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 May 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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T +852 2828 5757 F +852 2827 1823 mottmac.hk Agreement No. CE 33/2019 (EP)

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

Monthly Environmental Monitoring and Audit Report No. 19 (May 2021)

18 Jun 2021 **BY EMAIL**

Dear Sir,

We refer to email of 18 Jun 2021 attaching the Monthly Environmental Monitoring and Audit Report No. 19 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 19th 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 May 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:	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
Site Formation and Infrastructure Works	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

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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		Works Contracts										
	ND/2019/ 01	ND/2019/ 02	ND/2019/ 03	ND/2019/ 04	ND/2019/ 05	ND/2019/ 06	ND/2019/ 07					
1-hr Total Suspended Particulates (TSP) Monitoring	5, 11, 17, 21, 27 May 2021	N/A	4, 5, 10, 11, 14, 17, 20, 21, 26, 27 May 2021	4, 5, 10, 11, 14, 17, 20, 21, 26, 27 May 2021	4, 10, 14, 20, 26 May 2021	N/A	N/A					
24-hr TSP Monitoring	5, 11, 17, 21, 27 May 2021	N/A	3, 5, 7, 11, 13, 17, 18, 21, 24, 27, 28 May 2021	3, 5, 7, 11, 13, 17, 18, 21, 24, 27, 28 May 2021	3, 7, 13, 18, 24, 28 May 2021	N/A	N/A					

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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				
24-hr RSI Arsenic) for Contaminat	for Land		N/A	4, 10, 14, 20, 26 May 2021	N/A	N/A	N/A	N/A				
Noise Mon	itoring		, 27 May 21	N/A	4, 14	, 20, 26 May	2021	N/A				
Water Monitoring	Quality	N/A	3, 5, 7, 10, 12, 14, 17, 20, 22, 24, 26, 28, 31 May 2021	N/A	3, 5, 7, 10, 12, 14, 17, 20, 22, 24, 26, 28, 31 May 2021	N/A	N/A	N/A				
Landfill Ga Monitoring		26 May 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*	6, 7, 10, 11, 17, 21, 25, 26 May 2021	6, 11, 17, 26 May 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	24 May 2021	N/A*	24 May 2021	24 May 2021	N/A*	N/A*	N/A*				
	Monitoring of Measures to Minimise Impacts on Ecological Sensitive Habitats from Disturbance and Pollution	13, 18 May 2021	13, 18 May 2021	18 May 2021	18 May 2021	18 May 2021	N/A*	N/A*				

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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			
Environmental Site	4, 11, 18,	5, 12, 21,	7, 14, 18,	6, 13, 20,	3, 12, 17,	6, 14, 20,	7, 13, 21,			
Inspection	24 May	26 May	28 May	27 May	24, 31	27 May	28, May			
	2021	2021	2021	2021	May 2021	2021	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		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	
W	DO	1	9	10	0	5	5	
Water Quality ^[1]	Turbidity	1	5	6	0	6	6	

	Monthly EM&A Report – May 2021								
	SS	0	3	3	0	5	5		
	Arsenic	0	0	0	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		

Remark:

[1] The Action and Limit Levels for the Additional Water Quality Monitoring is subject to the agreement with the authority.

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. One (1) Action Level exceedance and fourteen (14) Limit Level exceedances for dissolved oxygen, one (1) Action Level exceedance and eleven (11) Limit level exceedances for turbidity and eight (8) Limit Level exceedances for suspended solids of impact water quality monitoring were recorded. After investigation, five (5) Limit Level exceedances for dissolved oxygen, six (6) Limit level exceedances for turbidity and five (5) 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. One environmental complaint for ND/2019/05 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**.

Table 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 (June 2021 and July 2021)			
ND/2019/01	a) Site clearance, site formation and additional road opening in Portion 1f			
	b) Site clearance, ground investigation, tree felling and temporary road construction in Portion 2			
	c) Site clearance, excavation, sheetpiling and excavation, and pipes laying in Portion 3			
	d) Site clearance, stockpile of soil, construction of KW01 retaining wall, sheetpiling and excavation, pipes laying, and tree felling in Portion 5			
	e) 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			
	f) Arsenic soil treatment works in Portion 6b			
	 Site clearance, sheetpiling and excavation, pipes laying in Portion 7 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 			
	i) Ground investigation, trenchless works and excavation in Portion 8b			
	j) Sheetpiling and excavation, pipes laying in Portion 9b			
	k) Stockpile of soil and excavation in Portion 9c			
	Excavation, sheetpiling for ELS, pipes laying, noise barrier footing in Portion 10a			
	m) Site Clearance, tree felling in Portion 10b			

	Wiontiny Ewi&A Report – Way
	(n) Laying of rising mains, construction of MBR in Portion 11b
	(o) Construction of temporary sewage pumping station in Portion 14
	(p) Construction of CLC in Portion 16
ND/2019/02	
ND/2013/02	(a) Pre-bored Socketed H-pile
	(b) Tree felling
	(c) ELS
	(d) Hoarding erection
ND/2019/03	(a) Road and Drainage work in Portion 1;
	(b) Portion 2 to Portion 20
	- Erection of Permanent Boundary Structure
	- Construction of Irrigation Channel
	- 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 Sheds
	- Wetland Creation & Restoration works after Obtaining Approval from
	AFCD
ND/2019/04	(a) Site clearance
	(b) Tree felling
	(c) Predrill
	(d) Socket H-piling
	(e) Bored piling
	(f) Excavation
	(C)
ND/2019/05	(a) Bridge Foundation Works
	- Ground investigation works at FLN3-DH016, ABH03, ABH04, D39(P),
	ABH10.
	- Pre-drilling for bored piles at B1(Portion I & II), B2(Potion II), C1-01 &
	C1-02(Portion II), C1-04a, C2-02, C3-02, C4-03, E3-01.
	- Bored piling at C2-03, C2-04, C3-01, C3-03b, C3-04b, C4-03, D1-03,
	D1-04, D2-01, D2-02, E1-03, E1-04, E2-03 and B1.
	- Pile cap construction at HKYFB Cap P-02 and Cap AB, at pier E2-02,
	C4-03, C4-04, D1-01, E1-01, E3-03.
	- Footing and pier construction at C4-01a and C4-01b.
	(b) Viaduct Works
	- Segment Mould fabrication and installation
	- Segment production line and segment storage yard establishment.
	- First batch of precast segment production
	• • •
	- Pile cap and pier column construction for C4-01, C4-04 and E2-02 CTC
	storage yard establishment
	- Bearing fabrication for bridge C4 and C3
	(c) Jockey Club Road
	- Southbound Footpath & Roadworks Modification
	- Rockfill Slope (3SW-C/F63)
	- Cut Slope and soil nail construction works (3SW-A/C149)
	- TTA implementation in Jockey Club Road for Towngas UU diversion
1	works

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	(d) Tai Wo Service Road West
	- Implementation of TTA at Phase 2 for drainage trial pit
	- Implementation of TTA at Phase 2 for UU diversion, utilities works, trial
	pit works
	- Împlementation of TTA at Phase 3 for Retaining wall construction works
	(FW04, FW06, C430, C360)
	- Implementation of TTA at Phase 4 for TCSS and soil nail works (C78)
	- New Gas Main pipe construction Works
	- New CLP pipe and HKT manhole construction
	- Slope Works (C363, FS04)
	- Utilities Works
	- Permanent road works
	- Drainage works
	- HKY Footbridge Staircase Dismantle Works
	- Retaining wall construction works (FW04, FW05, FW06 & FW52)
	- Trial pit for retaining wall (FW52)
	- Plate load test for retaining wall (FW52)
	(e) Tai Wo Service Road East
	- Drainage works at Portion XI and XII
	- Water main works
	- Site Clearance and Site Formation at Portion XI
	(f) Fanling Highway
	- Road works for TTA on Diversion of Fanling Highway for Pier D2-03
	Construction (May – Jun)
NID (0010)06	
ND/2019/06	(a) Finishing works and E&M installations for the Management Office Building
	(MOB) at Portion 4.
	(b) Off-site fabrication of steel column, steel truss and bracing of steel canopy in
	China.
	(c) Erection of the steel members of steel canopy at Portion 3.
	(d) Construction of retaining wall FW21 at Portion 6.
	(e) Construction of ground slab of the market stall area at Portion 3.
	(f) Construction of underground utilities in the final stage market at Portion 3.
	(g) Installation of sheet piles for ELS for footings of additional carriageway steel
	cover at Portion 3.
	(h) Construction of footings of additional carriageway steel cover at Portion 3.
ND/2019/07	(a) Site clearance at Portion 1 and 2.
1,2,201,707	(b) Erection of site hoarding at Portion 1.
	(c) C&D waste disposal at Portion 1 and 2.
	(d) G.I. works at Portion 1.
	(e) Construction of box culvert at Portion 2.
	(f) Filling works at Portion 2.
	(g) Tree felling/ Disposal of yard waste at Portion 1 and 2.
	(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 and 2.
	(k) Removal of asbestoses containing material at Portion 1 and 2.
	() which are appropriate and of the first and 2.

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 19th EM&A Report which summarises the key findings of the EM&A programme in May 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 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	C1	C2	С3	C5 A	C5 B	С6	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	Mr. Alan Lee	6398 5982	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 Contractor (Chun Wo –	Site Agent	Mr. Luk Wai Lam	3485 9780	
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	
·	Environmental Supervisor	Mr. Ken Kwok	9732 4360	
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	
Contract No. ND/2019/05 Contractor (CRCC – Paul Y.	Site Agent	Mr. Darvin Lo	9467 5891	
Joint Venture)	Environmental Officer	Mr. Pan Fong	9436 9435	

	Environmental Officer	Ms. Louise Poon	5272 5709	
	Site Agent	Mr. Anson Chan	9349 1320	
Contract No. ND/2019/06 Contractor (New Concepts Engineering Development	Environmental Officer	Mr. Alex Choy	9409 9608	2363 2162
Ltd.)	Environmental Coordinator	Ms Mildred Hung 9400 2/4		
	Site Agent	Mr. Daniel Wong	5335 9572	
Contract No. ND/2019/07 Contractor (China Road and Bridge Corporation)	Environmental Officer	Mr. K. M. Lui	5113 8223	
	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

Contract No	Site Activities (May 2021)			
Contract No.	Site Activities (May 2021)			
	(a) Site clearance, excavation in Portion 3			
	(b) Hydroseeding in Portion 4			
	(c) Site Clearance, stockpile of soil, construction of KW01 retaining wall, sheetpiling and excavation, pipes laying Site clearance in Portion 5			
	(d) Site Clearance, sheetpiling and excavation, pipes laying, construction of KW01 retaining wall in Portion 6a			
	(e) Arsenic soil treatment works in Portion 6b			
	(f) 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 Barries in Portion 7			
ND/2019/01	(g) 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			
	(h) Sheetpiling for jacking pit in Portion 8b			
	(i) Sheetpiling and excavation in Portion 9b			
	(j) Stockpile of soil, temp. slope protection works in Portion 9c			
	(k) Sheetpiling and excavation, pipes laying in Portion 10a			
	(l) Sheetpiling and excavation in Portion 10b			
	(m) Laying of rising mains, construction of MBR in Portion 11b			
	(n) Sheetpiling and excavation, Construction of temporary sewage pumping			
	station in Portion 14			
	(o) Construction of CLC in Portion 16			
	(a) Pre-bored Socketed H-pile			
ND/2019/02	(b) Tree felling			
	(c) Hoarding erection			

	Monthly EM&A Report – Ma			
Contract No.	Site Activities (May 2021)			
ND/2019/03	 (a) Road and Drainage work 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 Construction of Outdoor Classroom Wetland Creation & Restoration works after Obtaining Approval from AFCD 			
ND/2019/04	 (a) Site clearance (b) Tree felling (c) Predrilling (d) Socket H-piling (e) Bored piling 			
ND/2019/05	(a) Bridge Foundation Works - Ground investigation works at FLN3-DH016, ABH03, ABH04, D39(P), ABH10 Pre-drilling for bored piles at B1(Portion I & II), B2(Potion II), C1-01 & C1-02(Portion II), C1-04a, C2-02, C3-02, C4-03, E3-01. Bored piling at D2-02, E3-02, E3-03, C4-03, C4-04, D2-01, E2-03, D1-03, E1-03, E2-01 Bored piling at C2-03, C2-04, C3-01, C3-03b, C3-04b, C4-03, D1-03, D1-04, D2-01, D2-02, E1-03, E1-04, E2-03 and B1 Pile cap construction at HKYFB Cap P-02 and Cap AB, at pier E2-02, C4-03, C4-04, D1-01, E1-01, E3-03 Footing and pier construction at C4-01a and C4-01b. (b) Viaduct Works - Segment Mould fabrication and installation Segment production line and segment storage yard establishment - First batch of precast segment production - Pile cap and pier column construction for C4-01, C4-04 and E2-02 - CTC storage yard establishment - Bearing fabrication for bridge C4 and C3 (c) Jockey Club Road - Southbound Footpath & Roadworks Modification - Rockfill Slope (3SW-C/F63) - Cut Slope and soil nail construction works (3SW-A/C149) - Install temporary electricity meters - TTA implementation in Jockey Club Road for Towngas UU diversion works - Geotechnical Instrumentation (No. FW51/DH01) (d) Tai Wo Service Road West - Implementation of TTA at Phase 2 for drainage trial pit - Implementation of TTA at Phase 2 for UU diversion, utilities works, trial pit works - Implementation of TTA at Phase 3 for Retaining wall construction works - Implementation of TTA at Phase 3 for Retaining wall construction works - Implementation of TTA at Phase 3 for Retaining wall construction works			

Contract No.	Site Activities (May 2021)				
00224404	- New Gas Main pipe construction Works				
	- New CLP pipe and HKT manhole construction				
	- Utilities Works				
	- Permeant road works				
	- Drainage works				
	- HKY Footbridge Staircase Dismantle Works				
	- Retaining wall construction works (FW04, FW05, FW06, FW52)				
	- Trial pit for retaining wall (FW52)				
	- Plate load test for retaining wall (FW52)				
	(e) Tai Wo Service Road East				
	- Drainage works at Portion XI and XII				
	- Temporary Street Light Diversion				
	- Water main works				
	- Site Formation at Portion XII				
	- Site Clearance and Site Formation at Portion XI				
	- Wheel Washing Facilities at Portion XII				
	(f) Fanling Highway				
	- Dismantle works of existing sign gantry E-DST11				
	- Road Works for TTA on Diversion of Fanling Highway for Pier D2-03				
	Construction				
	(a) Finishing works and E&M installations for the Management Office Building				
	(MOB) at Portion 4				
	(b) Off-site fabrication of steel column, steel truss and bracing of steel canopy in				
	China				
	(c) Erection of the steel members of steel canopy at Portion 3				
ND/2019/06	(d) Construction of retaining wall FW21 at Portion 6				
	(e) Construction of ground slab of the market stall area and concrete carriageway				
	at Portion 3				
	(f) Construction of underground utilities in the final stage market at Portion 3				
	(g) Installation of sheet piles for ELS for footings of additional carriageway steel				
	cover at Portion 3				
	(a) Site clearance at Portion 1 and 2				
	(b) Construction of box culvert in Portion 2				
ND/2019/07	(c) Filling works in Portion 2				
1111/2019/07	(d) C&D waste disposal in Portion 1 and 2				
	(e) Tree felling / Disposal of yard waste in Portion 1 and 2				
	(f) Construction of site haul road in Portion 1				

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**.

Table 2.4 Status of Environmental Licenses, Notifications and Permits

Table 2.4	Status of Environme	ental Licenses, N	Notifications and	Permits
	Valid Period		Period	
Contract No.	Permit / License No.	From	То	Status
Environmental Pe	rmit (EP)			
	EP-466/2013	21/11/2013	N/A	Valid
ND/2019/01	EP-467/2013/A	27/01/2017	N/A	Valid
112/2019/01	EP-468/2013/A	27/01/2017	N/A	Valid
ND/2010/02	EP-470/2013	21/11/2013	N/A	Valid
ND/2019/02	EP-469/2013 EP-468/2013/A	21/11/2013 27/01/2017	N/A N/A	Valid Valid
ND/2019/03	EP-408/2013/A EP-473/2013/A	27/01/2017	N/A N/A	Valid
	EP/473/2013/A 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 Nois	e Permit (CNP)		•	
	GW-RN0011-21	17/01/2021	16/07/2021	Valid
	GW-RN0143-21	16/03/2021	15/09/2021	Valid
ND/2019/01	GW-RN0168-21	23/03/2021	22/06/2021	Valid
	GW-RN0224-21	07/04/2021	06/10/2021	Valid
ND/2019/02	GW-RN0221-21	26/03/2021	25/06/2021	Valid
ND/2019/03	GW-RN0131-21	01/03/2021	31/08/2021	Valid
	GW-RN0788-20	05/11/2020	04/05/2021	Expired in the reporting period
ND/2019/05	GW-RN0178-21	21/03/2021	20/06/2021	Valid
	GW-RN0247-21	14/04/2021	13/07/2021	Valid
	GW-RN0264-21	16/04/2021	29/05/2021	Expired in the reporting period
ND/2019/06	GW-RN0903-20	25/01/2021	24/07/2021	Valid
	ant to Air Pollution Con			
ND/2019/01	451792	11/12/2019	N/A	Valid
ND/2019/02	454012	05/03/2020	N/A	Valid
	452216	24/12/2019	N/A	Valid
ND/2019/03	452332	31/12/2019	N/A	Valid
	452333	31/12/2019	N/A	Valid
ND/2019/04	461184	23/10/2020	N/A	Valid
ND/2019/05	454323	13/03/2020	N/A	Valid
ND/2019/06	449369	24/09/2019	N/A	Valid
ND/2019/07	459393	28/08/2020	N/A	Valid
Billing Account fo	r Disposal of Constructi	on Waste		
ND/2019/01	7036265	17/01/2020	N/A	Valid
ND/2019/02	7036898	01/04/2020	N/A	Valid
ND/2019/03	7036378	22/01/2020	N/A	Valid
ND/2019/04	7038391	22/09/2020	N/A	Valid
ND/2019/05	7036901	01/04/2020	N/A	Valid

			TVIOITIITY	Livice Ticport Iviay 2021			
ND/2019/06	7035473	17/10/2019	N/A	Valid			
ND/2019/07	7038309	14/09/2020	N/A	Valid			
Registration of Chemical Waste Producer							
ND/2019/01	5213-545-B2578-01	10/01/2020	N/A	Valid			
ND/2019/02	5213-548-C4439-01	06/05/2020	N/A	Valid			
ND/2019/03	5213-623-S4231-01	14/04/2020	N/A	Valid			
ND/2019/04	5211-624-D2709-01	26/11/2020	N/A	Valid			
ND/2019/05	5213-625-C4464-01	20/05/2020	N/A	Valid			
ND/2019/06	5213-625-N2716-01	02/10/2019	N/A	Valid			
ND/2019/07	5213-625-C4498-01	21/09/2020	N/A	Valid			
Effluent Discharg	e License under Water	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			
ND/2019/01	WT00036076-2020	22/06/2020	30/06/2025	Valid			
	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			
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 North of Proposed Potential	
	ND/2019/04	FLN-DIVISTE	Ecopark	
EP-473/2013/A	ND/2019/05	FLN-DMS3 ^[3]	House near Tong Hang	
	ND/2019/03	FLN-DMS5 ^[4]	Noble Hill	
	ND/2019/04			
EP-466/2013				
EP-467/2013/A	ND/2019/01	IZTNI DMC4	Temporary Structure near	
EP-468/2013/A		KTN-DMS4	Fanling Highway (near Pak Shek Au)	
EP-468/2013/A	ND/2019/03		Shek Hu)	

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

^{[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

monitoring for reliable comparison.

- 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) Dust Monitor	Met One Instruments	AEROCET-831	4
FLN-DMS1	(1-hour TSP)			
FLN-DMS3	HVS Sampler (TSP) (24-hour TSP)	Tisch	TISCH Model: TE-5025A	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-5025A)

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 μg/m³)	Action Level,	Limit Level,	
Ü	Average	Range	$\mu g/m^3$	μg/m³	
FLN -DMS1	73.1	46.4 – 109.3	303	500	
FLN -DMS3	64.8	42.2 – 106.9	301	500	
FLN-DMS5	71.8	35.0 - 204.8	279	500	
KTN-DMS4	61.0	28.5 – 136.5	297	500	

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

Monitoring Station	Concentration (µg/m³)		Action Level, μg/m³	Limit Level, µg/m³
Station	Average	Range	μg/m²	μg/III
FLN -DMS1	53.2	37.3 – 97.5	150	260
FLN -DMS3	40.0	22.9 - 75.6	165	260
FLN-DMS5	64.1	41.8 – 121.4	153	260
KTN-DMS4	61.4	33.0 - 137.0	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, piling, road traffic, mobile crane
FLN-DMS3	Excavator, mobile crane, drilling machine, piling, dump truck, 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	1
Acoustical Calibrator	SVANTEK	SV30A	1

Monitoring Parameters, Frequency and Duration

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

Table 4.3 Noise Monitoring Parameters, Duration and Frequency

Table 4.5 Noise Monitoring Farameters, Duration and Frequency					,
Contract No.	Monitoring Stations	Parameter	Duration	Frequency	Measurement
ND/2019/06					
ND/2019/04	CP-FLN-NMS1 ^[3]				Façade
NID /2010/05					
ND/2019/05	CP-FLN-NMS2 ^[4]				
ND/2010/01	CP-KTN NMS2 ^[5]	$\begin{array}{c} L_{10(30\; min.)}\; dB(A) \\ L_{90(30\; min.)}\; dB(A) \\ L_{eq(30\; min.)}dB(A) \end{array}$	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 $L_{\text{eq, 5min}}$ 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**.

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]	64.4 – 68.8	69.9	
ND/2019/05	CP-FLN-NMS2 ^[2]	54.3 – 64.3	59.6	
	CP-KTN NMS2 ^[3]	57.8 – 64.6	58.6	75
ND/2019/01 CP-KTN NMS3 ^[4]		56.4 – 57.9	51.6	
ND/2019/01 CP-KTN NMS5		56.3 – 67.9	57.2	
ND/2019/02	CP-KTN-NMS6	57.2 – 64.5	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 wsa 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			
ND/2019/04	CP-FLN-NMS1 ^[1]	Belair Monte (Existing)	Dump truck, excavator, mobile crane, road traffic
ND/2019/05	CP-FLN-NMS2 ^[2]	Scattered Village House in Tong Hang (Existing)	Excavator, mobile crane, drilling machine, road traffic
ND/2019/01	CP-KTN-NMS2 ^[3]	Residential Buildings at Ma Tso Lung (Existing)	Dump truck, excavator, 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-NMS3 ^[4]	Fung Kong Garden (Existing)	Road traffic
ND/2019/01	CP-KTN-NMS5	N/A	Road traffic, train traffic, piling, excavator, sheet piling
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, forklift truck

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.

^{[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.

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	1
	at both ends and sampling cup for monitoring	
	stations with swallow water	
Sonar Water Depth Detector	Garmin Striker plus 4	1
_	-	
Multi-parameter Water Quality	YSI EXO 1	3
System		

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 less 	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) 	than 3m, middepth sampling only. If water depth was less than 6m, mid-depth might be omitted.	commencement of construction works

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, one (1) Action Level exceedance and fourteen (14) Limit Level exceedances for dissolved oxygen, one (1) Action Level exceedance and eleven (11) Limit level exceedances for turbidity and eight (8) Limit Level exceedances for suspended solids 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	Measured Value		AL	LL	Contract	
	SYR-IS1	DO (mg/L)	3.3		✓	No	
	NTR-IS1	DO (mg/L)	5.5		✓	No	
		DO (mg/L)	5.9		✓		
20 May	SHST-IS2	Turb. (NTU)	1084.3		✓	Yes (ND/2019/04)	
2021		SS (mg/L)	1450.0		✓	(112/2019/01)	
		DO (mg/L)	7.8		✓		
	MWR-IS3	Turb. (NTU)	19.0		✓	No	
		SS (mg/L)	19.0		✓		
	SYR-IS1	Turb. (NTU)	52.8		✓	No	
	SHST-IS2	DO (mg/L)	6.7		✓		
		SHST-IS2	Turb. (NTU)	40.6		✓	Yes (ND/2019/04)
22 May 2021		SS (mg/L)	52.5		✓	(112/2019/01)	
2021	MWR-IS3	DO (mg/L)	7.7		✓		
		Turb. (NTU)	30.6		✓	No	
		SS (mg/L)	51.5		✓		
	SYR-IS1	DO (mg/L)	6.0	✓		No	
	SHST-IS2	Turb. (NTU)	239.4		✓	Yes	
24 May	5П51-152	SS (mg/L)	287.0		✓	(ND/2019/04)	
2021		DO (mg/L)	6.5		✓		
	MWR-IS3	Turb. (NTU)	23.9		✓	No	
		SS (mg/L)	30.5		✓		

Monthly EM&A Report – May 2021 ✓ DO (mg/L) 6.4 Yes SHST-IS2 (ND/2019/04) ✓ Turb. (NTU) 24.9 26 May 2021 ✓ DO (mg/L) 7.0 MWR-IS3 No ✓ Turb. (NTU) 21.6 6.0 DO (mg/L) Yes ✓ SHST-IS2 Turb. (NTU) 21.2 (ND/2019/04) 28 May ✓ SS (mg/L) 18.0 2021 ✓ 7.7 DO (mg/L) MWR-IS3 No Turb. (NTU) 10.4 ✓ SYR-IS1 DO (mg/L) 2.8 No ✓ DO (mg/L) 6.5 31 May Yes ✓ Turb. (NTU) 15.7 SHST-IS2 (ND/2019/04) 2021 SS (mg/L) ✓ 11.5 MWR-IS3 DO (mg/L) 7.0 No

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

Parameter	No. of nor relat Exceed	ted	Total No. of non- project related Exceedances			Total No. of Exceedance related to the Construction Works of the Contract
	Action Level	Limit Level			Limit Level	
Dissolved Oxygen	1	9	10	0	5	5
Turbidity	1	5	6	0	6	6
Suspended Solids	0	3	3	0	5	5
Arsenic	0	0	0	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, five (5) Limit Level exceedances for dissolved oxygen, six (6) Limit level exceedances for turbidity and five (5) 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

(Records in the Reporting Month				
Date	Monitoring Stations	Parameters	Investigation Summary		
20, 22, 24, 26, 28 and 31 May 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. DO value at control station were measured lower than the water quality criteria at SYR-IS1. 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.		
20, 24 and 31 May 2021	SYR-IS1	DO	 The exceedances are considered not due to the Contract due to the following reasons: No pollution discharge from construction activity was observed; DO value at control station were measured lower than the water quality criteria at SYR-IS1 (20 and 31 May 2021); The exceeded results were similar or within the ranges of baseline monitoring results (24 May 2021); Water temperature recorded were relatively higher that that during baseline monitoring and led to low oxygen solubility in water. 		
22 May 2021	SYR-IS1	Turbidity	No pollution discharge from construction activity was observed. The exceedances re considered due to the external factors rather than the contract works and non-project related.		
20 May 2021	NTR-IS1	DO	An 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 day. No pollution discharge from construction activity under the Project was observed. DO value at control station were measured lower than the water quality criteria at SYR-IS1. 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.		
20 May 2021	SHST-IS2	DO, Turbidity and SS	Overflowing of a sump pit (under Contract No. ND/2019/04) near Siu Hang San Tsuen Stream (near Station SHST-IS2) was observed during monitoring. Muddy water was observed flowing to Siu Hang San Tsuen Stream and then to River Indus, resulting in adverse water quality. Notification was issued to the Contractor and the Contractor stopped pumping the water from the casing of bored piling works at bridge A2 to the sump pit immediately. For remedial measures adopted by the Contractor, a bund was constructed to isolate the sump pit and Siu Hang San Tsuen Stream. Water pumps with larger size were used to facilitate the pumping works from sump pit to the wastewater treatment facilities. Remedial measures should be taken to avoid further exceedances and further recommendations were given as below: 1) To provide adequate capacity of the sump pit for temporary retention of muddy water; 2) To provide spare pumps for emergency use to prevent any overflowing of sump pits; 3) To frequently check and ensure desilting materials for protection of Siu Hang San Tsuen Stream are intact and in good condition; 4) To provide channels, earth bunds or sand bag barriers to direct any muddy water to silt removal facilities and away from Siu Hang San Tsuen Stream;		

h			• • • • • • • • • • • • • • • • • • • •
22, 24, 26 May 2021	SHST-IS2	DO, Turbidity and SS	5) Regular supervision and close monitoring on sediment control measures should be conducted by designated foreman to ensure normal operation; 6) Proposal for mitigation measures on sediment control and contingency plan under Contract No. ND/2019/04 should be submitted to avoid further exceedances. The effectiveness of the remedial measures implemented should be closely reviewed. No overflowing of the sump pit was observed in following monitoring days. During monitoring on 22 May 2021, muddy surface runoff was observed flowing through exposed site area (under Contract No. ND/2019/04) into Siu Hang San Tsuen Stream (near Station SHST-IS2), resulting in adverse water quality. On 24 May 2021, rainfall was recorded before monitoring which led to increased surface runoff from exposed site area to Siu Hang San Tsuen Stream. In addition, water leakage from a water tank near piling works area (under Contract No. ND/2019/04) was observed. Muddy surface runoff was observed flowing through soil surface and flowed into Siu Hang San Tsuen Stream. To avoid further exceedances, the Contractor installed more geotextile at the location where muddy surface runoff identified to filter sediment from the muddy water. Further recommendations were given as below: 1) To regularly clear the slurry and sediment trapped by desilting materials; 2) To identify and minimise any source of surface runoff within site area near Siu Hang San Tsuen Stream; 3) To provide spare pumps for emergency use to pump muddy surface runoff to wastewater treatment facilities after rainstorm; 4) To minimise area of exposed soil surface by covering with impervious materials or clear loosen soil materials for protection of Siu Hang San Tsuen Stream are intact and in good condition; 6) To provide channels, earth bunds or sand bag barriers to direct any muddy water to silt removal facilities and away from Siu Hang San Tsuen Stream; 7) Regular supervision and close monitoring on sediment control measures should be conducted by designated foreman to ensur
			The effectiveness of remedial measures implemented by the Contractor would be continuously checked and reviewed during water quality monitoring and weekly site inspection.
28 and 31 May 2021	SHST-IS2	DO, Turbidity and SS	Desilting materials on water barriers between site areas and Siu Hang San Tsuen Stream had been deployed by the Contractor as water control measures. During monitoring, muddy water was observed between gaps of water barriers (under Contract No. ND/2019/04) near Station SHST-IS2 which was considered as a source of water pollution. Rainfall recorded on 31 May 2021 also led to increase in surface runoff flowing through exposed site area. To avoid further exceedances, recommendations on remedial measures were given as below: 1) To regularly clear the slurry and sediment trapped by desilting materials;

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2) To identify and minimise any source of surface runoff within site
area near Siu Hang San Tsuen Stream;
3) To provide spare pumps for emergency use to pump muddy surface
runoff to wastewater treatment facilities after rainstorm;
4) To minimise area of exposed soil surface by covering with
impervious materials or clear loosen soil materials to reduce
formation of muddy surface runoff;
5) To frequently check and ensure desilting materials for protection
of Siu Hang San Tsuen Stream are intact and in good condition;
6) To provide channels, earth bunds or sand bag barriers to direct any
muddy water to silt removal facilities and away from Siu Hang San
Tsuen Stream;
7) Regular supervision and close monitoring on sediment control
measures should be conducted by designated foreman to ensure
normal operation; and
8) Proposal for mitigation measures on sediment control and
contingency plan under Contract No. ND/2019/04 should be
submitted to avoid further exceedances. The effectiveness of the
remedial measures implemented should be closely reviewed
The effectiveness of remedial measures implemented by the Contractor
would be continuously checked and reviewed during water quality
monitoring and weekly site inspection and will be reported in next
reporting month.

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
KIN-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)
04/05/2021		2.36		
10/05/2021		2.20		
14/05/2021	KTN-DMS4(A)	3.55	9.36	11.7
20/05/2021		0.79		
26/05/2021		1.71		

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 6bManholes 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

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

EP. No	Contract No.	Monitoring Station (s)	Nature of Cultural Heritage	Location (s)
EP- 473/2013/A	ND/2019/05	FL02		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: 6^{th} , 7

6th, 7th, 10th, 11th, 17th, 21st, 25th, 26th May 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, 52 species of birds were recorded during the bird surveys within assessment area. Among the recorded birds, there were 16 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 *Bubulcus coromandus*, which is a passage migrant and resident, were also commonly observed. Juvenile of *Prinia inornata, Amaurornis phoenicurus, Hirundo rustica, Motacilla alba* and *Himantopus humantopus* were recorded, while *Himantopus Himantopus, Gallinula chloropus* and *Rostratula benghalensis* were observed sitting in nest.
- 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 work was 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 *Cuculus micropterus*, which is a summer visitor, was recorded for the first time since the first reporting month for avifauna survey in July 2020.
- 9.17 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

- 9.18 As required under Section 12.3.2.14 of Updated EM&A Manual, aquatic faunal monitoring should be carried out during the construction phase.
- 9.19 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

9.20 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: 24th May 2021

Monitoring Location

9.21 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

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

Monitoring Parameters

- 9.23 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
- 9.24 Other information at the time of survey such as weather condition and noticeable natural or anthropogenic activities would be recorded.

Monitoring Status

- 9.25 In the survey of aquatic fauna, a total of 19 aquatic invertebrate species were recorded in Ma Tso Lung Stream and Siu Hang San Tsuen Stream. There were 7 fish species recorded in the reporting month. No aquatic macroinvertebrate species of conservation importance was recorded. *Oreochromis mossambicus* and *Rhodeus ocellatus*, which were fish species of conservation importance, were recorded in Ma Tso Lung Stream and Siu Hang San Tsuen Stream respectively.
- 9.26 Foam and pungent smell was noted at MS_15.
- 9.27 The access to three monitoring stations (MS_04, MS_06 and MS_07) was in private property, and the monitoring stations were inaccessible during the monitoring. The access to the monitoring stations is shown in **Photo 1** below



Photo 1. Access to MS 04, MS 06 and MS 07 in private property

9.28 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

- 9.29 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.
- 9.30 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

- 9.31 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.
- 9.32 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)

- 9.33 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.
- 9.34 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)

9.35 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

9.36 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: 18th, 24th May 2021

Monitoring Location

- 9.37 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
- 9.38 The location of Transects is shown in **Figure 11** for reference.

Monitoring Parameters

- 9.39 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

- 9.40 During the survey, a total of 5 mammal species were recorded from transects T1, T3, T4, T5 and T6. A total of 3 species of conservation importance were recorded, namely bats *Miniopterus* sp., *Pipistrellus abramus* and *Cynopterus sphinx*.
- 9.41 Domestic cat, *Felis catus* was found at T1, T5 and T6. Domestic dog, *Canis lupus familiaris*, was found at T1, T3, T4, T5 and T6, where associated with human settlements.
- 9.42 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).
- 9.43 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).
- 9.44 *Miniopterus* sp. was recorded with echolocations in call structure of FM/QCF (frequency modulated/quasi constant frequency) and frequency around 51 kHz to 58 kHz (Chou & Cheng, 2012, p.41-42; Chao, 2001, p.54 & 58). *Pipistrellus abramus* was recorded with FM/QCF

call structure and frequency around 42 kHz to 60 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).

9.45 Bat species, *Cynopterus sphinx* was observed roosting in the tent-shaped shelter under fronds of Chinese Fan-palm during daytime survey, and was found in flight at nighttime at T1, T3 and T4. *Miniopterus* sp. was recorded in flight at nighttime at T6, *Pipistrellus abramus* was recorded in flight at nighttime at T1, T3, T4, T5 and T6.

Herpetofauna (Amphibians and Reptiles)

9.46 Along the transects, a total of 12 herpetofauna species were observed. Two species of conservation importance, *Gehyra mutilata was recorded at T1 & T4* and *Kalophrynus interlineatus* was only 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)

- 9.47 During the insect survey, a total of 25 butterfly species and 16 odonata species were recorded from the transects. *Artipe eryx* (Uncommon), *Tajuria cippus* (Rare, Local Concern by Fellowes et al. (2002)) and *Papilio xuthus* (Rare) were recorded on T1 and T3. Transect T1 had higher butterfly species diversity than other transects.
- 9.48 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.
- 9.49 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**.
- 9.50 For the monitoring conducted on 18th May 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 fallen trees. The inaccessible parts are shown in **Photo 2** and **Photo 3** below. The adjusted accessible transect route is shown in **Figure 11**.



Photo 2. Inaccessible part of transect T5 located within private property



Photo 3. Inaccessible part of transect T5 blocked by fallen trees

Results and Observation

Details of the Influencing Factors

Major Activities

- 9.51 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.
- 9.52 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 *Bubulcus coromandus* were observed foraging near the excavators.
- 9.53 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

- 9.54 According to the observation during survey, temperature and the rain flow record in the Reporting Month (Reference: http://www.weather.gov.hk/wxinfo/pastwx/metob202105.htm), weather condition might pose influence towards the monitoring result. May 2021 was hotter and drier than usual. The mean temperature was 29.0°C, which was 1.3°C above the mean in May 2020 and 2.7°C higher than the Climatological Normal (1991 2020). Only a total rainfall of 56.3mm was recorded in May 2021, comparing to 352.5mm in May 2020 and 290.6mm of Climatological Normal (1991 2020).
- 9.55 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.
- 9.56 The detailed Ecological monitoring results are attached in **Appendix L**.

Reference

Chou, C. H., & Cheng, H. C. (2012). Echolocation Calls of the Eleven Insectivorous Bats of Taiwan. Taiwan Journal of Biodiversity, 14(3-4), 33-62.

Chao, N. M. (2001). Identification of Pipistrellus abramus, Miniopterus schreibersii, Hipposideros terasensis, and Rhinolophus monoceros using echolocation call characters (Doctoral dissertation, MS thesis, National Sun Yat-Sen University).

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

Environmental			W	orks Contra	cts		
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 <i>Supervisor's</i> Representative and the Contractor	4 th , 11 th , 18 th , 24 th May 2021	5 th , 12 th , 21 st , 26 th May 2021	7 th , 14 th , 18 th , 28 th May 2021	6 th , 13 th , 20 th , 27 th May 2021	3 rd , 12 th , 17 th , 24 th , 31 st May 2021	6 th , 14 th , 20 th , 27 th May 2021	7 th , 13 th , 21 st , 28 th , May 2021
Joint Site Audit with representative of the <i>Supervisor's</i> Representative, the Contractor and IEC	24 th May	21st May	18 th May	20 th May	12 th May	14 th May	13 th May
	2021	2021	2021	2021	2021	2021	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

Date Observations and Recommendations Follow-up			Follow-up
Contract No.: NI	D/2019/01		-
	<u></u>		
Contract No.: N	ID/2019/02		
	12/5/2021	Properly maintain the drainage system for discharging treated water to proper stormwater drain.	Item was remarked as 210521-R01. Follow-up action is needed to be reviewed.
Water Quality	12/5/2021	Clear slurry on site haul road and ensure adequate capacity of sediment tank to minimize any muddy runoff through site surface.	Improvement/Rectification was observed during follow- up audit session on 21 May 2021.
	21/5/2021	Properly maintain the drainage system for discharging treated water to proper stormwater drain.	Item was remarked as 210526-R01. Follow-up action is needed to be reviewed.
	26/5/2021	Properly maintain the drainage system for discharging treated water to proper stormwater drain.	Follow-up action is needed to be reported in the following month.
	28/4/2021	Drip tray should be provided for chemical storage.	Improvement/Rectification was observed during follow- up audit session on 5 May 2021.
Waste / Chemical	5/5/2021	To maintain the drip tray well and clear the stagnant water.	Improvement/Rectification was observed during follow- up audit session on 12 May 2021.
Management	26/5/2021	To maintain the drip tray well and clear the stagnant water.	Follow-up action is needed to be reported in the following month.
	26/5/2021	General refuse should be disposed of properly.	Follow-up action is needed to be reported in the following month.
Contract No.: NI			
Air Quality	18/5/2021	Haul road shall be watered regularly to reduce dust generation.	Improvement/Rectification was observed during follow- up audit session on 28 May 2021.
Waste / Chemical Management	14/5/2021	General refuse should be disposed of properly.	Improvement/Rectification was observed during follow-up audit session on 18 May 2021.
Landscape & Visual	28/5/2021	Ropes on the retained tree shall be removed.	Follow-up action is needed to be reported in the following month.

Contract No.: NI	D/2019/04		
Air Quality	29/4/2021	clean and free of dust. was observed during fo up audit session on 6 2021.	
Construction Noise Impact	27/5/2021	Compressor should be operated with doors closed.	Follow-up action is needed to be reported in the following month.
	20/5/2021	To review the capacity of the sump pit and wastewater should be directed to sewage treatment facility before discharge.	Item was remarked as 210527-O01. Follow-up action is needed to be reviewed.
Water Quality	20/5/2021	Properly review the capacity of the sedimentation facilities to ensure all site discharge is treated to comply with the WPCO license.	Improvement/Rectification was observed during follow- up audit session on 27 May 2021.
	27/5/2021	To review the capacity of the sump pit and wastewater should be directed to sewage treatment facility before discharge.	Follow-up action is needed to be reported in the following month.
	6/5/2021	Clear the oil stain on the ground.	Improvement/Rectification was observed during follow- up audit session on 13 May 2021.
Waste/Chemical Management	27/5/2021	Clear the oil stain on the ground.	Follow-up action is needed to be reported in the following month.
	27/5/2021	Drip tray should be provided for chemical storage.	Follow-up action is needed to be reported in the following month.
Landscape and Visual	29/4/2021	Remove the construction materials within the tree protection zone for all retained trees and properly erect the fencing to protect the retained trees.	Improvement/Rectification was observed during follow-up audit session on 6 May 2021.
Contract No.: NI	D/2019/05		
Air Quality	26/4/2021	Every stock of more than 20 bags of cement should be covered or sheltered on top and 3 sides.	Improvement/Rectification was observed during follow-up audit session on 3 May 2021.
Construction Noise Impact Air compressors should be operated wit doors closed.		Air compressors should be operated with doors closed.	Improvement/Rectification was observed during follow-up audit session on 31 May 2021.
	3/5/2021	Vehicles are observed not cleaned of earth and mud before leaving the site.	Improvement/Rectification was observed during follow-up audit session on 12 May 2021.
Water Quality	24/5/2021	To prevent surface runoff discharge into nearby drainage.	Improvement/Rectification was observed during follow-up audit session on 31 May 2021.

Contract No.: N	ND/2019/06					
Air Quality	6/5/2021	Stockpile of dusty materials should be covered properly.	Improvement/Rectification was observed during follow- up audit session on 14 May 2021.			
Water Quality	29/4/2021	To prevent surface runoff discharge into nearby watercourse.	Improvement/Rectification was observed during follow-up audit session on 6 May 2021.			
Waste /	14/5/2021	General refuse should be disposed of properly and regularly.	Improvement/Rectification was observed during follow-up audit session on 20 May 2021.			
Chemical Management	27/5/2021	To avoid oil leakage from equipment.	Follow-up action is needed to be reported in the following month.			
Contract No.: 1	Contract No.: ND/2019/07					
		ŀ				

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

	Table 10.3	S Photographic Records and Implementation Status of Measur	res
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]

		Monthly EM&A	<u>Keport – May 20</u>
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]
EP- 469/2013	2.7	To minimise adverse impacts on habitats of ecological importance in the vicinity of the Project, 2m high solid dull green site barrier fences shall be erected around all active works areas.(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)	√ [11]
Implementa	ntion status:	 Mitigation measure was fully implemented * Observation/reminder was made during site audit but 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 period 	by the

[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

Transport		
Works Contracts	Photographic Records	
ND/2019/01	Erection of soil berm around site area	Temporary wastewater storage tank for storm water retention
ND/2019/02	Provision of sand bags around works area	Covering exposed slope surface by tarpaulin
ND/2019/03	Wastewater from wheel washing was directed to wastewater treatment facility	Regular clearance of water for wheel washing facility

ND/2019/04 Deployment of silt curtain Deployment of desilting around works area in Ng Tung Erection of berm along haul materials for Siu Hang San River road near Ma Wat River Tsuen Stream ND/2019/05 Gaps between pipe pile walls sealed to prevent leakage Deployment of sand bags around works area ND/2019/06 Erection of concrete berm around exposed site area Grasscrete for slope protection ND/2019/07 Additional wastewater treatment facilities for Covering exposed slope surface by tarpaulin rainstorm event

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 21st May 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



Breeding of Black-winged stilt was recorded



Regular watering on haul road for dust control



Provision of shad cloth to reduce nuisance to avifauna



Provision of noise barrier for noisy works in Long Valley



Provision of wastewater treatment facilities





Laying geotextile under rock layer to allow effective reinstatement of temporary access road

11 ENVIRONMENTAL NON-CONFORMANCE

Summary of Exceedances

- 11.1 One (1) Action Level exceedance and fourteen (14) Limit Level exceedances for dissolved oxygen, one (1) Action Level exceedance and eleven (11) Limit level exceedances for turbidity and eight (8) Limit Level exceedances for suspended solids of impact water quality monitoring were recorded. After investigation, five (5) Limit Level exceedances for dissolved oxygen, six (6) Limit level exceedances for turbidity and five (5) 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 N**.
- 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 One environmental complaint for ND/2019/05 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 No.	Major Site Activities (June and July 2021)	Location/ Working Period	Potential Environmental Impact	Recommended Mitigation Measures
ND/2019/01	(a) Site clearance	Portion 1f, 2, 3, 5, 6a, 7, 10b	- Construction Dust impact	Air - Regular watering on exposed worksites and haul
	(b)GI works	Portion 2, 8b	- Noise Impact (Construction Phase)	road.Cover the stockpiles or dusty materials.
	(c)Excavation	Portion 3, 5, 6a, 8a, 9b, 9c, 10a	- Water Quality Impact (Construction Phase)	 Deploy water browsers to water the haul road. Deploy mist-cannon on site
	(d)Construction of retaining wall	Portion 5, 6a, 8a	- Waste Management (Construction Waste)	 Install sprinkler system for dust suppression. Provide shelter with top and 3-sides for cement production activities.
	(e) Soil nailing / shotcrete	Portion 6a, 8a		- Entirely cover the Arsenic-containing soil.
	(f) Construction of CLC and site accommodation at Portion 7	Portion 7, 16		 Store the bulk cement in enclosed silo tank for Solidification / Stabilization treatment. Close the mechanical cover of the vehicles used
	(g)Construction of site haul road	Portion 6a		for transporting dusty materials Establish vehicle wheel washing facilities at
	(h)Pilot trial for arsenic soil treatment works	Portion 6b		vehicle exit points Speed control of site vehicles.

- Shotcrete on exposed slope Erect solid site hoarding.	
Enert golid gita boguling	
- Erect solid site hoarding.	
- Hydroseeding	
Noise	
- Regular inspect of construction condition - Provide temporary noise screen - Use of Quiet plants (QPME) and	s if necessary.
if possible.	-
- Sequencing operation of construe practicable.	action plants where
- Shut down the machines and pla	ant if not in use.
- Only well-maintained plant to b	
- Mobile plant to be sited as far a	way from NSRs as
possible and practicable.	
- Conduct noise monitoring regul	
- Erect silent-up noise barrier at F	Portion 6b.
Water	
- Set up wastewater treatment sys	stem (AquaSed) on
- Erect soil bund / temporary drai	in to divert /collect
surface runoff.	
- Maintain the drainage and waste facilities.	ewater treatment
lacinues.	
Waste Management	
- Sort out demolition debris and e	
from demolition works to recov	er reusable /
recyclable portions.	1
- Provide recycling bin on site, er recycle as much as possible.	ncourage reuse and
- Provide drip tray for chemical c	containers.

				Monthly EM&A Report – May 2021
				 Chemical spill kit available on site. Chemical waste cabinet available on site. 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 or other agreed alternative site (Tung Wah camp site).
ND/2019/02	(a) Pre-bored Socketed H- pile	Portion 7, 9, 10	Air, Noise, Water, Waste, Ecology	- Dusty works should be spray water or idle stockpile or slop should be covered by Tarpaulin
	(b) Hoarding erection	Portion 10	Air, Noise, Waste	sheet properly.
	(c) Tree Felling	Portion 7	Air, Noise, Waste	 Plants should be well maintained to prevent dark smoke and oil leakage. Idle plant should be turned
	(d) ELS	Portion 1, 9	Air, Noise, Water, Waste, Ecology	 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 protection plan.
ND/2019/03	(a) Excavation of irrigation channel	Long Valley	- C&D waste - Air pollution - Noise pollution	 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 – May 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 regularlyCover 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) Bored piling	Bridge A2, F	- Air, Noise, Water, Waste	- Plants should have maintenance to prevent dark smoke and oil leakage. Idle plant should be turned
	(c) Excavation	Bridge F	- Air, Noise, Waste	off.
	(d) Site clearance	Portion I	- Air, Noise, Waste	 Drip tray should be provided for all chemical and stationary plants.
	(e) Tree felling	Portion H	- Air, Noise, Waste	- No construction works shall be carried out in restricted hours (7:00 pm to 7:00 am) unless CNF is granted.
				- Waste should be sorted and disposed according to
				Waste Management Plan.No direct discharge of wastewater into storm wat
				drains is allowed. Wastewater must be desilted before discharging according to water discharge license.
ND/2019/05	(a) Ground investigation works	D38, DH016, ABH03, D39	- Construction Dust Impact - Noise Impact	 Regular watering on exposed worksites and haul road Stockpiling area should be provided with covers
	(b) Pre drilling for bored piles	C2-01, C2-03, C2- 04, C3-01, C3-	1	and water spraying system Only well-maintained plant to be operated on-site

				Monthly EM&A Report – May 2021
	04a, D2-01, E2-	- Water Quality	-	Plant known to emit noise strongly in one
	01, B1, B2, C1-01	Impact (Construction		direction, where possible, be orientated so that the
	& C1-02, C1-04a,	Phase)		noise is directed away from nearby NSRs;
	C2-02, C3-02, C4-	- Waste Management	-	Mobile plant to be sited as far away from NSRs as
	03,	(Construction Waste)		possible practicable
		- Landscape and	-	All open stockpiles of construction materials of
	E3-01	Visual		more than 50m ³ to be covered with tarpaulin
(c) Bored piling	C2-03, C2-04,	- Cultural Heritage	-	Manholes to be adequately covered and
	C3-01, C3-03b,			temporarily sealed so as to prevent silt,
	C3-04b, C4-03,			construction materials or debris being washed into
	D1-01, D1-02,			the drainage system
	D1-03, D1-04,		-	All vehicles and plant to be cleaned before leaving
	D2-01, D2-02,			a construction site to ensure no earth, mud, debris
	E1-02, E1-03,			and the like is deposited by them on roads.
	E1-04, E2-03,		-	Segregate and store different types of waste in
	E3-02			different containers, skip or stockpiles to enhance
(d) Sign Gantry Removal	E DCT11 E1'			reuse or recycling of materials and their proper
	E-DST11 Fanling			disposal
() C + + + CF + +1	Highway		-	Sort out demolition debris and excavated materials
(e) Construction of Footpath	Jockey Club			from demolition works to recover
	Road			reusable/recyclable portions
(f) Pile Cap Construction	HKYFB Cap P-		-	Provide training to workers on appropriate waste
•	02 and Cap AB			management procedures, including waste
(a) Facting Construction	02 and Cap Ab			reduction, reuse and recycling
(g) Footing Construction	C4-01a and C4-		-	To adopt other good site practice, such as arrangements for collection and effective disposal
	01b			to an appropriate facility, of all wastes generated at
(h) Site Formation	Portion XI, XII,			the site and regular cleaning and maintenance
	TWSRW			programme for drainage
(i) Utilities Diversion Works			_	Chemical wastes to be stored in appropriate
and Permanent Road	TWSRW			containers and collected by a licensed chemical
Works				waste Contractor. Chemical wastes (e.g. spent
(j) Tree Works				lubricant oil) should be recycled at an appropriate
() TICE WOLKS	TWSRW			incirculation) should be reejeted at an appropriate

					Monthly EM&A Report – May 2021
	(k) TTA	Jockey Club Road			facility as far as possible, while the chemical waste that cannot be recycled should be disposed of at
	(l) Drainage & Water Mains construction	Box culvert BC5, TWSRE			either the Chemical Waste Treatment Centre, or another licensed facility, in accordance with the
	(m) Temporary removal of noise barrier and sign gantry	D2-03 at Fanling Highway			Waste Disposal (Chemical Waste) (General) Regulation Conducting Construction Vibration Monitoring
	(n) UU diversion	Tai Wo Service Road West			Tree Protection & Preservation – Exiting trees to be retained within the Project site should be carefully protected during construction. In
	(o) Rockfill Slope Construction	Jockey Club Road			particular OVTs will be preserved according to ETWB Technical Circular (Works) No. 29/2004.
	(p) Road works for temporary road diversion	D2-03		1	Tree Transplantation – Tree unavoidably affected by the Project works should be transplanted where
	(q) Retaining wall construction	FW06, FW52			practical. Tree should be transplanted straight to their final receptor site and not held in a temporary nursey as far as possible.
	(r) Slope construction	C363		-	Erect 2m high dull green site boundary fence. Light Control – Construction day and night time
	(s) Footbridge staircase demolition	Ho Ka Yuen Footbridge			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 pollution - Water pollution	-	Adopt noise barrier in screening noise Wastewater generated after wheel washing of vehicles should be treated properly before discharge
	(b) Construction of retaining wall FW21	Portion 6	- Water pollution	-	Wastewater generated after wheel washing of vehicles should be treated properly before disposal Provide sand bags for prevent polluted water discharge off site without wastewater treatment
	(c) Erection of the steel members of steel canopy; Construction of ground	Portion 3	C&D wasteAir pollutionNoise pollution	-	Cover C&D waste by impervious sheeting Spray with water to work area before, during and after the work

	ı	1	I		Monthly EM&A Report – May 2021
	slab of the market stall		- Water pollution	-	Adopt QPME for excavator
	area and concrete			-	Wastewater generated after wheel washing of
	carriageway;				vehicles should be treated properly before disposal
	Construction of				
	underground utilities in				
	the final stage market				
	(d) Installation and	Portion 3	- C&D waste	-	Cover C&D waste by impervious sheeting
	Construction of sheet	rottion 5	- Air pollution	-	Spray with water to work area before, during and
	piles for ELS for footings		- Noise pollution		after the work
	of additional carriageway		- Water pollution	-	Adopt QPME for excavator
	steel cover		_	-	Wastewater generated after wheel washing of
					vehicles should be treated properly before disposal
	(a) Site clearance	Dantian 1 Dantian	- Construction Dust	-	Regular watering on exposed worksites and haul
ND/2019/07		Portion 1, Portion 2	Impact		road.
		<u>Z</u>	- Noise Impact	-	Stockpiling area should be provided with covers
	(b) Erection of site hoarding	Portion 1	- Water Quality Impact		and water s praying system.
	(c) C&D waste disposal	Doution 1 Doution	(Construction Phase)	-	Only well maintained plant to be operated on site.
		Portion 1, Portion 2	- Waste Management	-	Plant known to emit noise strongly in one
	(4) C 1: "	<u> </u>	(Construction		direction, where possible, be orientated so that the
	(d) Ground investigation	Portion 1	Waste)Landscape		noise is directed away from nearby NSRs.
	works		and Visual	-	Mobile plant to be sited as far away from NSRs as
	(e) Construction of box	Portion 2			possible practicable.
	culvert		-	-	All open stockpiles of construction materials of
	(f) Filing works	Portion 2			more than 50m ³ to be covered with tarpaulin.
	(g) Tree felling/ disposal of	D .: 1 D .:		-	Manholes to be adequately covered and
	yard waste	Portion 1, Portion			temporarily sealed so as to prevent silt,
	,	2	-		construction materials or debris being washed into
	(h) Construction of site haul	Portion 1			the drainage system.
	road		_	-	All vehicles and plant to be cleaned before leaving
	(i) Trial pit	Ma Sik Road			a construction site to ensure no earth, mud, debris
	(j) Demolition of villager's				and the like is deposited by them on roads.
	houses	Portion 1, Portion		-	Segregate and store different types of waste in
	nouses	2			different containers, skip or stockpiles to enhance

	Monthly EM&A Report – May 2021
	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.
	- 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.

			Monthly EM&A Report – May 2021
		-	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 May 2021 in accordance with Updated EM&A Manual.
- 13.2 One (1) Action Level exceedance and fourteen (14) Limit Level exceedances for dissolved oxygen, one (1) Action Level exceedance and eleven (11) Limit level exceedances for turbidity and eight (8) Limit Level exceedances for suspended solids of impact water quality monitoring were recorded. After investigation, five (5) Limit Level exceedances for dissolved oxygen, six (6) Limit level exceedances for turbidity and five (5) Limit Level exceedances for suspended solids at monitoring station, SHST-IS2, were found due to Contract No. ND/2019/04. Other exceedances recorded 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 4th, 11th, 18th, 24th May 2021 by ET in the reporting month.

Contract No. ND/2019/02

13.5 Environmental site inspection were conducted on 5th, 12th, 21st, 26th May 2021 by ET in the reporting month.

Contract No. ND/2019/03

13.6 Environmental site inspection were conducted on 7th, 14th, 18th, 28th May 2021 by ET in the reporting month.

Contract No. ND/2019/04

13.7 Environmental site inspection were conducted on 6th, 13th, 20th, 27th May 2021 by ET in the reporting month.

Contract No. ND/2019/05

13.8 Environmental site inspections were conducted on 3rd, 12th, 17th, 24th, 31st May 2021 by ET in the reporting month.

Contract No. ND/2019/06

13.9 Environmental site inspections were conducted on 6th, 14th, 20th, 27th May 2021 by ET in the reporting month.

Contract No. ND/2019/07

- 13.10 Environmental site inspections were conducted on 7th, 13th, 21st, 28th, May 2021 by ET in the reporting month.
- 13.11 There were one environmental complaints, no notification of summons or successful prosecutions received in the reporting month.

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

Recommendations

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

Air Quality Impact

- To enhance the dust suppression measures such as water spraying on all haul roads and exposed work site area;
- To maintain the impervious material to entirely cover the stockpile of dusty materials;
- To cover dusty stockpile with impervious materials;
- 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; and
- To provide noise barrier for noisy PME and operation.

Water Impact

- To prevent any surface runoff discharge into nearby drainage or stream;
- To enhance water mitigation measures on site runoff control, especially during rainy season:
- To regularly review the capacity of sump pit for sediment control;
- To ensure all vehicle clear of earth and mud before leaving site;
- To divert all the water generated from construction site to de-silting facilities with enough handling capacity before discharge;
- 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 avoid oil stain within site area;
- To dispose of general refuse properly;
- To provide receptacles on site for waste collection;
- To provide proper storage area for chemical storage; and
- To maintain drip tray well.

Landscape & Visual Impact

• Retained trees should be carefully protected.

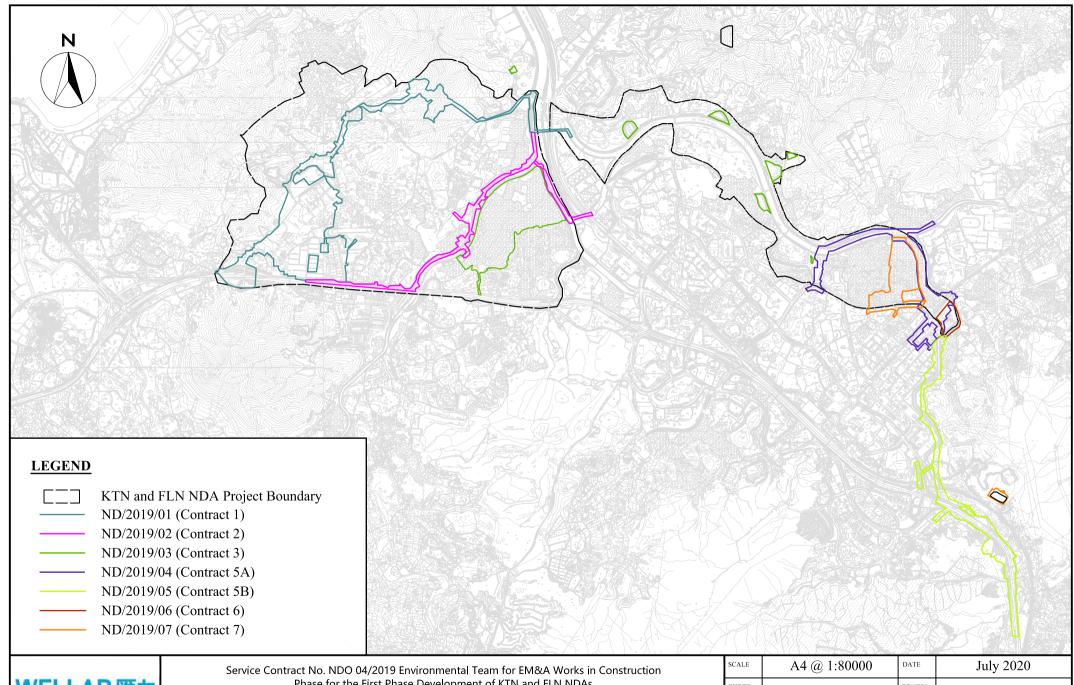
Landfill Gas Hazard

• "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.

DRAWING(S)



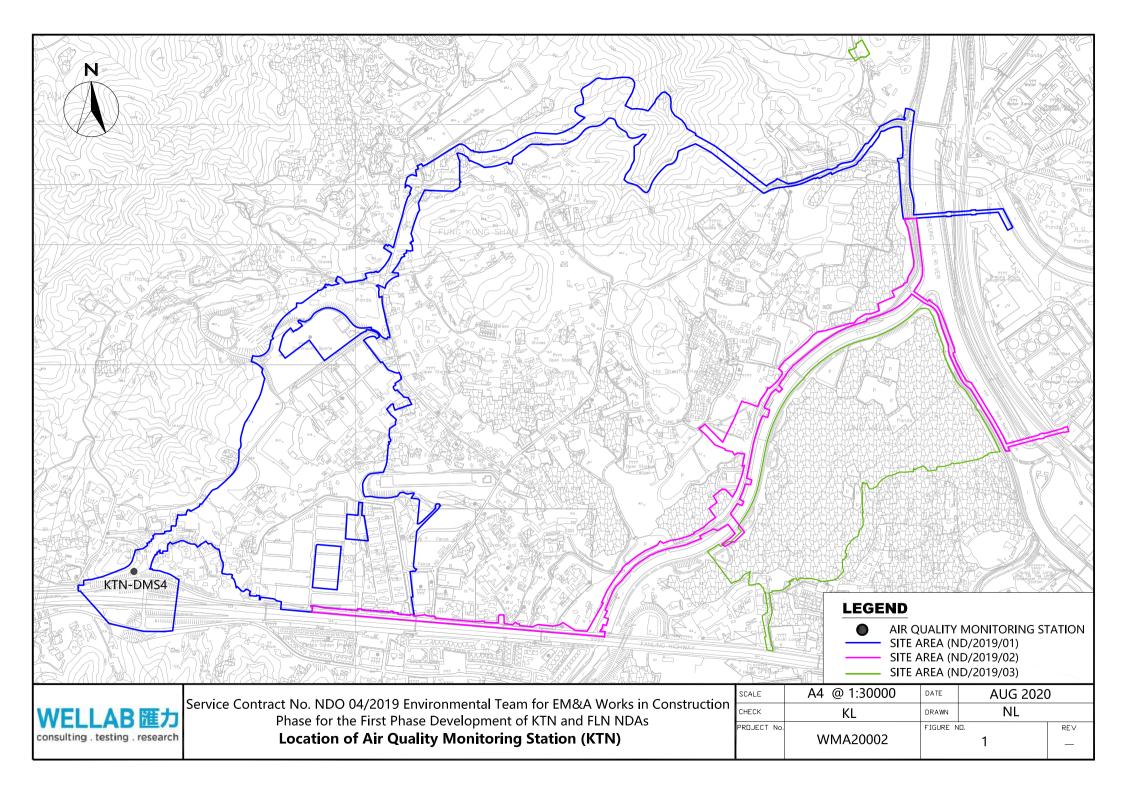


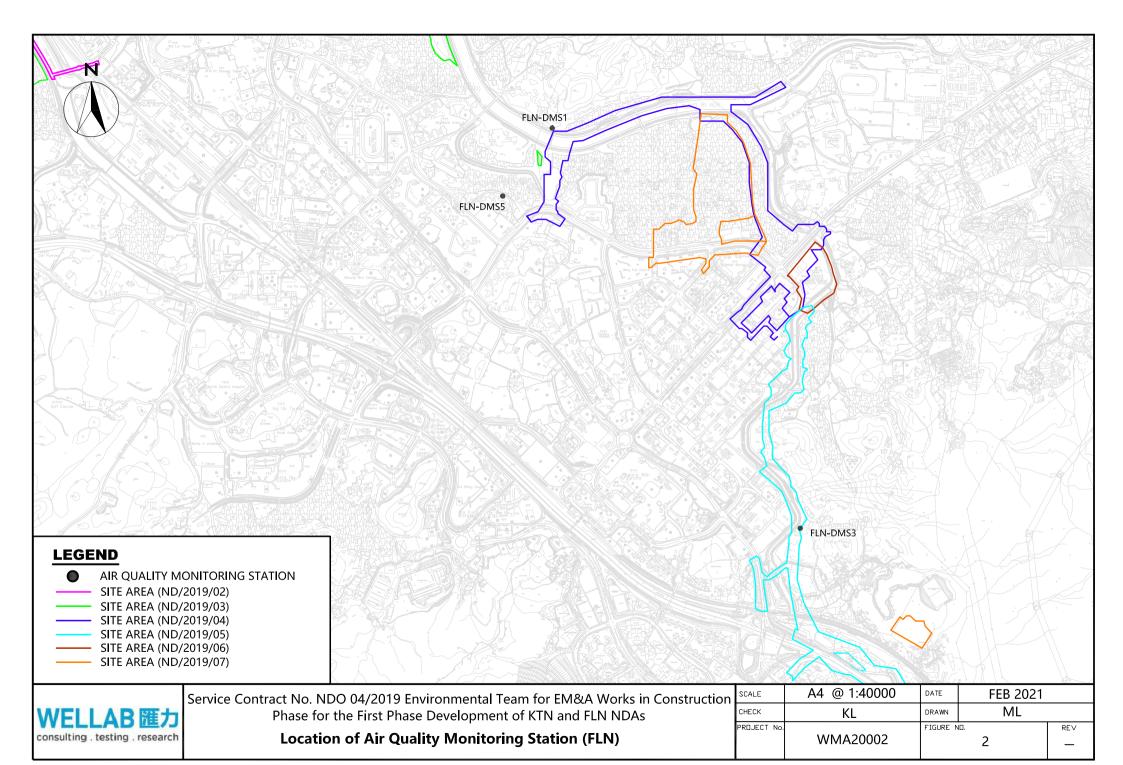
Phase for the First Phase Development of KTN and FLN NDAs

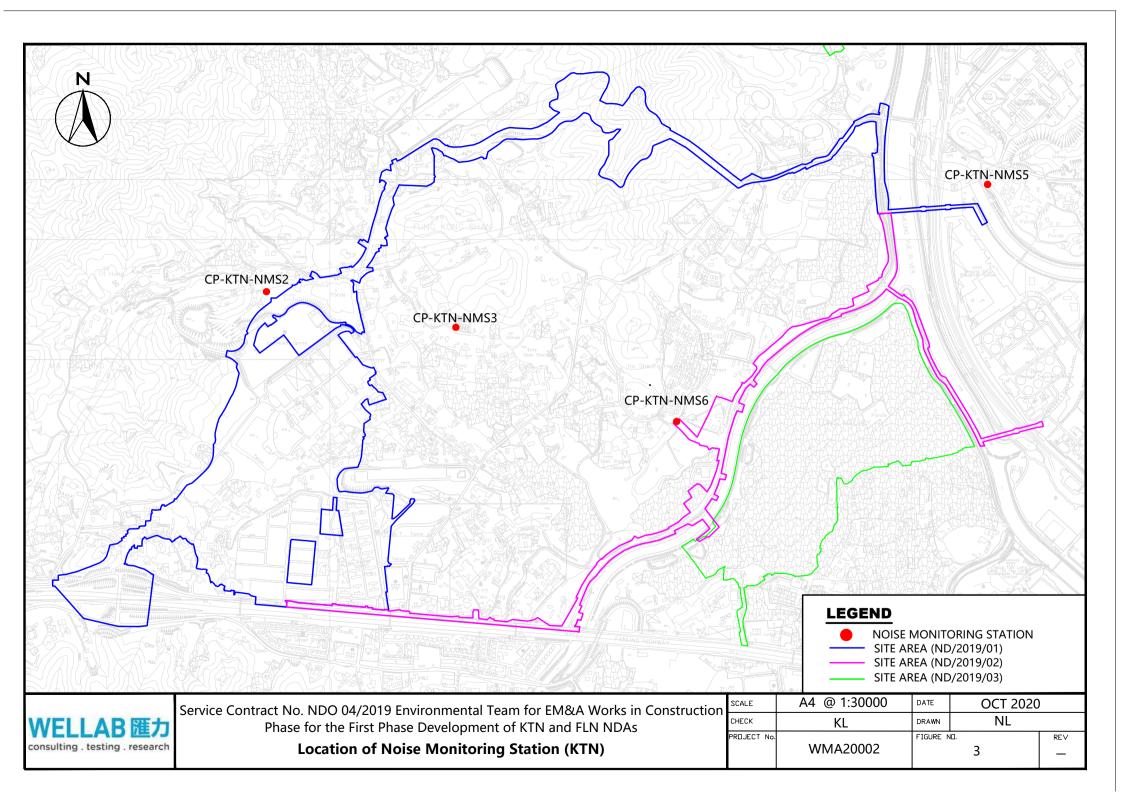
Project Boundary for the Advance and First Stage Works of Kwu Tung North and **Fanling North New Development Areas**

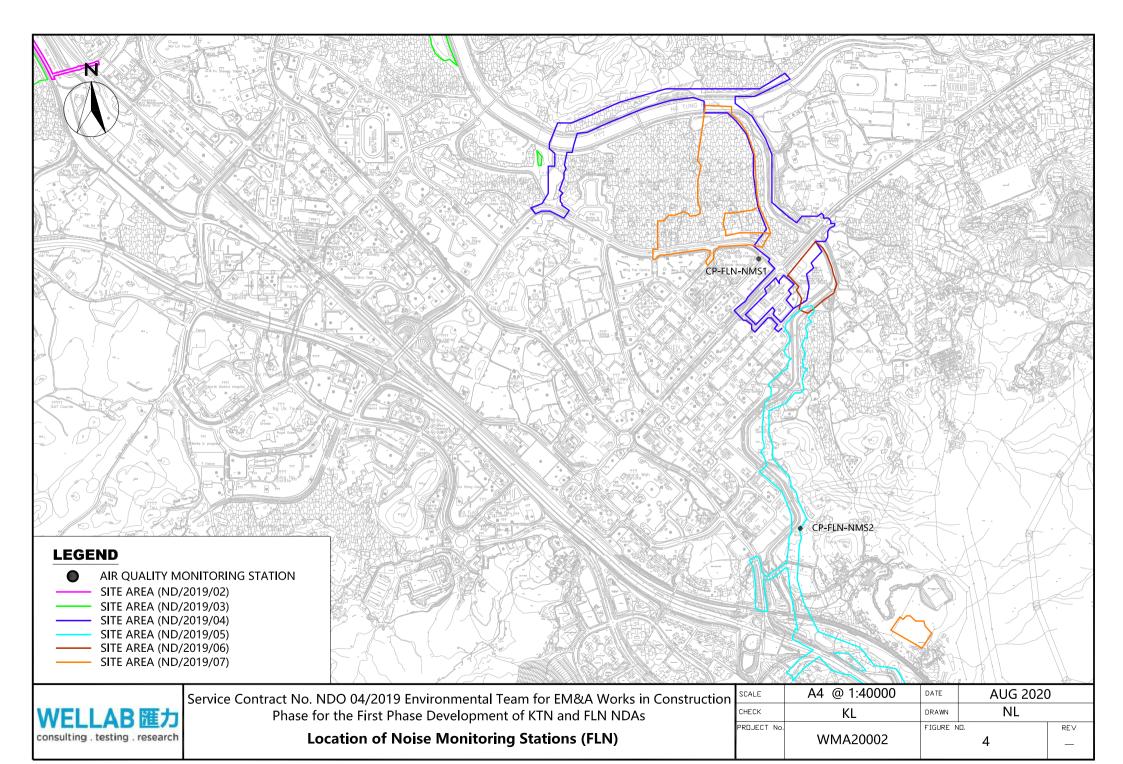
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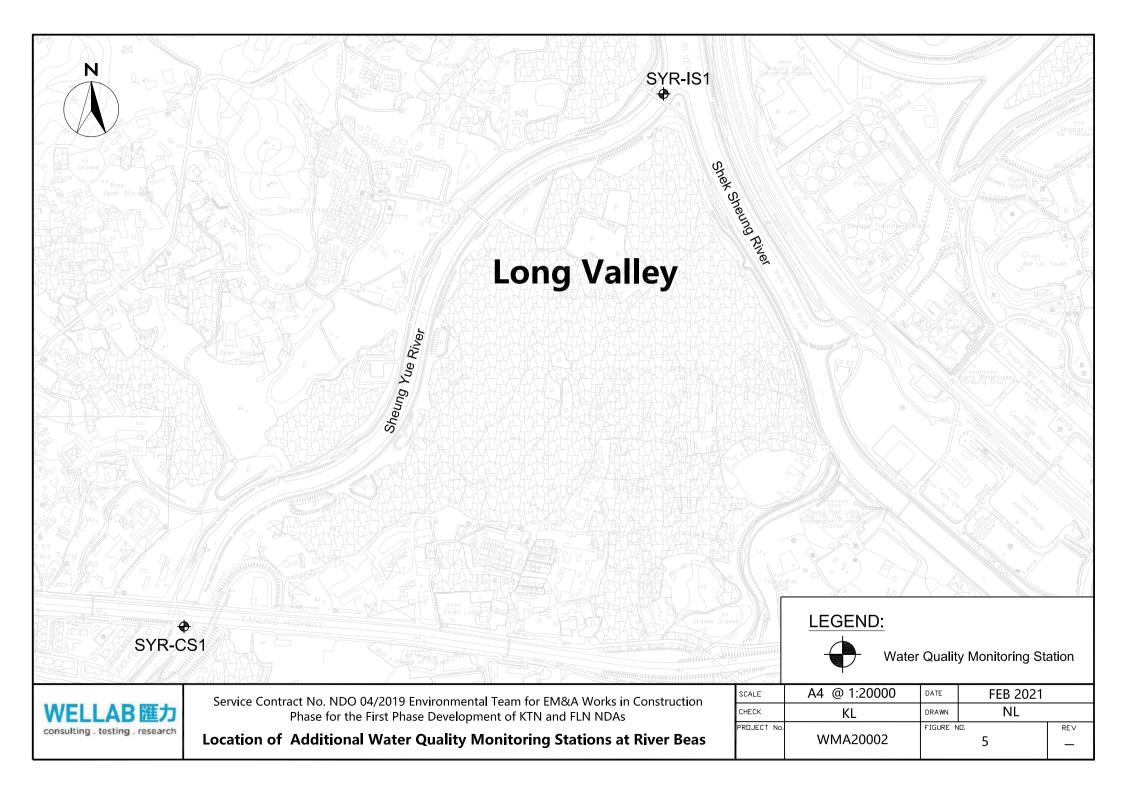
FIGURE(S)

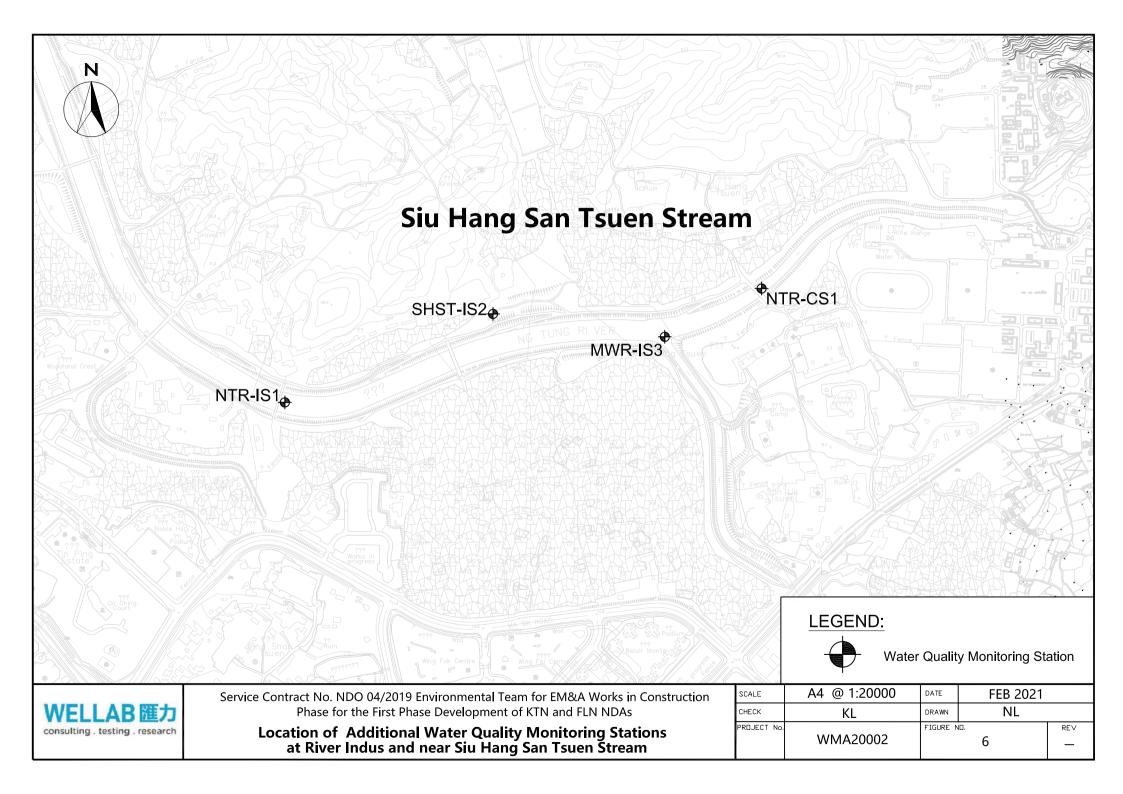


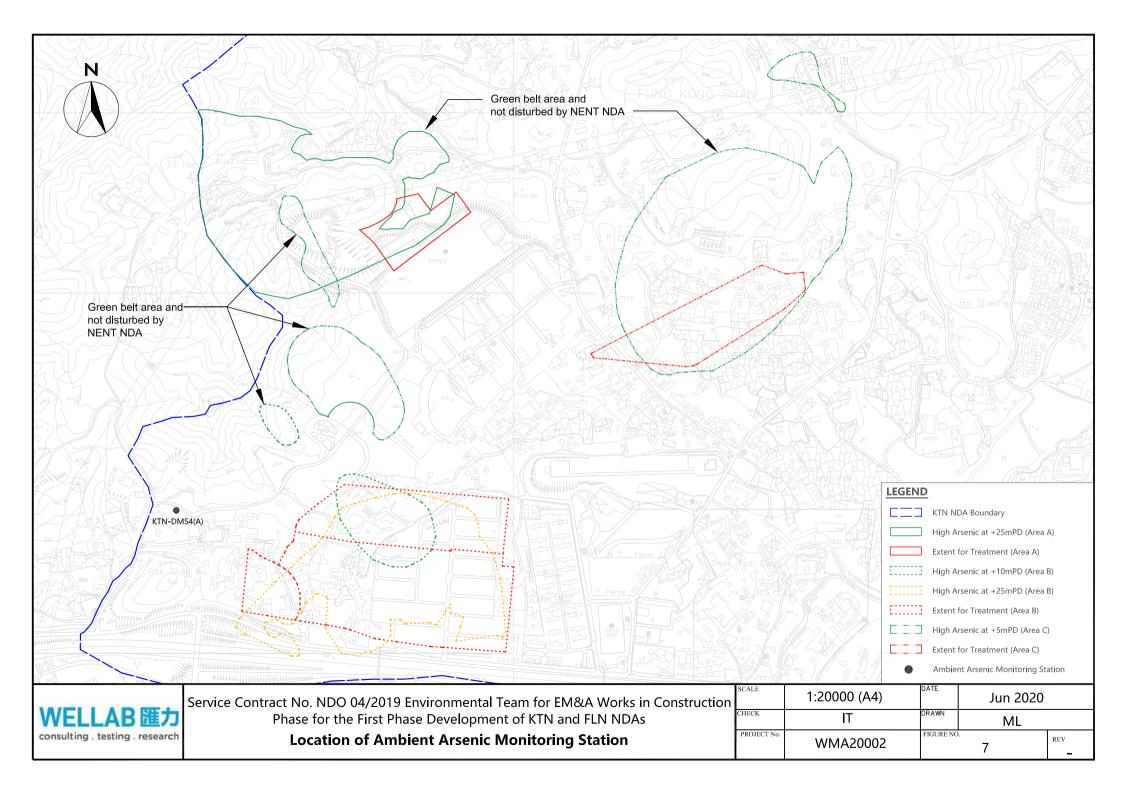


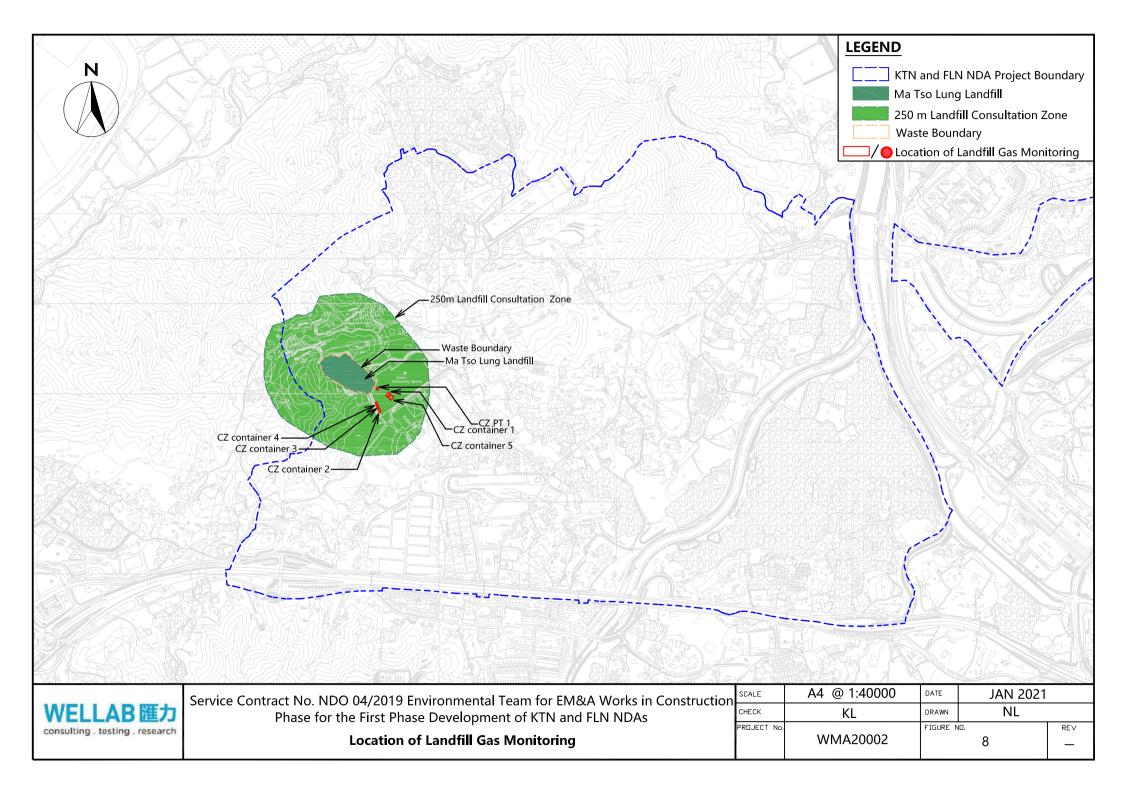


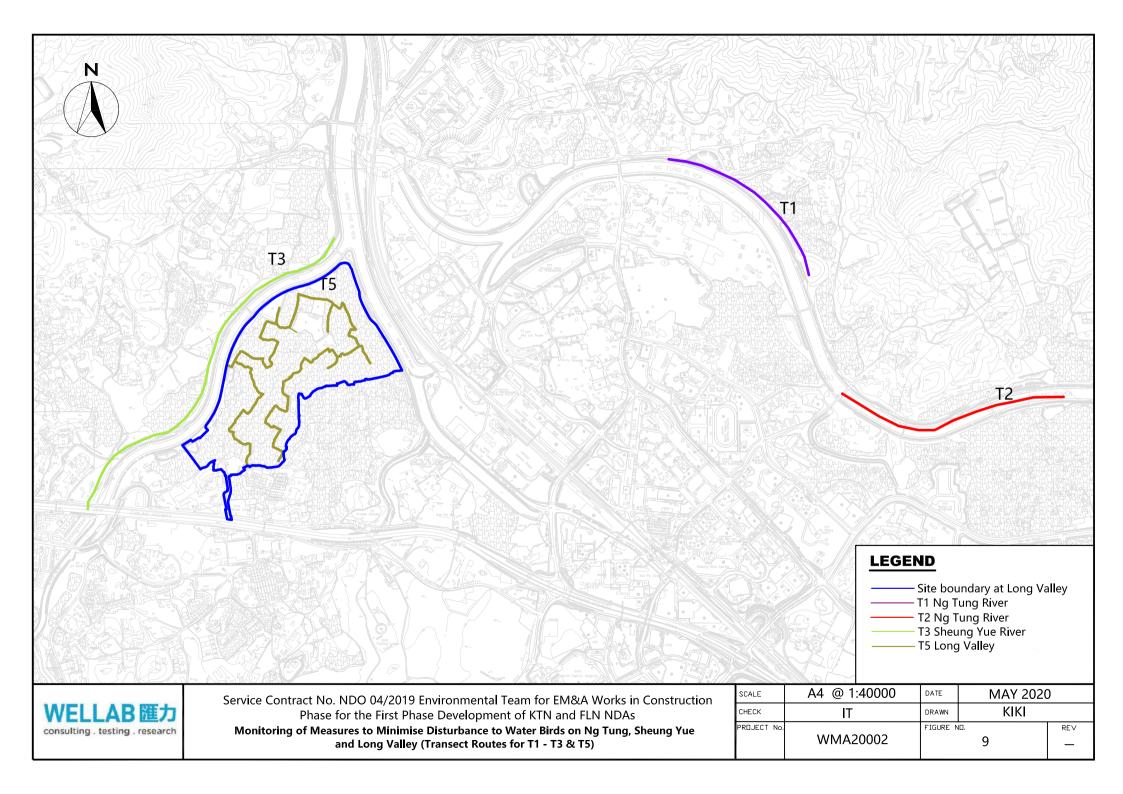


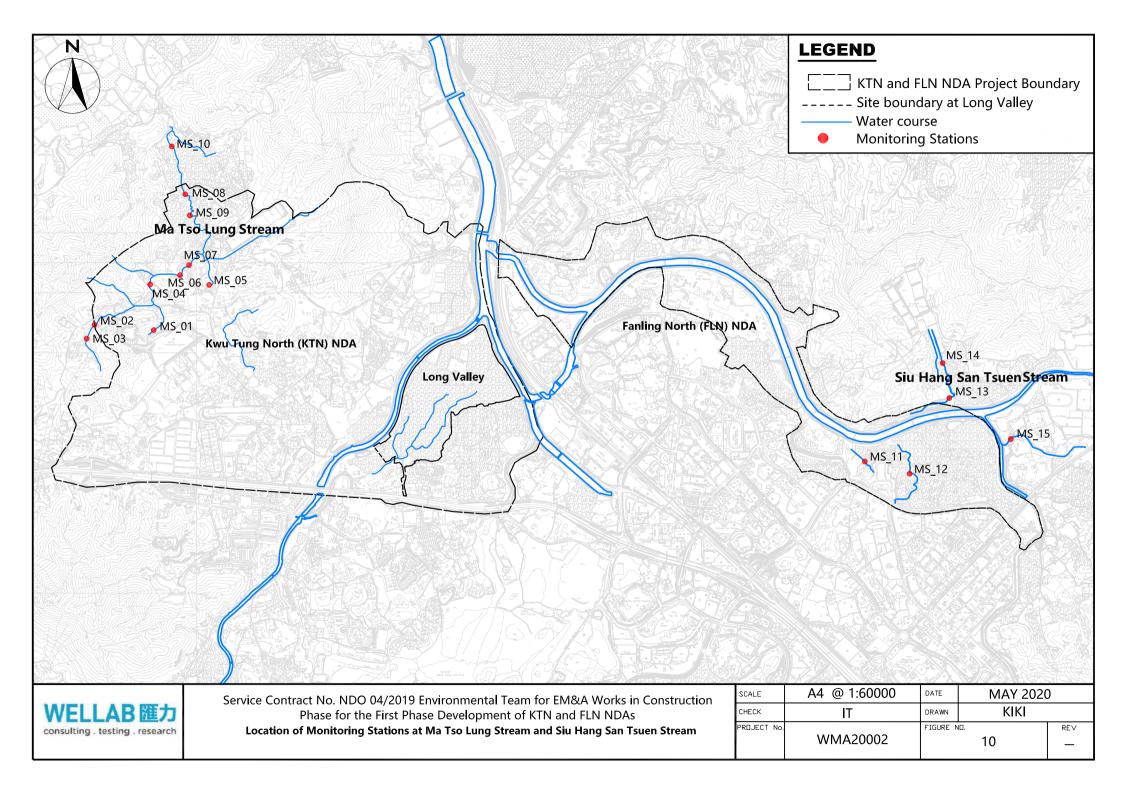












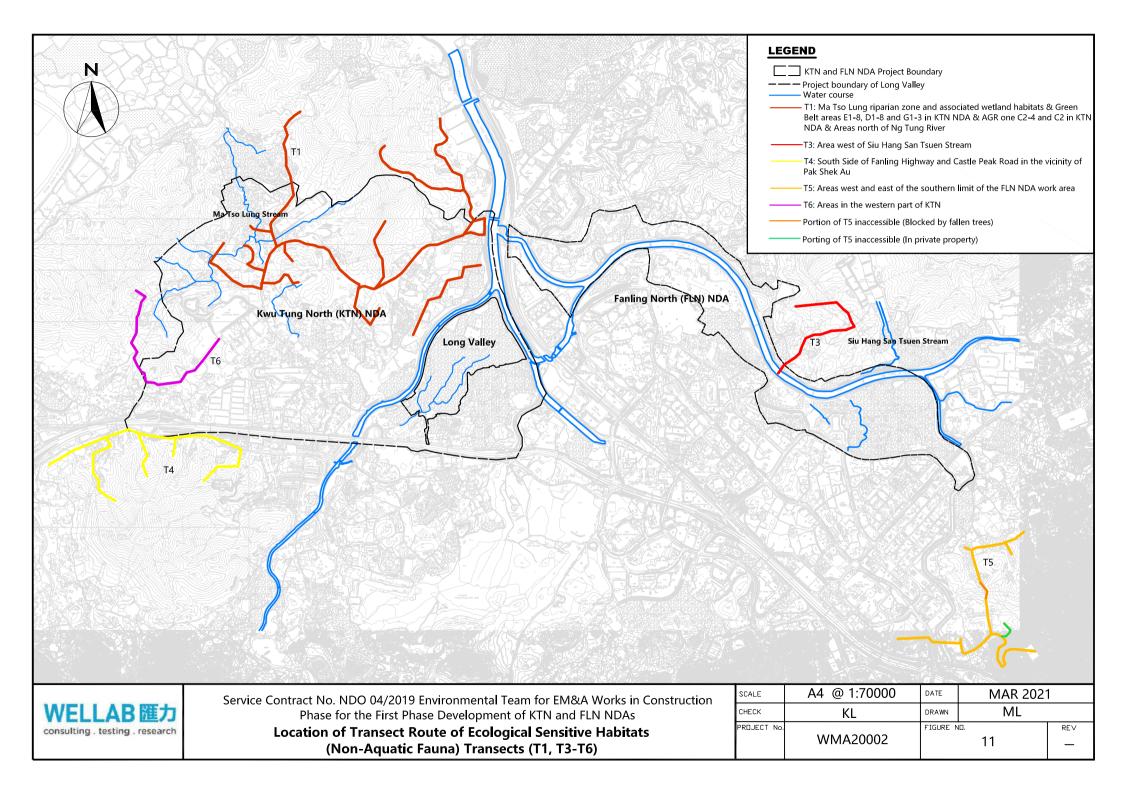
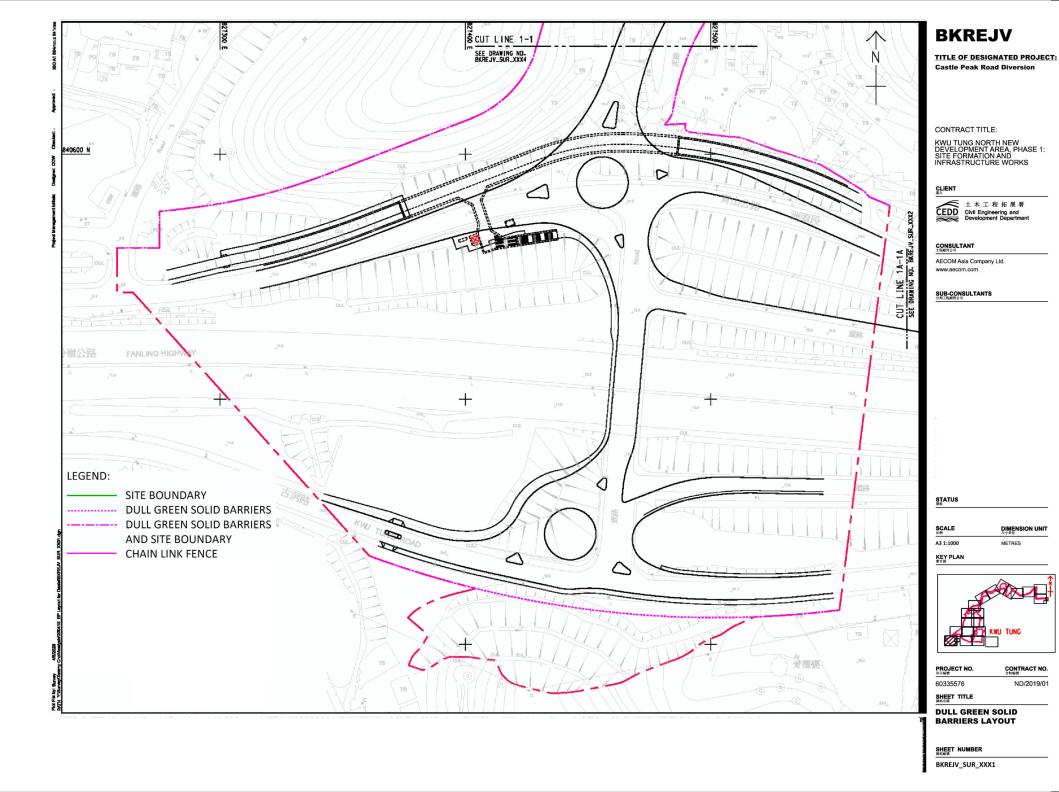


Figure 12

Hoarding Plan

EP-466/2013



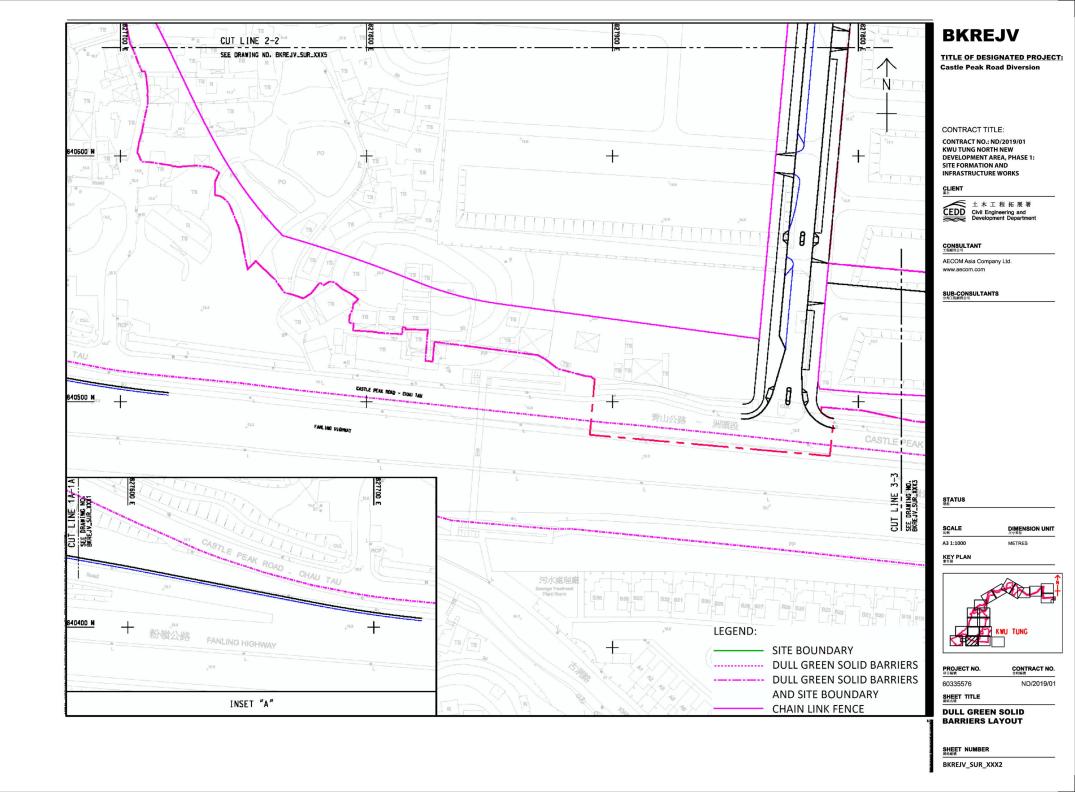
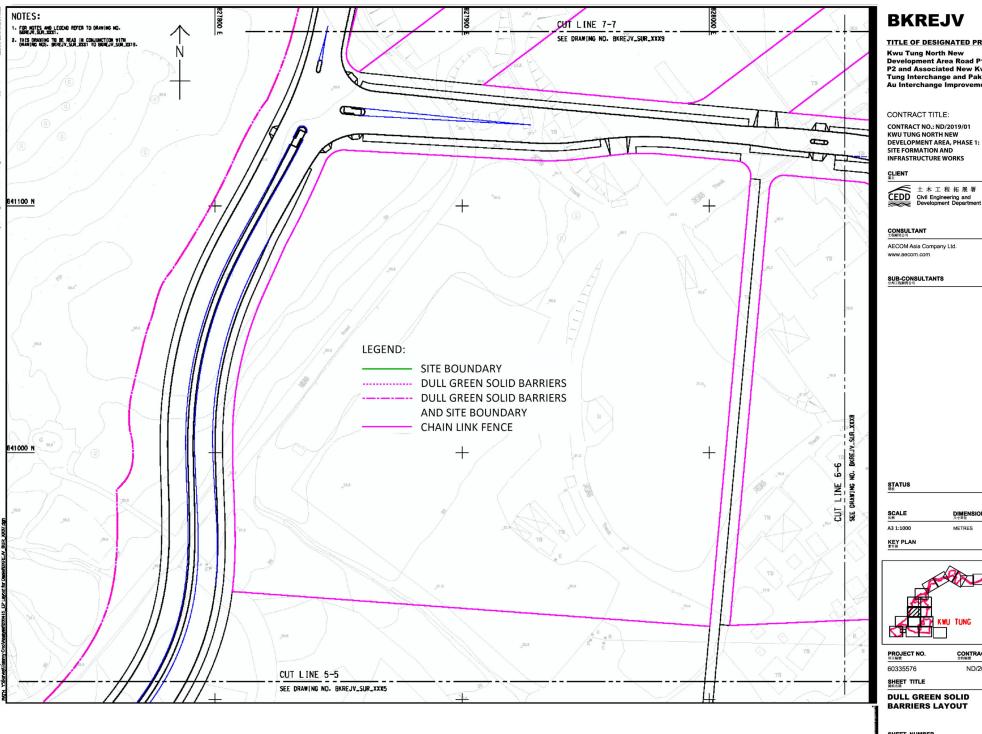


Figure 13

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



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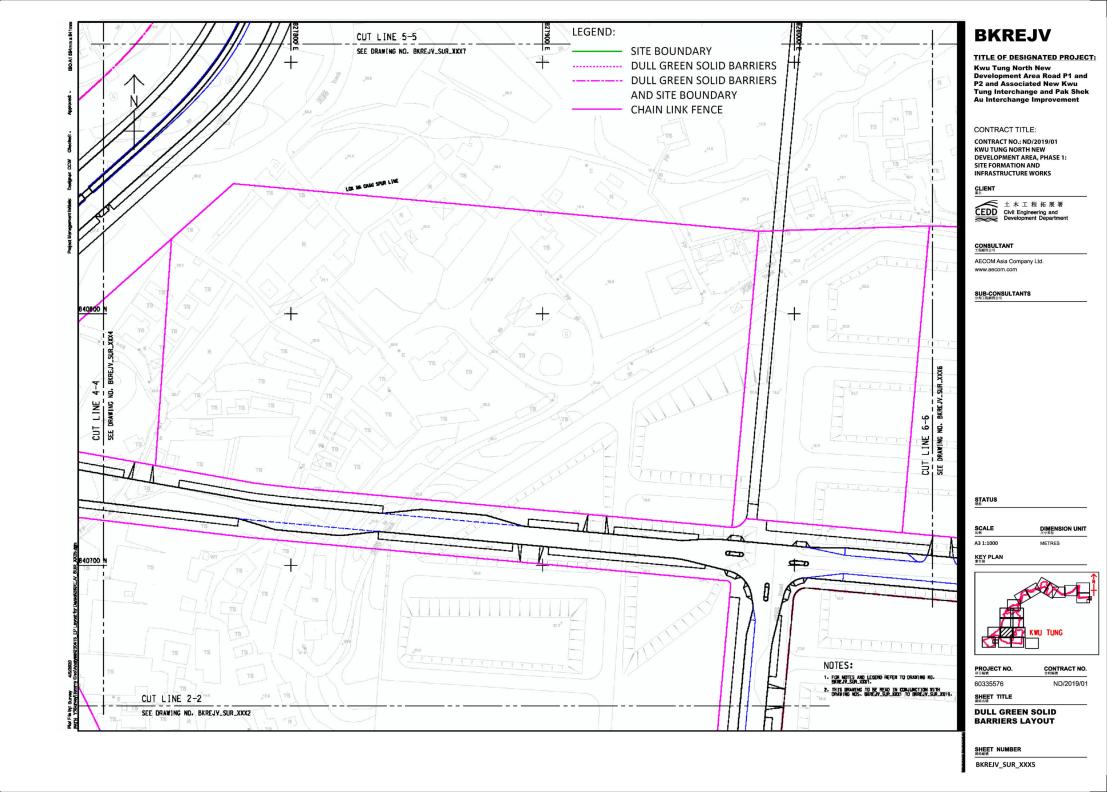


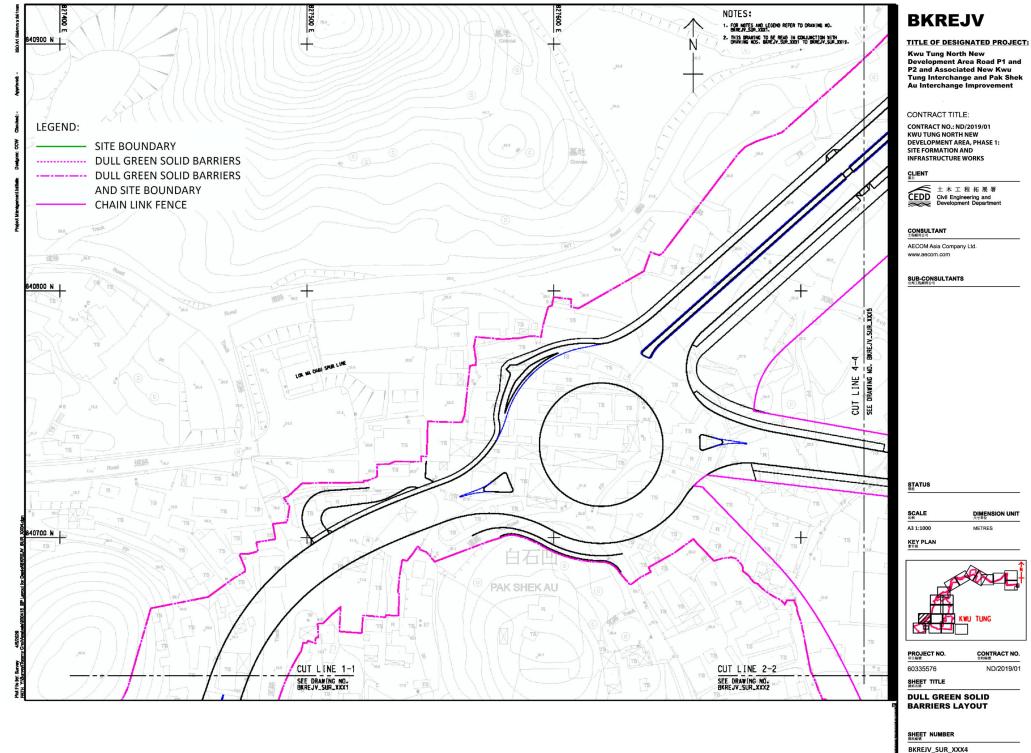
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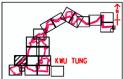
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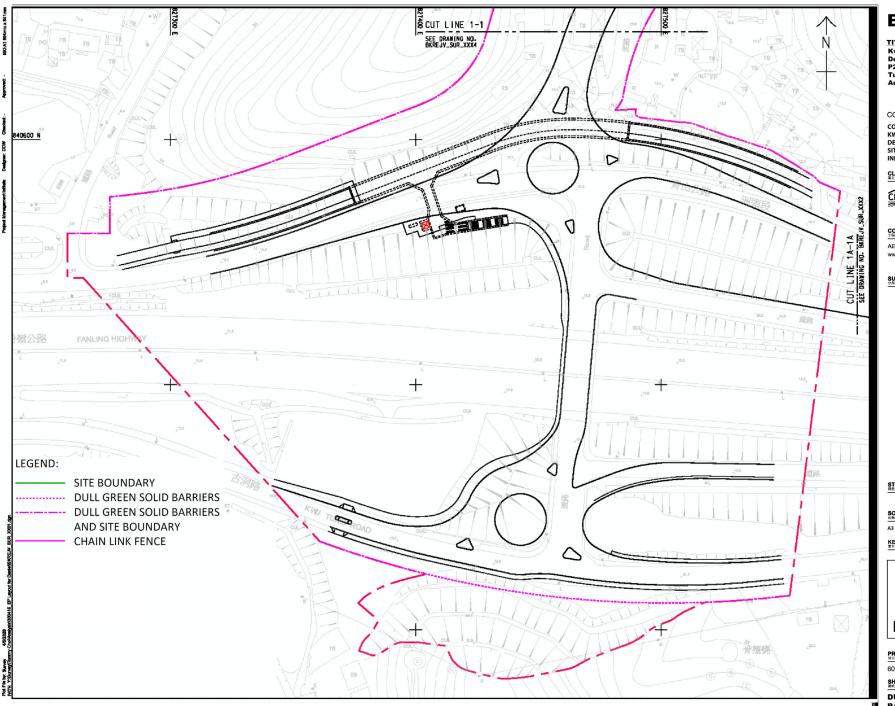
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BKREJV

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



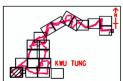
CONSULTANT

AECOM Asia Company Ltd.

