP12	shall be provided to the satisfaction of relevant Government	shrubs lost due to the Project.	Detailed Design	possible.	Construction,	
		departments. Required numbers and locations of compensatory trees		Consultant/	Otherwise consider	Construction Phase	
		shall be determined and agreed separately with Government during the		Contractor	offsite locations	& Maintenance in	
		Tree Removal Application process under ETWBTC 3/2006.				Operation Phase	
		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.					
S.12.D9	LV8-	Screen Planting – Tall screen/buffer trees and shrubs should be planted.	To screen proposed structures	Government /	Along roads, around	Prior to	N/A
MM11	DP12	This measure may additionally form part of the compensatory planting	such as roads and buildings.	Detailed Design	suitable built	Construction,	
			Improve compatibility with the	Consultant/	structures, or around	Construction Phase	
			surrounding environment and	Contractor	VSRs to contain	& Maintenance in	
			create a pleasant pedestrian		their view out to the	Operation Phase	
			environment		NDA structures.		

Landscape	e and Visua	l (Construction)					
S.12.D9	LV9-	Screen Hoarding –Screen hoarding shall be erected along areas of the	To screen undesirable views of	Contractor	Throughout NDAs	Construction Phase	N/A
MM16	DP12	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.	the works site.				
		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).					
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.	To minimize glare impact to adjacent VSRs	Government / Contractor	Throughout NDAs	Construction and Operation Phases	N/A
		Street and night time lighting shall also be controlled to minimize glare impact to adjacent VSRs during the operation phase.					

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 2021

	Actua	l Quantities	of Inert C&D	Materials Ge	nerated Mon	nthly	Actual	Quantities of	C&D Wastes	s Generated	Monthly
Month	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	43.303	0.000	0.000	43.303	0.000	0.000	0.002	0.120	0.002	0.000	0.220
February	40.246	0.000	0.000	39.933	0.313	0.000	0.000	0.000	0.000	0.000	0.068
March	50.606	0.000	1.664	46.312	0.258	2.372	0.003	0.000	0.002	0.033	0.185
April	30.900	0.000	0.529	29.004	0.315	1.052	0.000	0.000	0.000	0.000	0.066
May	31.720	0.000	2.719	28.328	0.057	0.616	0.000	0.004	0.000	0.000	0.468
June	29.813	0.000	0.155	29.028	0.331	0.299	0.000	0.000	0.000	0.000	0.193
Sub-total	226.588	0.000	5.067	215.908	1.274	4.339	0.005	0.124	0.004	0.033	1.200
July	29.065	0.000	1.354	27.279	0.347	0.085	0.000	0.147	0.002	6.500	0.139
August	26.476	0.000	0.559	25.567	0.282	0.068	0.000	0.031	0.002	0.234	0.459
September											
October											
November											
December											
Total	282.129	0.000	6.980	268.754	1.903	4.492	0.005	0.302	0.008	6.767	1.798

AECOM Asia Co. Ltd. PSA1.34/4

	Forecast of Total Quantities of C&D Materials to be Generated from the Contract*											
Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in Other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper / Cardboard Packaging	Plastics (see Note 3)	Chemical Waste	Others, e.g. general refuse		
(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m ³)		
1,310.619	300.000	1,010.619	0.000	0.000	0.000	20.000	10.000	20.000	0.500	10.000		

Notes: (1) The performance target are given in PS Clause 1.115(14)

- (2) The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site.
- (3) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material
- (4) The Contractor shall also submit the latest forecast of the amount of C&D materials expected to be generated from the Works, together with a break down of the nature where the total amount of C&D materials expected to be generated from the Works is equal to or exceeding 50,000m³.
- (5) Conversion factors for reporting purpose:

in-situ: rock = 2.5 tonnes/m³; soil = 2.0 tonnes/m³

excavated: rock = 2.0 tonnes/m³; soil = 1.8 tonnes/m³

broken concrete and bitumen = 2.4 tonnes/m³

C&D Waste = 0.9 tonnes/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+e



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Name of Department: CEDD

Contract No.: ND/2019/02

Year **2021**

Waste Flow Table

		Actual Qua	antities of Ine	rt C&D Mate	rials Generate	ed Monthly	Actual Quar	ntities of Non-	nert C&D W	The Chemical Waste general refuse# (in tonnes) (in tonnes) 0.00	
Month	Total Quantity Generated (a) = (b)+(c)+(d)+(e)	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)		general
	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)
Jan	288.53	0.00	0.00	0.00	288.53	0.00	0.00	0.00	0.00	0.00	31.68
Feb	439.77	0.00	0.00	0.00	439.77	0.00	0.01	0.13	0.00	0.00	11.51
Mar	1,333.82	0.00	0.00	0.00	1,333.82	0.00	0.00	0.00	0.00	0.00	3.79
Apr	1,160.76	0.00	0.00	0.00	1,160.76	0.00	0.00	0.00	0.00	0.00	3.02
May	1,301.40	0.00	0.00	0.00	1,301.40	0.00	0.01	0.00	0.00	0.00	4.30
June	1,061.46	0.00	0.00	0.00	1,061.46	0.00	0.00	0.00	0.00	0.00	2.60
Sub-total	5,585.74	0.00	0.00	0.00	5,585.74	0.00	0.02	0.13	0.00	0.00	56.90
July	800.27	0.00	0.00	0.00	800.27	0.00	0.01	0.00	0.00	0.00	7.82
Aug	2,368.20	0.00	2,080.00	0.00	288.20	0.00	0.00	0.00	0.00	0.00	7.92
Sept											
Oct											
Nov											
Dec											
Sub-total	3,168.47	0.00	2,080.00	0.00	1,088.47	0.00	0.01	0.00	0.00	0.00	15.74
Total	8,754.21	0.00	2,080.00	0.00	6,674.21	0.00	0.03	0.13	0.00	0.00	72.64

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.

			Forecas	st of Total Qua	antities of C&D	Materials to be	Generated from	n the ND/2009/	'02		
Forecast									Plastics		
Made at the End of the Project	Total Quantity Generated	Hard Rock & Large Broken Concrete	I Relised in the	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ cardboard packaging	(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:	29,000	8,400	0	25,000	4,000	0	100	1.0	3	0.5	200

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 Contract No.: ND/2019/03

Monthly Summary Waste Flow Table for 2019 (Year)

	1			, summer,				` /			
	A	ctual Quantities	of Inert C&D	Materials Gene	erated Monthl	y	Actu	al Quantities o	f C&D Wastes	Generated Mo	onthly
Month	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)	$(in '000m^3)$
Jan	_	_	1	1	1	-	1	1	1	_	_
Feb	_	_	_	-		_	_	_	-	_	_
Mar	_	_	_	_	_	_	_	_	_	_	_
Apr	_	_	1	1	1	-	1	1	1	_	_
May	_	_	_	-		_	_	_	-	_	_
June	_	_	1	1	1	-	1	1	1	_	_
July	_	_	İ	İ	I	_	İ	I	I	_	_
Aug	_	_	ı	ı		_	ı	I	ı	_	_
Sept	_	_	ı	ı		_	ı	I	ı	_	_
Oct	_	_	ı	ı		_	ı	I	ı	_	_
Nov	_	_	ı	ı		=	ı	ı	ı	_	_
Dec	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0

*Remark: Imported Fill not taken into account of Total Quantity Generated

#Revised Figure

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 Contract No.: ND/2019/03

Monthly Summary Waste Flow Table for 2020 (Year)

				y Summar,	<i>J</i>	10 W Tubic		(Tear)			
	A	Actual Quantities	of Inert C&D	Materials Gene	erated Monthl	у	Actu	al Quantities o	of C&D Wastes	Generated Mo	onthly
Month	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)
Jan	0	0	0	0	0	0	0	0	0	0	0
Feb	0	0	0	0	0	0	0	0	0	0	0.01
Mar	0	0	0	0	0	0	0	0	0	0	0.004
Apr	0	0	0	0	0	0	0	0	0	0	0.038
May	0	0	0	0	0	0	0	0	0	0	0.004
Jun	0	0	0	0	0	0	0	0	0	0	0.015
Sub-Total	0	0	0	0	0	0	0	0	0	0	0.071
Jul	0.1	0	0	0	0.1	0	0	0	0	0	0
Aug	0	0	0	0	0	0	0	0	0	0	0.03
Sep	0	0	0	0	0	0	0	0	0	0	0
Oct	0.08	0	0	0	0.08	0	0	0	0	0	0.038
Nov	0.08	0	0	0	0.08	0	0	0	0	0	0.1
Dec	0.54	0	0	0	0.54	0	0	0	0	0	0.038
Total	0.8	0	0	0	0.8	0	0	0	0	0	0.277

