





Contract No. 21/WSD/21

Relocation of Diamond Hill Fresh Water and Salt Water Service Reservoirs to Caverns

Monthly Environmental and Audit Report July 2023

ASC	CL / 230168321 /		MRPT04	/	3.0	
Publis	her	Project Code		Sequential No.		Version
Prepared by:				Certified by:		
Name	Howard Chan			F. C. Tsang		
Position	Environmental Team Consultant			Environmental Team Leader		
Signature	Environmental Team Consultant			Toay	Jænd	Bearg
Date	12 August 2023			12	2 August	2023



Content

EXE	CUTIVE SUMMARY	1
1.	INTRODUCTION	4
1.1	Project Background	4
1.2	Construction Works Programme	5
1.3	Project Organization	5
1.4	License, Notification and Permits	5
1.5	Brief Summary of EM&A Requirements	8
2.	AIR QUALITY MONITORING	10
2.1	Monitoring Locations	
2.2	Air Quality Monitoring Parameter, Frequency and Duration	
2.3	Monitoring Equipment and Methodology and QA/ QC Procedure	
2.4	Action and Limit Levels	11
2.5	Results and Observation	
3.	NOISE MONITORING	14
3.1	Monitoring Locations	14
3.2	Noise Monitoring Parameter, Frequency and Duration	14
3.3	Monitoring Equipment, Methodology and QA / QC Procedure	15
3.4	Maintenance and Calibration	
3.5	Action and Limit Levels	
3.6	Results and Observations	17
4.	WASTE MANAGEMENT	
5.	ENVIRONMENTAL SITE INSPECTION AND AUDIT	19
6.	ENVIRONMENTAL NON-COMPLIANCE	20
6.1	Summary of Exceedance	20
6.2	Summary of Environmental Non-Compliance	
6.3	Summary of Environmental Complaint	
6.4	Summary of Environmental Summon and Successful Prosecution	
7.	FUTURE KEY ISSUE	21
7.1	Construction Works and Potential Environmental Issues in the next Reporting Period	21
	The copyright of this document is owned by Acuity Sustainability Consulting Limited. It may not be reproduced except with prior written approval from the Comp	pany.



7.2	Recommendation	
8.	CONCLUSION, COMMENTS AND RECOMMENDATION	
8.1	Conclusion	
8.2	Comments and Recommendations	



List of Tables

Table I	Summary of EM&A Activities in the Reporting Period
Table II	Summary of Exceedance in the Reporting Period
Table 1.1	Status of Environmental License, Notification and Permits
Table 1.2	Summary of Status of Submission under EP-602/2021
Table 2.1	Air Quality Monitoring Stations for Construction Phase
Table 2.2	Impact Air Quality Monitoring Parameter, Duration and Frequency
Table 2.3	Impact Air Quality Monitoring Equipment
Table 2.4	Action and Limit Levels for 1-hour TSP
Table 2.5	Summary of Impact 1-hour TSP Monitoring Results
Table 2.6	Influencing Factors at / near Air Quality Monitoring Stations
Table 3.1	Noise Monitoring Stations during Construction Phase
Table 3.2	Construction Noise Monitoring Parameter, Frequency and Duration
Table 3.3	Construction Noise Monitoring Equipment
Table 3.4	Action and Limit Levels for Construction Noise Monitoring
Table 3.5	Summary of Construction Noise Monitoring Results
Table 3.6	Influencing Factors at Noise Monitoring Stations
Table 4.1	Summary of Waste Generated in the Reporting Period
Table 5.1	Summary of Site Inspections Observation and Recommendations

List of Figure

Figure 1.1	Project Layout Plan
Figure 2.1	Air Quality Monitoring Stations
Figure 3.1	Construction Noise Monitoring Stations

List of Appendices

Appendix A	Master Construction Programme for the Project
Appendix B	Project Organization Chart and Key Personnel Contact
Appendix C	Event and Action Plans
Appendix D	Project Implementation Schedule
Appendix E	Air Quality and Noise Monitoring Equipment Calibration Certification
Appendix F	Environmental Monitoring Schedule
Appendix G	Air Quality Monitoring Results and Graphical Presentation
Appendix H	Extract of Meteorological Observations for Hong Kong (Kai Tak)
Appendix I	Noise Monitoring Results and Graphical Presentation
Appendix J	Waste Generation in the Reporting Month
Appendix K	Summary of Complaint, Notification of Summons and Prosecution and Cumulative Complaint Log



EXECUTIVE SUMMARY

This is the 4th Monthly Environment Monitoring and Audit (EM&A) Report for Relocation of Diamon Hill Fresh Water and Salt Water Service Reservoirs to Caverns (the Project). This report was prepared by Acuity Sustainability Consulting Limited under Contract No. 21/WSD/21 (hereafter called "the Contract"). This report documents the findings of EM&A works during the reporting period from 1 July to 31 July 2023.

Key Construction Works in the Reporting Period

A summary of construction activities undertaken during the reporting period is presented below:

- Site formation;
- Pipe piling;
- Tree transplanting;
- Hoarding erection; and
- Temporary traffic Arrangement (TTA) site setup works.

Environmental Monitoring and Audit Programme

The monthly EM&A programme was undertaken by the Environmental Team in accordance with the EM&A Manual. A summary of the monitoring and audit activities during the reporting period is presented below:

EM&A Activities	Date
1-hour TSP Monitoring	5, 11, 19, 22 and 28 July 2023
Construction Noise Monitoring	5, 11, 22 and 28 July 2023
Weekly Environmental Site Inspection	7, 14, 21 and 26 July 2023

Breaches of Action and Limit Levels

A summary of the environmental monitoring exceedance of the reporting period is tabulated in **Table II**.



Table IISummary of Exceedance in the Reporting Period							
Environmental Monitoring	Parameter	No. of non- project related exceedances		Total no. of non-project related	No. of exceedances related to the project		Total no. of exceedances related to
		AL	LL	exceedances	AL	LL	the project
Air Quality	1-hour TSP	0	0	0	0	0	0
Noise	$L_{eq(30-\min)}$	0	0	0	0	0	0

Air Quality

No action or limit levels exceedance was recorded for 1-hour TSP monitoring during the reporting period.

Construction Noise

No action or limit levels exceedance was recorded for construction noise monitoring during the reporting period.

Complaint Log

No environmental complaint was received in the reporting period.

Notification of Summons and Successful Prosecutions

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

Reporting Change

There was no reporting change in the reporting period.

Future Key Issues

Key issues to be considered in the next two months included:

- Open trench for mainlaying and Mainlaying;
- Jacking pit construction for pipe jacking
- Trial pit excavation;
- Formation of piling platform at +89.0mPD;
- Pipe piling for PAB ELS wall;
- Site compound set up;
- ELS works in Portion 3; and
- Canopy table installation in Portion 3.



Potential environmental impacts arising from the above construction activities are mainly associated with construction dust, construction noise, water pollution control, waste management and landscape and visual.

The copyright of this document is owned by Acuity Sustainability Consulting Limited. It may not be reproduced except with prior written approval from the Company.



1. INTRODUCTION

1.1 **Project Background**

- 1.1.1 The relocated Diamond Hill Fresh Water and Salt Water Service Reservoirs (DHSRs) will be constructed in a series of caverns linked by access tunnels and adits. The relocated Diamond Hill Fresh Water Service Reservoirs (DHFWSR) and Diamond Hill Salt Water Service Reservoirs (DHSWSR) will be compartmented while the existing Diamond Hill Pumping Station (DHPS) will be split into two (2) pump houses for fresh and salt water supply when relocated.
- 1.1.2 Ancillary facilities to be constructed near the tunnel portal may include transformer room, switch room, emergency generator room, control room, ventilation building, and pumping station control room, which will be constructed in an above-ground building outside the tunnel.
- 1.1.3 The scope of the Project comprises the following:
 - a) Construction of the relocated DHSRs and associated pumping stations and water main laying works;
 - b) Construction of tunnels, adits, ventilation system and caverns for accommodating the relocated DHSRs and the associated facilities;
 - c) Terminating the operation of the existing DHSRs and the associated facilities; and
 - d) All other associated works that are incidental to and necessary for the completion of the Project.
- 1.1.4 The major construction activities of the Project include earthworks, drilling and blasting, construction of concrete structures, handling and transportation of excavated materials, water mains laying, installation of electrical and mechanical (E&M) equipment and material transportation. The operation of the existing DHSRs and the associated facilities will be terminated after the completion of the testing and commissioning of the relocated DHSRs. Under the Project, the existing DHSRs and associated facilities will be retained after termination of the operation. The subsequent demolition works will be carried out by other government departments/ project proponents.
- 1.1.5 The Project construction was commenced on 31 March 2023 and the completion date for the construction works would be on 12 April 2027.
- 1.1.6 The Project is a Designated Project under Item Q.2, Part I of Schedule 2 of the Environmental Impact Assessment Ordinance, "Underground Rock Caverns", which requires an environmental permit from Environmental Protection Department for its construction and operation.
- 1.1.7 Pursuant to the Environmental Impact Assessment Ordinance (EIAO), the Director of Environmental Protection Department (EPD) granted the Environmental Permits (EP-602/2021) to the Water Supplies Department (WSD) for the Project.



- 1.1.8 Acuity Sustainability Consulting Limited (ASCL) is commissioned by Chun Wo Sinohydro Joint Venture to undertake the role of Environmental Team under the Environmental Permit (EP) EP-602/2021, and to carry out the EM&A programme in fulfilment of the EM&A Manual, and other requirements stipulated in the associated EIA Report.
- 1.1.9 This is the 4th Monthly EM&A Report summarizing the key findings of the construction phase EM&A programme from 1 July to 31 July 2023 (the reporting period) and is submitted to fulfil the requirements in Conditions 3.4 of EP-602/2021 and section 13.3 of the EM&A Manual of the Project.

1.2 Construction Works Programme

- 1.2.1 The construction works of the Project was commenced on 31 March 2023. The construction works programme, and the location of construction works of the Project are shown in **Appendix A** and **Figure 1.1**, respectively. A summary of construction activities undertaken during the reporting period is presented below:
 - Site formation;
 - Pipe piling;
 - Tree transplanting;
 - Hoarding erection; and
 - TTA site setup works.

1.3 **Project Organization**

- 1.3.1 Different parties with different levels of involvement in the Project organization include:
 - Project Proponent: Water Supplies Department (WSD)
 - Supervisor/Engineer's Representative (ER): Binnies Hong Kong Limited
 - Contractor: Chun Wo Sinohydro Joint Venture
 - Environmental Team (ET): Acuity Sustainability Consulting Limited
 - Independent Environmental Checker (IEC): Umwelt Consulting Limited
- 1.3.2 The key personnel contact names and telephone number are presented in **Appendix B**.

1.4 License, Notification and Permits

1.4.1 A summary of the relevant permit, licences, and/ or notifications on environmental protection for this Project are presented in **Table 1.1**.



Table 1.1	Status of Environmental License, Notifications and Permits
-----------	--

Permit / License No.	Valid	Status				
refinit / License No.	From	Expired On	Status			
Environmental Permit						
EP-602/2021	14/12/2021	-	Valid			
Notification Pursuant to Section 3(1) Dust) Regulation	of the Air Poll	ution Control (C	Construction			
Ref. No.: 487301	09/12/2022	-	Valid			
Billing Account for Disposal of Construction Waste						
7046085	04/01/2023	-	Valid			
Registration of Chemical Waste Producer						
WPN 5213-282-C4760-0	30/12/2022	-	Valid			
Effluent Discharge License under Water Pollution Control Ordinance						
WT00043965-2023	31/05/2023	31/05/2028	Valid			
Construction Noise Permit						
GW-RE0570-23	01/06/2023	31/08/2023	Valid			

1.4.2 The submission status of the EP and the implementation status of the mitigation measures stated in the EP had been reviewed, all submission were submitted/ deposited to the Director of Environmental Protection (DEP) on schedule, no non-compliance of EP conditions was recorded during the reporting period. The summary of submission status under Environmental Permit EP-602/2021 are summarized in **Table 1.2**.

EP Condition	Title of Submission	Submission Status
1.11	Commencement Date of Construction	Notified the DEP on 22 Feb 2023
2.9	Management Organization(s)	Informed the DEP on 20 Feb 2023
2.10	Environmental Permit (EP) Submission Schedule	22 Feb 2022 (1st Submission)
2.11	Construction Works Schedule and Location Plan	28 Feb 2023 (Deposited)
2.12	Construction Noise Management Plan (CNMP)	 28 Feb 2023 (1st submission) EPD's comments were issued on 8 Mar 2023 The revised CNMP was submitted to the EPD for comment on 31 July 2023.

 Table 1.2
 Summary of Status of Submission under EP-602/2021

The copyright of this document is owned by Acuity Sustainability Consulting Limited. It may not be reproduced except with prior written approval from the Company.



EP Condition	Title of Submission	Submission Status
2.13	Waste Management Plan (WMP)	 28 Feb 2023 (1st submission) EPD's comments were issued on 3 Apr 2023. The revised WMP was submitted to the EPD for comment on 26 July 2023.
2.14	Landscape and Visual Mitigation Plan (LVMP)	 28 Feb 2022 (1st Submission) EPD's comments were issued on 29 Mar 2023 and the LVMP is being revised.
3.3	Baseline Monitoring Report	 17 Mar 2023 (1st Submission) 27 Apr 2023 (2nd Submission) 1 June 2023 (3rd Submission) 13 July 2023 (Formal submission)
3.4	Monthly EM&A Report (Apr 2023)	15 May 2023
3.4	Monthly EM&A Report (May 2023)	12 June 2023
3.4	Monthly EM&A Report (June 2023)	13 July 2023
4.2	Dedicated Internet Website	2 May 2023

- 1.4.3 Following the EPD's comments on the Baseline Monitoring Report (Ref. No. BMR-3.1, dated 17 March 2023), updating of air quality and noise monitoring locations were proposed, including cancellation of noise monitoring station at Tower 1, Meridian Hill (NM-1), resumption of air quality and noise monitoring stations at Block 6, Tsui Chuk Garden (i.e. DM-4 and NM-4) and proposal of new noise monitoring locations at Wo Tin House, Shatin Pass Estate (NM-5) and Sheung Fung Street Customs Staff Quarter (NM-6).
- 1.4.4 Additional baseline monitoring for air quality monitoring station DM-4, and noise monitoring stations NM-4, NM-5 and NM-6 was carried out between 2 May and 16 May 2023. The Baseline Monitoring Report was updated with all baseline monitoring results included, certified by the ET Leader, and verified by the IEC on 30 May 2023. The updated Baseline Monitoring Report was submitted to the EPD on 1 June 2023. A minor comment was received from the EPD on 26 June 2023. Following the advice from the EPD, the Report was formally submitted to the EPD on 13 July 2023 after amendment.



1.5 Brief Summary of EM&A Requirements

<u>Air Quality</u>

- 1.5.1 In accordance with the EM&A Manual, the ET shall carry out impact monitoring during construction phase of the project. For 1-hour Total Suspended Particulates (TSP) monitoring, the sampling frequency of at least three times every six days should be undertaken when the highest dust impact occurs.
- 1.5.2 Action and Limit Levels for the 1-hour TSP monitoring works are discussed in Section 2.4. Should non-compliance of the criteria occur, action in accordance with the Event and Action Plan presented in Appendix C shall be carried out.
- 1.5.3 The air quality mitigation measures detailed in the EM&A Manual were recommended to be implemented during the construction phase. The implementation statuses of these measures are presented in **Appendix D**.

Noise Monitoring

- 1.5.4 Construction noise monitoring should be carried out at the designated monitoring stations directly affected by the construction works once every week after the commencement of construction. During construction works, one set of $L_{eq(30-min)}$ measurement at each station between 0700 and 1900 hours on normal weekdays shall be taken. If construction works are extended to include works during the period between 1900 and 0700 hours, additional weekly impact monitoring shall be carried out during evening and night-time works.
- 1.5.5 Action and Limit Levels for the noise monitoring are discussed in Section 3.5. Should non-compliance of the criteria occur, action in accordance with the Event and Action Plan presented in Appendix C shall be carried out.
- 1.5.6 The noise mitigation measures detailed in the EM&A Manual are recommended to be implemented during the construction phase. The implementation statuses of these measures are presented in **Appendix D**.

Environmental Requirements in Contract Documents

- 1.5.7 According to *Particular Specification (PS)*, the Contractor shall undertake environmental protection measures to reduce the environmental impacts arising from the execution of the works. The Contractor shall also observe and comply with relevant environmental protection and pollution control ordinances. The Contractor shall design, construct, operate and maintain pollution control measures to ensure compliance with the contract provisions as well as the environmental ordinances and their regulations.
- 1.5.8 The Contractor shall also:
 - Implement air pollution and noise abatement practices as specified in *PS*;
 - Minimise generation of wastewater from the Site;



- On-site sorting of Construction and Demolition (C&D) Materials;
- Establish a mechanism to record the quantities of C&D materials generated each month, using the monthly summary "Waste Flow Table";
- Control the use of timbers;
- Implement a trip ticket system (TTS) for tracking the removal of C&D materials from the Site to the disposal grounds;
- Prepare an Environmental Management Plan (EMP) in accordance with GS Section 25 and *PS* for implementation on the Site to reduce environmental nuisance and C&D materials arising from Works, throughout the construction period;
- Arrange weekly environmental walk to inspect the Site, checking that the environmental performance of the Site is satisfactory and in compliance with the requirements under the contract and EMP; and
- Carry out site specific induction training about environmental management as well as safety for all staffs and workers, and provide toolbox talks for workers on environmental nuisance abatement and waste management.



2. AIR QUALITY MONITORING

2.1 Monitoring Locations

2.1.1 The air quality monitoring locations for impact monitoring during the reporting period are listed in **Table 2.1** and presented in **Figure 2.1**.

ID	Description	Coordinates		
ID	Description	Northing	Easting	
DM-1	Tennis Court near Tin Ma Court	822705	837047	
DM-2	Chun Sing House, Tin Ma Court	822673	837143	
DM-3	Grace Methodist Church Kindergarten	822782	837227	
DM-4 ⁽¹⁾	Block 6, Tsui Chuk Garden	822926	837246	
DM-4a ⁽²⁾	Road pavement near Wang King House, Tin Wang Court	822854	837340	

 Table 2.1
 Air Quality Monitoring Stations for Construction Phase

Notes:

Following the EPD's comment on the Baseline Monitoring Report (Ref. No. BRM-3.1, dated 17 March 2023), air quality monitoring at DM-4 was resumed. Baseline monitoring for air quality monitoring station DM-4 was then carried out between 2 May and 16 May 2023. Impact monitoring at DM-4 was commenced on 22 May 2023.

2. An additional air quality monitoring station DM-4a was proposed by the ET and agreed by the ER, IEC and EPD.

2.2 Air Quality Monitoring Parameter, Frequency and Duration

2.2.1 **Table 2.2** summarized the monitoring parameter, duration, and frequency of impact air quality monitoring.

Table 2.2 Impact Air Quality Monitoring Parameter, Duration and Frequency

Parameter	Frequency	Duration
1-hour TSP	3 times every 6 days	Throughout the construction phase

2.3 Monitoring Equipment and Methodology and QA/ QC Procedure

Proposal of Using Portable Direct Reading Dust Meter

2.3.1 Direct reading dust meters were used for measuring 1-hour TSP levels during the impact air quality monitoring. According to Section 4.4.1 of the EM&A Manual, the proposed use of direct reading dust meters was submitted to and agreed by the IEC.



- 2.3.2 Sufficient number of monitoring instruments were prepared by the ET for carrying out the impact monitoring. All equipment and associated instrumentation were clearly labelled.
- 2.3.3 Wind data were collected from the records of Hong Kong Observatory Kai Tak Wind Station (22.30966N, 114.21336E), which is located at the south-eastern side of runway of the former Kai Tak Airport about 4.5 km south-east from the project site.
- 2.3.4 Equipment used in the impact air quality monitoring programme is summarised in **Table 2.3.** Calibration certificates for the impact air quality monitoring equipment are attached in **Appendix E**.

Equipment	Brand and Model	Serial No.	Calibration Due Date
		0Z4545	29/02/2024
Direct Reading Dust Meter	Sibata LD-5R	882106	29/02/2023
		942532	29/02/2024

Table 2.3 Impact Air Quality Monitoring Equipment

Maintenance and Calibration

- 2.3.5 Direct reading dust meters have been calibrated against high volume samplers (HVSs) annually. A 2-day, three 3-hour measurement results per day from direct reading dust meters were taken to compare with the sampling results from the HVSs. The correlation between the direct reading dust meters and the HVSs were then concluded. By accounting for the correlation factor, the direct reading dust meters are considered to achieve comparable results as that of the HVSs.
- 2.3.6 The 1-hour TSP measurement follows the instruction provided in the manufacturer's manual. Before initiating a measurement, zeroing the portable dust meter was carried out to ensure the accuracy of each measurement.

2.4 Action and Limit Levels

2.4.1 The action and limit levels were established in accordance with the EM&A Manual. **Table 2.4** presents the action and limits levels for 1-hour TSP monitoring. Should non-compliance of the criteria occur, action in accordance with the Event and Action Plan presented in **Appendix C** shall be carried out.



Monitoring Station	Action Level (µg/m ³)	Limit Level (µg/m ³)
DM-1	300.1	
DM-2	289.0	
DM-3	289.7	500
DM-4	294.9	
DM-4a	291.6	

Table 2.4 Action and Limit Levels for 1-hour TSP

2.5 Results and Observation

- 2.5.1 The impact air quality monitoring was conducted on 5, 11, 19, 22 and 28 July 2023. The impact air quality monitoring scheduled on 17 July 2023 was cancelled due to adverse weather and was rescheduled on 19 July 2023. The impact air quality monitoring schedule for the reporting period is shown in **Appendix F**.
- 2.5.2 The monitoring results and graphical presentation of impact air quality monitoring are shown in **Appendix G**. No action or limit levels exceedance was recorded in the reporting period.

Monitoring	TSP C	oncentratio	n, μg/m ³	Action	Limit Level	
Station	Average	Minimum	Maximum	Level		
DM-1	58	55	62	300.1		
DM-2	59	52	63	289.0		
DM-3	56	49	59	289.7	500	
DM-4 ⁽¹⁾	54	42	63	294.9		
DM-4a	60	56	63	291.6		

 Table 2.5
 Summary of Impact 1-hour TSP Monitoring Results

Remark: (1) Impact air quality monitoring at DM-4 was commenced on 22 May 2023.

2.5.3 During the impact air quality monitoring, the major dust sources at each monitoring stations were summarized in **Table 2.6**.

 Table 2.6
 Influencing Factors at / near Air Quality Monitoring Stations

Monitoring Stations	Influencing Factors
DM-1	Not identified
DM-2	Not identified
DM-3	Not identified
DM-4	Not identified
DM-4a	Not identified



2.5.4 Weather conditions during impact monitoring are presented in **Appendix G** and extracts of wind data recorded at Kai Tak Wind Station available from the Hong Kong Observatory are presented in **Appendix H**.

13
The copyright of this document is owned by Acuity Sustainability Consulting Limited. It may not be reproduced except with prior written approval from the Company.



3. NOISE MONITORING

3.1 Monitoring Locations

3.1.1 The monitoring locations for construction noise monitoring are listed in **Table 3.1** and shown in **Figure 3.1**.

ID	Description	Maagunamant	Coordinates		
ID	Description	Measurement	Northing	Easting	
NM-2	Chun Sing House, Tin Ma Court	Façade	822668	837143	
NM-3	Grace Methodist Church Kindergarten	Façade	822782	837227	
NM-4 ⁽²⁾	Block 6, Tsui Chuk Garden	Façade	822926	837246	
NM-4a ⁽¹⁾	Road pavement near Wang King House, Tin Wang Court	Free field	822854	837340	
NM-5	Wo Tin House, Shatin Pass Estate	Façade	823360	838143	
NM-6	Sheung Fung Street Customs Staff Quarters	Free field	823134	838412	

 Table 3.1
 Noise Monitoring Stations during Construction Phase

Notes:

The noise monitoring station proposed in the EM&A Manual (NM-1) was not available for baseline and impact monitoring. Therefore, impact monitoring at NM-1 was cancelled and agreed by the ER, IEC and EPD.

(1) An additional noise monitoring station NM-4a was proposed by the ET and agreed by the ER, IEC and EPD.
 (2) Following the EPD's comment on the Baseline Monitoring Report (Ref. No. BRM-3.1, dated 17 March 2023), noise monitoring station was resumed at NM-4. Baseline monitoring for noise monitoring station NM-4 was then carried out between 2 May and 16 May 2023. Impact monitoring at NM-4 was commenced on 22 May 2023.

3.1.2 No construction work was conducted within 300m radius of noise monitoring station NM-5 and NM-6. Thus, no construction noise monitoring was carried out at these two noise monitoring stations in the reporting period.

3.2 Noise Monitoring Parameter, Frequency and Duration

- 3.2.1 Construction noise level was measured by the ET and measured in terms of the A-weighted equivalent continuous sound pressure level (L_{eq}). $L_{eq(30-min)}$ was adopted as the monitoring parameter for the construction noise monitoring.
- 3.2.2 As supplementary information for data auditing, statistical results such as L_{10} and L_{90} were also obtained for reference.
- 3.2.3 **Table 3.2** summarized the monitoring parameters, duration, and frequency of construction noise monitoring.



Table 3.2 Construction Noise Monitoring Parameter, Frequency and Duration

Parameters	Time	Frequency	Duration
Leq(30-min)	0700 and 1900 hours on normal weekdays	once every week	Throughout the construction phase

3.3 Monitoring Equipment, Methodology and QA / QC Procedure

- 3.3.1 As referred to the technical memorandum (TM) issued under the NCO, sound level meters in compliance with the International Electrotechnical Commission Publications 651: 1979 (Type 1) and 804: 1985 (Type 1) specifications were used for carrying out the construction noise monitoring.
- 3.3.2 Noise measurements were not made in fog, rain, wind with a steady speed exceeding 5 m/s or wind with gusts exceeding 10 m/s. The wind speed was checked with a portable wind speed meter capable of measuring the wind speed in m/s.
- 3.3.3 Sufficient numbers of noise measuring equipment and associated instrumentation were prepared by the Environmental Team. All the equipment and associated instrumentation were clearly labelled.
- 3.3.4 Wind data were collected from the records of Hong Kong Observatory Kai Tak Wind Station (22.30966N, 114.21336E), which is located at the south-eastern side of runway of the former Kai Tak Airport about 4.5 km south-east from the project site.
- 3.3.5 The monitoring procedures are as follows:
 - For façade measurement, the monitoring station was set at a point 1 m from the exterior of the sensitive receivers building façade and set at a position 1.2 m above the ground. For free-field measurement, the monitoring station was set at a position 1.2 m above the ground.
 - The battery condition was checked to ensure good functioning of the meter.
 - Parameters such as frequency weighting, the time weighting and the interval were set as follows:
 - Frequency weighting: A
 - Time weighting : Fast
 - Interval : 30 minutes $(L_{eq(30-min)})$ would be determined for daytime noise by calculating the logarithmic average of six $L_{eq(5-min)}$ data
 - Prior to and after each noise measurement, the meter was calibrated using an acoustic calibrator for 94.0 dB at 1000 Hz. If the difference in the calibration



level before and after measurement is more than 1.0 dB, the measurement was considered invalid and repeat of noise measurement will be required after recalibration or repair of the equipment.

- At the end of the monitoring period, the values of L_{eq} , L_{90} and L_{10} were recorded. In addition, noise sources were recorded on a standard record sheet.
- 3.3.6 **Table 3.3** summarized the noise monitoring equipment used during the construction noise monitoring. Calibration certificates for the impact noise monitoring equipment are attached in **Appendix E**.

Equipment	Model (Serial Number)	Calibration Due Date
Sound Lough Motor	Nti-XL2 (A2A-13548-E0)	05/02/2024
Sound Level Meter	Nti-XL2 (A2A-13661-E0)	21/08/2023
Sound Calibrator	Rion NC 75 (35124529)	01/11/2023

Table 3.3 Construction Noise Monitoring Equipment

3.4 Maintenance and Calibration

- 3.4.1 Maintenance and calibration procedures are as follows:
 - The microphone head of the sound level meter and calibrator were regularly cleaned with a soft cloth; and
 - The sound level meter and acoustic calibrator were calibrated annually by a HOKLAS accredited laboratory or the manufacturer.

3.5 Action and Limit Levels

3.5.1 The Action and Limit levels were established in accordance with the EM&A Manual. **Table 3.4** presents the Action and Limit Levels for construction noise. Should non-compliance of the criteria occur, action in accordance with the Event and Action Plan presented in **Appendix C** shall be carried out.

Table 3.4	Ac	tion and	Limit	Levels	for	Construction	Noise	e Monitoring	

Monitoring Stations	Action Level	Limit Level	Time Period
NM-2		75 dB(A)	
NM-3	When one documented complaint is received	70/ 65 dB(A) *	
NM-4		75 dB(A)	0700 - 1900 hours on
NM-4a		75 dB(A)	normal weekdays
NM-5		75 dB(A)	
NM-6		75 dB(A)	

Notes:



If works are to be carried out during restricted hours, the conditions stipulated in the construction noise permit issued by the Noise Control Authority have to be followed. * Reduce to 70 dP(A) for schools and 65 dP(A) during school avamination periods

* Reduce to 70 dB(A) for schools and 65 dB(A) during school examination periods.

3.6 Results and Observations

- 3.6.1 The construction noise monitoring was conducted on 5, 11, 22 and 28 July 2023. The impact construction noise monitoring scheduled on 17 July 2023 was cancelled due to adverse weather. The monitoring schedule is presented in **Appendix F**.
- 3.6.2 The construction noise monitoring results are summarized in **Table 3.5**. No Action or Limit levels exceedance was recorded in the reporting period. Details of the results and graphical presentation are shown in **Appendix I**.

	No	ise Level, dB	(A)	Limit Level
Monitoring Station ⁽¹⁾		Leq(30-min)		Limit Level
Station	Mean	Minimum	Maximum	
NM-2	67.4	59.7	70.1	75 dB(A)
NM-3	66.8	63.8	68.8	70/ 65 dB(A) ⁽²⁾
NM-4 ⁽³⁾	66.4	64.7	67.4	75 dB(A)
NM-4a	73.4	71.7	75.0	75 dB(A)

Table 3.5 Summary of Construction Noise Monitoring Results

Note:

(1) Construction noise monitoring at NM-4 and NM-5 will commence when construction works are undertaking near these stations.

(2) Reduce to 70 dB(A) for schools and 65 dB(A) during school examination periods.

(3) Impact monitoring at NM-4 was commenced on 22 May 2023.

- 3.6.3 Weather conditions during impact monitoring are presented in **Appendix I** and extracts of wind data recorded at Kai Tak Wind Station available from the Hong Kong Observatory are presented in **Appendix H**.
- 3.6.4 During the construction noise monitoring period, the influencing factors which may affect the results are summarized in **Table 3.6**.

Monitoring Stations	Influencing Factors
NM-2	Road traffic noise, construction noise from 76 Broadcast Drive project
NM-3	Road Traffic Noise
NM-4	Road Traffic Noise
NM-4a	Road Traffic Noise

 Table 3.6
 Influencing Factors at Noise Monitoring Stations



4. WASTE MANAGEMENT

4.1.1 Waste generated from the Project includes inert construction and demolition (C&D) materials and non-inert C&D wastes in the reporting period. The amount of waste generated by the construction works of the Project during the reporting period is shown in **Table 4.1** and the cumulative waste flow table was presented in **Appendix J**.

	Ac	tual Quantalit	ies of Inert C&	D Materials G	enerated Mont	hly	Actua	al Quantities o	f C&D Wastes	Generated M	onthly		Actual Quant	ities of C&D Wa	astes Recycled	
Month	Total Quantity Generated	Broken Concrete (Including rock for recycling into aggregates)	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper / Carboard Packing	Plastics	Chemical Waste	Others e.g., general refuse	Metals	Paper/ cardboard packaging	Plastics (bottles/ containers, plastic sheets/foam package material)	Yard Waste	Others
	(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)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m ³)
Jul 2023	0.06719	0.00000	0.00000	0.00000	0.06719	0.00000	0.00000	0.00000	0.00000	0.00000	0.00618	0.00720	0.00335	0.00980	0.00000	0.00000

Table 4.1Summary of Waste Generated in the Reporting Period

- 4.1.2 Construction and demolition (C&D) materials sorting was carried out on site. Sufficient receptacles were provided for general refuse collection and sorting. Excavated inert C&D materials were reused to minimize the disposal of C&D waste to public fill.
- 4.1.3 The Contractor was advised to minimize the amount of waste through recycling or reusing. All applicable mitigation measures stipulated in the EM&A Manual and waste management plans shall be fully implemented.



5. ENVIRONMENTAL SITE INSPECTION AND AUDIT

- 5.1.1 Site inspections were carried out by the ET on a weekly basis to monitor the implementation of proper environmental pollution control mitigation measures for the Project. During the reporting period, site inspections were carried out 7, 14, 21 and 26 July 2023. Joint site inspection with the ER, the Contractor and the IEC was carried out on 14 July 2023.
- 5.1.2 During the site inspections in the reporting period, no non-conformance was identified. Key observations and reminders during the site inspections are described in **Table 5.1**.

Inspection Date	Key Observation / Reminders	Follow-up Action
7 Jul 2023	No major environmental deficiency was observed.	N/A
14 Jul 2023	 Chemical containers found within the Material Storage Area near the site office building should be placed with drip tray(s) underneath. (Lower Portion 3) (Observation) Chemical containers found within the site should be placed with drip tray(s) underneath. (Upper Portion 3) (Observation) 	 Chemical containers were removed on the same day. Chemical containers were removed on the same day.
21 Jul 2023	No major environmental deficiency was observed.	N/A
26 Jul 2023	1. Stockpile of dusty materials shall be covered with tarpaulin to prevent dust emission. (Reminder)	1. Stockpile of dusty materials was covered with tarpaulin.

 Table 5.1
 Summary of Site Inspection Observations and Recommendations

5.1.3 According to the EIA Report, EP and the EM&A Manual, the mitigation measures detailed in the documents are recommended to be implemented during the construction phase. A summary of the Project Implementation Schedule is provided in **Appendix D**.



6. ENVIRONMENTAL NON-COMPLIANCE

6.1 Summary of Exceedance

- 6.1.1 No Action Level or Limit Level exceedance was recorded for 1-hour TSP monitoring in the reporting period.
- 6.1.2 No Action Level or Limit Level exceedance was recorded for construction noise monitoring in the reporting period.
- 6.1.3 Should the monitoring results of the environmental monitoring parameters at any designated monitoring stations indicate that the Action/ Limit Levels are exceeded, the actions in accordance with the Event and Action Plans in **Appendix C** would be carried out.

6.2 Summary of Environmental Non-Compliance

6.2.1 No environmental non-compliance was recorded in the reporting period.

6.3 Summary of Environmental Complaint

6.3.1 No environmental complaint was received in the reporting period. The Cumulative Complaint Log is presented in **Appendix K**.

6.4 Summary of Environmental Summon and Successful Prosecution

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



7. FUTURE KEY ISSUE

7.1 Construction Works and Potential Environmental Issues in the next Reporting Period

- 7.1.1 The construction programme for the Project for the next reporting period is presented in **Appendix A**.
- 7.1.2 Works to be undertaken in the next two months are summarized below:
 - Open trench for mainlaying and Mainlaying;
 - Jacking pit construction for pipe jacking
 - Trial pit excavation;
 - Formation of piling platform at +89.0mPD;
 - Pipe piling for PAB ELS wall;
 - Site compound set up;
 - ELS works in Portion 3; and
 - Canopy table installation in Portion 3.
- 7.1.3 Potential environmental impacts arising from the above construction activities are mainly associated with construction dust impact, noise impact, water quality impact, waste management and landscape and visual.

7.2 Recommendation

7.2.1 The key environmental mitigation measures for the Project in the coming reporting period associated with above construction activities will include:

<u>Dust</u>

- Regular watering to reduce dust emissions from exposed site surface;
- Stockpile of dusty materials shall be covered entirely by impervious sheeting;
- Provide vehicles washing facilities at all site exits to wash away any dusty materials from vehicle body;
- NRMM Labels should be displayed on the applicable equipment on site by the Contractor;
- All vehicle and plant should be cleaned before they leave a construction site.

<u>Noise</u>

- Only well-maintained plant should be operated on-site, and plant should be maintained regularly during the construction programme;
- Quality Powered Mechanical Equipment (QPME) should be adopted as far as possible.



Water Quality

- No effluent discharge would be allowed before the effluent discharge license is acquired.
- Surface run-off from construction sites should be discharged into dedicated discharge point via adequately designed sand/ silt removal facilities;
- Channels/ earth bunds/ sandbags barriers should be provided on site to properly direct stormwater to silt removal facilities;
- Silt removal facilities, channels and manholes should be maintained, and the deposited silt and grit should be removed regularly;
- Open stockpiles of construction materials on sites should be covered with tarpaulin or similar fabric during rainstorms;
- Perimeter channels should be provided on site boundaries where necessary to intercept stormwater run-off from outside the site so that it will not wash across the site.

Waste Management

- Provision of sufficient waste disposal points and regular collection of waste;
- Regular cleaning and maintenance programme for drainage system;
- Chemical containers shall be stored with drip tray underneath;
- Storage, handling, transport, and disposal of chemical waste should be arranged in accordance with the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes published by EPD, and collected by a licensed chemical waste collector.

<u>Ecology</u>

- Minimize loss of habitats and associated wildlife;
- Using directional lighting to prevent excessive light spill into adjacent natural habitat and disturbance to nocturnal fauna.

Landscape and Visual

• Adequate tree protection measures shall be provided for the trees to be retained on site.



8. CONCLUSION, COMMENTS AND RECOMMENDATION

8.1 Conclusion

- 8.1.1 This is the 4th Monthly EM&A Report presents the EM&A works during the reporting period from 1 July 2023 to 31 July 2023 in accordance with the EM&A Manual.
- 8.1.2 No Action Level or Limit Level exceedance was recorded for 1-hour TSP monitoring in the reporting period.
- 8.1.3 No Action Level or Limit Level exceedance was recorded for construction noise monitoring in the reporting period.
- 8.1.4 Environmental site inspections were conducted on 7, 12, 21 and 26 July 2023 by the ET in the reporting period.
- 8.1.5 No environmental complaint was received in the reporting period.
- 8.1.6 No notification of summons and prosecution was received in the reporting period.
- 8.1.7 The ET will keep track on the construction works to confirm compliance of environmental requirements and the proper implementation of all necessary mitigation measures.
- 8.1.8 No change to the EM&A programme was made in this reporting period.

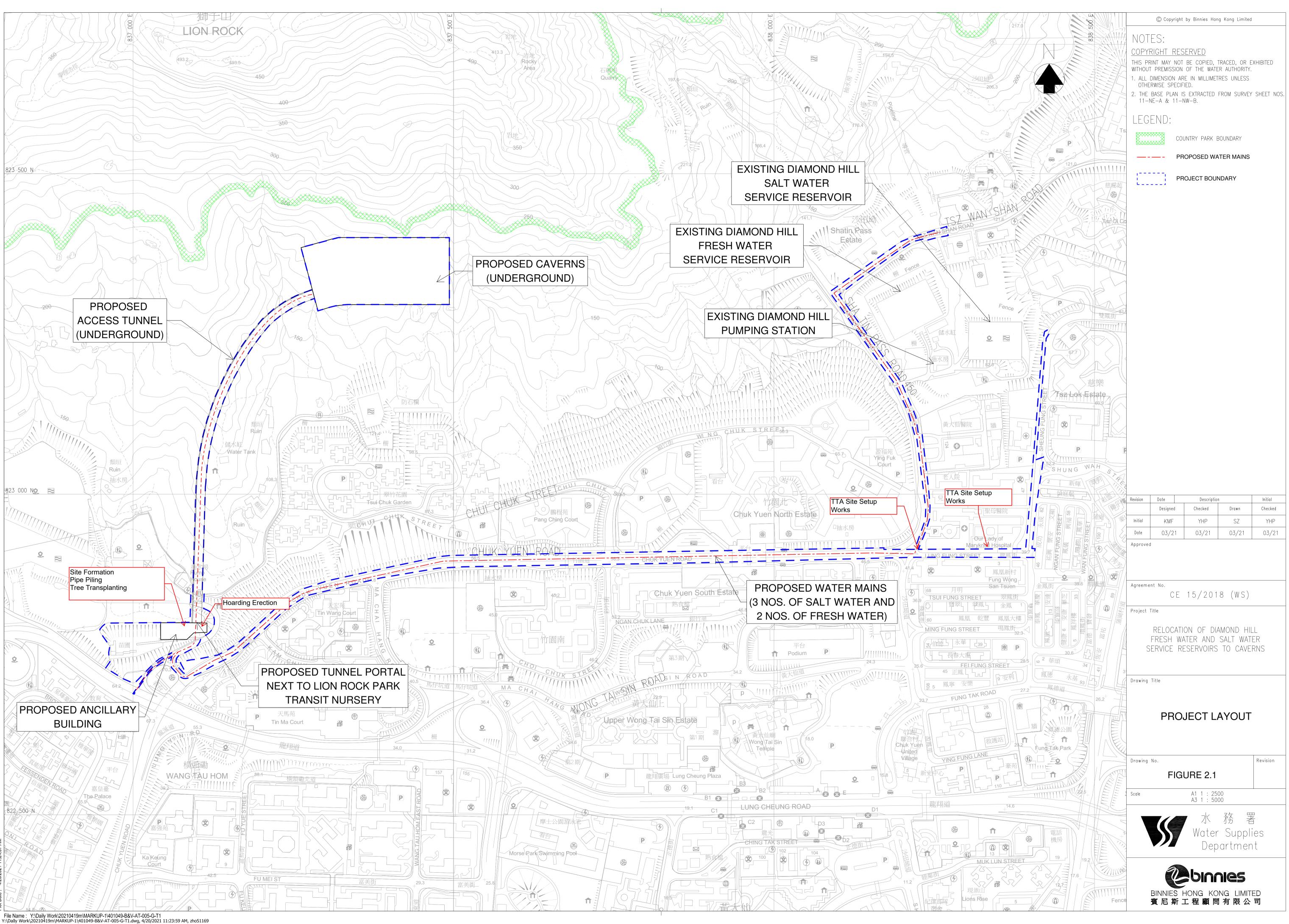
8.2 Comments and Recommendations

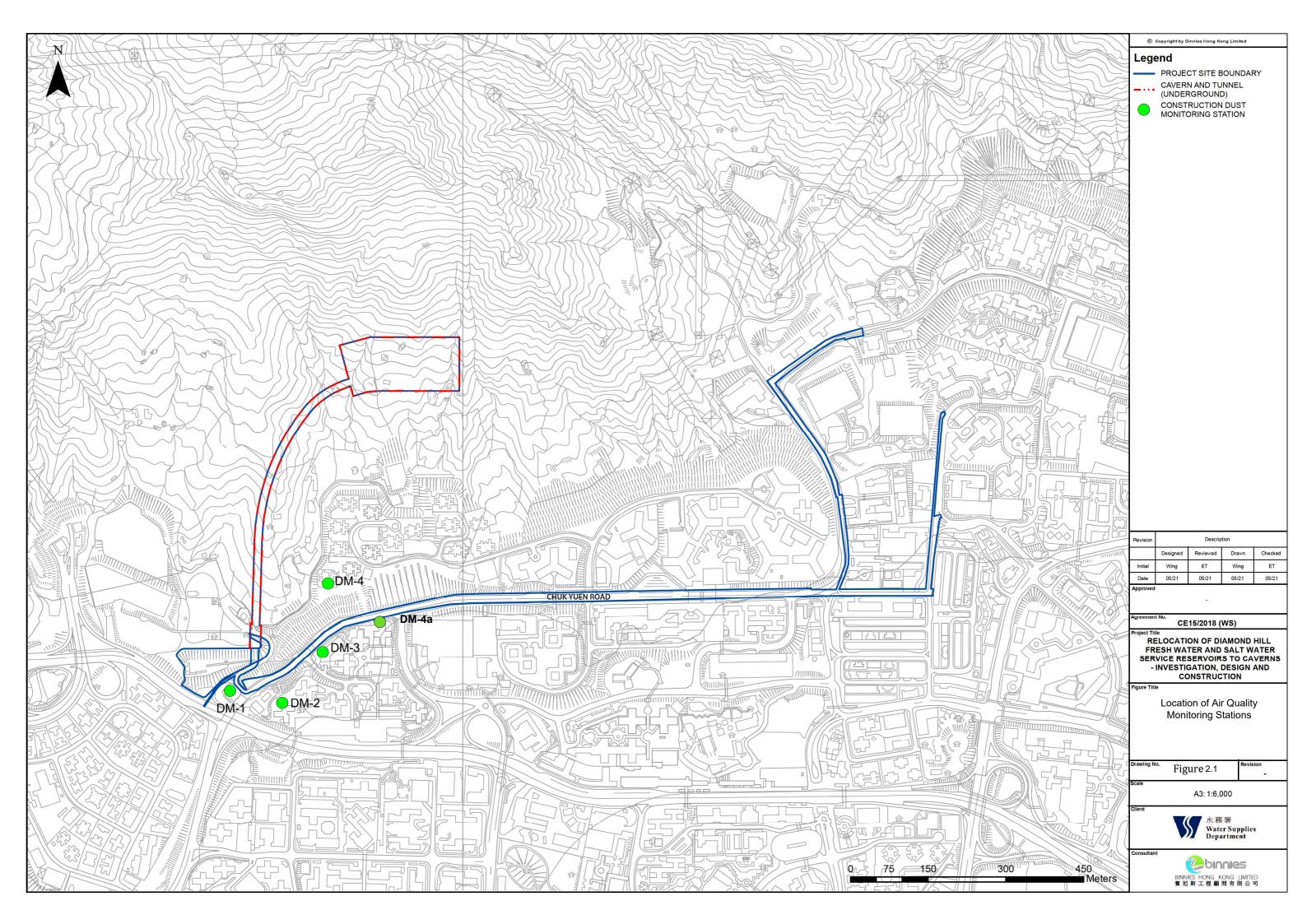
- 8.2.1 The proposed mitigation measures were properly implemented and were considered effective and efficient in pollution control.
- 8.2.2 The ET had no recommendation following the completion of EM&A in the reporting period.

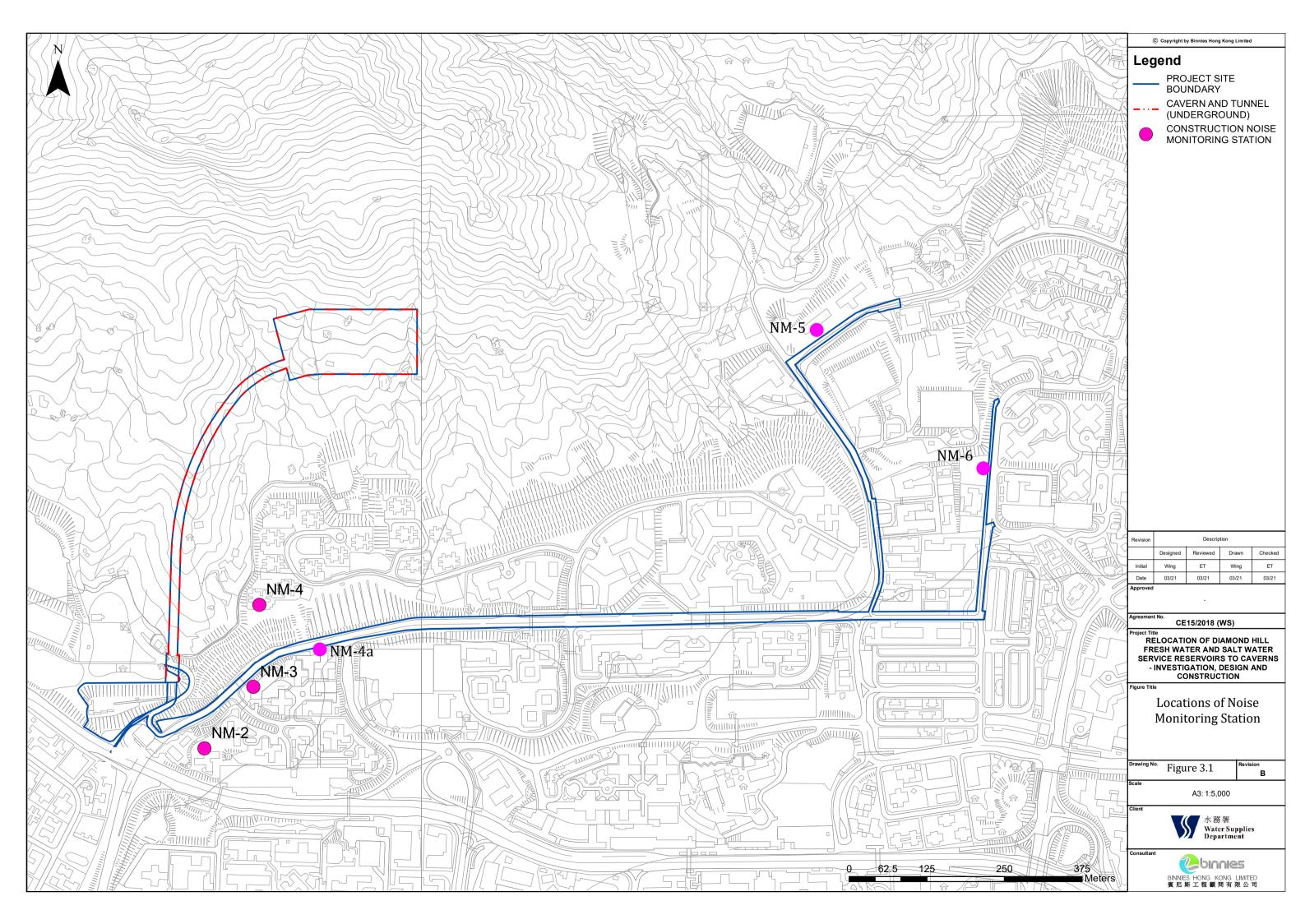


Figures

The copyright of this document is owned by Acuity Sustainability Consulting Limited. It may not be reproduced except with prior written approval from the Company.









