Drainage Services Department

Agreement No. SPW 07/2019 Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1

Monthly EM&A Report June 2020

(Version 1)

Certified By

(Environmental Team Leader:

Mr. KS Lee)

REMARKS:

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

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

CINOTECH CONSULTANTS LTD

Room 1710, Technology Park, 18 On Lai Street, Shatin, NT, Hong Kong Tel: (852) 2151 2083 Fax: (852) 3107 1388 Email: info@cinotech.com.hk

Prepared by	Ms. Echo Hung	laho	16 July 2020
Checked by	Mr. Eric Yan	\$5	16 July 2020



Ref.: DSDSWHS1EM00_0_0059E.20

15 July 2020

By E-mail and Fax (3922 9797)

AECOM Asia Company Limited 8/F., Grand Central Plaza, Tower 2, 138 Shatin Rural Committee Road Sha Tin, New Territories, Hong Kong

Attention: Mr CHANG Ping Wah

Dear Mr CHANG,

Re: Contract No. SPW 08/2019

Independent Environmental Checker for

Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1

Monthly EM&A Report for June 2020

Reference is made to the Environmental Team's submission of Monthly EM&A Report for June 2020 (Version 1) certified by the ET Leader and provided to us via e-mail on 15 July 2020.

Please be informed that we have no adverse comments on the captioned submission. We write to verify the captioned submission in accordance with Condition 3.4 of FEP-02/474/2013.

Thank you for your attention. Please do not hesitate to contact us should you have any queries.

Yours sincerely, For and on behalf of Ramboll Hong Kong Limited

Manson Yeung

Independent Environmental Checker

c.c.

DSD Attn.: Ms Konica Cheung (By Fax: 3104 6420) Cinotech Attn.: Mr K. S. Lee (By Fax: 3107 1388)

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EXECUTIVE SUMMARY

Introduction

1. This is the 6th EM&A Report prepared by the Environmental Team, Cinotech Consultants Ltd., for Agreement No. SPW 07/2019 "Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1". This report summarized the monitoring results and audits findings of the EM&A programme under the issued further EP No. FEP-02/474/2013 and in accordance with the Updated EM&A Manual during the reporting month of June 2020.

Summary of Main Works Undertaken and Key Measures Implemented

2. The main works undertaken during the reporting period are as follows:

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

Contract No.	Contract Title	Site Activities
DC/2018/06	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - Civil Works for Sludge Treatment Facilities and 132kV Primary Substation	 Sheet piling installation Pile loading test
DC/2018/07	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - Civil Works for Sewage Treatment Facilities	 Demolition of FST Sheet piling at inlet Cable identification and cable diversion at AR3
DE/2018/03	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - Sidestream Treatment Facilities and E&M Works for Sluge Treatment Faciliteis	 Site clearance in WA3 Civil work in WA1-B
DE/2018/04	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - E&M Works for Sewage Treatment Facilities	Dismantle and removal of emergency generators in existing power house

3. Implementation of the key mitigation measures during the reporting period are as follows:

Air Quality

- Cement of more than 20 bags were covered by impervious materials to avoid dust generation.
- Stockpiles were covered by impervious sheets.

Water Quality

- Stagnant water was removed, pumped and collected in the sedimentation tank.
- The water barriers along the site area were completely bounded by sand bags to avoid stagnant water accumulation on-site.

Summary of Exceedances, Investigation and Follow-up

4. Exceedance of Action/Limit levels during the reporting month (June 2020) and the investigation results and/or follow-up actions:

Air Quality Monitoring

- No Action/Limit Level exceedance for 1-hour TSP was recorded.
- No Action/Limit Level exceedance for 24-hour TSP was recorded.

Construction Noise Monitoring

 No Action/Limit Level exceedance for day time construction noise monitoring was recorded in the reporting month.

Ecological Monitoring

• One (1) Action Level and no Limit Level exceedance was triggered.

Complaint Handling, Prosecution and Public Engagement

Table II Summary of Complaint/Summons/Prosecution in the Reporting Month

Event	Event Details		Follow-up/ Remedial Actions	Status/
Event	Number	Brief Description		Remarks
Complaints Received	0	-	-	-
Notification of Summons and Prosecutions Received	0	-	-	-
Public Engagement Activities	0	-	-	-

Reporting Changes

5. There were no reporting changes during the reporting month.

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Future Key Issues

6. The key works or activities will be anticipated in the next reporting period are as follows:

Table III Summary Table for Site Activities in the Next Reporting Period

Contract No.	Contract Title	Site Activities
DC/2018/06	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - Civil Works for Sludge Treatment Facilities and 132kV Primary Substation	 Sheet piling installation Pile loading test
DC/2018/07	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - Civil Works for Sewage Treatment Facilities	 Demolition of FST Sheet piling at inlet Cable identification and cable diversion at AR3
DE/2018/03	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - Sidestream Treatment Facilities and E&M Works for Sluge Treatment Faciliteis	 Site clearance in WA3 Civil work in WA1-B Site office construction work in WA1-B
DE/2018/04	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - E&M Works for Sewage Treatment Facilities	 Dismantle and removal of emergency generators in existing power house Construction of contractor's site office foundation and site installation of the contractor's site office accommodations (MiC) Construction of temporary filtrate equalisation tank Installation of temporary primary sludge thickener and its accessories

1 INTRODUCTION

Background

- 1.1 The Further Expansion of Shek Wu Hui Effluent Polishing Plant (SWHEPP) is a designated Project (DP) under F.1 and F.2 of Part 1, Schedule 2 of Environmental Impact Assessment Ordinance (EIAO). The "North East New Territories New Development Areas" Environmental Impact Assessment (NENT NDAs EIA) Report (Registered No.: AEIAR-175/2013) covered the assessment for the Further Expansion of SWHSTW Phase 1A, 1B and 2, and the associated Environmental Monitoring and Audit (EM&A) Manual was approved on 18 October 2013.
- 1.2 The existing Shek Wu Hui Sewage Treatment Works (SWHSTW) is operated and maintained by the Drainage Services Department (DSD). It provides secondary level treatment to sewage collected from Sheung Shui, Fanling and adjacent areas, SWHSTW was completed in two stages and expanded progressively in the past year. In 2009, the expansion of SWHSTW was completed and its design capacity was 93,000m²/day at average dry weather flow (ADWF). After the Resource Allocation Exercise 2017, the existing SWHSTW is proposed to be upgraded from secondary to tertiary treatment level as the new SWHEPP at 3 stages: Main Works Stage 1, Stage 2 and Stage 3.
- 1.3 A Further Environmental Permit (EP) (Permit No. FEP-02/474/2013) was issued on 15 February 2018 to DSD as the Permit Holder to assume the responsibility for construction and operating the SWHEPP Project up to a capacity of 190,000m³/day. The updated Environmental Monitoring and Audit (EM&A) Manual was prepared in accordance with Condition 2.3 of the Further EP. The site layout plan for the Project is shown in **Figure 1.1**.
- 1.4 Cinotech Consultants Ltd. was designated as the Environmental Team (ET) to undertake the EM&A works for "Shek Wu Hui Effluent Polishing Plant Main Works Stage 1" (hereinafter called the "Project").

Purpose of the Report

1.5 This is the 6th Monthly EM&A Report which summarises the impact monitoring results and audit findings for the EM&A programme during the reporting period in June 2020.

Project Organizations

- 1.6 Different Parties with different levels of involvement in the project organization include:
 - Permit Holder Drainage Services Department (DSD)
 - Supervisor Representative AECOM Asia Company Limited (AECOM)
 - Environmental Team (ET) Cinotech Consultants Limited (Cinotech)
 - Independent Environmental Checker (IEC) Ramboll Hong Kong Limited (Ramboll)
 - Contractors
 - o Contract No.: DC/2018/06 Kwan Lee Chun Wo Joint Venture (KLCWJV)
 - o Contract No.: DC/2018/07 Kwan Lee Chun Wo Joint Venture (KLCWJV)
 - o Contract No.: DE/2018/03 Jardine Engineering Corporation Limited (JEC)
 - o Contract No.: DE/2018/04 Bestwise Envirotech Limited (Bestwise)

1.7 The key contacts of the Project are shown in **Table 1.1**.

Table 1.1 Key Project Contacts

Party	Role	Contact Person	Phone No.
DSD	Permit Holder	Ms. Konica Cheung	2594 7463
AECOM	Supervisor Representative	Mr. Henry Tai	3792 0580
Cinotech	Environmental Team	Mr. KS Lee (ET Leader)	2151 2091
		Ms. Betty Choi	2151 2072
Ramboll	Independent Environmental Checker	Mr. Manson Yeung	3465 2888
KLCWJV	Contractor (DC/2018/06)	Mr. Yip Yun Lam	9532 7174
KLCWJV	Contractor (DC/2018/07)	Mr. Jimmy Cheng	9606 5916
JEC	Contractor (DE/2018/03)	Mr. Brendan Chan	2807 4264
Bestwise	Contractor (DE/2018/04)	Mr. Albus Cheung	9731 0831

1.8 The Organizational Structure for Environmental Management is shown in **Figure 1.2**.

Construction Activities undertaken during the Reporting Month

1.9 The major site activities undertaken in the reporting month included:

Table 1.2 Summary Table for Major Site Activities in the Reporting Month

Contract No.	Contract Title	Site Activities
DC/2018/06	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - Civil Works for Sludge Treatment Facilities and 132kV Primary Substation	 Sheet piling installation Pile loading test
DC/2018/07	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - Civil Works for Sewage Treatment Facilities	 Demolition of FST Sheet piling at inlet Cable identification and cable diversion at AR3
DE/2018/03	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - Sidestream Treatment Facilities and E&M Works for Sluge Treatment Faciliteis	 Site clearance in WA3 Civil work in WA1-B
DE/2018/04	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - E&M Works for Sewage Treatment Facilities	Dismantle and removal of emergency generators in existing power house

Summary of EM&A Requirements

- 1.10 The EM&A programme requires construction noise monitoring, air quality monitoring, water quality monitoring, ecological monitoring and environmental site audit, etc. The EM&A requirements for each parameter are described in the following sections, including:
 - All monitoring parameters;
 - Action and Limit levels for all environmental parameters;
 - Event Action Plans;
 - Environmental mitigation measures, as recommended in the Project EIA Report.
- 1.11 The advice on the implementation status of environmental protection and pollution control/mitigation measures is summarized in Section 8 of this report.
- 1.12 This report presents the monitoring results, observations, locations, equipment, period, methodology and QA/QC procedures of the monitoring parameters of the required environmental monitoring works and audit works for the Project in June 2020.

Statues of Environmental Licensing and Permitting

1.13 All permits/licenses obtained for the Project are summarized in **Table 1.3**.

 Table 1.3
 Summary of Environmental License and Permit

Contract No	Permit / License No.	Valid Period		C4 o 4	
Contract No.	Permit / License No.	From	To	Status	
Environmental Permit (EP)					
All	FEP-02/474/2013	15 Feb 2018	N/A	Valid	
All	EP-474/2013	21 Nov 2013	N/A	Valid	
Notification of	Construction Works under Air Po	ollution Control	Ordinance (APC	CO)	
DC/2018/06	449210 (Portion A & C)	23 Sep 2019	11 Mar 2024	Valid	
DC/2018/06	449211 (WM1)	23 Sep 2019	11 Mar 2024	Valid	
DC/2018/07	N/A	11 Nov 2019	31 Dec 2024	Valid	
DE/2018/03	455843 (WA3)	6 May 2020	30 Sep 2020	Valid	
DE/2018/03	457212 (WA1-B)	15 Jun 2020	30 Aug 2020	Valid	
Billing Account for Construction Waste Disposal					
DC/2018/06	7035390	11 Oct 2019	N/A	Valid	
DC/2018/07	7035985	9 Dec 2019	N/A	Valid	
DE/2018/03	7035700	6 Nov 2019	N/A	Valid	
DE/2018/04	703621912	2 Jan 2020	N/A	Valid	
Registration of Chemical Waste Producer					
DC/2018/06	5213-624-K3371-01	14 Nov 2019	N/A	Valid	
DC/2018/07	5213-624-K3371-02	6 Jan 2020	N/A	Valid	
DE/2018/03	5213-624-T3861-01	14 Apr 2020	N/A	Valid	
Effluent Discharge License					
DC/2018/06	WT00035431-2019 (Portion C)	20 Jan 2020	31 Jan 2025	Valid	

Contract No.	Permit / License No.	Valid I	Status		
Contract No.	Contract No. Permit / License No.		То	Status	
DC/2018/06	WT00035718-2020 (Portion A)	2 Apr 2020	30 Apr 2025	Valid	
DC/2018/07	WT00035727-2020	1 Apr 2020	30 Apr 2025	Valid	
Construction	Construction Noise Permit (Water Pump and Concrete Work at Portion C)				
DC/2018/06	GW-RN0301-20	10 May 2020	9 Aug 2020	Valid	
Construction	Construction Noise Permit (Handtools at Portion A)				
DC/2018/06	GW-RN0380-20	15 Jun 2020	15 Aug 2020	Valid	
Admission Tic	Admission Ticket for Disposal of Special Waste				
DC/2018/07	15646	27 Apr 2020	26 Jul 2020	Valid	

2 AIR QUALITY

Monitoring Requirement

2.1 According to the Updated EM&A Manual of SWHEPP, 1-hour and 24-hour Total Suspended Particulates (TSP) monitoring were conducted to monitor the air quality for this Project. For regular impact monitoring, a sampling frequency of at least once in every six days at all of the monitoring stations for 24-hour TSP monitoring. For 1-hour TSP monitoring, the sampling frequency of at least three times in every six days shall be undertaken when the highest dust impact occurs. **Appendix A** shows the established Action/Limit Levels for the environmental monitoring works.

Monitoring Locations

2.2 Four designated monitoring stations were selected for air quality monitoring programme. **Table 2.1** describes the air quality monitoring locations, which are also depicted in **Figure 2**.

Table 2.1 Air Quality Monitoring Locations

Monitoring Stations	Location	Location of Measurement
AM1 ⁽¹⁾	Wai Loi Tsuen	Ground Level
AM2 ⁽¹⁾	Fu Tei Au	Ground Level
AM1a ⁽²⁾	Site Boundary of the Shek Wu Hui STW (East)	Ground Level
AM2a ⁽²⁾	Site Boundary of the Shek Wu Hui STW (North)	Ground Level

Remarks: (1) For 1-hour TSP monitoring; (2) For 24-hour TSP monitoring

Monitoring Parameters and Frequency

2.3 **Table 2.2** summarizes the monitoring parameters, monitoring period and frequencies of impact air quality monitoring. The monitoring schedule is shown in **Appendix B**.

Table 2.2 Frequency and Parameters of Air Quality Monitoring

Monitoring Stations	Parameter	Period	Frequency
AM1 & AM2	1-hour TSP	0700 – 1900	3 times/day, once every 6 days
AM1a & AM2a	24-hour TSP	24 hours	Once every 6 days

Monitoring Equipment

- 2.4 High Volume Samplers (HVS) in compliance with the specification stipulated in the EM&A Manual, Section 2.2.2, were used to carry out 24-hour TSP monitoring. Direct reading dust meter were also used to measure 1-hour average TSP levels. The 1-hour sampling was determined by HVS to check the validity and accuracy of the results measured by direct reading method.
- 2.5 Wind data monitoring equipment was set on rooftop (about 4/F) of the SWHSTW control room building for logging wind speed and wind direction such that the wind sensors were clear of obstructions or turbulence caused by building. The wind data monitoring equipment was recalibrated at least once every six months and the wind directions were divided into 16 sectors of 22.5 degrees each.

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2.6 **Table 2.3** summarizes the equipment to be used for air quality monitoring. Copies of calibration certificates are attached in **Appendix C**.

Table 2.3 **Air Quality Monitoring Equipment**

Equipment	Model and Make	Quantity
1-hour TSP Dust Meter	Sibata Model No.: LD-5R	3
HVC Compler	GMW Model: GS 2310	1
HVS Sampler	TISCH Model: TE 5170	1
Calibrator	TISCH Model: TE-5025A	1
Wind Anemometer	Global Water Instrumentation WE800	1

Monitoring Methodology

1-hour TSP Monitoring

Measuring Procedures

The measuring procedures of the 1-hour dust meter are in accordance with the Manufacturer's 2.7 Instruction Manual as follows:

(Sibata Model No.: LD-5R)

- The 1-hour dust meter is placed at least 1.3 meters above ground.
- Set POWER to "ON" and make sure that the battery level was not flash or in low level.
- Allow the instrument to stand for about 3 minutes and then the cap of the air sampling inlet has been released.
- Push the knob at MEASURE position.
- Set time/mode setting to [BG] by pushing the time setting switch. Then, start the background measurement by pushing the start/stop switch once. It will take 6 sec. to complete the background measurement.
- Push the time setting switch to change the time setting display to [MANUAL] at the bottom left of the liquid crystal display. Finally, push the start/stop switch to stop the measuring after 1 hour sampling.
- Information such as sampling date, time, count value and site condition were recorded during the monitoring period.

Maintenance/Calibration

- The following maintenance/calibration is required for the 1-hour dust meter: 2.8
 - Check and calibrate the meter by HVS to check the validity and accuracy of the results measured by direct reading method at 2-month intervals throughout all stages of the air quality monitoring.

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24-hour TSP Monitoring

Instrumentation

2.9 High volume samplers (HVS) (TISCH Model: TE-5170) complete with appropriate sampling inlets was employed for 24-hour TSP monitoring. The sampler was composed of a motor, a filter holder, a flow controller and a sampling inlet and its performance specification complied with that required by USEPA Standard Title 40, Code of Federation Regulations Chapter 1 (Part 50). Moreover, the HVS also met all the requirements in Section 2.2 of the Annex II Specification.

2.10 The positioning of the HVS samplers are as follows:

- A horizontal platform with appropriate support to secure the samplers against gusty wind shall be provided;
- No two samplers shall be placed less than 2 meter apart;
- The distance between the sampler and an obstacle, such as buildings, must be at least twice the height that the obstacle protrudes above the sampler;
- A minimum of 2 metres of separation from walls, parapets and penthouses is required for rooftop samplers;
- A minimum of 2 metres of separation from any supporting structure, measured horizontally is required;
- No furnace or incinerator flue is nearby;
- Airflow around the sampler is unrestricted;
- The sampler is more than 20 metres from the dripline;
- Any wire fence and gate, to protect the sampler, shall not cause any obstruction during monitoring;
- Permission must be obtained to set up the samplers and to obtain access to the monitoring stations; and
- A secured supply of electricity is needed to operate the samplers.

Operating/analytical procedures for the operation of HVS

- 2.11 Operating/analytical procedures for the air quality monitoring are highlighted as follows:
 - Prior to the commencement of the dust sampling, the flow rate of the high volume sampler was properly set (between 1.1 m³/min. and 1.4 m³/min.) in accordance with the manufacturer's instruction to within the range recommended in USEPA Standard Title 40, CFR Part 50.
 - For TSP sampling, fiberglass filters with a collection efficiency of > 99% for particles of 0.3µm diameter were used.
 - The power supply was checked to ensure the sampler worked properly. On sampling, the sampler was operated for 5 minutes to establish thermal equilibrium before placing any filter media at the designated air monitoring station.
 - The filter holding frame was then removed by loosening the four nuts and a weighted and conditioned filter was carefully centered with the stamped number upwards, on a supporting screen.
 - The filter was aligned on the screen so that the gasket formed an airtight seal on the outer edges of the filter. Then the filter holding frame was tightened to the filter holder with swing bolts. The applied pressure should be sufficient to avoid air leakage at the edges.

- The shelter lid was closed and secured with the aluminum strip.
- The timer was then programmed. Information was recorded on the record sheet, which included the starting time, the weather condition and the filter number (the initial weight of the filter paper can be found out by using the filter number).
- After sampling, the filter was removed and sent to the HOKLAS laboratory (Wellab Ltd.) for weighing. The elapsed time was also recorded.
- Before weighing, all filters were equilibrated in a conditioning environment for 24 hours. The conditioning environment temperature should be between 25°C and 30°C and not vary by more than ±3°C; the relative humidity (RH) should be < 50% and not vary by more than ±5%. A convenient working RH is 40%.

Maintenance/Calibration

- 2.12 The following maintenance/calibration is required for the HVS:
 - The high volume motors and their accessories were properly maintained. Appropriate maintenance such as routine motor brushes replacement and electrical wiring checking were made to ensure that the equipment and necessary power supply are in good working condition.
 - High volume samplers were calibrated at bi-monthly intervals using TE-5025A Calibration Kit throughout all stages of the air quality monitoring.

Results and Observations

- 2.13 Impact air quality monitoring was conducted at four monitoring stations as scheduled. The monitoring schedule is shown in **Appendix B**.
- 2.14 No Action/Limit Level exceedance was recorded for all 1-hour TSP monitoring in the reporting month.
- 2.15 No Action/Limit Level exceedance was recorded for all 24-hour TSP monitoring in the reporting month.
- 2.16 The air temperature, precipitation and the relative humidity data was obtained from daily extract of Ta Kwu Ling Station in Hong Kong Observatory Climate Information Service, where the wind speed and wind direction were recorded by the installed Wind Anemometer at rooftop (about 4/F) of the SWHSTW control room building. This weather information for the reporting month is summarized in **Appendix D**.
- 2.17 The monitoring data and graphical presentations of 1-hour and 24-hour TSP monitoring results are shown in **Appendix E** and **Appendix F** respectively.
- 2.18 According to our field observations, the major dust source identified at the designated air quality monitoring stations are as follows:

Cinotech

Table 2.4 Major Dust Source during Air Q	Juality M	lonitoring
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Monitoring Stations	Major Dust Source
AM1 - Wai Loi Tsuen	Road Traffic at Sheung Shui Tung Hing Road
AM2 - Fu Tei Au	N/A
AM1a - Site Boundary of the Shek Wu Hui STW (East)	Vehicle Movement within SWHSTW
AM2a - Site Boundary of the Shek Wu Hui STW (North)	N/A

Comparison of EM&A Result with EIA Prediction

2.19 The air monitoring data was compared with the predictions in the EIA Report (as approved in 2013) as summarised in **Tables 2.5** and **Table 2.6**.

Table 2.5 Comparison of 1-hr TSP Monitoring Data with Predictions in EIA Report (As Approved in 2013)

Monitoring Stations	ASR ID	Predicted 1-hr TSP Concentration in EIA Report (as Approved in 2013), dB(A), µg/m ³	Reporting Month (June 2020), µg/m³
AM1 - Wai Loi Tsuen	N/A	N/A ⁽¹⁾	13.0 - 117.0
AM2 - Fu Tei Au	FLN-E28	255	20.8 - 109.2

Remarks:

(1) No 1-hr TSP concentration was predicted in EIA Report (As Approved in 2013).

Table 2.6 Comparison of 24-hr TSP Monitoring Data with Predictions in EIA Report (As Approved in 2013)

Monitoring Stations	Predicted 24-hr TSP Concentration in EIA Report (as approved in 2013), dB(A), μg/m ³	Reporting Month (June 2020), μg/m ³
AM1a - Site Boundary of the Shek Wu Hui STW (East)	N/A ⁽¹⁾	18.8 - 33.6
AM2a - Site Boundary of the Shek Wu Hui STW (North)	N/A ⁽¹⁾	22.6 - 37.7

Remarks:

2.20 The 1-hour TSP concentration at AM2 in the reporting month was lower than the prediction in the EIA Report (As Approved in 2013). The 1-hour TSP concentrations at AM1 as well as 24-hour TSP concentrations at AM1a and AM2a were not predicted in the EIA Report (As Approved in 2013).

⁽¹⁾ No 24-hr TSP concentration was predicted in EIA Report (as approved in 2013).

3 NOISE

Monitoring Requirements

3.1 According to the Updated EM&A Manual, construction noise monitoring was conducted to monitor the construction noise arising from the construction activities. The regular monitoring frequency for each monitoring station shall be on a weekly basis and conduct one set of measurements between 0700 and 1900 hours on normal weekdays. **Appendix A** shows the established Action and Limit Levels for the environmental monitoring works.

Monitoring Locations

3.2 Noise monitoring was conducted at three designated monitoring stations in the reporting period. **Table 3.1** and **Figure 3** show the locations of these stations.

Table 3.1 Noise Monitoring Stations

Monitoring Stations	Location	Location of Measurement
NM1	Wai Loi Tsuen	Ground Level
NM2	Fu Tei Au	Ground Level
NM3	Man Kok Village	Ground Level

Monitoring Parameters, Frequency and Duration

3.3 **Table 3.2** summarizes the monitoring parameters, frequency and total duration of monitoring. The noise monitoring schedule is shown in **Appendix B**.

Table 3.2 Frequency and Parameters of Noise Monitoring

Monitoring Stations	Time Period	Duration	Frequency	Parameter	Measurement
NM1				L ₁₀ (30 min.) dB(A)	Free Field
NM2	0700-1900 hrs on normal weekdays	12 0700-1900 hrs on normal weekdays 30 minutes	Once per week	L ₉₀ (30 min.) dB(A)	Free Field
NM3				L _{eq} (30 min.) dB(A)	Free Field

Monitoring Equipment

3.4 Integrating Sound Level Meter was used for impact noise monitoring. The meters were Type 1 sound level meter capable of giving a continuous readout of the noise level readings including equivalent continuous sound pressure level (L_{eq}) and percentile sound pressure level (L_x) that also complied with International Electrotechnical Commission Publications 651:1979 (Type 1) and 804:1985 (Type 1) specifications. **Table 3.3** summarizes the noise monitoring equipment being used. Copies of calibration certificates are attached in **Appendix G**.

Table 3.3 Noise Monitoring Equipment

Equipment	Model and Make	Quantity
Into anoting Cound I aval Maton	BSWA 308	2
Integrating Sound Level Meter	SVAN 957	1
Calibrator	ST-120	1

Monitoring Methodology and QA/QC Procedure

- 3.5 The monitoring procedures are as follows:
 - The monitoring station was normally be at a point 1m from the exterior of the sensitive receivers building façade and be at a position 1.2m above the ground.
 - For free field measurement, the meter was positioned away from any nearby reflective surfaces. All records for free field noise levels were adjusted with a correction of +3 dB(A).
 - The battery condition was checked to ensure the correct functioning of the meter.
 - Parameters such as frequency weighting, the time weighting and the measurement time were set as follows:
 - Frequency weighting: ATime weighting: Fast
 - Time measurement: 30 minutes
 - Prior to and after each noise measurement, the meter was calibrated using a Calibrator for 94.0 dB at 1000 Hz. If the difference in the calibration level before and after measurement was more than 1.0 dB, the measurement would be considered invalid and repeat of noise measurement would be required after re-calibration or repair of the equipment.
 - The wind speed was frequently checked with the portable wind meter.
 - At the end of the monitoring period, the L_{eq}, L₉₀ and L₁₀ were recorded. In addition, site conditions and noise sources were recorded on a standard record sheet.
 - Noise monitoring would be cancelled in the presence of fog, rain, and wind with a steady speed exceeding 5 m/s, or wind with gusts exceeding 10 m/s. Supplementary monitoring would be provided to ensure sufficient data would be obtained.

Maintenance and Calibration

- 3.6 The microphone head of the sound level meter and calibrator were cleaned with a soft cloth at quarterly intervals.
- 3.7 The sound level meter and calibrator were checked and calibrated at yearly intervals.
- 3.8 Immediately prior to and following each noise measurement the accuracy of the sound level meter was checked using an acoustic calibrator generating a known sound pressure level at a known frequency. Measurements were accepted as valid only if the calibration levels from before and after the noise measurement agree to within 1.0 dB.

Results and Observations

- 3.9 No Action/Limit Level exceedance was recorded for all construction noise monitoring in the reporting month.
- 3.10 Noise monitoring results and graphical presentations are shown in **Appendix H**.

Monthly EM&A Report – June 2020

3.11 The major noise sources identified at the noise monitoring stations are shown in **Table 3.4**.

Table 3.4 Other Noise Source Identified during Noise Monitoring

Monitoring Stations	Major Noise Source
NM1	Railway Noise and Road Traffic at Sheung Shui Tung Hing
INIVII	Road
NM2	N/A
NM3	Road Traffic at Po Wan Road

3.12 All the Construction Noise Levels (CNLs) reported in this report were adjusted with the corresponding baseline level (i.e. Measured Leq – Baseline Leq = CNL), in order to facilitate the interpretation of the noise exceedance. The baseline noise level and the Noise Limit Level at each designated noise monitoring station are presented in **Table 3.5**.

Table 3.5 Baseline Noise Level and Noise Limit Level for Monitoring Stations

Monitoring Stations	Baseline Noise Level, dB (A) (at 0700 – 1900 hrs on normal weekdays)	Noise Limit Level, dB (A) (at 0700 – 1900 hrs on normal weekdays)
NM1	63.4	
NM2	58.0	75
NM3	63.4	

Comparison of EM&A Result with EIA Prediction

3.13 The noise monitoring data was compared with the predictions in EIA Report (as approved in 2013) as summarised in **Table 3.6**.

Table 3.6 Comparison of Noise Monitoring Data with Predictions in EIA Report (As Approved in 2013)

Monitoring Stations	NSR ID	Predicted Mitigated Construction Noise Levels in EIA Report (as Approved in 2013), dB(A)	Reporting Month (June 2020), Leq (30min) dB(A)
NM1 - Wai Loi Tsuen	N/A	N/A ⁽¹⁾	55.5 – 60.6
NM2 - Fu Tei Au	N/A	N/A ⁽¹⁾	56.4 – 67.7
NM3 – Man Kok Village	FN-18	66-75	53.2 – 62.9

Remarks:

3.14 The results at NM3 were lower than the range of the predicted mitigated construction noise levels in the EIA Report (As Approved in 2013). Construction noise levels at NM1 and NM2 were not predicted in the EIA Report (As Approved in 2013).

⁽¹⁾ No construction noise level was predicted in EIA Report (As Approved in 2013).

4 ECOLOGY

Monitoring Requirements

4.1 According to the Updated EM&A Manual, waterbird species which use rivers near the Project Site were identified and recorded. The monitoring requirement in the EM&A Manual is shown in **Table 4.1**. **Appendix A** shows the established Action/Limit Levels for ecological monitoring works.

Table 4.1 Monitoring of Measures to Minimise Disturbance to Waterbirds on Ng Tung, Sheung Yue and Shek Sheung Rivers during Construction Phase

Phase	Methodology
Construction	Weekly transect at both high and low tides to identify and enumerate all bird species utilising the river channels and identify any sources of actual or potential disturbance to birds due to construction activities throughout the construction period.

4.2 The monitoring should be conducted by the ET and supervised by a qualified ecologist who will be a member of the ET.

Monitoring Locations

4.3 Transect and point count surveys were proposed within the 500m boundary of Ng Tung River, Sheung Yue River and Shek Sheung River of the assessment area. Three transects and seven-point count locations during high and low tides were applied. These locations are shown in **Figure 4** and summarized in **Table 4.2**. The photo of each transect is provided in **Appendix J**.

Table 4.2 Ecological Monitoring Stations

Monitoring Stations	Descriptions	Influenced by Tidal Action	
Transect T1			
Point Count Location P1		No	
Point Count Location P2	Alone No Tone Disease		
Transect T2	Along Ng Tung River		
Point Count Location P3		Yes	
Point Count Location P4			
Point Count Location P5	At Shek Sheung River (Low-flow Channel)	No	
Transect T3	Along Shek Sheung River & Sheung Yue River	Yes	
Point Count Location P6	At Shek Sheung River	Yes	
Point Count Location P7	At Intersection between Sheung Yue River and Shek Sheung River	Yes	

Monitoring Parameters, Frequency and Duration

4.4 Monitoring surveys were conducted on a weekly basis at both high and low tides (it is considered high tide when tidal levels are above 1.5m and low tide when tidal level are below 1.5m at Tsim Bei Tsui Station). The magnitude of how much above or below 1.5m was subject to tidal conditions of that week as it varied throughout different times of the year. Nonetheless, the high and low tide relative to that week's tidal condition were taken into consideration. The ecological monitoring schedule is shown in **Appendix B**.

Monitoring Methodology

- 4.5 Transect survey was undertaken along the concerned rivers (Ng Tung River, Sheung Yue River and Shek Sheung River) adjacent to proposed construction activities. As the sensitive receivers (large waterbirds) are easily visible and the surveyor has used auxiliary equipment such as camera(s) and binoculars (magnification 7-10x). The transect route only follows one bank of these rivers.
- 4.6 At point count locations, surveyors identified and recorded bird species which were seen or heard along the river channel. For each point count, surveyors quantitatively recorded all species seen and heard for the duration of five minutes up to the distance where birds were still detectable. All avifauna along the walk transect were recorded. Noticeable behaviours (e.g. breeding behaviours such as nesting and presence of recently fledged juveniles, roosting and feeding activities, etc.) were recorded as well.
- 4.7 Ornithological nomenclature used in report should follow *The Avifauna of Hong Kong* (Carey et al. (2001)), *The Birds of Hong Kong and South China* (Viney et al. (2005)) and the most recent updated list from other sources (e.g. Hong Kong Bird Watching Society).
- 4.8 Weather conditions, tidal information at the time of the survey and other noticeable activities occurring within or in the vicinity of the survey areas (e.g. ongoing routine drainage channel maintenance works and other human activities that could create disturbances to birds) were recorded.

Analytical Methodology

4.9 The number and species of waterbirds utilizing the rivers fluctuate every day naturally. Therefore, the survey data were collectively analysed on a monthly basis to increase the sample size and to reduce random error on one survey day. Since occurrence of waterbirds has distinctive seasonal pattern, the construction phase data for all waterbirds and representative waterbirds were compared with the baseline data for the respective month and season. The representatives of waterbirds are listed in **Table 4.3**.

Table 4.3	Representative	Waterbirds
-----------	----------------	------------

Species Name	Common Name	Chinese Name
Egretta garzetta	Little Egret	小白鷺
Ardea cinerea	Grey Heron	蒼鷺
Ardeola bacchus	Chinese Pond Heron	池鷺
Phalacrocorax carbo	Great Cormorant	普通鸕鷀
Ardea alba	Great Egret	大白鷺
Bubulcus coromandus	Eastern Cattle Egret	牛背鷺

- 4.10 When a decline in abundance of all or representative waterbird is identified, one-tailed Student t-test was adopted to statistically analyse whether the drop is significant. If the collected data for the reporting month fails to show no significant difference from that in the baseline phase at 95% confidence level, the action level will be triggered. Likewise, the limit level is set at 99% confidence level.
- 4.11 In addition, if important behaviours such as breeding, brooding, nesting and presence of recently fledged juveniles of species of conservation importance are observed, the Resident Engineer, Contractor and IEC should be notified immediately after the survey. The Contractor should review current construction programme and minimize disturbance due to construction activities.

Results

4.12 For this reporting month, the numbers of species and individuals recorded were provided in **Table 4.4**. The photo record of waterbirds can be found in **Appendix J**.

Table 4.4 Total Bird Species and Abundance in the Reporting Month

	Number of Species	Abundance
All Avifauna	33	315
Waterbirds	10	144

4.13 **Table 4.5** presents the abundance of representative species.

 Table 4.5
 Abundance of Representative Waterbirds in the Reporting Month

Species Name	Common Name	Chinese Name	Abundance
Egretta garzetta	Little Egret	小白鷺	64
Ardea cinerea	Grey Heron	蒼鷺	1
Ardeola bacchus	Chinese Pond Heron	池鷺	42
Phalacrocorax carbo	Great Cormorant	普通鸕鷀	0
Ardea alba	Great Egret	大白鷺	20
Bubulcus coromandus	Eastern Cattle Egret	牛背鷺	12

Analysis

4.14 The result of student t-tests for all waterbirds and representative waterbirds are compiled in **Table 4.6** and **4.7** respectively. Further details are provided in **Appendix I**.

Table 4.6 T-test Result for All Waterbirds in the Reporting Month

T values of Data in Departing Month		Confidence Level (Critical Value)		
T-values of Data in Reporting Month			95% (-2.353)	99% (-4.541)
Abundance	Monthly	-4.971	×	×
Abundance	Seasonal	-4.372	×	~

Remarks

Table 4.7 T-test Result for Representative Waterbirds in the Reporting Month

Common Name of	T-value		nce Level l Value)	T-value		nce Level l Value)	Overall
Representative Waterbird	Monthly	95% (-2.353)	99% (-4.541)	Seasonal	95% (-2.353)	99% (-4.541)	Overall
Little Egret	-2.258	✓	✓	-2.376	×	~	~
Grey Heron				N/A*			
Chinese Pond Heron	-4.567	×	×	-3.085	×	v	Action Level
Great Cormorant				N/A*			
Great Egret	1.960	✓	✓	2.010	✓	✓	✓
Eastern Cattle Egret	-1.470	✓	✓	-0.565	√	~	~

Remarks

- 4.15 The t-test concluded that the abundance for Chinese Pond Heron was significantly lower than the baseline monitoring result for June and summer at 95% confidence level. One (1) Action Level was triggered for ecological monitoring in the reporting month. No Limit Level was triggered.
- 4.16 Despite a decline in Chinese Pond Heron, the results showed that all other representative waterbirds did not significantly differ from the baseline data. As all herons shared similar niche with each other, it is unlikely that the project activity (e.g. noise) will affect a single species only. Since the decline was considered non-project-related, no remedial measures for the project is proposed. The monitoring work will continue next month to evaluate any construction impact on waterbirds.

^{✓ =} T-value falls within the confidence level, the impact monitoring data shows no significant difference to the baseline data.

[≭] = T-value falls outside the confidence level, the impact monitoring data shows significant difference to the baseline data.

^{*} Great Cormorant (*Phalacrocorax carbo*) and Grey Heron (*Ardea cinerea*) were not recognised as representative waterbird species during Summer.

^{✓ =} T-value falls within the confidence level, the impact monitoring data shows no significant difference to the baseline data.

[≭] = T-value falls outside the confidence level, the impact monitoring data shows significant difference to the baseline data.

Observations

- 4.17 Waterbird behaviour observed during ecological monitoring are listed below:
 - Flying
 - Foraging
 - Singing
 - Soaring
 - Resting
 - Fighting
- 4.18 The anthropogenic activities observed during ecological monitoring are listed in **Table 4.8**.

Table 4.8 Observations during Ecological Monitoring in the Reporting Month

Logation	Observations			
Location	Project Related	Non-project Related		
T1 (PC1, PC2)	Vibration hammering, excavation	Remote boating		
T2 (PC3, PC4)	Vibration hammering, trucks, excavation	Jaywalking, fishing		
PC5	N/A	N/A		
T3 (PC6, PC7)	N/A	Jaywalking, fishing		

5 WATER QUALITY

Monitoring Requirement

- 5.1 According to the Updated EM&A Manual, no water monitoring is required before the commencement of outfall construction at Ng Tung River.
- 5.2 Site audits were carried out on a weekly basis to monitor and audit the timely implementation of water quality mitigation measures within the site boundaries of this Project. The summaries of site audits are attached in **Appendix K**.

6 WASTE MANAGEMENT

Monitoring Requirement

6.1 According to the Updated EM&A Manual, waste management would be the contractor's responsibility to ensure that all wastes produced during the construction works for the Project are handled, stored and disposed of in accordance with good waste management practices, EPD's regulations and requirements. No monitoring for waste management is required for the Project. An environmental management plan (EMP) should be prepared and submitted to the Supervisor for approval. The monitoring and auditing requirements of the EMP should be followed with regard to the management of C&D material.

Waste Management Status

- 6.2 Site audits were carried out on a weekly basis to monitor and audit to ensure that proper storage, transportation and disposal practices of waste materials generated during construction activities, such as construction and demolition (C&D) materials and general refuse are being implemented. The summaries of site audits are attached in **Appendix K**.
- 6.3 The amount of wastes generated by the major site activities of this Project during the reporting month is shown in **Appendix L**.

7 LANDSCAPE AND VISUAL

Audit Requirement

- 7.1 According to the Updated EM&A Manual, site audits would be undertaken during the construction phase of the Project to check that the proposed landscape and visual mitigation measures are properly implemented and maintained as per their intended objectives. Particularly audits would be carried out during site clearance when proposed tree felling and transplantation may occur. Site inspections would be undertaken at least once every two weeks during the construction period.
- 7.2 Site audits were carried out on a weekly basis to monitor and audit the timely implementation of landscape and visual mitigation measures within the site boundaries of this Project. The summaries of site audits are attached in **Appendix K**.

8 ENVIRONMENTAL AUDIT

Site Audits

- 8.1 Site audits were carried out on a weekly basis to monitor the timely implementation of proper environmental management practices and mitigation measures in the Project site. The summaries of site audits are attached in **Appendix K**.
- 8.2 Site audits were conducted on 2, 11, 16, 23 & 30 June 2020 in the reporting month. Joint site inspection with the representative of IEC was conducted on 23 June 2020. No non-compliance was observed during the site audit.

Implementation Status of Environmental Mitigation Measures

- 8.3 According to Environmental Permits, the approved EIA Report (Register No.: AEIAR-175/2013), and the Updated EM&A Manual of the Project, the mitigation measures detailed in the documents are recommended to be implemented during the construction phase. An Environmental Mitigation Implementation Schedule (EMIS) is provided in **Appendix N**.
- 8.4 The ET weekly site inspections were carried out during the reporting month and the observations and recommendations are summarized in **Tables 8.1 and 8.2**. Refer to **Appendix K** for the site inspection summary reports in the reporting month.

Table 8.1 Observations and Recommendations of Site Audit of Contract No. DC/2018/06

Parameters	Date	Observations and Recommendations	Follow-up
Water Quality	26 May 2020	Water barriers along the site area of Portion A should be completely bounded by sand bags to avoid stagnant water accumulation on-site.	The condition was observed to be improved/rectified by the contractor during the audit session on 2 Jun 2020.
Water Quality	2 Jun 2020	Stagnant water accumulated on the road access and site area of Portion C should be removed or pumped through the sedimentation tank.	The condition was observed to be improved/rectified by the contractor during the audit session on 11 Jun 2020.
Air Quality	11 Jun 2020	Cement of more than 20 bags should be covered by impervious materials at Portion C to avoid dust generation.	The condition was observed to be improved/rectified by the contractor during the audit session on 16 Jun 2020.
Noise	N/A	There was no observation in the reporting period.	N/A
Waste / Chemical Management	N/A	There was no observation in the reporting period.	N/A
Ecology and Fisheries	N/A	There was no observation in the reporting period.	N/A

Parameters	Date	Observations and Recommendations	Follow-up
Visual and Landscape	N/A	There was no observation in the reporting period.	N/A
Permits /Licences	N/A	There was no observation in the reporting period.	N/A

Table 8.2 Observations and Recommendations of Site Audit of Contract No. DC/2018/07

Table 8.2 Observations and Recommendations of Site Audit of Contract No. DC/2018/0/					
Parameters	Date	Observations and Recommendations	Follow-up		
Water Quality	N/A	There was no observation in the reporting period.	N/A		
Air Quality	16 Jun 2020	Stockpiles should be removed or covered by impervious materials to avoid dust generation at Portion B.	The condition was observed to be improved/rectified by the contractor during the audit session on 23 Jun 2020.		
Noise	N/A	There was no observation in the reporting period.	N/A		
Waste / Chemical Management	N/A	There was no observation in the reporting period.	N/A		
Ecology and Fisheries	N/A	There was no observation in the reporting period.	N/A		
Visual and Landscape	N/A	There was no observation in the reporting period.	N/A		
Permits /Licences	N/A	There was no observation in the reporting period.	N/A		

Implementation Status of Event and Action Plans

8.5 The Event and Action Plans for air quality, construction noise, ecological monitoring and landscape and visual are presented in **Appendix M**.

Air Quality Monitoring

- No Action/Limit Level exceedance for 1-hour TSP was recorded.
- No Action/Limit Level exceedance for 24-hour TSP was recorded.

Construction Noise Monitoring

- No documented complaint on construction noise was received; no Action Level exceedance for day time construction noise monitoring was recorded.
- No Limit Level exceedance for day time construction noise monitoring was recorded in the reporting month.

Ecological Monitoring

• One (1) Action Level and no Limit Level was triggered.

Landscape and Visual Monitoring

• No non-conformity for landscape and visual was recorded.

9 ENVIRONMENTAL NON-CONFORMANCE

Summary of Complaint, Warning, Notification of any Summons and Successful Prosecution

9.1 No environmental complaints, warning, notifications of summons and successful prosecutions were received in the reporting month. The summary of environmental complaint, warning, summon and notification of successful prosecution for the Project is presented in **Appendix O**.

Summary of Exceedance

9.2 The summary of exceedance record in reporting month is shown in **Appendix P**.

10 FUTURE KEY ISSUES

- 10.1 Tentative construction programmes for the next three months are provided in **Appendix Q**.
- 10.2 Major site activities undertaken for the coming months are summarized in **Table 10.1**.

Table 10.1 Summary Table for Site Activities in the next Reporting Period

Contract No.	Contract Title	Site Activities
DC/2018/06	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - Civil Works for Sludge Treatment Facilities and 132kV Primary Substation	 Sheet piling installation Pile loading test
DC/2018/07	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - Civil Works for Sewage Treatment Facilities	 Demolition of FST Sheet piling at inlet Cable identification and cable diversion at AR3
DE/2018/03	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - Sidestream Treatment Facilities and E&M Works for Sluge Treatment Faciliteis	 Site clearance in WA3 Civil work in WA1-B Site office construction work in WA1-B
DE/2018/04	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - E&M Works for Sewage Treatment Facilities	 Dismantle and removal of emergency generators in existing power house Construction of contractor's site office foundation and site installation of the contractor's site office accommodations (MiC) Construction of temporary filtrate equalisation tank Installation of temporary primary sludge thickener and its accessories

10.3 Key environmental issues in the coming months include:

- Stockpile accumulation on-site;
- Water spraying for dust generating activities and on haul road;
- Wastewater and runoff discharge from site;
- No disposition of slurry at the existing Shek Wu Hui Sewage Treatment Works;
- Coverage of open manholes to avoid dirty runoff to drainage system;
- Appropriate design of drainage system in order to facilitate storm flow;
- Control of sediment runoff after rainstorms;
- Minimization of soil excavation works during rainstorms to prevent dirty runoff flowing into surrounding waters;
- Noise from operation of the equipment, especially for excavation works and machinery onsite:
- Accumulation of general refuse and construction waste on-site;
- Proper storage of construction materials on-site; and
- Storage of chemicals/fuel and chemical waste/waste oil on-site.

Monitoring Schedule

10.4 The tentative environmental monitoring schedule for the next month is shown in **Appendix B**.

11 CONCLUSIONS AND RECOMMENDATIONS

Conclusions

11.1 This is the 6th Monthly EM&A Report which presents the EM&A works undertaken during the reporting month in accordance with the Updated EM&A Manual and the requirement under EP.

Air Quality Monitoring

11.2 No Action/Limit Level exceedance was recorded for all 1-hour and 24-hour TSP monitoring in the reporting month.

Construction Noise Monitoring

11.3 No Action/Limit Level exceedance was recorded for all noise monitoring in the reporting month.

Ecology

11.4 1 Action Level and no Limit Level exceedance was triggered for all ecological monitoring in the reporting month.

Site Audit

11.5 5 ET joint weekly environmental site inspections were conducted in the reporting month.

Complaint, Notification of Summons and Successful Prosecution

11.6 No environmental complaints, notifications of summons and successful prosecutions were received in the reporting month.

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Recommendations

11.7 According to the environmental audit performed in the reporting month, the following recommendations were made:

Air Quality

- Regular water spraying on haul road and dry surfaces should be applied to minimize dust
- Stockpiles should be covered by impervious materials.
- Cement of more than 20 bags should be covered by impervious materials to avoid dust generation.

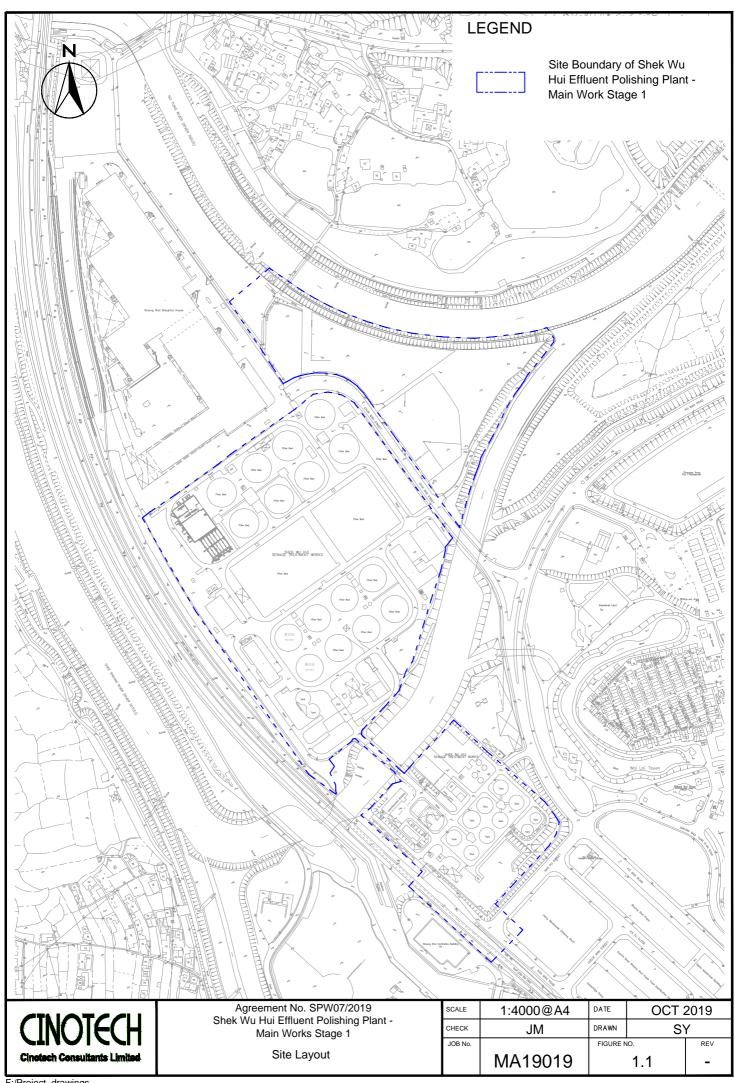
Water Quality

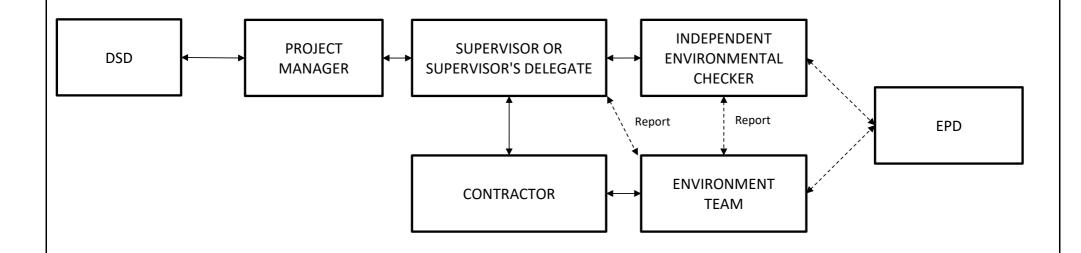
- Ponding water should be removed and pumped through the sedimentation tank.
- The water barriers along the site area should be completely bounded by sand bags to avoid stagnant water accumulation on-site.
- Muddy water should not be discharged into the surrounding rivers.
- No slurry should be disposed of at the existing Shek Wu Hui Sewage Treatment Works.

Waste Management

- General refuse and construction waste accumulation should be avoided.
- Chemicals should be stored in drip trays properly.

FIGURES



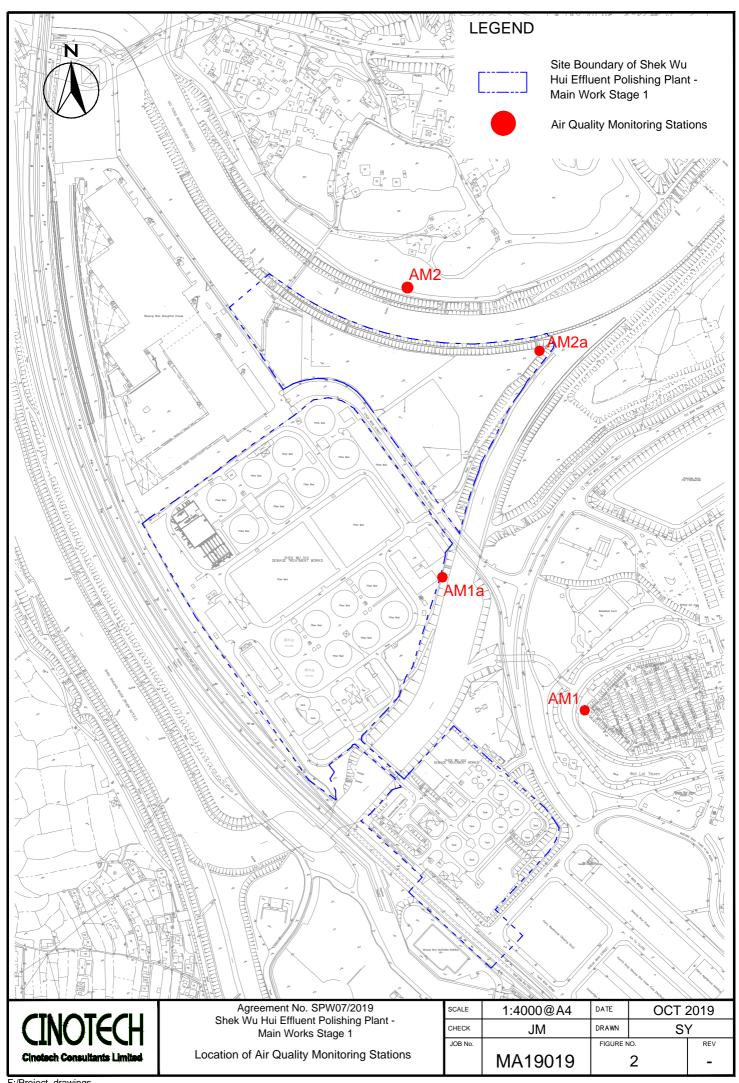


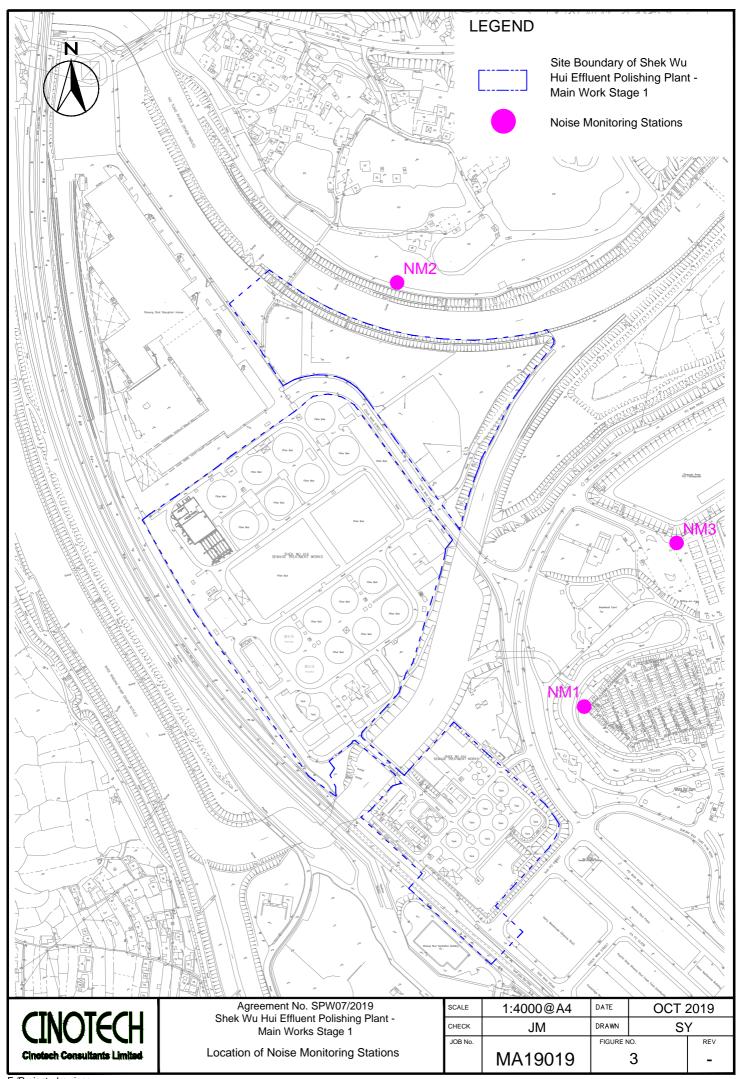
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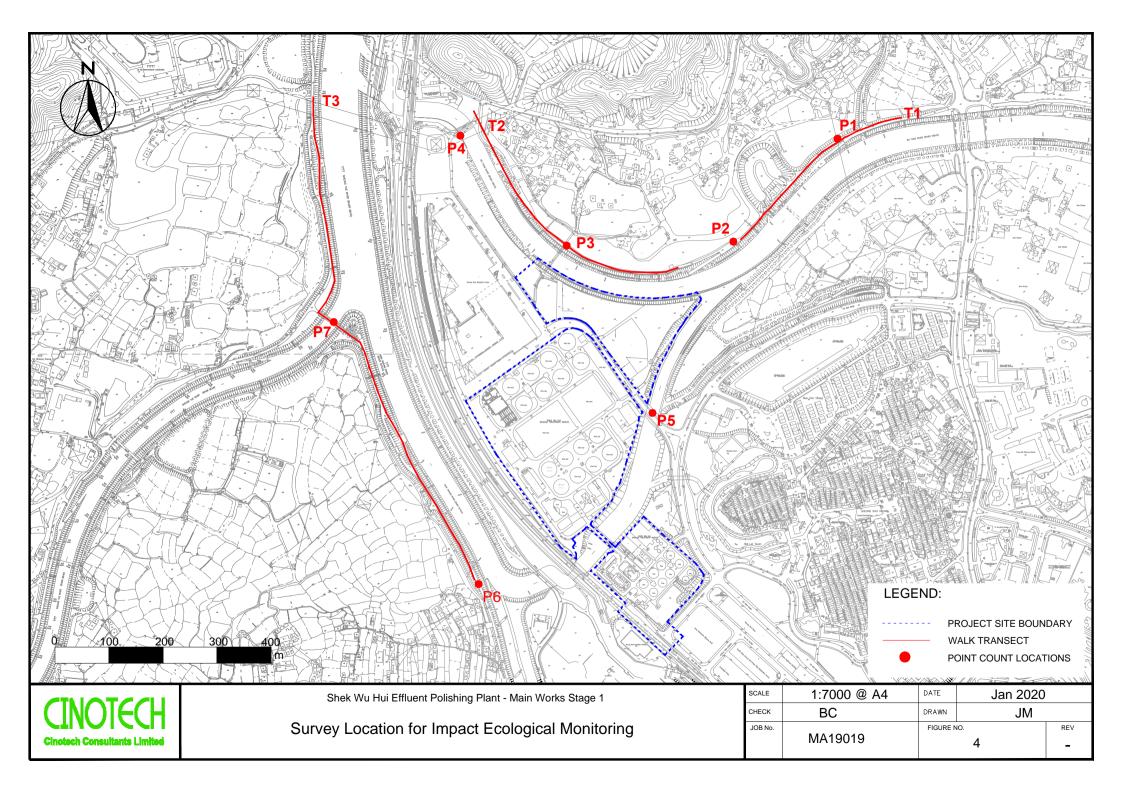
Agreement No. SPW07/2019 Shek Wu Hui Effluent Polishing Plant- Main Works Stage 1

Project Organisation For Environmental Monitoring and Audit

SCALE	N.T.S.	DATE	Sep 2019
CHECK	JM	DRAWN	SY
JOB NO.	MA19019	FIGURE NO.	1.2







APPENDIX A ACTION AND LIMIT LEVELS

Appendix A - Action and Limit Levels

Table A-1 Action and Limit Levels for 1-hour TSP

Location	Action Level, μg/m ³	Limit Level, μg/m ³
AM1	320	500
AM2	322	300

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

Location	Action Level, μg/m ³	Limit Level, μg/m ³
AM1a	189	260
AM2a	187	200

Table A-3 Action and Limit Levels for Noise during Construction Period

Time Period	Action Level	Limit Level	
0700-1900 hrs on normal weekdays	When one documented complaint is received	75 dB(A)*	

^{*}Remarks:

- If works are to be carried out during restricted hours, the conditions stipulated in the Construction Noise Permit (CNP) used by the Noise Control Authority have to be followed.
- Reduce to 70 dB(A) for schools and 65 dB(A) during school examination periods.

Table A-4 Action and Limit Levels of Disturbance to Waterbirds using Ng Tung, Sheung Yue and Shek Sheung Rivers during Construction Phase

Action Level	Limit Level		
Decline in numbers of all waterbird species relative to numbers during Baseline Monitoring such that the Action Level response is triggered.	Decline in numbers of all waterbird species relative to numbers during baseline monitoring such that the limit level response is triggered.		
Decline in numbers of any one waterbird species occurring in significant numbers* during Baseline Monitoring such that the Action Level response is triggered.	Decline in numbers of any one waterbird species occurring in significant numbers* during Baseline Monitoring such that the Limit Level response is triggered.		

Note: Whether numbers are significant depend on species and season after collection and evaluation of baseline survey data.

APPENDIX B ENVIRONMENTAL MONITORING SCHEDULES

Agreement No. SPW07/2019

Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 Impact Air, Noise and Ecology Monitoring Schedule (June 2020)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1-Jun	2-Jun	3-Jun	4-Jun	5-Jun	6-Jun
	24 hrs TSP	1 hr TSP x 3 Noise			Ecology	24 hrs TSP
7-Jun	8-Jun	9-Jun	10-Jun	11-Jun	12-Jun	13-Jun
	1 hr TSP x 3 Noise			24 hrs TSP Ecology	1 hr TSP x 3	
14-Jun	15-Jun	16-Jun	17-Jun	18-Jun	19-Jun	20-Jun
			24 hrs TSP	1 hr TSP x 3 Noise	Ecology	
21-Jun	22-Jun	23-Jun	24-Jun	25-Jun	26-Jun	27-Jun
22 000	22 000	24 hrs TSP Ecology	1 hr TSP x 3 Noise	20 0111	20000	27.700
28-Jun	29-Jun	30-Jun				
	24 hrs TSP	1 hr TSP x 3 Noise				

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

Air Quality Monitoring Station

1-hr TSP

AM1 - Wai Loi Tsuen

AM2 - Fu Tei Au

24-hr TSP

AM1a - Site Boundary of the Shek Wu Hui STW (East)

AM2a - Site Boundary of the Shek Wu Hui STW (North)

Noise Monitoring Station

NM1 - Wai Loi Tsuen

NM2 - Fu Tei Au

NM3 - Man kok Village

Agreement No. SPW07/2019

Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 Tentative Impact Air, Noise and Ecology Monitoring Schedule (July 2020)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1-Jul	2-Jul	3-Jul	4-Jul
					Ecology	24 hrs TSP
5-Jul	6-Jul	7-Jul	8-Jul	9-Jul	10-Jul	11-Jul
	1 hr TSP x 3 Noise	Ecology		24 hrs TSP	1 hr TSP x 3	
12-Jul	13-Jul	14-Jul	15-Jul	16-Jul	17-Jul	18-Jul
200			24 hrs TSP	1 hr TSP x 3 Noise	Ecology	
19-Jul	20-Jul	21-Jul	22-Jul	23-Jul	24-Jul	25-Jul
		24 hrs TSP Ecology	1 hr TSP x 3 Noise			
26-Jul	27-Jul	28-Jul	29-Jul	30-Jul	31-Jul	
	24 hrs TSP	1 hr TSP x 3 Noise			Ecology	

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

Air Quality Monitoring Station

1-hr TSP

AM1 - Wai Loi Tsuen

AM2 - Fu Tei Au

24-hr TSP

AM1a - Site Boundary of the Shek Wu Hui STW (East) AM2a - Site Boundary of the Shek Wu Hui STW (North)

Noise Monitoring Station

NM1 - Wai Loi Tsuen NM2 - Fu Tei Au

NM3 - Man kok Village

APPENDIX C COPIES OF CALIBRATION CERTIFICATES FOR AIR QUALITY MONITORING



Date of Calibration 6-Apr-20

Cerificate of Calibration

Digital Dust Indicator

Description:

It is certified that the item under calibration has been calibrated by corresponding calibrated High Volume Sampler

Manufacturer:	Sibata Scienti	fic Technology LTD.	<u>_</u>	Validity of Calib	ration Record	6-Jun-20
Model No.:	LD-5R					
Serial No.:	972778					
Equipment No.:	SA-01-07		Sensitivity	0.001 mg/m3	_	
High Volume Sa	mpler No.:	A-01-01A	Before Sensit	ivity Adjustment	735 CPM	
Tisch Calibration Orifice No.: 3607 After		After Sensitiv	After Sensitivity Adjustment 735 CPM			
		Ca	alibration of 1	hr TSP		
Calibration Laser Dust Monitor				HVS		
Point	Mass Concentration (μg/m3) X-axis		/m3)	Mas	ss concentration (μ Y-axis	ug/m³)
1		44.0			84.5	
2	34.0		81.0			
3		25.0		76.8		
Average		34.3		80.8		
By Linear Regr Slope , mw = Correlation co	0.404			rcept, bw = _	66.8876	
		Se	et Correlation	Factor		
Particaulate Con	centration by F	ligh Volume Sampler	$(\mu g/m^3)$		80.8	
Particaulate Concentration by Dust Meter (μg/m³)			34.3			
Measureing time, (min)				60.0		
Set Correlation I	Factor, SCF					
SCF = [K=Hig	h Volume Sam	pler / Dust Meter, (µ	ıg/m3)]	2.4		
The Dust Monito	or was compare	o the instruction manued with a calibrated Hi	gh Volume San	npler and The result	was used to gener	ate the Correlation

Those filter papers are weighted by HOKLAS laboratory (Wellab Litimed)

Calibrated by: Wong Shing Kwai



5-Jun-20

Date of Calibration

Cerificate of Calibration

Digital Dust Indicator

Description:

It is certified that the item under calibration has been calibrated by corresponding calibrated High Volume Sampler

_					
Manufacturer:	Sibata Scientific Technology LTD	Validit	y of Calibration Record _	5-Aug-20	
Model No.:	LD-5R				
Serial No.:	972778				
Equipment No.:	SA-01-07	Sensitivity 0.001	mg/m3		
High Volume Sa	mpler No.: <u>A-01-01A</u>	Before Sensitivity Adj	ustment 735 CPM		
Tisch Calibration	n Orifice No.: 3607	After Sensitivity Adjus	stment 735 CPM		
		Calibration of 1 hr TSP			
Calibration Laser Dust Monitor			HVS		
Point	Mass Concentration (μ X-axis	g/m3)	Mass concentration Y-axis	$(\mu g/m^3)$	
1	47.0		100.5		
2	37.0		96.5		
3	26.0		91.0		
Average	36.7		96.0		
By Linear Regr Slope , mw = Correlation co	ession of Y on X 	Intercept, bw	= 79.383	37	
		<u>·</u>			
		Set Correlation Factor			
	centration by High Volume Sample	$r (\mu g/m^3)$	96.0		
Particaulate Concentration by Dust Meter (μg/m³)			36.7		
Measureing time, (min)			60.0		
Set Correlation I	Factor, SCF				
SCF = [K=Higl	h Volume Sampler / Dust Meter, (μg/m3)]	2.6		
The Dust Monito Factor (CF) betw	in according to the instruction man or was compared with a calibrated F ween the Dust Monitor and High Vo	ligh Volume Sampler and lume Sampler.	•	nerate the Correlation	

Those filter papers are weighted by HOKLAS laboratory (Wellab Litimed)

Calibrated by: Wong Shing Kwai Approved by: Lemy Kenry Leung



Date of Calibration 6-Apr-20

Cerificate of Calibration

Digital Dust Indicator

Description:

It is certified that the item under calibration has been calibrated by corresponding calibrated High Volume Sampler

Manufacturer:	Sibata Scientific Technolo	ogy LTD.	Validity of Calib	ration Record	6-Jun-20	
Model No.:	LD-5R					
Serial No.:	972779					
Equipment No.:	SA-01-08	Sensitivity	0.001 mg/m3	-		
High Volume Sa	mpler No.: <u>A-01-01A</u>	Before Sens	itivity Adjustment	744 CPM		
Tisch Calibration	Tisch Calibration Orifice No.: 3607		ivity Adjustment	744 CPM		
		Calibration of 1	hr TSP			
Calibration	Laser Dus	st Monitor		HVS		
Point	Mass Concent X-a		Ma	ss concentration (Y-axis	ug/m³)	
1	45	5.0		84.5		
2	32		81.0			
3	18.0			76.8		
Average	31	1.7		80.8		
By Linear Regr Slope , mw = Correlation co	ession of Y on X 0.2854 pefficient* =	Into 0.9995	ercept, bw = 	71.7298	J	
		Set Correlation	Factor			
	centration by High Volume	1 10		80.8		
Particaulate Concentration by Dust Meter (μg/m³)				31.7		
Measureing time, (min)				60.0		
Set Correlation F SCF = [K=High	Factor, SCF Nolume Sampler / Dust	Meter, (μg/m3)]	2.6			
	in according to the instruc		mpler and The result	was used to gene	rate the Correlation	

The Dust Monitor was compared with a calibrated High Volume Sampler and The result was used to generate the Correlation Factor (CF) between the Dust Monitor and High Volume Sampler.

Those filter papers are weighted by HOKLAS laboratory (Wellab Litimed)

Calibrated by: Approved by: Very Key Wong Shing Kwai

Approved by: Henry Leung



Approved by: _lemp \\ Henry Leung

Cerificate of Calibration

Calibrated by:

Wong Shing Kwai

It is certified that the item under calibration has been calibrated by corresponding calibrated High Volume Sampler

Description:	Digital Dust Indicator		Date	of Calibration	5-Jun-20
Manufacturer:	Sibata Scientific Technology L	TD.	Validity of Calibr	ration Record	5-Aug-20
Model No.:	LD-5R				
Serial No.:	972779				
Equipment No.:	SA-01-08	Sensitivity	0.001 mg/m3		
High Volume Sa	mpler No.: <u>A-01-01A</u>	Before Sensitiv	rity Adjustment	744 CPM	
Tisch Calibration	n Orifice No.: <u>3607</u>	After Sensitivit	y Adjustment	744 CPM	
		Calibration of 1 hi	· TSP		
Calibration	Laser Dust Mo	nitor		HVS	
Point	Mass Concentration X-axis	ι (μg/m3)	Mas	ss concentration (µ Y-axis	g/m ³)
1	46.0			100.5	
2	33.0			96.5	
3	19.0			91.0	
Average	32.7			96.0	
•	ession of Y on X				
Slope , mw =	0.3524	Interc	ept, bw =	84.4890	
Correlation co	pefficient* =0.	.9976			
		Set Correlation Fa	actor		
Particaulate Con	centration by High Volume Sam	ıpler (μg/m³)		96.0	
Particaulate Con	centration by Dust Meter (µg/m ²	3)		32.7	
Measureing time	e, (min)			60.0	
Set Correlation I	Factor, SCF				
SCF = [K=Higl	h Volume Sampler / Dust Mete	er, (µg/m3)]	2.9		
The Dust Monito Factor (CF) betw	in according to the instruction or was compared with a calibrate ween the Dust Monitor and High oers are weighted by HOKLAS	ed High Volume Samp Volume Sampler.		was used to gener	ate the Correlation



Cerificate of Calibration

It is certified that the item under calibration has been calibrated by corresponding calibrated High Volume Sampler

Description:	Digital Dust Indicator Date of Calibration 6-Apr-20			6-Apr-20		
Manufacturer:	Sibata Scient	ific Technology LTD.	Validity of Calibration Record6-Jun-20			6-Jun-20
Model No.:	LD-5R					
Serial No.:	972781					
Equipment No.:	SA-01-10		Sensitivity	0.001 mg/m3	_	
High Volume Sa	mpler No.:	A-01-01A	Before Sensiti	vity Adjustment		
Tisch Calibration	n Orifice No.:	3607	After Sensitivi	ty Adjustment	734 CPM	
		Ca	libration of 1 h	r TSP		
Calibration		Laser Dust Monitor	r		HVS	
Point	N	Mass Concentration (μg/ X-axis	/m3)	Mas	ss concentration (µ Y-axis	.g/m ³)
1		43.0			84.5	
2		37.0			81.0	
3	28.0			76.8		
Average		36.0			80.8	
By Linear Regr Slope, mw = Correlation co	0.50			cept, bw =	62.4193	
		Se	t Correlation F	actor		
Particaulate Con	centration by	High Volume Sampler	$(\mu g/m^3)$		80.8	
Particaulate Con	centration by	Dust Meter (μg/m³)		36.0		
Measureing time, (min)			60.0			
Set Correlation F	Factor, SCF					
SCF = [K=Higl	h Volume Sar	npler / Dust Meter, (μ	g/m3)]	2.2		
The Dust Monitor Factor (CF) betw	or was compar ween the Dust	to the instruction manused with a calibrated High Monitor and High Volunted by HOKLAS laborated by HOKLAS laborated	gh Volume Samp Ime Sampler.		was used to gener	ate the Correlation
The Dust Monitor Factor (CF) betw	or was compar ween the Dust	ed with a calibrated Hi	gh Volume Samp Ime Sampler.		was used to gener	ate the Correlat

Calibrated by: Approved by: Learny Leung

Wong Shing Kwai

Approved by: Henry Leung



Date of Calibration 5-Jun-20

Cerificate of Calibration

Digital Dust Indicator

Description:

It is certified that the item under calibration has been calibrated by corresponding calibrated High Volume Sampler

Manufacturer:	Sibata Scient	ific Technology LTD.	_	Validity of Calibration Record 5-Aug-20		
Model No.:	LD-5R					
Serial No.:	972781					
Equipment No.:	SA-01-10		Sensitivity	0.001 mg/m3	_	
High Volume Sa	mpler No.:	A-01-01A	Before Sensit	ivity Adjustment	734 CPM	
Tisch Calibration	n Orifice No.:	3607	After Sensitiv	ity Adjustment	734 CPM	
		Ca	libration of 1 l	nr TSP		
Calibration		Laser Dust Monitor	r		HVS	
Point	tion Mana Camanatantian (un/m2)		Mass concentration (μg/m³) Y-axis		ıg/m³)	
1	46.0		100.5			
2	40.0			96.5		
3	31.0			91.0		
Average		39.0			96.0	
By Linear Regr Slope , mw = Correlation co	0.63			cept, bw =	71.3684	
		Se	et Correlation l	Factor		
Particaulate Con	centration by l	High Volume Sampler	$(\mu g/m^3)$		96.0	
Particaulate Concentration by Dust Meter (µg/m³)		39.0				
Measureing time, (min)		60.0				
Set Correlation I SCF = [K=High		npler / Dust Meter, (μ	g/m3)]	2.5		
	_	to the instruction manued with a calibrated Hi		pler and The result	was used to gener	rate the Correlation

The Dust Monitor was compared with a calibrated High Volume Sampler and The result was used to generate the Correlation Factor (CF) between the Dust Monitor and High Volume Sampler.

Those filter papers are weighted by HOKLAS laboratory (Wellab Litimed)

Calibrated by: Approved by: Very Kong Shing Kwai

Approved by: Henry Leung



RECALIBRATION **DUE DATE:**

January 17, 2021

ertificate o

Calibration Certification Information

Cal. Date: January 17, 2020

Rootsmeter S/N: 438320

Ta: 295 Pa: 744.2 °K

Operator: Jim Tisch

mm Hg

Calibration Model #: TE-5025A

Calibrator S/N: 3746

Run	Vol. Init (m3)	Vol. Final (m3)	ΔVol. (m3)	ΔTime (min)	ΔP (mm Hg)	ΔH (in H2O)
1	1	2	1	1.4340	3.2	2.00
2	3	4	1	1.0180	6.4	4.00
3	5	6	1	0.9080	7.9	5.00
4	7	8	1	0.8700	8.7	5.50
5	9	10	1	0.7150	12.6	8.00

	Data Tabulation				
Vstd	Qstd	$\sqrt{\Delta H \left(\frac{Pa}{Pstd}\right) \left(\frac{Tstd}{Ta}\right)}$		Qa	√∆H(Ta/Pa)
(m3)	(x-axis)	(y-axis)	Va	(x-axis)	(y-axis)
0.9849	0.6868	1.4066	0.9957	0.6944	0.8904
0.9807	0.9633	1.9892	0.9914	0.9739	1.2592
0.9787	1.0779	2.2240	0.9894	1.0896	1.4078
0.9776	1.1237	2.3325	0.9883	1.1360	1.4765
0.9724	1.3601	2.8131	0.9831	1.3749	1.7808
	m=	2.09221		m=	1.31010
QSTD	b=	-0.02779	QA	b=	-0.01759
	r=	0.99994		r=	0.99994

Calculations				
Vstd=	ΔVol((Pa-ΔP)/Pstd)(Tstd/Ta)	Va=	ΔVol((Pa-ΔP)/Pa)	
Qstd=	Qstd= Vstd/ΔTime		Va/ΔTime	
For subsequent flow rate calculations:				
$\mathbf{Qstd} = \frac{1}{m} \left(\left(\sqrt{\Delta H \left(\frac{Pa}{Pstd} \right) \left(\frac{Tstd}{Ta} \right)} \right) - b} \right) \qquad \qquad \mathbf{Qa} = \frac{1}{m} \left(\left(\sqrt{\Delta H \left(Ta/Pa \right)} \right) - b \right)$				

Standard Conditions				
Tstd: 298.15 °K				
Pstd: 760 mm Hg				
	Key			
ΔH: calibrator manometer reading (in H2O)				
ΔP: rootsmeter manometer reading (mm Hg)				
Ta: actual absolute temperature (°K)				
Pa: actual barometric pressure (mm Hg)				
b: intercept				
m: clono				

RECALIBRATION

US EPA recommends annual recalibration per 1998 40 Code of Federal Regulations Part 50 to 51, Appendix B to Part 50, Reference Method for the Determination of Suspended Particulate Matter in the Atmosphere, 9.2.17, page 30

High-Volume TSP Sampler

5-POINT CALIBRATION DATA SHEET



5 May 2020

Date:

File No. MA19019/17/0004 Project No. AM1a - Site boundary of the Shek Wu Hui STW (East) 5-May-20 Next Due Date: 5-Jul-20 Operator: SK Date: Equipment No.: A-01-17 GS2310 _____ Serial No. ____ 3460 Model No.: **Ambient Condition** 300.9 Temperature, Ta (K) Pressure, Pa (mmHg) 756.5 **Orifice Transfer Standard Information** Serial No. 3746 Slope, mc 0.0592 Intercept, bc -0.02740 mc x Qstd + bc = $[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$ 17-Jan-20 Last Calibration Date: Qstd = $\{ [\Delta H \times (Pa/760) \times (298/Ta)]^{1/2} -bc \} / mc$ Next Calibration Date: 17-Jan-21 **Calibration of TSP Sampler** Orfice HVS Calibration ΔH (orifice), $[\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$ Qstd (CFM) ΔW (HVS), in. Point $[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$ in. of water X - axis of water Y-axis 1 15.8 3.95 67.13 10.3 3.19 2 12.4 3.50 59.52 7.7 2.76 9.1 3.00 51.06 6.1 2.45 3 5.3 2.29 3.9 1.96 4 39.07 5 3.1 1.75 29.99 2.3 1.51 By Linear Regression of Y on X Slope , mw = _____0.0438 Intercept, bw = 0.2121 Correlation coefficient* = *If Correlation Coefficient < 0.990, check and recalibrate. **Set Point Calculation** From the TSP Field Calibration Curve, take Qstd = 43 CFM From the Regression Equation, the "Y" value according to mw x Qstd + bw = $[\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$ Therefore, Set Point; W = $(mw \times Qstd + bw)^2 \times (760 / Pa) \times (Ta / 298) =$ 4.45 Remarks: Conducted by: SK Wong Signature: Date: 5 May 2020

Checked by: Henry Leung Signature:

High-Volume TSP Sampler

5-POINT CALIBRATION DATA SHEET



File No. MA19019/24/0004 Project No. AM2a - Site Boundary of the Shek Wu Hui STW (North) 5-May-20 Next Due Date: 5-Jul-20 Operator: SK Date: Equipment No.: A-01-24 TE 5170 Serial No. 1659 Model No.: **Ambient Condition** 300.9 Temperature, Ta (K) Pressure, Pa (mmHg) 756.5 **Orifice Transfer Standard Information** Serial No. 3746 Slope, mc 0.0592 Intercept, bc -0.02740 mc x Qstd + bc = $[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$ 17-Jan-20 Last Calibration Date: Qstd = $\{ [\Delta H \times (Pa/760) \times (298/Ta)]^{1/2} -bc \} / mc$ Next Calibration Date: 17-Jan-21 **Calibration of TSP Sampler** Orfice HVS Calibration ΔH (orifice), $[\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$ Qstd (CFM) ΔW (HVS), in. Point $[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$ in. of water X - axis of water Y-axis 15.9 1 3.96 67.34 10.1 3.16 2 12.4 3.50 59.52 7.8 2.77 9.2 3.01 51.33 6.1 2.45 3 2.35 4.3 2.06 4 5.6 40.15 1.66 5 3.3 1.80 30.93 2.8 By Linear Regression of Y on X Slope , mw = _____0.0400 Intercept, bw : 0.4241 Correlation coefficient* = *If Correlation Coefficient < 0.990, check and recalibrate. **Set Point Calculation** From the TSP Field Calibration Curve, take Qstd = 43 CFM From the Regression Equation, the "Y" value according to mw x Qstd + bw = $[\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$ Therefore, Set Point; W = $(mw \times Qstd + bw)^2 \times (760 / Pa) \times (Ta / 298) =$ 4.67 Remarks: SK Wong 5 May 2020 Conducted by: Signature: Date: Checked by: Henry Leung Signature: 5 May 2020 Date:



Cerificate of Calibration - Wind Monitoring Station

Description: <u>BM3 - Control Room at SWHSTW</u>

Manufacturer: Global Water Instrumentation

Model No.: WE800 Weather Station

Serial No.: <u>1517001963</u>

Equipment No.: SA-03-01

Date of Calibration 29-Apr-2020

Next Due Date <u>29-Oct-2020</u>

1. Performance check of Wind Speed

Wind Sp	peed, m/s	Difference D (m/s)
Wind Speed Reading (V1) Anemometer Value (V1)		D = V1 - V2
0.0	0.0	0.0
1.2	1.2	0.0
2.0	2.1	-0.1
3.8	3.8	0.0

2. Performance check of Wind Direction

Wind Di	rection (°)	Difference D (°)
Wind Direction Reading (V1)	Marine Compass Value (V1)	D = W1 - W2
0	0	0.0
90	90	0.0
180	180	0.0
270	270	0.0

Test Specification:

- 1. Performance Wind Speed Test The wind meter was on-site calibrated against the anemometer
- 2. Performance Wind Direction Test The wind meter was on-site calibrated against the marine compass at four direction

Calibrated by:	<u> </u>	Approved by:	-lem day	
	Wong Shing Kwai		Henry Leung	

APPENDIX D WEATHER INFORMATION

I. General Information from Hong Kong Observatory

D. 4	Mean Air	Mean Relative	Precipitation
Date	Temperature (°C)	Humidity (%)	(mm)
1-Jun-20	29.9	78	Trace
2-Jun-20	29.0	82	6.4
3-Jun-20	29.8	76	Trace
4-Jun-20	30.1	75	Trace
5-Jun-20	30.0	78	2.6
6-Jun-20	26.8	89	183.8
7-Jun-20	27.7	91	107.4
8-Jun-20	28.6	88	40.9
9-Jun-20	29.4	83	1.3
10-Jun-20	29.8	78	0.2
11-Jun-20	30.2	76	Trace
12-Jun-20	30.4	75	0
13-Jun-20	29.8	81	11.7
14-Jun-20	28.0	84	29.3
15-Jun-20	29.3	79	0.2
16-Jun-20	28.6	81	9.4
17-Jun-20	29.1	77	0.9
18-Jun-20	29.5	77	0.1
19-Jun-20	29.9	74	Trace
20-Jun-20	30.0	74	0
21-Jun-20	30.2	76	Trace
22-Jun-20	30.4	77	Trace
23-Jun-20	30.3	77	0
24-Jun-20	30.4	77	0
25-Jun-20	30.2	76	0.1
26-Jun-20	30.3	77	1.3
27-Jun-20	30.2	77	1.2
28-Jun-20	30.4	75	Trace
29-Jun-20	30.5	74	0.4
30-Jun-20	30.7	74	Trace

^{*} The above information was extracted from the daily extract of Ta Kwu Ling Station in Hong Kong Observatory Climate Information Service.

