



CONTRACT NO. SPW 12/2021

ENVIRONMENTAL TEAM (2021 – 2024) FOR SHEK WU HUI EFFLUENT POLISHING PLANT – MAIN WORK

UNDER FURTHER ENVIRONMENTAL PERMIT NO. FEP-02/474/2013

MONTHLY ENVIRONMENTAL MONITORING & AUDIT REPORT

OCTOBER 2021

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11 November 2021

Meinhardt Infrastructure and Environment Limited

Contract No. SPW 12/2021 Shek Wu Hui Effluent Polishing Plant – Main Work

Monthly EM&A Report (1 October 2021 – 31 October 2021)

(November 2021)

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EXECUTIVE SUMMARY

- i. This is the Environmental Monitoring and Audit (EM&A) Monthly Report October 2021 of Shek Wu Hui Effluent Polishing Plant – Main Work under Further Environmental Permit no. FEP-02/474/2013 (Hereafter as "the Project"). This is the 2nd EM&A report prepared by Environmental Team under Contract No. SPW 12/2021, presenting the environmental monitoring findings and information recorded during the period of 01 October 2021 to 31 October 2021. The cut-off date of reporting is at the end of each reporting month.
- ii. In the reporting month, the principal work activities of individual contracts are conducted as follows:

<u>Contract No. DC/2018/06 – Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1 – Civil Works for Sludge Treatment Facilities and 132 kV Primary Substation</u>

- RC works
- Excavation works
- Sewerage and drainage works
- Pipe laying
- Backfilling
- · Removal of Layer Struct and Waling

<u>Contract No. DC/2018/07 – Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1 – Civil Works for Sewage Treatment Facilities</u>

- ELS works
- R.C. Structure works
- Pre-bored H piles
- Sheetpile Installation
- Demolition works
- Excavation
- E&M installation and T&C works
- ABWF works & BS works

<u>Contract No. DE/2018/03 – Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1 – Sidestream Treatment Facilities and EM&M Works for Sludge Treatment Facilities</u>

- Excavation of Trial Pit
- (Sidestream Treatment Facilities)
- Installation of EOT at UVP
- Penstock and Stoplog Installation
- Effluent Pump Installation
- AFA and MFA System Installation



<u>Contract No. DE/2018/04 – Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1 – E&M Works for Sewage Teatment Facilities</u>

- Testing and Commission of Temporary Filtrate Equalisation Tank.
- Installation of FRP platform & Testing and Commission of Temporary Primary Sludge Thickener and its accessories.
- Testing and Commission of Existing Primary Sedimentation Tank No. 4 & 6.
- Testing and Commission of Existing Emergency Generator Electrical Works.

Air Quality Monitoring

- iii. 1-hour and 24-hour Total Suspended Particulates (TSP) monitoring was conducted at two monitoring station. 24-hour TSP shall be sampled at least once in every 6 days, while sampling for 1-hour TSP shall be at least 3 times in every 6 day in the reporting month.
- iv. No action or limit level exceedance was recorded in this reporting period.

Noise Monitoring

- v. Noise monitoring was conducted at one noise monitoring station once per week in the reporting month.
- vi. No action or limit level exceedance was recorded in this reporting period.

Ecological Monitoring

- vii. Ecological monitoring 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.
- viii. No action or limit level exceedance was recorded in this reporting period

Site Inspections and Audit

ix. The Environmental Team (ET) conducted weekly site inspections on 4, 11, 12, 19 and 26 October 2021 and biweekly landscape inspection on 4 and 19 October 2021. IEC attended the joint site inspection on 26 October 2021. No non-compliance was found during the site inspection while reminders on environmental measures were recommended.



Complaints, Notifications of Summons and Successful Prosecutions

x. No environmental complaint, notification of summons and successful prosecution regarding the construction works was recorded in the reporting period.

Reporting Changes

xi. There are no particular reporting changes.

Future Key Issues

xii. In coming reporting month, the principal work activities of individual contracts are anticipated as follows:

<u>Contract No. DC/2018/06 – Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1 – Civil Works for Sludge Treatment Facilities and 132 kV Primary Substation</u>

- RC works
- Excavation works
- Cable trench works
- Pipe laying
- Backfilling
- Removal of layer struct and waling

Contract No. DC/2018/07 - Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - Civil Works for Sewage Treatment Facilities

- ELS works
- R.C. Structure works
- · Pre-bored H piles
- Sheetpile Installation
- Demolition works
- Excavation
- E&M installation and T&C works
- ABWF works & BS works

Contract No. DE/2018/03 – Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1 – Sidestream Treatment Facilities and EM&M Works for Sludge Treatment Facilities

- Excavation of Trial Pit
- (Sidestream Treatment Facilities)
- Installation of EOT at UVP
- AFA and MFA System Installation
- Penstock and Stoplog Installation
- Effluent Pump Installation



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- UV System Installation
- Delivery and Installation of Temporary Container LV Switch Room for UV and Effluent Pumping Station

<u>Contract No. DE/2018/04 – Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1 – E&M Works for Sewage Teatment Facilities</u>

- Testing and Commission of Temporary Filtrate Equalisation Tank.
- Testing and Commission of Temporary Primary Sludge Thickener and its accessories.
- Testing and Commission of Existing Primary Sedimentation Tank No. 4 & 6.



1 Introduction

1.1 Scope of the Report

- 1.1.1. Lam Environmental Services Limited (LES) has been appointed to work as the Environmental Team (ET) under Environmental Permit (EP) No. FEP-02/474/2013 to implement the Environmental Monitoring and Audit (EM&A) programme as stipulated in the EM&A Manual of the approved Environmental Impact Assessment (EIA) Report for North East New Territories New Development Areas (Register No.: AEIAR-175/2013).
- 1.1.2. In accordance with Clause 3.4 stated in FEP-02/474/2013, 3 hard copies and 2 electronic copies of Monthly EM&A Report shall be submitted to the Director within 10 working days after the end of each reporting month throughout the entire construction period.
- 1.1.3. According to Section 9.4.1.1 of the Project EM&A Manual, the Monthly EM&A Report should be submitted within 10 working days at the end of each reporting month, with the first report due in the month after construction commences.

1.2 Structure of the Report

- **Section 1** *Introduction* details the scope and structure of the report.
- **Section 2 Project Background** summarizes background and scope of the project, site description, project organization and contact details of key personnel during the reporting period.
- Section 3 Status of Regulatory Compliance summarizes the status of valid Environmental Permits / Licenses during the reporting period.
- **Section 4** *Monitoring Requirements* summarizes all monitoring parameters, monitoring methodology and equipment, monitoring locations, monitoring frequency, criteria and respective event and action plan and monitoring programmes.
- **Section 5 Monitoring Results** summarizes the monitoring results obtained in the reporting period.
- **Section 6 Compliance Audit** summarizes the auditing of monitoring results, all exceedances environmental parameters.
- Section 7 Environmental Site Audit summarizes the findings of weekly site inspections undertaken within the reporting period, with a review of any

relevant follow-up actions within the reporting period.

Section 8 *Complaints, Notification of summons and Prosecution* – summarizes the cumulative statistics on complaints, notification of summons and prosecution

Section 9 Conclusion



2 Project Background

2.1 Background

- 2.1.1. The existing Shek Wu Hui Sewage Treatment Works (SWHSTW) has been operating and maintaining for 30 years 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 years. In 1984, Stage I of SWHSTW was commissioned with design capacity of 60,000 cubic meters per day (m³/day) at Average Dry Weather Flow (ADWF). In 2001, Stage II of SWHSTW was completed with design capacity enhanced to 80,000 m³/day at ADWF. In 2009, the expansion of SWHSTW was completed and its design capacity was increased to 93,000m³/day at ADWF.
- 2.1.2. Further expansion of SWHSTW has been planned to be carried out in order to cope with the forecast increase in flow from Fanling North and Kwu Tong North New Development Area (NDA) and other NDAs and developments in three phases, namely Phase 1A, 1B and 2, which are later revised to Main Works Stage 1, Stage 2 and Stage 3 respectively. The EIA study report (Register No.: AEIAR-175/2013) for the NENT NDAs Study covered the assessment for the Further Expansion of SWHSTW, which is a designated project under item F.1 and F.2 of Part 1, Schedule 2 of the EIA Ordinance. The location of the project site is shown in *Figure 2.1*.

A Further EP was applied on 18 January 2018 to assume the responsibility for constructing and operating the SWHEPP Project up to a capacity of 190,000 m³/day. The Further EP No. FEP-02/474/2013 was issued to DSD as permit holder on 15 February 2018. Due to overlapping of scope with the Further EP currently in force, the Further EP No. FEP-01/474/2013 was subsequently surrendered on 15 August 2018.

2.2 Project Organization and Contact Personnel

- 2.2.1 Drainage Service Department (DSD) is the overall project controllers for the Project. For the construction phase of the Project, Engineer's Representative, Contractor(s), Environmental Team and Independent Environmental Checker are appointed to manage and control environmental issues.
- 2.2.2 The project organization and lines of communication with respect to environmental protection works are shown in <u>Figure 2.2.</u> Key personnel and contact particulars are summarized in <u>Table 2.1</u>.



Table 2.1 Contact Details of Key Personnel

Party	Role	Post	Name	Contact No.
Drainage Services Department (DSD)	Permit Holder	Engineer	Ms. Konica Cheung	2594 7463
AECOM	Supervisor Representative	Resident Engineer	Ms. Bianca Choi	3907 6141
	Contractor	Environmental Engineer	Ms. Ruby Hui	6218 6408
Kwan Lee - Chun Wo Joint Venture	(DC/2018/06)	Assistant Environmental Engineer	Mr. Eric Chan	6432 2581
	Contractor (DC/2018/07)	Environmental Engineer	Ms. Tiffany Choi	9789 1027
JEC	Contractor (DE/2018/03)	Environmental Officer	Ms. Juliet Ting	6826 7319
Bestwise	Contractor (DE/2018/04)	Environmental Officer	Mr. Albus Cheung	9731 0831
Meinhardt Infrastructure and Environment Ltd.	Independent Environmental Checker (IEC)	Independent Environmental Checker (IEC)	Mr. W.K. Chiu	2859 5881
Lam Environmental Services Limited	Environmental Team (ET)	Environmental Team Leader (ETL)	Mr. Raymond Dai	2882 3939

2.3 Construction Activities

2.3.1 In the reporting month, the principal work activities conducted of individual contracts are as follow.

<u>Contract No. DC/2018/06 – Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1 – Civil Works for Sludge Treatment Facilities and 132 kV Primary Substation</u>

- RC works
- Excavation works
- Sewerage and drainage works
- Pipe laying
- Backfilling
- · Removal of Layer Struct and Waling

<u>Contract No. DC/2018/07 – Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1 – Civil Works for Sewage Treatment Facilities</u>

- ELS works
- R.C. Structure works
- Pre-bored H piles
- Sheetpile Installation
- Demolition works
- Excavation
- E&M installation and T&C works
- ABWF works & BS works

Contract No. DE/2018/03 – Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1 – Sidestream Treatment Facilities and EM&M Works for Sludge Treatment Facilities

Ground Investigation

Contract No. DE/2018/04 – Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1 – <u>E&M Works for Sewage Teatment Facilities</u>

- Testing and Commission of Temporary Filtrate Equalisation Tank.
- Installation of FRP platform & Testing and Commission of Temporary Primary Sludge Thickener and its accessories.
- Testing and Commission of Existing Primary Sedimentation Tank No. 4 & 6.
- Testing and Commission of Existing Emergency Generator Electrical Works.
- 2.3.2 In coming reporting month, the scheduled construction activities of individual contracts are listed as follows:

<u>Contract No. DC/2018/06 – Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1 – Civil Works for Sludge Treatment Facilities and 132 kV Primary Substation</u>

- RC works
- Excavation works
- · Cable trench works
- Pipe laying
- Backfilling
- · Removal of layer struct and waling

<u>Contract No. DC/2018/07 – Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1 – Civil Works for Sewage Treatment Facilities</u>

- ELS works
- · R.C. Structure works



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- Pre-bored H piles
- **Sheetpile Installation**
- **Demolition works**
- Excavation
- E&M installation and T&C works
- ABWF works & BS works

Contract No. DE/2018/03 - Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 -Sidestream Treatment Facilities and EM&M Works for Sludge Treatment Facilities

- **Excavation of Trial Pit**
- (Sidestream Treatment Facilities)
- Installation of EOT at UVP
- Penstock and Stoplog Installation
- **Effluent Pump Installation**
- AFA and MFA System Installation

Contract No. DE/2018/04 - Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 -**E&M Works for Sewage Teatment Facilities**

- Testing and Commission of Temporary Filtrate Equalisation Tank.
- Testing and Commission of Temporary Primary Sludge Thickener and its accessories.
- Testing and Commission of Existing Primary Sedimentation Tank No. 4 & 6.



3 Status of Regulatory Compliance

3.1 Status of Environmental Licensing and Permitting under the Project

3.1.1. A summary of the current status on licences and/or permits on environmental protection pertinent to the Project is shown in *Table 3.1 to 3.4*.

Table 3.1 Summary of the current status on licences and/or permits on environmental protection pertinent to the Project under Contract No. DC/2018/06

Permits and/or Licences	Permit. No. / Account No.	Valid From	Expiry Date	Status
Notification pursuant to Air Pollution	449210 (Portion A & C)	23 Sep 2019	N/A	Valid
Control (Construction Dust) Regulation	449211 (WM1)	23 Sep 2019	N/A	Valid
Environmental Permit	FEP-02/474/2013	15 Feb 2018	N/A	Valid
	WT00035431-2019 (Portion C)	27 Jul 2020	31 Jan 2025	Valid
Water Pollution Ordinance Licence	WT00035718-2020 (Portion A)	02 Apr 2020	30 Apr 2025	Valid
Billing Account for Disposal of Construction Waste	7035390	11 Oct 2019	N/A	Valid
Registration as a Chemical Waste Producer	5213-624-K3371-01	14 Nov 2019	N/A	Valid
Construction Noise Permit	GW-RN0610-21	01 Sep 2021	28 Feb 2022	Valid
Construction Noise Permit	GW-RN0734-21	05 Oct 2021	31 Mar 2022	Valid

Table 3.2 Summary of the current status on licences and/or permits on environmental protection pertinent to the Project under Contract No. DC/2018/07

Permits and/or Licences	Permit. No. / Account No.	Valid From	Expiry Date	Status
Notification pursuant to Air Pollution Control (Construction Dust) Regulation	451031	19 Nov 2019	N/A	Valid
Environmental Permit	FEP-02/474/2013	15 Feb 2018	N/A	Valid
Water Pollution Ordinance Licence	WT00035727-2020	01 Apr 2020	30 Apr 2025	Valid
Billing Account for Disposal of Construction Waste	7035985	9 Dec 2019	N/A	Valid
Registration as a Chemical Waste Producer	5213-624-K3371-02	6 Jan 2020	N/A	Valid
Construction Noise Permit	GW-RN0610-21	01 Sep 2021	28 Feb 2022	Valid
Admission Ticket for Special Waste	16527	12 Oct 2021	16 Feb 2022	Valid

Table 3.3 Summary of the current status on licences and/or permits on environmental protection pertinent to the Project under Contract No. DE/2018/03

Permits and/or Licences	Permit. No. / Account No.	Valid From	Expiry Date	Status
	455843 (WA3)	6 May 2020	N/A	Valid
Notification pursuant to Air Pollution Control (Construction Dust) Regulation	457212 (WA1-B)	15 Jun 2020	N/A	Valid
	460065 (Sidestream)	16 Sep 2020	N/A	Valid
Environmental Permit	FEP-02/474/2013	15 Feb 2018	N/A	Valid
Water Pollution Ordinance Licence	WT00037220-2020	16 Mar 2021	31 Jan 2026	Valid
Billing Account for Disposal of Construction Waste	7035700	6 Nov 2019	N/A	Valid
Registration as a Chemical Waste Producer	5213-624-T3861-01	14 Apr 2020	N/A	Valid
Construction Noise Permit	GW-RN0484-21	6 Jul 2021	27 Jan 2022	Valid

Table 3.4 Summary of the current status on licences and/or permits on environmental protection pertinent to the Project under Contract No. DE/2018/04

Permits and/or Licences	Permit. No. / Account No.	Valid From	Expiry Date	Status
Notification pursuant to Air Pollution Control (Construction Dust) Regulation	460181	17/09/2020	N/A	Valid
Environmental Permit	FEP-02/474/2013	15 Feb 2018	N/A	Valid
Billing Account for Disposal of Construction Waste	703621912	02 Jan 2020	N/A	Valid
Registration as a Chemical Waste Producer	5213-624-B2592-01	07 Jul 2020	N/A	Valid

3.1.2. Implementation status of the recommended mitigation measures during this report month is presented in *Appendix 3.1*.



4 Monitoring Requirements

4.1 Noise Monitoring

NOISE MONITORING STATIONS

4.1.1. The noise monitoring stations for the Project are listed and shown in *Table 4.1* and *Figure*4.1. Appendix 4.1 shows the established Action/Limit Levels for the monitoring works.

Table 4.1 Noise Monitoring Station

Monitoring Station ID	Location
NM1	Wai Loi Tsuen
NM2	Fu Tei Au
NM3	Man Kok Village

NOISE MONITORING PARAMETERS, FREQUENCY AND DURATION

4.1.2. The monitoring parameters, frequency and duration of noise monitoring are summarized in *Table 4.2*.

Table 4.2 Noise Monitoring Parameters, Frequency and Duration

Monitoring	Duration	Sampling	Sampling	Frequency
Period		Parameter	Period ⁽¹⁾	
Impact	Throughout the	1 set of	between 0700-	on a per week
Monitoring	construction	Leq (30 min)	1900 hours on	basis when
	phase		normal	noise generating
			weekdays;	activities are
				underway

Remark (1): Additional weekly impact monitoring shall be carried out during evening and night-time works if construction works are extended to include works during the hours of 1900-0700

MONITORING EQUIPMENT

4.1.3. Noise monitoring was performed using sound level meter at the designated monitoring locations. The sound level meters shall comply with the International Electrotechnical Commission Publications 651:1979 (Type 1) and 804:1985 (Type 1) specifications. Acoustic calibrator shall be deployed to check the sound level meters at a known sound pressure level. Brand and model of the equipment is given in *Table 4.3*.



Table 4.3 Noise Monitoring Equipment

Equipment	Brand and Model	Series Number
Integrated Sound Level Meter	LxT1	0004797
Acoustic Calibrator	HLES-02	2019612870

4.1.4. The calibration certificates of the noise monitoring equipment are attached in Appendix 4.2.

SAMPLING PROCEDURE AND MONITORING EQUIPMENT

4.1.5. Monitoring Procedure

- (a) Noise measurements shall not be made in fog, rain, wind with a steady speed exceeding 5 m/s or wind with gusts exceeding 10 m/s. The wind speed shall be checked with a portable wind speed meter capable of measuring the wind speed in m/s
- (b) The monitoring station shall normally be at a point 1 m from the exterior of the sensitive receiver building facade and be at a position 1.2 m above the ground. If there is problem with access to the normal monitoring position, an alternative position may be chosen, and a correction to the measurements shall be made. For reference, a correction of +3 dB(A) shall be made to the free field measurements.
- (c) The battery condition was checked to ensure the correct functioning of the meter.
- (d) Parameters such as frequency weighting, the time weighting and the measurement time were set as follows:
 - Frequency weighting: A
 - Time weighting: Fast
 - Time measurement: Leg (30min) for noise monitoring
- (e) 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 recalibration or repair of the equipment.
- (f) The wind speed was checked with the portable wind meter before noise monitoring.
- (g) At the end of the monitoring period, the Leq, L90 and L10 were recorded. In addition, site conditions and noise sources were recorded on a record sheet.

4.1.6. Maintenance and Calibration

- (a) The microphone head of the sound level and calibrator would be cleaned with soft cloth regularly.
- (B) The noise monitoring equipment shall be calibrated annually.

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CONSTRUCTION NOISE LEVEL

4.1.7. The construction noise level refers the corrected noise level based on the calculated difference between SPL of the Measured Noise Level and the SPL of the Baseline Noise Level. In the event of the Baseline Noise Level exceeds the Measured Noise Level, no correction would be applied and the Construction Noise Level would be indicated as below baseline noise level (<BL).</p>

EVENT AND ACTION PLAN

4.1.8. Noise Standards for Daytime Construction Activities are specified under EIAO-TM. The Action and Limit levels for construction noise are defined in *Table 4.4* and *Appendix 4.1*. Should non-compliance of the criteria occurs, action in accordance with the Event and Action Plan in *Appendix 6.1* shall be carried out.

Table 4.4 Action and Limit Level for Noise Monitoring

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



4.2 Air Monitoring

AIR QUALITY MONITORING STATIONS

4.2.1. The air monitoring stations for the Project are listed and shown in *Table 4.5* and *Figure 4.2*.

Table 4.5 Air Monitoring Station

Monitoring Station ID	Location	Measurement
AMS1	House No. 15, Wai Loi Tsuen	1-hour TSP
AMS2	Fu Tei Au	1-hour TSP
AM1a	Site boundary of the Shek Wu Hui STW (East)	24-hour TSP
AM2a	Site boundary of the Shek Wu Hui STW (North)	24-hour TSP

AIR MONITORING PARAMETERS, FREQUENCY AND DURATION

- 4.2.2. 24-hour TSP shall be sampled at least once in every 6 days, while sampling for 1-hour TSP shall be at least 3 times in every 6 days when the highest dust impact takes place.
- 4.2.3. One-hour and 24-hour TSP levels should be measured to indicate the impacts of construction dust on air quality.

SAMPLING PROCEDURE AND MONITORING EQUIPMENT

- 4.2.4. 24-hour TSP Measuring Installation (HVS)
 - (a) 0.6 1.7 m3 per minute adjustable flow range
 - (b) Equipped with a timing / control device with +/- 5 minutes accuracy for 24 hours operation;
 - (c) Installed with elapsed-time meter with +/- 2 minutes accuracy for 24 hours operation;
 - (d) Capable of providing a minimum exposed area of 406 cm2;
 - (e) Flow control accuracy: +/- 2.5% deviation over 24-hour sampling period;
 - (f) Equipped with a shelter to protect the filter and sampler;
 - (g) Incorporated with an electronic mass flow rate controller or other equivalent devices;
 - (h) Equipped with a flow recorder for continuous monitoring;
 - (i) Provided with a peaked roof inlet;
 - (j) Incorporated with a manometer;
 - (k) Able to hold and seal the filter paper to the sampler housing at horizontal position;
 - (I) Easily changeable filter; and



(m) Capable of operating continuously for a 24-hour period

Initial calibration of dust monitoring equipment shall be conducted upon installation and thereafter at bi-monthly intervals. The transfer standard shall be traceable to the internationally recognized primary standard and be calibrated annually. All the data should be converted into standard temperature and pressure condition.

24-hour Measuring Procedures

- (a) Check the power supply to ensure the sampler works properly.
- (b) Remove the filter hold down by loosening the four nuts and carefully centre a new filter, with stamped number upward, on a supporting screen.
- (c) Properly align the filter on the screen so that the gasket will form an airtight seal on the outer edges of the filter.
- (d) Fasten the filter hold down frame to the filter holder with swing bolts. The pressure applied should be sufficient to avoid air leakage at the edges.
- (e) Close shelter lid and secure catch with the aluminum strip.
- (f) Record the flow indicator reading and determine the sampler flow rate. If it is outside the acceptable range, adjust the sampler flow rate.
- (g) Set the programmable timer and record the starting sampling time, weather condition and the filter identification number.
- (h) At the end of sampling, the filter was transferred from the filter holder of the HVS to a filter bag and sent to the accredited laboratory for weighing. The elapsed time was also recorded

4.2.5. 1-hour Measuring Procedures

Portable dust meter will be proposed and sufficient information will be submitted to IC (E) to prove that the instrument is capable of achieving a comparable result as that of the HVS and used for 1-hour sampling

- (a) Slide the power switch to turn the power on
- (b) Select the period of measurement to 60mins
- (c) Check and set the correct time
- (d) Select the appropriate unit display for the equipment
- (e) Collected the sampled data for analysis

The portable dust meter is calibrated at 2-years interval and checked with HVS yearly to determine the accuracy and validity of the results measured. The checking of portable dust meter will be carried out in order to determine the conversion factor between the portable dust meter and the standard equipment, HVS.



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The calibration check is to be considered valid if the calculated correlation coefficient is >0.90.

4.2.6. Maintenance and Calibration

- (a) The direct reading dust meter was calibrated at 2-years interval and checked with High Volume Sampler (HVS) yearly to determine the accuracy and validity of the results measured.
- (b) Checking of direct reading dust meter will be carried out in order to determine the conversion factor between the direct reading dust meter and the standard equipment, HVS. The comparison check is to be considered valid based on correlation coefficient checked by HOKLAS laboratory

4.2.7. Laboratory measurement / analysis

- (a) A clean laboratory with constant temperature and humidity control, and equipped with necessary measuring and conditioning instruments to handle the dust samples collected, shall be available for sample analysis, and equipment calibration and maintenance. The laboratory should be HOKLAS accredited.
- (b) Filter paper of size 8" x 10" shall be labelled before sampling. It shall be a clean filter paper with no pinholes, and shall be conditioned in a humidity-controlled chamber for over 24 hours and be pre-weighed before use for the sampling.
- (c) After sampling, the filter paper loaded with dust shall be kept in a clean and tightly sealed plastic bag. The filter paper shall then be returned to the laboratory for reconditioning in the humidity-controlled chamber followed by accurate weighing by an electronic balance with readout down to 0.1 mg. The balance shall be regularly calibrated against a traceable standard.
- 4.2.8. High Volume Sampler (HVS Model TE-5025A) completed with the appropriate sampling inlets were installed for the 24-hour TSP sampling. 1-hour TSP air quality monitoring was performed by using portable direct reading dust meters at each designated monitoring station. The brand and model of the equipment are given in *Table 4.6*.



Table 4.6 Air Quality Monitoring Equipment

Equipment	Brand and model	Series Number
		R22586
Dortoble direct reading	Met One BT- 645 / Met One	X19297
Portable direct reading dust meter		Y23154
dust meter	831	R14332
		W15449
	Tisch Total Suspended	
High Volume Compler	Particulate Mass Flow	HVS001
High Volume Sampler	Controlled High Volume Air	HVS003
	Sampler TE-5025A	
Wind Anemometer	YiGu	YGY-FSXY1

4.2.9. The calibration certificates of the air quality monitoring equipment are attached in <u>Appendix</u> <u>4.2.</u>

WIND DATA

4.2.10. Hong Wind data monitoring equipment was set up at roof floor (about 4/F) of the SWHSTW control room 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 sections of 22.5 degrees each. The wind data obtained from the on-site wind station during the reporting period is provided in *Appendix 4.3.*

EVENT AND ACTION PLAN

4.2.11. The Action and Limit Levels for construction air quality are defined in *Table 4.7* and <u>Appendix 4.1</u>. Should non-compliance of the air quality criteria occur, action in accordance with the Event and Action Plan in Appendix 6.1 shall be carried out.



Table 4.7 Action and Limit Level for Air Quality Monitoring

Parameter	Monitoring Station	Action Level (µgm ⁻³)	Limit Level (µgm ⁻
24-hour TSP Level	Site boundary of the Shek Wu Hui STW (East)	189	260.0
	Site boundary of the Shek Wu Hui STW (North)	187	
1-hour TSP Level	House No. 15, Wai Loi Tsuen	320	500.0
1-Hour TOF Level	Fu Tei Au	322	300.0



4.3. Ecological Monitoring

- 4.3.8. According to the Updated EM&A Manual, weekly transect at both high and low tides shall be undertaken 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. <u>Appendix 4.1</u> shows the established Action/Limit Levels for ecological monitoring works.
- 4.3.9. The monitoring should be conducted by the ET and supervised by a qualified ecologist who will be a member of the ET.

MONITORING LOCATIONS

4.3.10. 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 <u>Figure 4.3</u> and summarized in **Table 4.8** The photo of each transect is provided in <u>Appendix 5.6</u>.

Table 4.8 Ecological Monitoring Stations

Monitoring Stations	Descriptions	Influenced by Tidal Action
Transect T1		
Point Count Location P1		No
Point Count Location P2	Along Ng Tung River	
Transect T2		
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

4.3.11. 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 5.1*.

MONITORING METHODOLOGY

- 4.3.12. 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.
- 4.3.13. 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.
- 4.3.14. 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).
- 4.3.15. 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

4.3.16. The number and species of waterbirds utilizing the rivers fluctuate every day naturally. Therefore, the survey data were collectively analyzed 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 4.9*.

Table 4.9 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

- 4.3.17. 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.
- 4.3.18. 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



5 Monitoring Results

- 5.0.1 The environmental monitoring will be implemented based on the division of works areas of each designed projects. Overall layout showing work areas and monitoring stations is shown in *Figure 2.1* and *Figure 4.1 4.3* respectively.
- 5.0.2 The environment monitoring schedules for reporting month and coming month are presented in *Appendix 5.1*.

5.1 Noise Monitoring Results

- 5.1.1 Noise monitoring results measured in this reporting period are reviewed and summarized.
 Details of noise monitoring results and graphical presentation can be referred in <u>Appendix</u>
 5.2.
- 5.1.2 Noise monitoring scheduled on 8 Oct was cancelled due to adverse weather conditions.
- 5.1.3 No action or limit level exceedance was recorded in this reporting month.

5.2 Air Monitoring Results

- 5.2.1 Air quality monitoring results measured in this reporting period are reviewed and summarized.

 Details of air monitoring results and graphical presentation can be referred in *Appendix 5.3*.
- 5.2.2 No action or limit level exceedance was recorded in this reporting month.

5.3 Ecology Monitoring Results

- 5.3.1 During the special weather conditions (such as typhoon signal No. 8), the survey on 8 October 2021 was re-scheduled to 11 October 2021.
- 5.3.2 Details of ecological Monitoring results in the reporting month are provided in *Appendix 5.4.*.
- 5.3.3 No Action Level and Limit Level was triggered for ecological monitoring in the reporting month.
- 5.3.4 No Breeding behaviour observed during ecological monitoring in reporting month.

5.4 Waste Management

4.4.1 The quantities of waste for disposal in the Reporting Period are summarized in *Table 5.1* to 5.4. The Monthly Summary Waste Flow Table is shown in <u>Appendix 5.7.</u> Whenever possible, materials were reused on-site as far as practicable.

Table 5.1 Summary of Quantities of Inert C&D Materials and C&D Wastes for Contract No. DC/2018/06

Waste Type	Quantity (Previous month)	Quantity (Reporting month)	Annual Cumulative Quantity (2021)
Hard Rock and Large Broken Concrete (Inert) (in '000m³)	0	0	0
Reused in this Contract (Inert) (in '000m³)	0	0	0.263
Reused in other Projects (Inert) (in '000m³)	0	0	13.317
Disposal as Public Fill (Inert) (in '000m³)	0.184	0.23	7.512
Metals (in '000kg)	0	0.001	10.334
Paper / Cardboard Packing (in '000kg)	0	0.003	0.022
Plastics (in '000kg)	0	0.008	0.049
Chemical Wastes (in '000kg)	0	0	0
General Refuses (in '000m³)	0.037	0.055	0.502

Table 5.2 Summary of Quantities of Inert C&D Materials and C&D Wastes for Contract No. DC/2018/07

Waste Type	Quantity (Previous month)	Quantity (Reporting month)	Annual Cumulative Quantity (2021)
Hard Rock and Large Broken Concrete (Inert) (in '000m³)	0	0	0
Reused in this Contract (Inert) (in '000m³)	0	0	0
Reused in other Projects (Inert) (in '000m³)	0	0.064	0.391
Disposal as Public Fill (Inert) (in '000m³)	4.093	1.349	18.284



Waste Type	Quantity (Previous month)	Quantity (Reporting month)	Annual Cumulative Quantity (2021)
Metals (in '000kg)	38.4	0	126.13
Paper / Cardboard Packing (in '000kg)	0	0.006	0.029
Plastics (in '000kg)	0	0.008	0.052
Chemical Wastes (in '000kg)	0	0	0
General Refuses (in '000m³)	0.009	0.014	0.107

Table 5.3 Summary of Quantities of Inert C&D Materials and C&D Wastes for Contract No. DE/2018/03

Waste Type	Quantity (Previous month)	Quantity (Reporting month)	Annual Cumulative Quantity (2021)
Hard Rock and Large Broken Concrete (Inert) (in '000kg)	0	0	0
Reused in this Contract (Inert) (in '000kg)	0	0	0
Reused in other Projects (Inert) (in '000kg)	0	0	0
Disposal as Public Fill (Inert) (in '000kg)	19.29	0	1037.19
Metals (in '000kg)	0	0	0
Paper / Cardboard Packing (in '000kg)	0	0	0.241
Plastics (in '000kg)	0	0	0.007
Chemical Wastes (in '000kg)	0	0	0
General Refuses (in '000kg)	0	0	6.13



Table 5.4 Summary of Quantities of Inert C&D Materials and C&D Wastes for Contract No. DE/2018/04

Waste Type	Quantity (Previous month)	Quantity (Reporting month)	Annual Cumulative Quantity (2021)
Hard Rock and Large Broken Concrete (Inert) (in '000kg)	0	0	0
Reused in this Contract (Inert) (in '000kg)	0	0	100
Reused in other Projects (Inert) (in '000m³)	0	0	0
Disposal as Public Fill (Inert) (in '000m³)	4.24	0	322.36
Metals (in '000kg)	0	0	0
Paper / Cardboard Packing (in '000kg)	0	0	0
Plastics (in '000kg)	0	0	0
Chemical Wastes (in '000kg)	0	0	0
General Refuses (in '000m³)	0	0	18.56



6 Compliance Audit

- 6.1.1 The Event Action Plan for construction noise, air quality and ecological monitoring are presented in *Appendix 6.1.*
- 6.1.2 The summary of exceedance is presented in **Appendix 6.2.**

6.2 Noise Monitoring

- 6.2.1 Noise monitoring scheduled on 8 Oct was cancelled due to adverse weather conditions.
- 6.2.2 No action or limit level exceedance was recorded in this reporting period.

6.3 Air Quality Monitoring

6.3.1 No action or limit level exceedance was recorded in this reporting period.

6.4 Ecological Monitoring

- 6.4.1 No Action Level and Limit Level was triggered for ecological monitoring in the reporting month.
- 6.5 Review of the Reasons for and the Implications of Non-compliance
- 6.5.1 No environmental non-compliance was recorded in the reporting month.
- 6.6 Summary of action taken in the event of and follow-up on non-compliance
- 6.6.1 There was no particular action taken since no non-compliance was recorded in the reporting period.



7 Environmental Site Audit

- 7.0.1. Within this reporting month, weekly environmental site audits were conducted on 4, 11, 12, 19 and 26 October 2021. Biweekly landscape site audits were conducted on 4 and 19 October 2021. IEC attended the joint site inspection on 26 October 2021.
- 7.0.2. No non-compliance was found during the environmental site inspection while reminders on environmental measures were recommended. Results and findings of these inspections in this reporting month are listed below in *Table 7.1 to 7.4*.

Table 7.1 Summary of Environmental Inspections of Contract No. DC/2018/06

Item	Date	Reminder(s)/ Observation(s)	Action taken by Contractor	Outcome
20211026_1	26 Oct 2021	The Contractor (DC/2018/06) was reminded to store the chemical containers properly	As observed on 2 Nov, the containers were stored in a suitable location	Completion as observed

Table 7.2 Summary of Environmental Inspections of Contract No. DC/2018/07

Item	Date	Reminder(s)/ Observation(s)	Action taken by Contractor	Outcome
20211004_2	4 Oct 2021	The Contractor (DC/2018/07) is reminded to fix the damaged pipe that was connecting to the treatment tank	As observed on 11 Oct 2021, the pipe was fixed.	Completion as observed
20210928_2	19 Oct 2021	The Contractor (DC/2018/07) is reminded to replace the faded colour NRMM label of a generator	As observed on 26 Oct, faded NRMM label was replaced.	Completion as observed

Table 7.3 Summary of Environmental Inspections of Contract No. DE/2018/03

Item Date		Reminder(s)/ Observation(s)	Action taken by Contractor	Outcome
-	-	-	-	-

Table 7.4 Summary of Environmental Inspections of Contract No. DE/2018/04

Item	Date	Reminder(s)/ Observation(s)	Action taken by Contractor	Outcome
_	-	-	-	-



8. Complaints, Notification of Summons and Prosecution

- 8.0.1. No environmental complaint, notification of summons and successful prosecution regarding construction works was recorded in the reporting period.
- 8.0.2. The details environmental complaints for the Project are summarized by complaint log in *Appendix 8.1.*
- 8.0.3. Cumulative statistics on complaints and successful prosecutions are summarized in *Table 8.1* and *Table 8.2* respectively.

Table 8.1 Cumulative Statistics on Complaints in the Reporting Month

Reporting Period	No. of Complaints
Commencement works (Feb 2018) to last reporting month	3
October 2021	0
Total	3

Table 8.2 Cumulative Statistics on Successful Prosecutions

Environmental Parameters	Cumulative no. Brought Forward	No. of Successful Prosecutions this month (Offence Date)	Cumulative No. Project-to- Date
Air	-	0	0
Noise	-	0	0
Water	-	0	0
Waste	-	0	0
Total	-	0	0



9. Conclusion

- 9.0.1. The EM&A programme was carried out in accordance with the EM&A Manual requirements, minor alterations to the programme proposed were made in response to changing circumstances.
- 9.0.2. Mitigation measures according to the environmental mitigation implementation schedule and the EIA were generally implemented by the Contractor. Hence, the EM&A programme was considered effective and shall be maintained.
- 9.0.3. The scheduled construction activities and the recommended mitigation measures for the coming 3 months are listed in *Table 9.1*. The construction programmes of individual activities are provided in *Appendix 9.1*.

Table 9.1 Construction Activities and Recommended Mitigation Measures in Coming Reporting 3 Months

Contract No.	Key Construction Works	Recommended Mitigation Measures
DC/2018/06	 RC works Excavation works Sewerage and drainage works Pipe laying Backfilling Removal of Layer Struct and Waling 	 Implement proper dust mitigation measures on dusty surface and stockpiles Implement proper measures to prevent excavated material, silt or debris being deposited or washed into existing drainage systems and waterbodies Implement proper noise mitigation measures to prevent potential noise nuisances to nearby sensitive receivers Provision of protection to ensure no runoff out of site area or direct discharge into public drainage system Good site practices should be adopted to check for any accumulation of waste materials on site and dispose waste materials at designated areas. Segregate and store different types of waste to enhance reuse or recycling of materials and their proper disposal
DC/2018/07	ELS worksR.C. Structure worksPre-bored H piles	 Implement proper dust mitigation measures on dusty surface and stockpiles Implement proper measures to prevent



Contract No.	Key Construction Works	Recommended Mitigation Measures
	 Sheetpile Installation Demolition works Excavation E&M installation and T&C works ABWF works & BS works 	excavated material, silt or debris being deposited or washed into existing drainage systems and waterbodies Implement proper noise mitigation measures to prevent potential noise nuisances to nearby sensitive receivers Provision of protection to ensure no runoff out of site area or direct discharge into public drainage system Good site practices should be adopted to check for any accumulation of waste materials on site and dispose waste materials at designated areas. Segregate and store different types of waste to enhance reuse or recycling of materials and their proper disposal
DE/2018/03	 Excavation of Trial Pit (Sidestream Treatment Facilities) Installation of EOT at UVP Penstock and Stoplog Installation Effluent Pump Installation AFA and MFA System Installation 	 Implement proper dust mitigation measures on dusty surface and stockpiles Implement proper noise mitigation measures to prevent potential noise nuisances to nearby sensitive receivers Good site practices should be adopted to check for any accumulation of waste materials on site and dispose waste materials at designated areas. Segregate and store different types of waste to enhance reuse or recycling of materials and their proper disposal
DE/2018/04	 Testing and Commission of Temporary Filtrate Equalisation Tank. Testing and Commission of Temporary Primary Sludge Thickener and its accessories. 	 Good site practices should be adopted to check for any accumulation of waste materials on site and dispose waste materials at designated areas. Segregate and store different types of waste to enhance reuse or recycling of materials and their proper disposal.

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Contract No.	Key Construction Works	Recommended Mitigation Measures
	Testing and Commission	
	of Existing Primary	
	Sedimentation Tank No. 4	
	& 6.	

Figure 2.1

Project Layout

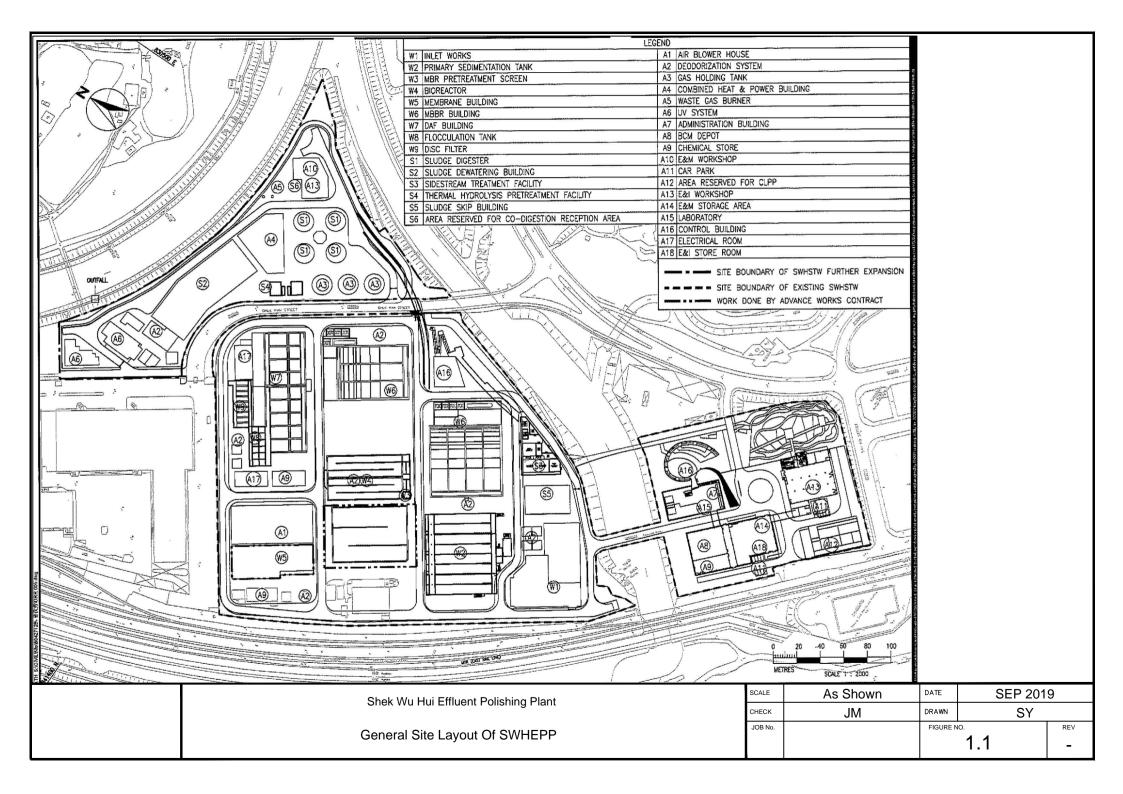


Figure 2.2

Project Organization Chart

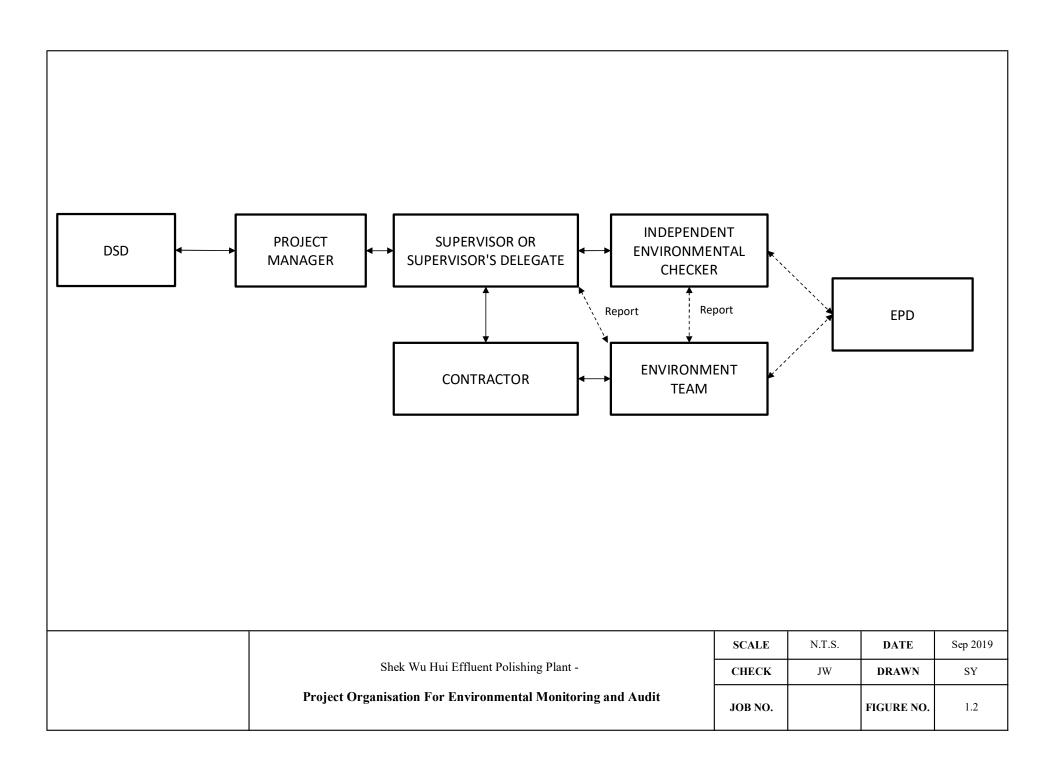


Figure 4.1

Locations of Noise Monitoring Stations

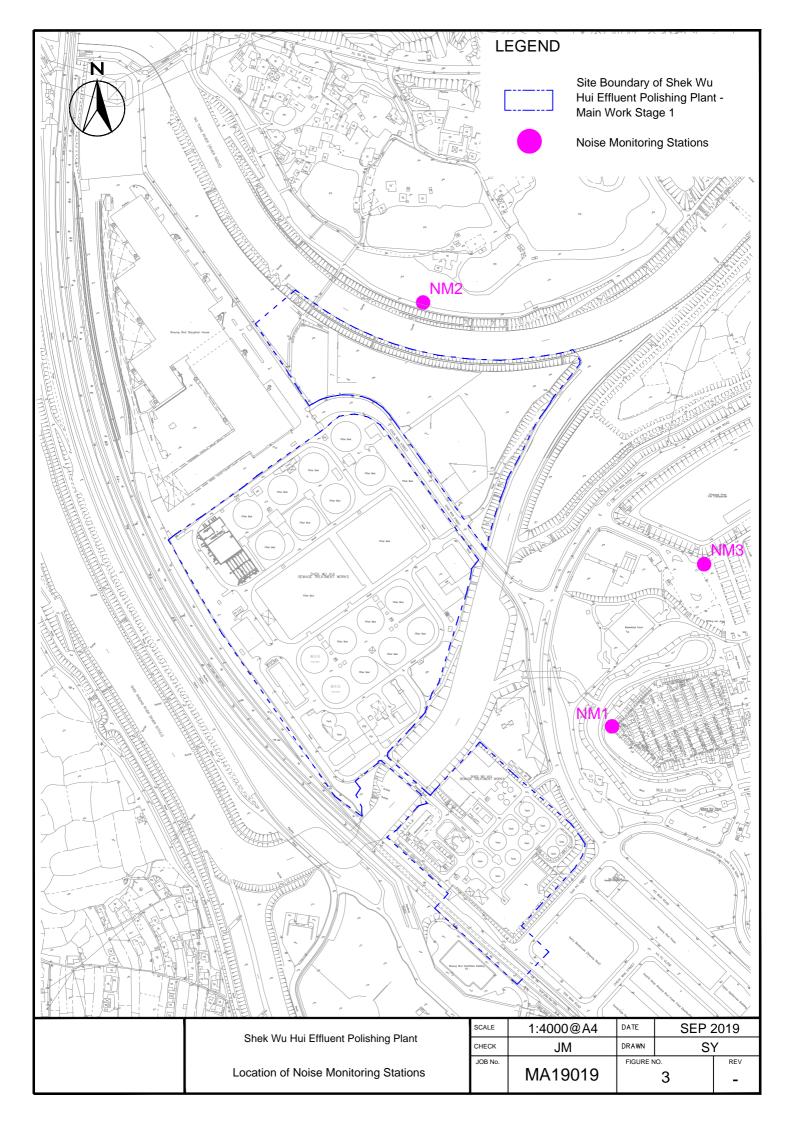


Figure 4.2

Locations of Air Quality Monitoring Stations

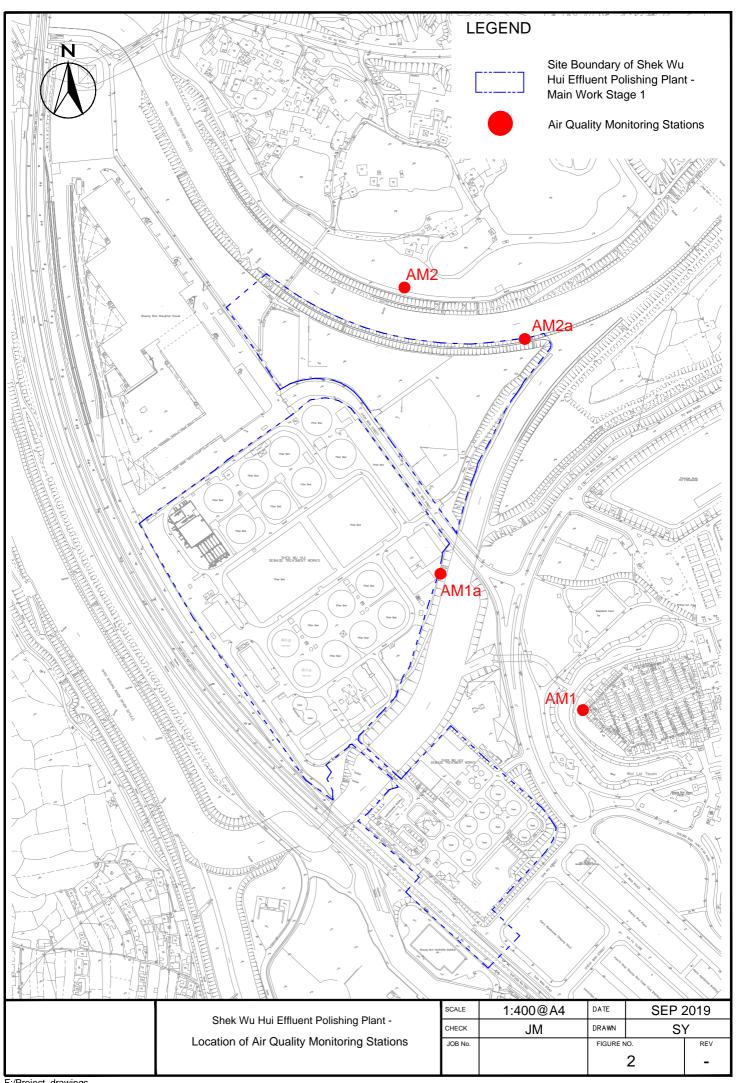
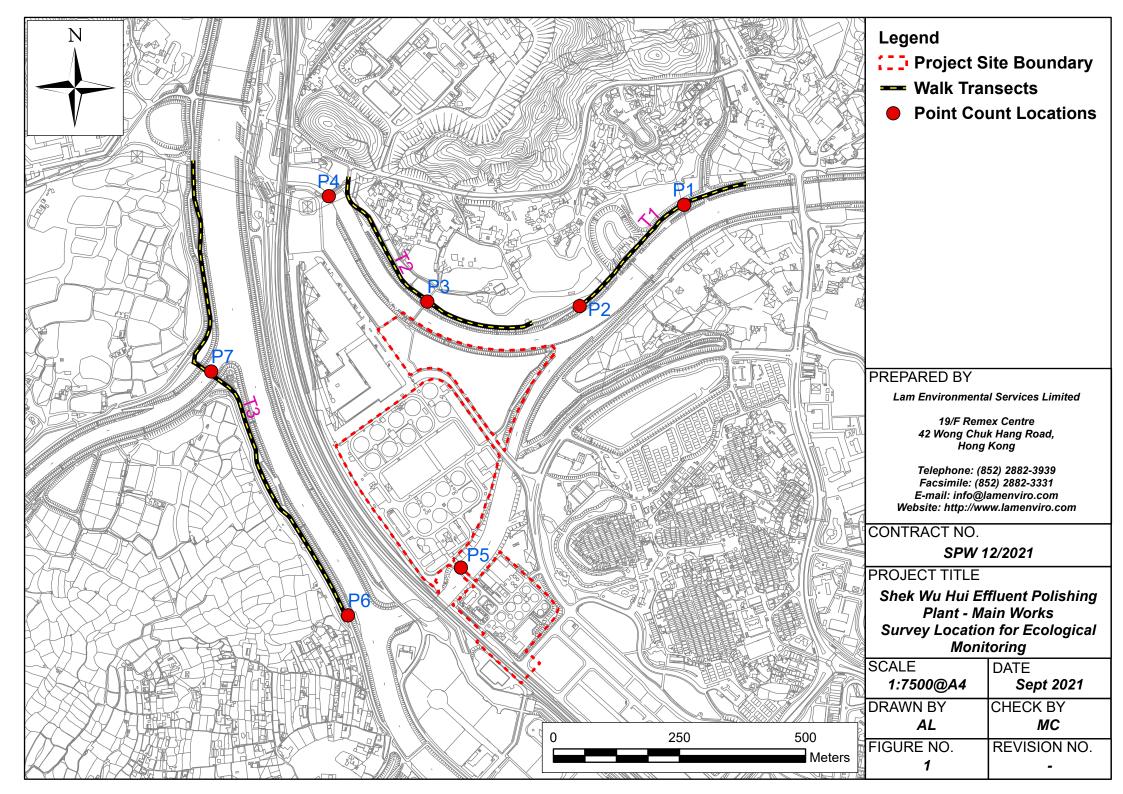