SUB-CONSULTANTS

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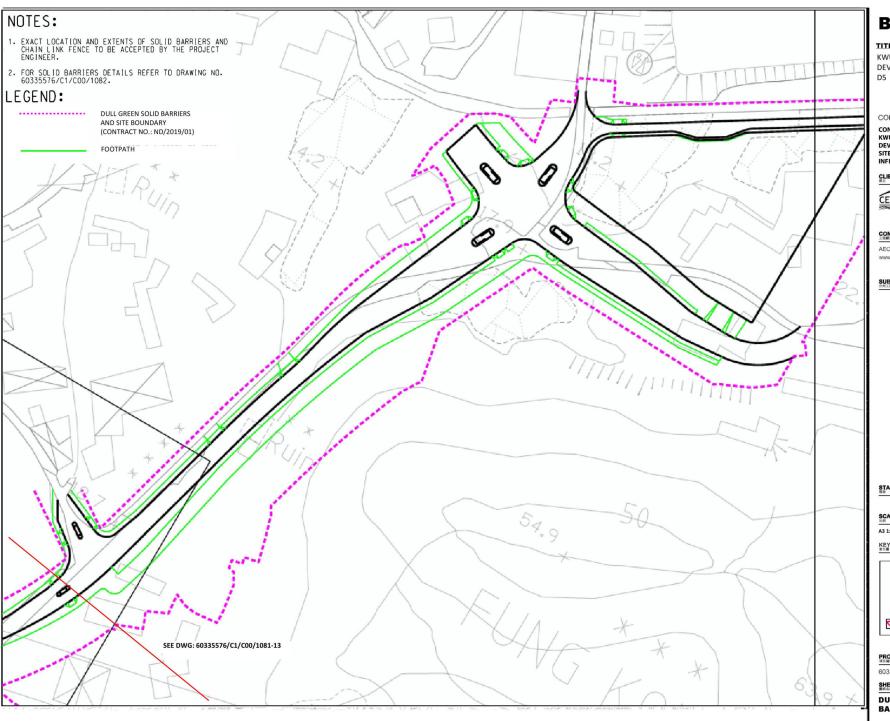
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Figure 14

Hoarding Plan

EP-468/2013/A



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



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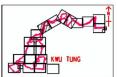
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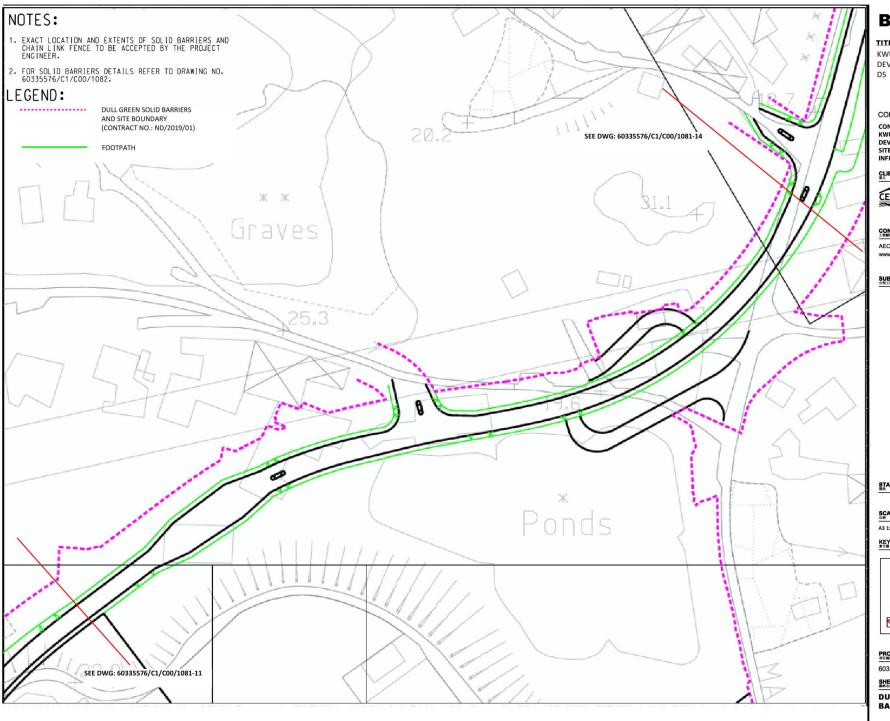
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SHEET NUMBER



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



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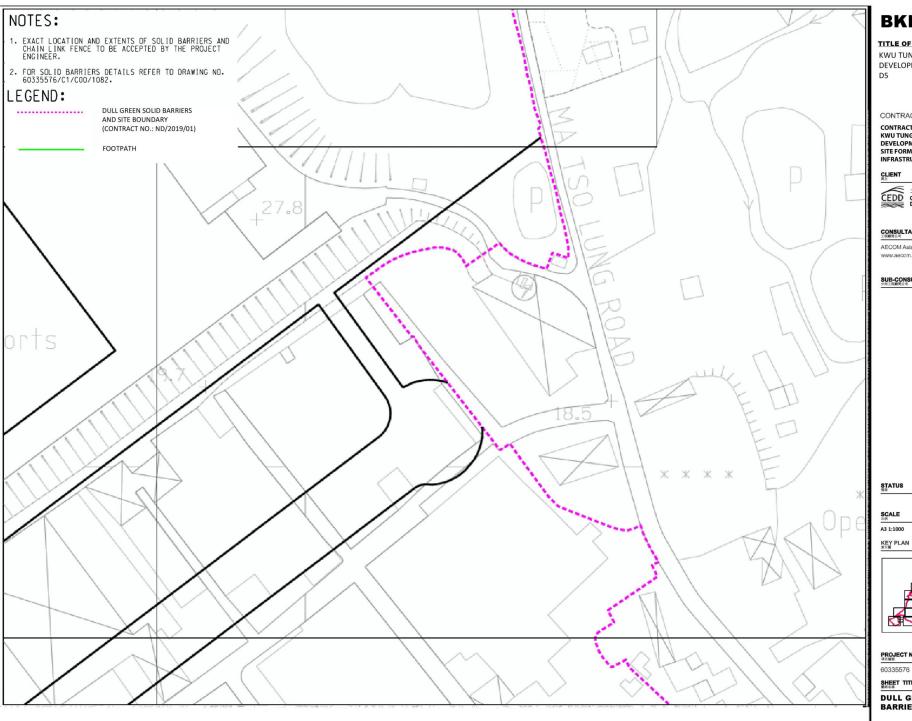


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CONTRACT NO.: ND/2019/01 KWU TUNG NORTH NEW DEVELOPMENT AREA, PHASE 1: SITE FORMATION AND INFRASTRUCTURE WORKS



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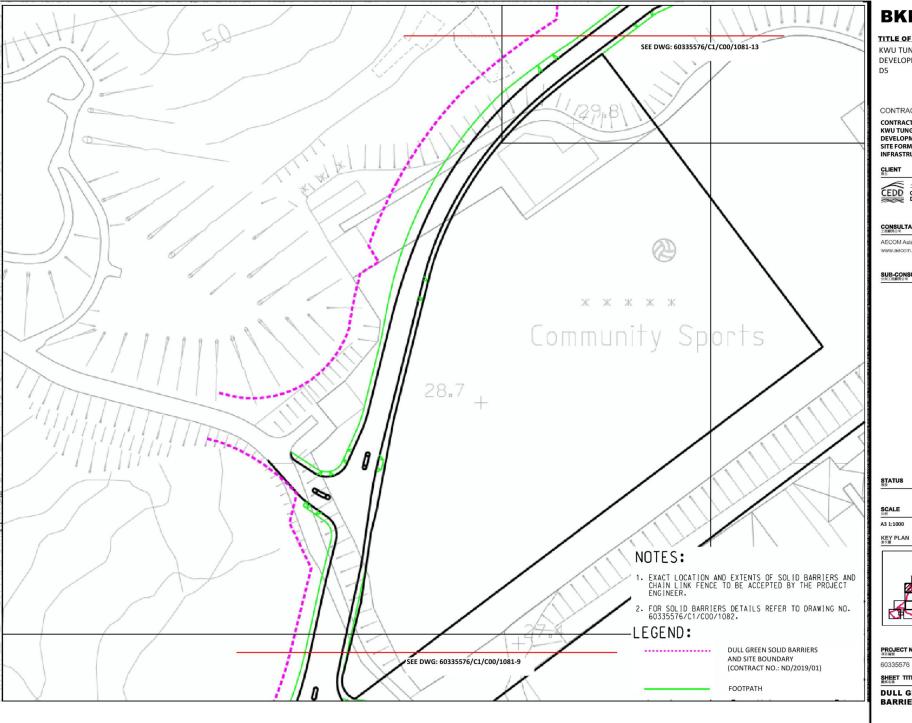
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DULL GREEN SOLID BARRIERS LAYOUT

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TITLE OF DESIGNATED PROJECT:

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CONTRACT TITLE:

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



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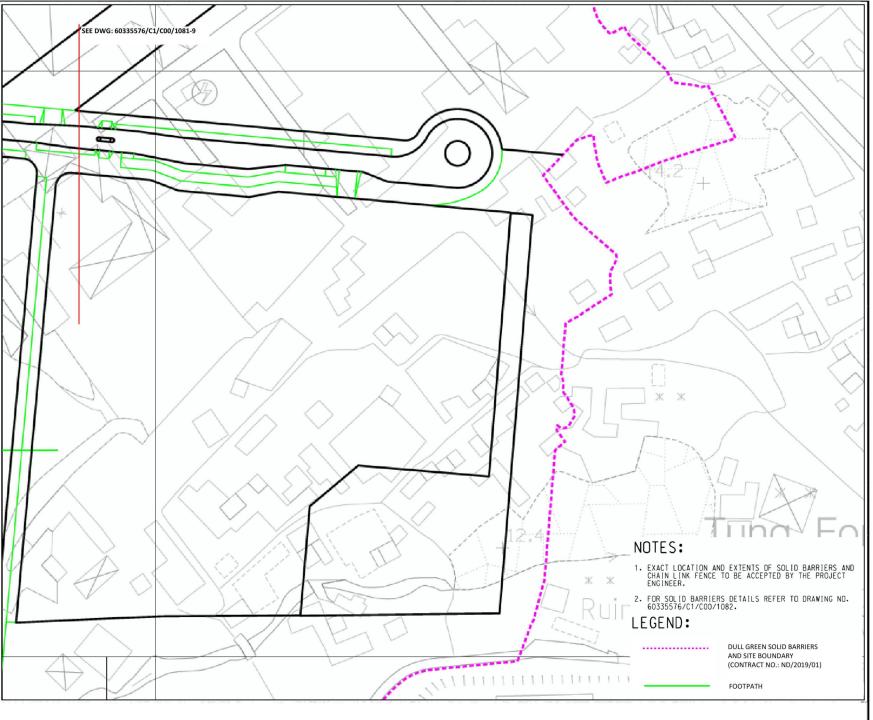
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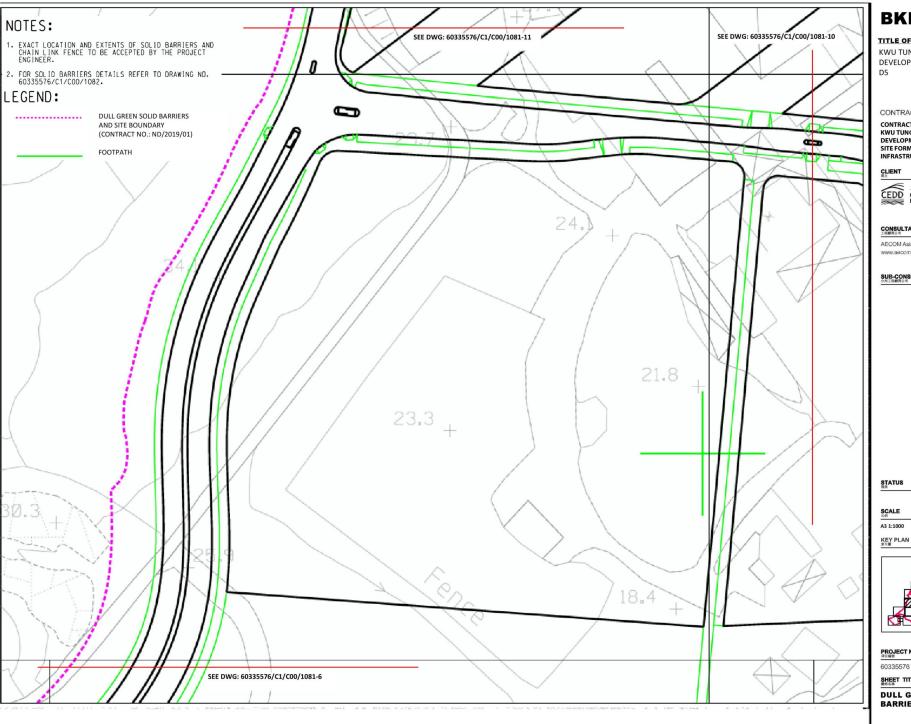
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CLIENT



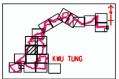
CONSULTANT

AECOM Asia Company Ltd.

SUB-CONSULTANTS

STATUS

DIMENSION UNIT 尺寸単位 SCALE A3 1:1000



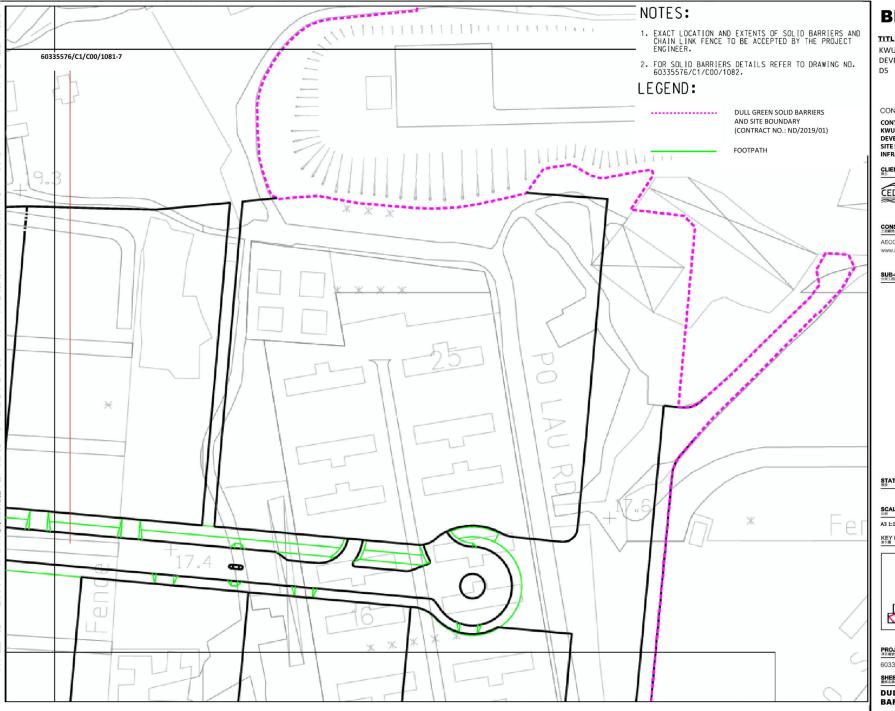
PROJECT NO.

CONTRACT NO. ND/2019/01

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

CLIENT



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

CONSULTANT

AECOM Asia Company Ltd. www.aecom.com

SUB-CONSULTANTS

STATUS

DIMENSION UNIT SCALE A3 1:1000

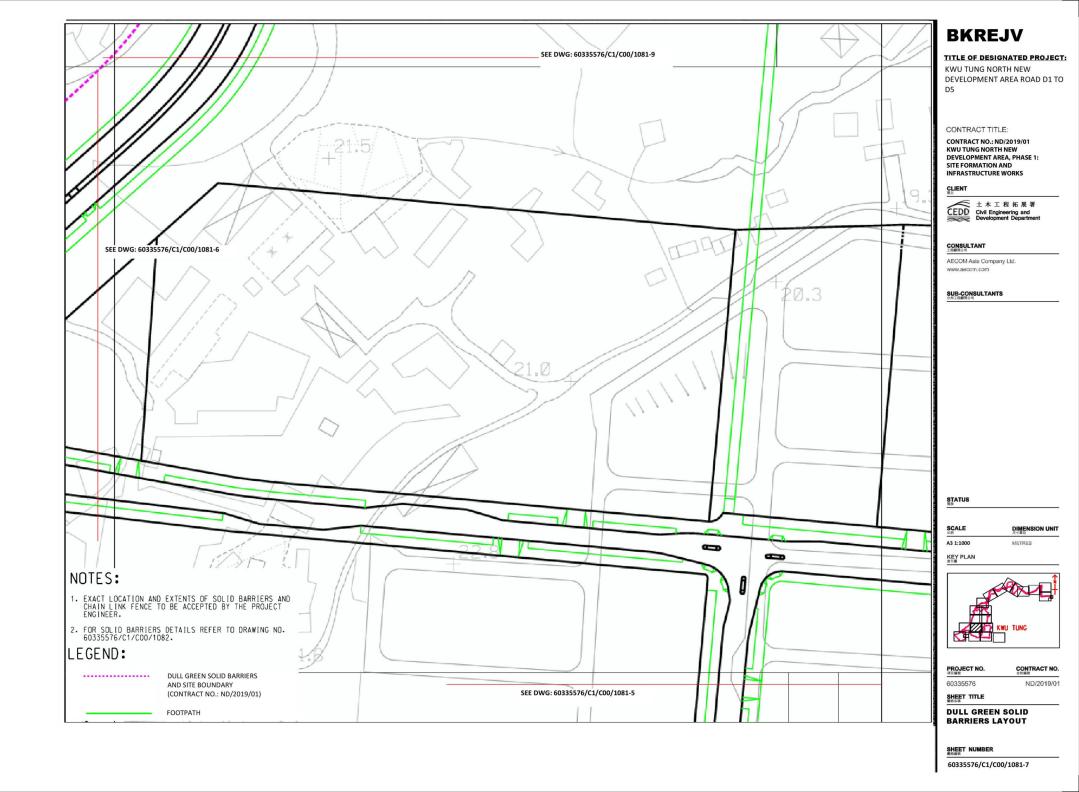


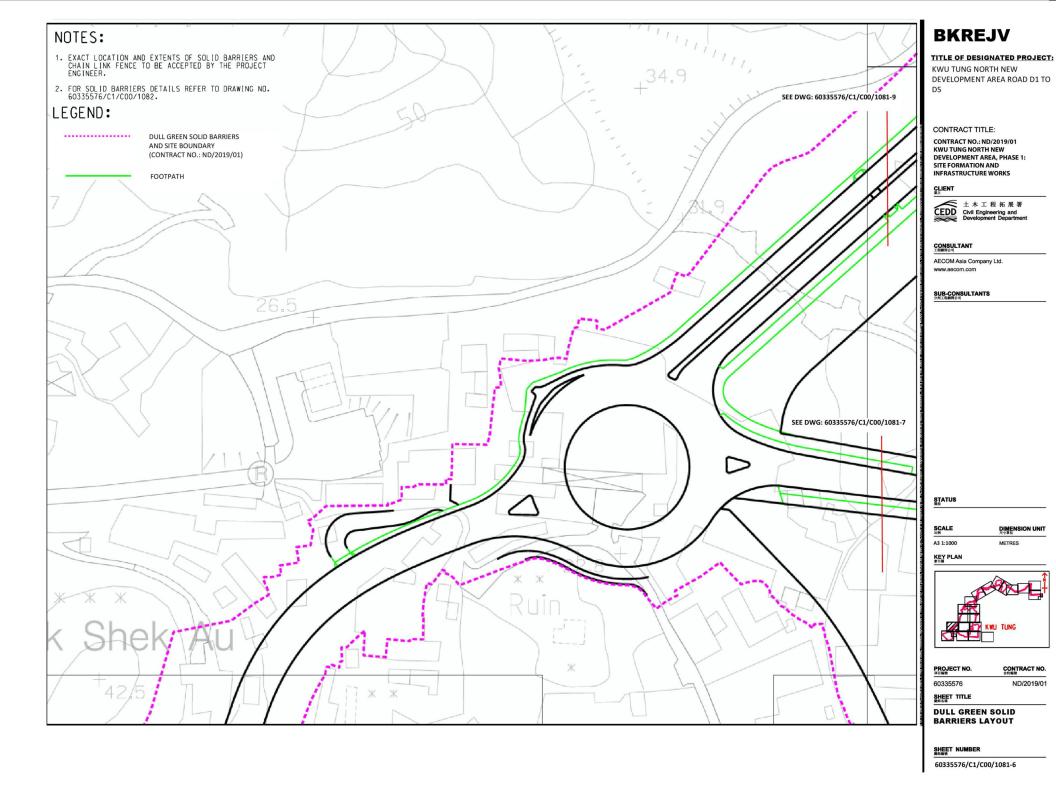
PROJECT NO. 項目編號	CONTRACT N		
60335576	ND/2019/		

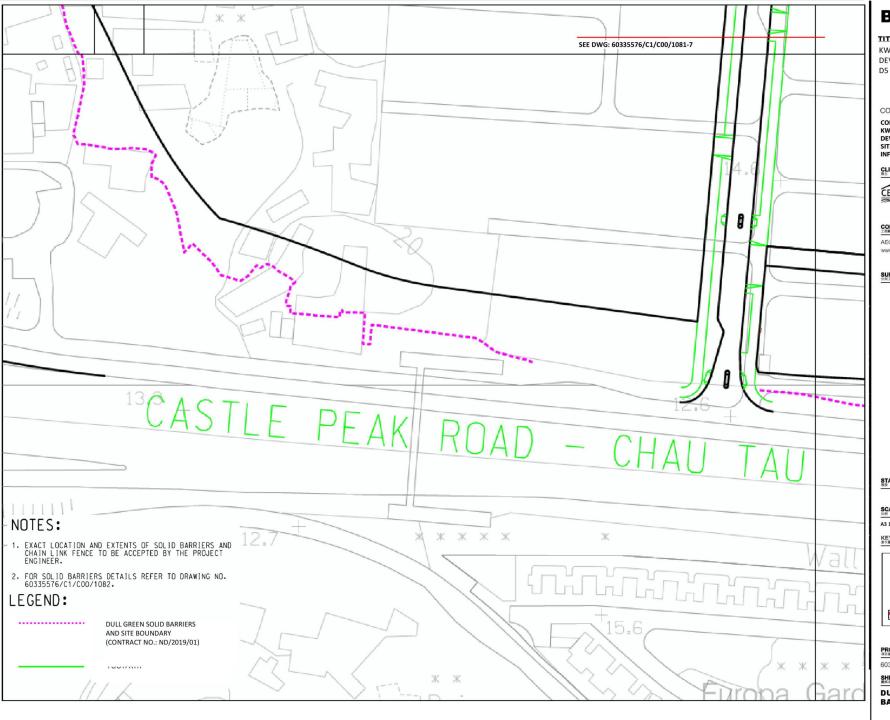
SHEET TITLE **E**統名第

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



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

CONSULTANT

AECOM Asia Company Ltd.

SUB-CONSULTANTS

STATUS

DIMENSION UNIT A3 1:1000

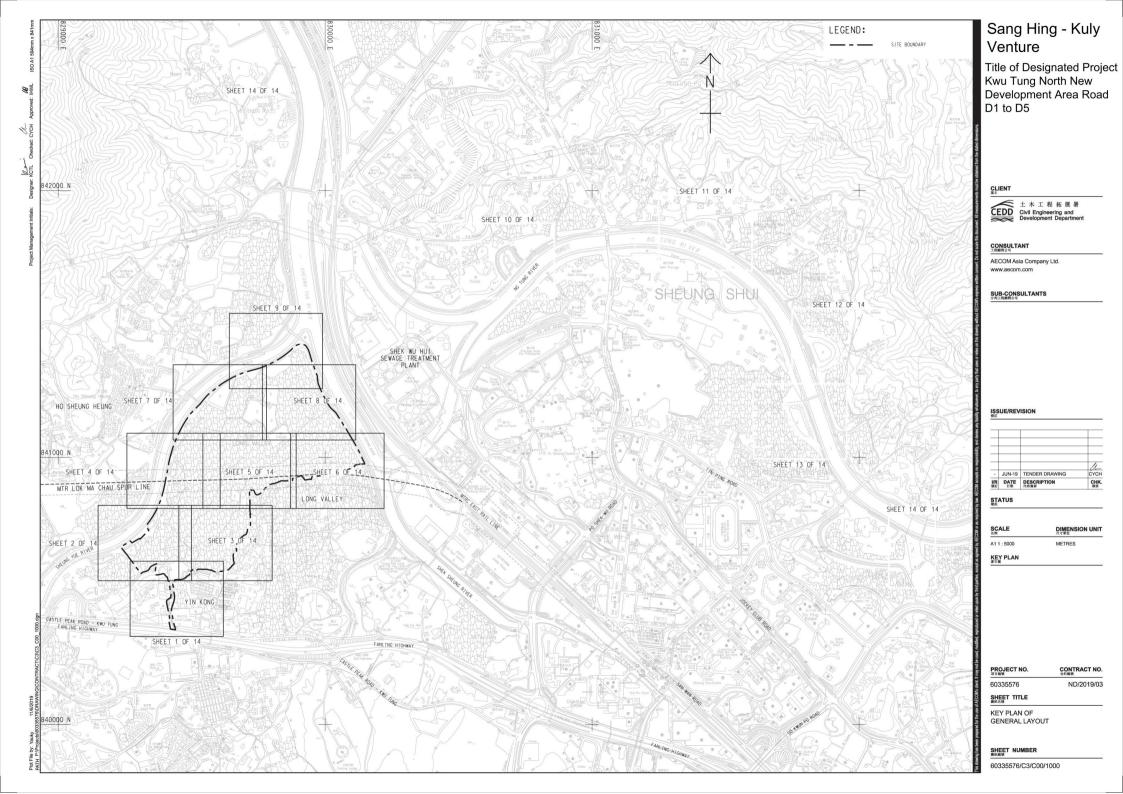


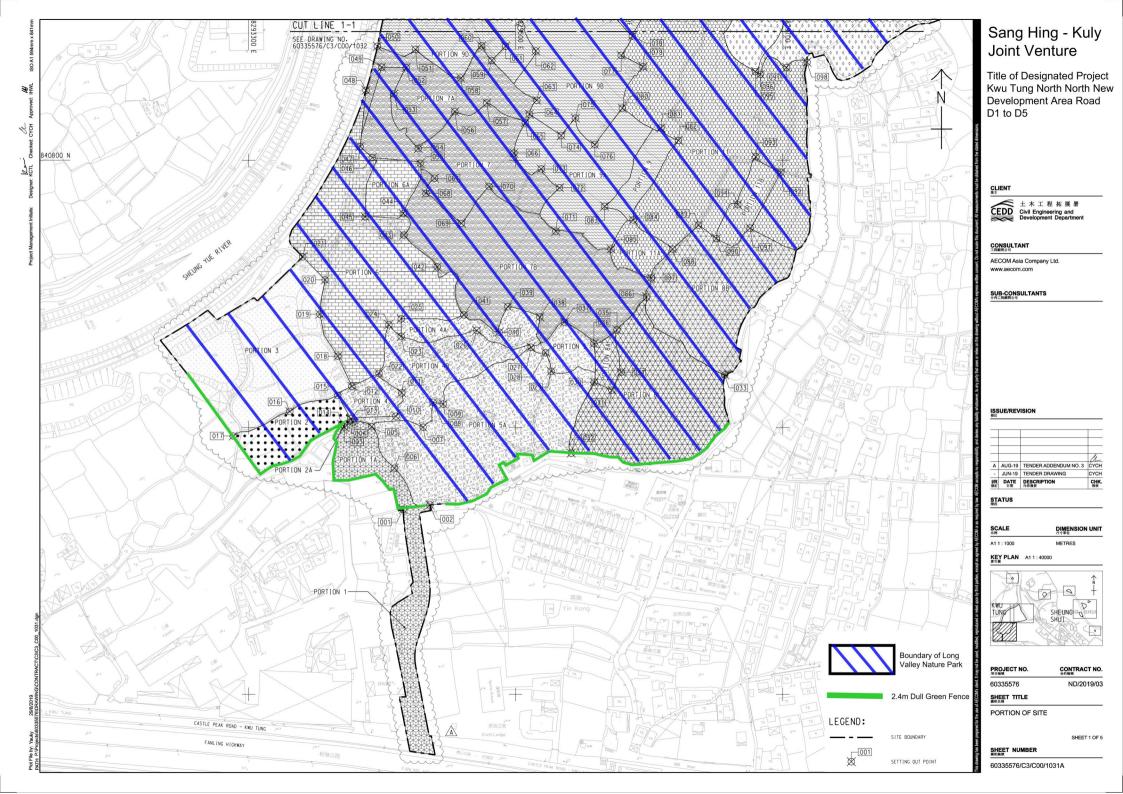
PROJECT NO. CONTRACT NO. 60335576 ND/2019/01

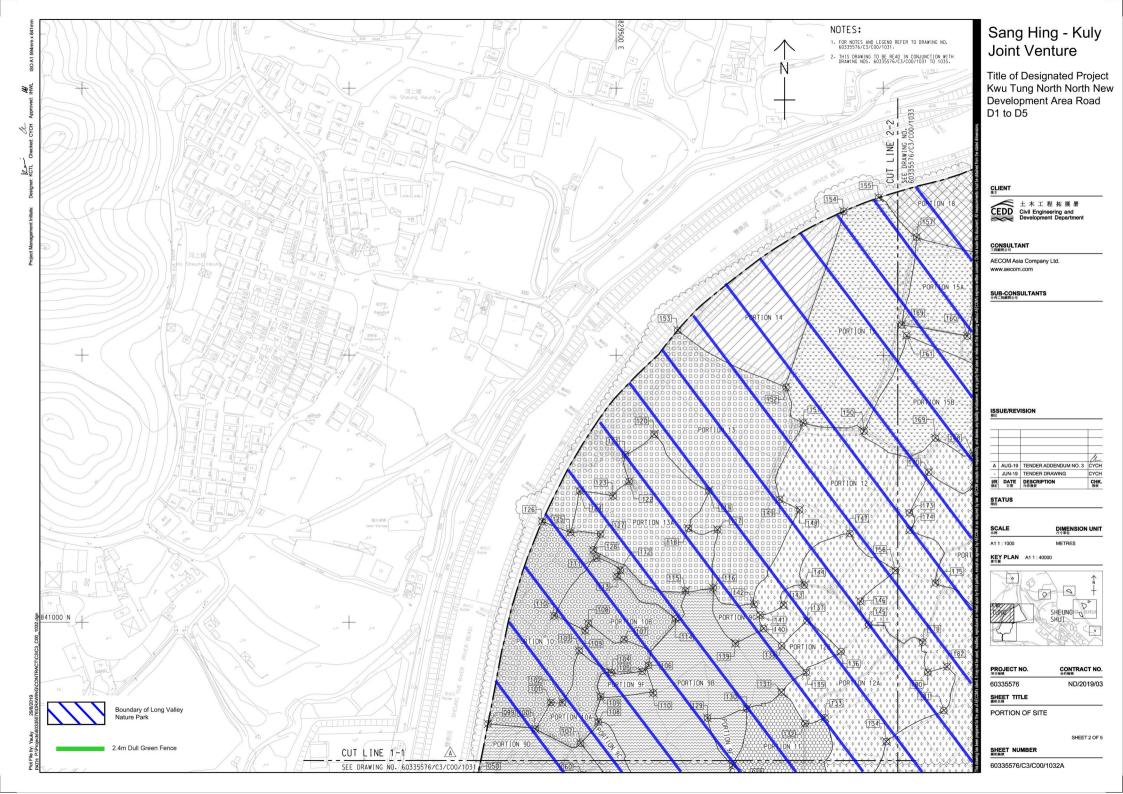
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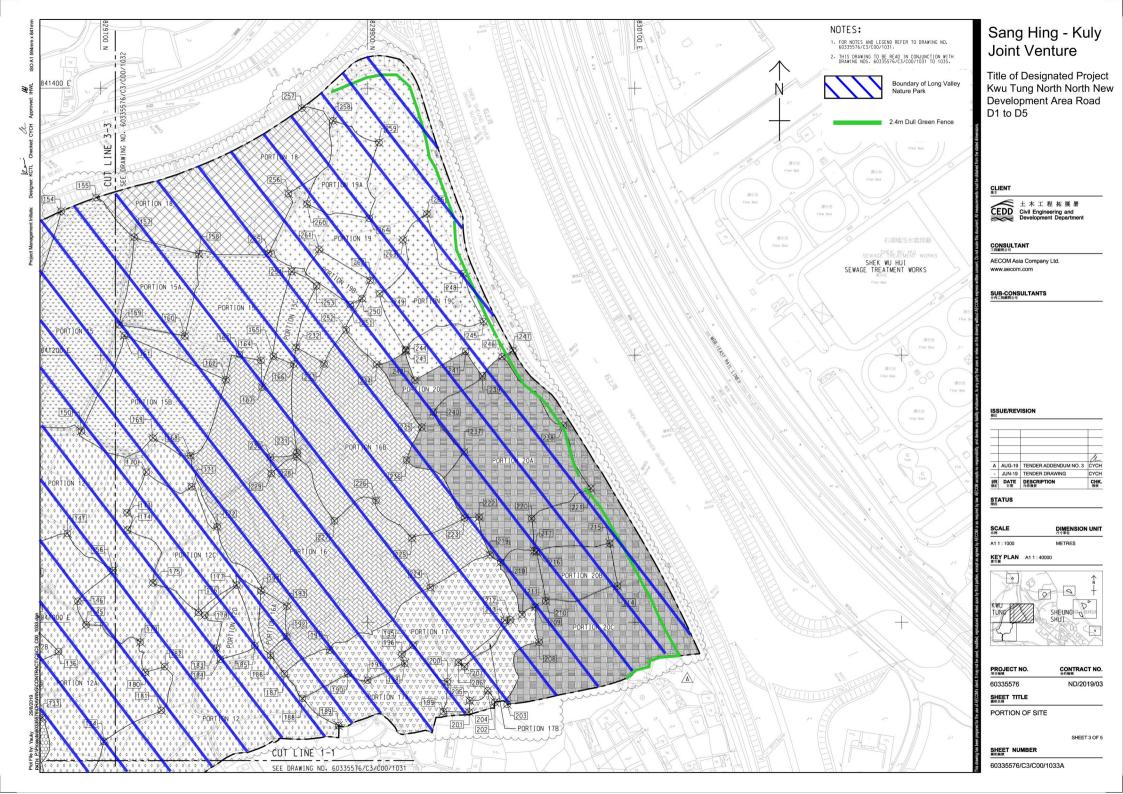
DULL GREEN SOLID BARRIERS LAYOUT

SHEET NUMBER









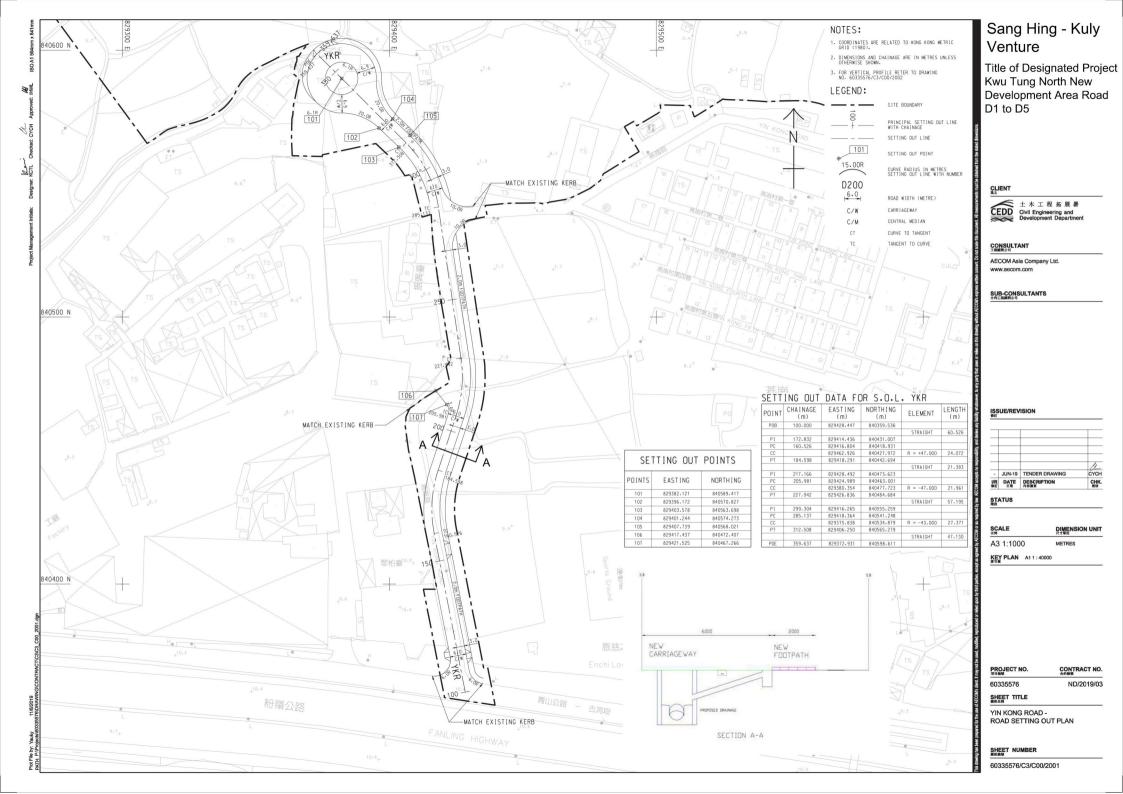
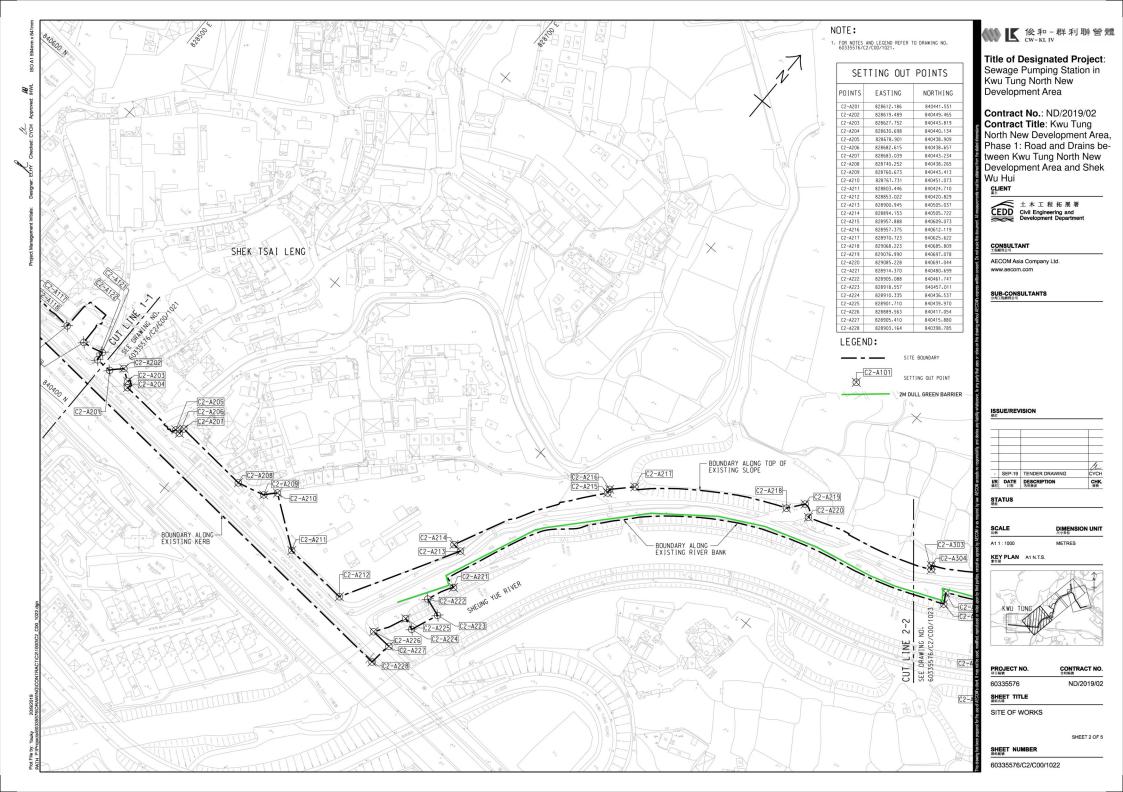
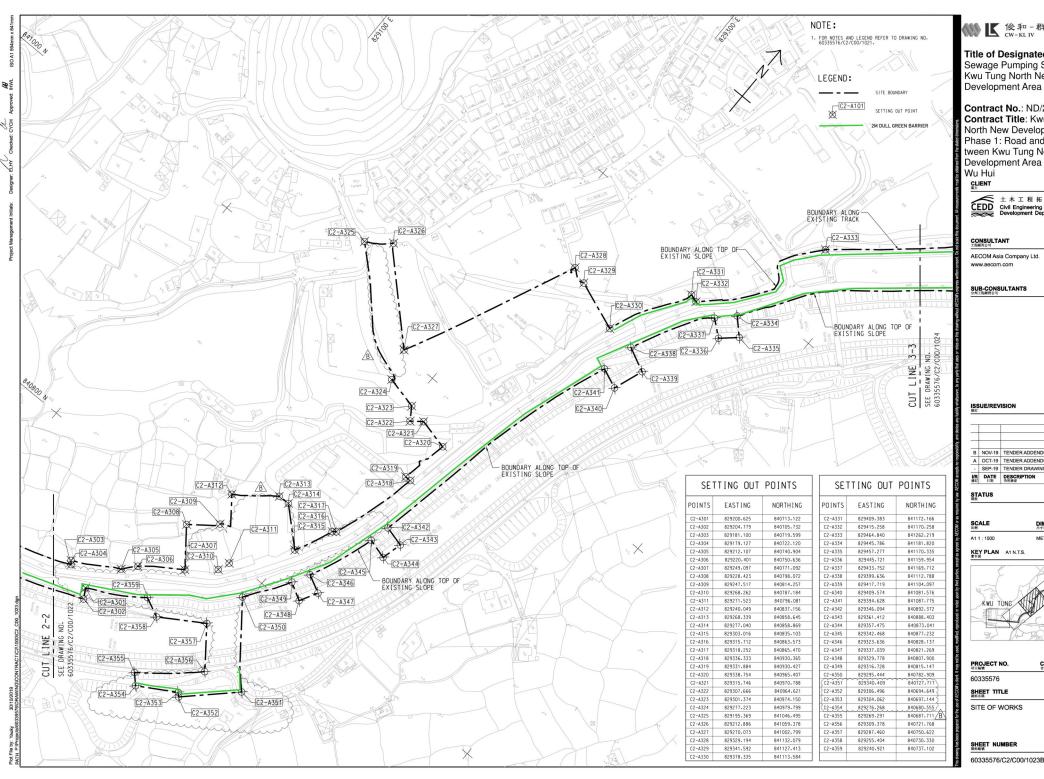


Figure 15

Hoarding Plan

EP-469/2013





《 後和 - 群利聯營體 cw-ki jv

Title of Designated Project:

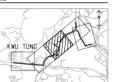
Sewage Pumping Station in Kwu Tung North New Development Area

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



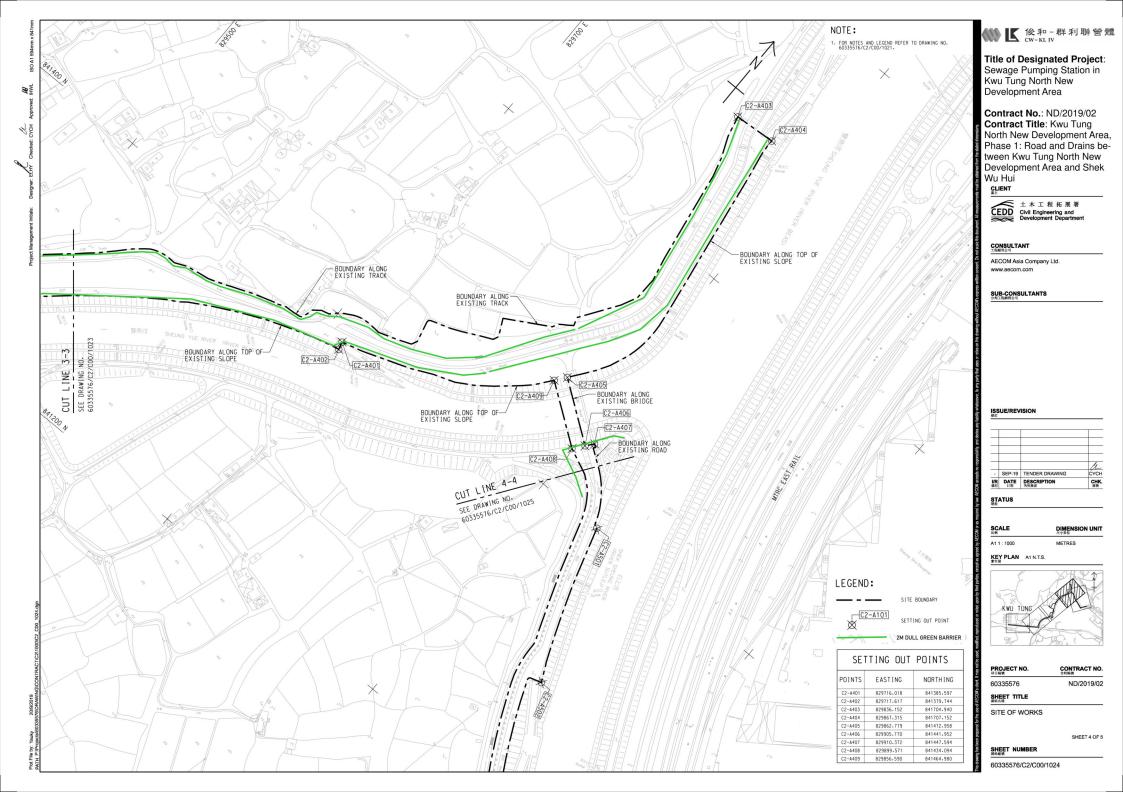
B NOV-19 TENDER ADDENDUM NO. 3 CYC A OCT-19 TENDER ADDENDUM NO. 2 CYC - SEP-19 TENDER DRAWING CYC	I/R	DATE	DESCRIPTION	CHI
	-	SEP-19	TENDER DRAWING	CYC
B NOV-19 TENDER ADDENDUM NO. 3 CYC	Α	OCT-19	TENDER ADDENDUM NO. 2	CYC
1/4	В	NOV-19	TENDER ADDENDUM NO. 3	CYC
	_			11

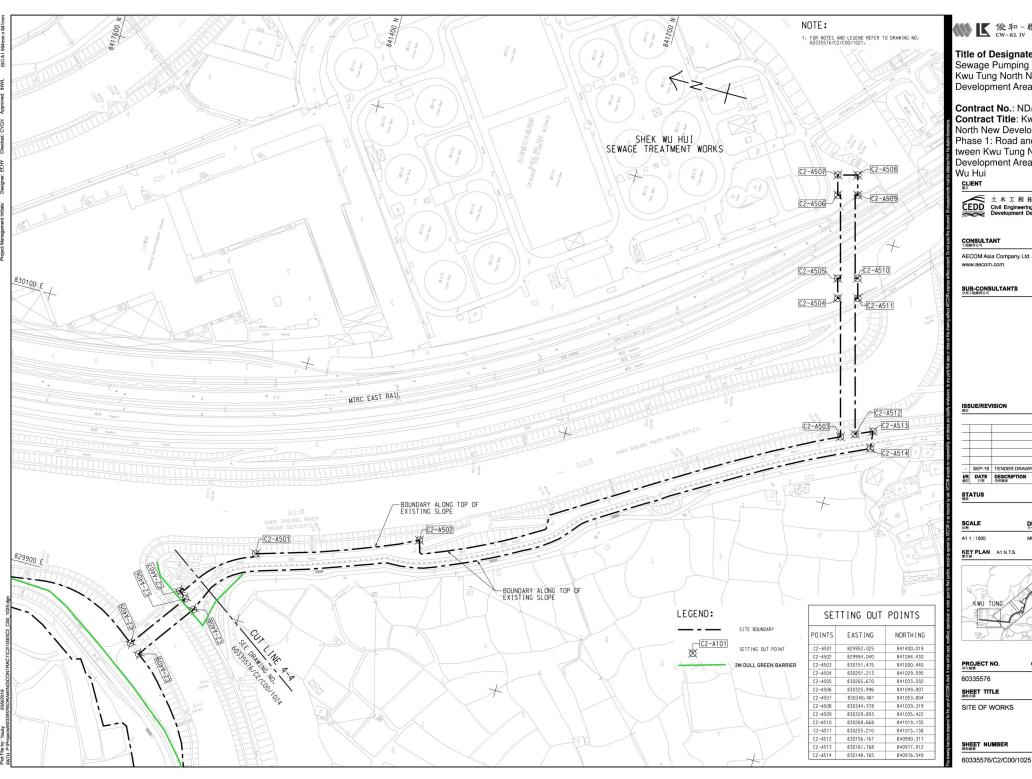
SCALE 比例	DIMENSION UN		
A1 1 : 1000	METRES		



CONTRACT NO. 合約編號		
ND/2019/02		

SHEET 3 OF 5





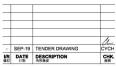
《 後和 - 群利聯營體 cw-KL IV

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





DIMENSION UNIT



CONTRACT NO.	
ND/2019/02	

SHEET 5 OF 5

60335576/C2/C00/1025

Figure 16

Hoarding Plan

EP-473/2013/A

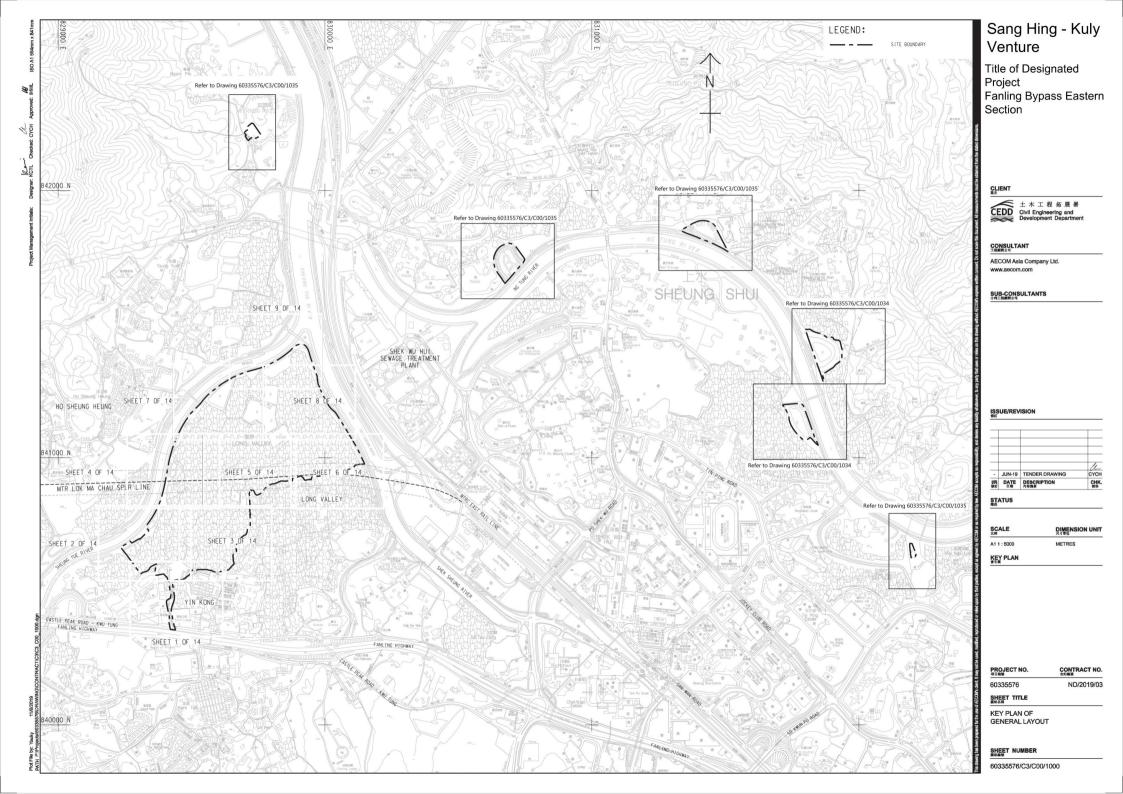
Summary of submission (EP-473/2013/A)

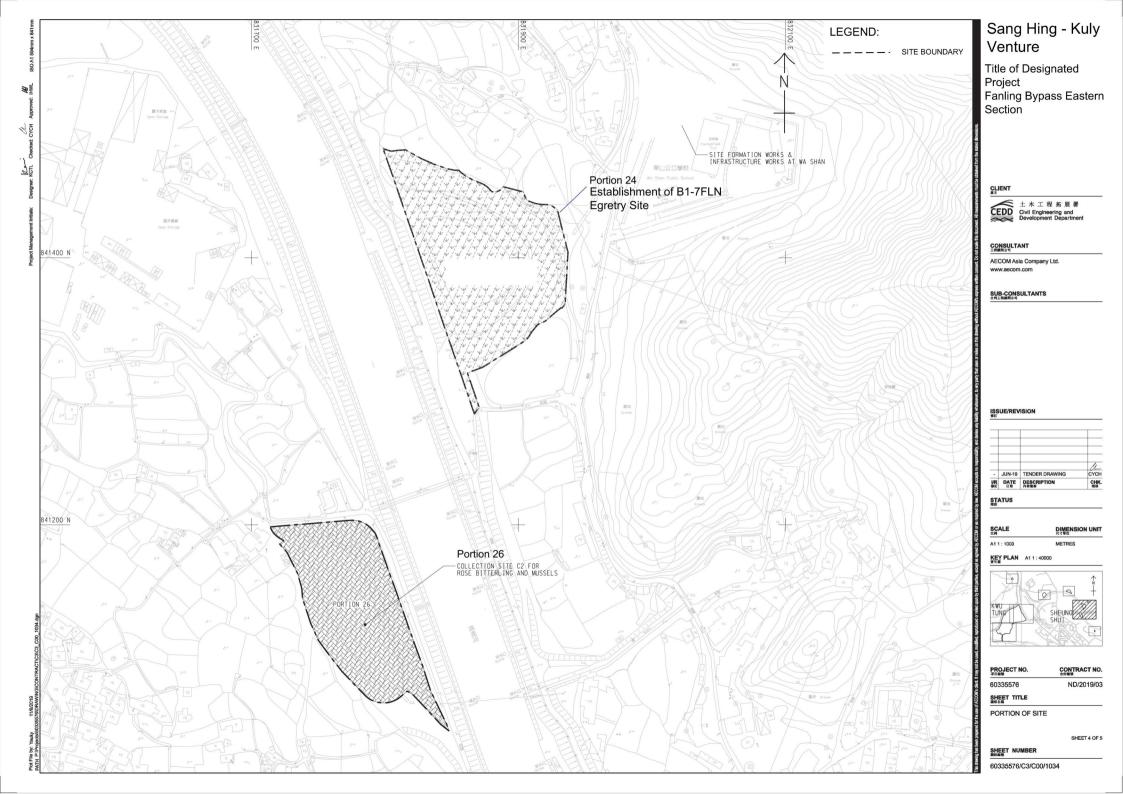
Submission of Layout Plan

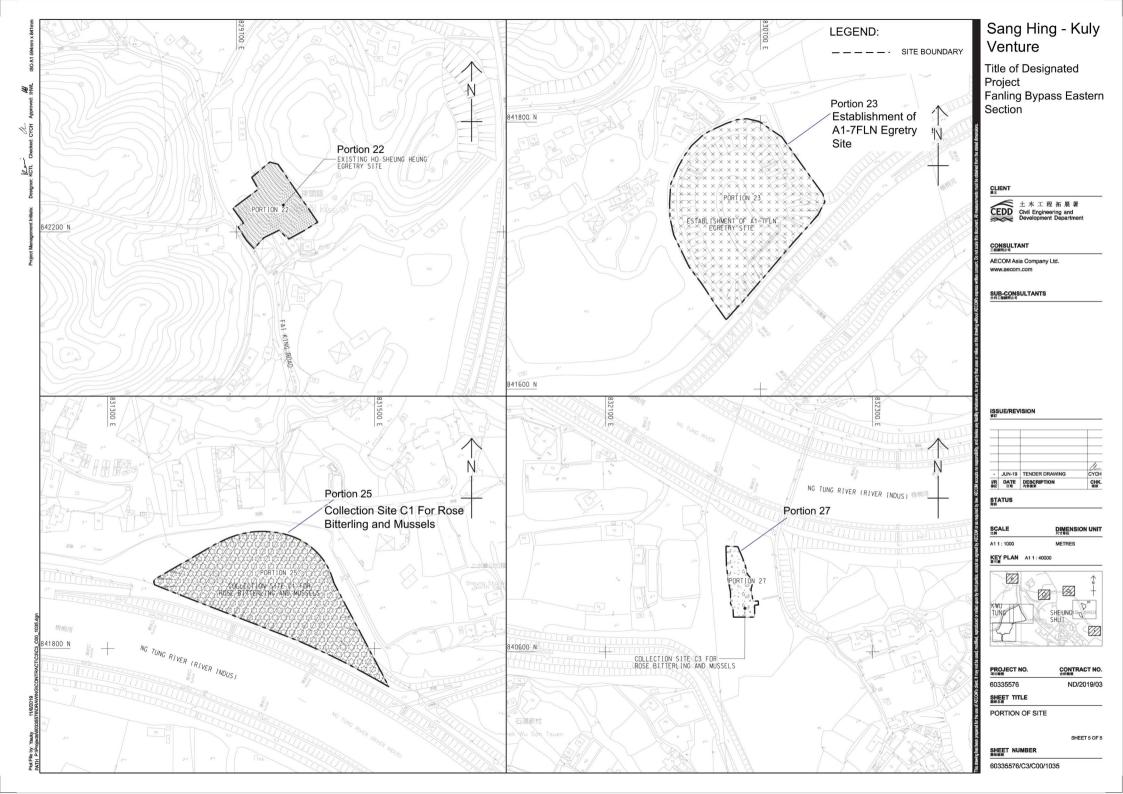
EP's Condition 2.5: The Permit shall, no later than 2 weeks before the commencement of construction of the Project, deposit four hard copies and one electronic copy of location plan(s) of the Project with a scale of 1:1000 or other appropriate scale as agreed with the Director. The plans shall include 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.

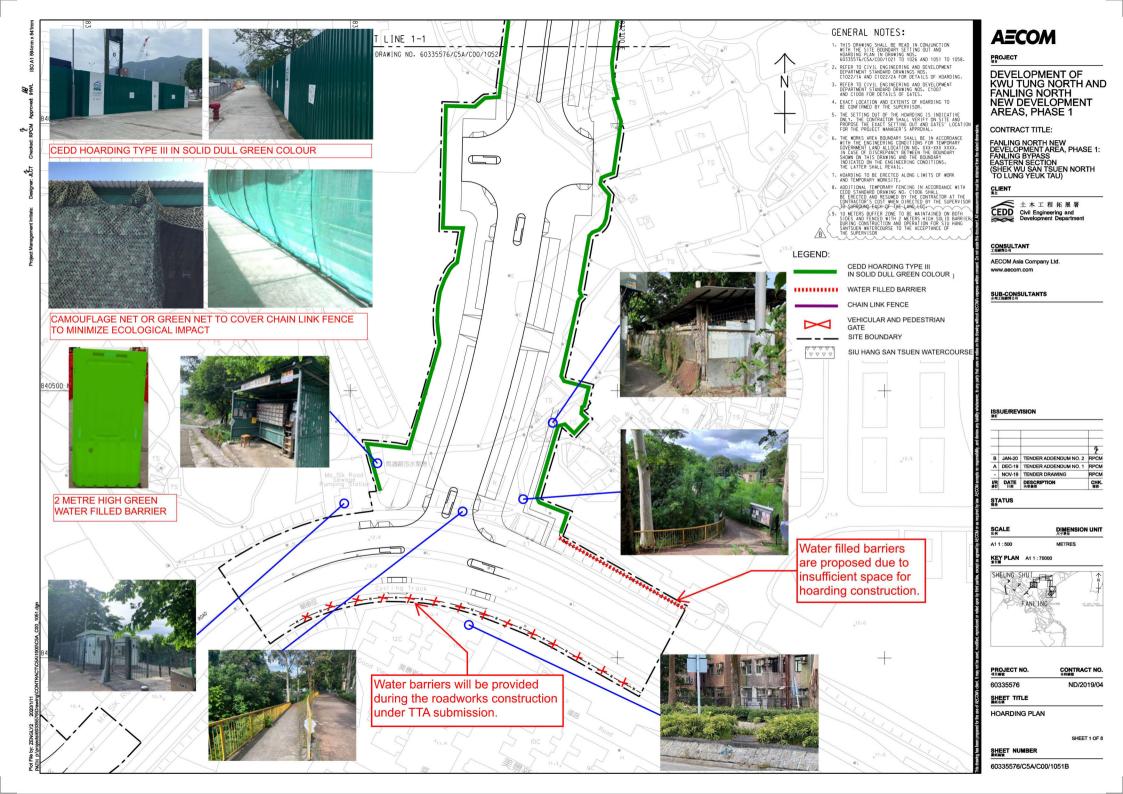
Table of Summary of Submission

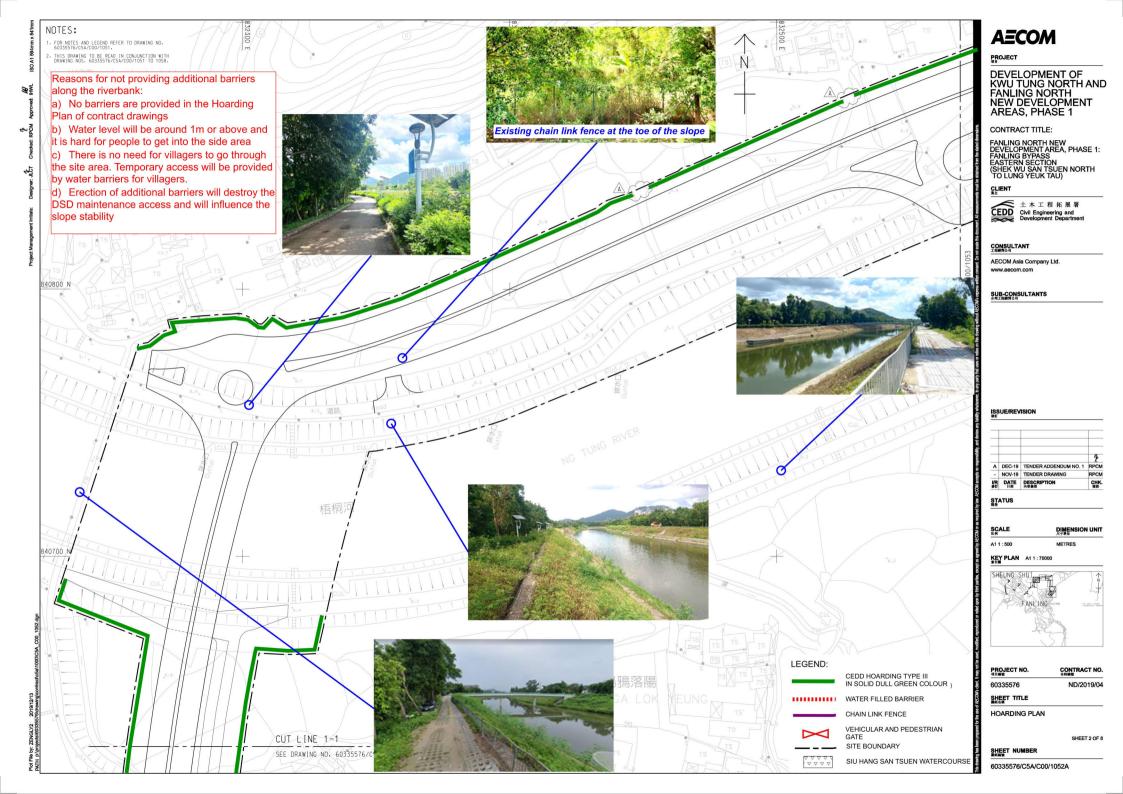
CD vacuited datail	Layout Details			
EP required detail	Detail	Reference No.	Scale	Remarks
Works Boundaries and Works Areas	Key Plan	60335576/C3/C00/1000	A1 1:5000	Scale Not in 1:1000 For indication of following layout plans only
	Portion 24, 26	60335576/C3/C00/1034	A1 1:1000	
	Portion 22, 23, 25, 27	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

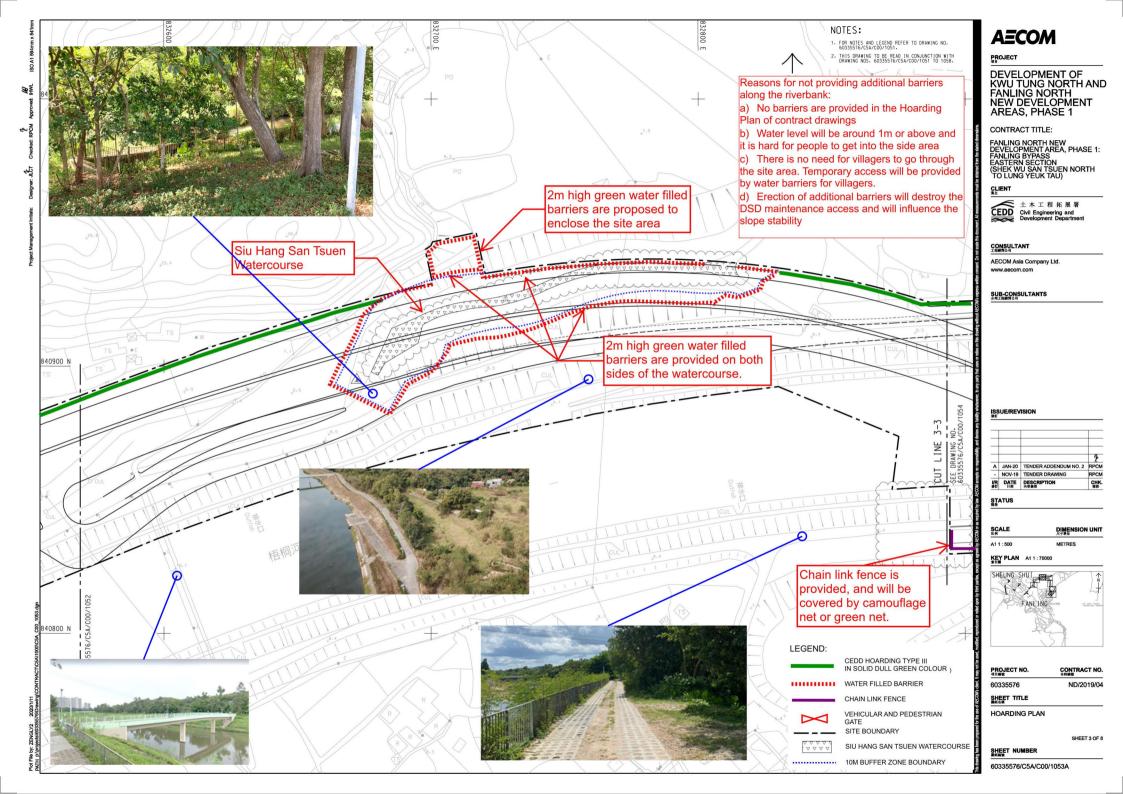


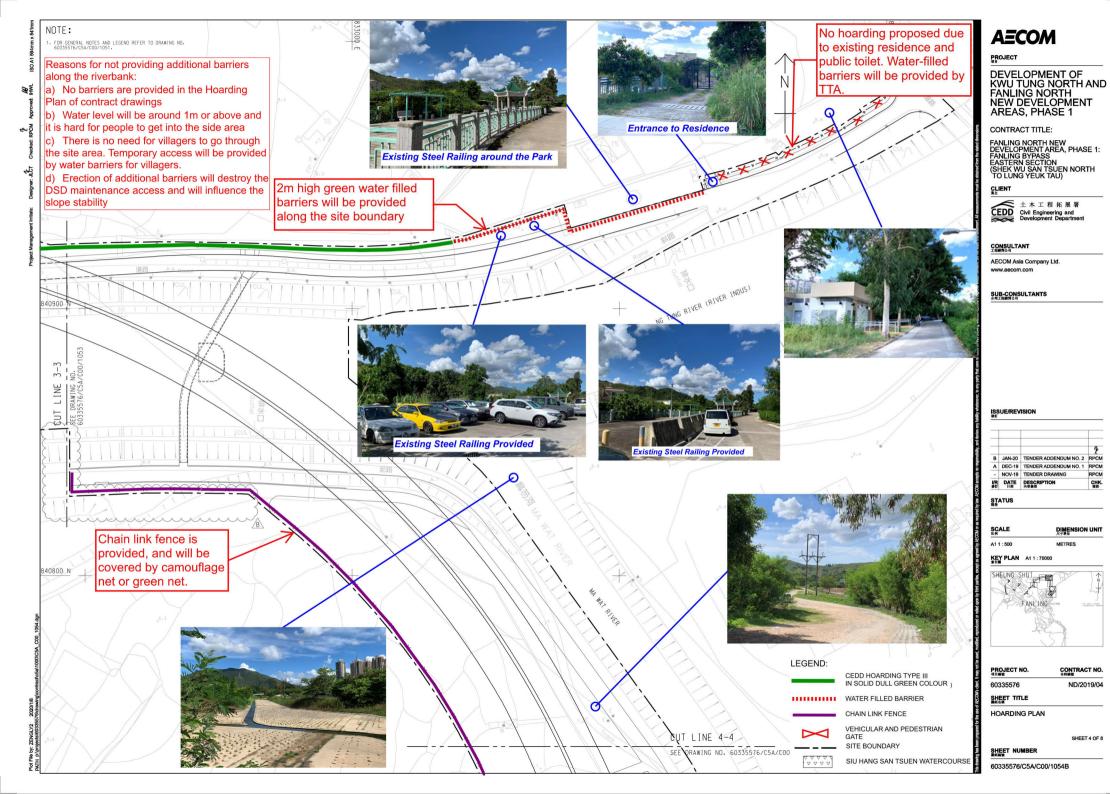




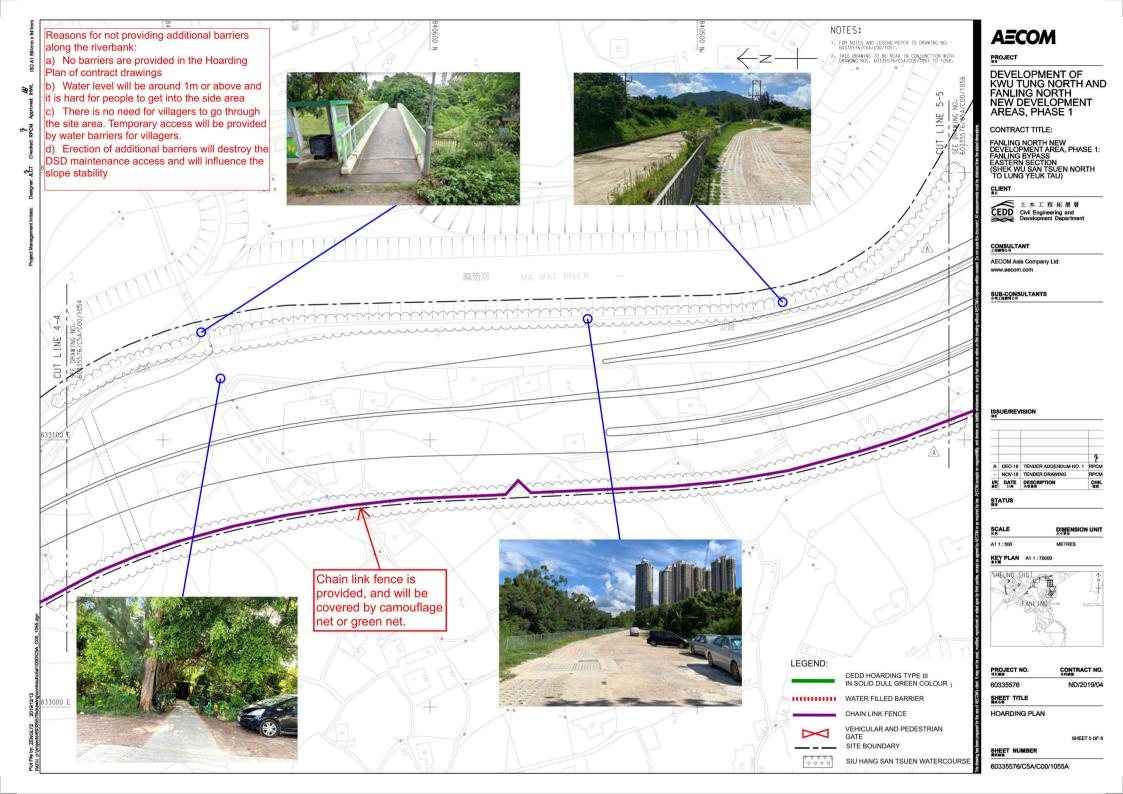


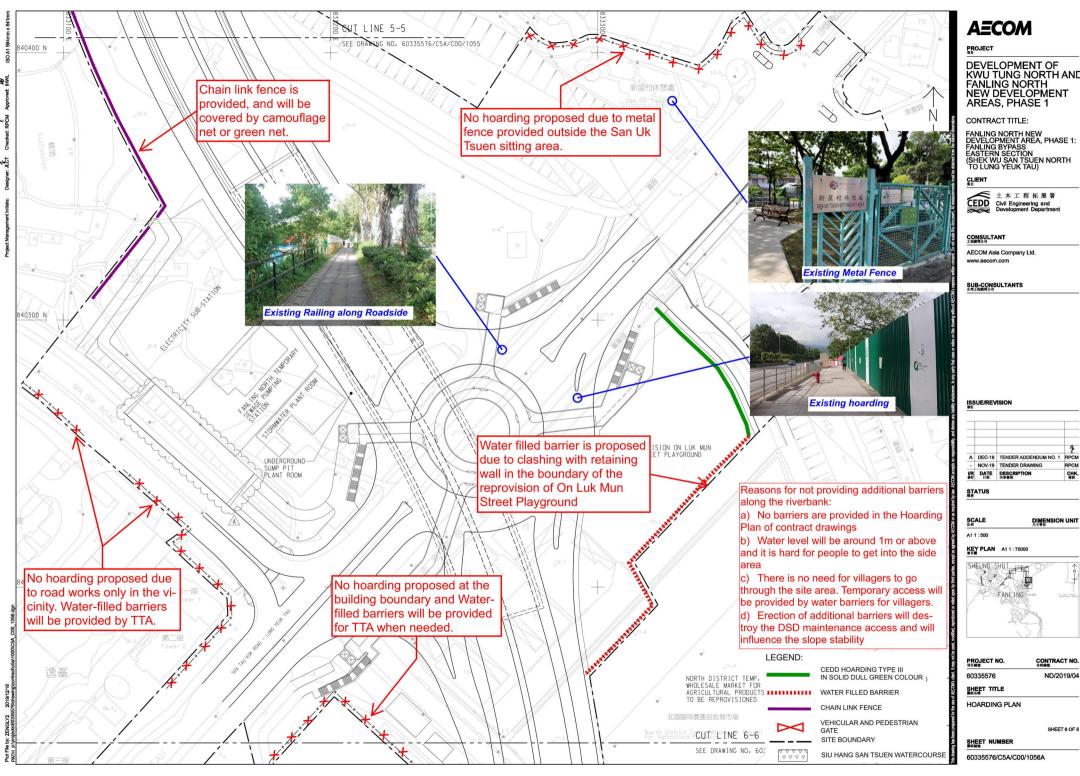






SHEET 4 OF 8





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

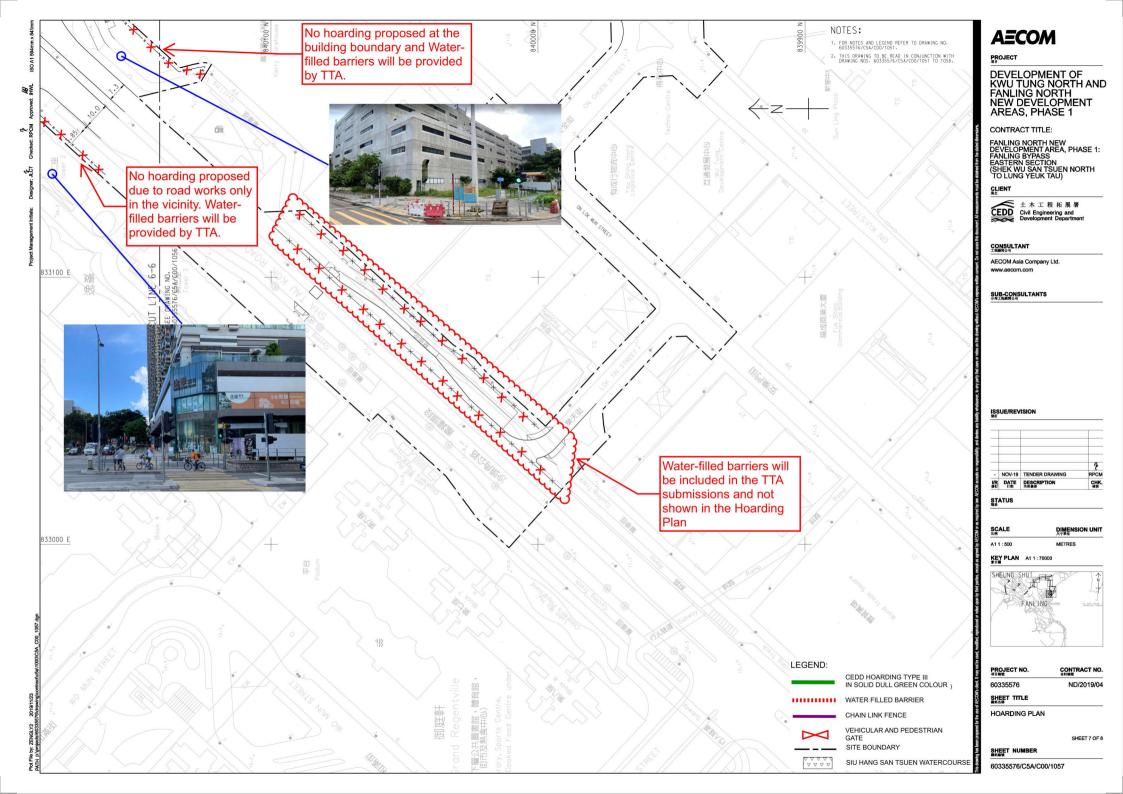
FANLING NORTH NEW DEVELOPMENT AREA, PHASE 1: FANLING BYPASS EASTERN SECTION (SHEK WU SAN TSUEN NORTH TO LUNG YEUK TAU)

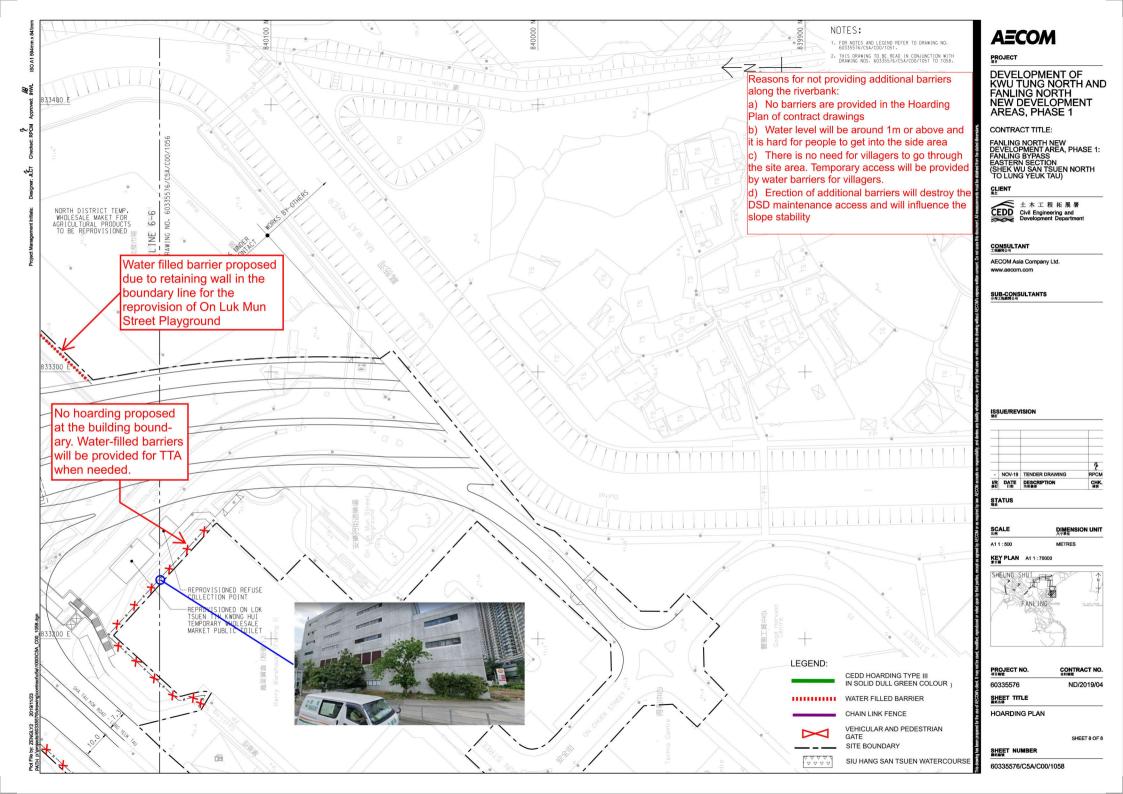
土木工程拓展署
Civil Engineering and
Development Department

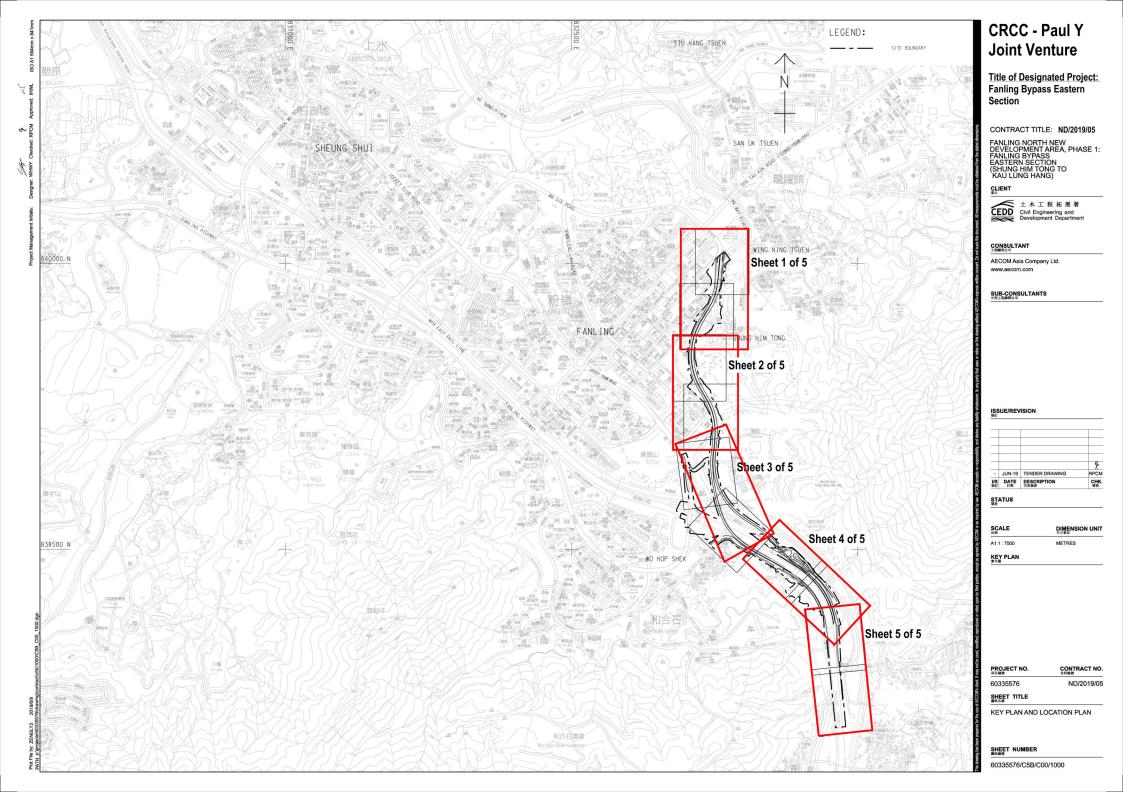
			Т
Α	DEC-19	TENDER ADDENDUM NO. 1	RPCM
-	NOV-19	TENDER DRAWING	RPCM
I/R 参訂	DATE 日期	DESCRIPTION 内容装英	CHK. 複族

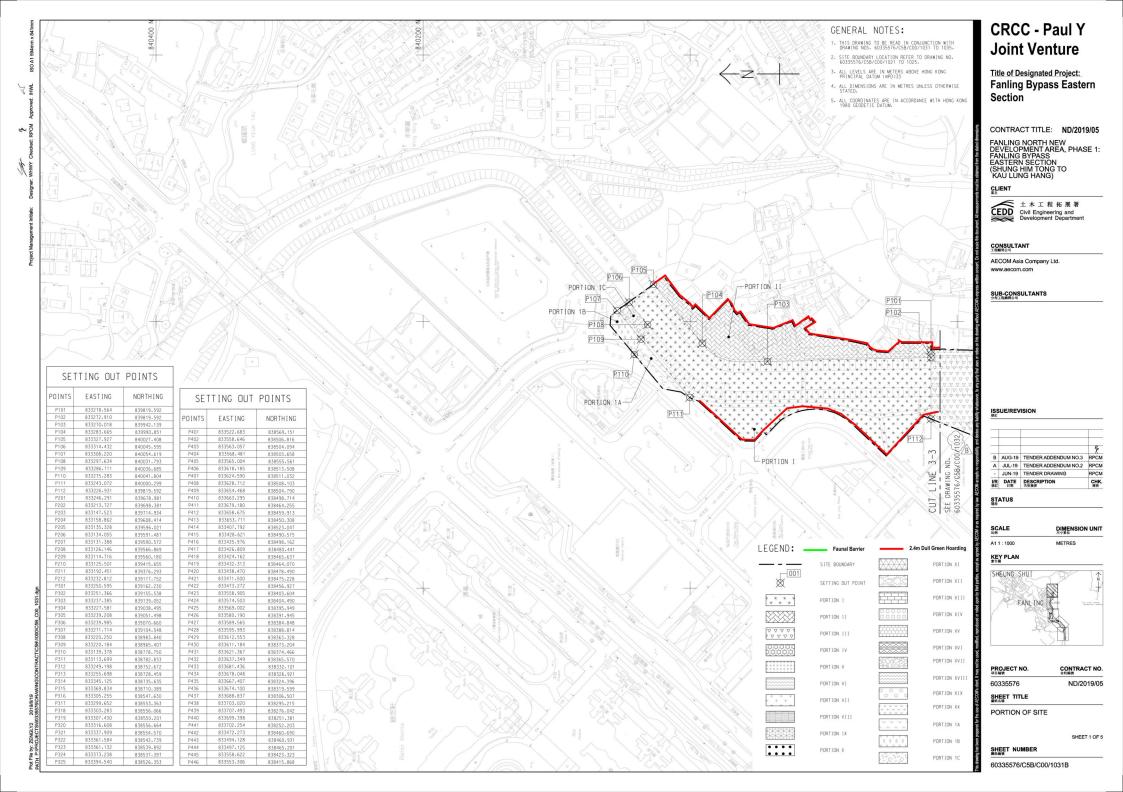


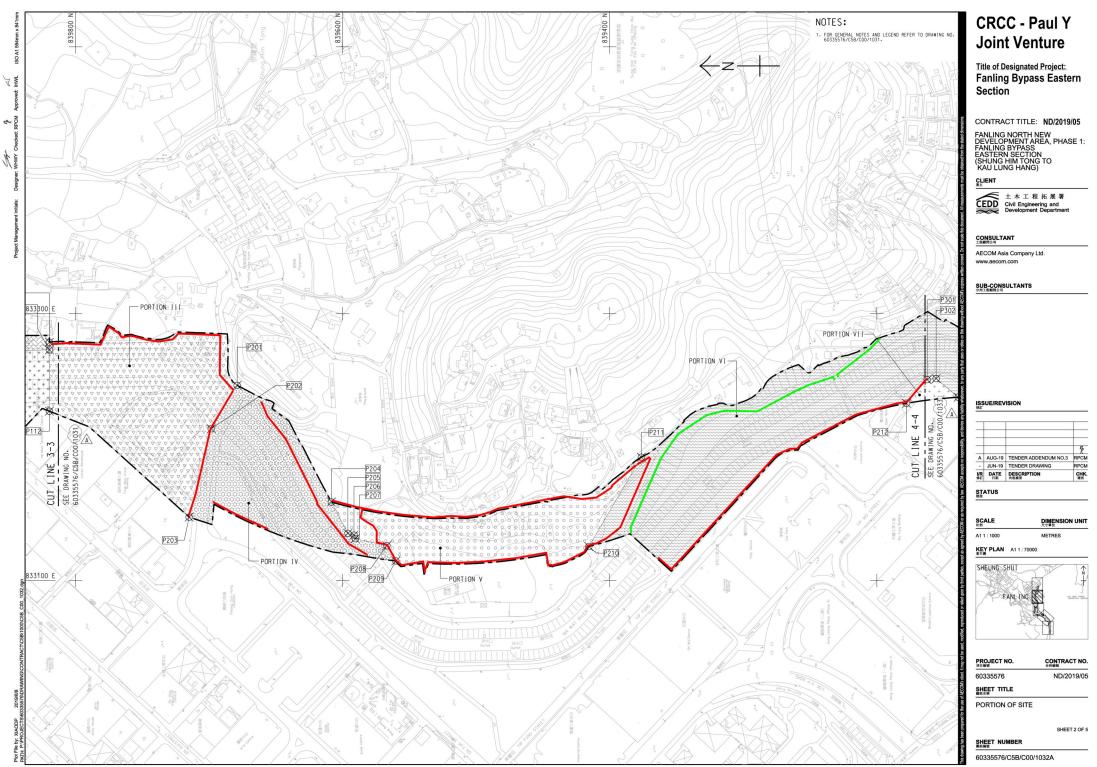
SHEET 6 OF 8



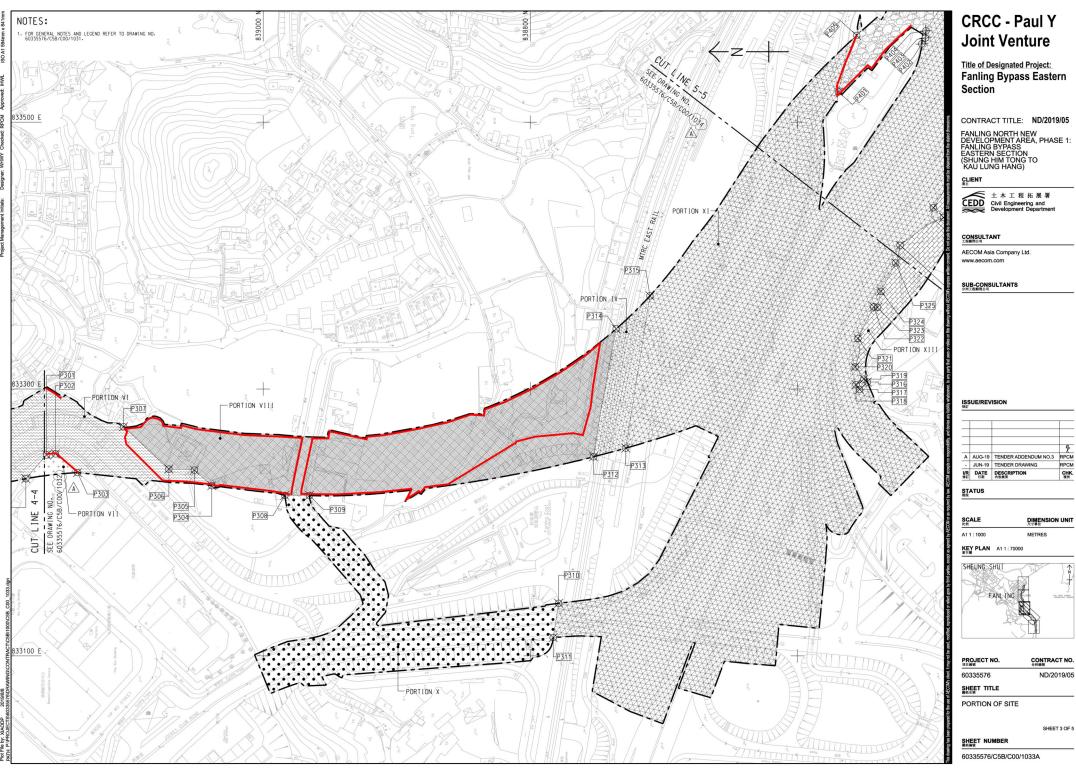




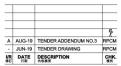








Fanling Bypass Eastern

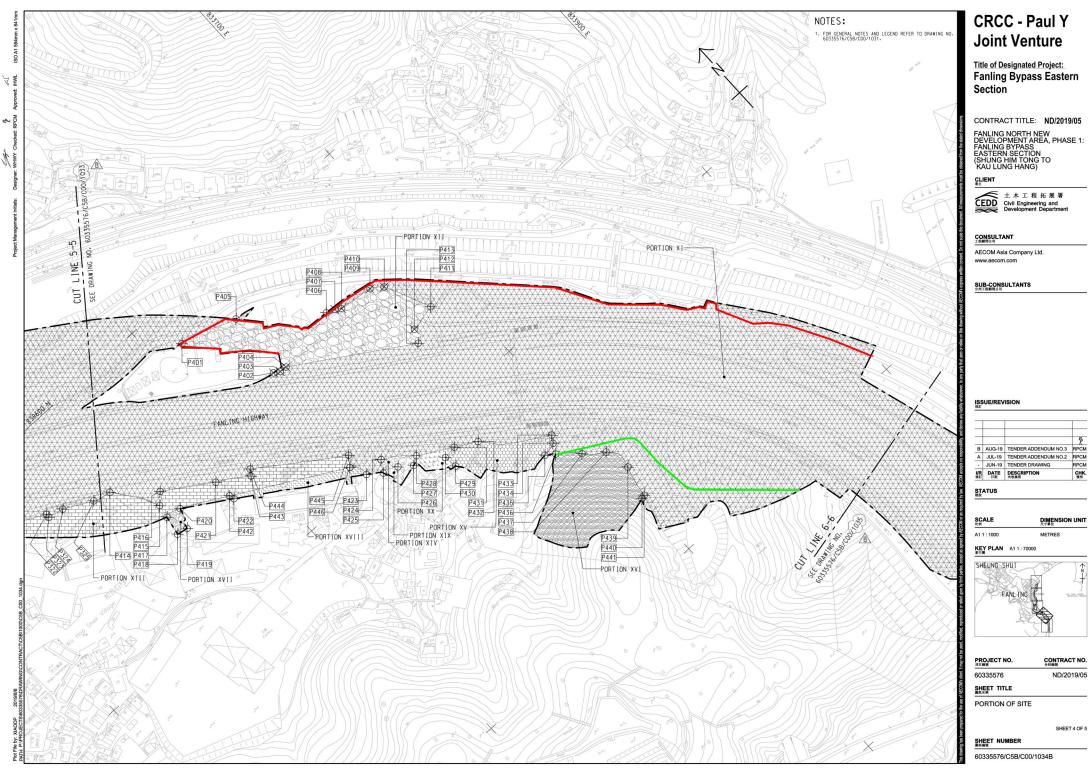


DIMENSION UNIT



CONTRACT NO.