Date	Time	Wind Direction (°)	Wind Speed (m/s)
1-Jun-20	1:00	179.7	0.1
1-Jun-20	2:00	37.8	0.1
1-Jun-20	3:00	36.4	0.1
1-Jun-20	4:00	37.3	0.1
1-Jun-20	5:00	26.3	0.1
1-Jun-20	6:00	70.4	0.1
1-Jun-20	7:00	218.6	1.1
1-Jun-20	8:00	223.7	0.7
1-Jun-20	9:00	236.1	0.8
1-Jun-20	10:00	200.1	1.2
1-Jun-20	11:00	214.6	1.3
1-Jun-20	12:00	228.2	3.4
1-Jun-20	13:00	227.1	2.2
1-Jun-20	14:00	201.6	0.1
1-Jun-20	15:00	208.5	0.2
1-Jun-20	16:00	225.7	0.1
1-Jun-20	17:00	213.8	0.2
1-Jun-20	18:00	203.4	0.1
1-Jun-20	19:00	236.6	0.1
1-Jun-20	20:00	209.0	0.5
1-Jun-20	21:00	220.7	0.2
1-Jun-20	22:00	211.5	0.3
1-Jun-20	23:00	291.6	0.2
2-Jun-20	0:00	190.9	0.3
2-Jun-20	1:00	122.3	0.1
2-Jun-20	2:00	79.3	0.1
2-Jun-20	3:00	74.1	0.2
2-Jun-20	4:00	107.7	0.2
2-Jun-20	5:00	61.0	0.4
2-Jun-20	6:00	112.2	0.2
2-Jun-20	7:00	218.6	0.2
2-Jun-20	8:00	241.1	0.6
2-Jun-20	9:00	212.9	0.3
2-Jun-20	10:00	236.5	0.8
2-Jun-20	11:00	223.8	1.4
2-Jun-20	12:00	212.7	0.4

Date	Time	Wind Direction (°)	Wind Speed (m/s)
2-Jun-20	13:00	200.8	0.8
2-Jun-20	14:00	288.4	1.8
2-Jun-20	15:00	284.3	0.3
2-Jun-20	16:00	193.1	0.4
2-Jun-20	17:00	191.7	0.3
2-Jun-20	18:00	56.7	0.2
2-Jun-20	19:00	235.6	0.2
2-Jun-20	20:00	150.6	0.2
2-Jun-20	21:00	81.2	0.2
2-Jun-20	22:00	184.0	0.2
2-Jun-20	23:00	178.1	0.4
3-Jun-20	0:00	193.5	0.2
3-Jun-20	1:00	220.6	0.6
3-Jun-20	2:00	210.7	0.6
3-Jun-20	3:00	226.7	0.8
3-Jun-20	4:00	188.6	0.2
3-Jun-20	5:00	161.7	0.3
3-Jun-20	6:00	223.2	0.1
3-Jun-20	7:00	190.8	0.1
3-Jun-20	8:00	204.8	0.2
3-Jun-20	9:00	164.8	0.3
3-Jun-20	10:00	215.5	0.5
3-Jun-20	11:00	188.2	0.6
3-Jun-20	12:00	217.9	3.5
3-Jun-20	13:00	201.4	2.7
3-Jun-20	14:00	184.5	1.1
3-Jun-20	15:00	204.3	1.1
3-Jun-20	16:00	233.4	0.6
3-Jun-20	17:00	194.9	0.2
3-Jun-20	18:00	220.4	0.1
3-Jun-20	19:00	235.1	0.1
3-Jun-20	20:00	219.5	0.1
3-Jun-20	21:00	188.8	0.2
3-Jun-20	22:00	205.9	0.1
3-Jun-20	23:00	212.1	0.1
4-Jun-20	0:00	227.9	0.2

Date	Time	Wind Direction (°)	Wind Speed (m/s)
4-Jun-20	1:00	253.0	0.1
4-Jun-20	2:00	199.0	0.1
4-Jun-20	3:00	237.0	0.1
4-Jun-20	4:00	219.4	0.1
4-Jun-20	5:00	177.8	0.1
4-Jun-20	6:00	192.4	0.1
4-Jun-20	7:00	208.7	0.8
4-Jun-20	8:00	212.5	0.5
4-Jun-20	9:00	221.4	1.1
4-Jun-20	10:00	228.2	1.9
4-Jun-20	11:00	248.2	1.7
4-Jun-20	12:00	216.1	2.0
4-Jun-20	13:00	279.1	0.9
4-Jun-20	14:00	230.3	0.7
4-Jun-20	15:00	213.2	2.1
4-Jun-20	16:00	228.1	1.5
4-Jun-20	17:00	240.1	1.5
4-Jun-20	18:00	250.2	0.1
4-Jun-20	19:00	228.4	0.2
4-Jun-20	20:00	209.2	0.4
4-Jun-20	21:00	219.1	0.1
4-Jun-20	22:00	215.1	0.5
4-Jun-20	23:00	199.6	0.2
5-Jun-20	0:00	208.2	0.3
5-Jun-20	1:00	201.4	0.2
5-Jun-20	2:00	268.0	0.2
5-Jun-20	3:00	195.9	0.2
5-Jun-20	4:00	210.0	0.1
5-Jun-20	5:00	241.1	0.1
5-Jun-20	6:00	244.4	0.4
5-Jun-20	7:00	233.7	1.1
5-Jun-20	8:00	221.7	0.8
5-Jun-20	9:00	184.3	1.4
5-Jun-20	10:00	234.9	1.0
5-Jun-20	11:00	175.1	0.5
5-Jun-20	12:00	223.9	1.1

Date	Time	Wind Direction (°)	Wind Speed (m/s)
5-Jun-20	13:00	206.5	0.3
5-Jun-20	14:00	210.5	0.7
5-Jun-20	15:00	231.7	2.0
5-Jun-20	16:00	171.0	0.5
5-Jun-20	17:00	219.1	0.3
5-Jun-20	18:00	189.3	0.1
5-Jun-20	19:00	221.3	0.1
5-Jun-20	20:00	79.6	0.2
5-Jun-20	21:00	253.3	0.1
5-Jun-20	22:00	214.4	0.2
5-Jun-20	23:00	235.8	0.1
6-Jun-20	0:00	247.6	0.2
6-Jun-20	1:00	117.8	0.1
6-Jun-20	2:00	146.3	0.1
6-Jun-20	3:00	155.1	0.1
6-Jun-20	4:00	59.2	0.2
6-Jun-20	5:00	74.7	0.2
6-Jun-20	6:00	72.0	0.1
6-Jun-20	7:00	69.5	0.2
6-Jun-20	8:00	152.4	0.3
6-Jun-20	9:00	148.4	0.3
6-Jun-20	10:00	142.6	0.4
6-Jun-20	11:00	158.3	0.4
6-Jun-20	12:00	84.0	0.4
6-Jun-20	13:00	130.5	0.6
6-Jun-20	14:00	177.4	0.7
6-Jun-20	15:00	68.3	0.6
6-Jun-20	16:00	243.6	0.5
6-Jun-20	17:00	270.5	0.5
6-Jun-20	18:00	101.7	0.4
6-Jun-20	19:00	95.9	0.4
6-Jun-20	20:00	205.0	0.5
6-Jun-20	21:00	43.1	0.4
6-Jun-20	22:00	58.6	0.4
6-Jun-20	23:00	71.5	0.4
7-Jun-20	0:00	98.0	0.4

Date	Time	Wind Direction (°)	Wind Speed (m/s)
7-Jun-20	1:00	83.4	0.3
7-Jun-20	2:00	100.6	0.4
7-Jun-20	3:00	46.2	0.4
7-Jun-20	4:00	277.5	0.3
7-Jun-20	5:00	55.3	0.4
7-Jun-20	6:00	137.0	0.5
7-Jun-20	7:00	128.9	0.5
7-Jun-20	8:00	188.4	0.9
7-Jun-20	9:00	223.2	2.5
7-Jun-20	10:00	74.7	0.5
7-Jun-20	11:00	82.0	0.6
7-Jun-20	12:00	89.3	0.6
7-Jun-20	13:00	91.5	0.4
7-Jun-20	14:00	101.7	0.3
7-Jun-20	15:00	113.3	0.2
7-Jun-20	16:00	94.0	0.2
7-Jun-20	17:00	76.5	0.2
7-Jun-20	18:00	111.6	0.2
7-Jun-20	19:00	109.7	0.3
7-Jun-20	20:00	63.9	0.2
7-Jun-20	21:00	186.3	0.3
7-Jun-20	22:00	54.9	0.4
7-Jun-20	23:00	68.5	0.4
8-Jun-20	0:00	147.6	0.2
8-Jun-20	1:00	172.1	0.2
8-Jun-20	2:00	167.7	0.2
8-Jun-20	3:00	74.9	0.3
8-Jun-20	4:00	235.1	0.4
8-Jun-20	5:00	70.2	0.5
8-Jun-20	6:00	268.2	0.6
8-Jun-20	7:00	266.5	0.5
8-Jun-20	8:00	149.5	0.5
8-Jun-20	9:00	85.7	0.6
8-Jun-20	10:00	66.3	0.7
8-Jun-20	11:00	28.6	0.7
8-Jun-20	12:00	171.8	0.5

Date	Time	Wind Direction (°)	Wind Speed (m/s)
8-Jun-20	13:00	69.9	0.5
8-Jun-20	14:00	81.1	0.4
8-Jun-20	15:00	177.1	0.2
8-Jun-20	16:00	53.6	0.2
8-Jun-20	17:00	104.0	0.2
8-Jun-20	18:00	73.5	0.2
8-Jun-20	19:00	84.4	0.2
8-Jun-20	20:00	63.3	0.2
8-Jun-20	21:00	70.6	0.3
8-Jun-20	22:00	75.4	0.2
8-Jun-20	23:00	26.2	0.3
9-Jun-20	0:00	112.5	0.3
9-Jun-20	1:00	153.4	0.2
9-Jun-20	2:00	184.4	0.2
9-Jun-20	3:00	161.8	0.2
9-Jun-20	4:00	162.7	0.3
9-Jun-20	5:00	187.3	0.2
9-Jun-20	6:00	231.3	0.5
9-Jun-20	7:00	203.7	0.2
9-Jun-20	8:00	219.4	0.2
9-Jun-20	9:00	220.9	0.4
9-Jun-20	10:00	237.5	0.8
9-Jun-20	11:00	200.2	0.4
9-Jun-20	12:00	204.8	0.8
9-Jun-20	13:00	204.6	2.4
9-Jun-20	14:00	220.6	1.5
9-Jun-20	15:00	242.8	1.1
9-Jun-20	16:00	214.1	1.4
9-Jun-20	17:00	198.5	1.0
9-Jun-20	18:00	209.7	0.9
9-Jun-20	19:00	206.9	0.8
9-Jun-20	20:00	183.8	0.8
9-Jun-20	21:00	68.5	0.8
9-Jun-20	22:00	18.7	0.7
9-Jun-20	23:00	56.0	0.6
10-Jun-20	0:00	72.0	0.6

Date	Time	Wind Direction (°)	Wind Speed (m/s)
10-Jun-20	1:00	66.0	0.6
10-Jun-20	2:00	49.7	0.6
10-Jun-20	3:00	35.5	0.6
10-Jun-20	4:00	61.4	0.6
10-Jun-20	5:00	50.8	0.7
10-Jun-20	6:00	49.4	0.5
10-Jun-20	7:00	277.0	0.3
10-Jun-20	8:00	211.8	2.0
10-Jun-20	9:00	202.2	2.2
10-Jun-20	10:00	216.7	2.1
10-Jun-20	11:00	244.7	1.8
10-Jun-20	12:00	210.5	1.0
10-Jun-20	13:00	242.4	1.7
10-Jun-20	14:00	210.9	0.6
10-Jun-20	15:00	197.6	1.9
10-Jun-20	16:00	204.5	0.5
10-Jun-20	17:00	240.6	1.1
10-Jun-20	18:00	226.2	0.4
10-Jun-20	19:00	228.7	0.3
10-Jun-20	20:00	220.1	0.3
10-Jun-20	21:00	199.1	0.3
10-Jun-20	22:00	29.0	0.2
10-Jun-20	23:00	19.8	0.2
11-Jun-20	0:00	17.5	0.2
11-Jun-20	1:00	27.2	0.2
11-Jun-20	2:00	47.2	0.2
11-Jun-20	3:00	27.8	0.2
11-Jun-20	4:00	39.2	0.2
11-Jun-20	5:00	168.9	0.2
11-Jun-20	6:00	55.3	0.1
11-Jun-20	7:00	271.1	0.1
11-Jun-20	8:00	234.8	0.1
11-Jun-20	9:00	233.3	0.4
11-Jun-20	10:00	260.1	1.1
11-Jun-20	11:00	268.0	2.3
11-Jun-20	12:00	259.4	1.5

Date	Time	Wind Direction (°)	Wind Speed (m/s)
11-Jun-20	13:00	238.9	0.3
11-Jun-20	14:00	242.5	0.8
11-Jun-20	15:00	290.1	0.7
11-Jun-20	16:00	201.6	1.2
11-Jun-20	17:00	214.1	1.3
11-Jun-20	18:00	234.1	0.2
11-Jun-20	19:00	255.1	0.1
11-Jun-20	20:00	249.9	0.1
11-Jun-20	21:00	193.6	0.1
11-Jun-20	22:00	137.8	0.1
11-Jun-20	23:00	251.8	0.1
12-Jun-20	0:00	121.6	0.1
12-Jun-20	1:00	127.7	0.1
12-Jun-20	2:00	172.3	0.1
12-Jun-20	3:00	263.7	0.1
12-Jun-20	4:00	269.0	0.1
12-Jun-20	5:00	167.4	0.1
12-Jun-20	6:00	56.2	0.1
12-Jun-20	7:00	97.2	0.1
12-Jun-20	8:00	219.0	0.2
12-Jun-20	9:00	87.0	0.1
12-Jun-20	10:00	282.9	0.2
12-Jun-20	11:00	87.8	0.1
12-Jun-20	12:00	96.7	0.3
12-Jun-20	13:00	160.5	1.0
12-Jun-20	14:00	151.6	0.2
12-Jun-20	15:00	132.4	0.1
12-Jun-20	16:00	143.7	0.2
12-Jun-20	17:00	67.2	0.1
12-Jun-20	18:00	154.7	0.2
12-Jun-20	19:00	139.4	0.2
12-Jun-20	20:00	72.0	0.1
12-Jun-20	21:00	79.0	0.1
12-Jun-20	22:00	63.8	0.1
12-Jun-20	23:00	69.0	0.1
13-Jun-20	0:00	46.0	0.1

Date	Time	Wind Direction (°)	Wind Speed (m/s)
13-Jun-20	1:00	51.6	0.1
13-Jun-20	2:00	54.3	0.1
13-Jun-20	3:00	52.5	0.1
13-Jun-20	4:00	26.2	0.2
13-Jun-20	5:00	68.8	0.2
13-Jun-20	6:00	44.7	0.2
13-Jun-20	7:00	52.5	0.3
13-Jun-20	8:00	56.7	0.5
13-Jun-20	9:00	111.5	0.8
13-Jun-20	10:00	48.3	0.7
13-Jun-20	11:00	88.4	0.9
13-Jun-20	12:00	126.4	0.9
13-Jun-20	13:00	97.6	0.9
13-Jun-20	14:00	93.2	1.0
13-Jun-20	15:00	110.4	0.4
13-Jun-20	16:00	99.6	0.4
13-Jun-20	17:00	93.6	1.4
13-Jun-20	18:00	114.4	0.7
13-Jun-20	19:00	82.7	0.9
13-Jun-20	20:00	83.2	0.7
13-Jun-20	21:00	77.6	0.8
13-Jun-20	22:00	106.6	0.5
13-Jun-20	23:00	54.8	0.4
14-Jun-20	0:00	141.9	2.2
14-Jun-20	1:00	153.3	1.3
14-Jun-20	2:00	92.7	0.6
14-Jun-20	3:00	189.7	0.5
14-Jun-20	4:00	120.5	0.4
14-Jun-20	5:00	185.7	0.6
14-Jun-20	6:00	124.7	0.6
14-Jun-20	7:00	161.9	0.5
14-Jun-20	8:00	207.8	0.4
14-Jun-20	9:00	158.7	0.8
14-Jun-20	10:00	155.6	1.3
14-Jun-20	11:00	198.1	1.2
14-Jun-20	12:00	216.3	0.9

Date	Time	Wind Direction (°)	Wind Speed (m/s)
14-Jun-20	13:00	167.5	0.9
14-Jun-20	14:00	118.0	1.0
14-Jun-20	15:00	160.2	1.0
14-Jun-20	16:00	162.8	3.1
14-Jun-20	17:00	56.5	0.5
14-Jun-20	18:00	93.4	0.9
14-Jun-20	19:00	62.5	0.8
14-Jun-20	20:00	71.8	0.5
14-Jun-20	21:00	110.8	0.3
14-Jun-20	22:00	73.6	0.4
14-Jun-20	23:00	76.6	0.5
15-Jun-20	0:00	47.9	0.6
15-Jun-20	1:00	62.5	0.4
15-Jun-20	2:00	45.7	0.4
15-Jun-20	3:00	66.8	0.4
15-Jun-20	4:00	67.1	0.4
15-Jun-20	5:00	76.6	0.4
15-Jun-20	6:00	155.7	0.6
15-Jun-20	7:00	170.2	0.7
15-Jun-20	8:00	237.9	0.8
15-Jun-20	9:00	187.9	2.8
15-Jun-20	10:00	235.0	2.6
15-Jun-20	11:00	228.5	1.2
15-Jun-20	12:00	208.5	2.6
15-Jun-20	13:00	250.9	2.2
15-Jun-20	14:00	246.8	1.1
15-Jun-20	15:00	204.9	2.6
15-Jun-20	16:00	206.3	1.6
15-Jun-20	17:00	233.4	1.1
15-Jun-20	18:00	228.2	0.7
15-Jun-20	19:00	224.6	0.7
15-Jun-20	20:00	229.6	0.6
15-Jun-20	21:00	253.3	0.6
15-Jun-20	22:00	147.5	0.5
15-Jun-20	23:00	203.3	0.5
16-Jun-20	0:00	116.8	0.5

Date	Time	Wind Direction (°)	Wind Speed (m/s)
16-Jun-20	1:00	249.7	0.4
16-Jun-20	2:00	177.2	0.4
16-Jun-20	3:00	356.3	0.4
16-Jun-20	4:00	40.5	0.4
16-Jun-20	5:00	171.8	0.4
16-Jun-20	6:00	201.5	0.2
16-Jun-20	7:00	171.5	0.1
16-Jun-20	8:00	266.0	1.9
16-Jun-20	9:00	216.1	0.9
16-Jun-20	10:00	240.7	1.1
16-Jun-20	11:00	233.5	2.1
16-Jun-20	12:00	197.7	0.2
16-Jun-20	13:00	223.4	0.6
16-Jun-20	14:00	205.4	1.9
16-Jun-20	15:00	232.4	4.3
16-Jun-20	16:00	194.3	1.1
16-Jun-20	17:00	256.4	1.5
16-Jun-20	18:00	164.7	0.3
16-Jun-20	19:00	94.9	0.2
16-Jun-20	20:00	210.6	0.2
16-Jun-20	21:00	53.8	0.2
16-Jun-20	22:00	168.3	0.2
16-Jun-20	23:00	49.6	0.2
17-Jun-20	0:00	46.6	0.2
17-Jun-20	1:00	258.5	0.1
17-Jun-20	2:00	103.8	0.2
17-Jun-20	3:00	72.9	0.2
17-Jun-20	4:00	49.1	0.2
17-Jun-20	5:00	96.3	0.4
17-Jun-20	6:00	63.2	0.2
17-Jun-20	7:00	144.3	0.4
17-Jun-20	8:00	238.8	0.6
17-Jun-20	9:00	218.6	0.5
17-Jun-20	10:00	201.1	2.1
17-Jun-20	11:00	212.5	1.3
17-Jun-20	12:00	245.4	0.6

Date	Time	Wind Direction (°)	Wind Speed (m/s)
17-Jun-20	13:00	217.6	1.5
17-Jun-20	14:00	223.2	2.1
17-Jun-20	15:00	203.9	1.2
17-Jun-20	16:00	234.3	1.5
17-Jun-20	17:00	223.3	0.9
17-Jun-20	18:00	197.5	0.3
17-Jun-20	19:00	227.8	0.3
17-Jun-20	20:00	130.2	0.4
17-Jun-20	21:00	58.1	0.4
17-Jun-20	22:00	38.5	0.4
17-Jun-20	23:00	41.3	0.4
18-Jun-20	0:00	211.5	0.4
18-Jun-20	1:00	26.4	0.4
18-Jun-20	2:00	137.4	0.4
18-Jun-20	3:00	213.3	0.4
18-Jun-20	4:00	216.2	0.4
18-Jun-20	5:00	209.2	0.5
18-Jun-20	6:00	251.5	0.2
18-Jun-20	7:00	230.7	0.2
18-Jun-20	8:00	222.6	1.9
18-Jun-20	9:00	193.0	0.4
18-Jun-20	10:00	211.3	0.3
18-Jun-20	11:00	218.0	0.3
18-Jun-20	12:00	184.7	1.2
18-Jun-20	13:00	206.9	1.7
18-Jun-20	14:00	196.1	2.5
18-Jun-20	15:00	208.4	3.8
18-Jun-20	16:00	206.4	0.9
18-Jun-20	17:00	172.1	0.2
18-Jun-20	18:00	232.2	0.3
18-Jun-20	19:00	204.5	0.2
18-Jun-20	20:00	219.9	0.1
18-Jun-20	21:00	198.7	0.1
18-Jun-20	22:00	215.9	0.1
18-Jun-20	23:00	200.0	0.1
19-Jun-20	0:00	185.2	0.1

Date	Time	Wind Direction (°)	Wind Speed (m/s)
19-Jun-20	1:00	228.9	0.1
19-Jun-20	2:00	154.4	0.1
19-Jun-20	3:00	162.8	0.1
19-Jun-20	4:00	94.6	0.1
19-Jun-20	5:00	127.8	0.1
19-Jun-20	6:00	247.3	0.1
19-Jun-20	7:00	240.8	0.3
19-Jun-20	8:00	210.3	0.8
19-Jun-20	9:00	179.4	0.8
19-Jun-20	10:00	170.0	1.4
19-Jun-20	11:00	236.1	2.0
19-Jun-20	12:00	275.0	2.4
19-Jun-20	13:00	236.3	1.7
19-Jun-20	14:00	264.9	1.1
19-Jun-20	15:00	204.8	0.2
19-Jun-20	16:00	223.7	1.7
19-Jun-20	17:00	216.1	0.3
19-Jun-20	18:00	206.4	0.2
19-Jun-20	19:00	227.2	0.2
19-Jun-20	20:00	202.4	0.1
19-Jun-20	21:00	220.9	0.1
19-Jun-20	22:00	232.4	0.1
19-Jun-20	23:00	135.2	0.1
20-Jun-20	0:00	120.6	0.1
20-Jun-20	1:00	255.4	0.1
20-Jun-20	2:00	210.9	0.1
20-Jun-20	3:00	208.3	0.1
20-Jun-20	4:00	264.6	0.1
20-Jun-20	5:00	160.2	0.1
20-Jun-20	6:00	38.7	0.1
20-Jun-20	7:00	242.7	0.4
20-Jun-20	8:00	230.7	0.2
20-Jun-20	9:00	258.2	1.0
20-Jun-20	10:00	291.7	1.0
20-Jun-20	11:00	224.4	2.3
20-Jun-20	12:00	210.1	2.0

Date	Time	Wind Direction (°)	Wind Speed (m/s)
20-Jun-20	13:00	199.4	0.9
20-Jun-20	14:00	195.4	0.3
20-Jun-20	15:00	214.0	1.5
20-Jun-20	16:00	231.8	0.6
20-Jun-20	17:00	241.3	0.2
20-Jun-20	18:00	225.4	0.2
20-Jun-20	19:00	211.4	0.2
20-Jun-20	20:00	225.7	0.1
20-Jun-20	21:00	217.2	0.1
20-Jun-20	22:00	216.8	0.1
20-Jun-20	23:00	209.6	0.1
21-Jun-20	0:00	202.7	0.1
21-Jun-20	1:00	204.0	0.1
21-Jun-20	2:00	204.6	0.1
21-Jun-20	3:00	213.4	0.1
21-Jun-20	4:00	227.3	0.1
21-Jun-20	5:00	241.0	0.1
21-Jun-20	6:00	220.2	0.1
21-Jun-20	7:00	244.3	0.4
21-Jun-20	8:00	225.9	3.2
21-Jun-20	9:00	259.6	0.5
21-Jun-20	10:00	228.4	2.3
21-Jun-20	11:00	257.1	2.3
21-Jun-20	12:00	235.9	1.6
21-Jun-20	13:00	228.4	1.1
21-Jun-20	14:00	234.0	0.8
21-Jun-20	15:00	205.0	0.9
21-Jun-20	16:00	233.0	0.6
21-Jun-20	17:00	240.6	0.3
21-Jun-20	18:00	213.0	0.2
21-Jun-20	19:00	194.8	0.1
21-Jun-20	20:00	216.5	0.1
21-Jun-20	21:00	212.5	0.2
21-Jun-20	22:00	233.5	0.4
21-Jun-20	23:00	201.0	0.1
22-Jun-20	0:00	194.2	0.5

Date	Time	Wind Direction (°)	Wind Speed (m/s)
22-Jun-20	1:00	214.4	0.2
22-Jun-20	2:00	209.6	1.3
22-Jun-20	3:00	191.5	0.1
22-Jun-20	4:00	213.2	0.1
22-Jun-20	5:00	216.9	0.1
22-Jun-20	6:00	178.7	0.2
22-Jun-20	7:00	171.7	0.7
22-Jun-20	8:00	219.8	0.6
22-Jun-20	9:00	215.8	1.6
22-Jun-20	10:00	232.2	1.6
22-Jun-20	11:00	194.7	0.6
22-Jun-20	12:00	218.3	0.5
22-Jun-20	13:00	220.8	1.7
22-Jun-20	14:00	207.7	1.0
22-Jun-20	15:00	213.0	1.5
22-Jun-20	16:00	226.0	1.3
22-Jun-20	17:00	191.4	0.9
22-Jun-20	18:00	214.1	0.2
22-Jun-20	19:00	235.4	0.1
22-Jun-20	20:00	225.8	0.1
22-Jun-20	21:00	174.6	0.1
22-Jun-20	22:00	233.6	0.1
22-Jun-20	23:00	178.0	0.7
23-Jun-20	0:00	242.5	0.1
23-Jun-20	1:00	222.9	0.2
23-Jun-20	2:00	231.4	0.1
23-Jun-20	3:00	199.9	0.1
23-Jun-20	4:00	225.9	0.1
23-Jun-20	5:00	273.8	0.1
23-Jun-20	6:00	253.0	0.2
23-Jun-20	7:00	252.9	0.8
23-Jun-20	8:00	259.7	1.8
23-Jun-20	9:00	261.6	0.8
23-Jun-20	10:00	218.2	1.2
23-Jun-20	11:00	214.0	0.6
23-Jun-20	12:00	262.7	1.8

Date	Time	Wind Direction (°)	Wind Speed (m/s)
23-Jun-20	13:00	233.5	1.3
23-Jun-20	14:00	220.5	3.1
23-Jun-20	15:00	232.7	0.7
23-Jun-20	16:00	226.5	0.8
23-Jun-20	17:00	235.7	2.4
23-Jun-20	18:00	219.5	1.2
23-Jun-20	19:00	225.9	0.2
23-Jun-20	20:00	253.3	0.1
23-Jun-20	21:00	226.4	0.1
23-Jun-20	22:00	223.7	0.1
23-Jun-20	23:00	230.1	0.2
24-Jun-20	0:00	245.9	0.1
24-Jun-20	1:00	280.7	0.3
24-Jun-20	2:00	226.9	0.1
24-Jun-20	3:00	204.9	0.1
24-Jun-20	4:00	220.4	0.1
24-Jun-20	5:00	223.3	0.1
24-Jun-20	6:00	295.5	0.1
24-Jun-20	7:00	233.5	0.3
24-Jun-20	8:00	226.1	0.7
24-Jun-20	9:00	263.9	2.4
24-Jun-20	10:00	294.2	0.4
24-Jun-20	11:00	241.0	1.7
24-Jun-20	12:00	222.1	0.3
24-Jun-20	13:00	195.4	1.9
24-Jun-20	14:00	222.2	2.3
24-Jun-20	15:00	237.6	1.9
24-Jun-20	16:00	217.1	0.5
24-Jun-20	17:00	264.1	0.5
24-Jun-20	18:00	222.2	0.2
24-Jun-20	19:00	200.4	0.1
24-Jun-20	20:00	224.7	0.4
24-Jun-20	21:00	207.8	0.4
24-Jun-20	22:00	214.6	0.9
24-Jun-20	23:00	213.3	1.0
25-Jun-20	0:00	212.1	0.4

Date	Time	Wind Direction (°)	Wind Speed (m/s)
25-Jun-20	1:00	245.8	0.1
25-Jun-20	2:00	211.7	0.6
25-Jun-20	3:00	233.4	0.5
25-Jun-20	4:00	192.0	0.4
25-Jun-20	5:00	197.3	0.6
25-Jun-20	6:00	230.2	0.3
25-Jun-20	7:00	212.4	0.7
25-Jun-20	8:00	226.9	0.2
25-Jun-20	9:00	193.2	1.2
25-Jun-20	10:00	201.3	0.6
25-Jun-20	11:00	203.5	1.5
25-Jun-20	12:00	211.7	2.6
25-Jun-20	13:00	226.7	4.4
25-Jun-20	14:00	217.9	1.8
25-Jun-20	15:00	196.0	1.4
25-Jun-20	16:00	200.8	3.0
25-Jun-20	17:00	222.1	2.7
25-Jun-20	18:00	197.6	0.5
25-Jun-20	19:00	178.5	0.1
25-Jun-20	20:00	238.0	0.1
25-Jun-20	21:00	218.8	0.1
25-Jun-20	22:00	217.7	0.3
25-Jun-20	23:00	215.8	0.6
26-Jun-20	0:00	184.1	0.2
26-Jun-20	1:00	190.4	0.1
26-Jun-20	2:00	186.7	0.2
26-Jun-20	3:00	245.9	0.1
26-Jun-20	4:00	191.6	0.1
26-Jun-20	5:00	173.1	0.1
26-Jun-20	6:00	255.1	0.3
26-Jun-20	7:00	219.3	0.1
26-Jun-20	8:00	233.2	0.3
26-Jun-20	9:00	189.7	0.3
26-Jun-20	10:00	197.3	0.2
26-Jun-20	11:00	203.2	0.4
26-Jun-20	12:00	269.7	0.6

Date	Time	Wind Direction (°)	Wind Speed (m/s)
26-Jun-20	13:00	181.1	1.4
26-Jun-20	14:00	244.2	2.0
26-Jun-20	15:00	212.2	0.3
26-Jun-20	16:00	203.5	1.0
26-Jun-20	17:00	222.0	1.8
26-Jun-20	18:00	219.5	0.4
26-Jun-20	19:00	200.8	0.2
26-Jun-20	20:00	247.7	0.2
26-Jun-20	21:00	229.0	0.1
26-Jun-20	22:00	225.1	0.1
26-Jun-20	23:00	218.0	0.1
27-Jun-20	0:00	231.1	0.1
27-Jun-20	1:00	220.1	0.1
27-Jun-20	2:00	235.9	0.1
27-Jun-20	3:00	187.1	0.1
27-Jun-20	4:00	217.9	0.1
27-Jun-20	5:00	225.4	0.1
27-Jun-20	6:00	44.9	0.1
27-Jun-20	7:00	227.9	0.1
27-Jun-20	8:00	241.5	0.4
27-Jun-20	9:00	226.3	0.1
27-Jun-20	10:00	223.2	0.5
27-Jun-20	11:00	203.4	0.8
27-Jun-20	12:00	197.4	1.7
27-Jun-20	13:00	185.3	1.0
27-Jun-20	14:00	204.5	1.3
27-Jun-20	15:00	223.7	2.0
27-Jun-20	16:00	168.6	0.9
27-Jun-20	17:00	212.6	0.3
27-Jun-20	18:00	262.2	0.2
27-Jun-20	19:00	201.7	0.2
27-Jun-20	20:00	228.8	0.1
27-Jun-20	21:00	213.5	0.1
27-Jun-20	22:00	225.4	0.1
27-Jun-20	23:00	218.7	0.3
28-Jun-20	0:00	242.8	0.1

Date	Time	Wind Direction (°)	Wind Speed (m/s)
28-Jun-20	1:00	213.3	0.1
28-Jun-20	2:00	111.9	0.1
28-Jun-20	3:00	235.0	0.1
28-Jun-20	4:00	113.3	0.1
28-Jun-20	5:00	70.9	0.1
28-Jun-20	6:00	215.9	0.2
28-Jun-20	7:00	249.1	0.2
28-Jun-20	8:00	179.8	0.9
28-Jun-20	9:00	223.6	2.6
28-Jun-20	10:00	208.9	2.5
28-Jun-20	11:00	210.9	2.1
28-Jun-20	12:00	261.2	0.5
28-Jun-20	13:00	278.5	0.2
28-Jun-20	14:00	236.6	0.5
28-Jun-20	15:00	175.0	1.4
28-Jun-20	16:00	232.2	0.8
28-Jun-20	17:00	218.9	0.7
28-Jun-20	18:00	229.6	0.3
28-Jun-20	19:00	233.2	0.2
28-Jun-20	20:00	220.2	0.3
28-Jun-20	21:00	155.9	0.1
28-Jun-20	22:00	232.4	0.1
28-Jun-20	23:00	237.4	0.1
29-Jun-20	0:00	122.3	0.1
29-Jun-20	1:00	205.9	0.1
29-Jun-20	2:00	128.5	0.1
29-Jun-20	3:00	75.0	0.1
29-Jun-20	4:00	59.8	0.1
29-Jun-20	5:00	122.9	0.1
29-Jun-20	6:00	65.2	0.1
29-Jun-20	7:00	168.4	0.1
29-Jun-20	8:00	131.5	0.3
29-Jun-20	9:00	196.3	0.3
29-Jun-20	10:00	176.1	0.2
29-Jun-20	11:00	215.1	0.7
29-Jun-20	12:00	195.8	0.4

Date	Time	Wind Direction (°)	Wind Speed (m/s)		
29-Jun-20	13:00	247.9	0.8		
29-Jun-20	14:00	195.1	0.2		
29-Jun-20	15:00	227.8	0.4		
29-Jun-20	16:00	252.2	1.5		
29-Jun-20	17:00	217.0	0.5		
29-Jun-20	18:00	212.2	0.2		
29-Jun-20	19:00	183.3	0.1		
29-Jun-20	20:00	124.9	0.1		
29-Jun-20	21:00	75.0	0.2		
29-Jun-20	22:00	139.4	0.1		
29-Jun-20	23:00	200.3	0.1		
30-Jun-20	0:00	56.3	0.1		
30-Jun-20	1:00	45.1	0.1		
30-Jun-20	2:00	154.6	0.1		
30-Jun-20	3:00	255.7	0.1		
30-Jun-20	4:00	137.4	0.1		
30-Jun-20	5:00	250.1	0.1		
30-Jun-20	6:00	148.5	0.1		
30-Jun-20	7:00	234.9	0.1		
30-Jun-20	8:00	188.8	0.2		
30-Jun-20	9:00	213.5	0.6		
30-Jun-20	10:00	104.4	0.5		
30-Jun-20	11:00	228.4	0.4		
30-Jun-20	12:00	213.6	0.3		
30-Jun-20	13:00	245.2	1.0		
30-Jun-20	14:00	285.9	0.7		
30-Jun-20	15:00	295.2	0.6		
30-Jun-20	16:00	191.1	0.2		
30-Jun-20	17:00	145.5	0.1		
30-Jun-20	18:00	151.3	0.1		
30-Jun-20	19:00	49.6	0.1		
30-Jun-20	20:00	83.6	0.1		
30-Jun-20	21:00	77.6	0.1		
30-Jun-20	22:00	99.2	0.1		
30-Jun-20	23:00	80.6	0.1		

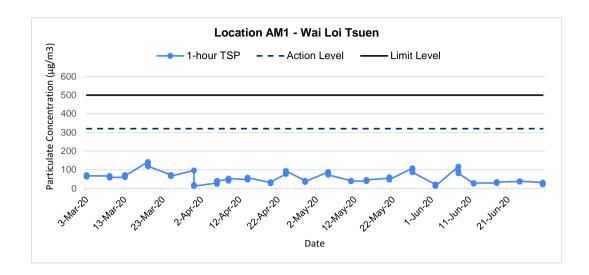
APPENDIX E 1-HOUR TSP MONITORING RESULTS AND GRAPHICAL PRESENTATIONS

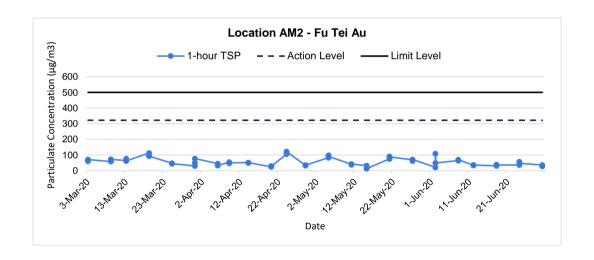
Appendix E - 1-hour TSP Monitoring Results

Location AM1	- Wai Loi T	suen	
Date	Time	Weather	Particulate Concentration (µg/m³)
2-Jun-20	9:35	Fine	20.8
2-Jun-20	10:35	Fine	15.6
2-Jun-20	11:35	Fine	13.0
8-Jun-20	9:10	Rainy	117.0
8-Jun-20	10:10	Rainy	93.6
8-Jun-20	11:10	Rainy	80.6
12-Jun-20	9:20	Sunny	26.0
12-Jun-20	10:20	Sunny	26.0
12-Jun-20	11:20	Sunny	28.6
18-Jun-20	9:05	Sunny	28.6
18-Jun-20	10:05	Sunny	31.2
18-Jun-20	11:05	Sunny	33.8
24-Jun-20	9:15	Sunny	36.4
24-Jun-20	10:15	Sunny	36.4
24-Jun-20	11:15	Sunny	39.0
30-Jun-20	9:15	Sunny	31.2
30-Jun-20	10:15	Sunny	20.8
30-Jun-20	11:15	Sunny	26.0
		Average	39.1
		Maximum	117.0
		Minimum	13.0

Location AM2	? - Fu Tei Au		
Date	Time	Weather	Particulate Concentration (µg/m³)
2-Jun-20	14:05	Fine	20.8
2-Jun-20	15:05	Fine	109.2
2-Jun-20	16:05	Fine	49.4
8-Jun-20	13:00	Rainy	65.0
8-Jun-20	14:00	Rainy	65.0
8-Jun-20	15:00	Rainy	70.2
12-Jun-20	13:30	Sunny	33.8
12-Jun-20	14:30	Sunny	36.4
12-Jun-20	15:30	Sunny	36.4
18-Jun-20	13:15	Sunny	31.2
18-Jun-20	14:15	Sunny	39.0
18-Jun-20	15:15	Sunny	36.4
24-Jun-20	13:40	Sunny	36.4
24-Jun-20	14:40	Sunny	57.2
24-Jun-20	15:40	Sunny	46.8
30-Jun-20	13:00	Sunny	36.4
30-Jun-20	14:00	Sunny	31.2
30-Jun-20	15:00	Sunny	28.6
		Average	46.1
		Maximum	109.2
		Minimum	20.8







Title Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1

Graphical Presentation of 1-hour TSP Monitoring Results

Date

Jun 2020 Project
No. MA19019

Appendix

E

APPENDIX F 24-HOUR TSP MONITORING RESULTS AND GRAPHICAL PRESENTATIONS

Appendix F - 24-hour TSP Monitoring Results

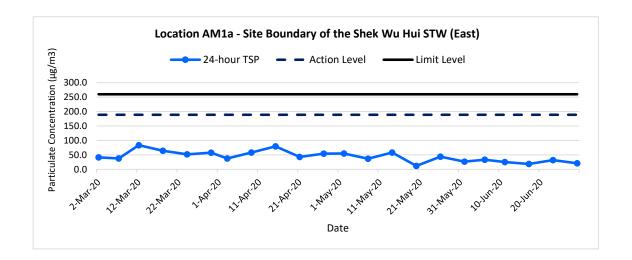
Location AM1a - Site Boundary of the Shek Wu Hui STW (East)

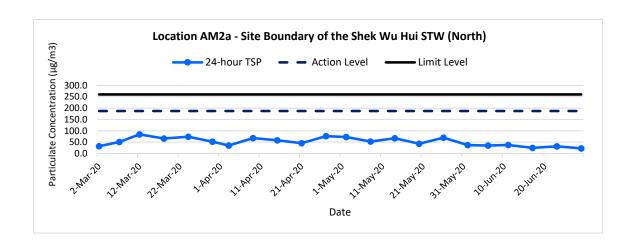
	Weather	Air Temp.	Atmospheric Pressure,	Filter W	eight (g)	Particulate	Elaps	e Time	Sampling	Flow Rate	e (m³/min.)	Av. Flow	Total vol.	Conc.
Start Date	Condition	(K)	Pa (mmHg)	Initial	Final	weight (g)	Initial	Final	Time (hrs.)	Initial	Final	(m ³ /min)	(m^3)	$(\mu g/m^3)$
1-Jun-20	Sunny	302.5	758.4	3.5276	3.5743	0.0467	8730.6	8754.6	24.0	1.21	1.22	1.21	1748.8	26.7
6-Jun-20	Rainy	300.3	755.8	3.4728	3.5316	0.0588	8754.6	8778.6	24.0	1.22	1.22	1.22	1752.6	33.6
11-Jun-20	Sunny	303.3	755.8	3.4958	3.5399	0.0441	8778.6	8802.6	24.0	1.21	1.21	1.21	1742.7	25.3
17-Jun-20	Sunny	302.3	757.3	3.4999	3.5328	0.0329	8802.6	8826.6	24.0	1.21	1.21	1.21	1747.9	18.8
23-Jun-20	Sunny	303.4	756.1	3.4979	3.5534	0.0555	8826.6	8850.6	24.0	1.21	1.21	1.21	1743.0	31.8
29-Jun-20	Sunny	303.6	755.0	3.5198	3.5567	0.0369	8850.6	8874.6	24.0	1.21	1.21	1.21	1740.8	21.2
													Min	18.8
													Max	33.6
													Average	26.2

Location AM2a - Site Boundary of the Shek Wu Hui STW (North)

Start Date	Weather	Air Temp.	Atmospheric Pressure,	Filter W	eight (g)	Particulate	Elaps	e Time	Sampling	Flow Rate	e (m³/min.)	Av. Flow	Total vol.	Conc.
Start Date	Condition	(K)	Pa (mmHg)	Initial	Final	weight (g)	Initial	Final	Time (hrs.)	Initial	Final	(m ³ /min)	(m^3)	$(\mu g/m^3)$
1-Jun-20	Sunny	302.5	758.4	3.4695	3.5341	0.0646	18900.8	18924.8	24.0	1.22	1.22	1.22	1751.0	36.9
6-Jun-20	Rainy	300.3	755.8	3.5094	3.5714	0.0620	18924.8	18948.8	24.0	1.22	1.22	1.22	1755.2	35.3
11-Jun-20	Sunny	303.3	755.8	3.4900	3.5558	0.0658	18948.8	18972.8	24.0	1.21	1.21	1.21	1744.2	37.7
17-Jun-20	Sunny	302.3	757.3	3.4911	3.5346	0.0435	18972.8	18996.8	24.0	1.22	1.21	1.22	1750.0	24.9
23-Jun-20	Sunny	303.4	756.1	3.5345	3.5891	0.0546	18996.8	19020.8	24.0	1.21	1.21	1.21	1744.5	31.3
29-Jun-20	Sunny	303.6	755.0	3.4730	3.5124	0.0394	19020.8	19044.8	24.0	1.21	1.21	1.21	1742.0	22.6
													Min	22.6
													Max	37.7
													Average	31.5

24-hr TSP Concentration Levels





Title	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1	Date Jun 2020	Project No.	MA19019	CINOTECL
	Graphical Presentation of 24-hour TSP Monitoring Results		Appendix	F	CINOICCI

APPENDIX G COPIES OF CALIBRATION CERTIFICATES FOR NOISE MONITORING



0022524

Customer: Cinotech Consultants Limited RM 1710, Technology Park, 18 On Lai Street, Shatin, N.T. Hong Kong		Object 1: BSWA 308 SLM Serial No. /Ref. No.: 570183 / 550233 Object 2: Serial No. /Ref. No.:
Customer Code: SVEC09005		Manufacturer: BSWAtech
Date of calibration: Date of the recommended re-calibration:	23/09/2019 23/09/2020	Certificate No.: 0022524 Handle by: E0002

Measuring results

	Reference value	Indication value	Deviation	Allowed deviation	Object
Γ	94.0dB	94.0dB	0.0dB	+/- 1.5dB	11
	114.0dB	114.0dB	0.0dB	+/- 1.5dB	1

Measuring equipment

index		Calibrator / Master	Traceability
1	1	Master Sound Meter, SVAN949,sn:8571	IEC61672
r	2	Sound Calibrator, SV30A sn:32580	IEC60942

Ambient conditions

Temperature (20...26)°C

Humidity (20...60)%RH

Measuring procedure

Calibrated by Type 1 Sound Calibrator with Master Sound Level Meter under 1kHz Frequency.

Uncertainty

+/- 0.2 dB for probability not less than 95%.

Conformity

- 1. The resulted values were those obtained at the time of test and applies only to the item calibrated.
- 2. The measurement uncertainty was calculated according to the regulations of GUM with the coverage factor k=2 and contains the uncertainty of the measuring procedure and the uncertainty of the measuring system.
- 3. The equipment being used in this calibration are regularly calibrated by laboratory according to ISO/IEC17025.
- 4.HKAS has accredited this laboratory (HOKLAS 267) for specific calibration activities as listed in the HOKLAS directory of accredited laboratories.
- 5. The calibrations certificate may not be reproduced.

Measured value(s)	within	the al
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the allowable deviation.

Performed by

Calibration Technician

Approved by

Quality Manager



0022522

Object 1: Customer: BSWA 308 SLM Serial No. /Ref. No. : Cinotech Consultants Limited 570187 / 550841 RM 1710, Technology Park, Object 2: 18 On Lai Street, Shatin, N.T. Serial No. /Ref. No. Hong Kong Customer Code: SVEC09005 Manufacturer: **BSWAtech** Date of calibration: 23/09/2019 Certificate No.: 0022522 Date of the recommended re-calibration: Handle by: 23/09/2020 E0002

Measuring results

Refe	rence value	Indication value	Deviation	Allowed deviation	Object
	94.0dB	94.0dB	0.0dB	+/- 1.5dB	1
	114.0dB	113.9dB	-0.1dB	+/- 1.5dB	1

Measuring equipment

index		Calibrator / Master	Traceability
	1	Master Sound Meter, SVAN949,sn:8571	IEC61672
	2	Sound Calibrator, SV30A sn:32580	IEC60942

Ambient conditions

Temperature (20...26)°C

Humidity (20...60)%RH

Measuring procedure

Calibrated by Type 1 Sound Calibrator with Master Sound Level Meter under 1kHz Frequency.

Uncertainty

+/- 0.2 dB for probability not less than 95%.

Conformity

- 1. The resulted values were those obtained at the time of test and applies only to the item calibrated.
- 2. The measurement uncertainty was calculated according to the regulations of GUM with the coverage factor k=2 and contains the uncertainty of the measuring procedure and the uncertainty of the measuring system.
- 3. The equipment being used in this calibration are regularly calibrated by laboratory according to ISO/IEC17025.
- 4.HKAS has accredited this laboratory (HOKLAS 267) for specific calibration activities as listed in the HOKLAS directory of accredited laboratories.
- 5. The calibrations certificate may not be reproduced.

Measured value(s)	ithin ti	he allowable	deviation.
-------------------	----------	--------------	------------

Performed by

Calibration Technician

Approved by

Quality Manager



0022999

Customer: Cinotech Consultants Limited RM 1710, Technology Park, 18 On Lai Street, Shatin, N.T. Hong Kong		Object 1 : Serial No. /Ref. No. : Object 2 : Serial No. /Ref. No. :	Microphone
Customer Code: SVEC09005		Manufacturer: Svar	ntek
Date of calibration: Date of the recommended re-calibration:	19/12/2019 19/12/2020	Certificate No.: Handle by:	0022999 E0002

Measuring results

Reference value	Indication value	Deviation	Allowed deviation	Object	
94.0dB	94.0dB	0.0dB	+/- 1.5dB	1	
114.0dB	114.0dB	0.0dB	+/- 1.5dB	1	

Measuring equipment

	index	Calibrator / Master	Traceability
C Description	1	Master Sound Meter, SVAN949,sn:8571	IEC61672
	2	Sound Calibrator, SV30A sn:32580	IEC60942

Ambient conditions

Temperature (20...26)°C

Humidity (20...60)%RH

Measuring procedure

Calibrated by Type 1 Sound Calibrator with Master Sound Level Meter under 1kHz Frequency.

Uncertainty

+/- 0.2 dB for probability not less than 95%.

Conformity

- 1. The resulted values were those obtained at the time of test and applies only to the item calibrated.
- 2. The measurement uncertainty was calculated according to the regulations of GUM with the coverage factor k=2 and contains the uncertainty of the measuring procedure and the uncertainty of the measuring system.
- 3. The equipment being used in this calibration are regularly calibrated by laboratory according to ISO/IEC17025.
- 4.HKAS has accredited this laboratory (HOKLAS 267) for specific calibration activities as listed in the HOKLAS directory of accredited laboratories.
- 5. The calibrations certificate may not be reproduced.

Measured value(s)	within	the allowable deviation.
	AA LCHATII	

Performed by

Calibration Technician

Approved by

Quality Manager



0022675

Customer:		Object 1 : ST-120 sound calibrator			
Cinotech Consultants Limited		Serial No. /Ref. No. : 181001637			
RM 1710, Technology Park,		Object 2:			
18 On Lai Street, Shatin, N.T.		Serial No. /Ref. No. :			
Hong Kong					
Customer Code : SVEC09005		Manufacturer: Soundtek			
Date of calibration:	24/10/2019	Certificate No.: 0022675			
Date of the recommended re-calibration:	24/10/2020	Handle by: F0002			

Measuring results

Reference value	Indication value	Deviation	Allowed deviation	Object
94.0dB	94.0dB	0.0dB	+/- 0.3dB	1
114.0dB	114.0dB	0.0dB	+/- 0.5dB	1

Measuring equipment

index	Calibrator / Master	Traceability
1	Master Sound Meter, SVAN949,sn:8571	IEC61672
2	Sound Calibrator, SV30A sn:32580	IEC60942

Ambient conditions

Temperature (20...26)°C

Humidity (20...60)%RH

Measuring procedure

Calibrated by Type 1 Sound Level Meter and 1kHz Sound Source ..

Uncertainty

+/- 0.2 dB for probability not less than 95%.

Conformity

- 1. The resulted values were those obtained at the time of test and applies only to the item calibrated.
- 2. The measurement uncertainty was calculated according to the regulations of GUM with the coverage factor k=2 and contains the uncertainty of the measuring procedure and the uncertainty of the measuring system.
- 3. The equipment being used in this calibration are regularly calibrated by laboratory according to ISO/IEC17025.
- 4.HKAS has accredited this laboratory (HOKLAS 267) for specific calibration activities as listed in the HOKLAS directory of accredited laboratories.
- 5. The calibrations certificate may not be reproduced.

Measured value(s)	vithin	the allowable deviation.
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Performed by

Approved by

Calibration Technician

Quality Manager

Appleone Calibration Laboratory Ltd.

Rm1309, 13/F, No.77 Wing Hong St, Kln, HKSAR

Tel: +852 2370 4437 Fax: +852 2114 0393

APPENDIX H NOISE MONITORING RESULTS AND GRAPHICAL PRESENTATIONS

Appendix H - Noise Monitoring Results

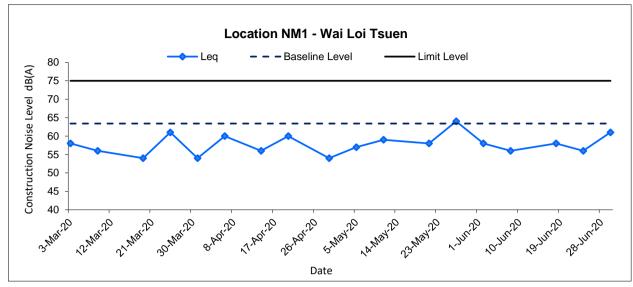
(0700-1900 hrs on Normal Weekdays)

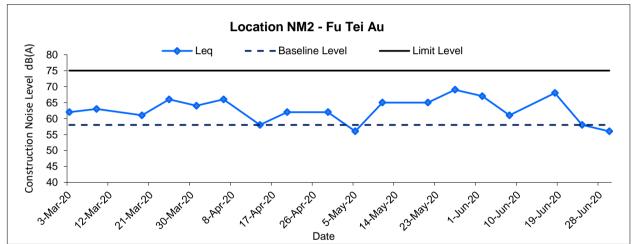
Location NM1 - Wai Loi Tsuen									
			Unit: dB (A) (30-min)						
Date	Time	Weather	Measured Noise Level		Baseline Level	Construction Noise Level			
			L _{eq}	L ₁₀	L 90	L _{eq}	L _{eq}		
2-Jun-20	10:00	Cloudy	57.5	58.7	53.0	63.4	57.5 Measured ≦ Baseline		
8-Jun-20	13:15	Rainy	55.5	57.6	52.6	63.4	55.5 Measured ≦ Baseline		
18-Jun-20	13:10	Sunny	64.5	66.4	59.5	63.4	58.0		
24-Jun-20	13:05	Sunny	56.3	59.5	50.8	63.4	56.3 Measured ≦ Baseline		
30-Jun-20	9:45	Sunny	60.6	62.3	51.0	63.4	60.6 Measured ≦ Baseline		

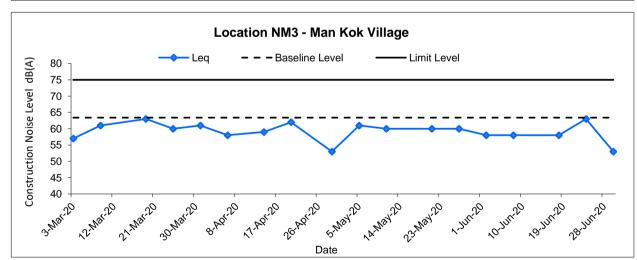
Location NM2 ·	Location NM2 - Fu Tei Au									
				Unit: dB (A) (30-min)						
Date	Time	Weather	Meas	Measured Noise Level		Baseline Level	Construction Noise Level			
			L _{eq}	L _{eq} L ₁₀ L ₉₀		L _{eq}	L _{eq}			
2-Jun-20	13:15	Cloudy	67.4	69.8	63.1	58.0	66.9			
8-Jun-20	15:30	Rainy	62.7	64.4	60.3	58.0	60.9			
18-Jun-20	16:15	Sunny	68.1	70.7	56.8	58.0	67.7			
24-Jun-20	15:30	Sunny	61.0	64.1	55.8	58.0	58.0			
30-Jun-20	11:30	Sunny	60.3	63.3	56.0	58.0	56.4			

Location NM3 ·	Location NM3 - Man Kok Village									
				Unit: dB (A) (30-min)						
Date	Time	Weather	Measured Noise Level E		Baseline Level	Construction Noise Level				
			L _{eq}	L ₁₀	L 90	L _{eq}	L _{eq}			
2-Jun-20	11:15	Cloudy	64.5	66.9	62.9	63.4	58.0			
8-Jun-20	14:20	Rainy	57.6	61.1	52.2	63.4	57.6 Measured ≦ Baseline			
18-Jun-20	14:30	Sunny	58.2	59.1	53.3	63.4	58.2 Measured ≦ Baseline			
24-Jun-20	14:00	Sunny	62.9	66.2	58.9	63.4	62.9 Measured ≦ Baseline			
30-Jun-20	10:40	Sunny	63.8	66.0	56.1	63.4	53.2			









Title	Date	Project	
Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1	Jun 2020	No. MA19019	CINOTECH
Graphical Presentation of		Appendix	
Construction Noise Monitoring Results		Н	

APPENDIX I ECOLOGICAL MONITORING RESULTS AND ANALYSIS

MA19019 - Ecological Monitoring Result and Analysis

	Table I: Recorded Bird Species and their Abundance in the Reporting Month							
Scientific Name	Common Name	Chinese Name	Waterbird	Point Count Abundance	Transect Abundance			
Acridotheres cristatellus	Crested Myna	八哥		85	++++			
Acridotheres tristis	Common Myna	家八哥		0	+			
Anthus hodgsoni	Olive Backed Pipit	樹鷚		7	+			
Ardea alba	Great Egret	大白鷺	*	20	++			
Ardea cinerea	Grey Heron	蒼鷺	*	1	+			
Ardeola bacchus	Chinese Pond Heron	池鷺	*	42	+++			
Bubulcus coromandus	Eastern Cattle Egret	牛背鷺	*	12	++			
Centropus sinensis	Greater Coucal	褐翅鴉鵑		0	+			
Ceryle rudis	Pied Kingfisher	斑魚狗	*	0	+			
Dicrurus hottentottus	Hair-crested Drogon	髮冠卷尾		2	+			
Egretta garzetta	Little Egret	小白鷺	*	64	+++++			
Egretta intermedia	Intermediate Egret	中白鷺	*	1	+			
Eudynamys scolopacea	Common Koel	噪鵑		4	+			
Garrulax perspicillatus	Masked Laughing Thrush	黑臉噪鶥		6	++			
Hierococcyx sparverioides	Large Hawk Cuckoo	大鷹鵑		1	+			
Hirundo rustica	Barn Swallow	家燕		16	+++			
Lonchura punctulata	Spotted Munia	斑文鳥		0	+			
Milvus migrans	Black Kite	黑鳶	*	2	+			
Motacilla alba	White Wagtail	白鶺鴒		11	+			
Nycticorax nycticorax	Black-crowned Night Heron	夜鷺	*	2	+			
Orthotomus sutorius	Common Tailorbird	長尾縫葉鶯		2	+			
Passer montanus	Eurasian Tree Sparrow	樹麻雀		3	+			
Phylloscopus fuscatus	Dusky Warbler	褐柳鶯		0	+			
Pica pica	Magpie	喜鵲		1	+			
Platalea minor	Black-faced Spoonbill	黑臉琵鷺	*	0	+			
Prinia flaviventris	Yellow-bellied Prinia	黃腹鷦鶯		1	+			
Prinia inornata	Plain Prinia	純色鷦鶯		1	+			
Pycnonotus jocosus	Crested bulbul	紅耳鵯		7	+			
Pycnonotus sinensis	Chinese Bulbul	白頭鵯		1	+			
Streptopelia chinensis	Spotted Dove	珠頸斑鳩		8	+			
Sturnus nigricollis	Black-necked Starling	黑領椋鳥		14	++			
Urocissa erythrorhyncha	Red-billed Blue Magpie	紅咀藍鵲		0	+			
Zosterops japonicus	Japanese White-eye	暗綠繡眼鳥		1	+			
		Total	Point Count Abundance	315				
			Total Waterbirds	144				

*For waterbird

For transect abundance, +: <10, ++: 11-20, +++: 21-30, ++++: 31-40, +++++: >40

Remarks: (1) According to S4.7 of the approved Baseline Monitoring Report (Ecology), "waterbirds" was defined as "waterbirds and wetland-dependent species", which was referenced to Monthly Waterbird Monitoring Biannual Reports prepared by the Hong Kong Bird Watching Society (Anon, 2018). Also, S.13.11.3.2 of NENT NDA EIA Study requires "Monitoring of Measures to Mitigate for Impacts of the Project on Wetland-dependent Fauna using the Ng Tung, Sheung Yue and Shek Sheung Rivers". Therefore, "wetland-dependent birds" should be considered as "waterbirds". As raptors and Collared Crow are "wetland-dependent species", they should be taken into consideration in data analysis and impact assessment on waterbirds.

Agreement No. SPW 07/2019		Project No.	
Shek Wu Hui Effluent Polishing Plant - Main Work Stage 1		MA19019	
Monthly Data Analysis for Ecological Monitoring	Date	Appendix	
Fronting Data Finallysis for Ecological Frontiering	June 2020	I	

MA19019 - Waterbird Ecological Monitoring Result

Monitoring Month Jun Season Summer

	Table II : Total Bird Abundance from Point Count							
	Survey	Information	1	Total Bird Al	bundance from Po	oint Count		
No.	Date	Time	Tide Level	Individuals Recorded Total Species Re				
#1	5 Jun 2020	10:00	High	66	110	13		
#1	3 Juli 2020	14:00	Low	44	110	11		
#2	11 Jan 2020	12:00	High	22	(1	11		
#2	11 Jun 2020	7:00	Low	39	61	11		
#3	19 Jun 2020	9:00	High	29	70	9		
#3	19 Jun 2020	14:30	Low	49	78	9		
шл	22 I 2020	11:00	High	23		7		
#4	#4 23 Jun 2020	16:00	Low	43	66	10		
			•	Overall Total	315			

	Table III: Total Waterbird Abundance from Point Count								
	Survey	Information	1	Numbers	of Waterbirds				
No.	Date	Time	Tide Level	Individuals Recorded	Total				
#1	5 Jun 2020	10:00	High	19	40				
#1	3 Jun 2020	14:00	Low	21	40				
#2	11 Jun 2020	12:00	High	8	37				
#2	2 11 Jun 2020	7:00	Low	29	3/				
#3	19 Jun 2020	9:00	High	8	21				
#3	19 Juli 2020	12020 14:30 Low 23	23	31					
#4	23 Jun 2020	11:00	1:00 High	6	26				
#4	4 25 Jun 2020	16:00	Low	30	36				
•			•	Overall Total	144				
				Average	36				

Table IV: T-Test Analysis for All Waterbirds

Baseline Data

Monthly Average Abundance (Jun) 45.30 Seasonal Average Abundance (Summer) 44.18

T-test

The following hypothesis was made and a one-tail t-test will be used to test the data collected from the monitoring:

- H₀ The data collected in the reporting month falls within the normal distribution when compared to the baseline monitoring data.
- H₁ The data collected does not falls within the normal distrubution when compared to the baseline monitoring data.

If t-test value is $\underline{\text{smaller}}$ than the critical value, then rejects H_0 .

For the data in the reporting month, the critical values are:

Crit. Value = -2.353 (95% Confidence Level) Crit. Value = -4.541 (99% Confidence Level)

Confidence Level

T-values of	Data in Repor	ting Month	95%	99%
A hum domos	Monthly	<u>-4.971</u>	×	×
Abundance	Season	-4.372	×	✓

Overall: X

Remarks:

- ✓ = T-value falls within the confidence level, the impact monitoring data shows no significant difference to the baseline data.
- $\mathbf{X} = \text{T-value falls outside the confidence level, the impact monitoring data shows significant difference to the baseline data.}$

Agreement No. SPW 07/2019		Project No.	
Shek Wu Hui Effluent Polishing Plant - Main Work Stage 1		MA19019	CINOTECH
Monthly Data Analysis for Ecological Monitoring	Date	Appendix	CINOICU
Monthly Data Analysis for Ecological Monttoring	June 2020	I	

MA19019 - Waterbird Ecological Monitoring Result

Monitoring Month Jun Season Summer

	Table V: Abundance of Representative Waterbirds from Point Count										
	Representative Species				Re	corded Abundar	ıce			Baseli	ne Data
Species Name	Common Name	Chinese Name	5 Jun 2020	11 Jun 2020	19 Jun 2020	23 Jun 2020		Total	Average	Avg (Jun)	Avg (Summer)
Egretta garzetta	Little Egret	小白鷺	17	20	12	15		64	16	20	20
Ardea cinerea	Grey Heron	蒼鷺	1	0	0	0		1	0	0	1
Ardeola bacchus	Chinese Pond Heron	池鷺	11	7	9	15		42	11	18	16
Phalacrocorax carbo	Great Cormorant	普通鸕鷀	0	0	0	0		0	0	0	0
Ardea alba	Great Egret	大白鷺	7	4	7	2		20	5	3	3
Bubulcus coromandus	Eastern Cattle Egret	牛背鷺	2	4	3	3		12	3	4	3

Table VI: T-test Analysis for Representative Waterbirds from Point Count

The following hypothesis was made and a one-tail t-test will be used to test the data collected from the monitoring:

- H₀ The data collected in the reporting month falls within the normal distrubution when compare to the baseline monitoring data.
- H_1 The data collected does not falls within the normal distribution when compare to the baseline monitoring data.

If t-test value for a specific representative is smaller than the critical value, then rejects H₀.

For the data in the reporting month, the critical values are:

Crit. Value = -2.353 (95% Confidence Level)

Crit. Value = -4.541 (99% Confidence Level)

	Representative Species		T-value	Confide	nce Level	T-value	Confide	nce Level	Overall
Species Name	Common Name	Chinese Name	Monthly	95%	99%	Seasonal	95%	99%	
Egretta garzetta	Little Egret	小白鷺	-2.258	√	✓	-2.376	×	✓	✓
Ardea cinerea*	Grey Heron*	蒼鷺*				N/A*		-	
Ardeola bacchus	Chinese Pond Heron	池鷺	-4.567	×	×	-3.085	×	✓	Action Level
Phalacrocorax carbo*	Great Cormorant*	普通鸕鷀*		•		N/A*			•
Ardea alba	Great Egret	大白鷺	1.960	√	✓	2.010	✓	✓	✓
Bubulcus coromandus	Eastern Cattle Egret	牛背鷺	-1.470	✓	✓	-0.565	✓	✓	✓

Remarks

- ✓ = T-value falls within the confidence level, the impact monitoring data shows no significant difference to the baseline data.
- X = T-value falls outside the confidence level, the impact monitoring data shows significant difference to the baseline data.

Agreement No. SPW 07/2019 Shek Wu Hui Effluent Polishing Plant - Main Work Stage 1		Project No. MA19019	CINOTCCII
Monthly Data Analysis for Ecological Monitoring	Date June 2020	Appendix I	CINOTECH

^{*} Great Cormorant (Phalacrocorax carbo) and Grey Heron (Ardea cinerea) were not recognised as representative waterbird species during Summer.

APPENDIX J PHOTO RECORDS OF ECOLOGICAL MONITORING

Appendix J - Photo Records of Ecological Monitoring

Part A - Conditions of Rivers



Sheung Yue River (Taken on 5 Jun 20)



Ng Tung River (Taken on 5 Jun 20)



Shek Sheung River (Taken on 19 Jun 20)

Part B – Waterbird Species





Part C – Human Activities & Site Conditions





Excavation (Taken on 11 Jun 20)

Vibration Hammering (Taken on 5 Jun 20)



Muddy water (non project-related, taken on 26 Jun 20)

APPENDIX K SITE AUDIT SUMMARY

Checklist Reference Number	200602
Date	2 June 2020 (Tuesday)
Time	14:25 – 17:10

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Water Quality	
200602-R1	Stagnant water accumulated on the road access and site area of Portion C should be removed or pumped through the sedimentation tank.	В8
	C. Air Quality	
	No environmental deficiency was identified during site inspection.	
	D. Noise	
	No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	No environmental deficiency was identified during site inspection.	
	F. Ecology and Fisheries	
	No environmental deficiency was identified during site inspection.	
	G. Landscape and Visual	
	No environmental deficiency was identified during site inspection.	
	H. Permits /Licences	
	No environmental deficiency was identified during site inspection.	
	I. Others	
	Following up on the previous site inspection (ref no.: 200526): Item 200526-R1 was rectified/improved by the Contractor.	

	Name	Signature	Date
Recorded by	Ms. Echo Hung	Lelvo	2 June 2020
Checked by	Mr. Samson Yuen	for.	3 June 2020

Checklist Reference Number	200611
Date	11 June 2020 (Thursday)
Time	9:30 – 11:15

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Water Quality	
	No environmental deficiency was identified during site inspection.	
	C. Air Quality	
200611-R1	Cement of more than 20 bags should be covered by impervious materials at Portion C to avoid dust generation.	C15
	D. Noise	
	No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	No environmental deficiency was identified during site inspection.	
	F. Ecology and Fisheries	
	No environmental deficiency was identified during site inspection.	
	G. Landscape and Visual	
	No environmental deficiency was identified during site inspection.	
	H. Permits /Licences	
	No environmental deficiency was identified during site inspection.	
	I. Others	
	Following up on the previous site inspection (ref no.: 200602): Item 200602-R1 was rectified/improved by the Contractor.	

	Name	Signature	Date	
Recorded by	Ms. Echo Hung	Lelvo	11 June 2020	
Checked by	Mr. Samson Yuen	for.	11 June 2020	

Checklist Reference Number	200616
Date	16 June 2020 (Tuesday)
Time	14:15 – 15:50

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Water Quality	
	No environmental deficiency was identified during site inspection.	
	C. Air Quality	
	No environmental deficiency was identified during site inspection.	
	D. Noise	
	No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	No environmental deficiency was identified during site inspection.	
	F. Ecology and Fisheries	
	No environmental deficiency was identified during site inspection.	
	G. Landscape and Visual	
	No environmental deficiency was identified during site inspection.	
	H. Permits /Licences	
	No environmental deficiency was identified during site inspection.	
	I. Others	
	Following up on the previous site inspection (ref no.: 200611): Item 200611-R1 was rectified/improved by the Contractor.	

	Name	Signature	Date
Recorded by	Ms. Echo Hung	Lelvo	16 June 2020
Checked by	Mr. Samson Yuen	fr.	17 June 2020

Checklist Reference Number	200623
Date	23 June 2020 (Tuesday)
Time	14:05 – 15:45

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Water Quality	
	No environmental deficiency was identified during site inspection.	
	C. Air Quality	
	No environmental deficiency was identified during site inspection.	
	D. Noise	
	No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	No environmental deficiency was identified during site inspection.	
	F. Ecology and Fisheries	
	No environmental deficiency was identified during site inspection.	
	G. Landscape and Visual	
	No environmental deficiency was identified during site inspection.	
	H. Permits /Licences	
	No environmental deficiency was identified during site inspection.	
	I. Others	
	No follow-up items from the previous site inspection (ref no.: 200616).	

	Name	Signature	Date
Recorded by	Ms. Echo Hung	Lelvo	23 June 2020
Checked by	Mr. Samson Yuen	fr.	26 June 2020

Checklist Reference Number	200630
Date	30 June 2020 (Tuesday)
Time	14:15 – 16:15

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Water Quality	
	No environmental deficiency was identified during site inspection.	
	C. Air Quality	
	No environmental deficiency was identified during site inspection.	
	D. Noise	
	No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	No environmental deficiency was identified during site inspection.	
	F. Ecology and Fisheries	
	No environmental deficiency was identified during site inspection.	
	G. Landscape and Visual	
	No environmental deficiency was identified during site inspection.	
	H. Permits /Licences	
	No environmental deficiency was identified during site inspection.	
	I. Others	
	No follow-up items from the previous site inspection (ref no.: 200623).	

	Name	Signature	Date
Recorded by	Ms. Echo Hung	Lilio	30 June 2020
Checked by	Mr. Samson Yuen	for.	3 July 2020

Checklist Reference Number	200602
Date	2 June 2020 (Tuesday)
Time	14:25 – 17:10

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Water Quality	
	No environmental deficiency was identified during site inspection.	
	C. Air Quality	
	No environmental deficiency was identified during site inspection.	
	D. Noise	
	No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	No environmental deficiency was identified during site inspection.	
	F. Ecology and Fisheries	
	No environmental deficiency was identified during site inspection.	
	G. Landscape and Visual	
	No environmental deficiency was identified during site inspection.	
	H. Permits /Licences	
	No environmental deficiency was identified during site inspection.	
	I. Others	
	No follow-up items from the previous site inspection (ref no.: 200526).	

	Name	Signature	Date
Recorded by	Ms. Echo Hung	Ledro	2 June 2020
Checked by	Mr. Samson Yuen	for.	3 June 2020

Checklist Reference Number	200611
Date	11 June 2020 (Thursday)
Time	9:30 – 11:15

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Water Quality	
	No environmental deficiency was identified during site inspection.	
	C. Air Quality	
	No environmental deficiency was identified during site inspection.	
	D. Noise	
	No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	No environmental deficiency was identified during site inspection.	
	F. Ecology and Fisheries	
	No environmental deficiency was identified during site inspection.	
	G. Landscape and Visual	
	No environmental deficiency was identified during site inspection.	
	H. Permits /Licences	
	No environmental deficiency was identified during site inspection.	
	I. Others	
	No follow-up items from the previous site inspection (ref no.: 200602).	

	Name	Signature	Date
Recorded by	Ms. Echo Hung	Ledro	11 June 2020
Checked by	Mr. Samson Yuen	for.	11 June 2020

Checklist Reference Number	200616
Date	16 June 2020 (Tuesday)
Time	14:15 – 15:50

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Water Quality	
	No environmental deficiency was identified during site inspection.	
	C. Air Quality	
200616-R1	Stockpiles should be removed or covered by impervious materials to avoid dust generation at Portion B.	C1
	D. Noise	
	No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	No environmental deficiency was identified during site inspection.	
	F. Ecology and Fisheries	
	No environmental deficiency was identified during site inspection.	
	G. Landscape and Visual	
	No environmental deficiency was identified during site inspection.	
	H. Permits /Licences	
	No environmental deficiency was identified during site inspection.	
	I. Others	
	No follow-up items from the previous site inspection (ref no.: 200611).	

	Name	Signature	Date
Recorded by	Ms. Echo Hung	Lelis	16 June 2020
Checked by	Mr. Samson Yuen	for.	17 June 2020

Checklist Reference Number	200623
Date	23 June 2020 (Tuesday)
Time	14:05 – 15:45

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Water Quality	
	No environmental deficiency was identified during site inspection.	
	C. Air Quality	
	No environmental deficiency was identified during site inspection.	
	D. Noise	
	No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	No environmental deficiency was identified during site inspection.	
	F. Ecology and Fisheries	
	No environmental deficiency was identified during site inspection.	
	G. Landscape and Visual	
	No environmental deficiency was identified during site inspection.	
	H. Permits /Licences	
	No environmental deficiency was identified during site inspection.	
	I. Others	
	Following up on the previous site inspection (ref no.: 200616): Item 200616-R1 was rectified/improved by the Contractor.	

	Name	Signature	Date
Recorded by	Ms. Echo Hung	Ledro	23 June 2020
Checked by	Mr. Samson Yuen	fr.	26 June 2020

Checklist Reference Number	200630
Date	30 June 2020 (Tuesday)
Time	14:15 – 16:15

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Water Quality	
	No environmental deficiency was identified during site inspection.	
	C. Air Quality	
	No environmental deficiency was identified during site inspection.	
	D. Noise	
	No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	No environmental deficiency was identified during site inspection.	
	F. Ecology and Fisheries	
	No environmental deficiency was identified during site inspection.	
	G. Landscape and Visual	
	No environmental deficiency was identified during site inspection.	
	H. Permits /Licences	
	No environmental deficiency was identified during site inspection.	
	I. Others	
	No follow-up items from the previous site inspection (ref no.: 200623).	