^{*}Remark: Imported Fill not taken into account of Total Quantity Generated

#Revised Figure

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

Contract No.: ND/2019/03

Name of Department: CEDD

Monthly Summary Waste Flow Table for <u>2021</u> (Year)

	A	ctual Quantities	of Inert C&D	Materials Gene	erated Monthl	у	Actu	al Quantities of	of C&D Wastes	Generated Mo	onthly
Month	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 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	0.83	0	0	0.22	0.61	0	0	0	0	0	0.075
Feb	0	0	0	0	0	0.096	0	0	0	0	0.022
Mar	0.56	0	0	0	0.56	0.26	0	0	0	0	0.15
Apr	0.68	0	0	0	0.68	0.30	0	0	0	0	0.31
May	0.66	0	0	0	0.66	0.15	0	0	0	0	0.21
Jun	0.11	0	0	0	0.11	0.30	0	0	0	0	0.19
Sub-Total	2.84	0	0	0.22	2.62	1.106	0	0	0	0	0.957
Jul	0.26	0	0	0	0.26	0.14	0	0	0	0	0.178
Aug	0	0	0	0	0	0.39	0	0	0	0	0.15
Sep	_	_	1	_	_	1	-	1	-	_	_
Oct	_	_	I	ĺ	_	I	ı	I	ı	_	_
Nov		_	=		_	-	_	_		-	_
Dec	_	_	ı	_	_	_	_	_	_	-	_
Total	3.1	_	1	0.22	2.88	1.636	0	0	0	0	1.285

^{*}Remark: Imported Fill not taken into account of Total Quantity Generated

#Revised Figure

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

				f Total Quanti	ities of C&D Mate	erials to be G	enerated from th	e Contract*		
Total	Hard Rock and	Reused in the	Reused in	Disposed as			Paper/	Plastics		Others, e.g.
Quantity	Large Broken	Contract	other	Public Fill	Imported Hill	Metals	cardboard	(see Note 3)	Chemical Waste	general refuse
Generated	Concrete	Contract	Projects	r ublic 1 ili			packaging	(see Note 3)		general letuse
(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)	$(in '000m^3)$
2.5	1	2	0	0.5	5	1	0.2	0.2	1	2
2.5	1	2	U	0.5	3	1	0.2	0.2	1	3

*Remark: Figure to be revised if necessary

Notes:

- (1) The performance targets are given in ETWB Technical Circular PS Clause 6(14).
- (2) The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site.
- (3) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material
- (4) The Contractor shall also submit the latest forecast of the total amount of C&D materials expected to be generated from the Works, together with a breakdown of the nature where the total amount of C&D materials expected to be generated from the Works is equal to or exceeding 50,000 m3. (ETWB Technical Circular PS Clause 5(4)(b) refers). [Delete Note (4) and the table above on the forecast, where inapplicable].
- (5) Total Quantity Generated = (a) + (b) + (c) + (d)



Monthly Summary Waste Flow Table for <u>2021</u> (Year)

		Actual (Quantities of In	ert C&D Materi	ials Generated	Monthly	Actual Q	Quantities of No	n-Inert C&D W	Vastes Generate	ed Monthly
Month	Total Quantity Generated	Hard Rock and Large Broken Concrete (a)	Reused in the Contract (b)	Reused in other Projects	Disposed as Public Fill (d)	Imported Fill (e)	Metals (f)	Paper/ cardboard packaging (g)	Plastics (h)	Chemical Waste (i)	Others, e.g. general refuse (j)
	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)
Jan	1,705.91	0.00	0.00	0.00	0.00	1,439.86	0.00	0.00	0.00	0.00	266.05
Feb	2,033.63	0.00	0.00	0.00	159.19	1,700.35	0.00	0.00	0.00	0.00	174.09
Mar	508.67	0.00	0.00	0.00	236.63	68.57	0.00	0.00	0.00	0.00	203.47
Apr	1,227.09	0.00	0.00	0.00	1,222.37	0.00	0.00	0.00	0.00	0.00	4.72
May	3,904.76	0.00	0.00	0.00	3,290.41	588.64	0.00	0.00	0.00	0.00	25.71
June	1,552.26	0.00	0.00	0.00	316.89	1,228.66	0.00	0.00	0.00	0.00	6.71
Sub-total	10,932.32	0.00	0.00	0.00	5,225.49	5,026.08	0.00	0.00	0.00	0.00	680.75
July	1,405.56	0.00	0.00	0.00	1,371.79	0.00	11.64	0.00	0.00	0.00	22.13
Aug	974.13	0.00	0.00	0.00	953.84	0.00	0.00	0.00	0.00	0.00	20.29
Sept											
Oct											
Nov											
Dec											
Sub-total	2,379.69	0.00	0.00	0.00	2,325.63	0.00	11.64	0.00	0.00	0.00	42.42
Total	13,312.01	0.00	0.00	0.00	7,551.12	5,026.08	11.64	0.00	0.00	0.00	723.17

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

Monthly Summary Waste Flow Table for 2021 (year)

Name of Person completing the record: Louise Poon (EO)

Project: Fanling North New Development Area, Phase 1: Fanling Bypass Eastern Section (Shung Him Tong to Kau Lung Hang)

Contract No.: ND/2019/05

, j	A	ctual Quantities				3 3 3/		Actual Qu	antities of C&D	Wastes Genera		2013/03
Month	Total Quantity Generated (a) = (b)+ (c)+(d)+(e)	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 (g)	Paper/ cardboard packaging/ (h)	Plastics (i) (see Note 3)	Yard Waste (j)	Chemical Waste (k)	Others, e.g. general refuse (I)
	(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-20									- 97			
Feb-20												
Mar-20	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Apr-20	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
May-20	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.000
Jun-20	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.030	0.000	0.000	0.000	0.000
Sub-total	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.030	0.000	0.000	0.000	2.000
Jul-20	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.020	0.000	0.000	0.000	9.000
Aug-20	1.362	0.000	0.035	0.000	1.327	0.000	0.000	0.020	0.001	21.250	0.000	272.000
Sep-20	0.313	0.000	0.000	0.000	0.313	0.000	0.001	0.039	0.003	47.910	0.000	47.930
Oct-20	0.076	0.000	0.000	0.000	0.076	0.000	0.001	0.020	0.001	79.675	0.000	42.290
Nov-20	0.666	0.000	0.238	0.000	0.428	0.000	0.001	0.020	0.000	55.994	0.000	71.000
Dec-20	0.479	0.000	0.252	0.000	0.227	0.942	0.000	0.020	0.005	112.095	0.000	133.000
Total in 2020	2.896	0.000	0.525	0.000	2.371	0.942	0.003	0.169	0.010	316.924	0.000	577.220
Jan-21	2.025	0.000	0.300	0.000	1.725	0.564	0.000	0.419	0.065	55.020	3.482	99.590
Feb-21	0.874	0.000	0.066	0.000	808.0	0.000	0.000	0.137	0.000	33.194	0.000	162.010
Mar-21	2.676	0.000	0.582	0.000	2.094	0.000	0.002	0.088	0.002	24.670	0.000	221.160
Apr-21	2.745	0.000	0.480	0.000	2.265	0.282	0.002	0.000	1.678	0.002	0.000	201.690
May-21	2.129	0.000	0.492	0.000	1.637	1.158	0.002	0.170	0.001	3.800	12.000	108.040
Jun-21	1.652	0.000	0.240	0.000	1.412	0.000	0.001	0.000	0.000	3.750	1.700	43.360
Sub-total	12.101	0.000	2.160	0.000	9.941	2.004	0.008	0.814	1.747	120.436	17.182	835.850
Jul-21	2.122	0.000	0.078	0.000	2.044	0.060	5.667	0.296	0.007	6.910	0.000	36.530
Aug-21	2.267	0.000	0.288	0.000	1.979	0.156	1.031	0.320	0.021	8.168	0.000	90.700
Sep-21												
Oct-21												
Nov-21												
Dec-21	40,400	0.000	0.500	0.000	40.000	0.000	0.705	1 100	4 775	125 511	17.100	002.000
Total in 2021	16.489	0.000	2.526	0.000	13.963	2.220	6.705	1.429	1.775	135.514	17.182	963.080
Total of the Project	19.385	0.000	3.051	0.000	16.334	3.162	6.709	1.598	1.785	452.438	17.182	1540.300