Figure 4.3

Locations of Ecological Monitoring Stations



Appendix 3.1

Environmental Mitigation Implementation Schedule

Appendix 3.1 Environmental Mitigation Implementation Schedule

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	Remark
Air Quality	/ Monitoring						
S2.4.1.3	Dust suppression measures stipulated in the Air Pollution Control (Con	struction Dust) Regulation	on and good site	e practices:			
	Any excavated or stockpile of dusty material should be covered entirely by impervious sheeting or sprayed with water to maintain the entire surface wet and then removed or backfilled or reinstated where practicable within 24 hours of the excavation or unloading;	To minimize the dust impact	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	Air Pollution Control Ordinance (APCO) and Air Pollution Control	۸
	Any dusty material remaining after a stockpile is removed should be wetted with water and cleared from the surface of roads;					(Construction Dust)	٨
	 A stockpile of dusty material should not be extended beyond the pedestrian barriers, fencing or traffic cones; 						٨
	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;						

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	Remark
	When there are open excavation and reinstatement works, hoarding of not less than 2.4m high should be provided as far as practicable along the site boundary with provision for public crossing. Good site practice shall also be adopted by the Contractor to ensure the conditions of the hoardings are properly maintained throughout the construction period.						^
	The portion of any road leading only to construction site that is within 30m of a vehicle entrance or exit should be kept clear of dusty materials;						٨
	 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; 						۸
	 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; 						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;						٨
	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;						٨
	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;						^

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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	
fabric filter or equivalent air pollution control system; and Exposed earth should be properly treated by compaction, turfing,	
hydroseeding, vegetation planting or sealing with latex, vinyl, bitumen, shortcrete or other suitable surface stabiliser within six	
months after the last construction activity on the construction site or part of the construction site where the exposed earth lies	

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	Remark
Noise Imp	act						
S3.4.1.1	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)	۸
S3.4.1.2	Good Site Practice:		•	•			
	 Only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction program. Silencers or mufflers on construction equipment should be utilized and should be properly maintained during the 	To minimize construction noise impact arising from the Project at the affected NSRs	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	EIAO-TM, NCO	*
	 construction program. Mobile plant, if any, should be sited as far away from NSRs as possible. 						٨
	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.						^
	Material stockpiles and other structures should be effectively utilized, wherever practicable, in screening noise from on-site construction activities.						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	Remark
Ecologica	l Impact						
S4.2.1.1	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 and operation phase of Main Works Stage 1, Stage 2 and Stage 3	EIAO-TM	۸
S4.2.1.3	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	٨
S4.2.1.4	The following measures to avoid, minimise and mitigate impact on water	er quality during constru	ction phase sha	Il be implemen	ted		
	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,	EIAO-TM	٨
	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;	water quality			Stage 2 and 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;						٨

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	Remark
	 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; Proper locations for discharge outlets of temporary wastewater 						٨
	treatment facilities well away from sensitive receivers should be identified;						
	 Adequate lateral support should be erected where necessary in order to prevent soil/mud from slipping into water bodies; 						٨
	Site boundaries should be clearly marked and any works beyond the boundary strictly prohibited;						٨
	 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; 						٨
	Excavation profiles should be properly designed and executed with attention to the relevant requirements for environment, health and safety;						^
	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; 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						٨
	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.						٨

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	Remark
	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;						٨
	Speed control for the trucks carrying contaminated materials should be enforced;						۸
	Vehicle wheel washing facilities at construction sites' exit points should be established and used, where necessary; and						۸
	Other measures as detailed in this schedule.						^

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	Remark
Water Qu	ality Impact						
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	٨
S5.2.2.2	Sewage from Workforce						
_ \$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;	Handling of site sewage	Contractors	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	EIAO-TM, WPCO, EIAO	٨
	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 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					requirements or standards for the measure to achieve EIAO-TM, WPCO, EIAO EIAO-TM, WPCO, EIAO	^

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	Remark
	anagement						
S6.2.2.1	Good Site Practices and Waste Reduction Measures		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	Contractors	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; 						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; 						^
	 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.						٨
S6.2.3.1	Waste Reduction Measures	<u>l</u>			1	<u> </u>	
	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	Contractors	Work Sites	Prior to the commencement of construction	WDO	٨
	Proper storage and site practices to minimize the potential for damage and contamination of construction materials;	_			of Main Works Stage 1, Stage 2		٨
	Plan and stock construction materials carefully to minimize amount of waste generated and avoid unnecessary generation of waste;				and Stage 3		٨
	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	Remark
S6.2.4.1	 Storage, Collection and Transportation of Waste Should any temporary storage or stockpiling of waste is required, recommendations to minimize the impacts include: Waste, such as soil, should be handled and stored well to ensure secure containment, thus minimizing the potential of pollution; Stockpiling area should be provided with covers and water spraying system to prevent materials from windblown or being washed away; and Different locations should be designated to stockpile each material to enhance reuse. 	Minimize waste impacts arising from waste storage	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	WDO	^ ^
S6.2.4.2	Storage, Collection and Transportation of Waste (con't) Remove waste in timely manner; Employ the trucks with cover or enclosed containers for waste transportation; Obtain relevant waste disposal permits from the appropriate authorities; and Disposal of waste should be done at licensed waste disposal facilities	Minimize waste impacts arising from waste storage	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	WDO	^ ^
S6.2.5.2	C&D Materials from Site Formation Maintain temporary stockpiles and reuse excavated fill material for backfilling; Carry out on-site sorting; Make provisions in the Contract documents to allow and promote the use of recycled aggregates where appropriate; 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 Implement a trip-ticket system for each works contract to ensure that the disposal of C&D materials are properly documented and verified.	Minimize waste impacts arising from waste storage	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	^ ^ ^ ^ ^
S6.2.5.3	C&D Material from Buildings Demolition and New Building Construction						

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	Remark
	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 arising from waste storage	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
	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 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.			٨			
	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	Chemical Waste						
	If chemical wastes are produced at the construction site, the Contractors should register with EPD as chemical waste producers.	Control the chemical waste and ensure proper storage,	Contractor	Work Sites	Construction phase of Main Works Stage 1,	Waste Disposal (Chemical Waste General)	^
	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.	handling and disposal			Stage 2 and Stage 3	Regulation, Code of Practice on the Packaging, Labelling and Storage of Chemical Waste	*
S6.2.5.5	General Refuse	ı	ı	ı	l	-1	1

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	Remark
	General refuse should be stored in enclosed bins separately from construction and chemical wastes. Recycling bins should also be placed to encourage recycling.	Minimize production of the general refuse and avoid odour, pest and litter	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and	Waste Disposal (Chemical Waste General) Regulation	^
	 Preferably enclosed and covered areas should be provided for general refuse collection and routine cleaning for these areas should also be implemented to keep areas clean. A reputable waste collector should be employed to remove general refuse on a daily basis. 	impacts			Stage 3	Regulation	^
	general reluse on a daily basis.						

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	Remark
Landscap	e and Visual						
S7.3.1.1	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	٨

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	Remark
S7.3.2.1	 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 referred to. 	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						<u> </u>
\$7.3.2.1	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 MM7 - Compensatory Planting	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

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	Remark
	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	Prior to construction, construction phase and operation	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. 			offsite locations	phase		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
S7.3.2.1	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	Remark
\$7.3.2.1	 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.	Prior to construction, construction phase and operation phase	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. Details can refer to the ecological impact assessment. [Chapter 13 of the EIA Report of NENT NDAs (Register No. AEIAR-175- 2013)] 	To screen undesirable views of the works site.	Designer	Work Sites	Construction phase		N/A
S7.3.2.1	 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		N/A

Remarks:

Implemented
To be followed-up by Contractor
Not Implemented
Not Applicable

N/A

Appendix 4.1

Action and Limit Level

Action and Limit Levels

Air Quality Monitoring

Monitoring	1-hour TSP Level in µg/m³		24-hour TSP Level in μg/m³		
Station	Action Level	Limit Level	Action Level	Limit Level	
AM1	320	500	189	260	
AM2	322	500	187	260	

Noise Monitoring

Monitoring	Leq(30	min),dB(A)
Stations	Action Level (dB(A))	Limit Level (dB(A))
NM1		
NM2	When one documented complaint is received	75*
NM3		

^{*}Notes: (1) 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 should be followed.

Ecological Monitoring of Waterbirds using Ng Tung, Sheung Yue and Shek Sheung Rivers during Construction Phase

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

^{*}Note: Whether numbers are significant depend on species and season after collection and evaluation of baseline data.

⁽²⁾ The limit level shall be 70 dB(A) and 65 dB(A) for educational institute during normal teaching periods and school examination periods, respectively.

Appendix 4.2

Copies of Calibration Certificates





RECALIBRATION DUE DATE:

August 3, 2022

Certificate of Calibration

Calibration Certification Information

Cal. Date: August 3, 2021

Rootsmeter S/N: 438320

Ta: 295 Pa: 750.3 °K

Operator: Jim Tisch
Calibration Model #:

1 113011

TE-5025A

Calibrator S/N: 3166

mm Hg

Run	Vol. Init (m3)	Vol. Final (m3)	ΔVol. (m3)	ΔTime (min)	ΔP (mm Hg)	ΔH (in H2O)
1	1	2	1	1.3610	3.2	2.00
2	3	4	1	0.9540	6.4	4.00
3	5	6	1	0.8460	7.9	5.00
4	7	8	1	0.8070	8.7	5.50
5	9	10	1	0.6630	12.7	8.00

		Data Tabula	tion		
Vstd	Qstd	$\sqrt{\Delta H \left(\frac{Pa}{Pstd}\right) \left(\frac{Tstd}{Ta}\right)}$		Qa	√∆H(Ta/Pa)
(m3)	(x-axis)	(y-axis)	Va	(x-axis)	(y-axis)
0.9930	0.7296	1.4123	0.9957	0.7316	0.8868
0.9888	1.0365	1.9973	0.9915	1.0393	1.2541
0.9868	1.1664	2.2330	0.9895	1.1696	1.4021
0.9857	1.2215	2.3420	0.9884	1.2248	1.4705
0.9804	1.4788	2.8246	0.9831	1.4828	1.7735
	m=	1.88375		m=	1.17957
QSTD[b=	0.03970	QA [b=	0.02493
	r=	0.99998		r=	0.99998

	Calculation	ns	
Vstd=	ΔVol((Pa-ΔP)/Pstd)(Tstd/Ta)	Va=	ΔVol((Pa-ΔP)/Pa)
Qstd=	Vstd/ΔTime	Qa=	Va/ΔTime
	For subsequent flow ra	te calculatio	ns:
Qstd=	$1/m\left(\left(\sqrt{\Delta H\left(\frac{Pa}{Pstd}\right)\left(\frac{Tstd}{Ta}\right)}\right)-b\right)$	Qa=	$1/m\left(\left(\sqrt{\Delta H(Ta/Pa)}\right)-b\right)$

	Standard Conditions
Tstd:	298.15 °K
Pstd:	760 mm Hg
	Key
ΔH: calibrato	or manometer reading (in H2O)
ΔP: rootsme	ter manometer reading (mm Hg)
Ta: actual ab	solute temperature (°K)
Pa: actual ba	rometric pressure (mm Hg)
b: intercept	
m: slope	

RECALIBRATION

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

Tisch Environmental, Inc. 145 South Miami Avenue Village of Cleves, OH 45002 www.tisch-env.com

TOLL FREE: (877)263-7610 FAX: (513)467-9009



Lam Environmental Services Limited

Calibration Data for High Volume Sampler (TSP Sampler)

Location :		AM1a				Calbratio	on Date	:	31-Aug-21
Equipment no.	ŀ	HVS001				Calbratio	on Due Date	:	31-Oct-21
CALIBRATION OF CON	ITINUOUS	FLOW R	ECORDER						
				Ambient C	ondition				
Temperature, T _a		1011	.1	Kelvin	Pressure, P	a		27	mmHg
			Orifice Tr	ansfer Sta	ndard Inforr	nation			
Equipment No.		3166		Slope, m _c	1.883	75	Intercept, bc		0.03970
Last Calibration Date		3-Aug-2	1		(H x	P _a / 101	3.3 x 298 /	T_a) 1/2	?
Next Calibration Date		3-Aug-2	2		=	$m_c x$	$Q_{std} + b_c$		
				Calibratio	n of TSP				
Calibration	Man	nometer R	eading	C	std	Continu	uous Flow		IC
Point	H (i	inches of	water)	(m ³	/ min.)	Reco	rder, W	(W(P _a /10	13.3x298/T _a) ^{1/2} /35.31)
	(up)	(down)	(difference)	X-	axis	(0	CFM)		Y-axis
1	1.2	1.2	2.4	0.0)522		22		1.9604
2	2.3	2.3	4.6	0.0	0804		34		3.0297
3	3.5	3.5	7.0	0.	1041		42		3.7426
4	4.6	4.6	9.2	0.	1224		54		4.8119
5	5.7	5.7	11.4	0.	1386		57		5.0792
By Linear Regression of	Y on X								
	Slope, m	=	37.33	367	Inte	ercept, b =	0.0	0081	
Correlation Co	oefficient*	=	0.99	32					
Calibration	Accepted	=	Yes/	lo **					
* if Correlation Coefficier	nt < 0.990.	check and	l recalibration	again.					
				3.					
** Delete as appropriate.									
Remarks :									
Calibrated by	,	Alan Ng				Checked	l by	:	James Chu
Date :	3.	1-Aug-21				Date		:	31-Aug-21



Lam Environmental Services Limited

Calibration Data for High Volume Sampler (TSP Sampler)

Location :		AM2a				Calbratio	on Date	:	31-Aug-21
Equipment no.	ı	HVS003				Calbratio	on Due Date	:	31-Oct-21
CALIBRATION OF CON	ITINUOUS	S FLOW RI	ECORDER						
				Ambient C	Condition				
Temperature, T _a		1011	.1	Kelvin	Pressure, P	a		27	mmHg
			Orifice Tr	ansfer Sta	ndard Inforr	nation			
Equipment No.		3166		Slope, m _c	1.883	75	Intercept, bc		0.03970
Last Calibration Date		3-Aug-2	1		(H x	P _a / 101	3.3 x 298 /	T _a) 1/	2
Next Calibration Date		3-Aug-2	2		=	m _c x	$Q_{std} + b_c$		
				Calibratio	n of TSP				
Calibration	Mar	nometer R	eading	C	std	Continu	ious Flow		IC
Point	H (i	inches of	water)	(m³	/ min.)	Reco	rder, W	(W(P _a /10	013.3x298/T _a) ^{1/2} /35.31)
	(up)	(down)	(difference)	X-	axis	(C	CFM)		Y-axis
1	1.1	1.1	2.2	0.0	0491		24		2.1386
2	2.2	2.2	4.4	0.0	0782		35		3.1188
3	3.6	3.6	7.2	0.	1059		46		4.0990
4	4.5	4.5	9.0	0.	1208		52		4.6337
5	5.4	5.4	10.8	0.	1344		58		5.1683
By Linear Regression of	Y on X								
	Slope, m	=	35.37	755	Inte	ercept, b =	0.3	3768	
Correlation Co	pefficient*	=	0.99	97					
Calibration	Accepted	=	Yes/P	lo **					
* if Correlation Coefficier	nt < 0.990,	check and	l recalibration	again.					
** Delete as appropriate.									
Remarks :									
		A1 P1				01- 1			Jamasa Ci
Calibrated by		Alan Ng				Checked	гру	: <u> </u>	James Chu
Dato	3	1-Aug-21				Date		-	31-Aug-21



Certificate of Calibration

BT-645

Particulate Monitor

Recommended cali	bration interval	is 24	months	from	first de	ay o	f use.
------------------	------------------	-------	--------	------	----------	------	--------

Unit Info Model:	BT-645	81865 Firmware Rev:	R1.1.0
Serial Number:	X19297	81113	R0.2.4
Calibrated By:	Alice M.	Cal. Date:	Jan 9, 2020
Quality Inspector:	AT8	Date: _	FEB 1 1 2020
Calibration Hz/µg/m³:	6.60	_	
Final Test			
Flow (2.0 L/min):	Pass	Ambient Temp (C):	23.5
Serial Communication:	Pass	RH (%): _	31.3%
Concentration:	401	Standard:	403

Calibration Standards

Standards	Manufacturer	Model	SN	Cal Due
RMS Multimeter	Fluke	289 Multimeter	23740018	5/17/2020
RH &TEMPERATURE	Met One Instruments	083E-1-6	R20313	9/19/2020
Primary Flow Meter	BIOS	Defender-530+	170092	1/30/2020
Digital Dust Indicator	SIBATA	LD-3B	6X7759	12/14/2019

The standards used for this calibration have accuracy equal to or greater than the instrument tested. These standards are on record and traceable to NIST to the extent allowed by the institute's calibration facility. Unless otherwise stated, all instruments are calibrated to meet the manufacturer's published specifications. The Calibration system complies with MIL-STD-45662A.



Certificate of Calibration

BT-645

Particulate Monitor

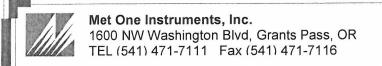
Recommended	calibration	interval	is 24	months	from	first da	v o	f use.
-------------	-------------	----------	-------	--------	------	----------	-----	--------

Unit Info Model:	BT-645 8	1865 Firmware Rev:	1.2.0	
Serial Number:	R22586	81113	0.2.5	
Calibrated By:	J. Chester	Cal. Date:	04/13/2021	
Quality Inspector:	A 6	Date:	APR 1 5 2021	
Calibration Hz/µg/m ³ :	6.06			
Final Test				
Flow (2.0 L/min):	Pass	Ambient Temp (C): _	23	
Serial Communication:	Pass	RH (%): _	24	
Concentration:	370	Standard:	372	

Calibration Standards

Standards	Manufacturer	Model	SN	Cal Due Date
DMM	Fluke	189	92130180	10/26/2021
Temp/Humidity	Met One Instruments	083E-1-6	R20313	09/17/21
Flow Meter	TSI	4000	40419545007	11/21/2021
LD-3B	SIBATA	LD-3B	476795	06/29/2021

The standards used for this calibration have accuracy equal to or greater than the instrument tested. These standards are on record and traceable to NIST to the extent allowed by the institute's calibration facility. Unless otherwise stated, all instruments are calibrated to meet the manufacturer's published specifications. The Calibration system complies with MIL-STD-45662A.



Certificate of Calibration

BT-645

Particulate Monitor

Recommended calibration interval is 24 months from first day of use.

Unit Info Model:	BT-645	81865 Firmware Rev:	R1.1.0	
Serial Number:	X19295	81113 _	R0.2.4	
Calibrated By:	Alice M.	Cal. Date:	Jan 9, 2020	
Quality Inspector:	AB	Date: _	FEB 1 1 2020	
Calibration Hz/μg/m³:	5.295			
Final Test				
Flow (2.0 L/min):	Pass	Ambient Temp (C): _	23.5	
Serial Communication:	Pass	RH (%): _	31.3%	
Concentration:	398	Standard:	398	

Calibration Standards

Standards	Manufacturer	Model	SN	Cal Due
RMS Multimeter	Fluke	289 Multimeter	23740018	5/17/2020
RH &TEMPERATURE	Met One Instruments	083E-1-6	R20313	9/19/2020
Primary Flow Meter	BIOS	Defender-530+	170092	1/30/2020
Digital Dust Indicator	SIBATA	LD-3B	6X7759	12/14/2019

The standards used for this calibration have accuracy equal to or greater than the instrument tested. These standards are on record and traceable to NIST to the extent allowed by the institute's calibration facility. Unless otherwise stated, all instruments are calibrated to meet the manufacturer's published specifications. The Calibration system complies with MIL-STD-45662A.



The calibration results on this report certify that this instrument complies with the product specifications at the time of calibration. Calibration was performed according to accepted industry methods using equipment, procedures, and standards that are traceable to NIST and ISO.

Recommended calibration interval is 12 months from the first day of use.

Instrument Model# 831		Instrument Serial# R14332
Date of Calibration 2/18/2021		Sensor # 12228
J. Chester A 1		A 14 MAR 0 2 2021
Calibration Technician		Quality Check
Temperature 30	°c	Relative Humidity 33 %

Test Procedure: 831-6100

PSL Size (µm)	Test Results	Test Spec.	Lot# NIST	Expiration
0.5	Pass	± 10%	219480	11/30/2022
0.7	Pass	± 10%	229561	08/31/2023
1.0	Pass	± 10%	229294	8/31/2023
2.5	Pass	± 10%	REF	NA
4.0	Pass	± 10%	REF	NA
5.0	Pass	± 10%	REF	NA
7.0	Pass	± 10%	REF	NA
10.0	Pass	± 10%	REF	NA

Standards	Model	SN	Cal Due
Flowmeter	DCL-M	103751	3/14/2021
DMM	189 Multimeter	92130180	10/26/2021
RH/TEMP SENSOR	083E-1-6	R20313	9/17/2021
Particle Counter	GT-526	M1760	5/19/2021

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Document 831-9600 Rev A 53042



The calibration results on this report certify that this instrument complies with the product specifications at the time of calibration. Calibration was performed according to accepted industry methods using equipment, procedures, and standards that are traceable to NIST and ISO.

Recommended calibration interval is 12 months from the first day of use.

Instrument Model#	Aerocet 83	1	Instrument Serial#	W15449
Date of Calibration	4/29/2021			Sensor # 16439
Jason Gist		A 14	AJ5	
Calibration Technicia	an		Quality Check	
Temper	ature 23	oc	Relative Humidity 3	5%

Test Procedure: Aerocet 831-6100

PSL Size (µm)	Test Results	Test Spec.	Lot# NIST	Expiration
0.3	Pass	± 10%	223077	04/30/2023
0.5	Pass	± 10%	219480	11/30/2022
1.0	Pass	± 10%	229294	8/31/2023
2.5	Pass	± 10%	REF	NA
4.0	Pass	± 10%	REF	NA
5.0	Pass	± 10%	REF	NA
7.0	Pass	± 10%	REF	NA
10.0	Pass	± 10%	REF	NA

Standards	Model	SN	Cal Due
Dry Cal	Defender 530+	170092	2/9/2022
DMM	289	27720071	7/31/2021
RH/TEMP SENSOR	083E-1-6	R20313	9/17/2021
Particle Counter	GT-526	M1761	8/26/2021

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As Received

This certificate documents the as received condition of your instrument. Calibration was verified using accepted industry methods, equipment, procedures and standards that are traceable to NIST and ISO.

Instrument Model#	erocet 83	1	Instrument Serial#	# W15449	
Date of comparison agains	t standard	4-27-2021		Sensor#_	16439
Quality Control Technicia	n <i>Ja</i>	son Gist	A 14		
Temperatur	23	°C	Relative Humidity		ó

Test Procedure: Aerocet 831-6100

As Received	Value	Range	Condition
Zero Count	0	Less than 5 particles in 5 min.	PASS
Air Flow	.08916	.092 to .108 CFM	FAIL

PSL Size Micron	LOT# NIST	As Received PSL Count Comparison	Allowable PSL Count Comparison	Allowable Size Accuracy	As Received Condition
0.3	223077	48.87	10% to 90%	+/- 10 %	PASS
0.5	219480	48.71	10% to 90%	+/- 10 %	PASS
1.0	229294	48.09	10% to 90%	+/- 10 %	PASS
					_

Standards	Model	SN	Cal Due
Dry Cal	Defender 530+	170092	2/9/2022
DMM	289	23700150	5/4/2021
RH/TEMP SENSOR	083E-1-6	R20313	9/17/2021
Particle Counter	GT-526	M1761	8/26/2021

Calibration was performed by direct comparison to a count standard.



The calibration results on this report certify that this instrument complies with the product specifications at the time of calibration. Calibration was performed according to accepted industry methods using equipment, procedures, and standards that are traceable to NIST and ISO.

Recommended calibration interval is 12 months from the first day of use.

Instrument Serial# Y23154 Aerocet 831 **Instrument Model#** 12/3/2020 Sensor # 19494 Date of Calibration DEC 0 7 2020 A 14 Jason Gist **Quality Check Calibration Technician** o_C % 23 Relative Humidity 28 Temperature

Test Procedure: Aerocet 831-6100

PSL Size (µm)	Test Results	Test Spec.	Lot# NIST	Expiration
0.3	Pass	± 10%	223077	04/30/2023
0.5	Pass	± 10%	219480	11/30/2022
1.0	Pass	± 10%	193291	1/31/2021
2.5	Pass	± 10%	REF	NA
4.0	Pass	± 10%	REF	NA
5.0	Pass	± 10%	REF	NA
7.0	Pass	± 10%	REF	NA
10.0	Pass	± 10%	REF	NA

Standards	Model	SN	Cal Due
Dry Cal	Defender 530+	170092	1/28/2021
DMM	289	23700150	5/4/2021
RH/TEMP SENSOR	083E-1-6	R20313	9/17/2021
Particle Counter	GT-526S	X17420	12/20/2020

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As Received

This certificate documents the as received condition of your instrument. Calibration was verified using accepted industry methods, equipment, procedures and standards that are traceable to NIST and ISO.

Instrument Model#	Aero	cet 831	<u> </u>	Instrument Serial	#	Y23154
Date of comparison ag	gainst sta	ndard	12-2-2020			Sensor # 19494
Quality Control Tech	nician	Jas	son Gist	A 14		
Tempera	ature	23	°C	Relative Humidity	29	%

Test Procedure: Aerocet 831-6100

As Received	Value	Range	Condition	
Zero Count 0		Less than 5 particles in 5 min.	PASS	
Air Flow .08784		.092 to .108 CFM	FAIL	

PSL Size Micron	LOT# NIST	As Received PSL Count Comparison	Allowable PSL Count Comparison	Allowable Size Accuracy	As Received Condition
0.3	223077	54.38	10% to 90%	+/- 10 %	PASS
0.5	219480	28.50	10% to 90%	+/- 10 %	PASS
1.0	193291	13.39	10% to 90%	+/- 10 %	PASS

Standards	Model	SN	Cal Due
Dry Cal	Defender 530+	170092	1/28/2021
DMM	289	23700150	5/4/2021
RH/TEMP SENSOR	083E-1-6	R20313	9/17/2021
Particle Counter	GT-526S	X17420	12/20/2020

Calibration was performed by direct comparison to a count standard.



The calibration results on this report certify that this instrument complies with the product specifications at the time of calibration. Calibration was performed according to accepted industry methods using equipment, procedures, and standards that are traceable to NIST and ISO.

Recommended calibration interval is 12 months from the first day of use.

Instrument Model#	Aerocet 831		Instrument Serial#	Y23160
Date of Calibration	12/3/2020	argus	P. T.	Sensor # 19500
Jason Gist		A 14	Ala	; 0 7 2020
Calibration Technicia	ın		Quality Check	
Tempera	ature 23	_ °c	Relative Humidity 28	8%

Test Procedure: Aerocet 831-6100

PSL Size (µm)	Test Results	Test Spec.	Lot# NIST	Expiration
0.3	Pass	± 10%	223077	04/30/2023
0.5	Pass	± 10%	219480	11/30/2022
1.0	Pass	± 10%	193291	1/31/2021
2.5	Pass	± 10%	REF	NA
4.0	Pass	± 10%	REF	NA
5.0	Pass	± 10%	REF	NA
7.0	Pass	± 10%	REF	NA
10.0	Pass	± 10%	REF	NA

Standards	Model	SN	Cal Due
Dry Cal	Defender 530+	170092	1/28/2021
DMM	289	23700150	5/4/2021
RH/TEMP SENSOR	083E-1-6	R20313	9/17/2021
Particle Counter	GT-526S	X17420	12/20/2020

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As Received

This certificate documents the as received condition of your instrument. Calibration was verified using accepted industry methods, equipment, procedures and standards that are traceable to NIST and ISO.

Instrument Model#	Aero	ocet	831		Instrument Serial#	Y23160	
Date of comparison ag	ainst st	anda	rd	12-2-2020		Sensor#	19500
Quality Control Techr	nician		Jaso	on Gist	A 14		
Tempera	iture	23		°c	Relative Humidity 29	99	6

Test Procedure: Aerocet 831-6100

As Received	Value	Range	Condition	
Zero Count	0	Less than 5 particles in 5 min.	PASS	
Air Flow	.09579	.092 to .108 CFM	PASS	

LOT# NIST	As Received PSL Count Comparison	Allowable PSL Count Comparison	Allowable Size Accuracy	As Received Condition
223077	41.05	10% to 90%	+/- 10 %	PASS
219480	14.29	10% to 90%	+/- 10 %	PASS
193291	15.89	10% to 90%	+/- 10 %	PASS
	NIST 223077 219480	NIST PSL Count Comparison 223077 41.05 219480 14.29	LOT# NIST PSL Count Comparison PSL Count Comparison 223077 41.05 10% to 90% 219480 14.29 10% to 90%	LOT# NIST PSL Count Comparison PSL Count Comparison Size Accuracy 223077 41.05 10% to 90% +/- 10 % 219480 14.29 10% to 90% +/- 10 %

Standards	Model	SN	Cal Due
Dry Cal	Defender 530+	170092	1/28/2021
DMM	289	23700150	5/4/2021
RH/TEMP SENSOR	083E-1-6	R20313	9/17/2021
Particle Counter	GT-526S	X17420	12/20/2020

Calibration was performed by direct comparison to a count standard.

出厂检验报告

产品名称: _ 在线式风速风向仪

产品型号: YGY-FSXY1

被检产品 SN 号: YG 21071630T0924

武汉辰云科技有限公司 2021年8月9日

1. 检验类别

一、在线式风速风向仪

检验项目	检测要求	检测结果
外观检查	1. 要求成品外观无破损,各部件完整,无掉漆,无 凹陷变形; 2. 采集仪内部无目视可见灰尘杂物油污,布局整洁 美观; 3. 芯线,航插完整,保护皮无破损,无油污;	
结构检查	1. 内部电路板固定牢固可靠,无挤压,无晃动; 2. 检查防尘防水措施是否到位,密封是否严密,端 子与外壳缝隙不宜过大,以不透光为原则;	

二、风速风向传感器示值校准结果

实际风速(m/s)	指示风速 (m/s)				
0.5	启动				
1	0.8				
5	4.8				
10	9.9 14.8				
15					
20	20.2				
25	25.2				
30	29.7				

实际风向(°)	指示风向(°)		
45	44		
90	89		
135	136		
200	202		
235	234		
275	275		
315	313		
359	0		

2. 备注 NOTE

数据采集仪数据显示风速、风向值正常,通过 RJ45 通讯与电脑连接, 仪器软件数据显示正常。

3. 检验结论:

各项检测和实验结果表明:

<u>在线式风速风向仪</u>仪器全部测试通过,系统硬件测试符合工厂(武汉易谷科技有限公司检验标准)测试标准。符合技术文件的要求,检验合格,准予出厂。

4. 校准的环境条件:

环境条件: 温度: 27.5, 相对湿度: 61.0%RH, 大气压力: 1013.3hpa

测试员: __李元华 检验员: 吴肖

测试日期: 2021年8月9日





港新界葵涌永基路22-24號好爸爸創科大廈 Good Ba Ba Hitech Building, Nos. 22-24 Wing Kei Road, Kwai Chung, New Territories, Hong Kong Tel: (852) 2873 6860 Fax: (852) 2555 7533 E-mail: smec@cigismec.com Website: www.cigismec.com





CERTIFICATE OF CALIBRATION

Certificate No.:

21CA0526 02-01

Page

of

2

Item tested

Description: Manufacturer: Type/Model No.: Sound Level Meter (Type 1)

Larson Davis

PCB 377B02 163704

Microphone

Preamp PCB PRMLxT1L 042622

Adaptors used:

Customer Name:

Serial/Equipment No.:

Item submitted by

Lam Environmental Services Limited.

Address of Customer: Request No.:

Date of receipt:

26-May-2021

LxT1

0004797

Date of test:

27-May-2021

Reference equipment used in the calibration

Description: Multi function sound calibrator

Model: B&K 4226 DS 360

Serial No. 2288444 61227

Expiry Date: 23-Aug-2021 31-Dec-2021

Traceable to: CIGISMEC CEPREI

Ambient conditions

Temperature: Relative humidity:

Air pressure:

Signal generator

22 ± 1 °C 55 ± 10 % 1005 ± 5 hPa

Test specifications

1, The Sound Level Meter has been calibrated in accordance with the requirements as specified in BS 7580: Part 1: 1997 and the lab calibration procedure SMTP004-CA-152.

2, The electrical tests were performed using an electrical signal substituted for the microphone which was removed and replaced by an equivalent capacitance within a tolerance of ±20%.

3, The acoustic calibration was performed using an B&K 4226 sound calibrator and corrections was applied for the difference between the free-field and pressure responsess of the Sound Level Meter.

Test results

This is to certify that the Sound Level Meter conforms to BS 7580: Part 1: 1997 for the conditions under which the test

Details of the performed measurements are presented on page 2 of this certificate.

Actual Measurement data are documented on worksheets.

Feng lunai

Approved Signatory:

Date:

carry no implication regarding the long-term stability of the instrument. The results apply to the item as received.

28-May-2021

Company Chop:

The results reported in this certificate refer to the condition of the instrument on the date of calibration and

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Form No.CARP152-1/Issue 1/Rev.C/01/02/2007



香港新界葵涌永基路 2 2 - 2 4 號好爸爸創科大廈 Good Ba Ba Hitech Building, Nos. 22-24 Wing Kei Road, Kwai Chung, New Territories, Hong Kong Tel: (852) 2873 6860 Fax: (852) 2555 7533 E-mail: smec@cigismec.com Website: www.cigismec.com



2



CERTIFICATE OF CALIBRATION

(Continuation Page)

Certificate No.: 21CA0526 02-01

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Page

1, Electrical Tests

The electrical tests were performed using an equivalent capacitance substituted for the microphone. The results are given in below with test status and the estimated uncertainties. The "Pass" means the result of the test is inside the tolerances stated in the test specifications. The "-" means the result of test is outside these tolerances.

Test:	Subtest:	Status:	Expanded Uncertanity (dB)	Coverage Factor
Self-generated noise	A	Dana	0.2	
Sen-generated noise	C	Pass	0.3	0.4
	_	Pass	0.8	2.1
Linearity sames for Low	Lin	Pass	1.6	2.2
Linearity range for Leq	At reference range , Step 5 dB at 4 kHz	Pass	0.3	
	Reference SPL on all other ranges	Pass	0.3	
	2 dB below upper limit of each range	Pass	0.3	
	2 dB above lower limit of each range	Pass	0.3	
Linearity range for SPL	At reference range, Step 5 dB at 4 kHz	Pass	0.3	
Frequency weightings	A	Pass	0.3	
	С	Pass	0.3	
	Lin	Pass	0.3	
Time weightings	Single Burst Fast	Pass	0.3	
	Single Burst Slow	Pass	0.3	
Peak response	Single 100µs rectangular pulse	Pass	0.3	
R.M.S. accuracy	Crest factor of 3	Pass	0.3	
Time weighting I	Single burst 5 ms at 2000 Hz	Pass	0.3	
9 0	Repeated at frequency of 100 Hz	Pass	0.3	
Time averaging	1 ms burst duty factor 1/10 ³ at 4kHz	Pass	0.3	
	1 ms burst duty factor 1/10 ⁴ at 4kHz	Pass	0.3	
Pulse range	Single burst 10 ms at 4 kHz	Pass	0.4	
Sound exposure level	Single burst 10 ms at 4 kHz	Pass	0.4	
Overload indication	SPL	Pass	0.3	
	Leq	Pass	0.4	
		1 000	0.4	

2, Acoustic tests

The complete sound level meter was calibrated on the reference range using a B&K 4226 acoustic calibrator with 1000Hz and SPL 94 dB. The sensitivity of the sound level meter was adjusted. The test result at 125 Hz and 8000 Hz are given in below with test status and the estimated uncertainties.

Test:	Subtest	Status	Expanded Uncertanity (dB)	Coverage Factor
Acoustic response	Weighting A at 125 Hz	Pass	0.3	
	Weighting A at 8000 Hz	Pass	0.5	

Response to associated sound calibrator

N/A

The expanded uncertainties have been calculated in accordance with the ISO Publication "Guide to the expression of uncertainty in measurement", and gives an interval estimated to have a level of confidence of 95%. A coverage factor of 2 is assumed unless explicitly stated.

Calibrated by:

/Fung Chi Yip

End

Checked by:

Chan Yuk Yiu

Date: 27-May-2021

Date:

28-May-2021

The standard(s) and equipment used in the calibration are traceable to national or international recognised standards and are calibrated on a schedule to maintain the required accuracy level.

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Form No.CARP152-2/Issue 1/Rev.C/01/02/2007



SMECLab

香港新界藝涌永基路22-24號好爸爸創科大廈 Good Ba Ba Hitech Building, Nos. 22-24 Wing Kei Road, Kwai Chung, New Territories, Hong Kong Tel: (852) 2873 6860 Fax: (852) 2555 7533 E-mail: smec@cigismec.com Website: www.cigismec.com

Test Data for Sound Level Meter Page 1 of 5

Sound level meter type: LxT1 Serial No. 0004797 Date 27-May-2021

 Microphone
 type:
 377B02
 Serial No.
 163704

 Preamp
 type:
 PRMLxT1L
 Serial No.
 042622
 Report: 21CA0526 02-01

SELF GENERATED NOISE TEST

The noise test is performed in the most sensitive range of the SLM with the microphone replaced by an equivalent impedance.

Noise level in A weighting

10.6

Noise level in C weighting

14.8

Noise level in Lin

22.3

dB

LINEARITY TEST

The linearity is tested relative to the reference sound pressure level using a continuous sinusoidal signal of frequency 4 kHz. The measurement is made on the reference range for indications at 5 dB intervals starting from the 94 dB reference sound pressure level. And until within 5 dB of the upper and lower limits of the reference range, the measurements shall be made at 1 dB intervals.(SLM set to LEQ/SPL)

Reference/Expected level	Actua	l level	Tolerance	Devia	ation
T.S. STOTION EMPORED TOVOL	non-integrated	integrated		non-integrated	integrated
dB	dB	dB	+/- dB	dB	dB
94.0	94.0	94.0	0.7	0.0	0.0
99.0	99.0	99.0	0.7	0.0	0.0
104.0	104.0	104.0	0.7	0.0	0.0
109.0	109.0	109.0	0.7	0.0	0.0
114.0	114.0	114.0	0.7	0.0	0.0
115.0	115.0	115.0	0.7	0.0	0.0
116.0	116.0	116.0	0.7	0.0	0.0
117.0	117.0	117.0	0.7	0.0	0.0
118.0	118.0	118.0	0.7	0.0	0.0
119.0	119.0	119.0	0.7	0.0	0.0
120.0	120.0	120.0	0.7	0.0	0.0
89.0	89.0	89.0	0.7	0.0	0.0
84.0	84.0	84.0	0.7	0.0	0.0
79.0	79.0	79.0	0.7	0.0	0.0
74.0	73.9	73.9	0.7	-0.1	-0.1
69.0	68.9	68.9	0.7	-0.1	-0.1
64.0	63.9	63.9	0.7	-0.1	-0.1
59.0	58.9	58.9	0.7	-0.1	-0.1
54.0	53.9	53.9	0.7	-0.1	-0.1
49.0	48.9	48.9	0.7	-0.1	-0.1
44.0	43.9	43.9	0.7	-0.1	-0.1
39.0	38.9	38.9	0.7	-0.1	-0.1
34.0	33.9	33.9	0.7	-0.1	-0.1
33.0	32.9	32.9	0.7	-0.1	-0.1

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Test Data for Sound Level Meter

Page 2 of 5

Sound level me	eter type:	LxT1		Seri	al No.	0004797	Date	e 27-May	-2021
Microphone Preamp	type: type:	377B02 PRMLxT1L			al No. al No.	163704 042622	Rep	ort: 21CA05	26 02-01
32.0		31.9	31.9		0.7		-0.1	-0.1	
31.0		30.9	30.9		0.7		-0.1	-0.1	
30.0		29.9	29.9		0.7		-0.1	-0.1	

Measurements for an indication of the reference SPL on all other ranges which include it

Other ranges	Expected level	Actual level	Tolerance	Deviation
dB	dB	dB	+/- dB	dB
20-120	94.0	94.0	0.7	0.0

Measurements on all level ranges for indications 2 dB below the upper limit and 2 dB above the lower limit

Ranges	Reference/Expected level	Actual level	Tolerance	Deviation
dB	dB	dB	+/- dB	dB
20-120	30.0	29.9	0.7	-0.1
20-120	118.0	118.0	0.7	0.0

FREQUENCY WEIGHTING TEST

The frequency response of the weighting netwoks are tested at octave intervals over the frequency ranges 31.5 Hz to 12500 Hz. The signal level at 1000 Hz is set to give an indication of the reference SPL.

Frequency weighting A:

Frequency	Ref. level	Expected level	Actual level	Tolerance(dB)		Deviation
Hz	dB	dB	dB	+	-	dB
1000.0	94.0	94.0	94.0	0.0	0.0	0.0
31.6	94.0	54.6	54.5	1.5	1.5	-0.1
63.1	94.0	67.8	67.8	1.5	1.5	0.0
125.9	94.0	77.9	77.9	1.0	1.0	0.0
251.2	94.0	85.4	85.3	1.0	1.0	-0.1
501.2	94.0	90.8	90.7	1.0	1.0	-0.1
1995.0	94.0	95.2	95.2	1.0	1.0	0.0
3981.0	94.0	95.0	95.0	1.0	1.0	0.0
7943.0	94.0	92.9	92.9	1.5	3.0	0.0
12590.0	94.0	89.7	89.7	3.0	6.0	0.0

Frequency weighting C:

Frequency	Ref. level	Expected level	Actual level	Tolerar	nce(dB)	Deviation
Hz	dB	dB	dB	+	-	dB
1000.0	94.0	94.0	94.0	0.0	0.0	0.0
31.6	94.0	91.0	91.0	1.5	1.5	0.0
63.1	94.0	93.2	93.1	1.5	1.5	-0.1
125.9	94.0	93.8	93.8	1.0	1.0	0.0
251.2	94.0	94.0	94.0	1.0	1.0	0.0
501.2	94.0	94.0	94.0	1.0	1.0	0.0

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SMECLab

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Test Data for Sound Level Meter

Page 3 of 5

Sound level met	ter type:	LxT	1	Serial No.	000	0004797		27-May-2021
Microphone Preamp	type: type:		B02 MLxT1L	Serial No. Serial No.		704 622	Report:	21CA0526 02-01
1995.0	94.0		93.8	93.8	1.0	1.0	0.0	
3981.0	94.0		93.2	93.2	1.0	1.0	0.0	
7943.0	94.0		91.0	91.0	1.5	3.0	0.0	
12590.0	94.0		87.8	87.7	3.0	6.0	-0.1	

Frequency weighting Lin:

Frequency	Ref. level	Expected level	Actual level	Tolerar	nce(dB)	Deviation
Hz	dB	dB	dB	+	-	dB
1000.0	94.0	94.0	94.0	0.0	0.0	0.0
31.6	94.0	94.0	93.9	1.5	1.5	-0.1
63.1	94.0	94.0	93.9	1.5	1.5	-0.1
125.9	94.0	94.0	94.0	1.0	1.0	0.0
251.2	94.0	94.0	94.0	1.0	1.0	0.0
501.2	94.0	94.0	94.0	1.0	1.0	0.0
1995.0	94.0	94.0	94.0	1.0	1.0	0.0
3981.0	94.0	94.0	94.0	1.0	1.0	0.0
7943.0	94.0	94.0	94.0	1.5	3.0	0.0
12590.0	94.0	94.0	94.0	3.0	6.0	0.0

TIME WEIGHTING FAST TEST

Time weighting F is tested on the reference range with a single sinusoidal burst of duration 200 ms at a frequency 2000 Hz and an amplitude which produces an indication 4 dB below the upper limit of the primary indicator range when the signal is continuous. (Weight A, Maximum hold)

Ref. level	Expected level	Actual level	Tolerance(dB)		Deviation
dB	dB	dB	+	-	dB
116.0	115.0	114.9	1.0	1.0	-0.1

TIME WEIGHTING SLOW TEST

Time weighting S is tested on the reference range with a single sinusoidal burst of duration 500 ms at a frequency 2000 Hz and an amplitude which produces an indication 4 dB below the upper limit of the primary indicator range when the signal is continuous. (Weight A, Maximum hold)

Ref. level	Expected level	Actual level	Tolerance(dB)		Deviation
dB	dB	dB	+	-	dB
116.0	111.9	111.8	1.0	1.0	-0.1

PEAK RESPONSE TEST

The onset time of the peak detector is tested on the reference range by comparing the response to a 100 us rectangular test pulse with the response to a 10 ms reference pulse of the same amplitude. The amplitude of the 10 ms reference pulse is such as to produce an indication 1 dB below the upper limit of the primary indicator range.