SHEET 3 OF 5



Title of Designated Project:
Fanling Bypass Eastern

B AUG-1 A JUL-1	TENDER ADDENDUM NO.2 R
B AUG-1	9 TENDER ADDENDUM NO.3 R

SCALE	DIMENSION UN
比例	尺寸單位
A1 1 : 1000	METRES



CONTRACT NO. ND/2019/05

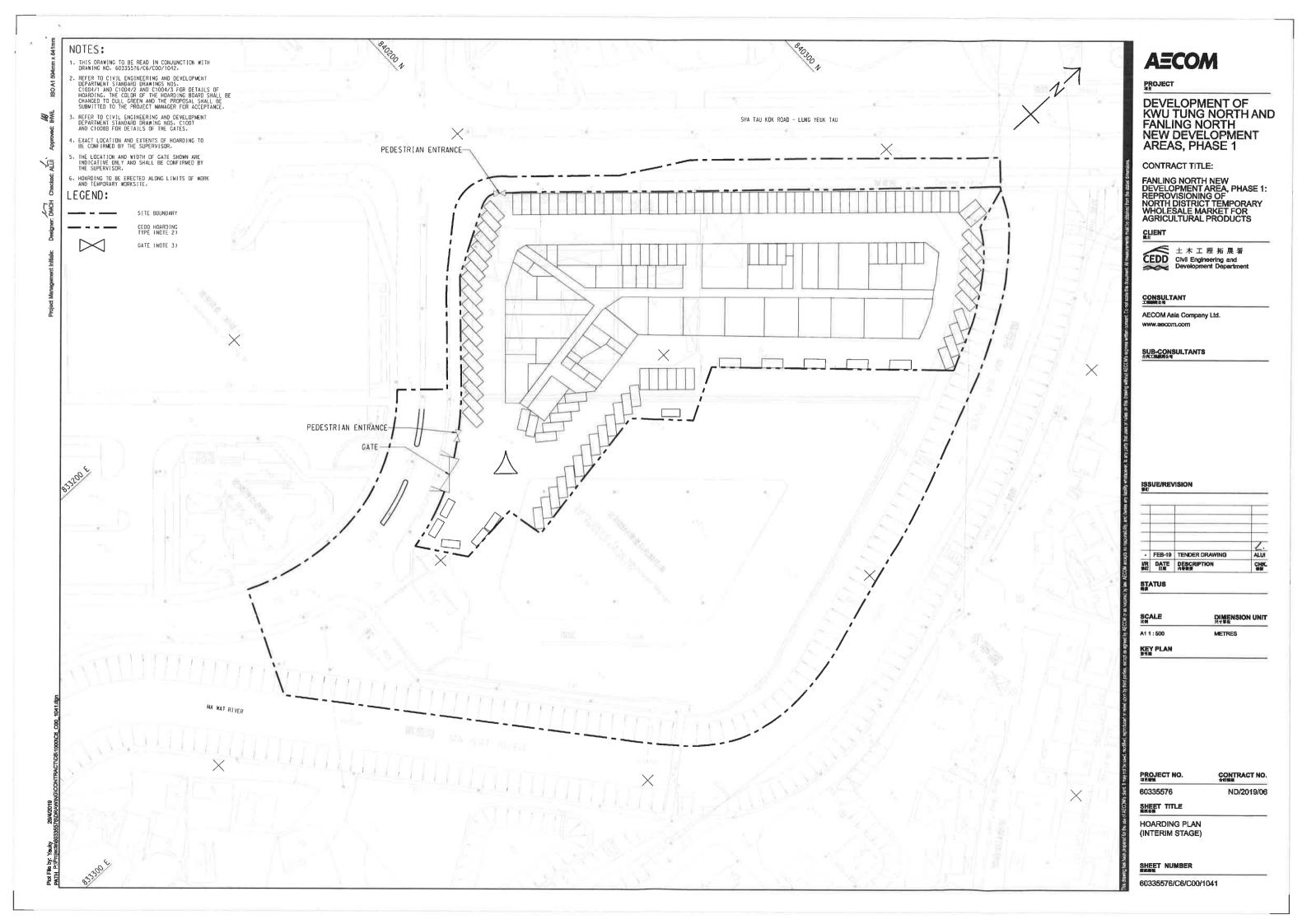
SHEET 4 OF 5

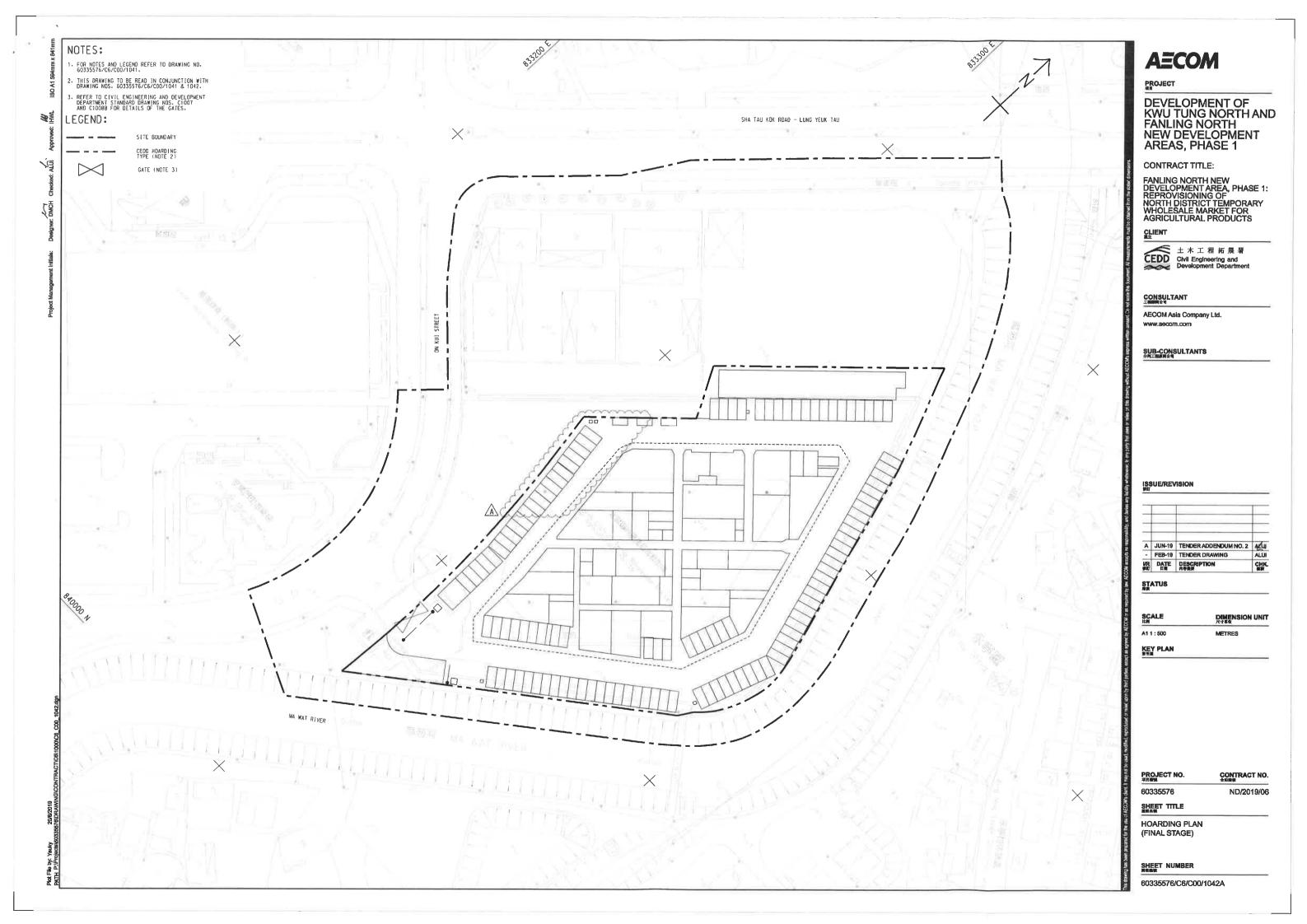


Figure 17

Hoarding Plan

EP-475/2013/A





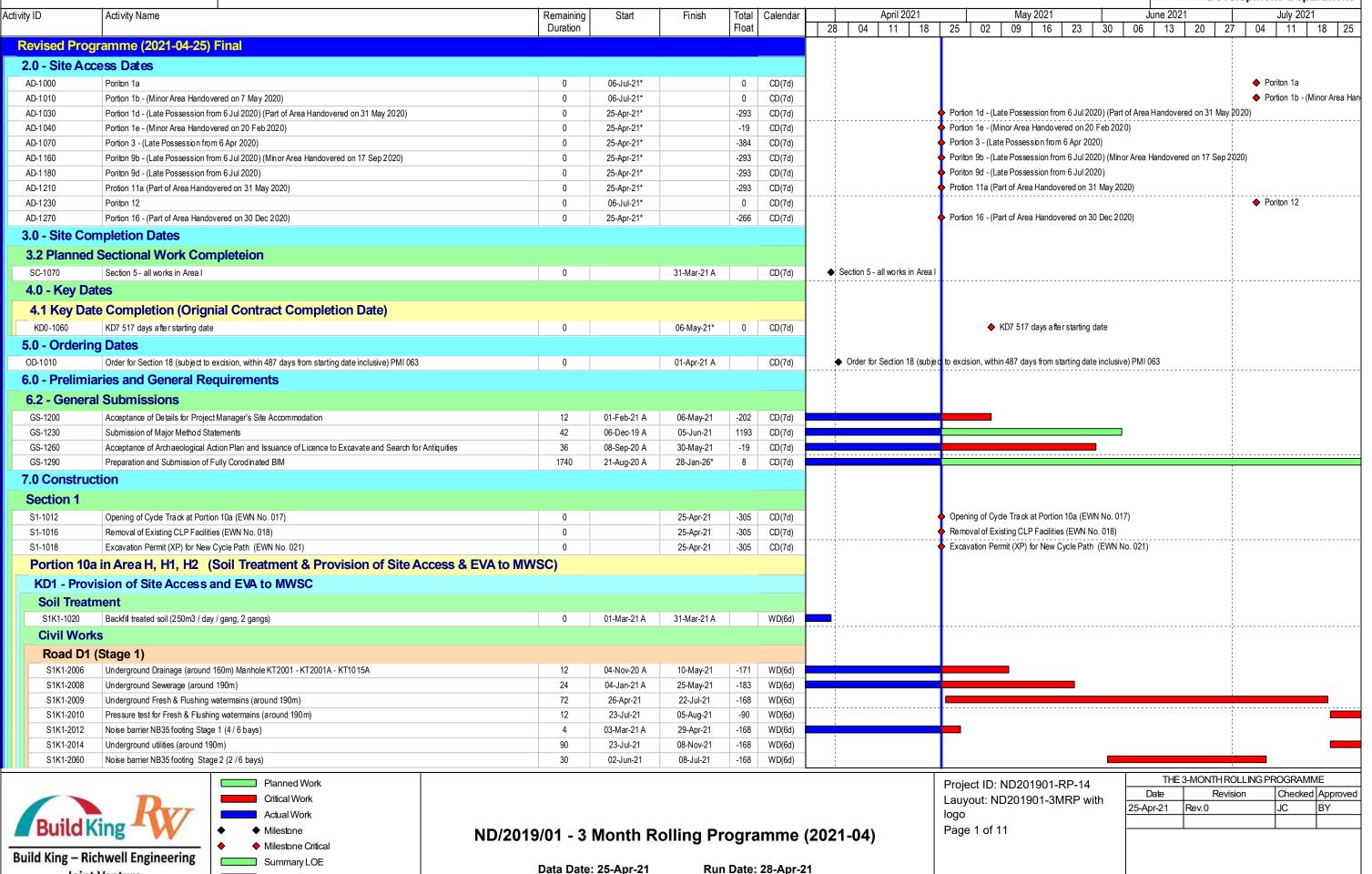
APPENDIX A CONSTRUCTION PROGRAMME

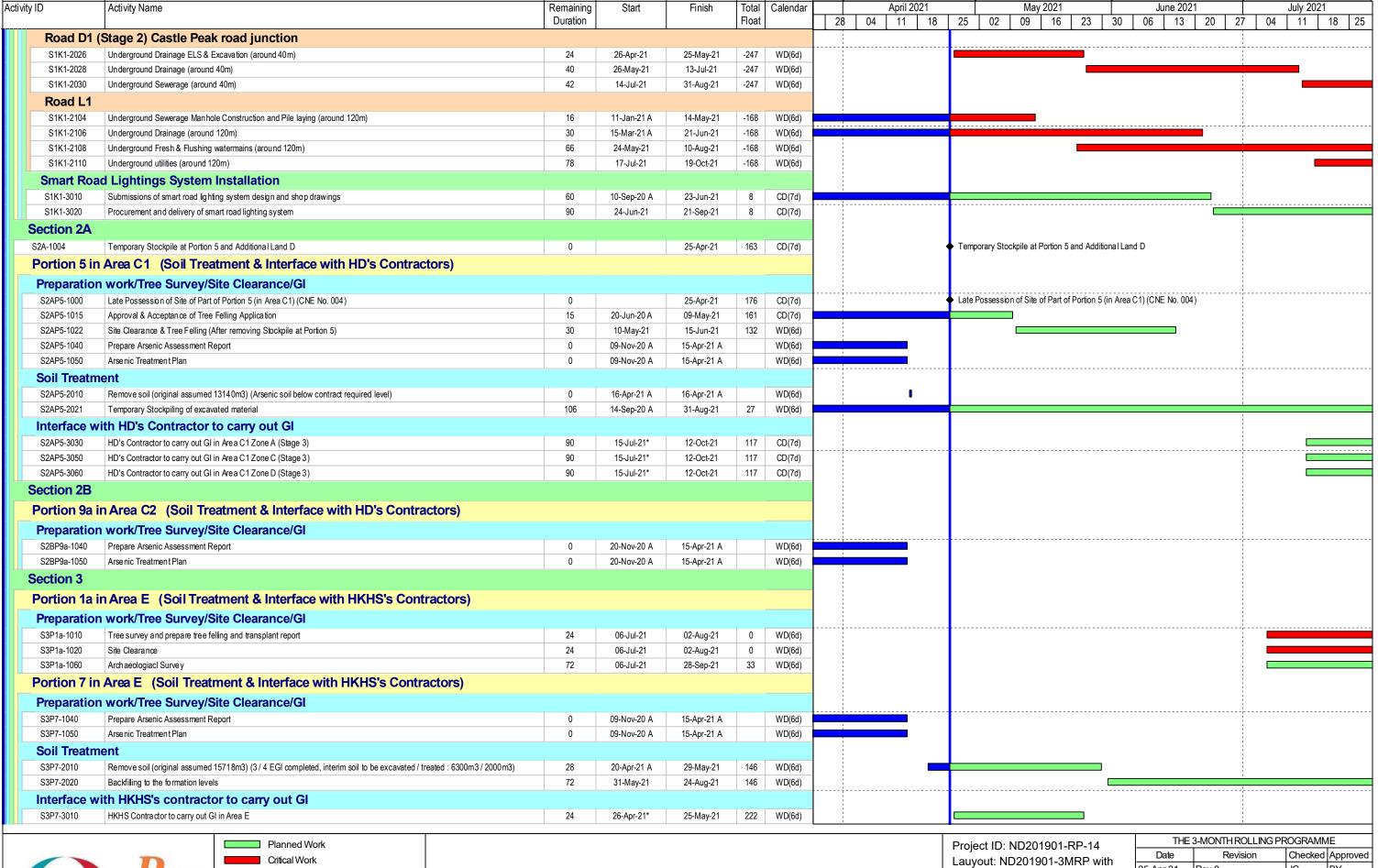


Summary LOE Critical

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









Build King – Richwell Engineering Joint Venture



Summary LOE Critical

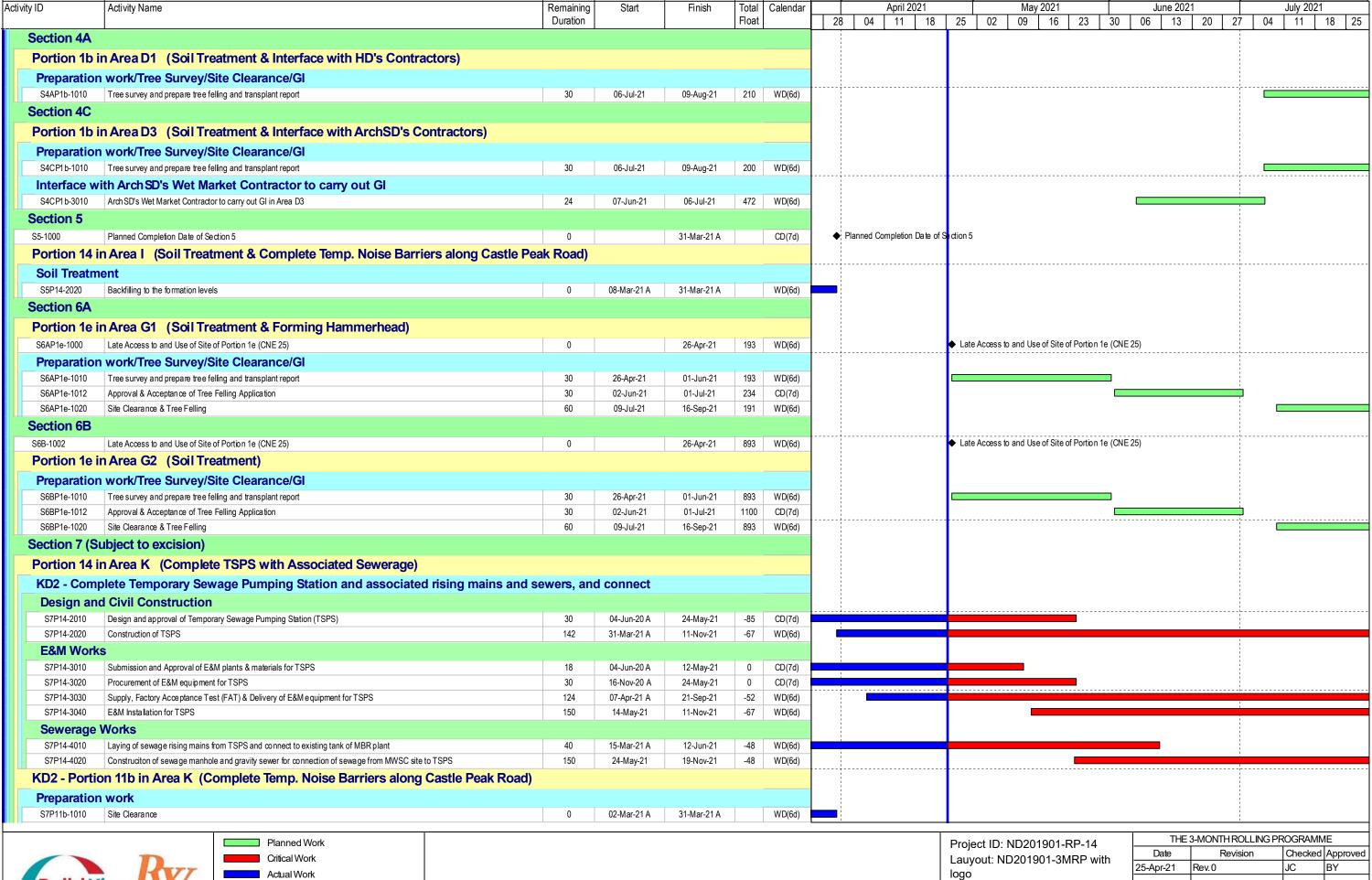
ND/2019/01 - 3 Month Rolling Programme (2021-04)

Data Date: 25-Apr-21

Run Date: 28-Apr-21

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Lauyout: ND201901-3MRP with
logo
Page 2 of 11

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Date	Revision	Checked	Approved
25-Apr-21	Rev. 0	JC	BY



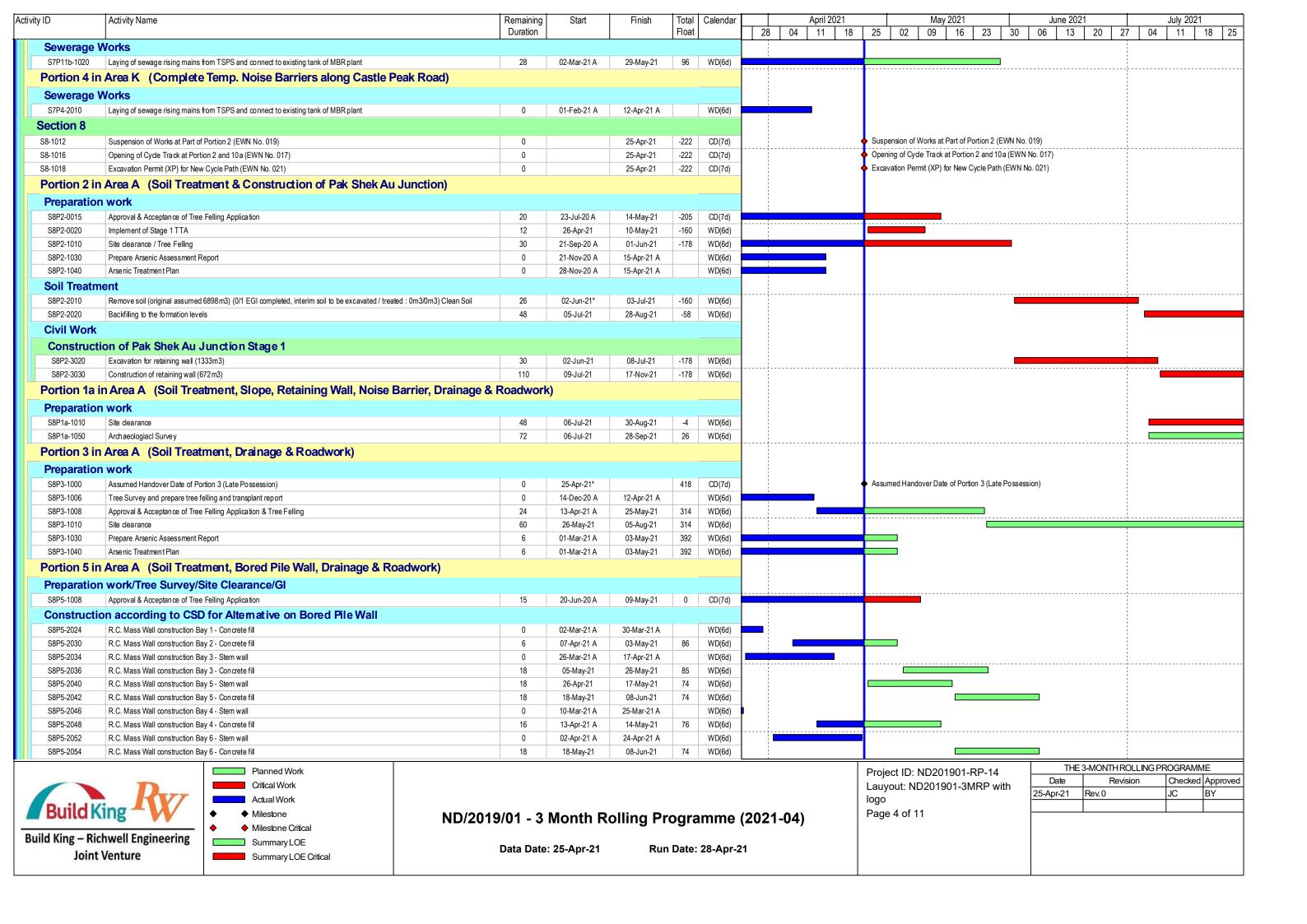


◆ Milestone Milestone Critical Summary LOE Summary LOE Critical

ND/2019/01 - 3 Month Rolling Programme (2021-04)

Data Date: 25-Apr-21 Run Date: 28-Apr-21 Page 3 of 11

I I I	3-MONTHROLLING PR	OGRAMIN	IE
Date	Revision	Checked	Approved
25-Apr-21	Rev. 0	JC	BY







→ Milestone
→ Milestone Critical
Summary LOE
Summary LOE Critical

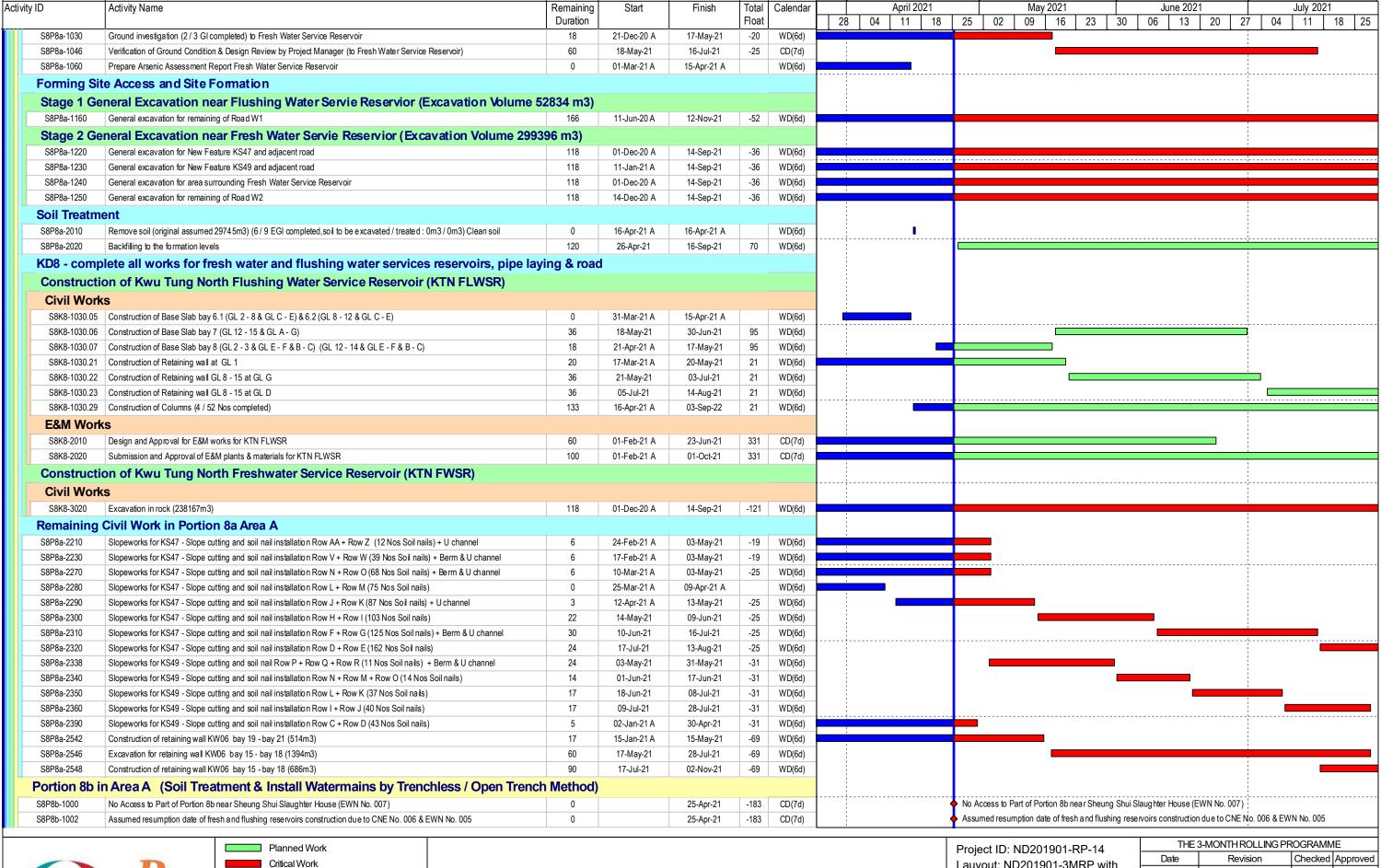
Critical Work Actual Work

ND/2019/01 - 3 Month Rolling Programme (2021-04)

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

Project ID: ND201901-RP-14
Lauyout: ND201901-3MRP with logo
Page 5 of 11

I II E	THE 3-MONTH ROLLING PROGRAMME										
Date	Revision	Checked	Approved								
5-Apr-21	Rev.0	JC	BY								





Actual Work

♦ Milestone

♦ Milestone Critical

Summary LOE

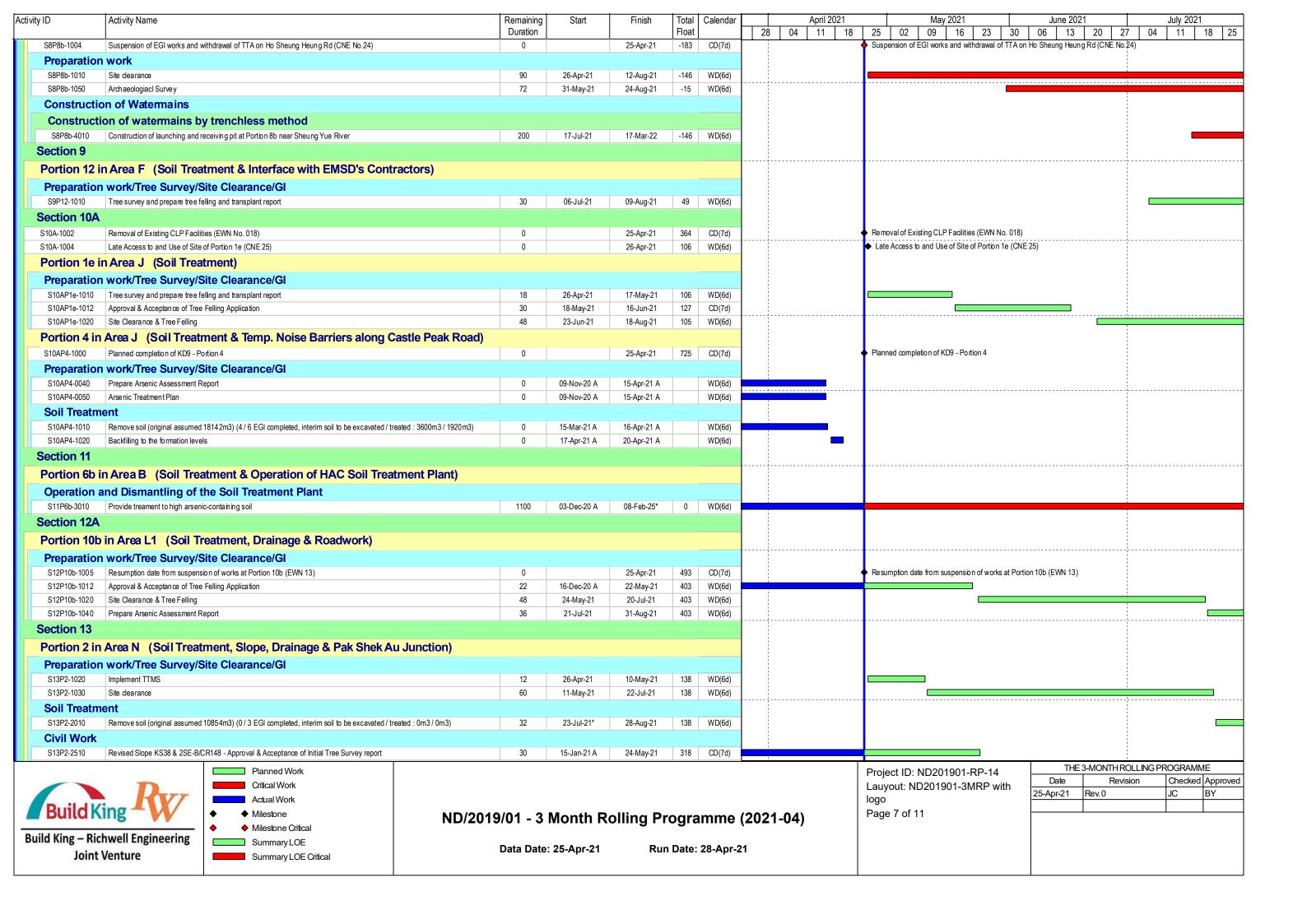
Summary LOE Critical

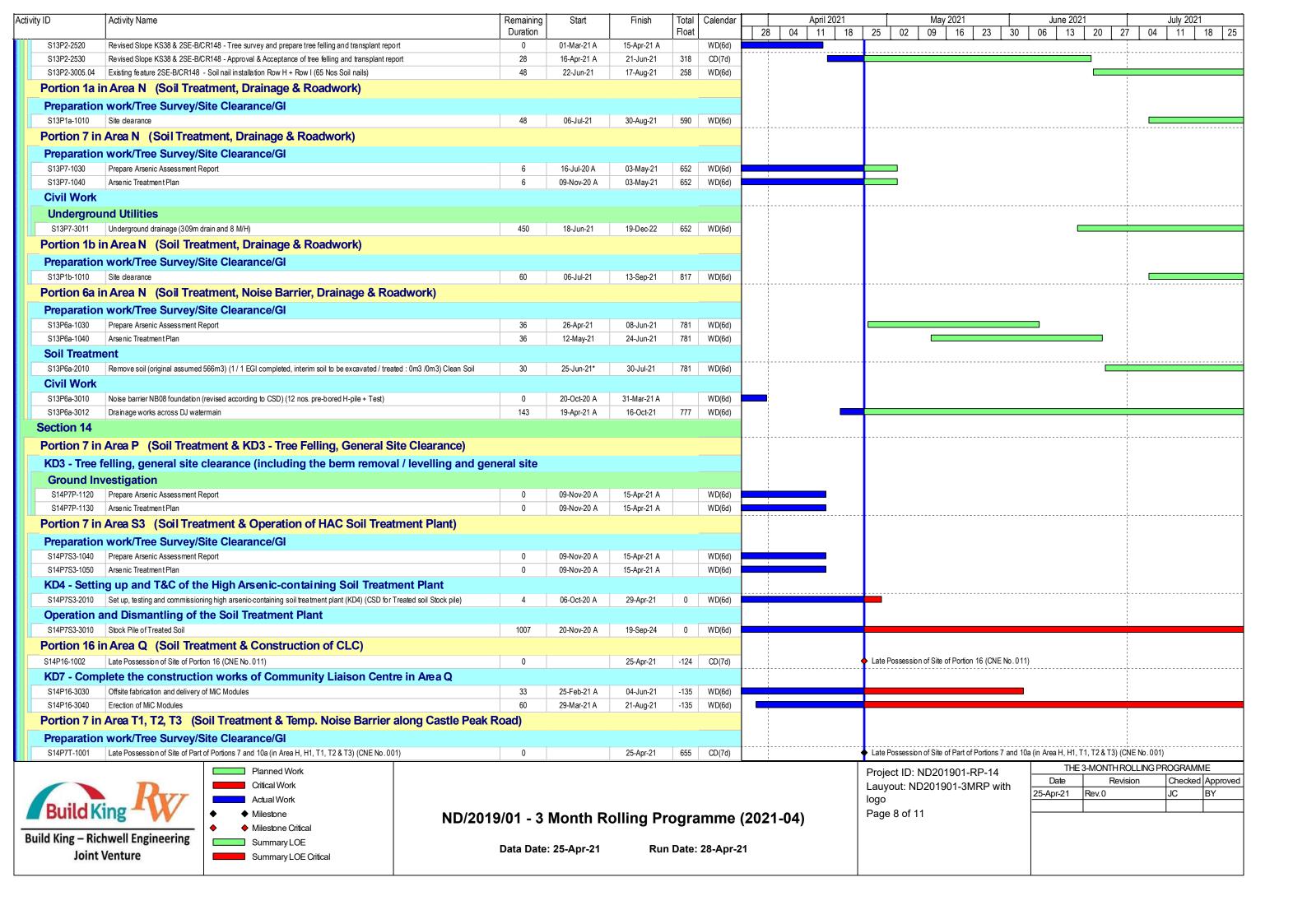
ND/2019/01 - 3 Month Rolling Programme (2021-04)

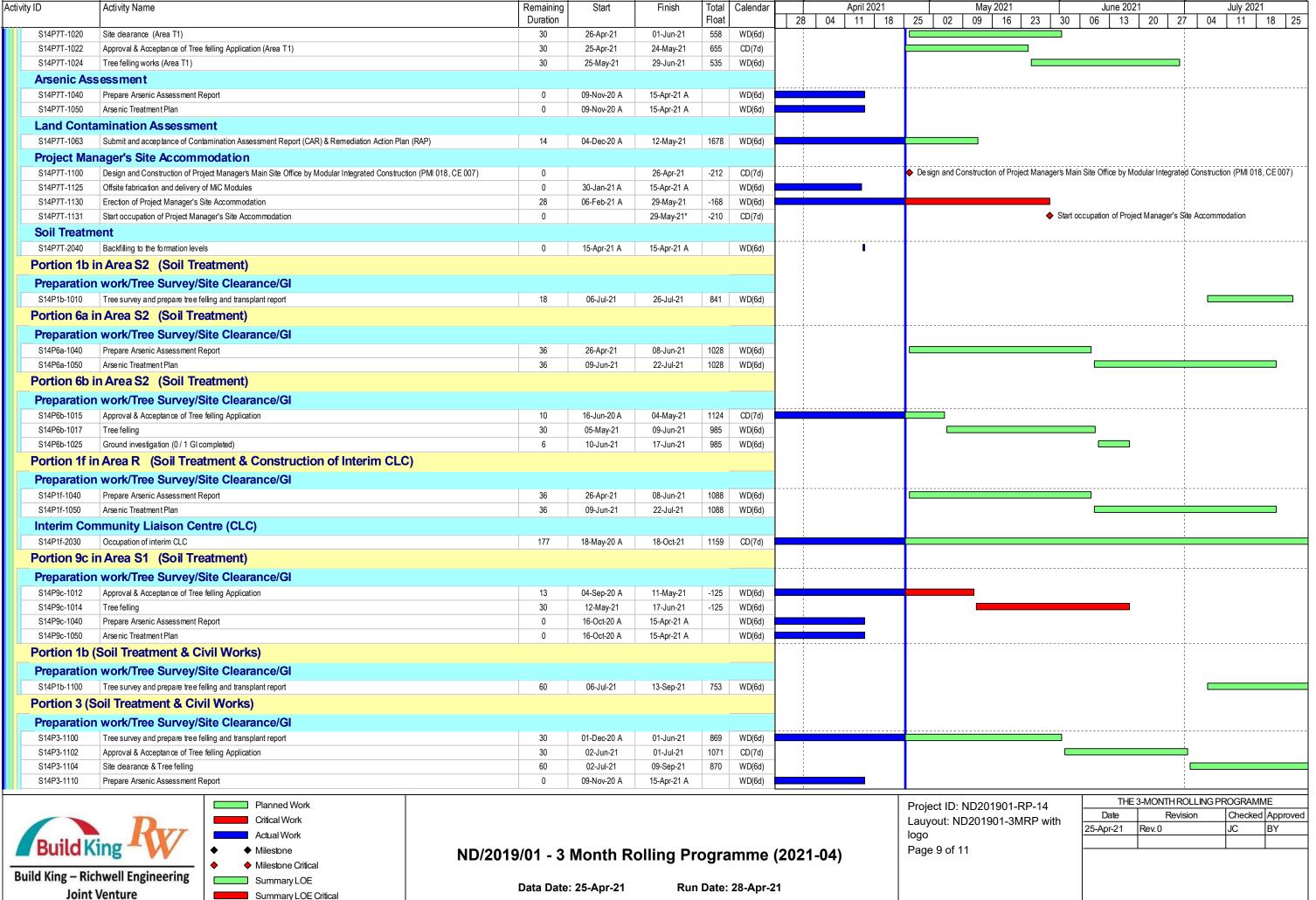
Data Date: 25-Apr-21 Run Date: 28-Apr-21

Project ID: ND201901-RP-14
Lauyout: ND201901-3MRP with
logo
Page 6 of 11

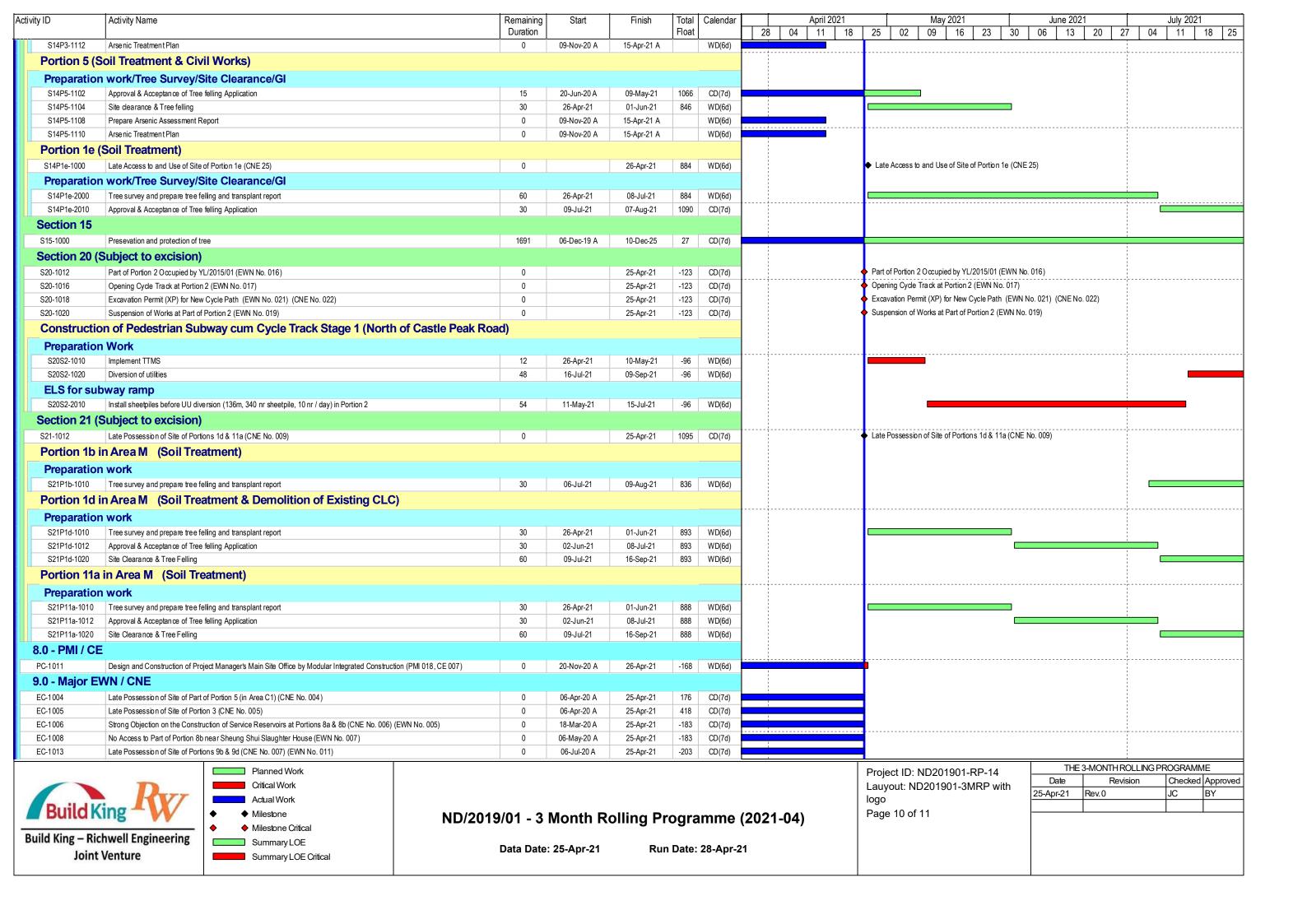
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Date	Revision	Checked	Approved
25-Apr-21	Rev. 0	JC	BY











Activity ID	Activity Name	Remaining	Start	Finish	Total	Calendar		Арі	il 2021				May 2	2021		Ī	Jur	ne 2021			Ju	ly 2021	
		Duration			Float		28 04	1	1 18	3 2	25	02	09	16	23	30	06	13	20	27	04	11 1	18 25
EC-1014	Part of Portion 2 Occupied by YL/2015/01 (EWN No. 016) (CNE No. 022)	0	23-Dec-19 A	25-Apr-21	-123	CD(7d)	-					<u> </u>	<u>.</u>						•				
EC-1015	Late Possession of Site of Portions 1d & 11a (CNE No. 009)	0	06-Jul-20 A	25-Apr-21	1095	CD(7d)																	
EC-1016	Suspension of Works at Portion 10b (EWN No. 013)	0	02-Jul-20 A	25-Apr-21	493	CD(7d)	-1																
EC-1018	Opening of Cycle Track at Portion 2 and 10 a (EWN No. 017) (CNE No. 022)	0	04-Aug-20 A	25-Apr-21	-305	CD(7d)																	
EC-1021	Removal of Existing CLP Facilities - (both Overhead and Underground) within Portion 5, 6a, 7, 9b and 10a (EWN No. 018)	0	02-Apr-20 A	25-Apr-21	-305	CD(7d)	1																
EC-1023	Late Possession of Site of Portion 16 (CNE No. 011)	0	02-Aug-20 A	25-Apr-21	-124	CD(7d)	i																
EC-1026	Handling of Unlawful Occupied Property Affected by the Works (CNE No. 014)	0	21-Aug-20 A	25-Apr-21	2083	CD(7d)	-																
EC-1027	Handling of Unlawful Occupied Property Affected by the Works within the SIte (CNE No. 015)	0	31-Aug-20 A	25-Apr-21	2083	CD(7d)	-1																
EC-1028	Suspension of Works at Part of Portion 2 (CNE No. 016) (EWN No. 019)	0	31-Aug-20 A	25-Apr-21	-222	CD(7d)																	
EC-1030	Excavation Permit (XP) for New Cycle Path (EWN No. 021) (CNE No. 022)	0	19-Oct-20 A	25-Apr-21	-305	CD(7d)	1																
EC-1031	Temporary Stockpile at Portion 5 and Additional Land D (CNE No. 020)	0	15-Sep-20 A	25-Apr-21	163	CD(7d)	i																
EC-1032	Unforeseen Ground Condition (Possible High Bedrock Level Encountered) at Portion 8a (EWN 022)	0	13-Nov-20 A	25-Apr-21	-152	CD(7d)																	
EC-1034	Item Omitted from the Bill of Quantities - Demolition of Existing Structures at the Location of Portion 9b (CNE No. 023)	0	04-Dec-20 A	25-Apr-21	-202	CD(7d)	-1																
EC-1036	Suspension of EGI works and withdrawal of TTA on Ho Sheung Heung Rd (CNE No.24)	0	08-Jan-21 A	25-Apr-21	-183	CD(7d)																	
EC-1037	De sign Change on Concrete Barrier KB01 (EWN 026)	0	22-Mar-21 A	25-Apr-21	293	CD(7d)	1																
EC-1038	Late Access to and Use of Site of Portion 1e (CNE 25)	0	06-Apr-21 A	25-Apr-21	129	CD(7d)																	





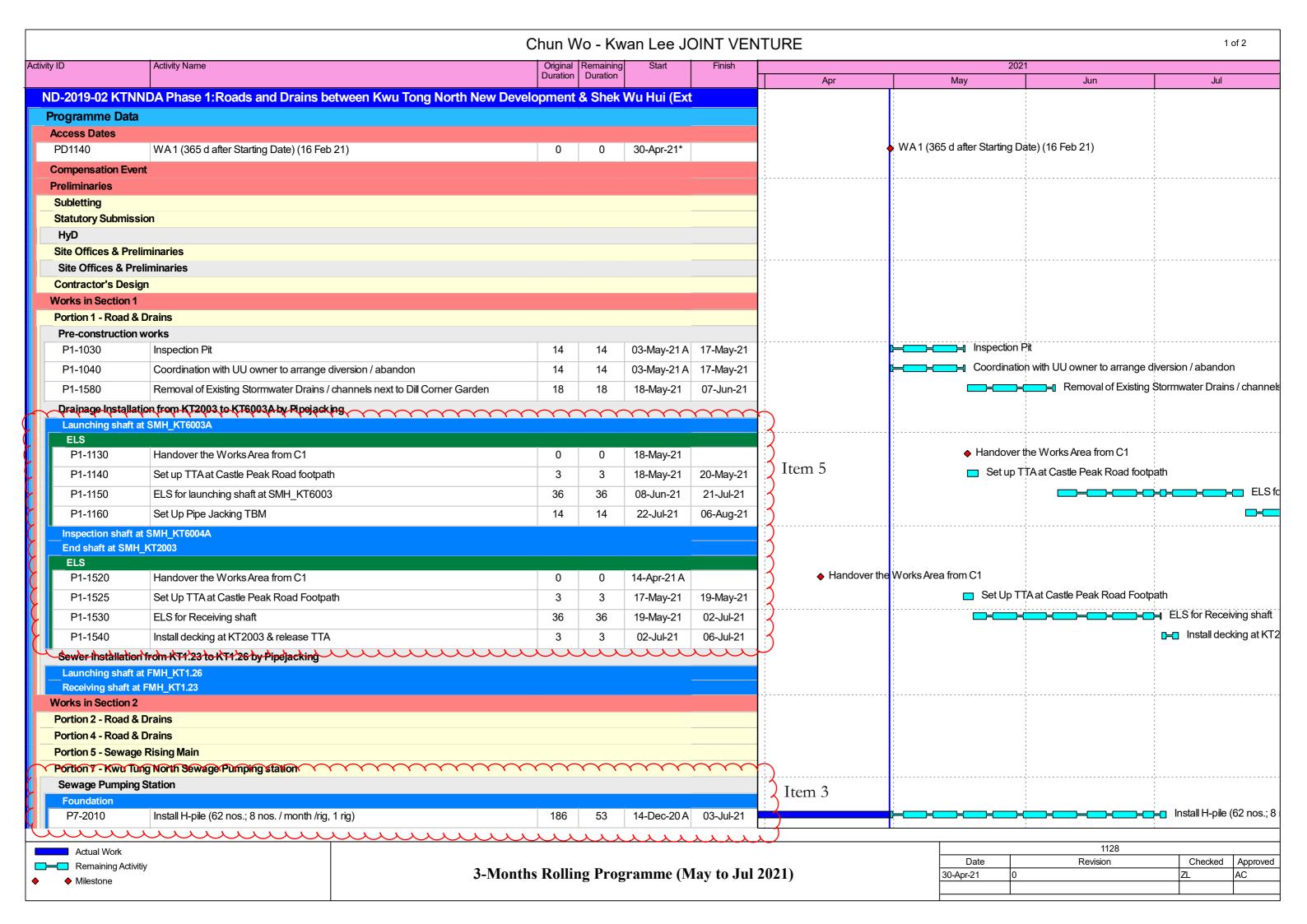
Planned Work

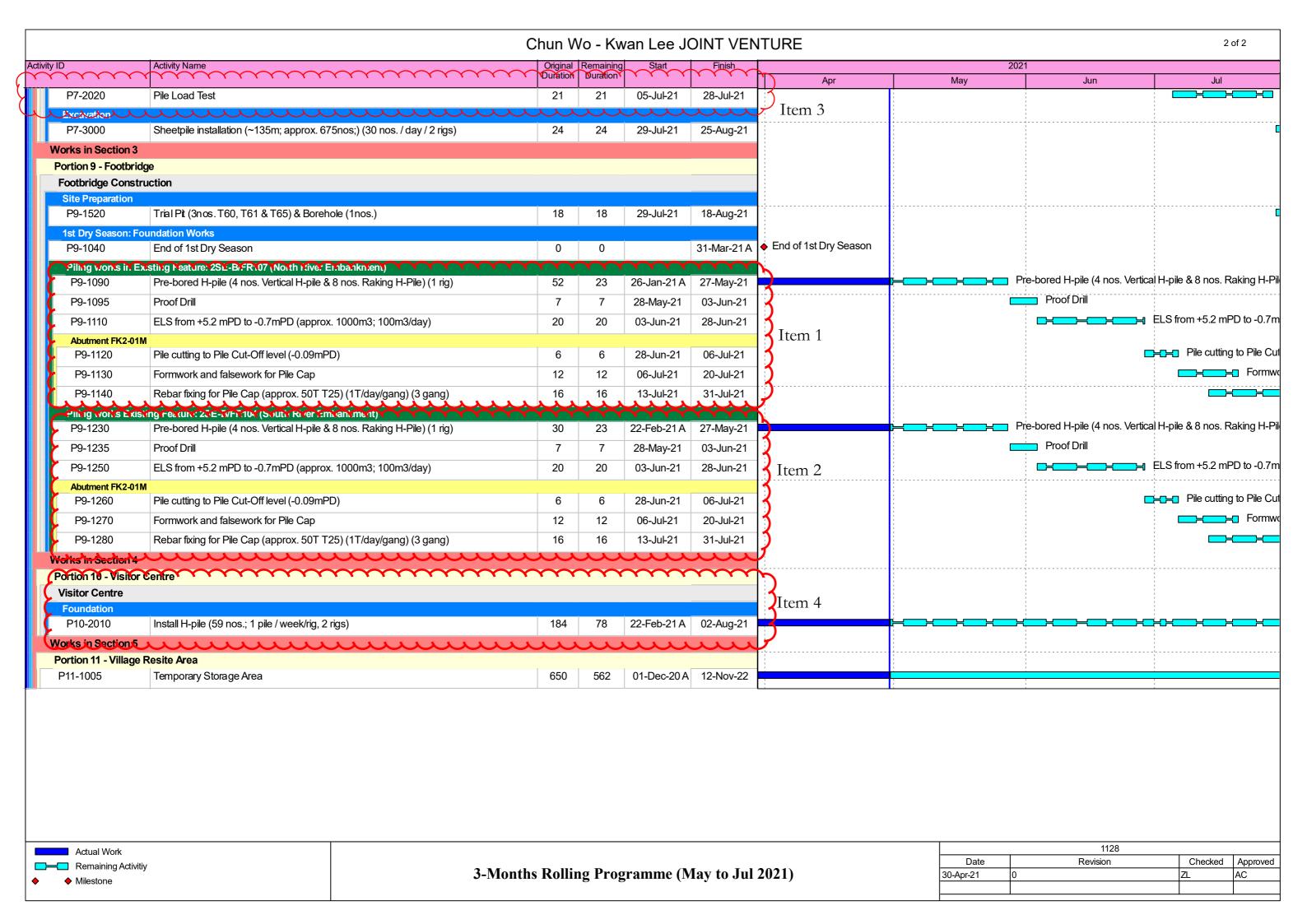
ND/2019/01 - 3 Month Rolling Programme (2021-04)

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

Project ID: ND201901-RP-14 Lauyout: ND201901-3MRP with logo Page 11 of 11

THE 3-MONTH ROLLING PROGRAMME										
Date	Revision	Checked	Approved							
5-Apr-21	Rev.0	JC	BY							





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

0	Task Name	Duration	Start	Finish	Predecessors	Successors	Total Slack	% Complete Risk Allowance	e 2020 2021 2022 2023 H2 H1 H2 H1 H2 H1 H2 H1
	Contract Key Dates	0 days	Tue 19/12/10	Tue 19/12/10			1509 days	0%	• 116 116 116 116 116 116 116 116 116 11
C.	1.1 Contract Date	0 days	Tue 19/12/10	Tue 19/12/10			1509 days	0%	•
	1.2 Starting Date	1 day	Thu 19/12/19	Thu 19/12/19		59,61,62,63,42,5,57,45,47,44,43,: days,6FS+30 days,7FS+60 days,8FS+121 days,11FS+212 days,14FS+304 days,19,17FS+396 days,55,56,22FS+851 days,23FS+1034 days,24FS+1003 days,26FS+273 days,27FS+394 days,28FS+528 days,29FS+592 days,30FS+572		0%	
	1.3 Site Access Dates	0 days	Thu 19/12/19	Thu 19/12/19	2		1500 days	0%	
	Portions 25, 26, 27 Portions 1, 5, 6A, 7, 8A, 9A, 9C, 9E, 9F, 9G, 10A, 10B, 11A, 11B, 12A, 12C, 12D, 13A, 15B, 15C, 16, 17, 19A, 19B, 19C, 20A, 20B	0 days 0 days	Thu 19/12/19 Sat 20/1/18	Thu 19/12/19 Sat 20/1/18	3 3FS+30 days	,70,71,73,82,135,218,235,253,279 days,77FS+30 days,78,79	1499 days 8 302 days	0% 0%	
	Portions 23, 24	0 days	Mon 20/2/17	Mon 20/2/17	3FS+60 days	313	1439 days	0%	
	Portions 15A, 18, 19, 20, 20C, 22	0 days	Sat 20/4/18	Sat 20/4/18	3FS+121 days	9,10	1353 days	0%	
	Delay of Site Access Dates: Portion 15A, 18, 19, 20 (Structure has not	19 days	Sun 20/4/19	Thu 20/5/7	8	199,254,280	1359 days	0%	
	been handed over) Delay of Site Access Dates: Portion 22 (Structure has not been	25 days	Sun 20/4/19	Wed 20/5/13	8	314	1353 days	0%	
14	handed over) 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	83,120,136,219,255,39,12,13	-131 days	0%	
	Delay of Site Access for Area with Structure & Tudigong in Portion 1A	•	Sun 20/7/19	Sat 21/2/6	11	112	6 days	0%	
	Delay of Site Access Dates: 4B,5A	289 days	Sun 20/7/19	Mon 21/5/3	11	139	-131 days	0%	
ist C	Portions 8B, 9, 9B, 9D, 10, 11, 12, 12B, 13, 14	0 days	Sun 20/10/18	Sun 20/10/18	3FS+304 days	211,236,281,15,16	-167 days	0%	
	Delay of Site Access Date: Portion 9D	151 days	Mon 20/10/19	Thu 21/3/18	14	220,223	-151 days	0%	
	Delay of Site Access for Area with Structure in Portion 8B, 9B	167 days	Mon 20/10/19	Sat 21/4/3	14	220,227	-167 days	0%	
-1	Portions 15, 16A, 16B, 17A, 17B, 21	0 days	Mon 21/1/18	Mon 21/1/18	3FS+396 days	298,237,256,282,18	-95 days	0%	
	Delay of Site Access for Area with Structure in Portion 16B	79 days	Tue 21/1/19	Wed 21/4/7	17 3	244	31 days	0% 0%	
	Works Area WA1	0 days	Thu 19/12/19	Thu 19/12/19	5		1499 days	U70	
<u>-</u>	1.4 Completion of the works	0 days	Thu 19/12/19	Thu 19/12/19	3		1499 days	0%	
	Section 1	0 days	Mon 22/4/18	Mon 22/4/18	3FS+851 days		648 days	0%	
	Section 2	0 days	Tue 22/10/18	Tue 22/10/18	3FS+1034 days		465 days	0%	
	Section 3	0 days	Sat 22/9/17 Sun 23/9/17	Sat 22/9/17 Sun 23/9/17	3FS+1003 days 3FS+1368 days		496 days 131 days	0% 0%	
./	Section 3A Section 4	0 days 0 days	Sun 23/9/17 Wed 20/10/21	Sun 23/9/17 Wed 20/10/21	3FS+273 days		0 days	100%	
Y	Section 5	0 days	Sat 21/1/16	Sat 21/1/16	3FS+394 days		0 days	100%	
▼	Section 6	0 days	Sun 21/5/30	Sun 21/5/30	3FS+528 days		971 days	0%	
	Section 7	0 days	Mon 21/8/2	Mon 21/8/2	3FS+592 days		907 days	0%	
	Section 8	0 days	Tue 21/7/13	Tue 21/7/13	3FS+572 days		927 days	0%	
	Section 9	0 days	Sat 21/11/6	Sat 21/11/6	3FS+688 days		811 days	0%	
	Section 10	0 days	Thu 22/6/30	Thu 22/6/30	3FS+924 days		575 days	0%	
	Section 11	0 days	Sun 22/12/18	Sun 22/12/18	3FS+1095 days		404 days	0%	
	Section 11A	0 days	Mon 23/12/18	Mon 23/12/18	3FS+1460 days		39 days	0% 0%	
	Section 12	0 days	Fri 20/12/18	Fri 20/12/18	3FS+365 days		1134 days	U70	
	2. Preliminary works	648 days	Fri 19/12/20	Mon 21/9/27			851 days	60%	
V	Set up Project Manager's Accommodation in WA1 (1st part)	14 days	Wed 20/6/17	Tue 20/6/30			0 days	100%	
	Set up Project Manager's Accommodation in Portion 3 (2nd part		Mon 21/3/8	Sun 21/3/21	11		1041 days	50%	
/	Prepare, submit & Approve ICE	30 days	Mon 20/2/3	Tue 20/3/3	3	169	0 days	100%	
~	Prepare, submit & Approve Traffic Consultant	30 days	Wed 20/1/1	Thu 20/1/30	3	85	0 days	100%	
\checkmark	Prepare, submit & Approve Landscape Team Leader	100 days	Mon 20/2/3	Tue 20/5/12	3	75	0 days	100%	
V	Prepare, submit & Approve Agricultural Specialist	30 days	Fri 19/12/20	Sat 20/1/18	3		0 days	100%	
~	Prepare, submit & Approve Constructed / Treatment Wetland Specialist	30 days	Fri 20/2/28	Sat 20/3/28	3	64	0 days	100%	
√	Prepare, submit & Approve Ecological Team Leader	30 days	Fri 19/12/20	Sat 20/1/18	3	47	0 days	100%	
V	Habitat Survey	112 days	Sun 20/1/19	Sat 20/5/9			0 days	100%	
~	Submission/approval of Habitat Surveys Method Statement and Programme	40 days	Sun 20/1/19	Thu 20/2/27	3,45	48	0 days	100%	
	Task		Summ	ary	Rolled Up	Milestone \diamondsuit Ext	ernal Tasks	Prog	gress
Programi	me: May 2021 Critical Task	[88888888		Up Task	The state of the s	·	ject Summary		adline 🕹
ite : 2021-	5-3 Milestone		The same of the sa	Up Critical Task	Split	Gre	oup By Summary		1000
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Sang Hing - Kuly Joint Venture

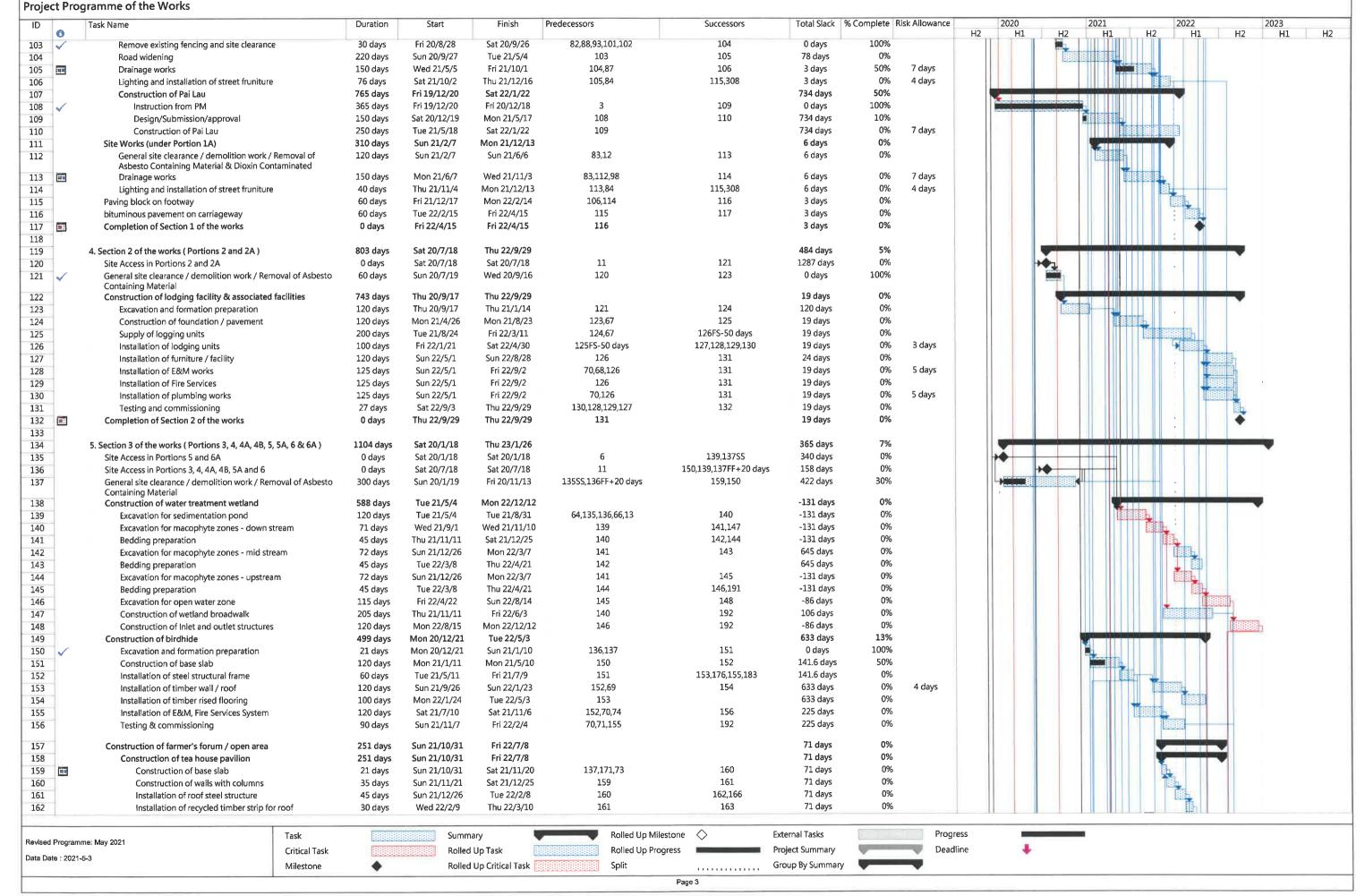
Kwu Tung North and Fanling North New Development Areas, Phase 1: Development of Long Valley Nature Park Project Programme of the Works

ID _	Task Name	Duration	Start	Finish	Predecessors	Successors	Total Slack	% Complete Risk Allowance	
48	Habitat Surveys	30 days	Fri 20/2/28	Sat 20/3/28	47	49	0 days	100%	H2 H1 H2 H1 H2 H1 H2 H1
49	Submission of Habitat Record	14 days	Sun 20/3/29	Sat 20/4/11	48	50	0 days	100%	
50	Approval of Habitat Survey Record	28 days	Sun 20/4/12	Sat 20/5/9	49	53,51	0 days	100%	
1 1	Prepare and Submit Wetland Restoration Proposal	50 days	Sun 20/5/10	Sun 20/6/28	50	52	0 days	100%	
2	Approval of Wetland Restoration Proposal	180 days	Mon 20/6/29	Fri 20/12/25	51	223,240,259,285	154 days	90%	The state of the s
3	Prepare and Submit Wetland Creation Proposal	50 days	Sun 20/5/10	Sun 20/6/28	50	54	0 days	100%	the state of the s
4	Approval of Wetland Creation Proposal	180 days	Mon 20/6/29	Fri 20/12/25	53	223,240,259,285	154 days	90%	Time and a second secon
	•		Fri 19/12/20	Thu 20/1/2	2	223,240,233,203	•	100%	
5	Prepare and Submit Ecological Protection Plan	14 days			3		0 days		
6	Prepare, Submit and Approval of Maintenance Proposal for Stage 1 Maintenance Works	204 days	Fri 19/12/20	Fri 20/7/10	3		0 days	100%	
	Prepare, submit & Approve G.I. Contractor	90 days	Wed 20/7/15	Mon 20/10/12	3	75	0 days	100%	tener f.41
*	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%	
V	Prepare, submit & Approve Site Management Plan for Trip Ticket System	45 days	Fri 19/12/20	Sun 20/2/2	3		0 days	100%	
	Submission and Approval of Construction Method for water treatment wetland	90 days	Tue 20/9/15	Sun 20/12/13	44	139	10 days	30%	
~	Submission of Proposal for Source of Water for Water Treatment Wetland	120 days	Fri 19/12/20	Fri 20/4/17	3	66	0 days	100%	General control of the control of th
■ ✓	Approval of Source of Water for Water Treatment Wetland	90 days	Sat 20/4/18	Thu 20/7/16	65	139	0 days	100%	
11	Design/submission/approval of Lodging Facilities	300 days	Tue 20/6/30	Sun 21/4/25	6	125,68SS,124	19 days	40%	
	Design / Submission / approval of Sewerage System of Lodging Facilities	150 days	Wed 20/9/16	Fri 21/2/12	67SS	128	461 days	30%	
EL	Design/submission/approval of alluminium roofing system, timber for wall/floor/soffit for Birdhide	180 days	Tue 21/3/30	Sat 21/9/25	6	153	633 days	0%	
	Design/submission/approval of E&M works for Facilities	180 days	Wed 20/9/30	Sun 21/3/28	6	128,174,165,130,156,155	328 days	30%	
	Design/submission/approval of Plumbing works for Facilities	240 days	Mon 20/8/31	Tue 21/4/27	6	156,165	418 days	0%	
	Design/submission/approval and supply of Lighting	180 days	Tue 20/6/30	Sat 20/12/26	6	Ť	1126 days	0%	
	Design/submission/approval and supply of park facilities	180 days	Sun 20/8/30	Thu 21/2/25	6	159	318 days	30%	
	Submission and Approval for Fire Extinguisher	50 days	Wed 21/4/14	Wed 21/6/2	3	155,165,181,188,268,174	1 day	0%	
~	Tree survey and submission	450 days	Wed 20/5/13	Thu 21/8/5	42,60,62,58	76SS+30 days	0 days	100%	15 21
Ě	Tree felling / Site clearance	450 days	Fri 20/6/12	Sat 21/9/4	75SS+30 days	7033 130 days	874 days	60%	
		-	Fri 21/1/1	Tue 21/6/29	6FS+30 days	167	385 days	0%	(2000 2000 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	Design/submission/approval of Entrance gantry signages	180 days		Mon 21/9/27	6 CF3+30 days	107	-	10%	3383 <u>5383 </u>
	Design/submission/approval of Irrigation system for landscape softworks	180 days	Thu 21/4/1		0		851 days		
	Design/submission/approval of Irrigation Channel and other associated facilities	130 days	Tue 20/9/1	Fri 21/1/8	6	230,247,273,292	178 days	97%	
	3. Section 1 of the works (Portions 1 and 1A)	848 days	Fri 19/12/20	Fri 22/4/15			651 days	37%	
- V	Site Access in Portion 1	0 days	Sat 20/1/18	Sat 20/1/18	6	85,103,89FS+30 days,102,101,88	0 days	100%	
	Site Access in Portion 1A	0 days	Sat 20/7/18	Sat 20/7/18	11	113,112,96	0 days	100%	
	Design/submission/approval and supply of Road Lighting System		Tue 20/6/30	Sat 20/12/26	6FS+30 days	106,114	282 days	20%	
	along Yin Kong Road							49%	
-	Application for XP for construction of Yin Kong Road	400 days	Fri 20/1/31	Fri 21/3/5	41,82 85SS+45 days	86SS+45 days,87	108 days		
	Prepare TTA for TMLG and approval from TD and RMO	90 days	Mon 20/3/16	Sat 20/6/13	•	87	373 days	70%	
	Application of Traffic Advice and Road Work Advice	30 days	Sat 21/3/6	Sun 21/4/4	85,86	105	108 days	0%	
√	Submission of Utilities Detection Report	30 days	Wed 20/7/29	Thu 20/8/27	82	103	0 days	100%	
	Relocation of Utilities (by Others)	335 days	Sun 20/3/1	Fri 21/1/29	82FS+30 days		134 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		92	0 days	100%	
V	Construction of New Pole	60 days	Thu 20/4/30	Sun 20/6/28	91	93	0 days	100%	
√	Outage and Diversion of Underground Cable	75 days	Mon 20/6/29	Fri 20/9/11	92	103	0 days	100%	
	Relocation of CLP Pole at Yin Kong Road (Portion 1A)	195 days	Sun 20/7/19	Fri 21/1/29			134 days	0%	
	Planning for Relocation	60 days	Sun 20/7/19	Wed 20/9/16	83	97	134 days	0%	
	Construction of New Pole	60 days	Thu 20/9/17	Sun 20/11/15	96	98	134 days	0%	
3	Outage and Diversion of Underground Cable	75 days	Mon 20/11/16	Fri 21/1/29	97	113	134 days	0%	
	Salage and phycialon of officing tourid capie	. J days	20/ 11/ 10	= = 1 = 1 = 3	<i>5,</i>			2.0	0.532
)	Site Works (under Portion 1)	765 days	Fri 19/12/20	Sat 22/1/22			734 days	41%	
					82	103	0 days	100%	
L 🗸	Compensation Event No. 002 - Construction of Chain Link Fence and Gate adjacent to Yin Kong Road	21 days	Thu 20/4/16	Wed 20/5/6	02	105	o uays	100/0	
2 🗸	Compensation Event No. 003 - Reprovision of Hoarding and gate at Enchi Lodge	30 days	Wed 20/4/22	Thu 20/5/21	82	103	0 days	100%	
		-				. ^	17.		
sed Programm	ne: May 2021 Task Critical Task		Summa	ary Up Task	Rolled Up Mile Rolled Up Pro-	•	rnal Tasks ect Summary	Prog	gress dline
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ita Date : 2021-5	5-3 Milestone	100-00-00-00-00-00-00-00-00-00-00-00-00-		Up Critical Task	Split	-	up By Summary		

Contract No. ND/2019/03

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

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

Project Programme of the Works

Sang Hing - Kuly Joint Venture

ID 6	Task Name	Duration	Start	Finish	Predecessors	Successors	Total Slack	% Complete Risk Allowance	2020 2021 2022 2023 H2 H1 H2 H1 H2 H1 H2 H1
163	Installation of recycled timber strip for walls	30 days	Fri 22/3/11	Sat 22/4/9	162	164SS	71 days	0%	
.64	Supply and installation of bench	30 days	Fri 22/3/11	Sat 22/4/9	163SS	165	71 days	0%	
65	Installation of plumbing works / E&M works with testing & commissioning	90 days	Sun 22/4/10	Fri 22/7/8	164,70,71,74	192	71 days	0%	
66	Construction of paving slab for open area	90 days	Wed 22/2/9	Mon 22/5/9	161	167	71 days	0% 4 days	
67	Construction of entrance gantry signages	60 days	Tue 22/5/10	Fri 22/7/8	166,77	192	71 days	0% 4 days	
68	Construction of Type 1 storage house	280 days	Tue 21/8/3	Mon 22/5/9			71 days	0%	
69	Excavation and formation preparation	21 days	Tue 21/8/3	Mon 21/8/23	40,186	170	71 days	0%	
70	Construction of base slab	28 days	Tue 21/8/24	Mon 21/9/20	169	171	71 days	0%	
71	Construction of walls and roof	40 days	Tue 21/9/21	Sat 21/10/30	170	172,159,190	71 days	0%	
72	Installation of aluminium louvre / GMS door	28 days	Sun 21/10/31	Sat 21/11/27	171	173	71 days	0%	
73	Installation of recycled timber strip / external finishing	73 days	Sun 21/11/28	Tue 22/2/8	172	174,180	71 days	0% 3 days	
74	Installation of E&M works & Fire Services with testing & commissioning	90 days	Wed 22/2/9	Mon 22/5/9	173,70,74	192	131 days	0%	
75	Construction of outdoor classroom shelter	439 days	Mon 21/4/26	Fri 22/7/8			71 days	4%	
76	Excavation and formation preparation	21 days	Mon 21/4/26	Tue 21/7/20	152	177	139.5 days	60%	
77	Construction of base slab	42 days	Tue 21/7/20	Tue 21/8/31	176	178	139.5 days	0%	
78	Construction of concrete columns	63 days	Tue 21/8/31	Tue 21/11/2	177	179	139.5 days	0% 3 days	
79	Installation of steel roof frame with corrugated sheet	30 days	Tue 21/11/2	Thu 21/12/2	178	180	139.5 days	0%	
30	Installation of recycled timber strip roofing	60 days	Wed 22/2/9	Sat 22/4/9	179,173	181	71 days	0%	
31	Installation of E&M works and Fire Services with testing & comissioning	90 days	Sun 22/4/10	Fri 22/7/8	180,74	192	71 days	0%	
32	Construction of storage compositing facility	319 days	Mon 21/2/15	Thu 21/12/30			261 days	24%	
83 🗸	Excavation and formation preparation	22 days	Mon 21/2/15	Mon 21/3/8	152	184	0 days	100%	
84 🗸	Construction of base slab	54 days	Tue 21/3/9	Sat 21/5/1	183	185	0 days	100%	
85	Construction of concrete columns	63 days	Sun 21/5/2	Sat 21/7/3	184	186	71 days	0% 3 days	
86	installation of steel roof frame with corrugated sheet	30 days	Sun 21/7/4	Mon 21/8/2	185	187,169	71 days	0%	
87	Installation of recycled timber strip roofing	60 days	Tue 21/8/3	Fri 21/10/1	186	188,189	261 days	0%	
88	Installation of E&M works & Fire Services with testing & commissioning	90 days	Sat 21/10/2	Thu 21/12/30	187,74	192	261 days	0%	
89	Construction of entry landing with drop bar	90 days	Sat 21/10/2	Thu 21/12/30	187	192	261 days	0%	
90	Construction of walkway	210 days	Sun 21/10/31	Sat 22/5/28	171	192	112 days	0%	
91	Landscaping softworks	280 days	Fri 22/4/22	Thu 23/1/26	145	192,195	-131 days	0%	
92	Completion of Section 3 of the works	0 days	Sat 22/9/17	Sat 22/9/17	156,165,167,174,181,188,189		-131 days	0%	
.93 .94	6. Section 3A of the works (Establishment works for Section 2 and 3)	365 days	Fri 23/1/27	Fri 24/1/26			-131 days	0%	
195	Establishment works for landscape softworks	365 days	Fri 23/1/27	Fri 24/1/26	191	196FF	-131 days	0%	
96 1 97	Completion of Section 3A of the Works	0 days	Sun 23/9/17	Sun 23/9/17	195FF		-131 days	0%	
98	7. Section 4 of the works (Portion 18)	167 days	Thu 20/5/7	Wed 20/10/21			0 days	100%	
99	Site Access in Portion 18	0 days	Thu 20/5/7	Thu 20/5/7	g	200,201,206,207,202	0 days	100%	
00	General site clearance / demolition work / Removal of Asbesto Containing Material & Dioxin Contaminated	20 days	Fri 20/5/8	Wed 20/5/27	199	201	0 days	100%	
01	General maintenance to exisiting wetland	80 days	Thu 20/5/28	Sat 20/8/15	199,200	208	0 days	100% 7 days	
01	Compensation Event No. 020 - Inclement Weather Conditions in	8.5 days	Fri 20/9/18	Sat 20/9/26	199	203	0 days	100%	
03	August 2020 Compensation Event No. 021 - Inclement Weather Conditions in	14.5 days	Sat 20/9/26	Sat 20/10/10	202	204	0 days	100%	
04 🗸	September 2020 Compensation Event No. 028 - Inclement Weather Conditions in	3 days	Sun 20/10/11	Tue 20/10/13	203	208	0 days	100%	
05	October 2020 Compensation Event No. 026 - Provision of Root Barriers behind Gabion Walls of Irrigation Channel	8 days	Wed 20/10/14	Wed 20/10/21	206	208	0 days	100%	
206	Construction of Irrigation Channel	56 days	Wed 20/8/19	Tue 20/10/13	199	205	0 days	100%	
07	Construction of Metal Wire Railing	65 days	Mon 20/8/10	Tue 20/10/13	199	208	0 days	100%	
08	Completion of Section 4 of the works	0 days	Wed 20/10/21	Wed 20/10/21	201,207,204,205		0 days	100%	
109	O Castian E afaha wante / Danties 14)	00 4	Cup 20/10/10	Ca+ 31 /1 /1 6			0 days	100%	
10	8. Section 5 of the works (Portion 14)	90 days	Sun 20/10/18	Sat 21/1/16	1.4	214,212,213	0 days	100%	
11	Site Access in Portion 14	0 days	Sun 20/10/18	Sun 20/10/18	14 211	214,212,213	0 days	100%	
12	General site clearance / demolition work / Removal of Asbesto Containing Material	60 days	Mon 20/10/19	Thu 20/12/17					
13 🗸	General maintenance to exisiting wetland	45 days	Mon 20/10/19	Wed 20/12/2	211	215FF	0 days	100%	
214	Boundary Structure - Metal Wire Railing	90 days	Mon 20/10/19	Sat 21/1/16	211	215FF	0 days	100%	
215	Completion of Section 5 of the works	0 days	Sat 21/1/16	Sat 21/1/16	214FF,213FF,212		0 days	0%	
216 217	9. Section 6 of the works (Portions 8,8A,8B and 9,9A~9G)	705 days	Sat 20/1/18	Thu 21/12/23			764 days	41%	
	Task		Summa	ary	Rolled Up Milest	tone 🔷	External Tasks	Progr	
vised Program	nme: May 2021 Critical Task		Rolled	Up Task	Rolled Up Progr	ess	Project Summary	Dead Dead	lline 👢
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ta Date : 2021	Milestone	A	D = II = 3	Up Critical Task	Split	((1))))))))	Group By Summary		

Data Date : 2021-5-3

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

Milestone

Rolled Up Critical Task

	Task Name	Duration	Start	Finish	Predecessors	Successors	Total Slack	% Complete F	AISK AIIOWAIICE	2020 2021 2022 2023 H2 H1 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	223,221SS	0 days	100%		
	Site Access in Portion 8	0 days	Sat 20/7/18	Sat 20/7/18	11	221FF+10 days,223	0 days	100%		·
	Site Access in Portions 8B, 9, 9B, 9D	0 days	Sun 20/10/18	Sun 20/10/18	15,16	221FF+10 days,223,227	214 days	50%		
	General site clearance / demolition work / Removal of Asbesto Containing Material & Dioxin Contaminated	150 days	Fri 20/7/3	Sun 20/11/29	218SS,219FF+10 days,220FF+10 days	232	182 days	80%		<u> </u>
	Wetland Restoration / Wetland Creation	200 days	Fri 21/3/19	Mon 21/10/4	au, 5,22511 125 au, 5		844 days	43%		
	Excavation	90 days	Fri 21/3/19	Wed 21/6/16	218,54,52,219,220,15	224SS+30 days	954 days	50%		1 1 2 A A A A A A A A A A A A A A A A A
	Backfilling	60 days	Sun 21/4/18	Wed 21/6/16 Wed 21/6/16	223SS+30 days	225SS+90 days,227,230,231	-117 days	50%		
	5				•			30%		
	Agricultural Planting	80 days	Sat 21/7/17	Mon 21/10/4	224SS+90 days	232	-127 days			
	Construction of Storage Sheds	190 days	Thu 21/6/17	Thu 21/12/23			-40 days	30%		
	Construction of concrete structure	150 days	Thu 21/6/17	Sat 21/11/13	224,220,16	228FS-30 days,229	-207 days	50%	4 days	
	Installation of Alluminium Window/Lourvre and GMS Door with recycle timber decoration	60 days	Fri 21/10/15	Mon 21/12/13	227FS-30 days	232	-197 days	0%		
	Installation of GMS roofing structure with recycle timber	40 days	Sun 21/11/14	Thu 21/12/23	227	232	-207 days	0%		
	Construction of Channel	70 days	Thu 21/6/17	Wed 21/8/25	224,79	232	-87 days	50%	7 days	
	Construction of walkway	100 days	Thu 21/6/17	Fri 21/9/24	224	232	-117 days	0%	7 days	
	Completion of Section 6 of the works	0 days	Sun 21/5/30	Sun 21/5/30	225,229,230,231,221,228		-207 days	0%		
	10. Section 7 of the works (Portions 10,10A,10B, 13,13A and	620 days	Sat 20/1/18	Wed 21/9/29			849 days	38%		
	16,16A,16B) Site Access in Portions 10A, 10B, 13A, 16	0 days	Sat 20/1/18	Sat 20/1/18	6	240,238SS	0 days	100%		
		0 days		Sat 20/1/18 Sun 20/10/18	14	240,23655 238FF+20 days	•	100%		
	Site Access in Portions 10, 13	0 days	Sun 20/10/18		14 17	•	0 days			
	Site Access in Portions 16A, 16B	0 days	Mon 21/1/18	Mon 21/1/18	=-	238FF+20 days	0 days	100%		
	General site clearance / demolition work / Removal of Asbesto Containing Material & Dioxin Contaminated	300 days	Tue 20/4/14	Sun 21/2/7	235SS,236FF+20 days,237FF+20 days	250	176 days	60%		
	Wetland Restoration / Wetland Creation	167 days	Sat 20/12/26	Thu 21/6/10			960 days	36%		
	Excavation	100 days	Sat 20/12/26	Sun 21/4/4	235,54,52	241SS+47 days,247	104 days	50%		
	Backfilling	60 days	Thu 21/2/11	Sun 21/4/11	240SS+47 days	242SS+60 days	1020 days	50%		
	Agricultural Planting	60 days	Mon 21/4/12	Thu 21/6/10	241SS+60 days	250	53 days	0%		
	Construction of storage sheds	180 days	Sat 21/4/3	Wed 21/9/29			-30 days	17%		
	Construction of concrete structure	150 days	Sat 21/4/3	Mon 21/8/30	18	245SS+90 days,246	-58 days	24%		
	Installation of Alluminium Window/Lourvre and GMS Door	30 days	Fri 21/7/2	Sat 21/7/31	244SS+90 days	246SS+30 days	-28 days	0%		
	with recycle timber decoration	,-	==, . / =	,,,,,,,	_ :	= : 200 : 00 34,0				
	Installation of GMS roofing structure with recycle timber	30 days	Tue 21/8/31	Wed 21/9/29	245SS+30 days,244	250	-58 days	0%		
	Construction of Channel	80 days	Mon 21/4/5	Wed 21/6/23	79,240	248SS,250	40 days	80%	7 days	
	Construction of walkway	90 days	Mon 21/4/5	Sat 21/7/3	247SS	249FF-15 days,250	30 days	0%	6 days	
	Construction of entry landing with drop bar	45 days	Wed 21/5/5	Fri 21/6/18	248FF-15 days	250	45 days	0%		
	Completion of Section 7 of the works	0 days	Mon 21/8/2	Mon 21/8/2	242,246,247,248,249,238	 -	-58 days	0%		
1	Completion of Section 7 of the works	o days	141011 21/0/2	141011 21/0/2	272,270,277,270,273,230		Jo days	070		
	11. Section 8 of the works (Portions 7,7A,7B, 17,17A,17B,	541 days	Sat 20/1/18	Mon 21/7/12			928 days	47%		
	19,19A,19B,19C, 20,20A,20B&20C) Site Access in Portions 7, 17, 10A, 10B, 10C, 20A, 20B	۰ الم	Ca+ 20/1/10	Cat 30/1/10	£	250 25755	0 40.55	100%		
	Site Access in Portions 7, 17, 19A, 19B, 19C, 20A, 20B	0 days	Sat 20/1/18	Sat 20/1/18	6	259,257SS	0 days			
p. 	Site Access in Portions 19, 20, 20C	0 days	Thu 20/5/7	Thu 20/5/7	9	257FF+20 days	0 days	100%		
	Site Access in Portions 7A, 7B	0 days	Sat 20/7/18	Sat 20/7/18	11	257FF+20 days	0 days	100%		
	Site Access in Portions 17A, 17B	0 days	Mon 21/1/18	Mon 21/1/18	17	257FF+20 days	0 days	100%		
	General site clearance / demolition work / Removal of Asbesto Containing Material & Dioxin Contaminated	350 days	Mon 20/2/24	Sun 21/2/7	253SS,254FF+20 days,255FF+20 days,256FF+20 days		1083 days	80%		
	Wetland Restoration / Wetland Creation	135 days	Sat 20/12/26	Sun 21/5/9			992 days	30%		
}	Excavation	80 days	Sat 20/12/26	Mon 21/3/15	253,54,52	260SS+25 days,270SS+60 days,263SS,273SS	1047 days	40%		
	Backfilling	80 days	Wed 21/1/20	Fri 21/4/9	259SS+25 days	261SS+60 days	1022 days	40%		
	Agricultural Planting	50 days	Sun 21/3/21	Sun 21/5/9	260SS+60 days	276	65 days	0%		
	Construction of Type 2 storage house	199 days	Sat 20/12/26	Mon 21/7/12			928 days	42%		The state of the s
	Excavation and formation preparation	21 days	Sat 20/12/26	Fri 21/1/15	259SS	264	0 days	100%		
	Construction of base slab	28 days	Sat 20/12/20	Fri 21/2/12	263	265	0 days	100%		
	Construction of base stab Construction of walls and roof	•	Sat 21/2/13	Fri 21/4/23	264	266,267	11 days	80%		
		70 days					•	0%		The state of the s
	Installation of aluminium louvre / GMS door	30 days	Sat 21/4/24	Sun 21/5/23	265	268	11 days			
	Installation of recycled timber strip / external finishing	60 days	Sat 21/4/24	Tue 21/6/22	265	27.5	948 days	0%		
	Installation of E&M works with testing & commissioning	40 days	Thu 21/6/3	Mon 21/7/12	266,74	276	1 day	0%		
	Construction of storage sheds	120 days	Wed 21/2/24	Wed 21/6/23			20 days	24% 40%		
	Construction of concrete structure	90 days	Wed 21/2/24	Mon 21/5/24	259SS+60 days	271SS+60 days,272	20 days			

Page 5

Group By Summary

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

0	Task Name	Duration	Start	Finish	Predecessors	Successors	Total Slack	% Complete Risk	Allowance H2	2020 2021 2022 2023 2 H1 H2 H1 H2 H1 H2 H1
	Installation of Alluminium Window/Lourvre and GMS Door with recycle timber decoration	30 days	Sun 21/4/25	Mon 21/5/24	270SS+60 days	272SS+21 days	29 days	0%	HZ	2 11 12 11 12 11
	Installation of GMS roofing structure with recycle timber	30 days	Tue 21/5/25	Wed 21/6/23	271SS+21 days,270	276	20 days	0%		
100	Construction of Channel	80 days	Sat 21/1/9	Mon 21/3/29	79,259SS	274SS,276	106 days		7 days	
	Construction of walkway	90 days	Sat 21/1/9	Thu 21/4/8	273SS	275FF,276	96 days		7 days	
	Construction of entry landing with drop bar	45 days	Tue 21/2/23	Thu 21/4/8	274FF	276	96 days	0%	,	
	Completion of Section 8 of the works	0 days	Mon 21/7/12	Mon 21/7/12	261,268,272,273,274,275		1 day	0%		**************************************
		,.					,			
	12. Section 9 of the works (Portions 11,11A,11B, 12,12A~12D, and	637 days	Sat 20/1/18	Sat 21/10/16			832 days	20%		
	15,15A~15C)	oo, aayo	54(= 0, =, = 0	001 22, 20, 20						
1	Site Access in Portions 11A, 11B, 12A, 12C, 12D, 15B, 15C	0 days	Sat 20/1/18	Sat 20/1/18	6	285,283SS	0 days	100%		↓
1	Site Access in Portion 15A	0 days	Thu 20/5/7	Thu 20/5/7	9	283FF+20 days	0 days	100%		
1	Site Access in Portions 11, 12, 12B	0 days	Sun 20/10/18	Sun 20/10/18	14	283FF+20 days	0 days	100%		
1	Site Access in Portion 15	0 days	Mon 21/1/18	Mon 21/1/18	17	283FF+20 days	0 days	100%		→
	General site clearance / demolition work / Removal of Asbesto	320 days	Wed 20/3/25	Sun 21/2/7	279SS,280FF+20	295	272 days	20%		
	Containing Material & Dioxin Contaminated	•			days,281FF+20		-			
				~ ~ ~ ~ ~	days,282FF+20 days		000 1	200/		
Constituted in	Wetland Restoration / Wetland Creation	265 days	Sat 20/12/26	Thu 21/9/16	070 54 50	20000 45 1 20000 00 1	862 days	38%		
	Excavation	150 days	Sat 20/12/26	Mon 21/5/24	279,54,52	286SS+45 days,289SS+80 days	•	50%		Table 1
	Backfilling	150 days	Tue 21/2/9	Thu 21/7/8	285SS+45 days	287SS+120 days,292SS+100 day		50%		
	Agricultural Planting	100 days	Wed 21/6/9	Thu 21/9/16	286SS+120 days	295	51 days	0%		
	Construction of storage sheds	210 days	Tue 21/3/16	Mon 21/10/11			75 days	6%		
	Construction of concrete structure	180 days	Tue 21/3/16	Sat 21/9/11	285SS+80 days	290SS+45 days,291	26 days	10%		<u> </u>
	Installation of Alluminium Window/Lourvre and GMS Door	100 days	Fri 21/4/30	Sat 21/8/7	289SS+45 days	291SS+21 days	140 days	0%		
	with recycle timber decoration	30 al.a	Cum 21 /0 /12	Mar 21 /10 /11	20000 - 21 200	305	26 4	00/	2 days	, it
	Installation of GMS roofing structure with recycle timber	30 days	Sun 21/9/12	Mon 21/10/11	290SS+21 days,289	295	26 days		3 days	
	Construction of Channel	150 days	Thu 21/5/20	Sat 21/10/16	286SS+100 days,79	293SS,295	21 days		4 days	
	Construction of walkway	150 days	Thu 21/5/20	Sat 21/10/16	292SS	294FF,295	21 days		4 days	
_	Construction of entry landing with drop bar	45 days	Thu 21/9/2	Sat 21/10/16	293FF	295	21 days	0%		
	Completion of Section 9 of the works	0 days	Sat 21/10/16	Sat 21/10/16	287,291,292,293,294,283		21 days	0%		•
	13. Section 10 of the works (Portion 21)	623 days	Mon 21/1/18	Mon 22/10/3			-95 days	0%		5
	Site Access in Portion 21	0 days	Mon 21/1/18	Mon 21/1/18	17	299	-95 days	0%		404
	Local Objection for commencement of Works	105 days	Tue 21/1/19	Mon 21/5/3	298	300	-95 days	0%		u la
	General site clearance / demolition work / Removal of Asbesto	14 days	Tue 21/5/4	Mon 21/5/17	299	301	-95 days	0%		the contract of the contract o
	Containing Material	14.1	T - 21 /F /20	NA 24 /5 /24	200	202	05 4	00/		* ·
	Erect site hoarding	14 days	Tue 21/5/18	Mon 21/5/31	300	303	-95 days	0%		<u>in</u>
	Archaeological Impacts Mitigation Measures	180 days	Tue 21/6/1	Sat 21/11/27	204	204	-95 days	0%		10000000
-	Archaeological survey	120 days	Tue 21/6/1	Tue 21/9/28	301	304	-95 days	0%		
	Archaeological impact assessment	60 days	Wed 21/9/29	Sat 21/11/27	303	306	-95 days	0%		
	Site formation work and infrastructure works at Wa Shan	310 days	Sun 21/11/28	Mon 22/10/3			-95 days	0%		
	Site formation / slope works	150 days	Sun 21/11/28	Tue 22/4/26	304	307	-95 days		4 days	
	Drainage works	100 days	Wed 22/4/27	Thu 22/8/4	306	308	-95 days		4 days	
	Paving block on footway	30 days	Fri 22/8/5	Sat 22/9/3	106,114,307	309	-95 days	0%		
	bituminous pavement on carriageway	30 days	Sun 22/9/4	Mon 22/10/3	308	310FF	-95 days	0%		
	Completion of Section 10 of the works	0 days	Thu 22/6/30	Thu 22/6/30	309FF		-95 days	0%		◆←
	14. Section 11 of the works (Portions 22, 23, 24 and remainder	706 days	Tue 19/12/31	Sun 21/12/5			488 days	60%		
	works)	0.1	T 10 (10 0 00)	T 10/10/05	7	24.5	0 4	1000/		
~	Site Access in Portions 23, 24	0 days	Tue 19/12/31	Tue 19/12/31	7	316	0 days	100%		
Y	Site Access in Portion 22	0 days	Wed 20/5/13	Wed 20/5/13	10	327,329	0 days	100%		
	Egretray Site Protion 23 & 24	657 days	Tue 20/2/18	Sun 21/12/5	1.11		488 days	52%		
V	General site clearance	30 days	Tue 20/2/18	Wed 20/3/18	313	317	0 days	100%	1	
V	Erect site hoarding (Deleted)	30 days	Thu 20/3/19	Fri 20/4/17	316	318	0 days	100%		
V	Preliminary Survey	40 days	Sat 20/4/18	Wed 20/5/27	317	319	0 days	100%		
~	Submission of mehtodology for translocation	60 days	Thu 20/5/28	Sun 20/7/26	318	320	0 days	100%		
1	Approval of Methodology for Translocation	130 days	Mon 20/7/27	Thu 20/12/3	319	321,340	0 days	100%		manus root :
1	Translocation works	30 days	Fri 20/12/4	Sat 21/1/2	320,341	322	0 days	100%		
	Planting in Portion 23 & 24	30 days	Mon 21/5/10	Tue 21/6/8	321	323	488 days	0%		
-	Provision of Railing and Gate at Portion 23 (Under PMI 026 /	90 days	Wed 21/6/9	Mon 21/9/6	322	324	488 days	0%		
	CE 019)									y
	Establishmnet of A1-7FLN Egretray Site (Portion 23)	90 days	Tue 21/9/7	Sun 21/12/5	323	325FS-200 days	488 days		10 days	
	Establishment of B1-7FLN Egretray Site (Portion 24)	90 days	Thu 21/5/20	Tue 21/8/17	324FS-200 days	330	488 days	0%	10 days	
										*
'	Preparation Works for Landscaping work at existing Ho Sheung Heung Egretry Site (Portion 22)	60 days	Wed 20/11/25	Sat 21/1/23	314,329	330,328	0 days	100%	10 days	
d Desc	mmo: May 2024 Task		Summ	ary	Rollied Up N	filestone 🔷 Ex	cternal Tasks		Progress	
	mme: May 2021 Critical Task	[5555555		Up Task	Rolled Up P		roject Summary	-	Deadline	↓
Date : 202	1-5-3	A.		Up Critical Task	Split		roup By Summary			1000
	Milestone								~	

345 🗸

Collection site C3 (Portion 27)

Completion of Section 12 of the works

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

3 days

0 days

Tue 20/12/8

Fri 20/12/18

Thu 20/12/10

Fri 20/12/18

340

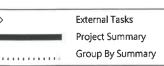
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Total Slack % Complete Risk Allowance Finish Predecessors Successors ID Task Name Duration Start 0 H2 H2 H2 100% 328 327 Planting for Ho Sheung Heung Egretry Site 14 days Sun 21/1/24 Sat 21/2/6 0 days 327 100% 314 329 Compensation Event No. 017 - Removal of Existing Unsafe Sheds 50 days Tue 20/10/6 Tue 20/11/24 0 days 330 333 488 days - 2 Completion of Section 11 of the works 0 days Tue 21/8/17 Tue 21/8/17 327,325 0% 331 Thu 23/11/16 7% 332 15. Section 11A of the works (Establishment works for Section 11) 1050 days Fri 21/1/1 71 days 333 Wed 22/8/17 527 days 0% 365 days Wed 21/8/18 330 Establishment works Compensation Event No. 15 Provision of Decoys and Broadcast of 334 1050 days Fri 21/1/1 Thu 23/11/16 335 32 days 10% Bird Sound in Portions 23 & 24 335 Thu 23/11/16 334 32 days 0% Thu 23/11/16 Completion of Section 11A of the works 0 days 336 100% 337 16. Section 12 of the works (Portions 25, 26 and 27) 284 days Wed 20/3/18 Sun 20/12/27 0 days 100% 339FS+60 days Wed 20/3/18 Wed 20/3/18 3FS+90 days 338 **-**Site Access in Portions 25, 26, 27 0 days 0 days 339 Boundary Site Area 60 days Mon 20/5/18 Thu 20/7/16 338FS+60 days 0 days 100% 340 Preparation for translocation works 4 days Fri 20/12/4 Mon 20/12/7 320 344,341 0 days 100% 100% Sun 20/12/27 340 321 341 Compensation Event No. 11 - Translocation of Rose Bitterling 20 days Tue 20/12/8 0 days 345FF 100% Fri 20/12/18 343 0 days 342 Mon 20/12/14 Collection site C1 (Portion 25) 5 days 343 🗸 Fri 20/12/11 Sun 20/12/13 344 345FF,342 0 days 100% Collection site C2 (Portion 26) 3 days