	Name	Signature	Date
Recorded by	Ms. Echo Hung	Ledro	30 June 2020
Checked by	Mr. Samson Yuen	fr.	3 July 2020

APPENDIX L WASTE FLOW TABLE

Name of Department: DSD <u>Contract No. DC/2018/06</u>

Monthly Summary Waste Flow Table for 2020 (year)

	Act	ual Quantiti	es of Inert C	&D Material	s Generated	Monthly	Actual	Quantities o	f C&D Waste	s Generated	Monthly
		Hard Rock									
NA s sadda	Total	and Large	Reused in	Reused in	Disposed			Paper/			Others, e.g.
Month	Quantity	Broken	the	other	as Public			cardboard		Chemical	general
	Generated	Concrete	Contract	Projects	Fill	Imported Fill	Metals	packaging	Plastics	Waste	refuse
	(in '000m3)	(in '000m3)	(in '000m3)	(in '000m3)	(in '000m3)	(in '000m3)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m3)
Jan	0.376	0.000	0.000	0.000	0.376	0.000	0.000	0.000	0.000	0.000	0.083
Feb	1.168	0.000	0.000	0.332	0.836	0.000	0.000	0.000	0.000	0.000	0.052
Mar	2.436	0.000	0.000	0.497	1.939	0.000	0.000	0.000	0.000	0.000	0.134
Apr	2.660	0.000	0.000	0.126	2.534	0.000	0.000	0.000	0.000	0.000	0.018
May	2.260	0.000	0.000	0.161	2.100	0.000	0.000	0.000	0.000	0.060	0.138
Jun	2.271	0.000	0.000	0.000	2.271	0.000	0.000	0.000	0.000	0.000	0.018
Sub-total	11.171	0.000	0.000	1.115	10.056	0.000	0.000	0.000	0.000	0.060	0.443
Jul											
Aug											
Sep											
Oct											
Nov											
Dec											
Total	11.171	0.000	0.000	1.115	10.056	0.000	0.000	0.000	0.000	0.060	0.443

Notes:

- 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 each truck of C&D wastes is 5m3
- 4. The inert C&D materials except slurry and bentonite are disposed at Tuen Mun 38
- 5. The slurry and bentonite are disposed at Tseung Kwun O 137
- 6. The non-inert C&D wastes are disposed at NENT.
- 7. Assume the density of metal is 7.850 kg/m³
- 8. Assume the density of plastic is 941 kg/m³
- 9. Assume the density of general refuse is 0.9 kg/l
- 10. Density of waste oil is assued to be 0.001 m3/1 & 0.8 kg/l. Chemical waste includes waste oil.

Name of Department: DSD Contract No. DC/2018/07

Monthly Summary Waste Flow Table for 2020 (year)

	Actua		of Inert C&D	Materials G	enerated Mo	onthly	Actual	Quantities o	f C&D Wastes	Generated	Monthly
Month	Total	Hard Rock and Large	Reused in	Reused in	Disposed			Paper/			Others, e.g.
Month	Quantity	Broken	the	other	as Public	Imported		cardboard		Chemical	general
	Generated	Concrete	Contract	Projects	Fill	Fill	Metals	packaging	Plastics	Waste	refuse
	(in '000m ³)	(in '000kg)	(in '000kg)	(in '000kg)	(in kg)	(in '000m3)					
Jan	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.006
Feb	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005
Mar	0.075	0.000	0.000	0.000	0.075	0.000	0.000	0.000	0.000	0.000	0.000
Apr	0.068	0.000	0.000	0.000	0.068	0.000	19.090	0.000	0.000	0.000	0.003
May	0.372	0.000	0.000	0.000	0.372	0.000	0.000	0.000	0.000	0.000	0.005
Jun	0.227	0.000	0.000	0.000	0.227	0.000	0.000	0.000	0.000	0.000	0.009
Sub-total	0.742	0.000	0.000	0.000	0.742	0.000	19.090	0.000	0.000	0.000	0.028
Jul											
Aug											
Sep											
Oct											
Nov				_	_						
Dec				_	_				_		
Total	0.742	0.000	0.000	0.000	0.742	0.000	19.090	0.000	0.000	0.000	0.028

Notes:

- 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 each truck of C&D wastes is 5m3
- 4. The inert C&D materials except slurry and bentonite are disposed at Tuen Mun 38
- 5. The slurry and bentonite are disposed at Tseung Kwun O 137
- 6. The non-inert C&D wastes are disposed at NENT.
- 7. Assume the density of metal is 7.850 kg/m³
- 8. Assume the density of plastic is 941 kg/m³
- 9. Assume the density of general refuse is 0.9 kg/l
- 10. Density of waste oil is assued to be 0.001 m3/l & 0.8 kg/l. Chemical waste includes waste oil.

Environmental Aspect Evaluation Form

Name of Department: ArchSD/CEDD/DSD/EMSD/HyD/WSD

Contract No.: <u>DE/2018/03</u>

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

		Actual Quantit	ties of Inert C&D	Materials Generate	ed Monthly		Actual Quantities of C&D Wastes Generated Monthly					
Month	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ cardboard packaging	Plastics (see Note 3)	Chemical Waste	Others, e.g. general refuse	
	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m ³)	
Jan	0	0	0	0	0	0	0	0	0	0	0	
Feb	0	0	0	0	0	0	0	0	0	0	0	
Mar	0	0	0	0	0	0	0	0	0	0	0	
Apr	0	0	0	0	0	0	0	0	0	0	0	
May	0	0	0	0	0	0	0	0	0	0	12.46 T	
June	0	0	0	0	0	0	0	0	0	0	51.46 T	
Sub-total	0	0	0	0	0	0	0	0	0	0	63.92 T	
July	-	-	-	-	-	-	-	-	-	-	-	
Aug	-	-	-	-	-	-	-	-	-	-	-	
Sept	-	-	-	-	-	-	-	-	-	-	-	
Oct												
Nov												
Dec												
Total	0	0	0	0	0	0	0	0	0	0	63.92 T	

Environmental Aspect Evaluation Form

	Forecast of Total Quantities of C&D Materials to be Generated from the Contract*												
Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ cardboard packaging	Plastics (see Note 3)	Chemical Waste	Others, e.g. general refuse			
(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m ³)			
TBA	TBA	ТВА	ТВА	TBA	TBA	TBA	ТВА	TBA	ТВА	TBA			

Notes:

- (1) The performance targets are given in PS Clause 6A.27.8(14).
- (2) The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site.
- (3) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material
- (4) The *Contractor* shall also submit the latest forecast of the total amount of C&D materials expected to be generated from the Works, together with a breakdown of the nature where the total amount of C&D materials expected to be generated from the Works is equal to or exceeding 50,000 m³. (PS Clause 6.21.7(4)(b) refers)

Name of Department: DSD

Contract No.: <u>DE/2018/04</u>

Monthly Summary Waste Flow Table for 2020 (year)

		Actual Quanti	ties of Inert C&D	Materials Generate	ed Monthly			Actual Quantities of	C&D Wastes Ge	enerated Monthly	
Month	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ cardboard packaging	Plastics (see Note 2)	Chemical Waste	Others, e.g. general refuse
	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m ³)
Jan	0	0	0	0	0	0	0	0	0	0	0
Feb	0	0	0	0	0	0	0	0	0	0	0
Mar	0	0	0	0	0	0	0	0	0	0	0
Apr	0	0	0	0	0	0	0	0	0	0	0
May	0	0	0	0	0	0	0	0	0	0	0
June	0	0	0	0	0	0	0	0	0	0	0
Sub-total	0	0	0	0	0	0	0	0	0	0	0
July											
Aug											
Sept											
Oct											
Nov											
Dec											
Total	0	0	0	0	0	0	0	0	0	0	0

Name of Department: DSD Contract No.: <u>DE/2018/04</u>

	Forecast of Total Quantities of C&D Materials to be Generated from the Contract											
Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ cardboard packaging	Plastics (see Note 3)	Chemical Waste	Others, e.g. general refuse		
(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m ³)		
0.5	0	0.2	0	0.3	0	0	5	0	0	0.01		

Notes:

- The performance targets are given in PS Clause 6.21.8(14).
 The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site.
 Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material

APPENDIX M EVENT AND ACTION PLANS

Table M-1 Event/Action Plan for Air Quality

E4	Action							
Event	ET	IEC	ER	Contractor				
Action level being exceeded by one sampling	 Identify source, investigate the causes of complaint and propose remedial measures; Inform IEC and ER; Repeat measurement to confirm finding; Increase monitoring frequency to daily. 	 Check monitoring data submitted by ET; Check Contractor's working method. 	1. Notify Contractor.	 Rectify any unacceptable practice; Amend working methods if appropriate. 				
Action level being exceeded by two or more consecutive sampling	 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, 	 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 exceedance in writing; Notify Contractor; Ensure remedial measures properly implemented. 	 Submit proposals for remedial actions to IEC within three working days of notification; Implement the agreed proposals; Amend proposal if appropriate. 				

E-vo-v4	Action							
Event	ET	IEC ER	Contractor					
Limit level being exceeded by one sampling	arrange meeting with IEC and ER; 8. If exceedance stops, cease additional monitoring. 1. Identify source, investigate the causes of exceedance and propose remedial measures; 2. Inform Contractor, IEC, ER, and EPD; 3. Repeat measurement to confirm finding; 4. Increase monitoring frequency to daily; 5. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results.	 Check monitoring data submitted by ET; Check Contractor's working method; Discuss with ET and Contractor on possible remedial measures; Advise the ER on the effectiveness of the proposed remedial measures; Supervise implementation of remedial measures. 	 Take immediate action to avoid further exceedance; Submit proposals for remedial actions to IEC within three working days of notification; Implement the agreed proposals; Amend proposal if appropriate. 					
Limit level being exceeded by two or	Notify IEC, ER, Contractor and EPD;	 Discuss amongst ER, ET, and Confirm receipt of notification of exceedance in 	Take immediate action to avoid further exceedance;					
more consecutive sampling	2. Identify source;3. Repeat measurement to confirm findings;	remedial actions; writing; 2. Review Contractor's 2. Notify Contractor; remedial actions whenever 3. In consolidation with the	2. Submit proposals for remedial actions to IEC within three working days of notification;					

E-vo-4		Ac	Action				
Event	ET	IEC	ER	Contractor			
Event	4. Increase monitoring frequency to daily; 5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented; 6. Arrange meeting with IEC	necessary to assure their effectiveness and advise the ER accordingly; 3. Supervise the implementation of remedial measures.	IEC, agree with the Contractor on the remedial measures to be implemented; 4. Ensure remedial measures properly implemented; 5. If exceedance continues, consider what portion of the work is responsible and	Contractor 3. Implement the agreed proposals; 4. Resubmit proposals if problem still not under control; 5. Stop the relevant portion of works as determined by the ER until the exceedance is			
	and ER to discuss the remedial actions to be taken; 7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; 8. If exceedance stops, cease additional monitoring.		instruct the Contractor to stop that portion of work until the exceedance is abated.	abated.			

Table M-2 Event/Action Plan for Construction Noise

E4	Action							
Event	ET	IEC ER	Contractor					
Action Level	1. Notify IEC and Contractor;	1. Review the analysed results 1. Confirm receipt of	1. Submit noise mitigation					
	2. Carry out investigation;	submitted by the ET; notification of failure in	proposals to IEC;					
	3. Report the results of	2. Review the proposed writing;	2. Implement noise mitigation					
	investigation to the IEC, ER	remedial measures by the 2. Notify Contractor;	proposals.					
	and Contractor;	Contractor and advise the ER 3. Require Contractor to propose						
	4. Discuss with the Contractor	accordingly; remedial measures for the						
	and formulate remedial	3. Supervise the analysed noise problem;						
	measures;	implementation of remedial 4. Ensure remedial measures are						
	5. Increase monitoring	measures. properly implemented.						
	frequency to check							
	mitigation effectiveness.							
Limit Level	1. Identify source;	1. Discuss amongst ER, ET, and 1. Confirm receipt of	Take immediate action to					
	2. Inform IEC, ER, EPD and	Contractor on the potential notification of failure in	avoid further exceedance;					
	Contractor;	remedial actions; writing;	2. Submit proposals for					
	3. Repeat measurements to	2. Review Contractors remedial 2. Notify Contractor;	remedial actions to IEC					
	confirm findings;	actions whenever necessary 3. Require Contractor to	within 3 working days of					
	4. Increase monitoring	to assure their effectiveness propose remedial measures	notification;					
	frequency;	and advise the ER for the analysed noise	3. Implement the agreed					
	5. Carry out analysis of	accordingly; problem;	proposals;					

E-vor4		Act	tion	
Event	ET IEC ER		ER	Contractor
	Contractor's working	3. Supervise the	4. Ensure remedial measures	4. Resubmit proposals if
	procedures to determine	implementation of remedial	properly implemented;	problem still not under
	possible mitigation to be	measures.	5. If exceedance continues,	control;
	implemented;		consider what portion of the	5. Stop the relevant portion of
	6. Inform IEC, ER and EPD the		work is responsible and	works as determined by the
	causes and actions taken for		instruct the Contractor to stop	ER until the exceedance is
	the exceedances;		that portion of work until the	abated.
	7. Assess effectiveness of		exceedance is abated.	
	Contractor's remedial actions			
	and keep IEC, EPD and ER			
	informed of the results;			
	8. If exceedance stops, cease			
	additional monitoring.			

Table M-3 Event/Action Plan for Ecology

Action Level	Response	Limit Level	Response
Construction Phase			
Decline in numbers of all waterbird species relative to numbers during Baseline Monitoring such that the Action Level response is triggered.	Investigate cause and if cause identified as related to the Project instigate remedial action to remove or reduce source of disturbance.	Decline in numbers of all waterbird species relative to numbers during Baseline Monitoring such that the Limit Level response is triggered.	Investigate cause and if caused identified as related to the Project instigate remedial action.
Decline in numbers of any one waterbird species occurring in significant numbers* during Baseline Monitoring such that the Action Level response is triggered.	Investigate cause and if cause identified as related to the Project instigate remedial action to remove or reduce source of disturbance.	Decline in numbers of any one waterbird species occurring in significant numbers* during Baseline Monitoring such that the Limit Level response is triggered.	Investigate cause and if caused identified as related to the Project instigate remedial action.

Table M-4 Event/Action Plan for Landscape and Visual

Event	Action					
	ET	IEC	ER	Contractor		
Non-conformity	1. Inform the Contractor, IEC and	Check inspection report;	1. Confirm receipt of	Identify source and investigate		
on one occasion	ER;	2. Check Contractor's working	notification of	the non-conformity;		
	2. Discuss remedial actions with	method;	non-conformity in writing;	2. Implement remedial measures;		
	IEC, ER and Contractor	3. Discuss with ET, ER and	2. Review and agree on the	3. Amend working methods		
	3. Monitor remedial actions until	Contractor on possible	remedial measures	agreed with ER as appropriate;		
	rectification has been	remedial measures;	proposed by the	4. Rectify damage and undertake		
	completed.	4. Advise ER on effectiveness	Contractor;	any necessary replacement.		
		of proposed remedial	3. Supervise implementation			
		measures.	of remedial measures.			

Event	Action				
	ET	IEC	ER	Contractor	
Repeated	1. Identify source;	1. Check inspection report;	1. Notify the Contractor;	1. Identify source and investigate	
Non-conformity	2. Inform the Contractor, IEC and	2. Check Contractor's working	2. In consultation with the ET	the non-conformity;	
	ER;	method;	and IEC, agree with the	2. Implement remedial measures;	
	3. Discuss inspection frequency;	3. Discuss with ET, ER and	Contractor on the remedial	3. Amend working methods	
	4. Discuss remedial actions with	Contractor on possible	measures to be	agreed with ER as appropriate;	
	IEC, ER and Contractor;	remedial measures;	implemented;	4. Rectify damage and undertake	
	5. Monitor remedial actions until	4. Advise ER on effectiveness	3. Supervise implementation	any necessary replacement.	
	rectification has been	of proposed remedial	of remedial measures.	Stop relevant portion of works	
	completed;	measures.		as determined by ER until the	
	6. If non-conformity stops, cease			non-conformity is abated.	
	additional monitoring.				

APPENDIX N ENVIRONMENTAL MITIGATION IMPLEMENTATION SCHEDULE (EMIS)

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Status			
Air Quality Impa										
S2.3.1.3	Dust suppression measures stipulated in the Air Pollution Control (Construction Dust) Regulation and good site practices:	To minimize the dust impact	Contractor	Work Sites	Construction phase of Main Works Stage 1,	Air Pollution Control Ordinance (APCO) and Air Pollution	۸			
	excavated or stockpile of dusty material should be covered entirely mpervious sheeting or sprayed with water to maintain the entire ace wet and then removed or backfilled or reinstated where ticable within 24 hours of the excavation or unloading; Works Stage 1, and All Pollution Control (Construction Dust) Regulation	*								
	Any dusty material remaining after a stockpile is removed should be wetted with water and cleared from the surface of roads;						٨			
	A stockpile of dusty material should not be extended beyond the pedestrian barriers, fencing or traffic cones;						۸			
	The load of dusty materials on a vehicle leaving a construction site should be covered entirely by impervious sheeting to ensure that the dusty materials do not leak from the vehicle;									۸
	Where practicable, vehicle washing facilities with high pressure water jet should be provided at every discernible or designated vehicle exit point. The area where vehicle washing takes place and the road section between the washing facilities and the exit point should be paved with concrete, bituminous materials or hardcores;					۸				
]]]]	When there are open excavation and reinstatement works, hoarding of not less than 2.4m high should be provided as far as practicable along the site boundary with provision for public crossing. Good site practice shall also be adopted by the Contractor to ensure the conditions of the hoardings are properly maintained throughout the construction period.						۸			
	The portion of any road leading only to construction site that is within 30m of a vehicle entrance or exit should be kept clear of dusty materials;						۸			

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Status			
S2.3.1.3	Surfaces where any pneumatic or power-driven drilling, cutting, polishing or other mechanical breaking operation takes place should be sprayed with water or a dust suppression chemical continuously;	To minimize the dust impact	Contractor	Work Sites	Construction phase of Main Works Stage 1,	Air Pollution Control Ordinance (APCO) and Air Pollution	^			
	Any area that involves demolition activities should be sprayed with water or a dust suppression chemical immediately prior to, during and immediately after the activities so as to maintain the entire surface wet;				Stage 2 and Stage 3	Control (Construction - Dust) Regulation	۸			
	Where a scaffolding is erected around the perimeter of a building under construction, effective dust screens, sheeting or netting should be provided to enclose the scaffolding from the ground floor level of the building, or a canopy should be provided from the first floor level up to the highest level of the scaffolding;									۸
	Any skip hoist for material transport should be totally enclosed by impervious sheeting;						N/A			
	Every stock of more than 20 bags of cement or dry pulverised fuel ash (PFA) should be covered entirely by impervious sheeting or placed in an area sheltered on the top and the 3 sides;						*			
	Cement or dry PFA delivered in bulk should be stored in a closed silo fitted with an audible high level alarm which is interlocked with the material filling line and no overfilling is allowed;						N/A			
	Loading, unloading, transfer, handling or storage of bulk cement or dry PFA should be carried out in a totally enclosed system or facility, and any vent or exhaust should be fitted with an effective fabric filter or equivalent air pollution control system; and						N/A			
	Exposed earth should be properly treated by compaction, turfing, hydroseeding, vegetation planting or sealing with latex, vinyl, bitumen, shortcrete or other suitable surface stabiliser within six months after the last construction activity on the construction site or part of the construction site where the exposed earth lies						۸			

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Status						
Noise Impact													
\$3.2.1.1	Use of movable barrier, enclosure, acoustic mat and quiet plant. Use of wooden frames barrier with a small-cantilevered upper portion of superficial density not less than 14kg/m² on a skid footing with 25mm thick internal sound absorptive lining.	To minimize construction noise impact arising from the Project at the affected noise sensitive receivers (NSRs)	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	EIAO-TM, Noise Control Ordinance (NCO)	^						
\$3.2.1.2	Only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction program.	To minimize construction noise impact arising from	Contractor	Work Sites	Construction phase of Main Works Stage 1,	EIAO-TM, NCO	^						
	Silencers or mufflers on construction equipment should be utilized and should be properly maintained during the construction program.	the Project at the affected NSRs			Stage 2 and Stage 3		^						
	Mobile plant, if any, should be sited as far away from NSRs as possible.						۸						
	Machines and plant (such as trucks) that may be in intermittent use should be shut down between works periods or should be throttled down to a minimum.												^
	Plant known to emit noise strongly in one direction should, wherever possible, be orientated so that the noise is directed away from the nearby NSRs.						۸						
	Material stockpiles and other structures should be effectively utilized, wherever practicable, in screening noise from on-site construction activities.						N/A						

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Status
Ecological Impac							
	Solid dull green noise/visual barriers of at least 2m high shall be erected and maintained between active works area and all areas of ecological importance.	Minimize noise and human disturbances during construction phase.	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	EIAO-TM	^
S4.2.1.2	Avoid unnecessary lighting.	Minimize mortality impacts on birds.	Design / Contractor/ Plant Operator	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	EIAO-TM	۸
	Good construction site practice to minimise dust generation should be followed on all construction sites. Measures to avoid, minimise and mitigate impacts on air quality are detailed in this schedule	Minimize dust generation from construction sites.	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	EIAO-TM	۸
	Temporary sewerage and drainage to be designed and installed to collect wastewater and prevent it from entering water bodies;	Avoid, minimise and mitigate impact on water quality	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	EIAO-TM	۸
	Proper locations well away from nearby water bodies should be used for temporary storage of materials (i.e. equipment, filling materials, chemicals and fuel) and temporary stockpiles of construction debris and spoil, and these should be identified before commencement of works;				Stage 3		۸
	To prevent muddy water entering nearby water bodies, work sites close to nearby water bodies should be isolated, using such items as sandbags or silt curtains with lead edge at bottom and properly supported props. Other protective measures should also be taken to ensure that no pollution or siltation occurs to the water gathering grounds of the work sites;						*
	Construction debris and spoil should be covered and/or properly disposed of as soon as possible to avoid these being washed into nearby water bodies;						۸

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Status
S4.2.1.4	Proper locations for discharge outlets of temporary wastewater treatment facilities well away from sensitive receivers should be identified;	Avoid, minimise and mitigate impact on water quality	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and	EIAO-TM	^
	Adequate lateral support should be erected where necessary in order to prevent soil/mud from slipping into water bodies;				Stage 3		^
	Site boundaries should be clearly marked and any works beyond the boundary strictly prohibited;						^
	Regular water monitoring and site audit should be carried out at adequate points along any watercourses where construction works are underway upstream within their catchments and also on the Ng Tung, Sheung Yue and Shek Sheung Rivers. If the monitoring and audit results show that pollution occurs, adequate measures including temporarily cessation of works should be considered;						۸
	Excavation profiles should be properly designed and executed with attention to the relevant requirements for environment, health and safety;						۸
	Where soil to be excavated is situated beneath the groundwater table, it may be necessary to lower the groundwater table by installing well points or similar means;						N/A
	Stockpiling sites should be lined with impermeable sheeting and bunded. Stockpiles should be properly covered by impermeable sheeting to reduce dust emission during dry season or contaminated run-off during rainy season. Watering should be avoided on stockpiles of contaminated soil to minimize contaminated runoff and construction materials should be properly covered and located away from nearby water bodies; and						۸
	Supply of suitable clean backfill material after excavation, if required.	-					N/A
	Vehicles containing any excavated materials should be suitably covered to limit potential dust emissions or contaminated run-off, and truck bodies and tailgates should be sealed to prevent discharge during transport or during wet season;						۸
	Speed control for the trucks carrying contaminated materials should be enforced;						^
	Vehicle wheel washing facilities at construction sites' exit points should be established and used, where necessary						۸

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Status
Water Quality In	mpact						
S5.2.2.1	Construction Site Runoff Practices and measures provided in the Practice Note for Professional Persons on Construction Site Drainage, (PROPECC PN1/94) should be followed where applicable.	Control construction runoff	Contractors	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	EIAO-TM, WPCO, EIAO	^
\$5.2.2.2 – \$5.2.2.3	Portable chemical toilets and sewage holding tanks should be provided for handling the construction sewage generated by the workforce. A licensed Contractor should be employed to provide appropriate and adequate portable toilets and be responsible for appropriate disposal and maintenance. Notices should be posted at conspicuous locations to remind the workers not to discharge any sewage or wastewater into the nearby environment during the construction phase of the Project. Regular environmental audit on construction site should be conducted in order to provide an effective	Handling of site sewage	Contractors	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	EIAO-TM, WPCO, EIAO	٨
	control of any malpractices and achieve continual improvement of environmental performance on site. It is anticipated that sewage generation during the construction phase of the Project would not cause water quality impact after undertaking all required measures						

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Status
Waste Managem		1		1	1		
S6.2.2.1	Nomination of an approved person, such as a site manager, to be responsible for the implementation of good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site;	Minimize waste generation during construction	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	Waste Disposal Ordinance (WDO)	^
	Training of site personnel in site cleanliness, appropriate waste management procedures and concepts of waste reduction, reuse and recycling;				Stage 3		۸
	Provision of sufficient waste disposal points and regular collection for disposal;						۸
	Appropriate measures to minimise windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers;	3					۸
	Regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors;						۸
	An Environmental Management Plan (EMP) should be prepared by the contractor and submitted to the Supervisor for approval.						۸
\$6.2.3.1	Segregate and store different types of waste in different containers, skip or stockpiles to enhance reuse or recycling of materials and their proper disposal;	Reduce waste generation	Contractor	Work Sites	Prior to the commencement of construction of Main Works Stage 1, Stage 2 and Stage 3	WDO	۸
	Proper storage and site practices to minimize the potential for damage and contamination of construction materials;				and Stage 5		۸
	Plan and stock construction materials carefully to minimize amount of waste generated and avoid unnecessary generation of waste;						۸
	Sort out demolition debris and excavated materials from demolition works to recover reusable/recyclable portions (i.e. soil, broken concrete, metal etc.); and						۸
	Provide training to workers on the importance of appropriate waste management procedures, including waste reduction, reuse and recycling.						۸

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Status	
6.2.4.1	Waste, such as soil, should be handled and stored well to ensure secure containment, thus minimizing the potential of pollution;	Minimize waste impacts arising from waste storage	Contractor	Work Sites	Construction phase of Main Works Stage 1,	WDO	۸	
	Stockpiling area should be provided with covers and water spraying system to prevent materials from wind-blown or being washed away; and				Stage 2 and Stage 3		*	
	Different locations should be designated to stockpile each material to enhance reuse.						۸	
S6.2.4.2	Remove waste in timely manner;	Minimize waste	Contractor	Work Sites	Construction	WDO	^	
	Employ the trucks with cover or enclosed containers for waste transportation	impacts arising from waste storage			phase of Main Works Stage 1, Stage 2 and Stage 3		۸	
	Obtain relevant waste disposal permits from the appropriate authorities						^	
	Disposal of waste should be done at licensed waste disposal facilities.						^	
S6.2.5.2	Maintain temporary stockpiles and reuse excavated fill material for backfilling;	Minimize waste impacts from		Contractor	Work Sites	Construction phase of Main Works Stage 1,	Land (Miscellaneous Provisions) Ordinance, WDO,	۸
	Carry out on-site sorting;	C&D materials			Stage 2 and	ETWB TCW No. 19/2005	^	
	Make provisions in the Contract documents to allow and promote the use of recycled aggregates where appropriate;				Stage 3		۸	
	Adopt "selective demolition" technique to demolish the existing structure and facilities with a view to recovering broken concrete effectively for recycling purpose, where possible; and						N/A	
	Implement a trip-ticket system for each works contract to ensure that the disposal of C&D materials are properly documented and verified.						۸	
S6.2.5.3	The Contractor should recycle as much as possible of the C&DM on-site. Public fill and C&DM waste should be segregated and stored in different containers or skips to enhance reuse or recycling of materials and their proper disposal. For example, concrete and masonry can be crushed and used as fill, and steel reinforcing bar can be used by scrap steel mills. Different areas of the work sites should be designated for such segregation and storage.	Minimize waste impacts from building demolition and new building construction	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	Land (Miscellaneous Provisions) Ordinance, WDO, ETWB TCW No. 19/2005	۸	

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Status
\$6.2.5.3	The use of wooden hoardings shall not be allowed. An alternative material, such as metal, aluminium or alloy etc, could be used. Government has developed a charging policy for the disposal of weste to	Minimize waste impacts from building demolition and new building	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	Land (Miscellaneous Provisions) Ordinance, WDO, ETWB TCW No. 19/2005	٨
	Government has developed a charging policy for the disposal of waste to landfill at present. It will provide additional incentive to reduce the volume of generated waste and ensure proper segregation to allow reuse of the inert material on site when implemented.	construction					
	In order to minimize the impacts of the demolition works, the generated wastes must be cleared as quickly as possible after demolition. Therefore, the demolition and clearance works should be undertaken simultaneously. To facilitate proper segregation of inert and non-inert C&D material arising from demolition works, selective demolition method should be adopted.						۸
S6.2.5.4	If chemical wastes are produced at the construction site, the Contractors should register with EPD as chemical waste producers.	Control the chemical waste and	Contractor W	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	Waste Disposal (Chemical Waste General) Regulation, Code of Practice on the Packaging, Labelling and Storage of Chemical Waste	^
	Chemical wastes should be stored in appropriate containers and collected by a licensed chemical waste contractor. Chemical wastes (e.g. spent lubricant oil) should be recycled at an appropriate facility as far as possible, while the chemical waste that cannot be recycled should be disposed of at either the Chemical Waste Treatment Centre, or another licensed facility, in accordance with the Waste Disposal (Chemical Waste) (General) Regulation.	ensure proper storage, handling and disposal					۸
S6.2.5.5	General refuse should be stored in enclosed bins separately from construction and chemical wastes.	Minimize production of the general refuse and avoid odour, pest and litter impacts	Contractor	Work Sites	Construction phase of Main	Waste Disposal (Chemical Waste	۸
	Recycling bins should also be placed to encourage recycling.				Works Stage 1, Stage 2 and	General) Regulation	۸
	Preferably enclosed and covered areas should be provided for general refuse collection and routine cleaning for these areas should also be implemented to keep areas clean.				Stage 3		۸
	A reputable waste collector should be employed to remove general refuse on a daily basis.						۸

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Status
Landscape and V	Visual						
\$7.3.1.1	For areas unavoidably disturbed by the Project on a short term basis e.g. works areas, the general principle to try and restore these to their former state to suit future land use, should be adhered to.	Minimize the impact to the landscape and visual	Contractor	Work Sites	Prior to construction and construction		N/A
	With regard to topsoil, where identified, it should be stripped, treated appropriately, and where suitable and practical stored for re-use in the construction of the soft landscape works such as roadside amenity strips, and open space sites.				phase		N/A
\$7.3.2.1	MM4 – Tree Protection & Preservation Existing trees to be retained within the Project Site should be carefully protected during construction. In particular Old and Valuable Trees (OVTs) will be preserved according to ETWB TC (Works) No. 29/2004. Detailed Tree Protection Specification shall be provided in the Contract Specification. Under this specification, the Contractor shall be required to submit, for approval, a detailed working method statement for the protection of trees prior to undertaking any works adjacent to all retained trees, including trees in Contractor's works areas. A detailed tree survey will be carried out for the Tree Removal Application (TRA) process which will be carried out at the later detailed design stage of the Project. The detailed tree survey will propose which trees should be retained, transplanted or felled and will include details of tree protection measures for those trees to be retained.	Protect and Preserve Trees	Designer / Contractor	Work Sites	Prior to construction and construction phase	ETWB TCW No. 29/2004 and DEVB TC(W) No.7/2015	^

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Status
\$7.3.2.1	MM5 - Tree Transplantation Trees unavoidably affected by the Project works should be transplanted where practical. Trees should be transplanted straight to their final receptor site and not held in a temporary nursery as far as possible. A detailed Tree Transplanting Specification shall be provided in the Contract Specification, where applicable. Sufficient time for necessary tree root and crown preparation periods shall be allowed in the project programme. A detailed transplanting proposal will be submitted to relevant government departments for approval in accordance with ETWBTC No. 2/2004 and DEVB TC(W) No. 7/2015 and final locations of transplanted trees should be agreed prior to commencement of the work. For trees associated with highways e.g. roadside planting along highways, that are unavoidably affected and should be transplanted, HyD HQ/GN/13 'Interim Guidelines for Tree Transplanting Works under Highways Department's Vegetation Maintenance Ambit' should be	Transplant Trees where suitable for transplantation	Designer / Contractor	Work Sites where possible. Otherwise consider offsite locations	Prior to construction, construction phase and operation phase	DEVB TC(W) No. 7/2015 and ETWB TCW No.2/2004 HyD HQ/GN/13 Interim Guidelines for Tree Transplanting Works under Highways Department's Vegetation Maintenance Ambit	N/A
S7.3.2.1	MM6 - Slope Landscaping Site formation should be reduced as far as possible. Hydroseeding of modified slopes should be done as soon as grading works are completed to prevent erosion and subsequent loss of landscape recourses and charter. Woodland tree seedings and/or shrubs should be planted where slope gradient and site conditions allow. In addition, landscape planting should be provided for the retaining structures associated with modified slopes where conditions allow. All slope landscaping works should comply with GWO Publication No. 1/2011-Technical Guidelines on Landscape Treatment for Slopes.	To avoid substantial slope cutting and fill slopes. To prevent erosion and subsequent loss of landscape resources and character. To ensure manmade slopes are as visually amenable as possible.	Designer / Contractor	Work Sites	Prior to construction, construction phase and operation phase	GEO Publication (1999) - Use of Vegetation as Surface Protection on Slope; GEO Publication No. 1/2011-Technical Guidelines on Landscape Treatment for Slopes	N/A N/A

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Status
\$7.3.2.1	MM7 - Compensatory Planting Compensatory tree planting for felled trees shall be provided to the satisfaction of relevant Government departments. Required numbers and locations of compensatory trees shall be determined and agreed separately with Government during the Tree Removal Application process under DEVB TC(W) No. 7/2015.	Compensate for trees and shrubs lost due to the Project	Designer / Contractor	Work Sites where possible. Otherwise consider offsite locations	Prior to construction, construction phase and operation phase	DEVB TC(W) No. 7/2015 and ETWB TCW No. 2/2004	N/A
	Compensatory planting is proposed at the potential open areas such as open spaces, amenity areas, open areas of the streetscapes, as well as the open areas within development lots.						N/A
	Compensatory planting for shrubs should be considered in suitable locations. Native species such as Melastoma malabathricum, Diospyros vaccinioides, Gardenia jasminoides, Ixora chinensis, Ligustrum sinense, Litsea rotundifolia, Melastoma dodecandrum, Atalantia buxifolia, Rhodomyrtus tomentosa, Rhaphiolepis indica, and Rhododendron simsii are suggested.						N/A
\$7.3.2.1	MM9 - Vertical Greening Planting of climbers to grow up vertical surfaces were appropriate.	Soften hard surfaces and facilities	Designer / Contractor	On appropriate structures	Prior to construction, construction phase and operation phase	ETWB TCW No.11/2004 – Cyber Manual for Greening	N/A
\$7.3.2.1	MM10 - Green Roof Roof greening where appropriate should be established on proposed buildings as per the guidelines stated. These guidelines provide further details including information regarding structural loading, design, maintenance, etc. considerations as well as providing information on what types of plants might be suitable.	Reduce exposure to untreated concrete surfaces and particularly mitigate visual impact to visually sensitive receivers (VSRs) at high levels. Provide greening.	Designer / Contractor	On appropriate buildings	Prior to construction, construction phase and operation phase	CIBSE HK Branch, Technical Guidelines for Green Roof Systems in Hong Kong (2011); ArchSD/Urbis Study on Green Roof Application in HK (2007)	N/A

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Status
S7.3.2.1	MM11 - Screen Planting Tall screen/buffer trees and shrubs should be planted. This measure may additionally form part of the compensatory planting.	To screen proposed structures such as roads and buildings. Improve compatibility with the surrounding environment and create a pleasant pedestrian environment	Designer / Contractor	Along roads, around suitable built structures, or around VSRs to contain their view out to the structures.	construction,	ETWB TCW No. 10/2013 and 3/2006	N/A
\$7.3.2.1	MM16 - Screen Hoarding Screen hoarding shall be erected along areas of the construction works site boundary where the works site borders publically accessible routes and/or is close to visually sensitive receivers (VSRs). It is proposed that the screening be compatible with the surrounding environment and where possible, non-reflective, recessive colours be used. Any works areas near the ecological sensitive areas should erect 2m high dull green site boundary fence.	To screen undesirable views of the works site.	Designer	Work Sites	Construction phase		۸
\$7.3.2.1	MM17 - Light Control Construction day and night time lighting should be controlled to minimize glare impact to adjacent VSRs during the Construction phase. Street and night time lighting shall also be controlled to minimize glare impact to adjacent VSRs during the operation phase.	To minimize glare impact to adjacent VSRs.	Designer / Contractor	Work Sites and/or the Plant	Construction phase and operation phase		۸

Remarks: EM	I&A Programme under FEP-02/474/2013
^	Compliance of mitigation measure;
N/A N/A(1)	Not applicable at this stage; Not observed;
*	Recommendation was made during site audit but improved/retified by the contractor;
#	Recommendation was made during site audit but not yet improved/retified by the contractor;
X	Non-compliance of mitigation measure;
•	Non-compliance but rectified by the contractor.

APPENDIX O SUMMARIES OF ENVIRONMENTAL COMPLAINT, WARNING, SUMMON AND NOTIFICATION OF SUCCESSFUL PROSECUTION

Agreement No. SPW 07/2019 Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1

Appendix O – Summary of Environmental Complaint, Warning, Summon and Notification of Successful Prosecution

Reporting Month: June 2020

Log Ref.	Location	Received Date	Details of Complaint/Warning/Summon and Prosecution	Investigation/Mitigation Action	Status
				Employed suction truck and dump truck to clear the silt and mud at Shek Sheung River	
				Arranged to repair the wastewater treatment system	
1	Expansion Site of SWHSTP (Portion C)	18 March	Muddy water was suspected to be discharged from the expansion site of SWHSTP to Shek Sheung River,	Installed additional sedimentation tanks and wastewater treatment system to increase the on-site treatment capacity	Complaint Investigation Report was submitted in
	SWHSTF (FOLIOILC)	2020	manholes and foul drains nearby	Clean the slurry sediment released from the outlet regularly by suction trucks	April 2020
				Avoid damage of underground drains and pipes caused by existing construction works	
				Avoid illegal discharge from the Site into foul drains and manholes	

Remarks: No environmental complaint/warning/summon and prosecution was received in the reporting period.

APPENDIX P SUMMARY OF EXCEEDANCE

Agreement No. SPW 07/2019 Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1

Appendix P – Summary of Exceedance

Reporting Month: June 2020

(A) Exceedance Report for Air Quality (NIL in the reporting month)

(B) Exceedance Report for Construction Noise (NIL in the reporting month)

(C) Exceedance Report for Ecology

One (1) Action Level exceedance of ecological monitoring was triggered in the reporting month. No Limit Level exceedance of ecological monitoring was triggered in the reporting month.

APPENDIX Q TENTATIVE CONSTRUCTION PROGRAMME



Treatment Facilities and CLP 132kV Primary Substation									KL-CW	
me	Duratior Start	Finish	Actual Start	Actual Finish	Total Predecessors Successors 9	omple	2020		2023	2026
Dates	2229.2 da Mon 16/9/19	Thu 23/10/25	Mon 16/9/19	NA	0 days	0%	Q3 Q1 Q3 Q1 16/9	Q3 Q1 Q3 Q1 Q	03 Q1 Q3 Q1 Q3 Q1	Q3 Q1 Q3 23/10
p Date	0 days Mon 16/9/19	Mon 16/9/19	Mon 16/9/19	Mon 16/9/19	0 days 4,5FS+180 days,6,7,8,9,11,12,1	100%	♦ 16/9			
s Date (cal. day)	180 days Mon 16/9/19	Fri 13/3/20	Mon 16/9/19	NA	0 days	99%	16/9 13/3			
ion A-1	0 days Mon 16/9/19	Mon 16/9/19	Mon 16/9/19	Mon 16/9/19	0 days 2	100%	♦ 16/9			
ion A-2	0 days Mon 16/9/19	Mon 16/9/19	Mon 16/9/19	Mon 16/9/19	0 days 2FS+180 days	100%	♦ 16/9			
ion C-1A	0 days Mon 16/9/19	Mon 16/9/19	Mon 16/9/19	Mon 16/9/19	0 days 2	100%	♦ 16/9			
ion C-1B	0 days Mon 16/9/19	Mon 16/9/19	Mon 16/9/19	Mon 16/9/19	0 days 2	100%	♦ 16/9			
ion C-2A	0 days Mon 16/9/19	Mon 16/9/19	Mon 16/9/19	Mon 16/9/19	0 days 2	100%	♦ 16/9			
ion C-2B	0 days Mon 16/9/19	Mon 16/9/19	Mon 16/9/19	Mon 16/9/19	0 days 2	100%	♦ 16/9			
ion C-2C	0 days Mon 16/9/19	Mon 16/9/19	Mon 16/9/19	Mon 16/9/19	0 days 2	100%	♦ 16/9			
ion C-2D	0 days Mon 16/9/19	Mon 16/9/19	Mon 16/9/19	Mon 16/9/19	0 days 2	100%	♦ 16/9			
ion C-3	0 days Mon 16/9/19	Mon 16/9/19	Mon 16/9/19	Mon 16/9/19	0 days 2	100%	♦ 16/9			
ion C-4	0 days Mon 16/9/19	Mon 16/9/19	Mon 16/9/19	Mon 16/9/19	0 days 2	100%	♦ 16/9			
ion C-5	0 days Mon 16/9/19	Mon 16/9/19	Mon 16/9/19	Mon 16/9/19	0 days 2	100%	16/9			
ion C-6	0 days Fri 13/3/20	Fri 13/3/20	NA	NA	0 days 2FS+180 days 311,303	0%	♦ 13/3			
ks Area WA1	1 day Mon 16/9/19	Mon 16/9/19	Mon 16/9/19	Mon 16/9/19	0 days 2	100%	16/9 16/9			
rks Area WA2-A	1 day Mon 16/9/19	Mon 16/9/19	Mon 16/9/19	Mon 16/9/19	0 days 2	100%	16/9 16/9			
	840 days Tue 17/9/19	Mon 3/1/22	NA	NA	0 days	0%	17/9	3/1		
ate (cal. day) A (525 days after starting date)	-	Mon 22/2/21	NA NA	NA NA	0 days	0%	1113	♦ 22/2		
	525 days Tue 17/9/19					0%		♦ 22/2 ♦ 7/7		
A (660 days after starting date)	660 days Tue 17/9/19	Wed 7/7/21	NA NA	NA NA	0 days			♦ /// ♦ 15/10		
A (760 days after starting date)	760 days Tue 17/9/19	Fri 15/10/21	NA NA	NA NA	0 days	0%				
B (750 days after starting date)	750 days Tue 17/9/19	Tue 5/10/21	NA NA	NA NA	0 days	0%				
C (750 days after starting date)	750 days Tue 17/9/19	Tue 5/10/21	NA	NA	0 days	0%				
BD (660 days after starting date)	660 days Tue 17/9/19	Wed 7/7/21	NA	NA	0 days	0%		♦ 7/7		
E (840 days after starting date)	840 days Tue 17/9/19	Mon 3/1/22	NA	NA	0 days	0%		♦ 3/1		
etion Date (cal. day)	2228.2 da Tue 17/9/19	Thu 23/10/25	NA	NA	0 days	0%	17/9	·		23/10
tion 1 of Works (675 days after starting date)	675 days Tue 17/9/19	Thu 22/7/21	NA	NA	0 days	0%		♦ 22/7		
tion 2 of Works (1,295 days after starting date)	1294 day: Tue 17/9/19	Sun 2/4/23	NA	NA	0 days	0%			♦ 2/4	
tion 3 of Works (1,120 days after starting date)	1120 day: Tue 17/9/19	Mon 10/10/22	NA	NA	0 days	0%	•		♦ 10/10	
tion 4 of Works (900 days after starting date)	900 days Tue 17/9/19	Fri 4/3/22	NA	NA	0 days	0%	•	♦ 4/3		
tion 5 of Works (1,590 days after starting date)	1590 day: Tue 17/9/19	Tue 23/1/24	NA	NA	0 days 32,33	0%			♦ 23/1	
ect Liability Period	365 days Wed 24/1/24	Thu 23/10/25	NA	NA	0 days 31	0%				23/10
Landscape Establishment Works	365 days Wed 24/1/24	Wed 22/1/25	NA	NA	0 days 31	0%			24/1 22/1	
Completion - Key Date (cal. day)	314 days Fri 7/5/21	Thu 17/3/22	NA	NA	-74.8 days	0%		7/5		
525 days after starting date)	0 days Fri 7/5/21	Fri 7/5/21	NA	NA	-74.8 days 140FF,138FF,330,	0%		♦ 7/5		
660 days after starting date)	0 days Mon 27/9/21	Mon 27/9/21	NA	NA	-83 days 366FF	0%		♦ 27/9		
760 days after starting date)	0 days Wed 13/10/21		NA	NA	0 days 180FF,181FF	0%		♦ 13/10		
750 days after starting date)	0 days Thu 30/9/21	Thu 30/9/21	NA	NA	4 days 198FF,199FF	0%		♦ 30/9		
750 days after starting date)	0 days Mon 24/5/21	Mon 24/5/21	NA NA	NA NA	133 days 210FF,211FF	0%		♦ 24/5		
660 days after starting date)	0 days Mon 17/5/21	Mon 17/5/21	NA NA	NA NA	50 days 236FF,237FF	0%		♦ 17/5		
840 days after starting date)	0 days Wild 17/3/21	Thu 17/3/22	NA NA	NA NA	-73.8 days 253FF,248FF,284F	0%		4 1176		
Completion - Section of the Works (cal. day)	1245.2 da Tue 24/8/21	Mon 20/1/25	NA NA	NA NA	-33.8 days	0%		24/8	20/1	
1 of Works (675 days after starting date)	0 days Tue 24/8/21	Tue 24/8/21	NA.	NA NA	-33.8 days 142FF,309FF,141F	0%			, -	
	0 days	Mon 13/3/23	NA NA	NA NA	20 days 371FF,368FF,370F	0%		¥ 2-110	♦ 13/3	
2 of Works (1,295 days after starting date) 3 of Works (1,120 days after starting date)	0 days Mon 25/4/22	Mon 25/4/22	NA NA	NA NA		0%			V 10/0	
	· ·				167 days 212FF,213FF,238F			♦ 23/3		
4 of Works (900 days after starting date)	0 days Wed 23/3/22	Wed 23/3/22	NA NA	NA NA	-20 days 269FF,273FF,304F 0 days 341FF,339FF,340F	0% 0%		♦ 23/3	♦ 22/1	
5 of Works (1,590 days after starting date)	0 days Mon 22/1/24	Mon 22/1/24		NA						
Liability Period	0 days Mon 20/1/25	Mon 20/1/25	NA NA	NA NA	0 days 343FF	0%			♦ 20/1 1/1 ■ 20/1	
ndscape Establishment Works	20 days Wed 1/1/25	Mon 20/1/25	NA Na	NA	0 days 343FF	0%	4010		1/1 20/1	
ons (cal. day)	1054 day Mon 16/9/19	Thu 4/8/22	Mon 16/9/19	NA	20 days	62%	16/9	- 4/2	₩ŏ	
ting Package	536 days Mon 16/9/19	Thu 4/3/21	Mon 16/9/19	NA	63.8 days	52%	16/9	4/3		
pare & Submit Subletting Procedures	1 day Mon 16/9/19	Mon 16/9/19	Mon 16/9/19	Mon 16/9/19	0 days 2 53	100%	16/9 16/9			
Review & Accept Subletting Procedures	21 days Mon 16/9/19	Mon 7/10/19	Mon 16/9/19	Mon 7/10/19	0 days 52 55,57,54,56	100%	16/9 7/10			
letting for Preliminary Works (Instrumentation Monitoring etc.)	30 days Mon 7/10/19	Wed 6/11/19	Mon 7/10/19	Wed 6/11/19	0 days 53 311	100%	7/10 6/11			
letting for Drainage Diversion Works for UV System no.1& Effluent	44 days Tue 8/10/19	Wed 20/11/19	Tue 8/10/19	Wed 20/11/19	0 days 53 308	100%	8/10 20 /11			
pping Station No.1										
letting for the Temporary Site accommodation (On hold)	8 days Thu 14/11/19	Thu 21/11/19	Thu 14/11/19	NA	32 days 53 111	99%	14/11 •21/11			
letting for Pre-drilling Works	49 days Sat 12/10/19	Fri 29/11/19	Sat 12/10/19	Fri 29/11/19	0 days 53 58SS+15 days,59SS+15 days,1	100%	12/10 29/11			
letting for Pre-bored Socketed Steel H-Pile	45 days Mon 18/11/19	Sat 25/1/20	Mon 18/11/19	NA	7.25 days 57SS+15 days 355,150,191,207,220,230,245,1	90%	18/11 📂 25/1			
letting for Contractor's Designer for Temporary Works	32 days Fri 25/10/19	Wed 27/11/19	Fri 25/10/19	Wed 27/11/19	0 days 57SS+15 days 61,60,74,62,63,64	100%	25/10 2 7/11			
letting for ELS Works	60 days Fri 20/12/19	Mon 17/2/20	Fri 20/12/19	NA	105 days 59 127,154,160,166,172,179,193,2	80%	20/12 🔖 17/2			
letting for R.C Works	60 days Mon 1/6/20	Thu 30/7/20	NA	NA	-4 days 59 128,194,210,223,359,272,252,2	0%	1/6	30/7		
letting for ABWS & BS Works	60 days Mon 4/1/21	Thu 4/3/21	NA	NA	63.8 days 59 142,184,201,213,224,239,254,2	0%		4/1 4/3		
letting for Pipeworks, Utilities, and Roadworks	60 days Mon 2/3/20	Thu 30/4/20	NA	NA	227 days 59 336,333,334,335,332	0%	2/3 30	/4		
letting for Hard Landscape, Soft Landscape, and others	60 days Mon 8/6/20	Thu 6/8/20	NA	NA	0 days 59 339,340,341,343	0%	8/6	■ 6/8		
ory Submission, Submission & Approval		Thu 4/8/22	Mon 16/9/19	NA			16/9		1/8	
pare and Submit Subcontractor Management Plan (SMP)	-				-		16/9			
pare and Submit Interface Management Plan	· ·				-		Ĭ			
	· ·				-					
ersion	51 days 181011 10/3/13	146 3/11/19	WOII 10/3/13	146 3/11/13	0 days 2 000,10	10070	.0,0			
	r 45 days Mon 16/0/10	Wed 30/10/10	Mon 16/0/10	NΔ	0 days 2	78%	16/9 30/10			
pare TTA Plan, submit & approve for carnageway at Chuk Wan Road for 2 13kV substation	10 days 10011 10/3/13	**Cu 30/10/19	WOII 10/3/13	INO		1070	10,0			
letting for Fort Submission and Sipare and Sipare and Sipare TTA Persion	lard Landscape, Soft Landscape, and others sion, Submission & Approval ubmit Subcontractor Management Plan (SMP) ubmit Interface Management Plan lan, submit & approve for footpath for Stage 1 - Drainage lan, submit & approve for carriageway at Chuk Wan Road for	Pipeworks, Utilities, and Roadworks for days for days	Pipeworks, Utilities, and Roadworks	Pipeworks, Utilities, and Roadworks	Na Na Na Na Na Na Na Na	Pipeworks, Utilities, and Roadworks 60 days Ann 8/6/20 Thu 30/4/20 NA NA 227 days 59 336,333,334,335,332 And Landscape, Soft Landscape, and others 60 days Mon 8/6/20 Thu 6/8/20 NA NA 0 days 59 339,340,341,343 And Sesion, Submission & Approval 1054 day Mon 16/9/19 Thu 4/8/22 Mon 16/9/19 NA 20 days 2	Pipeworks, Utilities, and Roadworks 60 days Mon 2/3/20 Thu 30/4/20 NA NA 227 days 59 336,333,334,335,332 0% Alard Landscape, Soft Landscape, and others 60 days Mon 8/6/20 Thu 6/8/20 NA NA 0 days 59 339,340,341,343 0% Alard Landscape, Soft Landscape, and others 60 days Mon 16/9/19 Thu 4/8/22 Mon 16/9/19 NA 20 days 82% Usinit Subcontractor Management Plan (SMP) 0 days Mon 16/9/19 Mon 16/9/19 Mon 16/9/19 Mon 16/9/19 0 days 2 100% Usinit Interface Management Plan 60 days Mon 16/9/19 Thu 14/11/19 Mon 16/9/19 NA 0 days 2 58% Usinit Supprove for footpath for Stage 1 - Drainage 51 days Mon 16/9/19 Tue 5/11/19 Mon 16/9/19 Tue 5/11/19 0 days 2 308,70 100% Usinit Approve for carriageway at Chuk Wan Road for 45 days Mon 16/9/19 Wed 30/10/19 Mon 16/9/19 NA 0 days 2 78%	Pipeworks, Utilities, and Roadworks 60 days Mon 2/3/20 Thu 30/4/20 NA NA 227 days 59 336,333,334,335,332 0% Alard Landscape, Soft Landscape, and others 60 days Mon 8/6/20 Thu 6/8/20 NA NA 0 days 59 339,340,341,343 0% Sision, Submission & Approval 1054 day Mon 16/9/19 Thu 4/8/22 Mon 16/9/19 NA 20 days bubmit Subcontractor Management Plan (SMP) 0 days Mon 16/9/19 Mon 16/9/19 Mon 16/9/19 NA 0 days 2 100% bubmit Interface Management Plan 60 days Mon 16/9/19 Thu 14/11/19 Mon 16/9/19 NA 0 days 2 308,70 100% 16/9 17/11 Idan, submit & approve for footpath for Stage 1 - Drainage 51 days Mon 16/9/19 Wed 30/10/19 Mon 16/9/19 NA 0 days 2 78% 16/9 30/10	Pipeworks, Utilities, and Roadworks 60 days Mon 2/3/20 Thu 30/4/20 NA NA 227 days 59 336,333,334,335,332 0% and Landscape, and others 60 days Mon 8/6/20 Thu 6/8/20 NA NA NA 0 days 59 339,340,341,343 0% and Landscape, and others 60 days Mon 16/9/19 Thu 4/8/22 Mon 16/9/19 NA 20 days bubmit Subcontractor Management Plan (SMP) 0 days Mon 16/9/19 Mon 16/9/19 Mon 16/9/19 NA 0 days 2 100% bubmit Interface Management Plan 60 days Mon 16/9/19 Thu 4/11/19 Mon 16/9/19 NA 0 days 2 308,70 100% 16/9/19 Thu 5/11/11 Inn, submit & approve for footpath for Stage 1 - Drainage 51 days Mon 16/9/19 Wed 30/10/19 Mon 16/9/19 NA 0 days 2 78% 16/9 30/10	Pipeworks, Utilities, and Roadworks 60 days Mon 2/3/20 Thu 30/4/20 NA NA NA 227 days 59 336,333,343,35,322 0% Alard Landscape, Soft Landscape, and others 60 days Mon 8/6/20 Thu 6/8/20 NA NA NA 20 days Sision, Submission & Approval Ubmit Subcontractor Management Plan (SMP) Ubmit Interface Management Plan Han, submit & approve for footpath for Stage 1 - Drainage 151 days Mon 16/9/19 Thu 4/1/1/19 Mon 16/9/19 NA 0 days 27 days 59 336,333,34,335,332 0% 82% 16/9 16/9 100% 16/9 100% 16/9 16/9 16/9 16/9 16/9 16/9 16/9 16/9



Task Name	Duratior Start	Finish	Actual Start	Actual Finish	Total Slack	Predecessors Successors	% Comple	Q1 Q3
Excavation Permit Application	38 days Mon 16/9/19	Tue 28/1/20	Mon 16/9/19	NA	-88.6 days	68 374FS+60 days,373FS+60 da	vs 80%	16/9 0 28/1
Approval for Lighting Removal at Portion C-1A of the Site from Hyd	68 days Mon 16/9/19	Fri 22/11/19	Mon 16/9/19	Fri 22/11/19	0 days	•	100%	16/9 22/11
Prepare, submit & approve for commencement of Works near MTRCL	43 days Mon 16/9/19	Mon 28/10/19	Mon 16/9/19	Mon 28/10/19	0 days		100%	16/9 28/10
protection zone at Sun Wan Road from MTRCL	To days Mon Toror to	1001 20/10/10	WIGHT TO/O/ TO	WIGH 20/10/10	o dayo	2 000,000	10070	100 - 100
Prepare, submit & approve the layout plan of the Temporary Site	60 days Fri 25/10/19	Mon 23/12/19	Fri 25/10/19	NA	0 days	2 111	50%	25/10 23/12
accommodation (PPMI no.001) (On hold)	00 days 111 25/10/19	WOT 25/12/19	11123/10/13	INA	0 uays	2 111	30 /6	20.17
	47 days Thu 7/11/10	Man 22/12/10	Th.: 7/11/10	Man 22/12/10	O daya	EQ 127.154.160.166.170.170.103	2 1000/	7/11 23/12
Prepare, submit & approve the ELS design for deep excavation	47 days Thu 7/11/19	Mon 23/12/19	Thu 7/11/19	Mon 23/12/19	0 days			
Prepare, submit & approve the Method Statement for Drainage Diversion	27 days Mon 16/9/19	Sat 12/10/19	Mon 16/9/19	Sat 12/10/19	0 days	2 308,76	100%	16/9 12/10
Works								
PM approve the Method Statement for Drainage Diversion Works	14 days Sun 20/10/19	Sat 2/11/19	Sun 20/10/19	NA	0 days	75	80%	20/10 @ 2/11
Prepare, submit & approve for the FSD submissions for CLP 132kV	60 days Mon 6/6/22	Thu 4/8/22	NA	NA	20 days	371	0%	6/6 4/8
Substation								
Environmental Aspect Submissions	120 days Mon 16/9/19	Mon 13/1/20	Mon 16/9/19	Mon 13/1/20	0 days	2	100%	16/9 13/1
Prepare, submit & approve Site Management Plan for Trip Tricket System	n 58 days Mon 16/9/19	Tue 12/11/19	Mon 16/9/19	Tue 12/11/19	0 days	2	100%	16/9 🚾 12/11
Prepare, submit & approve Waste Management Plan	57 days Mon 16/9/19	Mon 11/11/19	Mon 16/9/19	Mon 11/11/19	0 days	2	100%	16/9 📉 11/11
Prepare, submit & approve Environmental Management Plan	50 days Mon 16/9/19	Mon 4/11/19	Mon 16/9/19	Mon 4/11/19	0 days	2	100%	16/9 4/1
, , , , , , , , , , , , , , , , , , ,					, .			
Notification to EPD for Works Commencement	55.44 day Wed 9/10/19	Mon 13/1/20	Wed 9/10/19	Mon 13/1/20	0 days	308,329	100%	9/10 13/1
Procurement Procurement	548 days Mon 16/9/19	Tue 16/3/21	Mon 16/9/19	NA	51.8 days	555,525	27%	16/9
Prepare and submit the Procurement Procedure	•				-	85	100%	16/9 19/10
4	34 days Mon 16/9/19	Sat 19/10/19	Mon 16/9/19	Sat 19/10/19	0 days			
PM Review & Accept Procurement Procedure	0 days Sat 19/10/19	Sat 19/10/19	Sat 19/10/19	Sat 19/10/19	0 days		100%	♦ 19/10
Prepare, submit and approve the pipe works material	45 days Sun 20/10/19	Tue 3/12/19	Sun 20/10/19	NA	44.1 days		80%	20/10 3/12
Prepare, submit and approve the water proofing material	30 days Mon 15/6/20	Tue 14/7/20	NA	NA	12 days		0%	15/6 14/7
Prepare, submit and approve the concrete mix	60 days Sat 1/2/20	Tue 31/3/20	NA	NA	57 days	85 128,194,210,223,359,89	0%	1/2 31/3
Prepare, submit and approve the rebar material	30 days Mon 11/5/20	Tue 9/6/20	NA	NA	17 days	88 90,128,194,210,223,359	0%	11/5 🔳 9/6
Prepare, submit and approve the metal works material	30 days Wed 10/6/20	Thu 9/7/20	NA	NA	17 days		0%	10/6 9/7
Prepare, submit and approve the ABWF works material	30 days Mon 15/2/21	Tue 16/3/21	NA	NA	51.8 days			15/2 16/3
Preparation of Cost Saving Design	243.8 day Wed 18/9/19	Mon 18/5/20	Wed 18/9/19	NA NA	-77.8 days		48%	18/9
					-			18/9 1/2
Prepare, submit and approve CSD package no.1	136.2 dayWed 18/9/19	Sat 1/2/20	Wed 18/9/19	NA	10.8 days		65%	
Prepare and submit CSD proposal	66 days Wed 18/9/19	Fri 22/11/19	Wed 18/9/19	Fri 22/11/19	0 days		100%	18/9 22/11
PM review and approval of CSD	7 days Sat 23/11/19	Fri 29/11/19	Sat 23/11/19	Fri 29/11/19	0 days		100%	23/11 29/11
Obtain AIP	0 days Fri 29/11/19	Fri 29/11/19	Fri 29/11/19	Fri 29/11/19	0 days	95 98,97	100%	♦ 2 9/11
PM review and approval of CSD	42 days Fri 29/11/19	Thu 9/1/20	Fri 29/11/19	NA	33 days	96 150,191	20%	29/11 🧃 9/1
Obtain DDA	14 days Fri 29/11/19	Sat 1/2/20	Fri 29/11/19	NA	10.8 days	96 150,191	20%	29/11 👔 1/2
Prepare, submit and approve CSD package no.2	243.8 dayWed 18/9/19	Mon 18/5/20	Wed 18/9/19	NA	-77.8 days		37%	18/9
Prepare and submit CSD proposal	95 days Wed 18/9/19	Mon 10/2/20	Wed 18/9/19	NA	-77.8 days	· ·	80%	18/9
				NA NA			0%	10/2 16/3
PM review and approval of CSD	35 days Mon 10/2/20	Mon 16/3/20	NA		-77.8 days			
Obtain AIP	21 days Mon 16/3/20	Mon 6/4/20	NA	NA	-77.8 days		0%	16/3 6/4
PM review and approval of CSD	42 days Mon 6/4/20	Mon 18/5/20	NA	NA	-77.8 days		0%	6/4 18/5
Obtain DDA	14 days Mon 6/4/20	Mon 20/4/20	NA	NA	-49.8 days	102 125,220	0%	6/4 ■ 20/4
Site Preliminary Works	166 days Mon 16/9/19		Mon 16/9/19	NA	0 days		68%	16/9
Initial Tree survey and report submission	14 days Thu 26/9/19	Wed 9/10/19	Thu 26/9/19	Wed 9/10/19	0 days	2 108	100%	26/9 🔳 9/10
Prepare and submit and approve the Method Statement of Tree felling &	72 days Mon 7/10/19	Tue 17/12/19	Mon 7/10/19	Tue 17/12/19	0 days	2 108	100%	7/10 17/12
Prunning works								
Mobilization for Hoarding	0 days Thu 21/11/19	Tue 26/11/19	Thu 21/11/19	Tue 26/11/19	0 days	2,116,106,107 109	100%	♦ 26/11
Hoarding Erection at Portion C	40 days Wed 27/11/19	Wed 15/1/20	Wed 27/11/19	NA	0 days	108 121	70%	27/11 👩 15/1
Utility applications and Connection	89 days Mon 16/9/19	Thu 2/1/20	Mon 16/9/19	NA NA	46 days		75%	16/9 2/1
Construction of Site Accommodation in Works Area (On hold)			NA	NA NA		73,110FF,56	0%	24/12 28/2
, ,	52 days Tue 24/12/19				-	70,11011,00	0 70	
Construction Works of Portion C of the Site	1954 day Mon 16/9/19	Mon 20/1/25	Mon 16/9/19	NA	0 days		1%	16/9
UV System No. 1 & Effluent Pumping Station No. 1	575.8 day Mon 16/9/19	Tue 24/8/21	Mon 16/9/19	NA	0 days		12%	16/9
Preliminary Works	105 days Mon 16/9/19	Tue 21/1/20	Mon 16/9/19	Tue 21/1/20	0 days		100%	16/9 21/1
Site Clearance & Site Set Up	23 days Mon 16/9/19	Mon 14/10/19	Mon 16/9/19	Mon 14/10/19	0 days	2 116,117,118	100%	16/9 14/10
Tree Felling Works	5 days Tue 15/10/19	Sun 20/10/19	Tue 15/10/19	Sun 20/10/19	0 days	115 108	100%	15/10 20/10
Trial Pit Excavation & UU Detection Works	6 days Tue 15/10/19		Tue 15/10/19	Mon 21/10/19	0 days		100%	15/10 21/10
Temporary Footpath Diversion	20 days Mon 14/10/19		Mon 14/10/19	Tue 5/11/19	0 days		100%	14/10 5/1
Temporary diverted foorpath open to public	1 day Tue 10/12/19	Tue 10/12/19	Tue 10/12/19	Tue 10/12/19	0 days	•	100%	10/12 10/12
					-		100%	18/1 @ 21/1
Removal of Existing Street light and Provision of Temporary Street light	3 days Sat 18/1/20	Tue 21/1/20	Sat 18/1/20	Tue 21/1/20	o days	71,118FS-15 days 308FS-5 days	100%	10/1 (2// 1
Desdellers Wester (0. 4: 41 (1.98 (1.5)	0 d T 0110115	101-3 44140140	T. 0//0//0	10/- 144/10/10	0.1	200 224 220 57 40 40050 44 1	40001	31/12
Predrilling Works (8no, 1rig, 4days/drillhole/rig)	0 days Tue 3/12/19	Wed 11/12/19	Tue 3/12/19	Wed 11/12/19		308,331,330,57,10 122FS+14 days	100%	♦ 11/12 • • • • • • • • • • • • • • • • • • •
Installation of Monitoring Points	0 days Thu 19/12/19	Thu 19/12/19	Thu 19/12/19	Thu 19/12/19		121FS+14 days 123	100%	19/12
Sheetpile Installation (FSP IV, 2200sq.m, 2 Rig, 50sqm/rig/day)	22 days Sat 4/1/20	Tue 28/4/20	Sat 4/1/20	NA	-51 days	122,308,329 124	5%	4/1 🦠 🔳 28/4
Setting up plant for pre-bored socked H-pile Installation	5 days Wed 29/4/20	Wed 6/5/20	NA	NA	-51 days	123 125	0%	29/4 6/5
Pre-bored Socketed H-Pile Installation (34 Nos, 2 Rig, 3days/rig/pile)	51 days Mon 18/5/20	Sat 18/7/20	NA	NA	-60.8 days	58,124,99,104,103 126	0%	18/5 18/7
Pile Loading Test	26 days Sat 18/7/20	Thu 13/8/20	NA	NA	-72.8 days		0%	18/7 📕 13/8
ELS Works (incl. Strut (4-layers) Installation & Excavation (3,700 cu.m)	45 days Thu 13/8/20	Wed 7/10/20	NA	NA	-60.8 days		0%	13/8 7/10
R.C. Structure (370sq.m)			NA	NA NA		87,88,89,90,61	0%	7/10 7/5
, , ,	171 days Wed 7/10/20	Fri 7/5/21			-			
Below Ground Level Stage no.1 @ -1.10mPD	55 days Wed 7/10/20	Fri 11/12/20	NA NA	NA NA	-60.8 days		0%	7/10 11/12
Base slab Construction (162 sq.m)	25 days Wed 7/10/20	Fri 6/11/20	NA	NA	-60.8 days		0%	7/10 6/11
Walls and Slabs Construction @-1.10mPD to +2.50mPD	30 days Fri 6/11/20	Fri 11/12/20	NA	NA	-60.8 days		0%	6/11 ■ 11/12
Below Ground Level Stage no.2 @ +1.50mPD	44 days Fri 11/12/20	Thu 4/2/21	NA	NA	-60.8 days		0%	11/12 📺 4/2
Base slab Construction (170sg.m)	24 days Fri 11/12/20	Tue 12/1/21	NA	NA	-60.8 days	131 134	0%	11/12 🔳 12/1



	sk Name	Duratior Start	Finish	Actual Start	Actual Finish	Total Slack	Predecessors Successors	% Comple	2020	Q3
	Walls and Slabs Construction @+1.5mPD to +4.9mPD	20 days Tue 12/1/21	Thu 4/2/21	NA	NA	-60.8 days	133 136	0%	Q3 Q1 Q3 Q1	Q3 Q1 Q1
	Below Ground Level Stage no.3 @ +3.80mPD	50 days Thu 4/2/21	Sat 10/4/21	NA NA	NA NA	-60.8 days		0%		4/2 10/4
		•	Fri 26/2/21	NA NA	NA NA			0%		4/2 26/2
	Base slab Construction (15 sq.m + 40 sq.m)	16 days Thu 4/2/21				-60.8 days				_
	Walls and Slabs Construction @+3.80mPD to +7.4mPD	20 days Fri 26/2/21	Mon 22/3/21	NA	NA	-60.8 days		0%		26/2 22/3
	Extraction of Sheetpiles	14 days Mon 22/3/21	Sat 10/4/21	NA	NA	22 days	137 35FF	0%		22/3 10/4
	Above Ground Level @ +7.4mPD	36 days Mon 22/3/21	Fri 7/5/21	NA	NA	-60.8 days	i	0%		22/3 7/5
1A	Walls, Slabs and staircase Construction @+7.4mPD to 16.4mPD	36 days Mon 22/3/21	Fri 7/5/21	NA	NA	-60.8 days	137 35FF,141,142,282	0%		22/3 🚃 7/5
	Allow access to Contarctor DE/2018/03 for E&M Installation	0 days Fri 7/5/21	Fri 7/5/21	NA	NA	90 days	140 43FF	0%		♦ 7/5
	ABWF Works + BS Works	90 days Fri 7/5/21	Tue 24/8/21	NA	NA		91,62,140 43FF	0%		7/5 24/8
			Mon 31/1/22	Sat 7/12/19	NA NA	-		2%	7/12	31/1
	Sludge Digesters and Distribution Chamber	638 days Sat 7/12/19				201 days				3//1
	Site Clearance & Site Set Up	6 days Sat 7/12/19	Fri 13/12/19	Sat 7/12/19	Fri 13/12/19	0 days		100%	7/12 13/12	
	Trial Pit Excavation & UU Detection Works	6 days Sat 14/12/19	Fri 20/12/19	Sat 14/12/19	Fri 20/12/19	0 days	146SF 144SF	100%	14/12 20/12	
	Predrilling Works (23no., 3rig, 4days/drillhole/rig)	17 days Sat 21/12/19	Mon 13/1/20	Sat 21/12/19	Mon 13/1/20	0 days	57FS+14 days 147,145SF,148	100%	21/12 📕 13/1	
	Installation of Monitoring Points	0 days Thu 19/12/19	Thu 19/12/19	Thu 19/12/19	Thu 19/12/19	0 days	146 150	100%	♦ 19/12	
	Sheet Pile Installation	45 days Tue 14/1/20	Mon 9/3/20	NA	NA	0 days	146 150FS-23 days,178	0%	14/1 🗫 9/3	
	Setting up plant for pre-bored socked H-pile Installation	5 days Sat 29/2/20	Thu 5/3/20	NA NA	NA	-20 days	150	0%	29/2 5/3	
	•									- 40/9
	Pre-bored Socketed H-Pile Installation (127nos, 3 Rig, 3days/rig/pile)	127 days Fri 6/3/20	Mon 10/8/20	NA	NA		58,147,148FS-23 d 151,303	0%		10/8
	Pile Load Test (2no.)	26 days Tue 11/8/20	Sat 5/9/20	NA	NA	1 day	150 154,160,153,159,165,1	71 0%		5/9
	Construction of Digestors	231 days Mon 7/9/20	Sat 19/6/21	NA	NA	0 days		0%	7/9	19/6
	Digester No. 1	187 days Mon 7/9/20	Mon 26/4/21	NA	NA	0 days	151	0%	7/9	26/4
	ELS Works (incl. Strut (3-layers) Installation & Excavation (4,440 cu.m		Mon 19/10/20	NA	NA		74,60,151 166,155	0%	7/9	9 19/10
	Construction of Digesters	88 days Tue 20/10/20		NA	NA NA	0 days				110 3/2
	•			NA NA	NA NA	-				4/2 2 /3
	Water Test	20 days Thu 4/2/21	Tue 2/3/21			0 days		0%		_
	Apply Internal Anti-corrosion Protective Lining	14 days Wed 3/3/21	Thu 18/3/21	NA	NA	0 days		0%		3/3 18/3
	Construction of Roof Slab	30 days Fri 19/3/21	Mon 26/4/21	NA	NA	0 days	157 169	0%		19/3 26/4
	Digester No. 2	187 days Mon 7/9/20	Mon 26/4/21	NA	NA	0 days	151	0%	7/9	26/4
	ELS Works (incl. Strut (3-layers) Installation & Excavation (4,440 cu.m	n)) 35 days Mon 7/9/20	Mon 19/10/20	NA	NA	0 days	74,60,151 172,161	0%	7/9	9 💶 19/10
	Construction of Digesters	88 days Tue 20/10/20	Wed 3/2/21	NA	NA	0 days	160 162,179,173FS-58 day	s 0%	20	/10 3/2
	Water Test	20 days Thu 4/2/21	Tue 2/3/21	NA NA	NA NA	0 days		0%		4/2 ■ 2/3
										_
	Apply Internal Anti-corrosion Protective Lining	14 days Wed 3/3/21	Thu 18/3/21	NA	NA	0 days		0%		3/3 18/3
	Construction of Roof Slab	30 days Fri 19/3/21	Mon 26/4/21	NA	NA	-		0%		19/3 26/4
	Digester No. 3	196 days Tue 20/10/20	Sat 19/6/21	NA	NA	0 days	151	0%	20/	19/6
	ELS Works (incl. Strut (3-layers) Installation & Excavation (4,440 cu.m	n)) 35 days Tue 20/10/20	Mon 30/11/20	NA	NA	0 days	74,60,154 167,332,333,334,336,3	35 0%	20	/10 🚃 30/11
	Construction of Digesters	88 days Tue 1/12/20	Fri 19/3/21	NA	NA	0 days	166,155FS-58 days 168,179	0%		1/12 19/3
	Water Test	20 days Sat 20/3/21	Thu 15/4/21	NA	NA	9 days	167 169	0%		20/3 15/4
	Apply Internal Anti-corrosion Protective Lining	14 days Tue 27/4/21	Thu 13/5/21	NA NA	NA NA		168,158 170	0%		27/4 13/5
						0 days	· ·			
	Construction of Roof Slab	30 days Fri 14/5/21	Sat 19/6/21	NA	NA	0 days	169	0%		14/5 19/6
	Digester No. 4	196 days Tue 20/10/20	Sat 19/6/21	NA	NA	0 days	151	0%	20/	19/6
	ELS Works (incl. Strut (3-layers) Installation & Excavation (4,440 cu.m	n)) 35 days Tue 20/10/20	Mon 30/11/20	NA	NA	0 days	74,60,160 173,332,333,334,336,3	35 0%	20	/10 🚃 30/11
	Construction of Digesters	88 days Tue 1/12/20	Fri 19/3/21	NA	NA	0 days	172,161FS-58 days 174,179,180	0%		1/12 19/3
	Water Test	20 days Sat 20/3/21	Thu 15/4/21	NA	NA	9 days	173 175	0%		20/3 15/4
	Apply Internal Anti-corrosion Protective Lining	14 days Tue 27/4/21	Thu 13/5/21	NA	NA		174,164 176	0%		27/4 13/5
		,		NA NA	NA NA			0%		14/5 19/6
	Construction of Roof Slab	30 days Fri 14/5/21	Sat 19/6/21				175			_
	Construction of Distribution Chamber	219 days Mon 18/1/21	Wed 13/10/21	NA	NA	0 days		0%		18/1
	Sheet Pile Installation	45 days Mon 18/1/21	Sat 13/3/21	NA	NA	5 days	148 179	0%		18/1 13/3
	ELS Works (incl. Strut (3-layers) Installation & Excavation (8,880 cu.m))	79 days Sat 20/3/21	Sat 26/6/21	NA	NA	0 days	167,173,161,155,7-180,275	0%		20/3 26/6
4	Construction of Distribution Chamber	90 days Mon 28/6/21	Wed 13/10/21	NA	NA	0 days	179,173 184,181,37FF,183,182	0%		28/6 13/10
A	Allow access to Contarctor DE/2018/03 for E&M Installation	0 days Wed 13/10/21		NA	NA	0 days		0%		♦ 13/10
1			Mon 31/1/22	NA	NA NA	-		0%		15/10 31/1
	Drainage System (within Bldg/ Structure) Installation	90 days Fri 15/10/21				201 days				
	FRP Walkway & Miscellanous Installation	90 days Fri 15/10/21	Mon 31/1/22	NA	NA	201 days		0%		15/10 31/1
	ABWF Works & BS Works, incl. External Linning	90 days Fri 15/10/21	Mon 31/1/22	NA	NA	201 days	180,91,62 45FF	0%		15/10 31/1
	Sludge Dewatering Building	638 days Tue 26/11/19	Wed 19/1/22	Tue 26/11/19	NA	211 days		5%	26/11	19/1
	Site Clearance & Site Set Up	6 days Tue 26/11/19	Mon 2/12/19	Tue 26/11/19	Mon 2/12/19	0 days	2 187	100%	26/11 2 <mark>/</mark> 12	
	Predrilling Works (39no.4rig, 4days/drillhole/rig))	18 days Wed 4/12/19	Tue 24/12/19	Wed 4/12/19	Tue 24/12/19		57FS+14 days,186 188	100%	4/12 24/12	
	Installation of Monitoring Points	10 days Fri 3/1/20	Tue 14/1/20	Fri 3/1/20	Tue 14/1/20	0 days	• •	100%	3/1 14/1	
	Sheet Pile Installation		Mon 24/2/20	Wed 15/1/20		3 days		10%	15/1 24/2	
		30 days Wed 15/1/20			NA NA					
	Setting up plant for pre-bored socked H-pile Installation	5 days Tue 25/2/20	Sat 29/2/20	NA	NA	3 days	•	0%	25/2 29/2	
	Pre-bored Socketed H-Pile Installation (202 Nos, 4 Rig, 3days/rig/pile)	152 days Mon 2/3/20	Thu 3/9/20	NA	NA	3 days	189,58,190,93,98,9219,192	0%	2/3	
	Pile Loading Test	25 days Fri 4/9/20	Mon 28/9/20	NA	NA	4 days	191 193	0%	4/9	9 ■ 28/9
	ELS Works (incl. Strut (3-layers) Installation & Excavation (25,000 cu.m))	60 days Tue 29/9/20	Thu 10/12/20	NA	NA	2 days	74,60,192 194,195,332,333,334,3	36,335 0%	29	/9 10/12
	R.C. Structure	238 days Fri 11/12/20	Thu 30/9/21	NA	NA		87,88,89,90,61,193,201,200,199	0%		1/12 30/9
	Basement Consturction @	76 days Fri 11/12/20	Tue 16/3/21	NA NA	NA NA	2 days		0%		11/12 16/3
	•					-		0%		
	Ground Floor Construction @ +7.55mpD	65 days Wed 17/3/21	Sat 5/6/21	NA	NA	2 days				17/3 5/6
	1/F Construction @ +15.3m mPD	65 days Mon 7/6/21	Mon 23/8/21	NA	NA	2 days		0%		7/6 23/8
3	Roof Construction @ +25.65mPD	32 days Tue 24/8/21	Thu 30/9/21	NA	NA	2 days	197 38FF,286	0%		24/8 30/9
В	Allow access to Contarctor DE/2018/03 for E&M Installation	0 days Thu 30/9/21	Thu 30/9/21	NA	NA	2 days	194 38FF	0%		♦ 30/9
	Drainage System (within Bldg/ Structure) Installation	90 days Sat 2/10/21	Wed 19/1/22	NA	NA	211 days		0%		2/10 19/1
	ABWF Works & BS Works	89 days Sat 2/10/21	Tue 18/1/22	NA NA	NA NA	-	194,91,62 45FF	0%		2/10 18/1
							107,31,02 40FF		10/13	
	Combined Heat Power Building	518 days Tue 10/12/19		Tue 10/12/19	NA 10/10/10	319 days	0.00105	4%	10/12	8/9
	Site Clearance & Site Set Up	6 days Tue 10/12/19	Mon 16/12/19	Tue 10/12/19	Mon 16/12/19	0 days	2,204SF	100%	10/12 16/12	
	Des dellies Meste (45 s. Osio, Adorre Ideille de Jaio)	0 days Tue 17/12/19	Mon 30/12/19	Tue 17/12/19	Mon 30/12/19	0 days	57FS+28 days 205,203SF	100%	♦ 30/12	
	Predrilling Works (15no. 2rig, 4days/drillhole/rig)	o dayo Tao III Izi Io								
	Installation of Monitoring Points	6 days Fri 3/1/20	Thu 9/1/20	Fri 3/1/20	Thu 9/1/20	0 days	204 207	100%	3/1 🗾 9/1	