Positive polarities: (Weighting Z, set the generator signal to single, Lzpeak)

Ref. level	Response to 10 ms	Response to 100 us	Tolerance	Deviation
dB	dB	dB	+/- dB	dB
119.0	119.0	118.7	2.0	-0.3

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Test Data for Sound Level Meter

Page 4 of 5

Sound level meter type:

LxT1

Serial No.

0004797

Date 27-May-2021

Microphone Preamp type: type: 377B02 PRMLxT1L Serial No. Serial No. 163704 042622

Report: 21CA0526 02-01

Negative polarities:

Ref. level	Response to 10 ms	Response to 100 us	Tolerance	Deviation
dB	dB	dB	+/- dB	dB
119.0	119.0	118.7	2.0	-0.3

RMS ACCURACY TEST

The RMS detector accuracy is tested on the reference range for a crest factor of 3.

Test frequency:

2000 Hz

Amplitude:

2 dB below the upper limit of the primary indicator range.

Burst repetition frequency:

40 Hz

Tone burst signal:

11 cycles of a sine wave of frequency 2000 Hz.

(Set to INT)

	Ref. Level	Expected level	Tone burst signal	Tolerance	Deviation
Time wighting	dB	dB	indication(dB)	+/- dB	dB
Slow	114.0+6.6	114.0	113.9	0.5	-0.1

TIME WEIGHTING IMPULSE TEST

Time weighting I is tested on the reference range (Set the SLM to LAImax)

Test frequency:

2000 Hz

Amplitude:

The upper limit of the primary indicator range.

Single sinusoidal burst of duration 5 ms:

Ref. Level	Single burs	Single burst indication		Deviation
dB	Expected (dB)	Actual (dB)	+/- dB	dB
120.0	111.2	111.1	2.0	-0.1

Repeated at 100 Hz

Ref. Level	Repeated bu	Repeated burst indication		Deviation
dB	Expected (dB)	Actual (dB)	+/- dB	dB
120.0	117.3	117.1	1.0	-0.2

TIME AVERAGING TEST

This test compares the SLM reading for continuous sine signals with readings obtained from a sine tone burst sequence having the same RMS level. The test level is 30 dB below the upper limit of the linearity range and repeated for Type 1 SLM with 40 dB below the upper limit of the linearity.

Frequency of tone burst:

4000 Hz

Duration of tone burst:

1 ms

Repetition Time	Level of	Expected	Actual	Tolerance	Deviation	Remarks
	tone burst	Leq	Leq			
msec	dB	dB	dB	+/- dB	dB	
1000	90.0	90.0	89.9	1.0	-0.1	60s integ.
10000	80.0	80.0	79.9	1.0	-0.1	6min. integ

PULSE RANGE AND SOUND EXPOSURE LEVEL TEST

The test tone burst signal is superimposed on a baseline signal corresponding to the lower limit of reference range

Test frequency:

4000 Hz

Integration time:

10 sec

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Test Data for Sound Level Meter

Page 5 of 5

Sound level meter type:

LxT1

Serial No.

0004797

Date 27-May-2021

Microphone Preamp type: type: 377B02 PRMLxT1L Serial No. Serial No.

163704 042622

Report: 21CA0526 02-01

The integrating sound level meter set to Leq:

Duration	Rms level of	Expected	Actual	Tolerance	Deviation
msec	tone burst (dB)	dB	dB	+/- dB	dB
10	88.0	58.0	58.0	1.7	0.0

The integrating sound level meter set to SEL:

Duration	Rms level of	Expected	Actual	Tolerance	Deviation
msec	tone burst (dB)	dB	dB	+/- dB	dB
10.0	88.0	68.0	68.0	1.7	0.0

OVERLOAD INDICATION TEST

For SLM capable of operating in a non-integrating mode.

Test frequency:

2000 Hz

Amplitude:

2 dB below the upper limit of the primary indicator range.

Burst repetition frequency:

40 Hz

Tone burst signal:

11 cycles of a sine wave of frequency 2000 Hz.

Level	Level reduced by	Further reduced	Difference	Tolerance	Deviation
at overload (dB)	1 dB	3 dB	dB	dB	dB
113.4	112.4	109.4	3.0	1.0	0.0

For integrating SLM, with the instrument indicating Leg.

For integrating SLM, with the instrument indicating Leq and set to the reference range. The test signal as following: The test tone burst signal is superimposed on a baseline signal corresponding to the lower limit of reference range

Test frequency:

4000 Hz

Integration time:

10 sec

Sinale	burst	duration:	

1 msec

Rms level	Level reduced by	Expected level	Actual level	Tolerance	Deviation
at overload (dB)	1 dB	dB	dB	dB	dB
120.2	119.2	79.2	79.2	2.2	0.0

ACOUSTIC TEST

The acoustic test of the complete SLM is tested at the frequency 125 Hz and 8000 Hz using a B&K type 4226 Multifunction Acoustic Calibrator. The test is performed in A weighting.

Frequency	Expected level	Actual level	Tolerar	nce (dB)	Deviation
Hz	dB	Measured (dB)	+	-	dB
1000	94.0	94.0	0.0	0.0	0.0
125	77.9	78.1	1.0	1.0	0.2
8000	92.9	91.2	1.5	3.0	-1.7

-----END-----

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CERTIFICATE OF CALIBRATION

Certificate No.:

21CA0120 03

Page:

of

2

Item tested

Description:

Acoustical Calibrator (Class 1)

Manufacturer:

Honglim Co., Ltd.

Type/Model No.: Serial/Equipment No.: HLES-02 2019612870

Adaptors used:

_

Item submitted by

Curstomer:

Lam Environmental Services Limited.

Address of Customer:

-

Request No.:

<u>_</u>

Date of receipt:

20-Jan-2021

Date of test:

24-Jan-2021

Reference equipment used in the calibration

Description: Lab standard microphone Preamplifier Measuring amplifier Signal generator Digital multi-meter Audio analyzer	Model: B&K 4180 B&K 2673 B&K 2610 DS 360 34401A 8903B	Serial No. 2341427 2743150 2346941 33873 US36087050 GB41300350	Expiry Date: 11-May-2021 03-Jun-2021 03-Jun-2021 19-May-2021 19-May-2021 18-May-2021	Traceable to: SCL CEPREI CEPREI CEPREI CEPREI CEPREI CEPREI
Universal counter	53132A	MY40003662	18-May-2021	CEPREI

Ambient conditions

Temperature:

21 ± 1 °C

Relative humidity:

55 ± 10 %

Air pressure:

1000 ± 5 hPa

Test specifications

- The Sound Calibrator has been calibrated in accordance with the requirements as specified in IEC 60942 1997 Annex B and the lab calibration procedure SMTP004-CA-156.
- 2, The calibrator was tested with its axis vertical facing downwards at the specific frequency using insert voltage technique.
- 3, The results are rounded to the nearest 0.01 dB and 0.1 Hz and have not been corrected for variations from a reference pressure of 1013.25 hectoPascals as the maker's information indicates that the instrument is insensitive to pressure changes.

Test results

This is to certify that the sound calibrator conforms to the requirements of annex B of IEC 60942: 1997 for the conditions under which the test was performed. This does not imply that the sound calibrator meets IEC 60942 under any other conditions.

Details of the performed measurements are presented on page 2 of this certificate.

Feng Jung

Approved Signatory:

Date:

25-Jan-2021

Company Chop:

Comments: The results reported in this certificate refer to the condition of the instrument on the date of calibration and carry no implication regarding the long-term stability of the instrument. The results apply to the item as received.

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Form No.CARP156-1/Issue 1/Rev.D/01/03/2007



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CERTIFICATE OF CALIBRATION

(Continuation Page)

Certificate No.:

21CA0120 03

Page:

of

2

Measured Sound Pressure Level

The output Sound Pressure Level in the calibrator head was measured at the setting and frequency shown using a calibrated laboratory standard microphone and insert voltage technique. The results are given in below with the estimated uncertainties.

Frequency	Output Sound Pressure	Measured Output	Output level in dB re 20 µP Estimated Expander Uncertainty dB
Shown	Level Setting	Sound Pressure Level	
Hz	dB	dB	
1000	94.00	93.77	0.10

2, Sound Pressure Level Stability - Short Term Fluctuations

The Short Term Fluctuations was determined by measuring the maximum and minimum of the fast weighted DC output of the B&K 2610 measuring amplifier over a 20 second time interval as required in the standard. The Short Term Fluctuation was found to be:

At 1000 Hz

STF = 0.013 dB

Estimated expanded uncertainty

0.005 dB

3, Actual Output Frequency

The determination of actual output frequency was made using a B&K 4180 microphone together with a B&K 2673 preamplifier connected to a B&K 2610 measuring amplifier. The AC output of the B&K 2610 was taken to an universal counter which was used to determine the frequency averaged over 20 second of operation as required by the standard. The actual output frequency at 1 KHz was:

At 1000 Hz

Actual Frequency = 999.3 Hz

Estimated expanded uncertainty

0.1 Hz

Coverage factor k = 2.2

4, Total Noise and Distortion

For the Total Noise and Distortion measurement, the unfiltered AC output of the B&K 2610 measuring amplifier was connected to an Agilent Type 8903 B distortion analyser. The TND result at 1 KHz was:

At 1000 Hz

TND = 0.4 %

Estimated expanded uncertainty

0.7 %

The expanded uncertainties have been calculated in accordance with the ISO Publication "Guide to the expression of uncertainty in measurement", and gives an interval estimated to have a level of confidence of 95%. A coverage factor of 2 is assumed unless explicitly stated.

Calibrated by:

- End

Date:

Fung Chi Yip 24-Jan-2021 Checked by:

Date:

Feng Junqi 25-Jan-2021

The standard(s) and equipment used in the calibration are traceable to national or international recognised standards and are calibrated on a schedule to maintain the required accuracy level.

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Form No.CARP156-2/Issue 1/Rev.C/01/05/2005

Appendix 4.3

Wind Data



Date	Time	Wind Speed (m/s)	Wind Direction (degree)
	00:00	0.7	147(SSE)
Γ	01:00	0.0	143(SE)
	02:00	0.0	240(WSW)
	03:00	0.0	193(SSW)
	04:00	0.0	27(NNE)
	05:00	0.0	164(SSE)
	06:00	0.0	158(SSE)
	07:00	0.0	302(WNW)
	08:00	0.0	211(SSW)
	09:00	0.0	169(S)
	10:00	0.0	172(S)
1-Oct-21	11:00	1.1	161(SSE)
1-001-21	12:00	1.9	169(S)
	13:00	1.5	83(E)
	14:00	0.7	146(SE)
	15:00	0.0	119(ESE)
	16:00	0.0	204(SSW)
	17:00	0.0	140(SE)
	18:00	0.0	8(N)
	19:00	0.0	286(WNW)
	20:00	0.0	146(SE)
Γ	21:00	0.0	48(NE)
	22:00	0.0	44(NE)
Γ	23:00	0.0	143(SE)



Date	Time	Wind Speed (m/s)	Wind Direction (degree)
	00:00	0.0	120(ESE)
	01:00	0.0	346(NNW)
	02:00	0.7	288(WNW)
	03:00	0.0	101(E)
	04:00	0.0	109(ESE)
	05:00	0.0	320(NW)
	06:00	0.0	257(WSW)
	07:00	0.0	127(SE)
	08:00	0.0	108(ESE)
	09:00	1.1	270(W)
	10:00	0.0	138(SE)
2-Oct-21	11:00	0.7	184(S)
2-061-21	12:00	1.1	233(SW)
	13:00	0.9	141(SE)
	14:00	1.1	203(SSW)
	15:00	1.7	123(ESE)
	16:00	0.9	168(SSE)
	17:00	0.9	84(E)
	18:00	0.9	185(S)
	19:00	1.1	295(WNW)
	20:00	1.7	219(SW)
	21:00	1.1	170(S)
	22:00	0.7	66(ENE)
	23:00	0.9	175(S)
	00:00	1.3	254(WSW)
	01:00	0.9	163(SSE)
	02:00	0.9	165(SSE)
	03:00	0.7	123(ESE)
	04:00	0.0	129(SE)
	05:00	0.0	132(SE)
	06:00	0.9	300(WNW)
	07:00	0.5	187(S)
	08:00	0.0	142(SE)
	09:00	0.7	158(SSE)
	10:00	0.7	317(NW)
3-Oct-21	11:00	0.5	63(ENE)
3-001-21	12:00	0.7	39(NE)
	13:00	0.7	234(SW)
	14:00	0.7	258(WSW)
	15:00	0.0	185(S)
[16:00	0.0	183(S)
	17:00	0.9	332(NNW)
	18:00	1.5	148(SSE)
	19:00	1.9	148(SSE)
	20:00	0.7	309(NW)
	21:00	0.9	170(S)
	22:00	0.0	154(SSE)
	23:00	0.7	77(ENE)



Date	Time	Wind Speed (m/s)	Wind Direction (degree)
	00:00	1.3	259(W)
	01:00	0.9	234(SW)
	02:00	0.7	313(NW)
	03:00	0.5	110(ESE)
	04:00	0.7	301(WNW)
	05:00	1.1	313(NW)
	06:00	0.0	141(SE)
	07:00	0.9	170(S)
	08:00	0.0	170(S)
	09:00	0.5	105(ESE)
	10:00	0.9	173(S)
4-Oct-21	11:00	2.9	194(SSW)
4-001-21	12:00	2.5	303(WNW)
	13:00	1.3	90(E)
	14:00	0.9	87(E)
	15:00	1.9	70(ENE)
	16:00	1.1	266(W)
	17:00	0.9	154(SSE)
	18:00	1.5	186(S)
	19:00	0.9	203(SSW)
	20:00	1.1	174(S)
	21:00	0.7	168(SSE)
	22:00	1.1	119(ESE)
	23:00	1.7	86(E)
	00:00	0.9	163(SSE)
	01:00	0.0	138(SE)
	02:00	0.7	166(SSE)
	03:00	0.7	155(SSE)
	04:00	0.9	118(ESE)
	05:00	0.9	85(E)
	06:00	0.0	118(ESE)
	07:00	1.1	190(S)
	08:00	0.9	188(S)
	09:00	1.7	159(SSE)
	10:00	1.3	190(S)
5-Oct-21	11:00	0.9	285(WNW)
5-Oct-21	12:00	1.9	110(ESE)
	13:00	0.7	151(SSE)
	14:00	0.9	193(SSW)
	15:00	0.0	157(SSE)
	16:00	1.9	211(SSW)
	17:00	0.7	152(SSE)
	18:00	0.7	143(SE)
	19:00	1.1	143(SE)
	20:00	0.5	274(W)
	21:00	0.9	135(SE)
	22:00	1.1	207(SSW)
	23:00	0.9	290(WNW)



Date	Time	Wind Speed (m/s)	Wind Direction (degree)
	00:00	1.5	80(E)
	01:00	2.1	203(SSW)
	02:00	0.9	92(E)
	03:00	0.5	213(SSW)
	04:00	0.9	55(NE)
	05:00	1.5	152(SSE)
	06:00	0.7	300(WNW)
	07:00	1.1	144(SE)
	08:00	1.1	255(WSW)
	09:00	0.9	154(SSE)
	10:00	0.7	102(ESE)
6-Oct-21	11:00	1.5	254(WSW)
0-001-21	12:00	1.5	200(SSW)
	13:00	1.3	99(E)
	14:00	1.9	183(S)
	15:00	1.3	128(SE)
	16:00	0.7	33(NNE)
	17:00	0.9	172(S)
	18:00	0.7	68(ENE)
	19:00	0.9	324(NW)
	20:00	0.7	271(W)
	21:00	0.0	268(W)
	22:00	0.7	127(SE)
	23:00	1.1	358(N)
	00:00	0.7	127(SE)
	01:00	1.1	50(NE)
	02:00	0.7	161(SSE)
	03:00	1.1	261(W)
	04:00	1.5	265(W)
	05:00	1.1	92(E)
	06:00	0.7	128(SE)
	07:00	1.7	140(SE)
	08:00	0.7	55(NE)
	09:00	1.7	161(SSE)
	10:00	2.1	273(W)
7-Oct-21	11:00	1.5	228(SW)
7-061-21	12:00	0.7	92(E)
	13:00	0.9	164(SSE)
	14:00	0.9	297(WNW)
	15:00	1.5	189(S)
	16:00	0.5	260(W)
ſ	17:00	1.7	165(SSE)
ſ	18:00	2.1	153(SSE)
Ī	19:00	0.5	149(SSE)
Ī	20:00	0.0	167(SSE)
Ţ	21:00	0.9	281(W)
ļ	22:00	0.5	262(W)
ļ	23:00	2.1	179(S)



Date	Time	Wind Speed (m/s)	Wind Direction (degree)
	00:00	0.9	280(W)
	01:00	0.9	221(SW)
	02:00	0.7	250(WSW)
	03:00	0.0	271(W)
	04:00	0.5	286(WNW)
	05:00	0.0	262(W)
	06:00	0.0	223(SW)
	07:00	0.7	225(SW)
	08:00	0.0	259(W)
	09:00	2.1	173(S)
	10:00	0.9	166(SSE)
0 Oct 21	11:00	0.0	257(WSW)
8-Oct-21	12:00	1.9	230(SW)
	13:00	0.7	274(W)
	14:00	0.0	263(W)
	15:00	0.7	332(NNW)
	16:00	0.5	272(W)
	17:00	0.0	261(W)
	18:00	0.0	268(W)
	19:00	0.0	280(W)
	20:00	0.0	289(WNW)
	21:00	1.9	134(SE)
	22:00	0.0	268(W)
	23:00	1.3	309(NW)
	00:00	0.9	247(WSW)
	01:00	0.5	249(WSW)
	02:00	1.3	142(SE)
	03:00	3.1	143(SE)
	04:00	0.9	240(WSW)
	05:00	1.7	189(S)
	06:00	0.0	269(W)
	07:00	1.9	157(SSE)
	08:00	1.1	273(W)
	09:00	1.5	275(W)
	10:00	3.1	294(WNW)
0.0-+.04	11:00	3.1	113(ESE)
9-Oct-21	12:00	0.7	209(SSW)
Ī	13:00	0.0	172(S)
	14:00	2.3	145(SE)
	15:00	0.0	223(SW)
Ī	16:00	2.7	172(S)
ļ	17:00	0.5	229(SW)
ļ	18:00	0.5	253(WSW)
Ţ	19:00	0.0	289(WNW)
ţ	20:00	0.5	256(WSW)
ļ	21:00	1.9	250(WSW)
ļ	22:00	1.7	242(WSW)
ţ	23:00	1.3	220(SW)



Date	Time	Wind Speed (m/s)	Wind Direction (degree)
	00:00	0.7	288(WNW)
	01:00	0.7	188(S)
Ī	02:00	0.5	227(SW)
	03:00	2.5	181(S)
Ī	04:00	0.7	297(WNW)
Ī	05:00	1.1	218(SW)
	06:00	0.0	190(S)
	07:00	0.5	188(S)
	08:00	1.7	201(SSW)
	09:00	0.0	157(SSE)
	10:00	1.9	194(SSW)
10 Oct 01	11:00	1.9	125(SE)
10-Oct-21	12:00	1.1	115(ESE)
	13:00	1.1	48(NE)
	14:00	0.5	134(SE)
	15:00	0.0	155(SSE)
	16:00	0.0	131(SE)
	17:00	0.7	121(ESE)
	18:00	0.0	116(ESE)
	19:00	1.1	187(S)
	20:00	0.0	140(SE)
	21:00	0.5	74(ENE)
	22:00	0.0	112(ESE)
	23:00	0.0	117(ESE)
	00:00	0.0	109(ESE)
	01:00	0.0	109(ESE)
	02:00	0.0	115(ESE)
	03:00	0.0	123(ESE)
	04:00	0.0	112(ESE)
	05:00	0.0	112(ESE)
	06:00	0.0	109(ESE)
	07:00	0.0	132(SE)
	08:00	0.0	148(SSE)
	09:00	0.0	114(ESE)
	10:00	0.0	142(SE)
11-Oct-21	11:00	0.5	177(S)
11-00:-21	12:00	1.1	201(SSW)
	13:00	1.5	154(SSE)
	14:00	0.9	116(ESE)
	15:00	1.3	31(NNE)
	16:00	3.7	114(ESE)
	17:00	1.5	66(ENE)
	18:00	5.5	134(SE)
	19:00	2.7	170(S)
	20:00	1.1	37(NE)
	21:00	1.5	172(S)
	22:00	1.9	187(S)
	23:00	3.5	158(SSE)



Date	Time	Wind Speed (m/s)	Wind Direction (degree)
	00:00	4.3	129(SE)
	01:00	3.1	105(ESE)
	02:00	2.7	133(SE)
	03:00	0.7	83(E)
	04:00	4.9	115(ESE)
	05:00	5.9	97(E)
	06:00	2.9	79(E)
	07:00	3.3	150(SSE)
	08:00	3.1	161(SSE)
	09:00	3.7	110(ESE)
	10:00	1.3	158(SSE)
12-Oct-21	11:00	1.7	157(SSE)
12-061-21	12:00	2.5	169(S)
	13:00	3.9	130(SE)
	14:00	2.7	113(ESE)
	15:00	5.7	136(SE)
	16:00	3.5	164(SSE)
	17:00	1.7	104(ESE)
	18:00	3.3	77(ENE)
	19:00	1.3	165(SSE)
	20:00	3.3	50(NE)
	21:00	2.1	141(SE)
	22:00	2.5	163(SSE)
	23:00	2.7	113(ESE)
	00:00	5.3	164(SSE)
	01:00	2.7	187(S)
	02:00	2.7	122(ESE)
	03:00	3.7	142(SE)
	04:00	1.5	141(SE)
	05:00	5.9	133(SE)
	06:00	4.9	182(S)
	07:00	5.5	152(SSE)
	08:00	2.7	154(SSE)
	09:00	3.5	132(SE)
	10:00	1.7	218(SW)
13-Oct-21	11:00	4.3	202(SSW)
13-001-21	12:00	4.9	204(SSW)
	13:00	5.9	181(S)
	14:00	2.7	166(SSE)
	15:00	4.9	183(S)
	16:00	5.3	177(S)
	17:00	0.9	212(SSW)
	18:00	4.1	185(S)
[19:00	3.7	172(S)
]	20:00	1.5	183(S)
	21:00	1.1	177(S)
	22:00	1.3	264(W)
	23:00	1.7	152(SSÉ)



Date	Time	Wind Speed (m/s)	Wind Direction (degree)
	00:00	2.5	160(SSE)
	01:00	2.7	192(SSW)
	02:00	2.3	169(S)
	03:00	2.9	216(SW)
	04:00	1.3	165(SSE)
	05:00	1.7	173(S)
	06:00	1.9	148(SSE)
	07:00	3.3	181(S)
	08:00	2.7	186(S)
	09:00	1.1	125(SE)
	10:00	2.9	134(SE)
14-Oct-21	11:00	1.9	117(ESE)
14-001-21	12:00	2.9	172(S)
	13:00	1.7	188(S)
	14:00	3.1	187(S)
	15:00	1.9	171(S)
	16:00	1.9	201(SSW)
	17:00	1.1	221(SW)
	18:00	2.3	179(S)
	19:00	0.7	214(SW)
	20:00	1.1	176(S)
	21:00	1.1	182(S)
	22:00	0.7	109(ESE)
	23:00	0.7	190(S)
	00:00	0.9	193(SSW)
	01:00	1.5	114(ESE)
	02:00	1.9	114(ESE)
	03:00	0.7	164(SSE)
	04:00	2.5	114(ESE)
	05:00	2.1	105(ESE)
	06:00	2.7	141(SE)
	07:00	1.5	69(ENE)
	08:00	2.9	139(SE)
	09:00	1.5	192(SSW)
	10:00	2.5	112(ESE)
15-Oct-21	11:00	2.3	173(S)
10 000 21	12:00	1.9	172(S)
	13:00	1.3	113(ESE)
	14:00	1.1	181(S)
	15:00	2.5	136(SE)
	16:00	2.5	182(S)
	17:00	0.7	156(SSE)
	18:00	1.9	164(SSE)
	19:00	1.3	178(S)
	20:00	0.9	161(SSE)
	21:00	0.0	148(SSE)
	22:00	1.9	169(S)
	23:00	1.7	204(SSW)



Date	Time	Wind Speed (m/s)	Wind Direction (degree)
	00:00	0.7	104(ESE)
	01:00	1.3	206(SSW)
	02:00	0.9	154(SSE)
	03:00	2.3	188(S)
Γ	04:00	1.9	112(ESE)
	05:00	2.3	201(SSW)
	06:00	3.1	152(SSE)
	07:00	2.7	163(SSE)
	08:00	4.1	139(SE)
	09:00	3.5	139(SE)
	10:00	2.7	118(ESE)
16-Oct-21	11:00	2.1	133(SE)
10-001-21	12:00	3.1	161(SSE)
	13:00	2.9	112(ESE)
	14:00	4.7	162(SSE)
	15:00	3.1	113(ESE)
	16:00	4.1	141(SE)
	17:00	2.3	209(SSW)
	18:00	2.5	161(SSE)
	19:00	3.5	119(ESE)
	20:00	3.3	111(ESE)
	21:00	2.9	180(S)
	22:00	2.7	155(SSE)
	23:00	4.1	167(SSE)
	00:00	4.7	162(SSE)
	01:00	4.1	155(SSE)
	02:00	3.9	157(SSE)
	03:00	4.5	151(SSE)
	04:00	6.3	169(S)
	05:00	2.1	80(E)
	06:00	1.1	105(ESE)
	07:00	2.7	124(SE)
	08:00	5.7	127(SE)
	09:00	2.3	218(SW)
L	10:00	4.9	214(SW)
17-Oct-21	11:00	3.1	134(SE)
17 000 21	12:00	3.5	139(SE)
	13:00	6.5	111(ESE)
	14:00	5.5	141(SE)
	15:00	5.1	147(SSE)
	16:00	3.9	164(SSE)
	17:00	2.3	139(SE)
	18:00	1.3	293(WNW)
	19:00	6.3	142(SE)
	20:00	1.7	118(ESE)
	21:00	2.3	132(SE)
Γ	22:00	3.3	138(SE)
「	23:00	2.1	141(SE)



Date	Time	Wind Speed (m/s)	Wind Direction (degree)
	00:00	2.9	136(SE)
	01:00	2.1	149(SSE)
	02:00	1.3	292(WNW)
	03:00	3.9	124(SE)
	04:00	2.3	175(S)
	05:00	2.3	154(SSE)
	06:00	3.9	144(SE)
	07:00	2.9	186(S)
	08:00	2.9	147(SSE)
	09:00	4.1	134(SE)
	10:00	2.1	188(S)
19 Oct 21	11:00	1.5	182(S)
18-Oct-21	12:00	0.9	260(W)
	13:00	1.7	163(SSE)
	14:00	2.5	176(S)
	15:00	0.9	82(E)
Ī	16:00	1.1	168(SSE)
ľ	17:00	1.5	167(SSE)
ľ	18:00	1.9	229(SW)
Ī	19:00	1.1	228(SW)
ľ	20:00	0.9	185(S)
ľ	21:00	0.7	78(ENE)
ľ	22:00	0.9	213(SSW)
ŀ	23:00	0.5	233(SW)
	00:00	0.5	138(SE)
l l	01:00	0.0	128(SE)
l l	02:00	0.0	330(NNW)
l l	03:00	0.9	157(SSE)
ļ.	04:00	0.7	350(N)
l l	05:00	1.3	345(NNW)
	06:00	0.9	222(SW)
l l	07:00	1.7	184(S)
ŀ	08:00	0.9	131(SE)
ŀ	09:00	0.7	209(SSW)
ŀ	10:00	0.5	104(ESE)
ŀ	11:00	1.1	176(S)
19-Oct-21	12:00	1.5	113(ESE)
ŀ	13:00	3.5	252(WSW)
ŀ	14:00	3.5	190(S)
ŀ	15:00	0.9	127(SE)
 -	16:00	0.0	77(ENE)
	17:00	0.9	142(SE)
ŀ	18:00	1.7	220(SW)
<u></u>	19:00	0.7	163(SSE)
}	20:00	0.7	126(SE)
ŀ	21:00	0.7	83(E)
<u>}</u>	22:00	0.9	218(SW)
}	23:00	0.9	180(S)
	∠3.00	0.7	100(3)



Date	Time	Wind Speed (m/s)	Wind Direction (degree)
	00:00	0.7	67(ENE)
	01:00	1.1	213(SSW)
	02:00	1.7	93(E)
	03:00	0.9	225(SW)
	04:00	0.5	77(ENE)
	05:00	0.0	119(ESE)
	06:00	0.0	189(S)
	07:00	0.7	191(S)
	08:00	1.1	211(SSW)
	09:00	0.7	234(SW)
	10:00	0.7	278(W)
20-Oct-21	11:00	1.5	34(NE)
20-001-21	12:00	1.1	137(SE)
	13:00	1.7	144(SE)
	14:00	1.3	26(NNE)
	15:00	1.1	232(SW)
	16:00	2.7	201(SSW)
	17:00	2.7	144(SE)
	18:00	0.9	266(W)
	19:00	0.9	94(E)
	20:00	1.1	179(S)
	21:00	1.9	160(SSE)
	22:00	0.7	190(S)
	23:00	0.5	136(SE)
	00:00	0.5	156(SSE)
	01:00	0.7	205(SSW)
	02:00	0.5	123(ESE)
	03:00	0.7	235(SW)
	04:00	0.7	319(NW)
	05:00	0.5	214(SW)
	06:00	0.0	151(SSE)
	07:00	0.0	133(SE)
	08:00	0.0	87(E)
	09:00	0.9	123(ESE)
	10:00	0.5	52(NE)
21-Oct-21	11:00	0.5	194(SSW)
21-001-21	12:00	1.1	75(ENE)
	13:00	0.9	269(W)
	14:00	2.1	155(SSE)
	15:00	2.7	192(SSW)
	16:00	0.9	159(SSE)
	17:00	1.3	321(NW)
	18:00	0.7	261(W)
	19:00	1.1	324(NW)
	20:00	0.9	230(SW)
Ī	21:00	1.9	117(ESE)
ľ	22:00	1.7	191(S)
	23:00	0.7	305(NW)



Date	Time	Wind Speed (m/s)	Wind Direction (degree)
	00:00	0.9	65(ENE)
	01:00	1.5	112(ESE)
	02:00	1.3	24(NNE)
	03:00	0.9	310(NW)
	04:00	0	118(ESE)
	05:00	0.9	159(SSE)
	06:00	0.5	81(E)
	07:00	0	119(ESE)
	08:00	1.1	6(N)
	09:00	0.7	218(SW)
	10:00	1.1	122(ESE)
22 Oct 21	11:00	0.9	145(SE)
22-Oct-21	12:00	0.9	181(S)
	13:00	1.5	235(SW)
	14:00	0.7	82(E)
	15:00	0.5	181(S)
	16:00	1.1	237(WSW)
	17:00	1.1	53(NE)
	18:00	1.3	137(SE)
	19:00	0.9	68(ENE)
	20:00	1.9	85(E)
	21:00	3.5	92(E)
	22:00	1.9	107(ESE)
	23:00	1.3	149(SSE)
	00:00	0.9	296(WNW)
	01:00	1.1	304(NW)
	02:00	1.3	146(SE)
	03:00	1.5	126(SE)
	04:00	0.5	109(ESE)
	05:00	1.9	135(SE)
	06:00	0	98(E)
	07:00	2.5	98(E)
	08:00	0.7	52(NE)
	09:00	1.5	144(SE)
	10:00	1.5	142(SE)
23-Oct-21	11:00	1.3	238(WSW)
23-001-21	12:00	0.7	155(SSE)
	13:00	1.3	163(SSE)
	14:00	0.7	169(S)
	15:00	0.9	284(WNW)
	16:00	0.7	118(ESE)
	17:00	1.3	50(NE)
	18:00	0.9	84(E)
	19:00	0.9	92(E)
	20:00	0.9	297(WNW)
	21:00	1.1	53(NE)
	22:00	0.7	268(W)
	23:00	0.9	54(NE)



Date	Time	Wind Speed (m/s)	Wind Direction (degree)
	00:00	1.1	126(SE)
	01:00	0.9	123(ESE)
	02:00	0.9	300(WNW)
	03:00	0.5	214(SW)
	04:00	1.1	275(W)
	05:00	0.9	257(WSW)
	06:00	1.3	264(W)
	07:00	0.7	298(WNW)
	08:00	0.5	112(ESE)
	09:00	1.1	73(ENE)
	10:00	1.1	296(WNW)
24-Oct-21	11:00	0.9	218(SW)
24-001-21	12:00	0.9	72(ENE)
	13:00	1.5	153(SSE)
	14:00	0.7	220(SW)
	15:00	1.3	286(WNW)
	16:00	1.7	236(SW)
	17:00	1.3	170(S)
	18:00	1.9	142(SE)
	19:00	1.5	266(W)
	20:00	1.3	140(SE)
	21:00	0.7	43(NE)
	22:00	0.7	214(SW)
	23:00	1.5	164(SSE)
	00:00	0.9	44(NE)
	01:00	1.7	211(SSW)
	02:00	0.5	173(S)
	03:00	1.1	99(E)
	04:00	1.5	152(SSE)
	05:00	1.1	274(W)
	06:00	1.5	301(WNW)
	07:00	2.5	96(E)
	08:00	0.9	227(SW)
	09:00	0	91(E)
	10:00	0.9	301(WNW)
25-Oct-21	11:00	0.9	271(W)
	12:00	0.7	141(SE)
	13:00	1.1	176(S)
	14:00	1.1	275(W)
	15:00	0.5	148(SSE)
	16:00	1.3	77(ENE)
	17:00	1.3	155(SSE)
	18:00	0.9	211(SSW)
	19:00	1.3	234(SW)
	20:00	1.7	107(ESE)
	21:00	1.5	304(NW)
	22:00	0.9	167(SSE)
	23:00	0	284(WNW)



Date	Time	Wind Speed (m/s)	Wind Direction (degree)
	00:00	0.5	223(SW)
	01:00	0.7	135(SE)
	02:00	0.5	56(NE)
	03:00	0	274(W)
	04:00	0.5	148(SSE)
	05:00	2.1	101(E)
	06:00	0.9	198(SSW)
	07:00	0.7	153(SSE)
	08:00	1.1	289(WNW)
	09:00	0	348(NNW)
	10:00	0	304(NW)
26-Oct-21	11:00	1.7	257(WSW)
20 000 21	12:00	0.7	299(WNW)
	13:00	0.5	44(NE)
	14:00	0.7	68(ENE)
	15:00	1.5	130(SE)
_	16:00	0.7	67(ENE)
_	17:00	0.5	182(S)
_	18:00	1.1	135(SE)
_	19:00	0.7	202(SSW)
_	20:00	0.5	66(ENE)
_	21:00	0.5	201(SSW)
_	22:00	0.9	174(S)
	23:00	0.9	161(SSE)
_	00:00	0	104(ESE)
	01:00	0.5	121(ESE)
	02:00	1.1	92(E)
	03:00	0.9	116(ESE)
	04:00	0	180(S)
	05:00	1.1	228(SW)
	06:00	0.5	183(S)
	07:00	0.9	167(SSE)
	08:00	0.7	279(W)
	09:00	0.9	70(ENE)
-	10:00	0.7	180(S)
-	11:00		
27-Oct-21		0.9	75(ENE)
-	12:00	1.1	177(S)
-	13:00	0.7	227(SW)
_	14:00	0.9	245(WSW)
	15:00	0.5	147(SSE)
	16:00	0.9	83(E)
	17:00	0.9	94(E)
	18:00	0.7	16(NNE)
	19:00	0.9	179(S)
	20:00	0.9	188(S)
ŀ	21:00	0.7	146(SE)
-	22:00	0.7	242(WSW)
	23:00	0.5	48(NE)
	20.00	0.0	TO(INL)



Date	Time	Wind Speed (m/s)	Wind Direction (degree)
	00:00	0.7	285(WNW)
	01:00	0.9	242(WSW)
	02:00	0.5	156(SSE)
	03:00	0.7	321(NW)
	04:00	1.5	172(S)
	05:00	2.3	285(WNW)
	06:00	0.5	87(E)
	07:00	1.3	249(WSW)
	08:00	0	169(S)
	09:00	0.7	26(NNE)
	10:00	1.7	265(W)
29 Oct 21	11:00	2.3	126(SE)
28-Oct-21	12:00	0.7	121(ESE)
	13:00	0.9	135(SE)
	14:00	0.5	111(ESE)
	15:00	1.1	152(SSE)
	16:00	0.7	73(ENE)
	17:00	1.5	103(ESE)
	18:00	0.9	157(SSE)
	19:00	1.3	176(S)
	20:00	1.3	101(E)
	21:00	1.3	62(ENE)
	22:00	1.9	75(ENE)
	23:00	1.1	263(W)
	00:00	0.5	73(ENE)
	01:00	1.5	196(SSW)
	02:00	2.5	72(ENE)
	03:00	0	130(SE)
	04:00	0.9	214(SW)
	05:00	0	149(SSE)
	06:00	0.7	87(E)
	07:00	0.9	155(SSE)
	08:00	1.3	304(NW)
	09:00	1.5	27(NNE)
	10:00	1.3	288(WNW)
29-Oct-21	11:00	1.5	166(SSE)
29-001-21	12:00	0.9	214(SW)
	13:00	1.1	86(E)
	14:00	1.1	69(ENE)
	15:00	2.3	321(NW)
	16:00	0.7	163(SSE)
	17:00	0.7	164(SSE)
	18:00	0.9	93(E)
	19:00	1.1	237(WSW)
	20:00	0.7	141(SE)
	21:00	0.7	121(ESE)
	22:00	1.1	186(S)
Ţ	23:00	0.7	99(E)



Wind Speed and Wind Direction

Date	Time	Wind Speed (m/s)	Wind Direction (degree)
	00:00	0.5	143(SE)
	01:00	1.7	68(ENE)
	02:00	0.5	223(SW)
	03:00	0.7	110(ESE)
	04:00	0.9	131(SE)
	05:00	1.1	95(E)
	06:00	0.9	64(ENE)
	07:00	0	59(ENE)
	08:00	0.5	354(N)
	09:00	0.9	258(WSW)
	10:00	1.1	51(NE)
20 0 0 21	11:00	1.1	76(ENE)
30-Oct-21	12:00	1.1	166(SSE)
	13:00	0.7	38(NE)
	14:00	0.7	154(SSE)
	15:00	0.7	139(SE)
	16:00	1.3	197(SSW)
	17:00	0.5	271(W)
	18:00	0.5	273(W)
	19:00	1.1	74(ENE)
	20:00	0.9	258(WSW)
	21:00	0.5	106(ESE)
	22:00	1.1	185(S)
	23:00	0.7	182(S)
	00:00	0.5	31(NNE)
	01:00	0.7	217(SW)
	02:00	0.7	160(SSE)
	03:00	0	145(SE)
	04:00	1.1	270(W)
	05:00	1.3	286(WNW)
	06:00	0.9	74(ENE)
	07:00	0.5	102(ESE)
	08:00	0.7	239(WSW)
	09:00	1.3	70(ENE)
	10:00	0.5	170(S)
31-Oct-21	11:00	0.9	223(SW)
31-001-21	12:00	0.9	174(S)
	13:00	2.3	56(NE)
	14:00	1.9	126(SE)
ſ	15:00	2.3	270(W)
	16:00	1.1	162(SSE)
	17:00	1.3	151(SSE)
	18:00	0.7	284(WNW)
	19:00	0	133(SE)
ſ	20:00	0	100(E)
ſ	21:00	2.9	101(E)
[22:00	0.7	30(NNE)
	23:00	0	97(E)

Appendix 5.1

Monitoring Schedule for Reporting Month and Next Reporting Month



Contract No. SPW 12/2021 Environmental Team (2021-2024) for Shek Wui Effluent Polishing Plant - Main Works

Tentative Impact Monitoring Schedule

Cunday	Manday	Tuesday	Oct 2021	Thursday	Eridov	Coturday
Sunday	Monday	Tuesday	Wednesday	rnursday	Friday 01 Oct	Saturday 02 Oct
					AQM - 24hr TSP	AQM - 1hr TSP
					AQW - Z4III TOF	AQW- III TOF
03 Oct	04 Oct	05 Oct	06 Oct	07 Oct	08 Oct	09 Oct
				AQM - 24hr TSP	AQM - 1hr TSP	
10 Oct	11 Oct	12 Oct	13 Oct	14 Oct	15 Oct	16 Oct
10 001		AQM - 24hr TSP	13 Oct	14 000	AQM - 1hr TSP	16 Oct
		AQW 24III TOI			AGM THE FOI	
					NM	
	Ecological Monitoring	Ecological Monitoring				
17 Oct		19 Oct	20 Oct	21 Oct	22 Oct	
	AQM - 24hr TSP	AQM - 1hr TSP				AQM - 24hr TSP
		NM				
				Ecological Monitoring		
24 Oct	25 Oct	26 Oct	27 Oct	28 Oct	29 Oct	30 Oct
	AQM - 1hr TSP				AQM - 24hr TSP	AQM - 1hr TSP
	NM					
					Ecological Monitoring	
	333333333333333333333333333333333333333			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	***************************************	
31 Oct						

Remark:

- AQM: Air Quality Monitoring
- NM: Noise Monitoring, the monitoring dates are tentative and subject to change
- Ecological Monitoring dates are tentative and subject to change based on real-time tide.
- 1. NM scheduled on 8 Oct was cancelled due to adverse weather conditions (Signal No. 3 and Red Rainstorm Warning were in force)
- 2. Ecological monitoring scheduled on 8 Oct was cancelled due to adverse weather condition (Signal No. 3 and Red Rainstorm Warning were in force). A compensatory one was conducted on 11 Oct.
- 3.1-hr AQM and NM scheduled on 13 Oct were cancelled due to adverse weather conditions (Signal No.8 was in force). Compensatory monitoring work for both of them were conducted on 15 Oct.
- 4. Ecological monitoring scheduled on 22 Oct was rescheduled to 21 Oct due to a schedule clash



Contract No. SPW 12/2021 Environmental Team (2021-2024) for Shek Wui Effluent Polishing Plant - Main Works Tentative Impact Monitoring Schedule Nov 2021

			Nov 2021			
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	01 Nov	02 Nov	03 Nov	04 Nov	05 Nov	06 Nov
				AQM - 24hr TSP	AQM - 1hr TSP	
					NM	
					Ecological Monitoring	
07 Nov	08 Nov	09 Nov	10 Nov	11 Nov	12 Nov	13 Nov
			AQM - 24hr TSP	AQM - 1hr TSP		
				NM		
			Ecological Monitoring			
14 Nov	15 Nov	16 Nov	17 Nov	18 Nov	19 Nov	20 Nov
		AQM - 24hr TSP	AQM - 1hr TSP			
			NM			
					Ecological Monitoring	
21 Nov	22 Nov	23 Nov	24 Nov	25 Nov	26 Nov	27 Nov
	AQM - 24hr TSP	AQM - 1hr TSP				AQM - 24hr TSP
		NM				
					Ecological Monitoring	
28 Nov	29 Nov	30 Nov				
	AQM - 1hr TSP					
	NM					

- AQM: Air Quality Monitoring
- NM: Noise Monitoring, the monitoring dates are tentative and subject to change
 Ecological Monitoring dates are tentative and subject to change based on real-time tide.