345FF,343









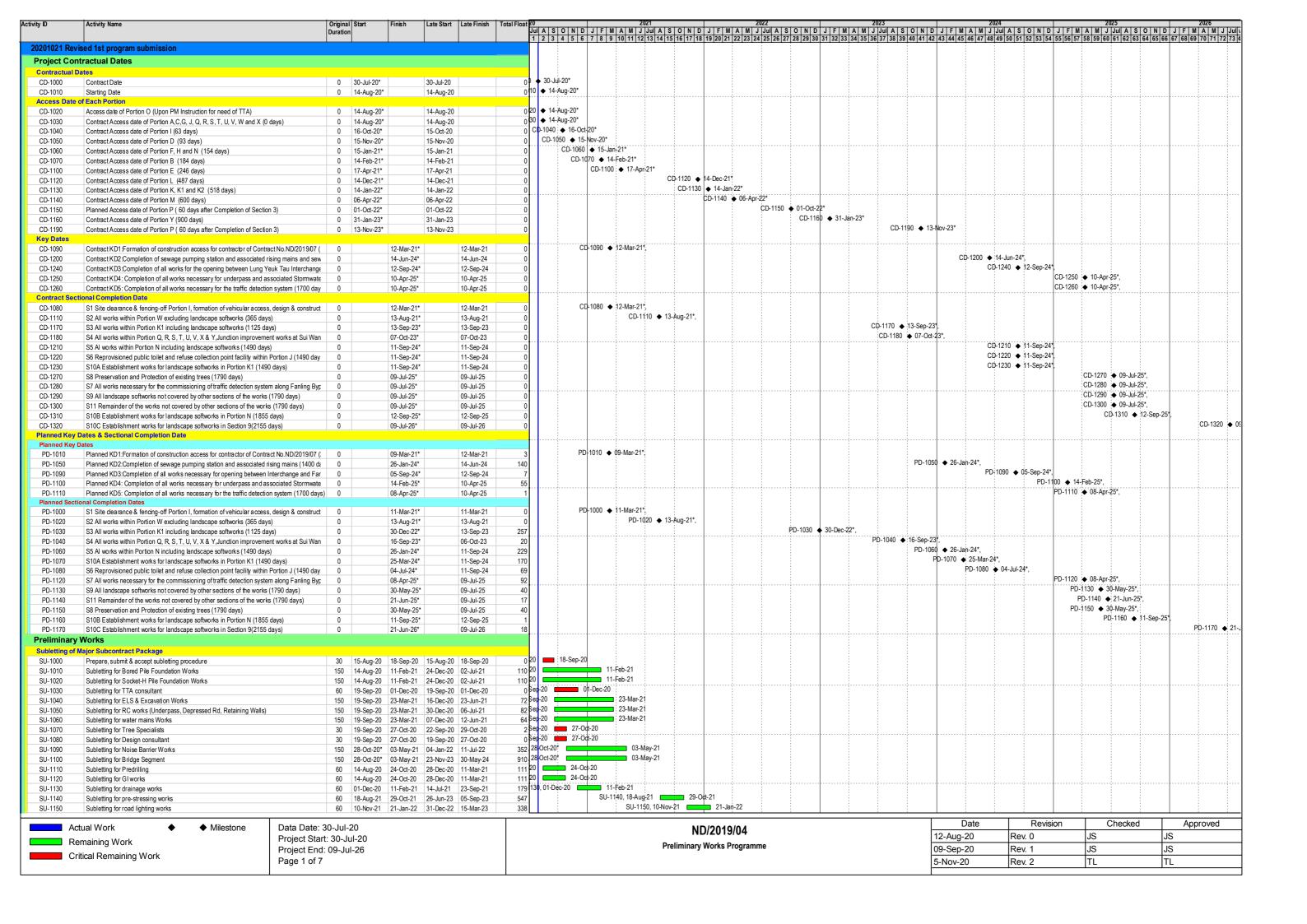
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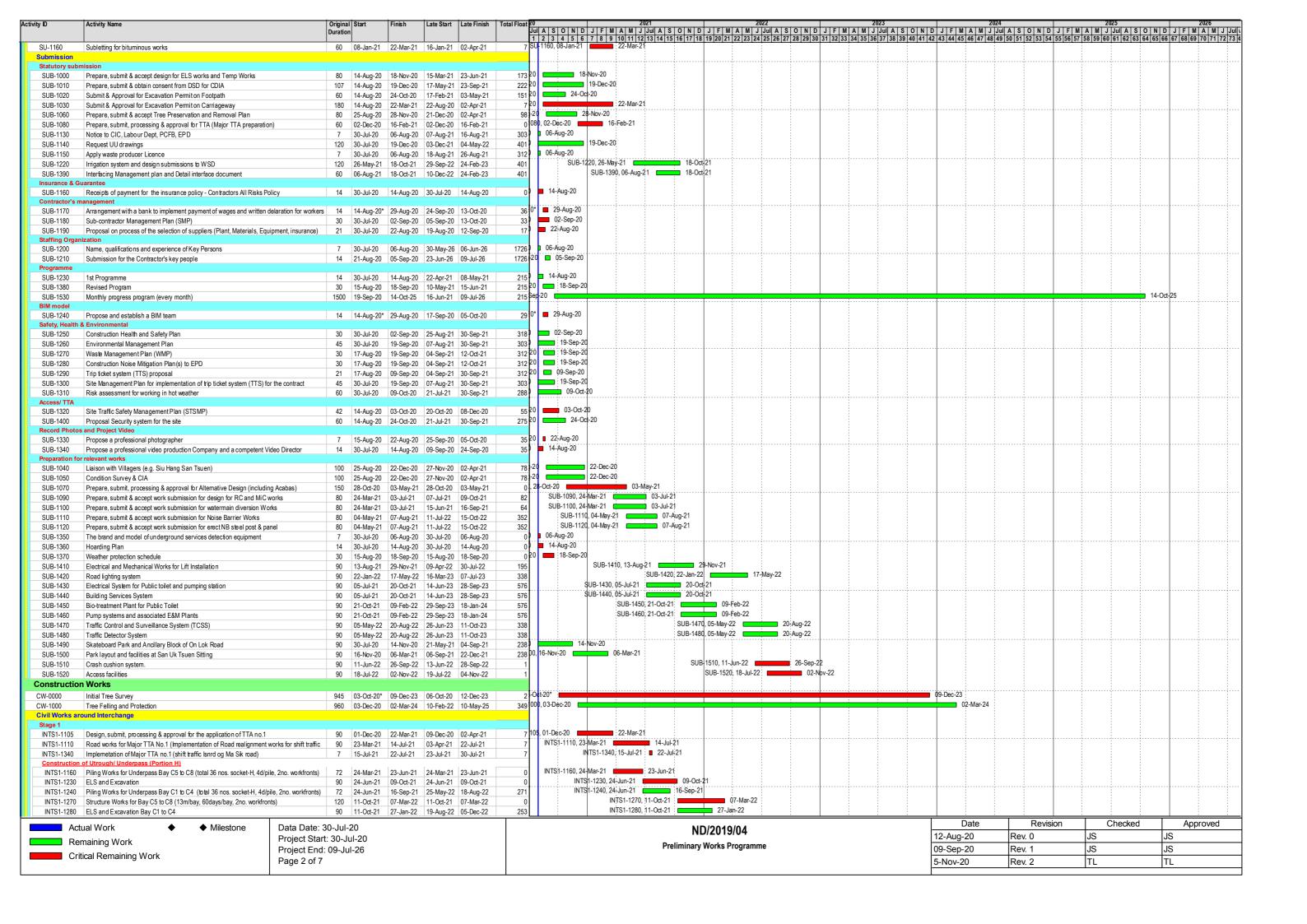
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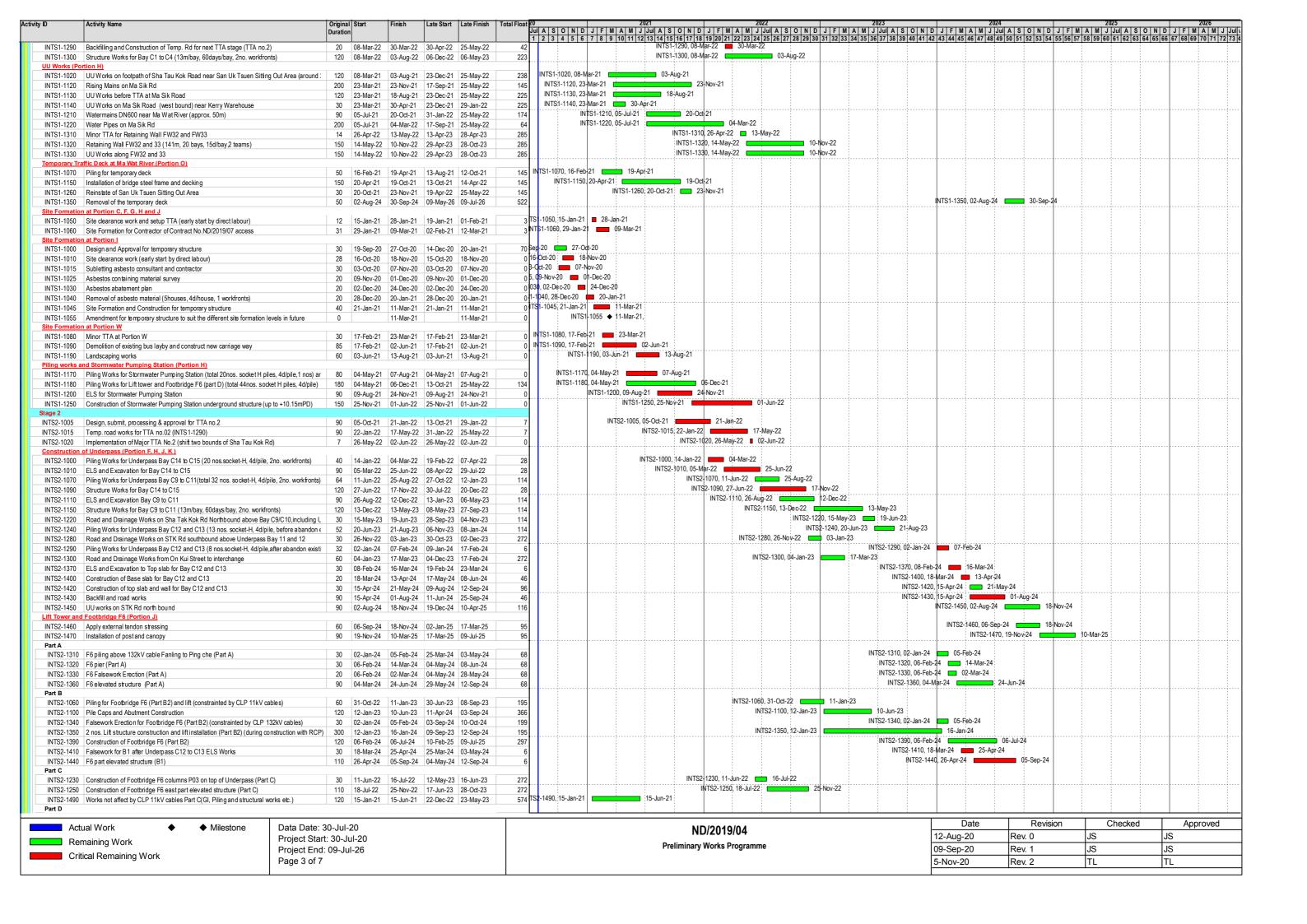
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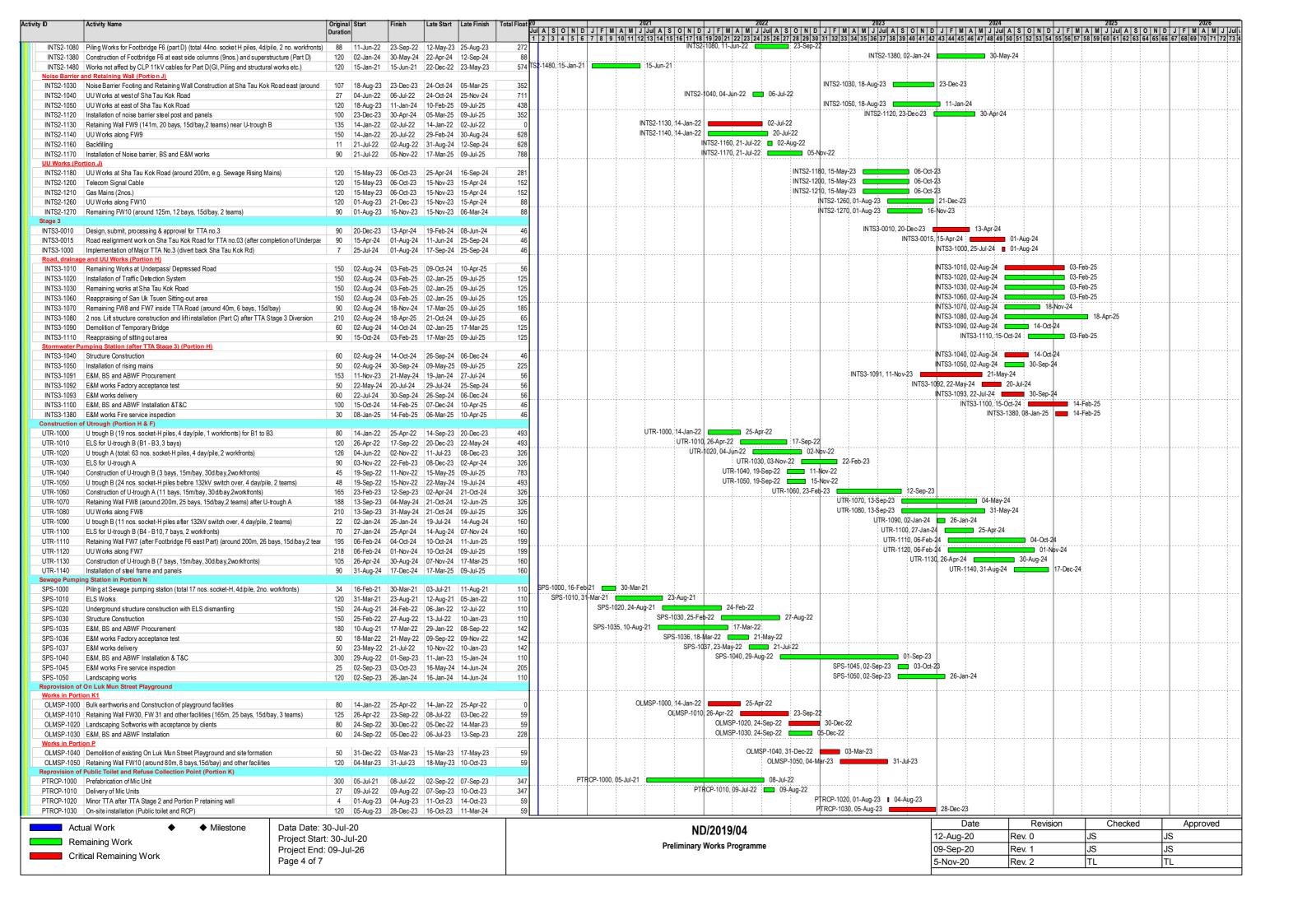
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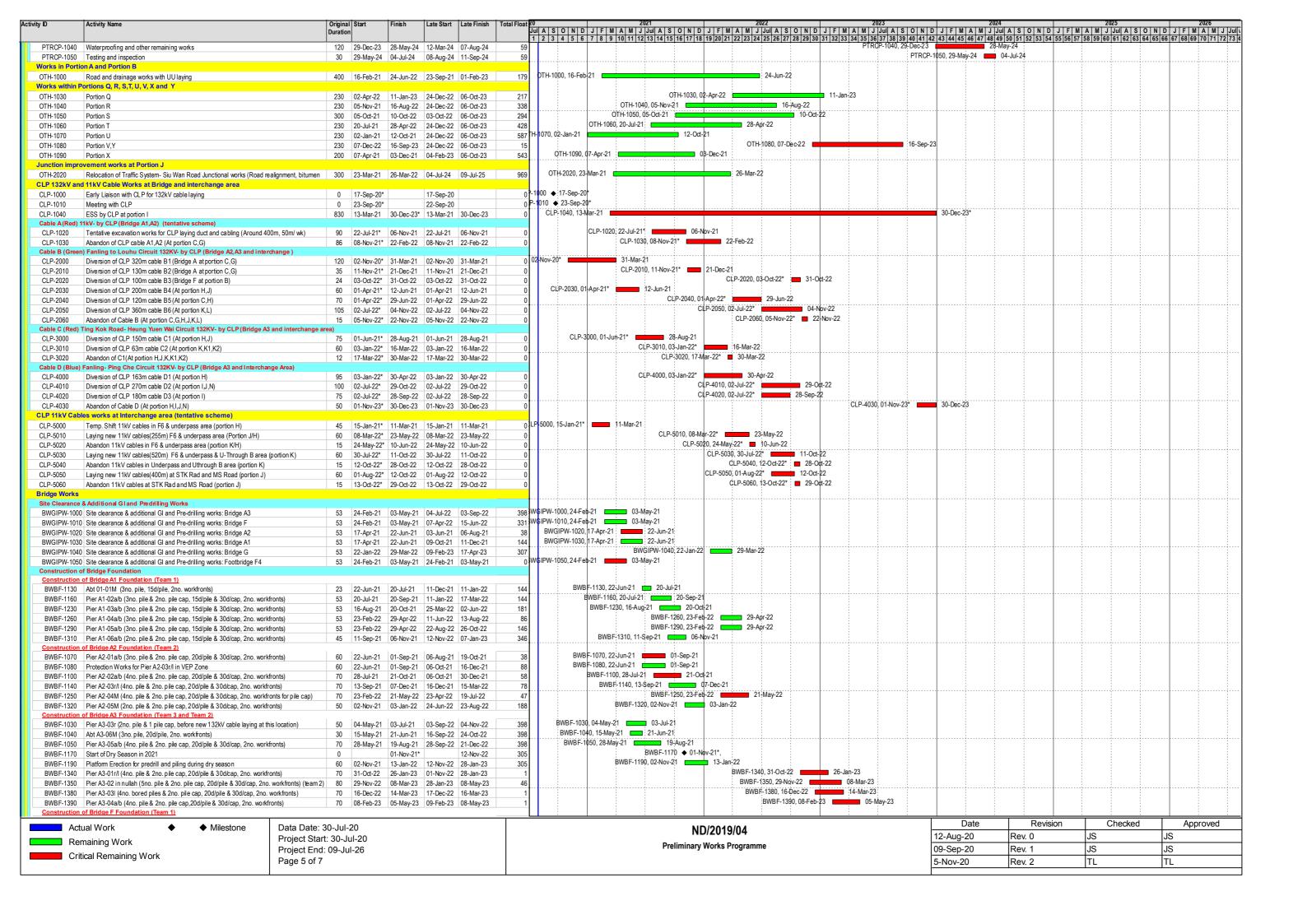


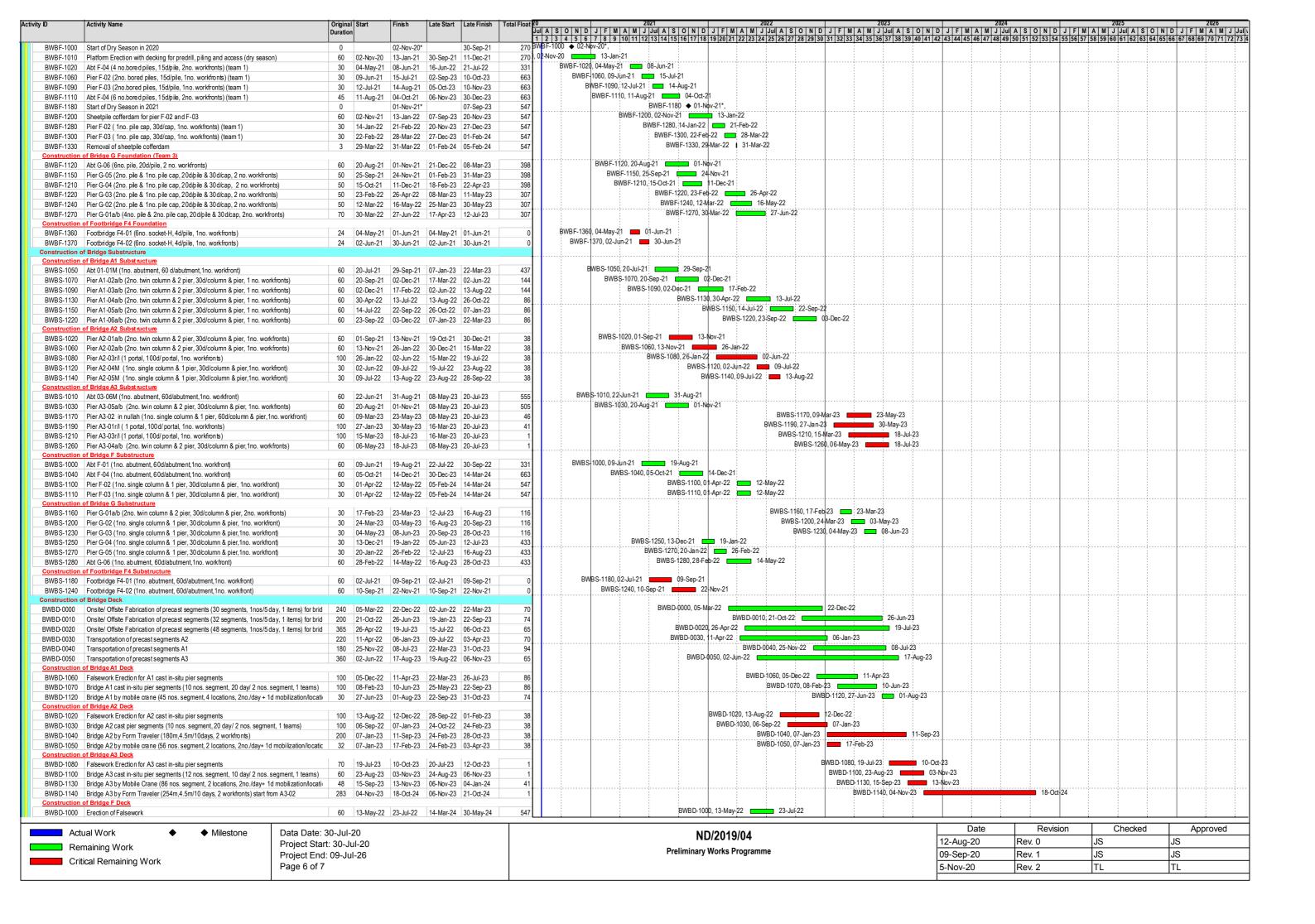


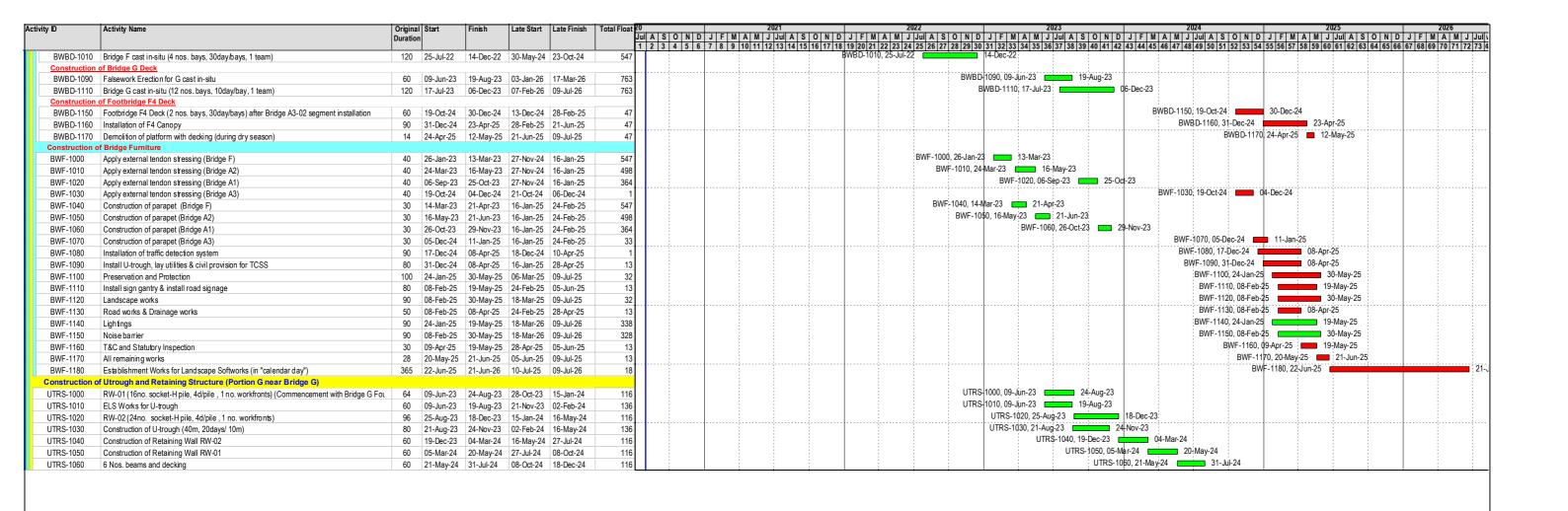












Actual Work

Remaining Work

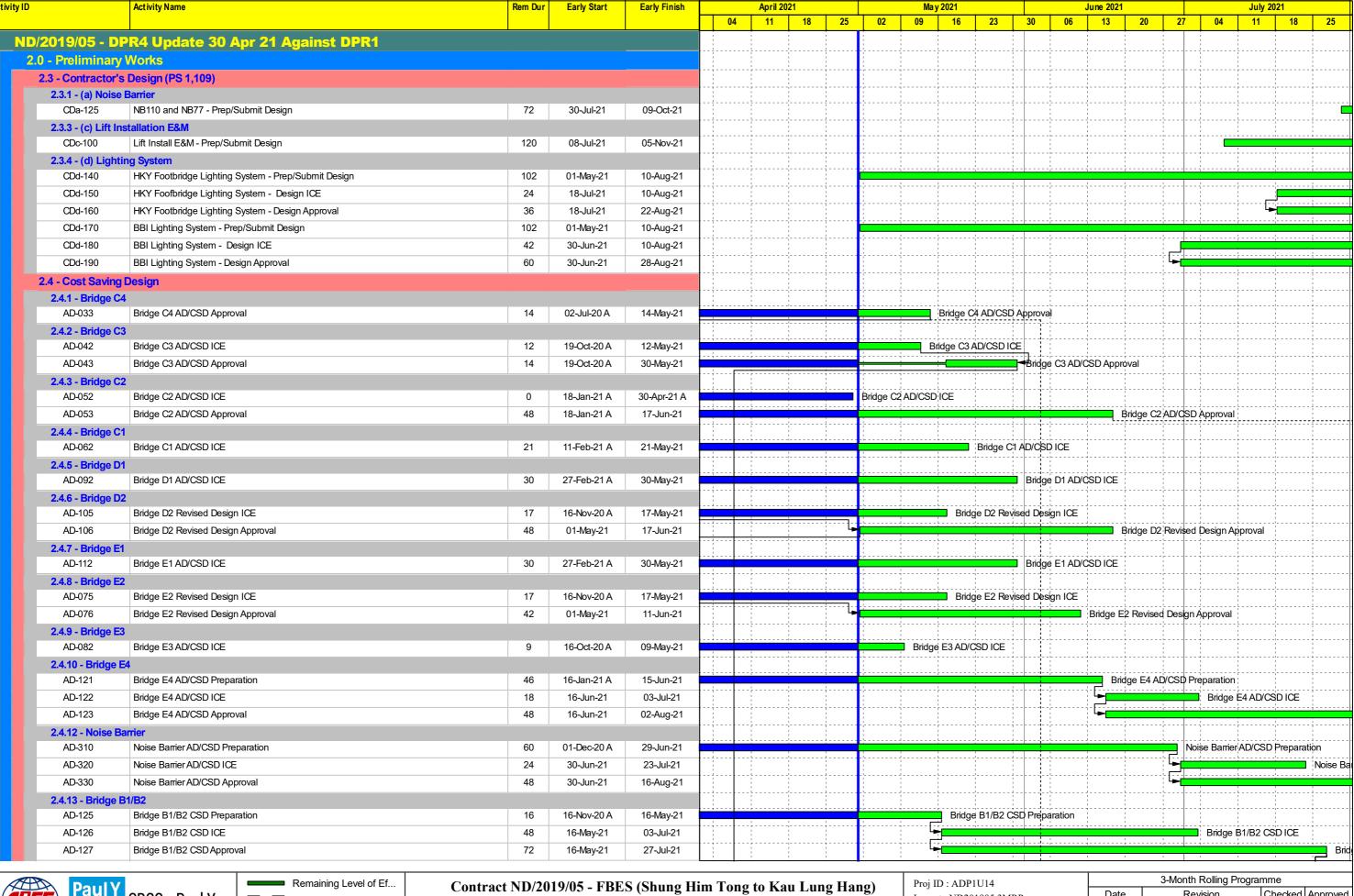
Critical Remaining Work

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

Date	Revision	Checked	Approved
12-Aug-20	Rev. 0	JS	JS
09-Sep-20	Rev. 1	JS	JS
5-Nov-20	Rev. 2	TL	TL



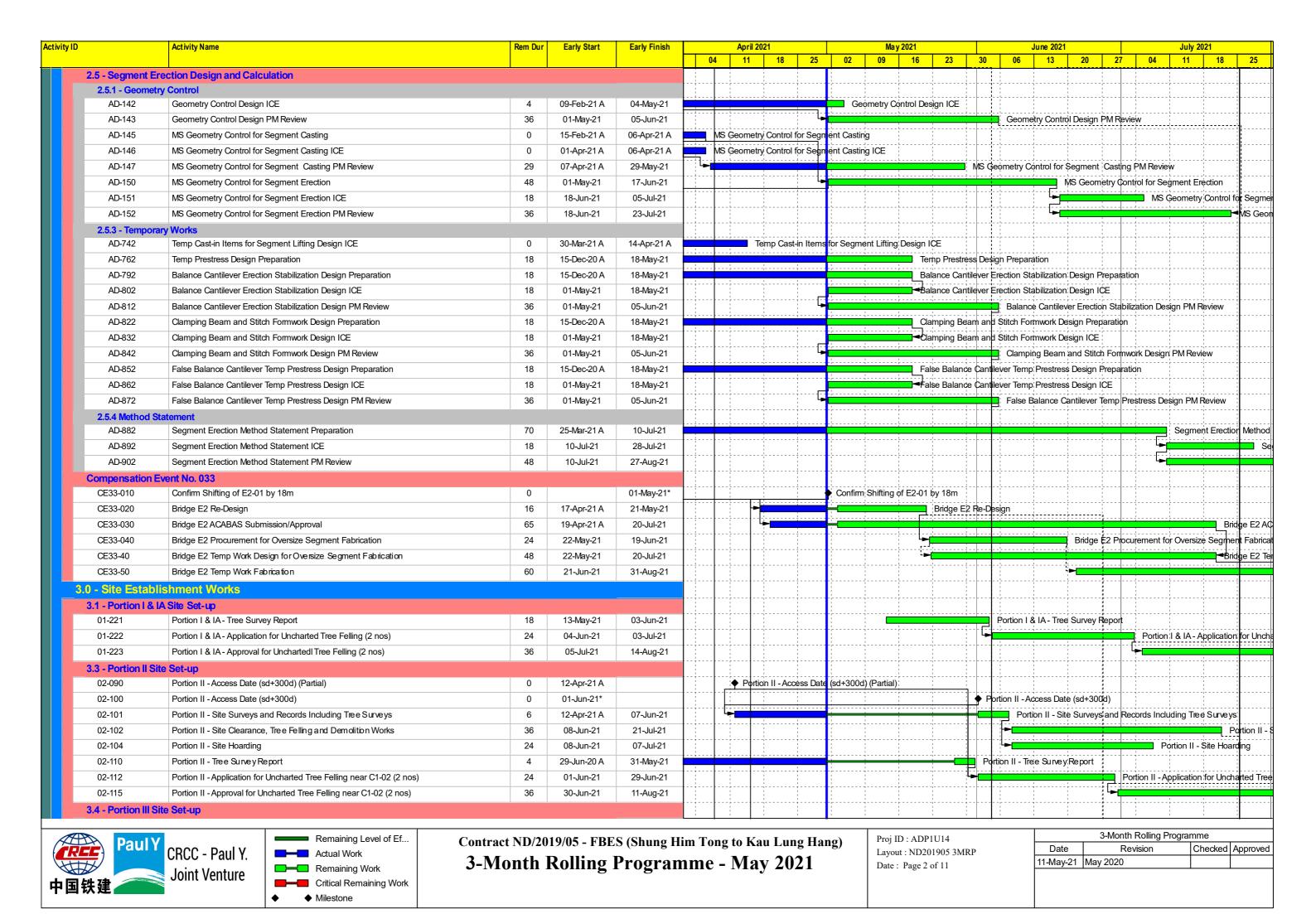


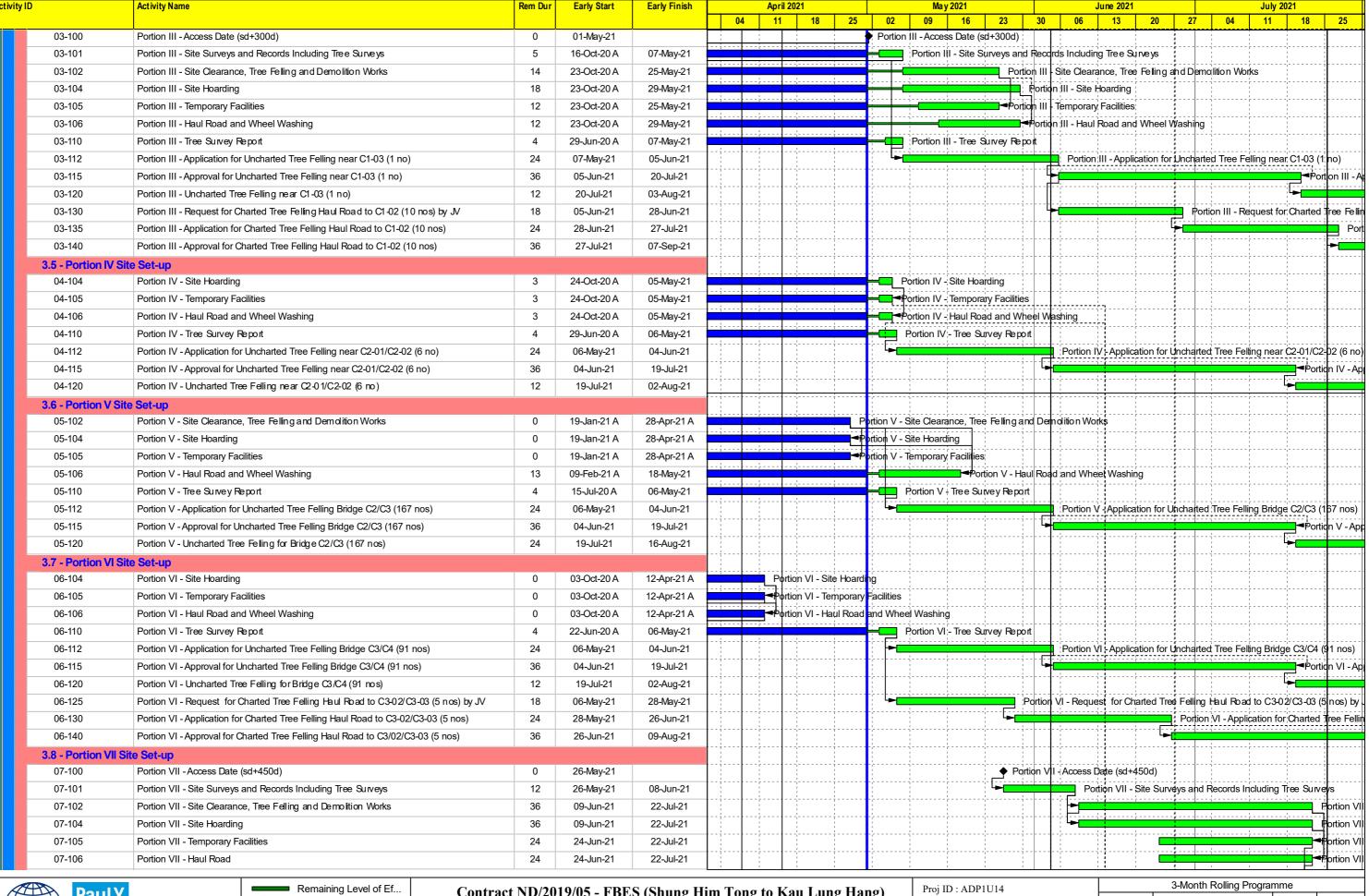
Remaining Level of Ef...
Actual Work
Remaining Work
Critical Remaining Work
Milestone

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

Layout: ND201905 3MRP Date: Page 1 of 11

3-Ivionth Rolling Programme									
Date	Revision	Checked	Approved						
11 - May-21	May 2020								



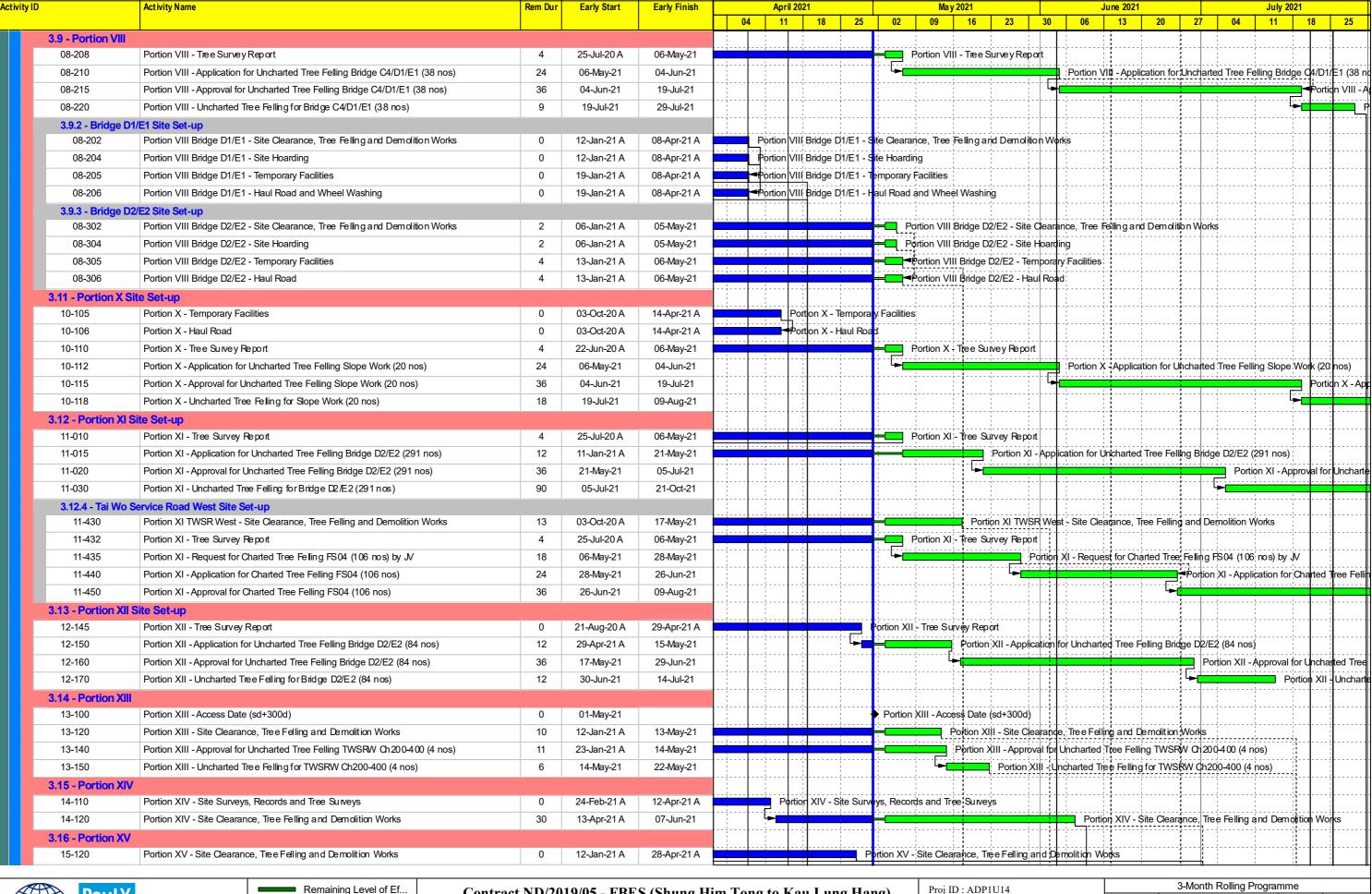






Contract ND/2019/05 - FBES (Shung Him Tong to Kau Lung Hang)
3-Month Rolling Programme - May 2021

Proj ID : ADP1U14 Layout : ND201905 3MRP Date : Page 3 of 11



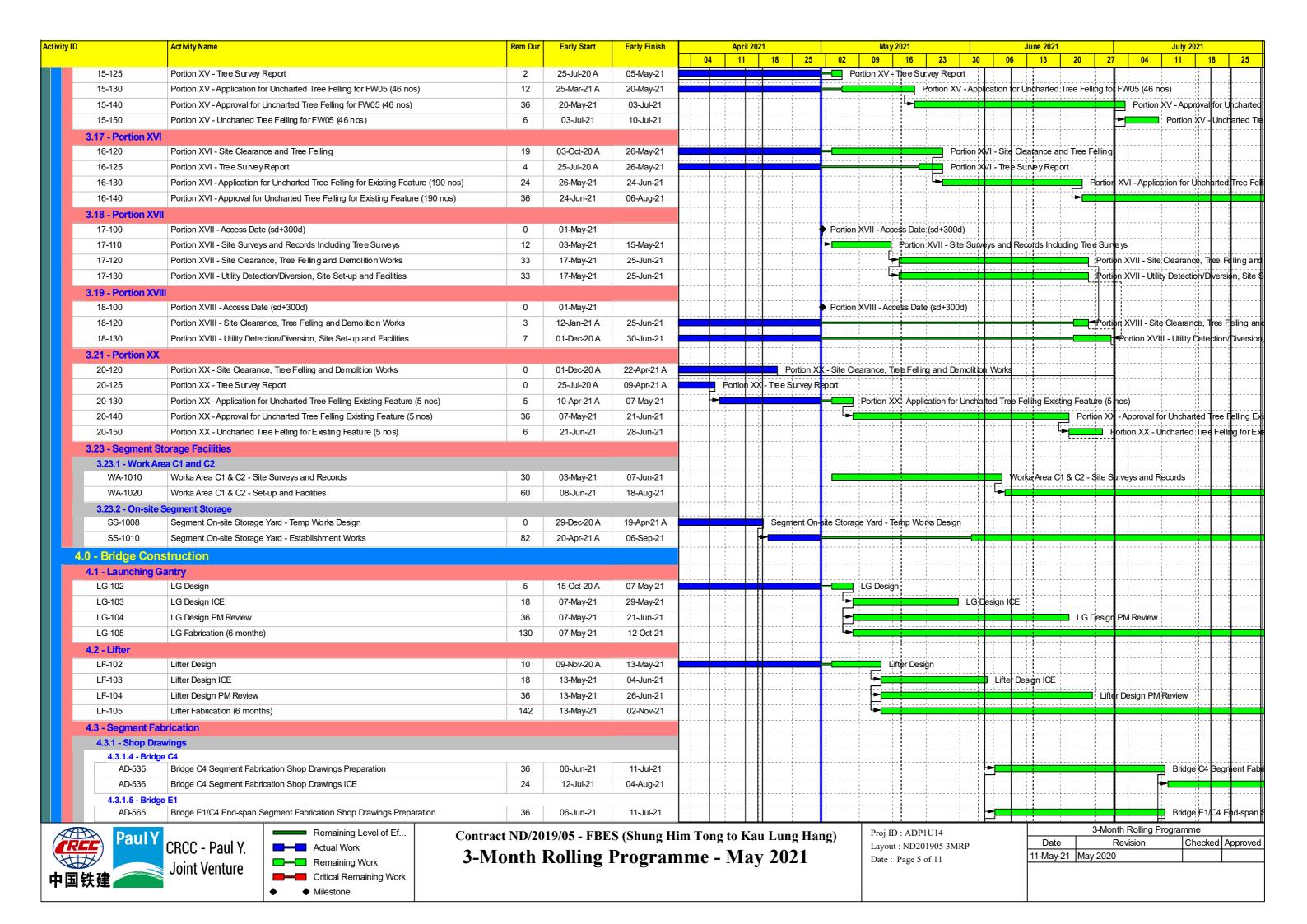


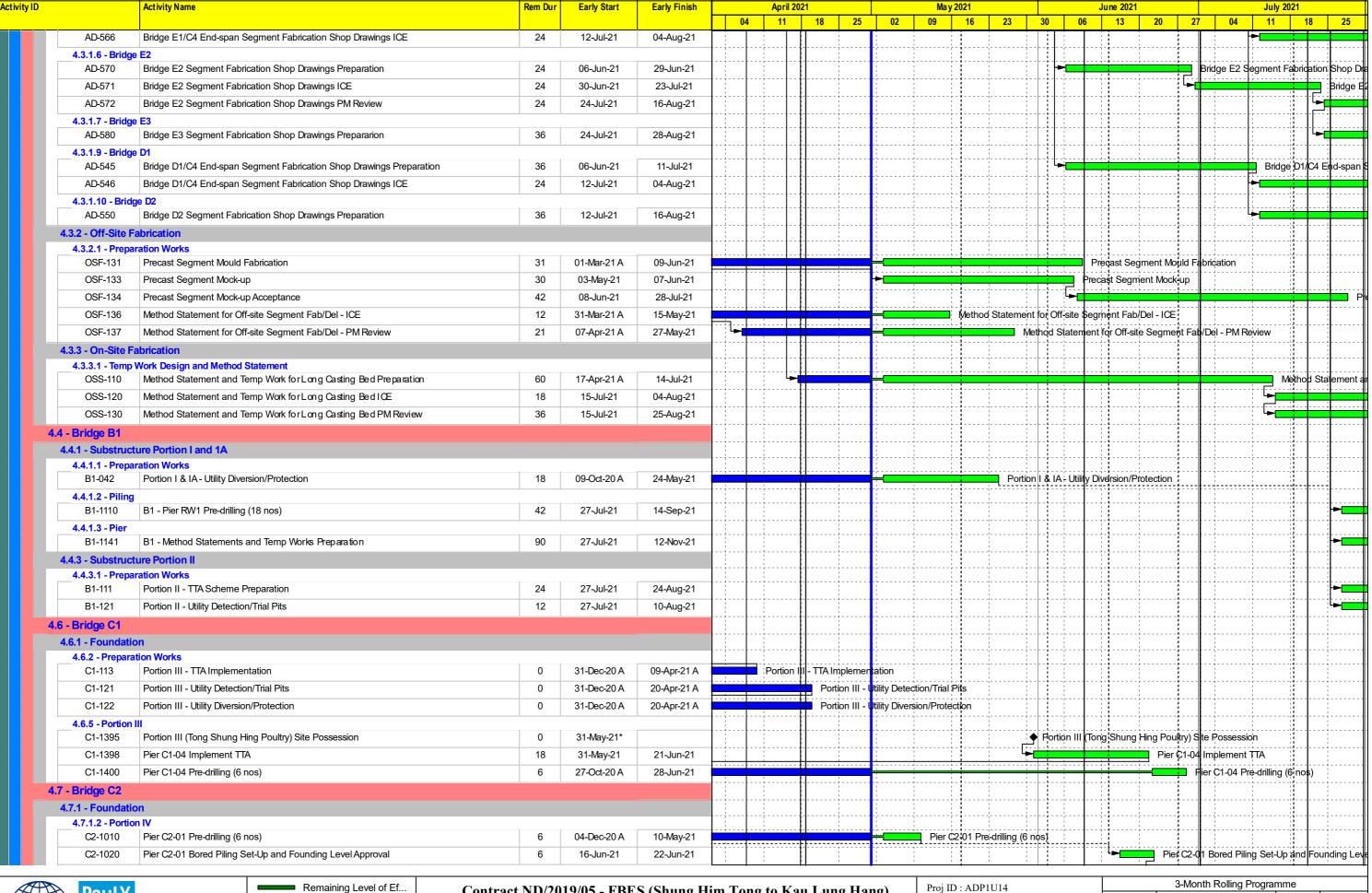


Contract ND/2019/05 - FBES (Shung Him Tong to Kau Lung Hang)
3-Month Rolling Programme - May 2021

Layout: ND201905 3MRP Date: Page 4 of 11

		5-World Rolling Flogramme					
Date		Revision	Checked	Approved			
	11-May-21	1-May-21 May 2020					







Remaining Level of Ef...

Actual Work

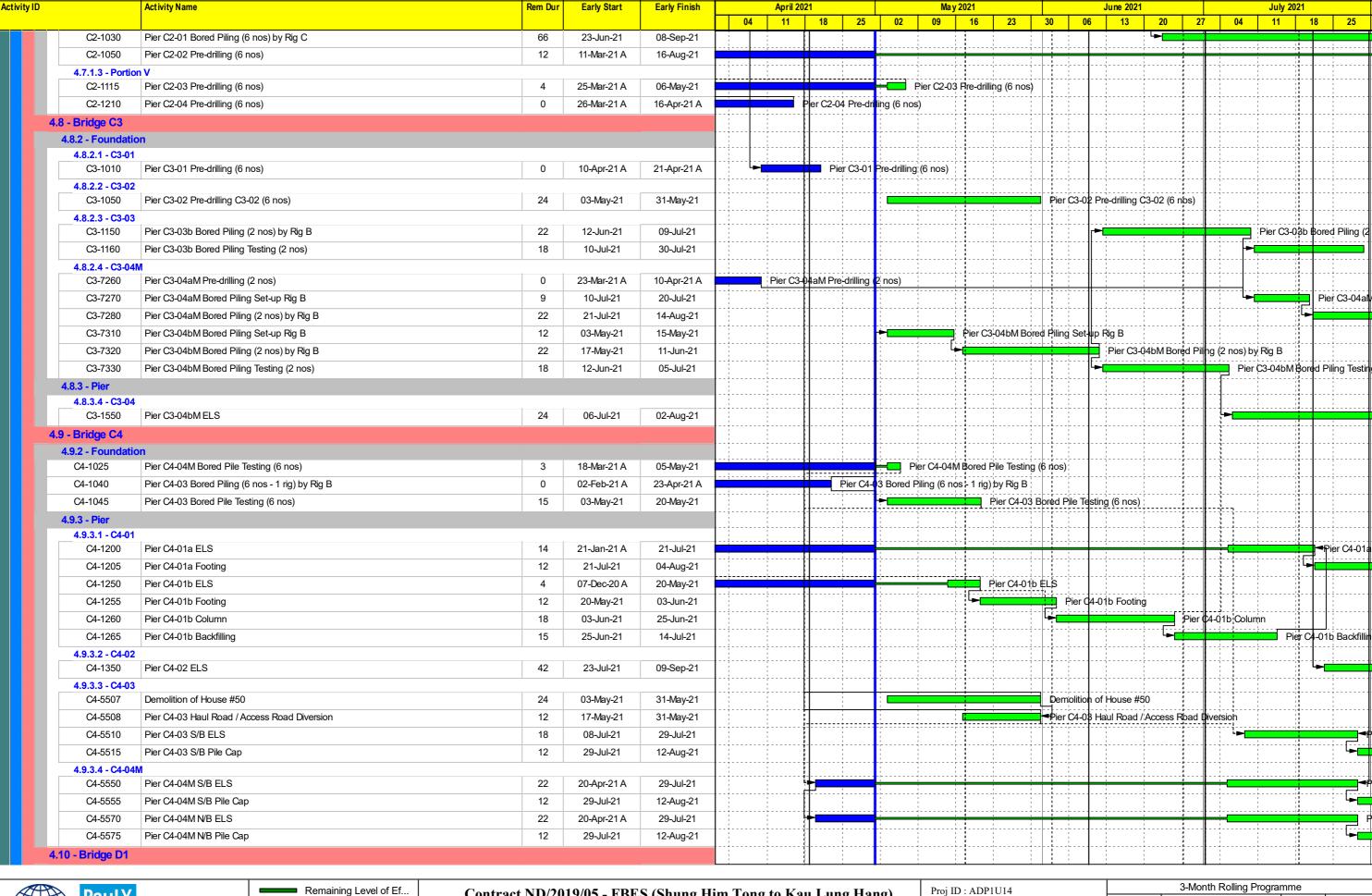
Remaining Work

Critical Remaining Work

Milestone

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

Proj ID : ADP1U14 Layout : ND201905 3MRP Date : Page 6 of 11





Remaining Level of Ef...

Actual Work

Remaining Work

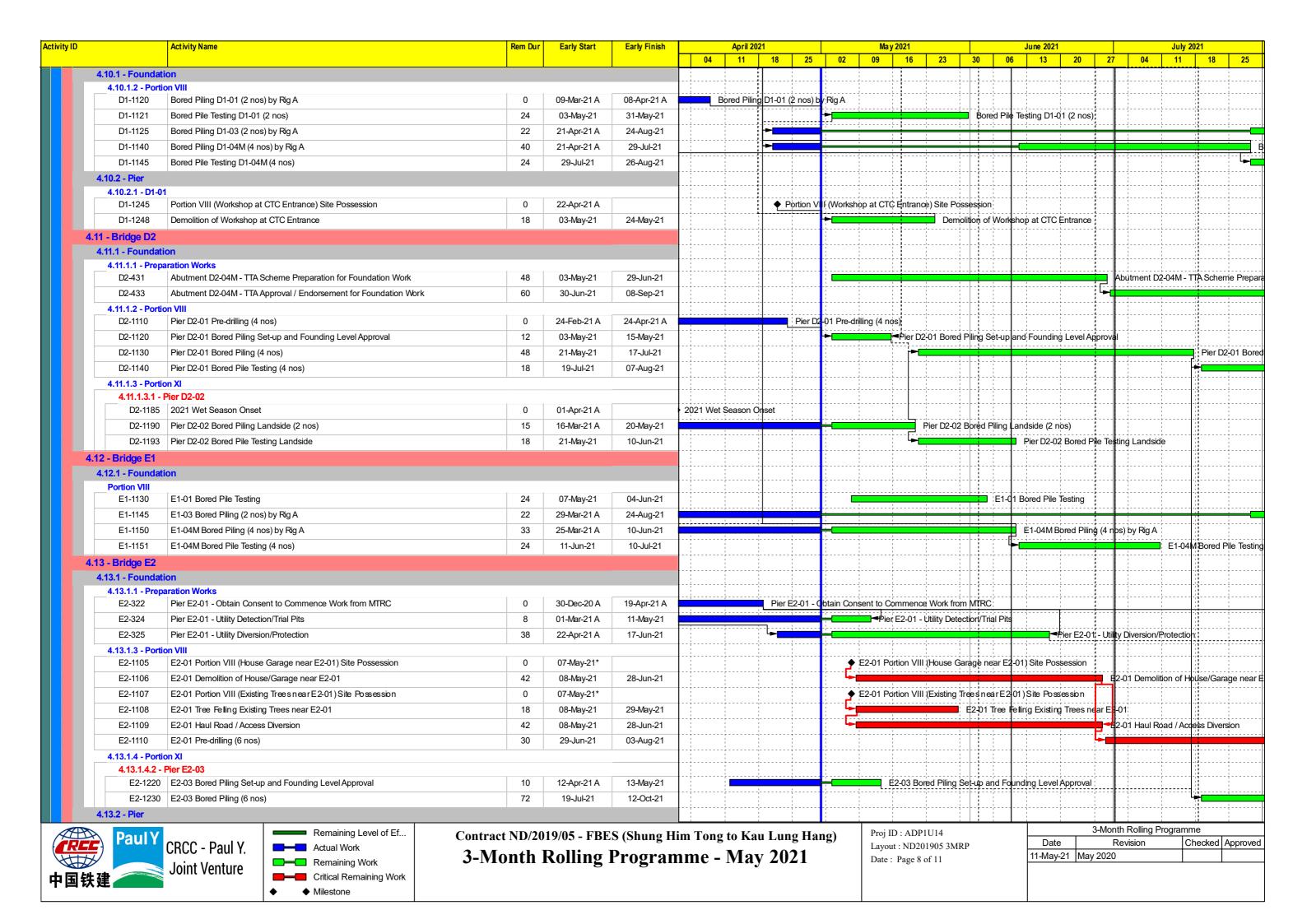
Critical Remaining Work

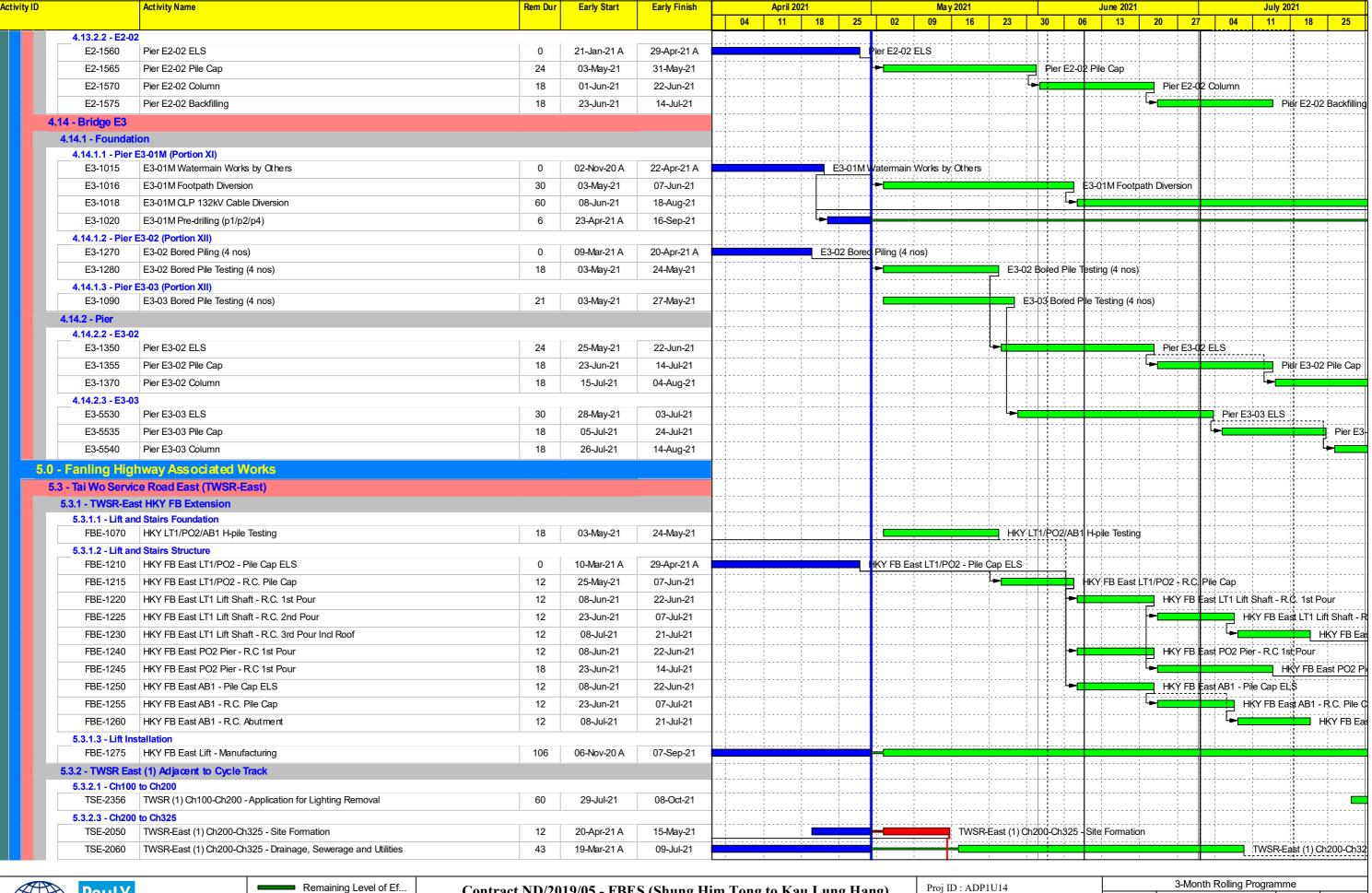
Milestone

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

3-Month Rolling Programme - May 2021

Layout: ND201905 3MRP Date: Page 7 of 11







Remaining Level of Ef...

Actual Work

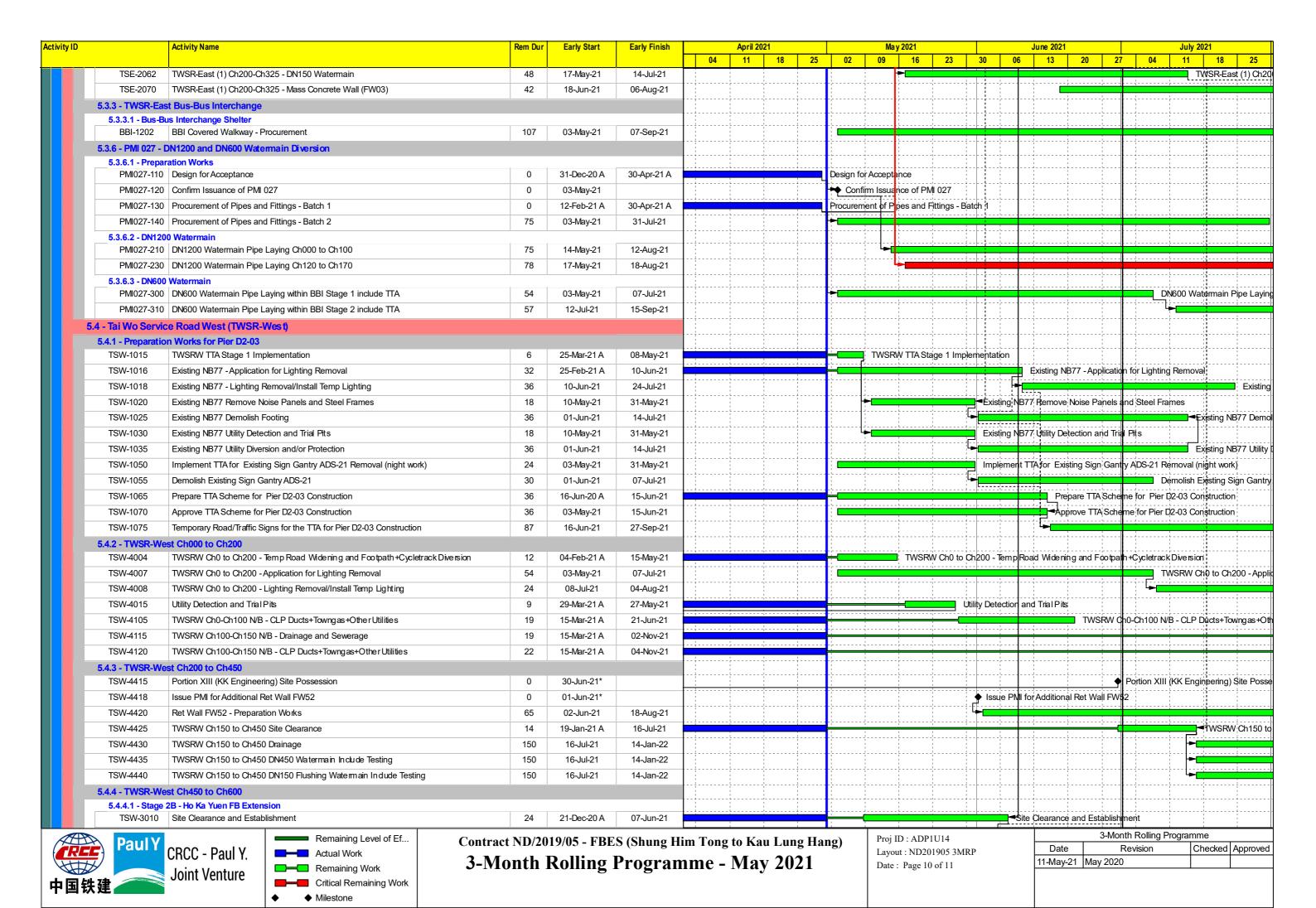
Remaining Work

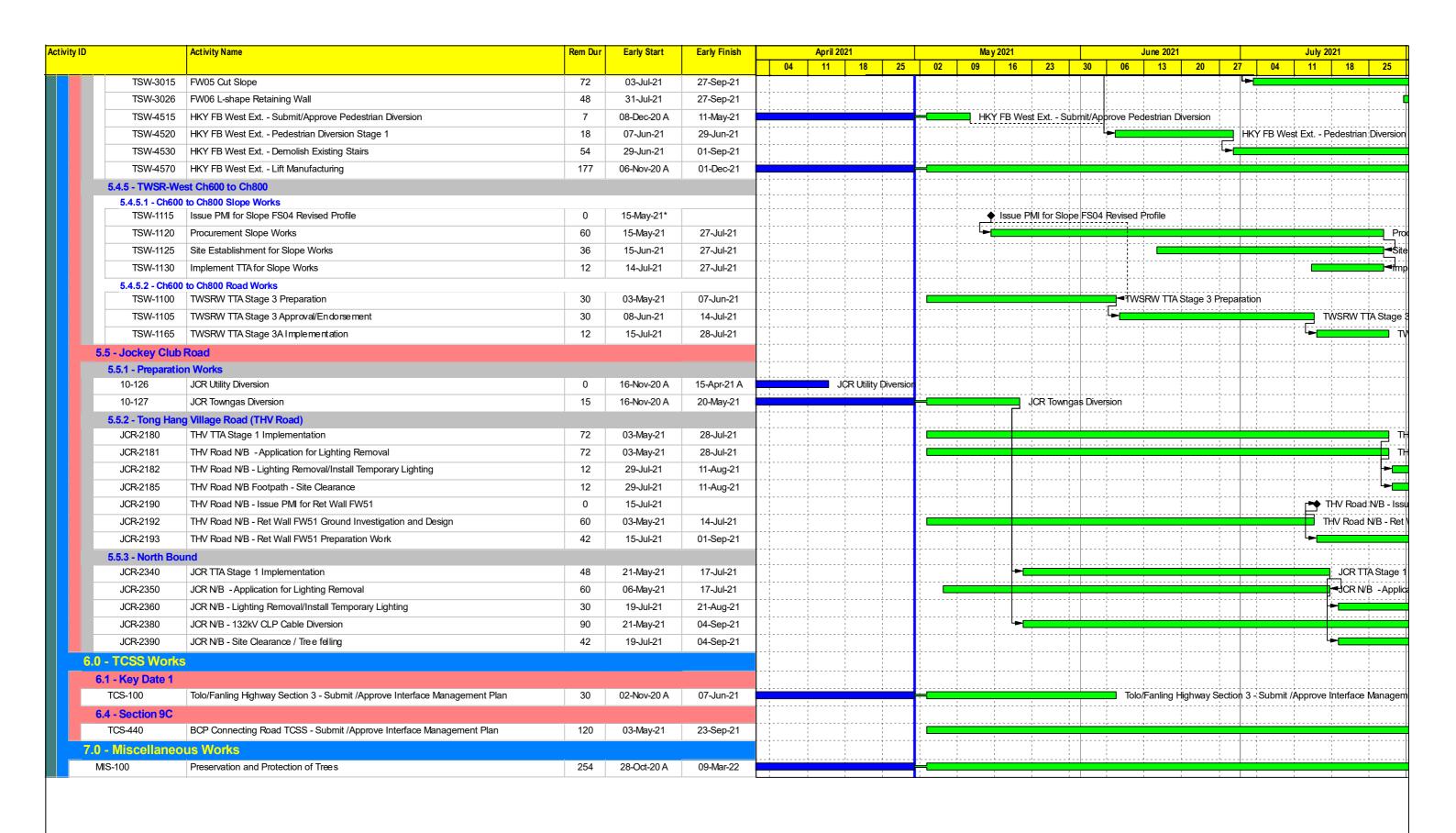
Critical Remaining Work

Milestone

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

Proj ID: ADP1U14 Layout: ND201905 3MRP Date: Page 9 of 11









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

Proj ID : ADP1U14 Layout : ND201905 3MRP Date : Page 11 of 11

	3-Month Rolling Prograi	mme	
Date	Revision	Checked	Approved
11-May-21	May 2020		

Contract No. ND/2019/06
Development of Kwu Tung North and Fanling North New I Ist Quarter 2nd Quarter 2nd Quarter 3rd 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 -9 21 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 D

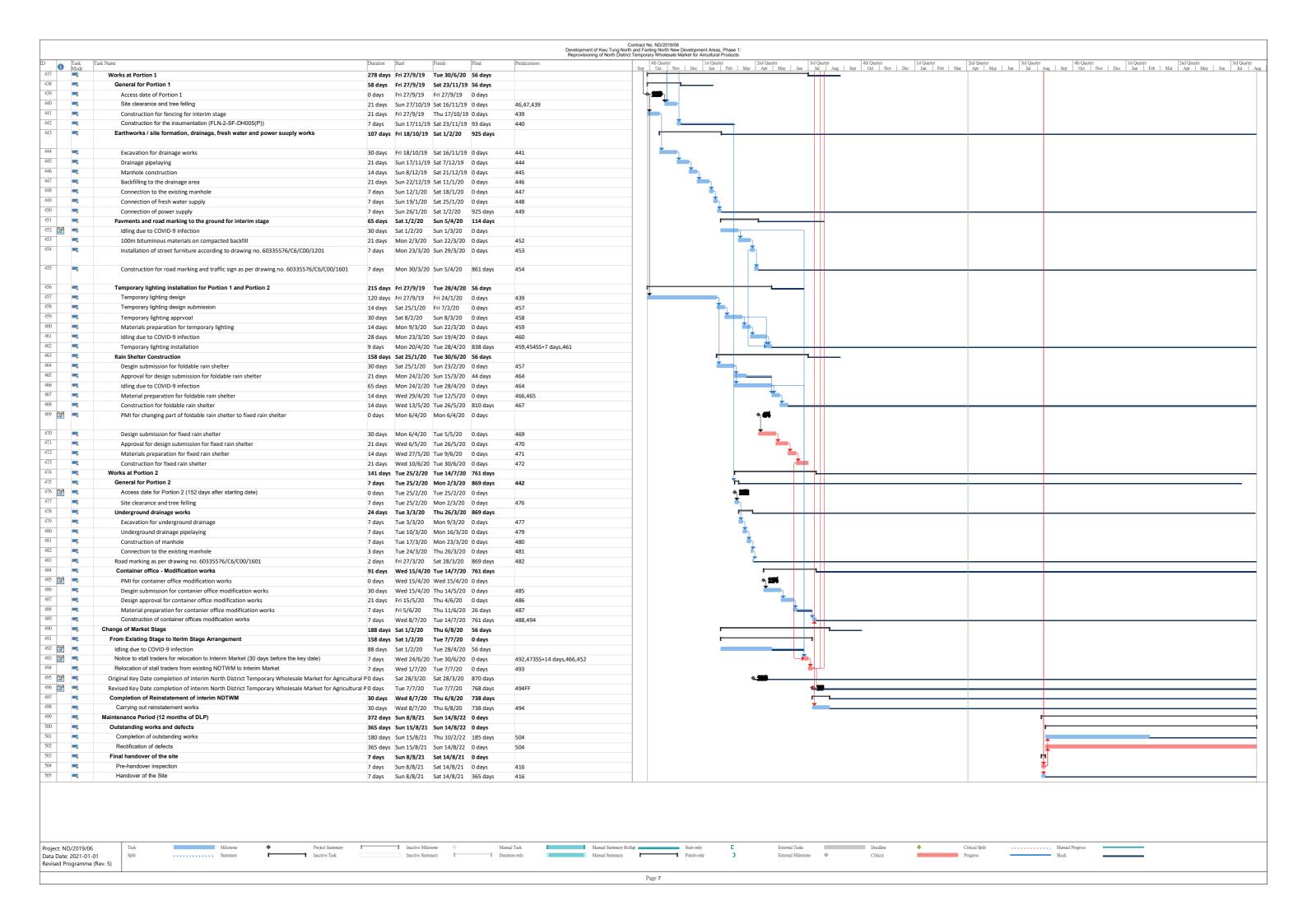
Reprovisioning of North District Towns 1875-1875 Duration 4th Quarter 1st Quarter 1st Quarter 2nd Quarter 2nd Quarter 2nd Quarter 3rd Qu 0 14 days Sun 14/3/21 Sat 27/3/21 505 days -4 External walls and internal walls 135 days Mon 7/9/20 Tue 19/1/21 527 days -External wall block work and finishing 45 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 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 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 -5 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 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

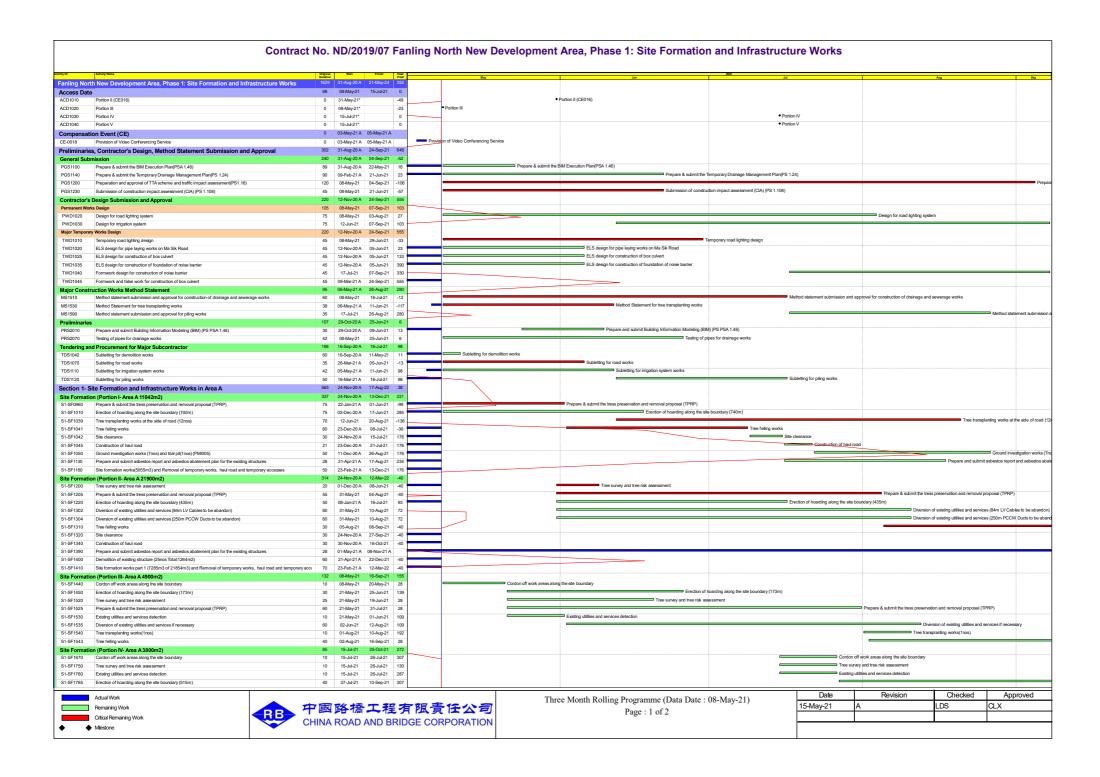
Contract No. ND/2019/06
Development of Kwu Tung North and Fanling North New I 4th Quarter 1st Quarter 2nd Quarter 3rd Quarter 4th Quarter 1st Quarter 2nd Quarter 3rd Quarter 4ug Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug 0 7 days Sun 16/8/20 Sat 22/8/20 0 days 155 -5 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 181 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 -4 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

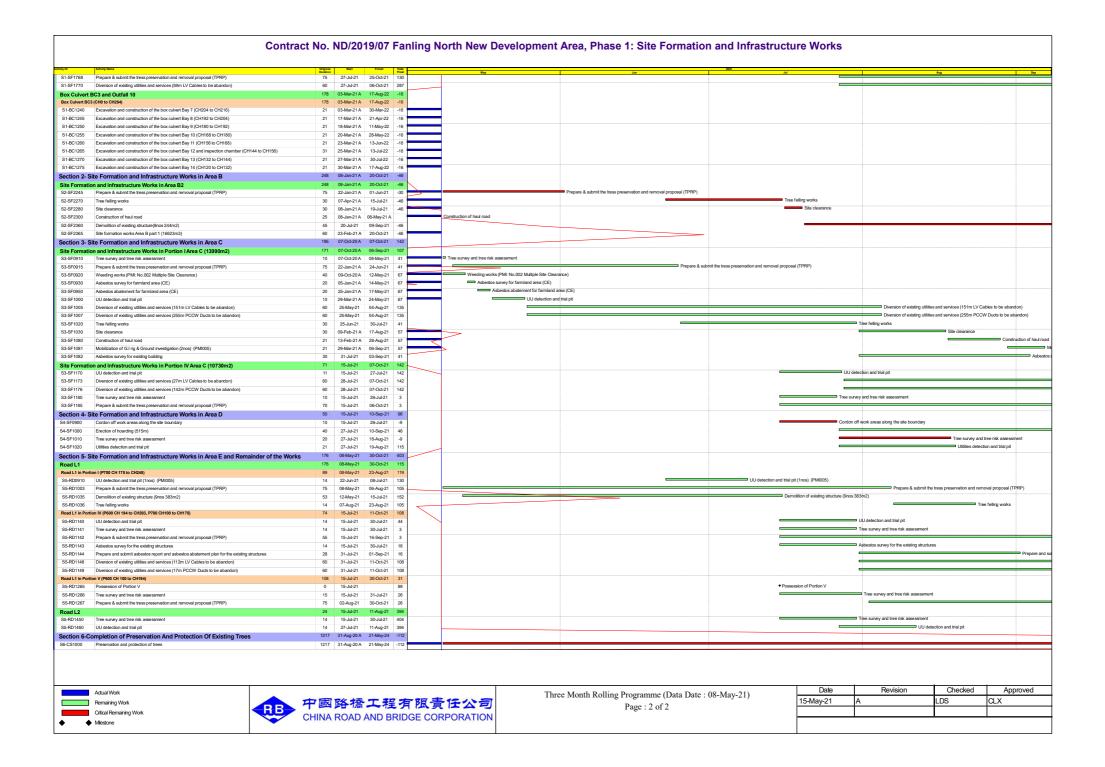
Contract No. ND/2019/06
Development of Kwu Tung North and Fanling North New I er 4th Quarter 1st Quarter 2nd Quarter 3rd Quarter 3rd Quarter 4th Quarter 3rd Quarter 3rd Quarter 4th Quarter 3rd Quarter 2nd Quarter 3rd Duration | 1st Quarter | 2nd Quarter | 3rd Q | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul 0 Area 6 - F23, F24, F25, F26, F27 8 days Tue 2/3/21 Tue 9/3/21 28 days 214SS+130 days,225 233 Installation for steel frame and truss 90 days Sat 16/1/21 Thu 15/4/21 0 days 234 -Area 1 - F5, F4, F3, F11, F10, F9 9 days Sat 16/1/21 Sun 24/1/21 0 days 215SS+30 days.227 235 -5 Area 2 - F17, F16, F28 Mon 25/1/21 Fri 29/1/21 2 days 234,228,215SS+45 days 236 Fri 5/2/21 Sat 13/2/21 0 days 235,229,215SS+60 days Area 3 -F1, F2, F6, F7, F8 9 days Area 4 -F12, F13, F14, F15 7 days Sat 20/2/21 Fri 26/2/21 0 days 236,230,215SS+75 days 238 Area 5 - F18, F19, F20, F21, F22 9 days Sun 7/3/21 Mon 15/3/21 0 days 237.231.215SS+90 days Area 6 - F23 F24 F25 F26 F27 9 days Wed 7/4/21 Thu 15/4/21 0 days 238 232 215FF+10 days Installation for bracing and secondary steel 100 days Wed 27/1/21 Thu 6/5/21 57 days 241 234,216SS+30 days Area 1 - 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) Page 4

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Development of Kwu Tung North and Fanling North New I Duration 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 -5 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 60 days Wed 26/8/20 Sat 24/10/20 0 days TTA submission for temporary diversion of public footpath near Ma Wat River 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 -5 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

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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 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 -5 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







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
Orthophosphate in mg/L (depth averaged)*^	95 percentile of baseline data or 120% of upstream control	99 percentile of baseline data or 130% of upstream control

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 20mg/L.

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

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

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

Parameters	Action Level	Limit Level						
River Beas (SYR-	River Beas (SYR-IS1)							
DO in mg/L (depth average) [1]	SYR-IS1: <u>6.1</u> ^[2]	SYR-IS1: <u>6.0</u> ^[2]						
SS in mg/L (depth	SYR-IS1: <u>75.6</u>	SYR-IS1: <u>83.1</u>						
average) [1]	or 120% of upstream control station,	or 130% of upstream control station,						
	whichever is higher ^[3]	whichever is higher ^[3]						
Turbidity in NTU	SYR-IS1: <u>48.2</u>	SYR-IS1: <u>50.9</u>						
(depth average) [1]	or 120% of upstream control station,	or 130% of upstream control station,						
	whichever is higher ^[3]	whichever is higher ^[3]						
Arsenic in µg/L	SYR-IS1: <u>5.4</u>							
(depth average) [2]	or 120% of upstream control station,	SYR-IS1: 50 μg/L ^[4]						
	whichever is higher [3]							
River Indus and n	ear Siu Hang San Tsuen Stream (NT							
DO in mg/L	NTR-IS1: <u>5.8</u> ^[2]	NTR-IS1: <u>5.7</u> ^[2]						
(depth average) [1]	SHST-IS2: <u>7.0</u> ^[2]	SHST-IS2: <u>6.8</u> ^[2]						
	MWR-IS3: <u>8.6</u> ^[2]	MWR-IS3: <u>8.5</u> ^[2]						
SS in mg/L (depth	NTR-IS1: <u>8.9</u>	NTR-IS1: <u>9.0</u>						
average) [1]	SHST-IS2: <u>4.0</u>	SHST-IS2: <u>4.0</u>						
	MWR-IS3: <u>14.0</u>	MWR-IS3: <u>14.4</u>						
	or 120% of upstream control station,	or 130% of upstream control station,						
	whichever is higher ^[3]	whichever is higher ^[3]						
Turbidity in NTU	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>						
	MWR-IS3: <u>10.1</u>	MWR-IS3: <u>11.1</u>						
	or 120% of upstream control station,	or 130% of upstream control station,						
	whichever is higher ^[3]	whichever is higher ^[3]						

Remarks:

- [1] "Depth-averaged" is calculated by taking the arithmetic mean of reading of all three depths.
- [2] For DO, non-compliance occurs when monitoring results is lower than the limits.
- [3] For turbidity, SS and arsenic, non-compliance occurs when monitoring results is larger than the limits.
- [4] There is no local criterion for heavy metal. Limit Level of heavy metal is adopted from Category III Surface Water Quality Standards (GB3838-2002) (地表水環境質量標準), which applicable for Shenzhen River on mainland side.
- [5] The Action and Limit Levels for the Additional Water Quality Monitoring is subject to the agreement with the authority.

⁽¹⁾ The Action and Limit Levels for Water Quality Monitoring and the Summary of Baseline Water Quality Monitoring Results are according to pre-construction ET's Updated EM&A Manual and Baseline Water Quality Monitoring Report (KTN & FLN NDA).

Table B-5 Action and Limit Levels for Ambient Arsenic Monitoring

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

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

Tuble D 0	retion level in the event of El G 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 /	7.5	2.0			
dilapidated buildings#	7.5	3.0			
Declared monuments/		2.0			
Historical structures	2	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

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

			Monthly EM&A Report
	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.
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,
	_		adjustments to
			infrastructure
			design).
		•	

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

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

Action Level	Response	Limit Level	Response
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.

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

Table B-8.3 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	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.		

^{*} 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.: 35072A Date of Issue: 2021-05-03

Date Received: 2021-04-29

Date Tested: 2021-04-30
Date Completed: 2021-05-03
Next Due Date: 2021-07-02

Page: 1 of 1

ATTN:

Ms. Meiling Tang

Certificate of Calibration

Item for Calibration:

Description : Dust Monitor

Manufacturer : Met One Instruments
Model No. : AEROCET-831

Serial No. : X23808 Flow rate : 0.1 cfm

Zero Count Test : 0 count per 1 minute

Equipment No. : WA-01-02

Test Conditions:

Room Temperature : 17-22 degree Celsius

Relative Humidity : 40-70%

Test Specifications & Methodology:

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

Results:

Correlation Factor (CF) 1.171

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)

Room 1808, Technology Park,

18 On Lai Street,

Shatin, NT, Hong Kong

Test Report No.: 35072B
Date of Issue: 2021-05-03
Date Received: 2021-04-29
Date Tested: 2021-04-30
Date Completed: 2021-05-03
Next Due Date: 2021-07-02

Page:

1 of 1

ATTN:

Ms. Meiling Tang

Certificate of Calibration

Item for Calibration:

Description : Dust Monitor

Manufacturer : Met One Instruments
Model No. : AEROCET-831

Serial No. : X23809 Flow rate : 0.1 cfm

Zero Count Test : 0 count per 1 minute

Equipment No. : WA-01-03

Test Conditions:

Room Temperature : 17-22 degree Celsius

Relative Humidity : 40-70%

Test Specifications & Methodology:

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

Results:

Correlation Factor (CF) 1.099

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.: 35071 Date of Issue: 2021-04-26 Date Received: 2021-04-23 Date Tested: 2021-04-24 2021-04-26 Date Completed: Next Due Date: 2021-06-25

1 of 1 Page:

ATTN:

Ms. Meiling Tang

Certificate of Calibration

Item for Calibration:

Description : Dust Monitor

Manufacturer : Met One Instruments Model No. : AEROCET-831

Serial No. : X24476 Flow rate : 0.1 cfm

: 0 count per 1 minute Zero Count Test

Equipment No. : WA-01-05

Test Conditions:

Room Temperature : 17-22 degree Celsius

Relative Humidity : 40-70%

Test Specifications & Methodology:

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

Results:

Correlation Factor (CF) 1.070

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.: 35071A Date of Issue: 2021-04-26 Date Received: 2021-04-23 Date Tested: 2021-04-24 Date Completed: 2021-04-26 Next Due Date: 2021-06-25

Page: 1 of 1

ATTN:

Ms. Meiling Tang

Certificate of Calibration

Item for Calibration:

: Dust Monitor Description

: Met One Instruments Manufacturer : AEROCET-831 Model No.

: X24477 Serial No. : 0.1 cfm Flow rate

Zero Count Test : 0 count per 1 minute

: WA-01-06 Equipment No.

Test Conditions:

Room Temperature : 17-22 degree Celsius

Relative Humidity : 40-70%

Test Specifications & Methodology:

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

Results:

Correlation Factor (CF) 1.134 ***************************

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRICK TSE

General Manager



						File No.	WMA20002/20/	0005
Station	FLN-DMS1 - Scattere	ed Village Houses Nor	th of Proposed Potentia	ıl Ecopark		Operator:	WK	
Date:	22-Mar-21				Next	Due Date:	21-May-21	
Equipment No.:	WA-12-20		•			Serial No.	3223	hand de Art and the Art and th
		North National Action	Ambient	Condition	119			<u> </u>
Temperat	ure, Ta (K)	291.7	Pressure, Pa			769	0.0	
remperat	uic, ia (ic)	271.7	11035010, 11	(IIIIII 1g)		703	,,,	
			Orifice Transfer Sta	ındard Informat	ion		e in the Control	
Seri	al No.	0993	Slope, mc	0.0569	Intercept,		-0.01398	
Last Calib	ration Date:	28-Jan-21		me x Qstd + 1	$bc = [\Delta H \times (Pa/76)]$	60) x (298/T	'a)] ^{1/2}	
Next Calib	ration Date:	28-Jan-22		$Qstd = \{ [\Delta H$	x (Pa/760) x (298	3/Ta)] ^{1/2} -bc}	} / mc	
1	ndi da da segn	g day ing terapakan k	Calibration of	TSP Sampler		estraja tetele.		***
Calibration		Orf	ice			Н	/S	
Point	ΔH (orifice), in. of water	[ΔH x (Pa/76	50) x (298/Ta)] ^{1/2}	Qstd (CFM) X - axis	ΔW (HVS), in. of water	[ΔW x (Pa	/760) x (298/Ta)] ^{1/2}	Y-axis
1	14.5	3.87		68.35	10.3	3.26		
2	10.7		3.33	58.75	8.1		2.90	
3	7.8		2.84	50.20	5.7	2.43		
4	5.2		2,32	41.03	4.3	2.11		
5	3.4		1.88	33.22	3.0		1.76	
By Linear Regr Slope , mw =	ression of Y on X			Intercent by:	0,3247	ı		
			2002	Intercept, bw	0.3247			
	coefficient* =		9982		•			
"IT Correlation C	Coefficient < 0.990, o	check and recambrat	е,					
The proof of the			Set Point (Calculation	a see tenangera	41 17 17 14 J	A PHONE HOLD	
From the TSP Fi	eld Calibration Curv	e, take Qstd = 43 C	FM ·			-		
From the Regres	sion Equation, the "	Y" value according	to					
		mw x	$Qstd + bw = [\Delta W]$	x (Pa/760) x (298	/Ta) '''			
Therefo	re. Set Point: W = (mw x Ostd + bw)2	x (760 / Pa) x (Ta	/298)=	4.58			
11101010	,	min it Quita : 011)	(1001 x / 1 (x	2,0,	7.00			
Remarks:								
Garden II	1. 12.0	g:	<i>Y</i> .			Date:	22/3/2021	
Conducted by:	WK Tang	Signature:	Κωι	210		Date:	72/3/202	. /

						File No.	W MA20002/20/0000
Station	FLN-DMS1 - Scatter	ed Village Houses Nor	h of Proposed Potentia	l Ecopark		Operator:	
Date:	21-May-21				Next	Due Date:	20-Jul-21
Equipment No.:	: WA-12-20					Serial No.	3223
			Ambient (Condition			
Tempera	ture, Ta (K)	304.5	Pressure, Pa	(mmHg)		759.	1
	1,000						
			Drifice Transfer Sta	ndard Informat	ion		· · · · · · · · · · · · · · · · · · ·
Ser	ial No.	0993	Slope, mc	0.0569	Intercept,		-0.01398
Last Calil	bration Date:	28-Jan-21		me x Qstd+1	be = [ΔH x (Pa/76	60) x (298/Ta)] ^{1/2}
Next Cali	bration Date:	28-Jan-22		Qstd = {[ΔII	x (Pa/760) x (298	3/Ta)] ^{1/2} -bc}	/ me
		····					
			Calibration of	TSP Sampler			
Calibration		Orf	ice			HV	Ŝ
Point	ΔH (orifice), in. of water	[ΔH x (Pa/76	0) x (298/Ta)] ^{1/2}	Qstd (CFM) X - axis	ΔW (HVS), in. of water	[ΔW x (Pa/7	760) x (298/Ta)] ^{1/2} Y-a x
1	13.5		3.63	64.11	10.2		3.16
2	10.8		3.25	57.37	8.1		2.81
3	7.7		2.74		5.6		2.34
4	5.1		2.23		4.0		1.98
5	3.6	1.88		33.23	3,1		1.74
Slope, mw = Correlation	n coefficient* =Coefficient < 0.990,		9974 e.	Intercept, bw	0.1667		
		111-0000-00	Set Point C	alculation			
From the TSP F	Field Calibration Cur	ve. take Ostd = 43 C		arculation			
	ssion Equation, the "						
Tosh the Regie	ssion Equation, the	1 Value according					
		mw x	$Qstd + bw = [\Delta W]$	x (Pa/760) x (298	B/Ta)] ^{1/2}		
	a a b t w	0.1.1.2	(200 LP) (7)	(200.) —			
Theret	fore, Set Point; W = (mw x Qstd + bw)"	x (760 / Pa) x (Ta	(298)=	4.73		
	The state of the s			MARKET MA			
Remarks:							
. communo:							
Conducted by	IFE MAN MEZ : Ho Ka dun	- Sionature	ho			Date:	21-5-2021
Jonation oy.	11/2	Dibiatato.		Kn	•		



File No. WMA20002/17/0005

Station	FLN-DMS3 - Hou	ise near Tong Hang				Operator:	WK	
Date:	31-Mar-21				Next	Due Date:	30-May-21	
Equipment No.:	WA-12-17					Serial No.	3218	
		, , , , , , , , , , , , , , , , , , ,						
			Ambient (Condition				
Temperatu	ıre, Ta (K)	300	Pressure, Pa	ı (mmHg)		757	.9	
					 			
			Orifice Transfer Sta			11 (1/4)		
Serial No. 0993		0993	Slope, mc	0.0569	Intercept,		-0.01398	
Last Calibr	ation Date:	28-Jan-21			$bc = [\Delta H \times (Pa/7)]$			
Next Calibi	ration Date:	28-Jan-22		$Qstd = \{ [\Delta H] \}$	x (Pa/760) x (298	3/Ta)]** -bc}	/ mc	
		·		1.0		4 14 14 5		
A September			Calibration of	TSP Sampler	1 2 4	111	·	
Calibration Point	ΔΗ (orifice), in, of water	Orf [ΔH x (Pa/70	ice 50) x (298/Ta)] ^{1/2}	Qstd (CFM) X - axis	ΔW (HVS), in.	HV [ΔW x (Pa/	760) x (298/Ta)] ^{1/2} Y-axis	
			3.83	67.56	9.7	3.10		
2	14.8	1	3,32	58.54	7.8		2.78	
3	9.7			54.74	6.6		2.56	
4	6.2		3.10 2.48		4.1	2.02		
5	3.4		1.84	43.81 32,51	2,4	1.54		
	0.0456 coefficient* =	0. check and recalibrate	9981 e.	Intercept, bw	0.0510)		
gas nill in		The second secon	Set Point C	Calculation		1 1 1 Hg		
From the TSP Fi	eld Calibration Cu	rve, take Qstd = 43 C		nktvi -				
From the Regress	sion Equation, the	"Y" value according	to					
Ü	• •				1/2			
		ntw :	$\mathbf{v} \cdot \mathbf{Q} \mathbf{s} \mathbf{t} \mathbf{d} + \mathbf{b} \mathbf{w} = [\Delta \mathbf{W}]$	x (Pa/760) x (298	3/Ta) ""			
Therefo.	re, Set Point; W =	$(mw \times Qstd + bw)^2$	x (760 / Pa) x (Ta	/298)=	4.09			
Remarks:								
Conducted by: Checked by:	WK 7AM LED MAN HER	Signature: > Signature:	k	ven ki	-	Date: _	31 /3/2021	