Appendix A

Master Construction Pogramme for the Project

The copyright of this document is owned by Acuity Sustainability Consulting Limited. It may not be reproduced except with prior written approval from the Company.

21/WSD/21 - Relocation of Diamond Hill Fresh Water and Salt Water Service Reservoirs to Cavern Monthly Programme January 2023 Activity ID Activity Name 1st Prog. Start | 1st Prog. Finish Start Finish Activity % Complete st Prog. Original Dur. Duration Float NDJFMAMJJASONDJFMA 12-Apr-27 Relocation of Diamond Hill Fresh Water and Salt Water Service Reservoirs to Caverns - January'23 Upd 1293 1293 29-Nov-22 12-Apr-27 29-Nov-22 A 0 Contract Date 1596 29-Nov-22 12-Apr-27 29-Nov-22 A 12-Apr-27 0 1596 CD-1000 Contract Date (CD) 100% 0 0 29-Nov-22 29-Nov-22 A Contract Date (CD) CD-1010 Starting date (SD, within 2weeks from the CD) 100% 09-Dec-22 09-Dec-22 A Starting date (SD, within 2weeks from 0 0 12-Apr-27 **Contract Completion Date** 0 0 12-Apr-27 12-Apr-27 12-Apr-27 0 KD-1000 12-Apr-27* Completion date for the whole of the works (1585d) 0% 12-Apr-27 0 0 0 Anticipated Completion Date 11-Apr-27 11-Apr-27 11-Apr-27 11-Apr-27 0 0 KD-2100 Planned Completion date for the whole of the works (1585d) 0% 0 11-Apr-27 11-Apr-27 0 1 09-Mar-23, Access Date 09-Dec-22 A 09-Mar-23 1316 Access Date 90 100 09-Dec-22 09-Mar-23 AD-1040 Portion 5 100% 09-Dec-22 09-Dec-22 A Portion 5 0 0 AD-1000 Portion 1 (90d after SD) 0% 09-Mar-23 09-Mar-23 15 Portion 1 (90d after SD) 0 0 09-Mar-23 AD-1010 Portion 2 (90d after SD) 09-Mar-23 1316 Portion 2 (90d after SD) 0% 0 0 AD-1020 Portion 3 (90d after SD) 0% 0 0 09-Mar-23 09-Mar-23 1 Portion 3 (90d after SD) 09-Mar-23 43 Portion 4 (90d after SD) AD-1030 Portion 4 (90d after SD) 09-Mar-23 0% 0 0 🕶 24-Oct-23, Su Sub-letting / Procurement 24-Oct-23 29-Nov-22 A 24-Oct-23 1026 267 267 29-Nov-22 🔻 24-Oct-23, Wo Works Sub-letting 267 29-Nov-22 24-Oct-23 29-Nov-22 A 24-Oct-23 1026 267 Subletting for Initial Survey Works (W 21.SUB.G.10000 Subletting for Initial Survey Works (WO001) 100% 29-Nov-22 A 30-Dec-22 A 0 18 Subletting for Temporary Supply of W 21.SUB.G.10010 Subletting for Temporary Supply of Water (WO002) 100% 0 18 29-Nov-22 A 30-Dec-22 A 21.SUB.G.10020 29-Nov-22 A 30-Dec-22 A Subletting for Temporary Supply of Ele Subletting for Temporary Supply of Electricity (WO003) 100% 0 18 Subletting for Construction of New S 21.SUB.G.10040 Subletting for Construction of New Shed and Miscellaneous Works (WO005) 18 124 70% 0 29-Nov-22 A 11-Jan-23 S-240 Subletting for Condition Survey, CCTV Inspection Survey Subletting for Condition Survey, 41.11% 90 90 29-Nov-22 26-Feb-23 09-Dec-22 A 26-Feb-23 66 S-200A Subletting for Consultants incl. designer, ICE, Traffic consultant 90 90 Subletting for Consultants incl. de 41.11% 29-Nov-22 26-Feb-23 09-Dec-22 A 26-Feb-23 0 21.SUB.G.10030 36 Subletting for Tree Survey Works (V Subletting for Tree Survey Works (WO004) 58.33% 0 09-Dec-22 A 21-Jan-23 24 Subletting for Traffic Consultancy Se 21.SUB.G.10050 36 385 Subletting for Traffic Consultancy Services Stage 1 (WO006) 58.33% 0 09-Dec-22 A 21-Jan-23 Subletting for Condition Survey & Pi 21.SUB.G.10060 Subletting for Condition Survey & Pre-Construction Condition Survey (WO007) 58.33% 0 36 09-Dec-22 A 21-Jan-23 281 Subletting for UU Detection Works 9 21.SUB.G.10070 Subletting for UU Detection Works (WO008) 58.33% 0 36 09-Dec-22 A 21-Jan-23 21.SUB.G.10080 Subletting for ICE Consultant - Temp Works for Site Formation for PAB (WO012) 50% 0 42 09-Dec-22 A 01-Feb-23 1242 Subletting for ICE Consultant - Ter Date 1st Programme Baseline 🔶 ♦ 1st Programme Baseline Milestone 1 of 27 12-Dec-22 First Programme Actual Work Milestone

Remaining Work	-
----------------	---

Critical Remaining Work

Summary

	NDJF			2027 FMA
ct Date:(CD) g date (SD, within 2weeks from the CD)				
				_
g date (SD, within 2weeks from the CD)				
g date (SD, within zweeks from the CD)				
				▼
				\$
				V
				8
09-Mar-23,Access Date				
15				
Portion 1:(90d after SD)				
Portion 2 (90d after SD)				
Portion 3 (90d after SD)				
Portion 4 (90d after SD)				
▼ 24-Oct-23, Sub-letting / Procurement				
▼ 24-Oct-23, Workş Sub-letting		÷		
ėtting for Ihitial Survey Wotks (₩Φ001)				
etting for Temporary Supply of Water (WO002)				
etting for Temporary Supply of Electricity (WO003)				
letting for Construction of New Shed and Miscellaheous Works (WO005)				
Subletting for Condition Survey, CCTV Inspection Survey		*		
Subletting for Consultants incl. designer, ICE, Traffic consultant				
¢lettirig ifor Tree Sulvey Works (WO004)				
φletting for Traffic Consultancy Services Stage 1 (ΨΟ006)				
əletting for Condition Sulvey & Pre-Construction Condition Sulvey (WO00	7)			
¢letting fof UU:Detection Work\$ (WO008)				
bletting for ICE Consultant - Temp Works for Site Formation for PAB (WO	012)			
Revision	Ch	ecked	Approv	ed
First Programme			· + P· • •	
Monthly Programme January 2023				

12-Jan-23

21/WSD/21 - Relocation of Diamond Hill Fresh Water and Salt Water Service Reservoirs to Cavern

Monthly Programme January 2023

ivity ID	Activity Name	Activity % Complete	1st Prog. Dur.	Original Duration	1st Prog. Start	1st Prog. Finish	Start	Finish	Total Float)23 LILAIS		JFMAN
21.SUB.G.10090	Subletting for ICE Consultant - Portion 4 (WO013)	50%	0	42			09-Dec-22 A	01-Feb-23	1242		Subletting	for IC	E Cons	ultant - Por
21.SUB.G.10100	Subletting for Design Consultant (WO014)	31.82%	0	66			09-Dec-22 A	01-Mar-23	1218	-	Subletti	ng for l	Design	Consultant
		500/	0	40			00 Dec 22 A	01 Eab 22	1101		Subletting	i for IC	ECons	ultant - Civi
21.SUB.G.10110	Subletting for ICE Consultant - Civil & Structure (WO015)	50%	0	42			09-Dec-22 A	01-Feb-23	1101					
21.SUB.G.10120	Subletting for Ground Investigation & Montioring Works (WO016)	31.82%	0	66			09-Dec-22 A	01-Mar-23	1218		Subletti	ng for (Ground	Investigati
21.SUB.G.10130	Subletting for Design Services for Pemanent/CSD (WO018)	43.75%	0	48			09-Dec-22 A	08-Feb-23	1236	- Ε	Sublettin	g for D	esign S	ervices for
21.SUB.G.10140	Subletting for Demolition Works (WO032)	50%	0	42			09-Dec-22 A	01-Feb-23	1242	- - s	Jublettinç	I for De	molitior	າ Works (W
21.SUB.G.10150	Subletting for Site Clearance (WO035)	29.17%	0	72			09-Dec-22 A	08-Mar-23	35	-	Sublet	ing for	Site Cl¢	arance (W
21.SUB.G.10160	Subletting for Environmental Monitoring Works and Appointment of Environmental Team (SC0001)	58.33%	0	36			09-Dec-22 A	21-Jan-23	1248	- 🗖 Sı	ubletting	for Env	vironme	ntal Monito
21.SUB.G.10170	Subletting for Drainage and Duct for Slope Works (SC0004)	31.82%	0	66			09-Dec-22 A	01-Mar-23	1218		Subletti	ng for I	Drainag	e and Duc
21.SUB.G.10180	Subletting for Landscape Softworks for Slope Works (SC0005)	31.82%	0	66			09-Dec-22 A	01-Mar-23	1218	-	Subletti	ng for l	Landsc	ape Softwo
21.SUB.G.10190	Subletting for Earthworks and ELS Works for PAB (SC0022)	31.82%	0	66			09-Dec-22 A	01-Mar-23	373	-	Subletti	ng for I	Earthwo	orks and EL
21.SUB.G.10200	Subletting for RC Works for PAB (SC0022)	29.17%	0	72			09-Dec-22 A	08-Mar-23	110	-	Sublet	ing for	R¢ Wc	orks for PAE
S-220	Subletting for Site Investigation Works incl. Borehole, Trial Trench, Manhole Survey	7.78%	90	90	29-Dec-22	28-Mar-23	29-Dec-22 A	28-Mar-23	316	-	Suble	atting fc	xr Site Ir	vestigation
S-110	Pre-bid for Designer for Alternative Design	0%	28	28	29-Nov-22	26-Dec-22	02-Feb-23	01-Mar-23	1353					orAlternativ
										_				
S-260	Subletting for Pipe Installation Works by Pipe Jacking	0%	90	90	27-Feb-23	27-May-23	27-Feb-23	27-May-23	143					Pipe Installa
S-290	Subletting for MIC Fabrication	0%	110	90	29-Nov-22	18-Mar-23	29-Mar-23	26-Jun-23	1386		, 	Suble	∍tting fo	r MIC Fabri
S-280	Subletting for Foundation Works	0%	120	120	27-Jun-23	24-Oct-23	27-Jun-23	24-Oct-23	1266		I		📕 Sut	bletting for I
Contractor's Design			497	490	27-Dec-22	29-Aug-24	09-Dec-22 A	29-Aug-24	773					
21.DES.PAB.10000	Design submission and Approval for PAB ELS Works	38.89%	0	54			09-Dec-22 A	15-Feb-23	474		Design :	submis	sion an	d Approval
21.DES.PAB.10010	Design submission and Approval for Hoarding at PAB	55.56%	0	54			09-Dec-22 A	04-Feb-23	53	- - C	Design sı	ubmiss	ion and	Approval f
D-1100	Design submission and Approval for Cathodic Protection of Watermains	0%	30	30	28-Jan-23	26-Feb-23	28-Jan-23	26-Feb-23	66	-	Design	submir	ssion ar	1d Approva
D-1080	Design submission and Approval for Permanent Sleeve Pipe for Trenchless Works	0%	90	90	27-Feb-23	27-May-23	27-Feb-23	27-May-23	143	-		Design	submis	sion and A
D-1000	Design submission and Approval for Cut and Cover Tunnel (Alternative)	0%	120	120	27-Dec-22	25-Apr-23	02-Mar-23	29-Jun-23	1383	-		Desi	gn subr	nission and
D-1010	Design submission and Approval for Tunnel Alignment and Cavern Layout (Alternative)	0%	60	60	27-Dec-22	24-Feb-23	02-Mar-23	30-Apr-23	1443	•	💻 De	isign si	ubmissi	on and App
D-1020	Design submission and Approval for Lining for Tunnel and Caverns (Alternative)	0%	150	150	27-Dec-22	25-May-23	02-Mar-23	29-Jul-23	1353	-		Ξ De	sian su	lbmission a
										-				
D-1030	Design submission and Approval for Lining for Portal Foundation (Alternative)	0%	150	150	27-Dec-22	25-May-23	02-Mar-23	29-Jul-23	1353					lbmission a
D-1090	Design submission and Approval for Advance Treatment Works at Ma Chai Hang FWSR	0%	90	90	09-Mar-23	06-Jun-23	09-Mar-23	06-Jun-23	1226			Desigr	ı submi	ssion and A
		1								Date				
-	ne Baseline 🔶 🔷 1st Programme Baseline Milestone Ist Programme Baseline Milestone					2 of 27				ec-22	First	Proc	Iramm	
Actual Work														
Remaining W	ork V Summary								12-Ja	11-23	livion	inly F	rogra	mme Jar
	· · · · · · · · · · · · · · · · · · ·													

Critical Remaining Work

					2025 NDJFMAMJJAS9ND																		0.5	0.1							0.5	_	
20)24 		50	N		1	F	M		М	20 آر	25 .1	Δ	S	0	N	D	.1	F	M	Δ	М	20 1	26 .1	Δ	S	0	N	D	J	202 F	:7 //	
ior	4(Ŵ	00	13)						-	0						-		141	Ľ			5		-	3	-4		-	-		
×	1000																																
(V)	/00	14)																														
&	Stru	ċtι	ire	(V	vc	0	15)																									
-		ł																															
'n	& M	on	tio	rinę	ġν	Vc	rk	s (Ŵ	Ō(01	6)												1		1							1
Pe	mar	İer	nt/C	s	ρı	w	0	01	8)																								
		ł																															
00	932)																																
00)35)	ł																															
ring	ġ W	orł	ŝ	ano	Αk	p	þoi	nt	me	nt	of	Е	nv	iro	nn	ne	nta	al T	le	an	n (\$	SC	00	0	1)								
fo	r Slo	ppe	ΞV	Voi	ks	(?	SC	00	004	4)																							-
-																																	
rks	for	\$k	op	γ	Vo	rk	\$ (SC	00	00	5)																						
S	Wor	k٩	fo	r P	ΆF	(9	50	0	12	21																							
						. (*			Υ ~	-/																							
(S	CO	22	2)																														
14				D .		-	4	-					h	N #		b	lc.	C .		- .													
vv	orks	sin	ICI.	BC	re	nc	he	; 1	ria		rel	IC	n,	IVIa	an	10	ie	ວເ	ırv	ey	ſ												
/e l	Des	iġn	 1			 																											-
loi	h Wo	Srk	ŝ	jy I	Ρı¢	e	Ja	ICk	kinę	9																							
çai	tion	i.																															
οι	Inda	atic	n'	No	rk	S																											
-		•	29	A	μg	-2	4,	С	þn	ra	ctc	or's	۶D	es	sig	n																	
																																	-
or	PAE	3 E	:18	s M	VOI	KS																											
or I	loa	rdi	ng	at	P٨	В																											
fo	r Ca	the	di	¢F	ro	te	ctio	'n	of	W	at	eri	ma	in	s																		
pr	ova	l fc	r F	Per	ma	an	en	t S	šle	ev	e F	Pip	e	for	т	rer	hc	hle	ss	v	Voi	ks											
		ł																															
Aŗ	pro	va	lfo	r C	ut	a	nd	С	οv	er	Τ¢	Ini	ne	(#	Alte	ern	at	ive)														
rov	val fo	or -	Tu	¦	el /	Alic	'n	m	∋n	а	nd	С	av	er	n I	a	 /O	ut	(Al	te	m	ativ	(e)										-
					- 11)	- •			1							-)										
hd	Арр	ro	val	fo	Ļ L	ini	hg	fc	r٦	Γu	۱n	el	an	d	Ca	ive	m	s (A	tei	na	ativ	e)										
- d	Арр	r.	V 2 I	fo	-1	ini	ha	fr	sr F	D~-	tet	IP	nı '	nc	le†	ior		Δŀŀ	brt	10	fiv."	-)											
u	γhh	0	val			a 11	'nġ	IC		U	ıdı	. ר	Ju	ιC	a	U	· (/	-40		ıd	ave	-)											
pp	rova	al f	or .	Åd	va	nc	e	Tr	ea	tm	en	t V	Va	rk	sa	t N	Ла	С	ha	i⊦	la	ng	F١	N	SR								
Ì																																	
	evis	ic	<u>_</u>													Т			hr		ke	<u></u>		Т			٨٣		rc		<u></u>		
r:(evis	οU	11													+			iie	÷C	κe	-u		╀		/	-1	ψ	10	ve	ed		

nuary 2023	

21/WSD/21 - Relocation of Diamond Hill Fresh Water and Salt Water Service Reservoirs to Cavern

ity ID	Activity Name	Activity % Complete	1st Prog. Dur.	. Original Duration	1st Prog. Start	1st Prog. Finish	Start	Finish		2023 2024 2025 2026 2027 JFMAMJJJASONDJFMAMJJJASONDJFMAMJJJASONDJFM				
D-1070	Design submission and Approval for Tunnel Internal Civil Structure	0%	90	90	24-Dec-23	22-Mar-24	24-Dec-23	22-Mar-24	438	Design submission and Approval for Tunnel Internal Civil Structure				
D-1060	Design submission and Approval for Overhead Ventilation Ducts	0%	90	90	23-Jan-24	21-Apr-24	23-Jan-24	21-Apr-24	906	Design submission and Approval for Overhead Ventilation Ducts				
D-1050	Design submission and Approval for Architectual Works	0%	90	90	27-Feb-24	26-May-24	27-Feb-24	26-May-24	931	Design submission and Approval for Architectual Works				
D-1040	Design submission and Approval for E&M systems incl. ventilation, lighting, electrical, FS for Tunnel	0%	150	150	02-Apr-24	29-Aug-24	02-Apr-24	29-Aug-24	956	Design submission and Approval for E&M systems incl. ventilation, lightin				
For Reprovision of Struc	tures		168	168	27-Feb-23	13-Aug-23	27-Feb-23	13-Aug-23	1338	▼ 13-Aug-23, For Reprovision of Structures				
D-S1000	Design Works for Reprovision of Structures (AIP)	0%	28	28	27-Feb-23	26-Mar-23	27-Feb-23	26-Mar-23	1338	Design Works for Reprovision of Structures (AIP)				
D-S1010	ICE Checking - AIP	0%	21	21	27-Mar-23	16-Apr-23	27-Mar-23	16-Apr-23	1338	CEChecking - AIP				
D-S1020	Submission of Contractor Design (AIP) for PM's review	0%	28	28	17-Apr-23	14-May-23	17-Apr-23	14-May-23	1338	Submission of Contractor Design (AIP) for PM's review				
D-S1030	Seeking Approval from PM	0%	7	7	15-May-23	21-May-23	15-May-23	21-May-23	1338	Seeking Approval from PM				
D-S1040	Design Works for Reprovision of Structures (DDA)	0%	28	28	22-May-23	18-Jun-23	22-May-23	18-Jun-23	1338	Design Works for Reprovision of Structures (DDA)				
D-S1080	Submission and Approval for Foundation Design	0%	21	21	22-May-23	11-Jun-23	22-May-23	11-Jun-23	1401	Submission and Approval for Foundation Design				
D-S1050	ICE Checking - DDR	0%	21	21	19-Jun-23	09-Jul-23	19-Jun-23	09-Jul-23	1338	ICE Checking - DDR				
D-S1060	Submission of Contractor Design (DDR) for PM's review	0%	28	28	10-Jul-23	06-Aug-23	10-Jul-23	06-Aug-23	1338	Submission of Contractor Design (DDR) for PM's review				
D-S1070	Seeking Approval from PM with comment revised	0%	7	7	07-Aug-23	13-Aug-23	07-Aug-23	13-Aug-23	1338	Seeking Approval from PM with comment revised				
Contractor's Blasting Ass	essment Report (CBAR)		0	431			09-Mar-23	12-May-24	36	▼ 12-May-24; Contractor's Blasting Assessment Report (CBAR)				
Contractor's Blasting As	sessment Report (CBAR) - VAT Tunnel (Before MTR Vicinity) Vol.1		0	304			09-Mar-23	06-Jan-24	12	▼ 06-Jan-24, Contractor's Blasting Assessment Report (CBAR) - VAT Tunnel (Before MTR				
21.CBA.VAT.10000	Preperation of CBAR - Vol.1	0%	0	150			09-Mar-23	05-Aug-23	1	Preperation of CBAR - Vol.1				
21.CBA.VAT.10010	ICE Check on CBAR - Vol.1	0%	0	21			06-Aug-23	26-Aug-23	12	🔲 ICE Check on CBAR - Vol;1				
21.CBA.VAT.10020	PM Comment on CBAR - Vol.1	0%	0	28			27-Aug-23	23-Sep-23	12	E PM Comment on CBAR - Vol.1				
21.CBA.VAT.10030	Incorporate PM Comment on CBAR - Vol.1	0%	0	14			24-Sep-23	07-Oct-23	12	Incorporate PM Comment on CBAR - Vol.1				
21.CBA.VAT.10040	Prepare & Submit to CoM, GEO, BD, Police & FSD CBAR - Vol.1	0%	0	14			08-Oct-23	21-Oct-23	12	□ Prepare & Submit to CoM, GEO, BD, Police & FSD CBAR - Vol.1				
21.CBA.VAT.10050	Review & Comments from CoM, GEO, BD, Police & FSD on CBAR - Vol.1	0%	0	28			22-Oct-23	18-Nov-23	12	Review & Comments from CqM, GEO, BD, Police & FSD on GBAR - Vol.1				
21.CBA.VAT.10060	Revise & Final Submission to CoM, GEO, BD, Police & FSD CBAR - Vol.1	0%	0	21			19-Nov-23	09-Dec-23	12	Revise & Final Submission to CoM; GED, BD, Police & FSD CBAR - Vol.1				
21.CBA.VAT.10070	Review & Approval from CoM, GEO, BD, Police & FSD on CBAR - Vol.1	0%	0	28			10-Dec-23	06-Jan-24	12	🔲 Review & Approval from CoM, GEO, BD, Police & FSD on CBAR - Vol.1				
Contractor's Blasting As	sessment Report (CBAR) - VAT Tunnel & Caverns (From MTR Vicinity) Vol.2		0	401			08-Apr-23	12-May-24	36	▼ 12-May-24; Contractor's Blasting Assessment Report (CBAR) - VAT Tunnel & C				
21.CBA.VAT.10080	Preperation of CBAR - Vol.2	0%	0	240			08-Apr-23	03-Dec-23	2	Preperation of CBAR - Vol.2				
21.CBA.VAT.10090	ICE Check on CBAR - Vol.2	0%	0	28			04-Dec-23	31-Dec-23	36	CE Check on CBAR- Vol 2				
1st Programme	e Baseline 🔷 🔷 1st Programme Baseline Milestone			,		3 of 27			Date	e Revision Checked Approved				
Actual Work	Milestone					50121			12-Dec-22					
Remaining Wo	rk Summary								12-Jan-23	3 Monthly Programme January 2023				
	-													

Remaining Work Critical Remaining Work

Summary

21/WSD/21 - Relocation of Diamond Hill Fresh Water and Salt Water Service Reservoirs to Cavern

Monthly Programme January 2023

ity ID	Activity Name	Activity % Complete	1st Prog. Dur.	. Original Duration	1st Prog. Finish	Start	Finish	Total Float			2023	י ם אר	FMAM
21.CBA.VAT.10100	PM Comment on CBAR - Vol.2	0%	0	28		01-Jan-24	28-Jan-24	36			IJJASC		PM Cor
21.CBA.VAT.10110	Incorporate PM Comment on CBAR - Vol.2	0%	0	14		29-Jan-24	11-Feb-24	36				C	Incorp
21.CBA.VAT.10120	Prepare & Submit to CoM, GEO, BD, Police & FSD CBAR - Vol.2	0%	0	14		12-Feb-24	25-Feb-24	36	-				🛛 Prepa
21.CBA.VAT.10130	Review & Comments from CoM, GEO, BD, Police & FSD on CBAR - Vol.2	0%	0	28		26-Feb-24	24-Mar-24	36	-				🗖 Re
21.CBA.VAT.10140	Revise & Final Submission to CoM, GEO, BD, Police & FSD CBAR - Vol.2	0%	0	21		25-Mar-24	14-Apr-24	36					🗖 R
21.CBA.VAT.10150	Review & Approval from CoM, GEO, BD, Police & FSD on CBAR - Vol.2	0%	0	28		15-Apr-24	12-May-24	36	-				Þ
Blasting Method Stateme	ent (BMS)		0	371		06-Aug-23	10-Aug-24	2					
Blasting Method Statem	nent (BMS) - VAT Tunnel (Before MTR Vicinity) Vol.1		0	221		06-Aug-23	13-Mar-24	1					 13-N
21.BMS.VAT.10000	Prepare & Submit to PM BMS Vol.1	0%	0	60		06-Aug-23	04-Oct-23	1			-	Prepare	e & Subn
21.BMS.VAT.10010	PM Review & Comment on BMS Vol.1	0%	0	21		05-Oct-23	25-Oct-23	1			• - • - • - • - •	PMR	eview & C
21.BMS.VAT.10020	Incorporate PM comments & Submit to CoM BMS Vol.1	0%	0	14		26-Oct-23	08-Nov-23	1	-			Incor	rporate P
21.BMS.VAT.10030	Review & Comments from CoM on BMS Vol.1	0%	0	28		09-Nov-23	06-Dec-23	1	-			📕 Re	view & C
21.BMS.VAT.10040	Revise & Final Submission to CoM BMS Vol.1	0%	0	14		07-Dec-23	20-Dec-23	1	-			∎ R	levise & F
21.BMS.VAT.10050	Review & Acceptance from CoM on BMS Vol.1	0%	0	28		21-Dec-23	17-Jan-24	1	-			•	Review (
21.BMS.VAT.10060	Blasting Permit Application - VAT Tunnel (Before MTR Vicinity)	0%	0	14		18-Jan-24	31-Jan-24	1					Blasting
21.BMS.VAT.10070	Comments from CoM on Blasting Permit Application - VAT Tunnel (Before MTR Vicinity)	0%	0	28		01-Feb-24	28-Feb-24	1					Com
21.BMS.VAT.10080	Site Inspection by CoM - VAT Tunnel (Before MTR Vicinity)	0%	0	7		29-Feb-24	06-Mar-24	1					I Site I
21.BMS.VAT.10090	Issue fof Blasting Permit - VAT Tunnel (Before MTR Vicinity)	0%	0	7		07-Mar-24	13-Mar-24	1	-				I Issu
Blasting Method Statem	nent (BMS) - VAT Tunnel & Caverns (From MTR Vicinity) Vol.2		0	251		04-Dec-23	10-Aug-24	2					
21.BMS.VAT.10100	Prepare & Submit to PM BMS Vol.2	0%	0	90		04-Dec-23	02-Mar-24	2					Prep
21.BMS.VAT.10110	PM Review & Comment on BMS Vol.2	0%	0	21		03-Mar-24	23-Mar-24	2	-				PM
21.BMS.VAT.10120	Incorporate PM comments & Submit to CoM BMS Vol.2	0%	0	14		24-Mar-24	06-Apr-24	2					🛢 Inc
21.BMS.VAT.10130	Review & Comments from CoM on BMS Vol.2	0%	0	28		07-Apr-24	04-May-24	2					
21.BMS.VAT.10140	Revise & Final Submission to CoM BMS Vol.2	0%	0	14		05-May-24	18-May-24	2	-				
21.BMS.VAT.10150	Review & Acceptance from CoM on BMS Vol.2	0%	0	28		19-May-24	15-Jun-24	2					
21.BMS.VAT.10160	Blasting Permit Application - VAT Tunnel & Caverns (From MTR Vicinity)	0%	0	14		16-Jun-24	29-Jun-24	2	-				
21.BMS.VAT.10170	Comments from CoM on Blasting Permit Application - VAT Tunnel & Caverns (From MTR Vicinity)	0%	0	28		30-Jun-24	27-Jul-24	2					
		 									<u>; ; ; ; ; ;</u>	<u> </u>	
-	e Baseline 🔷 🔷 1st Programme Baseline Milestone				4 of 27			12-De	Date		rst Progra	amme	F
Actual Work	◆ ◆ Milestone							12-D			onthly Pro		me lan
Remaining Wo	-							i∠-Ja	11-23	, 171		Jyram	ne jan

Critical Remaining Work

20)24	4										20	25											20	26							20	27	
1 J	J	A	S	0	N	D	J	F	М	A	Μ	J	J	A	S	0	Ν	D	J	F	М	А	Μ	J	J	А	s	0	Ν	D	J	F	Μ.	A۱
mr	'ne	ent	on	i C	B/	٩R	-	Vo	1.2																									
	Į.																																	
oo	at	ęΕ	M	С	þn	hm	er	it c	m	C	ЗĄ	R	- \	/ol	2																			
	ł.																																	
ar	ęξ	ŝ	ub	m	it to	þΟ	òl	M,	G	E¢), I	BĘ), I	ю	lice	e 8	κF	S	0 (B	AF	R -	V	þl.2	2									
ļ	į.																														1		ł	
vie	έw	8	Co	þπ	m	en	ts	fro	m	С	οŅ	1, 🤇	GE	0	, B	D,	Ρ	oli	ce	&	FS	SD	or	h (СB	٩Ę	t - j	V¢	0.2	2		Ì		
ļ	i.		1																														ł	
٢e	/is	ę8	ξĒ	ina	ĥĪ Š	Şūl	þm	nise	sio	n	to	ĊĠ	M	, C	Έ	Ō,	B	D,	Pc	oliċ	e	& F	S	D	CĘ	3A	R	Ī	ol,	2			÷	
	Į.		1																															
F	ίeν	viev	'n٤	ģΑ	p	þro	va	l fi	or	n	Co	М	G	E	Э,	B	D,	Pc	olic	e 🎖	k F	s	D	on	С	ΒÅ	R	- \	/o	1.2				
	Į.																																	
-		-	1()-A	luc	a-2	4	В	as	tin	g l	Me	eth	oc	IS	ta	ter	ne	nt	; (B	M	S)									Ì	į		
ļ	ł.			1																Ì		1									ł		ł	
Ma	ar-	24	B	las	tin	i a l	Me	th	0	15	itat	ter	ne	nt	(B	м	S)	- \	/A	ΓŤ	1.11	hne	el	(R	efc	ore	Ň	Т	٦	/in	ini	۲V	v v	11
	-		2			9	vic						nc		(ς,			1						14				10			1	
hit	to	PN	ЛЕ	21/	19	16	11																										Ì	
ijin.	ļ	F	ΥΓL 	ייוק ייוק		00																									Ì			
-	ŀ				i e	5.0										;					_												4	
ÇC	m	ime	ht	or	ם ה :	\$IVI	5	vo	1.1																									
1											_		_																					
M	C	þm	me	₽nt	sa	8 S	Sul	bm	nit f	to	C¢	M	В	M	5 N	/ol	1									į			į		į	į	ł	
	Į.																																	
Col	ήr	'ne	hts	fr	þn	hΟ	ol	Ч¢	on	В	M	S٧	/ol	1																				
ł	ł																																	
Fin	al	Sι	br	his	sic	'n	to	C¢	οŅ	16	M	s	/ o	.1																	Ì	Ì		
į.	ł.		i.																												Ì	ł		
&	Åс	έe	pta	ind	; e	fro	m	С	ъŅ	١d	n	BŅ	٨S	V	ol.	1																	-	
1	ł	1																															-	
g I	e	rm	ÌΑ	pp	lic	ati	on	- 1	VĀ	Ť	Tu	nn	el	(B	ef	ore	εN	ΪŤ	R	Viċ	in	ity)				}	- +		+		+			
Ĩ	İ.		l																													Ì		
'n	ėn	its	fro	m	Co	βM	о	hĒ	3la	sti	nd	P	eri	mit	A	ad	lica	atio	on	- v	/A	гi	Tui	nn	el	Be	efċ	ore	N	ITŔ	٦Ì	/ici	init	v)
ļ	ł.																														ł			
Ins	- n	ėci	ior	¦ h b	k (L Do	м	- \	/A	Т	Fui	าท	el	(B	efe	bre	N	т	R١	/ici	ini	tv)												
-	1	-			5															- 14		-97												
	fo	fBI	-	tin		Doi	m	it .	v	ΛТ	т	In	no	1/1	20	for	-0	N/	ΓP	V	cii	hith	Λ											
			μ3 	un n	y i			n	v	1		110	ne	. (1	50		C	IVI					"									Ì		
1	i.		10							4:	~		. 46			+			-+	/D				/^				-1	0 7					
-	-		in the second se	₽- <i>F</i>	łuę	9-∠ ¦	4,	Ы	as	sur	ig i	VIE	eu i	oc	10	la	ler	ne	ΠL	(P)	IVI	5)	- 1	/A		u	11 N 		χļ	Ja	ve	rn:	5 :(Fre
ļ.	Į.,	1		ļ																	_							}						
ar	e	& S	jul	pm	nt t	o I	-1	۱B	M	S	Vo	1.2																						
			ĺ																															
/F	e۱	viev	٧	<u></u> \$ (ç0	mr	ne	nt	or	h E	M	s١	/ 0	.2																	ł			
	ł																																	
ço	ţΡ	ora	ate	Ρ	М	co	mr	ne	nt	s٤	8.5	Sul	on	hit t	0	Co	M	В	MS	γ	ol	2												
1	1	-																																
R	ęν	iev	8	С	on	hm	er	nts	fr	pn	۱Ġ	o	Νġ	pn	B	MS	ŝV	ol.	2												ł			
F	₹e	vis	έð	ķ.Ε	ina	àl S	Su	bn	nis	sic	n	to	C	۶N	B	M	s v	/0	.2															
	ł																																	
÷	F	۲ev	ie۱	w 8	ķΑ	\cc	er	bta	nd	е	fro	m	C	σŇ	10	n I	ΒN	ĪŚ	Vo	51.2	2										÷		÷	
	i.		ĺ									1																						
:		Bla	İsti	inc	i P	er	mif	Δ	nn	lic	atik	- n	_ 1	/Δ	т		nn	el	8.	2	ve	ern	s	F	On	n K	: T	R	Vir	cin	itv)		
!		-		- 'S				1	- 1		- uç	- 19			•			-	~	-4)	- 1		-				• •	- II (· y	1	1	
	į.		- -	m	- 	hnt	e f		m		<u>،</u>	~	ן קר		oti		P	bre	nit	<u>۸</u>	5	licc	atic	h	Ň	۲ ۸/۱	- +		'n	- 	2		6	
			-00 	111	n ie	711U 	3 I	101			111		19	nd	Sul	ıy	-	11	1 11 1	γ	γų	ιυ¢	au C	11	- Y		-	u	116	י וד 	× 4	a۱ الم	vel ¦	ns
i	i	i	ĺ																								;							
																									_									
R	e١	/isi	ior	า													T		C	he	eC	ke	d	_	ſ	_	1	٩p	p	ro	Ve	ed		

Revision	Checked	Approved
nuary 2023		

			<u>5a</u>		hly Program		ry 2023				
Activity ID	Activity Name	Activity % Complete	1st Prog. Dur.	Original Duration	1st Prog. Start	1st Prog. Finish	I Start	Finish	Total Float		2023 2024 2025 2026 2027 IEMAMULUASION DUEMAMULUASION DUEMAMULUASION DUEMAMULUASION DUEMAMULUASION DUEMAMULUASION DUEMAMULUASION DUEMAM
21.BMS.VAT.10180	Site Inspection by CoM - VAT Tunnel & Caverns (From MTR Vicinity)	0%	0	7			28-Jul-24	03-Aug-24	2		FMAMJJASONDJFMAMJJASONDJFMAMJJASONDJFMAMJJASONDJFMAMJJASONDJFMA I Site Inspection by CoM- VAT Tunnel & Caverns (From MTR Vicinity)
21.BMS.VAT.10190	Issue fof Blasting Permit - VAT Tunnel & Caverns (From MTR Vicinity)	0%	0	7			04-Aug-24	10-Aug-24	2		I Issue fof Blasting Permit - VAT Tunnel & Caverns (From MTR Vicinity)
Site Works			1283	1262	09-Dec-22	11-Apr-27	09-Dec-22 A	11-Apr-27	1		
Site Wide Pre-Works			0	29			26-Jan-23	28-Feb-23	1191	•	➡ 28-Feb-23, Site Wide Pre-Works
21.PRW.G.10000	Tree Survey at PAB Area	0%	0	15			26-Jan-23	11-Feb-23	24	C	□ Tree Survey at PABArea
21.PRW.G.10010	Topographic Survey at PAB Area	0%	0	12			26-Jan-23	08-Feb-23	298	C	I Toppographic Survey at PAB Area
21.PRW.G.10020	Pre-Condition Survey Site Wide	0%	0	29			26-Jan-23	28-Feb-23	281		🗖 Pre-Çondition Survey Site Wide
21.PRW.G.10030	TTA Implementation for the exposed work of dia. 1400mm pipe at Lion Rock Road	0%	0	9			26-Jan-23	04-Feb-23	385		TTA Implementation for the exposed work of dia. 1400mm pipe at Lion Rock Road
21.PRW.G.10050	UU Detection at PAB & Portion 5	0%	0	12			26-Jan-23	08-Feb-23	1208	C	UU Detection at PAB & Portion 5
21.PRW.G.10040	Trial pit to exposed work of dia. 1400mm pipe at Lion Rock Road	0%	0	6			06-Feb-23	11-Feb-23	385		1 Trial pit to exposed work of dia. 1400mm pipe at Lion Rock Road
Relocation of Transit Nu	rsey		202	175	09-Dec-22	28-Jun-23	09-Dec-22 A	28-Jun-23	1384	-	₹ 28-Jun-23, Relocation of Transit Nursey
SW-RTN-1010	Liase with LCSD for facilities relocation arrangement	45%	60	60	09-Dec-22	06-Feb-23	09-Dec-22 A	06-Feb-23	73		Liase with LCSD for facilities relocation arrangement
SW-RTN-1030	Hoarding erection and Site setup in Portion 4	0%	10	10	09-Mar-23	18-Mar-23	09-Mar-23	18-Mar-23	43		I Hoarding erection and Site setup in Portion 4
SW-RTN-1020	Access to Portion 4	0%	0	0	09-Mar-23		09-Mar-23		43		S Access to Portion 4
SW-RTN-1040	Civil construction works, e.g. water supply, in Portion 4	0%	45	45	19-Mar-23	02-May-23	19-Mar-23	02-May-23	43		Civil construction works, e.g. water supply, in Portion 4
SW-RTN-1050	Relocation of Transit Nursery and other LCSD's facilities to Portion 4	0%	40	40	11-May-23	19-Jun-23	11-May-23	19-Jun-23	35		Relocation of Transit Nursery and other LCSD's facilities to Portion 4
SW-RTN-1060	Test and Commissioning of water supply and LCSD's facilities	0%	3	3	20-Jun-23	22-Jun-23	20-Jun-23	22-Jun-23	1384		I Test and Commissioning of water:supply:and:LCSD's facilities:
SW-RTN-1070	Handover Portion 4 to LCSD for its management	0%	6	6	23-Jun-23	28-Jun-23	23-Jun-23	28-Jun-23	1384		I Handover Portion 4 to LCSD for its management
Ma Chai Hang Fresh Wa	ater Service Reservoir (MCHFWSR)		360	333	09-Dec-22	03-Dec-23	09-Dec-22 A	03-Dec-23	1226	-	● 03-Dec-23, Ma Chai Hang Fresh Water Service Reservoir (MCHFWSR)
SW-P2-1000	Liase with WSD for works arrangement in MCHFWSR	30%	90	90	09-Dec-22	08-Mar-23	09-Dec-22 A	08-Mar-23	1226		Liase with WSD for works arrangement in MCHFWSR
SW-P2-1010	Access to Portion 2	0%	0	0	09-Mar-23		09-Mar-23		1316		Cocess to Portion 2
SW-P2-1020	Ground treatment works in Portion 2	0%	180	180	07-Jun-23	03-Dec-23	07-Jun-23	03-Dec-23	1226		Ground treatment works in Portion 2
Portal Ancillary Building			1245	1245	28-Jan-23	11-Apr-27	28-Jan-23	11-Apr-27	1	۲	
Preparation Works & S	ite Clearance		174	174	28-Jan-23	20-Jul-23	28-Jan-23	20-Jul-23	242	V	20-Jul-23, Preparation Works & Site Clearance
SW-PAB1000	XP and TTAApplication	0%	75	75	28-Jan-23	12-Apr-23	28-Jan-23	12-Apr-23	0		XP and TTAApplication
SW-PAB1020	Tree Survey at Portion 3	0%	42	42	09-Mar-23	19-Apr-23	09-Mar-23	19-Apr-23	3		Tree Survey at Portion 3
SW-PAB1010	Access to Portion 3	0%	0	0	09-Mar-23		09-Mar-23		3		Cocess to Portion 3
1et Brogramm	e Baseline 🔷 🔷 1st Programme Baseline Milestone					5 of 27			1)ate	Revision Checked Approved
Actual Work	Milestone				;				12-De	c-22	
Remaining Wo	ork V Summary								12-Ja	1-23	Monthly Programme January 2023
Critical Remain	ning Work										

Monthly Programme January 2023

ity ID	Activity Name	Activity % Complete	1st Prog. Dur.	Original Duration	1st Prog. Start	1st Prog. Finish	Start	Finish	Total Float		2023 202 /A M J J A S O N D J F M A M J
SW-PAB1030	Hoarding Erection and Site Setup	0%	10	10	13-Apr-23	22-Apr-23	13-Apr-23	22-Apr-23	0		Hoarding Erection and Site Setu
SW-PAB1040	Tree Treatment and Site Clearance	0%	49	49	23-Apr-23	10-Jun-23	23-Apr-23	10-Jun-23	0	-	💻 Tree Treatment and Site Cle
SW-PAB1050	Survey, Trial pit, UU detection, Condition survey	0%	40	40	11-Jun-23	20-Jul-23	11-Jun-23	20-Jul-23	242	-	🛱 Survey, Trial pit, UU detec
Foundation, Sub-Stru	cture and Retaining Structure		579	579	07-Jun-23	20-May-25	07-Jun-23	20-May-25	246		•
Northern Side of PAB (I	RHS) (Zone 2)		356	356	07-Jun-23	15-Aug-24	07-Jun-23	15-Aug-24	469		•
SW-PAB-2110	Implement TTA to shift Lion Rock Road traffic westward to provide sufficent space for pipe pile installation	0%	2	2	07-Jun-23	08-Jun-23	07-Jun-23	08-Jun-23	293		I Implement TTA to shift Lion F
SW-PAB-2120	Removal of road pavement and site clearance, surveying, UU detection, diversion (if any)	0%	20	20	09-Jun-23	28-Jun-23	09-Jun-23	28-Jun-23	361	-	Removal of road pavement
SW-PAB-2000	Construction of Concrete Block Wall and Forma Working Platform at +85mPD (7d+3d) (start	0%	10	10	20-Jun-23	03-Jul-23	20-Jun-23	03-Jul-23	28	-	Construction of Concrete E
SW-PAB-2010	after 8no pipe pile by 1rig) Soil Excavation for Southern Ramp (Total: 2689m3) (PR=180m3/d)	0%	15	15	20-Jun-23	08-Jul-23	20-Jun-23	08-Jul-23	285	-	Soil Excavation for Southe
SW-PAB-2150	linstallation of Pipe Plile (273dia) along Lion Rock Road (Total: 53no.) (PR=1d/pile/rig) (2rigs)	0%	33	33	10-Jul-23	16-Aug-23	10-Jul-23	16-Aug-23	285	-	📮 linstallation of Pipe Plile
SW-PAB-2020	plus 1 wk for grouting Installation of King Post (Total: 3no) (PR=2.5d/pile/rig) (2 rigs)	0%	5	5	24-Jul-23	28-Jul-23	24-Jul-23	28-Jul-23	11		Installation of King Post (
SW-PAB-2030	Installation of Plpe Pile at RHS of Portal (Total: 15no) (PR=2.5d/pile/rig) (2 rigs) + 3d	0%	22	22	29-Jul-23	23-Aug-23	29-Jul-23	23-Aug-23	11	-	🔲 Installation of Plpe Pile
SW-PAB-2040	remobilization Erection of Steel Platform for Bored Pile Construction	0%	22	22	24-Aug-23	18-Sep-23	24-Aug-23	18-Sep-23	279	-	Erection of Steel Plat
SW-PAB-2050	Plant mobilization and Installation of Bored Pile on Steel Platform (Total: 4no) (PR=22d/pile/rig) (1	0%	88	88	27-Dec-23	15-Apr-24	27-Dec-23	15-Apr-24	199	-	Plant
SW-PAB-2060	rigs) Plant Demobilization and Removal of Steel Platform	0%	7	7	16-Apr-24	23-Apr-24	16-Apr-24	23-Apr-24	473	-	0 Plar
SW-PAB-2070	Soil Excavation to Formation Level and ELS Installation (Total: 2217m3) (PR=200m3/d) +8d ELS	0%	19	19	24-Apr-24	17-May-24	24-Apr-24	17-May-24	473		⊑ Sc
SW-PAB-2080	Pile Test @ Grid BB-EE (Total: 4no.)	0%	30	30	18-May-24	16-Jun-24	18-May-24	16-Jun-24	578	-	—
SW-PAB-2100	Construction of Retainig Wall RW3 and Backfill work	0%	90	90	18-May-24	15-Aug-24	18-May-24	15-Aug-24	578	-	
SW-PAB-2090	Trim Pile Head, Construction of Pile Cap @ Grid BB-EE, 3m thk	0%	60	60	17-Jun-24	15-Aug-24	17-Jun-24	15-Aug-24	578	-	
Northern Side of PAB (LHS) (Zone 1)		570	570	17-Jun-23	20-May-25	17-Jun-23	20-May-25	201		
	Installation of mini-pile for support steel platform (Total: 22no) (PR=1.5d/pile/rig) (1rigs)	0%	33	33	17-Jun-23	27-Jul-23	17-Jun-23	27-Jul-23	376		Installation of mini-pile for
SW-PAB-3010	Construction of RC footing on mini-pile	0%	24	24	14-Jul-23	10-Aug-23	14-Jul-23	10-Aug-23	376	-	Construction of RC foot
SW-PAB-3020	Installation of Sheet Pile (Total: 10m, 240m2) (PR=40m2/d/piler) (1 piler)	0%	6	6	21-Jul-23	27-Jul-23	21-Jul-23	27-Jul-23	199	-	I Installation of Sheet Pile (
SW-PAB-3040	Installation of Sheet Pile (Total: 15m, 360m2) (PR=40m2/d/piler) (1 piler)	0%	9	9	28-Jul-23	07-Aug-23	28-Jul-23	07-Aug-23	199	-	Installation of Sheet Pile
SW-PAB-3030	Soil Excavation to reach 1:8 fall for King Post Installation	0%	6	6	28-Jul-23	03-Aug-23	28-Jul-23	03-Aug-23	296	-	Soil Excavation to reach
SW-PAB-3050	Soil Excavation and ELS installation - Stage 1 (Total: 2700m3) (PR=180m3/d) + 8d ELS	0%	23	23	29-Aug-23	23-Sep-23	29-Aug-23	23-Sep-23	338		Soil Excavation and
SW-PAB-3030	Installation of Remaining Sheet Pile (Total: 42m, 930m2) (PR=40m2/d/piler) (1 piler)	0%	23	23	29-Aug-23	25-Sep-23	29-Aug-23	25-Sep-23	555	-	Installation of Remain
JVV-FAD-J1UU		070	24	24	23-Aug-23	20-0ep-20	23-Auy-23	20-0ep-23	555		
1st Program	ne Baseline 🔷 🔷 1st Programme Baseline Milestone					6 of 27				Date	Re
•	-				,				12-De	ec-22	First Programme
Actual Work	♦ Milestone								12-0		Monthly Programme Janua