KD Task Name	Duratior Start	Finish	Actual Start	Actual Finish	Total Slack	Predecessors	Successors	% Comple	2020 2023 2026
77	75.1	NA 100///22	0 : 40/4/22	***		50.005.005	200	. Q1	2020 2023 Q1 Q3 Q1
7 Pre-bored Socketed H-Pile Installation (50 Nos, 2 Rig 3days/rig/pile) 8 Pile Loading Test	75 days Sat 18/1/20	Wed 29/4/20	Sat 18/1/20	NA		58,205,206	208	5%	18/1 29/4
3	26 days Sat 2/5/20	Mon 1/6/20	NA NA	NA NA	110 days		209	0%	2/5 1 /6 2/6 1 6/9
111	90 days Tue 2/6/20	Wed 16/9/20	NA NA			74,60,208	210		17/9 24/5
KD3C R.C. Structure	200 days Thu 17/9/20	Mon 24/5/21	NA NA	NA			09 39FF,212,213,211,278	0%	24/5 • 24/5
KD3C Allow access to Contarctor DE/2018/03 for E&M Installation	0 days Mon 24/5/21	Mon 24/5/21		NA NA	110 days		39FF 45FF	0% 0%	25/5 4/8
Drainage System (within Bldg/ Structure) Installation	60 days Tue 25/5/21	Wed 4/8/21	NA NA	NA NA	349 days				25/5 8/9
SW3 ABWF Works & BS Works	90 days Tue 25/5/21	Wed 8/9/21	NA 	NA •••		210,91,62	45FF	0%	
* Sewage Pumping Station	570 days Mon 25/5/20	Mon 25/4/22	NA	NA NA	55 days	0	040	0% 0%	25/5 25/5 30/5
Site Clearance & Site Set Up	6 days Mon 25/5/20	Sat 30/5/20	NA NA	NA NA	55 days		216	0%	1/6 1 18/6
Predrilling Works (4no.1rig, 4days/drillhole/rig) Installation of Monitoring Points	16 days Mon 1/6/20	Thu 18/6/20	NA NA	NA NA		57FS+14 days,2			
	6 days Fri 19/6/20	Fri 26/6/20	NA NA	NA	55 days		218	0%	19/6 26/6
	30 days Sat 27/6/20	Sat 1/8/20	NA	NA	55 days		220	0%	27/6 1/8
Setting up plant for pre-bored socked H-pile Installation	5 days Fri 4/9/20	Wed 9/9/20	NA	NA NA	22 days		220	0%	4/9 9/9
Pre-bored Socketed H-Pile Installation (22 Nos, 1 Rig, 3days/rig/pile)	66 days Thu 10/9/20	Sat 28/11/20	NA	NA	-	58,218,219,99,10		0%	10/9 28/11
Pile Loading Test	26 days Sun 29/11/20	Thu 24/12/20	NA	NA	28 days		222	0%	29/11 24/12
ELS Works (incl. Strut (3-layers) Installation & Excavation (1,440 cu.m))	80 days Mon 28/12/20	Wed 7/4/21	NA	NA		74,60,221	223	0%	28/12 7/4
KD3E R.C. Structure	200 days Tue 4/5/21	Fri 31/12/21	NA	NA	-	87,88,89,90,61,2		0%	31/12
SW3 ABWF Works & BS Works	90 days Mon 3/1/22	Mon 25/4/22	NA	NA •••		91,62,223	45FF	0%	3/1 25/4
* Workshop No. 2	501 days Tue 24/12/19		Tue 24/12/19	NA O 00/40/40	324 days		007	3%	24/12 29/12
Site Clearance & Site Set Up	3 days Tue 24/12/19	Sun 29/12/19	Tue 24/12/19	Sun 29/12/19	0 days		227	100%	
Predrilling Works (10no.1rig, 4days/drillhole/rig)	11 days Tue 31/12/19	Mon 13/1/20	Tue 31/12/19	Mon 13/1/20	0 days		228	100%	31/12 13/1
Installation of Monitoring Points Setting up plant for pre-bored socked H-pile Installation	2 days Tue 14/1/20	Wed 15/1/20	NA	NA	77 days		230,229	0%	14/1 • 15/1
	5 days Mon 20/4/20	Fri 24/4/20	NA	NA	3 days		230	0%	20/4 24/4
Pre-bored Socketed H-Pile Installation (36 Nos, 2 Rig, 3days/rig/pile) Pile Loading Test	54 days Sat 25/4/20	Tue 30/6/20	NA	NA		58,228,229	231	0%	25/4 30/6
Pile Loading Test Excavation for Pile Cap (1,800 cu.m)	26 days Wed 1/7/20	Sun 26/7/20	NA	NA	4 days		232	0%	1/7 26/7
Excavation for Pile Cap (1,800 cu.m)	20 days Mon 27/7/20	Tue 18/8/20	NA	NA		74,60,231	234,332,333,334,336,335	0%	27/7 18/8
R.C. Structure	220 days Wed 19/8/20	Mon 17/5/21	NA	NA	4 days			0%	19/8 17/5
Ground Floor Construction @ +6.30mpD	80 days Wed 19/8/20	Mon 23/11/20	NA	NA	4 days		235	0%	19/8 23/11
First Floor Construction @ +13.50mpD	80 days Tue 24/11/20	Wed 3/3/21	NA	NA	4 days		236	0%	24/11 3/3
KD3D Roof Construction @+19.00mPD	60 days Thu 4/3/21	Mon 17/5/21	NA	NA	4 days	235	238,239,40FF,237,250	0%	4/3 17/5
KD3D Allow access to Contarctor DE/2018/03 for E&M Installation	0 days Mon 17/5/21	Mon 17/5/21	NA	NA	40 days	236	40FF	0%	♦ 17/5
Drainage System (within Bldg/ Structure) Installation	60 days Tue 18/5/21	Thu 29/7/21	NA	NA	354 days	236	45FF	0%	18/5 29/7
SW3 ABWF Works & BS Works	90 days Tue 18/5/21	Thu 2/9/21	NA	NA	324 days	91,62,236	45FF	0%	18/5 2/9
* Thermal Hydrolysis Pretreatment	403 days Thu 19/12/19	Mon 3/5/21	Thu 19/12/19	NA	0 days			11%	19/12
Site Clearance & Site Set Up	16.12 day Thu 19/12/19	Sun 12/1/20	Thu 19/12/19	Sun 12/1/20	0 days	2	242	100%	19/12 12/1
Predrilling Works (3no.1rig, 4days/drillhole/rig)	2 days Mon 13/1/20	Tue 14/1/20	Mon 13/1/20	Tue 14/1/20	0 days	57FS+24 days,24	41 243	100%	13/1 14/1
Installation of Monitoring Points	6 days Wed 15/1/20	Tue 21/1/20	NA	NA	254 days	242	245	0%	15/1 🧔 21/1
Setting up plant for pre-bored socked H-pile Installation	5 days Tue 24/11/20	Sat 28/11/20	NA	NA	0 days		245	0%	24/11 28/11
Pre-bored Socketed H-Pile Installation (15 Nos, 1 Rig, 3days/rig/pile)	45 days Mon 30/11/20	Sat 23/1/21	NA	NA	0 days	58,243,244	246	0%	30/11 23/1
Pile Loading Test	25 days Sun 24/1/21	Wed 17/2/21	NA	NA	0 days	245	247	0%	24/1 📕 17/2
Excavation for Pile Cap (160 cu.m)	20 days Thu 18/2/21	Fri 12/3/21	NA	NA	-	74,60,246	248	0%	18/2 12/3
KD3E R.C. Plinth	40 days Sat 13/3/21	Mon 3/5/21	NA	NA	0 days	247	41FF,223	0%	13/3 🚃 3/5
* Ferric Chloride Dosing Facilities	216 days Tue 18/5/21	Mon 7/2/22	NA	NA	4 days			0%	18/5
Excavation for Raft Footing (105 cu.m)	35 days Tue 18/5/21	Tue 29/6/21	NA	NA	4 days	2,236	251	0%	18/5 📰 29/6
Plate Load Test	18 days Wed 30/6/21	Wed 21/7/21	NA	NA	4 days		252	0%	30/6 ■ 21/7
R.C. Structure	66 days Thu 22/7/21	Fri 8/10/21	NA	NA	4 days		253	0%	22/7 🚃 8/10
KD3E Steel Roof Structure (On-site Fabrication)	65 days Sat 9/10/21	Fri 24/12/21	NA	NA	4 days		41FF,254	0%	9/10 24/12
SW3 ABWF Works & BS Works	45 days Sat 25/12/21	Mon 7/2/22	NA	NA		253,91,62	45FF	0%	25/12 🔳 7/2
* Fire Hydrant and Booster Pump Room	204.8 day Mon 19/7/21	Thu 24/3/22	NA NA	NA NA	11 days			0%	19/7
Excavation for Raft Footing (160 cu.m)	10 days Mon 19/7/21	Thu 29/7/21	NA	NA	11 days	2,261	257,294	0%	19/7 29/7
Plate Load Test	18 days Fri 30/7/21	Thu 19/8/21	NA NA	NA NA	11 days		258	0%	30/7 19/8
Plate Load Test KD3E R.C. Structure	60 days Mon 15/11/21	Thu 27/1/22	NA NA	NA	-	257,61,263	259,41FF,296FS-1 day	0%	15/11 27/1
SW3 ABWF Works & BS Works	45 days Thu 27/1/22	Thu 24/3/22	NA NA	NA NA		258,91,62	45FF	0%	27/1 24/3
* Transformer and Switchroom	183 days Tue 1/6/21	Mon 10/1/22	NA NA	NA NA	-20.8 days			0%	1/6 10/1
* Transformer and Switchroom Excavation for Raft Footing (310 cu.m)	20 days Tue 1/6/21	Fri 25/6/21	NA NA	NA NA	-20.8 days		262,256	0%	1/6 25/6
Plate Load Test	18 days Fri 25/6/21	Sat 17/7/21	NA NA	NA NA	-20.8 days		263	0%	25/6 17/7
Plate Load Test KD3E R.C. Structure	60 days Thu 2/9/21	Mon 15/11/21	NA NA	NA NA	-	262,61,284	264,41FF,258	0%	2/9 15/11
SW3 ABWF Works & BS Works	45 days Mon 15/11/21	Mon 10/1/22	NA NA	NA NA		263,91,62	45FF	0%	15/11 10/1
* Water Meter Cabinet	73 days Tue 12/10/21	Sat 8/1/22	NA NA	NA NA	-20 days	200,01,02	.011	0%	12/10 8/1
	-	Sat 8/1/22 Sat 23/10/21	NA NA	NA NA	-	2 304	267	0%	12/10 23/10
Excavation for Raft Footing (6 cu.m) Plate Load Test	10 days Tue 12/10/21	Sat 23/10/21 Sat 13/11/21	NA NA	NA NA	-20 days		268	0%	25/10 13/11
R.C. Structure	18 days Mon 25/10/21	Sat 13/11/21 Sat 18/12/21			-20 days		269,271	0%	15/11 18/12
SW4 ABWF Works & BS Works	30 days Mon 15/11/21	Sat 18/1/22	NA NA	NA NA	-20 days		269,27 I 46FF	0%	20/12 8/1
	15 days Mon 20/12/21					268,91,62	→ 0FF		19/12 23/3
* Guard House	75 days Sun 19/12/21	Wed 23/3/22	NA NA	NA NA	-20 days	2.260	070	0%	
Excavation to Formation	21 days Sun 19/12/21	Sat 8/1/22	NA NA	NA NA	-23 days		272	0%	19/12 8/1
R.C. Structure	30 days Mon 10/1/22	Wed 16/2/22	NA	NA	-17 days		273	0%	10/1 16/2
SW4 ABWF Works & BS Works	30 days Thu 17/2/22	Wed 23/3/22	NA	NA		272,91,62	46FF	0%	17/2 23/3
* Coolers Pumping Station	100 days Mon 28/6/21	Tue 26/10/21	NA	NA	0 days			0%	28/6 26/10
Excavation for Raft Footing (185 cu.m)	40 days Mon 28/6/21	Fri 13/8/21	NA	NA	0 days		276,290	0%	28/6 13/8
SW4 R.C. Structure	60 days Sat 14/8/21	Tue 26/10/21	NA	NA	0 days	275,61	41FF,292	0%	14/8 26/10
* Waste Gas Buner	53 days Tue 25/5/21	Tue 27/7/21	NA	NA	110 days			0%	25/5 📺 27/7
Excavation for Raft Rooting (75cu.m)	15 days Tue 25/5/21	Thu 10/6/21	NA	NA	110 days	2,210	279,298	0%	25/5 🛮 10/6
	10 1 5 11/0/01	Sat 3/7/21	NA	NA	110 days	278	280	0%	11/6 3/7
Plate Load Test	18 days Fri 11/6/21	3al 3/1/21	101	101	o aajo	210	200	0 70	



KD T	ask Name	Duratior Start	Finish	Actual Start	Actual Finish	Total Predecessors Successors	% Comple	2020 2023 2026
KD3E	R.C. Plinth	20 days Man 5/7/04	Tue 27/7/21	NA	NA		0% Q1 Q	3 Q1 Q3 Q1 Q1 Q3 Q1 Q1 Q3 Q1 Q3 Q1 Q3 Q1 Q1 Q1 Q3 Q1 Q1 Q1 Q3 Q1 Q1 Q1 Q3 Q1
*		20 days Mon 5/7/21 98 days Fri 7/5/21	Thu 2/9/21	NA NA	NA NA	• • • • • • • • • • • • • • • • • • • •	0%	7/5 2/17
	Plant Services Water System Excavation for Raft Footing (800 cu.m)	•	Tue 1/6/21	NA NA	NA NA	-60.8 days 2,140 283,261	0%	7/5 1/6
	• • • • • • • • • • • • • • • • • • • •	20 days Fri 7/5/21 18 days Tue 1/6/21		NA NA	NA NA		0%	1/6 23/6
D3E	Plate Load Test	- '	Wed 23/6/21				0%	23/6 23/9
D3E	Basement Construction @+1.20mPD	60 days Wed 23/6/21	Thu 2/9/21	NA	NA			2/10 29/12
	Deodorization System No. 11	73 days Sat 2/10/21	Wed 29/12/21	NA	NA	2 days	0%	
	Excavation for Raft Footing (1,280 cu.m)	20 days Sat 2/10/21	Tue 26/10/21	NA	NA	2 days 2,198 287	0%	2/10 26/10
	Plate Load Test	18 days Wed 27/10/21	Tue 16/11/21	NA	NA	2 days 286 288	0%	27/10 16/11
03E	R.C. Plinth	35 days Wed 17/11/21	Wed 29/12/21	NA	NA	2 days 287,61 41FF	0%	17/11 29/12
	Biogas Holder	102 days Mon 30/8/21	Fri 31/12/21	NA	NA	0 days	0%	30/8 31/12
	Excavation for Raft Footing (1,120 cu.m)	20 days Mon 30/8/21	Tue 21/9/21	NA	NA	9 days 2,275 291	0%	30/8 21/9
	Plate Load Test	18 days Thu 23/9/21	Fri 15/10/21	NA	NA	9 days 290 292	0%	23/9 🔳 15/10
3E	R.C. Plinth	55 days Wed 27/10/21	Fri 31/12/21	NA	NA	0 days 291,61,276 41FF	0%	27/10 31/12
	H2S Removal System	139.8 day Mon 27/9/21	Thu 17/3/22	NA	NA	-60.8 days	0%	27/9 17/3
	Excavation for Raft Footing (396 cu.m)	10 days Mon 27/9/21	Fri 8/10/21	NA	NA	9 days 2,256 295	0%	27/9 8/10
	Plate Load Test	20 days Sat 9/10/21	Tue 2/11/21	NA	NA	9 days 294 296	0%	9/10 2/11
3E	R.C. Plinth	40 days Wed 26/1/22	Thu 17/3/22	NA	NA NA	-60.8 days 295,61,258FS-1 da 41FF	0%	26/1 17/3
JL		•	Thu 19/8/21	NA NA	NA NA		0%	11/6 19/8
	Deodorization System No. 12	58 days Fri 11/6/21				110 days	111	11/6 6/7
	Excavation to Formation	20 days Fri 11/6/21	Tue 6/7/21	NA NA	NA NA	110 days 2,278 299	0%	
	Plate Load Test	18 days Wed 7/7/21	Tue 27/7/21	NA 	NA	110 days 298 300	0%	7/7 27/7
3E	R.C. Plinth	20 days Wed 28/7/21	Thu 19/8/21	NA	NA	110 days 299,61,280 41FF	0%	28/7 ■ 19/8
	Underpass	496 days Tue 11/2/20	Mon 11/10/21	NA	NA	-20 days	0%	11/2
	Temporary Storage for H pile works and access for DSD	155 days Tue 11/2/20	Tue 14/7/20	NA	NA	3 days 190SS-14 days 303	0%	11/2 14/7
	Sheet Pile Installation + ELS Works (incl. Strut (2-layers) Installation &	68 days Tue 11/8/20	Sat 31/10/20	NA	NA	-20 days 15,189,150,302 304	0%	11/8 31/10
	Excavation (300 cu.m))							
/4	R.C. Structure	280 days Mon 2/11/20	Mon 11/10/21	NA	NA	-20 days 303,61 46FF,266	0%	2/11 11/10
	Pipe Works and Utility Installation	1832 day Thu 16/1/20	Mon 20/1/25	NA	NA	0 days 86	0%	16/1
	Pipe Works At Chuk Wan Street	548 days Thu 16/1/20	Fri 16/7/21	NA	NA	1.1 days	0%	16/1
	Drainage Diversion (Existing Drainage Culvert)	443 days Thu 16/1/20	Fri 16/7/21	NA	NA	1.1 days	0%	16/7
1A	Stage 1 - Drainage Diversion of Drainage b/w Reconstructed Storm	60 days Thu 16/1/20	Sat 28/3/20	NA	NA	1.1 days 68,55,75,120FS-5 121,329SS,123	0%	16/1 28/3
	Water Manhole SMH1003177A and Reconstructed Storm Water					days,82,119		
1A	Machal-MUD22 Stage 2 - Drainage Diversion of Drainage b/w MHD26 and SMHH1003177A, to Abandon of Exisitng Drainage Culvert (1 Cell,	120 days Fri 19/2/21	Fri 16/7/21	NA	NA	32.8 days 325 43FF	0%	19/2 16/7
N4	Trencless Work for Pipe Installation	162 days Tue 4/8/20	Thu 18/2/21	NA	NA	32.8 days	0%	4/8 18/2
	Construction of Temporary Jacking Pit	61 days Tue 4/8/20	Thu 15/10/20	NA	NA	32.8 days 15,54	0%	4/8 15/10
	Trial Pit Excavation & UU Detection Works	7 days Tue 4/8/20	Tue 11/8/20	NA	NA	32.8 days 2FS+210 days 313,316	0%	4/8 11/8
	Pit Construction (11m x 9m)	40 days Wed 12/8/20	Sat 26/9/20	NA NA	NA NA	32.8 days 312 314	0%	12/8 26/9
	, ,	14 days Mon 28/9/20	Thu 15/10/20	NA NA	NA NA	32.8 days 313 319	0%	28/9 15/10
	Setting up of Entrance Ring and Gantry					,		
	Construction of Temporary Receiving Pit	47 days Wed 12/8/20	Wed 7/10/20	NA	NA	56.8 days	0%	12/8 7/10
	Trial Pit Excavation & UU Detection Works	7 days Wed 12/8/20	Wed 19/8/20	NA	NA	56.8 days 312 317	0%	12/8 19/8
	Pit Construction (6m x 9m)	40 days Thu 20/8/20	Wed 7/10/20	NA	NA	56.8 days 316 320FF	0%	20/8 7/10
	Pipe Jacking Operation	41 days Fri 16/10/20	Thu 3/12/20	NA	NA	32.8 days	0%	16/10 🚃 3/12
	Setting Up of Trenchless Equipment	7 days Fri 16/10/20	Fri 23/10/20	NA	NA	32.8 days 314 320	0%	16/10 23/10
	Pipe Jacking Operation (30m, 3m/day)	10 days Sat 24/10/20	Thu 5/11/20	NA	NA	32.8 days 319,317FF 321	0%	24/10 🛮 5/11
	Installation of grouting pipe and rail	7 days Fri 6/11/20	Fri 13/11/20	NA	NA	32.8 days 320 322	0%	6/11 13/11
	Pipe Laying Works	10 days Sat 14/11/20	Wed 25/11/20	NA	NA	32.8 days 321 323	0%	14/11 25/11
	Formwork Erection and grouting works	7 days Thu 26/11/20	Thu 3/12/20	NA	NA	32.8 days 322 324	0%	26/11 3/12
	Reinstatement of Temporary Launching Pit	30 days Fri 4/12/20	Mon 11/1/21	NA NA	NA NA	32.8 days 323 325	0%	4/12 11/1
	Reinstatement of Temporary Receiving Pit	30 days Tue 12/1/21	Thu 18/2/21	NA NA	NA NA	32.8 days 324 309	0%	12/1 18/2
	Process Pipeworks, All Sewerage, Utilities & Roadworks in Portion Co		Tue 1/3/22	NA NA	NA NA	19 days	0%	16/1
	Process Pipeworks	60 days Thu 16/1/20	Sat 28/3/20	NA	NA	21.1 days	0%	16/1 28/3
1A	Connection pipe at UV System no.1 & Effluent Pumping Stataior	-	Sat 28/3/20	NA NA	NA NA	21.1 days	0%	16/1 28/3
٠.٨	no.1	00 uays 111u 10/1/20	Jat 20/3/20	IVA	INA	Zi.i uayə	U 70	.01
		40 days Thu 16/1/20	Thu E/2/20	NI A	NIA	21 1 days 20000 02 224 220 422	00/	16/1 5/3
	Effluent Pipe (aprox. 70m, dia 300 - 1600)	,	Thu 5/3/20	NA NA	NA NA	21.1 days 308SS,82 331,330,123	0%	
	Effluent Pipe Flowmeter Chamber (3.8mx3.95mx3.42m(D))	20 days Fri 6/3/20	Sat 28/3/20	NA	NA	265 days 329 121,35	0%	6/3 28/3
	Plant Services Water Pipe (approx. 15m, dia 150-350)	20 days Fri 6/3/20	Sat 28/3/20	NA	NA	265 days 329 121,35	0%	6/3 28/3
4	Remaining Effluent Pipes	360 days Fri 11/12/20	Tue 1/3/22	NA	NA	19 days 63,166,172,193,23:46FF	0%	11/12 1/3
4	Stormdrain Pipeworks	360 days Fri 11/12/20	Tue 1/3/22	NA	NA	2 days 63,166,172,193,23,46FF	0%	11/12 1/3
4	Seawage Pipeworks	360 days Fri 11/12/20	Tue 1/3/22	NA	NA	2 days 63,166,172,193,23,46FF	0%	11/12 1/3
4	Watermain Pipeworks	360 days Fri 11/12/20	Tue 1/3/22	NA	NA	2 days 63,166,172,193,23,46FF	0%	11/12 1/3
4	Cable & Other Underground Utility Pipeworks	360 days Fri 11/12/20	Tue 1/3/22	NA	NA	2 days 63,166,172,193,23.46FF	0%	11/12 1/3
/4	Pipe Bridge No.1	180 days Mon 2/8/21	Fri 28/1/22	NA	NA	54 days 2 46FF	0%	2/8 28/1
	Remaining Pipe Works & Lanscape Works	1316 day Fri 7/8/20	Mon 20/1/25	NA	NA	0 days	0%	7/8
15	Irrigation System	1025 day:Fri 7/8/20	Fri 19/1/24	NA	NA	2 days 64,2FS+231 days 47FF	0%	7/8
15	Hard Landscape Works	1025 day(Fri 7/8/20	Fri 19/1/24	NA NA	NA NA	2 days 64,2FS+235 days 47FF	0%	7/8 19/1
15	Soft Landscape Works	1025 day(Fri 7/8/20	Fri 19/1/24	NA NA	NA NA	0 days 64,2FS+235 days 343,47FF	0%	7/8
v5 V5				NA NA	NA NA		0%	3/10 22/1
UV	Outfall and River Embankment works & Retaining Wall	388 days Mon 3/10/22	Mon 22/1/24			0 days 47FF	***	20/1
	Establishment Works (365 Calendar Days)	291 days Sat 20/1/24	Mon 20/1/25	NA	NA	0 days 341,64 48FF,49FF	0%	
С	onstruction of Portion A of the Site	1203 day Wed 27/11/19	Mon 13/3/23	Wed 27/11/19	NA	20 days	4%	27/11
	CLP 132kV Substation	975 days Wed 27/11/19		Wed 27/11/19	NA	17 days	4%	27/11
	Internal Works	1203 day Wed 27/11/19	Mon 13/3/23	Wed 27/11/19	NA	20 days	5%	27/11
	Site Clearance & Site Set Up		Fri 13/12/19	Tue 10/12/19	Fri 13/12/19	0 days 2 348	100%	10/12 13/12



CIVII VV	vorks for Sludge Treatment Facilities and CLP 132kV Primary Substation								
)	KD Task Name	Duratior Start	Finish	Actual Start	Actual Finish	Total Predecessors	Successors	% Comple	2020 Q1 Q3 Q1
348	Additional tree felling works (NCE no. xx)	4 days Fri 20/12/19	Mon 23/12/19	Fri 20/12/19	Mon 23/12/19	0 days 347	350,349	100%	20/12 23/12
349	Trial Pit Excavation & UU Detection Works	10 days Mon 2/12/19	Thu 12/12/19	Mon 2/12/19	Thu 12/12/19	0 days 348	351	100%	2/12 12/12
350	Additional demolition of existing warehouse structures (NCE no. xx)	27 days Wed 27/11/19	Tue 31/12/19	Wed 27/11/19	Tue 31/12/19	0 days 72,348	353,351	100%	27/11 🔳 31/12
351	Predrilling Works (11no., 1rig, 4days/drillhole/rig)	10 days Sat 4/1/20	Thu 16/1/20	Sat 4/1/20	Thu 16/1/20	0 days 57,350,349	352	100%	4/1 1 16/1
352	Instsallation of Monitoring Points	5 days Thu 16/1/20	Wed 22/1/20	Thu 16/1/20	NA	16 days 351	354	70%	16/1 🛊 22/1
353	Demolition of Existing Boundary Wall for Temproary Access	25 days Thu 2/1/20	Mon 3/2/20	NA	NA	9 days 72,350	354	0%	2/1 🧃 3/2
354	Setting up plant for pre-bored socked H-pile Installation	5 days Tue 4/2/20	Sat 8/2/20	NA	NA	9 days 352,353	355	0%	4/2 1 8/2
355	Pre-bored Socketed H-Pile Installation (41 Nos, 2 Rig, 3days/rig/pile)	62 days Mon 10/2/20	Sat 25/4/20	NA	NA	9 days 58,354	356	0%	10/2 === 25/4
356	Pile Load Test	25 days Sun 26/4/20	Wed 20/5/20	NA	NA	13 days 355	357	0%	26/4 ■ 20/5
357	Additional Sheetpile Installation (NCE no.xx)	25 days Thu 21/5/20	Thu 18/6/20	NA	NA	11 days 356	358	0%	21/5 1 18/6
358	ELS Works (incl. Strut (3-layers) Installation & Excavation (NCE no.xx)	45 days Fri 19/6/20	Wed 12/8/20	NA	NA	11 days 357	359	0%	19/6 🚃 12/8
359	R.C. Structure (880 sq.m)	194 days Thu 19/11/20	Sat 17/7/21	NA	NA	-70 days 87,88,89,90,61,3	76	0%	19/11 17/7
360	Basement	60 days Thu 19/11/20	Sat 30/1/21	NA	NA	-70 days	361	0%	19/11 30/1
361	Ground Floor	60 days Mon 1/2/21	Sat 17/4/21	NA	NA	-70 days 360	362	0%	1/2 17/4
362	First Floor	44 days Mon 19/4/21	Thu 10/6/21	NA	NA	-70 days 361	363	0%	19/4 10/6
363	Roof Floor (461sq.m)	30 days Fri 11/6/21	Sat 17/7/21	NA	NA	-70 days 362	364,366	0%	11/6 🔳 17/7
364	ABWF Works & BS Works	60 days Mon 19/7/21	Mon 27/9/21	NA	NA	0 days 363,91,62	365SS	0%	19/7 27/9
365	Installation of telephone line/ direct link for FSD Inspection	60 days Mon 19/7/21	Mon 27/9/21	NA	NA	0 days 364SS		0%	19/7 🚾 27/9
366	KD2A Architectual Works	60 days Mon 19/7/21	Mon 27/9/21	NA	NA	-70 days 363	367,36FF	0%	19/7 27/9
367	Handover to CLP for Electrical System Installation	30 days Tue 28/9/21	Wed 27/10/21	NA	NA	301 days 366	368,370,371,369	0%	28/9 27/10
368	E&M Installation, Testing & Commissioning by CLP	180 days Thu 28/10/21	Mon 25/4/22	NA	NA	342 days 367	44FF	0%	28/10 25/4
369	Testing & Commissioning of the E&M Works	90 days Thu 28/10/21	Tue 25/1/22	NA	NA	432 days 367	44FF	0%	28/10 25/1
370	ABWF Works - External Finishing & BS Works	90 days Thu 28/10/21	Wed 16/2/22	NA	NA	334 days 367,91,62	44FF	0%	28/10 16/2
371	SW2 Building Services Installation Works (incl. Fire Services, Plumbing, Drainage, etc.) & FS Inspection	180 days Fri 5/8/22	Mon 13/3/23	NA	NA	17 days 367,77	44FF	0%	5/8 13/3
372	External Works	302 days Thu 9/4/20	Sat 17/4/21	NA	NA	-70 days		0%	9/4 17/4
373	Road Widening Works	152 days Thu 9/4/20	Tue 13/10/20	NA	NA	-70 days 70FS+60 days		0%	9/4 13/10
374	Drainage Works	76 days Thu 9/4/20	Tue 14/7/20	NA	NA	-70 days 70FS+60 days	375	0%	9/4 14/7
375	Road Works	76 days Wed 15/7/20	Tue 13/10/20	NA	NA	-70 days 374	376	0%	15/7 13/10
376	Temporary Site Access	30 days Wed 14/10/20	Wed 18/11/20	NA	NA	-70 days 375	377,359	0%	14/10 🔤 18/11
377	SW2 Construction of New Boundary Wall	120 days Thu 19/11/20	Sat 17/4/21	NA	NA	582 days 376	44FF	0%	19/11 17/4

	Contract Dates	1585 days	Mon 18/11/19	Thu 27/3/25		0 days	None	Qtr 2	18/11 Qtr 1 Qtr 2	Vu 4 Vull Vur2 دعي	T VIIIV + IIV CIIV	QII QII QII QII QII	Qtr 2 Qtr 3 Qtr 4 Qtr 1 Qtr 2 Q	QU4 QU1
	Starting Date	0 days	Mon 18/11/19	Mon 18/11/19	35FS+1 day,36FS+1 day		Calendar Day		18/11					Ţ
	Access Dates (cal. day)	310 days	Mon 18/11/19	Tue 22/9/20		0 days	Calendar Day		18/11	22/9				
	Portion B-1 (Access Road AR3)	0 days	Mon 18/11/19	Mon 18/11/19 2	118	77 days	Calendar Day		18/11 • 18/11 •					
	Portion B-1A (Area for the works for Sidestream Treatment Facilities by Others	0 days	Mon 18/11/19	Mon 18/11/19 2		1957 days	Calendar Day		10/11					
	Portion B-2 (Inlet Works No.1)	0 days	Mon 18/11/19	Mon 18/11/19 2	122,143,148	105 days	Calendar Day		18/11 🧄					
	Portion B-2A (Area for the pipe-jacking works by others)	0 days	Mon 18/11/19	Mon 18/11/19 2		1957 days	Calendar Day		18/11					
	Portion B-3 (Primary Sedimentation Tanks No. 1-4)	0 days	Mon 18/11/19	Mon 18/11/19 2	177	0 days	Calendar Day		18/11					
	Portion B-4 (Bioreactor No. 2A & 2B) Portion B-5 (Membrane Facilities Building No.2)	0 days 0 days	Mon 18/11/19 Mon 18/11/19	Mon 18/11/19 2 Mon 18/11/19 2	189 203	0 days 49 days	Calendar Day Calendar Day		18/11 • 18/11 •					
	Portion B-6 (SAS Pumping Station)	0 days	Mon 18/11/19	Mon 18/11/19 2	224	184 days	Calendar Day		18/11					
	Portion B-7 (Ancillary structures)	0 days	Mon 18/11/19	Mon 18/11/19 2	233	299 days	Calendar Day		18/11 🍑					
	Portion B-7A (Alternation works for existing Power House)	0 days	Wed 2/9/20	Wed 2/9/20 2FS+290 da	ays 280,29FS+1 day	0 days	Calendar Day			2/9 🔷				
	Portion B-8 (Alternation for existing Membrane Facilities Building No.1)	0 days	Tue 22/9/20	Tue 22/9/20 2FS+310 da	•	838 days	Calendar Day			22/9 🔷				
	Portion B-8A (Alternation of air supply main for existing Air Blower House No.2)	0 days	Mon 18/11/19	Mon 18/11/19 2	279	72 days	Calendar Day		18/11					
	Portion B-9 (remainder works in Zone B)	0 days	Mon 18/11/19	Mon 18/11/19 2	282,290	98 days	Calendar Day		18/11 🔷					
	Portion B-9A (Area for the pipe-jacking works by others)	0 days	Mon 18/11/19	Mon 18/11/19 2		1957 days	Calendar Day		18/11 🔷					
	Portion B-9B (Area for underground pipework modification and connection	0 days	Mon 18/11/19	Mon 18/11/19 2		1957 days	Calendar Day		18/11					
	works by others) Portion B-9C (Area for the works for pipeworks)	0 days	Wed 22/7/20	Wed 22/7/20 2FS+248 da	avs	1709 days	Calendar Day		22/7	•				
	Key Dates (cal. day)	1440 days	Tue 19/11/19	Sat 28/10/23	-,-	0 days	Calendar Day		19/11	*			28/10 1 28/10	
١.	KD1A completion of AR3 in Portion B-1 (300days after starting date)	300 days	Tue 19/11/19	Sun 13/9/20 2FS+1 day,	41FF	0 days	Calendar Day		19/11					
3	KD1B completion of utilities diversion for commencement of Inlet Works No.1	360 days	Tue 19/11/19	Thu 12/11/20 2FS+1		0 days	Calendar Day		19/11	12/11				
;	in Portion B-2 (360days after starting date) KD1C completion of civil and structural works of Inlet Works No.1 in Portion	990 days	Tue 19/11/19	day,42FF Thu 4/8/22 2FS+1		0 days	Calendar Day		19/11			4/8		
	B-2 (990days after starting date)			day,43FF			·							
)	KD1D completion of civil and structural works of Primary Sedimentation Tanks in Portion B-3 (1190days after starting date)	1190 days	Tue 19/11/19	Mon 20/2/23 2FS+1		0 days	Calendar Day		19/11			20	/2	
:	in Portion B-3 (1190days after starting date) KD1E completion of civil and structural works of Bioreactor in Portion B-4	1140 days	Tue 19/11/19	day,44FF Sun 1/1/23 2FS+1		0 days	Calendar Day		19/11			1/1		
	(1,140days after starting date)			day,45FF			·							
-	KD1F completion of civil and structural works of MFB from B2 floor to 1st floor	800 days	Tue 19/11/19	Wed 26/1/22 2FS+1		0 days	Calendar Day		19/11		26/1			
3	level in Portion B-5 (800days after starting date) KD1G completion of civil and structural works of MFB in Portion B-5 (950days	950 days	Tue 19/11/19	day,46FF Sat 25/6/22 2FS+1		0 days	Calendar Day		19/11			25/6		
	after starting date)	Joo dayo		day,47FF			Day							
1	KD1H completion of civil and structural works of SAS Pumping Station in	630 days	Tue 19/11/19	Mon 9/8/21 2FS+1		0 days	Calendar Day		19/11		9/8			
	Portion B-6 (630days after starting date) KD1I completion alternation works for existing Power House in Portion B-7A	150 days	Fri 4/9/20	day,48FF Sun 31/1/21 13FS+1		0 days	Calendar Day			4/9 31/1				
	(150days after access date of B-7A)			day,49FF			•							
J	KD1J completion of auxiliary facilites in Portion B-7 (800days after starting date)	800 days	Tue 19/11/19	Wed 26/1/22 2FS+1 day,50FF		0 days	Calendar Day		19/11		26/1			
Α	KD2A completion of effluent pipes to UV system and connection to its	495 days	Tue 19/11/19	Sat 27/3/21 2FS+1		0 days	Calendar Day		19/11	27/3				
	downstream in Portion B-9 (495days after starting date)	,		day,51FF										
3	KD2B completion of air supply main alternation to existing air blower house	420 days	Tue 19/11/19	Mon 11/1/21 2FS+1 day,52FF		0 days	Calendar Day		19/11	11/1				
4	No.2 in Portion B-8A (420days after starting date) KD3A completion of all utilities and road works (1440days after starting date)	1440 days	Tue 19/11/19	Sat 28/10/23 2FS+1		0 days	Calendar Day		19/11				28/10	
	· · · · · · · · · · · · · · · · · · ·			day,53FF		, .	,							
	Completion Date (cal. Day)	1956 days	Tue 19/11/19	Thu 27/3/25		0 days	Calendar Day		19/11				47/44	27/3
	Section 1 of the Works (1,460 after starting date)	1460 days	Tue 19/11/19 Tue 19/11/19	Fri 17/11/23 2FS+1 day, Fri 6/5/22 2FS+1 day,		0 days	Calendar Day				6/5 🍁		17/11 🔷	
	Section 2 of the Works (900 after starting date) Section 3 of the Works (1,590 after starting date)	900 days 1590 days	Tue 19/11/19	Tue 26/3/24 2FS+1 day,		0 days 0 days	Calendar Day Calendar Day				0/3		26/3 🧆	
	Defects Liability Period and Landscape Establishment Works	365 days	Thu 28/3/24	Thu 27/3/25 37FS+1 day	•	0 days	Calendar Day						•	27/3
ı	Planned Completion	1686 days	Fri 14/8/20	Thu 27/3/25		0 days	Calendar Day		14/8	•				27/3
	Planned Completion - Key Dates (cal. day)	1170 days	Fri 14/8/20	Sat 28/10/23	0455	0 days	Calendar Day		14/8	•			28/10	
3	KD1A completion of AR3 in Portion B-1 (300days after starting date) KD1B completion of utilities diversion for commencement of Inlet Works No.1	0 days 0 days	Sat 12/9/20 Fri 14/8/20	Sat 12/9/20 121FF Fri 14/8/20 123FF	21FF 22FF	0 days 90 days	Calendar Day Calendar Day			12/9 ♦ 8 ♦				
,	in Portion B-2 (360days after starting date)	o days	11114/0/20	111 14/0/20 12311	2211	30 days	Calcildal Day			•				
;	KD1C completion of civil and structural works of Inlet Works No.1 in Portion	0 days	Thu 4/8/22	Thu 4/8/22 175FF,174F	FF 23FF	0 days	Calendar Day					4/8 🔷		
)	B-2 (990days after starting date) KD1D completion of civil and structural works of Primary Sedimentation Tanks	0 days	Mon 20/2/23	Mon 20/2/23 186FF,185F	F 24FF	0 days	Calendar Day					20/2 🧄		
	in Portion B-3 (1190days after starting date)	o days	141011 20/2/20	MON 20/2/20 1001 1 , 100F		o days	Calonidai Day							
E	KD1E completion of civil and structural works of Bioreactor in Portion B-4	0 days	Sat 31/12/22	Sat 31/12/22 197FF,198F	FF 25FF	0 days	Calendar Day					31/12 🔷		
F	(1,140days after starting date) KD1F completion of civil and structural works of MFB from B2 floor to 1st floor	0 days	Tue 25/1/22	Tue 25/1/22 219FF,220F	F 26FF	0 days	Calendar Day				25/1 🔷			
	level in Portion B-5 (800days after starting date)	o days				Jacyo	Calonida Day							
3	KD1G completion of civil and structural works of MFB in Portion B-5 (950days	0 days	Sat 25/6/22	Sat 25/6/22 221FF,222F	F 27FF	0 days	Calendar Day				25/	6 ♦		
Н	after starting date) KD1H completion of civil and structural works of SAS Pumping Station in	0 days	Mon 9/8/21	Mon 9/8/21 231FF,230F	F 28FF	0 days	Calendar Day			Q.	/8 ♦			
	Portion B-6 (630days after starting date)	o days	WIOTI 3/0/21	WOT 9/0/21 23 11 1 ,23UF		o days	Calcillat Day				- *			
	KD1I completion alternation works for existing Power House in Portion B-7A	0 days	Sat 30/1/21	Sat 30/1/21 280FF	29FF	0 days	Calendar Day			30/1 🔷				
J	(150days after access date of B-7A) KD1J completion of auxiliary facilities in Portion B-7 (800days after starting	0 days	Wed 26/1/22	Wed 26/1/22 276FF,275F	F.2730FF	0 days	Calendar Day				26/1 🄷			
	date)	o days				Jacyo	Caloridai Day							
4	KD2A completion of effluent pipes to UV system and connection to its	0 days	Sat 27/3/21	Sat 27/3/21 283FF	31FF	0 days	Calendar Day			27/3 🤷				
3	downstream in Portion B-9 (495days after starting date) KD2B completion of air supply main alternation to existing air blower house	0 days	Thu 3/9/20	Thu 3/9/20 279FF	32FF	130 days	Calendar Day			3/9 🄷				
	No.2 in Portion B-8A (420days after starting date)	o days				. oo aayo	Calonida Day			*				
A	KD3A completion of all utilities and road works (1440days after starting date)	0 days	Sat 28/10/23	Sat 28/10/23 289FF	33FF	0 days	Calendar Day						28/10 🔷	
	Planned Completion Date (cal. Day)	1056 days	Fri 6/5/22	Thu 27/3/25		0 days	Calendar Day				6/5			27/3
	Section 1 of the Works (1,460 after starting date)	0 days	Wed 23/8/23	Wed 23/8/23 277FF,271F	F,2635FF	86 days	Calendar Day						23/8 🔷	
	Section 2 of the Works (900 after starting date)	0 days	Fri 6/5/22	Fri 6/5/22 284FF,287F		0 days	Calendar Day				6/5 🧄			
	Section 3 of the Works (1,590 after starting date)	0 days	Tue 26/3/24	Tue 26/3/24 281FF,291F	F,2937FF,58FF	0 days	Calendar Day						26/3 ♦	
	Planned Time Risk Allowance (14days per 365day)	60 days	Sat 13/1/24 Thu 27/3/25	Tue 26/3/24 57FF Thu 27/3/25 294FF	38FF	294 days	None Calendar Day						13/1 26/3	27/3
9	Defects Liability Period and Landscape Establishment Works Submissions (cal.day)	0 days 880 days	Mon 18/11/19	Fri 15/4/22	SOFF	0 days	Calendar Day Calendar Day		18/11			5/4		2113
	Subletting Package	96 days	Mon 18/11/19	Fri 21/2/20		0 days	Calendar Day		18/11 21/2		•			
	Prepare & submit subletting procedure	12 days	Mon 18/11/19	Fri 29/11/19 2	63	0 days	Calendar Day		18/11 29/11					
	PM review and accept subletting procedure	12 days	Sat 30/11/19	Wed 11/12/19 62	64,65,68,69,70,71,72,73		Calendar Day		30/11 11/12					
	Subletting for Preliminary Works (surveying, condition survey, site clearacne	14 days	Thu 12/12/19	Wed 25/12/19 63,82	87,116	1 day	Calendar Day		12/12 = 25/12					
	etc) Subletting for Contractor desinger for temporary works and ICE	24 days	Thu 12/12/19	Sat 4/1/20 63,82	71,72,66	212 days	Calendar Day		12/12 = 4/1					
	Subletting for independent BIM consultant	24 days	Mon 6/1/20	Wed 5/2/20 65	112	1474 days	None		6/1 5/2					
	Subletting for demolition works	24 days	Thu 12/12/19	Sat 4/1/20 82,63	179,191,234,143,204,20	,	Calendar Day	dem	12/12 = 4/1					
	Subletting for AR3 access road and UU diversion for Inlet Works No.1	24 days	Thu 12/12/19	Sat 4/1/20 63,82	119	29 days	Calendar Day		12/12 = 4/1					
	Subletting for pre-drilling works	24 days	Thu 12/12/19	Sat 4/1/20 63,82	225,150,180,192,208	136 days	Calendar Day	pd	12/12 = 4/1					
	Subletting for pre-bored H pile works	36 days	Thu 12/12/19	Thu 16/1/20 63,82	151,181,193,209,226	143 days	Calendar Day	hp	12/12 - 16/1					

Critical Task

Milestone

Summary

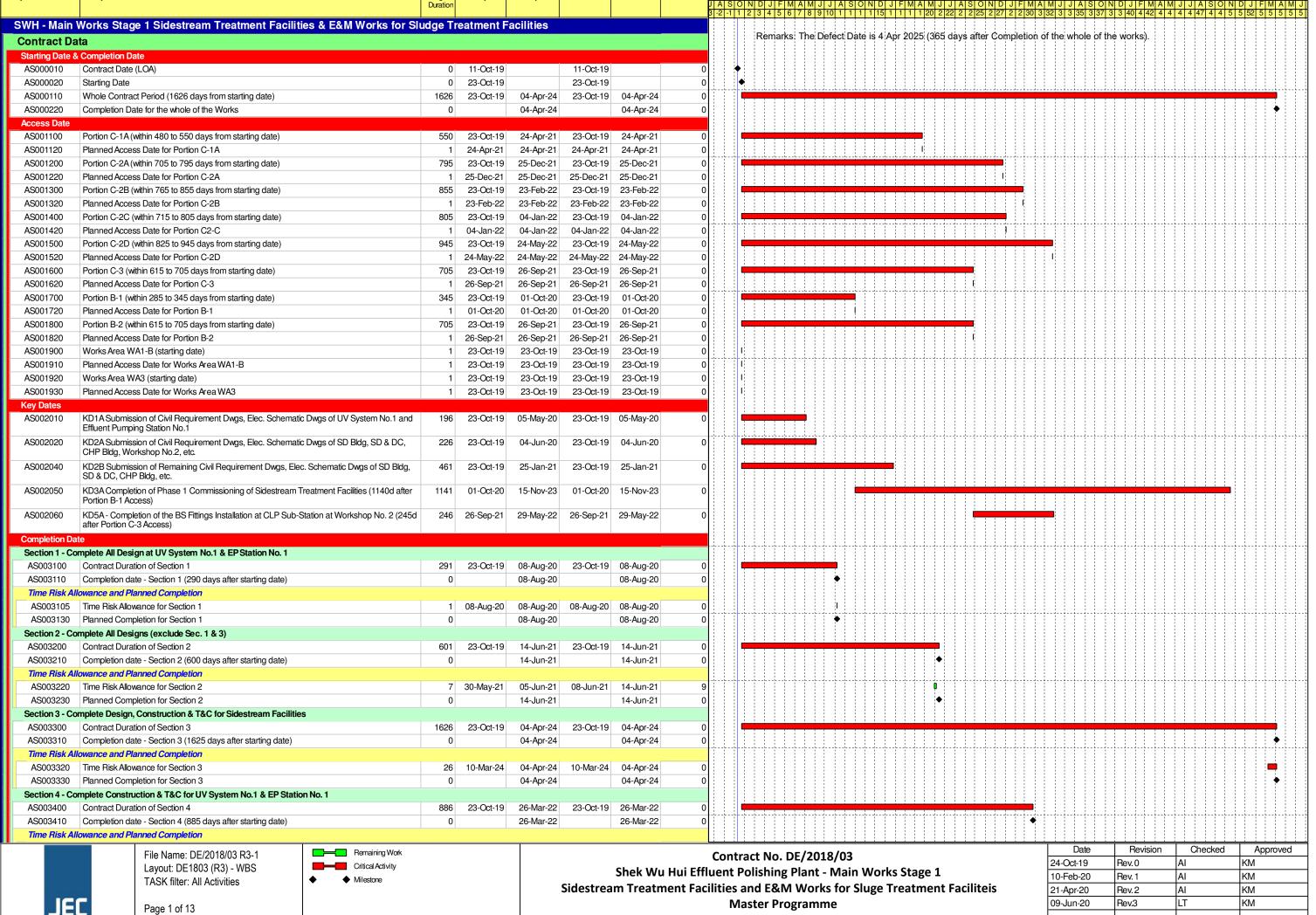
	Sewage Treatment Facilities				_				The state of the s
ID Key Date	Task Name	Duration	Start	Finish Predecessors	Successors	Total Slack	Task Calendar	trade	Qur 2 Qur 3 Qur 4 Qur 1 Qur 2 Qur 3 Qur 4 Qur
71	Subletting for ELS works for Inlet Works No.1	48 days	Sun 5/1/20	Fri 21/2/20 63,65,82	154	560 days	Calendar Day	ex	5/1 — 21/2
72	Subletting for ELS works for Membrance Facilities Building and other buildings	48 days	Sun 5/1/20	Fri 21/2/20 63,65,82	184,196,213,229	212 days	Calendar Day	ex	5/1 === 21/2
73	Subletting for structural works for Inlet Works Building	48 days	Thu 12/12/19	Tue 28/1/20 63,82	160	635 days	Calendar Day	rc	12/12 28/1
74	Subletting for structural works for Primary Sedimentation Tanks	48 days	Thu 12/12/19	Tue 28/1/20 63,82	100	1885 days	Calendar Day	rc	12/12 28/1
75	Subletting for structural works for Bioreactors	48 days	Thu 12/12/19	Tue 28/1/20 63,82	197	850 days	Calendar Day	rc	12/12 — 28/1
76	Subletting for structural works for Membrance Facilities Building	48 days	Thu 12/12/19	Tue 28/1/20 63,82	219	590 days	Calendar Day	rc	12/12 — 28/1
77	Subletting for structural works for SAS pumping house and ancillary structures	48 days	Thu 12/12/19	Tue 28/1/20 63,82	230	327 days	Calendar Day	rc	12/12 == 28/1
78	Subletting for ABWF works	48 days	Thu 12/12/19	Tue 28/1/20 63,82	176,187,202,223,232,2	240.21132 days	Calendar Day	abwf	12/12 == 28/1
79	Subletting for Process Pipeworks, Utilities and Roadworks	48 days	Thu 12/12/19	Tue 28/1/20 63,82	279,283FS+22 days	0 days	Calendar Day	uu	12/12 2002 28/1
80	Subletting for Landscape Hardworks and Softworks	48 days	Thu 12/12/19	Tue 28/1/20 63,82	292,293,294	978 days	Calendar Day	land	12/12 - 28/1
81	Statutory Submission, Submission and Approval	880 days	Mon 18/11/19	Fri 15/4/22		0 days	Calendar Day		18/11
82	Prepare and submit Subcontractor Management Plan (SMP)	24 days	Mon 18/11/19	Wed 11/12/19 2	64,65,67,68,69,70,71,7		Calendar Day		18/11 S 11/12 18/11 23/12
84	Prepare and submit Interface Management Plan Prepare and submit the TTA plans inside Treatment Plant for UU diversion	36 days 24 days	Mon 18/11/19 Mon 18/11/19	Mon 23/12/19 2 Wed 11/12/19 2	118	1921 days 53 days	Calendar Day Calendar Day		18/11 11/12
	and buildings construction	24 days	WOII 10/11/13	Wed 11/12/13/2	110	55 days	Calendar Day		(a.,)
85	Prepare and submit method statement for UU diversion for Inlet Works No.1	12 days	Mon 18/11/19	Fri 29/11/19 2	86	116 days	Calendar Day		18/11 29/11
86	PM review and accept the method statement	12 days	Sat 30/11/19	Wed 11/12/19 85	124,125	116 days	Calendar Day		30/11 = 11/12
87	Prepare and submit combine underground services drawing for PM's review	24 days	Thu 26/12/19	Sat 18/1/20 64	118	15 days	Calendar Day		26/12 = 18/1
	the alignment						,		
88	Prepare and submit method statement for demolition existing structures	24 days	Mon 18/11/19	Wed 11/12/19 2	204,179,191,234,143,2		Calendar Day	dem	18/11 11/12
90	Prepare and submit method statement for structural works for buildings	24 days	Mon 18/11/19	Wed 11/12/19 2	470 404 004 440 004 0	1933 days	Calendar Day	rc	18/11 11/12 18/11 23/12
,,	Prepare and submit method statements to MTRC regarding the works within railing protection boundary	36 days	Mon 18/11/19	Mon 23/12/19 2	179,191,234,143,204,2	Lor, 2 13 uays	Calendar Day	dem	I SAME TO SAME
91	Prepare and submit & approve Safety Management Plan	24 days	Mon 18/11/19	Wed 11/12/19 2		1933 days	Calendar Day		18/11 11/12
92	Prepare and submit Excavation and lateral support (ELS) proposal	24 days	Mon 10/2/20	Wed 4/3/20 2	206	7 days	Calendar Day	ex	10/2 = 4/3
93	Prepare and submit Dewatering proposal for basement construction	24 days	Mon 10/2/20	Wed 4/3/20 2	206	7 days	Calendar Day	ex	10/2 = 4/3 5/2 = 28/2
74	Prepare and submit Pre-construction condition survey of existing structures/ services	24 days	Wed 5/2/20	Fri 28/2/20 116		1854 days	Calendar Day		312 - 2012
95	Prepare and submit Settlement and movement monitoring proposal of existing	24 days	Wed 5/2/20	Fri 28/2/20 116		1854 days	Calendar Day		5/2 = 28/2
-06	structures/ services		F-: 47/4/00	Mon 16/0/00 0E0 : 00 :1-		1007 -1	Colonda		170 16/3
96	Prepare and submit design of structure elements of the temporary activated carbon deodourization unit	60 days	Fri 17/1/20	Mon 16/3/20 2FS+60 days		1837 days	Calendar Day		17/1 —— 16/3
97	Prepare of RSE and structural design for alternation and additional (A&A)	180 days	Mon 18/10/21	Fri 15/4/22	223	324 days	Calendar Day		18/10 15/4
	works at Membrane Facilities Building No.1 and Main Power House								
98	Environmental Aspect Submissions	136 days	Mon 18/11/19	Wed 1/4/20		23 days	Calendar Day		18/11 1/4
99	Prepare, submit & approve Site Management Plan for Trip Tricket System	45 days	Mon 18/11/19	Wed 1/1/20 2		1912 days	Calendar Day		18/11 1/1
100	Prepare, submit & approve Waste Management Plan	45 days	Mon 18/11/19	Wed 1/1/20 2		1912 days	Calendar Day		18/11 1/1
101	Prepare, submit & approve Environmental Management Plan	45 days	Mon 18/11/19	Wed 1/1/20 2		1912 days	Calendar Day		18/11 1/1
102	Procurement	72 days	Mon 18/11/19	Tue 28/1/20	101	23 days	Calendar Day		18/11 28/1 18/11 29/11
103	Prepare and submit the Procurement Procedure PM Review & Accept Procurement Procedure	12 days 12 days	Mon 18/11/19 Sat 30/11/19	Fri 29/11/19 2 Wed 11/12/19 103	104 105,106,107,108,109,1	23 days	Calendar Day Calendar Day		30/11 = 14/12
105	Prepare, submit and approve the pipe works material	25 days	Thu 12/12/19	Sun 5/1/20 104	123,279,285,286,288,2		Calendar Day	uu	12/12 = 5/1
106	Prepare, submit and approve the pipe water proofing material	25 days	Thu 12/12/19	Sun 5/1/20 104	123,279,285,286,288,2		Calendar Day	uu	12/12 = 5/1
107	Prepare, submit and approve the concrete mix material	48 days	Thu 12/12/19	Tue 28/1/20 104	160,197,219,230	327 days	Calendar Day	rc	12/12 — 28/1
108 109	Prepare, submit and approve the rebar material	48 days	Thu 12/12/19	Tue 28/1/20 104	160,197,219,230	327 days	Calendar Day	rc	12/12 2 8/1 12/12 2 8/1
110	Prepare, submit and approve the metal works material Prepare, submit and approve the ABWF works material	48 days 48 days	Thu 12/12/19 Thu 12/12/19	Tue 28/1/20 104 Tue 28/1/20 104	176,187,202,223,232,2	1885 days	Calendar Day Calendar Day	abwf	12/12 28/1
111	BIM	48 days	Thu 6/2/20	Wed 1/4/20	170,107,202,223,232,2	1474 days	None	abwi	6/2 1/4
112	Prepare, submit and approve the proposal of details of Common data	48 days	Thu 6/2/20	Wed 1/4/20 66		1474 days	None		6/2 1/4
113	environment (CDE)	1057.1	35 10/11/10	mi 0.0 to to t		0.1	01 1 D		18/11
113	Construction Works Preliminary Works	1957 days 109 days	Mon 18/11/19 Mon 18/11/19	Thu 27/3/25 Thu 5/3/20		0 days 0 days	Calendar Day Calendar Day		18/11 5/3
115	Initial Survey	24 days	Mon 18/11/19	Sat 14/12/19 2	116	8 days	Normal Working	g Hours	18/11 4/12
116	Condition Survey	30 days	Fri 27/12/19	Tue 4/2/20 64,115	117,94,95	0 days	Normal Workin	-	27/12 🗪 4/2
117	Installation of Monitoring Markers	26 days	Wed 5/2/20	Thu 5/3/20 116	120	0 days	Normal Workin	-	5/2 🔤 5/3
118	Access Road (AR3), B-1	193 days	Mon 20/1/20	Sat 12/9/20 4,84,87		0 days	Normal Workin	-	20/1 12/9
119 120	Site setup and clearance wroks Drainage and Utilities Works	28 days	Mon 20/1/20	Mon 24/2/20 68 Tue 9/6/20 119,117	120 121	9 days	Normal Working		20/1 == 24/2 6/3 ******* 9/6
121 KD1A	Roadworks	76 days 80 days	Fri 6/3/20 Wed 10/6/20	Sat 12/9/20 120	41FF	0 days 0 days	Normal Working	-	10/6 12/9
122	Inlet Works No.1, B-2	854 days	Mon 6/1/20	Mon 21/11/22 6		45 days	Normal Workin	-	6/1 21/11
123	Diversion Works (1. Inlet Truck Sewer, Leachate Rising Mains, Sludge	180 days	Mon 6/1/20	Fri 14/8/20 105,106	42FF	74 days	Normal Working		G/1 14/8
124	Pipes, Tank Drains and Pipelines near Primary Sludge Thinkeners)	40	Man 0/4/00	Cot 19/4/00 00	12500	74	Hours_201909		6/1 = 18/1
124	Utilities scanning to idenify existing UU arrangement Trial pits to locate the collection points	12 days 24 days	Mon 6/1/20 Mon 6/1/20	Sat 18/1/20 86 Wed 5/2/20 86,124SS	125SS 127,133,137,134,135,1	74 days	Normal Workin		6/1 = 18/1
126	Diversion of Inlet Truck Sewer (approx. 40m 1800mm dia concrete	146 days	Thu 6/2/20	Mon 3/8/20	121,100,101,104,100,1	84 days	Normal Working	-	6/2 3/8
	pipe, 4 deep manholes and Inlet Reception Chamber)					-	Hours_201909	24	
127	Trench Excavation for 1800mm dia pipeline and manholes	45 days	Thu 6/2/20	Sat 28/3/20 125	128	84 days	Normal Working		6/2 28/3
128	Construct M/H MHA01, MHA02, MHA03, MHA04 and Inlet Reception Chamber	65 days	Mon 30/3/20	Fri 19/6/20 127	129	84 days	Normal Working Hours_2019092		30/3 19/6
129	Lay 1800mm dia concretre pipe	24 days	Sat 20/6/20	Mon 20/7/20 128	130	84 days	Normal Working		20/6 — 20/7
130	Collection to existing Inlet Chamber	12 days	Tue 21/7/20	Mon 3/8/20 129		84 days	Normal Workin	-	21/7 = 3/8
131	Diversion of Leachate Rising Main, Sludge Pipes and Tank Drain	150 days	Thu 6/2/20	Fri 7/8/20		80 days	Normal Working	-	6/2 7/8
132	Diversion of tank drain, approx. 70m 675mm dia conrete pipe and 2 manholes MHD8.5 & MHD9.5)	150 days	Thu 6/2/20	Fri 7/8/20 125	135SS+60 days,134SS+60	80 days	Normal Working Hours_2019092		6/2 7/8
133	Diversion of leachate rising main, CHLC, approx. 24m DN250 DI	60 days	Tue 21/4/20	Fri 3/7/20 125,132SS+60	uays, 10400700	110 days	Normal Working		21/4 3/7
	• • • • • • • • • • • • • • • • • • • •			days		,	Hours_2019092	24	
134	Diversion of sludge pipe, CHES1 approx. 154m DN250 CI	75 days	Tue 21/4/20	Tue 21/7/20 125,132SS+60		95 days	Normal Working Hours_2019092		21/4 21/7
135	Diversion of sludge pipe, CHES2 approx. 106m DN250 CI	75 days	Tue 21/4/20	days Tue 21/7/20 125,132SS+60		95 days	Normal Working		21/4 21/7
				days			Hours_2019092	24	
136	Diversion of pipelines near Primary Sludge Thickeners (approx. 180m	156 days	Thu 6/2/20	Fri 14/8/20		74 days	Normal Workin		6/2 14/8
137	long 150mm to 375mm concrete pipes) Trench Excavation from M/H MHD1E to MHD5 (approx. 90m long with	60 days	Thu 6/2/20	Mon 20/4/20 125	138SS+45 days,140	74 days	Hours_201909		6/2 20/4
131	M/Hs MHD1A, 1B, 1C, 1D & 1E)	ou days	111u 0/2/20	IVIUIT 20/4/20 120	13033743 uays, 140	14 uays	Normal Working Hours_2019092		VII
138	Manholes construction and Pipe laying	60 days	Mon 30/3/20	Sat 13/6/20 137SS+45 days	s 139	100 days	Normal Workin		30/3 13/6
139	Backfilling	25 days	Mon 15/6/20	Wed 15/7/20 138	11100 :	100 days	Normal Working	-	15/6 = 15/7
140	Trench Excavation from MHD5 to MHD9.5 (approx. 90m long with M/Hs MHD5A & 5B)	60 days	Tue 21/4/20	Fri 3/7/20 137	141SS+26 days	74 days	Normal Working Hours_2019092		21/4 3/7
141	Manholes construction and Pipe laying	45 days	Sat 23/5/20	Thu 16/7/20 140SS+26 days	s 142	74 days	Normal Working		23/5 16/7
142 KD1B	Backfilling	25 days	Fri 17/7/20	Fri 14/8/20 141		74 days	Normal Workin		17/7 — 14/8
143	Decommission and Demolition of Existing Faciliates and Structures	240 days	Mon 2/3/20	Fri 18/12/20 6,67,88,90	149	0 days	Normal Working	-	2/3 18/12
144	Primary Sludge Thickening Tank No.1 and No.2	80 days	Mon 2/3/20	Tue 9/6/20	145	0 days	Normal Working	g Hoursdem	2/3 2/3 9/6

Critical Task Milestone ♦

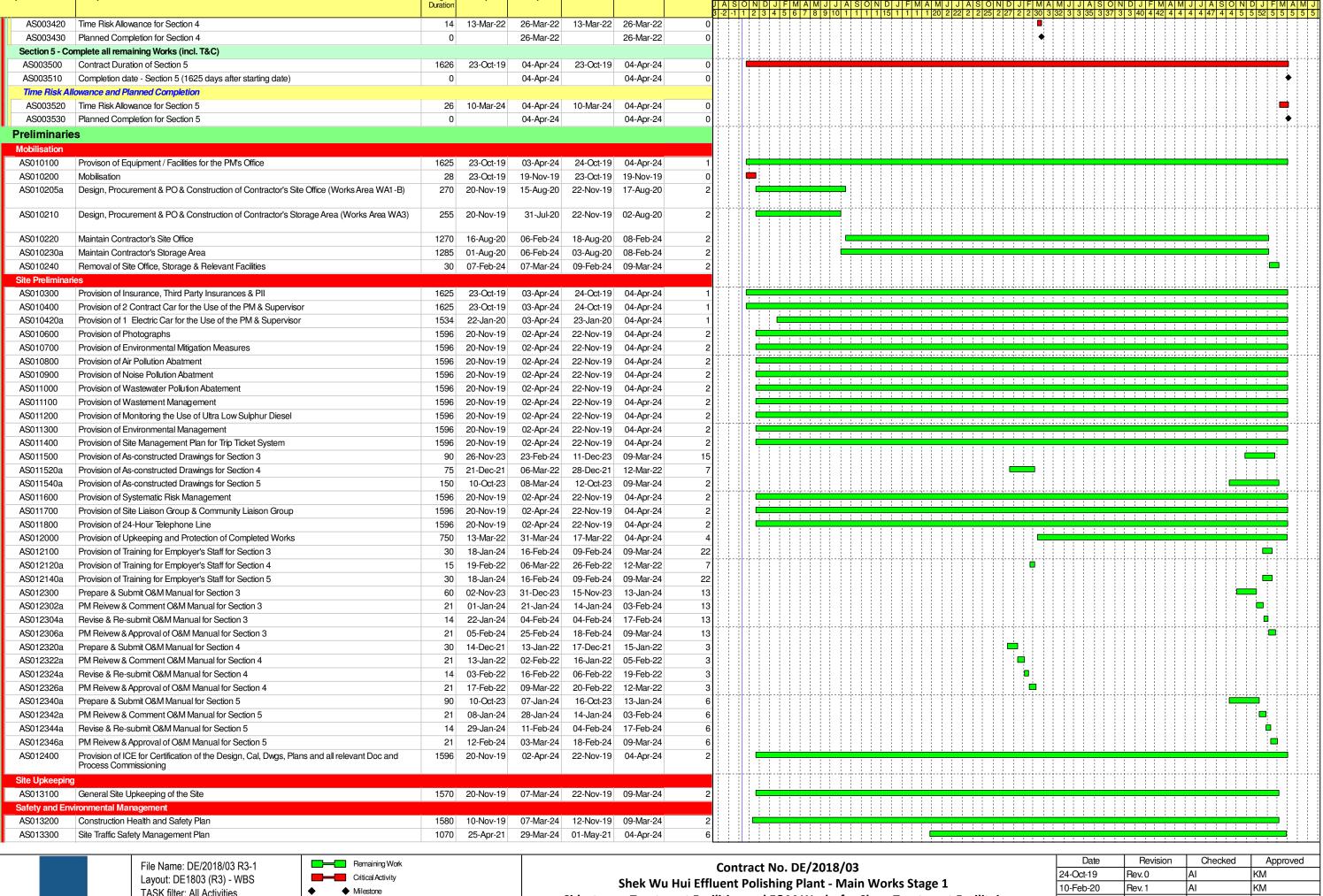
Summary

ID Key Date	r Sewage Treatment Facilities Task Name	Duration	Start	Finish Predecessors	Successors	Total Slack	Task Calendar trade	2020 2021 2022 2023 2024 2025
145	Primary Sludge Pump Pit				146			Qtr 2 Qtr 3 Qtr 4 Qtr 1 Qtr 2 Qtr 3 Qtr 4 Qtr
145	Septic Tank	60 days 50 days	Wed 10/6/20 Fri 21/8/20	Thu 20/8/20 144 Tue 20/10/20 145	147	0 days 0 days	Normal Working Hourdem Normal Working Hourdem	20/8 20/10
147	Diesel Tank	50 days	Wed 21/10/20	Fri 18/12/20 146	147	0 days	Normal Working Hoursdem	21/10 5555 18/12
148	Inlet Works No.1 Building	569 days	Sat 19/12/20	Mon 21/11/22 6		0 days	Normal Working Hou	19/12
149	Excavate to +6.5mPD (1980sqm excavated soil)	10 days	Sat 19/12/20	Sat 2/1/21 143	150	0 days	Normal Working Hoursex	19/12 🗷 2/1
150	Predrilling (59nrs, 6rigs, 4days/drillhole/rig)	40 days	Mon 4/1/21	Mon 22/2/21 149,69	151	0 days	Normal Working Hourspd	4/1 🗪 22/2
151	Pre-bored H piles (186nos, 7rigs, 5days/rig/pile)	133 days	Tue 23/2/21	Wed 4/8/21 150,70	152SS+24 days,154,162	2,1:0 days	Normal Working Hourthp	23/2 4/8
152	Sheetpile Installation (FSPIV, 3,840sq.m, 1rigs, 50sqm/rig/day) with toe	80 days	Tue 23/3/21	Wed 30/6/21 151SS+24 day	rs 154	55 days	Normal Working sp	23/3 30/6
153	grouting Pile Load Test	26 days	Thu 5/8/21	Fri 3/9/21 151	154	0 days	Hours_20190924	5/8 😋 3/9
154	ELS works (strutting 4 layers, excavate soil 7445cu.m)	26 days 77 days	Sat 4/9/21	Mon 6/12/21 152,151,71,15		0 days 0 days	Normal Working Hourett Normal Working Houreex	4/9 6/12
155	Excavate to +5.0mPD and S1 wailing / strutting (960sqm excavated soil)	15 days	Sat 4/9/21	Tue 21/9/21	156	0 days	Normal Working Flourex	4/9 52 21/9
	Executate to voterm 2 and 01 maining / estating (coosequit executated cost)	.o dayo	Out 1,0,21	1 40 2 1/0/2 1		o dayo	Hours_20190924	
156	Excavate to +2.0mPD and S2 wailing / strutting (1920sqm excavated	20 days	Thu 23/9/21	Mon 18/10/21 155	157	0 days	Normal Working ex	23/9 🖾 18/10
157	SOII) Every state to 40 0mPD and \$2 wailing / strutting (4.290cgm every stad	1E dovo	Tue 19/10/21	Thu 4/11/21 156	158	0 dovo	Hours_20190924 Normal Working ex	19/10 🔼 4//11
157	Excavate to +0.0mPD and S3 wailing / strutting (1280sqm excavated soil)	15 days	Tue 19/10/21	111u 4/11/21 156	130	0 days	Normal Working ex Hours_20190924	13/10 - 4/11
158	Excavate to -3.0mPD and S4 wailing / strutting (1920sqm excavated	20 days	Fri 5/11/21	Sat 27/11/21 157	159	0 days	Normal Working ex	5/11 🚾 27/11
150	soil)						Hours_20190924	
159	Excavate -7.4mPD (1365sqm excavated soil)	7 days	Mon 29/11/21	Mon 6/12/21 158	166	0 days	Normal Working Hoursex	29/11 [©] 6/12 5/8 4/8
160 161	R.C. Structure works	296 days	Thu 5/8/21	Thu 4/8/22 73,107,108		0 days	Normal Working Hours ro	5/8 4/8
162	Phase A (floor area 585 sqm) Rebar fix and formwork and concreting for the pile cap (G/F)	105 days 40 days	Thu 5/8/21 Thu 5/8/21	Wed 8/12/21 Mon 20/9/21 151	163	66 days 66 days	Normal Working Hourerc Normal Working Hourerc	5/8 20/9
163	Rebar fix and formwork and concreting upto +13.45mPD (1/F)	25 days	Tue 21/9/21	Fri 22/10/21 162	164	66 days	Normal Working Hoursrc	21/9 = 22/10
164	Rebar fix and formwork and concreting upto +25.80mPD (R/F)	40 days	Sat 23/10/21	Wed 8/12/21 163	170	66 days	Normal Working Hourerc	23/10 — 8/12
165	Phase B (621 sqm) and Phase C (662 sqm)	193 days	Tue 7/12/21	Thu 4/8/22		0 days	Normal Working Hourerc	7/12 4/8
166	Rebar fix and formwork and concreting for the Inlet Works structure	26 days	Tue 7/12/21	Sat 8/1/22 159	167	0 days	Normal Working rc	7/12 🗪 8/1
167	upto level -3.0mPD and removal of S4 wailing/strutting	44.1	Mc - 40/1/22	Tue 05/4/00 400	400	0 -1	Hours_20190924	10/1 💌 25/1
107	Rebar fix and formwork and concreting for the Inlet Works structure upto level +0.0mPD and removal of S3 and S2 wailing/strutting	14 days	Mon 10/1/22	Tue 25/1/22 166	168	0 days	Normal Working rc Hours_20190924	10/1 29/1
168	Pohar fix and formunal and concreting for the latet Wards at a visit	11 4	Med 26/4/22	Mon 14/2/22 167	160	0 days		26/1 № 14/2
100	Rebar fix and formwork and concreting for the Inlet Works structure upto level +5.0mPD and removal of S1 wailing/strutting	14 days	Wed 26/1/22	Mon 14/2/22 167	169	0 days	Normal Working rc Hours_20190924	20/1 14/2
169	Apply waterproofing membrance and backfilling	14 days	Tue 15/2/22	Wed 2/3/22 168	170	0 days	Normal Working Hours	15/2 🗷 2/3
170	Rebar fix and formwork and concreting for the Inlet Works structure of	35 days	Thu 3/3/22	Wed 13/4/22 169,164	171	0 days	Normal Working rc	3/3 🟧 13/4
171	ground floor levels	20 4	Th.: 44/4/00	Tuo 24/5/22 472	179	٠٠-	Hours_20190924	14/4 \infty 24/5
1/1	Rebar fix and formwork and concreting for the Inlet Works structure of 1/F levels (Phase B +20.11mPD and Phase C +13.45mPD)	30 days	Thu 14/4/22	Tue 24/5/22 170	172	0 days	Normal Working rc Hours_20190924	1414 C21(3)
172	Rebar fix and formwork and concreting for the Inlet Works structure of	20 days	Wed 25/5/22	Fri 17/6/22 171	173	0 days	Normal Working rc	25/5 💟 17/6
	double part levels (Phase B +21.31mPD)	·					Hours_20190924	
173	Rebar fix and formwork and concreting for the Inlet Works structure of R/F levels (Phase B +27.50mPD and Phase C +25.80mPD)	20 days	Sat 18/6/22	Tue 12/7/22 172	174	0 days	Normal Working rc Hours_20190924	18/6 № 12/7
174 KD1C	Rebar fix and formwork and concreting for the Inlet Works structure	20 days	Wed 13/7/22	Thu 4/8/22 173	176,43FF,175	0 days	Normal Working rc	13/7 🔼 4/8
	upto level +27.8mPD (upper roof floor level)	·					Hours_20190924	
175 KD1C	Allow access to Contractor DE/2018/04 for E&M installation and T&C works	0 days	Thu 4/8/22	Thu 4/8/22 174	43FF	0 days	Normal Working Hours_20190924	4/8 ♦
176 SW1	ABWF works	90 days	Fri 5/8/22	Mon 21/11/22 174,110,78	55FF	293 days	Normal Working Hoursabwf	5/8 21/11
177	Primary Sedimentation Tanks, B-3	1115 days	Mon 18/11/19	Wed 23/8/23 8		0 days	Normal Working Hou	18/11
178 179	Operation of the Existing Primary sedimentation Tanks	615 days	Mon 18/11/19	Sat 11/12/21 2	179	0 days	None	18/11 18/11 13/12 13/12 13/12 13/12 13/12 13/12 13/12 13/12 13/12 13/12 13/12 13/12 13/12 13/12 13/12 13/12 13/12 13/12 13/12
179	Decommission and Demolition of existing primary sedimentation tanks no. 1 & 2	45 days	Mon 13/12/21	Wed 9/2/22 67,88,90,178	180	0 days	Normal Working dem Hours_20190924	13/12
180	Predrilling (68nrs, 7rigs, 4days/drillhole/rig)	38 days	Thu 10/2/22	Fri 25/3/22 179,69,225	181	0 days	Normal Working Hourspd	10/2 55/3
181	Pre-bored H piles (205nos, 8rigs, 4days/pile/rig)	102 days	Sat 26/3/22	Mon 1/8/22 180,70,226	182SS+45 days,184,183	0 days	Normal Working Hourshp	26/3 1/8
182	Sheetpile Installation (FSP-II, 3360sq.m) with toe grouting	85 days	Wed 25/5/22	Fri 2/9/22 181SS+45 day		0 days	Normal Working Houresp	25/5 25/2 2/9
183	Pile Load Test	26 days	Tue 2/8/22	Wed 31/8/22 181	184	2 days	Normal Working Hours It	2/8 = 31/8 3/9 = 28/10
185 KD1D	ELS works (20000cu.m soil with 2 layers wailing / strutting) R.C. Structure works	45 days	Sat 3/9/22 Sat 29/10/22	Fri 28/10/22 181,72,183,18 Mon 20/2/23 184	2 185 186,187,44FF,188	0 days 0 days	Normal Working Hourerc	29/10 22/10
186 KD1D	Allow access to Contractor DE/2018/04 for E&M installation and T&C works	92 days 0 days	Mon 20/2/23	Mon 20/2/23 185	44FF	0 days	Normal Working Hours	20/2 •
187 SW1	ABWF works	150 days	Tue 21/2/23	Wed 23/8/23 185,110,78	55FF	71 days	Normal Working Hoursabwf	21/2 23/8
188 SW1	Flowmeter Chamber no.1	60 days	Tue 21/2/23	Sat 6/5/23 185	55FF	161 days	None	21/2 6/5
189	Bioreactors No.2A & 2B, B-4	1106 days	Mon 18/11/19	Sat 12/8/23 9		0 days	Normal Working Hou	18/11 12/8
190	Operation of 2no. Existing 800mm air mains over bioreactor no.2	360 days	Mon 18/11/19	Tue 2/2/21 2	191	0 days	None	18/11
191	Decommission and Demolition of existing bioreactor no.2	60 days	Wed 3/2/21	Tue 20/4/21 67,88,90,190	192	0 days	Normal Working Hoursdem	3/2 20/4
192	Predrilling (76nrs, 7rigs, 4days/drillhole/rig)	44 days	Wed 21/4/21	Sat 12/6/21 191,69	193	0 days	Normal Working Hourspd	21/4 555 12/6
193 194	Pre-bored H piles (157nos, 6rigs, 5days/pile/rig)	131 days	Tue 15/6/21	Thu 18/11/21 192,70,209	194SS+72 days,196,195	-	Normal Working Hourshp	15/6 8/9 19/11
177	Sheetpile Installation (FSP-II, 3000sq.m, 50sqm/rig/day) with toe grouting	60 days	Wed 8/9/21	Fri 19/11/21 193SS+72 day	3 130	25 days	Normal Working sp Hours_20190924	1911
195	Pile Load Test	26 days	Fri 19/11/21	Sat 18/12/21 193	196	0 days	Normal Working Hourelt	19/11 🗪 18/12
196	ELS works (18100cu.m soil with 4 layers wailing / strutting)	125 days	Mon 20/12/21	Fri 27/5/22 193,194,72,19		0 days	Normal Working Hoursex	20/12 27/5
197 KD1E	R.C. Structure works	180 days	Sat 28/5/22	Sat 31/12/22 75,107,108,19			Normal Working Hourerc	28/5 31/12
198 KD1E	Allow access to Contractor DE/2018/04 for E&M installation and T&C works	0 days	Sat 31/12/22	Sat 31/12/22 197	45FF	0 days	Normal Working Hours	31/12
199 SW1	Flowmeter no. 2-4	180 days	Tue 3/1/23	Sat 12/8/23 197	55FF	80 days	None	3/1 12/8 3/1 12/8
200 SW1 201 SW1	Gate Valve Chamber no 1-3	180 days	Tue 3/1/23 Tue 3/1/23	Sat 12/8/23 197	55FF 55FF	80 days	None	3/1 12/8 3/1 12/8
201 SW1 202 SW1	Plug Vakve Chamber no.1-2 ABWF works	180 days 180 days	Tue 3/1/23 Tue 3/1/23	Sat 12/8/23 197 Sat 12/8/23 197,110,78	55FF	80 days 80 days	None Normal Working Hoursabwf	3/1 12/8
	Membrane Facilities Building, B-5	941 days	Mon 6/1/20	Thu 9/3/23 10	JUI 1	0 days	Normal Working Hou	6/1
203	g) = -	14 days	Mon 6/1/20	Tue 21/1/20 88,67,90	205	0 days	Normal Working dem	6/1 🖸 21/1
203	Decommission and Demolition of existing final sedimentation tanks no. 3 & 4	aayo			200	0 4	Hours_20190924	22/1 5555 11/3
204	(Partial)		Wed 2014/00	Mod 11/2/20 20 4		0 days	Normal Working sp	11/J
204		40 days	Wed 22/1/20	Wed 11/3/20 204	206		Hours_20190924	
204 205 206	(Partial) Installation of sheetpile, FSP-IV 2460sq.m & FSP-II 1680sq.m (50sq.m/rig/day, 2rigs) with toe grout Excavation to level +5.5mPD (5700cu.m soil, 250cu.m/day)	40 days 23 days	Thu 12/3/20	Wed 8/4/20 205,92,93	207	0 days	Normal Working Hoursex	12/3 \$\infty 8/4\$
204 205 206 207	(Partial) Installation of sheetpile, FSP-IV 2460sq.m & FSP-II 1680sq.m (50sq.m/rig/day, 2rigs) with toe grout Excavation to level +5.5mPD (5700cu.m soil, 250cu.m/day) Demolition of remaining final sedimentation tanks	40 days 23 days 45 days	Thu 12/3/20 Thu 9/4/20	Wed 8/4/20 205,92,93 Fri 5/6/20 206,67,88,90	207 208	0 days 0 days	Normal Working Hoursex Normal Working Hoursdem	9/4 5/6
204 205 206 207 208	(Partial) Installation of sheetpile, FSP-IV 2460sq.m & FSP-II 1680sq.m (50sq.m/rig/day, 2rigs) with toe grout Excavation to level +5.5mPD (5700cu.m soil, 250cu.m/day) Demolition of remaining final sedimentation tanks Predrilling (83nrs, 8rigs, 4days/drillhole/rig)	40 days 23 days 45 days 42 days	Thu 12/3/20 Thu 9/4/20 Sat 6/6/20	Wed 8/4/20 205,92,93 Fri 5/6/20 206,67,88,90 Mon 27/7/20 207,69	207 208 209	0 days 0 days 0 days	Normal Working Houreex Normal Working Houredem Normal Working Hourepd	9/4 5/6 6/6 555 27/7
204 205 206 207 208 209	(Partial) Installation of sheetpile, FSP-IV 2460sq.m & FSP-II 1680sq.m (50sq.m/rig/day, 2rigs) with toe grout Excavation to level +5.5mPD (5700cu.m soil, 250cu.m/day) Demolition of remaining final sedimentation tanks Predrilling (83nrs, 8rigs, 4days/drillhole/rig) Pre-bored H piles (224nos, 8rigs, 5days/pile/rig)	40 days 23 days 45 days 42 days 140 days	Thu 12/3/20 Thu 9/4/20 Sat 6/6/20 Tue 28/7/20	Wed 8/4/20 205,92,93 Fri 5/6/20 206,67,88,90 Mon 27/7/20 207,69 Wed 13/1/21 208,70	207 208 209 211,210,193	0 days 0 days 0 days 0 days	Normal Working Hoursex Normal Working Hoursdem Normal Working Hourspd Normal Working Hourshp	9/4 **** 5/6 6/6 *** 27/7 28/7 ********** 13/1
204 205 206 207 208 209 210	(Partial) Installation of sheetpile, FSP-IV 2460sq.m & FSP-II 1680sq.m (50sq.m/rig/day, 2rigs) with toe grout Excavation to level +5.5mPD (5700cu.m soil, 250cu.m/day) Demolition of remaining final sedimentation tanks Predrilling (83nrs, 8rigs, 4days/drillhole/rig) Pre-bored H piles (224nos, 8rigs, 5days/pile/rig) Install S1 wailing / strutting	40 days 23 days 45 days 42 days 140 days 10 days	Thu 12/3/20 Thu 9/4/20 Sat 6/6/20 Tue 28/7/20 Thu 14/1/21	Wed 8/4/20 205,92,93 Fri 5/6/20 206,67,88,90 Mon 27/7/20 207,69 Wed 13/1/21 208,70 Mon 25/1/21 209	207 208 209 211,210,193 213	0 days 0 days 0 days 0 days 16 days	Normal Working Hourdex Normal Working Hourdem Normal Working Hourdpd Normal Working Hourdhp Normal Working Hourdex	9/4
204 205 206 207 208 209	(Partial) Installation of sheetpile, FSP-IV 2460sq.m & FSP-II 1680sq.m (50sq.m/rig/day, 2rigs) with toe grout Excavation to level +5.5mPD (5700cu.m soil, 250cu.m/day) Demolition of remaining final sedimentation tanks Predrilling (83nrs, 8rigs, 4days/drillhole/rig) Pre-bored H piles (224nos, 8rigs, 5days/pile/rig)	40 days 23 days 45 days 42 days 140 days 10 days 26 days	Thu 12/3/20 Thu 9/4/20 Sat 6/6/20 Tue 28/7/20 Thu 14/1/21 Thu 14/1/21	Wed 8/4/20 205,92,93 Fri 5/6/20 206,67,88,90 Mon 27/7/20 207,69 Wed 13/1/21 208,70 Mon 25/1/21 209 Tue 16/2/21 209	207 208 209 211,210,193	0 days 0 days 0 days 0 days 16 days 0 days	Normal Working Hoursex Normal Working Hoursdem Normal Working Hourspd Normal Working Hourshp	9/4 **** 5/6 6/6 *** 27/7 28/7 ********** 13/1
204 205 206 207 208 209 210 211	(Partial) Installation of sheetpile, FSP-IV 2460sq.m & FSP-II 1680sq.m (50sq.m/rig/day, 2rigs) with toe grout Excavation to level +5.5mPD (5700cu.m soil, 250cu.m/day) Demolition of remaining final sedimentation tanks Predrilling (83nrs, 8rigs, 4days/drillhole/rig) Pre-bored H piles (224nos, 8rigs, 5days/pile/rig) Install S1 wailing / strutting Pile Load Test ELS works Excavate to level +2mPD and install S2 wailing / strutting (8090cu.m soil,	40 days 23 days 45 days 42 days 140 days 10 days	Thu 12/3/20 Thu 9/4/20 Sat 6/6/20 Tue 28/7/20 Thu 14/1/21	Wed 8/4/20 205,92,93 Fri 5/6/20 206,67,88,90 Mon 27/7/20 207,69 Wed 13/1/21 208,70 Mon 25/1/21 209	207 208 209 211,210,193 213	0 days 0 days 0 days 0 days 16 days	Normal Working Hoursex Normal Working Hoursed Normal Working Hoursed Normal Working Hoursex Normal Working Hourset Normal Working Hourset Normal Working Hourset Normal Working ex	9/4
204 205 206 207 208 209 210 211 212 213	(Partial) Installation of sheetpile, FSP-IV 2460sq.m & FSP-II 1680sq.m (50sq.m/rig/day, 2rigs) with toe grout Excavation to level +5.5mPD (5700cu.m soil, 250cu.m/day) Demolition of remaining final sedimentation tanks Predrilling (83nrs, 8rigs, 4days/drillhole/rig) Pre-bored H piles (224nos, 8rigs, 5days/pile/rig) Install S1 wailing / strutting Pile Load Test ELS works Excavate to level +2mPD and install S2 wailing / strutting (8090cu.m soil, 250cu.m/day)	40 days 23 days 45 days 42 days 140 days 10 days 26 days 45 days	Thu 12/3/20 Thu 9/4/20 Sat 6/6/20 Tue 28/7/20 Thu 14/1/21 Thu 14/1/21 Wed 17/2/21	Wed 8/4/20 205,92,93 Fri 5/6/20 206,67,88,90 Mon 27/7/20 207,69 Wed 13/1/21 208,70 Mon 25/1/21 209 Tue 16/2/21 209 Thu 9/9/21 211 Tue 13/4/21 210,72	207 208 209 211,210,193 213 212	0 days 0 days 0 days 0 days 0 days 16 days 0 days 0 days 0 days	Normal Working Hoursex Normal Working Hourspd Normal Working Hourspd Normal Working Hoursex Normal Working Hoursex Normal Working Hoursex Normal Working Hoursex Normal Working Normal Working Hours_20190924	9/4 2000 5/6 6/6 2000 27/7 28/7 2000 13/1 14/1 = 25/1 14/1 = 25/1 14/1 = 25/1 14/1 = 25/1 14/1 = 25/1 14/1 = 25/1 14/1 = 25/1 14/1 = 25/1 14/1 = 25/1 14/1 = 25/1 14/1 = 25/1 14/1 = 25/1
204 205 206 207 208 209 210 211 212 213 214	(Partial) Installation of sheetpile, FSP-IV 2460sq.m & FSP-II 1680sq.m (50sq.m/rig/day, 2rigs) with toe grout Excavation to level +5.5mPD (5700cu.m soil, 250cu.m/day) Demolition of remaining final sedimentation tanks Predrilling (83nrs, 8rigs, 4days/drillhole/rig) Pre-bored H piles (224nos, 8rigs, 5days/pile/rig) Install S1 wailing / strutting Pile Load Test ELS works Excavate to level +2mPD and install S2 wailing / strutting (8090cu.m soil, 250cu.m/day) Installation of sheetpile, FSP-IV 380sq.m (50sq.m/rig/day, 1rigs)	40 days 23 days 45 days 42 days 140 days 10 days 26 days 169 days 45 days	Thu 12/3/20 Thu 9/4/20 Sat 6/6/20 Tue 28/7/20 Thu 14/1/21 Thu 14/1/21 Wed 17/2/21 Wed 14/4/21	Wed 8/4/20 205,92,93 Fri 5/6/20 206,67,88,90 Mon 27/7/20 207,69 Wed 13/1/21 208,70 Mon 25/1/21 209 Tue 16/2/21 209 Thu 9/9/21 211 Tue 13/4/21 210,72 Thu 29/4/21 213	207 208 209 211,210,193 213 212 214	0 days 0 days 0 days 0 days 0 days 16 days 0 days 0 days 0 days 0 days	Normal Working Hoursex Normal Working Hoursdem Normal Working Hourspd Normal Working Hoursex Normal Working Hoursex Normal Working Hourset None Normal Working ex Hours_20190924 Normal Working Hoursp	9/4 222 5/6 6/6 222 27/7 28/7 28/7 13/1 14/1 = 25/1 14/1 = 25/1 14/1 = 25/1 14/1 = 16/2 17/2 = 9/9 17/2 = 13/4 14/4 = 29/4
204 205 206 207 208 209 210 211 212 213 214 215	(Partial) Installation of sheetpile, FSP-IV 2460sq.m & FSP-II 1680sq.m (50sq.m/rig/day, 2rigs) with toe grout Excavation to level +5.5mPD (5700cu.m soil, 250cu.m/day) Demolition of remaining final sedimentation tanks Predrilling (83nrs, 8rigs, 4days/drillhole/rig) Pre-bored H piles (224nos, 8rigs, 5days/pile/rig) Install S1 wailing / strutting Pile Load Test ELS works Excavate to level +2mPD and install S2 wailing / strutting (8090cu.m soil, 250cu.m/day)	40 days 23 days 45 days 42 days 140 days 10 days 26 days 45 days	Thu 12/3/20 Thu 9/4/20 Sat 6/6/20 Tue 28/7/20 Thu 14/1/21 Thu 14/1/21 Wed 17/2/21	Wed 8/4/20 205,92,93 Fri 5/6/20 206,67,88,90 Mon 27/7/20 207,69 Wed 13/1/21 208,70 Mon 25/1/21 209 Tue 16/2/21 209 Thu 9/9/21 211 Tue 13/4/21 210,72	207 208 209 211,210,193 213 212	0 days 0 days 0 days 0 days 0 days 16 days 0 days 0 days 0 days	Normal Working Hoursex Normal Working Hourspd Normal Working Hourspd Normal Working Hoursex Normal Working Hoursex Normal Working Hoursex Normal Working Hoursex Normal Working Normal Working Hours_20190924	9/4 2000 5/6 6/6 2000 27/7 28/7 2000 13/1 14/1 = 25/1 14/1 = 25/1 14/1 = 25/1 14/1 = 25/1 14/1 = 25/1 14/1 = 25/1 14/1 = 25/1 14/1 = 25/1 14/1 = 25/1 14/1 = 25/1 14/1 = 25/1 14/1 = 25/1
204 205 206 207 208 209 210 211 212 213	(Partial) Installation of sheetpile, FSP-IV 2460sq.m & FSP-II 1680sq.m (50sq.m/rig/day, 2rigs) with toe grout Excavation to level +5.5mPD (5700cu.m soil, 250cu.m/day) Demolition of remaining final sedimentation tanks Predrilling (83nrs, 8rigs, 4days/drillhole/rig) Pre-bored H piles (224nos, 8rigs, 5days/pile/rig) Install S1 wailing / strutting Pile Load Test ELS works Excavate to level +2mPD and install S2 wailing / strutting (8090cu.m soil, 250cu.m/day) Installation of sheetpile, FSP-IV 380sq.m (50sq.m/rig/day, 1rigs) Excavate to level -1.5mPD and install S3 wailing / strutting (4000cu.m soil,	40 days 23 days 45 days 42 days 140 days 10 days 26 days 169 days 45 days	Thu 12/3/20 Thu 9/4/20 Sat 6/6/20 Tue 28/7/20 Thu 14/1/21 Thu 14/1/21 Wed 17/2/21 Wed 14/4/21	Wed 8/4/20 205,92,93 Fri 5/6/20 206,67,88,90 Mon 27/7/20 207,69 Wed 13/1/21 208,70 Mon 25/1/21 209 Tue 16/2/21 209 Thu 9/9/21 211 Tue 13/4/21 210,72 Thu 29/4/21 213	207 208 209 211,210,193 213 212 214	0 days 0 days 0 days 0 days 0 days 16 days 0 days 0 days 0 days 0 days	Normal Working Hoursex Normal Working Hoursdem Normal Working Hourspd Normal Working Hoursex Normal Working Hourset Normal Working Hourset Normal Working Hours_20190924 Normal Working Hoursp Normal Working Hoursp Normal Working Hoursp Normal Working Hoursp	9/4 222 5/6 6/6 222 27/7 28/7 28/7 13/1 14/1 = 25/1 14/1 = 25/1 14/1 = 25/1 14/1 = 16/2 17/2 = 9/9 17/2 = 13/4 14/4 = 29/4