Appendix 5.2

Noise Monitoring Results and Graphical Presentations



Noise Monitoring Result

Day Time (0700 - 1900hrs on weekday)

NM1 - G/F, Wai Loi Tsuen Location:

				Measure	ement Noi	se Level	Baseline Level	Construction Noise Level	Limit Level
Date	Time	Weather	Wind Speed	Leq	L10	L90	Leq	Leq	Leq
			(m/s)				Unit: dB((A), (30min)	
15/10/2021	17:05	Cloudy	0.0	55.4	58.2	51.4	63.4	55	75
19/10/2021	13:00	Fine	0.0	54.5	58.0	51.2	63.4	55	75
25/10/2021	8:35	Fine	0.4	58.3	60.1	56.8	63.4	58	75

Location: NM2 - G/F, Fu Tei Au

				Measure	ement Noi	se Level	Baseline Level	Construction Noise Level	Limit Level
Date	Time	Weather	Wind Speed	Leq	L10	L90	Leq	Leq	Leq
			(m/s)				Unit: dB(A), (30-min)	
15/10/2021	14:45	Cloudy	0.0	59.2	61.6	55.9	58.0	53	75
19/10/2021	13:45	Fine	0.0	58.9	61.0	54.6	58.0	52	75
25/10/2021	9:25	Fine	0.2	57.6	58.4	54.2	58.0	58	75

NM3 - G/F, Man kok Village Location:

				Measure	ement Noi	se Level	Baseline Level	Construction Noise Level	Limit Level
Date	Time	Weather	Wind Speed	Leq	L10	L90	Leq	Leq	Leq
			(m/s)				Unit: dB((A), (30min)	
15/10/2021	15:30	Cloudy	0.0	63.2	67.0	52.3	63.4	63	75
19/10/2021	15:30	Fine	0.0	64.0	67.5	62.5	63.4	55	75
25/10/2021	10:05	Fine	0.1	63.1	64.6	60.5	63.4	63	75

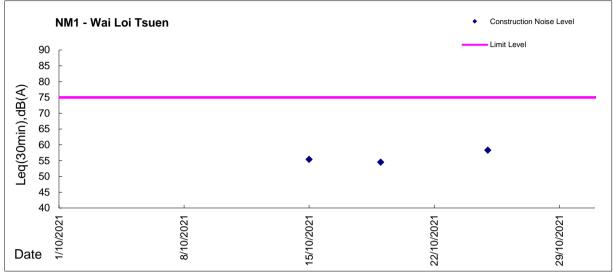
^{*} Free field correction (Additional 3dB(A)) was made on NM1, NM2, and NM3 measurement result

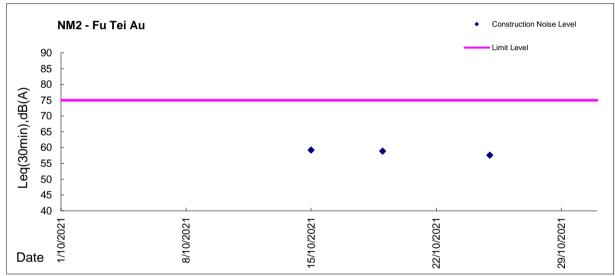
* NM scheduled on 8 Oct was cancelled due to adverse weather conditions (Signal No. 3 and Red Rainstorm Warning were in force)

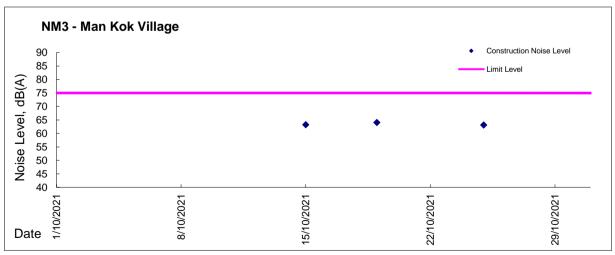


Graphic Presentation of Noise Monitoring Result









Appendix 5.3

Air Quality Monitoring Results and Graphical Presentations



Report on 1-hour TSP monitoring at AM1 - Wai Loi Tsuen Action Level (μ g/m3) - 320 Limit Level (μ g/m3) - 500

Date	Weather Condition	Time	Mass Concentration (µg/m3)
2-Oct-21	Fine	8:00	74
2-Oct-21	Fine	9:01	53
2-Oct-21	Fine	10:02	43
8-Oct-21	Fine	13:01	65
8-Oct-21	Fine	14:02	59
8-Oct-21	Fine	15:03	46
15-Oct-21	Fine	8:55	55
15-Oct-21	Fine	9:56	48
15-Oct-21	Fine	10:57	47
19-Oct-21	Fine	8:55	114
19-Oct-21	Fine	9:56	93
19-Oct-21	Fine	10:57	85
25-Oct-21	Fine	8:22	58
25-Oct-21	Fine	9:23	51
25-Oct-21	Fine	10:24	55
30-Oct-21	Fine	8:48	66
30-Oct-21	Fine	9:49	59
30-Oct-21	Fine	10:50	62



Report on 1-hour TSP monitoring at AM2 - Fu Tei Au Action Level (μ g/m3) - 322 Limit Level (μ g/m3) - 500

Date	Weather Condition	Time	Mass Concentration (µg/m3)
2-Oct-21	Fine	8:00	115
2-Oct-21	Fine	9:01	109
2-Oct-21	Fine	10:02	110
8-Oct-21	Fine	13:00	13
8-Oct-21	Fine	14:01	13
8-Oct-21	Fine	15:02	15
15-Oct-21	Fine	9:12	47
15-Oct-21	Fine	10:13	38
15-Oct-21	Fine	11:14	34
19-Oct-21	Fine	8:45	30
19-Oct-21	Fine	9:46	25
19-Oct-21	Fine	10:47	24
25-Oct-21	Fine	8:37	55
25-Oct-21	Fine	9:38	46
25-Oct-21	Fine	10:39	44
30-Oct-21	Fine	8:56	52
30-Oct-21	Fine	9:57	55
30-Oct-21	Fine	10:58	57



Location: AM1a - Site Boundary of the Shek Wu Hui STW (East) Impact Monitoring Result on 24-hour TSP monitoring

Date	Sampling	Weather	Pressu	re, hPa	Temp	o., °C	Filter paper no.	Filter Weight	i, g	Elapse Time	, hr	Sampling	Flow Rate,	m³/min		Total	TSP Level,
	Time	Condition	Initial	Final	Initial	Final		Initial	Final	Initial	Final	Time, hr	Initial, Qsi	Final, Qsf	Average	Volume, m ³	ug/m³
01-Oct-21	8:00	Fine	1009.1	1011	30.3	30	AM1a_24hr_009529	2.7744	2.8483	26199.97	26223.97	24.00	1.23	1.23	1.23	1773	42
07-Oct-21	8:00	Cloudy	1005.7	1004.6	28.8	28.5	AM1a_24hr_008369	2.6338	2.6954	26223.97	26247.97	24.00	1.23	1.26	1.24	1791	34
12-Oct-21	8:00	Cloudy	1008.9	1006.2	29	28.6	AM1a_24hr_008370	2.6264	2.7229	26247.97	26271.97	24.00	1.23	1.23	1.23	1774	54
18-Oct-21	8:00	Fine	1018.3	1017.8	23.9	25.7	AM1a_24hr_008576	2.6614	2.7859	26271.97	26295.97	24.00	1.25	1.24	1.24	1791	70
23-Oct-21	8:00	Fine	1020.1	1018.9	20.5	22.1	AM1a_24hr_009612	2.7869	2.9169	26295.97	26319.97	24.00	1.25	1.25	1.25	1800	72
29-Oct-21	8:00	Fine	1018.2	1018.8	25.5	24.4	AM1a_24hr_008387	2.6652	2.8036	26319.97	26343.97	24.00	1.53	1.53	1.53	2199	63



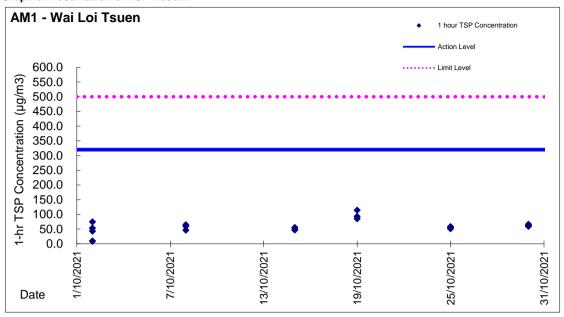
Location: AM2a - Site Boundary of the Shek Wu Hui STW (North) Impact Monitoring Result on 24-hour TSP monitoring

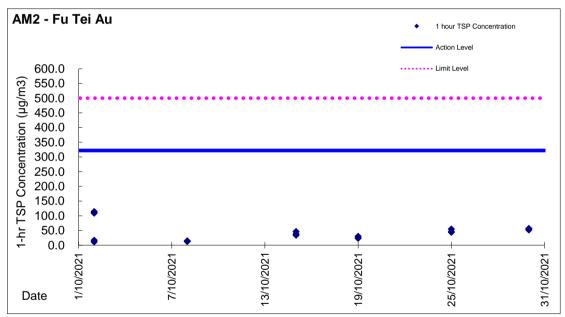
1.251052

Date	Sampling	Weather	Pressu	re, hPa	Temp	o., °C	Filter paper no.	Filter Weight,	g	Elapse Time	, hr	Sampling	Flow Rate,	m³/min		Total	TSP Level,
	Time	Condition	Initial	Final	Initial	Final		Initial	Final	Initial	Final	Time, hr	Initial, Qsi	Final, Qsf	Average	Volume, m ³	ug/m³
01-Oct-21	8:00	Fine	1009.1	1011	30.3	30	AM2a_24hr_008368	2.6410	2.7716	17173.93	17197.93	24.00	1.25	1.28	1.27	1822	72
07-Oct-21	8:00	Cloudy	1005.7	1004.6	28.8	28.5	AM2a_24hr_008388	2.6890	2.8132	17197.93	17221.93	24.00	1.22	1.22	1.22	1764	70
12-Oct-21	8:00	Cloudy	1008.9	1006.2	29	28.6	AM2a_24hr_008371	2.6256	2.7298	17221.93	17245.93	24.00	1.17	1.17	1.17	1688	62
18-Oct-21	8:00	Fine	1018.3	1017.8	23.9	25.7	Am2a_24hr_008577	2.6439	2.6914	17245.93	17269.93	24.00	1.19	1.18	1.18	1705	28
23-Oct-21	8:00	Fine	1020.1	1018.9	20.5	22.1	Am2a_24hr_009611	2.7910	2.8536	17269.93	17293.93	24.00	1.14	1.13	1.14	1636	38
29-Oct-21	8:00	Fine	1018.2	1018.8	25.5	24.4	Am2a 24hr 008372	2.6239	2.7241	17293.93	17317.93	24.00	1.40	1.40	1.40	2019	50



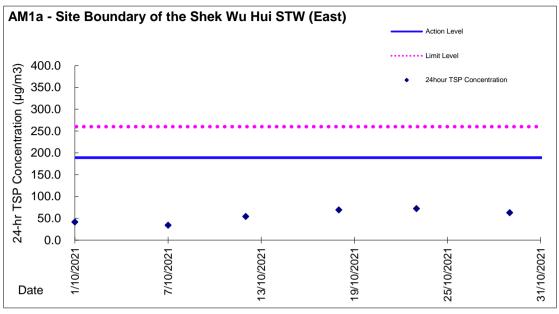
Graphic Presentation of TSP Result

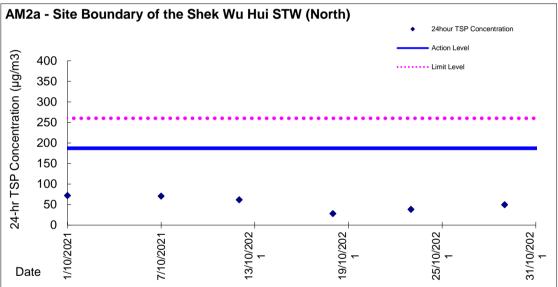






Graphic Presentation of TSP Result





Appendix 5.4

Details of Ecological Monitoring Results in the Reporting Month

5.4. ECOLOGICAL MONITORING RESULTS

5.4.1. For this reporting month, the numbers of species and individuals recorded were provided in **Table 1** and the abundance of representative species were shown in **Table 2**.

Table 1 Total Bird Species and Abundance in the Reporting Month

	Number of Species	Abundance
All Avifauna	48	1957
Waterbirds	21	675

Table 2 Abundance of Representative Waterbirds in the Reporting Month

Species Name	Common Name	Chinese Name	Abundance
Egretta garzetta	Little Egret	小白鷺	151
Ardea cinerea	Grey Heron	蒼鷺	58
Ardeola bacchus	Chinese Pond Heron	池鷺	94
Phalacrocorax carbo	Great Cormorant	普通鸕鷀	18
Ardea alba	Great Egret	大白鷺	49
Bubulcus coromandus	Eastern Cattle Egret	牛背鷺	213
		Total	583

Analysis

5.4.2. The result of student t-tests for all waterbirds and representative waterbirds are compiled in Table 3 and 4 respectively. Further details are provided in Appendix 5.4b.

Table 3 T-test Result for All Waterbirds in the Reporting Month

T-values of Dat	a in Reporting N	Confidence Level (Critical Value)		
1 Values of Bat	a in reporting i	nontin	95% (-2.132)	99% (-3.747)
Abundance	Monthly	9.133	✓	✓
Abundance	Seasonal	8.268	✓	~

Remarks:

Table 4 T-test Result for Representative Waterbirds in the Reporting Month

		Confidence		Confide	nce		
Common Name of	T-value	Level	(Critical	T-value	Level	(Critical	
Representative		Value)			Value)		Overall
Waterbird		95%	99%		95%	99%	
	Monthly	(2.132)	(3.747)	Seasonal	(2.132)	(3.747)	
Little Egret	26.642	✓	✓	26.642	~	✓	✓
Grey Heron	3.014	✓	✓	0.528	✓	✓	✓
Chinese Pond	2.296	✓	✓	2.895	✓	✓	✓
Heron							
Great	1.807	✓	✓	-1.291	✓	✓	✓
Cormorant							
Great Egret	3.516	✓	✓	4.856	✓	✓	✓
Eastern Cattle	3.097	✓	✓	2.864	✓	✓	✓
Egret							

Remarks:

^{✓ =} 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.

^{✓ =} 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.

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

- **5.4.3.** No Action Level and Limit Level was triggered for ecological monitoring in the reporting month.
- **5.4.4.** The monitoring work will continue next month to evaluate any construction impact on waterbirds.

Observations

- **5.4.5.** Waterbird behaviour observed during ecological monitoring are listed below:
 - Flying
 - Foraging
 - Soaring
 - Resting
- **5.4.6.** The anthropogenic activities observed during ecological monitoring are listed in **Table 5.**

Table 5 Observations during Ecological Monitoring in the Reporting Month

	Observations				
Location(s)	Project Related	Non-project Related			
T1 (PC1, PC2)	N/A	Fishing and Generator			
T2 (PC3, PC4)	Excavation and crane	Fishing, Site Cleaning, Excavation Sheet-piling, generator & wielding works Scaffolding			
PC5	N/A	Site Cleaning			
T3 (PC6, PC7)	N/A	Fishing, Excavation Sheet-piling, generator & wielding works Scaffolding			

Appendix 5.5

Ecological Monitoring Results and Analysis

Summary data of the Ecological Monitoring

Tachybaptus rulicollis Little Grebe 小麒麟 X 1 N/A Ardeola bacchus Chinese Pond Heron 池繁 X 94 +++++ Bubulcus coromandus Eastern Cattle Egret 牛背獸 X 213 +++++ Ardea cinerea Grey Heron 苍鹭 X 58 +++++ Ardea cinerea Grey Heron 苍鹭 X 58 +++++ Egretta intermedia Intermediate Egret 中白鹭 X 0 + Egretta garzetta Little Egret 中白鹭 X 151 +++++ Phalacrocorax carbo Great Cormorant 普通驗腦 X 18 ++ Accipiter trivirgatus Crested Goshawk 鳳頭鷹 X 1 N/A Accipiter trivirgatus Crested Goshawk 鳳頭鷹 X 1 N/A Alivus migrans Black Kite 黑鸢 X 8 + Amauromis phoenicurus White-breasted Waterhen 白胸舌惡鳥 X 4 N/A Himantopus himantopus Black-winged Stilt 果翅長腳鷸 X 9 ++ Tringa stagnatilis Marsh Sandpiper 澤鵬 X 1 + Tringa nebularia Common Greenshank 青腳鷸 X 2 + Tringa ochropus Green Sandpiper 白腰荜麟 X 1 N/A Actitis hypoleucos Common Sandpiper 峨鶲 X 35 +++ Columba livia Domestic Pigeon 原鴿 12 N/A Spilopelia chinensis Spotted Dove 珠頭延鳴 83 +++++ Halcyon smyrnensis White-throated Kingfisher 蛭魚狗 X 2 + Psittacula krameri Rose-ringed Parakeet 紅頸鰺鸚鵡 X 9 ++ Sittacula krameri Rose-ringed Parakeet 紅頸鰺鸚鵡 8 + Lanius schach Long-tailed Shrike 棕背白蒡 2 + Urocissa erythroryncha Red-billed Blue Magpie 喜鷗 9 + Corvus torquatus Collared Crow 白頭錦 X 8 + Pica pica Eurasian Magpie 喜鷗 9 + Corvus macrorhynchos Large-billed Crow 大嘴鳥鍋 5 + Parus cinereus Cinereous Tit 苦蕒山雀 33 +++++ Pycnonotus sinensis Chinese Bulbul 白斑鳟 107 ++++++	Scientific Names	Common Names	Chinese Names	Waterbird	Point Count Abundance	Transect Count Abundance
Ardeola bacchus Chinese Pond Heron 池鶯 X 94 +++++ Bubulcus coromandus Eastern Cattle Egret 牛背鶯 X 213 +++++ Ardea cinerea Grey Heron 蒼鷺 X 58 +++++ Ardea cinerea Grey Heron 蒼鷺 X 49 +++++ Egretta intermedia Intermediate Egret 中白鷺 X 0 + Egretta garzetta Little Egret 中白鷺 X 151 +++++ Phalacrocorax carbo Great Cormorant 音通鵬 X 18 ++ Accipiter trivirgatus Crested Goshawk 鳳頭鷹 X 1 N/A Milvus migrans Black Kite 黒鷹 X 8 + Amauromis phoenicurus White-breasted Waterhen 白胸苦惡鳥 X 1 ++ Tringa stagnatilis Marsh Sandpiper 澤鵬 X 1 + Tringa nebularia Common Greenshank 青腳鵑 X 2 + Tringa nebularia Common Greenshank 青腳鵑 X 2 + Tringa nebularia Common Greenshank 青腳鵑 X 2 + Tringa chropus Green Sandpiper 白腰草鶲 X 1 N/A Actitis hypoleucos Common Sandpiper 原鵝 X 1 N/A Actitis hypoleucos Common Kandpiper 原鵝 X 35 +++ Columba livia Domestic Pigeon 原鵝 X 35 +++ Halcyon smymensis White-throated Kingfisher 斑魚角 X 9 ++ Halcyon smymensis White-throated Kingfisher 斑魚角 X 9 ++ Egretta krameri Rose-ringed Parakeet 紅頸綠鸚鵡 8 + Lanius schach Long-tailed Shrike 棕背色勞 2 + Urocissa erythroryncha Red-billed Blue Magpie 紅鴉 8 + Pica pica Eurasian Magpie 藍鶲 9 + Corvus macrorhynchos Large-billed Crow 大嘴鳥鍋 7 +++ Pronondus jocosus Red-whiskered Bulbul 白頭鵯 1007 ++++++	Anas clypeata	Northern Shoveler	琵嘴鴨	Х	3	+
Bubulcus coromandus Eastern Cattle Egret 牛背鶯 X 213 +++++ Ardea cinerea Grey Heron 蒼鷺 X 58 +++++ Ardea cinerea Grey Heron 蒼鷺 X 49 +++++ Egretta intermedia Intermediate Egret 中白鷺 X 0 + Egretta garzetta Little Egret 中白鷺 X 151 +++++ Phalacrocorax carbo Great Cormorant 普通鸕鷀 X 18 ++ Phalacrocorax carbo Great Cormorant 普通鸕鷀 X 18 ++ Accipiter trivirgatus Crested Goshawk 與頭鷹 X 1 N/A Milvus migrans Black Kite 異鸞 X 8 + Amauromis phoenicurus White-breasted Waterhen 白胸苦惡鳥 X 9 ++ Tringa stagnatilis Marsh Sandpiper 澤艪 X 1 + Tringa nebularia Common Greenshank 青銅鶲 X 2 + Tringa nebularia Common Greenshank 青銅鶲 X 2 + Tringa nebularia Common Greenshank 青銅鶲 X 2 + Tringa nebularia Common Greenshank 青銅鹟 X 2 + Tringa nebularia Common Kandpiper 機鶲 X 35 +++ Columba livia Domestic Pigeon 原鴿 X 1 N/A Actitis hypoleucos Common Sandpiper 原鴿 X 35 +++ Columba livia Domestic Pigeon 原鴿 X 35 +++ Alcedo atthis Common Kingfisher 百遍彩 X 8 + Alcedo atthis Common Kingfisher 西海鸡 X 2 + Psittacula krameri Rose-ringed Parakeet 紅鹟綠鶲 8 + Lanius schach Long-tailed Shrike 棕背的勞 2 + Urocissa erythroryncha Red-billed Blue Magpie 經鶲 9 + Corvus macrorhynchos Large-billed Crow 大嘴鳥鴉 9 ++ Pica pica Eurasian Magpie 羅鶲 9 + Prarus cinereus Cinereous Tit 蒼寶山雀 33 ++++ Pycnonotus sinensis Chinese Bulbul 白頭鶲 1007 ++++++	Tachybaptus ruficollis	Little Grebe	小鸊鷉	Х	1	N/A
Ardea cinerea Grey Heron 蒼鷺 X 58 +++++ Ardea alba Great Egret 大白鷺 X 49 ++++ Egretta intermedia Intermediate Egret 中白鷺 X 0 + Egretta garzetta Little Egret 中白鷺 X 151 +++++ Phalacrocorax carbo Great Cormorant 普通虧遇 X 18 ++ Accipiter trivirgatus Crested Goshawk	Ardeola bacchus	Chinese Pond Heron	池鷺	Х	94	+++++
Ardea alba Great Egret 大白鹭 X 49 ++++ Egretta intermedia Intermediate Egret 中白鹭 X 0 + Egretta garzetta Little Egret 小白鹭 X 151 +++++ Phalacrocorax carbo Great Cormorant 普通鶴鷗 X 18 ++ Accipiter trivirgatus Crested Goshawk 原頭鷹 X 1 N/A Milvus migrans Black Kite 黒鳶 X 8 + Amauromis phoenicurus White-breasted Waterhen 白胸苦惡鳥 X 4 N/A Himantopus himantopus Black-winged Stilt 黒翅長腳鷸 X 9 ++ Tringa stagnatilis Marsh Sandpiper 澤鷸 X 1 + Tringa nebularia Common Greenshank 青腳鷸 X 2 + Tringa ochropus Green Sandpiper 白腰草鹟 X 1 N/A Actitis hypoleucos Common Sandpiper 鏡鹟 X 35 +++ Columba livia Domestic Pigeon 原鶲 X 35 +++ Halcyon smyrmensis White-throated Kingfisher 白胸翡翠 X 8 + Alcedo atthis Common Kingfisher 斑魚狗 X 2 + Psittacula krameri Rose-ringed Parakeet 紅頸綠鸚鵡 X 2 + Psittacula krameri Rose-ringed Parakeet 紅頸綠鸚鵡 8 + Lanius schach Long-tailed Shrike 棕背伯勞 X 2 + Psittacula krameri Red-billed Blue Magpie 宮鵬 9 + Corvus torquatus Collared Crow 白頸鴉 X 8 + Corvus macrorhynchos Large-billed Crow 大嘴鳥鴉 5 + Parus cinereus Cinereous Tit 蒼背山雀 33 ++++ Pycnonotus sinensis Chinese Bulbul 白頭鴝 107 +++++	Bubulcus coromandus	Eastern Cattle Egret	牛背鷺	Х	213	+++++
Egretta intermedia Intermediate Egret 中白鷺 X 0 + Egretta garzetta Little Egret 小白鷺 X 151 +++++ Phalacrocorax carbo Great Cormorant 普通鸕鷀 X 18 ++ Accipiter trivirgatus Crested Goshawk 鳳頭鷹 X 1 N/A Milvus migrans Black Kite 黑鳶 X 8 + Amauromis phoenicurus White-breasted Waterhen 白胸苦惡鳥 X 4 N/A Himantopus himantopus Black-winged Stilt 黑翅長腳鶲 X 9 ++ Tringa stagnatilis Marsh Sandpiper 澤鶲 X 1 + Tringa nebularia Common Greenshank 青腳鶲 X 2 + Tringa nebularia Common Greenshank 青腳鶲 X 2 + Tringa ochropus Green Sandpiper 白腰草鶲 X 1 N/A Actitis hypoleucos Common Sandpiper 磯鶲 X 35 +++ Columba livia Domestic Pigeon 原鴿 12 N/A Spilopelia chinensis Spotted Dove 珠頸斑鳩 X 8 + Alcedo atthis Common Kingfisher 黃鳳鹟 X 9 ++ Ceryle rudis Pied Kingfisher 延魚狗 X 2 + Psittacula krameri Rose-ringed Parakeet 紅頸綠鸚鵡 8 + Lanius schach Long-tailed Shrike 棕背伯勞 2 + Urocissa erythroryncha Red-billed Blue Magpie 喜鴝 9 + Corvus torquatus Collared Crow 白頭鴉 X 8 + Parus cinereus Cinereous Tit 蒼背山雀 33 ++++ Pycnonotus sinensis Chinese Bulbul 白頭鴝 107 +++++	Ardea cinerea	Grey Heron	蒼鷺	X	58	+++++
Egretta garzetta Little Egret 小白鷺 X 151 +++++ Phalacrocorax carbo Great Cormorant 普通鸕鷀 X 18 ++ Accipiter trivirgatus Crested Goshawk 鳳頭鷹 X 1 N/A Milvus migrans Black Kite 黑鳶 X 8 + Amaurornis phoenicurus White-breasted Waterhen 白胸苦惡鳥 X 4 N/A Himantopus himantopus Black-winged Stilt 黑翅長腳鷸 X 9 ++ Tringa stagnatilis Marsh Sandpiper 澤鶲 X 1 + Tringa nebularia Common Greenshank 青腳鷸 X 2 + Tringa ochropus Green Sandpiper 白腰草鷸 X 1 N/A Actitis hypoleucos Common Sandpiper 優鶲 X 35 +++ Columba livia Domestic Pigeon 原鴿 12 N/A Spilopelia chinensis Spotted Dove 珠頸斑鳩 83 +++++ Halcyon smyrnensis White-throated Kingfisher 白胸翡翠 X 8 + Alcedo atthis Common Kingfisher 斑魚狗 X 2 + Psittacula krameri Rose-ringed Parakeet 紅頸綠鸚鵡 8 + Lanius schach Long-tailed Shrike 棕背伯勞 2 + Urocissa erythroryncha Red-billed Blue Magpie 喜鵲 4 + Pica pica Eurasian Magpie 喜鵲 9 + Corvus macrorhynchos Large-billed Crow 大嘴鳥鴉 5 + Parus cinereus Cinereous Tit 蒼背山雀 33 ++++ Pycnonotus sinensis Chinese Bulbul 白頭鴝 107 +++++	Ardea alba	Great Egret	大白鷺	Х	49	++++
Phalacrocorax carbo Great Cormorant 普通鸕鷀 X 18 ++ Accipiter trivirgatus Crested Goshawk 鳳頭鷹 X 1 N/A Milvus migrans Black Kite 黑鷹 X 8 + Email Milvus migrans Black Kite 黑鷹 X 9 ++ Email Milvus migrans Black-winged Stilt 黑翅長腳鷸 X 9 ++ Tringa stagnatilis Marsh Sandpiper 澤鷸 X 1 + Tringa stagnatilis Marsh Sandpiper 澤鷸 X 1 + Tringa nebularia Common Greenshank 青腳鷸 X 2 + Tringa ochropus Green Sandpiper 白腰草鹬 X 1 N/A Actitis hypoleucos Common Sandpiper Genes Sandpiper Gomen Green Sandpiper Gomen Green Sandpiper Gomen Sandpiper Gomen Green Sandpiper Gomen Sandpiper	Egretta intermedia	Intermediate Egret	中白鷺	Х	0	+
Recipiter trivirgatus	Egretta garzetta	Little Egret	小白鷺	Х	151	+++++
Black Kite 黑鳶 X 8 + Amaurornis phoenicurus White-breasted Waterhen 白胸苦惡鳥 X 4 N/A Himantopus himantopus Black-winged Stilt 黑翅長腳鷸 X 9 ++ Tringa stagnatilis Marsh Sandpiper 澤鷸 X 1 + Tringa nebularia Common Greenshank 青腳鷸 X 2 + Tringa ochropus Green Sandpiper 白腰草鶲 X 1 N/A Actitis hypoleucos Common Sandpiper 磯鶲 X 35 +++ Columba livia Domestic Pigeon 原鴿 X 35 +++ Halcyon smyrnensis White-throated Kingfisher 白胸翡翠 X 8 + Alcedo atthis Common Kingfisher 斑魚狗 X 2 + Psittacula krameri Rose-ringed Parakeet 紅頸綠鸚鵡 8 + Lanius schach Long-tailed Shrike 棕背伯勞 2 + Urocissa erythroryncha Red-billed Blue Magpie 喜鵲 4 + Pica pica Eurasian Magpie 喜鵲 9 + Corvus torquatus Collared Crow 白頸鴉 X 8 + Parus cinereus Cinereous Tit 蒼背山雀 33 ++++ Pycnonotus sinensis Chinese Bulbul 白頭鹎 107 +++++	Phalacrocorax carbo	Great Cormorant	普通鸕鷀	Х	18	++
Milvus migrans Black Kite 黒鳶 Amauromis phoenicurus White-breasted Waterhen 白胸苦惡鳥 X 4 N/A Himantopus himantopus Black-winged Stilt 黒翅長腳鷸 X 9 ++ Tringa stagnatilis Marsh Sandpiper 澤鷸 X 1 + Tringa nebularia Common Greenshank 青腳鷸 X 2 + Tringa ochropus Green Sandpiper 白腰草鷸 X 1 N/A Actitis hypoleucos Common Sandpiper 磯鷸 X 35 +++ Columba livia Domestic Pigeon 原鴿 12 N/A Spilopelia chinensis Spotted Dove 珠頸斑鳩 83 +++++ Halcyon smyrnensis White-throated Kingfisher 白胸翡翠 X 8 + Alcedo atthis Common Kingfisher 華通翠鳥 X 9 ++ Ceryle rudis Pied Kingfisher 斑魚狗 X 2 + Spittacula krameri Rose-ringed Parakeet 紅質綠鸚鵡 8 + Lanius schach Long-tailed Shrike 棕背伯勞 2 + Urocissa erythroryncha Red-billed Blue Magpie 紅嘴藍鵑 4 + Pica pica Eurasian Magpie 喜鵑 9 + Corvus torquatus Collared Crow 白頭鴉 X 8 + Parus cinereus Cinereous Tit 蒼背山雀 33 ++++ Pycnonotus sinensis Chinese Bulbul 白頭鵯 107 ++++++	Accipiter trivirgatus	Crested Goshawk	鳳頭鷹	Х	1	N/A
Himantopus himantopus Black-winged Stilt 黑翅長腳鷸 X 9 ++ Tringa stagnatilis Marsh Sandpiper 澤鷸 X 1 + Tringa nebularia Common Greenshank 青腳鷸 X 2 + Tringa ochropus Green Sandpiper 白腰草鷸 X 1 N/A Actitis hypoleucos Common Sandpiper 磯鷸 X 35 +++ Columba livia Domestic Pigeon 原鴿 12 N/A Spilopelia chinensis Spotted Dove 珠頸斑鳩 83 +++++ Halcyon smyrnensis White-throated Kingfisher 白胸翡翠 X 8 + Alcedo atthis Common Kingfisher 普通翠鳥 X 9 ++ Ceryle rudis Pied Kingfisher 斑魚狗 X 2 + Psittacula krameri Rose-ringed Parakeet 紅嶺綠鸚鵡 8 + Lanius schach Long-tailed Shrike 棕背伯勞 2 + Urocissa erythroryncha Red-billed Blue Magpie 喜鵲 4 + Pica pica Eurasian Magpie 喜鵲 9 + Corvus torquatus Collared Crow 白頸鴉 X 8 + Parus cinereus Cinereous Tit 蒼背山雀 33 +++ Pycnonotus jocosus Red-whiskered Bulbul 白頭鵯 107 +++++	Milvus migrans	Black Kite	黑鳶	X	8	+
Tringa stagnatilis Marsh Sandpiper 澤鷸 X 1 + Tringa nebularia Common Greenshank 青腳鷸 X 2 + Tringa ochropus Green Sandpiper 白腰草鷸 X 1 N/A Actitis hypoleucos Common Sandpiper 債務 X 35 +++ Columba livia Domestic Pigeon 原鴿 12 N/A Spilopelia chinensis Spotted Dove 珠頸斑鳩 83 +++++ Halcyon smyrnensis White-throated Kingfisher 白胸翡翠 X 8 + Alcedo atthis Common Kingfisher	Amaurornis phoenicurus	White-breasted Waterhen	白胸苦惡鳥	Х	4	N/A
Tringa nebularia Common Greenshank 青腳鷸 X 2 + Tringa ochropus Green Sandpiper 白腰草鷸 X 1 N/A Actitis hypoleucos Common Sandpiper 磯鷸 X 35 +++ Columba livia Domestic Pigeon 原鴿 12 N/A Spilopelia chinensis Spotted Dove 珠頸斑鳩 83 +++++ Halcyon smyrnensis White-throated Kingfisher 白胸翡翠 X 8 + Alcedo atthis Common Kingfisher 普通翠鳥 X 9 ++ Ceryle rudis Pied Kingfisher 斑魚狗 X 2 + Psittacula krameri Rose-ringed Parakeet 紅頸綠鸚鵡 8 + Lanius schach Long-tailed Shrike 棕背伯勞 2 + Urocissa erythroryncha Red-billed Blue Magpie 紅嘴藍鶲 4 + Pica pica Eurasian Magpie 喜鵲 9 + Corvus torquatus Collared Crow 白頸鴉 X 8 + Corvus macrorhynchos Large-billed Crow 大嘴鳥鴉 5 + Parus cinereus Cinereous Tit 蒼背山雀 33 ++++ Pycnonotus jocosus Red-whiskered Bulbul 紅耳鵯 68 +++++	Himantopus himantopus	Black-winged Stilt	黑翅長腳鷸	Х	9	++
Tringa ochropus Green Sandpiper 白腰草鸛 X 1 N/A Actitis hypoleucos Common Sandpiper 磯鷸 X 35 +++ Columba livia Domestic Pigeon 原鴿 12 N/A Spilopelia chinensis Spotted Dove 珠頸斑鳩 83 +++++ Halcyon smyrnensis White-throated Kingfisher 白胸翡翠 X 8 + Alcedo atthis Common Kingfisher 普通翠鳥 X 9 ++ Ceryle rudis Pied Kingfisher 斑魚狗 X 2 + Psittacula krameri Rose-ringed Parakeet 紅領綠鸚鵡 8 + Lanius schach Long-tailed Shrike 棕背伯勞 2 + Urocissa erythroryncha Red-billed Blue Magpie 紅嘴藍鵑 4 + Pica pica Eurasian Magpie 喜鵲 9 + Corvus torquatus Collared Crow 白頸鴉 X 8 + Corvus macrorhynchos Large-billed Crow 大嘴鳥鴉 X 8 + Parus cinereus Cinereous Tit 蒼背山雀 33 ++++ Pycnonotus jocosus Red-whiskered Bulbul 紅耳鵯 68 +++++ Pycnonotus sinensis Chinese Bulbul 白頭鵯 107 +++++	Tringa stagnatilis	Marsh Sandpiper	澤鷸	Х	1	+
Actitis hypoleucos Common Sandpiper 機鷸 X 35 +++ Columba livia Domestic Pigeon 原鴿 12 N/A Spilopelia chinensis Spotted Dove 珠頸斑鳩 83 +++++ Halcyon smyrnensis White-throated Kingfisher 白胸翡翠 X 8 + Alcedo atthis Common Kingfisher 普通翠鳥 X 9 ++ Ceryle rudis Pied Kingfisher 斑魚狗 X 2 + Psittacula krameri Rose-ringed Parakeet 紅領綠鸚鵡 8 + Lanius schach Long-tailed Shrike 棕背伯勞 2 + Urocissa erythroryncha Red-billed Blue Magpie 紅嘴藍鵑 4 + Pica pica Eurasian Magpie 喜鵲 9 + Corvus torquatus Collared Crow 白頸鴉 X 8 + Corvus macrorhynchos Large-billed Crow 大嘴鳥鴉 5 + Parus cinereus Cinereous Tit 蒼背山雀 33 +++ Pycnonotus sinensis Chinese Bulbul 白頭鵯 107 +++++	Tringa nebularia	Common Greenshank	青腳鷸	Х	2	+
Domestic Pigeon 原語 12 N/A	Tringa ochropus	Green Sandpiper	白腰草鷸	Х	1	N/A
Spilopelia chinensis Spotted Dove 珠頸斑鳩 83 +++++ Halcyon smyrnensis White-throated Kingfisher 白胸翡翠 X 8 + Alcedo atthis Common Kingfisher 普通翠鳥 X 9 ++ Ceryle rudis Pied Kingfisher 斑魚狗 X 2 + Psittacula krameri Rose-ringed Parakeet 紅領綠鸚鵡 8 + Lanius schach Long-tailed Shrike 棕背伯勞 2 + Urocissa erythroryncha Red-billed Blue Magpie 紅嘴藍鵑 4 + Pica pica Eurasian Magpie 喜鵲 9 + Corvus torquatus Collared Crow 白頸鴉 X 8 + Corvus macrorhynchos Large-billed Crow 大嘴鳥鴉 5 + Parus cinereus Cinereous Tit 蒼背山雀 33 +++ Pycnonotus jocosus Red-whiskered Bulbul 紅耳鵯 68 +++++ Pycnonotus sinensis Chinese Bulbul 白頭鵯 107 +++++	Actitis hypoleucos	Common Sandpiper	磯鷸	Х	35	+++
Halcyon smyrnensis White-throated Kingfisher 白胸翡翠 X 8 + Alcedo atthis Common Kingfisher 普通翠鳥 X 9 ++ Ceryle rudis Pied Kingfisher 斑魚狗 X 2 + Psittacula krameri Rose-ringed Parakeet 紅領綠鸚鵡 8 + Lanius schach Long-tailed Shrike 棕背伯勞 2 + Urocissa erythroryncha Red-billed Blue Magpie 紅嘴藍鵑 4 + Pica pica Eurasian Magpie 喜鵲 9 + Corvus torquatus Collared Crow 白頸鴉 X 8 + Corvus macrorhynchos Large-billed Crow 大嘴鳥鴉 X 8 + Parus cinereus Cinereous Tit 蒼背山雀 33 +++ Pycnonotus jocosus Red-whiskered Bulbul 紅耳鵯 68 +++++ Pycnonotus sinensis Chinese Bulbul 白頭鵯 107 +++++	Columba livia	Domestic Pigeon	原鴿		12	N/A
Alcedo atthis Common Kingfisher 普通翠鳥 X 9 ++ Ceryle rudis Pied Kingfisher 斑魚狗 X 2 + Psittacula krameri Rose-ringed Parakeet 紅領綠鸚鵡 8 + Lanius schach Long-tailed Shrike 棕背伯勞 2 + Urocissa erythroryncha Red-billed Blue Magpie 紅嘴藍鶲 9 + Pica pica Eurasian Magpie 喜鵲 9 + Corvus torquatus Collared Crow 白頸鴉 X 8 + Parus cinereus Cinereous Tit 蒼背山雀 33 +++ Pycnonotus jocosus Red-whiskered Bulbul 紅耳鵯 68 +++++ Pycnonotus sinensis Chinese Bulbul 白頭鵯 107 +++++	Spilopelia chinensis	Spotted Dove	珠頸斑鳩		83	+++++
Ceryle rudis Pied Kingfisher 斑魚狗 X 2 + Psittacula krameri Rose-ringed Parakeet 紅領綠鸚鵡 8 + Lanius schach Long-tailed Shrike 棕背伯勞 2 + Urocissa erythroryncha Red-billed Blue Magpie 紅嘴藍鵲 4 + Pica pica Eurasian Magpie 喜鵲 9 + Corvus torquatus Collared Crow 白頸鴉 X 8 + Corvus macrorhynchos Large-billed Crow 大嘴烏鴉 5 + Parus cinereus Cinereous Tit 蒼背山雀 33 +++ Pycnonotus jocosus Red-whiskered Bulbul 紅耳鵯 68 +++++ Pycnonotus sinensis Chinese Bulbul 白頭鵯 107 +++++	Halcyon smyrnensis	White-throated Kingfisher	白胸翡翠	Х	8	+
Psittacula krameriRose-ringed Parakeet紅領綠鸚鵡8+Lanius schachLong-tailed Shrike棕背伯勞2+Urocissa erythrorynchaRed-billed Blue Magpie紅嘴藍鵲4+Pica picaEurasian Magpie喜鵲9+Corvus torquatusCollared Crow白頸鴉X8+Corvus macrorhynchosLarge-billed Crow大嘴烏鴉5+Parus cinereusCinereous Tit蒼背山雀33+++Pycnonotus jocosusRed-whiskered Bulbul紅耳鵯68+++++Pycnonotus sinensisChinese Bulbul白頭鵯107+++++	Alcedo atthis	Common Kingfisher	普通翠鳥	Х	9	++
Lanius schachLong-tailed Shrike棕背伯勞2+Urocissa erythrorynchaRed-billed Blue Magpie紅嘴藍鵲4+Pica picaEurasian Magpie喜鵲9+Corvus torquatusCollared Crow白頸鴉X8+Corvus macrorhynchosLarge-billed Crow大嘴烏鴉5+Parus cinereusCinereous Tit蒼背山雀33+++Pycnonotus jocosusRed-whiskered Bulbul紅耳鵯68+++++Pycnonotus sinensisChinese Bulbul白頭鵯107+++++	Ceryle rudis	Pied Kingfisher	斑魚狗	Х	2	+
Urocissa erythroryncha Red-billed Blue Magpie 紅嘴藍鵲 4 + Pica pica Eurasian Magpie 喜鵲 9 + Corvus torquatus Collared Crow 白頸鴉 X 8 + Corvus macrorhynchos Large-billed Crow 大嘴烏鴉 5 + Parus cinereus Cinereous Tit 蒼背山雀 33 +++ Pycnonotus jocosus Red-whiskered Bulbul 紅耳鵯 68 +++++ Pycnonotus sinensis Chinese Bulbul 白頭鵯 107 +++++	Psittacula krameri	Rose-ringed Parakeet	紅領綠鸚鵡		8	+
Pica pica Eurasian Magpie 喜鵲 9 + Corvus torquatus Collared Crow 白頸鴉 X 8 + Corvus macrorhynchos Large-billed Crow 大嘴烏鴉 5 + Parus cinereus Cinereous Tit 蒼背山雀 33 +++ Pycnonotus jocosus Red-whiskered Bulbul 紅耳鵯 68 +++++ Pycnonotus sinensis Chinese Bulbul 白頭鵯 107 +++++	Lanius schach	Long-tailed Shrike	棕背伯勞		2	+
Corvus torquatus Collared Crow 白頸鴉 X 8 + Corvus macrorhynchos Large-billed Crow 大嘴烏鴉 5 + Parus cinereus Cinereous Tit 蒼背山雀 33 +++ Pycnonotus jocosus Red-whiskered Bulbul 紅耳鵯 68 +++++ Pycnonotus sinensis Chinese Bulbul 白頭鵯 107 +++++	Urocissa erythroryncha	Red-billed Blue Magpie	紅嘴藍鵲		4	+
Corvus macrorhynchos Large-billed Crow 大嘴烏鴉 5 + Parus cinereus Cinereous Tit 蒼背山雀 33 +++ Pycnonotus jocosus Red-whiskered Bulbul 紅耳鵯 68 +++++ Pycnonotus sinensis Chinese Bulbul 白頭鵯 107 +++++	Pica pica	Eurasian Magpie	喜鵲		9	+
Parus cinereusCinereous Tit蒼背山雀33+++Pycnonotus jocosusRed-whiskered Bulbul紅耳鵯68+++++Pycnonotus sinensisChinese Bulbul白頭鵯107+++++	Corvus torquatus	Collared Crow	白頸鴉	Х	8	+
Pycnonotus jocosus Red-whiskered Bulbul 紅耳鵯 68 +++++ Pycnonotus sinensis Chinese Bulbul 白頭鵯 107 +++++	Corvus macrorhynchos	Large-billed Crow	大嘴烏鴉		5	+
Pycnonotus sinensis Chinese Bulbul 白頭鵯 107 +++++	Parus cinereus	Cinereous Tit	蒼背山雀		33	+++
	Pycnonotus jocosus	Red-whiskered Bulbul	紅耳鵯		68	+++++
Hirundo rustica Barn Swallow 家燕 27 +	Pycnonotus sinensis	Chinese Bulbul	白頭鵯		107	+++++
	Hirundo rustica	Barn Swallow	家燕		27	+

Scientific Names	Common Names	Chinese Names	Waterbird	Point Count Abundance	Transect Count Abundance
Phylloscopus proregulus	Pallas's Leaf Warbler	黃腰柳鶯		1	+
Phylloscopus inornatus	Yellow-browed Warbler	黄眉柳鶯		28	+++
Prinia flaviventris	Yellow-bellied Prinia	黃腹鷦鶯		2	+
Prinia inornata	Plain Prinia	純色鷦鶯		14	++++
Orthotomus sutorius	Common Tailorbird	長尾縫葉鶯		54	++++
Stachyridopsis ruficeps	Rufous-capped Babbler	紅頭穗鶥		1	N/A
Garrulax perspicillatus	Masked Laughingthrush	黑臉噪鶥		3	+
Zosterops japonicus	Japanese White-eye	暗綠繡眼鳥		152	++++
Acridotheres cristatellus	Crested Myna	八哥		316	++++
Gracupica nigricollis	Black-collared Starling	黑領椋鳥		140	++++
Copsychus saularis	Oriental Magpie Robin	鵲鴝		7	+
Muscicapa latirostris	Asian Brown Flycatcher	北灰鶲		0	+
Passer montanus	Eurasian Tree Sparrow	樹麻雀		108	++++
Lonchura punctulata	Scaly-breasted Munia	斑文鳥		14	+++
Motacilla alba	White Wagtail	白鶺鴒		84	+++++

Remarks:

X: Waterbird;

 $Transect \ abundance, +: <10, ++: 11-20, +++: 21-30, ++++: 31-40, +++++: >40$

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, 2020).

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.

Waterbird Ecological Monitoring Result

Total Bird Abundance from Point Count									
	Survey Info	rmation	Total Bird Abundance from Point Count						
No.	Date	Time	Tide Level	Individuals Total Species Recorded Species Recorded					
1	11/10/2021	12:30	Н	299	EAG	27			
1	11/10/2021	10:00	L	247	546	32			

	Total Bird Abundance from Point Count									
	Survey Info	ormation	Total Bird Abundance from Point Count							
No.	Date	Time	Tide Level	Individuals Recorded	Total	Species Recorded				
2	12/10/2021	15:00	Н	218	485	27				
2	12/10/2021	11:00 L 267		460	24					
3	21/10/2021	11:00	Н	194	542	27				
3	21/10/2021	15:00	L	348	342	28				
4	29/10/2021	16:45	Н	200	384	25				
4	29/10/2021	13:00	L	184	304	24				

Remarks: H: High Tide; L: Low Tide

	Total Waterbird Abundance from Point Count								
	Survey	Informatio	Total Waterbird Abundance						
	- Cui voy i	in or matic	from Po	int Count					
No.	Date	Time	Tide Level	Individuals	Total				
NO.	Date	Tille		Recorded	Total				
1	11/10/2021	12:30	Н	111	192				
•	11/10/2021	10:00	L	81	192				
2	12/10/2021	15:00	Н	76	184				
2	12/10/2021	11:00	L	108	104				
3	21/10/2021	11:00	Н	56	165				
3	21/10/2021	15:00	L	109	105				
4	29/10/2021	16:45	Н	59	134				
4	29/10/2021	13:00 L		75	134				
				Overall Total	675				
				Average	135				

Remarks: H: High Tide; L: Low Tide

T-Test Analysis for All Waterbirds

Baseline Data

Monthly Average Abundance (Oct) 51.00
Seasonal Average Abundance (Wet season) 62.15

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 distribution when compared to the baseline monitoring data.

If t-test value is **smaller** than the critical value, then rejects H_0 .

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

Crit. Value = -2.132 (95% Confidence Level)

Crit. Value = -3.747 (99% Confidence Level)

Analysis fo	or All Waterbirds	Confidence Level (Critical Value)			
		95%	99%		
Abundanaa	Monthly	9.133	✓	✓	
Abundance	Seasonal	8.268	✓	✓	

Remarks:

✓ = 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.

			Confidence	
			Level (Critical	
			Value)	
			95%	99%
Abundanaa	Monthly	9.133	✓	✓
Abundance	Seasonal	8.268	✓	✓

	Abundance of Representative Waterbirds from Point Count									
Rep	oresentative Spe	cies		Record	ded Abunc	lance			Baseline	e Data
Species Name	Common Name	Chinese Name	11/10/2021	12/10/2021	21/10/2021	29/10/2021	Total	Average	Avgrage (Oct)	Avg (Winter)
Egretta garzetta	Little Egret	小白鷺	37	40	38	36	151	38	15	15
Ardea cinerea	Grey Heron	蒼鷺	17	8	21	12	58	15	10	13
Ardeola bacchus	Chinese Pond Heron	池鷺	33	11	20	30	94	24	12	9
Phalacrocorax carbo	Great Cormorant	普通鸕鷀	3	1	4	10	18	5	1	7
Ardea alba	Great Egret	大白鷺	13	8	15	13	49	12	7	5
Bubulcus coromandus	Eastern Cattle Egret	牛背鷺	53	99	45	16	213	53	0	4

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 distribution when compared to the baseline monitoring data;

H₁: The data collected does not falls within the normal distribution when compared to the baseline monitoring data.

If t-test value 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)

Common Name of	T-value		Confidence Level (Critical Value)			evel (Critical ue)	
Representative Waterbird	Monthly	95%	99%	Seasonal	95%	99%	Overall
Little Egret	26.642	✓	✓	26.642	✓	✓	✓
Grey Heron	3.014	✓	✓	0.528	✓	✓	✓
Chinese Pond Heron	2.296	✓	✓	2.895	✓	✓	√
Great Cormorant	1.807	√	√	-1.291	✓	√	√
Great Egret	3.516	✓	✓	4.856	✓	✓	✓
Eastern Cattle Egret	3.097	✓	✓	2.864	✓	√	√

Remarks:

✓ = 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 wet season.

Appendix 5.6

Photo Record of Ecological Monitoring

Conditions of Rivers





Sheung Yue River (Taken on 11 October 2021)

Sheung Yue River (Taken on 21 October 2021)





Shek Sheung River (Taken on 29 October 2021)

Shek Sheung River (Taken on 12 October 2021)

Human Activities & Site Conditions



(Project-related, taken on 12 October 2021)

Excavation & Crane

Fishing



Sheet-piling, generator & wielding works

(Non-project-related, taken on 11 October 2021)



Excavation, Crane, Sheet-piling, generator & wielding works

(Non-project-related, taken on 21 October 2021)

(Non-project-related, taken on 21 October 2021)



(Non-project-related, taken on 29 October 2021)

Site Cleaning



(Non-project-related, taken on 11 October 2021)

Site Cleaning

Appendix 5.7

Monthly Summary Waste Flow Table

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

Monthly Summary Waste Flow Table for 2021

	Act	ual Quantities	s of Inert C&D	Materials Ge	nerated Mont	thly	Actu	al Quantities	of C&D Wastes	Generated M	onthly
		Hard Rock									
Month	Total	and Large		Reused in				Paper/			Others, e.g.
IVIOITUI	Quantity	Broken	Reused in	other	Disposed as	Imported		cardboard		Chemical	general
	Generated	Concrete	the Contract	Projects	Public Fill	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	10.034	0.000	0.000	8.257	1.777	0.606	0.000	0.000	0.002	0.000	0.038
Feb	3.703	0.000	0.000	2.871	0.833	0.071	2.120	0.000	0.000	0.000	0.024
Mar	4.644	0.000	0.000	2.190	2.454	0.037	0.000	0.000	0.006	0.000	0.044
Apr	0.211	0.000	0.023	0.000	0.188	0.167	0.000	0.000	0.008	0.000	0.042
May	0.557	0.000	0.218	0.000	0.340	0.190	0.001	0.002	0.008	0.000	0.081
Jun	0.370	0.000	0.023	0.000	0.348	0.119	8.210	0.000	0.000	0.000	0.069
Sub-total	19.519	0.000	0.263	13.317	5.939	1.189	10.331	0.002	0.023	0.000	0.299
Jul	0.592	0.000	0.000	0.000	0.592	0.096	0.000	0.000	0.010	0.000	0.046
Aug	0.567	0.000	0.000	0.000	0.567	0.368	0.002	0.017	0.008	0.000	0.066
Sep	0.184	0.000	0.000	0.000	0.184	0.589	0.000	0.000	0.000	0.000	0.037
Oct	0.230	0.000	0.000	0.000	0.230	0.170	0.001	0.003	0.008	0.000	0.055
Nov	_		_		_	_		_	_	_	_
Dec											
Total	21.092	0.000	0.263	13.317	7.512	2.411	10.334	0.022	0.049	0.000	0.502

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 the density of general refuse is 0.9 ton/m3.
- 4. Assume density of waste oil is assued to be 0.8 kg/L.
- 5. The inert C&D materials except slurry and bentonite are disposed at Tuen Mun 38.
- 6. The slurry and bentonite are disposed at Tseung Kwun O 137.
- 7. The non-inert C&D wastes are disposed at NENT.