Actual Work	
Remaining Work	

- ng
- Critical Remaining Work

Summary

2	024											20	25											20	26							20)27	
M	IJ	A	S	0	N	, C	JF	=	М,	4	М	J	J	A	S	0	N	D	J	F	Μ	A	Μ	J	J	A	S	0	Ν	D	J	F	Μ	А
Se	tup					ł		ł																										
te C	; lea	rar	hC	- -	ł	1		ł						ł																				
	-					ł			ł																									
dete	ecti	on	, C	öņ	diti	or	າ ຣໍເ	u'n	vę	y																								
	-															~	_						_											
						-		-				20)-I	Vla	iy-	25), F	οι	Ine	da	tio	n,	St	1D-	S	tru	cti	ire	а	nd	к	eta	ain	Inç
		-	1	5-Å	ua	-2	4.1	No	ort	he	ern	ı S	id	e d	of F	ÞA	в	(R	HS	5) ((Ze	on	e 2	2)										
					-	ł		ł	ł															ĺ										
Lion	R	ck	R	oa	d tr	af	fic	w	es	tw	ar	d	to	pr	ov	ide	è s	uf	ice	n	t sj	ba	се	fo	r p	bip	ep	bile	in	st	alla	atic	n	
						1																												
eme	nt a	and	d s	ite	cle	ar	an	de	e, s	sui	rve	зy	nç	j, l	JĽ	Jd	et	ec	tio	h, i	div	er	sic	'n	(if	ar	y)							
rete	RI	bcl	<u>ر</u> ۷	Vall	ar	hd	Fr	'n	n≍	Ņ	Vr	ork	in/	ן ק נ	ala	tfo	rn	12	t +	84	im	РГ	57	74	+?	s d)	(ta	rt :	afte	ər	8n	0	oin
				v cai		-					-			1				14	•				(ju,	(3	nci						h
outh	ęrr	hR	lar	np	(†c	ota	al: 2	26	89)m	3)) (F	PR	=1	18	Dn	h3/	d)																
						-																												
e Pli	ė (27	3d	ia)	alo	n	gĽ	io.	n	٦þ	c	۲	lo	ad	(ot	al:	5	Bno	b.)	(F	R	=1	d/	pil	e/r	g)	(2	rig	s)	pl	us	1	wk
Dopt				200	1							rid		2	ria																			
Post	10	Jia	l. 4) (1		(<u>+</u> 2	2,0	ļ	P	e/	ng ¦	,,	2	y	5)																		
e Pil	e a	tΒ	ιH	So	fP	or	tal	(T	ot	al:	1	5ņ	o)	(F	R	=2	2.5	d/p	oile	/ri	g)	(2	riç	js)	+	30	l re	em	nol	oiliz	zat	ior	۱	
						ł			ł												- /													
el Pla	atfo	rm	h fo	r₿	ore	eḋ	۴i	lė	Ċ	рµ	st	ru	ctic	on																				
																					~						-					(
Pla	nτι	mo	ווס	zai	lor	ו a	ind		່	a	at	lor	۱C	TE	30	re	a۲	'lic	0	n :	516	e	Ы	at	or	m	(1	Dta	al: 4	4n	0)	(H	'R	=2
Pla	ant	De	em	obi	liza	atic	, n	¦ ar	hd	Ř	en	nd	va	١d	f S	Ste	el	Pl	atfo	brr	n													
						1		ł																										
- 5	Soi	E	(Ca	ava	tior	۱t	o F	- o	rm	at	ioi	ηĻ	e	/e	la	nd	E	LS	s Ir	st	all	ati	on	(Т	ot	al:	22	217	7m	13)	(F	R	=2	00
			_				j			_		_				,																		
	P	lle	Ie	st (ay (GI -	'ld	BE	3+6	==	: (10	tai	: 4	nc	þ.)																		
	1		С	ons	stru	ict	ior	ן וסו	of F	۲e	ta	ini	a١	N	all I	R٧	NЭ	a	nd	в	ac	kfi	١v) Or	k									
						-			-																									
I	-		Т	im	Pil	eŀ	١þ	ad	I, C	Cþ	n	str	uc	tio	nd	bf I	Pil	eC	Ca	p	@	G	id	в	B-I	ΕE	, 3	m	th	k				
	-															~					_						/			<i>(</i> 7)				
									-		₹ 	2	J-[VIS	ıy-	25	, r	٥v	m	er	n t	210	e	υſ	-74	١B	(∟	Πč	>)	(Z¢	JU	e 1	リ	
oile fo	Shirs	ur) D	ortis	ster	el	pla	otfo)rr	n'i	T/	ote	al:	22	nc	5)	P	R=	1	54	/pi	le/	ria) (1ri	as)							
	- 3	٩P	24											-4		,					. רו	/	. _' y	<i>,</i> (93	,							
1	1			- 1	1.	h		÷		÷			ł		į																			
C fo	otir	ŋg	on	mi	ui-t	Juc	÷	1	÷	1	- 1	- 1	- 1																				1	
		-																																
		-						n2)(Pf	₹+	4()n	12/	d/	pile	er)	(1	pi	ler)													
t Pile	т) е	ota	al:	10r	n, :	24	0n																											
t Pile	т) е	ota	al:	10r	n, :	24	0n																											
t Pile et Pil	e (T	ota Tol	al: :al:	10r 15	n, : m,	24 31	0n	mź	2)	(P	R	=4	Or	n2																				
t Pile et Pil	e (T	ota Tol	al: :al:	10r 15	n, : m,	24 31	0n	mź	2)	(P	R	=4	Or	n2																				
C fo t Pile eac	e (1 h 1	ota Tol	al: ial: fal	10r 15	m, ź	24 3(0n 60i	mí Pos	2) st I	(P	R	=4 Ila	Or tio	n2 n	/d	/pi	ler) (1 p	oile	r)	80	٥m	3/	d)	+ (Bd	Ē	LS					
t Pile eac	e (1 h 1	ota Tol	al: fal	10r 15 I foi sta	m, ź Ki	24 3i	0n 60i	m2 St	2) stl	(P ns	R ta	=4 Illa (T	Or tio	n2 n al:	/d	/pi 70(ler Dr) (13)	1 p	oile PR	r) =1								LS					
t Pile eac	e (1 h 1	ota Tol	al: fal	10r 15 I foi sta	m, ź Ki	24 3i	0n 60i	m2 St	2) stl	(P ns	R ta	=4 Illa (T	Or tio	n2 n al:	/d	/pi 70(ler Dr) (13)	1 p	oile PR	r) =1								LS					
t Pile eac	e (1 h 1	ota Tol	al: fal	10r 15 I foi sta	m, ź Ki	24 3i	0n 60i	m2 St	2) stl	(P ns	R ta	=4 Illa (T	Or tio	n2 n al:	/d	/pi 70(ler Dr) (13)	1 p	oile PR	r) =1								LS					

First Programme	
Monthly Programme January 2023	

12-Jan-23

				Mont	hly Prograr	nme Januai	ry 2023					
iy ID	Activity Name	Activity % Complete	1st Prog. Dur.	Original Duration	1st Prog. Start	1st Prog. Finish	Start	Finish	Total Float		2023 2024 2025 MAMJJASONDJFMAMJJASONDJFMAMJJA	2026 2027 SIGNDUEMAMUUASIONDUEM
SW-PAB-3060	Erection of Steel Platform for Bored Pile Construction	0%	24	24	25-Sep-23	25-Oct-23	25-Sep-23	25-Oct-23	338		Erection of Steel Platform for Bored Pile Construction	
SW-PAB-3070	Installation of Bored Pile on Steel Platform (Total: 7no) (PR=22d/pile/rig) (1 rigs)	0%	154	154	16-Apr-24	19-Oct-24	16-Apr-24	19-Oct-24	199		Installation of Bored Pi	le ori Steel Platform (Total: 7no) (PR=22d/pi
SW-PAB-3070a	Pile Test @ Grid U-BB (Total: 7no.)	0%	66	66	17-Sep-24	21-Nov-24	17-Sep-24	21-Nov-24	249		Pile Test @ Grid U-E	3B (Total:7no:)
SW-PAB-3080	Removal of Steel Platform	0%	12	12	22-Nov-24	05-Dec-24	22-Nov-24	05-Dec-24	199		Removal of Steel P	latform
SW-PAB-3110	Soil Excavation to Formation Level and ELS Installation (Total: 5000m3) (PR=300m3/d) + 8d ELS	0%	25	25	06-Dec-24	07-Jan-25	06-Dec-24	07-Jan-25	199		🔲 Soil Excavation t	o Formation Level and ELS Installation (Tota
SW-PAB-3130	Trim Pile Head, Construction of Pile Cap @ Grid U-BB, 3m thk from FL 77.83mPD	0%	90	90	20-Feb-25	20-May-25	20-Feb-25	20-May-25	244		Trim P	le Head, Construction of Pile Cap @ Grid L
Southern Side of PAB			499	499	08-Aug-23	10-Apr-25	08-Aug-23	10-Apr-25	242		▼ 10-Apr-2	5, Southern Side of PAB
SW-PAB-4000	Installation of Sheet Pile (Total: 60m, 720m2) (PR=40m2/d/piler)	0%	18	18	08-Aug-23	28-Aug-23	08-Aug-23	28-Aug-23	199		☐ Installation of Sheet Pile (Total: 60m, 720m2) (PR=40m	12/d/piler)
SW-PAB-4010	Construction of Concrete Block Wall and Form a Working Platform at +84mPD (26d + 6d)	0%	32	32	29-Aug-23	06-Oct-23	29-Aug-23	06-Oct-23	199		Construction of Concrete Block Wall and Form a Wo	orking Platform at +84mPD (26d + 6d)
SW-PAB-4020	Installation of Bored Pile on Workingl Platform (Total: 3no) (PR=22d/pile/rig) (1 rigs)	0%	66	66	07-Oct-23	23-Dec-23	07-Oct-23	23-Dec-23	199		Installation of Bored Pile on Workingl Platform	(Total: 3no) (PR=22d/pile/rig) (1 rigs)
SW-PAB-4030	Pile Test @ Grid U-BB (Total: 3no.)	0%	50	50	11-Dec-23	29-Jan-24	11-Dec-23	29-Jan-24	619		Pile Test @ Grid U-BB (Total: 3no.)	
SW-PAB-4040	Removal of Platform and Concrete Block	0%	21	21	30-Jan-24	24-Feb-24	30-Jan-24	24-Feb-24	502		Removal of Platform and Concrete Block	
SW-PAB-4050	Construction of Retaining Wall RW1 and RW2 by Open Cut Method	0%	90	90	25-Feb-24	24-May-24	25-Feb-24	24-May-24	619		Construction of Retaining Wall RW	/1 and RW2 by Open Cut Method
SW-PAB-4060	Installation of Bored Pile on ground at FEL (Total: 3no) (PR=22d/pile/rig) (1 rigs)	0%	66	66	14-Dec-24	07-Mar-25	14-Dec-24	07-Mar-25	199		installation c	of Bored Pile on ground at FEL (Total: 3no) (F
SW-PAB-4070	Pile Test @ Grid U-BB (Total: 3no.)	0%	50	50	20-Feb-25	10-Apr-25	20-Feb-25	10-Apr-25	244		Pile Test (@ Grid U-BB (Total: 3no.)
Structure Works			986	986	04-Aug-23	26-Nov-26	04-Aug-23	26-Nov-26	1		· · · · · · · · · · · · · · · · · · ·	▼ 26-Nøv
Building Structure - Gri	id No. U - BB		727	727	04-Aug-23	13-Jan-26	04-Aug-23	13-Jan-26	260		•	T3-Jan-26, Building Structure - 0
SW-PAB-S2000	Installation of Tower Crane	0%	5	5	04-Aug-23	09-Aug-23	04-Aug-23	09-Aug-23	354		Installation of Tower Crane	
SW-PAB-S3000	Commencement of Building Structure	0%	0	0	21-May-25		21-May-25		244		S Comr	nencement of Building Structure
SW-PAB-S3010	Column, Beam & Floor Slab @ Ground Floor +78mPD (from Pile Cap @ +75mPD) incl. scaffold erection	0%	35	35	21-May-25	24-Jun-25	21-May-25	24-Jun-25	244		🗖 Col	umn, Beam & Floor Slab @ Ground Floor +1
SW-PAB-S3020	RC Column and RC Wall @ above Ground Floor	0%	26	26	25-Jun-25	20-Jul-25	25-Jun-25	20-Jul-25	244		📮 R	C Column and RC Wall @ above Ground F
SW-PAB-S3030	RC Beam & Floor Slab @ First Floor +84.25mPD incl. scaffold erection	0%	35	35	21-Jul-25	24-Aug-25	21-Jul-25	24-Aug-25	244			RC Beam & Floor Slab @ First Floor +84.2
SW-PAB-S3040	RC Column and RC Wall @ above First Floor	0%	26	26	25-Aug-25	19-Sep-25	25-Aug-25	19-Sep-25	244			RC Column and RC Wall @ above First R
SW-PAB-S3050	RC Beam & Floor Slab @ Roof +91.5mPD incl. scaffold erection	0%	35	35	20-Sep-25	24-Oct-25	20-Sep-25	24-Oct-25	244			RC Beam & Floor Slab @ Roof +91.5
SW-PAB-S3060	RC Column and RC Wall @ above Roof	0%	14	14	25-Oct-25	07-Nov-25	25-Oct-25	07-Nov-25	318			RC Column and RC Wall @ above R
SW-PAB-S3080	RC Stairs	0%	21	21	25-Oct-25	14-Nov-25	25-Oct-25	14-Nov-25	378			RC Stairs
SW-PAB-S3070	Roof Canopy @ +95.8mPD incl. scaffold erection	0%	21	21	08-Nov-25	28-Nov-25	08-Nov-25	28-Nov-25	318			🖶 Roof Canopy @ +95.8mPD incl.sc
	ne Baseline 🔷 🔷 1st Programme Baseline Milestone	,		,		7 - 6 0 7	-			Date	Revision	Checked Approved
1st Programm Actual Work	ne Baseline 🔷 🔷 1st Programme Baseline Milestone Ist Programme Baseline Milestone					7 of 27			12-De		First Programme	

1st Programme Baseline 🔷 🔷 1st Programme Baseline Milestone	7 of 27	Date	Revision
Actual Work		12-Dec-22	First Programme
Remaining Work		12-Jan-23	Monthly Programme January 2023
Critical Remaining Work			

Salt Water Service Reservoirs to Cavern Monthly Programme January 2023

ID	Activity Name	Activity % Complete	1st Prog. Dur.	Original Duration	1st Prog. Start	1st Prog. Finish	Start	Finish	Total Float	2023 F M A M J J A S 0					2026	
W-PAB-S3090	Waterproofing works on roof	0%	18	18	27-Dec-25	13-Jan-26	27-Dec-25	13-Jan-26	318	FIMIAIMJJASU	NDJFMA	JJASON	DJFMAM			ng works on roof
uilding Structure - Grid	I No. BB - EE		256	256	16-Mar-26	26-Nov-26	16-Mar-26	26-Nov-26	1							▼ 26-N
SW-PAB-S4000	Column, Beam & Floor Slab @ Ground Floor +78mPD (from Pile Cap @ +75mPD) incl. scaffold	0%	35	35	16-Mar-26	19-Apr-26	16-Mar-26	19-Apr-26	1						💻 Colur	mn, Beam & Floo
SW-PAB-S4010	erection RC Column and RC Wall @ above Ground Floor	0%	26	26	20-Apr-26	15-May-26	20-Apr-26	15-May-26	1							Column and RC
SW-PAB-S4020	RC Beam & Floor Slab @ First Floor +84.25mPD incl. scaffold erection	0%	35	35	16-May-26	19-Jun-26	16-May-26	19-Jun-26	1							RC Beam & Floo
SW-PAB-S4030	RC Column and RC Wall @ above First Floor	0%	26	26	20-Jun-26	15-Jul-26	20-Jun-26	15-Jul-26	1							RC Column ar
SW-PAB-S4040	RC Beam & Floor Slab @ Roof +91.5mPD incl. scaffold erection	0%	35	35	16-Jul-26	19-Aug-26	16-Jul-26	19-Aug-26	1							RC Beam &
SW-PAB-S4050	RC Column and RC Wall @ above Roof	0%	14	14	20-Aug-26	02-Sep-26	20-Aug-26	02-Sep-26	1							📕 RC Columr
SW-PAB-S4070	RC Stairs	0%	21	21	20-Aug-26	09-Sep-26	20-Aug-26	09-Sep-26	79							RC Stairs
SW-PAB-S4060	Roof Canopy @ +95.8mPD incl. scaffold erection	0%	21	21	03-Sep-26	23-Sep-26	03-Sep-26	23-Sep-26	1							Roof Can
SW-PAB-S4080	Installation of Photovoltaic Panel	0%	18	18	22-Oct-26	08-Nov-26	22-Oct-26	08-Nov-26	1							🛢 Install
SW-PAB-S4090	Waterproofing works on roof	0%	18	18	09-Nov-26	26-Nov-26	09-Nov-26	26-Nov-26	1							Uvate
SW-PAB-S4100	Complete RC Structure	0%	0	0		26-Nov-26		26-Nov-26	1							🕏 Corr
BWF/ MEP/ FS/ Fitout		0,0	595	595	25 Aug 25		25 Aug 25		1					-		\$ \$0
	I WOIKS				25-Aug-25	11-Apr-27	25-Aug-25	11-Apr-27								
For Grid No. U - BB			409	409	25-Aug-25		25-Aug-25	07-Oct-26	78							▼ 07-Oct-2
G/F - Transformer Roon	n & LV Switch Room		409	409	25-Aug-25	07-Oct-26	25-Aug-25	07-Oct-26	48							₩ 07-Oct-2
SW-PAB-A5010	TR &LVSR - Falsework Removal/ Preparation for ABWF & MEP Works	0%	35	35	25-Aug-25	28-Sep-25	25-Aug-25	28-Sep-25	268					💻 TR &	_VSR - Falsewo	ork Removal/ Pre
SW-PAB-A5020	TR &LVSR - ABWF Deg1 - Deg3	0%	38	38	29-Sep-25	05-Nov-25	29-Sep-25	05-Nov-25	268					🔲 ТВ	R&LVSR - ABWI	F Deg1 - Deg3
SW-PAB-A5030	TR &LVSR - BS 1st Fix - 3rd Fix	0%	38	38	13-Oct-25	19-Nov-25	13-Oct-25	19-Nov-25	268					т	R &LVSR - BS 1	1st:Fix - 3rd Fix
SW-PAB-A5040	TR &LVSR - CLP Inspection and Defect Rectification	0%	12	12	20-Nov-25	01-Dec-25	20-Nov-25	01-Dec-25	268						FR &LVSR - CL	P Inspection and
SW-PAB-A5050	TR &LVSR - Installation of Transformer and T&C by CLP	0%	90	90	02-Dec-25	01-Mar-26	02-Dec-25	01-Mar-26	268						💻 TR &LVS	R - Installation o
SW-PAB-A5060	TR &LVSR - Completion of CLP Cable Laying Leading to PAB	0%	30	30	08-Sep-26	07-Oct-26	08-Sep-26	07-Oct-26	48	· · · · · · · · · · · · · · · · · · ·						TR &LVS
SW-PAB-A5070	TR &LVSR - Power-on Date	0%	0	0		07-Oct-26		07-Oct-26	48							TR &LVS
		070			05.0.1.05											-26, 1/F - Gense
1/F - Genset Room			152	152	25-Oct-25	25-Mar-26	25-Oct-25									
SW-PAB-A5110	Genset Rm - Falsework Removal/ Preparation for ABWF & MEP Works	0%	35	35	25-Oct-25	28-Nov-25	25-Oct-25	28-Nov-25	244							llsework Remova
SW-PAB-A5120	Genset Rm - Concrete Plinth, Waterproofing & Test	0%	12	12	29-Nov-25	10-Dec-25	29-Nov-25	10-Dec-25	244					Q	Genset Rm - Co	oncrete Plinth, W
SW-PAB-A5130	Floor Screeding, Wall Plastering & Doors & Wall Lining	0%	28	28	11-Dec-25	07-Jan-26	11-Dec-25	07-Jan-26	244						Floor Screedi	ing, Wa l l Plaster
				1			1		Date			Revision			Checked	Δοργοικο
		1				2 - 4 0 7			Dale			REVISION			JUECKEO	Approve
 1st Programm Actual Work 	he Baseline ♦ ♦ 1st Programme Baseline Milestone ♦ Milestone				Ċ	3 of 27			12-Dec-22	First Progra	mme					

Critical Remaining Work

21/WSD/21 - Relocation of Diamond Hill Fresh Water and Salt Water Service Reservoirs to Cavern Monthly Programme January 2023

				WOIN	ing Program		19 2020			
Activity ID	Activity Name	Activity % Complete	1st Prog Dur.	. Original Duration	1st Prog. Start	1st Prog. Finish	Start	Finish	Total Float N	2023 2024 2025 2026 2027 NDJFMAMJJASONDJFMAMJJASONDJFMAMJJASONDJFMAMJJASONDJFMA
SW-PAB-A5140	MEP Works	0%	28	28	08-Jan-26	04-Feb-26	08-Jan-26	04-Feb-26		MEP Works
SW-PAB-A5150	Move-In Generator Equipments	0%	7	7	05-Feb-26	11-Feb-26	05-Feb-26	11-Feb-26	244	Move-In Generator Equipments
SW-PAB-A5160	Final Coat to Wall & Sealer to Floor	0%	14	14	12-Feb-26	25-Feb-26	12-Feb-26	25-Feb-26	244	🖬 Final Coat to Wall & Sealer to Fi
SW-PAB-A5170	Install Generator Equipments & Testing	0%	28	28	26-Feb-26	25-Mar-26	26-Feb-26	25-Mar-26	244	Install Generator Equipments
Other Rooms			187	187	25-Aug-25	27-Feb-26	25-Aug-25	27-Feb-26	300	🛨 🔫 27-Féb-26, Other Rooms
SW-PAB-A5210	G/F - Falsework Removal/ Preparation for ABWF & MEP Works	0%	42	42	25-Aug-25	05-Oct-25	25-Aug-25	05-Oct-25	361	G/F + Falsework:Removal/ Preparation for
SW-FAD-A3210		0%	42	42	20-Aug-20	05-00-25	23-Aug-23	03-001-23	301	
SW-PAB-A5220	G/F - ABWF Deg1 - Deg3	0%	70	70	06-Oct-25	14-Dec-25	06-Oct-25	14-Dec-25	361	G/F-ABWF Deg1 - Deg3
SW-PAB-A5230	G/F - BS 1st Fix - 3rd Fix	0%	70	70	20-Oct-25	28-Dec-25	20-Oct-25	28-Dec-25	361	G/F-BS1stFix-3rdFix
SW-PAB-A5240	1/F - Falsework Removal/ Preparation for ABWF & MEP Works	0%	42	42	25-Oct-25	05-Dec-25	25-Oct-25	05-Dec-25	300	☐ 1//F - Falsework Removal/Preparation
SW-PAB-A5250	1/F - ABWF Deg1 - Deg3	0%	70	70	06-Dec-25	13-Feb-26	06-Dec-25	13-Feb-26	300	I/F∔ABWF Deg1:- Deg3
SW-PAB-A5260	1/F - BS 1st Fix - 3rd Fix	0%	70	70	20-Dec-25	27-Feb-26	20-Dec-25	27-Feb-26	300	1/F-B\$1stFix-3rd Fix
For Grid No. BB - EE			187	187	20-Jun-26	23-Dec-26	20-Jun-26	23-Dec-26	1	▼−−−− ▼ 23-Dệc-
G/F - FS Water Tank & F	ES Pump Room		129	129	20-Jun-26	26-Oct-26	20-Jun-26	26-Oct-26	29	▼▼ 26-Oct-26, G
			125	125						
SW-PAB-A6010	FS Water Tank & Pump Rm - Falsework Removal/ Preparation for ABWF & MEP Works	0%	35	35	20-Jun-26	24-Jul-26	20-Jun-26	24-Jul-26	29	🔲 FS.Water Tank & Pu
SW-PAB-A6020	FS Water Tank & Pump Rm - Waterproofing & Testing	0%	14	14	25-Jul-26	07-Aug-26	25-Jul-26	07-Aug-26	29	□ FS Water Tank & P
SW-PAB-A6030	FS Water Tank & Pump Rm - Plastering Works Inside Tank	0%	14	14	08-Aug-26	21-Aug-26	08-Aug-26	21-Aug-26	29	■ FS Water Tank &
			01	01						
SW-PAB-A6040	FS Water Tank & Pump Rm - Wall and Floor Tiling Works	0%	21	21	22-Aug-26	11-Sep-26	22-Aug-26	11-Sep-26	29	📮 :F\$ Water Tank 8
SW-PAB-A6050	FS Water Tank & Pump Rm - Install Equipment	0%	45	45	12-Sep-26	26-Oct-26	12-Sep-26	26-Oct-26	29	FS Water Ta
SW-PAB-A6060	FS Water Tank & Pump Rm - Install Cat Ladder & Hatch Cover	0%	10	10	17-Oct-26	26-Oct-26	17-Oct-26	26-Oct-26	29	0 FS:Water:Ta
Other Rooms			187	187	20-Jun-26	23-Dec-26	20-Jun-26	23-Dec-26	1	23-Dec-
SW-PAB-A6110	G/F - Falsework Removal/ Preparation for ABWF & MEP Works	0%	42	42	20-Jun-26	31-Jul-26	20-Jun-26	31-Jul-26	62	G/F-Falsework Re
SW-PAB-A6120	G/F - ABWF Deg1 - Deg3	0%	70	70	01-Aug-26	09-Oct-26	01-Aug-26	09-Oct-26	62	G/F-ABWFD
SW-PAB-A6130	G/F - BS 1st Fix - 3rd Fix	0%	70	70	15-Aug-26	23-Oct-26	15-Aug-26	23-Oct-26	62	📖 G/F - B\$ 1st/
SW-PAB-A6140	1/F - Falsework Removal/ Preparation for ABWF & MEP Works	0%	42	42	20-Aug-26	30-Sep-26	20-Aug-26	30-Sep-26	1	1/F - Falsework
		0,0	72	72	20-Aug-20		20-Aug-20	30-0cp-20		
SW-PAB-A6150	1/F - ABWF Deg1 - Deg3	0%	70	70	01-Oct-26	09-Dec-26	01-Oct-26	09-Dec-26		I/F÷ABM
SW-PAB-A6160	1/F - BS 1st Fix - 3rd Fix	0%	70	70	15-Oct-26	23-Dec-26	15-Oct-26	23-Dec-26	1	📖 1/F-вз
External Works			197	197	08 <u>-Sep-26</u>	23-Mar-27	08-Sep-26	23-Mar-27	20	2:
1et Programm	e Baseline 🔷 🔷 1st Programme Baseline Milestone					9 of 27			Da	Date Revision Checked Approved
Actual Work	A Milestone				:				12-Dec-	
Remaining Wo									12-Jan-2	n-23 Monthly Programme January 2023
Critical Remain	-									
		1							1	

							nme Januar									
Activit	y ID	Activity Name	Activity % Complete	1st Prog. Dur.	Original Duration	1st Prog. Start	1st Prog. Finish	Start	Finish	Total Float	N D J	2023 FIMAMJIJASONDJ	2024 F M A ^M J J A S O N D .	2025 JFMAMJJASON	2026 NDJFMAMJJ	
	SW-PAB-E1000	Underground Utilities Works, Drainage Works & Testing	0%	100	100	08-Sep-26	16-Dec-26	08-Sep-26	16-Dec-26	1						
	SW-PAB-E1010	Backfilling to Ground Level	0%	30	30	23-Oct-26	21-Nov-26	23-Oct-26	21-Nov-26	20						📮 Backfilling to
	SW-PAB-E1020	Site preparation and erect external falsework around building	0%	14	14	22-Nov-26	05-Dec-26	22-Nov-26	05-Dec-26	20						📮 Site prepa
	SW-PAB-E1030	Extenal wall plastering/ painting works	0%	24	24	06-Dec-26	29-Dec-26	06-Dec-26	29-Dec-26	80						🖵 Extenalı
	SW-PAB-E1040	Extenral wall tiles	0%	24	24	06-Dec-26	29-Dec-26	06-Dec-26	29-Dec-26	20						📮 Extenral
	SW-PAB-E1050	Install Metal Doors, Roller Shutter, Cat-Ladder and Metal Railings	0%	24	24	30-Dec-26	22-Jan-27	30-Dec-26	22-Jan-27	80						📮 Install
	SW-PAB-E1060	Install Steel Claddings, Ventilation Louvres, External Ceiling	0%	24	24	30-Dec-26	22-Jan-27	30-Dec-26	22-Jan-27	20						📮 Instali
	SW-PAB-E1070	Construction of vehicular road	0%	45	45	23-Jan-27	08-Mar-27	23-Jan-27	08-Mar-27	35						Co
	SW-PAB-E1080	Install Bi-folding gate, security fenece, footpath, boundary wall	0%	60	60	23-Jan-27	23-Mar-27	23-Jan-27	23-Mar-27	20						in 🧰
	SW-PAB-E1100	Complete External Works	0%	0	0		23-Mar-27		23-Mar-27	20						\$ ¢
	Testing and Commisioning			97	97	24-Nov-26	28-Feb-27	24-Nov-26	28-Feb-27							▼ 28-
	SW-PAB-T1000	1A - West Fire Sta - Testing and Commissioning (FS - Related)	0%	18	18	24-Nov-26	11-Dec-26	24-Nov-26	11-Dec-26							IA-West
	SW-PAB-T2000	1A - West Fire Sta - Testing and Commissioning (Non FS - Related)	0%	67	67	24-Dec-26	28-Feb-27	24-Dec-26	28-Feb-27	1						1A-
	Landscaping and Archited	ctural Roof		219	219	20-Aug-26	26-Mar-27	20-Aug-26	26-Mar-27	17						4
	A1000	Construction of Gabion Wall	0%	60	60	20-Aug-26	18-Oct-26	20-Aug-26	18-Oct-26	132						
	A1030	Tree Transplant near Gabion Wall	0%	60	60	19-Sep-26	17-Nov-26	19-Sep-26	17-Nov-26	132						💻 Tree Trans
	A1040	Installation of Landscape Fence	0%	14	14	18-Nov-26	01-Dec-26	18-Nov-26	01-Dec-26	132						Installation
	A1050	Architectural Roof hardwork	0%	120	120	27-Nov-26	26-Mar-27	27-Nov-26	26-Mar-27	17						A .
	A1060	Architectural Roof softwork and Tree transplant	0%	60	60	27-Dec-26	24-Feb-27	27-Dec-26	24-Feb-27	47						Arct
	Statutory Approval & Insp	ection		156	156	07-Nov-26	11-Apr-27	07-Nov-26	11-Apr-27	1						
	WSD Inspection			114	114	07-Nov-26	28-Feb-27	07-Nov-26	28-Feb-27	1						7 28-1
	SW-PAB-8000	Submit WWO 46 Part IV (PD) and Wait for Inspection by WSD	0%	35	35	07-Nov-26	11-Dec-26	07-Nov-26	11-Dec-26	10						💻 Submit W
	SW-PAB-7000	Submit WWO 46 Part IV (FS) and Wait for Inspection by WSD	0%	35	35	07-Nov-26	11-Dec-26	07-Nov-26	11-Dec-26	1						💻 Submit W
	SW-PAB-8010	Inspection and Re-inspection by WSD (PD) (including water test)	0%	49	49	12-Dec-26	29-Jan-27	12-Dec-26	29-Jan-27	10						nspec
	SW-PAB-7010	Inspection and Re-inspection by WSD (FS)	0%	58	58	12-Dec-26	07-Feb-27	12-Dec-26	07-Feb-27	1						Inspe
	SW-PAB-8020	Issuance Period of WWO 46 Part V (PD)	0%	21	21	30-Jan-27	19-Feb-27	30-Jan-27	19-Feb-27	10						📕 Issui
	SW-PAB-7020	Issuance Period of WWO 46 Part V (FS)	0%	21	21	08-Feb-27	28-Feb-27	08-Feb-27	28-Feb-27	1						E Issi
	1st Programme	Baseline 🔷 🔷 1st Programme Baseline Milestone				1	0 of 27				Date		Revision		Checked	Approved
	Actual Work	♦ Milestone								12-D	ec-22	First Programme				
	Remaining Wor	rk V Summary								12-Ja	n-23	Monthly Program	nme January 2023			
	Critical Remaini	-														

				<u>3a</u>			nme Janua	ry 2023															
Activ	<i>v</i> ity ID	Activity Name	Activity % Complete	1st Prog. Dur.	Original Duration	1st Prog. Start	1st Prog. Finish	Start	Finish	Total Float			023 J J A S O N		202-			2025		20 FMAMI			2027 FMA
	SW-PAB-8030	Obtain WWO 46 Part V (PD) by WSD	0%	0	0		19-Feb-27		19-Feb-27														S Obta
	SW-PAB-7030	Obtain WWO 46 Part V (FS) by WSD	0%	0	0		28-Feb-27		28-Feb-27	1													🕏 Obt
	FSD and OP Inspection			121	121	12-Dec-26	11-Apr-27	12-Dec-26	11-Apr-27	1												-	
	SW-PAB-9000	Submit Form 314 / FSI501 and Wait for Inspection by FSD	0%	21	21	12-Dec-26	01-Jan-27	12-Dec-26	01-Jan-27	59												– s	Submit:F
	SW-PAB-9010	FS Inspection and Re-inspection	0%	28	28	01-Mar-27	28-Mar-27	01-Mar-27	28-Mar-27	1													E F
	SW-PAB-9020	Issue Fire Certificate (FS172)	0%	14	14	29-Mar-27	11-Apr-27	29-Mar-27	11-Apr-27	1													
	SW-PAB-9030	Obtain Fire Certificate (FS172) by FSD	0%	0	0		11-Apr-27		11-Apr-27	1													\$ (
	Vehicular Access Tunnel			1145	1145	09-Mar-23	15-Jan-27	09-Mar-23	15-Jan-27	67													15-Jan
	Tunnel Works CH 3 - 40	0 by Cut and Cover Method		476	476	09-Mar-23	15-Oct-24	09-Mar-23	15-Oct-24	655						15-1	Oot-24, Ti	unnel Works	6 CH 3 - 4	0 by Cut ar	ıd Cover	Method	
	Preliminary Works			77	77	09-Mar-23	24-May-23	09-Mar-23	24-May-23	0			24-May-23, F	Preliminar	y Works								
	SW-VAT-1000	Access to Portion 1	0%	0	0	09-Mar-23		09-Mar-23		15		Acce	s to Portion 1										
	SW-VAT-1010	Tree Survey at Portion 1	0%	30	30	09-Mar-23	07-Apr-23	09-Mar-23	07-Apr-23	15		🗖 Tre	e Survey at P	ortion 1									
	SW-VAT-1020	Hoarding Erection and Site Setup	0%	10	10	13-Apr-23	22-Apr-23	13-Apr-23	22-Apr-23	0		∎ H	parding Erect	on and S	Site Setu	þ							
	SW-VAT-1030	Tree Treatment and Site Clearance	0%	28	28	23-Apr-23	20-May-23	23-Apr-23	20-May-23	0			Tree Treatme	ent and S	ite Clear	ance							
	SW-VAT-1040	Survey, Trial pit, UU detection, Condition survey	0%	14	14	11-May-23	24-May-23	11-May-23	24-May-23	0			Survey, Trial	pit, UU de	etection,	Condition su	urvey						
	Stage 1 & 2 - ELS works,	, CH3 -27, at Zone0 (up to existing kerb line of Lion Rock Road)		141	141	25-May-23	11-Nov-23	25-May-23	11-Nov-23	49		۲		11-Nov-2	23, Stage	1&2-ELS	Sworks, C	H3 -27, at Z	one0 (up	to existing l	(erb line (≬f Lion R	Rock Ro
	SW-VAT-1100	Installation of Pipe Pile (Total: 34no) (PR=2.5d/pile/rig) (2 rigs)	0%	43	43	25-May-23	17-Jul-23	25-May-23	17-Jul-23	0			📕 Installatio	n of Pipe	Pile (To	tal: 34no) (P	PR=2.5d/pi	le/rig) (2 rigs	5)				
	SW-VAT-1110	Installation of King Post (Total: 4no) (PR=2.5d/pile/rig) (2 rigs)	0%	5	5	18-Jul-23	22-Jul-23	18-Jul-23	22-Jul-23	0			I Installatio	on of King) Post (T	otal: 4no) (P	PR=2.5d/pi	le/rig) (2 rigs	5)				
	SW-VAT-1130	Soil Excavation for Temporary Steel Platform (Total:878m3) (PR=180m3/d)	0%	5	5	24-Jul-23	28-Jul-23	24-Jul-23	28-Jul-23	0			Soil Exc	avation fo	or Tempo	rary Steel P	Platform (T	otal:878m3)	(PR=180	0m3/d)			
	SW-VAT-1140	Erection of Temporary Steel Platform for Traffic Diversion	0%	18	18	29-Jul-23	18-Aug-23	29-Jul-23	18-Aug-23	0			Erectio	on of Tem	iporary S	steel Platform	n for Traffi	c Diversion					
	SW-VAT-1150	Erection of Temporary Steel Platform for Bored Pile Construction support with King Post	0%	18	18	19-Aug-23	08-Sep-23	19-Aug-23	08-Sep-23	49			📮 Erec	ion of Tel	mporary	Steel Platfor	rm for Bor	ed Pile Con	struction s	support with	King Po:	st	
	SW-VAT-1160	Soil Excavation for C&C Tunnel (Total: 6460m3) (PR=180m3/d)	0%	52	52	09-Sep-23	11-Nov-23	09-Sep-23	11-Nov-23	49				Soil Exca	ivation fo	r C&C Tunn	nel (Total: 6	6460m3) (P	R≑180m3	3/d)			
	Stage 3 - ELS works, CH	27 -40, at ZoneA		67	67	19-Aug-23	08-Nov-23	19-Aug-23	08-Nov-23	0				08-Nov-2	23, Stage	3 - ELS wo	orks, CH27	′-40, at Zon	eA				
	SW-VAT-1200	Divert the Traffic onto the Temporary Steel Platform to maintain access to Lion Rock Park and DSD - TTA1	0%	3	3	19-Aug-23	22-Aug-23	19-Aug-23	22-Aug-23	0			l Divert	the Traffi	c onto th	e Temporary	y Steel Pla	atform to ma	intain a co	ess to Lion	Rodk Pai	k and D)SD-T
	SW-VAT-1210	Construction of Concrete Block Wall and Form Working Platform at +89mPD (3d+3d)	0%	6	6	23-Aug-23	29-Aug-23	23-Aug-23	29-Aug-23	6			Cons	ruction o	f Concre	te Block Wa	all and For	m Working F	Platform a	it +89mPD (3d+3d)		
	SW-VAT-1220	Trial Trench, UU detection and diversion	0%	12	12	23-Aug-23	05-Sep-23	23-Aug-23	05-Sep-23	0			🖣 Trial	French, U	JU detec	tion and dive	ersion						
	SW-VAT-1230	Installation of Pipe Pile (Total: 15no) (PR=2.5d/pile/rig) (1 rigs)	0%	38	38	06-Sep-23	21-Oct-23	06-Sep-23	21-Oct-23	0				stallation	of Pipe	Pile (Total: 1	5no) (PR=	=2.5d/pile/rig) (1 rigs)				
					1			1	1		Date				Pa	/ision				hecked			
	1st Programme Actual Work	e Baseline 💠 💠 1st Programme Baseline Milestone I Milestone				1	1 of 27			12-De		Firs	t Program	ne	Rev	IJUII				ICONCU	+ 4	oprove	<u>,u</u>
	Remaining Wo									12-Jar			nthly Progr		Janua	y 2023					+		
	Critical Remain	-																	i		-		

Salt Water Service Reservoirs to Cavern

SW-VAT-1240		Complete	Dur.	Duration					Float NLD	D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F
	Construction of Temporary Steel Platform at Zone A for Traffic Diversion	0%	14	14	24-Oct-23	08-Nov-23	24-Oct-23	08-Nov-23	0	Construction of Temporary Steel Platform at Zone A for Traffic Diversion
Stage 4 & 5 - ELS works,	s, CH27 -40, at ZoneB		110	110	09-Nov-23	21-Mar-24	09-Nov-23	21-Mar-24	0	. 21-Mạr-24, Stage 4,&5 - EL\$ works, CH27 -40, at ZoneВ
SW-VAT-1300	Divert the Traffic onto the Temporary Steel Platform to maintain access to Lion Rock Park and DSD - TTA2	0%	3	3	09-Nov-23	11-Nov-23	09-Nov-23	11-Nov-23	0	I Divert the Traffic onto the Temporary Steel Platform to maintain access to Lion Rock Park ar
SW-VAT-1300a	Trial Trench, UU detection and diversion	0%	6	6	13-Nov-23	18-Nov-23	13-Nov-23	18-Nov-23	0	I Trial Trench, UU detection and diversion
SW-VAT-1310	Installation of Pipe Pile (Total: 12no) (PR=2.5d/pile/rig) (1 rigs)	0%	30	30	20-Nov-23	23-Dec-23	20-Nov-23	23-Dec-23	0	Installation of Pipe Pile (Total: 12no):(PR=2:5d/pile/rig) (1 rigs)
SW-VAT-1320	Construction of Temporary Steel Platform at Zone B for Traffic Diversion	0%	10	10	27-Dec-23	08-Jan-24	27-Dec-23	08-Jan-24	0	Construction of Temporary Steel Platform at Zone B for Traffic Diversion
SW-VAT-1330	Divert the Traffic onto the Temporary Steel Platform to maintain access to Lion Rock Park and DSD - TTA3	0%	3	3	09-Jan-24	11-Jan-24	09-Jan-24	11-Jan-24	0	I Divert the Traffic onto the Temporary Steel Platform to maintain access to Lion Rock Pa
SW-VAT-1340	Remaining Soil Excavation for C&C Tunnel (Total: 5870m3) (PR=200m3/d) + 28d ELS with 4 strut & tie-back	0%	58	58	12-Jan-24	21-Mar-24	12-Jan-24	21-Mar-24	0	Remaining Soil Excavation:for C&C Tunnel:(Total: 5870m3);(PR=200m3/d) + 28c
Structure Works			167	167	22-Mar-24	15-Oct-24	22-Mar-24	15-Oct-24	655	15-Oct-24, Structure Works
SW-VAT-1500	Construction of blinding, waterproofing layer and base slab (Total: 792m3, 8bays(10x16.5), PR=12d/bay)	0%	24	24	22-Mar-24	23-Apr-24	22-Mar-24	23-Apr-24	639	Construction of blindirig, waterproofing layer and base slab (Total: 792m3, 8ba
SW-VAT-1510	Construction of temporary wall, waterproofing layer and wall (Total: 960m3, 8bays (10x10), PR= 12d/bay)	0%	48	48	24-Apr-24	21-Jun-24	24-Apr-24	21-Jun-24	639	Construction of temporary wall, waterproofing layer and wall (Total: 960m3
SW-VAT-1520	Erection of working platform	0%	21	21	22-Jun-24	17-Jul-24	22-Jun-24	17-Jul-24	639	Erection of working platform
SW-VAT-1530	Construction of top slab (Total: 792m3, 4bays(10x16.5), PR = 12d/bay, 2workfront)	0%	24	24	18-Jul-24	14-Aug-24	18-Jul-24	14-Aug-24	639	Construction of top slab (Total: 792m3, 4bays(10x16:5), PR = 12d/bay
SW-VAT-1540	Backfilling to existing level	0%	30	30	15-Aug-24	13-Sep-24	15-Aug-24	13-Sep-24	786	Backfilling to existing level
SW-VAT-1550	Removal of temporary steel platform (staged TTA)	0%	18	18	14-Sep-24	01-Oct-24	14-Sep-24	01-Oct-24	805	Removal of temporary steel platform (staged:TTA)
SW-VAT-1560	Reinstatement of road (staged TTA)	0%	32	32	14-Sep-24	15-Oct-24	14-Sep-24	15-Oct-24	805	Reinstatement of road (staged TTA)
Tunnel Works CH 40 -	775.8 & Caverns (5no.) by Mechanical Break & Drill & Blast Method		745	745	01-Mar-24	15-Mar-26	01-Mar-24	15-Mar-26	1	v 15-Mar-26, Tunnel Work
SW-VAT-2000	Opening of Pipe Pile Wall, Portal construction and site setup	0%	50	50	01-Mar-24	19-Apr-24	01-Mar-24	19-Apr-24	0	Opening of Pipe Pile Wall, Porta I construction and site setup
SW-VAT-2010	Tunnelling works for vehicular access tunnel, T1-I by mech. break (236m) (7day work)	0%	241	241	15-Mar-24	10-Nov-24	15-Mar-24	10-Nov-24	0	Tunnelling works for vehicular access tunnel, T1+I by mech. bre
SW-VAT-2020	Tunnelling works for vehicular access tunnel, T2-III by Drill & Blast (61.15m) (5Blast/wk)	0%	116	116	13-Aug-24	06-Dec-24	13-Aug-24	06-Dec-24	0	Tunnelling works for vehicular access tunnel, T2-III by Drill & E
SW-VAT-2030	Tunnelling works for vehicular access tunnel, T1-II by mech. break (78.8m) (7day work)	0%	116	116	03-Sep-24	27-Dec-24	03-Sep-24	27-Dec-24	0	Tunnelling works for vehicular access tunnel, T1-II by mech
SW-VAT-2040	Tunnelling works for vehicular access tunnel, T2-III by Drill & Blast (155.45m) (5Blast/wk)	0%	240	240	29-Oct-24	25-Jun-25	29-Oct-24	25-Jun-25	0	Tunnelling works for vehicular access tunnel,
SW-VAT-2050	Tunnelling works for vehicular access tunnel, J1-III by Drill & Blast (204.4m) (5Blast/wk)	0%	304	304	09-Jan-25	08-Nov-25	09-Jan-25	08-Nov-25	0	Tunnelling works for vehiculariacce
SW-VAT-2110	Tunnelling works for Caverns 1 by Drill & Blast (93.1m) (5Blast/wk)	0%	172	172	30-Apr-25	18-Oct-25	30-Apr-25	18-Oct-25	0	Turinelling works for Caverns 1 by D
SW-VAT-2130	Tunnelling works for Caverns 3 by Drill & Blast (87.4m) (5Blast/wk)	0%	150	150	03-Jul-25	29-Nov-25	03-Jul-25	29-Nov-25	1	Tunrielling works for Caverns 3 by
SW-VAT-2150	Tunnelling works for Caverns 5 by Drill & Blast (83.0m) (5Blast/wk)	0%	129	129	06-Sep-25	12-Jan-26	06-Sep-25	12-Jan-26	1	Tunnelling works for Caverns
SW-VAT-2120	Tunnelling works for Caverns 2 by Drill & Blast (80.7m) (5Blast/wk)	0%	118	118	24-Sep-25	19-Jan-26	24-Sep-25	19-Jan-26	2	Tunnelling works for Caverns
1st Programm	ne Baseline 🔷 🔷 1st Programme Baseline Milestone				4	2 of 27			Date	ate Revision Checked Approved
Actual Work	Milestone								12-Dec-2	