vil Works for	Sewage Treatment Facilities							
D Key Date	Task Name	Duration	Start	Finish Predecessors	Successors	Total Slack	Task Calendar trade	2020 2021 2022 2023 2024 2025 2025 2026 Qtr 3 Qtr 4 Qtr 1 Qtr 2 Qtr
17	Excavate to level -7.3mPD and install S5 wailing / strutting (4540cu.m soil,	30 days	Wed 14/7/21	Tue 17/8/21 216	218	0 days	Normal Working ex	013 VI 4 VII 012 VII 3 VII 4 VII 1 VII 2 VII 3 VII 3 VII 4 VII 1 VII 2 VII 3 VII 4 VII 1 VII 1 VII 2 VII 3 VII 4 VII 1 V
	160cu.m/day)	,					Hours_20190924	
18	Excavate to final formation level -9.0mPD and install S5 wailing / strutting	20 days	Wed 18/8/21	Thu 9/9/21 217	219	0 days	Normal Working ex	18/8 🖾 9/9
19 KD1F	(2860cu.m soil, 160cu.m/day) R.C. Structure works (from B2 - Level 1)	112 days	Fri 10/9/21	Tue 25/1/22 76,107,108,23	0.4655.220.224	0 days	Hours_20190924 Normal Working Hourerc	10/9
20 KD1F	Allow access to Contractor DE/2018/04 for E&M installation and T&C works	0 days	Tue 25/1/22	Tue 25/1/22 219	46FF	0 days	Normal Working Hours	25/1 ♦
21 KD1G	R.C. Structure works (from Level 1 to Roof)	120 days	Wed 26/1/22	Sat 25/6/22 219	223,47FF,222	0 days	Normal Working Hourerc	26/1
22 KD1G	Allow access to Contractor DE/2018/04 for E&M installation and T&C works	0 days	Sat 25/6/22	Sat 25/6/22 221	47FF	0 days	Normal Working Hours	25/6 ♦
23 SW1	ABWF works	210 days	Mon 27/6/22	Thu 9/3/23 221,110,78,97		206 days	Normal Working Hoursabwf	27/6 9/3
24	SAS Pumping Station, B-6	455 days	Wed 20/5/20	Thu 25/11/21 11	0011	0 days	Normal Working Hou	20/5 25/11
25	Predrilling (4nrs, 1rig, 4days/drillhole/rig)	16 days	Wed 20/5/20	Sat 6/6/20 69	226,180	0 days	Normal Working Hourepd	20/5 🖸 6/6
26	Pre-bored H piles (12nos, 1rigs, 5days/pile/rig)	60 days	Mon 8/6/20	Tue 18/8/20 225,70	227,181,228	0 days	Normal Working Hourshp	8/6 55555 18/8
27	Sheetpile Installation (FSP-II, 690sq.m, 50sqm/day) with toe grouting	28 days	Wed 19/8/20	Sat 19/9/20 226	229	0 days	Normal Working Hoursep	19/8 🔤 19/9
28	Pile Load Test	26 days	Wed 19/8/20	Thu 17/9/20 226	229	2 days	Normal Working Hourst	19/8 17/9
29	ELS works (1300cu.m soil with 2 layers wailing / strutting)	75 days	Mon 21/9/20	Sat 19/12/20 227,72,228	230	0 days	Normal Working Hoursex	21/9 19/12
KD1H	R.C. Structure works	186 days	Mon 21/12/20	Mon 9/8/21 77,107,108,22	9 231,232,48FF,219	0 days	Normal Working Hourerc	21/12
KD1H	Allow access to Contractor DE/2018/03 for E&M installation and T&C works	0 days	Mon 9/8/21	Mon 9/8/21 230	48FF	0 days	Normal Working Hours	9/8 ♦
2 SW1	ABWF works	90 days	Tue 10/8/21	Thu 25/11/21 230,110,78	55FF	585 days	Normal Working Hoursabwf	10/8 25/11
3	Ancillary Structures, B-7	503 days	Mon 7/9/20	Sat 21/5/22 12		5 days	Normal Working Hou	7/9 21/5
4	Demolition of Existing Faciliates and Structures (leachate pump pit & pumping	120 days	Mon 7/9/20	Sat 30/1/21 67,88,90	235,241,248,254,260,266	i,25 days	Normal Working dem	7/9 30/1
5	station) Chemical System No.1	168 days	Mon 1/2/21	Thu 26/8/21 234		5 days	Hours_20190924 Normal Working Hou	1/2
5	Excavation for Raft Footing (20cu.m)	10 days	Mon 1/2/21	Thu 11/2/21	237	5 days	Normal Working Hoursex	1/2 11/2
7	Plate load test	14 days	Tue 16/2/21	Wed 3/3/21 236	238,242	5 days	Normal Working Hours	16/2 3/3
KD1J	R.C. structure works	45 days	Mon 15/3/21	Mon 10/5/21 237	239,50FF,244,240	0 days	Normal Working Hourerc	15/3 5550 10/5
KD1J	Allow access to Contractor DE/2018/04 for E&M installation and T&C works	0 days	Mon 10/5/21	Mon 10/5/21 238	50FF	215 days	Normal Working	10/5 ♦
	The state of the s	2 20,0					Hours_20190924	
SW1	ABWF works + BS works	90 days	Tue 11/5/21	Thu 26/8/21 110,78,238	55FF	660 days	Normal Working Hoursabwf	11/5 26/8
	Chemical System No.2	189 days	Thu 4/3/21	Thu 21/10/21 234		5 days	Normal Working Hou	4/3
	Excavation for Raft Footing (100cu.m)	15 days	Thu 4/3/21	Sat 20/3/21 237	243	5 days	Normal Working Hoursex	4/3 20/3
	Plate load test	14 days	Mon 22/3/21	Fri 9/4/21 242	244,249	5 days	Normal Working Hours	22/3 9/4
KD1J	R.C. structure works	45 days	Tue 11/5/21	Mon 5/7/21 243,238	245,251,50FF,246,247	0 days	Normal Working Hourerc	11/5 5/7
KD1J	Allow access to Contractor DE/2018/04 for E&M installation and T&C works	0 days	Mon 5/7/21	Mon 5/7/21 244	50FF	170 days	Normal Working Hours_20190924	5/7 ♦
SW1	ABWF works + BS works	90 days	Tue 6/7/21	Thu 21/10/21 110,78,244	55FF	615 days	Normal Working Hoursabwf	6/7 21/10
SW1	Demolition of existing chemical room	60 days	Tue 6/7/21	Mon 13/9/21 244	55FF	645 days	Normal Working Hours	6/7 13/9
	Fire Services Sprinkler Pumping Room	220 days	Sat 10/4/21	Mon 3/1/22 234	0011	5 days	Normal Working Hou	10/4 3/1
	Excavation for Raft Footing (800cu.m)	45 days	Sat 10/4/21	Thu 3/6/21 243	250	5 days	Normal Working Hoursex	10/4 3/6
	Plate load test	14 days	Fri 4/6/21	Mon 21/6/21 249	251,255	5 days	Normal Working Hours	4/6 21/6
KD1J	R.C. structure works	60 days	Tue 6/7/21	Mon 13/9/21 250,244	253,257,252,50FF	0 days	Normal Working Hours rc	6/7
KD1J	Allow access to Contractor DE/2018/04 for E&M installation and T&C works	0 days	Mon 13/9/21	Mon 13/9/21 251	50FF	110 days	Normal Working	13/9 ♦
							Hours_20190924	run au
SW1	ABWF works + BS works	90 days	Tue 14/9/21	Mon 3/1/22 110,78,251	55FF	555 days	Normal Working Houreabwf	14/9 3/1
	Temporary Chemical Dosing System	191 days	Tue 22/6/21	Thu 10/2/22 234	256	5 days	Normal Working Hou	22/6 10/2 22/6 27/7
	Excavation for Raft Footing (300cu.m) Plate load test	30 days	Tue 22/6/21 Wed 28/7/21	Tue 27/7/21 250 Thu 12/8/21 255	257,261	5 days	Normal Working Hours	287 12/8
KD1J	R.C. structure works	14 days 30 days	Tue 14/9/21	Thu 21/10/21 256,251	258,50FF,263,259	5 days 0 days	Normal Working Hours Normal Working Hoursrc	14/9 553 21/10
KD1J	Allow access to Contractor DE/2018/04 for E&M installation and T&C works	0 days	Thu 21/10/21	Thu 21/10/21 250,251	50FF	80 days	Normal Working	21/10 🔷
INDIO	Allow access to contractor DE/2010/04 for Edwinstallation and 1 do works	o days	1110 21/10/21	1110 21/10/21 23/	3011	oo days	Hours_20190924	
SW1	ABWF works + BS works	90 days	Fri 22/10/21	Thu 10/2/22 110,78,257	55FF	525 days	Normal Working Hoursabwf	22/10 10/2
	Fire Hydrant and Booster Pump Room	177 days	Fri 13/8/21	Thu 17/3/22 234		5 days	Normal Working Hou	13/8 17/3
	Excavation for Raft Footing (200cu.m)	30 days	Fri 13/8/21	Thu 16/9/21 256	262	5 days	Normal Working Hoursex	13/8 16/9
	Plate load test	14 days	Fri 17/9/21	Tue 5/10/21 261	263,267	5 days	Normal Working Hours	17/9 5/10
KD1J	R.C. structure works	30 days	Fri 22/10/21	Thu 25/11/21 262,257	264,265,50FF,269	0 days	Normal Working Hourerc	22/10 🚥 25/11
KD1J	Allow access to Contractor DE/2018/04 for E&M installation and T&C works	0 days	Thu 25/11/21	Thu 25/11/21 263	50FF	50 days	Normal Working Hours	25/11 ♦
SW1	ABWF works + BS works	90 days	Fri 26/11/21	Thu 17/3/22 263,110,78	55FF	495 days	Normal Working Hoursabwf	26/11 17/3
	Emergency Generator House	163 days	Wed 6/10/21	Tue 26/4/22 234	000	5 days	Normal Working Hou	6/10 26/4
	Excavation for Raft Footing (100cu.m)	20 days	Wed 6/10/21	Fri 29/10/21 262	268	5 days	Normal Working Hours	6/10 29/10 30/10 15/11
KD1J	Plate load test R.C. structure works	14 days	Sat 30/10/21	Mon 15/11/21 267 Mon 3/1/22 268,263	269,273 270,50FF,271,275	5 days	Normal Working Hours	30/10 15/11 26/11 NSS 3/1
KD1J KD1J		30 days	Fri 26/11/21			0 days	Normal Working Hours rc	3/1 ♦
ווחא	Allow access to Contractor DE/2018/04 for E&M installation and T&C works	0 days	Mon 3/1/22	Mon 3/1/22 269	50FF	20 days	Normal Working Hours_20190924	31 💠
SW1	ABWF works + BS works	90 days	Tue 4/1/22	Tue 26/4/22 110,78,269	55FF	465 days	Normal Working Hoursabwf	4/1 26/4
	Deodorization System No.1 and No.3A	149 days	Tue 16/11/21	Sat 21/5/22 234		5 days	Normal Working Hou	16/11 21/5
	Excavation for Raft Footing (400cu.m)	20 days	Tue 16/11/21	Wed 8/12/21 268	274	5 days	Normal Working Hoursex	16/11 8/12
	Plate load test	14 days	Thu 9/12/21	Fri 24/12/21 273	275	5 days	Normal Working Hours	9/12 24/12
KD1J	R.C. structure works	20 days	Tue 4/1/22	Wed 26/1/22 274,269	276,277,50FF	0 days	Normal Working Hourerc	4/1 🗠 26/1
KD1J	Allow access to Contractor DE/2018/04 for E&M installation and T&C works	0 days	Wed 26/1/22	Wed 26/1/22 275	50FF	0 days	Normal Working	26/1 ♦
CM14	ADME weeks a DC weeks	00.4	Th 07/1/00	Cat 04/5/00 075	5555	445 4-	Hours_20190924	27/4 24/5
SW1	ABWF works + BS works Additional and Alternation Works for Existing Eacilities (R-7A, R-8, R-9A)	90 days	Thu 27/1/22	Sat 21/5/22 275	55FF	445 days	Normal Working Hou	27/1 21/5
KD2B	Additional and Alternation Works for Existing Facilities (B-7A, B-8, B-8A) B-8A Alternation works for existing Air Blower House No.2 (Pipeline CHTA,	662 days	Wed 29/1/20 Wed 29/1/20	Fri 22/4/22 Thu 3/9/20 15,79,105,106	52FF 280	0 days	Normal Working Hou Normal Working uu	29/1 29/1 3/9
NDZD	approx. 133m DN800 D.I.)	180 days	vveu 29/1/20	111u 3/8/20 13,/9,103,106	JZ1 1 ,ZOU	0 days	Hours_20190924	
KD1I	B7-A Alternation works for exisiting Power House	122 days	Fri 4/9/20	Sat 30/1/21 13,67,88,90,27	79 49FF,281	0 days	Normal Working Hoursdem	4/9 ********** 30/1
SW3	Alternation works for existing Membrane Facilities Building No.1	360 days	Mon 1/2/21	Fri 22/4/22 14,280	57FF	573 days	Normal Working Hours	1/2 22/4
	External Underground Service, Utilities, Road/Drain	1091 days	Mon 24/2/20	Sat 28/10/23 16		0 days	Normal Working Hou	24/2 28/10
KD2A	Process Pipes CHR and CHS (approx. 100m twin DN900 D.I.)	325 days	Mon 24/2/20	Sat 27/3/21 105,106,79FS-	+2289,288SS+101 days,286	SE0 days	Normal Working Hoursuu	24/2
SW2	Process Pipes, exclude CHR and CHS	550 days	Mon 29/6/20	Fri 6/5/22 283SS+101 da		0 days	Normal Working Hoursuu	29/6
SW2	Drainage	550 days	Mon 29/6/20	Fri 6/5/22 283SS+101 da		0 days	Normal Working Houreuu	29/6
SW2	Sewerage	550 days	Mon 29/6/20	Fri 6/5/22 283SS+101 da		0 days	Normal Working Hoursuu	29/6
SW2	Waterworks	550 days	Mon 29/6/20	Fri 6/5/22 283SS+101 da		0 days	Normal Working Hoursuu	29/6
SW2	Cable Ducts	550 days	Mon 29/6/20	Fri 6/5/22 283SS+101 da		0 days	Normal Working Hoursuu	29/6
KD3A	Roadworks	540 days	Fri 31/12/21	Sat 28/10/23 285FS-100 day	ys 53FF	0 days	Normal Working Hours	31/12
01440	Landscaping Works	854 days	Wed 11/5/22	Thu 27/3/25 16	1000 5755	0 days	Normal Working Hou	11/5
SW3	Irrigation System	120 days	Wed 11/5/22	Fri 30/9/22 287FS+2 days		0 days	Normal Working Hours uu	3/10
SW3 SW3	Hard Landscaping Works	220 days	Mon 3/10/22	Mon 3/7/23 291,80	293,57FF	0 days	Normal Working Hoursland	3/10 4/7 http://doi.org/10.1001/1001/10.1001/1
J0VV3	Soft Landscaping Works	220 days	Tue 4/7/23	Tue 26/3/24 292,80 Thu 27/3/25 293,80	294,57FF 59FF	0 days 0 days	Normal Working Hours	27/3
DLP	Establishment Works (365 days)	294 days	Wed 27/3/24					



Date	Revision	Checked	Approved
24-Oct-19	Rev. 0	Al	KM
10-Feb-20	Rev. 1	Al	KM
21-Apr-20	Rev. 2	Al	KM
09-Jun-20	Rev.3	LT	KM

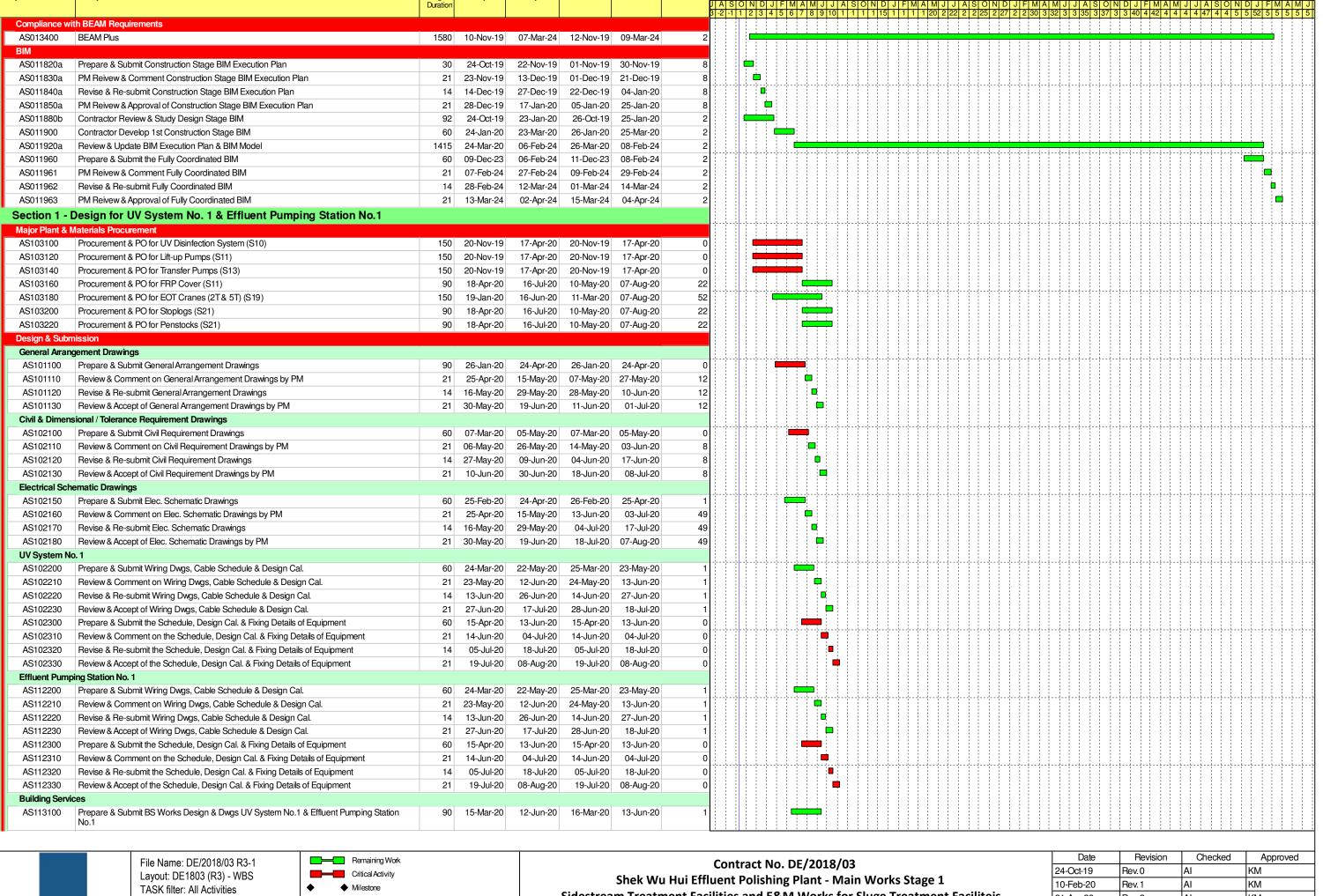




TASK filter: All Activities

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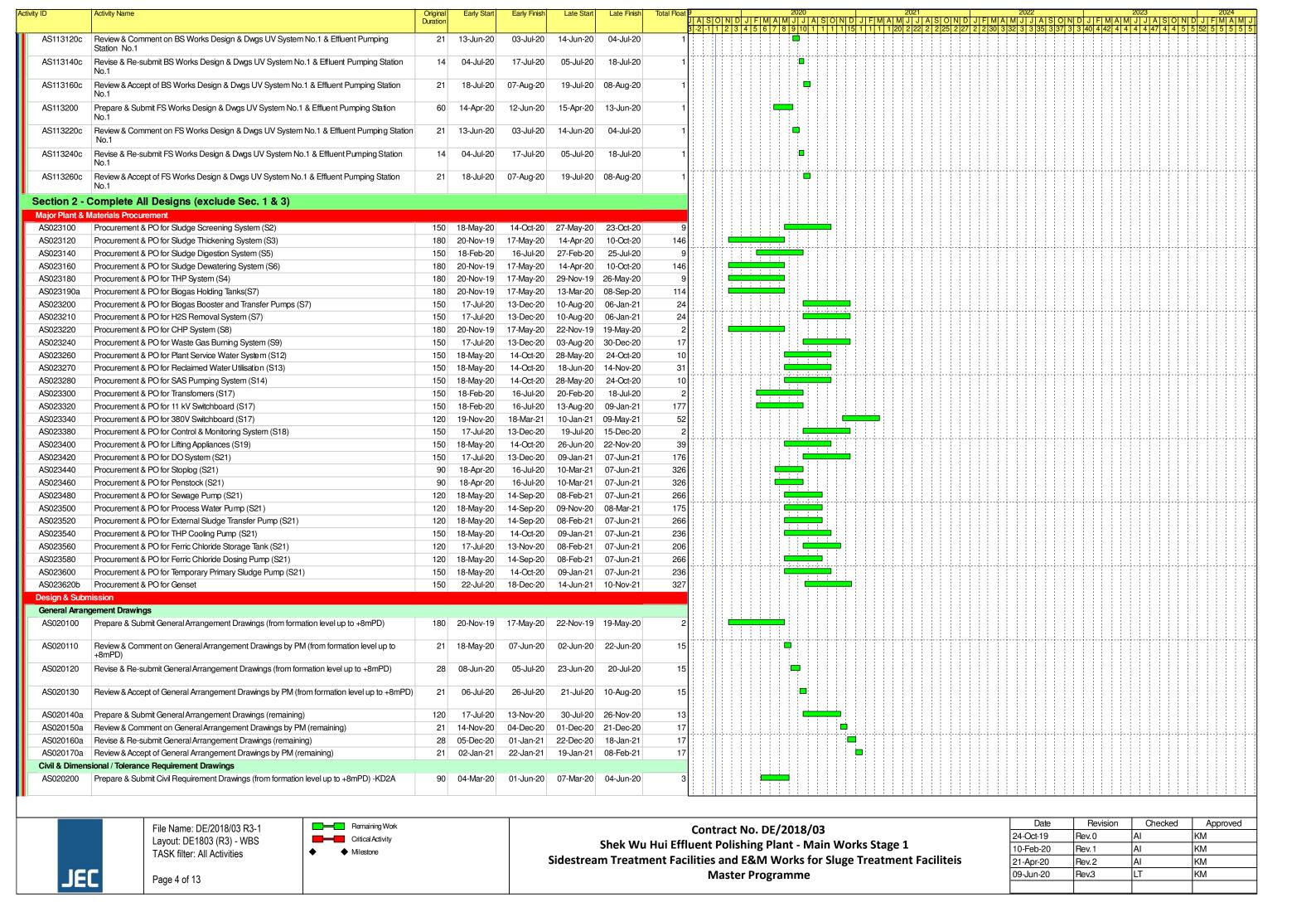
Date	Revision	Checked	Approved
24-Oct-19	Rev.0	Al	KM
10-Feb-20	Rev. 1	Al	KM
21-Apr-20	Rev.2	Al	KM
09-Jun-20	Rev.3	LT	KM

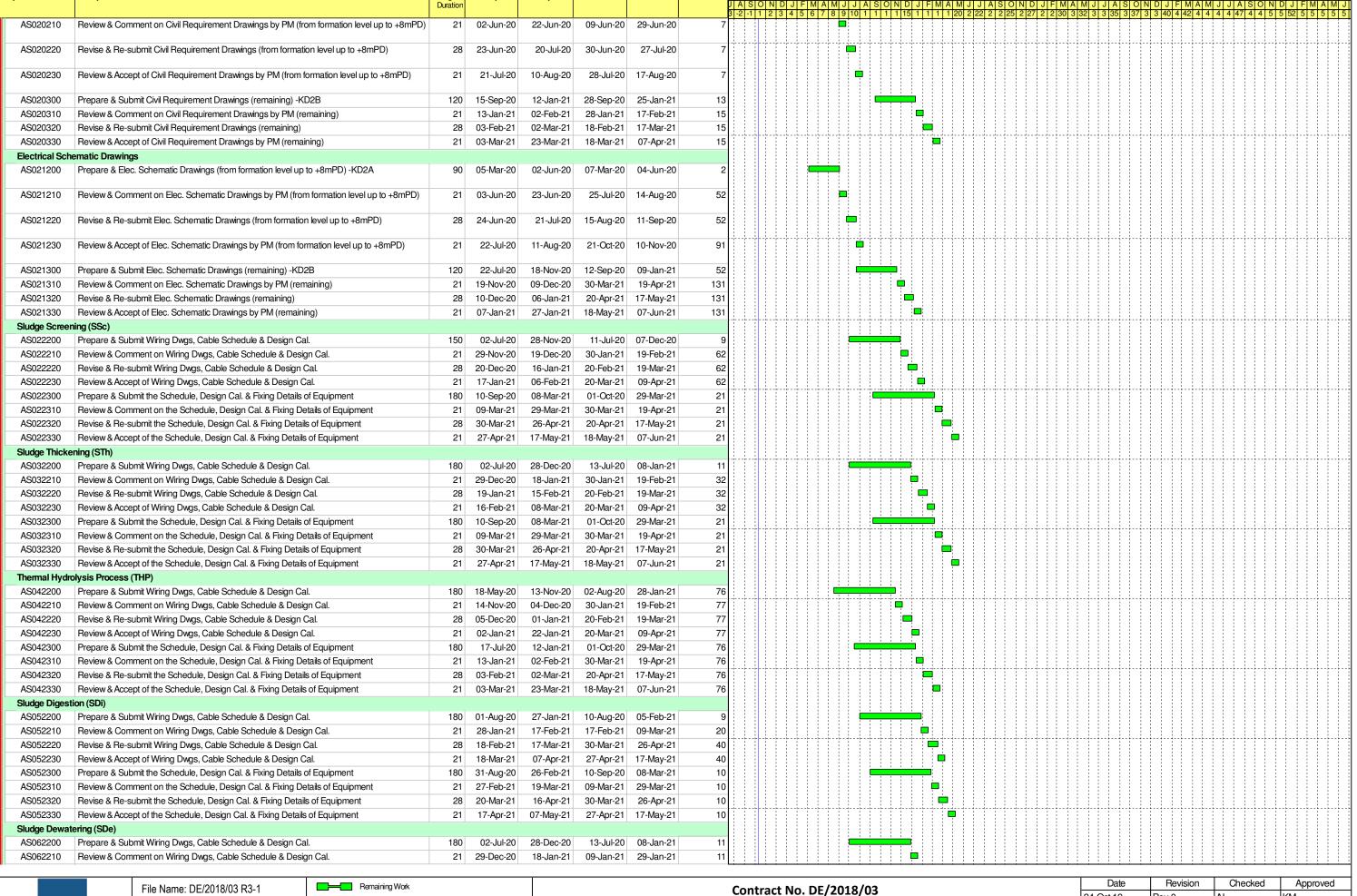




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Date	Revision	Checked	Approved
24-Oct-19	Rev. 0	Al	KM
10-Feb-20	Rev. 1	Al	KM
21-Apr-20	Rev.2	AI	KM
09-Jun-20	Rev.3	LT	KM







Layout: DE1803 (R3) - WBS

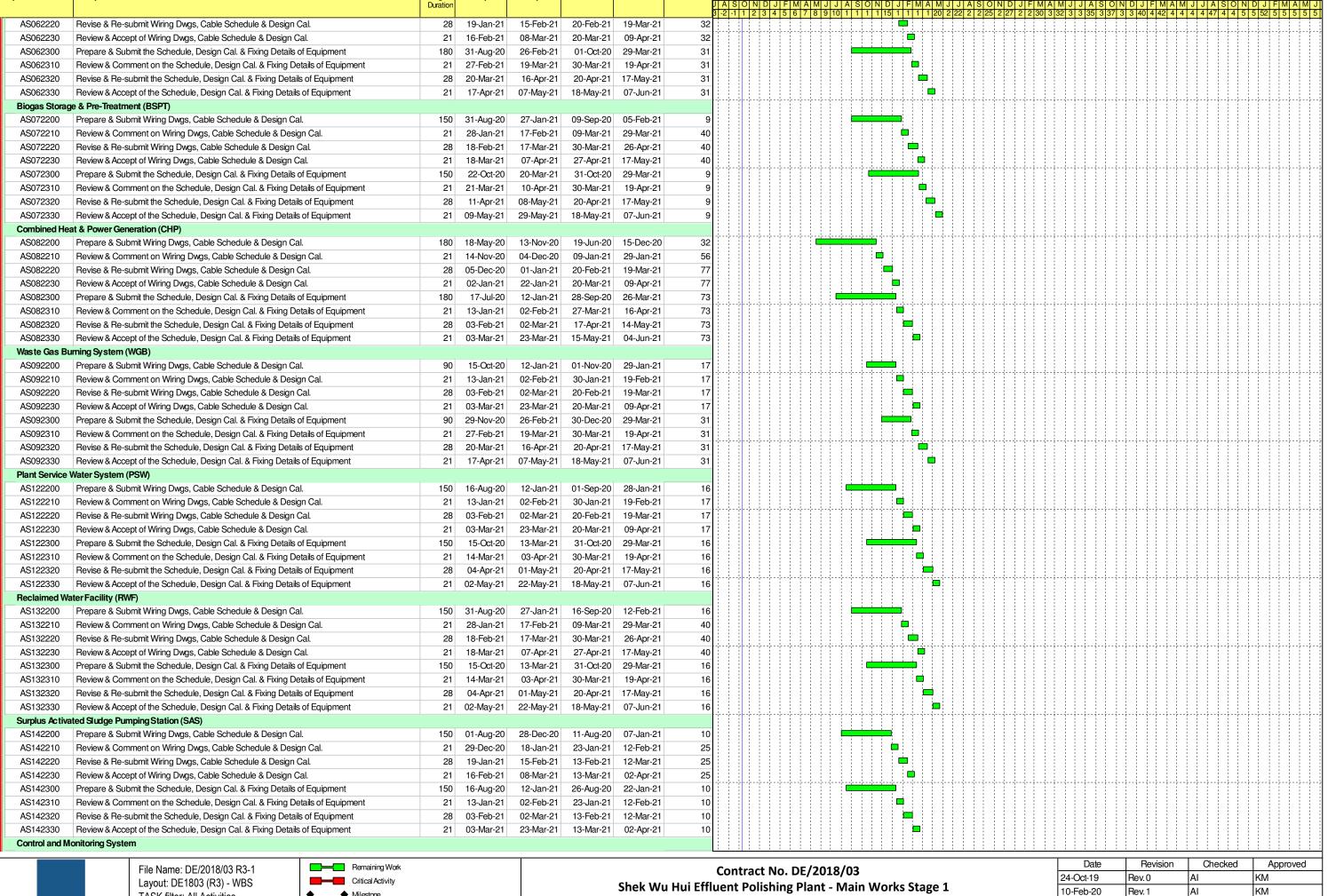
TASK filter: All Activities

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Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 Sidestream Treatment Facilities and E&M Works for Sluge Treatment Facilities **Master Programme**

Date	Revision	Checked	Approved
24-Oct-19	Rev.0	Al	KM
10-Feb-20	Rev. 1	Al	KM
21-Apr-20	Rev.2	Al	KM
09-Jun-20	Rev.3	LT	KM



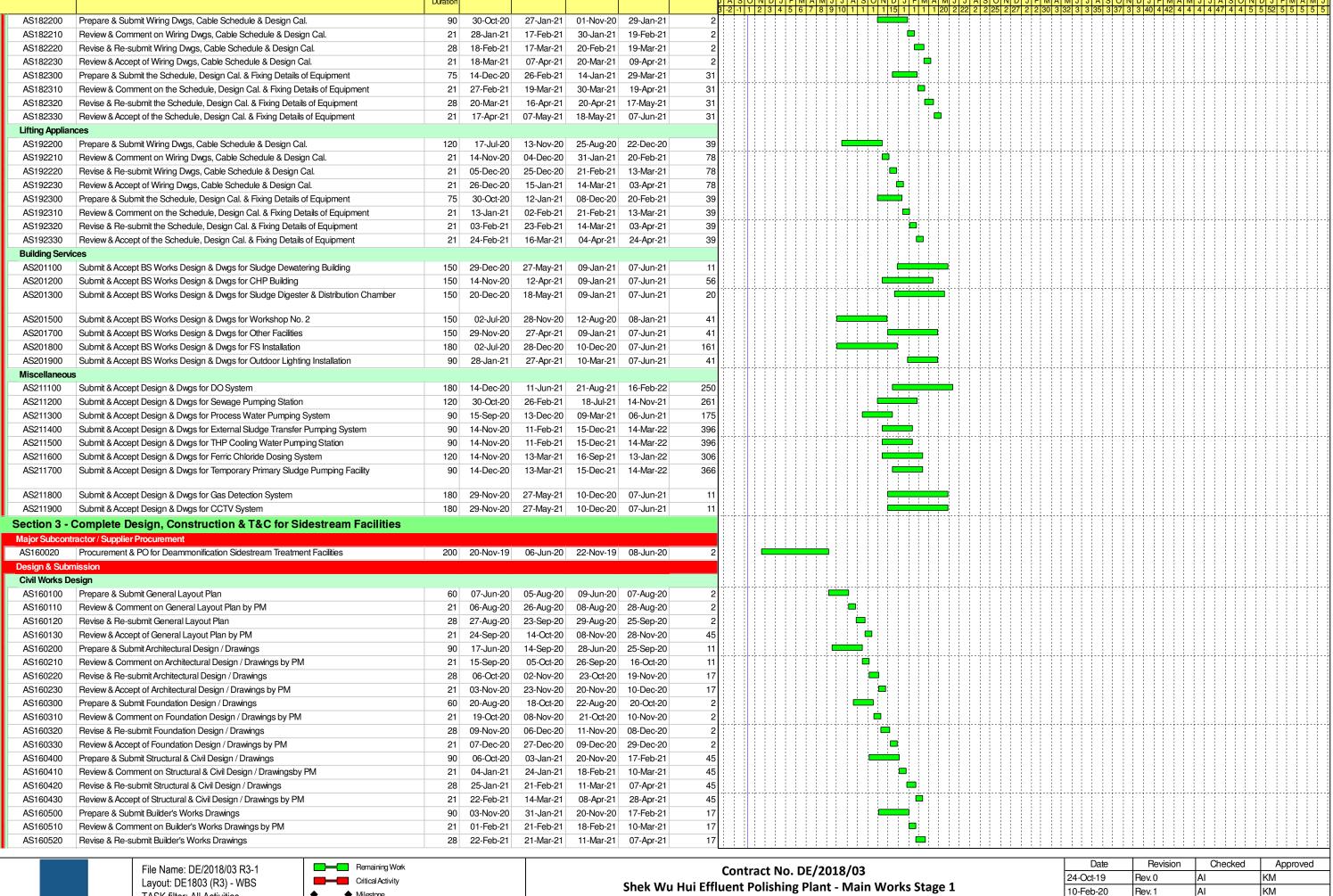


TASK filter: All Activities

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Date	Revision	Checked	Approved
24-Oct-19	Rev. 0	Al	KM
10-Feb-20	Rev. 1	Al	KM
21-Apr-20	Rev. 2	Al	KM
09-Jun-20	Rev.3	LT	KM



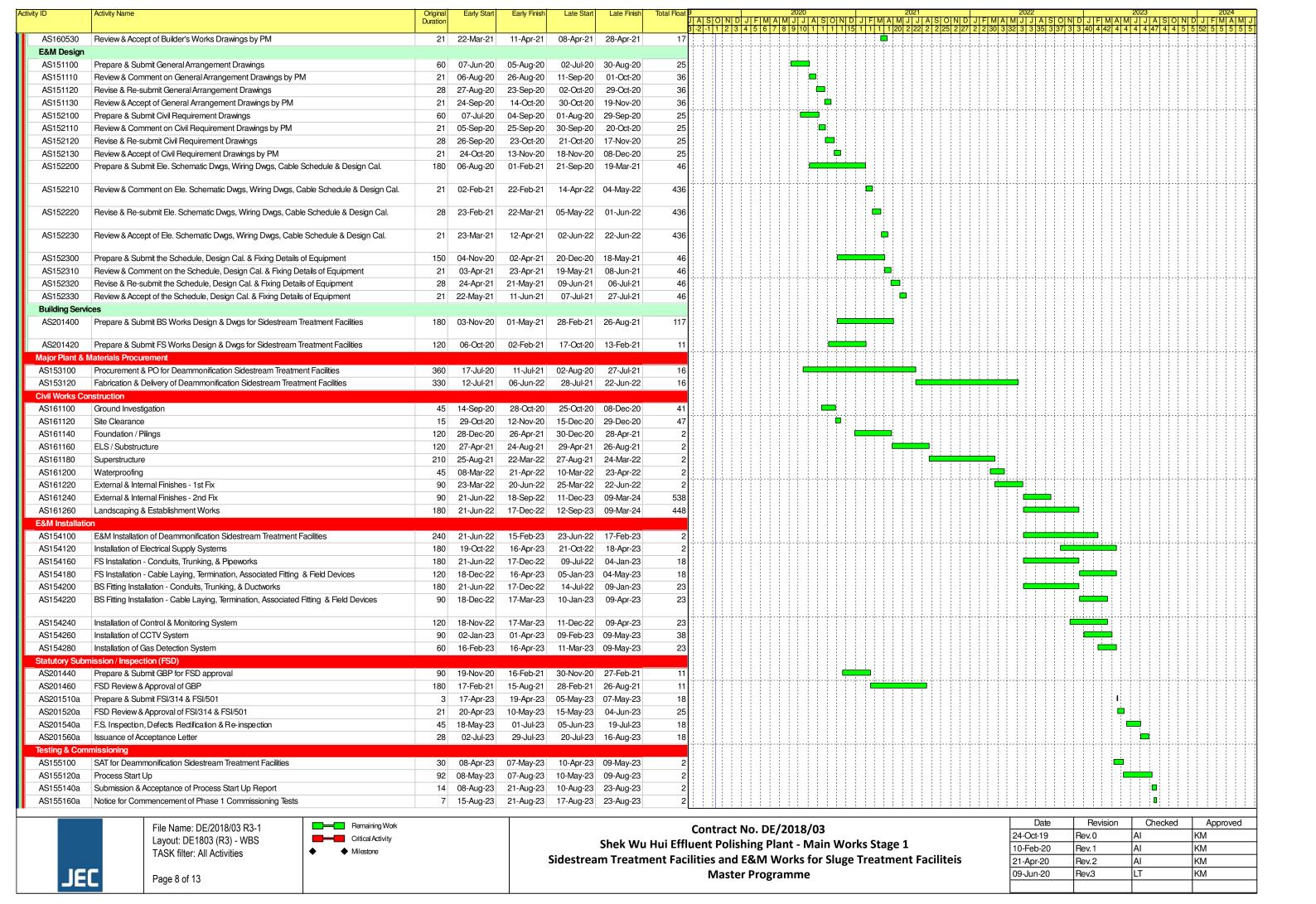


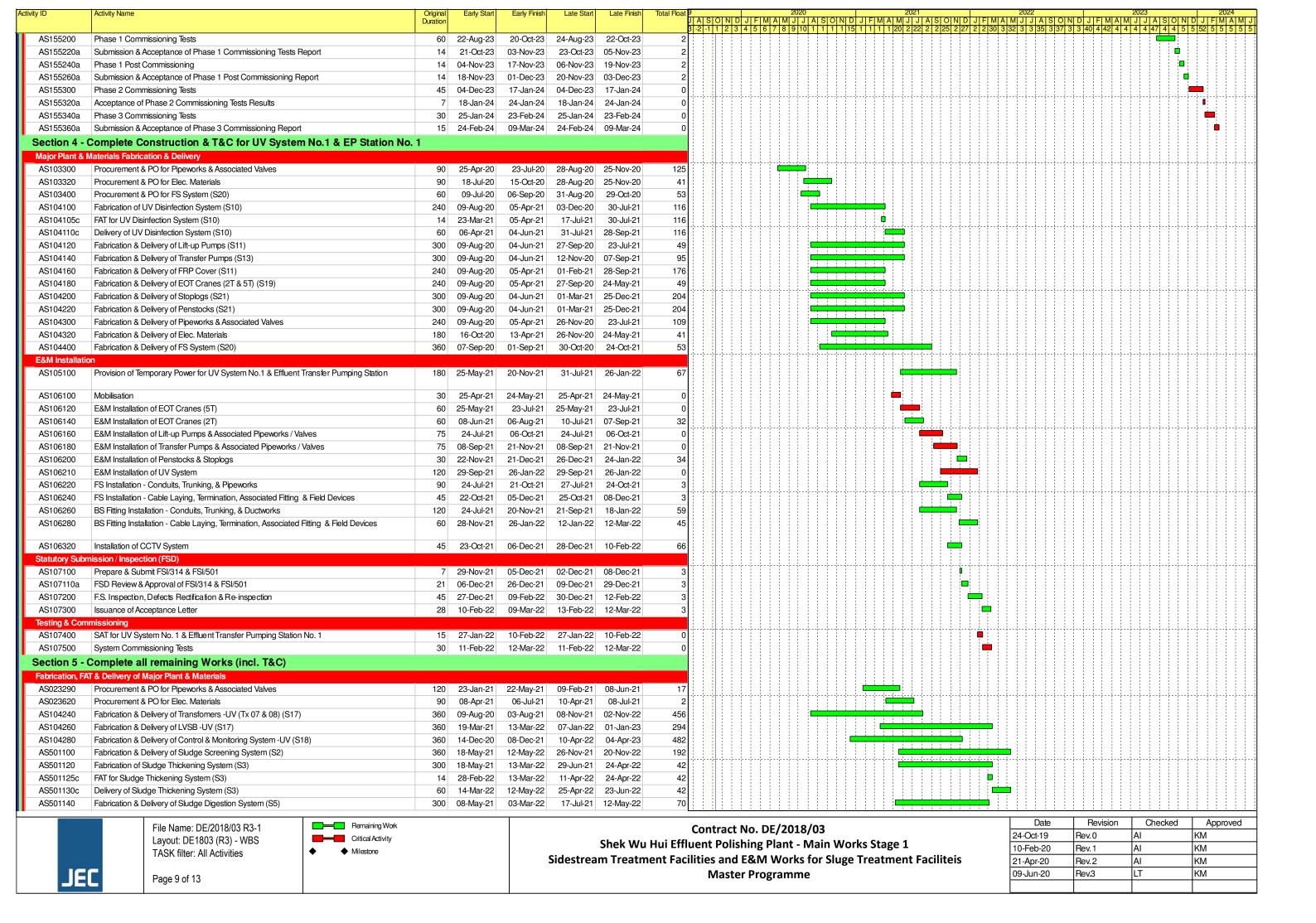
TASK filter: All Activities

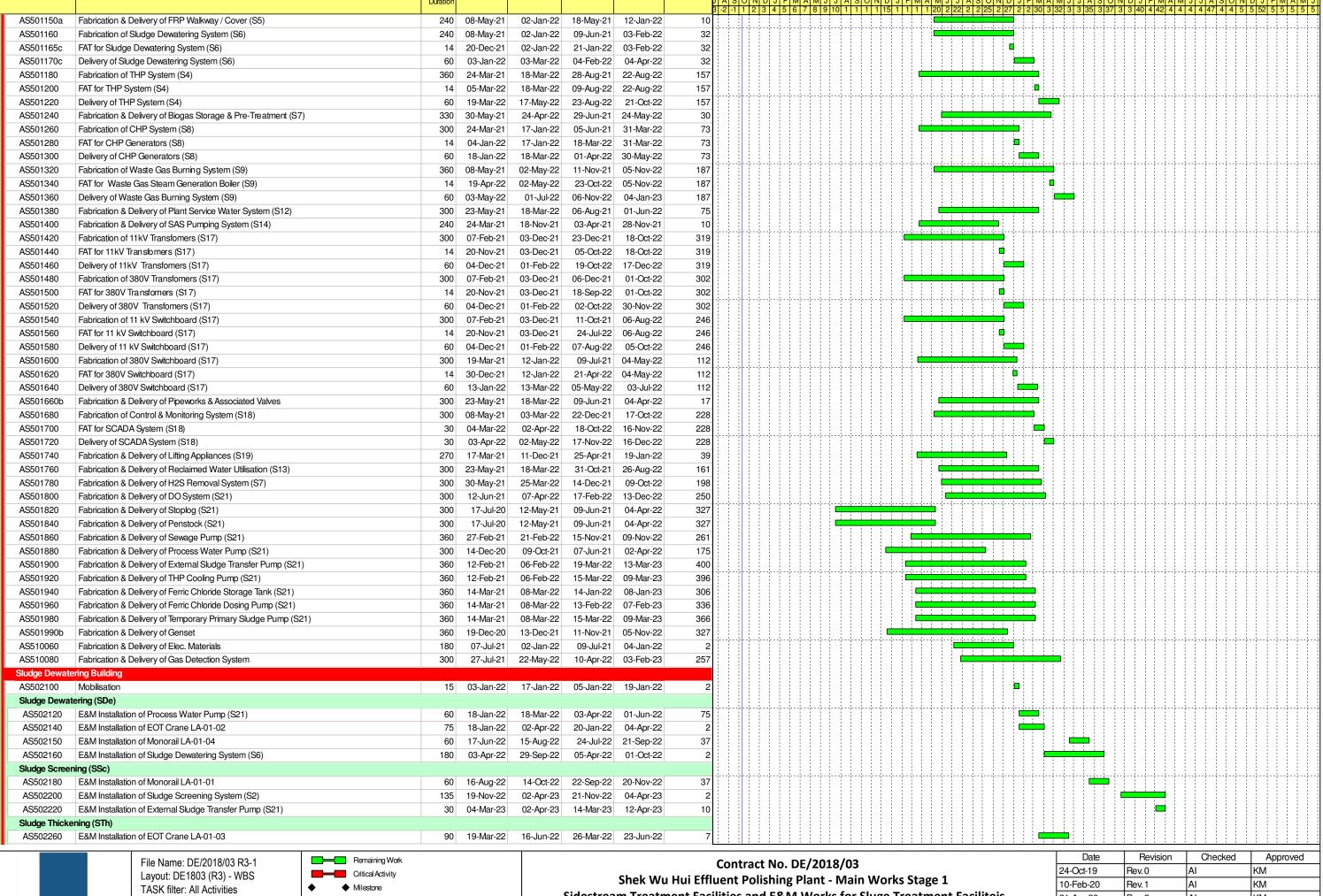
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Date	Revision	Checked	Approved
24-Oct-19	Rev. 0	Al	KM
10-Feb-20	Rev. 1	Al	KM
21-Apr-20	Rev.2	Al	KM
09-Jun-20	Rev.3	LT	KM





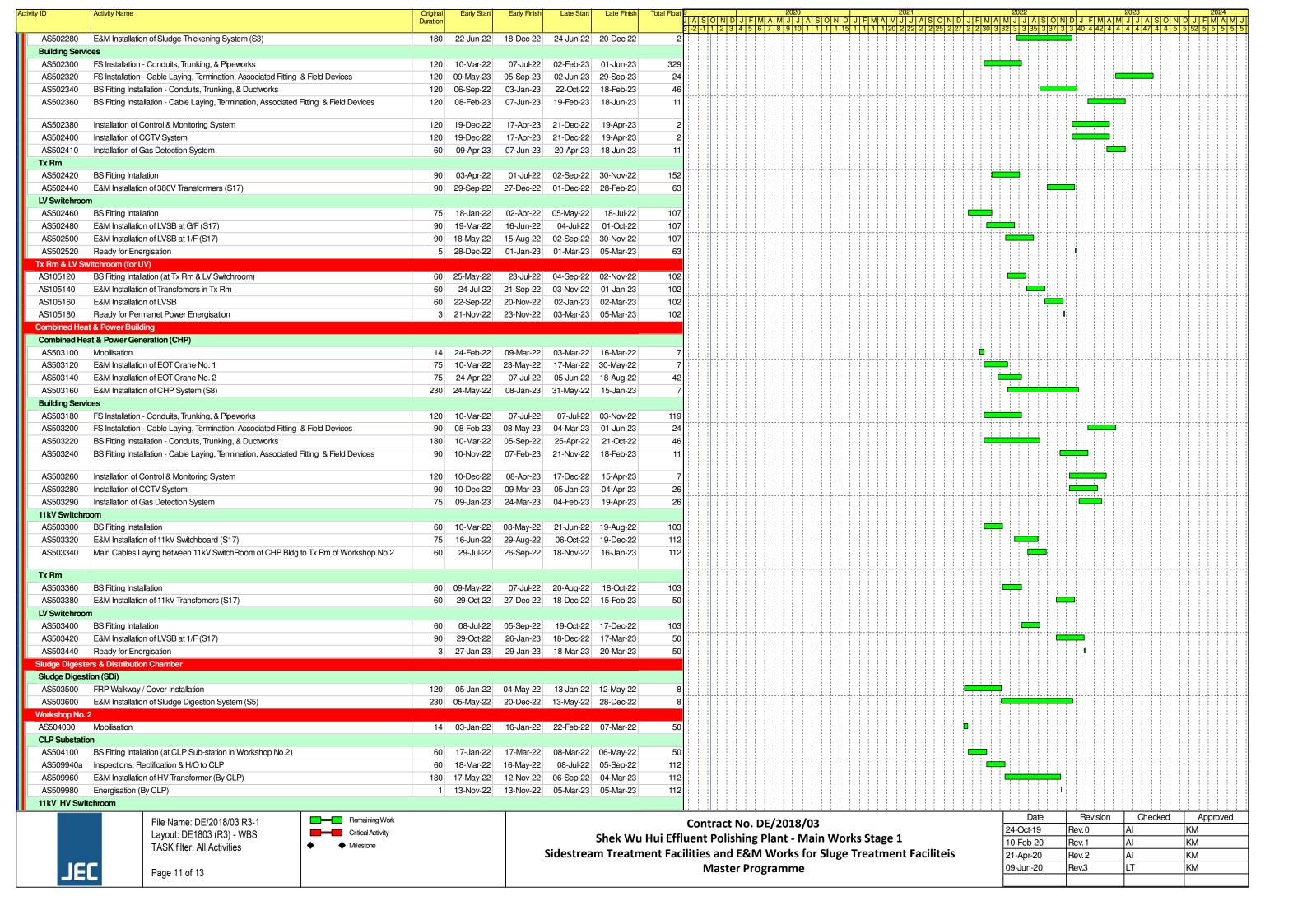


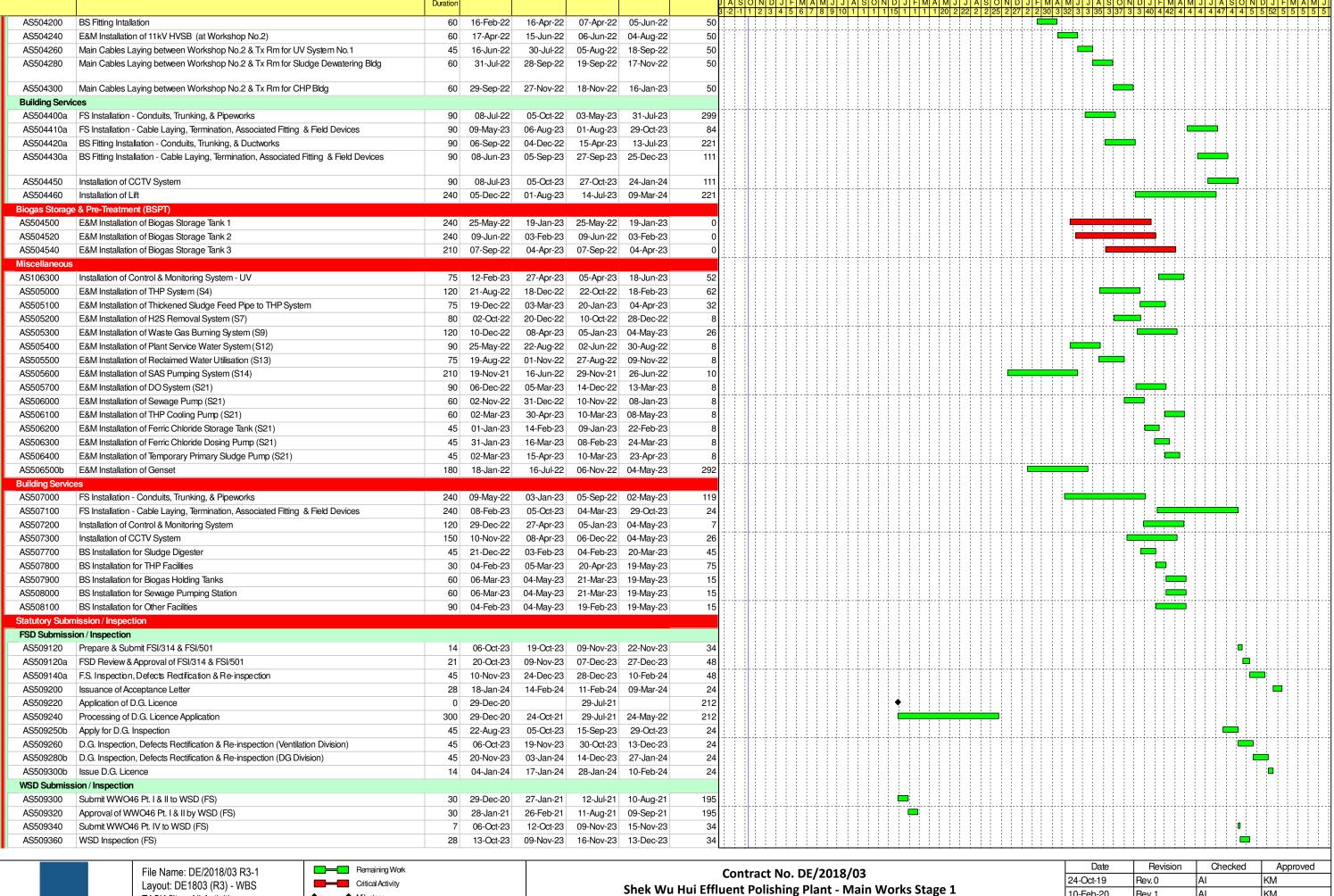
JEC

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Date	Revision	Checked	Approved
24-Oct-19	Rev.0	AI	KM
10-Feb-20	Rev. 1	AI	KM
21-Apr-20	Rev.2	AI	KM
09-Jun-20	Rev.3	LT	KM





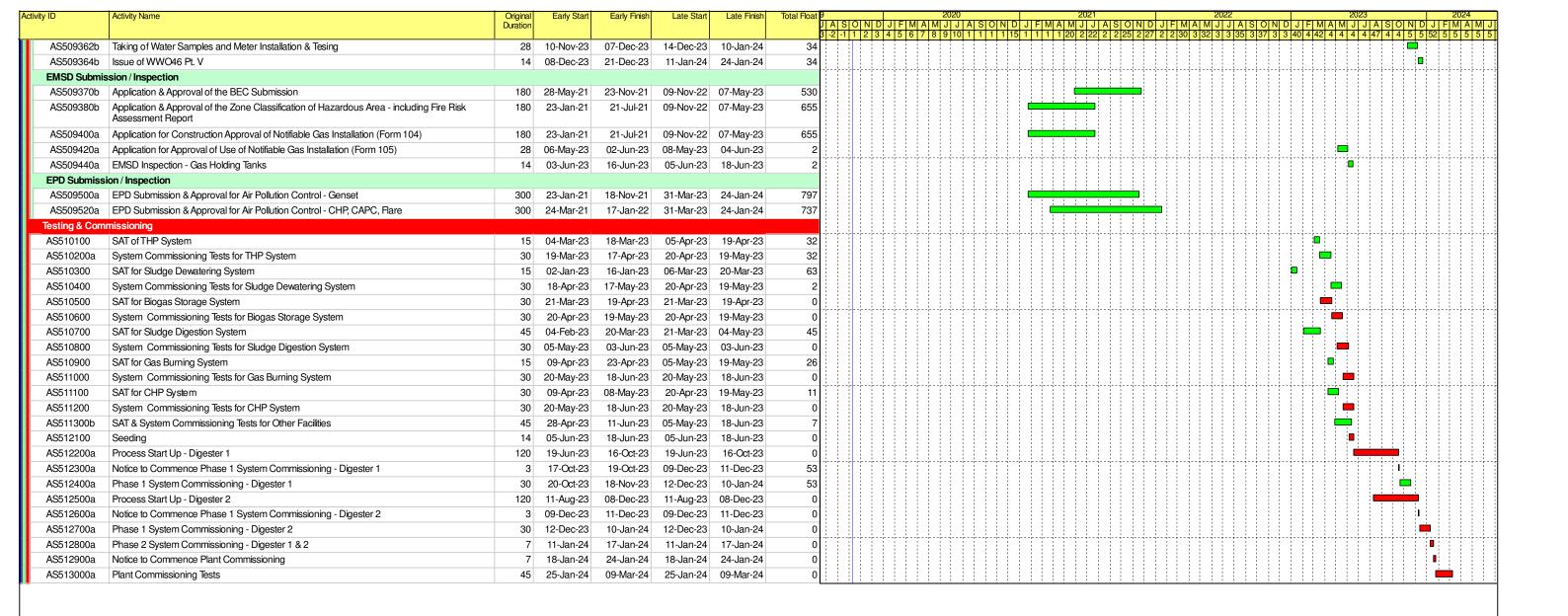


TASK filter: All Activities

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Milestone

Date	Revision	Checked	Approved
24-Oct-19	Rev.0	Al	KM
10-Feb-20	Rev. 1	Al	KM
21-Apr-20	Rev.2	Al	KM
09-Jun-20	Rev.3	LT	KM





File Name: DE/2018/03 R3-1 Layout: DE1803 (R3) - WBS TASK filter: All Activities

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Contract No. DE/2018/03
Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1
Sidestream Treatment Facilities and E&M Works for Sluge Treatment Faciliteis
Master Programme

Date	Revision	Checked	Approved
24-Oct-19	Rev. 0	Al	KM
10-Feb-20	Rev. 1	Al	KM
21-Apr-20	Rev. 2	AI	KM
09-Jun-20	Rev.3	LT	KM

Drainage Services Department The Government of the Hong Kong Special Administrative Region						Shek W	/u Hui Efflue		oposed Work Plant - Main V			r Sewage Treatmer	Facilities												AEC(
ID Text1	WBS	Task Name	Duration between Task	Start Finish	Early Start		_				ors Successors		2	2020 Half 1, 2020		Half 2, 2020	2021 Half 1, 2021	1.	Half 2, 2021	2022 Half 1, 2022	Half	2, 2022	2023 Half 1, 2023		2024 Half 1, 2024
1	1	DE/2018/04 - Contract Master Programme	Start and Finish 1990 day	rs Mon 2/12/15 Tue 13/5/	25 Mon 2/12/19	9 Tue 13/5/25	5 Tue 13/5	5 Mon 2/1	0 da	iys			N D	J F M A	LIMIA	JASON	I D J F M	ILMIA	JASO	N D J F M	LIMA	A S O N D	J F M A N	ASOND	J F M
2	1.1	Starting Date	0 day	ys Mon 2/12/19 Mon 2/12/2	.9 Mon 2/12/19	Mon 2/12/19	Mon 2/12	2/ Mon 2/12	/ 0 da	ays	3SS+1625 eday		Q 2/1	12											
3	1.2	Completion Date	0 day	ys Tue 14/5/24 Tue 14/5/24	Tue 14/5/24	Tue 14/5/24	Tue 14/5/	/24 Tue 14/5/	24 0 da	ays 2SS+1625 e	ed: 4														
4	1.3	Defect Dates with respect to Completion Date	365 day	vs Tue 14/5/24 Tue 13/5/2	Tue 14/5/24	Tue 13/5/25	Tue 13/5	i/ Tue 14/5	/ 0 da	ays 3															
5	2	DE/2018/04 - the Contractor's Programme (w/ Defects Date of Planned Competion	1978 day	ys Mon 2/12/19 Thu 1/5/25	Mon 2/12/19	Thu 1/5/25	Thu 1/5/2		0 da	ays															
		Date)						2/12/19																	
6	2.1	Starting Date	0 day	ys Mon 2/12/19 Mon 2/12/1	9 Mon 2/12/19	Mon 2/12/19	Mon 2/12	2/ Mon 2/12	/ 0 da	ays	455,541,869,94		e 2/1	12											
7 IW, PST, BR, MFS,LA,PV,CCT	V,P\2.2	Planned Completion Date	0 day	ys Wed 1/5/24 Wed 1/5/24	Wed 1/5/24	Wed 1/5/24	Tue 14/5/	/24 Tue 14/5/	24 12 da	ays 948,950,95	51,!3														
8	2.3	Defect Dates with respect to planned completion date	365 day	rs Thu 2/5/24 Thu 1/5/25	Thu 2/5/24	Thu 1/5/25	Thu 1/5/	25 Thu 2/5/2	24 0 da	ays 948															
9 WA1-C	2.4	Works Area WA1-C	304 day	ys Mon 2/12/19 Thu 1/10/2	0 Mon 2/12/19	Thu 1/10/20	Thu 1/10,	/20 Mon 2/12	/ 0 da	ays						•									
10 WA1-C	2.4.1	Access date for Works Area WA1-C	89 eday	ys Mon 2/12/19 Sat 29/2/20	Mon 2/12/19	Sat 29/2/20	Sat 29/2/	20 Mon 2/12	/ 0 eda	ays 6,2				_											
11 WA1-C	2.4.2	Actual Access / Handover Date	1 da	ry Fri 21/2/20 Fri 21/2/20	Fri 21/2/20	Fri 21/2/20	Sat 30/5/	20 Sat 30/5/2	20 39 da	ays	15			<u>+ 21/2</u>	2										
12 WA1-C	2.4.3	Submission for acceptance of subcontract works package (Site Office) (04SC003)	60 day	ys Wed 1/1/20 Sat 29/2/20	Wed 1/1/20	Sat 29/2/20	Sat 29/2/	20 Wed 1/1/2	20 0 da	ays 6SS+30 eda	ays 13			-											
13 WA1-C	2.4.4	Invitation of quotations for subcontract works (Site Office)	21 day	ys Sun 1/3/20 Sat 21/3/20	Sun 1/3/20	Sat 21/3/20	Sat 21/3/	20 Sun 1/3/2	0 0 da	ays 12	14			*											
14 WA1-C	2.4.5	Acceptance of conforming quotation (Site Office)	10 day	ys Sun 22/3/20 Tue 31/3/20	Sun 22/3/20	Tue 31/3/20	Tue 31/3/	20 Sun 22/3/	20 0 da	ays 13	15			ħ											
15 WA1-C	2.4.6	Design and Fabrication of the Contractor's Site Accommodations	120 day	ys Wed 1/4/20 Wed 29/7/2	0 Wed 1/4/20	Wed 29/7/20	Mon 31/8	8/ Wed 1/4/2	20 32 da	ays 14,11	21			*		_									
16 WA1-C	2.4.7	Submission for acceptance of subcontract works package (Site Office Foundation)	20 day	ys Fri 1/5/20 Wed 20/5/2	0 Fri 1/5/20	Wed 20/5/20	Wed 20/5	i/ Fri 1/5/20	0 da	ays	17				-										
17 WA1-C	2.4.8	Invitation of quotations for subcontract works (Site Office Foundation)	18 day	ys Thu 21/5/20 Sun 7/6/20	Thu 21/5/20	Sun 7/6/20	Sun 7/6/2	10 Thu 21/5/	20 0 da	ays 16	18				*										
18 WA1-C	2.4.9	Acceptance of conforming quotation (Site foundation)	7 day	ys Mon 8/6/20 Sun 14/6/2	Mon 8/6/20	Sun 14/6/20	Mon 15/6	6/ Mon 8/6/2	20 0 da	ays 17	19				*										
19 WA1-C	2.4.10	Design and Construction of the Contractor's Site Office foundation	30 day	ys Mon 15/6/20 Tue 14/7/20	Mon 15/6/20	Tue 14/7/20	Wed 15/7	7/ Tue 16/6/	20 0 da	ays 18	20				*										
20 WA1-C	2.4.11	Construction of Contractor's Site Office foundation	47 day	ys Wed 15/7/20 Sun 30/8/2	Wed 15/7/20	Sun 30/8/20	Mon 31/8	3/ Thu 16/7/	20 0 da	ays 19	21														
21 WA1-C	2.4.12	Site Installation of the Contractor's Site Accommodations (MiC)	30 day	ys Mon 31/8/20 Tue 29/9/20	Mon 31/8/20	Tue 29/9/20	Wed 30/9)/ Tue 1/9/2	0 1 d	lay 15,20	22					-									
22 WA1-C	2.4.13	Anticipated date of working at site	0 day	ys Thu 1/10/20 Thu 1/10/2	Thu 1/10/20	Thu 1/10/20	Thu 1/10/	/20 Thu 1/10/	20 0 da	ays 21						€ 1/10	0								
23 WA2-C	2.5	Works Area WA2-C	334 day	ys Mon 2/12/19 Sat 31/10/2	Mon 2/12/19	Sat 31/10/20	Sat 31/10)/ Mon 2/12	/ 0 da	ays						•									
24 WA2-C	2.5.1	Access date for Works Area WA2-C	89 eday	ys Mon 2/12/19 Sat 29/2/20	Mon 2/12/19	Sat 29/2/20	Sat 29/2/	20 Mon 2/12	/ 0 eda	ays 6,2				_											
25 WA2-C	2.5.2	Actual Access / Handover Date	1 da	ry Fri 21/2/20 Fri 21/2/20	Fri 21/2/20	Fri 21/2/20	Mon 31/8	8/ Mon 31/8	/ 153 da	ays	29			<u>+ 21/2</u>	2										
26 WA2-C	2.5.3	Submission for acceptance of subcontract works package	40 eday	ys Fri 1/5/20 Wed 10/6/2	0 Fri 1/5/20	Wed 10/6/20	Sun 19/7/	/20 Fri 1/5/20	0 eda	ays 6SS+30 eda	ays 27				-										
27 WA2-C	2.5.4	Invitation of quotations for subcontract works	30 eday	ys Wed 10/6/20 Fri 10/7/20	Wed 10/6/20	Fri 10/7/20	Tue 18/8/	20 Sun 19/7/	20 0 eda	ays 26	28				Ť	h									
28 WA2-C	2.5.5	Acceptance of conforming quotation	14 eday	ys Fri 10/7/20 Fri 24/7/20	Fri 10/7/20	Fri 24/7/20	Tue 1/9/2	10 Tue 18/8/	20 0 eda	ays 27	29					ħ									
29 WA2-C	2.5.6	Erection of Contractor's Storage Area	60 eday	ys Fri 24/7/20 Tue 22/9/2	Fri 24/7/20	Tue 22/9/20	Sat 31/10	/20 Tue 1/9/2	0 39 eda	ays 28,25	30					_									
30 WA2-C	2.5.7	Anticipated date of Storage Area available	0 day	ys Sat 31/10/20 Sat 31/10/2	0 Sat 31/10/20	Sat 31/10/20	Sat 31/10	/20 Sat 31/10/	/20 0 da	ays 29						* 3	31/10								
31	2.6	Procurement and delivery of major plant and materials	1100 day	ys Mon 2/12/19 Mon 5/12/	22 Mon 2/12/19	Mon 5/12/22	Tue 26/12	2 Mon 2/12	/ 386 da	ays 6,2												•			
32	2.6.1	Planned Completion Date for Procurement of major plant and materials	0 day	ys Sun 7/8/22 Sun 7/8/22	Sun 7/8/22	Sun 7/8/22	Sun 7/8/2	22 Sun 7/8/2	2 0 da	ays 6SS+620 da	ays											<u>₹</u> 7/8			
33 IW, PST, BR, MFS	2.6.2	General - stoplogs and penstocks, C11, EQT013	980 day	ys Mon 2/12/19 Sun 7/8/22	Mon 2/12/19	Sun 7/8/22	Sun 30/4/	/23 Mon 2/12	/ 0 da	ays	32,608											-			
34 IW, PST, BR, MFS	2.6.2.1	Submission for acceptance of purchasing package	180 day	ys Mon 2/12/19 Fri 29/5/20	Mon 2/12/19	Fri 29/5/20	Fri 29/5/2	Mon 2/12	/ 0 da	ays 6,2	35				-										
35 IW, PST, BR, MFS	2.6.2.2	Invitation of quotations for purchasing package	60 day	ys Sat 30/5/20 Tue 28/7/2	Sat 30/5/20	Tue 28/7/20	Tue 28/7/	/20 Sat 30/5/2	20 0 da	ays 34	36				*	_									
36 IW, PST, BR, MFS	2.6.2.3	Acceptance of conforming quotation	30 day	ys Wed 29/7/20 Thu 27/8/2	Wed 29/7/20	Thu 27/8/20	Thu 27/8/	/20 Wed 29/7	/ 0 da	ays 35	459,472					_									
37 IW, PST, BR, MFS	2.6.2.4	Manufacturing and Factory Acceptance Test of Plant	360 day	ys Sat 15/5/21 Mon 9/5/22	Sat 15/5/21	Mon 9/5/22	Mon 9/5/	22 Sat 15/5/2	21 0 da	ays 459,472	41,40,39,38										<u> </u>				
38 IW	2.6.2.5	IW - Shipping and Delivery of Plant to site	45 day	ys Tue 10/5/22 Thu 23/6/2	Tue 10/5/22	Thu 23/6/22	Fri 10/2/	23 Wed 28/	1 72 da	ays 37	558										<u> </u>				
39 PST	2.6.2.6	PST - Shipping and Delivery of Plant to site	90 day	ys Tue 10/5/22 Sun 7/8/22	Tue 10/5/22	Sun 7/8/22	Tue 16/5	i/ Thu 16/2	/ 197 da	ays 37	608														
40 BR	2.6.2.7	BR - Shipping and Delivery of Plant to site		ys Tue 10/5/22 Sun 7/8/22		Sun 7/8/22					653										Ĭ		7		
41 MFS	2.6.2.8	MFS - Shipping and Delivery of Plant to site		ys Tue 10/5/22 Thu 23/6/2							694														
42 PST, MFS	2.6.3	General - Instrumentations except use at BR, C11, EQT035	815 day	ys Mon 2/12/19 Wed 23/2/	22 Mon 2/12/19	Wed 23/2/22	Wed 25/1	I/ Mon 2/12	/ 165 da	ays	32,617									•		-			
43 PST, MFS	2.6.3.1	Submission for acceptance of purchasing package		ys Mon 2/12/19 Fri 29/5/20				Mon 2/12		ays 6,2	44			_	-]										
44 PST, MFS	2.6.3.2	Invitation of quotations for purchasing package		ys Sat 30/5/20 Tue 28/7/20		Tue 28/7/20				ays 43	45				*	1									
45 PST, MFS	2.6.3.3	Acceptance of conforming quotation	30 day	ys Wed 29/7/20 Thu 27/8/2	Wed 29/7/20	Thu 27/8/20	Thu 27/8/	/20 Wed 29/7	/ 0 da	ays 44	459,472							$-\parallel$							
46 PST, MFS	2.6.3.4	Manufacturing and Factory Acceptance Test of Plant	240 day	ys Sat 15/5/21 Sun 9/1/22	Sat 15/5/21	Sun 9/1/22	Wed 21/1	2 Tue 26/4/	22 0 da	ays 459,472	47							#							
47 PST, MFS	2.6.3.5	Shipping and Delivery of Plant to site		ys Mon 10/1/22 Wed 23/2/2							558														
48 PST, BR, MFS, Chamber	2.6.4	General - pipework and valves, C11, ref. EQT036	345 day	ys Mon 2/11/20 Tue 12/10/	21 Mon 2/11/20	Tue 12/10/21	Wed 14/6	5/ Tue 5/7/2	2 299 da	ays	32,609,700														
Task		Milestone, Tentative Milestone Milestone Su	ummarv	Project Si	ımmarı/	- Me	ual Summary		loto			Critical		Critical	Snlit		Progress		Marin	al Progress		nck (Float)		illestone (Actual)	
Task estwise ect: DE/2018/04		milestone, remauve ♥ Milestone ▼ Sui	anifilaty	· Project Si	minday I	ı Manı	an aummary	•	Late	_		Critical		Critical S	spiit.		riugress		Manu	al Progress	Sla	ack (Float)	м	mestone (Actual)	
Thu 2/7/20																									

