

JOB NO.: TCS00881/18 & TCS00944/18

SITE FORMATION AND ASSOCIATED INFRASTRUCTURAL WORKS FOR DEVELOPMENT OF COLUMBARIUM, CREMATORIUM AND RELATED FACILITIES AT SANDY RIDGE CEMETERY

MONTHLY ENVIRONMENTAL MONITORING AND AUDIT Report (No.34) – May 2021

PREPARED FOR HSIN CHONG TSUN YIP JOINT VENTURE & SANG HING CIVIL CONTRACTORS CO., LTD

Date	Reference No.	Prepared By	Certified By
15 June 2021	TCS00881/18/600/R0546v2	Anh	Am

Nicola HonTam Tak Wing(Environmental Consultant)(Environmental Team Leader)

Version	Date	Remarks
1	9 June 2021	First Submission
2	15 June 2021	Amended according to the IEC's comment



Our Ref: TCS00881/18/300/L0547

Civil Engineering and Development Department 2/F, Civil Engineering and Development Building, 101 Princess Margaret Rd, Homantin, Kowloon

Attn: Mr. SHUM Ngai Hung, Steven

16 June 2021 By e-mail

Dear Sirs,

Re: Site Formation and Associated Infrastructural Works for Development of Columbarium, Crematorium and Related Facilities at Sandy Ridge Cemetery Monthly Environmental Monitoring & Audit Report (No.34) – May 2021

We confirmed that the captioned report has complied with the requirement set out in the EM&A Manual, we hereby certify the captioned report pursuant to Specific Condition 3.4 of the Environmental Permit No. FEP-01/534/2017/A and EP-534/2017/A.

Should you have any queries, please feel free to contact the undersigned at Tel: 2959-6059 or Fax: 2959-6079 or Email: twtam@fordbusiness.com.

Yours sincerely, For and on Behalf of Action-United Environmental Services & Consulting (AUES)

T. W. Tam Environmental Team Leader TW/nh

cc ARUP (RE of Contract 1) ARUP (RE of Contract 2)
. HCTY-JV (Contractor of Contract 1) Sang Hing (Contractor of Contract 2) Acuity (IEC) Mr. Steven Tang Mr. Anthony Lau Mr. Ho Man To Mr. Elvin Lam Mr. Jacky Leung by e-mail by e-mail by e-mail by e-mail

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Our ref: PL-202106036

Hsin Chong Tsun Yip Joint Venture (CV/2016/10) Hsin Chong Centre 107-109 Wai Yip Street Kwun Tong, Kowloon Hong Kong

Attention: Mr. HO Man-to

16 June 2021

Dear Sir,

Site formation and Associated Infrastructural Works for Development of Columbarium at Sandy Ridge Cemetery Monthly Environmental Monitoring and Audit Report (No. 34) May 2021

I refer to the email of the ET dated on 16/06/2021 regarding the captioned Monthly Report. According to Section 3.4 of the EP-534/2017/A and the FEP-01/534/2017/A, I hereby verify the Monthly EM&A report for May 2021 with Ref. No. TCS00881/18/600/R0546v2.

You are required to follow up the comments from EPD and IEC on the relevant EPs requirement and reports for our further review as soon as possible.

Yours faithfully,

CH Leung

Leung CH Jacky Independent Environmental Checker

cc. CEDD-DPTL/Land Works – Mr. SHUM Steven ARUP – Mr. LEE Davis ET Leader – Mr. TAM



EXECUTIVE SUMMARY

ES.01. This is the 34th Monthly Environmental Monitoring and Audit (EM&A) Report summarizing the monitoring results and inspection findings under the Project for the period from 1st to 31th May 2021 (the Reporting Month).

ENVIRONMENTAL MONITORING AND AUDIT ACTIVITIES

ES.02. In the Reporting Month, the major construction works under the Project included Contract CV/2016/10 (hereinafter named "Contract 1") and Contract CV/2017/02 (hereinafter named "Contract 2"). Environmental monitoring activities under the EM&A programme in this Reporting Month are summarized in the following table.

Issues	Environmental Monitoring	Monitorin	Total Occasions/	
155005	Parameters / Inspection	CV/2016/10	CV/2017/02	dates
Air Quality	1-hour TSP	ASR-1	ASR-2	45
Air Quality	24-hour TSP	ASK-1	ASR-3	15
Construction Noise	L _{eq (30min)} Daytime	CN-1 CN-2	CN-3 CN-4	16
Water Quality	In-situ measurement and Water sampling	M3	M1, M2 and M4	13
Ecology	Sensitive Habitat	Transect within site area of CV/2016/10	Transect within site area of CV/2017/02	11 th May 21
Landscape & Visual	Site Inspection	Site area of CV/2016/10	Site area of CV/2017/02	24 th May 21
Inspection	Environmental Team (ET) Regular Environmental Site Inspection	Site area of	Site area of	4
& Âudit	Independent Environmental Checker (IEC) Monthly Environmental Site Audit		CV/2017/02	1

 Table ES-1
 Summary of EM&A Programme in the Reporting Month

BREACH OF ACTION AND LIMIT (A/L) LEVELS

ES.03. In the Reporting Month, no exceedance of air quality, noise monitoring was recorded. For water quality monitoring, **6** Limit level non-project related exceedances and no Action Level were recorded. The statistics of environmental exceedance, Notification of Exceedance (NOE) issued and investigation of exceedance are summarized in the following table.

Environmental	Monitoring	Action	Limit	Event & Action	
Issues	Parameters	Level	Level	Investigation Findings	Corrective Actions
Air Quality	1-hour TSP	0	0	-	-
Air Quality	24-hour TSP	0	0	-	-
Construction Noise	Leq _{30min} Daytime	0	0	-	-
	DO	0	0	-	-
Water Quality	Turbidity	0	3	Not project related	-
	SS	0	3	Not project related	-

 Table ES-2
 Breach of Action and Limit (A/L) Levels in the Reporting Month

Note: NOE – Notification of Exceedance

- ES.04. In the Reporting Month, **6** Limit level exceedances were recorded at location M1 for water quality monitoring. According to the Contractor's work programme, there were construction activities on Man Kam To Road but no works were carried out near location M1. It was concluded that the exceedances were not caused by the work under the project.
- ES.05. Monthly ecological monitoring for sensitive habitat for area of Contract 1 and Contract 2 were undertaken on *11th May 2021*. After analysing survey results in May 2019 to 2021, there is no



obvious reduction for both wetland and non-wetland habitats in Contract 1. For Contract 2, there was no significant drop in species diversity for both non-wetland and wetland habitats. Good practice during construction is required to prevent environmental contamination as well as unnecessary site clearance. Continuous monitoring is also recommended to inspect any significant decrease in species diversity. Besides, as advised by both Contractors, there were no vegetation clearance conducted within the site in the Reporting Month and therefore precautionary check for the presence of nesting birds was not required.

ES.06. Landscape and visual inspection at both Contracts were undertaken on 24th May 2021. The Contractor was reminded to prevent the construction material pile within Tree Protection Zone and ensure no works is allowed within the TPZ.

ENVIRONMENTAL COMPLAINT

ES.07. No environmental complaint was received in this Reporting Period.

Table ES-3 Environmental Complaint Summaries in the Reporting Month

Reporting Month		Environmental Complaint Statistics		
		Frequency	Cumulative	Complaint Nature
1 21 May 2021	Contract 1	0	1	NA
1 – 31 May 2021	Contract 2	0	2	NA

NOTIFICATION OF SUMMONS AND SUCCESSFUL PROSECUTIONS

ES.08. No environmental summons or successful prosecution was recorded in this Reporting Month. The statistics of summons or successful prosecutions are summarized in the following tables.

Table ES-4Environmental Summons Summaries in the Reporting Month

Reporting Month		Environmental Summons Statistics		
		Frequency	Cumulative	Summons Nature
1 21 May 2021	Contract 1	0	0	NA
1 – 31 May 2021	Contract 2	0	0	NA

Table ES-5Environmental Prosecution Summaries in the Reporting Month

Reporting Month		Environmental Prosecution Statistics		
		Frequency	Cumulative	Prosecution Nature
1 21 May 2021	Contract 1	0	0	NA
1 – 31 May 2021	Contract 2	0	0	NA

ES.09. In addition, no complaint and emergency event relating to violation of environmental legislation for illegal dumping and landfilling was received.

REPORTING CHANGE

ES.010. No reporting change was made in the Reporting Month.

SITE INSPECTION

ES.011. In the Reporting Month, joint site inspections for Contract 1 to evaluate the site environmental performance were carried out by the Resident Engineer, ET and the Contractor of the Contract 1 on 5th, 13th, 20th and 27th May 2021. Moreover, joint site inspections for Contract 2 by the RE, ET and the Contractor of Contract 2 were carried out on 5th, 13th, 20th and 27th May 2021. IEC attended the both Contract joint site inspection on 20th May 2021. No non-compliance was noted during the site inspections.

FUTURE KEY ISSUES

ES.012. The Contractors are reminded to pay special attention on water quality mitigation measures and should fully implement the measures as recommended in the EM&A Manual, in particular to prevent surface runoff and other pollutants from flowing to local stream and Conservation Area.



- ES.013. During wet season, the Contractors are reminded to pay special attention on water quality mitigation measures and should fully implement the measures as recommended in the EM&A Manual, in particular to prevent surface runoff and other pollutants from flowing to local stream and Conservation Area.
- ES.014. Construction noise mitigation measures such as use of movable noise barriers and Quality Powered Mechanical Equipment should be properly provided to reduce construction noise impact, where appropriate.
- ES.015. The Contractors should properly maintain the cleanliness and tidiness of the site. In addition, mosquito control should be performed to prevent mosquito breeding on site.



Table of Contents

1.	INTRODUCTION	1
	1.1 PROJECT BACKGROUND	1
	1.2 REPORT STRUCTURE	2
2.	PROJECT ORGANIZATION AND CONSTRUCTION PROGRESS	4
	2.1 CONSTRUCTION CONTRACT PACKAGING	4
	2.2 CONSTRUCTION PROGRESS	4
	2.3 SUMMARY OF ENVIRONMENTAL SUBMISSIONS	4
	2.4 SUMMARY OF SUBMISSION UNDER THE ENVIRONMENTAL PERMIT REQUIREMENTS	5
3.	SUMMARY OF IMPACT MONITORING REQUIREMENT	7
	3.1 GENERAL	7
	3.2 MONITORING PARAMETERS	7
	3.3 MONITORING LOCATIONS	7
	3.4 MONITORING FREQUENCY AND PERIOD	9
	3.5 MONITORING EQUIPMENT3.6 EQUIPMENT CALIBRATION	9 12
	3.7 DATA MANAGEMENT AND DATA QA/QC CONTROL	12
	3.8 DETERMINATION OF ACTION/LIMIT (A/L) LEVELS	12
4		14
4.	AIR QUALITY 4.1 MONITORING RESULTS	14 14
	4.2 AIR MONITORING EXCEEDANCE	14
5	CONSTRUCTION NOISE	
5.	5.1 MONITORING RESULTS	15 15
	5.2 NOISE MONITORING EXCEEDANCE	15
6		
6.	WATER QUALITY 6.1 MONITORING RESULTS	16 16
	6.2 WATER QUALITY MONITORING EXCEEDANCE	10
7	ECOLOCY MONITODING	10
7.	ECOLOGY MONITORING	18
7.	7.1 REQUIREMENT	18
7.		
7.	 7.1 REQUIREMENT 7.2 METHODOLOGY 7.3 ECOLOGICAL MONITORING SURVEY FINDINGS (CONTRACT 1) 7.4 ECOLOGICAL MONITORING SURVEY FINDINGS (CONTRACT 2) 	18 18 19 21
7.	 7.1 REQUIREMENT 7.2 METHODOLOGY 7.3 ECOLOGICAL MONITORING SURVEY FINDINGS (CONTRACT 1) 7.4 ECOLOGICAL MONITORING SURVEY FINDINGS (CONTRACT 2) 7.5 MONITORING OF FLORA SPECIES OF CONSERVATION INTEREST 	18 18 19 21 23
7.	 7.1 REQUIREMENT 7.2 METHODOLOGY 7.3 ECOLOGICAL MONITORING SURVEY FINDINGS (CONTRACT 1) 7.4 ECOLOGICAL MONITORING SURVEY FINDINGS (CONTRACT 2) 	18 18 19 21
7. 8.	 7.1 REQUIREMENT 7.2 METHODOLOGY 7.3 ECOLOGICAL MONITORING SURVEY FINDINGS (CONTRACT 1) 7.4 ECOLOGICAL MONITORING SURVEY FINDINGS (CONTRACT 2) 7.5 MONITORING OF FLORA SPECIES OF CONSERVATION INTEREST 	18 18 19 21 23
	 7.1 REQUIREMENT 7.2 METHODOLOGY 7.3 ECOLOGICAL MONITORING SURVEY FINDINGS (CONTRACT 1) 7.4 ECOLOGICAL MONITORING SURVEY FINDINGS (CONTRACT 2) 7.5 MONITORING OF FLORA SPECIES OF CONSERVATION INTEREST 7.6 MEASURE FOR PROTECTION OF NESTING BIRD LANDSCAPE AND VISUAL 8.1 REQUIREMENT 	18 18 19 21 23 23 23 24 24
	 7.1 REQUIREMENT 7.2 METHODOLOGY 7.3 ECOLOGICAL MONITORING SURVEY FINDINGS (CONTRACT 1) 7.4 ECOLOGICAL MONITORING SURVEY FINDINGS (CONTRACT 2) 7.5 MONITORING OF FLORA SPECIES OF CONSERVATION INTEREST 7.6 MEASURE FOR PROTECTION OF NESTING BIRD LANDSCAPE AND VISUAL 	18 18 19 21 23 23 24
	 7.1 REQUIREMENT 7.2 METHODOLOGY 7.3 ECOLOGICAL MONITORING SURVEY FINDINGS (CONTRACT 1) 7.4 ECOLOGICAL MONITORING SURVEY FINDINGS (CONTRACT 2) 7.5 MONITORING OF FLORA SPECIES OF CONSERVATION INTEREST 7.6 MEASURE FOR PROTECTION OF NESTING BIRD LANDSCAPE AND VISUAL 8.1 REQUIREMENT 	18 18 19 21 23 23 23 24 24
8.	 7.1 REQUIREMENT 7.2 METHODOLOGY 7.3 ECOLOGICAL MONITORING SURVEY FINDINGS (CONTRACT 1) 7.4 ECOLOGICAL MONITORING SURVEY FINDINGS (CONTRACT 2) 7.5 MONITORING OF FLORA SPECIES OF CONSERVATION INTEREST 7.6 MEASURE FOR PROTECTION OF NESTING BIRD LANDSCAPE AND VISUAL 8.1 REQUIREMENT 8.2 FINDINGS / DEFICIENCIES DURING SITE INSPECTION IN THE REPORTING MONTH WASTE WANAGEMENT 9.1 GENERAL WASTE MANAGEMENT 	18 18 19 21 23 23 23 24 24 24 24 25 25
8.	 7.1 REQUIREMENT 7.2 METHODOLOGY 7.3 ECOLOGICAL MONITORING SURVEY FINDINGS (CONTRACT 1) 7.4 ECOLOGICAL MONITORING SURVEY FINDINGS (CONTRACT 2) 7.5 MONITORING OF FLORA SPECIES OF CONSERVATION INTEREST 7.6 MEASURE FOR PROTECTION OF NESTING BIRD LANDSCAPE AND VISUAL 8.1 REQUIREMENT 8.2 FINDINGS / DEFICIENCIES DURING SITE INSPECTION IN THE REPORTING MONTH WASTE MANAGEMENT 	18 18 19 21 23 23 23 24 24 24 24 25
8. 9.	 7.1 REQUIREMENT 7.2 METHODOLOGY 7.3 ECOLOGICAL MONITORING SURVEY FINDINGS (CONTRACT 1) 7.4 ECOLOGICAL MONITORING SURVEY FINDINGS (CONTRACT 2) 7.5 MONITORING OF FLORA SPECIES OF CONSERVATION INTEREST 7.6 MEASURE FOR PROTECTION OF NESTING BIRD LANDSCAPE AND VISUAL 8.1 REQUIREMENT 8.2 FINDINGS / DEFICIENCIES DURING SITE INSPECTION IN THE REPORTING MONTH WASTE WANAGEMENT 9.1 GENERAL WASTE MANAGEMENT 	18 18 19 21 23 23 23 24 24 24 24 25 25
8. 9.	 7.1 REQUIREMENT 7.2 METHODOLOGY 7.3 ECOLOGICAL MONITORING SURVEY FINDINGS (CONTRACT 1) 7.4 ECOLOGICAL MONITORING SURVEY FINDINGS (CONTRACT 2) 7.5 MONITORING OF FLORA SPECIES OF CONSERVATION INTEREST 7.6 MEASURE FOR PROTECTION OF NESTING BIRD LANDSCAPE AND VISUAL 8.1 REQUIREMENT 8.2 FINDINGS / DEFICIENCIES DURING SITE INSPECTION IN THE REPORTING MONTH WASTE WASTE MANAGEMENT 9.1 GENERAL WASTE MANAGEMENT 9.2 RECORDS OF WASTE QUANTITIES SITE INSPECTION 10.1 REQUIREMENT	18 18 19 21 23 23 24 24 24 24 25 25 25 25 25 26 26
8. 9.	 7.1 REQUIREMENT 7.2 METHODOLOGY 7.3 ECOLOGICAL MONITORING SURVEY FINDINGS (CONTRACT 1) 7.4 ECOLOGICAL MONITORING SURVEY FINDINGS (CONTRACT 2) 7.5 MONITORING OF FLORA SPECIES OF CONSERVATION INTEREST 7.6 MEASURE FOR PROTECTION OF NESTING BIRD LANDSCAPE AND VISUAL 8.1 REQUIREMENT 8.2 FINDINGS / DEFICIENCIES DURING SITE INSPECTION IN THE REPORTING MONTH WASTE WANAGEMENT 9.1 GENERAL WASTE MANAGEMENT 9.2 RECORDS OF WASTE QUANTITIES 	18 18 19 21 23 23 24 24 24 24 25 25 25 25 25 26
8. 9. 10.	 7.1 REQUIREMENT 7.2 METHODOLOGY 7.3 ECOLOGICAL MONITORING SURVEY FINDINGS (CONTRACT 1) 7.4 ECOLOGICAL MONITORING SURVEY FINDINGS (CONTRACT 2) 7.5 MONITORING OF FLORA SPECIES OF CONSERVATION INTEREST 7.6 MEASURE FOR PROTECTION OF NESTING BIRD LANDSCAPE AND VISUAL 8.1 REQUIREMENT 8.2 FINDINGS / DEFICIENCIES DURING SITE INSPECTION IN THE REPORTING MONTH WASTE WASTE MANAGEMENT 9.1 GENERAL WASTE MANAGEMENT 9.2 RECORDS OF WASTE QUANTITIES SITE INSPECTION 10.1 REQUIREMENT	18 18 19 21 23 23 24 24 24 24 25 25 25 25 25 26 26
8. 9. 10.	7.1REQUIREMENT7.2METHODOLOGY7.3ECOLOGICAL MONITORING SURVEY FINDINGS (CONTRACT 1)7.4ECOLOGICAL MONITORING SURVEY FINDINGS (CONTRACT 2)7.5MONITORING OF FLORA SPECIES OF CONSERVATION INTEREST7.6MEASURE FOR PROTECTION OF NESTING BIRDLANDSCAPE AND VISUAL8.1REQUIREMENT8.2FINDINGS / DEFICIENCIES DURING SITE INSPECTION IN THE REPORTING MONTHWASTE WANAGEMENT9.1GENERAL WASTE MANAGEMENT9.2RECORDS OF WASTE QUANTITIESSITE INSPECTION10.1REQUIREMENT10.2FINDINGS / DEFICIENCIES DURING SITE INSPECTION IN THE REPORTING MONTH	 18 18 19 21 23 23 24 24 24 24 25 25 25 26 26 26
 8. 9. 10. 11. 	 7.1 REQUIREMENT 7.2 METHODOLOGY 7.3 ECOLOGICAL MONITORING SURVEY FINDINGS (CONTRACT 1) 7.4 ECOLOGICAL MONITORING SURVEY FINDINGS (CONTRACT 2) 7.5 MONITORING OF FLORA SPECIES OF CONSERVATION INTEREST 7.6 MEASURE FOR PROTECTION OF NESTING BIRD LANDSCAPE AND VISUAL 8.1 REQUIREMENT 8.2 FINDINGS / DEFICIENCIES DURING SITE INSPECTION IN THE REPORTING MONTH WASTE MANAGEMENT 9.1 GENERAL WASTE MANAGEMENT 9.2 RECORDS OF WASTE QUANTITIES SITE INSPECTION 10.1 REQUIREMENT 10.2 FINDINGS / DEFICIENCIES DURING SITE INSPECTION IN THE REPORTING MONTH ENVIROMENTAL COMPLAINT AND NON-COMPLIANCE 11.1 ENVIRONMENTAL COMPLAINT, SUMMONS AND PROSECUTION 	 18 18 19 21 23 23 24 24 24 24 25 25 25 26 26 26 28 28
 8. 9. 10. 11. 	 7.1 REQUIREMENT 7.2 METHODOLOGY 7.3 ECOLOGICAL MONITORING SURVEY FINDINGS (CONTRACT 1) 7.4 ECOLOGICAL MONITORING SURVEY FINDINGS (CONTRACT 2) 7.5 MONITORING OF FLORA SPECIES OF CONSERVATION INTEREST 7.6 MEASURE FOR PROTECTION OF NESTING BIRD LANDSCAPE AND VISUAL 8.1 REQUIREMENT 8.2 FINDINGS / DEFICIENCIES DURING SITE INSPECTION IN THE REPORTING MONTH WASTE WANAGEMENT 9.1 GENERAL WASTE MANAGEMENT 9.2 RECORDS OF WASTE QUANTITIES SITE INSPECTION 10.1 REQUIREMENT 10.2 FINDINGS / DEFICIENCIES DURING SITE INSPECTION IN THE REPORTING MONTH ENVIRONMENTAL COMPLAINT AND NON-COMPLIANCE 	18 18 19 21 23 23 24 24 24 24 25 25 25 26 26 26 28
 8. 9. 10. 11. 	 7.1 REQUIREMENT 7.2 METHODOLOGY 7.3 ECOLOGICAL MONITORING SURVEY FINDINGS (CONTRACT 1) 7.4 ECOLOGICAL MONITORING SURVEY FINDINGS (CONTRACT 2) 7.5 MONITORING OF FLORA SPECIES OF CONSERVATION INTEREST 7.6 MEASURE FOR PROTECTION OF NESTING BIRD LANDSCAPE AND VISUAL 8.1 REQUIREMENT 8.2 FINDINGS / DEFICIENCIES DURING SITE INSPECTION IN THE REPORTING MONTH WASTE MANAGEMENT 9.1 GENERAL WASTE MANAGEMENT 9.2 RECORDS OF WASTE QUANTITIES SITE INSPECTION 10.1 REQUIREMENT 10.2 FINDINGS / DEFICIENCIES DURING SITE INSPECTION IN THE REPORTING MONTH ENVIRONMENTAL COMPLAINT AND NON-COMPLIANCE 11.1 ENVIRONMENTAL COMPLAINT, SUMMONS AND PROSECUTION IMPLEMENTATION STATUS OF MITIGATION MEASURES 12.1 GENERAL REQUIREMENTS 12.2 TENTATIVE CONSTRUCTION ACTIVITIES IN THE COMING MONTH 	 18 18 19 21 23 23 24 24 24 25 25 25 26 26 26 28 28 29 30
 8. 9. 10. 11. 	 7.1 REQUIREMENT 7.2 METHODOLOGY 7.3 ECOLOGICAL MONITORING SURVEY FINDINGS (CONTRACT 1) 7.4 ECOLOGICAL MONITORING SURVEY FINDINGS (CONTRACT 2) 7.5 MONITORING OF FLORA SPECIES OF CONSERVATION INTEREST 7.6 MEASURE FOR PROTECTION OF NESTING BIRD LANDSCAPE AND VISUAL 8.1 REQUIREMENT 8.2 FINDINGS / DEFICIENCIES DURING SITE INSPECTION IN THE REPORTING MONTH WASTE MANAGEMENT 9.1 GENERAL WASTE MANAGEMENT 9.2 RECORDS OF WASTE QUANTITIES SITE INSPECTION 10.1 REQUIREMENT 10.2 FINDINGS / DEFICIENCIES DURING SITE INSPECTION IN THE REPORTING MONTH ENVIRONMENTAL COMPLAINT AND NON-COMPLIANCE 11.1 ENVIRONMENTAL COMPLAINT, SUMMONS AND PROSECUTION IMPLEMENTATION STATUS OF MITIGATION MEASURES 12.1 GENERAL REQUIREMENTS 	 18 18 19 21 23 23 24 24 24 24 25 25 25 26 26 26 28 28 29 29
 8. 9. 10. 11. 12. 	 7.1 REQUIREMENT 7.2 METHODOLOGY 7.3 ECOLOGICAL MONITORING SURVEY FINDINGS (CONTRACT 1) 7.4 ECOLOGICAL MONITORING SURVEY FINDINGS (CONTRACT 2) 7.5 MONITORING OF FLORA SPECIES OF CONSERVATION INTEREST 7.6 MEASURE FOR PROTECTION OF NESTING BIRD LANDSCAPE AND VISUAL 8.1 REQUIREMENT 8.2 FINDINGS / DEFICIENCIES DURING SITE INSPECTION IN THE REPORTING MONTH WASTE MANAGEMENT 9.1 GENERAL WASTE MANAGEMENT 9.2 RECORDS OF WASTE QUANTITIES SITE INSPECTION 10.1 REQUIREMENT 10.2 FINDINGS / DEFICIENCIES DURING SITE INSPECTION IN THE REPORTING MONTH ENVIRONMENTAL COMPLAINT AND NON-COMPLIANCE 11.1 ENVIRONMENTAL COMPLAINT, SUMMONS AND PROSECUTION IMPLEMENTATION STATUS OF MITIGATION MEASURES 12.1 GENERAL REQUIREMENTS 12.2 TENTATIVE CONSTRUCTION ACTIVITIES IN THE COMING MONTH 	 18 18 19 21 23 23 24 24 24 25 25 25 26 26 26 28 28 29 30
 8. 9. 10. 11. 12. 	7.1REQUIREMENT7.2METHODOLOGY7.3ECOLOGICAL MONITORING SURVEY FINDINGS (CONTRACT 1)7.4ECOLOGICAL MONITORING SURVEY FINDINGS (CONTRACT 2)7.5MONITORING OF FLORA SPECIES OF CONSERVATION INTEREST7.6MEASURE FOR PROTECTION OF NESTING BIRDLANDSCAPE AND VISUAL8.1REQUIREMENT8.2FINDINGS / DEFICIENCIES DURING SITE INSPECTION IN THE REPORTING MONTHWASTE WANAGEMENT9.1GENERAL WASTE MANAGEMENT9.2RECORDS OF WASTE QUANTITIESSITE INSPECTION10.1REQUIREMENT10.2FINDINGS / DEFICIENCIES DURING SITE INSPECTION IN THE REPORTING MONTHENVIRONMENTAL COMPLAINT AND NON-COMPLIANCE11.1ENVIRONMENTAL COMPLAINT, SUMMONS AND PROSECUTIONIMPLEMENTATION STATUS OF MITIGATION MEASURES12.1GENERAL REQUIREMENTS12.2TENTATIVE CONSTRUCTION ACTIVITIES IN THE COMING MONTH12.3KEY ISSUES FOR THE COMING MONTH	 18 18 19 21 23 23 24 24 24 24 25 25 25 26 26 26 26 28 29 30 30



LIST OF TABLES

LIST OF TAB	LES
TABLE 2-1	STATUS OF ENVIRONMENTAL LICENSES AND PERMITS FOR CONTRACT 1
TABLE 2-2	STATUS OF ENVIRONMENTAL LICENSES AND PERMITS FOR CONTRACT 2
TABLE 2-3	STATUS OF SUBMISSION AS UNDER FEP FOR CONTRACT 1
TABLE 2-4	STATUS OF SUBMISSION AS UNDER FEP FOR CONTRACT 2
TABLE 3-1	SUMMARY OF EM&A REQUIREMENTS
TABLE 3-2	DESIGNATED AIR QUALITY MONITORING LOCATION UNDER THE PROJECT
TABLE 3-3	DESIGNATED CONSTRUCTION NOISE MONITORING LOCATION UNDER THE PROJECT
TABLE 3-4	DESIGNATED WATER QUALITY MONITORING STATIONS UNDER THE PROJECT
TABLE 3-5	AIR QUALITY MONITORING EQUIPMENT
TABLE 3-6	NOISE MONITORING EQUIPMENT
TABLE 3-7	WATER QUALITY MONITORING EQUIPMENT
TABLE 3-8	ACTION AND LIMIT LEVELS FOR AIR QUALITY MONITORING
TABLE 3-9	ACTION AND LIMIT LEVELS FOR CONSTRUCTION NOISE
TABLE 3-10	ACTION AND LIMIT LEVELS FOR WATER QUALITY
TABLE 4-1	SUMMARY OF AIR QUALITY MONITORING RESULTS AT ASR-1 UNDER CONTRACT 1
TABLE 4-2	SUMMARY OF AIR QUALITY MONITORING RESULTS AT ASR-2 UNDER CONTRACT 2
TABLE 4-3	SUMMARY OF AIR QUALITY MONITORING RESULTS AT ASR-3A UNDER CONTRACT 2
TABLE 5-1	SUMMARY OF CONSTRUCTION NOISE MONITORING RESULTS UNDER CONTRACT 1
TABLE 5-2	SUMMARY OF CONSTRUCTION NOISE MONITORING RESULTS UNDER CONTRACT 2
TABLE 6-1	SUMMARY OF WATER QUALITY MONITORING RESULTS – M3 UNDER CONTRACT 1
TABLE 6-2	Summary of Water Quality Monitoring Results (M1, M2 and M4) under Contract 2 $$
TABLE 6-3	SUMMARY OF FIELD MEASUREMENTS FOR WATER QUALITY
TABLE 6-4	ACTION AND LIMIT (A/L) LEVELS EXCEEDANCE RECORD
TABLE 6-5	SUMMARY OF INVESTIGATION OF WATER QUALITY EXCEEDANCE IN THE REPORTING MONTH
TABLE 7-1	ACTION AND LIMIT LEVELS FOR WET WOODLAND HABITATS MONITORING
TABLE 7-2	ACTION AND LIMIT LEVELS FOR NON-WET WOODLAND HABITATS MONITORING
TABLE 7-3	SCHEDULE OF FAUNAL SURVEYS IN EACH YEAR DURING CONSTRUCTION PHASE
TABLE 7-4	RESULT OF FAUNAL SURVEY UNDER CONTRACT 1
TABLE 7-5	RESULT OF FRESHWATER COMMUNITIES SURVEY UNDER CONTRACT 1
TABLE 7-6	RESULT OF FAUNAL SURVEY UNDER CONTRACT 2
TABLE 7-7	RESULT OF FRESHWATER COMMUNITIES SURVEY UNDER CONTRACT 2
TABLE 8-1	LANDSCAPE & VISUAL INSPECTION FINDING FOR CONTRACT 1
TABLE 8-2	LANDSCAPE & VISUAL INSPECTION FINDING FOR CONTRACT 2
TABLE 9-1	SUMMARY OF QUANTITIES OF INERT C&D MATERIALS
TABLE 9-2	SUMMARY OF QUANTITIES OF C&D WASTES
TABLE 10-1	SITE OBSERVATIONS FOR THE WORKS OF CONTRACT 1
TABLE 10-2	SITE OBSERVATIONS FOR THE WORKS OF CONTRACT 2
TABLE 11-1	STATISTICAL SUMMARY OF ENVIRONMENTAL COMPLAINTS
TABLE 11-2	STATISTICAL SUMMARY OF ENVIRONMENTAL SUMMONS
TABLE 11-3	STATISTICAL SUMMARY OF ENVIRONMENTAL PROSECUTION
TABLE 12-1	ENVIRONMENTAL MITIGATION MEASURES

 TABLE 12-1
 ENVIRONMENTAL MITIGATION MEASURES



LIST OF APPENDICES

APPENDIX A	LAYOUT PLAN OF THE PROJECT
APPENDIX B	ORGANIZATION STRUCTURE AND CONTACT DETAILS OF RELEVANT PARTIES
APPENDIX C	THREE MONTHS ROLLING PROGRAMME
APPENDIX D	DESIGNATED MONITORING LOCATIONS
APPENDIX E	CALIBRATION CERTIFICATES OF MONITORING EQUIPMENT AND LABORATORY CERTIFICATE
APPENDIX F	EVENT AND ACTION PLAN OF AIR QUALITY, NOISE AND WATER QUALITY
APPENDIX G	MONITORING SCHEDULES OF THE REPORTING MONTH AND COMING MONTH
APPENDIX H	MONITORING DATA OF 24-HOUR TSP AIR QUALITY, NOISE AND WATER QUALITY
APPENDIX I	GRAPHICAL PLOTS OF AIR QUALITY, NOISE AND WATER QUALITY
APPENDIX J	METEOROLOGICAL DATA OF THE REPORTING MONTH
APPENDIX K	ECOLOGICAL SURVEY REPORT
APPENDIX L	LANDSCAPE & VISUAL INSPECTION CHECKLIST
APPENDIX M	MONTHLY SUMMARY WASTE FLOW TABLE
APPENDIX N	IMPLEMENTATION SCHEDULE FOR ENVIRONMENTAL MITIGATION MEASURES (ISEMM)
APPENDIX O	IMPLEMENTATION OF WATER QUALITY MITIGATION MEASURES



1. INTRODUCTION

1.1 PROJECT BACKGROUND

1.1.1 Civil Engineering and Development Department (CEDD) is the Project Proponent for the Project "Site Formation and Associated Infrastructural Works for Development of Columbarium, Crematorium and Related Facilities at Sandy Ridge Cemetery". The Project is a Designated Project to be implemented under Environmental Permit No. EP-534/2017/A and FEP-01/534/2017/A. The layout plan of the Project is shown in Appendix A. Major works to be executed under the Project shall include to the following:

A Designated Works under EP-534/2017/A

- Site formation of about 8 hectares of land and associated drainage, sewerage and landscape works for development of Columbarium and Crematorium facilities at the Sandy Ridge Cemetery;
- (ii) Construction of a new road (about 600m) including a section of viaduct connecting the platform for Crematorium and Man Kam To Road and the pick-up/drop-off point at Man Kam To Road;
- (iii) Widening of about 900m of the existing Sha Ling Road;
- (iv) Widening of about 1.4km of the existing Lin Ma Hang Road; and
- (v) Improvement works to the existing barging point at Siu Lam

Non-Designated Works

- (i) Construction of a sewage detention tank complete with odour and septicity control mechanism;
- (ii) Construction of noise barriers along Sha Ling Road;
- (iii) Construction of a new Refuse Collection Point (RCP) near the junction between Man Kam To Road and Sha Ling Road;
- (iv) Landscaping works (including both hard and soft landscape works);
- (v) Associated tree felling, transplanting and compensatory planting works;
- (vi) Associated street lighting, street furniture and road marking, etc.; and
- (vii) Other works which are specified in PS of the Contract.
- 1.1.2 To facilitate the Project management, the Project works were separated into three Contracts to be executed which are described in below sub-sections.
- 1.1.3 Contract No. CV/2016/10 Site Formation and Associated Infrastructural Works for Development of Columbarium at Sandy Ridge Cemetery (hereinafter named "Contract 1"):-
 - Site formation of about 1.77 ha of land for the proposed pick-up and drop-off area for shuttle bus operation;
 - Upgrading of a section of 900m existing Sha Ling Road from 3m wide carriageway to 7.3m wide carriageway with footpath at both sides;
 - Construction of one EVA with a total length of about 160m;
 - Construction of noise barriers along Sha Ling Road;
 - Modification of junction between Man Kam To Road and Sha Ling Road;
 - Construction of a new pick up / drop off point at Man Kam To Road;
 - Relocation and construction of a new refuse collection point near junction between Man Kam To Road and Sha Ling Road;
 - Associated geotechnical works including cut and fill slopes, soil nailing works and retaining structures;
 - Associated drainage, sewerage and waterworks along Sha Ling Road; and
 - Associated landscaping works.
- 1.1.4 Contract No. CV/2017/02 Infrastructural Works at Man Kam To Road and Lin Ma Hang Road for Development of Columbarium at Sandy Ridge Cemetery (hereinafter named "Contract 2"):-
 - Construction of a new road connecting Columbarium site to Crematorium site;
 - Construction of one EVA with a total length of about 300m;
 - Widening of a section of 1.4 km long Lin Ma Hang Road (between Man Kam To Road and Ping Yuen River) from 6m wide carriageway to 7.3m with 2m width footpath on both sides;
 - Provision of a pair of lay-by at Lin Ma Hang Road;
 - Construction of a new vehicular access connecting the Sheung Shui Landmark North PTI and Lung Sum Avenue;



- Construction of covered walkway along Fanling Station Road;
- Removal of planters and central divider along Fanling Station Road and San Wan Road;
- Associated drainage, sewerage, waterworks and utility works along Man Kam To Road and Lin Ma Hang Road;
- Associated geotechnical works including cut and fill slopes, soil nailing works and retaining structures; and
- Associated landscaping works.
- 1.1.5 CEDD Contract No. (to be confirmed):-
 - Site Formation for the platform of the columbarium site;
 - Construction of two 2 at-grade access roads;
 - Construction of road junction between Man Kam To Road and the new access road;
 - Associated drainage, sewerage and waterworks along the two new access roads;
 - Associated geotechnical works including cut and fill slopes, soil nailing works and retaining structures; and
 - Associated landscaping works
- 1.1.6 Hsin Chong Tsun Yip Joint Venture (hereafter referred as "HCTYJV") has been awarded Contract 1 on 5 December 2017. According to the Contract requirement, HCTYJV shall take over the responsibility for part of the Environmental Permit No. EP-534/2017 for ease of management, therefore application for Further Environmental Permit was submitted by HCTYJV to EPD on 26 January 2018 and Further Environmental Permit No. FEP-01/534/2017 was granted to HCTYJV by EPD on 23 February 2018. Furthermore, EPD issued Environmental Permit No. FEP-01/534/2017/A on 24 December 2018.
- 1.1.7 Sang Hing Civil Contractors Company Limited (hereinafter referred as "Sang Hing") was awarded Contract 2 on 23 May 2018. The Contract Works is a Designated Project as under Environmental Permit (EP) No. EP-534/2017. Furthermore, EPD issued Environmental Permit No. EP-534/2017/A on 24 December 2018.
- 1.1.8 Action-United Environmental Services & Consulting (AUES) has been commissioned by the Contractors as an Environmental Team (ET) to implement the Environmental Monitoring and Audit (EM&A) programme in accordance with the approved EM&A Manual as well as the associated duties. As part of the EM&A programme, baseline monitoring to determine the ambient environmental conditions was completed before construction work commencement. The Baseline Monitoring Report (air, noise and water) certified by ET Leader (ETL) and verified by Independent Environmental Checker (IEC) was submitted to Environmental Protection Department (EPD) and it was approved by EPD on 25 October 2018.
- 1.1.9 Major construction work of Contract 1 and Contract 2 was commenced on 16 August 2018 and 5 November 2018 respectively.
- 1.1.10 This is the **34th** Monthly EM&A Report summarizing the monitoring results and inspection findings for the period from **1st** to **31st** May 2021.

1.2 REPORT STRUCTURE

- 1.2.1 The Monthly EM&A Report is structured into the following sections:-
 - Section 1 Introduction Section 2 **Project Organization and Construction Progress** Section 3 Summary of Monitoring Requirements Section 4 Air Quality Monitoring Results Section 5 Noise Monitoring Results Water Quality Monitoring Results Section 6 Section 7 Ecology Monitoring Results Landscape & Visual Section 8 Section 9 Waste Management
 - Section 10 Site Inspections



Section 11 Environmental Complaints and Non-Compliance

- Section 12 Implementation Status of Mitigation Measures
- Section 13 Conclusions and Recommendation



2. PROJECT ORGANIZATION AND CONSTRUCTION PROGRESS

2.1 CONSTRUCTION CONTRACT PACKAGING

- 2.1.1 To facilitate the project management and implementation, the Project was divided by the following contracts:
 - Contract 1 (Contract No. CV/2016/10)
 - Contract 2 (Contract No. CV/2017/02)
 - Contract 3 (Contract No. TBA)
- 2.1.2 Organization structure and contact details of relevant parties with respect to on-site environmental management are shown in *Appendix B*.

2.2 CONSTRUCTION PROGRESS

2.2.1 The three-month rolling construction programme for Contract 1 and Contract 2 are enclosed in *Appendix C*. Construction activities of the Contract 1 and Contract 2 undertaken in the Reporting Month are presented below.

Contract 1 (CV/2016/10)

- General site housekeeping
- Bulk excavation
- Construction of cut slope, installation of soil nailing and construction of surface channel and planter wall
- Construction of fill slope and surface channel
- Construction of pick-up and drop-off Point near Man Kam To Road
- Construction of storm/ sewer drain
- Laying of street lighting ducts
- Laying of watermains
- Construction of Refuse Collection Point.

Contract 2 (CV/2017/02)

- Construction of Manhole, gullies, drainage pipe at Lin Ma Hang Road between CH50-160 Southbound & CH780-890 Northbound & CH1345-1377 Northbound.
- Construction of Jacking Pit for DN400 watermain by trenchless method at Man Kam To Road
- DN400 DI Watermain works in approx. CH300-510 at Man Kam To Road North Slow Lane
- Soil Nail Works at Lin Ma Hang Road Slope C224 & C231
- Construction of Manhole, gullies, drainage pipe at Sandy Ridge Road E CH180-300 (~120m)
- Construction of Manhole, gullies, drainage pipe at Sandy Ridge Road F CH690-730 (~40m)
- Backfilling of Retaining Wall 12
- Fanling Station Road Covered Walkway
- Lung Sum Avenue road surface modification works

2.3 SUMMARY OF ENVIRONMENTAL SUBMISSIONS

2.3.1 Summary of the relevant permits, licenses, and/or notifications on environmental protection for the Project in this Reporting Month is presented in *Tables 2-1 and 2-2*.

Item	Description	License/ Permit ref no.	License/ Permit Status
1	Air Pollution Control	Ref. no. 428909	Valid
	(Construction Dust) Regulation	Acknowledged by EPD on 20/12/2017	
2	Chemical waste Producer	WPN: 5231-641-H3937-01	Valid
	Registration	Issued by EPD on 27/03/2018	
3	Water Pollution Control	License no. WT00030795-2018	Valid
	Ordinance	Issued date: 9/5/2018	
		Expire Date: 31/5/2023	

 Table 2-1
 Status of Environmental Licenses and Permits for Contract 1



Item	Description	License/ Permit ref no.	License/ Permit Status
4	Billing Account for Disposal of Construction Waste	Account no.: 7029769	Valid

Table 2-2Status of Environmental Licenses and Permits for Contract 2

Item	Description	License/ Peri	License/ Permit Status	
1	Air Pollution Control (Construction Dust) Regulation	Ref. no. 440406 Acknowledged by EPD on 14/12/2018	Man Kam To Road (near Sha Ling Road to Kong Nga Po Road	Valid
		Ref. no. 440405 Acknowledged by EPD on 14/12/2018	Fanling Station Road	Valid
		Ref. no. 440404 Acknowledged by EPD on 14/12/2018	Sa Ling Road (Sandy Ridge Cemetery)	Valid
		Ref. no. 440401 Acknowledged by EPD on 14/12/2018	Lin Ma Hang Road (San Uk Ling – Muk Wu Nga Yiu)	Valid
		Ref. no. 440402 Acknowledged by EPD on 14/12/2018	Lung Sum Avenue	Valid
2	Chemical waste Producer Registration	WPN: 5213-641-S4151-01 Issued by EPD on 04/02/2019		Valid
3	Water Pollution Control Ordinance	License no: WT00032936-2018 Issued date: 16/01/2019 Expire Date: 31/01/2024	Man Kam To Road & Lin Ma Hang Road, Man Kam To	Valid
		License no: WT00033335-2019 Issued date: 29/03/2019 Expire Date: 31/03/2024	Columbarium at Sandy Ridge Cemetery	Valid
		License no: WT00034717-2019 Issued date: 9/10/2019 Expire Date: 31/10/2024	Fanling Station Road	Valid
4	Billing Account for Disposal of Construction Waste	Account no.: 7031098		Valid
5	Construction Noise Permit	GW-RN0226-21 (1 May 2021 – 30 Oct 2021	1)	Valid

2.4 SUMMARY OF SUBMISSION UNDER THE ENVIRONMENTAL PERMIT REQUIREMENTS

2.4.1 *Tables 2-3 to 2-4* summarized the submission status under the EP and/or FEP stipulation in the Reporting Month.

Table 2-3Status of Submission as under FEP

Item	EP and / or FEP Stipulation	Description	Status
1	Condition 2.10 of FEP	Management organization of : i) the main construction companies; ii) ET; and iii) IEC and the supporting team	Submitted and no approval is required.
2	Condition 2.11 of FEP	i) Detailed phasing programme of all construction works; and ii) Location plan of all construction works	Submitted and no approval is required.



Item	EP and / or FEP Stipulation	Description	Status
3	Condition 2.12 of FEP	Contamination Assessment Plan (CAP)	Approved by EPD on 27 May 2019
4	Condition 2.13 of FEP	Grassland Reinstatement Plan	Pending approval
5	Condition 2.14 to 2.16 of FEP	Vegetation Survey Report and Vegetation Transplantation Proposal for Contract 1	Approved by EPD on 12 October 2018
6	Condition 2.17 of FEP	Woodland Compensation Plan (Rev.05)	Approved by EPD on 30 Jun 2020
7	Condition 2.18 of FEP	Monitoring and Survey Plan for Golden-headed Cisticola for Contract 1 (Rev.02)	Approved by EPD on 22 Oct 2019
8	Condition 2.20 of FEP	Landscape & Visual Mitigation and Tree Preservation Plan(s) Contract 1 (Rev.04)	Pending approval
9	Condition 2.22 of FEP	Traffic Noise Mitigation Plan Contract 1 (Rev. 4)	Pending approval
10	Condition 3.3 of the FEP	Baseline Monitoring Report (Air, Noise and Water)	Approved by EPD on 25 October 2018
11	Condition 4.2 of the FEP	The Contract Internet website	Internet website address has notified EPD on 15 Jun 2018 and no approval is required.

Table 2-4Status of Submission as under EP

Item	EP and / or FEP Stipulation	Description	Status
1	Condition 2.10 of EP	Management organization of : i) the main construction companies; ii) ET; and iii) IEC and the supporting team	Submitted and no approval is required.
2	Condition 2.11 of EP	i) Detailed phasing programme of all construction works; and ii) Location plan of all construction works	Submitted and no approval is required.
3	Condition 2.12 of EP	Layout Plan for the proposed footpath at Lin Ma Hang Road	Pending approval
4	Condition 2.13 of EP	Contamination Assessment Plan (CAP)	Approved by EPD on 27 May 2019
5	Condition 2.14 of EP	Grassland Reinstatement Plan	Pending approval
6	Condition 2.15 to 2.17 of EP	Vegetation Survey Report and Vegetation Transplantation Proposal under Contract 2	Pending approval
7	Condition 2.18 of EP	Woodland Compensation Plan (Rev.05)	Approved by EPD on 30 Jun 2020
8	Condition 2.19 of EP	Monitoring and Survey Plan for Golden-headed Cisticola Contract 2	Pending approval
9	Condition 2.21 – 2.22 of EP	Landscape & Visual Mitigation and Tree Preservation Plan(s) Contract 2	Pending approval
10	Condition 2.23 of EP	Traffic Noise Mitigation Plan Contract 2	Pending approval
11	Condition 3.3 of the EP	Baseline Monitoring Report (Air, Noise and Water)	Approved by EPD on 25 October 2018
12	Condition 4.2 of the EP	The Contract Internet website	Internet website address has notified EPD on 15 June 2018 and no approval is required.



3. SUMMARY OF IMPACT MONITORING REQUIREMENT

3.1 GENERAL

- 3.1.1 The EM&A requirements are set out in the Approved EM&A Manual. Environmental issues such as air quality, construction noise, water quality and ecology were identified as the key issues during the construction phase of the Project.
- 3.1.2 A summary of construction phase EM&A requirements are presented in the sub-sections below.

3.2 MONITORING PARAMETERS

- 3.2.1 The EM&A impact monitoring shall cover the following environmental aspect:
 - Air quality;
 - Construction noise;
 - Water quality;
 - Ecology; and
 - Landscape and visual

3.2.2 A summary of the monitoring parameters is presented in *Table 3-1* below

Table 3-1Summary of EM&A Requirements

Environmental Issue	Parameters		
Air Quality• 1-hour TSP;• 24-hour TSP			
Noise	 Noise Leq_(30min) during normal working hours.; and Leq_(15min) during the construction works undertaken in Restricted Hours 		
Water Quality	In-situ Measurements • Dissolved Oxygen Concentration (mg/L) & Saturation (%); • Temperature (°C); • Turbidity (NTU); • Salinity (nnm)		
Ecology	Ecologically sensitive habitats (wetland habitats and non-wetland habitats)		

3.3 MONITORING LOCATIONS

- 3.3.1 According to the Approved EM&A Manual of the Project Site Formation and Associated Infrastructural Works for Development of Columbarium, Crematorium and Related Facilities at Sandy Ridge Cemetery, the designated monitoring locations for air quality, noise, water quality and ecology under the monitoring programme, is shown in Appendix D.
- 3.3.2 Since the Project was divided into three Works Contracts and all Contracts will be commenced at different time, the construction phase impact monitoring will only be performed at the Contract-related monitoring stations upon commencement of each Contract Works.

<u>Air Quality</u>

3.3.3 There were three (3) designated air quality monitoring stations recommended in the Approved EM&A Manual Section 5.6.1.1. There was proposed relocation of air quality monitoring location ASR-3 in October 2018 since the landlord refused to set up the HVS at his premises and nearby Conservation Area due to noise nuisance and Muk Wu Nga Yiu House No. 2A was proposed as alternative location ASR-3a. The proposal dated on 9 November 2018 which verified by IEC was submitted to EPD for approval. Based on rationale in Section 3.3.2, the Contract-related air quality monitoring location for construction phase were summarized in *Table 3-2* and illustrated in *Appendix D*.



Location ID	Description in EM&A Manual	Location	Related Work Contract
ASR-1	Village House along Man Kam To Road	Sha Ling Village House No.6	Contract 1
ASR-2	Village House at San Uk Ling	San Uk Ling Village House No.1	Contract 2
ASR-3	Village House at Muk Wu Nga Yiu	Muk Wu Nga Yiu House No.28	Contract 2
ASR-3a (#)	Village House at Muk Wu Nga Yiu	Muk Wu Nga Yiu House No.2A	Contract 2

Table 3-2Designated Air Quality Monitoring Location under the Project

Remark: (#) There was proposed relocation of air quality monitoring location ASR-3 in October 2018. The proposal dated on 9 November 2018 after verified by IEC was submitted to EPD for approval.

3.3.4 If the designated monitoring location is required to relocate, alternative monitoring location shall agree with IEC and seek for EPD approval which shall meet the following criteria:

- i) Be at the site boundary or such locations close to the major dust emission source;
- ii) Close to the sensitive receptors;
- iii) Take into account the prevailing meteorological conditions;
- iv) For monitoring location located in the vicinity of the ASRs, care shall be taken to cause minimal disturbance to the occupants during monitoring.
- v) When positioning the HVS, the following points shall be noted:
 - a. a horizontal platform with appropriate support to secure the samples against gusty wind shall be provided;
 - b. no two samplers shall be placed less than 2m apart;
 - c. the distance between the HVS and an obstacle, such as buildings, must be at least twice the height that the obstacle protrudes above the HVS;
 - d. a minimum of 2 m separation from walls, parapets and penthouses is required for HVS at the rooftop;
 - e. a minimum of 2 m separation from any supporting structure, measures horizontally is required;
 - f. no furnace or incinerator flue is nearby;
 - g. airflow around the sampler is unrestricted;
 - h. the HVS is more than 20 m from the dripline;
 - i. any wire fence and gate to protect the HVS, shall not cause any obstruction during monitoring;
 - j. permission must be obtained to set up the HVS and to obtain access to the monitoring stations; and
 - k. a secured supply of electricity is needed to operate the HVS.

Construction Noise

3.3.5 There were four (4) designated noise monitoring locations recommended in the Approved EM&A Manual Section 6.5.1.1. Based on rationale in Section 3.3.2, the Contract-related noise quality monitoring location for construction phase were summarized in *Table 3-3* and illustrated in *Appendix D*.

 Table 3-3
 Designated Construction Noise Monitoring Location under the Project

	-		ů.
Locatio n ID	Description in EM&A Manual	Location	Related Work Contract
CN-1	Village house to the west of	Village house to the west of Sha Ling	Contract 1
	Sha Ling Road	Road (free field condition)	
CN-2	Village house to the north of	Sha Ling Village House No. 25 (free	Contract 1
	Man Kam To Road	field condition)	& 3
CN-3	Village house near San Uk	San Uk Ling Village House No. 18 (free	Contract 2
	Ling	field condition)	
CN-4	Village house of Muk Wu	Muk Wu Village House No. 267 (1m	Contract 2
		façade from the building)	



Water Quality

3.3.6 There were four (4) water quality monitoring locations recommended in the Approved EM&A Manual Section 7.6.1.2. The locations and coordinates of water quality monitoring were listed in *Table 3-4*. Based on rationale in Section 3.3.2, the Contract-related water quality monitoring location for construction phase were summarized in *Table 3-4* and illustrated in *Appendix D*.

Proposed	-	linates	Description	Related Work
Location ID	North	East		Contract
M1	843 431	831 308	Midstream of Nam Hang Stream	Contract 2
M2	843 840	831 101	Downstream of Nam Hang Stream	Contract 2
M3	843 509	830 040	Wetland in the Conservation Area near	Contract 1
IVIJ	043 309	830 040	Yuen Leng Chai	
			Watercourse across Lin Ma Hang Road,	Contract 2
M4	843 997	831 783	running from east of San Uk Ling to Man	
			Kam To Boundary Control Point	

Table 3-4Designated Water Quality Monitoring Stations under the Project

3.4 MONITORING FREQUENCY AND PERIOD

3.4.1 The requirements of impact monitoring were stipulated in *Sections 5.8.1.1, 6.7.1.1* and *7.8.1.4* of the approved *EM&A Manual* and presented as follows.

Air Quality Monitoring

- 3.4.2 Monitoring frequency for air quality impact monitoring is as follows:
 - 1-Hour TSP 3 sets of 1-hour TSP monitoring shall be carried out once every six days during construction periods
 - 24-Hour TSP 24-hour TSP monitoring shall be carried out every six days during construction periods

Noise Monitoring

3.4.3 Noise impact monitoring shall be carried out once per week during construction periods. The noise measurement for the time period between 0700 and 1900 hours shall be measured in terms of L_{eq} (30 minutes) or 6 sets of L_{eq} (5mins).

Water Quality Monitoring

3.4.4 The monitoring frequency shall be 3 days per week during construction phase and the interval between two sets of monitoring shall not be less than 36 hours.

3.5 MONITORING EQUIPMENT

3.5.1 The monitoring equipment using for the EM&A program as proposed by the ET shall be verified by the IEC.

Air Quality Monitoring

- 3.5.2 The 24-hour and 1-hour TSP levels shall be measured by following the standard high volume sampling method as set out in the *Title 40 of the Code of Federal Regulations, Chapter 1 (Part 50), Appendix B.* If ET proposes to use a direct reading dust meter to measure 1-hour TSP levels, it shall submit sufficient information to IEC for approval.
- 3.5.3 The filter paper of 24-hour TSP measurement shall be determined by HOKLAS accredited laboratory.
- 3.5.4 All equipment used by ET for air quality monitoring is listed in *Table 3-5*.

Table 3-5Air Quality Monitoring Equipment

Equipment	Model	
24-hour TSP		
High Volume Air Sampler (HVAS)	TISCH High Volume Air Sampler, HVS Model TE-5170	
Calibration Kit	TISCH Model TE-5025A	
1-Hour TSP		
Portable Dust Meter	Sibata LD-3 Laser Dust monitor Particle Mass Profiler & Counter	

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Wind Data Monitoring Equipment

- 3.5.5 According to the approved EM&A Manual, wind data monitoring equipment shall also be provided and set up for logging wind speed and wind direction near the dust monitoring locations. The equipment installation location shall be proposed by the ET and agreed with the IEC. For installation and operation of wind data monitoring equipment, the following points shall be observed:
 - 1) The wind sensors should be installed 10 m above ground so that they are clear of obstructions or turbulence caused by buildings.
 - 2) The wind data should be captured by a data logger. The data shall be downloaded for analysis at least once a month.
 - 3) The wind data monitoring equipment should be re-calibrated at least once every six months.
 - 4) Wind direction should be divided into 16 sectors of 22.5 degrees each.
- 3.5.6 ET has liaised with the premises owners/ landlords to grant the permission for the HVS installation. However, they rejected to set up wind data monitoring equipment installation in their premises.
- 3.5.7 Under this situation, the ET proposed to obtain representative wind data from the Hong Kong Observatory Ta Kwu Ling Weather Station. Ta Kwu Ling Station is located near the Project site which situated at the sea level above 15mPD and the wind data monitoring equipment is installed 10 m above the existing ground.

<u>Noise Monitoring</u>

- 3.5.8 Sound level meter in compliance with the International Electrotechnical Commission Publications 651: 1979 (Type 1) and 804: 1985 (Type 1) specifications shall be used for carrying out the noise monitoring. The sound level meter shall be checked using an acoustic calibrator. The wind speed shall be checked with a portable wind speed meter capable of measuring the wind speed in ms⁻¹ before each noise monitoring event. Noise measurements should not be made in fog, rain, wind with a steady speed exceeding 5 m s⁻¹ or wind with gusts exceeding 10 m s⁻¹.
- 3.5.9 Noise monitoring equipment used for impact monitoring is listed in *Table 3-6*.

Equipment	Model
Integrating Sound Level Meter	Rion NL-52 Sound Level Meter
Calibrator	Rion NC-73 Acoustical Calibrator
Portable Wind Speed Indicator	Testo Anemometer

Table 3-6Noise Monitoring Equipment

3.5.10 Sound level meters listed above comply with the *International Electrotechnical Commission Publications 651: 1979 (Type 1)* and *804: 1985 (Type 1)* specifications, as recommended in TM issued under the NCO.

Water Quality Monitoring

3.5.11 Water quality parameters include dissolved oxygen, water temperature & depth, turbidity, salinity, pH and stream flow velocity shall be measured *in-situ*, and suspended solids shall be analyzed by a HOKLAS-accredited testing laboratory.

Dissolved Oxygen and Temperature Measurement

- 3.5.12 The dissolved oxygen (DO) measuring instruments should be portable and weatherproof. The equipment should also complete with cable and sensor, and DC power source. It should be capable of measuring:
 - A DO level in the range of 0 20 mg/L and 0 200% saturation; and
 - A temperature of 0 45 degree Celsius.
- 3.5.13 The equipment should have a membrane electrode with automatic temperature compensation complete with a cable.



3.5.14 Should salinity compensation not be built-in to the DO equipment, in-situ salinity should be measured to calibrate the DO measuring instruments prior to each measurement.

Turbidity Measurement

3.5.15 The turbidity measuring instruments should be a portable and weatherproof with DC power source. It should have a photoelectric sensor capable of measuring turbidity level between 0–1000 NTU (for example, Hach model 2100Q or an approved similar instrument).

Salinity Measurement

3.5.16 A portable salinometer capable of measuring salinity in the range of 0–40 parts per thousand (ppt) should be provided for measuring salinity of the water at each monitoring location.

<u>pH Measurement</u>

3.5.17 A portable pH meter capable of measuring a range between 0.0 and 14.0 should be provided to measure pH under the specified conditions accordingly to the APHA Standard Methods.

Water Depth Measurement

3.5.18 A portable, battery-operated echo sounder or an approved similar instrument should be used for water depths determination at each designated monitoring station.

Stream Flow Velocity Equipment

3.5.19 Since the EM&A Manuals do not specified instrument to use stream flow velocity measurement, the monitoring of stream flow velocity is therefore proposed to be conducted by using a flow probe which is a digital water velocity meter.

Water Sampling Equipment

- 3.5.20 A water sampler is required for suspended solid (SS) monitoring. A water sampler e.g. Kahlsico Water Sampler, which is a transparent PVC cylinder with capacity not less than 2 litres, will be used for water sampling if water depth over than 0.5m.
- 3.5.21 For sampling from very shallow water depths e.g. <0.5 m, water sample will be collected from water surface below 100mm using plastic bottle to avoid inclusion of bottom sediment or humus. Moreover, Teflon/stainless steel bailer or self-made sampling buckets maybe used for water sampling. The equipment used for sampling will be depended the sampling location and depth situations.

Sample Containers and Storage

- 3.5.22 Water samples for suspended solid should be stored in high density polythene bottles with no preservative added, packed in ice (cooled to 4°C without being frozen) and delivered to the laboratory within 24 hours of collection and be analyzed as soon as possible after collection.
- 3.5.23 Analysis of suspended solids should be carried out in a HOKLAS or other accredited laboratory. Water samples of about 1L should be collected at the monitoring stations for carrying out the laboratory suspended solids determination. The SS determination work should start within 24 hours after collection of the water samples. The SS analyses should follow the *APHA Standard Methods* 2540D with Limit of Reporting of 2 mg/L.
- 3.5.24 Details of the equipment used for water quality monitoring are listed in *Table 3-7* below.

Table 3-7Water Quality Monitoring Equipment

Equipment	Model
Water Depth Detector	Tape measures
Water Sampler	A 2-litre transparent PVC cylinder with latex cups at both ends or Teflon/stainless steel bailer or self-made sampling bucket
Thermometer & DO meter	YSI Professional DSS/ YSI 550A
pH meter	AZ8685 pH meter / YSI Professional DSS



Equipment	Model
Turbidimeter	Hach 2100Q/ YSI Professional DSS
Salinometer	Atago refractometer Atago S Salinity Meter / YSI Professional DSS
Stream Flow Velocity	FP211 Global Flow Probe
Sample Container	High density polythene bottles (provided by laboratory)
Storage Container	'Willow' 33-litter plastic cool box with Ice pad

3.5.25 Furthermore, Suspended solids (SS) analysis was carried out by ALS Technichem (HK) Pty Ltd. Which is one a local HOKLAS-accredited laboratory

3.6 EQUIPMENT CALIBRATION

- 3.6.1 The HVAS is operated and calibrated on a regular basis in accordance with the manufacturer's instruction using Tisch Calibration Kit Model TE-5025A. Calibration would carry out at fortnightly interval. The calibration data are properly documented and the records are maintained by ET for future reference. Furthermore, Tisch Calibration Kit will be calibrated by the manufacturer in yearly basis.
- 3.6.2 The 1-hour TSP meter calibrated by a local HOKLAS-accredited laboratory would be undertaken in yearly basis. Zero response of the equipment was checked before and after each monitoring event.
- 3.6.3 The sound level meter and acoustic calibrator are calibrated and certified by a laboratory accredited under HOKLAS or any other international accreditation scheme at yearly basis.
- 3.6.4 The multi-parameter Water Quality Monitoring System is calibrated by HOKLAS accredited laboratory of three month intervals.
- 3.6.5 All updated calibration certificates of the monitoring equipment used for the impact monitoring program in this Reporting Month are attached in *Appendix E*.

3.7 DATA MANAGEMENT AND DATA QA/QC CONTROL

- 3.7.1 The impact monitoring data are handled by the ET's systematic data recording and management, which complies with in-house Quality Management System. Standard Field Data Sheets (FDS) are used in the impact monitoring program.
- 3.7.2 The monitoring data recorded in the equipment e.g. 1-hour TSP meter, noise meter and Multi-parameter Water Quality Monitoring System are downloaded directly from the equipment at the end of each monitoring day. The downloaded monitoring data are input into a computerized database properly maintained by the ET. The laboratory results are input directly into the computerized database and QA/QC checked by personnel other than those who input the data. For monitoring activities require laboratory analysis, the local laboratory follows the QA/QC requirements as set out under the HOKLAS scheme for all laboratory testing.

3.8 DETERMINATION OF ACTION/LIMIT (A/L) LEVELS

3.8.1 The baseline monitoring results form the basis for determining the environmental acceptance criteria for the impact monitoring. The air quality, construction noise and water quality criteria, namely Action and Limit levels were established according to Approved EM&A Manual, and they are listed in *Tables 3-8, 3-9* and *3-10* below.

Monitoring Station	Action	Level (µg /m ³)	Limit Level (µg/m ³)		
Monitoring Station	1-hour TSP	24-hour TSP	1-hour TSP	24-hour TSP	
ASR-1	331	181	500	260	
ASR-2	316	165	500	260	
ASR-3	307	160	500	260	

Table 3-8Action and Limit Levels for Air Quality Monitoring



Table 3-9Action and Limit Levels for Construction Noise

Monitoring Location	Action Level Limit Level in dB(A)				
Monitoring Location	Time Period: 0700-1900 hours on normal weekdays				
CN-1,CN-2, CN-3, CN-4	When one or more documented complaints are received	75 dB(A)			

Note: * *Reduces to* 70 dB(A) *for schools and* 65 dB(A) *during the school examination periods.*

Table 3-10 Action and Limit Levels for Water Quality

D	Performance	Monitoring Location					
Parameter	criteria	M1	M2	M3	M4		
$\mathbf{DO}(\mathbf{m}_{\mathbf{Z}}/\mathbf{I})$	Action Level	3.03	4.99	4.58	3.62		
DO (mg/L)	Limit Level	2.97	4.90	4.49	3.52		
Turbidity	Action Level	7.1	39.7	5.6	5.4		
(NTU)	Limit Level	7.6	42.2	5.9	5.9		
SS(ma/I)	Action Level	8.5	29.0	9.3	4.8		
SS (mg/L)	Limit Level	10.1	31.0	9.5	5.0		

Notes:

For DO, non-compliance of the water quality limits occurs when monitoring result is lower than the limits
For turbidity and SS, non-compliance of the water quality limits occurs when monitoring result is higher

than the limits.

3.8.2 Should non-compliance of the environmental quality criteria occurs, remedial actions will be triggered according to the Event and Action Plan enclosed in *Appendix F*.



4. AIR QUALITY

4.1 MONITORING RESULTS

- 4.1.1 In the Reporting Month, air quality monitoring was performed at all designated locations. Impact monitoring schedule provided to all relevant parties was shown in *Appendix G*.
- 4.1.2 In this Reporting Month, there were 5 sessions of 24-hour TSP and 15 sessions of 1-hour TSP undertaken at each designated station for air quality monitoring. The air quality monitoring results are summarized in *Tables 4-1* to 4-3. The database of 24-hour TSP is shown in *Appendix H* and the graphical plots of monitoring result are shown in *Appendix I*.

Table 4-1	Summary	of Air Quality Monitoring Results at ASR-1 under Contract 1
	24-hour	1 hour TSP $(\mu g/m^3)$

	24-hour	1-hour TSP (μg/m³)				
Date	TSP (µg/m ³)	Date	Start Time	1 st hour measured	2 nd hour measured	3 rd hour measured
5-May-21	28	6-May-21	9:28	87	85	80
11-May-21	79	12-May-21	9:10	94	98	93
17-May-21	47	18-May-21	13:08	88	93	79
22-May-21	43	24-May-21	9:33	54	47	49
28-May-21	37	29-May-21	13:16	80	70	78
Average (Range)	47 (28 - 79)	Avera (Rang	0		78 (47 – 98)	

Table 4-2	Summary of Air Quality Monitoring Results at ASR-2 under Contract 2
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	24-hour	1-hour TSP (μg/m³)				
Date	TSP (µg/m ³)	Date	Start Time	1 st hour measured	2 nd hour measured	3 rd hour measured
5-May-21	33	6-May-21	9:31	81	78	75
11-May-21	33	12-May-21	9:46	95	89	85
17-May-21	25	18-May-21	13:13	96	90	87
22-May-21	18	24-May-21	9:40	47	43	41
28-May-21	20	29-May-21	13:20	86	81	87
Average	26	Avera	ge		77	
(Range)	(18 – 33)	(Rang	je)		(41 – 96)	

Table 4-3	Summary of Air Quality Monitoring Results at ASR-3a under Contract 2
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	24-hour	1-hour TSP (μg/m³)				
Date	TSP (µg/m ³)	Date	Start Time	1 st hour measured	2 nd hour measured	3 rd hour measured
5-May-21	29	6-May-21	9:40	79	77	76
11-May-21	24	12-May-21	9:15	79	85	89
17-May-21	19	18-May-21	13:20	86	77	82
22-May-21	25	24-May-21	9:53	55	51	49
28-May-21	30	29-May-21	13:31	92	84	87
Average	25	Avera	ge		77	
(Range)	(19 – 30)	(Rang	je)		(49 – 92)	

4.2 AIR MONITORING EXCEEDANCE

4.2.1 As shown in *Tables 4-1 to 4-3*, the monitoring results of 24-hour and 1-hour TSP monitoring in the Reporting Month were below the Action/ Limit Level. No Notification of Exceedance (NOE) of air quality monitoring criteria was issued and therefore corrective action was not required. The meteorological data during the impact monitoring days are summarized in *Appendix J*.



5. CONSTRUCTION NOISE

5.1 MONITORING RESULTS

- 5.1.1 In the Reporting Month, noise monitoring was performed at all designated locations. Impact monitoring schedule provided to all relevant parties was shown in *Appendix G*.
- 5.1.2 In this Reporting Month, 4 sessions of noise monitoring were undertaken at each designated noise monitoring location. The sound level were set in a free field situation for CN1, CN2 and CN3 and therefore a façade correction of +3dB(A) has been added according to acoustical principles and EPD guidelines. The monitoring result of noise monitoring is show in *Tables 5-1 and 5-2* and the graphical plots are shown in *Appendix I*.

Table 5-1	Summary of Construction Noise Monitoring Results under Contract 1

	Construction Noise Level (Leq30min), dB(A)			
Date	Start Time	CN1(*)	Start Time	CN2(*)
6-May-21	13:05	71	13:44	67
12-May-21	9:06	71	9:41	69
18-May-21	13:08	73	13:45	65
24-May-21	13:01	70	13:40	65
Limit Level	75 dB(A)			

(*) A façade correction of +3dB(A) has been added according to acoustical principles and EPD guidelines.

Table 5-2	Summary of Construction	on Noise Monitoring Results under Contract 2
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	Construction Noise Level (L _{eq30min}), dB(A)											
Date	Start Time	CN3 ^(*)	Start Time	CN4								
6-May-21	14:30	59	15:15	60								
12-May-21	10:22	66	10:58	63								
18-May-21	14:26	62	15:08	65								
24-May-21	14:20	60	15:00	62								
Limit Level		7	75 dB(A)									

(*) A façade correction of +3dB(A) has been added according to acoustical principles and EPD guidelines.

5.1.3 Prior and after noise monitoring, the accuracy of the sound level meter has been checked by an acoustic calibrator to ensure the measurement within acceptance range of ± 0.5 dB. Moreover, wind speed checked by portable wind speed meter has been performed before noise monitoring. No noise measurement was performed in fog, rain, wind with a steady speed exceeding 5 m s⁻¹ or wind with gusts exceeding 10 m s⁻¹.

5.2 NOISE MONITORING EXCEEDANCE

5.2.1 As shown in *Tables 5-1 and 5-2*, no Limit Level exceedance for noise monitoring exceedance was recorded in the Reporting Month. Moreover, no noise complaint (which triggered Action Level) was received. No Notification of Exceedance (NOE) of construction noise criterion was issued and no corrective action was therefore required.



6. WATER QUALITY

6.1 MONITORING RESULTS

- 6.1.1 In the Reporting Month, water quality monitoring was performed at all designated locations. Impact monitoring schedule provided to all relevant parties was shown in *Appendix G*.
- 6.1.2 In the Reporting Month, a total of 13 monitoring days were carried out for water quality impact monitoring. The monitoring result of key parameters including Dissolved Oxygen, Turbidity and Suspended Solids are summarized in *Tables 6-1* and *6-2*. Detailed monitoring results including in-situ measurements and laboratory analysis data are shown in *Appendix H* and graphical plots for monitoring result are shown in *Appendix I*.

		Parameters	
Date	DO (Averaged) (mg/L)	Turbidity (Averaged) (NTU)	Suspended Solids (Averaged) (mg/L)
3-May-21	6.79	3.6	4.5
5-May-21	7.17	1.9	5.0
7-May-21	5.08	2.1	4.5
10-May-21	6.32	3.2	4.5
12-May-21	6.89	3.8	4.0
14-May-21	6.55	2.7	4.0
17-May-21	6.78	2.5	5.0
20-May-21	5.94	2.1	3.5
22-May-21	6.03	1.6	3.5
24-May-21	6.37	1.9	3.5
26-May-21	6.65	3.1	4.0
28-May-21	5.93	5.5	6.0
31-May-21	6.36	3.3	3.0

 Table 6-1
 Summary of Water Quality Monitoring Results – M3 under Contract 1

Table 6-2 Summary of Wate	er Quality Monitoring	Results (M1. M2 and M4) under Contract 2
Table o Z Summary of Wat	a Quanty monitoring	1(courto (111), 112 and 111	j under Contract 2

	Parameters											
Date		(Average (mg/L)	d)	Turbidi	ty (Ave (NTU)	raged)	Suspended Solids (Averaged) (mg/L)					
	M1	M2	M4	M1	M2	M4	M1	M2	M4			
3-May-21	7.18	#	7.40	4.8	#	1.9	8.0	#	<2			
5-May-21	6.95	#	7.16	4.6	#	1.1	8.0	#	<2			
7-May-21	7.50	#	7.39	3.7	#	1.3	7.0	#	2.5			
10-May-21	7.17	#	6.95	7.1	#	1.8	5.5	#	2.0			
12-May-21	6.33	#	7.52	5.5	#	2.9	5.0	#	2.0			
14-May-21	6.51	#	7.03	2.9	#	1.8	3.5	#	2.5			
17-May-21	6.87	#	7.37	3.2	#	1.7	7.5	#	3.5			
20-May-21	6.62	#	4.53	1.9	#	3.8	2.5	#	4.5			
22-May-21	6.48	#	5.54	1.8	#	3.7	3.0	#	4.0			
24-May-21	6.29	#	6.21	2.6	#	2.9	4.5	#	4.0			
26-May-21	6.38	#	6.31	<u>82.4</u>	#	2.7	<u>50.0</u>	#	4.0			
28-May-21	5.90	6.43	5.72	26.6	27.8	2.8	<u>34.0</u>	28	3.0			
31-May-21	5.21	#	6.25	<u>14.6</u>	#	4.0	<u>30.0</u>	#	4.5			

Remarks: (#) During the water monitoring, the channel of M2 was observed dried up and water sampling was unable be carried out;

Note: Bold and underlined value indicated Limit Level exceedance

6.1.3 During the Reporting Month, field measurements including temperature of stream water, salinity concentrations, pH values and the stream flow velocity for all monitoring locations are summarized in *Table 6-3*.



	Parameters of field measurements										
Monitoring	pH (Averaged)		Salinity (A	veraged)	Temp (Av	veraged)	Water Flow				
Location	(ur	nit)	(ppt	t)	(°C)		(Averaged) (m/s)				
	min	max	min	max	min	max	min	max			
M1	7.1	8.1	0.04	0.15	22.3	31.0	< 0.1	< 0.1			
M2	7.2	7.2	0.11	0.11	32.1	32.1	< 0.1	< 0.1			
M3	6.9	7.6	0.03	0.06	23.9	32.0	< 0.1	< 0.1			
M4	6.7	7.2	0.08 0.12		24.3	32.4	< 0.1	< 0.1			

 Table 6-3
 Summary of Field Measurements for Water Quality

6.2 WATER QUALITY MONITORING EXCEEDANCE

6.2.1 In this Reporting Month, **6** Limit level exceedances and no Action Level were recorded. The non-compliance of water quality performance is summarized in *Table 6-4*.

 Table 6-4
 Action and Limit (A/L) Levels Exceedance Record

Station	DO DO		Turbidity		S	S	To Excee	tal dance	Project Related exceedance		
	Action	Limit	Action	Limit	Action Limit		Action	Limit	Action	Limit	
M1	0	0	0	3	0	3	0	6	0	0	
M2	0	0	0	0	0	0	0	0	0	0	
M3	0	0	0	0	0	0	0	0	0	0	
M4	0	0	0	0	0	0	0	0	0	0	

6.2.2 Notification of Exceedance (NOE) and the investigation for exceedance in the Reporting Month is summarized in *Table 6-5*.

Table 6-5	Summary of Investigation of Water Quality Exceedance in the Reporting Month
I able 0-5	Summary of investigation of water Quanty Exceedance in the Reporting Month

Date of	Exceeded	Exceeded	Cause of Water Quality Exceedance
Exceedance	Location	Parameter	
26, 28 & 30 May 2021	M1	Turbidity & SS	According to the Contractor's work programme, there were construction activities on Man Kam To Road but no works were carried out near location M1. According to the weather information from the HKO, there was heavy rainstorm on 25 and 31 May 2021. Under the impact of rainstorm, the water quality of the watercourse was deteriorated by the stirred up sediment and runoff from the surrounding environment. However, there was no construction site under the project at upstream. Based on the above investigation, it was concluded that the exceedances were not caused by the work under the project.



7. ECOLOGY MONITORING

7.1 REQUIREMENT

- 7.1.1 According to approved EIA report (AEIAR-198/2016), habitat types within project boundary comprise of watercourse, grassland, upland grassland, plantation, woodland and developed area. Natural habitats were of moderate ecological value in terms of species diversity, species rarity, species abundance, ecological linkage as well as nursery. Moreover, 0.3ha of wet woodland on the northern side of Sandy Ridge was deemed habitat with high ecological value. Four types of habitats were regarded as ecologically sensitive habitats, namely wet woodland, watercourses, upland grassland and woodland. Considering human disturbance in upcoming construction and operation phases, ecologically sensitive habitats shall be monitored in accordance with EM&A Manual.
- 7.1.2 The objective of ecologically sensitive habitats monitoring is to evaluate the effectiveness of measures to minimize impacts on concerned habitats from disturbance and pollution. In order to monitor the effectiveness of the measures to the minimize impact on ecologically sensitive habitats from disturbance and pollution, monthly monitoring during construction and operation phases is required as specified in EM&A Manual. Standard faunal transect and sampling surveys cover both wetland habitats (*wet woodland and watercourse*) and non-wetland habitats (*upland grassland and woodland*).

7.2 METHODOLOGY

7.2.1 Wetland habitats include wet woodland and watercourses. Monitoring surveys using standardized quantitative methodology will conduct at fixed points. For seasonal watercourse, the survey will be conducted whenever the habitat appears. Measures to respond to decreases in numbers of aquatic fauna using the wetland habitats and Action/Limit levels to trigger these measures are detailed in *Table 7-1*.

Table 7-1 Act	tion and Linnit Levels for we	t woouland Habit					
Action Level	Response	Limit Level	Response				
taxa diversity by 30%	Investigate cause and if cause identified as related to the project instigate remedial action to remove or reduce source of disturbance.	taxa diversity by	Investigate cause and if cause identified as related to the project instigate remedial action.				

 Table 7-1
 Action and Limit Levels for Wet Woodland Habitats Monitoring

Remarks: Action and Limit Levels and Responses to Evidence of Declines in Aquatic Fauna

7.2.2 Non-wetland habitats consist of upland grassland and woodland. Monthly quantitative surveys of non-aquatic fauna will be conducted using standard route transect counts. Measures to respond to decreases in numbers of non-aquatic fauna using the non-wetland habitats and Action/Limit levels to trigger these measures are detailed in *Table 7-2*.

 Table 7-2
 Action and Limit Levels for Non-Wet Woodland Habitats Monitoring

Action Level	Response	Limit Level	Response
	e	species diversity	Investigate cause and if cause identified as related to the project instigate remedial action.

Remarks: Action and Limit Levels and Responses to Evidence of Declines in Non-Aquatic Fauna

7.2.3 The ecological survey includes all taxa being investigated in accordance with EIA report. Schedule of faunal surveys in each year during construction phase is presented in *Table 7-3*.

Table 7-3Schedule of Faunal Surveys in each year During Construction Phase

-	-					•	0	-	-	-		
Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mammals					\checkmark							\checkmark
Birds (day)					\checkmark	\checkmark		\checkmark	\checkmark	\checkmark		



Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Birds (night)									\checkmark			
Herpetofauna												
Dragonflies												
Butterflies												
Aquatic fauna	\checkmark											

<u>Mammal Survey</u>

7.2.4 Mammal surveys will be conducted along the proposed transects (shown in *Appendix K* - Ecological Survey Reports) in during both daytime and night time periods. Along with direct observations, other field signs, such as scats and tracks, will be searched and recorded if present.

<u>Bird Survey</u>

7.2.5 Bird surveys will be conducted along the transects (shown in *Appendix K* - Ecological Survey Reports) during the surveys, species and their vocalizing individuals recorded will be enumerated and recorded according to the habitat(s) they are utilizing.

Herpetofauna Survey

7.2.6 Reptile and amphibian surveys will be conducted along transects (shown in *Appendix K* - Ecological Survey Reports) during surveys careful searches of appropriate microhabitats and refugia for reptiles and their vocalizing individuals will be undertaken and all reptiles observed will be identified and counted.

Dragonfly and Butterfly Survey

7.2.7 Dragonfly and Butterfly surveys will be conducted along transects (shown in *Appendix K* - Ecological Survey Reports) during surveys all dragonflies and Butterflies seen will be identified and counted as accurately as possible.