^{*}Approx. estimation for each dump truck is 6m3/truck or 12 ton/truck

Total Quantity of Inert C&D Materials Generated:

19.385 (in '000m3) (a) = (b)+ (c)+(d)+(e)

Monthly Summary Waste Flow Table (PS Clauses 1.101 & 1.102)

Name of Department: CEDD

Contract No.:ND/2019/06

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

	Act	ual Quantities	of Inert C&D Ma	terials Generat	ted Monthly		Actua	l Quantities	of C&D Wastes	Generated N	Monthly
Month	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in the other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ cardboard packaging	Plastic (see Note 3)	Chemical Waste	Others, e.g. general refuse
	in '000m3	in '000m3	in '000m3	in '000m3	in '000m3	in '000m3	in '000kg	in '000kg	in '000kg	in '000kg	in '000m3
	А	В	С	D	Е	F	G	Н	I	J	K
Jan											
Feb											
Mar											
Apr											
May											
June											
Sub-											
total											
July											
Aug											
Sept											
Oct											
Nov	0.927	0	0	ŭ		0	0	0	0	0	0,000
Dec	0.428	0	0	0	0.428	0	0	0	0	0	0.071
Total	1.355	0	0	0	1.355	0	0	0	0	0	0.079

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

- (2) The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site.
- (3) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material
- *(4) The *Contractor* shall also submit the latest forecast of the total amount of C&D materials expected to be generated from the *works*, together with a breakdown of the nature where the amount of C&D materials expected to be generated from the works is equal to or exceeding 50,000m3. [Delete Note (4) and the table above on the forecast, where inapplicable].
- (5) Total Quantity Generated, A=B+C+D+E+F

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

	Act	ual Quantities	of Inert C&D Ma	terials Generat	ted Monthly		Actua	al Quantities	of C&D Wastes	Generated I	Monthly
Month	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in the other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ cardboard packaging	Plastic (see Note 3)	Chemical Waste	Others, e.g. general refuse
	in '000m3	in '000m3	in '000m3	in '000m3	in '000m3	in '000m3	in '000kg	in '000kg	in '000kg	in '000kg	in '000m3
	А	В	С	D	Е	F	G	Н	I	J	K
Jan	1.558	0	0	0	1.558	0	0	0	0	0	0.038
Feb	0.548	0	0	0	0.548	0	0	0	0	0	0.011
Mar	0.145	0	0	0	0.145	0	0	0	0	0	0.022
Apr	1.741	0	0	0	1.741	0	0	0	0	0	0.043
May	0.063	0	0	0	0.063	0	0	0	0	0	0.035
June	0.008	0	0	0	0.008	0	0	0	0	0	0.014
Sub- total	4.062	0	0	0	4.062	0	0	0	0	0	0.162
July	1.562	0	0	0	1.562	0	0	0	0	0	0.025
Aug	1.448	0	0	0	1.448	0	0	0	0	0	0.010
Sept	1.171	0	0	0	1.171	0	0	0	0	0	0.010
Oct	1.000	0	0	0	1.000	0	0	0	0	0	0.043
Nov	3.597	0	0	0	3.597	0	0	0	0	0	0.086
Dec	1.707	0	0	0	1.707	0	0	0	0	0	0.023
Total	14.547	0.000	0.000	0.000	14.547	0.000	0.000	0.000	0.000	0.000	0.358

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

- (2) The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site.
- (3) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material
- *(4) The *Contractor* shall also submit the latest forecast of the total amount of C&D materials expected to be generated from the *works*, together with a breakdown of the nature where the amount of C&D materials expected to be generated from the works is equal to or exceeding 50,000m3. [Delete Note (4) and the table above on the forecast, where inapplicable].
- (5) Total Quantity Generated, A=B+C+D+E+F

Monthly Summary Waste Flow Table for <u>2021</u> (year)

	Act	ual Quantities	of Inert C&D Ma	terials Generat	ed Monthly		Actua	al Quantities	of C&D Wastes	Generated N	Monthly
Month	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in the other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ cardboard packaging	Plastic (see Note 3)	Chemical Waste	Others, e.g. general refuse
	in '000m3	in '000m3	in '000m3	in '000m3	in '000m3	in '000m3	in '000kg	in '000kg	in '000kg	in '000kg	in '000m3
	А	В	С	D	Е	F	G	Н	I	J	K
Jan	2.960	0	0	0	2.960	0	0	0	0	0	0.035
Feb	0.498	0	0	0	0.498	0	0	0	0.0035	0	0.006
Mar	0.427	0	0	0	0.427	0	0	0	0	0	0.014
Apr	0.314	0	0	0	0.314	0	0	0	0	0	0.011
May	0.360	0	0	0	0.360	0	0	0	0	0	0.011
June	0.336	0	0	0	0.336	0	0	0	0	0	0.012
Sub- total	4.895	0	0	0	4.89492	0	0	0	0.0035	0	0.08883
July	0.594	0	0	0	0.594	0	0	0	0	0	0.013
Aug	0.986	0	0	0	0.986	0	0	0	0	0	0.021
Sept	0										
Oct	0										
Nov	0								·		
Dec	0										
Total	6.475	0.000	0.000	0.000	6.475	0.000	0.000	0.000	0.004	0.000	0.123

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

- (2) The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site.
- (3) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material
- *(4) The *Contractor* shall also submit the latest forecast of the total amount of C&D materials expected to be generated from the *works*, together with a breakdown of the nature where the amount of C&D materials expected to be generated from the works is equal to or exceeding 50,000m3. [Delete Note (4) and the table above on the forecast, where inapplicable].
- (5) Total Quantity Generated, A=B+C+D+E+F

Monthly Summary Waste Flow Table for <u>2021</u> (year)

Name of Person completing the record: KM LUI (EO)

Project: Fanling North New Development Area, Phase 1: Site Formation and Infrastructure Works

·		Actual Quantit	ies of Inert C&	D Materials Gei	nerated Monthly		Ad	ctual Quantities	s of C&D Waste	es Generated Me	onthly
Month	Total Quantity Generated	Hard Rock and Large Broken Concrete (a)	Reused in the Contract	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	13.400	0.695
Feb	0	0	0	0	0	0	0	0.401	0	28.760	0.412
Mar	0.023	0	0	0	0.023	0.191	0	0.311	0	8.600	0.165
Apr	0.244	0	0	0	0.244	2.488	0	0	0	26.000	0.207
May	0	0	0	0	0	10.883	0	0	0	13.000	0.197
Jun	0.805	0	0.801	0	0.004	13.445	0	0.394	0	0	0.047
Sub-total	1.072	0.000	0.801	0.000	0.271	27.007	0.000	1.106	0.000	89.760	1.723
Jul	0.135	0	0.128	0	0.007	20.837	0	0	0	0	0.286
Aug	0.585	0	0.585	0	0	11.221	0	0	0	0	0.012
Sep											
Oct											
Nov											
Dec											
Total	1.792	0.000	1.514	0.000	0.278	59.065	0.000	1.106	0.000	89.760	2.021