						File No.	WMA20002/17/	0006
Station	FLN-DMS3 - Hou	ise near Tong Hang				Operator:	HL	
Date:	31-May-21				Next	Due Date:		
Equipment No.: WA-12-17						Serial No.		
	~~~~~		Ambient (	Condition				
Temperati	ure, Ta (K)	304.2	Pressure, Pa			755	. 6	
romporan	10, 14 (11)	30 1.2	11033010, 14	(пинту)		133		
	***************************************	(	Prifice Transfer Sta	ndard Informat	ion		17-1111-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	
Seria	ıl No.	0993	Slope, mc	0.0569	Intercept,		-0.01398	
Last Calib	ration Date:	28-Jan-21			$bc = [\Delta H \times (Pa/7)]$			
Next Calib	ration Date:	28-Jan-22		$\mathbf{Qstd} = \{ [\Delta \mathbf{H}$	x (Pa/760) x (298	3/Ta)] ^{1/2} -bc}	/ me	
			Calibration of	TSP Sampler			7947	
Calibration	******	Orfi	ce			HV	'S	
Point	ΔH (orifice), in. of water	[ΔH x (Pa/76	0) x (298/Γa)] ^{1/2}	Qstd (CFM) X - axis	ΔW (HVS), in. of water	[ΔW x (Pa/	760) x (298/Ta)] ^{1/2}	Y-axis
1	14.8	3.80		66.99	9.8		3.09	
2	11.7	3	3.38	59,59	7.7		2.74	
3	9.4	3	3.03	53,44	6.4		2.50	
4	6.5		2.52	44.48	4.5	2.09		
5	3.4	. 1	1.82	32.24	2.3		1.50	
	0.0454 coefficient* =	0.9 check and recalibrate	995 :.	Intercept, bw	0.0497			
			Set Point C	alculation				
From the TSP Fie	eld Calibration Curv	ve, take Qstd = 43 Cl						
		Y" value according to						
			$Qstd + bw = [\Delta W]_3$		/Ta)] ^{1/2} 4.12			
Remarks:		****						
Conducted by: பூ Checked by: _	EE MM HEL flo Ka Chu	Signature:	he.'	) L		Date:	31-5-20= 31/5/24	<u>-                                    </u>



File No. WMA20002/03/0005

Operator: KC

Next Due Date: 7-Jun-21

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

KTN-DMS4A - Temporary Structure at Pak Shek Au

Station

Date:

8-Apr-21

Equipment No.:	WA-11-03					Serial No.	32	225
				Ambient Condition	)n			
Temperature	e, Ta (K)	2	96	Pressure, Pa			764.1	Outstanding of Professional Company Company (co.
			Orifice T	ansfer Standard	Information			
Serial 1			93	Slope, mc	0.0569	Interce	ept, bc	-0.01398
Last Calibrat	tion Date:	28-Ja	an-21	Next Calibra	tion Date:		28-Jan-22	
				i i épene				
	Calibration of RSP Sampler ORIFICE						HVS	
	ΔH(orifice), in. of water	Del Hc ⁽¹⁾	Qstd ⁽²⁾ (CFM)	Qa ⁽³⁾ (CFM)  X -axis	Qa ⁽³⁾ (m ³ /min) <b>X -axis</b>	ΔW (HVS), in. of water	[ΔW x (Ta	+ 30) / Pa] ^{1/2}
1	8.9	9.01	53.01	52.37	1.48	9.4		00
2	7	7.09	47.04	46.48	1.32	8.6		92
3	5.4	5.47	41.35	40.85	1.16	7.3	1.	76
4	3.6	3.64	33.81	33.40	0.95	6	1.	60
5	2.4	2.43	27.65	27.31	0.77	4.9	1.	45
By Linear Regression of Y on X  Slope, mw = 0.0226 Intercept, bw = 0.8384  Correlation coefficient* = 0.9970  (1) DEL Hc = ΔH x (Pa/760*298/Ta)  (2) Qstd = {[ΔH x (Pa/760) x (298/Ta)] ^{1/2} - bc}/mc (m3/min)  (3) Qa = Qstd x (Ta / Pa) x (760 / 298) (m3/min)  *If Correlation Coefficient < 0.990, check and recalibrate.								
				Set Point Calculat	ion			
Set Point Flow R	Rate SFR			20130000	104			
SFR = 1.13 x		(a/298) =		39.45				
Sampler Well - T	• •				7.03			
Remarks:				7				
Conducted by: Checked by:	Den LDE IMAN HT	•	Signature: Signature:	Uli h	vi		Date: Date:	8/4/2021



#### 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 Tabula	ion		Marie 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Vstd	Qstd	$\sqrt{\Delta H \left(\frac{Pa}{Pstd}\right) \left(\frac{Tstd}{Ta}\right)}$	V-	Qa (v vi-)	√∆H(Ta/Pa)
(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
	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 rate	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
298.15 °K
760 mm Hg
Key
manometer reading (in H2O)
r manometer reading (mm Hg)
olute temperature (°K)
ometric pressure (mm Hg)

#### 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



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.: 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 : SV30A

Model No. Serial No.

: 24780

Equipment No.

: N-09-05

#### Test conditions:

Room Temperature

: 17-22 degree Celsius

Relative Humidity

: 40-70%

#### Methodology:

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

#### Results:

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

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

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)

RM 1808, Technology Park,

18 On Lai Street,

Shatin, N.T., Hong Kong

Test Report No.:	34875_V1
Date of Issue:	2021-03-05
Date Received:	2021-03-03
Date Tested:	2021-03-03 to
	2021-03-05
Date Completed:	2021-03-05

Miss Mei Ling Tang

Page: 1 of 2

#### **Certificate of Calibration**

#### Item for calibration:

ATTN:

YSI EXO1 Multiparameter Sondes	Equipment No.:	SW-08-17
Manufacturer:	YSI Incorporated, a	Xylem brand
Description:	Model No.	Serial No.
- EXO1 Sonde, 100 meter Depth, 4 Sensor ports	599502-24	16J100878
- EXO Optical DO Sensor, Ti	599100-01	16J100941
- EXO conductivity/Temperature Sensor, Ti	599870	16H100175
- EXO Turbidity Sensor, Ti	599101-01	16J101094
- EXO pH Sensor Assembly, Guarded, Ti	599701	16J101303

#### **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



Website: www.wellab.com.hk

#### **TEST REPORT**

Test Report No.: 34875 V1 Date of Issue: 2021-03-05 Date Received: 2021-03-03 Date Tested: 2021-03-03 to 2021-03-05 Date Completed: 2021-03-05

Page: 2 of 2

#### **Certificate of Calibration**

#### **Results:**

#### Conductivity performance checking

	Instrument Readings (μS/cm)	Accetance Criteria	Comment
KCl stock solution	13300	12246-13534	Pass
(12890 μS/cm)			

#### Temperature performance checking

Reference thermometer- E431 Readings (°C)	Instrument Readings (°C)	Correction (°C)	Comment
20.0	19.997	+0.003	N/A

#### pH performance checking

	Instrument Readings	Accetance Criteria	Comment
	(pH unit)		
pH QC buffer 4.00	3.97	$4.00 \pm 0.10$	Pass
pH QC buffer 6.86	6.80	$6.86 \pm 0.10$	Pass
pH QC buffer 9.18	9.11	9.18 + 0.10	Pass

#### D.O. performance checking

	Instrument Readings (mg/L)	Accetance Criteria	Comment
Zero DO soultion	0.08	<0.1mg/L	Pass

Winkler Titration value (mg/L)	Instrument Readings (mg/L)	Accetance Criteria	Comment
7.94	8.03	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	9.94	9.0-11.0	Pass
50 NTU	49.63	45.0-55.0	Pass
100 NTU	98.7	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:
Date Received:

34999 2021-04-01 2021-03-30

Date Tested:

2021-03-30 to 2021-04-01

Date Completed:

2021-04-01 2021-04-01

ATTN: Miss Mei Ling Tang

Page:

1 of 2

#### **Certificate of Calibration**

#### Item for calibration:

YSI EXO1 Multiparameter Sondes	Equipment No.:	SW-08-21
Manufacturer:	YSI Incorporated, a	Xylem brand
Description:	Model No.	Serial No.
- EXO1 Sonde, 100 meter Depth, 4 Sensor ports	599502-24	16J100882
- EXO Optical DO Sensor, Ti	599100-01	17B102223
- EXO conductivity/Temperature Sensor, Ti	599870	17B100812
- EXO Turbidity Sensor, Ti	599101-01	20J103607
- EXO pH Sensor Assembly, Guarded, Ti	599701	17B103628

#### **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



Website: www.wellab.com.hk

#### **TEST REPORT**

Test Report No.: 34999
Date of Issue: 2021-04-01
Date Received: 2021-03-30
Date Tested: 2021-03-30 to 2021-04-01
Date Completed: 2021-04-01

Page:

2 of 2

#### **Certificate of Calibration**

#### **Results:**

#### Conductivity performance checking

	Instrument Readings (µS/cm)	Accetance Criteria	Comment
KCl stock solution	12900	12246-13534	Pass
(12890 μS/cm)			

#### Temperature performance checking

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

#### pH performance checking

	Instrument Readings	Accetance Criteria	Comment
	(pH unit)		
pH QC buffer 4.00	4.03	4.00 <u>+</u> 0.10	Pass
pH QC buffer 6.86	6.79	6.86 <u>+</u> 0.10	Pass
pH QC buffer 9.18	9.23	9.18 <u>+</u> 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)			
7.98	8.12	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	10.13	9.0-11.0	Pass
50 NTU	48.37	45.0-55.0	Pass
100 NTU	98.4	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



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.: 34910 Date of Issue: 2021-03-23

Date Received: 2021-03-22 Date Tested: 2021-03-22 to

2021-03-23 Date Completed: 2021-03-23

ATTN:

Miss Mei Ling Tang

Page:

1 of 2

#### **Certificate of Calibration**

#### Item for calibration:

YSI EXO1 Multiparameter Sondes	Equipment No.:	SW-08-146	
Manufacturer:	YSI Incorporated, a 2	YSI Incorporated, a Xylem brand	
Description:	Model No.	Serial No.	
- EXO1 Sonde, 100 meter Depth, 4 Sensor ports	599502-24	17B103387	
- EXO Optical DO Sensor, Ti	599100-01	16H102442	
- EXO conductivity/Temperature Sensor, Ti	599870	16H100199	
- EXO Turbidity Sensor, Ti	599101-01	16H102459	
- EXO pH Sensor Assembly, Guarded, Ti	599701	17B100248	

#### **Test conditions:**

Room Temperatre

: 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



Website: www.wellab.com.hk

#### **TEST REPORT**

Test Report No.: 34910
Date of Issue: 2021-03-23
Date Received: 2021-03-22
Date Tested: 2021-03-22 to 2021-03-23
Date Completed: 2021-03-23

Page:

2 of 2

#### **Certificate of Calibration**

#### **Results:**

#### Conductivity performance checking

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

#### Temperature performance checking

Reference thermometer- E431 Readings (°C)	Instrument Readings (°C)	Correction (°C)	Comment
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	$4.00 \pm 0.10$	Pass
pH QC buffer 6.86	6.88	$6.86 \pm 0.10$	Pass
pH QC buffer 9.18	9.18	$9.18 \pm 0.10$	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)			
7.90	8.01	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	10.04	9.0-11.0	Pass
50 NTU	47.62	45.0-55.0	Pass
100 NTU	97.4	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



**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:

TOUGHT THE TRUE OF			
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
02 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)

#### 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 (May 2021)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	
Sunuiy	Worlday	Tuesday	canesaay	1 Haisaay	111444	Saturday	1-May
2-May	3-May	4-May	5-May	6-May	7-May		8-May
v	24hr TSP FLN-DMS1, FLN-DMS3	Ihr TSP* X3 FLN-DMS1, FLN-DMS3 24hr RSP (Arsenic) KTN-DMS4A Noise CP-FLN-NMS1, CP-FLN-NMS2	Ihr TSP* X3, 24hr TSP* KTN-DMS4, FLN-DMS5 Noise CP-KTN-NMS2, CP-KTN-NMS3, CP- KTN-NMS5, CP-KTN-NMS6		<b>24hr TSP</b> FLN-DMS1, FLN-DMS3		J
9-May	10-May	11-May	12-May	13-May	14-May		15-May
	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	Ihr TSP* X3 FLN-DMS1, FLN-DMS3 24hr RSP (Arsenic) KTN-DMS4A Noise CP-FLN-NMS1, CP-FLN-NMS2		
16-May	17-May	18-May	19-May	20-May	21-May		22-May
	<u>1hr TSP* X3, 24hr TSP*</u> KTN-DMS4, FLN-DMS5	24hr TSP FLN-DMS1, FLN-DMS3		1hr TSP* X3 FLN-DMS1, FLN-DMS3 24hr RSP (Arsenic) KTN-DMS4A Noise CP-FLN-NMS1, CP-FLN-NMS2	Ihr TSP* X3, 24hr TSP* KTN-DMS4, FLN-DMS5 Noise CP-KTN-NMS2, CP-KTN-NMS3, CP- KTN-NMS5, CP-KTN-NMS6		
23-May	24-May	25-May	26-May	27-May	28-May		29-May
	24hr TSP FLN-DMS1, FLN-DMS3		1hr TSP* X3 FLN-DMS1, FLN-DMS3 24hr RSP (Arsenic) KTN-DMS4A Noise CP-FLN-NMS1, CP-FLN-NMS2	Ihr TSP* X3, 24hr TSP*  KTN-DMS4, FLN-DMS5  Noise  CP-KTN-NMS2, CP-KTN-NMS3, CP-  KTN-NMS5, CP-KTN-NMS6	<b>24hr TSP</b> FLN-DMS1, FLN-DMS3		
30-May	31-May						

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	
EP-468/2013/A	ND/2019/03	Highway (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	
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	
EP-473/2013/A ⁽⁶⁾	ND/2019/03	1hr TSP and 24hr TSP	
EF-4/3/2013/A	ND/2019/04	FLN-DMS5 - Noble Hill	
EP-473/2013/A ⁽⁷⁾	ND/2019/05		CP-FLN-NMS2 - Scattered Village Houses in Tong Hang
(9)	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
- 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
- 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
- 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
- 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 (May 2021)**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1-May
2-May	3-May	4-May	5-May	6-May	7-May	8-May
2 1114	5 111uy	1 may	5 11149	0 may	, may	0 1114
	Water Quality Monitoring River Beas, River Indus and near		Water Quality Monitoring River Beas, River Indus and near		Water Quality Monitoring River Beas, River Indus and near	
	Siu Hang San Tsuen Stream		Siu Hang San Tsuen Stream		Siu Hang San Tsuen Stream	
					D	
9-May	10-May	11-May	12-May	13-May	14-May	15-May
	-		•	-		·
	Water Quality Monitoring River Beas, River Indus and near		Water Quality Monitoring River Beas, River Indus and near		Water Quality Monitoring River Beas, River Indus and near	
	Siu Hang San Tsuen Stream		Siu Hang San Tsuen Stream		Siu Hang San Tsuen Stream	
16-May	17-May	18-May	19-May	20-May	21-May	22-May
	Water Quality Manitoring			Water Quality Manitoring		Water Quality Manitoring
	Water Quality Monitoring River Beas, River Indus and near			Water Quality Monitoring River Beas, River Indus and near		Water Quality Monitoring River Beas, River Indus and near
	Siu Hang San Tsuen Stream			Siu Hang San Tsuen Stream		Siu Hang San Tsuen Stream
23-May	24-May	25-May	26-May	27-May	28-May	29-May
	Water Quality Monitoring		Water Quality Monitoring		Water Quality Monitoring	
	River Beas, River Indus and near Siu Hang San Tsuen Stream		River Beas, River Indus and near Siu Hang San Tsuen Stream		River Beas, River Indus and near Siu Hang San Tsuen Stream	
	Siu riang San Tsuen Stream		Siu riang san Tsuen stream		Siu riang San Tsuen Stream	
30-May	31-May					
30-141ay	31-Wlay					
	Water Quality Monitoring River Beas, River Indus and near					
	Siu Hang San Tsuen Stream					
	ž					

Water Ouality 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 (May 2021)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					·	1-May
2.74	2.14	436	5.14		7.1	0.16
2-May	3-May	4-May	5-May	6-May  Monitoring of Measures to Minimise	7-May  Monitoring of Measures to Minimise	8-May
				Disturbance to Water Birds in Ng Tung	Disturbance to Water Birds in Sheung	
				River <b>T1 T2</b>	Yue River and Long Valley T3 T5	
				1112		
				High tide:	High tide:	
				Start time: 16:00	Start time: 9:00	
				Low tide: Start time: 12:00	Low tide: Start time: 13:00	
9-May	10-May	11-May	12-May		14-May	15-May
)-iviay	Monitoring of Measures to Minimise	Monitoring of Measures to Minimise	12-1414	Monitoring of Measures to Minimise	1 4-iviay	13-1 <b>via</b> y
	Disturbance to Water Birds in Sheung	Disturbance to Water Birds in Ng Tung		Impacts on Ecological Sensitive		
	Yue River and Long Valley T3 T5	River <u><b>T1 T2</b></u>		Habitats from Disturbance and Pollution		
	High tide:	High tide:		Pollution		
	Start time: 10:00	Start time: 10:00		T1, T6		
	Low tide:	Low tide:				
	Start time: 15:00	Start time: 15:00				
16-May	17-May	18-May	19-May	20-May	21-May	22-May
	Monitoring of Measures to Minimise Disturbance to Water Birds in Ng Tung	Monitoring of Measures to Minimise Impacts on Ecological Sensitive			Monitoring of Measures to Minimise Disturbance to Water Birds in Sheung	
	River	Habitats from Disturbance and			Yue River and Long Valley T3 T5	
	<u>T1 T2</u>	Pollution				
	High tide:	T2 T4 T5			High tide:	
	Start time: 13:00 Low tide:	<u>T3, T4, T5</u>			Start time: 15:00 Low tide:	
	Start time: 17:00				Start time: 11:00	
23-May	24-May	25-May	26-May	27-May	28-May	29-May
		Monitoring of Measures to Minimise	Monitoring of Measures to Minimise			
	Monitoring of Measures to	Disturbance to Water Birds in Sheung Yue River and Long Valley <u>T3 T5</u>	Disturbance to Water Birds in Ng Tung River			
	Minimise Impacts to Ma Tso Lung	· · · · ·	<u>T1 T2</u>			
	and Siu Hang San Tsuen Stream	High tide:	High tide:			
		Start time: 9:00	Start time: 9:00			
	MS_01 - MS_15	Low tide:	Low tide:			
		Start time: 14:00	Start time: 14:00			
30-May	31-May					

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 May 2021

Cundou	Monday	Tuesday	Wednesday	Thursday	Friday	Cotundari
Sunday	Monday	Tuesday	wednesday	1 nursday	riiday	Saturday 1-May
						1-May
2-May	3-May	4-May	5-May	6-May	7-May	8-May
	Site Inspection (ND/2019/05)	Site Inspection (ND/2019/01)	Site Inspection (ND/2019/02)	Site Inspection (ND/2019/04)	Site Inspection (ND/2019/03)	
	Site inspection (ND/2019/03)	Site inspection (112/2019/01)	Site inspection (ND/2019/02)	Site Inspection (ND/2019/06)	Site Inspection (ND/2019/07)	
				•	• • • • • • • • • • • • • • • • • • • •	
9-May	10-May	11-May	12-May	13-May	14-May	15-May
	·		,	-	•	,
		Site Inspection (ND/2019/01)	Site Inspection (ND/2019/02)	Site Inspection (ND/2019/04)	Site Inspection (ND/2019/03)	
			Site Inspection (ND/2019/05)	Site Inspection (ND/2019/07)	Site Inspection (ND/2019/06)	
16-May	17-May	18-May	19-May	20-May	21-May	22-May
16-May	·		19-May		•	22-May
16-May	17-May Site Inspection (ND/2019/05)	Site Inspection (ND/2019/01)	19-May	Site Inspection (ND/2019/06)	Site Inspection (ND/2019/02)	22-May
16-May	·		19-May		•	22-May
16-May	·	Site Inspection (ND/2019/01)	19-May	Site Inspection (ND/2019/06)	Site Inspection (ND/2019/02)	22-May
16-May	·	Site Inspection (ND/2019/01)	19-May	Site Inspection (ND/2019/06)	Site Inspection (ND/2019/02)	22-May
16-May	·	Site Inspection (ND/2019/01)	19-May	Site Inspection (ND/2019/06)	Site Inspection (ND/2019/02)	22-May
	·	Site Inspection (ND/2019/01)	19-May	Site Inspection (ND/2019/06)	Site Inspection (ND/2019/02)	22-May
16-May 23-May	·	Site Inspection (ND/2019/01)	19-May 26-May	Site Inspection (ND/2019/06)	Site Inspection (ND/2019/02)	
	Site Inspection (ND/2019/05)  24-May	Site Inspection (ND/2019/01) Site Inspection (ND/2019/03)	26-May	Site Inspection (ND/2019/06) Site Inspection (ND/2019/04)	Site Inspection (ND/2019/02) Site Inspection (ND/2019/07)	
	Site Inspection (ND/2019/05)  24-May  Site Inspection (ND/2019/01)	Site Inspection (ND/2019/01) Site Inspection (ND/2019/03)		Site Inspection (ND/2019/06) Site Inspection (ND/2019/04)  27-May Site Inspection (ND/2019/04)	Site Inspection (ND/2019/02) Site Inspection (ND/2019/07)  28-May Site Inspection (ND/2019/03)	
	Site Inspection (ND/2019/05)  24-May	Site Inspection (ND/2019/01) Site Inspection (ND/2019/03)	26-May	Site Inspection (ND/2019/06) Site Inspection (ND/2019/04)	Site Inspection (ND/2019/02) Site Inspection (ND/2019/07)	
	Site Inspection (ND/2019/05)  24-May  Site Inspection (ND/2019/01)	Site Inspection (ND/2019/01) Site Inspection (ND/2019/03)	26-May	Site Inspection (ND/2019/06) Site Inspection (ND/2019/04)  27-May Site Inspection (ND/2019/04)	Site Inspection (ND/2019/02) Site Inspection (ND/2019/07)  28-May Site Inspection (ND/2019/03)	
	Site Inspection (ND/2019/05)  24-May  Site Inspection (ND/2019/01)	Site Inspection (ND/2019/01) Site Inspection (ND/2019/03)	26-May	Site Inspection (ND/2019/06) Site Inspection (ND/2019/04)  27-May Site Inspection (ND/2019/04)	Site Inspection (ND/2019/02) Site Inspection (ND/2019/07)  28-May Site Inspection (ND/2019/03)	
	Site Inspection (ND/2019/05)  24-May  Site Inspection (ND/2019/01)	Site Inspection (ND/2019/01) Site Inspection (ND/2019/03)	26-May	Site Inspection (ND/2019/06) Site Inspection (ND/2019/04)  27-May Site Inspection (ND/2019/04)	Site Inspection (ND/2019/02) Site Inspection (ND/2019/07)  28-May Site Inspection (ND/2019/03)	
23-May	Site Inspection (ND/2019/05)  24-May  Site Inspection (ND/2019/01) Site Inspection (ND/2019/05)	Site Inspection (ND/2019/01) Site Inspection (ND/2019/03)	26-May	Site Inspection (ND/2019/06) Site Inspection (ND/2019/04)  27-May Site Inspection (ND/2019/04)	Site Inspection (ND/2019/02) Site Inspection (ND/2019/07)  28-May Site Inspection (ND/2019/03)	
	Site Inspection (ND/2019/05)  24-May  Site Inspection (ND/2019/01)	Site Inspection (ND/2019/01) Site Inspection (ND/2019/03)	26-May	Site Inspection (ND/2019/06) Site Inspection (ND/2019/04)  27-May Site Inspection (ND/2019/04)	Site Inspection (ND/2019/02) Site Inspection (ND/2019/07)  28-May Site Inspection (ND/2019/03)	
23-May	Site Inspection (ND/2019/05)  24-May  Site Inspection (ND/2019/01) Site Inspection (ND/2019/05)	Site Inspection (ND/2019/01) Site Inspection (ND/2019/03)	26-May	Site Inspection (ND/2019/06) Site Inspection (ND/2019/04)  27-May Site Inspection (ND/2019/04)	Site Inspection (ND/2019/02) Site Inspection (ND/2019/07)  28-May Site Inspection (ND/2019/03)	
23-May	Site Inspection (ND/2019/05)  24-May  Site Inspection (ND/2019/01) Site Inspection (ND/2019/05)	Site Inspection (ND/2019/01) Site Inspection (ND/2019/03)	26-May	Site Inspection (ND/2019/06) Site Inspection (ND/2019/04)  27-May Site Inspection (ND/2019/04)	Site Inspection (ND/2019/02) Site Inspection (ND/2019/07)  28-May Site Inspection (ND/2019/03)	
23-May	Site Inspection (ND/2019/05)  24-May  Site Inspection (ND/2019/01) Site Inspection (ND/2019/05)	Site Inspection (ND/2019/01) Site Inspection (ND/2019/03)	26-May	Site Inspection (ND/2019/06) Site Inspection (ND/2019/04)  27-May Site Inspection (ND/2019/04)	Site Inspection (ND/2019/02) Site Inspection (ND/2019/07)  28-May Site Inspection (ND/2019/03)	
23-May	Site Inspection (ND/2019/05)  24-May  Site Inspection (ND/2019/01) Site Inspection (ND/2019/05)	Site Inspection (ND/2019/01) Site Inspection (ND/2019/03)	26-May	Site Inspection (ND/2019/06) Site Inspection (ND/2019/04)  27-May Site Inspection (ND/2019/04)	Site Inspection (ND/2019/02) Site Inspection (ND/2019/07)  28-May Site Inspection (ND/2019/03)	
23-May	Site Inspection (ND/2019/05)  24-May  Site Inspection (ND/2019/01) Site Inspection (ND/2019/05)	Site Inspection (ND/2019/01) Site Inspection (ND/2019/03)	26-May	Site Inspection (ND/2019/06) Site Inspection (ND/2019/04)  27-May Site Inspection (ND/2019/04)	Site Inspection (ND/2019/02) Site Inspection (ND/2019/07)  28-May Site Inspection (ND/2019/03)	

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

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1-Jun	2-Jun	3-Jun	4-Jun	5-Jun
		Ihr TSP* X3 FLN-DMS1, FLN-DMS3 24hr RSP (Arsenic) KTN-DMS4A Noise CP-FLN-NMS1, CP-FLN-NMS2	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		
6-Jun	7-Jun	8-Jun	9-Jun	10-Jun	11-Jun	12-Jun
	Ihr TSP* X3 FLN-DMS1, FLN-DMS3 24hr RSP (Arsenic) KTN-DMS4A Noise CP-FLN-NMS1, CP-FLN-NMS2	1hr TSP* X3, 24hr TSP* KTN-DMS4, FLN-DMS5	<u>24hr TSP</u> FLN-DMS1, FLN-DMS3	1hr TSP* X3 FLN-DMS1, FLN-DMS3 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	
13-Jun	14-Jun	15-Jun	16-Jun	17-Jun	18-Jun	19-Jun
		<u>24hr TSP</u> FLN-DMS1, FLN-DMS3	1hr TSP* X3 FLN-DMS1, FLN-DMS3 24hr RSP (Arsenic) KTN-DMS4A Noise CP-FLN-NMS1, CP-FLN-NMS2	1hr TSP* X3, 24hr TSP* KTN-DMS4, FLN-DMS5 Noise CP-KTN-NMS2, CP-KTN-NMS3, CP- KTN-NMS5, CP-KTN-NMS6		
20-Jun	21-Jun	22-Jun	23-Jun	24-Jun	25-Jun	26-Jun
	24hr TSP FLN-DMS1, FLN-DMS3	Ihr TSP* X3 FLN-DMS1, FLN-DMS3 24hr RSP (Arsenic) KTN-DMS4A Noise CP-FLN-NMS1, CP-FLN-NMS2	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	
27-Jun	28-Jun	29-Jun	30-Jun			
The schedule may be changed due to un	1hr TSP* X3 FLN-DMS1, FLN-DMS3 24hr RSP (Arsenic) 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	<b>24hr TSP</b> FLN-DMS1, FLN-DMS3			

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	
EP-468/2013/A	ND/2019/03	Highway (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	
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	
ED 452/2012/4(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
<i>(</i> 0)	ND/2019/04		
EP-473/2013/A ⁽⁸⁾	ND/2019/05		CP-FLN-NMS1 - Belair Monte
EP-475/2013/A	ND/2019/06		

#### Remarks:

- 1. Since the distance between monitoring station CP-KTN-NMS2 and site boundary of ND/2019/03 under EP-468/2013/A exceeds 300m. The monitoring station is not applicable to ND/2019/03
- 2. Since the distance between monitoring station CP-KTN-NMS3 and site boundary of ND/2019/03 under EP-468/2013/A exceeds 300m. The monitoring station is not applicable to ND/2019/03
- 3. Since the distance between monitoring station CP-KTN-NMS1 and site boundary of ND/2019/02 under EP-469/2013 exceeds 300m. The monitoring station is not applicable to ND/2019/02
- 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
- 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
- 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 (June 2021)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1-Jun	2-Jun	3-Jun	4-Jun	5-Jun
			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	
6-Jun	7-Jun	8-Jun	9-Jun	10-Jun	11-Jun	12-Jun
	Water Ouality 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	
13-Jun	14-Jun	15-Jun	16-Jun	17-Jun	18-Jun	19-Jun
		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
20-Jun	21-Jun	22-Jun	23-Jun	24-Jun	25-Jun	26-Jun
	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	
27-Jun	28-Jun	29-Jun	30-Jun			
	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 (June 2021)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Sunday	Wionday	1-Jun	,	3-Jun	4-Jun	5-Jun
		1-Jun	And Monitoring of Measures to Minimise	Monitoring of Measures to Minimise	4-Jun	3-Jun
			Disturbance to Water Birds in Ng Tung	Disturbance to Water Birds in Sheung		
			River	Yue River and Long Valley T3 T5		
			<u>T1 T2</u>			
			High tide:	High tide:		
			Start time: 15:00	Start time: 15:00		
			Low tide:	Low tide:		
			Start time: 9:00	Start time: 10:00		
6-Jun	7-Jun	8-Jun	9-Jun	10-Jun	11-Jun	12-Jun
			Monitoring of Measures to Minimise	Monitoring of Measures to Minimise	Monitoring of Measures to Minimise	
			Impacts on Ecological Sensitive	Disturbance to Water Birds in Ng Tung	Disturbance to Water Birds in Sheung	
			Habitats from Disturbance and	River	Yue River and Long Valley T3 T5	
			Pollution	<u>T1 T2</u>		
				High tide:	High tide:	
			<u>T3, T4, T5</u>	Start time: 10:00	Start time: 10:00	
			<u> </u>	Low tide:	Low tide:	
				Start time: 16:00	Start time: 16:00	
13-Jun	14-Jun	15-Jun	16-Jun		18-Jun	19-Jun
13-3411	14-Juli	Monitoring of Measures to Minimise	10-3 uii	Monitoring of Measures to Minimise	Monitoring of Measures to Minimise	19-Juli
		Disturbance to Water Birds in Ng Tung		Disturbance to Water Birds in Sheung	Impacts on Ecological Sensitive	
		River		Yue River and Long Valley T3 T5	Habitats from Disturbance and	
		<u>T1 T2</u>		5 7 <u></u>	Pollution	
		High tide:		High tide:		
		Start time: 14:00		Start time: 14:00	<u>T1, T6</u>	
		Low tide:		Low tide:	11, 10	
		Start time: 17:00		Start time: 7:00		
20-Jun	21-Jun		23-Jun		25-Jun	26-Jun
20 0411	Monitoring of Measures to Minimise	22 0 001	25 0 mi	Monitoring of Measures to Minimise	20 0 0.11	20 0 011
	Disturbance to Water Birds in Sheung			Disturbance to Water Birds in Ng Tung		
	Yue River and Long Valley T3 T5	Monitoring of Measures to		River		
		Minimise Impacts to Ma Tso Lung		<u>T1 T2</u>		
	High tide:	and Siu Hang San Tsuen Stream		High tide:		
	Start time: 9:00	350 04 350 45		Start time: 10:00		
	Low tide:	MS_01 - MS_15		Low tide:		
	Start time: 14:00			Start time: 15:00		
27-Jun	28-Jun	29-Jun				
	Monitoring of Measures to Minimise		Monitoring of Measures to Minimise			
	Disturbance to Water Birds in Ng Tung		Disturbance to Water Birds in Sheung			
	River		Yue River and Long Valley T3 T5			
	<u>T1 T2</u>					
	High tide:		High tide:			
	Start time: 14:30		Start time: 14:00			
	Low tide:		Low tide:			
	Start time: 17:00		Start time: 7:00			
	unforação airaumetanae (adversa y	4				

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

Item	Activity	Monitoring Stations/Transects
1	Monitoring of Measures to Minimise Disturbance to Water Birds in Ng Tung River, Sheung Yue River, and Long Valley	T1. Ng Tung River T2. Ng Tung River T3. Sheung Yue River T5. Long Valley
2	Monitoring of Measures to Minimise Impacts to Aquatic Fauna in Ma Tso Lung Stream and Siu Hang San Tsuen Stream	MS_01, MS_02, MS_03, MS_04, MS_05, MS_06, MS_07, MS_08, MS_09, MS_10, MS_11, MS_12, MS_13, MS_14, MS_15
3	Monitoring of Measures to Minimise Impacts on Ecological Sensitive Habitats from Disturbance and Pollution	T1. Ma Tso Lung riparian zone and associated wetland habitats T1. Green belt areas E1-8,D1-8 and G1-3 in KTN NDA T1. AGR one C2-4 and C2-2 in KTN NDA T1. Areas north of Ng Tung River T3. Area west of Siu Hang San Tsuen Stream T4. South side of Fanling Highway and Castle Peak Road in the vicinity of Pak Shek Au T5. Area west and east of the southern limit of the FLN NDA work area T6. Areas in the western part of KTN

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

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

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

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

### Appendix E - 1-hour TSP Monitoring Results

Date	Time	Weather	Particulate Concentration ( μg/m³)
4-May-21	13:00	Sunny	48.7
4-May-21	14:00	Sunny	82.0
4-May-21	15:00	Sunny	71.2
10-May-21	13:30	Sunny	109.3
10-May-21	14:30	Sunny	100.6
10-May-21	15:30	Sunny	95.6
14-May-21	8:30	Cloudy	60.7
14-May-21	9:30	Cloudy	83.9
14-May-21	10:30	Cloudy	52.0
20-May-21	8:30	Sunny	50.1
20-May-21	9:30	Sunny	68.1
20-May-21	10:30	Sunny	59.8
26-May-21	14:20	Fine	108.8
26-May-21	15:20	Fine	60.0
26-May-21	16:20	Fine	46.4
	-	Average	73.1
		Maximum	109.3
		Minimum	46.4

Location FLN-D	ocation FLN-DMS3 - House near Tong Hang							
Date	Time	Weather	Particulate Concentration ( μg/m³)					
4-May-21	9:00	Fine	53.1					
4-May-21	10:00	Fine	63.5					
4-May-21	11:00	Fine	42.2					
10-May-21	8:30	Sunny	89.2					
10-May-21	9:30	Sunny	106.9					
10-May-21	10:30	Sunny	100.5					
14-May-21	13:00	Cloudy	60.8					
14-May-21	14:00	Cloudy	63.6					
14-May-21	15:00	Cloudy	65.1					
20-May-21	13:10	Fine	54.4					
20-May-21	14:10	Fine	52.0					
20-May-21	15:10	Fine	50.6					
26-May-21	9:40	Cloudy	58.3					
26-May-21	10:40	Cloudy	65.9					
26-May-21	13:00	Cloudy	46.0					
		Average	64.8					
		Maximum	106.9					
		Minimum	42.2					

WMA20002\1-hr TSP Results Wellab

Appendix E - 1-hour TSP Monitoring Results

Location FLN-D	ocation FLN-DMS5 - Noble Hill							
Date	Time	Weather	Particulate Concentration ( μg/m³)					
5-May-21	8:30	Sunny	204.8					
5-May-21	9:30	Sunny	119.1					
5-May-21	10:30	Sunny	79.0					
11-May-21	8:30	Sunny	46.9					
11-May-21	9:30	Sunny	56.0					
11-May-21	10:30	Sunny	51.0					
17-May-21	8:30	Sunny	38.9					
17-May-21	9:30	Sunny	43.0					
17-May-21	10:30	Sunny	40.3					
21-May-21	8:30	Sunny	82.3					
21-May-21	9:30	Sunny	91.3					
21-May-21	10:30	Sunny	86.3					
27-May-21	8:30	Sunny	35.0					
27-May-21	9:30	Sunny	36.2					
27-May-21	10:30	Sunny	66.8					
		Average	71.8					
		Maximum	204.8					
		Minimum	35.0					

ocation KTN-DMS4 - Temporary Structure near Fanling Highway near Pak Shek Au)							
Date	Time	Weather	Particulate Concentration ( μg/m³)				
5-May-21	8:30	Sunny	129.0				
5-May-21	9:30	Sunny	136.5				
5-May-21	10:30	Sunny	92.8				
11-May-21	8:30	Sunny	62.5				
11-May-21	9:30	Sunny	65.3				
11-May-21	10:30	Sunny	55.6				
17-May-21	8:30	Sunny	28.5				
17-May-21	9:30	Sunny	32.5				
17-May-21	10:30	Sunny	34.3				
21-May-21	8:30	Sunny	49.2				
21-May-21	9:30	Sunny	60.1				
21-May-21	10:30	Sunny	57.6				
27-May-21	8:30	Sunny	30.4				
27-May-21	9:30	Sunny	32.0				
27-May-21	10:30	Sunny	49.1				
		Average	61.0				
		Maximum	136.5				
		Minimum	28.5				

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	e 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)	$(m^3)$	$(\mu g/m^3)$
3-May-21	Sunny	295.7	3.4025	3.4715	0.0690	4591.1	4615.1	24.0	1.21	1.20	1.20	1732.1	39.8
7-May-21	Sunny	297.6	3.3667	3.4311	0.0644	4615.2	4639.2	24.0	1.20	1.20	1.20	1725.2	37.3
13-May-21	Cloudy	301.2	3.3770	3.4413	0.0643	4639.2	4663.2	24.0	1.19	1.19	1.19	1708.4	37.6
18-May-21	Sunny	302.1	3.4464	3.5499	0.1035	4663.2	4687.2	24.0	1.18	1.18	1.18	1705.8	60.7
24-May-21	Cloudy	301.0	3.5096	3.5905	0.0809	4687.2	4711.2	24.0	1.22	1.22	1.22	1759.4	46.0
28-May-21	Rainy	301.7	3.5027	3.6739	0.1712	4711.2	4735.2	24.0	1.22	1.22	1.22	1756.1	97.5
												Min	37.3
												Max	97.5
												Average	53.2

#### **Location FLN-DMS3 - House near Tong Hang**

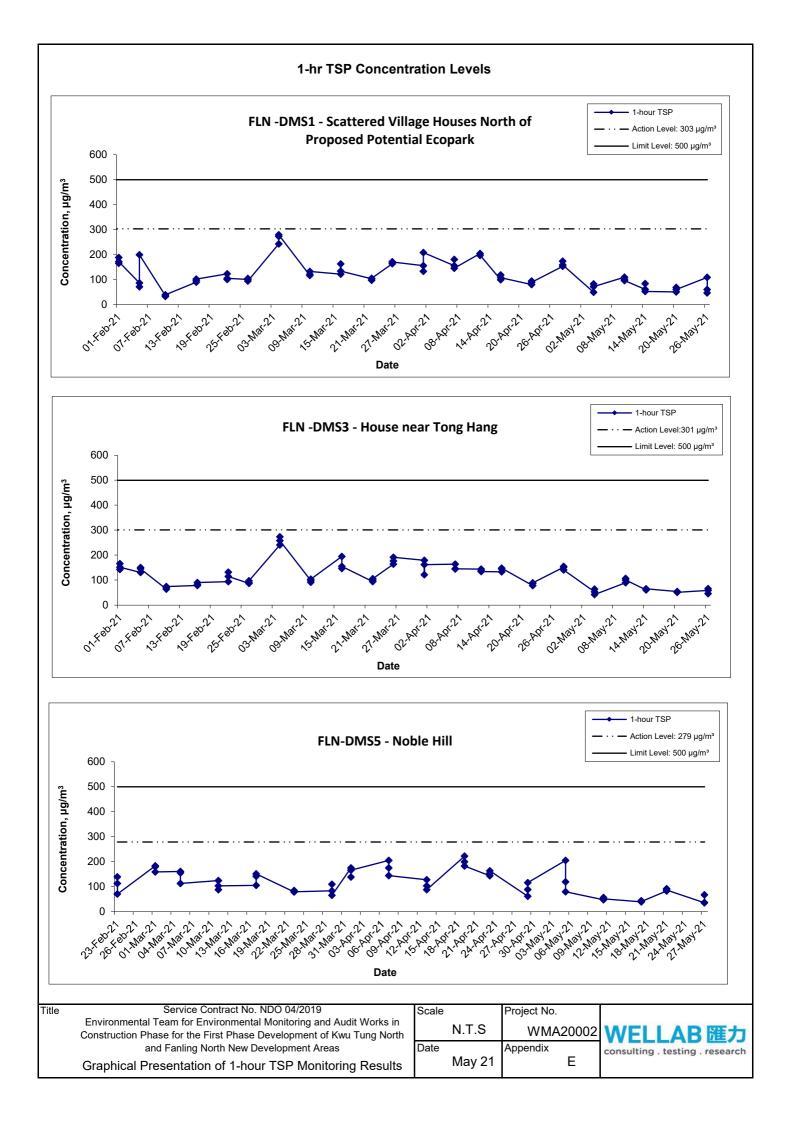
Start Date	Weather	Air	Filter W	eight (g)	Particulate	Elapse	e Time	Sampling	Flow Rate	(m³/min.)	Av. flow	Total vol.	Conc.
Start Date	Condition	Temp. (K)	Initial	Final	weight (g)	Initial	Final	Time(hrs.)	Initial	Final	(m ³ /min)	$(m^3)$	(µg/m ³ )
3-May-21	Sunny	295.7	3.3517	3.4001	0.0484	5624.1	5648.1	24.0	1.24	1.23	1.23	1774.0	27.3
7-May-21	Sunny	297.6	3.4226	3.5032	0.0806	5648.1	5672.1	24.0	1.23	1.23	1.23	1767.9	45.6
13-May-21	Cloudy	301.2	3.4682	3.5401	0.0719	5672.1	5696.1	24.0	1.22	1.22	1.22	1752.8	41.0
18-May-21	Sunny	302.1	3.3971	3.5295	0.1324	5696.1	5720.1	24.0	1.22	1.22	1.22	1750.5	75.6
24-May-21	Cloudy	301.0	3.5032	3.5434	0.0402	5720.2	5744.2	24.0	1.22	1.22	1.22	1754.8	22.9
28-May-21	Rainy	301.7	3.4992	3.5471	0.0479	5744.2	5768.2	24.0	1.22	1.22	1.22	1751.8	27.3
												Min	22.9
												Max	75.6
												Average	40.0

WMA20002\24-hr TSP Results Wellab

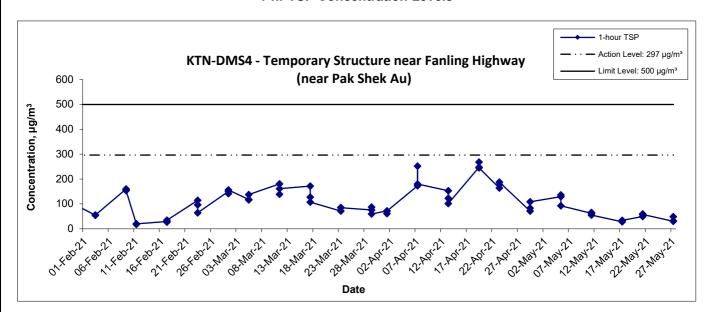
### Appendix E - 24-hour TSP Monitoring Results

Location FLN-D	ocation FLN-DMS5 - Noble Hill						
Date	Time	Weather	Particulate Concentration ( μg/m³)				
5-May-21	8:30	Sunny	121.4				
11-May-21	8:30	Sunny	44.7				
17-May-21	8:30	Sunny	41.8				
21-May-21	8:30	Sunny	67.7				
27-May-21	8:30	Sunny	45.0				
		Minimum	41.8				
		Maximum	121.4				
		Average	64.1				

Date	Time	Weather	Particulate Concentration ( μg/m³)
5-May-21	8:30	Sunny	137.0
11-May-21	8:30	Sunny	56.3
17-May-21	8:30	Sunny	33.0
21-May-21	8:30	Sunny	40.3
27-May-21	8:30	Sunny	40.6
		Minimum	33.0
		Maximum	137.0
		Average	61.4



#### 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

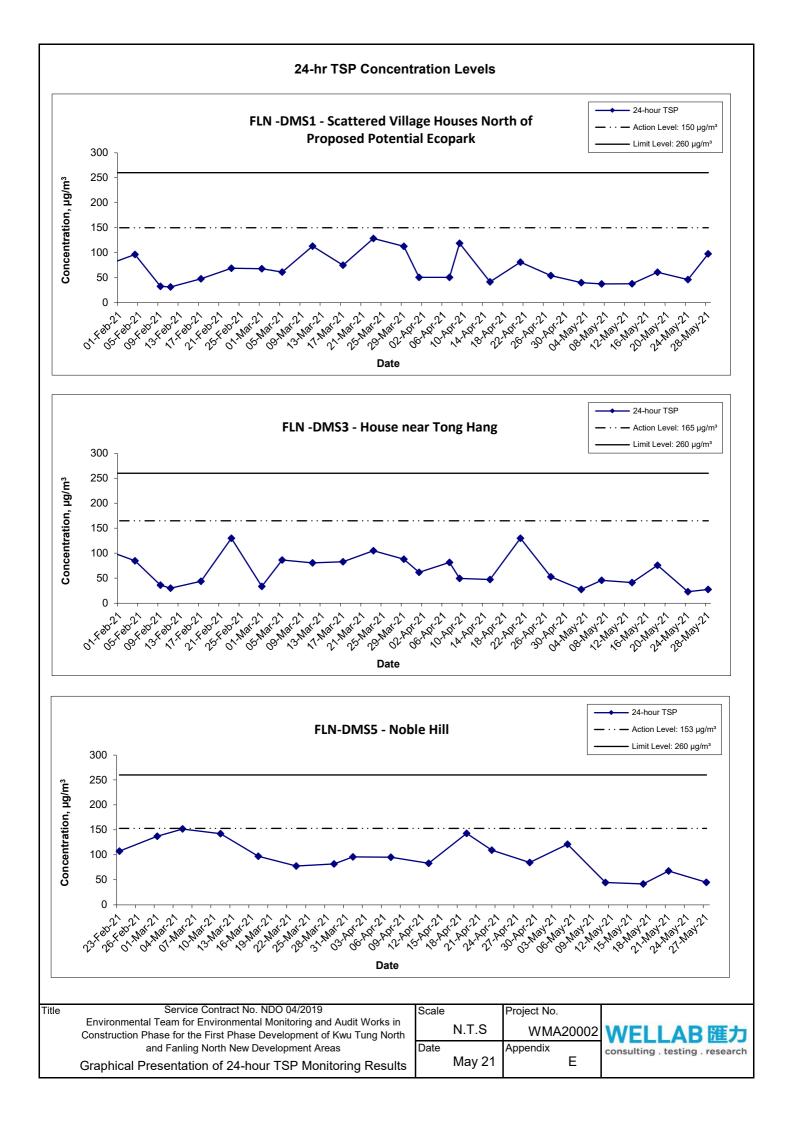
 Scale
 Project No.

 N.T.S
 WMA20002

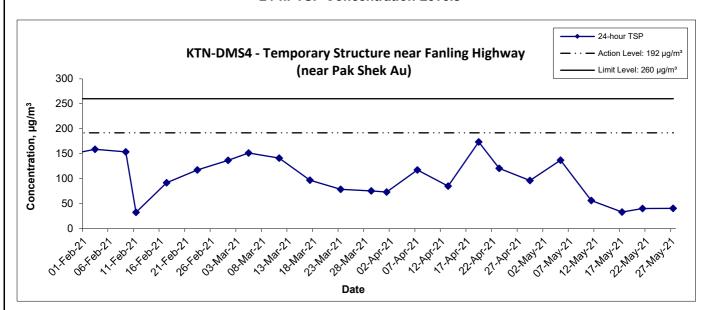
 Date
 Appendix

 May 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

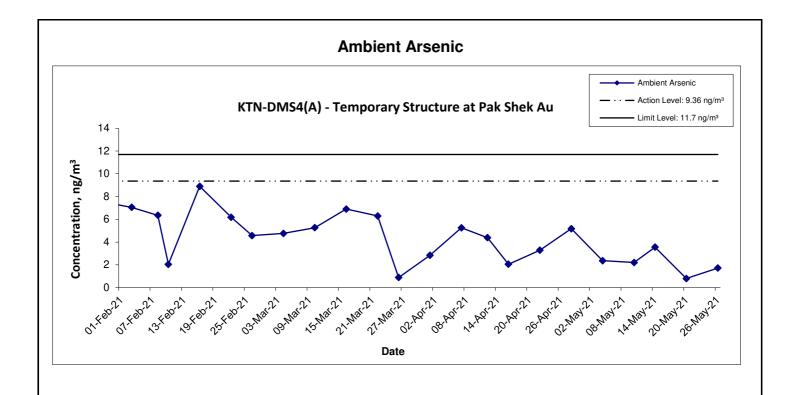
 Date
 Appendix

 May 21
 E



# **Appendix E - Ambient Arsenic Monitoring Results**

Location KTN-D	Location KTN-DMS4(A) - Temporary Structure at Pak Shek Au			
Date	Arsenic (µg)	Standard Volume, Vstd (m³)	Ambient Arsenic Concentration ( ng/m ³ )	
4-May-21	3.8	1611.9	2.36	
10-May-21	3.6	1636.0	2.20	
14-May-21	5.8	1634.8	3.55	
20-May-21	1.3	1648.2	0.79	
26-May-21	2.8	1633.3	1.71	



Title Scale Project No. Service Contract No. NDO 04/2019 N.T.S WMA20002 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 WELLAB匯力 Appendix Date consulting . testing . research Ε May 21 Graphical Presentation of Ambient Arsenic Monitoring Results

### 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 4th May 2021

Parameter	Monitoring Station	Arsenic (Refer to Report No.: 35087)	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	3.8 µg	1611.9 m³	$2.36 \text{ ng/m}^3$	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/m³ - the highest ambient arsenic concentration predicted during the construction phase with mitigation measures implemented

	Name	Signature	Date
Prepared by:	Meiling Tang	Mely	7 June 2021
Checked by:	Ivy Tam	Yuk	7 June 2021



### TEST REPORT

APPLICANT:

Wellab (EM&A)

RM 1808, Technology Park,

18 On Lai Street,

Shatin, N.T., Hong Kong

 Report No.:
 35087

 Date of Issue:
 2021-05-11

 Date Received:
 2021-05-05

Date Tested: 2021-05-05
Date Completed: 2021-05-11

ATTN:

Ms Ivy Tam

Page:

1 of 1

Sample Description :

1 sample as received from customer said to be quartz filter

Laboratory No.

35087

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:

ixcourts.		
Sample ID	210105/021	
Sample No.	35087-1	
Arsenic (µg)	3.8	

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 35087 2021-05-11

Date Received: Date Tested:

2021-05-05 2021-05-05

Date Completed:

2021-05-11

ATTN:

Ms Ivy Tam

Page:

1 of 2

QC report:

Method Blank

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

#### Filter Lot Blank

CHICI LOU DIAMA		
Parameter	Filter Lot Blank	Acceptance
Arsenic (µg)	0.04	N/A

Laboratory control spike/ Method OC

Laboratory control spine mi	on your	
Parameter	MQC	Acceptance
Arsenic (%)	115	80-120

#### Calibration check

MINIMUM CHECK		
Parameter	CCV	Acceptance
Arsenic (%)	106	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 35087

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRICK TSE General Manager

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



### TEST REPORT

 Report No.:
 QC 35087

 Date of Issue:
 2021-05-11

 Date Received:
 2021-05-05

 Date Tested:
 2021-05-05

 Date Completed:
 2021-05-11

Page:

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QC report:

**Matrix Spike** 

Parameter	Matrix Spike	Acceptance
Arsenic (%)	107	75-125

Filter Duplicate

Thier Duplicate		
Parameter	Filter Duplicate	Acceptance
Arsenic (%)	2	RPD≤20%

Serial dilution check

Parameter	Serial dilution check	Acceptance
Arsenic (%)	96	90-110

Remarks: 1) <= less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 35087

## 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

	MS4A - Temporary Struc From: 4/灯20ロ	( 0 : 00 )		Collec	ction Date: 5/5/2021
Sampling Date & Time:	1 M		Claudu		(Rainy)
Operators:	ka lun	Weather Sunny Wind: Strong	Cloudy Mild	Windy Calm	(Kanty
High Vol	ıme Sampler	Model no.			TE-6070X
	inc sampler	Blower Motor Seria	no.		3)14
	RSP - Respirabl	e Suspended Particulat	es Sampler		
Equipment No.	NE	7.11.03	Set P	oint	703
Slope, m		2.072b	Interce	ept. b	0.8384
		Initial, I			Final, f
Ambient Pressure (mmHg	), Pa	761.	{		762.3
Ambient Temperature (K)		297.			216.0
Delta (in. of Water), W		7	2		7-0
$Y = [W \times (Ta+30)/Pa]^{1/2}$		173.	4		1.230
Standard flow, Qstd (m ³ /n	ain) = (Y - b)*0.0283/m	1.121			1.17
Elapsed Timer Indicator (		12744-83	•••	12	7683
Filter Identification no.			210/05/0		
Weight of Filter (g)		4.1082			63260
Weight of Particulate (g)			0-119		
Mean Standard Flow,					
$Qstd_{avg} = (Qstd_i + Qstd_f)$	/2		1-1	(P_	
Total Time,			le (		
Total Time = (Tf - Ti) x 6	0		140	10.00	<u></u>
Standard Volume, Vstd (m²) = Qstd _{avg} x Tota	al Time		16	11.9	
Particulate Concentratio	on (μg/m³)		7	4.3	
Observed Construction	Main Construction Site	Zamelon N/A			
Activities	Other Construction Site	DID Frant	v		
Remarks: Roed	Conffic				
Conducted by:		Signature:	~	Date	: 5/8/204
Checked by:	Mely Tan	Signatur <u>e</u> : (K	e (m	Date	: 7(6/by

## 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 10th May 2021

Parameter	Monitoring Station	Arsenic (Refer to Report No.: 35135)	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	3.6 µg	1636.0 m ³	$2.20~\mathrm{ng/m^3}$	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	Welm	7 June 2021
Checked by:	Ivy Tam	Jus	7 June 2021



### TEST REPORT

**APPLICANT:** 

Wellab (EM&A)

RM 1808, Technology Park,

18 On Lai Street,

Shatin, N.T., Hong Kong

 Report No.:
 35135

 Date of Issue:
 2021-05-14

 Date Received:
 2021-05-10

 Date Tested:
 2021-05-10

ATTN:

Ms Ivy Tam

Page:

Date Completed:

1 of 1

2021-05-14

Sample Description :

1 sample as received from customer said to be quartz filter

Laboratory No.

35135

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:

resures.		
Sample ID	210105/020	
Sample No.	35135-1	
Arsenic (µg)	3.6	

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 35135 Date of Issue: 2021-05-14

Date Received: 2021-05-10

Date Tested: 2021-05-10
Date Completed: 2021-05-14

Page:

1 of 2

ATTN:

Ms Ivy Tam

QC report:

Method Blank

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

### Filter Lot Blank

I liter Lot Diank		
Parameter	Filter Lot Blank	Acceptance
Arsenic (µg)	0.04	N/A

Laboratory control spike/ Method OC

Laboratory control spike, viction QC			
Parameter	MQC	Acceptance	
Arsenic (%)	94	80-120	

#### Calibration check

Parameter	CCV	Acceptance
Arsenic (%)	97	90-110

#### Interference check solution A

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

#### Interference check solution AB

Parameter	ICS AB	Acceptance
Arsenic (%)	100	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 35135

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

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



### **TEST REPORT**

 Report No.:
 QC 35135

 Date of Issue:
 2021-05-14

 Date Received:
 2021-05-10

 Date Tested:
 2021-05-10

 Date Completed:
 2021-05-14

Page:

2 of 2

QC report:

Matrix SpikeAcceptanceParameterMatrix SpikeAcceptanceArsenic (%)10475-125

Filter Duplicate

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

Serial dilution check

Parameter	Serial dilution check	Acceptance
Arsenic (%)	105	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 35135

# 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-DMS4	4A - Temporary Struc	cture at Pak Shek Au			
Sampling Date & T	Гime: F	rom: 10/5/2021	( b : v	<b>)</b>	Collec	tion Date: 11/5/2019
Operators:	Ko	. lh_	Weather Sunny Wind: Stron		Windy Calm	Rainy
тт:	. 1. X7 - I	Complex	Model no.			TE-6070X
HI	gh Volume	Sampler	Blower Motor Se	erial no.		3)VK
, , , , , , , , , , , , , , , , , , ,		RSP - Respirabl	le Suspended Particu	ılates Sampleı	•	· · · · · · · · · · · · · · · · · · ·
Equipment?	No.	al P	3.41.03	Set I	Point	7.03
Slope, m			0.021/0	Interc	ept. b	0-0384
			Initia	l, I		Final, f
Ambient Pressure	(mmHg), Pa	1	7	78. {		741.0
Ambient Temperat				299.9		300-9
Delta (in. of Wate				7-0		J-0
$Y = [W \times (Ta+30)]$				. 744	J.	-)47
Standard flow, Qst	d (m³/min)	= (Y - b)*0.0283/m		135	1.138	
Elapsed Timer Indicator (Hours), T		12768.83	12769.83 12793.83		793. P3	
Filter Identification no.			210108/	bro		
Weight of Filter (g)		4-2(35				
Weight of Particul	Weight of Particulate (g)			0.0788		
Mean Standard Flo	ow,			1.	. 1	
$Qstd_{avg} = (Qstd_i +$	Qstd _f )/2			1.136		
Total Time,	T1) + 60			L440-00		
Total Time = (Tf - Standard Volume,	11) X 60			1636-0		
$Vstd (m^3) = Qstd_{av}$	_{/g} x Total Ti	me		.1656-0		
Particulate Conce	entration (¡	ug/m³)		4	-J-V	
Observed Construction	Mair	Construction Site	Ala			·
Activities	Othe	r Construction Site	Zxcantor		,	
Remarks:	Road -	haffic				
			1			γ).
Conducted by:	the Ko	_ Uhm	Signature:	w	_ Date:	11-5-202
Checked by:		Mely 7an	Signature:	Me. by	Date	: 7(612M

### 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 14th May 2021

Parameter	Monitoring Station	Arsenic (Refer to Report No.: 35155)	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	5.8 µg	$1634.8 \text{ m}^3$	$3.55 \text{ ng/m}^3$	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	Weitin	7 June 2021
Checked by:	Ivy Tam	Try	7 June 2021



### TEST REPORT

APPLICANT:

Wellab (EM&A)

RM 1808, Technology Park,

18 On Lai Street,

Shatin, N.T., Hong Kong

 Report No.:
 35155

 Date of Issue:
 2021-05-24

 Date Received:
 2021-05-17

 Date Tested:
 2021-05-17

ATTN:

Ms Ivy Tam

Page:

Date Completed:

1 of 1

2021-05-24

Sample Description :

1 sample as received from customer said to be quartz filter

Laboratory No.

35155

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.

resurts.		
Sample ID	210105/019	
Sample No.	35155-1	
Arsenic (µg)	5.8	- V

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 35155 2021-05-24

Date Received: Date Tested:

2021-05-17 2021-05-17

Date Completed:

2021-05-17 2021-05-24

ATTN:

Ms Ivy Tam

Page:

1 of 2

QC report:

Method Blank

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

Filter Lot Blank

ritter Lot Diank		
Parameter	Filter Lot Blank	Acceptance
Arsenic (µg)	0.04	N/A

Laboratory control spike/ Method QC

Laboratory control spike/ Wethou QC				
Parameter	MQC	Acceptance		
Arsenic (%)	111	80-120		

#### Calibration check

Calibration Check	Candiation check				
Parameter	CCV	Acceptance			
Arsenic (%)	101	90-110			

#### Interference check solution A

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

#### Interference check solution AB

Parameter	ICS AB	Acceptance
Arsenic (%)	100	70-130

Remarks: 1)  $\leq$  = less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 35155

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

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



### TEST REPORT

 Report No.:
 QC 35155

 Date of Issue:
 2021-05-24

 Date Received:
 2021-05-17

 Date Tested:
 2021-05-17

 Date Completed:
 2021-05-24

Page:

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QC report:

Matrix Spike		
Parameter	Matrix Spike	Acceptance
Arsenic (%)	118	75-125

**Filter Duplicate** 

I iitel Bupileute	their Duplieute				
Parameter	Filter Duplicate	Acceptance			
Arsenic (%)	3	RPD≤20%			

Serial dilution check

Parameter	Serial dilution check	Acceptance
Arsenic (%)	104	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 35155

# 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 Struc	ture at Pak Sl	nek Au			
Sampling Date & T	Time:	From: 14/5/2021	( o	: 00 )		Collec	tion Date: 17-5-2021
Operators:	Va	Um	Weather Wind:	Sunny	Cloudy Mild	Windy	Rainy
	1 77 1	0 1	Model no	).			TE-6070X
H1	gh Volun	ne Sampler	Blower N	Iotor Seria	l no.		3745
		RSP - Respirable	e Suspended	Particulat	es Sampler		
Equipment 1		1	19-11-03		Set P		7.03
Slope, m			-221/0		Interc		0-8384
Biope, in				Initial, I		Ţ	Final, f
Ambient Pressure	(mmHa)	Pa		BPF.	8	Ann	7565
Ambient Temperat				1700/	,		269-8
Delta (in. of Wate			<u> </u>	7.0			7-0
$Y = [W \times (Ta+30)]$				1.74		***	1-744
Standard flow, Qstd ( $m^3/min$ ) = (Y - b)*0.0283/m			1.137		1.134		
Elapsed Timer Ind			12	783.83		128	17.83
Filter Identification				/	2/0/0	5/019	
Weight of Filter (g	-/	1744-		4.218	1	4	3124
Weight of Particul	·				0.082	5	
Mean Standard Flo						~	
$Qstd_{avg} = (Qstd_i +$	Qstd _f )/2				- [-[	32	
Total Time,	EP\$\ <0				14	40.00	
Total Time = (Tf - Standard Volume,	T1) x 60	- to 19			1 [	40.00 34.d	···
$Vstd (m^3) = Qstd_{av}$		Time					
Particulate Conc	entration	(μg/m³)			ナ	6-6	
Observed Construction	M	ain Construction Site	NIA	·-			
Activities	Ot	her Construction Site	Excum	lov	-av-	ţ.m	
Remarks:	Road	traffic					
							a park shahib ti
Conducted by:	Ho k	2 h	Signatur	e: ()	h	. Date:	17/5/204
Checked by:		cuety Tang	Signatur	e: <i>[</i> //	Le.by	Date:	= 266 WM

### 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 20th May 2021

Parameter	Monitoring Station	Arsenic (Refer to Report No.: 35180)	Standard Volume, Vstd = Qstdavg x Total Time Ambient Arsenic (Refer to the 24-hr RSP Field Operation Data Log Sheet)		Exceedance (Refer to Table II for Action and Limit Level)
Ambient Arsenic Concentration, ng/m ³	KTN-DMS4(A) - Temporary Structure at Pak Shek Au	1.3 μg	$1648.2~{ m m}^3$	0.79 ng/m ³	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	dely	7 June 2021
Checked by:	Ivy Tam	tus	7 June 2021



### TEST REPORT

APPLICANT:

Wellab (EM&A)

RM 1808, Technology Park,

18 On Lai Street,

Shatin, N.T., Hong Kong

Report No.:	35180	
Date of Issue:	2021-05-25	
Date Received:	2021-05-22	
Date Tested:	2021-05-22	
Date Completed:	2021-05-25	

ATTN:

Ms Ivy Tam

Page:

1 of 1

Sample Description

1 sample as received from customer said to be quartz filter

Laboratory No.

35180

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:

reduce.		
Sample ID	210105/013	
Sample No.	35180-1	
Arsenic (µg)	1.3	

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 35180 Date of Issue: 2021-05-25

Date Received: 2021-05-22 Date Tested:

Date Completed:

2021-05-22 2021-05-25

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)	0.04	N/A	

I aboratory control spike/ Method OC

Parameter	MQC	Acceptance		
Arsenic (%)	103	80-120		

#### Calibration check

Parameter	CCV	Acceptance	
Arsenic (%)	99	90-110	

#### Interference check solution A

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

#### Interference check solution AR

Parameter	ICS AB	Acceptance
Arsenic (%)	100	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 35180

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

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRICK TSE

General Manager



### TEST REPORT

 Report No.:
 QC 35180

 Date of Issue:
 2021-05-25

 Date Received:
 2021-05-22

 Date Tested:
 2021-05-22

 Date Completed:
 2021-05-25

Page:

2 of 2

QC report:

Matrix SpikeParameterMatrix SpikeAcceptanceArsenic (%)11175-125

**Filter Duplicate** 

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

Serial dilution check

Parameter	Serial dilution check	Acceptance		
Arsenic (%)	109	90-110		

Remarks: 1) <= less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 35180

## 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	ıre at Pak Sh	ek Au			
Sampling Date &	Time:	From: 20/8/2021	(0	:60 )		Collec	etion Date: 21/5/2011
Operators:	k	From: 20/8/2021	Weather_( Wind:	Sunny	Cloudy Mild	Windy Calm	Rainy
Ľ	iah Volum	ne Sampler	Model no				TE-6070X
	ign voim	e Samplei	Blower M	otor Seria	l no.		3)15
.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	···· ·	RSP - Respirable	Suspended 1	Particulat	es Samplei	<u>'</u>	
Equipment	No.	m A	ر د ۱۱ د		Set I	Point	→ ,っゞ
Slope, m		(4)	-11-03 3-022b	•	Interc	ept. b	0_8384
Stope, ii				Initial, I		<u> </u>	Final, f
Ambiant Deserve	(mmU~)	Do		726	<u>z</u>		329. P
Ambient Pressure				302			302-8
Ambient Tempera		. a		.,			7-0
Delta (in. of Wate		1 177-177		125			1.253
$Y = [W \times (Ta+30)]$		2 12to 0000/		<del></del>	V		1,121
		(y - b)*0.0283/m	1 20		ly		41.83
Elapsed Timer Inc		ours), T	1281	7.83_			41.83
Filter Identification no.			1. 23	10/8/01		2 10	
Weight of Filter (	g)			4,2			k3170
Weight of Particu					0 -08)	<u>v</u>	
Mean Standard Fl Qstd _{avg} = ( Qstd _i +	•		1.145				
Total Time, Total Time = (Tf				1.145 liero.es 16482			
Standard Volume,	•				1 7		
$Vstd(m^3) = Qstd_a$	_{vg} x Total	l'ime					
Particulate Conc	entration	(μg/m ³ )		49.9			
Observed Construction	Ma	nin Construction Site	Road	traffic	llin		and the second s
Activities	Otl	ner Construction Site					
Remarks:	Road	traffic					
Conducted by:	40 b	. Or	Signature	: ]	<u></u>	_ Date:	: 21/8/2021
Checked by:		Oreting Tang	Signature	: (l	why	Date	: 7(6(WM
Project No. W	MA2000	2					

### 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 26th May 2021

Parameter	Monitoring Station	Arsenic (Refer to Report No.: 35201)	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	2.8 µg	1633.3 m³	1.71 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 —the highest ambient concentration predicted	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	Mely	7 June 2021
Checked by:	Ivy Tam	Tun)	7 June 2021



### **TEST REPORT**

APPLICANT:

Wellab (EM&A)

RM 1808, Technology Park,

18 On Lai Street,

Shatin, N.T., Hong Kong

 Report No.:
 35201

 Date of Issue:
 2021-06-02

 Date Received:
 2021-05-27

 Date Tested:
 2021-05-27

ATTN:

Ms Ivy Tam

Page:

Date Completed:

1 of 1

2021-06-02

Sample Description

: 1 sample as received from customer said to be quartz filter

Laboratory No.

35201

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:

tebuito.		
Sample ID	210105/014	
Sample No.	35201-1	
Arsenic (µg)	2.8	

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.: Date of Issue:

QC 35201

Date Received:

2021-06-02 2021-05-27

Date Tested: Date Completed: 2021-05-27 2021-06-02

Page:

1 of 2

ATTN:

Ms Ivy Tam

QC report:

Method Blank

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

### Filter Lot Blank

Parameter	Filter Lot Blank	Acceptance
Arsenic (μg)	0.04	N/A

Laboratory control spike/ Method OC

Parameter	MQC	Acceptance
Arsenic (%)	97	80-120

#### Calibration check

Parameter	CCV	Acceptance
Arsenic (%)	102	90-110

### Interference check solution A

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

#### Interference check solution AB

Parameter	ICS AB	Acceptance
Arsenic (%)	97	70-130

Remarks: 1)  $\leq$  = less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 35201

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

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

 Report No.:
 QC 35201

 Date of Issue:
 2021-06-02

 Date Received:
 2021-05-27

 Date Tested:
 2021-05-27

 Date Completed:
 2021-06-02

Page:

2 of 2

QC report:

Matrix Spike

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

Filter Duplicate

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

Serial dilution check

Parameter	Serial dilution check	Acceptance	
Arsenic (%)	99	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 35201

## 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 Structure	e at Pak Sl	nek Au					
Sampling Date & T	Гime:	From: 26-5-2021	( 0	0 : 00	)	Collec	tion Date: 2/1×/w		
Operators:		en la	Weather Wind:	Sunny Strong	Cloudy	Windy	Rainy		
YT:	-1- 3 <i>I</i> a farm	- Complan	Model no	).			TE-6070X		
F11	ign voiun	ne Sampler	Blower N	Aotor Seri	al no.		3>15		
		RSP - Respirable S	uspended	Particula	ıtes Sampler	- LIA			
		T.""			Set P		7-03		
Equipment 1		0.97 ¹	1 <u>-0)</u>	<del></del>	Interce		0.8384		
Slope, m	·	0.94	T	Initial		орт. о	Final, f		
	/ TT \	D -		Initial,			X116		
Ambient Pressure	<u> </u>			-100 200			7. 7.		
Ambient Temperat		l'a	<del> </del>				7-0		
Delta (in. of Water), W				7.0			1-745		
$Y = [W \times (Ta+30)/Pa]^{1/2}$				1. 743			1111		
	Standard flow, Qstd (m ³ /min) = (Y - b)*0.0283/m				_( )	12868.83			
Elapsed Timer Indicator (Hours), T				12841.83 12868.83					
Filter Identification			(233) W ( 300 ) ( 300 )						
Weight of Filter (g			0.0745 O						
Weight of Particul Mean Standard Flo			1-						
$Qstd_{avg} = (Qstd_i +$			1-134						
Total Time,	***	*	1440-00						
Total Time = (Tf - Standard Volume,	- Ti) x 60								
Vstd $(m^3)$ = Qstd _a	x Total	Time	1633.3						
Particulate Conc		_	45-6						
Observed Construction	М	ain Construction Site	NA				,		
Activities	Ot	her Construction Site	DIK						
Remarks:	Roa	latic	w			0	•		
		<u> </u>			$\bigcap_{i}$				
Conducted by:	to b	i Un	Signatur	e:	V/	Date	27/8/2021		
Checked by:		Why Tang	_Signatu	re: (	W. Cong	Date	: 7/6/20H		
Project No. W	MA200	02			1	<b>5</b> .			

APPENDIX F NOISE MONITORING RESULTS AND GRAPHICAL PRESENTATION

## Appendix F - Noise Monitoring Results

Location CP-FLN-NMS1 - Belair Monte (Existing)									
Date Weather	Time	Uni	it: dB (A) (5-n	nin)	Average	Baseline Level			
			L _{eq}	L ₁₀	L 90	L _{eq}	L _{eq}		
		13:35	66.3	70.7	57.5				
		13:40	69.9	74.2	58.5				
4-May-21	Sunny	13:45	70.8	74.4	59.4	68.7			
4-11/1ay-2 1	Suring	13:50	68.3	71.7	57.8	00.7			
		13:55	67.8	69.7	60.5				
		14:00	67.8	70.5	62.4				
		13:40	69.6	72.6	62.1	68.6	69.9		
		13:45	68.2	71.8	60.5				
14 May 21	Cloudy	13:50	69.8	74.0	63.1				
14-May-21	Cloudy	13:55	69.4	72.5	59.5				
		14:00	67.2	71.5	58.2				
		14:05	66.6	70.6	56.0				
		11:30	68.5	71.5	63.3				
		11:35	69.0	73.1	61.8				
20 May 24	Cummu	11:40	68.7	71.8	64.5	20.0			
20-May-21	Sunny	11:45	69.0	72.3	63.2	68.8			
		11:50	69.0	72.4	63.2				
		11:55	68.6	71.5	61.7				
		16:00	63.9	66.5	62.4				
		16:05	63.6	64.4	62.7				
06 May 04	C. mm. i	16:10	62.9	63.5	62.3	64.4			
26-May-21	Sunny	16:15	63.3	64.0	62.0				
		16:20	64.8	66.7	62.5				
		16:25	66.8	68.5	65.1				

Location CP-FLN-NMS2 - Scattered Village House in Tong Hang (Existing)									
Date Weather	Weather	Time	Uni	it: dB (A) (5-n	nin)	Average	Baseline Level		
			L _{eq}	L ₁₀	L 90	L _{eq}	L _{eq}		
		11:25	58.2	57.4	55.7				
		11:30	56.9	57.7	55.4				
4-May-21	Sunny	11:35	60.8	65.7	55.8	57.9			
4-101ay-21	Suring	11:40	56.1	56.7	55.4	37.9			
		11:45	57.2	57.8	55.3				
		11:50	56.2	56.9	54.7				
		15:30	55.2	55.6	52.4		59.6		
		15:35	53.1	53.8	52.2	54.3			
14-May-21	Cloudy	15:40	54.5	54.3	52.3				
14-101ay-21	Cloudy	15:45	53.4	54.7	52.3				
		15:50	54.6	56.0	52.7				
		15:55	54.4	55.4	52.8				
		13:15	62.3	65.6	58.8				
		13:20	61.0	61.6	58.7				
20-May-21	Cloudy	13:25	61.2	63.1	59.1	62.2			
20-May-21	Cloudy	13:30	62.7	64.3	60.8	02.2			
		13:35	62.8	64.1	60.9				
		13:40	62.7	65.3	59.0				
		09:50	63.9	66.5	62.4		1		
		09:55	63.6	64.4	62.2				
26 May 21	Cloudy	10:00	62.9	63.5	62.3	64.3			
26-May-21	Cloudy	10:05	63.3	64.0	62.0				
		10:10	63.9	65.5	62.2				
		10:15	66.8	68.5	65.1				

WMA20002 - Noise Results Wellab

## Appendix F - Noise Monitoring Results

Location CP-KTN-NMS2 - Residential Buildings at Ma Tso Lung (Existing)									
Date Weather	Time	Un	it: dB (A) (5-n	nin)	Average	Baseline Level			
			L _{eq}	L ₁₀	L 90	L _{eq}	L _{eq}		
		13:10	57.6	58.1	57.1				
		13:15	57.7	58.4	57.1				
5-May-21	Sunny	13:20	57.3	57.8	56.8	58.0			
5-iviay-2 i	Suring	13:25	57.8	58.4	56.9	30.0			
		13:30	58.7	58.9	56.8				
		13:35	58.8	60.1	57.2				
		09:00	57.5	58.2	56.9		58.6		
		09:05	57.4	58.4	56.6	57.8			
11-May-21	Sunny	09:10	57.2	57.8	56.6				
1 1-iviay-2 i	Suring	09:15	58.3	59.7	56.7				
		09:20	58.6	59.8	56.9				
		09:25	57.4	58.0	56.3				
		13:00	58.1	58.5	57.3				
		13:05	57.7	58.3	57.2				
21-May-21	Sunny	13:10	57.6	58.1	57.0	57.8			
21-111ay-21	Suring	13:15	57.7	58.2	57.3	57.6			
		13:20	58.0	58.8	57.3				
		13:25	57.7	58.3	57.2				
		10:40	67.5	67.4	57.8				
		10:45	62.6	66.4	57.1	64.6			
27 May 21	Cuppy	10:50	68.5	67.0	57.5				
27-May-21	Sunny	10:55	61.1	64.4	57.0				
		11:00	60.2	63.3	57.1				
		11:05	58.1	59.3	56.9				

Location CP-KTN-NMS3 - Fung Kong Garden (Existing)									
Date Weather	Time	Uni	it: dB (A) (5-r	nin)	Average	Baseline Level			
			L _{eq}	L ₁₀	L 90	L _{eq}	L _{eq}		
		13:50	54.4	55.5	51.8				
		13:55	56.2	58.6	54.7				
5-May-21	Sunny	14:00	56.2	58.7	54.7	56.9			
J-IVIAY-Z I	Suring	14:05	56.4	58.7	54.9	30.9			
		14:10	58.1	58.7	54.5				
		14:15	58.7	64.0	54.6				
		09:50	57.3	59.0	55.3		51.6		
		09:55	60.7	64.2	55.3	57.9			
11-May-21	Sunny	10:00	56.3	57.1	55.3				
1 1-iviay-2 i	Suring	10:05	57.9	60.7	55.4				
		10:10	57.3	59.4	55.2				
		10:15	56.0	57.9	55.3				
		13:40	54.5	60.2	48.4				
		13:45	57.3	60.9	50.1				
21-May-21	Sunny	13:50	52.6	54.8	49.4	56.8			
21-111ay-21	Suring	13:55	58.9	62.4	49.7	30.0			
		14:00	58.1	58.6	52.0				
		14:05	56.3	58.1	51.6				
		11:30	58.9	62.1	47.4				
		11:35	53.8	57.2	47.2				
27-May-21	Sunny	11:40	54.4	56.6	46.8	56.4			
∠1-111ay-∠1	Suring	11:45	57.4	61.2	54.6				
		11:50	55.6	56.1	55.1				
		11:55	56.4	56.9	55.6				

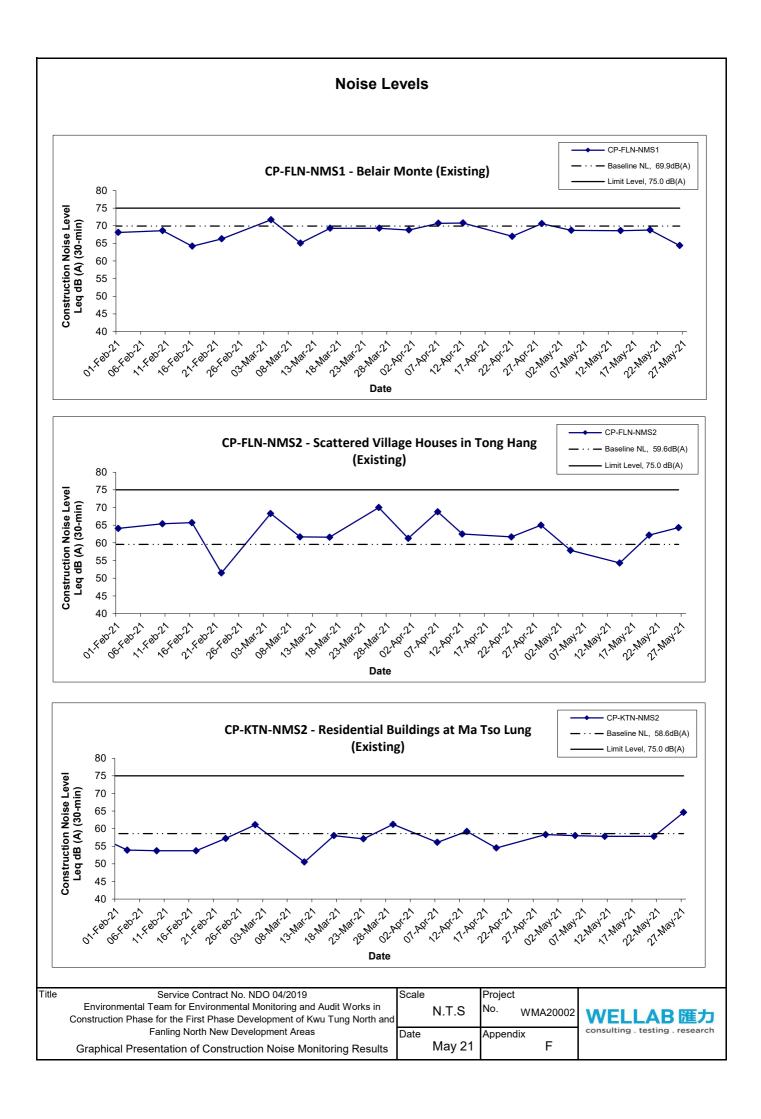
WMA20002 - Noise Results Wellab

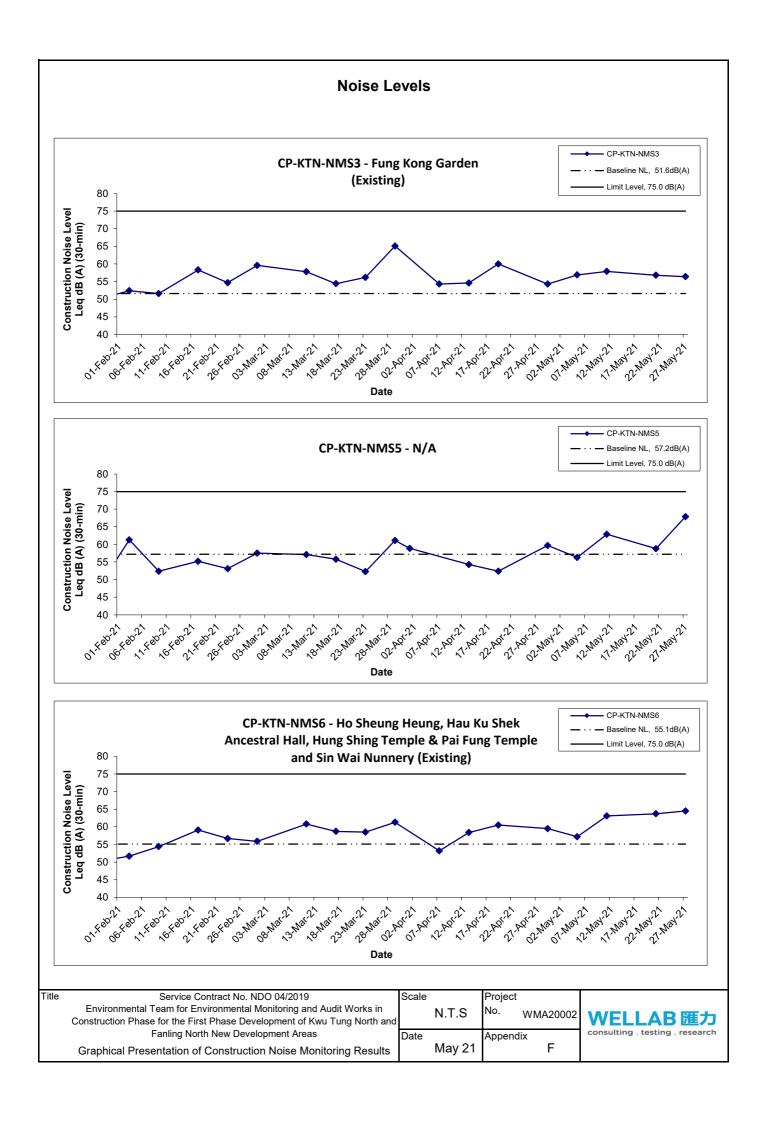
## Appendix F - Noise Monitoring Results

Location CP-KTN-NMS5 - N/A									
Date Weather	Time	Uni	it: dB (A) (5-r	nin)	Average	Baseline Level			
			L _{eq}	L ₁₀	L 90	L _{eq}	L _{eq}		
		16:30	55.0	57.5	47.5				
		16:35	55.6	56.6	54.8				
5-May-21	Sunny	16:40	57.2	57.7	55.3	56.3			
3-11/ay-21	Guilly	16:45	56.5	57.0	53.0	30.3			
		16:50	56.3	57.1	53.4				
		16:55	56.7	57.9	53.2				
		13:20	69.1	70.1	66.5		57.2		
		13:25	63.7	64.9	61.8	62.9			
11-May-21	Sunny	13:30	59.6	62.4	53.4				
11-May-21	Guilly	13:35	51.5	53.4	48.1				
		13:40	52.5	54.5	49.8				
		13:45	51.0	52.8	48.5				
		15:30	61.0	65.2	51.6				
		15:35	60.7	63.5	50.3				
21-May-21	Sunny	15:40	56.8	60.7	52.7	58.8			
21-Way-21	Suring	15:45	57.0	59.7	53.1	30.0			
		15:50	57.1	59.8	49.8				
		15:55	58.2	63.4	50.5				
		14:15	72.9	73.2	72.6				
		14:20	71.0	71.3	70.5				
27 May 24	Sunny	14:25	64.1	65.8	61.9	67.9			
27-May-21	Sullily	14:30	56.6	58.2	54.8				
		14:35	58.9	61.4	56.5				
		14:40	60.1	63.2	58.4				

Location CP-KTN-NMS6 - Ho Sheung Heung, Hau Ku Shek Ancestral Hall, Hung Shing Temple & Pai Fung Temple and Sin Wai Nunnery (Existing)									
Date Weather	Time	Uni	it: dB (A) (5-n	nin)	Average	Baseline Leve			
			L _{eq}	L ₁₀	L 90	L _{eq}	L _{eq}		
		11:30	60.0	62.5	53.3				
		11:35	54.7	55.7	53.8				
E May 21	Cuppy	11:40	53.8	54.4	52.8	57.2			
5-May-21	Sunny	11:45	53.9	54.7	52.9	57.2			
		11:50	55.3	57.9	53.1				
		11:55	60.1	62.1	57.5				
		10:45	58.6	61.4	56.6	63.1			
		10:50	62.4	63.4	57.1				
44 May 04	C	10:55	59.3	60.0	58.5				
11-May-21	Sunny	11:00	67.3	68.1	58.3				
		11:05	62.5	62.6	61.7				
		11:10	62.5	63.4	61.8				
		11:00	64.9	67.5	61.9		55.1		
		11:05	64.5	66.5	61.6				
04 May 04	C.,,,,,,,	11:10	63.2	65.2	59.7	]			
21-May-21	Sunny	11:15	62.9	65.0	61.0	63.7			
		11:20	64.7	66.9	60.8				
		11:25	61.2	63.4	57.7				
		13:00	56.8	58.1	54.3		1		
		13:05	57.6	59.8	54.5				
07.14 04	0	13:10	60.1	61.9	55.2	64.5			
27-May-21	Sunny	13:15	70.1	73.3	56.9				
		13:20	64.8	68.2	59.2				
		13:25	62.2	65.4	58.7				

WMA20002 - Noise Results Wellab





APPENDIX G WATER QUALITY MONITORING RESULTS AND GRAPHICAL PRESENTATIONS

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

Location: SYR-CS1

Date	Weather	Start	Sampling	Depth (m)	Tempera	ture (°C)	ŗ	Н	Salin	ity ppt	DO Satu	ration (%)	Dissolved O	xygen (mg/L)	Turbid	ity(NTU)	Suspended	Solids (mg/L)	Arseni	c (μg/L)
Date	Condition	Time	Sampling	Depui (III)	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
3-May-21	Sunny	10:37	Middle	0.1	25.4 25.4	25.4	7.3 7.3	7.3	0.2 0.2	0.2	77.7 77.4	77.6	6.4 6.4	6.4	12.0 12.1	12.1	19 16	17.5	5 4	4.5
5-May-21	Sunny	11:16	Middle	0.1	27.8 27.8	27.8	7.2 7.2	7.2	0.2 0.2	0.2	71.5 70.8	71.2	5.6 5.6	5.6	31.0 30.9	31.0	33 34	33.5	5 4	4.5
7-May-21	Sunny	12:57	Middle	0.1	29.0 29.1	29.1	7.5 7.5	7.5	0.1 0.1	0.1	90.9 90.9	90.9	7.0 7.0	7.0	4.9 4.8	4.9	19 16	17.5	5 6	5.5
10-May-21	Sunny	11:36	Middle	0.2	30.6 30.6	30.6	7.8 7.8	7.8	0.1 0.1	0.1	105.8 105.7	105.8	7.9 7.9	7.9	12.9 12.8	12.9	37 36	36.5	5 5	5.0
12-May-21	Sunny	11:32	Middle	0.2	31.5 31.5	31.5	7.7 7.7	7.7	0.1 0.1	0.1	97.9 98.0	98.0	7.2 7.2	7.2	6.4 6.4	6.4	34 35	34.5	11 10	10.5
14-May-21	Sunny	10:00	Middle	0.1	29.4 29.4	29.4	7.7 7.6	7.7	0.3 0.3	0.3	93.3 92.1	92.7	7.1 7.0	7.1	9.5 9.2	9.4	38 40	39.0	11 12	11.5
17-May-21	Cloudy	16:02	Middle	0.1	31.2 31.2	31.2	7.2 7.2	7.2	0.2 0.2	0.2	84.5 84.5	84.5	6.3 6.3	6.3	11.0 10.5	10.8	26 26	26.0	13 13	13.0
20-May-21	Sunny	09:40	Middle	0.1	30.7 30.7	30.7	7.6 7.6	7.6	0.2 0.2	0.2	73.3 73.0	73.2	5.5 5.5	5.5	7.8 7.9	7.9	31 33	32.0	10 9	9.5
22-May-21	Sunny	12:51	Middle	0.1	34.2 34.2	34.2	8.0 8.0	8.0	0.2 0.2	0.2	86.4 85.9	86.2	6.1 6.0	6.1	9.0 9.3	9.2	30 30	30.0	8 7	7.5
24-May-21	Rainy	11:46	Middle	0.2	31.5 31.5	31.5	7.9 7.9	7.9	0.2 0.2	0.2	110.3 110.7	110.5	8.1 8.2	8.2	10.2 10.0	10.1	22 28	25.0	10 10	10.0
26-May-21	Cloudy	12:52	Middle	0.2	31.4 31.4	31.4	7.3 7.3	7.3	0.1 0.1	0.1	89.1 88.9	89.0	6.6 6.6	6.6	14.7 14.3	14.5	5 5	5.0	12 14	13.0
28-May-21	Cloudy	09:23	Middle	0.2	30.2 30.2	30.2	7.3 7.3	7.3	0.1 0.1	0.1	78.6 78.5	78.6	5.9 5.9	5.9	5.3 5.5	5.4	14 14	14.0	12 12	12.0
31-May-21	Cloudy	10:27	Middle	0.2	30.5 30.5	30.5	7.2 7.1	7.2	0.1 0.2	0.2	35.4 34.6	35.0	2.7 2.6	2.7	5.4 5.4	5.4	13 12	12.5	11 14	12.5

Location: SYR-IS1

Date	Weather	Start	Sampling	Depth (m)	Tempera	iture (°C)	ŗ	Н	Salin	ity ppt	DO Satu	ration (%)	Dissolved O	xygen (mg/L)	Turbid	ity(NTU)	Suspended	Solids (mg/L)	Arseni	c (μg/L)
Date	Condition	Time	Gampling	Depui (III)	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
3-May-21	Sunny	10:48	Middle	0.4	24.2 24.2	24.2	7.3 7.3	7.3	0.2 0.2	0.2	80.9 80.2	80.6	6.8 6.7	6.8	37.3 37.2	37.3	50 55	52.5	5 4	4.5
5-May-21	Sunny	11:27	Middle	0.4	27.0 27.0	27.0	7.2 7.2	7.2	0.1 0.1	0.1	78.3 77.5	77.9	6.2 6.2	6.2	35.5 36.6	36.1	38 38	38.0	4 4	4.0
7-May-21	Sunny	12:41	Middle	0.5	29.8 29.8	29.8	7.5 7.5	7.5	0.2 0.2	0.2	96.7 96.7	96.7	7.3 7.3	7.3	33.5 31.9	32.7	52 43	47.5	5 4	4.5
10-May-21	Sunny	11:46	Middle	0.4	29.8 29.8	29.8	7.3 7.3	7.3	0.3 0.3	0.3	92.1 91.8	92.0	7.0 7.0	7.0	24.8 25.1	25.0	48 45	46.5	5 5	5.0
12-May-21	Sunny	11:13	Middle	0.4	31.8 31.8	31.8	7.2 7.2	7.2	0.3 0.3	0.3	87.2 87.2	87.2	6.4 6.4	6.4	27.7 27.6	27.7	37 38	37.5	2	2.5
14-May-21	Sunny	10:10	Middle	0.4	30.0 29.9	30.0	7.4 7.4	7.4	0.3 0.3	0.3	86.7 85.5	86.1	6.6 6.5	6.6	36.4 36.8	36.6	55 53	54.0	3 3	3.0
17-May-21	Cloudy	15:35	Middle	0.3	32.1 32.1	32.1	7.3 7.3	7.3	0.3 0.3	0.3	87.2 87.1	87.2	6.4 6.3	6.4	21.9 22.2	22.1	35 33	34.0	5 5	5.0
20-May-21	Sunny	10:00	Middle	0.4	29.5 29.5	29.5	7.3 7.2	7.3	0.3 0.3	0.3	43.0 42.2	42.6	3.3 3.2	3.3	23.4 23.2	23.3	38 31	34.5	6 7	6.5
22-May-21	Sunny	13:01	Middle	0.4	35.5 35.4	35.5	8.2 8.2	8.2	0.2 0.2	0.2	163.2 163.8	163.5	11.3 11.3	11.3	53.0 52.6	52.8	74 68	71.0	4 3	3.5
24-May-21	Rainy	11:59	Middle	0.4	31.6 31.6	31.6	7.3 7.3	7.3	0.3 0.3	0.3	81.0 81.0	81.0	6.0 6.0	6.0	29.6 29.9	29.8	34 41	37.5	7 6	6.5
26-May-21	Cloudy	13:02	Middle	0.4	30.6 30.6	30.6	7.2 7.1	7.2	0.3 0.3	0.3	83.4 82.2	82.8	6.2 6.1	6.2	24.0 25.5	24.8	14 11	12.5	7 7	7.0
28-May-21	Cloudy	09:46	Middle	0.4	30.6 30.6	30.6	7.0 7.0	7.0	0.3 0.3	0.3	83.2 83.0	83.1	6.2 6.2	6.2	38.9 38.6	38.8	45 46	45.5	5 5	5.0
31-May-21	Cloudy	10:43	Middle	0.4	30.5 30.5	30.5	7.0 7.0	7.0	0.3 0.3	0.3	37.1 37.0	37.1	2.8 2.8	2.8	42.6 41.3	42.0	49 44	46.5	5 5	5.0

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

Location: NTR-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	Jamping	Depui (III)	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
3-May-21	Sunny	11:57	Middle	0.1	24.6 24.6	24.6	7.1 7.0	7.1	0.1 0.1	0.1	62.3 62.0	62.2	5.2 5.2	5.2	4.7 4.9	4.8	8 9	8.5
5-May-21	Sunny	10:47	Middle	0.2	28.0 28.0	28.0	7.1 7.1	7.1	0.1 0.1	0.1	72.8 72.6	72.7	5.7 5.7	5.7	7.4 7.6	7.5	18 18	18.0
7-May-21	Sunny	10:49	Middle	0.1	26.9 26.9	26.9	7.3 7.3	7.3	0.3 0.3	0.3	83.6 82.7	83.2	6.7 6.6	6.7	3.8 3.8	3.8	6 6	6.0
10-May-21	Sunny	10:37	Middle	0.1	28.0 28.0	28.0	6.9 6.8	6.9	0.1 0.1	0.1	71.5 70.1	70.8	5.6 5.5	5.6	3.3 3.2	3.3	12 12	12.0
12-May-21	Sunny	10:37	Middle	0.1	29.3 29.3	29.3	6.8 6.8	6.8	0.1 0.1	0.1	74.1 73.9	74.0	5.7 5.7	5.7	3.9 3.9	3.9	7 6	6.5
14-May-21	Sunny	11:35	Middle	0.1	28.9 28.8	28.9	7.1 7.1	7.1	0.1 0.1	0.1	65.3 65.0	65.2	5.0 5.0	5.0	5.9 5.7	5.8	15 13	14.0
17-May-21	Cloudy	13:23	Middle	0.1	31.4 31.4	31.4	7.2 7.2	7.2	0.1 0.1	0.1	79.0 78.8	78.9	5.8 5.8	5.8	3.1 3.0	3.1	10 12	11.0
20-May-21	Sunny	11:31	Middle	0.1	30.3 30.2	30.3	7.0 7.0	7.0	0.1 0.1	0.1	75.0 74.9	75.0	5.6 5.6	5.6	4.6 4.3	4.5	10 10	10.0
22-May-21	Sunny	14:46	Middle	0.1	32.5 32.5	32.5	7.1 7.1	7.1	0.1 0.1	0.1	75.4 75.0	75.2	5.5 5.4	5.5	8.2 8.2	8.2	12 12	12.0
24-May-21	Rainy	17:48	Middle	0.1	30.0 29.9	30.0	7.1 7.1	7.1	0.1 0.1	0.1	49.3 49.1	49.2	3.7 3.7	3.7	13.4 13.5	13.5	12 14	13.0
26-May-21	Cloudy	14:35	Middle	0.1	30.2 30.2	30.2	7.0 7.0	7.0	0.1 0.1	0.1	60.5 60.3	60.4	4.6 4.5	4.6	4.6 4.4	4.5	4 6	5.0
28-May-21	Cloudy	11:45	Middle	0.1	30.4 30.4	30.4	7.0 7.0	7.0	0.1 0.1	0.1	69.2 69.0	69.1	5.2 5.2	5.2	5.7 5.6	5.7	10 10	10.0
31-May-21	Cloudy	12:03	Middle	0.2	29.7 29.7	29.7	7.0 7.0	7.0	0.1 0.1	0.1	69.9 69.5	69.7	5.3 5.3	5.3	4.8 4.6	4.7	6 5	5.5

Location: NTR-IS1

Date	Weather	Start	Sampling	Depth (m)	Tempera	ature (°C)	ŗ	Н	Salin	ity ppt	DO Satu	ration (%)	Dissolved O	xygen (mg/L)	Turbid	ty(NTU)	Suspended	Solids (mg/L)
Date	Condition	Time	Gampling	Deptii (iii)	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
3-May-21	Sunny	11:07	Middle	0.5	25.1 25.1	25.1	7.4 7.3	7.4	0.1 0.1	0.1	76.2 75.3	75.8	6.3 6.2	6.3	5.5 5.3	5.4	8 8	8.0
5-May-21	Sunny	09:56	Middle	0.4	26.6 26.6	26.6	7.4 7.4	7.4	0.1 0.1	0.1	77.2 76.8	77.0	6.2 6.2	6.2	4.4 4.7	4.6	8 9	8.5
7-May-21	Sunny	11:48	Middle	0.5	29.4 29.4	29.4	7.2 7.2	7.2	0.1 0.1	0.1	80.9 80.5	80.7	6.2 6.1	6.2	3.6 3.5	3.6	6 6	6.0
10-May-21	Sunny	09:45	Middle	0.4	29.6 29.6	29.6	7.3 7.3	7.3	0.1 0.1	0.1	83.1 83.1	83.1	6.3 6.3	6.3	3.4 3.4	3.4	8 9	8.5
12-May-21	Sunny	09:40	Middle	0.4	30.3 30.3	30.3	7.3 7.3	7.3	0.2 0.2	0.2	105.9 106.0	106.0	8.0 8.0	8.0	4.3 4.2	4.3	8 7	7.5
14-May-21	Sunny	10:31	Middle	0.3	30.2 30.2	30.2	7.8 7.8	7.8	0.2 0.2	0.2	119.5 119.7	119.6	9.0 9.0	9.0	5.5 5.8	5.7	5 6	5.5
17-May-21	Cloudy	15:01	Middle	0.3	32.9 33.0	33.0	8.2 8.2	8.2	0.1 0.1	0.1	138.0 138.0	138.0	9.9 9.9	9.9	5.7 5.9	5.8	8 9	8.5
20-May-21	Sunny	10:19	Middle	0.5	31.0 31.0	31.0	7.5 7.5	7.5	0.2 0.2	0.2	74.5 74.3	74.4	5.5 5.5	5.5	6.0 5.9	6.0	10 9	9.5
22-May-21	Sunny	13:23	Middle	0.4	34.2 34.1	34.2	8.5 8.5	8.5	0.2 0.2	0.2	151.5 154.1	152.8	10.7 10.9	10.8	8.0 8.2	8.1	10 10	10.0
24-May-21	Rainy	15:55	Middle	0.5	30.7 30.7	30.7	7.4 7.4	7.4	0.2 0.2	0.2	77.1 76.8	77.0	5.8 5.7	5.8	7.1 7.5	7.3	10 10	10.0
26-May-21	Cloudy	13:40	Middle	0.5	31.9 31.8	31.9	7.2 7.2	7.2	0.1 0.1	0.1	83.2 82.3	82.8	6.1 6.0	6.1	5.3 5.4	5.4	3 4	3.5
28-May-21	Cloudy	10:38	Middle	0.5	31.6 31.6	31.6	7.4 7.4	7.4	0.2 0.2	0.2	81.9 81.1	81.5	6.0 6.0	6.0	4.4 4.4	4.4	4 4	4.0
31-May-21	Cloudy	11:07	Middle	0.4	30.5 30.5	30.5	7.3 7.3	7.3	0.1 0.1	0.1	78.7 78.5	78.6	5.9 5.9	5.9	5.1 5.1	5.1	3 3	3.0

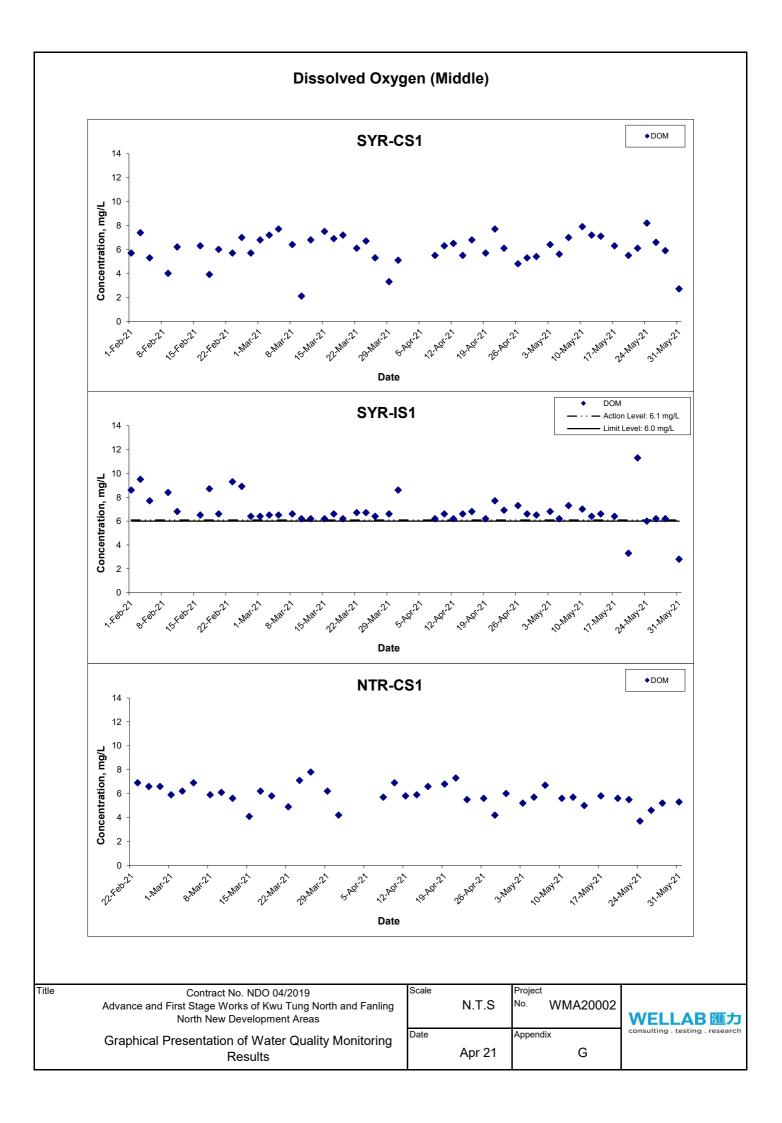
# Contract No. NDO 04/2019 Advance and First Stage Works of Kwu Tung North and Fanling North New Development Areas Water Quality Monitoring Results

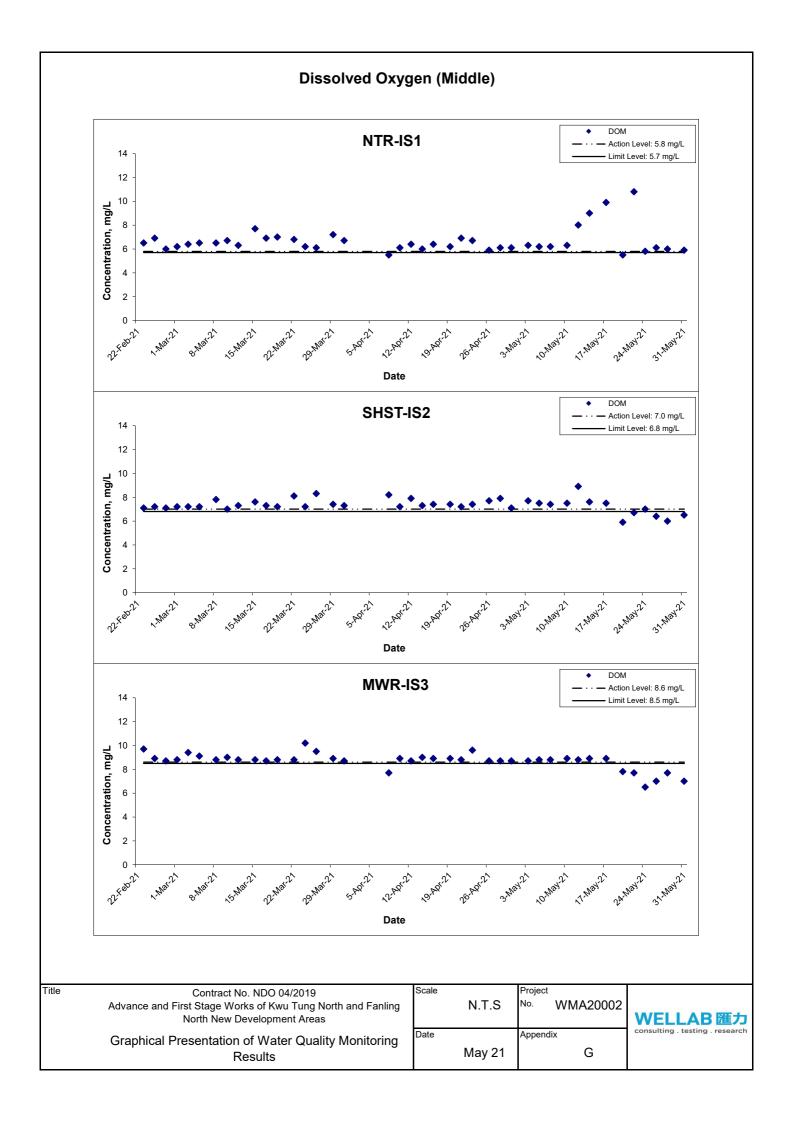
Location: SHST-IS2

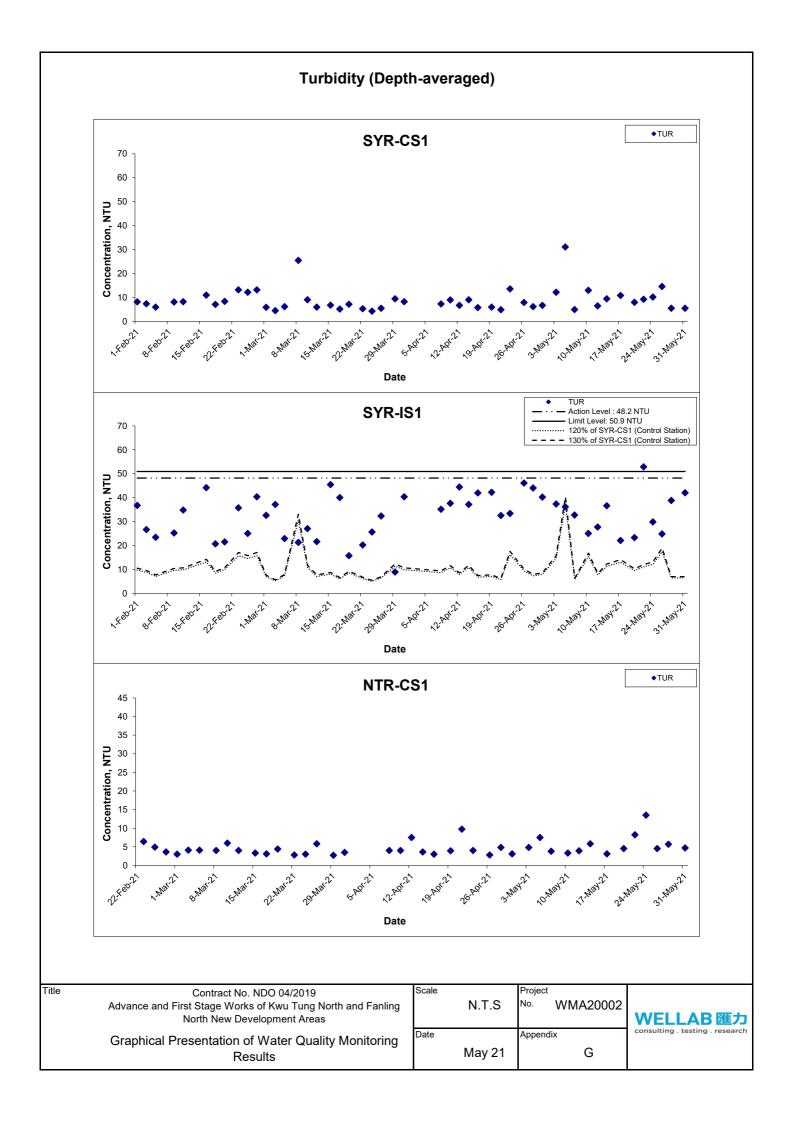
Date	Weather	Start	Sampling	Depth (m)	Tempera	ature (°C)	ŗ	Н	Salin	ity ppt	DO Satu	ration (%)	Dissolved O	xygen (mg/L)	Turbidi	ty(NTU)	Suspended	Solids (mg/L)
Date	Condition	Time	Sampling	Deptii (iii)	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
3-May-21	Sunny	11:22	Middle	0.1	24.6 24.6	24.6	7.6 7.6	7.6	0.1 0.1	0.1	93.1 92.2	92.7	7.7 7.7	7.7	4.0 3.9	4.0	4	4.0
5-May-21	Sunny	10:12	Middle	0.1	27.8 27.8	27.8	7.3 7.3	7.3	0.1 0.1	0.1	95.2 95.2	95.2	7.5 7.5	7.5	4.2 4.3	4.3	4	4.0
7-May-21	Sunny	12:08	Middle	0.1	29.7 29.7	29.7	7.2 7.2	7.2	0.1 0.1	0.1	97.1 97.0	97.1	7.4 7.4	7.4	3.9 3.9	3.9	4	4.0
10-May-21	Sunny	10:02	Middle	0.1	28.5 28.5	28.5	7.3 7.3	7.3	0.1 0.1	0.1	96.6 96.3	96.5	7.5 7.5	7.5	3.2 3.3	3.3	4	4.0
12-May-21	Sunny	09:54	Middle	0.1	31.7 31.7	31.7	7.6 7.6	7.6	0.1 0.1	0.1	120.5 120.7	120.6	8.8 8.9	8.9	4.0 4.0	4.0	3	3.0
14-May-21	Sunny	11:04	Middle	0.1	31.1 31.1	31.1	7.7 7.7	7.7	0.3 0.3	0.3	102.9 103.0	103.0	7.6 7.6	7.6	4.2 4.1	4.2	3 3	3.0
17-May-21	Cloudy	15:12	Middle	0.1	31.7 31.7	31.7	7.5 7.5	7.5	0.1 0.1	0.1	101.9 101.8	101.9	7.5 7.5	7.5	3.8 4.1	4.0	4 4	4.0
20-May-21	Sunny	10:45	Middle	0.1	31.2 31.2	31.2	9.0 9.0	9.0	0.1 0.1	0.1	78.9 78.8	78.9	5.9 5.8	5.9	1081.9 1086.6	1084.3	1100 1800	1450.0
22-May-21	Sunny	13:41	Middle	0.1	36.8 36.8	36.8	8.2 8.2	8.2	0.1 0.1	0.1	99.2 99.2	99.2	6.7 6.7	6.7	41.0 40.2	40.6	55 50	52.5
24-May-21	Rainy	17:09	Middle	0.2	30.8 30.8	30.8	9.2 9.2	9.2	0.1 0.1	0.1	94.1 94.1	94.1	7.0 7.0	7.0	228.4 250.3	239.4	252 322	287.0
26-May-21	Cloudy	14:05	Middle	0.2	32.6 32.7	32.7	7.2 7.2	7.2	0.1 0.1	0.1	89.0 88.9	89.0	6.4 6.4	6.4	24.8 25.0	24.9	7 5	6.0
28-May-21	Cloudy	11:06	Middle	0.2	31.3 31.3	31.3	7.4 7.3	7.4	0.1 0.1	0.1	80.5 80.5	80.5	6.0 6.0	6.0	21.2 21.1	21.2	18 18	18.0
31-May-21	Cloudy	11:27	Middle	0.1	30.3 30.3	30.3	7.6 7.6	7.6	0.1 0.1	0.1	85.9 85.8	85.9	6.5 6.5	6.5	15.7 15.7	15.7	11 12	11.5

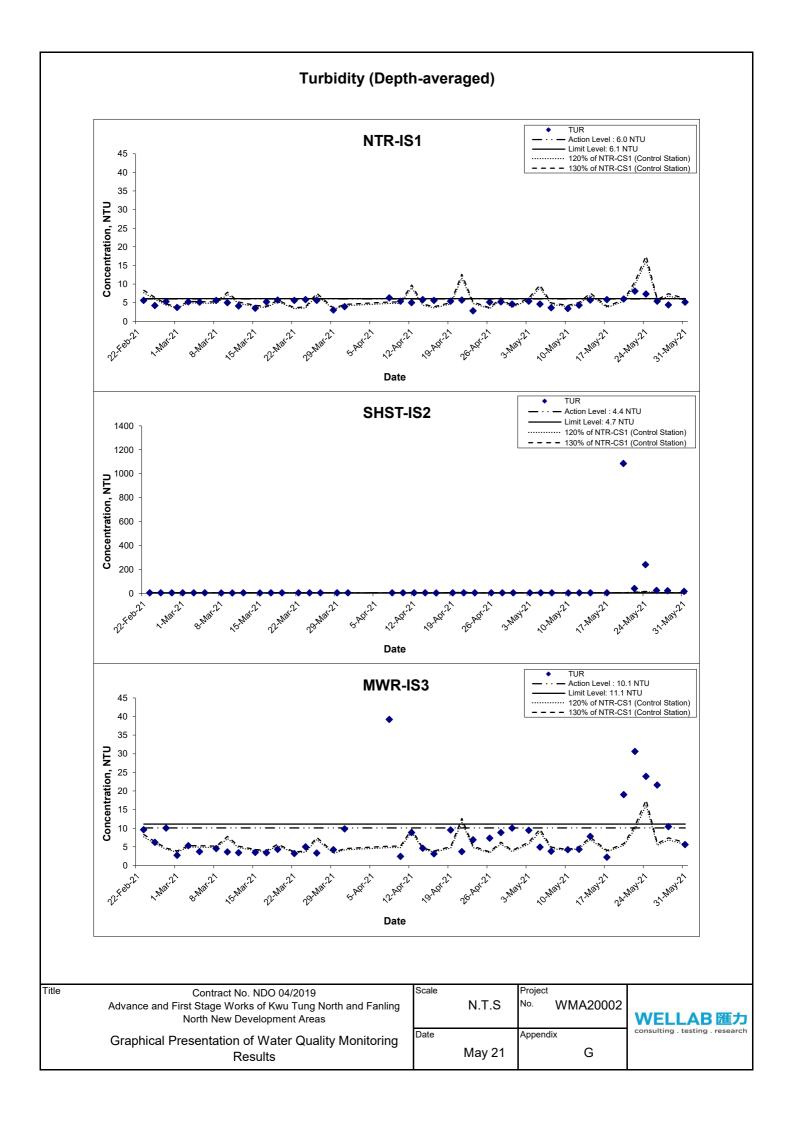
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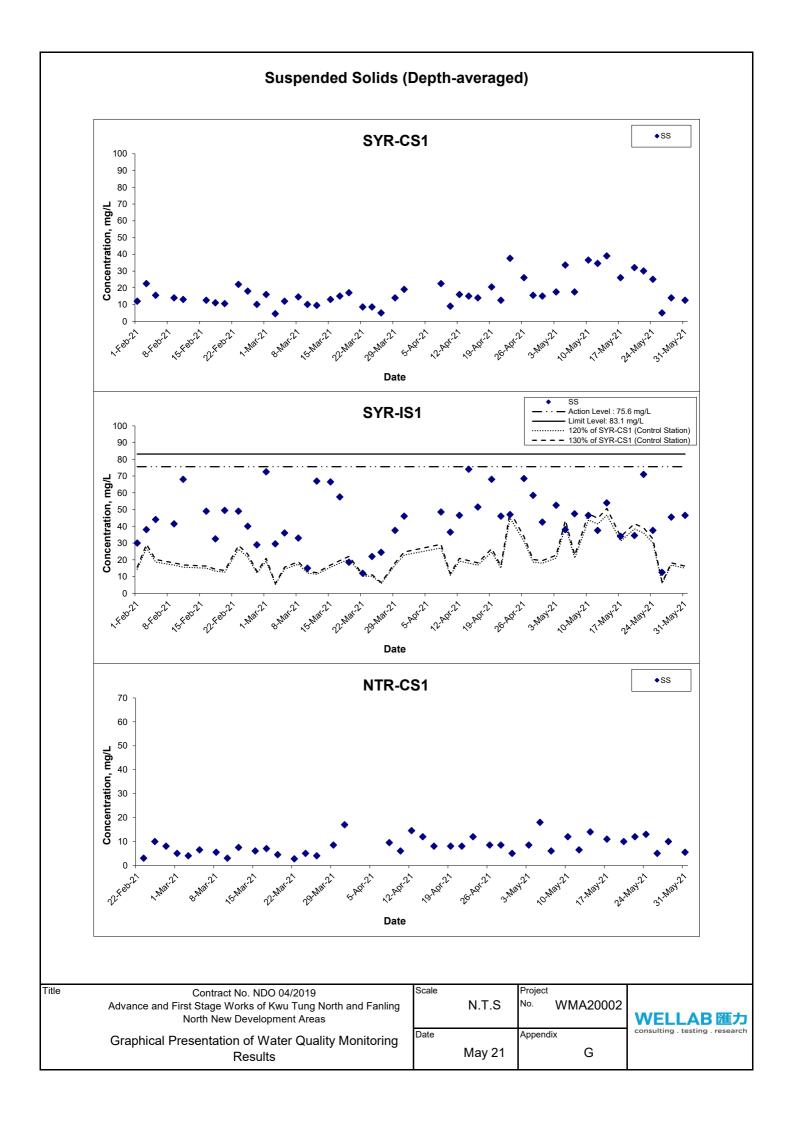
Date	Weather	Start	Compling	Depth (m)	Tempera	ature (°C)	F	Н	Salin	ity ppt	DO Satu	ration (%)	Dissolved O	xygen (mg/L)	Turbidi	ty(NTU)	Suspended	Solids (mg/L)
Date	Condition	Time	Sampling	Deptil (III)	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
3-May-21	Sunny	11:34	Middle	0.1	24.6 24.6	24.6	7.5 7.5	7.5	0.1 0.1	0.1	104.0 103.4	103.7	8.7 8.6	8.7	9.3 9.4	9.4	10 9	9.5
5-May-21	Sunny	10:26	Middle	0.1	27.5 27.6	27.6	7.6 7.6	7.6	0.2 0.2	0.2	111.4 111.7	111.6	8.8 8.8	8.8	4.8 4.9	4.9	8 8	8.0
7-May-21	Sunny	11:04	Middle	0.1	27.2 27.3	27.3	7.0 7.0	7.0	0.1 0.1	0.1	110.3 109.8	110.1	8.8 8.7	8.8	3.8 3.8	3.8	7 7	7.0
10-May-21	Sunny	10:13	Middle	0.2	28.4 28.4	28.4	7.5 7.5	7.5	0.2 0.2	0.2	114.1 114.2	114.2	8.9 8.9	8.9	4.2 4.2	4.2	8 10	9.0
12-May-21	Sunny	10:12	Middle	0.2	29.7 29.8	29.8	7.6 7.6	7.6	0.1 0.1	0.1	115.2 115.4	115.3	8.8 8.8	8.8	4.3 4.3	4.3	12 12	12.0
14-May-21	Sunny	11:15	Middle	0.1	29.8 29.9	29.9	7.7 7.7	7.7	0.2 0.2	0.2	117.0 117.0	117.0	8.9 8.9	8.9	7.8 7.8	7.8	12 13	12.5
17-May-21	Cloudy	13:48	Middle	0.1	31.2 31.2	31.2	7.0 7.0	7.0	0.1 0.1	0.1	120.0 119.9	120.0	8.9 8.9	8.9	2.2 2.1	2.2	8 8	8.0
20-May-21	Sunny	11:08	Middle	0.1	32.6 32.7	32.7	7.7 7.7	7.7	0.2 0.2	0.2	108.4 108.4	108.4	7.8 7.8	7.8	19.1 18.9	19.0	20 18	19.0
22-May-21	Sunny	13:55	Middle	0.1	34.5 34.6	34.6	9.0 9.0	9.0	0.2 0.2	0.2	110.3 110.4	110.4	7.7 7.7	7.7	30.9 30.2	30.6	48 55	51.5
24-May-21	Rainy	17:23	Middle	0.1	31.6 31.6	31.6	7.8 7.8	7.8	0.2 0.2	0.2	88.2 88.1	88.2	6.5 6.5	6.5	24.6 23.1	23.9	31 30	30.5
26-May-21	Cloudy	14:15	Middle	0.1	31.8 31.8	31.8	7.8 7.8	7.8	0.2 0.2	0.2	95.5 95.6	95.6	7.0 7.0	7.0	21.8 21.3	21.6	10 11	10.5
28-May-21	Cloudy	11:18	Middle	0.1	30.7 30.7	30.7	7.7 7.7	7.7	0.2 0.2	0.2	103.4 103.7	103.6	7.7 7.7	7.7	10.4 10.4	10.4	7 6	6.5
31-May-21	Cloudy	11:39	Middle	0.2	29.8 29.8	29.8	7.5 7.5	7.5	0.2 0.2	0.2	92.0 92.0	92.0	7.0 7.0	7.0	5.6 5.5	5.6	9 10	9.5

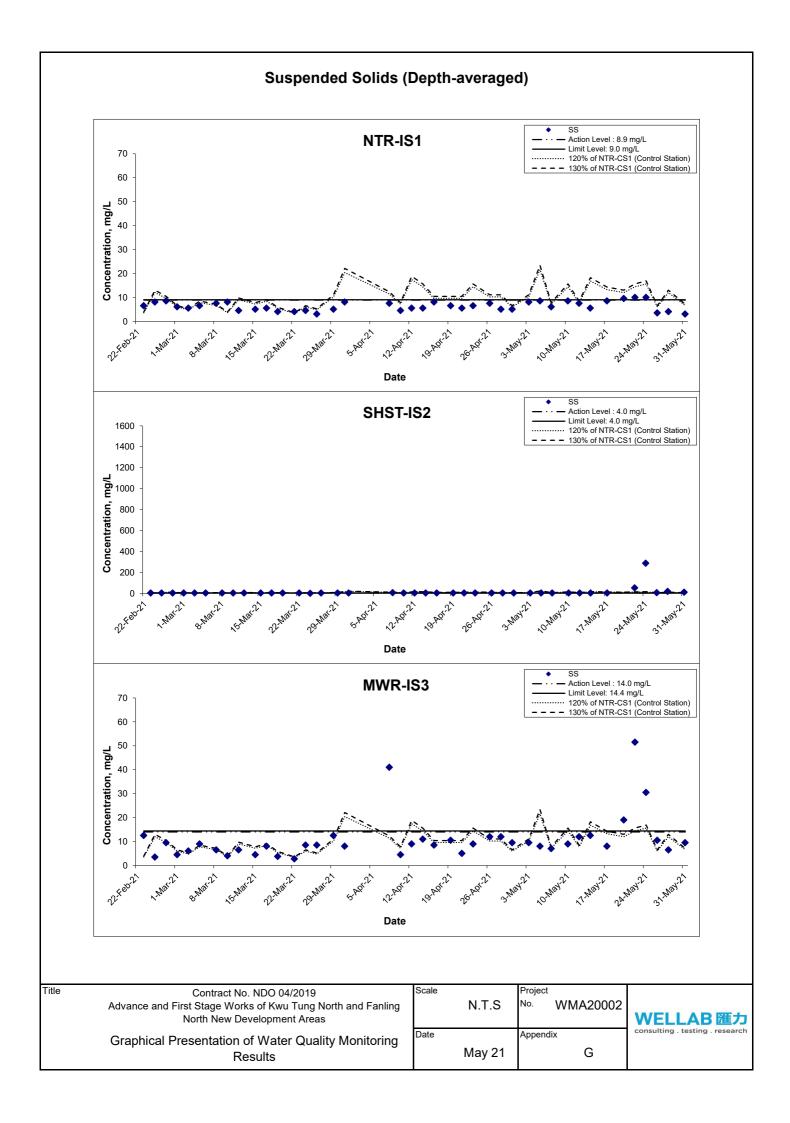




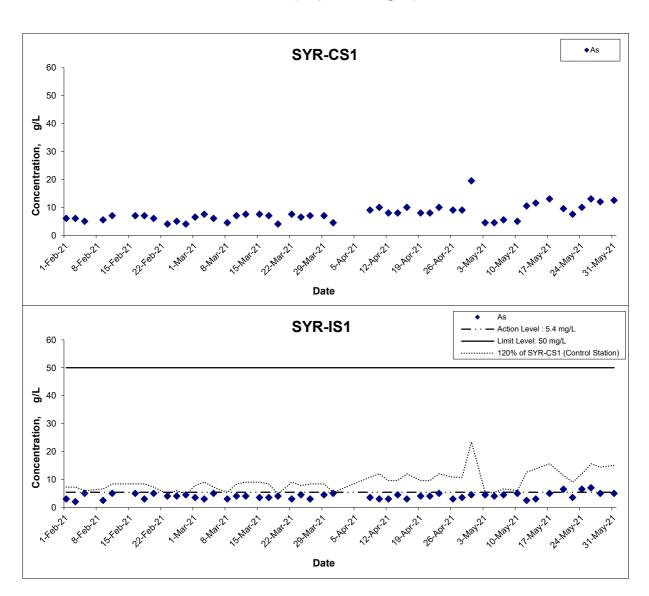








# **Arsenic (Depth-averaged)**



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 May 21	Appendix G	consulting . testing . research

APPENDIX H LABORATORY TESTING REPORTS FOR LABORATORY ANALYSIS



## TEST REPORT

APPLICANT: Wellab Limited (EM&A Department)

Rm 1701, Technology Park,

18 On Lai Street,

Shatin, N.T.

Report No.: 35068 Date of Issue: 2021-05-05 Date Received: 2021-05-03 Date Tested:

2021-05-03

Date Completed:

Page:

2021-05-05

1 of 1

ATTN:

Ms. Ivy Tam

Sample Description

4 liquid samples as received from client said to be water

Laboratory No.

35068

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.

WMA20002/210503

Sampling Date

2021-05-03

**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.	35068-2	35068-3	35068-5	35068-6
Total Suspended Solids (mg/L)	19	16	50	55
Arsenic (μg/L)	5	4	5	4

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 1701, Technology Park,

18 On Lai Street, Shatin, N.T.

Page:

Report No.:

Date of Issue:

Date Tested:

Date Received:

Date Completed:

2021-05-05 2021-05-03 2021-05-03

35068A

2021-05-03

1 of 1

ATTN:

Ms. Ivy Tam

Sample Description :

8 liquid samples as received from client said to be water

Laboratory No.

35068A

Project No.

WMA20002

Project Name

Contract No. NDO 04/2019

Collifact No. NDO 04/2019

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

**Development Areas** 

Custody No.

WMA20002/210503

Sampling Date

2021-05-03

**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.	35068-8	35068-9	35068-11	35068-12
Total Suspended Solids (mg/L)	8	9	8	8

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	35068-14	35068-15	35068-17	35068-18
Total Suspended Solids (mg/L)	4	4	10	9

Remarks: 1) < = less than

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



# **TEST REPORT**

APPLICANT:

Wellab Limited (EM&A Department)

Rm 1701, Technology Park,

18 On Lai Street,

Shatin, N.T.

Report No.: 35075 Date of Issue: 2021-0

2021-05-10

Date Received:
Date Tested:

2021-05-05 2021-05-05

Date Completed:

2021-05-10

ATTN:

Ms. Ivy Tam

Page:

1 of 1

**Sample Description** 

4 liquid samples as received from client said to be water

Laboratory No.

35075

Project No.

WMA20002

Project Name

Contract No. NDO 04/2019

Contract No. NDO 04/201

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

**Development Areas** 

Custody No. :

WMA20002/210505

Sampling Date

2021-05-05

**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

## Results:

Sample ID	SYR-CS1-a	SYR-CS1-b	SYR-IS1-a	SYR-IS1-b
Sample No.	35075-2	35075-3	35075-5	35075-6
Total Suspended Solids (mg/L)	33	34	38	38
Arsenic (μg/L)	5	4	4	4

Remarks: 1)  $\leq$  = less than

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRICK TSE



# TEST REPORT

APPLICANT:

Wellab Limited (EM&A Department)

Rm 1701, Technology Park,

18 On Lai Street, Shatin, N.T.

Report No.: Date of Issue: 35075A

2021-05-10

Date Received: Date Tested:

2021-05-05 2021-05-05

Date Completed:

2021-05-10

ATTN:

Ms. Ivy Tam

Page:

1 of 1

Sample Description

8 liquid samples as received from client said to be water

Laboratory No.

35075A

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. :

WMA20002/210505

Sampling Date

: 2021-05-05

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.	35075-8	35075-9	35075-11	35075-12
Total Suspended Solids (mg/L)	18	18	8	9

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	35075-14	35075-15	35075-17	35075-18
Total Suspended Solids (mg/L)	. 4	4	8	8

Remarks: 1)  $\leq$  = less than

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)

Rm 1701, Technology Park,

18 On Lai Street,

Shatin, N.T.

Report No.: 35089

2021-05-11

Date of Issue: Date Received:

2021-05-07

Date Tested: Date Completed: 2021-05-07 2021-05-11

ATTN:

Ms. Ivy Tam

Page:

1 of 1

Sample Description

4 liquid samples as received from client said to be water

Laboratory No.

35089

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. :

WMA20002/210507

Sampling Date

2021-05-07

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.	35089-2	35089-3	35089-5	35089-6
Total Suspended Solids (mg/L)	19	16	52	43
Arsenic (μg/L)	5	6	5	4

Remarks: 1)  $\leq$  = less than

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRICK TSE



# TEST REPORT

APPLICANT:

Wellab Limited (EM&A Department)

Rm 1701, Technology Park,

18 On Lai Street, Shatin, N.T.

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35089A 2021-05-11

2021-05-07 2021-05-07

Date Completed:

Report No.:

Date of Issue:

Date Tested:

Date Received:

2021-05-11 1 of 1

ATTN:

Ms. Ivy Tam

Sample Description

8 liquid samples as received from client said to be water

Laboratory No.

35089A

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.

WMA20002/210507

Sampling Date

2021-05-07

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.	35089-8	35089-9	35089-11	35089-12
Total Suspended Solids (mg/L)	6	6	6	6

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	35089-14	35089-15	35089-17	35089-18
Total Suspended Solids (mg/L)	4	4	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 1701, Technology Park,

18 On Lai Street, Shatin, N.T.

Report No.: 35110 Date of Issue: 2021-05-14 Date Received: 2021-05-10 Date Tested: 2021-05-10 Date Completed: 2021-05-14

ATTN:

Ms. Ivy Tam

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Sample Description :

4 liquid samples as received from client said to be water

Laboratory No.

35110

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.

WMA20002/210510

Sampling Date

2021-05-10

**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.

ixcourts.				
Sample ID	SYR-CS1-a	SYR-CS1-b	SYR-IS1-a	SYR-IS1-b
Sample No.	35110-2	35110-3	35110-5	35110-6
Total Suspended Solids (mg/L)	37	36	48	45
Arsenic (µg/L)	5	5	5	5

Remarks: 1) <= less than

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



# TEST REPORT

APPLICANT:

Wellab Limited (EM&A Department)

Rm 1701, Technology Park,

18 On Lai Street, Shatin, N.T. Report No.: 35110A Date of Issue: 2021-05-14 Date Received: 2021-05-10

Date Received: 2021-05-10

Date Tested: 2021-05-10

Date Completed: 2021-05-14

ATTN:

Ms. Ivy Tam

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Sample Description :

8 liquid samples as received from client said to be water

Laboratory No.

35110A

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. :

WMA20002/210510

Sampling Date

2021-05-10

**Tests Requested & Methodology:** 

I CO CO I	equested of internodology.	100	
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.	35110-8	35110-9	35110-11	35110-12
Total Suspended Solids (mg/L)	12	12	8	9

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	35110-14	35110-15	35110-17	35110-18
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:

ATTN:

Wellab Limited (EM&A Department)

Rm 1701, Technology Park,

18 On Lai Street,

Shatin, N.T.

Report No.: 35124

Date of Issue: 2021-05-18

Date Received: 2021-05-12

Date Tested: 2021-05-12 Date Completed: 2021-05-18

1 of 1

Ms. Ivy Tam Page:

**Sample Description** 

4 liquid samples as received from client said to be water

Laboratory No. :

35124

Project No.

WMA20002

Project Name

Contract No. NDO 04/2019

: Contract No. NDO 04/2019

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

Development Areas

Custody No.

WMA20002/210512

Sampling Date

2021-05-12

**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:

ixesuits.				
Sample ID	SYR-CS1-a	SYR-CS1-b	SYR-IS1-a	SYR-IS1-b
Sample No.	35124-2	35124-3	35124-5	35124-6
Total Suspended Solids (mg/L)	34	35	37	38
Arsenic (μg/L)	11	10	2	3

Remarks: 1) < = less than

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRICK TSE



## TEST REPORT

APPLICANT:

Wellab Limited (EM&A Department)

Rm 1701, Technology Park,

18 On Lai Street, Shatin, N.T.

Report No.:

35124A

Date of Issue:

2021-05-18

Date Received:

2021-05-12

Date Tested:

2021-05-12

Date Completed:

2021-05-18

ATTN:

Ms. Ivy Tam

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8 liquid samples as received from client said to be water

Sample Description Laboratory No.

35124A

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. :

WMA20002/210512

Sampling Date

: 2021-05-12

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.	35124-8	35124-9	35124-11	35124-12
Total Suspended Solids (mg/L)	7	6	8	7

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	35124-14	35124-15	35124-17	35124-18
Total Suspended Solids (mg/L)	3	3	12	12

Remarks: 1) < = less than

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

TRICK TSE



## TEST REPORT

APPLICANT:

Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street,

Shatin, N.T.

Report No.: 35137 Date of Issue: 2021-05-21 Date Received: 2021-05-14 Date Tested:

Page:

2021-05-14

Date Completed:

2021-05-21

1 of 1

ATTN:

Ms. Ivy Tam

Sample Description

4 liquid samples as received from client said to be water

Laboratory No.

35137

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. :

WMA20002/210514

Sampling Date

2021-05-14

**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

#### Dogulta:

Nesuits.				
Sample ID	SYR-CS1-a	SYR-CS1-b	SYR-IS1-a	SYR-IS1-b
Sample No.	35137-2	35137-3	35137-5	35137-6
Total Suspended Solids (mg/L)	38	40	55	53
Arsenic (μg/L)	11	12	3	3

Remarks: 1)  $\leq$  = less than

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



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 1701, Technology Park,

18 On Lai Street, Shatin, N.T.

Date Tested: Date Completed:

Report No.:

Date of Issue:

Date Received:

35137A 2021-05-21 2021-05-14 2021-05-14

2021-05-21

ATTN:

Ms. Ivy Tam

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8 liquid samples as received from client said to be water

Sample Description : Laboratory No.

35137A

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.

WMA20002/210514

Sampling Date: 2021-05-14

Tests Requested & Methodology:

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

#### Results:

resures.				
Sample ID	NTR-CS1-a	NTR-CS1-b	NTR-IS1-a	NTR-IS1-b
Sample No.	35137-8	35137-9	35137-11	35137-12
Total Suspended Solids (mg/L)	15	13	5	6

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	35137-14	35137-15	35137-17	35137-18
Total Suspended Solids (mg/L)	3	3	12	13

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.: 35148 Date of Issue: 2021-05-25 Date Received: 2021-05-17 Date Tested: 2021-05-17 Date Completed: 2021-05-25

1 of 1

ATTN:

Ms. Ivy Tam

4 liquid samples as received from client said to be water

Sample Description :

35148

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

Page:

**Development Areas** 

Custody No.

WMA20002/210517

Sampling Date

2021-05-17

**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.

Mesuits.				
Sample ID	SYR-CS1-a	SYR-CS1-b	SYR-IS1-a	SYR-IS1-b
Sample No.	35148-2	35148-3	35148-5	35148-6
Total Suspended Solids (mg/L)	26	26	35	33
Arsenic (μg/L)	13	13	5	5

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 1701, Technology Park,

18 On Lai Street,

Shatin, N.T.

Report No.:

35148A

Date of Issue:

2021-05-25

Date Received:

2021-05-17

Date Tested:

2021-05-17

Date Completed:

2021-05-25

ATTN:

Ms. Ivy Tam

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Sample Description

8 liquid samples as received from client said to be water

Laboratory No.

35148A

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. :

WMA20002/210517

Sampling Date

: 2021-05-17

**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.	35148-8	35148-9	35148-11	35148-12
Total Suspended Solids (mg/L)	10	12	8	9

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	35148-14	35148-15	35148-17	35148-18
Total Suspended Solids (mg/L)	4	4	8	8

Remarks: 1)  $\leq$  = less than

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)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T. 

 Report No.:
 35152

 Date of Issue:
 2021-05-25

 Date Received:
 2021-05-20

 Date Tested:
 2021-05-20

Date Completed:

2021-05-20 2021-05-25

ATTN:

Ms. Ivy Tam

Page:

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Sample Description

4 liquid samples as received from client said to be water

Laboratory No. :

35152

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. :

WMA20002/210520

Sampling Date

2021-05-20

**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:

A PO WARD!				
Sample ID	SYR-CS1-a	SYR-CS1-b	SYR-IS1-a	SYR-IS1-b
Sample No.	35152-2	35152-3	35152-5	35152-6
Total Suspended Solids (mg/L)	31	33	38	31
Arsenic (µg/L)	10	9	6	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 1701, Technology Park,

18 On Lai Street, Shatin, N.T.

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35152A

Date Received: Date Tested:

2021-05-20

Date Completed:

Report No.:

Date of Issue:

2021-05-25

1 of 1

ATTN:

Ms. Ivy Tam

Sample Description :

8 liquid samples as received from client said to be water

Laboratory No.

35152A

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.

WMA20002/210520

Sampling Date

2021-05-20

**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.	35152-8	35152-9	35152-11	35152-12
Total Suspended Solids (mg/L)	10	10	10	9

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	35152-14	35152-15	35152-17	35152-18
Total Suspended Solids (mg/L)	1,100	1,800	20	18

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.:
 35167

 Date of Issue:
 2021-05-25

 Date Received:
 2021-05-22

 Date Tested:
 2021-05-22

 Date Completed:
 2021-05-25

Page:

2021-05-25 1 of 1

ATTN:

Ms. Ivy Tam

Sample Description :

4 liquid samples as received from client said to be water

Laboratory No.

35167

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.

WMA20002/210522

Sampling Date

2021-05-22

**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.	35167-2	35167-3	35167-5	35167-6
Total Suspended Solids (mg/L)	30	30	74	68
Arsenic (µg/L)	8	7	4	3

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 1701, Technology Park,

18 On Lai Street, Shatin, N.T.

Report No.: Date of Issue: Date Received: 35167A 2021-05-25

Date Tested:

2021-05-22 2021-05-22

Date Completed:

2021-05-25

ATTN:

Ms. Ivy Tam

Page:

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Sample Description

8 liquid samples as received from client said to be water

Laboratory No.

35167A

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.

WMA20002/210522

Sampling Date

2021-05-22

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.	35167-8	35167-9	35167-11	35167-12
Total Suspended Solids (mg/L)	12	12	10	10

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	35167-14	35167-15	35167-17	35167-18
Total Suspended Solids (mg/L)	55	50	48	55

Remarks: 1) < = less than

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

ATRICK TSE



# TEST REPORT

APPLICANT:

Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T.

Report No.: 35170 Date of Issue: 2021-05-25 Date Received: 2021-05-24 Date Tested: 2021-05-24 Date Completed: 2021-05-25

1 of 1

ATTN:

Ms. Ivy Tam

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

Laboratory No.

35170

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.

WMA20002/210524

Sampling Date

2021-05-24

**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.	35170-2	35170-3	35170-5	35170-6
Total Suspended Solids (mg/L)	22	28	34	41
Arsenic (μg/L)	10	10	7	6

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 1701, Technology Park,

18 On Lai Street, Shatin, N.T.

Report No.: 35170A Date of Issue: 2021-05-25 Date Received: 2021-05-24 Date Tested: 2021-05-24 Date Completed: 2021-05-25

ATTN:

Ms. Ivy Tam

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Sample Description :

8 liquid samples as received from client said to be water

Laboratory No.

35170A

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.

WMA20002/210524

Sampling Date

2021-05-24

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.	35170-8	35170-9	35170-11	35170-12
Total Suspended Solids (mg/L)	12	14	10	10

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	35170-14	35170-15	35170-17	35170-18
Total Suspended Solids (mg/L)	252	322	31	30

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.: 35178 Date of Issue: 2021-05-28 Date Received: 2021-05-26 Date Tested: 2021-05-26

Date Completed:

2021-05-28

ATTN:

Ms. Ivy Tam

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Sample Description

4 liquid samples as received from client said to be water

Laboratory No.

35178

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.

WMA20002/210526

Sampling Date

2021-05-26

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:

resuits.			·	
Sample ID	SYR-CS1-a	SYR-CS1-b	SYR-IS1-a	SYR-IS1-b
Sample No.	35178-2	35178-3	35178-5	35178-6
Total Suspended Solids (mg/L)	5	5	14	11
Arsenic (µg/L)	12	14	7	7

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 1701, Technology Park,

18 On Lai Street,

Shatin, N.T.

Report No.:

35178A

Date of Issue:

2021-05-28

Date Received:
Date Tested:

2021-05-26 2021-05-26

Date Completed:

2021-05-28

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1 of 1

ATTN:

Ms. Ivy Tam

Sample Description

8 liquid samples as received from client said to be water

Laboratory No. :

35178A

Project No.

WMA20002

Project Name:

Contract No. NDO 04/2019

: C

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

Development Areas

Custody No. :

WMA20002/210526

Sampling Date

2021-05-26

**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.	35178-8	35178-9	35178-11	35178-12
Total Suspended Solids (mg/L)	4	6	3	4

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	35178-14	35178-15	35178-17	35178-18
Total Suspended Solids (mg/L)	7	5	10	11

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.

Page:

2021-06-02 2021-05-28 2021-05-28

35192

1 of 1

Date Completed:

Report No.:

Date of Issue:

Date Tested:

Date Received:

2021-06-02

ATTN:

Ms. Ivy Tam

Sample Description

4 liquid samples as received from client said to be water

Laboratory No.

35192

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. :

WMA20002/210528

Sampling Date

2021-05-28

**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:

2100 11101				
Sample ID	SYR-CS1-a	SYR-CS1-b	SYR-IS1-a	SYR-IS1-b
Sample No.	35192-2	35192-3	35192-5	35192-6
Total Suspended Solids (mg/L)	14	14	45	46
Arsenic (μg/L)	12	12	5	5

Remarks: 1) <= less than

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)

Rm 1701, Technology Park,

18 On Lai Street, Shatin, N.T. Date of Issue:
Date Received:

Report No.:

2021-06-02 2021-05-28

35192A

Date Tested:

2021-05-28

Date Completed:

2021-06-02

1 of 1

ATTN:

Ms. Ivy Tam

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

Laboratory No. :

35192A

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.

WMA20002/210528

Sampling Date

2021-05-28

**Tests Requested & Methodology:** 

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

#### Results:

resures.				
Sample ID	NTR-CS1-a	NTR-CS1-b	NTR-IS1-a	NTR-IS1-b
Sample No.	35192-8	35192-9	35192-11	35192-12
Total Suspended Solids (mg/L)	10	10	4	4

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	35192-14	35192-15	35192-17	35192-18
Total Suspended Solids (mg/L)	18	18	7	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.:
 35197

 Date of Issue:
 2021-06-02

 Date Received:
 2021-05-31

 Date Tested:
 2021-05-31

 Date Completed:
 2021-06-02

ATTN:

Ms. Ivy Tam

Page:

1 of 1

Sample Description :

4 liquid samples as received from client said to be water

Laboratory No.

35197

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.

WMA20002/210531

Sampling Date

2021-05-31

**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:

Trobures.				
Sample ID	SYR-CS1-a	SYR-CS1-b	SYR-IS1-a	SYR-IS1-b
Sample No.	35197-2	35197-3	35197-5	35197-6
Total Suspended Solids (mg/L)	13	12	49	44
Arsenic (μg/L)	11	14	5	5

Remarks: 1)  $\leq$  = less than

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



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 1701, Technology Park,

18 On Lai Street, Shatin, N.T.

Report No.: 35197A Date of Issue: 2021-06-02 Date Received: 2021-05-31 Date Tested: 2021-05-31 2021-06-02 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.

35197A

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.

WMA20002/210531

Sampling Date

2021-05-31

**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.	35197-8	35197-9	35197-11	35197-12
Total Suspended Solids (mg/L)	6	5	3	3

Sample ID	SHST-IS2-a	SHST-IS2-b	MWR-IS3-a	MWR-IS3-b
Sample No.	35197-14	35197-15	35197-17	35197-18
Total Suspended Solids (mg/L)	11	12	9	10

Remarks: 1)  $\leq$  = 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 1701, Technology Park,

18 On Lai Street, Shatin, N.T. Date of Issue: 20
Date Received: 20
Date Tested: 20

Date Completed:

2021-05-05 2021-05-03 2021-05-03 2021-05-05

QC35068

ATTN:

Ms. Ivy Tam

Page:

Report No.:

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 OC

Parameter	MQC1	MQC2	Acceptance
Total Suspended Solids (%)	98	99	80-120
Arsenic (%)	105	N/A	80-120

Sample Spike

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

Sample Duplicate

Sample Duplicate				
Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance	
Total Suspended Solids (%)	4	1	RPD≤5%	
Arsenic (%)	3	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 35068.

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



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 1701, Technology Park,

18 On Lai Street,

Shatin, N.T.

Report No.:	QC35075
Date of Issue:	2021-05-10
Date Received:	2021-05-05
Date Tested:	2021-05-05

Date Completed: Page:

2021-05-10 1 of 1

ATTN:

Ms. Ivy Tam

QC report Method Blank

Action 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 OC

Parameter	MQC1	MQC2	Acceptance
Total Suspended Solids (%)	98	102	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 (%)	102	N/A	80-120

Sample Duplicate

Sample Duplicate				
Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance	
Total Suspended Solids (%)	0	3	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 35075.

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



#### TEST REPORT

APPLICANT:

Wellab Limited (EM&A Department)

Rm 1701, Technology Park,

18 On Lai Street,

Shatin, N.T.

Report No.: QC35089

Date of Issue: 2021-05-11

Date Received: 2021-05-07 Date Tested: 2021-05-07

Date Completed: 2021-05-11

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 OC

ilemou Ve			
Parameter	MQC1	MQC2	Acceptance
Total Suspended Solids (%)	99	106	80-120
Arsenic (%)	98	N/A	80-120

Sample Spike

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

Sample Duplicate

Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	3	3	RPD≤5%
Arsenic (%)	19	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 35089.

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRCIK TSE General Manager

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#### TEST REPORT

APPLICANT:

Wellab Limited (EM&A Department)

Rm 1701, Technology Park,

18 On Lai Street, Shatin, N.T. Report No.: QC35110 Date of Issue: 2021-05-14

Date Received: 2021-05-10 Date Tested: 2021-05-10

Date Completed: 2021-05-14

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 OC

Parameter	MQC1	MQC2	Acceptance
Total Suspended Solids (%)	100	96	80-120
Arsenic (%)	104	N/A	80-120

Sample Spike

Sumple Spine			
Parameter	Sample Spike 1	Sample Spike 2	Acceptance
Total Suspended Solids (%)	N/A	N/A	N/A
Arsenic (%)	98	N/A	80-120

Sample Duplicate

Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	3	2	RPD≤5%
Arsenic (%)	2	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 35110.

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



#### TEST REPORT

**APPLICANT:** 

Wellab Limited (EM&A Department)

Rm 1701, Technology Park,

18 On Lai Street, Shatin, N.T.

Date Received: Date Tested:

Report No.:

Date of Issue:

2021-05-18 2021-05-12

QC35124

2021-05-12

Date Completed:

2021-05-18

ATTN:

Ms. Ivy Tam

Page:

1 of 1

QC report Method Blank

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 OC

Parameter	MQC1	MQC2	Acceptance
Total Suspended Solids (%)	103	98	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 (%)	87	N/A	80-120

Sample Duplicate

Sample Duplicate			
Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	3	5	RPD≤5%
Arsenic (%)	4	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 35124.

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.: QC35137

Date of Issue: 2021-05-21 Date Received: 2021-05-14

Date Tested: 2021-05-14

Date Completed: 2021-05-21

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 (%)	101	103	80-120
Arsenic (%)	94	N/A	80-120

Sample Spike

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

Sample Duplicate

Sumple 2 apricate			
Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	3	4	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 35137.

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.: QC35148 Date of Issue: 2021-05-25

Date Received: 2021-05-18

Date Tested: 2021-05-18
Date Completed: 2021-05-25

ATTN:

Ms. Ivy Tam

Page:

1 of 1

QC report

Ms. Ivy Tan

Method Blank

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

**Method QC** 

Parameter	MQC1	MQC2	Acceptance
Total Suspended Solids (%)	102	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 (%)	92	N/A	80-120

Sample Duplicate

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

Remarks: 1) <= less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 35148.

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.: QC35152

Date of Issue: 2021-05-26

Date Received: 2021-05-20 Date Tested: 2021-05-20

Date Completed: 2021-05-26

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 OC

Parameter	MQC1	MQC2	Acceptance
Total Suspended Solids (%)	98	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 (%)	96	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 35152.

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.



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.: Date of Issue: QC35167

Date Received:

2021-05-27

Date Tested:

2021-05-22 2021-05-22

Date Completed:

2021-05-27

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 OC

Tremou &c			
Parameter	MQC1	MQC2	Acceptance
Total Suspended Solids (%)	109	106	80-120
Arsenic (%)	98	N/A	80-120

Sample Spike

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

Sample Duplicate

Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	0	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 35167.

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.: QC35170 Date of Issue: 2021-05-25

Date Received: 2021-05-24 Date Tested: 2021-05-24

Date Completed: 2021-05-25

1 of 1

Page:

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

1,200,200			
Parameter	MQC1	MQC2	Acceptance
Total Suspended Solids (%)	106	103	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 (%)	117	N/A	80-120

Sample Duplicate

Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	1	0	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 35170.

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.: QC35178

Date of Issue: 2021-05-28 Date Received: 2021-05-26

Date Tested: 2021-05-26

2021-05-28 Date Completed:

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 (%)	98	102	80-120
Arsenic (%)	106	N/A	80-120

Sample Spike

Parameter	Sample Spike 1	Sample Spike 2	Acceptance
Total Suspended Solids (%)	N/A	N/A	N/A
Arsenic (%)	91	N/A	80-120

Sample Duplicate

Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance
Total Suspended Solids (%)	3	1	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 35178.

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.: QC35192

Date of Issue: 2021-06-02

Date Received: 2021-05-28
Date Tested: 2021-05-28

Page:

Date Completed: 2021-06-02

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 OC

Parameter	MQC1	MQC2	Acceptance
Total Suspended Solids (%)	102	106	80-120
Arsenic (%)	114	N/A	80-120

Sample Spike

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

Sample Duplicate

Sumple Bupilence					
Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance		
Total Suspended Solids (%)	1	3	RPD≤5%		
Arsenic (%)	0	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 35192.

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRCIK TSE General Manager

General Manager



## TEST REPORT

APPLICANT:

Wellab Limited (EM&A Department)

Rm 1714, Technology Park,

18 On Lai Street, Shatin, N.T. 

 Report No.:
 QC35197

 Date of Issue:
 2021-06-02

 Date Received:
 2021-05-31

 Date Tested:
 2021-05-31

 Date Completed:
 2021-06-02

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 (%)	87	115	80-120
Arsenic (%)	119	N/A	80-120

Sample Spike

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

Sample Duplicate

Sample Duplicate					
Parameter	Sample Duplicate 1	Sample Duplicate 2	Acceptance		
Total Suspended Solids (%)	3	1	RPD≤5%		
Arsenic (%)	16	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 35197.

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%
26-05-2021 9:02	CZ PT 1		20.08	0.01	0.01
26-05-2021 8:52	CZ container 1		20.76	0.01	0.01
26-05-2021 8:55	CZ container 2		20.73	0.00	0.01
26-05-2021 8:57	CZ container 3		20.72	0.00	0.02
26-05-2021 8:59	CZ container 4		20.64	0.02	0.01
26-05-2021 8:50	CZ container 5		20.77	0.00	0.02

Prepared by: Y L Chan (Safety Officer) Date: 26-05-2021

APPENDIX K BUILT HERITAGE MONITORING RESULTS

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

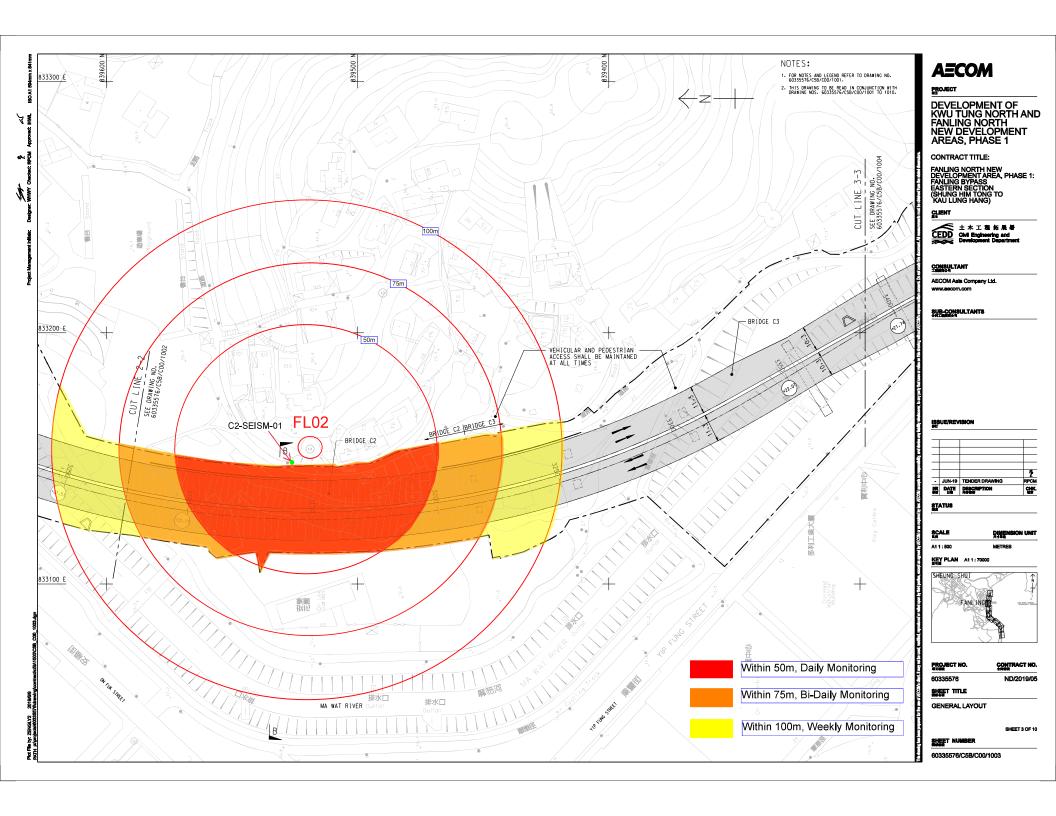


	GUIDE VALUES OF MAXIMUM PPV* (MM/SEC)						
TYPE OF BUILDING	TRANSIENT VIBRATION	CONTINUOUS VIBRATION					
Vibration-sensitive / dilapidated buildings#	7.5	3.0					



For Piling Works of C2-04 & C3-01

Date	Max. PPV recorded (mm/s)	Serial no. of device (Micromate/ Supergraph)
10 May 2021	0.603	UM17121
11 May 2021	1.000	UM17124
12 May 2021	0.082	UM17121
13 May 2021	0.067	UM17124
14 May 2021	0.108	UM17121
15 May 2021	0.263	UM17121
17 May 2021	0.107	UM17121
18 May 2021	0.093	UM17124
20 May 2021	0.098	UM17124
21 May 2021	0.083	UM17121
22 May 2021	0.103	UM17124
24 May 2021	0.183	UM17121
25 May 2021	0.318	UM17124
26 May 2021	0.078	UM17124
27 May 2021	0.061	UM17124
28 May 2021	0.076	UM17121
29 May 2021	0.229	UM17124
31 May 2021	0.248	UM17124



# APPENDIX L ECOLOGICAL MONITORING RESULTS

pre a	una species Recorded for		<b>g</b> , .		Date			6/5/20	6/5/2021, 7/5/2021					
					Weath	Weather Condition		Sunny	Sunny, Sunny					
					Tidal Condition		High	High						
		Chinese	II IV	G .:	Tide L	evel (m)	1	1.68,						
Common Name	Species Name	Name	Hong Kong Status	Conservation Status	Start T	ime		16:00,	9:00					
					Abund									
						ct Walk	Ι	Τ						
					T1	T2	T3	T5	DAT	CMAIL		77 1	THE L	
Asian Koel	Endrugung goolongoons	   噪鵑	R		1	1		WAL	DAL	SWH	P	Heard 2	Flight	
	Eudynamys scolopaceus	,			1	1						2		
Barn Swallow	Hirundo rustica	家燕	PM, Sv					1						
Black Kite	Milvus migrans	黑鳶	R, WV	(RC), Cap.586		1							12	
Black-necked Starling	Sturnus nigricollis	黑領椋鳥	R		1	1	3	2	6			6	3	
Black-winged Stilt	Himantopus himantopus	黑翅長腳鷸	PM	RC						10			1	
Chinese Bulbul	Pycnonotus sinensis	白頭鵯	R										3	
Chinese Pond Heron	Ardeola bacchus	池鷺	R	PRC(RC)	1	4	4	4		6			2	
Common Greenshank	Tringa nebularia	青腳鷸	PM, WV	RC			2			1				
Common Kingfisher	Alcedo atthis	普通翠鳥	R			2								
Common Myna	Acridotheres tristis	家八哥	UR		1									
Common Sandpiper	Actitis hypoleucos	磯鷸	WV, PM		1									
Common Tailorbird	Orthotomus sutorius	長尾縫葉鶯	R				1		2					
Crested Bulbul	Pycnonotus jocosus	紅耳鵯	R				4		3				2	
Crested Myna	Acridotheres cristatellus	八哥	R		8				1				4	
Domestic Pigeon	Columba livia	原鴿	R						2				1	
Eastern Cattle Egret	Bubulcus coromandus	牛背鷺	R, PM	(LC)			1			8			5	

	una Species Recorded for		<b>g</b> , -	, , , , , , , , , , , , , , , , , , ,	Date			6/5/20	21, 7/5/2	2021			
					Weath	er Cond	ition	Sunny	, Sunny				
					Tidal (	Conditio	n	High					
		CI.	11 17	. ·	Tide L	evel (m)	)	1.68,	1.93				
Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Start T	ime		16:00,	9:00				
					Abund								
						ect Walk							
					T1	T2	T3	T5	T			1 .	
Eastern Yellow								WAL	DAL	SWH	P	Heard	Flight
Wagtail	Motacilla tschutschensis	東黃鶺鴒	PM, WV					7	2	8			
Eurasian Tree Sparrow	Passer montanus	樹麻雀	R		1	1			5				5
Great Egret	Ardea alba	大白鷺	R, WV	PRC(RC)			2						
Greater Coucal	Centropus sinensis	褐翅鴉鵑	R	(VU)					1			1	
Greater Painted-snipe	Rostratula benghalensis	彩鷸	R, PM, WV	LC						1			
Indian Cuckoo	Cuculus micropterus	四聲杜鵑	USV		1								
Intermediate Egret	Egretta intermedia	中白鷺	CPM	RC						1			
Large Hawk Cuckoo	Hierococcyx sparverioides	大鷹鵑	CPM, Sv									1	
Little Egret	Egretta garzetta	小白鷺	R	PRC(RC)	2	1	16	2	2	5			3
Magpie Robin	Copsychus saularis	鵲鴝	R						2				1
Masked Laughing Thrush	Garrulax perspicillatus	黑臉噪鶥	R			5	4		5				
Plain Prinia	Prinia inornata	純色鷦鶯	R				2		7				
Plaintive Cuckoo	Cacomantis merulinus	八聲杜鵑	USV		1							1	
Spotted Dove	Streptopelia chinensis	珠頸斑鳩	R			1	1		16				3
Spotted Munia	Lonchura punctulata	斑文鳥	R		5			130					20

rppendix E1a. Avna	una Species Recorded for	Water Dirus W	tonitoring, o	cc / 101ay 2021,	IIIgii I	iuc							
					Date			6/5/20	21, 7/5/2	021			
					Weath	er Condi	tion	Sunny	, Sunny				
					Tidal (	Condition	1	High					
					Tide L	evel (m)		1.68, 1	.93				
Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Start T	ime		16:00,	9:00				
		Name	Status	Status	Abund	ance							
					Transe	ct Walk							
					T1	T2	T3	T5					
								WAL	DAL	SWH	P	Heard	Flight
White-breasted Waterhen	Amaurornis phoenicurus	白胸苦惡鳥	R					3		1		3	
White-headed Munia	Lonchura maja	白頭文鳥	R						25				
White-shouldered Starling	Sturnia sinensis	灰背椋鳥	CPM	LC		1							
White Wagtail	Motacilla alba	白鶺鴒	PM, WV						1				1
Wood Sandpiper	Tringa glareola	林鷸	CPM, WV	LC									2
Yellow-bellied Prinia	Prinia flaviventris	黃腹鷦鶯	R						1				
Total No. of Species					11	10	11	7	16	9	0	6	16
Total No. of Conservation	on Interest Species				2	4	5	2	2	7	0	1	6

Appendix Lia. Avna	una Species Recorded for	water birus w	romtoring, o	$\alpha$ / May 2021,	mgn m	luc							
					Date			6/5/202	21, 7/5/20	021			
					Weathe	r Condi	tion	Sunny,	Sunny				
					Tidal C	ondition	1	High					
						evel (m)		1.68, 1	.93				
Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Start Ti	me		16:00,	9:00				
		Name	Status	Status	Abunda	ance							
					Transec	et Walk							
					T1	T2	T3	T5					
								WAL	DAL	SWH	P	Heard	Flight

#### 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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(VU): Vulnerable in China Red Data Book Status

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WAL: Wet Agricultural Land DAL: Dry Agricultural Land

SWH: Shallow Water Habitat

P: Pond

IIppenaix Eloviivia	una Species Recorded for	VY CCT DIT CS IV		60 1 1/14y 2021	Date	140		6/5/20	21, 7/5/2	021			
					Weath	er Condi	tion	Sunny	, Sunny				
					Tidal (	Condition	n	Low					
		C1:		·	Tide L	evel (m)		1.39, 1	1.18				
Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Start T	ime		12:00,	13:00				
		TAILE	Status	Status	Abund	ance							
					Transe	ct Walk							
					T1	T2	T3	T5	1			1	
		~H H4			-			WAL	DAL	SWH	P	Heard	Flight
Asian Koel	Eudynamys scolopaceus	噪鵙	R		2	1						3	
Barn Swallow	Hirundo rustica	家燕	PM, Sv		5								6
Black Kite	Milvus migrans	黑鳶	R, WV	(RC), Cap.586	1	1							
Black-necked Starling	Sturnus nigricollis	黑領椋鳥	R		2		2		6			3	
Black-winged Stilt	Himantopus himantopus	黑翅長腳鷸	PM	RC				1		6			2
Chestnut Munia	Lonchura atricapilla	栗腹文鳥	R						7				
Chinese Bulbul	Pycnonotus sinensis	白頭鵯	R		1		3		2				
Chinese Pond Heron	Ardeola bacchus	池鷺	R	PRC(RC)	4	2	6	3		7			
Common Greenshank	Tringa nebularia	青腳鷸	PM, WV	RC			3			1			
Common Moorhen	Gallinula chloropus	黑水雞	R							3			
Common Myna	Acridotheres tristis	家八哥	UR						1				
Common Sandpiper	Actitis hypoleucos	磯鷸	WV, PM				1						
Common Tailorbird	Orthotomus sutorius	長尾縫葉鶯	R		2				2				
Crested Bulbul	Pycnonotus jocosus	紅耳鵯	R		5				4				
Crested Myna	Acridotheres cristatellus	八哥	R		8	3	1	6	4			1	3
Eastern Cattle Egret	Bubulcus coromandus	牛背鷺	R, PM	(LC)			1	16	3				1

<b>, , , , , , , , , , , , , , , , , , , </b>	una species Recorded for		8,		Date			6/5/20	21, 7/5/2	021			
					Weath	er Cond	tion	Sunny	, Sunny				
					Tidal	Conditio	n	Low					
		CI.	11 17	G .:	Tide I	Level (m)		1.39,	1.18				
Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Start 7	Time		12:00,	13:00				
		1 (dille	Status	Status	Abund	lance							
					Transe	ect Walk							
					T1	T2	T3	T5				1	
Eastern Yellow								WAL	DAL	SWH	P	Heard	Flight
Wagtail	Motacilla tschutschensis	東黃鶺鴒	PM, WV					12					1
Eurasian Tree Sparrow	Passer montanus	樹麻雀	R		2								
Great Egret	Ardea alba	大白鷺	R, WV	PRC(RC)	2		3			1	1		
Greater Coucal	Centropus sinensis	褐翅鴉鵑	R	(VU)	1	1							
Greater Painted-snipe	Rostratula benghalensis	彩鷸	R, PM, WV	LC						1			
Green Sandpiper	Tringa ochropus	白腰草鷸	UPM, WV				1						
Intermediate Egret	Egretta intermedia	中白鷺	CPM	RC						1			
Large Hawk Cuckoo	Hierococcyx sparverioides	大鷹鵑	CPM, Sv		1		1					1	
Little Egret	Egretta garzetta	小白鷺	R	PRC(RC)	2	2	23			14	1		1
Magpie Robin	Copsychus saularis	鵲鴝	R						1				1
Masked Laughing Thrush	Garrulax perspicillatus	黑臉噪鶥	R									3	
Plain Prinia	Prinia inornata	純色鷦鶯	R				2			1			
Spotted Dove	Streptopelia chinensis	珠頸斑鳩	R		9	4				11			3
Spotted Munia	Lonchura punctulata	斑文鳥	R		4				100	15			40
White Wagtail	Motacilla alba	白鶺鴒	PM, WV			1							

	una Species Recorded for	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			Date	1010		6/5/20	21, 7/5/2	021			
					Weath	er Condi	tion	Sunny	, Sunny				
					Tidal (	Conditio	1	Low					
		CI.		G :	Tide L	evel (m)		1.39, 1	.18				
Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Start T	ime		12:00,	13:00				
		rumo	Status	Status	Abund	ance							
					Transe	ct Walk	1						
					T1	T2	T3	T5					
								WAL	DAL	SWH	P	Heard	Flight
White-breasted Waterhen	Amaurornis phoenicurus	白胸苦惡鳥	R						1			1	
White-headed Munia	Lonchura maja	白頭文鳥	R						23				
White-rumped Munia	Lonchura striata	白腰文鳥	R						50				
Wood Sandpiper	Tringa glareola	林鷸	CPM, WV	LC				1		1			
Yellow-bellied Prinia	Prinia flaviventris	黃腹鷦鶯	R		1					1		1	
Total No. of Species					17	8	12	6	13	13	2	7	9
Total No. of Conservation	on Interest Species				5	4	5	4	1	8	2	0	3

Appendix Lib. Aviia	una Species Recorded for	water birds iv	lointoi ing, o	& 7 Way 2021,		uc		6/5/201	21, 7/5/20	no 1			
					Date					JZ 1			
					Weathe	er Condit	tion	Sunny,	Sunny				
					Tidal C	Condition	ı	Low					
		4				evel (m)		1.39, 1	.18				
Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Start Ti	ime		12:00,	13:00				
		Ivaille	Status	Status	Abunda	ance		1.39, 1.18 12:00, 13:00					
					Transec	ct Walk							
					T1	T2	T3	T5					
								WAL	DAL	SWH	P	Heard	Flight

#### 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

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P: Pond

	ana species Recorded for		<b>,</b>		Date			10/5/2	021, 11/5	5/2021			
					Weath	er Condi	tion	Sunny	, Cloudy	with driz	zle		
					Tidal (	Conditio	n	High					
		Chinese	Hana Vana	Conservation	Tide L	evel (m)	)	2.22, 2					
Common Name	Species Name	Name	Hong Kong Status	Status	Start T	ime		10:00,	10:00				
					Abund								
						ct Walk	1	<u> </u>					
					T1	T2	T3	T5	I		I _		
	F 1	n P D台	D		4		1	WAL	DAL	SWH	P	Heard	Flight
Asian Koel	Eudynamys scolopacea	噪鵑	R		4		1					3	
Barn Swallow	Hirundo rustica	家燕	PM, Sv		9	10	2	1					7
Black Drongo	Dicrurus macrocercus	黑卷尾	Sv						2				
Black-crowned Night Heron	Nycticorax nycticorax	夜鷺	R, WV	LC			1						
Black Kite	Milvus migrans	黑鳶	R, WV	(RC), Cap.586									1
Black-necked Starling	Sturnus nigricollis	黑領椋鳥	R				3		3			6	3
Black-winged Stilt	Himantopus himantopus	黑翅長腳鷸	PM	RC					1	15			1
Chinese Bulbul	Pycnonotus sinensis	白頭鵯	R						5				5
Chinese Pond Heron	Ardeola bacchus	池鷺	R	PRC(RC)	6	1	1	1		7			4
Common Greenshank	Tringa nebularia	青腳鷸	PM, WV	RC					2				
Common Sandpiper	Actitis hypoleucos	磯鷸	WV, PM				1						
Common Tailorbird	Orthotomus sutorius	長尾縫葉鶯	R		1				1			1	
Crested Bulbul	Pycnonotus jocosus	紅耳鵯	R		4				1			3	
Crested Myna	Acridotheres cristatellus	八哥	R				1		1	6			16
Eastern Cattle Egret	Bubulcus coromandus	牛背鷺	R, PM	(LC)						2			1

Appendix LTC. Aviia	una Species Recorded for	water Birds N	ionitoring, 10	& 11 May 202	zi, Higi	i Hae							
					Date			10/5/2	021, 11/5	5/2021			
					Weath	er Condi	tion	Sunny	, Cloudy	with driz	zle		
					Tidal (	Condition	n	High					
		CI.			Tide L	evel (m)		2.22, 2	2.35				
Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Start T	ime		10:00,	10:00				
		ranic	Status	Status	Abund	ance							
					Transe	ct Walk	1	1					
					T1	T2	T3	T5		_	1	1	
								WAL	DAL	SWH	P	Heard	Flight
Eurasian Tree Sparrow	Passer montanus	樹麻雀	R				1						
Greater Coucal	Centropus sinensis	褐翅鴉鵑	R	(VU)	1								
Intermediate Egret	Egretta intermedia	中白鷺	CPM	RC						1			
Large Hawk Cuckoo	Hierococcyx sparverioides	大鷹鵑	CPM, Sv									2	
Little Egret	Egretta garzetta	小白鷺	R	PRC(RC)	5	3	4	3	1	24			2
Magpie Robin	Copsychus saularis	鵲鴝	R						2				
Masked Laughing Thrush	Garrulax perspicillatus	黑臉噪鶥	R		1								
Plain Prinia	Prinia inornata	純色鷦鶯	R		2		5					1	
Plaintive Cuckoo	Cacomantis merulinus	八聲杜鵑	USV		1	1							
Red-billed Blue Magpie	Urocissa erythrorhyncha	紅咀藍鵲	R		2								
Red-Rumped Swallow	Cecropis daurica	金腰燕	UPM										1
Spotted Dove	Streptopelia chinensis	珠頸斑鳩	R		5	3	1	1	9				
Spotted Munia	Lonchura punctulata	斑文鳥	R		2				20	7			9
White-breasted Waterhen	Amaurornis phoenicurus	白胸苦惡鳥	R					1	5	1		2	
White-headed Munia	Lonchura maja	白頭文鳥	R						4				

Tippendia Literityiin	lina species Recorded for			co II iviay 202		1140		10/5/2	021, 11/5	:/2021			
					Date			10/3/2	021, 11/3	0/2021			
					Weath	er Condi	tion	Sunny	, Cloudy	with driz	zle		
					Tidal (	Condition	n	High					
					Tide L	evel (m)	)	2.22, 2	2.35				
Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Start T	ime`		10:00,	10:00				
		Name	Status	Status	Abund	ance							
					Transe	ct Walk							
					TD1	T-2	TF2	T5					
					T1	T2	T3	WAL	DAL	SWH	P	Heard	Flight
White-rumped Munia	Lonchura striata	白腰文鳥	R						5				
White Wagtail	Motacilla alba	白鶺鴒	PM, WV		1	2		1	2				
Yellow-bellied Prinia	Prinia flaviventris	黄腹鷦鶯	R		1		1		1	1		1	2
Total No. of Species					15	6	12	6	17	9	0	8	12
Total No. of Conservation	on Interest Species				3	2	3	2	3	5	0	0	5

#### 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

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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

Tippendia Liu. Iviia	una Species Recorded for	Water Birds iv	lointoring, 10	y cc 11 Way 20	Date	Tiuc		10/5/2	021, 11/5	5/2021			
					Weath	er Condi	tion	Sunny	, Cloudy	with sun	ny interv	als	
					Tidal (	Condition	1	Low					
		C1:			Tide L	evel (m)		0.8, 0.	98				
Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Start T	ime		15:00,	15:00				
		T (dille	Status	Status	Abund	ance							
					Transe	ct Walk	ı	Т					
					T1	T2	T3	T5				I	
	P 1	# P C C	-					WAL	DAL	SWH	P	Heard	Flight
Asian Koel	Eudynamys scolopacea	噪鵑	R		2	2	1					2	
Barn Swallow	Hirundo rustica	家燕	PM, Sv		10	4	3		6				8
Black Drongo	Dicrurus macrocercus	黑卷尾	Sv						3				
Black Kite	Milvus migrans	黑鳶	R, WV	(RC), Cap.586	1	1							2
Black-necked Starling	Sturnus nigricollis	黑領椋鳥	R						5	2		5	7
Black-winged Stilt	Himantopus himantopus	黑翅長腳鷸	PM	RC					1	12			5
Chestnut Munia	Lonchura atricapilla	栗腹文鳥	R							3			
Chinese Bulbul	Pycnonotus sinensis	白頭鵯	R				2		3	2			
Chinese Pond Heron	Ardeola bacchus	池鷺	R	PRC(RC)	2			1	2	4			3
Cinereous Tit	Parus cinereus	蒼背山雀	R										1
Collared Crow	Corvus torquatus	白頸鴉	UR	LC, VU			1						
Common Greenshank	Tringa nebularia	青腳鷸	PM, WV	RC			1			2			
Common Kingfisher	Alcedo atthis	普通翠鳥	R			1							
Common Myna	Acridotheres tristis	家八哥	UR						1				
Common Tailorbird	Orthotomus sutorius	長尾縫葉鶯	R									1	
Crested Bulbul	Pycnonotus jocosus	紅耳鵯	R			2			4			3	1

	una Species Recorded for			·	Date			10/5/2	2021, 11/	5/2021			
					Weath	er Cond	ition	Sunny	, Cloudy	with sun	ny interv	als	
					Tidal (	Conditio	n	Low					
		C1 :	11 17	C	Tide L	Level (m	)	0.8, 0.	.98				
Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Start T	Гіте		15:00	, 15:00				
		1 (0/2110		<b>2 (4)</b>	Abunc	lance							
					Transe	ect Walk		1					
					T1	T2	Т3	T5 WAL	DAL	SWH	Р	Heard	Flight
Crested Myna	Acridotheres cristatellus	八哥	R		1	1	2	WAL	8	4	1	Ticaru	5
Domestic Pigeon	Columba livia	原鴿	R				2		4				
Eastern Cattle Egret	Bubulcus coromandus	牛背鷺	R, PM	(LC)					4				1
Eastern Yellow Wagtail	Motacilla tschutschensis	東黃鶺鴒	PM, WV			1		2					1
Eurasian Tree Sparrow	Passer montanus	樹麻雀	R		5				6				
Great Egret	Ardea alba	大白鷺	R, WV	PRC(RC)			2						1
Greater Coucal	Centropus sinensis	褐翅鴉鵑	R	(VU)			1						4
House Swift	Apus nipalensis	小白腰雨燕	SpM, R				1						2
Intermediate Egret	Egretta intermedia	中白鷺	CPM	RC					1				
Large Hawk Cuckoo	Hierococcyx sparverioides	大鷹鵑	CPM, Sv			1						1	
Little Egret	Egretta garzetta	小白鷺	R	PRC(RC)	1	2	16	2		17			
Magpie Robin	Copsychus saularis	鵲鴝	R		1				3				
Masked Laughing Thrush	Garrulax perspicillatus	黑臉噪鶥	R		3		4		3				
Olive-backed pipit	Anthus hodgsoni	樹鷚	WV										
Plain Prinia	Prinia inornata	純色鷦鶯	R							2		1	
Plaintive Cuckoo	Cacomantis merulinus	八聲杜鵑	USV		1	1							

Appendix L1d. Avna	una Species Recorded for	water birus iv	iomitoring, it	0 & 11 May 202	21, LOW	riue								
Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			10/5/2021, 11/5/2021						
					Weather Condition			Sunny, Cloudy with sunny intervals						
					Tidal Condition			Low						
					Tide Level (m)			0.8, 0.98						
					Start Time			15:00, 15:00						
					Abundance									
					Transect Walk									
					T1	T2	T3	T5						
					11	12	13	WAL	DAL	SWH	P	Heard	Flight	
Red-Rumped Swallow	Cecropis daurica	金腰燕	UPM				1							
Sooty-headed Bulbul	Pycnonotus aurigaster	白喉紅臀鵯	UR						2					
Spotted Dove	Streptopelia chinensis	珠頸斑鳩	R		4	2	5		13	1		2	5	
Spotted Munia	Lonchura punctulata	斑文鳥	R		5				94	15			20	
White-breasted Waterhen	Amaurornis phoenicurus	白胸苦惡鳥	R									5		
White-headed Munia	Lonchura maja	白頭文鳥	R							25				
White-rumped Munia	Lonchura striata	白腰文鳥	R						10	5				
White Wagtail	Motacilla alba	白鶺鴒	PM, WV			2			1				1	
Wood Sandpiper	Tringa glareola	林鷸	CPM, WV	LC						4				
Yellow-bellied Prinia	Prinia flaviventris	黃腹鷦鶯	R		1			1		2		5		
Total No. of Species					13	12	14	4	20	15	0	9	16	
Total No. of Conservation Interest Species					3	2	5	2	4	5	0	0	6	

Appendix L1a. Aviiauna Species Recorded for water birds Monitoring, 10 & 11 May 2021, Low 11de														
Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Date			10/5/2021, 11/5/2021						
					Weather	r Condi	tion	Sunny, Cloudy with sunny intervals						
					Tidal C	ondition	ı	Low						
					Tide Level (m)			0.8, 0.98						
					Start Time			15:00, 15:00						
					Abundance									
					Transec	t Walk								
					T1	T2	2 T3	T5						
								WAL	DAL	SWH	P	Heard	Flight	

#### 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)

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

SWH: Shallow Water Habita

P: Pond

Appendix L1e. Avifauna Species Recorded for Water Birds Monitoring, 17 & 21 May 2021, High Tide

Tippendia Electività	una Species Recorded for	vvater bir as iv	lontoring, 17	- CC 21 Willy 201	Date	riuc		17/5/2	021, 21/5	5/2021			
					Weath	er Condi	tion	Sunny	, Sunny v	with shov	ver		
					Tidal (	Condition	ı	High					
		o1 :	**		Tide L	evel (m)		2.48, 1	.77				
Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Start T	ime		13:00,	15:00				
		T (dille	Status	Status	Abund	ance							
					Transe	ct Walk	ı	1					
					T1	T2	T3	T5				1	
		H II II Ó	_			_		WAL	DAL	SWH	P	Heard	Flight
Asian Koel	Eudynamys scolopacea	噪鵑	R		3	1						2	
Barn Swallow	Hirundo rustica	家燕	PM, Sv		1	2	4						11
Black-necked Starling	Sturnus nigricollis	黑領椋鳥	R		3	2	1		7	3		2	4
Black-winged Stilt	Himantopus himantopus	黑翅長腳鷸	PM	RC						5			2
Chestnut Munia	Lonchura atricapilla	栗腹文鳥	R							8			
Chinese Bulbul	Pycnonotus sinensis	白頭鵯	R		1				5				
Chinese Pond Heron	Ardeola bacchus	池鷺	R	PRC(RC)	1	1	6	2	1	6	1		5
Common Moorhen	Gallinula chloropus	黑水雞	R							2			
Common Myna	Acridotheres tristis	家八哥	UR					2					
Common Tailorbird	Orthotomus sutorius	長尾縫葉鶯	R						2			1	
Crested Bulbul	Pycnonotus jocosus	紅耳鵯	R				2		3				
Crested Myna	Acridotheres cristatellus	八哥	R		3		2		6				
Domestic Pigeon	Columba livia	原鴿	R						2				5
Eastern Cattle Egret	Bubulcus coromandus	牛背鷺	R, PM	(LC)					6				
Eastern Yellow Wagtail	Motacilla tschutschensis	東黃鶺鴒	PM, WV					3					
Eurasian Tree Sparrow	Passer montanus	樹麻雀	R		2								

Appendix L1e. Avifauna Species Recorded for Water Birds Monitoring, 17 & 21 May 2021, High Tide

Appendix Die, Avna	una Species Recorded for	Tracci Dirus IV.	Junioring, 17	& 21 Way 202	Date	1 11uc		17/5/2	021, 21/5	5/2021			
					Weath	er Condi	ition	Sunny	, Sunny v	with shov	ver		
					Tidal (	Condition	n	High					
				<u>.</u>	Tide L	evel (m)		2.48, 1	.77				
Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Start T	ime		13:00,	15:00				
		rame	Status	Status	Abund	ance							
					Transe	ct Walk		I					
					T1	T2	T3	T5			ı		
~ .	~	4D 431 m4 D4	_	(7.7.1)				WAL	DAL	SWH	P	Heard	Flight
Greater Coucal	Centropus sinensis	褐翅鴉鵑	R	(VU)					1			1	
House Swift	Apus nipalensis	小白腰雨燕	SpM, R			1							15
Intermediate Egret	Egretta intermedia	中白鷺	CPM	RC						1			
Large Hawk Cuckoo	Hierococcyx sparverioides	大鷹鵑	CPM, Sv		1	2						1	
Little Egret	Egretta garzetta	小白鷺	R	PRC(RC)		5	9			4	1		2
Magpie Robin	Copsychus saularis	鵲鴝	R		1				2				
Masked Laughing Thrush	Garrulax perspicillatus	黑臉噪鶥	R			4	1		3		4		
Pied Kingfisher	Ceryle rudis	斑魚狗	UR	LC			1						
Plain Prinia	Prinia inornata	純色鷦鶯	R						2	2		1	
Plaintive Cuckoo	Cacomantis merulinus	八聲杜鵑	USV		1							1	
Red-Rumped Swallow	Cecropis daurica	金腰燕	UPM										4
Sooty-headed Bulbul	Pycnonotus aurigaster	白喉紅臀鵯	UR						3				
Spotted Dove	Streptopelia chinensis	珠頸斑鳩	R		3	2	3		5			1	6
Spotted Munia	Lonchura punctulata	斑文鳥	R						18	10			4
White-breasted Waterhen	Amaurornis phoenicurus	白胸苦惡鳥	R							2		4	
White-headed Munia	Lonchura maja	白頭文鳥	R							4			

Appendix L1e. Avifauna Species Recorded for Water Birds Monitoring, 17 & 21 May 2021, High Tide

11	ana species recorded for		<i>3</i> ′	v	Date			17/5/20	021, 21/5	5/2021			
					Weath	er Condi	tion	Sunny,	Sunny v	vith show	/er		
					Tidal (	Condition	1	High					
		C1 :	** **		Tide L	evel (m)		2.48, 1	.77				
Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Start T	ime		13:00,	15:00				
		Name	Status	Status	Abund	ance							
					Transe	ct Walk							
					T1	T2	Т3	T5					
					11	12	13	WAL	DAL	SWH	P	Heard	Flight
White-rumped Munia	Lonchura striata	白腰文鳥	R						4				
White Wagtail	Motacilla alba	白鶺鴒	PM, WV		2			2	1				3
Yellow-bellied Prinia	Prinia flaviventris	黃腹鷦鶯	R					2				3	
Total No. of Species					12	9	9	5	17	11	3	10	11
Total No. of Conservation	on Interest Species				1	2	3	1	3	4	2	1	3

#### 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)

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

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

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WAL: Wet Agricultural Land DAL: Dry Agricultural Land SWH: Shallow Water Habitat

P: Pond

Appendix L1f. Avifauna Species Recorded for Water Birds Monitoring, 17 & 21 May 2021, Low Tide

Appendix E11. Avnat	ina Species Recorded for	Tracci Dirus IVI		& 21 Way 202	Date	Tiuc		17/5/2	021, 21/5	5/2021			
						on Con 1	tion		, Sunny	7.2021			
						er Condi		Low	, Suility				
						Condition		1.47, 1	1 / 1				
		Chinese	Hong Kong	Conservation		evel (m)	<u> </u>		11:00				
Common Name	Species Name	Name	Status	Status	Start T			17:00,	11:00				
					Abund								
					Transe	ct Walk		TD 5					
					T1	T2	T3	T5	DAT	CMIT		TT 1	E1: 1.
Asian Koel	Eudynamys scolopacea	噪鵑	R		2			WAL	DAL	SWH	P	Heard	Flight
						1	2					1	
Barn Swallow	Hirundo rustica	家燕	PM, Sv	(DC)	2	4	2						2
Black Kite	Milvus migrans	黑鳶	R, WV	(RC), Cap.586									1
Black-necked Starling	Sturnus nigricollis	黑領椋鳥	R		1	2	3		7			4	3
Black-winged Stilt	Himantopus himantopus	黑翅長腳鷸	PM	RC						11			1
Chinese Bulbul	Pycnonotus sinensis	白頭鵯	R				4		6			1	
Chinese Pond Heron	Ardeola bacchus	池鷺	R	PRC(RC)	4	2	6		1	6			3
Collared Crow	Corvus torquatus	白頸鴉	UR	LC, VU			1		1				
Common Moorhen	Gallinula chloropus	黑水雞	R							1			
Common Myna	Acridotheres tristis	家八哥	UR						1				
Common Tailorbird	Orthotomus sutorius	長尾縫葉鶯	R						2			1	
Crested Bulbul	Pycnonotus jocosus	紅耳鵯	R						3				
Crested Myna	Acridotheres cristatellus	八哥	R		4	3	3		2				7
Eastern Cattle Egret	Bubulcus coromandus	牛背鷺	R, PM	(LC)			1						1
Eurasian Tree Sparrow	Passer montanus	樹麻雀	R		6				5				
Great Egret	Ardea alba	大白鷺	R, WV	PRC(RC)		1	2						1

Appendix L1f. Avifauna Species Recorded for Water Birds Monitoring, 17 & 21 May 2021, Low Tide

<b>FF</b> • • • • • • • • • • • • • • • • • • •	una Species Recorded for		, , , , , , , , , , , , , , , , , , ,		Date			17/5/2	021, 21/5	5/2021			
					Weath	er Condi	ition	Sunny	, Sunny				
					Tidal (	Conditio	n	Low					
		CI.	11 17	G .:	Tide L	evel (m)		1.47, 1	.41				
Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Start T	ime		17:00,	11:00				
					Abund								
					Transe	ct Walk							
					T1	T2	T3	T5 WAL	DAL	SWH	P	Heard	Flight
Greater Coucal	Centropus sinensis	褐翅鴉鵑	R	(VU)	1			WAL	2	SWII	Г	пеаги	riigiii
House Swift	Apus nipalensis	小白腰雨燕	SpM, R		1		8						
Intermediate Egret	Egretta intermedia	中白鷺	CPM	RC						1			
Large Hawk Cuckoo	Hierococcyx sparverioides	大鷹鵑	CPM, Sv									1	
Little Egret	Egretta garzetta	小白鷺	R	PRC(RC)	2		14		1	13			6
Magpie	Pica pica	喜鵲	R						1				
Magpie Robin	Copsychus saularis	鵲鴝	R		1	1	1					1	1
Masked Laughing Thrush	Garrulax perspicillatus	黑臉噪鶥	R		2	1	2		2			4	
Pied Kingfisher	Ceryle rudis	斑魚狗	UR	LC									2
Plain Prinia	Prinia inornata	純色鷦鶯	R					1	5	1		2	
Plaintive Cuckoo	Cacomantis merulinus	八聲杜鵑	USV		1								1
Red-Rumped Swallow	Cecropis daurica	金腰燕	UPM										1
Spotted Dove	Streptopelia chinensis	珠頸斑鳩	R		5		2		12				1
Spotted Munia	Lonchura punctulata	斑文鳥	R						15	10			26
White Wagtail	Motacilla alba	白鶺鴒	PM, WV		1				5	10			
White-breasted Waterhen	Amaurornis phoenicurus	白胸苦惡鳥	R		_					2		1	

Appendix L1f. Avifauna Species Recorded for Water Birds Monitoring, 17 & 21 May 2021, Low Tide

	ma Species Recorded for		<b>B</b> ,		Date			17/5/20	021, 21/5	5/2021			
						er Condi	tion	+	, Sunny				
					Tidal (	Conditio	n	Low					
					Tide L	evel (m)		1.47, 1	.41				
Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Start T	ime`		17:00,	11:00				
		Ivallic	Status	Status	Abund	ance							
					Transe	ct Walk							
					Т1	тэ	т2	T5					
					T1	T2	T3	WAL	DAL	SWH	P	Heard	Flight
White-headed Munia	Lonchura maja	白頭文鳥	R						3				
Yellow-bellied Prinia	Prinia flaviventris	黄腹鷦鶯	R							1		6	
Total No. of Species					14	7	13	1	18	10	0	10	15
Total No. of Conservation	on Interest Species				3	2	5	0	4	4	0	0	7

### 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

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WAL: Wet Agricultural Land DAL: Dry Agricultural Land

SWH: Shallow Water Habitat

P: Pond

Appendix L1g. Avifauna Species Recorded for Water Birds Monitoring, 25 & 26 May 2021, High Tide

Appendix L1g. Aviia	una Species Recorded for	water Birds N	ionitoring, 25	& 26 May 20.	ZI, Higi	n 11de							
					Date				021, 26/				
					Weath	er Condi	tion	Cloud	y after he	eavy rain,	Sunny		
					Tidal (	Condition	n	High					
		CI.	11 17	C	Tide L	evel (m)		2.58, 2	2.78				
Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Start T	ime		9:00, 9	9:00				
				~	Abund	lance							
					Transe	ect Walk							
					T1	T2	T3	T5					
						12	13	WAL	DAL	SWH	P	Heard	Flight
Asian Koel	Eudynamys scolopacea	噪鵑	R		2	1	1					3	
Barn Swallow	Hirundo rustica	家燕	PM, Sv		20								
Black-crowned Night Heron	Nycticorax nycticorax	夜鷺	R, WV	LC									1
Black Drongo	Dicrurus macrocercus	黑卷尾	Sv										1
Black-necked Starling	Sturnus nigricollis	黑領椋鳥	R		5				12			5	1
Black-winged Stilt	Himantopus himantopus	黑翅長腳鷸	PM	RC						9			1
Chestnut Munia	Lonchura atricapilla	栗腹文鳥	R					1	17				
Chinese Bulbul	Pycnonotus sinensis	白頭鵯	R			2			10				
Chinese Pond Heron	Ardeola bacchus	池鷺	R	PRC(RC)	8	3	2	8	2				2
Common Myna	Acridotheres tristis	家八哥	UR						6				
Common Tailorbird	Orthotomus sutorius	長尾縫葉鶯	R						2				
Crested Bulbul	Pycnonotus jocosus	紅耳鵯	R		2				10				
Crested Myna	Acridotheres cristatellus	八哥	R		1		2	2	10				1
Eastern Cattle Egret	Bubulcus coromandus	牛背鷺	R, PM	(LC)				3					
Eurasian Tree Sparrow	Passer montanus	樹麻雀	R		6	2			31				
Great Egret	Ardea alba	大白鷺	R, WV	PRC(RC)	2	1	2			1			1

Appendix L1g. Avifauna Species Recorded for Water Birds Monitoring, 25 & 26 May 2021, High Tide

	una Species Recorded for		3/		Date			25/5/2	2021, 26/	5/2021			
					Weath	er Cond	ition	Cloud	y after he	eavy rain,	Sunny		
					Tidal (	Conditio	n	High					
		C1:		G :	Tide L	Level (m)	)	2.58, 2	2.78				
Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Start T	Time		9:00,	9:00				
		Titalite	Status	Status	Abund	lance							
					Transe	ect Walk	1	-1					
					T1	T2	T3	T5		1		1	
		-h+ H#						WAL	DAL	SWH	P	Heard	Flight
Grey Heron	Ardea cinerea	蒼鷺	WV	PRC	1								
Greater Coucal	Centropus sinensis	褐翅鴉鵑	R	(VU)	1	1						2	
House Swift	Apus nipalensis	小白腰雨燕	SpM, R			24							
Intermediate Egret	Egretta intermedia	中白鷺	CPM	RC						1			
Large Hawk Cuckoo	Hierococcyx sparverioides	大鷹鵑	CPM, Sv				1					1	
Little Egret	Egretta garzetta	小白鷺	R	PRC(RC)	4	8	13						3
Magpie	Pica pica	喜鵲	R						1				
Magpie Robin	Copsychus saularis	鵲鴝	R		1				5				
Masked Laughing Thrush	Garrulax perspicillatus	黑臉噪鶥	R						5			5	
Plain Prinia	Prinia inornata	純色鷦鶯	R		4		1		1	1		2	
Red-Rumped Swallow	Cecropis daurica	金腰燕	UPM		5								
Spotted Dove	Streptopelia chinensis	珠頸斑鳩	R		7	1	1		6				4
Spotted Munia	Lonchura punctulata	斑文鳥	R				2	40	16				
White Wagtail	Motacilla alba	白鶺鴒	PM, WV						1				1
White-breasted Waterhen	Amaurornis phoenicurus	白胸苦惡鳥	R					4	3	2		2	
White-headed Munia	Lonchura maja	白頭文鳥	R						12				

Appendix L1g. Avifauna Species Recorded for Water Birds Monitoring, 25 & 26 May 2021, High Tide

			9.	·	Date			25/5/20	021, 26/5	5/2021			
					Weath	er Condi	tion	Cloudy	y after he	avy rain,	Sunny		
					Tidal (	Condition	n	High					
					Tide L	evel (m)	ı	2.58, 2	2.78				
Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Start T	ime		9:00, 9	00:0				
		Name	Status	Status	Abund	ance							
					Transe	ct Walk							
					TT:1	т2	т2	T5					
					T1	T2	T3	WAL	DAL	SWH	P	Heard	Flight
Yellow-bellied Prinia	Prinia flaviventris	黃腹鷦鶯	R						2	1		5	
Total No. of Species					15	9	9	6	19	6	0	8	10
Total No. of Conservation	on Interest Species				5	4	3	2	1	3	0	1	5

#### 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)

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 L1h. Avifauna Species Recorded for Water Birds Monitoring, 25 & 26 May 2021, Low Tide

	una Species Recorded for	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	, , , , , , , , , , , , , , , , , , , ,		Date	1100		25/5/2	2021, 26/5	5/2021			
					Weath	er Cond	ition	Sunny	, Sunny				
					Tidal (	Conditio	n	Low					
		C1:	11 17	C	Tide L	evel (m)	)	0.99, 1					
Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Start T	ime		14:00,	14:00				
					Abund								
					Transe	ect Walk							
					T1	T2	T3	T5	T	I	Ι_	T	I
A ' TZ 1	F 1 1	n.是 巴白	D			1		WAL	DAL	SWH	P	Heard	Flight
Asian Koel	Eudynamys scolopacea	噪鵑	R			1	2		1			2	
Barn Swallow	Hirundo rustica	家燕	PM, Sv	(D.G.)	6	4	6						14
Black Kite	Milvus migrans	黑鳶	R, WV	(RC), Cap.586			1						
Black-necked Starling	Sturnus nigricollis	黑領椋鳥	R		2	1	3		8			2	3
Black-winged Stilt	Himantopus himantopus	黑翅長腳鷸	PM	RC						10			
Chestnut Munia	Lonchura atricapilla	栗腹文鳥	R							11			6
Chinese Bulbul	Pycnonotus sinensis	白頭鵯	R						3				1
Chinese Pond Heron	Ardeola bacchus	池鷺	R	PRC(RC)	6	1		4		7			2
Common Tailorbird	Orthotomus sutorius	長尾縫葉鶯	R						3				
Crested Bulbul	Pycnonotus jocosus	紅耳鵯	R		1	2						1	
Crested Myna	Acridotheres cristatellus	八哥	R		4				15				20
Domestic Pigeon	Columba livia	原鴿	R						6				2
Eastern Cattle Egret	Bubulcus coromandus	牛背鷺	R, PM	(LC)		2							
Eastern Yellow Wagtail	Motacilla tschutschensis	東黃鶺鴒	PM, WV					2	1				
Eurasian Tree Sparrow	Passer montanus	樹麻雀	R		3	1							
Great Egret	Ardea alba	大白鷺	R, WV	PRC(RC)	1	1				1			

Appendix L1h. Avifauna Species Recorded for Water Birds Monitoring, 25 & 26 May 2021, Low Tide

FF	una Species Recorded for		, , , , , , , , , , , , , , , , , , ,		Date			25/5/2	2021, 26/	5/2021			
					Weath	er Cond	tion	Sunny	, Sunny				
					Tidal (	Conditio	n	Low					
		C1:	11 17	C	Tide L	Level (m)		0.99,					
Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status	Start T	Time		14:00	14:00				
		1 (0/2110	2 141142	<b>2 (4)</b>	Abund	lance							
					Transe	ect Walk							
					T1	T2	T3	T5	T	T	I _	T	
G + G 1		→日 + スス π台 □台	D	(AMI)				WAL	DAL	SWH	P	Heard	Flight
Greater Coucal	Centropus sinensis	褐翅鴉鵑	R	(VU)		2						1	
Grey Heron	Ardea cinerea	蒼鷺	WV	PRC	1								
House Swift	Apus nipalensis	小白腰雨燕	SpM, R		12	6							3
Intermediate Egret	Egretta intermedia	中白鷺	CPM	RC						1			
Japanese White-eye	Zosterops japonicus	暗綠繡眼鳥	R			1			3				
Large Hawk Cuckoo	Hierococcyx sparverioides	大鷹鵑	CPM, Sv			1						1	
Little Egret	Egretta garzetta	小白鷺	R	PRC(RC)	4	2		2		13			3
Magpie Robin	Copsychus saularis	鵲鴝	R		1				1			1	
Masked Laughing Thrush	Garrulax perspicillatus	黑臉噪鶥	R		1				6				
Plaintive Cuckoo	Cacomantis merulinus	八聲杜鵑	USV		1							1	
Red-Rumped Swallow	Cecropis daurica	金腰燕	UPM		5								4
Spotted Dove	Streptopelia chinensis	珠頸斑鳩	R		5	2			4			2	5
Spotted Munia	Lonchura punctulata	斑文鳥	R					36	25	40			12
White Wagtail	Motacilla alba	白鶺鴒	PM, WV						1				
White-breasted Waterhen	Amaurornis phoenicurus	白胸苦惡鳥	R					2		1		3	
White-headed Munia	Lonchura maja	白頭文鳥	R							13			

Appendix L1h. Avifauna Species Recorded for Water Birds Monitoring, 25 & 26 May 2021, Low Tide

Tippenaix Ethittima	una species recorded for	Tracer Birds iv	101111011115, 20	20 10 11 11 1 2 0	-1, 2011	1140							
					Date			25/5/2	021, 26/5	5/2021			
					Weath	er Condi	tion	Sunny	, Sunny				
					Tidal (	Condition	n	Low					
					Tide L	evel (m)	)	0.99, 1	.3				
Common Name	Species Name	Chinese	Hong Kong		Start T	ime		14:00,	14:00				
		Name	Status	Status	Abund	ance							
					Transe	ct Walk							
					TD1	то	TF2	T5					
					T1	T2	T3	WAL	DAL	SWH	P	Heard	Flight
Yellow-bellied Prinia	Prinia flaviventris	黃腹鷦鶯	R							1		2	
Total No. of Species		•			15	14	4	5	13	10	0	10	12
Total No. of Conservation	on Interest Species				4	5	1	2	0	10	0	1	2
						L	1	L	1	L	1	L	

#### 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)

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

SWH: Shallow Water Habitat

P: Pond

Appendix L1i. Waterbirds Recorded in May 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 T5: In flight	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, Dry Agricultural Land, Shallow Water Habitat, In flight	Common passage migrant. Found in Deep Bay area, Long Valley, Kam Tin.
Chinese Pond Heron	Ardeola bacchus	池鷺	PRC(RC)	T1: River bank, In flight T2: River bank, In flight T3: River bank, River bed, in flight T5: Wet Agricultural Land, Dry Agricultural Land, Shallow Water Habitat, Pond, In flight	Common resident. Widely distributed in Hong Kong.
Collared Crow	Corvus torquatus	白頸鴉	LC, VU	T3: River bank	Uncommon resident. Found in Inner Deep Bay area, Nam Chung, Kei Ling Ha, Tai Mei Tuk, Pok Fu Lam, Chek lap Kok, Shuen Wan, Lam Tsuen.
Common Greenshank	Tringa nebularia	青腳鷸	RC	T3: River bank T5: Dry Agricultural Land, Shallow Water Habitat	Common passage migrant and winter visitor. Widely distributed in wetland area throughout Hong Kong.
Common Moorhen	Gallinula chloropus	黑水雞		T5: Shallow Water Habitat	Common resident. Found in Deep Bay area, Shuen Wan, Starling Inlet.
Common Sandpiper	Actitis hypoleucos	磯鷸		T1: River bank T3: River bed	Common passage migrant and winter visitor. Widely distributed in wetland area throughout Hong Kong.
Eastern Cattle Egret	Bubulcus coromandus	牛背鷺	(LC)	T2: River bank T3: River bank T5: Wet Agricultural Land, Dry Agriculture Land, Shallow Water Habitat, In flight	Resident and common passage migrant. Widely distributed in Hong Kong.
Great Egret	Ardea alba	大白鷺	PRC(RC)	T1: River bank, In flight T2: River bank, In flight T3: River bank, River bed, In flight T5: Shallow Water Habitat, Pond, In flight	Common resident and winter visitor. Widely distributed in Hong Kong.

Appendix L1i. Waterbirds Recorded in May 2021

Common Name	Species Name	Chinese Name	Conservation Status	Recorded habitat from the survey	Distribution in Hong Kong*
Greater Painted-snipe	Rostratula benghalensis	彩鷸	LC	T5: Shallow Water Habitat	Resident, Passage migrant and winter visitor. Found in Ha Tsuen, Lok Ma Chau, Kam Tin, Long Valley, Hong Kong Wetland Park.
Grey Heron	Ardea cinerea	蒼鷺	PRC	T1: River bank	Common winter visitor. Found in Deep Bay area, Starling Inlet, Kowloon Park, Cape D'Aguilar.
Intermediate Egret	Egretta intermedia	中白鷺	RC	T3: Shallow Water Habitat	Common passage migrant. Found in Deep Bay area, Tai Long Wan, Starling Inlet, Tai O, 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 Habitat, Pond, In flight	Common resident. Widely distributed in coastal area throughout Hong Kong.
Pied Kingfisher	Ceryle rudis	斑魚狗	LC	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		T5: Wet Agricultural Land, Dry Agricultural Land, Shallow Water Habitat, Heard	Common resident. Widely distributed in wetland throughout Hong Kong.
Wood Sandpiper	Tringa glareola	林鷸	LC	T5: Wet Agricultural Land, Shallow Water Habitat, In flight	Common passage migrant and winter visitor. Widely distributed in wetland area throughout Hong Kong.

Appendix L1i. Waterbirds Recorded in May 2021

Common Nomo	Spacias Nama	Chinese	Conservation	Decorded habitat from the survey	Distribution in Hong Vang*
Common Name	Species Name	Name	Status	Recorded habitat from the survey	Distribution in Hong Kong*

#### 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)

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

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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

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

Appendix L1j. Birds Recorded in May 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-crowned Night Heron	Nycticorax nycticorax	夜鷺	R, WV	LC
Black Drongo	Dicrurus macrocercus	黑卷尾	Sv	
Black Kite	Milvus migrans	黑鳶	R, WV	(RC), Cap.586
Black-necked Starling	Sturnus 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)
Cinereous Tit	Parus cinereus	蒼背山雀	R	
Collared Crow	Corvus torquatus	白頸鴉	UR	LC, VU
Common Greenshank	Tringa nebularia	青腳鷸	PM, WV	RC
Common Kingfisher	Alcedo atthis	普通翠鳥	R	
Common Moorhen	Gallinula chloropus	黑水雞	R	
Common 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	
Crested Bulbul	Pycnonotus jocosus	紅耳鵯	R	
Crested Myna	Acridotheres cristatellus	八哥	R	
Domestic Pigeon	Columba livia	原鴿	R	

Appendix L1j. Birds Recorded in May 2021

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status
Eastern Cattle Egret	Bubulcus coromandus	牛背鷺	R, PM	(LC)
Eastern Yellow Wagtail	Motacilla tschutschensis	東黃鶺鴒	PM, WV	
Eurasian Tree Sparrow	Passer montanus	樹麻雀	R	
Great Egret	Ardea alba	大白鷺	R, WV	PRC(RC)
Greater Coucal	Centropus sinensis	褐翅鴉鵑	R	(VU)
Greater Painted-snipe	Rostratula benghalensis	彩鷸	R, PM, WV	LC
Grey Heron	Ardea cinerea	蒼鷺	WV	
House Swift	Apus nipalensis	小白腰雨燕	SpM, R	
Indian Cuckoo	Cuculus micropterus	四聲杜鵑	USV	
Intermediate Egret	Egretta intermedia	中白鷺	CPM	RC
Japanese White-eye	Zosterops japonicus	暗綠繡眼鳥	R	
Large Hawk Cuckoo	Hierococcyx sparverioides	大鷹鵑	CPM, Sv	
Little Egret	Egretta garzetta	小白鷺	R	PRC(RC)
Magpie	Pica pica	喜鵲	R	
Magpie Robin	Copsychus saularis	鵲鴝	R	
Masked Laughing Thrush	Garrulax perspicillatus	黑臉噪鶥	R	
Pied Kingfisher	Ceryle rudis	斑魚狗	UR	LC
Plaintive Cuckoo	Cacomantis merulinus	八聲杜鵑	USV	
Plain Prinia	Prinia inornata	純色鷦鶯	R	
Red-billed Blue Magpie	Urocissa erythrorhyncha	紅咀藍鵲	R	
Red-Rumped Swallow	Cecropis daurica	金腰燕	UPM	

Appendix L1j. Birds Recorded in May 2021

Common Name	Species Name	Chinese Name	Hong Kong Status	Conservation Status
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-rumped Munia	Lonchura striata	白腰文鳥	R	
White-shouldered Starling	Sturnia sinensis	灰背椋鳥	CPM	LC
White Wagtail	Motacilla alba	白鶺鴒	PM, WV	
Wood Sandpiper	Tringa glareola	林鷸	WV, CPM	LC
Yellow-bellied Prinia	Prinia flaviventris	黄腹鷦鶯	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

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

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WAL: Wet Agricultural Land DAL: Dry Agricultural Land SWH: Shallow Water Habitat

P: Pond

	water Macroinvertebra		Date: 24/5	•		<b>s</b>						
			Weather:	Sunny for	most of the	day, with t	hundery sho	ower				
Common Name	Scientific Name	Conservation	Methods:	Kick-nettii	ng, sweep n	etting and	direct obser	vation				
Common Name	Scientific Ivanic	Status	Abundand	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	-		++						+++	++	+++
Black Threadtail	Prodasineura autumnalis	-		+								
Bladder Snail	Physella acuta	-								++		
Blood Worm	Chironomidae	-										ļ
Chinese River Snail	Sinotaia guangdungensis	-								++	+	++
Common Blue Skimmer	Orthetrum glaucum	-										
Common Red Skimmer	Orthetrum pruinosum	-								+		
Crimson Dropwing	Trithemis aurora	-										+
Freshwater Snail	Radix plicatulus	-		++								
rreshwater Shan	Tricula sp.	-								+	+	+
Golden Freshwater Clam	Corbicula fluminea	-										+
Leech	Hirudinea	-		+						+		
Ram's Horn Snail	Gyraulus convexiusculus	-		++								
Red-faced Skimmer	Orthetrum chrysis	-									+	
Red-rimmed Melania	Melanoided tuberculata	-								+	+	+

	vater wateromvertebra		Date: 24/5/2021									
			Weather:	Sunny for r	nost of the	day, with th	nundery sho	wer				
Common Name	Scientific Name	Conservation Status	Methods:	Methods: Kick-netting, sweep netting and direct observation								
Common Ivanic	Scientific (vanie		Abundance									
			MS_01*	MS_02	MS_03*	MS_04 **	MS_05*	MS_06 **	MS_07 **	MS_08	MS_09	MS_10
River Snail	Sinotaia quadrata	-		+						+	+	+
Water Strider	Metrocoris sp.	-								+		
water Strider	Ptilomera tigrina	-								+	+	++
Yellow Featherlegs	Copera marginipes	-										
River Snail			0	6	0	0	0	0	0	10	7	8
Water Strider	Vater Strider		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)

^{*:} Dry monitoring station

**: Inaccessible monitoring station in private property

	vater Macroinvertebra		Date: 24/:							
			Weather:	Sunny for 1	nost of the	day, with the	hundery sho	wer		
Common Name	Scientific Name	Conservation Status	Methods:	Kick-nettir	ıg, sweep n	etting and o	direct observ	vation		
		Status	Abundan	ce						
			MS_11	MS_12*	MS_13	MS_14	MS_15			
Apple Snail	Pomacea canaliculata	-				++				
Black Threadtail	Prodasineura autumnalis	-								
Bladder Snail	Physella acuta	-								
Blood Worm	Chironomidae	-	+++				+++			
Chinese River Snail	Sinotaia guangdungensis	-			++					
Common Blue Skimmer	Orthetrum glaucum	-			+					
Common Red Skimmer	Orthetrum pruinosum	-								
Crimson Dropwing	Trithemis aurora	-								
Freshwater Snail	Radix plicatulus	-	++							
Treshwater Shah	Tricula sp.	-			+					
Golden Freshwater Clam	Corbicula fluminea	-			+					
Leech	Hirudinea	-								
Ram's Horn Snail	Gyraulus convexiusculus	-			+					
Red-faced Skimmer	Orthetrum chrysis	-				+				
Red-rimmed Melania	Melanoided tuberculata	-			+					
River Snail	Sinotaia quadrata	-			++					

			Date: 24/5	5/2021		<u> </u>						
		Conservation Status	Weather:	Weather: Sunny for most of the day, with thundery shower								
Common Name	Scientific Name		Methods:	Methods: Kick-netting, sweep netting and direct observation								
		Status	Abundance									
		MS_11	MS_12*	MS_13	MS_14	MS_15						
Water Strider	Metrocoris sp.	-										
	Ptilomera tigrina	-										
Yellow Featherlegs	Copera marginipes	-				+						
Total No. of specie	Total No. of species		3	0	7	3	1					
Total No. of Conse	Total No. of Conservation Interest Species		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)

^{*:} Dry monitoring station

**: Inaccessible monitoring station in private property

Appendix L3. Freshwater Fish Species Recorded for Aquatic Fauna Monitoring

	•		Date: 24/5	5/2021								
			Weather:	Sunny for 1	nost of the	day, with th	nundery sho	ower				
Common Name	Scientific Name	Conservation	Methods:	Kick-nettir	ng, sweep n	etting and c	lirect obser	vation				
		Status	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	-									+	
Jabua Terapon	Terapon jarbua	-										+
Mosquito Fish	Gambusia affinis	-										
Mozambique Tilapia	Oreochromis mossambicus	VU								++		
Nile Tilapia	Oreochromis niloticus	-								++		++
Redbelly Tilapia	Tilapia zillii	-								++		
Rose Bitterling	Rhodeus ocellatus	LC										
Total No. of specie	Total No. of species		0	0	0	0	0	0	0	3	1	2
Total No. of Conse	otal No. of Conservation Interest Species		0	0	0	0	0	0	0	1	0	0

Note:

VU: Vulnerable in IUCN Red List Status

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)
*: Dry monitoring station
**: Inaccessible monitoring station in private property

Appendix L3. Freshwater Fish Species Recorded for Aquatic Fauna Monitoring

			Date: 24/	5/2021								
		C	Weather:	Sunny for r	nost of the	day, with the	hundery sho	ower				
Common Name	Scientific Name	Conservation Status	Methods: Kick-netting, sweep netting and direct observation									
		Status	Abundan	ce								
			MS_11	MS_12*	MS_13	MS_14	MS_15					
Chinese Barb	Barbodes semifasciolatus	-										
Mosquito Fish	Gambusia affinis	-			+++							
Jabua Terapon	Terapon jarbua	-										
Mozambique Tilapia	Oreochromis mossambicus	VU										
Nile Tilapia	Oreochromis niloticus	-			++							
Redbelly Tilapia	Tilapia zillii	-										
Rose Bitterling	Rhodeus ocellatus	LC			++							
Total No. of species			0	0	3	0	0					
Total No. of Conse	otal No. of Conservation Interest Species		0	0	1	0	0					

#### Note:

VU: Vulnerable in IUCN Red List Status

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)
*: Dry monitoring station

^{**:} Inaccessible monitoring station in private property

Appendix L4. Mammal Species Recorded for Ecologically Sensitive Habitat Monitoring, 13 & 18 May 2021

			Local	Conservation	Date: 13/5/2021, 18/5/2021				
Common	Species	Chinese			Relative Abundance				
Name	Name	Name	Restrictedness	Status	Transect Wall	k			
					T1	T3	T4	T5	Т6
Domestic Cat	Felis catus	野貓	Uncommon	-	+			+	+
Domestic Dog	Canis lupus familiaris	野狗	Common	-	+	+	+	+	+
Bent-winged Bat	Miniopterus sp.	長翼蝠屬	-	Cap. 170, NT					+
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 spec	Total No. of species				4	3	3	3	4
Total No. of Cons	Total No. of Conservation Interest Species				2	2	2	1	2

## Note:

Cap. 170: Species under protection of Wild Animals Protection Ordinance (Cap. 170)

LC: Local Concern by Fellowes et al (2002)

VU: Vulnerable in IUCN Red List Status

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, 13 & 18 May 2021

	a Species Recorded for Deolog	Chinese	Conservation	Date: 13/5/2021, 18/5/2021  Relative Abundance  Transect Walk					
Common Nama	Charles Name								
Common Name	Species Name	Name	Status						
				T1	T3	T4	T5	Т6	
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	-	+					
Gunther's Frog	Hylarana guentheri	沼蛙	-	+					
Paddy Frog	Fejervarya limnocharis	澤蛙	-	+					
Spotted Narrow-mouthed Frog	Kalophrynus interlineatus	花細狹口蛙	NT	+					
Reptile									
Bowring's Gecko	Hemidactylus bowringii	原尾蜥虎	-	+	+		+	+	
Changeable Lizard	Calotes versicolor	變色樹蜥	-	+					
Chinese gecko	Gekko chinensis	中國壁虎	-	+					
Four-clawed Gecko	Gehyra mutilata	截趾虎	VU	+		+			
Long-tailed Skink	Eutropis longicaudata	長尾南蜥	-		+				
Reeve's Smooth Skink Scincella reevesii 南滑蜥 -			-	+					
Total No. of species	Total No. of species				2	3	3	3	
Total No. of Conservation Interest Species				2	0	0	0	0	

# Note:

VU: Vulnerable in the Red List of China's Vertebrates

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, 13 & 18 May 2021

	2	Chinese		Conservation	Date: 13/5/2021, 18/5/2021  Relative Abundance  Transect Walk					
Common Name			Local							
Common Name	Species Name	Name	Restrictedness	Status						
					T1	T3	T4	T5	T6	
Angled Castor	Ariadne ariadne	波蛺蝶	Common	-	+					
Blue-spotted Crow	Euploea midamus	藍點紫斑蝶	Very common	-		+		+		
Common Bluebottle	Graphium sarpedon	青鳳蝶	Common	-			+			
Common Five-ring	Ypthima baldus	矍眼蝶	Very common	-		+		+		
Common Grass Yellow	Eurema hecabe	寬邊黃粉蝶	Very common	-	+	+	+	+	+	
Common Jester	Symbrenthia lilaea	散紋盛蛺蝶	Common	-				+		
Common Mime	Chilasa clytia	斑鳳蝶	Common	-	+	+		+	+	
Common Mormon	Papilio polytes	玉帶鳳蝶	Very common	-	++				++	
Common Sailer	Neptis hylas	中環蛺蝶	Very 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	-	+			+		
Green Flash	Artipe eryx	綠灰蝶	Uncommon	-	+					
Indian Cabbage White	Pieris canidia	東方菜粉蝶	Very common	-	++	+	+	+	++	
Lemon Emigrant	Catopsilia pomona	遷粉蝶	Common	-		+				
Pale Grass Blue	Pseudozizeeria maha	酢漿灰碟	Very common	-	+	+	+	+	+	
Paris Peacock	Papilio paris	巴黎翠鳳蝶	Very common	-		+				
Peacock Royal	Tajuria cippus	雙尾灰蝶	Rare	LC	+					

Appendix L6. Butterfly Species Recorded Ecologically Sensitive Habitat Monitoring, 13 & 18 May 2021

		Chinese	Local	Conservation	Date: 13/5/2021, 18/5/2021				
					Relative Abundance				
Common Name	Species Name	Name	Restrictedness	Status	Transect Wall	ζ			
					T1	T3	T4	T5	T6
Red-base Jezebel	Delias pasithoe	報喜斑粉蝶	Very Common	-	+				
Red Helen	Papilio Helenus	玉斑鳳蝶	Very Common	-	+	+	++	+	
Red Ring Skirt	Hestina assimilis	黑脈蛺蝶	Common	-	+				
Slate Flash	Rapala manea	燕灰蝶	Common	-	+				
Spangle	Papilio protenor	藍鳳蝶	Very Common	-	+		+	+	+
Swallowtail	Papilio xuthus	柑橘鳳蝶	Rare	-		+			
White-edged Blue Baron	Euthalia phemius	尖翅翠蛺蝶	Common	-			+		
Total No. of species	Total No. of species				16	10	7	12	7
Total No. of Conservation Interest Species				1	0	0	0	0	

## Note:

LC: Local Concern by Fellowes et al (2002)

+: 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 13 & 18 May 2021

	lata Species Recorded for	8 1		Conservation	Date: 13/5/2021, 18/5/2021  Relative Abundance				
Common Name	Species Name	Chinese	Local						
Common Name	Species Name	Name	Restrictedness	Status	Transect Wa	lk			
					T1	Т3	T4	T5	T6
Asian Amberwing	Brachythemis contaminate	黄翅蜻	Abundant	-		+			
Blue Chaser	Potamarcha congener	濕地狹翅蜻	Common	LC	+				
Blue Dasher	Brachydiplax flavovittata	藍額疏脈蜻	Common	-					+
Common Blue Skimmer	Orthetrum glaucum	黑尾灰蜻	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	-	+				
Marsh Skimmer	Orthetrum luzonicum	呂宋灰蜻	Abundant	-				+	
Pied Skimmer	Pseudothemis zonata	玉帶蜻	Common	-	+	+			
Red-faced Skimmer	Orthetrum chrysis	華麗灰蜻	Abundant	-	+			+	
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	Total No. of species					6	3	5	5
Total No. of Conserva	Total No. of Conservation Interest Species						0	0	0

## Note:

LC: Local Concern by 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 May 21	26.3	76	-
2 May 21	26.5	82	1.2
3 May 21	24.3	89	8.8
4 May 21	26.6	84	12.5
5 May 21	26.6	79	0.5
6 May 21	25.2	79	Trace
7 May 21	26.6	77	-
8 May 21	27.7	79	-
9 May 21	28.3	79	-
10 May 21	28.4	76	-
11 May 21	29.2	77	Trace
12 May 21	29.6	78	Trace
13 May 21	29.5	79	3.9
14 May 21	30.0	77	-
15 May 21	29.9	74	-
16 May 21	30.2	74	Trace

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 – May 2021

Date	Mean Air Temperature (°C)	Mean Relative	Precipitation
		Humidity (%)	(mm)
17 May 21	30.4	75	-
18 May 21	30.2	76	1.3
19 May 21	30.3	75	-
20 May 21	30.5	75	-
21 May 21	30.7	75	Trace
22 May 21	30.5	77	2.6
23 May 21	31.4	74	Trace
24 May 21	29.8	81	15.7
25 May 21	28.8	83	4.8
26 May 21	30.1	77	4.0
27 May 21	30.3	76	1.0
28 May 21	30.6	77	-
29 May 21	30.2	79	-
30 May 21	30.3	81	Trace
31 May 21	29.6	84	8.7

^{*} 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

	ACTION							
EVENT	ET	IEC	ER	CONTRACTOR				
ACTION LEVE	L							
1. Exceedance for one sample	<ol> <li>Identify source, investigate the causes of exceedance and propose remedial measures;</li> <li>Inform IEC,ER and Contractor;</li> <li>Repeat measurement to confirm finding; and</li> <li>Increase monitoring frequency to daily.</li> </ol>	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; and 3. Review and advise the ET and ER on the effectiveness of the proposed remedial measures.	1. Notify Contractor.	1. Identify source, investigate the causes of exceedance and propose remedial measures  2. Rectify any unacceptable practice and implement remedial measures; and  3. Amend working methods agreed with ER if appropriate.				
2. Exceedance for two or more consecutive samples	Identify source, investigate the causes of exceedance and propose remedial measures;  2. Inform IEC,ER and Contractor;  3. Advise the ER and Contractor on the effectiveness of the proposed remedial measures;  4. Repeat measurements	<ol> <li>Check monitoring data submitted by ET;</li> <li>Check Contractor's working method;</li> <li>Discuss with ET and Contractor on possible remedial measures;</li> <li>Advise the ET and ER on the effectiveness of the proposed remedial measures; and</li> <li>Supervise</li> </ol>	1. Confirm receipt of notification of failure in writing;  2. Notify Contractor; and  3. Supervise and ensure remedial measures properly implemented.	1. Identify source, investigate the causes of exceedance and propose remedial measures  2. Submit proposals for remedial actions to ER with a copy to ET and IEC within 3 working days of notification;  3. Implement the				

			IVIC	muny Ewice Report
	to confirm findings;  5. Increase monitoring frequency to daily;  6. Discuss with IEC, ER and Contractor on remedial actions required;  7. If exceedance continues, arrange meeting with IEC and ER; and	Implementation of remedial measures.		agreed proposals; and 4. Amend proposal if appropriate.
	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;  2. Inform ER, Contractor, IEC and EPD;  3. Repeat measurement to confirm finding;  4. Increase monitoring frequency to daily;  5. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results.	<ol> <li>Check monitoring data submitted by ET;</li> <li>Check Contractor's working method;</li> <li>Discuss with ET, ER and Contractor on possible remedial measures;</li> <li>Advise the ER and ET on the effectiveness of the proposed remedial measures;</li> <li>Supervise</li> </ol>	<ol> <li>Confirm receipt of notification of failure in writing;</li> <li>Notify Contractor; and</li> <li>Supervise and ensure remedial measures properly implemented.</li> </ol>	<ol> <li>Identify source, investigate the causes of exceedance and propose remedial measures;</li> <li>Take immediate action to avoid further exceedance;</li> <li>Submit proposals for remedial actions to EI with a copy to ET and IEC within 3 working days of notification;</li> <li>Implement the agreed proposals; and</li> <li>Amend proposal if appropriate.</li> </ol>

		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		ACTIO	N	
	ET	IEC	ER	CONTRACTOR
Action Level	<ol> <li>Notify IEC, ER and         Contractor;</li> <li>Carry out investigation;</li> <li>Report the results of         investigation to the IEC,         ER and Contractor;</li> <li>Discuss jointly with the         Contractor and formulate         remedial measures;</li> <li>Increase monitoring         frequency to check         mitigation effectiveness.</li> </ol>	1. Review the monitoring data submitted by the ET;  2. Review the construction methods and proposed remedial measures by the Contractor, and advise the ET and ER if the proposed remedial measures would be sufficient;  3. Supervise the implementation of remedial measures.	<ol> <li>Confirm receipt of notification of failure in writing;</li> <li>Notify the Contractor;</li> <li>Require Contractor to propose remedial measures for the analysed noise problem;</li> <li>Ensure remedial measures are properly implemented</li> </ol>	1. Submit noise mitigation proposals to ER and copy to the IEC and ET;  2. Implement noise mitigation proposals.
Limit Level	<ol> <li>Identify source;</li> <li>Inform IEC, ER and         Contractor;</li> <li>Repeat measurements to         confirm findings;</li> <li>Increase the monitoring         frequency;</li> <li>Carry out analysis of         Contractor's working         procedures with the ER and         Contractor to determine         possible mitigation to be         implemented;</li> <li>Inform IEC, ER and         Contractor the causes and         actions taken for         the exceedances;</li> </ol>	1. Discuss amongst the ER, ET, and Contractor on the potential remedial actions;  2. Review the Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly;  3. Supervise the implementation of remedial measures.	1. Confirm receipt of notification of exceedance in writing; 2. Notify the Contractor; 3. Require the Contractor to propose remedial measures for the analysed noise problem; 4. Ensure remedial measures are properly implemented; 5. If exceedance continues, consider what portion of the work is responsible and instruct the	1. Take immediate action to avoid further exceedance;  2. Submit proposals for remedial actions to the ER and copy to the ET and IEC within 3 working days of notification;  3. Implement the agreed proposals;  4. Resubmit proposals if problems still not under control;  5. Stop the relevant portion of works as

EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
	7. Assess effectiveness of		Contractor 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

ACTION				
ET	IEC	ER	CONTRACTOR	
1. Inform IEC, Contractor and ER; 2. Check monitoring data, all plant, equipment and Contractor's working methods; and 3. Discuss remedial measures with IEC and Contractor and ER.	1. Discuss with ET, ER and Contractor on the implemented mitigation measures; 2. Review proposals on remedial measures submitted by Contractor and advise the ER accordingly; and 3. Review and advise the ET and ER on the Effectiveness of the implemented mitigation measures.	1. Discuss with IEC, ET and Contractor on the Implemented mitigation measures; 2. Make agreement on the remedial measures to be implemented; 3. Supervise the implementation of agreed remedial measures.	1. Identify source(s) of impact; 2. Inform the ER and confirm notification of the noncompliance in writing; 3. Rectify unacceptable practice; 4. Check all plant and equipment; 5. Consider changes of working methods; 6. Discuss with ER, ET and IEC and purpose remedial measures to IEC and ER; and 7. Implement the agreed mitigation	
	1. Inform IEC, Contractor and ER; 2. Check monitoring data, all plant, equipment and Contractor's working methods; and 3. Discuss remedial measures with IEC and	1. Inform IEC, Contractor and ER; Contractor on the implemented mitigation data, all plant, equipment and Contractor's working methods; and 3. Discuss remedial submitted by Contractor measures with IEC and Contractor and ER.  Contractor and ER.  1. Discuss with ET, ER and 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	1. Inform IEC, Contractor and ER; Contractor on the implemented mitigation data, all plant, equipment and Contractor's 2. Review proposals on remedial measures 3. Discuss remedial measures with IEC and Contractor and ER.  1. Discuss with ET, ER and Contractor on the Implemented mitigation measures; 2. Review proposals on remedial measures the remedial measures to be implemented; 3. Supervise the implementation of agreed remedial measures.  3. Review and advise the ET and ER on the Effectiveness of the implemented	

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	1. Repeat measurement on next day of exceedance to confirm findings; 2. Inform IEC, Contractor and ER; 3. Rectify unacceptable practice; 4. Check monitoring data, all	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	Discuss with ET, IEC and Contractor on the implemented remedial measures;      Request Contractor to critically review the working methods;      Make agreement on the	I. 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	<ol> <li>Identify source, investigate the causes of exceedance and propose remedial measures;</li> <li>Inform IEC,ER and Contractor;</li> <li>Advise the ER and Contractor on the effectiveness of the proposed remedial measures;</li> <li>Repeat measurements to confirm findings;</li> <li>Increase monitoring frequency to daily;</li> <li>Discuss with IEC, ER and Contractor on remedial</li> </ol>	<ol> <li>Check monitoring data submitted by ET;</li> <li>Check Contractor's working method;</li> <li>Discuss with ET and Contractor on possible remedial measures;</li> <li>Advise the ET and ER on the effectiveness of the proposed remedial measures; and</li> <li>Supervise Implementation of remedial measures.</li> </ol>	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; and 3. Supervise and ensure remedial measures properly implemented.	<ol> <li>Submit proposals for remedial actions to ER with a copy to ET and IEC within 3 working days of notification;</li> <li>Implement the agreed proposals; and</li> <li>Amend proposal if appropriate.</li> </ol>

	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	<ol> <li>Identify source, investigate the causes of exceedance and propose remedial measures;</li> <li>Inform ER, Contractor, IEC and EPD;</li> <li>Repeat measurement to confirm finding;</li> <li>Increase monitoring frequency to daily;</li> <li>Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results.</li> </ol>	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	<ol> <li>Notify IEC, ER,         Contractor and EPD;</li> <li>Identify source;</li> <li>Repeat measurement to         confirm findings;</li> <li>Increase monitoring         frequency to daily;</li> <li>Carry out analysis of         Contractor's working</li> </ol>	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

<b>Action Level</b>	Response	Limit Level	Response			
<b>Construction Phase</b>	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
	response	Elimit Ecver	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

<b>Action Level</b>	1 Level Response		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			No. of non-project related Exceedance		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		_	roject related dance	No. of Exceedance related to the Construction Activities of this Contract	
		Action Level	Limit Level	Action Level	Limit Level
	DO	1	9	0	5
Water Quality	Turbidity	1	5	0	6
	SS	0	3	0	5
	Arsenic	0	0	0	0

(D) Exceedance Report for Landfill Gas

Environmental Monitoring	Parameter		No. of non-project related Exceedance		ance related to ion Activities of ontract
Monitoring		Action Level	Limit Level	<b>Action Level</b>	Limit Level
Landfill Gas	O ₂ (% v/v) CH ₄ (% LEL) CO ₂ (%v/v)	0	0	0	0

(E) Exceedance Report for Built Heritage Monitoring

Environmental Monitoring	Parameter	No. of non-project related Exceedance		No. of Exceedance related to the Construction Activities of this Contract	
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	210504
Date	4 May 2021 (Tuesday)
Time	09:30 - 11:00

		Related
Ref. No.	Non-Compliance	Item No.
-	None identified	
D C M	D 1 (0)	Related
Ref. No.	Remarks/Observations	Item No.
	B. Air Quality     No environmental deficiency was identified during site inspection.	
	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.	
	- 110 christianicinal delicioney was tachemed during one mepoetion.	
	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.:210427), no environmental deficiency was	
	identified during site inspection.	

	Name	Signature	Date
Recorded by	Kenneth Leung	Jan Jan	4 May 2021
Checked by	Dr. Priscilla Choy	NILO	4 May 2021

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

Checklist Reference Number	210511
Date	11 May 2021 (Tuesday)
Time	14:30 – 15:30

		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. Water Overlite	
	D. Water Quality     No environmental deficiency was identified during site inspection.	
	• 140 chynolinatial deficiency was identified daring site hispoctors.	
	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.	
	I Foology	
	J. Ecology     No environmental deficiency was identified during site inspection.	
	• 140 city in orinicitian dericitions 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.:210504), no environmental deficiency was	
	identified during site inspection.	<u></u>

	Name	Signature	Date
Recorded by	Kenneth Leung	Leny	13 May 2021
Checked by	Dr. Priscilla Choy	~7	13 May 2021

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

Checklist Reference Number	210518
Date	18 May 2021 (Tuesday)
	09:30 – 11:30

		Related
Ref. No.	Non-Compliance	Item No
-	None identified	
		Relate
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.	,
	• No environmental deficiency was identified during site hispection.	
	E. Waste / Chemical Management	
	No environmental deficiency was identified during site inspection.	
	F. Land Contamination	
	No environmental deficiency was identified during site inspection.	
	• No environmental deficiency was identified during site hispection.	
	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.:210511), no environmental deficiency was	
	identified during site inspection.	

	Name	Signature	Date
Recorded by	Kenneth Leung	fary	20 May 2021
Checked by	Dr. Priscilla Choy	NJ V	20 May 2021

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

Checklist Reference Number	210524
Date	24 May 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	
	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 West /Cl	
	E. Waste / Chemical Management     No environmental deficiency was identified during site inspection.	
	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.	
	<ul> <li>J. Ecology</li> <li>No environmental deficiency was identified during site inspection.</li> </ul>	
	• No environmental deficiency was identified during site hispection.	
	K. Permits/Licences	
	No environmental deficiency was identified during site inspection.	
	L. Others	
	• Follow-up on previous audit section (Ref. No.:210518), no environmental deficiency was	
	identified during site inspection.	

	Name	Signature	Date
Recorded by	Kenneth Leung	Leng	28 May 2021
Checked by	Dr. Priscilla Choy	WI	28 May 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	210505
Date	5 May 2021 (Wednesday)
Time	09:30 - 10:00

		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	
210505-R01	To maintain the drip tray well and clear the stagnant water.	E 14
<u> </u>	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.:210428), all identified environmental deficiency was observed improved/ rectified by the Contractor.	

	Name	Signature	Date
Recorded by	Howard Chan	N oward	10 May 2021
Checked by	Dr. Priscilla Choy	NI	10 May 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	210512
Date	12 May 2021 (Wednesday)
Time	09:30 – 11:30

<del></del>		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	
210512-R01	• Properly maintain the drainage system for discharging treated water to proper stormwater drain.	D 1
210512-R02	Clear slurry on site haul road and ensure adequate capacity of sediment tank to minimise any muddy runoff through site surface.	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.:210505), all identified environmental deficiency was observed improved/ rectified by the Contractor.	

	Name	Signature	Date
Recorded by	Kenneth Leung	Leng	13 May 2021
Checked by	Dr. Priscilla Choy	WI	13 May 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

# Weekly Site Inspection Record Summary

Checklist Reference Number	210521	
Date	21 May 2021 (Friday)	A DEPOSIT
Time	14:00 – 15:30	

		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	
210521-R01	Properly maintain the drainage system for discharging treated water to proper stormwater drain.	D1
	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.:210512), item 210512-R01 was remarked as 210521-R01. Follow up action is needed to be reviewed. Other identified environmental deficiency was observed improved/ rectified by the Contractor.	

	Name	Signature	Date
Recorded by	Kenneth Leung	Lemy/	27 May 2021
Checked by	Dr. Priscilla Choy	NZ	27 May 2021

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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	210526
Date	26 May 2021 (Wednesday)
Time	09:30 - 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 Impact	
	No environmental deficiency was identified during site inspection.	
	D. Water Quality	
210526-R01	Properly maintain the drainage system for discharging treated water to proper stormwater drain.	D 1
	E. Waste / Chemical Management	
210526-R02	To maintain the drip tray well and clear the stagnant water.	E 14
210526-R03	General refuse should be disposed of properly.	E liii
	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.:210521), item 210521-R01 was remarked as 210526-R01. Follow up action is needed to be reviewed.	

X ONard	31 May 2021
THE	31 May 2021
_	A COUNTY OF THE PARTY OF THE PA

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

Checklist Reference Number	210507
Date	7 May 2021 (Friday)
Time	10:00 – 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. 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	1
	• Follow-up on previous audit section (Ref. No.:210430), no environmental deficiency was identified during site inspection.	

	Name	Signature	Date
Recorded by	Julie Tse	Julie Foe	12 May 2021
Checked by	Dr. Priscilla Choy	NA	12 May 2021

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

Checklist Reference Number	210514
Date	14 May 2021 (Friday)
Time	10:00 – 11:30

		Related
Ref. No.	Non-Compliance	Item No.
-	None identified	
		Related
Ref. No.	Remarks/Observations	Item No.
	B. Air Quality	
1.5	No environmental deficiency was identified during site inspection.	
	C. Construction Noise Impact	
	No environmental deficiency was identified during site inspection.	
	• 140 environmental deficiency was identified during site hispection.	
	D. Water Quality	
	No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
210514-R01	General refuse should be disposed of properly.	Eliii
	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.:210507), no environmental deficiency was identified during site inspection.	

	Name	Signature	Date
Recorded by	Julie Tse	Julie Joe	14 May 2021
Checked by	Dr. Priscilla Choy	NZ	14 May 2021

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

Checklist Reference Number	210518
Date	18 May 2021 (Tuesday)
Time	14:00 – 16:00

		Related
Ref. No.	Non-Compliance	Item No.
-	None identified	-
		Related
Ref. No.	Remarks/Observations	Item No.
	B. Air Quality	
210518-R01	Haul road shall be watered regularly to reduce dust generation.	B1
	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.:210514), all environmental deficiency was rectified by the Contractor.	

	Name	Signature	Date
Recorded by	Julie Tse	Julie Tre	20 May 2021
Checked by	Dr. Priscilla Choy	W.F.	20 May 2021

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

#### Weekly Site Inspection Record Summary

Checklist Reference Number	210528	
Date	28 May 2021 (Friday)	
Time	10:00 – 11:30	

Ref. No.	Non-Compliance	Related Item No.
-	None identified	Tem 110.
Ref. No.	Remarks/Observations	Related Item No.
	B. Air Quality	
	No environmental deficiency was identified during site inspection.	
	C. Construction Noise Impact	
	No environmental deficiency was identified during site inspection.	
	D. Water Quality	
	No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	No environmental deficiency was identified during site inspection.	
	F. Landscape & Visual	
210528-R01	Ropes on the retained tree shall be removed.	F1
	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.:210518), all environmental deficiency was rectified by the Contractor.	

	Name	Signature	Date
Recorded by	Julie Tse	Inlie Toe	28 May 2021
Checked by	Dr. Priscilla Choy	WIL	28 May 2021

1

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	210506
Date	6 May 2021 (Thursday)
Time	14:00 – 15:30

		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. Water Quality	
	No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
210506-R01	Clear the oil stain on the ground.	E13
	F. Cultural Heritage	
	No environmental deficiency was identified during site inspection.	
	G. Landscape and Visual	
	No environmental deficiency was identified during site inspection.	
	The only in the state of the st	
	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.: 210429), all items were observed improved/rectified by the Contractor.	

	Name	Signature	Date
Recorded by	Julie Tse	Intie Tre	6 May 2021
Checked by	Dr. Priscilla Choy	NI I	6 May 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	210513
Date	13 May 2021 (Thursday)
Time	9:30 – 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. 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.: 210506), all items were observed improved/rectified by the Contractor.	

	Name	Signature	Date
Recorded by	Julie Tse	Julie Jac	14 May 2021
Checked by	Dr. Priscilla Choy	WI	14 May 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	210520
Date	20 May 2021 (Thursday)
Time	14:00 - 15:30

		Related
Ref. No.	Non-Compliance	Item No.
<u>-</u>	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	
210520-O01	• To review the capacity of the sump pit and wastewater should be directed to sewage treatment facility before discharge.	D 2i & 3
210520-O02	Properly review the capacity of the sedimentation facilities to ensure all site discharge is treated comply with the WPCO license.	D 5iii & 5iv
	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.	
18-1-1	I. Permits/Licences	
	No environmental deficiency was identified during site inspection.	
	J. Others	
	• Follow-up on previous audit section (Ref. No.: 210513), no environmental deficiency was identified during site inspection.	

	Name	Signature	Date
Recorded by	Howard Chan	Lowerd	21 May 2021
Checked by	Dr. Priscilla Choy	WI	21 May 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	210527
Date	27 May 2021 (Thursday)
Time	14:00 16:00

		Related
Ref. No.	Non-Compliance	Item No.
-	None identified	
		Related
Ref. No.	Remarks/Observations	Item No.
	B. Air Quality	
, f	No environmental deficiency was identified during site inspection.	
X	and	
210527-294	C. Noise	
20527 R04	Compressor should be operated with doors closed.	C 9
	D. Water Quality	
210527-O01	• To review the capacity of the sump pit and wastewater should be directed to sewage	D 2i & 3
210327-001	treatment facility before discharge.	D 21 & 3
	E. Waste / Chemical Management	
210527-R02	Clear the oil stain on the ground.	E 13
210527-R03	Drip tray should be provided for chemical storage.	E 14
	F. Cultural Heritage	
	No environmental deficiency was identified during site inspection.	
;		and the second sec
	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.: 210520), item 210520-O01 was remarked as	
	210527-O01, follow-up action is needed to be reviewed. Other item was rectified by the	·
	Contractor.	

	Name	Signature	Date
Recorded by	Howard Chan	X way	28 May 2021
Checked by	Dr. Priscilla Choy	NT	28 May 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	210503
Date	3 May 2021 (Monday)
Time	13:50-16:00

		Related
Ref. No.	Non-Compliance	Item No.
<u>.</u>	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	
210503-R01	Vehicles are observed not cleaned of earth and mud before leaving the site.	D 11
	E. Waste / Chemical Management	
	No environmental deficiency was identified during site inspection.	
	F. Cultural Heritage	
	No environmental deficiency was identified during site inspection.	
	G. Landscape and Visual	
	No environmental deficiency was identified during site inspection.	
	H. Ecology	
	No environmental deficiency was identified during site inspection.	
	I. Permits/Licences	
	No environmental deficiency was identified during site inspection.	
	J. Others	
	• Follow-up on previous audit section (Ref. No.: 210426), all identified environmental deficiency was observed improved/rectified by the Contractor.	

	Name	, Signature,	Date
Recorded by	Howard Chan	X awan	5 May 2021
Checked by	Dr. Priscilla Choy	WI	5 May 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	210512
Date	12 May 2021 (Wednesday)
Time	09:00-11:00

		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. 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.: 210503), all identified environmental deficiency was observed improved/rectified by the Contractor.	

	Name	Signature	Date
Recorded by	Howard Chan	Laura	12 May 2021
Checked by	Dr. Priscilla Choy	N.T.	12 May 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	210517
Date	17 May 2021 (Monday)
Time	14:00-16:00

		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. 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	age of age of the second second
¥	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.: 210512), no major environmental deficiency was identified during site inspection.	

	Name	Signature	Date
Recorded by	Howard Chan	Xanal	18 May 2021
Checked by	Dr. Priscilla Choy	I III	18 May 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	210524
Date	24 May 2021 (Monday)
Time	14:00-16:00

		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. Noise	
210524-R02	Air compressors should be operated with doors closed.	C 9
	D. Water Quality	
210524-R01	To prevent surface runoff discharge into nearby drainage.	D 3
	E. Waste / Chemical Management	
	No environmental deficiency was identified during site inspection.	
	F. Cultural Heritage	
	No environmental deficiency was identified during site inspection.	
	G. Landscape and Visual	
	No environmental deficiency was identified during site inspection.	
	The stratemental delication was received 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.: 210517), no major environmental deficiency was identified during site inspection.	

	Name	Signature	Date
Recorded by	Howard Chan	Xaway	25 May 2021
Checked by	Dr. Priscilla Choy	J. W.Z.	25 May 2021
	•	1	

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	210531	
Date	31 May 2021 (Monday)	
Time	14:00-16:00	

		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. 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.	
	I Office and the second	
	J. Others	
	• Follow-up on previous audit section (Ref. No.: 210524), all identified environmental	
	deficiencies were observed improved/ rectified by the Contractor.	

	Name	Signature	Date
Recorded by	Howard Chan	1 Xaward	1 June 2021
Checked by	Dr. Priscilla Choy		1 June 2021

ND/2019/06 – Fanling North New Development Area, Phase 1: Reprovisioning of North District Temporary Wholesale Market for Agricultural Products

Checklist Reference Number	210506	
Date	6 May 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	
210506-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.: 210429), all identified environmental deficiency was observed improved/ rectified by the Contractor.	

The state of the s	Name	Signature	Date
Recorded by	Howard Chan	Xward	6 May 2021
Checked by	Dr. Priscilla Choy	WI	6 May 2021

ND/2019/06 – Fanling North New Development Area, Phase 1: Reprovisioning of North District Temporary Wholesale Market for Agricultural Products

Checklist Reference Number	210514	
Date	14 May 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. Noise	
	No environmental deficiency was identified during site inspection.	
	D. Water Quality	
	No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
210514-R01	General refuse should be disposed of properly and regularly.	E 1iii
•	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.: 210506), all identified environmental deficiency was observed improved/ rectified by the Contractor.	

	Name	Signature	Date
Recorded by	Howard Chan	Xcward	18 May 2021
Checked by	Dr. Priscilla Choy	WI	18 May 2021

ND/2019/06 — Fanling North New Development Area, Phase 1: Reprovisioning of North District Temporary Wholesale Market for Agricultural Products

Checklist Reference Number	210520
Date	20 May 2021 (Thursday)
Time	10:00-11:00

Ref. No.	Non-Compliance	Related Item No.
Kei. No.	None identified	Trem 140.
	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	
	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.: 210514), all identified environmental deficiency was observed improved/ rectified by the Contractor.	

	Name	Signature	Date
Recorded by	Howard Chan	Marph	21 May 2021
Checked by	Dr. Priscilla Choy	NA	21 May 2021
	*		

ND/2019/06 – Fanling North New Development Area, Phase 1: Reprovisioning of North District Temporary Wholesale Market for Agricultural Products

Checklist Reference Number	210527
Date	27 May 2021 (Thursday)
Time	10:00-11:00

		Related
Ref. No.	Non-Compliance	Item No.
<b>-</b> ,	None identified	-
		Related
Ref. No.	Remarks/Observations	Item No.
	B. Air Quality	
1.	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	
210527-R01	To avoid oil leakage from equipment.	E 13
	F. Landscape and Visual	
	No environmental deficiency was identified during site inspection.	
1	G. Ecology	t naviga e a sense de la colonia.
!	No environmental deficiency was identified during site inspection.	Although the second
	H. Permits/Licences	
	No environmental deficiency was identified during site inspection.	
	I. Others	
	• Follow-up on previous audit section (Ref. No.: 210520), no major environmental deficiency	
	was identified during site inspection.	

	Name	, A Signature	Date
Recorded by	Howard Chan	Xoward	28 May 2021
Checked by	Dr. Priscilla Choy	WI	28 May 2021

ND/2019/07 – Fanling North New Development Area, Phase 1: Site Formation and Infrastructure Works

Checklist Reference Number	210507
Date	7 May 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	
	<ul> <li>Follow-up on previous audit section (Ref. No.: 210430), no major environmental deificiency was identified during site inspection.</li> </ul>	

Date	Signature	Name	
10 May 2021	Laward	Howard Chan	Recorded by
10 May 2021	The state of the s	Dr. Priscilla Choy	Checked by
_	l W	Dr. Priscilla Choy	Checked by

## ND/2019/07 – Fanling North New Development Area, Phase 1: Site Formation and Infrastructure Works

Checklist Reference Number	210513
Date	13 May 2021 (Thursday)
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.: 210507), no major environmental deificiency was identified during site inspection.	

	Name	Signature	Date
Recorded by	Kenneth Leung	Jenne	14 May 2021
Checked by	Dr. Priscilla Choy	27	14 May 2021

# ND/2019/07 – Fanling North New Development Area, Phase 1: Site Formation and Infrastructure Works

Checklist Reference Number	210521
Date	21 May 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	1
	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	N
	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.: 210513), no major environmental deificiency was identified during site inspection.	

	Name	Signature	Date
Recorded by	Julie Tse	Julie Tre	27 May 2021
Checked by	Dr. Priscilla Choy	WI	27 May 2021

### ND/2019/07 – Fanling North New Development Area, Phase 1: Site Formation and Infrastructure Works

Checklist Reference Number	210528
Date	28 May 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.	
	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.: 210521), no major environmental deificiency was identified during site inspection.	

	Name	Signature	Date
Recorded by	Kenneth Leung	fem	28 May 2021
Checked by	Dr. Priscilla Choy	NF	28 May 2021

APPENDIX Q ENVIRONMENTAL MITIGATION IMPLEMENTATION SCHEDULE (EMIS)

EIA Ref.	EM&A Log	Recommended Mitigation Measures (What Measures)	Objectives of the recommended	Who to implement	Location of the measures	When to	Implementation Status
	Ref		Measures & Main	the	(Where)	measures?	
			Concerns to address	measures?		(When)	
			(What Requirements)	(Who)			
Constru	ction Dus	t Impact					
S3.8	D1	Mitigation measures in form of regular watering under a good site practice should be adopted. Watering once per hour on exposed worksites and haul road is proposed to achieve dust removal efficiency of 92.1%. While the above watering frequencies are to be followed, the extent of watering may vary depending on actual site conditions but should be sufficient to maintain an equivalent intensity of no less than 1.7 L/m2 to achieve the respective dust removal efficiencies	Minimize dust impact at the nearby sensitive receivers	Contractor	All construction sites	Construction phase	*
S3.8	D2	The Contractor shall follow the procedures and requirements given in the Air Pollution Control (Construction Dust) Regulation.	Minimize dust impact at the nearby sensitive receivers	Contractor	All construction sites	Construction phase	۸
S3.8	D3	<ul> <li>Following dust suppression measures should also be incorporated by the Contractor to control the dust nuisance throughout the construction Phase</li> <li>Any excavated or stockpile of dusty material should be covered entirely by impervious sheeting or sprayed with water to maintain the entire surface wet and then removed or backfilled or reinstated where practicable within 24 hours of the excavation or unloading;</li> <li>Any dusty materials remaining after a stockpile is removed should be wetted with water and cleared from the surface of roads;</li> <li>A stockpile of dusty material should not be extend beyond the pedestrian barriers, fencing or traffic cones;</li> <li>The load of dusty materials on a vehicle leaving a construction site should be covered entirely by impervious sheeting to ensure that the dusty materials do not leak from the vehicle;</li> <li>Where practicable, vehicle washing facilities with high</li> </ul>	Minimize dust impact at the nearby sensitive receivers	Contractor	All construction sites	Construction phase	* ^ ^

1			ı	ı	ı	1	I
		pressure water jet should be provided at every discernible					
		or designated vehicle exit point. The area where vehicle					
		washing takes place and the road section between the					
		washing facilities and the exit point should be paved with					
		concrete, bituminous materials or hardcores;					
	•	When there are open excavation and reinstatement works,					*
		hoarding of not less than 2.4m high should be provided as					
		far as practicable along the site boundary with provision					
		for public crossing. Good site practice shall also be					
		adopted by the Contractor to ensure the conditions of the					
		hoardings are properly maintained throughout the					
		construction period.					
	•	The portion of any road leading only to construction site					*
		that is within 30m of a vehicle entrance or exit should be					
		kept clear of dusty materials;					
	•	Surfaces where any pneumatic or power-driven drilling,					۸
		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					۸
		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,					٨
		sheeting or netting should be provided to enclose the					
		scaffolding from the ground floor level of the building, or a					
		canopy should be provided from the first floor level up to					
		the highest level of the scaffolding;					
	•	Any skip hoist for material transport should be totally					۸
		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					N/A
		closed silo fitted with an audible high level alarm which is					
		interlocked with the material filling line and no overfilling is					
		allowed;					
		Loading, unloading, transfer, handling or storage of bulk					N/A
		cement or dry PFA should be carried out in a totally					I W/ /*\

		<ul> <li>enclosed system or facility, and any vent or exhaust should be fitted with an effective fabric filter or equivalent air pollution control system; and</li> <li>Exposed earth should be properly treated by compaction, turfing, hydroseeding, vegetation planting or sealing with latex, vinyl, bitumen, shortcrete or other suitable surface stabiliser within six months after the last construction activity on the construction site or part of the construction site where the exposed earth lies.</li> </ul>					۸
S3.8	D4	Implement regular dust monitoring under EM&A programme	Monitoring of dust impact	Contractor	Selected	Construction	۸
		during the construction stage.			representative	phase	
					dust		
					monitoring station		
Noise In	npact (Cons	struction Phase)					
S4.9	N1	<ul><li>Implement the following good site management practices:</li><li>Only well-maintained plant should be operated on-site and</li></ul>	Control construction airborne	Contractor	All construction	Construction	
		plant should be serviced regularly during the construction programme;	noise		sites	phase	۸
		<ul> <li>Machines and plant (such as trucks, cranes) that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum;</li> </ul>					۸
		<ul> <li>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;</li> </ul>					۸
		<ul> <li>Mobile plant should be sited as far away from NSRs as possible and practicable;</li> <li>Material stockpiles, mobile container site office and other</li> </ul>					۸