<u>Aquatic Fauna Survey</u>

- 7.2.8 Freshwater fishes and macro-invertebrates will be recorded by direct observation. All species trapped/recorded will be enumerated and identified (to the lowest taxonomic level possible), and the species of conservation importance photographed.
- 7.2.9 After each ecological monitoring survey, a monthly report of the survey result and data collected will be provided with reference to EM&A Manual. An annual analysis of data will be carried out in order to study if there is any significant reduction in taxa diversity and abundance.

7.3 ECOLOGICAL MONITORING SURVEY FINDINGS (CONTRACT 1)

7.3.1 In the Reporting Month, ecological monitoring was undertaken on *11th May 2021* at work area of Contract 1. A sunny day. The day survey covered wetland and non-wetland areas. The survey was conducted by transect and at fixed points. All species seen will be identified and counted as accurately as possible. Results of the monitoring survey are presented below:

Monitoring Result for Contract 1

Mammal

7.3.2 There was no mammal recorded in the monitoring area

<u>Birds</u>

7.3.3 There were a total of 16 bird individuals from 12 species recorded in the monitoring area. Five species of conservation interests were recorded in the monitoring area: *Ardeola bacchus*, Chinese Pond Heron 池鷺, *Milvus migrans*, Black Kite 黑鳶, *Centropus sinensis*, Greater Coucal 褐翅鴉鵑, *and Halcyon smyrnensis* White-throated Kingfisher白胸翡翠. Golden-headed Cisticola was not observed during the bird survey.

<u>Herpetofauna</u>



7.3.4 There was no reptile species recorded in monitoring area. There was four amphibian species recorded in the monitoring area.

<u>Butterfly</u>

7.3.5 There were a total of 5 butterfly individuals from 3 species recorded in the monitoring area.

Dragonfly

7.3.6 There was a total of 9 odonate individuals from two species recorded in the monitoring area.

Aquatic Fauna Survey (Freshwater communities)

- 7.3.7 There was no freshwater community recorded in the monitoring area.
- 7.3.8 The summaries of faunal survey result are shown in *Tables 7-4 and 7-5*.

Table 7-4Result of Faunal Survey under Contract 1

Scientific Name	Common / Engineer Name	Chinese Name	Conservation Status	Non- wetland	Wetland
Mammal Survey					
Avifauna Survey	1				
Francolinus	Chinese Francolin	中華鷓鴣		1	
pintadeanus				-	
Ardeola bacchus	Chinese Pond Heron	池鷺	Fellowes et al. (2002): PRC,(RC)		1
Milvus migrans	Black Kite	黑鳶	Fellowes et al. (2002): RC; Appendix 2 of CITES	1	
Centropus sinensis	Greater Coucal	褐翅鴉鵑	Class 2 Protected Animal of China;China Red Data Book Status: (Vulnerable)	1	
Hierococcyx sparverioides	Large Hawk Cuckoo	大鷹鵑		1	
Caprimulgus affinis	Savanna Nightjar	林夜鷹		1	
Halcyon smyrnensis	White-throated Kingfisher	白胸翡翠	Fellowes et al. (2002): LC		1
Pycnonotus jocosus	Red-whiskered Bulbul	紅耳鵯			3
Pycnonotus sinensis	Chinese Bulbul	白頭鵯			2
Prinia flaviventris	Yellow-bellied Prinia	黃腹鷦鶯			2
Prinia inornata	Plain Prinia	純色鷦鶯			1
Motacilla alba	White Wagtail	白鶺鴒		1	
Reptile Survey					
Amphibian SurveyBufo melanostictus	Asian Common Toad	黑眶蟾蜍			+
Polypedates megacephalus	Brown Tree Frog	斑腿泛樹蛙			+
Rana guentheri	Gunther's Frog	沼蛙			+
Fejervarya limnocharis	Paddy Frog	澤蛙			+
Butterfly Survey					
Abisara echerius	Plum Judy	蛇目褐蜆蝶		1	2
Ariadne ariadne	Angled Castor	波蛺蝶		1	
Papilio demoleus	Lime Butterfly	達摩鳳蝶		1	



Scientific Name	Common / Engineer Name	Chinese Name	Conservation Status	Non- wetland	Wetland
Odonate Survey					
Ischnura senegalensis	Common Bluetail	褐斑異痣蟌			3
Rhyothemis variegata	Variegated Flutterer	斑麗翅蜻			6

+ Species counted by vocal identification

Table 7-5Result of Freshwater Communities Survey under Contract 1

		Chinese		11-M	ay-21
Scientific Name	ne Common Name Name	Conservation Status	Non- wetland	Wetland	

Discussion

7.3.9 After analysing survey results in May from 2019 to 2021, there is no obvious reduction for both wetland and non-wetland habitats. Good practice during construction is required to prevent environmental contamination as well as unnecessary site clearance. Continuous monitoring is also recommended to inspect any significant decrease in species diversity.

7.4 ECOLOGICAL MONITORING SURVEY FINDINGS (CONTRACT 2)

7.4.1 In the Reporting Month, ecological monitoring was undertaken on *11th May 2021* at work area of Contract 2. A sunny day. The day survey covered wetland and non-wetland areas. The survey was conducted by transect and at fixed point. All species seen will be identified and counted as accurately as possible. Results of the monitoring survey are presented below:

Monitoring Result for Contract 2

<u>Mammal</u>

7.4.2 There was no mammal recorded in the monitoring area

<u>Birds</u>

7.4.3 There were total of 17 bird individuals from 9 species recorded in the monitoring area. Four species of conservation interests were recorded in the monitoring area: *Ardeola bacchus* Chinese Pond Heron 池鷺, *Centropus bengalensis* Lesser Coucal小鴉鵑, *Picumnus innominatus* Speckled Piculet 斑姬啄木鳥, *Psittacula eupatria* Alexandrine Parakeet亞歷山大鸚鵡. Golden-headed Cisticola was not observed during the bird survey.

<u>Herpetofauna</u>

7.4.4 There were two reptile individuals from one species recorded in the monitoring area. There was no amphibian recorded in the monitoring area.

Butterfly

7.4.5 There was total 8 butterfly individuals from 7 species recorded in the monitoring area.

<u>Dragonfly</u>

7.4.6 There were 9 odonate individuals from 4 species recorded in the monitoring area. One species of conservation interests were recorded in the monitoring area: *Urothemis signata* Scarlet Basker 赤斑 曲鈎脈蜻.

Aquatic Fauna Survey (Freshwater communities)

- 7.4.7 There were two species of freshwater fish were recorded in the monitoring area.
- 7.4.8 The summaries of faunal survey result are shown in *Tables 7-6* and 7-7.



Table 7-6 Result of Faunal Survey under Contract 2					
Scientific Name	Common / Engineer Name	Chinese Name	Conservation Status	Non- wetland	Wetland
Mammal Survey					
Avifauna Survey		t lite i te te t			
Francolinus	Chinese Francolin	中華鷓鴣		1	
pintadeanus	C1	「山豆久			
Ardeola bacchus	Chinese Pond Heron	池鷺	Fellowes et al. (2002): PRC,(RC)		1
Spilopelia chinensis	Spotted Dove	珠頸斑鳩			2
Centropus bengalensis	Lesser Coucal	小鴉鵑	Class 2 Protected Animal of China;China Red Data Book Status: (Vulnerable)	1	
Picumnus innominatus	Speckled Piculet	斑姬啄木鳥	(Vulnerable) Fellowes et al. (2002): LC	1	
Psittacula eupatria	Alexandrine Parakeet	亞歷山大鸚鵡	IUCN Red List Status: NT; Appendix 2 of CITES	4	
Pycnonotus jocosus	Red-whiskered Bulbul	紅耳鵯			3
Prinia flaviventris	Yellow-bellied Prinia	黃腹鷦鶯			2
Gracupica nigricollis	Black-collared Starling	黑領椋鳥			2
Reptile Survey	_				_
Hemidactylus bowringii	Bowring's Gecko	原尾蜥虎		2	
Amphibian Survey					
Butterfly Survey					
Abisara echerius	Plum Judy	蛇目褐蜆蝶		1	
Ariadne ariadne	Angled Castor	波蛺蝶			1
Mycalesis mineus	Dark Brand Bush Brown	小眉眼蝶		2	
Papilio bianor	Chinese Peacock	碧鳳蝶		1	
Papilio paris	Paris Peacock	巴黎翠鳳蝶		1	
Papilio polytes	Common Mormon	玉帶鳳蝶		1	
Papilio protenor	Spangle	藍鳳蝶		1	
Odonate Survey					
Orthetrum glaucum	Common Blue Skimmer	黑尾灰蜻			1
Urothemis signata	Scarlet Basker	赤斑曲鈎脈蜻	Fellowes et al. (2002): LC	1	
Copera marginipes	Yellow Featherlegs	黃狹扇蟌			4
Prodasineura autumnalis	Black Threadtail	烏齒原蟌			3

Table 7-6Result of Faunal Survey under Contract 2

Table 7-7Result of Freshwater Communities Survey under Contract 2

Scientific Name	Common Name	Chinese Name	Conservation Status	11-May-2021
Gambusia affinis	Mosquito fish	食蚊魚		+
Puntius	Chinese Barb	五線無鬚鮑		+



Scientific Name	Common Name	Chinese Name	Conservation Status	11-May-2021
semifasciolatus				

+: Species appeared but uncountable.

<u>Discussion</u>

- 7.4.9 After analysing survey results in May 2019 to 2021, there was no significant drop in species diversity for both non-wetland and wetland habitats. However, a good practice during construction is required to prevent environmental contamination as well as unnecessary site clearance. Moreover, continuous monitoring is required to inspect any significant reduction of species diversity.
- 7.4.10 The detailed Ecological Survey Reports for Contract 1 and Contract 2 are attached in Appendix K.
- 7.4.11 The tentative ecology inspection and monitoring in the next Reporting Month (June 2021) is scheduled on 8th June 2021.

7.5 MONITORING OF FLORA SPECIES OF CONSERVATION INTEREST

- 7.5.1 According to the approved vegetation survey report and transplantation proposal under FEP-01/534/2017/A, an individual of flora species of conservation interest (the transplanted T-2928) was identified and transplanted to the receptor site.
- 7.5.2 According to approved vegetation survey report and transplantation proposal, post-transplantation monitoring was conducted once per week in the first three months after the transplantation in Oct 2018 and once in each of the following month in the remaining establishment period for 12 month. During the remaining construction phase of the project, the transplanted T-2928 would be monitored on quarterly basis.
- 7.5.3 A landscape sub-contractor was employed by the Contractor to monitor the health condition of transplanted species and provide advice on necessary weeding, fertilizing and pest control. The monitoring records were submitted to ET and IEC for review and record. Moreover, inspection of the transplanted T-2928 was undertaken by ET as part of the weekly site inspection. No construction activity and disturbance were observed at the location of the transplanted T-2928. The health condition of the transplanted T-2928 was fair with normal foliage color and density.

7.6 MEASURE FOR PROTECTION OF NESTING BIRD

- 7.6.1 Pursuant to FEP-01/534/2017/A condition 2.19 and EP-534/2017/A condition 2.20, precautionary checks for the presence of nesting birds shall be carried out in the breeding season (February to July) before vegetation clearance.
- 7.6.2 As advised by both Contractors, there were no vegetation clearance conducted within the site in the Reporting Month and therefore precautionary check for the presence of nesting birds was not required.



8. LANDSCAPE AND VISUAL

8.1 REQUIREMENT

- 8.1.1 The EIA has recommended EM&A for landscape and visual resources to be undertaken during the design, construction and operational stages of the project. The design, implementation and maintenance of landscape mitigation measures is a key aspect of this and should be checked to ensure that they are fully realized and that potential conflicts between the proposed landscape measures and any other project works let its are resolved at the earliest possible date and without compromise to the intention of the mitigation measures. In addition, implementation of the mitigation measures recommended by the EIA will be monitored through the site audit programme.
- 8.1.2 A number of mitigation measures to ameliorate the landscape and visual impacts of the Project implementation is summarized in the EMIS of Appendix 13.1 of the EIA Report.
- 8.1.3 The landscape and visual mitigation measures proposed should be incorporated in the landscape and engineering design. Mitigation measures to be implemented during construction should be adopted from the start of construction and be in place throughout the entire construction period. Mitigation measures to be implemented during operation should be integrated into the detailed design and built as part of the construction works so that they are in place on commissioning of the Project. Tree transplantation and compensatory planting should be carried out as early as possible in the Project with transplantation carried out prior to construction starting in any particular area.
- 8.1.4 During construction phase, Landscape & Visual Monitoring of the contractor's operations should be conducted monthly and reported by ET, and countersigned by IEC.

8.2 FINDINGS / DEFICIENCIES DURING SITE INSPECTION IN THE REPORTING MONTH

8.2.1 In the Reporting Month, landscape & Visual inspection was carried out by the Registered Landscape Architect (RLA) for works area of Contract 1 and Contract 2 on 24th May 2021. The findings / reminders recorded during the inspection are presented in Tables 8-1 and 8-2.

Table 8-1	Landscape & Visual Inspection Finding for Contract 1			
Date	Findings and Reminder	Follow-Up Status		
24 th May 2021	1. The Contractor is reminded to set up TPZ of proper size and with appropriate material around retain trees according to approved method statement.	Reminder only		
	2. The Contractor is reminded to prevent the construction material pile within TPZ and ensure no works is allowed within the TPZ.	• Reminder only		
	3. Transplanted trees T2465, T2468 and T2928 were in fair health condition with normal foliage color and density. Contractor is reminded to provide proper maintenance according to approved method statement.	Reminder only		

able 8-1	Landscape &	k Visual	Inspection	Finding	for Contract 1

Table 8-2 Landscape & Visual Inspection Finding for Contract 2

Date	Findings and Reminder	Follow-Up Status
24 th May	1. The Contractor is reminded to set up	Reminder only
2021	TPZ of proper size and with appropriate	
	material around retain trees according to	
	approved method statement. Contractor	
	should prevent any construction	
	material pile within TPZ and ensure no	
	works is allowed within the TPZ.	

8.2.2 Inspection checklist of Landscape & Visual signed by RLA is attached in *Appendix L*.



9. WASTE MANAGEMENT

9.1 GENERAL WASTE MANAGEMENT

9.1.1 Waste management was carried out by an on-site Environmental Officer or an Environmental Supervisor from time to time in accordance with the Waste Management Plan (WMP).

9.2 **RECORDS OF WASTE QUANTITIES**

- 9.2.1 All types of waste arising from the construction work are classified into the following:
 - Construction & Demolition (C&D) Material;
 - Chemical Waste;
 - General Refuse; and
 - Excavated Soil.
- 9.2.2 The quantities of waste for disposal in this Reporting Month are summarized in *Table 9-1* and *9-2* and the Monthly Summary Waste Flow Table is shown in *Appendix M*. Whenever possible, materials were reused on-site as far as practicable.

	Cont	ract 1	Contract 2	
Type of Waste	Quantity	Disposal Location	Quantity	Disposal Location
Total generated C&D Materials (Inert) ('000m ³)	5.212		1136.74 (#)	
Reused in this Contract (Inert) ('000m ³)	0.865	Within Contract area	0	
Reused in other Projects (Inert) ('000m ³)	0.452		0	
Disposal as Public Fill (Inert) ('000m ³)	3.254	Tuen Mun Area 38	1136.74 (#)	Tuen Mun Area 38

Table 9-1Summary of Quantities of Inert C&D Materials

Remark: the unit is '000kg

Table 9-2Summary of Quantities of C&D Wastes

	Con	Contract 1		ract 2
Type of Waste	Quantity	Disposal Location	Quantity	Disposal Location
Recycled Metal ('000kg)	0		0	
Recycled Paper / Cardboard Packing ('000kg)	0		0	
Recycled Plastic ('000kg)	0		0	
Chemical Wastes ('000kg)	0		0	
General Refuses ('000m ³)	0.056	NENT Landfill	13.17 (#)	NENT Landfill

Remark: the unit is '000kg

9.2.3 Since canteen and/or kitchen are not allowed setting on the Project site, no domestic wastewater was generated from the Project.



10. SITE INSPECTION

10.1 REQUIREMENT

10.1.1 According to the approved EM&A Manual, environmental site inspection should be led by RE and attended by the Contractor and ET at least once per week. Regular environmental site inspections shall be carried out to assess the environmental performance.

10.2 FINDINGS / DEFICIENCIES DURING SITE INSPECTION IN THE REPORTING MONTH *Contract 1*

- 10.2.1 In the Reporting Month, joint site inspections for Contract 1 to evaluate the site environmental performance were carried out by the RE, ET and the Contractor on 5th, 13th, 20th and 27th May 2021 and IEC attended joint site inspection on 20th May 2021. No non-compliance was noted.
- 10.2.2 The findings / deficiencies that observed during the weekly site inspection are listed in *Table 10-1*.

Table 10-1Site Observations for the Works of Contract 1

·		
Date	Findings / Deficiencies	Follow-Up Status
5 th May 2021	• The Contractor was reminded to maintain good housekeeping on site.	• Reminder only.
13 th May 2021	• The Contractor was reminded to spray water regularly at exposed work area.	• Reminder only.
	• The Contractor was reminded to dispose general refuse regularly at RCP.	• Reminder only.
20 th May 2021	• The Contractor should provide proper drip tray for generator at work area of CS13.	• Chemical container on the ground was removed.
	• The Contractor should replace the broken NRMM label for drill rig at CS13.	• Muddy surface run-off and material near site entrance was cleaned.
	• The Contractor was reminded to spray water regularly at exposed work area.	• Reminder only.
	• The Contractor was reminded to enhance house-keeping for storage area	• Reminder only.
27 th May 2021	• The Contractor should provide drip tray for chemical container at Drop-off and Pick up Area. (DO&PUA)	• Chemical container was removed from work area.
	• The Contractor should provide sand bags for public U-channel to prevent outflow of muddy water. (DO&PUA)	• Sand bags could not be place at public area. The Contractor was reminded that the wastewater generated from the site should be treated prior discharge.
	• The Contractor should dispose construction wastes regularly. (DO&PUA)	• Construction wastes were disposed of site.
	• The Contractor was reminded to provide WetSep to ensure all wastewater was treated prior discharge (DO&PUA)	Reminder only.

Contract 2

- 10.2.3 In the Reporting Month, joint site inspections for Contract 2 to evaluate the site environmental performance carried out by the RE, ET and the Contractor was on 5th, 13th, 20th and 27th May 2021 and IEC attended joint site inspection on 20th May 2021 non-compliance was noted.
- 10.2.4 The findings / deficiencies that observed during the weekly site inspection are listed in *Table 10-2*.



Date	Findings / Deficiencies	Follow-Up Status
5 th May 2021	• The Contractor was reminded to ensure water quality mitigation measures are properly implemented especially during wet season.	• Reminder only.
13 th May 2021	• The Contractor was reminded to spray water regularly at exposed work area.	• Reminder only.
20 th May 2021	• The Contractor was reminded to spray water regularly at exposed work area	• Reminder only.
27 th May 2021	• No adverse environmental issue was observed.	• NA

Table 10-2	Site Observations for the Works of Contract 2
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11. ENVIRONMENTAL COMPLAINT AND NON-COMPLIANCE

11.1 Environmental Complaint, Summons and Prosecution

11.1.1 In the Reporting Month, no environmental complaint was received for the project. No summons and prosecution was lodged for the Contract. The statistical summary table of the environmental complaint, summons and prosecution are presented in *Tables 11-1, 11-2* and *11-3*.

Table 11-1Statistical Summary of Environmental Complaints

Reporting Month		Enviro	nmental Complain	nt Statistics
Keporting Mit	onth	Frequency Cumulative Complaint Nat		Complaint Nature
1 – 31 May 2021	Contract 1	0	1	Air Quality
1 – 31 May 2021	Contract 2	0	2	Air Quality

Table 11-2 Statistical Summary of Environmental Summons

Reporting Month		Er	vironmental Summons Statistics		
Keporting Mo	ontn	Frequency Cumulative Complaint National		Complaint Nature	
1 – 31 May 2021	Contract 1	0	0	NA	
1 – 31 May 2021	Contract 2	0	0	NA	

Table 11-3 Statistical Summary of Environmental Prosecution

Reporting Month		Env	ironmental Prosecution Statistics		
Keporting Mo	onth	Frequency Cumulative Complaint Natu			
1 – 31 May 2021	Contract 1	0	0	NA	
1 – 31 May 2021	Contract 2	0	0	NA	

11.1.2 In addition, no complaints received and emergency event relating to violation of environmental legislation for illegal dumping and landfilling were received.



12. IMPLEMENTATION STATUS OF MITIGATION MEASURES

12.1 GENERAL REQUIREMENTS

- 12.1.1 The environmental mitigation measures that recommended in the Implementation Schedule for Environmental Mitigation Measures (ISEMM) in the approved EM&A Manual covered the issues of dust, noise, water and waste and they are summarized presented in *Appendix N*.
- 12.1.2 The Works of Contract 1 and Contract 2 under the Project shall be implementing the required environmental mitigation measures according to the approved EM&A Manual subject to the site condition. Environmental mitigation measures implemented in this Reporting Month is summarized in *Table 12-1*.

Issues	Environmental Mitigation Measures
Water	· Provided efficient silt removal facilities to reduce SS level before effluent
Quality	 discharge. Provided ditches, earth bunds or sand bag barriers to minimize polluted runoff. Temporary drainage was provided to prevent runoff going through site surface and minimize polluted runoff. Provided perimeter cut-off drains at site boundaries to intercept storm runoff from crossing the site. Exposed slopes surface were compacted and covered with tarpaulin or similar means. Provided portable chemical toilets on site.
Air Quality	 Maintain damp / wet surface on access road.
7 in Quanty	 Maintain low vehicular speed within the works areas.
	 Provided vehicle wheel washing facilities at each construction site exit; Provided water spraying for all active works area. Stockpiles of dusty material were covered with impervious sheeting.
	 Provided workers to clear dusty materials at the vehicle entrance or exit regularly.
	 Stockpile more than 20 bags of cement or dry pulverized fuel ash (PFA) has been covered entirely by impervious sheeting or placed in an area sheltered on the top and the 3 sides.
Noise	• Restricted operation time of plants from 07:00 to 19:00 on any working day except for Public Holiday and Sunday.
	Keep good maintenance of plants.
	 Placed noisy plants away from residence and school. Provided noise homiers or boarding to enclose the noisy plants or works.
	Provided noise barriers or hoarding to enclose the noisy plants or works.Shut down the plants when not in used.
Waste and	Provided on-site sorting prior to disposal.
Chemical	 Followed requirements and procedures of the "Trip-ticket System"
Management	Predicted required quantity of concrete accurately.
	 Collected the unused fresh concrete at designated locations in the sites for subsequent disposal.
Ecology	• Implementing water control measures (ETWB TCW No. 5/2005) to avoid direct or indirect impacts any watercourses and impact to any aquatic fauna during the construction phase.
	• Demarcation fencing has been erected to prevent unauthorised encroachment into the riparian corridor by constructions works and traffic.
	• The construction work and site formation have been phased in order to reduce
	overall noise disturbance impacts in particular areas.
	 Works have been restricted to daytime and any construction lighting was designed and positioned as to not impact on adjacent ecologically sensitive areas.
General	The site was generally kept tidy and clean.

 Table 12-1
 Environmental Mitigation Measures



12.2 TENTATIVE CONSTRUCTION ACTIVITIES IN THE COMING MONTH

- 12.2.1 According to the information provided by HCTYJV, the forthcoming construction activities for Contract 1 are listed below:
 - General site housekeeping
 - Bulk Excavation
 - Construction of cut slope, installation of soil nailing and construction of surface channel and planter wall.
 - Construction of fill slope and surface channel
 - Construction of pick-up and drop-off point near Man Kam To Road
 - Construction of sewer and storm drain
 - Laying of street lighting ducts
 - Construction of watermains
 - Construction of Refuse Collection Point.
- 12.2.2 According to the information provided by Sang Hing, the forthcoming construction activities for Contract 2 are listed below:
 - Construction of Manhole, gullies, drainage pipe at Lin Ma Hang Road between CH50-160 Southbound & CH780-890 Northbound & CH1345-1377 Northbound.
 - Construction of Jacking Pit for DN400 watermain by trenchless method at Man Kam To Road
 - DN400 DI Watermain works in approx. CH300-510 at Man Kam To Road North Slow Lane
 - DN400 DI Watermain works in CH700-1000 at Man Kam To Road North Slow Lane
 - Construction of Manhole, gullies, drainage pipe at Sandy Ridge Road E CH180-300 (~120m)
 - Construction of Manhole, gullies, drainage pipe at Sandy Ridge Road F CH690-730 (~40m)
 - Retaining Wall 14 backfilling
 - Backfilling of Retaining Wall 12
 - Soil Nail Works at Lin Ma Hang Road Slope C231 & C224
 - Fanling Station Road Covered Walkway
 - Lung Sum Avenue road surface modification works

12.3 KEY ISSUES FOR THE COMING MONTH

- 12.3.1 Key issues to be considered in the coming month for the works of Contract 1 include:
 - Implementation of control measures for rainstorm;
 - Regular clearance of stagnant water during wet season;
 - Implementation of dust suppression measures at all times;
 - Potential wastewater quality impact due to surface runoff;
 - Potential fugitive dust quality impact due from the dry/loose/exposure soil surface/dusty material;
 - Ensure dust suppression measures are implemented properly;
 - Sediment catch-pits and silt removal facilities should be regularly maintained;
 - Discharge of site effluent to the nearby wetland is prohibited;
 - Nearby wetland prohibited stockpiling and/or disposal of materials;
 - Follow-up of improvement on general waste management issues; and
 - Implementation of construction noise preventative control measures.
- 12.3.2 The Contractors are reminded to pay special attention on water quality mitigation measures and should fully implement the measures as recommended in the EM&A Manual, in particular to prevent surface runoff and other pollutants from flowing to local stream and Conservation Area. The implementation of water quality mitigation measures conducted by the Contractors is shown in Appendix *O*.
- 12.3.3 During wet season, the Contractors are reminded to pay special attention on water quality mitigation measures and should fully implement the measures as recommended in the EM&A Manual, in



particular to prevent surface runoff and other pollutants from flowing to local stream and Conservation Area.



13. CONCLUSIONS AND RECOMMENTATIONS

13.1 CONCLUSIONS

- 13.1.1 This is the 34th Monthly EM&A Report presenting the monitoring results and inspection findings for the period of 1st to 31th May 2021.
- 13.1.2 No 24-hour or 1-hour TSP monitoring result that triggered the Action or Limit Levels was recorded. No NOEs or the associated corrective action was therefore required.
- 13.1.3 No noise complaint (which is an Action Level exceedance) was received and no construction noise measurement result that exceeded the Limit Level was recorded in this Reporting Month. No NOEs or the associated corrective actions were therefore issued.
- 13.1.4 In the Reporting Month, **6** Limit level exceedances were recorded at location M1 for water quality monitoring. According to the Contractor's work programme, there were construction activities on Man Kam To Road but no works were carried out near location M1. It was concluded that the exceedances were not caused by the work under the project.
- 13.1.5 Monthly ecological monitoring for sensitive habitat for area of Contract 1 and Contract 2 were undertaken on 11th May 2021. After analysing survey results in May 2019 to 2021, there is no obvious reduction for both wetland and non-wetland habitats in Contract 1. For Contract 2, there was no significant drop in species diversity for both non-wetland and wetland habitats. Good practice during construction is required to prevent environmental contamination as well as unnecessary site clearance. Continuous monitoring is also recommended to inspect any significant decrease in species diversity. Besides, as advised by both Contractors, there were no vegetation clearance conducted within the site in the Reporting Month and therefore precautionary check for the presence of nesting birds was not required.
- 13.1.6 As advised by both Contractors, there were no vegetation clearance conducted within the site in the Reporting Month and therefore precautionary check for the presence of nesting birds was not required.
- 13.1.7 Landscape and visual inspection at both Contracts were undertaken by the RLA on 24th May 2021. The Contractor was reminded to prevent the construction material pile within TPZ and ensure no works is allowed within the TPZ.
- 13.1.8 In the Reporting Month, no environmental complaints, summons and prosecution were received. In addition, no complaints received and emergency events relating to violation of environmental legislation for illegal dumping and landfilling were received.
- 13.1.9 In the Reporting Month, joint site inspections for Contract 1 to evaluate the site environmental performance were carried out by the RE, ET and the Contractor of the Contract 1 on 5th, 13th, 20th and 27th May 2021. Moreover, joint site inspections for Contract 2 by the RE, ET and the Contractor of Contract 2 were carried out on 5th, 13th, 20th and 27th May 2021. IEC attended the both Contract joint site inspection on 20th May 2021. No non-compliance was noted during the site inspections.

13.2 RECOMMENDATIONS

- 13.2.1 The Contractors are reminded to pay special attention on water quality mitigation measures and should fully implement the measures as recommended in the EM&A Manual, in particular to prevent surface runoff and other pollutants from flowing to local stream and Conservation Area.
- 13.2.2 During wet season, the Contractors are reminded to pay special attention on water quality mitigation measures and should fully implement the measures as recommended in the EM&A Manual, in particular to prevent surface runoff and other pollutants from flowing to local stream and Conservation Area.



- 13.2.3 Construction noise would be a key environmental issue during construction phase of the Project. Noise mitigation measures such as using quiet plants and mobile noise barriers should be implemented in accordance with the EM&A requirement.
- 13.2.4 Since some of the construction site under the Project is located near villages, both Contractors should fully implement air quality mitigation measures to reduce construction dust emission.
- 13.2.5 Furthermore, daily cleaning and weekly tidiness shall be properly performed and maintained. In addition, mosquito control should be performed to prevent mosquito breeding on site.

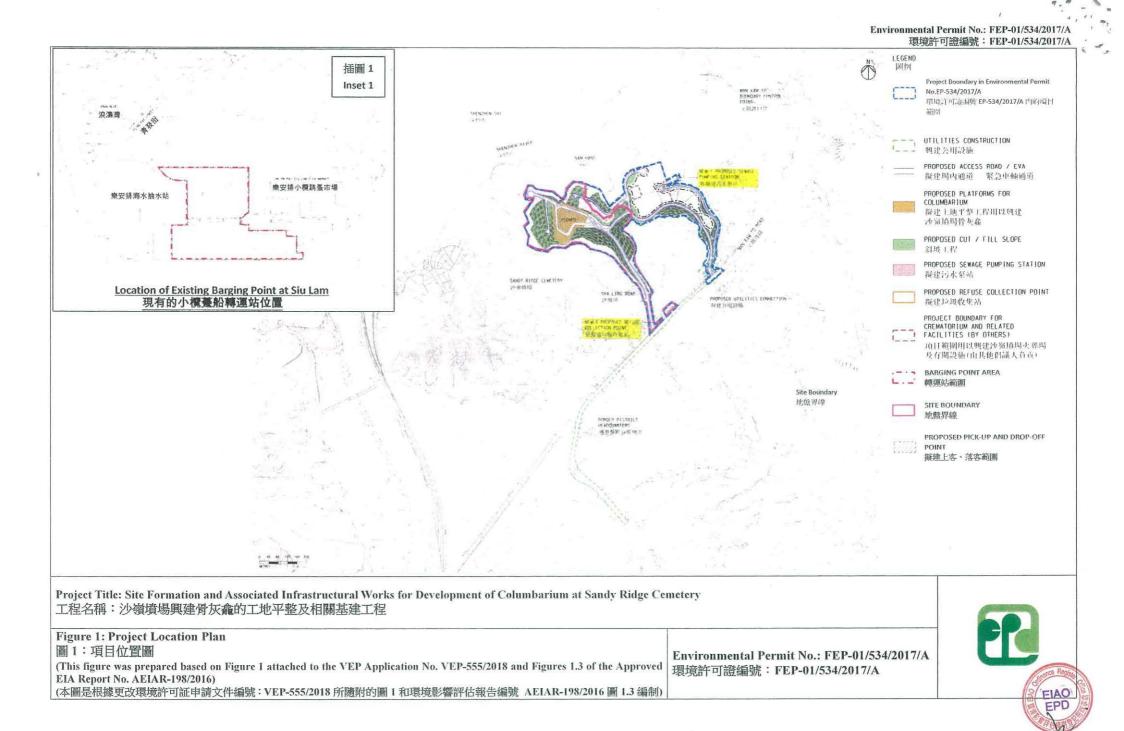


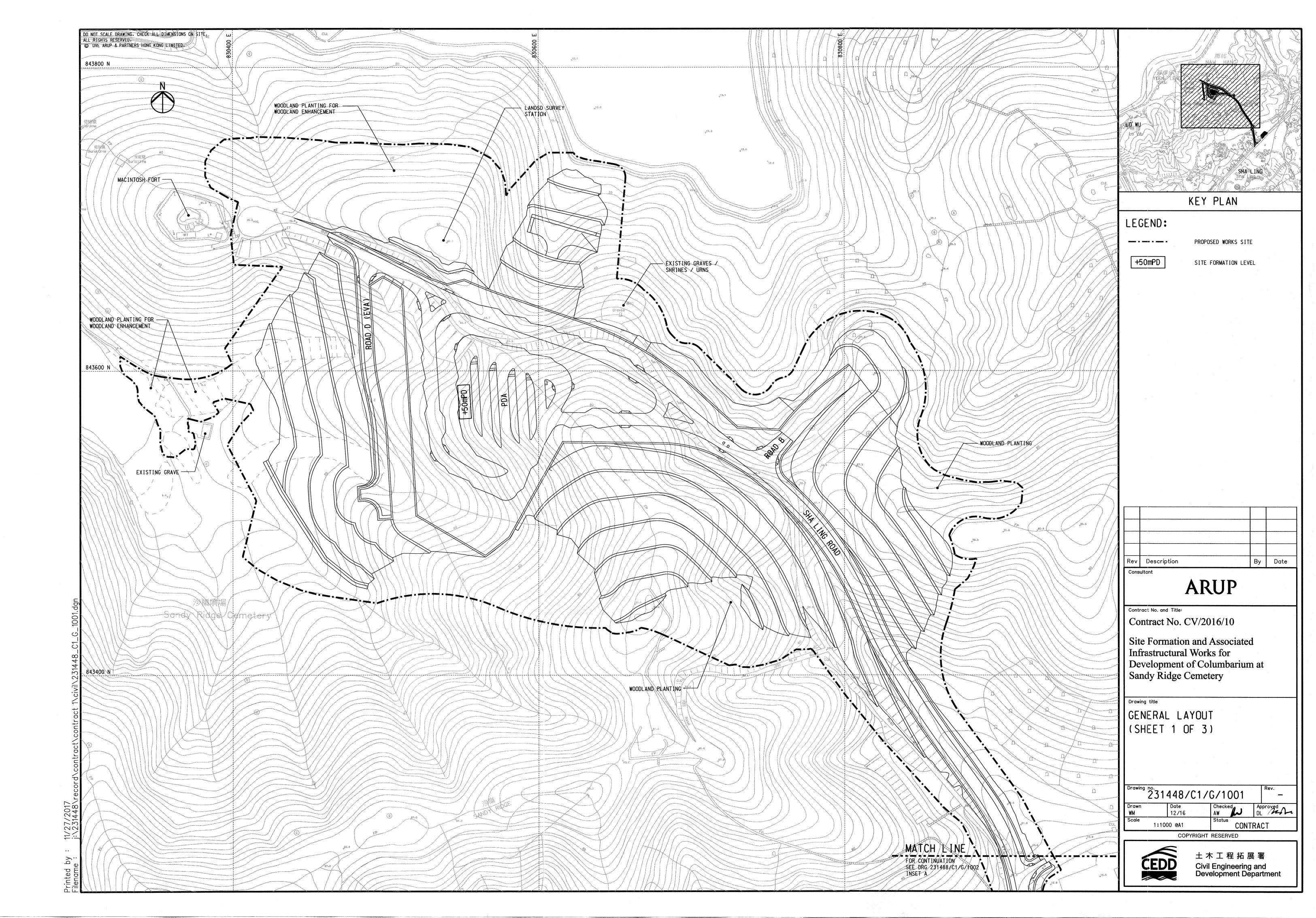
Appendix A

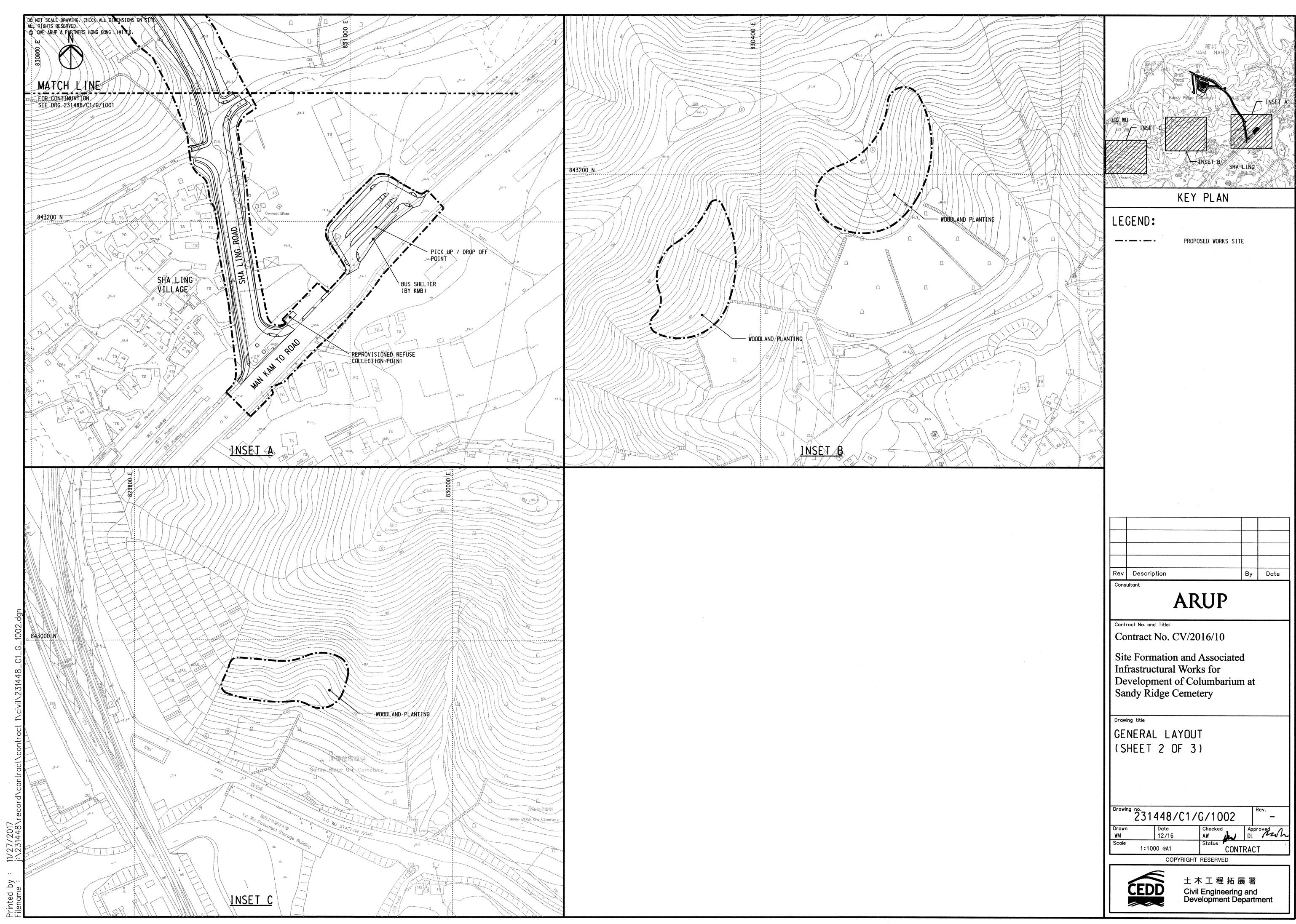
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Layout Plan of Contract CV/2016/10

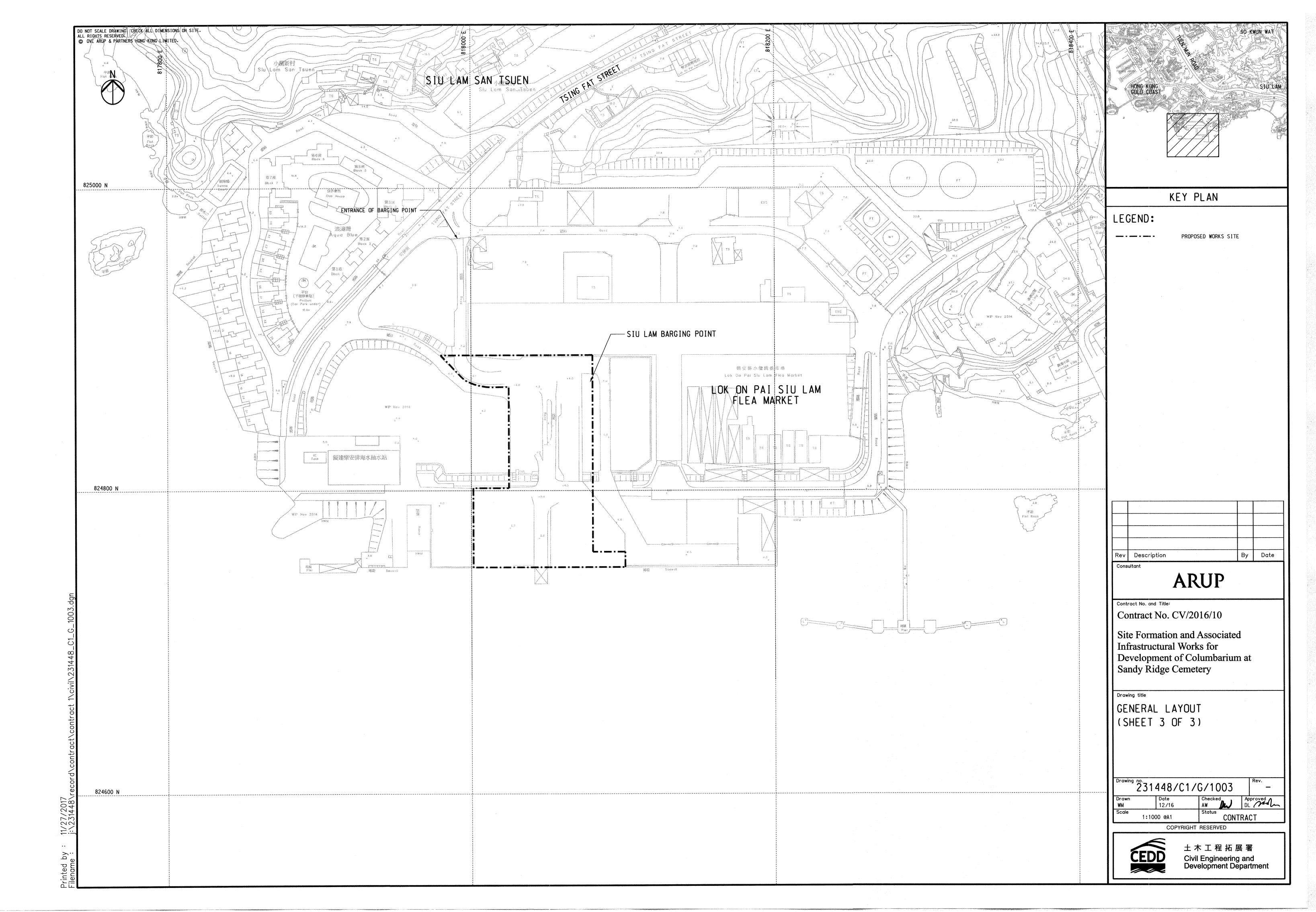






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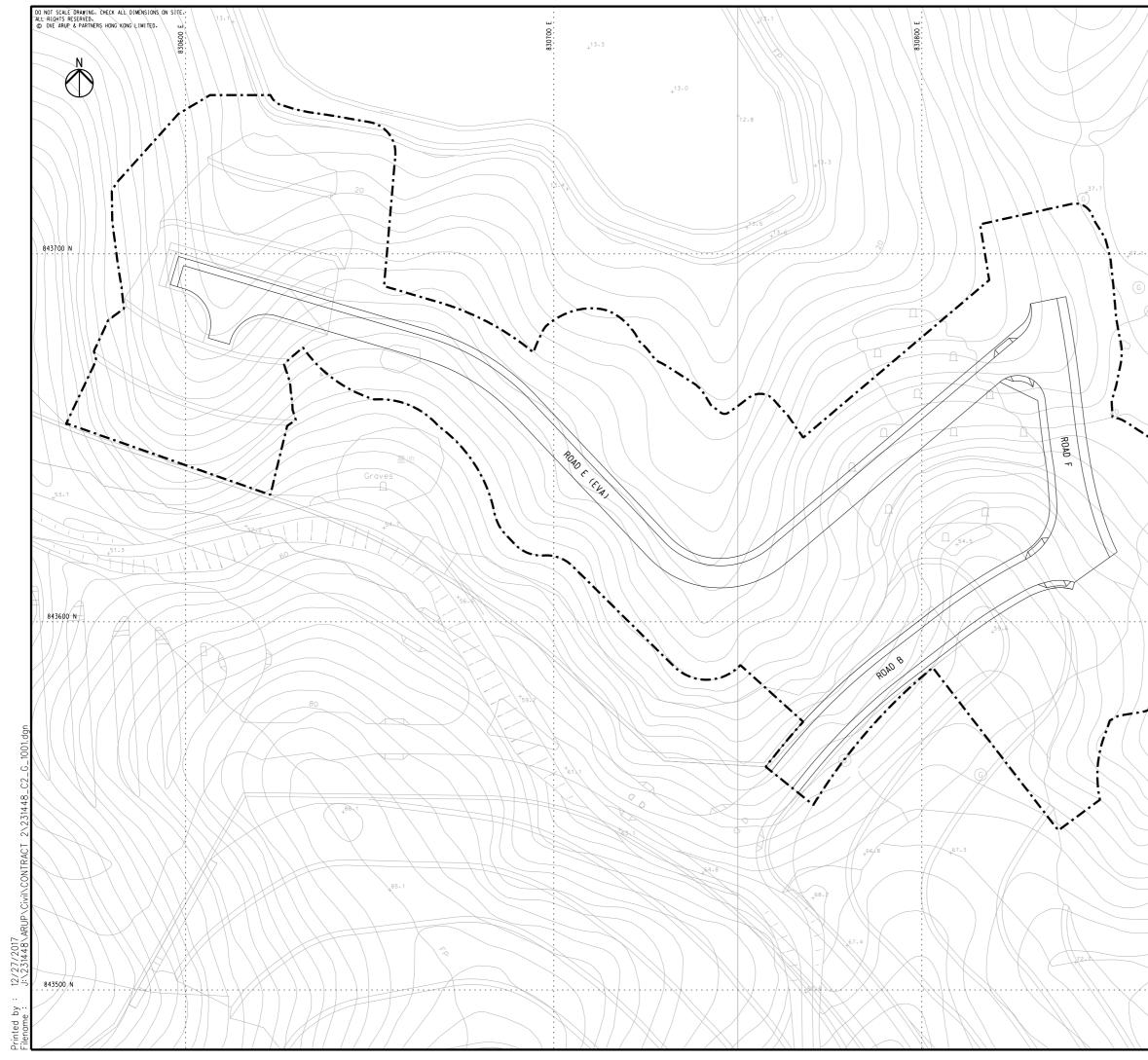
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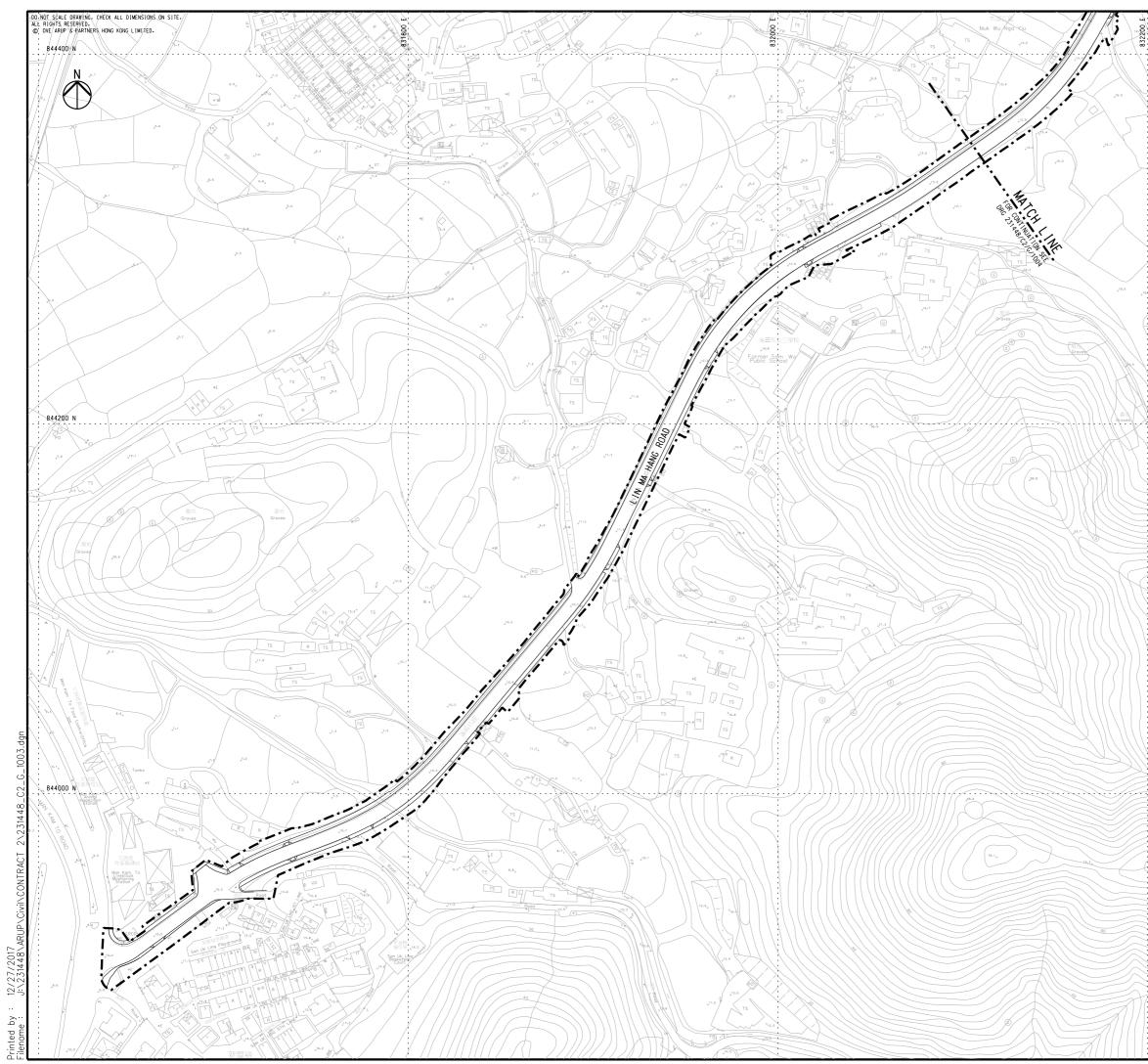
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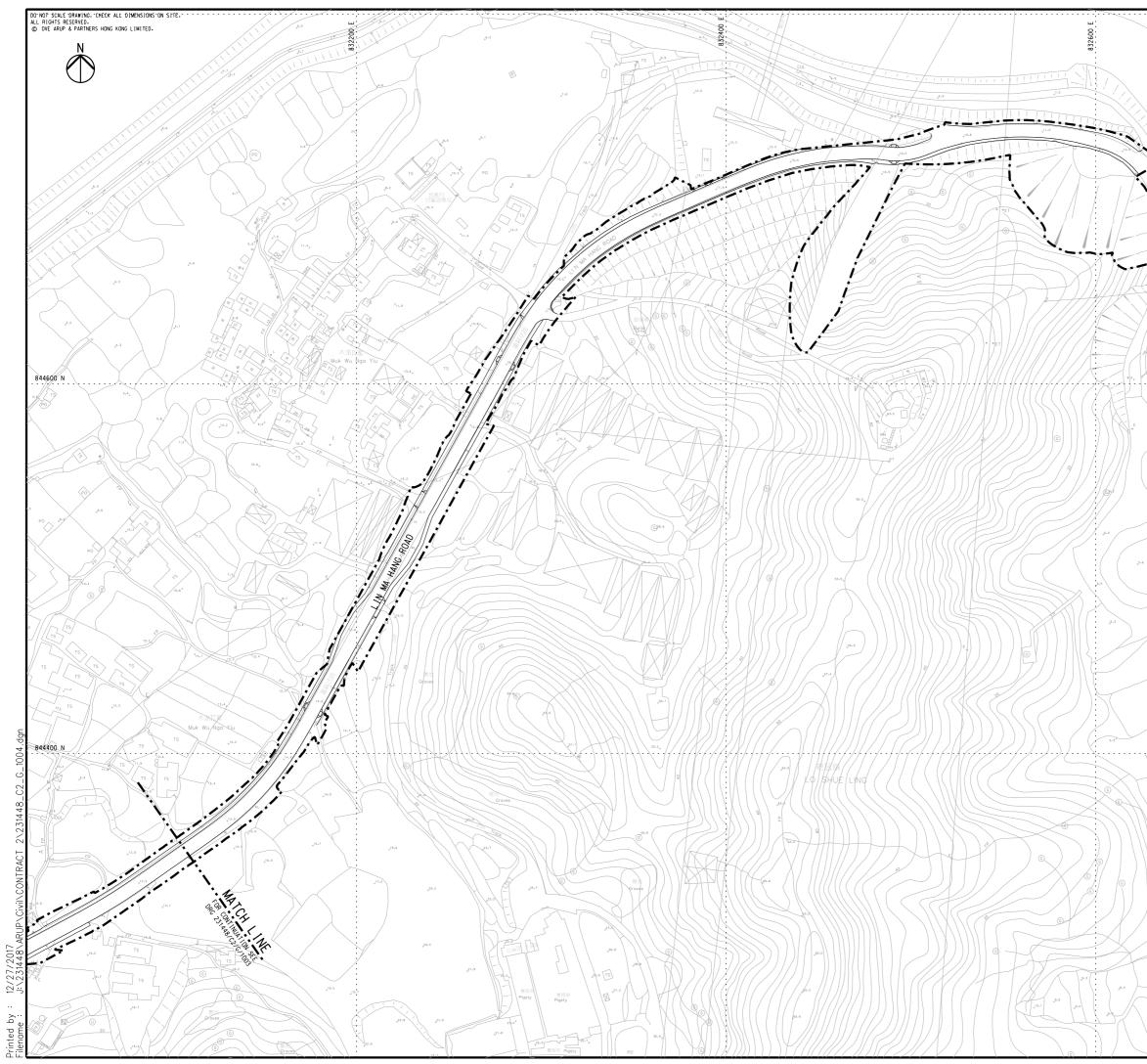


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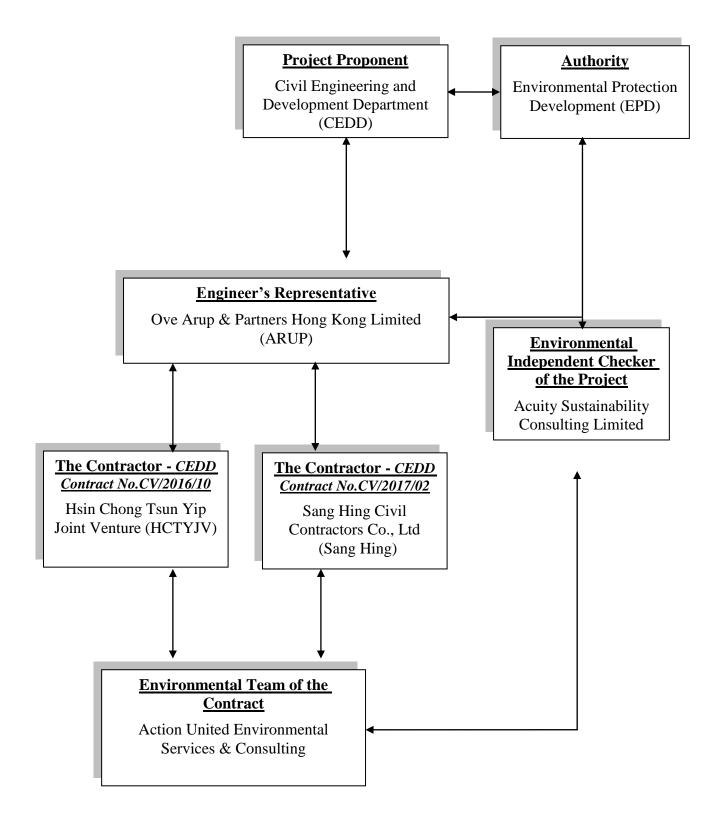


Appendix B

Organization Structure and Contact Details of Relevant Parties



The Contract's Environmental Management Organization





Organization	Project Role	Name of Key Staff	Tel No.	Fax No.
CEDD	Employer	CHOI Wing-hing	2762-5620	2714-0695
ARUP	Engineer's Representative	Steve Tang	6190-1513	2268-3950
ACUITY	Independent Environmental Checker	Ir. Leung CH Jacky	2698-6833	2698-9383
HCTYJV	Project Director	Mr. Kan Kwok Cheung	9495-2408	2633-4691
HCTYJV	Construction Manager	Mr. Keniel Kwong	9863-0020	2633-4691
HCTYJV	Site Agent	Mr. Ho Man To	9507-9634	2633-4691
HCTYJV	Environmental Officer	Mr. Chan Ming Tai	9358-7007	2633-4691
AUES	Environmental Team Leader	Mr. T.W. Tam	2959-6059	2959-6079
AUES	Environmental Consultant	Mr. Ben Tam	2959-6059	2959-6079
AUES	Environmental Consultant	Ms. Nicola Hon	2959-6059	2959-6079
AUES	Environmental Site Inspector	Mr. Martin Li	2959-6059	2959-6079

Contact Details of Key Personnel for CV/2016/10 (Contract 1)

Legend:

CEDD (Employer) – Civil Engineering and Development Department

ARUP (Engineer) – Ove Arup & Partners Hong Kong Limited

HCTYJV (Main Contractor) – Hsin Chong Tsun Yip Joint Venture

ACUITY (IEC) – Acuity Sustainability Consulting Limited

AUES (ET) – Action-United Environmental Services & Consulting



Organization	Project Role	Name of Key Staff	Tel No.	Fax No.
CEDD	Employer	CHOI Wing-hing	2762-5620	2714-0695
ARUP	Engineer's Representative	Anthony Lau	6190-1513	2268-3950
ACUITY	Independent Environmental Checker	Ir. Leung CH Jacky	2698-6833	2698-9383
SANG HING	Project Director	Edwin Au	9208-7329	2403-1162
SANG HING	Construction Manager	Raymond Wong	9272-1831	2403-1162
SANG HING	Site Agent	Elvin Lam	6285-0803	2403-1162
SANG HING	Environmental Officer	Chan Ng jhon-keibi	6090-0183	2403-1162
SANG HING	Environmental Supervisor	Kenny Chan	6115-0120	2403-1162
AUES	Environmental Team Leader	Mr. T.W. Tam	2959-6059	2959-6079
AUES	Environmental Consultant	Mr. Ben Tam	2959-6059	2959-6079
AUES	Environmental Consultant	Ms. Nicola Hon	2959-6059	2959-6079
AUES	Environmental Site Inspector	Mr. Martin Li	2959-6059	2959-6079

Contact Details of Key Personnel for CV/2017/02 (Contract 2)

Legend:

CEDD (Employer) – Civil Engineering and Development Department

ARUP (Engineer) – Ove Arup & Partners Hong Kong Limited

Sang Hing (Main Contractor) – Sang Hing Civil Contractors Co., Ltd

ACUITY (IEC) – Acuity Sustainability Consulting Limited

AUES (ET) – Action-United Environmental Services & Consulting



Appendix C

Three Months rolling Programme

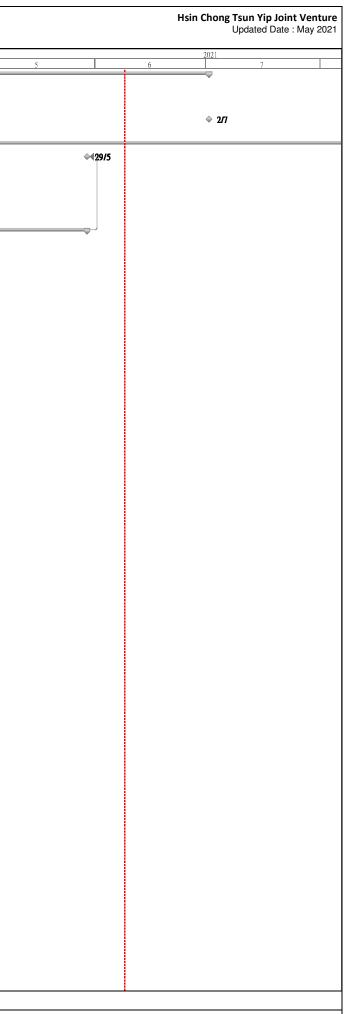


Three Months rolling Programme of Contract CV/2016/10

Contract No. CV/2016/10 Site Formation and Associated Infrastructural Works for Development of Columbarium at Sandy Ridge Cemetery

3 Month Rolling Programme (May 2021 to July 2021)

Task Name Key Dates	Duration 1046 days	Start Fri 15/12/17	Finish Fri 2/7/21	% Complete Re	maining Duration Predecessors 1046 days	Notes
Contract Starting Date	0 days	Fri 15/12/17	Fri 15/12/17	0%	0 days	
Contract Completion Date for Section 1	0 days	Sat 11/7/20	Sat 11/7/20	0%	0 days	Include CE14,15,19,22, 27,34,40,49,65,66,67,74, 75,79,
						98,99,100,102,111, 126,147
Contract Completion Date for Section 2	0 days	Fri 2/7/21	Fri 2/7/21	0%	0 days	
Contract Completion Date for Section 3	0 days	Mon 4/11/19	Mon 4/11/19	0%	0 days	
Scheduled Completion Date Section 1	634 days 0 days	Tue 10/12/19 Sat 29/5/21	Sat 29/1/22 Sat 29/5/21	0%	634 days 0 days 13FF	
Section 2	0 days	Sat 29/1/22	Sat 29/3/21 Sat 29/1/22	0%	0 days 135FF	
Section 2 Section 3	0 days	Tue 10/12/19	Tue 10/12/19	0%	0 days 13311	
Preliminary Works	144 days	Tue 20/2/18	Wed 15/8/18	100%	0 days	
Submission and Approval Required at Environmental Permit for Commencement of Construction	128 days	Tue 20/3/18	Wed 15/8/18	100%	0 days	
Other Submission (Initial Survey /Tree Survey/ Condition Survey)	106 days	Tue 20/2/18	Fri 22/6/18	100%	0 days	
Section 1 of the Works (Parts A1, A2 & A3)	937 days	Thu 29/3/18	Sat 29/5/21	56%	408.16 days	
Section 1 of the Works (Parts A1, A2 & A3) Ground Investigation and Geotechnical instrumentation for Commencement of Slopework	112 days	Thu 29/3/18	Wed 15/8/18	100%	0 days	
Verification Drillholes (8 Nos., VDH1, 2, 7-9,8-16) / Inspection Pits and Preliminary Results Submission	114 days	Thu 29/3/18	Wed 8/8/18	100%	0 days	
Design Review	36 days	Thu 5/7/18	Wed 15/8/18	100%	0 days	
Retaining Wall RW1	280 days	Thu 16/8/18	Sat 27/7/19	100%	0 days	
General Excavation to Formation Level Plate Load Test and Blinding Layer for Retaining Wall Bays 1-4	37 days	Thu 16/8/18	Thu 27/9/18	100%	0 days	
Plate Load Test and Blinding Layer for Retaining Wall Bays 1-4	3 days	Fri 28/9/18	Mon 1/10/18	100%	0 days	
Plate Load Test and Blinding Layer for Retaining Wall Bays 5-8 Plate Load Test and Blinding Layer for Retaining Wall Bays 9-13	3 days	Tue 2/10/18	Thu 4/10/18	100%	0 days	
	15 days	Wed 10/10/18	Fri 26/10/18	100%	0 days	
Plate Load Test and Blinding Layer for Retaining Wall Bays 14-17	7 days	Sat 6/10/18	Sat 13/10/18	100%	0 days	
Base slab of Retaining Wall RW1 Bay 1-4	8 days	Tue 2/10/18	Wed 10/10/18	100%	0 days	
Base slab of Retaining Wall RW1 Bay 5-8 Base slab of Retaining Wall RW1 Bay 9-13	13 days	Mon 8/10/18	Mon 22/10/18	100%	0 days	
Base slab of Retaining Wall RW1 Bay 9-13	17 days	Mon 22/10/18	Fri 9/11/18	100%	0 days	
Base slab of Retaining Wall RW1 Bay 14-17	17 days	Mon 22/10/18	Fri 9/11/18	100%	0 days	
Wall Stem of Retaining Wall RW1 Bay1-4	36 days	Thu 25/10/18	Wed 5/12/18	100%	0 days	
Wall Stem of Retaining Wall RW1 Bay 5-8	26 days	Tue 11/12/18	Wed 9/1/19	100%	0 days	
Wall Stem of Retaining Wall RW1 Bay 10-13	30 days	Wed 14/11/18	Tue 18/12/18	100%	0 days	
Wall Stem of Retaining Wall RW1 Bay 14-17 Protective Coating / Subsoil Drain / Filter Layer	23 days	Mon 26/11/18	Fri 21/12/18	100%	0 days	
Protective Coating / Subsoil Drain / Filter Layer	5 days	Thu 14/2/19	Tue 19/2/19	100%	0 days	
Drainage and Maintenance Access in front of RW1	75 days	Tue 26/3/19	Thu 20/6/19	100%	0 days	
Construction CP1X & CP7X	102 days	Mon 1/4/19	Sat 27/7/19	100%	0 days	
Filling Works behind Retaining Wall and Fill Slope FS1 South (Section 12 at Drawing C1/GE/1030)	605 days	Mon 1/4/19	Sat 17/4/21	38%	374.31 days	
Behind Retaining Wall RW1, Filling Stage 1 (up to +25mPD)	95 days	Mon 1/4/19	Fri 19/7/19	100%	0 days	
FS1 South , Filling (Rolling by Pass) (+25 to +27.8mPD)	10 days	Sat 20/7/19	Wed 31/7/19	100%	0 days	
FS1 South Filling Stage 2 (~2.5m, +25.0 to +27.5 mPD)	56 days	Wed 1/4/20	Thu 4/6/20	100%	0 days	3 days per SRT +9 day (CE16)
Filling (Rolling by Pass) Filling in 3m Zone	1 day	Wed 1/4/20	Wed 1/4/20	100%	0 days	
Filling in 3m Zone	28 days	Thu 2/4/20	Mon 11/5/20	100%	0 days	
Benching Works for Rolling by Pass Surface	3 days	Thu 2/4/20	Mon 6/4/20	100%	0 days 38	
Lay Rockfill Layer (4.5/1m per 5 days)	25 days	Tue 7/4/20	Mon 11/5/20	100%	0 days 40	
Drainage and Maintenance Access (+25 to +27.5 mpD)	21 days	Tue 12/5/20	Thu 4/6/20	100%	0 days 41	
FS1 South Filling Stage 3 (~7.5m height, +27.5 to +35mPD)	320 days	Sat 1/2/20	Mon 8/2/21	30%	224.86 days	3 days per SRT +9 day (CE16)+17day (PMI57)
Filling (Rolling by Pass)(~7.5m, 0.5m per day) Filling in 3m Zone	130 days	Sat 1/2/20	Tue 1/9/20	5%	123 days 38	
	103 days	Wed 2/9/20	Wed 6/1/21	50%	52 days	
Benching Works for Rolling by Pass Surface	3 days	Wed 2/9/20	Fri 4/9/20	100%	0 days 44	
Lay Rockfill Layer (7.5/1m per 5 days)	100 days	Sat 5/9/20	Wed 6/1/21	48%	52 days 46	
Drainage and Maintenance Access (+27.5 to +35 mpD)	28 days	Thu 7/1/21	Mon 8/2/21	70%	8.4 days 47	
FS1 South Filling Stage 4 (~7.5m height, +35 to +42.5mPD)	188 days	Wed 2/9/20	Thu 8/4/21	0%	188 days	3 days per SRT, ~7.5m = 25 layers
Filling (Rolling by Pass)(~7.5m, 0.5m per day) Filling in 3m Zone	15 days	Wed 2/9/20	Fri 18/9/20	0%	15 days 44	
	41 days	Thu 7/1/21	Fri 26/2/21	0%	41 days	
	3 days	Thu 7/1/21	Sat 9/1/21	0%	3 days 50,47	
Lay Rockfill Layer (7.5/1m per 5 days)	38 days	Mon 11/1/21	Fri 26/2/21	0%	38 days 52	
Drainage and Maintenance Access (+35 to +42.5mpD)	35 days	Sat 27/2/21	Thu 8/4/21	0%	35 days 53	
FS1 South Filling Stage 5 (~7.5m height, +42.5 to +50mPD) Construction of RW11	432 days	Mon 2/12/19	Sat 17/4/21	0%	432 days	3 days per SRT, ~7.5m = 25 layers
Construction of RW11	30 days	Mon 2/12/19	Wed 8/1/20	0%	30 days 36	
Filling in 3m Zone	38 days	Sat 27/2/21	Thu 15/4/21	0%	38 days	
Benching Works for Rolling by Pass Surface Lay Rockfill Layer (7.5/1m per 5 days)	3 days	Sat 27/2/21	Tue 2/3/21	0%	3 days 53	
Lay Rockfill Layer (7.5/1m per 5 days)	35 days	Wed 3/3/21	Thu 15/4/21	0%	35 days 58	140m 4m nov dou
Drainage and Maintenance Access (+42.4 to +50 mpD) Fill Slope FS1 Middle (Section 13 at Drawing C1/GE/1030)	35 days	Tue 9/3/21	Sat 17/4/21	0%	35 days 58FS+5 days	140m, 4m per day
Fill Slope FS1 Middle (Section 13 at Drawing C1/GE/1030)	360 days	Mon 10/2/20	Tue 27/4/21	32%	245.09 days	
Drainage and Maintenance Access at toe (+13 mpD)	10 days	Mon 10/2/20	Thu 20/2/20	100%	0 days	2 dovo por SBT (2/dov (0516)) 0 dov (0555)
FS1 middle Filling Stage 1 (~7.0m max, +13.0 mPD to +20 mPD)	22 days	Fri 21/2/20	Tue 17/3/20	100%	0 days	3 days per SRT +24day (CE16) + + 8day (CE55)
Filling (Rolling by Pass)(~2m, 0.5m per day)	4 days	Fri 21/2/20	Tue 25/2/20	100%	0 days	
Filling in 3m Zone	8 days	Wed 26/2/20	Thu 5/3/20	100%	0 days	
Benching Works for Rolling by Pass Surface	3 days	Wed 26/2/20	Fri 28/2/20	100%	0 days 64	
Lay Filter Layer	5 days	Sat 29/2/20	Thu 5/3/20	100%	0 days	CEm Cm nor day
Drainage and Maintenance Access (at and below+20 mpD)	10 days	Fri 6/3/20	Tue 17/3/20	100%	0 days 67	65m, 6m per day
FS1 middle Filling Stage 2 (~7.5m, +20.0 to +27.5 mPD)	53 days	Wed 26/2/20	Mon 4/5/20	100%	0 days	3 days per SRT +25day (CE16)
Filling (Rolling by Pass)(~7.5m, 0.5m per day)	15 days	Wed 26/2/20	Fri 13/3/20	100%	0 days 64	
Filling in 3m Zone	23 days	Sat 14/3/20	Tue 14/4/20	100%	0 days	
2 Benching Works for Rolling by Pass Surface	3 days	Sat 14/3/20	Tue 17/3/20	100%	0 days 70,67	
3 Lay Rockfill Layer (7.5m/1m per 5 day)	20 days	Wed 18/3/20	Tue 14/4/20	100%	0 days 72	