Critical Remaining Work

Salt Water Service Reservoirs to Cavern

Monthly Programme January 2023

				Mont	hly Progran	nme Janua	ry 2023												
ctivity ID	Activity Name	Activity % Complete	1st Prog. Dur.	Original Duration	1st Prog. Start	1st Prog. Finish	Start	Finish	Total Float		2023				DJFMAMJ				2027
SW-VAT-2140	Tunnelling works for Caverns 4 by Drill & Blast (78.3m) (5Blast/wk)[140]	0%	120	120	16-Nov-25	15-Mar-26	16-Nov-25	15-Mar-26	1					JJASON			Tunne		
Remaining Works			868	868	31-Aug-24	15-Jan-27	31-Aug-24	15-Jan-27	87										▼ 15-Ja
SW-VAT-3000	Construction of shotcrete (min 10m away from exc. face, SS+12, FF+60) 736m, PR=12m/wk (434d)	0%	495	495	31-Aug-24	07-Jan-26	31-Aug-24	07-Jan-26	65								Constructio	n of shotcr	ete (min 10n
SW-VAT-3010a	[CH40-571] Construction of drainage layer, base slab, lower part (200m from exca, SS+176;FF+30) 532m, PR=12m/wk (315d)	0%	361	361	11-Feb-25	06-Feb-26	11-Feb-25	06-Feb-26	65								🔲 [CH40-5	71] Constru	uction of drai
SW-VAT-3020a	[CH40-571] Construction of RC Lining (min 24m from base slab + 2wk erection, SS+30) 532m, PR=12m/9d (405d)	0%	405	405	13-Mar-25	21-Apr-26	13-Mar-25	21-Apr-26	65								E [CH	40-571] Co	onstruction c
SW-VAT-3030a	[CH40-776] Construction of compartment RHS (min 24m from Lining, SS+18), 736m, PR=12m/9d [558d]	0%	558	558	31-Mar-25	09-Oct-26	31-Mar-25	09-Oct-26	65				I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I					 [0	CH40-776] C
SW-VAT-3010b	[CH571-776] Construction of drainage layer, base slab, lower part (after all excavation) 204m, PR=12m/wk (119d)	0%	119	119	16-Mar-26	12-Jul-26	16-Mar-26	12-Jul-26	57									ECH571	-776] Constr
SW-VAT-3020b	[CH571-776] Construction of RC Lining (min 24m from base slab + 2wk erection, SS+30) 204m, PR=12m/9d (153d)	0%	153	153	15-Apr-26	14-Sep-26	15-Apr-26	14-Sep-26	68									ECH	H571-776] C
SW-VAT-3030b	[CH40-776] Construction of compartment LHS (min 24m from Lining, SS+18), 736m, PR=24m/wk [217d]	0%	217	217	14-May-26	16-Dec-26	14-May-26	16-Dec-26	57										📮 [СН40-7
SW-VAT-3040	Installation of pipeworks below proposed road level (Total: 4416m) PR=36m/d incl. 1M for Pressure Test (150d)	0%	229	229	01-Jun-26	15-Jan-27	01-Jun-26	15-Jan-27	57										Install
SW-VAT-3070	Construction of OHVD, 736m, PR=12d/50m	0%	180	180	01-Jul-26	27-Dec-26	01-Jul-26	27-Dec-26	106										르 Constru
SW-VAT-3060	Installation of CLP power cable along VAT	0%	60	60	17-Nov-26	15-Jan-27	17-Nov-26	15-Jan-27	57									I	💻 Install
Caverns 1 - Salt Water	Service Reservoir No.1		478	478	28-Aug-25	11-Apr-27	28-Aug-25	11-Apr-27	1										•
SW-C1-1010	Caverns 1 - Construction of Shotcrete	0%	67	67	28-Aug-25	17-Nov-25	28-Aug-25	17-Nov-25	0							— c	averns 1 - Co	nstruction o	of Shotcrete
SW-C1-1000	Caverns 1 - Completion of Tunnel Works	0%	0	0		18-Oct-25		18-Oct-25	0				I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I			💲 Cav	/erns 1 - Com	pletion of Ti	Innel Works
SW-C1-1020	Caverns 1 - Construction of Cavern Lining (Total: 28.5m long, PR=12m/9d + 2wk for erection)	0%	39	39	18-Nov-25	05-Jan-26	18-Nov-25	05-Jan-26	0								Caverns 1	Constructi	on of Caver
SW-C1-1030	Caverns 1 - Waterproofing system and protection layer to Wall and Slab	0%	60	60	06-Jan-26	06-Mar-26	06-Jan-26	06-Mar-26	0								E Caverr	is 1 - Wate	proofing sy:
SW-C1-1040	Caverns 1 - Construction of Slab 1.6m thk for water tank area (Total: 1939m3, 12bays(11x9), PR= 15d/bay, 3workfronts)	0%	60	60	05-Feb-26	22-Apr-26	05-Feb-26	22-Apr-26	0								E Ca	verns 1 - C	onstruction o
SW-C1-1060	Caverns 1 - Construction of Slab 1.0m thk for pump/plant room area (Total:1200m3, 11bays(12x9), PR=12d/bay, 3 workfront)	0%	48	48	23-Apr-26	20-Jun-26	23-Apr-26	20-Jun-26	0									Caverns ²	1 - Construc
SW-C1-1050	Caverns 1 - Construction of wall, beam & slab up to 91.35mPD for water tank area	0%	90	90	23-Apr-26	21-Jul-26	23-Apr-26	21-Jul-26	85									Cavern	is 1 - Constru
SW-C1-1070	Caverns 1 - Construction of soil filling, pipeworks and at-grade slab for pump/ plant room area	0%	55	55	21-Jun-26	14-Aug-26	21-Jun-26	14-Aug-26	1									💻 Cave	rns 1 - Cons
SW-C1-1080	Caverns 1 - Construction of wall, beam & slab up to cavern soffit for pump/ plant room area	0%	60	60	15-Aug-26	13-Oct-26	15-Aug-26	13-Oct-26	1									— c	Caverns 1 - 0
SW-C1-1090	Caverns 1 - Construction of remaining works incl. staircase, partition wall and other civil works for E&M plant	0%	90	90	14-Oct-26	11-Jan-27	14-Oct-26	11-Jan-27	1										Caver
SW-C1-1100	Caverns 1 - BS, E&M works and ABWF	0%	150	150	14-Oct-26	12-Mar-27	14-Oct-26	12-Mar-27	1										C
SW-C1-1110	Caverns 1 - Completion of BS and ABWF works for Transformer Room and Switcboard Room	0%	0	0		12-Dec-26		12-Dec-26	1										🕏 Caverns
SW-C1-1120	Caverns 1 - CLP installation works in Transformer Room and Switcboard Room	0%	60	60	13-Dec-26	10-Feb-27	13-Dec-26	10-Feb-27	1										💻 Cav
SW-C1-1130	Caverns 1 - Testing and Commissioning	0%	90	90	12-Jan-27	11-Apr-27	12-Jan-27	11-Apr-27	1				• • • • • • • • • • • • • • • • • • • •						
1st Proaramr	ne Baseline 🔷 🔶 1st Programme Baseline Milestone				1	3 of 27				Date			F	Revision			Checked	Apr	proved
Actual Work	Milestone					E I			12-De	ec-22	First P	rogramme							
Remaining W	Vork Summary								12-Ja	n-23	Month	ly Progran	nme Jani	uary 2023					
Critical Rema	ining Work																		
1st Programm Actual Work	me Baseline 🔌 🔷 1st Programme Baseline Milestone Ist Programme Baseline Milestone Milestone Vork	0%	90	90		11-Apr-27	12-Jan-27	11-Apr-27	12-De	ec-22							Checked		Apr

Salt Water Service Reservoirs to Cavern

				Mont	hly Progran	nme Janua	ry 2023			
ctivity ID	Activity Name	Activity % Complete	1st Prog. Dur.	Original Duration	1st Prog. Start	1st Prog. Finish	Start	Finish	Total Float	2023 2024 2025 2026 2027 JFMAMJJJASONDJFMAMJJASONDJFMAMJJASONDJFM
Caverns 2 - Salt Wate	er Service Reservoir No.2		390	390	12-Dec-25	11-Apr-27	12-Dec-25	11-Apr-27		
SW-C2-1010	Caverns 2 - Construction of Shotcrete	0%	54	54	12-Dec-25	20-Feb-26	12-Dec-25	20-Feb-26	2	Caverns 2 - Construction of S
SW-C2-1000	Caverns 2 - Completion of Tunnel Works	0%	0	0		19-Jan-26		19-Jan-26	2	🕏 Caverns 2 - Completion of Tun
SW-C2-1020	Caverns 2 - Construction of Cavern Lining (Total: 33.2m long, PR=12m/9d + 2wk for erection)	0%	39	39	20-Feb-26	09-Apr-26	20-Feb-26	09-Apr-26	2	Caverns 2 - Construction
SW-C2-1030	Caverns 2 - Waterproofing system and protection layer to Wall and Slab	0%	60	60	10-Apr-26	08-Jun-26	10-Apr-26	08-Jun-26	2	Caverns 2 + Waterpr
SW-C2-1040	Caverns 2 - Construction of Slab 1.6m thk for water tank area (Total: 1880m3, 15bays (11x7), PR= 15d/bay, 3workfronts)	0%	60	60	11-May-26	22-Jul-26	11-May-26	22-Jul-26	1	Caverns 2 - Cons
SW-C2-1060	Caverns 2 - Construction of Slab 1.0m thk for pump/plant room area (Total:597m3, 7bays(11x7.5), PR=12d/bay, 3 workfront)	0%	36	36	23-Jul-26	02-Sep-26	23-Jul-26	02-Sep-26	1	💻 Caverris 2 - C
SW-C2-1050	Caverns 2 - Construction of wall, beam & slab up to 91.35mPD for water tank area	0%	90	90	23-Jul-26	20-Oct-26	23-Jul-26	20-Oct-26	17	Caverns 2
SW-C2-1070	Caverns 2 - Construction of soil filling, pipeworks and at-grade slab for pump/ plant room area	0%	34	34	03-Sep-26	06-Oct-26	03-Sep-26	06-Oct-26	1	💻 Caverns 2 -
SW-C2-1080	Caverns 2 - Construction of wall, beam & slab up to cavern soffit for pump/ plant room area	0%	60	60	07-Sep-26	05-Nov-26	07-Sep-26	05-Nov-26	1	Caverns
SW-C2-1090	Caverns 2 - Construction of remaining works incl. staircase, partition wall and other civil works for	0%	90	90	07-Oct-26	04-Jan-27	07-Oct-26	04-Jan-27	68	Cave
SW-C2-1100	E&M plant Caverns 2 - BS, E&M works and ABWF	0%	127	127	06-Nov-26	12-Mar-27	06-Nov-26	12-Mar-27	1	
SW-C2-1110	Caverns 2 - Connect power cable from SWSR1 Transformer Room & Switcboard Room to	0%	60	60	13-Dec-26	10-Feb-27	13-Dec-26	10-Feb-27	31	c
	SWSR2									
SW-C2-1130	Caverns 2 - Testing and Commissioning	0%	90	90	12-Jan-27	11-Apr-27	12-Jan-27	11-Apr-27	1	
SW-C2-1120	Caverns 2 - Energization of SWSR2	0%	0	0	11-Feb-27		11-Feb-27		31	\$c
Caverns 3 - Salt Wate	er Service Reservoir No.3		434	434	21-Oct-25	10-Apr-27	21-Oct-25	10-Apr-27	1	· · · · · · · · · · · · · · · · · · ·
SW-C3-1010	Caverns 3 - Construction of Shotcrete	0%	57	57	21-Oct-25	29-Dec-25	21-Oct-25	29-Dec-25	1	Caverns 3 -: Construction of Shot
SW-C3-1000	Caverns 3 - Completion of Tunnel Works	0%	0	0		29-Nov-25		29-Nov-25	1	🕏 Caverns 3 - Completion of Tunnel V
SW-C3-1020	Caverns 3 - Construction of Cavern Lining (Total: 28.3m long, PR=12m/9d + 2wk for erection)	0%	39	39	30-Dec-25	13-Feb-26	30-Dec-25	13-Feb-26	1	Caverns 3 - Construction of C
SW-C3-1030	Caverns 3 - Waterproofing system and protection layer to Wall and Slab	0%	60	60	14-Feb-26	14-Apr-26	14-Feb-26	14-Apr-26	1	Caverns:3 - Waterproofir
SW-C3-1040	Caverns 3 - Construction of Slab 1.6m thk for water tank area (Total: 1961m3, 12bays (11x9),	0%	60	60	13-Mar-26	27-May-26	13-Mar-26	27-May-26	1	Caverns 3 - Construc
SW-C3-1060	PR= 15d/bay, 3workfronts) Caverns 3 - Construction of Slab 1.0m thk for pump/plant room area (Total:597m3, 11bays	0%	48	48	28-May-26	24-Jul-26	28-May-26	24-Jul-26		Caverns 3 - Cons
	(11x9), PR=12d/bay, 3 workfront)									
SW-C3-1050	Caverns 3 - Construction of wall, beam & slab up to 91.35mPD for water tank area	0%	90	90	28-May-26	25-Aug-26	28-May-26	25-Aug-26	50	Caverns 3 - Co
SW-C3-1070	Caverns 3 - Construction of soil filling, pipeworks and at-grade slab for pump/ plant room area	0%	50	50	25-Jul-26	12-Sep-26	25-Jul-26	12-Sep-26	2	💻 Caverhs 3- 0
SW-C3-1080	Caverns 3 - Construction of wall, beam & slab up to cavern soffit for pump/ plant room area	0%	60	60	14-Aug-26	12-Oct-26	14-Aug-26	12-Oct-26	2	Caverns:3
SW-C3-1090	Caverns 3 - Construction of remaining works incl. staircase, partition wall and other civil works for E&M plant	0%	90	90	13-Oct-26	10-Jan-27	13-Oct-26	10-Jan-27	62	Cav
SW-C3-1100	Caverns 3 - BS, E&M works and ABWF	0%	150	150	13-Oct-26	11-Mar-27	13-Oct-26	11-Mar-27	2	
]						n : : : : : : : : : : : : : : : : : : :
•	nme Baseline \land 🔹 🔷 1st Programme Baseline Milestone				1	4 of 27			Date	
Actual Work									12-Dec-22 12-Jan-23	
Remaining V	-								12-Jall-23	
Critical Rema	aining Work									

						nme Janua	ry 2023						
y ID	Activity Name	Activity % Complete	1st Prog. Dur.	Original Duration	1st Prog. Start	1st Prog. Finish	Start	Finish	Total Float	2023 JFMAMJJASONC			
SW-C3-1110	Caverns 3 - Connect power cable from SWSR1 Transformer Room & Switcboard Room to SWSR3	0%	60	60	13-Dec-26	10-Feb-27	13-Dec-26	10-Feb-27	31		J J F M A - J J A S O N		
SW-C3-1130	Caverns 3 - Testing and Commissioning	0%	90	90	11-Jan-27	10-Apr-27	11-Jan-27	10-Apr-27	2				
SW-C3-1120	Caverns 3 - Energization of SWSR3	0%	0	0	11-Feb-27		11-Feb-27		31				💲 Ca
Caverns 4 - Fresh Wa	ater Service Reservoir No.1		349	349	02-Feb-26	10-Apr-27	02-Feb-26	10-Apr-27	1			· · · · · · · · · · · · · · · · · · ·	
SW-C4-1010	Caverns 4 - Construction of Shotcrete	0%	56	56	02-Feb-26	14-Apr-26	02-Feb-26	14-Apr-26	20			Cave	rns:4 - Construction o
						•							
SW-C4-1000	Caverns 4 - Completion of Tunnel Works	0%	0	0		15-Mar-26		15-Mar-26	1				s4 - Completion of Ti
SW-C4-1020	Caverns 4 - Construction of Cavern Lining (Total: 20.3m long, PR=12m/9d + 2wk for erection)	0%	30	30	30-Mar-26	07-May-26	30-Mar-26	07-May-26	1			💻 Ca	verns 4 - Construction
SW-C4-1030	Caverns 4 - Waterproofing system and protection layer to Wall and Slab	0%	50	50	08-May-26	26-Jun-26	08-May-26	26-Jun-26	1				Caverns 4 - Waterpr
SW-C4-1040	Caverns 4 - Construction of Slab 1.6m thk for water tank area (Total: 2482m3, 15bays (11x9), PR= 15d/bay, 3workfronts)	0%	60	60	28-May-26	07-Aug-26	28-May-26	07-Aug-26	1				Caverns 4 - Cons
SW-C4-1060	Caverns 4 - Construction of Slab 1.0m thk for pump/plant room area (Total:553m3, 6bays (11x9), PR=12d/bay, 3 workfront)	0%	24	24	08-Aug-26	04-Sep-26	08-Aug-26	04-Sep-26	1				📕 Caverns 4 - Co
SW-C4-1050	Caverns 4 - Construction of wall, beam & slab up to 91.35mPD for water tank area	0%	90	90	08-Aug-26	05-Nov-26	08-Aug-26	05-Nov-26	8				Caverns 4
SW-C4-1070	Caverns 4 - Construction of soil filling, pipeworks and at-grade slab for pump/ plant room area	0%	38	38	05-Sep-26	12-Oct-26	05-Sep-26	12-Oct-26	2				Caverns 4 -
SW-C4-1080	Caverns 4 - Construction of wall, beam & slab up to cavern soffit for pump/ plant room area	0%	60	60	13-Sep-26	11-Nov-26	13-Sep-26	11-Nov-26	2			 	Caverns 4
SW-C4-1090	Caverns 4 - Construction of remaining works incl. staircase, partition wall and other civil works for	0%	60	60	12-Nov-26	10-Jan-27	12-Nov-26	10-Jan-27	62				Cave
	E&M plant												
SW-C4-1100	Caverns 4 - BS, E&M works and ABWF	0%	120	120	12-Nov-26	11-Mar-27	12-Nov-26	11-Mar-27	2				
SW-C4-1110	Caverns 4 - Connect power cable from SWSR1 Transformer Room & Switcboard Room to SWSR4	0%	60	60	13-Dec-26	10-Feb-27	13-Dec-26	10-Feb-27	31				💻 Ca
SW-C4-1130	Caverns 4 - Testing and Commissioning	0%	90	90	11-Jan-27	10-Apr-27	11-Jan-27	10-Apr-27	2				
SW-C4-1120	Caverns 4 - Energization of SWSR4	0%	0	0	11-Feb-27		11-Feb-27		31				💲 Ca
Caverns 5 - Fresh Wa	ater Service Reservoir No.2		392	392	10-Dec-25	10-Apr-27	10-Dec-25	10-Apr-27	1				•
SW-C5-1010	Caverns 5 - Construction of Shotcrete	0%	52	52	10-Dec-25	11-Feb-26	10-Dec-25	11-Feb-26	3			Caverns 5	- Construction of Sh
SW-C5-1000	Caverns 5 - Completion of Tunnel Works	0%	0	0		12-Jan-26		12-Jan-26	3			💲 Caverns 5 -	Completion of Tunne
SW-C5-1020	Caverns 5 - Construction of Cavern Lining (Total: 22.5m long, PR=12m/9d + 2wk for erection)	0%	30	30	12-Feb-26	21-Mar-26	12-Feb-26	21-Mar-26	3			💻 Caverr	ns 5 - Construction of
SW-C5-1030	Caverns 5 - Waterproofing system and protection layer to Wall and Slab	0%	50	50	22-Mar-26	10-May-26	22-Mar-26	10-May-26	4			 Ca	verns:5 - Waterproofi
SW-C5-1040	Caverns 5 - Construction of Slab 1.6m thk for water tank area (Total: 1961m3, 12bays (11x9),	0%	60	60	30-Apr-26	13-Jul-26	30-Apr-26	13-Jul-26	2				Caverns 5 - Constr
SW-C5-1060	PR= 15d/bay, 3workfronts) Caverns 5 - Construction of Slab 1.0m thk for pump/plant room area (Total:986m3, 9bays	0%	36	36	14-Jul-26	24-Aug-26	14-Jul-26	24-Aug-26	2				Caverns 5 - Cor
	(11x9), PR=12d/bay, 3 workfront)												
SW-C5-1050	Caverns 5 - Construction of wall, beam & slab up to 91.35mPD for water tank area	0%	90	90	14-Jul-26	11-Oct-26	14-Jul-26	11-Oct-26	33				Caverns 5 -
SW-C5-1070	Caverns 5 - Construction of soil filling, pipeworks and at-grade slab for pump/ plant room area	0%	49	49	25-Aug-26	12-Oct-26	25-Aug-26	12-Oct-26	2				Caverns 5 -
					-			-	Date		Revision	Checked	Approved
•	Interesting Interesting Interesting Interesting				1	15 of 27			12-Dec-2			CHECKEU	, ppioved
Actual Work									12-Dec-2	v	amme January 2023		
Remaining \	-										anno oandary 2020	<u> </u>	
Critical Rem	aining Work												

21/WSD/21 - Relocation of Diamond Hill Fresh Water and Salt Water Service Reservoirs to Cavern Monthly Programme January 2023

Complete Durition					Mont	hly Prograr	nme Janua	iry 2023									
80x804 0xmach.adva.discub.adva.disu.discub.adva.discub.a	tivity ID	Activity Name	Activity % Complete				1st Prog. Finish	n Start	Finish	Total Float							2027 D J F M A
Table Construction Table Con	SW-C5-1080	Caverns 5 - Construction of wall, beam & slab up to cavern soffit for pump/ plant room area	0%	60	60	13-Sep-26	11-Nov-26	13-Sep-26	11-Nov-26								
Basel Conception on the Water Production of Mark Strategy Conception Mark Strategy Conception of Mark Strategy	SW-C5-1090		0%	60	60	12-Nov-26	10-Jan-27	12-Nov-26	10-Jan-27	2							📕 Cave
Nones Nones <td< td=""><td>SW-C5-1100</td><td>Caverns 5 - BS, E&M works and ABWF</td><td>0%</td><td>120</td><td>120</td><td>12-Nov-26</td><td>11-Mar-27</td><td>12-Nov-26</td><td>11-Mar-27</td><td>2</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>	SW-C5-1100	Caverns 5 - BS, E&M works and ABWF	0%	120	120	12-Nov-26	11-Mar-27	12-Nov-26	11-Mar-27	2							
Normal Markan	SW-C5-1110		0%	60	60	13-Dec-26	10-Feb-27	13-Dec-26	10-Feb-27	31						ſ	🔲 Ca
Matcheneric services 10 10 100 1000000000000000000000000000000000000	SW-C5-1130	Caverns 5 - Testing and Commissioning	0%	90	90	11-Jan-27	10-Apr-27	11-Jan-27	10-Apr-27	2							
Ubername 0<	SW-C5-1120	Caverns 5 - Energization of SWSR4	0%	0	0	11-Feb-27		11-Feb-27		31							💲 Ca
12 Have 10 minimum 10 mi	Water Mains Installation	Works in Portion 5		1283	1262	09-Dec-22	10-Apr-27	09-Dec-22 A	10-Apr-27	1							
12000000000000000000000000000000000000	UU Diversion Works			0	28			09-Feb-23	13-Mar-23	1208	*** 1	3-Mar-23, UU Diver	sion Works				
21 PRW PC0 1000 Pake Ligt Cube Denson 0.0	21.PRW.PO5.10000	TTA Implementation for UU Diversion Works	0%	0	6			09-Feb-23	15-Feb-23	1208	0 TT.	A Implementation for	UU Diversion Works				
21PRW PC CM CM FM	21.PRW.PO5.10010	Trench Excavation for UU Diversion Works	0%	0	11			16-Feb-23	28-Feb-23	1208	O Tr	ench Excavation for	UU Diversion Works				
1 Arrow Rate Arrow Rat Arrow Rate Arrow Rate </td <td>21.PRW.PO5.10020</td> <td>Public Light Cable Diversion</td> <td>0%</td> <td>0</td> <td>5</td> <td></td> <td></td> <td>01-Mar-23</td> <td>06-Mar-23</td> <td>1212</td> <td>I P</td> <td>iblic Light Cable Div</td> <td>ersion</td> <td></td> <td></td> <td></td> <td></td>	21.PRW.PO5.10020	Public Light Cable Diversion	0%	0	5			01-Mar-23	06-Mar-23	1212	I P	iblic Light Cable Div	ersion				
DMC00 and DM4D0 level Water Mains & DM4D0 Skit Water Mains Link Link <thlink< th=""> Link <thli< td=""><td>21.PRW.PO5.10030</td><td>PCCW Cable Diversion</td><td>0%</td><td>0</td><td>9</td><td></td><td></td><td>01-Mar-23</td><td>10-Mar-23</td><td>1208</td><td>D P</td><td>CCW Cable Diversio</td><td>ή</td><td></td><td></td><td></td><td></td></thli<></thlink<>	21.PRW.PO5.10030	PCCW Cable Diversion	0%	0	9			01-Mar-23	10-Mar-23	1208	D P	CCW Cable Diversio	ή				
A1070 Nend TAApplication Nend TAApplication Nend TAApplication Nend TAApplication Nend TAApplication Nend TAApplication A1080 Application GNP lo submit working hours for poly jacking works 1010 102 102 104 040-00-20 24Are3 101 104 104 104 040-00-20 24Are3 104 104 104 040-00-20 104-00-20 104 104 104 104 040-00-20 104-00-20 104 104 104 104 104-0-20-20 104-00-20 <	21.PRW.PO5.10040	Conductivity Test for Cable	0%	0	2			11-Mar-23	13-Mar-23	1208	IC	onductivity Test for (Cable				
Allow Application of CNP to extend working hours for pipe jacking works 1011 101	DN600 and DN450 Fre	esh Water Mains & DN450 Salt Water Mains		1280	1259	09-Dec-22	07-Apr-27	09-Dec-22 A	07-Apr-27	4							
Pipe Installation by Pipe Jacking Method Pipe Jacking Method Pipe Jacking Method Pipe Jacking Method Pipe Jacking Method Pipe Jacking Method Pipe Jacking Method Pipe Jacking Method Pipe Jacking Method Pipe Jacking Method Pipe Jacking Method Pipe Jacking Method Pipe Jacking Method Pipe Jacking Method Pipe Jacking Method Pipe Jacking Method Pipe Jacking Method <td< td=""><td>A1070</td><td>XP and TTAApplication</td><td>18.62%</td><td>145</td><td>145</td><td>09-Dec-22</td><td>02-May-23</td><td>09-Dec-22 A</td><td>02-May-23</td><td>1</td><td></td><td>XP and TTAAppli</td><td>cation</td><td></td><td></td><td></td><td></td></td<>	A1070	XP and TTAApplication	18.62%	145	145	09-Dec-22	02-May-23	09-Dec-22 A	02-May-23	1		XP and TTAAppli	cation				
Water Main Turnel (Detail A), CH 0-30 (5m) along Chak Yuen Road - Section A1 26 26 26 26-bit A <	A1080	Application of CNP to extend working hours for pipe jacking works	19.01%	142	142	09-Dec-22	29-Apr-23	09-Dec-22 A	29-Apr-23	171		Application of CNI	o extend working hours	for pipe jacking works			
SW-JPA-1000 TTA implementation, site clearance, road modification and site setup 0% 14 14 0.2-Feb-25 15-Feb-25 15-Feb-25 2.26 SW-JPA-1010 Si works for trenchless design 0% 28 16-Feb-25 15-Mar-25 16-Feb-25 15-Mar-25 302 15-Feb-25 226 15-Mar-25 15-Mar-25 15-Mar-25 302 15-Feb-25 15-Mar-25 15-Mar-25 302 15-Feb-25 15-Mar-25 15-Mar-25 302 15-Mar-25 16-Mar-25 16-Mar-25 14-Mar-25 16-Mar-25 14-Mar-25 302 16-Feb-25 14-Mar-25 31-Mar-25 31-Mar	Pipe Installation by Pipe	Jacking Method		719	719	30-Aug-23	29-Jan-26	30-Aug-23	29-Jan-26	289		•			29-Jan-2	6, Pipe Install	ation by I
No. N	Water Main Tunnel (Deta	ail A), CH 0-59 (59m) along Chuk Yuen Road - Section A1		296	296	02-Feb-25	29-Jan-26	02-Feb-25	29-Jan-26	283				•	29-Jan-2	6, Water Mair	۱Tunnel
SW-JPA-1020 UU Detection and UU diversion for construction of jacking pits 0% 30 16-Feb-25 17-Mar-25 16-Feb-25 17-Mar-25 26-Feb-25 17-Mar-25 26-Feb-25 <th< td=""><td>SW-JPA-1000</td><td>TTA implementation, site clearance, road modification and site setup</td><td>0%</td><td>14</td><td>14</td><td>02-Feb-25</td><td>15-Feb-25</td><td>02-Feb-25</td><td>15-Feb-25</td><td>226</td><td></td><td></td><td></td><td>🛛 TTA implementatio</td><td>n, site clearance,</td><td>road modifica</td><td>ation and</td></th<>	SW-JPA-1000	TTA implementation, site clearance, road modification and site setup	0%	14	14	02-Feb-25	15-Feb-25	02-Feb-25	15-Feb-25	226				🛛 TTA implementatio	n, site clearance,	road modifica	ation and
SW-JPA-1030 Design Approval for trenchless works 0% 60 60 16-Mar-25 14-May-25 302 302 14-May-25 304 14-May-25 204 14-May-25 204	SW-JPA-1010	SI works for trenchless design	0%	28	28	16-Feb-25	15-Mar-25	16-Feb-25	15-Mar-25	302				📮 SI works for tren	ıchless design		
SW-JPA-1040 Installation of instrumentation and monitoring device and condition survey 0% 14 14 18-Mar-25 31-Mar-25 34-Mar-25	SW-JPA-1020	UU Detection and UU diversion for construction of jacking pits	0%	30	30	16-Feb-25	17-Mar-25	16-Feb-25	17-Mar-25	226				📮 UU Detection ar	nd UU diversion fc	r constructior	ı of jackir
SW-JPA-1050 Construction of receiving pit O% 75 75 18-Mar-25 31-May-25 18-Mar-25 31-May-25 285 18-Mar-25 286 18-Mar-25<	SW-JPA-1030	Design Approval for trenchless works	0%	60	60	16-Mar-25	14-May-25	16-Mar-25	14-May-25	302				💻 Design App	roval for trenchles	s works	
SW-JPA-1060 Construction of launching pit 0% 75 75 18-Mar-25 31-May-25 226 Image: Construction of launching pit Image: Construction of launching pit SW-JPA-1070 Advance preparation works at launching pit 0% 14 14 01-Jun-25 01-Jun-25 14-Jun-25 226 Image: Construction of launching pit Image: Construction of launching pit	SW-JPA-1040	Installation of instrumentation and monitoring device and condition survey	0%	14	14	18-Mar-25	31-Mar-25	18-Mar-25	31-Mar-25	346				Installation of in	istrumentation and	d monitoring c	Jevice an
SW-JPA-1070 Advance preparation works at launching pit 0% 14 14 01-Jun-25 01-Jun-25 226	SW-JPA-1050	Construction of receiving pit	0%	75	75	18-Mar-25	31-May-25	18-Mar-25	31-May-25	285				Constructi	on of receiving pit		
	SW-JPA-1060	Construction of launching pit	0%	75	75	18-Mar-25	31-May-25	18-Mar-25	31-May-25	226				Constructi	on of launching pi	it	
SW-JPA-1080 Plant mobilization and set-up at Launching pit 0% 45 45 10-Sep-25 24-Oct-25 139 Plant mobilization and set-up at Launching pit	SW-JPA-1070	Advance preparation works at launching pit	0%	14	14	01-Jun-25	14-Jun-25	01-Jun-25	14-Jun-25	226				Advarice	preparation work	s at launchinç	j pit
	SW-JPA-1080	Plant mobilization and set-up at Launching pit	0%	45	45	10-Sep-25	24-Oct-25	10-Sep-25	24-Oct-25	139					Plant mobilizatior	ז and set-up a	at Launch
1st Programme Baseline 👌 💠 1st Programme Baseline Milestone 16 of 27 Date Revision Checked Approved		e Baseline 🔷 🔷 1st Programme Baseline Milestone					6 of 27			12-De	c-22	First Programme			1	1	

Actual Work	
Remaining Work	

Critical Remaining Work

♦ ♦ Milestone Summary -

Revision	Checked	Approved
nuary 2023		

Monthly Programme January 2023

12-Jan-23

Acti	vity ID	Activity Name	Activity % Complete	1st Prog. Dur.	Original Duration	1st Prog. Start	1st Prog. Finish	Start	Finish	Total Float			023 J J A S O N E	
П	SW-JPA-1090	Excavation (59m) by Pipe Jacking method, PR=1.5m/d	0%	40	40	25-Oct-25	11-Dec-25	25-Oct-25	11-Dec-25	112				
	SW-JPA-1110	Plant demobilization	0%	30	30	12-Dec-25	10-Jan-26	12-Dec-25	10-Jan-26	142				
	SW-JPA-1120	Plpe Installation (PR=30m/wk for fitting, 18m/d for pipe)	0%	16	16	12-Jan-26	29-Jan-26	12-Jan-26	29-Jan-26	283				
	Water Main Tunnel (Deta	ail A), CH 71-172 (101m) along Chuk Yuen Road - Section A2		316	316	16-Oct-24	07-Nov-25	16-Oct-24	07-Nov-25	351				
	SW-JPA-2000	TTA implementation, site clearance, road modification and site setup	0%	14	14	16-Oct-24	29-Oct-24	16-Oct-24	29-Oct-24	207				
	SW-JPA-2010	SI works for trenchless design	0%	28	28	30-Oct-24	26-Nov-24	30-Oct-24	26-Nov-24	283				
	SW-JPA-2020	UU Detection and UU diversion for construction of jacking pits	0%	30	30	30-Oct-24	28-Nov-24	30-Oct-24	28-Nov-24	207				
	SW-JPA-2030	Design Approval for trenchless works	0%	60	60	27-Nov-24	25-Jan-25	27-Nov-24	25-Jan-25	283				
	SW-JPA-2040	Installation of instrumentation and monitoring device and condition survey	0%	14	14	29-Nov-24	12-Dec-24	29-Nov-24	12-Dec-24	327				
	SW-JPA-2050	Construction of receiving pit	0%	75	75	29-Nov-24	11-Feb-25	29-Nov-24	11-Feb-25	266				
	SW-JPA-2060	Construction of launching pit	0%	75	75	29-Nov-24	11-Feb-25	29-Nov-24	11-Feb-25	207				
	SW-JPA-2070	Advance preparation works at launching pit	0%	14	14	12-Feb-25	25-Feb-25	12-Feb-25	25-Feb-25	207				
	SW-JPA-2080	Plant mobilization and set-up at Launching pit	0%	45	45	07-May-25	20-Jun-25	07-May-25	20-Jun-25	137				
	SW-JPA-2090	Excavation (101m) by Pipe Jacking method, PR=1.5m/d	0%	68	68	21-Jun-25	09-Sep-25	21-Jun-25	09-Sep-25	113				
	SW-JPA-2110	Plant demobilization	0%	30	30	10-Sep-25	09-Oct-25	10-Sep-25	09-Oct-25	139				
	SW-JPA-2120	Plpe Installation (PR=30m/wk for fitting, 18m/d for pipe)	0%	24	24	10-Oct-25	07-Nov-25	10-Oct-25	07-Nov-25	351				
	Water Main Tunnel (Deta	ail A), CH 613-889 (276m) along Chuk Yuen Road - Section A3		454	454	30-Aug-23	10-Mar-25	30-Aug-23	10-Mar-25	548				
	SW-JPA-3000	TTA implementation, site clearance, road modification and site setup	0%	14	14	30-Aug-23	12-Sep-23	30-Aug-23	12-Sep-23	172			🛛 TTAir	mplementation
	SW-JPA-3010	SI works for trenchless design	0%	28	28	13-Sep-23	10-Oct-23	13-Sep-23	10-Oct-23	258			📮 Stv	vorks for trench
	SW-JPA-3020	UU Detection and UU diversion for construction of jacking pits	0%	30	30	13-Sep-23	12-Oct-23	13-Sep-23	12-Oct-23	172			📮 ບບ	Detection and
	SW-JPA-3030	Design Approval for trenchless works	0%	60	60	11-Oct-23	09-Dec-23	11-Oct-23	09-Dec-23	258				Design Appro
	SW-JPA-3040	Installation of instrumentation and monitoring device and condition survey	0%	14	14	13-Oct-23	26-Oct-23	13-Oct-23	26-Oct-23	302			🛛 Ins	stallation of inst
	SW-JPA-3050	Construction of receiving pit	0%	75	75	13-Oct-23	26-Dec-23	13-Oct-23	26-Dec-23	195				Constructior
	SW-JPA-3060	Construction of launching pit	0%	75	75	13-Oct-23	26-Dec-23	13-Oct-23	26-Dec-23	172				Construction
	SW-JPA-3070	Advance preparation works at launching pit	0%	14	14	06-Jan-24	19-Jan-24	06-Jan-24	19-Jan-24	172				Advance p
	SW-JPA-3080	Plant mobilization and set-up at Launching pit	0%	45	45	17-Feb-24	01-Apr-24	17-Feb-24	01-Apr-24	144				💻 Plant
	SW-JPA-3090	Excavation (276m) by Pipe Jacking method, PR=1.5m/d	0%	184	184	02-Apr-24	11-Nov-24	02-Apr-24	11-Nov-24	119				
												<u> </u>		<u></u>
-	1st Programme	e Baseline \land 🔹 1st Programme Baseline Milestone				1	7 of 27				Date			Re
	Actual Work	♦ Milestone								12-De			t Programm	
										12 la	<u>, </u>		140	Monthly Progra

Remaining Work

Critical Remaining Work

Summary

_	_										_		_	_					_				_	_	_																							
		-	202	_			Ţ	~						4	1.		024	_			-	J -			.1.1	A		_)25	-	-		-		. 1	-	4	1-	_	26		<u>_</u>	<u> </u>			_)27 M	
F		1	J	J	A	15	5	0	N		p J	F	1	1 4			1 J	A	ls	0	N	I D	J	F		1	٩N	1 J	J	A	S	4	N		J			M				S (-		M	
																																		 -								by itior		ле ,	Jac	жIľ	ıg I	ne
																								ļ															-									
	ł																		ł		1				ł	ł			-						L 	P	lpe	In	sta	alla	tio	n (F	PR	:=3	0m	Ŵ	k fo	or f
	÷	+			• • •	¦	÷				ł	+-			-	+-	+	ł	÷	V		÷		÷	-	÷		+					V	07	N	ov-	25	, w	Vat	er	M	aiņ	Τi	iņ	ėl ((De	eta	í Á
																					Į	T1	A	im	pl	er	ner	nta	tio	ņ,	site	e c	lea	arai	n¢	e, r	oa	d r	no	difi	ica	tior	na	nd	site	÷ s	etu	ıp
																							51	w	orl	ks	for	tre	en	ch	es	sc	les	sigr	1													
																										Ì	ectio									fo	· rr	'ns	tri	icti	ior	of	ia	ckir		nits		
																									ł.	ł																	1		9		,	
																						-	-	ļ	Ď	eis	iġn	A	p	no\	<i>i</i> al	for	tri	enio	chi	les	sw	orl	ks									
	÷	+					+															 	Ir	nst	al	lat	ion	o	fin	str	um	her	nta	tior	na	and	m	oni	itoi	rinç	g d	levi	ice	ar	nd o	or	dit	ion
																						-	1	-	C	20	ons	tru	ctic	'n	of	rei	cei	ivin	g	pit												
																		-				-			ļ	Ì													-									
																									į.	ł	ns	į.	ł																			
																										A	dva	ino	e	þre	÷pa	ara	tio	n v	NQ	rks	at	lau	ine	chi	ng	pit						
																													F	Pla	ntı	mc	bil	iza	itio	na	ind	se	t-ı	зp	at	La	u'n	chi	ng	pit		
+ - - -		+					+																	+		÷		Ť			-	E	ca	iva	tio	n (10	1m) b	iy I	Pip	e J	lac	kin	ġ r	ne	ho	d,
																																	Pla	ant	d	em	obi	liza	itic	'n								
]	Ρl¢	be	Ins	tall	atio	ən	(P	'R=	=30)m	/wk	fo	r fit	ting	g, 1
					•	-				-					-			-						-			10-	Ma	ar-2	25	W	/at	ər	Ma	۱'n	Tu	'n	ėl ((De	eta	il A	N), C	CH	61	3-	88	9 (2	276
								т	ΤA	\ in	np	ler	me	ent	ati	on	ı, s	ite	cle	ea	ra	nce	, I	ro	ac	In	noc	dific	at	ior	ıa	nd	sit	es	set	up												
		- ÷ ·							S	lw	0	ks	s fc	or 1	re	nc	hle	ss	d	ėsi	gr	n'			-	Ĩ						,														T		
							1	1	U	U	D	ete	ect	io	n a	inc	1L	JU	di	ver	si	on	fo	r c		nis	tru	ctic	'n	of	jao	kir	ng	pit	s													
										•	D)es	sig	ņ,	٩p	pro	ova	al f	or	tre	n	chl	ės	ŝ,	ŴĊ	orl	s																					
									I	Ins	ta	lla	tio	'n	o fi	'ns	tru	im	en	tat	ibi	n a	nc	± 1	no	ni	tori	ing	de	ive	ce	ar	nd	car	nd	itio	าร	urv	/ev	,								
																			ł.			g r																										
													ł						ł			ng																										
												1	٩d	va	nc) же	pre	epa	ara	atio	n	ŴĊ	rk	(S	at	!а	uno	h	ng	р	t																	
															P	an	nt n	nol	bili	żat	lio	ń a	in	ds	se	t÷u	ıb a	at l	a	'n	chi	ng	pi	t														
														-	-							E	жc	av	/at	io	n (2	27	6m	ı) t	by I	Pip	e	Jao	cki	nģ	me	th	od	, P	R	=1.5	5m	/d				
i	i		;			<u>.</u>	;			i	i	;	<u>;</u>	;	;	;	;	; 	;	;	i	i	i	i	i	i		;	;	í	i		;	;	;		;	;	i	<u>. 1</u>			;	_i	; 	<u>i i</u>	1	_;
																R	e١	/is	io	n														(Cł	ne	ck	ed				Α	٩	pro	οv	ed		
						-				m									<u> </u>		~												\downarrow															
	N	0	n	th	ly	F	2	0	g	ra	m	n	ne	J	a	าน	a	ĵУ	2()2	3																											

21/WSD/21 - Relocation of Diamond Hill Fresh Water and Salt Water Service Reservoirs to Cavern Monthly Programme January 2023

| ant demobilization
pe Installation (PR=30m/wk for fitting, 18m/d for pipe)
CH 1000-1184 (184m) along Chuk Yuen Road - Section A4
FA implementation, site clearance, road modification and site setup
works for trenchless design
J Detection and UU diversion for construction of jacking pits | 0%
0%
0%
0% | 30
70
359
14 | 30
70
359 | 12-Nov-24
12-Dec-24
06-Nov-24
 | 11-Dec-24
10-Mar-25

 | 12-Nov-24
12-Dec-24 | 11-Dec-24
10-Mar-25 | 147
548 |
 | |
 | | | JFMAM |
|---|---|---|--
--
--
--
---|--|--|--