Contract No.: ND/2019/07

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)	13 th July 2020	The EPD visit on 13 July 2020 was to respond the complaint received from the 2nd week in July regarding the dust problem in public road of Portion 6a. Mr. Tse (EPD) observed muddy wheel track on the public road, and he expressed that the public road should keep free of mud even it was inside the project area. He also advised BKRWJV (the Contractor) to clean up the muddy wheel track and provide rectified photos to him.	A designated person is provided at the ingress/egress for vehicle washing before the wheel washing facility is in use, this is to make sure all vehicle are free of mud before leaving the site. And, the designated person is also responsible for cleaning the public road if any mud is found on it.	Closed
COM-2020-11-01	Portion 4 and Portion 7 near Dills Corner Garden (ND/2019/01)	11 th November 2020	The EPD inspection at Portion 4 on 11 November 2020 was to respond the complaint regarding the dust problem near Dills Corner Garden referred by a District Council Member. No construction activities was carried out and no obvious dust emission was observed. EPD advised BKRWJV (the Contractor) to increase the height of temporary water barrier and install sprinklers on bare ground. Another EPD inspection was conducted on 26 November 2020 at	The height of temporary water barrier was increased at Portion 4. Sprinklers were installed on bare ground at Portion 4 and on top soil at Portion 7. Manual water spraying were provided regularly. Hydroseeding will be provided on soil surface at Portion 4 for long-term measures. Proper implementation of dust mitigation measures will be continuously reviewed and monitored to avoid potential dust impact on site.	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
			Portion 7 for the dust complaint. During inspection, no obvious dust emission was observed and potential dust may generate from top soil which appear to be dry. EPD advised the Contractor to install sprinklers on top soil for dust suppression.		
COM-2020-11-02	Works Area A & B (ND/2019/05)	27 th November 2020	The complainant complained about the noise generated from the alarm of scissors platform during works for PM's site accommodation on Sunday and called the police force. Police officer has checked that Construction Noise Permit has been applied for the construction work. Also, the complainant complained about the reflective blue color of roof material of site office.	Permit-to-Work system was properly implemented for works at restricted hours. The PME used have been checked in compliance with the valid Construction Noise Permit (CNP No.: GW-RN0788-20). Acoustics mats were erected between works area and noise sensitive receivers. Scissor platform or noisy work activities will be arranged and minimized to be used on Sunday or evening time on weekdays. Specific training for the quieter works arrangement was provided to workers. Also, the blue roof will be covered by non-reflective green roof material.	Closed
COM-2021-01-01	Ma Tso Lung Road (ND/2019/01)	7 th January 2021	A complaint regarding soil deposited on Ma Tso Lung Road was referred by EPD verbally.	No soil / mud deposit or mud track were observed along the Ma Tso Lung Road during investigation and site inspection between Contractor, the <i>Supervisor</i> , ET and IEC. The road condition of Ma Tso Lung Road will be closely monitored and the public road will be regularly cleaned if mud deposit was observed. Wheel washing facilities at every site entrance will be regularly monitored to ensure proper implementation of dust control measures.	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
COM-2021-01-02	Ma Tso Lung Road (Near L/P VD5622) (ND/2019/01)	13 th January 2021	A complaint was received from 1823 regarding the suspected odour emitted from muddy water discharged.	Water sample collected from the wastewater treatment facility was clear and no odour was detected. Sewage from chemical toilet was collected on a regular basis by licensed collector. Brownish wastewater was observed discharging upstream of the site from an unknown factory to the uncharted channel which may be potential source of the odour.	Closed
COM-2021-01-03	CTC Storage Yard (ND/2019/05)	22 nd January 2021	A complaint was referred from EPD regarding the noise generated before 7 a.m. on weekdays and machinery noise generated on Sunday from CTC Storage Yard.	No attendance record of workers working for CTC Storage Yard earlier than 8 a.m. and on Sunday (day of complaint) was recorded. To ensure strict compliance to Noise Control Ordinance and prevent noise nuisance to the nearby villages, the Contractor has implemented the following enhancement measures: 1. Issue a memo to the relevant sub-contractor on restricted working hour. 2. Conduct specific training to sub-contractor frontline supervisor and works. 3. Apply a construction noise permit for the suspected location.	Closed
COM-2021-01-04	Ho Sheung Heung (ND/2019/02)	28 th January 2021	A complaint was received from 1823 regarding an idling construction vehicle near Ho Sheung Heung to operate the engine for over 10	Ad-hoc training was provided to workers on switching off idling engines when awaiting on site. Poster for "Switching off idling engines" was posted at site entrance to alert workers on the	Closed

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)	4 th February 2021	call on 2 nd February 2021 regarding a noise complaint from a Tong Hang villager about noise from CTC storage yard at around 19:00 – 20:00 on 1 st February 2021. delivery of a rotary drilling rig by a tractor lorry arrived at CTC Storage Yard at around 19:00 at 1 st February 2021. The delivery time was restricted due to the oversized tractor lorry (width >2.4m and length protruded >1.4m at tractor tail). No loading and unloading was conducted during the time of complaint.		Closed
				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.	
COM-2021-02-02	CTC Storage Yard (ND/2019/05)	16 th February 2021	A complaint was received from EPD call on 10 th February 2021 regarding a noise complaint from a Tong Hang villager about some impact noise from CTC Storage yard at Sunday's daytime (7 th February 2021).	Under investigation, erection of chain link fence for separating works area and adjacent village house was conducted by a sub-contractor on 7 th February 2021 without notification to the Contractor. Sub-contractor has been reminded that any work within site area shall be conducted after instruction by the Contractor and permit-to-work system on restricted hours works shall be strictly followed.	Closed
COM-2021-02-03	CTC Storage Yard (ND/2019/05)	2 nd March 2021	A complaint was received from EPD call on 24 th February 2021 regarding a noise complaint from a Tong Hang villagers about some machinery noise	Further enhancement on erection of acoustics mats and mobile acoustics mat panels was conducted at strategic location at E1-01 for mitigation of the noise impact to the nearby	Closed

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 <i>supervisor</i> and EPD was conducted on the same day for the bored piling at CTC Storage Yard and check on the noise and dust mitigation measures. EPD requested to enhance noise and dust mitigation measures for grabbing operation of the Rotary Drill Rig for construction of piles of E1-01.	sensitive receivers. Regular water spraying has been applied to suppress the dust from grabbing procedure and the skip.	
COM-2021-03-01	Ma Tso Lung Shun Yee San Tsuen (ND/2019/01)	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	Closed
COM-2021-03-02	CTC Storage Yard (ND/2019/05)	15 th March 2021	A complaint was received from EPD call and an inspection by EPD was conducted on 9 th March 2021 regarding a dust complaint from a Tong Hang villager. The complainant	illegal dumping is strictly prohibited. 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)	9 th April 2021	A complaint was referred from EPD on 23 March 2021 regarding muddy public access road along Ma Tso Lung Road.	The muddy access road was found generated from a nearby private factory where the access road is not hard paved. The Contractor arranged water browser to help clean up the section of road on 24 th and 25 th March 2021 respectively. Also, dump truck were properly washed at project site exit near Ma Tso Lung Road.	Closed
COM-2021-04-01	Long Valley, Kwu Tung (ND/2019/03)	9 th April 2021	A complaint was referred from EPD regarding to associated impacts arising from construction works at Long Valley Nature Park, causing nuisance and affecting the habitat and ecological value in Long Valley.	Construction works for development of Long Valley Nature Park are conducted according to the recommended mitigation measures stated in Habitat Creation and Management Plan. Wetland creation and restoration works are in progress which include provision of paddy field, turning abandoned agricultural lands into wet agricultural land and provision of open water habitat with bird island. Irrigation channel is under construction for provision of reliable water supply to farmland. For construction works, the following significant mitigation measures are implemented: 1. Provide noise barriers to minimize noise	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
COM-2021-04-02	Close to junction of Ma	23 rd April 2021	A complaint was referred from EPD regarding to suspected polluting	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. Under investigation, muddy water was observed from a small stream of Ma Wat River which is	Closed
	Wat River and Ng Tung River (ND/2019/04, ND/2019/05, ND/2019/06)	2021	effluent discharged from Ma Wat River near junction of Ma Wat River and Ng Tung River.	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	

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)	28 th April 2021	A complaint was referred from EPD regarding to construction dust arising from dump trucks from construction sites near Shek Wu San Tsuen.	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	Closed
COM-2021-05-17	Near Tong Hang section of Ma Wat River (ND/2019/05)	17 th May 2021	A complaint was referred from EPD regarding to suspected polluting effluent discharged from construction sites near Ma Wat River.	before leaving site. Implemented of the mitigation measures will keep reviewed and monitored. 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	Closed
				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	

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.	