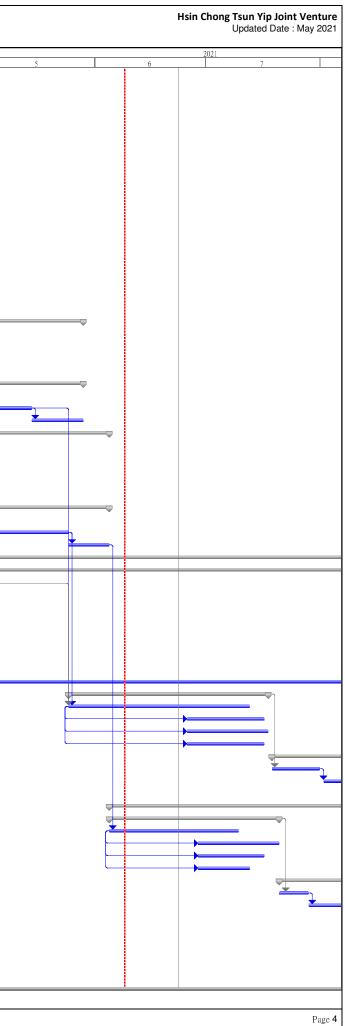
ntract No. CV/2016/10 e Formation and Associated Infrastructural Works for velopment of Columbarium at Sandy Ridge Cemetery		3 1010	ητη κοιτιή	g Program	nme (May 2021 to .	July 2021)		Hsin Chong Tsun Yip Joint Ver Updated Date : May
Task Name	Duration	Start	Finish	% Complete R	emaining Duration Predecessors	Notes		2021
Drainage and Maintenance Access (at and below+27.5 mpD)	15 days	Wed 15/4/20	Mon 4/5/20	100%	0 days 73	60m, 6m per day		0 /
FS1 middle Filling Stage 3 (~7.5m height, +27.5 to ~+35mPD)	304 days	Sat 14/3/20	Tue 23/3/21	19%	247.67 days	3 days per SRT +9 day (CE16)+17day (PMI 57)		
Filling (Rolling by Pass)(~7.5m, 0.5m per day)	<mark>130 days</mark>	Sat 14/3/20	Fri 21/8/20	12%	115 days 70			
Filling in 3m Zone	<mark>163 days</mark>	Sat 22/8/20	Wed 10/3/21	14%	140 days			
Benching Works for Rolling by Pass Surface	<mark>3 days</mark>	Sat 22/8/20	Tue 25/8/20	100%	0 days 76,74			
Lay Rockfill Layer (7.5m/1m per 5 day)	160 days	Wed 26/8/20	Wed 10/3/21	13%	140 days 78			
Drainage and Maintenance Access (at and below +35 mpD)	20 days	Mon 1/3/21	Tue 23/3/21	100%	0 days 78	75m, 6m per day		
FS1 middle Filling Stage 4 below +42.5mPD and +50mPD)	38 days	Thu 11/3/21	Tue 27/4/21	0%	38 days	3 days per SRT, ~7.4m = 25 layers		
Filling (Rolling by Pass)(~15m, 0.5m per day)	30 days	Thu 11/3/21	Sat 17/4/21	0%	30 days 79	70.0.1		
Slope Surface forming/ Drainage and Maintenance Access	20 days	Thu 1/4/21 Wed 11/7/18	Tue 27/4/21 Wed 28/4/21	0% 69%	20 days 79	70m, 6m per day		
Fill Slope FS1 North (Section 14 at Drawing C1/GE/1030) CE16	831 days 264 days	Wed 11/7/18	Fri 31/5/19	38%	260.84 days 164 days	include 7 day Mobilization		
CE16 FS1 North Filling Works Stage 1 (+15 to+19.7mPD)	204 days	Sat 1/6/19	Fri 24/1/20	100%	0 days 85			
Drainage and Maintenance Access (+15 to +20 mpD)	28 days	Sat 25/1/20	Wed 26/2/20	100%	0 days 86	+8 days (CE55)		
Construction of Outfall CP2X	14 days	Thu 27/2/20	Fri 13/3/20	100%	0 days 87			
FS1North , Filling (Rolling by Pass) (+19.7 to +22.4mPD)	20 days	Sat 14/3/20	Mon 6/4/20	100%	0 days 88			
FS1 North Filling Stage 2 (+20 to +27.5 mPD)	100 days	Tue 7/4/20	Fri 31/7/20	100%	0 days 87	3 days per SRT +25day (CE16)		
Drainage and Maintenance Access (+20 to +27.5 mpD)	65 days	Sat 1/8/20	Thu 15/10/20	100%	0 days 90	85m, 4.m per day		
Filling in 3m Zone (below +27.5mPD)	58 days	Mon 9/3/20	Thu 21/5/20	100%	0 days			
Benching Works for Rolling by Pass Surface	3 days	Mon 9/3/20	Wed 11/3/20	100%	0 days 91			
Lay Filter Layer	5 days	Thu 12/3/20	Tue 17/3/20	100%	0 days 93			
Filling by SRT (7.5m/ 3 day per 5 day)	50 days	Wed 18/3/20	Thu 21/5/20	100%	0 days 94			
Filling in 3m Zone (below +27.5mPD) (Rockfill)	23 days	Mon 9/3/20	Fri 3/4/20	100%	0 days			
7 Benching Works for Rolling by Pass Surface	3 days	Mon 9/3/20	Wed 11/3/20	100%	0 days			
Lay Rockfill Layer (7.5m/1m per 5 day)	20 days	Thu 12/3/20	Fri 3/4/20	100%	0 days 97			
Drainage and Maintenance Access	22 days	Sat 2/5/20	Wed 27/5/20	100%	0 days 98			
0 FS1 North Filling Stage 3 (+27 to +35 mPD)	171 days	Tue 26/11/19	Thu 11/6/20	100%	0 days	3 days per SRT +9 day (CE16)+17day (PMI 57)		
1 Filling (Rolling by Pass)(~3m, 0.5m per day)	6 days	Tue 26/11/19	Mon 2/12/19	100%	0 days 90			
2 Filling in 3m Zone (below +27.5mPD) (Rockfill)	23 days	Sat 4/4/20	Thu 7/5/20	100%	0 days			
Benching Works for Rolling by Pass Surface 4 Lay Rockfill Layer (7.5m/1m per 5 day)	3 days	Sat 4/4/20 Thu 9/4/20	Wed 8/4/20 Thu 7/5/20	100%	0 days 98,101			
Lay Rockfill Layer (7.5m/1m per 5 day) Drainage and Maintenance Access (+27.5 to +35 mpD)	20 days 30 days	Fri 8/5/20	Thu 11/6/20	100%	0 days 103	120m, 4m per day		
5 FS1 North Filling Stage 4 (+35 to +42.5 mPD), Upgrading of Existing Slope Feature 3NW-C/F37	374 days	Tue 3/12/19	Wed 10/2/21	32%	0 days 104 252.7 days	3 days per SRT, ~7.5m = 25 layers		
7 Filling (Rolling by Pass)(~3m, 0.5m per day)	15 days	Tue 3/12/19	Thu 19/12/19	100%	0 days 101	3 days per 3h1, ~7.3h = 23 layers		
Bit Filling in 3m Zone (below +27.5mPD) (Rockfill)	123 days	Wed 2/9/20	Fri 29/1/21	19%	100 days			
Ø Benching Works for Rolling by Pass Surface	3 days	Wed 2/9/20	Fri 4/9/20	100%	0 days 107,104			
0 Lay Rockfill Layer (7.5m/1m per 5 day)	120 days	Sat 5/9/20	Fri 29/1/21	17%	100 days 109			
1 Drainage and Maintenance Access (+30 to +42.5 mpD)	10 days	Sat 30/1/21	Wed 10/2/21	100%	0 days 110	140m, 4m per day		
2 FS1 North Filling Stage 5 (+42.5 to +50mPD), Upgrading of Existing Slope Feature 3NW-C/F37	425 days	Fri 20/12/19	Wed 28/4/21	0%	425 days	3 days per SRT, ~7.5m = 25 layers		
3 Filling (Rolling by Pass)(~3m, 0.5m per day)	15 days	Fri 20/12/19	Thu 9/1/20	0%	15 days 107			
4 Filling in 3m Zone (below +27.5mPD) (Rockfill)	<mark>50 days</mark>	Thu 11/2/21	Fri 16/4/21	0%	50 days			
5 Benching Works for Rolling by Pass Surface	10 days	Thu 11/2/21	Thu 25/2/21	0%	10 days 111			
6 Lay Rockfill Layer (7.5m/1m per 5 day)	<mark>40 days</mark>	Fri 26/2/21	Fri 16/4/21	0%	40 days 115			
7 Drainage and Maintenance Access (+42.5 to +50 mpD)	<mark>10 days</mark>	Sat 17/4/21	Wed 28/4/21	0%	10 days 116	130m, 4m per day		
Civil Works for Pick-up/Drop-off area (Part A1, M011 CH020 to CH140)	75 days	Thu 11/2/21	Mon 17/5/21	0%	75 days			
9 Waterworks / Drainage / Sewerage/ Utilities Works	31 days	Thu 11/2/21	Mon 22/3/21	0%	31 days			
0 Sewerage Works / Drainage Works	28 days	Thu 11/2/21	Thu 18/3/21	0%	28 days 111	~225m main drains, 8m per day		
1 Watermain FW1a (CH29-100)	7 days	Thu 11/3/21	Thu 18/3/21	0%	7 days 120SS+21 days			
22 Road Lighting Civil Works Provision	5 days	Thu 11/3/21	Tue 16/3/21	0%	5 days 120SS+21 days			
3 Utilities (by others)	10 days	Thu 11/3/21	Mon 22/3/21	0%	10 days 120SS+21 days	~150m ducting, 15m per day		
Carriageway and Footway Backfilling to Formation Level	44 days	Tue 23/3/21	Mon 17/5/21	0%	44 days	-120m 100m por 6 dov		
	8 days 24 days	Tue 23/3/21 Thu 1/4/21	Wed 31/3/21 Mon 3/5/21	0%	8 days 119 24 days 125	~120m, 100m per 6 day ~120m, 20m per 3 day + 6 day uchannel		
6 Carriageway 7 Footpath, Road Marking and Street Furniture	12 days	Tue 4/5/21	Mon 17/5/21	0%	12 days 125	~120m, 20m per 3 day + 6 day uchannel ~120m, 20m per 2 day		
Landscape Works	85 days	Thu 11/2/21	Sat 29/5/21	0%	85 days	12011, 2011 por 2 day		
Shrubs Planting at RW1	30 days	Mon 19/4/21	Tue 25/5/21	0%	30 days 34			
Woodland Planting at Site 1, 2, 3	30 days	Mon 19/4/21	Tue 25/5/21	0%	30 days 34			
1 Hydroseeding at Fill Slope	80 days	Thu 11/2/21	Mon 24/5/21	0%	80 days 106			
2 Shrubs Planting at Pick-up/ Drop Off	10 days	Thu 29/4/21	Tue 11/5/21	0%	10 days 117			
3 Irrigation System and Water Points (Except Water Connection)	24 days	Fri 19/3/21	Mon 19/4/21	0%	24 days 121			
Tree Planting Works	10 days	Tue 18/5/21	Sat 29/5/21	0%	10 days 127		*	
Section 2 of the Works (Parts B1, B2, C, D, F, G1 & G2)	1222 days	Fri 15/12/17	Sat 29/1/22	52%	589.24 days	Change from 30/6 to 22/7 Due to EP delay		
Part B1	1091 days	Sat 28/4/18	Wed 29/12/21	61%	426.85 days			
Ground Investigation and Geotechnical instrumentation for Commencement of Slopework	96 days	Sat 28/4/18	Wed 22/8/18	100%	0 days			
Verification Drillholes (10 Nos., VDH3, 6, 10-15,19-20) and Preliminary Results Submission	95 days	Sat 28/4/18	Tue 21/8/18	100%	0 days			
Design Review	36 days	Thu 12/7/18	Wed 22/8/18	100%	0 days			
Cut Slopes CS1 & CS2	170 days	Fri 12/10/18	Mon 13/5/19	100%	0 days			
Excavation (crest to +55mPD)	4 days	Fri 12/10/18	Tue 16/10/18	100%	0 days			
Excavation (+55 to+50mPD)	11 days	Fri 12/10/18	Wed 24/10/18	100%	0 days			
Drainage and Maintenance Access (at +55mPD berm)	55 days	Tue 16/10/18	Tue 18/12/18	100%	0 days			
4 Drainage and Maintenance Access (+55 to +50 slope surface)	180 days	Tue 16/10/18	Mon 13/5/19	100%	0 days			
5 Cut Slope CS3	44 days	Wed 4/11/20	Thu 24/12/20	0%	44 days			
6 Excavation (crest to toe) 7 Drainage and Maintenance Access	15 days	Wed 4/11/20	Fri 20/11/20	0%	15 days			
Drainage and Maintenance Access	29 days	Sat 21/11/20	Thu 24/12/20	0%	29 days 146			·

te For	ct No. CV/2016/10 rmation and Associated Infrastructural Works for pment of Columbarium at Sandy Ridge Cemetery		3 Mo	nth Rolling	g Progra	mme (May 2021 to July 2021)	rsin G	hong Tsun Yip Joint Ven Updated Date : May
		Duration	Start	Finish	% Complete	Remaining Duration Predecessors Notes	2	021
148	Cut Slopes CS11 , CS12 and CS13	837 days	Thu 23/8/18	Mon 21/6/21	79%	176.66 days	5 6	7
49	Slope Cutting (crest to+94.5mPD)	31 days	Thu 23/8/18	Fri 28/9/18	100%	0 days		
0	Drainage and Maintenance Access (at crest)	29 days	Tue 2/10/18	Mon 5/11/18	100%	0 days		
1	Slope Cutting and Soil Nail (+94.5 to +87mPD, 59 nos. of Soil Nail)	40 days	Sat 6/10/18	Thu 22/11/18	100%	0 days		
2	Drainage and Maintenance Access (at +94.5mPD berm)	7 days	Fri 26/10/18	Fri 2/11/18	100%	0 days		
3	Drainage and Maintenance Access (+94.5 to +87mPD slope surface)+ GI Works	24 days	Fri 26/10/18	Thu 22/11/18	100%	0 days Temporary stop Due to	RFI22	
1 5	Slope Cutting and Soil Nail (+87 to+79.5mPD, 84Nos. of Soil Nail) Drainage and Maintenance Access (at +87mPD berm)	40 days 33 days	Thu 8/11/18 Fri 26/10/18	Mon 24/12/18 Mon 3/12/18	100%	0 days 0 days		
5	RFI50 (Waiting Instruction / Abortive Works / Additional Earthwork+25m Uchannel at CS13crest)	61 days	Thu 22/11/18	Mon 4/2/19	100%	0 days		
7	RFI(Slope Cutting and Soil Nail - additional 24 Nos. of Soil Nail)	39 days	Fri 11/1/19	Thu 28/2/19	100%	0 days		
8	RFI50(Additional Drainage and Mantenance Access (at 87mPD berm)	13 days	Fri 1/2/19	Tue 19/2/19	100%	0 days		
9	Drainage and Maintenance Access (+79.5 to +87mPD slope surface)+ GI Works	10 days	Fri 8/2/19	Tue 19/2/19	100%	0 days		
60	Slope Cutting and Soil Nail (+72 to +79.5,115+21Nos. of Soil Nail)	90 days	Mon 21/1/19	Wed 15/5/19	100%	0 days		
1	Drainage and Maintenance Access (at +79.5mPD berm)	42 days	Fri 1/2/19	Mon 25/3/19	100%	0 days		
2	Drainage and Maintenance Access (+72 to +79.5mPD slope surface, CS13 crest)+ GI Works	13 days	Thu 2/5/19	Fri 17/5/19	100%	0 days		
3	Slope Cutting and Soil Nail (+64.5 to +72 mPD, ,192 Nos. of Soil Nail) Drainage and Maintenance Access (at +72mPD berm)	67 days	Mon 8/4/19 Sat 13/4/19	Tue 2/7/19 Wed 22/5/19	100%	0 days		
5	Drainage and Maintenance Access (at +7211FD bein) Drainage and Maintenance Access (+64.5 to +72mPD slope surface)+ GI Works	29 days 17 days	Wed 3/7/19	Mon 22/7/19	100%	0 days 0 days 163 ~85m, 5m/day using 2 g	ang	
6	Slope Cutting and Soil Nail (+57 to +64.5mPD, 521 nos. of Soil Nail, 96 nos. of Raking Drain)	180 days	Tue 2/7/19	Thu 6/2/20	100%	0 days		
7	Drainage and Maintenance Access (at +64.5mPD berm)	40 days	Tue 6/8/19	Sat 21/9/19	100%	0 days 166SS+30 days ~200m, 5m/day using 2	gang	
8	Drainage and Maintenance Access (+57 to +64.5mPD slope surface)+ GI Works	17 days	Fri 7/2/20	Wed 26/2/20	100%	0 days 166 ~85m, 5m/day using 2 g		
9	Slope Cutting and Soil Nail for CS11 (+57 to +49.5 mPD, 88 nos. of Soil Nail, 19 nos. of Raking Drain)	38 days	Thu 12/3/20	Wed 29/4/20	100%	0 days 193 4 nails/day & 10 drains/d	day using 2 rigs+14days	
70	Drainage and Maintenance Access for CS11 (at +57mPD berm)	20 days	Thu 26/3/20	Wed 22/4/20	100%	0 days 169SS+12 days ~60m, 3m/day		
1	Drainage and Maintenance Access for CS11 (below57 mPD slope surface/ on RW11)+ GI Works	17 days	Sat 2/5/20	Thu 21/5/20	100%	0 days 169 ~50m, 3m/day		
72	Slope Cutting and Soil Nail for CS12/CS13 (+57 to +49.5 mPD, 497 nos. of Soil Nail, 80 nos. of Raking Drain)	85 days	Fri 7/2/20	Fri 22/5/20	100%	0 days 166,167,168FS-28 8 nails/day & 20 drains/o days	day using 4 rigs+21days	
73	Drainage and Maintenance Access for CS12/13 (at +57mPD berm)	35 days	Wed 11/3/20	Fri 24/4/20	100%	0 days 172SS+28 days ~175m, 5m/day using 2	gang	
4	Drainage and Maintenance Access for CS12/CS13 (+49.5 to + 57mPD slope surface)+ GI Works	20 days	Sat 23/5/20	Mon 15/6/20	100%	0 days 172 ~100m, 5m/day using 2		
5	Stope Cutting and Sail Nail for CS12/CS12 (142 to 140 5 mPD 292 peop of Sail Nail 97 peop of Balving Drain)	170 dava	Tue 2/6/20	Tue 22/12/20	44%	06 days 172 172 174ES 12 8 pails/day 8 20 drains/		
2	Slope Cutting and Soil Nail for CS12/CS13 (+42 to +49.5 mPD, 383 nos. of Soil Nail, 87 nos. of Raking Drain)	170 days	Tue 2/6/20	Tue 22/12/20	44%	96 days 172,173,174FS-12 8 nails/day & 20 drains/c days	Jay using 4 rigs+2 roays	
5	Drainage and Maintenance Access for CS12/13 (at +49.5mPD berm)	42 days	Fri 3/7/20	Thu 20/8/20	100%	0 days 175SS+25 days ~210m, 5m/day using 2	gang	
7	Drainage and Maintenance Access for CS12/CS13 (+42 to +49.5mPD slope surface)+ GI Works	17 days	Sat 29/8/20	Thu 17/9/20	100%	0 days 175 ~85m, 5m/day using 2 g	ang	
3	Slope Cutting and Soil Nail for CS13 (+42 to +34.5 mPD, 126 nos. of Soil Nail, 55 nos. of Raking Drain)	59 days	Wed 23/12/20	Mon 8/3/21	0%	59 days 175,176,177FS-20 4 nails/day & 10 drains/c days	day using 2 rigs+21days	
9	• • •	28 days	Tue 19/1/21	Tue 23/2/21	0%	28 days 178SS+20 days ~140m, 5m/day using 2	gang	
0		25 days	Tue 9/3/21	Fri 9/4/21	0%	25 days 178 ~75m, 3m/day		
1	Slope Cutting and Soil Nail for CS13 (+34.5 mPDto toe, 73 nos. of Soil Nail, 27 nos. of Raking Drain)	57 days	Tue 16/3/21	Wed 26/5/21	0%	57 days 178,179,180FS-19 2nails/day & 5 drains/da days	y using 1 rigs+14 days	
32	Drainage and Maintenance Access for CS13 (at +34.5mPD berm)	27 days	Mon 12/4/21	Thu 13/5/21	0%	27 days 181SS+20 days ~80m, 3m/day		
3		21 days	Thu 27/5/21	Mon 21/6/21	0%	21 days 181 ~65m, 3m/day		
4	Retaining Wall RW11 General Excavation with ELS to Formation Level RW11 Bay 1-4	98 days	Tue 12/11/19		100%	0 days 0 days 166 ~30day for 4 bays		
5		30 days 5 days	Tue 12/11/19 Tue 17/12/19	Mon 16/12/19 Sat 21/12/19	100%	0 days 166 ~30day for 4 bays 0 days 185 5 days for each test		
7	Base slab of Retaining Wall RW11 Bay 1-4	10 days	Sun 22/12/19	Mon 6/1/20	100%	0 days 186 4 to 5 days per bay		
8	Wall Stem of Retaining Wall RW11 Bay 1-4	20 days	Mon 13/1/20	Fri 7/2/20	100%	0 days 187 7 to 8 days per bay		
9	Plate Load Test and Blinding Layer for RW11 Bays 5-6	5 days	Tue 17/12/19	Sat 21/12/19	100%	0 days 185 5 days for each test		
0	Base slab of Retaining Wall RW11 Bay 5-6	10 days	Sun 22/12/19	Mon 6/1/20	100%	0 days 189 4 to 5 days per bay		
1	Wall Stem of Retaining Wall RW11 Bay 5-6	20 days	Tue 7/1/20	Sat 1/2/20	100%	0 days 190 7 to 8 days per bay		
2	Protective Coating / Subsoil Drain / Filter Layer	5 days	Sat 8/2/20	Thu 13/2/20	100%	0 days 188,191		
03	Filling Works behind Retaining Wall RW11, (~5.8m, up to +54.8mPD)	23 days	Fri 14/2/20	Wed 11/3/20	100%	0 days 192 ~5.8m, 0.25m per day (F	Holling by Pass)	
4		73 days 60 days	Tue 1/12/20 Tue 1/12/20	Tue 2/3/21 Mon 8/2/21	0%	73 days		
5		56 days	Mon 28/12/20	Tue 2/3/21	0%	60 days 172SS+110 days 56 days		
7		36 days	Mon 28/12/20	Sat 6/2/21	0%	36 days 172SS+110 days 2nails/ day using 1 rig +2	21days	
8		20 days	Mon 8/2/21	Tue 2/3/21	0%	20 days 197 ~60m, 3m per day		
9		753 days	Thu 16/8/18	Mon 1/3/21	98%	17.5 days		
0	Slope Cutting and Soil Nail (crest to+69.5mPD,25 nos. of Soil Nail)	36 days	Thu 16/8/18	Thu 27/9/18	100%	0 days		
1	Drainage and Maintenance Access (at crest)	15 days	Mon 20/8/18	Wed 5/9/18	100%	0 days		
2	Slope Cutting and Soil Nail (+62 to +69.5mPD, 99 nos. of Soil Nail, 37 nos. of Raking Drain)	62 days	Mon 3/9/18	Fri 16/11/18	100%	0 days		
3 4	Drainage and Maintenance Access (at +69.5mPD berm) Drainage and Maintenance Access (+62 to +69.5mPD slope surface)+ GI Works	49 days 36 days	Mon 3/9/18 Fri 26/10/18	Thu 1/11/18 Thu 6/12/18	100%	0 days 0 days		
5	Slope Cutting and Soil Nail (+54.5 to +62mPD, 237 nos. of Soil Nail, 58 nos. of Raking Drain)	66 days	Wed 7/11/18	Fri 25/1/19	100%	0 days		
5	Drainage and Maintenance Access (at +62mPD berm)	26 days	Wed 7/11/18	Thu 6/12/18	100%	0 days		
	Drainage and Maintenance Access (+54.5 to +62mPD slope surface)+ GI Works	38 days	Sat 29/12/18	Fri 15/2/19	100%	0 days		
3	Slope Cutting and Soil Nail (+47 to +54.5mPD, 548 nos. of Soil Nail, 86 nos. of Raking Drain)	155 days	Mon 7/1/19	Thu 18/7/19	100%	0 days		
)	Drainage and Maintenance Access (at +54.5mPD berm)	61 days	Sat 19/1/19	Wed 3/4/19	100%	0 days		
0	Drainage and Maintenance Access (+54.5 to +47mPD slope surface)+ GI Works	90 days	Wed 3/4/19	Thu 25/7/19	100%	0 days		
1	Slope Cutting and Soil Nail (+39.5 to +47mPD, 490 nos. of Soil Nail, 107 nos. of Raking Drain)	94 days	Mon 6/5/19	Mon 26/8/19	100%	0 days		
2	Drainage and Maintenance Access (at +47mPD berm)	38 days	Tue 2/7/19	Wed 14/8/19	100%	0 days		
3	Drainage and Maintenance Access (+39.5 to +47mPD slope surface)+ GI Works	23 days	Tue 27/8/19	Mon 23/9/19	100%	0 days 211 ~70m, 3m/day	14 days	
4 5	Slope Cutting and Soil Nail (+39.5 to toe, 83 nos. of Soil Nail, 18nos. of Raking Drain) Drainage and Maintenance Access (at +39.5mPD berm and Slope Surface) + GI Works	59 days 30 days	Mon 4/5/20 Tue 5/1/21	Mon 13/7/20 Mon 1/3/21	100%	0 days 211 2nails/ day using 1 rig + 20.4 days ~90m, 3m/day	14 uays	
5		50 days	Tue 2/3/21	Wed 5/5/21	0%	52 days		
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Contract No. CV/2016/10 Site Formation and Associated Infrastructural Works for Development of Columbarium at Sandy Ridge Cemetery

3 Month Rolling Programme (May 2021 to July 2021)

Task Narr	ne	Duration	Start	Finish	% Complete Ren	naining Duration Predecessors	Notes
'	Drainage and Maintenance Access at toe	28 days	Tue 2/3/21	Tue 6/4/21	0%	28 days 215	110m, 4m per day
3	FS17 Filling Stage 1 (~2.5m max)	24 days	Wed 7/4/21	Wed 5/5/21	0%	24 days 217	3 days per SRT, ~2.5m = 8 layers
	Civil Works for Sha Ling Road (M001 CH710 to CH825, MO11 CH00 to CH20, M014)	84 days	Mon 28/12/20	Mon 12/4/21	0%	84 days	
	Waterworks / Drainage / Sewerage/ Utilities Works	27 days	Mon 28/12/20	Thu 28/1/21	0%	27 days	
	Sewerage Works / Drainage Works	18 days	Mon 28/12/20	Mon 18/1/21	0%	18 days 140,147	~145m main drains, 8m per day
	Watermain FW1 (CH532-637), FW1a (CH000-029) and FW2 (CH530-618)	15 days	Tue 12/1/21	Thu 28/1/21	0%	15 days 221SS+12 days	~220m water mains, 15m per day
	Road Lighting Civil Works Provision	8 days	Tue 12/1/21	Wed 20/1/21	0%	8 days 221SS+12 days	~110m ducting, 15m per day
	Utilities (by others)	3 days	Tue 12/1/21	Thu 14/1/21	0%	3 days 221SS+12 days	~40m ducting, 15m per day
1	Carriageway and Footway	57 days	Fri 29/1/21	Mon 12/4/21	0%	57 days	
1	Backfilling to Formation Level	11 days	Fri 29/1/21	Wed 10/2/21	0%	11 days 220	~175m, 100m per 6 day
	Carriageway	28 days	Thu 11/2/21	Thu 18/3/21	0%	28 days 226	~175m, 20m per 3 day + 1 day uchannel
	Footpath, Road Marking and Street Furniture	18 days	Fri 19/3/21	Mon 12/4/21	0%	18 days 227	~175m, 20m per 2 day
	• • •						175m, 20m per 2 day
	Civil Works for PDA (PT04, PT05, PT06, PT07 and PT08)	190 days	Fri 5/6/20	Thu 21/1/21	5%	180.15 days	
	Waterworks / Drainage / Sewerage/ Utilities Works	128 days	Fri 5/6/20	Fri 6/11/20	8%	117.25 days	
	Drainage Works (with Petrol Interceptor)	90 days	Fri 5/6/20	Sat 19/9/20	9%	81.6 days 440	~215m main drains, 8m per day + 15 day for Petrol Intercepter(3 nos
	Road Lighting Civil Works Provision	10 days	Tue 27/10/20	Fri 6/11/20	0%	10 days 231FS+28 days	~150m ducting, 15m per day
	Carriageway and Footway	62 days	Sat 7/11/20	Thu 21/1/21	0%	62 days	
	Backfilling to Formation Level	13 days	Sat 7/11/20	Sat 21/11/20	0%	13 days 230	~435m, 200m per 6 day
	Carriageway	27 days	Mon 23/11/20	Wed 23/12/20	0%	27 days 234	~435m, 60m per 3 day + 5 day uchannel
	Footpath, Road Marking and Street Furniture	22 days	Thu 24/12/20	Thu 21/1/21	0%	22 days 235	~435m, 40m per 2 day
	Civil Works for PDA (M011 CH140-215,M08 CH70-102)	65 days	Tue 9/3/21	Fri 28/5/21	0%	65 days	
	Waterworks / Drainage / Sewerage/ Utilities Works	27 days	Tue 9/3/21	Mon 12/4/21	0%	27 days	
	Sewerage Works / Drainage Works	26 days	Tue 9/3/21	Sat 10/4/21	0%	26 days 178	~210m main drains, 8m per day
	Road Lighting Civil Works Provision	10 days	Mon 29/3/21	Mon 12/4/21	0%	10 days 239SS+17 days	~140m ducting, 15m per day
	Utilities (by others)		Mon 29/3/21	Mon 12/4/21	0%	10 days 23933+17 days	~140m ducting, 15m per day
		10 days					~ 140m ducting, 15m per day
	Carriageway and Footway	38 days	Tue 13/4/21	Fri 28/5/21	0%	38 days	
	Backfilling to Formation Level	6 days	Tue 13/4/21	Mon 19/4/21	0%	6 days 238	~105m, 100m per 6 day
	Carriageway	21 days	Tue 20/4/21	Fri 14/5/21	0%	21 days 243	~105m, 20m per 3 day + 5 day uchannel
	Footpath, Road Marking and Street Furniture	11 days	Sat 15/5/21	Fri 28/5/21	0%	11 days 244	~105m, 20m per 2 day
	Civil Works for Sha Ling Road (M001 CH610-710)	62 days	Fri 19/3/21	Fri 4/6/21	0%	62 days	
	Waterworks / Drainage / Sewerage/ Utilities Works	27 days	Fri 19/3/21	Thu 22/4/21	0%	27 days	
	Sewerage Works / Drainage Works	20 days	Fri 19/3/21	Wed 14/4/21	0%	20 days 436,227,235,178	~160m main drains, 8m per day
	Watermain FW1 (CH433-532) and FW2 (CH433-530)	13 days	Thu 8/4/21	Thu 22/4/21	0%	13 days 248SS+14 days	~195m water mains, 15m per day
	Road Lighting Civil Works Provision	7 days	Thu 8/4/21	Thu 15/4/21	0%	7 days 248SS+14 days	~100m ducting, 15m per day
	Utilities (by others)	9 days	Thu 8/4/21	Sat 17/4/21	0%	9 days 248SS+14 days	~130m ducting, 15m per day
	Carriageway and Footway	35 days	Fri 23/4/21	Fri 4/6/21	0%	35 days	room adding, rom per ady
	Backfilling to Formation Level	6 days	Fri 23/4/21	Thu 29/4/21	0%	6 days 247	~100m, 100m per 6 day
	-						
	Carriageway	19 days	Fri 30/4/21	Mon 24/5/21	0%	19 days 253	~100m, 20m per 3 day + 4 day uchannel
	Footpath, Road Marking and Street Furniture	10 days	Tue 25/5/21	Fri 4/6/21	0%	10 days 254	~100m, 20m per 2 day
	Civil Works for Sha Ling Road (M001 CH480-610, M08 CH00-70)	471 days	Tue 3/3/20	Sat 2/10/21	22%	365.4 days	
	Sewage Detention Tank Civil and Structural Works	449 days	Tue 3/3/20	Sat 4/9/21	30%	314.49 days	
	Civil and Structural Works	74 days	Tue 3/3/20	Wed 3/6/20	80%	15 days	
	Excavation by open cut	25 days	Tue 3/3/20	Tue 31/3/20	40%	15 days	
	Blinding layer concreting	1 day	Wed 1/4/20	Wed 1/4/20	100%	0 days 259	
	Construction of base slab	7 days	Thu 2/4/20	Tue 14/4/20	100%	0 days 260	
	Construction of wall and top slab	20 days	Wed 15/4/20	Sat 9/5/20	100%	0 days 261	
	Construction of manhole	7 days	Mon 11/5/20	Mon 18/5/20	100%	0 days 262	
	Backgilling	14 days	Tue 19/5/20	Wed 3/6/20	100%	0 days 263	
	VDS and AMS for Sewage Detention Tank (Permanment Design and Submission Approval)	250 days	Mon 18/5/20	Wed 17/3/21	32%	170 days 264	
	VDS and AMS for Sewage Detention Tank	140 days	Thu 18/3/21	Sat 4/9/21	0%	140 days 265	
	Waterworks / Drainage / Sewerage/ Utilities Works	45 days	Tue 25/5/21	Sat 17/7/21	0%	45 days	
	Sewerage Works / Drainage Works	40 days	Tue 25/5/21	Mon 12/7/21	0%	40 days 258,254,244	~320m main drains, 8m per day
	Watermain FW1 and FW2 (CH310-433)	17 days	Sat 26/6/21	Fri 16/7/21	0%	17 days 268SS+27 days	~245m water mains, 15m per day
	Road Lighting Civil Works Provision	18 days	Sat 26/6/21	Sat 17/7/21	0%	18 days 268SS+27 days	~270m ducting, 15m per day
	Utilities (by others)	17 days	Sat 26/6/21	Fri 16/7/21	0%	17 days 268SS+27 days	~250m ducting, 15m per day
	Carriageway and Footway	64 days	Mon 19/7/21	Sat 2/10/21	0%	64 days	
	Backfilling to Formation Level	12 days	Mon 19/7/21	Sat 31/7/21	0%	12 days 267	~200m, 100m per 6 day
	Carriageway	32 days	Mon 2/8/21	Tue 7/9/21	0%	32 days 273	~200m, 20m per 3 day + 2 day uchannel
	Footpath, Road Marking and Street Furniture	20 days	Wed 8/9/21	Sat 2/10/21	0%	20 days 274	~200m, 20m per 2 day
	Civil Works for Sha Ling Road (M001 CH360-480)	74 days	Sat 5/6/21	Wed 1/9/21	0%	74 days	
	Waterworks / Drainage / Sewerage/ Utilities Works		Sat 5/6/21	Tue 20/7/21	0%		
		37 days				37 days	200m main draing. 9m par day
	Severage Works / Drainage Works	28 days	Sat 5/6/21	Fri 9/7/21	0%	28 days 255	~220m main drains, 8m per day
	Watermain FW1 and FW2 (CH175-310)	18 days	Tue 29/6/21	Tue 20/7/21	0%	18 days 278SS+19 days	~270m water mains, 15m per day
	Road Lighting Civil Works Provision	15 days	Tue 29/6/21	Fri 16/7/21	0%	15 days 278SS+19 days	~220m ducting, 15m per day
	Utilities (by others)	11 days	Tue 29/6/21	Mon 12/7/21	0%	11 days 278SS+19 days	~110m ducting, 10m per day
	Carriageway and Footway	37 days	Wed 21/7/21	Wed 1/9/21	0%	37 days	
	Backfilling to Formation Level	7 days	Wed 21/7/21	Wed 28/7/21	0%	7 days 277	~120m, 100m per 6 day
	Carriageway	18 days	Thu 29/7/21	Wed 18/8/21	0%	18 days 283	~120m, 20m per 3 day
	Footpath, Road Marking and Street Furniture	12 days	Thu 19/8/21	Wed 1/9/21	0%	12 days 284	~120m, 20m per 2 day
	Civil Works for Sha Ling Road (M001 CH180-360)	109 days	Thu 19/8/21	Wed 29/12/21	0%	109 days	
	Waterworks / Drainage / Sewerage/ Utilities Works	59 days	Thu 19/8/21	Fri 29/10/21	0%	59 days	
						•	~320m main draine. 8m par day
	Drainage and Sewerage Works	40 days	Thu 19/8/21 Mon 20/9/21	Wed 6/10/21 Tue 19/10/21	0%	40 days 216,284	~320m main drains, 8m per day ~350m water mains, 15m per day
				THE 19/10/21	U%	23 days 288SS+27 days	
	Watermain FW1 and FW2 (CH000-175) Road Lighting Civil Works Provision	23 days 22 days	Mon 20/9/21	Mon 18/10/21	0%	22 days 288SS+27 days	~320m ducting, 15m per day



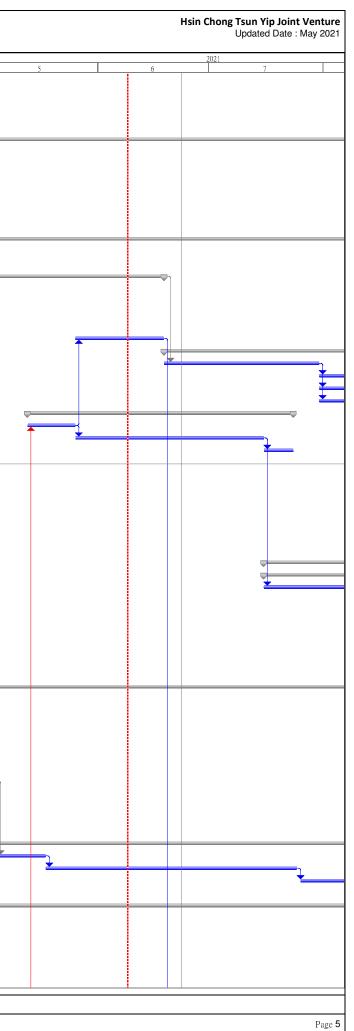
Contract No. CV/2016/10 Site Formation and Associated Infrastructural Works for Development of Columbarium at Sandy Ridge Cemetery

3 Month Rolling Programme (May 2021 to July 2021)

	t of Columbarium at Sandy Ridge Cemetery							
Task N	ame	Duration	Start	Finish	% Complete Re	maining Duration Predecessors	Notes	
191	Utilities (by others)	32 days	Mon 20/9/21	Fri 29/10/21	0%	32 days 288SS+27 days	~160m ducting, 5m per day	
92	Carriageway and Footway	50 days	Sat 30/10/21	Wed 29/12/21	0%	50 days	room ddeling, om per ddy	
92	Backfilling to Formation Level		Sat 30/10/21	Wed 10/11/21	0%	10 days 287	~160m, 100m per 6 day	
93	-	10 days						
	Carriageway	24 days	Thu 11/11/21	Wed 8/12/21	0%	24 days 293	~160m, 20m per 3 day	
5	Footpath, Road Marking and Street Furniture	16 days	Thu 9/12/21	Wed 29/12/21	0%	16 days 294	~160m, 20m per 2 day	
5 Pa	art B2, G1 and G2	1201 days	Fri 15/12/17	Wed 5/1/22	58%	506.96 days		
7	Access Date for Part G1 and G2	0 days	Tue 5/2/19	Tue 5/2/19	0%	0 days		
1	Land Decontamination Works	293 days	Tue 2/10/18	Thu 26/9/19	100%	0 days		
	Re-appraisal and Contamination Assessment Plan (CAP) Submission to EPD	10 days	Tue 2/10/18	Fri 12/10/18	100%	0 days		
	EPD Review and Acceptance for CAP	195 days	Fri 12/10/18	Wed 12/6/19	100%	0 days		
1	Environmental SI for Determination of Decontamination and SI Testing		Tue 28/5/19	Mon 19/8/19	100%			
	0	70 days				0 days		
2	Contamination Assessment Report (CAR) Submission to EPD	18 days	Tue 20/8/19	Mon 9/9/19	100%	0 days 301		
3	EPD Review and Acceptance for CAR	14 days	Tue 10/9/19	Thu 26/9/19	100%	0 days 302		
1	Civil Works for Sha Ling Road (M001 CH40-110)	668 days	Tue 21/5/19	Tue 17/8/21	73%	180.94 days		
	Objection from Local Village (EW16 & 18)	348 days	Tue 21/5/19	Tue 21/7/20	100%	0 days	EW No.16,18	
	Application for Road Closure / Road Divertion	10 days	Wed 22/7/20	Sat 1/8/20	0%	10 days 305		
-	Noise Barrier Bay 5 to Bay 8	260 days	Mon 3/8/20	Fri 18/6/21	80%	52 days		
-	General Excavation with ELS to Formation Level Bay 5 to Bay 8	15 days	Mon 3/8/20	Wed 19/8/20	100%	0 days 306		
-	Base slab of Noise Barrier Bay 5 to Bay 8	30 days	Thu 20/8/20	Wed 23/9/20	100%	0 days 308		
-	· · ·	-						
_	Wall Stem of Noise Barrier Bay 5 to Bay 8	30 days	Thu 24/9/20	Sat 31/10/20	100%	0 days 309		
	Protective Coating /Temp Fill	5 days	Mon 2/11/20	Fri 6/11/20	100%	0 days 310		
	Installation of panel	20 days	Wed 26/5/21	Fri 18/6/21	0%	20 days 319		
	Waterworks / Drainage / Sewerage/ Utilities Works	50 days	Sat 19/6/21	Tue 17/8/21	0%	50 days		
1	Sewerage Works / Drainage Works	35 days	Sat 19/6/21	Fri 30/7/21	0%	35 days 307	~140m main drains, 4m per day	
	Watermain FW3 (CH045-105)	10 days	Sat 31/7/21	Wed 11/8/21	0%	10 days 314	~60m water mains, 6m per day	
	Road Lighting Civil Works Provision	10 days	Sat 31/7/21	Wed 11/8/21	0%	10 days 314	~140m ducting, 15m per day	
		-						
_	Utilities (by others)	15 days	Sat 31/7/21	Tue 17/8/21	0%	15 days 314	~70m ducting, 5m per day	
	Carriageway and Footway	59 days	Thu 13/5/21	Fri 23/7/21	0%	59 days		
	Backfilling to Formation Level	10 days	Thu 13/5/21	Tue 25/5/21	0%	10 days 370	~70m, 100m per 10 day	
1	Carriageway	42 days	Wed 26/5/21	Thu 15/7/21	0%	42 days 319	~70m, 20m per 12 day	
	Footpath, Road Marking and Street Furniture	7 days	Fri 16/7/21	Fri 23/7/21	0%	7 days 320	~70m, 20m per 2 day	
-	Ground Investigation and Geotechnical instrumentation for Commencement of Slopework	45 days	Fri 8/2/19	Mon 1/4/19	100%	0 days		
	Trial Pit Excavation / Installation of Instruments and Preliminary Results Submission	-	Fri 8/2/19	Mon 1/4/19	100%	•		
		45 days				0 days 11,297		
	Fill Slope FS13 and FS14	56 days	Wed 18/8/21	Mon 25/10/21	0%	56 days		
	Drainage and Maintenance Access at toe	32 days	Wed 18/8/21	Fri 24/9/21	0%	32 days 322,313	260m, 8m per day	
	FS13 and FS14 Filling Stage 1 (~2.5m max)	24 days	Sat 25/9/21	Mon 25/10/21	0%	24 days 325	3 days per SRT, ~2.5m = 8 layers	
	Cut Slope CS14	20 days	Tue 26/10/21	Wed 17/11/21	0%	20 days		
	Slope Cutting (crest totoe)	3 days	Tue 26/10/21	Thu 28/10/21	0%	3 days 324		
	Drainage and Maintenance Access (at crest)	17 days	Fri 29/10/21	Wed 17/11/21	0%	17 days 328	~50m, 3m/day	
	Civil Works for Sha Ling Road (M001 CH110-180)	143 days	Fri 16/7/21	Wed 5/1/22	0%	143 days		
	Waterworks / Drainage / Sewerage/ Utilities Works	45 days	Fri 16/7/21	Mon 6/9/21	0%	45 days		
	Sewerage Works / Drainage Works	30 days	Fri 16/7/21	Thu 19/8/21	0%	30 days 320	~120m main drains, 4m per day	
-	Watermain FW3 (CH105-175)	12 days	Fri 20/8/21	Thu 2/9/21	0%	12 days 332	~70m water mains, 6m per day	
	Road Lighting Civil Works Provision	10 days	Fri 20/8/21	Tue 31/8/21	0%	10 days 332	~140m ducting, 15m per day	
	Utilities (by others)	15 days	Fri 20/8/21	Mon 6/9/21	0%	15 days 332	~70m ducting, 5m per day	
	Carriageway and Footway	59 days	Tue 26/10/21	Wed 5/1/22	0%	59 days 326		
	Backfilling to Formation Level	10 days	Tue 26/10/21	Fri 5/11/21	0%	10 days 331	~70m, 100m per 10 day	
	Carriageway	42 days	Sat 6/11/21	Fri 24/12/21	0%	42 days 337	~70m, 20m per 12 day	
1	Footpath, Road Marking and Street Furniture	7 days	Tue 28/12/21	Wed 5/1/22	0%	7 days 338	~70m, 20m per 2 day	
	Man Kam To Road Bus Shelter (PT01, PT02 and PT03)	1090 days	Fri 15/12/17	Sat 21/8/21	62%	417.49 days	, p 300	
	Used as Temporary Site Office / Storage Area	340 days	Fri 15/12/17	Mon 11/2/19	100%	0 days 2SS		
	Investigation for DongJiang Watermain(CE23)	82 days	Thu 10/1/19	Tue 23/4/19	100%	0 days		
	Works Area Handing Over to WSD as Request	198 days	Mon 15/4/19	Thu 12/12/19	100%	0 days		
	Interface Issue with C2 (As request by Arup to delay XP application) (Including Temp. Road	290 days	Tue 28/5/19	Tue 19/5/20	35%	188.75 days	NCE035	
	Diversion)							
	TTA and XP Application at Man Kam To Road	14 days	Wed 20/5/20	Thu 4/6/20	0%	14 days 344		
	Works Area Handling to WSD for DongJiang Watermain Works	37 days	Wed 25/11/20	Sat 9/1/21	0%	37 days	NCE080	
	Waterworks / Drainage / Sewerage/ Utilities Works	90 days	Mon 11/1/21	Mon 3/5/21	0%	90 days		
1	Sewerage Work (Petrol Interceptor)	15 days	Thu 25/3/21	Wed 14/4/21	0%	15 days 349		
1	Sewerage Works / Drainage Works	60 days	Mon 11/1/21	Wed 24/3/21	0%	60 days 346	~115m main drains, 4m per day	
	Road Lighting Civil Works Provision	11 days	Thu 25/3/21	Fri 9/4/21	0%	11 days 349	~160m ducting, 15m per day	
1	Utilities (by others)	30 days	Thu 25/3/21	Mon 3/5/21	0%	30 days 349	,	
	Carriageway and Footway	92 days	Tue 4/5/21	Sat 21/8/21	0%	92 days		
		12 days	Tue 4/5/21	Mon 17/5/21	0%	12 days 347	~185m, 100m per 6 day	
	Backfilling to Formation Level		Tue 18/5/21	Sat 24/7/21	0%	56 days 353	~185m, 20m per 6 day	
	Backfilling to Formation Level Carriageway	56 days		Mon 16/8/21	0%	19 days 354	~185m, 20m per 2 day	
	Backfilling to Formation Level	56 days 19 days	Mon 26/7/21	10/0/21				
	Backfilling to Formation Level Carriageway		Mon 26/7/21 Tue 17/8/21	Sat 21/8/21	0%	5 days 355		
	Backfilling to Formation Level Carriageway Footpath, Road Marking and Street Furniture Reinstatement to existing Man Kam To Road	19 days 5 days	Tue 17/8/21	Sat 21/8/21	0%			
	Backfilling to Formation Level Carriageway Footpath, Road Marking and Street Furniture Reinstatement to existing Man Kam To Road Civil Works for Sha Ling Road (M001 CH00-40)	19 days 5 days 985 days	Tue 17/8/21 Thu 30/8/18	Sat 21/8/21 Wed 22/12/21	0% 42%	575.62 days		
	Backfilling to Formation Level Carriageway Footpath, Road Marking and Street Furniture Reinstatement to existing Man Kam To Road Civil Works for Sha Ling Road (M001 CH00-40) TTA and XP Application at Man Kam To Road	19 days 5 days 985 days 14 days	Tue 17/8/21 Thu 30/8/18 Fri 15/1/21	Sat 21/8/21 Wed 22/12/21 Sat 30/1/21	0% 42% 0%	575.62 days 14 days 361		
	Backfilling to Formation Level Carriageway Footpath, Road Marking and Street Furniture Reinstatement to existing Man Kam To Road Civil Works for Sha Ling Road (M001 CH00-40) TTA and XP Application at Man Kam To Road <i>Works Area Handing Over to WSD as Request</i>	19 days 5 days 985 days 14 days <i>120 days</i>	Tue 17/8/21 Thu 30/8/18 Fri 15/1/21 Mon 6/5/19	Sat 21/8/21 Wed 22/12/21 Sat 30/1/21 Thu 26/9/19	0% 42% 0% 80%	575.62 days 14 days 361 <i>24 days</i>	NCE No.34	
	Backfilling to Formation Level Carriageway Footpath, Road Marking and Street Furniture Reinstatement to existing Man Kam To Road Civil Works for Sha Ling Road (M001 CH00-40) TTA and XP Application at Man Kam To Road	19 days 5 days 985 days 14 days	Tue 17/8/21 Thu 30/8/18 Fri 15/1/21	Sat 21/8/21 Wed 22/12/21 Sat 30/1/21	0% 42% 0%	575.62 days 14 days 361	NCE No.70	
	Backfilling to Formation Level Carriageway Footpath, Road Marking and Street Furniture Reinstatement to existing Man Kam To Road Civil Works for Sha Ling Road (M001 CH00-40) TTA and XP Application at Man Kam To Road <i>Works Area Handing Over to WSD as Request</i>	19 days 5 days 985 days 14 days <i>120 days</i>	Tue 17/8/21 Thu 30/8/18 Fri 15/1/21 Mon 6/5/19	Sat 21/8/21 Wed 22/12/21 Sat 30/1/21 Thu 26/9/19	0% 42% 0% 80%	575.62 days 14 days 361 <i>24 days</i>		
	Backfilling to Formation Level Carriageway Footpath, Road Marking and Street Furniture Reinstatement to existing Man Kam To Road Civil Works for Sha Ling Road (M001 CH00-40) TTA and XP Application at Man Kam To Road <i>Works Area Handing Over to WSD as Request</i> <i>Work Area Handling to Sang Hing for Turn Around</i>	19 days 5 days 985 days 14 days <i>120 days</i> <i>190 days</i>	Tue 17/8/21 Thu 30/8/18 Fri 15/1/21 Mon 6/5/19 Mon 6/4/20	Sat 21/8/21 Wed 22/12/21 Sat 30/1/21 Thu 26/9/19 Tue 24/11/20	0% 42% 0% 80% 0%	575.62 days 14 days 361 <i>24 days</i> <i>190 days</i>	NCE No.70	

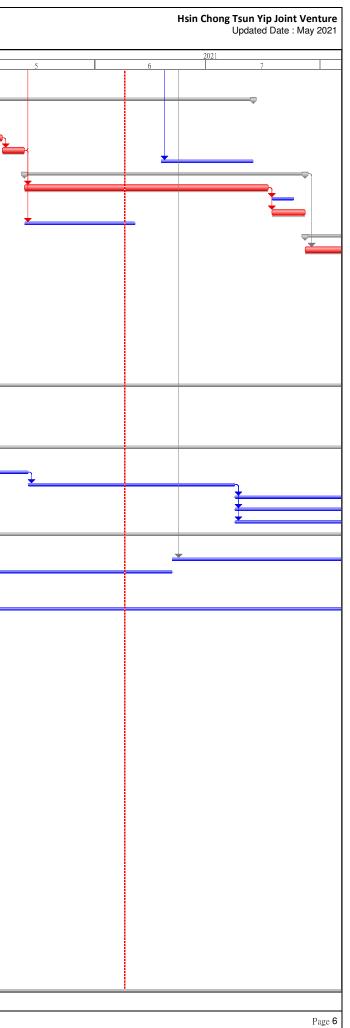
Task Milestone 🗢 Summary Critical Progress

5



3 Month Rolling Programme (May 2021 to July 2021)

· · ·	ment of Columbarium at Sandy Ridge Cemetery							
Τa	ask Name	Duration	Start	Finish	% Complete Re	maining Duration Predecessors	Notes	
64	Submission for Tempworks	104 days	Thu 21/2/19	Sat 29/6/19	100%	0 days		
65	Approval from WSD	80 days	Tue 2/7/19	Fri 4/10/19	95%	4 days 364		
66	Noise Barrier Bay 1-4	130 days	Mon 1/2/21	Tue 13/7/21	0%	130 days		
67	General Excavation with ELS to Formation Level Bay 1-4	30 days	Mon 1/2/21	Wed 10/3/21	0%	30 days 358,310,359		
68	Base slab of Noise Barrier Bay 1-4	30 days	Thu 11/3/21	Sat 17/4/21	0%	30 days 367		
69	Wall Stem of Noise Barrier Bay 1-4	15 days	Mon 19/4/21	Thu 6/5/21	0%	15 days 368		_
70	Protective Coating /Temp Fill	5 days	Fri 7/5/21	Wed 12/5/21	0%	5 days 369		
71	Installation of panel	20 days	Sat 19/6/21	Tue 13/7/21	0%	20 days 312		
72	Waterworks / Drainage / Sewerage/ Utilities Works (RHS + Man Kam To EB Slow Lane)	62 days	Thu 13/5/21	Tue 27/7/21	0%	62 days		
73	Sewerage Works / Drainage Works	54 days	Thu 13/5/21	Sat 17/7/21	0%	54 days 370	~95m main drains, 4m per day + 30day crossing watermain	
74	Watermain FW3 (CH000-045)	6 days	Mon 19/7/21	Sat 24/7/21	0%	6 days 373	~45m water mains, 6m per day	
75	Road Lighting Civil Works Provision	8 days	Mon 19/7/21	Tue 27/7/21	0%	8 days 373	~100m ducting, 15m per day	
76	Utilities (by others)	25 days	Thu 13/5/21	Fri 11/6/21	0%	25 days 370		
77	Carriageway and Footway (RHS+ Man Kan To EB Slow Lane)	38 days	Wed 28/7/21	Thu 9/9/21	0%	38 days		
78	Backfilling to Formation Level	10 days	Wed 28/7/21	Sat 7/8/21	0%	10 days 372	~40m, 100m per 10 day	
79	Carriageway	24 days	Mon 9/8/21	Sat 4/9/21	0%	24 days 378	~40m, 20m per 12 day	
80	Footpath, Road Marking and Street Furniture	4 days	Mon 6/9/21	Thu 9/9/21	0%	4 days 379	~40m, 20m per 2 day	
81	Waterworks / Drainage / Sewerage/ Utilities Works (LHS)	52 days	Mon 6/9/21	Mon 8/11/21	0%	52 days		
82	Sewerage Works / Drainage Works	42 days	Mon 6/9/21	Wed 27/10/21	0%	42 days 379	~45m main drains, 4m per day + 30day crossing watermain	
33	Road Lighting Civil Works Provision	5 days	Thu 28/10/21	Tue 2/11/21	0%	5 days 382	~50m ducting, 15m per day	
84	Utilities (by others)	10 days	Thu 28/10/21	Mon 8/11/21	0%	10 days 382	~50m ducting, 5m per day	
85	Carriageway and Footway (LHS)	38 days	Tue 9/11/21	Wed 22/12/21	0%	38 days		
86	Backfilling to Formation Level	10 days	Tue 9/11/21	Fri 19/11/21	0%	10 days 381	~40m, 100m per 10 day	
87	Carriageway	24 days	Sat 20/11/21	Fri 17/12/21	0%	24 days 386	~40m, 20m per 12 day	
88	Footpath, Road Marking and Street Furniture	4 days	Sat 18/12/21	Wed 22/12/21	0%	4 days 387	~40m, 20m per 2 day	
89	Part C	876 days	Sat 15/12/18	Mon 29/11/21	22%	684.68 days		
90	Consent from WSD for Works Near Dong Jing Watermain	636 days	Sat 15/12/18	Sat 6/2/21	37%	399.73 days		
01	Investigation works / Trial Pits for Watermains	60 days	Sat 15/12/18	Fri 1/3/19	100%	0 days		
92	Submission for Tempworks	102 days	Sat 23/2/19	Sat 29/6/19	100%	0 days		
)3	Approval from WSD (RFI No.66) & Re-design the arrangement	480 days	Tue 2/7/19	Sat 6/2/21	16%	403.5 days 392		
)4	Refuse Collection Point	240 days	Mon 8/2/21	Mon 29/11/21	0%	240 days		
05	General Excavation with ELS to Formation	30 days	Mon 8/2/21	Wed 17/3/21	0%	30 days 393		
6	Substructure Construction	45 days	Thu 18/3/21	Thu 13/5/21	0%	45 days 395		
7	Superstructure Construction	45 days	Fri 14/5/21	Thu 8/7/21	0%	45 days 396		
8	Pavement / Footpath reinstatment	90 days	Fri 9/7/21	Mon 25/10/21	0%	90 days 397		
99	ABWF Works	120 days	Fri 9/7/21	Mon 29/11/21	0%	120 days 397		
00	E&M and Waterworks	120 days	Fri 9/7/21	Mon 29/11/21	0%	120 days 397		
)1	Landscape Works		Mon 28/12/20		0%	325 days		
02	at Cut Slope CS1, CS2, CS3	325 days 90 days	Mon 28/12/20	Mon 19/4/21	0%	90 days 140,145		
03	at Cut Slope CS11, CS12, CS13	90 days	Tue 22/6/21	Thu 7/10/21	0%	90 days 148		
04	at Cut Slope CS17, CS12, CS13		Tue 2/3/21	Mon 21/6/21	0%	90 days 148		
)5	at Fill Slope FS13, FS14, FS17	90 days	Tue 26/10/21	Thu 6/1/22	0%	60 days 216,324		
	• • •	60 days						
06	Sha Ling Road and Man Kam To Road	30 days	Thu 23/12/21	Sat 29/1/22	0%	30 days 388		
07	Woodland Planting at Site 4, 7, 8, 9	170 days	Tue 2/3/21	Fri 24/9/21	0%	170 days 215		
	ection 3 of the Works (Part E)	457 days	Thu 31/5/18	Tue 10/12/19	91%	40.56 days		
09	Ground Investigation and Geotechnical Instrumentation for Commencement of Slopework	64 days	Thu 31/5/18	Wed 15/8/18	100%	0 days		
10	Verification Drillholes (2 Nos., VDH4-5) and Preliminary Results Submission	43 days	Thu 31/5/18	Sat 21/7/18	100%	0 days		
11	Design Review	36 days	Thu 5/7/18	Wed 15/8/18	100%	0 days		
12	Fill Slope FS3 (Section 17 at Drawing C1/GE/1053)	424 days	Wed 11/7/18	Tue 10/12/19	99%	4.02 days		
3	Time Lag of CE16	100 days	Wed 11/7/18	Wed 7/11/18	100%	0 days		
4	RFI046 Outfall Location	47 days	Mon 8/10/18	Sat 1/12/18	100%	0 days		
5	Drainage, Maintenance Access at slope toe	63 days	Sat 16/2/19	Mon 6/5/19	100%	0 days		
6	Construction of Outfall CP14X	11 days	Mon 7/1/19	Fri 18/1/19	100%	0 days		
7	FS3 Filling Stage 1(~+16 to+17.6 mPD)	121 days	Thu 6/12/18	Wed 8/5/19	100%	0 days		
8	CE50-No Fine at Slope Toe	12 days	Fri 26/4/19	Fri 10/5/19	100%	0 days		
9	FS Filling (+16.9 to +27.6 mPD) (Rolling by Pass)	60 days	Thu 23/5/19	Fri 2/8/19	100%	0 days		
0	FS Filling (+27.6to 30 mPD) (Rolling by Pass)	12 days	Sat 3/8/19	Fri 16/8/19	100%	0 days 419	0.2m per day (Rolling by Pass)	
1	FS3 Filling Stage 1 (+16.9 to +21 mPD)	41 days	Sat 17/8/19	Sat 5/10/19	100%	0 days 420	3 days per SRT	
2	Drainage and Maintenance Access (+21 to +28.5 mpD)	19 days	Tue 8/10/19	Tue 29/10/19	100%	0 days 421	75m, 4m per day	
3	FS3 Filling Stage 2 (~7.5m, 21 to +28.5 mPD)	10 days	Wed 30/10/19	Sat 9/11/19	100%	0 days 422	3 days per SRT +25day (CE16)	
4	Drainage and Maintenance Access (+28.5 to +35.5mpD)	15 days	Fri 22/11/19	Mon 9/12/19	67%	5 days 423	85m, 4m per day	
5	FS3 Filling Stage 3 (~7.5m, +28.5 to 35.5 mPD)	17 days	Thu 21/11/19	Tue 10/12/19	100%	0 days 432,433	3 days per SRT +25day (CE16)	
5	Retaining Wall RW4	96 days	Sat 17/8/19	Tue 10/12/19	99%	0.68 days	o dayo por orri teoday (OE10)	
o 7	-	-			99% 100%			
8	General Excavation to Formation Level(Bay1~2)	23 days	Sat 17/8/19	Thu 12/9/19		0 days 420	5 days for each tost	
	Plate Load Test and Blinding Layer for Retaining Wall Bays 3-8	5 days	Fri 13/9/19	Thu 19/9/19	100%	0 days 427	5 days for each test	
9	Plate Load Test and Blinding Layer for Retaining Wall Bays 1-2	5 days	Fri 20/9/19	Wed 25/9/19	100%	0 days 428	5 days for each test	
0	Base Slab of Retaining Wall RW4 Bay 1-4	16 days	Fri 20/9/19	Thu 10/10/19	100%	0 days 428	4 to 5 days per bay	
1	Base Slab of Retaining Wall RW4 Bay 5-8	16 days	Thu 26/9/19	Wed 16/10/19	100%	0 days 429	4 to 5 days per bay	
2	Wall Stem of Retaining Wall RW4 Bay 1-4	30 days	Fri 11/10/19	Thu 14/11/19	100%	0 days 430	7 to 8 days per bay	
3	Wall Stem of Retaining Wall RW4 Bay 5-8	20 days	Thu 17/10/19	Fri 8/11/19	100%	0 days 431	7 to 8 days per bay	
34	Protective Coating / Subsoil Drain / Filter Layer	5 days	Sat 9/11/19	Thu 14/11/19	100%	0 days 432,433		
5	Backfilling behind RW4 and Fill Slop FS4 (~8m up to +35.5 mPD)	22 days	Fri 15/11/19	Tue 10/12/19	95%	1 day 434	~6.85m, 0.25m per day (Rolling by Pass)	
6	Fill Slope FS2	47 days	Thu 17/10/19	Tue 10/12/19	100%	0 days		
• I	Drainage and Maintenance Access (+35.5 to +43.0 mpD)	-					75m 4m per dav	
	· · · · · · · · · · · · · · · · · · ·		10 -	10 days Thu 17/10/10	19 days Thu 17/10/19 Thu 7/11/19	19 days Thu 17/10/19 Thu 7/11/19 100%		19 days Thu 17/10/19 Thu 7/11/19 100% 0 days 431 75m, 4m per day



Contract No. CV/2016/10 Site Formation and Associated Infrastructural Works for Development of Columbarium at Sandy Ridge Cemetery		3 Moi	nth Rolling	g Programme (Ma	Hsin Chong Tsun Yip Joint Venture Updated Date : May 2021						
ID Task Name	Duration	Start	Finish	% Complete Remaining Duration	Predecessors	Notes		2021			
438 FS2 Filling Stage 1 (~7.5m, +35.5 to +43 mPD)	20 days	Fri 8/11/19	Sat 30/11/19	100% 0 da	/s 437	3 days per SRT, ~7.5m = 25 layers	5	6	7		
439 Drainage and Maintenance Access (+43.0 to +50 mpD)	30 days	Thu 17/10/19	Wed 20/11/19		/s 431	75m, 4m per day					
440 FS2 Filling Stage 2 (~7.5m, +43 to +50 mPD)	18 days	Wed 20/11/19	Tue 10/12/19		rs 439	3 days per SRT, ~7m = 24 layers					
441 Cut Slope CS18 and CS19	235 days	Mon 25/2/19	Sat 7/12/19	100% 0 da							
441 Cut slope Cs to and Cs to 442 Slope Cutting (+54.5 to crest)	30 days	Wed 27/2/19	Tue 2/4/19	100% 0 da							
443 Confirmation of Interface Details at CS18/19 (NCE29)	30 days	Wed 27/2/19	Tue 2/4/19	100% 0 da							
444 Drainage and Maintenance Access (crest)+ GI Works	8 days	Wed 3/4/19	Fri 12/4/19	100% 0 da							
445 Slope Cutting and Raking Drain (+47 to +54.5mPD, 13 nos. of Raking Drain)	113 days	Mon 25/2/19	Mon 15/7/19	100% 0 da		match with CS16/17 works					
446 Drainage and Maintenance Access (+54.5 to +62mPD slope surface/berm)+ GI Works	30 days	Thu 4/4/19	Wed 15/5/19	100% 0 da							
447 Slope Cutting and Raking Drain (+47mPD to toe, 18 nos. of Raking Drain)	110 days	Mon 6/5/19	Fri 13/9/19			rs,211 match with CS16/17 works					
448 Drainage and Maintenance Access (below +47mPD slope surface/berm)+ GI Works	70 days	Sat 14/9/19	Sat 7/12/19		/s 447	~90m, 3m/day					
449 Landscape Works	67 days	Mon 16/9/19	Wed 4/12/19	0%6 67 da							
450 at Fill Slope FS2, FS3	50 days	Tue 8/10/19	Wed 4/12/19	0% 50 da							
451 at Cut Slope CS18, CS19	60 days	Mon 16/9/19	Tue 26/11/19	0% 60 da							

Task Milestone 🔶 Summary Critic al 🧲 Progress -

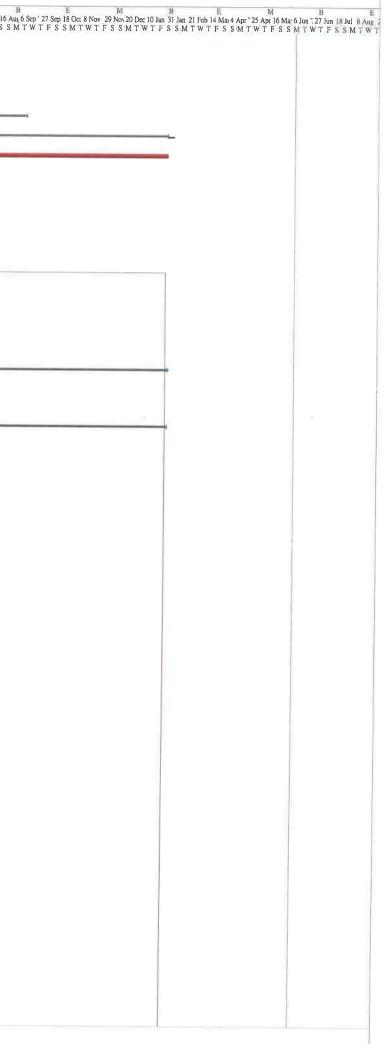


Three Months rolling Programme of Contract CV/2017/02

evelopmer Infrastruct	©CV/2017/02 it of Columbarium at Sandy Ridge Cemetery ıral Works at Man Kam To Road and Lin Ma Hang Road	1			3 Month Rolling Programme (from 26/5/2021 to 25/8/2021)
WBS	Task Name	Duration	Start Date	Completion Date	M B E M B E
L 1	Letter of Acceptance	0 days	Wed 30/5/18		TWTFSSMTWTFSS
2 2	Starting Date	0 days	Thu 31/5/18	Thu 31/5/18	
3 з	ET Submissions	9 days	Wed 26/9/18	Fri 5/10/18	
12 .4	Applications to Government Department	27 days	Mon 4/6/18	Sat 30/6/18	P
20 5	Submissions & acceptances	835 days	Mon 4/6/18	Tue 15/9/20	
44 6	Liaison with Utility Undertakers	979 døys	Fri 1/6/18	Wed 3/2/21	P
47 7	Liaison with Contract CV/2016/01 regerding Parts A1 to A4 (refer PS Appendix A1)	979 days	Fri 1/6/18	Wed 3/2/21	
48 8	Liaison Meeting with Interface and associated contractors	389 days	Fri 1/6/18	Mon 24/6/19	
53 '9			Fri 1/6/18		
58 10		671 days		Wed 1/4/20	
66 11	Provision of Project Manager's Site Accommodation (PS1.08A(b) & 1.49)	28 days	Fri 1/6/18	Thu 28/6/18	
67 12	Design of intraction evelops within the Pandu Didae	04 Jaur	E- 20/42/40		
07 12	Design of irrigation system within the Sandy Ridge Cernetery (LS/2021, 2041, 2042, W/1041,1011)	21 days	Fri 20/12/19	Fn 10/1/20	
70 13	Condition Survey	81 days	Thu 23/8/18	Sun 11/11/18	
77 '14		,	Thu 31/5/18		
	within Parts A1, A2 and B of the Site except Establishment works	,.			
78 14 1	Parts A1	859 days	Fri 28/9/18	Wed 3/2/21	
79 14 1 1	access date for section 1 (Parts A1) - not more than	0 days	Fri 28/9/18	Fri 28/9/18	
	120 days after the starting date				
80 14.1.2	form temporary haul road from the south side to Parts A1	14 days	Tue 2/10/18	Mon 22/10/18	
8] 1413	general site clearance	30 days	Tue 23/10/18	Wed 28/11/18	
82 14 1 4	initial survey	27 days	Thu 29/11/18	Wed 2/1/19	
83 1415	construction of temporary drainage	21 days	Thu 3/1/19	Sat 26/1/19	
84 14.1.6	Site Formation works for Cut Slope CS22 (in Parts A1)	258 days	Mon 28/1/19	Mon 23/12/19	
01 14.1.7	A1) Construction of Retaining Wall RW13 (bays 1 to 5)	192 days	Mon 15/4/19	Thu 12/12/19	,i
02 14171	مريحه ومراجع والمراجع	50 daug	M 45/4/40	T 05/0/40	
02 14171	excavation with installation of temporary soil nails work behind RW13 (bays 1 to 5)	oo days	Mon 15/4/19	106 25/6/19	
03 14172	plate load tests	3 davs	Wed 26/6/19	Fri 28/6/19	
04 14173			Sat 29/6/19		
05 14174		-	Wed 3/7/19		
06 14 1 7 5		3 days	Fri 5/7/19	Mon 8/7/19	
07 14.1.7.6		5 days			
08 14.1.7.7	remove formwork	3 days	Mon 15/7/19	Wed 17/7/19	The second se
09 14 1 7 8	falsework and formwork for alternative 3 walls	4 days	Thu 18/7/19	Mon 22/7/19	
10 14 1 7 9	steel fixing for 3 walls	9 days	Tue 23/7/19	Thu 1/8/19	
11 14.1.7.1	close formwork for 3 walls	3 days	Fri 2/8/19	Mon 5/8/19	
12 14.17.1	concrete and curing for 3 walls	6 days	Mon 5/8/19	Sat 10/8/19	
13 14.1.7.1	2 remove formwork	3 days	Sat 10/8/19	Tue 13/8/19	
14 14.1.7.1		2 days	Tue 13/8/19	Wed 14/8/19	
	bays				
15 14.1.7.1	steel fixing for two bases	2 days	Wed 14/8/19	Thu 15/8/19	र र
	concrete and curing for two bases	4 days	Fri 16/8/19	Tue 20/8/19	
16 14.1.7.1	senerate and samily for the above	. aayo			

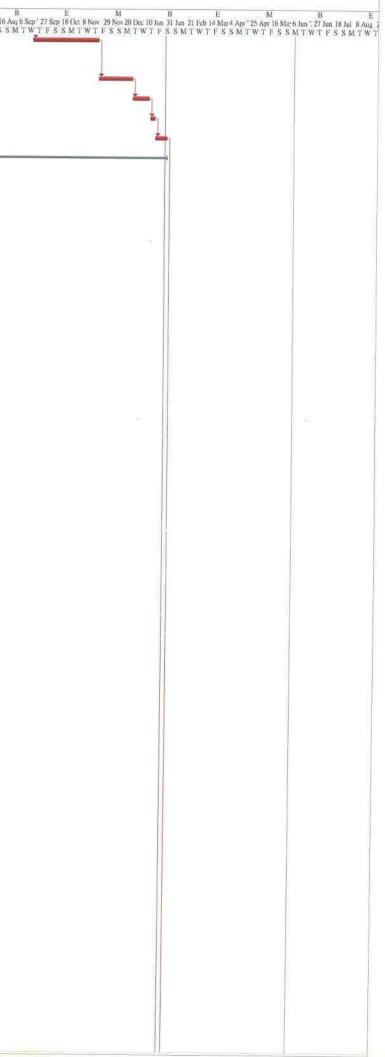
Page 1/20

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Development of Co Infrastructural Wo	017/02 olumbarlum at Sandy Ridge Cemetery orks at Man Kam To Road and Lin Ma Hang Road				3 Month Rolling Programme (from 26/5/2021 to 25/8/2021)
D WHS TE	ask Name	Duration	Start Date	Date 20	
118 141717	falsework and formwork of alternative second two walls	3 days V	ed 21/8/19	Fri 23/8/19	TW T F S SM TW T F
19 14 1.7 18	steel fixing for two walls	6 days	ri 23/8/19	Thu 29/8/19	
20 14 1 7 19	close formwork for two walls	2 days T	hu 29/8/19	Fri 30/8/19	
21 - 14 1 7 20	concrete and curing for two walls	4 daya S	at 31/8/19	Wed 4/9/19	
2 14.1.7.21	remove falsework & formwork	2 days V	/ed 4/9/19	Thu 5/9/19	
23 14 1.7 22	after completion of RW13 (bay 1 to 5) , backfilling & compaction behind well to formation (A1) (Drg GE/1101)	66 days	Fri 6/9/19	Mon 2/12/19	
24 '14 1 7 23	inetall instrument for RW13 (bay 1 to bay 5)	9 davs T	ue 3/12/19	Thu 12/12/19	
25 14.1.8			on 15/4/19		
14 1 8 1	excevate top 3.5m from the existing slope profile				
	(extent to be directed by PM)(Drg. ČE/2305)				
14182	prepare formation for filter blanket	2 days 1	ue 7/5/19	Wed 8/5/19	τ, i i i i i i i i i i i i i i i i i i i
8 14183	slope backfill FS18 with 2.1m filter blanket (GE/2601)	9 days V	led 8/5/19	Set 18/5/19	
9 14.1.8.4	backilling from top of filter blanket to formation evel (including SRT tests)	126 days T	nu 16/5/19	<i>l</i> ion 21/10/19	
30 14185	construction of 1.5m width maintenance berm	2 days F	i 18/10/19	<i>l</i> on 21/10/19	
31 14 1.8.6	construction of U channel/ stepped channel and catchpits	37 days F	i 18/10/19	Mon 2/12/19	
32 14.1.8.7	construction of U channel in front of RW13	4 days Ti	ie 3/12/19	Fri 6/12/19	
3 14.1.8.8	600mm width concrete maintenence staircase with handralling boxing out	11 days S	at 7/12/19	'hu 19/12/19	
414189	landscaping (hydroseeding)	27 days Fi	i 20/12/19	Thu 23/1/20	
5 14.1.8.10	install Instrument for FS18	6 days F	ri 24/1/20	Mon 3/2/20	
14 1 9	CS21 - slope cutting	7 days Fi	20/12/19	lon 30/12/19	
14.1.10	install Instrument for CS21	5 days Tu	ə 31/12/19	Mon 6/1/20	
14.1.11	placement of erosion control mat/ hydroseeding	2 days T	ue 7/1/20	Wed 8/1/20	
14.1.12	minor cutting CS26 (Parts A1) (for Road E)	7 daye T	1u 9/1/20	Thu 16/1/20	
14 1 13	Drainage works at Road E	43 days F	i 17/1/20	Fue 10/3/20	
14.1.13.1	main pipe laying	31 days F	i 17/1/20	Гиө 25/2/20	
14.1 13.2	gully pipe and pote	14 days Mo	n 24/2/20	Tue 10/3/20	
14.1.14	Waterworks at Road E	24 days We	d 11/3/20	lue 14/4/20	
14 1 15	CS23 - slope cutting & 300U channel	17 days We	d 11/3/20	Ned 1/4/20	
,		-	u 2/4/20		
14.1.17			iu 9/4/20		
14.1.18	backfilling of pipe trench to formation (including SRT test)				
14.1 19	300U channel behind RW13	4 daya Mo	n 27/4/20	Sat 2/5/20	
14 1 20	300U channel and planter wall at south side of Road 3 E	10 days Mi	on 4/5/20	Sat 6/6/20	
0 14.1.21	Roadworks of Road E (A1-ch66-243)	64 days M	on 8/6/20 V	ed 30/12/20	
14.1.21.1	ducting for road lighting (RD/2091) & construction 2 of irrigation system	0 days M	on 8/6/20	Thu 2/7/20	
52 14.1.21.2	kerbing, sub-base (Include subbase SRT test) & 2 cross roed duct (RD/2061, 2081)	4 days F	i 3/7/20	hu 30/7/20	
53 14.1.21.3	concrete pavement 4	5 days Fr	31/7/20	lon 21/9/20	

WBS 154 14.1.21.4 155 14.1.21.5 156 14.1.22 157 14.1.23 158 14.1.24	Task Name traffic signs, directional signs, type 2 railing, emergency crash gate, beam barriers concrete footpath		Start Date	Completion Date	M B H 20 Ma; 10 Jun Jul '1 22 Jul 12 Auj 2 Sep '1	N	B w 25 Nov 16 Dec 6 Jap * 27 Jan	E M B	E M B E	
155 141215 156 14122 157 14123	emergency crash gate, beam barriers	48 days			TWTFSSMTWTECCMTW	TEEEMT	TESSMTWTESS	7 Feb 10 Mai 31 Mai 21 Apr 12 Mar 2 Jun	* 23 Jun 14 Jul 4 Aug 25 Aug 15 Sep 6 Oct * 27 Oct 17 Nov 8 Dec	1 M B E M 29 Dec 19 Jan 9 Feb 1 Mar 22 Mai 12 Apr 3 May 24 Mar 14 Jun 5 Jul 12 26 Jul 16 Au
156 14 1 22 157 14 1 23	concrete footpath		Tue 22/9/20	Thu 26/11/20		1 2 2 8 1 9	*1133M1W1133	1 W I F 5 5 M I W I F 5 5 M	I W I F S S M I W T F S S M T W T F S S M T W T	29 Dec 19 Jan 9 Feb 1 Mar 22 Mai 12 Apr 3 May 24 Mar 14 Jun 5 Jul 226 Jul 16 Ar F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M
57 14 1 23		27 days	Fri 27/11/20	Wed 30/12/20						
	street lighting (Drg/ RD/2091)	14 days	Thu 31/12/20	Sat 16/1/21						
58 14.1.24	landscaping (hydroseeding)	5 days	Mon 18/1/21	Fri 22/1/21						
	landecaping (shrub planting)	10 days	Sat 23/1/21	Wed 3/2/21						
59 14.2	Parts A2	400 days	Tue 31/12/19	Wed 3/2/21						
60 14.2.1	access date for section 1 (Parts A2) - not more than 580 days after the starting date	0 days	Tue 31/12/19	Tue 31/12/19						
61 14.2.2	form temporary haul road to Parts A2	6 days	Thu 2/1/20	Wed 8/1/20						
62 14.2.3	general site clearance	18 days	Thu 9/1/20	Sat 1/2/20						
63 1424	Initial survey	12 days	Mon 3/2/20	Sat 15/2/20						
64 14.2.5	construction of temporary drainage	20 days	Mon 17/2/20	Tue 10/3/20						
65 142.6	Site Formation works for Cut Slope CS22 (in Parts A2)	15 days	Wed 11/3/20	Mon 30/3/20						
66 14.2.6.1	slope excavation works	1 day	Wed 11/3/20	Wed 11/3/20						Ť
67 14.2.6.2	drill, install steel bars and grout soil nails (TB01-06, TA01-07) & 3nrs. raking drain	4 days	Thu 12/3/20	Mon 16/3/20						-
68 14.2.6.3	TDR test allowance	4 days	Tue 17/3/20	Fri 20/3/20						
59 14.2.6.4	soil nail head works	2 days	Fri 20/3/20	Mon 23/3/20				×	a.	la de la companya de
70 14265	install rest of instrument for CS22			Tue 24/3/20						
14.2.6.6	300U channel, 300 stepped channel & catchpits with planter walls	7 daya								1
14267	600mm width concrete maintenance staircase with handralling	2 days	Wed 25/3/20	Thu 26/3/20						Ŧ
3 14268	placement of erosion control mat/ hydroseeding	2 dave	Eri 27/3/20	Mon 30/3/20						
4 14.2.7	Construction of Retaining Wall RW13 Bay 6 to Bay 8	-								Ĩ
		tor adjo	THEIGH							
5 14.27.1	temporary cutting for retaining wall RW13 Bay 6 to 8	2 days	Fri 27/3/20	Mon 30/3/20						L.
6 14272	temporary soil nails works for retaining wall RW13 Bay 6-8	15 days	Mon 30/3/20	Tue 21/4/20						<u> </u>
7 14273	plate load tests	3 days	Wed 22/4/20	Fri 24/4/20						
8 14.2.7.4				Mon 27/4/20						Ĵ,
9 14275				Wed 29/4/20						•]
0 14276			Sat 2/5/20	Tue 5/5/20						1
1 14,2.7.7	base concreting & curing for bay 6 & 8	4 days	Wed 6/5/20	Sat 9/5/20						
2 14278	remove base formwork	2 days	Sat 9/5/20	Mon 11/5/20]
3 14279	falsework and formwork for walls bay 6&8	4 days	Tue 12/5/20	Fri 15/5/20						1
4 14 2.7 10	steel fixing for walls of bay 6 & 8	7 days	Set 16/5/20	Sat 23/5/20						Ĩ.
5 1427.11	close formwork for walls of bay 6 & 8	2 days	Mon 25/5/20	Tue 26/5/20						
6 14.2.7.12	concreting and curing for walls of bay 6&8	5 days	Wed 27/5/20	Mon 1/8/20						Ĩ.
7 14.2.7.13	remove falsework and formwork for walls	2 days	Mon 1/6/20	Tue 2/6/20						
8 1427.14	base formwork for bay 7	2 days	Wed 3/6/20	Thu 4/6/20]
9 14.2.7.15	base steel fixing for bay 7	2 days	Fri 5/6/20	Sat 6/6/20						1
14 2.7 16	base concreting & curing for bay 7	2 days	Mon 8/6/20	Tue 9/6/20						-
14 2.7 17	remove base formwork	1 day	Wed 10/6/20	Wed 10/6/20]
14 2.7 18	falsework and formwork for walls of bay 7	2 days	Thu 11/8/20	Fri 12/6/20]
14.2.7.19	steel fixing for walls of bay 7	5 days	Sat 13/6/20	Thu 18/6/20						1
14.2.7.20	close formwork for walls of bay 7	1 day	Fri 19/6/20	Fri 19/6/20						7
1427.21	concreting and curing for walls of bay 7	3 days	Sat 20/6/20	Tue 23/6/20						1
a Hing Civil Cor	tractors Company Limited								Page 3/20	

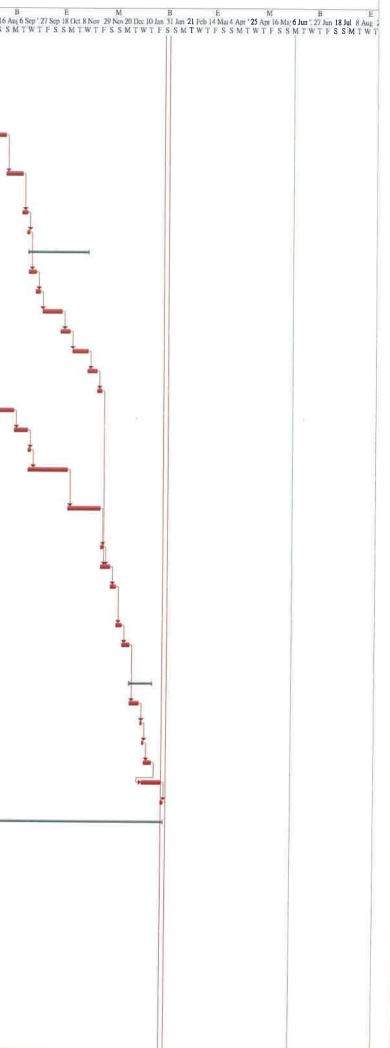


3 month rolling programme 20210526(26 May 21-25 Aug 21)

Infras	structural	f Columbarium at Sandy Ridge Cemetery Works at Man Kam To Road and Lin Ma Hang Road									n Rolling Programme 8/5/2021 to 25/8/2021)	
D	WBS	Task Name	Duration	Start Date	Completion Date	M B H 20 Ma: 10 Jun 1 Jul '1 22 Jul 12 Aui 2 Sep '	1 23 Sep 14 Oc	M 1 4 Nov	B v 25 Nov 16 Dec 6 Jan * 27 Jan	E M B 17 Feb 10 Mai 31 Mai 21 April 2 Mai 2 Jun	E M B E	M B E M. *29 Dec 19 Jan 9 Feb * 1 Mar 22 Mar 12 Apr 3 May 24 Mar 14 Jun 5 Jul 226 Jul
196	142722	remove falsework and formwork for walls	1 day	Wed 24/6/20	Wed 24/6/20	INTESSMINIPSSMIW	1 1 5 5 1	wi I W	T F S S M T W T F S S I	MIWIFSSMIWTFSSM	IWIFSSMIWTFSSMTWTFSSMTWT	FSSMTWTFSSMTWTFSSMTWTFSSMTWTFS FSSMTWTFSSMTWTFS
197	14.2.7.23	after completion of structural RW13 (bay 6 to 8), backfill behind wall to formation (A2) (Drg GE/1101)	36 days	Fri 26/6/20	Fri 7/8/20							
198 -	142724	install instrument for RW13 (bay 6 to bay 8)	2 days	Sat 8/8/20	Mon 10/8/20							Ŧ,
199	14.2.8	(west) drainage works at Road E (ch250 to 300)	16 days	Sat 8/8/20	Wed 26/8/20	r						-
200 -	1429	(west) waterworks at Road E (ch250 to 300)	15 days	Thu 27/8/20	Sat 12/9/20							
	14.2,10	construction of Irrigation System	5 days	Sat 12/9/20	Thu 17/9/20							
	14.2.11	U channel for Road E	3 days	Thu 17/9/20	Sat 19/9/20							
	14 2 12	Roadworks of Road E (A2-ch243-300)	42 days	Sat 19/9/20	Tue 17/11/20							
	142.12.1	kerbing & sub-base (include sub-base SRT test)	7 days	Sat 19/9/20	Sal 26/9/20							
205	142122	ducting for road lighting & water point	4 days	Sat 26/9/20	Wed 30/9/20							
	14 2 12 3	concrete pavement	15 days	Sat 3/10/20	Thu 22/10/20							
	14 2 12 4	traffic signs, beam barriers	7 days	Wed 21/10/20	Fri 30/10/20							
	14 2 12 5	concrete footpath	12 days	Mon 2/11/20	Tue 17/11/20							
	14.2 13	street lighting for Road E (Drg/ RD/2091)	9 days	Tue 17/11/20	Thu 26/11/20							
	14.2.14	landscaping (shrub planting)	4 days	Fri 27/11/20	Tue 1/12/20							
	14.2.15	site formation works for Cut Slope CS26 (A2)	24 days	Sat 8/8/20	Fri 4/9/20						a	-
	14216	site formation works for Cut Slope CS25 (A2)	12 days	Sat 5/9/20	Fri 18/9/20							
	14.2.17	placement of erosion control mat/ hydroseeding	2 days	Set 19/9/20	Mon 21/9/20							
214 1	14218	dralnage works at Road B & sewerage works at Road B	28 days	Sal 19/9/20	Wed 28/10/20							
215	14 2 19	waterworks at Road B	25 days	Thu 29/10/20	Mon 30/11/20							
216 1	14.2.20	backfill formation for Road B	3 days	Tue 1/12/20	Thu 3/12/20							
217 1	4.2.21	street lighting ducts and drawpits at Road B	9 days	Tue 1/12/20	Thu 10/12/20							
218 1	4.2.22	arrange Town Gas to lay cables (NOT YET AGREED)	5 days	Fri 11/12/20	Wed 16/12/20							
219 1	4.2.23	planter wall for Road B	5 davs	Thu 17/12/20	Tue 22/12/20							
220 1	4.2.24	arrange HKT to lay PCCW cables (NOT YET			Wed 30/12/20							
		AGREED)										
21 1			19 days	Thu 31/12/20	Fri 22/1/21							
	4.2.25.1			Thu 31/12/20								
i i	4.2.25.2			Mon 11/1/21								
	4.2.25.3			Wed 13/1/21								
	4.2.25,4			Fri 15/1/21								
126 1				Wed 13/1/21	Mon 1/2/21							
27 1					Wed 3/2/21							
128 1	43	Parts B · refer Appendix MKTR01A & Appendix MKTR01B	979 days	Thu 31/5/18	Wed 3/2/21	-						
29 1	431	access date for section 1 (Parts B) - the starting date	0 days	Thu 31/5/18	Thu 31/5/18	e ⁺						
30 1	432	Initial Survey	104 days	Fri 1/6/18	Thu 4/10/18	*	1					
31 1	4.3.3	utility detection and submit reports	30 days	Fri 5/10/18	Fri 9/11/18		2					
32 1	4.3.4	Temporary Traffic Arrangement (TTA) Scheme for Man Kam Road		Fri 1/6/18	Fri 9/11/18	þ		-				
36 14	435	Construction of Fresh Water Mains (DN400)-refer to Drawings No. MKTR Programme/W/001 & 002	352 days	Set 10/11/18	Frl 17/1/20			-				_
37 1	4.3.5.1	Phase 1: TTA 1s	52 days	Sat 10/11/18	Sat 12/1/19			_				