--|--|---|---
--|
| CH 1000-1184 (184m) along Chuk Yuen Road - Section A4
[A implementation, site clearance, road modification and site setup
works for trenchless design
J Detection and UU diversion for construction of jacking pits | 0% | 359 | |
 | 10-Mar-25

 | 12-Dec-24 | 10-Mar-25 | 548 |
 | |
 | | | · |
| TA implementation, site clearance, road modification and site setup
works for trenchless design
J Detection and UU diversion for construction of jacking pits | 0% | | 359 | 06-Nov-24
 |

 | | | |
 | |
 | | | |
| works for trenchless design
J Detection and UU diversion for construction of jacking pits | 0% | 14 | |
 | 21-Jan-26

 | 06-Nov-24 | 21-Jan-26 | 290 |
 | |
 | | | |
| J Detection and UU diversion for construction of jacking pits | | | 14 | 06-Nov-24
 | 19-Nov-24

 | 06-Nov-24 | 19-Nov-24 | 32 |
 | |
 | | | |
| | | 28 | 28 | 20-Nov-24
 | 17-Dec-24

 | 20-Nov-24 | 17-Dec-24 | 108 |
 | |
 | | | |
| | 0% | 30 | 30 | 20-Nov-24
 | 19-Dec-24

 | 20-Nov-24 | 19-Dec-24 | 32 |
 | |
 | | | |
| esign Approval for trenchiess works | 0% | 60 | 60 | 18-Dec-24
 | 15-Feb-25

 | 18-Dec-24 | 15-Feb-25 | 108 |
 | |
 | | | |
| stallation of instrumentation and monitoring device and condition survey | 0% | 14 | 14 | 20-Dec-24
 | 02-Jan-25

 | 20-Dec-24 | 02-Jan-25 | 152 |
 | |
 | | | |
| onstruction of receiving pit | 0% | 75 | 75 | 20-Dec-24
 | 04-Mar-25

 | 20-Dec-24 | 04-Mar-25 | 35 |
 | |
 | | | |
| onstruction of launching pit | 0% | 75 | 75 | 20-Dec-24
 | 04-Mar-25

 | 20-Dec-24 | 04-Mar-25 | 32 |
 | |
 | | | |
| Ivance preparation works at launching pit | 0% | 14 | 14 | 05-Mar-25
 | 18-Mar-25

 | 05-Mar-25 | 18-Mar-25 | 32 |
 | |
 | | | |
| ant mobilization and set-up at Launching pit | 0% | 45 | 45 | 17-Apr-25
 | 31-May-25

 | 17-Apr-25 | 31-May-25 | 3 |
 | |
 | | | |
| cavation (184m) by Pipe Jacking method, PR=1.5m/d | 0% | 123 | 123 | 02-Jun-25
 | 25-Oct-25

 | 02-Jun-25 | 25-Oct-25 | 2 |
 | |
 | | | |
| ant demobilization | 0% | 30 | 30 | 26-Oct-25
 | 24-Nov-25

 | 26-Oct-25 | 24-Nov-25 | 3 |
 | |
 | | | |
| pe Installation (PR=30m/wk for fitting, 18m/d for pipe) | 0% | 47 | 47 | 25-Nov-25
 | 21-Jan-26

 | 25-Nov-25 | 21-Jan-26 | 290 |
 | |
 | | | |
| CH 1209-1600 (392m) along Sha Tin Pass Road - Section C1 | | 548 | 548 | 14-Oct-23
 | 19-Aug-25

 | 14-Oct-23 | 19-Aug-25 | 423 |
 | |
 | | | |
| A implementation, site clearance, road modification and site setup | 0% | 14 | 14 | 14-Oct-23
 | 27-Oct-23

 | 14-Oct-23 | 27-Oct-23 | 27 |
 | |
 | | □ ⊤⊤∕ | Aimplement |
| works for trenchless design | 0% | 28 | 28 | 28-Oct-23
 | 24-Nov-23

 | 28-Oct-23 | 24-Nov-23 | 103 |
 | |
 | | 🗖 s | l works for ti |
| J Detection and UU diversion for construction of jacking pits | 0% | 30 | 30 | 28-Oct-23
 | 26-Nov-23

 | 28-Oct-23 | 26-Nov-23 | 27 |
 | |
 | | — U | IU Detection |
| esign Approval for trenchless works | 0% | 60 | 60 | 25-Nov-23
 | 23-Jan-24

 | 25-Nov-23 | 23-Jan-24 | 103 |
 | |
 | | | 🗕 Design A |
| stallation of instrumentation and monitoring device and condition survey | 0% | 14 | 14 | 27-Nov-23
 | 10-Dec-23

 | 27-Nov-23 | 10-Dec-23 | 147 |
 | |
 | | | Installation c |
| onstruction of receiving pit | 0% | 75 | 75 | 27-Nov-23
 | 09-Feb-24

 | 27-Nov-23 | 09-Feb-24 | 32 |
 | |
 | | | 🗕 Constru |
| onstruction of launching pit | 0% | 75 | 75 | 27-Nov-23
 | 09-Feb-24

 | 27-Nov-23 | 09-Feb-24 | 27 |
 | |
 | | | 🗕 Constru |
| Ivance preparation works at launching pit | 0% | 14 | 14 | 10-Feb-24
 | 23-Feb-24

 | 10-Feb-24 | 23-Feb-24 | 27 |
 | |
 | | | 🛛 Advan |
| ant mobilization and set-up at Launching pit | 0% | 45 | 45 | 18-Mar-24
 | 01-May-24

 | 18-Mar-24 | 01-May-24 | 4 |
 | |
 | | | F |
| cavation (392m) by Pipe Jacking method, PR=1.5m/d | 0% | 262 | 262 | 02-May-24
 | 17-Mar-25

 | 02-May-24 | 17-Mar-25 | 3 |
 | |
 | | | |
| ant demobilization | 0% | 30 | 30 | 18-Mar-25
 | 16-Apr-25

 | 18-Mar-25 | 16-Apr-25 | 3 |
 | |
 | | | · |
| | | | |
 |

 | | | |
 | |
 | | | |
| | Instruction of receiving pit
Instruction of launching pit
Instruction of launching pit
Instruction and set-up at Launching pit
Instruction and set-up at Launching pit
Instruction (184m) by Pipe Jacking method, PR=1.5m/d
Installation (PR=30m/wk for fitting, 18m/d for pipe)
Installation (PR=30m/wk for fitting, 18m/d for pipe)
Instruction of instrumentation and monitoring device and condition survey
Instruction of receiving pit
Instruction of receiving pit
Instruction of launching pit
Instruction of launching pit
Instruction and set-up at Launching pit
Instruction (392m) by Pipe Jacking method, PR=1.5m/d
Interval demobilization | stallation of instrumentation and monitoring device and condition survey 0% instruction of receiving pit 0% instruction of receiving pit 0% vance preparation works at launching pit 0% int mobilization and set-up at Launching pit 0% cavation (184m) by Pipe Jacking method, PR=1.5m/d 0% ant demobilization 0% re Installation (PR=30m/wk for fitting, 18m/d for pipe) 0% CH 1209-1600 (392m) along Sha Tin Pass Road - Section C1 0% Amplementation, site clearance, road modification and site setup 0% works for trenchless design 0% J Detection and UU diversion for construction of jacking pits 0% sign Approval for trenchless works 0% instruction of launching pit 0% works for trenchless works 0% instruction of launching pit 0% int mobilization and se | tallation of instrumentation and monitoring device and condition survey 0% 14 instruction of receiving pit 0% 75 instruction of receiving pit 0% 75 vance preparation works at launching pit 0% 14 ant mobilization and set-up at Launching pit 0% 14 ant mobilization 0% 123 ant demobilization 0% 30 be Installation (PR=30m/wk for fitting, 18m/d for pipe) 0% 47 CH 1209-1600 (32m) along Sha Tin Pass Road - Section C1 548 A Implementation, sile clearance, road modification and sile setup 0% 14 works for trenchless design 0% 28 J Detection and UU diversion for construction of jacking pits 0% 60 sign Approval for trenchless works 0% 60 stallation of receiving pit 0% 14 unstruction of launching pit 0% 75 vance preparation works at launching pit 0% 75 vance preparation works at launching pit 0% 45 cavation (392m) by Pipe Jacking method, PR=1.5m/d 0% 262 ant mobilization and set-up at Launching pit 0% 45 cavation (392m) by Pipe Jacking method, PR=1.5m/d 0% 262 | stallation of instrumentation and monitoring device and condition survey 0% 14 14 instruction of receiving pit 0% 75 75 instruction of launching pit 0% 14 14 instruction of launching pit 0% 75 75 vance preparation works at launching pit 0% 45 45 cavation (184m) by Pipe Jacking method, PR=1.5m/d 0% 47 47 CH 1209-1600 (392m) along Sha Tin Pass Road - Section C1 548 548 548 A implementation, site clearance, road modification and site setup 0% 14 14 works for threnchless design 0% 28 28 28 J Detection and UU diversion for construction of jacking pits 0% 75 75 instruction of receiving pit 0% 75 75 instruction of receiving pit 0% 14 14 uoristic for trenchless works 0% 60 60 isign Approval for trenchless works 0% 75 75 instruction of launching pit 0% 75 75 vance preparation works at launching pit <td< td=""><td>Characterization Characterization <thcharacterization< th=""> <thcharacterization< t<="" td=""><td>Characteristic Characteristic Charact</td><td>Construction Construction Construction<</td><td>Image: Construction of instrumentation and monitoring device and condition survey O/K 14 14 20-Dec-24 02-Jan-25 20-Dec-24 02-Jan-25 instruction of inscriving pit 0% 75 75 20-Dec-24 04-Mar-25 20-Dec-24 02-Jan-26 20-Jan-26 20-Jan-26 20-Jan-26</td><td>Image: Construction of instrumentation and monitoring device and condition survey OP Image: Construction of instrumentation and monitoring device and condition survey OP Image: Construction of instrumentation and monitoring device and condition survey OP Image: Construction of instrumentation and monitoring device and condition survey OP Image: Construction of instrumentation and monitoring device and condition survey OP Image: Construction of instrumentation and set-up at Launching pt OP Image: Construction of instrumentation and set-up at Launching pt OP Image: Construction of instrumentation and set-up at Launching pt OP Image: Construction of instrumentation and set-up at Launching pt OP Image: Construction of instrumentation and set-up at Launching pt OP Image: Construction of instrumentation and set-up at Launching pt OP Image: Construction of instrumentation and set-up at Launching pt OP Image: Construction of instrumentation and set-up at Launching pt OP Image: Construction of instrumentation and set-up at Launching pt OP Image: Construction of instrumentation and set-up at Launching pt OP Image: Construction of instrumentation and set-up at Launching pt OP Image: Construction of instrumentation and set-up at Launching pt OP Image: Construction of instrumentation and set-up at Launching pt OP Image: Construction of instrumentation and set-up at Launching pt OP<td>And the second instrumentation and monitoring device and condition survey Offer and the second instrumentation and monitoring device and condition survey Offer and the second instrumentation and monitoring device and condition survey Offer and the second instrumentation and monitoring device and condition survey Offer and the second instrumentation and monitoring device and condition survey Offer and the second instrumentation and monitoring device and condition survey Offer and the second instrumentation and monitoring device and condition survey Offer and the second instrumentation and monitoring device and condition survey Offer and the second instrumentation and monitoring device and condition survey Offer and the second instrumentation and monitoring device and condition survey Offer and the second instrumentation and second instrumentation and second instrumentation and second instrumentation and second instrumentation and second instrumentation and second instrumentation. Offer and the second instrumentation and second instrumentation. Offer and the second instrumentation and second instrumentation. Offer and the second instrumentation and second instrumentation. Offer and the second instrumentation and second instrumentation. Offer and the second instrumentation and second instrumentation. Offer and the second instrumentation and second instrumentation. Offer and the second instrumentation and second instrumentation. Offer and the second instrumentation and second instrumentation. Offer and the second instrumentation and second instrumentation. Offer and the second instrumentation and second instrumentation and second instrumentation.</td><td>Addition of instrumentation and monitoring device and condition survey 0% 1% 1% 20-Dec-24 02-Lan-26 02-Lan-26<td>And And And</td><td>Addition One Al 14 14 20.0e.24 02.0e.24 02.0e.24 02.0e.24 02.0e.24 02.0e.24 04.0e.25 05.0e.24 04.0e.25 05.0e.24 04.0e.25 05.0e.24 04.0e.25 05.0e.24 04.0e.25 02.0e.24 04.0e.25 02.0e.25 02.0e.24 04.0e.25 02.0e.25 <</td><td>And and on dimensional and monitoring device and condition survey 0% 1% 1% 20-Dec-24 62-Jan-26 20-Dec-24 62-Jan-26 162 meakudan of measking pl 0% 75 75 20-Dec-24 04-Mar-25 20-Dec-24<!--</td--></td></td></td></thcharacterization<></thcharacterization<></td></td<> | Characterization Characterization <thcharacterization< th=""> <thcharacterization< t<="" td=""><td>Characteristic Characteristic Charact</td><td>Construction Construction Construction<</td><td>Image: Construction of instrumentation and monitoring device and condition survey O/K 14 14 20-Dec-24 02-Jan-25 20-Dec-24 02-Jan-25 instruction of inscriving pit 0% 75 75 20-Dec-24 04-Mar-25 20-Dec-24 02-Jan-26 20-Jan-26 20-Jan-26 20-Jan-26</td><td>Image: Construction of instrumentation and monitoring device and condition survey OP Image: Construction of instrumentation and monitoring device and condition survey OP Image: Construction of instrumentation and monitoring device and condition survey OP Image: Construction of instrumentation and monitoring device and condition survey OP Image: Construction of instrumentation and monitoring device and condition survey OP Image: Construction of instrumentation and set-up at Launching pt OP Image: Construction of instrumentation and set-up at Launching pt OP Image: Construction of instrumentation and set-up at Launching pt OP Image: Construction of instrumentation and set-up at Launching pt OP Image: Construction of instrumentation and set-up at Launching pt OP Image: Construction of instrumentation and set-up at Launching pt OP Image: Construction of instrumentation and set-up at Launching pt OP Image: Construction of instrumentation and set-up at Launching pt OP Image: Construction of instrumentation and set-up at Launching pt OP Image: Construction of instrumentation and set-up at Launching pt OP Image: Construction of instrumentation and set-up at Launching pt OP Image: Construction of instrumentation and set-up at Launching pt OP Image: Construction of instrumentation and set-up at Launching pt OP Image: Construction of instrumentation and set-up at Launching pt OP<td>And the second instrumentation and monitoring device and condition survey Offer and the second instrumentation and monitoring device and condition survey Offer and the second instrumentation and monitoring device and condition survey Offer and the second instrumentation and monitoring device and condition survey Offer and the second instrumentation and monitoring device and condition survey Offer and the second instrumentation and monitoring device and condition survey Offer and the second instrumentation and monitoring device and condition survey Offer and the second instrumentation and monitoring device and condition survey Offer and the second instrumentation and monitoring device and condition survey Offer and the second instrumentation and monitoring device and condition survey Offer and the second instrumentation and second instrumentation and second instrumentation and second instrumentation and second instrumentation and second instrumentation and second instrumentation. Offer and the second instrumentation and second instrumentation. Offer and the second instrumentation and second instrumentation. Offer and the second instrumentation and second instrumentation. Offer and the second instrumentation and second instrumentation. Offer and the second instrumentation and second instrumentation. Offer and the second instrumentation and second instrumentation. Offer and the second instrumentation and second instrumentation. Offer and the second instrumentation and second instrumentation. Offer and the second instrumentation and second instrumentation. Offer and the second instrumentation and second instrumentation and second instrumentation.</td><td>Addition of instrumentation and monitoring device and condition survey 0% 1% 1% 20-Dec-24 02-Lan-26 02-Lan-26<td>And And And</td><td>Addition One Al 14 14 20.0e.24 02.0e.24 02.0e.24 02.0e.24 02.0e.24 02.0e.24 04.0e.25 05.0e.24 04.0e.25 05.0e.24 04.0e.25 05.0e.24 04.0e.25 05.0e.24 04.0e.25 02.0e.24 04.0e.25 02.0e.25 02.0e.24 04.0e.25 02.0e.25 <</td><td>And and on dimensional and monitoring device and condition survey 0% 1% 1% 20-Dec-24 62-Jan-26 20-Dec-24 62-Jan-26 162 meakudan of measking pl 0% 75 75 20-Dec-24 04-Mar-25 20-Dec-24<!--</td--></td></td></td></thcharacterization<></thcharacterization<> | Characteristic Charact | Construction Construction< | Image: Construction of instrumentation and monitoring device and condition survey O/K 14 14 20-Dec-24 02-Jan-25 20-Dec-24 02-Jan-25 instruction of inscriving pit 0% 75 75 20-Dec-24 04-Mar-25 20-Dec-24 02-Jan-26 20-Jan-26 20-Jan-26 20-Jan-26 | Image: Construction of instrumentation and monitoring device and condition survey OP Image: Construction of instrumentation and monitoring device and condition survey OP Image: Construction of instrumentation and monitoring device and condition survey OP Image: Construction of instrumentation and monitoring device and condition survey OP Image: Construction of instrumentation and monitoring device and condition survey OP Image: Construction of instrumentation and set-up at Launching pt OP Image: Construction of instrumentation and set-up at Launching pt OP Image: Construction of instrumentation and set-up at Launching pt OP Image: Construction of instrumentation and set-up at Launching pt OP Image: Construction of instrumentation and set-up at Launching pt OP Image: Construction of instrumentation and set-up at Launching pt OP Image: Construction of instrumentation and set-up at Launching pt OP Image: Construction of instrumentation and set-up at Launching pt OP Image: Construction of instrumentation and set-up at Launching pt OP Image: Construction of instrumentation and set-up at Launching pt OP Image: Construction of instrumentation and set-up at Launching pt OP Image: Construction of instrumentation and set-up at Launching pt OP Image: Construction of instrumentation and set-up at Launching pt OP Image: Construction of instrumentation and set-up at Launching pt OP <td>And the second instrumentation and monitoring device and condition survey Offer and the second instrumentation and monitoring device and condition survey Offer and the second instrumentation and monitoring device and condition survey Offer and the second instrumentation and monitoring device and condition survey Offer and the second instrumentation and monitoring device and condition survey Offer and the second instrumentation and monitoring device and condition survey Offer and the second instrumentation and monitoring device and condition survey Offer and the second instrumentation and monitoring device and condition survey Offer and the second instrumentation and monitoring device and condition survey Offer and the second instrumentation and monitoring device and condition survey Offer and the second instrumentation and second instrumentation and second instrumentation and second instrumentation and second instrumentation and second instrumentation and second instrumentation. Offer and the second instrumentation and second instrumentation. Offer and the second instrumentation and second instrumentation. Offer and the second instrumentation and second instrumentation. Offer and the second instrumentation and second instrumentation. Offer and the second instrumentation and second instrumentation. Offer and the second instrumentation and second instrumentation. Offer and the second instrumentation and second instrumentation. Offer and the second instrumentation and second instrumentation. Offer and the second instrumentation and second instrumentation. Offer and the second instrumentation and second instrumentation and second instrumentation.</td> <td>Addition of instrumentation and monitoring device and condition survey 0% 1% 1% 20-Dec-24 02-Lan-26 02-Lan-26<td>And And And</td><td>Addition One Al 14 14 20.0e.24 02.0e.24 02.0e.24 02.0e.24 02.0e.24 02.0e.24 04.0e.25 05.0e.24 04.0e.25 05.0e.24 04.0e.25 05.0e.24 04.0e.25 05.0e.24 04.0e.25 02.0e.24 04.0e.25 02.0e.25 02.0e.24 04.0e.25 02.0e.25 <</td><td>And and on dimensional and monitoring device and condition survey 0% 1% 1% 20-Dec-24 62-Jan-26 20-Dec-24 62-Jan-26 162 meakudan of measking pl 0% 75 75 20-Dec-24 04-Mar-25 20-Dec-24<!--</td--></td></td> | And the second instrumentation and monitoring device and condition survey Offer and the second instrumentation and monitoring device and condition survey Offer and the second instrumentation and monitoring device and condition survey Offer and the second instrumentation and monitoring device and condition survey Offer and the second instrumentation and monitoring device and condition survey Offer and the second instrumentation and monitoring device and condition survey Offer and the second instrumentation and monitoring device and condition survey Offer and the second instrumentation and monitoring device and condition survey Offer and the second instrumentation and monitoring device and condition survey Offer and the second instrumentation and monitoring device and condition survey Offer and the second instrumentation and second instrumentation and second instrumentation and second instrumentation and second instrumentation and second instrumentation and second instrumentation. Offer and the second instrumentation and second instrumentation. Offer and the second instrumentation and second instrumentation. Offer and the second instrumentation and second instrumentation. Offer and the second instrumentation and second instrumentation. Offer and the second instrumentation and second instrumentation. Offer and the second instrumentation and second instrumentation. Offer and the second instrumentation and second instrumentation. Offer and the second instrumentation and second instrumentation. Offer and the second instrumentation and second instrumentation. Offer and the second instrumentation and second instrumentation and second instrumentation. | Addition of instrumentation and monitoring device and condition survey 0% 1% 1% 20-Dec-24 02-Lan-26 02-Lan-26 <td>And And And</td> <td>Addition One Al 14 14 20.0e.24 02.0e.24 02.0e.24 02.0e.24 02.0e.24 02.0e.24 04.0e.25 05.0e.24 04.0e.25 05.0e.24 04.0e.25 05.0e.24 04.0e.25 05.0e.24 04.0e.25 02.0e.24 04.0e.25 02.0e.25 02.0e.24 04.0e.25 02.0e.25 <</td> <td>And and on dimensional and monitoring device and condition survey 0% 1% 1% 20-Dec-24 62-Jan-26 20-Dec-24 62-Jan-26 162 meakudan of measking pl 0% 75 75 20-Dec-24 04-Mar-25 20-Dec-24<!--</td--></td> | And And | Addition One Al 14 14 20.0e.24 02.0e.24 02.0e.24 02.0e.24 02.0e.24 02.0e.24 04.0e.25 05.0e.24 04.0e.25 05.0e.24 04.0e.25 05.0e.24 04.0e.25 05.0e.24 04.0e.25 02.0e.24 04.0e.25 02.0e.25 02.0e.24 04.0e.25 02.0e.25 < | And and on dimensional and monitoring device and condition survey 0% 1% 1% 20-Dec-24 62-Jan-26 20-Dec-24 62-Jan-26 162 meakudan of measking pl 0% 75 75 20-Dec-24 04-Mar-25 20-Dec-24 </td |

1st Programme Baseline	♦	♦ 1st Programme Baseline Milestone	18 of 27	Date	F
Actual Work	•	♦ Milestone		12-Dec-22	First Programme
Remaining Work	-	Summary		12-Jan-23	Monthly Programme Jan
Critical Remaining Work		-			

													~-																	
20	024			0	N	P	,	_	М	~		20	25			1.				4			26					2	2021 -1 M	
	1J	A	S	υ	N	D	J	F	+	A	M	J	J			1 N	D	J	FIN	A	M	J	J	AS	10	N	ע	JI	-1.1	
		l					1 8	an	١C	er	10	illa	zat	uon								ļ								
÷		ļ																			-			4				- į-	+-	
ł							i			PI	be	in :	ista	llat	ion	(ĸ	=3	0m/	wĸ	to	r fi	ting) , 1	8m	/d 1	or	pip	e)	
																				1		-					÷		1.	
-															1				21	-Ja	an-	20	, vv	ate	r IV	/ia ir	וו	un	nei	(De
1											-									-		1							1	
Į.						Т	TA	۱n	np	ler	ne	nta	atio	n, s	site	cle	ea	rar	hce	, ro	ad	m	odi	fica	tior	h ai	nd	site	ese	etup
į.																				÷		į.		÷.					Į.	
ł							S	١w	/01	ks	fo	br ti	re'n	chl	ęs	\$ d	es	igr	•	÷		ļ.							ł	
																						-								
							Ų	U	D	et¢	ect	ior	n a¦r	۱h	ψU	di	ve	rsi	bri f	dr	ċοι	hst	ruc	tion	of	jao	ckļi	nģ	pits	
ł																				1		-								
Ì	1								D	es	igi	hÅ	фþ	róv	alt	for	tre	nc	hle	ss	wc	rk	6							
į.																				÷.		ļ								
Ì.							į	ns	ta	llat	ior	h d	of in	stru	Im	en	tat	ior	han	d I	no	nit	brin	gd	evi	ice	a'n	nd c	òn	ditic
																				-	1									
		-								Cd	ns	stri	ıcti	on	, of i	: rec	eiv	vin	g pi	t	ł	1								
1		-										ļ		ĺ						-		-							1	
Ì		1				Ē				Cr	n	stri	JCti	on	of I) au	nc	hir	ng p	it		1								
ł		İ.											-		-	-			9 9			ļ.								
							ł			^	dv	20		nine	h	ira	tio	n v	vorl		dt I	-	nch	ina	nit					
											uv	a	-	pie	-pe	la	uU				-	au		ÿ	P					
÷																														
ł		1											lai	ni n		2002	a	or	an	u s	e.	up	a	La		זורזי	ıg	рп	1	
Ì															Ì		_				1	4.								- 41
Ì.														1	i.	E	-XC	ca	/atio)n	(18	s4r	n) r	y⊦	ipe	∋ Ja	ack	king	jm	ethe
ł															1	_													ł	
																i	F	Pla	ntid	en	not	jiliz	atic	'n						
-																				-		1							1	
-											ł					-			ΡI	pe	Ins	sta	llatio	5µ ((PF	₹=3	80n	n/w	/k fo	or fil
ł																						ļ								
ļ	1	i.											i	•	19-	Au	g-	25	, W	ate	٩r	Aai	nΤ	unr	iel	(De	eta	ul C	;), C	CH
l																									<u>.</u>					
nta	tio	'n, s	site	c	ea	ira	nd	e,	ro	ad	١n	ho¢	dific	atio	'n	ģno	d s	ite	se	tųp		ļ							ł	
																						ļ								
tre	e'n	hl	ès	s d	les	igr	۱													-		1							1	
-																				-		1							1	
'n	ạ'n	άι	JU	di	ve	rsi	or	fc	br d	co	าร	tru	ctic	nİc	of ja	ąck	in	b p	bits	-		1							1	
Ì																						ļ								
A	ppr	bv	al	for	tre	eni	ch	les	s	w	ork	s	÷	÷.	į.					÷.	į.	ļ.		÷.	į.			ł	i.	
ľ																1														
of	fins	stru	lm	er	Ita	tio	n á	an	d r	nd	nit	ori	ina	de	vic	¦ e a	nd	lo	ond	litic	¦ h s	sur	vev	,						
ł	ł												-								ł									
ru	ctic	'n	of	red	cei	vin	g	pit								 					÷		+-		+ 	+		-+-		}¦-
1	-																			-	ł	-							1	
μ	ctic	'n	of	a	ind	chi	nd	р	t											-		-								
		Ĩ	- 1	_			.9	~	-																					
h	j e	hre	n	are	tic	n	N	rk		at k	au	nc	hin	an	it						l									
		-	-10	ard	uU		1	- N			Ju		- 101	9.1	- 16					-	ł.	1							ł	
Þ	de	ŀm	ch	,ili-	at	0		nd		_+			t La		- ch	in~	n	ŧ			ł									
		u I I		1112	al		d	1U	5	-15	uμ	d	Ľe	un 	ι 	ing ¦	Ч	L			ł									
ł	ł	1													20	- - -			D i		 			4						
ļ	1	i					-				xC	av	auc	лі (39	∠m) (уy	Pipe	J	aCl	μΠ	y m	er	log	, Pl	r≺≓	-1.5	ып/	u
+-									-	-					<u>.</u>	 								·	<u> </u>	+				
ł		1									Р	ar	ntd	em	lob	IIZa	atic	on		ł	ł	ļ								
1	-	:													-	:				1	1	:			-	: :		ł	ł	
R	ev	isi	or	١												T		С	he	ck	ed		Γ		Aŗ	p	no'	ve	d	
																1							1							
יור	ar	vʻ	20	2	3											┥							+							
	a	y 4	_0	~	_																		1							

Salt Water Service Reservoirs to Cavern Monthly Programme January 2023

				Mont	hly Prograr	mme Januar	ry 2023			
tivity ID	Activity Name	Activity % Complete	1st Prog. Dur.	Original Duration	1st Prog. Start	1st Prog. Finish	Start	Finish	Total Float	
SW-JPA-5120	Plpe Installation (PR=30m/wk for fitting, 18m/d for pipe)	0%	100	100	17-Apr-25	19-Aug-25	17-Apr-25	19-Aug-25	NDJF	FMAMJJJASONDJFMAMJJJASONDJFMAMJJASONDJFMAMJJJASONDJFMA Pipe Installation (PR=30m/wk for fitting; 18m/d
Pipe Installation by Open	Trench Method		1097	1175	03-May-23	08-Jan-27	26-Jan-23	08-Jan-27	4	
Combined Trench for FW	/ DN600, DN450 & SW DN450 along Chuk Yuen Road, from A1 to A2		65	160	07-Nov-25	24-Jan-26	16-Jul-25	24-Jan-26	4	v 24-Jan-26, Combined Trench for
21 PRW PO5 10100	Coordination with Utility Undertaking, TTA, Trial Pit & Excavation, UU Diversion (TTA-A1)	0%	0	72			16-Jul-25	09-Oct-25	20	Coordination with Utility Undertaking, TTA
			05		07.NL 05	04.1.00				
SW-OTA-1000	Sheet piling, Excavation, ELS, Pipe Laying, Chamber, Backfilling & Road reinstatemen, TTA-A1 (15m long)	0%	65	65	07-Nov-25	24-Jan-26	07-Nov-25	24-Jan-26	4	Sheet piling, Excavation, ELS, Pip
Combined Trench for FW	/ DN600, DN450 & SW DN450 along Chuk Yuen Road, from A2 to A3		749	827	03-May-23	06-Nov-25	26-Jan-23	06-Nov-25	4	V06-Nov-25, Combined Trench for FW D
21.PRW.PO5.10050	Coordination with Utility Undertaking, TTA, Trial Pit & Excavation, UU Diversion (TTA-A23 to TTA-A19)	0%	0	72			26-Jan-23	24-Apr-23	9	Coprelination with Utility Undertaking, TTA, Trial Pit & Excavation, UU Diversion (TTA-A23 to TTA-A19)
SW-OTA-2210	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-A23 (21m long)	0%	31	31	03-May-23	08-Jun-23	03-May-23	08-Jun-23	4	💻 :Sheet piling, Excavation, ELS, Pipe Laying, Backfilling:&:Road reinstatemen, TTA-A23 (21m long)
SW-OTA-2200	Sheet piling, Excavation, ELS, Pipe Laying, Chamber, Backfilling & Road reinstatemen, TTA-A22 (21m long)	0%	65	65	09-Jun-23	25-Aug-23	09-Jun-23	25-Aug-23	4	Sheet piling, Excavation, ELS, Pipe Laying, Chamber, Backfilling & Road reinstatemen, TTA-A22 (21n
SW-OTA-2190	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-A21 (21m	0%	31	31	26-Aug-23	03-Oct-23	26-Aug-23	03-Oct-23	4	📕 Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-A21 (21m long)
21.PRW.PO5.10060	long) Coordination with Utility Undertaking, TTA, Trial Pit & Excavation, UU Diversion (TTA-A18 to	0%	0	72			26-Aug-23	21-Nov-23	25	Goordination with Utility Undertaking, TTA, Trial Pit & Excavation, UU Diversion (TTA-A18 to TT
SW-OTA-2180	TTA-A14) Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-A20 (20m	0%	31	31	04-Oct-23	09-Nov-23	04-Oct-23	09-Nov-23	4	💻 Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-A20 (20m long
SW-OTA-2170	long)			31	10-Nov-23	15-Dec-23	10-Nov-23	15-Dec-23	4	💻 : Sheet:piling, Excavation, ELS; Pipe Laying, Backfilling & Road reinstatemen, TTA-A19 (20m k
	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-A19 (20m long)	0%	31						4	
SW-OTA-2160	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-A18 (20m long)	0%	31	31	16-Dec-23	24-Jan-24	16-Dec-23	24-Jan-24	4	💻 Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-A18 (20
SW-OTA-2150	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-A17 (20m long)	0%	31	31	25-Jan-24	02-Mar-24	25-Jan-24	02-Mar-24	4	📕 Sheet piling, Excavation, ELS, Pipe: Laying, Backfilling & Road reinstatemen, TTA-A17 (
SW-OTA-2140	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-A16 (20m long)	0%	31	31	04-Mar-24	12-Apr-24	04-Mar-24	12-Apr-24	4	💻 :Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA:A1
21.PRW.PO5.10070	Coordination with Utility Undertaking, TTA, Trial Pit & Excavation, UU Diversion (TTA-A13 to TTA-A9)	0%	0	72			04-Mar-24	01-Jun-24	25	Coordination with Utility:Underfaking, TTA, Trial Pit & Excavation, UU Diversion (
SW-OTA-2130	, Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-A15 (20m	0%	31	31	13-Apr-24	21-May-24	13-Apr-24	21-May-24	4	💻 Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA
SW-OTA-2120	long) Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-A14 (20m	0%	31	31	22-May-24	27-Jun-24	22-May-24	27-Jun-24	4	💻 Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, T
SW-OTA-2110	long) Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-A13 (20m	0%	31	31	28-Jun-24	03-Aug-24	28-Jun-24	03-Aug-24	4	Sheet piling; Excavation, ELS, Pipe:Laying, Backfilling & Road reinstatemen
SW-OTA-2100	long) Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-A12 (20m	0%	31	31	05-Aug-24		05-Aug-24	09-Sep-24	4	💻 :Sheet piling, Excavation, ELS, Pipe Laying, Backfilling:&:Road reinstatem
	long)									
SW-OTA-2090	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-A11 (20m long)	0%	31	31	10-Sep-24	18-Oct-24	10-Sep-24	18-Oct-24	4	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstat
21.PRW.PO5.10080	Coordination with Utility Undertaking, TTA, Trial Pit & Excavation, UU Diversion (TTA-A8 to TTA-A5)	0%	0	72			10-Sep-24	05-Dec-24	25	Coordination with Utility Undertaking, TTA, Trial Pit & Excavation, L
SW-OTA-2080	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-A10 (20m long)	0%	31	31	19-Oct-24	23-Nov-24	19-Oct-24	23-Nov-24	4	📕 Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reins
SW-OTA-2070	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-A9 (20m long)	0%	31	31	25-Nov-24	02-Jan-25	25-Nov-24	02-Jan-25	4	📕 Sheet piling, Excavation, ELS, Pipe;Laying, Backfilling & Road re
SW-OTA-2060	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-A8 (20m long)	0%	31	31	03-Jan-25	11-Feb-25	03-Jan-25	11-Feb-25	4	💻 Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Roa
SW-OTA-2050	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-A7 (20m long)	0%	31	31	12-Feb-25	19-Mar-25	12-Feb-25	19-Mar-25	4	💻 Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & R
1st Programme	e Baseline ♦ 🔹 🔶 1st Programme Baseline Milestone					19 of 27			Date	Revision Checked Approved
Actual Work	Milestone				I	3 UI ZI			12-Dec-22	First Programme
Remaining Wo									12-Jan-23	Monthly Programme January 2023
Critical Remain	,									

- Critical Remaining Work

				<u></u>		hly Progran						
Activi	iy ID	Activity Name	Activity % Complete	1st Prog. Dur.	Original Duration	1st Prog. Start	1st Prog. Finish	Start	Finish	Total Float N	DUIEM	2023 2024 2025 2026 2027 NAMJJJASONDJFMAMJJASONDJFMAMJJASONDJFMAMJJASONDJFMA
	21.PRW.PO5.10090	Coordination with Utility Undertaking, TTA, Trial Pit & Excavation, UU Diversion (TTA-A4 to TTA-A2)	0%	0	72			12-Feb-25	13-May-25	25		Coordination with Utility Undertaking, TTA, Trial Pit & E
	SW-OTA-2040	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-A6 (20m long)	0%	31	31	20-Mar-25	29-Apr-25	20-Mar-25	29-Apr-25	4		📕 Sheet piling, Excavation, ELS, Pipe Laying, Backfilling &
	SW-OTA-2030	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-A5 (20m long)	0%	31	31	30-Apr-25	07-Jun-25	30-Apr-25	07-Jun-25	4		Sheet piling, Excavation, ELS, Pipe Laying, Backfillin :
	SW-OTA-2020	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-A4 (20m long)	0%	31	31	09-Jun-25	15-Jul-25	09-Jun-25	15-Jul-25	4		💻 Sheet:piling, Excavation, ELS, Pipe Laying, Backf
	SW-OTA-2010	Sheet piling, Excavation, ELS, Pipe Laying, Chamber, Backfilling & Road reinstatemen, TTA-A3 (20m long)	0%	64	64	16-Jul-25	27-Sep-25	16-Jul-25	27-Sep-25	4		Sheet piling, Excavation, ELS, Pipe Laying,
	SW-OTA-2000	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-A2 (20m long)	0%	31	31	29-Sep-25	06-Nov-25	29-Sep-25	06-Nov-25	4		💻 Sheet piling, Excavation, ELS, Pipe Layir
	Combined Trench for FW	DN600, DN450 & SW DN450 along Chuk Yuen Road, from A3 to A4		252	340	26-Jan-26	30-Nov-26	10-Oct-25	30-Nov-26	4		▼ 30-Nov-26
	21.PRW.PO5.10110	Coordination with Utility Undertaking, TTA, Trial Pit & Excavation, UU Diversion (TTA-A29 to TTA-A24)	0%	0	72			10-Oct-25	06-Jan-26	20		Coordination with Utility Undertaking
	SW-OTA-3050	Sheet piling, Excavation, ELS, Pipe Laying, Chamber, Backfilling & Road reinstatemen, TTA-A29 (18m long)	0%	64	64	26-Jan-26	16-Apr-26	26-Jan-26	16-Apr-26	4		Sheet piling, Excavation, EL:
	SW-OTA-3040	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-A28 (20m long)	0%	31	31	17-Apr-26	23-May-26	17-Apr-26	23-May-26	4		💻 Sheet piling, Excavation, I
	SW-OTA-3030	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-A27 (20m long)	0%	31	31	26-May-26	02-Jul-26	26-May-26	02-Jul-26	4		💻 Sheet piling; Excavatic
	SW-OTA-3020	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-A26 (20m long)	0%	31	31	03-Jul-26	07-Aug-26	03-Jul-26	07-Aug-26	4		💻 Sheët piling, Excava
	SW-OTA-3010	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-A25 (20m long)	0%	31	31	08-Aug-26	12-Sep-26	08-Aug-26	12-Sep-26	4		Sheet piling, Exc
	SW-OTA-3000	Sheet piling, Excavation, ELS, Pipe Laying, Chamber, Backfilling & Road reinstatemen, TTA-A24 (20m long)	0%	64	64	14-Sep-26	30-Nov-26	14-Sep-26	30-Nov-26	4		Sheet piline
	Open Trench for FW DN60	00 along Chuk Yuen Road, from A4 to Connection Point		31	126	01-Dec-26	08-Jan-27	08-Aug-26	08-Jan-27	4		
	21.PRW.PO5.10120	Coordination with Utility Undertaking, TTA, Trial Pit & Excavation, UU Diversion (TTA-A30)	0%	0	48			08-Aug-26	05-Oct-26	51		Coordination w
	SW-OTA-4000	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-A30 (25m long), to Connection Point	0%	31	31	01-Dec-26	08-Jan-27	01-Dec-26	08-Jan-27	4		💻 :Sheet p
	Combined Trench for DN4	150 & SW DN450 along Sha Tin Pass Road, from A4 to C1		64	142	03-May-23	19-Jul-23	26-Jan-23	19-Jul-23	1		▼ 19-Jul-23, Combined Trench for DN450 & SW DN450 along Sha Tin Pass Road, from A4 to C1
	21.PRW.PO5.10130	Coordination with Utility Undertaking, TTA, Trial Pit & Excavation, UU Diversion (TTA-A31)	0%	0	48			26-Jan-23	22-Mar-23	23	-	I Coordination with Utility Undertaking, TTA, Trial Pit & Excavation, UU Diversion (TTA-A31)
	SW-OTA-5000	Sheet piling, Excavation, ELS, Pipe Laying, Chamber, Backfilling & Road reinstatemen, TTA-A31 (20m long)	0%	64	64	03-May-23	19-Jul-23	03-May-23	19-Jul-23	1		Sheet piling, Excavation, ELS, Pipe Laying, Chamber, Backfilling & Road reinstatemen, TTA-A31 (20m lor
	Combined Trench for DN4	150 & SW DN450 along Tsz Wan Shan Road, from C1 to Connection Points		343	437	20-Jul-23	10-Sep-24	23-Mar-23	10-Sep-24	1	V	▼ 10-Sep-24, Combined Trench for DN450 & SW DN450 along Tsz Wan S
	21.PRW.PO5.10140	Coordination with Utility Undertaking, TTA, Trial Pit & Excavation, UU Diversion (TTA-A32 to TTA-A35)	0%	0	72			23-Mar-23	21-Jun-23	23	(Coordination with Utility Undertaking, TTA, Trial Pit& Excavation, UU Diversion (TTA-A32 to TTA-A35)
	SW-OTA-6000	Sheet piling, Excavation, ELS, Pipe Laying, Chamber, Backfilling & Road reinstatemen, TTA-A32 (20m long)	0%	64	64	20-Jul-23	04-Oct-23	20-Jul-23	04-Oct-23	1		Sheet piling; Excavation, ELS, Pipe Laying, Chamber, Backfilling & Road reinstatemen, TTA-A32 (2
	SW-OTA-6010	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-A33 (20m long)	0%	31	31	05-Oct-23	10-Nov-23	05-Oct-23	10-Nov-23	1		💻 Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-A33 (20m long
	21.PRW.PO5.10150	Coordination with Utility Undertaking, TTA, Trial Pit & Excavation, UU Diversion (TTA-A36 to TTA-A39)	0%	0	72			05-Oct-23	30-Dec-23	22		Coordination with Utility Undertaking, TTA, Trial Pit & Excavation, UU Diversion (TTA-A36 to T
	SW-OTA-6020	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-A34 (20m long)	0%	31	31	11-Nov-23	16-Dec-23	11-Nov-23	16-Dec-23	1		📕 : Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-A34 (20m lo
	SW-OTA-6030	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-A35 (20m long)	0%	31	31	18-Dec-23	25-Jan-24	18-Dec-23	25-Jan-24	1		💻 Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-A35 (20r
					1			1		Da		Revision Checked Approved
	1st Programme	C C				2	0 of 27			12-Dec-		First Programme
	Actual Work	♦ ♦ Milestone								12-Dec-		Monthly Programme January 2023
	Remaining Work	k Summary									-0	

Critical Remaining Work

Revision	Checked	Approved
		••
nuary 2023		

				Mont	hly Progran	nme Januar	y 2023			
Activity ID	Activity Name	Activity % Complete	1st Prog. Dur.	Original Duration	1st Prog. Start	1st Prog. Finish	Start	Finish	Total Float	
SW-OTA-6040	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-A36 (20m long)	0%	31	31	26-Jan-24	04-Mar-24	26-Jan-24	04-Mar-24	1	Sheet piling; Excavation, ELS, Pipe Laying, Backfilling: & Road reinstatemen, TTA-A:
SW-OTA-6050	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-A37 (20m long)	0%	31	31	05-Mar-24	13-Apr-24	05-Mar-24	13-Apr-24	1	— Sheet:piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA
21.PRW.PO5.10160	Coordination with Utility Undertaking, TTA, Trial Pit & Excavation, UU Diversion (TTA-A40 to TTA-A41 to Connection)	0%	0	72			05-Mar-24	03-Jun-24	12	Coordination with Utility Undertaking, TTA, Trial Pit & Excavation, UU Diversio
SW-OTA-6060	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-A38 (20m long)	0%	31	31	15-Apr-24	22-May-24	15-Apr-24	22-May-24	1	— Sheet piling, Excavation, ELS, Pipe Laying, Backfiling & Road reinstatemen, T
SW-OTA-6070	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-A39 (20m long)	0%	31	31	23-May-24	28-Jun-24	23-May-24	28-Jun-24	1	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemer 💻
SW-OTA-6080	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-A40 (20m long)	0%	31	31	29-Jun-24	05-Aug-24	29-Jun-24	05-Aug-24	1	Sheet piling; Excavation, ELS, Pipe:Laying, Backfilling:& Road reinstaten 📕
SW-OTA-6090	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-A41 (25m long), to Connection Point	0%	31	31	06-Aug-24	10-Sep-24	06-Aug-24	10-Sep-24	1	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinsta 💻
Test & Commissioning ar	nd Connection		89	89	09-Jan-27	07-Apr-27	09-Jan-27	07-Apr-27	5	
SW-TC-1000	Cleaning & Pressure Test for DN600 Fresh Water Main	0%	45	45	09-Jan-27	22-Feb-27	09-Jan-27	22-Feb-27	5	
SW-TC-1020	Cleaning & Pressure Test for DN450 Fresh Water Main	0%	45	45	16-Jan-27	01-Mar-27	16-Jan-27	01-Mar-27	5	
SW-TC-1040	Cleaning & Pressure Test for DN450 Salt Water Main	0%	45	45	23-Jan-27	08-Mar-27	23-Jan-27	08-Mar-27	5	
SW-TC-1010	Connection to existing for DN600 Fresh Water Main	0%	30	30	23-Feb-27	24-Mar-27	23-Feb-27	24-Mar-27	19	
SW-TC-1030	Connection to existing for DN450 Fresh Water Main	0%	30	30	02-Mar-27	31-Mar-27	02-Mar-27	31-Mar-27	12	
SW-TC-1050	Connection to existing for DN450 Salt Water Main	0%	30	30	09-Mar-27	07-Apr-27	09-Mar-27	07-Apr-27	5	
DN250, DN750 and DN	1800 Salt Water Mains		1169	1247	03-May-23	10-Apr-27	26-Jan-23	10-Apr-27	1	
Pipe Installation by Pipe	Jacking Method		1109	1109	03-May-23	22-Jan-27	03-May-23	22-Jan-27	4	22
Water Main Tunnel (Deta	ail B), CH 0-63 (63m) along Chuk Yuen Road - Section B1		328	328	09-Aug-25	14-Sep-26	09-Aug-25	14-Sep-26	110	▼ 14-Sep-26, V
SW-JPB-1000	TTA implementation, site clearance, road modification and site setup	0%	14	14	09-Aug-25	22-Aug-25	09-Aug-25	22-Aug-25	261	E: TTA implementation, site clearance, road n
SW-JPB-1010	SI works for trenchless design	0%	28	28	23-Aug-25	19-Sep-25	23-Aug-25	19-Sep-25	337	SI works for trenchless design
SW-JPB-1020	UU Detection and UU diversion for construction of jacking pits	0%	30	30	23-Aug-25	21-Sep-25	23-Aug-25	21-Sep-25	261	UU:Detection and UU diversion for cons
SW-JPB-1030	Design Approval for trenchless works	0%	60	60	20-Sep-25	18-Nov-25	20-Sep-25	18-Nov-25	337	Design Approval for trenchless work
SW-JPB-1040	Installation of instrumentation and monitoring device and condition survey	0%	14	14	22-Sep-25	05-Oct-25	22-Sep-25	05-Oct-25	381	- Installation of instrumentation and moni
SW-JPB-1050	Construction of receiving pit	0%	75	75	22-Sep-25	05-Dec-25	22-Sep-25	05-Dec-25	320	Construction of receiving pit
SW-JPB-1060	Construction of launching pit	0%	75	75	22-Sep-25	05-Dec-25	22-Sep-25	05-Dec-25	261	Construction of launching:pit
SW-JPB-1070	Advance preparation works at launching pit	0%	14	14	06-Dec-25	19-Dec-25	06-Dec-25	19-Dec-25	261	- Advance preparation works at lau
SW-JPB-1080	Plant mobilization and set-up at Launching pit	0%	45	45	22-Apr-26	05-Jun-26	22-Apr-26	05-Jun-26	138	Plant mobilization an
SW-JPB-1090	Excavation (63m) by Pipe Jacking method, PR=1.5m/d	0%	42	42	06-Jun-26	27-Jul-26	06-Jun-26	27-Jul-26	113	Excavation (63m
1st Programme	e Baseline 💠 🔷 1st Programme Baseline Milestone				2	21 of 27				Date Revision Checked Approved
Actual Work	♦ Milestone				-					Dec-22 First Programme
Remaining Wo	vrk V Summary								12-Ja	an-23 Monthly Programme January 2023

Critical Remaining Work

Summary

21/WSD/21 - Relocation of Diamond Hill Fresh Water and Salt Water Service Reservoirs to Cavern Monthly Programme January 2023

				Mont	hly Progran	nme Januai	ry 2023						
Activity ID	Activity Name	Activity % Complete	1st Prog. Dur.	Original Duration	1st Prog. Start	1st Prog. Finish	Start	Finish	Total Float	2023	2024 2025 J F M A M J J A S O N D J F M A M J J A S O I		
SW-JPB-1110	Plant demobilization	0%	30	30	28-Jul-26	26-Aug-26	28-Jul-26	26-Aug-26					Plant demobiliza
SW-JPB-1120	Plpe Installation (PR=30m/wk for fitting, 18m/d for pipe)	0%	16	16	27-Aug-26	14-Sep-26	27-Aug-26	14-Sep-26	110				Plpe Installation
Water Main Tunnel (De	etail B), CH 78-180 (102m) along Chuk Yuen Road - Section B2		351	351	12-Apr-25	20-Jun-26	12-Apr-25	20-Jun-26	182		· · · · · · · · · · · · · · · · · · ·		20-Jun-26, Water Ma
SW-JPB-2000	TTA implementation, site clearance, road modification and site setup	0%	14	14	12-Apr-25	25-Apr-25	12-Apr-25	25-Apr-25	253		TTAimplemer	ntation, site cleara	nce, road modification
SW-JPB-2010	SI works for trenchless design	0%	28	28	26-Apr-25	23-May-25	26-Apr-25	23-May-25	329		🔲 SI works for	trenchless desigr	۱
SW-JPB-2020	UU Detection and UU diversion for construction of jacking pits	0%	30	30	26-Apr-25	25-May-25	26-Apr-25	25-May-25	253		🖵 UU: Detectio	on and UU diversi	on for construction of ja
SW-JPB-2030	Design Approval for trenchless works	0%	60	60	24-May-25	22-Jul-25	24-May-25	22-Jul-25	329		Design	Approval for trend	:hless works
SW-JPB-2040	Installation of instrumentation and monitoring device and condition survey	0%	14	14	26-May-25	08-Jun-25	26-May-25	08-Jun-25	373		Installation	ofinstrumentation	n and monitoring devic
SW-JPB-2050	Construction of receiving pit	0%	75	75	26-May-25	08-Aug-25	26-May-25	08-Aug-25	312		Cons	ruction of receivin	g pit
SW-JPB-2060	Construction of launching pit	0%	75	75	26-May-25	08-Aug-25	26-May-25	08-Aug-25	253		Cons	ruction of launchir	ıg pit
SW-JPB-2070	Advance preparation works at launching pit	0%	14	14	09-Aug-25	22-Aug-25	09-Aug-25	22-Aug-25	253		□ Adva	ance preparation v	works at launching pit
SW-JPB-2080	Plant mobilization and set-up at Launching pit	0%	45	45	12-Dec-25	25-Jan-26	12-Dec-25	25-Jan-26	142			💻 Plant mobi	ilization and set-up at L
SW-JPB-2090	Excavation (102m) by Pipe Jacking method, PR=1.5m/d	0%	68	68	26-Jan-26	21-Apr-26	26-Jan-26	21-Apr-26	114			Exc	avation (102m) by Pipe
SW-JPB-2110	Plant demobilization	0%	30	30	22-Apr-26	21-May-26	22-Apr-26	21-May-26	138			P	lant demobilization
SW-JPB-2120	Plpe Installation (PR=30m/wk for fitting, 18m/d for pipe)	0%	24	24	22-May-26	20-Jun-26	22-May-26	20-Jun-26	182				Plpe Installation (PR=
Water Main Tunnel (De	etail B), CH 263-414 (152m) along Chuk Yuen Road - Section B3		352	352	15-May-24	22-Jul-25	15-May-24	22-Jul-25	453			25, Water Main Ti	unnel (Detail B), CH 26
SW-JPB-3000	TTA implementation, site clearance, road modification and site setup	0%	14	14	15-May-24	28-May-24	15-May-24	28-May-24	195		TTA implementation, site clearance, roa	d modification and	l site setup
SW-JPB-3010	SI works for trenchless design	0%	28	28	29-May-24	25-Jun-24	29-May-24	25-Jun-24	271		SI works for trenchless design		
SW-JPB-3020	UU Detection and UU diversion for construction of jacking pits	0%	30	30	29-May-24	27-Jun-24	29-May-24	27-Jun-24	195		UU Detection and UU diversion for c	onstruction of jack	ing pits
SW-JPB-3030	Design Approval for trenchless works	0%	60	60	26-Jun-24	24-Aug-24	26-Jun-24	24-Aug-24	271		Design Approval for trenchless w	rorks	
SW-JPB-3040	Installation of instrumentation and monitoring device and condition survey	0%	14	14	28-Jun-24	11-Jul-24	28-Jun-24	11-Jul-24	315		Installation of instrumentation and m	onitoring device a	nd condition survey
SW-JPB-3050	Construction of receiving pit	0%	75	75	28-Jun-24	10-Sep-24	28-Jun-24	10-Sep-24	207		Construction of receiving pit		
SW-JPB-3060	Construction of launching pit	0%	75	75	28-Jun-24	10-Sep-24	28-Jun-24	10-Sep-24	195		Construction of launching pit		
SW-JPB-3070	Advance preparation works at launching pit	0%	14	14	11-Sep-24	24-Sep-24	11-Sep-24	24-Sep-24	195		Advance preparation works a	launching pit	
SW-JPB-3080	Plant mobilization and set-up at Launching pit	0%	45	45	12-Nov-24	26-Dec-24	12-Nov-24	26-Dec-24	147		Plant:mobilization and s	et-up at Launchir	_i g¦pit
SW-JPB-3090	Excavation (152m) by Pipe Jacking method, PR=1.5m/d	0%	102	102	27-Dec-24	06-May-25	27-Dec-24	06-May-25	116		Excavation (152m) by Pipe Jac	cking method, PR≑1.5r
SW-JPB-3110	Plant demobilization	0%	30	30	07-May-25	05-Jun-25	07-May-25	05-Jun-25	137		Plant dem	obilization	
1st Programm	ne Baseline 🔷 🔷 1st Programme Baseline Milestone				2	2 of 27			-	ate	Revision	Checked	Approved
Actual Work	 ♦ Milestone 				_				12-Dec	v			