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

Monthly Summary Waste Flow Table for 2021

	Act	ual Quantities	s of Inert C&D	Materials Ge	nerated Mont	thly	Actu	al Quantities o	of C&D Wastes	Generated M	onthly
		Hard Rock									
Month	Total	and Large		Reused in				Paper/			Others, e.g.
Month	Quantity	Broken	Reused in	other	Disposed as	Imported		cardboard		Chemical	general
	Generated	Concrete	the Contract	Projects	Public Fill	Fill	Metals	packaging	Plastics	Waste	refuse
	(in '000m ³)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m3)					
Jan	0.836	0.000	0.000	0.000	0.836	0.301	21.25	0.000	0.002	0.000	0.006
Feb	0.911	0.000	0.000	0.000	0.911	0.376	39.35	0.000	0.000	0.000	0.007
Mar	0.954	0.000	0.000	0.000	0.954	0.202	0.00	0.000	0.003	0.000	0.016
Apr	0.550	0.000	0.000	0.046	0.504	0.000	0.00	0.000	0.008	0.000	0.009
May	1.368	0.000	0.000	0.149	1.220	0.081	0.00	0.000	0.008	0.000	0.012
Jun	0.670	0.000	0.000	0.074	0.596	0.000	0.00	0.010	0.000	0.000	0.012
Sub-total	5.290	0.000	0.000	0.269	5.021	0.961	60.60	0.010	0.020	0.000	0.062
Jul	2.818	0.000	0.000	0.058	2.760	0.000	0.00	0.000	0.010	0.000	0.011
Aug	5.061	0.000	0.000	0.000	5.061	0.021	27.13	0.013	0.014	0.000	0.010
Sep	4.093	0.000	0.000	0.000	4.093	0.152	38.40	0.000	0.000	0.000	0.009
Oct	1.413	0.000	0.000	0.064	1.349	0.023	0.000	0.006	0.008	0.000	0.014
Nov											
Dec											
Total	18.675	0.000	0.000	0.391	18.284	1.158	126.13	0.029	0.052	0.000	0.107

Notes:

- 1. Assume the density of soil fill and special waste (i.e. sediment from DSD sedimentation tank) is 2 ton/m3.
- 2. Assume the density of rock and broken concrete is 2.5 ton/m3
- 3. Assume the density of general refuse is 0.9 ton/m3
- 4. Density of waste oil is assued to be 0.8 kg/L. Chemical waste includes waste oil.
- 5. The inert C&D materials except slurry and bentonite are disposed at Tuen Mun 38
- 6. The slurry and bentonite are disposed at Tseung Kwun O 137
- 7. The non-inert C&D wastes, including general refuse & special waste (i.e. sediment from DSD sedimentation tank) are disposed at NENT

EM&A Monthly Reporting Template (cut-off at the end of each month)

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

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

Monthly Summary Waste Flow Table for 2021 (year)

		Actual Quantiti	es of Inert C&D	Materials Genera	ated 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	9.53 T	0	0	0	9.53 T	0	0	0	0	0	0
Feb	3.47T	0	0	0	3.47 T	0	0	0	0	0	0
Mar	14.79T	0	0	0	14.79T	0	0	0	0	0	0
Apr	7.21T	0	0	0	7.21T	0	0	0	0	0	0
May	11.34T	0	0	0	11.34T	0	0	0	0	0	0
June	328.08T	0	0	0	328.08T	0	0	0	0	0	0
Sub- total	374.42T	0	0	0	374.42T	0	0	0	0	0	0
July	579.34T	0	0	0	579.34T	0	0	0.131	0.007	0	0
Aug	64.14T	0	0	0	64.14T	0	0	0.11	0	0	6.13T
Sept	19.29T	0	0	0	19.29T	0	0	0	0	0	0
Oct	0	0	0	0	0	0	0	0	0	0	0
Nov											
Dec											_
Total	1037.19T	0	0	0	1037.19T	0	0	0.241	0.007	0	6.13T

1

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

Monthly Summary Waste Flow Table for 2021 (year)

	Actual Quantities of Inert C&D Materials Generated 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 2)	Chemical Waste	Others, e.g. general refuse	
	(in '000 kg)	(in '000 kg)	(in '000 kg)	(in '000 kg)	(in '000 kg)	(in '000 kg)	(in '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000 kg)	
Jan	230.16	0	0	0	230.16	0	0	0	0	0	1.54	
Feb	175.98	0	100	0	75.98	0	0	0	0	0	3.63	
Mar	11.98	0	0	0	11.98	0	0	0	0	0	1.35	
Apr	0	0	0	0	0	0	0	0	0	0	1.48	
May	0	0	0	0	0	0	0	0	0	0	3.25	
June	0	0	0	0	0	0	0	0	0	0	2.01	
Sub-total	418.12	0	100	0	318.12	0	0	0	0	0	13.26	
July	0	0	0	0	0	0	0	0	0	0	4.21	
Aug	0	0	0	0	0	0	0	0	0	0	1.09	
Sept	4.24	0	0	0	4.24	0	0	0	0	0	0	
Oct	0	0	0	0	0	0	0	0	0	0	0	
Nov												
Dec												
Total	422.36	0	100	0	322.36	0	0	0	0	0	18.56	

Appendix 6.1

Event and Action Plans



Event and Action Plan

Event and Action Plan for Construction Noise

F	Action								
Event	ET	IEC	ER	Contractor					
Action Level exceeded	1. Notify IEC and Contractor; 2. Carry out investigation; 3. Report the results of investigation to the IEC, ER and Contractor; 4. Discuss with the Contractor and formulate remedial measures; 5. Increase monitoring frequency to check mitigation effectiveness;	1. Review the analysed results submitted by the ET; 2. Review the proposed remedial measures by the Contractor and advise the ER accordingly; 3. Supervise the implementation of remedial measures.	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. In consolidation with the IEC, agree with the Contractor on the remedial measures to be implemented; 4. Supervise the implementation of remedial measures.	Submit noise mitigation proposals to IEC; Implement noise mitigation proposals.					
Limit Level exceeded	1. Identify source; 2. Inform IEC, ER, EPD and Contractor; 3. Repeat measurements to confirm findings; 4. Increase monitoring frequency; 5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented; 6. Inform IEC, ER and EPD the causes and actions taken for the exceedances; 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.	1. Discuss amongst ER, ET, and Contractor on the potential remedial actions; 2. Review Contractors remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly; 3. Supervise the implementation of remedial measures	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Require Contractor to propose remedial measures for the analysed noise problem; 4. Ensure remedial measures properly implemented; 5. If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated.	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC within 3 working days of notification; 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 abated.					

Event and Action Plan for Construction Dust Monitoring

Frant	Action								
Event	ET	IEC	ER	Contractor					
Action Level									
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.	Notify the Contractor.	Rectify any unacceptable practices. Amend working methods agreed with the ER as appropriate.					
Action level being exceeded by two or more consecutive sampling	1. Identify sources. 2. Inform the IEC and ER. 3. Advise the ER on the effectiveness of the proposed remedial measures; 4. Repeat measurements to confirm findings. 5. Increase monitoring frequency to daily. 6. Discuss with the IEC, ER and Contractor on remedial action required. 7. If exceedance continues, arrange meeting with the IEC, Contractor and ER. 8. If exceedance stops, cease additional monitoring.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET and Contractor on possible remedial measures; 4. Advise the ET on the effectiveness of the proposed remedial measures; 5. Supervise Implementation of remedial measures.	1. Confirm receipt of notification of exceedance in writing; 2. Notify Contractor; 3. Ensure remedial measures properly implemented.	1. Submit proposals for remedial actions to IEC within three working days of notification; 2. Implement the agreed proposals; 3. Amend proposal if appropriate.					
Limit Level	g.								
Limit level being exceeded by one sampling	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	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET and Contractor on possible remedial measures; 4. Advise the ER on the effectiveness of the proposed remedial measures; 5. Supervise implementation of remedial measures.	1. Confirm receipt of notification of exceedance in writing; 2. Notify Contractor; 3. Ensure remedial measures properly implemented.	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC within three working days of notification; 3. Implement the agreed proposals; 4. Amend proposal if appropriate.					



Lam Environmental Services Limited

F 4		Actio	on	
Event	ET	IEC	ER	Contractor
Limit level being exceeded by two or more consecutive sampling	ER informed of the results. 1. Notify IEC, ER, Contractor and EPD; 2. Identify source; 3. Repeat measurement to confirm findings; 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 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.	1. Discuss amongst ER, ET, and Contractor on the potential remedial actions; 2. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly; 3. Supervise the implementation of remedial measures.	1. Confirm receipt of notification of exceedance in writing; 2. Notify Contractor; 3. In consolidation with the 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 instruct the Contractor to stop that portion of work until the exceedance is abated.	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC within three working days of notification; 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 abated.

Appendix 6.2

Summary of Notification of Exceedance



Lam Environmental Services Limited

Summary for Notification of Exceedance

Reporting Month: October

Ref No.	Date	Location	Parameters (Unit)	Measured	Action Level	Limit Level	Follow-up Action
-	-	-	-	-	-	-	-

Ref. No.	Date	Time	Location	Construction Noise Level	Parameter	Action Level	Limit Level	Follow-up action
-	-	-	-	-	-	-	-	-

Appendix 8.1

Complaint Log



Appendix 8.1 Environmental Complaints Log

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					Muddy water was suspected to be discharged from the expansion site of SWHSTP to Shek Sheung River, manholes and foul drains nearby	
					The investigation and mitigation measures included	
					- Employed suction truck and dump truck to clear the silt and mud at Shek Sheung River	
					- Arranged to repair the wastewater treatment system	
1	18 March 2020	EPD	Expansion Site of SWHSTP (Portion C)	Water contamination	- Installed additional sedimentation tanks and wastewater treatment system to increase the on-site treatment capacity	Closed
					- Clean the slurry sediment released from the outlet regularly by suction trucks	
					- Avoid damage of underground drains and pipes caused by existing construction works	
					- Avoid illegal discharge from the Site into foul drains and manholes	
					Significant odour nuisance was suspected to be emitted from the construction activities of SWHEPP	
					The investigation and mitigation measures included	
					Ensured only PMEs with valid NRMM label were used on-site	
	40.5				- Conducted regular visual checking against emission quality of exhaust pipe of equipment by using the Ringlemann Chart	
2	19 February 2021	EPD	SWHEPP	Odour nuisance	- Used ULSD for diesel-powered equipment	Closed
					- Provided water spraying and water sprinklers system for haul road access and demolition works	
					- Used battery powered solution to provide power to the tower crane	
					- Provided cover for all rubbish bins on-site	
					- Separated general refuse from construction waste	



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
3	9 August 2021	EPD	SWHEPP	Air Quality	Air nuisance was suspected to be originated from the construction activities of SWHEPP The investigation and mitigation measures included - Ensured only PMEs with valid NRMM label were used on-site - Conducted regular visual checking against emission quality of exhaust pipe of equipment by using the Ringlemann Chart - Used ULSD for diesel-powered equipment - Used battery powered solution to provide power to	Closed
					the tower crane - Carried out plant maintenance in a timely manner	

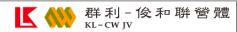
Appendix 9.1

Construction Programme of Individual Contracts

Status Date: 20 Jul21

Contract No.: DC/2018/06
Contract Title: Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1
- Civil Works for Sludge Treatment Facilities and 132kV Primary Substation

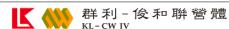
<u>Updated Programme (Status Date: 31/07/2021)</u>

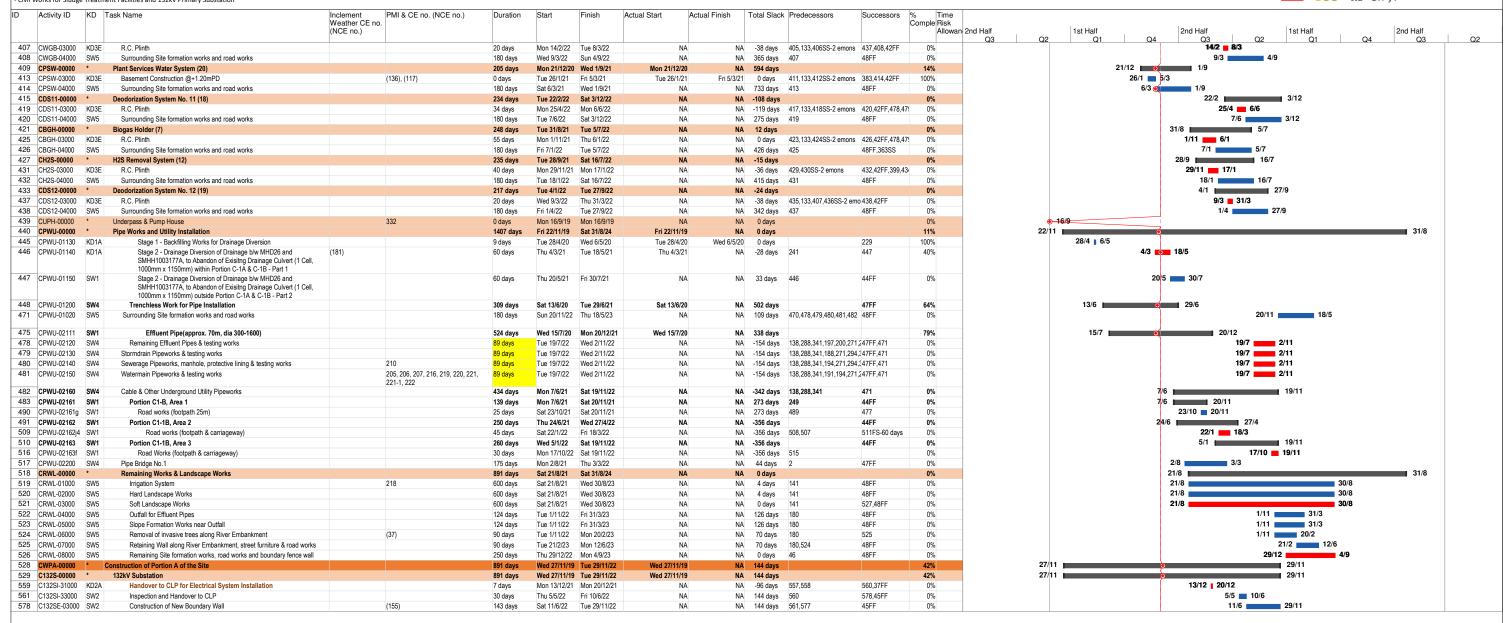


Activity ID	KD Ta	ask Name	Inclement Weather CE n	PMI & CE no. (NCE no.)	Duration	Start	Finish	Actual Start Ac	tual Finish	Total Slack	Predecessors	Successors %	Time mple Risk		
			(NCE no.)											2nd Half 1st Half Q3 Q2 Q1 Q4	2nd Half
D-00000		anned Completion - Key Date (cal. day)			1238 days		Tue 3/9/24	NA		-55 days			0%	15/-	4 3/9
KD-00000 KD-01000	KD1A	Planned Completion - Key Dates KD1A			440 days 0 days	Wed 5/5/21 Wed 5/5/21		NA NA		-21 days -17 days	250FF		0%	5	19/7 ♦ 5/5
KD-02000	KD2A	KD2A			0 days	Mon 20/12/2		NA NA	NA		556FF,559FF		0%		♦ 20/12
KD-03000	KD3A	KD3A			0 days	Sat 5/3/22	Sat 5/3/22	NA	NA		272FF		0%		♦ 5/3 • 5/9
PKD-04000 PKD-05000	KD3B KD3C	KD3B KD3C			0 days 0 days	Sat 5/3/22 Tue 19/7/22	Sat 5/3/22 Tue 19/7/22	NA NA	NA NA	-99 days -188 days	295FF 315FF		0% 0%		♦ 5/3♦ 19/7
PKD-06000	KD3D	KD3D			0 days	Fri 31/12/21		NA NA	NA NA	-118 days			0%		♦ 31/12
PKD-07000	KD3E	KD3E			0 days	Mon 6/6/22	Mon 6/6/22	NA	NA		362FF,369FF,376FF,383F	-1	0%		♦ 6/6
PCD-00000		Planned Completion - Section of the Works (cal. day)			522 days	Sat 19/11/22		NA		-356 days			0%		19/11 3/9
PCD-01000	SW1	Section 1 of Works			0 days	Sat 19/11/22	Sat 19/11/22	NA	NA	-356 days	447FF,483FF,491FF,510F	-1	0%		♦ 19/11
PCD-02000	SW2	Section 2 of Works			0 days	Tue 29/11/22	Tue 29/11/22	NA	NA	144 days	561FF,578FF		0%		♦ 29/11
PCD-03000	SW3	Section 3 of Works			0 days		2 Wed 28/12/22	NA NA	NA		171FF,317FF,331FF,349F		0%		♦ 28/12 • 00/44
PCD-04000 PCD-05000	SW4 SW5	Section 4 of Works Section 5 of Works			0 days 0 days	Mon 4/9/23	2 Wed 23/11/22 Mon 4/9/23	NA NA	NA NA	-172 days 0 days	390FF,396FF,401FF,448F 252FF,277FF,299FF,319F		0% 0%		♦ 23/11 ♦ 4/9
PCD-06000	DLP	Defect Liability Period			365 days	Tue 5/9/23	Tue 3/9/24	NA NA	NA NA		48	140,00	0%		♦ 3/9
IWKD1A-0102		Delay and Disruption of Works for the month of Mar 2021	(181)		2 days	Mon 7/6/21	Tue 8/6/21	NA	NA	-43 days	53		0%		7/6 8/6
IWKD2A-0102		Delay and Disruption of Works for the month of Mar 2021	(181)		2 days		1 Thu 21/10/21	NA NA	NA	, .	59		0%		20/10 21/10
IWKD3A-0102 IWKD3B-0102		Delay and Disruption of Works for the month of Mar 2021 Delay and Disruption of Works for the month of Mar 2021	(181) (181)		2 days 2 days	Tue 11/1/22 Fri 17/12/21		NA NA	NA NA		71		0% 0%		11/1 12/1 17/12 18/12
IWKD3C-0102		Delay and Disruption of Works for the month of Mar 2021	(181)		2 days	Wed 12/1/22		NA NA	NA NA	-37 days	76		0%		12/1 13/1
IWKD3D-0102		Delay and Disruption of Works for the month of Mar 2021	(181)		2 days	Fri 24/9/21	Sat 25/9/21	NA	NA	-37 days	81		0%		24/9 25/9
IWKD3E-0102		Delay and Disruption of Works for the month of Mar 2021	(181)		2 days	Thu 31/3/22		NA	NA NA	-37 days	86		0%		31/3 1/4
IWSW1-01020 IWSW2-01020		Delay and Disruption of Works for the month of Mar 2021 Delay and Disruption of Works for the month of Mar 2021	(181) (181)		2 days 2 days	Mon 1/11/21 Sat 22/7/23		NA NA	NA NA	-43 days -43 days	91		0% 0%		1/11 2/11 22/7 24/7
IWSW3-01020		Delay and Disruption of Works for the month of Mar 2021 Delay and Disruption of Works for the month of Mar 2021	(181)		2 days	Thu 26/1/23		NA NA	NA NA	-43 days	103		0%		26/1 27/1 26/1 27/1
IWSW4-01010		Delay and Disruption of Works before Mar 2021	257, (69), (92),		33 days	Fri 13/5/22		NA NA	NA		113	110	0%		13/5 21/6
IWSW5-01020	SWE	Delay and Disruption of Works for the month of Mar 2021	(112), (165) (181)		2 days	Tue 21/E/24	Wed 22/5/24	NA	N/A	-43 days	115		0%		21/5 22/5
CWPC-00000		onstruction Works of Portion C of the Site	(101)		2 days 1463 days	Mon 16/9/19		Mon 16/9/19		-43 days	110		18%	16/9	31/8
CUV1-00000		UV System No. 1 & Effluent Pumping Station No. 1 (1)			787 days		Mon 16/5/22	Mon 16/9/19		389 days			61%	16/9	16/5
CUV1-09041	KD1A	Walls, Slabs and staircase Construction @+7.4mPD to 16.4mf	D	(108), (146), (148), (179), (182)	35 days	Sat 20/3/21	Wed 5/5/21	Sat 20/3/21	NA	-17 days	244	250,251,249	0%	20/3	5/5
CUV1-10000	KD1A	[Additional SP1-3 puddle (DN100 x 2 & DN80) Construction of Switch room			20 days	Tue 23/3/21	Sun 11/4/21	Tue 23/3/21	NΔ	3 days			50%	22/2	11/4
CUV1-11000	KD1A KD1A	Allow access to Contarctor DE/2018/03 for E&M Installation			0 days	Wed 5/5/21	Wed 5/5/21	NA	NA NA		247	36FF	0%	23/3	♦ 5/5
CUV1-12000	SW1	ABWF Works & BS Works & Apply Internal Anti-corrosion Protective	ining	(95)	120 days	Tue 11/5/21	Sat 2/10/21	NA	NA	-20 days	208,135,247	252,44FF	0%	1	1/5 2/10
CUV1-13000		Surrounding Site formation works and road works			180 days	Mon 4/10/21		NA		389 days	251	48FF	0%		4/10 16/5
CSDC-00000		Sludge Digesters and Distribution Chamber (4)			916 days	Sat 7/12/19		Sat 7/12/19		191 days	200	070 075 072 074	36%	7/12	20/12 5/3
CSDC-11050 CSDC-12000		Construction of Roof Slab Allow access to Contarctor DE/2018/03 for E&M Installation			60 days 0 days	Mon 20/12/2 Sat 5/3/22	1 Sat 5/3/22 Sat 5/3/22	NA NA	NA NA		269 270	272,275,273,274, 38FF	0% 0%		\$ 5/3
CSDC-15000		ABWF Works & BS Works		(173)	105 days	Mon 7/3/22	Fri 15/7/22	NA NA	NA		208,135,270	277	0%		7/3 15/7
CSDC-15500	SW4	Surrounding sewerage, utility and process pipe works		,	124 days	Sun 6/3/22	Thu 7/7/22	NA	NA	-70 days	270	47FF	0%		6/3 7/7
CSDC-16000	SW5	Surrounding Site formation works and road works			180 days	Sat 16/7/22		NA		236 days	275	48FF	0%		16/7 11/1
CSDB-00000	*	Sludge Dewatering Building (2)			875 days	Tue 26/11/19		Tue 26/11/19		242 days	202	416 205 207 200	39%		25/1 5/3
CSDB-11040 CSDB-12000	KD3B	Roof Construction @ +25.65mPD Allow access to Contarctor DE/2018/03 for E&M Installation			32 days 0 days	Tue 25/1/22 Sat 5/3/22	Sat 5/3/22 Sat 5/3/22	NA NA	NA NA	-119 days	293 294	416,295,387,298, 39FF	0% 0%		25/1 5/3 ♦ 5/3
CSDB-12000 CSDB-14000		ABWF Works & BS Works & Apply Internal Anti-corrosion Protective	ining	(95), (173)	164 days	Mon 7/3/22	Fri 23/9/22	NA	NA		290,208,135	299	0%		7/3 23/9
CSDB-14500	SW4	Surrounding sewerage, utility and process pipe works			153 days	Mon 7/3/22	Fri 9/9/22	NA	NA	-		47FF	0%		7/3 9/9
CSDB-15000	SW5	Surrounding Site formation works and road works			180 days	Sat 24/9/22		NA T. 404044			297	48FF	0%	10/10	24/9 22/3
CHPB-00000 CHPB-08000	* KD3C	Combined Heat Power Building (3) R.C. Structure			1046 days	Tue 10/12/19		Tue 10/12/19		59 days	205,206,133,307,204,308	S 316 317 245	13%	10/12	26/6
CHPB-08000 CHPB-09000	KD3C	Allow access to Contarctor DE/2018/03 for E&M Installation			263 days 1 day	Thu 26/8/21 Tue 19/7/22		NA NA	NA NA		205,206,133,307,204,308 309,314	8316,317,315 40FF	0% 10 0%		19/7 19/7
CHPB-11000		ABWF Works & BS Works		(95), (173)	135 days	Tue 19/7/22		NA	NA		309,208,135	319,46FF	0%		19/7 28/12
CHPB-11500		Surrounding sewerage, utility and process pipe works			107 days	Tue 19/7/22		NA		-172 days		47FF	0%		19/7 23/11
CHPB-12000		Surrounding Site formation works and road works			180 days		Mon 26/6/23	NA .		70 days	317	48FF	0%	45.44	29/12 26/6
CSPS-00000 CSPS-09000		Sewage Pumping Station (9) R.C. Structure & waterproofing works	(165), (181)	(63)	821 days 230 days	Fri 15/11/19 Tue 26/1/21		Fri 15/11/19 Tue 26/1/21	NA NA	305 days 50 days	328,133,204,205,206,329	S331 42FF 365SS-	16% 0%	15/11	5/11
CSPS-10000		ABWF Works & BS Works & Apply Internal Anti-corrosion Protective		(00)	90 days	Sat 6/11/21		NA			208,135,134,330	333,46FF	0% 3		6/11 25/2
CSPS-10500	SW4	Surrounding sewerage, utility and process pipe works			120 days	Sat 6/11/21	Fri 1/4/22	NA	NA	191 days	330	47FF	0%		6/11 1/4
SPS-11000		Surrounding Site formation works and road works			180 days	Sat 26/2/22		NA T. 044040		376 days	331	48FF	0%	0,40	26/2 24/8
CWS2-00000 CWS2-08030		Workshop No. 2 (5) Roof Construction @+19.00mPD			40 days		Sat 17/12/22 Fri 31/12/21	Tue 24/12/19 NA		209 days -118 days	345	348,349,347,404,	14% 0%	24/12	13/11 31/12
CWS2-09000		Allow access to Contarctor DE/2018/03 for E&M Installation			0 days	Fri 31/12/21		NA NA		-118 days		41FF	0%		♦ 31/12
CWS2-11000		ABWF Works & BS Works		(95), (173)	135 days	Mon 3/1/22		NA	NA		208,135,346	351,46FF	0%		3/1 20/6
CWS2-11500		Surrounding sewerage, utility and process pipe works			125 days	Mon 3/1/22		NA		140 days		47FF	0%		3/1 8/6
CWS2-12000 CTHP-00000		Surrounding Site formation works and road works Thermal Hydrolysis Pretreatment (6)			180 days		Sat 17/12/22	NA Thu 19/12/19		261 days 348 days	349	48FF	0% 35%	19/12	21/6 17/12
THP-00000		R.C. Plinth	(165), (181)	225, (115)	749 days 0 days	Mon 2/11/20	Tue 5/7/22 Sat 28/11/20	Mon 2/11/20	NA Sat 28/11/20	•	360,265,361SS-2 emons	363.42FF	35% 100%	19/12	
CTHP-10000		Surrounding Site formation works and road works	(100), (101)		180 days	Fri 7/1/22	Tue 5/7/22	NA		426 days		48FF	0%	20,1	7/1 5/7
CFCD-00000		Ferric Chloride Dosing Facilities (10)			377 days	Wed 11/8/21	Wed 16/11/22	NA	NA	-30 days			0%		11/8 16/11
CFCD-04000		Steel Roof Structure (On-site Fabrication)			65 days	Mon 3/1/22		NA NA	NA NA		368	370,42FF	0%		3/1 22/3
CFCD-05000 CFCD-06000		ABWF Works & BS Works Surrounding Site formation works and road works			45 days 180 days	Wed 23/3/22 Sat 21/5/22	Fri 20/5/22 Wed 16/11/22	NA NA	NA NA	160 days 292 days	369,208,135 370	371,46FF 48FF	0% 0%		23/3 20/5 21/5 16/11
CFHB-00000		Fire Hydrant and Booster Pump Room (16)			302 days	Fri 31/12/21		NA NA		-83 days	5.0	.511	0%		31/12 7/1
CFHB-03000	KD3E	R.C. Structure & waterproofing works			60 days	Wed 2/3/22	Tue 17/5/22	NA	NA	•	374	377,42FF,478,479	0% 5		2/3 17/5
CFHB-04000		ABWF Works & BS Works			45 days	Wed 18/5/22		NA			376,208,135	378,46FF	0%		18/5 11/7
CFHB-05000 CTFS-00000		Surrounding Site formation works and road works Transformer and Switchroom (15)			180 days	Tue 12/7/22 Tue 11/1/22	Sat 7/1/23 Wed 22/2/23	NA NA		240 days -101 days	3//	48FF	0% 0%		12/7 7/1
TFS-03000		R.C. Structure			330 days 60 days	Mon 14/3/22		NA NA			381,133,413,204,382SS-2	384,42FF.478.47	0% 5		14/3 28/5
CTFS-04000	SW3	ABWF Works & BS Works		(95)	75 days	Mon 30/5/22		NA NA	NA NA		383,208,135	385,46FF	0%		30/5 26/8
CTFS-05000	SW5	Surrounding Site formation works and road works			180 days	Sat 27/8/22	Wed 22/2/23	NA		194 days		48FF	0%		27/8 22/2
CWMC-00000		Water Meter Cabinet (11)		204	263 days	Sat 15/1/22		NA		9 days	200 000 405	204 4755	0%		15/1 4/12
CWMC-03000 CWMC-04000		ABWF Works & BS Works Surrounding Site formation works and road works			15 days	Fri 20/5/22 Wed 8/6/22	Tue 7/6/22 Sun 4/12/22	NA NA		-31 days 274 days	389,208,135	391,47FF 48FF	0% 0%		20/5 7/6 8/6 4/12
CGH-00000		Guard House (14)			180 days 272 days		Sun 4/12/22 Tue 25/10/22	NA NA		274 days 29 days	330	TOFF	0% 0%		23/11 25/10
CGH-03000		ABWF Works & BS Works		(95)	45 days	Thu 3/3/22	Thu 28/4/22	NA NA	NA NA		395,208,135	397,47FF	0%		3/3 28/4
GH-04000	SW5	Surrounding Site formation works and road works			180 days	Fri 29/4/22	Tue 25/10/22	NA		314 days		48FF	0%		29/4 25/10
CCPS-00000		THP Coolers Pumping Station (21)			258 days	Fri 7/1/22	Sun 20/11/22	NA		-11 days	000 400 001 45555	100 1755	0%		7/1 20/11
CCPS-02000		R.C. Structure			60 days	Wed 9/3/22		NA NA		-20 days 288 days			0% 5 0%		9/3 24/5 25/5 20/11
CCPS-03000		Surrounding Site formation works and road works Waste Gas Buner (8)			180 days 213 days		Sun 20/11/22 Sun 4/9/22	NA NA		-24 days	TU I	48FF	0%		14/12 4/9
WGB-00000															

Contract Title: Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - Civil Works for Sludge Treatment Facilities and 132kV Primary Substation

Updated Programme (Status Date: 31/07/2021)





ontract No. DC/2018/07	a Plant - Main Works Stage 1								Revised	Works Programme (Status Date: 31/07/2021)							
D Activity ID Key Date	g Plant - Main Works Stage 1 Task Name	Inclement Weather CE no. PMI & CE no. (NCE no.)	. Baseline Duration	Baseline Start	Baseline Finish	Duration	Start	Finish /	Actual Start A	ctual Finish Predecessors	Successors	Total Slack Risk % Complete Allowance		2020		2022 .	2024 .
CD-1000	Contract Dates	(NCE no.)	1585 days	Mon 18/11/19	Thu 27/3/25	1651.5 days	Mon 18/11/19	Fri 13/6/25	Mon 18/11/19	NA NA			0%	1 Qtr 3 Qtr 1	Otr 3	Otr 1	Otr 1 Otr 3 Otr 1 Otr :
CD-1010 CAD-1000	Starting Date Access Dates (cal. day)		0 days 310 days	Mon 18/11/19 Mon 18/11/19	Mon 18/11/19 Wed 23/9/20	0 days	Mon 18/11/19 Mon 18/11/19	Mon 18/11/19 Wed 2/9/20	Mon 18/11/19 Mon 18/11/19	Mon 18/11/19 Wed 2/9/20	8,9,13FS+290 days,14FS+311 da		00% • 18/11			I I	
CAD-1010	Portion B-1 (Access Road AR3)		0 days	Mon 18/11/19	Mon 18/11/19	289 days 0 days	Fri 10/1/20	Fri 10/1/20	Fri 10/1/20	Fri 10/1/20 2	201		00% • 10/1	•	1		
CAD-1020	Portion B-1A (Area for the works for Sidestream Treatment Facilities by Others		0 days	Mon 18/11/19	Mon 18/11/19	0 days	Fri 10/1/20	Fri 10/1/20	Fri 10/1/20	Fri 10/1/20 2		0 days 10	00% • 10/1		- Ii - I		
CAD-1030	Portion B-2 (Inlet Works No.1)		0 days	Mon 18/11/19	Mon 18/11/19	0 days	Fri 10/1/20	Fri 10/1/20	Fri 10/1/20	Fri 10/1/20 2	295,306	0 days 10	00% • 10/1			 	
CAD-1040	Portion B-2A (Area for the pipe-jacking works by others)		0 days	Mon 18/11/19	Mon 18/11/19	0 days	Fri 10/1/20	Fri 10/1/20	Fri 10/1/20	Fri 10/1/20 2	335		00% ♦ 10/1		1		
CAD-1050 CAD-1060	Portion B-3 (Primary Sedimentation Tanks No. 1-4) Portion B-4 (Bioreactor No. 2A & 2B)		0 days 0 days	Mon 18/11/19 Mon 18/11/19	Mon 18/11/19 Mon 18/11/19	0 days 0 days	Mon 18/11/19 Mon 18/11/19	Mon 18/11/19 Mon 18/11/19	Mon 18/11/19 Mon 18/11/19	Mon 18/11/19 2 Mon 18/11/19 2	353		00%		i i	i	
CAD-1070	Portion B-5 (Membrane Facilities Building No.2)		0 days	Mon 18/11/19	Mon 18/11/19	0 days	Tue 17/3/20	Tue 17/3/20	Tue 17/3/20	Tue 17/3/20 2	402,419,425 434		00%	17/3			
CAD-1080 CAD-1090	Portion B-6 (SAS Pumping Station) Portion B-7 (Ancillary structures)		0 days 0 days	Mon 18/11/19 Mon 18/11/19	Mon 18/11/19 Mon 18/11/19	0 days 0 days	Mon 18/11/19 Mon 18/11/19	Mon 18/11/19 Mon 18/11/19	Mon 18/11/19 Mon 18/11/19	Mon 18/11/19 2 Mon 18/11/19 2	434		00%		1		
B CAD-1100	Portion B-7A (Alternation works for existing Power House)		0 days	Wed 2/9/20	Wed 2/9/20	0 days	Wed 2/9/20	Wed 2/9/20	Wed 2/9/20	Wed 2/9/20 2FS+290 days	539FS-1 day,29FS+179 days	0 days 10	00%	◆ 2/9	i i		
4 CAD-1110 5 CAD-1020	Portion B-8 (Alternation for existing Membrane Facilities Building No.1) Portion B-8A (Alternation of air supply main for existing Air Blower House		0 days 0 days	Tue 22/9/20 Mon 18/11/19	Tue 22/9/20 Mon 18/11/19	0 days 0 days	Wed 26/8/20 Mon 18/11/19	Wed 26/8/20 Mon 18/11/19	Wed 26/8/20 Mon 18/11/19	Wed 26/8/20 2FS+311 days Mon 18/11/19 2	541FS-1 day 532		00% 00% 18/11	◆ 26/8	1		
	No.2)														i i		
G CAD-1130 7 CAD-1140	Portion B-9 (remainder works in Zone B) Portion B-9A (Area for the pipe-jacking works by others)		0 days 0 days	Mon 18/11/19 Mon 18/11/19	Mon 18/11/19 Mon 18/11/19	0 days 0 days	Mon 18/11/19 Mon 18/11/19	Mon 18/11/19 Mon 18/11/19	Mon 18/11/19 Mon 18/11/19	Mon 18/11/19 2 Mon 18/11/19 2	542,556		00% • 18/11 00% • 18/11		1	 	
B CAD-1150	Portion B-9B (Area for underground pipework modification and connection works by others)		0 days	Mon 18/11/19	Mon 18/11/19	0 days	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19 2			00% 🔷 18/11		1 1	1	
CAD-1160	Portion B-9C (Area for the works for pipeworks)		0 days	Wed 22/7/20	Wed 22/7/20	0 days	Fri 24/7/20	Fri 24/7/20	Fri 24/7/20	Fri 24/7/20 2FS+151 days		0 days 10	00%	♦ 24/7	i i	i	
CKD-1000	Key Dates (cal. day)		1440 days	Tue 19/11/19	Sat 28/10/23	1144 days	Fri 27/11/20	Mon 15/1/24	Fri 27/11/20	NA			99%				15/1
CKD-1010 CKD-1020	KD1A completion of AR3 in Portion B-1 (375 days after starting date) KD1B completion of utilities diversion for commencement of Inlet Works		300 days 360 days	Tue 19/11/19 Tue 19/11/19	Sun 13/9/20 Thu 12/11/20	0 days 1 day	Fri 27/11/20 Sat 30/1/21	Fri 27/11/20 Sat 30/1/21	Fri 27/11/20 Sat 30/1/21	Fri 27/11/20 2FS+376 days Sat 30/1/21 2FS+439.5 days			00%	♦ 27/11	! !	1	
	No.1 in Portion B-2 (438.5 days after starting date)		300 days		1110 12/1//20	1 day	Odt 30/1/21	Odt 50/1/21	Odt 30/1/21				00%	1	i i	I I	
3 CKD-1030	KD1C completion of civil and structural works of Inlet Works No.1 in Portion B-2 (1068.5 days after starting date)	n	990 days	Tue 19/11/19	Thu 4/8/22	0 days	Sat 22/10/22	Sat 22/10/22	NA	NA 2FS+1069.5 days	67	1056.5 days	0%		1	◆ 22/10	
4 CKD-1040	KD1D completion of civil and structural works of Primary Sedimentation		1190 days	Tue 19/11/19	Mon 20/2/23	0 days	Mon 20/2/23	Mon 20/2/23	NA	NA 2FS+1191 days	70	947 days	0%		i i	♦ 20/2	
5 CKD-1050	Tanks 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	Sun 1/1/23	0 days	Sun 1/1/23	Sun 1/1/23	NA.	NA 2FS+1141 days		997 days	0%			♦ 1/1	
	(1140days after starting date)														1		
6 CKD-1060	KD1F completion of civil and structural works of MFB from B2 floor to 1st floor level in Portion B-5 (855.5 days after starting date)		800 days	Tue 19/11/19	Wed 26/1/22	0 days	Wed 23/3/22	Wed 23/3/22	NA	NA 2FS+856.5 days	74	1273.5 days	0%		i i	◆ 23/3	
7 CKD-1070	KD1G completion of civil and structural works of MFB in Portion B-5 (1002.	5	950 days	Tue 19/11/19	Sat 25/6/22	0 days	Wed 17/8/22	Wed 17/8/22	NA	NA 2FS+1003.5 days	78	1126.5 days	0%			♦ 17/8	
8 CKD-1080	days after starting date) KD1H completion of civil and structural works of SAS Pumping Station in		630 days	Tue 19/11/19	Mon 9/8/21	0 days	Fri 22/10/21	Fri 22/10/21	NA	NA 2FS+704.5 days	82	1425.5 days	0%		♦ 22/1	0	
	Portion B-6 (703.5 days after starting date)														22/	- -	
9 CKD-1090	KD1I completion alternation works for existing Power House in Portion B-7. (179days after access date of B-7A)	A	150 days	Fri 4/9/20	Sun 31/1/21	1 day	Mon 1/3/21	Mon 1/3/21	Mon 1/3/21	Mon 1/3/21 13FS+179 days		0 days 10	00%	1	1 1		
0 CKD-1100	KD1J completion of auxiliary facilities in Portion B-7 (811.5 days after		800 days	Tue 19/11/19	Wed 26/1/22	0 days	Mon 7/2/22	Mon 7/2/22	NA	NA 2FS+812.5 days	86	1317.5 days	0%		- [i - i	♦ 7/2	
1 CKD-1110	starting date) KD2A completion of effluent pipes to UV system and connection to its		495 days	Tue 19/11/19	Sat 27/3/21	0 days	Fri 18/6/21	Fri 18/6/21	Fri 18/6/21	Fri 18/6/21 2FS+578.5 days	93	0 days 11	00%		1 8/6		
	downstream in Portion B-9 (577.5 days after starting date)					o days					33						
2 CKD-1120	KD2B completion of air supply main alternation to existing air blower house No.2 in Portion B-8A (494 days after starting date)		420 days	Tue 19/11/19	Mon 11/1/21	0 days	Fri 26/3/21	Fri 26/3/21	Fri 26/3/21	Fri 26/3/21 2FS+495 days		0 days 10	00%	◆ 26/3	'	İ	
3 CKD-1130	KD3A completion of all utilities and road works (1519 days after starting		1440 days	Tue 19/11/19	Sat 28/10/23	0 days	Mon 15/1/24	Mon 15/1/24	NA	NA 2FS+1520 days	99	606 days	0%		- 1	<u> </u>	15/1
4 CCD-1000	date) Completion Date (cal. Day)		1956 days	Tue 19/11/19	Thu 27/3/25	1056 days	Sat 23/7/22	Fri 13/6/25	Sat 23/7/22	NA		50.5 days	0%		- Ii - I		→ 13/6
5 CCD-1010	Section 1 of the Works (1,543.5 after starting date)		1460 days	Tue 19/11/19	Fri 17/11/23	0 days	Fri 9/2/24	Fri 9/2/24	NA	NA 2FS+1544.5 days	105	0 days	0%		1 1	•	♦ 9/2
6 CCD-1020 7 CCD-1030	Section 2 of the Works (977.5 after starting date) Section 3 of the Works (1,667.5 after starting date)		900 days 1590 days	Tue 19/11/19 Tue 19/11/19	Fri 6/5/22 Tue 26/3/24	0 days 0 days	Sat 23/7/22 Wed 12/6/24	Sat 23/7/22 Wed 12/6/24	NA Wed 12/6/24	NA 2FS+978.5 days NA 2FS+1668.5 days	111 39FS+1 day,117,38FS+1 day	0 days -77.5 days	0% 99%		1 1	→ 23/7	
8 CCD-1040	Defects Liability Period		365 days	Wed 27/3/24	Thu 27/3/25	365 days	Thu 13/6/24	Fri 13/6/25	NA NA	NA 37FS+1 day	331 341 day,117,301 341 day	0 days	0%		- Ii - I		
9 CCD-1050 0 PD-1000 * F	Landscape Establishment Works Planned Completion		365 days 1686 days	Wed 27/3/24 Fri 14/8/20	Thu 27/3/25 Thu 27/3/25	365 days 1820 days	Thu 13/6/24 Wed 30/9/20	Fri 13/6/25 Wed 24/9/25	NA Wed 30/9/20	NA 37FS+1 day		103.5 days 0 days	0%				
1 PCD-1000 *	Planned Completion - Key Dates (cal. day)		1170 days	Fri 14/8/20	Sat 28/10/23	1321 days	Wed 30/9/20 Wed 30/9/20	Mon 13/5/24	Wed 30/9/20	NA NA			99%				—
2 PKD-1010 KD1A	KD1A completion of AR3 in Portion B-1 (300days after starting date)		0 days	Sat 12/9/20	Sat 12/9/20	0 days	Wed 30/9/20	Wed 30/9/20		Wed 30/9/20 210FF			00%	→ 30/9	į į		
3 PCD-1020 KD1B	KD1B completion of utilities diversion for commencement of Inlet Works No.1 in Portion B-2 (360days after starting date)		0 days	Fri 14/8/20	Fri 14/8/20	0 days	Fri 22/1/21	Fri 22/1/21	Fri 22/1/21	Fri 22/1/21 286FF,291FF,273FF		0 days 10	00%	♦ 22/1		I I	
4 PCD-1030 KD1C	KD1C completion of civil and structural works of Inlet Works No.1 in Portio B-2 (990days after starting date)	n	0 days	Thu 4/8/22	Thu 4/8/22	0 days	Thu 1/12/22	Thu 1/12/22	NA	NA 330FF,322FF,248FF,294FF,212FF,250F	F	-40 days	0%		1 1	♦ 1/12	
5 PCD-1040 KD1D	KD1D completion of civil and structural works of Primary Sedimentation		0 days	Mon 20/2/23	Mon 20/2/23	0 days	Mon 20/2/23	Mon 20/2/23	NA	NA 349FF,348FF,351FF,333FF		0 days	0%		i i	♦ 20/2	
6 PCD-1050 KD1E	Tanks in Portion B-3 (1190days after starting date) KD1E completion of civil and structural works of Bioreactor in Portion B-4		0 days	Sat 31/12/22	Sat 31/12/22	0 days	Sat 22/4/23	Sat 22/4/23	NA	NA 391FF,397FF,393FF,396FF,392FF		-111 days	00/			A 22/4	
	(1,140days after starting date)		o days			0 days	3dt 22/4/23	3dl 22/4/23	INA	14A 351FF,357FF,350FF,352FF		-111 days	076		1 1	♦ 22/4	
7 PCD-1060 KD1F	KD1F completion of civil and structural works of MFB from B2 floor to 1st floor level in Portion B-5 (800days after starting date)		0 days	Tue 25/1/22	Tue 25/1/22	0 days	Thu 4/8/22	Thu 4/8/22	NA	NA 430FF		-135 days	0%		i i	◆ 4/8	
8 PCD-1070 KD1G	KD1G completion of civil and structural works of MFB in Portion B-5		0 days	Sat 25/6/22	Sat 25/6/22	0 days	Wed 28/12/22	Wed 28/12/22	NA	NA 431FF		-133 days	0%			◆ 28/12	
9 PCD-1080 KD1H	(950days 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	0 days	Sat 19/3/22	Sat 19/3/22	NA	NA 459FF,458FF		-148 days	0%		i i	♦ 19/3	
	Portion B-6 (630days after starting date)		o days			o days	Odt 13/0/22	Out 10/0/22	INO.				i		i i	V 13/5	
0 PCD-1090 KD1I	KD1I completion alternation works for existing Power House in Portion B-7. (150days after access date of B-7A)	A	0 days	Sat 30/1/21	Sat 30/1/21	1 day	Fri 29/1/21	Fri 29/1/21	Fri 29/1/21	Fri 29/1/21 539FF		0 days 10	00%	◆ 29/1	1		
1 PCD-1100 KD1J	KD1J completion of auxiliary facilities in Portion B-7 (800days after starting		0 days	Wed 26/1/22	Wed 26/1/22	0 days	Mon 13/6/22	Mon 13/6/22	NA	NA 496FF,495FF,521FF,520FF,513FF,512F	F	-126 days	0%		i i	♦ 13/6	
2 PCD-1110 KD2A	date) KD2A completion of effluent pipes to UV system and connection to its		0 days	Sat 27/3/21	Sat 27/3/21	0 days	Wed 4/8/21	Wed 4/8/21	NA	NA 545FF,543FF		-47 days	0%		4/8		
	downstream in Portion B-9 (495days after starting date)															1	
B PCD-1120 KD2B	KD2B completion of air supply main alternation to existing air blower house No.2 in Portion B-8A (420days after starting date)		0 days	Thu 3/9/20	Thu 3/9/20	1 day	Fri 26/3/21	Fri 26/3/21	Fri 26/3/21	Fri 26/3/21 532FF,536FF,537FF,538FF		0 days 10	00%	◆ 26/3	·	 	
PCD-1130 KD3A	KD3A completion of all utilities and road works (1440days after starting		0 days	Sat 28/10/23	Sat 28/10/23	0 days	Mon 13/5/24	Mon 13/5/24	NA	NA 555FF,557FF		-119 days	0%				♦ 13/5
5 PCD-1000 *	Planned Completion Date (cal. Day)		1056 days	Fri 6/5/22	Thu 27/3/25	1054 days	Sat 5/11/22	Wed 24/9/25	NA.	NA		-106 days	0%				
PCD-1010 SW1	Section 1 of the Works (1,460 after starting date)		0 days	Wed 23/8/23	Wed 23/8/23	0 days	Mon 27/11/23	Mon 27/11/23	NA	NA 522FF,514FF,477FF,504FF,488FF,460F		73 days	0%		-	♦ 2	•
7 PCD-1020 SW2 B PCD-1030 SW3	Section 2 of the Works (900 after starting date) Section 3 of the Works (1,590 after starting date)		0 days 0 days	Fri 6/5/22 Tue 26/3/24	Fri 6/5/22 Tue 26/3/24	0 days	Sat 5/11/22 Tue 24/9/24	Sat 5/11/22 Tue 24/9/24	NA NA	NA 549FF,399FF,433FF,352FF,334FF,550F NA 558FF,559FF,541FF,540FF	F	-106 days -105 days	0%			♦ 5/11	♦ 24/9
PCD-1040 DLP	Defects Liability Period		0 days	Thu 27/3/25	Thu 27/3/25	0 days 0 days	Wed 24/9/25	Wed 24/9/25	NA NA	NA 560FF,153FF		0 days	0%			1	•
0 PCD-1050	Landscape Establishment Works		0 days	Thu 27/3/25	Thu 27/3/25	0 days	Wed 24/9/25	Wed 24/9/25	NA Er: 40/6/24	NA 560FF			0%				•
1 ET-1000 2 ET1C-1000	Effects from Inclement Weather and Other Time Affected Events Effects to KD1C		0 days 0 days	NA NA	NA NA	1143 days 53 days	Fri 18/6/21 Sat 22/10/22	Sun 4/8/24 Wed 14/12/22	Fri 18/6/21	NA NA		416.5 days 1015.5 days	0%			H	
3 ET1C-1100	Inclement Weather to KD1C (cal. Day)		0 days	NA NA	NA	49 days	Wed 26/10/22	Wed 14/12/22 Wed 14/12/22	NA NA	NA NA			0%		- [i - i	Ħ	
4 ET1C-1110	Delay and Disruption of Works before June 2021		0 days	NA	NA	23 days	Wed 26/10/22	Fri 18/11/22	NA	NA 67	65	1015.5 days	0%			•	
ET1C-1120 ET1C-1200	Delay and Disruption of Works in June 2021 Other Events to KD1C (not all)		0 days	NA NA	NA NA	26 days 4 days	Fri 18/11/22 Sat 22/10/22	Wed 14/12/22 Wed 26/10/22	NA NA	NA 64 NA		1015.5 days 1015.5 days	0%			.=	
ET1C-1210	Special working arrangement due to COVID-19 in January 2020		0 days	NA	NA NA	4 days	Sat 22/10/22	Wed 26/10/22	NA	NA 23	64	1056.5 days	0%			• I	
ET1D-1000	Effects to KD1D		0 days?	NA NA	NA NA	26 days	Mon 20/2/23	Wed 22/3/23	NA	NA NA			0%		1	Ħ	
ET1D-1100 ET1D-1110	Inclement Weather to KD1D (cal. Day) Delay and Disruption of Works before June 2021		0 days? 0 days	NA NA	NA NA	26 days 0 days	Mon 20/2/23 Mon 20/2/23	Wed 22/3/23 Mon 20/2/23	NA NA	NA NA 24	71		0%		- Ji - Ji	→ 20/2	
ET1D-1110	Delay and Disruption of Works in June 2021		0 days	NA NA	NA NA	26 days	Tue 21/2/23	Wed 22/3/23	NA NA	NA 70		749 days	0%			20/2	
ET1F-1000	Effects to KD1F		0 days	NA	NA	49 days	Wed 23/3/22	Wed 11/5/22	NA	NA		1232.5 days	0%			—	
ET1F-1100	Inclement Weather to KD1F (cal. Day)		0 days	NA	NA	49 days	Wed 23/3/22	Wed 11/5/22	NA	NA		1232.5 days	0%		-	H	
ET1F-1110	Delay and Disruption of Works before June 2021		0 days	NA	NA	23 days	Wed 23/3/22	Fri 15/4/22	NA	NA 26	75	1232.5 days	0%		1 1	<u> </u>	
ET1F-1120 ET1G-1000	Delay and Disruption of Works in June 2021 Effects to KD1G		0 days	NA NA	NA NA	26 days	Fri 15/4/22 Wed 17/8/22	Wed 11/5/22 Wed 5/10/22	NA NA	NA 74		1232.5 days 1085.5 days	0%		- [i - i		
ET1G-1000 ET1G-1100	Inclement Weather to KD1G (cal. Day)		0 days 0 days	NA NA	NA NA	49 days 49 days	Wed 17/8/22 Wed 17/8/22	Wed 5/10/22 Wed 5/10/22	NA NA	NA NA		1085.5 days 1085.5 days	0%				
	Delay and Disruption of Works before June 2021		0 days	NA NA	NA	23 days	Wed 17/8/22	Fri 9/9/22	NA NA	NA 27	79	1085.5 days	0%		- Ji - Ji		
			0 days	NA	NA	26 days	Fri 9/9/22	Wed 5/10/22	NA	NA 78		1085.5 days	0%			-	
ET1G-1110	Delay and Disruption of Works in June 2021						Fri 22/10/21	Fri 10/12/21	NΔ	NA		1384.5 days	0%			i	
ET1G-1110 ET1G-1120 ET1H-1000	Effects to KD1H		0 days	NA	NA	49 days									1 4 4	the state of the s	
ET1G-1110 ET1G-1120 ET1H-1000 ET1H-1100	Effects to KD1H Inclement Weather to KD1H (cal. Day)		0 days	NA	NA NA	49 days	Fri 22/10/21	Fri 10/12/21	NA NA	NA	83	1384.5 days	0%		-		
B ET1G-1110 P ET1G-1120 ET1H-1000 ET1H-1110	Effects to KD1H Inclement Weather to KD1H (cal. Day) Delay and Disruption of Works before June 2021		0 days 0 days		NA NA NA	49 days 23 days			NA NA	NA NA 28	83	1384.5 days 1384.5 days	0% 0%		- 1	 	
778 ET1G-1100 778 ET1G-1110 779 ET1G-1120 800 ET1H-1000 81 ET1H-1100 82 ET1H-1110 83 ET1H-1120 84 ET1H-1000	Effects to KD1H Inclement Weather to KD1H (cal. Day)		0 days	NA NA	NA NA NA NA	49 days	Fri 22/10/21 Fri 22/10/21	Fri 10/12/21 Sun 14/11/21	NA	NA	83	1384.5 days 1384.5 days 1384.5 days	0%		1 1	H	