Page 4/20

Sang Hing Civil Contractors Company Limited

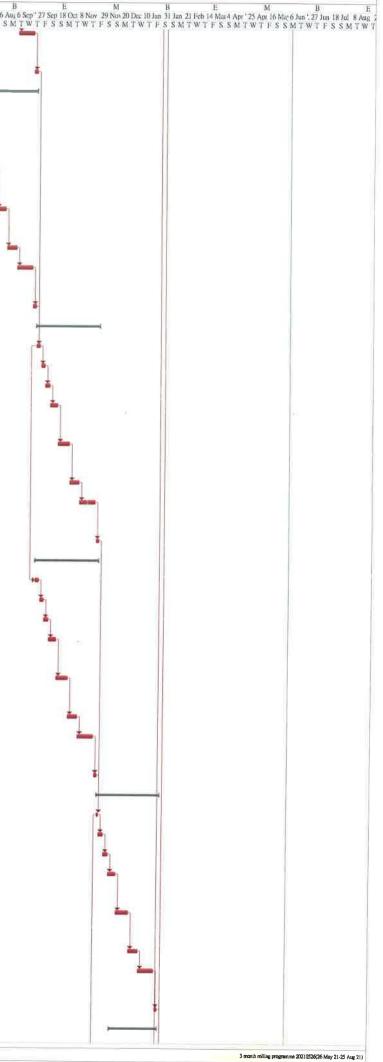


3 month rolling programme 20210526(26 May 21-25 Aug 21)

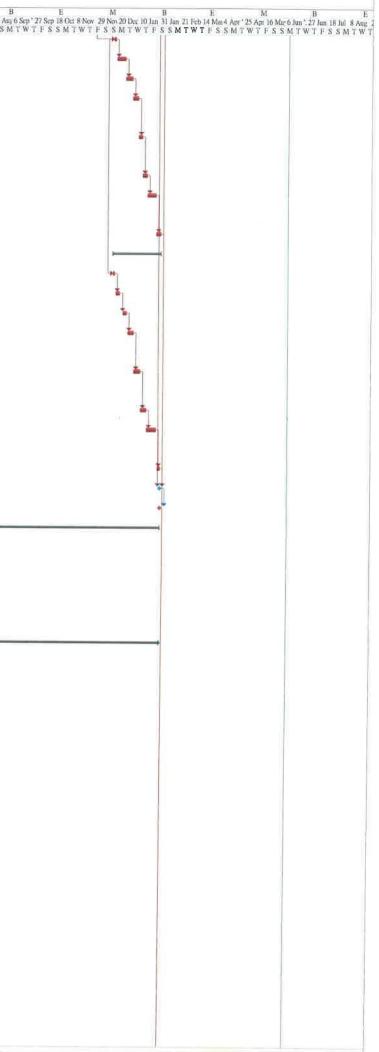
 Infrastructural Works 	nbarium at Sandy Ridge Cemetery at Man Kam To Road and Lin Ma Hang Roa	ad					Rolling Programme 5/5/2021 to 25/8/2021)			Accepted Initial Works Programme
ID WBS Task N	ame	Duration Start Date	Completion Date 20	M B E Ma; 10 Jun 1 Jul '1 22 Jul 12 Aug 2 Sep ' 23 Sep 14 Oct 4	M B 1 Nov 25 Not 16 Dec 6 Jan " 27 Jan 17	£ 14/ 10	* 10 h	Oct 17 Nov 8 Dec * 2	M B E M 20 Dry 19 Ian 9 Joh' 1 May 22 May 12 An 21 May 24 May 14 Ian 6 May 24 June 14 June 24 May 24	B E M B
255 14.3 5 3	Phase 1: TTA 15s	44 days Tue 20/11/1	T Sat 12/1/19	W T F S S M T W T F S S M T W T F S S M T	WTFSSMTWTFSSM	ATWTFSSMTWTFSSM	TWTFSSMTWTFSSMTWTF	SSMTWTF	M B E M 29 Dec 19 Jan 9 Feb ' 1 Mar 22 Mar 12 Apr 3 May 24 Mar 14 Jun 5 Jul '2 26 Jul 16 Auj 6 Sep ' 27 Sep 18 Oct 8 Nov 29 Nov 20 Dec 10 Ja 5 S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F	n 31 Jan 21 Feb 14 Mui 4 Apr 25 Apr 16 Mar 6 Jun 27 Jun 18 Jul 8 A S S M T W T F S S M T W T F S S M T W T F S S M T
264 14.3 5 4	Phase 2: TTA 2s	39 days Tue 15/1/19	Mon 4/3/19							
273 14 3 5 5	Phase 2: TTA 9e	39 days Tue 15/1/19	Mon 4/3/19							
282 14356	Phase 2: TTA 16s	40 days Mon 14/1/19	Mon 4/3/19		,					
291 14 3 5 7	Phase 3: TTA3s	39 days Tue 5/3/19	Tue 23/4/19			L				
300 14358	Phase 3: TTA10s	39 days Tue 5/3/19	Tue 23/4/19							
309 14359	Phase 3: TTA17s	39 days Tue 5/3/19	Tue 23/4/19			———				
318 14.3.5.10	Phase 4: TTA4s	38 days Mon 29/4/19	Fri 14/6/19			<u> </u>				
327 143511	Phase 4: TTA11s	38 days Mon 29/4/19	Fri 14/6/19							
336 14.3.5.12	Phase 4: TTA18s	42 days Wed 24/4/19	Fri 14/6/19							
345 14.3.5.13	Phase 5: TTA5s	42 days Wed 19/6/19	Wed 7/8/19							
354 1435.14	Phase 5: TTA12s	45 days Sat 15/6/19	Wed 7/8/19			i.				
363 143.5.15	Phase 5: TTA19s	45 days Sat 15/6/19	Wed 7/8/19			H				
372 143516	Phase 6: TTA6s	46 days Fri 9/8/19	Thu 3/10/19							
381 14 3 5.17	Phase 6: TTA13s	42 days Wed 14/8/19	Thu 3/10/19							
390 14.3.5.18	Phase 6: TTA20s	47 days Thu 8/8/19	Thu 3/10/19				i			
399 14.3.5.19	Phase 7: TTA7s	44 days Tue 8/10/19	Wed 27/11/19				L			
408 14:3:5:20	Phase 7: TTA14s	46 days Fri 4/10/19	Wed 27/11/19							
417 14.3.5.21	Phase 7: additional TTA21s	29 days Thu 24/10/19	Wed 27/11/19					_		
427 14.3.5.22	additional Phase 8; additional 7TA 0s	41 days Wed 27/11/1	. Fri 17/1/20				21	5 		
	nstruction of Sawerage (DN630) - refer to awing No. MKTR Programme/DR/001	311 days Sat 18/1/20	Wed 3/2/21							
438 14.3.6.1	Phase A: TTA 1n	50 days Tue 21/1/20	Set 21/3/20							
439 (14.3.6.1.1	mobilisation & set up TTA	2 days Tue 21/1/20	Wed 22/1/20						(94)	
440 1436.12	saw cut existing pavement and removal	4 days Thu 23/1/20	Thu 30/1/20							
441 1436.13	trial pits	4 days Fri 31/1/20	Tue 4/2/20						z ,	
442 1436.1.4	trench sheetpiling	7 days Wed 5/2/20	Wed 12/2/20						-	
443 1436.1.5	excavate trench & shoring	7 days Thu 13/2/20	Thu 20/2/20						±.	
444 14.3.6.1.6										
	pipe laying & construct manhole	9 days Fri 21/2/20							-	
443 143.017	backfill trench & remove sheetpile, rell & etrut	14 days Tue 3/3/20	Wed 18/3/20							
446 1436.18	reinstate trench & curing	3 days Thu 19/3/20	Sat 21/3/20						Z ,	
447 14362 F	Phase A: TTA 7n	52 days Set 18/1/20	Sat 21/3/20						k	
448 14.3,6.2.1	mobilisation & set up TTA	2 days Sat 18/1/20	Mon 20/1/20						L.,	
449 143,822	saw cut existing pavement and removal	4 days Tue 21/1/20	Fri 24/1/20						±	
450 1143623	trial plts	4 daya Wed 29/1/20	Sat 1/2/20						5	
451 143.624	trench sheetpiling	7 days Mon 3/2/20	Mon 10/2/20						L	
452 143625	excavate trench & shoring	9 days Tue 11/2/20	Thu 20/2/20							
	pipe laying & construct manhole	9 days Fri 21/2/20	Mon 2/3/20						±	
454 143.62.7	backfill trench & remove sheetpile, rail & strut	14 days Tue 3/3/20	Wed 18/3/20						<u>*</u>	
455 14.3.6.2.8	reinstate transh 8 auin-	2 days Thu data to	Dat 0410100							
	reinstate trench & curing	3 days Thu 19/3/20							₽.	
	hase B: TTA 2n	52 days Mon 23/3/20							P	
Article Constraints	mobilisation & set up TTA	2 days Mon 23/3/20							[⁴]	
	saw cut existing pavement and removal trial pits	4 days Wed 25/3/20							<u>م</u>	
1100 A	trench sheetpling	4 days Mon 30/3/20 7 days Fri 3/4/20							5]	
1999 - 1999 -	«จากา อาออฟาแบ _้ มี	ruays P⊓ 3/4/20	4480 10/4/20							
Sens Hins Chill Contract	Company Limited									
Sang Hing Civil Contractore	sompany united						Pege 5/20			3 month rolling programme 20210526(26 May 21-25 Aug 21)

Contract No. CV/201 Development of Colu - Infrastructural Work	7/02 Imbarium at Sandy Ridge Cernetery cs at Man Karn To Road and Lin Ma Hang Roa	ad							3 Month Ro (from 26/5/2	lling Programme 2021 to 25/8/2021)					Aco	epted Initial Works Programme (06)
ID WBS Task	Name	Duration	Start Date	Completion Date 2	M B 20 Mar 10 Jun 1 Jul 122 Jul 12 Aug 2	E Sen * 23 Sen 14 Oct 4 7	M B Nov 25 Nov 16 Dec 6 Jun 1 27 II	E M	B	E M B	E M	B E	M B E	М	B E M	BE
461 143635	excavate trench & shoring	9 days	Thu 16/4/20	Sat 25/4/20	TWTFSSMTWTFSSM	TWTFSSMT	WTFSSMTWTFS	SMTWTFSSMTV	WTFSSMTW	m 14 Jul 4 Aug 25 Au, 15 Sep 6 Oct ' 27 Oct 17 Nov 8 D F F S S M T W T F S S M T W T F S S M T W	CC 29 Dcc 19 Jan 9 Feb 1 Mar 2 T F S S M T W T F S S M 1	22 Mm 12 Apr 3 May 24 Ma 14 Ju T W T F S S M T W T F S	n 5 Jul '226 Jul 16 Aug 6 Sep ' 27 Sep 18 O S M T W T F S S M T W T F S S M	t 8 Nov 29 Nov20 Dec 10 Jan TWTFSSMTWTF	31 Jan 21 Feb 14 Mar4 Apr 25 Apr 16 8 S S M T W T F S S M T W T F S	da 6 Jun 127 Jun 18 Jul 8 Aug S M T W T F S S M T W T
460																
462 143636	plpe laying & construct manhole			Fri 8/5/20								*				
463 143637	backfill trench & remove sheetpile, rall & strut	14 days	Sat 9/5/20	Mon 25/5/20								<u>*</u>				
464 143638	reinstate trench & curing	3 days	Tue 26/5/20	Thu 28/5/20								z.				
465 14364	Phase B: TTA 8n	52 days	Mon 23/3/20	Thu 28/5/20							-					
466 143641	mobilisation & set up TTA	2 days	Mon 23/3/20	Tue 24/3/20								1				
467 143642	saw cut existing pavement and removal	4 days	Wed 25/3/20	Sat 28/3/20												
468 14 3 6 4 3	trial pits	4 days	Mon 30/3/20	Thu 2/4/20								1				
469 143644	trench sheetpiling	7 days	Fri 3/4/20	Wed 15/4/20								L				
470 143645	excavate trench & shoring	0 dava	Thu: 40/4/00	0-1.05/4/00												
	evenuere neucu a puolitiă	9 days	INU 10/4/20	Sat 25/4/20								2				
471 143646	pipe laying & construct manhole	9 days	Mon 27/4/20	Fri 8/5/20												
472 1436.47	backfill trench & remove sheetpile, rall & strut											-				
473 14.3.6 4.8	reinstate trench & curing	3 days	Tue 26/5/20	Thu 28/5/20								ā.				
474 14.3.6.5	Phase C: TTA 3n	52 days	Fri 29/5/20	Thu 30/7/20								b				
475 14.3.6.5 1	moblisation & set up TTA	2 days	Fri 29/5/20	Sat 30/5/20		0<		4				r*				
476 143652	saw cut existing pavement and removal	4 days	Mon 1/6/20	Thu 4/6/20								a 1				-
477 143.6.5.3	trial pits	-	Fri 5/6/20	Tue 9/6/20								*				
478 143654	trench sheetpiling	7 days	Wed 10/6/20	Wed 17/6/20								-				
479 14.3.6.5.5	excavate trench & shoring	9 days	Thu 18/6/20	Mon 29/6/20												
480 14.3.6.5,6	pipe laying & construct manhole	9 days	Tue 30/6/20	Fri 10/7/20												
481 14.3.6.5.7	backfill trench & remove sheetpile, rail & strut	14 days	Sat 11/7/20	Mon 27/7/20												
482 14.3.6.5.8		3 days	Tue 28/7/20	Thu 30/7/20									*			
483 14.3.6.6	Phase C: TTA 9n			Thu 30/7/20								J				
484 114.3.6.6.1	mobilisation & set up TTA			Set 30/5/20												
485 143.6.6.2	saw cut existing pavement and removal		Mon 1/6/20									*				
486 143663 487 143654	triel plts		Fri 5/6/20									*				
14.3.3.3.4	trench sheetpiling	/ days	Wed 10/6/20	Wed 17/6/20								*				
488 143665	excavate trench & shoring	9 davs	Thu 18/6/20	Mon 29/6/20												
	·	,-														
489 14.3.6.6.6	pipe laying & construct manhole	9 days	Tue 30/6/20	Fri 10/7/20								Ļ				
490 ,14.3 6 6.7	backfill trench & remove sheetpile, rail & strut	14 days	Sat 11/7/20	Mon 27/7/20												
491 143668	reinstate trench & curing	3 days	Tue 28/7/20	Thu 30/7/20									ž.	1		
	Phase D: TTA 4n	52 days	Fri 31/7/20	Tue 29/9/20									*			
493 14.3.6.7.1	mobilisation & set up TTA	2 days	Fri 31/7/20	Sat 1/8/20									-			
494 14:3:6.7.2			Mon 3/8/20										5			
495 143.67.3	trial plus		Fri 7/8/20										±			
496 14.3.6.7.4	trench sheetplling	7 deys N	Ned 12/8/20	Wed 19/8/20									±.			
497 143.6.7.5	excavate tranch & shoring	9 dave .	Thu 20/8/20	Sat 29/8/20												
I PERCINAL AND				JULEOULU									-			
498 14367.6	pipe laying & construct manhole	9 days N	Vion 31/8/20	Wed 9/9/20												

 Infrastructural World 	umbarium at Sandy Ridge Cemetery ks at Man Kam To Road and Lin Ma Hang Road												rogramme 25/8/2021)					
ID WBS Task	s Name	Duration	Start Date	Completion Date	M 20 Ma: 10 Jun 1 Jul 1 22	B Jul 12 Aui 2 Sep	E 23 Sep 14 Oct 4	M Nov 25 Nov I	B 16 Dec 6 Jan ' 27 Jan	E M 7 Feb 10 Mai 31 Mai	D	12	34	B 1 27 Oct 17 Nov 8 Dec	M '29 Dec 19 Jan 9 Feb ' <u>1</u> Ma F S S M T W T F S S	B 22 Mm 12 Apr 3 May	E M 24 Ma: 14 Jun 5 Jul '2 26 I	Ju]]6 Au
499 143677	backfill trench & remove sheetpile, rall & strut	14 days	Thu 10/9/20	Fri 25/9/20	IWIFSSMTW	TFSSMTN	W T F S S M 1	TWTFSS	S M T W T F S S I	4 T W T F S S M	TWTFSSM	TWTFSSM	A T W T F S S M T W	TFSSMTWT	FSSMTWTFSS	MTWTFSSMT	WTFSSMTWT	FSSM
500 143678	reinstate trench & curing	3 days	Sat 26/9/20	Tue 29/9/20														
501 14.3 6 8	Phase D: TTA 10n	52 days	Fri 31/7/20	Tue 29/9/20													-	
502 143681	mobilisation & set up TTA	2 days	Fri 31/7/20	Sat 1/8/20														
503 143682	saw cut existing pavement and removal	4 days	Mon 3/8/20	Thu 6/8/20													2	1
504 143683	trial pits	4 days	Fri 7/8/20	Tue 11/8/20								1						1
505 143684	trench sheetpiling	7 days	Wed 12/8/20	Wed 19/8/20														-
506 143685	excavate trench & shoring	9 days	Thu 20/8/20	Sat 29/8/20														-
507 143686	pipe laying & construct manhole	9 days	Mon 31/8/20	Wed 9/9/20														1
508 14 3 6 8 7	backfill trench & remove sheetpile, rail & strut	14 days	Thu 10/9/20	Fri 25/9/20														
509 143688	reinstate trench & curing	3 days	Set 26/9/20	Tue 29/9/20														
510 14369	Phase E: TTA 5n	52 days	Wed 30/9/20	Wed 2/12/20														
511 143.6.9 1	mobilisation & set up TTA	2 days	Wed 30/9/20	Sat 3/10/20														
512 143692	saw cut existing pavement and removal	4 days	Mon 5/10/20	Thu 8/10/20														
513 143693 514 143694	trial pits		Fri 9/10/20															
514 14,5,6 9,4	trench sheetplling	7 days	Wed 14/10/20	Wed 21/10/20		~				ж0								
515 1436,95	excavate trench & shoring	9 days	Thu 22/10/20	Mon 2/11/20														
516 14.3.6.9.6	pipe laying & construct manhole	9 days	Tue 3/11/20	Thu 12/11/20														
517 143697	backfill trench & remove sheetpile, rail & strut	14 days	Fri 13/11/20	Set 28/11/20														
518 143698	reinstate trench & curing	3 days	Mon 30/11/20	Wed 2/12/20														
519 14 3 6 10	Phase E: TTA 11n	52 days	Wed 30/0/20	Wed 2/12/20														
520 14 3 6 10.1	mobilisation & set up TTA	2 days	Wed 30/9/20	Set 3/10/20														
521 14 3 6 10 2	saw cut existing pavement and removal	4 days	Mon 5/10/20	Thu 8/10/20														
522 14.3.6 10.3	trial pits		Fri 9/10/20															
523 14 3 6 10 4	trench sheetpling	7 days	Wed 14/10/20	Wed 21/10/20														
524 14.3.6 10.5	excavate trench & shoring	9 days	Thu 22/10/20	Mon 2/11/20														
525 1436.10.6	pipe laying & construct manhole	9 days	Tue 3/11/20	Thu 12/11/20														
526 - 1436107	backfill trench & remove sheetpile, rall & strut	14 days	Fri 13/11/20	Sat 28/11/20														
527 14 3 6 10 8	reinstate trench & curing	3 days	Mon 30/11/20	Wed 2/12/20														
528 14 3 6 11	Phase F: TTA 6n	51 days	Thu 3/12/20	Wed 3/2/21														
529 14.3.6.11.1	mobilisation & set up TTA	2 days	Thu 3/12/20	Fri 4/12/20														
530 143.6,11.2	saw cut existing pavement and removal		Sat 5/12/20															
531 '1436113			Thu 10/12/20															
532 1436.114	trench sheetpiling	7 days	Tue 15/12/20	Tue 22/12/20														
533 14 3 6 11.5	excavate trench & shoring	8 days \	Ned 23/12/20	Mon 4/1/21														
534 14 3 6 11 6	pipe laying & construct manhole	9 days	Tue 5/1/21	Thu 14/1/21														
535 1436.117	backfill trench & remove sheetpile, rail & strut																	
536 1436118	reinstate trench & curing	3 dave	Mon 1/2/21	Wed 3/2/21														
	-		Fri 18/12/20															
ang Hing Civil Contracto	ors Company Limited											Page 7/20						



Dev - In	/elopme frastruc	nent of ctural	//2017/02 Columbarium at Sandy Ridge Cemetery Works at Man Kam To Road and Lin Ma Hang Road								3 Month (from 26	h Rolling Programme 8/5/2021 to 25/8/2021)	
tD	WB5	4S	Task Name	Duration	Stari Date	Completion Date	M B 20 Ma; 10 Jun 1 Jul 1 22 Jul 12 Auj 2 Sep	E 23 Sep 14 Oc	M ct 4 Nov	B 25 Nov 16 Dec 6 Jan 1 27 Jan 1	E M B 7 Joh 10 May 31 May 21 Any 12 May 2 Jun	E M B E	M B E M 1 29 Dec 19 Jan 9 Feb ' 1 Mar 22 Mai 12 Apt 3 May 24 May 14 Jun 5 Jul '2 26 Jul 16 Auj
53	8 1436	6 12 1	mobilisation & set up TTA	2 days	Fri 18/12/20		1 4 1 1 2 3 4 1 4 1 1 3 3 4 1 4	TFSS	M T W	TFSSMTWTFSS	ITWTFSSMTWTFSSM	TWTFSSMTWTFSSMTWTFSSMTWT	22 Dec 19 Jan 9 Feb 1 Mar 22 Mai 12 Apr 3 May 24 May 14 Jan 5 Jul 2 26 Jul 16 Au F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M
53	1436	6 12 2	saw cut existing pavement and removal	6 days	Mon 21/12/20	Tue 29/12/20							
54	j 1436	6 12 3	trial pits	5 days	Wed 30/12/20	Tue 5/1/21							
54	143.6	6 12 4	trench sheetpiling	5 days	Wed 6/1/21	Mon 11/1/21							
542	2 1436	6 12 5	excavate tranch & shoring	4 days	Tue 12/1/21	Fri 15/1/21							
543	1436	6 12 6	pipe laying & construct manhole	4 days	Sat 16/1/21	Wed 20/1/21							
544	1436	6 12 7	backfill trench & remove sheetpile, rall & strut	8 days	Thu 21/1/21	Fri 29/1/21							
545	1436	6 12 8	reinstate trench & curing	4 days	Sat 30/1/21	Wed 3/2/21							
546	1436	6 13	Phase F: additional TTA 0n	38 days	Fri 18/12/20	Wed 3/2/21							
S47	1436	6 13 1	mobilisation & set up 7TA	2 days	Fri 18/12/20	Set 19/12/20							
	143.6		saw cut existing pavement and removal	4 days	Mon 21/12/20	Thu 24/12/20							
	1436		trial plts	4 days	Mon 28/12/20	Thu 31/12/20							
550	1436	6 13 4	trench sheetpiling	5 days	Sat 2/1/21	Thu 7/1/21							
551	1436	6 13 5	excavate trench & shoring	6 days	Fri 8/1/21	Thu 14/1/21							
552	14.3.6	6.13.6	pipe laying & construct manhole	5 days	Fri 15/1/21	Wed 20/1/21							
553	1436	8 13 7	backfill trench & remove sheetpile, rail & strut	9 days	Thu 21/1/21	Sat 30/1/21						Y .	5 S
	14.3.6.		reinstate trench & curing	3 days	Mon 1/2/21	Wed 3/2/21							
	:15		Planned Completion for section 1 of the works	0 days	Wed 3/2/21	Wed 3/2/21							
	16 17		Completion Date for section 1 of the works	0 days		Wed 3/2/21							
337	117	1	section 2 of the works - Completion of all works within Parts C1 and C2 of the Site except Establishment works	979 days	Thu 31/5/18	Wed 3/2/21	2-						
558	17.1		access date for section 2 (Part C1)	0 days	Thu 31/5/18	Thu 31/5/18	a ⁺						
559	17.2		Temporary Traffic Arrangement (TTA) Scheme for Lin Ma Hang Road			Fri 9/11/18			-				
565	¹ 17.3		works at Lin Ma Hang Road (section 2 Part C1) refer	R17 dava	Set 10/11/18	Wed 3/2/21			-				
			Appendice LMHR01e to d		out for the	1100 012121							
	17.3.1		Phase I (stage 1)-south lane (chainage 240-283)	23 days	Sat 10/11/18	Thu 6/12/18			-	-			
	17.3.2				Fri 7/12/18								
	1733				Fri 28/12/18								
	1734				Tue 29/1/19								
	1735			-		Wed 13/3/19				+			
	17.3.6					Mon 1/4/19							
	1737			23 days	Tue 2/4/19	Fri 3/5/19							
	17 3 8			15 days		Wed 22/5/19							
	17.3.10			18 days 16 days		Thu 13/6/19 Wed 3/7/19							
	17.3.11					Wed 3/7/19 Fri 25/10/19					-		
			1-2) 1-2) 1-2)	uujo	ס <i>ו וויר</i> אוו	, n ∠vi ivi i⊽							
703	17.3.12	2	Phase II (stage 2)-north lane (chainage 32-85)-Noise Barrier MM9 (bays 1-4)	84 days	Sat 26/10/19	Fri 7/2/20						2	
735	17 3 13	3	Phase II (stage 3)-south lane (chainage 85-138)	38 days	Sat 8/2/20	Mon 23/3/20							
746	17.3 14	4	Phase II (stage 4)-north lane (chainage 85-138)-Noise Barrier MM10 (bays 1-4)	68 daya	Tue 24/3/20	Wed 17/6/20							
747	17.3.14	41	TTA, UU detection	2 days	Tue 24/3/20	Wed 25/3/20							•1
Sena	Hing Civ	vil Cor	tractors Company Limited				Li.					Page 8/20	
		541			_							1 who dien	



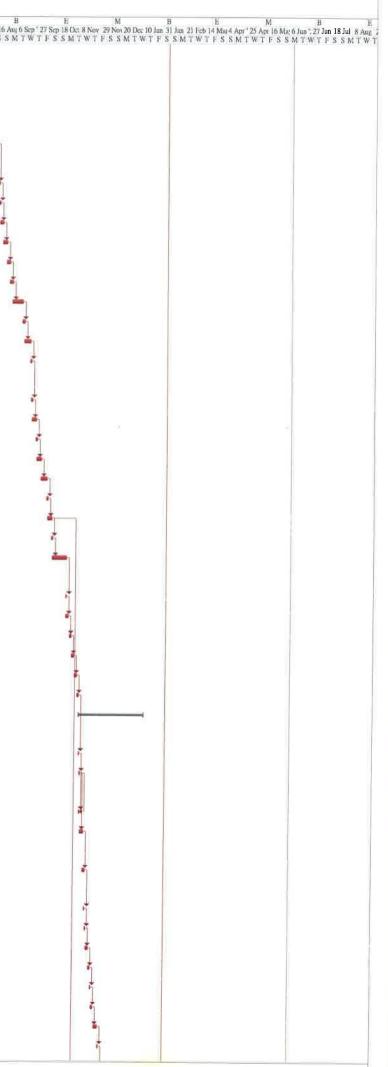
 Development of Colu Infrastructural Work 	7/02 Imbarium at Sandy Ridge Cemetery Is at Man Kam To Road and Lin Ma Hang Roa	ad				3 Month R (from 26/5	olling Programme 2021 to 25/8/2021)			Accepted Initial Works Programme
D WBS Task	Name	Duration	Start Date	Completion Date 2	M B E M B de 10 fem 1 hul 12.21 hul 12.4m 2.5m 22.5m 14 Che 4 New 25 New 16 De 4 hul 15 Z	E M B	E M D	E M B E M	B E M	B E M B
748 17 3 14.2	tree felling	2 days	Thu 26/3/20	Fri 27/3/20	4a: 10 Jun 1 Jul 1 22 Jul 12 Au 2 Sep 23 Sep 14 Oct 4 Nov 25 Nov 16 Dec 6 Jun 27 Jun V T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S	17 Feb 10 Mm 31 Mm 21 Apr 12 Mg 2 Jun 2 M T W T F S S M T W T F S S M T V	Jun 14 Jul 4 Aug. 25 Aug 15 Sep 6 Oct.' 22 Oct.17 Nov 8 De T F S S M T W T F S S M T W T F S S M T W T	c" 29 Dec 19 Jan 9 Feb" 1 Mar 22 Mia 12 Apr 3 May 24 Mie 14 Jan 5 Jul 726 J F F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T	ul 16 Au _E 6 Scp ⁺ 27 Scp 18 Oct 8 Nov 29 Nov 20 Dec 10 Jan F S S M T W T F S S M T W T F S S M T W T F S	1 Jan 21 Feb 14 Mar 4 Apr '25 Apr 16 Mar 6 Jun '27 Jun 18 Jul 8 S M T W T F S S M T W T F S S M T W T F S S M T
749 17 3 14 3	saw cut & remove existing pavement	2 days	Thu 26/3/20	Fri 27/3/20				A		
750 17 3 14 4	install sheetpilles	5 days	Sat 28/3/20	Thu 2/4/20				±,		
751 17 3 14 5	excavate and install rails and struts	5 days	Fri 3/4/20	Thu 9/4/20				-		
752 17.3.14.6	concrete blinding layers for 4 bays	2 days	Thu 9/4/20	Tue 14/4/20						
753 17 3 14 7	formwork for bases of alternative first two bays	2 days	Tue 14/4/20	Wed 15/4/20				Ŧ		
754 17.3.14.8	steel fixing for two bases	2 days	Ned 15/4/20	Thu 16/4/20				× 1		
17.3 14 9	concrete and curing for two bases	4 days	Thu 16/4/20	Mon 20/4/20				E		
56 17 3 14 10	remove formwork	2 days	Mon 20/4/20	Tue 21/4/20				E.		
57 17.3 14 11	falsework and formwork for two walls	3 days	Tue 21/4/20	Thu 23/4/20				ž,		
17.3.14.12	steel fixing for two walls	6 days	Thu 23/4/20	Wed 29/4/20						
59 17 3 14 13	close formwork for two walls	2 days	Ned 29/4/20	Sat 2/5/20				-		
60 17.3.14.14	concrete and curing for two walls	4 days	Set 2/5/20	Wed 6/5/20				 		
6] 17.3.14.15	remove formwork	2 days	Wed 6/5/20	Thu 7/5/20						
62 17314,16	formwork for bases of alternative second two bays	2 days	Thu 7/5/20	Fri 8/5/20				4		
63 17.3.14.17	steel fixing for two bases	2 days	Fri 8/5/20	Sat 9/5/20				-		
64 17.3.14.18	concrete and curing for two bases	4 days	Sat 9/5/20	Wed 13/5/20					~	
65 17.3.14.19	remove formwork	2 days	Ved 13/5/20	Thu 14/5/20						
6 17.3.14.20	falsework and formwork for two walls		Thu 14/5/20					1		
57 17.3.14.21	steel fixing for two walls	6 days	Set 16/5/20	Fri 22/5/20				1		
58 17.3.14.22	close formwork for two walls	2 days	Fri 22/5/20	Sat 23/5/20						
69 17.3.14.23	concrete and curing for two walls		Sat 23/5/20							
70 17 3 14.24	remove formwork		Ved 27/5/20							
71 17.3.14.25	backfill formation & SRT teet	9 days						1		
72 17.3.14.26	lay kerb, sub-base	2 days	Von 8/6/20	Tue 9/6/20				*		
73 17.3.14.27	sub-base SRT test	3 days	Ved 10/6/20	Frl 12/6/20				2		
74 17.3.14.28	DBM (Roadbase)	2 days	Sat 13/6/20	Mon 15/6/20				Ŧ		
75 17.3,14.29	base course and wearing course	2 days	ue 16/6/20	Ned 17/6/20				5		
76 17.3.15 P	hase li (stage 5)-south lane (chainage 138-190)	36 days 1	hu 18/6/20	Fri 31/7/20						
77 17.3 15 1	TTA & UU detection	2 days 1	'nu 18/6/20	Fri 19/6/20				ŧ.		
78 17.3.15.2	tree felling	4 days 🖇	iat 20/6/20	Ned 24/6/20						
79 17 3 15 3	saw cut & remove existing pavement	2 davs 7	ue 23/6/20	Ved 24/6/20						
80 17.3.15.4	excavate pipe trench and manhole(s)		ri 26/6/20					24		
1								T.		
81 17.3 15.5	lay pipes & construct manhole(s)	8 days N	on 29/6/20	Wed 8/7/20				-		
82 17.3 15 6	backfill formation & SRT test	12 days V	Ved 8/7/20	Tue 21/7/20				<u>+</u>		
17.3.15.7	lay kerb, sub-base	2 days W	ed 22/7/20	Thu 23/7/20				•		
17.3.15.8	sub-base SRT test	3 days F	ri 24/7/20	fon 27/7/20				1		
5 17.3 15.9	DBM (Roadbase)		ue 28/7/20					1		
	base course and wearing course		hu 30/7/20					1		
17 17.3.16 P	hase II (stage 6)-north lane (chainage 38-190)-Noise Barrier MM10 (baye 5-9)	85 days S								
88 17.3.16.1	TTA, UU detection	2 days S	Get 1/8/20	Mon 3/8/20						

Page 9/20

nfrastructural \	Columbarium at Sandy Ridge Cemetery Works at Man Kam To Road and Lin Ma Hang Road	t							Rolling Programme i/5/2021 to 25/8/2021)			
WBS	Task Name	Duration	Start Date	Date	M B E 20 Ma; 10 Jun 1 Jul '1 22 Jul 12 Auj 2 Sep ' 2	23 Sep 14 Oct 4	M B Nov 25 Nov 16 Dec 6 Jan * 27 Jan 1	E M B 7 Feb 10 Mar 31 Mar 21 Any 12 Mar 2 Jun	E M B I	M B E	M.	1.1.1
89 17.3 16 2	tree felling	2 days	Tue 4/8/20		TWTFSSMTWTFSSMTW	TFSSMT	WTFSSMTWTFSSI	4 T W T F S S M T W T F S S M	TWTFSSMTWTFSSMTWTFSSMTWT	FSSMTWTFSSMTWTFSSMTWT	FSSMTW	T F :
90 17 3 16 3	saw cut & remove existing pavement	2 days	Tue 4/8/20	Wed 5/8/20								
91 17 3 16 4	install sheetpiles	6 days	Thu 6/8/20	Wed 12/8/20								-
92 : 17 3 16 5	excevate and install relis and struts	6 days	Thu 13/8/20	Wed 19/8/20								
3 17 3 16 6	concrete blinding layers for 5 bays	3 days	Wed 19/8/20	Fri 21/8/20								ľ,
4 17.3.16.7	formwork for bases of alternative first 3 bays	2 days	Fri 21/8/20	Sat 22/8/20								
17 3 16 8	steel fixing for 3 bases	3 days	Set 22/8/20	Тие 25/8/20								
6 17.3 16.9	concrete and curing for 3 bases	5 daya	Tue 25/8/20	Sat 29/8/20								
7 17 3 16 10	remove formwork	3 days	Sat 29/8/20	Tue 1/9/20								
8 :17 3 16 11	falsework and formwork for 3 walls	4 days	Tue 1/9/20	Fri 4/9/20								
9 17 3 16 12	steel fixing for 3 wells	9 days	Fri 4/9/20	Mon 14/9/20								
0 17.3.16.13	close formwork for 3 walls	3 days	Mon 14/9/20	Wed 16/9/20								
17.3.16.14	concrete and curing for 3 walls	6 days	Wed 16/9/20	Tue 22/9/20								
12 17 3,16 15	formwork for bases of alternative second two bays	2 days	Tue 22/9/20	Wed 23/9/20								
17.3.16.16	steel fixing for two bases	2 days	Wed 23/9/20	Thu 24/9/20								
4 17 3 16 17	concrete and curing for two bases	4 days		Mon 28/9/20								
5 17.3.16.18	remove formwork	2 days	Mon 28/9/20						*	5	s	
6 17 3 16 19	falsework and formwork for two walls	3 days	Tue 29/9/20									
7 17 3 16 20	steel fixing for two wells	6 days	Sat 3/10/20	Fri 9/10/20								
8 17 3 16.21	close formwork for two walls	2 days		Sat 10/10/20								
9 :17 3 16 22	concrete and curing for two walls	4 days		Wed 14/10/20								
0 17.3.16.23	remove formwork		Wed 14/10/20			φ						
1 17 3 16 24	backfill formation & SRT teat		Thu 15/10/20									
2 17 3 16.25												
3 17.3 16 26	excavate gully trench and gully pot(s)		Thu 29/10/20									
4 17.3 16.27			Thu 29/10/20									
	lay kerb, sub-base		Mon 2/11/20									
5 17.3.16.28 6 17 3 16 29	sub-base SRT test	3 days	Wed 4/11/20									
	DBM (Roadbase)											
7 17.3.16.30	base course and wearing course			Wed 11/11/20								
8 17317	Phase II (stage 7)-south lane (chainage 0-32)-Nolse Barrier MM5 (bays 1-2)	53 days	Thu 12/11/20	Fri 15/1/21								
9 '17 3 17.1	TTA, UU detection	1 day	Thu 12/11/20	Thu 12/11/20								
Ö 17.3.17.2	tree felling	1 day	Fri 13/11/20	Fri 13/11/20								
17.3.17.3	saw cut & remove existing pavement	1 day	Fri 13/11/20	Fri 13/11/20								
2 17 3 17 4	install sheetplies	3 days	Sat 14/11/20	Tue 17/11/20								
3 ⁷ 173175	excavate and instali relis and struts	3 days	Tue 17/11/20	Thu 19/11/20								
4 17,3,17,6	concrete blinding layers for 2 bays	1 day	Thu 19/11/20	Thu 19/11/20								
5 17 3 17 7	formwork for base of the first bay	1 day	Fri 20/11/20	Fri 20/11/20								
5 17.3.17.8	steel fixing for 1 base		Sat 21/11/20									
7 17.3.17.9	concrete and curing	-	Tue 24/11/20									
8 17 3 17 10	remove formwork		Thu 26/11/20									
9 173.17.11	faisework and formwork for 1 well	-	Fri 27/11/20									
0 17.3.17.12	steel fixing		Mon 30/11/20									
1 17.3.17.13	close formwork	1 day	Fri 4/12/20									

Page 10/20

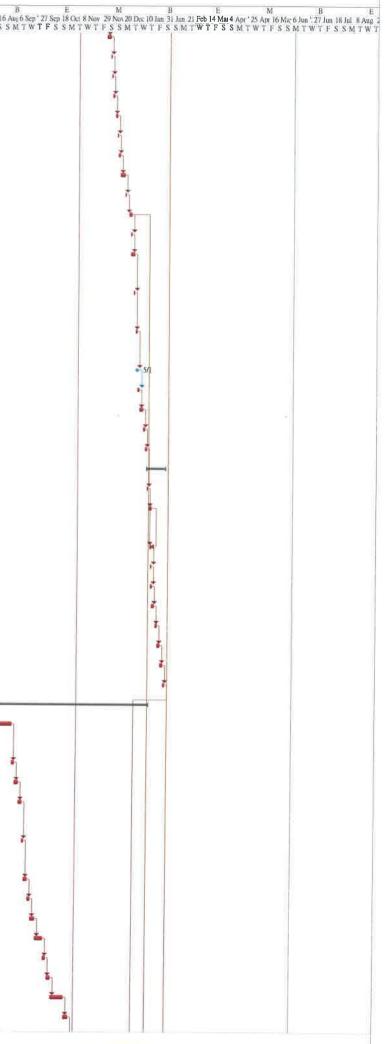
Sang Hing Civil Contractors Company Limited



Contract No_CV/2 Development of Co - Infrastructural W	017/02 olumbarium at Sandy Ridge Cemetery orks at Man Kam To Road and Lin Ma Hang Roa	ad						3 Month (from 26	Rolling Programme /5/2021 to 25/8/2021)			
ID WBS Th	ask Name	Duration	Start Date	Completion Date	M B 20 Ma: 10 Jun 1 Jul '1 22 Jul 12 Aug 2 Ser	E * 23 Sep 14 Oct 4 N	M B Sov 25 Nov 16 Dec 6 Jun 1 27 Jun 1	E M B	E M B 23 Jun 14 Jul 4 Aug 25 Aug 15 Sep 6 Oct ' 27 Oct 17 Nov 8 Dec		M	L1 or o
832 17 3 17 14	concrete and curing	3 days	Sat 5/12/20	Tue 8/12/20	TWTFSSMTWTFSSMT	WTFSSMT	WTFSSMTWTFSSM	ATWTFSSMTWTFSSM	TWTFSSMTWTFSSMTWTFSSMTWT	F S S M T W T F S S M T W T F S S M T W T	F S S M T W 1	FSS
833 17 3 17 15	remove formwork	1 day	Wed 9/12/20	Wed 9/12/20								
834 17 3 17 16	formwork for base of the second bay	1 day	Thu 10/12/20	Thu 10/12/20								
835 17 3 17 17	steel fixing	2 days	Fri 11/12/20	Sat 12/12/20								
836 17 3 17 18	concrete and curing	2 days	Mon 14/12/20	Tue 15/12/20								
837 17.3.17.19	remove formwork	1 day	Wed 16/12/20	Wed 16/12/20								
838 17 3 17 20	falsework and formwork	2 days	Thu 17/12/20	Fri 18/12/20								
839 17 3 17 21	steel fixing	4 days	Sat 19/12/20	Wed 23/12/20								
840 17 3 17 22	close formwork	1 day	Thu 24/12/20	Thu 24/12/20								
84] 17 3 17 23	concrete and curing	3 days	Mon 28/12/20	Wed 30/12/20								
842 17 3 17 24	remove formwork	1 day	Wed 30/12/20	Wed 30/12/20								
843 17 3 17 25	backfill formation & SRT test	3 days	Wed 30/12/20	Sat 2/1/21								
844 17.3 17.26	excavate pipe trench and manhole(s)	1 day	Sat 2/1/21	Sat 2/1/21								
845 17 3 17 27	lay pipes & construct manhole(s)	2 days	Mon 4/1/21	Tue 5/1/21	1							
846 17 3.17 28	backfill formation & SRT test	0 days	Tue 5/1/21	Tue 5/1/21								
847 117 3 17 29	lay kerb, sub-base	2 days	Wed 6/1/21	Thu 7/1/21								
848 17.3.17.30	sub-base SRT test	3 daya	Fri 6/1/21	Mon 11/1/21	9				0		· · · ·	
849 17.3 17.31	DBM (Roadbase)	2 days	Tue 12/1/21	Wed 13/1/21								
850 17.3.17.32	base course and wearing course	2 days	Thu 14/1/21	Fri 15/1/21								
851 17.3.18	Phase II (stage 8)-north iane (chainage 0-32)		Set 16/1/21									
852 17 3 18 1	TTA & UU detection	1 day	Sat 16/1/21									
853 17.3 18.2	tree felling	3 days	Mon 18/1/21	Wed 20/1/21								
854 '17 3 18 3	saw cut & remove existing pavement	مار (Tue 19/1/21	Mad 2014-04								
855 17 3 18 4	saw cut & remove existing pavement excavate gully trench and gully pot(s)											
856 17.3 18 5	excavate guily trench and guily pot(s)		Wed 20/1/21 Wed 20/1/21									
857 17.3 18 6	backfill formation & SRT test		Thu 21/1/21									
858 17.3.18.7	lay kerb, sub-base		Mon 25/1/21									
859 17 3 18 8	sub-base SRT test			Fri 29/1/21								
860 17.3.18.9	DBM (Roadbase)	2 days	Sat 30/1/21	Mon 1/2/21								
861 17.3.18.10	base course and wearing course	2 days	Tue 2/2/21	Wed 3/2/21								
862 17.3.19	Noise Barrier MM8 (bays 1-3)			Mon 18/1/21								
863 17.3 19 1	construct alternative route to close the existing		Sat 1/8/20	Fri 4/9/20							Ţ	
	road											
864 17 3 19 2	TTA road closure, UU detection	2 days	Sat 5/9/20	Mon 7/9/20								-
865 17 3 19 3	remove existing pavement	4 days	Tue 8/9/20	Fri 11/9/20								
866 17.3.19.4	install sheetpiles	3 days	Sat 12/9/20	Tue 15/9/20								
867 17 3 19 5	excavate and install rails and struts	2 days	Wed 16/9/20	Thu 17/9/20								
868 17 3 19 6	concrete blinding layers for 3 bays	3 days	Fri 18/9/20	Mon 21/9/20								
869 17:3.19.7	formwork for 2 bases	3 days	Tue 22/9/20	Thu 24/9/20								
870 17.3.19.8	steel fixing for 2 bases	4 days	Fri 25/9/20	Tue 29/9/20								
871 173 19.9	concrete and curing for 2 bases	5 days	Wed 30/9/20	Wed 7/10/20								
872 17.3.19.10	remove formwork for 2 bases	3 days	Thu 8/10/20	Sat 10/10/20								
873 17.3.19.11	falsework and formwork for 2 walls	4 days	Mon 12/10/20	Thu 15/10/20				A1				
874 17.3.19.12	steel fixing for 2 walls	10 days	Fri 16/10/20	Wed 28/10/20								
875 17.3 19 13	close formwork for 2 walls	4 days	Thu 29/10/20	Mon 2/11/20								
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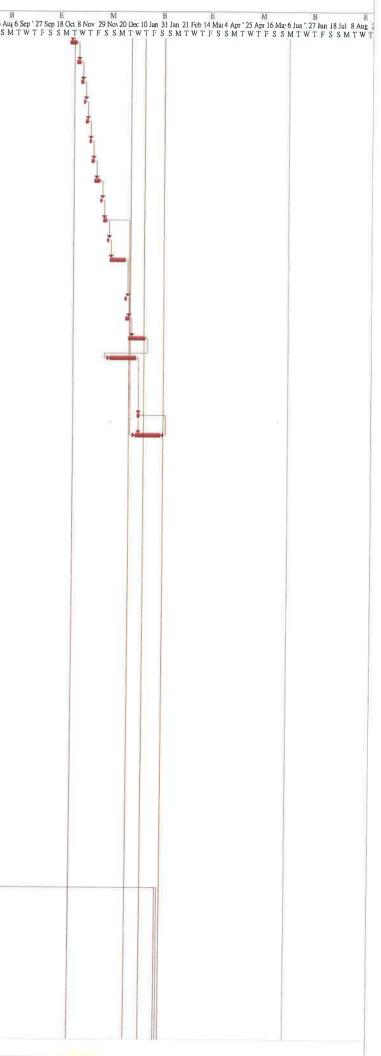
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Sang Hing Civil Contractors Company Limited



Develo	opment o	V/2017/02 f Columbarium at Sandy Ridge Cemetery Works at Man Kam To Road and Lin Ma Hang Road	J									Rolling Programme /5/2021 to 25/8/2021)		
D	WBS	Task Name	Duration	Start Date	Completion Date	M B 20 May 10 Jun 1 Jul 12 2 Jul 12 Avy 2 Sa	E	M	B 25 No. 16 Dec 6 her (* 22 h	E At	R	E M P I	M B E	M
876	17 3 19 14	concrete and curing for 2 walls	6 days	Tue 3/11/20	Mon 9/11/20	TWTFSSMTWTFSSMT	WTFSS	M T W	TFSSMTWTFSS	/ Feb 10 Mai 31 Mai 21 Apr 12 M / TWTFSSMTWTF	la: 2 Jun ' S S M 1	23 Jun 14 Jul 4 Aug 25 Aug 15 Scp 6 Oct ' 27 Oct 17 Nov 8 Dec TWTFSSMTWTFSSMTWTFSSMTWTFSSMTWT TWTFSSMTWTF	'29 Dec 19 Jan 9 Feb ' 1 Mar 22 Mai 12 Apr 3 May 2 S S M T W T F S S M T W T F S S M T	24 Ma; 14 Jun 5 Jul '2 26 Jul 16 Au W T F S S M T W T F S S M
877	17 3 19 15	remove formwork for 2 walls	4 days		Fri 13/11/20									
878	17 3 19 16	formwork for base of the second 1 bay	2 days		Mon 16/11/20									
879	17 3 19 17	steel fixing			Wed 18/11/20									
880 1	17 3 19 18	concrete and curing		Thu 19/11/20										
881 1	17 3 19 19	remove formwork		Mon 23/11/20										
882 1	17 3 19 20	falsework and formwork for wall		Wed 25/11/20										
883 1	17 3 19 21	steel fixing	5 days											
884 1	17 3 19 22	close formwork	2 days	Fri 4/12/20	Sat 5/12/20									
885 1	17 3 19 23	concrete and curing	4 days	Mon 7/12/20	Thu 10/12/20								1	
886 1	17 3 19 24	remove formwork	2 days	Fri 11/12/20	Sat 12/12/20									
887 1	17 3 19 25	backfill to formation	12 days	Mon 14/12/20	Tue 29/12/20									
888 1	17 3 19 26	lay kerb, sub-base	2 days	Tue 29/12/20	Wed 30/12/20									
889 1	17.3.19.27	sub-base SRT test	3 days	Wed 30/12/20	Sat 2/1/21									
890 1	17 3 19 28	concrete pavement	14 days	Sat 2/1/21	Mon 18/1/21									
891 1	17 3 20	Street lighting (drawpits, abandon existing public lighting & cable, 100uPVC ducts) (ch0-435)	21 days	Mon 14/12/20	Sat 9/1/21									
		igning a cable, 1000PVC ducts) (cn0-435)												
892 1	7.3.21	tree planting	3 days	Mon 11/1/21	Wed 13/1/21									
893 :17	7 3 22	Street furniture & construction of footpath (ch0-435)	22 days	Sat 9/1/21	Wed 3/2/21									1.0
894 17		Phase la (slage 101)-south lane (chainage 633-685)	20 days	Sat 10/11/18	Mon 3/12/18			-						
904 17		Phase la (stage 102)-north lane (chainage 633-685)	16 days	Tue 4/12/18	Fri 21/12/18				—					
914 17		Phase la (stage 103)-south lane (chainage 685-740)	25 days	Sat 22/12/18	Wed 23/1/19				<u> </u>					
925 17		Phase la (stage 104)-north lane (chainage 685-740)			Fri 15/2/19				<u> </u>					
934 17		Phase la (stage 105)-south lane (chainage 740-790)			Fri 15/3/19				+					
945 17		Phase la (stage 106) north lane (chainage 740-790)			Thu 4/4/19									
955 :17		Phase la stage 107)-south lane (chainage 790-840)	,		Sat 4/5/19									
966 17		Phase la (stage 108)-north lane (chainage 790-840)									-			
976 17		Phase la (stage 109)-south lane (chainage 840-890)			Wed 17/7/19						-	_		
988 17 998 17		Phase la (stage 110)-north lane (chainage 840-890)												
1009 17				Thu 8/8/19	Fri 30/8/19									
019 17				Sat 31/8/19								—		
030 17					Thu 31/10/19									
039 17				Fri 8/11/19								—		
049 17				Thu 28/11/19	Fri 3/1/20							2	4	
059 17			22 days 29 days	Sat 4/1/20 Tue 4/2/20	Sat 1/2/20 Sat 7/3/20									
069 17				Mon 9/3/20	Sat 7/3/20									
079 17					Sat 18/4/20									
		lighting & cable, 100uPVC ducts) (ch435-890)			54. 10/4/2V									
080 17	3 42	tree planting	5 days	Tue 14/4/20	Sat 18/4/20									
081 17	3 43	Street furniture & construction of footpath		Mon 20/4/20										
		(ch435-890)	• -											
082 17	3 44	Phase IV (stage 1)-south lane (chainage 890-940)	22 days	Fri 20/9/19	Thu 17/10/19									
193 17	3 45			Fri 16/10/19										
103 17	3 46			Thu 7/11/19										
13 17	3 47				Fri 3/1/20									
22 17	3 48				Thu 23/1/20									
32 17	3 49	Phase V (stage 2)-north lane (chainage 983-1035)	16 days	Fri 24/1/20	Fri 14/2/20									
						i I								

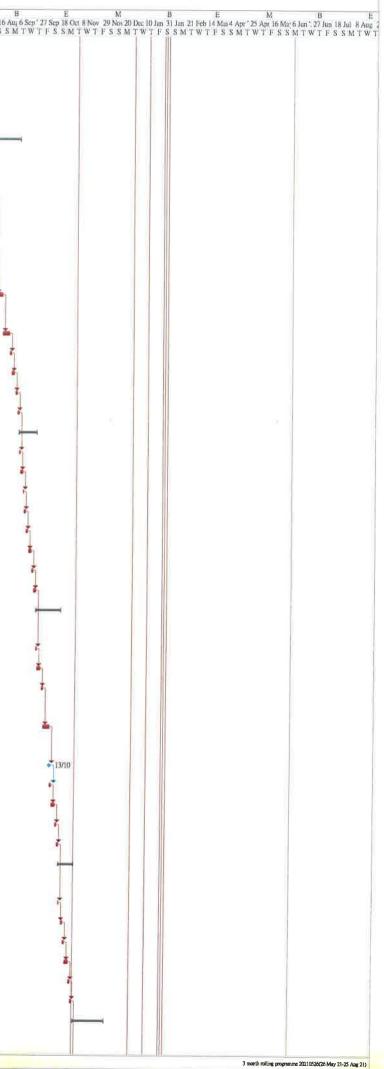
Page 12/20



- Infrastructural Wo	olumbarium at Sandy Ridge Cernetery orks at Man Kam To Road and Lin Ma Hang Road				3 Month Rolling Programme (from 26/5/2021 to 25/8/2021)	Accepted Initial Works Programme (06)
ID WBS Ta	isk Name	Duration	Start Date	Completion Date 2	M B E M B E	B E M B E
1141 117 3 50	Phase V (stage 3)-south lane (chainage 1035-1087)	19 days	Sat 15/2/20	Sat 7/3/20	TWTFSSMTWTTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMT	WTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTF
1151 17.351	Phase V (stage 4)-north lane (chainage 1035-1087)	12 days	Mon 9/3/20	Sat 21/3/20		
1160 17 3 52	Phase V (stage 5)-south lane (chainage 1087-1139)	20 days	Mon 23/3/20	Sat 18/4/20		
1170 17 3 53	Phase V (stage 6)-north lane (chainage 1087-1139)	15 days	Mon 20/4/20	Fri 8/5/20		
1171 17 3 53 1	TTA & UU detection	1 day	Mon 20/4/20	Mon 20/4/20	5	
1172 17 3 53 2	saw cut & remove existing pavement	2 days	Tue 21/4/20	Wed 22/4/20	5	
1173 17 3 53 3	excavate gully trench and gully pot(s)	1 day	Thu 23/4/20	Thu 23/4/20	5	
1174 17 3 53 4	lay& connect gully pipes& construct gully pot(s)	2 days	Fri 24/4/20	Set 25/4/20		
1175 17 3 53 5	lay kerb, sub-base	2 days	Mon 27/4/20	Tue 28/4/20	T ₁	
1176 17.3.53.6	sub-base SRT test	3 days	Wed 29/4/20	Mon 4/5/20		
1177 17 3 53 7	DBM (Roadbase)	2 days	Tue 5/5/20	Wed 6/5/20		
1178 17 3 53 8	base course and wearing course	2 days	Thu 7/5/20	Fri 8/5/20	5	
1179 17.3.54	Phase V (stage 7)-south lane (chainage 1139-1190)	20 days	Sat 9/5/20	Mon 1/8/20		
1180 173.541	TTA & UU detection	1 day	Sat 9/5/20	Sat 9/5/20		
1181 17 3 54 2	saw cut & remove existing pavement	2 days	Mon 11/5/20	Tue 12/5/20		
1182 17 3 54 3	excavate pipe trench and manhole(s)	2 days	Wed 13/5/20	Thu 14/5/20		
1183 17 3.54 4	lay pipes & construct manhole(s)	6 days	Fri 15/5/20	Thu 21/5/20		
1184 17.3.54.5	backfill formation & SRT test	0 days	Thu 21/5/20	Thu 21/5/20	21/5	
1185 17.3.54.6	lay kerb, sub-base	2 days	Fri 22/5/20	Sat 23/5/20		
1186 17.3.54.7	sub-base SRT test	3 days	Mon 25/5/20	Wed 27/5/20		
1187 17.3.54.8	DBM (Roadbase)	2 days	Thu 28/5/20	Fri 29/5/20		
1188 17.3.54.9	base course and wearing course	2 days	Sat 30/5/20	Mon 1/6/20		
1189 173 55	Phase V (stage 8)-north lane (chainage 1139-1190)	15 days	Tue 2/6/20	Thu 18/6/20		
1190 17 3 55 1	TTA & UU detection	1 day	Tue 2/6/20	Tue 2/6/20		
1191 17 3 55 2	saw cut & remove existing pavement	2 days	Wed 3/6/20	Thu 4/6/20	1	
1192 17.3 55.3	excavate gully trench and gully pot(s)	1 day	Fri 5/8/20	Fri 5/6/20		
1193 17.3 55.4	lay& connect gully pipes& construct gully pot(s)	2 days	Sat 6/6/20	Mon 8/6/20		
1194 17.3.55.5	lay kerb, sub-base	2 days	Tue 9/6/20	Wed 10/6/20		
1195 17.3 55.6	sub-base SRT test	3 days	Thu 11/6/20	Sat 13/6/20		
1196 17.3 55.7	DBM (Roadbase)	2 days	Mon 15/6/20	Tue 16/6/20		
1197 17.3 55.8	base course and wearing course	2 days	Wed 17/6/20	Thu 18/6/20		
1198 17.3.56	Phase VI (stage 1)-south lane (chainage 1190-1240)	21 days	Fri 19/6/20	Wed 15/7/20		
1199 17.3.56.1	TTA & UU detection	1 day	Fri 19/6/20	Fri 19/6/20		
1200 17 3 56 2	saw cut & remove existing pavement	2 days	Sat 20/6/20	Mon 22/6/20		
1201 17 3 56 3	excavate pipe trench and manhole(s)	2 days	Tue 23/6/20	Wed 24/6/20	t,	
1202 17.3.56.4	lay pipes & construct manhole(s)	7 days	Fri 26/6/20	Sat 4/7/20		
1203 17 3.56 5	backfill formation & SRT test	0 days	Sat 4/7/20	Sat 4/7/20	477	
1204 17 3 58 6	lay kerb, sub-base	2 days I	Mon 6/7/20	Tue 7/7/20		
1205 717.3.56.7	sub-base SRT test	3 days	Wed 8/7/20	Fri 10/7/20		
1206 17.3.56.8	DBM (Roadbase)	2 days S	Sat 11/7/20	Mon 13/7/20		
1207 17.3.56.9				Wed 15/7/20		
1208 17.3.57	Phase VI (stage 2)-north lane (chainage 1190-1240)	15 days T	Thu 16/7/20	Set 1/8/20		
1209 17.3 57 1	TTA & UU detection	1 day 7	Thu 16/7/20	Thu 16/7/20		
1210 17.3.57.2		2 days	Fri 17/7/20	Sat 18/7/20		
1211 17.3.57.3	excavate gully trench and gully pot(s)	1 day N	Von 20/7/20	Mon 20/7/20		
						1
Sang Hing Civil Contra	ctors Company Limited				Page 13/20	3 month rolling programme 20210526(26 May 21-25 Aug 21)

Developr	No. CV/20 nent of Co uctural Wo	017/02 olumbarium at Sandy Ridge Cernetery orks at Man Kam To Road and Lin Ma Hang Road				3 Month Rolling Programme (from 26/5/2021 to 25/8/2021)	
ID W		isk Name		Start Date	Date	m M B E M B	1 17.26 ful: 16.4m
1212 :17	3 57 4	lay& connect gully pipes& construct gully pot(s)	2 days	Tue 21/7/20	Wed 22/7/20	1 w 1 L 2 2 W 1 w 1 L 2 2 W 1 W 1 W 1 W 1 W 1 W 1 W 1 W 1 W 1	WTFSSM
1213 17	3 57.5	lay kerb, sub-base	2 days	Thu 23/7/20	Fri 24/7/20	0	4
1214 17.	.3.57.6	sub-base SRT test	3 days	Sal 25/7/20	Tue 28/7/20		-
1215 17	3 57 7	DBM (Roadbase)	2 days	Wed 29/7/20	Thu 30/7/20	20	7
1216 117	3 57.8	base course and wearing course	2 days	Fri 31/7/20	Sat 1/8/20		ř.
1217 17	3 58	Phase VI (stage 3)-south lane (chainage 1240-1286)	34 days	Mon 3/8/20	Thu 10/9/20	20	
1218 173	3 58 1	TTA & UU detection	1 day	Mon 3/8/20	Mon 3/8/20	o	5-
1219 17	3 58 2	tree felling	10 days	Tue 4/8/20	Fri 14/8/20	o	1 I
1220 17.	3.58.3	важ cut & remove existing pavement	2 days	Thu 13/8/20	Fri 14/8/20	0	
1221 173		excavate pipe trench and manhole(s)	2 days		Mon 17/8/20		z
1222 17:	3.58.5	lay pipes & construct manhole(s)	6 days	Tue 16/8/20	Mon 24/8/20	20	-
1223 17:	3.58.6	backfill formation & SRT test	6 days	Tue 25/8/20	Mon 31/8/20	20	-
1224 17.	3.58.7	lay kerb, sub-base	2 days	Tue 1/9/20	Wed 2/9/20	0	7
1225 17.	3.58.8	sub-base SRT test	3 days	Thu 3/9/20	Sat 5/9/20		T
1226 173	3 58 9	DBM (Roadbase)	2 days	Mon 7/9/20	Tue 8/9/20		1
1227 17.3		base course and wearing course	2 days	Wed 9/9/20	Thu 10/9/20		
1228 17.3		Phase VI (stage 4)-north lane (chainage 1240-1286)	15 days	Fri 11/9/20	Mon 28/9/20		
1229 17.		TTA & UU detection	1 day	Fri 11/9/20	Fri 11/9/20		
1230 17.1		saw cut & remove existing pavement	2 days	Sat 12/9/20	Mon 14/9/20		
1231 17; 1232 17;		excevate gully trench and gully pot(s)	1 day	Tue 15/9/20			
1232 173		lay& connect gully pipes& construct gully pot(a) lay kerb, sub-base	2 days 2 days	Wed 16/9/20 Fri 18/9/20	Sat 19/9/20		
1234 17.		sub-base SRT test	3 days	Mon 21/9/20			
1235 17.3				Thu 24/9/20			
1236 17.3				Sat 26/9/20			
1237 17.3	9.60	Phase VI (stage 5)-south lane (chainage 1286-1332)	20 days	Tue 29/9/20	Fri 23/10/20	0	
1238 17.3	3.60.1	TTA & UU detection	1 day	Tue 29/9/20	Tue 29/9/20		
1239 17.3	3.60.2	saw cut & remove existing pavement	2 days	Wed 30/9/20	Sat 3/10/20	0	
1240 17.3	3.60 3	excavate pipe trench and manhole(s)	2 days	Mon 5/10/20	Tue 6/10/20	0	
1241 17.3	3 60 4	lay pipes & construct manhole(s)	6 days	Wed 7/10/20	Tue 13/10/20	20	
1242 17.3	9.60 5	backfill formation & SRT teat	0 days	Тие 13/10/20	Tue 13/10/20	20	
1243 17.3	8 60 6	lay kerb, sub-base	2 days	Wed 14/10/20	Thu 15/10/20	20	
1244 17.3		eub-base SRT test	3 days	Frl 16/10/20	Mon 19/10/20		
1245 17.3					Wed 21/10/20		
1246 17.3		-		Thu 22/10/20			
1247 17.3	3.61	Phase VI (stage 6) - north lane (chainage 1286 -1332)	12 days	Sat 24/10/20	Sat 7/11/20		
1248 17.5	3.51.1	TTA & UU detection	1 day	Sat 24/10/20	Sat 24/10/20		
1249 17.5	3.61.2	saw cut & remove existing pavement	2 days	Tue 27/10/20	Wed 28/10/20	20	
1250 17.3	613	lay kerb, sub-base	2 days	Thu 29/10/20	Fri 30/10/20	0	
1251 17.3	3.61.4	sub-base SRT test	3 days	Sal 31/10/20	Tue 3/11/20		
1252 17.5	61.5			Wed 4/11/20			
1253 17.3		base course and wearing course	2 days	Fri 6/11/20	Sat 7/11/20		
1254 17.3	3 62	Phase VI (stage 7)-south lane (chainage 1332-1377)	27 days	Mon 9/11/20	Wed 9/12/20		

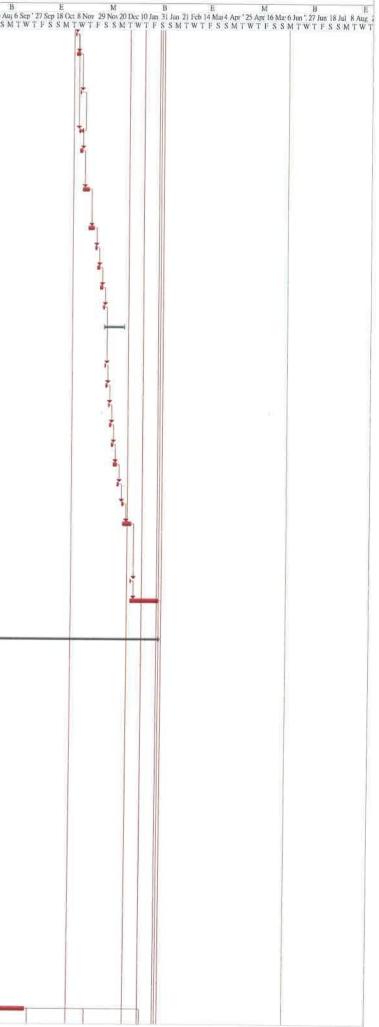
Page 14/20



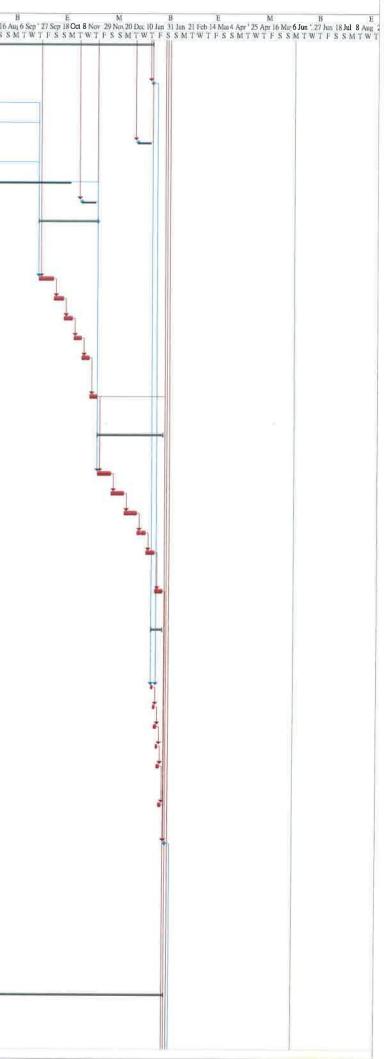
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Infrast	oment of ructural	//2017/02 Columbarium at Sandy Ridge Cemetery Works at Man Kam To Road and Lin Ma Hang Road											3 (f	Month rom 26	Rolling Program /5/2021 to 25/8/2	nme 2021)							
D V	VBS	Task Name	Duration	Start Date	Completion Date	M B 20 Ma; 10 Jun 1 Jul '1 22 Jul 12 A T W T F S S M T W T F S	uí 2 Sep '	E 23 Sep 14 (M Act 4 Nov	25 Nov 16 D	B cc 6 Jan * 27 Jan	E 17 Feb 10 May 3	M 1 Mai 21 Apr 1	B 2 Mar 2 Jun 1	E 23 Jun 14 Jul 4 Aug 25 A	M	B cl 1 27 Oct 17 Not 8	E Dec 129 De	M x 19 Jan 9 Fe	b 1 Mar 21	B May 12 Apr 3	E May 24 Mer	M B
1255 11	7 3 62.1	TTA & UU detection	1 day	Mon 9/11/20	Mon 9/11/20	TWTFSSMTWTFS	SMTW	TFSS	MTW	TFSSM	TWTFSS	MTWTFS	SMTWT	FSSM	TWTFSSMTWT	FSSMT	WTFSSMT	VTFS	MTWT	FSSMT	WTFSS	M T W T I	S S M T W T F S S M
1256 17	7 3 62 2	tree felling	4 days	Tue 10/11/20	Fri 13/11/20																		
1257 17	73623	trao transplant	4	0-1444400	0.4444400																		
1237 11	10020	tree transplant	1 day	Sat 14/11/20	Sat 14/11/20																		
1258]17	7 3 62 4	saw cut & remove existing pavement	2 days	Fri 13/11/20	Sat 14/11/20																		
1259 17	7 3 62 5	excavate pipe trench and manhole(s)	2 days	Sat 14/11/20	Mon 16/11/20																		
1260 ⁱ 17	3 62.6	lay pipes & construct manhole(s)	6 days	Tue 17/11/20	Mon 23/11/20																		
261 17																							
1262 17		backfill formation & SRT test			Sat 28/11/20																		
1263 17		lay kerb, sub-base		Mon 30/11/20																			
264 17		sub-base SRT test DBM (Roadbase)	3 days	Wed 2/12/20	Frl 4/12/20																		
265 17			2 days	Set 5/12/20	Mon 7/12/20																		
266 17		base course and wearing course Phase VI (stage 8)-north lane (chainage 1332-1377)	2 days		Wed 9/12/20																		
			10 0896	10110/12/20	108 29/12/20																		
267 17	.3.63.1	TTA & UU detection	1 day	Thu 10/12/20	Thu 10/12/20																		
268 17	3.63.2	saw cut & remove existing pavement	2 days		Sat 12/12/20																		
269 17	3.63.3	excavate gully trench and gully pot(s)			Mon 14/12/20																		
270 17	3 63 4	lay& connect gully pipes& construct gully pot(s)		·	Wed 16/12/20						20							1					
271 17	3635	lay kerb, sub-base	2 days	Thu 17/12/20	Frl 18/12/20																		
272 17	.3.63.6	sub-base SRT test	3 days	Sat 19/12/20	Tue 22/12/20																		
273 17	3.63.7	DBM (Roadbase)	2 days	Wed 23/12/20	Thu 24/12/20																		
274 17	3.63.8	base course and wearing course	2 days	Mon 28/12/20	Tue 29/12/20																		
275 17	3 64	Street lighting (drawpits, abandon existing public lighting & cable, 100uPVC ducts) (ch890-1377)	7 days	Tue 29/12/20	Wed 6/1/21																		
276 173	3.65	tree planting	1 day	Wed 6/1/21	Wed 6/1/21																		
277 17		Street furniture & construction of footpath	,	Wed 6/1/21																			
		(ch890-1377)	/-																				
278 17	4	Nolee Barrier works above the concrete substructure of the noise barrier (section 2 Part C1)	674 days	Mon 29/10/18	Wed 3/2/21			-	_					_		_		-					
279 17	4.1	seek specialist subcontractor to design and build	210 days	Mon 29/10/18	Sun 26/5/19				_														
280 ⁻¹ 17.4	4.2	propose specialist subcontractor to PM for acceptance	0 days	Sun 26/5/19	Sun 26/5/19									-									
281 17.4	43	acceptance of propose specialist subcontractor by Project Manager	0 days	Sun 16/6/19	Sun 16/6/19									ł									
282 17.4	4.4		20 4	Mar 47/0/10	Man 444040																		
283 17.4			-	Mon 17/6/19										Ť									
		design, if any	14 0898	Tue 15/10/19	won 26/10/19											-							
284 117.4			0 days	Mon 28/10/19	Mon 28/10/19												*						
285 17.4				Tue 29/10/19		1											-						
286 17.4				Tue 19/11/19																			
287 17.4				Mon 16/12/19																			
288 17.4	4,10	submit 3 sample panels for each type & colour for acceptance	7 days	Tue 17/12/19	Mon 23/12/19																		
289 17.4	61	PM's & relevant authorities' acceptance	0 days	Mon 13/1/20	Mon 13/1/20													-					
250 17.4	1,12	ordering of noise barrier panel	0 days	Wed 15/1/20	Wed 15/1/20													-					
291 17.4		fabricating of panel and steelworks	80 days	Thu 16/1/20	Mon 13/7/20													-		_			
292 17.4	14	delivery of panel and steelworks on site	70 2000	Tue 14/7/20	0																		

Page 15/20



Deve	alopment o	2V/2017/02 of Columbarium at Sandy Ridge Cemetery I Works at Man Kam To Road and Lin Ma Hang Road	d						3 Month (from 26	n Rolling Program 6/5/2021 to 25/8/20	me (21)			
ID	WBS	Task Name	Duration	Stirt Date	Completion Date	M B F 20 Ma; 10 Jun 1 Jul '1 22 Jul 12 Au; 2 Sep "	M 23 Sep 14 Oct 4 Nov	B 25 Nos 16 Dec 6 Jan * 27 Jan	F M B	R	M B	E M 120 Dec 10 Inc 0 Exh ⁺ 1 1	B E	M m 14 has 6 hat 12 a6 hat 16 h
1293	17.4.15	completion of concrete curing of substructure of Nosie Barriers	463 days	Mon 14/10/19		TWTFSSMTWTFSSMTW	TFSSMTW	TFSSMTWTFSS	M T W T F S S M T W T F S S M	TWTFSSMTWTF	S S M T W T F S S M T W	T F S S M T W T F S	SMTWTFSSMTWT	F S S M T W T F S S
1294	.17 4 15 1	MM5	0 days	Tue 19/1/21	Tue 19/1/21									
1295	17 4 15 2	MM6	0 days	Mon 14/10/19	Mon 14/10/19						-			
1296	17 4 15 3	MM7	0 days	Mon 14/10/19	Mon 14/10/19						-			
1297	17 4 15 4	MM6	0 days	Mon 4/1/21	Mon 4/1/21									
1298	17 4 15 5	ММ9	0 days	Mon 10/2/20	Mon 10/2/20							· · · · ·		
1299	17 4 15 6	MM10 (Bay 1-4)	0 days	Sun 21/6/20	Sun 21/6/20									•
1300	17 4 15 7	MM10 (Bey 5-9)	0 days	Mon 9/11/20	Mon 9/11/20									
1301	17 4 16	construction works above the concrete substructure of the noise barrier MM6, MM7 & MM9 (app. 77m)	48 days	Mon 28/9/20	Wed 25/11/20									
1302	17 4 16 1	fix posts with base plates to copings	11 days	Mon 28/9/20	Mon 12/10/20									
1303	17 4 16 2	install structural frames	9 days	Tue 13/10/20	Thu 22/10/20									
1304	17 4 16 3	fix Al. absorption noise barrier panels	7 days	Fri 23/10/20	Sat 31/10/20									
	17 4 16 4	fix tinted transplant noise barrier panels	7 days	Mon 2/11/20	Mon 9/11/20									
1306	17 4 16 5	fix copping the end of UC member	7 days	Tue 10/11/20	Tue 17/11/20									
1307	'17 4 16 6	fix base sealing panel	7 days	Wed 18/11/20	Wed 25/11/20									
1308	17.4.17	construction works above the concrete substructure of the noise barrier MM10 (app. 94m)	54 days	- Thu 26/11/20	Sat 30/1/21			ι. Έ		*		2.1		5
1309		fix posts with base plates to copings	12 devs	Thu 26/11/20	Wed 9/12/20	1								
1310	17 4 17 2	install structural frames	-	Thu 10/12/20										
1311	17,4,17,3	fix Al. absorption noise barrier panels	6 days	Wed 23/12/20	Mon 4/1/21									
1312	17.4.17.4	fix tinted transplant noise barrier panels	8 days	Tue 5/1/21	Wed 13/1/21									
1313	17.4.17.5	fix copping the end of UC member	8 days	Thu 14/1/21	Fri 22/1/21									
1314	¹ 17 4 17 6	fix base sealing panel	7 days	Set 23/1/21	Sat 30/1/21									
1315	17.4.18	construction works above the concrete substructure of the noise barrier MM5 & MM8 (app. 42.322m)	10 days	Wed 20/1/21	Sat 30/1/21									
1316	17 4 18 1	fix posts with base plates to copings	2 days	Wed 20/1/21	Thu 21/1/21									
1317	17.4.18.2	install structural frames	2 days	Fri 22/1/21	Sat 23/1/21									
1318	17.4 18 3	fix Al. absorption noise barrier panels	2 days	Set 23/1/21	Mon 25/1/21									
1319	17.4 18.4	fix tinted transplant noise barrier panels	2 days	Mon 25/1/21	Tue 26/1/21									
1320	17 4 18 5	fix copping the end of UC member	3 days	Tue 26/1/21	Thu 28/1/21									
1321	17 4 18 6	fix base sealing panel	3 days	Thu 28/1/21	Sat 30/1/21									
1322	'17.4 19	submit as-built drawings & design calculation & 2 sets of velographs for noise barrier works	0 days	Wed 3/2/21	Wed 3/2/21									
1323	17 5	access date for section 2 (Part C2)	0 days	Sun 24/2/19	Sun 24/2/19				4					
1324	17.6	additional site possession for areas outside site boundary {for 3NW-C/C470 (existing D-DH7), C224 (existing D-DH11) & C225 new drillholes DHA1,A2 & A3 }		Sun 24/2/19	Sun 24/2/19			,						
1325	17.7	Slope Upgrading works (section 2 Part C2)	578 days	Mon 25/2/19	Wed 3/2/21									
1326	17.7.1	general site clearance	45 days	Mon 25/2/19	Thu 18/4/19				<u> </u>					
1327	17.7.2	Initial topographic survey	45 days	Thu 11/4/19	Sat 8/6/19									
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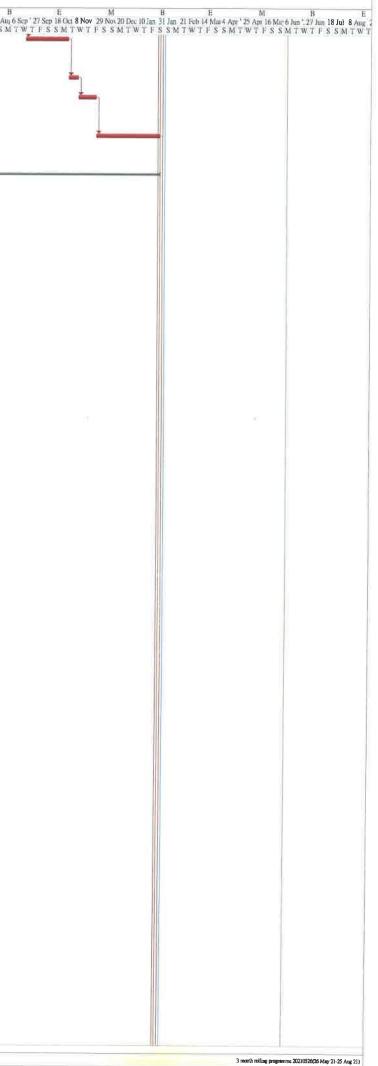


Contract No. CV Development of - Infrastructural	//2017/02 Columbarium at Sandy Ridge Cemetery Works at Man Kam To Road and Lin Ma Hang Roa	ad		3 Month Rolling Programme (from 26/5/2021 to 25/8/2021)	Accepted Initial Works Programme (06)
ID WBS	Task Name	Duration Start Da	Date	M B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B	M B E M B E
1328 1773	utility detection and submit reports	21 days Wed 22/5		TWTFSSMTWTFSMTWTFSMTWTFSMTWTFSMTWTFSMTWTFSMTWTFSMTWTFSMTWTFSSMTWTFSMTWTFSMTWTFSMTWTFSMTWTFSMTWTFSMTWTFSMTWTFSMTWTFSMTWTFSMTWTFSMTWTFSMTWTFSMTWTFSMTWTFSMTWTTFSMTWTTFSMTWTTFSMTWTTFSMTWTTFSMTWTTFSMTW	so 20 Dec 10 Jan 31 Jan 21 Feb 14 Mai 4 Apr 25 Apr 16 Mar 6 Jun 27 Jun 18 Jul 8 Aug 2 S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T W T F
1329 17 7 4	drilling of verification boreholes DHA1,A2 & A3	21 days Mon 17/6	19 Thu 11/7/19		
	•	,-			
1330 17.7 5	baseline monitoring for 3NW-C/C230 (DH15 & 16) (& 30 deve Fri 12/7/-	G Thu 15/9/10		
	C225 (DH3 & 17) on existing drillholes & 3NW-C/C470 (existing D-DH7), C224 (existing				
	D-DH11) & C225 proposed verification drillholes DHA1,A2 & A3				
1331 17.7 6	submit 4 sets of initial readings of baseline	0 days Thu 15/8/	10 Thu 15/8/10		
	monitoring and preliminary logs to the Project Manager to the Project Manager	0 daya 110 13/0/	15 110 10/0/18		
	·······				
1332 :17 7 7	Slopeworks: 3NW-C/C470 (ch490-540S/B)	50 dava Eri 16/9/1	0 0-108/40/40		
1333 1777.1		59 days Fri 16/8/1			
1333 0.17.1	removal of existing trees	10 days Fri 16/8/1	9 Iue 27/8/19		
1004					
1334 117.7.2	hoarding & fencing	6 days Wed 28/8/	19 Tue 3/9/19	Ĩ	
1000					
1335 17.7.7.3	slope excavation works	1 day Wed 4/9/	9 Wed 4/9/19	र्ग	
1000					
1336 17.7.7.4	temporary scaffolding		9 Tue 10/9/19		
1337 17,7,7,5	proposed slope stripping for mapping or rock and relict discontinuities (AS5-A,B, AS6-A,B)	1 8 days Wed 11/9/	19 Fri 20/9/19		
					12
1338 17.7.7.6	Phase I	8 days Sat 21/9/1	9 Mon 30/9/19	P=4	
1339 17.7.7.6 1	install test nall PN02 & pull out test	6 days Sat 21/9/1	9 Fri 27/9/19		
1340 17.7.7.6,2	drill, install steel bars and grout soll nails (B01-12)	2 days Sat 28/9/1	9 Mon 30/9/19	a a a a a a a a a a a a a a a a a a a	
	(
1341 17.7.7.7	Phase II	8 days Wed 2/10/	19 Fri 11/10/19		
1342 17.7.7.1	install test nail PN01 & pull out test	6 days Wed 2/10/	19 Wed 9/10/19	The second se	
1343 117.7.7.2	drill, install steel bars and grout soil nails (A01-17)	2 days Thu 10/10/	19 Fri 11/10/19	a construction of the second se	
	(((())))				
1344 17.7.7.8	raking drains	1 day Sat 12/10/	9 Sat 12/10/19	÷	
1345 17.7.7.9	TDR Test (including test & wait Issue result)	2 days Mon 14/10/	19 Tue 15/10/19		
1346 177710	soil nail head works	3 days Wed 16/10/	19 Fri 18/10/19	The second s	
1347 17.7.7.11	UC & catchpit (38m & 1 nr)	5 days Sat 19/10/*	9 Thu 24/10/19		
1348 17 7.7 12	biodegradable erosion control mat with	2 days Fri 25/10/1	9 Sat 26/10/19		
	hydroseeding				
1349 177.8	Slopeworks: - 3NW-C/C230 (ch1240-1330S/B)	130 days Mon 28/10/	19 Thu 2/4/20		
1350 17.7.8.1	removal of existing trees	10 days Mon 28/10/	19 Thu 7/11/19		
1351 17.7.8.2	hoarding & fencing	9 days Fri 8/11/19	Mon 18/11/19		
1352 17.7.8.3	temporary scaffolding	7 days Tue 19/11/	9 Tue 26/11/19		
1353 17.7.8.4	proposed slope stripping for mapping or rock and				
	relict discontinuities (AS3-A,B, AS4-A,B)				
1354 17.7.8.5	slope excavation works	1 day Fri 6/12/19	Fri 6/12/19		
1.0000000000000000000000000000000000000		, mon2/6			
1355 17.7.8.6	Phase I	25 days Sat 7/12/1) Wed 8/1/20		
1356 177861	install test nall PN22 & pull out test	6 days Sat 7/12/1			
Contraction of the second	110001 1001 1011 F 1122 C puil Out 1081	vuaya G&U//12/1	, 1113/12/19		
1357 17.786.2	drill install staal harm and crewt call aste	10 days Oct 44404	0 5- 47/40/40		
	drill, Install steel bars and grout soll nalls (K01-22, N01-05, M01-11, J01-25)	10 days Sat 14/12/1	⊘ FNZI/12/19		
Sang Hing Civil Con	tractors Company Limited	_		Page 17/20	
					3 month rolling programme 20210526(26 May 21-25 Aug 21)