Remaining Work Summary

Critical Remaining Work

Date	Revision
12-Dec-22	First Programme
12-Jan-23	Monthly Programme January 2023

				<u></u>		hly Progran					
Activi	/ ID	Activity Name	Activity % Complete	1st Prog. Dur.	Original Duration	1st Prog. Start	1st Prog. Finish	Start	Finish	Total Float	2023 2024 2025 2026 2027 MAMJJJASONDJFMAMJJASONDJFMAMJJASONDJFMA
	SW-JPB-3120	Plpe Installation (PR=30m/wk for fitting, 18m/d for pipe)	0%	39	39	06-Jun-25	22-Jul-25	06-Jun-25	22-Jul-25	453	Pipe Installation (PR=30m/wk for fitting; 18m/d for
	Water Main Tunnel (Deta	ail B), CH 608-760 (153m) along Chuk Yuen Road - Section B4		302	302	03-May-23	07-May-24	03-May-23	07-May-24	811	🗸 07-May-24, Water Main Tunnel (Detail B), CH 608-760 (153m) along Chuk Yuen F
	SW-JPB-4000	TTA implementation, site clearance, road modification and site setup	0%	14	14	03-May-23	16-May-23	03-May-23	16-May-23	4	TTA implementation, site clearance, road modification and site setup
	SW-JPB-4010	SI works for trenchless design	0%	28	28	17-May-23	13-Jun-23	17-May-23	13-Jun-23	66	SI works for trenchless design
	SW-JPB-4020	UU Detection and UU diversion for construction of jacking pits	0%	30	30	17-May-23	15-Jun-23	17-May-23	15-Jun-23	4	UU Detection and UU diversion for construction of jacking pits
	SW-JPB-4030	Design Approval for trenchless works	0%	60	60	14-Jun-23	12-Aug-23	14-Jun-23	12-Aug-23	66	Design Approval for trenchless works
	SW-JPB-4040	Installation of instrumentation and monitoring device and condition survey	0%	14	14	16-Jun-23	29-Jun-23	16-Jun-23	29-Jun-23	110	Installation of instrumentation and monitoring device and condition survey
H	SW-JPB-4050	Construction of receiving pit	0%	75	75	16-Jun-23	29-Aug-23	16-Jun-23	29-Aug-23	49	Construction of receiving pit
	SW-JPB-4060	Construction of launching pit	0%	75	75	16-Jun-23	29-Aug-23	16-Jun-23	29-Aug-23	4	Construction of launching pit
	SW-JPB-4070	Plant mobilization and set-up at Launching pit	0%	45	45	30-Aug-23	13-Oct-23	30-Aug-23	13-Oct-23	4	Plant mobilization and set-up at Launching pit
	SW-JPB-4080	Excavation (153m) by Pipe Jacking method, PR=1.5m/d	0%	102	102	14-Oct-23	16-Feb-24	14-Oct-23	16-Feb-24	3	Excavation (153m) by Pipe Jacking method, PR=1.5m/d
	SW-JPB-4100	Plant demobilization	0%	30	30	17-Feb-24	17-Mar-24	17-Feb-24	17-Mar-24	4	Plant demobilization
	SW-JPB-4110	Plpe Installation (PR=30m/wk for fitting, 18m/d for pipe)	0%	39	39	18-Mar-24	07-May-24	18-Mar-24	07-May-24	811	Pipe Installation (PR=30m/wk for fitting, 18m/d for pipe)
	Water Main Tunnel (Deta	ail B), CH 1000-1208 (212m) along Chuk Yuen Road - Section B5		394	394	14-May-25	05-Sep-26	14-May-25	05-Sep-26	117	v 05-Sep-26, Wate
	SW-JPB-5000	TTA implementation, site clearance, road modification and site setup	0%	14	14	14-May-25	27-May-25	14-May-25	27-May-25	35	TTA implementation, site clearance, road modification
	SW-JPB-5010	SI works for trenchless design	0%	28	28	28-May-25	24-Jun-25	28-May-25	24-Jun-25	111	🔲 \$1 works for trenchless design
I	SW-JPB-5020	UU Detection and UU diversion for construction of jacking pits	0%	30	30	28-May-25	26-Jun-25	28-May-25	26-Jun-25	35	UU Detection and UU diversion for construction of
	SW-JPB-5030	Design Approval for trenchless works	0%	60	60	25-Jun-25	23-Aug-25	25-Jun-25	23-Aug-25	111	📟 Design Approval for trenchless works
H	SW-JPB-5040	Installation of instrumentation and monitoring device and condition survey	0%	14	14	27-Jun-25	10-Jul-25	27-Jun-25	10-Jul-25	155	Installation of instrumentation and monitoring devi
	SW-JPB-5050	Construction of receiving pit	0%	75	75	27-Jun-25	09-Sep-25	27-Jun-25	09-Sep-25	60	Construction of receiving pit
	SW-JPB-5060	Construction of launching pit	0%	75	75	27-Jun-25	09-Sep-25	27-Jun-25	09-Sep-25	35	Construction of launching pit
	SW-JPB-5070	Advance preparation works at launching pit	0%	14	14	10-Sep-25	23-Sep-25	10-Sep-25	23-Sep-25	35	Advance preparation works at launching pit
	SW-JPB-5080	Plant mobilization and set-up at Launching pit	0%	45	45	26-Oct-25	09-Dec-25	26-Oct-25	09-Dec-25	3	📕 Plant mobilization and set-up at Launc
	SW-JPB-5090	Excavation (212m) by Pipe Jacking method, PR=1.5m/d	0%	142	142	10-Dec-25	05-Jun-26	10-Dec-25	05-Jun-26	3	Excavation (212m) by P
	SW-JPB-5110	Plant demobilization	0%	30	30	06-Jun-26	05-Jul-26	06-Jun-26	05-Jul-26	4	Plant demobilization
	SW-JPB-5120	Plpe Installation (PR=30m/wk for fitting, 18m/d for pipe)	0%	54	54	06-Jul-26	05-Sep-26	06-Jul-26	05-Sep-26	117	Pipe Installation (
	Water Main Tunnel (Deta	il D), CH 1402-1535 (134m) along Sheung Fung Street - Section D1		341	341	29-Nov-25	22-Jan-27	29-Nov-25	22-Jan-27	4	↓ 22-Jar
_	1st Programme	-				2	3 of 27			Date 12-Dec-22	Revision Checked Approved First Programme
	Actual Work	♦ ♦ Milestone								12-Dec-22 12-Jan-23	Monthly Programme January 2023
	Remaining Wo	rk V Summary								12-Jan-23	

Critical Remaining Work

/ork

Monthly Programme January 2023

Activ	<i>v</i> ity ID	Activity Name	Activity %	1st Prog.	Original Duration	1st Prog. Start	1st Prog. Finish	Start	Finish	Total		2	023		20
			Complete	Dur.	ļ		10 5 05	00 NI 05	10 0 05	Float	NDJ	FMAM、	JJAS	ONDJF	мамј
	SW-JPB-6000	TTA implementation, site clearance, road modification and site setup	0%	14	14	29-Nov-25	12-Dec-25	29-Nov-25	12-Dec-25	60					
	SW-JPB-6010	SI works for trenchless design	0%	28	28	13-Dec-25	09-Jan-26	13-Dec-25	09-Jan-26	136					
	SW-JPB-6020	UU Detection and UU diversion for construction of jacking pits	0%	30	30	13-Dec-25	11-Jan-26	13-Dec-25	11-Jan-26	60					
	SW-JPB-6030	Design Approval for trenchless works	0%	60	60	10-Jan-26	10-Mar-26	10-Jan-26	10-Mar-26	136					
			00/	- 14	4.4	40.1 00	05 1 00	40 Jan 00	05 1 00	400					
	SW-JPB-6040	Installation of instrumentation and monitoring device and condition survey	0%	14	14	12-Jan-26	25-Jan-26	12-Jan-26	25-Jan-26	180					
	SW-JPB-6050	Construction of receiving pit	0%	75	75	12-Jan-26	27-Mar-26	12-Jan-26	27-Mar-26	119					
	SW-JPB-6060	Construction of launching pit	0%	75	75	12-Jan-26	27-Mar-26	12-Jan-26	27-Mar-26	60					
	SW-JPB-6070	Advance preparation works at launching pit	0%	14	14	28-Mar-26	10-Apr-26	28-Mar-26	10-Apr-26	60					
	SW-JPB-6080	Plant mobilization and set-up at Launching pit	0%	45	45	06-Jun-26	20-Jul-26	06-Jun-26	20-Jul-26	4					
	SW-JPB-6090	Excavation (134m) by Pipe Jacking method, PR=1.5m/d	0%	90	90	21-Jul-26	05-Nov-26	21-Jul-26	05-Nov-26	4					
	SW-JPB-6110	Plant demobilization	0%	30	30	06-Nov-26	05-Dec-26	06-Nov-26	05-Dec-26	5					
	SW-JPB-6120	Plpe Installation (PR=30m/wk for fitting, 18m/d for pipe)	0%	38	38	07-Dec-26	22-Jan-27	07-Dec-26	22-Jan-27	4					
	Pipe Installation by Open	Trench Method		1137	1215	03-May-23	27-Feb-27	26-Jan-23	27-Feb-27	1	•				
	Combined Trench for SW	DN800 & DN750 along Chuk Yuen Road, from B1 to B2	_	50	128	03-May-23	03-Jul-23	26-Jan-23	03-Jul-23	1	V		🕈 03-Ju	ıl-23, Combi	ined Tre
						···,									
	21.PRW.PO5.10170	Coordination with Utility Undertaking, TTA, Trial Pit & Excavation, UU Diversion (TTA-B1)	0%	0	48			26-Jan-23	22-Mar-23	9		Coor	rdination	with Utility U	ndertak
	SW-OTB-1000	Sheet piling, Excavation, ELS, Pipe Laying, Chamber, Backfilling & Road reinstatemen, TTA-B1 (17m long)	0%	50	50	03-May-23	03-Jul-23	03-May-23	03-Jul-23	1			Shee	t piling, Exca	ivation, l
	Combined Trench for SW	DN800 & DN750 along Chuk Yuen Road, from B2 to B3		151	231	04-Jul-23	02-Jan-24	23-Mar-23	02-Jan-24	1				• 02-	Jan-24,
	21.PRW.PO5.10180	Coordination with Utility Undertaking, TTA, Trial Pit & Excavation, UU Diversion (TTA-B2 to TTA-B5)	0%	0	72			23-Mar-23	21-Jun-23	9			Coord	ination with	Utility Ur
	SW-OTB-2000	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B2 (20m long)	0%	31	31	04-Jul-23	08-Aug-23	04-Jul-23	08-Aug-23	1			💻 Sh	eet piling, E	kcavatio
	SW-OTB-2010	Sheet piling, Excavation, ELS, Pipe Laying, Chamber, Backfilling & Road reinstatemen, TTA-B3 (20m long)	0%	58	58	09-Aug-23	17-Oct-23	09-Aug-23	17-Oct-23	1				Sheet pili	ng, Exca
	SW-OTB-2020	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B4 (20m long)	0%	31	31	18-Oct-23	23-Nov-23	18-Oct-23	23-Nov-23	1				E Sheet	piling, E
	SW-OTB-2030	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B5 (24m long)	0%	31	31	24-Nov-23	02-Jan-24	24-Nov-23	02-Jan-24	1				💻 She	et piling
	Combined Trench for SW	DN800 & DN750 along Chuk Yuen Road, from B3 to B4		356	476	03-Jan-24	14-Mar-25	09-Aug-23	14-Mar-25	1					
	21.PRW.PO5.10190	Coordination with Utility Undertaking, TTA, Trial Pit & Excavation, UU Diversion (TTA-B6 to TTA-B9)	0%	0	72			09-Aug-23	03-Nov-23	49				🗖 Coordin	ation wi
	SW-OTB-3000	Sheet piling, Excavation, ELS, Pipe Laying, Chamber, Backfilling & Road reinstatemen, TTA-B6 (20m long)	0%	58	58	03-Jan-24	12-Mar-24	03-Jan-24	12-Mar-24	1					Sheet
	SW-OTB-3010	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B7 (20m long)	0%	31	31	13-Mar-24	22-Apr-24	13-Mar-24	22-Apr-24	1					📕 Sh
	21.PRW.PO5.10200	Coordination with Utility Undertaking, TTA, Trial Pit & Excavation, UU Diversion (TTA-B10 to	0%	0	72			13-Mar-24	12-Jun-24	22					
		TTA-B15)													
-	1st Programme	Baseline 🔷 🔷 1st Programme Baseline Milestone				ົ່	4 of 27				Date				R
	Actual Work	A list regramme Edecline Milestorie A Milestone				2				12-De	ec-22	Fire	t Progr	amme	
	Remaining Work									12-Ja	n-23			rogramme	e Janu
		· · ·										!	-		

Critical Remaining Work

	20	24		_		_	_		_				20	25			_						_	_	20	26		_					20	27	
Λ	J	J	A	S	0	Ν	D	J	F	М	A	Μ	J	J	A	S	0	Ν	D	J	F	Μ	A	Μ	J	J	_	S	0	Ν	D	J	F	M	1
												į								T	ΓA	in	pl	en	hei	nta	itio	n,	sit	e	cle	ar	an	cė,	rc
																																	Ì		
												į									S	w	or	ks	fo	r tr	en	ch	le	ss	de	si	gn		
																										j		j					ł	÷	÷
1												-									U	U	De	ete	cti	on	at	۱ď	U	u	div	er	sio	nifo	or T
																						0												-	
																						•													
																				-			D	es	gr	A	pp	ro	va	ITC	brτ	rei	רכר	nlės	\$\$
-								 																											1
																					I	ns	tal	lat	or	0	fin	sti	rur	ne	nt	atio	on	an	dı
1																																		-	
																							(Co	ns	tru	cti	on	o	fre	ece	eivi	ing	pit	
																																		1	ł
																į									50	tra	ati	-		FIG				g pi	
																								0	ns	uu	CU		0	ы	lur	ICI	ur iç	Jp	Ľ
																						ł	-	A	lv	an	ce	p	ep	a	at	ion	Ŵ	ork	s
																											P	lar	nt r	nd	bi	liza	atio	na	ini
ł																												;		Ē	Ēv			tior	- (
												ł														1						ua	va		1
																																	į	j	÷
												-																				Pla	int	de	m
																																	į	÷	
1												-																					P	lpe	: İr
																																			÷
	-		_	-			_	_	_	-	-	-	-		-	-	_	_	-	_	-		_	_			_		_	_	_		-	27	7-F
Ē	-		f				-		50	9		17	50								h	Р	6	А	fro	m	D	 1 #		22					ł
1	ei	ICI	1 10	ופ	50	V	יוכ	10	00	α	יט	ч/	SC	Ja	IOI	ig :	U	iu	ĸ	rue	511	Г	Ua	u,	ПС	111	D	1 4		52				-	
																																			1
a	aki	ng	, T	T/	٩,	Tri	al F	Pit	&	Ex	ca	iva	atic	'n,	U	U	Di	/ei	si	on	(1	T/	A- I	B1)									-	
																																			ł
n	I. E	EL	S.	Pir	be	La	avi	ha	. C	h	an	۱be	er.	Ba	hck	fill	ind	18	R	oa	d	re	ins	sta	ter	ne	n.	T	ΓA	-B	1 (17	'n	lơn	a)
	1		ĺ				ĺ						Í														ĺ								ľ
2	1	Co	m	bir	hei	нπ	re	nc	h	for	S	w	П	NR	0	۱ A	Г	N	75	0 :	alc	nc	10	h	ık	Yi	ier	ן ה	202	ad	fr	on	h B	2 to	o F
	',			~"		,																									,				
į						_		-					_							.				/-			~		_			_			
Ş	Jn	de	rta	iki	ng	; I	17	Α,	l ria	all	-n	&	EX	ca	IVS	itic	n,	U	U	DI	/e	rsi	pn	(1	T/	∖- ⊧	32	to	1	IA	-В	5)			ł
1																																			
ıt	ior	h, E	ËL	S,	Pi	þe	Lá	àyi	nç	j, E	Bai	ckł	fillir	hg	&	Rd	bad	d r	eir	nst	at	em	her	h, ⁻	Т	A-	B2	(2	20	пİ	or	ig)			
																																-1			
y	<u>ح</u> 2	v2	tio	n	FI	S	Р	line	- 1	a	/in	α	C	าลเ	mh	er	P	lar	:kf	Illin	a	8,1	Rr	har	;; ; r4	- ir	st	ate	m	er	T	T	Δ_F	33 (20
1	Ja	.0	.0	•••	-		, '	μ				y,	5	a	1 114		, ,		-111	and I	Э	~				1	50				,	1			7
	_					_	-		h:							اسمار ا												_	.	_				1	
,	EX	Ca	aVa	atic	'n,	E	LS	έ, F	Ίþ	el	_a	yır	ıg,	В	ac	ktil	In	g 8	κH	08	ad	re	In	sta	te	m¢	en,	Ę	IA	-В	64	(20	JW	lor	١ġ
į																																			
ir	ng,	Е	хс	av	ati	bn	i, E	ţΓ	S,	Pip	be	Lą	yi	ng	, B	ad	kf	illin	g	& F	Rc	ac	i r	eir	ist	ate	m	eņ	, †	Тį	A-	85	(2	4m	lo
																																	ł		
ļ			_				-	_		7	1	4-N	Лa	r-2	25,	С	on	nb	ine	ed	Tr	en	ch	fc	þr \$	SV	٧¢	N	80	0	&	DN	175	50 a	alc
1	vitl	h I	til	itv	l b	hd	ert	a	in	h	тт	Δ	Т	ial	Р	t R	F	۲n	a	ati	or	, I	Л		live	rd	io	ן <i>ה</i>	τŤ	Δ	.RA	6 t/	γ	ТА	_H
	viU		- ul	۰y	5	iu		un 	u 1	שי 	. (, -, ; ;	1	a	1	. 0		70	av	սս	51	., c				-13		• (•	, ,,			1	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	H
e	et	pil	ing), Ė	Exe	a	val	tio	h,	ΕĻ	S,	Ρ	ipe	ÈĽ	ay	inę	ġ, (Ch	ar	nb	er	, B	ac	kfi	llin	g	s f	So	ad	re	ein	sta	ter	me	n,
																																	Ì		
S	she	e	pi	lin	a	Е×	ca	va	tic	'n	E	LS	Ē	Pip	еl	a	vin	a	B	acl	kfil	ina	58	k F	lo	ad	re	ins	sta	ter	'ne	n	$\mathbf{T}^{\mathbf{i}}$	ΓÅ-Ι	B7
1		5	۳'		ر ن					,			,	۳.				ر ن					,	. '								,			
1		C	00	rd	ine	tic	'n	\vii	h	1	lit	; 1	nd	ler	tal	kin	a	т	T٨	т	ria		Pit :	۶. r		2	12	io		 	l C)iv 4	ore	sion	, /
1	-	0	00	u	110	4 UU	11	vVI	11	5	y		ηų	101	a	MI I	y,	'	~	, I	110	u f"	11.1	ب د	-^!	a	va		',	54		~17	510	ויט ¦	Ϊ.
1																																			÷
	-		-	-		-	-	-	-	-		-	-	-	-	-		-	-	-				-	-		-		-	-	-	-	-	-	
																		-								—									

Revision	Checked	Approved
nuary 2023		

Monthly Programme January 2023

				NION	hly Progran	nme Januar	y 2023			
ty ID	Activity Name	Activity % Complete	1st Prog. Dur.	Original Duration	1st Prog. Start	1st Prog. Finish	Start	Finish	Total Float N D J	2023 2024 2025 2026 2027 J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A
SW-OTB-3020	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B8 (20m long)	0%	31	31	23-Apr-24	30-May-24	23-Apr-24	30-May-24	1	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TT,
SW-OTB-3030	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B9 (20m long)	0%	31	31	31-May-24	08-Jul-24	31-May-24	08-Jul-24	1	📕 Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, ⁻
SW-OTB-3040	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B10 (20m long)	0%	31	31	09-Jul-24	13-Aug-24	09-Jul-24	13-Aug-24	1	Sheet piling, Excavation, ELS; Pipe Laying, Backfilling & Road reinstateme:
SW-OTB-3050	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B11 (20m long)	0%	31	31	14-Aug-24	19-Sep-24	14-Aug-24	19-Sep-24	1	📕 Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstate
SW-OTB-3060	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B12 (20m long)	0%	31	31	20-Sep-24	28-Oct-24	20-Sep-24	28-Oct-24	1	💻 Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinsta
SW-OTB-3070	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B13 (20m long)	0%	31	31	29-Oct-24	03-Dec-24	29-Oct-24	03-Dec-24	1	📕 Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reir
SW-OTB-3080	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B14 (20m long)	0%	31	31	04-Dec-24	11-Jan-25	04-Dec-24	11-Jan-25	1	📕 Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road i
SW-OTB-3090	Sheet piling, Excavation, ELS, Pipe Laying, Chamber, Backfilling & Road reinstatemen, TTA-B15 (17m long)	0%	50	50	13-Jan-25	14-Mar-25	13-Jan-25	14-Mar-25	1	Sheet:piling, Excavation, ELS; Pipe Laying, Chamber, Bac
Combined Trench for SW	DN800 & DN750 along Chuk Yuen Road, from B4 to B5		399	480	15-Mar-25	21-Jul-26	04-Dec-24	21-Jul-26	1	Y
21.PRW.PO5.10210	Coordination with Utility Undertaking, TTA, Trial Pit & Excavation, UU Diversion (TTA-B27 to TTA-B24)	0%	0	72			04-Dec-24	04-Mar-25	10	Coordination with Utility Undertaking, TTA; Trial Pit & Excav
SW-OTB-4110	Sheet piling, Excavation, ELS, Pipe Laying, Chamber, Backfilling & Road reinstatemen, TTA-B27 (20m long)	0%	58	58	15-Mar-25	28-May-25	15-Mar-25	28-May-25	1	Sheet piling, Excavation, ELS, Pipe Laying, Chambe
SW-OTB-4100	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B26 (20m long)	0%	31	31	29-May-25	05-Jul-25	29-May-25	05-Jul-25	1	📕 Sheet piling; Excavation, ELS, Pipe Laying, Backfi
21.PRW.PO5.10220	Coordination with Utility Undertaking, TTA, Trial Pit & Excavation, UU Diversion (TTA-B23 to TTA-B19)	0%	0	72			29-May-25	22-Aug-25	22	Coordination with Utility Undertaking, TTA, Tri
SW-OTB-4090	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B25 (20m long)	0%	31	31	07-Jul-25	11-Aug-25	07-Jul-25	11-Aug-25	1	💻 Sheet piling, Excavation, ELS; Pipe Laying, Ba
SW-OTB-4080	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B24 (20m long)	0%	31	31	12-Aug-25	16-Sep-25	12-Aug-25	16-Sep-25	1	📕 Sheet piling, Excavation, ELS, Pipe Laying,
SW-OTB-4070	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B23 (20m long)	0%	31	31	17-Sep-25	24-Oct-25	17-Sep-25	24-Oct-25	1	💻 Sheet piling, Excavation, ELS, Pipe Layir
SW-OTB-4060	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B22 (20m long)	0%	31	31	25-Oct-25	01-Dec-25	25-Oct-25	01-Dec-25	1	💻 Sheet piling, Excavation, ELS, Pipe:La
SW-OTB-4050	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B21 (20m long)	0%	31	31	02-Dec-25	09-Jan-26	02-Dec-25	09-Jan-26	1	📕 Sheet piling, Excavation, ELS, Pipe
21.PRW.PO5.10230	Coordination with Utility Undertaking, TTA, Trial Pit & Excavation, UU Diversion (TTA-B18 to TTA-B16)	0%	0	72			02-Dec-25	02-Mar-26	22	Coordination with Utility Undert
SW-OTB-4040	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B20 (20m long)	0%	31	31	10-Jan-26	14-Feb-26	10-Jan-26	14-Feb-26	1	💻 Sheet'piling, Excavation, ELS, P
SW-OTB-4030	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B19 (20m long)	0%	31	31	16-Feb-26	26-Mar-26	16-Feb-26	26-Mar-26	1	💻 Sheet pilirig, Excavation, ELS
SW-OTB-4020	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B18 (20m long)	0%	31	31	27-Mar-26	06-May-26	27-Mar-26	06-May-26	1	💻 Sheet piling, Excavation, E
SW-OTB-4010	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B17 (20m long)	0%	31	31	07-May-26	12-Jun-26	07-May-26	12-Jun-26	1	Sheet piling, Excavation 💻 Sheet piling, Excavation
SW-OTB-4000	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B16 (20m long)	0%	31	31	13-Jun-26	21-Jul-26	13-Jun-26	21-Jul-26	1	💻 Sheet piling, Excava
Combined Trench for SW	DN800 & DN250 along Chuk Yuen Road, from B5 to D1		337	420	11-Sep-24	31-Oct-25	04-Jun-24	31-Oct-25	1	▼ 31-Oct-25, Combined Trench for SW DI
21.PRW.PO5.10240	Coordination with Utility Undertaking, TTA, Trial Pit & Excavation, UU Diversion (TTA-B28 to TTA-B32)	0%	0	72			04-Jun-24	28-Aug-24	12	Coordination with Utility Undertaking, TTA, Trial Pit & Excavation, UU Dive
SW-OTB-5000	Sheet piling, Excavation, ELS, Pipe Laying, Chamber, Backfilling & Road reinstatemen, TTA-B28 (7m long)	0%	44	44	11-Sep-24	04-Nov-24	11-Sep-24	04-Nov-24	1	🗯 Sheet piling, Excavation, ELS, Pipe Laying, Chamber, Backfilling & F
ļ		ı]	1	1		1		· · · ·	······································
1st Programme					2	25 of 27			Date	
Actual Work									12-Dec-22 12-Jan-23	
Remaining Work	,								12-0411-20	

Monthly Programme January 2023

ID	Activity Name	Activity % Complete	1st Prog. Dur.	Original Duration	1st Prog. Start	1st Prog. Finish	Start	Finish	Total Float NL			2025 2026 D J F M A M J J A S O N D J F M A M J J A S O N D
SW-OTB-5010	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B29 (7m long)	0%	14	14	05-Nov-24	20-Nov-24	05-Nov-24	20-Nov-24	1			Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Ro
SW-OTB-5020	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B30 (20m long)	0%	31	31	21-Nov-24	28-Dec-24	21-Nov-24	28-Dec-24	1			Sheet piling, Excavation, ELS, Pipe Laying, Backfilling &
21.PRW.PO5.10250	Coordination with Utility Undertaking, TTA, Trial Pit & Excavation, UU Diversion (TTA-B33 to TTA-B38)	0%	0	72			21-Nov-24	19-Feb-25	22			Coordination with Utility Undertaking, TTA, Trial Pit/
SW-OTB-5030	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B31 (20m long)	0%	31	31	30-Dec-24	07-Feb-25	30-Dec-24	07-Feb-25	1			💻 Sheet piling, Excavation, ELS, Pipe Laying, Backfillin
SW-OTB-5040	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B32 (20m long)	0%	31	31	08-Feb-25	15-Mar-25	08-Feb-25	15-Mar-25	1			📕 Sheet piling, Excavation, ELS, Pipe Laying, Backf
SW-OTB-5050	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B33 (20m long)	0%	31	31	17-Mar-25	25-Apr-25	17-Mar-25	25-Apr-25	1			Sheet piling, Excavation, ELS, Pipe Laying, Ba
SW-OTB-5060	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B34 (20m long)	0%	31	31	26-Apr-25	04-Jun-25	26-Apr-25	04-Jun-25	1			📕 Sheet piling, Excavation, ELS, Pipe Laying,
SW-OTB-5070	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B35 (20m long)	0%	31	31	05-Jun-25	11-Jul-25	05-Jun-25	11-Jul-25	1			💻 Sheetpiling, Excavation, ELS; Pipe Lavi
SW-OTB-5080	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B36 (20m long)	0%	31	31	12-Jul-25	16-Aug-25	12-Jul-25	16-Aug-25	1			📕 Sheet piling, Excavation, ELS, Pipe La
SW-OTB-5090	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B37 (20m long)	0%	31	31	18-Aug-25	22-Sep-25	18-Aug-25	22-Sep-25	1			💻 Sheet piling, Excavation, ELS, Pipe
SW-OTB-5100	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B38 (21m long)	0%	31	31	23-Sep-25	31-Oct-25	23-Sep-25	31-Oct-25	1			📕 Sheet piling, Excavation, ELS, F
Open Trench for DN800 a	long Sheung Fung Street, from D1 to Connection Point		21	83	17-Nov-26	10-Dec-26	02-Sep-26	10-Dec-26	1			· · · · · · · · · · · · · · · · · · ·
21.PRW.PO5.10280	Coordination with Utility Undertaking, TTA, Trial Pit & Excavation, UU Diversion (TTA-B39)	0%	0	48			02-Sep-26	30-Oct-26	15			n Coc
SW-OTB-6000	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B39 (9m long), to Connection Point	0%	21	21	17-Nov-26	10-Dec-26	17-Nov-26	10-Dec-26	1			, i i i i i i i i i i i i i i i i i i i
Open Trench for DN750 a	long Chuk Yuen Road, from B5 to Connection Point		181	274	22-Jul-26	27-Feb-27	27-Mar-26	27-Feb-27	1			
21.PRW.PO5.10290	Coordination with Utility Undertaking, TTA, Trial Pit & Excavation, UU Diversion (TTA-B40 to TTA-B42)	0%	0	72			27-Mar-26	25-Jun-26	22			Coordination
SW-OTB-7000	Sheet piling, Excavation, ELS, Pipe Laying, Chamber, Backfilling & Road reinstatemen, TTA-B40 (20m long)	0%	57	57	22-Jul-26	25-Sep-26	22-Jul-26	25-Sep-26	1			Sheet
SW-OTB-7010	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B41 (20m long)	0%	31	31	28-Sep-26	04-Nov-26	28-Sep-26	04-Nov-26	1			💻 She
SW-OTB-7020	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B42 (20m long)	0%	31	31	05-Nov-26	10-Dec-26	05-Nov-26	10-Dec-26	1			
SW-OTB-7030	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B43 (20m long)	0%	31	31	11-Dec-26	19-Jan-27	11-Dec-26	19-Jan-27	1			
SW-OTB-7050	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B45 (20m long)	0%	31	31	11-Dec-26	19-Jan-27	11-Dec-26	19-Jan-27	1			
SW-OTB-7040	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B44 (20m long)	0%	31	31	20-Jan-27	27-Feb-27	20-Jan-27	27-Feb-27	1			
SW-OTB-7060	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B46 (20m long), to Connection Point	0%	31	31	20-Jan-27	27-Feb-27	20-Jan-27	27-Feb-27	1			
Open Trench for DN250 a	long Sheung Fung Street, from D1 to Connection Point		310	403	01-Nov-25	16-Nov-26	12-Jul-25	16-Nov-26	1			16
21.PRW.PO5.10260	Coordination with Utility Undertaking, TTA, Trial Pit & Excavation, UU Diversion (TTA-B56 to TTA-B52)	0%	0	72			12-Jul-25	04-Oct-25	22			Coordination with Utility Undertaki
SW-OTB-8090	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B56 (20m long), to Connection Point	0%	31	31	01-Nov-25	06-Dec-25	01-Nov-25	06-Dec-25	1			📕 Sheet piling, Excavation, ELS
SW-OTB-8080	Sheet piling, Excavation, ELS, Pipe Laying, Backfilling & Road reinstatemen, TTA-B55 (20m long)	0%	31	31	08-Dec-25	15-Jan-26	08-Dec-25	15-Jan-26	1			💻 Sheet piling, Excavation, E
						0.07			Da	te	Revision	Checked Approv
1st Programme Actual Work	Baseline \diamond 1st Programme Baseline Milestone \diamond Milestone				2	6 of 27			12-Dec-2			
		1										

Critical Remaining Work

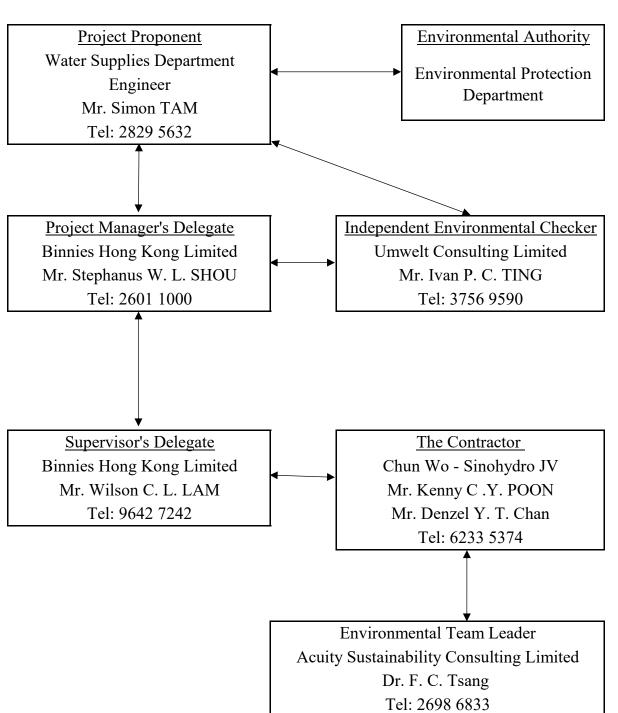
Bod TB200* Cond. Mill. Stands, T, E.B. Fallung, Kadling, K. Baurs, Table 2000 Cond. Mill. <				<u>0a</u>			nme Januai	ry 2023						
Operand Biological 2.3. Polyage Marcel Baller, Mar	ctivity ID	Activity Name	Activity % Complete	1st Prog. Dur.	Original Duration	1st Prog. Start	1st Prog. Finish	Start	Finish					
1/Aug 0/Aug d=""><td>SW-OTB-8070</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>24-Feb-26</td><td>1</td><td><u>a n 1 t wa wi 1 1 4 2 0 0 n n 1 t wa wi 1 1 4 2</u></td><td></td><td></td><td></td></th<>	SW-OTB-8070								24-Feb-26	1	<u>a n 1 t wa wi 1 1 4 2 0 0 n n 1 t wa wi 1 1 4 2</u>			
Northold Backhard Backhard Backhard Backhard State State <thstate< th=""> State State<!--</td--><td>21.PRW.PO5.10270</td><td></td><td>0%</td><td>0</td><td>72</td><td></td><td></td><td>16-Jan-26</td><td>16-Apr-26</td><td>22</td><td></td><td></td><td>Coord</td><td>ination with Utility Und</td></thstate<>	21.PRW.PO5.10270		0%	0	72			16-Jan-26	16-Apr-26	22			Coord	ination with Utility Und
ref ref	SW-OTB-8060		0%	31	31	25-Feb-26	01-Apr-26	25-Feb-26	01-Apr-26	1			📕 Sheetp	viling, Excavation, ELS
1/2 S0/01/92/01 So/01/92/01 S	SW-OTB-8050		0%	31	31	02-Apr-26	12-May-26	02-Apr-26	12-May-26	1			💻 She	et piling, Excavation, E
India Indi India India <thi< td=""><td>SW-OTB-8040</td><td></td><td>0%</td><td>31</td><td>31</td><td>13-May-26</td><td>18-Jun-26</td><td>13-May-26</td><td>18-Jun-26</td><td>1</td><td></td><td></td><td>= s</td><td>heet piling, Excavatior</td></thi<>	SW-OTB-8040		0%	31	31	13-May-26	18-Jun-26	13-May-26	18-Jun-26	1			= s	heet piling, Excavatior
Nut N	SW-OTB-8030		0%	31	31	20-Jun-26	27-Jul-26	20-Jun-26	27-Jul-26	1				Sheet piling, Excava
Verb Verg, Sing-Cancelos, 12.0 Rescurst, 20.0000, 12.0 Rescurst, 20.0000 0.0 0.0 0.002,0 0.0	SW-OTB-8020		0%	31	31	28-Jul-26	01-Sep-26	28-Jul-26	01-Sep-26	1				💻 Sheet piling, Exca
Ling Ling <thling< th=""> Ling Ling</thling<>	SW-OTB-8010		0%	31	31	02-Sep-26	09-Oct-26	02-Sep-26	09-Oct-26	1				💻 Sheet piling, E
No. 10 Carry & Assess bis 10000 0 4 4 2 20-3-32 C0-4-2 2 2-3-32 C0-4-2 3-3 SN 10 2000 Carry & Assess bis 10000 0% 4 4 2 2-3-32 C0-4-2 2 2-3-32 C0-4-2 5 SN 10 2000 Carry & Assess bis 10000 0% 4 4 2 2-3-62 2-4-62 2 2-4-62 2 SN 10 2000 Carry & Maxesson bis 10000 0% 4 4 2 2-4-62 2-4-62 2-4-62 2 SN 10 2000 Carreson bis scargetson bis 10000 0% 5 3 0-4-62 2-4-27 0-4-62 2-4-62 2 SN 10 2000 Carreson bis scarget	SW-OTB-8000		0%	31	31	10-Oct-26	16-Nov-26	10-Oct-26	16-Nov-26	1				💻 Sheet piling
Skr10-2300 Gering & Hassens for \$10/000 OF 0 4 4 75, Sin-57 06 Marc 7 5 Skr10-2300 Gering & Hessens for \$10/000 OF 0	Test & Commissioning an	d Connection		78	78	23-Jan-27	10-Apr-27	23-Jan-27	10-Apr-27	2				•••• 1
Number Reside 11 Begramme Baseline 11 Beg	SW-TC-2000	Cleaning & Pressure Test for DN800	0%	45	45	23-Jan-27	08-Mar-27	23-Jan-27	08-Mar-27	5				💻 :Cle
SW-1C-2010 Connection to existing for DNR50 0% 00 00 000 00 000 <td>SW-TC-2040</td> <td>Cleaning & Pressure Test for DN250</td> <td>0%</td> <td>45</td> <td>45</td> <td>23-Jan-27</td> <td>08-Mar-27</td> <td>23-Jan-27</td> <td>08-Mar-27</td> <td>5</td> <td></td> <td></td> <td></td> <td>💻 Cle</td>	SW-TC-2040	Cleaning & Pressure Test for DN250	0%	45	45	23-Jan-27	08-Mar-27	23-Jan-27	08-Mar-27	5				💻 Cle
SW-TC 2000 Connection be easing for DN200 0/4 30 0/4/erc 27 0/4/erc	SW-TC-2020	Cleaning & Pressure Test for DN750	0%	28	28	28-Feb-27	27-Mar-27	28-Feb-27	27-Mar-27	2				E c
6W-TC-2030 Cemedoion in exaking for DN750 0% 14 14 28-Mar-27 10-App-27 2 11 Programme Baseline Image: Second S	SW-TC-2010	Connection to existing for DN800	0%	30	30	09-Mar-27	07-Apr-27	09-Mar-27	07-Apr-27	5				
1st Programme Baseline & Ist Programme Baseline Milestone 27 of 27 Date Revision Checked Approved Actual Work Monthly Programme January 2023 Instrume January 2023 Instrume January 2023 Instrume January 2023 Instrume January 2023 Instrume January 2023 Instrume January 2023 Instrume January 2023 Instrume January 2023 Instrume January 2023 Instrume January 2023 Instrume January 2023 Instrume January 2023 Instrume January 2023 Instrume January 2023 Instrume January 2023 Instrume January 2023 Instrume January 2023 Instrume January 2023 Instrume January 2023 Instrume January 2023 Instrume January 2023 Instrume January 2023 Instrume January 2023 Instrume January 2023 Instrume January 2023 Instrume January 2023 Instrume January 2023 Instrume January 2023 Instrume January 2023 Instrume January 2023 Instrume January 2023 Instrume January 2023 Instrume January 2023 Instrume January 2023 Instrume January 2023 Instrume January 2023 Instrume January 2023 Instrume January 2023 Instrume January 2023 Instrume January 2023 Instrume January 2023 Instrume January 2023 Instrume January 2023 Instrume January 2023 Instrume January 2023 Instrum January 2023 Instrume Jan	SW-TC-2050	Connection to existing for DN250	0%	30	30	09-Mar-27	07-Apr-27	09-Mar-27	07-Apr-27	5				
Actual Work Milestone Remaining Work Summary Interference Interfere	SW-TC-2030	Connection to existing for DN750	0%	14	14	28-Mar-27	10-Apr-27	28-Mar-27	10-Apr-27	2				
Actual Work Milestone Remaining Work Summary Interference Interference Interference Interference Interference Interference Interference Interference Interference Interference Interference Interference Interference Interference Interference Interference Interference Interference Interference Interference Interference Interference Interference Interference Interference Interference Interference Interference Interference Interference Interference Interference Interference Interference Interference Interference Interference Interference Interference Interference Interference Interference Interference Interference Interference Interference Interference Interference Interference Interference Interference Interference Interference Interference Interference Interference Interference Interfere														
Actual Work MilestoneRemaining WorkSummary 12-Jan-23Monthly Programme January 2023	1st Programme	e Baseline 🔷 🔷 1st Programme Baseline Milestone				;	27 of 27			[[Pate Revision	1	Checked	Approved
	Actual Work	♦ Milestone				-								
Critical Remaining Work	-	-								12-Jai	I-23 IIVIONINIY Programme January 20	23		



Appendix B

Project Organization Chart and Key Personnel Contact





Project Organization Chart



Appendix C

Event and Action Plans



Table C1Event and Action Plan for Air Quality (Dust)

Event	Action							
Event	ET Leader	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. 	• 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 actions 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;	• Check monitoring data submitted by ET;	• Confirm receipt of notification of failure in writing;	• Take immediate action to avoid further exceedance;				



Event		A	ction	
	ET Leader	IEC	ER	Contractor
	 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 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. 	 Notify Contractor; Ensure remedial measures properly implemented. 	 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.



Table C2Event/Action Plan for Construction Noise

Event		A	ction	
	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. 	 Review the analysed results submitted by the ET; Review the proposed remedial measures by the Contractor and advise the ER accordingly; Supervise the implementation of remedial measures. 	 Confirm receipt of notification of failure in writing; Notify Contractor; Require Contractor to propose remedial measures for the analysed noise problem; Ensure remedial measures are properly implemented. 	 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. 	 Discuss amongst ER, ET, and Contractor on the potential remedial actions; Review Contractors 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; Require Contractor to propose remedial measures for the analysed noise problem; 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 the IEC within three 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.



Table C3Event/Action Plan for Landscape and Visual

Except		A	etion		
Event	ET	IEC	ER	Contractor	
Action Level Exceedance	 Inform the IEC, ER and the Contractor; Discuss remedial actions with IEC, ER and Contractor; and Monitor remedial actions until rectification has been completed. 	 Check inspection report; Check Contractor's working method; Discuss with ET, ER and Contractor on possible remedial measures; Advise ER on effective of proposed remedial measures; and Check implementation of remedial measures. 	 Confirm receipt of notification of non- conformity in writing; Review and agree on the remedial measures proposed by the Contractor; and Ensure remedial measures are properly implemented. 	 Identify source and investigate the non-conformity; Amend working methods agreed with ER as appropriate; and Rectify damage and undertake any necessary replacement. 	
Limit Level Exceedance	 Identify sources; Inform the Contractor, IEC and ER; Discuss inspection frequency; Discuss remedial actions with IEC, ER and Contractor; Monitor remedial actions until rectification has been completed; and If non-conformity stops, cease additional monitoring. 	 Check inspection report; Check Contractor's working method; Discuss with ET, ER and Contractor on possible remedial measures; and Advise ER on effectiveness of proposed remedial measures. 	 Notify the Contractor; In consultation with the ET and IEC, agree with the Contractor on the remedial measures to be implemented; and Supervise implementation of remedial measures. 	 Identify source and investigate the non-conformity; Implement remedial measures; Amend working methods agreed with ER as appropriate; Rectify damage and undertake any necessary replacement. Stop relevant portion of works as determined by ER until the non-conformity is abated. 	