		structures should be effectively utilised, where practicable, to screen noise from on-site construction activities.					۸
S4.9	N2	Install temporary site hoarding (approx 2.4m high) located on the site boundaries between noisy construction activities and	Reduce the construction	Contractor	All construction	Construction	۸
		NSRs. The conditions of the hoardings shall be properly	noise levels at low-level		sites where	phase	
		maintained throughout the construction period.	zone of NSRs through partial		practicable		

			screening.				
S4.9	N3	Install movable noise barriers and full enclosure and acoustic mat, screen the noisy plants including air compressor and	Screen the noisy plant items	Contractor	All construction	Construction	۸
		generator.	to be used at all construction		sites where	phase	
			sites		practicable		
S4.9	N4	Use of "Quiet" Plant and Working Methods	Reduce the noise levels of	Contractor	All construction	Construction	N/A
			plant items		sites where	phase	
					practicable		
S4.9	N5	Sequencing operation of construction plants where practicable.	Operate sequentially within	Contractor	All construction	Construction	٨
			the same work site to reduce		sites where	phase	
			the construction airborne		practicable		
			noise				
S4.9	N6	Implement a noise monitoring under EM&A programme.	Monitor the construction	Contractor	Selected	Construction	۸
			noise levels at the selected		representative	phase	
			representative locations		noise monitoring		
					stations		
Water Q	uality Impa	act (Construction Phase)					
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			sites	phase	
		Department, 1994 (ProPECC PN 1/94), construction phase				ļ	
		mitigation measures should be provided and the Storm Water					
		Pollution Control Plan is given below.					
		where appropriate, should include the following:					
		Stormwater Pollution Control Plan					#
		At the start of site establishment, perimeter cut-off drains					"
		to direct off-site water around the site should be					
		constructed with internal drainage works and erosion and					
		sedimentation control facilities implemented. Channels					
		(both temporary and permanent drainage pipes and					
		culverts), earth bunds or sand bag barriers should be					
		provided on site to direct stormwater to silt removal					

facilities. The design of the temporary on-site drainage
system will be undertaken by the Contractor prior to the
commencement of construction.
Diversion of natural stormwater should be provided as far  #
as possible. The design of temporary on-site drainage
should prevent runoff going through site surface,
construction machinery and equipments in order to avoid
or minimize polluted runoff. Sedimentation tanks with
sufficient capacity, constructed from pre-formed
individual cells of approximately 6 to 8m³ capacities,
are recommended as a general mitigation measure
which can be used for settling surface runoff prior to
disposal. The system capacity shall be flexible and able
to handle multiple inputs from a variety of sources and
suited to applications where the influent is pumped.
The dikes or embankments for flood protection should be  """  """  """  """  """  """  """
implemented around the boundaries of earthwork areas.
Temporary ditches should be provided to facilitate the
runoff discharge into an appropriate watercourse,
through a silt/sediment trap. The silt/sediment traps
should be incorporated in the permanent drainage
channels to enhance deposition rates.
The design of efficient silt removal facilities should be
based on the guidelines in Appendix A1 of ProPECC PN
1/94. The detailed design of the sand/silt traps should be
undertaken by the contractor prior to the commencement
of construction.
Construction works should be programmed to minimize
surface excavation works during the rainy seasons (April
to September). All exposed earth areas should be
completed and vegetated as soon as possible after
earthworks have been completed. If excavation of soil
cannot be avoided during the rainy season, or at
any time of year when rainstorms are likely, exposed
slope surfaces should be covered by tarpaulin or other

 		1		
	means.			
•	All drainage facilities and erosion and sediment control			#
	structures should be regularly inspected and maintained			
	to ensure proper and efficient operation at all times and			
	particularly following rainstorms. Deposited silt and grit			
	should be removed regularly and disposed of by			
	spreading evenly over stable, vegetated areas.			
	Measures should be taken to minimise the ingress of site			
	drainage into excavations. If the excavation of trenches			٨
	in wet periods is necessary, it should be dug and			
	backfilled in short sections wherever practicable. Water			
	pumped out from trenches or foundation excavations			
	should be discharged into storm drains via silt removal			
	facilities.			
	All open stockpiles of construction materials (for			٨
	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.			٨
	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.			щ
	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			٨
	construction site to ensure no earth, mud, debris and the			
	like is deposited by them on roads. An adequately			

	works, deployment of silt curtain should be implemented,	diversion				
	In order to prevent sediment transport during riverbank	impact due to stream		required diversion	phase	N/A
S5.7 W2		Minimize water quality	Contractor		Construction	
S5.7 W2	<ul> <li>Oil interceptors should be provided in the drainage system downstream of any oil/fuel pollution sources. The oil interceptors should be emptied and cleaned regularly to prevent the release of oil and grease into the storm water drainage system after accidental spillage. A bypass should be provided for the oil interceptors to prevent flushing during heavy rain.</li> <li>Construction solid waste, debris and rubbish on site should be collected, handled and disposed of properly to avoid water quality impacts.</li> <li>All fuel tanks and storage areas should be provided with locks and sited on sealed areas, within bunds of a capacity equal to 110% of the storage capacity of the largest tank to prevent spilled fuel oils from reaching water sensitive receivers nearby.</li> <li>Regular environmental audit on the construction site should be carried out in order to prevent any malpractices. Notices should be posted at conspicuous locations to remind the workers not to discharge any sewage or wastewater into the meander, wetlands and fish ponds.</li> </ul>	Minimize water quality	Contractor	All streams that	Construction	۸ ۸
	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.					

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		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	Contractor	All identified	Construction	
		For other inaccessible sites, site investigation is required	impact due to potential		groundwater-	phase	N/A
		when they are resumed and handed over to the Project	groundwater from		contaminated		
		Proponent to identify if contaminated groundwater is	contaminated area		areas		
		found.					
		If the investigation results indicated that the groundwater					N/A
		to be generated from construction works would be					
		contaminated, the contaminated groundwater should be					
		either discharged into recharged wells, or properly treated					
		in compliance with the requirements of Technical					
		Memorandum on Standards for Effluents Discharged into					
		Drainage on Sewerage Systems, Inland and Coastal					
		Waters.					
		If recharged well method were used, the groundwater					N/A
		quality in the recharged well should not be affected by					
		recharging operation, i.e. the pollution levels of the					
		recharged groundwater should not be higher than that in					
		the recharging wells.					
		If treatment and discharge method were used, the design					N/A
		of wastewater treatment facilities, such as active carbon					
		and petrol interceptor, should be submitted to the EPD					
		and a discharge license should be obtained under the					

		WPCO through the Regional Offices of EPD.					
S5.7	W4	Sewage from Workforce	Handling of site sewage	Contractor	All construction	Construction	
		Portable chemical toilets and sewage holding tanks should be			sites	Phase	
		provided for handling the construction sewage generated by the					۸
		workforce. A licensed Contractor should be employed to provide					
		appropriate and adequate portable toilets and be responsible for					
		appropriate disposal and maintenance.					
		Notices should be posted at conspicuous locations to remind the					
		workers not to discharge any sewage or wastewater into the					
		nearby environment during the construction phase of the Project.					
		Regular environmental audit on the construction site should be					
		conducted in order to provide an effective control of any					
		malpractices and achieve continual improvement of					
		environmental performance on site. It is anticipated that sewage					
		generation during the construction phase of the Project would not					
		cause water quality impact after undertaking all required					
		measures.					
Waste Ma	nagement	(Construction 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			sites where	commencement of	
		phase, as well as by ensuring the implementation of good site practices. The following recommendations are proposed to			practicable	construction	
		achieve reduction:					
		segregate and store different types of waste in different					۸
		containers, skip or stockpiles to enhance reuse or recycling					
		of materials and their proper disposal;					

		proper storage and site practices to minimize the potential					*
		for damage and contamination of construction materials;					
		plan and stock construction materials carefully to minimize					۸
		amount of waste generated and avoid unnecessary					
		generation of waste;					
		sort out demolition debris and excavated materials from					N/A
		demolition works to recover reusable/recyclable portions					
		(i.e. soil, broken concrete, metal etc);					
		provide training to workers on the importance of appropriate					٨
		waste management procedures, including waste reduction,					
		reuse and recycling.					
S7.6	WM2	Prepare Waste Management Plan and submit to the Engineer	Minimize waste generation	Contractor	All construction	Construction	۸
		for approval	during construction		sites	phase	
S7.6	WM3	Good Site Practice	Minimize waste generation	Contractor	All construction	Construction	
		The following good site practices are recommended throughout the construction activities:	during construction		sites	phase	
		Nomination of an approved personnel, such as a site					
		manager, to be responsible for the implementation of good					٨
		site practices, arrangements for collection and effective					
		disposal to an appropriate facility, of all wastes generated					
		at the site;					
		Training of site personnel in site cleanliness, appropriate					
		waste management procedures and concepts of waste					٨
		reduction, reuse and recycling;					
		Provision of sufficient waste disposal points and regular					_
		collection for disposal;					٨
		Appropriate measures to minimise windblown litter and					_
							<u> </u>

		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;					٨
S7.6	WM4	Storage of Waste  The following recommendation should be implemented to minimize the impacts:  Waste such as soil should be handled and stored well to ensure secure containment;  Stockpiling area should be provided with covers and water spraying system to prevent materials from wind-blown or being washed away;  Different locations should be designated to stockpile each material to enhance reuse;	Minimize waste impacts from storage	Contractor	All construction sites	Construction phase	Λ Λ
S7.6	WM5	<ul> <li>Collection and Transportation of Waste</li> <li>The following recommendation should be implemented to minimize the impacts:         <ul> <li>Remove waste in timely manner;</li> <li>Employ the trucks with cover or enclosed containers for waste transportation;</li> <li>Obtain relevant waste disposal permits from the appropriate authorities; and</li> <li>Disposal of waste should be done at licensed waste disposal facilities.</li> </ul> </li> </ul>	Minimize waste impact from storage	Contractor	All construction sites	Construction phase	^ ^ ^

S7.6	WM6	Excavated and C&D Material	Minimize waste impacts from	Contractor	All construction	Construction	
		Wherever practicable, C&D materials should be segregated	excavated and C&D material		sites	phase	۸
		from other wastes to avoid contamination and ensure acceptability at Public Fill Reception Facilities areas or					
		reclamation sites. The following mitigation measures should be					
		implemented in handling the excavated and C&D materials:					
		Maintain temporary stockpiles and reuse excavated fill					٨
		material for backfilling;					
		Carry out on-site sorting;					N/A
		Deliver surplus artificial hard materials to Tuen Mun Area					N/A
		38 recycling plant or its successor for recycling into					
		subsequent useful products;					
		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					۸
		generated, recycled and disposed of for checking;					
		Standard formwork should be used as far as practicable in order					N/A
		to minimize the arising of C&D waste. The use of more durable					
		formwork (e.g. metal hoarding) or plastic facing should be					
		encouraged in order to enhance the possibility of recycling. The					
		purchasing of construction materials should be carefully planned					
		in order to avoid over ordering and wastage.					
		Wheel wash facilities have to be provided at the site entrance					
		before the trucks leaving the works area.					۸
S7.6	WM7	Contaminated Soil	Remediate contaminated soil	Contractor	All construction	Construction	
		As a precaution, it is recommended that standard good site			sites where	phase	٨

		practice should be implemented during the construction phase			applicable		
		to minimize any potential exposure to contaminated soils or					
		groundwater. The details of mitigation measures to minimize					
		the potential environmental implications arising from the					
		handling of contaminated materials refer to Land					
		Contamination Section.					
S7.6	WM8	Chemical Waste	Control the chemical waste	Contractor	All construction	Construction	
		If chemical wastes are produced at the construction site, the	and ensure proper storage,		sites	phase	*
		Contractors should register with EPD as chemical waste	handling and disposal				
		producers. Chemical wastes should be stored in appropriate					
		containers and collected by a licensed chemical waste					
		Contractor. Chemical wastes (e.g. spent lubricant oil) should be					
		recycled at an appropriate facility as far as possible, while the					
		chemical waste that cannot be recycled should be disposed of					
		at either the Chemical Waste Treatment Centre, or another					
		licensed facility, in accordance with the Waste Disposal					
		(Chemical Waste) (General) Regulation.					
S7.6	WM9	General Waste	Minimize production of the	Contractor	All construction	Construction	
		General refuse should be stored in enclosed bins	general refuse and avoid		sites	phase	#
		separately from construction and chemical wastes.	odour, pest and litter impacts				
		Recycling bins should also be placed to encourage					
		recycling.					
		Preferably enclosed and covered areas should be					۸
		provided for general refuse collection and routine cleaning					
		for these areas should also be implemented to keep areas					
		clean.					
		A reputable waste collector should be employed to remove					۸

		general refuse on a daily basis.					
S7.6	WM10	<u>Sewage</u>	Minimize production of	Contractor	All construction	Construction	
		The WMP should document the locations and number of	sewage impacts		sites	phase	N/A
		portable chemical toilets depending on the number of					
		workers, land availability, site condition and activities.					
		Regularly collection by licensed collectors should be					N/A
		arranged to minimize potential environmental impacts.					
S7.6	WM11	Topsoil reuse – Topsoil, where identified, should be stripped and	Good site practice	Contractor/	Onsite	Construction	N/A
		stored for re-use in the construction of the soft landscape works,		Project		phase	
		where practical. This is considered a general measure for good		Proponent			
		site practice.					
Land Co	ntaminatio	on					
S 8.4	LC2	Detailed site investigation (SI) for all inaccessible potentially	Verify the land	Project	All inaccessible	After the land	N/A
		contaminated sites in 2 NDAs	contamination potential	Proponent	potentially	is resumed	
			before the commencement	Detailed	contaminated	and handed	
			of construction	Design	sites in	over to the	
				Consultant	2 NDAs as listed	Project	
				Contractor	in	Proponent	
					the CAP		
S 8.5	LC3	Preparation and submission of supplementary Contamination	Present the findings of SI	Project	All inaccessible	Prior to the	N/A
		Assessment Report (CAR) and Remediation Action Plan (RAP) for	and evaluate the potential	Proponent/	potentially	commencement	
		all inaccessible potentially contaminated sites in 2 NDAs to EPD	environmental and human	Detailed	contaminated	of any	
		for agreement if land contamination is confirmed	health impacts	Design	sites in 2 NDAs	proposed	
			Recommend appropriate	Consultant	as listed in the	construction	
			mitigation measures for the		CAP	works if land	
			contaminated soil and			contamination	

						1	_
			groundwater identified in			is confirmed	
			the assessment if			and remediation	
			remediation is required			is required	
S 8.5	LC4	Preparation and submission of Remediation Report to EPD for	Demonstrate that the	Project	All inaccessible	Prior to the	N/A
		agreement	decontamination work is	Proponent/	potentially	commencement	
			adequate and is carried out	Detailed	contaminated	of any	
			in accordance with the	Design	sites in	proposed	
I			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	Verify the land	Project	All surveyed sites	After the land is	N/A
]		requirement for NDA development) that were not identified as	contamination potential	Proponent/	(if they become	resumed and	
		potentially contaminated or could not be accessed for visual	due to potential change of	Detailed	part of the land	handed over to	
		inspection during the site survey	land uses before the	Design	requirement for	the Project	
			commencement of	Consultant	NDA	Proponent.	
1			construction		development		
					(that were not		
					identified as		
					potentially		
					contaminated or		
I					could not be		
					accessed for		
					visual inspection		

	1	T	Τ	1	1		
					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	containing	Developer/		commencement	
Appendix		for the treatment of arsenic-containing soil. Toxicity Characteristic	soil	Contractor		of construction	
8.4		Leaching Procedure (TCLP) test should be undertaken after S/S in				works within	
		order to ensure that the contaminant will not leach to the				KTN NDA	
		environment. Unconfined Compressive Strength (UCS) test should					
		be conducted, and not less than 1MPa should be met prior to the					
		backfilling or stockpiled for future reuse within the study area.					
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	
Appendix		with attention to the relevant requirements for environment,	arising from the handling of			of construction	
8.4		health and safety;	contaminated materials			works within	
		In case the soil to be excavated is situated beneath the				KTN NDA	
		groundwater 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					۸
		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					
	1		l	1	1	1	1

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		•	Supply of suitable backfill material after excavation, if require;					
			Vehicles containing any excavated materials should be					
			suitably covered to limit potential dust emissions or run-off,					
			and truck bodies and tailgates should be sealed to prevent					
			any discharge during transport or during wet season;					
		•	Speed control for the trucks carrying excavated materials					
			should be enforced; and Vehicle wheel washing facilities at					
			the site's exit points should be established and used.					
S 8.7.2	LC8	Soli	dification/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				٨
			activities should be properly scheduled to minimize potential					
			noise impact and dust emission;					
		•	The mixing facilities should be sited as far apart as					٨
			practicable from the nearby noise sensitive receivers;					
		•	Mixing of soil and cement / water / other additive(s) should					٨
			be undertaken at a solidification plant to minimize the					
			potential for leaching;					
		•	Runoff from the solidification / stabilization area should be					٨
			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.					٨
			Stockpiles should be properly covered by impermeable					
			sheeting to reduce dust emission during dry season or site					
			run-off during rainy season; and					

		If necessary, there should be clear and separated areas for stockpiling of untreated and treated materials.					
S 8.7.2 and Appendix 8.4	LC9	stockpiling of untreated and treated materials.  Safety Measures  Set up a list of safety measures for site workers;  Provide written information and training on safety for site workers;  Keep a log-book and plan showing the zones requiring treatment and clean zones;  Maintain a hygienic working environment;  Avoid dust generation;	To minimize the potential adverse effects on health and safety of construction workers	Contractor	KTN NDA	The course of treatment	N/A
		<ul> <li>Provide face and respiratory protection gear to site workers if necessary;</li> <li>Provide personal protective clothing (e.g. chemical resistant</li> <li>jackboot, liquid tight gloves) to site workers if necessary;</li> <li>Provide first aid training and materials to site worker;</li> <li>Bulk earth moving equipment should be utilized as much as possible to minimize worker</li> <li>Eating, drinking and smoking should not be allowed in the excavation areas and treatment area to avoid inadvertent ingestion of arsenic containing soil.</li> </ul>					
Landfill G	as Hazard	1					
S10.6	LFG1	<ul> <li>Underground rooms or void should be avoided as far as practicable in the proposed developments within the Consultation Zone and should be avoided totally in the proposed developments within the MTLL.</li> <li>Buildings or structures within the MTLL should be at ground level with raised floor slabs which are less prone to</li> </ul>	To minimize the risk of LFG hazards to occupants within MTLL and its 250m Consultation Zone	Government / Developer/ Detailed Design Consultant within MTLL	Buildings within MTLL and its 250m Consultation Zone	Detailed design phase	N/A

	gas ingress.	and its 250m		
.	For the high risk category, the use of active control of gas,	Consultation		
	including barriers and detection systems are	Zone		
	recommended. These measures include the control of gas			
	by mechanical means e.g. ventilation of spaces with air to			
	dilute gas, or extraction of gas using fans or blowers.			
	For the low risk category, the provision of barriers to the			
	movement of gas is recommended. Measures			
	recommended 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	To minimize the risk of LFG	Contractor	Construction sites	Construction	۸
		implemented to minimize the risks of fires and explosions,	hazards to the staff and		within MTLL and	phase	
		asphyxiation of workers (especially in confined space) and	visitors within MTLL and its		its		
		toxicity effects resulting from contact with contaminated	250m Consultation Zone		250m Consultation		
		soils and groundwater.			Zone		
		Safety officers, specifically trained with regard to LFG and					٨
		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					٨
		should be made aware of the possibility of ignition of gas					
		in the vicinity of the works, the possible presence of					
		contaminated water and the need to avoid physical					
		contact with it.					
		Those staff who work in, or have responsibility for "at risk"					٨
		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					۸
		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					۸
		the ground. Other storage premizes, e.g. shipping					
		containers, where this is not possible should be well					

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ventilated prior to entry.			
Adequate precautions to prevent the accumulation of LFG			۸
under site buildings and within storage shed should be			
taken by raising buildings off the ground where			
appropriate and "airing" storage containers prior to entry			
by personnel and ensuring adequate ventilation at all			
times.			
Smoking and naked flames should be prohibited within			۸
confined spaces. "No Smoking" and "No Naked Flame"			
notices in Chinese and English should be posted			
prominently around the construction site. Safety notices			
should be posted warning of the potential hazards.			
Welding, flame-cutting or other hot works may only be			N/A
carried out in confined spaces when controlled by a			
"permit to work" procedure, properly authorized by the			
Safety Officer. The permit to work procedure should set			
down clearly the requirements for continuous monitoring			
of methane, carbon dioxide and oxygen throughout the			
period during which the hot works are in progress. The			
procedure should also require the presence of an			
appropriately qualified person who shall be responsible for			
reviewing the gas measurements as they are made, and			
who shall have executive responsibility for suspending the			
work in the event of unacceptable or hazardous			
conditions. Only those workers who are appropriately			
trained and fully aware of the potentially hazardous			
conditions which may arise should be permitted to carry			

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			out hot works in confined areas.					
		•	During the construction works, adequate fire extinguishers					۸
			and breathing apparatus sets should be made available					
			on site and appropriate training given in their use.					
			Ongoing gas monitoring should be considered for offices,					۸
			stores 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	hazards to the occupants,	Developer	MTLL	phase	
			of the location and features of the site within the	maintenance personnel,	within MTLL	and its 250m		
			Consultation Zone during the respective detailed design	visitors and other users	and its 250m	Consultation Zone		
			stage as part of the QLFGHA.	within MTLL and its 250m	Consultation			
			The utilities companies should have a responsibility to	Consultation Zone	Zone			
			train and ensure their staff to take appropriate precautions					
			at all times when entering enclosed spaces or plant					
			rooms.					
			Should utility installation be required in site E1-1, the					
			developers should make the utility companies aware of					
			the potential constraints imposed by the landfill restoration					
			facilities and aftercare works to ensure these facilities and					
			works will remain unaffected. Appropriate precautionary					
			measures against landfill gas should also be taken should					
			utility installation be required within the MTLL.					
			Building Management					
			The management committee of the building estate will					
			hold a special responsibility to ensure that the occupants					
			of the building, its staff and maintenance workers are					
			protected from LFG and that visitors to the site are also					
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	made aware as to the dangers and the precautions			
	required to be taken.			
	Of primary importance to satisfactorily upholding this			
	responsibility will be to ensure that strict procedures for			
	maintaining control over all temporary and /or permanent			
	works proposed at the site are reviewed with regard to the			
	LFG hazard. This needs to be accompanied by a			
	comprehensive contingency plan in case of incidents,			
	including liaison with EPD officers, Fire Services			
	Department, Landfill Restoration Contractors and others,			
	as necessary.			
	All construction and maintenance (including utilities)			
	personnel working at the site should be made aware of the			
	hazards of LFG and its possible presence on site. This			
	should be achieved through a combination of posting			
	warning signs in prominent places and also by access to			
	detailed information on LFG hazards and the designs and			
	procedural means by which these hazards are being			
	minimized on site. In addition, entry to confined spaces			
	such as refuse/store rooms, drainage manholes etc.			
	should be preceded by a period of "airing" the space by			
	opening the door widely allowing fresh air to enter. Where			
	appropriate, monitoring of gas should also precede entry.			
•	Any proposed modifications or additions to the building			
	structure should be subject to a further assessment of			
	LFG hazard, particularly in areas where a gas membrane			
	has been installed. Any penetrations of the membrane			

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		must be repaired as soon as possible after detection or	1	1			1
		works completion using similar products.	1	, 			1
		The building management company should also make	 	, 			[ ]
		arrangement with Landfill Restoration Contractor so that	1	1			[ ]
		they are advised of all situations which may potentially	1				
		threaten the safety of the building occupants resulting	1	, 			1
		from any accidents or failures at the landfill site. The	1	1			1
		building management company should also have available	1				
		suitable gas monitoring equipment for any ad hoc	1				1
		investigations necessary relating to LFG and be in a	1				1
		position to undertake any future routine monitoring of gas	1	1			1
		which may be considered necessary soloing completion of	1				1
		the defects correction period.	1				1
		To ensure that all the above protection and precautionary	1				
		measures and issues pertaining to LFG are properly and	1				
		consistently addressed by future users and owners of the	1				
		site, it is recommended that a comprehensive LFG hazard	1				1
		management system be developed by the owner of the	1	1			1
		building or its property management agency. The system	1	1			1
		should be developed by the developers of the sites as part	1	1			1
		of the QLFGHA before the occupation of the building and	1				1
		implemented during its operational phase.	<u> </u>				1
Cultural	Heritage (F	Pre-construction Phase)					
S11.6.1	CH1	Undertaking Further Archaeological Survey to Cover the	To confirm and verify the	Project	In the not-yet-	After land	N/A
		Outstanding Areas	findings of the EIA	Proponent/	surveyed-areas	resumption but	1
		Further archaeological surveys to cover the outstanding areas of	1	Contractor/	with medium	before construction	1
		the not-yet-surveyed-area with medium archaeological potential	<u> </u>	Qualified	archaeological	1	
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		located in the areas with proposed development as presented in		Archaeologist	potential located		
		Figure 11.9 should be implemented after land resumption to			in the areas within		
		confirm and verify the findings of the EIA. The survey should			Areas D1-11, A3-		
		be conducted by a professional archaeologist and prior to			5, A3-6, B1-1, and		
		fieldwork commencement, the archaeologist should obtain a			B1-7,		
		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	CH2	Undertaking Survey-cum-Rescue Excavation	To define the precise	Project	In KTN NDA, for	After land	N/A
		A Survey-cum-Rescue Excavation should be conducted after	archaeological deposits	Proponent/	Site 3 and In FLN	resumption but	
		land resumption and before the commencement of construction	extent and to preserve the	Contractor/	NDA for Site 5.	before construction	
		works to define the precise archaeological deposits extent and	archaeological resources as	Qualified		commencement	
		to preserve the archaeological resources by record. The	far as possible	Archaeologist		of the zone	
		excavation should be conducted by a professional archaeologist					
		and prior to fieldwork commencement, the archaeologist should					
		obtain a Licence to Excavate and Search for Antiquities from the					
		Authority under the AM Ordinance.					

S11.6.1	CH3	Undertaking Preservation in-situ for Site 7	To preserve the	Project	Site 7 in FLN NDA	After land	N/A
		Preservation in-situ of the cultivation deposits in Site 7 is	archaeological resources as	Proponent/		resumption prior to	
		proposed. If disturbance to the site by the design of the Central	far as possible.	Contractor/		preconstruction	
		Park is unavoidable, further archaeological survey should be		Qualified		stage of the	
		conducted after land resumption prior to the pre-construction		Archaeologist		proposed Central	
		stage to assess the feasibility to incorporate Site 7 into the				Park (Area C2-8,	
		design of the development plan of the proposed zone.				Zoning O)	
		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	Undertaking Induction Training	To preserve the	Project	Spots A, D, F to	Before the	N/A
		Induction training should be provided to the construction	archaeological resources as	Proponent/	Н	commencement of	
		Contractor before the commencement of the excavation works	far as possible	Contractor/		the excavation	
		in Spots A, D, F to H. An induction will be conducted as part of		Qualified		works and before	
		the environmental health and safety induction programme to all		Archaeologist		site staff are	
		site staff before they are deployed on site. The induction will				deployed on site	
		include an introduction on the historical development of the Site,					
		the possible archaeological remains that may be encountered					
		during ground excavation works as well as the reporting					
		procedures in case suspected archaeological remains are					

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		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	To define the precise	Project	Area B1-8 and	After land	N/A
		Construction at A1	archaeological deposits	Proponent/	B1-9 zoned as R4	resumption but	
			extent and to preserve the	Contractor/	and R3 in A1	before construction	
		It is recommended that an Archaeological Impact Assessment to	archaeological resources as	Qualified			
		be conducted in the impacted area in Area B1-8 and B1-9 at A1	far as possible	Archaeologist			
		(Sheung 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	CH6	Undertaking Archaeological Impact Assessment before	To define the precise	Project	Area within A1	After land	N/A
		Construction within A1 but except Area B1-8 and B1-9	archaeological deposits	Proponent/	except Area B1-8	resumption but	
		Should there be any development work within the Sheung Shui	extent and to preserve the	Contractor/	and B1-9 in R4	before construction	
		Wa Shan Site of Archaeological Interest, it is recommended that	archaeological resources as	Qualified	&R3 zoning		
		an Archaeological Impact Assessment is required after land	far as possible.	Archaeologist			
		resumption 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	To minimize the vibration	Project	G303 and G308	Preconstruction	N/A
		impact assessment	impacts during	Proponent/		stage before	
		In case any potential vibration impact on any nearby built	preconstruction stage on any	Contractor		commencement of	
		heritage features are identified during the pre-construction stage	identified potential vibration			construction works	
		of the Project, prior to commencement of construction works, a	impacted built heritage			during Schedule 3	
		baseline condition survey and baseline vibration impact	features			study	
		assessment should be conducted by a qualified building					
		surveyor or a qualified structural engineer to define the vibration					
		limit (a vibration limit at 7.5mm/s could be adopted for graded					
		historic buildings) and to evaluate if construction vibration					
		monitoring and structural strengthening measures are required					
		during 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	To minimize the vibration	Project	KT57, FL05,	Preconstruction	N/A
		impact assessment	impacts during	Proponent/	FL18, and FL2	stage before	
		In case any potential vibration impact on any nearby built	preconstruction stage on any	Contractor		commenceme nt of	
		heritage features are identified during the pre-construction stage	identified potential vibration			construction works	
		of the Project, prior to commencement of construction works, a	impacted built heritage				
		baseline condition survey and baseline vibration impact	features				
		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	CH9	Conducting Photographic and Cartographic Records Prior to	To preserve the directly	Project	Ancillary	Prior to Removal /	N/A
		Removal/Relocation of Impacted Built Heritages	impacted sites by record	Proponent/	structures of	Relocation of	
		Prior to removal/relocation of the directly impacted historical	prior to their removal /	Contractor	G303, HKT01,	features before	
		buildings and cultural/historical landscape features,	relocation		HKT02, Entrance	commenceme nt of	
		photographic and cartographic records should be conducted to			Gate of HKT03,	construction works	
		preserve them by record. Liaison with and obtaining			HKT04, KT01 to	during Schedule 3	
		agreement from the descendants of these features will be			KT10, KT13,	study	
		carried out the Project Proponent.			KT36, KT39,		
					KT40, KT41,		
					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	KT12 and KT61	Prior to Removal /	N/A
		Removal/Relocation of Impacted Built Heritages	impacted sites by record	Proponent/		Relocation of	
		Prior to removal/relocation of the directly impacted historical	prior to their removal /	Contractor		features before	
		buildings and cultural/historical landscape features,	relocation			commencement of	
		photographic and cartographic records should be conducted to				construction works	
		preserve them by record. 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	HKT01, HKT02,	After the	N/A
		reasonable location nearby may be required.	impacted sites by relocation	Proponent/	Entrance Gate of	photographic and	
				Contractor	HKT03	cartographic	
						records and before	
						commencement of	
						construction works	
S11.6.2	CH12	Drainage System and Access Route Design For the retained	To prevent the persevered	Contractor	The retained built	Pre-construction	N/A
		built heritage items in developable area, drainage system and	flooding and maintain the	/Detailed Design	heritage items	phase	
		access route would be designed to prevent the persevered	accessibility to the built	consultant			
		flooding and maintain the accessibility to the built heritage.	heritage				
Cultural I	Heritage (0	Construction Phase)		<u> </u>			
S11.6.1	CH13	Inform Upon Archaeological Discovery	Special attention should be	Contractor	All soil excavation	Immediately upon	
		Pursuant to the Antiquities and Monuments Ordinance, the	given to areas evaluated to		works	discovery during	N/A
		construction Contractor should inform the AMO immediately in	have archaeological			excavation works	
		case of discovery of antiquities or supposed antiquities in the	potential or significance.				
		course of excavation works in construction phase.					
S11.6.2	CH14	Watertable Monitoring	To minimize the potential	Contractor	Within NDAs	Construction	
		Since the construction works and development activities may	impacts to the built heritage			phase	N/A
		induce change in the watertable. It is recommended the	items by the change of				
		Contractor should ensure that the change of watertable induced	watertable induced by the				
		by the construction works and development activities will not	works during the				
		result in settlement of built heritage.	Construction phase				
S11.6.2	CH15	Conducting Construction Vibration Monitoring and Structural	To minimize the potential	Contractor	Identified potential	Construction	
		Strengthening Measures	impacts during Construction		vibration impacted	phase, with details	۸
		Construction vibration monitoring and structural strengthening	phase on any identified		built heritage	specified in	
		measures should be conducted during Construction phase based	potential vibration impacted		features	baseline condition	
		on the assessment result of baseline condition survey and	built heritage features			survey and	

							•
		baseline vibration impact assessment, so as to ensure the				baseline vibration	
		construction performance meets with the vibration standard				impact assessment	
		stated in the EIA report.					
Landscap	pe and Visu	ual Impact (Detailed Design, Prior to Construction, Construction	and Operation Phases)				
S.12.9	LV1	General Good Practice Measures - For areas unavoidably		Detailed design	Throughout	Prior to	
		disturbed by the Project on a short term basis e.g. works areas,		consultant/	NDAs,	Construction,	
		the general principle to try and restore these to their former state		Contractor		Construction & for	N/A
		to suit future land use, should be adhered to.				all planting, this	
		With regard to topsoil, where identified, it should be stripped,				should be installed	
		treated appropriately, and where suitable and practical stored for				as the areas	
		re-use in the construction of the soft landscape works such as				become available,	
		roadside amenity strips, and open space sites.				to achieve early	
						establishment	
S.12.9	LV2	Minimum Topographical Change -To minimize landscape and	Reduce topographical	Government /	Throughout	Prior to	N/A
MM1		visual impacts, the footprint and elevation of such elements	changes and minimize land	Detailed Design	NDAs, particularly	Construction	
		should be optimized to reduce topographical/ landform changes,	resumption	Consultant/	for reservoirs		
		as well as reduce land take and interference with natural terrain.		Contractor			
		Where there is a need to significantly cut into the existing					
		landform, retaining walls should be considered as well as cut					
		slopes, to minimize landform changes and land resumption, while					
		also considering visual amenity. Earthworks and engineered					
		slopes should be designed to be a visually interesting landform,					
		compatible with the surrounding landscape and to mimic the					
		natural contouring and terrain e.g. introduction and continuation					
		of natural features such as spurs and ridges where appropriate,					
		to support assimilation with the hillside setting.					

S.12.9	LV3	Detailed Design (Visual) -The footprint and massing of	Improve visual amenity of	Detailed Design	Throughout NDAs	Prior to	N/A
MM2		development components and the works area should also be	the new buildings, NDAs in	Consultant		Construction	
		kept to a practical minimum and the detailed design of	general and integrate as				
		development components for Construction phase should	best possible into the				
		follow the Sustainable Building Design Guidelines. The	surrounding landscape				
		form, textures, finishes and colours of the proposed					
		development components should aim to be compatible with					
		the existing surroundings. To improve visual amenity					
		designs should be aesthetically pleasing and treatment of					
		structures also improve visual amenity. For example,					
		natural building materials such as stone and timber, should					
		be considered for architectural features, and light earthy tone					
		colours such as shades of green, shades of grey, shades of					
		brown and off-white should also be considered to reduce the					
		visibility of the development components, including all					
		roadwork, buildings and noise barriers. In addition, the					
		design of structures should consider green roofs were					
		feasible, following stated guidelines. All Noise barriers,					
		particularly noise barriers but also any barriers proposed for					
		ecological impact mitigation, should be kept to a practical					
		minimum, and be of such a designed as to integrate as well					
		as possible into the surrounding visual context and be as low					
		as practical to minimize blocking views. Noise barrier					
		design, including vertical, cantilever or curved, and noise					
		enclosures including semi-enclosure and full enclosure, at					
		grade and/ or elevated, should follow the guidelines stated.					
		Construction time frame should also be considered and					

		designs seek to keep it to a practical minimum.					
S12.9	LV 4	Avoid affecting Watercourses - In the detailed design,	Avoid direct impacts to	Detailed Design	All watercourses,	Prior to	۸
MM14.4		consideration should be made of watercourses, to minimize	watercourses	Consultant/	particularly the	Construction and	
		any impacts e.g. at new bridge crossings, viaducts, road		Contractor	stream at Siu	Construction	
		alignment etc. Guidelines stated should be followed.			Hang San Tsuen	Phase	
		For example, for the stream at Siu Hang San Tsuen in FLN			that will flow under		
		NDA, much of the stream is located underneath the viaduct			the Fanling		
		for the proposed Fanling Bypass. In order to avoid impacts			Bypass Eastern		
		to the stream, the detailed final design of the viaduct should			Section		
		follow guidelines and ensure that no viaduct footings or other					
		structures are placed in the stream.					
		Bridges and box culverts should also be used to minimize the					
		necessity of watercourse modification and protect the					
		watercourses where necessary.					
Landscap	oe and Visi	ual (Construction)					
S.12.9	LV5	Open Space Provision - the principles adopted in the RODP	Reprovision of open space.	Government	Onsite as	Prior to	N/A
ММЗ		planning ensure that public open space systems are	Enhance visual amenity of	Developer/	stipulated in the	Construction and	
		incorporated. All requirements for open space areas	the area and improve the	Detailed Design	planning	Construction Phas	
		stipulated in the planning documents for the formulation of	overall landscape character	Consultant/	documents for the		
		the Preliminary Layout Plan should be adhered to.		Contractor/	formulation of the		
					Preliminary		
					Layout Plan		
S.12.9	LV6	Tree Protection & Preservation – Exiting trees to be retained	Protect and Preserve Trees	Government /	Onsite	Prior to	*
MM4		within the Project Site should be carefully protected during		Detailed Design		Construction and	
		construction. In particular OVTs will be preserved		Consultant/		Construction	
		according to ETWB Technical Circular (Works) No. 29/2004.		Contractor		Phase	

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		Detailed Tree Protection Specification shall be provided in					
		the Contract Specification. Under this specification, the					
		Contractor shall be required to submit, for approval, a					
		detailed working method statement for the protection of trees					
		prior to undertaking any works adjacent to all retained trees,					
		including trees in Contractor's works areas.					
		A detailed tree survey will be carried out for the Tree Removal					
		Application (TRA) process which will be carried out at the					
		later detailed design stage of the Project. The detailed tree					
		survey will propose which trees should be retained,					
		transplanted or felled and will include details of tree					
		protection measures for those trees to be retained					
S.12.9	LV7	Tree Transplantation - Trees unavoidably affected by the	Transplant Trees where	Government /	Onsite where	Prior to	N/A
MM5		Project works should be transplanted where practical. Trees	suitable for transplantation	Detailed Design	possible.	Construction,	
		should be transplanted straight to their final receptor site and		Consultant/	Otherwise	Construction	
		not held in a temporary nursery as far as possible.		Contractor	consider offsite	Phase &	
					locations	Maintenance in	
		A detailed Tree Transplanting Specification shall be provided				Operation Phase	
		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 possible. Seeding of modified slopes should be done as cutting and fill slopes. Detailed Design Construction,	
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 possible. Seeding of modified slopes should be done as cutting and fill slopes.  To avoid substantial slope Government / Onsite Prior to N/A as possible. Seeding of modified slopes should be done as cutting and fill slopes.  Detailed Design	
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 possible. Seeding of modified slopes should be done as cutting and fill slopes.  Detailed Design  Construction,	
Vegetation Maintenance Ambit' should be referred to.  S.12.9 LV8 Slope Landscaping – Site formation should be reduced as far MM6 as possible. Seeding of modified slopes should be done as cutting and fill slopes. Detailed Design Construction,	
S.12.9 LV8 Slope Landscaping – Site formation should be reduced as far as possible. Seeding of modified slopes should be done as cutting and fill slopes. Detailed Design Construction,	
MM6 as possible. Seeding of modified slopes should be done as cutting and fill slopes. Detailed Design Construction,	
soon as grading works are completed to prevent erosion and To prevent erosion and Consultant/ Construction	
subsequent loss of landscape resources and character. subsequent loss of Contractor Phase &	
Woodland tree seedlings and/ or shrubs should be planted landscape resources and landscape resources are landscape resources.	
where slope gradient and site conditions allow. character. Operation Phase	
To ensure man-made slopes	
In addition, landscape planting should be provided for the are as visually amenable as	
retaining structures associated with modified slopes where possible.	
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 Compensate for trees and Government / Onsite where Prior to N/A	
MM7 felled trees shall be provided to the satisfaction of relevant shrubs lost due to the Detailed Design possible. Construction,	
Government departments. Required numbers and locations Project. Consultant/ Otherwise Construction	
of compensatory trees shall be determined and agreed Contractor consider offsite Phase &	
separately with Government during the Tree Removal locations Maintenance in	
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.12.9	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.			
		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			

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		avicennaeHibiscus tiliaceus, Liquidambar formosana,					
		Sapium discolor, Schefflera heptaphylla and llex 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	
				Consultant/		Phase &	
				Contractor		Maintenance in	
						Operation Phase	

## App Q - IMPLEMENTATION SCHEDULE AND RECOMMENDED MITIGATION MEASURES

## May 2021

S.12.9	LV12	Green Roof - Roof greening where appropriate should be	Reduce exposure to	Government /	On appropriate	Prior to	N/A
MM10		established on proposed buildings as per the guidelines	untreated concrete surfaces	Developer/	buildings	Construction,	
		stated. These guidelines provide further details including	and particularly mitigate	Detailed 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 in	
		information on what types of plants might be suitable.	greening.			Operation Phase	
S.12.9	LV13	Screen Planting – Tall screen/buffer trees and shrubs should be	To screen proposed	Government /	Along roads,	Prior to	N/A
MM11		planted. This measure may additionally form part of the	structures such as roads and	Detailed Design	around suitable	Construction,	
		compensatory planting.	buildings. Improve	Consultant/	built structures, or	Construction	
			compatibility with the	Contractor	around VSRs to	Phase &	
			surrounding environment		contain their view	Maintenance in	
			and create a pleasant		out to the NDA	Operation Phase	
			pedestrian environment		structures.		

S.12.9	LV14	Road Greening –For viaducts, soft landscaping should be	To soften the hard, straight	Government /	On viaducts or	Prior to	N/A
MM12		provided to soften the hard, straight edges (for climbers used to	edges and provide greening	Developer/	along roads	Construction,	
		cover the vertical, hard surfaces of the piers – see MM9 Vertical	along roads.	Detailed Design		Construction	
		Greening) and shade tolerant plants should be planted, where		Consultant/		Phase &	
		light is sufficient, to improve aesthetic value of areas under		Contractor		Maintenance in	
		viaducts. Both at grade planting and use of elevated planters				Operation Phase	
		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.					
I		(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	Compensate for Marsh/	Project	Onsite where	Prior to	N/A
MM13 &		Nature Park (LVNP) will be designed and implemented to	Wetland lost due to the	Proponent/	possible.	Construction,	
EIA Annex		enhance on- wetland areas within the LVNP. (See E4,E15 and	Project.	Detailed Design	Otherwise	Construction	
13		E25 also)		Consultant/	consider offsite	Phase &	
		Also see LV16, LV17, and LV18 as wetland planting should be		Contractor/	locations	Maintenance in	
		provided along the embankments and beds of modified/		Maintenance		Operation Phase	
		reprovisioned 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	similar to existing, including	Developer/	channelized	Construction,	
		diverted to avoid the proposed new developments and retain the	wetland planting provision	Detailed Design	watercourses	Construction	
		integrity of the whole stream. Detailed design of any stream	for embankments	Consultant/	e.g. a Ma Tso	Phase &	
		diversion should follow the Guidelines in ETWB Technical		Contractor	Lung and Siu Han	Maintenance in	
		Circular (Works) No. 5/2005 (Protection of natural streams/rivers			San Tsuen	Operation Phase	
		from adverse impacts arising from construction works) and					
		appropriate construction methods should be used.					
		Two short stretches of the Ma Tso Lung Stream will be affected					
		by Project in the KTN NDA; by the LMC Eastern Connection					
		Road on the western border of Site F1-3 and further upstream					
		by Site E-2.					
		At both these locations, the stream will be reprovisioned and					
		maintain the flow between unaffected sections of the stream.					
		The reprovisioned stream will be provided with a natural bed					
		and banks, as well as having an area of marsh/ pool next to it					
		and trees and shrubs further from the banks. (See E2, E14 and					
		E24 also)					
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		Detailed Design	watercourses	Construction	
		to developments, confers a degree of protection to the stream		Consultant/	e.g. a Ma Tso	Phase &	
		course and its associated vegetation.		Contractor	Lung and Siu Han	Maintenance in	
					San Tsuen	Operation Phase	
		For the stream at Ma Tso Lung in KTN NDA, the middle and					

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		upper sections will be designated as Green Belt zone where					
		there is a general presumption against development as buffer to					
		the stream.					
		For the stream at Siu Hang San Tsuen in FLN NDA, within the					
		NDA boundary much of the stream would be located underneath					
		the viaduct for the proposed Fanling Bypass. To the south of the					
		viaduct the stream flows through an Open Space area D1-3. In					
		this Open Space zone a 10m buffer is proposed in which natural					
		vegetation will be retained and enhanced and human activities					
		will be limited in order to avoid direct impacts to the stream bed					
		and to minimize potential indirect impacts to the stream and					
		riparian corridor. (See E3 also)					
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	watercourse modification,	Developer/	watercourse,	Construction,	
		Department Practice Note No.1/2005 - Guidelines on	protect watercourses where	Detailed Design	particularly the Ma	Construction	
		Environmental Considerations for River Channel Design, should	possible and enhance	Consultant/	Wat River	Phase &	
		be considered and appropriate mitigation measures included	channelized watercourses	Contractor	Channel Diversion	Maintenance in	
		ensuring the new watercourses match the existing as far as				Operation Phase	
		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.					
S12.9	LV19	Pond Replacement –Principles adopted in the design of the	Reprovision for ponds lost	Project	E1-7 and C1-9	Prior to	N/A
MM15		NDAs ensure that they incorporate ponds within the RODPs.	due to the Project.	Proponent/	(LVNP) in KNT	Construction,	
				Detailed Design	NDA and	Construction	
		All requirements for ponds stipulated in the planning documents		Consultant/	generally	Phase	
		for the formulation of the Preliminary Layout Plan (e.g. at Fung		Contractor/	throughout NDA	Maintenance in	
		Kong Shan Park in E1-7 of KNT ND) should be adhered to.		Maintenance		Operation Phase	
				Authority			
S.12.9	LV20	Screen Hoarding –Screen hoarding shall be erected along areas	To screen undesirable views	Contractor	Throughout NDAs	Construction	۸
MM16		of the construction works site boundary where the works site	of the works site.			Phase	
		borders publically accessible routes and/or is close to visually					
		sensitive receivers (VSRs). It is proposed that the screening be					
		compatible with the surrounding environment and where					
		possible, non- reflective, recessive colours be used.					
		Any works areas near the ecological sensitive areas should					
		erect 2m high dull green site boundary fence. Details can refer					
		to the ecological impact assessment (Chapter 13 of the EIA					
		report).					
S.12.9	LV21	Light Control – Construction day and night time lighting should	To minimize glare impact to	Government /	Throughout NDAs	Construction and	N/A
MM17		be controlled to minimize glare impact to adjacent VSRs during	adjacent VSRs	Developer/		Operation Phases	
		the Construction phase.		Contractor			
		Street and night time lighting shall also be controlled to minimize					

	Data at a Co	glare impact to adjacent VSRs during the operation phase.					
S. 13.9	E1	Egretry Habitat Creation & Management Plan (EHCMP) and	Compensate for loss of Man	Project	FLN area A1-7	Detailed design	N/A
5. 13.9	E1						IN/A
		Woodland Planting and Management Plan (WPMP)	Kam To Road egretry.	Proponent/	(egretry	phase	
			Compensate for loss of	Detailed Design	compensation).		
			secondary woodland and	Consultant	KTN areas E1-8		
			hillside plantation of	(EHCMP and	and G1-3		
			ecological significance.	WPMP).	(woodland compensation).		
					compensation).		
S. 13.9	E2	Detailed design of development along lower reaches of Ma Tso	Minimize impacts on Ma Tso	Project	KTN areas F1-2	Detailed design	N/A
		Lung Stream and Ma Tso Lung San Tsuen Stream in OU zones	Lung Stream and Ma Tso	Proponent/	and F1-3 and	and construction	
		F1-2 and F1-3 and detailed design of LMC Loop Eastern	Lung San Tsuen Stream and	Detailed Design	LMC Loop	phases.	
ı		Connection Road with restoration of diverted stream and	riparian corridor of	Consultant.	Eastern		
ı		riparian corridor, permanent barrier and underpass on the at-	importance to species of	(design of Ma	Connection Road.		
]		grade section	conservation significance.	Tso Lung			
ı				Stream diversion			
]		Compensation for the loss of seasonally wet grassland at Ma		and buffer zone			
]		Tso Lung by habitat restoration and enhancement along diverted		habitat			
]		section of Ma Tso Lung Stream		restoration			
				measures)			

S13.9	E3	Detailed design, implementation and management of Siu Hang	Minimize impacts on Siu	PlanD, Project	FLN area D1-3.	Detailed design,	۸
313.9		San Tsuen Stream to have 10m wide vegetated buffer in Open	Hang San Tsuen Stream and	-	T LIV alea DT-3.		
				Proponent/		construction and	
		Space zone D1-3, Fanling Bypass to cross stream on viaduct.	stream fauna.	Detailed Design		operation phases.	
				Consultant/			
				Contractor/			
				Maintenance			
				Authority			
S.13.9	E4	Long Valley Nature Park (LVNP) designation, design and	Compensate for wetland loss	Project	Long Valley KTN	Detailed design	N/A
		implementation.	arising from the project and	Proponent/	area C1-9 and	phase	
			protection of Long Valley	Detailed Design	any suitable areas		
			from adverse ecological	Consultant	to be identified		
		Enhancement of non-wetland habitats in LVNP. Planning for the	impacts including provision	(Long Valley	during the		
		advanced provision of alternative foraging habitat along main	of additional/alternative	Nature Park	planning stage		
		river channels for large waterbirds.	habitat for large waterbirds	Habitat Creation			
			using Ng Tung, Sheung Yue	& Management			
			and Shek Sheung River	Plan)			
			channels.				
S13.9	E5	Stringent planning control requirements in Long Valley north and	Protect these wetland areas	PlanD.	KTN areas C2-1	Detailed design	N/A
		west of Sheung Yue River, including Ho Sheung Heung egretry.	from indirect impacts to		and C2-2 , Ho	phase	
			habitats and fauna especially		Sheung Heung		
			breeding ardeids foraging in		egretry and areas		
			these areas and utilizing		north of Long		
			flight-lines from Ho Sheung		Valley along the		
			Heung egretry.		Ng Tung River to		
					the Shenzhen		
			Avoid habitat loss and		River		
			disturbance to fauna of				

Ng Tung and Shek Sheung Rivers, retention and provision of screen plantings where feasible; and detailed design of Open Space areas and development areas along river corridors.  Iarge waterbirds using Ng Tung, Sheung Yue and Shek Sheung Proponent/ Detailed Design Consultant/ Contractor/ Maintain ecological linkages within NDA Project Area and Deep Bay ecosystem, especially for Long Valley and waterbirds.								
Maintenance of ecological linkages with Deep Bay ecosystem and avoidance of severance of these linkages, especially for waterbirds sing Ng sepecially for waterbirds believed by the proposed of screen plantings where feasible; and detailed design of Open Space areas and development areas along river corridors.  E7 Building setback and mounding in locations near Long Valley.  KTN area B3-12 (30m setback and mounding along northern and northeastern boundaries).  Maintenance of ecological linkages, especially for waterbirds using Ng Proposed. Proposed Tung, Sheung Ng Proposed Tung, Sheung Ng Proposed Tung, Sheung Priver channels.  Sheung River channels.  Sheung River channels.  Sheung River channels.  Maintenance Authority  Maintenance Authority  Maintenance Authority  Maintenance Authority  Maintenance Authority  Maintenance Authority  Maintenance (30m setback and mounding in locations near Long Valley.  KTN area B3-12 (30m setback from road D3) and KTN area C1-1 (15m setback and mounding along northern and northeastern boundaries).				conservation significance,				
Inkages with Deep Bay ecosystem and avoidance of severance of these linkages, especially for waterbirds				especially nesting ardeids				
Inkages with Deep Bay ecosystem and avoidance of severance of these linkages, especially for waterbirds								
ecosystem and avoidance of severance of these linkages, especially for waterbirds  E6 Planning for creation of Green Corridors along the Sheung Yue, Ng Tung and Shek Sheung Rivers, retention and provision of screen plantings where feasible; and detailed design of Open Space areas and development areas along river corridors.  E7 Building setback and mounding in locations near Long Valley.  KTN area B3-12 (30m setback from road D3) and KTN area C1-1 (15m setback and mounding along northern and northeastern boundaries).  E8 Planning for creation of Green Corridors along the Sheung Yue, especially for waterbirds using Ng Tung, Sheung Yue and Shek Sheung Sheven Project Area and Detailed Design Consultant/ Sheung River channels.  Consultant/ Maintenance Authority  Biver  Authority  A				Maintenance of ecological				
Signature of these linkages, especially for waterbirds  E6 Planning for creation of Green Corridors along the Sheung Yue, Ng Tung and Shek Sheung Rivers, retention and provision of screen plantings where feasible; and detailed design of Open Space areas and development areas along river corridors.  E7 Building setback and mounding in locations near Long Valley.  E7 Building setback and mounding along northern and northeastern boundaries).  E8 Planning for creation of Green Corridors along the Sheung Yue, Information of Green Corridors along the Sheung Yue, Information of Shek Sheung Shews Area and Desplay ecosystem, especially for Long Valley.  E8 Building setback and mounding in locations near Long Valley.  E8 Building setback and mounding along northern and northeastern boundaries).  E8 Project Area and Detailed Design Construction and Shek Sheung Operational Constructor.  Maintain ecological linkages within NDA Project Area and Deep Bay ecosystem, especially for Long Valley and waterbirds.  E9 Building setback and mounding in locations near Long Valley.  E8 Building setback and mounding in locations near Long Valley.  E8 Building setback and mounding along northern and northeastern boundaries).  E7 Building setback and mounding along northern and northeastern boundaries).				linkages with Deep Bay				
S13.9 E6 Planning for creation of Green Corridors along the Sheung Yue, Ng Tung and Shek Sheung Rivers, retention and provision of screen plantings where feasible; and detailed design of Open Space areas and development areas along river corridors.  S13.9 E7 Building setback and mounding along northern and northeastern boundaries).  Maintain ecological linkages within NDA Project Area and Deep Bay ecosystem, especially for Long Valley.  Minimize disturbance to large waterbirds using Ng Tung, Sheung Yue and Shek Sheung River channels.  Sheung River channels.  Sheung River channels.  Maintain ecological linkages within NDA Project Area and Deep Bay ecosystem, especially for Long Valley and waterbirds.  S13.9 E7 Building setback and mounding along northern and northeastern boundaries).  Minimization of disturbance impacts to fauna using Long Valley.  Valley.  Minimize disturbance to large waterbirds using Ng Tung, Sheung Yue and Shek Sheung and Shek Sheung River channels.  Maintan ecological linkages within NDA Project Area and Deep Bay ecosystem, especially for Long Valley and waterbirds.  Minimization of disturbance impacts to fauna using Long Valley.  Valley.  STN area B3-12 (30m setback and mounding along northern and northeastern boundaries).				ecosystem and avoidance of				
S13.9 E6 Planning for creation of Green Corridors along the Sheung Yue, Ng Tung and Shek Sheung Rivers, retention and provision of screen plantings where feasible; and detailed design of Open Space areas and development areas along river corridors.  S13.9 E7 Building setback and mounding in locations near Long Valley.  S13.9 E7 Building setback and mounding along northern and northeastern boundaries).  S13.9 E7 Building setback and mounding along northern and northeastern boundaries).  S13.9 E7 Interest and Planning for creation of Green Corridors along the Sheung Yue, Interest along Yue and Shek Sheung Yue and Shek Sheung Yue and Shek Sheung Consultant/ Contractor/ Maintenance Authority  S13.9 E7 Building setback and mounding in locations near Long Valley.  S13.9 E7 Building setback and mounding along northern and northeastern boundaries).  S13.9 E7 Building setback and mounding along northern and northeastern boundaries).				severance of these linkages,				
Ng Tung and Shek Sheung Rivers, retention and provision of screen plantings where feasible; and detailed design of Open Space areas and development areas along river corridors.  Maintain ecological linkages within NDA Project Area and between Project Area and Deep Bay ecosystem, especially for Long Valley and waterbirds.  Space areas and mounding in locations near Long Valley.  Space areas and development areas along river corridors.  E7  Building setback and mounding in locations near Long Valley.  KTN area B3-12 (30m setback from road D3) and KTN area C1-1 (15m setback and mounding along northern and northeastern boundaries).  Space areas and development areas along river corridors.  Iarge waterbirds using Ng Tung, Sheung Yue and Shek Sheung Consultant/ Consultant/ Consultant/ Consultant/ Consultant/ Contractor/ Maintenance Authority  KTN area B3-12 (30m setback from road D3) and KTN area C1-1 (15m setback and mounding along northern and northeastern boundaries).  Space areas and development areas along river corridors.  Sheung River channels.  Sheung River channels				especially for waterbirds				
Screen plantings where feasible; and detailed design of Open Space areas and development areas along river corridors.  Tung, Sheung Yue and Shek Sheung Consultant/ Contractor/ Maintain ecological linkages within NDA Project Area and Deep Bay ecosystem, especially for Long Valley and waterbirds.  E7 Building setback and mounding in locations near Long Valley.  KTN area B3-12 (30m setback from road D3) and KTN area C1-1 (15m setback and mounding along northern and northeastern boundaries).  E8 Building setback and mounding along northern and northeastern boundaries).	S13.9	E6	Planning for creation of Green Corridors along the Sheung Yue,	Minimize disturbance to	Project	Area along Ng	Detailed design,	N/A
Space areas and development areas along river corridors.  Sheung River channels.  Consultant/ Contractor/ Maintain ecological linkages 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.  KTN area B3-12 (30m setback from road D3) and KTN area C1- 1 (15m setback and mounding along northern and northeastern boundaries).  Sheung River channels.  Consultant/ Maintain ecological linkages within NDA Project Area and between Project Area and Deep Bay ecosystem, especially for Long Valley and waterbirds.  Minimization of disturbance impacts to fauna using Long Valley.  Filver phases.  Consultant/ Maintenance Authority  Briver PhanD  KTN area B3-12 (30m setback phase  From road D3) and KTN area C1-1 (15m setback and mounding along northern and mounding along northern and			Ng Tung and Shek Sheung Rivers, retention and provision of	large waterbirds using Ng	Proponent/	Tung, Sheung Yue	construction and	
Maintain ecological linkages 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.  KTN area B3-12 (30m setback from road D3) and KTN area C1-1 (15m setback and mounding along northern and northeastern boundaries).  Contractor/ Maintenance Authority  Maintenance Authority  Authority  PlanD  KTN area B3-12 (30m setback and mounding in locations near Long Valley.  Walley.  Valley.  Contractor/ Maintenance Authority  Detailed design phase  from road D3) and KTN area C1-1 (15m setback and mounding along northern and mounding along northern and mounding along northern and mounding along northern and			screen plantings where feasible; and detailed design of Open	Tung, Sheung Yue and Shek	Detailed Design	and Shek Sheung	operational	
Maintain ecological linkages 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.  KTN area B3-12 (30m setback from road D3) and KTN area C1-1 (15m setback and mounding along northern and northeastern boundaries).  Maintain ecological linkages within NDA Project Area and Authority  Authority  PlanD KTN area B3-12 (30m setback grown road D3) and KTN area C1-1 (15m setback and mounding along northern and northeastern boundaries).			Space areas and development areas along river corridors.	Sheung River channels.	Consultant/	River	phases.	
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.  KTN area B3-12 (30m setback from road D3) and KTN area C1-1 (15m setback and mounding along northern and northeastern boundaries).  Within NDA Project Area and Deep Bay ecosystem, especially for Long Valley and waterbirds.  Minimization of disturbance impacts to fauna using Long Valley.  Valley.  Within NDA Project Area and Authority  Authority  PlanD  KTN area B3-12 (30m setback phase  from road D3) and KTN area C1-1 (15m setback and mounding along northern and mounding along northern and					Contractor/			
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.  KTN area B3-12 (30m setback from road D3) and KTN area C1-1 (15m setback and mounding along northern and northeastern boundaries).  Between Project Area and Deep Bay ecosystem, especially for Long Valley and waterbirds.  Minimization of disturbance impacts to fauna using Long (30m setback phase)  Valley.  FlanD KTN area B3-12 (30m setback phase)  from road D3) and KTN area C1-1 (15m setback and mounding along northern and mounding along northern and mounding along northern and mounding along northern and				Maintain ecological linkages	Maintenance			
Deep Bay ecosystem, especially for Long Valley and waterbirds.  S13.9 E7 Building setback and mounding in locations near Long Valley.  KTN area B3-12 (30m setback from road D3) and KTN area C1-1 (15m setback and mounding along northern and northeastern boundaries).  Deep Bay ecosystem, especially for Long Valley and waterbirds.  Minimization of disturbance impacts to fauna using Long (30m setback phase)  Valley.  From road D3) and KTN area C1-1 (15m setback and mounding along northern and mounding along northern and mounding along northern and mounding along northern and				within NDA Project Area and	Authority			
E7 Building setback and mounding in locations near Long Valley.  KTN area B3-12 (30m setback from road D3) and KTN area C1- 1 (15m setback and mounding along northern and northeastern boundaries).  Building setback and mounding in locations near Long Valley.  Minimization of disturbance impacts to fauna using Long Valley.  FlanD KTN area B3-12 (30m setback phase  from road D3) and KTN area C1-1 (15m setback and mounding along northern and northeastern boundaries).				between Project Area and				
S13.9 E7 Building setback and mounding in locations near Long Valley.  KTN area B3-12 (30m setback from road D3) and KTN area C1- 1 (15m setback and mounding along northern and northeastern boundaries).  Building setback and mounding in locations near Long Valley.  Minimization of disturbance impacts to fauna using Long Valley.  Valley.  FlanD  KTN area B3-12  (30m setback from road D3) and KTN area C1-1  (15m setback and mounding along northern and northeastern and mounding along northern and				Deep Bay ecosystem,				
S13.9 E7 Building setback and mounding in locations near Long Valley.  KTN area B3-12 (30m setback from road D3) and KTN area C1- 1 (15m setback and mounding along northern and northeastern boundaries).  Minimization of disturbance impacts to fauna using Long Valley.  PlanD  KTN area B3-12 (30m setback phase  from road D3) and KTN area C1-1 (15m setback and mounding along northern and northeastern phoundaries).				especially for Long Valley				
impacts to fauna using Long  KTN area B3-12 (30m setback from road D3) and KTN area C1- 1 (15m setback and mounding along northern and northeastern boundaries).  impacts to fauna using Long  Valley.  (30m setback phase  from road D3) and  KTN area C1-1  (15m setback and mounding along northern and northeastern and mounding along northern and				and waterbirds.				
KTN area B3-12 (30m setback from road D3) and KTN area C1- 1 (15m setback and mounding along northern and northeastern boundaries).  Valley.  from road D3) and KTN area C1-1 (15m setback and mounding along northern and northeastern and	S13.9	E7	Building setback and mounding in locations near Long Valley.	Minimization of disturbance	PlanD	KTN area B3-12	Detailed design	N/A
1 (15m setback and mounding along northern and northeastern boundaries).  KTN area C1-1 (15m setback and mounding along northern and northeastern and mounding along northern and				impacts to fauna using Long		(30m setback	phase	
boundaries).  (15m setback and mounding along northern and			KTN area B3-12 (30m setback from road D3) and KTN area C1-	Valley.		from road D3) and		
mounding along northern and			1 (15m setback and mounding along northern and northeastern			KTN area C1-1		
northern and			boundaries).			(15m setback and		
						mounding along		
northeastern						northern and		
						northeastern		

					boundaries.		
S13.9	E8	Preparation and implementation of Guidelines for building	Minimize mortality and	PlanD/ Project	Near Long Valley	Detailed design	N/A
		design measures to minimize mortality and light and glare	disturbance impacts on	Proponent/		phase	
		impacts to fauna. Guidelines to address the following measures:	fauna, especially mammals	Developer/			
		Use opaque, non-transparent, non-reflective noise barriers for	and birds.	Detailed Design			
		all developments associated with the Project.		Consultant			
		Measures to include the following:					
		Fritting, or the placement of ceramic lines or dots on glass,					
		which creates a visual barrier to birds and reduces air					
		conditioning loads by lowering heat gain, while still					
		allowing light transmission for interior spaces. It is most					
		successful when the frits are applied on the outside					
		surface. Frosted glass has similar effects;					
		Angled glass to be used only for smaller panes in					
		buildings with a limited amount of glass;					
		The use of glass that reflects UV light (primarily visible to					
		birds, but not to humans) to reduce collisions;					
		Film and art treatment allow glass surfaces to be used a					
		medium of expression, often related to the nature and use					
		of the building, as well indicating to birds their					
		impenetrability;					
		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	Minimize loss of secondary	Project	KTN areas D1-11a	Detailed design	N/A
		developments in KTN areas D1-11a and G1-5 to avoid/minimize	woodland and shrubland of	Proponent/Detail	and G1-5 to	phase	
		direct and indirect impacts on secondary woodland at Ho	ecological value.	ed Design	avoid/minimize		
		Sheung Heung and shrubland at Crest Hill.		Consultant	direct and indirect		
					impacts on		
					secondary		
					woodland at Ho		
					Sheung Heung		
					and		
					Crest Hill		
S13.9	E11	No construction during ardeid breeding season (1 March to 31	Minimize disturbance	Project	Along and within	Detailed design/	۸
		July) along Sheung Yue River north or east of KTN D1-5 and	impacts (including	Proponent/	Sheung Yue and	construction	
		east of D1-9 and C2-3, construction hours restricted to 09.00 to	cumulative impacts with	Detailed Design	Ng Tung Rivers,	phase.	
		17.30 during 1 March to 31 July on new pedestrian bridge over	cycle track project) to flight-	Consultant	Long Valley, Long		
		the Sheung Yue River, new pedestrian bridge over the tidal	lines of breeding ardeids.	Contractor	Valley and		
		section of the Ng Tung River and existing bridge between KTN			watercourse		
		areas C2-2 and C1-8.			upstream areas		
					including KTN		
		Review Design and construction methods for all bridges			area B3-12		
		especially those on the Sheung Yue and tidal Ng Tung Rivers					
		and adopt methods which minimize impacts on Long Valley and					
		the rivers, and disturbance and fragmentation impacts on fauna.					
		No overlap in construction of bridges over main river channels.					
		Measures to ensure no hydrological disruption to Long Valley					
		Watercourse and water supply to Long Valley to be designed at					

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		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	(Construct	tion Phase)					
S13.9	E12	Compensatory egretry habitat provision and establishment.	Compensate for loss of Man	Project	FLN area A1-7	Construction	۸
			Kam To Road egretry	Proponent/	500m from Man	phase.	
		Review condition and location of egretries before	habitat.	Detailed Design	Kam To Road		
		commencement of works. Formulate and implement additional		Consultant/	Egretry.		
		mitigation measures as appropriate.	Avoid mortality of breeding	Contractor			
			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	Minimize impacts on rivers	Project	Along and within	Detailed design	۸
		those on the Sheung Yue and tidal Ng Tung Rivers, and adopt	and disturbance and	Proponent/	the Sheung Yue,	and construction	
		measures which minimize impacts on rivers and disturbance	fragmentation impacts on	Detailed Design	Ng Tung and	phases.	
		and fragmentation impacts on fauna.	fauna	Consultant/	Shek Sheung		
				Contractor	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					
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		(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	Minimize impacts direct and	PlanD/ Project	KTN areas H1-1,	Detailed design	N/A
		than 45m total width) of Ma Tso Lung Stream north of the point	indirect impacts of habitat	Proponent/	F12 and F1-3 and	and construction	
		where it is crossed by the LMC Loop Eastern Connection Road,	loss, disturbance, pollution	Developer/	Lok Ma Chau	phases.	
		and Ma Tso Lung Stream diversion during construction of the	and fragmentation on Ma	Detailed Design	Loop Eastern		
		LMC Loop Eastern Connection Road; development along lower	Tso Lung Stream and marsh	Consultant/	Connection Road.		
		reaches of Ma Tso Lung Stream and Ma Tso Lung San Tsuen	and riparian corridor of	Contractor.			
		Stream in OU zones in KTN areas F1-2 and F1-3 to be set back	importance to species of	(Design of Ma			
		beyond buffer.	conservation significance.	Tso Lung			
				Stream diversion			
		Construction and maintenance of permanent 1.2m high solid		and buffer zone			
		faunal barrier at all at-grade sections of LMC Loop eastern		habitat			
		connection Road north of junction with road D4 within 15-30m		restoration			
		as appropriate of Ma Tso Lung Stream buffer and construction of		measures)			
		faunal underpass beneath road.					
		Compensation for the loss of seasonally wet grassland at Ma					
		Tso Lung by habitat restoration and enhancement along diverted					
		section of Ma Tso Lung Stream.					

S.13.9	E15	Creation and enhancement of proposed Long Valley Nature	Compensate for wetland loss	Project	Long Valley, (KTN	Construction	۸
		Park and creation and enhancement of wetland and buffer	arising from the project	Proponent/	area C1-9).	phase.	
		planting within LVNP.		Contractor			
				(LVNP Detailed			
				Habitat Creation			
				& Management			
				Plan)			
S13.9	E16	Creation of Green Corridors along the Sheung Yue, Ng Tung	Minimize disturbance to	Detailed Design	Ng Tung, Sheung	Detailed design	۸
		and Shek Sheung Rivers, retention and provision of screen	waterbirds using Ng Tung,	Consultant/	Yue and Shek	and Construction	
		plantings where feasible; provision of Open Space areas and	Sheung Yue and Shek	Contractor	Sheung Rivers	phases.	
		development areas along river corridors;	Sheung 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	Construction	N/A
		between active works areas and all areas/habitats of ecological	mortality and other adverse		between	phase.	
		importance on edge of development areas, including along any	ecological impacts on		areas/habitats/		
		roads adjacent to or penetrating into areas/habitats of ecological	habitats, flora and fauna.		fauna/ flora of		
		importance.	Measures to minimize flight-		ecological		
			line impacts to birds,		importance (e.g.		
		Erection of a 2m high dull green site barrier fence at the edge of	especially breeding ardeids.		KTN areas B1-3,		
		the works area or 30m from Ma Tso Lung Stream and			C1-5, C1- 6, C1-		
		tributaries, whichever distance is the greater.			9, C2-2, C2-4,		
					C2-5, D1-8, E1-8,		

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					G1- 3, H1-1, Ma		
					Tso Lung Stream		
					and tributaries;		
					FLN areas A1-3,		
					A1-7 and A1-9)		
					and works areas;		
					and around any		
					works areas north		
					of the Fanling		
					Bypass and north		
					of the Ng Tung		
					River west of the		
					western terminus		
					of the Fanling		
					Bypass.		
					Riparian corridor		
					of Ma Tso Lung		
					Stream and		
					tributaries.		
S13.9	E18	Compensatory woodland planting, management and	Compensate for loss of	Project	KTN areas E1-8	Construction	N/A
		maintenance.	secondary woodland and	Proponent/	and G1-3.	phase.	
			hillside plantation of	Contractor			
			ecological significance.				

S13.9	E19	Use opaque, non-transparent, non-reflective noise barriers for	Minimize mortality impacts	Contractor	All construction	Construction	۸
		all construction sites.	on birds.		sites	phase.	
		Unnecessary lighting should be avoided.					
S13.9	E20	Pre-site clearance check for presence of flora or fauna of	Minimize impacts to flora	Government/	All construction	Prior to clearance	N/A
		conservation significance and bat roosts. If any are found,	and fauna of conservation	Developer/	sites.	of vegetation and	
		measures should be proposed and implemented to avoid,	significance. Minimize	Contractor/		structures.	
		minimize and/or compensate for impacts; including adjustments	impacts to protected fauna	Ecologist			
		to design, timing of works, transplantation and translocation.	and flora species. Formulate				
		Seek agreement of relevant authorities including AFCD in	and implement mitigation				
		respect of proposed measures, then implement.	measures to avoid, minimize				
			and/or compensate for				
		Pre-site clearance check on all construction sites and pre –	impacts; including				
		works commencement check on watercourses to be physically	adjustments to design,				
		and/or hydrologically impacted by construction activities for	timing of works,				
		presence of protected plant species/specimens of conservation	transplantation and				
		significance. If any are found consider adjustments to avoid,	translocation.				
		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					

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		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	Minimize impacts to flora	Government/	All construction	Prior to clearance	N/A
		physically and/or hydrologically impacted by construction	and fauna of conservation	Developer/	sites.	of vegetation and	
		activities for presence of flora or fauna of conservation	significance. Minimize	Contractor/		structures.	
		significance and bat roosts. If any are found consider	impacts to protected fauna	Ecologist			
		adjustments to avoid, minimize and/or compensate for impacts;	and flora species. Consider				
		including adjustments to design, timing of works, transplantation	and implement adjustments				
		and translocation. Seek agreement of relevant authorities	to avoid, minimize or				
		including AFCD in respect of proposed measures, then	compensate for impacts;				
		implement.	including adjustments to				
			design, timing of works,				
		Pre-site clearance check on all construction sites for presence of	transplantation and				
		reptile species of conservation significance, capture and	translocation				
		translocate to receptor site; review translocation options in					
		respect to species in Ma Tso Lung area and determine whether					
		release locally or elsewhere is appropriate. Seek agreement of					
		relevant authorities including AFCD in respect of proposed					
		measures then implement					
		Pre-works commencement check on watercourses to be					
		physically and/or hydrologically impacted by construction					
		activities for presence of Small Snakehead and					
		Sommaniathelphusa zanklon. Capture any Sommaniathelphusa					
		zanklon found and translocate to Ma Tso Lung Stream/ other		_	_		

S13.9	E22	suitable areas including LVNP  Prevention of dust, run-off and pollutants impacting Deep Bay catchment area and areas of ecological importance.	Avoid increase to pollution entering ecologically	Contractor	All construction sites.	Construction	N/A
		satisfilment area and areas or ecological importance.	sensitive Deep Bay ecosystem.		oloo.		
		Specific Mitigati	on Measures for Designate	ed Projects			
		DP2- Castle Peak	Road Diversion (Major Im	provement)			
Landscap	e and Vis	ual (Detailed Design, Prior to Construction, Construction and Op	perational Phases)				
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	
		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	Prior to	N/A
MM14.4	DP2	consideration should be made of watercourses, to minimize any	watercourses	Design	watercourses,	Construction	
		impacts e.g. at new bridge crossings, viaducts, road alignment		Consultant/	particularly the	and	
		etc.		Contractor	stream at Siu	Construction	

		Guidelines stated should be followed.			Hang	Phase	
		For example, for the stream at Siu Hang San Tsuen in FLN NDA,			San Tsuen that		
		much of the stream is located underneath the viaduct for the			will		
		proposed Fanling Bypass. In order to avoid impacts to the			flow under the		
		stream, the detailed final design of the viaduct should follow			Fanling Bypass		
		guidelines and ensure that no viaduct footings or other			Eastern Section		
		structures are placed in the stream. Bridges and box culverts					
		should also be used to minimize the necessity of watercourse					
		modification and protect the watercourses where necessary.					
S.12.A9	LV5-	Tree Protection & Preservation – Exiting trees to be retained	Protect and Preserve	Government/	Onsite	Prior to	N/A
MM4	DP2	within the Project Site should be carefully protected during	Trees	Detailed		Construction	
		construction.		Design		and	
		In particular OVTs will be preserved according to ETWB		Consultant/		Construction	
		Technical Circular (Works) No. 29/2004. Detailed Tree Protection		Contractor		Phase	
		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.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,	Construction,	

F-							
		transplanted straight to their final receptor site and not held in a		Design	otherwise	Construction	
		temporary nursery as far as possible. A detailed Tree Transplanting		Consultant/	consider offsite	Phase &	
		Specification shall be provided in the Contract Specification, where		Contractor	locations	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	Consultant/		Phase &	
		seedlings and/ or shrubs should be planted where slope gradient	landscape resources and	Contractor		Maintenance in	
		and site conditions allow. In addition, landscape planting should be	character.			Operation	
		provided for the retaining structures associated with modified slopes	To ensure man-made			Phase	
		where conditions allow. All slope landscaping works should comply	slopes are as visually				
		with GEO Publication No. 1/2011-Technical Guidelines on	amenable as possible.				
		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	Proponent/	in	Construction,	
		woodland that are unavoidably affected by the Project. The	for	Detailed	the EIA	Construction	

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location and design of the woodland compensatory planting will	those areas of quality	Design	Landscape	Phase &	
principally be within habitats of lower value such as upland	woodland lost.	Consultant/	Mitigation Plans	Maintenance	
grassland. The proposed locations are identified, for example, on		Contractor/	and	in Operation	
the foothills of Tai Shek Mo, and on the higher ground of Fung		Maintenance	as agreed with	Phase	
Kong Shan in KTN NDA; along Fanling Bypass; and a small area		Authority	AFCD		
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 llex 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					

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		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	Detailed	around	Construction,	
		compensatory planting.	and	Design	suitable built	Construction	
			buildings. Improve	Consultant/	structures, or	Phase &	
			compatibility with the	Contractor	around	Maintenance	
			surrounding environment		VSRs to contain	in Operation	
			and create a pleasant		their view out to	Phase	
			pedestrian environment		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	Detailed	along	Construction,	
		vertical, hard surfaces of the piers – see MM9 Vertical Greening)	greening	Design	roads.	Construction	
		and shade tolerant plants should be planted, where light is	along roads.	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	
		considered for the soft landscaping of viaducts, taking into account				Phase	
		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	Wetland lost due to the	Proponent/	possible.	Construction,	
EIA		onwetland areas within the LVNP. (See E4,E15 and E25 also)	Project.	Detailed	Otherwise	Construction	
Annex 13		Also see LV16, LV17, and LV18 as wetland planting should be		Design	consider offsite	Phase &	
		provided along the embankments and beds of modified/		Consultant/	locations	Maintenance	
		reprovisioned 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	Design	particularly the	Construction	
		Environmental Considerations for River Channel Design, should be	where	Consultant/	Ма	Phase &	
		considered and appropriate mitigation measures included ensuring	possible and enhance	Contractor	Wat River	Maintenance	
		the new watercourses match the existing as far as possible.	channelized watercourses		Channel	in Operation	
		Measures can include enhancement planting to upgrade the			Diversion	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.					
0.10.40	1.7/45		Danuariai an farra anda lant	Duningt	F1 7 1 01 0	Deiouto	NI/A
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	
Landscap	e and Visua	al (Construction)					
S.12.A9	LV16-	Screen Hoarding –Screen hoarding shall be erected along areas of	To screen undesirable	Contractor	Throughout	Construction	۸