	Plant - Main Works Stage 1 Fask Name	Inclement PMI & CE no.	Baseline Duration	Baseline Start	Baseline Finish	Duration	Start	Finish A	ctual Start	Actual Finish Predecessors	Successors	Total Slack Risk %				
Date		CE no. (NCE no.)										Allowance	Ot	2020 tr 3	Otr 3	Otr 3 Otr 1 Otr 3 Otr 1
H-1100	Inclement Weather to KD1J (cal. Day)		0 days	NA	NA	49 days	Mon 7/2/22	Mon 28/3/22	NA	NA		1276.5 days	0%	, <u> </u>		<u> </u>
H-1110	Delay and Disruption of Works before June 2021		0 days	NA	NA	23 days	Mon 7/2/22	Wed 2/3/22	NA		87	1276.5 days	0%	i	i i =	i
I-1120	Delay and Disruption of Works in June 2021		0 days	NA	NA	26 days	Wed 2/3/22	Mon 28/3/22	NA	1 1 2 2		1276.5 days	0%			
1-1000 1-1100	Effects to KD2A Inclement Weather to KD2A (cal. Day)		0 days 0 days	NA NA	NA NA	53 days 49 days	Fri 18/6/21 Tue 22/6/21	Tue 10/8/21 Tue 10/8/21	Fri 18/6/21 Tue 22/6/21			1506.5 days 1506.5 days	24% 17%			
-1110	Delay and Disruption of Works before June 2021		0 days	NΔ	NΔ	23 days	Tue 22/6/21	Thu 15/7/21	Tue 22/6/21		91	1506.5 days	37%			1
-1110	Delay and Disruption of Works in June 2021		0 days	NA NA	NA NA	26 days	Thu 15/7/21	Tue 10/8/21	NA NA		0.	1506.5 days	0%	i		i
A-1200	Other Events to KD2A (not all)		0 days	NA	NA	4 days	Fri 18/6/21	Tue 22/6/21	Fri 18/6/21			0 days	100%	_	1	I I
-1210	Special working arrangement due to COVID-19 in January 2020		0 days	NA	NA	4 days	Fri 18/6/21	Tue 22/6/21	Fri 18/6/21		90	0 days	100%	i	i i	i
-1000	Effects to KD3A		0 days	NA	NA	53 days	Tue 16/1/24	Fri 8/3/24	NA			565 days	0%			—
-1100	Inclement Weather to KD3A (cal. Day)		0 days	NA	NA	49 days	Sat 20/1/24	Fri 8/3/24	NA	NA		565 days	0%	i	i	—
A-1110	Delay and Disruption of Works before June 2021		0 days	NA	NA	23 days	Sat 20/1/24	Sun 11/2/24	NA	NA 99	97	565 days	0%	I .		=
-1120	Delay and Disruption of Works in June 2021		0 days	NA	NA	26 days	Mon 12/2/24	Fri 8/3/24	NA	NA 96		565 days	0%			=
-1200	Other Events to KD3A (not all)		0 days	NA	NA	4 days	Tue 16/1/24	Fri 19/1/24	NA	NA NA		565 days	0%	1	I I	!
-1210	Special working arrangement due to COVID-19 in January 2020		0 days	NA	NA	4 days	Tue 16/1/24	Fri 19/1/24	NA		96	565 days	0%	I I		1
1000	Effects to Section 1 of the Works		0 days	NA	NA	53 days	Fri 9/2/24	Tue 2/4/24	NA	11		540.5 days	0%	I.	I I	
1100	Inclement Weather to Section 1 of the Works (cal. Day)		0 days	NA	NA	49 days	Tue 13/2/24	Tue 2/4/24	NA		100	540.5 days	0%			
1110	Delay and Disruption of Works before June 2021		0 days	NA NA	NA NA	23 days	Tue 13/2/24	Thu 7/3/24	NA NA		103	540.5 days	0%	i	i i	
-1120	Delay and Disruption of Works in June 2021 Other Events to Section 1 of the Works (not all)		0 days	NA NA	NA NA	26 days	Thu 7/3/24 Fri 9/2/24	Tue 2/4/24 Tue 13/2/24	NA NA	111111		540.5 days 540.5 days	0%	I I		-
1200 1210	Special working arrangement due to COVID-19 in January 2020		0 days	NA NA	NA NA	4 days	Fri 9/2/24	Tue 13/2/24	NA NA	1 ""1	102	540.5 days	0%	i	i i	i •
1000	Effects to Section 2 of the Works			NA NA	NA NA		Sat 23/7/22	Wed 14/9/22	NA NA	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	102	1106.5 days	0%	1	! ! 	· '
1100	Inclement Weather to Section 2 of the Works (cal. Day)		0 days 0 days	NA	NA NA	53 days 49 days	Sat 23/7/22 Wed 27/7/22	Wed 14/9/22 Wed 14/9/22	NA NA			1106.5 days 1106.5 days	0%	i		i
110	Delay and Disruption of Works before June 2021		0 days	NA	NA	23 days	Wed 27/7/22	Fri 19/8/22	NA	NA 111	109	1106.5 days	0%	1		I I
120	Delay and Disruption of Works in June 2021		0 days	NA	NA	26 days	Fri 19/8/22	Wed 14/9/22	NA NA			1106.5 days	0%	1		
200	Other Events to Section 2 of the Works (not all)		0 days	NA	NA	4 days	Sat 23/7/22	Wed 27/7/22	NA			1106.5 days	0%	!	! ! .	1
210	Special working arrangement due to COVID-19 in January 2020		0 days	NA	NA	4 days	Sat 23/7/22	Wed 27/7/22	NA		108	1106.5 days	0%			
000	Effects to Section 3 of the Works		0 days	NA	NA	53 days	Wed 12/6/24	Sun 4/8/24	NA			416.5 days	0%	i	i i	
100	Inclement Weather to Section 3 of the Works (cal. Day)		0 days	NA	NA	49 days	Sun 16/6/24	Sun 4/8/24	NA			416.5 days	0%	1		H
110	Delay and Disruption of Works before June 2021		0 days	NA	NA	23 days	Sun 16/6/24	Tue 9/7/24	NA	NA 117	115	416.5 days	0%	i	i i	-
120	Delay and Disruption of Works in June 2021		0 days	NA	NA	26 days	Tue 9/7/24	Sun 4/8/24	NA	NA 114		416.5 days	0%	1		-
200	Other Events to Section 3 of the Works (not all)		0 days	NA	NA	4 days	Wed 12/6/24	Sun 16/6/24	NA	1 ""1		416.5 days	0%	1		•
1210	Special working arrangement due to COVID-19 in January 2020		0 days	NA	NA	4 days	Wed 12/6/24	Sun 16/6/24	NA	NA 37	114	416.5 days	0%	!	!!!	1 1
000	Submissions (cal.day)		1564 days	Mon 18/11/19	Wed 28/2/24	1956 days	Mon 18/11/19	Wed 26/3/25	Mon 18/11/19			182 days	60%	-	<u> </u>	
000	Subletting Package		96 days	Mon 18/11/19	Fri 21/2/20	562 days	Mon 18/11/19	Tue 1/6/21	Mon 18/11/19		104	0 days	100%	_	i i	i
1010	Prepare & submit subletting procedure PM review and accept subletting procedure		12 days 15 days	Mon 18/11/19 Sat 30/11/19	Fri 29/11/19 Wed 11/12/19	12 days 12 days	Mon 18/11/19 Sat 30/11/19	Fri 29/11/19 Wed 11/12/19	Mon 18/11/19 Sat 30/11/19		121 142,122,125,124,123	0 days 0 days	100%	11		1
030	Subletting for demolition works		24 days	Thu 12/12/19	Sat 4/1/20	93 days	Tue 17/12/19	Wed 18/3/20	Tue 17/12/19	Wed 18/3/20 121,154	339,462,295,402,539,359	0 days	100%		i i	i I
040	Subletting for UU diversion for Inlet Works No.1		24 days	Thu 12/12/19	Sat 4/1/20	78 days	Fri 10/1/20	Fri 27/3/20	Fri 10/1/20	Fri 27/3/20 121	212	0 days	100%	1	!!!	1
050	Subletting for Inspection pit excavation		0 days	NA Thurstown	NA Wash 05 (40)(40	56 days	Thu 19/12/19	Wed 12/2/20	Thu 19/12/19		214,126	0 days	100%	=		I I
060 070	Subletting for Preliminary Works (topographic surveying) Subletting for AR3 access road		14 days 24 days	Thu 12/12/19 Thu 12/12/19	Wed 25/12/19 Sat 4/1/20	54 days 0 days	Fri 20/12/19 Fri 13/12/19	Tue 11/2/20 Tue 11/2/20	Fri 20/12/19 Fri 13/12/19		159,198,129,130,131,127 127,210	0 days 0 days	100%		i i	i
1080	Subletting for pre-drilling works		24 days 24 days	Thu 12/12/19	Sat 4/1/20	38 days	Thu 6/2/20	Fri 20/3/20	Thu 6/2/20		452,342,414,128	0 days	100%	T -		1
1090	Subletting for Contractor designer for temporary works and ICE		24 days	Thu 12/12/19	Sat 4/1/20	71 days	Mon 16/12/19	Mon 24/2/20	Mon 16/12/19	Mon 24/2/20 127		0 days	100%	-		i I
1100	Subletting for independent BIM consultant		24 days	Thu 12/12/19	4/1/120	0 days	Wed 11/12/19	Thu 23/1/20	Wed 11/12/19		193	0 days	100%	÷.	!!!	1
1110	Subletting for independent BIM services Subletting for Design, Supply & Install of Temporary Activated Carbon		0 days 0 days	NA NA	NA NA	15 days 0 days	Tue 14/1/20 Fri 13/12/19	Wed 26/2/20 Tue 11/2/20	Tue 14/1/20 Fri 13/12/19		193 132,133	0 days 0 days	100%			I I
	Deodorization Units (E&M Works)											·		1	i i	i
-1130	Subletting for pre-bored H pile works		36 days	Thu 12/12/19	Thu 16/1/20	45 days	Sun 5/7/20	Tue 18/8/20	Sun 5/7/20		343,415,453,309	0 days	100%			1
-1140 -1150	Subletting for Sheetpile installation works Subletting for ELS works for Inlet Works No.1		0 days 48 days	NA Sun 5/1/20	NA Fri 21/2/20	45 days 85 days	Tue 1/9/20 Fri 16/10/20	Thu 15/10/20 Fri 8/1/21	Tue 1/9/20 Fri 16/10/20		344,455,134,135	0 days	100%		i i	i I
1160	Subletting for ELS works for Membrance Facilities Building and other		48 days	Sun 5/1/20	Fri 21/2/20	85 days	Fri 16/10/20	Fri 8/1/21	Fri 16/10/20		346,389,456,136,137,138,139,1		100%			I I
	buildings															I I
i-1170 i-1180	Subletting for structural works for Inlet Works Building Subletting for structural works for Primary Sedimentation Tanks		48 days 48 days	Thu 12/12/19 Thu 12/12/19	Tue 28/1/20 Tue 28/1/20	48 days 48 days	Sat 9/1/21 Sat 9/1/21	Thu 25/2/21 Thu 25/2/21	Sat 9/1/21 Sat 9/1/21		348	0 days 0 days	100%		! !	I .
1190	Subletting for structural works for Bioreactors		48 days	Thu 12/12/19	Tue 28/1/20	48 days	Sat 9/1/21	Thu 25/2/21	Sat 9/1/21		391	0 days	100%			I I
-1200	Subletting for structural works for Membrance Facilities Building		48 days	Thu 12/12/19	Tue 28/1/20	48 days	Sat 9/1/21	Thu 25/2/21	Sat 9/1/21	Thu 25/2/21 135	426	0 days	100%	_	!!!	1
1210	Subletting for structural works for SAS pumping house and ancillary structures		48 days	Thu 12/12/19	Tue 28/1/20	48 days	Sat 9/1/21	Thu 25/2/21	Sat 9/1/21	Thu 25/2/21 135	141	0 days	100%	_		1
1220	Subletting for ABWF works		48 days	Thu 12/12/19	Tue 28/1/20	48 days	Fri 26/2/21	Wed 14/4/21	Fri 26/2/21	Wed 14/4/21 140	332,350,398,460,488,504,514,5	522, 0 days	100%	_	i i	i
1230	Subletting for Process Pipeworks, Utilities and Roadworks		48 days	Thu 12/12/19	Tue 28/1/20	150 days	Fri 22/5/20	Sun 18/10/20	Fri 22/5/20		532,549,551,552,553,554,543	0 days	100%		1 1	1
1240	Subletting for Landscape Hardworks and Softworks		48 days	Thu 12/12/19	Tue 28/1/20	48 days	Thu 15/4/21	Tue 1/6/21	Thu 15/4/21		559,560	0 days	100%	_		
1250	Subletting for Trial dewatering works and installation of additional stop logs at BR2 connon channel due to malfucntioned of existing penstock at FST	5	0 days	NA	NA	15 days	Tue 15/9/20	Tue 29/9/20	Tue 15/9/20	Tue 29/9/20	355	0 days	100%		! !	I .
	no. 5 and 7 (EWN 055)															I I
1260	Subletting for Diversion of Power supply for existing Slaghter House pump station (CE 034)		0 days	NA	NA	14 days	Mon 21/9/20	Sun 4/10/20	Mon 21/9/20	Sun 4/10/20		0 days	100%	- i	i i	i
270	Subletting for Decommission of exisiting power and signal systems in		0 days	NA	NA NA	14 days	Mon 21/9/20	Sun 4/10/20	Mon 21/9/20	Sun 4/10/20	439	0 days	100%	-		
	leachate Pump station switch room (PMI 039)		o dayo			ı-r uays	···O11 2 1/3/20	Juli 7/10/20	MO11 21/3/20	3311 41 10120		o oujo	100/0	- i		T.
280	Subletting for Diversion of Existing DN250 Leachate Raising Main (PPMI		0 days	NA	NA	31 days	Mon 21/9/20	Wed 21/10/20	Mon 21/9/20	Wed 21/10/20		0 days	100%		!!!	!
1290	025) Subletting for Construction of Cable trough for CLP 11kv Cable Diversion		0 days	NΔ	NΔ	21 down	Mon 21/9/20	Wed 21/10/20	Mon 21/9/20	Wed 21/10/20	453	0 days	100%	_		I I
230	(PPMI 041)		0 days	130	100	31 days	WUII 21/9/20	**************************************	WU11 21/9/20	**************************************	700	0 days	100%		i i	i
1300	Subletting for Demolition of Existing Pillar box and its concrete plinth (CE		0 days	NA	NA	31 days	Mon 21/9/20	Wed 21/10/20	Mon 21/9/20	Wed 21/10/20	441	0 days	100%	-		1
1310	Subletting for Execution to locate eviating undergrand achieves		0 dave	NΔ	NA	21 4	Mon 21/9/20	Wed 21/10/20	Mon 21/9/20	Wed 21/10/20		0 days	100%		i i	İ
510	Subletting for Excavation to locate existing underground cable near SAS Pump Station (PPMI 038)		0 days	INA	NA	31 days	rvi0⊓ ∠1/9/20	vvea ∠1/10/20	won ∠1/9/20	¥¥6U ∠ 1/ 1U/∠U		0 days	100%			I I
320	Subletting for Diversion of pumping system sewerage (PPMI 083)		0 days	NA	NA	31 days	Mon 21/9/20	Wed 21/10/20	Mon 21/9/20		446	0 days	100%	_		I I
1000	Statutory Submission, Submission and Approval		1564 days	Mon 18/11/19	Wed 28/2/24	1956 days	Mon 18/11/19	Wed 26/3/25	Mon 18/11/19		F055	182 days	49%	-	<u> </u>	1
010	Liaison with operator of SWHSTW and obtain their consent of associated method statement of major activities		0 days	NA	NA	1584 days	Mon 18/11/19	Wed 26/3/25	Mon 18/11/19	NA 2	59FF	156 days	30%			
1020	Prepare and submit Subcontractor Management Plan (SMP)		24 days	Mon 18/11/19	Wed 11/12/19	24 days	Mon 18/11/19	Wed 11/12/19	Mon 18/11/19	Wed 11/12/19 2	122,125,124	0 days	100%	■ !	l I	T.
1030	Prepare and submit Interface Management Plan		36 days	Mon 18/11/19	Mon 23/12/19	36 days	Mon 18/11/19	Mon 23/12/19	Mon 18/11/19		00:	0 days	100%	=		
040	Prepare and submit the TTA plans inside Treatment Plant for UU diversion and buildings construction		24 days	Mon 18/11/19	Wed 11/12/19	24 days	Mon 18/11/19	Wed 11/12/19	Mon 18/11/19	Wed 11/12/19 2	201	0 days	100%	=;	i i	i
050	Prepare and submit method statement for UU diversion for Inlet Works No	.1	12 days	Mon 18/11/19	Fri 29/11/19	12 days	Mon 18/11/19	Fri 29/11/19	Mon 18/11/19	Fri 29/11/19 2	158	0 days	100%	* 1	1 1	1
				0.107						W 1114045 :	04	·		_ i		T T
060	PM review and accept the method statement		12 days	Sat 30/11/19	Wed 11/12/19	0 days	Sat 30/11/19	Wed 11/12/19 Sat 18/1/20	Sat 30/11/19		213,214	0 days	100%	*1	!!!	!
070	Prepare and submit combine underground services drawing for PM's review the alignment	"	24 days	Thu 26/12/19	Sat 18/1/20	23 days	Thu 26/12/19	Sat 18/1/20	Thu 26/12/19	Sat 18/1/20 125		0 days	100%	7		l I
080	Prepare and submit method statement for demolition existing structures		24 days	Mon 18/11/19	Wed 11/12/19	66 days	Mon 18/11/19	Wed 22/1/20	Mon 18/11/19		402,339,462,295,539	0 days	100%	<u> </u>	i i	i
090	Prepare and submit method statement for structural works for buildings		24 days	Mon 18/11/19	Wed 11/12/19	197 days	Mon 18/11/19	Mon 1/6/20	Mon 18/11/19		000 100 500 5	0 days	100%			
100	Prepare and submit method statements to MTRC regarding the works with railing protection boundary	in	36 days	Mon 18/11/19	Mon 23/12/19	92 days	Sat 1/2/20	Mon 25/5/20	Sat 1/2/20	Mon 25/5/20 2	339,462,539,359	0 days	100%			T T
110	Prepare and submit & approve Safety Management Plan		24 days	Mon 18/11/19	Wed 11/12/19	3 days	Mon 18/11/19	Wed 20/11/19	Mon 18/11/19	Wed 20/11/19 2		0 days	100%	1.1	! !	
120	Prepare and submit Excavation and lateral support (ELS) proposal		24 days	Mon 10/2/20	Wed 4/3/20	128 days	Mon 10/2/20	Tue 16/6/20	Mon 10/2/20	Tue 16/6/20 2		0 days	100%			1
120a	Prepare and submit Excavation and lateral support (ELS) proposal for Inlet Works No.1	t	0 days	NA	NA	24 days	Wed 29/9/21	Sat 23/10/21	NA	NA 314SF		1433 days	0%	1		
120b			0 days	NA	NA	24 days	Fri 1/7/22	Mon 25/7/22	NA	NA 346SF		1158 days	09/-	!	! -	!
	Prepare and submit Excavation and lateral support (ELS) proposal for Primnary Sedimentation tanks No.1-4		o uays	130	100	z+ days	rii 1///22	IVIUI1 20/1/22	NA	IVA SHOSE		1100 days	0./6			I I
11200	Prepare and submit Excavation and lateral support (ELS) proposal for		0 days	NA	NA	24 days	Sun 15/5/22	Wed 8/6/22	NA	NA 389SF		1205 days	0%	i	i i •	i
120c	Bioreactor No. 2A&2B				Wed 4/3/20	105	M 40 20 20	Thu 23/7/20	Mon 10/2/20	Thu 23/7/20 2		0 days	100%	!	!!!!	1
120c			24 de:			165 days	Mon 10/2/20	rnu 23/7/20	naon 10/2/20			0 days				
	Prepare and submit Dewatering proposal for basement construction		24 days	Mon 10/2/20	W60 4/3/20	100 00,0	WOII TO/L/LO	1110 20 7720	111011 1012/20	1110 23/7/20 2		dayo	100%			i
120c		et	24 days 0 days	Mon 10/2/20 NA	NA	24 days	Wed 29/9/21	Sat 23/10/21	NA			1433 days	0%			

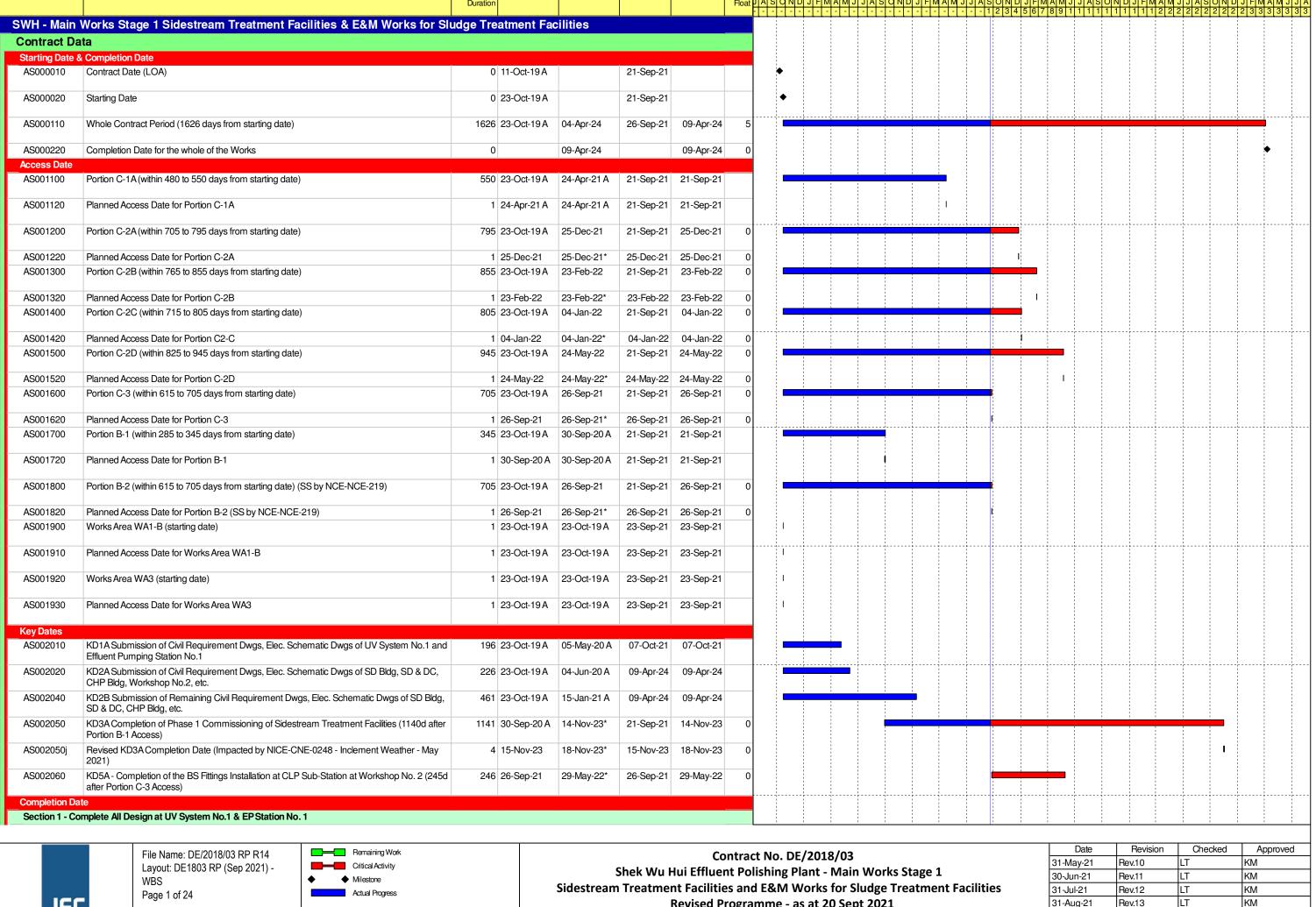
Contract No. DC/2018/07	in New Main World Chang 1								Revised	Works Programme (Status Date: 31/07/2021)						
Shek Wu Hui Effluent Polishi ID Activity ID Key	Incleme	nt PMI & CE no.	. Baseline Duration	Baseline Start	Baseline Finish	Duration	Start	Finish A	Actual Start	Actual Finish Predecessors	Successors	Total Slack Risk	% Complete			
Date	Weathe CE no.	r (NCE no.)										Allow		Otr 3	2022	2024
170 SUBA-1130b	Prepare and submit Dewatering proposal for basement construction for	0.)	0 days	NA	NA	24 days	Fri 1/7/22	Mon 25/7/22	NA	NA 346SF		1158 days	0%	Qtr 3 Qtr 1 Qtr 3 Qtr 1 Qtr 3	Otr 1 Otr 3 Otr 1 Otr 3	Otr 1 Otr 3 Otr 1 Otr 3
171 SUBA-1130c	Primnary Sedimentation tanks No.1-4 Prepare and submit Dewatering proposal for basement construction for		0 days	NA	NA	24 days	Sun 15/5/22	Wed 8/6/22	NA.	NA 389SF		1205 days	0%	i i		i
470 OUDA 4440	Bioreactor No. 2A&2B		04 days	W 5000	F-: 00 /0 /00				M 10/11/10				4000/	_ <u> </u>		
172 SUBA-1140	Prepare and submit Pre-construction condition survey of existing structures/ services		24 days	Wed 5/2/20	Fri 28/2/20	0 days	Mon 18/11/19	Fri 6/3/20	Mon 18/11/19	Fri 6/3/20 198		0 days	100%			
173 SUBA-1150	Prepare and submit Settlement and movement monitoring proposal of existing structures/ services		24 days	Wed 5/2/20	Fri 28/2/20	110 days	Mon 18/11/19	Fri 6/3/20	Mon 18/11/19	Fri 6/3/20 198FS+120 days		0 days	100%	<u> </u>		
174 SUBA-1160	Prepare and submit design of structure elements of the temporary activated carbon deodourization unit		60 days	Fri 17/1/20	Mon 16/3/20	60 days	Mon 18/11/19	Mon 16/3/20	Mon 18/11/19	Mon 16/3/20 2FS+60 days		0 days	100%	i i		
175 SUBA-1170	Prepare of RSE and structural design for alternation and additional (A&A)		180 days	Mon 18/10/21	Fri 15/4/22	180 days	Mon 18/10/21	Fri 15/4/22	NA	NA	541	332 days	0%		_	
	works at Membrane Facilities Building No.1															1
176 SUBA-1180	Prepare of RSE and structural design for alternation and additional (A&A) works at Main Power House		44 days	Wed 15/7/20	Thu 3/9/20	60 days	Mon 6/7/20	Thu 3/9/20	Mon 6/7/20	Thu 3/9/20	539	0 days	100%	_		
177 SUBE-1000 178 SUBE-1010	Environmental Aspect Submissions Prepare, submit & approve Site Management Plan for Trip Tricket		45 days 45 days	Mon 18/11/19 Mon 18/11/19	Wed 1/1/20 Wed 1/1/20	81 days 66 days	Mon 18/11/19 Mon 18/11/19	Thu 6/2/20 Wed 22/1/20	Mon 18/11/19 Mon 18/11/19	Thu 6/2/20 Wed 22/1/20 2		0 days 0 days	100% 100%	<u> </u>		
	System											ĺ				
179 SUBE-1020 180 SUBE-1030	Prepare, submit & approve Waste Management Plan Prepare, submit & approve Environmental Management Plan		45 days 45 days	Mon 18/11/19 Mon 18/11/19	Wed 1/1/20 Wed 1/1/20	81 days 66 days	Mon 18/11/19 Mon 18/11/19	Thu 6/2/20 Wed 22/1/20	Mon 18/11/19 Mon 18/11/19	Thu 6/2/20 2 Wed 22/1/20 2		0 days 0 days	100%			
181 SUBP-1000	Procurement		731 days	Mon 18/11/19	Wed 17/11/21	648 days	Mon 18/11/19	Thu 26/8/21	Mon 18/11/19	NA		278 days	94%	•		i
182 SUBP-1010 183 SUBP-1020	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 Wed 11/12/19	2 days 21 days	Mon 18/11/19 Tue 19/11/19	Tue 19/11/19 Tue 10/12/19	Mon 18/11/19 Tue 19/11/19	Tue 19/11/19 2 Tue 10/12/19 182	183 184,185,186,187,188,189,190,191	0 days 0 days	100%	<u> </u>		
184 SUBP-1030	Prepare, submit and approve the pipe works material		25 days	Thu 12/12/19	Sun 5/1/20	34 days	Thu 6/2/20	Tue 10/3/20	Thu 6/2/20 NA		212,532,551,552,554,553,549,557		100%	-		
185 SUBP-1040 186 SUBP-1050	Prepare, submit and approve the water proofing material Prepare, submit and approve the concrete mix material		25 days 48 days	Thu 12/12/19 Thu 12/12/19	Sun 5/1/20 Tue 28/1/20	25 days 90 days	Mon 2/8/21 Mon 3/2/20	Thu 26/8/21 Sat 2/5/20	Mon 3/2/20	NA 183 Sat 2/5/20 183	329,325 391,426	278 days 0 days	100%			
187 SUBP-1060 188 SUBP-1070	Prepare, submit and approve the rebar material		48 days	Thu 12/12/19 Thu 12/12/19	Tue 28/1/20 Tue 28/1/20	49 days	Sat 23/5/20 Tue 1/9/20	Fri 10/7/20 Sun 18/10/20	Sat 23/5/20	Fri 10/7/20 183	391,426 391,426	0 days	100% 100%			i
189 SUBP-1080	Prepare, submit and approve the metal works material Prepare, submit and approve the ABWF works material		48 days 48 days	Sat 12/12/20	Tue 28/1/20	48 days 48 days	Mon 1/3/21	Sat 17/4/21	Tue 1/9/20 Mon 1/3/21	Sun 18/10/20 183 Sat 17/4/21 183	332,350,398,460,488,504,514,522	0 days	100%			
190 SUBP-1090 191 SUBP-1100	Prepare, submit and approve the protective lining to concrete Prepare, submit and approve the multi-part covers		0 days 0 days	NA NA	NA NA	48 days 21 days	Tue 1/9/20 Tue 5/5/20	Sun 18/10/20 Mon 25/5/20	Tue 1/9/20 Tue 5/5/20		391,426	0 days 0 days	100% 100%	· · · · · · · · · · · · · · · · · · ·		
192 SUBB-1000	BIM		1205 days	Thu 6/2/20	Wed 28/2/24	1562 days	Mon 18/11/19	Fri 28/2/25		NA		178 days	27%			
193 SUBB-1010	Prepare, submit and approve the proposal of details of Common data environment (CDE)		48 days	Thu 6/2/20	Wed 1/4/20	37 days	Mon 18/11/19	Wed 1/4/20	Mon 18/11/19	Wed 1/4/20 129,130	194	0 days	100%			
194	Prepare and submit BIM submission		1484 days	Thu 6/2/20	Wed 28/2/24	1451 days	Thu 2/4/20	Fri 28/2/25	Thu 2/4/20	NA 193		178 days	25%	•		+
195 C-1000 * 196 CPW-1000	Construction Works (Working day) Preliminary Works		1957 days 109 days	Mon 18/11/19 Mon 18/11/19	Thu 27/3/25 Thu 5/3/20	2138 days 121 days	Mon 18/11/19 Mon 18/11/19	Wed 24/9/25 Tue 17/3/20	Mon 18/11/19 Mon 18/11/19	NA Tue 17/3/20		0 days 0 days	51% 100%			
197 CPW-1000	Initial Survey		24 days	Mon 18/11/19	Sat 14/12/19	10 days	Mon 18/11/19	Thu 28/11/19	Mon 18/11/19	Thu 28/11/19 2	198	0 days	100%			į į
198 CPW-2000 199 CPW-3000	Condition Survey Installation of Monitoring Markers		30 days 26 days	Fri 27/12/19 Wed 5/2/20	Tue 4/2/20 Thu 5/3/20	89 days 78 days	Mon 18/11/19 Fri 29/11/19	Fri 6/3/20 Thu 5/3/20	Mon 18/11/19 Fri 29/11/19	Fri 6/3/20 125,197 Thu 5/3/20 198	199,172,173FS+120 days,200	0 days 0 days	100%			
200 CPW-4000	Tree Felling Works	22, 235	0 days	NA	NA	9 days	Sat 7/3/20	Tue 17/3/20	Sat 7/3/20	Tue 17/3/20 198		0 days	100%			
201 CAR-0000 * 202 CAR-1000	Access Road (AR3), B-1 Site setup and clearance wroks	05	193 days 28 days	Mon 20/1/20 Mon 20/1/20	Sat 12/9/20 Mon 24/2/20	238 days 38 days	Thu 12/12/19 Mon 20/1/20	Wed 30/9/20 Fri 6/3/20	Thu 12/12/19 Mon 20/1/20	Wed 30/9/20 4,156 Fri 6/3/20	203	0 days 0 days	100% 100%	<u>'</u>		
203 CAR-1001	Awaiting for AECOM instruction for alignment confirmation for road works	055	0 days	NA	NA	5 days	Mon 17/2/20	Thu 12/3/20	Mon 17/2/20	Thu 12/3/20 202	204	0 days	100%	i i i		i
204 CAR-1002	Additional Works in Access Road AR3 to Settle Left-in Material by Contract	215-1	0 days	NA	NA	4 days	Thu 21/5/20	Mon 25/5/20	Thu 21/5/20	Mon 25/5/20 203	205	0 days	100%			
205 CAB-2000	DC/2016/07 Drainage and Utilities Works		76 days	Fri 6/3/20	Tue 9/6/20	75 days	Sat 7/3/20	Tue 9/6/20	Sat 7/3/20	Tue 9/6/20 204	206	0 days	100%	! !! !		1
206 CAR-2000a	Trimming of Existing Sheet Piles in Access Road AR3	215-2	0 days	NA	NA	20 days	Tue 14/7/20	Wed 5/8/20	Tue 14/7/20	Wed 5/8/20 205	207	0 days	100%	i Ti		i
207 CAR-2000b	Installation of Multi-part Cover and Manhole Cover of Chamber RP6 and Associated Concreting Works in Portion B-1	215	0 days	NA	NA	7 days	Fri 28/8/20	Fri 4/9/20	Fri 28/8/20	Fri 4/9/20 206	208	0 days	100%			
208 CAR-2001	Diversion of Existing Underground Cables in Portion B-1A	036	0 days	NA	NA	172 days	Thu 5/3/20	Wed 30/9/20	Thu 5/3/20		210	0 days	100%	<u> </u>		
209 CAR-2002 210 CAR-3000 KD1A	Additional U-channel, beam barrier and footway concrete pavement Roadworks	055	0 days 80 days	NA Wed 10/6/20	NA Sat 12/9/20	60 days 133 days	Thu 12/12/19 Fri 24/4/20	Wed 26/2/20 Wed 30/9/20	Thu 12/12/19 Fri 24/4/20	Wed 26/2/20 Wed 30/9/20 126,209,208	210 42FF	0 days 0 days	100%			
211 CIW-0000 *	Inlet Works No.1, B-2		854 days	Mon 6/1/20	Mon 21/11/22	594 days	Tue 26/11/19	Thu 25/11/21	Tue 26/11/19	NA		0 days	88%			i
212 CIW-1000	Diversion Works (1. Inlet Trunk Sewer, Leachate Rising Mains, Sludge Pipes, Tank Drains and Pipelines near Primary Sludge Thinkeners)		180 days	Mon 6/1/20	Fri 14/8/20	459 days	Tue 26/11/19	Wed 16/6/21	Tue 26/11/19	NA 184,123	44FF	111 days	88%			
213 CIW-1100	Utilities scanning to idenify existing UU arrangement		12 days	Mon 6/1/20	Sat 18/1/20	0 days	Fri 13/12/19	Sat 18/1/20	Fri 13/12/19	Sat 18/1/20 158	214SS,216	0 days	100%	<u> </u>		
214 CIW-1200	Trial pits to locate the collection points		24 days	Mon 6/1/20	Wed 5/2/20	0 days	Mon 6/1/20	Tue 10/3/20	Mon 6/1/20	Tue 10/3/20 158,213SS,124	232,251	0 days	100%	<u> </u>		
215 CIW-1300	Installation and Commissioning of Temporary Activated Carbon Deodorization Unit for the Existing Inlet Works		0 days	NA	NA	98 days	Wed 11/3/20	Sat 11/7/20	Wed 11/3/20	Sat 11/7/20		0 days	100%			
216 CIW-1310	Construction of concrete plinth		0 days	NA	NA	24 days	Wed 11/3/20	Wed 8/4/20	Wed 11/3/20	Wed 8/4/20 213	217	0 days	100%			
217 CIW-1320 218 CIW-1330	Installation of Deodorizer Testing & commissioning		0 days 0 days	NA NA	NA NA	40 days 15 days	Thu 9/4/20 Mon 1/6/20	Sat 30/5/20 Wed 17/6/20	Thu 9/4/20 Mon 1/6/20	Sat 30/5/20 216 Wed 17/6/20 217	218 219FS-1 day	0 days 0 days	100%			
219 CIW-1340	Demolishment of the existing carbon deodorization unit		0 days	NA	NA	20 days	Wed 17/6/20	Sat 11/7/20	Wed 17/6/20		,	0 days	100%			
220 CIW-1400	Diversion of Inlet Trunk Sewer (approx. 40m 1800mm dia concrete pipe, 4 deep manholes and Inlet Reception Chamber)		146 days	Thu 6/2/20	Mon 3/8/20	451 days	Mon 9/3/20	Mon 13/9/21	Mon 9/3/20	NA		0 days	97%			
221 CIW-1405	loist loitid Currey arrangement with MTDCI		0 days	NA	NA	24 doug	Thu 19/11/20	Wed 16/12/20	Thu 19/11/20	Wed 16/12/20	222	O dovo	100%	_		
221 CIW-1405 222 CIW-1410	Joint Initial Survey arrangement with MTRCL Remedial Works for uncharted sludge Pipe leakage	41	0 days 0 days	NA NA	NA NA	24 days 8 days	Mon 9/3/20	Tue 17/3/20	Mon 9/3/20	Tue 17/3/20 221	223	0 days 0 days	100%			1
223 CIW-1420 224 CIW-1421	Diversion of uncharted DN250 sludge pipe Diversion of uncharted 2' water pipe	41	0 days 0 days	NA NA	NA NA	27 days 9 days	Tue 31/3/20 Wed 15/4/20	Thu 7/5/20 Fri 24/4/20	Tue 31/3/20 Wed 15/4/20	Thu 7/5/20 222 Fri 24/4/20 223	230,224,225 230	0 days 0 days	100% 100%			
225 CIW-1422	Additional Underground Utility Scanning for existing sludge pipe	32	0 days	NA NA	NA NA	1 day	Sat 18/4/20	Sat 18/4/20	Sat 18/4/20	Sat 18/4/20 223	230	0 days	100%			
226 CIW-1423 227 CIW-1423a	HV Cable Diversion for Inlet Works Exposing, Removal and Diversion of Existing Cables near Inlet Works	84 236	0 days 0 days	NA NA	NA NA	135 days 268 days	Sat 10/10/20 Mon 4/5/20	Wed 24/3/21 Wed 24/3/21	Sat 10/10/20 Mon 4/5/20	Wed 24/3/21 Wed 24/3/21		0 days 0 days	100% 100%			1
	No. 1										007 00			!!!!		
228 CIW-1424 229 CIW-1425	Diversion of Existing Sludge Rising Main and Sewerage System Demolition of Deodorization System and Facilities between Existing	81 037	0 days 0 days	NA NA	NA NA	102 days 1 day	Mon 28/9/20 Fri 28/8/20	Sat 30/1/21 Fri 28/8/20	Mon 28/9/20 Fri 28/8/20	Sat 30/1/21 Fri 28/8/20	307,309,279,280	0 days 0 days	100%			1
	Primary Sludge Thickeners and Primary Sludge Pump Pit										004					1
230 CIW-1430 231 CIW-1440	Removal of concrete surround and uncharted sludge pipe Remedial works for uncharted pipe and unforeseen water seepage	030 273	0 days 0 days	NA NA	NA NA	20 days 10 days	Fri 24/4/20 Fri 8/5/20	Tue 19/5/20 Tue 19/5/20	Fri 24/4/20 Fri 8/5/20		231 232,233	0 days 0 days	100%	1 1		
232 CIW-1450			146 days		Mon 3/8/20	Í	Wed 11/3/20	Mon 28/12/20	Wed 11/3/20				100%	i		
232 CIW-1450 233 CIW-1450a	Trench Excavation for 1800mm dia pipeline and manholes Sheetpile installation (on hold due to identification of uncharted	28	0 days	Thu 6/2/20 NA	NA NA	238 days 80 days	Wed 11/3/20 Wed 11/3/20	Thu 18/6/20	Wed 11/3/20 Wed 11/3/20		234	0 days 0 days	100%			
234 CIW-1450b	obstruction) Trench Excavation for 1800mm dia pipeline and manholes		45 days	Thu 6/2/20	Sat 28/3/20	22 days	Thu 18/6/20	Wed 15/7/20	Thu 18/6/20	Wed 15/7/20 233	235,247	0 days	100%			
235 CIW-1450c	Identification of uncharted concrete surround and pipes near MHA01	28	0 days	NA NA	NA NA	29 days	Thu 16/7/20	Tue 18/8/20	Thu 16/7/20		238,243,247	0 days	100%	- -		
236 CIW-1450d	MHA01 Removal of existing DSD drawpits near IRC & exposure of CLP	215-2	0 days	NA	NA	26 days	Thu 16/7/20	Fri 14/8/20	Thu 16/7/20	Fri 14/8/20		0 days	100%			
	cables with installation of additional temporary support				NA						000.040					1
237 CIW-1450e	Removal of uncharted concrete surround and pipes near MHA01 and Sheetpile installation	(045)	0 days	NA	NA	10 days	Fri 7/8/20	Tue 18/8/20	Fri 7/8/20		238,243	0 days	100%	• •		
238 CIW-1450f	Revised type of pipe bedding between Manholes no. MHA01 and MHA02	096	0 days	NA	NA	6 days	Sat 3/10/20	Fri 9/10/20	Sat 3/10/20	Fri 9/10/20 237,235	239	0 days	100%	•		į.
239 CIW-1450g	Replace top soil with Grade 200 Rockfill below Formation level of	079	0 days	NA	NA	3 days	Mon 10/8/20	Wed 12/8/20	Mon 10/8/20	Wed 12/8/20 238	241	0 days	100%			1
240 CIW-1450h	the proposed pipe between MHA01 and MHA02 Grade 200 Rockfill in ELS cofferdam of IRC	(161)	0 days	NA	NA	3 days	Wed 23/12/20	Mon 28/12/20	Wed 23/12/20	Mon 28/12/20	241	0 days	100%			1
241 CIW-1451	Construct M/H MHA01, MHA02, MHA04 and Inlet Reception Chamber	(.01)	65 days	Mon 30/3/20	Fri 19/6/20	395 days	Wed 23/12/20 Wed 20/5/20	Mon 13/9/21	Wed 23/12/20 Wed 20/5/20	NA 239,243,242,244,240	283	-135 days	91%	©		
242 CIW-1452	Enlarged size of Manhole MHA02	052	0 days	NA	NA	6 days	Tue 1/9/20	Mon 7/9/20	Tue 1/9/20	Mon 7/9/20	241	0 days	100%			1
243 CIW-1453	Additional Works for Manhole MHA01 Construction and Pipe Connection to Manhole MHA01	(094) (146)	0 days	NA NA	NA NA	160 days	Wed 16/9/20	Wed 31/3/21	Wed 16/9/20		241	0 days	100%			
244 CIW-1454	Additional Works for IRC and Pipe Connection to IRC from Existing	(096)	0 days	NA	NA	17 days	Fri 18/9/20	Fri 9/10/20	Fri 18/9/20	Fri 9/10/20	245,247,241	0 days	100%			
245 CIW-1455	Manhole FMH1004115	381	·	NA	NA		Mon 19/10/20	Wed 21/10/20	Mon 19/10/20			0 davs	100%			
246 CIW-1456	Removal of left-in sheetpiles at IRC Compliance Test for DN1800 Precast Concrete Pipe	381 065	0 days 0 days	NA	NA NA	3 days 1 day	Fri 18/9/20	Fri 18/9/20	Fri 18/9/20	Fri 18/9/20		0 days	100%			1
247 CIW-1457 248 CIW-1458	Lay 1800mm dia concretre pipe Connection to existing Inlet Chamber		24 days 12 days	Sat 20/6/20 Tue 21/7/20	Mon 20/7/20 Mon 3/8/20	88 days 12 days	Thu 17/9/20 Tue 26/1/21	Mon 25/1/21 Mon 8/2/21	Thu 17/9/20 Tue 26/1/21	Mon 25/1/21 234,235,244 Mon 8/2/21 247	248 307,44FF	0 days 0 days	100% 100%			
249 CIW-1500	Diversion of Leachate Rising Main, Sludge Pipes and Tank Drain		150 days	Thu 6/2/20	Fri 7/8/20	594 days	Tue 26/11/19	Thu 25/11/21	Tue 26/11/19	NA NA	our year 1	-99 days	94%			
250 CIW-1510 KD1B	Diversion of Tank Drain MHD9.5 (approx. 70m CHES1 & CHES2)		150 days	Thu 6/2/20	Fri 7/8/20	406 days	Tue 26/11/19	Mon 12/4/21	Tue 26/11/19	Sat 10/4/21 278	307,44FF	0 days	100%			
251 CIW-1500a	Diversion of Tank Drain MHD9.5 to MHA04 (approx. 70m 675mm dia conrete pipe, 24m DN250 DI leachate rising main,		150 days	Thu 6/2/20	Fri 7/8/20	406 days	Tue 26/11/19	Mon 12/4/21	Tue 26/11/19	Sat 10/4/21 214		0 days	100%			
	90m CHES1&S2 DN250 CI)															<u>i</u>
Data Date: 31/07/2021										Page 3						Revision Date: 15/08/2021