Contract No. CV Development of - Infrastructural	/2017/02 Columbarium at Sandy Ridge Cemetary Norks at Man Kam To Road and Lin Ma Hang Roa	ad				3 Month (from 26	Rolling Programme 5/5/2021 to 25/8/2021)					Acce	oled Initial Works Programme (06)
ID WBS	Task Name	Duration	Start Date	Completion Date 2	M B E M 10 Ma; 10 Jun 1 Jul '1 22 Jul 12 Aug 2 Sep ' 23 Sep 14 Oct 4 Nov 25	B E M B Nov 16 Dec 6 Jan '' 27 Jan 17 Feb 10 Mia 31 Mia 21 Apr 12 Mia; 2 Jun F S S M T W T F S S M T W T F S S M T W T F S S M	E M ' 23 Jun 14 Jul 4 Aug 25 Aug 15 Sep	B E p 6 Oct 1 27 Oct 17 Nov 8 Dec 12	M B 29 Dec 19 Jan 9 Feb ' 1 Mar 22 Mar 12 Apr 31	E M May 24 Mai 14 Jun 5 Jul '2 26 Jul 16 A	B E M 4.6 Sep ' 27 Sep 18 Oct 8 Nov. 29 Nov 20 Dec 10 Jun	B E M 31 Jan 21 Feb 14 Mar4 Apr* 25 Apr 16 M	B E
1358 177863	TDR Test (including test & wait issue result)	2 days	Sat 28/12/19	Mon 30/12/19	TWTFSSMTWTFSSMTWTFSSMTWTI	F S S M T W T F S S M T W T F S S M T W T F S S M	TWTFSSMTWTFSSM	ATWTFSSMTWTF	S S M T W T F S S M T W T F S S	MTWTFSSMTWTFSS	A T W T F S S M T W T F S S M T W T F	SSMTWTFSSMTWTFS	SMTWTFSSMTWT
1359 177864	soil nail head works	7 days	Tue 31/12/19	Wed 8/1/20				1	L				
1360 17 7.8 7	Phase II	22 days	Thu 9/1/20	Thu 6/2/20					ai				
1361 177871	install test nail PN21 & pull out test	6 deys	Thu 9/1/20	Wed 15/1/20					-				
1362 177872	drill, install steel bars and grout soll nails (H01-25, L01-16)	8 days	Thu 16/1/20	Fri 24/1/20					-				
1363 177873	raking drains	2 days	Wed 29/1/20	Thu 30/1/20									
1364 177874	TDR Test (including test & wait issue result)		Fri 31/1/20						1				
1365 17.7.87.5	soil nall head works		Mon 3/2/20										
1366 17788	225UC, 300SC & catchpite	21 days	Fri 7/2/20	Mon 2/3/20									
1367 17789	600mm width concrete maintenance staircase with handralling	9 days	Тие 3/3/20	Thu 12/3/20					-				
1368 177810	soil replacement by no-fines concrete	6 dave	Eri 13/3/20	Thu 19/3/20					5 5				
1359 17.7.8 10 1	stage 1		Fri 13/3/20						Ţ				
1370 17781011	temporary cut & excavation of soll		Fri 13/3/20						1				
1371 17781015	placement of no-fine concrete		Sat 14/3/20						6				
1372 17.7.8.10.2	stage 2	2 days	Mon 16/3/20	Tue 17/3/20									
1373 1778,10.21	temporary cut & excavation of soll	1 day	Mon 16/3/20	Mon 16/3/20					7				
1374 17.7.8.10.25	placement of no-fine concrete	1 day	Tue 17/3/20	Tue 17/3/20					r,		54	×	
1375 17.7.8.10.3	stage 3	2 days	Wed 18/3/20	Thu 19/3/20									
1376 1778 1031	temporary cut & excavation of soil	1 day	Wed 18/3/20	Wed 18/3/20					+				
1377 17 7 8 10 3 2	placement of no-fine concrete	1 day	Thu 19/3/20	Thu 19/3/20					5				
1378 17.7.8.11	biodegradable erosion control mat with hydroseeding & shrub planting	12 days	Fri 20/3/20	Thu 2/4/20					-				
1379 17.7.9				Sat 22/8/20									
1380 17.7.9.1	hoerding & fencing	10 days	Tue 31/3/20	Wed 15/4/20					-				
1381 17792	temporary scaffolding	10 days	Thu 16/4/20	Mon 27/4/20					*				
1382 17.7.9.3	slope excavation works	1 day	Tue 28/4/20	Tue 28/4/20					*				
1383 17.7.9.4	Dhave I	00 J	141-1-0-04/200	T 00///00									
1384 1177.9.4.1	Phase I install test nail PN14 & pull out test			Tue 26/5/20 Thu 7/5/20					8				
	ningen jour han eine eine ser out obt	V days	1164 2014/20	110 110/20									
1385 17.7.9.4.2	drill, install steel bars and grout soil nails (G01-21, F01-31)	8 days	Fri 8/5/20	Sat 16/5/20					<u>.</u>	1			
1386 117,7.9.4.3	TDR Test (including test & walt issue result)	2 days	Mon 18/5/20	Tue 19/5/20						8			
1387 17,7.9.4.4	soil nail head works	6 days	Wed 20/5/20	Tue 26/5/20						L			
1368 17,7 9.5	Phase II	12 days	Wed 27/5/20	Tue 9/6/20						+			
1389 17.7.9.5.1	install test neil PN13 & pull out test	6 days	Wed 27/5/20	Tue 2/6/20						± 1			
1390 177952	drill, Install steel bars and grout soil nails (E01-46)	6 days	Wed 3/6/20	Tue 9/6/20						-			
1391 17.7.9.6	Phase III	28 dave	Wed 10/8/20	Tue 14/7/20									
1392 17.7.9.6.1	Install test nall PN12 & pull out test			Tue 16/6/20						*			
				(viviav									
1393 177962	drill, install steel bars and grout soll nails (D01-D51)	10 days	Wed 17/6/20	Mon 29/6/20						-			
1394 17.7.9.6.3	TDR Test (including test & wait issue result)	2 days	Tue 30/6/20	Thu 2/7/20						at .			
1395 177964	soil nail head works	10 days	Fri 3/7/20	Tue 14/7/20						*			
1396 17.7.9.7	Phase IV	19 даув	Wed 15/7/20	Wed 5/8/20									
Sang Hing Civil Cor	tractors Company Limited			_			Page 16/20			P.		3 month rolling prog	mmme 20210526(26 May 21-25 Aug 21)

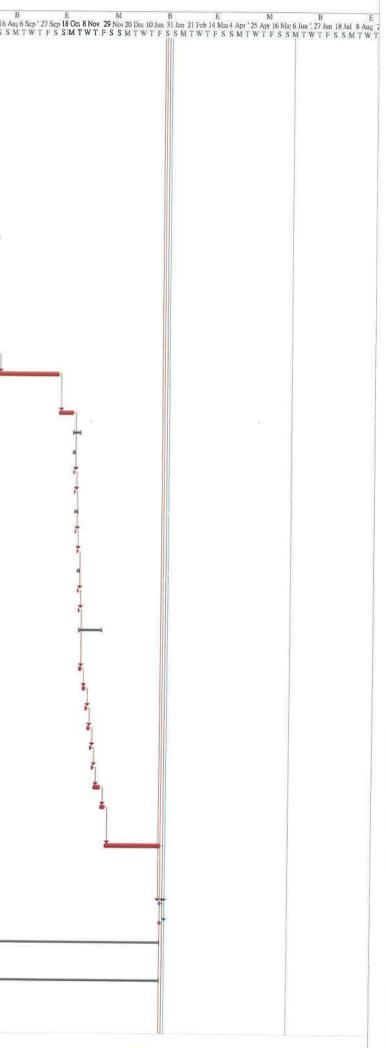
- Infrastructural W	olumbarium at Sandy Ridge Cernetery orks at Man Kam To Road and Lin Ma Hang Road						3 Mont (from 2	h Rolling Program 6/5/2021 to 25/8/2	mme 2021)				Accepted Initial Works Programme (0
ID WBS T	sk Name	Dunition	Start Date	Completion Date 20	M B Mar 10 Jun 1 Jul '1 22 Jul 12 Aur 2 S-	E M 1 23 Sep 14 Oct 4 No	R E M D	10		M B	E M	B E M	B E M B I
1397 177971	install test nall PN11 & pull out test	6 davs	Wed 15/7/20	Tue 21/7/20	WTFSSMTWTFSSMT	WTFSSMTW	v 25 Nov 16 Dec 6 Jan " 27 Jan 17 Feb 10 Mm 31 Mm 21 Apr 12 Mm 2 Ju T F S S M T W T F S S M T W T F S S M T W T F S S M	TWTFSSMTWT	F S S M T W T F S S M T W T	F S S M T W T F S S M T W T F S S	May 24 May 14 Jun 5 Jul 7 26 Jul 16 Au M T W T F S S M T W T F S S J	u 6 Sep ' 27 Sep 18 Oct 8 Nov 29 Nov 20 Dec 10 Jan M T W T F S S M T W T F S S M T W T F	31 Jan 21 Feb 14 Mai 4 Apr' 25 Apr 16 Ma; 6 Jun ' 27 Jun 18 Jul 8 Au S S M T W T F S S M T W T F S S M T W T F S S M T W
	,												
1398 177972	drill, install steel bars and grout soll nails	6 dave	Wed 22/7/20	Tue 28/7/20									
	(C01-26)	,-									-		
1399 177973	raking drains	2 dave	Med 20/7/20	Thu 30/7/20									
1400 1177974	TDR Test (including test & wait issue result)										7		
1401 177975			Fri 31/7/20								2		
	soll nail head works	3 days									<u>×</u>		
1402 17.7 9.8	UC & catchpit			Fri 14/8/20							-		
1403 17.7 9.9	75mm thick shotcrete with a layer of A252 wire mesh (380m2)	7 days	Sat 15/8/20	Sat 22/8/20							-		
1404 17.7.10	Slopeworke: • 3NW-C/C225 (ch1300-1376N/B)	348 days	Tue 3/12/19	Wed 3/2/21									4
1405 :17 7 10 1	tree transplant	2 days	Tue 3/12/19	Wed 4/12/19					*				
1406 17.7 10.2	removal of existing trees	5 days	Thu 5/12/19	Tue 10/12/19									
1407 17.7,10.3	hoarding & fencing	12 days	Wed 11/12/19	Tue 24/12/19									
1408 17.7.10.4	slope excavation works	1 day	Frl 27/12/19	Fri 27/12/19					T				
1409 17.7.105	temporary scaffolding	10 days	Sat 28/12/19	Thu 9/1/20						-			
1410 177106	Install test nail PN31-PN33, grout & pull out tests	6 days	Fri 10/1/20	Thu 16/1/20						-		20	a.
1411 177.10.7	Install test nall PN34-PN36, grout & pull out tests	6 days	Fri 17/1/20	Thu 23/1/20									
		-											
1412 177.108	instali test nall PN37-PN39, grout & pull out tests	6 days	Fri 24/1/20	Mon 3/2/20						1			
		,-											
1413 17.7.10.9	Phase I	15 dave	Tue Δ/2/20	Thu 20/2/20									
i				Wed 12/2/20						Ţ			
	(AJ01-18, Y01-07, AH01-18, X01-08)	v uays	108 4/2/20	110U 121212U						-			
1415 17.7.10.9.2	TDR Test (including test & walt issue result)	2 days	Thu 13/0/00	Ed 14/2/20									
1416 17.7.10.9.3	soll neil head works			Frl 14/2/20						1			
				Thu 20/2/20						-			
1417 17.7.10.10	Phase II			Wed 15/4/20						ð			
1418 17,7,10,10,1	drill, Install steel bars and grout soll nails (AJ01-18, Y01-07, AH01-18, X01-08)	32 days	Fri 21/2/20	Sat 28/3/20						*			
1110													
1419 177.10 10.2		2 days	Mon 30/3/20	Tue 31/3/20						T			
1420 17.7.10.10.3	soll neil head works	9 days	Wed 1/4/20	Wed 15/4/20						±			
1421 17.7.10.11	Phase III	44 daye	Thu 16/4/20	Mon 8/6/20						,			
1422 177 10 11 1	drill, install steel bars and grout soil nails (AJ01-18, Y01-07, AH01-18, X01-08)	32 days	Thu 16/4/20	Mon 25/5/20						<u>+</u>	-1		
	,												
1423 17.7 10.11.2	TDR Test (including test & wait issue result)	2 days	Tue 26/5/20	Wed 27/5/20							7		
1424 17.7.10.11.3	soil nail head works	10 days	Thu 28/5/20	Mon 8/6/20							±		
1425 17.7.10 12	Phase IV	44 days	Tue 9/6/20	Fri 31/7/20									
1426 17.7.10 12 1	drill, install steel bars and grout soil nails	32 days	Tue 9/6/20	Fri 17/7/20									
	(AJ01-18, Y01-07, AH01-18, X01-08)												
1427 17.7 10 12 2	TDR Test (Including test & wait issue result)	2 days	Sat 18/7/20	Mon 20/7/20							-		
1428 17.7.10.12.3	soli nali head works	10 days	Tue 21/7/20	Fri 31/7/20									
1429 17.7.10.13	Phase V	44 days	Set 1/8/20	Mon 21/9/20									
1430 17.7.10.13.1	drill, install steel bars and grout soli nalis		Sat 1/8/20									-	
	(AJ01-18, Y01-07, AH01-18, X01-08)	,											
1431 17.7.10.13.2	raking drains	2 davs	Tue 8/9/20	Wed 9/9/20									
1432 17.7.10 13 3			Thu 10/9/20								7		
1433 17.7 10.13.4			Sat 12/9/20								1		
	ani indin 40(19	o days	Jai 12/8/20	WOII 21/8/20									
Sang Hing Civil Contra	ctors Company Limited							Page 19/20					3 month policy approach - 000 MARCAN LL. AL CO.
													3 month rolling programme 20210526(26 May 21-25 Aug 21)

Devel	opment of	//2017/02 Columbarium at Sandy Ridge Cemetery Works at Man Kam To Road and Lin Ma Hang Road	t			3 Month Rolling Programme (from 26/5/2021 to 25/8/2021)
1D	WBS	Task Name	Duration	Start Date	Date	M B E M B E
1434	17.7 10 14	300UC (192m), 300SC (135m) & 2 catchpit	34 days	Tue 22/9/20		1. A. L. D. D. M. L. M. L. D. D. M. L. M. L. D. D. M. L. L. D. M. L. M.
1435	17.7 10 15	berm with handrailing C2409H	9 days	Wed 4/11/20	Fri 13/11/20	
1436	17.7.10.16	600mm width concrete maintenance stalrcase with handrailing	15 days	Sat 14/11/20	Tue 1/12/20	
1437	17.7.10.17	biodegradable erosion control mat wi th hydroseeding (2550m2)	52 days	Wed 2/12/20	Wed 3/2/21	
1438	17.7.11	Slopeworks: - 3NW-C/C231 (ch1220-1240N/B)	415 days	Thu 12/9/19	Wed 3/2/21	
1439	17.7.11.1	hoarding & fencing	12 days	Thu 12/9/19	Thu 26/9/19	
1440	17.7.11.2	temporary scaffolding	14 days	Fri 27/9/19	Tue 15/10/19	
441	17.7.11.3	proposed slope stripping for mapping or rock and relict discontinuities (AS1-A,B, AS2-A,B)	10 days	Wed 16/10/19	Sat 26/10/19	
442	17,7,11.4	trial pits (A1, A2, A3)	8 days	Mon 28/10/19	Tue 5/11/19	
.443	17.7.115	slope excavation works	1 day	Wed 6/11/19	Wed 6/11/19	Ť
1444	17 7 11 6	Phase I	20 days	Thu 7/11/19	Fri 29/11/19	
1445	17.7 11.6.1	install test nails PN41-42 & pull out tests	7 days	Thu 7/11/19	Thu 14/11/19	
1446	17,7 11 6 2	drill, install steel bars and grout soil nails (BP01-08, BT01-05, BN01-08, BS01-08))	8 days	Fri 15/11/19	Sat 23/11/19	
1447	177.11.63	TDR Test (including test & walt issue result)	2 days	Mon 25/11/19	Tue 26/11/19	T ₁
1448	17.7.11.6.4	soli nali head works	3 days	Wed 27/11/19	Fri 29/11/19	ž,
14 49	17.7 11.7	Phase II	28 days	Set 30/11/19	Sat 4/1/20	×
1450	177.117.1	Install test nails PN43-44 & puil out tests	6 days	Set 30/11/19	Fri 6/12/19	
1451	1771172	drill, install steef bars and grout soil nails (BM01-09, BR01-13, BL01-09, BQ01-22)	14 days	Sat 7/12/19	Mon 23/12/19	
1452	17.7.11.7.3	TDR Test (including test & welt issue result)	2 days	Tue 24/12/19	Fri 27/12/19	
	17.7.11.7.4	soll nall head works	6 days	Sat 28/12/19	Sat 4/1/20	
	17.7.11.8	Phase III	29 days	Mon 6/1/20	Tue 11/2/20	
1455	17,7,11,8,1	install test nalls PN45-46 & pull out teets	6 daya	Mon 6/1/20	Sat 11/1/20	
1456	17.7.11.8.2	drill, install steel bare and grout soil nails (BJ01-09, BK01-27, BG01-12, BH01-20)	14 daya	Mon 13/1/20	Fri 31/1/20	
1457	1771183	TDR Test (including test & wait issue result)	2 days	Sat 1/2/20	Mon 3/2/20	
1458	17.7 11 8 4	soll nail head works	7 days	Tue 4/2/20	Tue 11/2/20	
	7.7.11.9	Phase IV	41 days	Wed 12/2/20	Mon 30/3/20	
1460 !	77 11.9.1	Install teet nails PN47-48 & puil out teets	6 days	Wed 12/2/20	Tue 18/2/20	±
1461	177 11 9.2	drill, install steel bars and grout soil nails (BE01-13, BF01-19, BC01-11, BD01-20)	26 days	Wed 19/2/20	Thu 19/3/20	
1462	1771193	TDR Test (including test & walt issue result)	2 days	Fri 20/3/20	Sat 21/3/20	ξ.
1463	17.7.11.9.4	soil nail head works	7 days	Mon 23/3/20	Mon 30/3/20	
	7.7.11.10	Phase V	36 days	Tue 31/3/20	Mon 18/5/20	
1465	17.7 11 10 1	install test nails PN49-50 & pull out tests	6 days	Tue 31/3/20	Tue 7/4/20	
1466	17.7.11.10.2	drill, Install steel bars and grout soll nails (BA01-24, BB01-06, AY01-24, AZ01-06)	22 days	Wed 8/4/20	Fri 8/5/20	
1467	77 11.10.3	TDR Test (including test & walt issue result)	2 daya	Sat 9/5/20	Mon 11/5/20	The second se
1468	7711104	soil nall head works	6 days	Tue 12/5/20	Mon 18/5/20	
1469	77 11.11	Phase VI	28 days	Tue 19/5/20	Fri 19/6/20	
Seng Hi	ng Civil Co	ntractors Company Limited				Page 20/20



)2 parium at Sandy Ridge Cemetery al Man Kam To Road end Lin Ma Hang Roa	ad					3 Month (from 26	h Rolling Programme 6/5/2021 to 25/8/2021)	
me	Duration	Stari Date	Completion Date	M B E 20 Ma; 10 Jun 1 Jul '1 22 Jul 12 Auj 2 Sep ' 2	M 23 Sep 14 Oct 4 No	B E M B v 25 Nm 16 Dec 6 Im ² 27 Im 12 Eeb 10 Mo 31 Mo 21 Am 12 Mo 3 Im	E M B	E M B E M c' 29 Dec 19 Jan 9 Feb ' i Mar 22 Mai 12 Apr 3 May 24 Mai 14 Jun 5 Jal '226 Jul 16 At
drill, install steel bars and grout soil nails (AW01-24, AX01-05, AU01-21, AV01-08)	20 deys	Tue 19/5/20	Wed 10/6/20	TWTFSSMTWTFSSMTW	TFSSMTW	/ T F S S M T W T F S S M T W T F S S M T W T F S S M	TWTFSSMTWTFSSMTWTFSSMTWT	E 29 Dec 19 Jan 9 Feb 1 Mar 22 Mai 12 Api 3 May 24 Mar 14 Jan 5 Jai 726 Jul 16 Ar F S S M T W T F S S M T W T F S S M T W T F S S M T W T F S S M
TDR Test (including test & wait issue result)	2 days	Thu 11/6/20	Fri 12/6/20					
soil nail head works	6 days	Sat 13/6/20	Fri 19/6/20					. ,
Phase VII	23 days	Sat 20/6/20	Set 18/7/20					
drill, install steel bars and grout soil nails (AS01-18, AT01-11, AQ01-19, AR01-07)	14 days	Sat 20/6/20	Wed 6/7/20					
raking drains	1 day	Thu 9/7/20	Thu 9/7/20					-
TDR Test (including test & wait issue result)	2 days	Fri 10/7/20	Sat 11/7/20					-
soil nall head works	6 days	Mon 13/7/20	Sat 18/7/20					1
Phase VIII	28 days	Mon 20/7/20	Thu 20/8/20					
drill, install steel bare and grout soil nails (AN01-15, AP01-08, AL01-15, AM01-08, AK01-18)	18 days	Mon 20/7/20	Sat 8/8/20					
raking drains	1 day	Mon 10/8/20	Mon 10/8/20					6. K
TDR Test (including test & walt issue result)	2 days	Tue 11/8/20	Wed 12/8/20					7.
soll nall head works	7 days	Thu 13/8/20	Thu 20/8/20					
00UC (240m) (with upstand (C2509A)), 300SC 160m) & catchpit 9 nos.	50 days	Frl 21/8/20	Tue 20/10/20					
erm with handralling C2409H	12 days	Wed 21/10/20	Wed 4/11/20					
oil replacement by no-fine concrete	6 days	Thu 5/11/20	Wed 11/11/20					2
stage 1	2 days	Thu 5/11/20	Frl 6/11/20					
temporary cut & excavation of soil	1 day	Thu 5/11/20	Thu 5/11/20					
placement of no-fine concrete	1 day	Fri 6/11/20	Fri 6/11/20					
stage 2	2 days	Sat 7/11/20	Mon 9/11/20					
temporary cut & excavation of soll	1 day	Sat 7/11/20	Sat 7/11/20					
placement of no-fine concrete	1 day	Mon 9/11/20	Mon 9/11/20					
stage 3	2 days	Tue 10/11/20	Wed 11/11/20					
temporary cut & excavation of soil	1 day	Tue 10/11/20	Tue 10/11/20					
placement of no-fine concrete	1 day	Wed 11/11/20	Wed 11/11/20					
00mm width concrete maintenance staircase /th handralling (C2101D)	20 days	Thu 12/11/20	Fri 4/12/20					
stage 1	3 days	Thu 12/11/20	Sat 14/11/20					
stage 2	3 days	Mon 16/11/20	Wed 18/11/20					
stage 3	2 days	Thu 19/11/20	Fri 20/11/20					
stage 4	2 days	Sat 21/11/20	Mon 23/11/20					
stage 5	2 days	Tue 24/11/20	Wed 25/11/20					
stage 6	2 days	Thu 26/11/20	Fri 27/11/20					
stage 7	6 days	Sat 28/11/20	Fri 4/12/20					
iodegradable erosion control mat with ydroseeding (at south west corner)	4 days	Sat 5/12/20	Wed 9/12/20					
5mm thick shotcrete with water base color paint nd a layer of A252 wire mesh together with lanter hole & shrub planting	s 45 daya	Thu 10/12/20	Wed 3/2/21					
Completion for section 2 of the works	0 days	Wed 3/2/21	Wed 3/2/21					
on Date for section 2 of the works	0 days	Wed 3/2/21	Wed 3/2/21					
of the worke - Completion of all worke arte D and E of the Site	797 daya	Thu 31/5/18	Wed 3/2/21	<u>.</u>				
D	800 days	Mon 26/11/18	Wed 3/2/21					
ess date for section 3 (Parts D) - not more than					2			
days after the starting date								
ess date for section 3 (days after the starling	(Parls D) - not more than date	(Parts D) - not more than 0 days date	(Parts D) - not more than 0 days Mon 26/11/18 date	(Parts D) - not more than 0 days Mon 26/11/18 Mon 26/11/18 date	(Parts D) - not more than 0 days Mon 26/11/18 Mon 26/11/18 date	(Parts D) - not more than 0 days Mon 26/11/18 Mon 26/11/18 date	(Parts D) - not more than 0 days Mon 26/11/18 Mon 26/11/18 date	(Parts D) - not more than 0 days Mon 26/11/18 Mon 26/11/18 date

Page 21/20



	of Columbarium at Sandy Ridge Cemetery I Works at Man Kam To Road and Lin Ma Hang Road				3 Month Rolling Programme (from 26/5/2021 to 25/8/2021)
WBS	Task Name	Duration	Start Date	Completion Date 2	M B E M B B E M B B E M B B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B B B
0 - 20 1 2	seek specialist for design, supply and installation of the covered walkway	59 days	Tue 27/11/18	Thu 24/1/19	IW IFSSMIWIFSS
1 20.13	acceptance of specialist	0 days	Thu 14/2/19	Thu 14/2/19	
2 20 1 4	design for approval for lighting system for the covered walkway	150 days	Fri 15/2/19	Sun 14/7/19	
3 2015	submit for approval for lighting system for the covered walkway	0 days	Sun 14/7/19	Sun 14/7/19	
4 2016	acceptance of lighting system for the covered walkway	0 days	Sun 4/8/19	Sun 4/8/19	
5 2017	Coordination with CLP to obtain the electricity supply for the street lighting system (Design for Road B, Road E, Road F(part), Lin Ma Hang Road and Sheung Shui Landmark PTI & Lighting system for the covered walkway)	168 days	Mon 5/8/19	Sun 19/1/20	
20 1 8	design for glazing system of the proposed covered walkway at Fanling Station Road	150 days	Fri 15/2/19	Sun 14/7/19	
20.1.9	submission of glazing system	() dave	Sup 14/7/10	Sun 14/7/19	
20 1 10	acceptance of glazing system and fall arrest system by Project Manager				
20 1 11	design for fall arrest system of the proposed covered walkway et Fanling Station Road	150 days	Fri 15/2/19	Sun 14/7/19	
0 1 12	automication of fall amount austance	0.4	0	0	
0 1 13	submission of fall arrest system acceptance of fall arrest system by Project Manager			Sun 14/7/19	
	иссеринов от нан апсек зузнати ру т тојастиканадаг	0 days	3011 4/0/ 19	3011 4/0/19	
1.14	Lisison with MTRC for the works arrangement	30 days	Mon 5/8/19	Tue 3/9/19	
0,1,15	general site clearance	12 days	Wed 4/9/19	Wed 18/9/19	
20,1,16	initial survey	12 days	Thu 19/9/19	Thu 3/10/19	
1,17	utility detection and submit reports	8 days	Fri 4/10/19	Mon 14/10/19	
1.18	Fabrication of Steetworks & glass panel	100 days	Mon 5/8/19	Mon 2/12/19	
1,19	delivery steelworks & glass panel to site	38 days	Tue 3/12/19	Sat 18/1/20	
1 20	application of XP (for Parts D)	0 days	Thu 29/11/18	Thu 29/11/18	*
0 1 21	acceptance of XP (for Parts D)	0 days	Thu 30/5/19	Thu 30/5/19	
1.22	Construction of Covered Walkway at Fanling Station	390 days	Гиө 15/10/19	Wed 3/2/21	
0 1 22 1	construct the concrete foundation of covered welkway (first 20m)	20 days	Гие 15/10/19	Wed 6/11/19	
0,1 22 2	construct the concrete foundation of covered walkway (2nd 20m)	20 days	Thu 7/11/19	Fri 29/11/19	
0 1 22 3	construct the concrete foundation of covered walkway (3rd 20m)	20 deys S	Sat 30/11/19	Mon 23/12/19	
1,22,4	demolished existing planter (drg.WY/1051)	20 days	Sat 30/11/19	Mon 23/12/19	
1,22.5	1750 MMX // 01 S2801 01 - 57			Sat 18/1/20	
1 22 6	construction of covered walkway including steelworks, glass panel and electrical works	265 days l	Mon 20/1/20	Wed 9/12/20	
1 22 7	Reinstatement of the pavement and street furniture	45 days 1	^r hu 10/12/20	Wed 3/2/21	
2	Parts E	782 days	Thu 31/5/18	Sal 16/1/21	
021				Thu 31/5/18	
22				Thu 30/5/19	
023				Thu 28/11/19	

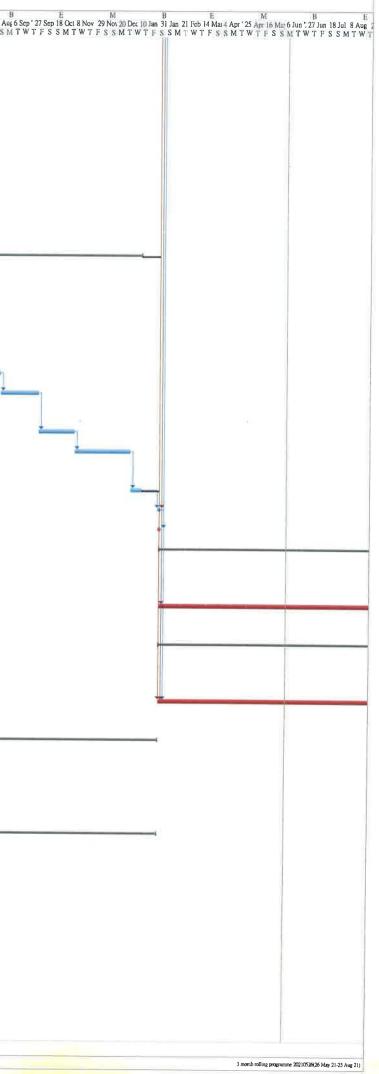
Page 22/20

Sang Hing Civil Contractors Company Limited

Infrastructural V	/2017/02 Columbarium at Sandy Ridge Cemetery Norks at Man Kam To Road and Lin Ma Hang Road				3 Month Rolling Programme (from 26/5/2021 to 25/8/2021)
WBS	Task Name	Duration	Start Date	Completion Date	M B E M B B E M B B B E M B B E M B B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B E M B B B E M B B B E M B B B E M B B B E M B B B B
542 2024	Temporary Traffic Arrangement (TTA) Scheme for Sheung Shui Landmark North PTI and Fanling Station Road	242 days	Fri 31/5/19		I W I F S SM I W I
i43 20 2 4 1	Preparation of TTA for TMLG and acceptance from TD and RMO	120 days	Fri 31/5/19	Fri 27/9/19	
44 .20242	Comment & acceptance of TTA scheme by TD & RMO	60 days	Sat 28/9/19	Tue 26/11/19	
545 20243	Obtain roadwork advice from RMO	60 days	Fri 29/11/19	Mon 27/1/20	
546 2025	general site clearance	12 days	Wed 29/1/20	Tue 11/2/20	
547 2026	initial Survey	14 days	Wed 12/2/20	Thu 27/2/20	
548 2027	utility detection and submit reports	14 days	Fri 28/2/20	Sat 14/3/20	
49 -20 2 8	Road Improvement works at Sheung Shui Landmark North PTI	250 days	Mon 16/3/20	Sat 16/1/21	
50 20281	saw cut and remove existing pavement	10 days	Mon 16/3/20	Thu 26/3/20	
551 20282	remove existing kerb and railings	14 days	Fri 27/3/20	Thu 16/4/20	
552 20 2 8 3	demolish existing slope planter wall	21 days	Fri 17/4/20	Wed 13/5/20	
53 20 2 8 4	construct slope planter wall	60 days	Thu 14/5/20	Fri 24/7/20	
554 20285	construct kerb backing & lay kerb	30 days	Sat 25/7/20	Fri 28/8/20	
555 20286	construct concrete & bltuminous pavement for road and central refuge	30 days	Sat 29/8/20	Mon 5/10/20	
56 20 2.8.7	relocate existing street lighting (DD0398)	30 days	Tue 6/10/20	Tue 10/11/20	
57 20.2.8.8	install type 2 railing, traffic & directional signs	-	Wed 11/11/20		
58 20289	road markings	10 days	Wed 6/1/21	Sat 16/1/21	
59 21 F	Planned Completion for section 3 of the works	0 days	Wed 3/2/21	Wed 3/2/21	
60 22 0	Completion Date for section 3 of the works	0 days	Wed 3/2/21	Wed 3/2/21	
v	ection 4 of the works - Completion of Establishment vorks for the Landscape Softworks within Parts A1, \2 and B of the Site	1095 days	Thu 4/2/21	Sat 3/2/24	
62 23 1	Establishment works for the Landscape Softworks within Parts A1, A2 and B of the Site	1095 daye	Thu 4/2/21	Sat 3/2/24	
W	section 5 of the works - Completion of Establishment vorks for the Landscape Softworks within Parts C1 and C2 of the Site	1095 days	Thu 4/2/21	Sat 3/2/24	
66 26 1	Establishment works for the Landscape Softworks within Parts C1 and C2 of the Site	1095 days	Thu 4/2/21	Sat 3/2/24	
C S U	ection 6 of the works (section Subject to Excision) - Completion of all works within Parts A3 and A4 of the lite except Establishment works. Extent of works inder section 6 of the works is defined in Drawing Io.: 231448/C2/G/1031	859 days	Fri 28/9/18	Wed 3/2/21	
70 29 1	Parts A3	859 days	Fri 28/9/18	Wed 3/2/21	
7] 29.1.1	access date for section 6 (Parl A3) - not more than 120 days after the starting date	0 days	Fri 28/9/18	Fri 28/9/18	*
72 2912	The time for ordering the "section Subject to Excision" for section 6 and 7 is within 390 days commencing from and including the starting date	0 days	Mon 24/6/19	Mon 24/6/19	*
73 29.1.3	form temporary haul road from the south side to Parts A3	5 days	Tue 25/6/19	Sat 29/6/19	
74 29.1.4	general site clearance & tree felling	12 days	Tue 2/7/19	Mon 15/7/19	
75 29.1.5	initial survey	12 days	Tue 2/7/19	Mon 15/7/19	
76 2916	construction of temporary drainage	14 days	Mon 15/7/19	Tue 30/7/19	

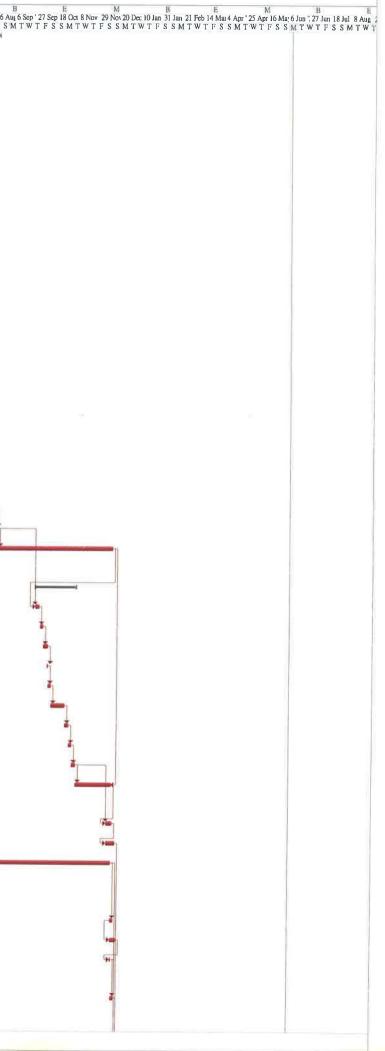
Page 23/20

Sang Hing Civil Contractors Company Limited



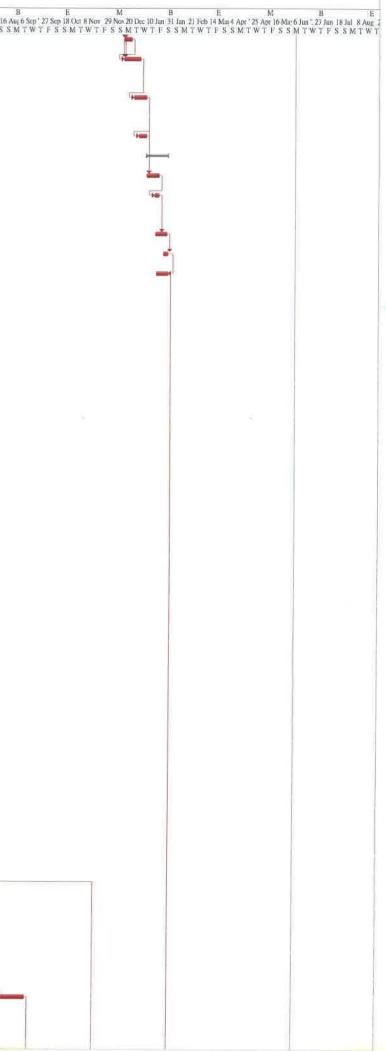
Development of Infrastructural	//2017/02 Columbarium at Sandy Ridge Cemetery Works at Man Kam To Road and Lin Ma Hang Road				3 Month Rolling Programme (from 26/5/2021 to 25/8/2021)
	Titsk Name		Start Date		M B E M B E
1577 2917	Construction of Retaining Wall RW14 (Bay 1-Bay 6)	312 days	Fri 26/7/19	Sal 22/8/20	
1578 29.17.1	excavation (open cut) to formation (bays 1 to 4)	5 days	Fri 26/7/19	Wed 31/7/19	
1579 29.17.2	temporary soil nails (bays 5 to 7)	23 days	Wed 31/7/19	Mon 26/8/19	
1580 29173	predrilling for socketed H-Piling	25 days	Tue 27/8/19	Thu 26/9/19	
1581 29174	construction of socketed H-Pile	185 days	Tue 24/9/19	Thu 21/5/20	
1582 29175	post drilling for socketed H-Piling	3 days	Fri 22/5/20	Mon 25/5/20	a de la companya de l
1583 29176	blinding concrete for bays 1 to 7	3 days	Tue 26/5/20	Thu 28/5/20	
1584 :29177 1585 :2917.6	base formwork for bay 2, 4 & 6 base steel fixing for bay 2, 4 & 6	3 days	Fri 29/5/20	Mon 1/6/20	a de la constante de
1586 ,29.1.7.9	base concreting & curing for bay 2, 4 & 6	3 days 5 days	Mon 1/6/20 Thu 4/6/20	Wed 3/6/20 Tue 9/6/20	1
1587 29 1 7 10	remove base formwork	3 days	Tue 9/6/20	Thu 11/6/20	
1588 29 17 11	falsework and formwork for walls of bay 2, 4 & 6	6 days	Thu 11/6/20	Wed 17/6/20	1
1589 29 1 7 12	steel fixing for walls of bay 2, 4 & 6	10 days	Wed 17/6/20	Mon 29/6/20	
1590 29 1 7 13	close formwork for walls of bay 2, 4 & 6	3 days	Mon 29/6/20	Thu 2/7/20	E.
1591 29,1,7,14	concreting and curing for walls of bay 2, 4 & 6	6 days	Fri 3/7/20	Thu 9/7/20	
592 -29,1,7,15	remove falsework and formwork for walls	3 days	Thu 9/7/20	Sat 11/7/20	
29.1.7.16	base formwork for bay 1, 3 & 5	3 deys	Mon 13/7/20	Wed 15/7/20	The second s
1594 .29.1.7 17	base steel fixing for bay 1, 3 & 5	3 days	Wed 15/7/20	Fri 17/7/20	
1595 29 1 7 18	base concreting & curing for bay 1, 3 & 5	5 days		Thu 23/7/20	
596 29 1 7 19 597 29 1 7 20	remove base formwork	3 days	Thu 23/7/20	Sat 25/7/20	
598 29 17 21	falsework and formwork for walls of bay 1, 3 & 5 steel fixing for walls of bay 1, 3 & 5	o days 10 days	Sat 25/7/20 Fri 31/7/20	Fri 31/7/20 Tue 11/8/20	
599 29 17 22	close formwork for walls of bay 1, 3 & 5	3 days	Tue 11/8/20	Thu 13/8/20	
600 29 1 7 23	concreting and curing for walls of bay 1, 3 & 5	6 days	Fri 14/8/20	Thu 20/8/20	1
601 29 17 24	remove falsework and formwork for walls	3 days	Thu 20/8/20	Set 22/8/20	
602 29 1.8	backfilling works behind Retaining Wall RW14 (bay1	90 days	Sat 22/8/20	Tue 15/12/20	
	to 6) (include SRT tests)				
603 29.1.9	Construction of Retaining Wall RW14 Bay 7	27 deys	Wed 30/9/20	Mon 9/11/20	
604 29 1 9 1			Wed 30/9/20		
605 29192 606 29193			Mon 5/10/20		
607 29194	base concreting & curing remove base formwork	•	Thu 8/10/20 Mon 12/10/20		
608 29195		-	Tue 13/10/20		
609 29 1 9 6	steel fixing for wall		Fri 16/10/20		
610 29 1 9 7	close formwork for wall	2 days	Fri 30/10/20	Mon 2/11/20	
611 29198	concreting and curing for wall	3 days	Tue 3/11/20	Thu 5/11/20	
612 29199	remove falsework and formwork	2 days	Fri 6/11/20	Mon 9/11/20	
613 29 1 10	backfilling works behind RW14 (bay 7) (include SRT tests)	30 days	Tue 10/11/20	Tue 15/12/20	
	,				
614 29.1.11			Fri 11/12/20		
615 29.1.12	construct 300U channel & catchpit in front of RW14				
010 29:1:13	site formation works for fill slope FS19 and FS20 (including in "backfilling works behind Retaining Wall RW14 (bay1 to 6)")	90 days	Sat 22/8/20	Tue 15/12/20	
617 29.1.14	300U channel & stepped channel for FS19 & 20	3 days	Wed 16/12/20	Fri 18/12/20	
638 29.1.15	install instrument for FS19 & FS20	5 days	Wed 16/12/20	Mon 21/12/20	
619 29.1.16	minor site formation works for cut slope CS25	1 day	Wed 16/12/20	Wed 16/12/20	
620 29 1 17	minor site formation works for cut slope CS26	3 days	Thu 17/12/20	Sat 19/12/20	

Page 24/20

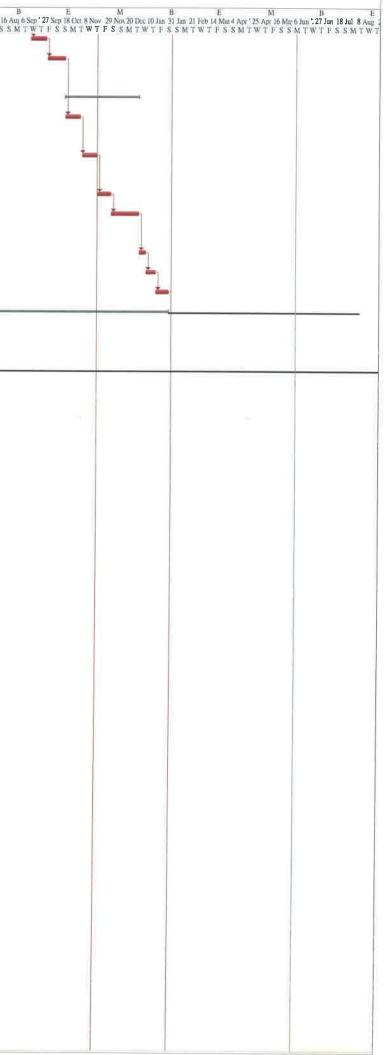


Develo	ct No. CV/2 pment of C structural W	olumbarium at Sandy Ridge Cernetery olumbarium at Sandy Ridge Cernetery /orks at Man Kam To Road and Lin Ma Hang Road				3 Month Rolling Programme (from 26/5/2021 to 25/8/2021)
D	WBS T	ask Nume	Duration	Start Date	Completion Date 2	M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B B E M B E M B B E M B B B M B B M B M B B M B B M B M B B M B
1621 ;	29 1 18	install instruments for CS25 & CS26	5 days	Mon 21/12/20		TWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSS
1622 :	29 1 19	waterworks at Road E	12 days	Mon 21/12/20	Wed 6/1/21	
1623	29 1 20	drainage works at Road E	10 days	Thu 31/12/20	Tue 12/1/21	
1624		U channels at Road E	7 days	Tue 5/1/21	Tue 12/1/21	
1625	29122		19 days 11 days			
	29 1 22 2	ducting for road lighting & construction of	4 days			
		irrigation system	, adjo			
1628	29.1.22.3	concrete pavement	10 days	Fri 22/1/21	Tue 2/2/21	
	29 1 22 4	street lighting (Drg/RD/2091)	4 days	Sat 30/1/21	Wed 3/2/21	
1630	29 1 22 5	traffic signs, directional signs, emergency crash gate, type 2 ralling & footpath	10 days	Sat 23/1/21	Wed 3/2/21	
1631 :	29 1 23	Site Formation works for Cut Slope CS24 (include temporary cutting from top of RW12 to toe of CS24) (for RW12 bays 1-3)	4 days	Tue 17/9/19	Fri 20/9/19	
1632	29,1.24	Install instrument for CS24	5 days	Mon 23/9/19	Fri 27/9/19	
1633	29.1.25	temporary soil nails between CS20 & RW12 (for RW12 bays 1-3)	30 days	Mon 23/9/19	Mon 4/11/19	
1634	29 1 26	Construction of Retaining Wall RW12 CH 0-20	67 davs	Tue 5/11/19	Fri 24/1/20	
	29.1.26.1	plate load tests	3 days	Tue 5/11/19		3
1636	29 1 26 2	blinding concrete for bay 1 to 3	2 days	Fri 8/11/19	Set 9/11/19	5
1637	29 1 26 3	base formwork for bay 1 & 3	2 days	Mon 11/11/19	Tue 12/11/19	The second se
1638	29 1 26 4	base steel fixing for bay 1 & 3	4 days	Wed 13/11/19	Sat 16/11/19	
1639	29 1 26 5	base concreting & curing for bay 1 & 3	4 days	Mon 18/11/19	Thu 21/11/19	
1640	29_1 26.6	remove base formwork	1 day	Fri 22/11/19	Fri 22/11/19	t i i i i i i i i i i i i i i i i i i i
1641	29 1.26 7	falsework and formwork for walls of bay 1 & 3	4 days	Sat 23/11/19	Wed 27/11/19	· · · · · · · · · · · · · · · · · · ·
1642	29 1 26 8	steel fixing for walls of bay 1 & 3	10 days	Thu 28/11/19	Mon 9/12/19	
	29 1 26 9	close formwork for walls of bay 1 & 3	2 days			7
	29 1 26 10	concreting & curing for walls of bay 1 & 3	4 days			
	29.1.26.11	remove falsework and formwork for walls	2 days			
	29 1 26 12	blinding concrete for bay 2	1 day	Wed 18/12/19		
	29 1 26 13 29 1 26 14	base formwork for bay 2	1 day	Thu 19/12/19 Fri 20/12/19		
	29 1 26 14	base steel fixing for bay 2 base concreting & curing for bay 2	2 days 3 days			
	29 1 26 16	remove base formwork	1 day		Sat 28/12/19	
	29 1.26 17	falsework & formwork for walls of bay 2	2 days			
	29 1 26 18	steel fixing for walls of bay 2	7 days		Thu 9/1/20	
	29 1 26 19	close formwork for wails of bay 2	2 days		Sat 11/1/20	T I I I I I I I I I I I I I I I I I I I
	29 1 26 20	concreting & curing for walls of bay 2	4 days	Mon 13/1/20		
	2912621	remove falsework and formwork for walls	2 days		Sat 18/1/20	T,
	29 1 26.22	install instrument for RW12	5 days		Fri 24/1/20	
1657	29.1.27	backfilling along Retaining Wall RW12	40 days	Thu 4/6/20	Wed 22/7/20	
1658	29.1.28	Completion of Site Formation works for Cut Slope 25	2 days	Tue 21/7/20	Wed 22/7/20	
1659	29.1.29	Waterworks at Road F	24 days	Thu 23/7/20	Wed 19/8/20	
1660	29.1.30	Drainage works at Road F	25 days	Thu 20/8/20	Thu 17/9/20	

Page 25/20



Developm	lo. CV/2017/02 ent of Columbarium at Sandy Ridge Cernetery :tural Works at Man Kam To Road and Lin Ma Hang Road	t			3 Month Rolling Programme (from 26/5/2021 to 25/8/2021)
ID WB	S Task Name	Duration	Start Date	Completion Date 2	M B E M B E
1661 ;29 1	31 planter wall for Road E and Road F in Parts A3	12 days	Fri 18/9/20	Sat 3/10/20	TWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSS
1662 29.1	32 UU-Arrange Town Gas & PCCW to lay across Road F (not yet agree)	14 days	Mon 5/10/20	Thu 22/10/20	
1663 29 1	33 Roadworks of Road F (60m)	55 days	Fri 23/10/20	Mon 4/1/21	
1664 29.1	kerbing and cross road duct (RD/2061, 2081)	10 days	Fri 23/10/20	Fri 6/11/20	
1665 :29.1	33.2 ducting for road lighting & construction of irrigation system	12 days	Mon 9/11/20	Mon 23/11/20	
1666 ;29 1	33.3 bituminous pavement	12 days	Tue 24/11/20	Mon 7/12/20	
1667 29 1	33.4 traffic signs, directional signs, type 2 railing & footpath	21 days	Tuə 8/12/20	Mon 4/1/21	
1668 29 1	34 street lighting (Drg/ RD/2091)	6 daya	Tue 5/1/21	Mon 11/1/21	
1669 29.1		9 days	Tue 12/1/21	Thu 21/1/21	
1670 29.1		·			
				Wed 3/2/21	
1671 29.2 1672 29.2			Mon 24/6/19		
1012 292	1 access date for section 6 (Parts A4) - not more than 580 days after the starting date	o anys	10031/12/19	100 31/12/19	
1673 29 2	2 The time for ordering the "section Subject to Excision" for section 6 and 7 is within 390 days commencing from and including the starting date	0 days	Mon 24/6/19	Mon 24/6/19	×
1674 29.2	3 general site clearance	15 days	Thu 2/1/20	Sat 18/1/20	
1675 29.2	t Initlal survey	11 days	Sat 11/1/20	Thu 23/1/20	(James)
1676 29.2		15 days	Thu 16/1/20	Wed 5/2/20	
1677 29.2	6 Site Formation works for Cut Slope CS24 (include temporary cutting from top of RW12 to toe of CS24) (for RW12 bays 4-6)	7 days	Wed 29/1/20	Wed 5/2/20	
1678 29.2	7 install instrument for CS24	3 days	Thu 6/2/20	Sat 8/2/20	F. I
1679 29.2	e temporary soli nalis between CS20 & RW12 (for RW12 bays 4-6)	35 days	Thu 6/2/20	Tue 17/3/20	
1680 29.2	9 Construction of Retaining Wall RW12 CH 21-40	58 days	Wed 18/3/20	Wed 3/6/20	
1681 29.2	9.1 plate load tests	3 days	Wed 18/3/20	Frl 20/3/20	The second se
1682 29.2	92 blinding concrete for bay 4 to 6	2 days	Mon 23/3/20	Tue 24/3/20	s t
1683 29 2	93 base formwork for bay 4 & 6	2 days	Wed 25/3/20	Thu 26/3/20	r.
1684 ,29 2	9 4 base steel fixing for bay 4 & 6	4 days	Fri 27/3/20	Wed 1/4/20	±,
1685 29.2	p.5 base concreting & curing for bay 4 & 6	3 days	Thu 2/4/20	Mon 6/4/20	▲
1686 ;29.2	96 remove base formwork	1 day	Tue 7/4/20	Tue 7/4/20	r,
1687 (29.2	97 falsework and formwork for walls of bay 4 & 6	3 days	Wed 8/4/20	Tue 14/4/20	
1688 29.2	98 steel fixing for walls of bay 4 & 6	8 days	Wed 15/4/20	Frl 24/4/20	
1689 '29.2	9.9 close formwork for walls of bay 4 & 6	2 days	Sat 25/4/20	Mon 27/4/20	ž,
1690 29.2	9.10 concreting & curing for walls of bay 4 & 6	4 days	Tue 28/4/20	Mon 4/5/20	
1691 29.2	9.11 remove falsework and formwork for walls	2 days	Mon 4/5/20	Tue 5/5/20	rt li
1692 29.2	9.12 blinding concrete for bay 5	1 day	Wed 6/5/20	Wed 6/5/20	r i la construcción de la co
1693 29.2	9 13 base formwork for bay 5	1 day	Thu 7/5/20	Thu 7/5/20	t l
1694 29.2	14 base steel fixing for bay 5	2 days	Fri 8/5/20	Set 9/5/20	t, i i i i i i i i i i i i i i i i i i i
1695 29.2	2 15 base concreting & curing for bay 5	3 days	Mon 11/5/20	Wed 13/5/20	The second se
1696 29.2	9 16 remove base formwork	1 day	Thu 14/5/20	Thu 14/5/20	
1697 29.2	9.17 falsework & formwork for walls of bay 5	2 days	Fri 15/5/20	Set 16/5/20	*
1698 20.2	9.18: eteel fixing for walls of bay 5	7 days	Mon 18/5/20	Mon 25/5/20	
1699 29.2	9.19 close formwork for walls of bay 5	1 day	Tue 26/5/20	Tue 26/5/20	5
1700 29.2	9.20 concreting & curing for walls of bay 5	3 days	Wed 27/5/20	Frl 29/5/20	a la companya de la c
1701 29.2	9.21 remove faisework and formwork for walks	1 day	Sat 30/5/20	Sat 30/5/20	
1702 ;29.2	9 22 install instrument for RW12	3 days	Mon 1/8/20	Wed 3/6/20	The second se
Sang Hing	Civil Contractors Company Limited				Page 28/20
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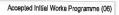


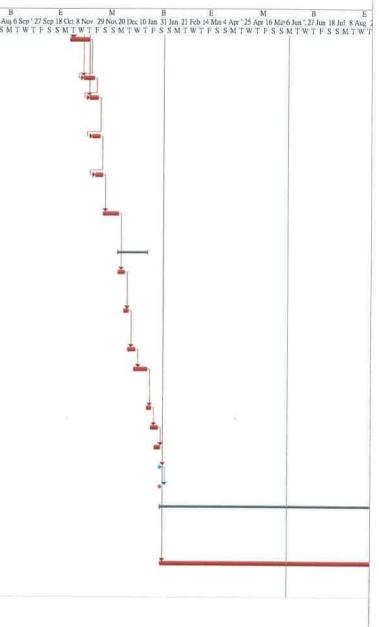
Contract No. CV/2 Development of Co - Infrastructural We	017/02 Jumbarium at Sandy Ridge Cemetery ofks at Man Karn To Road and Lin Ma Hang Roa	ıd			3 Month Rolling Programme (from 26/5/2021 to 25/8/2021)	Accepted Initial Works Programme (06)
ID WBS T	sk Name	Duration	Start Date	Completion Date 2	M B E M B E	M B E 25 Apr 16 May 6 Jun 5 27 Jun 18 Jul 8 Aur 5
1703 -29.2.10	Site Formation works for Cut Slope CS20	125 days	Mon 1/6/20	Tue 3/11/20	TWTFSSMTWTFS	WTFSSMTWTFSSMTWT
1704 29 2 10 1	slope excavation work	19 days	Mon 1/6/20	Mon 22/6/20		
1705 29 2 10 2	temporary scatfolding	5 days	Tue 23/6/20	Mon 29/6/20		
1706 29.2 10.3	trial pit TP11	2 days	Tue 30/6/20	Thu 2/7/20	ž i i i i i i i i i i i i i i i i i i i	
1707 29.2.10.4	Phase I	17 days	Fri 3/7/20	Wed 22/7/20		
1708 29 2 10 4 1	install test nall PN03 & pull out test	6 days	Fri 3/7/20	Thu 9/7/20		
1709 29.2 10.4 2	drill, install steel bars and grout soil nails (RL01, RK01-06, RJ01-10)	6 days	Fri 10/7/20	Thu 16/7/20		
1710 29.2 10.4 3	raking drains	1 day	Fri 17/7/20	Fri 17/7/20		
1711 29.2.10.4.4	TDR Test (including test & wait issue result)	2 days	Sat 18/7/20	Mon 20/7/20		
1712 29.2.10.4.5	soil nail head works	2 days	Tue 21/7/20	Wed 22/7/20	ř.	
1713 29,2 10 5	Phase II	17 days	Thu 23/7/20	Tue 11/8/20		
1714 292 105 1	install test nail PN05 & pull out test	6 days	Thu 23/7/20	Wed 29/7/20	* ·	
1715 29 2 10.5 2	drill, install steel bars and grout soil nails (RH01-12, RG01-12, SF01-04)	5 days	Thu 30/7/20	Тие 4/8/20		
1716 29 2 10 5 3	raking drains	1 day	Wed 5/8/20	Wed 5/8/20	7	
1717 (29.2 10 5.4	TDR Test (including test & wait issue result)	2 days	Thu 6/8/20	Fri 7/8/20		
1718 2921055	soil nail head works	3 days	Set 8/8/20	Tue 11/8/20	a la	
1719 29.2.10.6	Phase III	9 days	Wed 12/8/20	Fri 21/8/20	-	
1720 29 2 10 6 1	Install test nail PN02 & pull out test	6 days	Wed 12/8/20	Tue 18/8/20		
1721 :29 2 10 6 2	drill, install steel bars and grout soll nails (RF01-13, SE01-07)	3 days	Wed 19/8/20	Fri 21/8/20		
1722 29 2 10 7	Phase IV	21 days	Sat 22/8/20	Tue 15/9/20		
1723 29.2 10.7 1	Install test nall PN04 & pull out test	6 days	Set 22/8/20	Fri 28/8/20		
1724 ₁ 28.2.10.7 2	drill, install steel bars and grout soil nails (RE01-14, SD01-08, RC01-15, SC01-03)	7 days	Set 29/8/20	Set 5/9/20		
1725 2921073	reking drains	1 day	Mon 7/9/20	Mon 7/9/20		
1726 29 2 10 7 4	TDR Test (including test & wait issue result)	2 days	Tue 6/9/20	Wed 9/9/20		
1727 29.2.10.7.5	soil nail head works	5 days	Thu 10/9/20	Tue 15/9/20		
1728 29.2.10.8	Phase V	20 days	Wed 16/9/20	Mon 12/10/20	>	
1729 29 2 10 8 1	install test nail PN01 & pull out test	6 days	Wed 16/9/20	Tue 22/9/20		
1730 - 28 2 10 8 2	drill, install steel bars and grout soil nails (RB01-16, SB01-02, RA01-18)	7 days	Wed 23/9/20	Wed 30/9/20		
1731 292.1083	raking drains	1 day	Sat 3/10/20	Set 3/10/20	Ť	
1732 29.2.10.8.4	TDR Test (including test & wait issue result)	2 days	Mon 5/10/20	Tue 6/10/20	t,	
1733 29.2 16.85	soil nail head works	4 days	Wed 7/10/20	Mon 12/10/20		
1734 29.2.10.9	300U channel, 300 stepped channel & catchpits	11 days	Tue 13/10/20	Wed 28/10/20		
1735 529 2 10 10	600mm width concrete maintenance staircase with handralling	4 days	Thu 29/10/20	Tue 3/11/20		
1736 29.2.10.11	install instrument for CS20	4 daya	Thu 29/10/20	Tue 3/11/20		
1737 29.2.11	Site Formation works for Cut Slope CS26 (A4)	6 days	Tue 13/10/20	Thu 22/10/20		
1738 28.2.12	Site Formation works for Cut Slope CS25 (A4)	9 days	Fri 23/10/20	Thu 5/11/20		
Sang Hing Civil Coni	ractors Company Limited				Pege 27/20 3 m	nomb rolling programme 20210526(26 May 21-25 Aug 21)

Development	CV/2017/02 of Columbarium at Sandy Ridge Cemetery al Works at Man Kam To Road and Lin Ma Hang Road	1			3 Month Rolling Programme (from 26/5/2021 to 25/8/2021)
WBS	Task Name		Start Date	Completion Date 20	M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B E M B B E M B E M B E M B E M B E M B B E M B B B B
1739 29.2 13	complete the construction of U channel at CS 25 and 26	15 daya	Wed 4/11/20	Mon 23/11/20	TWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSMTWTFSSM
1740 29.2.14	planter wall	10 days	Wed 18/11/20	Sat 28/11/20	
1741 29.2.15	Waterworks at Road B	8 days	Tue 24/11/20	Wed 2/12/20	
1742 29.2 16	Sewerage works at Road B	7 days	Fri 27/11/20	Fri 4/12/20	
1743 29.2 17	Drainage works at Road B	7 days	Mon 30/11/20	Mon 7/12/20	
1744 29.2.18	UU - Arrange Town Gas & PCCW to lay cables (not agreed yet)	14 days	Тие 8/12/20	Wed 23/12/20	
1745 29 2 19	Roadworks of Road B (A4-ch90-130)	23 days	Wed 23/12/20	Thu 21/1/21	
1746 29.2.19 1	kerbing, sub-base & cross road duct (RD/2061, 2081)	4 days	Wed 23/12/20	Tue 29/12/20	
1747 29.2.19.2	ducting for road lighting & construction of irrigation system	4 days	Tue 29/12/20	Set 2/1/21	
1748 29.2.19.3	bltuminous pavement	7 days	Sat 2/1/21	Sat 9/1/21	
1749 29,2.19.4	traffic signs, directional elgns, type 2 railing & footpath	12 days	Fri 8/1/21	Thu 21/1/21	
1750 29.2.20	street lighting (Drg/ RD/2091)	4 days	Thu 21/1/21	Mon 25/1/21	
1751 29.2.21	landscaping (hydroseeding)	7 days	Mon 25/1/21	Mon 1/2/21	
1752 29.2.22	landscaping (shrub planting)	5 days	Fri 29/1/21	Wed 3/2/21	
1753 30	Planned Completion for section 6 of the works	0 days	Wed 3/2/21	Wed 3/2/21	
1754 31	Completion Date for section 6 of the works	0 days	Wed 3/2/21	Wed 3/2/21	
1755 32	section 7 of the works (section Subject to Excision) - Completion of Establishment works for the Landscape Softworks within Parte A3 and A4 of the Site	1095 days	: Thu 4/2/21	Sat 3/2/24	
1756 32.1	Establishment worke for the Landscape Softworks within Parts A3 and A4 of the Site	1095 daya	Thu 4/2/21	Set 3/2/24	

Sang Hing Civil Contractore Company Limited

Page 26/20





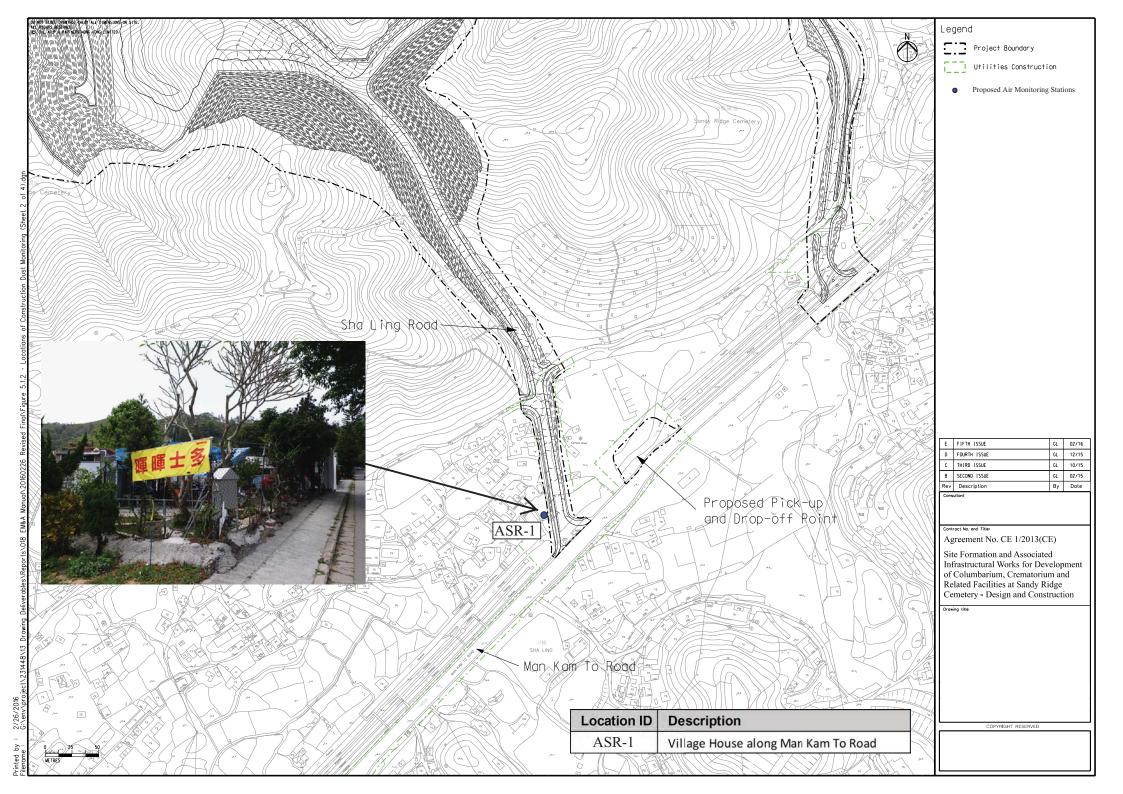


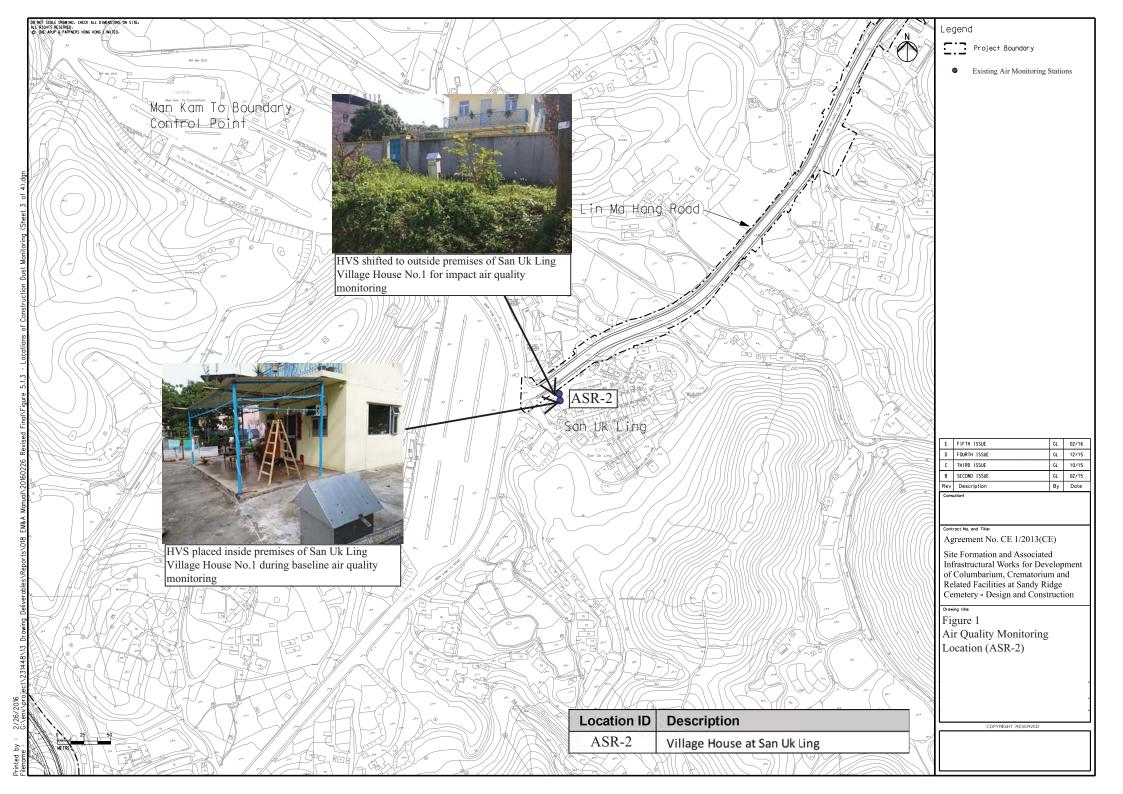
Appendix D

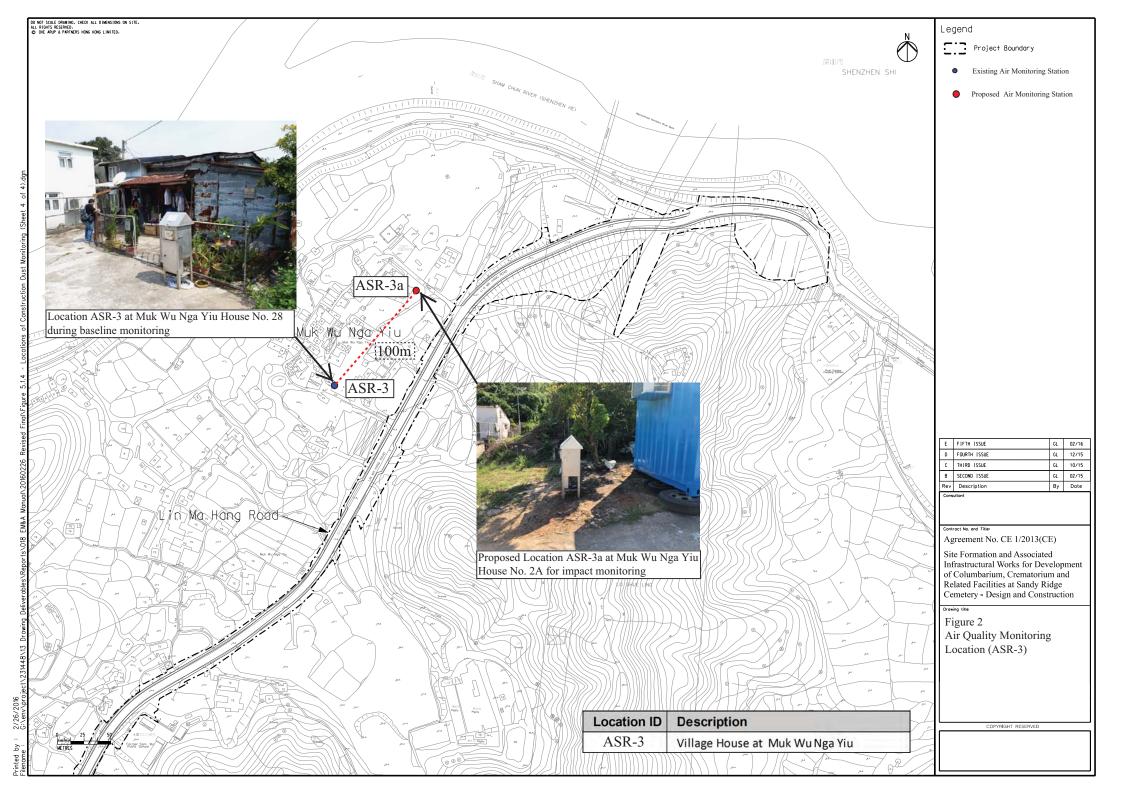
Monitoring Locations



Air Quality Monitoring Location





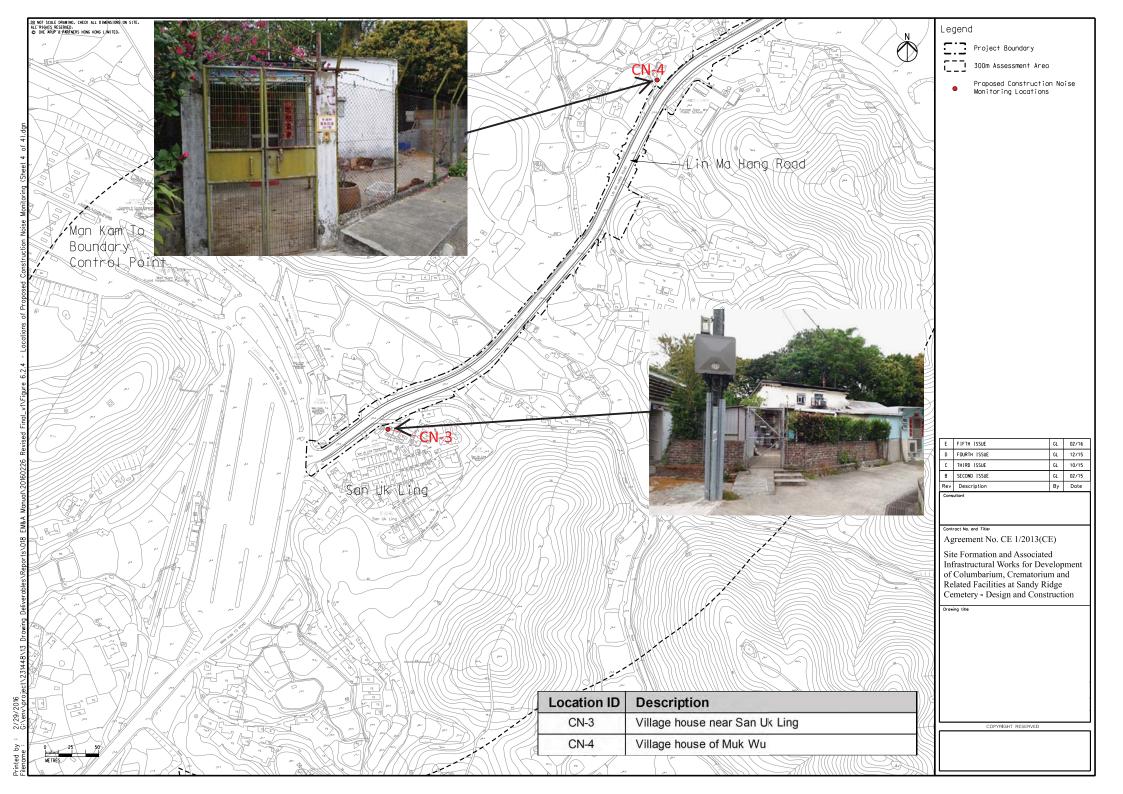




Noise Monitoring Location

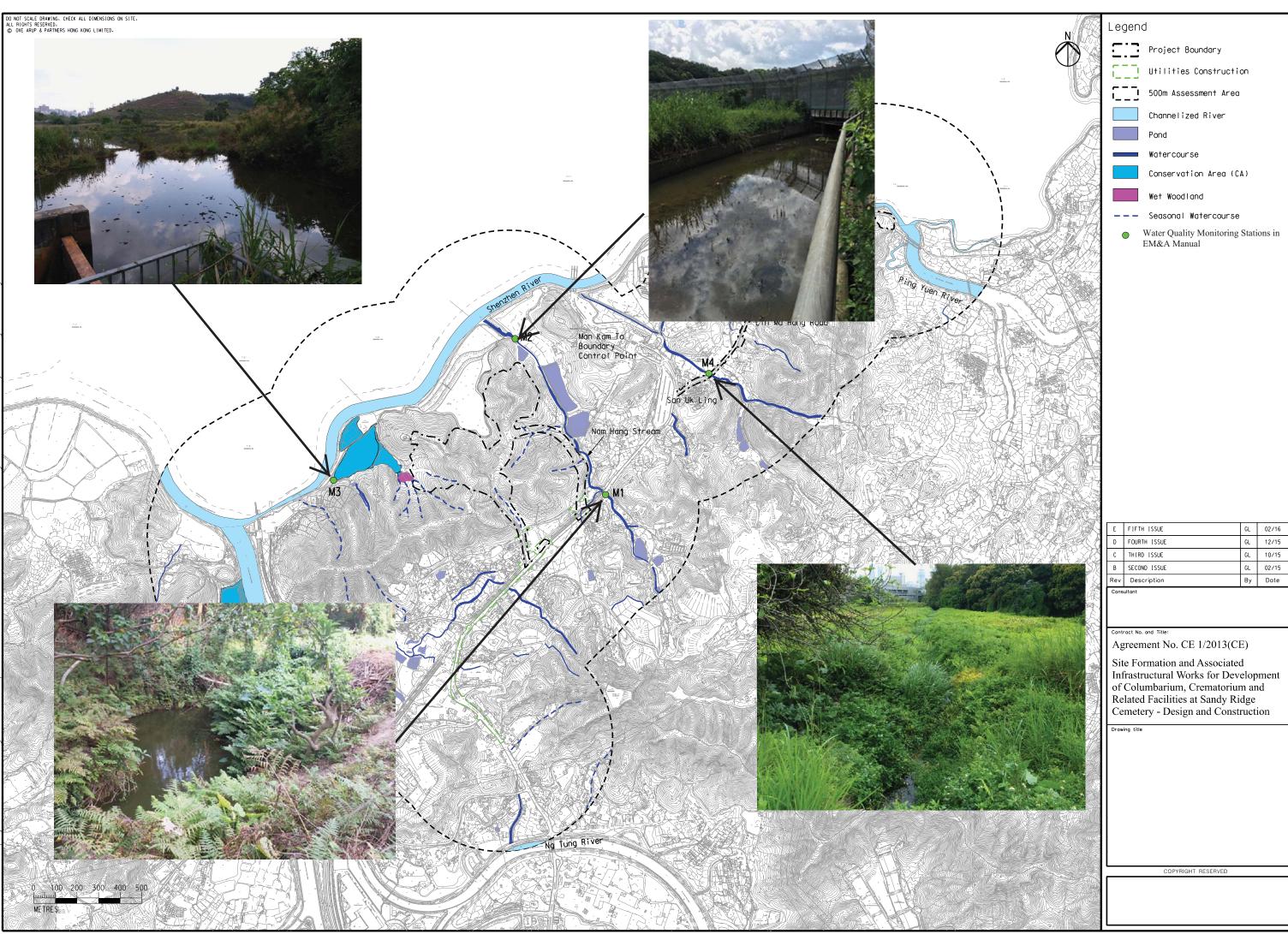








Water Quality Monitoring Station



Ε	FIFTH ISSUE	GL	02/16
D	FOURTH ISSUE	GL	12/15
С	THIRD ISSUE	GL	10/15
В	SECOND ISSUE	GL	02/15
Rev	Description	By	Date
Consultant			