5	Drainage Services Departn The Continuent of the long Kong Special Additionary	nent stra Ragion					Shak We	Uui Effluon		posed Work Programme		I or Sewage Treatment Facilities										A.	≡ COM
ID	ID Text1	WBS	Task Name	Duration Start	Finish	Early Start				Float Time Predecesso		Danas Namas	2020			2021		2022		2	022	2024	
				Start and Finish	/ . /								Half 1, 2020 J F M A		alf 2, 2020 A S O N D	Half 1, 2021	Half 2, 2021	Half 1, 2022	Half 2, 2022 J A S O		J F M A M J J A	2023 Half	f 1, 2024 F M A M
49	49 IW, PST, BR, MFS, Ch		Submission for acceptance of purchasing package	120 days Mon 2/11/20					Sun 17/7/22		50												
50			Invitation of quotations for purchasing package	60 days Tue 2/3/21		Tue 2/3/21	Fri 30/4/21		Fri 18/11/22		51												
51			Acceptance of conforming quotation	30 days Sat 1/5/21			Sun 30/5/21																
52	52 IW, PST, BR, MFS, Ch		Manufacturing and Factory Acceptance Test of Plant	90 days Mon 31/5/21					Sun 12/2/23			04						_					
53		2.6.4.5	IW - Shipping and Delivery of Plant to site	45 days Sun 29/8/21			Tue 12/10/21				654												
54		2.6.4.6		45 days Sun 29/8/21							654												
55		2.6.4.7		45 days Sun 29/8/21			Tue 12/10/21				654												
56		2.6.4.8		45 days Sun 29/8/21			Tue 12/10/21				654												
57		2.6.4.9		45 days Sun 29/8/21							654												
58	58 PST, BR, MFS	2.6.5	General - electric actuators, C11, ref. EQT042	815 days Mon 2/12/19																			
59	59 PST, BR, MFS	2.6.5.1	Submission for acceptance of purchasing package	190 days Mon 2/12/19					0 Mon 2/12/	. 0 days 6,2	60												
60		2.6.5.2		60 days Tue 9/6/20		Tue 9/6/20			0 Sat 30/5/20		61				1								
61	61 PST, BR, MFS	2.6.5.3		30 days Sat 8/8/20	Sun 6/9/20	Sat 8/8/20	Sun 6/9/20	Thu 27/8/2	0 Wed 29/7/	. 0 days 60	459,472												
62	62 PST, BR, MFS	2.6.5.4		240 days Sat 15/5/21		Sat 15/5/21			Fri 10/2/23	0 days 459,472	63							1					
63	63 PST, BR, MFS	2.6.5.5	Shipping and Delivery of Plant to site	45 days Mon 10/1/22						, i	654												
64	64 MFS	2.6.6	General - HV Switchboards, C9, ref. EQT031	815 days Mon 2/12/19	Wed 23/2/22	Mon 2/12/19	Wed 23/2/22	Mon 24/4/	Mon 2/12/.	212 days	730							7					
65	65 MFS	2.6.6.1	Submission for acceptance of purchasing package	180 days Mon 2/12/19	Fri 29/5/20	Mon 2/12/19	Fri 29/5/20	Fri 29/5/20	Mon 2/12/	. 0 days 6,2	66												
66	66 MFS	2.6.6.2	Invitation of quotations for purchasing package	60 days Sat 30/5/20	Tue 28/7/20	Sat 30/5/20	Tue 28/7/20	Tue 28/7/2	0 Sat 30/5/20	0 days 65	67			*	"								
67	67 MFS	2.6.6.3	Acceptance of conforming quotation	30 days Wed 29/7/20	Thu 27/8/20	Wed 29/7/20	Thu 27/8/20	Thu 27/8/2	0 Wed 29/7/	. 0 days 66	459,472				+								
68	68 MFS	2.6.6.4	MFS - Manufacturing of Plant	200 days Sat 15/5/21	Tue 30/11/21	Sat 15/5/21	Tue 30/11/21	Sat 11/2/23	Wed 27/7/	. 0 days 459,472	69												
69	69 MFS, FAT	2.6.6.5	MFS - Factory Acceptance Test of Plant (to be witnessed by PM)	40 days Wed 1/12/21	Sun 9/1/22	Wed 1/12/21	Sun 9/1/22	Thu 23/3/2	3 Sun 12/2/23	0 days 68	70							<u>*</u>					
70	70 MFS	2.6.6.6	MFS - Shipping and Delivery of Plant to site	45 days Mon 10/1/22	Wed 23/2/22	Mon 10/1/22	Wed 23/2/22	Sun 7/5/23	Fri 24/3/23	212 days 69	730							<u> </u>					
71	71 IW,PST, BR, MFS	2.6.7	General - LV Switchboards, C9, ref. EQT033	1100 days Mon 2/12/19	Mon 5/12/22	Mon 2/12/19	Mon 5/12/22	Mon 15/5/	Mon 2/12/.	161 days										 -			
72	72 IW,PST, BR, MFS	2.6.7.1	Submission for acceptance of purchasing package	180 days Mon 2/12/19	Fri 29/5/20	Mon 2/12/19	Fri 29/5/20	Fri 29/5/20	Mon 2/12/	. 0 days 6,2	73			<u> </u>									
73	73 IW,PST, BR, MFS	2.6.7.2	Invitation of quotations for purchasing package	60 days Sat 30/5/20	Tue 28/7/20	Sat 30/5/20	Tue 28/7/20	Tue 28/7/2	0 Sat 30/5/20	0 days 72	74			*	<u> </u>								
74	74 IW,PST, BR, MFS	2.6.7.3	Acceptance of conforming quotation	30 days Wed 29/7/20	Thu 27/8/20	Wed 29/7/20	Thu 27/8/20	Thu 27/8/2	0 Wed 29/7/	. 0 days 73	459,472				+								
75	75 IW	2.6.7.4	IW - Manufacturing of Plant	240 days Mon 27/9/21	Tue 24/5/22	Mon 27/9/21	Tue 24/5/22	Mon 16/1/.	Sun 22/5/22	0 days 459,472,92	2 76							*					
76	76 IW, FAT	2.6.7.5	IW - Factory Acceptance Test of Plant (to be witnessed by PM)	60 days Wed 25/5/22	Sat 23/7/22	Wed 25/5/22	Sat 23/7/22	Fri 17/3/2	3 Tue 17/1/.	0 days 75	77							<u>+</u>	<u> </u>				
77	77 IW	2.6.7.6	IW - Shipping and Delivery of Plant to site	45 days Sun 24/7/22	Tue 6/9/22	Sun 24/7/22	Tue 6/9/22	Mon 1/5/2	3 Sat 18/3/23	11 days 76	573								+				
78	78 PST	2.6.7.7	PST - Manufacturing of Plant	300 days Mon 27/9/21	Sat 23/7/22	Mon 27/9/21	Sat 23/7/22	Mon 16/1/.	Wed 23/3/	. 0 days 459,472,92	2 79								<u> </u>				
79	79 PST, FAT	2.6.7.8	PST - Factory Acceptance Test of Plant (to be witnessed by PM)	90 days Sun 24/7/22	Fri 21/10/22	Sun 24/7/22	Fri 21/10/22	Wed 29/3/.	Fri 30/12/22	2 0 days 78	80								<u> </u>	,			
80	80 PST	2.6.7.9	PST - Shipping and Delivery of Plant to site	45 days Sat 22/10/22	Mon 5/12/22	Sat 22/10/22	Mon 5/12/22	Sat 13/5/23	Thu 30/3/23	77 days 79	621,622								1				
81	81 BR,MFS	2.6.7.10	BR - Manufacturing of Plant	200 days Mon 27/9/21	Thu 14/4/22	Mon 27/9/21	Thu 14/4/22	Tue 22/11/	Sat 7/5/22	0 days 459,472,92	2 82							<u> </u>					
82	82 BR, FAT	2.6.7.1	BR - Factory Acceptance Test of Plant (to be witnessed by PM)	90 days Fri 15/4/22	Wed 13/7/22	Fri 15/4/22	Wed 13/7/22	Tue 21/2/2	3 Thu 24/11/.	0 days 81	83							<u> </u>	— 1				
83	83 BR,MFS	2.6.7.1	BR - Shipping and Delivery of Plant to site	45 days Thu 14/7/22	Sat 27/8/22	Thu 14/7/22	Sat 27/8/22	Fri 7/4/23	Wed 22/2/	. 27 days 82	726								<u> </u>				
84	84 MFS	2.6.7.1	MFS - Manufacturing of Plant	200 days Mon 27/9/21	Thu 14/4/22	Mon 27/9/21	Thu 14/4/22	Tue 22/11/	Sat 7/5/22	0 days 459,472,92	2 85						.	1					
85	85 MFS, FAT	2.6.7.14	MFS - Factory Acceptance Test of Plant (to be witnessed by PM)	90 days Fri 15/4/22	Wed 13/7/22	Fri 15/4/22	Wed 13/7/22	Tue 21/2/2	3 Thu 24/11/.	0 days 84	86						1	<u> </u>					
86	86 MFS	2.6.7.1		45 days Thu 14/7/22	Sat 27/8/22	Thu 14/7/22	Sat 27/8/22	Fri 7/4/23	Wed 22/2/	. 27 days 85	727								<u> </u>				
87	87 IW,PST, BR, MFS	2.6.8	General - VSDs & Passive Type Harmonic Filters, C11, ref. EQT034	665 days Mon 2/12/19			Sun 26/9/21	Sun 6/3/22	Mon 2/12/.								 						
88		2.6.8.1		180 days Mon 2/12/19							89	<u> </u>	_										
89		2.6.8.2		60 days Sat 30/5/20							90				<u>.</u>								
90		2.6.8.3		30 days Wed 29/7/20							459,472												
91	91 IW,PST, BR, MFS	2.6.8.4		90 days Sat 15/5/21			Thu 12/8/21				92												
92		2.6.8.5		45 days Fri 13/8/21			Sun 26/9/21			0 days 459,472	78,81,84,75							J					
93	92 IW,PS1, BR, IVIPS	2.6.9	General - 11kV/380V Stepdown Power Transformers, C11, EQT032	915 days Mon 2/12/19		Mon 2/12/19			3 Mon 2/12/.		. 0,01,04,73												
93		2.6.9.1		180 days Mon 2/12/19							95			T									
												ļ			_								
95		2.6.9.2		60 days Sat 30/5/20							96				1								
96		2.6.9.3		30 days Wed 29/7/20							459,472												
97	97 IW	2.6.9.4	IW - Manufacturing and Factory Acceptance Test of Plant	240 days Sat 15/5/21	Sun 9/1/22	Sat 15/5/21	Sun 9/1/22	Wed 7/12/.	Tue 12/4/22	0 days 459,472	98FS+100 day	ys					†						
	Task		Milestone, Tentative Milestone	Summary	Project Sum	mary	¶ Manua	I Summary	-	Late		Critical	Critical S	Split .	Pre	ogress		Manual Progress	Slack (Float)		Milestone (Actua	mi) *	
Proje	ct: DE/2018/04 Thu 2/7/20																						
	s Date Sun 28/6/20									Page 2 of 21													
Sidill	5 5 att 5 att 20/0/20									90 2 01 21													

man or ma mong nerg special records	nent nive Ragion					Shek W	/u Hui Efflue	nt Polishing Pl	ant - Main W	orks Stage 1	E&M Works for Sewage Treatm	ent Facilities								AEC
Text1	WBS T	ask Name		Finish	Early Start	Early Finish					Successors Resource Names	2020		2021		2022		2023		2024
BIW	2605	IM. Chicaring and Delivery of Plant to site.	between Task Start and Finish	F=: 2/6/22	Wed 20/4/22	F-: 2/6/22	Man 1/5/	2 504 10/2/22	10C do	07FC : 100 da	. 572	N D J F		f 2, 2020 Half 1, 202 A S O N D J F M		Half 1, 2022 N D J F M A M	Half 2, 2022	Half 1, 2023	Half 2, 2023	Half 1, 202
	2.6.9.5	IW - Shipping and Delivery of Plant to site	45 days Wed 20/4/22		Wed 20/4/22	Fri 3/6/22		23 Sat 18/3/23		ys 97FS+100 da										
MFS	2.6.9.6	MFS - Manufacturing and Factory Acceptance Test of Plant	240 days Sat 15/5/21		Sat 15/5/21	Sun 9/1/22		/ Tue 12/4/2			100FS+100 day				#					
MFS	2.6.9.7	MFS - Shipping and Delivery of Plant to site	45 days Wed 20/4/22	Fri 3/6/22	Wed 20/4/22	Fri 3/6/22	Mon 1/5/2	23 Sat 18/3/23	106 da	ys 99FS+100 da	3) 574					<u> </u>				
1 IW	2.6.10	Inlet Works - mechanical raked bar screens, C11, ref. EQT001	890 days Mon 2/12/19	Mon 9/5/22	Mon 2/12/19	Mon 9/5/22	Tue 22/8/	23 Mon 2/12/	470 da	ys										
2 IW	2.6.10.1	Submission for acceptance of purchasing package	180 days Mon 2/12/19	Fri 29/5/20	Mon 2/12/19	Fri 29/5/20	Fri 29/5/2	0 Mon 2/12/.	0 da	ys 6,2	103	 	<u> </u>							
3 IW	2.6.10.2	Invitation of quotations for purchasing package	60 days Sat 30/5/20	Tue 28/7/20	Sat 30/5/20	Tue 28/7/20	Fri 7/8/20	Tue 9/6/20	0 da	ys 102	104		<u>*</u>	h						
1 IW	2.6.10.3	Acceptance of conforming quotation	30 days Wed 29/7/20	Thu 27/8/20	Wed 29/7/20	Thu 27/8/20	Sun 6/9/2	0 Sat 8/8/20	0 da	ys 103	463,471,460,5			<u>+</u> -						
5 IW	2.6.10.4	Manufacturing and Factory Acceptance Test of Plant	300 days Sat 15/5/21	Thu 10/3/22	Sat 15/5/21	Thu 10/3/22	Mon 1/5/2	23 Wed 6/7/22	2 0 da	ys 472	106					<u> </u>				
5 IW	2.6.10.5	Shipping and Delivery of Plant to site	60 days Fri 11/3/22	Mon 9/5/22	Fri 11/3/22	Mon 9/5/22	Fri 30/6/2	3 Tue 2/5/23	117 da	ys 105	560,563									
7 IW	2.6.11	Inlet Works - screening conveyors, C11, ref. EQT002	890 days Mon 2/12/19	Mon 9/5/22	Mon 2/12/19	Mon 9/5/22	Mon 20/1	Mon 2/12/	229 da	vs	561					-				
B IW	2.6.11.1	Submission for acceptance of purchasing package	180 days Mon 2/12/19			Fri 29/5/20		20 Mon 2/12/.		ys 6,2	109									
			60 days Sat 30/5/20																	
9 IW	2.6.11.2	Invitation of quotations for purchasing package	,			Tue 28/7/20				ys 108	110]						
) IW	2.6.11.3	Acceptance of conforming quotation	30 days Wed 29/7/20	Thu 27/8/20	Wed 29/7/20	Thu 27/8/20	Sun 6/9/2	0 Sat 8/8/20	0 da	ys 109	463,471,460,5			† †						
1 IW	2.6.11.4	Manufacturing and Factory Acceptance Test of Plant	300 days Sat 15/5/21	Thu 10/3/22	Sat 15/5/21	Thu 10/3/22	Fri 4/8/23	Sun 9/10/22	2 0 da	ys 472	112				+					
2 IW	2.6.11.5	Shipping and Delivery of Plant to site	60 days Fri 11/3/22	Mon 9/5/22	Fri 11/3/22	Mon 9/5/22	Tue 3/10/	23 Sat 5/8/23	512 da	ys 111						*				
3 IW	2.6.12	Inlet Works - inlet Pumps (Marking Scheme Approach), C11, ref. EQT006	890 days Mon 2/12/19	Mon 9/5/22	Mon 2/12/19	Mon 9/5/22	Wed 15/1	1 Mon 2/12/	311 da	ys	562					₹		+		
1 IW	2.6.12.1	Submission for acceptance of purchasing package including proposed marking scheme	180 days Mon 2/12/19	Fri 29/5/20	Mon 2/12/19	Fri 29/5/20	Mon 8/6/2	20 Mon 2/12/19	0 da	ys 6,2	115	 	<u> </u>							
								-, 14, 17												
5 IW	2.6.12.2	Invitation of quotations for purchasing package	60 days Sat 30/5/20	Tue 28/7/20	Sat 30/5/20	Tue 28/7/20	Fri 7/8/20	Tue 9/6/20	0 da	ys 114	116			ነ						
5 IW	2.6.12.3	Acceptance of conforming quotation	30 days Wed 29/7/20	Thu 27/8/20	Wed 29/7/20	Thu 27/8/20	Sun 6/9/2	0 Sat 8/8/20	0 da	ys 115	463,471,460,5			*-						
7 IW	2.6.12.4	Manufacturing of Inlet Pumps	260 days Sat 15/5/21	Sat 29/1/22	Sat 15/5/21	Sat 29/1/22	Thu 17/8/	23 Thu 1/12/2	2 0 da	ys 472	118									
B IW, FAT	2.6.12.5	Factory Acceptance Test of Plant (to be witnessed by PM)	40 days Sun 30/1/22	Thu 10/3/22	Sun 30/1/22	Thu 10/3/22	Tue 26/9/	23 Fri 18/8/23	0 da	ys 117	119					-				
9 IW	2.6.12.6	Shipping and Delivery of Plant to site	60 days Fri 11/3/22	Mon 9/5/22	Fri 11/3/22	Mon 9/5/22	Sat 25/11/	23 Wed 27/9/.	565 da	ys 118										_
DIW	2.6.13	Inlet Works - grit removal system, C11, ref. EQT004	890 days Mon 2/12/19	Mon 9/5/22	Mon 2/12/19	Mon 9/5/22	Wed 6/12	/ Mon 2/12/	332 da	ys	564					₹				
1 IW	2.6.13.1	Submission for acceptance of purchasing package	180 days Mon 2/12/19	Fri 29/5/20	Mon 2/12/19	Fri 29/5/20	Mon 8/6/2	20 Mon 2/12/.	0 da	ys 6,2	122									
2 IW	2.6.13.2	Invitation of quotations for purchasing package	60 days Sat 30/5/20	Tue 28/7/20	Sat 30/5/20	Tue 28/7/20	Fri 7/8/20	Tue 9/6/20		ys 121	123		<u> </u>							
3 IW	2.6.13.3		30 days Wed 29/7/20								463,471,460,5			1						
		Acceptance of conforming quotation								ys 122										
1 IW	2.6.13.4	Manufacturing and Factory Acceptance Test of Plant	300 days Sat 15/5/21			Thu 10/3/22				ys 472	125]				
5 IW	2.6.13.5	Shipping and Delivery of Plant to site	60 days Fri 11/3/22	Mon 9/5/22	Fri 11/3/22	Mon 9/5/22	Sat 16/12,	23 Wed 18/10.	586 da	ys 124						_				
5 IW	2.6.14	Inlet Works - grit classifiers, C11, ref. EQT005	890 days Mon 2/12/19	Mon 9/5/22	Mon 2/12/19	Mon 9/5/22	Wed 20/1	2 Mon 2/12/	346 da	ys	565					•			 	
7 IW	2.6.14.1	Submission for acceptance of purchasing package	180 days Mon 2/12/19	Fri 29/5/20	Mon 2/12/19	Fri 29/5/20	Mon 8/6/2	20 Mon 2/12/.	0 da	ys 6,2	128									
3 IW	2.6.14.2	Invitation of quotations for purchasing package	60 days Sat 30/5/20	Tue 28/7/20	Sat 30/5/20	Tue 28/7/20	Fri 7/8/20	Tue 9/6/20	0 da	ys 127	129		<u> </u>	h						
9 IW	2.6.14.3	Acceptance of conforming quotation	30 days Wed 29/7/20	Thu 27/8/20	Wed 29/7/20	Thu 27/8/20	Sun 6/9/2	0 Sat 8/8/20	0 da	ys 128	463,471,460,52			* -						
) IW	2.6.14.4	Manufacturing and Factory Acceptance Test of Plant	300 days Sat 15/5/21	Thu 10/3/22	Sat 15/5/21	Thu 10/3/22	Tue 31/10	/ Thu 5/1/23	0 da	ys 472	131									
1 IW	2.6.14.5	Shipping and Delivery of Plant to site	60 days Fri 11/3/22	Mon 9/5/22	Fri 11/3/22	Mon 9/5/22	Sat 30/12/	/23 Wed 1/11/.	600 da	ys 130										
2 IW	2.6.15	Inlet Works - compactors, C11, ref. EQT003	890 days Mon 2/12/19	Mon 9/5/22	Mon 2/12/19	Mon 9/5/22	Wed 20/1	2 Mon 2/12/	259 da	ys	566					•		Щ∥		
3 IW	2.6.15.1	Submission for acceptance of purchasing package	180 days Mon 2/12/19					20 Mon 2/12/.		ys 6,2	134					_				
1 IW	2.6.15.2	Invitation of quotations for purchasing package	60 days Sat 30/5/20			Tue 28/7/20				ys 133	135									
														1						
5 IW	2.6.15.3	Acceptance of conforming quotation	30 days Wed 29/7/20							ys 134	463,471,460,5			T 1						
5 IW	2.6.15.4	Manufacturing and Factory Acceptance Test of Plant	300 days Sat 15/5/21	Thu 10/3/22	Sat 15/5/21	Thu 10/3/22	Tue 31/10	/ Thu 5/1/23	0 da	ys 472	137				+					
7 IW	2.6.15.5	Shipping and Delivery of Plant to site	60 days Fri 11/3/22	Mon 9/5/22	Fri 11/3/22	Mon 9/5/22	Sat 30/12/	'23 Wed 1/11/.	600 da	ys 136						<u> </u>		 		
B PST	2.6.16	PST - lamella plate settlers, C11, ref. EQT014	815 days Mon 2/12/19	Wed 23/2/22	Mon 2/12/19	Wed 23/2/22	Pri 27/10/	23 Mon 2/12/	392 da	ys	610					•				
PST	2.6.16.1	Submission for acceptance of purchasing package	180 days Mon 2/12/19	Fri 29/5/20	Mon 2/12/19	Fri 29/5/20	Mon 8/6/2	20 Mon 2/12/.	0 da	ys 6,2	140		<u> </u>							
PST	2.6.16.2	Invitation of quotations for purchasing package	60 days Sat 30/5/20	Tue 28/7/20	Sat 30/5/20	Tue 28/7/20	Fri 7/8/20	Tue 9/6/20	0 da	ys 139	141		+	դ						
1 PST	2.6.16.3	Acceptance of conforming quotation	30 days Wed 29/7/20	Thu 27/8/20	Wed 29/7/20	Thu 27/8/20	Sun 6/9/2	0 Sat 8/8/20	0 da	ys 140	463,471,460,5			+ -						
2 PST	2.6.16.4	Manufacturing and Factory Acceptance Test of Plant	240 days Sat 15/5/21	Sun 9/1/22	Sat 15/5/21	Sun 9/1/22	Mon 19/2	/ Sun 25/6/2	3 0 da	ys 459,472	143					<u> </u>				
3 PST	2.6.16.5	Shipping and Delivery of Plant to site	45 days Mon 10/1/22																	
4 PST	2.6.17	PST - reciprocating type bottom scrapers, C11, ref. EQT014	815 days Mon 2/12/19								611									
PST	2.6.17.1	Submission for acceptance of purchasing package	180 days Mon 2/12/19	rri 29/5/20	Mon 2/12/19	rn 29/5/20	Ivion 8/6/2	zu Mon 2/12/.	0 da	ys 6,2	146									
Task		Milestone Tentships (6) Milestone	mman/ •	Project Sum	many I		ual Summary		Late		Collins	Cri	ical Soli*	Dr		I Progress	Clark (Fla-4)		Milastone (Ashush	
		Milestone, Tentative Milestone Milestone Sui	· · · · · · · · · · · · · · · · · · ·	rroject Sum	midiy II	u Man	an aummary	•	■ Late	_	Critical	Cri	rei sprit	Progress	Manua	l Progress	Slack (Float)		Milestone (Actual)	
/2018/04																				

S :	rainage Servic	ces Department tong Special Administrative Staglon						Shek W	'u Hui Effluen				or DE/2018/04 E&M Works for Sewage Treatmen	nt Facilities								AECOM
ID II	Text1		WBS	Task Name		Finish	Early Start	Early Finish	_				s Successors Resource Names	2020		200		2022		1023	1	2024
	146 PST		26472		Start and Finish	T 20/7/20	5-1-20/5/20	T 20/7/20	F-: 7/0/20	T 0/5/20	0.4	445	147	Half 1,	2020 M A M	alf 2, 2020 Ha	f 1, 2021 Half 2, 202	Half 1, 2022 O N D J F M A M J	Half 2, 2022 J A S O N D	lalf 1, 2023 J F M A	Half 2, 20	23 Half 1, 2024 S O N D J F M A
			2.6.17.2	Invitation of quotations for purchasing package	60 days Sat 30/5/20			Tue 28/7/20				ays 145				-]						
	147 PST		2.6.17.3	Acceptance of conforming quotation	30 days Wed 29/7/20							ays 146	463,471,460,5			1						
148	148 PST		2.6.17.4	Manufacturing and Factory Acceptance Test of Plant	240 days Sat 15/5/21	Sun 9/1/22	Sat 15/5/21	Sun 9/1/22	Sat 20/1/24	Fri 26/5/23	0 da	ays 459,472	149				 					
149	149 PST		2.6.17.5	Shipping and Delivery of Plant to site	45 days Mon 10/1/22	Wed 23/2/22	Mon 10/1/22	Wed 23/2/22	Tue 5/3/24	Sun 21/1/2	4 741 da	ays 148										
150	150 PST		2.6.18	PST - surface scum skimmers, C11, ref. EQT015	815 days Mon 2/12/19	Wed 23/2/22	Mon 2/12/19	Wed 23/2/22	Tue 26/12.	Mon 2/12/	452 da	ays	612					•			7	
151	151 PST		2.6.18.1	Submission for acceptance of purchasing package	180 days Mon 2/12/19	Fri 29/5/20	Mon 2/12/19	Fri 29/5/20	Mon 8/6/2	Mon 2/12/.	0 da	ays 6,2	152									
152	152 PST		2.6.18.2	Invitation of quotations for purchasing package	60 days Sat 30/5/20	Tue 28/7/20	Sat 30/5/20	Tue 28/7/20	Fri 7/8/20	Tue 9/6/20	0 da	ays 151	153		<u>*</u>	<u>-</u>						
153	153 PST		2.6.18.3	Acceptance of conforming quotation	30 days Wed 29/7/20	Thu 27/8/20	Wed 29/7/20	Thu 27/8/20	Sun 6/9/20	Sat 8/8/20	0 da	ays 152	463,471,460,5			-						
154	154 PST		2.6.18.4	Manufacturing and Factory Acceptance Test of Plant	240 days Sat 15/5/21	Sun 9/1/22	Sat 15/5/21	Sun 9/1/22	Fri 19/4/24	Thu 24/8/2	3 0 da	ays 459,472	155									
155	155 PST		2.6.18.5	Shipping and Delivery of Plant to site	45 days Mon 10/1/22	Wed 23/2/22	Mon 10/1/22	Wed 23/2/22	Mon 3/6/2	4 Sat 20/4/24	831 da	ays 154						<u> </u>				
156	156 PST		2.6.19	PST - scum collector pipes, C11, ref. EQT015	815 days Mon 2/12/19	Wed 23/2/22	Mon 2/12/19	Wed 23/2/22	Tue 26/12.	Mon 2/12/	452 da	ays	613					7				
157	157 PST		2.6.19.1	Submission for acceptance of purchasing package	180 days Mon 2/12/19	Fri 29/5/20	Mon 2/12/19	Fri 29/5/20	Fri 29/5/20	Mon 2/12/.	0 da	ays 6,2	158	□ <u>+</u>	—							
158	158 PST		2.6.19.2	Invitation of quotations for purchasing package	60 days Sat 30/5/20	Tue 28/7/20	Sat 30/5/20	Tue 28/7/20	Tue 28/7/2	0 Sat 30/5/20	0 da	ays 157	159		<u> </u>	.						
159	159 PST		2.6.19.3	Acceptance of conforming quotation	30 days Wed 29/7/20	Thu 27/8/20	Wed 29/7/20	Thu 27/8/20	Thu 27/8/2	0 Wed 29/7/.	0 da	ays 158	459,472									
160	160 PST		2.6.19.4	Manufacturing and Factory Acceptance Test of Plant	240 days Sat 15/5/21	Sun 9/1/22	Sat 15/5/21	Sun 9/1/22	Fri 19/4/24	Thu 24/8/2	3 0 da	ays 459,472	161									
	161 PST		2.6.19.5	Shipping and Delivery of Plant to site	45 days Mon 10/1/22	Wed 23/2/22						ays 160										
	162 PST		2.6.20	PST - piston type primary sludge pumps, C11, ref. EQT016	815 days Mon 2/12/19								614									
163			2.6.20.1	Submission for acceptance of purchasing package	180 days Mon 2/12/19					Mon 2/12/.		ays 6,2	164									
	164 PST		2.6.20.2	Invitation of quotations for purchasing package	60 days Sat 30/5/20			Tue 28/7/20				ays 163	165									
	165 PST		2.6.20.3	Acceptance of conforming quotation	30 days Wed 29/7/20							ays 164	459,472									
	166 PST		2.6.20.4	Manufacturing and Factory Acceptance Test of Plant	240 days Sat 15/5/21			Sun 9/1/22		Wed 26/4/.		ays 459,472	167				#					
	167 PST		2.6.20.5	Shipping and Delivery of Plant to site	45 days Mon 10/1/22							ays 166										
168	168 PST		2.6.21	PST - drain pumps, C11, ref. EQT007	815 days Mon 2/12/19	Wed 23/2/22	Mon 2/12/19	Wed 23/2/22	Wed 27/9/	Mon 2/12/	482 da	ays	615					•			1	
169	169 PST		2.6.21.1	Submission for acceptance of purchasing package	180 days Mon 2/12/19	Fri 29/5/20	Mon 2/12/19	Fri 29/5/20	Fri 29/5/20	Mon 2/12/.	0 da	ays 6,2	170									
170	170 PST		2.6.21.2	Invitation of quotations for purchasing package	60 days Sat 30/5/20	Tue 28/7/20	Sat 30/5/20	Tue 28/7/20	Tue 28/7/2	0 Sat 30/5/20	0 da	ays 169	171		_							
171	171 PST		2.6.21.3	Acceptance of conforming quotation	30 days Wed 29/7/20	Thu 27/8/20	Wed 29/7/20	Thu 27/8/20	Thu 27/8/2	0 Wed 29/7/.	0 da	ays 170	459,472			-						
172	172 PST		2.6.21.4	Manufacturing and Factory Acceptance Test of Plant	240 days Sat 15/5/21	Sun 9/1/22	Sat 15/5/21	Sun 9/1/22	Sat 20/1/24	Fri 26/5/23	0 da	ays 459,472	173				-					
173	173 PST		2.6.21.5	Shipping and Delivery of Plant to site	45 days Mon 10/1/22	Wed 23/2/22	Mon 10/1/22	Wed 23/2/22	Tue 5/3/24	Sun 21/1/2	4 741 da	ays 172						<u> </u>				
174	174 PST		2.6.22	PST - air blowers, C11, ref. EQT018	815 days Mon 2/12/19	Wed 23/2/22	Mon 2/12/19	Wed 23/2/22	Fri 27/10/2	3 Mon 2/12/	512 da	ays	616					7			+	
175	175 PST		2.6.22.1	Submission for acceptance of purchasing package	180 days Mon 2/12/19	Fri 29/5/20	Mon 2/12/19	Fri 29/5/20	Fri 29/5/20	Mon 2/12/.	0 da	ays 6,2	176		1							
176	176 PST		2.6.22.2	Invitation of quotations for purchasing package	60 days Sat 30/5/20	Tue 28/7/20	Sat 30/5/20	Tue 28/7/20	Tue 28/7/2	0 Sat 30/5/20	0 da	ays 175	177		<u> </u>	-						
177	177 PST		2.6.22.3	Acceptance of conforming quotation	30 days Wed 29/7/20	Thu 27/8/20	Wed 29/7/20	Thu 27/8/20	Thu 27/8/2	0 Wed 29/7/.	0 da	ays 176	459,472			+						
178	178 PST		2.6.22.4	Manufacturing and Factory Acceptance Test of Plant	240 days Sat 15/5/21	Sun 9/1/22	Sat 15/5/21	Sun 9/1/22	Mon 19/2/	Sun 25/6/2	3 0 da	ays 459,472	179									
179	179 PST		2.6.22.5	Shipping and Delivery of Plant to site	45 days Mon 10/1/22	Wed 23/2/22	Mon 10/1/22	Wed 23/2/22	Thu 4/4/24	Tue 20/2/2	4 771 da	ays 178						<u>+</u>			\bot	
180	180 Chemical		2.6.23	Chemical Storage and Dosing - chemical storage tanks, C11, ref. EQT025	815 days Mon 2/12/19	Wed 23/2/22	Mon 2/12/19	Wed 23/2/22	Tue 22/11.	Mon 2/12/	272 da	ays						-				
181	181 Chemical		2.6.23.1	Submission for acceptance of purchasing package	180 days Mon 2/12/19	Fri 29/5/20	Mon 2/12/19	Fri 29/5/20	Fri 29/5/20	Mon 2/12/.	0 da	ays 6,2	182		h							
182	182 Chemical		2.6.23.2	Invitation of quotations for purchasing package	60 days Sat 30/5/20	Tue 28/7/20	Sat 30/5/20	Tue 28/7/20				ays 181	183		<u> </u>							
	183 Chemical		2.6.23.3	Acceptance of conforming quotation	30 days Wed 29/7/20							ays 182	459,472	$-\ \ $								
	184 Chemical		2.6.23.4	Manufacturing and Factory Acceptance Test of Plant	240 days Sat 15/5/21			Sun 9/1/22		2 Fri 18/2/22		ays 459,472	185	_								
	185 Chemical		2.6.23.5	Shipping and Delivery of Plant to site	45 days Mon 10/1/22							ays 184	755,767,780,75	_								
	186 Chemical		2.6.24	Chemical Storage and Dosing - chemical dosing pumps, C11, ref. EQT027	815 days Mon 2/12/19																	
													188									
	187 Chemical		2.6.24.1	Submission for acceptance of purchasing package	180 days Mon 2/12/19					Mon 2/12/.		ays 6,2	188		1	_						
	188 Chemical		2.6.24.2	Invitation of quotations for purchasing package	60 days Sat 30/5/20							ays 187	189		_	1						
	189 Chemical		2.6.24.3	Acceptance of conforming quotation	30 days Wed 29/7/20							ays 188	459,472									
	190 Chemical		2.6.24.4	Manufacturing and Factory Acceptance Test of Plant	240 days Sat 15/5/21					22 Fri 18/2/22			191				₩					
191	191 Chemical		2.6.24.5	Shipping and Delivery of Plant to site	45 days Mon 10/1/22	Wed 23/2/22	Mon 10/1/22	Wed 23/2/22	Mon 28/11	Sat 15/10/2	2 0 da	ays 190	755,767,780,75					-				
192	192 Chemical		2.6.25	Chemical Storage and Dosing - transfer pumps, C11, ref. EQT026	815 days Mon 2/12/19	Wed 23/2/22	Mon 2/12/19	Wed 23/2/22	Tue 22/11.	Mon 2/12/	272 da	ays						-				
193	193 Chemical		2.6.25.1	Submission for acceptance of purchasing package	180 days Mon 2/12/19	Fri 29/5/20	Mon 2/12/19	Fri 29/5/20	Fri 29/5/20	Mon 2/12/.	0 da	ays 6,2	194	+	ի							
194	194 Chemical		2.6.25.2	Invitation of quotations for purchasing package	60 days Sat 30/5/20	Tue 28/7/20	Sat 30/5/20	Tue 28/7/20	Tue 28/7/2	0 Sat 30/5/20	0 da	ays 193	195		<u> </u>	-						
		Task		Milestone, Tentative ⊕ Milestone ♦	Summary	Project Sumi	mary I	1 Manu	ial Summary		Late		Critical	1	Critical Split	Progre	s	Manual Progress	Slack (Float)		Milestone (Actual)	*
Bestv						,	-		- 1									ž.		_		
	u 2/7/20																					
Status E	ate Sun 28/6/	/20										Page 4 of 21										

Drainage Services Departm The Continuent of the living Roay Special Administration	ient Voo Region					Shek W	u Hui Efflu		roposed Work Prog Plant - Main Works		018/04 orks for Sewage Treatment Fa	acilities									AECOM
ID ID Text1	WBS Task	x Name	Duration Start between Task	Finish	Early Start		_				sors Resource Names	2020		2021	I	2022		V 2 202-	2023	-	2024
195 195 Chemical	2.6.25.3	Acceptance of conforming quotation	Start and Finish 30 days Wed 29/7/20	Thu 27/8/20	Wed 29/7/20	Thu 27/8/20	Thu 27/8	8/20 Wed 29/7	7/ 0 days 19	4 459,47	2	N D J F M	IA M J	Half 2, 2020 Half 1, 2021	Half 2, 2021	D N D J F N	2 // A M J J	If 2, 2022 A S O N	Half 1, 2023 D J F M	IA MIJ	Half 2, 2023 Half 1, 2024
			240 days Sat 15/5/21								-	_									
196 196 Chemical	2.6.25.4	Manufacturing and Factory Acceptance Test of Plant	,			Sun 9/1/22						_									
197 197 Chemical	2.6.25.5	Shipping and Delivery of Plant to site	45 days Mon 10/1/22			Wed 23/2/22				6 755,76	7,780,79										
198 198 BR	2.6.26	BR - pre-treatment fine screens, C11, ref. EQT019	815 days Mon 2/12/19	Wed 23/2/22	Mon 2/12/19	Wed 23/2/22	Thu 14/9	9/23 Mon 2/12	2/ 568 days			•				•					+
199 199 BR	2.6.26.1	Submission for acceptance of purchasing package	180 days Mon 2/12/19	Fri 29/5/20	Mon 2/12/19	Fri 29/5/20	Fri 29/5/	/20 Mon 2/12	2/ 0 days 6,2	2 200											
200 200 BR	2.6.26.2	Invitation of quotations for purchasing package	60 days Sat 30/5/20	Tue 28/7/20	Sat 30/5/20	Tue 28/7/20	Tue 28/7	7/20 Sat 30/5/	20 0 days 19	9 201			*	-							
201 201 BR	2.6.26.3	Acceptance of conforming quotation	30 days Wed 29/7/20	Thu 27/8/20	Wed 29/7/20	Thu 27/8/20	Thu 27/8	8/20 Wed 29/7	7/ 0 days 20	0 459,47	2			 -	-						
202 202 BR	2.6.26.4	Manufacturing and Factory Acceptance Test of Plant	240 days Sat 15/5/21	Sun 9/1/22	Sat 15/5/21	Sun 9/1/22	Sun 7/1/	/24 Sat 13/5/	23 0 days 45	9,472 203											
203 203 BR	2.6.26.5	Shipping and Delivery of Plant to site	45 days Mon 10/1/22	Wed 23/2/22	Mon 10/1/22	Wed 23/2/22	Wed 21/	/2/ Mon 8/1/	24 312 days 20	2 655						<u>+</u>			4		
204 204 BR	2.6.27	BR - air diffusion system (Marking Scheme Approach), EQT017	815 days Mon 2/12/19	Wed 23/2/22	Mon 2/12/19	Wed 23/2/22	Mon 28/	/8/ Mon 2/12	2/ 551 days			-									
205 205 BR	2.6.27.1	Submission for acceptance of purchasing package including proposed marking	180 days Mon 2/12/19	Fri 29/5/20	Mon 2/12/19	Fri 29/5/20	Fri 29/5/	/20 Mon	0 days 6,2	2 206		-									
		scheme						2/12/19													
206 206 BR	2.6.27.2	Invitation of quotations for purchasing package	60 days Sat 30/5/20	Tue 28/7/20	Sat 30/5/20	Tue 28/7/20	Tue 28/7	7/20 Sat 30/5/	20 0 days 20	5 207		_	<u> </u>	-							
207 207 BR	2.6.27.3	Acceptance of conforming quotation	30 days Wed 29/7/20	Thu 27/8/20	Wed 29/7/20	Thu 27/8/20	Thu 27/8	8/20 Wed 29/7	7/ 0 days 20	6 459,47	2	_		<u> </u>	_						
208 208 BR	2.6.27.4	Manufacturing and Factory Acceptance Test of Plant	240 days Sat 15/5/21	Sun 9/1/22	Sat 15/5/21	Sun 9/1/22	Thu 21/1	12/ Wed 26/4	4/ 0 days 45	9,472 209		-									
209 209 BR	2.6.27.5	Shipping and Delivery of Plant to site	45 days Mon 10/1/22									-									
										_ 030		-							1		
210 210 BR	2.6.28	BR - submersible mixers, C11, EQT020	815 days Mon 2/12/19																		
211 211 BR	2.6.28.1	Submission for acceptance of purchasing package	180 days Mon 2/12/19			Fri 29/5/20		/20 Mon 2/12													
212 212 BR	2.6.28.2	Invitation of quotations for purchasing package	60 days Sat 30/5/20	Tue 28/7/20	Sat 30/5/20	Tue 28/7/20	Tue 28/7	7/20 Sat 30/5/	20 0 days 21	1 213			¥	-]							
213 213 BR	2.6.28.3	Acceptance of conforming quotation	30 days Wed 29/7/20	Thu 27/8/20	Wed 29/7/20	Thu 27/8/20	Thu 27/8	8/20 Wed 29/7	7/ 0 days 21	2 459,47	2			1	1						
214 214 BR	2.6.28.4	Manufacturing and Factory Acceptance Test of Plant	240 days Sat 15/5/21	Sun 9/1/22	Sat 15/5/21	Sun 9/1/22	Sun 4/2/	/24 Sat 10/6/	23 0 days 45	9,472 215											
215 215 BR	2.6.28.5	Shipping and Delivery of Plant to site	45 days Mon 10/1/22	Wed 23/2/22	Mon 10/1/22	Wed 23/2/22	Wed 20/	/3/ Mon 5/2/	24 340 days 21	4 657						<u>*</u>			╫		
216 216 BR	2.6.29	BR - mixed liquor return pumps, C11, EQT008	815 days Mon 2/12/19	Wed 23/2/22	Mon 2/12/19	Wed 23/2/22	Fri 27/10	0/23 Mon 2/12	2/ 611 days			-									
217 217 BR	2.6.29.1	Submission for acceptance of purchasing package	180 days Mon 2/12/19	Fri 29/5/20	Mon 2/12/19	Fri 29/5/20	Fri 29/5/	/20 Mon 2/12	2/ 0 days 6,2	2 218			-								
218 218 BR	2.6.29.2	Invitation of quotations for purchasing package	60 days Sat 30/5/20	Tue 28/7/20	Sat 30/5/20	Tue 28/7/20	Tue 28/7	7/20 Sat 30/5/	20 0 days 21	7 219			<u> </u>	<u> </u>							
219 219 BR	2.6.29.3	Acceptance of conforming quotation	30 days Wed 29/7/20	Thu 27/8/20	Wed 29/7/20	Thu 27/8/20	Thu 27/8	8/20 Wed 29/7	7/ 0 days 21	8 459,47	2	_		<u> </u>	_						
220 220 BR	2.6.29.4	Manufacturing and Factory Acceptance Test of Plant	240 days Sat 15/5/21	Sun 9/1/22	Sat 15/5/21	Sun 9/1/22	Mon 19/	/2/ Sun 25/6/	/23 0 days 45	9,472 221		_									
221 221 BR	2.6.29.5	Shipping and Delivery of Plant to site	45 days Mon 10/1/22									_									
222 222 BR	2.6.30	BR - scum removal systems, C11, EQT021, EQT022	815 days Mon 2/12/19							5 655		-							7		
																1					
223 223 BR	2.6.30.1	Submission for acceptance of purchasing package	180 days Mon 2/12/19			Fri 29/5/20		/20 Mon 2/12													
224 224 BR	2.6.30.2	Invitation of quotations for purchasing package	60 days Sat 30/5/20	Tue 28/7/20	Sat 30/5/20	Tue 28/7/20	Tue 28/7	7/20 Sat 30/5/	20 0 days 22	3 225			Ĭ.	-]							
225 BR	2.6.30.3	Acceptance of conforming quotation	30 days Wed 29/7/20	Thu 27/8/20	Wed 29/7/20	Thu 27/8/20	Thu 27/8	8/20 Wed 29/7	7/ 0 days 22	4 459,47	2			* 	-						
226 226 BR	2.6.30.4	Manufacturing and Factory Acceptance Test of Plant	240 days Sat 15/5/21	Sun 9/1/22	Sat 15/5/21	Sun 9/1/22	Wed 20/	/3/ Tue 25/7/	/23 0 days 45	9,472 227											
227 227 BR	2.6.30.5	Shipping and Delivery of Plant to site	45 days Mon 10/1/22	Wed 23/2/22	Mon 10/1/22	Wed 23/2/22	Sat 4/5/2	24 Thu 21/3/	/24 342 days 22	6 659						<u>*</u>			╫		
228 228 BR	2.6.31	BR - aeration blowers (Marking Scheme Approach), EQT039	815 days Mon 2/12/19	Wed 23/2/22	Mon 2/12/19	Wed 23/2/22	Sun 26/1	11 Mon 2/12	2/ 641 days							•					
229 229 BR	2.6.31.1	Submission for acceptance of purchasing package including proposed marking scheme	180 days Mon 2/12/19	Fri 29/5/20	Mon 2/12/19	Fri 29/5/20	Fri 29/5/	/20 Mon 2/12/19	0 days 6,2	2 230			——————————————————————————————————————								
230 230 BR	2.6.31.2	Invitation of quotations for purchasing package	60 days Sat 30/5/20	Tue 28/7/20	Sat 30/5/20	Tue 28/7/20	Tue 28/7	7/20 Sat 30/5/	20 0 days 22	9 231			*	-							
231 231 BR	2.6.31.3	Acceptance of conforming quotation	30 days Wed 29/7/20	Thu 27/8/20	Wed 29/7/20	Thu 27/8/20	Thu 27/8	8/20 Wed 29/7	7/ 0 days 23	0 459,47	2]		+	1						
232 232 BR, FAT	2.6.31.4	Manufacturing and Factory Acceptance Test of Plant (to be witnessed by PM)	240 days Sat 15/5/21	Sun 9/1/22	Sat 15/5/21	Sun 9/1/22	Wed 20/	/3/ Tue 25/7/	/23 0 days 45	9,472 233		1				——————————————————————————————————————					
233 233 BR	2.6.31.5	Shipping and Delivery of Plant to site	45 days Mon 10/1/22	Wed 23/2/22	Mon 10/1/22	Wed 23/2/22	Sat 4/5/2	24 Thu 21/3/	/24 402 days 23	2 660		1				±					
234 234 BR	2.6.32	BR - instrumentations, C11, EQT035	815 days Mon 2/12/19	Wed 23/2/22	Mon 2/12/19	Wed 23/2/22	Tue 5/12	2/23 Mon 2/12	2/ 650 days							•			 	+++	
235 235 BR	2.6.32.1	Submission for acceptance of purchasing package	180 days Mon 2/12/19	Fri 29/5/20	Mon 2/12/19	Fri 29/5/20	Fri 29/5/	/20 Mon 2/12	2/ 0 days 6,2	2 236			<u> </u>								
236 236 BR	2.6.32.2	Invitation of quotations for purchasing package	60 days Sat 30/5/20	Tue 28/7/20	Sat 30/5/20	Tue 28/7/20	Tue 28/7	7/20 Sat 30/5/	20 0 days 23	5 237			<u> </u>								
237 237 BR	2.6.32.3	Acceptance of conforming quotation	30 days Wed 29/7/20	Thu 27/8/20	Wed 29/7/20	Thu 27/8/20	Thu 27/8	8/20 Wed 29/7	7/ 0 days 23	6 459,47	2			<u> </u>							
238 238 BR	2.6.32.4	Manufacturing and Factory Acceptance Test of Plant	240 days Sat 15/5/21			Sun 9/1/22						-									
239 239 BR	2.6.32.5	Shipping and Delivery of Plant to site	45 days Mon 10/1/22									-									
240 240 MFS	2.6.32.6	MFS - Manufacturing and Factory Acceptance Test of Plant	240 days Sat 15/5/21			Sun 9/1/22									#						
241 241 MFS	2.6.32.7	MFS - Shipping and Delivery of Plant to site	45 days Mon 10/1/22	Wed 23/2/22	Mon 10/1/22	Wed 23/2/22	Mon 13/	/5/ Sat 30/3/	24 212 days 24	0 731											
Task Bestwise		Milestone, Tentative Milestone ◆ Sum	nmary	Project Summ	ary I	Manu	al Summary		Late		Critical	Critic	al Split	Progress	Ma	anual Progress	s	lack (Float)		Milestone	(Actual) 🛧
Project: DE/2018/04																					
Date: Thu 2/7/20									p.	5 of 21											
Status Date Sun 28/6/20									Page	5 of 21											

Drainage Services Departme	nt tagion				Shek W	u Hui Fffluer		posed Work Pro			Sewage Treatment Fa	cilities										A = COM
ID ID Text1	WBS	ask Name	Duration Start Finish	Early Start				Float Time F				2020		2021			2022		2023	3		2024
242 242 MFS	2.6.33	MFS - hollow fibre membrane modules (Marking Scheme Approach), ref. EQT02:	between Task Start and Finish 815 days Mon 2/12/19 Wed 23/2/22	Mon 2/12/19	Wed 23/2/22	Tue 20/12	Mon 2/12/.	300 days				Half 1, 2020	LMA		1, 2021 F M A M J	Half 2, 2021 J A S O N	Half 1, 2022	Half 2, 202	22 Half	1. 2023	Half 2, 202	
243 243 MFS	2.6.33.1	Submission for acceptance of purchasing package including proposed marking scheme	180 days Mon 2/12/19 Fri 29/5/20			Fri 29/5/20		0 days 6		244												
244 244 MFS	2.6.33.2	Invitation of quotations for purchasing package	60 days Sat 30/5/20 Tue 28/7/20	Sat 30/5/20	Tue 28/7/20	Tue 28/7/2	20 Sat 30/5/20	0 days 2	243 2	245		-										
245 245 MFS	2.6.33.3	Acceptance of conforming quotation	30 days Wed 29/7/20 Thu 27/8/20							459,472		-										
246 246 MFS	2.6.33.4	Manufacturing of Plant	200 days Sat 15/5/21 Tue 30/11/21				/ Fri 11/3/22			247		-										
247 247 MFS, FAT	2.6.33.5	Factory Acceptance Test of Plant (to be witnessed by PM)	40 days Wed 1/12/21 Sun 9/1/22				2 Tue 27/9/22			248		-			Î							
248 248 MFS	2.6.33.6	Shipping and Delivery of Plant to site	45 days Mon 10/1/22 Wed 23/2/22	Mon 10/1/22	Wed 23/2/22	Tue 20/12/	/ Sun 6/11/22	2 17 days 2	247 6	695		-					<u> </u>					
249 249 MFS	2.6.34	MFS - air scour blowers, C11, ref. EQT040	815 days Mon 2/12/19 Wed 23/2/22	Mon 2/12/19	Wed 23/2/22	Fri 25/3/2	2 Mon 2/12/.	30 days														
250 250 MFS	2.6.34.1	Submission for acceptance of purchasing package	180 days Mon 2/12/19 Fri 29/5/20	Mon 2/12/19	Fri 29/5/20	Fri 29/5/20	0 Mon 2/12/.	0 days 6	6,2 2	251			Ъ									
251 251 MFS	2.6.34.2	Invitation of quotations for purchasing package	60 days Sat 30/5/20 Tue 28/7/20	Sat 30/5/20	Tue 28/7/20	Tue 28/7/2	20 Sat 30/5/20	0 days 2	250 2	252		-	<u></u>	<u> </u>								
252 252 MFS	2.6.34.3	Acceptance of conforming quotation	30 days Wed 29/7/20 Thu 27/8/20	Wed 29/7/20	Thu 27/8/20	Thu 27/8/2	20 Wed 29/7/.	0 days 2	251 4	459,472		-		_								
253 253 MFS	2.6.34.4	Manufacturing and Factory Acceptance Test of Plant	240 days Sat 15/5/21 Sun 9/1/22	Sat 15/5/21	Sun 9/1/22	Tue 8/2/22	2 Mon 14/6/.	0 days 4	459,472 2	254		-										
254 254 MFS	2.6.34.5	Shipping and Delivery of Plant to site	45 days Mon 10/1/22 Wed 23/2/22	Mon 10/1/22	Wed 23/2/22	Fri 25/3/22	2 Wed 9/2/22	2 17 days 2	253 6	696,721		-					<u> </u>					
255 255 MFS	2.6.35	MFS - permeate pumps, C11, ref. EQT024	815 days Mon 2/12/19 Wed 23/2/22	Mon 2/12/19	Wed 23/2/22	Thu 23/6/2	22 Mon 2/12/.	107 days	6	697							•					
256 256 MFS	2.6.35.1	Submission for acceptance of purchasing package	180 days Mon 2/12/19 Fri 29/5/20	Mon 2/12/19	Fri 29/5/20	Fri 29/5/20	0 Mon 2/12/.	0 days 6	6,2 2	257			<u></u>									
257 257 MFS	2.6.35.2	Invitation of quotations for purchasing package	60 days Sat 30/5/20 Tue 28/7/20	Sat 30/5/20	Tue 28/7/20	Tue 28/7/2	20 Sat 30/5/20	0 days 2	256 2	258		-	<u> </u>	<u> </u>								
258 258 MFS	2.6.35.3	Acceptance of conforming quotation	30 days Wed 29/7/20 Thu 27/8/20	Wed 29/7/20	Thu 27/8/20	Thu 27/8/2	20 Wed 29/7/.	0 days 2	257 4	459,472		-		-								
259 259 MFS	2.6.35.4	Manufacturing and Factory Acceptance Test of Plant	240 days Sat 15/5/21 Sun 9/1/22	Sat 15/5/21	Sun 9/1/22	Mon 9/5/2	22 Sun 12/9/21	1 0 days 4	459,472 2	260		-					<u> </u>					
260 260 MFS	2.6.35.5	Shipping and Delivery of Plant to site	45 days Mon 10/1/22 Wed 23/2/22	Mon 10/1/22	Wed 23/2/22	Thu 23/6/2	22 Tue 10/5/22	2 120 days 2	259			-					<u> </u>					
261 261 MFS	2.6.36	MFS - compressed air system, C11, ref. EQT029	815 days Mon 2/12/19 Wed 23/2/22	Mon 2/12/19	Wed 23/2/22	Thu 21/9/	23 Mon 2/12/.	575 days				-					•					_
262 262 MFS	2.6.36.1	Submission for acceptance of purchasing package	180 days Mon 2/12/19 Fri 29/5/20	Mon 2/12/19	Fri 29/5/20	Fri 29/5/20	0 Mon 2/12/.	0 days 6	6,2 2	263		 	——- <u>1</u>									
263 263 MFS	2.6.36.2	Invitation of quotations for purchasing package	60 days Sat 30/5/20 Tue 28/7/20	Sat 30/5/20	Tue 28/7/20	Tue 28/7/2	20 Sat 30/5/20	0 days 2	262 2	264		-	<u> </u>	<u> </u>								
264 264 MFS	2.6.36.3	Acceptance of conforming quotation	30 days Wed 29/7/20 Thu 27/8/20	Wed 29/7/20	Thu 27/8/20	Thu 27/8/2	20 Wed 29/7/.	0 days 2	263 4	459,472		-		-								
265 265 MFS	2.6.36.4	Manufacturing and Factory Acceptance Test of Plant	240 days Sat 15/5/21 Sun 9/1/22	Sat 15/5/21	Sun 9/1/22	Sun 14/1/2	24 Sat 20/5/23	0 days 4	459,472 2	266		-					<u> </u>					
266 266 MFS	2.6.36.5	Shipping and Delivery of Plant to site	45 days Mon 10/1/22 Wed 23/2/22	Mon 10/1/22	Wed 23/2/22	Wed 28/2/	/ Mon 15/1/.	267 days 2	265 7	722							<u>+</u>		— Ⅱ			
267 267 MFS	2.6.37	MFS - instrumentation, C11, ref. EQT035	815 days Mon 2/12/19 Wed 23/2/22	Mon 2/12/19	Wed 23/2/22	Mon 20/1.	Mon 2/12/.	635 days									-					
268 268 MFS	2.6.37.1	Submission for acceptance of purchasing package	180 days Mon 2/12/19 Fri 29/5/20	Mon 2/12/19	Fri 29/5/20	Fri 29/5/20	0 Mon 2/12/.	0 days 6	6,2 2	269			——————————————————————————————————————									
269 269 MFS	2.6.37.2	Invitation of quotations for purchasing package	60 days Sat 30/5/20 Tue 28/7/20	Sat 30/5/20	Tue 28/7/20	Tue 28/7/2	20 Sat 30/5/20	0 days 2	268 2	270			<u>+</u>	<u> </u>								
270 270 MFS	2.6.37.3	Acceptance of conforming quotation	30 days Wed 29/7/20 Thu 27/8/20	Wed 29/7/20	Thu 27/8/20	Thu 27/8/2	20 Wed 29/7/.	0 days 2	269 4	459,472				+								
271 271 MFS	2.6.37.4	Manufacturing and Factory Acceptance Test of Plant	240 days Sat 15/5/21 Sun 9/1/22	Sat 15/5/21	Sun 9/1/22	Thu 14/3/2	24 Wed 19/7/.	0 days 4	459,472 2	272		-					- ¬ Ⅱ					
272 272 MFS	2.6.37.5	Shipping and Delivery of Plant to site	45 days Mon 10/1/22 Wed 23/2/22	Mon 10/1/22	Wed 23/2/22	Sun 28/4/2	24 Fri 15/3/24	327 days 2	271 7	723							<u> </u>		+-+			
273 273 MFS	2.6.38	MFS - chemical storage tanks, C11, ref. EQT025	815 days Mon 2/12/19 Wed 23/2/22	Mon 2/12/19	Wed 23/2/22	Thu 19/1/	23 Mon 2/12/.	17 days	7	701							<u>.</u>					
274 274 MFS	2.6.38.1	Submission for acceptance of purchasing package	180 days Mon 2/12/19 Fri 29/5/20	Mon 2/12/19	Fri 29/5/20	Fri 29/5/20	0 Mon 2/12/.	0 days 6	6,2 2	275												
275 275 MFS	2.6.38.2	Invitation of quotations for purchasing package	60 days Sat 30/5/20 Tue 28/7/20	Sat 30/5/20	Tue 28/7/20	Tue 28/7/2	20 Sat 30/5/20	0 days 2	274 2	276			*	-								
276 276 MFS	2.6.38.3	Acceptance of conforming quotation	30 days Wed 29/7/20 Thu 27/8/20	Wed 29/7/20	Thu 27/8/20	Thu 27/8/2	20 Wed 29/7/.	0 days 2	275 4	459,472				+								
277 277 MFS	2.6.38.4	Manufacturing and Factory Acceptance Test of Plant	240 days Sat 15/5/21 Sun 9/1/22	Sat 15/5/21	Sun 9/1/22	Mon 5/12/	/ Sun 10/4/22	2 0 days 4	459,472 2	278												
278 278 MFS	2.6.38.5	Shipping and Delivery of Plant to site	45 days Mon 10/1/22 Wed 23/2/22	Mon 10/1/22	Wed 23/2/22	Thu 19/1/2	23 Tue 6/12/22	2 330 days 2	277								<u>*-</u> -					
279 279 MFS	2.6.39	MFS - chemical dosing pumps, C11, ref. EQT026	815 days Mon 2/12/19 Wed 23/2/22	Mon 2/12/19	Wed 23/2/22	Thu 19/1/	23 Mon 2/12/.	330 days									o $ o$		 			
280 280 MFS	2.6.39.1	Submission for acceptance of purchasing package	180 days Mon 2/12/19 Fri 29/5/20	Mon 2/12/19	Fri 29/5/20	Fri 29/5/20	0 Mon 2/12/.	0 days 6	6,2 2	281												
281 281 MFS	2.6.39.2	Invitation of quotations for purchasing package	60 days Sat 30/5/20 Tue 28/7/20	Sat 30/5/20	Tue 28/7/20	Tue 28/7/2	20 Sat 30/5/20	0 days 2	280 2	282			*									
282 282 MFS	2.6.39.3	Acceptance of conforming quotation	30 days Wed 29/7/20 Thu 27/8/20	Wed 29/7/20	Thu 27/8/20	Thu 27/8/2	20 Wed 29/7/.	0 days 2	281 4	459,472												
283 283 MFS	2.6.39.4	Manufacturing and Factory Acceptance Test of Plant	240 days Sat 15/5/21 Sun 9/1/22	Sat 15/5/21	Sun 9/1/22	Mon 5/12/	/ Sun 10/4/22	2 0 days 4	459,472 2	284					+							
284 284 MFS	2.6.39.5	Shipping and Delivery of Plant to site	45 days Mon 10/1/22 Wed 23/2/22							702												
285 285 MFS	2.6.40	MFS - return activated sludge pumps (Marking Scheme Approach), ref. EQT010	815 days Mon 2/12/19 Wed 23/2/22														•					
286 286 MFS	2.6.40.1	Submission for acceptance of purchasing package		Mon 2/12/19			0 Mon 2/12/.			287												
287 287 MFS	2.6.40.2	Invitation of quotations for purchasing package	60 days Sat 30/5/20 Tue 28/7/20							288			•									
288 288 MFS	2.6.40.3	Acceptance of conforming quotation	30 days Wed 29/7/20 Thu 27/8/20							459,472												
289 289 MFS	2.6.40.4	Manufacturing and Factory Acceptance Test of Plant	240 days Sat 15/5/21 Sun 9/1/22	sat 15/5/21	sun 9/1/22	Mon 9/5/2	22 Sun 12/9/21	1 0 days 4	459,472 2	290					#							
Bestwise Project: DE/2018/04 Date: Thu 2/7/20		Milestone, Tentative ♥ Milestone ♦ Sur	nnmary Project Sumr	nary I	¶ Manu	al Summary	-	—1 Late			iritical	Critica	al Split	Progress		Manual	Progress	Slack (Flo	pat)	M	ilestone (Actual)	*
Status Date Sun 28/6/20								Pag	ge 6 of 21													

5	Drainage The Government	Services Department of the Hong Kong Special Additional Value Hong Kong Special Additions Value Hong Kong Special Additions Value Hong Kong Special Addition						Shek W	u Hui Ffflue		oosed Work Programm		I or Sewage Treatment Fac	ilities													AECOM
ID	ID Tex	xt1	WBS	Task Name		Finish	Early Start				Float Time Predeces			2020			2021		2022				2023			2	2024
					Start and Finish									Half 1, 20 N D J F	20 M A M J	Half 2, 2020 J A S	O N D J F I			, 2022 M A M	Half 2, 2022	OND	Half 1, 2023	AM	Half 2, 2023		Half 1, 2024 J F M A M
	290 MF		2.6.40.5	Shipping and Delivery of Plant to site	45 days Mon 10/1/22							698															!
291			2.6.41	MFS - membrane tank drain pumps, C11, ref. EQT009	815 days Mon 2/12/19							202															!
	292 MF		2.6.41.1	Submission for acceptance of purchasing package	180 days Mon 2/12/19							293															!
	293 MF		2.6.41.2	Invitation of quotations for purchasing package	60 days Sat 30/5/20			Tue 28/7/20		20 Sat 30/5/20																	!
294	294 MF 295 MF		2.6.41.3	Acceptance of conforming quotation Manufacturing and Factory Acceptance Test of Plant	30 days Wed 29/7/20 240 days Sat 15/5/21					20 Wed 29/7/ 22 Wed 27/10.	. 0 days 293	459,472 296															!
	296 MF		2.6.41.5	Shipping and Delivery of Plant to site	45 days Mon 10/1/22						17 days 295	699															!
297			2.6.42	Plant Service Water System - booster pumps, C11, ref. EQT030	815 days Mon 2/12/19							033								.]							,
	298 MF		2.6.42.1		180 days Mon 2/12/19							299															!
	299 MF		2.6.42.1	Submission for acceptance of purchasing package	60 days Sat 30/5/20			Tue 28/7/20		20 Sat 30/5/20		300															!
			2.6.42.3	Invitation of quotations for purchasing package								459,472															!
300				Acceptance of conforming quotation	30 days Wed 29/7/20 240 days Sat 15/5/21						. 0 days 299																,
	301 MF		2.6.42.4	Manufacturing and Factory Acceptance Test of Plant	, , , , ,					22 Fri 11/3/22	0 days 459,472							H									,
	302 MF		2.6.42.5	Shipping and Delivery of Plant to site	45 days Mon 10/1/22							703															,
303			2.6.43	Plant Service Water System - hydro-pneumatic pressure tanks, C11, ref. EQT030	815 days Mon 2/12/19															1							,
	304 MF		2.6.43.1	Submission for acceptance of purchasing package	180 days Mon 2/12/19							305															,
	305 MF		2.6.43.2	Invitation of quotations for purchasing package	60 days Sat 30/5/20					20 Sat 30/5/20		306															
	306 MF		2.6.43.3	Acceptance of conforming quotation	30 days Wed 29/7/20						. 0 days 305	459,472															!
307			2.6.43.4	Manufacturing and Factory Acceptance Test of Plant	240 days Sat 15/5/21					22 Fri 11/3/22	0 days 459,472							H									,
	308 MF		2.6.43.5	Shipping and Delivery of Plant to site	45 days Mon 10/1/22							703								٦							,
	309 DC		2.6.44	DOU - biotrickling filter (DOU No. 1), C11, ref. EQT028	815 days Mon 2/12/19															1					\Box		,
	310 DC		2.6.44.1	Submission for acceptance of purchasing package	180 days Mon 2/12/19							311															,
	311 DO		2.6.44.2	Invitation of quotations for purchasing package	60 days Sat 30/5/20					20 Sat 30/5/20		312			_												,
	312 DC		2.6.44.3	Acceptance of conforming quotation	30 days Wed 29/7/20					20 Wed 29/7/	. 0 days 311	459,472				-											,
	313 DC		2.6.44.4	Manufacturing and Factory Acceptance Test of Plant	240 days Sat 15/5/21					/ Tue 25/10/.								#									!
	314 DO		2.6.44.5	Shipping and Delivery of Plant to site	45 days Mon 10/1/22							800							_								!
	315 DC		2.6.45	DOU - activated carbon filter (DOU No. 2A, No. 3A, No. 3B), C11, ref. EQT028	875 days Mon 2/12/19																				\Box		!
	316 DC		2.6.45.1	Submission for acceptance of purchasing package	180 days Mon 2/12/19					0 Mon 2/12/		317															!
	317 DC		2.6.45.2	Invitation of quotations for purchasing package	60 days Sat 30/5/20			Tue 28/7/20		20 Sat 30/5/20		318			_												!
	318 DC		2.6.45.3	Acceptance of conforming quotation	30 days Wed 29/7/20							459,472				1											!
319	319 DO	DU	2.6.45.4	Manufacturing and Factory Acceptance Test of Plant	300 days Sat 15/5/21			Thu 10/3/22	Wed 21/6	/ Fri 26/8/22	0 days 459,472	320								1							,
320	320 DO	DU	2.6.45.5	Shipping and Delivery of Plant to site	45 days Fri 11/3/22	Sun 24/4/22	Fri 11/3/22	Sun 24/4/22	Sat 5/8/23	3 Thu 22/6/23	98 days 319	806,811,816															,
321	321 DC	DU	2.6.46	DOU - FRP air ductwork, C11	875 days Mon 2/12/19	Sun 24/4/22	Mon 2/12/19	Sun 24/4/22	Sat 29/7/2	23 Mon 2/12/.	0 days																,
322	322 DO		2.6.46.1	Submission for acceptance of purchasing package	180 days Mon 2/12/19	Fri 29/5/20	Mon 2/12/19	Fri 29/5/20	Fri 29/5/2	0 Mon 2/12/	. 0 days 6,2	323															,
	323 DO		2.6.46.2	Invitation of quotations for purchasing package	60 days Sat 30/5/20	Tue 28/7/20	Sat 30/5/20	Tue 28/7/20	Tue 28/7/2	20 Sat 30/5/20	0 days 322	324															,
324	324 DO	DU	2.6.46.3	Acceptance of conforming quotation	30 days Wed 29/7/20	Thu 27/8/20	Wed 29/7/20	Thu 27/8/20	Thu 27/8/	20 Wed 29/7/	. 0 days 323	459,472															,
	325 DC		2.6.46.4	Manufacturing and Factory Acceptance Test of Plant	300 days Sat 15/5/21			Thu 10/3/22			0 days 459,472							#		1							
	326 DC		2.6.46.5	Shipping and Delivery of Plant to site	45 days Fri 11/3/22					Thu 22/6/23		802,807,812,	8:										1				
	327 Filt		2.6.47	Mis - new replacement filter plates and provision of filter cloths, C11, ref. EQT030																							
	328 Filt		2.6.47.1	Submission for acceptance of purchasing package	180 days Mon 2/12/19							329															
	329 Filt		2.6.47.2	Invitation of quotations for purchasing package	30 days Sat 30/5/20			Sun 28/6/20				330			-												
330	330 Filt		2.6.47.3	Acceptance of conforming quotation	30 days Mon 29/6/20	Tue 28/7/20	Mon 29/6/20	Tue 28/7/20	Thu 30/7/	20 Wed 1/7/20	0 days 329	529															
331	331 Filt	ter Plates	2.6.47.4	Manufacturing and Factory Acceptance Test of Plant	210 days Sat 12/9/20	Fri 9/4/21	Sat 12/9/20	Fri 9/4/21	Sun 9/5/2	1 Mon 12/10.	0 days 529	332															
	332 Filt		2.6.47.5	Shipping and Delivery of Plant to site	45 days Sat 10/4/21	Mon 24/5/21	Sat 10/4/21	Mon 24/5/21	Wed 23/6	/ Mon 10/5/	. 0 days 331	939															
333	333 Filt	ter Press	2.6.48	Mis - membrane filter press system (Cancelled, PPMI-005, to be removed)	540 days Mon 2/12/19	Mon 24/5/21	Mon 2/12/19	Mon 24/5/21	Mon 24/5	/ Mon 2/12/.	0 days					+++		 									
334	334 Filt	ter Press	2.6.48.1	Submission for acceptance of purchasing package	120 days Mon 2/12/19	Mon 30/3/20	Mon 2/12/19	Mon 30/3/20	Mon 30/3	/ Mon 2/12/	. 0 days 6,2	335			•												
335	335 Filt	ter Press	2.6.48.2	Invitation of quotations for purchasing package	60 days Tue 31/3/20	Fri 29/5/20	Tue 31/3/20	Fri 29/5/20	Fri 29/5/2	0 Tue 31/3/20	0 days 334	336															
336	336 Filt	ter Press	2.6.48.3	Acceptance of conforming quotation	30 days Sat 30/5/20	Sun 28/6/20	Sat 30/5/20	Sun 28/6/20	Sun 28/6/	20 Sat 30/5/20	0 days 335	528			_												
337	337 Filt	ter Press	2.6.48.4	Manufacturing and Factory Acceptance Test of Plant	240 days Thu 13/8/20	Fri 9/4/21	Thu 13/8/20	Fri 9/4/21	Fri 9/4/21	Thu 13/8/20	0 days 528	338						- ┐∭									
338	338 Filt	ter Press	2.6.48.5	Shipping and Delivery of Plant to site	45 days Sat 10/4/21	Mon 24/5/21	Sat 10/4/21	Mon 24/5/21	Mon 24/5	/ Sat 10/4/21	0 days 337	923						*									
		Task		Milestone, Tentative	mary	Project Sun	nmary	¶ Manu	al Summary		■ Late		Critical	С	itical Split		Progress	411	Manual Progress		Slack (Floa	t)		Milesto	one (Actual)	*	
Proje	ct: DE/201																										ļ
	Thu 2/7/2										Page 7 of 21	1															
statu	o nate 201	n 28/6/20									rage rof 21	-															