APPENDIX T SUMMARY OF SUCCESSFUL PROSECUTION

Appendix T - Summary of Successful Prosecution

Date of Successful Prosecution	Details of the Successful Prosecution	Status	Follow Up

APPENDIX U SUMMARY TABLE FOR REQUIRED SUBMISSION UNDER ENVIRONMENTAL PERMIT

Before construction Before construction An ET & IEC of at least 7 years of experience in EM&A or environmental management. Before construction Established 11 March 2020 Pre-construction IEC Established	DP2	EP-466/2013	Castle Peak R	oad Diversion			
Department commencement date Department						1	
Period Action Timedrame Submission Timedrame Submission Period Action Timedrame Submission Name Submission Submission Name Submission			ate				
Period Action Timeframe Soluminos Remarks	Operation	on commencement date		tbc			
Period Action Timedrame Note that Action Timedrame Note that Action Action Timedrame Note that Action Action Timedrame Note that Action Action Timedrame Note that Action Action Timedrame Note that Action Action Timedrame Timedra		FP Condition		Requirements and Submissi	ons	Submission Status	Remarks
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Establish of FT	1.12				no later than 8 weeks prior to the		
2.1 Earbitish of ET							Pre-construction FT
2.2 Prophyment of IPC 2.3 Update IVA&A Manual Refere construction Imagenerum. 2.4 Minusgament expandantion of the main recordance of construction of the main recordance of the property of the property of the main recordance of the property of the property of the property of the main recordance of the property of the pro	2.1	Establish of ET			no later than 6 weeks before the	Established	Construction Phase ET
Excitation Deposit			Before construction	experience in EM&A or environmental	commencement of construction		Pre-construction IEC
2.3 Update PMAA Manual Refrire construction Deposit Segmenter 2020 by Pre-counterction Processor 2020 by Pre-c	2.2	Employment of IEC		management.		Established	Construction Phase IEC
2.5 Layous Plan Before constructions of Deposit To Conduct A Boseline condition survey and baseline conditions university and baseline conditions univers	2.3	Update EM&A Manual	Before construction	Deposit		September 2020 by	
2.6 Layout Plan Cultural Heritage Impact — Haseline condition survey and baseline extension import assessment Refere construction Proposition	2.4		Before construction	Inform in writing			
A baseline condition survey and baseline conditions survey and baseline conditions survey and baseline conditions survey and baseline conditions survey and baseline conditions survey and baseline conditions survey and baseline conditions survey and baseline conditions survey and baseline conditions survey and baseline conditions survey and baseline conditions survey and baseline conditions are construction impact assessment shall be included in and form part of the Baseline Conditions 3. Cultural Heritage Impact — Cultural Heritage Impact — Pholographic and Cartiographic Records Proposals on Colection of July building and HKT08 and the entrance gate of Conditions 3. Cultural Heritage Impact — Pholographic and Cartiographic Records Proposals on Colection of July building and HKT08 and the entrance gate of Conditions 3. Cultural Heritage Impact — Pholographic and Cartiographic Records Proposals on Colection of July building and HKT08 and the entrance gate of Conditions 3. Cultural Heritage Impact — Pholographic and Cartiographic Records Proposals on Colection of July building and HKT08 and the entrance gate of Conditions 3. Cultural Heritage Impact — Pholographic and Cartiographic Records Proposals on Colection of July building and HKT08 and the entrance gate of Conditions 4. Peroposals on relectation of any building prior to Indiance and Conditions 4. Traffic Noise Mitigation Measure (implement) Before operation and Indiance and Conditions 4. Implement— Indiance and Conditions 4. Implement— Indiance and Visual Indiance and Conditions 4. Submit and Least 2 weeks before the commencement of construction of England Proposals on the Properting month throughout the entire construction of the Properting month throughout the entire construction of the Properting month throughout the entire construction of the Properting month throughout the entire construction of the Properting month throughout the entire construction of the Properting month throughout the entire construction of the Properting month throughou	2.5	Layout Plan	Before construction	Deposit			
Cultural Heritage Impact - Photographic and Cartographic Records / Proposals on relocation of any building Proposals on relocation of any building	2.6	Baseline condition survey and baseline vibration impact	Before construction	A baseline condition survey and baseline vibration impact assessment by a qualified building surveyor or a qualified structural engineer Note: The baseline condition survey and baseline vibration impact assessment shall be included in and form part of the Baseline Monitoring Report to be submitted under	1	*	
2.8 Landscape Plan		Photographic and Cartographic	Others	records of directly impacted historical buildings at HKT08 and the entrance gate of	respective removal or relocation	*	
2.8 Landscape Plan Others Deposit commencement of the corresponding parts of landscape and visual mitigation measures of the Project Traffic Noise Mitigation Measure (implement) Before operation all noise mitigation measures as shown in Figure 4 of this Permit 3.3 Baseline Monitoring Report Before construction Submit at least 2 weeks before the commencement of operation Project within 2 weeks after the end of each reporting month throughout the entire construction period During construction During construction Set up and Notify in writing — the internet address During construction and operation During construction During construction During construction During construction and operation During construction and operation Vipload — All environmental monitoring results described in Condition 4.1 and all submissions required by this Permit Maintain Maintain Defore commencement of operation period * Submitted by Pre- Construction ET Submitted by ET Monthly Cover all EPs Notified 22 April 2020 cover all EPs N/A Mintain N/A Monthly EM&A Report During construction and operation All environmental monitoring results described in Condition 4.1 and all submissions required by this Permit mitigation measures of the Project * * * * * During construction During construction During construction and operation N/A Monthly EM&A Report During construction period During construction of the Project In the shortest time practicable, and in no event later than 2 weeks after the relevant environmental monitoring attain are collected or become available entire construction period and during entire construction period and during entire construction period and during entire construction period and during entire construction period and during entire construction period and during entire construction period and during entire construction period and during entire construction period and during entire construction period and during entire construction period and during entire construction peri		relocation of any building		Proposals on relocation of any built	1		
2.10 Measure (implement) Before operation all noise mitigation measures as shown in Figure 4 of this Permit 3.3 Baseline Monitoring Report Before construction Before construction Submit at least 2 weeks before the commencement of construction within 2 weeks after the end of each reporting month throughout the entire construction period During construction Set up and Notify in writing the internet address During construction During construction During construction During construction During construction During construction During construction During construction During construction During construction During construction and operation Maintain During construction 4.1 and all submissions required by this Permit During construction period and during entire construction entire construction entire construction entire construction entire construction entire construction entire construction entire construction entire construction entire construction entire construction entire construction	2.8	Landscape Plan	Others	Deposit	commencement of the corresponding parts of landscape and visual	*	
3.4 Monthly EM&A Report During construction and operation Durin	2.10		Before operation	all noise mitigation measures as shown in	before commencement of operation	*	
3.4 Monthly EM&A Report During construction	3.3	Baseline Monitoring Report	Before construction	Submit			
4.2 Dedicated website During construction During construction During construction and operation During construction During constr	3.4	Monthly EM&A Report		Submit	reporting month throughout the entire		
4.2 Dedicated website During construction and operation During construction and operation During construction and operation During construction and operation During construction and operation During construction and operation During construction and operation During construction and operation During construction and operation Maintain During construction and operation During construction and operation During construction and operation During construction and operation Maintain During construction period and during construction period and during N/A			Č		commencement of construction of the		cover all EPs
Maintain entire construction period and during N/Δ	4.2	Dedicated website	construction and	All environmental monitoring results described in Condition 4.1 and all	in no event later than 2 weeks after the relevant environmental monitoring data are collected or	N/A	
				Maintain		N/A	

Remarks:

tbc:To be confirmed
DP: Designated Project

*tentative submission date will be supplemented once available

DP3	EP-467/2013/A		North New Development Area R 1 Interchange Improvement	Road P1 and P2 and Associated	New Kwu Tung	Interchange and
CEDD Co	ntract No. ND/2019/01 - S	ite Formation	and Infrastructural Works at	KTN NDA		
	ion commencement date		12-Aug-20			
Operation	commencement date	1	tbc			
	EP Condition		Requirements and Sumb	pissions	Submission Status	Remarks
		Period	Action	Timeframe		
1.12	Commencement date of construction	Before construction	Notify in writing	no later than 8 weeks prior to the commencement of construction	Notified 2 March 2020	
2.1 Establish of ET		Establish -		Established 5 March 2020 Established	Pre-construction ET	
		Before construction	An ET & IEC of at least 7 years of experience in EM&A or environmental	no later than 6 weeks before the commencement of construction	23 January 2020 Established	Construction Phase ET
2.2	Employment of IEC		management.		11 March 2020 Established	Pre-construction IEC Construction Phase IEC
2.3	Update EM&A Manual	Before construction	Deposit	at least 4 weeks before the commencement of construction	20 February 2020 Latest submitted on 4 September 2020 by Preconstruction ET	Constitution I have the
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	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 February 2021	Pending Approval
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 13 May 2021	
3.3	Baseline Monitoring Report	Before construction	Submit	at least 2 weeks before the commencement of construction	Submitted by Pre- Construction ET	
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	
		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 22 April 2020	cover all EPs
4.2	Dedicated website	During construction and	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	
		operation	Maintain	entire construction period and during the first 3-year of operation	N/A	