MM16	DP2	the construction works site boundary where the works site borders	views		NDAs	Phase	
		publically accessible routes and/or is close to visually sensitive	of the works site.				
		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	Government /	Throughout	Construction	۸
MM17	DP2	controlled to minimize glare impact to adjacent VSRs during the	to	Contractor	NDAs	and Operation	
		Construction phase.	adjacent VSRs			Phases	
		Street and night time lighting shall also be controlled to minimize					
		glare impact to adjacent VSRs during the operation phase.					
Ecology (	Detailed De	sign, Construction and Operational Phases)	I	1	<u> </u>	I	
S13.9	E2-DP2	Use opaque, non-transparent, non-reflective noise barriers.	Minimize mortality impacts	Detailed	Within NDA.	Detailed	۸
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		Unnecessary lighting should be avoided.	on birds.	Design		design phase,	
				Consultant/		Construction	
				Contractor/		phase and	
				Maintenance		Operation	
				Authority		phase.	
Ecology (	Constructio	on Phase)					
S.13.9	E3-DP2	Design and erection of 2m high solid dull green site barrier fence	Minimize dust,	Contractor.	Interface	Construction	N/A
		between active works areas and all areas/habitats of ecological	disturbance,		between	phase.	
		importance.	mortality and other		areas/habitats of		
			adverse		ecological		
			ecological impacts on		importance (KTN		
			habitats, flora and fauna.		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 F	leritage (Co	nstruction Phase)		•			
S11.6.2	CH5-	Conducting Construction Vibration Monitoring and Structural	To minimize the potential	Project	Identified	Construction	N/A
	DP2	Strengthening Measures	impacts during	Proponent/	potential	phase, with	
		Construction vibration monitoring and structural strengthening	Construction	Contractor	vibration	details	
		measures should be conducted during Construction phase based	phase on any identified		impacted	specified in	
		on the assessment result of baseline condition survey and	potential vibration		built heritage	baseline	
		baseline vibration impact assessment, so as to ensure the	impacted		features	condition	
		construction performance meets with the vibration standard stated	built heritage features			survey and	
		in the EIA report.				baseline	
						vibration	
						impact	
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						assessment,	
	DP3-	· KTN NDA Road P1 and P2 (New Road) and associated new Kwu Tu	ing Interchange (New Road)	and Pak Shek Au	Interchange Impro	vement (Major Impr	ovement)
Landscap	e and Visua	al (Detailed Design, Prior to Construction, Construction and Operati	ional Phases)				
S.12.A9	LV1-	General Good Practice Measures - For areas unavoidably		Detailed	Throughout	Prior to	۸
	DP3	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	
		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	
ı		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,			flow under the		
		the detailed final design of the viaduct should follow guidelines and			Fanling Bypass		
		ensure that no viaduct footings or other structures are placed in the			Eastern Section		
ı		stream.					
		Bridges and box culverts should also be used to minimize the					
		necessity of watercourse modification and protect the watercourses					
I		where necessary.					

S.12.A9	LV5-	Tree Protection & Preservation – Exiting trees to be retained within	Protect and Preserve	Government	Onsite	Prior to	N/A
MM4	DP3	the Project Site should be carefully protected during construction.	Trees	Detailed		Construction	
		In particular OVTs will be preserved according to ETWB Technical		Design		and	
]		Circular (Works) No. 29/2004. Detailed Tree Protection		Consultant/		Construction	
1		Specification shall be provided in the Contract Specification. Under		Contractor		Phase	
		this specification, the Contractor shall be required to submit, for					
1		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.	Construction,	
		transplanted straight to their final receptor site and not held in a		Design	Otherwise	Construction	
		temporary nursery as far as possible. A detailed Tree Transplanting		Consultant/	consider offsite	Phase &	
		Specification shall be provided in the Contract Specification, where		Contractor	locations.	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					

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		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			Phase	
		retaining structures associated with modified slopes where	slopes				
		conditions allow. All slope landscaping works should comply with	are as visually amenable				
		GEO Publication No. 1/2011-Technical Guidelines on Landscape	as				
		Treatment for Slopes.	possible.				
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.	Construction,	
		departments. Required numbers and locations of compensatory	Project.	Design	Otherwise	Construction	
		trees shall be determined and agreed separately with Government		Consultant/	consider offsite	Phase &	
		during the Tree Removal Application process under ETWBTC		Contractor	locations	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					
		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,					

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		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	Reprovide areas of	Project	In areas identified	Prior to	N/A
MM8	DP3	compensatory planting is proposed for any areas of quality	woodland to compensate	Proponent/	in	Construction,	
		woodland that are unavoidably affected by the Project. The	for	Detailed	the EIA	Construction	
		location and design of the woodland compensatory planting will	those areas of quality	Design	Landscape	Phase &	
		principally be within habitats of lower value such as upland	woodland lost.	Consultant/	Mitigation Plans	Maintenance	
		grassland. The proposed locations are identified, for example, on		Contractor/	and	in Operation	
		the foothills of Tai Shek Mo, and on the higher ground of Fung		Maintenance	as agreed with	Phase	
		Kong Shan in KTN NDA; along Fanling Bypass; and a small area		Authority	AFCD		
		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 llex 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	Detailed	around	Construction,	
		compensatory planting.	and	Design	suitable built	Construction	
			buildings. Improve	Consultant/	structures, or	Phase &	
			compatibility with the	Contractor	around	Maintenance	
			surrounding environment		VSRs to contain	in Operation	
			and create a pleasant		their view out to	Phase	
			pedestrian environment		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	DP3	to soften the hard, straight edges (for climbers used to cover the	edges and provide	Detailed	along roads.	Construction,	

		vertical, hard surfaces of the piers – see MM9 Vertical Greening)	greening along roads.	Design		Construction	
		and shade tolerant plants should be planted, where light is		Consultant/		Phase &	
		sufficient, to improve aesthetic value of areas under viaducts. Both		Contractor		Maintenance in	
		at grade planting and use of elevated planters should be considered				Operation Phase	
		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	DP3	Park (LVNP) will be designed and implemented to enhance	Wetland lost due to the	Proponent/	possible.	Construction,	
EIA		onwetland	Project.	Detailed	Otherwise	Construction	
Annex 13		areas within the LVNP. (See E4,E15 and E25 also)		Design	consider offsite	Phase &	
		Also see LV16, LV17, and LV18 as wetland planting should be		Consultant/	locations	Maintenance	
		provided along the embankments and beds of modified/		Contractor/		in Operation	
		reprovisioned		Maintenance		Phase	
		watercourses.		Authority			
S.12.A9	LV14-	Enhancement Planting along Embankment - For channelized	Minimize the necessity of	Government /	Channelized	Prior to	N/A
MM14.3	DP3	watercourses, if these are modified, the Drainage Services	watercourse modification,	Detailed	watercourse,	Construction,	
		Department Practice Note No.1/2005 – Guidelines on	protect watercourses	Design	particularly the	Construction	
		Environmental Considerations for River Channel Design, should be	where	Consultant/	Ма	Phase &	
		considered and appropriate mitigation measures included ensuring	possible and enhance	Contractor	Wat River	Maintenance	
		the new watercourses match the existing as far as possible.	channelized watercourses		Channel	in Operation	
		Measures can include enhancement planting to upgrade the			Diversion	Phase	
		channels as appropriate, including consideration of wetland					

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		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					
1		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		Detailed	NDA	Construction	
		the formulation of the Preliminary Layout Plan (e.g. at Fung Kong		Design	and generally	Phase	
		Shan Park in E1-7 of KNT ND) should be adhered to.		Consultant/	throughout NDA	Maintenance	
				Contractor/		in Operation	
				Maintenance		Phase	
				Authority			
Landscap	e and Visu	ual (Construction)					
S.12.A9	LV16-	Screen Hoarding –Screen hoarding shall be erected along areas of	To screen undesirable	Contractor	Throughout	Construction	N/A
MM16	DP3	the construction works site boundary where the works site borders	views		NDAs	Phase	
		publically accessible routes and/or is close to visually sensitive	of the works site.				
		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).					

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S.12.A9	LV17-	Light Control – Construction day and night time lighting should be	To minimize glare impact	Government /	Throughout	Construction	N/A
MM17	DP3	controlled to minimize glare impact to adjacent VSRs during the	to	Contractor	NDAs	and Operation	
		Construction phase.	adjacent VSRs			Phases	
		Street and night time lighting shall also be controlled to minimize					
		glare impact to adjacent VSRs during the operation phase.					
Ecology (	Detailed De	esign, Construction and Operational Phases)	•	1	•		
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 (	Construction	on Phase)					
S.13.9	E4-DP3	Creation of proposed Long Valley Nature Park and creation and	Compensate for wetland	Project	Long Valley	Construction	N/A
		enhancement of wetland and woodland areas and buffer planting	loss arising from the	Proponent/		phase.	
		within LVNP.	project.	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	Construction	N/A
		between active works areas and all areas/habitats of ecological	mortality and other		between	phase.	
		importance on edge of development areas, including along any	adverse ecological impacts		areas/habitats of		
		roads adjacent to or penetrating into areas/habitats of ecological	on habitats, flora and		ecological		
		importance.	fauna.		importance (KTN		

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			Measures to minimize		areas B1-3, H1-		
			flightline		1)		
			impacts to birds,		and works areas.		
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 F	Road)			
Landscar	e and Visu	ual (Detailed Design, Prior to Construction, Construction and O	perational Phases)				
S.12.A9	LV1-	General Good Practice Measures - For areas unavoidably		Detailed Design	Throughout NDAs,	Prior to	N/A
	DP4	disturbed by the Project on a short term basis e.g. works areas,		Consultant/		Construction,	
		the general principle to try and restore these to their former state		Contractor		Construction & for	
		to suit future land use, should be adhered to.				all planting, this	
		With regard to topsoil, where identified, it should be stripped,				should be installed	
		treated appropriately, and where suitable and practical stored for				as soon as the	
		re-use in the construction of the soft landscape works such as				areas become	
		roadside amenity strips, and open space sites.				available, to	
						achieve early	
						establishment	
S.12.A9	LV2-	Minimum Topographical Change -To minimize landscape and	Reduce topographical	Government /	Throughout NDAs,	Prior to	N/A
MM1	DP4	visual impacts, the footprint and elevation of such elements	changes and minimize land	Detailed Design	particularly for	Construction	
		should be optimized to reduce topographical/ landform changes,	resumption	Consultant/	<u>reservoirs</u>		
		as well as reduce land take and interference with natural terrain.		Contractor/			
1		Where there is a need to significantly cut into the existing					
1		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					
I		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	Improve visual amenity of	Detailed	Throughout NDAs	Prior to	N/A
MM2	DP4	development components and the works area should also be	the new buildings, NDAs	Design		Construction	
		kept to a practical minimum and the detailed design of	in general and integrate as	Consultant/			
		development components for Construction phase should follow	best possible into the				
		the Sustainable Building Design Guidelines. The form, textures,	surrounding landscape				
		finishes and colours of the proposed development components					
		should aim to be compatible with the existing surroundings. To					
		improve visual amenity designs should be aesthetically pleasing					
		and treatment of structures also improve visual amenity. For					
		example, natural building materials such as stone and timber,					
		should be considered for architectural features, and light earthy					
		tone colours such as shades of green, shades of grey, shades of					
		brown and off-white should also be considered to reduce the					
		visibility of the development components, including all roadwork,					
		buildings and noise barriers. In addition, the design of structures					
		should consider green roofs were feasible, following stated					
		guidelines.					
		All Noise barriers, particularly noise barriers but also any					
		barriers proposed for ecological impact mitigation, should be					
		kept to a practical minimum, and be of such a designed as to					
		integrate as well as possible into the surrounding visual context					
		and be as low as practical to minimize blocking views. Noise					
		The second of presents to minimize discounting views. Holds					

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		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	Protect and Preserve Trees	Government /	Onsite	Prior to	۸
MM4	DP4	within the Project Site should be carefully protected during		Detailed Design		Construction and	
		construction. In particular OVTs will be preserved according to		Consultant/		Construction	
		ETWB Technical Circular (Works) No. 29/2004. Detailed Tree		Contractor		Phase	
		Protection Specification shall be provided in the Contract					
		Specification. Under this specification, the Contractor shall be					
		required to submit, for approval, a detailed working method					
		statement for the protection of trees prior to undertaking any					
		works adjacent to all retained trees, including trees in					
		Contractor's works areas.					
		A detailed tree survey will be carried out for the Tree Removal					
		Application (TRA) process which will be carried out at the later					
		detailed design stage of the Project. The detailed tree survey will					
		propose which trees should be retained, transplanted or felled					
		and will include details of tree protection measures for those					
		trees to be retained.					
S.12.A9	LV5-	Tree Transplantation – Trees unavoidably affected by the Project	Transplant Trees where	Government /	Onsite possible.	Prior to	N/A
MM5	DP4	works should be transplanted where practical. Trees should be	suitable for transplantation	Detailed Design	Consider locations	Construction,	
		transplanted straight to their final receptor site and not held in a		Consultant/	where Otherwise	Construction	
		temporary nursery as far as possible. A detailed Tree		Contractor	offsite locations	Phase &	
		Transplanting Specification shall be provided in the Contract				Maintenance in	
		Specification, where applicable. Sufficient time for necessary				Operation Phase	
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		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	To prevent erosion and	Consultant/		Construction	
		loss of landscape resources and character. Woodland tree	subsequent loss of	Contractor		Phase &	
		seedlings and/ or shrubs should be planted where slope	landscape resources and			Maintenance in	
		gradient and site conditions allow.	character.			Operation Phase	
		In addition, landscape planting should be provided for the	To ensure man-made slopes				
		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	LV7-	Compensatory Planting – Compensatory tree planting for felled	Compensate for trees and	Government	Onsite where	Prior to	N/A
MM7	DP4	trees shall be provided to the satisfaction of relevant	shrubs lost due to the	Detailed Design	possible.	Construction,	
		Government departments. Required numbers and locations of	Project.	Consultant/	Otherwise	Construction	
		compensatory trees shall be determined and agreed separately		Contractor	consider offsite	Phase &	
		with Government during the Tree Removal Application process			locations	Maintenance in	

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		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	Reprovide areas of	Project	In areas identified	Prior to	N/A
MM8	DP4	compensatory planting is proposed for any areas of quality	woodland to compensate for	Proponent/	in the EIA	Construction,	
		woodland that are unavoidably affected by the Project. The	those areas of quality	Detailed Design	Landscape	Construction	
		location and design of the woodland compensatory planting will	woodland lost.	Consultant/	Mitigation Plans	Phase &	
		principally be within habitats of lower value such as upland		Contractor/	and as agreed	Maintenance in	
		grassland. The proposed locations are identified, for example,		Maintenance	with AFCD	Operation Phase	
		on the foothills of Tai Shek Mo, and on the higher ground of		Authority			
		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					

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		tiliaceus, Liquidambar formosana, Sapium discolor, Schefflera					
		heptaphylla and llex 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	Soften hard surfaces and	Government /	On appropriate	Prior to	N/A
MM9	DP4	surfaces were appropriate (e.g. viaduct piers, noise barriers).	facilities	Detailed Design	structures	Construction,	
		!		Consultant/		Construction	
				Contractor		Phase &	
						Maintenance in	
						Operation Phase	
S.12.A9	LV10-	Screen Planting – Tall screen/buffer trees and shrubs should be	To screen proposed	Government /	Along roads,	Prior to	N/A
MM11	DP4	planted. This measure may additionally form part of the	structures such as roads	Detailed Design	around suitable	Construction,	
		compensatory planting.	and buildings. Improve	Consultant/	built structures,	Construction	
			compatibility with the	Contractor	or around VSRs to	Phase &	

			surrounding environment		contain their view	Maintenance in	
			and create a pleasant		out to the NDA	Operation Phase	
			pedestrian environment		structures.		
S.12.A9	LV11-	Road Greening –For viaducts, soft landscaping should be	To soften the hard, straight	Government	On viaducts or	Prior to	N/A
MM12	DP4	provided to soften the hard, straight edges (for climbers used to	edges and provide greening	Detailed Design	along roads.	Construction,	
		cover the vertical, hard surfaces of the piers – see MM9 Vertical	along roads.	Consultant/		Construction	
		Greening) and shade tolerant plants should be planted, where		Contractor		Phase &	
		light is sufficient, to improve aesthetic value of areas under				Maintenance in	
		viaducts. Both at grade planting and use of elevated planters				Operation Phase	
		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	Compensate for Marsh/	Project	Onsite where	Prior to	N/A
MM13 &	DP4	Nature Park (LVNP) will be designed and implemented to	Wetland lost due to the	Proponent/	possible.	Construction,	
EIA		enhance on-wetland areas within the LVNP. (See E4,E15 and	Project.	Detailed Design	Otherwise	Construction	
Annex		E25 also)		Consultant/	consider offsite	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/ re-		Maintenance		Operation Phase	
		provisioned watercourses.		Authority			
S.12.A9	LV13-	Pond Replacement –Principles adopted in the design of the	Reprovision for ponds lost	Project	E1-7 and C1-9	Prior to	N/A
MM15	DP4	NDAs 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 and generally	Construction	

		for the formulation of the Preliminary Layout Plan (e.g. at Fung		Consultant/	throughout NDA	Phase	
		Kong Shan Park in E1-7 of KNT ND) should be adhered to.		Contractor/		Maintenance in	
				Maintenance		Operation Phase	
				Authority			
Landscap	e and Vis	sual (Construction)					
S.12.A9	LV14-	Screen Hoarding –Screen hoarding shall be erected along areas	To screen undesirable views	Contractor			N/A
MM16	DP4	of the construction works site boundary where the works site	of the works site.				
		borders publically accessible routes and/or is close to visually					
		sensitive receivers (VSRs). It is proposed that the screening be					
		compatible with the surrounding environment and where					
		possible, non-reflective, recessive colours be used.					
		Any works areas near the ecological sensitive areas should					
		erect 2m high dull green site boundary fence. Details can refer					
		to the ecological impact assessment (Chapter 13 of the EIA					
		report).					
S.12.A9	LV15-	Light Control – Construction day and night time lighting should	To minimize glare impact to	Government /	Throughout NDAs	Construction and	N/A
MM17	DP4	be controlled to minimize glare impact to adjacent VSRs during	adjacent VSRs	Contractor		Operation Phases	
		the Construction phase.					
		Street and night time lighting shall also be controlled to minimize					
		glare impact to adjacent VSRs during the operation phase.					
Ecology (	Prior to D	Detailed Design Prior to Construction Phase)					
S. 13.9	E1-	Egretry Habitat Creation & Management Plan (EHCMP) and	Compensate for loss of Man	Project	FLN area A1-7	Detailed design	N/A
	DP4	Woodland Planting and Management Plan (WPMP)	Kam To Road egretry.	Proponent/	(egretry	phase.	
			Compensate for loss of	Detailed Design	compensation).		
			secondary woodland and	Consultant	KTN areas E1-8		
			hillside plantation of	(EHCMP and	and G1-3		
			ecological significance.	WPMP).	(woodland		

					compensation).		
Ecology	(Detailed I	Design, Construction and Operational Phases)				1	
S13.9	E2-	Use opaque, non-transparent, non-reflective noise barriers.	Minimize mortality impacts	Detailed Design	Throughout.	Throughout.	N/A
	DP4	Unnecessary lighting should be avoided.	on birds.	Consultant/			
				Contractor			
				Maintenance			
				Authority.			
Ecology	(Construc	tion Phase)					
S.13.9	E3-	Design and erection of 2m high solid dull green site barrier fence	Minimize dust, disturbance,	Contractor.	Interface between	Construction	N/A
	DP4	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		
					areas B1-3, E1-8,		
					G1-3 and H1-1)		
					and works areas		
S13.9	E4-	Compensatory native woodland planting.	Compensate for loss of	Project	KTN areas E1-8	Construction	N/A
	DP4		plantation of ecological	Proponent /	and G1-3.	phase.	
			significance.	Contractor			
S13.8	E5-	Maintenance of compensatory native woodland planting.	Compensate for loss of	Maintenance	KTN areas E1-8	Operation	N/A
	DP4		plantation of ecological	Authority.	and G1-3.	phase	
			significance.				
Cultural	Heritage (I	Pre-construction Phase)					
S11.6.1	CH1-	Undertaking Survey-cum-Rescue Excavation	To define the precise	Project	In KTN NDA, for	After land	N/A
	DP4	A Survey-cum-Rescue Excavation should be conducted after	archaeological deposits	Proponent /	Site 1	resumption but	
		land resumption and before the commencement of construction	extent and to preserve the	Contractor/		before	
		works to define the precise archaeological deposits extent and	archaeological resources as	Qualified		Construction	
		to preserve the archaeological resources by record. The	far as possible.	Archaeologist		commencement of	

		excavation should be conducted by a professional archaeologist				the zones	
		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	In the not-yet-	After land	N/A
	DP4	Outstanding Areas	findings of the EIA	Proponent/	surveyed- areas	resumption but	
		Further archaeological surveys to cover the outstanding areas of		Contractor/	with medium	before	
		the not-yet-surveyed-area with medium archaeological potential		Qualified	archaeological	construction	
		located with areas with proposed development as presented in		Archaeologist	potential located		
		Figure 11.9 should be implemented after land resumption to			within the work		
		confirm and verify the findings of the EIA. The survey should be			extent of DP4		
		conducted by a professional archaeologist and prior to fieldwork					
		commencement, the archaeologist should obtain a Licence to					
		Excavate and Search for Antiquities from the Authority under the					
		AM Ordinance. It should be noted that the scope of further					
		archaeological survey is based on the current proposed					
		alignment. Any additional works areas which have not been					
		covered by the current archaeological impact assessment					
		should be covered as soon as possible. Subject to the findings					
		of the archaeological survey to be conducted after land					
		resumption, additional mitigation measures would be designed					
		and implemented before the commencement of construction					
		works to mitigate the adverse impact.					
S11.6.1	CH3-	Undertaking Induction Training	To preserve the	Project	Spot E	Before the	N/A
	DP4	Induction training should be provided to the construction	archaeological resources as	Proponent/		commencement of	
		Contractor before the commencement of the excavation works	far as possible	Contractor/		the excavation	
		in Spot E. An induction will be conducted as part of the		Qualified		works and before	

		environmental health and safety induction programme to all site		Archaeologist		site staff are	
		staff before they are deployed on site. The induction will include				deployed on site	
		an introduction on the historical development of the Site, the					
		possible archaeological remains that may be encountered					
		during ground excavation works as well as the reporting					
		procedures in case suspected archaeological remains are					
		identified. A set of the presentation material (in the form of power					
		point presentation) with content details will be prepared by an					
		archaeologist and submitted to AMO for reference and record					
		purpose. The first induction briefing will be video recorded and it					
		will be used as induction briefing material for new site staff.					
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	Proponent/	HKT03, KT16,	Relocation of	
		Prior to removal/relocation of the directly impacted historical	prior to their removal /	Contractor	KT17 and KT18	features before	
		buildings and cultural/historical landscape features,	relocation			commencement of	
		photographic and cartographic records should be conducted to				construction	
		preserve them by record. Liaison with and obtaining agreement				works	
		from the descendants of these 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	HKT03 (Main	Preconstruction	N/A
	DP4	impact assessment	impacts during	Proponent/	Building) and	stage before	
		In case any potential vibration impact on any nearby built	preconstruction stage on	Contractor	G308	commencement of	
		heritage features are identified during the pre-construction stage	any identified potential			construction works	
		of the Project, prior to commencement of construction works, a	vibration impacted built				
		baseline condition survey and baseline vibration impact	heritage features				
		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	CH6-	Relocation of Built Heritages	To preserve the directly	Project	Entrance Gate of	After the	N/A
	DP4	Relocation of built heritages to a reasonable location nearby	impacted sites by relocation	Proponent/	HKT03	photographic and	
		may be required.		Contractor		cartographic	
						records and	
						before	
						commencement of	
						construction works	
Cultural F	leritage (C	Construction Phase)					
S11.6.2	CH7-	Conducting Construction Vibration Monitoring and Structural	To minimize the potential	Contractor	Identified potential	Construction	N/A
	DP4	Strengthening Measures	impacts during Construction		vibration impacted	phase, with	
		Construction vibration monitoring and structural strengthening	phase on any identified		built heritage	details specified in	
		measures should be conducted during Construction phase	potential vibration impacted		features	baseline condition	
		based on the assessment result of baseline condition survey	built heritage features			survey and	
		and baseline vibration impact assessment, so as to ensure the				baseline vibration	
I		construction performance meets with the vibration standard				impact	
		stated in the EIA report.				assessment,	
		DP5- New sewage	e pumping stations (SPSs)	in KTN NDA			
Landscape	e and Visua	al (Detailed Design, Prior to Construction, Construction and Operat	ional Phases)				
S.12.B9	S.12.B9	General Good Practice Measures - For areas unavoidably		Detailed	Throughout	Prior to	N/A
		disturbed by the Project on a short term basis e.g. works areas,		Design	NDAs,	Construction,	
I		the general principle to try and restore these to their former state		Consultant/		Construction &	
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		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.B9	LV2-	Minimum Topographical Change –To minimize landscape	Reduce topographical	Government /	Throughout	Prior to	N/A
MM1	DP5	and visual impacts, the footprint and elevation of such	changes and minimize	Detailed	NDAs,	Construction	
		elements should be optimized to reduce topographical/	land resumption	Design	particularly for		
		landform changes, as well as reduce land take and		Consultant/	reservoirs		
		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.B9	LV3-	Detailed Design (Visual) -The footprint and massing of	Improve visual amenity of	Detailed	Throughout	Throughout	N/A
MM2	DP5	development components and the works area should also be kept	the new buildings, NDAs in	Design	NDAs	NDAs	
		to a practical minimum and the detailed design of development	general and integrate as	Consultant/			
		components for Construction phase should follow the Sustainable	best possible into the				

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		Building Design Guidelines. The form, textures, finishes and	surrounding 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					
		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	Government	Onsite	Prior to	۸
MM4	DP5	the Project Site should be carefully protected during construction.	Trees	Detailed		Construction	
		In particular OVTs will be preserved according to ETWB Technical		Design		and	
		Circular (Works) No. 29/2004. Detailed Tree Protection		Consultant/		Construction	

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		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.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,,	
		transplanted straight to their final receptor site and not held in a		Design	Otherwise	Construction	
		temporary nursery as far as possible. A detailed Tree Transplanting		Consultant/	consider offsite	Phase &	
		Specification shall be provided in the Contract Specification, where		Contractor	location.	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					

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		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	To avoid substantial slope	Government/	Onsite	Prior to	N/A
MM6	DP5	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		Design		Construction	
		loss of landscape resources and character. Woodland tree	To prevent erosion and	Consultant/		Phase &	
		seedlings and/ or shrubs should be planted where slope gradient	subsequent loss of			Maintenance	
		and site conditions allow.	landscape resources and			in Operation	
			character.			Phase	
		In addition, landscape planting should be provided for the					
		retaining structures associated with modified slopes where	To ensure man-made				
		conditions allow. All slope landscaping works should comply	slopes are as visually				
		with GEO Publication No. 1/2011-Technical Guidelines on	amenable as possible.				
		Landscape Treatment for Slopes.					
S.12.B9	LV7-	Compensatory Planting – Compensatory tree planting for felled	Compensate for trees and	Government/	Onsite where	Prior to	N/A
MM7	DP5	trees shall be provided to the satisfaction of relevant Government	shrubs lost due to the	Detailed	possible.	Construction,	
		departments. Required numbers and locations of compensatory	Project.	Design		Construction	
		trees shall be determined and agreed separately with Government		Consultant/	Otherwise	Phase &	
		during the Tree Removal Application process under ETWBTC		Contractor	consider offsite	Maintenance in	
		3/2006.			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.					

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		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	Reprovide areas of	Project	In areas identified	Prior to	N/A
MM8	DP5	compensatory planting is proposed for any areas of quality	woodland to compensate	Proponent/	in the EIA	Construction,	
		woodland that are unavoidably affected by the Project. The	for those areas of quality	Detailed	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 as agreed	Maintenance	
		grassland. The proposed locations are identified, for example, on		Contractor/	with AFCD	in Operation	
		the foothills of Tai Shek Mo, and on the higher ground of Fung		Maintenance		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 llex 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.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
MM10	DP5	established on proposed buildings as per the guidelines stated.	untreated concrete	Detailed	buildings	Construction,	
		These guidelines provide further details including	surfaces	Design		Construction	
		information regarding structural loading, design,	and particularly mitigate	Consultant/		Phase &	

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		maintenance, etc. considerations as well as providing	visual impact to VSRs at	Contractor		Maintenance	
		information on what types of plants might be suitable.	high levels. Provide			in Operation	
			greening.			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	Detailed	around	Construction,	
		compensatory planting.	and	Design	suitable built	Construction	
			buildings. Improve	Consultant/	structures, or	Phase &	
			compatibility with the	Contractor	around	Maintenance	
			surrounding environment		VSRs to contain	in Operation	
			and create a pleasant		their view out to	Phase	
			pedestrian environment		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	watercourse,	Construction,	
		Department Practice Note No.1/2005 - Guidelines on	protect watercourses	Design	particularly the	Construction	
		Environmental Considerations for River Channel Design, should be	where	Consultant/	<u>Ma</u>	Phase &	
		considered and appropriate mitigation measures included ensuring	possible and enhance	Contractor	Wat River	Maintenance	
		the new watercourses match the existing as far as possible.	channelized watercourses		<u>Channel</u>	in Operation	
		Measures can include enhancement planting to upgrade the			<u>Diversion</u>	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					

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		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.					
Landscap	e and Visua	al (Construction)					
S.12.B9	LV13-	Screen Hoarding –Screen hoarding shall be erected along areas of	To screen undesirable	Contractor	Throughout	Construction	N/A
MM16	DP5	the construction works site boundary where the works site borders	views of the works site.		NDAs	Phase	
I		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	Government /	Throughout	Construction	۸
MM17	DP5	controlled to minimize glare impact to adjacent VSRs during the	to adjacent VSRs	Contractor	NDAs	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 (	Constructio	on Phase)					
S.13.9	E1-DP5	Design and erection of 2m high solid dull green site barrier fence	Minimize dust,	Contractor.	Interface	Construction	N/A
		between active works areas and all areas/habitats of ecological	disturbance,		between	phase.	
		importance.	mortality and other		areas/habitats of		
			adverse		ecological		

			ecological impacts on		importance and		
			habitats, flora and fauna.		works areas (all		
					sides of KTN		
					area F1-2).		
		DP7-Utilization of Treated Sewage Effluent	t (TSE) from Shek Wu Hui S	Sewage Treatmen	t Works (SWHSTV	<b>(</b> )	
Landsca	pe and Vis	ual (Construction Phase and Operational Phase)					
S.12.9	LV1-	Tree Protection & Preservation – Exiting trees to be retained	Protect and Preserve Trees	Government /	<u>Onsite</u>	Prior to	N/A
MM4	DP7	within the Project Site should be carefully protected during		Detailed		Construction and	
		construction. In particular OVTs will be preserved according to		Design		Construction	
		ETWB Technical Circular (Works) No. 29/2004. Detailed Tree		Consultant/		Phase	
		Protection Specification shall be provided in the Contract		Contractor			
		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	LV2-	Vertical Greening – Planting of climbers to grow up vertical	Soften hard surfaces and	Government /	On appropriate	Prior to	N/A
MM9	DP7	surfaces were appropriate (e.g. building edges, piers).	facilities	Detailed	<u>structures</u>	Construction,	
				Design		Construction	
				Consultant/		Phase &	
				Contractor		Maintenance	

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						in Operation	
						Phase	
S.12.9	LV3-	Green Roof – Roof greening where appropriate should be	Reduce exposure to	Government /	On appropriate	Prior to	N/A
MM10	DP7	established 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- Fanling	Bypass Eastern Section (N	lew Road)			
Landscap	e and Vis	sual (Detailed Design, Prior to Construction, Construction and O	perational Phases)				
S.12.D9	LV1-	General Good Practice Measures - For areas unavoidably		Detailed Design	Throughout NDAs,	Prior to	۸
	DP10	disturbed by the Project on a short term basis e.g. works areas,		Consultant/		Construction,	
		the general principle to try and restore these to their former state		Contractor		Construction & for	
		to suit future land use, should be adhered to.				all planting, this	
		With regard to topsoil, where identified, it should be stripped,				should be installed	
		treated appropriately, and where suitable and practical stored for				as soon as the	
		re-use in the construction of the soft landscape works such as				areas become	
		roadside amenity strips, and open space sites.				available, to	
						achieve early	
						establishment	
S.12.D9	LV2-	Minimum Topographical Change -To minimize landscape and	Reduce topographical	Government/	Throughout NDAs,	Prior to	N/A
MM1	DP10	visual impacts, the footprint and elevation of such elements	changes and minimize land	Detailed Design	particularly for	Construction	
		should be optimized to reduce topographical/ landform changes,	resumption	Consultant/	<u>reservoirs</u>		
		as well as reduce land take and interference with natural terrain.		Contractor			
		Where there is a need to significantly cut into the existing					
		landform, retaining walls should be considered as well as cut					

		slopes, to minimize landform changes and land resumption,					
		while also considering visual amenity. Earthworks and					
		engineered slopes should be designed to be a visually					
		interesting landform, compatible with the surrounding landscape					
		and to mimic the natural contouring and terrain e.g. introduction					
		and continuation of natural features such as spurs and ridges					
		where appropriate, to support assimilation with the hillside					
		setting.					
S.12.D9	LV3-	Tree Protection & Preservation – Exiting trees to be retained	Protect and Preserve Trees	Government/	<u>Onsite</u>	Prior to	٨
MM4	DP10	within the Project Site should be carefully protected during		Detailed Design		Construction and	
		construction. In particular OVTs will be preserved according to		Consultant/		Construction	
		ETWB Technical Circular (Works) No. 29/2004. Detailed Tree		Contractor		Phase	
		Protection Specification shall be provided in the Contract					
		Specification. Under this specification, the Contractor shall be					
		required to submit, for approval, a detailed working method					
		statement for the protection of trees prior to undertaking any					
		works adjacent to all retained trees, including trees in					
		Contractor's works areas.					
		A detailed tree survey will be carried out for the Tree Removal					
		Application (TRA) process which will be carried out at the later					
		detailed design stage of the Project. The detailed tree survey will					
		propose which trees should be retained, transplanted or felled					
		and will include details of tree protection measures for those					
		trees to be retained.					
S.12.D9	LV4-	Tree Transplantation – Trees unavoidably affected by the Project	Transplant Trees where	Government/	Onsite where	Prior to	N/A
MM5	DP10	works should be transplanted where practical. Trees should be	suitable for transplantation	Detailed Design	possible.	Construction,	
1		transplanted straight to their final receptor site and not held in a		Consultant/	<u>Otherwise</u>	Construction	

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		temporary nursery as far as possible. A detailed Tree		Contractor	consider offsite	Phase &	
		Transplanting Specification shall be provided in the Contract			<u>locations</u>	Maintenance in	
		Specification, where applicable. Sufficient time for necessary				Operation Phase	
		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	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	cutting and fill slopes.	Detailed Design		Construction,	
		grading works are completed to prevent erosion and subsequent	To prevent erosion and	Consultant/		Construction	
		loss of landscape resources and character. Woodland tree	subsequent loss of	Contractor		Phase &	
		seedlings and/ or shrubs should be planted where slope gradient	landscape resources and			Maintenance in	
		and site conditions allow.	character.			Operation Phase	
		In addition, landscape planting should be provided for the	To ensure man-made slopes				
		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.D9	LV6-	Compensatory Planting – Compensatory tree planting for felled	Compensate for trees and	Government/	Onsite where	Prior to	N/A
MM7	DP10	trees shall be provided to the satisfaction of relevant	shrubs lost due to the	Detailed Design	possible.	Construction,	

		Government departments. Required numbers and locations of	Project.	Consultant/	<u>Otherwise</u>	Construction	
		compensatory trees shall be determined and agreed separately		Contractor	consider offsite	Phase &	
		with Government during the Tree Removal Application process			<u>locations</u>	Maintenance in	
		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	Reprovide areas of	Project	In areas identified	Prior to	N/A
MM8	DP10	compensatory planting is proposed for any areas of quality	woodland to compensate for	Proponent/	in the EIA	Construction,	
		woodland that are unavoidably affected by the Project. The	those areas of quality	Detailed Design	<u>Landscape</u>	Construction	
		location and design of the woodland compensatory planting will	woodland lost.	Consultant/	Mitigation Plans	Phase &	
		principally be within habitats of lower value such as upland		Contractor/	and as agreed	Maintenance in	
		grassland. The proposed locations are identified, for example, on		Maintenance	with AFCD	Operation Phase	
		the foothills of Tai Shek Mo, and on the higher ground of Fung		Authority			
		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 llex 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.D9	LV8-	Vertical Greening – Planting of climbers to grow up vertical	Soften hard surfaces and	Government/	On appropriate	Prior to	N/A
MM9	DP10	surfaces were appropriate (e.g. viaduct piers, noise barriers).	facilities	Detailed Design	<u>structures</u>	Construction,	
				Consultant/		Construction	
				Contractor		Phase &	
						Maintenance in	
						Operation Phase	
S.12.D9	LV9-	Screen Planting – Tall screen/buffer trees and shrubs should be	To screen proposed	Government/	Along roads,	Prior to	N/A

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MM11	DP10	planted. This measure may additionally form part of the	structures such as roads	Detailed Design	<u>around suitable</u>	Construction,	
		compensatory planting.	and buildings. Improve	Consultant/	built structures, or	Construction	
			compatibility with the	Contractor	around VSRs to	Phase &	
			surrounding environment		contain their view	Maintenance in	
			and create a pleasant		out to the NDA	Operation Phase	
			pedestrian environment		structures.		
S.12.D9	LV10-	Road Greening –For viaducts, soft landscaping should be	To soften the hard, straight	Government/	On viaducts or	Prior to	N/A
MM12	DP10	provided to soften the hard, straight edges (for climbers used to	edges and provide greening	Detailed Design	<u>along roads.</u>	Construction,	
		cover the vertical, hard surfaces of the piers – see MM9 Vertical	along roads.	Consultant/		Construction	
		Greening) and shade tolerant plants should be planted, where		Contractor		Phase &	
		light is sufficient, to improve aesthetic value of areas under				Maintenance in	
		viaducts. Both at grade planting and use of elevated planters				Operation Phase	
		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	watercourse modification,	Detailed Design	watercourse,	Construction,	
		Department Practice Note No.1/2005 – Guidelines on	protect watercourses where	Consultant/	particularly the Ma	Construction	
		Environmental Considerations for River Channel Design, should	possible and enhance	Contractor	Wat River Channel	Phase &	
		be considered and appropriate mitigation measures included	channelized watercourses		<u>Diversion</u>	Maintenance in	
		ensuring the new watercourses match the existing as far as				Operation Phase	
		possible. Measures can include enhancement planting to					
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		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.					
Landscap	e and Visu	ual (Construction)					
S.12.D9	LV12-	Screen Hoarding -Screen hoarding shall be erected along areas	To screen undesirable views	Contractor	Throughout NDAs	Construction	۸
MM16	DP10	of the construction works site boundary where the works site	of the works site.			Phase	
		borders publically accessible routes and/or is close to visually					
		sensitive receivers (VSRs). It is proposed that the screening be					
		compatible with the surrounding environment and where					
		possible, non-reflective, recessive colours be used.					
		Any works areas near the ecological sensitive areas should					
		erect 2m high dull green site boundary fence. Details can refer to					
		the ecological impact assessment (Chapter 13 of the EIA report).					
S.12.D9	LV13-	Light Control – Construction day and night time lighting should	To minimize glare impact to	Government /	Throughout NDAs	Construction	٨
MM17	DP10	be controlled to minimize glare impact to adjacent VSRs during	adjacent VSRs	Contractor		and Operation	
		the Construction phase.				phases	
		Street and night time lighting shall also be controlled to minimize					
		glare impact to adjacent VSRs during the operation phase.					
Ecology (	Detailed D	esign, Construction and Operational Phases)					
S13.8	E1-	Use opaque, non-transparent, non-reflective noise barriers.	Minimize mortality impacts	Detailed Design	Throughout NDAs	Detailed design,	۸

	DP10	Unnecessary lighting should be avoided.	on birds.	Consultant/		construction and	
				Contractor		Operation phases.	
				Maintenance			
				Authority.			
Ecology	(Construct	tion Phase)	L				
S13.9	E3-	Lower reaches of Siu Hang San Tsuen Stream to have 10m wide	Minimize impacts on Siu	Contractor.	FLN area D1-3.	Construction	N/A
	DP10	vegetated buffer in Open Space Zone D1-3 and Fanling Bypass	Hang San Tsuen Stream			phase.	
		to cross stream on viaduct.	and stream fauna.				
S.13.9	E4-	Design and erection of 2m high solid dull green site barrier fence	Minimize dust, disturbance,	Contractor.	Interface between	Construction	N/A
	DP10	between active works areas and all areas/habitats of ecological	mortality and other adverse		areas/habitats of	phase.	
		importance.	ecological impacts on		<u>ecological</u>		
			habitats, flora and fauna.		importance and		
			Measures to minimize flight-		works areas (all of		
			line impacts to birds,		the north side of		
			especially breeding ardeids.		the Bypass works		
					areas west of		
					interchange with		
					Sha Tau Kok		
					Road).		
Cultural I	Heritage (C	Construction Phase)					
S11.6.2	CH4-	Conducting Construction Vibration Monitoring and Structural	To minimize the potential	Contractor.	Identified potential	Construction	N/A
	DP10	Strengthening Measures	impacts during Construction		vibration impacted	phase, with details	
		Construction vibration monitoring and structural strengthening	phase on any identified		<u>built heritage</u>	specified in	
		measures should be conducted during Construction phase	potential vibration impacted		<u>features</u>	baseline condition	
		based on the assessment result of baseline condition survey and	built heritage features			survey and	
		baseline vibration impact assessment, so as to ensure the				baseline vibration	
		construction performance meets with the vibration standard				impact	

		stated in the EIA report.				assessment,	
	•	DP12-Reprovision of	f temporary wholesale mar	ket in FLN NDA			
Landscap	oe and Vis	ual (Detailed Design, Prior to Construction, Construction and O	perational Phases)				
S.12.D9	LV1-	General Good Practice Measures - For areas unavoidably		Detailed design	Throughout	Prior to	N/A
	DP12	disturbed by the Project on a short term basis e.g. works areas,		consultant/	NDAs,	Construction,	
		the general principle to try and restore these to their former state		Contractor		Construction & for	
		to suit future land use, should be adhered to.				all planting, this	
		With regard to topsoil, where identified, it should be stripped,				should be installed	
		treated appropriately, and where suitable and practical stored for				as soon as the	
		re-use in the construction of the soft landscape works such as				areas become	
		roadside amenity strips, and open space sites.				available, to	
						achieve early	
						establishment	
S.12.D9	LV2-	Minimum Topographical Change -To minimize landscape and	Reduce topographical	Government /	Throughout	Prior to	N/A
MM1	DP12	visual impacts, the footprint and elevation of such elements	changes and minimize land	Detailed Design	NDAs, particularly	Construction	
		should be optimized to reduce topographical/ landform changes,	resumption	Consultant/	for reservoirs		
		as well as reduce land take and interference with natural terrain.		Contractor			
		Where there is a need to significantly cut into the existing					
		landform, retaining walls should be considered as well as cut					
		slopes, to minimize landform changes and land resumption,					
		while also considering visual amenity. Earthworks and					
		engineered slopes should be designed to be a visually					
		interesting landform, compatible with the surrounding landscape					
		and to mimic the natural contouring and terrain e.g. introduction					
		and continuation of natural features such as spurs and ridges					
		where appropriate, to support assimilation with the hillside					
		setting.					

S.12.D9	LV3-	Detailed Design (Visual) -The footprint and massing of	Improve visual amenity of	Detailed Design	Throughout NDAs	Prior to	N/A
MM2	DP12	development components and the works area should also be	the new buildings, NDAs in	Consultant		Construction	
		kept to a practical minimum and the detailed design of	general and integrate as				
		development components for Construction phase should follow	best possible into the				
		the Sustainable Building Design Guidelines. The form,	surrounding landscape				
		textures, finishes and colours of the proposed development					
		components should aim to be compatible with the existing					
		surroundings. To improve visual amenity designs should be					
		aesthetically pleasing and treatment of structures also improve					
		visual amenity. For example, natural building materials such as					
		stone and timber, should be considered for architectural					
		features, and light earthy tone colours such as shades of green,					
		shades of grey, shades of brown and off-white should also be					
		considered to reduce the visibility of the development					
		components, including all roadwork, buildings and noise					
		barriers. In addition, the design of structures should consider					
		green roofs were feasible, following stated guidelines.					
		All Noise barriers, particularly noise barriers but also any					
		barriers proposed for ecological impact mitigation, should be					
		kept to a practical minimum, and be of such a designed as to					
		integrate as well as possible into the surrounding visual context					
		and be as low as practical to minimize blocking views. Noise					
		barrier design, including vertical, cantilever or curved, and noise					
		enclosures including semi-enclosure and full enclosure, at grade					
		and/ or elevated, should follow the guidelines stated.					

		Construction time frame should also be considered and designs					
		seek to keep it to a practical minimum.					
S.12.D9	LV4-	Tree Protection & Preservation – Exiting trees to be retained	Protect and Preserve Trees	Government /	Onsite	Prior to	N/A
MM4	DP12	within the Project Site should be carefully protected during		Detailed Design		Construction and	
		construction. In particular OVTs will be preserved according to		Consultant/		Construction	
		ETWB Technical Circular (Works) No. 29/2004. Detailed Tree		Contractor		Phase	
		Protection Specification shall be provided in the Contract					
		Specification. Under this specification, the Contractor shall be					
		required to submit, for approval, a detailed working method					
		statement for the protection of trees prior to undertaking any					
		works adjacent to all retained trees, including trees in					
		Contractor's works areas.					
		A detailed tree survey will be carried out for the Tree Removal					
		Application (TRA) process which will be carried out at the later					
		detailed design stage of the Project. The detailed tree survey					
		will propose which trees should be retained, transplanted or					
		felled and will include details of tree protection measures for					
		those trees to be retained.					
S.12.D9	LV5-	Tree Transplantation – Trees unavoidably affected by the Project	Transplant Trees where	Government /	Onsite where	Prior to	N/A
MM5	DP12	works should be transplanted where practical. Trees should be	suitable for transplantation	Detailed Design	possible.	Construction,	
		transplanted straight to their final receptor site and not held in a		Consultant/	Otherwise	Construction	
		temporary nursery as far as possible. A detailed Tree		Contractor	consider offsite	Phase &	
		Transplanting Specification shall be provided in the Contract			locations	Maintenance in	
		Specification, where applicable. Sufficient time for necessary				Operation Phase	
		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	cutting and fill slopes.	Detailed Design	Orisite	Construction,	IN/A
IVIIVIO	DF12	as grading works are completed to prevent erosion and	To prevent erosion and	Consultant/		Construction,	
		subsequent loss of landscape resources and character.	subsequent loss of	Contractor		Phase &	
		· ·	•	Contractor			
		Woodland tree seedlings and/ or shrubs should be planted	landscape resources and			Maintenance in	
		where slope gradient and site conditions allow.	character.			Operation Phase	
		In addition landscape planting should be provided for the	To ensure man-made slopes				
		In addition, landscape planting should be provided for the	are as visually amenable as				
		retaining structures associated with modified slopes where	possible.				
		conditions allow. All slope landscaping works should comply					
		with GEO Publication No. 1/2011-Technical Guidelines on					
0.40.50	11/7	Landscape Treatment for Slopes.	0	0	On although	Date	NI/A
S.12.D9	LV7-	Compensatory Planting – Compensatory tree planting for felled	Compensate for trees and	Government /	Onsite where	Prior to	N/A
MM7	DP12	trees shall be provided to the satisfaction of relevant	shrubs lost due to the	Detailed Design	possible.	Construction,	
		Government departments. Required numbers and locations of	Project.	Consultant/	Otherwise	Construction	

						DI .	
		compensatory trees shall be determined and agreed separately		Contractor	consider offsite	Phase &	
		with Government during the Tree Removal Application process			locations	Maintenance in	
		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	To screen proposed	Government /	Along roads,	Prior to	N/A
MM11	DP12	planted. This measure may additionally form part of the	structures such as roads and	Detailed Design	around suitable	Construction,	
		compensatory planting	buildings. Improve	Consultant/	built structures, or	Construction	
			compatibility with the	Contractor	around VSRs to	Phase &	
			surrounding environment		contain their view	Maintenance in	
			and create a pleasant		out to the NDA	Operation Phase	
			pedestrian environment		structures.		

Landscap	oe and Vis	ual (Construction)					
S.12.D9	LV9-	Screen Hoarding –Screen hoarding shall be erected along areas	To screen undesirable views	Contractor	Throughout NDAs	Construction	N/A
MM16	DP12	of the construction works site boundary where the works site	of the works site.			Phase	
		borders publically accessible routes and/or is close to visually					
		sensitive receivers (VSRs). It is proposed that the screening be					
		compatible with the surrounding environment and where					
		possible, nonreflective, recessive colours be used.					
		Any works areas near the ecological sensitive areas should					
		erect 2m high dull green site boundary fence. Details can refer					
		to the ecological impact assessment (Chapter 13 of the EIA					
		report).					
S.12.D9	LV10-	Light Control – Construction day and night time lighting should	To minimize glare impact to	Government /	Throughout NDAs	Construction and	N/A
MM17	DP12	be controlled to minimize glare impact to adjacent VSRs during	adjacent VSRs	Contractor		Operation Phases	
		the Construction phase.					
		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 2020

	Actu	al Quantities	of Inert C&D	Materials G	enerated Mo	nthly	Actual (	Quantities of	C&D Wastes	Generated	Monthly
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 '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m ³ )
January	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
February	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
March	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.065
April	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.351
May	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.793
June	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.202
Sub-total	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.411
July	5.907	0.000	5.907	0.000	0.000	0.000	0.000	0.000	1.780	0.000	0.455
August	0.027	0.000	0.024	0.000	0.003	0.000	0.000	0.086	0.000	0.000	0.327
September	0.145	0.000	0.145	0.000	0.000	0.000	0.003	0.059	0.000	0.000	0.503
October	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.717
November	3.024	0.000	0.000	0.101	2.923	0.000	38.540	0.009	0.000	0.000	0.744
December	19.155	0.000	0.151	19.004	0.000	0.000	0.001	0.000	0.002	0.000	0.151
Total	28.258	0.000	6.227	19.105	2.926	0.000	38.544	0.154	1.782	0.000	4.308

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Name of Department: Civil Engineering and Development Department

## Monthly Summary Waste Flow Table for 2021

	Actu	al Quantities	of Inert C&D	Materials G	enerated Mo	nthly	Actual (	Quantities of	C&D Wastes	Generated	Monthly
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	(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											
Sub-total	196.775	0.000	4.912	186.880	0.943	4.040	0.005	0.124	0.004	0.033	1.007
July											
August											
September											
October											
November											
December											
Total	196.775	0.000	4.912	186.880	0.943	4.040	0.005	0.124	0.004	0.033	1.007

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/m³

Slurry = 1.0 tonnes/m3

- (6) Numbers are rounded off to the nearest three decimal places
  - * Forecast

AECOM Asia Co. Ltd.

PSA1.34/4



Contract No.: ND/2019/02

## **Waste Flow Table**

		Actual Qua	ntities of Ine	rt C&D Mate	rials Generate	ed Monthly	Actual Qu	antities of No	n-Inert C&D \	Wastes Gener	ated Monthly
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 2)	Chemical Waste	Others, e.g. general refuse#
	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)
Jan	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Feb	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Apr	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
May	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17
June	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sub-total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17
July	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug	7.99	0.00	0.00	0.00	7.99	0.00	0.00	0.01	0.00	0.00	0.00
Sept	12.55	0.00	0.00	0.00	12.55	0.00	0.00	0.00	0.00	0.00	0.00
Oct	1,499.49	0.00	0.00	0.00	1,499.49	0.00	0.00	0.00	0.00	0.00	9.10
Nov	449.84	0.00	0.00	0.00	449.84	0.00	3.85	0.00	0.00	0.00	28.47
Dec	47.36	0.00	0.00	0.00	47.36	0.00	0.01	0.03	0.00	0.00	39.44
Sub-total	2,017.23	0.00	0.00	0.00	2,017.23	0.00	3.86	0.04	0.00	0.00	77.01
Total	2,017.23	0.00	0.00	0.00	2,017.23	0.00	3.86	0.04	0.00	0.00	77.18

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.



俊和-群利聯營體 cw-ĸLJV Name of Department: CEDD

Contract No.: ND/2019/02

Year **2021** 

## **Waste Flow Table**

	Total	Actual Qua	antities of Ine	rt C&D Mate	rials Generate	ed Monthly	Actual Quan	tities of Non-	Inert C&D W	astes Genera	ted Monthly
Month	Total Quantity Generate d	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 2)	Chemical Waste	Others, e.g. general refuse#
	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)
Jan	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											
Sub-total	4,524.28	0.00	0.00	0.00	4,524.28	0.00	0.02	0.13	0.00	0.00	54.30
July											
Aug											
Sept											
Oct											
Nov											
Dec											
Sub-total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	4,524.28	0.00	0.00	0.00	4,524.28	0.00	0.02	0.13	0.00	0.00	54.30

Notes:

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

	Forecast of Total Quantities of C&D Materials to be Generated from the ND/2009/02													
Forecast	Total	Hard Rock &	Reused in the	Reused in	Disposed as			Paper/	Plastics	Chemicals	Others, e.g.			
Made at		Large Broken	Contract	other	Public Fill	Imported Fill	Metals	cardboard	(see Note 2)		general			
the End	Generated	Concrete	001111111111111111111111111111111111111	Projects	1 0/0110 1 111			packaging	(see Hote 2)	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	refuse			
	(in	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)			
	tonnes)													
Total:	29,000	8,400	0	25,000	4,000	0	100	1.0	3	0.5	200			

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)

	_			y summinum.	V	1011 1401			<u> </u>		1
	Α	Actual Quantities	of Inert C&D	Materials Gene	erated Monthl	у	Actu	al Quantities c	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	_	_	-	_	-	-	_	-	-	_	_
Feb	_	_	-	_	_	_	_	_	_	_	_
Mar	_	_	_	-	_	_	_	_	_	_	_
Apr	_	_	-	-	_	-	-	_	_	_	_
May	_	_	-	_	_	_	-	_	_	_	_
June	_	_	-	_	_	_	_	-	-	_	_
July	_	_	-	_	_	_	-	_	_	_	_
Aug	_	_	1	_	_	1	ı	1	1	1	_
Sept	_	_	ı	_	_	1	ı	1	1	1	_
Oct	_	_	ı	_	_	1	1	1	1		_
Nov	_	_	1	_	_	1	ı	1	1	1	_
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

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 <u>2020</u> (Year)

	A	ctual 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

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)

	Α	Actual Quantities	of Inert C&I	Materials Gene	erated Monthl	y	Actu	ıal 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	0.83	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	_	_	-	_	_	_	-	_	_	_	_
Sub-Total	2.73	0	0	0.22	2.51	0.806	0	0	0	0	0.767
Jul	_	_	ı	_	_	-	1	_	_	_	_
Aug	_	_	ı	_	_	_	ı	_	_	_	_
Sep	_	_	-	_	_	_	_	_	_	_	_
Oct	_	_	-	_	_	_	-	_	_	_	_
Nov	_	_	-	_	_	_	_	_	_	_	_
Dec	_	_	_	_	_	_	_	_	_	_	_
Total	3.53	-	-	0.22	3.31	0.806	0	0	0	0	1.044

^{*}Remark: Imported Fill not taken into account of Total Quantity Generated

#Revised Figure

Kwu Tung North and Fanling North New Development Areas, Phase 1:

**Development of Long Valley Nature Park** 

			Forecast o	f Total Quanti	ities of C&D Mate	erials to be G	enerated from th	e Contract*		
Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ cardboard packaging	Plastics (see Note 3)	Chemical Waste	Others, e.g. general refuse
$(in '000m^3)$	(in '000m ³ )	(in '000m ³ )	(in '000m ³ )	$(in '000m^3)$	(in '000m ³ )	(in '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m ³ )
2.5	1	2	0	0.5	5	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].



## 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	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 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	3,316.12	0.00	0.00	0.00	3,290.41	0.00	0.00	0.00	0.00	0.00	25.71
June											
Sub-total	8,791.42	0.00	0.00	0.00	4,908.60	3,208.78	0.00	0.00	0.00	0.00	674.04
July											
Aug											
Sept											
Oct											
Nov											
Dec	_										
Sub-total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	8,791.42	0.00	0.00	0.00	4,908.60	3,208.78	0.00	0.00	0.00	0.00	674.04

Notes:

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

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

Name of Person completing the record: Pan Fong (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

		Actual Quanti	ties of Inert C&	D Materials Gen	erated Monthly			Actual Qu	antities of C&D	Wastes Genera	ated Monthly	
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)	Yard Waste	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 '000kg)	(in '000 ton)
Jan												
Feb												
Mar	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	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	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002
Jun	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	0.002
Jul	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.020	0.000	0.000	0.000	0.009
Aug	1.327	0.000	0.035	0.000	1.327	0.000	0.000	0.020	0.001	21.250	0.000	0.272
Sep	0.313	0.000	0.000	0.000	0.313	0.000	0.001	0.039	0.003	34.290	0.000	0.048
Oct	0.076	0.000	0.000	0.000	0.076	0.000	0.001	0.020	0.001	59.400	0.000	0.042
Nov	0.428	0.000	0.238	0.000	0.428	0.000	0.001	0.020	0.000	54.370	0.000	0.071
Dec	0.227	0.000	0.252	0.000	0.227	0.942	0.000	0.020	0.020	112.095	0.000	0.133
Total	2.371	0.000	0.525	0.000	2.371	0.942	0.003	0.169	0.025	281.405	0.000	0.577

# Monthly Summary Waste Flow Table for 2021 (year)

Name of Person completing the record: Louise Poon (EO)

Project : Fanling	North New Develo	pment Area, Pha	ase 1: Fanling By	pass Eastern Se	ction (Shung Him	Tong to Kau Lung	ı Hang)				Contract No.: ND/	2019/05
		Actual Quanti	ties of Inert C&I	O Materials Gen	erated Monthly			Actual Qu	antities of C&D	Wastes Genera	ited Monthly	
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)	Yard Waste	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 '000kg)	(in '000 kg)
Jan-21	1.725	0.000	0.300	0.000	1.725	0.564	0.000	0.419	0.065	55.020	3.482	99.590
Feb-21	0.808	0.000	0.066	0.000	0.808	0.000	0.000	0.137	0.000	33.194	0.000	162.010
Mar-21	2.094	0.000	0.582	0.000	2.094	0.000	0.002	0.088	0.002	24.670	0.000	221.160
Apr-21	2.265	0.000	0.480	0.000	2.265	0.282	0.002	0.000	1.678	0.002	0.000	201.690
May-21	1.637	0.000	0.480	0.000	1.637	1.158	0.002	0.170	0.001	34.800	12.000	108.040
Jun-21												
Sub-total	8.529	0.000	1.908	0.000	8.529	2.004	0.006	0.814	1.747	147.686	15.482	792.490
Jul-21												
Aug-21												
Sep-21												
Oct-21												
Nov-21												
Dec-21												
Total in 2021	8.529	0.000	1.908	0.000	8.529	2.004	0.006	0.814	1.747	147.686	15.482	792.490
Total of the Project	10.899	0.000	2.433	0.000	10.899	2.946	0.010	0.983	1.757	464.610	15.482	1369.710

^{*}Approx. estimation for each dump truck is 6m3/truck or 12 ton/truck

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

Monthly Summary Waste Flow Table for 2019 (year)

	Acti	ual Quantities	of Inert C&D Ma	terials Genera		Actua	d 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
Jan											
Feb											
Mar											
Apr											
May											
June											
Sub-											
total											
July											
Aug											
Sept											
Oct	0	0	0	0	0,927	0	0	0	0	0	0.008
Nov Dec	0	0	0	0		0	0	0	0	0	0.000
Total	0	0	0	0	1.355	0	0	0	0	0	0.071

Monthly Summary Waste Flow Table for 2020 (year)

	Actu	ual Quantities o	of Inert C&D Mat	terials Generat	ted Monthly		Actua	al Quantities	of C&D Wastes	Generated 1	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
Jan	0	0	0	0	1.558	0	0	0	0	0	0.038
Feb	0	0	0	0	0.548	0	0	0	0	0	0.011
Mar	0	0	0	0	0.145	0	0	0	0	0	0.022
Apr	0	0	0	0	1.741	0	0	0	0	0	0.043
May	0	0	0	0	0.063	0	0	0	0	0	0.035
June	0	0	0	0	0.008	0	0	0	0	0	0.014
Sub- total	0	0	0	0	4.062	0	0	0	0	0	0.162
July	0	0	0	0	1.562	0	0	0	0	0	0.025
Aug	0	0	0	0	1.448	0	0	0	0	0	0.010
Sept	0	0	0	0	1.171	0	0	0	0	0	0.010
Oct	0	0	0	0	1.000	0	0	0	0	0	0.043
Nov	0	0	0	0	3.597	0	0	0	0	0	0.086
Dec	0	0	0	0	1.707	0	0	0	0	0	0.023
Total	0.000	0.000	0.000	0.000	14.547	0.000	0.000	0.000	0.000	0.000	0.358

Monthly Summary Waste Flow Table for 2021 (year)

	1	1.0	67 . 60 5 17		137 11			1.0	6 G 0 D W	0 11	
	Act	ual Quantities o	of Inert C&D Ma	terials Genera	ted Monthly		Actua	d Quantities	of C&D Wastes	Generated I	Vlonthly
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
Jan	0	0	0	0	2.960	0	0	0	0	0	0.035
Feb	0	0	0	0	0.498	0	0	0	0.0035	0	0.006
Mar	0	0	0	0	0.427	0	0	0	0	0	0.014
Apr	0	0	0	0	0.314	0	0	0	0	0	0.011
May	0	0	0	0	0.360	0	0	0	0	0	0.011
June											
Sub-											
total											
July											
Aug											
Sept											
Oct											
Nov											
Dec											
Total	0.000	0.000	0.000	0.000	4.559	0.000	0.000	0.000	0.004	0.000	0.077

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].

# 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

1 Toject . 1 u	inning Frortin Frev		•		and minastructur	e works				Contract No., ND/	2019,07
		Actual Quantit	ies of Inert C&	D Materials Ger	nerated Monthly		A	ctual Quantitie	s of C&D Wast	es 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 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											
Sub-total	0.267	0.000	0.000	0.000	0.267	13.562	0.000	0.712	0.000	89.760	1.676
Jul											
Aug											
Sep											
Oct											
Nov											
Dec											
Total	0.267	0.000	0.000	0.000	0.267	13.562	0.000	0.712	0.000	89.760	1.676

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.

## 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	A complaint was received from EPD call on 2 nd February 2021 regarding a noise complaint from a Tong Hang villager about noise from CTC storage yard at around 19:00 – 20:00 on 1 st February 2021.	The suspected cause of the complaint was the delivery of a rotary drilling rig by a tractor lorry arrived at CTC Storage Yard at around 19:00 at 1 st February 2021. The delivery time was restricted due to the oversized tractor lorry (width >2.4m and length protruded >1.4m at tractor tail). No loading and unloading was conducted during the time of complaint.  For follow up action, the Contractor will apply	Closed
				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)	Thun Yee San Tsuen and muddy public road.  A complaint was referred from EPD regarding fly-tipping of C&D waste near Ma Tso Lung Shun Yee San Tsuen was out of project site bound implemented for dump trucks transported project site to other approved alternative displayed on site to promote the environm protection awareness. Regular training provided to remind the dump truck drivers		Under investigation, the suspected site near Shun Yee San Tsuen was out of project site boundary. Internal trip ticket system was properly implemented for dump trucks transported from project site to other approved alternative disposal ground. Also, dump trucks were properly washed and mechanical cover of dump trucks were closed while leaving the site.  For follow up action, banners and flags were displayed on site to promote the environmental protection awareness. Regular training was provided to remind the dump truck drivers that illegal dumping is strictly prohibited.	Closed
COM-2021-03-02	CTC Storage Yard (ND/2019/05)	15 th March 2021	A complaint was received from EPD call and an inspection by EPD was conducted on 9th March 2021 regarding a dust complaint from a Tong Hang villager. The complainant	For follow up action, the Contractor provided training to remind frontline supervisors and workers to wet the auger before movement when it was dried for preventing any occasional situation that the auger was dried.	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
			complained that rotary drill rig shall be equipped with enclosure for dust control and rotary drill rig had exhaust disturbance. Also, the complainant requested to improve wheel washing at site entrance.	The Contractor provided training to brief frontline supervisor and the operators to prevent exhaust disturbance. Also, the drill rigs exhaust pipe shall not face to the public area. If it is avoidable, screens shall be arranged to divert the exhaust gas. An additional cut-off drain was constructed and notice signs were erected for notifying drivers to give wheel washing in front of the cut-off drains.	
COM-2021-03-03	Ma Tso Lung Road (ND/2019/01)	9 th April 2021	A complaint was referred from EPD on 23 March 2021 regarding muddy public access road along Ma Tso Lung Road.	The muddy access road was found generated from a nearby private factory where the access road is not hard paved. The Contractor arranged water browser to help clean up the section of road on 24 th and 25 th March 2021 respectively. Also, dump truck were properly washed at project site exit near Ma Tso Lung Road.	Closed
COM-2021-04-01	Long Valley, Kwu Tung (ND/2019/03)	9 th April 2021	A complaint was referred from EPD regarding to associated impacts arising from construction works at Long Valley Nature Park, causing nuisance and affecting the habitat and ecological value in Long Valley.	Construction works for development of Long Valley Nature Park are conducted according to the recommended mitigation measures stated in Habitat Creation and Management Plan. Wetland creation and restoration works are in progress which include provision of paddy field, turning abandoned agricultural lands into wet agricultural land and provision of open water habitat with bird island. Irrigation channel is under construction for provision of reliable water supply to farmland.  For construction works, the following significant mitigation measures are implemented:  1. Provide noise barriers to minimize noise nuisance to adjacent field where Greater Painted-	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
		snipe was found;  2. Arrange concrete pump for concreting works to minimise noise impact;  3. Provide water spraying on the exposed earth to dampen the dusty surface;  4. Provide shade cloth to separate works area and marsh where Greater Painted-snipe were found;  5. Demarcation of temporary vehicle access to prohibit vehicle across the farmland;  6. Provide 2m dull green site boundary fence along Long Valley work areas; and  7. Block the main accesses by temporary barrier to avoid human disturbance.			
COM-2021-04-02	Close to junction of Ma Wat River and Ng Tung River (ND/2019/04, ND/2019/05, ND/2019/06)	23 rd April 2021	A complaint was referred from EPD regarding to suspected polluting effluent discharged from Ma Wat River near junction of Ma Wat River and Ng Tung River.	Under investigation, muddy water was observed from a small stream of Ma Wat River which is outside project site boundary. Contractor's wastewater treatment facilities and mitigation measures on water quality were checked. Latest discharge monitoring results shows the discharge quality in compliance with the limit stated in the discharge licence.  The following mitigation measures will keep implemented and inspected:  1. Installation of silt curtain, geotextiles and	Closed
				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	Closed
				covered properly and wheel wash is provided before leaving site. Implemented of the mitigation measures will keep reviewed and monitored.	
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.	Under investigation, no pollution from works areas near Ma Wat River was observed. For wastewater pollution control, all wastewater treatment facilities have been setup at discharge points. According to the latest discharge monitoring results on April 2021, no noncompliance to limit set in discharge licence was recorded. Regular maintenance and services of the facilities have been conducted. Close monitoring	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/ Mitigation Action	Status
				with checklist has been conducted by operators of	
				the facilities. Mitigation measures such as sealing	
				gaps between concrete blocks/water barriers/pipe	
				pile walls have been implemented to prevent	
				leakage. Implementation of the mitigation	
				measures will keep reviewed and closely	
				monitored.	

## APPENDIX T SUMMARY OF SUCCESSFUL PROSECUTION

## **Appendix T - Summary of Successful Prosecution**

Date of Successful Prosecution	Details of the Successful Prosecution	Status	Follow Up
	<del></del>		

APPENDIX U SUMMARY TABLE FOR REQUIRED SUBMISSION UNDER ENVIRONMENTAL PERMIT

DP2	EP-466/2013	Castle Peak R	oad Diversion			
			ion and Infrastructural Works	at KTN NDA		
	ction commencement da	ate	12-Aug-20			
Operation	on commencement date		tbc			
	EP Condition		Requirements and Submissi	ons	Submission Status	Remarks
	El Condition	Period	Action	Timeframe	Submission Status	ixemarks
1.12	Commencement date of construction	Before construction		no later than 8 weeks prior to the commencement of construction	Notified 2 March 2020	
					Established	Pre-construction ET
2.1	Establish of ET		Establish - An ET & IEC of at least 7 years of	no later than 6 weeks before the	5 March 2020 Established 23 January 2020	Construction Phase ET
		Before construction	experience in EM&A or environmental management.	commencement of construction	Established 11 March 2020	Pre-construction IEC
2.2	Employment of IEC		management.		Established 20 February 2020	Construction Phase IEC
2.3	Update EM&A Manual	Before construction	Deposit	at least 4 weeks before the commencement of construction	Latest submitted on 4 September 2020 by Pre-construction ET	
2.4	Management organization of the main construction companies	Before construction	Inform in writing	no later than 2 weeks before the commencement of construction	Deposited 27 July 2020	
2.5	Layout Plan	Before construction	Deposit	no later than 2 weeks before the commencement of construction	Deposited 27 July 2020	EPD Approved 25 August 2020
2.6	Cultural Heritage Impact Baseline condition survey and baseline vibration impact assessment	Before construction	To Conduct - A baseline condition survey and baseline vibration impact assessment by a qualified building surveyor or a qualified structural engineer  Note: The baseline condition survey and baseline vibration impact assessment shall be included in and form part of the Baseline Monitoring Report to be submitted under Condition 3.3	prior to the commencement of construction	₩	
	Cultural Heritage Impact Photographic and Cartographic Records/ Proposals on	Others	A copy of Photographic and cartographic records of directly impacted historical buildings at HKT08 and the entrance gate of HKT03	prior to the commencement of the respective removal or relocation works	*	
	relocation of any building	Others	For Approval - Proposals on relocation of any built heritages	prior to commencement of the respective relocation work	Deposited 13 May 2021	
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	*	
2.10	Traffic Noise Mitigation Measure (implement)	Before operation	Implement all noise mitigation measures as shown in Figure 4 of this Permit	before commencement of operation	*	
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:	<del></del>				<del></del>

Remarks:

tbc:To be confirmed
DP: Designated Project

*tentative submission date will be supplemented once available

DP3	EP-467/2013/A	Kwu Tung N Pak Shek Au	Interchange and			
CEDD Con	tract No. ND/2019/01 - S	ite Formation	and Infrastructural Works at	KTN NDA		
Construction	on commencement date		12-Aug-20			
Operation	commencement date		tbo			
	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 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 20 February 2020	Pre-construction IEC  Construction Phase IEC
2.3	Update EM&A Manual	Before construction	Deposit	at least 4 weeks before the commencement of construction	Latest submitted on 4 September 2020 by Pre- construction ET	
2.4	Management organization of the main construction companies	Before construction	Inform in writing	no later than 2 weeks before the commencement of construction	Deposited 27 July 2020	
2.5	Layout Plan	Before construction	Deposit	no later than 2 weeks before the commencement of construction	Deposited 27 July 2020	EPD Approved 25 August 2020
2.6	Traffic Noise Mitigation Plan	Before construction	For Approval	no later than 1 month before the commencement of consturction	Deposited 31 July 2019	EPD Approved 9 August 2019
2.7	Cultural Heritage Impact Photographic and Cartographic Records	Others	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:

tbc:To be confirmed
DP: Designated Project
*tentative submission date will be supplemented once available

DP4	P4 EP-468/2013/A Kwu Tung North New Development Area Road D1 to D5							
			tion and Infrastructural Works	1				
	ction commencement d on commencement date		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	C ( D PT		
		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	Construction	management.	commencement of construction	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			
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		
2.6	Cultural Heritage Impact Baseline condition survey and baseline vibration impact assessment	Before construction	To Conduct - A baseline condition survey and baseline vibration impact assessment by a qualified building surveyor or a qualified structural engineer  Note: The baseline condition survey and baseline vibration impact assessment shall be included in and form part of the Baseline Monitoring Report to be submitted under Condition 3.3	prior to the commencement of construction	**			
2.7	Cultural Heritage Impact Photographic and Cartographic Records/ Proposals on relocation of any building	Others	A copy of Photographic and cartographic records of directly impacted historical buildings and cultural/historical landscape features at locations HKT03, KT16, KT17 and KT18	prior to the commencement of the respective removal or relocation works	*			
		Others	For Approval - Proposals on relocation of any built heritages	prior to commencement of the respective relocation work	Deposited 13 May 2021			
2.8	Compensatory Tree Planting Plan	Before construction	For Approval	prior to the commencement of construction	*			
2.9	Habitat Creation and Management Plan	Others	For Approval	prior to the commencement of construction of relevant part of the Project	Submitted 20 October 2020	EPD approved 4 November 2020		
2.10	Traffic Noise Mitigation Plan	Before construction	For Approval	no later than 1 month before commencement of construction	Submitted 31 July 2019	EPD approved 9 August 2019		
3.3	Baseline Monitoring Report	Before construction	Submit	at least 2 weeks before the commencement of construction	Submitted by Pre- Construction ET			
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 entire construction period and during	N/A			
			Maintain	the first 3-year of operation	N/A			

Remarks: tbc:To be confirmed

DP: Designated Project
*tentative submission date will be supplemented once available

DP7	EP-470/2013 Utilization of Treated Sewage Effluent (TSE) from Shek Wu Hui Sewage Treatment Works						
	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					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	construction	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		
		Specialism	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

Operation commencement date		tbc				
	EP Condition		Requirements and Submiss	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	
					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	construction	experience in EM&A or environmental management.	commencement of construction	Established 11 March 2020	Pre-construction IEC
	Employment of the				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

~ -	alley Nature Park					
	on commencement date		3-Jul-20			
Operation commencement date			tbe			
	EP Condition	Requirements and Submissi		ions	Submission Status	Remarks
	Common out total	Period Before	Action	Timeframe	N-sig-1	
1.12	Commencement date of construction	construction	Notify in writing	no later than 8 weeks prior to the commencement of construction	Notified 28 April 2020	
					Established 5 March 2020	Pre-construction ET
2.1	Establish of ET	D. C	Establish -	1, 4, 6, 1,1,6, 4	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	Pre-construction IEC
2.2	Employment of IEC		management.		11 March 2020 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 June 2020	
					Deposited	EPD Approval
2.5	Layout Plan	Before	Deposit	no later than 2 weeks before the	18 June 2020	29 June 2020
		construction	•	commencement of construction	Revised Version Deposited	
					19 February 2021	
2.6	Cultural Heritage Impact Baseline condition survey and baseline vibration impact	y and Before	To Conduct -  A baseline condition survey and baseline vibration impact assessment by a qualified building surveyor or a qualified structural engineer  Note:	prior to the commencement of 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			
2.7	Cultural Heritage Impact Photographic and Cartographic Records/ Proposals on relocation of any building	Others	A copy of Photographic and cartographic records of directly impacted historical buildings and cultural/historical landscape features at locations HKT03, KT16, KT17 and KT18	prior to the commencement of the respective removal or relocation works	Deposited 13 May 2021	
		Others	For Approval - Proposals on relocation of any built heritages	prior to commencement of the respective relocation work	N/A	
2.8	Compensatory Tree Planting Plan	Before construction	For Approval	prior to the commencement of construction	N/A	
2.9	Habitat Creation and Management Plan	Others	For Approval	prior to the commencement of construction of relevant part of the Project	Submitted 20 October 2020	EPD approved 4 November 2020
2.10	Traffic Noise Mitigation Plan	Before construction	For Approval	no later than 1 month before commencement of construction	Submitted 31 July 2019	EPD approved 9 August 2019
3.3	Baseline Monitoring Report	Before construction	Submit	at least 2 weeks before the commencement of construction	Submitted by Pre- Construction ET	
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	
			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		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	
	I			entire construction period and during		

Remarks:
tbe:To be confirmed
DP: Designated Project
*tentative submission date will be supplemented once available

#### 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 V	alley Nature Park					
	iction commencement d	ate	6-Oct-20			
Operati	on commencement date		tbc			
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 8 weeks prior to the commencement of construction	Notified 10 August 2020	
					Established 5 March 2020	Pre-construction ET
2.1	Establish of ET		Establish - An ET & IEC of at least 7 years of	no later than 6 weeks before the	Established 23 January 2020	Construction Phase ET
		Before construction	experience in EM&A or environmental management.	commencement of construction	Established 11 March 2020	Pre-construction IEC
2.2	Employment of IEC		management.		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		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	
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Remarks:
tbc:To be confirmed
DP: Designated Project
*tentative submission date will be supplemented once available

#### DP10 EP-473/2013/A Fanling Bypass Eastern Section

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

Yeuk Tau)								
Construction commencement date			23-Feb-21					
Operation commencement date  EP Condition			tbe					
		Requirements and Submissions			Submission Status	Remarks		
	Commencement date of	Period	Action	Timeframe	N. 416 - 1			
1.12	construction	Before construction	Notify in writing	no later than 8 weeks prior to the commencement of construction	Notified 8 September 2020			
					Established 5 March 2020	Pre-construction ET		
2.1	Establish of ET		Establish - An ET & IEC of at least 7 years of	no later than 6 weeks before the	Established 23 January 2020	Construction Phase ET		
		Before construction	experience in EM&A or environmental	commencement of construction	Established	Pre-construction IEC		
2.2	Employment of IEC		management.		11 March 2020 Established			
					20 February 2020 Latest submitted on 4	Construction Phase IEC		
2.3	Update EM&A Manual	Before construction	Deposit	at least 4 weeks before the commencement of construction	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 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  For Approval - Proposals on relocation of any built heritages	prior to the commencement of the respective removal or relocation works  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.	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:
tbe:To be confirmed
DP: Designated Project
*tentative submission date will be supplemented once available

DP14	EP-546/2017	Fanling North Temporary Sewage Pumping Station								
	CEDD Contract No. ND/2019/04 - Fanling North New Development Area, Phase 1: Fanling Bypass Eastern Section (Shek Wu San Tsuen									
North t	o Lung Yeuk Tau)									
Constru	action commencement of	late	16-Feb-21							
Operation commencement date			tbo	2						
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 of the construction works	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 Kau Lung Hang)

	ng Hang)		1	1		
_	iction commencement of		1-Aug-20			
Operation commencement date  EP Condition		e	tbe			
		Requirements and Submissions			Submission Status	Remarks
	Commencement date of	Period Before	Action	no later than 8 weeks prior to the	Notified	
1.12	construction	construction	Notify in writing	commencement of construction	15 June 2020	
2.1	Establish of ET		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 5 March 2020 Established	Pre-construction ET  Construction Phase ET
		Before construction			23 January 2020 Established 11 March 2020	Pre-construction IEC
2.2	Employment of IEC		management.		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	
	Remarks:		Maintain	entire construction period and during the first 3-year of operation	N/A	

Remarks: tbc:To be confirmed DP: Designated Project *tentative submission date will be supplemented once available

### DP12 EP-475/2013/A Reprovision of temporary Wholesale Market in Fanling North New Development Area Contract No. ND/2019/06 - Fanling North New Development Area, Phase 1: Reprovisioning of North District Temporary Wholesale Market

for Agricultural Products

	iction commencement		29-Oct-19	)		
Operation commencement date			tb	e		
EP Condition			Requirements and Submissions			Remarks
		Period	riod 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	E (11:1 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	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 IEC
2.3	Update EM&A Manual	Before construction	Deposit	at least 4 weeks before the commencement of construction	Latest submitted on 4 September 2020 by Pre-construction ET	
2.4	Management organization of the main construction companies	Before construction	Inform in writing	no later than 2 weeks before the commencement of construction	Deposited 14 October 2019	
2.5	Layout Plan	Before construction	Deposit	no later than 2 weeks before the commencement of construction	Deposited 14 October 2019	
2.6	Landscape Plan	Others	Deposit	at least 6 weeks before the commencement of the corresponding parts of landscape and visual mitigation measures of the Project	*	
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	

Remarks:
tbc:To be confirmed
DP: Designated Project
*tentative submission date will be supplemented once available