ontract No. DC/2018/07 hek Wu Hui Effluent Polishing	<u> </u>									Works Programme (Status Date: 31/07/2021)					
ID Activity ID Key Date	ask Name	Inclement PMI & CE no. (NCE no.)	. Baseline Duration	Baseline Start	Baseline Finish	Duration	Start	Finish A	ctual Start	Actual Finish Predecessors	Successors		Risk Allowance % Complete	0000	2002
52 CIW-1500b	Joint Initial Survey arrangement with MTRCL	CE no. (NCE no.)	0 days	NΔ	NΔ	158 days	Tue 26/11/19	Wed 10/6/20	Tue 26/11/19	Wed 10/6/20		0 days	Otr 3	2020 Qtr 1 Qtr 3 Qtr 1	Otr 3
53 CIW-1500c	Site Clearance & inspection pit excavation under conforming alignments		0 days	NA NA	NA NA	36 days	Fri 12/6/20	Sat 25/7/20	Fri 12/6/20			0 days	100%	_	
54 CIW-1511	Tank Drain Diversion near MTRCL track		0 days	NA	NA	248 days	Thu 11/6/20	Mon 12/4/21	Thu 11/6/20	Sat 10/4/21		0 days	100%		
255 CIW-1511a 256 CIW-1511b	Excavation of trial pit near MHD9.5 (TP45 & 47) Uncharted cables found near MTRC track and identification	040	0 days 0 days	NA NA	NA NA	12 days 1 day	Mon 27/7/20 Thu 18/6/20	Sat 8/8/20 Thu 18/6/20	Mon 27/7/20 Thu 18/6/20	Sat 8/8/20 Thu 18/6/20 255	256,260	0 days 0 days	100%		
257 CIW-1511c 258 CIW-1511d	Excavation of trial pit near MHD8.5	(046)	0 days	NA NA	NA	5 days	Fri 19/6/20 Thu 11/6/20	Wed 24/6/20 Fri 21/8/20	Fri 19/6/20 Thu 11/6/20	Wed 24/6/20	258 259	0 days 0 days	100%	<u>i</u>	
	Lower the ground surface, opening and additional trial pit (TP38)	()	0 days	1	NA	60 days					259	, i	1	_	
259 CIW-1511e 260 CIW-1511f	Excavation of Trial Pits near Manhole MHA04 and MH09 Additional Trial Pit between MHD9.5 and MHA04	040 040	0 days 0 days	NA NA	NA NA	60 days 25 days	Thu 11/6/20 Fri 21/8/20	Fri 21/8/20 Fri 18/9/20	Thu 11/6/20 Fri 21/8/20	Fri 21/8/20 258 Fri 18/9/20 255		0 days	100%	_	
261 CIW-1511g 262 CIW-1511h	Sheetpile installation for MHD9.5 Sheetpile installation between MHD9.5 & MHA04		0 days 0 days	NA NA	NA NA	38 days 25 days	Tue 1/9/20 Tue 8/9/20	Fri 16/10/20 Thu 8/10/20	Tue 1/9/20 Tue 8/9/20			0 days 0 days	100% 100%		
263 CIW-1511i	UU supporting & ELS works& excavatuib between MHD9.5 & MHA04	5	0 days	NA NA	NA NA	73 days	Wed 7/10/20	Mon 4/1/21	Wed 7/10/20			0 days	100%		
264 CIW-1511j	Unsuit excavated material from MHD9.5 to MHA04	261	0 days	NA	NA	4 days	Fri 20/11/20	Tue 24/11/20	Fri 20/11/20	Tue 24/11/20		0 days	100%		
265 CIW-1511k 266 CIW-1511I	Revise design of manhole MHD9.5 Break up opening and plugging existing concrete pipe at	(167)	0 days 0 days	NA NA	NA NA	20 days 6 days	Thu 7/1/21 Mon 18/1/21	Fri 29/1/21 Sat 23/1/21	Thu 7/1/21 Mon 18/1/21			0 days 0 days	100%		
	MHD9.5												1		
267 CIW-1511I1 268 CIW-1511I2	Trimming existing concrete pipe at MHD9.5 Construction of manhole MHD9.5		0 days 0 days	NA NA	NA NA	13 days 49 days	Fri 22/1/21 Sat 6/2/21	Fri 5/2/21 Sat 10/4/21	Fri 22/1/21 Sat 6/2/21	Fri 5/2/21 Sat 10/4/21		0 days 0 days	100%	-	
269 CIW-1511m 270 CIW-1511n	Additional work to prevent backflow from MHI1 to MHD9.5 Sewage overflow incident of MHD11	(176)	0 days 0 days	NA NA	NA NA	9 days 9 days	Mon 18/1/21 Sat 13/2/21	Wed 27/1/21 Thu 25/2/21	Mon 18/1/21 Sat 13/2/21	Wed 27/1/21 Thu 25/2/21		0 days 0 days	100%	'. '	
271 CIW-1512	Additional Special manhole for tank drain (NCE)		0 days	NA NA	NA	35 days	Mon 24/8/20	Mon 5/10/20	Mon 24/8/20	Mon 5/10/20	272,273	0 days	100%	-	
272 CIW-1513	Breaking of concrete surround of cables (0.8mx0.8mx70m) (NCE)		0 days	1	NA	24 days	Tue 8/9/20	Wed 7/10/20	Tue 8/9/20			0 days	100%	•	
273 CIW-1514 KD1B	Construction of tank drain along revised alignment w/ concrete surround	051	0 days	NA	NA	10 days	Tue 5/1/21	Fri 15/1/21	Tue 5/1/21	Fri 15/1/21 271	43FF,307	0 days	100%		
274 CIW-1516	Backfilling trench between MHD9.5 & MHA04		0 days	NA Tuo 21/4/20	NA Tue 21/7/20	20 days	Sat 16/1/21	Mon 8/2/21	Sat 16/1/21	Mon 8/2/21		0 days	100%		
275 CIW-1520 276 CIW-1520a	Diversion of Sludge Pipes Excavation of trial pit and identification of connection point	351	75 days 0 days	Tue 21/4/20 NA	Tue 21/7/20 NA	364 days 103 days	Mon 11/5/20 Mon 11/5/20	Thu 29/7/21 Wed 9/9/20	Mon 11/5/20 Mon 11/5/20		277	0 days 0 days	100%		
277 CIW-1520b	Trench excavation for twin DN250 sludge pipe ,on hold due to encounter of uncharted sludge pipe	351	75 days	Tue 21/4/20	Tue 21/7/20	4 days	Wed 15/7/20	Sat 18/7/20	Wed 15/7/20	Sat 18/7/20 276	278	0 days	100%		
278 CIW-1520c	Additional hole drilling works and identification of connetion point		0 days	NA	NA	53 days	Mon 20/7/20	Fri 18/9/20	Mon 20/7/20	Fri 18/9/20 277	250	0 days	100%		
279 CIW-1520d	Temporary diversion of substandard DI 250 Leachate raising mai	in 202	0 days	NA	NA	127 days	Tue 20/10/20	Wed 24/3/21	Tue 20/10/20	Wed 24/3/21 228		0 days	100%		
280 CIW-1520e	Protection work for substandard DI 500 tank drain Pipe (near MH	D 302	0 days	NA	NA	93 days	Wed 18/11/20	Fri 12/3/21	Wed 18/11/20	Fri 12/3/21 228		0 days	100%	 	
281 CIW-1520f	9.5)			NA	NA.		Tue 10/11/20	Wed 11/11/20			282		1		
	Encounter of uncharted concrete pipe within sheetpile cofferdam MHA04	at	0 days	INA	NA	2 days			Tue 10/11/20			0 days	100%	'	
282 CIW-1520g 283 CIW-1530	Resumption and construction of sludge pipe construction Diversion of Leachate Rising Main		0 days 60 days	NA Tue 21/4/20	NA Fri 3/7/20	253 days 60 days	Sat 19/9/20 Tue 14/9/21	Thu 29/7/21 Thu 25/11/21	Sat 19/9/20 NA	NA 281 NA 241	307,44FF	-36 days -135 days	91%		
284 CIW-1600	Diversion of pipelines near Primary Sludge Thickeners (approx. 180m long 150mm to 375mm concrete pipes)		156 days	Thu 6/2/20	Fri 14/8/20	570 days	Tue 26/11/19	Thu 28/10/21	Tue 26/11/19	NA		0 days	55%		
285 CIW-1610	Trench Excavation from M/H MHD1E to MHD5 (approx. 90m long wi	i th 87	60 days	Thu 6/2/20	Mon 20/4/20	0-days	Tue 26/11/19	Tue 26/11/19	Tue 26/11/19	Tue 26/11/19		0 days	100%	26/11	
286 CIW-1620	M/Hs MHD1A, 1B, 1C, 1D & 1E) - realigned Manholes construction and Pipe laying - emitted	87	60 days	Mon 30/3/20	Sat 13/6/20	0 days	Tue 2/6/20	Tue 2/6/20	Tuo-2/6/20	Tue 2/6/20	43FF.291	0 days	100%	♦ 2/6	
287 CIW-1621	Temporary Diversion of Existing DN200 Filitrate Rising Main	034	0 days	NA	NA	20 days	Sat 1/8/20	Mon 24/8/20	Sat 1/8/20	Mon 24/8/20	288	0 days	100%		
288 CIW-1623 289 CIW-1625	Pipeline Diversion Works near Primary Sludge Thickening Tank Uncharted underground utilities near Proposed MHD5B	(114) 0260	0 days 0 days	NA NA	NA NA	30 days 26 days	Fri 16/4/21 Mon 24/5/21	Sat 22/5/21 Wed 23/6/21	Fri 16/4/21 Mon 24/5/21	Sat 22/5/21 287 Wed 23/6/21 288	289 290,293	0 days 0 days	100%	-	
290 CIW-1630	Trench Excavation from M/H (approx. 90m long with M/Hs M1A to M3B)		60 days	Tue 21/4/20	Fri 3/7/20	32 days	Thu 19/3/20	Wed 29/4/20	Thu 19/3/20	Wed 29/4/20 289	291,292	0 days	100%	-	
291 CIW-1640	Manholes construction (M1A, M1B, M2B, M3B) and Pipe laying	44.6	25 days	Mon 15/6/20	Wed 15/7/20	12 days	Mon 4/5/20	Sat 16/5/20	Mon 4/5/20		43FF	0 days	100%	•	
292 CIW-1650	Trench Excavation from MHD5 to MHD9.5 (approx. 90m long with M/Hs MHD5A & 5B)	(114)	50 days	Thu 16/7/20	Fri 11/9/20	60 days	Wed 2/9/20	Wed 30/12/20	Wed 2/9/20	Wed 30/12/20 290,296,301,303,305		0 days	100%	-	
293 CIW-1660 294 CIW-1670	Provision of Pumping System from Screen to Flume Channel Manholes construction (MHD5A, MHD5B, MHD5C) and Pipe laying	87	0 days 45 days	NA Sat 23/5/20	NA Thu 16/7/20	287 days 293 days	Tue 10/11/20 Tue 3/11/20	Thu 28/10/21 Thu 28/10/21	Tue 10/11/20 Tue 3/11/20	NA 289 NA 293	294 44FF	-111 days	75%		
295 CIW-2000	Decommission and Demolition of Existing Faciliates and Structures		240 days	Mon 2/3/20	Fri 18/12/20	222 days	Thu 19/3/20	Tue 15/12/20	Thu 19/3/20			0 days	100%		
296 CIW-2100	Primary Sludge Thickening Tank No.1 and No.2		80 days	Mon 2/3/20	Tue 9/6/20	222 days	Thu 19/3/20	Tue 15/12/20	Thu 19/3/20	Tue 15/12/20	292	0 days	100%		
297 CIW-2101	Additional Works for Temporary Diversion of Bypass Pipe near Primary Sludge Thickeners		0 days	NA	NA	45 days	Thu 19/3/20	Sun 17/5/20	Thu 19/3/20	Sun 17/5/20		0 days	100%	i l	
298 CIW-2110	Removal of E&M equipment of primary sludge thickening tank		0 days	NA NA	NA	1 day	Thu 4/6/20	Thu 4/6/20	Thu 4/6/20		299	0 days	100%	<u> </u>	
299 CIW-2120 300 CIW-2130	Decommission and Demolition the tank Demolition of structure no.2		80 days 0 days	Mon 2/3/20 NA	Tue 9/6/20 NA	150 days 24 days	Thu 18/6/20 Mon 18/5/20	Tue 15/12/20 Mon 22/6/20	Thu 18/6/20 Mon 18/5/20		301	0 days 0 days	100%		
301 CIW-2200 302 CIW-2300	Primary Sludge Pump Pit Septic Tank		60 days 50 days	Wed 10/6/20 Fri 21/8/20	Thu 20/8/20 Tue 20/10/20	18 days 18 days	Wed 22/7/20 Wed 12/8/20	Tue 11/8/20 Tue 1/9/20	Wed 22/7/20 Wed 12/8/20		302,303,292,304	0 days 0 days	100%		
303 CIW-2400 304 CIW-2410	Diesel Tank		50 days	Wed 21/10/20	Fri 18/12/20	53 days	Thu 2/7/20	Tue 1/9/20	Thu 2/7/20	Tue 1/9/20 301	292 305	0 days	100%	-	
305 CIW-2420	Transfers of Remaining Diesel Fuel of Existing Diesel Tank Demolition of diesel tank		0 days 50 days	Wed 21/10/20	NA Fri 18/12/20	15 days 18 days	Thu 2/7/20 Wed 12/8/20	Tue 21/7/20 Tue 1/9/20	Thu 2/7/20 Wed 12/8/20		292	0 days 0 days	100% 100%		
306 CIW-3000 * 307 CIW-3100	Inlet Works No.1 Building (1) Predrilling (10nrs, 1rigs, 2.5days/drillhole/rig) - stage 1		569 days 40 days	Sat 19/12/20 Mon 4/1/21	Mon 21/11/22 Mon 22/2/21	747 days 28 days	Tue 15/9/20 Tue 15/9/20	Thu 23/3/23 Mon 19/10/20	Tue 15/9/20 Tue 15/9/20	NA 6 Mon 19/10/20 248.250.273.228.282		748 days 0 days	18% 1 100%	•	
308 CIW-3100a	Predrilling (22nrs, 1rigs, 2.5days/drillhole/rig) - stage 2		0 days	NA	NA	60 days	Tue 8/12/20	Mon 22/2/21	Tue 8/12/20	Mon 22/2/21		0 days	100%	_	
309 CIW-3200 310 CIW-3400a	Pre-bored H piles (188nos, 1.8rigs, 2days/rig/pile) Pile Load Test at stage 1		133 days 26 days	Tue 23/2/21 Thu 5/8/21	Wed 4/8/21 Fri 3/9/21	210 days 21 days	Fri 19/2/21 Sat 21/8/21	Tue 2/11/21 Tue 14/9/21	Fri 19/2/21 NA	NA 228,132 NA 309SS+150 days	310SS+150 days,311 312	-34 days 83 days	5 63% I	 	
311 CIW-3400b 312 CIW-3300a	Pile Load Test at stage 2 & 3 Sheetpile Installation at Phase C(900sq.m, 1rigs, 50sqm/rig/day)		0 days 80 days	NA Tue 23/3/21	NA Wed 30/6/21	21 days 30 days	Wed 3/11/21 Wed 15/9/21	Fri 26/11/21 Fri 22/10/21	NA NA	NA 309 NA 310	328,313 315	-34 days 83 days	0%	 	
313 CIW-3300b	Sheetpile Installation at Phase B (2300sq.m, 1rigs, 50sqm/rig/day)		0 days	NA	NA	50 days	Sat 27/11/21	Thu 27/1/22	NA	NA 311	316	-34 days	0%	ļ	
314 CIW-3500 315 CIW-3510	ELS works Phrase C (Grid G3 to L7)) - Excavation to -3.3mPD and blinding (strutting)	ng	77 days 77 days	Sat 4/9/21 Fri 4/6/21	Mon 6/12/21 Mon 6/12/21	157 days 77 days	Sat 23/10/21 Sat 23/10/21	Fri 6/5/22 Mon 24/1/22	NA NA	NA NA 312	334,165SF,169SF 320,333	3 days 83 days	5 0% 0%		
316 CIW-3520	2 layers, excavate soil 2250 cu.m) Phrase B (Grid A1 to G3) - Excavation to -7.5mPD and blinding (struttin		77 days	Fri 4/6/21	Mon 6/12/21	77 days	Fri 28/1/22	Fri 6/5/22	NA.	NA 313	324	-34 days	00/		
	4 layers, excavate soil 11000cu.m)	9									UC*		076		
317 CIW-3590 318 CIW-3600	Receiving of Civil Requirements from PM R.C. Structure works		0 days 296 days	NA Thu 5/8/21	NA Thu 4/8/22	1 day 300 days	Mon 30/8/21 Sat 27/11/21	Mon 30/8/21 Thu 1/12/22	NA NA	NA 318SS-3 emons	317SS-3 emons,332	1211 days -34 days	5 0%	 	
319 CIW-3610	Phase C (Grid G3 to L7)		105 days	Thu 5/8/21	Wed 8/12/21	105 days	Tue 25/1/22	Tue 7/6/22	NA NA	NA NA 245		114 days	0%		
320 CIW-3611	Rebar fix and formwork and concreting for the pile cap (G/F) (including ELS demolition works)		40 days	Thu 5/8/21	Mon 20/9/21	40 days	Tue 25/1/22	Tue 15/3/22	NA	NA 315	321	114 days	0%	i	
321 CIW-3612 322 CIW-3613 KD1C	Rebar fix and formwork and concreting upto +13.45mPD (1/F) Rebar fix and formwork and concreting upto +25.80mPD (R/F)		25 days 40 days	Tue 21/9/21 Sat 23/10/21	Fri 22/10/21 Wed 8/12/21	25 days 40 days	Wed 16/3/22 Tue 19/4/22	Thu 14/4/22 Tue 7/6/22	NA NA	NA 320 NA 321	322 44FF,331,524	114 days 114 days	0%	ļ	•
323 CIW-3620	Phase B (Gride A1 to G3)		193 days	Tue 7/12/21	Thu 4/8/22	173 days	Sat 7/5/22	Thu 1/12/22	NA NA	NA		-34 days	0%		
324 CIW-3621	Rebar fix and formwork and concreting for the Inlet Works structure upto Ground Level (including ELS demolition works)		54 days	Tue 7/12/21	Mon 14/2/22	54 days	Sat 7/5/22	Tue 12/7/22	NA	NA 316	325	-34 days	0%	 	
325 CIW-3622 326 CIW-3623 KD1C	Apply waterproofing membrance and backfilling Rebar fix and formwork and concreting for the Inlet Works structure		14 days 105 days	Tue 15/2/22 Thu 3/3/22	Wed 2/3/22 Thu 4/8/22	14 days 105 days	Wed 13/7/22 Fri 29/7/22	Thu 28/7/22 Thu 1/12/22	NA NA	NA 324,185 NA 325	326 331	-34 days	0%	 	
327 CIW-3630	upto Roof Level			Tue 7/12/21				Sat 2/7/22		NA.				i I	
327 CIW-3630 328 CIW-3631	Phase A (G1 to L3) Rebar fix and formwork and concreting for the Inlet Works structure		193 days 54 days	Tue 7/12/21 Tue 7/12/21	Thu 4/8/22 Mon 14/2/22	173 days 54 days	Sat 27/11/21 Sat 27/11/21	Sat 2/7/22 Fri 4/2/22	NA NA	NA 311	329	93 days 93 days	0%	ļ	<u> </u>
329 CIW-3632	upto Ground Level (including ELS demolition works) Apply waterproofing membrance and backfilling		14 days	Tue 15/2/22	Wed 2/3/22	14 days	Sat 5/2/22	Mon 21/2/22	NA	NA 328,185	330	93 days	0%		
330 CIW-3633 KD1C	Rebar fix and formwork and concreting for the Inlet Works structure upto Roof Level		105 days	Thu 3/3/22	Thu 4/8/22	105 days	Tue 22/2/22	Sat 2/7/22	NA NA	NA 329	332,44FF,331	93 days	0%		
331 CIW-3700 KD1C	Allow access to Contractor DE/2018/04 for E&M installation and T&C work	s	0 days	Thu 4/8/22	Thu 4/8/22	0 days	Thu 1/12/22	Thu 1/12/22	NA	NA 330,322,326	44FF	-34 days	0%	 	♦ 1/12
332 CIW-3800 SW1	ABWF works + BS works		90 days	Fri 5/8/22	Mon 21/11/22	90 days	Fri 2/12/22	Thu 23/3/23	NA.	NA 330,189,141,318	56FF	262 days	0%		
333 CIW-3900 KD1D	Process Pipe CHE chainage 0-20 & CHF chainage 0-20		0 days	NA	NA	50 days	Sat 17/12/22	Mon 20/2/23	NA	NA 315,351FF	45FF	0 days	0%	ļ	
334 CIW-4000 SW2 335 CPS-0000 *	Remaining sewerage and utilities in Portion B1 & B2 Primary Sedimentation Tanks, B-3 (2)		0 days 1115 days	NA Mon 18/11/19	NA Wed 23/8/23	60 days 1115 days	Sat 7/5/22 Mon 18/11/19	Tue 19/7/22 Wed 23/8/23	NA Mon 18/11/19	NA 314 NA 8	57FF,555	3 days 139 days	0% 44%		
336 CPS-1000 337 CPS-1100	Operation of the Existing Primary sedimentation Tanks Identification of existing cables near Primiary Sedimentation Tank	88	615 days 0 days	Mon 18/11/19 ΝΔ	Sat 24/7/21	615 days 3 days	Mon 18/11/19 Fri 19/2/21	Sat 24/7/21 Mon 22/2/21	Mon 18/11/19 Fri 19/2/21	Sat 24/7/21 2	339,338	0 days 0 days	100%		
337 CPS-1100 338 CPS-1200	Removal of residual sludge	00	0 days	NA	NA NA	12 days	Mon 26/7/21	Sat 7/8/21	NA	NA 336	339	-62 days	0%	' •	
			45 days	Mon 13/12/21	Wed 9/2/22	30 days	Mon 9/8/21	Sat 11/9/21	NA	NA 122,160,162,336,338	342,340	-62 days	0%	E CONTRACTOR DE	
339 CPS-2000 340 CPS-2000a	Demolition of existing primary sedimentation tanks no. 1 Demolition of existing primary sedimentation tanks no. 2		0 days	NA	NA	25 days	Mon 13/9/21	Wed 13/10/21	NA	NA 339	342	-62 days	0%	ı lı	

Contract No. DC/2018/07 Shek Wu Hui Effluent Polishing	n Plant - Main Works Stage 1								Revised	d Works Programme (Status Date: 31/07/2021)						
ID Activity ID Key Date	Task Name In: W	clement PMI & CE no. (NCE no.)	b. Baseline Duration	Baseline Start	Baseline Finish	Duration	Start	Finish A	ctual Start	Actual Finish Predecessors	Successors	Total Slack	Allowance	2020	Otr 3	2024
342 CPS-3000	Predrilling (63nrs, 3rigs, 3days/drillhole/rig)	ICE no.)	38 days	Thu 10/2/22	Fri 25/3/22	38 days	Fri 15/10/21	Sat 27/11/21	NA	NA 127,452,339,340	343	-62 days	1 0%	Otr 3 Otr 1 Otr 3 Otr 1	drs dr1 drs dr1 drs	atri atri atri
343 CPS-4000 344 CPS-5000	Pre-bored H piles (205nos, 2.5rigs, 2days/pile/rig) Sheetpile Installation (FSP-II, 3360sq.m, 1rigs, 50sqm/rig/day)		102 days 85 days	Sat 26/3/22 Wed 25/5/22	Mon 1/8/22 Fri 2/9/22	164 days 42 days	Mon 29/11/21 Thu 5/5/22	Wed 22/6/22 Fri 24/6/22	NA NA		344FS-40 days,346,345 346,352SS+27 days	-62 days	5 0%		<u> </u>	
345 CPS-6000	Pile Load Test		26 days	Tue 2/8/22	Wed 31/8/22	26 days	Thu 23/6/22	Sat 23/7/22	NA	NA 343	346	0 days	0%	I I		
346 CPS-7000 347 CPS-7900	ELS works (20000cu.m soil with 2 layers wailing / strutting) Receiving of Civil Requirements from PM		45 days 0 days	Sat 3/9/22 NA	Fri 28/10/22 NA	60 days 1 day	Mon 25/7/22 Thu 7/7/22	Wed 5/10/22 Thu 7/7/22	NA NA		347FF-3 emons,348,166SF,170S 348SS-3 emons	SF 0 days 186 days	3 0%	!		
348 CPS-8000 KD1D	R.C. Structure works (including ELS demolition works)		92 days	Sat 29/10/22	Mon 20/2/23	112 days	Thu 6/10/22	Mon 20/2/23	NA	NA 137,346,347SS-3 emons	349,350,45FF,351FF	0 days	3 0%	i	<u></u>	
349 CPS-9000 KD1D 350 CPS-10000 SW1	Allow access to Contractor DE/2018/04 for E&M installation and T&C works ABWF works + BS works		0 days 150 days	Mon 20/2/23 Tue 21/2/23	Mon 20/2/23 Wed 23/8/23	0 days 150 days	Mon 20/2/23 Tue 21/2/23	Mon 20/2/23 Wed 23/8/23	NA NA		45FF 56FF	0 days 139 days	0%	1	♦ 20/2	
351 CPS-11000 KD1D	Flowmeter Chamber no.1		60 days	Tue 21/2/23	Sat 6/5/23	60 days	Tue 6/12/22	Mon 20/2/23	NA	NA 348FF	45FF,333FF	0 days	0%			
352 CPS-12000 SW2	Process Pipe CHG chainage 0-50, CHH chainage 0-80, CHI chainage 0-95 & CHJ chianage 0-40 and surrounding utilities		0 days	NA	NA	100 days	Wed 8/6/22	Thu 6/10/22	NA	NA 344SS+27 days	57FF,555	-62 days	0%		SSSSSS	
353 CBR-0000 *	Bioreactors No.2A & 2B, B-4 (3)		1106 days	Mon 18/11/19	Sat 12/8/23	1194 days	Mon 18/11/19	Mon 27/11/23	Mon 18/11/19	NA 9		546 days	38%	1		
354 CBR-1000 355 CBR-2000	Operation of 2no. Existing 800mm air mains over bioreactor no.2 Construction of Removable Steel Shutter in the Common Channel of BR2	67	360 days	Mon 18/11/19	Wed 11/11/20	292 days	Mon 18/11/19 Thu 1/10/20	Wed 11/11/20 Fri 15/1/21	Mon 18/11/19 Thu 1/10/20		005	0 days	100%			
355 GBH-2000	and 3	67	0 days	NA .	NA	86 days	THU 1/10/20	FII 13/1/21	THU 1/10/20	Ffi 15/1/21 144	365	0 days	100%			
356 CBR-4100	Take Down E&M Equipment & cables in Bioreactor BR2 and Return to DSD	95	0 days	NA	NA	90 days	Thu 15/10/20	Mon 1/2/21	Thu 15/10/20	Mon 1/2/21	366	0 days	100%			
357 CBR-4200	Installation of monitoring points before demolition of BR2	219	0 days	NA	NA	5 days	Wed 27/1/21	Mon 1/2/21	Wed 27/1/21	Mon 1/2/21 363	358	0 days	100%	in the second of the second		
358 CBR-4300 359 CBR-5000	Condition Survey for BR2		0 days 60 days	NA Wed 3/2/21	NA Tue 20/4/21	1 day	Fri 30/10/20 Tue 10/11/20	Fri 30/10/20 Wed 10/3/21	Fri 30/10/20 Tue 10/11/20		366	0 days	100%			
360 CBR-5100	Demolition of existing bioreactor no.2 Identification and removal of existing cables on air main pipe bridge	210	0 days	NA	NA	98 days 35 days	Tue 10/11/20	Sat 19/12/20	Tue 10/11/20		361,365	0 days 0 days	100%		!!!!	
361 CBR-5300	Plugging and demolition of existing DN800 air main		0 days	NA	NA	5 days	Mon 28/12/20	Sat 2/1/21	Mon 28/12/20			0 days	100%	<u> </u>		
362 CBR-5200 363 CBR-5400	Diversion of existing lighting cable and Earthing ducts_stage 1 Overflow incident from BR1 to BR2 works area no.1 (Dec 2020)	264 285	0 days 0 days	NA NA	NA NA	43 days 33 days	Fri 4/12/20 Fri 18/12/20	Tue 26/1/21 Thu 28/1/21	Fri 4/12/20 Fri 18/12/20		366 357,362	0 days 0 days	100%			
364 CBR-5410	Overflow incident from BR1 to BR2 works area (Feb 2021)	340	0 days	NA	NA	8 days	Tue 16/2/21	Wed 24/2/21	Tue 16/2/21	Wed 24/2/21 365	366,363	0 days	100%	i i	i i	
365 CBR-3000	Construction of Isolation Wall & stoplog in common channel of BR2 & BR3	277	0 days	NA	NA	43 days	Sat 16/1/21	Wed 10/3/21	Sat 16/1/21	Wed 10/3/21 355,360	364	0 days	100%	_		
366 CBR-5500	Demolition of existing pipe bridge, partition wall and base slab (Stage 1)		30 days	Wed 3/2/21	Fri 12/3/21	26 days	Tue 2/2/21	Sat 6/3/21	Tue 2/2/21	Sat 6/3/21 362,358,364,356	367SS,368	0 days	100%			
367 CBR-5520	Removal of additional concrete infill within the partition walls	(174)	0 days	NA	NA	26 days	Tue 2/2/21	Sat 6/3/21	Tue 2/2/21	Sat 6/3/21 366SS	368	0 days	100%		i i	
368 CBR-5900	Construction of precautionary measures (i.e. isolation wall)	322	0 days	NA NA	NA	2 days	Tue 9/3/21	Wed 10/3/21	Tue 9/3/21	Wed 10/3/21 366,367	369,371	0 days	100%	7		
369 CBR-5905 370 CBR-5910	Construction of precautionary measures (i.e. bund wall) Removal of abandoned DN250 air pipe	305 209	0 days 0 days	NA NA	NA NA	3 days 6 days	Thu 15/4/21 Tue 20/4/21	Sat 17/4/21 Mon 26/4/21	Thu 15/4/21 Tue 20/4/21	Sat 17/4/21 368 Mon 26/4/21		0 days 0 days	100% 100%	1		
371 CBR-6000	Predrilling (33nrs, 3rigs, 2days/drillhole/rig)_stage 1	203	44 days	Wed 21/4/21	Sat 12/6/21	44 days	Mon 1/3/21	Wed 5/5/21	Mon 1/3/21	Wed 5/5/21 368	372	0 days	1 100%			
372 CBR-7000 373 CBR-7100	Pre-bored H piles (113nos, 2rigs, 2days/pile/rig)_stage 1		113 days	Tue 15/6/21	Thu 18/11/21	113 days	Thu 6/5/21 Wed 30/6/21	Fri 17/9/21 Mon 21/3/22	Thu 6/5/21 Wed 30/6/21	NA 371	382SS+30 days,377SS+45 days,	,38 1 day 1046 days	5 41% 9%			
373 CBR-7100 374 CBR-7110	External works between BR2 and MFB2 DN700 (CHER)RAS Diversion		0 days 0 days	NA NA	NA NA	217 days 45 days	Wed 30/6/21 Wed 30/6/21	Mon 21/3/22 Sat 21/8/21	Wed 30/6/21 Wed 30/6/21	NA NA 372SS+45 days	375	1046 days 1212 days	9% 2%	' 		
375 CBR-7120	Temporary vehicle diversion for RAS operation		0 days	NA	NA	6 days	Mon 23/8/21	Sat 28/8/21	NA	NA 374		1212 days	0%	 	<u>)</u>	
376 CBR-7130 377 CBR-7131	DN600 Temporary Sewage diversion 2nos. Manhole Construction (MHTD1 and MHTD2)	204, 353	0 days 0 days	NA NA	NA NA	120 days 75 days	Wed 30/6/21 Wed 30/6/21	Sat 20/11/21 Mon 27/9/21	Wed 30/6/21 Wed 30/6/21	NA NA 372SS+45 days	378FS-30 days	-45 days	18% 36%	į		
378 CBR-7132	Existing DN600 tank drain diversion	204, 353	45 days	NA	NA	75 days	Mon 23/8/21	Sat 20/11/21	NA	NA 377FS-30 days	379	-88 days	0%	 	15222	
379 CBR-7140	Demolition of abandoned DN600 pipe and existing surrounded wall & channel of BR2	353, 336	30 days	NA	NA	45 days	Mon 22/11/21	Sat 15/1/22	NA	NA 378	380	-88 days	0%	!	📉	
380 CBR-7150	Pre-drilling(3nr.) & Pre-bored H piles (20nrs, 1rig,		26 days	NA	NA	26 days	Mon 17/1/22	Fri 18/2/22	NA	NA 379	381	-88 days	0%	i		
381 CBR-7160	2days/drillhole/rig)_stage 2A Pile load test		26 days	NΔ	NΔ	26 days	Sat 19/2/22	Mon 21/3/22	NA	NA 380.386	389,388	-88 days	0%			
382 CBR-7200	External works between BR2 and PST		0 days	NA NA	NA NA	141 days	Wed 30/6/21	Wed 15/12/21	Wed 30/6/21		303,300	-38 days	19%	į		
383 CBR-7210	Demolition of existing DN1200. DN900 and DN500 pipe (w/ ELS works)	91	0 days	NA	NA	75 days	Wed 30/6/21	Mon 27/9/21	Wed 30/6/21	NA 372SS+45 days	384	-38 days	36%	i i		
384 CBR-7220	Diversion of existing lighting cable and Earthing ducts (w/ ELS)	264	0 days	NA	NA	30 days	Tue 28/9/21	Wed 3/11/21	NA	NA 383	385	-38 days	0%	1		
385 CBR-7230	Demolition of existing side wall	336	0 days	NA	NA	12 days	Thu 4/11/21	Wed 17/11/21	NA	NA 384	386	-38 days	0%	i		
386 CBR-7240 387 CBR-7340	Pre-bored H piles (24nrs, 2rig, 2days/drillhole/rig)_stage 2B Demolition of existing side wall between BR2 & BR3 and baseslab		24 days 0 days	NA NA	NA NA	24 days 60 days	Thu 18/11/21 Sat 18/9/21	Wed 15/12/21 Tue 30/11/21	NA NA	NA 385 NA 372	381 388	-38 days 1 day	0%	I I		
388 CBR-8000	Sheetpile Installation (3000sq.m, 1rigs, 50sqm/rig/day)		60 days	Wed 8/9/21	Fri 19/11/21	60 days	Tue 22/3/22	Tue 7/6/22	NA	NA 381,387	389	-88 days	0%	1	I 8888	
389 CBR-10000 390 CBR-10900	ELS works (18100cu.m soil with 4 layers wailing / strutting) Receiving of Civil Requirements from PM		125 days 0 days	Mon 20/12/21 NA	Fri 27/5/22 NA	80 days 1 day	Wed 8/6/22 Sat 11/6/22	Fri 9/9/22 Sat 11/6/22	NA NA		391,390FF-3 emons,399SS+46 d 391SS-3 emons	168 days	3 0%	i		
391 CBR-11000 KD1E	R.C. Structure works (including ELS demolition works)		180 days	Sat 28/5/22	Sat 31/12/22	180 days	Sat 10/9/22	Sat 22/4/23	NA		S-3 emons 398,46FF,397,393FF,394SS+25		5 0%	I I		
392 KD1E 393 CBR-11020 KD1E	Process Pipe CHO chainage 65-140 Additional backfill works after end wall construction at BR2 common channel	277	0 days 0 days	NA NA	NA NA	60 days 30 days	Wed 8/2/23 Wed 15/3/23	Sat 22/4/23 Sat 22/4/23	NA NA		46FF 46FF	-88 days	0%	i	SSS	
		277											0.6	I I	i i	
394 CBR-13000 KD1E 395 CBR-14000 KD1E	Flowmeter no. 2-4 Gate Valve Chamber no.1-3		180 days 180 days	2023/1/3 2023/1/3	2023/8/12	60 days 60 days	Thu 13/10/22 Wed 7/12/22	Wed 21/12/22 Tue 21/2/23	NA NA	NA 391SS+25 days NA 394FS-13 days	395FS-13 days 396FS-12 days	-88 days	0%	!		
396 CBR-15000 KD1E	Plug Valve Chamber no.1-2		180 days	2023/1/3	2023/8/12	60 days	Wed 8/2/23	Sat 22/4/23	NA NA	NA 395FS-12 days	46FF	-88 days	0%	i	I I	
397 CBR-12000 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	0 days	Sat 22/4/23	Sat 22/4/23	NA	NA 391	46FF	-88 days	0%	1	♦ 22/4	
398 CBR-16000 SW1	ABWF works + BS works		180 days	Tue 3/1/23	Sat 12/8/23	180 days	Mon 24/4/23		NA	NA 391,189,141	56FF	60 days	0%	!	!!!	
399 CBR-17000 SW2	Process Pipe CHQ chainage 65-170, CHP chainage 60-130, CHL chainage 0-35 & CHK chianage 0-50 and surrounding utilities		0 days	NA	NA	80 days	Tue 2/8/22	Sat 5/11/22	NA	NA 389SS+46 days	57FF,555	-88 days	0%	I I	SSSSS	
400 CMF-0000 *	Membrane Facilities Building, B-5		941 days	Mon 6/1/20	Thu 9/3/23	1133 days	Mon 18/11/19	Wed 13/9/23	Mon 18/11/19	NA 2		121 days	45%	1		
401 402 CMF-1000	Operation of existing Final Sedimentation Tanks no.3 & 4	26	0 days	NA Mon 6/1/20	NA Tue 21/1/20	98 days	Mon 18/11/19 Mon 6/1/20	Tue 17/3/20 Sun 28/2/21	Mon 18/11/19 Mon 6/1/20			0 days	100% 100%		i i	
403 CMF-1100	Demolition of existing final sedimentation tanks no. 3 & 4 Confirmation of Decommission Schedule 68	3 30	14 days 0 days	NA	NA	340 days 58 days	Mon 6/1/20	Mon 16/3/20	Mon 6/1/20		404	0 days 0 days	100%			
404 CMF-1200	Provision of new submersed pump 68		0 days	NA NA	NA NA	27 days	Wed 4/3/20	Fri 3/4/20	Wed 4/3/20	Fri 3/4/20 403	405	0 days	100%	1.5		
405 CMF-1205 406 CMF-1300	Assistant to decommissioning of Final Sedimentation Tank No. 3 and 4 Additional dismantling works to retain specified electrical and mechanical 75		0 days 0 days	NA NA	NA NA	14 days 21 days	Wed 4/3/20 Tue 7/4/20	Fri 3/4/20 Wed 6/5/20	Wed 4/3/20 Tue 7/4/20		406 407	0 days 0 days	100%		i i	
	equipment													_		
407 CMF-1400	Additional pluging works for DN 1200 Conc. S&S pipe at wash water pumping station chamber 76	5, 77, 144 (015)	0 days	NA	NA	70 days	Mon 8/6/20	Sat 29/8/20	Mon 8/6/20	Sat 29/8/20 406	408	0 days	100%	_		
408 CMF-1500		3, 77 032	0 days	NA	NA	21 days	Mon 15/6/20	Fri 10/7/20	Mon 15/6/20		409	0 days	100%			
409 CMF-1600 410 CMF-1710	Isolation wall for RAS Channel No.1 Removal of DN1400 Bioreactor No. 2 Effluent Pipe	6, 77 035 043	0 days 0 days	NA NA	NA NA	40 days 8 days	Mon 1/6/20 Fri 19/2/21	Sat 18/7/20 Sun 28/2/21	Mon 1/6/20 Fri 19/2/21	**** ** * * * * * * * * * * * * * * * *	413	0 days 0 days	100%	-		
411 CMF-1800	Exposed and disconnet uncharted existing cable between FST3 and FST 77		0 days	NA NA	NA	20 days	Thu 2/7/20	Fri 24/7/20	Thu 2/7/20			0 days	100%	and the second of the	i i	
412 CMF-1110	4 Demolition of structure no. 3 & 4 68	3, 75, 76,	14 days	Mon 6/1/20	Tue 21/1/20	122 days	Wed 1/4/20	Sat 29/8/20	Wed 1/4/20	Sat 29/8/20	414	0 days	100%			
	77	7, 144		110/1 U/ 1/EU	. 55 2 11 11 20											
413 CMF-1900 414 CMF-2000	Removal of Existing DN150 SAS Rising Main at RAS Channel No. 1 21 Predrilling (83nrs, 4rigs, 2.5days/drillhole/rig) 14	12 060 14, 212 120	0 days 42 days	NA Sat 6/6/20	NA Mon 27/7/20	23 days 31 days	Mon 31/8/20 Mon 10/8/20	Fri 25/9/20 Mon 14/9/20	Mon 31/8/20 Mon 10/8/20		415 415	0 days 0 days	100%	2		
415 CMF-3000	Pre-bored H piles (171nos, 2rigs, 1.5days/pile/rig) [Extended working hours 21		140 days	Tue 28/7/20	Wed 13/1/21	96 days	Mon 28/9/20	Sat 23/1/21	Mon 28/9/20		416,417	0 days	5 100%			
416 CMF-3100	0700-1900 & shortern pile length]	(102)	0 down	NA	NA	17	Tue 3/11/20	Sat 21/11/20	Tue 3/11/20	Sat 21/11/20 415			100%	i _	i i	
416 CMF-3100 417 CMF-4000	Change of Layout of Basement of MFB no. 2 Pile Load Test	(102)	0 days 25 days	NA Thu 14/1/21	NA Tue 16/2/21	17 days 19 days	Mon 4/1/21	Sat 21/11/20 Mon 25/1/21	Tue 3/11/20 Mon 4/1/21		421,418	0 days 0 days	100%			
418 CMF-5000 419 CMF-6000	Installation of sheetpile [with pre-boring] ELS works	120	40 days 169 days	Wed 22/1/20 Wed 17/2/21	Wed 11/3/20 Thu 9/9/21	120 days 188 days	Mon 28/12/20 Fri 25/6/21	Thu 24/6/21 Thu 10/2/22	Mon 28/12/20 Fri 25/6/21		421 424FF-3 emons	0 days -87 days	100% 5 22%			
419 CMF-6000 420 CMF-6100	Pharse A (A1 to N6) - Excavation to -9mPD and blinding	45	169 days 169 days	Wed 17/2/21 Wed 17/2/21	Thu 9/9/21 Thu 9/9/21	188 days 188 days	Fri 25/6/21 Fri 25/6/21	Thu 10/2/22 Thu 10/2/22	Fri 25/6/21 Fri 25/6/21	NA 10 NA	424FF-3 emons 423SS	-87 days -100 days	5 22%			
421 CMF-6110	Soil Excavation [Extended working hours 0700-1900 & reduction of excavation volume]	120, 207	169 days	Wed 17/2/21	Thu 9/9/21	88 days	Fri 25/6/21	Fri 8/10/21	Fri 25/6/21	NA 418,135,417	422	-117 days	35%		9 22	
422 CMF-6120	Additional Rock Excavation [2200 cu.m, 7.5cu.m/group x 2]	120, 207	0 days	NA	NA	100 days	Sat 9/10/21	Thu 10/2/22	NA	NA 421	426	-117 days	0%	İ		
423 CMF-6200	Pharse B (A6 to N10) - Excavation to -1.9mPD and blinding		169 days	Wed 17/2/21	Thu 9/9/21	100 days	Fri 25/6/21	Sat 23/10/21	Fri 25/6/21		427,433	1 day	31%			
424 CMF-6900 425 CMF-7000	Receiving of Civil Requirements from PM RC Structure works		0 days 232 days	NA Fri 10/9/21	NA Sat 25/6/22	1 day 262 days	Fri 12/11/21 Fri 11/2/22	Fri 12/11/21 Wed 28/12/22	NA NA	NA 419FF-3 emons NA 10,424SS-3 emons	425SS-3 emons	216 days -117 days	0% 5 0%			
426 CMF-7100 KD1F	Phase A - from B2 - Level 1 (including ELS demolition works)		112 days	Fri 10/9/21	Tue 25/1/22	112 days	Fri 11/2/22	Wed 29/6/22	NA	NA 139,186,187,190,188,422	427SS+30 days,428,430	-117 days	0%	i		
427 CMF-7110 KD1F 428 CMF-7120 KD1G	Phase B - from B1 - Level 1 (including ELS demolition works) Phase A - from Level 1 to Roof		112 days 120 days	Fri 10/9/21 Wed 26/1/22	Tue 25/1/22 Sat 25/6/22	112 days 120 days	Fri 18/3/22 Thu 30/6/22	Thu 4/8/22 Mon 21/11/22	NA NA	NA 426SS+30 days,423 NA 426	429,430 431,432	-117 days	0%			
429 CMF-7130 KD1G	Phase B - from Level 1 to Roof Phase B - from Level 1 to Roof		120 days 120 days	Wed 26/1/22 Wed 26/1/22	Sat 25/6/22 Sat 25/6/22	120 days	Fri 5/8/22	Wed 28/12/22	NA NA		431,432	-87 days -117 days	0%	İ	200000	
430 CMF-8000 KD1F	Allow access to Contractor DE/2018/04 for E&M installation and T&C works (from B2-level 1)		0 days	Tue 25/1/22	Tue 25/1/22	0 days	Thu 4/8/22	Thu 4/8/22	NA	NA 426,427	47FF	-115 days	0%	I I	♦ 4/8	
431 CMF-9000 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	0 days	Wed 28/12/22	Wed 28/12/22	NA	NA 428,429	48FF	-117 days	0%		♦ 28/12	
	(from Level to Roof)		, i							·			24			
432 CMF-10000 SW1 433 CMF-11000 SW2	ABWF works + BS works Process Pipe CHQ chainage 0-65, CHM chainage 0-120, CHN chainage		210 days 0 days	Mon 27/6/22 NA	Thu 9/3/23 NA	210 days 176 days	Thu 29/12/22 Mon 25/10/21	Wed 13/9/23 Tue 31/5/22	NA NA	NA 189,428,429 NA 423	56FF 57FF,555	121 days 43 days	0%	1		
	0-125, CHO chainage 0-65, CHP chainage 0-60 & CHV chainage 0-50 and surrounding utilities					,			.21			.,,		1		
434 CSA-0000 *	SAS Pumping Station, B-6		455 days	Wed 20/5/20	Thu 25/11/21	728 days	Sat 18/4/20	Wed 28/9/22	Sat 18/4/20	NA 11		891 days	78%			
												,			-	
Data Date: 31/07/2021										Page 5						Revision Date: 15/08/20
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	nt - Main Works Stage 1				·				Revised V	orks Programme	(Status Date: 31/07/2021)					
ID Activity ID Key Task I	Name	Inclement PMI & CE no. (NCE no.)	Baseline Duration	Baseline Start	Baseline Finish	Duration	Start	Finish Ac	ctual Start Ac	tual Finish	Predecessors	Successors	Total Slack Risk Allowance	% Complete		
		CE no. (NCE no.)												Otr 3	2020 Qtr 1	2022 2024 Qtr.3 Qtr.1
435 CSA-1000 436 CSA-1020	Additional Preliminary Works Expose and abandon existing electric cable & trial pits	78	0 days 0 days	NA NA	NA NA	330 days 39 days	Tue 9/6/20 Mon 17/8/20	Mon 19/7/21 Wed 30/9/20	Tue 9/6/20 Mon 17/8/20	NA Wed 30/9/20			1247 days 0 days	98% 100%		
437 CSA-1030 438 CSA-1100	Installation of standpipes	71	0 days	NA NA	NA NA	13 days	Mon 14/9/20	Mon 28/9/20	Mon 14/9/20	Mon 28/9/20			0 days	100%		
438 CSA-1100 439 CSA-1200	Decommission of exisiting power and signal systems in leachate Pump	312, 309, 74	0 days 0 days	NA NA	NA NA	170 days 58 days	Tue 9/6/20 Mon 21/9/20	Thu 31/12/20 Mon 30/11/20	Tue 9/6/20 Mon 21/9/20	Thu 31/12/20 Mon 30/11/20			0 days 0 days	100%		
440 CSA-1300		310 75, 76, 77, 161	0 days	NA	NA	54 days	Mon 19/10/20	Mon 21/12/20	Mon 19/10/20	Mon 21/12/20		453	0 days	100%		
441 CSA-1400 442 CSA-1500	Demolition of Existing Pillar box and its concrete plinth	144, 212, 3(30	0 days	NA NA	NA NA	53 days	Wed 12/8/20 Wed 17/6/20	Sat 14/11/20 Sat 21/11/20	Wed 12/8/20 Wed 17/6/20	Sat 14/11/20		453	0 days	100%	_ = =	
	Excavation to locate existing underground cble near SAS Pump Station		0 days			59 days				Sat 21/11/20			0 days			
443 CSA-1600	Diversion of Existing DN80 Permeate Rising Main near SAS Pumping station	89	0 days	NA	NA	72 days	Tue 6/10/20	Thu 31/12/20	Tue 6/10/20	Thu 31/12/20		453	0 days	100%		
444 CSA-1800 445 CSA-1700		309, 310 97 144, 212, 3(70	0 days	NA NA	NA NA	53 days	Mon 12/10/20 Mon 9/11/20	Sat 12/12/20 Fri 8/1/21	Mon 12/10/20 Mon 9/11/20	Sat 12/12/20 Fri 8/1/21			0 days	100%		
446 CSA-1900	Diversion of pumping system sewerage	212, 309, 3183	0 days	NA	NA	50 days 36 days	Wed 13/1/21	Fri 26/2/21	Wed 13/1/21	Fri 26/2/21	151	455,453,447	0 days	100%	_	
447 CSA-1910 448 CSA-1920	Diversion of Existing copper pipe near proposed SAS pumping station Pipework of proposed SAS Pumping Station - 13 nos. of puddles		0 days 0 days	NA NA	NA NA	61 days 180 days	Mon 19/10/20 Mon 7/12/20	Thu 31/12/20 Mon 19/7/21	Mon 19/10/20 Mon 7/12/20	Thu 31/12/20 4	146		0 days 1247 days	100% 92%		
449 CSA-1930 450 CSA-1940	Additional DN150 Rising main for SAS	220/69	0 days	NA	NA	15 days	Wed 2/12/20	Fri 18/12/20	Wed 2/12/20	Fri 18/12/20			0 days	100%		
450 CSA-1940 451 CSA-1970	Additional DN90 PE pipe diversion Additional diversion of existing sludge rising main and sewerage system	89 81	0 days 0 days	NA NA	NA NA	7 days 15 days	Fri 11/12/20 Thu 21/1/21	Fri 18/12/20 Sat 6/2/21	Fri 11/12/20 Thu 21/1/21	Fri 18/12/20 Sat 6/2/21			0 days	100%		
452 CSA-2000	Predrilling (4nrs, 1rig, 4days/drillhole/rig)	68	16 days	Wed 20/5/20	Sat 6/6/20	7 days	Sat 18/4/20	Sat 25/4/20	Sat 18/4/20	Sat 25/4/20	127	342 453	0 days	100%		
453 CSA-3000	Pre-bored H piles (12nos, 1rigs, 4days/pile/rig)		60 days	Mon 8/6/20	Tue 18/8/20	19 days	Mon 4/1/21	Mon 25/1/21	Mon 4/1/21	Mon 25/1/21	132,452,148,438,439,441,442,443,445,44	343,454	0 days 2	100%		
	Pile Load Test Sheetpile Installation (FSP-II, 690sq.m, 40sqm/day)		21 days 28 days	Wed 19/8/20 Wed 19/8/20	Thu 17/9/20 Sat 19/9/20	22 days 28 days	Tue 23/2/21 Tue 30/3/21	Fri 19/3/21 Wed 5/5/21	Tue 23/2/21 Tue 30/3/21	Fri 19/3/21 4 Wed 5/5/21			0 days 0 days	100%		
	ELS works (1300cu.m soil with 2 layers wailing / strutting) Receiving of Civil Requirements from PM		75 days 0 days	Mon 21/9/20	Wed 19/2/20	75 days 1 day	Thu 6/5/21 Thu 6/5/21	Wed 4/8/21 Thu 6/5/21	Thu 6/5/21 Thu 6/5/21		155,135,454 156FF-3 emons		-121 days 2 0 days	96% 100%		i i
458 CSA-7000 KD1H	R.C. Structure works (including ELS demolition works)		186 days	Mon 21/12/20	Mon 9/8/21	186 days	Thu 5/8/21	Sat 19/3/22	NA	NA 4	156,457SS-3 emons	459,460,49FF	-121 days 5	0%	1	
	Allow access to Contractor DE/2018/03 for E&M installation and T&C works ABWF works + BS works		0 days 90 days	Mon 9/8/21 Tue 10/8/21	Mon 9/8/21 Thu 25/11/21	0 days 90 days	Sat 19/3/22 Tue 14/6/22	Sat 19/3/22 Wed 28/9/22	NA NA	NA 4		49FF 56FF	-121 days 405 days	0%	I I	♦ 19/3
461 CAS-0000 * An	ncillary Structures, B-7		503 days	Mon 7/9/20	Sat 21/5/22	420 days	Mon 3/5/21	Wed 28/9/22	Mon 3/5/21	NA 1	12		891 days	7%		
462 CAS-1000	Demolition of Existing Faciliates and Structures (leachate pump pit & pumping station)		120 days	Mon 7/9/20	Sat 30/1/21	120 days	Mon 3/5/21	Thu 23/9/21	Mon 3/5/21	NA 1	122,160,162	497	48 days	41%		
	Fire Services Sprinkler Pumping Room & Emergency Generator House (9)+(10)**	301	220 days	Sat 10/4/21	Sun 3/1/21	419 days	Tue 4/5/21	Wed 28/9/22	Tue 4/5/21	NA			405 days	14%		
464 CFS-1000	Water Sampling and Testing for existing effluent pump pit	384	0 days	NA	NA	12 days	Tue 4/5/21	Mon 17/5/21	Tue 4/5/21	Mon 17/5/21		465	0 days	100%		
465 CFS-1150 466 CFS-1100	Identification, decommission and demolition of the existing kiosk Provision of Flowmeter chamber, gate valve chamber and associated	86 85	0 days 0 days	NA NA	NA NA	26 days 90 days	Tue 18/5/21 Sat 19/6/21	Fri 18/6/21 Tue 5/10/21	Tue 18/5/21 Sat 19/6/21	Fri 18/6/21 A		466,479 467,469FF	0 days -101 days	100%		
	seweage														1	
467 CFS-1200	Decommission and demolistion of the existing pump pit and associated sewerage manholes and pipes		0 days	NA	NA	40 days	Wed 6/10/21	Mon 22/11/21	NA	NA 4		470	-101 days	0%	I I	
468 CFS-1250 469 CFS-1300	Diversion of Leachate Rising Main near SSSH E&M provision of flowmeter chamber and associated sewerage for	241 256	0 days 0 days	NA NA	NA NA	18 days 40 days	Wed 28/7/21 Wed 18/8/21	Wed 18/8/21 Tue 5/10/21	NA NA				18 days -61 days	0%	į	
	effluent and sewage from SSSH			NA	NA										l I	
470 CFS-2000 471 CFS-2800	Excavation for Raft Footing (800cu.m) Plate load test at bottom level of compacted generall fill(2no.)		65 days 12 days	NA NA	NA NA	44 days 7 days	Tue 23/11/21 Mon 17/1/22	Sat 15/1/22 Mon 24/1/22	NA NA	NA 4		471 472	-101 days	0%	 	
472 CFS-2900 473 CFS-3000	Soil Replacement (14 layers SRT) Plate load test at bottom level of base slab (3no.)		0 days 28 days	NA Fri 4/6/21	NA Mon 21/6/21	42 edays 7 days	Mon 24/1/22 Tue 8/3/22	Mon 7/3/22 Tue 15/3/22	NA NA	NA 4		473 474FF-3 mons,475	-124.42 edays -101 days	0%	 	
474 CFS-3900	Receiving of Civil Requirements from PM		0 days	NA	NA	1 day	Tue 23/11/21	Tue 23/11/21	NA	NA 4	173FF-3 mons	475SS-3 emons	59 days	0%	1	
475 CFS-4000 KD1J 476 CFS-5000 KD1J	R.C. structure works Allow access to Contractor DE/2018/04 for E&M installation and T&C		120 days 0 days	NA Mon 13/9/21	NA Mon 13/9/21	70 days 0 days	Wed 16/3/22 Mon 13/6/22	Mon 13/6/22 Mon 13/6/22	NA NA	NA 4		477,476,51FF,521FF,520FF 51FF	-101 days 2 -101 days	0%	į	↓ 13/6
477 CFS-6000 SW1	works ABWF works + BS works		90 days	Tue 14/9/21	Mon 3/1/22	90 days	Tue 14/6/22	Wed 28/9/22	NA	NA 4	175	56FF	405 days	0%	1	
478 CCS-1000 *	Chemical System No.1 (8)*		168 days	Mon 1/2/21	Thu 26/8/21	386 days	Sat 12/6/21	Wed 28/9/22	Sat 12/6/21	NA			891 days	4%		
479 CCS-1310 480 CCS-1110	Demolition of SSSH Pump Pit and Associated Sewerage System Removal of existing Leachate Rising Main near SSSH	086 241	0 days	NA NA	NA NA	26 days 12 days	Sat 19/6/21 Wed 18/8/21	Tue 20/7/21 Tue 31/8/21	Sat 19/6/21 NA	NA 4			54 days 18 days	38%	1	
481 CCS-1100	Excavation for Raft Footing (20cu.m)		10 days	Mon 1/2/21	Thu 11/2/21	10 days	Wed 1/9/21	Sat 11/9/21	NA	NA 4	180,479	485FF-3 emons,486,482	18 days	0%	1	
482 CCS-1080 483 CCS-1090	Plate load test at bottom level of compacted generall fill(2no.) Soil Replacement (10 layers SRT)		9 days 0 days	NA NA	NA NA	9 days 30 edays	Mon 13/9/21 Thu 23/9/21	Thu 23/9/21 Sat 23/10/21	NA NA	NA 4			18 days 23.58 edays	0%		
484 CCS-1200 485 CCS-1190	Plate load test at bottom level of base slab (1no.) Receiving of Civil Requirements from PM		5 days 0 days	Tue 16/2/21 NA	Wed 3/3/21	5 days 1 day	Mon 25/10/21 Sat 12/6/21	Fri 29/10/21 Sat 12/6/21	NA Sat 12/6/21	NA 4	183 181 FF-3 emons		19 days 0 days	0%	1	T.
486 CCS-1300 KD1J	R.C. structure works		45 days	Mon 15/3/21	Mon 10/5/21	60 days	Sat 30/10/21	Tue 11/1/22	NA	NA 4	481,485SS-3 emons,484	51FF,488,487	20 days 2	0%	 	
487 CCS-1400 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	0 days	Tue 11/1/22	Tue 11/1/22	NA	NA 4	186	51FF	20 days	0%	I I	♦ 11/1
488 CCS-1500 SW1 489 CDS-0000 *	ABWF works + BS works Deodorization System No.3A (7)*		90 days 149 days	Tue 11/5/21 Tue 16/11/21	Thu 26/8/21 Sat 21/5/22	90 days 105 days	Tue 14/6/22 Thu 5/8/21	Wed 28/9/22 Wed 8/12/21	NA NA	NA NA	189,141,486,522SS		405 days 90 days	0%	1	
490 CDS-2000	Excavation for Raft Footing (400cu.m)		20 days	Tue 16/11/21	Wed 8/12/21	20 days	Sat 14/8/21	Tue 7/9/21	NA	NA 4	191SF		1205 days	0%		
491 CDS-2008 492 CDS-2100	Plate load test at bottom level of compacted generall fill(2no.) Soil Replacement (14 layers SRT)		10 days 0 days	NA NA	NA NA	10 days 42 edays	Tue 7/9/21 Sat 18/9/21	Sat 18/9/21 Sat 30/10/21	NA NA			490SF 491SF	1195 days 1425.42 edays	0%		
493 CDS-3000 494 CDS-3900	Plate load test at bottom level of base slab (1no.)		4 days	Thu 9/12/21 NA	Fri 24/12/21 NA	4 days	Sat 30/10/21	Wed 3/11/21 Thu 5/8/21	NA NA	NA 4		494FF-3 emons,495,492SF,500FS 495SS-3 emons		0%	1	
495 CDS-4000 KD1J	Receiving of Civil Requirements from PM Footing works		0 days 20 days	Tue 4/1/22	Wed 26/1/22	1 day 30 days	Thu 5/8/21 Thu 4/11/21	Wed 8/12/21	NA NA		193,494SS-3 emons	496,51FF	46 days	0%		
496 CDS-5000 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	0 days	Wed 8/12/21	Wed 8/12/21	NA	NA 4	195	51FF	46 days	0%	I I	♦ 8/12
	Chemical System No.2 (11)		189 days	Thu 4/3/21	Thu 21/10/21	300 days	Fri 24/9/21	Wed 28/9/22	NA NA	NA 4	162 199SF		48 days	0%	I I	
498 CCS-2100 499 CCS-2110	Excavation for Raft Footing (100cu.m) Soil Replacement (8 layers SRT)		15 days 0 days	Thu 4/3/21 NA	Sat 20/3/21 NA	14 days 24 edays	Fri 24/9/21 Wed 6/10/21	Mon 11/10/21 Sat 30/10/21	NA	NA 5	500SF	498SF	1177 days 1425.42 edays	0%	I I	
500 CCS-2200 501 CCS-2290	Plate load test (2no.) Receiving of Civil Requirements from PM		14 days 0 days	Mon 22/3/21 NA	Fri 9/4/21 NA	15 days 1 day	Sat 30/10/21 Fri 24/9/21	Tue 16/11/21 Fri 24/9/21	NA NA			501FF-3 emons,502,499SF,510FS 502SS-3 emons	- 19 days 108 days	0%	· !	. •
502 CCS-2300 KD1J	R.C. structure works		45 days	Tue 11/5/21	Mon 5/7/21	45 days	Wed 17/11/21	Tue 11/1/22	NA	NA 5	500,501SS-3 emons	503,51FF,504,505	20 days 2	0%	l I	
503 CCS-2400 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	0 days	Tue 11/1/22	Tue 11/1/22	NA	NA 5			20 days	0%	I I	♦ 11/1
504 CCS-2500 SW1 505 CCS-2600 SW1	ABWF works + BS works Demolition of existing chemical room		90 days 60 days	Tue 6/7/21 Tue 6/7/21	Thu 21/10/21 Mon 13/9/21	90 days 60 days	Tue 14/6/22 Wed 12/1/22	Wed 28/9/22 Fri 25/3/22	NA NA	NA 1			405 days 556 days	0%	I I	
506 CTC-0000 *	Temporary Chemical Dosing System (5)		191 days	Tue 22/6/21	Thu 10/2/22	330 days	Thu 19/8/21	Wed 28/9/22	NA	NA			89 days	0%	I I	
507 CTC-2000 508 CTC-2080	Excavation for Raft Footing (300cu.m) Plate load test at bottom level of compacted generall fill(2no.)		30 days 9 days	Tue 22/6/21 NA	Tue 27/7/21 NA	30 days 9 days	Thu 26/8/21 Sat 2/10/21	Sat 2/10/21 Wed 13/10/21	NA NA		508SF 509SF	507SF	1185 days 1176 days	0%	: 	-
509 CTC-2100 510 CTC-1000	Soil Replacement (10 layers SRT) Plate load test at bottom level of base slab (1no.)		0 days 5 days	NA Wed 28/7/21	NA Thu 12/8/21	30 edays 5 days	Wed 13/10/21 Fri 12/11/21	Fri 12/11/21 Wed 17/11/21	NA NA		510SF	508SF	1412.42 edays 19 days	0%		
511 CTC-2900	Receiving of Civil Requirements from PM		0 days	NA	NA	1 day	Thu 19/8/21	Thu 19/8/21	NA	NA 5	510FF-3 emons	512SS-3 emons	138 days	0%	I I	
512 CTC-3000 KD1J 513 CTC-4000 KD1J	R.C. structure works Allow access to Contractor DE/2018/04 for E&M installation and T&C		30 days 0 days	Tue 14/9/21 Thu 21/10/21	Thu 21/10/21 Thu 21/10/21	45 days 0 days	Thu 18/11/21 Wed 12/1/22	Wed 12/1/22 Wed 12/1/22	NA NA	NA 5			19 days 1 19 days	0%	I I	↓ 12/1
	works													200	I I	
	ABWF works + BS works Fire Hydrant and Booster Pump Room (13)*		90 days 177 days	Fri 22/10/21 Fri 13/8/21	Thu 10/2/22 Thu 17/3/22	90 days 193 days	Tue 14/6/22 Sat 5/2/22	Wed 28/9/22 Wed 28/9/22	NA NA	NA			405 days -28 days	0% 0 %		
516 CFB-1000 517 CFB-1100	Excavation for Raft Footing (200cu.m) Soil Replacement (7 layers SRT)		30 days 0 days	Fri 13/8/21 NA	Thu 16/9/21 NA	30 days 21 edays	Wed 23/2/22 Wed 30/3/22	Wed 30/3/22 Wed 20/4/22	NA NA		517SF 518SF	516SF	1039 days 1253.42 edays	0%		-
518 CFB-2000	Plate load test (3no.)		14 days	Fri 17/9/21	Tue 5/10/21	14 days	Wed 20/4/22	Sat 7/5/22	NA	NA 5	520SF		1011 days	0%	I I	
519 CFB-2900 520 CFB-3000 KD1J	Receiving of Civil Requirements from PM R.C. structure works		0 days 30 days	NA Fri 22/10/21	NA Thu 25/11/21	1 day 30 days	Sat 5/2/22 Sat 7/5/22	Sun 6/2/22 Mon 13/6/22	NA NA		518FF-3 emons 475FF	521,522,51FF,518SF	1083 days -101 days 1	0%	I I	
521 CFB-4000 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	0 days	Mon 13/6/22	Mon 13/6/22	NA			51FF	-101 days	0%	I I	◆ 13/6
522 CFB-5000 SW1	ABWF works + BS works		90 days	Fri 26/11/21	Thu 17/3/22	90 days	Tue 14/6/22	Wed 28/9/22	NA		520,189,141	56FF,514SS,504SS,488SS,460SS		0%	I I	
523 CDS1-0000 524 CDS1-1000	Deodorization System No.1 (6)* Excavation for Raft Footing (400cu.m)		64 days 20 days	NA NA	NA NA	105 days 20 days	Tue 10/5/22 Wed 8/6/22	Tue 13/9/22 Thu 30/6/22	NA NA	NA NA 3	322		418 days 420 days	0%		
525 CDS1-1080	Plate load test at bottom level of compacted generall fill(2no.)		10 days	NA	NA	10 days	Sat 2/7/22	Wed 13/7/22	NA	NA 5	524	526	420 days	0%	I I	
526 CDS1-1100 527 CDS1-2000	Soil Replacement (7 layers SRT) Plate load test at bottom level of base slab (1no.)		0 days 4 days	NA NA	NA NA	21 edays 4 days	Wed 13/7/22 Thu 4/8/22	Wed 3/8/22 Mon 8/8/22	NA NA	NA S	526	529,528FF-3 emons	513.58 edays 418 days	0%	I I	
	Receiving of Civil Requirements from PM		0 days 30 days	NA NA	NA NA	0 days 30 days	Tue 10/5/22 Tue 9/8/22	Tue 10/5/22 Tue 13/9/22	NA NA			529SS-3 emons	523 days 418 days	0%	 	♦ 10/5
528 CDS1-2900 529 CDS1-3000 SW1	Footing works				NA NA	0 days	Tue 13/9/22	Tue 13/9/22	NA NA	NA S			418 days	0%		400
528 CDS1-2900 529 CDS1-3000 SW1 530 CDS1-4000 SW1	Footing works Allow access to Contractor DE/2018/04 for E&M installation and T&C works		0 days	NA	ING.	0 days		100 10 0 12		INA	20	0011		1 77		♠ 13/9
529 CDS1-3000 SW1 530 CDS1-4000 SW1			0 days 662 days	Wed 29/1/20	Fri 22/4/22	918 days	Mon 1/6/20	Thu 6/7/23	Mon 1/6/20	NA NA			269 days	64%		◆ 134