Remarks:

DP4	EP-468/2013/A	Kwu Tung No	orth New Development Area Ro	oad D1 to D5		
			tion and Infrastructural Works	1		
	ection commencement d		1-Jun-20			
Operau	on commencement date		tbc			
	EP Condition		Requirements and Submissi	ions	Submission Status	Remarks
		Period	Action	Timeframe		
1.12	Commencement date of construction	Before construction	Notify in writing	no later than 8 weeks prior to the commencement of construction	Notified 2 March 2020	
					Established 5 March 2020	Pre-construction ET
2.1	Establish of ET		Establish -		Established	
		Before	An ET & IEC of at least 7 years of experience in EM&A or environmental	no later than 6 weeks before the	23 January 2020	Construction Phase ET
2.2	E 1 CHEC	construction	management.	commencement of construction	Established 11 March 2020	Pre-construction IEC
2.2	Employment of IEC				Established 20 February 2020	Construction Phase IEC
		Before		at least 4 weeks before the	Latest submitted on 4	
2.3	Update EM&A Manual	construction	Deposit	commencement of construction	September 2020 by Pre- construction ET	
	Management organization of	Before		no later than 2 weeks before the	Deposited	
2.4	the main construction companies	construction	Inform in writing	commencement of construction	14 May 2020	
2.5	Layout Plan	Before	Deposit	no later than 2 weeks before the	Deposited	Pending approval
		construction		commencement of construction	14 May 2020	
			To Conduct - A baseline condition survey and baseline			
		vibration impact assessment by a qualified building surveyor or a qualified structural				
	Cultural Heritage Impact Baseline condition survey and	Before	engineer	prior to the commencement of		
2.6	baseline vibration impact	construction	Note:	construction	*	
	assessment		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			
			A copy of Photographic and cartographic			
		buildings and cultural/historical landscape features at locations HKT03, KT16, KT17 and KT18 buildings and cultural/historical landscape features at locations HKT03, KT16, KT17 and KT18	records of directly impacted historical buildings and cultural/historical landscape	prior to the commencement of the respective removal or relocation		
2.7	Photographic and Cartographic		works	•		
2.,	Records/ Proposals on relocation of any building					
		Others	For Approval - Proposals on relocation of any built	prior to commencement of the	Deposited	
			heritages	respective relocation work	13 May 2021	
2.8	Compensatory Tree Planting Plan	Before construction	For Approval	prior to the commencement of construction	*	
				prior to the commencement of	Submitted	
2.9	Habitat Creation and Management Plan	Others	For Approval	construction of relevant part of the Project	20 October 2020	EPD approved 4 November 2020
				riojeci		
2.10	Traffic Noise Mitigation Plan	Before	For Approval	no later than 1 month before	Submitted 31 July 2019	EPD approved
	8	construction	PF ***	commencement of construction	, , , , , , , , , , , , , , , , , , ,	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	
		construction		commencement of construction	Construction E1	
3.4	Monthly EM& A Donort	During	Sub-mit	within 2 weeks after the end of each	Submitted by ET	
3.4	Monthly EM&A Report	construction	Submit	reporting month throughout the entire construction period	Monthly	
		D :		in place within one month after the		
		During construction	Set up and Notify in writing the internet address	commencement of construction of the Project.	Notified 22 April 2020	cover all EPs
			Upload	in the shortest time practicable, and		
4.2	Dedicated website	D :	All environmental monitoring results described in Condition 4.1 and all	in no event later than 2 weeks after the relevant environmental	N/A	
		During construction and	submissions required by this Permit	monitoring data are collected or become available		
		operation	Maintain	entire construction period and during the first 3-year of operation	NT/ 4	
			Maintain	not o your or operation	N/A	

Remarks: tbc:To be confirmed

DP: Designated Project
*tentative submission date will be supplemented once available

DP7	EP-470/2013	Utilization of	Treated Sewage Effluent (TSE) from Shek Wu Hui Sewag	ge Treatment Wo	orks
	Contract No. ND/2019/ uction commencement		ntion and Infrastructural Work 23-Mar-2			
Operat	tion commencement dat	e	tb	c		
	EP Condition		Requirements and Submis	sions	Submission Status	Remarks
		Period	Action	Timeframe		
1.12	Commencement date of construction	Before construction	Notify in writing	no later than 8 weeks prior to the commencement of construction	Notify 22 January 2020	
2.1	2.1 Franklish a CET				Established 5 March 2020	Pre-construction ET
2.1	Establish of ET	Before	Establish - An ET & IEC of at least 7 years of	no later than 6 weeks before the	Established 23 January 2020	Construction Phase ET
2.2	Employment of IEC		experience in EM&A or environmental management.	commencement of construction	Established 11 March 2020	Pre-construction IEC
					Established 20 February 2020	Construction Phase IEC
2.3	Update EM&A Manual	Before construction	Deposit	at least 4 weeks before the commencement of construction	Latest submitted on 4 September 2020 by Pre-construction ET	
2.4	Management organization of the main construction companies	Before construction	Inform in writing	no later than 2 weeks before the commencement of construction	Deposited 14 May 2020	
2.5	Layout Plan	Before construction	Deposit	no later than 2 weeks before the commencement of construction	Deposited 14 May 2020	Pending approval
3.3	Baseline Monitoring Report	Before construction	Submit	at least 2 weeks before the commencement of construction	Submitted by Pre- Construction ET	
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	
		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 22 April 2020	cover all EPs
4.2	Dedicated website	During construction and operation	Upload All environmental monitoring results described in Condition 4.1 and all submissions required by this Permit	in the shortest time practicable, and in no event later than 2 weeks after the relevant environmental monitoring data are collected or become available	N/A	
			Maintain	entire construction period and during the first 3-year of operation	N/A	

Remarks:

tbc:To be confirmed

DP: Designated Project
*tentative submission date will be supplemented once available

DP5 EP-469/2013 Sewage Pumping Stations in Kwu Tung North New Development Area CEDD 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 Construction commencement date 28-Oct-20

Operati	on commencement date	e	tbc			
	EP Condition		Requirements and Submiss	ions	Submission Status	Remarks
		Period	Action	Timeframe		
1.12	Commencement date of construction	Before construction	Notify in writing	no later than 8 weeks prior to the commencement of construction	Notify 14 October 2020	
2.1	Establish of ET				Established 5 March 2020	Pre-construction ET
2.1	Establish of E1	Before construction	Establish - An ET & IEC of at least 7 years of experience in EM&A or environmental	no later than 6 weeks before the commencement of construction	Established 23 January 2020	Construction Phase ET
2.2	Employment of IEC	construction	management.	commencement of construction	Established 11 March 2020	Pre-construction IEC
	1				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 15 October 2020	
2.6	Landscape Plan	Before construction	Deposit	at least 6 weeks before the commencement of the corresponding parts of landscape and visual mitigation measures	*	
3.1	Change in EM&A requirements/ programme	Others	Seek prior approval from the Director justified by ET leader and verified by IEC	before implementation		
3.3	Baseline Monitoring Report	Before construction	Submit	at least 2 weeks before the commencement of construction	Deposited 13 May 2021	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	
		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 22 April 2020	cover all EPs
4.2	Dedicated website	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:

Notified DP: Designated Project
*tentative submission date will be supplemented once available

Kwu Tung North New Development Area Road D1 to D5 DP4 EP-468/2013/A

CEDD Contract No. ND/2019/03 - Development of Kwu Tung North and Fanling North New Development Areas, Phase 1: Development of