Notes:

ET - Environmental Team; IEC - Independent Environmental Checker; ER - Engineer's Representative



Appendix D

Project Implementation Schedule



Environmental Mitigation Implementation Schedule (EMIS)

EM&A Log Ref.	Recommended Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Location / Timing	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
Air Qual	ity						
D1	Dust suppression measures, including watering once per hour, will be incorporated in accordance with the requirements of the Air Pollution Control (Construction Dust) Regulation. Dust filter shall be installed at the ventilation system of the emission source at the tunnel portal chimney. The proposed dust control measures presented in Table 3.11 of the EIA report shall be followed.	Minimize dust impact at the nearby sensitive receivers	Contractor	Tunnel Portal	Construction Phase	 Air Pollution Control Ordinance To control the dust impact to meet HKAQO and EIAO- TM criteria 	Implemented
D2	 The following dust suppression measures should be incorporated into contract document. The standard dust suppression measures as stipulated in the Air Pollution Control (Construction Dust) Regulation to control the dust nuisance shall be implemented throughout the construction phase: The contractor shall observe and comply with Air Pollution Control (Construction Dust) Regulation and implement all the required mitigation measures. The contractor shall undertake precautions at all times to prevent dust nuisance and smoke as a result of his activities. The contractor shall ensure a highly efficient dust filter (at least 80% efficiency) to be installed at the ventilation exhaust to treat the exhausting air from cavern. The contractor shall frequently clean and water the site to minimize fugitive dust emissions. The contractor shall ensure that there will be adequate water supply/storage for dust suppression. 	Minimize dust impact at the nearby sensitive receivers	Contractor	All Construction sites	Construction Stage	 Air Pollution Control Ordinance To control the dust impact to meet HKAQO and EIAO- TM criteria 	Implemented after reminder



•	1						
EM&A Log Ref.	Recommended Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Location / Timing	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	 The working area of any pavement breaking, excavation or earth moving operation should be sprayed with water immediately before, during and after the operation to avoid dust generation. Any stockpile of dusty material should be properly covered by tarpaulin or other impervious sheeting. Vehicles leaving a site loaded with dusty materials should be covered by tarpaulin or other impervious sheeting. Wheel washing facilities shall be installed and used by all vehicles leaving the site. No earth, mud, debris, dust and the like shall be deposited on public roads. Water in the wheel cleaning facility shall be changed at frequent intervals and sediments shall be removed regularly. The contractor shall submit details of proposals for the wheel cleaning facility. Such wheel washing facilities shall be usable prior to any earthworks excavating activity on the site. The Contractor shall also provide a hard-surfaced road between any washing facility and the public roads. Any materials dropped on paved roads shall be cleaned up immediately to prevent dust nuisance. The contractor shall devise, arrange methods of working and carrying out the works in such a manner so as to minimize dust impacts on the surrounding environment, and shall provide experienced personnel 						
	with suitable training to ensure that these methods are implemented.						
D3	The contractor shall also implement specific dust mitigation measures for excavation, drilling and blasting activities during the construction of tunnel portal. These include the use of blast nets / canvas covers and ensure portal door is properly closed.	Minimize dust impact at the nearby sensitive receivers	Contractor	All Construction sites	Construction Stage	 Air Pollution Control Ordinance To control the dust impact to meet 	To be Implemented



EM&A Log Ref.	Recommended Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Location / Timing	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
						HKAQO and EIAO- TM criteria	
D4	Before the commencement of any works, the Engineer may require the contractor to submit the methods of working, construction plant or equipment and air pollution control measures to be used on the site to be made available for inspection and approval.	Minimize dust impact at the nearby sensitive receivers	Contractor	All Construction sites	Construction Stage	 Air Pollution Control Ordinance To control the dust impact to meet HKAQO and EIAO- TM criteria 	Implemented
D5	 The following precautionary measures shall be incorporated into contract document and implemented throughout the construction. The contractor shall ensure the use of electricity power equipment is connected to the main electricity supply for better emission estimation. The contractor shall avoid the use of diesel power machines and generators as far as practicable. The contractor shall avoid the use of non-road mobile machineries which exempt by the Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation, and seek the ones with proper label issued by EPD. The contractor shall observe the requirement of DEVB TC(W) No. 13/2020, to apply a temporary electricity and water supply with a target that the necessary cables/water mains laying works could be completed before the commencement of the works contract. 	Avoid burdening the surrounding NO ₂ concentration	Contractor	All Construction sites	Construction Stage	 Air Pollution Control Ordinance To control the dust impact to meet HKAQO and EIAO- TM criteria DEVB TC(W) No. 13/2020 	Implemented



EM&A Log Ref.	Recommended Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Location / Timing	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
Construc	tion Noise						
N1	The contractor should limit the pipe section to be constructed by open cut method in a length of no more than 30 m at any one time when works are in close proximity to NSRs. Each work front along the proposed watermain laying should be separated by a clearance distance of at least 60 m.	Control construction noise impacts	Contractor	All construction area for watermain laying works	Construction stage	• EIAO-TM	To be implemented
N2	Use of quiet PME is considered to be a practicable means to mitigate the construction noise impact. Quiet plant is defined as a PME having actual SWL lower than the value specified in the GW-TM.	Control construction noise impacts	Contractor	All construction area for watermain laying works	Construction stage	 EIAO-TM A Practical Guile for the Reduction of Noise from construction works 	Implemented
N3	The use of noise barrier for certain PME could generally provide a 5 dB(A) reduction for movable PME and 10 dB(A) for stationary PME. The barrier material shall have a superficial surface density of not less than 10 kg/m^2 and have no opening or gaps. Sound absorbent lining inside the enclosure should be at least 25 mm thick.	Control construction noise impacts	Contractor	All construction area for watermain laying works	Construction stage	• EIAO-TM	Implemented
N4	Provision of movable noise barriers of 3m or above in height and with a short-cantilevered section on the top with skid footing should be used and located within a few metres of stationary plant and mobile plant such that the line of sight to the NSR is blocked by the barriers.	Control construction noise impacts	Contractor	All construction area for watermain laying works	Construction stage	• EIAO-TM	To be implemented
N5	Noise enclosure lined with absorptive materials shall be provided at the tunnel portal to mitigate the noise from tunnel/cavern construction. The enclosure is a gap free enclosure with acoustic doors for vehicular access purpose. The acoustic doors shall remain closed throughout the construction period. The sheet material mass of the noise enclosure should be at least 10 kg/m ² and sound-absorbent lining inside the enclosure should be at least 25 mm thick.	Control construction noise impacts	Contractor	Tunnel Portal	Construction stage	 EIAO-TM A Practical Guile for the Reduction of Noise from construction works 	To be implemented



EM&A Log Ref.	Recommended Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Location / Timing	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
N6	Noise barrier/enclosure should be inspected and maintained regularly. The contractor should design and provide details of the temporary noise barriers and noise enclosure to the Engineer for approval.	Control construction noise impacts	Contractor	All Construction sites	Construction stage	• EIAO-TM	Implemented
N7	For NSR5, NSR14, NSR19 and NSR 22, the construction works of Fresh Water/Salt Water Mainlaying (Reinstatement Works) shall be arranged and carried out during School Holidays (i.e., the section of the mainlaying alignment is 20m measured from the school site boundary).	Control construction noise impacts	Contractor	All Construction area for watermain laying works	Construction stage	• EIAO-TM	To be Implemented
N8	During examination period, no mainlaying works will be carried out within 30m (for NSR 14, NSR 19 and NSR 22) or 50m (for NSR 5) from the school site boundary.	Control construction noise impacts	Contractor	All Construction area for watermain laying works	Construction stage	• EIAO-TM	To be Implemented
N9	For NSR13, NSR20 and P1, the concrete lorry mixer shall be located 10 m away from the residential site boundary during the construction works of Fresh Water/Salt Water Mainlaying (Reinstatement Works).	Control construction noise impacts	Contractor	All Construction area for watermain laying works	Construction stage	• EIAO-TM	To be Implemented
N10	 <u>Good Site Management Practices</u> Only well-maintained plant should be operated onsite, and plant will be serviced regularly during the construction phase; Silencers or mufflers on construction equipment should be utilized and should be properly maintained during the construction phase; Mobile plant, if any, should be sited away from NSRs; Machines and plant (such as trucks) that may be in intermittent use should be shut down between work periods or will be throttled down to a minimum; Plant known to emit noise strongly in one direction should be orientated so that the noise is directed away from the nearby NSRs; 	Control construction noise impacts	Contractor	All Construction sites	Construction stage	• EIAO-TM	Implemented after reminder



EM&A Log Ref.	Recommended Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Location / Timing	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	 Material stockpiles and other structures should be effectively utilised in screening noise from on-site construction activities; The contractor should devise, arrange methods of working and carrying out the works in such manner as to minimise noise impacts on the surrounding environment, and should provide experience personnel with suitable training to ensure that all these measures are implemented properly; and; The contractor should minimise construction noise exposure to the school (especially during examination periods) as much as possible. The contractor should liaise with the school and Examination Authority to ascertain the exact dates and times of all examination periods during the course of the contract and to avoid noisy activities during these periods. 						
Operatio	n Noise						
	 Choose quieter plant; Include noise levels specification when ordering new mechanical equipment such as pumps and ventilation systems; 	Reduce the operation noise	Project Proponent	Tunnel Portal / Ancillary building / SRs in carven	Prior to operation of the Project for planned NSRs	• EIAO-TM	To be implemented
	 Locate fixed plant, louvres or openings away from NSRs; Locate fixed plant in walled plant rooms or in specially 						
N11	designed enclosures;						
	Ensure pump room doors and tunnelportal doors are kept closed;						
	• Silencers, acoustic louvres or acoustic doors should be used where necessary; and						
	• Develop and implement a regularly scheduled plant maintenance programme so that equipment is properly						



EM&A Log Ref.	Recommended Mitigation Measures	Objective of the recommended measure & main concerns to	Implement Agent	Location / Timing	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	operated and serviced in order to maintain controlled level of noise. The programme should be implemented by properly trained personnel.	address					
Water Qi	uality (Construction Phase)						
W1	General Construction Site Practice The Contractor should observe and comply with the Water Pollution Control Ordinance and its subsidiary regulations and obtain a discharge license under the Ordinance for discharge of effluent from the construction site. The discharge quality must meet the requirements specified in the discharge licence. All the runoff and wastewater generated from the works areas should be treated so that it satisfies all the standards listed in the TM-DSS. The Contractor should carry out the Project works in such a manner as to minimise adverse impacts on the water quality during execution of the works. In particular, the Contractor should arrange the working method to minimise the effects on the water quality within and outside the Project Site and on the transport routes. In addition, the management of construction site drainage from the Project will follow guidelines provided in ProPECC PN 1/94 – "Construction Site Drainage". The mitigation measures described in ETWB TC(W) No. 5/2005 shall also be followed where necessary for construction activities in close vicinity to inland watercourses.	To minimise water quality impact from construction site runoff and general construction activities	Contractor	All construction sites where applicable	Construction stage	 Water Pollution Control Ordinance ProPECC PN1/94 ETWB TC(W) No. 5/2005 EIAO-TM TM-DSS 	Implemented
W2	<u>Construction Site Runoff and General Construction</u> <u>Activities</u> Proper site management measures should be implemented to control site runoff and drainage, and thereby prevent high sediment loadings from reaching	To minimize water quality impact from construction site runoff and general	Contractor	All construction sites where applicable	Construction stage	 Water Pollution Control Ordinance ProPECC PN1/94 ETWB TC(W) No. 5/2005 EIAO-TM 	Implemented



measures shall include the following practices: activities • Provision of perimeter channels to intercept storm- runoff from outside the site. These should be constructed in advance of the construction works. activities • Temporary ditches such as channels, earth bunds or sandbag barriers should be included to facilitate runoff discharge into the stormwater drain, via a sand/silt basin/trap. works programme should be designed to minimise works areas at any one time, thus minimizing exposed soil areas and reducing the potential for increased siltation and site runoff. Sand/silt removal facilities such as sand traps, silt traps and sediment basins should be provided to remove the sand/silt particles from run-off where necessary. These facilities should be provided to remove the installed at appropriate locations to capture all surface water generated on site. Careful programming of the works to avoid excavation works during the rainy season (April to September). • Careful programming of the protected Temporary access roads (if any) should be protected	EM&A Log Ref.	Recommended Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Location / Timing	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
 by crushed gravel and exposed slope surfaces shall be protected (e.g. by tarpaulin) when rainstorms are likely; Open stockpiles of construction materials on-site should be covered with tarpaulin or similar fabric during rainstorms to prevent erosion. Measures should be taken to prevent the washing away of construction 		 Provision of perimeter channels to intercept storm-runoff from outside the site. These should be constructed in advance of the construction works. Temporary ditches such as channels, earth bunds or sandbag barriers should be included to facilitate runoff discharge into the stormwater drain, via a sand/silt basin/trap. Works programme should be designed to minimise works areas at any one time, thus minimizing exposed soil areas and reducing the potential for increased siltation and site runoff. Sand/silt removal facilities such as sand traps, silt traps and sediment basins should be provided to remove the sand/silt particles from run-off where necessary. These facilities should be properly and regularly cleaned and maintained. These facilities should be installed at appropriate locations to capture all surface water generated on site. Careful programming of the works to avoid excavation works during the rainy season (April to September). Temporary access roads (if any) should be protected by crushed gravel and exposed slope surfaces shall be protected (e.g. by tarpaulin) when rainstorms are likely; Open stockpiles of construction materials on-site should be covered with tarpaulin or similar fabric during rainstorms to prevent erosion. Measures should 	construction				• TM-DSS	



EM&A Log Ref.	Recommended Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Location / Timing	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	• Earthwork final surfaces should be well compacted, and the subsequent permanent work or surface protection should be carried out immediately after the final surfaces are formed to prevent erosion caused by rainstorms. Appropriate drainage like intercepting channels should be provided where necessary.						
	 Measures should be taken to minimise the ingress of rainwater into trenches. If excavation of trenches in wet seasons is necessary, they should be dug and backfilled in short sections. Rainwater pumped out from trenches or foundation excavations should be discharged into storm drains via silt removal facilities. Manholes should always be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage system, and to prevent storm run-off from getting into foul sewers. Discharge of surface run-off into foul sewers must always be prevented in order not to unduly overload the foul sewerage system. 						
	 Water used in ground boring and drilling for site investigation or rock/soil anchoring should as far as practicable be recirculated after sedimentation. When there is a need for final disposal, the wastewater should be discharged into storm drains via silt removal facilities. All vehicles and plant should be cleaned before they leave a construction site to ensure no earth, mud, debris and the like is deposited by them on roads. A wheel washing bay should be provided at every site if practicable and wash-water should have sand and silt 						
	settled out or removed before discharging into storm drains. The section of construction road between the wheel washing bay and the public road should be						



	*						
EM&A Log Ref.	Recommended Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Location / Timing	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	paved with backfall to reduce vehicle tracking of soil and to prevent site run-off from entering public road drains.						
W3	Reuse of treated site runoff shall be considered as far as practicable for onsite activities such as dust suppression, wheel washing and general cleaning, etc.	To minimize water quality impact from construction site runoff and general construction activities	Contractor	All construction sites where applicable	Construction stage	 Water Pollution Control Ordinance ProPECC PN1/94 ETWB TC(W) No. 5/2005 EIAO-TM TM-DSS 	N/A
W4	Sewage Generated by Construction Workforce No discharge of sewage to the storm drains and inland watercourse will be allowed. Domestic sewage /wastewater generated by workforce on-site should be collected in a suitable storage facility such as portable chemical toilets. An adequate number of portable toilets will be provided during the construction phase, with a licensed collector employed to clean the chemical toilets on a regular basis and be responsible for collection and disposal of the sewage. According to the Reference Materials on Construction Site Welfare, Health and Safety Measures that issued by the Construction Industry Council, the number of toilet facilities provided on site shall be at a ratio of not less than one for every 25 workers. These toilets should be maintained in a state that will not deter the workers from using them.	To minimise water quality impact from sewage effluent in construction phase	Contractor	All construction sites where applicable	Construction stage	 Water Pollution Control Ordinance ProPECC PN1/94 ETWB TC(W) No. 5/2005 EIAO-TM TM-DSS 	Implemented
W5	Accidental Spillage of Chemicals The following mitigation measures should be implemented to avoid adverse impacts of chemical spillage:	To prevent water quality impact due to chemical spillage	Contractor	All construction sites where applicable	Construction stage	Water Pollution Control Ordinance Waste Disposal (Chemical Waste) (General) Regulation ProPECC PN1/94	Implemented



-	*						
EM&A Log Ref.	Recommended Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Location / Timing	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	 Waste streams classifiable as chemical wastes should be properly stored, collected and treated for compliance with the requirements set out in the Waste Disposal Ordinance and its subsidiary Waste Disposal (Chemical Waste) (General) Regulation. All fuel tanks and chemical storage areas should be provided with locks and be sited on paved areas. The storage areas should be surrounded by bunds with a capacity equal to 110% of the storage capacity of the largest tank to prevent spilled oil, fuel and chemicals from reaching the receiving waters. Waste oil should be collected and stored for recycling or disposal, in accordance with the Waste Disposal Ordinance. Vehicle and plant servicing areas, vehicle wash bays and lubrication bays should, as far as possible, be located within roofed areas. The drainage in these covered areas should be connected to foul sewers via a petrol interceptor. 					• ETWB TC(W) No. 5/2005 • EIAO-TM • TM-DSS	
W6	 <u>Groundwater infiltration and Groundwater Drawdown</u> To minimize the groundwater infiltration, the following groundwater control measures are recommended: The Contractor shall undertake rigorous probing of the ground ahead of excavation works to identify zones of significant water inflow that could occur as a result of discrete, permeable features. In such zones of significant water inflow, the overall inflow would be reduced by means of cut-off grouting executed ahead of the tunnel/cavern advance. Where water inflow quantities are excessive, pregrouting will be required to reduce the water inflow into the tunnel/cavern. 	To minimise water quality impact from groundwater infiltration	Contractor	All construction sites where applicable	Construction stage	 Water Pollution Control Ordinance ProPECC PN1/94 ETWB TC(W) No. 5/2005 EIAO-TM TM-DSS 	To be Implemented



EM&A Log Ref.	Recommended Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Location / Timing	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	 In case of excessive infiltration being observed as a result of the tunnelling or excavation works even after pre- grouting measures, post-grouting should be applied as far as practicable. Waterproof lining will be installed after the formation of the tunnels and caverns. In the event of seepage of groundwater occurs, groundwater should be pumped out from works areas and discharged to the storm drains via silt removal facilities. The discharges during construction phase shall comply with WPCO requirements 						
W7	Construction Works in Close Proximity of Inland Watercourses The mitigation measures proposed for "General Construction Site Practice" and "Construction Site Runoff and General Construction Activities" in Sections 5.8.2 and 5.8.3 of the EIA report shall be implemented properly to minimize the water quality impacts during to the construction works in close proximity of inland watercourse.	To minimise water quality impact from construction site near watercourses	Contractor	All construction sites where applicable	Construction stage	 Water Pollution Control Ordinance ProPECC PN1/94 ETWB TC(W) No. 5/2005 EIAO-TM TM-DSS 	To be Implemented
W8	 The practices outlined in ETWB TC(W) No. 5/2005 shall also be adopted where applicable to minimise the water quality impacts upon any natural streams or other inland watercourses. Relevant mitigation measures are listed below: The use of less or smaller construction plants may be specified in areas close to the inland watercourses to reduce the disturbance to the surface water. Temporary storage of materials (e.g. equipment, chemicals and fuel) and temporary stockpile of 	To minimise water quality impact from construction site near watercourses	Contractor	The relocated DHSRs	Construction stage	 Water Pollution Control Ordinance ProPECC PN1/94 ETWB TC(W) No. 5/2005 EIAO-TM TM-DSS 	Implemented after reminder



	Lividea Report						
EM&A Log Ref.	Recommended Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Location / Timing	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	 construction debris and spoil should be located well away from any watercourses. Stockpiling of construction materials and dusty materials should be covered and located away from any watercourses. Construction debris and spoil should be covered up and/or disposed of as soon as possible to avoid being washed into the nearby inland watercourses. Adequate lateral support may need to be erected in order to prevent soil/mud from slipping into the watercourses. Construction works close to the inland watercourses should be carried out in dry season as far as practicable where the flow in the surface channel or stream is low. 						
W9	Cleansing Effluent Generated from Washing of Interior of Structures The cleaning effluent containing SS and residual chlorine should be settled out through the sedimentation tank and dechlorinated by the de-chlorination plant. The discharge quality of the cleansing effluent generated from washing of interior of structures after the construction shall meet the requirements specified in the discharge licence and the cleaning effluent should be treated properly so that it satisfies all the standards listed in the TM-DSS	To minimise water quality impact from construction site effluent	Contractor	The relocated DHSRs	Construction stage	 Water Pollution Control Ordinance ProPECC PN1/94 ETWB TC(W) No. 5/2005 EIAO-TM TM-DSS 	To be Implemented
Water Q	uality (Operation Phase)						
W10	The ProPECC PN 5/93 "Drainage Plans subject to Comments by Environmental Protection Department" provides guidelines and practices for handling, treatment and disposal of various effluent discharges to stormwater drains and foul sewers. The design of site drainage and disposal of various site effluents generated within the	To control operational site effluents	Further Operator	The relocated DHSRs	Operation stage	Water Pollution Control Ordinance ProPECC PN5/93	To be Implemented

Contract No. 21/WSD/21 Relocation of Diamond Hill Fresh Water and Salt Water Service Reservoirs to Caverns Monthly EM&A Report



EM&A Log Ref.	Recommended Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Location / Timing	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	development area should follow the relevant guidelines and practices as given in the ProPECC PN 5/93.						
W11	Effluents from Cleaning of Service Reservoir Treatment and disposal of cleansing water during annual cleaning and maintenance of the service reservoirs shall follow the WSD's current normal practice with reference to Sections 23.24 - 23.25 of the General Specification for Civil Engineering Works. Portable water incorporated with a mixture of sterilizing chemicals shall be used for washing water retaining structures. The cleansing effluent shall be settled out through the sedimentation task and dechlorinated by a dechlorination unit before being discharged to drainage system. Agreement of DSD and discharge license from EPD shall be obtained before commencing any of the discharges during operation phase	To control operational site effluents	Further Operator	The relocated DHSRs	Operation stage	 Water Pollution Control Ordinance Sections 23.23-23.24 of the General Specification for Civil Engineering Works TM-DSS 	To be Implemented
W12	 Non-point Source Surface Runoff Best Management Practices (BMPs) to reduce non-point source surface water pollution are proposed as follows: Exposed surface shall be avoided within access road and portal/ancillary building areas to minimise soil erosion. The access road and the portal/ancillary building areas shall be either hard paved or covered by landscaping area where appropriate. Screening facilities such as standard gully grating and trash grille, with spacing which is capable of screening off large substances such as fallen leaves and rubbish should be provided at the inlet of drainage system. Road gullies with standard design and silt traps should be provided to remove particles present in stormwater runoff, where appropriate. Good management measures such as regular cleaning and sweeping of road surface/ open areas are suggested. The road surface/ open area cleaning 	To minimize water quality impact from non-point source surface run-off	Further Operator	The relocated DHSRs	Design and Operation stages	Water Pollution Control Ordinance ProPECC PN5/93	To be Implemented



EM&A Log Ref.	Recommended Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Location / Timing	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	 should also be carried out prior to occurrence of rainstorm. Manholes, as well as storm water gullies, ditches provided at the Project site should be regularly inspected and cleaned (e.g. monthly). Additional inspection and cleansing should be carried out before forecast heavy rainfall. 						
Waste M	anagement (Construction Phase)						
WM1	The waste management hierarchy shall apply to the construction waste management (i.e. in order of desirability: avoidance, minimization, recycling, treatment and safe disposal of waste).	Minimize waste generation during construction	Contractor	All construction sites	Design and Construction stages	Waste Disposal Ordinance EIAO	Implemented
WM2	The contractor should develop and provide toolbox talk for on-site sorting of C&D materials to enhance workers' awareness in handling, sorting, reuse and recycling of C&D materials. Requirements for staff training should be included in the contractor's Environmental Management Plan (EMP). The EMP shall be submitted to the Architect/Engineer for approval before construction works in accordance with ETWB TC(W) No.19/2005.	Minimize waste generation during construction	Contractor	All construction sites	Construction stages	 Waste Disposal Ordinance EIAO ETWB TC(W) No. 19/2005 DEVB TC(W) No. 6/2010 	Implemented
WM3	Good planning and site management practice should be employed to eliminate over-ordering or mixing of construction materials to reduce wastage. Proper storage and site practices will minimise the damage or contamination of construction materials.	Ensure proper waste management system throughout the construction	Contractor	All construction sites	Construction stages	 Waste Disposal Ordinance EIAO ETWB TC(W) No. 19/2005 DEVB TC(W) No. 6/2010 	Implemented
WM4	Where waste generation is unavoidable, the potential for recycling or reuse should be rigorously explored. If waste cannot be recycled, disposal routes described in the EMP should be followed. A recording system for the amount of wastes generated, recycled and disposed (including the	Reduce waste generation	Contractor	All Construction sites	Construction stage	Waste Disposal Ordinance EIAO ETWB TC(W) No. 19/2005	Implemented



EM&A Log Ref.	Recommended Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Location / Timing	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	disposal sites) should be implemented. In order to monitor the disposal of C&D material and solid wastes at public filling facilities and landfills and to control fly- tipping, a trip-ticket system should be included. One may make reference to DEVB TC(W) No. 6/2010 for details.					• DEVB TC(W) • No. 6/2010	
WM5	Regular cleaning and maintenance of the waste storage area should be provided.	Avoid odour, pest, and litter impacts	Contractor	All construction sites	Construction stage	• DEVB TC(W) No.8/2010 • ETWB TC(W) No. 19/2005	Implemented
WM6	 <u>Best Management Practice</u> An on-site environmental co-ordinator should be identified at the outset of the works. The co-ordinator shall prepare an Environmental Management Plan (EMP) incorporating waste management in accordance with the requirements set out in the ETWB TCW No. 19/2005, Environmental Management on Construction Sites. The EMP shall include monthly and yearly Waste Flow Tables (WFT) that indicate the amounts of waste generated, recycled and disposed of (including final disposal site), and which should be regularly updated. WFT will be provided in the WMP which will form part of the EMP in accordance with ETWB TCW No.19/2005; The reuse/recycling of all materials on site shall be investigated prior to treatment/ disposal off- site; Good site practices shall be adopted from the commencement of works to avoid the generation of waste, reduce cross contamination of waste and to promote waste minimisation; All waste materials shall be sorted onsite into inert and non-inert C&D materials, and where the materials can be recycled or reused, they shall be further segregated. 	Ensure proper waste management system throughout the construction	Contractor	All construction sites	• Construction stage	 EIAO Waste Disposal Ordinance ETWB TCW No. 19/2005, Environmental Management on Construction Sites DEVB TCW No.6/2010 DEVB TCW No. 8/2010 WBTC No.12/2000 	Implemented after observation



EM&A Log Ref.	Recommended Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Location / Timing	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	 The contractor shall be responsible for identifying what materials can be recycled/ reused, whether onsite or offsite. In the event of the latter, the contractor shall make arrangements for the collection of the recyclable materials. Any remaining non-inert C&D materials shall be collected and disposed of to the landfills whilst any inert C&D materials shall be reused on site as far as possible. Alternatively, if inert C&D materials cannot be reused on-site, the materials would be delivered to public fill reception facilities for beneficial reuse after obtaining the appropriate licence; With reference to DEVB TCW No.6/2010, Trip-ticket System for Disposal of Construction and Demolition Material, a trip ticket system should be established at the outset of the construction to monitor the disposal of C&D materials and solid wastes from the site to public filling facilities and landfills; Under the Waste Disposal (Chemical Waste) (General) Regulation, the Contractor shall register as a Chemical Waste Producer if chemical wastes such as spent lubricants and paints are generated at site. The handling, storage, transportation and disposal of chemical wastes shall be conducted in accordance with the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes and A Guide to the Chemical Waste Control Scheme both published by EPD; A sufficient number of covered bins shall be provided on site for the containment of general refuse. These bins shall be cleared daily and the collected waste disposed of to the refuse transfer station. Further to the 						

17



	*						
EM&A Log Ref.	Recommended Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Location / Timing	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	 issue of DEVB TCW No. 8/2010, Enhanced Specification for Site Cleanliness and Tidiness, the contractor is required to maintain a clean and hygienic site throughout the Project works; Tool-box talks should be provided to workers about the concepts of site cleanliness and appropriate waste management procedures, including waste reduction, reuse, and recycling; and The contractor shall comply with all relevant statutory requirements and guidelines and their updated versions that may be issued during the course of Project construction. 						
WM7	 <u>On-site Sorting, Reuse and Recycling</u> All waste materials should be segregated into categories covering: Inert C&D materials suitable for reuse on-site; Inert C&D materials suitable for public fill reception facilities; Recyclable C&D materials for recycling; Remaining C&D materials for landfill; Chemical waste; and General refuse for landfill. 	Reduce waste generation	Contractor	All construction sites	Construction stage	Waste Disposal Ordinance ETWB TCW No. 19/2005, Environmental Management on Construction Sites	Implemented
WM8	Proper segregation and disposal of construction waste should be implemented. Separate containers should be provided for inert and non-inert materials.	Reduce waste generation	Contractor	All construction sites	Construction stage	Waste Disposal Ordinance ETWB TCW No. 19/2005, Environmental Management on Construction Sites	Implemented



	*						
EM&A Log Ref.	Recommended Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Location / Timing	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
WM9	Specific area should be allocated for on-site sorting of C&D materials and to provide a temporary storage area for those sorted materials. If area is limited, all C&D materials should at least be sorted on-site into inert and non-inert components. Non-inert C&D materials such as bamboo, timber, vegetation, packaging waste and other organic materials should be reused and recycled to local recycler wherever possible and disposed to the designated landfill only as a last resort. Inert C&D materials such as concrete, stone, clay, brick, soil, asphalt and the like should be separated and reused in this or other projects (subject to approval by the relevant parties in accordance with the DEVB TC(W) No. 6/2010) before disposed of at a public filling facility operated by CEDD. Steel and other metals should be recovered from demolition waste stream and recycled	Ensure proper waste management system throughout the construction in order to reduce waste generation	Contractor	All construction sites	Construction stage	Waste Disposal Ordinance ETWB TCW No. 19/2005, Environmental Management on Construction Sites DEVB TCW No.6/2010 DEVB TCW No.8/2010	Implemented
WM10	The reuse of inert C&D materials such as soil, rock and broken concrete should be maximised. Waste should be separated into fine, soft and hard materials. With the use of a crusher. coarse materials can be crushed to make it suitable for use as fill materials where fill is required in the works. This minimises the use of imported materials and maximises the use of the C&D materials produced. Approval from CEDD and EPD shall be obtained for the use of site crusher in accordance with WBTC No. 11/2002.	Ensure proper waste management system throughout the construction in order to reduce waste generation	Contractor	All construction sites	Construction stage	Waste Disposal Ordinance WBTC No. 11/2002	Implemented
WM11	Excavated Materials Excavated materials should be temporarily stored on-site for use as backfill as far as possible. It should be properly covered with tarpaulin or similar impervious sheeting to prevent dust nuisance and site runoff. Surplus excavated materials should be disposed of to public fill reception facilities.	Minimize dust, site runoff and waste impacts from excavated and C&D materials	Contractor	All construction sites	Construction stage	 Waste Disposal Ordinance Air Pollution Control Ordinance To control the dust impact to meet HKAQO and EIAO- TM criteria 	Implemented



EM&A Log Ref.	Recommended Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Location / Timing	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
WM12	 Control measures for temporary stockpiles on-site should be taken, which include: Surface of stockpiled soil should be regularly wetted with water especially during dry season; Disturbance of stockpiled soil should be minimized; Stockpiled soil should be properly covered with tarpaulin especially when heavy rainstorms are predicted; Stockpiling areas should be enclosed where space is available; Stockpiling location should be away from the water bodies; and An independent surface water drainage system equipped with silt traps should be installed at the stockpiling area. 	Minimize the noise, generation of dust, pollution of water and visual impact from excavated and C&D materials	Contractor	All construction sites	Construction stage	 Waste Disposal Ordinance Air Pollution Control Ordinance To control the dust impact to meet HKAQO and EIAO- TM criteria. ETWB TC(W) No.19/2005 	Implemented
WM13	The Public Fill Committee of CEDD should be consulted for disposal of inert C&D materials to public fill reception facilities while EPD should be consulted for disposal of non-inert C&D materials to landfill. Disposal of C&D waste to landfill must not have more than 50% (by weight) inert material. The C&D waste delivered for landfill disposal should contain no free water and the liquid content should not exceed 70% by weight.	Minimise waste impacts from C&D materials	Contractor	All construction sites	Design and Construction stages	 Waste Disposal Ordinance ETWB TCW No. 19/2005, Environmental Management on Construction Sites DEVB TCW No.6/2010 DEVB TCW No.8/2010 	Implemented
WM14	In order to avoid dust impacts, any vehicle leaving a works area carrying C&D waste or public fill should have their load covered up before leaving the construction site.	Minimize the dust impact from transferring C&D materials	Contractor	All construction sites	Construction stages	 Air Pollution Control Ordinance ETWB TCW No. 19/2005, Environmental Management on Construction Sites 	Implemented



	1 I						
EM&A Log Ref.	Recommended Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Location / Timing	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
						• DEVB TCW No.6/2010 • DEVB TCW No.8/2010	
WM15	C&D materials should be disposed of at designated public fill reception facilities or landfills. Disposal of these materials for the use at other construction projects is subject to the approval of the Engineer and/or other relevant reception authorities. Furthermore, unauthorised disposal of C&D materials in particular on private agricultural land is prohibited and may be subject to relevant enforcement and regulating actions. The disposal of public fill and C&D materials will be controlled through trip-ticket system in accordance with DEVB TC(W) No. 6/2010.	Minimise waste impacts from C&D materials	Contractor	All construction sites	Construction stages	Waste Disposal Ordinance ETWB TCW No. 19/2005, Environmental Management on Construction Sites DEVB TCW No.6/2010 DEVB TCW No.8/2010	Implemented
WM16	<u>Chemical Waste</u> Where the construction processes produce chemical waste, the contractor must register with EPD as a chemical waste producer. Wastes classified as chemical wastes are listed in the Waste Disposal (Chemical Waste) (General) Regulation. These wastes are subject to stringent disposal routes. EPD requires information on the particulars of the waste generation processes including the types of waste produced, their location, quantities and generation rates. A nominated contact person must be registered with EPD. An updated list of licensed chemical waste collector can be obtained from EPD.	Proper waste management for chemical waste	Contractor / Relevant Operators	All construction sites	Construction stages	Waste Disposal (Chemical Waste) (General) Regulation Code of Practice on the Packaging Labelling and Storage of Chemical Waste	Implemented
WM17	Storage, handling, transport, and disposal of chemical waste should be arranged in accordance with the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes published by EPD, and collected by a licensed chemical waste collector.	Proper waste management for chemical waste	Contractor / Relevant Operators	All construction sites	Construction stages	 Waste Disposal (Chemical Waste) (General) Regulation Code of Practice on the Packaging Labelling and 	Implemented after observation



	* 						
EM&A Log Ref.	Recommended Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Location / Timing	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
						Storage of Chemical Waste	
WM18	Suitable containers should be used for specific types of chemical wastes. The containers should be properly labelled (in English and Chinese in accordance with instructions prescribed in Schedule 2 of the Regulations), resistance to corrosion, stored safely and closely secured. Stored volume should not be kept more than 450 liters unless the specification has been approved by the EPD. Storage area should be enclosed by three sides by a wall, partition of fence that is at least 2 m height or height of tallest container with adequate ventilation and space.	Proper waste management for chemical waste	Contractor / Relevant Operators	All construction sites	Construction stages	 Waste Disposal (Chemical Waste) (General) Regulation Code of Practice on the Packaging Labelling and Storage of Chemical Waste 	Implemented
WM19	Hard standing, impermeable surfaces draining via oil interceptors should be provided in works area compounds. Interceptors should be regularly emptied to prevent release of oils and grease into the surface water drainage system after accidental spillages. The interceptor should have a bypass to prevent flushing during periods of heavy rain. Oil and fuel bunkers should be bunded and/or enclosed on three sides to prevent discharge due to accidental spillages or breaches of tanks. Bunding should be of sufficient capacity to accommodate 110% of the volume of the largest container or 20% of the total volume of waste, whichever is largest. Waste collected from any oil interceptors should be collected and disposed of by a licensed collector.	Proper waste management for chemical waste	Contractor / Relevant Operators	All construction sites	Construction stages	 Waste Disposal Ordinance ETWB TCW No. 19/2005, Environmental Management on Construction Sites Waste Disposal (Chemical Waste) (General) Regulation EIAO-TM criteria 	Implemented
WM20	Lubricants, waste oils and other chemical wastes are likely to be generated during the maintenance of vehicles and mechanical equipment. Used lubricants should be collected and stored in individual containers which are fully labelled in English and Chinese and stored in a	Proper waste management for chemical waste	Contractor / Relevant Operators	All construction sites	Construction stages	 Waste Disposal (Chemical Waste) (General) Regulation Code of Practice on the Packaging 	Implemented



EM&A Log Ref.	Recommended Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Location / Timing	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	designated secure place. The chemical waste shall be collected by licensed chemical waste collectors.					Labelling and Storage of Chemical Waste	
WM21	The registered chemical waste producer (i.e. the contractor) has to arrange for the chemical waste to be collected by licensed collectors. The licensed collector should regularly take chemical waste to a licensed chemical waste treatment facility (such as the CWTC in Tsing Yi). A trip ticket system operates to control the movement of chemical wastes.	Proper waste management for chemical waste	Contractor / Relevant Operators	All construction sites	Construction stages	• Waste Disposal (Chemical Waste) (General) Regulation	Implemented
WM22	No lubricants, oils, solvents or paint products should be allowed to discharge into water courses, either by direct discharge, or as contaminants carried in surface water runoff from the construction site.	Proper waste management for chemical waste	Contractor / Relevant Operators	All construction sites	Construction stages	• Waste Disposal (Chemical Waste) (General) Regulation	Implemented
WM23	<u>General Refuse</u> General refuse should be disposed of to landfill as designated by EPD only after recyclable materials (e.g. paper, metals, aluminium cans, etc.) have been sorted out.	Minimise production of the general refuse and avoid odour, pest and litter impacts	Contractors	All construction sites	Construction stage	Waste Disposal Ordinance Public Health and Municipal Services Ordinance (Cap.132)	Implemented
WM24	The contractor should nominate approved site personnel to be responsible for good site practices, arrangements for collection and effective disposal to an appropriate facility of all wastes generated at the site. Training of site personnel about site cleanliness, proper waste management and chemical handling procedures should be provided. Recyclable materials such as papers and aluminium cans should be separated and delivered to the local recyclers. An adequate number of waste containers should be provided to avoid spillage of waste.	Minimise production of the general refuse and avoid odour, pest and litter impacts	Contractors	All construction sites	Construction stage	 Waste Disposal Ordinance Public Health and Municipal Services Ordinance (Cap.132) 	Implemented
WM25	General refuse generated on-site should be stored in enclosed bins or skips and collected separately from other construction and chemical wastes and disposed of at	Minimise production of the general refuse and	Contractors	All construction sites	Construction stage	• Waste Disposal Ordinance	Implemented



EM&A Log Ref.	Recommended Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Location / Timing	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	designated landfills by reputable waste collectors. The removal of waste from the site should be arranged on a daily basis or at least on every second day by the contractor to minimise any potential odour impacts, minimise the presence of pests, vermin and other scavengers and prevent unsightly accumulation of waste.	avoid odour, pest and litter impacts				• Public Health and Municipal Services Ordinance (Cap.132)	
Waste M	anagement (Operation Phase)						
WM26	The general refuse and chemical waste generated during the operation phase would follow the same handling procedures and disposal method presented in Sections 6.6.16 to 6.6.25 of the EIA report. It is expected that there would be limited quantities of general refuse and chemical waste to be generated from the operation of the Project and will be properly handled by licensed chemical waste collectors and reputable waste collector. Waste monitoring and audit programme for the operation phase of the Project would not be required.	Minimise production of the general refuse and avoid odour, pest and litter impacts	Relevant Operators	All construction sites	Operation Stage	 Waste Disposal Ordinance Waste Disposal (Chemical Waste) (General) Regulation Code of Practice on the Packaging Labelling and Storage of Chemical Waste Public Health and Municipal Services Ordinance (Cap.132) 	To be implemented
Ecology							
E1	Direct impact to the recognised site of conservation importance (Lion Rock Country Park)/habitats with high ecological values (e.g. watercourse, woodland, species of conservation interest shall be avoided.	Avoid any direct impacts to these sites of conservation importance /habitats with high ecological value	Detailed Design Consultant	Sites of conservation importance/ habitats with high ecological value	Design Stage	TM-EIAO	To be implemented



-	*						
EM&A Log Ref.	Recommended Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Location / Timing	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
E2	 To minimise habitat loss to the nearby habitats and associated wildlife, the following mitigation measures should be implemented: • Confining the works within the Project Boundary; Controlling access of site staff to avoid damage to the vegetation in surrounding areas; and Placement of equipment or stockpile in the existing disturbed / urbanised area within the Project Boundary of the Project to minimise disturbance to vegetated area. 	Minimise habitat loss to the nearby habitats and associated wildlife	Contractor	All construction sites	Construction Stage	TM-EIAO	Implemented
E3	Reinstatement and enhancement of temporarily affected habitats. Minor ecological impacts may arise from the temporary loss of plantation and developed area during construction phase. In general, replanting would be implemented upon the completion of the construction works to reinstate the temporarily affected areas to condition similar to original status.	Enhance the temporarily affected habitats	Contractor	All construction sites	Construction stage	TM-EIAO	To be implemented
E4	 <u>Minimizing Disturbance from Construction Activities</u> <u>Mitigation measures including, but not limited to, erection</u> of site hoarding, use of Quality Powered Mechanical Equipment (QPME), noise and dust reduction tarpaulin sheeting and good site practices throughout construction phase are shown as followings: Site hoarding would be established around the proposed tunnel portal and E&M building prior to the commencement of construction works to prevent construction activities from encroaching adjacent habitats as well as prevent unnecessary human activities in the surrounding habitats; QPME, noise and dust reduction tarpaulin sheeting could be used during construction phase to reduce noise disturbance and dust emission. Temporary 	To minimise disturbance from construction activities	Contractor	All construction sites	Construction stage	TM-EIAO	Implemented

Contract No. 21/WSD/21 Relocation of Diamond Hill Fresh Water and Salt Water Service Reservoirs to Caverns Monthly EM&A Report



EM&A Log Ref.	Recommended Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Location / Timing	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	 barriers such as movable noise barrier, temporary noise screening structures and site hoardings could further reduce the noise impact; Good site practices such as regular water spraying at dusty operation, provision of waste skips and timely collection of general refuse and construction waste are also recommended. 						
Е5	Reduction of lighting can be achieved using directional lighting to prevent excessive light spill into adjacent natural habitat and disturbance to nocturnal fauna.	To minimize disturbance from construction activities	Contractor	All construction sites	Construction stage	TM-EIAO	Implemented
E6	Control of Site Runoff Best management practices should be implemented on site in accordance with the Practice Note for Professional Persons on Construction Site Drainage, Environmental Protection Department, 1994 (ProPECC PN 1/94) as far as practicable to control site runoff and drainage at all work sites during construction phase, so that the treated runoff will be discharged to public drainage system in compliance with the WPCO. Construction effluent, site run-off and sewage should be properly collected and/or treated. Wastewater from a construction site should be managed. Proper locations for discharge outlets of wastewater treatment facilities well away from the natural watercourses should be identified. Effluent monitoring should be incorporated to make sure that the discharged effluent from construction sites meets the effluent discharge guidelines. The practices outlined in ETWB TC (Works) No. 5/2005 "Protection of natural streams/rivers from adverse impacts arising from construction works" should also be adopted where applicable to minimise the water quality impacts upon the channalised/semi-natural	To control site runoff and drainage at all work sites, thus, the aquatic ecosystem is protected.	Contractor	All construction sites	Construction stage	 Water Pollution Control Ordinance ProPECC PN. 1/94 	Implemented



EM&A Log Ref.	Recommended Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Location / Timing	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	watercourses, in order to better protect the aquatic ecosystem.						
E7	Control of Groundwater Infiltration In order to minimise groundwater infiltration or avoid potential impacts on watercourses, water table and groundwater drawdown, minimization approach was adopted during design stage and would be adopted during construction and operation phase.	To minimize groundwater infiltration / avoid potential impacts on watercourses	Contractor	Works area at Cavern and tunnel portal	Design stage / Construction stage / Operation Stage	EIAO-TM	To be implemented
E8	The proposed cavern would be constructed under the measured groundwater table. Water inflow would be controlled to an acceptable level by implementing pre- grouting and post-grouting measures, thus the impact of the proposed cavern on the groundwater table is considered to be limited.	To minimize groundwater infiltration / avoid potential impacts on watercourses	Contractor	Works area at Cavern and tunnel portal	Design stage / Construction stage / Operation Stage	EIAO-TM	To be implemented
Е9	The permanent tunnel structure of the proposed access tunnel would be designed as drained type at the locations with adequate rock cover and designed as undrained type at locations with mix ground conditions. The water inflow would also be controlled to an acceptable level with pre- grouting and postgrouting measures.	To minimize groundwater infiltration / avoid potential impacts on watercourses	Contractor	Works area at Cavern and tunnel portal	Design stage / Construction stage / Operation Stage	EIAO-TM	To be implemented
E10	During operation phase, waterproof lining would be installed to prevent water seepage and water droplets (if any) would be discharged into the sewage system	To minimize groundwater infiltration / avoid potential impacts on watercourses	Contractor	Works area at Cavern and tunnel portal	Design stage / Construction stage / Operation Stage	EIAO-TM	To be implemented
E11	All the mitigation measures regarding potential groundwater infiltration concern that has been proposed in Section 5.8.7 shall be followed.	To minimize groundwater infiltration / avoid potential impacts on watercourses	Contractor	Works area at Cavern and tunnel portal	Design stage / Construction stage / Operation Stage	EIAO-TM	To be implemented



EM&A Log Ref.	Recommended Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Location / Timing	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status				
Landscap	Landscape and Visual (Construction Phase)										
CM1	 Careful Site Planning and Management The site layout and works area including temporary access road(s), stockpiling area(s), temporary construction storage shall be carefully planned to preserve existing landscape resources and trees as far as practicable. Good site practices shall be enforced to eliminate eyesores from unappealing stockpiling/ storage areas and/or construction activities. 	To minimize site clearance, tree removal and disturbance to existing Landscape Resources, and visual obstruction to VSRs	Project Proponent (via Contractor)	All construction areas	Construction stage	N/A	Implemented				
CM2	 <u>Careful Design of Slope Works</u> Slope stabilization methods (i.e., insertion of soil nails and establishment of grillage, etc.) shall be carefully formulated to minimise the loss of tree and landscape cover as far as practicable. 	To minimize tree removal and to create a slope surface better blending with the surrounding environment	Project Proponent (via Contractor)	Works area at Cavern and tunnel portal	Construction stage	N/A	Implemented				
CM3	 <u>Tree Preservation</u> In accordance with DEVB TC (W) No.4/2020 – Tree Preservation or its latest version, existing vegetation shall be retained on site as far as practicable. Adequate tree protection measures shall be provided for the Trees to be retained on site. Relevant guidelines on tree care and protection promulgated by Greening, Landscape and Tree Management Section of Development Bureau shall be observed and followed. 	To minimize tree removal	Project Proponent (via Contractor)	All construction areas	Construction stage	N/A	Implemented				
CM4	 <u>Tree Transplanting/ Compensatory Tree Planting</u> Trees unavoidably affected by the project shall be transplanted as far as practicable in accordance with DEVB TC (W) No.4/2020 – Tree Preservation or its latest version and the latest guidelines promulgated by 	To minimize the loss of trees To compensate for the loss of tree	Project Proponent (via Contractor)	All construction areas	Construction stage	DEVB TC(W) No. 4/2020- Tree Reservation	Implemented				



5	1						
EM&A Log Ref.	Recommended Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Location / Timing	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	 Greening, Landscape and Tree Management Section of Development Bureau. Affected trees that are not suitable for transplantation and to be felled shall be compensated in not less than 1:1 in quantity and in accordance with DEVB TC (W) No.4/2020 – Tree Preservation or its latest version. Onsite compensation has been prioritized. However, due to land status issues, area of onsite compensatory planting locations are insufficient to compensate for the loss of trees and near site compensatory locations managed by WSD are adopted, as shown in Figure 9.9, Figure 9.10A, Figure 9.10B and Figure 9.11 of the EIA report. Tree species selected shall be compatible with surrounding existing vegetation. 	To provide quality and sustainable landscape that is compatible with the site context					
CM5	 <u>Inspection of Tree Works</u> Regular site inspection shall be conducted by tree specialist. 	To closely monitor the site activities in order to avoid or minimize any possible adverse impact to the retained trees	Project Proponent (via Contractor)	All construction areas	Construction stage	N/A	Implemented
CM6	 <u>Minimization of Light Impact</u> Lighting at construction sites shall be carefully controlled at night 	To avoid disturbance to nearby VSRs	Project Proponent (via Contractor)	All construction areas and temporary works areas	Construction stage	N/A	Implemented
CM7	 <u>Erection of Decorative Site Hoarding</u> Decorative hoarding that is compatible with the surrounding environment shall be erected during construction. 	To enhance the visual amenity of construction hoarding	Project Proponent (via Contractor)	All construction areas and temporary work areas	Construction stage	N/A	To be implemented



EM&A Log Ref.	Recommended Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Location / Timing	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
CM8	 <u>Reinstatement of Temporarily Disturbed Areas</u> Temporarily disturbed landscape areas shall be reinstated. 	To reinstate the disturbed landscape	Project Proponent (via Contractor)	All construction areas and temporary work areas	Construction stage	N/A	To be implemented
Landscap	pe and Visual (Operation Phase)						
OM1	 Landscape Planting Landscape planting shall be provided in accordance with DEVB TCW No.3/2012 – Site Coverage of Greenery for Government Building Projects or its latest version. Planting species shall be compatible with the nearby existing vegetation cover as far as practicable. Not less than 12-month establishment after completion shall be provided for the landscape planting. 	To soften the hard edges of the structure and make it more compatible with the surrounding environment	Project Proponent (via Contractor)	Ancillary building	Operation stage	DEVB TCW No.3/2012	To be implemented
OM2	Rooftop Greening Rooftop greening shall be implemented with reference to the references on skyrise greenery provided by the Greening, Landscape & Tree Management Section, Development Bureau.	To make the ancillary facilities more compatible with the surrounding woodland landscape and to mitigate the potential adverse visual impact on adjacent residential VSRs viewing from an elevated vantage point	Project Proponent (via Contractor)	Ancillary building	Operation stage	N/A	To be implemented
OM3	<u>Vertical Greening</u> Vertical greening shall be provided.	To enhance the visual amenity of the ancillary	Project Proponent	Ancillary building	Operation stage	N/A	To be implemented



EM&A Log Ref.	Recommended Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Location / Timing	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
		facilities and to blend in with the surrounding landscape	(via Contractor)				
OM4	 <u>Careful Design of Ancillary Facilities</u> The orientation and location of the ancillary facilities shall be carefully designed. Its finish shall be non-reflective and dull in colour. The ancillary facilities are unmanned structures that merely require minimal security services during daytime. There shall be nobody and no lighting illuminating from the buildings at night, except essential street lighting for the portal access road. 	To avoid glare impact to surrounding VSRs	Project Proponent (via Contractor)	Ancillary building	Operation stage	N/A	To be implemented



Appendix E

Air Quality and Noise Monitoring Equipment Calibration Certification





Sibata LD-5R K-Factor Verification Test by Total Suspended Particulates HVS Test Report

Information of Calibrated Equipement							
Verification Test Date:	1-Mar-23	to	2-Mar-23	Next Verification Test Date:	1-Mar-24		
Unit-under-Test- Model No.:		Sibata LD-5R					
– Unit-under-Test Serial No.:		0Z4545					
– Our Report Refrence No.:	R	PT-23-HVS-000	2				
– Calibration Location:	E		En	ax			

Standard Equipment Information

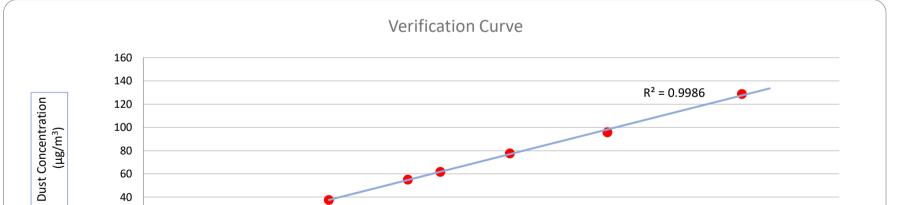
_			
	Verification Equipment Type:	Tisch TSP HVS	Tisch HVS Calibrator
	Standard Equipment Model No.:	TE-5170X	TE-5025A
	Equipment serial no.:	1086	3465
	Last Calibration Date:	1-Mar-23	28-Jun-22
	Next Calibration Date:	30-Apr-23	27-Jun-23

Equipement Vertification Result

Verification	Duration		Results from	Calibrated Equipement	Results from Standard Equipment		
Test No.	Date	Start-time	End-time	Elapsed Time (in min)	Total Counts	Counts/ Minute x-axis	Dust Concentration (µg/m ³) y-axis
1	1/3/2023	5013.27	5016.34	184.20	4851	26	78
2	1/3/2023	5016.34	5019.34	180.00	6000	33	96
3	1/3/2023	5019.34	5022.34	180.00	7740	43	129
4	2/3/2023	5022.34	5025.34	180.00	3840	21	62
5	2/3/2023	5025.34	5028.34	180.00	2400	13	38
6	2/3/2023	5028.34	5031.34	180.00	3420	19	55

Linear Regression of y on x

Slope, K factor: <u>3.0313</u>	Intercept:	-2.8495	*Correlation Coefficient,R:	<u>0.9993</u>
Verification Test Result: Strong Correlation, Resu	ults were accepted.	* If	the Correlation Coefficient, R is <0.5. Checkin	g and Re-verification are required.