Appendix E

Calibration Certificate of Monitoring Equipment and Laboratory Certificate



CALIBRATION CERTIFICATES FOR MONITORING EQUIPMENT USED IN THE REPORTING MONTH

Items	Aspect	Description of Equipment	Date of Calibration	Date of Next Calibration
1		TISCH High Volume Air Sampler, HVS Model TE-5170 TSP Sampler Calibration Spreadsheet for ASR-1	4 May 21	18 May 21
1a		TISCH High Volume Air Sampler, HVS Model TE-5170 TSP Sampler Calibration Spreadsheet for ASR-1	21 May 21	4 Jun 21
2		TISCH High Volume Air Sampler, HVS Model TE-5170 TSP Sampler Calibration Spreadsheet for ASR-2	4 May 21	18 May 21
2a		TISCH High Volume Air Sampler, HVS Model TE-5170 TSP Sampler Calibration Spreadsheet for ASR-2	21 May 21	4 Jun 21
3		TISCH High Volume Air Sampler, HVS Model TE-5170 TSP Sampler Calibration Spreadsheet for ASR-3a	4 May 21	18 May 21
3a		TISCH High Volume Air Sampler, HVS Model TE-5170 TSP Sampler Calibration Spreadsheet for ASR-3a	21 May 21	4 Jun 21
4	Air	Calibration Kit TISCH Model TE-5025A Orifice ID 1941 and Rootsmeter S/N 438320	19 Jan 21	19 Jan 22
5		Laser Dust Monitor, Model AM510 (Serial No. 11008017) – EQ102	8 Jan 21	8 Jan 22
6		Laser Dust Monitor, Model LD-3B (Serial No. 2X6145) – EQ105	8 Jan 21	8 Jan 22
7		Laser Dust Monitor, Model AM510 (Serial No. 11008060) – EQ101	6 Jul 20	6 Jul 21
8		Laser Dust Monitor, Model LD-3B (Serial No. 366410) – EQ110	8 Jan 21	8 Jan 22
9		Laser Dust Monitor, Model LD-3B (Serial No. 3Y6503) – EQ112	8 Jan 21	8 Jan 22
10		Rion NL- 52 Sound Level Meter (Serial No. 00921191) – EQ013	11 Aug 20	11 Aug 21
11	Noise	Rion NL- 52 Sound Level Meter (Serial No. 00142581) – EQ015	30 Sep 20	30 Sep 21
12		Rion NC - 75 Acoustical Calibrator (Serial No. 34680623) – EQ089	20 Jan 21	20 Jan 22
13	Water	YSI Pro DSS (Serial No.17B102764)	27 Apr 21	27 Jul 21
14	water	Global Water FP211 Flow Meter (Serial No. 1449006330)	2 Sep 20	2 Sep 21

r									
Location	: Sha Lin	g Village	e House	No.6			Date	of Ca	Calibration: 4-May-21
Location 2	ID:	ASR-1				Ν	Next Ca	alibra	ation Date: 18-May-21
Name and	l Model: '	TISCH H	HVS Mo	del TE-517	0			Te	echnician: Leung Ka Wai
					со	NDI.	TIONS		
							-		
	Se	a Level I		. ,		11.1			Corrected Pressure (mm Hg) 758.325
		Temp	perature	(°C)		26.6			Temperature (K) 300
				C	ALIBR/	ATIC	ON ORI	FICE	
							٦		
				Make->			_		Qstd Slope -> 2.10574
				Model->		1	_		Qstd Intercept -> -0.00985
				Serial # ->	1941				
					CAL	IBR	ATION		
Plate	H20 (L)	$H_{2} \cap (\mathbf{R})$	H20	Qstd	I		IC	r	LINEAR
No.	(in)	(in)	(in)	(m3/min)	(cha	rt)	correc		REGRESSION
18	6.10	6.10	12.2	1.657	51	· ·	50.6		Slope = 38.2977
13	4.80	4.80	9.6	1.471	42		41.7		Intercept = -14.3848
10	3.60	3.60	7.2	1.471	33		32.7		Corr. coeff. = 0.9921
10 7	2.40	2.40	4.8	1.041	24		23.8		0.9921
5	1.30	1.30	4.8 2.6	0.768	17		16.8		
	1.30	1.50	2.0	0.708	1/		10.0	59	
Calculatio	ons :								FLOW RATE CHART
Qstd = 1/1		20(Pa/Ps	hteT)(hte	/Ta))-b]					FLOW RATE CHART
IC = I[Sq;				(1u)) 0]			^{60.00} T		
10 1[04		.)(1500/1	u/]						
Qstd = sta	andard flo	w rate					50.00		•
IC = correction			es				00.00		
I = actual		-				<u></u>			
m = calibr		-) əsi	40.00 +		y = 38.298x - 14.385
b = calibr	-	-	t			noq	40.00 - 30.00 - 20.00 -		
	-	-		oration (de	σK)	tre	20.00		· · · · · · · · · · · · · · · · · · ·
	_		_	ation (mm		chai	30.00		
1	press					tual			•
For subs	alculatio	n of san	pler flow:		Ac	20.00 +			
1/m((I)[Tav)(Pav	/760) 1- ł)					◆	
	1 ())			,			10.00 -		
m = samp	ler slope						10.00		
b = samp		ept							
I = chart I		-					0.00		
Tav = dai	-	e temper	ature				0.00	00	0.500 1.000 1.500 2.000 Standard Flow Rate (m3/min)
Pav = dai		-							· ,
	8								

I

Location	: San Ul	k Ling V	illage H	ouse No.1			Date of C	Calibration: 4-May-21
Location	ID :	ASR-2				N	Vext Calibra	ation Date: 18-May-21
Name and	l Model: '	TISCH H	IVS Mo	del TE-517	0		Т	Fechnician: Leung Ka Wai
					С	OND	ITIONS	
	Se	a Level I	Pressure	(hPa)	10	11.1		Corrected Pressure (mm Hg) 758.325
		Temp	erature	(°C)		26.6		Temperature (K) 300
		1					1	
				C	ALIBI	RATI)E
				Make->	TISCI	H]	Qstd Slope -> 2.10574
				Model->	5025A	A		Qstd Intercept -> -0.00985
				Serial # ->	1941			
					CA	ALIB	RATION	
							I	
Plate	H20 (L)			Qstd	Ι		IC	LINEAR
No.	(in)	(in)	(in)	(m3/min)	(cha		corrected	REGRESSION
18	6.00	6.00	12.0	1.644	53		52.66	Slope = 38.1356
13	5.20	5.20	10.4	1.530	46		45.70	Intercept = -11.6743
10	3.70	3.70	7.4	1.292	37		36.76	Corr. coeff. = 0.9951
7	2.50	2.50	5.0	1.063	28		27.82	
5	1.40	1.40	2.8	0.796	20)	19.87	
Ostavilati								FLOW RATE CHART
							60.00	
Qstd = 1/1				/Ta))-b]				
IC = I[Sq;	rt(Pa/Psto	l)(1std/1	a)]					
	1 1 9						50.00	
Qstd = sta								
IC = correction		-	es			ົວ	40.00	y = 38.136x - 11.674
I = actual		_				se (I		
m = calibr	_	-				uod		
b = calibr	-	-		L		t res	30.00	
				bration (de		char		
Pstd = act	ual press	ure durin	ig calibr	ation (mm	Hg)	Actual chart response (IC)		
For subs	oquont c	alculatio	n of san	nnlor flow:		Act	20.00	♦∕
	For subsequent calculation of sampler flow: 1/m((I)[Sqrt(298/Tav)(Pav/760)]-b)							
1/111((1)[,	Sqff(298/	Tav)(Pav	///00)]-())			10.00	
m = 00m	lor alor							
m = samp		ant						
b = samp		ept					0.00	
I = chart I	-	o tom	oturo				0.000	0.500 1.000 1.500 2.000 Standard Flow Rate (m3/min)
Tav = dai								
Pav = dai	iy average	e pressur	e					

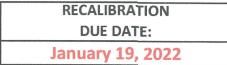
Location :	Location : Muk Wu Nga Yiu House No.2A Date of Calibration: 4-May-21									
Location 1	ID :	ASR-3a			_			Calibra	ation Date: 18-May-21	
Name and	Model:	TISCH H	IVS Mo	del TE-517		ND	TIONS		Fechnician: Leung Ka Wai	
	a					11.1	-			
	Sea Level Pressure (hPa) Temperature (°C)								Corrected Pressure (mm Hg)758.325Temperature (K)300	
				C	ALIBR/	ATI	ON OF	RIFICE	E	
			Make-> Model-> Serial # ->	5025A]		Qstd Slope -> 2.10574 Qstd Intercept -> -0.00985		
					CAL	IBI	RATIO	N		
Plate		H2O (R)	H20	Qstd	Ι			С	LINEAR	
<u>No.</u> 18	(in) 6.40	(in) 6.40	(in) 12.8	(m3/min) 1.697	(cha 52		-	ected .67	REGRESSION Slope = 45.3556	
13	5.80	5.80	12.8	1.616	45				Sidpe = 43.5550 Intercept = -27.6400	
10	4.70	4.70	9.4	1.455	37				Corr. coeff. = 0.9917	
7	3.40	3.50	6.9	1.247	28		27.82			
5	2.10	2.10	4.2	0.974	18		17	.88		
Calculatio	ons :				Г					
Qstd = 1/1				/Ta))-b]			60.00		FLOW RATE CHART	
IC = I[Squ	rt(Pa/Pstc	l)(Tstd/Ta	a)]							
Qstd = sta	indard flo	w rate					50.00 -		•	
IC = correction	ected char	rt respone	es							
I = actual		-				ŝ	40.00 -		y = 45.356x - 27.640	
m = calibration b = calibration calibration b	-	-	-			ponse (IC)	10.00		, incom	
	-	-		oration (de	gK)		30.00 -			
Pstd = act	ual press	ure durin	g calibra	ation (mm	Hg)	art re	50.00			
For subse	equent ca	alculation	ı of san	pler flow [.]		Actual chart res	20.00 -			
	For subsequent calculation of sampler flow: 1/m((I)[Sqrt(298/Tav)(Pav/760)]-b)									
m – samn						10.00 -				
_	m = sampler slope b = sampler intercept									
I = chart r		-					0.00			
Tav = dai		-					0.0	00	0.500 1.000 1.500 2.000	
Pav = dail	ly averag	e pressure	e						Standard Flow Rate (m3/min)	
L										

Location		e House	No.6					ibration: 21-May-21				
Location I		ASR-1	IVS Mo	del TE-517	0	N	Jext Ca		on Date: 4-Jun-21 chnician: Leung Ka V	Voi		
	i iviouei.	1150111				CON	IDITIO		Linneran. Leung Ka	v ai		
	G	т 11			1.00		1			,		
	Se	a Level I Temr	Pressure perature	` ')7.8 30.7			Corrected Pres Tempera	,	C ,	755.85
		Temp	oratare	(0)		0.1			Tempere)	501
					CALIE	BRA	TION	ORIF	E			
			Make->	TISCH	ł			Qstd Slop	e ->		2.10574	
				Model->		1			Qstd Intercer	ot ->		-0.00985
				Serial # ->	1941							
					C	ALI	BRATI	ON				
Plate	H20 (L)	H2O (R)	H20	Qstd	I		IC	1	T 1	NEAR		
No.	(in)	(in)	(in)	(m3/min)	(cha	rt)	correc			RESSIO	N	
18	6.10	6.10	12.2	1.643	53	-	51.8				40.471	1
13	4.70	4.70	9.4	1.443	44		43.0			Intercept = -15.5119		
10	3.60	3.60	7.2	1.263	35		34.2		Corr. coe	ff. =	0.9968	3
7 5	2.40 1.40	2.40 1.40	4.8 2.8	1.032 0.790	26 18		25.4 17.6					
	1.40	1.40	2.0	0.790	10		17.0	<u> </u>]
Calculatio	-								FLOW RATE (HART		
Qstd = 1/r				/Ta))-b]			60.00 -					
IC = I[Sq]	rt(Pa/Psto	a)(1sta/1	a)]									
Qstd = sta	undard flo	ow rate					50.00 -					,
IC = correction	ected cha	rt respon	es									
I = actual		-				e (IC)	40.00 -		y = 40.471x - 1	5.512	≁	
m = calib	-	-				bonse	40.00				,	
b = calibr Ta = actu	-	-		bration (de	σK)	tres				/		
	-		-	ation (mm		char	30.00 -			/		
						Actual chart response	00.00					
	-			npler flow:			20.00 -		•			
1/m((I)[Sqrt(298/	Tav)(Pav	///00)]-0))								
m = samp						10.00 -						
b = sampler intercept												
	= chart response								0.500 1.00	0	1.500	2.000
Tav = daily average temperature							5.0	000	Standard Flow Rat			2.000
Pav = dai	Pav = daily average pressure											r
1												

Location :	San Uk	k Ling V	illage H	ouse No.1			Date of C	Calibration: 21-May-21	
Location 1	ID :	ASR-2				Ν	Vext Calibra	ation Date: 4-Jun-21	
Name and	l Model: '	TISCH H	IVS Mo	del TE-517	0		Т	Technician: Leung Ka Wai	
					С	OND	ITIONS		
	Se	a Level I	Pressure	(hPa)	10	07.8		Corrected Pressure (mm Hg)	755.85
		Temp	erature	(°C)		30.7		Temperature (K)	304
		1		. ,			4		
				C	ALIBI	RATI	ON ORIFIC	E	
				Make->	TISCI	H]	Qstd Slope -> 2.1	0574
				Model->	5025A	A		Qstd Intercept -> -0.	00985
				Serial # ->	1941				
					CA	LIB	RATION		
								1	
Plate	H20 (L)		H20	Qstd	Ι		IC	LINEAR	
No.	(in)	(in)	(in)	(m3/min)	(cha	rt)	corrected	REGRESSION	
18	6.00	6.00	12.0	1.630	53	5	51.86	Slope = 36.8646	
13	5.10	5.10	10.2	1.503	46)	45.01	Intercept = -9.5589	
10	3.70	3.70	7.4	1.281	38)	37.18	Corr. coeff. = 0.9962	
7	2.40	2.40	4.8	1.032	28))	27.40		
5	1.30	1.30	2.6	0.761	20)	19.57		
Calculatio	ons :						60.00	FLOW RATE CHART	
Qstd = 1/r	n[Sqrt(H	20(Pa/Ps	td)(Tstd	/Ta))-b]					
IC = I[Squ	rt(Pa/Pstd	l)(Tstd/T	a)]						
							50.00	*	
Qstd = sta	ndard flo	w rate							
IC = corrections	ected chai	rt respon	es			_		y = 36.865x - 9.559	
I = actual	chart resp	ponse				<u>S</u>	40.00	y - 00.000x - 0.000	
m = calibi	ator Qsto	l slope				onse			
b = calibra	ator Qstd	intercep	t			esp	30.00		
Ta = actua	al temper	ature dui	ring cali	bration (de	gK)	artı	30.00		
Pstd = act	ual press	ure durin	ıg calibr	ation (mm	Hg)	님			
						Actual chart response (IC)	20.00		
For subse	equent ca	alculatio	n of san	npler flow:		٩			
1/m((I)[S	Sqrt(298/	Tav)(Pav	/760)] - ł)					
							10.00		
m = samp	ler slope								
b = samp	ler interco	ept					0.00		
I = chart r	response						0.00	0.500 1.000 1.500	2.000
Tav = dai	ly average	e temper	ature					Standard Flow Rate (m3/min)	
Pav = dail						L			

Location : Location I		u Nga Yi ASR-3a	u House	e No.2A		١			libration: 21-May-21 ion Date: 4-Jun-21	
			IVS Mo	del TE-517(C	1	NOAT CUI		chnician: Leung Ka Wai	
					CON	DI	TIONS			
	a Level I Temp	Pressure erature	. ,		1007.8 30.7			Corrected Pressure (mm Hg) 755.8 Temperature (K) 30		
				CA		ГІС		ICE		
			Make-> Model-> Serial # ->	5025A]		Qstd Slope -> 2.10574 Qstd Intercept -> -0.00985		
	CALIBRATION									
Plate		H2O (R)	H20	Qstd	Ι		IC		LINEAR	
No. 18	(in) 6.40	(in) 6.40	(in) 12.8	(m3/min) 1.683	(chart) 52)	correct 50.88		REGRESSION Slope = 44.1096	
18	5.80	0.40 5.80	12.8 11.6	1.602	52 45		44.03		Intercept = -25.5214	
10	4.70	4.70	9.4	1.443	37				Corr. coeff. = 0.9927	
7	3.20	3.20	6.4	1.191	28					
5	2.10	2.10	4.2	0.966	18		17.61	1		
Calculatio	ons :									
Qstd = 1/r				/Ta))-b]			60.00		FLOW RATE CHART	
IC = I[Sqn	t(Pa/Pstc	l)(Tstd/Ta	a)]							
Qstd = sta	ndard flo	w rate					50.00		•	
IC = corrections		_	es							
I = actual		-					40.00			
m = calibration b = calibration calibration b = calibration	-	-			CU)	2	10.00		y = 44.110x - 25.521	
	-	-		oration (deg						
				ation (mm			30.00		≁	
E					al ch		20.00			
	For subsequent calculation of sampler flow: 1/m((I)[Sqrt(298/Tav)(Pav/760)]-b)								•	
1/111((1)[(Jq11(270/	1 av /(1 av	//00/] 0							
m = samp						10.00				
b = samp	ept									
I = chart r	-	o tome a m	ture				0.00		0.500 1.000 1.500 2.00	00
Tav = dail Pav = dail		-					5.000		Standard Flow Rate (m3/min)	
	y average	e pressuit								





n m e n t a l Dertificate of Calibration

			Calibration	Certificatio	on Informat	ion		
Cal. Date:	January 19	, 2021	Roots	meter S/N:	438320	Ta:	294	°К
Operator:	Jim Tisch					Pa:	755.1	mm Hg
Calibration	Model #:	TE-5025A	Calil	brator S/N:	1941			
		Vol. Init	Vol. Final	ΔVol.	ΔTime	ΔΡ	ΔН	
	Run	(m3)	(m3)	(m3)	(min)	(mm Hg)	(in H2O)	
	1	1	2	1	1.4830	3.2	2.00	
	2	3	4 1		1.0420	6.4	4.00	
	3	5	6 1		0.9290	8.0	5.00	
	4	7	8 1		0.8840	8.8	5.50	
	5	9	10	10 1		12.9	8.00	
	Vstd	Qstd	$\sqrt{\Delta H \left(\frac{Pa}{Pstd}\right)}$	$\sqrt{\Delta H \left(\frac{Pa}{Pstd}\right) \left(\frac{Tstd}{Ta}\right)}$		Qa	$\sqrt{\Delta H (Ta/Pa)}$	
	(m3)	(x-axis)	(y-ax		Va	(x-axis)	(y-axis)	
	1.0029	0.6762	1.41		0.9958	0.6715	0.8824	
	0.9986	0.9583	2.0071		0.9915	0.9516	1.2479	
	0.9965	1.0726	2.2440		0.9894	1.0650	1.3952	
	0.9954	1.1260 1.3487	2.35		0.9883	1.1180	1.4633	
	0.9699	1.3467 m=	2.833 2.105		0.9829	1.3391 m =	1.7648 1.31858	
	QSTD	b=	-0.00		QA	b=	-0.00612	
	QJID	r=	0.999		QA	r=	0.99992	
				Calculatio	าร			
	Vstd=	$\Delta Vol((Pa-\Delta P))$	/Pstd)(Tstd/Ta	a)	Va=			
	Qstd=	Vstd/∆Time			Qa=	Va/∆Time		
			For subsequ	ent flow ra	te calculatio	ns:		
	Qstd=	1/m ((Pa Pstd Tstd	-))-b)	Qa=	$1/m\left(\sqrt{\Delta H}\right)$	l(Ta/Pa))-b)	
		Conditions						
Tstd:				Į.		RECA	LIBRATION	
Pstd:	1	mm Hg			LIS FPA reco	mmends a	nnual recalibratio	n ner 1000
AH: calibrat		(ey ter reading (i	n H2O)				Regulations Part !	
		eter reading					-	-
		perature (°K)			Appendix B to Part 50, Reference Method for the Determination of Suspended Particulate Matter in			
	Contraction of the local data and the local data an	ressure (mm	Hg)				ere, 9.2.17, page	
b: intercept							, public	
m: slope								

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

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group

ANALYTICAL CHEMISTRY & TESTING SERVICES





CONTACT	: MR BEN TAM	WORK ORDER HK2102490
CLIENT	ACTION UNITED ENVIRONMENT	
	SERVICES AND CONSULTING	
ADDRESS	: RM A 20/F., GOLD KING IND BLDG, NO. 35-41	SUB-BATCH : 1
	TAI LIN PAI ROAD, KWAI CHUNG, N.T. HONG	DATE RECEIVED : 15-JAN-2021
	KONG	DATE OF ISSUE : 26-JAN-2021
PROJECT	:	NO. OF SAMPLES : 1
		CLIENT ORDER

General Comments

- Samples(s) was/ were submitted by client. Sample(s) arrived laboratory in ambient condition. The result(s) related only to the item(s) tested.
- Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.
- Calibration was subcontracted to and analysed by Action United Environmental Services & Consulting.

Signatories

This document has been signed by those names that appear on this report and are the authorised signatories

Signatories	Position	
Ki dand Forz.		
Richard Fung	Managing Director	

This is the Final Report and supersedes any preliminary report with this batch number.

All pages of this report have been checked and approved for release.

ALS Technichem (HK) Pty Ltd Part of the ALS Laboratory Group

11/F. Chung Shun Knitting Centre 1 - 3 Wing Yip Street Kwai Chung N.T. Hong Kong Tel. +852 2610 1044 Fax. +852 2610 2021 www.alsglobal.com WORK ORDER SUB-BATCH

CLIENT

PROJECT

: HK2102490

: 1 : ACTION UNITED ENVIRONMENT SERVICES AND CONSULTING



:

ALS Lab ID	Client's Sample ID	Sample Type	Sample Date	External Lab Report No.
HK2102490-001	S/N: 2X6145	AIR	15-Jan-2021	S/N: 2X6145

Equipment Verification Report (TSP)

Equipment Calibrated:

Туре:	Laser Dust monitor
Manufacturer:	Sibata LD-3B
Serial No.	2X6145
Equipment Ref:	EQ105
Job Order	HK2102490

Standard Equipment:

Standard Equipment:	Higher Volume Sampler
Location & Location ID:	AUES office (calibration room)
Equipment Ref:	HVS 018
Last Calibration Date:	8 October 2020

Equipment Verification Results:

Testing Date:

31 December 2020

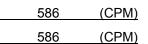
0.0022

0.9926

8 January 2021

Hour	Time	Mean Temp °C	Mean Pressure (hPa)	Concentration in mg/m ³ (Standard Equipment)	Total Count (Calibrated Equipment)	Count/Minute (Total Count/60min)
2hr01min	09:16 ~ 11:17	10.9	1027.0	0.058	3107	25.6
2hr01min	11:19 ~ 11:20	10.9	1027.0	0.027	1724	14.2
2hr01min	11:22 ~ 13:23	10.9	1027.0	0.026	1300	10.8

Sensitivity Adjustment Scale Setting (Before Calibration) Sensitivity Adjustment Scale Setting (After Calibration)



0.07 0.06 0.05 0.04 0.03 y = 0.0022x - 0.0003 R² = 0.9853 0.02 0.01 0 5 10 15 20 25 30 0

Remarks:

Slope (K-factor):

Date of Issue

Correlation Coefficient

1. **Strong** Correlation (R>0.8)

Linear Regression of Y or X

2. Factor 0.0022 should be apply for TSP monitoring

*If R<0.5, repair or re-verification is required for the equipment



Location : Gold King Industrial Build Location ID : Calibration Room		alibration: 8-Oct-20 ation Date: 8-Jan-21			
	CON	DITIONS			
Sea Level Pressure (hPa) Temperature (°C)	1015.2 25.5		Corrected Pressure (Temperature (
	CALIBRAT	ION ORIFICE			
Make-: Model-: Calibration Date-:	> 5025A		Qstd Slope -> Qstd Intercept -> Expiry Date->	2.03014 -0.04616 7-Feb-21	
	CALIE	BRATION			
Plate H20 (L)H2O (R) H20 Qstd No. (in) (in) (in) (m3/min	I (chart)	IC corrected	LINE. REGRES		
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	56 49 42 32 21	56.00 49.00 42.00 32.00 21.00	Slope = Intercept = Corr. coeff. =	Slope = 38.0056 Intercept = -11.6655	
Calculations : Qstd = 1/m[Sqrt(H20(Pa/Pstd)(Tstd/Ta))-b] IC = I[Sqrt(Pa/Pstd)(Tstd/Ta)] Qstd = standard flow rate IC = corrected chart respones I = actual chart response m = calibrator Qstd slope b = calibrator Qstd intercept Ta = actual temperature during calibration (or Pstd = actual pressure during calibration (mr For subsequent calculation of sampler flow. 1/m((I)[Sqrt(298/Tav)(Pav/760)]-b) m = sampler slope b = sampler intercept I = chart response Tav = daily average temperature	5 4 (C) 3 7 9 9 9 9 9 9 9 1 2 2 1	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00	FLOW RATE CHAI	1.500 2.000	

								ALIBRATION	
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	0e	rtifa	çate	01	Oal	ibra	tion		
			Calibration	Certificatio	on Informat	ion			
Cal. Date:	February 7	2020	Roots	meter S/N:	438320	Ta:	295	°К	
Operator:	Jim Tisch					Pa:	745.5	mm Hg	
Calibration	Model #:	TE-5025A	Calil	prator S/N:	1612				
		Vol. Init	Vol. Final	ΔVol.	ΔTime	ΔΡ	ΔΗ]	
	Run	(m3)	(m3)	(m3)	(min)	(mm Hg)	(in H2O)		
	1	1	2	1	1.3730	3.2	2.00		
	2	3	4	1	0.9820	6.4	4.00	-	
	3	5	6	1	0.8780	8.0	5.00	-	
	4	7	8	1	0.8340	8.8	5.50		
	5	9	10	1	0.6900	12.8	8.00		
			[Data Tabula	lation				
	Vstd	Qstd	$\sqrt{\Delta H \left(\frac{Pa}{Pstd}\right)}$)(<u>Tstd</u>)		Qa	√∆H(Ta/Pa)		
	(m3)	(x-axis)	(y-ax		Va	(x-axis)	(y-axis)		
	0.9866	0.7186	1.40		0.9957	0.7252	0.8896	-	
	0.9824	1.0004	1.99	09	0.9914	1.0096	1.2581	-	
	0.9802	1.1165	2.22	59	0.9893	1.1267	1.4066		
	0.9792	1.1741	2.33	45	0.9882	1.1849	1.4753	-	
	0.9739	1.4114	2.81		0.9828	1.4244	1.7792	-	
	OCTD		2.030		0.4		1.27124		
	QSTD	b= r=	-0.04		QA	b= r=	-0.02917 0.99995		
		1-	0.555			1	0.33333]	
	Vstd=	AVol((Pa-AP)	/Pstd)(Tstd/Ta	Calculation		ΔVol((Pa-Δl	P)/Pa)	-	
		Vstd/ATime	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			Va/ATime	,,,	-	
			For subsequ	ient flow rat	te calculatio			1	
	Qstd=	1/m ((_ \[\[\] \[\] \[\] H (Pa (Tstd Pstd Ta	-))-b)		11	н(Та/Ра))-b)		
[Conditions	rstu /\ la	///		// V	· // /]	
Tstd:				Г		RECA	LIBRATION]	
Pstd:		mm Hg							
	ŀ	(ey					nnual recalibrati		
ΔH: calibrate							Regulations Part		
ΔP: rootsme		eter reading perature (°K)					, Reference Met		
		essure (mm					ended Particulat		
		cooure (min			th	e Atmosphe	ere, 9.2.17, page	30	
b: intercept			1	1				1	

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ALS Technichem (HK) Pty Ltd

ALS Laboratory Group

ANALYTICAL CHEMISTRY & TESTING SERVICES





CONTACT	: MR BEN TAM	WORK ORDER HK2102509
CLIENT	ACTION UNITED ENVIRONMENT	
	SERVICES AND CONSULTING	
ADDRESS	: RM A 20/F., GOLD KING IND BLDG, NO. 35-41	SUB-BATCH : 1
	TAI LIN PAI ROAD, KWAI CHUNG, N.T. HONG	DATE RECEIVED : 15-JAN-2021
	KONG	DATE OF ISSUE : 26-JAN-2021
PROJECT	:	NO. OF SAMPLES : 1
		CLIENT ORDER +

General Comments

- Samples(s) was/ were submitted by client. Sample(s) arrived laboratory in ambient condition. The result(s) related only to the item(s) tested.
- Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.
- Calibration was subcontracted to and analysed by Action United Environmental Services & Consulting.

Signatories

This document has been signed by those names that appear on this report and are the authorised signatories

Signatories	Position	
Kiland Jong .		
Richard Fung	Managing Director	

This is the Final Report and supersedes any preliminary report with this batch number.

All pages of this report have been checked and approved for release.

ALS Technichem (HK) Pty Ltd Part of the ALS Laboratory Group

11/F. Chung Shun Knitting Centre 1 - 3 Wing Yip Street Kwai Chung N.T. Hong Kong Tel. +852 2610 1044 Fax. +852 2610 2021 www.alsglobal.com WORK ORDER SUB-BATCH : HK2102509

:

: 1 : ACTION UNITED ENVIRONMENT SERVICES AND CONSULTING



CLIENT PROJECT

ALS Lab ID	Client's Sample ID	Sample Type	Sample Date	External Lab Report No.
HK2102509-001	S/N: 11008017	AIR	18-Jan-2021	S/N: 11008017

Equipment Verification Report (TSP)

Equipment Calibrated:

Туре:	Laser Dust monitor
Manufacturer:	TSI AM510
Serial No.	11008017
Equipment Ref:	EQ102
Work Order:	HK2102509

Standard Equipment:

Standard Equipment:	Higher Volume Sampler (TSP)
Location & Location ID:	AUES Office (Calibration Room)
Equipment Ref:	HVS 018
Last Calibration Date:	8 October 2020

Equipment Verification Results:

Verification Date:

31 December 2020

Hour	Time	Mean Temp °C	Mean Pressure (hPa)	Concentration in mg/m ³ (Standard Equipment)	Concentration in mg/m ³ (Calibrated Equipment)	Tolerance (mg/m ³)
2hr01min	09:16 ~ 11:17	10.9	1027.0	0.058	0.097	+0.039
2hr01min	11:19 ~ 11:20	10.9	1027.0	0.027	0.058	+0.031
2hr01min	11:22 ~ 13:23	10.9	1027.0	0.026	0.053	+0.027

Linear Regression of Y or X

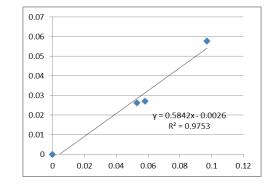
Slope (factor):	0.5842
Correlation Coefficient (R)	0.9876
Date of Issue	8 January 2021

Remarks:

1. **Strong** Correlation (R>0.8)

2. Factor 0.5842 should be apply for TSP monitoring

*If R<0.5, repair or re-verification is required for the equipment



Operator :	Fai So	_ Signature : _	- Far	Date :	8 January 2021
QC Reviewer :	Ben Tam	Signature :	36	Date :	8 January 2021

Location : Gold King Industrial Build Location ID : Calibration Room		alibration: 8-Oct-20 ation Date: 8-Jan-21		
	CON	DITIONS		
Sea Level Pressure (hPa) Temperature (°C)	1015.2 25.5		Corrected Pressure (Temperature (
	CALIBRAT	ION ORIFICE		
Make-: Model-: Calibration Date-:	> 5025A		Qstd Slope -> Qstd Intercept -> Expiry Date->	2.03014 -0.04616 7-Feb-21
	CALIE	BRATION		
Plate H20 (L)H2O (R) H20 Qstd No. (in) (in) (in) (m3/min				AR SSION
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	56 49 42 32 21	corrected 56.00 49.00 42.00 32.00 21.00	Slope = 38.0056 Intercept = -11.6655 Corr. coeff. = 0.9991	
Calculations : Qstd = 1/m[Sqrt(H20(Pa/Pstd)(Tstd/Ta))-b] IC = I[Sqrt(Pa/Pstd)(Tstd/Ta)] Qstd = standard flow rate IC = corrected chart respones I = actual chart response m = calibrator Qstd slope b = calibrator Qstd intercept Ta = actual temperature during calibration (or Pstd = actual pressure during calibration (mr For subsequent calculation of sampler flow. 1/m((I)[Sqrt(298/Tav)(Pav/760)]-b) m = sampler slope b = sampler intercept I = chart response Tav = daily average temperature	5 4 (C) 3 9 9 9 9 9 9 9 9 1 1 1 1	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00	FLOW RATE CHAI	1.500 2.000

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	0e	rtifa	çate	01	Oal	ibra	tion	
			Calibration	Certificatio	on Informat	ion		
Cal. Date:	February 7	2020	Roots	meter S/N:	438320	Ta:	295	°К
Operator:	Jim Tisch					Pa:	745.5	mm Hg
Calibration	Model #:	TE-5025A	Calil	prator S/N:	1612			
		Vol. Init	Vol. Final	ΔVol.	ΔTime	ΔΡ	ΔΗ]
	Run	(m3)	(m3)	(m3)	(min)	(mm Hg)	(in H2O)	
	1	1	2	1	1.3730	3.2	2.00	
	2	3	4	1	0.9820	6.4	4.00	-
	3	5	6	1	0.8780	8.0	5.00	-
	4	7	8	1	0.8340	8.8	5.50	
	5	9	10	1	0.6900	12.8	8.00	
			[Data Tabula	tion]
	Vstd	Qstd	$\sqrt{\Delta H \left(\frac{Pa}{Pstd}\right)}$)(<u>Tstd</u>)		Qa	√∆H(Ta/Pa)	
	(m3)	(x-axis)	(y-ax		Va	(x-axis)	(y-axis)	
	0.9866	0.7186	1.40		0.9957	0.7252	0.8896	-
	0.9824	1.0004	1.99	09	0.9914	1.0096	1.2581	-
	0.9802	1.1165	2.22	59	0.9893	1.1267	1.4066	
	0.9792	1.1741	2.33	45	0.9882	1.1849	1.4753	-
	0.9739	1.4114	2.81		0.9828	1.4244	1.7792	-
	OCTD		2.030		0.4		1.27124	
	QSTD	b= r=	-0.04		QA	b= r=	-0.02917 0.99995	
		1-	0.555			1	0.33333]
	Vstd=	AVol((Pa-AP)	/Pstd)(Tstd/Ta	Calculation		ΔVol((Pa-Δl	P)/Pa)	-
		Vstd/ATime	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		Qa= Va/ΔTime			-
			For subsequ	ient flow rat	te calculatio			1
	Qstd=	1/m ((_ \[\[\] \[\] \[\] H (Pa (Tstd Pstd Ta	-))-b)		11	н(Та/Ра))-b)	
[Conditions	rstu /\ la	///		// V	· // /]
Tstd:				Г		RECA	LIBRATION]
Pstd:		mm Hg						
	ŀ	(ey					nnual recalibrati	
$\Delta H: calibrato$							Regulations Part	
ΔP: rootsme		eter reading perature (°K)					, Reference Met	
		essure (mm					ended Particulat	
		cooure (min			th	e Atmosphe	ere, 9.2.17, page	30
b: intercept			1	1				1

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ALS Technichem (HK) Pty Ltd

ALS Laboratory Group

ANALYTICAL CHEMISTRY & TESTING SERVICES





: MR BEN TAM	WORK ORDER HK2102511					
ACTION UNITED ENVIRONMENT						
SERVICES AND CONSULTING						
: RM A 20/F., GOLD KING IND BLDG, NO. 35-41	SUB-BATCH : 1					
TAI LIN PAI ROAD, KWAI CHUNG, N.T. HONG	DATE RECEIVED : 15-JAN-2021					
KONG	DATE OF ISSUE : 26-JAN-2021					
:	NO. OF SAMPLES : 1					
	CLIENT ORDER					
	 MR BEN TAM ACTION UNITED ENVIRONMENT SERVICES AND CONSULTING RM A 20/F., GOLD KING IND BLDG, NO. 35-41 TAI LIN PAI ROAD, KWAI CHUNG, N.T. HONG KONG 					

General Comments

- Samples(s) was/ were submitted by client. Sample(s) arrived laboratory in ambient condition. The result(s) related only to the item(s) tested.
- Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.
- Calibration was subcontracted to and analysed by Action United Environmental Services & Consulting.

Signatories

This document has been signed by those names that appear on this report and are the authorised signatories

Signatories	Position
Richard Fromy,	
Richard Fung	Managing Director

This is the Final Report and supersedes any preliminary report with this batch number.

All pages of this report have been checked and approved for release.

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11/F. Chung Shun Knitting Centre 1 - 3 Wing Yip Street Kwai Chung N.T. Hong Kong Tel. +852 2610 1044 Fax. +852 2610 2021 www.alsglobal.com WORK ORDER SUB-BATCH : HK2102511

:

: 1 : ACTION UNITED ENVIRONMENT SERVICES AND CONSULTING



CLIENT PROJECT

ALS Lab ID	Client's Sample ID	Sample Type	Sample Date	External Lab Report No.
HK2102511-001	S/N: 3Y6503	AIR	15-Jan-2021	S/N: 3Y6503

Equipment Verification Report (TSP)

Equipment Calibrated:

Туре:	Laser Dust monitor
Manufacturer:	Sibata LD-3B
Serial No.	3Y6503
Equipment Ref:	EQ112
Job Order	HK2102511

Standard Equipment:

Standard Equipment:	Higher Volume Sampler	
Location & Location ID:	AUES office (calibration room)	
Equipment Ref:	HVS 018	
Last Calibration Date:	8 October 2020	

Equipment Verification Results:

Testing Date:

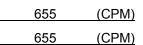
31 December 2020

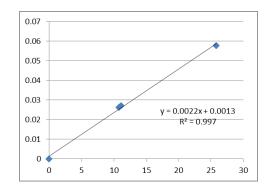
Hour	Time	Mean Temp °C	Mean Pressure (hPa)	Concentration in mg/m ³ (Standard Equipment)	Total Count (Calibrated Equipment)	Count/Minute (Total Count/60min)
2hr01min	09:16 ~ 11:17	10.9	1027.0	0.058	3127	25.8
2hr01min	11:19 ~ 11:20	10.9	1027.0	0.027	1347	11.1
2hr01min	11:22 ~ 13:23	10.9	1027.0	0.026	1298	10.8

Sensitivity Adjustment Scale Setting (Before Calibration) Sensitivity Adjustment Scale Setting (After Calibration)



·· · · · · · ·	
Slope (K-factor):	0.0022
Correlation Coefficient	0.9985
Date of Issue	8 January 2021





Remarks:

1. **Strong** Correlation (R>0.8)

2. Factor 0.0022 should be apply for TSP monitoring

*If R<0.5, repair or re-verification is required for the equipment



Location : Gold King Industrial Build Location ID : Calibration Room		alibration: 8-Oct-20 ation Date: 8-Jan-21		
	CON	DITIONS		
Sea Level Pressure (hPa) Temperature (°C)	1015.2 25.5		Corrected Pressure (Temperature (
	CALIBRAT	ION ORIFICE		
Make-: Model-: Calibration Date-:	> 5025A		Qstd Slope -> Qstd Intercept -> Expiry Date->	2.03014 -0.04616 7-Feb-21
	CALIE	BRATION		
Plate H20 (L)H2O (R) H20 Qstd No. (in) (in) (in) (m3/min				AR SSION
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	56 49 42 32 21	corrected 56.00 49.00 42.00 32.00 21.00	Slope = 38.0056 Intercept = -11.6655 Corr. coeff. = 0.9991	
Calculations : Qstd = 1/m[Sqrt(H20(Pa/Pstd)(Tstd/Ta))-b] IC = I[Sqrt(Pa/Pstd)(Tstd/Ta)] Qstd = standard flow rate IC = corrected chart respones I = actual chart response m = calibrator Qstd slope b = calibrator Qstd intercept Ta = actual temperature during calibration (or Pstd = actual pressure during calibration (mr For subsequent calculation of sampler flow. 1/m((I)[Sqrt(298/Tav)(Pav/760)]-b) m = sampler slope b = sampler intercept I = chart response Tav = daily average temperature	5 4 (C) 3 7 9 9 9 9 9 9 9 1 2 2 1 1	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00	FLOW RATE CHAI	1.500 2.000

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	0		2 .		0	0.0		
	0e	rtifa	çate	01	Oal	ibra	tion	
			Calibration	Certificatio	on Informat	ion		
Cal. Date:	February 7	2020	Roots	meter S/N:	438320	Ta:	295	°К
Operator:	Jim Tisch					Pa:	745.5	mm Hg
Calibration	Model #:	TE-5025A	Calil	prator S/N:	1612			
		Vol. Init	Vol. Final	ΔVol.	ΔTime	ΔΡ	ΔΗ]
	Run	(m3)	(m3)	(m3)	(min)	(mm Hg)	(in H2O)	
	1	1	2	1	1.3730	3.2	2.00	
	2	3	4	1	0.9820	6.4	4.00	-
	3	5	6	1	0.8780	8.0	5.00	-
	4	7	8	1	0.8340	8.8	5.50	
	5	9	10	1	0.6900	12.8	8.00	
			[Data Tabula	tion]
	Vstd	Qstd	$\sqrt{\Delta H \left(\frac{Pa}{Pstd}\right)}$)(<u>Tstd</u>)		Qa	√∆H(Ta/Pa)	
	(m3)	(x-axis)	(y-ax		Va	(x-axis)	(y-axis)	
	0.9866	0.7186	1.40		0.9957	0.7252	0.8896	-
	0.9824	1.0004	1.99	09	0.9914	1.0096	1.2581	-
	0.9802	1.1165	2.22	59	0.9893	1.1267	1.4066	
	0.9792	1.1741	2.33	45	0.9882	1.1849	1.4753	-
	0.9739	1.4114	2.81		0.9828	1.4244	1.7792	-
	OCTD		2.030		0.4		1.27124	
	QSTD	b= r=	-0.04		QA	b= r=	-0.02917 0.99995	
		1-	0.555			1	0.33333]
	Vstd=	AVol((Pa-AP)	/Pstd)(Tstd/Ta	Calculation		ΔVol((Pa-Δl	P)/Pa)	-
		Vstd/ATime	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		Qa= Va/ΔTime			-
			For subsequ	ient flow rat	te calculatio			1
	Qstd=	1/m ((_ \[\[\] \[\] \[\] H (Pa (Tstd Pstd Ta	-))-b)		11	н(Та/Ра))-b)	
[Conditions	rstu /\ la	///		// V	· // /]
Tstd:				Г		RECA	LIBRATION]
Pstd:		mm Hg						
	ŀ	(ey					nnual recalibrati	
$\Delta H: calibrato$							Regulations Part	
ΔP: rootsme		eter reading perature (°K)					, Reference Met	
		essure (mm					ended Particulat	
		cooure (min			th	e Atmosphe	ere, 9.2.17, page	30
b: intercept			1	1				1

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ALS Technichem (HK) Pty Ltd

ALS Laboratory Group

ANALYTICAL CHEMISTRY & TESTING SERVICES





		0111
CONTACT	: MR BEN TAM	WORK ORDER HK2102507
CLIENT	ACTION UNITED ENVIRONMENT	
	SERVICES AND CONSULTING	
ADDRESS	: RM A 20/F., GOLD KING IND BLDG, NO. 35-41	SUB-BATCH : 1
	TAI LIN PAI ROAD, KWAI CHUNG, N.T. HONG	DATE RECEIVED : 15-JAN-2021
	KONG	DATE OF ISSUE : 26-JAN-2021
PROJECT	:	NO. OF SAMPLES : 1
		CLIENT ORDER

General Comments

- Samples(s) was/ were submitted by client. Sample(s) arrived laboratory in ambient condition. The result(s) related only to the item(s) tested.
- Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.
- Calibration was subcontracted to and analysed by Action United Environmental Services & Consulting.

Signatories

This document has been signed by those names that appear on this report and are the authorised signatories

Signatories	Position
Kidard Jong.	
Richard Fung	Managing Director

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All pages of this report have been checked and approved for release.

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CLIENT

PROJECT

: HK2102507

: 1 : ACTION UNITED ENVIRONMENT SERVICES AND CONSULTING



:

ALS Lab ID	Client's Sample ID	Sample Type	Sample Date	External Lab Report No.
HK2102507-001	S/N: 366410	AIR	15-Jan-2021	S/N: 366410

Equipment Verification Report (TSP)

Equipment Calibrated:

Туре:	Laser Dust monitor
Manufacturer:	Sibata LD-3B
Serial No.	366410
Equipment Ref:	EQ110
Job Order	HK2102507

Standard Equipment:

Higher Volume Sampler	
AUES office (calibration room)	
HVS 018	
8 October 2020	

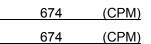
Equipment Verification Results:

Testing Date:

31 December 2020

Hour	Time	Mean Temp °C	Mean Pressure (hPa)	Concentration in mg/m ³ (Standard Equipment)	Total Count (Calibrated Equipment)	Count/Minute (Total Count/60min)
2hr01min	09:16 ~ 11:17	10.9	1027.0	0.058	3158	26.1
2hr01min	11:19 ~ 11:20	10.9	1027.0	0.027	1608	13.3
2hr01min	11:22 ~ 13:23	10.9	1027.0	0.026	1107	9.2

Sensitivity Adjustment Scale Setting (Before Calibration) Sensitivity Adjustment Scale Setting (After Calibration)



y = 0.0022x + 0.0016

 $R^2 = 0.9791$

25

30

20

0.07

0.06 0.05 0.04 0.03

0.02

0.01

0 <

0

5

10

15

Linear Regression of Y or X

Slope (K-factor):	
Correlation Coefficient	
Date of Issue	8,

0.0022	
0.9895	
8 January 2021	

Remarks:

1. **Strong** Correlation (R>0.8)

2. Factor 0.0022 should be apply for TSP monitoring

*If R<0.5, repair or re-verification is required for the equipment



Location : Gold King Industrial Build Location ID : Calibration Room		alibration: 8-Oct-20 ation Date: 8-Jan-21		
	CON	DITIONS		
Sea Level Pressure (hPa) Temperature (°C)	1015.2 25.5		Corrected Pressure (Temperature (
	CALIBRAT	ION ORIFICE		
Make-: Model-: Calibration Date-:	> 5025A		Qstd Slope -> Qstd Intercept -> Expiry Date->	2.03014 -0.04616 7-Feb-21
	CALIE	BRATION		
Plate H20 (L)H2O (R) H20 Qstd No. (in) (in) (in) (m3/min	I (chart)	IC corrected	LINE. REGRES	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	56 49 42 32 21	56.00 49.00 42.00 32.00 21.00	Slope = Intercept = Corr. coeff. =	38.0056 -11.6655 0.9991
Calculations : Qstd = 1/m[Sqrt(H20(Pa/Pstd)(Tstd/Ta))-b] IC = I[Sqrt(Pa/Pstd)(Tstd/Ta)] Qstd = standard flow rate IC = corrected chart respones I = actual chart response m = calibrator Qstd slope b = calibrator Qstd intercept Ta = actual temperature during calibration (or Pstd = actual pressure during calibration (mr For subsequent calculation of sampler flow. 1/m((I)[Sqrt(298/Tav)(Pav/760)]-b) m = sampler slope b = sampler intercept I = chart response Tav = daily average temperature	5 4 (C) 3 7 9 9 9 9 9 9 9 1 2 2 1 1	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00	FLOW RATE CHAI	1.500 2.000

								ALIBRATION
							D	UE DATE:
)		Febru	uary 7, 202
nvir	o n m	ent	al	- Construction of the Article				
	0		2 .		O	0.0	6 •	
	0e	rtifa	çate	01	Oal	ibra	tion	
			Calibration	Certificatio	on Informat	ion		
Cal. Date:	February 7	2020	Roots	meter S/N:	438320	Ta:	295	°К
Operator:	Jim Tisch					Pa:	745.5	mm Hg
Calibration	Model #:	TE-5025A	Calil	prator S/N:	1612			
		Vol. Init	Vol. Final	ΔVol.	ΔTime	ΔΡ	ΔΗ]
	Run	(m3)	(m3)	(m3)	(min)	(mm Hg)	(in H2O)	
	1	1	2	1	1.3730	3.2	2.00	
	2	3	4	1	0.9820	6.4	4.00	-
	3	5	6	1	0.8780	8.0	5.00	-
	4	7	8	1	0.8340	8.8	5.50	
	5	9	10	1	0.6900	12.8	8.00	
			[Data Tabula	tion]
	Vstd	Qstd	$\sqrt{\Delta H \left(\frac{Pa}{Pstd}\right)}$)(<u>Tstd</u>)		Qa	√∆H(Ta/Pa)	
	(m3)	(x-axis)	(y-ax		Va	(x-axis)	(y-axis)	
	0.9866	0.7186	1.40		0.9957	0.7252	0.8896	-
	0.9824	1.0004	1.99	09	0.9914	1.0096	1.2581	-
	0.9802	1.1165	2.22	59	0.9893	1.1267	1.4066	
	0.9792	1.1741	2.33	45	0.9882	1.1849	1.4753	-
	0.9739	1.4114	2.81		0.9828	1.4244	1.7792	-
	OCTD		2.030		0.4		1.27124	
	QSTD	b= r=	-0.04		QA	b= r=	-0.02917 0.99995	
		1-	0.555			1	0.33333]
	Vstd=	AVol((Pa-AP)	/Pstd)(Tstd/Ta	Calculation		ΔVol((Pa-Δl	P)/Pa)	-
	Qstd= Vstd/ΔTime					Va/ATime	,,,	-
			For subsequ	ient flow rat	te calculatio			1
	Qstd= $1/m\left(\left(\sqrt{\Delta H\left(\frac{Pa}{Pstd}\right)\left(\frac{Tstd}{Ta}\right)}\right)-b\right)$					11	н(Та/Ра))-b)	
[Conditions	rstu /\ la	///		// V	· // /]
Tstd:				Г		RECA	LIBRATION]
Pstd:		mm Hg						
	ŀ	(ey					nnual recalibrati	
$\Delta H:$ calibrate							Regulations Part	
ΔP: rootsme		eter reading perature (°K)					, Reference Met	
		essure (mm					ended Particulat	
		cooure (min			th	e Atmosphe	ere, 9.2.17, page	30
b: intercept			1	1				1

Tisch Environmental, Inc. 145 South Miami Avenue Village of Cleves, OH 45002 <u>www.tisch-env.com</u> TOLL FREE: (877)263-7610 FAX: (513)467-9009

-

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group

ANALYTICAL CHEMISTRY & TESTING SERVICES

SUB-CONTRACTING REPORT



CONTACT	: MR BEN TAM		WORK ORDER	HK2025133
CLIENT	: ACTION UNITED ENVIRONMENT			
	SERVICES AND CONSULTING			
ADDRESS	: RM A 20/F., GOLD KING IND BLDG, NO	D. 35-41	SUB-BATCH	: 1
	TAI LIN PAI ROAD, KWAI CHUNG, N.T.	HONG	DATE RECEIVED	: 7-JUL-2020
	KONG		DATE OF ISSUE	: 14-JUL-2020
PROJECT	:		NO. OF SAMPLES	: 1
			CLIENT ORDER	÷

General Comments

- Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in ambient condition. The result(s) related only to the item(s) tested.
- Sample information (Project name, Sample ID, Sampling date/time, etc., if any) is provided by client.
- Calibration was subcontracted to and analysed by Action United Enviro Services.

Signatories

This document has been signed by those names that appear on this report and are the authorised signatories

Signatories	Position	
Kidard Jong.		
Richard Fung	Managing Director	

This is the Final Report and supersedes any preliminary report with this batch number.

All pages of this report have been checked and approved for release.

ALS Technichem (HK) Pty Ltd Part of the ALS Laboratory Group

11/F. Chung Shun Knitting Centre 1 - 3 Wing Yip Street Kwai Chung N.T. Hong Kong Tel. +852 2610 1044 Fax. +852 2610 2021 www.alsglobal.com

WORK ORDER SUB-BATCH

CLIENT PROJECT : HK2025133

: 1 ACTION UNITED ENVIRONMENT SERVICES AND CONSULTING : ----



ALS Lab	Client's Sample ID	Sample	Sample Date	External Lab Report No.
ID		Туре		
HK2025133-001	S/N: 11008060	AIR	07-Jul-2020	S/N: 11008060

Equipment Verification Report (TSP)

Equipment Calibrated:

Туре:	Laser Dust monitor			
Manufacturer:	TSI AM510			
Serial No.	11008060			
Equipment Ref:	EQ101			
Work Order:	HK2025133			

Standard Equipment:

Higher Volume Sampler (TSP)
Calibration Room
HVS 018
30 June 2020

Equipment Verification Results:

Testing Date:

30 June 2020

Hour	Time	Mean Temp °C	Mean Pressure (hPa)	Concentration in mg/m ³ (Standard Equipment)	Concentration in mg/m ³ (Calibrated Equipment)	Tolerance (mg/m ³)
2hr02min	09:14 ~ 11:16	30.7	1004.6	0.013	0.016	+0.003
2hr02min	11:20 ~ 13:22	30.7	1004.6	0.010	0.013	+0.003
2hr02min	13:25 ~ 15:27	30.7	1004.6	0.006	0.009	+0.003

Linear Regression of Y or X

Slope (factor):	0.8273
Correlation Coefficient (R)	0.9948
Date of Issue	6 July 2020

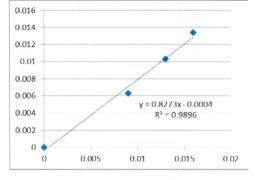
Remarks:

1. **Strong** Correlation (R>0.8)

2. Factor 0.8273 should be apply for TSP monitoring

*If R<0.5, repair or re-verification is required for the equipment





Location : Gold King Industria Location ID : Calibration Room	l Building, Kwai Cł	nung	Date of Calibration: 30-Jun-20 Next Calibration Date: 30-Sep-20								
	COND	DITIONS									
	Sea Level Pressure (hPa)1004.6Corrected Pressure (mm Hg)753.45Temperature (°C)30.7Temperature (K)304										
CALIBRATION ORIFICE											
Make->TISCHQstd Slope ->Model->5025AQstd Intercept ->Calibration Date->7-Feb-20Expiry Date->											
	CALIB	RATION									
No. (in) (in) (in) (m) 18 6.4 6.4 12.8 12	Qstd I 3/min) (chart) 1.761 56 1.544 49	IC corrected 55.23 48.33	LINEAR REGRESSION Slope = 38.2549 Intercept = -10.8486								
8 2.4 2.4 4.8 2.4 5 1.5 1.5 3.0 0	1.344 43 1.087 32 0.864 21	42.41 31.56 20.71	Corr. coeff. = 0.9947								



RECALIBRATION DUE DATE: February 7, 2021

Certificate of Calibration

			Calibration	Certificatio	on Informat	ion		
Cal. Date:	February 7	, 2020	Rootsr	meter S/N:	438320	Ta:	295	°К
Operator:	Jim Tisch					Pa:	mm Hg	
Calibration	Model #:	TE-5025A	Calib	orator S/N:	1612			
		Vol. Init	Vol. Final	ΔVol.	ΔTime	ΔP	ΔH	1
	Run	(m3)	(m3)	(m3)	(min)	(mm Hg)	(in H2O)	
	1	1	2	1	1.3730	3.2	2.00	
	2	3	4	1	0.9820	6.4	4.00	
	3	5	6	1	0.8780	8.0	5.00	-
	4	7	8	1	0.8340	8.8	5.50	4
	5	9	10	1	0.6900	12.8	8.00	4
			C	Data Tabula	tion]
	Vstd	Qstd	$\sqrt{\Delta H \left(\frac{Pa}{Pstd}\right) \left(\frac{Tstd}{Ta}\right)}$			Qa	√∆H(Ta/Pa)	
	(m3)	(x-axis)	(y-axis)		Va	(x-axis)	(y-axis)	
	0.9866	0.7186	1.4078		0.9957	0.7252	0.8896	
	0.9824	1.0004		1.9909		1.0096	1.2581	
	0.9802	1.1165	2.225	2.2259		1.1267	1.4066	
	0.9792	1.1741	2.334	45	0.9882	1.1849	1.4753	
	0.9739	1.4114	2.81	55	0.9828	1.4244	1.7792	1
		m=	2.030	14		m=	1.27124	1
	QSTD	b=	-0.046		QA	b=	-0.02917	
		r=	0.999	95		r=	0.99995	
				Calculatio	ns			
	and the second s)/Pstd)(Tstd/Ta	а)	Va=]		
	Qstd=	Vstd/∆Time			Qa=	Va/∆Time]
			For subsequ	ent flow ra	te calculatio	ns:		
	Qstd=	$1/m\left(\sqrt{\Delta H}\right)$	Pa Pstd Tstd	-b)	Qa=			
	Standard	Conditions						-
Tstd:	298.15	°К				RECA	LIBRATION	
Pstd:		mm Hg			110 504	1	1 11	
Alle and then the		(ey	1120)				nnual recalibrati	
		ter reading (i eter reading					Regulations Part	
		perature (°K)					, Reference Met	
		ressure (mm					ended Particulat	
b: intercept					th	e Atmosphe	ere, 9.2.17, page	30
m: slope					L			

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

<u>www.tisch-env.cc</u> TOLL FREE: (877)263-761 FAX: (513)467-90



輝創工程有限公司

Sun Creation Engineering Limited

Calibration & Testing Laboratory

Certificate of Calibration 校正證書

Certificate No. : C204359 證書編號

ITEM TESTED / 送檢马	百百	(Job No. / 序引編號:IC20-1324)	Date of Receipt / 收件日期: 30 July 2020
Description / 儀器名稱	:	Sound Level Meter (EQ013)	
Manufacturer / 製造商	:	Rion	
Model No. / 型號	:	NL-52	
Serial No. / 編號	:	00921191	
Supplied By / 委託者	:	Action-United Environmental Services and Co	onsulting
		Unit A, 20/F., Gold King Industrial Building,	
		35-41 Tai Lin Pai Road, Kwai Chung, N.T.	

TEST CONDITIONS / 測試條件

Temperature / 溫度 : (23 ± 2)°C Line Voltage / 電壓 : --- Relative Humidity / 相對濕度 : (50 ± 25)%

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 5 August 2020

TEST RESULTS / 測試結果

The results apply to the particular unit-under-test only. The results do not exceed manufacturer's specification. The results are detailed in the subsequent page(s).

The test equipment used for calibration are traceable to National Standards via :

- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory
- The Bruel & Kjaer Calibration Laboratory, Denmark
- Agilent Technologies / Keysight Technologies
- Fluke Everett Service Center, USA

Tested By 測試

K P Cheuk

Assistant Engineer

K C Lee Engineer

Certified By 核證 Date of Issue 簽發日期 :

11 August 2020

The test equipment used for calibration is traceable to the National Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.

本證書所載校正用之測試器材均可溯源至國際標準。局部複印本證書需先獲本實驗所書面批准。

Sun Creation Engineering Limited – Calibration & Testing Laboratory c/o 4/F, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong 輝創工程有限公司 - 校正及檢測實驗所 c/o 香港新界屯門興安里一號四樓 Tel/電話: (852) 2927 2606 Fax/傳真: (852) 2744 8986 E-mail/電郵: callab@suncreation.com Website/網址: www.suncreation.com



輝創工程有限公司

Sun Creation Engineering Limited

Calibration & Testing Laboratory

Certificate of Calibration 校正證書

Certificate No. : C204359 證書編號

- 1. The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 12 hours, and switched on to warm up for over 10 minutes before the commencement of the test.
- 2. Self-calibration was performed before the test.
- 3. The results presented are the mean of 3 measurements at each calibration point.
- 4. Test equipment :

Equipment ID	Description	Certificate No.
CL280	40 MHz Arbitrary Waveform Generator	C200258
CL281	Multifunction Acoustic Calibrator	CDK1806821

- 5. Test procedure : MA101N.
- 6. Results :
- 6.1 Sound Pressure Level
- 6.1.1 Reference Sound Pressure Level

		Applied Value		UUT	IEC 61672		
Range	Function	Frequency	Time	Level	Freq.	Reading	Class 1 Spec.
(dB)		Weighting	Weighting	(dB)	(kHz)	(dB)	(dB)
30 - 130	L _A	Α	Fast	94.00	1	93.6	± 1.1

6.1.2 Linearity

	UU	Г Setting	Applie	d Value	UUT	
Range	Function	Frequency	uency Time		Freq.	Reading
(dB)		Weighting	Weighting	(dB)	(kHz)	(dB)
30 - 130	L _A	А	A Fast		1	93.6 (Ref.)
				104.00		103.6
				114.00		113.6

IEC 61672 Class 1 Spec. : \pm 0.6 dB per 10 dB step and \pm 1.1 dB for overall different.

6.2 Time Weighting

UUT Setting				Applie	d Value	UUT	IEC 61672
Range	Function	Frequency	Time	Level	Freq.	Reading	Class 1 Spec.
(dB)		Weighting	Weighting	(dB)	(kHz)	(dB)	(dB)
30 - 130	L _A	А	Fast	94.00	1	93.6	Ref.
			Slow			93.6	± 0.3

本證書所載校正用之測試器材均可溯源至國際標準。局部複印本證書需先獲本實驗所書面批准。

The test equipment used for calibration is traceable to the National Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.



Certificate of Calibration 校正證書

Certificate No. : C204359 證書編號

6.3 Frequency Weighting

6.3.1 A-Weighting

		Setting		Applied Value		UUT	IEC 61672
Range	Function	Frequency	Time	Level	Freq.	Reading	Class 1 Spec.
(dB)		Weighting	Weighting	(dB)		(dB)	(dB)
30 - 130	L_A	A	Fast	94.00	63 Hz	67.3	-26.2 ± 1.5
					125 Hz	77.4	-16.1 ± 1.5
					250 Hz	84.9	-8.6 ± 1.4
					500 Hz	90.3	-3.2 ± 1.4
					1 kHz	93.6	Ref.
					2 kHz	94.8	$+1.2 \pm 1.6$
					4 kHz	94.6	$+1.0 \pm 1.6$
					8 kHz	92.5	-1.1 (+2.1 ; -3.1)
					12.5 kHz	89.1	-4.3 (+3.0 ; -6.0)

6.3.2 C-Weighting

UUT Setting				Applied Value		UUT	IEC 61672
Range	Function	Frequency	Time	Level	Freq.	Reading	Class 1 Spec.
(dB)		Weighting	Weighting	(dB)		(dB)	(dB)
30 - 130	L _C	С	Fast	94.00	63 Hz	92.8	-0.8 ± 1.5
					125 Hz	93.4	-0.2 ± 1.5
					250 Hz	93.6	0.0 ± 1.4
					500 Hz	93.6	0.0 ± 1.4
					1 kHz	93.6	Ref.
					2 kHz	93.4	-0.2 ± 1.6
					4 kHz	92.8	-0.8 ± 1.6
					8 kHz	90.6	-3.0 (+2.1 ; -3.1)
					12.5 kHz	87.2	-6.2 (+3.0 ; -6.0)

The test equipment used for calibration is traceable to the National Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.

本證書所載校正用之測試器材均可溯源至國際標準。局部複印本證書需先獲本實驗所書面批准。



Certificate of Calibration 校正證書

Certificate No. : C204359 證書編號

Remarks : - UUT Microphone Model No. : UC-59 & S/N : 12910

- Mfr's Spec. : IEC 61672 Class 1

- Uncertainties of Applied Value :	94 dB :	63 Hz - 125 Hz	: ± 0.35 dB
			$\pm 0.30 \text{ dB}$
		1 kHz	$\pm 0.20 \text{ dB}$
		2 kHz - 4 kHz	$\pm 0.35 \text{ dB}$
		8 kHz	$\pm 0.45 \text{ dB}$
		12.5 kHz	$\pm 0.70 \text{ dB}$
	104 dB :	1 kHz	$\pm 0.10 \text{ dB}$ (Ref. 94 dB)
	114 dB :	1 kHz	$\pm 0.10 \text{ dB}$ (Ref. 94 dB)

- The uncertainties are for a confidence probability of not less than 95 %.

Note :

Only the original copy or the laboratory's certified true copy is valid.

The values given in this Certificate only relate to the values measured at the time of the test and any uncertainties quoted will not include allowance for the equipment long term drift, variations with environment changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement. Sun Creation Engineering Limited shall not be liable for any loss or damage resulting from the use of the equipment.

The test equipment used for calibration is traceable to the National Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.



Sun Creation Engineering Limited Calibration & Testing Laboratory

Calibration & lesting Laboratory

Certificate of Calibration 校正證書

Certificate No. : C205469 證書編號

ITEM TESTED / 送檢項目	(Job No. / 序引編號: IC20-1324) Date of Receipt / 收件日期: 22 September 2020		
Description / 儀器名稱 :	Sound Level Meter (EQ015)		
Manufacturer / 製造商 :	Rion		
Model No. / 型號 :	NL-52		
Serial No. / 編號 :	00142581		
Supplied By / 委託者 :	Action-United Environmental Services and Consulting		
	Unit A, 20/F., Gold King Industrial Building,		
	35-41 Tai Lin Pai Road, Kwai Chung, N.T.		

TEST CONDITIONS / 測試條件

Temperature / 溫度 : (23 ± 2)°C Line Voltage / 電壓 : --- Relative Humidity / 相對濕度 : (50±25)%

TEST SPECIFICATIONS / 測試規範

Calibration

DATE OF TEST / 測試日期 : 29 September 2020

TEST RESULTS / 測試結果

The results apply to the particular unit-under-test only. The results do not exceed manufacturer's specification. (after adjustment) The results are detailed in the subsequent page(s).

The test equipment used for calibration are traceable to National Standards via :

- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory

- Agilent Technologies / Keysight Technologies
- Fluke Everett Service Center, USA
- The Bruel & Kjaer Calibration Laboratory, Denmark

Tested By 測試

K P Cheuk Assistant Engineer

Certified By 核證

Un H C Chan Engineer

Date of Issue 簽發日期 ÷

30 September 2020

The test equipment used for calibration is traceable to the National Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.

本證書所載校正用之測試器材均可溯源至國際標準。局部複印本證書需先獲本實驗所書面批准。

Sun Creation Engineering Limited – Calibration & Testing Laboratory c/o 4/F, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong 輝創工程有限公司 - 校正及檢測實驗所 c/o 香港新界屯門興安里一號四樓 Tel/電話: (852) 2927 2606 Fax/傳真: (852) 2744 8986 E-mail/電郵: callab@suncreation.com Website/網址: www.suncreation.com



Sun Creation Engineering Limited

Calibration & Testing Laboratory

Certificate of Calibration 校正證書

Certificate No. : C205469 證書編號

- 1. The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 12 hours, and switched on to warm up for over 10 minutes before the commencement of the test.
- 2. Self-calibration using the internal standard (After Adjustment) was performed before the test 6.1.1.2 to 6.3.2.
- 3. The results presented are the mean of 3 measurements at each calibration point.
- 4. Test equipment :

Equipment ID	Description	Certificate No.
CL280	40 MHz Arbitrary Waveform Generator	C200258
CL281	Multifunction Acoustic Calibrator	CDK1806821

- 5. Test procedure : MA101N.
- 6. Results :
- 6.1 Sound Pressure Level
- 6.1.1 Reference Sound Pressure Level
- 6.1.1.1 Before Adjustment

UUT Setting			Applied Value		UUT	IEC 61672	
Range	Function	Frequency	Time	Level	Freq.	Reading	Class 1 Spec.
(dB)		Weighting	Weighting	(dB)	(kHz)	(dB)	(dB)
30 - 130	L _A	Α	Fast	94.00	1	* 92.4	± 1.1
* Out of IEC	61672 Class	1 Spec					

* Out of IEC 61672 Class 1 Spec.

6.1.1.2 After Adjustment

	UUT	Setting		Applie	d Value	UUT	IEC 61672
Range	Function	Frequency	Time	Level	Freq.	Reading	Class 1 Spec.
(dB)		Weighting	Weighting	(dB)	(kHz)	(dB)	(dB)
30 - 130	L _A	А	Fast	94.00	1	94.0	± 1.1

6.1.2 Linearity

UUT Setting			Applied Value		UUT	
Range	Function	Frequency	Time	Level	Freq.	Reading
(dB)		Weighting	Weighting	(dB)	(kHz)	(dB)
30 - 130	L _A	Α	Fast	94.00	1	94.0 (Ref.)
				104.00		104.0
				114.00		114.2

IEC 61672 Class 1 Spec. : \pm 0.6 dB per 10 dB step and \pm 1.1 dB for overall different.

The test equipment used for calibration is traceable to the National Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.



Sun Creation Engineering Limited

Calibration & Testing Laboratory

Certificate of Calibration 校正證書

Certificate No. : C205469 證書編號

6.2 Time Weighting

	UUT Setting			Applied Value		UUT	IEC 61672
Range	Function	Frequency	Time	Level	Freq.	Reading	Class 1 Spec.
(dB)		Weighting	Weighting	(dB)	(kHz)	(dB)	(dB)
30 - 13	0 L _A	A	Fast	94.00	1	94.0	Ref.
			Slow			94.0	± 0.3

6.3 Frequency Weighting

6.3.1 A-Weighting

UUT Setting			Appl	ied Value	UUT	IEC 61672	
Range	Function	Frequency	Time	Level	Freq.	Reading	Class 1 Spec.
(dB)		Weighting	Weighting	(dB)		(dB)	(dB)
30 - 130	L _A	А	Fast	94.00	63 Hz	67.7	-26.2 ± 1.5
					125 Hz	77.8	-16.1 ± 1.5
					250 Hz	85.3	-8.6 ± 1.4
					500 Hz	90.7	-3.2 ± 1.4
					1 kHz	94.0	Ref.
					2 kHz	95.2	$+1.2 \pm 1.6$
					4 kHz	95.0	$+1.0 \pm 1.6$
					8 kHz	93.0	-1.1 (+2.1 ; -3.1)
					12.5 kHz	89.6	-4.3 (+3.0 ; -6.0)

6.3.2 C-Weighting

	UUT Setting			Appli	ed Value	UUT	IEC 61672
Range	Function	Frequency	Time	Level	Freq.	Reading	Class 1 Spec.
(dB)		Weighting	Weighting	(dB)	_	(dB)	(dB)
30 - 130	L _C	С	Fast	94.00	63 Hz	93.1	-0.8 ± 1.5
					125 Hz	93.8	-0.2 ± 1.5
					250 Hz	94.0	0.0 ± 1.4
					500 Hz	94.0	0.0 ± 1.4
					1 kHz	94.0	Ref.
					2 kHz	93.8	-0.2 ± 1.6
					4 kHz	93.2	-0.8 ± 1.6
					8 kHz	91.1	-3.0 (+2.1 ; -3.1)
					12.5 kHz	87.6	-6.2 (+3.0 ; -6.0)

The test equipment used for calibration is traceable to the National Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.



Sun Creation Engineering Limited Calibration & Testing Laboratory

Certificate of Calibration 校正證書

Certificate No. : C205469 證書編號

Remarks : - UUT Microphone Model No. : UC-59 & S/N : 15585

- Mfr's Spec. : IEC 61672 Class 1

- Uncertainties of Applied Value :	250 Hz - 500 Hz 1 kHz 2 kHz - 4 kHz 8 kHz 12.5 kHz 104 dB : 1 kHz	: ± 0.20 dB : ± 0.35 dB : ± 0.45 dB : ± 0.70 dB : ± 0.10 dB (Ref. 94 dB)
	114 dB : 1 kHz	$\pm 0.10 \text{ dB} (\text{Ref. 94 dB})$

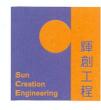
- The uncertainties are for a confidence probability of not less than 95 %.

Note :

Only the original copy or the laboratory's certified true copy is valid.

The values given in this Certificate only relate to the values measured at the time of the test and any uncertainties quoted will not include allowance for the equipment long term drift, variations with environment changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement. Sun Creation Engineering Limited shall not be liable for any loss or damage resulting from the use of the equipment.

The test equipment used for calibration is traceable to the National Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.



Sun Creation Engineering Limited Calibration & Testing Laboratory

Certificate of Calibration 校正證書

Certificate No. : C210388 證書編號

ITEM TESTED / 送檢項目	(Job No. / 序引編號:IC21-0122)	Date of Receipt / 收件日期: 19 January 2021				
Description / 儀器名稱 :	Sound Calibrator (EQ089)					
Manufacturer / 製造商 :	Rion					
Model No. / 型號 :	NC-75					
Serial No. / 編號 :	34680623					
Supplied By / 委託者 :	Action-United Environmental Services an	d Consulting				
	Unit A, 20/F., Gold King Industrial Building,					
	35-41 Tai Lin Pai Road, Kwai Chung, N.	Г.				
TEST CONDITIONS / 測試條件						

Temperature / 溫度 : (23 ± 2)°C

Line Voltage / 電壓 : ----

Relative Humidity / 相對濕度 : (50±25)%

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 20 January 2021

TEST RESULTS / 測試結果

The results apply to the particular unit-under-test only. The results do not exceed manufacturer's specification. The results are detailed in the subsequent page(s).

The test equipment used for calibration are traceable to National Standards via :

- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory
- The Bruel & Kjaer Calibration Laboratory, Denmark
- Agilent Technologies / Keysight Technologies
- Fluke Everett Service Center, USA

Tested By 測試

K P Cheuk

Assistant Engineer

K ¢ Lee Engineer

Certified By 核證

Date of Issue
簽發日期

:

20 January 2021

The test equipment used for calibration is traceable to the National Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.



Sun Creation Engineering Limited Calibration & Testing Laboratory

Certificate of Calibration 校正證書

Certificate No.: C210388 證書編號

- 1. The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 12 hours before the commencement of the test.
- 2. The results presented are the mean of 3 measurements at each calibration point.
- 3. Test equipment :

Equipment ID CL130 CL281 TST150A Description Universal Counter Multifunction Acoustic Calibrator Measuring Amplifier <u>Certificate No.</u> C203952 CDK1806821 C201309

- 4. Test procedure : MA100N.
- 5. Results :
- 5.1 Sound Level Accuracy

UUT	Measured Value	Mfr's Spec.	Uncertainty of Measured Value
Nominal Value	(dB)	(dB)	(dB)
94 dB, 1 kHz	94.0	± 0.25	± 0.2

5.2 Frequency Accuracy

UUT Nominal Value	Measured Value	Mfr's	Uncertainty of Measured Value
(kHz)	(kHz)	Spec.	(Hz)
1	1.000 0	$1 \text{ kHz} \pm 0.1 \%$	± 0.1

Remark : The uncertainties are for a confidence probability of not less than 95 %.

Note :

Only the original copy or the laboratory's certified true copy is valid.

The values given in this Certificate only relate to the values measured at the time of the test and any uncertainties quoted will not include allowance for the equipment long term drift, variations with environment changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement. Sun Creation Engineering Limited shall not be liable for any loss or damage resulting from the use of the equipment.

The test equipment used for calibration is traceable to the National Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.



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

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

CONTACT: CLIENT:	BEN TAM ACTION UNITED ENVIRONMENT SERVICES AND CONSULTING	WORK ORDER:	HK2115892
ADDRESS:	RM A 20/F., GOLD KING IND BLDG, NO. 35-41 TAI LIN PAI ROAD, KWAI CHUNG, N.T. HONG KONG	SUB-BATCH: LABORATORY: DATE RECEIVED: DATE OF ISSUE:	0 HONG KONG 21-Apr-2021 28-Apr-2021

SPECIFIC COMMENTS

Equipment information (Brand name, Model No., Serial No. and Equipment No.) is provided by client. The performance of the equipment stated in this report is checked with independent reference material and results compared against a calibrated secondary source.

The "Tolerance Limit" quoted is the acceptance criteria applicable for similar equipment used by the laboratory or quoted from relevant international standards.

The "Next Calibration Date" is recommended according to best practice principle as practised by the laboratory or quoted from relevant international standards.

The validity of equipment/ meter performance only applies to the result(s) stated in the report.

Equipment Type:	Multifunctional Meter
Service Nature:	Performance Check
Scope:	Conductivity, Dissolved Oxygen, pH Value, Turbidity, Salinity and Temperature
Brand Name/ Model No.:	[YSI]/ [Professional DSS]
Serial No./ Equipment No.:	[17B102764/17B100758]/ [EQW019]
Date of Calibration:	27-April-2021

GENERAL COMMENTS

This is the Final Report and supersedes any preliminary report with this batch number.

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Mr Chan Siu Ming, Vico Manager - Inorganic

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WORK ORDER:	HK2115892		A	
SUB-BATCH: DATE OF ISSUE: CLIENT:	0 28-Apr-2021 ACTION UNITED ENVIRONMEN	T SERVICES AND CONSULTING		
Equipment Type:	Multifunctional Meter			
Brand Name/ Model No.:	[YSI]/ [Professional DSS]			
Serial No./ Equipment No.:	[17B102764/17B100758]/ [EC	2W019]		
Date of Calibration:	27-April-2021	Date of Next Calibration:	27-July-2021	

PARAMETERS:

Conductivity Method Ref: APHA (21st edition), 2510B

Expected Reading (µS/cm)	Displayed Reading (µ S/cm)	Tolerance (%)		
146.9	153.2	+4.3		
6667	6371	-4.4		
12890	12944	+0.4		
58670	58393	-0.5		
	Tolerance Limit (%)	±10.0		

Dissolved Oxygen

en Method Ref: APHA (21st edition), 45000: G

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)
3.52	3.50	-0.02
5.94	5.87	-0.07
7.12	7.08	-0.04
	Tolerance Limit (mg/L)	±0.20

pH Value

Method Ref: APHA (21st edition), 4500H: B

Expected Reading (pH unit)		Displayed Reading (pH unit)	Tolerance (pH unit)	
	4.O	4.10	+0.10	
	7.0	7.16	+0.16	
	10.0	9.89	-0.11	
		Tolerance Limit (pH unit)	±0.20	

Remark: "Displayed Reading" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.

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Mr Chan Siu Ming, Vico Manager - Inorganic

	WORK ORDER:	HK2115892		A	
	SUB-BATCH: DATE OF ISSUE: CLIENT:	0 28-Apr-2021 ACTION UNITED ENVIRONMEN	T SERVICES AND CONSULTING		
	Equipment Type:	Multifunctional Meter			
N S	Brand Name/ Model No.:	[YSI]/ [Professional DSS]			
	Serial No./ Equipment No.:	[17B102764/17B100758]/ [EC	2W019]		
	Date of Calibration:	27-April-2021	Date of Next Calibration:	27-July-2021	

PARAMETERS:

Turbidity

Method Ref: APHA (21st edition), 2130B

Expected Reading (NTU)	Displayed Reading (NTU)	Tolerance (%)
0	0.64	
4	4.04	+1.0
40	38.66	-3.4
80	80.07	+ O. 1
400	392.82	-1.8
800	802.32	+0.3
	Tolerance Limit (%)	±10.0

Salinity

Method Ref: APHA (21st edition), 2520B

Expected Reading (ppt)	Displayed Reading (ppt)	Tolerance (%)
0	0.02	
10	10.56	+5.6
20	19.50	-2.5
30	30.30	+1.0
	Tolerance Limit (%)	±10.0

Remark: "Displayed Reading" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.

Ma Ain

Mr Chan Siu Ming, Vico Manager - Inorganic

WORK ORDER:	HK2115892			ALS
SUB-BATCH: DATE OF ISSUE: CLIENT:	0 28-Apr-2021 ACTION UNITED ENVIRONMEN	T SERVICES AND CONSULTING		
Equipment Type:	Multifunctional Meter			
Brand Name/ Model No.:	[YSI]/ [Professional DSS]			
Serial No./ Equipment No.:	[17B102764/17B100758]/ [EQ	W019]		
Date of Calibration:	27-April-2021	Date of Next Calibration:	27-July-2021	
PARAMETERS:				

Temperature

Method Ref: Section 6 of International Accreditation New Zealand Technical Guide No. 3 Second edition March 2008: Working Thermometer Calibration Procedure

Guide No. 5 Second edition March 2008. Working memorineter campration Procedure.					
Expected Reading (°C) Displayed Reading (°C)		Tolerance (°C)			
10.5	10.3	-0.2			
21.0	20.8	-0.2			
40.5	40.1	-0.4			
	Tolerance Limit (°C)	±2.0			

Remark: "Displayed Reading" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.

Ma Ali

Mr Chan Siu Ming, Vico Manager - Inorganic



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

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

CONTACT: CLIENT:	MR BEN TAM ACTION UNITED ENVIRONMENT SERVICES AND CONSULTING	WORK ORDER: SUB-BATCH:	HK2035809 ⁰
ADDRESS:	RM A 20/F., GOLD KING IND BLDG,	LABORATORY:	HONG KONG
	NO. 35-41 TAI LIN PAI ROAD,	DATE RECEIVED:	18-Sep-2020
	KWAI CHUNG, N.T. HONG KONG	DATE OF ISSUE:	05-Oct-2020

SPECIFIC COMMENTS

The calibration of flow rate performed by AUES staff on 02 September 2020.

Scope of Test:	Flow rate
Equipment Type:	Flow Meter
Brand Name:	Global Water
Model No.:	FP211
Serial No.:	1449006330
Equipment No.:	
Calibration Factor:	314
Date of Calibration:	02 September, 2020

GENERAL COMMENTS

This is the Final Report and supersedes any preliminary report with this batch number.

Mr. Fung Lim Chee, Richard Managing Director, Life Sciences Hong Kong

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Page 1 of 2

Work Order:	HK2035809
Sub-batch:	0
Date of Issue:	05-Oct-2020
Client:	ACTION UNITED ENVIRONMENT SERVICES AND CONSULTING

Reference Equipment:

Model: SonTek IQ Standard Serial Number : IQ1217004

Equipment to be calibrated:

Equipment Type:	Flow Meter
Brand Name:	Global Water
Model No.:	FP211
Serial No.:	1449006330
Equipment No.:	
Calibration Factor:	314

Date of Calibration: 02 September, 2020

Parameters: The calibration of flow meter is verified with standard flow meter on site by AUES Staff.