S	Drainage The Government	ge Services Department of of the Hong Kong Special Administrative Region						Shek Wu	ı Hui Efflue		posed Work Programm		1/04 ks for Sewage Treatment Fa	acilities													AEC	OM
ID	ID Te:	ext1	WBS	Task Name		Finish	Early Start				Float Time Predeces			2020				2021		2022				2023			2024	
339	339 PS	ST No. 4 & No. 6	2.6.49	Mis - replacement of PST no. 4 and no. 6, C11, ref. EQT037	Start and Finish 414 days Mon 2/12/19	Mon 18/1/21	Mon 2/12/19	Mon 18/1/21	Thu 11/2	/21 Mon 2/12	24 days			. Half 1,	, 2020 F M A M	Half 2,	2020 S O N	Half 1, 2021 D J F M A	Half 2, 2021	Half 1,		Half 2, 2022 J A S		Half 1, 2023 J F M	A M J	Half 2, 2023 J A S O	Half 1, 2024 N D J F M	AM
340			2.6.49.1	Submission for acceptance of purchasing package	90 days Mon 2/12/19					/20 Mon 2/12/		341			<u>_</u>													
341	341 PS	ST No. 4 & No. 6	2.6.49.2	Invitation of quotations for purchasing package	30 days Sun 1/3/20	Mon 30/3/20	Sun 1/3/20	Mon 30/3/20	Wed 1/4/	/20 Mon 2/3/2	0 days 340	342		_	 													
342	342 PS	ST No. 4 & No. 6	2.6.49.3	Acceptance of conforming quotation	14 days Tue 31/3/20	Mon 13/4/20	Tue 31/3/20	Mon 13/4/20	Wed 15/4	4/ Wed 1/4/2	0 days 341	526			<u> </u>													
343	343 PS	ST No. 4 & No. 6	2.6.49.4	Manufacturing and Factory Acceptance Test of Plant	100 days Fri 11/9/20	Sat 19/12/20	Fri 11/9/20	Sat 19/12/20	Tue 12/1,	/21 Mon 5/10/	0 days 526	344						- 1										
344	344 PS	ST No. 4 & No. 6	2.6.49.5	Shipping and Delivery of Plant to site	30 days Sun 20/12/20	Mon 18/1/21	Sun 20/12/20	Mon 18/1/21	Thu 11/2	/21 Wed 13/1/	21 days 343	896		_				<u>+</u>										
345	345 Te	emp Filtrate	2.6.50	Mis - filtrate lift pumps and filtrate transfer pumps, C11, ref. EQT011	292 days Mon 2/3/20	Fri 18/12/20	Mon 2/3/20	Fri 18/12/20	Mon 18/	1/ Mon 2/3/2	0 31 days				•			<u> </u>										
346	346 Te	emp Filtrate	2.6.50.1	Submission for acceptance of purchasing package	29 days Mon 2/3/20	Mon 30/3/20	Mon 2/3/20	Mon 30/3/20	Mon 30/3	3/ Mon 2/3/2	0 days	347			+													
347	347 Te	emp Filtrate	2.6.50.2	Invitation of quotations for purchasing package	30 days Tue 31/3/20	Wed 29/4/20	Tue 31/3/20	Wed 29/4/20	Wed 29/4	4/ Tue 31/3/2	0 days 346	348			+													
348	348 Te	emp Filtrate	2.6.50.3	Acceptance of conforming quotation and acceptance for Manufacture	14 days Thu 30/4/20	Wed 13/5/20	Thu 30/4/20	Wed 13/5/20	Wed 13/5	5/ Thu 30/4/2	0 0 days 347	530,349			<u>*</u>													
349	349 Te	emp Filtrate	2.6.50.4	Manufacturing and Factory Acceptance Test of Plant	174 days Thu 14/5/20	Tue 3/11/20	Thu 14/5/20	Tue 3/11/20	Fri 4/12/2	20 Sun 14/6/2	0 0 days 348	350			†													
350	350 Te	emp Filtrate	2.6.50.5	Shipping and Delivery of Plant to site	45 days Wed 4/11/20	Fri 18/12/20	Wed 4/11/20	Fri 18/12/20	Mon 18/1	1/ Sat 5/12/2	30 days 349	884					<u>*</u>	-										
351	351 PV	V	2.6.51	Mis - pv system, C11, ref. EQT041	314 days Wed 1/7/20	Mon 10/5/21	Wed 1/7/20	Mon 10/5/21	Wed 24/	5/ Fri 15/7/2	744 days								1				-		++			
352	352 PV	V	2.6.51.1	Submission for acceptance of purchasing package	180 days Wed 1/7/20	Sun 27/12/20	Wed 1/7/20	Sun 27/12/20	Tue 14/6,	/22 Fri 17/12/2	1 0 days	353						-										
	353 PV		2.6.51.2	Invitation of quotations for purchasing package	30 days Mon 28/12/20							354																
	354 PV		2.6.51.3	Acceptance of conforming quotation	14 days Wed 27/1/21	Tue 9/2/21	Wed 27/1/21	Tue 9/2/21	Thu 23/2	/23 Fri 10/2/2		355																
	355 PV		2.6.51.4	Commencement of Design Work	90 days Wed 10/2/21							679,678																
	356		2.7	Subletting of major sub-contract works	890 days Mon 2/12/19	Mon 9/5/22	Mon 2/12/19														-				++			
	357		2.7.1	Planned Completion Date for Procurement of major plant and materials	0 days Thu 12/8/21			Thu 12/8/21				days							12/	'B								
	358 BE		2.7.2	General - Independent BEAM Plus Consultant (04SC007)	150 days Wed 1/1/20			Fri 29/5/20						•		'												
	359 BE		2.7.2.1	Submission for acceptance of proposed Independent BEAM Plus Consultant	60 edays Wed 1/1/20					20 Wed 1/1/2					-]													
	360 BE		2.7.2.2	Acceptance of proposed Independent BEAM Plus Consultant	14 edays Sun 1/3/20			Sun 15/3/20				361		_														
361			2.7.2.3	Engagement with an Independent BEAM Plus Consultant	7 days Sun 15/3/20			Sat 21/3/20		20 Sun 15/3/2		362		_		29/5												
362			2.7.2.4 2.7.3	Latest Date for engagement with an independent BEAM Plus Consultant	0 days Fri 29/5/20			Fri 29/5/20 Wed 25/11/20				days				2973												
	363 M			General - Conduction of Pump sump physical model test	195 days Fri 15/5/20							-d205		_														
364	364 Mo		2.7.3.1	Submission for acceptance of proposed hydraulic laboratory to conduct the test Invitation to quotations for provision of service	7 edays Fri 15/5/20 7 edays Fri 22/5/20					20 Fri 15/5/20 20 Fri 22/5/20		366			1 7]												
	366 M		2.7.3.2	Acceptance of proposed hydraulic laboratory	6 days Fri 29/5/20			Wed 3/6/20				368,367		_		֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֡֓֡֓֡֓֓֡֓												
367			2.7.3.4	Commencement of detailed proposal and conduction of test	175 days Thu 4/6/20			Wed 25/11/20				300,307		_														
368			2.7.3.5	Latest Date for engagement with an hydraulic laboratory	0 days Fri 5/6/20		Fri 5/6/20	Fri 5/6/20		D Fri 5/6/20	0 days 366			_		5,6												
	369 ICE		2.7.4	General - Independent Checking Engineer (04SC004)	90 days Wed 1/1/20			Mon 30/3/20							_,													
	370 ICE		2.7.4.1	Submission for acceptance of proposed Independent Checking Engineer	60 edays Wed 1/1/20	Sun 1/3/20	Wed 1/1/20			20 Wed 1/1/2		edays 371		 	_													
	371 ICE		2.7.4.2	Acceptance of proposed Independent Checking Engineer	14 edays Sun 1/3/20	Sun 15/3/20	Sun 1/3/20	Sun 15/3/20				372		-														
372	372 ICE	Œ.	2.7.4.3	Engagement with an Independent Checking Engineer	7 days Sun 15/3/20	Sat 21/3/20	Sun 15/3/20	Sat 21/3/20	Mon 30/3	3/ Tue 24/3/2	0 9 days 371	373		_														
	373 ICE		2.7.4.4	Latest Date for engagement with an ICE	0 days Mon 30/3/20									1	30/3													
	374 LA		2.7.5	General - Lifting Appliances (04SC008)	695 days Wed 1/1/20	Thu 25/11/21	Wed 1/1/20	Thu 25/11/21	Wed 5/4	/23 Wed 1/1/2	0 496 days				+	\perp				<u> </u>								
375	375 LA	A	2.7.5.1	Submission for acceptance of subcontract works package	90 edays Wed 1/1/20	Tue 31/3/20	Wed 1/1/20	Tue 31/3/20	Tue 31/3/	/20 Wed 1/1/2	0 0 edays 6SS+30 e	edays 376		┤ ┃┃ ↓														
376	376 LA	A	2.7.5.2	Invitation of tender for subcontract works	45 edays Tue 31/3/20	Fri 15/5/20	Tue 31/3/20	Fri 15/5/20	Fri 15/5/2	20 Tue 31/3/2	0 0 edays 375	377			4													
377	377 LA	4	2.7.5.3	Acceptance of conforming tender	14 edays Fri 15/5/20	Fri 29/5/20	Fri 15/5/20	Fri 29/5/20	Sun 27/9	/20 Fri 15/5/20	0 edays 376	378				,												
378	378 LA	4	2.7.5.4	Sub-contract work commencement date	0 days Fri 29/5/20	Fri 29/5/20	Fri 29/5/20	Fri 29/5/20	Sun 27/9	/20 Sun 27/9/2	0 101 days 377	472				29/5			-									
379	379 LA	4	2.7.5.5	Manufacturing and Factory Acceptance Test of Plant	150 days Sat 15/5/21	Mon 11/10/2	1 Sat 15/5/21	Mon 11/10/21	Tue 14/2	/23 Sun 18/9/2	2 0 days 459,472	380								- 1								
380	380 LA	A	2.7.5.6	Shipping and Delivery of Plant to site	45 days Tue 12/10/21	Thu 25/11/21	Tue 12/10/21	Thu 25/11/21	Fri 31/3/2	23 Wed 15/2/	62 days 379	547,599,6	46,6							<u>+</u>				+				
381	381 Me	lech	2.7.6	General - Mechanical Installations	120 days Mon 2/11/20	Mon 1/3/21	Mon 2/11/20	Mon 1/3/21	Mon 1/3	/21 Wed 18/1	0 days						-											
382	382 Me	1ech	2.7.6.1	Submission for acceptance of subcontract works package	60 days Mon 2/11/20	Thu 31/12/20	Mon 2/11/20	Thu 31/12/20	Sat 16/1/	21 Wed 18/1	0 days	383						- 1										
383	383 Me	lech	2.7.6.2	Invitation of tender for subcontract works	30 days Fri 1/1/21	Sat 30/1/21	Fri 1/1/21	Sat 30/1/21	Mon 15/2	2/ Sun 17/1/2	1 0 days 382	384						-										
384	384 Me	1ech	2.7.6.3	Acceptance of conforming tender	14 days Sun 31/1/21	Sat 13/2/21	Sun 31/1/21	Sat 13/2/21	Mon 1/3/	/21 Tue 16/2/2	1 16 days 383	385						*+										
385	385 Me	1ech	2.7.6.4	Sub-contract work commencement date	0 days Mon 1/3/21	Mon 1/3/21	Mon 1/3/21	Mon 1/3/21	Mon 1/3/	/21 Mon 1/3/2	1 0 days 384							● 1/3										
386	386 Ele	lec	2.7.7	General - Electrical Installations	120 days Mon 2/11/20	Mon 1/3/21	Mon 2/11/20	Mon 1/3/21	Mon 1/3	/21 Tue 17/11	0 days						-											
387	387 Ele	lec	2.7.7.1	Submission for acceptance of subcontract works package	60 edays Mon 2/11/20	Fri 1/1/21	Mon 2/11/20	Fri 1/1/21	Sat 16/1/	21 Tue 17/11	0 edays	388						-										
		Task		Milestone, Tentative Milestone Milestone Milestone	mary	Project Sum	mary	¶ Manua	al Summary	_	Late		Critical		Critical Split			Progress		Manual Progress		Slack (Float)		111 111 111	Mileston	e (Actual)		
Proje	ct: DE/201																											
	Thu 2/7/2	/20 un 28/6/20									Page 8 of 2	1																
Sidill	- Pate 30	20/0/20									. ugc 0 01 2																	

5	Drainage S	Services Department to Hong Kong Special Administrative Region						Shek W	u Hui Efflue		posed Work Programme ant - Main Works Stage		I or Sewage Treatment Fa	acilities													AECC	M
ID	ID Text1	1	WBS	Task Name		Finish	Early Start				Float Time Predecess			2020			2021		2022				2023				2024	
					between Task Start and Finish									Half 1, 2020 N D J F M	A M A	Half 2, 20		Half 2, 2021	Half 1, 20	22 M A M J	Half 2, 2022 J A S	o I N I D	Half 1, 202	23 M A M	Half 2, 2	023 S O N D	Half 1, 2024	A M
388	388 Elec		2.7.7.2	Invitation of tender for subcontract works	30 edays Fri 1/1/21	Sun 31/1/21	Fri 1/1/21	Sun 31/1/21	Mon 15/2	2/ Sat 16/1/21	0 edays 387	389					-											
389	389 Elec		2.7.7.3	Acceptance of conforming tender	14 edays Sun 31/1/21	Sun 14/2/21	Sun 31/1/21	Sun 14/2/21	Mon 1/3/	21 Mon 15/2/.	15.38 edays 388	390					│						1 11 11 1					
390	390 Elec		2.7.7.4	Sub-contract work commencement date	0 days Mon 1/3/21	Mon 1/3/21	Mon 1/3/21	Mon 1/3/21	Mon 1/3/	21 Mon 1/3/21	0 days 389						€ 1/3						1 11 11 1					
391	391 SCA	DA, CMMS, PMS, IDMS	2.7.8	General - Facility Computerised Systems (SCADA, CMMS, PMS, IDMS)	732 days Fri 8/5/20	Mon 9/5/22	Fri 8/5/20	Mon 9/5/22	Wed 14/6	6/ Fri 8/5/20	401 days					Ш									_			
392	392 SCAE	DA :	2.7.8.1	Submission for acceptance of subcontract works package	60 edays Fri 8/5/20	Tue 7/7/20	Fri 8/5/20	Tue 7/7/20	Wed 15/7	7/ Fri 8/5/20	0 edays	393											$\ \ \ ^{\gamma}$					
	393 SCAE		2.7.8.2	Invitation of tender for subcontract works	30 edays Tue 7/7/20			Thu 6/8/20		20 Wed 15/7/.		394											$\ \ \ ^{\gamma}$					
	394 SCAE		2.7.8.3		14 edays Thu 6/8/20									_		Tļ I							$\ \ \ ^{\gamma}$					
				Acceptance of conforming tender	,					20 Fri 14/8/20		395											1 11 11 1					
395	395 SCAE	DA :	2.7.8.4	Sub-contract work commencement date	0 days Thu 20/8/20	Thu 20/8/20	Thu 20/8/20	Thu 20/8/20	Fri 28/8/2	20 Fri 28/8/20	8 days 394	459,472					20/8	111					$\ \ \ ^{\gamma}$					
396	396 SCAE	DA :	2.7.8.5	Manufacturing of Plant, PLC for IW	300 days Sat 15/5/21	Thu 10/3/22	Sat 15/5/21	Thu 10/3/22	Wed 22/3	3/ Fri 27/5/22	0 days 459,472	397											1 11 11 1					
397	397 SCAE	DA, FAT	2.7.8.6	Factory Acceptance Test of Plant, PLC for IW (To be witnessed by PM)	60 days Fri 11/3/22	Mon 9/5/22	Fri 11/3/22	Mon 9/5/22	Sun 21/5/	/23 Thu 23/3/2	87 days 396	577,624,665,7	7:							_								
398	398 SCAE	DA :	2.7.8.7	Manufacturing of Plant, PLC for PST	300 days Sat 15/5/21	Thu 10/3/22	Sat 15/5/21	Thu 10/3/22	Tue 7/3/2	23 Thu 12/5/2	0 days 459,472	399											4 '					
399	399 SCAE	DA, FAT	2.7.8.8	Factory Acceptance Test of Plant, PLC for PST (To be witnessed by PM)	60 days Fri 11/3/22	Mon 9/5/22	Fri 11/3/22	Mon 9/5/22	Sat 6/5/2	3 Wed 8/3/23	3 221 days 398	577,624,665,7	7:							_								
400	400 SCAE	DA :	2.7.8.9	Manufacturing of Plant, PLC for BR2A &B	300 days Sat 15/5/21	Thu 10/3/22	Sat 15/5/21	Thu 10/3/22	Mon 30/1	L/ Wed 6/4/22	0 days 459,472	401											4 '					
401	401 SCAE	DA, FAT	2.7.8.10	Factory Acceptance Test of Plant, PLC for BR2A &B (To be witnessed by PM)	60 days Fri 11/3/22	Mon 9/5/22	Fri 11/3/22	Mon 9/5/22	Fri 31/3/2	23 Tue 31/1/2	3 47 days 400	577,624,665,7	7:										4444					
402	402 SCAE		2.7.8.11	Manufacturing of Plant, PLC for MFB2	300 days Sat 15/5/21	Thu 10/3/22	Sat 15/5/21	Thu 10/3/22	Sun 7/5/2	23 Tue 12/7/2	2 0 days 459,472	403								[$(\ \ \)$					
	403 SCAE		2.7.8.12	Factory Acceptance Test of Plant, PLC for MFB2 (To be witnessed by PM)	60 days Fri 11/3/22			Mon 9/5/22		23 Mon 8/5/23		577,624,665,7	7			$\ \ $												
												5,1,024,005,1																
	404 BS		2.7.9	General - Building Services Installations	119 days Mon 2/11/20					/21 Tue 17/11													4 '					
405	405 BS		2.7.9.1	Submission for acceptance of subcontract works package	60 edays Mon 2/11/20	Fri 1/1/21	Mon 2/11/20	Fri 1/1/21	Sat 16/1/	21 Tue 17/11/.	0 edays	406											4 '					
406	406 BS		2.7.9.2	Invitation of tender for subcontract works	30 edays Fri 1/1/21	Sun 31/1/21	Fri 1/1/21	Sun 31/1/21	Mon 15/2	2/ Sat 16/1/21	0 edays 405	407					 						4 '					
407	407 BS		2.7.9.3	Acceptance of conforming tender	14 edays Sun 31/1/21	Sun 14/2/21	Sun 31/1/21	Sun 14/2/21	Mon 1/3/	'21 Mon 15/2/.	15 edays 406	408											4 '					
408	408 BS		2.7.9.4	Sub-contract work commencement date	0 days Mon 1/3/21	Mon 1/3/21	Mon 1/3/21	Mon 1/3/21	Mon 1/3/	'21 Mon 1/3/21	0 days 407						€ 1/3						4 '					
409	409 MVA	AC :	2.7.10	General - Mechanical Ventilation and Air Conditioning Installation	119 days Mon 2/11/20	Mon 1/3/21	Mon 2/11/20	Mon 1/3/21	Mon 1/3/	/21 Tue 17/11	. 0 days												4 '					
410	410 MVA	AC :	2.7.10.1	Submission for acceptance of subcontract works package	60 days Mon 2/11/20	Thu 31/12/20	Mon 2/11/20	Thu 31/12/20	Fri 15/1/2	21 Tue 17/11/.	0 days	411											$H \parallel \parallel \parallel \parallel$					
411	411 MVA	kC :	2.7.10.2	Invitation of tender for subcontract works	30 edays Thu 31/12/20	Sat 30/1/21	Thu 31/12/20	Sat 30/1/21	Mon 15/2	2/ Sat 16/1/21	0.63 edays 410	412		_			 						4 '					
412	412 MVA	AC :	2.7.10.3	Acceptance of conforming tender	14 days Sun 31/1/21	Sat 13/2/21	Sun 31/1/21	Sat 13/2/21	Sun 28/2/	/21 Mon 15/2/.	15 days 411	413											4 '					
	413 MVA		2.7.10.4	Sub-contract work commencement date	0 days Mon 1/3/21	Mon 1/3/21	Mon 1/3/21	Mon 1/3/21									€ 1/3						4 '					
					, , , , ,									_									4 '					
	414 Gens		2.7.11	General - Emergency Power Generator Set (04SC006)	104 days Wed 1/7/20					1 Wed 1/7/20													4 '					
415	415 Gens	set	2.7.11.1	Submission for acceptance of subcontract works package	60 edays Wed 1/7/20	Sun 30/8/20	Wed 1/7/20	Sun 30/8/20	Sun 30/8/	/20 Wed 1/7/20	0 edays	416											4 '					
416	416 Gens	set :	2.7.11.2	Invitation of tender for subcontract works	30 edays Sun 30/8/20	Tue 29/9/20	Sun 30/8/20	Tue 29/9/20	Tue 29/9/	/20 Sun 30/8/20	0 edays 415	417											4 '					
417	417 Gens	set :	2.7.11.3	Acceptance of conforming tender	14 edays Tue 29/9/20	Tue 13/10/20	Tue 29/9/20	Tue 13/10/20	Fri 5/2/21	Tue 29/9/20	0 edays 416	418					*						4 '					
418	418 Gens	set :	2.7.11.4	Sub-contract work commencement date	0 days Tue 13/10/20	Tue 13/10/20	Tue 13/10/20	Tue 13/10/20	Fri 5/2/21	Fri 5/2/21	0 days 417	826,535					€ 13/10						4 '					
419	419 Pb		2.7.12	General - Plumbing Installation	74 days Fri 1/5/20	Tue 14/7/20	Fri 1/5/20	Tue 14/7/20	Sun 2/1/2	22 Fri 1/5/20	537 days				•								4 '					
420	420 Pb		2.7.12.1	Submission for acceptance of subcontract works package	30 edays Fri 1/5/20	Sun 31/5/20	Fri 1/5/20	Sun 31/5/20	Thu 25/11	1/ Fri 1/5/20	0 edays 6SS+30 e	days 421		1	→								4 '					
421	421 Pb		2.7.12.2	Invitation of tender for subcontract works	30 edays Sun 31/5/20	Tue 30/6/20	Sun 31/5/20	Tue 30/6/20	Sun 26/12	2/ Fri 26/11/2	1 0 edays 420	422		-		.							4 '					
422	422 Pb		2.7.12.3	Acceptance of conforming tender	14 edays Tue 30/6/20	Tue 14/7/20	Tue 30/6/20	Tue 14/7/20	Sun 9/1/2	22 Sun 26/12/.	0 edays 421	423		-		h							4 '					
423	423 Pb		2.7.12.4	Sub-contract work commencement date	0 days Tue 14/7/20	Tue 14/7/20	Tue 14/7/20	Tue 14/7/20	Sun 9/1/2	22 Sun 9/1/22	0 days 422	858		-		a 14/7							4 '					
	424 FSI		2.7.13	General - Fire Services Installation	123 days Fri 1/5/20					/22 Fri 1/5/20	721 days					Ш							$\ \ \ ^{\prime}$					
												425											$\ \ \ ^{\prime}$					
	425 FSI		2.7.13.1	Submission for acceptance of subcontract works package	60 days Fri 1/5/20			Mon 29/6/20			0 days	426											$\ \ \ ^{\prime}$					
	426 FSI		2.7.13.2	Invitation of tender for subcontract works	30 days Tue 30/6/20							427											$\ \ \ ^{\prime}$					
427	427 FSI		2.7.13.3	Acceptance of conforming tender	14 days Thu 30/7/20	Wed 12/8/20	Thu 30/7/20	Wed 12/8/20	Mon 22/8	3/ Tue 9/8/22	19 days 426	428											$\ \ \ ^{r}$					
428	428 FSI		2.7.13.4	Sub-contract work commencement date	0 days Tue 1/9/20	Tue 1/9/20	Tue 1/9/20	Tue 1/9/20	Tue 23/8/	/22 Tue 23/8/22	2 0 days 427	841					1/9						$\ \ \ ^{\prime}$					
429	429 Eartl	h	2.7.14	General - Earthing and Lightning Protection System	91 days Thu 2/7/20	Thu 1/10/20	Thu 2/7/20	Thu 1/10/20	Tue 20/4/	/21 Fri 5/2/21	201 days				•	++++	H -						$\ \ \ ^{\prime}$					
430	430 Earth	n :	2.7.14.1	Submission for acceptance of subcontract works package	30 edays Thu 2/7/20	Sat 1/8/20	Thu 2/7/20	Sat 1/8/20	Sun 7/3/2	21 Fri 5/2/21	0 edays	431											$\ \ \ ^{\prime}$					
431	431 Earth	n :	2.7.14.2	Invitation of tender for subcontract works	30 edays Sat 1/8/20	Mon 31/8/20	Sat 1/8/20	Mon 31/8/20	Tue 6/4/2	21 Sun 7/3/21	0 edays 430	432											$\ \ \ ^{\prime}$					
432	432 Earth	h :	2.7.14.3	Acceptance of conforming tender	14 edays Mon 31/8/20	Mon 14/9/20	Mon 31/8/20	Mon 14/9/20	Tue 20/4/	/21 Tue 6/4/21	17 edays 431	433					<u> </u>						$\ \ \ ^{\prime}$					
433	433 Earth	n :	2.7.14.4	Sub-contract work commencement date	0 days Thu 1/10/20	Thu 1/10/20	Thu 1/10/20	Thu 1/10/20	Tue 20/4/	/21 Tue 20/4/2:	1 0 days 432	531					● 1/10						$\ \ \ ^{\prime}$					
	434 CCT\		2.7.15	General - CCTV Installation	294 days Mon 1/6/20									-		Щ							$\ \ \ ^{\prime}$					
	435 CCT\											426											$\ \ \ '$					
			2.7.15.1	Submission for acceptance of subcontract works package	30 edays Mon 1/6/20			Wed 1/7/20				436																
436	436 CCT\		2.7.15.2	Invitation of tender for subcontract works	30 edays Wed 1/7/20	Fri 31/7/20	Wed 1/7/20	Fri 31/7/20	Fri 31/7/2	20 Wed 1/7/20	0 edays 435	437																
		Task		Milestone, Tentative	mmary	Project Sum	nmary	Manu	al Summary	-	Late		Critical	Critical	Split		Progress		Manual Progress -		Slack (Float)	_		Mile	stone (Actual)	*		
Proje	ct: DE/2018																											
_	Thu 2/7/20																											
Statu	s Date Sun	28/6/20									Page 9 of 21																	

5	Drainage	Services Department (the long tong Special Administrative region						Shek Wi	ı Hui Effluer		posed Work Programme for DE/2018/04 ant - Main Works Stage 1 E&M Works for Sewage Treat	patment Facilities AECC	M
ID	ID Tex	rt1	WBS	Task Name	Duration Start	Finish	Early Start				Float Time Predecessors Successors Resource Name		—
					between Task Start and Finish		,					Haif 1, 2020 Haif 2, 2020 Haif 2, 2021 Haif 1, 2022 Haif 2, 2023 Haif 2, 2023 Haif 1, 2024 Haif 2, 2023 Haif 3, 2024 N D J F M A M J J A S O N D J F M	а м
437	437 CCT	TV :	2.7.15.3	Acceptance of conforming tender	14 edays Fri 31/7/20	Fri 14/8/20	Fri 31/7/20	Fri 14/8/20	Fri 14/8/20	Fri 31/7/20	0 edays 436 438		
438	438 CCT	TV :	2.7.15.4	Sub-contract work commencement date	0 days Fri 14/8/20	Fri 14/8/20	Fri 14/8/20	Fri 14/8/20	Fri 14/8/20	Fri 14/8/20	0 days 437 439		
439	439 CCT	rv :	2.7.15.5	Design, Procurements and Delivery to Site	220 days Fri 14/8/20	Sun 21/3/21	Fri 14/8/20	Sun 21/3/21	Sun 21/3/2	1 Fri 14/8/20	0 days 438		
440	440 Civi	il :	2.7.16	General - Civil Construction Work for underground pipework	121 days Tue 1/9/20	Thu 31/12/20	Tue 1/9/20	Thu 31/12/20	Thu 31/12	Tue 1/9/20	0 days		
441	441 Civi	il :	2.7.16.1	Submission for acceptance of subcontract works package	30 days Tue 1/9/20	Wed 30/9/20	Tue 1/9/20	Wed 30/9/20	Mon 16/11	Tue 1/9/20	0 days 442		
442	442 Civi	il :	2.7.16.2	Invitation of tender for subcontract works	30 days Thu 1/10/20	Fri 30/10/20	Thu 1/10/20	Fri 30/10/20	Wed 16/12	Tue 17/11/.	0 days 441 443		
443	443 Civi	il :	2.7.16.3	Acceptance of conforming tender	14 days Sat 31/10/20	Fri 13/11/20	Sat 31/10/20	Fri 13/11/20	Wed 30/12	Thu 17/12/.	47 days 442 444		
444	444 Civi	il :	2.7.16.4	Sub-contract work commencement date	0 days Thu 31/12/20	Thu 31/12/20	Thu 31/12/20	Thu 31/12/20	Thu 31/12	Thu 31/12/.	0 days 443	31/12	
445	445 Ten	no Filtrate	2.7.17	General - Civil Construction Work for Temp. Filtrate Eq. System	56 days Mon 2/3/20			Sun 26/4/20					
	446 Ten	•	2.7.17.1	Submission for acceptance of subcontract works package	21 days Mon 2/3/20			Sun 22/3/20					
			2.7.17.2										
447				Invitation of tender for subcontract works	21 days Mon 23/3/20								
	448 Ten		2.7.17.3	Acceptance of conforming tender	14 days Mon 13/4/20								
449	449 Ten	np Filtrate	2.7.17.4	Sub-contract work commencement date	0 days Sun 26/4/20	Sun 26/4/20	Sun 26/4/20	Sun 26/4/20	Tue 28/4/2	0 Tue 28/4/20	0 0 days 448 875	26/4	
450	450 exis	sting genset	2.7.18	Mis - Modification of existing power house	115 days Mon 2/12/19				Wed 25/3,	Mon 2/12/	0 days 527		
451	451 exis	sting genset	2.7.18.1	Submission for acceptance of subcontract works package	90 days Mon 2/12/19	Sat 29/2/20	Mon 2/12/19	Sat 29/2/20	Sat 29/2/2	Mon 2/12/.	0 days 6,2 452		
452	452 exis	sting genset	2.7.18.2	Invitation of tender for subcontract works	21 days Sun 1/3/20	Sat 21/3/20	Sun 1/3/20	Sat 21/3/20	Sat 21/3/2	Sun 1/3/20	0 days 451 453		
453	453 exis	sting genset :	2.7.18.3	Acceptance of conforming tender	3 days Sun 22/3/20	Tue 24/3/20	Sun 22/3/20	Tue 24/3/20	Tue 24/3/2	0 Sun 22/3/20	0 0 days 452 454		
454	454 exis	sting genset :	2.7.18.4	Sub-contract work commencement date	1 day Wed 25/3/20	Wed 25/3/20	Wed 25/3/20	Wed 25/3/20	Wed 25/3/	Wed 25/3/.	0 days 453 527		
455	455	:	2.8	Section 1 - Completion of the design of E&M Works for all works as defined in WI_GP CI. 10.1(a)	485 days Thu 26/3/20	Sat 24/7/21	Thu 26/3/20	Sat 24/7/21	Sat 24/7/2	1 Thu 26/3/2	0 1 day 6,2		
		, PST, BR, MFS,LA,PV,CCTV,P\		Section 1 - Latest Completion Date	0 days Sat 24/7/21			Sat 24/7/21				24/7	
457	457 IW,	, PST, BR, MFS,LA,PV,CCTV,P\	2.8.2	Key Date KD1A, document submissions Part 1	0 days Fri 6/11/20	Fri 6/11/20	Fri 6/11/20	Fri 6/11/20	Fri 6/11/20	Fri 6/11/20	1 day 6SS+340 eday	6/11	
458	458 IW,	, PST, BR, MFS,LA,PV,CCTV,P\	2.8.3	Key Date KD1B, document submissions Part 2	0 days Fri 4/6/21	Fri 4/6/21	Fri 4/6/21	Fri 4/6/21	Fri 4/6/21	Fri 4/6/21	1 day 6SS+550 eday 679		
459	459 IW,	, PST, BR, MFS,LA,PV, DOU,	2.8.4	Document Submissions for design work from formation level up to +8.0 mPD	70 days Fri 28/8/20	Thu 5/11/20	Fri 28/8/20	Thu 5/11/20	Fri 14/5/2	Fri 28/8/20	190 days 36,45,61,67,7142,202,208,2		
460	460 IW	i	2.8.4.1	Civil and dimensional requirement drawings for Inlet Works No. 1	70 days Fri 28/8/20	Thu 5/11/20	Fri 28/8/20	Thu 5/11/20	Fri 6/11/20	Fri 28/8/20	0 days 104,110,116, 457		
461	461 PST	r :	2.8.4.2	Civil and dimensional requirement drawings for PST No. 1 ~ 4	70 days Fri 28/8/20	Thu 5/11/20	Fri 28/8/20	Thu 5/11/20	Fri 6/11/20	Fri 28/8/20	0 days 104,110,116,: 457		
462	462 BR		2.8.4.3	Civil and dimensional requirement drawings for BR No. 2A & 2B	70 days Fri 28/8/20	Thu 5/11/20	Fri 28/8/20	Thu 5/11/20	Fri 6/11/20	Fri 28/8/20	0 days 104,110,116, 457		
463	463 MF	s :	2.8.4.4	Civil and dimensional requirement drawings for MFB No. 2	60 days Fri 28/8/20	Mon 2/11/20	Fri 28/8/20	Mon 2/11/20	Fri 6/11/20	Fri 28/8/20	3.5 days 104,110,116,: 457		
464	464 IW		2.8.4.5	Electrical schematic drawings for Inlet Works No. 1	60 days Mon 7/9/20	Thu 5/11/20	Mon 7/9/20	Thu 5/11/20	Fri 6/11/2	0 Tue 8/9/20	0 0 days 457		
465	465 PST	г :	2.8.4.6	Electrical schematic drawings for PST No. 1~4	60 days Mon 7/9/20	Thu 5/11/20	Mon 7/9/20	Thu 5/11/20	Fri 6/11/2	0 Tue 8/9/20	0 0 days 457		
466	466 BR	:	2.8.4.7	Electrical schematic drawings for BR No. 2A & 2B	60 days Mon 7/9/20	Thu 5/11/20	Mon 7/9/20	Thu 5/11/20	Fri 6/11/2	0 Tue 8/9/20	0 0 days 457		
467	467 MF	S :	2.8.4.8	Electrical schematic drawings for MFB No. 2	60 days Mon 7/9/20	Thu 5/11/20	Mon 7/9/20	Thu 5/11/20	Fri 6/11/2	0 Tue 8/9/20	0 days 457		
468	468 Ten	mp Chemical	2.8.4.9	Electrical schematic drawings for Temporary Chemical Dosing System	60 days Mon 7/9/20	Thu 5/11/20	Mon 7/9/20	Thu 5/11/20	Fri 6/11/2	0 Tue 8/9/20	0 days 457		
469	469 DO	U :	2.8.4.10	Electrical schematic drawings for Deodorisation Systems	60 days Mon 7/9/20	Thu 5/11/20	Mon 7/9/20	Thu 5/11/20	Fri 14/5/2	1 Tue 16/3/.	190 days		
470	470 Che	emical :	2.8.4.11	Electrical schematic drawings for Chemical Systems No. 1 and No. 2	60 days Mon 7/9/20	Thu 5/11/20	Mon 7/9/20	Thu 5/11/20	Fri 14/5/2	1 Tue 16/3/.	190 days		
471	471 IW,	, PST, BR, MFS,LA,PV, DOU	2.8.4.12	Design Calculations for acceptance	60 days Fri 28/8/20	Mon 2/11/20	Fri 28/8/20	Mon 2/11/20	Fri 6/11/20	Fri 28/8/20	3.5 days 104,110,116,: 457		
472	472 IW,	, PST, BR, MFS, LA,PV,DOU, (2.8.5	Document Submissions for design work above level +8.0 mPD	250 days Sun 6/9/20	Fri 14/5/21	Sun 6/9/20	Fri 14/5/21	Fri 4/6/21	Sun 27/9/2	0 0 days 378,36,45,61,105,111,117,1		
473	473 IW,	, PST, BR, MFS	2.8.5.1	CDS001 - General Design Parameters	250 edays Sun 6/9/20	Fri 14/5/21	Sun 6/9/20	Fri 14/5/21	Fri 4/6/21	Sun 27/9/20	0 20.63 edays 458		
474	474 IW,	, PST, BR, MFS	2.8.5.2	CDS002 - Detailed Design for Inlet Works No. 1	250 edays Sun 6/9/20	Fri 14/5/21	Sun 6/9/20	Fri 14/5/21	Fri 4/6/21	Sun 27/9/20	0 20.63 edays 458		
475	475 IW,	, PST, BR, MFS	2.8.5.3	CDS003 - Detailed Design for Primary Sedimentation Tanks	250 edays Sun 6/9/20	Fri 14/5/21	Sun 6/9/20	Fri 14/5/21	Fri 4/6/21	Sun 27/9/20	0 20.63 edays 458		
476	476 IW,		2.8.5.4	CDS004 - Detailed Design for Bioreactor 2A and 2B	250 edays Sun 6/9/20		Sun 6/9/20	Fri 14/5/21			0 20.63 edays 458		
			2.8.5.5	CDS005 - Detailed Design for Membrane Filtration System, Pumps and	250 edays Sun 6/9/20			Fri 14/5/21					
				Membrane Modules									
478	478 IW,	, PST, BR, MFS	2.8.5.6	CDS006 - Detailed Design for Chemical Dosing System	250 edays Sun 6/9/20	Fri 14/5/21	Sun 6/9/20	Fri 14/5/21	Fri 4/6/21	Sun 27/9/20	0 20.63 edays 458		
479	479 IW,	, PST, BR, MFS	2.8.5.7	CDS007-1 - Detailed Design for Deodorisation System, DOU No. 1	250 edays Sun 6/9/20	Fri 14/5/21	Sun 6/9/20	Fri 14/5/21	Fri 4/6/21	Sun 27/9/20	0 20.63 edays 458		
480	480 IW,	, PST, BR, MFS	2.8.5.8	CDS007-2 - Detailed Design for Deodorisation System, DOU No. 2A	250 edays Sun 6/9/20	Fri 14/5/21	Sun 6/9/20	Fri 14/5/21	Fri 4/6/21	Sun 27/9/20	0 20.63 edays 458		
481	481 IW,	, PST, BR, MFS	2.8.5.9	CDS007-3 - Detailed Design for Deodorisation System, DOU No. 3A	250 edays Sun 6/9/20	Fri 14/5/21	Sun 6/9/20	Fri 14/5/21	Fri 4/6/21	Sun 27/9/20	0 20.63 edays 458		
482	482 IW,	, PST, BR, MFS	2.8.5.10	CDS008 - Detailed Design for Membrane Filtration System, Air Blowers, Dosing	250 edays Sun 6/9/20	Fri 14/5/21	Sun 6/9/20	Fri 14/5/21	Fri 4/6/21	Sun 27/9/20	0 20.63 edays 458		
				Systems etc.									
483	483 IW,	, PST, BR, MFS	2.8.5.11	CDS009 - Detailed Design for Plant Service Water System	250 edays Sun 6/9/20	Fri 14/5/21	Sun 6/9/20	Fri 14/5/21	Fri 4/6/21	Sun 27/9/20	0 20.63 edays 458		
		Task		Milestone, Tentative Milestone ◆ Sumr	nary	Project Sum	mary I	1 Manua	I Summary		Late Critical	Critical Split Progress Manual Progress Slack (Float) Milestone (Actual) *	
Proj	ect: DE/201												
	: Thu 2/7/2										Dags 10 of 24		
Stati	is Date Sun	1 28/6/20									Page 10 of 21		

D	Drainage Services Department The Government of the Identification Special Administrative Region						Shek Wu	Hui Effluent			ogramme for DE/2018/04 rks Stage 1 E&M Works for Sewage Treatment Fa	ncilities AEC	MO
ID	ID Text1	WBS Task	x Name		Finish	Early Start	Early Finish	Late Finish	Late Start	Float Time	Predecessors Successors Resource Names	2020 2021 2022 2023 2024	
494	484 IW, PST, BR, MFS	2.8.5.12	CDS012 - Detailed Design for SCADA System	between Task Start and Finish 250 edays Sun 6/9/20	Fri 14/5/21	Sun 6/9/20	Fri 14/5/21	Fri 1/6/21	Sun 27/9/20	20.63 edays	458	Half 1, 2020	
485		2.8.5.13	CDS13-1 - Detailed Design for CCTV System	250 edays Sun 6/9/20		Sun 6/9/20			Sun 27/9/20		458		
486	486 IW, PST, BR, MFS	2.8.5.14	CDS13-2 - Detailed Design for Gas Detection and Monitoring System	250 edays Sun 6/9/20	Fri 14/5/21	Sun 6/9/20	Fri 14/5/21	Fri 4/6/21	Sun 27/9/20	20.63 edays	458		
487	487 IW, PST, BR, MFS	2.8.5.15	CDS14-1 - Detailed Design for Power monitoring system (PMS)	250 edays Sun 6/9/20	Fri 14/5/21	Sun 6/9/20	Fri 14/5/21	Fri 4/6/21	Sun 27/9/20	20.63 edays	458		
488	488 IW, PST, BR, MFS	2.8.5.16	CDS14-2 - Detailed Design for Computerized maintenance and mangement (CMMS)	250 edays Sun 6/9/20	Fri 14/5/21	Sun 6/9/20	Fri 14/5/21	Fri 4/6/21	Sun 27/9/20	20.63 edays	458		
400	489 IW, PST, BR, MFS	2.8.5.17	CDC14.2. Detailed Design for Information and documents recomment outcome	250 adaus 5:25 6 /0 /20	F=: 14/F/21	S 6 /0/20	F=: 14/F/21	F=: 4/C/21	Sum 27/0/20	20 C2 adam	458		
409	469 IW, PSI, BR, IVIFS	2.8.5.17	CDS14-3 - Detailed Design for Information and documents management system (IDMS)	250 edays Sun 6/9/20	FII 14/5/21	Sull 6/9/20	Fri 14/5/21	F114/0/21	Sull 27/9/20	20.03 euays	436		
490	490 IW, PST, BR, MFS	2.8.5.18	CDS015 - Detailed Design for Underground Pipework Modification and	250 edays Sun 6/9/20	Fri 14/5/21	Sun 6/9/20	Fri 14/5/21	Fri 4/6/21	Sun 27/9/20	20.63 edays	458		
			Connection with the existing Bioreactor 1, 3 & 4										
491	491 IW, PST, BR, MFS	2.8.5.19	CDS016 - Detailed Design for Temporary Pumping System for maintaining the existing bioreactors 1, 3 and 4 operation	250 edays Sun 6/9/20	Fri 14/5/21	Sun 6/9/20	Fri 14/5/21	Fri 4/6/21	Sun 27/9/20	20.63 edays	458	<u> </u>	
492	492 IW, PST, BR, MFS	2.8.5.20	CDS018 - Detailed Design for Flowmeter and Valve Chambers	250 edays Sun 6/9/20	Fri 14/5/21	Sun 6/9/20	Fri 14/5/21	Fri 4/6/21	Sun 27/9/20	20.63 edays	458		
493	493 IW, PST, BR, MFS	2.8.5.21	CDS020 - Electrical Installation Typical Details	250 edays Sun 6/9/20	Fri 14/5/21	Sun 6/9/20	Fri 14/5/21	Fri 4/6/21	Sun 27/9/20	20.63 edays	458		
494	494 IW, PST, BR, MFS	2.8.5.22	CDS021 - Detailed Design for Electrical Installations for Inlet Works No. 1	250 edays Sun 6/9/20	Fri 14/5/21	Sun 6/9/20	Fri 14/5/21	Fri 4/6/21	Sun 27/9/20	20.63 edays	458		
495	495 IW, PST, BR, MFS	2.8.5.23	CDS022 - Detailed Design for Electrical Installations for PST No. 1~4 $$	250 edays Sun 6/9/20	Fri 14/5/21	Sun 6/9/20	Fri 14/5/21	Fri 4/6/21	Sun 27/9/20	20.63 edays	458	<u> </u>	
496	496 IW, PST, BR, MFS	2.8.5.24	CDS023 - Detailed Design for Electrical Installations for BR No. 2A & 2B	250 edays Sun 6/9/20	Fri 14/5/21	Sun 6/9/20	Fri 14/5/21	Fri 4/6/21	Sun 27/9/20	20.63 edays	458		
497	497 IW, PST, BR, MFS	2.8.5.25	CDS024 - Detailed Design for Electrical Installations for MFB No. 2	250 edays Sun 6/9/20	Fri 14/5/21	Sun 6/9/20	Fri 14/5/21	Fri 4/6/21	Sun 27/9/20	20.63 edays	458		
498	498 IW, PST, BR, MFS	2.8.5.26	CDS025-1 - Detailed Design for LV Switchboards for Inlet Works No. 1	250 edays Sun 6/9/20	Fri 14/5/21	Sun 6/9/20	Fri 14/5/21	Fri 4/6/21	Sun 27/9/20	20.63 edays	458		
	499 IW, PST, BR, MFS	2.8.5.27	CDS025-2 - Detailed Design for LV Switchboards for PST No. 1~4	250 edays Sun 6/9/20					Sun 27/9/20				
	500 IW, PST, BR, MFS	2.8.5.28	CDS025-3 - Detailed Design for LV Switchboards for BR 2A and 2B	250 edays Sun 6/9/20					Sun 27/9/20				
501	501 IW, PST, BR, MFS	2.8.5.29	CDS025-4 - Detailed Design for LV Switchboards for Membrane Filtration System	250 edays Sun 6/9/20	Fri 14/5/21	Sun 6/9/20	Fri 14/5/21	Fri 4/6/21	Sun 27/9/20	20.63 edays	458		
502	502 IW, PST, BR, MFS	2.8.5.30	CDS026 - Detailed Design for HV Switchboards	250 edays Sun 6/9/20	Fri 14/5/21	Sun 6/9/20	Fri 14/5/21	Fri 4/6/21	Sun 27/9/20	20.63 edays	458		
	503 IW, PST, BR, MFS	2.8.5.31	CDS027 - Detailed Design for Electrical Installations for Chemical System No. 1	250 edays Sun 6/9/20					Sun 27/9/20				
	504 IW, PST, BR, MFS	2.8.5.32	CDS028 - Detailed Design for Electrical Installations for Chemical System No. 2	250 edays Sun 6/9/20					Sun 27/9/20				
505	505 IW, PST, BR, MFS	2.8.5.33	CDS029 - Detailed Design for Electrical Installations for Temporary Chemical System	250 edays Sun 6/9/20	Fri 14/5/21	Sun 6/9/20	Fri 14/5/21	Fri 4/6/21	Sun 27/9/20	20.63 edays	458		
506	506 IW, PST, BR, MFS	2.8.5.34	CDS031 - Detailed Design for MVAC System	250 edays Sun 6/9/20	Fri 1/1/5/21	Sun 6/9/20	Fri 14/5/21	Fri 1/6/21	Sun 27/9/20	20 63 edays	458		
507	507 IW, PST, BR, MFS	2.8.5.35	CDS033 - Detailed Design for Plumbing System	250 edays Sun 6/9/20	Fri 14/5/21	Sun 6/9/20	Fri 14/5/21	Fri 4/6/21	Sun 27/9/20	20.63 edays	458		
508	508 IW, PST, BR, MFS	2.8.5.36	CDS034-1 - Detailed Design for Electrical Installations BS at Inlet Works No. 1	250 edays Sun 6/9/20	Fri 14/5/21	Sun 6/9/20	Fri 14/5/21	Fri 4/6/21	Sun 27/9/20	20.63 edays	458		
509	509 IW, PST, BR, MFS	2.8.5.37	CDS034-2 - Detailed Design for Electrical Installations BS at PST No. $1^{\sim}4$	250 edays Sun 6/9/20	Fri 14/5/21	Sun 6/9/20	Fri 14/5/21	Fri 4/6/21	Sun 27/9/20	20.63 edays	458		
510	510 IW, PST, BR, MFS	2.8.5.38	CDS034-3 - Detailed Design for Electrical Installations BS at BR No. 2A & 2B	250 edays Sun 6/9/20	Fri 14/5/21	Sun 6/9/20	Fri 14/5/21	Fri 4/6/21	Sun 27/9/20	20.63 edays	458		
511	511 IW, PST, BR, MFS	2.8.5.39	CDS034-4 - Detailed Design for Electrical Installations BS at MFB No. 2	250 edays Sun 6/9/20	Fri 14/5/21	Sun 6/9/20	Fri 14/5/21	Fri 4/6/21	Sun 27/9/20	20.63 edays	458	<u> </u>	
512	512 IW, PST, BR, MFS	2.8.5.40	CDS034-5 - Detailed Design for Electrical Installations BS at Chemical Systems	250 edays Sun 6/9/20	Fri 14/5/21	Sun 6/9/20	Fri 14/5/21	Fri 4/6/21	Sun 27/9/20	20.63 edays	458		
513	513 IW, PST, BR, MFS	2.8.5.41	CDS034-6 - Detailed Design for Electrical Installations BS at Emergency	250 edays Sun 6/9/20	Fri 14/5/21	Sun 6/9/20	Fri 14/5/21	Fri 4/6/21	Sun 27/9/20	20.63 edays	458		
			Generator House, FS and Sprinkler Pump Room, Street Fire Hydrant Pump Room										
514	514 IW, PST, BR, MFS	2.8.5.42	CDS042 - Detailed Design for Lightning Protection System	250 edays Sun 6/9/20	Fri 14/5/21	Sun 6/9/20	Fri 14/5/21	Fri 4/6/21	Sun 27/9/20	20.63 edays	458		
515	515 IW, PST, BR, MFS	2.8.5.43	CDS049 - Detailed Design for Fire Services	250 edays Sun 6/9/20	Fri 14/5/21	Sun 6/9/20	Fri 14/5/21	Fri 4/6/21	Sun 27/9/20	20.63 edays	458		
516	516 IW, PST, BR, MFS	2.8.5.44	CDS050-1 - Detailed Design for Lifting Appliances - Inlet Works No. 1	250 edays Sun 6/9/20	Fri 14/5/21	Sun 6/9/20	Fri 14/5/21	Fri 4/6/21	Sun 27/9/20	20.63 edays	458		
517	517 IW, PST, BR, MFS	2.8.5.45	CDS050-2 - Detailed Design for Lifting Appliances - PST No. 1 $^{\sim}$ 4	250 edays Sun 6/9/20	Fri 14/5/21	Sun 6/9/20	Fri 14/5/21	Fri 4/6/21	Sun 27/9/20	20.63 edays	458		
518	518 IW, PST, BR, MFS	2.8.5.46	CDS050-3 - Detailed Design for Lifting Appliances - BR 2A & 2B	250 edays Sun 6/9/20	Fri 14/5/21	Sun 6/9/20	Fri 14/5/21	Fri 4/6/21	Sun 27/9/20	20.63 edays	458		
519	519 IW, PST, BR, MFS	2.8.5.47	CDS050-4 - Detailed Design for Lifting Appliances - MFB No. 2	250 edays Sun 6/9/20	Fri 14/5/21	Sun 6/9/20	Fri 14/5/21	Fri 4/6/21	Sun 27/9/20	20.63 edays	458		
520	520 IW, PST, BR, MFS	2.8.5.48	CDS050-5 - Detailed Design for Lifting Appliances - Temp. Filtrate Eq. System,	250 edays Sun 6/9/20	Fri 14/5/21	Sun 6/9/20	Fri 14/5/21	Fri 4/6/21	Sun 27/9/20	20.63 edays	458		
			Existing Sludge Press House										
521	521 IW, PST, BR, MFS	2.8.5.49	CDS060 - Detailed Design for PV System	250 edays Sun 6/9/20	Fri 14/5/21	Sun 6/9/20	Fri 14/5/21	Fri 4/6/21	Sun 27/9/20	20.63 edays	458		
522	522 IW, PST, BR, MFS	2.8.5.50	CDS061 - Detailed Design for Emergency Generator Set	250 edays Sun 6/9/20	Fri 14/5/21	Sun 6/9/20	Fri 14/5/21	Fri 4/6/21	Sun 27/9/20	20.63 edays	458		
523	523 IW, PST, BR, MFS, LA,PV,DOU,	C2.8.5.51	Plant and Material submissions for acceptance	250 edays Sun 6/9/20	Fri 14/5/21	Sun 6/9/20	Fri 14/5/21	Fri 4/6/21	Sun 27/9/20	20.63 edays	104,110,116,:458		
524	524 IW, PST, BR, MFS, LA,PV,DOU,	2.8.5.52	Design Calculations for acceptance	250 edays Sun 6/9/20	Fri 14/5/21	Sun 6/9/20	Fri 14/5/21	Fri 4/6/21	Sun 27/9/20	20.63 edays	104,110,116,:458		
	525 IW, PST, BR, MFS	2.8.6	Document Submissions for remaining work	445 days Thu 26/3/20			Sun 13/6/21			0 days			
	526 PST No. 4 & No. 6	2.8.6.1	Design submissions for retrofitting the existing PST No. 4 and No. 6	150 days Tue 14/4/20						0 days			
526	520 F31 NO. 4 & NO. 6	2.0.0.1	ocaign audinissions for rectorituing the existing PST NO. 4 and No. 6	130 days rue 14/4/20	111u 1U/9/2U	rue 14/4/20	111u 10/9/20	Jun 4/10/20	rue 14/4/20	u days	JTL 343		
	Task		Milestone, Tentative	nmary	Project Sum	mary	¶ Manual	Summary		1 Late	Critical	Critical Split Progress Manual Progress Slack (Float) Milestone (Actual)	$\overline{}$
	twise tt: DE/2018/04												
	Thu 2/7/20												
Status	Date Sun 28/6/20									Pa	ge 11 of 21		

									lant - Main Works Stage 1 E&M Works for Sewage Treatment Faci		
Text1	WBS 1	Task Name	Duration Start between Task	Finish	Early Start	Early Finish	Late Finish	Late Start	Float Time Predecessors Successors Resource Names	2020 2021 2022 2023 Half 1, 2020 Half 2, 2021 Half 1, 2022 Half 2, 2022 Half 1, 2023 Half 1, 2023 Half 1, 2023 Half 2, 2021 Half 3, 2022 Half 3, 2023 Half 3, 2023	202 f 2, 2023 Hal
527 existing genset	2.8.6.2	Design submissions for E&M installation works of existing power house	Start and Finish 30 days Thu 26/3/20	Fri 24/4/20	Thu 26/3/20	Fri 24/4/20	Thu 30/4/2	20 Thu 26/3/20	0 0 days 450,454 915	N D	ASONDJ
528 Filter Press	2.8.6.3	Design submissions for E&M installation works of existing sludge thickening buil	45 days Mon 29/6/20	Wed 12/8/20	Mon 29/6/20	Wed 12/8/20	Wed 12/8/	Mon 29/6/.	0 days 336 337		
529 Filter Plates	2.8.6.4	Design submission for replacement of filter plates	45 edays Tue 28/7/20	Fri 11/9/20	Tue 28/7/20	Fri 11/9/20	Mon 12/10) Tue 28/7/20	0 0.63 edays 330 331		
530 Temp Filtrate	2.8.6.5	Design submission for E&M Installation works for temp. filtrate eq. system	45 days Thu 14/5/20	Sat 27/6/20	Thu 14/5/20	Sat 27/6/20	Sun 18/7/2	21 Fri 4/6/21	386 days 348		
531 Earth	2.8.6.6	Design Submission for Earthing and Lightning Protection System	90 days Thu 1/10/20	Tue 29/12/20	Thu 1/10/20	Tue 29/12/20	Sun 18/7/2	21 Tue 20/4/21	1 201 days 433		
532 DOU	2.8.6.7	DG Stores Submissions to FSD for approval	120 days Sun 14/2/21	Sun 13/6/21	Sun 14/2/21	Sun 13/6/21	Sun 18/7/2	21 Sun 21/3/21	1 35 days 472FS-90 day		
533	2.8.7	Three-Month Rolling Contractor's Design Submissions	302 days Tue 14/4/20	Tue 9/2/21	Tue 14/4/20	Tue 9/2/21	Fri 4/6/2	1 Tue 8/9/2	0 115 days		
534	2.8.7.1	CDS01 - General Design Parameters	30 days Tue 14/4/20	Wed 13/5/20	Tue 14/4/20	Wed 13/5/20	Fri 6/11/20	Thu 8/10/20	0 176 days 457		
535 Genset	2.8.7.2	CDS61 - Emergency Power Generator	120 days Tue 13/10/20	Tue 9/2/21	Tue 13/10/20	Tue 9/2/21	Fri 4/6/21	Fri 5/2/21	114 days 418 458		
536	2.8.7.3	CDS80-1 - Civil Work Requirements for Inlet Works up to +8.0 mPD	60 days Tue 1/9/20			Fri 30/10/20					
537	2.8.7.4	CDS80-2 - Civil Work Requirements for PST up to +8.0 mPD	60 days Tue 1/9/20					Tue 8/9/20			
538	2.8.7.5	CDS80-3 - Civil Work Requirements for BR 2A&2B up to +8.0 mPD	60 days Tue 1/9/20			Fri 30/10/20					
539	2.8.7.6		, , , ,						· ·		
		CDS80-4 - Civil Work Requirements for MFB no. 2 up to +8.0 mPD	30 days Tue 1/9/20					Thu 8/10/20	· l		
540 Risk Allowance	2.8.8	Risk Allowance for completion of Section 1	5 days Mon 14/6/21								
541	2.9	Section 2 - Completion of all works for Inlet Works, PST No. 174, BR No. 2A & 2B, MFB No. 2, temporary chemical dosing system, deodorisation systems, chemical system no. 1 and no. 2, FS and sprinkler pump room,etc as defined in WI_GP 10.1(b)	1375 days Tue 14/7/20	Fri 19/4/24	Tue 14/7/20	Fri 19/4/24	Fri 19/4/2	4 Mon 20/12/21	1 day 6,2		
542 IW, PST, BR, MFS,LA,PV,CO	CTV,P\2.9.1	Section 2 - Latest Completion Date	0 days Fri 19/4/24	Fri 19/4/24	Fri 19/4/24	Fri 19/4/24	Fri 19/4/2	Fri 19/4/24	0 days 6SS+1600 edε		
543 IW, LA, BS,FSI, Elec	2.9.2	Access Date for Portion B-2, Inlet Works No. 1	150 edays Tue 28/6/22	Fri 25/11/22	Tue 28/6/22	Fri 25/11/22	Fri 25/11/	22 Tue 28/6/2	12 0 edays 6SS+939 edaγ		
544 IW, LA, BS,FSI, Elec, Other	rs 2.9.3	Tentative Civil Handover Date, Portion B-2, Inlet Works No. 1	1 day Thu 4/8/22	Thu 4/8/22	Thu 4/8/22	Thu 4/8/22	Mon 28/11	l Mon 28/11.	0 days 547,545,587FS		
545 IW, Main	2.9.4	Commencement of E&M Installation at Inlet Works No. 1		Tue 16/1/24				Thu 26/1/23			
546 IW, H&S	2.9.4.1	Provision of Temporary Water Supply, Electricity Supply, Lighting, Welfare	30 days Fri 5/8/22		Fri 5/8/22	Sat 3/9/22	Mon	Sun	506 days 544		
,		facilities etc., IW	,	,.,		,.,.,	22/1/24	24/12/23			
547 IW, LA	2.9.4.2	Installation of Lifting Appliances at Inlet Works No. 1	142 days Fri 5/8/22	Sat 24/12/22	Fri 5/8/22	Sat 24/12/22	Fri 25/8/2	3 Thu 6/4/23	0 days 380,544 557SS+30 days		
548 IW, LA	2.9.4.2.1	1/F EOT Crane LA-01-01 SWL 5t	45 days Mon 19/9/22	Wed 2/11/22	Mon 19/9/22	Wed 2/11/22	Fri 18/8/2	3 Wed 5/7/23	3 45 days 551,552 556 LA - A x 4~6 men		
549 IW, LA	2.9.4.2.2	1/F EOT Crane LA-01-02 SWL 5t	45 days Mon 19/9/22	Wed 2/11/22	Mon 19/9/22	Wed 2/11/22	Fri 18/8/2	3 Wed 5/7/23	3 45 days 551,552 556 LA - B x 4~6 men		
550 IW, LA	2.9.4.2.3	1/F EOT Crane LA-01-03 SWL 5t	45 days Mon 19/9/22	Wed 2/11/22	Mon 19/9/22	Wed 2/11/22	Tue 4/7/2	Sun 21/5/23	3 0 days 551,552 553,554,556 LA - C x 4~6 men		
551 IW, LA	2.9.4.2.4	UG EOT Crane LA-01-04 SWL 10t	45 days Fri 5/8/22	Sun 18/9/22	Fri 5/8/22	Sun 18/9/22	Sat 20/5/2	3 Thu 6/4/23	0 days 548,549,550,5!LA - A x 4~6 men		
552 IW, LA	2.9.4.2.5	UG EOT Crane LA-01-05 SWL 10t	45 days Fri 5/8/22	Sun 18/9/22	Fri 5/8/22	Sun 18/9/22	Sat 20/5/2	3 Thu 6/4/23	0 days 548,549,550,5!LA - B x 4~6 men		
553 IW, LA	2.9.4.2.6	1/F Retractable Crane LA-01-06 SWL 10t	45 days Thu 3/11/22	Sat 17/12/22	Thu 3/11/22	Sat 17/12/22	Fri 18/8/2	3 Wed 5/7/23	3 0 days 550 556 LA - C x 4~6 men		
554 IW, LA	2.9.4.2.7	1/F Mobile A-frame LA-01-07 SWL 2t	45 days Thu 3/11/22	Sat 17/12/22	Thu 3/11/22	Sat 17/12/22	Fri 18/8/2	3 Wed 5/7/23	3 0 days 550 556 LA - A x 4~6 men		
555 IW, LA	2.9.4.2.8	Submission of T&C Plan and Procedures of LA for acceptance	14 days Tue 1/11/22	Mon 14/11/22	2 Tue 1/11/22	Mon 14/11/2	2 Fri 18/8/2	8 Sat 5/8/23	33 days 556		
556 IW, LA	2.9.4.2.9	T&C, Loading Test for Lifting Appliances	7 days Sun 18/12/22			Sat 24/12/22	Fri 25/8/2	3 Sat 19/8/23			
557 IW, Mech	2.9.4.3	Mechanical Installations for Inlet Works No. 1	350 days Sun 4/9/22			Sat 19/8/23					
	2.9.4.3.1										
558 IW, Mech 559 IW, Mech		Installation of penstocks and stoplogs (Penstock 35nos, Stoplogs 37 nos) Installation of fixed bar screen (x1)	150 days Sun 4/9/22					3 Thu 26/1/23			
	2.9.4.3.2	` `	7 days Sun 25/12/22								
560 IW, Mech	2.9.4.3.3	Installation of mechanical raked coarse bar screens (x4)	90 days Sun 4/9/22			Fri 2/12/22		L Wed 23/8/.	, and the second		
561 IW, Mech	2.9.4.3.4	Installation of screening conveyors (x6)	30 days Sun 25/12/22			Mon 23/1/23					
562 IW, Mech	2.9.4.3.5	Installation of inlet pumps (x5)	21 days Fri 17/3/23					Thu 16/11/.			
563 IW, Mech	2.9.4.3.6	Installation of mechanical raked fine bar screens (x4)	75 days Sun 1/1/23			Thu 16/3/23		I Sat 2/9/23			
564 IW, Mech	2.9.4.3.7	Installation of grit removal system (x3)	14 days Fri 7/4/23	Thu 20/4/23	Fri 7/4/23	Thu 20/4/23	Wed 20/12	2 Thu 7/12/2	3 0 days 562,120 565 ME - B x 4~6 men		
565 IW, Mech	2.9.4.3.8	Installation of grit classifiers (x2)	21 days Fri 21/4/23	Thu 11/5/23	Fri 21/4/23	Thu 11/5/23	Wed 10/1/	Thu 21/12/.	244 days 564,126 ME - B x 4~6 men		+
566 IW, Mech	2.9.4.3.9	Installation of compactors (x2)	21 days Tue 24/1/23	Mon 13/2/23	Tue 24/1/23	Mon 13/2/23	Wed 10/1/	Thu 21/12/.	331 days 561,132 ME - A x 4~6 men		+++
567 IW, Mech	2.9.4.3.10	Installation of pipework and valves	30 days Wed 1/2/23	Thu 2/3/23	Wed 1/2/23	Thu 2/3/23	Tue 12/9/2	Mon 14/8/.	0 days 558 562SS+14 days ME - D x 2~4 men		
568 IW, Mech	2.9.4.3.11	Pipework pressure tests	30 days Wed 1/2/23	Thu 2/3/23	Wed 1/2/23	Thu 2/3/23	Tue 12/9/2	23 Mon 14/8/.	0 days 558 562SS+14 days ME - D x 2~4 men		
569 IW, Mech	2.9.4.3.12	Installation of instrumentations	120 days Fri 3/3/23	Fri 30/6/23	Fri 3/3/23	Fri 30/6/23	Wed 10/1/	Wed 13/9/.	194 days 567,568 ME - A x 4~6 men		+
570 IW, Mech	2.9.4.3.13	Installation of Platforms, Covers etc	180 days Sun 4/9/22	Thu 2/3/23	Sun 4/9/22	Thu 2/3/23	Wed 10/1/	Sat 15/7/23	3 314 days ME - D x 2~4 men		+
571 IW, Mech	2.9.4.3.14	Site Acceptance Tests - mechanical aspects including alignment and levels checks, leakage tests, welding tests, installation checks, pressure tests etc.	200 days Wed 1/2/23	Sat 19/8/23	Wed 1/2/23	Sat 19/8/23	Wed 10/1/24	Sun 25/6/23	3 144 days 558 ME - D x 2~4 men		
572 IW, Elec	2.9.4.4	Electrical Installations for Inlet Works No. 1	300 days Sun 18/9/22	Fri 14/7/23	Sun 18/9/22	Fri 14/7/23	Thu 11/1/	24 Fri 17/3/23	126 days 5575S+14 da ₁ 585		+
I					-1						
Task		Milestone, Tentative ● Milestone ◆ Sur	nmary	Project Sum	mary I	Manu	ual Summary		Late Critical	Critical Split Progress Manual Progress Slack (Float) Milestone (Ac	ual) 🛨
DE/2018/04											

Drainage Service The Government of the Hong Kong	es Department						Shek Wu	Hui Effluen		osed Work Programme for DE/2018/0 nt - Main Works Stage 1 E&M Works		Facilities AE
ID Text1	WE	3S Tas	sk Name	Duration Start between Task	Finish	Early Start	Early Finish	Late Finish	Late Start	Float Time Predecessors Successors	Resource Names	2020 2021 2022 2023 2024 2025 Half 1, 2020 Half 2, 2021 Half 1, 2022 Half 1, 2023 Half 2,
573 IW, Elec	2.9	0.4.4.1	Installation of LV Switchboards, IW	Start and Finish 60 days Sun 18/9/22	Wed 16/11/22	2 Sun 18/9/22	Wed 16/11/22	Wed 14/6/	Sun 16/4/23	30 days 98,77 577	LV - A x 4~6 men	N D J F M A M J J A S O N D J
574 IW, Elec	2.9	0.4.4.2	Installation of Transformer, IW	60 days Sun 18/9/22	Wed 16/11/22	2 Sun 18/9/22	Wed 16/11/22	Wed 14/6/	Sun 16/4/23	30 days 100 577	EE - A x 4~6 men	
575 IW, Elec, SO	CADA 2.9	9.4.4.3	Installation of PLC Panels, IW	45 days Sun 18/9/22	Tue 1/11/22	Sun 18/9/22	Tue 1/11/22	Wed 14/6/	Mon 1/5/23	45 days 582 577	EE - B x 4~6 men	
576 IW, Elec		9.4.4.4	Installation of cable trays and cable containments	90 days Sun 18/9/22					Fri 17/3/23	0 days 557SS 577	EE - C x 4~6 men	
		0.4.4.5		90 days Sat 17/12/22						0 days 576,397,401,:579,583,580		
577 IW, Elec, SC			Cables laying and terminations									
578 IW, Elec, O		0.4.4.6	Tentative Civil Handover Date, HV cables draw pits from MFB2 to IW	0 days Tue 14/2/23					Tue 12/12/	1 day 579FF+30 d		
579 IW, Elec		9.4.4.7	Energisation of LV Switchboards, IW	0 days Thu 16/3/23					1 Thu 11/1/24		LV - A x 4~6 men	
580 IW, Elec	2.9	9.4.4.8	Site Acceptance Tests - Electrical aspects including voltange and current tests, equipment protection interlock checks, motor rotation direction and electrical tests, control and functional checks etc.	120 days Fri 17/3/23	Fri 14/7/23	Fri 17/3/23	Fri 14/7/23	Wed 10/1/24	Wed 13/9/23	180 days 577	LV - A x 4~6 men	
581 IW, SCADA	A 2.9	9.4.5	SCADA Systems, Inlet Works	329 days Fri 5/8/22	Thu 29/6/23	Fri 5/8/22	Thu 29/6/23	Tue 16/1/2	4 Mon 24/4/	201 days		
582 IW, SCADA	A 2.9	9.4.5.1	Delivery of PLC Panel to LV Switch Room, IW	7 days Fri 5/8/22	Thu 11/8/22	Fri 5/8/22	Thu 11/8/22	Sun 30/4/	Mon 24/4	37 days 397 575		
583 IW, SCADA	A 2.9	9.4.5.2	Configuration of PLC System, IW	45 days Fri 17/3/23	Sun 30/4/23	Fri 17/3/23	Sun 30/4/23	Fri 17/11/2	3 Wed 4/10/	0 days 577 584	PLC - A x 1 man	
584 IW, SCADA		9.4.5.3	Site Acceptance Test for PLC System at Inlet Works No. 1	60 days Mon 1/5/23			Thu 29/6/23					
585 IW, SCADA		9.4.6	Site Acceptance Test for E&M Equip & Instrumentations calibration, IW	30 days Sat 18/11/23			Sun 17/12/23			0 days 557,572,579,(586		
586 IW, SCADA		9.4.7	System Commissioning for E&M Equip at Inlet Works No. 1	30 edays Sun 17/12/2								
		9.4.7	System Commissioning for E&W Equip at Inlet Works No. 1 Building Services Installations for Inlet Works No. 1	300 days Sat 3/12/22								
587 BS, IW							Thu 28/9/23				NO. 2	
588 BS, IW, MV		9.4.8.1	Mechanical Ventilation and Air Conditioning System, IW	150 days Sat 3/12/22			Mon 1/5/23			30 days 594	MVAC - B x 4~6 men	
589 BS, IW		9.4.8.2	Lighting and Power Distribution System, IW	180 days Sat 3/12/22		Sat 3/12/22	Wed 31/5/23			0 days 594	BS - A x 4~6 men	
590 BS, IW, Pb	2.9	9.4.8.3	Plumbing Installation, IW	120 days Sat 3/12/22	Sat 1/4/23	Sat 3/12/22	Sat 1/4/23	Mon 18/9/	Mon 22/5/	60 days 859 861,594	Pb - A x 4~6 men	<u>▕</u> ▐▊▊
591 BS, IW, CCT	TV 2.9	9.4.8.4	CCTV Installation (5 indoor +5 outdoor Cameras), IW	90 days Sun 1/1/23	Fri 31/3/23	Sun 1/1/23	Fri 31/3/23	Mon 18/9/	Wed 21/6/	0 days 544SS+150 da 945,594,945	BS - B x 4~6 men	
592 BS, IW, FSI	2.9	9.4.8.5	Fire Services Installation, IW	120 days Sun 1/1/23	Sun 30/4/23	Sun 1/1/23	Sun 30/4/23	Mon 18/9/	Mon 22/5/	31 days 544SS+150 da 843,855,856	,5!FS - A x 4~6 men	
593 BS,IW,Earth	th 2.9	9.4.8.6	Earthing and Lightning Protection System, IW	60 days Tue 31/1/23	Fri 31/3/23	Tue 31/1/23	Fri 31/3/23	Mon 18/9/	Fri 21/7/23	61 days 544SS+180 da 594	BS - C x 2~4 men	
594 BS, IW	2.9	9.4.8.7	Testing and Commissioning of Building Services Installations, IW	120 days Thu 1/6/23	Thu 28/9/23	Thu 1/6/23	Thu 28/9/23	Tue 16/1/2	Tue 19/9/23	110 days 588,589,590,!	BS - C x 2~4 men	<u> </u>
595 PST, LA, BS	S,FSI,Elec 2.9	9.5	Access Date for Portion B-3, PST No. 1~4	90 edays Sat 14/1/23	Fri 14/4/23	Sat 14/1/23	Fri 14/4/23	Fri 14/4/23	Sat 14/1/23	0 edays 6SS+1139 eda		
596 PST, LA, BS	S, Others 2.9	9.6	Tentative Civil Handover Date, Portion B-3, PST No. 1∼4	1 day Mon 20/2/23	Mon 20/2/23	Mon 20/2/23	Mon 20/2/23	Fri 24/2/23	Fri 24/2/23	0 days 599,634FS+	10	
597 PST No. 1~4	4,Main 2.9	9.7	Commencement of E&M Installation at PST No. 1~4	317 days Tue 21/2/23	Wed 3/1/24	Tue 21/2/23	Wed 3/1/24	Sun 10/3/2	\$ Sun 16/4/23	13 days 596 864		_
598 PST No. 1~4	~4 2.9	0.7.1	Provision of Temporary Water Supply, Electricity Supply, Lighting Welfare facilities etc., PST	30 days Tue 21/2/23	Wed 22/3/23	Tue 21/2/23	Wed 22/3/23		Sun 24/12/23	306 days 596		
599 LA, PST	2.0	0.7.2	Installation of Lifting Appliances at PST No. 1~4	127 days Tue 21/2/23	Tue 27/5/22	Tue 21/2/22	Tue 27/6/22	T 16/1/2	4 Tue 12/0/22	203 days 380,596		
				,							14. 4.: 400	
600 LA, PST		0.7.2.1	Basement EOT Crane LA-02-01 SWL 10t	30 days Tue 21/2/23			Wed 22/3/23				LA - A x 4~6 men	
601 LA, PST	2.9	9.7.2.2	Coping Level EOT Crane LA-02-02 SWL 5t	30 days Thu 23/3/23	Fri 21/4/23	Thu 23/3/23	Fri 21/4/23	Mon 15/1/.	Sun 17/12/	60 days 600 606	LA - A x 4~6 men	
602 LA, PST	2.9	9.7.2.3	Coping Level EOT Crane LA-02-03 SWL 5t	30 days Thu 23/3/23	Fri 21/4/23	Thu 23/3/23	Fri 21/4/23	Thu 16/11/	Wed 18/10	0 days 600 603,604,606	LA - B x 4~6 men	
603 LA, PST	2.9	9.7.2.4	Coping Level EOT Crane LA-02-04 SWL 5t	30 days Sat 22/4/23	Sun 21/5/23	Sat 22/4/23	Sun 21/5/23	Mon 15/1/.	Sun 17/12/	30 days 602 606	LA - A x 4~6 men	
604 LA, PST	2.9	9.7.2.5	Coping Level EOT Crane LA-02-05 SWL 5t	30 days Sat 22/4/23	Sun 21/5/23	Sat 22/4/23	Sun 21/5/23	Sat 16/12/2	3 Fri 17/11/23	0 days 602 605,606	LA - B x 4~6 men	
605 LA, PST	2.9	9.7.2.6	Coping Level EOT Crane LA-02-06 SWL 2t	30 days Mon 22/5/23	Tue 20/6/23	Mon 22/5/23	Tue 20/6/23	Mon 15/1/	Sun 17/12/	0 days 604 606	LA - A x 4~6 men	
606 LA, PST	2.9	0.7.2.7	T&C, Loading Test for Lifting Appliances at PST No. 1~4	7 days Wed 21/6/23	Tue 27/6/23	Wed 21/6/23	Tue 27/6/23	Mon 22/1/	Tue 16/1/24	209 days 600,601,602,i	LA - A x 4~6 men	
607 PST, Mech	2.9	0.7.3	Mechanical Installations at PST No. 1~4	272 days Tue 21/2/23	Sun 19/11/23	Tue 21/2/23	Sun 19/11/23	Thu 25/1/2	4 Mon 1/5/23	0 days 632		
608 PST, Mech	2.9	9.7.3.1	Installation of penstocks and stoplogs (Penstock 18nos, Stoplogs 14 nos)	90 days Tue 21/2/23	Sun 21/5/23	Tue 21/2/23	Sun 21/5/23	Fri 5/1/24	Sun 8/10/23	0 days 33,39 614,619	ME - E x 4~6 men	
609 PST, Mech	2.9	9.7.3.2	Installation of pipework and valves	240 days Tue 21/2/23	Wed 18/10/2	3 Tue 21/2/23	Wed 18/10/23	Tue 6/2/24	Mon 12/6/	111 days 48	ME - B x 4~6 men	
610 PST, Mech	2.9	9.7.3.3	Installation of lamella plate settlers (x4)	60 days Thu 23/3/23	Sun 21/5/23	Thu 23/3/23	Sun 21/5/23	Sun 7/1/24	Thu 9/11/23	0 days 611,138 612,613	ME - A x 4~6 men	
611 PST, Mech	2.9	9.7.3.4	Installation of reciprocating type bottom scrapers (x4)	30 days Tue 21/2/23	Wed 22/3/23	Tue 21/2/23	Wed 22/3/23	Wed 8/11/	Tue 10/10/	0 days 144 610	ME - A x 4~6 men	
612 PST, Mech		0.7.3.5	Installation of surface scum skimmers (x1)	30 days Mon 22/5/23			Tue 20/6/23			231 days 610,150	ME - A x 4~6 men	
613 PST, Mech		9.7.3.6	Installation of scum collector pipes (x1)	30 days Mon 22/5/23						231 days 610,156	ME - B x 4~6 men	
614 PST, Mech		9.7.3.7	Installation of piston type primary sludge pumps (x3)	30 days Mon 22/5/23						0 days 162,608 615	ME - C x 4~6 men	
615 PST, Mech		0.7.3.8	Installation of drain pumps (x1)	30 days Wed 21/6/23						0 days 168,614 616	ME - C x 4~6 men	
616 PST, Mech		9.7.3.9	Installation of air blowers (x2)	30 days Fri 21/7/23			Sat 19/8/23			0 days 174,615 617	ME - C x 4~6 men	
617 PST, Mech	2.9	9.7.3.10	Installation of instrumentations	60 days Sun 20/8/23	Wed 18/10/23	3 Sun 20/8/23	Wed 18/10/23	Wed 3/7/2	Sun 5/5/24	259 days 42,616	ME - C x 4~6 men	
618 PST, Mech	2.9	9.7.3.11	Installation of Platforms, Covers etc., PST	60 days Thu 21/9/23	Sun 19/11/23	Thu 21/9/23	Sun 19/11/23	Tue 6/2/2	Sat 9/12/23	79 days	ME - F x 4~6 men	
1									*			
	Task		Milestone, Tentative Milestone Sur	nmary	■ Project Sum	mary	1 Manua	I Summary		1 Late	Critical	Critical Split Progress Manual Progress Slack (Float) Milestone (Actual) *
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Drainage Services Department The Government of the Hong Kong Special Addisinstructive Region						Shok M	u Hui Effluer		osed Work Programme ant - Main Works Stage			Facilities
ID Text1	WBS Task Name		Duration Start	Finish	Early Start		_		Float Time Predecesso			2020 2021 2022 2023
619 PST, Mech		Site Acceptance Tests - mechanical aspects including alignment and levels	between Task Start and Finish 180 days Mon	22/5/23 Fri 17/11/23		Fri 17/11/23	Wed 3/7/2	4 Sat 6/1/24	229 days 608		ME - D x 2~4 men	Half 1, 2020
		checks, leakage tests, welding tests, installation checks, pressure tests etc.										
620 PST, Elec		ctrical Installations for PST No. 1~4		21/2/23 Fri 17/11/23		Fri 17/11/23				632		
621 PST, Elec		installation of LV Switchboards, PST		21/2/23 Fri 21/4/23		Fri 21/4/23		3 Thu 1/6/23	30 days 80	624	LV - A x 4~6 men	
622 PST, Elec, SCADA	2.9.7.4.2 I	Installation of PLC Panel, PST	60 days Tue	28/2/23 Fri 28/4/23	Tue 28/2/23	Fri 28/4/23	Wed 12/7/	Sun 14/5/23	23 days 80,629	624		
623 PST, Elec	2.9.7.4.3 I	Installation of cable trays and cable containments, PST	90 days Tue	21/2/23 Sun 21/5/23	Tue 21/2/23	Sun 21/5/23	Sun 30/7/2	23 Tue 2/5/23	0 days	624		
624 PST, Elec, SCADA	2.9.7.4.4	Cables laying and terminations, PST	100 days Mon	22/5/23 Tue 29/8/23	Mon 22/5/23	Tue 29/8/23	Tue 7/11/2	3 Mon 31/7/	. 0 days 621,623,3	97, 626FS-30 da	ys,	
625 PST, Elec, Others	2.9.7.4.5	Tentative Civil Handover Date, LV cables draw pits from IW to PST	0 days Thu	20/7/23 Thu 20/7/23	Thu 20/7/23	Thu 20/7/23	Mon 8/1/2	4 Mon 8/1/24	2 days	626FF+30 da	ys	
626 PST, Elec	2.9.7.4.6 E	Energisation of LV Switchboards, PST	1 day Fri 1	8/8/23 Fri 18/8/23	Fri 18/8/23	Fri 18/8/23	Sat 10/2/2	4 Sat 10/2/24	93 days 624FS-30 (day 632	LV - A x 4~6 men	
627 PST, Elec	t	Site Acceptance Tests - Electrical aspects including voltange and current tests, equipment protection interlock checks, motor rotation direction and electrical tests, control and functional checks etc.	80 days Wed	30/8/23 Fri 17/11/23	Wed 30/8/23	Fri 17/11/23	Fri 26/1/24	Wed 8/11/23	0 days 624	585	LV - A x 4~6 men	
628 PST, SCADA	2.9.7.5 SCA	ADA Systems, PST No. 1~4	250 days Tue	21/2/23 Sat 28/10/2	3 Tue 21/2/23	Sat 28/10/23	Tue 16/1/2	24 Tue 9/5/23	77 days			-
629 PST, SCADA	2.9.7.5.1	Delivery of PLC Panel to LV Switch Room, PST No. 1~4	7 days Tue	21/2/23 Mon 27/2/	23 Tue 21/2/23	Mon 27/2/2	3 Fri 12/5/2	3 Sat 6/5/23	0 days 399	622		
630 PST,SCADA		Configuration of PLC System		I 30/8/23 Fri 13/10/23						631	PLC - B x 1 man	
631 PST, SCADA		Site Acceptance Test for PLC System at PST No. 1~4		14/10/23 Sat 28/10/2								
632 PST, SCADA		e Acceptance Test for E&M Equip and Instrumentations calibrations at PST N		19/11/23 Tue 19/12/2						26 633		
633 PST, SCADA		tem Commissioning for E&M Equip at PST No, 1~4		120/12/23 Wed 3/1/24					56 days 632	946		
634 PST		Iding Services Installations for for PST No. 1~4		22/5/23 Fri 17/11/2					4 days 596FS+90			
635 BS, PST, MVAC		Mechanical Ventilation and Air Conditioning System, PST		22/5/23 Fit 17/11/23					30 days	641	MVAC - B x 4~6 men	
636 BS, PST		Lighting and Power Distribution System, PST		22/5/23 Sat 19/8/23					30 days	641	BS - A x 4~6 men	
637 BS, PST, Pb				22/5/23 Sat 19/6/23 22/5/23 Mon 18/9/2						861,641		
		Plumbing Installation, PST									Pb - B x 4~6 men	
638 BS, PST, CCTV		CCTV Installation (9 indoor + 2 outdoor Cameras), PST		22/5/23 Thu 20/7/23					. 0 days 596FS+60		BS - B x 4~6 men	
639 BS, PST, FSI		Fire Services Installation, PST		22/5/23 Mon 18/9/2					0 days	843,855,856	,64FS - A x 4~6 men	
640 BS, PST, Earth		Earthing and Lightning Protection System, PST		1 22/5/23 Sat 19/8/23							BS - C x 2~4 men	
641 BS, PST		Testing and Commissioning of Building Services Installations, PST		19/9/23 Fri 17/11/23		Fri 17/11/23					BS - C x 2~4 men	
642 BR, LA, BS, PV,FSI,Elec		s Date for Portion B-4, BR 2A & 2B		5/11/22 Thu 23/2/23								
643 BR, LA, BS, PV, Others		tive Civil Handover Date, Portion B-4, BR2A & 2B		1/1/23 Sun 1/1/23				?3 Thu 16/2/23		646,652,663	,0.	
644 BR, Main 645 BR	2.9.10.1 Pro	nencement of E&M Installation at Bioreactor No. 2A & 2B wision of Temporary Water Supply, Electricity Supply, Lighting, Welfare		2/1/23 Wed 27/12/ 2/1/23 Sun 8/1/23		Wed 27/12/2 Sun 8/1/23	3 Thu 18/4/2 Tue 23/1/2	4 Wed	20 days 643 380 days 643	864		
64600.40		lilities etc., BR 2A&2B	G to Man	2/1/23 Thu 9/3/23	2/4/22	Th 0 /2 /22	T 45 /4 /5	17/1/24 24 Sat 11/11/	242 4 200 642			
646 BR, LA		tallation of Lifting Appliances at BR 2A & 2B	•			Thu 9/3/23						
647 BR, LA		Coping Level EOT Crane LA-03-01 SWL 5t		2/1/23 Tue 31/1/23				23 Fri 17/11/23			LA - A x 4~6 men	
648 BR, LA		Coping Level EOT Crane LA-03-02 SWL 5t		2/1/23 Tue 31/1/23		Tue 31/1/23		23 Fri 17/11/23			LA - B x 4~6 men	
649 BR, LA		Coping Level EOT Crane LA-03-03 SWL 5t		11/2/23 Thu 2/3/23		Thu 2/3/23		Sun 17/12/	. 0 days 647,648	651	LA - A x 4~6 men	
650 BR, LA		Coping Level Mobile A-frame LA-03-04 SWL 4t		11/2/23 Tue 7/2/23				Tue 9/1/24	23 days 647,648	651	LA - B x 4~6 men	
651 BR, LA		T&C, Loading Test for Lifting Appliances at Bioreactor No. 2A & 2B		/3/23 Thu 9/3/23		Thu 9/3/23		Tue 16/1/24			LA - B x 4~6 men	
652 BR, Mech		chanical Installations for E&M Equip at BR 2A & 2B	•	1 2/1/23 Thu 28/9/23				Sun 16/4/23		669		
653 BR, Mech		Installation of penstocks and stoplogs (Penstocks 8nos, Stoplogs 8nos		n 2/1/23 Sat 1/4/23						662	ME - E x 4~6 men	
654 BR, Mech		installation of pipework and valves		2/1/23 Wed 31/5/2				/ Tue 27/6/23			ME - C x 4~6 men	
655 BR, Mech		Installation of pre-treatment fine screens (x4)		2/1/23 Sun 29/1/23				Wed 27/9/	. 0 days 203	657	ME - A x 4~6 men	
656 BR, Mech		Installation of air diffusion system (x2)	90 days Mon	2/1/23 Sat 1/4/23	Mon 2/1/23	Sat 1/4/23	Fri 8/12/23	Sun 10/9/23	0 days 209	660	ME - D x 2~4 men	
657 BR, Mech	2.9.10.3.5 I	installation of submersible mixers (x16)	90 days Mon	30/1/23 Sat 29/4/23	Mon 30/1/23	Sat 29/4/23	Fri 26/1/24	Sun 29/10/	. 182 days 655,215	669	ME - B x 4~6 men	
658 BR, Mech	2.9.10.3.6 I	installation of mixed liquor return pumps (x6)	30 days Mon	2/1/23 Tue 31/1/23	Mon 2/1/23	Tue 31/1/23	Fri 8/12/23	Thu 9/11/23	0 days 221	659	ME - A x 4~6 men	
659 BR, Mech	2.9.10.3.7 I	installation of scum removal systems (x2)	45 days Wed	11/2/23 Fri 17/3/23	Wed 1/2/23	Fri 17/3/23	Fri 26/1/24	Wed 13/12	. 225 days 658,227	669	ME - B x 4~6 men	
660 BR, Mech	2.9.10.3.8 I	installation of aeration blowers (x4)	45 days Sun	2/4/23 Tue 16/5/23	Sun 2/4/23	Tue 16/5/23	Fri 26/1/24	Wed 13/12	. 165 days 656,233	669	ME - D x 2~4 men	
661 BR, Mech	2.9.10.3.9 I	installation of instrumentations	60 days Thu	1/6/23 Sun 30/7/23	Thu 1/6/23	Sun 30/7/23	Fri 26/1/24	Tue 28/11/	. 90 days 654,239	669	ME - D x 2~4 men	
e 662 BR, Mech		Site Acceptance Tests - mechanical aspects including alignment and levels checks, leakage tests, welding tests, installation checks, pressure tests etc.	180 days Sun	2/4/23 Thu 28/9/23	Sun 2/4/23	Thu 28/9/23	Fri 26/1/24	Mon 31/7/23	30 days 653	669	ME - D x 2~4 men	
3 663 BR, Elec	2.9.10.4 Elec	ctrical Installations for E&M Equip at BR 2A & 2B	300 days Mon	2/1/23 Sat 28/10/2	3 Mon 2/1/23	Sat 28/10/23	Wed 10/1/	Fri 17/3/23	0 days 643	669		
Task	Milest	tone, Tentative Milestone Su	ummary	Project Su	mmary	Manu Manu	al Summary		Late		Critical	Critical Split Progress Manual Progress Slack (Float) Millestone (Actual)
ect: DE/2018/04 : Thu 2/7/20												