2.1 Establish of ET Before Construction Establish - An ET & IEC of at least 7 years of experience in EM&A or environmental management. Establish - An ET & IEC of at least 7 years of experience in EM&A or environmental management. Established Stablished Pre-construction IEC Established	Long Va	alley Nature Park					<u> </u>
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Proceedings Personal Process	Operati	on commencement date	2	tbe			
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The properties of IEC Composition of Contraction Information and Contraction Contraction Information	2.1	Establish of ET		Establish -			Country of on Physics ET
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2.3 Update EMRA Manual Refere Construction Deposit Section Sec	2.2	Employment of IEC				11 March 2020	Pre-construction IEC
Deposit							Construction Phase IEC
Layout Plan Defore construction Deposit	2.3	Update EM&A Manual		Deposit		September 2020 by	
2.5 Layou Plan	2.4	the main construction		Inform in writing			
2.5 Layout Plan Before construction Cultural Heringe Impact— Baseline condition survey and baseline vibration impact assessment by a qualified structural assessment by a qualified structural assessment by a qualified structural assessment by a qualified structural assessment by a qualified structural assessment by a qualified structural assessment by a qualified structural assessment and the construction survey and baseline vibration impact assessment shall be Monitoring Report of the Reading surveyor or a qualified structural prior to the commencement of construction Continual Heringe Impact— Photographic and Cartographic Conditions 3.3 A copy of Photographic and Cartographic records of directly impacted haintened solved construction of any building of the commencement of the proposal on relocation of any building of the construction of the proposal on relocation of any building of the construction of the proposal on relocation of any building of the construction of the proposal on relocation of any building of the construction of the proposal on relocation of any building of the construction of the proposal on relocation of any building of the construction of the proposal on relocation of any building of the construction of the proposal on relocation of the proposal on relocation of any building of the proposal on relocation of the proposal on relocation of the proposal on relocation of the proposal on relocation of the proposal on relocation of the proposal on relocation of the proposal on relocation of the proposal on relocation of the proposal on relocation of the proposal on relocation of the proposal on relocation of the proposal on relocation of the proposal on relocation of the proposal on relocation of the proposal on relocation of the proposal on relocation on the proposal on relocation on the proposal on relocation on the proposal on relocation on the proposal on relocation on relocation on the proposal on relocation on the proposal on relocation on the proposal on relocation on the proposal on							
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Columnal Heritage Impact — Baseline conditions survey and baseline vibration impact assessment by a qualified structural passessment with the baseline conditions survey and baseline vibration impact assessment by a qualified structural passessment with the baseline conditions survey and baseline vibration impact assessment with the baseline condition survey and baseline vibration impact assessment shall be baseline vibration impact assessment shall be construction Note:			construction		commencement of construction	Deposited	
A baseline condition survey and baseline whether impact — Baseline condition survey and baseline whether impact assessment of a qualified structural engineer enstruction assessment with a qualified structural engineer construction mispect assessment shall be included in and form part of the Baseline Monitoring Report to be submitted under Condition 3.2 Cultural Heritage Impact — Photographic and Cartrographic and Cartrogr						19 February 2021	
vibration impact assessment shall be included in and form part of the Baseline Menitoring Report to be submitted under Condition 3.1 a. Control Photographic and cartographic records of directly impacted initioneral buildings and clumbilishorized landscape for the properties and Cartographic and	2.6	Baseline condition survey and baseline vibration impact		A baseline condition survey and baseline vibration impact assessment by a qualified building surveyor or a qualified structural engineer Note:		*	
Cultural Heritage Impact — Photographic and Cartographic Records/ Proposals on relocation of any building Others O		assessment		vibration impact assessment shall be included in and form part of the Baseline Monitoring Report to be submitted under Condition 3.3			
Por Approval - Proposals on relocation of any built heritages Por Approval - Proposals on relocation of any built heritages	2.7	Photographic and Cartographic Records/ Proposals on	Others	records of directly impacted historical buildings and cultural/historical landscape features at locations HKT03, KT16, KT17	respective removal or relocation		
Plan construction 2.9 Habitat Creation and Management Plan Others For Approval prior to the commencement of construction of relevant part of the Project Traffic Noise Mitigation Plan Before construction Traffic Noise Mitigation Plan Before construction Before construction Submit and later than 1 month before commencement of construction at least 2 weeks before the commencement of construction Traffic Noise Mitigation Plan Before construction Before construction Submit at least 2 weeks before the commencement of construction Within 2 weeks after the end of each reporting month throughout the entire construction period Within 2 weeks after the end of each reporting month throughout the entire construction period During construction Submit During construction Submit within 2 weeks after the end of each reporting month throughout the entire construction period in place within one month after the commencement of construction of the Project. During construction During construction and operation Upload All environmental monitoring results described in Condition 4.1 and all submissions required by this Permit one construction period and during N/A Maintain Place within one month after the construction of the Project. N/A N/A Ministrin N/A Ministrin Provided Submitted by Pre- Construction of experimental from the construction of the Project. In the shortest time practicable, and in no event later than 2 weeks after the relevant environmental monitoring data are collected or become available entire construction period and during entire construction period and during entire construction period and during entire construction period and during entire construction period and during entire construction period and during entire construction period and during entire construction period and during entire construction period and during entire construction period and during entire construction period and during entire construction period and during entire construction period and during enti			Others	Proposals on relocation of any built		N/A	
2.10 Traffic Noise Mitigation Plan Before construction 3.3 Baseline Monitoring Report Before construction Before construction Submit construction Submit deproved commencement of construction 3.4 Monthly EM&A Report During construction and operation During con	2.8			For Approval		N/A	
2.10 Traffic Noise Mitigation Plan Construction 3.3 Baseline Monitoring Report Before construction Submit Submit Submit Submit card man in mone neement of construction at least 2 weeks before the commencement of construction Within 2 weeks after the end of each reporting month throughout the entire construction period During construction Set up and Notify in writing—the internet address During construction During construction Set up and Notify in writing—the internet address Upload—All environmental monitoring results described in Condition 4.1 and all submissions required by this Permit period and operation Maintain Maintain During construction period and during entire construction period entire construction period entire construction period entire construction period entire construction period entire construction period entire construction period entire construction period entire construction period entire construction period entire construction period entire construction period entire construction period entire constructio	2.9		Others	For Approval	construction of relevant part of the		
3.4 Monthly EM&A Report During construction Submit During construction Set up and Notify in writing—the internet address During construction During construction During construction During construction During construction During construction During construction During construction During construction During construction During construction During construction During construction and operation During construction and correct construction and correct construction and correct construction During construction and correct construction and correct construction and correct construction During construction and correct construction and correct construction and correct construction and correct construction and correct construction period and during construction period and during construction period and during construction period and during construction period and during construction period and during construction period and during construction period and during construction period and during construction period and during construction period and during construction period and during construction period and during construction period and during construction period and during construction period and during construction period and during construction period and during construction period and during construction period construction period and during construction period construction period construction period and during construction period construction period construction period and during construction period construction period and during construction period construction per	2.10	Traffic Noise Mitigation Plan		For Approval			
3.4 Monthly EM&A Report During construction Submit During construction Set up and Notify in writing—the interest address During construction During construction During construction During construction During construction During construction During construction During construction During construction During construction and operation During construct	3.3	Baseline Monitoring Report		Submit			
construction the internet address commencement of construction of the Project. 4.2 Dedicated website Upload All environmental monitoring results described in Condition 4.1 and all submissions required by this Permit operation Maintain entire construction period and during the internet address commencement of construction of the Project. in the shortest time practicable, and in no event later than 2 weeks after the relevant environmental monitoring data are collected or become available entire construction period and during	3.4	Monthly EM&A Report	During	Submit	within 2 weeks after the end of each reporting month throughout the	Submitted by ET	
4.2 Dedicated website During					commencement of construction of		cover all EPs
	4.2	Dedicated website	construction and	All environmental monitoring results described in Condition 4.1 and all	in no event later than 2 weeks after the relevant environmental monitoring data are collected or	N/A	
Remarks:				Maintain		N/A	

DP10 EP-473/2013/A Fanling Bypass Eastern Section

CEDD Contract No. ND/2019/03 - Development of Kwu Tung North and Fanling North New Development Areas, Phase 1: Development of Long Valley Nature Park