Flow rate

Trial	Reading of Reference Equipment (m/s) SonTek IQ Standard Serial No: IQ1217004	Reading of Equipment to be calibrated (m/s) Global Water FP211 Serial No. 1449006330
1	0.09	0.1
2	0.22	0.2
3	0.43	0.4
5	0.98	1.0
6	1.13	1.1

Mr. Fung Lim Cheer Richard Managing Director, Life Sciences Hong Kong



Hong Kong Accreditation Service 香港認可處

Certificate of Accreditation

認可證書

This is to certify that 特此證明

ALS TECHNICHEM (HK) PTY LIMITED

11/F., Chung Shun Knitting Centre, 1-3 Wing Yip Street, Kwai Chung, New Territories, Hong Kong 香港新界葵涌永業街1-3號忠信針織中心11樓

has been accepted by the HKAS Executive, on the recommendation of the Accreditation Advisory Board, as a 為香港認可處執行機關根據認可諮詢委員會建議而接受的

HOKLAS Accredited Laboratory

「香港實驗所認可計劃」認可實驗所

This laboratory meets the requirements of ISO / IEC 17025 : 2005 – General requirements for the competence 此實驗所符合ISO / IEC 17025 : 2005 –《測試及校正實驗所能力的通用規定》所訂的要求, of testing and calibration laboratories and it has been accredited for performing specific tests or calibrations as 獲認可進行載於香港實驗所認可計劃《認可實驗所名冊》內下述測試類別中的指定 listed in the HOKLAS Directory of Accredited Laboratories within the test category of 測試或校正工作

Environmental Testing 環境測試

This laboratory is accredited in accordance with the recognised International Standard ISO / IEC 17025 : 2005. 本實驗所乃根據公認的國際標準 ISO / IEC 17025 : 2005 獲得認可。 This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory 這項認可資格演示在指定範疇所需的技術能力及實驗所質量管理體系的運作 quality management system (see joint IAF-ILAC-ISO Communiqué). (見國際認可論壇、國際實驗所認可合作組織及國際標準化組織的聯合公報)。

The common seal of the Hong Kong Accreditation Service is affixed hereto by the authority of the HKAS Executive 香港認可處根據認可處執行機關的權限在此蓋上通用印章

CHAN Sing Sing, Terence, Executive Administrator 執行幹事 陳成城 Issue Date : 5 May 2009 簽發日期:二零零九年五月五日

Registration Number : HCKLAS 066 註冊號碼:



Date of First Registration : 15 September 1995 首次註冊日期:一九九五年九月十五日

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Appendix F

Event and Action Plan of Air Quality, Noise and Water Quality

Event and Action Plan for air quality

F =4	Action				
Event	ET	IEC	ER	Contractor	
Action level exceedance for one sample	 Identify source, investigate the causes of exceedance and propose remedial measures; Inform IEC and ER; Repeat measurement to confirm finding; Increase monitoring frequency to daily. 	 Check monitoring data submitted by ET; Check Contractor's working method. 	1. Notify Contractor	 Rectify any unacceptable practice; Amend working methods if appropriate. 	
Action level exceedance for two or more consecutive samples	 Identify source; Inform IEC and ER; Advise the ER on the effectiveness of the proposed remedial measures; Repeat measurements to confirm findings; Increase monitoring frequency to daily; Discuss with IEC and Contractor on remedial actions required; If exceedance continues, arrange meeting with IEC and ER; If exceedance stops, cease additional monitoring. 	 Check monitoring data submitted by ET; Check Contractor's working method; Discuss with ET and Contractor on possible remedial measures; Advise the ET on the effectiveness of the proposed remedial measures; Supervise Implementation of remedial measures. 	 Confirm receipt of notification of failure in writing; Notify Contractor; Ensure remedial measures properly implemented. 	 Submit proposals for remedial to ER within 3 working days of notification; Implement the agreed proposals; Amend proposal if appropriate. 	
Limit level exceedance for one sample	 Identify source, investigate the causes of exceedance and propose remedial measures; Inform ER, Contractor and EPD; Repeat measurement to confirm finding; Increase monitoring frequency to daily; Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results. 	 Check monitoring data submitted by ET; Check Contractor's working method; Discuss with ET and Contractor on possible remedial measures; Advise the ER on the effectiveness of the proposed remedial measures; Supervise implementation of remedial measures. 	 Confirm receipt of notification of failure in writing; Notify Contractor; Ensure remedial measures properly implemented. 	 Take immediate action to avoid further exceedance; Submit proposals for remedial actions to IEC within 3 working days of notification; Implement the agreed proposals; Amend proposal if appropriate. 	
Limit level exceedance for two or more consecutive samples	 Notify IEC, ER, Contractor and EPD; Identify source; Repeat measurement to confirm findings; Increase monitoring frequency to daily; Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented; Arrange meeting with IEC and ER to discuss the remedial actions to be taken; Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; If exceedance stops, cease additional monitoring. 	 Discuss amongst ER, ET, and Contractor on the potential remedial actions; Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly; Supervise the implementation of remedial measures. 	 Confirm receipt of notification of failure in writing; Notify Contractor; In consultation with the IEC, agree with the Contractor on the remedial measures to be implemented; Ensure remedial measures properly implemented; If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated. 	 Take immediate action to avoid further exceedance; Submit proposals for remedial actions to IEC within 3 working days of notification; Implement the agreed proposals; Resubmit proposals if problem still not under control; Stop the relevant portion of works as determined by the ER until the exceedance is abated. 	

Note: ET – Environmental Team IEC – Independent Environmental Checker ER – Engineer's Representative

Event and Action Plan for Construction Noise

E-com4	Action				
Event	ET	IEC	ER	Contractor	
Action Level Exceedance	 Notify IEC, ER and Contractor; Carry out investigation; Report the results of investigation to the IEC, ER and Contractor; Discuss with the Contractor and formulate remedial measures; Increase monitoring frequency to check mitigation effectiveness 	3. Supervise the implementation of	failure in writing;2. Notify Contractor;3. Require Contractor to propose remedial measures for the analyzed	 Submit noise mitigation proposals to IEC and ER; Implement noise mitigation proposals 	
Limit Level Exceedance	 Identify source; Inform IEC, ER, EPD and Contractor; Repeat measurements to confirm findings; Increase monitoring frequency; Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented; Inform IEC, ER and EPD the causes and actions taken for the exceedances; Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; If exceedance stops, cease additional monitoring. 	actions; 2. Review Contractors remedial actions whenever necessary to assure their	 Confirm receipt of notification of failure in writing; Notify Contractor; Require Contractor to propose remedial measures for the analyzed noise problem; Ensure remedial measures properly 	 Take immediate action to avoid further exceedance; Submit proposals for remedial actions to IEC within 3 working days of notification; Implement the agreed proposals; Resubmit proposals if problem still not under control; Stop the relevant portion of works as determined by the ER until the exceedance is abated. 	

Note:

ET – Environmental Team

IEC – Independent Environmental Checker

ER – Engineer's Representative

Event and Action Plan for Water Quality

Event	Action			
Even	ET	IEC	ER	Contractor
Action level exceedance for one sampling day	 Inform IEC, Contractor and ER; Check monitoring data, all plant, equipment and Contractor's working methods; and Discuss remedial measures with IEC and Contractor and ER. 	 Discuss with ET, ER and Contractor on the implemented mitigation measures; Review proposals on remedial measures submitted by Contractor and advise the ER accordingly; and Review and advise the ET and ER on the effectiveness of the implemented mitigation measures. 	 Discuss with IEC, ET and Contractor on the implemented mitigation measures; Make agreement on the remedial measures to be implemented; Supervise the implementation of agreed remedial measures. 	 Identify source(s) of impact; Inform the ER and confirm notification of the non-compliance in writing; Rectify unacceptable practice; Check all plant and equipment; Consider changes of working methods; Discuss with ER, ET and IEC and purpose remedial measures to IEC and ER; and Implement the agreed mitigation measures.
Action level exceedance for more than one consecutive sampling days	 Repeat in-situ measurement on next day of exceedance to confirm findings; Inform IEC, contractor and ER; Check monitoring data, all plant, equipment and Contractor's working methods; Discuss remedial measures with IEC, contractor and ER Ensure remedial measures are implemented 	 Discuss with ET, Contractor and ER on the implemented mitigation measures; Review the proposed remedial measures submitted by Contractor and advise the ER accordingly; and Review and advise the ET and ER on the effectiveness of the implemented mitigation measures. 	 Discuss with ET, IEC and Contractor on the proposed mitigation measures; Make agreement on the remedial measures to be implemented ; and Discuss with ET, IEC and Contractor on the effectiveness of the implemented remedial measures. 	 Identify source(s) of impact; Inform the ER and confirm notification of the non-compliance in writing; Rectify unacceptable practice; Check all plant and equipment and consider changes of working methods; Discuss with ET, IEC and ER and submit proposal of remedial measures to ER and IEC within 3 working days of notification; and Implement the agreed mitigation measures.
Limit level exceedance for one sampling day	 Repeat measurement on next day of exceedance to confirm findings; Inform IEC, contractor and ER; Rectify unacceptable practice; Check monitoring data, all plant, equipment and Contractor's working methods; Consider changes of working methods; Discuss mitigation measures with IEC, ER and Contractor; and Ensure the agreed remedial measures are implemented 	 Discuss with ET, Contractor and ER on the implemented mitigation measures; Review the proposed remedial measures submitted by Contractor and advise the ER accordingly; and Review and advise the ET and ER on the effectiveness of the implemented mitigation measures. 	 Discuss with ET, IEC and Contractor on the implemented remedial measures; Request Contractor to critically review the working methods; Make agreement on the remedial measures to be implemented; and Discuss with ET, IEC and Contractor on the effectiveness of the implemented remedial measures. 	 Identify source(s) of impact; Inform the ER and confirm notification of the non-compliance in writing; Rectify unacceptable practice; Check all plant and equipment and consider changes of working methods; Discuss with ET, IEC and ER and submit proposal of additional mitigation measures to ER and IEC within 3 working days of notification; and Implement the agreed remedial measures.
Limit level exceedance for more than one consecutive sampling days	 Inform IEC, contractor and ER; Check monitoring data, all plant, equipment and Contractor's working methods; Discuss mitigation measures with IEC, ER and Contractor; Ensure mitigation measures are implemented; and Increase the monitoring frequency to daily until no exceedance of Limit Level for two consecutive days 	 Discuss with ET, Contractor and ER on the implemented mitigation measures; Review the proposed remedial measures submitted by Contractor and advise the ER accordingly; and Review and advise the ET and ER on the effectiveness of the implemented mitigation measures. 	 Discuss with ET, IEC and Contractor on the implemented remedial measures; Request Contractor to critically review the working methods; Make agreement on the remedial measures to be implemented; Discuss with ET and IEC on the effectiveness of the implemented mitigation measures; and Consider and instruct, if necessary, the Contractor to slow down or to stop all or part of the construction activities until no exceedance of Limit level. 	 Identify source(s) of impact; Inform the ER and confirm notification of the non-compliance in writing; Rectify unacceptable practice; Check all plant and equipment and consider changes of working methods; Discuss with ET, IEC and ER and submit proposal of additional mitigation measures to ER and IEC within 3 working days of notification; and Implement the agreed remedial measures; and As directed by the ER, to slow down or stop all or part of the construction activities until no exceedance of Limit level.

Note: ET - Environmental Team IEC - Independent Environmental Checker ER - Engineer's Representative Each step of actions required shall be implemented within 1 working day unless otherwise specified or agreed with EPD.



Appendix G

Monitoring Schedules of the Reporting Month and Coming Month



			Air Qualit	y Monitoring	
	Date	Noise Monitoring	1-Hour TSP	24-Hour TSP	Water Quality
Sat	1-May-21				
Sun	2-May-21				
Mon	3-May-21				\checkmark
Tue	4-May-21				
Wed	5-May-21			✓	\checkmark
Thu	6-May-21	✓	✓		
Fri	7-May-21				\checkmark
Sat	8-May-21				
Sun	9-May-21				
Mon	10-May-21				\checkmark
Tue	11-May-21			✓	
Wed	12-May-21	✓	\checkmark		\checkmark
Thu	13-May-21				
Fri	14-May-21				\checkmark
Sat	15-May-21				
Sun	16-May-21				
Mon	17-May-21			✓	\checkmark
Tue	18-May-21	✓	✓		
Wed	19-May-21				
Thu	20-May-21				\checkmark
Fri	21-May-21				
Sat	22-May-21			✓	\checkmark
Sun	23-May-21				
Mon	24-May-21	✓	√		\checkmark
Tue	25-May-21				
Wed	26-May-21				\checkmark
Thu	27-May-21				
Fri	28-May-21			✓	✓
Sat	29-May-21		✓		
Sun	30-May-21				
Mon	31-May-21				✓

Impact Monitoring Schedule of Air Quality, Noise and Water Quality - May 2021

✓	Monitoring Day	
	Sunday or Public Holiday	



Date		Natao Manifesta	Noise Monitoring Air Quality Monitoring		Water Qualit-	
	Date	Noise Monitoring	1-Hour TSP	24-Hour TSP	Water Quality	
Tue	1-Jun-21					
Wed	2-Jun-21				√	
Thu	3-Jun-21			✓		
Fri	4-Jun-21	✓	√		✓	
Sat	5-Jun-21					
Sun	6-Jun-21					
Mon	7-Jun-21				√	
Tue	8-Jun-21					
Wed	9-Jun-21			✓	√	
Thu	10-Jun-21	✓	√			
Fri	11-Jun-21				✓	
Sat	12-Jun-21					
Sun	13-Jun-21					
Mon	14-Jun-21					
Tue	15-Jun-21			✓	√	
Wed	16-Jun-21	✓	√			
Thu	17-Jun-21				✓	
Fri	18-Jun-21					
Sat	19-Jun-21				√	
Sun	20-Jun-21					
Mon	21-Jun-21			✓	✓	
Tue	22-Jun-21	✓	√			
Wed	23-Jun-21				✓	
Thu	24-Jun-21					
Fri	25-Jun-21				✓	
Sat	26-Jun-21			✓		
Sun	27-Jun-21					
Mon	28-Jun-21	✓	√		√	
Tue	29-Jun-21					
Wed	30-Jun-21				√	

Impact Monitoring Schedule of Air Quality, Noise and Water Quality – June 2021

✓	Monitoring Day
	Sunday or Public Holiday



Appendix H

Monitoring Data

- 24-hour TSP Air Quality
- Noise
- Water Quality



Air Quality (24-hour TSP)



						24-Hou	ır TSP	Monitor	ing Data f	for ASR-1					
DATE	SAMPLE NUMBER		APSED TI	ME	CHA	RT REA	DING	AVG TEMP	AVG AIR PRESS	STANDARD FLOW RATE		FILTER W	EIGHT (g)	DUST WEIGHT COLLECTED	24-Hr TSP $(\mu g/m^3)$
		INITIAL	FINAL	(min)	MIN	MAX	AVG	(°C)	(hPa)	(m ³ /min)	(std m ³)	INITIAL	FINAL	(g)	
5-May-21	27079	23974.74	23998.74	1440.00	42	42	42.0	26.6	1012.9	1.47	2116	2.8297	2.8894	0.0597	28
11-May-21	27093	23998.74	24022.74	1440.00	42	42	42.0	29.2	1008.3	1.46	2105	2.8505	3.0172	0.1667	79
17-May-21	27111	24022.74	24046.74	1440.00	44	44	44.0	30.4	1009.8	1.51	2178	2.6782	2.7801	0.1019	47
22-May-21	27145	24046.74	24070.74	1440.00	43	43	43.0	30.5	1007	1.43	2063	2.6584	2.7479	0.0895	43
28-May-21	27195	24070.74	24094.74	1440.00	44	44	44.0	30.6	1009.6	1.46	2100	2.6742	2.7513	0.0771	37

						24-Hou	ır TSP	Monitor	ring Data f	for ASR-2					
DATE	SAMPLE NUMBER		APSED TI	ME	CHA	RT REAI	DING	AVG TEMP	AVG AIR PRESS	STANDARD FLOW RATE	AIR VOLUME	FILTER W	<i>\U</i> /	DUST WEIGHT COLLECTED	24-Hr TSP $(\mu g/m^3)$
		INITIAL	FINAL	、 <i>,</i>		MAX	AVG	(°C)	(hPa)	(m ³ /min)	(std m ³)	INITIAL	FINAL	(g)	
5-May-21	27078	21389.33	21413.33	1440.00	39	39	39.0	26.6	1012.9	1.33	1909	2.8436	2.9073	0.0637	33
11-May-21	27092	21413.33	21437.33	1440.00	39	39	39.0	29.2	1008.3	1.32	1900	2.8386	2.9015	0.0629	33
17-May-21	27110	21437.33	21461.33	1440.00	41	41	41.0	30.4	1009.8	1.37	1972	2.6719	2.7217	0.0498	25
22-May-21	27144	21461.33	21485.33	1440.00	41	41	41.0	30.5	1007	1.36	1955	2.6491	2.6835	0.0344	18
28-May-21	27194	21485.33	21509.33	1440.00	43	43	43.0	30.6	1009.6	1.41	2034	2.6894	2.7306	0.0412	20

					2	24-Hou	r TSP I	Monitori	ng Data f	or ASR-3a					
DATE	SAMPLE NUMBER		APSED TI	ME	CHA	RT REA	DING	AVG TEMP	AVG AIR PRESS	STANDARD FLOW RATE	AIR VOLUME	FILTER W	(U)	DUST WEIGHT COLLECTED	24-Hr TSP $(\mu g/m^3)$
		INITIAL	FINAL	(min)	MIN	MAX	AVG	(°C)	(hPa)	(m ³ /min)	(std m ³)	INITIAL	FINAL	(g)	
5-May-21	27078	15180.84	15204.84	1440.00	40	40	40.0	26.6	1012.9	1.49	2144	2.7949	2.8570	0.0621	29
11-May-21	27091	15204.84	15228.02	1390.80	39	39	39.0	29.2	1008.3	1.46	2032	2.8255	2.8742	0.0487	24
17-May-21	27109	15228.02	15253.02	1500.00	41	41	41.0	30.4	1009.8	1.50	2256	2.6737	2.7168	0.0431	19
22-May-21	27077	15253.02	15277.02	1440.00	41	41	41.0	30.5	1007	1.50	2155	2.8437	2.8982	0.0545	25
28-May-21	27193	15277.02	15301.02	1440.00	45	45	45.0	30.6	1009.6	1.59	2286	2.6658	2.7346	0.0688	30



Noise

								Noi	se Meast	irement	Results (dB(A)) o	of CN-1								
Date	Start Time	1 st Leq _{5min}	L10	L90	2 nd Leq _{5min}	L10	L90	3 nd Leq _{5min}	L10	L90	4 th Leq _{5min}	L10	L90	5 th Leq _{5min}	L10	L90	6 th Leq _{5min}	L10	L90	Leq _{30min}	Façade Collection (*)
6-May-21	13:05	69.3	73.1	62.9	68.3	73.4	61.8	66.7	72.1	61.4	68.8	72.5	61.2	68	71.6	62	67.5	70.7	62.8	68	71
12-May-21	9:06	67.4	70.5	63.5	70.6	73.5	66	68.6	70.5	65.5	67.8	69.5	65	67.2	68.5	65	68.2	69.5	66.5	68	71
18-May-21	13:08	74.3	77	61.5	61	64.5	58	64.8	69.5	56	67.8	72.5	56.5	68.6	69.5	67	70.6	75.5	59	70	73
24-May-21	13:01	66.4	69.1	62.5	67.5	70.1	63.7	65.5	69.5	60.1	66.1	68.3	63	68.1	70.5	64.1	66.6	69	63.8	67	70

(*) A façade correction of +3dB(A) has been added according to acoustical principles and EPD guidelines.

								Noi	se Meast	urement	t Results (dB(A)) o	of CN-2								
Date	Start Time	1 st Leq _{5min}	L10	L90	2 nd Leq _{5min}	L10	L90	3 nd Leq _{5min}	L10	L90	4 th Leq _{5min}	L10	L90	$5^{ m th}$ Leq $_{5 m min}$	L10	L90	6 th Leq _{5min}	L10	L90	Leq _{30min}	Façade Collection (*)
6-May-21	13:44	64.5	68.4	55	65.2	68.2	55.6	64.6	66.3	57.3	63.2	67.2	53.7	64.4	68.7	56	62.6	66.6	52.5	64	67
12-May-21	9:41	67.4	69	62	64.7	66.5	61.5	65.5	67	62	67.6	68.5	62	64.8	66.5	60.5	66.4	68	63.5	66	69
18-May-21	13:45	61.2	62	59.5	63.2	64	60.5	61.9	63.5	60	63.8	63.5	60	61.9	62.5	59	61	62	60	62	65
24-May-21	13:40	61.3	62.2	59.9	62.1	63.3	60.9	61.1	62.2	60	61.1	62.2	59.4	61.6	62.5	60.5	62.9	61.8	60.3	62	65
(*) A fa	çade co	rrection c	bf + 3dB(A)	A) has be	en added	accordin	ng to acoi	ustical pri	nciples a	nd EPD	guideline	5.									
								Noi	se Meas	urement	t Results (dB(A)) a	of CN-3								

Date	Start Time	1 st Leq _{5min}	L10	L90	2 nd Leq _{5min}	L10	L90	3 nd Leq _{5min}	L10	L90	4 th Leq _{5min}	L10	L90	5 th Leq _{5min}	L10	L90	6 th Leq _{5min}	L10	L90	Leq _{30min}	Façade Collection (*)
6-May-21	14:30	55.2	59	47.8	58.4	61.8	51.2	54.3	58.7	48.9	55	59.1	48.2	56.7	59.3	52.8	56.5	58.7	51.4	56	59
12-May-21	10:22	63.8	65	62	61.9	63	60.5	62.8	64	61	63.6	65.5	61	64.7	66.5	62.5	62.9	63.5	61.5	63	66
18-May-21	14:26	58.7	61.5	54	58.2	60	54	59.3	62.5	54.5	59.5	62	53.3	58	61.4	53.8	58.5	60	52.3	59	62
24-May-21	14:20	59.5	59.9	55	56.8	58.4	54.1	55.9	57.8	54.1	56.1	57.5	54.7	57.4	59.7	55.5	58	59.9	55.1	57	60

(*) A façade correction of +3dB(A) has been added according to acoustical principles and EPD guidelines.

								Noi	se Meas	urement	Results (dB(A)) a	of CN-4							
Date	Start Time	1 st Leq _{5min}	L10	L90	2 nd Leq _{5min}	L10	L90	3 nd Leq _{5min}	L10	L90	4 th Leq _{5min}	L10	L90	5 th Leq _{5min}	L10	L90	6 th Leq _{5min}	L10	L90	Leq _{30min}
6-May-21	15:15	58.1	60.1	54.5	59.2	63.2	55	58.9	60.6	56.4	59.6	62.1	55.5	59.7	60.5	56.1	63.7	67.4	56	60
12-May-21	10:58	64	66.5	58.5	63.8	66.5	61	61.8	62.5	60.5	62	63	60.5	61.7	62	61	62.4	64.5	60.5	63
18-May-21	15:08	64.5	68	57.5	64.7	67.5	59.5	61.2	65	47.5	65.3	68	59	66.6	69.5	60.5	65.9	69	60	65
24-May-21	15:00	63.2	65.5	59.1	62.2	63.8	60	60.4	61.8	55.9	60.6	61.8	59.3	62.1	64.1	59.9	60.7	61.7	59.8	62



Water Quality



Water Quality Impact Monitoring Result for M1

Date	3-May-21																	
Location	Time	Depth (m)	Temp) (oC)	Flow V	elocity (m/s)	DO (1	ng/L)	DO	(%)	Turbidi	ty (NTU)	p]	H	Sali	nity	SS(r	mg/L)
M1	10.00	0.12	22.3	22.2	< 0.1	-0.1	7.05	7 1 9	86.6	00.7	4.47	4.0	7.84	7 0	0.08	0.09	6	8.0
M1	10:00	0.13	22.3	22.3	< 0.1	<0.1	7.31	7.18	89.8	88.2	5.06	4.8	7.84	7.8	0.08	0.08	10	8.0

Date	5-May-21																	
Location	Time	Depth (m)	Temp) (oC)	Flow V	elocity (m/s)	DO (1	ng/L)	DO	(%)	Turbidi	ty (NTU)	p]	Н	Sali	nity	SS(1	mg/L)
M1	9:20	0.13	24.1	24.1	<0.1	<0.1	6.79	6.95	86.6	88.7	4.94	4.6	7.50	7.5	0.07	0.07	8	8.0
M1	9:20	0.13	24.1	24.1	<0.1	<0.1		6.95	90.7	88.7	4.16	4.6	7.50	7.5	0.07	0.07		8

Date	7-May-21																	
Location	Time	Depth (m)	Temp	(oC)	Flow V	elocity (m/s)	DO (1	mg/L)	DO	(%)	Turbidi	ty (NTU)	pl	H	Sali	nity	SS(1	mg/L)
M1	0.20	0.12	24.9	24.0	< 0.1	<0.1	7.49	7.50	96.6	06.9	4.01	27	7.38	74	0.06	0.06	7	7.0
M1	9:30	0.13	24.9	24.9	< 0.1	<0.1	7.51	7.50	96.9	96.8	3.48	3.7	7.38	7.4	0.06	0.06	7	7.0

Date	10-May-21																	
Location	Time	Depth (m)	Temp	(oC)	Flow V	elocity (m/s)	DO (1	ng/L)	DO	(%)	Turbidi	ty (NTU)	pl	H	Sali	nity	SS(1	mg/L)
M 1	0.25	0.12	24.9	24.0	< 0.1	-0.1	7.02	7 17	90.8	02.7	6.91	7 1	7.84	7.0	0.06	0.00	6	55
M1	9:25	0.12	24.9	24.9	< 0.1	<0.1	7.31	/.1/	94.6	92.7	7.25	/.1	7.84	7.8	0.06	0.06	5	5.5

Date	12-May-21																	
Location	Time	Depth (m)	Temp	o (oC)	Flow V	elocity (m/s)	DO (I	ng/L)	DO	(%)	Turbidi	ty (NTU)	p	H	Sali	nity	SS(1	mg/L)
M1	9:30	0.12	26	26.0	< 0.1	<0.1	6.32	6.22	83.1	83.2	5.54	5 5	7.56	76	0.04	0.04	5	5.0
111	9.30	0.13	26	26.0	< 0.1	<0.1	6.33	6.33	83.2	03.2	5.41	3.3	7.56	/.6	0.04	0.04	5	5.0



Date	14-May-21																	
Location	Time	Depth (m)	Temp	(oC)	Flow V	elocity (m/s)	DO (r	ng/L)	DO	(%)	Turbidi	ty (NTU)	pl	H	Sali	nity	SS(1	mg/L)
M1	0.20	0.12	26.3	26.2	< 0.1	<0.1	6.49	651	87.6	070	3.33	2.0	7.54	75	0.08	0.08	3	25
M1	9:30	0.13	26.3	26.3	< 0.1	<0.1	6.52	6.51	87.9	87.8	2.46	2.9	7.54	7.5	0.08	0.08	4	5.5

Date	17-May-21																	
Location	Time	Depth (m)	Temp) (oC)	Flow V	elocity (m/s)	DO (1	ng/L)	DO	(%)	Turbidi	ty (NTU)	p	H	Sali	nity	SS(1	mg/L)
M1	0.20	0.01	26	26.0	< 0.1	-0.1	6.86	6.07	92.1	02.2	3.33	2.0	7.13	7 1	0.06	0.06	7	75
M1	9:20	0.01	26	26.0	< 0.1	< 0.1	6.88	6.87	92.4	92.3	2.98	3.2	7.13	7.1	0.06	0.06	8	7.5

Date	20-May-21																	
Location	Time	Depth (m)	Temp) (oC)	Flow V	elocity (m/s)	DO (1	ng/L)	DO	(%)	Turbidi	ty (NTU)	p]	H	Sali	nity	SS(mg/L)
M1	11.15	0.12	29.7	20.7	< 0.1	-0.1	6.58	(()	89.6	00.1	1.85	1.0	8.14	0.1	0.10	0.10	3	2.5
M1	11:15	0.13	29.7	29.7	< 0.1	<0.1	6.65	6.62	90.5	90.1	2.03	1.9	8.14	8.1	0.10	0.10	2	2.5

Date	22-May-21																	
Location	Time	Depth (m)	Temp) (oC)	Flow V	elocity (m/s)	DO (I	mg/L)	DO	(%)	Turbidi	ty (NTU)	p]	H	Sali	nity	SS(1	ng/L)
M1	9:00	0.12	29.9	29.9	< 0.1	<0.1	6.51	6.48	89.6	88.7	1.71	18	7.51	75	0.05	0.05	3	3.0
1411	9.00	0.12	29.9	29.9	< 0.1	<0.1	6.44	0.40	87.7	00.7	1.81	1.0	7.51	7.5	0.05	0.05	3	5.0

Date	24-May-21																	
Location	Time	Depth (m)	Temp) (oC)	Flow V	elocity (m/s)	DO (I	mg/L)	DO	(%)	Turbidi	ty (NTU)	p]	H	Sali	nity	SS(mg/L)
M1	0.15	0.12	31	21.0	< 0.1	-0.1	6.3	C 20	86.2	96.0	2.89	2.6	7.64	7.0	0.07	0.07	4	15
M1	9:15	0.13	31	31.0	< 0.1	< 0.1	6.27	6.29	85.7	86.0	2.31	2.6	7.64	/.6	0.07	0.07	5	4.5

Dat	te	26-May-21																	
Locat	tion	Time	Depth (m)	Temp	(oC)	Flow V	elocity (m/s)	DO (1	mg/L)	DO	(%)	Turbidi	ty (NTU)	pl	H	Sali	nity	SS(r	ng/L)
M	1	11:30	0.15	29.9	29.9	<0.1	< 0.1	6.37	6.38	83.5	83.6	81.3	82.4	7.79	7.8	0.10	0.10	42	50.0
	-	11100	0110	29.9		< 0.1		6.38	0.00	83.6	0010	83.5	0211	7.79	/10	0.10	0110	58	



Date	28-May-21																	
Location	Time	Depth (m)	Temp	o (oC)	Flow V	elocity (m/s)	DO (I	mg/L)	DO	(%)	Turbidi	ty (NTU)	p	H	Sali	nity	SS(1	mg/L)
M1	13:30	0.15	30.1 30.1	30.1	<0.1 <0.1	<0.1	5.88 5.91	5.90	76.8 77.3	77.1	26.1 27.1	26.6	7.45 7.45	7.5	0.15 0.15	0.15	38 30	34.0

Date	31-May-21																	
Location	Time	Depth (m)	Temp	o (oC)	Flow V	elocity (m/s)	DO (r	ng/L)	DO	(%)	Turbidi	ty (NTU)	p	H	Sali	nity	SS(mg/L)
M1	0.20	0.12	27.1	27.1	< 0.1	-0.1	5.19	5 01	70.3	70.4	14.1	146	7.58	76	0.11	0.11	28	30.0
M1	9:30	0.15	27.1	27.1	< 0.1	< 0.1	5.22	3.21	70.5	70.4	15.1	14.6	7.58	7.0	0.11	0.11	32	50.0



Water Quality Impact Monitoring Result for M2

Date	3-May-21									
Location	Time	Depth (m)	Temp (oC)	Flow Velocity (m/s)	DO (mg/L)	DO (%)	Turbidity (NTU)	pH	Salinity	SS(mg/L)
M2	10:40	0.02 (#)								

Date	5-May-21									
Location	Time	Depth (m)	Temp (oC)	Flow Velocity (m/s)	DO (mg/L)	DO (%)	Turbidity (NTU)	рН	Salinity	SS(mg/L)
M2	9:50	0.02 (#)								

Date	7-May-21																	
Location	Time	Depth (m)	Temp	(oC)	Flow V	elocity (m/s)	DO (r	ng/L)	DO	(%)	Turbidi	ty (NTU)	p]	H	Sali	nity	SS(n	ng/L)
M2	10:15	0.01 (#)																

Date	10-May-21									
Location	Time	Depth (m)	Temp (oC)	Flow Velocity (m/s)	DO (mg/L)	DO (%)	Turbidity (NTU)	рН	Salinity	SS(mg/L)
M2	10:10	0.01 (#)								

Date	12-May-21										
Location	Time	Depth (m)	Temp ((oC)	Flow Velocity (m/s)	DO (mg/L)	DO (%)	Turbidity (NTU) pH	Salinity	SS(mg/L)
M2	10:15	0.01 (#)									

Site Formation and Associated Infrastructural Works for Development of Columbarium, Crematorium and Related Facilities at Sandy Ridge Cemetery



Monthly Environmental Monitoring & Audit Report (No.34) - May 2021

Date	14-May-21																	
Location	Time	Depth (m)	Temp ((oC)	Flow V	elocity (m/s)	DO (1	mg/L)	DO	(%)	Turbidi	ty (NTU)	p	H	Sali	nity	SS(r	mg/L)
M2	10:10	0.00 (#)		-														

Date	17-May-21									
Location	Time	Depth (m)	Temp (oC)	Flow Velocity (m/s)	DO (mg/L)	DO (%)	Turbidity (NTU)	рН	Salinity	SS(mg/L)
M2	10:00	0.00 (#)								

Date	20-May-21																	
Location	Time	Depth (m)	Temp ((oC)	Flow V	elocity (m/s)	DO (I	ng/L)	DO	(%)	Turbidi	ty (NTU)	pl	H	Sali	nity	SS(1	mg/L)
M2	12:30	0.01 (#)		_		-												

Date	22-May-21									
Location	Time	Depth (m)	Temp (oC)	Flow Velocity (m/s)	DO (mg/L)	DO (%)	Turbidity (NTU)	pH	Salinity	SS(mg/L)
M2	11:30	0.01 (#)								

Date	24-May-21																	
Location	Time	Depth (m)	Temp	(oC)	Flow V	elocity (m/s)	DO (I	mg/L)	DO	(%)	Turbidi	ty (NTU)	pl	H	Sali	nity	SS(r	ng/L)
M2	14:00	0.01 (#)																

Date	26-May-21																	
Location	Time	Depth (m)	Temp	(oC)	Flow V	elocity (m/s)	DO (1	ng/L)	DO	(%)	Turbidi	ty (NTU)	pl	H	Sali	nity	SS(1	ng/L)
M2	14:10	0.02 (#)																



Date	28-May-21																	
Location	Time	Depth (m)	Temp	(oC)	Flow V	elocity (m/s)	DO (I	ng/L)	DO	(%)	Turbidi	ty (NTU)	p	H	Sali	nity	SS(r	ng/L)
M2	14:15	0.08	32.1 32.1	32.1	<0.1 <0.1	<0.1	6.16 6.7	6.43	83.0 90.3	86.7	27.3 28.2	27.8	7.22 7.22	7.2	0.11 0.11	0.11	28 28	28.0

Date	31-May-21																	
Location	Time	Depth (m)	Temp) (oC)	Flow V	velocity (m/s)	DO (I	mg/L)	DO	(%)	Turbidi	ty (NTU)	p	H	Sali	nity	SS(r	ng/L)
M2	10:20	0.02 (#)																

Remarks: (#) During the water monitoring, the channel of M2 was observed dried up and water sampling was unable be carried out



Water Quality Impact Monitoring Result for M3

Date	3-May-21																	
Location	Time	Depth (m)	Temp	(oC)	Flow V	elocity (m/s)	DO (I	mg/L)	DO	(%)	Turbidi	ty (NTU)	pl	H	Sali	nity	SS(1	ng/L)
M3	10.50	2.40	23.9	22.0	< 0.1	-0.1	6.71	6 70	82.1	02)	3.44	26	7.56	76	0.05	0.05	4	15
INI5	10:50	2.40	23.9	23.9	< 0.1	<0.1	6.87	6.79	84.2	83.2	3.81	3.6	7.56	7.6	0.05	0.05	5	4.3

Date	5-May-21																	
Location	Time	Depth (m)	Temp) (oC)	Flow V	elocity (m/s)	DO (1	ng/L)	DO	(%)	Turbidi	ty (NTU)	p]	H	Sali	nity	SS(1	mg/L)
M3	10:00	2.45	25.1	25.1	< 0.1	<0.1	7.16	7 17	91.6	91.6	2.05	1.0	7.34	7.2	0.05	0.05	7	5.0
INI 5	10:00	2.45	25.1	23.1	< 0.1	<0.1	7.17	/.1/	91.6	91.0	1.76	1.9	7.34	7.5	0.05	0.05	3	5.0

Date	7-May-21																	
Location	Time	Depth (m)	Temp	(oC)	Flow V	elocity (m/s)	DO (1	ng/L)	DO	(%)	Turbidi	ty (NTU)	p	H	Sali	nity	SS(1	mg/L)
M2	10.25	2.45	27.2	27.2	< 0.1	-0.1	5.14	5.09	76.2	76.9	2.03	2.1	7.34	7.2	0.04	0.04	5	4.5
M3	M3 10:25	2.45	27.2	21.2	< 0.1	<0.1	5.01	5.08	77.4	76.8	2.11	2.1	7.34	1.5	0.04	0.04	4	4.5

Date	10-May-21																	
Location	Time	Depth (m)	Temp) (oC)	Flow V	elocity (m/s)	DO (I	ng/L)	DO	(%)	Turbidi	ty (NTU)	p	H	Sali	nity	SS(1	mg/L)
M2	10.20	2.45	27.9	27.0	< 0.1	-0.1	6.15	6.20	79.7	91.0	3.67	2.0	7.58	76	0.04	0.04	5	15
M3	10:20	2.45	27.9	27.9	< 0.1	<0.1	6.49	6.32	84.1	81.9	2.76	5.2	7.58	7.6	0.04	0.04	4	4.3

Date	12-May-21																	
Location	Time	Depth (m)	Temp	(oC)	Flow V	elocity (m/s)	DO (r	ng/L)	DO	(%)	Turbidi	ty (NTU)	pl	H	Sali	nity	SS(1	mg/L)
M3	10:25	2.45	29	29.0	< 0.1	<0.1	6.88	6.89	90.5	90.7	3.77	3.8	7.40	7.4	0.04	0.04	4	4.0
1415	10.25	2.43	29	27.0	< 0.1	\0.1	6.89	0.07	90.9	20.7	3.73	5.0	7.40	/. .	0.04	0.04	4	ч.0



Date	14-May-21																	
Location	Time	Depth (m)	Temp	o (oC)	Flow V	elocity (m/s)	DO (1	ng/L)	DO	(%)	Turbidi	ty (NTU)	p	H	Sali	nity	SS(r	mg/L)
M3	10:20	2.20	29.3	20.2	< 0.1	-0.1	6.53	6.55	88.1	00 5	2.61	27	7.23	7.2	0.06	0.06	4	4.0
IVI 5	10:20	2.30	29.3	29.3	< 0.1	<0.1	6.57	6.55	88.8	88.5	2.7	2.7	7.23	1.2	0.06	0.06	4	4.0

Date	17-May-21																	
Location	Time	Depth (m)	Temp) (oC)	Flow V	elocity (m/s)	DO (I	mg/L)	DO	(%)	Turbidi	ity (NTU)	p	H	Sali	nity	SS(r	ng/L)
M2	10.10	2.20	27.9	27.0	< 0.1	-0.1	6.75	(79	90.8	01.2	2.24	2.5	6.89	6.0	0.04	0.04	5	5.0
M3	10:10	2.30	27.9	27.9	< 0.1	<0.1	6.8	6.78	91.5	91.2	2.8	2.5	6.89	6.9	0.04	0.04	5	5.0

Date	20-May-21																	
Location	Time	Depth (m)	Temp) (oC)	Flow V	velocity (m/s)	DO (I	mg/L)	DO	(%)	Turbidi	ity (NTU)	р	H	Sali	nity	SS(1	mg/L)
M2	12.40	2.21	30	20.0	< 0.1	-0.1	5.9	5.04	80.6	01.1	2.14	2.1	7.62	7.0	0.04	0.04	3	25
M3	12:40	2.31	30	30.0	< 0.1	<0.1	5.97	5.94	81.6	81.1	2.04	2.1	7.62	/.6	0.04	0.04	4	3.5

Date	22-May-21																	
Location	Time	Depth (m)	Temp	(oC)	Flow V	velocity (m/s)	DO (I	ng/L)	DO	(%)	Turbidi	ty (NTU)	p	H	Sali	nity	SS(1	mg/L)
M3	11:40	2.30	30.2 30.2	30.2	<0.1 <0.1	<0.1	6.02 6.04	6.03	82.7 83.0	82.9	1.7 1.45	1.6	7.13 7.13	7.1	0.03 0.03	0.03	4 3	3.5

Date	24-May-21																	
Location	Time	Depth (m)	Temp) (oC)	Flow V	elocity (m/s)	DO (I	mg/L)	DO	(%)	Turbidi	ty (NTU)	p	H	Sali	nity	SS(1	mg/L)
M3	14.10	2.20	32	22.0	< 0.1	-0.1	6.36	6 27	87.2	07 /	1.97	1.0	7.17	7.2	0.03	0.02	4	25
M3	14:10	2.30	32	32.0	< 0.1	<0.1	6.38	6.37	87.5	87.4	1.91	1.9	7.17	1.2	0.03	0.03	3	5.5

Date	26-May-21																	
Location	Time	Depth (m)	Temp	(oC)	Flow V	elocity (m/s)	DO (1	ng/L)	DO	(%)	Turbidi	ty (NTU)	p	H	Sali	nity	SS(1	ng/L)
M3	12:00	0.44	30.2 30.2	30.2	<0.1 <0.1	<0.1	6.63 6.67	6.65	86.6 87.2	86.9	3.18 2.92	3.1	7.35 7.35	7.4	0.03 0.03	0.03	4 4	4.0



Date	28-May-21																	
Location	Time	Depth (m)	Temp) (oC)	Flow V	elocity (m/s)	DO (1	ng/L)	DO	(%)	Turbidi	ty (NTU)	p	H	Sali	nity	SS(1	ng/L)
M3	14:25	2.45	32	32.0	<0.1	< 0.1	5.74	5.93	76.4	78.9	5.5	5.5	7.32	7.3	0.04	0.04	6	6.0
			32		< 0.1		6.12		81.4		5.4		7.32		0.04		6	

Date	31-May-21																	
Location	Time	Depth (m)	Temp	o (oC)	Flow V	velocity (m/s)	DO (1	ng/L)	DO	(%)	Turbidi	ty (NTU)	p	H	Sali	nity	SS(1	mg/L)
M3	10:30	2.40	28.5	28.5	< 0.1	<0.1	6.33	6.36	86.5	86.7	3.78	2.2	7.35	7.4	0.03	0.03	3	3.0
IVIS	10.50	2.40	28.5	28.3	< 0.1	< 0.1	6.39	0.50	86.9	80.7	2.91	5.5	7.35	7.4	0.03	0.05	3	5.0



Monthly Environmental Monitoring & Audit Report (No.34) - May 2021

Water Quality Impact Monitoring Result for M4

Date	3-May-21																	
Location	Time	Depth (m)	Temp	o (oC)	Flow Velo	city (m/s)	DO (I	mg/L)	DO	(%)		bidity TU)	p	H	Sali	nity	SS(1	mg/L)
M4	11:10	0.44	24.3 24.3	24.3	<0.1 <0.1	<0.1	7.19 7.6	7.40	88.1 93.1	90.6	1.9 1.9	1.9	7.11 7.11	7.1	0.11 0.11	0.11	<2 <2	<2
Date	5-May-21																	
Location	Time	Depth (m)	Temp	o (oC)	Flow Velo	city (m/s)	DO (I	mg/L)	DO	(%)		bidity TU)	р	H	Sali	nity	SS(1	ng/L)
M4	10:20	0.43	25.3 25.3	25.3	<0.1 <0.1	<0.1	7.09 7.23	7.16	90.9 92.5	91.7	0.9 1.2	1.1	7.02 7.02	7.0	0.11 0.11	0.11	<2 <2	<2
Date	7-May-21																	
Location	Time	Depth (m)	Temp	o (oC)	Flow Velo	city (m/s)	DO (I	mg/L)	DO	(%)		bidity TU)	р	H	Sali	nity	SS(1	mg/L)
M4	10:45	0.43	27.4 27.4	27.4	<0.1 <0.1	<0.1	7.36 7.41	7.39	95.0 95.7	95.4	1.3 1.4	1.3	6.92 6.92	6.9	0.1 0.1	0.10	3 2	2.5
Date	10-May-21																	
Location	Time	Depth (m)	Temp	o (oC)	Flow Velo	city (m/s)	DO (I	mg/L)	DO	(%)		bidity TU)	р	H	Sali	nity	SS(1	mg/L)
M4	10:45	0.42	28.1 28.1	28.1	<0.1 <0.1	<0.1	6.64 7.25	6.95	86.1 94.1	90.1	1.9 1.8	1.8	7.24 7.24	7.2	0.1 0.1	0.10	2 <2	2.0
Date	12-May-21																	
Location	Time	Depth (m)	Temp	o (oC)	Flow Velo	city (m/s)	DO (I	mg/L)	DO	(%)		bidity TU)	р	H	Sali	nity	SS(1	mg/L)
M4	10:50	0.43	29.5 29.5	29.5	<0.1 <0.1	<0.1	7.51 7.52	7.52	99.2 99.3	99.3	2.9 2.9	2.9	7.20 7.20	7.2	0.11	0.11	<2 2	2.0



Monthly Environmental Monitoring & Audit Report (No.34) - May 2021

Date	14-May-21																	
Location	Time	Depth (m)	Temp	o (oC)	Flow Veloc	city (m/s)	DO (1	mg/L)	DO	(%)		bidity TU)	pl	H	Sali	nity	SS(1	mg/L)
M4	10.40	0.42	29.4	20.4	< 0.1	-0.1	7.02	7.02	94.7	04.9	1.9	1.0	7.01	7.0	0.12	0.12	2	2.5
M4	10:40	0.43	29.4	29.4	< 0.1	< 0.1	7.03	7.03	94.8	94.8	1.7	1.8	7.01	7.0	0.12	0.12	3	2.5

Date	17-May-21																	
Location	Time	Depth (m)	Temp) (oC)	Flow Veloc	city (m/s)	DO (I	mg/L)	DO	(%)		bidity TU)	pl	H	Sali	nity	SS(1	mg/L)
M4	10.20	0.41	28.1	29.1	< 0.1	-0.1	7.38	7 27	99.3	00.2	1.6	17	6.73	67	0.1	0.10	4	25
M4	10:30	0.41	28.1	28.1	< 0.1	< 0.1	7.36	1.37	99.2	99.3	1.7	1./	6.73	0.7	0.1	0.10	3	3.5

Date	20-May-21																	
Location	Time	Depth (m)	Temp) (oC)	Flow Veloc	city (m/s)	DO (I	ng/L)	DO	(%)		bidity TU)	pl	H	Sali	nity	SS(1	mg/L)
M4	12.00	0.42	30.2	20.2	< 0.1	-0.1	4.53	4.52	62.2	(2.2	3.6	2.0	7.15	7.2	0.09	0.00	4	4.5
M4	13:00	0.42	30.2	30.2	< 0.1	< 0.1	4.53	4.53	62.1	62.2	4.0	3.8	7.15	1.2	0.09	0.09	5	4.5

Date	22-May-21																	
Location	Time	Depth (m)	Temp) (oC)	Flow Veloc	city (m/s)	DO (1	ng/L)	DO	(%)		bidity TU)	p	H	Sali	nity	SS(1	mg/L)
N/4	0.15	0.41	30.4	20.4	< 0.1	-0.1	5.52	5 5 1	75.9	76.0	3.4	27	6.96	7.0	0.08	0.09	4	4.0
M4	9:15	0.41	30.4	30.4	< 0.1	< 0.1	5.55	5.54	76.0	76.0	4.0	5.7	6.96	7.0	0.08	0.08	4	4.0

Date	24-May-21																	
Location	Time	Depth (m)	Temp	o (oC)	Flow Velo	city (m/s)	DO (1	mg/L)	DO	(%)		bidity TU)	p]	H	Sali	nity	SS(1	mg/L)
M4	0.25	0.41	32.4	32.4	< 0.1	<0.1	6.19	6.21	85.1	85.3	3.0	2.0	6.73	67	0.09	0.09	4	4.0
IV14	9:25	0.41	32.4	52.4	< 0.1	<0.1	6.22	0.21	85.5	83.5	2.8	2.9	6.73	6./	0.09	0.09	4	4.0

26-May-21 Date



Monthly Environmental Monitoring & Audit Report (No.34) - May 2021

Location	Time	Depth (m)	Temp	(oC)	Flow Veloc	city (m/s)	DO (1	ng/L)	DO	(%)		bidity TU)	p	H	Sali	nity	SS(1	mg/L)
M4	12:00	0.44	30.5 30.5	30.5	<0.1 <0.1	<0.1	6.28 6.33	6.31	82.3 83.0	82.7	2.8 2.6	2.7	6.76 6.76	6.8	0.09 0.09	0.09	4	4.0

Date	28-May-21																	
Location	Time	Depth (m)	Temp	(oC)	Flow Veloc	city (m/s)	DO (1	ng/L)	DO	(%)		bidity TU)	p]	Н	Sali	nity	SS(1	mg/L)
M 4	14.45	0.42	32.4	32.4	< 0.1	-0.1	5.62	5 70	74.0	75.2	2.8	2.0	6.88	6.0	0.12	0.12	3	2.0
M4	14:45	0.43	32.4	32.4	< 0.1	< 0.1	5.82	5.72	76.5	75.3	2.8	2.8	6.88	6.9	0.12	0.12	3	3.0

Date	31-May-21																	
Location	Time	Depth (m)	Temp) (oC)	Flow Veloc	city (m/s)	DO (I	ng/L)	DO	(%)		bidity TU)	p]	H	Sali	nity	SS(1	mg/L)
N/4	10.50	0.42	28.6	29.6	< 0.1	.0.1	6.2	6.25	84.7	05.4	3.8	4.0	6.99	7.0	0.08	0.00	4	4 5
M4	10:50	0.43	28.6	28.6	< 0.1	< 0.1	6.29	6.25	86.0	85.4	4.3	4.0	6.99	7.0	0.08	0.08	5	4.5

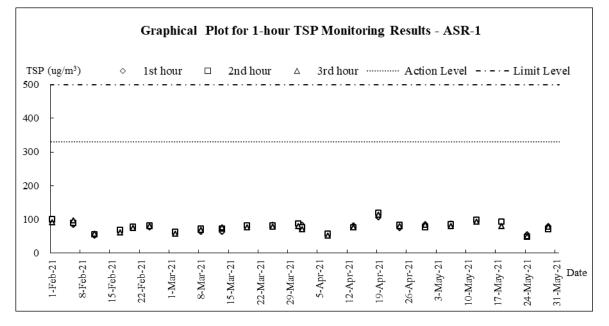


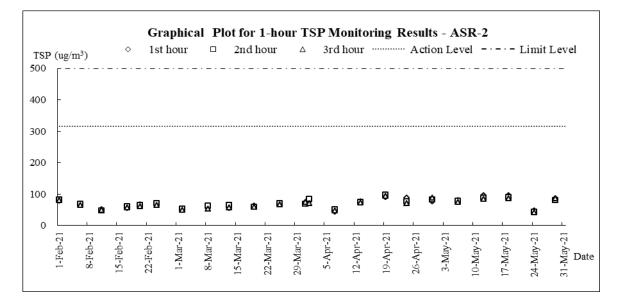
Appendix I

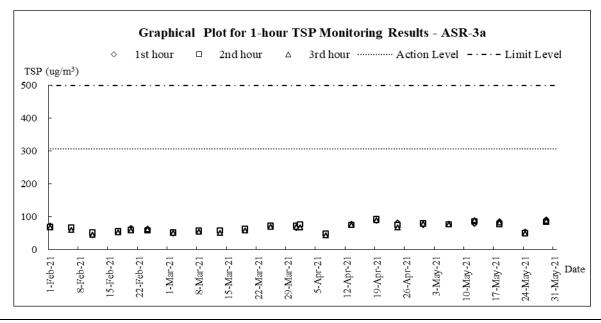
Graphical Plots of Air Quality, Noise and Water Quality



Air Quality Impact Monitoring – 1-hour TSP



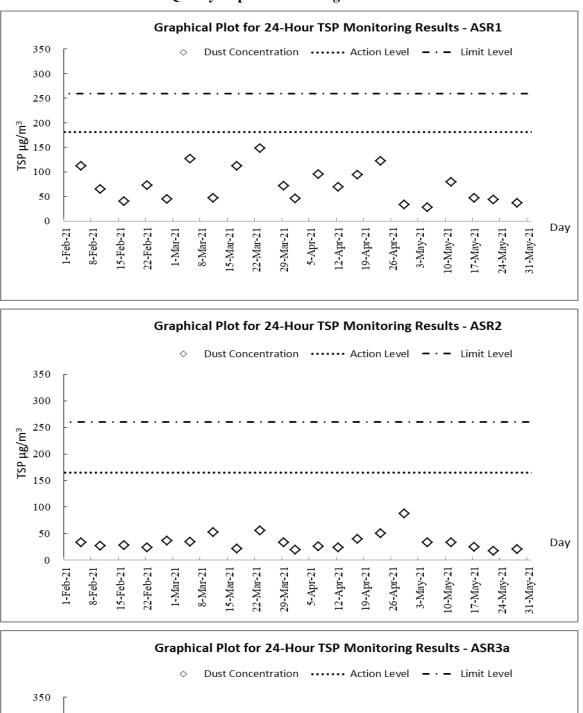


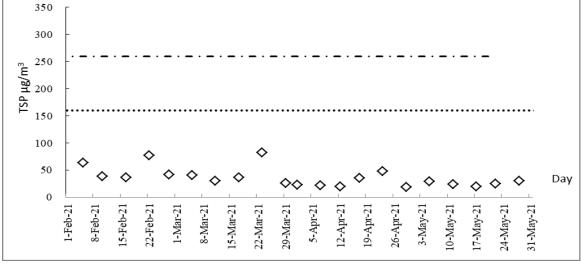


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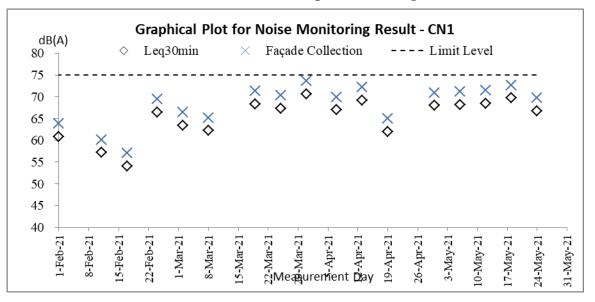
Air Quality Impact Monitoring – 24-hour TSP

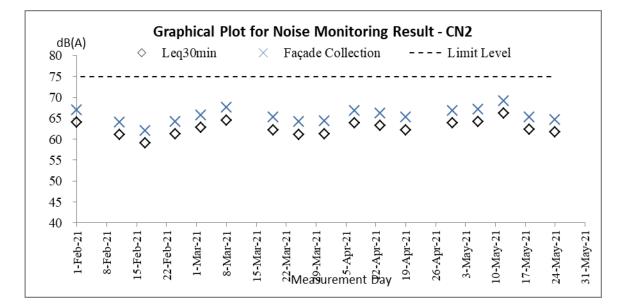


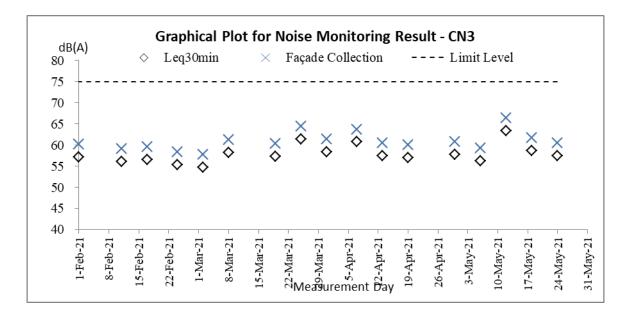




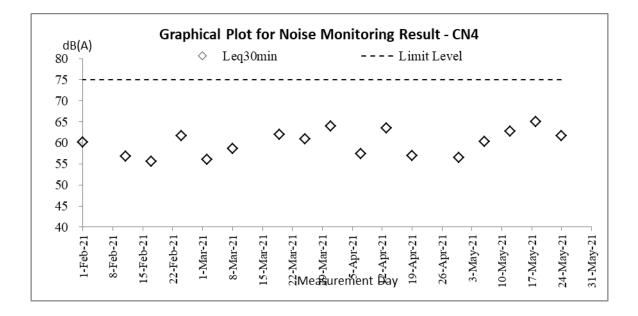
Construction Noise Impact Monitoring





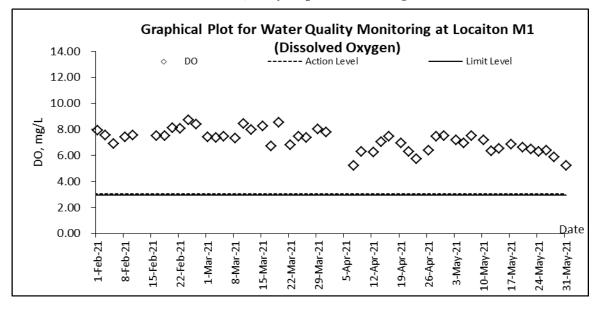


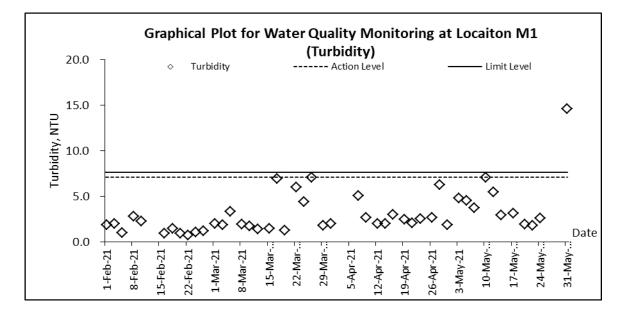


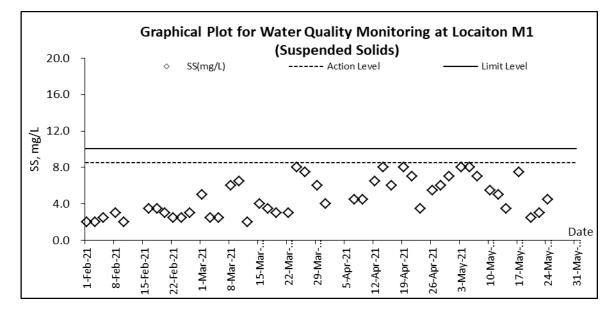




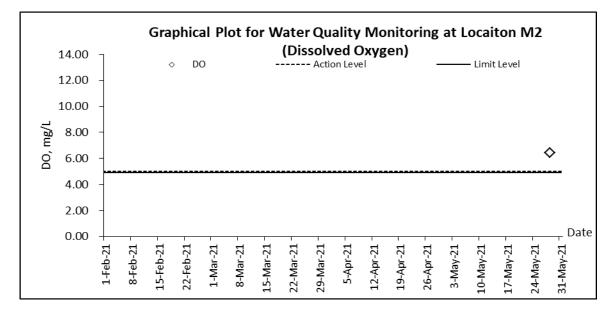
Water Quality Impact Monitoring

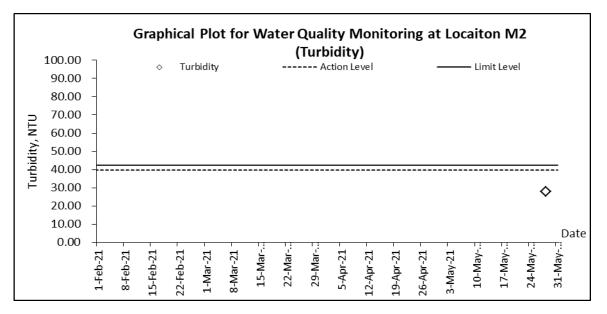


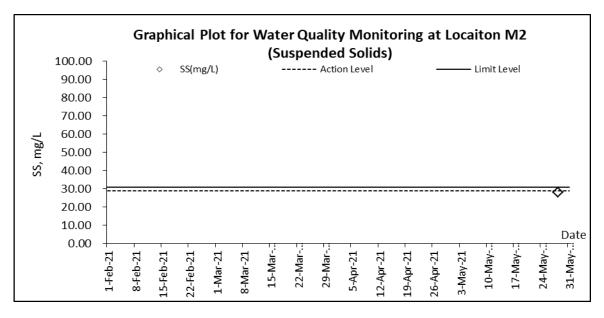




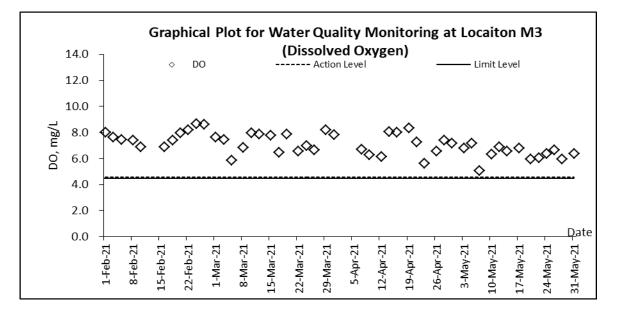


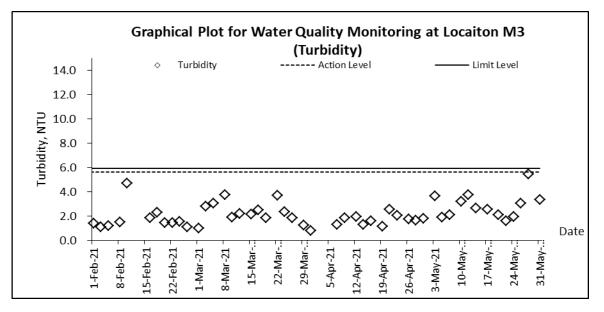


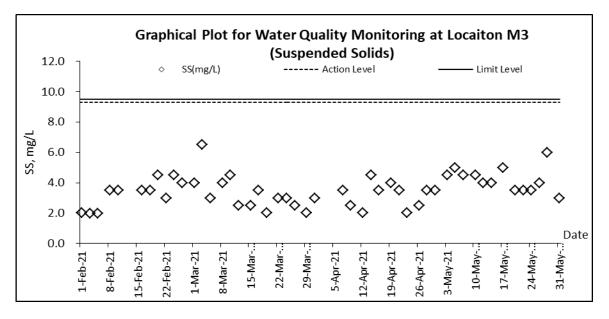




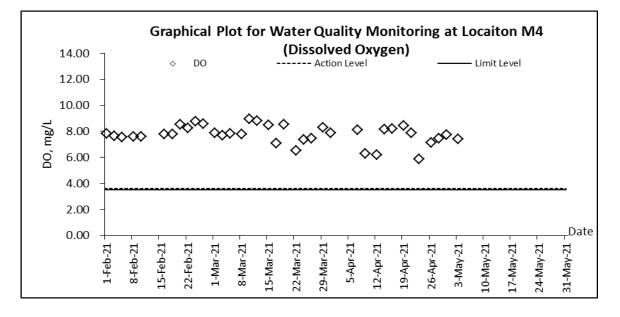


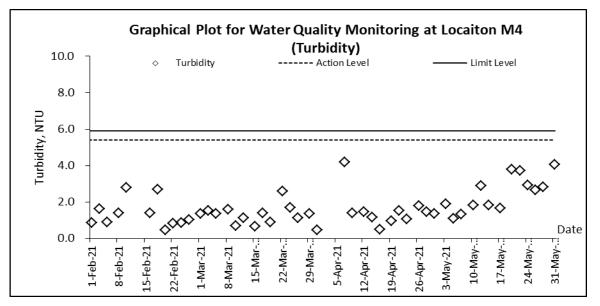


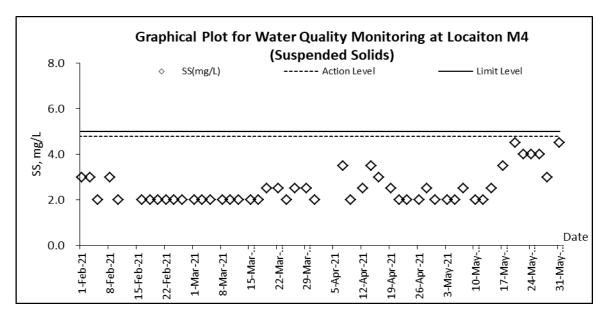














Appendix J

Meteorological Data of the Reporting Month

 $Z: \label{eq:loss} 2018 \ CV-2016-10) \ 600 \ EM\&A\ Report\ Submission \ Monthly\ Report\ 2021 \ 34th\ Month\ (May\ 2021) \ R0546v2. doc \ R0546v2. \ R0$



				,	Ta Kwu	Ling Station	n
Date		Weather	Total Rainfall (mm)	Mean Air Temp. (°C)	Wind Speed (km/h)	Mean Relative Humidity (%)	Wind Direction
1-May-21	Sat	Mainly cloudy.	0	26.6	10.5	78	E/SE
2-May-21	Sun	Sunny intervals during the day.	1.2	26.4	8	75.5	E/SE
3-May-21	Mon	Moderate to fresh easterly winds	8.8	22.2	10	85	E/SE
4-May-21	Tue	occasionally strong offshore at first.	12.5	27.5	10	73.5	E/SE
5-May-21	Wed	Mainly fine and hot	0.5	27	6.2	77	N/NW
6-May-21	Thu	Fine and hot. Light winds.	Trace	26	14.6	75.7	E/SE
7-May-21	Fri	Fine and hot. Light winds.	0	26.9	6	75	S/SE
8-May-21	Sat	Hot with sunny periods and a few isolated showers.	0	27.7	7.5	77.2	W/SW
9-May-21	Sun	Mainly cloudy tonight.	0	28.6	6.7	72.0	W/SW
10-May-21	Mon	Moderate southerly winds.	0	28.3	7.5	72.2	S/SW
11-May-21	Tue	Mainly fine and hot	Trace	29.2	8.7	72.2	S/SW
12-May-21	Wed	Moderate southerly winds.	Trace	29.4	9.5	74.2	S/SW
13-May-21	Thu	Fine and hot. Light winds.	3.9	30	8.7	73.7	S/SW
14-May-21	Fri	Very hot with sunny periods.	0	29.5	9	79	E/SE
15-May-21	Sat	Moderate south to southwesterly winds	0	30.6	7.7	72	E/SE
16-May-21	Sun	Light to moderate southerly winds.	Trace	29.8	8.7	68.2	S/SW
17-May-21	Mon	Moderate south to southwesterly winds	0	30.4	9.5	72	S/SW
18-May-21	Tue	Mainly cloudy tonight.	1.3	30.5	11.2	72.5	S/SW
19-May-21	Wed	occasionally fresh offshore.	0	30.3	7.5	69.7	S/SW
20-May-21	Thu	one or two isolated showers in the afternoon.	0	31.2	11.2	6.2	S/SW
21-May-21	Fri	Very hot with sunny periods	Trace	31.3	11	68	S/SW
22-May-21	Sat	Light to moderate southerly winds.	2.6	31	10.5	71	E/SE
23-May-21	Sun	A few showers and isolated thunderstorms	Trace	31	9.7	69.5	E/SE
24-May-21	Mon	Very hot with sunny periods.	15.7	30.1	12	76.5	E/SE
25-May-21	Tue	Mainly cloudy with a few showers and thunderstorms.	4.8	27.9	6.2	84.5	E/SE
26-May-21	Wed	Light winds.	4	29.5	11.2	77.5	E/SE
27-May-21	Thu	Very hot with sunny periods	1	29.8	8.5	75	SW
28-May-21	Fri	Light to moderate southerly winds.	0	30.1	8.7	75.5	SW
29-May-21	Sat	Very hot with sunny periods.	0	30.7	10.5	69.7	SW
30-May-21	Sun	Mainly cloudy and hot.	Trace	31.4	9	74.2	SW
31-May-21	Mon	A few showers.	8.7	29.1	8.7	76.2	S/SW



Appendix K

Ecological Survey Report

 $Z: Jobs \ 2018 \ TCS 00881 (CV-2016-10) \ 600 \ EM\&A \ Report \ Submission \ Monthly \ Report \ 2021 \ 34th \ Month \ (May \ 2021) \ R0546v2. doc \ R0546v2. \ R054$



Ecological Survey Report for Contract CV/2016/10



Contract No. CV/2016/10 Site Formation and Associated Infrastructural Works for Development of Columbarium, Crematorium and Related Facilities at Sandy Ridge Cemetery

Monthly Report of Ecologically Sensitive Habitats Monitoring – May 2021

Revision Date of issue	0 28 May 2021	
Prepared by	Alan Lam	A
Reviewed by	Edwina Yeung	and a
Verified by	Mike Leung	A



Table of Contents

1	INT	RODUCTION	4
	1.1	BACKGROUND	4
	1.2	OBJECTIVE	4
2	ECC	DLOGICALLY SENSITIVE HABITATS	5
	2.1	DESCRIPTION OF HABITATS	5
	2.2	MONITORING MEASURES OF WETLAND HABITATS	6
	2.3	MONITORING MEASURES OF NON-WETLAND HABITATS	6
3	ME	THODOLOGY	7
	3.1	MAMMAL SURVEY	7
	3.2	BIRD SURVEY	7
	3.3	HERPETOFAUNA SURVEY	7
	3.4	DRAGONFLY SURVEY	7
	3.5	BUTTERFLY SURVEY	8
	3.6	AQUATIC FAUNA SURVEY	8
4	RES	ULT	9
5	DIS	CUSSION	13
Арр	endix I	- Transect Routes for Contract CV/2016/10	16



LIST OF TABLE	
Table 1	Action and Limit Levels and Responses to Evidence of Declines
	in Aquatic Fauna
Table 2	Action and Limit Levels and Responses to Evidence of Declines
	in Non-Aquatic Fauna
Table 3	Survey Schedule
Table 4	Result of mammal in survey
Table 5	Result of Avifauna in survey
Table 6	Result of reptile in survey
Table 7	Result of amphibian in survey
Table 8	Result of butterfly in survey
Table 9	Result of Odonate in survey
Table 10	Result of freshwater communities in survey

LIST OF APPEN	DIX
Appendix I	Transect Routes for Contract CV/2016/10

LIST OF FIGURE	<u>ES</u>
Figure 1	Bar chart showing the total species richness within site boundary
	from 2019 to 2021
Figure 2	Bar chart showing the total abundance within site boundary from
	2019 to 2021
Figure 3	Bar chart showing the species richness within site boundary by
	taxa from 2019 to 2021
Figure 4	Bar chart showing the species richness based on habitat type
	from 2019 to 2021
Figure 5	Bar chart showing the abundance based on habitat type from
	2019 to 2021



1 INTRODUCTION

1.1 <u>BACKGROUND</u>

- 1.1.1 The main objective of the proposed site formation and associated infrastructural works for development of columbarium, crematorium (C&C) and related facilities at Sandy Ridge Cemetery is to increase the public cremation services and supply of public niches to meet the future demand.
- 1.1.2 The project includes site formation and associated works for development of C&C facilities at the Sandy Ridge Cemetery, road works within Sandy Ridge Cemetery, widening a section of Lin Ma Hang Road (from 6.5m to 7.3m), provision of off-site pick-up/drop-off points for shuttle buses as well as barging point at Siu Lam, Lok On Pai.
- 1.1.3 The Environmental Impact Assessment (EIA) report, including Environmental Monitoring and Audit Manual (EM&A Manual), was approved with conditions on 8 August 2016 (Register No.: AEIAR-198/2016). EPD issued an Environmental Permit (EP) for the Project (EP-534/2017) on 7 April 2017. A Further Environment Permit (FEP) for the Project (FEP-01/534/2017) was issued on 23 February 2018, variation of EP (EP-534/2017/A) and variation of FEP (FEP-01/534/2017/A) were issued on 24 December 2018.
- 1.1.4 According to Clause 3.1 of the FEP (FEP-01/534/2017/A), "The Permit Holder shall implement the EM&A programme in accordance with the procedures and requirements as set out in the EM&A Manual. Any changes to the programme shall be justified by the ET Leader and verified by the IEC as conforming to the information and requirements contained in the EM&A Manual before submission to the Director for approval".
- 1.1.5 This Ecologically Sensitive Habitats Monitoring Methodology articulates the protocol of monitoring the ecology of concerned habitats as specified in EM&A Manual.

1.2 <u>OBJECTIVE</u>

- 1.2.1 According to approved EIA report (AEIAR-198/2016), habitat types within project boundary comprise of watercourse, grassland, upland grassland, plantation, woodland and developed area. Natural habitats were of moderate ecological value in terms of species diversity, species rarity, species abundance, ecological linkage as well as nursery. Moreover, 0.3ha of wet woodland on the northern side of Sandy Ridge was deemed habitat with high ecological value. Four types of habitats were regarded as ecologically sensitive habitats, namely wet woodland, watercourses, upland grassland and woodland. Considering human disturbance in upcoming construction and operation phases, ecologically sensitive habitats shall be monitored in accordance with EM&A Manual.
- 1.2.2 The objective of ecologically sensitive habitats monitoring is to evaluate the effectiveness of measures to minimize impacts on concerned habitats from disturbance and pollution.



2 ECOLOGICALLY SENSITIVE HABITATS

2.1 DESCRIPTION OF HABITATS

2.1.1 In order to monitor the effectiveness of the measures to the minimise impact on ecologically sensitive habitats from disturbance and pollution, monthly monitoring during construction and operation phases is required as specified in EM&A Manual. Standard faunal transect and sampling surveys cover both wetland and non-wetland habitats:

Wetland habitats	Non-wetland habitats
Wet Woodland	Upland Grassland
Watercourses	Woodland

- 2.1.2 Wet woodland is small patch present on northwest of the project boundary, and is confined by the marsh area to the north and the secondary woodland to the east, south and south-west parts. A number of mature trees *Cleistocalyx nervosum* and *Acronychia pedunculata* form the tree canopy, with other self-sown shrubs (including *Psychotria asiatica, Ligustrum sinense* and *Glochidion lanceolarium*) and trees (*Aporosa dioica* and *Litsea monopetala*). Whilst botanically it comprises of naturally regenerated secondary woodland and ground level are a series of small braided streams and weep points which even during the dry season remain wet. This creates a rather uncommon habitat in Hong Kong offering suitable conditions for a good assemblage of common wetland species. The wet woodland provides a good assemblage of micro-habitats, which is relatively undisturbed and has good linkages to other natural habitat: East Asian Porcupine, Leopard Cat, Red Muntjac, Two-striped Grass Frog, Small Snakehead, *Somanniathelphusa zanklon*, Dancing Shadow-emerald.
- 2.1.3 Seasonal watercourse running west to east in the eastern part of the area inside the Project boundary is shallower in gradient than those running off the hillside. This seasonal watercourse is heavily vegetated with wetland-associated herbs including *Commelina diffusa*, *Polygonum chinense*, *Colocasia esculenta* and *Dracaena sanderiana*. A mature tree of *Aquilaria sinensis* was recorded at the bank of the seasonal watercourse to the west of the Sandy Ridge Cemetery Office. Seasonal watercourses are restricted to the steeper slopes within the project boundary and are characterised by being entirely dry for much of the dry season. However, endemic crab *S. zanklon* population is supported by ephemeral watercourses close to the project boundary.
- 2.1.4 Upland grassland is the major habitat within the project boundary. The semi-natural habitat is dominated by typical upland grassland species: fern *Dicranopteris pedata*, grass *Neyraudia reynaudiana*, *Miscanthus floridulus*, climbing vines *Smilax china*, *Smilax glabra*, and shrubs such as *Rhodomyrtus tomentosa*, *Breynia fruticosa* and *Helicteres angustifolia*. Approximately 30 flowering spikes of two orchid species Bamboo Orchid and Toothed Habenaria were recorded near the hill top in the northern part of this upland grassland. Golden-headed Cisticola, which is considered as Local Concern by Fellowes *et al.* (2002), was also recorded in upland grassland on Sandy Ridge, including a proved breeding record of fledged young in September 2013. In addition, numerous species of conservation interest were recorded in EIA report, such as East Asian Porcupine, Leopard Cat, Red Muntjac, Great Swift, Tamil Grass Dart, Small Three-ring and Small Grass Yellow.



2.1.5 Scattered patches of woodland are present throughout the assessment area, with the largest contiguous block located immediately to the east of the project boundary. These woodlands are relatively young with single-layered of canopy dominants (~10 – 15m tall) including *A. dioica, Bridelia tomentosa, Cinnamomum burmannii, Daphniphyllum calycinum, Litsea glutinosa, Rhus succedanea,* and *Zanthoxylum avicennae*. Such areas comprise secondary woodland which is largely derived from natural regeneration and colonisation of trees as a result of seed dispersal by birds and/or bats. A mature tree of *A. sinensis* is located at the woodland edge at the central part of the Project according to EIA report.

2.2 MONITORING MEASURES OF WETLAND HABITATS

- 2.2.1 Wetland habitats include wet woodland and watercourses. Monitoring surveys using standardised quantitative methodology will be conducted at fixed points. For seasonal watercourse, survey shall be conducted whenever the habitat appears.
- 2.2.2 Measures to respond to decreases in numbers of aquatic fauna using the wetland habitats and action and limit levels to trigger these measures are detailed in Table 1.

Action Level	Response	Limit Level	Response
Reduction in	Investigate cause and if	Reduction	Investigate cause and if
taxa diversity	cause identified as related	in taxa	cause identified as related
by 30%	to the project instigate	diversity	to the project instigate
	remedial action to remove	by 50%	remedial action.
	or reduce source of		
	disturbance.		

Table 1 Action and Limit Levels and Responses to Evidence of Declines in Aquatic Fauna

2.3 MONITORING MEASURES OF NON-WETLAND HABITATS

- 2.3.1 Non-wetland habitats consist of upland grassland and woodland. Monthly quantitative surveys of non-aquatic fauna will be conducted using standard route transect counts.
- 2.3.2 Measures to respond to decreases in numbers of non-aquatic fauna using the non-wetland habitats and action and limit levels to trigger these measures are detailed in Table 2.

Action Level	Response	Limit Level	Response
Reduction in	Investigate cause and if	Reduction	Investigate cause and if
species diversity	cause identified as related	in species	cause identified as related
by 30%	to the project instigate	diversity by	to the project instigate
	remedial action to remove	50%	remedial action.
	or reduce source of		
	disturbance.		

Table 2 Action and Limit Levels and Responses to Evidence of Declines in Non-Aquatic Fauna



3 METHODOLOGY

The ecological survey includes all taxa being investigated in EIA report. Table 3 summarizes schedule of faunal surveys.

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mammals	\checkmark											
Birds (day)		\checkmark										
Birds (night)				\checkmark								
Herpetofau na				\checkmark	\checkmark	\checkmark		\checkmark	\checkmark	\checkmark		
Dragonflies			\checkmark									
Butterflies			\checkmark									
Aquatic fauna	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark		\checkmark	\checkmark	\checkmark	\checkmark	\checkmark

Table 3 Survey Schedule

3.1 MAMMAL SURVEY

3.1.1 Mammal surveys will be conducted along the transects shown in Appendix 1 during both daytime and night time periods. Along with direct observations, other field signs, such as scats and tracks, will be searched and recorded if present.

3.2 BIRD SURVEY

3.2.1 Bird surveys will be conducted along the transects shown in Appendix 1 during the surveys, species and their vocalizing individuals recorded will be enumerated and recorded according to the habitat(s) they are utilising.

3.3 HERPETOFAUNA SURVEY

3.3.1 Reptile and amphibian surveys will be conducted along transects shown in Appendix 1 during surveys careful searches of appropriate microhabitats and refugia for reptiles and their vocalizing individuals will be undertaken and all reptiles observed will be identified and counted.

3.4 DRAGONFLY SURVEY

3.4.1 Dragonfly surveys will be conducted along transects shown in Appendix 1 during surveys all dragonflies seen will be identified and counted as accurately as possible.



3.5 BUTTERFLY SURVEY

3.5.1 Butterfly surveys will be conducted along transects shown in Appendix 1 during surveys all butterflies seen will be identified and counted as accurately as possible.

3.6 AQUATIC FAUNA SURVEY

3.6.1 Freshwater fishes and macro-invertebrates will be recorded by direct observation. All species trapped/recorded will be enumerated and identified (to the lowest taxonomic level possible), and the species of conservation importance photographed.



4 RESULT

This monitoring survey started on 11th May 2021. A sunny day. The day and night survey covered wetland and non-wetland areas. The survey was conducted by transect and at fixed points. All species seen will be identified and counted as accurately as possible.

Mammal

There was no mammal recorded in the monitoring area.

Bird

There were a total of 16 bird individuals from 12 species recorded in the monitoring area. Five species of conservation interests were recorded in the monitoring area: *Ardeola bacchus*, Chinese Pond Heron 池鷺, *Milvus migrans*, Black Kite 黑 鳶, *Centropus sinensis*, Greater Coucal 褐翅鴉鵑, and *Halcyon smyrnensis* White-throated Kingfisher 白胸翡翠.

No Golden-headed Cisticola was observed during the bird survey.

Herpetofauna

There was no reptile species recorded in the monitoring area. There were four amphibian species recorded in the monitoring area.

■ Butterfly

There was a total of 5 butterfly individuals from 3 species recorded in the monitoring area.

■ Dragonfly

There was a total of 9 odonate individuals from two species recorded in the monitoring area.

Freshwater communities

There was no freshwater community recorded in the monitoring area.





Figure 2

Wetland in monitoring area.