Drainage Services Department The Government of the Hong Kong Special Administrative Regis	ion						Shal W	ı Hııi Efflus		oosed Work Prog			or Sewage Treatme	/ Facilities	
ID Text1	WBS Tas	ask Name	Duration S	Start Finis	sh	Early Start		_					Resource Names	2020 2021 2022	2023
			between Task Start and Finish											Half 1, 2020	Half 1, 2023 Half 2, 2023
664 BR, Elec	2.9.10.4.1	Installation of cable trays and cable containments	120 days N	Mon 2/1/23 Moi	n 1/5/23	Mon 2/1/23	Mon 1/5/23	Sun 22/10	/ Sun 25/6/23	0 days 6	43 (665			
665 BR, Elec, SCADA	2.9.10.4.2	Cables laying and terminations	120 days T	Tue 2/5/23 Tue	29/8/23	Tue 2/5/23	Tue 29/8/23	Mon 19/2/	Mon 23/10.	0 days 6	64,397,401,	738,668			
666 BR, Elec, Others	2.9.10.4.3	Tentative Civil Handover Date, LV cables draw pits from MFB2 to BR2	0 days T	Thu 1/6/23 Thu	1/6/23	Thu 1/6/23	Thu 1/6/23	Sun 24/12	/ Sun 24/12/.	1 day		667FF+30 day	rs		⊕ 1/6
667 BR, Elec	2.9.10.4.4	Energisation of LV Switchboards, BR2	1 day S	Sat 1/7/23 Sat	1/7/23	Sat 1/7/23	Sat 1/7/23	Mon 22/1/	Mon 22/1/.	59 days 6	66FF+30 day	669	LV - A x 4~6 men		@_1/7
668 BR, Elec	2.9.10.4.5	Site Acceptance Tests - Electrical aspects including voltange and current	60 days V	Wed 30/8/23 Sat	28/10/23	Wed 30/8/23	Sat 28/10/23	Fri 19/4/2	Tue 20/2/24	20 days 6	65 5	585	LV - A x 4~6 men		
		tests, equipment protection interlock checks, motor rotation direction and electrical tests, control and functional checks etc.													
669 BR, SCADA	2.9.10.5	Site Acceptance Test for E&M Equip at BR 2A & 2B	30 edays S	Sat 28/10/23 Moi	n 27/11/23	Sat 28/10/23	Mon 27/11/23	Fri 19/7/24	Wed 19/6/.	0.63 edays 6	52,663,667,0	670			
670 BR,SCADA	2.9.10.6	System Commissioning for E&M Equip at BR 2A & 2B	30 days T	Tue 28/11/23 Wee	d 27/12/23	Tue 28/11/23	Wed 27/12/23	Sat 17/8/2	4 Fri 19/7/24	180 days 6	69,741	946			
671 BR	2.9.10.7	Building Services Installations for BR 2A & 2B	250 days S	Sun 2/4/23 Thu	7/12/23	Sun 2/4/23	Thu 7/12/23	Tue 16/1/2	24 Fri 12/5/23	40 days 6	43FS+90 eda	ŧ			
672 BS, BR	2.9.10.7.1	Lighting and Power Distribution System, BR2	150 days S	Sun 2/4/23 Tue	29/8/23	Sun 2/4/23	Tue 29/8/23	Sat 14/10/	23 Thu 18/5/23	3 0 days		677	BS - A x 4~6 men		
673 BS, BR, Pb	2.9.10.7.2	Plumbing Installation, BR2	120 days S	Sun 2/4/23 Sun	30/7/23	Sun 2/4/23	Sun 30/7/23	Sun 15/10	/ Sun 18/6/23	3 50 days 8	159 8	861,677	Pb - A x 4~6 men		
674 BS, BR, CCTV	2.9.10.7.3	CCTV Installation (7 indoor + 2 outdoor Cameras), BR2	60 days T	Tue 2/5/23 Fri 3	80/6/23	Tue 2/5/23	Fri 30/6/23	Sun 15/10	/ Thu 17/8/23	3 20 days 6	43FS+120 da	945.677	BS - B x 4~6 men		
675 BS, BR, FSI	2.9.10.7.4	Fire Services Installation, BR2	· l	Sun 2/4/23 Sun									6:FS - B x 4~6 men		
							Sun 30/7/23					U+3,633,836,			
676 BS,BR,Earth	2.9.10.7.5	Lightning Protection System, BR2		Sun 2/4/23 Wei			Wed 31/5/23						BS - C x 2~4 men		
677 BS, BR	2.9.10.7.6	Testing and Commissioning of Building Services Installations, BR2	100 days V	Wed 30/8/23 Thu	7/12/23	Wed 30/8/23	Thu 7/12/23	Mon 22/1/	Sun 15/10/.	46 days 6	72,673,674,		BS - C x 2~4 men		
678 BR, PV	2.9.10.8	PV System	330 days N	Mon 2/1/23 Mon	n 27/11/23	Mon 2/1/23	Mon 27/11/2	Thu 18/4/	24 Thu 25/5/2	3 143 days 3	55				
679 BR, PV	2.9.10.8.1	Complete the CLP's Electronic Application Form and Upload Required Docum	90 days N	Mon 2/1/23 Sat	1/4/23	Mon 2/1/23	Sat 1/4/23	Mon 22/1/	Wed 25/10.	296 days 4	58,355				
680 BR, PV	2.9.10.8.2	Material ordering and delivery to site	120 days N	Mon 2/1/23 Mon	n 1/5/23	Mon 2/1/23	Mon 1/5/23	Thu 21/9/2	23 Thu 25/5/23	3 0 days		681			
681 BR, PV	2.9.10.8.3	Technical Assessment, System Test and Installation	90 days T	Tue 2/5/23 Sun	30/7/23	Tue 2/5/23	Sun 30/7/23	Wed 20/12	2 Fri 22/9/23	0 days 6	80,643	682	PV - A x 4~6 men		
682 BR, PV	2.9.10.8.4	CLP's smart meter installation and Final on-grid test with CLP	120 days N	Mon 31/7/23 Mor	n 27/11/23	Mon 31/7/23	Mon 27/11/23	3 Thu 18/4/2	24 Thu 21/12/.	143 days 6	81 :	542			
683 MFS, LA, BS	2.9.11	Access Date for Portion B-5A, MFB No. 2 below 1st floor level		Mon 20/12/21Sun							SS+749 eday				
684 MFS, LA, BS, Others	2.9.12	Tentative Civil Handover Date, Portion 8-5A, MFB No. 2 below 1st floor level		Wed 26/1/22 Wei						0 days		687,693FS+4			
685 MFS,Main	2.9.13	Commencement of E&M Installation at MFB No. 2 Lower Part		Thu 27/1/22 Mo								864			MFS, Main
686 MFS	2.9.13.1	Provision of Temporary Water Supply, Electricity Supply, Lighting, Welfare facilities etc., MFB2	7 days T	Thu 27/1/22 We	d 2/2/22	Thu 27/1/22	Wed 2/2/22	Tue 23/1/2	24 Wed 17/1/24	720 days 6	84				
687 MFS, LA	2.9.13.2	Installation of Lifting Appliances at MFB No. 2	66 days T	Thu 27/1/22 Sat	2/4/22	Thu 27/1/22	Sat 2/4/22	Tue 16/1/2	24 Sun 12/11/.	654 days 3	80,684			<u> </u>	
688 MFS, LA	2.9.13.2.1	B2 EOT Crane LA-04-01 SWL 5t	45 days T	Thu 27/1/22 Sat	12/3/22	Thu 27/1/22	Sat 12/3/22	Mon 1/1/2	4 Sat 18/11/2	3 0 days		690,691,692			
689 MFS, LA	2.9.13.2.2	B2 EOT Crane LA-04-02 SWL5t	30 days T	Thu 27/1/22 Fri 2	25/2/22	Thu 27/1/22	Fri 25/2/22	Mon 1/1/2	4 Sun 3/12/23	3 15 days		690,691,692		<u>-</u>	
690 MFS, LA	2.9.13.2.3	B2 MR LA-04-03 SWL 5t	14 days S	Sun 13/3/22 Sat	26/3/22	Sun 13/3/22	Sat 26/3/22	Mon 15/1/	Tue 2/1/24	0 days 6	88,689	692		- 	
691 MFS, LA	2.9.13.2.4	B1 MR LA-04-04 SWL 3t	14 days S	Sun 13/3/22 Sat	26/3/22	Sun 13/3/22	Sat 26/3/22	Mon 15/1	Tue 2/1/24	0 days 6	88.689	692			
692 MFS,LA	2.9.13.2.5	T&C, Loading Test for Lifting Appliances		Sun 27/3/22 Sat			Sat 2/4/22		Tue 16/1/24	·	88,689,690,0				
693 MFS, Mech	2.9.13.3	Mechanical Installations for E&M Equip. at MFB No. 2 Lower Part		Sun 13/3/22 Mo			Mon 20/3/23				84FS+45 eda				
694 MFS, Mech	2.9.13.3.1	Installation of penstocks and stoplogs (Penstocks 18nos, Stoplogs 11	n 90 days F	ri 24/6/22 We	d 21/9/22	Fri 24/6/22	Wed 21/9/22	2 Wed 21/9) Fri 24/6/22	2 0 days 4	11	704	ME - E x 4~6 mer		x 4~6 men
695 MFS, Mech	2.9.13.3.2	Installation of hollow fibre membrane modules (x9)	90 days S	Sun 13/3/22 Fri 1	10/6/22	Sun 13/3/22	Fri 10/6/22	Mon 20/3/	Wed 21/12.	283 days 2	48		ME - A x 4~6 men		
696 MFS, Mech	2.9.13.3.3	Installation of air scour blowers (x3)	90 days S	Sun 13/3/22 Fri 1	10/6/22	Sun 13/3/22	Fri 10/6/22	Thu 23/6/2	22 Sat 26/3/22	0 days 2	:54	700,697,698	ME - B x 4~6 men		
697 MFS, Mech	2.9.13.3.4	Installation of permeate pumps (x10)	90 days S	Sat 11/6/22 Thu	8/9/22	Sat 11/6/22	Thu 8/9/22	Wed 21/9/	Fri 24/6/22	0 days 2	55,696	700	ME - A x 4~6 men		
698 MFS, Mech	2.9.13.3.5	Installation of return activated sludge pumps (x5)	90 days S	Sat 11/6/22 Thu	8/9/22	Sat 11/6/22	Thu 8/9/22	Wed 21/9/	' Fri 24/6/22	0 days 2	90,696	700	ME - B x 4~6 men		
699 MFS, Mech	2.9.13.3.6	Installation of membrane tank drain pumps (x2)	45 days S	Sun 13/3/22 Tue	26/4/22	Sun 13/3/22	Tue 26/4/22	Wed 21/9/	Mon 8/8/22	135 days 2	96	700	ME - C x 4~6 men		
700 MFS, Mech	2.9.13.3.7	Installation of pipework and valves	180 days F	ri 9/9/22 Tue	7/3/23	Fri 9/9/22	Tue 7/3/23	Mon 20/3/	Thu 22/9/22	2 13 days 4	8,696,697,69		ME - C x 4~6 men	<u> </u>	
701 MFS, Mech	2.9.13.3.8	Installation of chemical storage tank		Sun 13/3/22 Wee			Wed 11/5/22						ME - D x 2~4 men		
	2.9.13.3.9						Wed 11/5/22			313 days 2			ME - D x 2~4 men		
702 MFS, Mech		Installation of chemical dosing pumps		Sun 13/3/22 Wei											
703 MFS, Mech	2.9.13.3.10	Installation of plant service water system		Sun 13/3/22 Fri 1			Fri 10/6/22		Wed 21/12.	283 days 3	02,308		ME - C x 4~6 men		
704 MFS, Mech	2.9.13.3.11	Site Acceptance Tests - mechanical aspects including alignment and levels checks, leakage tests, welding tests, installation checks, pressure tests etc.	180 days T	Thu 22/9/22 Mor	n 20/3/23	Thu 22/9/22	Mon 20/3/23	Mon 20/3/23	Thu 22/9/22	2 0 days 6	94		ME - D x 2~4 men		ME - D x 2~4 men
705 MFS, Elec	2.9.13.4	Electrical Installations for E&M Equip. at MFB No. 2 Lower Part	150 days S	Sun 13/3/22 Tue	9/8/22	Sun 13/3/22	Tue 9/8/22	Tue 16/1/2	24 Sun 20/8/23	3 525 days 6	93SS				
706 MFS, Elec	2.9.13.4.1	Installation of cable trays and cable containments	150 days S	Sun 13/3/22 Tue	9/8/22	Sun 13/3/22	Tue 9/8/22	Mon 22/1/	Sat 26/8/23	531 days					
707 MFS, LA, BS	2.9.14	Access Date for Portion B-5B, MFB No. 2 remaining portion	90 edays T	Thu 19/5/22 We	d 17/8/22	Thu 19/5/22	Wed 17/8/22	Wed 17/8	/ Thu 19/5/2	2 0 edays 6	SS+899 eday	1			
708 MFS, LA, BS, Others	2.9.15	Tentative Civil Handover Date, Portion B-5B, MFB No. 2 remaining portion	1 day S	Sat 25/6/22 Sat	25/6/22	Sat 25/6/22	Sat 25/6/22	Thu 29/9/2	22 Thu 29/9/22	0 days		711,720FS+4	5	25/6	
709 MFS,Main	2.9.16	Commencement of E&M Installation at MFB No. 2 Upper Part	502 days S	Sun 26/6/22 Thu	9/11/23	Sun 26/6/22	Thu 9/11/23	Sun 10/3/	24 Tue 21/2/2	3 68 days 7	08	864			
													I		
Task Task		Milestone, Tentative Milestone Milestone Su	mmary	•	Project Summa	iry	1 Manu	al Summary		Late			Critical	Critical Split Progress Manual Progress Slack (Float)	Milestone (Actual)
ect: DE/2018/04 :: Thu 2/7/20															
l l															

						Shek W	u Hui Effluei	nt Polisning Pla	ant - Mann Monks Stade	I EXIVI WORKS	for Sewage Treatment I	
ID Text1	WBS Task f	Name	Duration Start between Task	Finish	Early Start				Float Time Predecess			2020 2021 2022 2023
710 MFS	2.9.16.1	Provision of Temporary Water Supply, Electricity Supply, Lighting, Welfare facilities etc., MFB2	Start and Finish 7 days Sun 26/6/22	Sat 2/7/22	Sun 26/6/22	Sat 2/7/22	Tue 23/1/2	24 Wed 17/1/24	570 days 708			Half 1, 2020
		idulities etc., MFDZ						17/1/24				
711 MFS, LA	2.9.16.2	Installation of Lifting Appliances at MFB No. 2	142 days Sun 26/6/22	Mon 14/11/22	2 Sun 26/6/22	Mon 14/11/2	2 Tue 16/1/2	24 Mon 28/8/	. 428 days 380,708			
712 MFS, LA	2.9.16.2.1	GF EOT Crane LA-04-05 SWL 5t	45 days Sun 26/6/22	Tue 9/8/22	Sun 26/6/22	Tue 9/8/22	Tue 17/10	/ Sun 3/9/23	0 days	714,715,719	LA - A x 4~6 men	
713 MFS, LA	2.9.16.2.2	GF Gantry Crane LA-04-06 SWL 6t	45 days Sun 26/6/22	Tue 9/8/22	Sun 26/6/22	Tue 9/8/22	Tue 17/10	/ Sun 3/9/23	0 days	714,715,719	LA - B x 4~6 men	
714 MFS, LA	2.9.16.2.3	1F EOT Crane LA-04-07 SWL 15t	45 days Wed 10/8/22	Fri 23/9/22	Wed 10/8/22	Fri 23/9/22	Fri 1/12/2	Wed 18/10	. 0 days 712,713	716,717,718	3,7:LA - A x 4~6 men	
715 MFS, LA	2.9.16.2.4	1F EOT Crane LA-04-08 SWL 15t	45 days Wed 10/8/22	Fri 23/9/22	Wed 10/8/22	Fri 23/9/22	Fri 1/12/2	Wed 18/10	0 days 712,713	716,717,718	3,7:LA - B x 4~6 men	
716 MFS, LA	2.9.16.2.5	RF EOT Crane LA-04-09 SWL 2t	45 days Sat 24/9/22	Mon 7/11/22	Sat 24/9/22	Mon 7/11/22	Mon 15/1/	/ Sat 2/12/23	0 days 714,715	719	LA - A x 4~6 men	
717 MFS, LA	2.9.16.2.6	RF Retractable MR LA-04-10 SWL 2t	45 days Sat 24/9/22	Mon 7/11/22	Sat 24/9/22	Mon 7/11/22	Mon 15/1	/ Sat 2/12/23	0 days 714,715	719	LA - B x 4~6 men	
718 MFS, LA	2.9.16.2.7	Mobile A-frame LA-04-11 SWL 2t	7 days Sat 24/9/22	Fri 30/9/22	Sat 24/9/22	Fri 30/9/22	Mon 15/1/	/ Tue 9/1/24	38 days 714,715	719	LA - C x 4~6 men	
719 MFS, LA	2.9.16.2.8	T&C, Loading Test for Lifting Appliances	7 days Tue 8/11/22	Mon 14/11/22	Tue 8/11/22	Mon 14/11/2	2 Mon 22/1/	/ Tue 16/1/24	434 days 712,713,7	14,:	LA - A x 4~6 men	
720 MFS, Mech	2.9.16.3	Mechanical Installations for E&M Equip. at MFB No. 2 Upper Part	280 days Wed 10/8/22	Tue 16/5/23	Wed 10/8/22	Tue 16/5/23	Fri 19/1/2	4 Sat 15/4/23	0 days 708FS+45	eda 725SS+45 ed	day	
721 MFS, Mech	2.9.16.3.1	Installation of air scour blowers (x3)	100 days Wed 10/8/22	Thu 17/11/22	Wed 10/8/22	Thu 17/11/22	Sat 30/12/	23 Fri 22/9/23	0 days 254	722,724	ME - A x 4~6 men	
722 MFS, Mech	2.9.16.3.2	Installation of compressed air system (x1)	60 days Fri 18/11/22	Mon 16/1/23	Fri 18/11/22	Mon 16/1/23	Sat 2/12/2	3 Wed 4/10/	. 0 days 266,721	723	ME - B x 4~6 men	
723 MFS, Mech	2.9.16.3.3	Installation of instrumentations	60 days Tue 17/1/23	Fri 17/3/23	Tue 17/1/23	Fri 17/3/23	Wed 31/1/	/ Sun 3/12/23	320 days 722,272		ME - D x 2~4 men	
724 MFS, Mech	2.9.16.3.4	Site Acceptance Tests - mechanical aspects including alignment and levels	180 days Fri 18/11/22			Tue 16/5/23			408 days 721		ME - D x 2~4 men	
		checks, leakage tests, welding tests, installation checks, pressure tests etc.	,	.,.,		.,-,-3	, . , . ,	31/12/23	,			
725 MFS, Elec	2.9.16.4	Electrical Installations for E&M Equip. at MFB No. 2 Upper Part	341 days Sat 24/9/22	Wed 30/8/23	Sat 24/9/22	Wed 30/8/23	Fri 19/1/2	4 Sun 26/3/23	0 days 720SS+45	eda 743		
726 MFS, Elec	2.9.16.4.1	Installation of LV Switchboards, BR2	90 days Sat 24/9/22	Thu 22/12/22	Sat 24/9/22	Thu 22/12/22	Thu 6/7/23	3 Sat 8/4/23	0 days 83	733	LV - B x 4~6 men	
727 MFS, Elec	2.9.16.4.2	Installation of LV Switchboards, MFB No. 2	90 days Sat 24/9/22	Thu 22/12/22	Sat 24/9/22	Thu 22/12/22	Thu 6/7/2	3 Sat 8/4/23	0 days 86	733	LV - A x 4~6 men	
728 MFS, Elec, SCADA	2.9.16.4.3	Installation of PLC Panels, BR2	90 days Sat 24/9/22	Thu 22/12/22	Sat 24/9/22	Thu 22/12/22	Thu 6/7/2	3 Sat 8/4/23	0 days 737	733,738		
729 MFS, Elec, SCADA	2.9.16.4.4	Installation of PLC Panels, MFB No. 2	90 days Sat 24/9/22	Thu 22/12/22	Sat 24/9/22	Thu 22/12/22	Thu 27/6/2	24 Sat 30/3/24	553 days		PLC - B x 1 man	
730 MFS, Elec	2.9.16.4.5	Installation of HV Switchboards, MFB No. 2	60 days Sat 24/9/22	Tue 22/11/22	Sat 24/9/22	Tue 22/11/22	Thu 6/7/2	3 Mon 8/5/23	30 days 64,70	733	HV - A x 4~6 men	
731 MFS, Elec	2.9.16.4.6	Installation of transformer, MFB No. 2	45 days Sat 24/9/22	Mon 7/11/22	Sat 24/9/22	Mon 7/11/22	Thu 27/6/2	24 Tue 14/5/24	598 days 241			
732 MFS, Elec	2.9.16.4.7	Installation of cable trays and cable containments	180 days Sat 24/9/22	Wed 22/3/23	Sat 24/9/22	Wed 22/3/23	Thu 27/6/2	24 Sun 31/12/	463 days			
733 MFS, Elec, SCADA	2.9.16.4.8	Cables laying and terminations	150 days Fri 23/12/22			Sun 21/5/23			0 days 397,726,7	30, 740,735		
734 MFS, Elec	2.9.16.4.9	Energisation of LV Switchboards, MFB	1 day Wed 30/8/23						. 154 days		LA - A x 4~6 men	
735 MFS, Elec	2.9.16.4.10	Site Acceptance Tests - Electrical aspects including voltange and current	60 days Mon 22/5/23						41 days 733	743	LV - A x 4~6 men	
		tests, equipment protection interlock checks, motor rotation direction and electrical tests, control and functional checks etc.						29/4/24				
736 MFS, SCADA	2.9.16.5	SCADA Systems, BR No. 1 & No 2, MFB No. 2	481 days Sun 26/6/22	Thu 19/10/23	Sun 26/6/22	Thu 19/10/23	Fri 9/2/24	Sun 19/3/23	3 113 days			
737 MFS, SCADA	2.9.16.5.1	Delivery of PLC System, BR2	7 days Sun 26/6/22	Sat 2/7/22	Sun 26/6/22	Sat 2/7/22	Thu 6/4/2	23 Fri 31/3/23	83 days 401	728		
738 MFS, SCADA	2.9.16.5.2	Configuration of PLC System for BR No. 1 & No. 2	30 days Wed 30/8/23	Thu 28/9/23	Wed 30/8/23	Thu 28/9/23	Wed 31/1/	/ Tue 2/1/24	0 days 665,728	741	PLC - A x 1 man	
739 MFS,SCADA	2.9.16.5.3	Delivery of PLC System, MFB No. 2	7 days Sun 26/6/22	Sat 2/7/22	Sun 26/6/22	Sat 2/7/22	Mon 22/1	L Tue 16/1/	. 569 days 403			
740 MFS, SCADA	2.9.16.5.4	Configuration of PLC System for MFB No. 2	30 days Mon 22/5/23	Tue 20/6/23	Mon 22/5/23	Tue 20/6/23	Tue 2/1/24	4 Mon 4/12/	. 0 days 733	742		
741 MFS, SCADA	2.9.16.5.5	Site Acceptance Test for PLC System at BR No. 1 and No. 2	21 days Fri 29/9/23	Thu 19/10/23	Fri 29/9/23	Thu 19/10/23	Wed 21/2/	/ Thu 1/2/24	0 days 738	670,744		
742 MFS, SCADA	2.9.16.5.6	Site Acceptance Test for PLC System at MFB No. 2	21 days Wed 21/6/23	Tue 11/7/23	Wed 21/6/23	Tue 11/7/23	Tue 23/1/2	24 Wed 3/1/24				
743 MFS,SCADA	2.9.16.6	Site Acceptance Test for E&M Equip at MFB No. 2							20.63 edays 720,725,7	35 744		
744 MFS,SCADA	2.9.16.7	System Commissioning for E&M Equip at MFB No. 2	21 days Fri 20/10/23									
745 MFS	2.9.16.8	Building Services Installations for MFB No. 2	330 days Wed 23/11/2									
746 BS, MFS, MVAC	2.9.16.8.1	Mechanical Ventilation and Air Conditioning System, MFB No. 2	120 days Wed 23/11/2							752	MVAC - A x 4~6 men	
740 BS, MFS	2.9.16.8.2	Lighting and Power Distribution System, MFB No. 2	210 days Wed 23/11/2							752	BS - A x 4~6 men	
747 BS, MFS 748 BS, MFS, Pb	2.9.16.8.3	Plumbing Installation, MFB No. 2										
			180 days Wed 23/11/2							861,752	Pb - B x 4~6 men	
749 BS, MFS, CCTV	2.9.16.8.4	CCTV Installation (10 indoor + 3 outdoor Cameras), MFB No. 2	90 days Wed 23/11/2								BS - B x 4~6 men	
750 BS, MFS, FSI	2.9.16.8.5	Fire Services Installation, MFB No. 2	120 days Wed 23/11/2							843,855,856	i,7!FS - B x 4~6 men	
751 BS, MFS, Earth	2.9.16.8.6	Earthing and Lightning Protection System, MFB No. 2	60 days Wed 23/11/2								BS - C x 2~4 men	
752 BS, MFS	2.9.16.8.7	Testing and Commissioning of Building Services Installations, MFB No. 2	120 days Wed 21/6/23								BS - C x 2~4 men	
753 Chem		Access Date for Portion B-7 & 7B, Chemical Dosing, Concrete Plinth for DOs, Chemical Sys 1 & 2, FS & sprinkler pump room, Genset, FS hydrant and booster $\frac{1}{2}$	150 edays Mon 20/12/21	Thu 19/5/22	Mon 20/12/21	Thu 19/5/22	Fri 17/2/2	3 Tue 20/9/22	edays,2SS	+74 edays,802FS		<u> </u>
		pump room, flowmeter chambers							edays	days,807FS+ days,812FS+	90	
										days,818FS+		
Task		Milestone, Tentative Milestone Milestone St	ımmary	Project Sumr	mary	1 Manu	al Summary		Late		Critical	Critical Split Progress Manual Progress Slack (Float) Milestone (Actual)
ect: DE/2018/04												

					Shak M	lu Hui Effluent	Polishina Plan	nt - Main Works Stage	1 F&M Works fr	or Sewage Treatmon	
ID Text1	WBS 1	Task Name	Duration Start Finish	Early Start	Early Finish			Float Time Predecesso			2020 2021 2022 2023 2
754 Temp Chemical, Others	2.9.18	Tentative Civil Handover Date, Portion B-7 & B-7B, temporary chemical dosing system, concrete plinth for deodorisation system	between Task Start and Finish 1 day Wed 26/1/22 Wed 26/		Wed 26/1/22		Wed 26/7/23	0 days	756,825,755		Half 1, 2020 Half 2, 2020 Half 1, 2021 Half 2, 2021 Half 1, 2022 Half 1, 2023 Half 2, 2023 Half 2, 2025 Half 3, 2025 Half
755 Temp Chemical,Main	2.9.19	Commencement of E&M Installation at Temporary Chemical Dosing System	328 days Mon 21/3/22 Sun 12/	2/23 Mon 21/3/22	Sun 12/2/23			338 days 185,191,19	97 : 864		Tenp Chemical Main
756 Temp Chemical, Mech	2.9.19.1	Mechanical Installations for E&M Equip. for Chemical Dosing System	90 edays Mon 21/3/22 Sun 19/							ayME - D x 2~4 men	
757 Temp Chemical, Elec	2.9.19.2	Electrical Installations for E&M Equip. for Chemical Dosing System	90 edays Wed 20/4/22 Tue 19/					0 edays 756SS+30		dylvic - D x 2 4 men	
	2.9.19.3		0 days Sun 1/5/22 Sun 1/5,						756FF+50 day		
758 Temp Chemical, others 759 Temp Chemical	2.9.19.3	Tentative Civil Handover Date, Chemical Pipe Trench (by others)	30 edays Tue 19/7/22 Thu 18/3		Sun 1/5/22	Tue 5/9/23 Mon 25/12		37 days 0 edays 756,757	750FF+50 day	ys	
759 Temp Chemical 760 Temp Chemical	2.9.19.4	Site Acceptance Test for E&M Equip for Chemical Dosing System	30 edays Tue 19/7/22 Thu 18/6		Sat 17/9/22			493.63 edays 759	760		
761 Temp Chemical	2.9.19.5	System Commissioning for E&M Equip for Chemical Dosing System	180 days Wed 17/8/22 Sun 12/3					338 days 753FS+90	ade		
		Building Services Installations at Temp. Chemical Dosing System areas							766	DC A v 42C man	
762 Temp Chemical, BS	2.9.19.6.1	Lighting and Power Distribution System, Temp. Chem	90 days Wed 17/8/22 Mon 14					0 days		BS - A x 4~6 men	
763 Temp Chemical, FSI	2.9.19.6.2	Fire Services Installation, DG Stores, Temp. Chem	90 days Wed 17/8/22 Mon 14,					0 days	855,856,766	FS - A x 4~6 men	
764 Temp Chemical,Earth	2.9.19.6.3	Lightning Protection System, Temp. Chem	30 days Wed 17/8/22 Thu 15/9					494 days			
765 Temp, Chemical, MVAC	2.9.19.6.4	Mechanical Ventilation System, Temp. Chem	14 days Fri 16/9/22 Thu 29/9		Thu 29/9/22			480 days 753FS+120	u ec	MVAC - A x 4~6 me	
766 Temp Chemical, BS	2.9.19.6.5	Testing and Commissioning of Building Services Installations, Temp. Chem	90 days Tue 15/11/22 Sun 12/					344 days 762,763		BS - C x 2~4 men	
767 Chemical, Main	2.9.20	Commencement of E&M Installation at Chemical Dosing System 1 and System 2						1			Chemical. Main
768 Chemical, Mech	2.9.20.1	Mechanical Installations for E&M Equip. for Chemical Dosing System	90 edays Tue 22/3/22 Mon 20/			Mon 27/2/		0 edays 770FF+50		ME - D x 2~4 men	
769 Chemical, Elec	2.9.20.2	Electrical Installations for E&M Equip. for Chemical Dosing System	90 edays Mon 20/6/22 Sun 18/9			Mon 29/5/		<u> </u>	771,774,775		
770 Chemical, others	2.9.20.3	Tentative Civil Handover Date, Chemical Pipe Trench (by others)	0 days Sun 1/5/22 Sun 1/5,			Sun 8/1/23		33 days	768FF+50 day	ys	
771 Chemical, Elec	2.9.20.4	Site Acceptance Test for E&M Equip for Chemical Dosing System	45 days Mon 19/9/22 Wed 2/1			Sat 9/12/23		0 days 769	772		
772 Chemical, Elec	2.9.20.5	System Commissioning for E&M Equip for Chemical Dosing System	45 days Thu 3/11/22 Sat 17/1			Tue 23/1/24		402 days 771			
773 Chemical	2.9.20.6	Building Services Installations at Chemical Dosing System areas	263 days Sat 27/8/22 Tue 16/								
774 Chemical, BS	2.9.20.6.1	Lighting and Power Distribution System, Chem 1&2	120 days Mon 19/9/22 Mon 16,					0 days 769	779	BS - B x 4~6 men	
775 Chemical, FSI	2.9.20.6.2	Fire Services Installation, DG Stores	120 days Mon 19/9/22 Mon 16,					0 days 769	855,856,846,7	7:FS - A x 4~6 men	
776 Chemical, Earth	2.9.20.6.3	Lightning Protection System, Chem 1&2	30 days Sat 27/8/22 Sun 25/9		Sun 25/9/22			484 days			
777 Chemical, MVAC	2.9.20.6.4	Mechanical Ventilation System, Chem 2	14 days Sun 16/10/22 Sat 29/1					450 days 753FS+150	0 da	MVAC - A x 4~6 me	
778 Chemical, Pb	2.9.20.6.5	Plumbing Installation, Chem 1	7 days Sat 27/8/22 Fri 2/9/2		Fri 2/9/22	Mon 22/1/		507 days		Pb - A x 4~6 men	
779 Chemical, BS	2.9.20.6.6	Testing and Commissioning of Building Services Installations, Chem 1&2	120 days Tue 17/1/23 Tue 16/5							BS - C x 2~4 men	
780 Fire, Pump Room, Main	2.9.21	Commencement of E&M Installation at FS & Sprinkler Pump Room	424 days Wed 23/2/22 Sun 23/					268 days 197,191,18			Fire Purity Rogin, Main
781 Fire	2.9.21.1	Mechanical Installations for FS & Sprinkler Pumps	90 edays Wed 23/2/22 Tue 24/					0 edays	782		
782 Fire	2.9.21.2	Electrical Installations for FS & Sprinkler Pumps	90 edays Tue 24/5/22 Mon 22,					0.63 edays 781	783,786		
783 Fire	2.9.21.3	Site Acceptance Test for FS & Sprinkler Pumps	45 days Tue 23/8/22 Thu 6/1			Sat 9/12/23		0 days 782	784		
784 Fire	2.9.21.4	System Commissioning for FS & Sprinkler Pumps	45 days Fri 7/10/22 Sun 20/			Tue 23/1/24					
785 Fire	2.9.21.5	Building Services Installations at FS & Sprinkler Pump Room	240 days Sat 27/8/22 Sun 23/								
786 Fire	2.9.21.5.1	Lighting and Power Distribution System, Chem 1&2	120 days Sat 27/8/22 Sat 24/1			Mon 25/9/		0 days 782	789		
787 Fire	2.9.21.5.2	Lightning Protection System, FS & Sprinkler Pump Room	30 days Sat 27/8/22 Sun 25/9			Mon 22/1/		484 days			
788 Fire	2.9.21.5.3	Mechanical Ventilation System, FS & Sprinkler PR	14 days Sat 27/8/22 Fri 9/9/2			Mon 22/1/		500 days			
789 Fire	2.9.21.5.4	Testing and Commissioning of Building Services Installations, FS & Sprinkler P						275 days 786	05.05		
790 Fire, FH Pump Room, Main		Commencement of E&M Installation at Street FH Pump Room	424 days Wed 23/2/22 Sun 23/								Fire FH Eump Room, Main
791 Fire	2.9.22.1	Mechanical Installations for Street FH Pumps	90 edays Wed 23/2/22 Tue 24/5						792		
792 Fire	2.9.22.2	Electrical Installations for Street FH Pump	90 edays Tue 24/5/22 Mon 22,			Mon 29/5/			793,796		
793 Fire	2.9.22.3	Site Acceptance Test for Street FH Pump	45 days Tue 23/8/22 Thu 6/1			Sat 9/12/23		0 days 792	794		
794 Fire	2.9.22.4	System Commissioning for Street FH Pumps	45 days Fri 7/10/22 Sun 20/			Tue 23/1/24			• 1		
795 Fire	2.9.22.5	Building Services Installations at Street FH Pump Room	240 days Sat 27/8/22 Sun 23/								
796 Fire	2.9.22.5.1	Lighting and Power Distribution System, Street FH PR	120 days Sat 27/8/22 Sat 24/1			Mon 25/9/		0 days 792	799		
797 Fire	2.9.22.5.2	Lightning Protection System, Street FH PR	30 days Sat 27/8/22 Sun 25/9								
798 Fire, MVAC	2.9.22.5.3	Mechanical Ventilation System, Street FH PR	14 days Mon 5/12/22 Sun 18/					400 days 753FS+200	U da	MVAC - A x 4~6 me	
799 Fire	2.9.22.5.4	Testing and Commissioning of Building Services Installations, FH PR	120 days Sun 25/12/22 Sun 23/					275 days 796			
800 DOU 1, Main	2.9.23	Commencement of E&M Installation at DOU 1	171 days Sat 2/7/22 Tue 20/		Tue 20/12/22				864		9 DOU 1. Main
801 DOU, Others	2.9.23.1	Tentative Civil Handover Date, underground air pipework (by others)	0 days Mon 1/8/22 Mon 1/8	8/22 Mon 1/8/22	Mon 1/8/22	Tue 19/9/23	Tue 19/9/23	46 days	802FF+45 day	ys	1/8
Task		Milestone, Tentative Milestone Milestone Sur	nmary • • • • •	ct Summary	Ma-	ual Summary		1 Late		Critical	Critical Split Progress Manual Progress Slack (Float) Milestone (Actual) 🛧
ct: DE/2018/04		imiestorie ▼ Sul	, Proje	and y i	• Manu	Juninary		- 1000		- Crandil	minimal rugress — Stack (ribat) — stack (ribat) — minimal rugress — stack (ribat)
レレ/といり/04											

	nage Services Department meent of the Hong Kong Special Administrative Regio	ion					Shek W	u Hui Efflue		osed Work Programme for DE/2018/0 ant - Main Works Stage 1 E&M Works		nt Facilities	A
	Text1	WBS	Task Name	Duration Start between Task	Finish	Early Start	Early Finish	Late Finish	Late Start	Float Time Predecessors Successors	Resource Names	2020 2021 2022 2023 UNIX 2020 UNIX 2022 UNIX 2023 UNIX 2023	20
	2 DOU, Mech	2.9.23.2	Mechanical Installations for DOU 1	Start and Finish 90 edays Sat 2/7/22	Fri 30/9/22	Sat 2/7/22	Fri 30/9/22	Fri 3/11/2	3 Sat 5/8/23	0 edays 753FS+45 day 803SS+30 ed	ayME - F x 4~6 men	Half 1, 2020	N D J
	DOU, Elec	2.9.23.3	Electrical Installations for DOU 1	90 edays Mon 1/8/22					23 Mon 4/9/23				
	DOU	2.9.23.4	Site Acceptance Test for DOU1	30 edays Sun 30/10/22									
	DOU	2.9.23.5	System Commissioning for DOU 1	21 edays Tue 29/11/22									
	DOU 2A, Main	2.9.24	Commencement of E&M Installation at DOU 2A	171 days Sun 1/1/23					/ Sun 30/7/2			DOUGLA Main	
	DOU, Mech	2.9.24.1	Mechanical Installations for DOU 2A	90 edays Sun 1/1/23			Sat 1/4/23			0 edays 753FS+45 day 808SS+30 ed	ayME - F x 4~6 men		
3	DOU, Elec	2.9.24.2	Electrical Installations for DOU 2A	90 edays Tue 31/1/23			Mon 1/5/23						
	DOU	2.9.24.3	Site Acceptance Test for E&M Equip for DOU 2A	30 edays Mon 1/5/23	Wed 31/5/23	Mon 1/5/23	Wed 31/5/23	Tue 2/1/2	4 Sun 3/12/23	0 edays 807,808 810			
	DOU	2.9.24.4	System Commissioning Test for DOU 2A	21 edays Wed 31/5/23	Wed 21/6/23	Wed 31/5/23	Wed 21/6/23	Tue 23/1/	24 Tue 2/1/24	215.63 edays 809			
	DOU 3A, Main	2.9.25	Commencement of E&M Installation at DOU 3A	171 days Tue 16/8/22	Fri 3/2/23	Tue 16/8/22	Fri 3/2/23	Wed 17/1	/ Sun 30/7/2	3 347 days 320 864		▼ DOU 3A, Main	
2	DOU, Mech	2.9.25.1	Mechanical Installations for DOU 3A	90 edays Tue 16/8/22	Mon 14/11/22	2 Tue 16/8/22	Mon 14/11/22	2 Fri 3/11/2	3 Sat 5/8/23	0 edays 753FS+90 day813SS+30 ed	ayME - F x 4~6 men		
	DOU, Elec	2.9.25.2	Electrical Installations for DOU 3A	90 edays Thu 15/9/22	Wed 14/12/22	2 Thu 15/9/22	Wed 14/12/22	2 Sun 3/12/	23 Mon 4/9/23	0 edays 812SS+30 eda814			
	DOU	2.9.25.3	Site Acceptance Test for E&M Equip for DOU 3A	30 edays Wed 14/12/2	22 Fri 13/1/23	Wed 14/12/22	Fri 13/1/23	Tue 2/1/2	4 Sun 3/12/23	0 edays 812,813 815			
	DOU	2.9.25.4	System Commissioning Test for DOU 3A	21 edays Fri 13/1/23	Fri 3/2/23	Fri 13/1/23	Fri 3/2/23	Tue 23/1/	24 Tue 2/1/24	353.63 edays 814			
	DOU 3B, Main	2.9.26	Commencement of E&M Installation at DOU 3B	187 days Mon 1/8/22	Fri 3/2/23	Mon 1/8/22	Fri 3/2/23	Wed 17/1	/ Sun 30/7/2	3 347 days 320 864		DOU 3B. Main	
7	DOU, others	2.9.26.1	Tentative Civil Handover Date underground air pipework (by others)	0 days Mon 1/8/22	Mon 1/8/22	Mon 1/8/22	Mon 1/8/22	Wed 4/10	/ Wed 4/10/.	. 96 days 818FF+30 da	ys		
	DOU, Mech	2.9.26.2	Mechanical Installations for DOU 3B	90 edays Tue 16/8/22	Mon 14/11/22	2 Tue 16/8/22	Mon 14/11/22	2 Fri 3/11/2	3 Sat 5/8/23	0 edays 753FS+90 day819SS+30 ed	ayME - F x 4~6 men		
	DOU, Elec	2.9.26.3	Electrical Installations for DOU 3B	90 edays Thu 15/9/22			Wed 14/12/22						
	DOU	2.9.26.4	Site Acceptance Test for E&M Equip for DOU 3B	30 edays Wed 14/12/2		Wed 14/12/22			4 Sun 3/12/23				
	1 DOU												
		2.9.26.5	System Commissioning Test for DOU 3B	21 edays Fri 13/1/23						353.63 edays 820		s Chamber, Main	
	Chamber, Main	2.9.27	Commencement of Valves and Flowmeters Installation at Chambers	150 days Thu 19/5/22			Sat 15/10/22					• Champer, Main	
3	Chamber, Mech	2.9.27.1	Installation of valves and flowmeters	90 days Thu 19/5/22	Tue 16/8/22	Thu 19/5/22	Tue 16/8/22	Thu 23/11	/ Sat 26/8/23	0 days 753 824	ME - C x 4~6 men		
1	Chamber	2.9.27.2	cables laying and terminations	60 days Wed 17/8/22	Sat 15/10/22	Wed 17/8/22	Sat 15/10/22	Mon 22/1	/ Fri 24/11/23	464 days 823	EE - A x 4~6 men		
	Genset, Main	2.9.28	Commencement of E&M Installation at Emergency Generator House	733 days Thu 27/1/22	Mon 29/1/24	Thu 27/1/22	Mon 29/1/24	Sat 13/4/2	24 Mon 25/1	71 days 754 868			
	Genset	2.9.28.1	Application for EPD's Approval for Installation of Diesel Engine Generator	21 days Thu 27/1/22	Wed 16/2/22	Thu 27/1/22	Wed 16/2/22	Sun 14/1/	24 Mon 25/12.	. 622 days 418,472 827			
	7 Genset	2.9.28.2	Installation and SAT of Emergency Power Generator and associated work, GH	60 days Wed 1/11/23	Sat 30/12/23	Wed 1/11/23	Sat 30/12/23	Thu 14/3/	24 Mon 15/1/.	. 0 days 826,753 829	GS - A x 4 men		
22	8 Genset,BS	2.9.28.3	Building Services Installation at Emergency Generator House	733 days Thu 27/1/22	Mon 29/1/24	Thu 27/1/22	Mon 29/1/24	Sat 13/4/2	24 Fri 15/3/24	75 days			
	9 Genset,FSI	2.9.28.3.1	Fire Services Installation, GH	30 days Sun 31/12/23	3 Mon 29/1/24	Sun 31/12/23	Mon 29/1/24	Sat 13/4/2	4 Fri 15/3/24	75 days 827	FS - A x 4~6 men		1
	0 Genset, MVAC	2.9.28.3.2	Mechanical Ventilation System, GH	14 days Thu 27/1/22	Wed 9/2/22	Thu 27/1/22	Wed 9/2/22	Sun 14/4/	24 Mon 1/4/24	795 days	MVAC - A x 4~6 men	en	
	1 Genset,Earth	2.9.28.3.3	Lightning Protection System, GH	15 days Thu 27/1/22	Thu 10/2/22	Thu 27/1/22	Thu 10/2/22	Sun 14/4/	24 Sun 31/3/24	794 days			
	2 Genset,BS	2.9.28.3.4	Testing and Commissioining of Building Services Installation, GH	7 days Thu 27/1/22	Wed 2/2/22	Thu 27/1/22	Wed 2/2/22	Sun 14/4/	24 Mon 8/4/24	802 days	BS - A x 4~6 men	—	
	3 Civil	2.9.29	Access Date for Portion B-9B, underground pipework	60 edays Sun 18/2/24	Thu 18/4/24	Sun 18/2/24	Thu 18/4/24	Thu 18/4/	24 Sun 18/2/2	0 edays 6SS+1539 eda			
	4 Civil, others	2.9.30	Tentative Civil Handover Date for Portion B-9B (by others)	1 day Fri 1/3/24					Fri 1/3/24	0 days 835			
	5 Civil, Main	2.9.31	Commencement of underground pipework modification and connection works	20 days Sat 2/3/24			Thu 21/3/24			0 days 834			
	6 Civil												
		2.9.31.1	Road Excavation	7 days Sat 2/3/24		Sat 2/3/24			Sat 2/3/24	0 days 837			
	7 Civil	2.9.31.2	Pipe Laying and connection works	7 days Sat 9/3/24			Fri 15/3/24			0 days 836 838			
	3 Civil	2.9.31.3	Pressure Tests	3 days Sat 16/3/24			Mon 18/3/24	Mon 18/3	/ Sat 16/3/24	0 days 837 839			
	9 Civil	2.9.31.4	Make Good	3 days Tue 19/3/24	Thu 21/3/24	Tue 19/3/24	Thu 21/3/24	Thu 21/3/	24 Tue 19/3/24	0 days 838			
	FSI, Main	2.9.32	Commencement of Fire Services Installation	1317 days Tue 1/9/20	Tue 9/4/24	Tue 1/9/20	Tue 9/4/24	Sat 13/4/2	24 Tue 23/8/2	0 days 868			
1	FSI	2.9.32.1	Design Review of Approved General Building Plan	126 days Tue 1/9/20	Mon 4/1/21	Tue 1/9/20	Mon 4/1/21	Mon 26/1	2 Tue 23/8/22	0 days 428 842			
	2 FSI	2.9.32.2	Submission of WWO542 for WSD's approval	270 days Tue 5/1/21	Fri 1/10/21	Tue 5/1/21	Fri 1/10/21	Fri 22/9/2	3 Tue 27/12/.	. 717 days 841 843			
	S FSI	2.9.32.3	Submission of WWO46 for WSD's Inspection	30 days Tue 19/9/23	Wed 18/10/23	3 Tue 19/9/23	Wed 18/10/23	Mon 23/1	0 Sun 24/9/23	0 days 592,639,675, 844			
	FSI	2.9.32.4	Obtain WWO46 Part V	60 days Thu 19/10/23	3 Sun 17/12/23	Thu 19/10/23	Sun 17/12/23	Fri 22/12/	23 Tue 24/10/.	. 0 days 843 847,845			—
	FSI	2.9.32.5	FSD Inspection and Approval for MVAC	21 days Mon 18/12/2	3 Sun 7/1/24	Mon 18/12/23	Sun 7/1/24	Thu 11/1/	24 Fri 22/12/2	0 days 855,856,844 848			
6	FSI	2.9.32.6	FSD Inspection and Approval for DG Stores	21 days Sat 2/12/23	Fri 22/12/23	Sat 2/12/23	Fri 22/12/23	Thu 11/1/	24 Fri 22/12/2	16 days 855,856,775 848			
7	FSI	2.9.32.7	Submission of (FSI/314 & FSI/501) to FSD	14 days Mon 18/12/2									
	FSI	2.9.32.8	Pre-inspection meeting with FSD	5 days Mon 8/1/24			Fri 12/1/24			0 days 847,845,846 849			
	FSI	2.9.32.9	Initial Inspection with FSD										
				15 days Sat 13/1/24			Sat 27/1/24						
	D FSI	2.9.32.10	Document Checking	45 days Sun 28/1/24	Tue 12/3/24	Sun 28/1/24	Tue 12/3/24	Sat 16/3/2	4 Inu 1/2/24	0 days 849 851			

Drainage Services Departmen The Government of the Blong Keng Special Administrative Ru	it agion					Shek W	/u Hui Efflue		posed Work Program lant - Main Works Stad			ent Facilities									A≡CC
D ID Text1	WBS Ta	ask Name		Finish	Early Start	Early Finish			Float Time Predece			202	20		2021		2022		2023		2024
054 50	202244	De less alles and the CCD	between Task Start and Finish	T 26/2/24	W-142/2/24	T 26/2/24	5-1-20/2/2	24 5 47/2/2	0 4 050	852		N D J	If 1, 2020 F M A M	Half 2, 2020	Half 1, 2021	Half 2, 202	1 Half 1, 2022	Half 2, 2022 A M J J A S O	Half 1, 2023 N D J F M A M	Half 2, 2023	Half 1, 2024
851 851 FSI	2.9.32.11	Re-inspections with FSD	14 days Wed 13/3/24							832											
852 852 FSI	2.9.32.12	Issue of acceptance memo by FSD	14 days Wed 27/3/24																		
853 853 FSI	2.9.32.13	Installation of FS Pumps and Sprinkler Pumps	60 days Mon 3/4/23		Mon 3/4/23	Thu 1/6/23)/ Thu 24/8/2		856	FS - A x 4~6 men										
854 854 FSI	2.9.32.14	Installation of Fire Hydrant and Booster Pumps	60 days Mon 3/4/23	Thu 1/6/23	Mon 3/4/23	Thu 1/6/23	Sun 22/10)/ Thu 24/8/2	109 days 753	856	FS - A x 4~6 men										
855 855 FSI	2.9.32.15	SAT for Manual and automatic fire detection and alarm system	60 days Tue 19/9/23	Fri 17/11/23	Tue 19/9/23	Fri 17/11/23	Thu 21/12	2/ Mon 23/10) 14 days 592,639	9,675, 847,845,84	6										+
856 856 FSI	2.9.32.16	SAT for Fire hydrants, hose reels and street fire hydrant system	60 days Tue 19/9/23	Fri 17/11/23	Tue 19/9/23	Fri 17/11/23	Thu 21/12	2/ Mon 23/10) 14 days 592,639	9,675, 847,845,84	6										<u> </u>
857 Pb, Main	2.9.33	Commencement of Plumbing Installation	1267 days Tue 14/7/20	Tue 2/1/24	Tue 14/7/20	Tue 2/1/24	Wed 17/1	/ Sun 2/1/2	2 15 days	864				•							Pb, Main
858 858 Pb	2.9.33.1	Submission of detail design for acceptance	90 days Tue 14/7/20	Sun 11/10/20	Tue 14/7/20	Sun 11/10/20	Thu 7/4/2	2 Sat 8/1/22	0 days 423	859	Pb - A x 4~6 men			<u> </u>							
859 859 Pb	2.9.33.2	Submission of WWO542 for WSD's approval	355 days Mon 12/10/20	Fri 1/10/21	Mon 12/10/20	Fri 1/10/21	Tue 28/3/2	23 Fri 8/4/22	417 days 858	590,637,67	3,7₄Pb - B x 4~6 men			<u>+</u>					_		
860 860 Pb, others	2.9.33.3	Connection of External Pumping System (By others)	0 days Fri 15/9/23	Fri 15/9/23	Fri 15/9/23	Fri 15/9/23	Wed 25/1	0 Wed 25/10) 4 days	861										6 15/9	
861 861 Pb	2.9.33.4	Submission of WWO46 for WSD's Inspection	45 days Tue 19/9/23	Thu 2/11/23	Tue 19/9/23	Thu 2/11/23	Sat 9/12/2	23 Thu 26/10,	/ 0 days 590,637	7,673, 862										—	
862 862 Pb	2.9.33.5	Obtain WWO46 Part V	45 days Fri 3/11/23	Sun 17/12/23	Fri 3/11/23	Sun 17/12/23	Tue 23/1/2	24 Sun 10/12,	' 15 days 861	863										-	<u></u> '
863 863 Pb, Others	2.9.33.6	Tentative Date for connection of external water pipework (by others)	0 days Tue 2/1/24	Tue 2/1/24	Tue 2/1/24	Tue 2/1/24	Wed 24/1	/ Wed 24/1/	22 days 862												@ 2/1
864 864 Test, Main	2.9.34	Testing and Commissioning	82 days Wed 17/1/24	Sun 7/4/24	Wed 17/1/24	Sun 7/4/24	Sun 7/4/	24 Wed 17/.	0 days 545.597	7,644,(944SS-90 e	dav										
865 865 Test	2.9.34.1	System Commissioning Tests of the E&M systems	7 days Wed 17/1/24			Tue 23/1/24				866											
								/ Wed 17/1													
866 866 Test	2.9.34.2	MBR System Process Startup	40 days Wed 24/1/24			Sun 3/3/24		24 Wed 24/1		867											
867 Test	2.9.34.3	Plant Commissioning	35 days Mon 4/3/24			Sun 7/4/24				868,947											
868 Risk Allowance	2.9.35	Risk Allowance for completion of Section 2	5 days Wed 10/4/24	Sun 14/4/24	Wed 10/4/24	Sun 14/4/24	Thu 18/4/	24 Sun 14/4/2	4 days 867,840),825 542											
869 869	2.10	Section 3 - Completion of all works for retrofitting of the existing PSTetc	659 days Mon 2/12/19	Wed 22/9/21	Mon 2/12/19	Wed 22/9/21	Wed 22/9	/ Mon 2/12	1 1 day 6,2								•				
870 Filter Press, Filter Plates	2.10.1	Section 3 - Latest Completion Date	0 days Wed 22/9/21	Wed 22/9/21	Wed 22/9/21	Wed 22/9/21	Wed 22/9	/ Wed 22/9/	0 days 6SS+66	0 eday			- 			 	<u>@</u> 22/9				
871 existing genset	2.10.2	Key Date KD3A, E&M Installation works of existing power house	0 days Wed 29/7/20	Wed 29/7/20	Wed 29/7/20	Wed 29/7/20	Wed 29/7	/ Wed 29/7/	1 day 6SS+24	0 eday				29/7							
872 PST No. 4 & No. 6	2.10.3	Key Date KD3B, E&M work for provision of the existing PSTs	0 days Wed 9/6/21	Wed 9/6/21	Wed 9/6/21	Wed 9/6/21	Wed 9/6/2	21 Wed 9/6/2	1 day 6SS+55	5 eday						9/6					
873 Temp Filtrate, LA	2.10.4	Access Date for Portion B-3B, Temporary Filtrate Lifting Well and Eq. Tank	0 edays Mon 2/12/19	Mon 2/12/19	Mon 2/12/19	Mon 2/12/19	Mon 2/12	/ Mon 2/12/	/ 0 edays 6SS,2SS	874		2/12									
874 Temp Filtrate	2.10.5	Commencement of E&M Installation at Temp. Filtrate Lifting Well and Eq. Tank	287 days Mon 27/4/20	Sun 7/2/21	Mon 27/4/20	Sun 7/2/21	Mon 8/2/	21 Tue 28/4/2	20 1 day 873	892			₩_								
875 875 Temp Filtrate	2.10.5.1	Civil on-site survey and report submission for acceptance	14 days Mon 27/4/20	Sun 10/5/20	Mon 27/4/20	Sun 10/5/20	Mon 11/5	/ Tue 28/4/2	0 0 days 449	876			<u></u>								
876 876 Temp Filtrate	2.10.5.2	Civil structural design and drawing submission for acceptance	21 days Mon 11/5/20	Sun 31/5/20	Mon 11/5/20	Sun 31/5/20	Mon 1/6/2	20 Tue 12/5/2	0 0 days 875	877			 	h							
877 877 Temp Filtrate	2.10.5.3	Civil formation and underground work	21 days Mon 1/6/20	Sun 21/6/20	Mon 1/6/20	Sun 21/6/20	Mon 22/6	/ Tue 2/6/20	0 days 876	883,878				<u> </u>	_						
878 878 Temp Filtrate	2.10.5.4	RC structure works including cast-in items	180 days Mon 22/6/20	Fri 18/12/20	Mon 22/6/20	Fri 18/12/20	Sat 19/12/	/20 Tue 23/6/2	0 0 days 877	879,882,88	5.8										
879 879 Temp Filtrate	2.10.5.5	Installation of Lifting Appliances at Temporary Filtrate Lifting Well and Eq.	7 days Mon 18/1/21							,											
ors remprinate	2.10.3.3	Tank	7 days (viol) 10/1/21	Juli 24/1/21	WI011 10/1/21	3uii 24/1/21	IVIOII 0/2/	21 Tue 2/2/2	13 uays 070												
880 880 Temp Filtrate, LA	2.10.5.5.1	GF MR LA-09-01 SWL 1t	7 days Mon 18/1/21	Sun 24/1/21	Mon 18/1/21	Sun 24/1/21	Mon 8/2/2	21 Tue 2/2/21	. 15 days 878		LA - A x 4~6 men				1+4						
881 881 Temp Filtrate, LA	2.10.5.5.2	GF MR LA-09-02 SWL 1t	7 days Mon 18/1/21	Sun 24/1/21	Mon 18/1/21	Sun 24/1/21	Mon 8/2/2	21 Tue 2/2/21	. 15 days 878		LA - B x 4~6 men				 						
882 882 Temp Filtrate, Mech	2.10.5.6	Mechanical Installations for Temp. Filtrate Lifting Well and Eq. Tank	37 days Sat 19/12/20	Sun 24/1/21	Sat 19/12/20	Sun 24/1/21	Mon 25/1	/ Sun 20/12	0 days 878	886FS-30 da	ays				—						
883 883 Temp Filtrate, Mech	2.10.5.6.1	Installation of pipework and valves	30 days Sat 19/12/20			Sun 17/1/21				884	ME - A x 4~6 men										
884 884 Temp Filtrate, Mech	2.10.5.6.2	Installation of pumps	7 days Mon 18/1/21								ME - A x 4~6 men										
	2.10.5.6.3	Installation of instrumentations	, , , , ,								ME - A x 4~6 men				 						
885 Temp Filtrate, Mech			14 days Sat 19/12/20		Sat 19/12/20			/ Tue 12/1/2		10 day coo co											
886 886 Temp Filtrate	2.10.5.7	Electrical Installations for Temp. Filtrate Lifting Well and Eq. Tank	21 days Sat 26/12/20							30 day 889,891FS-	/ Q2										
887 Temp Filtrate, Elec	2.10.5.7.1	Installation of cable trays and cable containments	21 days Sat 26/12/20												-						
888 Temp Filtrate, Elec	2.10.5.7.2	Cables laying and terminations	21 days Sat 26/12/20	Fri 15/1/21	Sat 26/12/20	Fri 15/1/21	Mon 18/1	/ Tue 29/12/	3 days						-						
889 Temp Filtrate	2.10.5.8	Site Acceptance Test for E&M Equip at Filtrate Lifting Well and Eq. Tank	7 days Mon 25/1/21	Sun 31/1/21	Mon 25/1/21	Sun 31/1/21	Mon 1/2/2	21 Tue 26/1/2	0 days 882,886	890					15						
890 890 Temp Filtrate	2.10.5.9	System Commissioning for E&M Equip at Temp. Filtrate Lifting Well and Eq. Tar	7 days Mon 1/2/21	Sun 7/2/21	Mon 1/2/21	Sun 7/2/21	Mon 8/2/2	21 Tue 2/2/21	1 day 889,891	L											
891 Remp Filtrate	2.10.5.10	Building Services Installations for Filtrate Lifting Well and Eq. Tank	21 days Sat 9/1/21	Fri 29/1/21	Sat 9/1/21	Fri 29/1/21	Mon 1/2/2	21 Tue 12/1/2	2 days 886FS-7	7 days 890					*						
892 Remp Filtrate	2.10.6	Work completion for Temp. Filtrate Lifting Well and Eq. Tank	0 days Mon 8/2/21	Mon 8/2/21	Mon 8/2/21	Mon 8/2/21	Mon 8/2/2	21 Mon 8/2/2	1 0 days 874						8/2						
893 893 PST No. 4 & No. 6	2.10.7	Access Date for Portion B-3A, Existing PST No. 4 and No. 6	0 edays Mon 2/12/19	Mon 2/12/19	Mon 2/12/19	Mon 2/12/19	Mon 2/12	!/ Mon 2/12	/ 0 edays 6,2			2/12									
894 894 PST No. 4 & No. 6, Other	rs 2.10.8	Tentative Commencement Date	1 day Mon 8/2/21	Mon 8/2/21	Mon 8/2/21	Mon 8/2/21	Thu 11/2/	21 Thu 11/2/2	1 0 days	896					⊚ 8/2						
895 895 PST No. 4 & No. 6	2.10.9	Commencement of retrofitting the existing PST No. 4 and No. 6	117 days Tue 9/2/21	Sat 5/6/21	Tue 9/2/21	Sat 5/6/21	Tue 8/6/2	1 Fri 12/2/2	L 3 days			$-\ \ $			-						
896 896 PST No. 4 & No. 6	2.10.9.1	Site Clearance	10 days Tue 9/2/21	Thu 18/2/21	Tue 9/2/21	Thu 18/2/21	Sun 21/2/	21 Fri 12/2/21	0 days 344,894	1 898					₩,						
897 897 PST No. 4 & No. 6, Mech		Mechanical Installations of existing PSTs	76 days Fri 19/2/21			Wed 5/5/21										<u> </u>					
898 898 PST No. 4 & No. 6, Mech		Installation of PST influent feed pipe	7 days Fri 19/2/21			Thu 25/2/21				899	ME - A x 4~6 men				<u> </u>	·					
555 51 NO. 4 & NO. 0, IVIECT	. 2.10.5.2.1	installation of 131 influence recur pipe	, uays [11 13/2/21	63/4/41	13/4/41	23/2/21	Jun 20/2/	MOII 22/2/	0 days 690	0.5	A A O IIIeil										
Task		Milestone, Tentative ❸ Milestone ◆ Su	mmary	Project Sumr	mary	1 Manu	ual Summary	_	Late		Critical		Critical Split		Progress		Manual Progress	Slack (Float)	Mile	estone (Actual) 🛧	
Bestwise Project: DE/2018/04				-													-				
Date: Thu 2/7/20																					
tatus Date Sun 28/6/20	<u></u>		-	-					Page 19 of	21		<u> </u>		_	<u></u>	<u> </u>	<u> </u>				

rainage Services Department Government of the Hong Kong Special Administrative Reg	ion					Shek Wu	Hui Effluent	Propo t Polishing Plan	nt - Main Works Stage 1 E&M Wor		t Facilities								ΑΞ
Text1	WBS	Task Name	Duration Start between Task	Finish	Early Start	Early Finish	Late Finish	Late Start	Float Time Predecessors Successo	rs Resource Names	2020 Half 1,	2020 Half 2, 20	2021	Half 2, 2021	2022	Half 2, 2022	2023	Half 2, 2023	2024
899 PST No. 4 & No. 6, Mech	2.10.9.2.2	Installation of circular baffle diffuser box	Start and Finish 7 days Fri 26/2/21	Thu 4/3/21	Fri 26/2/21	Thu 4/3/21	Sun 7/3/21	Mon 1/3/21	0 days 898 900	ME - A x 4~6 men	N D J I	M A M J J A	20 Half 1, 2021 S O N D J F M A		Half 1, 2022 N D J F M A	M J J A S O	Half 1, 2023 N D J F M	A M J J A S O	Half 1,
900 PST No. 4 & No. 6, Mech	2.10.9.2.3	Installation of scum baffle plates	7 days Fri 5/3/21	Thu 11/3/21	Fri 5/3/21	Thu 11/3/21	Sun 14/3/21	Mon 8/3/21	0 days 899 901	ME - A x 4~6 men			<u></u>						
901 PST No. 4 & No. 6, Mech	2.10.9.2.4	Installation of scum box with collection valve and pipework	7 days Fri 12/3/21	Thu 18/3/21	Fri 12/3/21			Mon 15/3/	0 days 900 902	ME - A x 4~6 men									
902 PST No. 4 & No. 6, Mech		Installation of v-notched weir plate	10 days Fri 19/3/21			Sun 28/3/21			0 days 901 903	ME - A x 4~6 men									
903 PST No. 4 & No. 6, Mech		Installation of center bearing and slip ring assembly for rotating bridge	10 days Mon 29/3/21			Wed 7/4/21			0 days 902 904	ME - A x 4~6 men			_						
904 PST No. 4 & No. 6, Mech			7 days Thu 8/4/21							ME - A x 4~6 men]	,					
		Installation of motor and gearbox assembly for rotating bridge				Wed 14/4/21													
905 PST No. 4 & No. 6, Mech		Installation of rotating bridge sludge and scum scraper assembly	7 days Thu 15/4/21			Wed 21/4/21			0 days 904 906	ME - A x 4~6 men									
906 PST No. 4 & No. 6, Mech		installation of removable FRP covers for effluent channel	14 days Thu 22/4/21			Wed 5/5/21			3 days 905 910	ME - A x 4~6 men									
907 PST No. 4 & No. 6, Elec	2.10.9.3	Electrical Installations of existing PSTs	24 days Thu 15/4/21					1 Sun 18/4/21					•						
908 PST No. 4 & No. 6, Elec	2.10.9.3.1	Installation of local control panels	10 days Thu 15/4/21	Sat 24/4/21	Thu 15/4/21	Sat 24/4/21	Tue 27/4/21	Sun 18/4/21	0 days 904 909				i						
909 PST No. 4 & No. 6, Elec	2.10.9.3.2	cable laying and terminatons	14 days Sun 25/4/21	Sat 8/5/21	Sun 25/4/21	Sat 8/5/21	Tue 11/5/21	Wed 28/4/	0 days 908 910					¥					
910 PST No. 4 & No. 6	2.10.9.4	Site Acceptance Test for E&M Equip at existing PST No. 4 and No. 6	21 days Sun 9/5/21	Sat 29/5/21	Sun 9/5/21	Sat 29/5/21	Tue 1/6/21	Wed 12/5/	0 days 907,906,909 911										
911 PST No. 4 & No. 6	2.10.9.5	System Commissioning for E&M Equip at existing PST No. 4 and No. 6	7 days Sun 30/5/21	Sat 5/6/21	Sun 30/5/21	Sat 5/6/21	Tue 8/6/21	Wed 2/6/21	0 days 910 872,940					F					
912 existing genset	2.10.10	Access Date for Portion B-7A & 7B, area for modification of existing emergency generator electrical works	0 edays Mon 2/12/19	9 Mon 2/12/19	Mon 2/12/19	Mon 2/12/19		Mon 2/12/19	0 edays 6,2		q 2/12								
													24.5						
913 existing genset, Others	2.10.11	Tentative Civil Handover Date, Portion B-7A & 7B area for modification of existing emergency generator electrical works	1 day Sun 31/1/21	Sun 31/1/21	Sun 31/1/21	Sun 31/1/21	Sun 31/1/21	Sun 31/1/21	0 days				⊕ 31/1						
914 existing genset	2.10.12	Commencement of Modification of existing emergency generator Electrical Worl	89 days Sat 25/4/20	Wed 22/7/20	Sat 25/4/20	Wed 22/7/20	Tue 28/7/20	0 Fri 1/5/20	6 days			-							
915 existing genset	2.10.12.1	Fabrication and delivery of material to site	60 days Sat 25/4/20			Tue 23/6/20			0 days 527 916										
916 existing genset	2.10.12.2	Modification of existing emergency generator electrical works	14 days Wed 24/6/20		Wed 24/6/20			Tue 30/6/20	0 days 915 917										
												Ţ							
917 existing genset	2.10.12.3	Test the new switchboar for on-site mobile generator	10 days Wed 8/7/20		Wed 8/7/20			Tue 14/7/20	0 days 916 918										
918 existing genset	2.10.12.4	Dismantling and removal the existing power & control cables	2 days Sat 18/7/20			Sun 19/7/20			0 days 917 919			1							
919 existing genset	2.10.12.5	Take down existing generator to DSD	3 days Mon 20/7/20						0 days 918 920										
920 Risk Allowance	2.10.13	Risk Allowance for meeting Key Date KD3A	1 day Thu 23/7/20	Thu 23/7/20	Thu 23/7/20	Thu 23/7/20	Wed 29/7/	Wed 29/7/	5 days 919 871			<u> </u>							
921 Filter Press	2.10.14	Access Date for B-10, existing sludge thickening building	0 edays Mon 2/12/19	9 Mon 2/12/19	Mon 2/12/19	Mon 2/12/19	Mon 2/12/.	Mon 2/12/	0 edays 6,2		⊕ 2/12								
922 Filter Press	2.10.15	Commencement of E&M Installation at Existing Filter Press House	103 days Tue 25/5/21	Sat 4/9/21	Tue 25/5/21	Sat 4/9/21	Tue 21/9/2	1 Tue 25/5/21	0 days					•					
923 Filter Press, LA	2.10.15.1	Installation of Lifting Appliances at Existing Filter Press House	7 days Tue 25/5/21	Mon 31/5/21	Tue 25/5/21	Mon 31/5/21	Mon 31/5/.	Tue 25/5/21	0 days 338 926,929					*					
924 Filter Press, LA	2.10.15.1.1	GF MR LA-09-03 SWL 1t	7 days Tue 25/5/21	Mon 31/5/21	Tue 25/5/21	Mon 31/5/21	Mon 31/5/	Tue 25/5/21	0 days	LA - A x 4~6 men				•					
925 Filter Press, Mech	2.10.15.2	Mechanical Installations for E&M Equip. at Existing Filter Press House	89 days Tue 1/6/21	Sat 28/8/21	Tue 1/6/21	Sat 28/8/21	Sat 28/8/21	Tue 1/6/21	0 days					•					
926 Filter Press, Mech	2.10.15.2.1	Installation of membrane filter press	45 days Tue 1/6/21	Thu 15/7/21	Tue 1/6/21	Thu 15/7/21	Thu 15/7/21	1 Tue 1/6/21	0 days 923 927,928,	932,9:ME - A x 4~6 men				Ψ_η					
927 Filter Press, Mech	2.10.15.2.2	Installation of sluge feed pumps	7 days Fri 16/7/21	Thu 22/7/21	Fri 16/7/21	Thu 22/7/21	Thu 29/7/21	1 Fri 23/7/21	7 days 926 932	ME - D x 2~4 men									
928 Filter Press, Mech	2.10.15.2.3	Installation of polymer dosing pumps	14 days Fri 16/7/21	Thu 29/7/21	Fri 16/7/21	Thu 29/7/21	Thu 29/7/21	1 Fri 16/7/21	0 days 926 932	ME - A x 4~6 men				1					
929 Filter Press, Mech	2.10.15.2.4	Installation of air compressors	14 days Tue 1/6/21	Mon 14/6/21	Tue 1/6/21	Mon 14/6/21	Thu 15/7/21	1 Fri 2/7/21	0 days 923 930,931,	932 ME - A x 4~6 men									
930 Filter Press, Mech	2.10.15.2.5	Installation of air receivers	14 days Tue 15/6/21	Mon 28/6/21	Tue 15/6/21	Mon 28/6/21	Thu 29/7/21	1 Fri 16/7/21	31 days 929 932	ME - A x 4~6 men				T					
931 Filter Press, Mech	2.10.15.2.6	Installation of high pressure water pump	7 days Tue 15/6/21	Mon 21/6/21	Tue 15/6/21	Mon 21/6/21	Thu 29/7/21	1 Fri 23/7/21	38 days 929 932	ME - A x 4~6 men									
932 Filter Press, Mech	2.10.15.2.7	Connection of pipework	30 days Fri 30/7/21	Sat 28/8/21	Fri 30/7/21	Sat 28/8/21			0 days 926,927,928,	ME - A x 4~6 men									
933 Filter Press, Elec	2.10.15.3	Electrical Installation for E&M Equip. at Existing Filter Press House	23 days Fri 16/7/21																
934 Filter Press, Elec	2.10.15.3.1		14 days Fri 16/7/21			Thu 29/7/21			0 days 926 935					<u> </u>					
935 Filter Press, Elec	2.10.15.3.2		9 days Fri 30/7/21		Fri 30/7/21			Mon 16/8/	0 days 934 936										
936 Filter Press, Elec	2.10.15.4	Site Acceptance Test for E&M Equip. at Existing Filter Press House	21 days Sun 8/8/21			Sat 28/8/21			0 days 935 937										
937 Filter Press, Elec	2.10.15.5	System Commissioning Test for E&M Equip. at Existing Filter Press House	7 days Sun 29/8/21		Sun 29/8/21			Wed 15/9/	17 days 936 870										
938 Filter Plates	2.10.16	Commencement of replacement of filter plates	90 days Tue 25/5/21			Sun 22/8/21													
939 Filter Plates	2.10.16.1	Replacement of filter plates	90 days Tue 25/5/21	Sun 22/8/21	Tue 25/5/21	Sun 22/8/21	Tue 21/9/21	Thu 24/6/21	30 days 332 870					_					
940 Risk Allowance	2.10.17	Risk Allowance for meeting Key Date KD3B	1 day Sun 6/6/21	Sun 6/6/21	Sun 6/6/21	Sun 6/6/21	Wed 9/6/21	Wed 9/6/21	2 days 911 872					ř					
941	2.11	Section 4 - Completion of Work for remainder of the works	409 days Sat 1/4/23	Tue 14/5/24	Sat 1/4/23	Tue 14/5/24	Tue 14/5/2	4 Tue 12/12	1 day 6,2								*		+
942 IW, PST, BR, MFS,PV,CCT	V,PV, C2.11.1	Section 4 - Latest Completion Date	0 days Tue 14/5/24	Tue 14/5/24	Tue 14/5/24	Tue 14/5/24	Tue 14/5/24	Tue 14/5/24	0 days 6SS+1625 eda										_
943 CCTV, SCADA	2.11.2	Latest date for connection of optical filbres	1 day Sat 1/4/23	Sat 1/4/23	Sat 1/4/23	Sat 1/4/23	Thu 18/7/24	Thu 18/7/24	110 days 591 945								ē	1/4	
944 Text	2.11.3	Document Submission and Resubmission for T&C procedures	90 days Fri 1/12/23	Wed 28/2/24	Fri 1/12/23	Wed 28/2/24	Fri 22/3/24	Sun 24/12/	0 days 864SS-90 eda 946,947										•
945 CCTV	2.11.4	Overall commissioning of CCTV system	30 days Fri 21/7/23	Sat 19/8/23	Fri 21/7/23	Sat 19/8/23	Sat 17/8/24	Fri 19/7/24	310 days 591,638,674, 948,947,	946								<u> </u>	
Task		Milestone, Tentative ● Milestone ◆ Sur	nmary	Project Sumi	mary I	Manua Manua	I Summarv		1 Late	Critical		Critical Split	Progress	Ma	nual Progress	Slack (Float)		■ Milestone (Actual) ★	
se 0E/2018/04		Julian Ju	,		, -	- 1110100	,							IVID	-y - 	and (1 today)		- Company	