20 0 10 15 0 5 20 25 30 35 40 45 50 Count/Minute Operated By: Date: 01-03-2023 Andy Li Project Technician, Environmental Checked By: Date: _____ 01-03-2023 Tandy Tse

Senior Consultant, Environmental



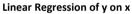


Sibata LD-5R K-Factor Verification Test by Total Suspended Particulates HVS Test Report

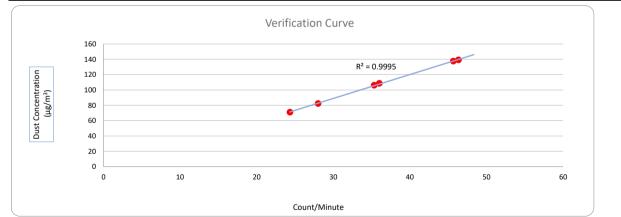
Verification Test Date:	1-Mar-23	to	2-Mar-23		Next Verification Test Date:	1-Mar-24
Unit-under-Test- Model No.:		Sibata LD-5R		-		
Unit-under-Test Serial No.:		882106		-		
Our Report Refrence No.:	F	RPT-23-HVS-0008	3	-		
- Calibration Location:			E	max		

	Standard Equipment Inforn	nation
Verification Equipment Type:	Tisch TSP HVS	Tisch HVS Calibrator
Standard Equipment Model No.:	TE-5170X	TE-5025A
Equipment Serial no.:	1087	3465
Last Calibration Date:	1-Mar-23	28-Jun-22
Next Calibration Date:	30-Apr-23	27-Jun-23

	Equipement Vertification Result									
Verification		Duration			Results from	Calibrated Equipement	Results from Standard Equipment			
Test No.	Date	Start-time	End-time	Elapsed Time (in min)	Total Counts	Counts/ Minute x-axis	Dust Concentration (μg/m³) y-axis			
1	1/3/2023	5013.27	5016.34	184.20	8535	46	139			
2	1/3/2023	5016.34	5019.34	180.00	6480	36	109			
3	1/3/2023	5019.34	5022.34	180.00	8220	46	137			
4	2/3/2023	5022.34	5025.34	180.00	5040	28	82			
5	2/3/2023	5025.34	5028.34	180.00	4380	24	71			
6	2/3/2023	5028.34	5031.34	180.00	6360	35	106			



Slope, K factor:	<u>3.1109</u>	Intercept:	-4.3817	*Correlation Coefficient,R:	<u>0.9998</u>
Verification Test Result: <u>St</u>	trong Correlation, Resu	Its were accepted.	* If	the Correlation Coefficient, R is <0.5. Checkir	ng and Re-verification are required.



Operated By:

Andy Li Project Technician, Environmental

Date: 05-03-2023

Tandy Tse

Checked By:

Senior Consultant, Environmental

Date: 05-03-2023





Sibata LD-5R K-Factor Verification Test by Total Suspended Particulates HVS Test Report

Information of Calibrated Equipement							
Verification Test Date:	1-Mar-23	to	2-Mar-23	Next Verification Test Date:	1-Mar-24		
Unit-under-Test- Model No.:		Sibata LD-5R					
– Unit-under-Test Serial No.:		942532					
– Our Report Refrence No.:	R	PT-23-HVS-000	5				
– Calibration Location:	E		Em	ax			

Standard Equipment Information

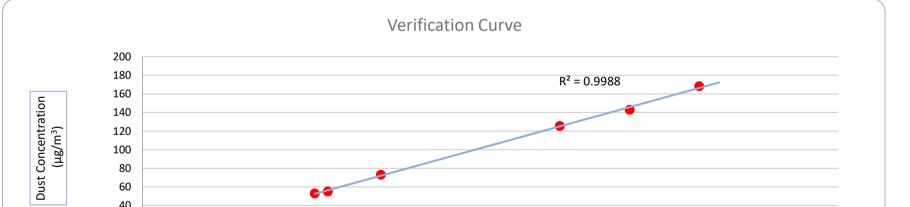
	· ·	
Verification Equipment Type:	Tisch TSP HVS	Tisch HVS Calibrator
Standard Equipment Model No.:	TE-5170X	TE-5025A
Equipment Serial no.:	1855	3465
Last Calibration Date:	1-Mar-23	28-Jun-22
Next Calibration Date:	30-Apr-23	27-Jun-23

Equipement Vertification Result

Verification		Duration			Results from	Calibrated Equipement	Results from Standard Equipment
Test No.	Date	Start-time	End-time	Elapsed Time (in min)	Total Counts	Counts/ Minute x-axis	Dust Concentration (µg/m ³) y-axis
1	1/3/2023	5013.27	5016.34	184.20	7736	42	125
2	1/3/2023	5016.34	5019.34	180.00	8820	49	143
3	1/3/2023	5019.34	5022.34	180.00	10080	56	168
4	2/3/2023	5022.34	5025.34	180.00	3120	17	53
5	2/3/2023	5025.34	5028.34	180.00	3360	19	55
6	2/3/2023	5028.34	5031.34	180.00	4320	24	73

Linear Regression of y on x

Slope, K factor: <u>2.9474</u>	Intercept:	<u>1.2739</u>	*Correlation Coefficient,R:	<u>0.9994</u>
Verification Test Result: Strong Correlation, Resu	ults were accepted.	*	f the Correlation Coefficient, R is <0.5. Checkin	g and Re-verification are required.



40 20 0 10 20 50 60 0 30 40 70 Count/Minute Operated By: Date: 01-03-2023 Andy Li Project Technician, Environmental Checked By: Date: _____ 01-03-2023 Tandy Tse Senior Consultant, Environmental

Certificate of Calibration

for

Description:	Sound Level Meter
Manufacturer:	NTi Audio
Type No.:	XL2 (Serial No.: A2A-13548-E0)
Microphone:	ACO 7052 (Serial No.:73912)
Preamplifier:	NTi Audio M2211 MA220 (Serial No.:5735)

Submitted by:

Customer: Acuity Sustainability Consulting Limited Address: Unit E, 12/F, Ford Glory Plaza, Nos. 37-39 Wing Hong Street, Cheung Sha Wan, Kowloon, Hong Kong

Upon receipt for calibration, the instrument was found to be:

✓ Within (31.5Hz − 8kHz)□ Outside

the allowable tolerance.

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

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

Date of receipt: 2 February 2023

Date of calibration: 6 February 2023

Date of NEXT calibration: 5 February 2024

Calibrated by:

Calibration Technician

Certified by:

Mr. Ng Yan Wa Laboratory Manager



Page 1 of 4

Certificate No.: APJ22-124-CC001

Date of issue: 6 February 2023

Room 422,Leader Industrial Centre,57-59 Au Pui Wan Street ,Fo Tan, Shatin,N.T.,Hong Kong Tel: (852) 2668 3423 Fax:(852) 2668 6946 Homepage: http://www.aa-lab.com E-mail : inquiry@aa-lab.com

(A+A)*L Acoustics and Air Testing Laboratory Co. Ltd. 聲學及空氣測試實驗室有限公司

1. Calibration Precaution:

- The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 24 hours, and switched on to warm up for over 10 minutes before the commencement of the test.
- The results presented are the mean of 3 measurements at each calibration point.

2. Calibration Conditions:

Air Temperature:	23.9°C
Air Pressure:	1006 hPa
Relative Humidity:	47.9 %

3. Calibration Equipment:

	Туре	Serial No.	Calibration Report Number	Traceable to
Multifunction Calibrator	B&K 4226	2288467	AV220061	HOKLAS

4. Calibration Results

Sound Pressure Level

Reference Sound Pressure Level

Setting of Unit-under-test (UUT)			Appl	ied value	UUT Reading,	IEC 61672 Class 1	
Range, dB	Freq. V	Weighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
30-130	dBA	SPL	Fast	94	1000	94.1	±0.4

Linearity

Setti	ing of Un	it-under-t	est (UUT)	Арр	lied value	UUT Reading,	IEC 61672 Class 1
Range, dB	Freq. W	Veighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
				94		94.1	Ref
30-130	dBA	SPL	Fast	104	1000	104.1	±0.3
				114		114.1	±0.3

Time Weighting

Setting of Unit-under-test (UUT)			Applied value		UUT Reading,	IEC 61672 Class 1	
Range, dB	Freq.	Weighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
30-130	dBA	SPL	Fast	94	1000	94.1	Ref
30-130 dBA	. SFL	Slow	94	1000	94.1	±0.3	

Page 2 of 4

Certificate No.: APJ22-124-CC001

Room 422,Leader Industrial Centre,57-59 Au Pui Wan Street ,Fo Tan, Shatin,N.T.,Hong Kong Tel: (852) 2668 3423 Fax:(852) 2668 6946 Homepage: http://www.aa-lab.com E-mail : inquiry@aa-lab.com



Frequency Response

Linear Response

Setting of Unit-under-test (UUT)				Applied value		UUT Reading,	IEC 61672 Class 1
Range, dB	Freq. W	eighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
					31.5	94.1	±2.0
					63	94.2	±1.5
					125	94.1	±1.5
					250	94.1	±1.4
30-130	dB	SPL	Fast	94	500	94.2	±1.4
					1000	94.1	Ref
					2000	94.5	±1.6
					4000	95.2	±1.6
					8000	94.9	+2.1; -3.1

A-weighting

Setting of Unit-under-test (UUT)			Appl	ied value	UUT Reading,	IEC 61672 Class 1	
Range, dB	Freq. W	eighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
					31.5	54.8	-39.4 ±2.0
					63	68.0	-26.2±1.5
					125	78.0	-16.1±1.5
					250	85.5	-8.6±1.4
30-130	dBA	SPL	Fast	94	500	91.0	-3.2 ± 1.4
					1000	94.1	Ref
					2000	95.7	$+1.2\pm1.6$
					4000	96.2	$+1.0 \pm 1.6$
					8000	93.9	-1.1+2.1; -3.1

C-weighting

Setting of Unit-under-test (UUT)			Appl	Applied value		IEC 61672 Class	
Range, dB	Freq.	Weighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
					31.5	91.2	-3.0±2.0
					63	93.4	-0.8 ± 1.5
					125	94.0	-0.2 ± 1.5
					250	94.1	-0.0 ± 1.4
30-130	dBC	SPL	Fast	94	500	94.2	-0.0 ± 1.4
					1000	94.1	Ref
					2000	94.3	-0.2 ±1.6
					4000	94.4	-0.8 ± 1.6
					8000	92.0	-3.0 +2.1: -3.1

Certificate No.: APJ22-124-CC001



Page 3 of 4

(A+A)*L Acoustics and Air Testing Laboratory Co. Ltd. 聲學及空氣測試實驗室有限公司

5. Calibration Results Applied

The results apply to the particular unit-under-test only. All calibration points are within manufacture's specification as IEC 61672 Class 1.

Uncertainties of Applied Value:

	1	
94 dB	31.5 Hz	\pm 0.10
	63 Hz	± 0.10
	125 Hz	± 0.10
	250 Hz	± 0.05
	500 Hz	± 0.10
	1000 Hz	\pm 0.05
	2000 Hz	\pm 0.05
	4000 Hz	± 0.05
	8000 Hz	± 0.10
104 dB	1000 Hz	± 0.05
114 dB	1000 Hz	± 0.05

The uncertainties are evaluated for a 95% confidence level.

Note:

The values given in this certification only related to the values measured at the time of the calibration and any uncertainties quoted will not allow for the equipment long-term drift, variations with environmental changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the calibration. (A+A)*L shall not be liable for any loss or damage resulting from the use of the equipment.



Certificate No.: APJ22-124-CC001

Certificate of Calibration

for

Description:	Sound Level Meter
Manufacturer:	NTi Audio
Type No.:	XL2 (Serial No.: A2A-13661-E0)
Microphone:	ACO 7052 (Serial No.:68914)
Preamplifier:	NTi Audio MA220 (M2211) (Serial No.:6282)

Submitted by:

Customer: Acuity Sustainability Consulting Limited Address: Unit E, 12/F., Ford Glory Plaza, Nos. 37-39 Wing Hong Street, Cheung Sha Wan, Kowloon, Hong Kong

Upon receipt for calibration, the instrument was found to be:

☑ Within (31.5Hz – 8kHz) □ Outside

the allowable tolerance.

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

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

Date of receipt: 20 August 2022

Date of calibration: 22 August 2022

Date of NEXT calibration: 21 August 2023

Calibrated by:

Calibration Technician

Date of issue: 22 August 2022

Certificate No.: APJ22-071-CC001

Certified by:

Mr. Ng Yan Wa Laboratory Manager



Page 1 of 4

Room 422,Leader Industrial Centre,57-59 Au Pui Wan Street ,Fo Tan, Shatin,N.T.,Hong Kong Tel: (852) 2668 3423 Fax:(852) 2668 6946 Homepage: http://www.aa-lab.com E-mail : inquiry@aa-lab.com

Acoustics and Air Testing Laboratory Co. Ltd. 聲學及空氣測試實驗室有限公司 (A+A)*L

1. **Calibration Precaution:**

- The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 24 hours, and switched on to warm up for over 10 minutes before the commencement of the test.
- The results presented are the mean of 3 measurements at each calibration point. -

2. **Calibration Conditions:**

Air Temperature:	23.4 °C
Air Pressure:	1005 hPa
Relative Humidity:	68.5 %

3. Calibration Equipment:

	Туре	Serial No.	Calibration Report Number	Traceable to	
Multifunction Calibrator	B&K 4226	2288467	AV220061	HOKLAS	

4. Calibration Results

Sound Pressure Level

Reference Sound Pressure Level

Setting of Unit-under-test (UUT)			Applied value		UUT Reading,	IEC 61672 Class 1	
Range, dB	Freq. W	eighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
30-130	dBA	SPL	Fast	94	1000	93.8	±0.4

Linearity

Setting of Unit-under-test (UUT)			Applied value		UUT Reading,	IEC 61672 Class 1	
Range, dB	Freq. W	eighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
				94		93.8	Ref
30-130	dBA	SPL	Fast	104	1000	103.8	±0.3
				114		114.0	±0.3

Time Weighting

Setting of Unit-under-test (UUT)			Applied value		UUT Reading,	IEC 61672 Class 1	
Range, dB	Freq.	Weighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
30-130	dBA	SPL	Fast	94	1000	93.8	Ref
	UDA SFL	Slow	94	1000	93.8	±0.3	

Certificate No.: APJ22-071-CC001



Page 2 of 4

Frequency Response

Linear Response

Sett	ing of Un	it-under-t	est (UUT)	Appl	ied value	UUT Reading,	IEC 61672 Class 1
Range, dB	Freq. W	Veighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
					31.5	93.9	±2.0
					63	94.0	±1.5
~					125	93.9	±1.5
				2	250	93.8	±1.4
30-130	dB	SPL	Fast	94	500	93.8	±1.4
					1000	93.8	Ref
					2000	93.4	±1.6
					4000	93.0	±1.6
					8000	92.2	+2.1:-3.1

A-weighting

Sett	ing of Uni	t-under-te	est (UUT)	Appl	ied value	UUT Reading,	IEC 61672 Class 1
Range, dB	Freq. W	eighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
					31.5	54.6	-39.4 ±2.0
					63	67.7	-26.2±1.5
					125	77.8	-16.1±1.5
					250	85.2	-8.6±1.4
30-130	dBA	SPL	Fast	94	500	90.6	-3.2 ± 1.4
					1000	93.8	Ref
					2000	94.6	$+1.2 \pm 1.6$
					4000	94.0	$+1.0 \pm 1.6$
					8000	91.2	-1.1+2.1; -3.1

C-weighting

Sett	ing of Uni	it-under-t	est (UUT)	Appl	ied value	UUT Reading,	IEC 61672 Class 1
Range, dB	Freq. W	eighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
					31.5	90.9	-3.0±2.0
					63	93.1	-0.8 ± 1.5
					125	93.7	-0.2±1.5
					250	93.8	-0.0 ± 1.4
30-130	dBC	SPL	Fast	94	500	93.8	-0.0 ± 1.4
					1000	93.8	Ref
					2000	93.3	-0.2±1.6
					4000	92.2	-0.8±1.6
					8000	89.3	-3.0+2.1; -3.1



Page 3 of 4

Certificate No.: APJ22-071-CC001

(A+A)*L Acoustics and Air Testing Laboratory Co. Ltd. 聲學及空氣測試實驗室有限公司

5. Calibration Results Applied

The results apply to the particular unit-under-test only. All calibration points are within manufacture's specification as IEC 61672 Class 1.

Uncertainties of Applied Value:

94 dB	31.5 Hz	± 0.10
	63 Hz	± 0.10
	125 Hz	± 0.05
	250 Hz	± 0.05
	500 Hz	± 0.05
	1000 Hz	± 0.05
	2000 Hz	± 0.05
	4000 Hz	± 0.05
	8000 Hz	± 0.10
104 dB	1000 Hz	± 0.05
114 dB	1000 Hz	± 0.05

The uncertainties are evaluated for a 95% confidence level.

Note:

The values given in this certification only related to the values measured at the time of the calibration and any uncertainties quoted will not allow for the equipment long-term drift, variations with environmental changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the calibration. (A+A)*L shall not be liable for any loss or damage resulting from the use of the equipment.



Page 4 of 4

Certificate No.: APJ22-071-CC001

Certificate No. D224646E



CALIBRATION CERTIFICATE

Product	:	SOUND CALIBRATOR
Туре	:	NC-75
Serial number	:	35124529
Manufacturer	:	RION CO., LTD.
Calibration quantities	:	Sound pressure level (with reference standard microphone)
Calibration method	:	Measured by specified secondary standard microphone
		according to JCSS calibration procedure specified by RION.
Ambient conditions	:	Temperature 23.9 °C, Relative humidity 49 %,
		Static pressure 100.6 kPa
Calibration date	:	02/11/2022 (DD/MM/YYYY)
Calibration location	:	3-20-41 Higashimotomachi, Kokubunji, Tokyo 185-8533, Japan
		RION CO., LTD. Calibration Room

We hereby certify that the results of this calibration were as follows.

Issue date : 09/11/2022 (DD/MM/YYYY)

Junichi Kawamura Manager Quality Assurance Section, Quality Assurance Department, Environmental Instrument Division, RION CO., LTD. 3-20-41 Higashimotomachi, Kokubunji, Tokyo 185-8533, Japan

This certificate is based on article 144 of the Measurement Law and indicates the result of calibration in accordance with measurement standards traceable to Primary Measurement Standards (National Standards) which realizes the physical units of measurement according to the International System of Units (SI).

The accreditation symbol is attestation of which the result of calibration is traceable to Primary Measurement Standards (National Standards).

The certificate shall not be reproduced except in full, without the written approval of the issuing laboratory. The calibration laboratory who issued this calibration certificate conforms to ISO/IEC 17025:2017.

This calibration certificate was issued by the calibration laboratory accredited by IAJapan who is a signatory to the Mutual Recognition Arrangement (MRA) of International Laboratory Accreditation Cooperation (ILAC) and Asia Pacific Accreditation Cooperation (APAC). This (These) calibration result(s) may be accepted internationally through ILAC/APAC MRA.



Certificate No. D224646E

CALIBRATION RESULT

1. Sound pressure level (with reference standard microphone)

Measured	Expanded
value	uncertainty *1
93.99 dB	0.09 dB

Specified secondary standard microphone: Type : 4160 Serial number : 2973341 Reference Sound pressure : 2×10^{-5} Pa

*1 Defines an interval estimated to have a level of confidence of approximately 95 %. Coverage factor k=2

Calibration result is the calibration value in ambient conditions during calibration.

BE OUT OF JCSS CALIBRATION

1. Frequency

Measured	Measurement uncertainty
1000.0 Hz	$2.7 imes 10^{\cdot 4} \mathrm{Hz}$

Working measurement standard universal counter: Type : 53132A Serial number : MY40005574 (JCSS Calibration Certificate No. 2208001889940)

2. Total distortion

Measured	
value	
0.2 %	

Working measurement standard distortion meter: Type : VA-2230A Serial number : 11076061 (A2LA Calibration Certificate No. 1502-03109)

· closing ·





Appendix F

Environmental Monitoring Schedule

Contract No. 21/WSD/21 Relocation of Diamond Hill Fresh Water and Salt Water Service Reservoirs to Caverns

		Impact Environm	nental Monitoring Sche	dule (Version 2.0)		
			July 2023			
Sun	Mon	Tue	Wed	Thur	Fri	Sat
						1
2	3	4	5 Impact Air Quality and Noise Monitoring (DM-1, DM-2, DM-3, DM-4, DM-4a, NM-2, NM-3, NM-4, NM-4a)	6	7 Site inspecction	8
9	10	11 Impact Air Quality and Noise Monitoring (DM-1, DM-2, DM-3, DM-4, DM-4a, NM-2, NM-3, NM-4, NM-4a)	12	13	14 Site inspecction	15
16	17 Impact Air Quality and Noise Monitoring (DM-1, DM-2, DM-3, DM-4, DM-4a, NM-2, NM-3, NM-4, NM-4a) (Cancelled due to adverse weather)	18	19 Impact Air Quality Monitoring (DM-1, DM-2, DM-3, DM-4, DM-4a)	20	21 Site inspection	22 Impact Air Quality and Noise Monitoring (DM-1, DM-2, DM-3, DM-4, DM-4a, NM-2, NM-3, NM-4, NM-4a)
23	24	25	26 Site Inspection	27	28 Impact Air Quality and Noise Monitoring (DM-1, DM-2, DM-3, DM-4, DM-4a, NM-2, NM-3, NM-4, NM-4a)	29
30	31					

Air Quality Monitoring Stations:

DM-1 - Tennis Court near Tin Ma Court

DM-2 - Chun Sing House, Tin Ma Court

DM-3 - Grace Methodist Church Kindergarten

DM-4 - Block 6, Tsui Chuk Garden

DM-4a - Road pavement near Wang King House, Tin Wang Court

Noise Monitoring Stations: NM-2 - Chun Sing House, Tin Ma Court NM-3 - Grace Methodist Church Kindergarten

NM-4 - Block 6, Tsui Chuk Garden

NM-4a - Road pavement near Wang King House, Tin Wang Court

Contract No. 21/WSD/21 Relocation of Diamond Hill Fresh Water and Salt Water Service Reservoirs to Caverns

			thin i tesh water and bar			
		Tentative Impact Env	ironmental Monitoring	Schedule (Version 2.0)		
			August 2023			
Sun	Mon	Tue	Wed	Thur	Fri	Sat
		1	2	3 Impact Air Quality and Noise Monitoring (DM-1, DM-2, DM-3, DM-4, DM-4a, NM-2, NM-3, NM-4, NM-4a)	4 Site Inspection	5
6	7	8	9 Impact Air Quality and Noise Monitoring (DM-1, DM-2, DM-3, DM-4, DM-4a, NM-2, NM-3, NM-4, NM-4a)	10	11 Site inspecction	12
13	14 Site inspecction	15 Impact Air Quality and Noise Monitoring (DM-1, DM-2, DM-3, DM-4, DM-4a, NM-2, NM-3, NM-4, NM-4a)	16	17	18	19
20	21 Impact Air Quality and Noise Monitoring (DM-1, DM-2, DM-3, DM-4, DM-4a, NM-2, NM-3, NM-4, NM-4a)	22	23	24	25 Site inspection	26 Impact Air Quality Monitoring (DM-1, DM-2, DM-3, DM-4, DM-4a)
27	28	29	30	31	1 Impact Air Quality and Noise Monitoring (DM-1, DM-2, DM-3, DM-4, DM-4a, NM-2, NM-3, NM-4, NM-4a) Site Inspection	2
The schedule may be changed due to unfor Air Quality Monitoring Stations: DM-1 - Tennis Court near Tin Ma Co DM-2 - Chun Sing House, Tin Ma Co DM-3 - Grace Methodist Church Kin DM-4 - Block 6, Tsui Chuk Garden DM-4a - Road pavement near Wang	ourt dergarten	•	NM-3 - Grace Met NM-4 - Block 6, T	y House, Tin Ma Court thodist Church Kindergarten	ng Court	·



Appendix G

Air Quality Monitoring Results and Graphical Presentation



Appendix G - 1-hour TSP Monitoring Results

Date	Time	Weather	Particulate Concentration (µg/m ³)
	8:13		57
Jul 2023	9:13	Sunny	59
	10:13		56
	8:30		60
1 Jul 2023	9:30	Fine	62
	10:30		59
	9:00		58
19 Jul 2023	10:00	Sunny	60
	11:00		57
	8:00		59
2 Jul 2023	9:00	Sunny	60
	10:00		55
	14:06		56
8 Jul 2023	15:06	Sunny	55
	16:06		59
		Minimum	55
		Maximum	62
		Average	58

Date	Time	Weather	Particulate Concentration ($\mu g/m^3$)
	13:40		52
5 Jul 2023	14:40	Sunny	55
	15:40		56
	14:40		55
11 Jul 2023	15:40	Fine	57
	16:40		56
	9:30		59
19 Jul 2023	10:30	Sunny	63
	11:30		61
	8:10		60
22 Jul 2023	9:10	Sunny	62
	10:10		60
	14:00		60
28 Jul 2023	15:00	Sunny	62
	16:00		61
		Minimum	52
		Maximum	63
		Average	59



Appendix G - 1-hour TSP Monitoring Results

Date	Time	Weather	Particulate Concentration ($\mu g/m^3$)
	9:06		57
5 Jul 2023	10:06	Sunny	58
	11:06		55
	9:30		49
1 Jul 2023	10:30	Fine	56
	11:30		57
	12:40	Sunny	53
9 Jul 2023	13:40		57
	14:40		55
	13:20		58
2 Jul 2023	14:20	Sunny	59
	15:20		57
	8:06		57
8 Jul 2023	9:06	Sunny	59
	10:06		58
		Minimum	49
		Maximum	59
		Average	56

M-4 - Block 6, T	sui Chuk Gardo	en	
Date	Time	Weather	Particulate Concentration (µg/m ³)
	13:06		42
5 Jul 2023	14:06	Sunny	45
	15:06		46
	15:38		49
11 Jul 2023	16:38	Fine	50
	17:38		48
	10:12		59
19 Jul 2023	11:12	Sunny	60
	12:12		57
	9:10		60
22 Jul 2023	10:10	Sunny	63
	11:10		59
	9:00		59
28 Jul 2023	10:00	Sunny	60
	11:00		57
		Minimum	42
		Maximum	63
		Average	54



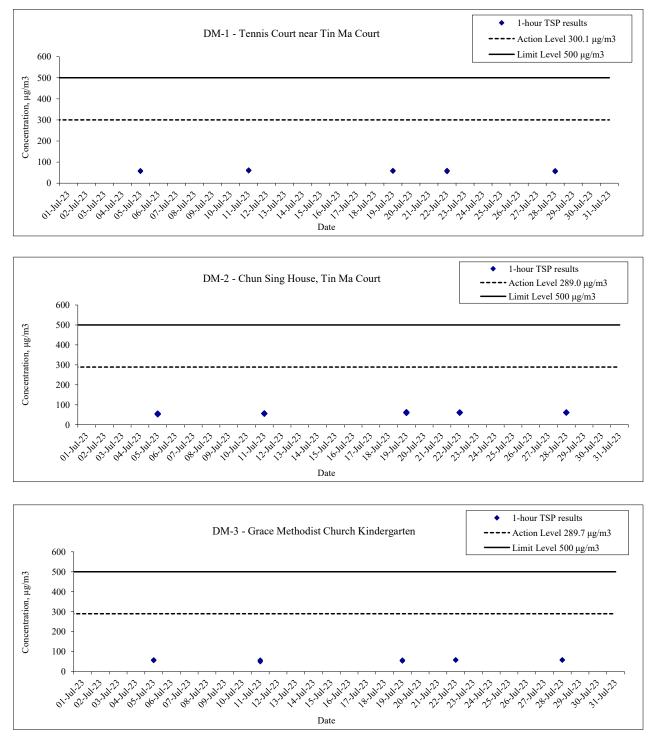
Appendix G - 1-hour TSP Monitoring Results

-4a - Road pav	ement near W	ang King House, Ti	0
Date	Time	Weather	Particulate Concentration (µg/m ³)
	10:06		60
5 Jul 2023	11:06	Sunny	63
	12:06		62
	10:30		62
11 Jul 2023	11:30	Fine	60
	12:30		63
	13:10		58
19 Jul 2023	14:10	Sunny	60
	15:10		59
	12:10		57
22 Jul 2023	13:10	Sunny	59
	14:10		59
	13:00		56
28 Jul 2023	14:00	Sunny	57
	15:00		58
		Minimum	56
		Maximum	63
		Average	60

Contract No. 21/WSD/21 Relocation of Diamond Hill Fresh Water and Salt Water Service Reservoirs to Caverns

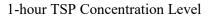


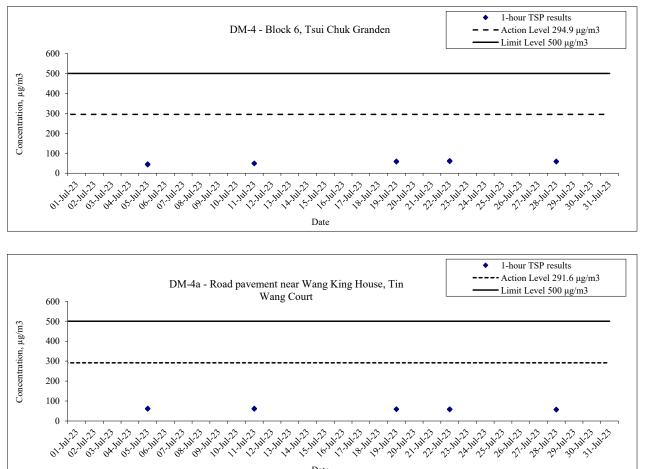
1-hour TSP Concentration Level



Contract No. 21/WSD/21 Relocation of Diamond Hill Fresh Water and Salt Water Service Reservoirs to Caverns







Date



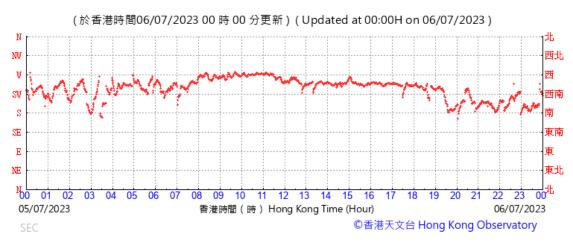
Appendix H

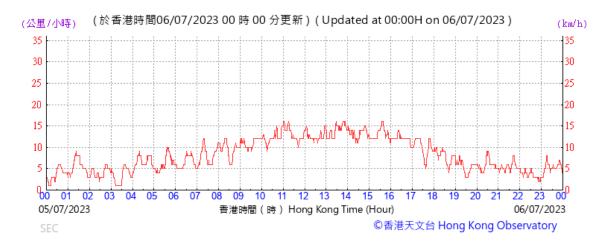
Extract of Meteorological Observations for Hong Kong (Kai Tak)



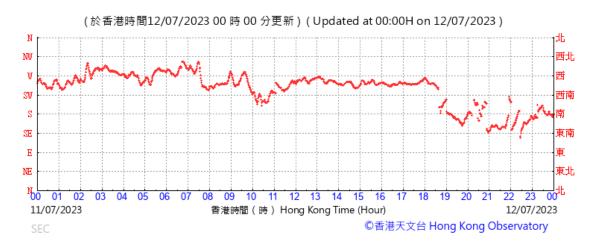
Appendix H - Extract of Meteorological Observations for Hong Kong (Kai Tak Wind Station)

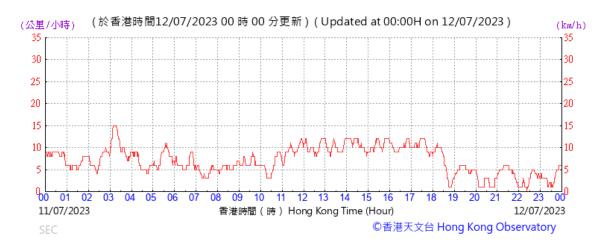
Wind Direction





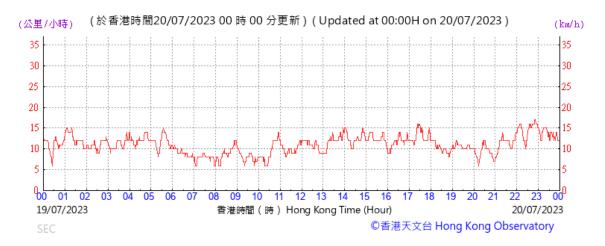




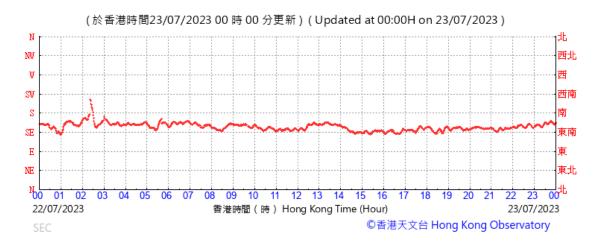






















Appendix I

Noise Monitoring Results and Graphical Presentation



Appendix I - Construction Noise Monitoring Results

Construction Noise Monitoring Stations: Chun Sing House, Tin Ma Court (NM-2)

Date	Weather	Start Time			dB(A)	
Date	weather	Start Time	Leq	L10	L90	Leq(30min)
		13:40	69.7	72.6	67.7	
		13:45	70.1	73.6	68.9	
5 Jul 2023	Sunny	13:50	71.9	74.1	69.3	70.1
5 Jul 2025	Sunny	13:55	69.3	71.4	67.6	70.1
		14:00	68.3	70.3	66.3	
		14:05	70.6	73.6	69.6	
		14:40	68.9	71.4	57.0	
		14:45	69.3	72.6	58.7	
11 Jul 2023	Fine	14:50	70.3	72.3	59.2	69.8
11 Jul 2025	Fille	14:55	68.5	71.6	58.2	09.8
		15:00	69.3	73.1	59.2	
		15:05	71.6	74.2	61.9	
	-	10:30	69.5	71.2	51.7	
		10:35	70.2	72.6	52.9	
22 Jul 2023	Sunny	10:40	70.9	72.1	53.1	69.9
22 Jul 2023	Sunny	10:45	68.5	70.2	50.9	09.9
		10:50	69.1	71.4	52.7	
		10:55	70.9	73.2	53.2	
		14:00	55.1	61.4	51.3	
		14:05	59.2	62.2	52.3	
28 Jul 2023	Sunny	14:10	60.3	63.2	53.2	59.7
20 Jul 2023	Sumry	14:15	61.7	63.3	52.1	39.1
		14:20	60.7	62.7	53.1	
		14:25	58.2	61.2	54.2	
					Min:	59.7
					Max:	70.1
					Average:	67.4

Construction Noise Monitoring Stations: Grace Methodist Church Kindergarten (NM-3)

Date	Weather	Start Time			dB(A)	
Date	weather	Start Time	Leq	L10	L90	Leq(30min)
		9:00	67.0	69.2	56.6	
		9:05	69.2	71.2	59.2	
5 Jul 2023	Comment	9:10	67.6	69.9	56.3	68.8
5 Jul 2025	Sunny	9:15	68.6	70.2	56.9	08.8
		9:20	70.2	72.6	56.3	
		9:25	69.6	72.6	59.8	
		9:00	67.3	69.2	58.2	
		9:05	68.3	70.3	59.2	
11 Jul 2023	Fine	9:10	66.2	68.2	57.3	67.7
11 Jul 2023	2023 Fille	9:15	68.3	71.2	58.9	07.7
		9:20	67.7	68.3	59.2	
		9:25	67.9	70.2	60.2	
		14:30	65.6	69.1	48.9	
		14:35	66.2	70.1	49.2	
22 Jul 2023	Sunny	14:40	66.9	71.1	59.9	66.7
22 Jul 2023	Sumry	14:45	65.4	70.2	47.2	00.7
		14:50	67.2	73.2	49.9	
		14:55	68.2	74.2	52.1	
		9:30	63.6	67.2	52.8	
		9:35	64.1	66.2	53.1	
28 Jul 2023	Sunny	9:40	63.9	67.2	54.1	63.8
28 Jul 2023	Sumry	9:45	63.2	66.3	53.1	03:8
		9:50	64.1	65.2	52.8	
		9:55	63.9	66.3	53.2	
					Min:	63.8
					Max:	68.8
					Average:	66.8



Appendix I - Construction Noise Monitoring Results

Construction Noise Monitoring Stations: Block 6, Tsui Chuk Garden (NM-4)

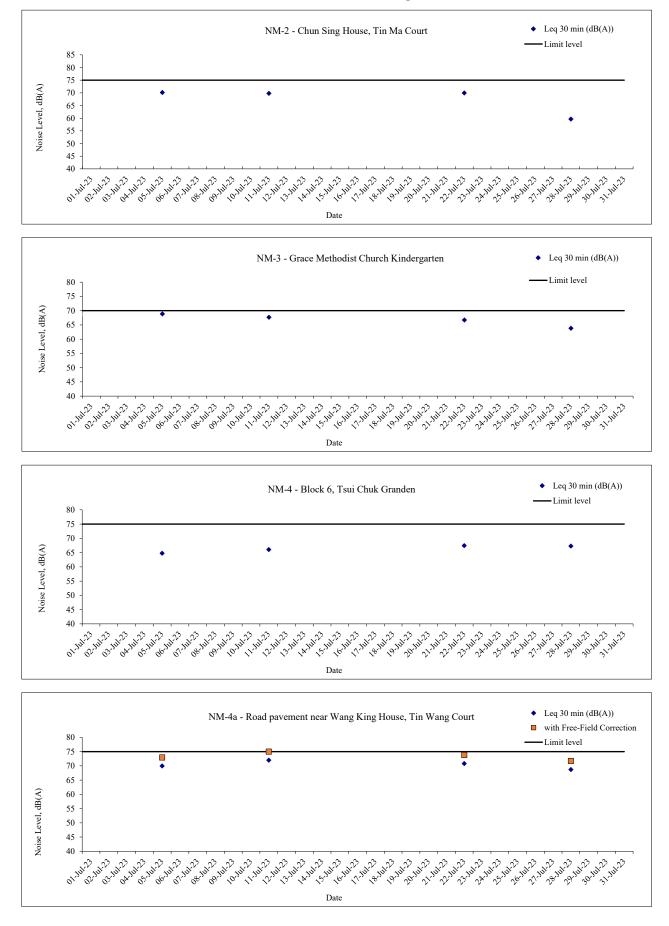
Date	Weather	Start Time			dB(A)	
Date	weather	Start Time	Leq	L10	L90	Leq(30min)
		13:03	62.3	64.6	58.6	
		13:08	63.6	65.5	59.6	
5 Jul 2023	Sunny	13:13	67.1	69.6	62.3	64.7
5 Jul 2025	Sullity	13:18	65.3	68.3	60.9	04.7
		13:23	64.1	67.2	61.2	
		13:28	64.5	69.2	62.9	
		15:38	65.7	66.8	54.3	
		15:43	66.4	67.9	55.8	
11 Jul 2023	Fine	15:48	66.9	68.1	55.6	66.0
11 Jul 2025 Fine	Fille	15:53	65.6	66.9	55.3	00.0
		15:58	65.1	67.2	55.2	
		16:03	66.3	68.1	54.4	
		9:00	66.2	69.2	50.5	
		9:05	67.2	69.9	51.5	
22 Jul 2023	Sunny	9:10	67.9	70.1	53.2	67.4
22 Jul 2025	Sullity	9:15	68.2	71.6	54.1	07.4
		9:20	66.9	68.2	51.5	
		9:25	67.9	70.1	52.5	
		10:11	66.4	67.4	51.8	
		10:16	67.2	69.6	52.8	
28 Jul 2023	Sunny	10:21	67.4	68.2	54.1	67.3
28 Jul 2023	Sullity	10:26	66.9	69.1	53.1	07.5
		10:31	67.7	68.2	52.9	
		10:36	67.9	69.9	53.2	
					Min:	64.7
					Max:	67.4
					Average:	66.4

Construction Noise Monitoring Stations: Road pavement near Wang King House, Tin Wang Court (NM-4a)

				0	dB(A)		
Date	Weather	Start Time	Leq	L10	L90	Leq(30min)	With Free-Field Correction
		10:06	69.8	71.6	58.2		
		10:11	69.9	72.3	59.2		
5 Jul 2023	Sunny	10:16	70.3	72.9	61.2	70.0	73.0
5 Jul 2025	Sumry	10:21	68.7	70.9	59.2	/0.0	75.0
		10:26	69.6	72.5	58.9		
		10:31	71.1	73.2	62.1		
		10:00	72.1	74.2	70.2		
		10:05	72.8	75.2	71.2		
11 1-1 2022	11 Jul 2023 Fine	10:10	72.9	75.2	70.9	72.0	75.0
11 Jul 2025		10:15	71.1	73.6	69.3	/2.0	73.0
		10:20	71.8	72.5	70.3		
		10:25	70.9	72.9	68.2		
		12:00	71.5	74.5	49.0	70.8	
		12:05	70.5	73.5	51.0		
22 Jul 2023	Sunny	12:10	70.9	72.9	52.3		73.8
22 Jul 2025	Sunny	12:15	71.5	75.5	49.2		
		12:20	70.4	72.9	52.1		
		12:25	69.9	72.1	52.1		
		12:57	68.8	71.1	55.7		
		13:02	67.9	69.2	56.7		
28 Jul 2023	Sunny	13:07	69.2	72.2	57.1	68.7	71.7
20 Jul 2023	Sunny	13:12	68.2	69.9	59.3	00./	/1./
		13:17	69.9	72.2	58.2		
		13:22	67.9	69.3	59.7		
		•	•	•	Min:	68.7	71.7
					Max:	72.0	75.0
					Average:	70.4	73.4



Construction Noise Monitoring Results





Appendix J

Waste Generation in the Reporting Month

Monthly Summary Waste Flow Table for 2023

Contract No.: 21/WSD/21

Contract Title: Relocation of Diamond Hill Fresh Water and Salt Water Service Reservoirs to Caverns

	Actual Quantities of Inert C&D Materials Generated / Imported (in '000m3)			Generated / Imp	orted (in '00	0m3)		Actual Quan	tities of C&D Waste	s Generated		Ac	tual Quantit	ies of C&D W	astes Recyc	led
Month	Total Quantity Generated	Broken Concrete (including rock for recycling into aggregates)	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported C&D Material	Metals	Paper/ cardboard packaging	Plastics (bottles/ containers,plastic sheets/foam package material)	Chemical Waste	Others, e.g. general refuse	Metals	Paper/ cardboard packaging	Plastics (bottles/ containers, plastic sheets/foam package material)	Yard Waste	Others
	(a+b+c+d)	(a)	(b)	(c)	(d)		(in '000kg)	(in '000kg)	(in '000kg)	(in '000m ³)	(in '000m ³)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m ³)	(in '000m ³)
Jan	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.0000	0.00000	0.00000	0.00000	0.00000	0.0000	0.00000	0.00000	0.00000	0.00000
Feb	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.0000	0.00000	0.00000	0.00000	0.00000	0.0000	0.00000	0.00000	0.00000	0.00000
Mar	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.0000	0.00000	0.00000	0.00000	0.00000	0.0000	0.00000	0.00000	0.00000	0.00000
Apr	0.05712	0.00000	0.00000	0.00000	0.05712	0.00000	0.0000	0.00000	0.00000	0.00000	0.20064	0.0000	0.00000	0.00000	0.00686	0.00000
May	0.95983	0.00000	0.00000	0.00000	0.95983	0.00000	0.0000	0.00000	0.00000	0.00000	0.02408	0.0000	0.00000	0.00000	0.00000	0.00000
Jun	0.14853	0.00000	0.00000	0.00000	0.14853	0.00000	0.0000	0.00000	0.00000	0.00000	0.03804	0.0000	0.00000	0.00000	0.00000	0.00000
Sub-total	1.16548	0.00000	0.00000	0.00000	1.16548	0.00000	0.0000	0.00000	0.00000	0.00000	0.26277	0.0000	0.00000	0.00000	0.00686	0.00000
Jul	0.06719	0.00000	0.00000	0.00000	0.06719	0.00000	0.0000	0.00000	0.00000	0.00000	0.00618	0.0072	0.00335	0.00980	0.00000	0.00000
Aug	0.00000															
Sep	0.00000															
Oct	0.00000															
Nov	0.00000															
Dec	0.00000															
Total	1.23267	0.00000	0.00000	0.00000	1.23267	0.00000	0.00000	0.00000	0.00000	0.00000	0.26894	0.00720	0.00335	0.00980	0.00686	0.00000

Note: 1. Assume the density of soil fill is 2 ton/m3.

2. Assume the density of rock and broken concrete is 2.5 ton/m3.

3. Assume the density of non-inert C&D waste is 0.9 ton/m^3 .



Appendix K

Summary of Complaint, Notification of Summons and Prosecution and Cumulative Complaint Log



Statistical Summary of Environmental Complaints

Derrorting Derig 4	En	Environmental Complaint Statistics					
Reporting Period	Frequency	Cumulative	Complaint Nature				
1 July 2023 	0	0	N/A				

Statistical Summary of Environmental Summons

Demonstra Devia I	Environmental Summons Statistics					
Reporting Period	Frequency	Cumulative	Details			
1 July 2023 30 July 2023	0	0	N/A			

Statistical Summary of Environmental Prosecution

Demosting Deried	Environmental Prosecution Statistics					
Reporting Period	Frequency	Cumulative	Details			
1 July 2023 30 July 2023	0	0	N/A			

Statistical Summary of Non-compliance (exceedances) of the Reporting Period

Environmental Monitoring	Parameter	pro rela	f non- ject ated dances LL	Total no. of non-project related exceedances	No. exceed relate the pr AL	ances d to	Total no. of exceedances related to the project
Air Quality	1-hour TSP	0	0	0	0	0	0
Noise	Leq(30-min)	0	0	0	0	0	0



Cumulative Complaint Log

EPD Complaint	Date of	Complaint	Complaint	Investigation /	Status
Ref No.	Complaint	Location	Details	Mitigation Action	
-	-	-	-	-	-