Table 4Result of mammal in survey

Scientific Name	English Name	Chinese	Conservation	11-5-2021	
Section Park		Name	Status	Non- wetland	Wetland
		N/A			

Table 5Result of Avifauna in survey

Scientific Name	English Name	Chinese	Conservation	11-5-2021	
		Name	Status	Non-wetland	Wetland
Francolinus pintadeanus	Chinese Francolin	中華鷓鴣		1	
Ardeola bacchus	Chinese Pond Heron	池鷺	Fellowes et al. (2002): PRC,(RC)		1
Milvus migrans	Black Kite	黑鳶	Fellowes et al. (2002): RC; Appendix 2 of CITES	1	
Centropus sinensis	Greater Coucal	褐翅鴉鵑	Class 2 Protected Animal of China;China Red Data Book Status: (Vulnerable)	1	
Hierococcyx sparverioides	Large Hawk Cuckoo	大鷹鵑		1	
Caprimulgus affinis	Savanna Nightjar	林夜鷹		1	
Halcyon smyrnensis	White-throated Kingfisher	白胸翡翠	Fellowes et al. (2002): LC		1
Pycnonotus jocosus	Red-whiskered Bulbul	紅耳鵯			3
Pycnonotus sinensis	Chinese Bulbul	白頭鵯			2
Prinia flaviventris	Yellow-bellied Prinia	黃腹鷦鶯			2
Prinia inornata	Plain Prinia	純色鷦鶯			1
Motacilla alba	White Wagtail	白鶺鴒		1	



Table 6Result	of reptile in survey				
Scientific Name	Common Name	Chinese Name	11-5-2021		
Scientific Name	Common Name		Non-wetland	Wetland	
		N/A			

Table 7Result of amphibian in survey

Scientific Name	Common Name	Chinese Name	Conservation Status	11-5-2021	
				Non- wetland	Wetland
Bufo melanostictus	Asian Common Toad	黑眶蟾蜍			+
Polypedates megacephalus	Brown Tree Frog	斑腿泛樹蛙			+
Rana guentheri	Gunther's Frog	沼蛙			+
Fejervarya limnocharis	Paddy Frog	澤蛙			+

+ Species counted with vocal identification

Table 8Result of butterfly in survey

Scientific Name	Common Name	Chinese Name	11-	5-2021
			Non-wetland	Wetland
Abisara echerius	Plum Judy	蛇目褐蜆蝶	1	2
Ariadne ariadne	Angled Castor	波蛺蝶	1	
Papilio demoleus	Lime Butterfly	達摩鳳蝶	1	

Table 9Result of Odonate in survey

Scientific Name	Common Name	Chinese Name	Conservation Status	11-5-2021	
				Non- wetland	Wetland
Ischnura senegalensis	Common Bluetail	褐斑異痣蟌			3
Rhyothemis variegata	Variegated Flutterer	斑麗翅蜻			6

Table 10Result of freshwater communities in survey

Scientific Name	Common Name	Chinese Name	Conservation Status	11-5-2021			
				Non- wetland	Wetland		
N/A							



5 DISCUSSION

Data analysis was carried out to compare with the biodiversity within the site boundary in the same month over years. General description of the ecological conditions is first revealed in terms of abundance as well as species richness, following by statistical analysis of the existing database. The result is considered as significant whenever the drop of diversity indexes exceeds the percentages mentioned in previous sections 2.2 and 2.3.

5.1

Total abundances and species richness in May over years were compared to show the trend. Figures 1 and 2 indicate total species richness and total abundance with the site boundary respectively.

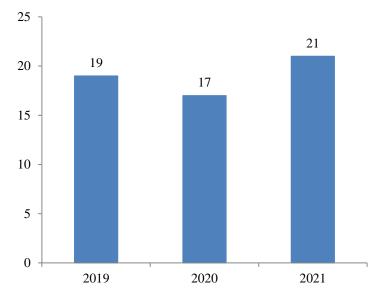


Figure 1: bar chart showing the total species richness within site boundary from 2019 to 2021 (Actual quantity annotated at the top of each bar)

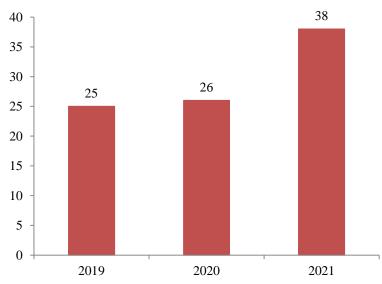
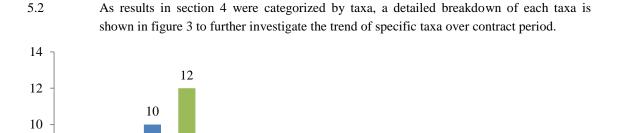


Figure 2: bar chart showing the total abundance within site boundary from 2019 to 2021 (Actual quantity annotated at the top of each bar)





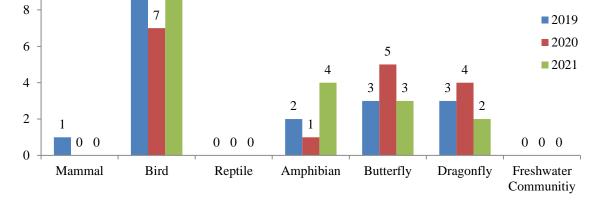


Figure 3: bar chart showing the species richness within site boundary by taxa from 2019 to 2021 (Actual quantity annotated at the top of each bar)

5.3 According to EM&A Manual, monitoring measures was determined by the species diversity of types of sensitive habitats, i.e. non-wetland and wetland habitats. Abundance and species richness by habitat type in May over years were compared in figures 4 and 5.

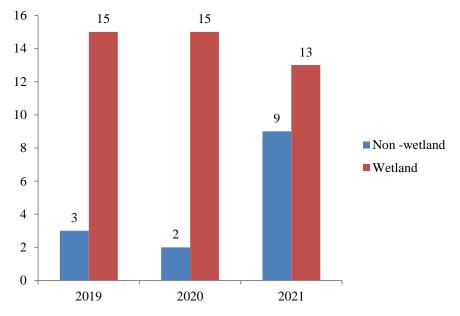


Figure 4: bar chart showing the species richness based on habitat type from 2019 to 2021 (Actual quantity annotated at the top of each bar)



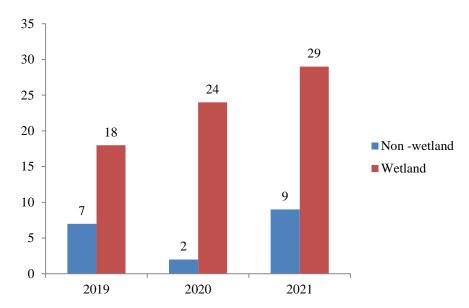
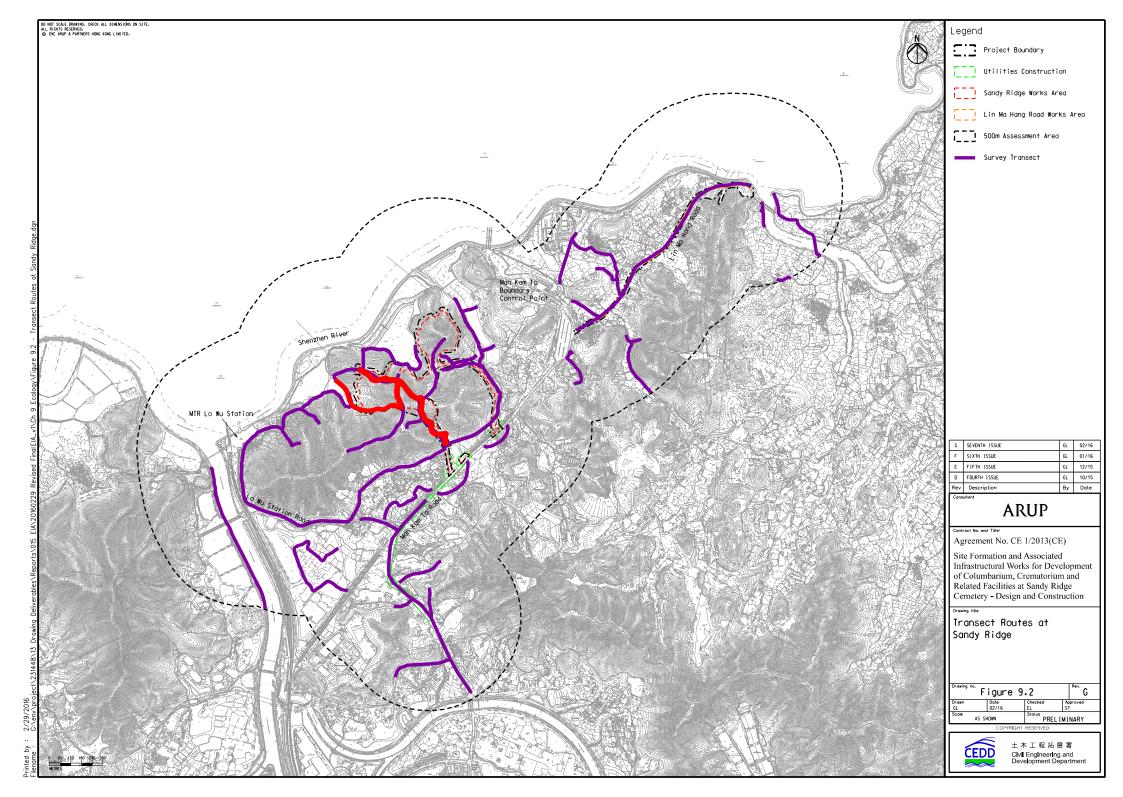


Figure 5: bar chart showing the abundance based on habitat type from 2019 to 2021 (Actual quantity annotated at the top of each bar)

After analysing survey results in May from 2019 to 2021, there is no obvious reduction for both wetland and non-wetland habitats. Good practice during construction is required to prevent environmental contamination as well as unnecessary site clearance. Continuous monitoring is also recommended to inspect any significant decrease in species diversity.

^{5.4}

Appendix I – Transect Routes for Contract CV/2016/10





Ecological Survey Report for Contract CV/2017/02



Contract No. CV/2017/02

Development of Columbarium at Sandy Ridge Cemetery – Infrastructural Works at Man Kam To Road and Lin Ma Hang Road

Monthly Report of Ecologically Sensitive Habitats Monitoring – May 2021

Revision	0	
Date of issue	28 May 2021	
Prepared by	Alan Lam	
Reviewed by	Edwina Yeung	China and
Verified by	Mike Leung	A



Table of Contents

1	INT	RODUCTION	4
	1.1	BACKGROUND	4
	1.2	OBJECTIVE	4
2	ECC	DLOGICALLY SENSITIVE HABITATS	5
	2.1	DESCRIPTION OF HABITATS	5
	2.2	MONITORING MEASURES OF WETLAND HABITATS	6
	2.3	MONITORING MEASURES OF NON-WETLAND HABITATS	6
3	ME	THODOLOGY	7
	3.1	MAMMAL SURVEY	7
	3.2	BIRD SURVEY	7
	3.3	HERPETOFAUNA SURVEY	7
	3.4	DRAGONFLY SURVEY	7
	3.5	BUTTERFLY SURVEY	8
	3.6	AQUATIC FAUNA SURVEY	8
4	RES	ULT	9
5	DIS	CUSSION	13
Арр	endix I	- Transect Routes for Contract CV/2017/02	16



LIST OF TABLE	
Table 1	Action and Limit Levels and Responses to Evidence of Declines
	in Aquatic Fauna
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	in Non-Aquatic Fauna
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Table 4	Result of mammal in survey
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Table 8	Result of butterfly in survey
Table 9	Result of Odonate in survey
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LIST OF APPEN	DIX
Appendix I	Transect Routes for Contract CV/2017/02

LIST OF FIGURE	LIST OF FIGURES				
Figure 1	Bar chart showing the total species richness within site boundary				
Figure 2	Bar chart showing the total abundance within site boundary				
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1 INTRODUCTION

1.1 <u>BACKGROUND</u>

- 1.1.1 The main objective of the proposed site formation and associated infrastructural works for development of columbarium, crematorium (C&C) and related facilities at Sandy Ridge Cemetery is to increase the public cremation services and supply of public niches to meet the future demand.
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- 1.2.1 According to approved EIA report (AEIAR-198/2016), habitat types within project boundary comprise of watercourse, grassland, upland grassland, plantation, woodland and developed area. Natural habitats were of moderate ecological value in terms of species diversity, species rarity, species abundance, ecological linkage as well as nursery. Moreover, 0.3ha of wet woodland on the northern side of Sandy Ridge was deemed habitat with high ecological value. Four types of habitats were regarded as ecologically sensitive habitats, namely wet woodland, watercourses, upland grassland and woodland. Considering human disturbance in upcoming construction and operation phases, ecologically sensitive habitats shall be monitored in accordance with EM&A Manual.
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- 2.1.4 Upland grassland is the major habitat within the project boundary. The semi-natural habitat is dominated by typical upland grassland species: fern *Dicranopteris pedata*, grass *Neyraudia reynaudiana*, *Miscanthus floridulus*, climbing vines *Smilax china*, *Smilax glabra*, and shrubs such as *Rhodomyrtus tomentosa*, *Breynia fruticosa* and *Helicteres angustifolia*. Approximately 30 flowering spikes of two orchid species Bamboo Orchid and Toothed Habenaria were recorded near the hill top in the northern part of this upland grassland. Golden-headed Cisticola, which is considered as Local Concern by Fellowes *et al.* (2002), was also recorded in upland grassland on Sandy Ridge, including a proved breeding record of fledged young in September 2013. In addition, numerous species of conservation interest were recorded in EIA report, such as East Asian Porcupine, Leopard Cat, Red Muntjac, Great Swift, Tamil Grass Dart, Small Three-ring and Small Grass Yellow.



2.1.5 Scattered patches of woodland are present throughout the assessment area, with the largest contiguous block located immediately to the east of the project boundary. These woodlands are relatively young with single-layered of canopy dominants (~10 – 15m tall) including *A. dioica, Bridelia tomentosa, Cinnamomum burmannii, Daphniphyllum calycinum, Litsea glutinosa, Rhus succedanea,* and *Zanthoxylum avicennae*. Such areas comprise secondary woodland which is largely derived from natural regeneration and colonisation of trees as a result of seed dispersal by birds and/or bats. A mature tree of *A. sinensis* is located at the woodland edge at the central part of the Project according to EIA report.

2.2 MONITORING MEASURES OF WETLAND HABITATS

- 2.2.1 Wetland habitats include wet woodland and watercourses. Monitoring surveys using standardised quantitative methodology will be conducted at fixed points. For seasonal watercourse, survey shall be conducted whenever the habitat appears.
- 2.2.2 Measures to respond to decreases in numbers of aquatic fauna using the wetland habitats and action and limit levels to trigger these measures are detailed in Table 1.

Action Level	Response	Limit Level	Response
Reduction in	Investigate cause and if	Reduction	Investigate cause and if
taxa diversity	cause identified as related	in taxa	cause identified as related
by 30%	to the project instigate	diversity	to the project instigate
	remedial action to remove	by 50%	remedial action.
	or reduce source of		
	disturbance.		

Table 1 Action and Limit Levels and Responses to Evidence of Declines in Aquatic Fauna

2.3 MONITORING MEASURES OF NON-WETLAND HABITATS

- 2.3.1 Non-wetland habitats consist of upland grassland and woodland. Monthly quantitative surveys of non-aquatic fauna will be conducted using standard route transect counts.
- 2.3.2 Measures to respond to decreases in numbers of non-aquatic fauna using the non-wetland habitats and action and limit levels to trigger these measures are detailed in Table 2.

Action Level	Response	Limit Level	Response
Reduction in	Investigate cause and if	Reduction	Investigate cause and if
species diversity	cause identified as related	in species	cause identified as related
by 30%	to the project instigate	diversity by	to the project instigate
	remedial action to remove	50%	remedial action.
	or reduce source of		
	disturbance.		

Table 2 Action and Limit Levels and Responses to Evidence of Declines in Non-Aquatic Fauna



3 METHODOLOGY

The ecological survey includes all taxa being investigated in EIA report. Table 3 summarizes schedule of faunal surveys.

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mammals		\checkmark										
Birds (day)	\checkmark											
Birds (night)				\checkmark								
Herpetofau na				\checkmark								
Dragonflies			\checkmark									
Butterflies			\checkmark									
Aquatic fauna	\checkmark	√	\checkmark									

Table 3 Survey Schedule

3.1 MAMMAL SURVEY

3.1.1 Mammal surveys will be conducted along the transects shown in Appendix 1 during both daytime and night time periods. Along with direct observations, other field signs, such as scats and tracks, will be searched and recorded if present.

3.2 BIRD SURVEY

3.2.1 Bird surveys will be conducted along the transects shown in Appendix 1 during the surveys, species and their vocalizing individuals recorded will be enumerated and recorded according to the habitat(s) they are utilising.

3.3 HERPETOFAUNA SURVEY

3.3.1 Reptile and amphibian surveys will be conducted along transects shown in Appendix 1 during surveys careful searches of appropriate microhabitats and refugia for reptiles and their vocalizing individuals will be undertaken and all reptiles observed will be identified and counted.

3.4 DRAGONFLY SURVEY

3.4.1 Dragonfly surveys will be conducted along transects shown in Appendix 1 during surveys all dragonflies seen will be identified and counted as accurately as possible.



3.5 BUTTERFLY SURVEY

3.5.1 Butterfly surveys will be conducted along transects shown in Appendix 1 during surveys all butterflies seen will be identified and counted as accurately as possible.

3.6 AQUATIC FAUNA SURVEY

3.6.1 Freshwater fishes and macro-invertebrates will be recorded by direct observation. All species trapped/recorded will be enumerated and identified (to the lowest taxonomic level possible), and the species of conservation importance photographed.



4 RESULT

This monitoring survey started on 11th May 2021. A sunny day. The day and night survey covered wetland and non-wetland areas. The survey was conducted by transect and at fixed point. All species seen will be identified and counted as accurately as possible.

Mammal

There was no mammal recorded in the monitoring area.

Bird

There were total of 17 bird individuals from 9 species recorded in the monitoring area. Four species of conservation interests were recorded in the monitoring area: *Ardeola bacchus* Chinese Pond Heron 池鷺, *Centropus bengalensis* Lesser Coucal 小鴉鵑, *Picumnus innominatus* Speckled Piculet 斑姬啄木鳥, *Psittacula eupatria* Alexandrine Parakeet 亞歷山大鸚鵡.

No Golden-headed Cisticola was observed during the bird survey.

Herpetofauna

There were two reptile individuals from one species recorded in the monitoring area. There was no amphibian recorded in the monitoring area.

■ Butterfly

There was total 8 butterfly individuals from 7 species recorded in the monitoring area.

Dragonfly

There were 9 odonate individuals from 4 species recorded in the monitoring area. One species of conservation interests were recorded in the monitoring area: *Urothemis signata* Scarlet Basker 赤斑曲鈎脈蜻.

■ Freshwater communities

There were two species of freshwater fish recorded in the monitoring area.





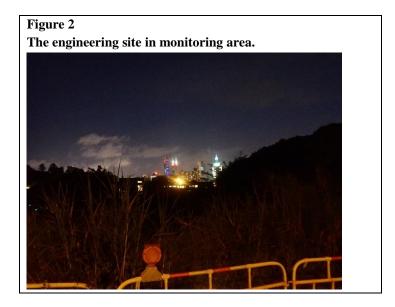




Table 4Result of mammal in survey

Scientific Name	English Name	('hinoco Nomo	Conservation Status	11-May-2021		
Scientific Marie			Status	Non- wetland	Wetland	
		N/A				

Table 5Result of Avifauna in survey

	En alish Nama	Chinaga Nama	Conservation	11-May-2021		
Scientific Name	English Name	Chinese Name	Status		Wetland	
Francolinus pintadeanus	Chinese Francolin	中華鷓鴣		1		
Ardeola bacchus	Chinese Pond Heron	池鷺	Fellowes et al. (2002): PRC,(RC)		1	
Spilopelia chinensis	Spotted Dove	珠頸斑鳩			2	
Centropus bengalensis	Lesser Coucal	小鴉鵑	Class 2 Protected Animal of China;China Red Data Book Status: (Vulnerable)	1		
Picumnus innominatus	Speckled Piculet	斑姬啄木鳥	Fellowes et al. (2002): LC	1		
Psittacula eupatria	Alexandrine Parakeet	亞歷山大鸚鵡	IUCN Red List Status: NT; Appendix 2 of CITES	4		
Pycnonotus jocosus	Red-whiskered Bulbul	紅耳鵯			3	
Prinia flaviventris	Yellow-bellied Prinia	黃腹鷦鶯			2	
Gracupica nigricollis	Black-collared Starling	黑領椋鳥			2	

Table 6Result of reptile in survey

Scientific Name	Common Name	Chinese Name	11-M	lay-2021
			Non-wetland	Wetland
Hemidactylus bowringii	Bowring's Gecko	原尾蜥虎	2	



Table 7Result of amphibian in survey

Scientific Name	Common Name	Chinese Name	Conservation Status	11-May-2021	
				Non- wetland	Wetland
		N/A			

Table 8Result of butterfly in survey

Scientific Name	Common Name	Chinese Name	11-M	11-May-2021		
	Common Name	Chinese Maine	Non-wetland	Wetland		
Abisara echerius	Plum Judy	蛇目褐蜆蝶	1			
Ariadne ariadne	Angled Castor	波蛺蝶		1		
Mycalesis mineus	Dark Brand Bush Brown	小眉眼蝶	2			
Papilio bianor	Chinese Peacock	碧鳳蝶	1			
Papilio paris	Paris Peacock	巴黎翠鳳蝶	1			
Papilio polytes	Common Mormon	玉帶鳳蝶	1			
Papilio protenor	Spangle	藍鳳蝶	1			

Table 9Result of Odonate in survey

Scientific Name	Common Name	C'hinese Name	Conservation Status	11-May-2021		
				Non- wetland	Wetland	
Orthetrum glaucum	Common Blue Skimmer	黑尾灰蜻			1	
Urothemis signata	Scarlet Basker	赤斑曲鈎脈蜻	Fellowes et al. (2002): LC	1		
Copera marginipes	Yellow Featherlegs	黃狹扇蟌			4	
Prodasineura autumnalis	Black Threadtail	烏齒原蟌			3	

Table 10Result of freshwater communities in survey

Scientific Name	Common Name	Chinese Name	Conservation Status	11-May-2021
Gambusia affinis	Mosquito fish	食蚊魚		+
Puntius semifasciolatus	Chinese Barb	五線無鬚鮑		+

+: Species appeared but uncountable.

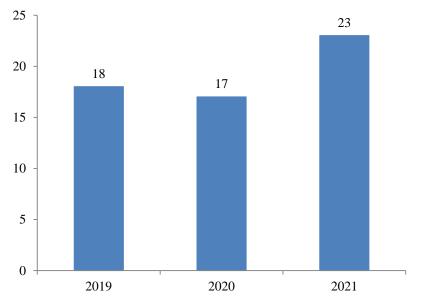


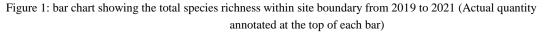
5 DISCUSSION

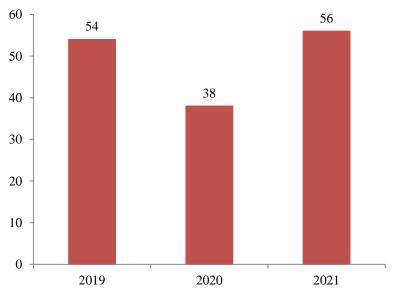
5.1

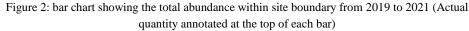
Data analysis was carried out to compare with the biodiversity within the site boundary in the same month over years. General description of the ecological conditions is first revealed in terms of abundance as well as species richness, following by statistical analysis of the existing database. The result is considered as significant whenever the drop of diversity indexes exceeds the percentages mentioned in previous sections 2.2 and 2.3.

Total abundances and species richness in May over years were compared to show the trend. Figures 1 and 2 indicate total species richness and total abundance with the site boundary respectively.



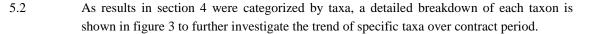








5.3



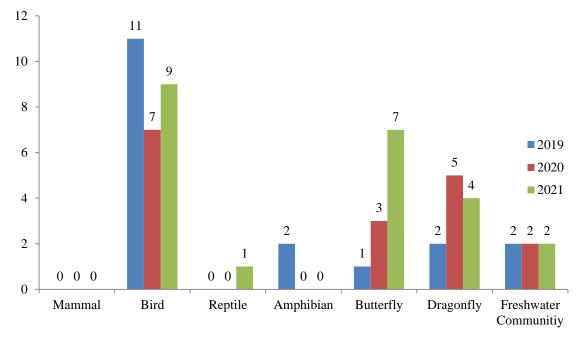
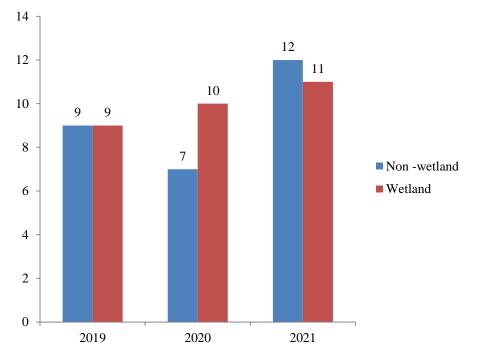
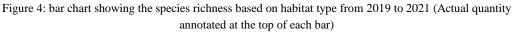


Figure 3: bar chart showing the species richness within site boundary by taxa from 2019 to 2021 (Actual quantity annotated at the top of each bar)

According to EM&A Manual, monitoring measures was determined by the species diversity of types of sensitive habitats, i.e. non-wetland and wetland habitats. Abundance and species richness by habitat type in May over years were compared in figures 4 and 5.







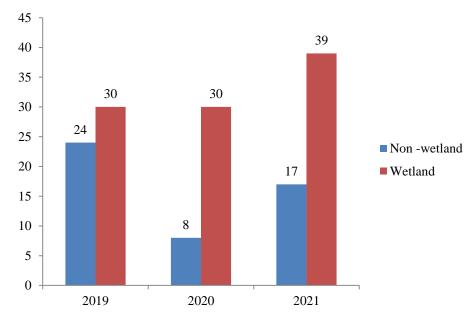
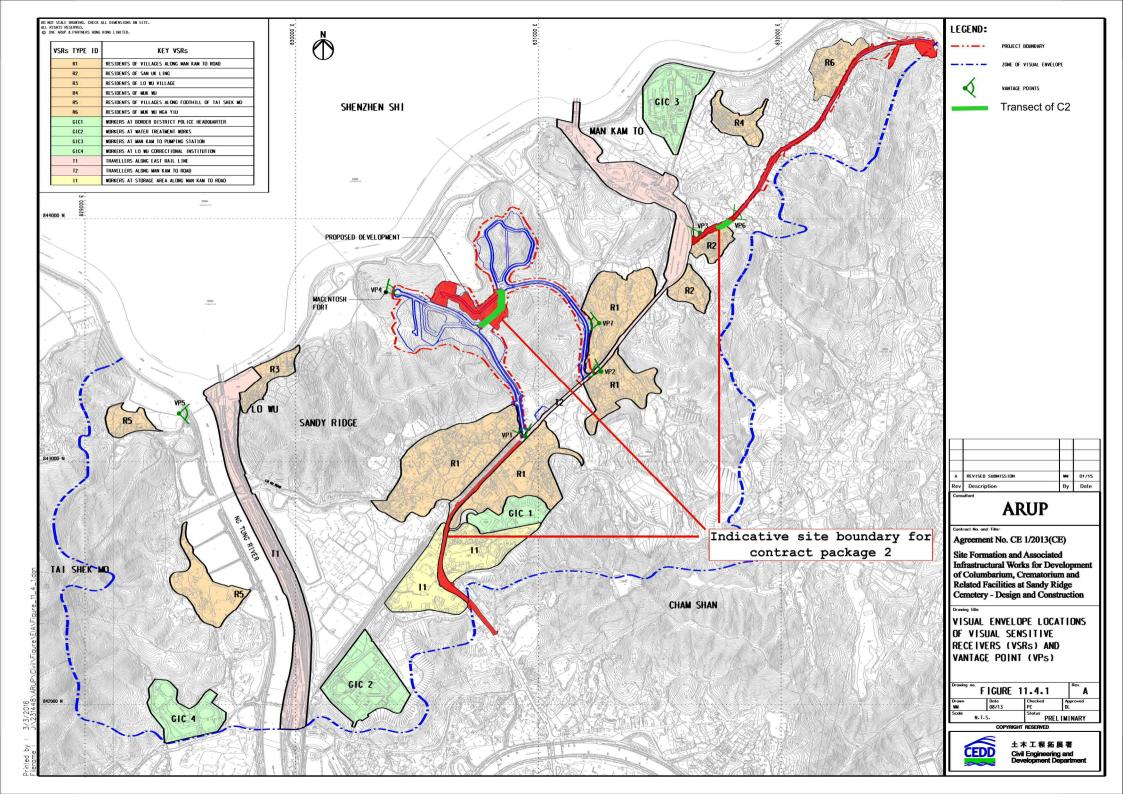


Figure 5: bar chart showing the abundance based on habitat type from 2019 to 2021 (Actual quantity annotated at the top of each bar)

5.4 After analysing survey results in May 2019 to 2021, there was no significant drop in species diversity for both non-wetland and wetland habitats. However, a good practice during construction is required to prevent environmental contamination as well as unnecessary site clearance. Moreover, continuous monitoring is required to inspect any significant reduction of species diversity.



Appendix I – Transect Routes for Contract CV/2017/02





Appendix L

Landscape & Visual Inspection Checklist



Contract No. CV/2016/10

Site Formation and Associated Infrastructural Works for Development of Columbarium, Crematorium and Related Facilities at Sandy Ridge Cemetery Landscape and Visual Impact Assessment Checklist for Site Audit

Date/ Time: 24/5/2021 10:30 Weather: Fine/ Overcast/ Rain/ Windy

Item	Mitigation Measures	Im	olemei	itation	Actions/ Remarks
		Yes	No	N/A	_
1	Landscape and Visual	-		_	
1.1	Is the construction period become shortened?			\checkmark	Under review.
1.2	Is the work site confined within site boundaries and without encroaching into the landscape resources offsite?	~			
1.3	Is the site kept clean and tidy (E.g. storage of materials, location and appearance of site accommodation being well positioned)	~			
1.4	Is the construction site screened properly by hoardings or noise barriers in visually unobstructed colours?	~			
1.5	Is the erosion and dust control for exposed soil well performed during excavation work? (E.g. Exposed soil shall be covered or "camouflaged" and watered frequently. Areas that are expected to be left with bare soil for a long period of time should be hydro seeded and / or covered with suitable protective fabrics.)	~			
1.6	Are the woodland, plantation and other vegetation being protected and preserved in accordance with DEVB TC(W) No. 07/2015(E.g. Set up Tree Protection Zone)?	~			
1.7	Are the trees which are in direct conflict with the development proposal being transplanted as far as practical in accordance with and DEVB TC(W) No. 07/2015?	~			
1.8	Are compensatory planting for trees being provided to compensate the trees felled in accordance with DEVB TC(W) No. 07/2015?			~	Tree planting works have not yet been commenced.
1.9	Are precautionary control measures to protect natural streams and rivers from adverse impact being implemented in accordance with ETWWB TCW No. 5/2005? (E.g. Construction debris and spoil should be covered up and properly disposed)	~			
1.10	Is light and glare control such as hooding being implemented during construction and operation to minimize light pollution and night time glare? (E.g. All security floodlights for construction sites should be equipped with adjustable shield, frosted diffusers and reflective covers)	~			

Summary / Remarks:



Follow up actions taken by Contractor for previous comments:

N/A

New observation:

1. Formation of slope near retain trees was observed.

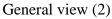
Reminders:

- 1. Contractor is reminded to set up TPZ of proper size and with appropriate material around retain trees according to approved method statement.
- 2. Contractor is reminded to prevent the construction material pile within TPZ and ensure no works is allowed within the TPZ.
- 3. Transplanted trees T2465, T2468 and T2928 were in fair health condition with normal foliage color and density. Contractor is reminded to provide proper maintenance according to approved method statement.

Photo Record:



General view (1)





General view (3)



Formation of slope near retain trees





Transplanted tree (T-2465)



Transplanted tree (T-2468)

Fig G.



Tree protection zone (T-2468)



Transplanted tree (T-2928)



Contract No. CV/2017/02 Site Formation and Associated Infrastructural Works for Development of Columbarium, Crematorium and Related Facilities at Sandy Ridge Cemetery Development of Columbarium at Sandy Ridge Cemetery – Infrastructural Works at Man Kam To Road and Lin Ma Hang Road Landscape and Visual Impact Assessment Checklist for Site Audit

Date/ Time: 24/5/2021 11:30 Weather: Fine/ Overcast/ Rain/ Windy

Item	Mitigation Measures	Im	olemei	ntation	Actions/ Remarks
	0	Yes	No	N/A	_
1	Landscape and Visual	1			1
1.1	Is the construction period become shortened?			\checkmark	Under review
1.2	Is the work site confined within site boundaries and without encroaching into the landscape resources offsite?	~			
1.3	Is the site kept clean and tidy (E.g. storage of materials, location and appearance of site accommodation being well positioned)	~			
1.4	Is the construction site screened properly by hoardings or noise barriers in visually unobstructed colours?	~			
1.5	Is the erosion and dust control for exposed soil well performed during excavation work? (E.g. Exposed soil shall be covered or "camouflaged" and watered frequently. Areas that are expected to be left with bare soil for a long period of time should be hydro seeded and / or covered with suitable protective fabrics.)	~			
1.6	Are the woodland, plantation and other vegetation being protected and preserved in accordance with DEVB TC(W) No. 07/2015(E.g. Set up Tree Protection Zone)?	~			
1.7	Are the trees which are in direct conflict with the development proposal being transplanted as far as practical in accordance with and DEVB TC(W) No. 07/2015?			~	Tree transplanting works have not yet been commenced
1.8	Are compensatory planting for trees being provided to compensate the trees felled in accordance with DEVB TC(W) No. 07/2015?			~	
1.9	Are precautionary control measures to protect natural streams and rivers from adverse impact being implemented in accordance with ETWWB TCW No. 5/2005? (E.g. Construction debris and spoil should be covered up and properly disposed)			~	
1.10	Is light and glare control such as hooding being implemented during construction and operation to minimize light pollution and night time glare? (E.g. All security floodlights for construction sites should be equipped with adjustable shield, frosted diffusers and reflective covers)			~	

Summary / Remarks:



Follow up actions taken by Contractor for previous comments:

1. Tree protection zones were reinstated.

New Observation:

N/A

Reminders:

1. Contractor is reminded to set up TPZ of proper size and with appropriate material around retain trees according to approved method statement. Contractor should prevent any construction material pile within TPZ and ensure no works is allowed within the TPZ.

Photo Record:

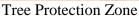


General view (1)





General view (3)





Signature:

		Signature Registration Beam	Date
Recorded by	Registered Landscape Architect	The second secon	24 May 2021
Checked by	Environmental Team Leader	*# Bitter	9 Jun 2021
	Independent Environmental Checker	h	16 June 2021



Appendix M

Monthly Summary Waste Flow Table

Monthly Summary Waste Flow Table for May 2021

 Department:
 Civil Engineering and Development Department
 Contract No.:
 CV/2016/10

 Contract Title:
 Site Formation and Associated Infrastructural Works for Development of Columbarium at Sandy Ridge Cemetery

 Commencement Date:
 15-Dec-2017
 Estimated completion Date
 22-Dec-2023
 Estimated Contract Sum:
 780M

		Actual Quantitie	s of Inert C&D N	Iaterials Generated	l Monthly			Actual Quantities	s of C&D Wastes	Generated Monthly	7
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	3.044	0.000	0.525	0.000	0.119	2.400	0.000	0.000	0.000	0.000	0.022
Feb	2.419	0.000	0.958	0.000	0.135	1.326	0.000	0.000	0.000	0.000	0.030
Mar	8.541	0.000	0.754	0.525	6.344	1.968	0.000	0.000	0.000	0.000	0.242
Apr	4.699	0.000	1.213	1.762	3.681	1.567	0.000	0.000	0.000	0.000	0.073
May	5.212	0.000	0.865	0.452	3.254	1.545	0.000	0.000	0.000	0.000	0.056
June											
Sub-total	23.915	0.000	4.315	2.739	13.533	8.806	0.000	0.000	0.000	0.000	0.423
July											
Aug											
Sept											
Oct											
Nov											
Dec											
Total	23.915	0.000	4.315	2.739	13.533	8.806	0.000	0.000	0.000	0.000	0.423

Notes: (1) The waste flow table should cover the whole construction period of the Contract.

(2) The original estimates of the C&D materials should be the estimates at contract commencement and should not be altered during construction.

(3) Inert C&D materials that are specified in the Contract to be imported for use at the Site shall be separately indicated.

(4) The yearly estimates of the C&D materials should be updated as appropriate taking into account the latest works programme etc.

(5) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material.

(6) Broken concrete for recycling into aggregates.

Name of Department: CEDD

	A	ctual Quantities	of Inert C&D N	Iaterials Gener	ated Monthl	у	Actual Q	uantities of C	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	Chemical Waste	Others, e.g. general refuse
	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)
JAN	741.560	0.000	0.000	0.000	741.56	0.000	0.000	0.000	0.000	0.000	8.770
FEB	672.150	0.000	0.000	0.000	672.15	0.000	0.000	0.000	0.000	0.000	4.700
MAR	1512.670	0.000	0.000	0.000	1512.67	0.000	0.000	0.000	0.000	0.000	9.380
APRIL	1467.270	0.000	0.000	0.000	1467.27	0.000	0.000	0.000	0.000	0.000	27.700
MAY	1136.740	0.000	0.000	0.000	1136.74	0.000	0.000	0.000	0.000	0.000	13.170
JUN											
Sub Total	5530.390	0.000	0.000	0.000	5530.390	0.000	0.000	0.000	0.000	0.000	63.720
JUL											
AUG											
SEP											
ОСТ											
NOV											
DEC											
Total	5530.390	0.000	0.000	0.000	5530.390	0.000	0.000	0.000	0.000	0.000	63.720

Monthly Summary Waste Flow Table for 2021

Notes: * estimated quantity (pending from EPD NENT (soil) to update the actual quantity)

Name of Department: CEDD

	Forecast of Total Quantities of C&D Materials to be Generated from the Contract (see Note 4)									
Total Quantity Generated	Hard Rocks and Large Broken Concrete	Reused in the Contract	Reused in Other Projects	Disposed as Public Fill	Imported Fill	Metal	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)
0	0	0	0	0	0	0	0	0	1	0

Notes:

(1) The performance targets are given in PS clause 6(14) above.

(2) The waste flow table shall also include C&D materials that are specified in the Contractor to be imported for use at the Site.

(3) Plastic 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

- Hard Rocks and Large Broken Concrete = Cannot be defined at this stage
- Imported Fill = Estimated by the Contractor
- Metal = Estimated by the Contractor
- Paper/cardboard packaging = Estimated by the Contractor
- Plastics = Estimated by the Contractor

- Chemical Waste = Estimated by the Contractor (Spent lubricating oil, assume density 0.9kg/L)

- Other, e.g. general refuse = Estimated by the Contractor



Appendix N

Implementation Schedule for Environmental Mitigation Measures

Note: Chapters 1 to 3 of the EIA report present the background information of the Project, identified concurrent projects, objectives and scope for various environmental aspects, and description on alternative options and construction description. Chapters 4 to 12 of the EIA report present the EIA findings and mitigation measures are described below with cross-reference to the EIA report. Chapters 13 to 15 describe the environmental monitoring requirements and conclusion.

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage	Requirements and / or standards to be achieved
Common Mitig	ation Measures (Applicable to ALL Project Components, including D	Ps and Non-DPS)				
Construction D	ust Impact					
S4.4.5.2	The contractor shall follow the procedures and requirements given in the Air Pollution Control (Construction Dust) Regulation	Minimise dust impact at the nearby sensitive receivers	Contractor	All construction sites	Construction phase	APCO To control the dusi impact to meet HKAQO and TM-EIAC criteria
S4.4.5.3	Water spraying every hour for all active works area.	Minimise dust impact at the nearby sensitive receivers	Contractor	All construction sites	Construction phase	APCO To control the dust impact to meet HKAQO and TM-EIAO criteria
S4.4.5.2	 Any excavated or stockpile of dusty material should be covered entirely by impervious sheeting or sprayed with water to maintain the entire surface wet and then removed or backfilled or reinstated where practicable within 24 hours of the excavation or unloading; Any dusty materials remaining after a stockpile is removed should be wetted with water and cleared from the surface of roads; A stockpile of dusty material should not be extended beyond the pedestrian barriers, fencing or traffic cones; The load of dusty materials on a vehicle leaving a construction site should be covered entirely by impervious sheeting to ensure that the dusty materials do not leak from the vehicle; Vehicle wheel washing facilities should be provided at each construction 	Minimise dust impact at the nearby sensitive receivers	Contractor	All construction sites	Construction phase	APCO To control the dust impact to meet HKAQO and TM-EIAO criteria

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage	Requirements and / or standards to be achieved
	site exit. Immediately before leaving the construction site, every vehicle should be washed to remove any dusty materials from its body and wheels;					
	• 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. Good site practice shall also be adopted by the Contractor to ensure the conditions of the hoardings are properly maintained throughout the construction period;					
	• The portion of any road leading only to construction site that is within 30m of a vehicle entrance or exit should be kept clear of dusty materials;					
	• Surfaces where any pneumatic or power-driven drilling, cutting, polishing or other mechanical breaking operation takes place should be sprayed with water or a dust suppression chemical continuously;					
	• Any area that involves demolition activities should be sprayed with water or a dust suppression chemical immediately prior to, during and immediately after the activities so as to maintain the entire surface wet;					
	• Any skip hoist for material transport should be totally enclosed by impervious sheeting;					
	• Every stock of more than 20 bags of cement or dry pulverised fuel ash (PFA) should be covered entirely by impervious sheeting or placed in an area sheltered on the top and the 3 sides;					
	• Loading, unloading, transfer, handling or storage of bulk cement or dry PFA should be carried out in a totally enclosed system or facility, and any vent or exhaust should be fitted with an effective fabric filter or equivalent air pollution control system;					
	• 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.					

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage	Requirements and / or standards to be achieved
S4.4.5.1	Implement regular dust monitoring under EM&A programme during the construction stage.	Monitoring of dust impact	Contractor	Selected representative dust monitoring station	Construction phase	• TM-EIAO
S4.4.5.3	 All road surface within the barging facilities will be paved. Dust enclosures will be provided for the loading ramp, installation of 3-sided screen with top cover and the provision of water sprays at the discharge point would be provided. Vehicles will be required to pass through designated wheel wash facilities. Continuous water spray at the loading point. 	Minimise dust impact at the nearby sensitive receivers	Contractor	Barging point at Siu Lam	Construction phase	• TM-EIAO

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage	Requirements and / or standards to be achieved
Construction Noise						
\$5.5.5.3	 Implement the following good site management practices: only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction programme; machines and plant (such as trucks, cranes) that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum; plant known to emit noise strongly in one direction, where possible, be orientated so that the noise is directed away from nearby NSRs; silencers or mufflers on construction equipment should be properly fitted and maintained during the construction works; mobile plant should be sited as far away from NSRs as possible and practicable; material stockpiles, mobile container site office and other structures should be effectively utilised, where practicable, to screen noise from onsite construction activities. 	Control construction noise	Contractor	All construction sites	Construction phase	• Annex 5, TM-EIAO
S5.5.5.5	Adopt quiet plants during the construction of viaduct, widening of Sha Ling Road, construction of platform for crematorium and widening of Lin Ma Hang Road. The quiet plants should be made reference to the PME listed in the TM or the QPME/ other commonly used PME listed in EPD web pages or taken from BS5228: Part 1: 2009 Noise Control on Construction and Open Sites as far as possible.	Reduce the noise levels of plant items	Contractor	Works area for construction of viaduct, widening of Sha Ling Road, construction of platform for crematorium and widening of Lin Ma Hang Road		• Annex 5, TM-EIAO

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage	Requirements and / or standards to be achieved
S5.5.5.6	Install temporary noise barriers (in the form of site hoardings, approx. 2.4m high) located on the site boundaries between noisy construction activities and NSRs. The conditions of the hoardings shall be properly maintained throughout the construction period.	Reduce the construction noise levels at low-level zone of NSRs through partial screening.	Contractor	All construction sites where practicable	Construction phase	• Annex 5, TM-EIAO
S5.5.5.7 – S5.5.5.12	Install movable noise barriers (typical design is wooden framed barrier with a small-cantilevered upper portion of superficial density no less than 7kg/m^2 on a skid footing with 25mm thick internal sound absorptive lining), acoustic mat or full enclosure, screen the noisy plants including air compressors, generators etc.	Screen the noisy plant items to be used at all construction sites	Contractor	All construction sites where practicable	Construction phase	• Annex 5, TM-EIAO
\$5.5.5.13	Sequencing operation of construction plants where practicable.	Operate sequentially within the same work site to reduce the construction noise	Contractor	All construction sites where practicable	Construction phase	• Annex 5, TM-EIAO
S13.2.1.1 – S13.4.1.2	Implement a noise monitoring under EM&A programme.	Monitor the construction noise levels at the selected representative locations	Contractor	Selected representativ e noise monitoring station	Construction phase	• TM-EIAO
Operational Noise (Road	d Traffic Noise)			1	L	
S5.6.6.4	 Provide a series of noise mitigation measures including absorptive noise barriers and low noise road surfacing materials along Lin Ma Hang Road and Sha Ling Road before operation of the proposed project for existing and planned representative NSRs. Locations of noise mitigation measures are stated as following: <i>For existing representative NSRs</i> Approx. 12m of absorptive noise barrier 2.5m above road level along Sha Ling Road (MM1); Approx. 92m of absorptive noise barrier 2.5m above road level along Sha Ling Road (MM2); 	Reduce operation noise from road traffic	Contractor	Refer to Figures 5.6.9 – 5.6.13 of the EIA Report	Prior to operation of the Project for existing representative NSRs. While for barriers to protect planned representative NSRs, it should constructed before intake of planned representative NSRs.	

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage	Requirements and / or standards to be achieved
	• Approx. 28m of absorptive noise barrier 3m above road level along Project Road near Sha Ling Road (MM3);					
	• Approx. 51m of absorptive noise barrier 3m above road level along Project Road near Sha Ling Road (MM4);					
	 Approx. 25m of absorptive noise barrier 4m above road level along Lin Ma Hang Road near San Uk Ling (MM5); 					
	 Approx. 21m of absorptive noise barrier 4m above road level along Lin Ma Hang Road near San Uk Ling (MM6); 					
	 Approx. 14m of absorptive noise barrier 4m above road level along Lin Ma Hang Road near San Uk Ling (MM7); 					
	 Approx. 18m of absorptive noise barrier 3m above road level along Lin Ma Hang Road near San Uk Ling (MM8); 					
	• Approx. 42m of absorptive noise barrier 3m above road level along temporary pullover space opposite San Uk Ling (MM9);					
	 Approx. 93m of absorptive noise barrier 3m above road level along Lin Ma Hang Road opposite San Uk Ling (MM10); 					
	 Approx. 185m of low noise surfacing materials along Lin Ma Hang Road near San Uk Ling (MM11); 					
	For planned representative NSRs					
	 Approx. 36m of absorptive noise barrier 5m above road level along Lin Ma Hang Road near Muk Wu Nga Yiu (MM12); 					
	 Approx. 47m of absorptive noise barrier 5m above road level along Lin Ma Hang Road near Muk Wu Nga Yiu (MM13); 					
	 Approx. 31m of absorptive noise barrier 5m above road level along Lin Ma Hang Road near Muk Wu Nga Yiu (MM14); 					
	 Approx. 31m of absorptive noise barrier 5m above road level along Lin Ma Hang Road near Muk Wu Nga Yiu (MM15); 					
	 Approx. 41m of absorptive noise barrier 5m above road level along Lin Ma Hang Road near Muk Wu Nga Yiu (MM16); 					

EIA Ref.	Recommended Mitigation Measures	ObjectivesoftheRecommendedMeasures &Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage	Requirements and / or standards to be achieved
	• Approx. 340m of low noise surfacing materials along Lin Ma Hang Road near Muk Wu Nga Yiu (MM17).					

EIA Ref.	Recommended Mitigation Measures	ObjectivesoftheRecommendedMeasures&Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage	Requirements and / or standards to be achieved		
Water Quality (Construc	Vater Quality (Construction Phase)							
S6.4.4.1 – S6.4.4.3	 In accordance with the Practice Note for Professional Persons on Construction Site Drainage, Environmental Protection Department, 1994 (ProPECC PN1/94), construction phase mitigation measures shall include the following: General Site Operation At the start of site establishment, perimeter cut-off drains to direct offsite 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 avoided as far as possible. The design of temporary on-site drainage should prevent runoff going through site surface, construction machinery and equipment in order to avoid or minimise polluted runoff. Sedimentation tanks with sufficient capacity, constructed from pre-formed individual cells of approximately 6 to 8 m³ 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 incorporate watercourse, through a site/sediment trap. The sediment/silt 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 	To minimise water quality impact from construction site runoff and general construction activities	Contractor	All construction sites where applicable	Construction phase	• Water Pollution Control Ordinance • ProPECC PN1/94 • TM-EIAO • TM-DSS		
	guidelines in Appendix A1 of ProPECC PN 1/94. The detailed design of							

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage	Requirements and / or standards to be achieved
	the sand/silt traps shall be undertaken by the contractor prior to the commencement of construction;					
	• Construction works should be programmed to minimise surface excavation works during the rainy seasons (April to September). All exposed earth areas should be completed and vegetated as soon as possible after earthworks have been completed. If excavation of soil cannot be avoided during the rainy season, or at any time of year when rainstorms are likely, exposed slope surfaces should be covered by tarpaulin or other means;					
	• If the excavation of trenches in wet periods is necessary, it should be dug and backfilled in short sections wherever practicable. Water pumped out from trenches or foundation excavations should be discharged into storm drains via silt removal facilities;					
	• 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;					
	• All open stockpiles of construction materials (for example, aggregates, sand and fill material) of more than 50m ³ should be covered with tarpaulin or similar fabric during rainstorms. Measures should be taken to prevent the washing away of construction materials, soil, silt or debris into any drainage system;					
	• Manholes (including newly constructed ones) should always be covered and temporarily sealed so as to prevent silt, construction materials or debris being washed into the drainage system and storm runoff being directed into foul sewers;					
	• Precautions 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 summarised in Appendix A2 of ProPECC PN 1/94. Particular attention should be paid to the control of silty surface runoff during storm events, especially for areas located near steep slopes;					

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage	Requirements and / or standards to be achieved
	 All vehicles and plant should be cleaned before leaving a construction site to ensure no earth, mud, debris and the like is deposited by them on roads. An adequately designed and sited wheel washing facilities should be provided at every construction site exit where practicable. Washwater should have sand and silt settled out and removed at least on a weekly basis to ensure the continued efficiency of the process. The section of access road leading to, and exiting from, the wheel-wash bay to the public road should be paved with sufficient backfall toward the wheel-wash bay to prevent vehicle tracking of soil and silty water to public roads and drains; Oil interceptors should be provided in the drainage system downstream of any oil/fuel pollution sources. The oil interceptors should be emptied and cleaned regularly to prevent the release of oil and grease into the storm water drainage system after accidental spillage. A bypass should be provided for the oil interceptors to prevent flushing during heavy rain; Construction solid waste, debris and rubbish on site should be collected, handled and disposed of properly to avoid water quality impacts; All fuel tanks and storage areas should be provided with locks and sited on sealed areas, within bunds of a capacity equal to 110% of the storage capacity of the largest tank to prevent spilled fuel oils from reaching water sensitive receivers nearby; Regular environmental audit on the construction site should be carried out in order to prevent any malpractices. Notices should be posted at conspicuous locations to remind the workers not to discharge any sewage or wastewater into the water bodies, marsh and ponds; Adopt best management practices. 					
S6.4.4.4 – S6.4.4.5	 Sewage from workforce Portable chemical toilets and sewage holding tanks are recommended for handling the construction sewage generated by the workforce. A licensed contractor should be employed to provide appropriate and adequate portable toilets and be responsible for appropriate disposal and maintenance; 	To minimise water quality from sewage effluent	Contractor	All construction sites where practicable	Construction phase	Water Pollution Control Ordinance TM-DSS

Environmental Mitigation Implementation Sc	chedule – Sandy Ridge
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EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage	Requirements and / or standards to be achieved
	 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. 					
S6.4.4.6	 Operation of Barging Point at Siu Lam All barges should be fitted with tight bottom seals to prevent leakage of materials during transport; Barges or hoppers should not be filled to a level that will cause overflow of materials or polluted water during loading or transportation; All vessels should be sized so that adequate clearance is maintained between vessels and the seabed in all tide conditions, to ensure that undue turbidity is not generated by turbulence from vessel movement or propeller wash; and Loading of barges and hoppers should be controlled to prevent splashing of material into the surrounding water. Mitigation measures for land-based activities as outlined in Section 6.4.4 should be applied to minimise water quality impacts from site runoff and open stockpile spoils at the proposed barging facilities where appropriate. 	To minimise water quality from operation of barging point at Siu Lam	Contractor	All construction sites where practicable	Construction phase	Water Pollution Control Ordinance TM-DSS
Water Quality (Operat	tional Phase)					
S6.5.4.1 – S6.5.4.6	 The following mitigation measures during operational phase are recommended: Sewage and wastewater discharge should be connected to foul sewerage system; Proper drainage systems with silt traps and oil interceptors should be installed; 	To minimise the road runoff, wastewater discharge and erosion of seasonal watercourse during the operational phase	Highways Department / Contractors	Whole alignment	Construction / Operational Phase	Water Pollution Control Ordinance TM-DSS

EIA Ref.	Recommended Mitigation Measures	ObjectivesoftheRecommendedMeasures&Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage	Requirements and / or standards to be achieved
	 The design of road gullies with silt traps should be incorporated especially for the catchment leading to the existing wet woodland area located at the north of the site; The silt traps and oil interceptors should be cleaned and maintained regularly, especially before peak seasons of the visitors in Ching Ming Festival and Chung Yeung Festival; Energy dissipaters should be installed at the seasonally wet watercourses to reduce the magnitude of the first flush in order to minimise the erosion impact to the wet woodland. 					

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage	Requirements and / or standards to be achieved
Waste Management	(Construction Waste)					
\$7.3.3.8	Construction & Demolition Material Management Plan (C&DMMP)	To enhance the management of	Contractor	All	Construction phase	Project
	• A C&DMMP shall be submitted to the Public Fill Committee for approval in the case of C&D materials disposal exceeding 50,000m ³ .	construction and demolition (C&D) material including rock in public works projects		construction sites		Administrative Handbook for Civil Engineering Works, 2012 Edition
\$7.3.4.2	Good Site Practice	Minimise waste generation	Contractor	All	Construction phase	• Waste Disposal
	The following good site practices are recommended throughout the construction activities:	during construction		construction sites		Ordinance
	• nomination of an approved personnel, such as a site manager, to be responsible for the implementation of good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site;					
	 training of site personnel in site cleanliness, appropriate waste management procedures and concepts of waste reduction, reuse and recycling; 					
	• provision of sufficient waste disposal points and regular collection for disposal;					
	• appropriate measures to minimise windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers;					
	• regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors;					
	• a Waste Management Plan (WMP) should be prepared by the contractor and submitted to the Engineer for approval.					
\$7.3.4.3	Waste Reduction Measures	Reduce waste generation	Contractor	All	Construction phase	• Waste Disposal
	Waste reduction is best achieved at the planning and design phase, as well as by ensuring the implementation of good site practices. The following recommendations are proposed to achieve reduction:			construction sites		Ordinance
	• segregate and store different types of waste in different containers, skip or stockpiles to enhance reuse or recycling of materials and their proper disposal;					

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage	Requirements and / or standards to be achieved
	 proper storage and site practices to minimise the potential for damage and contamination of construction materials; plan and stock construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of waste; sort out demolition debris and excavated materials from demolition works to recover reusable/recyclable portions (i.e. soil, broken concrete, metal etc.); provide training to workers on the importance of appropriate waste management procedures, including waste reduction, reuse and recycling. 					
S7.3.4.5	Storage of Waste The following recommendation should be implemented to minimise the impacts: • non-inert C&D materials 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;	Good site practice to minimise the waste generation and recycle the C&D materials as far as practicable so as to reduce the amount for final disposal	Contractor	All construction sites	Construction phase	 Land (Miscellaneous Provisions) Ordinance Waste Disposal Ordinance ETWB TCW No. 19/2005
\$7.3.4.6	Collection and Transportation of Waste The following recommendation should be implemented to minimise the impacts: • remove waste in timely manner; • employ the trucks with cover or enclosed containers for waste transportation; • obtain relevant waste disposal permits from the appropriate authorities; and • disposal of waste should be done at licensed waste disposal facilities.	Minimise waste impacts from storage	Contractor	All construction sites	Construction phase	• Waste Disposal Ordinance
S7.3.4.8 – S7.3.4.15	 <u>Excavated and C&D Materials</u> Wherever practicable, C&D materials should be segregated from other wastes to avoid contamination and ensure acceptability at public filling areas or reclamation sites. The following mitigation measures should be implemented in handling the excavated and C&D materials: maintain temporary stockpiles and reuse excavated fill material for 	Minimise waste impacts from excavated and C&D materials	Contractor	All construction sites	Construction phase	Land (Miscellaneous Provisions) Ordinance Waste Disposal Ordinance

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage	Requirements and / or standards to be achieved
	backfilling;					• ETWB TCW No.
	• carry out on-site sorting;					19/2005
	• make provisions in the Contract documents to allow and promote the use of recycled aggregates where appropriate; and					Project Administrative
	• implement a recording system for the amount of waste generated, recycled and disposed of for checking.					Handbook for Civil Engineering Works,
	The recommended C&D materials handling should include:					2012 Edition
	• On-site sorting of C&D materials;					
	• Reuse of C&D materials; and					
	• Use of Standard Formwork and Planning of Construction Materials purchasing.					
\$7.3.4.17 - \$7.3.4.18	Chemical Waste	Control the chemical waste and	Contractor	All	Construction phase	• Waste Disposal
	If chemical wastes are produced at the construction site, the Contractors should register with EPD as chemical waste producer. 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.	ensure proper storage, handling and disposal.		construction sites		 (Chemical Waste) General) Regulation Code of Practice on the Packaging, Labelling and Storage of Chemical Waste
\$7.3.4.19	 <u>General Refuse</u> General refuse should be stored in enclosed bins separately from construction and chemical wastes. Recycling bins should also be placed to encourage recycling. Preferably enclosed and covered areas should be provided for general refuse collection and routine cleaning for these areas should also be implemented to keep areas clean. A reputable waste collector should be employed to remove general refuse on a daily basis. 	Minimise production of the general refuse and avoid odour, pest and litter impacts	Contractor	All construction sites	Construction phase	• Waste Disposal Ordinance
\$7.3.4.20	 Sewage The WMP should document the locations and number of portable chemical toilets depending on the number of workers, land availability, 	Minimise production of sewage impacts	Contractor	All construction sites	Construction phase	• Waste Disposal Ordinance

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage	Requirements and / or standards to be achieved
	 site condition and activities. Regularly collection by licensed collectors should be arranged to minimise potential environmental impacts. 					
Waste Management (Opera	ational Waste)					
S7.4.4.1	General Refuse A reputable waste collector should be employed to remove general refuse on a daily basis.	Remove general refuse during routine road cleaning activities on the roads network and avoid odour, pest and litter impacts	Contractor	Roads network for the C&C facilities and Lin Ma Hang Road	Operational phase	• Waste Disposal Ordinance

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage	Requirements and / or standards to be achieved
Land Contamination						
S8.9.1.1	Re-appraisal of the potentially contaminated site (SRC-1)	Identify any hot spots for SI within the southeast and western portions of SRC-1	• •	Potentially contaminated site (SRC-1)	Once the works area for the Project is confirmed and site access is available (e.g. after land resumption)	• Annex 19 of the TM- EIAO, Guidelines for Assessment of Impact On Sites of Cultural Heritage and Other Impacts (Section 3 : Potential Contaminated Land Issues);
						Guidance Manual for Use of Risk-Based Remediation Goals (RBRGs) for Contaminated Land Management;
						• Guidance Notes for Contaminated Land Assessment and Remediation; and
						• Practice Guide for Investigation and Remediation of Contaminated Land
						• Recommendations in Health Risk Assessment
S8.11.1.1	Preparation and submission of Contamination Assessment Plan (CAP) to EPD for review and approval, if required	Present the findings of the re- appraisal and strategy of the recommended SI, if required		Potentially contaminated site (SRC-1)	After land resumption and prior to the construction phase	Ditto
\$8.11.1.2	Preparation and submission of Contamination Assessment Report (CAR) to EPD for review and approval, if required	Present the findings of SI, if any, and evaluate the level and extent of potential contamination	Project Proponent / Detailed Design Consultant	Potentially contaminated site (SRC-1)	Prior to the construction phase	Ditto

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage	Requirements and / or standards to be achieved
S8.11.1.2	Preparation and submission of Remediation Action Plan (RAP) to EPD for review and approval if contamination is identified	Recommend appropriate mitigation measures for the contaminated soil and groundwater identified in the assessment if remediation is required	Detailed Design Consultant	Potentially contaminated site (SRC-1)	Prior to the construction phase	Ditto
S8.11.1.2	Preparation and submission of Remediation Report (RR) to EPD for review and approval following the completion of any necessary remediation works	Demonstrate that the decontamination work is adequate and is carried out in accordance with the endorsed CAR and RAP	Detailed Design	Potentially contaminated site (SRC-1)	Prior to the construction phase	Ditto

Environmental Mitigation Implementatio	n Schedule – Sandy Ridge
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EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage	Requirements and / or standards to be achieved
Ecology (Construction	Phase)					
\$9.7.2.3	Preparation and submission of Upland Grassland Reinstatement Plan to EPD for agreement.	An Upland Grassland Reinstatement Plan will be prepared by a qualified ecologist/botanist with full details of the findings of a baseline grassland survey, the practical details and methodology of the physical excavation, transport and storage or turves/topsoil and their subsequent reinstatement once the receptor sites have been established, along with an implementation programme of reinstatement, post- reinstatement monitoring and maintenance programme. A contingency plan should be proposed in the Grassland Reinstatement Plan so as to describe the action and limit levels and the action plan if certain performance criteria (such as area of preferred habitat) are not met during the monitoring and maintenance period.	Project Proponent/ Detailed Design Consultant (qualified ecologist/ botanist) for Upland Grassland Reinstatement Plan	Engineered slopes of Crematorium Indicative locations for Grassland Reinstatement should be referred to Figure 9.11 of the EIA Report	Prior to construction phase	 Reinstatement and establishment requirements to be detailed in Upland Grassland Reinstatement Plan TM-EIAO
S9.7.2.5 – S9.7.2.6	Preparation and submission of a Vegetation Survey Report and Transplantation Proposal (if needed as concluded in the Vegetation Survey Report) to EPD for agreement.	The Vegetation Survey will report the presence, as well as update the conditions, number, locations and habitat types of any identified floral species of conservation importance to be impacted by the development,	Project Proponent/ Detailed Design Consultant (qualified ecologist/ botanist) for	Within the Project Area where applicable	Prior to construction phase	• Survey findings and transplantation methodology to be detailed in Vegetation Survey Report and Transplantation Plan

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage	Requirements and / or standards to be achieved
		and evaluate suitability and/or practicality of transplantation. The Transplantation Proposal will recommend locations of the receptor site(s), transplantation methodology, implementation programme of transplantation and post-transplantation monitoring and maintenance programme.	Vegetation Survey Report and Transplantation Proposal.			respectively. • TM-EIAO.
\$9.7.5.3 – \$9.7.5.5, \$9.8.1.6	Preparation and submission of Enhancement Woodland Proposal to EPD for agreement.	Recommend appropriate enhancement planting programme, planting and post-transplantation monitoring methodology, action plan for monitoring the enhancement planting and maintenance programme.	Project Proponent/ Detailed Design Consultant (qualified ecologist/ botanist) for Wooded Area Proposal.	Filled slope west of the platform, and north west of the platform in the valley below MacIntosh Fort Indicative locations for Enhancement Woodland should be referred to Figure 9.11 of the EIA Report	Prior to construction phase	 Enhancement planting and establishment requirements to be detailed in Wooded Enhancement Proposal. TM-EIAO
S9.7.3.1 – S9.7.3.3	Indirect impacts due to potential changes in water quality, hydrology and sedimentation could occur to a series of downstream watercourses and wetland systems (including the wet woodland, marsh and mitigation ponds) during both the construction (for the Platform and LMHR widening works) and operational stages. Generally, indirect water impact to any aquatic fauna during the construction phase should easily be avoided by implementing water control measures (ETWB TCW No. 5/2005) to avoid direct or indirect impacts any watercourses and good site practices (further details are discussed in Section 6 of the EIA Report).	Minimise the indirect impacts to Water Quality and Hydrology	Contractor /detailed design consultant.	On the edge of any active works area, 30m from the watercourse	Prior to commencement and during construction phase	• ETWB TCW No. 5/2005 • TM-EIAO

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage	Requirements and / or standards to be achieved
	In addition, construction phase impacts on the watercourses, riparian corridor and fauna using these areas will be minimised by erection of a 2m high, solid, dull green site boundary fence on the edge of any active works area, 30m from the watercourse. Where this is not practicable due to site constraints, demarcation fencing will need to be erected to prevent unauthorised encroachment into the riparian corridor by constructions works and traffic. Detailed mitigation measures will be designed at the detailed design stage.					
S9.7.3.4 – S9.7.3.6	Mitigation for noise disturbance (details refer to \$5.5.5 to \$5.6.6 of this table). Site formation and construction are tentatively proposed to cover a 65-month period from mid 2017 to late 2022. As a precautionary approach, consideration should be given at the detailed design stage to avoid the use of highly reflective materials in the design and implementing the use of opaque materials, fritting, breaking up external reflections with stickers or plastic wrap and/or any other bird-friendly design for noise barriers. Works will be restricted to daytime and any construction lighting should be designed and positioned as to not impact on adjacent ecologically sensitive areas.	The construction work and site formation will be phased in order to reduce overall noise disturbance impacts in particular areas. Collisions usually occurs as a result of birds perceiving a clear path through an object that is transparent or appears to be transparent at some distance, or if the noise barrier is highly reflective which would appear to be composed of the adjacent natural vegetation. Furthermore, mitigation measures to control noise disturbance during this phase will involve the selection of quieter plant, use of movable noise barriers and erection of hoarding and fencing to demarcate the site boundary	Contractor Project Proponent	All construction sites	Prior to commencement and during construction phase	• TM-EIAO.

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage	Requirements and / or standards to be achieved
\$.9.7.3.7	 In order to demonstrate ecological awareness and to minimise the risk of indirect impacts from water pollution and hill fires, a series of good site practices should be adopted by site staff throughout the construction phase at each works site. These are as follows: Put up signs to alert site staff about any locations which are ecologically sensitive and measures to prevent accidental impacts; Erection of temporary geotextile silt or sediment fences/oil traps around any earth-moving works to trap any sediments and prevent them from entering watercourses; Prohibition of soil storage against trees or close to waterbodies; Delineation of works site to prevent encroachment onto adjacent habitats and fence off areas which have some ecological value; No smoking, hot works or sources of fire close to upland grassland; No on-site burning of waste; and Waste and refuse in appropriate receptacles. 	Minimise impacts on hydrological condition and water quality of hillside watercourses and reduce chances of hillfires.	Contractor	All construction sites	Prior to commencement and during construction phase	• TM-EIAO.
S.9.7.3.9	Precautionary checks by a suitably experienced ecologist of the vegetation for the presence of nesting birds should be carried out in the breeding season (February to July) before vegetation clearance. These impacts can be avoided by conducting vegetation clearance during the non-breeding season (tentatively August-January) and phased through the project period to minimise impacts.	Minimise the impacts to breeding birds within the works areas.	Contractor	All construction sites	Prior to site clearance	• TM-EIAO • WAPO

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage	Requirements and / or standards to be achieved
S9.7.2	Establishment, maintenance and monitoring of a Upland Grassland Reinstatement Area	Reinstatement of upland grassland and to maintain connectivity in Sandy Ridge.	Project Proponent / Contractor / Maintenance Authority	Engineered slopes of Crematorium Indicative locations for Grassland Reinstatement should be referred to Figure 9.11 of the EIA Report	Operational phase	 Monitoring methodology and successfulness of survival of upland grassland should follow Upland Grassland Reinstatement Plan. TM-EIAO.
S9.7.5.3 – S9.7.5.6	Establishment, maintenance and monitoring of an enhancement woodland	Recommend appropriate enhancement planting programme, planting and post- transplantation monitoring methodology, action plan for monitoring the enhancement planting and maintenance programme.	Project Proponent/ Detailed Design Consultant (qualified ecologist/ botanist) for Wooded Area Proposal.	Filled slope west of the platform, and north west of the platform in the valley below MacIntosh Fort Indicative locations for Enhancement Woodland should be referred to Figure 9.11 of the EIA Report	Operational phase	 Enhancement planting and establishment requirements to be detailed in Wooded Area Proposal. TM-EIAO.
S9.7.4.1 – S9.7.4.5	 Mitigation for Impacts to Water Quality and Hydrology (Operational Phase) Stormwater drainage system will be further developed in detailed design stage to collect dusty materials from water collected from the platform and associated road system. Silt traps will be installed to ensure removal of dusty materials. Regular cleaning will be conducted to avoid debris entering downstream rivers during first flush; and The proposed small diameter bore pile system at the foundation of the proposed platform structure. 	Specific mitigation measures will be implemented to prevent indirect impacts wetland habitats and fauna. Mitigation measures are to be further developed in the detailed design stage to address any water quality impacts due to the drainage from the proposed platform, and any erosion issues due to the drainage from the	Detailed Design Consultant	Wet woodland (and further down the marsh and mitigation ponds) and the seasonal watercourse to the east of the Project boundary	Detailed Design phase/Operational phase	• TM-EIAO

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage	Requirements and / or standards to be achieved
		proposed platform. The surface runoff collected on the platform will be captured by a stormwater drainage system, which will be further developed at the detailed design stage The proposed small diameter bore pile system at the foundation of the proposed platform structure would allow a notional free area of about 87 – 91% for groundwater to pass through				
\$9.7.4.6 – \$9.7.4.7	 <u>Minimise the potential indirect light disturbance on the Street Lighting on</u> <u>fireflies surrounding the Project Site during operational phase</u> It is considered that at the detailed design stage, street lighting of similar lux/light intensity as to what is currently present is utilised. Furthermore, as a precautionary measure, it is suggested that deflectors are fixed to the back of the street lights to prevent additional light reaching the marsh and causing adverse impacts to fireflies. 	Reduce light pollution and impact on the nearby habitats and their associated wildlife groups, particularly nocturnal fireflies.	Detailed Design/ Consultant/ Operator	The whole Project area	Detailed Design phase/Operational phase	• TM-EIAO
S9.7.4.9 – S9.7.4.9	The increase in visitors to the columbarium allows greater public access to the upland grassland of Sandy Ridge and in turn, the potential for hill fires is also increased. Fires may emanate from discarded cigarettes and from specific practices during festivals or grave-sweeping. In order to reduce the risk of hill fires, sufficient educational signage should be displayed throughout the columbarium warning people of the risks of fire and strictly prohibits practices that could cause hill fires. This will require input in the detailed design phase.	Minimise the risk of hill fires.	Detailed Design/ Consultant/ Operator	The whole Project area	Detailed Design phase/Operational phase	• TM-EIAO

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Implementation	Location / Timing	Implementation	Requirements and / or standards to be achieved
Fisheries						
S10.5.1.1	No loss of fish ponds is anticipated and no <i>in situ</i> mitigation is required. However, mitigation measures for water quality (S6.4.4 – S6.5.4 in this table) proposed are also pertinent in ensuring that fisheries impacts of the Project do not occur downstream of the Project area either locally or in Inner Deep Bay.	-	-	-	-	-

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage	Requirements and / or standards to be achieved
Landscape & Visual						
S11.8.1.3, Table 11.9	CM1 – The construction area and contractor's temporary works areas should be minimised to avoid impacts on adjacent landscape, and the reliance on off-site construction.	Minimise landscape impact and visual impact	Funded by CEDD and implemented by Contractor	Work site/ during construction	Construction phase	-
S11.8.1.3, Table 11.9	CM3 – Screening of construction works by hoardings/noise barriers around works area in visually unobtrusive colours and to screen construction works. It is proposed that screening be compatible with the surrounding environment and non-reflective, recessive colours be used. Hoarding should be taken down at the end of the construction period.	Minimise visual impact	Funded by CEDD and implemented by Contractor	Work site/ during construction	Construction phase	-
S11.8.1.3, Table 11.9	CM4 – Dust and Erosion Control for Exposed Soil - Excavation works and demolition of existing building blocks shall be well planned with precautions to suppress dust. Exposed soil shall be covered or watered often. Areas that are expected to be left with bare soil for a long period of time after excavation shall be properly covered with suitable protective fabric. Suitable drainage shall be provided around construction sites to avoid discharge of contaminants and sediments into sensitive water-based habitat.	Minimise indirect landscape impact	Funded by CEDD and implemented by Contractor	Work site/ during construction	Construction phase	-
S11.8.1.3, Table 11.9	CM5 – Control night-time lighting and glare by hooding all lights.	Minimise visual impact	Funded by CEDD and implemented by Contractor	Work site/ during construction	Construction phase	-

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage	Requirements and / or standards to be achieved
S11.8.1.3, Table 11.9	CM6 – Tree Protection and Preservation – Woodland, plantation and other vegetation within the Study Area will be protected and preserved as far as possible in accordance with ETWB TCW No. 29/2004 - Registration of Old and Valuable Trees, and Guidelines for their Preservation and DEVB TCW No.07/2015 – Tree Preservation. Detailed Design Considerations are made to avoid impacts to trees, e.g. proper viaduct/ bridge design routing to avoid majority of the woodland, locating the columbarium buildings in areas with less trees and ensuring design of the buildings has as small a footprint as practical.	Minimise landscape impact and visual impact	Funded by CEDD and implemented by Contractor	Work site/ during construction	Construction phase	 DEVB TC(W) 07/2015 Latest recommended horticultural practices from Greening, Landscape and Tree Management (GLTM) Section, DevB
S11.8.1.3, Table 11.9	CM7 – Tree Transplantation – Tree(s) will be affected according to the Tree Preservation and Removal Proposal to be carried out in a later stage. Established trees of value are to be re-located where practically feasible.	Minimise landscape and visual impact	Funded by CEDD and implemented by Contractor	Work site/ during construction	Design and Construction phase	 'Guidelines for Tree Risk Management and Assessment Arrangement on an Area Basis and on a Tree Basis', issued January 2011, Greening, Landscape and Tree Management (GLTM) Section, DevB Latest recommended horticultural practices from GLTM Section, DevB

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage	Requirements and / or standards to be achieved
S11.8.1.3, Table 11.9	CM8 - Implementing precautionary control measures during construction stage accordingly to ETWB TCW No. 5/2005 – Protection of natural streams/rivers from adverse impacts arising from construction works to avoid direct or indirect impacts any watercourses and good site practices.	Minimize landscape impact	Funded by CEDD and implemented by Contractor	Work site/ during construction	Design and Construction phase	• ETWB TCW No. 5/2005 – Protection of natural streams/rivers from adverse impacts arising from construction works
S11.8.1.3, Table 11.9	OM1 – Compensatory Woodland Planting - The arrangement of compensatory planting (e.g. areas of woodland to be compensated and space to be allowed within the Project Site) will be subject to detailed engineering design, landscape design and planting plan, and is recommended to be implemented prior to the construction activities as far as practical.	Compensate the loss of landscape greenery and enhance the overall visual value of the site.	Funded by CEDD and implemented by Contractor	Within Project Site	Prior to Construction phase	 DEVB TC(W) 07/2015 – Tree Preservation Latest recommended horticultural practices from Greening, Landscape and Tree Management (GLTM) Section, DevB DEVB TCW No. 06/2015 – Maintenance of Vegetation and Hard Landscape Features

EIA Ref.	Recommended Mitigation Measures	ObjectivesoftheRecommendedMeasures&Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage	Requirements and / or standards to be achieved
S11.8.1.3, Table 11.9	OM2 – Compensatory Tree Planting for Plantation and Other Vegetated Areas - Compensatory planting should be provided in accordance with DEVB TCW No. 07/2015 to compensate for those trees felled. According to the preliminary design, compensatory trees will be planted on the cut/fill slopes, along new roads and in car parks. The selection of planting species shall be made with reference to the species identified in the future Detailed Tree Survey and be native to Hong Kong or the South China region.	Compensate the loss of landscape greenery and enhance the overall visual value of the site.	Funded by CEDD and implemented by Contractor	Within Project Site	Construction phase	 DEVB TC(W) 07/2015 – Tree Preservation Latest recommended horticultural practices from Greening, Landscape and Tree Management (GLTM) Section, DevB DEVB TCW No. 06/2015 – Maintenance of Vegetation and Hard Landscape Features
S11.8.1.3, Table 11.9	OM3 – Amenity Planting and aesthetic streetscape design of hard landscaping for Pedestrian Walkway, Roadside - Roadside amenity planting should be provided along Sha Ling Road, Lin Ma Hang Road, as well as the internal road within Sandy Ridge columbarium and crematorium site; to enhance the landscape quality of the existing and proposed transport routes. Climbers are proposed to cover vertical, hard surfaces of the piers of the proposed viaducts, and also the newly formed retaining wall within the site. Shade tolerant plants will be planted, where light is sufficient, to improve aesthetic value of areas under viaducts.	Minimise visual impact and also enhance landscape.	Funded by CEDD and implemented by Contractor	Within Project Site	Construction phase	 Guidelines on Greening of Noise Barriers, issued April 2012, GLTMS, DevB DEVB TCW No. 06/2015 – Maintenance of Vegetation and Hard Landscape Features
S11.8.1.3, Table 11.9	OM4 – Greening Works and Contour Grading Works on Cut/ Fill Slopes - Greening works such as hydroseeding/ terraces of shrub or tree planting will be provided where slope gradient allows, according to Geotechnical Engineering Office (GEO) Publication No.1/2011 Technical Guidelines on Landscape Treatment for Slopes.	Minimise landscape and visual impact	Funded by CEDD and implemented by Contractor	Within Project Site	Construction phase	Geotechnical Engineering Office (GEO) Publication No.1/2011 Technical Guidelines on Landscape Treatment for Slopes.

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage	Requirements and / or standards to be achieved
S11.8.1.3, Table 11.9	OM5 – Landscape design treatment to be provided by relevant government department.	Mitigate the loss of greenery and enhance the overall landscape and visual value	Funded by FEHD and implemented by Contractor	Within Project Site	After handover to the relevant department	-
S11.8.1.3, Table 11.9	OM6 – Architectural and chromatic treatment of the hard architectural and engineering structures and facilities.	Mitigate the loss of greenery and enhance the overall landscape and visual value	Funded by FEHD and implemented by Contractor	Within Project Site	After handover to the relevant department	-
S11.8.1.3, Table 11.9	OM7 – Aesthetic design of the proposed noise barriers.	Mitigate the visual impact	Funded by CEDD and implemented by Contractor	Along Sha Ling Road and Lin Ma Hang Road	Construction phase	• WBTC No. 36/2004 - ACABAS - submission is required to ACABAS for approval of any bridges and associated structures within the public highway system.
S11.8.1.3, Table 11.9	OM8 - Silt traps should also be incorporated into design of road gullies for the natural water stream(s).	Minimise the landscape impact on natural stream	Funded by CEDD and implemented by Contractor	Within Project Site	Construction Phase	

Notes:

(a) A detailed Tree Survey Report showing all identified valuable trees and OVT will be undertaken in a separate Tree Preservation and Removal Proposal.

(b) Wood resulting from tree removal should be recycled as mulch or soil conditioner for re-use within the Project or in other projects as far as possible e.g. for the construction of soft landscape work, were practical.

(c) Contractor is responsible for landscaping during the agreed establishment and maintenance period. Other designated management and maintenance agents to take up maintenance and management of landscaping after end of agreed period.

(d) Highways Department (HyD) is responsible for maintenance and management of landscaping of public road side slope, Leisure and Cultural Services Department (LCSD) is responsible for the management and maintenance of soft landscapes along non-expressway public roads outside Country Park and Food and Environmental Hygiene Department (FEHD) is responsible for maintenance and management of landscaping of other areas allocated to FEHD.

- (e) The landscape mitigation treatment of the future development site shall follow the below frameworks:
 - Buffer planting shall be provided to soften the edge of the site.
 - Aesthetic landscape treatment including both soft and hard landscape features shall be provided.
 - Vertical greening shall be provided as far as practicable.
 - At-grade tree planting shall be provided as far as possible while planting space is allowed, to enhance the overall environment.
 - Architectural design shall blend in with the surrounding environment.
 - Overall greening ratio shall comply with TC(W) No.3/2012 Site coverage of Greenery for Government Building Projects.

Recommended Mitigation Measures Recommended Measures & Main Concerns to address Agent Timing Stage / or standards to be achieved
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The compensatory woodland planting shall be included woodland mixed whips, seeding, and shrubs. The principle of the location shall be the extension of the existing woodland, as well as the original lost woodland location. The proposal will be agreed with AFCD, the woodland enhancement planting shall refer to Chapter 9.

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Implementation Agent	Location / Timing	Implementation Stage	Requirements and / or standards to be achieved				
EM&A Project										
S13.1.1.1, S13.2.1.2	An Independent Environmental Checker needs to be employed as per the EM&A Manual.	Control EM&A Performance	Highways Department	All construction sites	Construction phase	 • EIAO Guidance Note No.4/2010 • TM-EIAO 				
S13.2.1.1 – S13.4.1.2	 An Environmental Team needs to be employed as per the EM&A Manual. Prepare a systematic Environmental Management Plan to ensure effective implementation of the mitigation measures. An environmental impact monitoring needs to be implementing by the Environmental Team to ensure all the requirements given in the EM&A Manual are fully complied with. 	Perform environmental monitoring & auditing	Highways Department / Contractor	All construction sites	Construction phase	 • EIAO Guidance Note No.4/2010 • TM-EIAO 				



Appendix O

Implementation of Water Quality Mitigation Measures

Water Quality Mitigation Measures under CV/2016/10 (Contract 1)





Water Quality Mitigation Measures under CV/2016/10 (Contract 1)



Water Quality Mitigation Measures under CV/2017/02 (Contract 2)



Water Quality Mitigation Measures under CV/2017/02 (Contract 2)