Long Va	alley Nature Park					
	iction commencement d	1	6-Oct-20			
)perati	on commencement date EP Condition		tbc Requirements and Submissi	ons	Submission States	Damada
	Er Condition	Period	Action	Timeframe	Submission Status	Remarks
1.12	Commencement date of	Before construction	Notify in writing	no later than 8 weeks prior to the	Notified	
1.12	construction	Defore construction	rothy in writing	commencement of construction	10 August 2020 Established	
2.1	Establish of ET		Establish -		5 March 2020 Established 23 January 2020	Pre-construction ET Construction Phase ET
		Before construction	tion	no later than 6 weeks before the commencement of construction	Established 11 March 2020	Pre-construction IEC
2.2	Employment of 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 18 September 2020	
2.5	Location Plans	Before construction	Deposit	no later than 2 weeks before the commencement of construction	Deposited 18 September 2020	
2.6	Relocation Plan for Rose Bitterling	Before construction	Approval	before the commencement of construction	Submitted 5 November 2020	EPD approved 9 November 2020
2.7	Egretry Habitat Creation and Management Plan	Before construction	Approval	before the commencement of construction	Submitted 20 October 2020	EPD approved 4 November 2020
2.8	Detailed Design of Siu Hang San Tsuen Stream	Before construction	Deposit	before the commencement of construction	Deposited 13 May 2021	
2.9	Traffic Noise Mitigation Plan	Before construction	Approval	no later than 1 month before the commencement of construction	N/A	
2.10	Cultural Heritage Impact Baseline condition survey and baseline vibration impact assessment	Before construction	To Conduct - A baseline condition survey and baseline vibration impact assessment by a qualified building surveyor or a qualified structural engineer Note: The baseline condition survey and baseline vibration impact assessment shall be included in and form part of the Baseline Monitoring Report to be submitted under Condition 3.3	prior to the commencement of construction	N/A	
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	N/A	
		Others	For Approval - Proposals on relocation of any built heritages	prior to commencement of the respective relocation work	N/A	
3.1	Change in EM&A requirements/ programme	Others	Seek prior approval from the Director — justified by ET leader and verified by IEC	before implementation		
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	
		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 22 April 2020	cover all EPs
4.2	Dedicated website	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	

DP10 EP-473/2013/A Fanling Bypass Eastern Section

CEDD Contract No. ND/2019/04 - Fanling North New Development Area, Phase 1: Fanling Bypass Eastern Section (Shek Wu San Tsuen North to Lung Yenk Tan)

Yeuk Ta	au)					
Constru	ction commencement da	ate	23-Feb-21			
Operati	on commencement date		tbo			
	EP Condition		Requirements and Submissi	ions	Submission Status	Remarks
		Period	Action	Timeframe		
1.12	Commencement date of construction	Before construction	Notify in writing	no later than 8 weeks prior to the commencement of construction	Notified 8 September 2020 Established	
2.1	Establish of ET		Establish -		5 March 2020 Established	Pre-construction ET
		Before construction	An ET & IEC of at least 7 years of experience in EM&A or environmental	no later than 6 weeks before the commencement of construction	23 January 2020 Established	Construction Phase ET
2.2	Employment of IEC		management.		11 March 2020 Established	Pre-construction IEC Construction Phase IEC
2.3	Update EM&A Manual	Before construction	Deposit	at least 4 weeks before the commencement of construction	20 February 2020 Latest submitted on 4 September 2020 by Pre construction ET	Constitution Thase IEC
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 Mar 2021	
2.5	Location Plans	Before construction	Deposit	no later than 2 weeks before the commencement of construction	Deposited 10 December 2021	
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 13 May 2021	
2.9	Traffic Noise Mitigation Plan	Before construction	Approval	no later than 1 month before the commencement of construction	Submitted 11 September 2020	EPD Approved 8 October 2020
2.10	Cultural Heritage Impact Baseline condition survey and baseline vibration impact assessment	Before construction	To Conduct - A baseline condition survey and baseline vibration impact assessment by a qualified building surveyor or a qualified structural engineer Note: The baseline condition survey and baseline vibration impact assessment shall be included in and form part of the Baseline Monitoring Report to be submitted under Condition 3.3	prior to the commencement of construction		
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		
		Others	For Approval - Proposals on relocation of any built heritages	prior to commencement of the respective relocation work	*	
3.1	Change in EM&A requirements/ programme	Others	Seek prior approval from the Director justified by ET leader and verified by IEC	before implementation		
3.3	Baseline Monitoring Report	Before construction	Submit	at least 2 weeks before the commencement of construction	Submitted by Pre- Construction ET	
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	
		During construction	Set up and Notify in writing the internet address	in place within one month after the commencement of construction of the Project. in the shortest time practicable, and	Notified 22 April 2020	cover all EPs
4.2	Dedicated website	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 entire construction period and during	N/A	
			Maintain	the first 3-year of operation	N/A	

DP14	EP-546/2017	Fanling North Temporary Sewage Pumping Station								
	 Contract No. ND/2019/ o Lung Yeuk Tau)	04 - Fanling No	orth New Development Area, P	hase 1: Fanling Bypass Eas	stern Section (SI	nek Wu San Tsuer				
Constr	uction commencement	date	16-Feb-21							
Operat	ion commencement dat	te	tbo							
	EP Condition		Requirements and Submissions		Submission Status	Remarks				
		Period	Action	Timeframe						
1.12	Commencement date of construction	Before construction	Notify in writing	no later than 1 month prior to the commencement of construction	Notified 8 September 2020					
1.14	Commencement date of opeation	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	N/A					

DP10 EP-473/2013/A Fanling Bypass Eastern Section

CEDD Contract No. ND/2019/05 - Fanling North New Development Area, Phase 1: Fanling Bypass Eastern Section (Shung Him Tong to

Constri	iction commencement of	late	1-Aug-20			
	on commencement date		1-Aug-20			
	EP Condition		Requirements and Submiss	ions	Submission Status	Remarks
	In	Period	Action	Timeframe	21.00.1	
1.12	Commencement date of construction	Before construction	Notify in writing	no later than 8 weeks prior to the commencement of construction	Notified 15 June 2020	
					Established 5 March 2020	Pre-construction ET
2.1	Establish of ET		Establish -		Established 23 January 2020	Construction Phase ET
		Before construction	An ET & IEC of at least 7 years of experience in EM&A or environmental	no later than 6 weeks before the commencement of construction	Established	
2.2	Employment of IEC		management.		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 28 May 2020	
2.5	Layout Plan	Before construction	Deposit	no later than 2 weeks before the commencement of construction	Deposited 28 May 2020	EPD Approval 29 June 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 13 May 2021	
2.9	Traffic Noise Mitigation Plan	Before construction	Approval	no later than 1 month before the commencement of construction	Submitted 11 September 2020	EPD Approved 8 October 2020
2.10	Cultural Heritage Impact Baseline condition survey and baseline vibration impact assessment	Before construction	To Conduct - A baseline condition survey and baseline vibration impact assessment by a qualified building surveyor or a qualified structural engineer Note: The baseline condition survey and baseline vibration impact assessment shall be included in and form part of the Baseline Monitoring Report to be submitted under Condition 3.3	prior to the commencement of construction	Submitted 1 September 2020	Pending Approval
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	-	
	, ,	Others	For Approval - Proposals on relocation of any built heritages	prior to commencement of the respective relocation work	-	
3.3	Baseline Monitoring Report	Before construction	Submit	at least 2 weeks before the commencement of construction	Submitted by Pre- construction ET Submitted 1 September 2020	for EP Condition 2.10
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	
		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 22 April 2020	cover all EPs
4.2	Dedicated website	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	

DP12 EP-475/2013/A Reprovision of temporary Wholesale Market in Fanling North New Development Area

Contract No. ND/2019/06 - Fanling North New Development Area, Phase 1: Reprovisioning of North District Temporary Wholesale Market

onstri	uction commencement	date	29-Oct-1)		
	ion commencement dat		29-Oct-19			
урстац	EP Condition		Requirements and Submis	sions	Submission Status	Remarks
		Period	Action	Timeframe		
1.12	Commencement date of construction	Before construction	Notify in writing	no later than 8 weeks prior to the commencement of construction	Notified 15 October 2019	
2.1	Establish of ET				Established 5 March 2020	Pre-construction ET
2.1	Establish of E1	Before	Establish - An ET & IEC of at least 7 years of	no later than 6 weeks before the	Established 23 January 2020	Construction Phase ET
2.2	Employment of IEC	construction	experience in EM&A or environmental management.	commencement of construction	Established 11 March 2020	Pre-construction IEC
2.2	Employment of IEC				Established 20 February 2020	Construction Phase IE
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	*	
3.3	Baseline Monitoring Report	Before construction	Submit	at least 2 weeks before the commencement of construction	Submited by Pre- construction ET	
3.4	Monthly EM&A Report	During construction	Submit	within 2 weeks after the end of each reporting month throughout the entire construction period	Deposited 13 May 2021	
		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 22 April 2020	cover all EPs
4.2	Dedicated website	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	