		hing Plant - Main Works Stage 1	I								I	1-		In the second								
Activity ID	Date	Task Name	Inclement Weather CE no. (NCE no.)	Baseline Duration	Baseline Start	Baseline Finish	Duration	Start	Finish	Actual Start	Actual Finish Predecessors	Successors	Total Slack	Risk % Compl Allowance		20)20			2022		2024 Qtr 3 Qtr 1
CAA-1000	0 KD2E	B B-8A Alternation works for existing Air Blower House No.2 (Pipeline CHTA, approx. 133m DN800 D.I.)	(NCE no.)	180 days	Wed 29/1/20	Thu 3/9/20	246 days	Mon 1/6/20	Fri 26/3/21	Mon 1/6/20	Fri 26/3/21 15,142,184	53FF	0 days		100% Otr 3	Qtr 1 Qtr 3	Qtr 1	Otr 3	Qtr 1 Qtr 3	3 Qtr 1	Qtr 3 Qtr 1	Qtr3 Qtr1
CAA-1100	0	Change of pipe bridge design	(057)	0 days	NA	NA	135 days	Mon 1/6/20	Tue 10/11/20	Mon 1/6/20	Tue 10/11/20	536.537.538	0 days		100%	100	1	1			1	
CAA-1200		Additional inspection pit to verify the connection point to existing (CE xxx)	(40.7)	0 days	NA	NA	135 days	Mon 1/6/20	Tue 10/11/20			536,537,538	0 days		100%		1				1	
CAA-1300	0	Additional MBV installation (CE xxx)		0 days	NA	NA	135 days	Mon 1/6/20	Tue 10/11/20	Mon 1/6/20	Tue 10/11/20	536.537.538	0 days		100%		1.	!				
CAA-1400		Alternation works for existing Air Blower House No.2 (Pipeline CHTA, approx. 133m DN800 D.l.)		180 days	Wed 29/1/20	Thu 3/9/20	111 days	Wed 11/11/20	Fri 26/3/21			53FF	0 days		100%	_						
CAA-1500	0 KD2B	Re-alignment of DN800 Temporary Air Main (CHTA) and Provision of FRP Staircases	064	0 days	NA	NA	111 days	Wed 11/11/20	Fri 26/3/21	Wed 11/11/20	Fri 26/3/21 533,534,535	53FF	0 days		100%		i i	i			i I	
CAA-1600	0 KD2B	B Elevated Section of DN800 Temporary Air Main (CHTA) across existing Bioreactor's Distibution Chamber No. 2	062	0 days	NA	NA	111 days	Wed 11/11/20	Fri 26/3/21	Wed 11/11/20	Fri 26/3/21 533,534,535	53FF,539	0 days		100%		1	1			I I	
CAA-2000	0 KD1I	B7-A Alternation works for existing Power House		122 days	Fri 4/9/20	Sat 30/1/21	0 days	Wed 11/11/20	Fri 29/1/21	Wed 11/11/20	Fri 29/1/21 13FS-1 day,122,160,162,176,538	50FF,540FS+356 days	0 days		100%		◆ 29/1	- !				
CAA-2100			224	0 days	NA	NA	60 days	Thu 14/4/22	Wed 29/6/22		1411000101000000	58FF	570 days		0%			- 1				
CAA-3000		Alternation works for existing Membrane Facilities Building No.1		360 days	Mon 1/2/21	Fri 22/4/22	360 days	Tue 19/4/22	Thu 6/7/23	N/	NA 14FS-1 day,175	58FF	269 days		0%		i	- 1				
CUU-0000		External Underground Service, Utilities, Road/Drain		1091 days	Mon 24/2/20	Sat 28/10/23	1192 days	Mon 27/4/20	Mon 13/5/24	Mon 27/4/20	NA 16		-88 days		46%		•					
CUU-1000	0 KD2A	Process Pipes CHR and CHS (approx. 93m twin DN900 D.I.)	33, 222, 255	325 days	Mon 24/2/20	Sat 27/3/21	379 days	Mon 27/4/20	Wed 4/8/21	Mon 27/4/20	NA 184,142	554SS+48 days,552SS+48 day	s,55-39 days		99%	1111	•	1			1	
CUU-1000	10a	Special Treatment for Removing the Existing Abandoned DN1800 By-pas: Pipe and the Concrete Mass in Conflict with the Proposed Sheetpile wall f trenching work of Process Pipeline CHR and CHS	33 or	0 days	NA	NA	54 days	Sat 30/5/20	Mon 3/8/20	Sat 30/5/20	Mon 3/8/20		0 days		100%	_		 				
CUU-1000	10b	Trenchless work for Process Pipes CHR and CHS (approx. 7m twin DN90 D.I.)	255	0 days	NA	NA	60 days	Thu 25/2/21	Mon 10/5/21	Thu 25/2/2	Mon 10/5/21	52FF	0 days		100%		1	1			I I	
CUU-1001		Removal of Abandoned DN1800 Concrete Pipe and Concrete Mass near Existing UV Disinfection Channel at CHR & CHS Process Pipe Works Are	a 033	0 days	NA	NA	43 days	Thu 2/7/20	Thu 20/8/20	Thu 2/7/20	Thu 20/8/20		0 days		100%		į					
CUU-1002		Grouting for Sheung Shui Slaughter House Boundary Walls along CHR & CHS Pipes Works Area	222	0 days	NA	NA	20 days	Fri 23/10/20	Mon 16/11/20				0 days		100%		i					
CUU-1004		Delay Delivery of DI pipes due to COVID-19	(076)	0 days	NA	NA	75 days	Tue 22/12/20	Thu 25/3/21			549FF	0 days		100%			i			i	
CUU-2000	0 SW2	Process Pipes, including CHT, CHX, CHY, CHPS1&2, CHS S1&2, CHDO 1&2, CHPSW 1-8, CHTPS, CHPT1&2. CHTFT 1&2, CHTE, CHTD, Foam Collection & Surplus activated sludge rising main pipe		550 days	Mon 29/6/20	Fri 6/5/22	457 days	Mon 19/10/20	Fri 6/5/22	Mon 19/10/20	NA 184,142,548FF,543SS+48 days	57FF,555,550SS+250 days	63 days		51%		• 	i				
CUU-2100	0 SW2	Remaining Process Pipes		0 days	NA	NA	270 days	Mon 23/8/21	Fri 22/7/22	N/	NA 549SS+250 days	57FF	0 days		0%		ıΒ	шшш			i	
CUU-3000				550 days	Mon 29/6/20	Fri 6/5/22	520 days	Mon 19/10/20	Fri 22/7/22	Mon 19/10/20		555,57FF	0 days	5	45%	2222		шшш			1	
CUU-4000				550 days	Mon 29/6/20	Fri 6/5/22	520 days	Mon 19/10/20	Fri 22/7/22	Mon 19/10/20	NA 184,142,543SS+48 days	555,57FF	0 days	5	45%	2222		шшш			1	
CUU-5000	0 SW2	Remaining Waterworks		550 days	Mon 29/6/20	Fri 6/5/22	520 days	Mon 19/10/20	Fri 22/7/22	Mon 19/10/20	NA 184,142,543SS+48 days	557FS+2 days,57FF	0 days	5	45%			mmm			1	
CUU-6000				550 days	Mon 29/6/20	Fri 6/5/22	520 days	Mon 19/10/20	Fri 22/7/22	Mon 19/10/20	NA 184,142,543SS+48 days	555,57FF	0 days	5	45%	7777		anninini (
CUU-7000	0 KD3A	A Roadworks		540 days	Fri 31/12/21	Sat 28/10/23	440 days	Mon 7/11/22	Mon 13/5/24	N/	NA 554,551,552,549,352,399,334,433	54FF,558SS+123 days	-88 days	5	0%		11			mumm		
CLW-0000	00 *	Landscaping Works		854 days	Wed 11/5/22	Thu 27/3/25	946 days	Tue 26/7/22	Wed 24/9/25	N/	NA 16		0 days		0%		- 11	- 1				
CLW-1000	00 KD3A	A Irrigation System		120 days	Wed 11/5/22	Fri 30/9/22	120 days	Tue 26/7/22	Thu 15/12/22	N/	NA 553FS+2 days,184	558,54FF	1 day		0%		li.	i				
CLW-2000	00 SW3	Hard Landscaping Works		220 days	Mon 3/10/22	Mon 3/7/23	214 days	Tue 11/4/23	Sat 23/12/23	N/	NA 557,555SS+123 days	559,58FF	-88 days	5	0%		li.	i			THE STATE OF THE S	
CLW-3000	00 SW3	Soft Landscaping Works		220 days	Tue 4/7/23	Tue 26/3/24	214 days	Wed 27/12/23	Tue 24/9/24	N/	NA 558,143	560,58FF	-88 days	5	0%		i i	1			annum .	<i></i>
CLW-4000	00 DIP	Establishment Works (365 days)		294 days	Wed 27/3/24	Thu 27/3/25	365 days	Wed 25/9/24	Wed 24/9/25	N/	NA 559.143	59FF 60FF	0 days	E	0%		1	1				mmmm

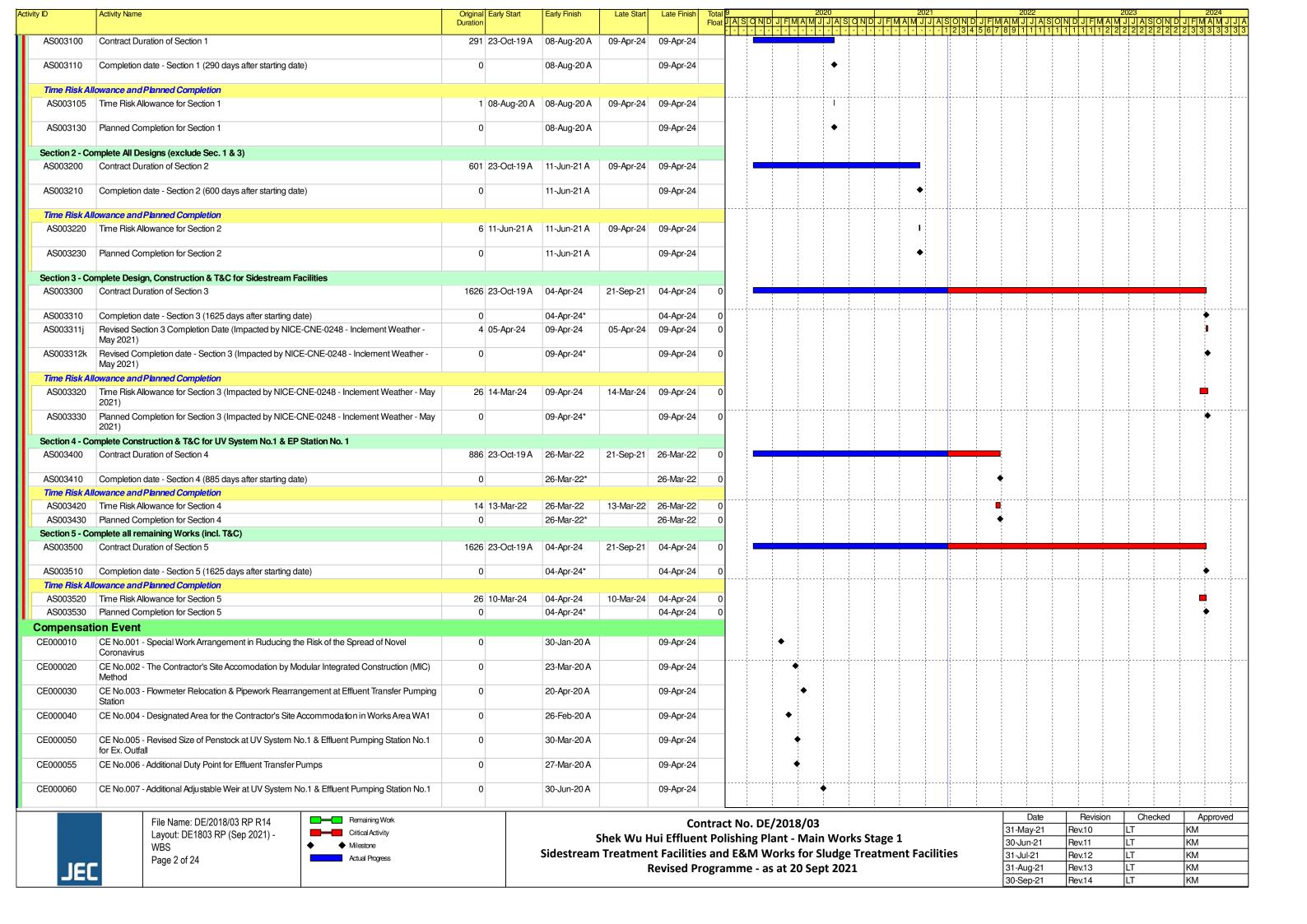


Activity ID

Activity Name

Revised Programme - as at 20 Sept 2021

Date	Revision	Checked	Approved
31-May-21	Rev.10	LT	KM
30-Jun-21	Rev.11	LT	KM
31-Jul-21	Rev.12	LT	KM
31-Aug-21	Rev.13	LT	KM
30-Sep-21	Rev.14	LT	KM



Activity ID	Activity Name	Original Early Sta	ert Early Finish	Late Start	Late Finish	Total 9	AISION	O JI FIMI.	2020 AMJJJA	SIGNIDIA	202 U FIMLALMI JI	21 JI AISIOINI I	D J F M A	2022 MIJI JI AIS	SOND JI FIMI	2023 AIMI JI JI AI	ISIOINI DI J	2024
0500050		Duration	22.1		22.4	-						1 2 3 4	1 5 6 7 8	9 1 1 1 1	111111	2 2 2 2 2	2 2 2 2 2	3 3 3 3 3 3
CE000070	CE No.008 - Provision of Additional 2nd Temp. Power Supply for UV System No.1 & Effluent Pumping Station No.1	0	03-Aug-20 A		09-Apr-24				•									
CE000080	CE No.009 - Employment of Temporary Staff under Anti-Epidemic Fund	0	07-Jul-20 A		09-Apr-24				•									
CE000090	CE No.010 - Revised Setting Out Plan for Sidestream Treatment Facilities	0	07-Jul-20 A		09-Apr-24				•									
CE000100	CE No.012 - Provision of Touchscreen Display System for the Project Manager's Office	0	06-Oct-20 A		09-Apr-24					•								
CE000110	CE No.013 - Feasibility Study for Adopting emMiC & DfMA	0	22-Oct-20 A		09-Apr-24	-				•		 						
CE000120	CE No.014 - Revised FS Water Supply Arrangement for CHP, Guard House, Workshop No.2, SludgeDigester&DistributionChamber	0	28-Oct-20 A		09-Apr-24					•								
CE000130	CE No.015 - Revised Plumbing Arranagement for Workshop No.2, UV & Effluent No.1, CHP, SPS&FCDF, DOU No.11&12, H2S, SDDC	0	30-Oct-20 A		09-Apr-24					•								
CE000140	CE No.016 - Elect. Provisions for Addit. 800A ACB w/ CMPD as Standby Supply for MBBR for UV No.2 for Future Expansion	0	28-Oct-20 A		09-Apr-24					•								
CE000150	CE No.018 - MVAC Layout for Plant Service Water System	0	05-Nov-20 A		09-Apr-24					•								
CE000160	CE No.020 - Addit. set of 11kV power feeder panel at 11kV SB in CHP for future connection to Zone B in Stage 2	0	09-Nov-20 A		09-Apr-24					•		 						
CE000165	NCE-PMI-0201 - Provision of Access Platform for EOT cranes in UV System No.1 & Effluent Pumping Station No.1	0	16-Nov-20 A		09-Apr-24					•								
CE000170	NCE-PMI-0202 - Revised Plumbing Arrangement for Sludge Dewatering Building	0	26-Nov-20 A		09-Apr-24					•								
CE000175	NCE-PPMI-0203 - MVAC Layout for SAS Pumping Station	0	25-Nov-20 A		09-Apr-24					•								
CE000180	NCE-PMI-0204 - CHP - Provisional of Additional ATS for Power Supply for UPS	0	08-Dec-20 A		09-Apr-24					•		 						
CE000185	NCE-PPMI-0205 - Fibre Optics Network Connection for SCADA Systems between Zone B & Zone C	0	23-Nov-20 A		09-Apr-24	-				•					 			
CE000190	NCE-PMI-0206 - SDB - Provisional of Additional ATS for Power Supply for UPS	0	15-Dec-20 A		09-Apr-24					•								
CE000191	NCE-PMI-0207 - TX Rm & Switch Rm - Provision of ATS for Power Supply for UPS	0	01-Dec-20 A		09-Apr-24					•								
CE000192	NCE-PPMI-0208 - Provision of Drainage service Layout for SAS Pumping Station	0	26-Nov-20 A		09-Apr-24					•								
CE000193	NCE-PPMI-0209 - Drainage System for Plant Service Water System	0	26-Nov-20 A		09-Apr-24					•								
CE000194	NCE-PPMI-0210 - Electrical provisions for MVAC & Drainage Systems in SAS Pumping Station	0	08-Dec-20 A		09-Apr-24					•								
CE000195	NCE-PPMI-0211 - Revised MVAC Layout & Electrical Provisions for MVAC in TX and Switch Rm	0	02-Dec-20 A		09-Apr-24					•								
CE000196	NCE-PMI-0212 - Provision of Louvre Panel for Outdoor AC Units at Contractor's Site Accomodation	0	07-Dec-20 A		09-Apr-24					•								
CE000197	NCE-PPMI-0213 - Electrical provisions for MVAC & Drainage System in UV System No.1 & Effluent Pumping Station No.1	0	21-Dec-20 A		09-Apr-24					•								
CE000200	NCE-PPMI-0214 - Additional Sump Pump & Drain Pipes at UV System No.1 & Effluent Pumping Station	0	14-Dec-20 A		09-Apr-24					•								
CE000210	NCE-PPMI-0215 - Revised MVAC Layout for UV System No.1 & Effluent Pumping Station No.1	0	14-Dec-20 A		09-Apr-24	-				•					 			
CE000220	NCE-PPMI-0216 - Electrical Provisions for MVAC & drainage Sytems in Plant Service Water System	0	31-Dec-20 A		09-Apr-24					•								
CE000230	NCE-PMI-0217 - Revised Duty Points for Effluent Transfer Pumps	0	29-Dec-20 A		09-Apr-24					•								
CE000240	NCE-PMI-0218 - Scoping Study for Application of Digital Twin & IoT in Zone B & Zone C of SWHEPP	0	04-Jan-21 A		09-Apr-24					•								
CE000250	NCE-NCE-0219 - Change of Site Access Date to SAS Pumping Station Forming Part of Portion B-2 of the Site	0	19-Dec-20 A		09-Apr-24					•								
CE000252	NCE-NCE-0219 - Portion B-2a (within 771 to 891 days from starting date)	891 23-Oct-	19 A 31-Mar-22	21-Sep-21	31-Mar-22	0												
CE000254	NCE-NCE-0219 - Revised Access Date for Portion B-2a	1 31-Mar-	-22 31-Mar-22*	31-Mar-22	31-Mar-99		!											
CE000254 CE000256	NCE-NCE-0219 - Portion B-2b (within 615 to 705 days from starting date)	705 23-Oct-		21-Sep-21		0	_											
		<u> </u>					1	1 1		1 1		<u> </u>	1	Date	Dovisio	n I CL	necked	Approved
	File Name: DE/2018/03 RP R14 Remaining Work				Co	ntract	No. DI	/2018	/03				-	1-May-21	Revisio Rev.10	n Cr IT		Approved KM
	Layout: DE1803 RP (Sep 2021) - Critical Activity WRS Milestone		:	Shek Wu H	lui Effluer	t Poli	shing P	lant - I	vlain W	orks Sta	ge 1		<u> </u>	0-Jun-21	Rev.11	LT		KM
	WBO .		Sidestream	n Treatmen	nt Facilitie	s and	E&M V	orks f	or Slud	ge Treat	ment Fac	cilities	<u> </u>	1-Jul-21	Rev.12	LT		KM
JE	Page 3 of 24 Actual Progress				Revised Pi									1-Aug-21	Rev.13	LT		KM
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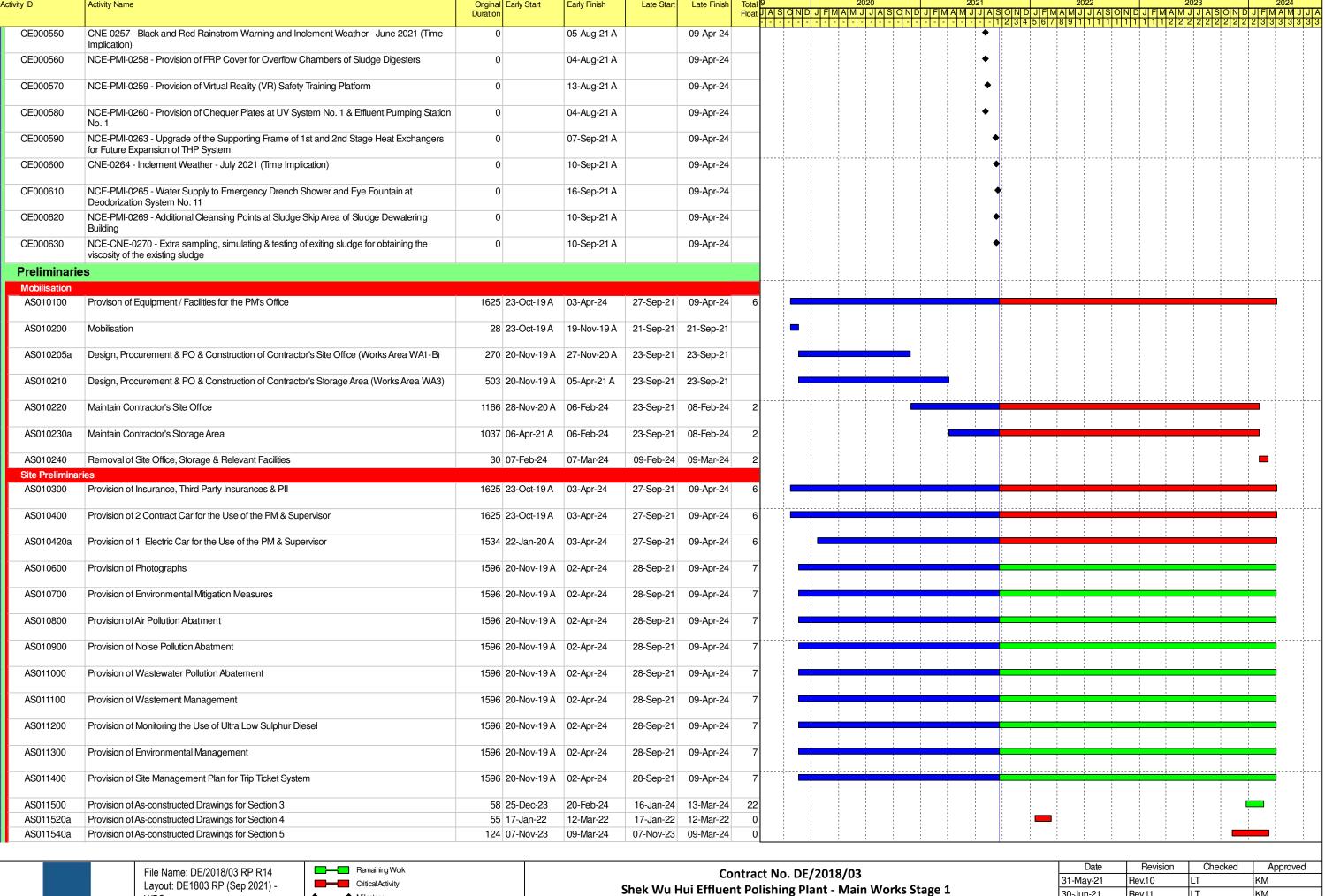
JEL

Date	Revision	Checked	Approved
31-May-21	Rev.10	LT	KM
30-Jun-21	Rev.11	LT	KM
31-Jul-21	Rev.12	LT	KM
31-Aug-21	Rev.13	LT	KM
30-Sep-21	Rev.14	LT	KM

Activity ID	Activity Name	Original Early Start	Early Finish	Late Start	Late Finish) HAISIOI	VIDL.ILE	2020 MIAIMLII.		NIDI.II FIN	2021 // Al Ml.II.II	AISIOINII		2022 JMLILII A	ISIOINIDI.	II FIMI AIN	2023 M. H. H. ALSI	OINIDIJIEU	2024 M A M J J A
													- 1 2 3 4	5 6 7 8	9 1 1 1	1 1 1 1 1	1 1 2 2	2 2 2 2 2	2 2 2 2 3	3 3 3 3 3
CE000258	NCE-NCE-0219 - Revised Access Date for Portion B-2b	1 26-Sep-21	26-Sep-21*	26-Sep-21	•								l:							
CE000260	NCE-PMI-0220 - Supply of Puddle Pipes for Effluent to Shek Sheung River	0	30-Dec-20 A		09-Apr-24															
CE000270	NCE-PPMI-0221 - General Arrangement for Fire Hydrant & Booster Pump Room	0	24-Dec-20 A		09-Apr-24		-				•		j							
CE000280	NCE-PMI-0222 - Revised Water Supply Arrangement (FS Water) to Sludge Dewatering Building	0	12-Jan-21 A		09-Apr-24		 				•									
CE000290	NCE-PMI-0223 - Construction of Trial Pits for Sidestream Treatment Facilities	0	15-Jan-21 A		09-Apr-24						•									
CE000300	NCE-PMI-0224 - Independent Inspection Body (IIB) for the Factory Acceptance Test (FAT) for UV Disinfeciton System	0	25-Jan-21 A		09-Apr-24		 				•								!	
CE000310	NCE-PMI-0225 - Supply of Ductile Iron Puddle Pipes at the Basement of Sludge Dewatering Building	0	09-Mar-21 A		09-Apr-24						•								! ! !	
CE000320	NCE-PMI-0226 - Provision of Solar Water Heating System at the Contractor's Site Accomodation	0	09-Mar-21 A		09-Apr-24		!				•								!	
CE000330	NCE-PMI-0227 - Dual Power Fedder for LV Switch Panel at Sewage Pumping Station	0	11-Mar-21 A		09-Apr-24						•									
CE000340	NCE-PMI-0228 - Provision of Effluent Pipes and Associated Valve and Supply of Supports for Effluent to Shek Sheung River	0	11-Mar-21 A		09-Apr-24						•									
CE000350	NCE-PMI-0230 - Provision of Project Jackets with Fleece Vests	0	26-Mar-21 A		09-Apr-24		; ; ; ; ;					•								
CE000360	NCE-PMI-0231 - Extension of Sampling Pipe From Low Level on Sludge Digesters	0	12-Apr-21 A		09-Apr-24							•							 	
CE000370	NCE-PMI-0232 - Dual Power Fedder for LV Switch Panel at 1/F LV Switch Room of Combined Heat and Power (CHP) Building	0	22-Apr-21 A		09-Apr-24							•							 	
CE000380	NCE-PMI-0233 - Sampling, Simulating and Testing of Existing Sludge for Obtaining the Viscosity of the Mixed Sludge	0	06-May-21 A		09-Apr-24							•								
CE000390	NCE-PMI-0234 - Provision of FRP Wakway, Access Platform & Handrailing for Sludge Digester No. 2	0	02-Jun-21 A		09-Apr-24		; ; ; ;					•								
CE000395	NCE-CNE-0237 - Provision of Inspectin Windows for Sludge Digester	0	25-Jun-21 A		09-Apr-24		 			 		•							 	
CE000400	NCE-PMI-0238 - Supply of Stainless Steel Puddle Pipes for Surplus Activated Sludge (SAS) Pumping Station	0	27-May-21 A		09-Apr-24		 					•							 	
CE000410	NCE-PMI-0239 - Revised the Arrangement for Process Water Supply and Plant Services Water System	0	01-Jun-21 A		09-Apr-24		1					•								
CE000420	NCE-PMI-0240 - Revised Coping and Invert Levels for Penstock and Stoplog of SAS Pumping Station	0	09-Jun-21 A		09-Apr-24		i ! ! !			 		•							 	
CE000430	NCE-PMI-0241 - Revised Diesel Fuel Tank at Combined Heat and Power (CHP) Building	0	04-Jun-21 A		09-Apr-24		 					•							! ! !	
CE000440	NCE-PMI-0242 - Revised Fire Services Provision of UV System No. 1 and Effluent Pumping Station No. 1	0	15-Jun-21 A		09-Apr-24		!					•								
CE000450	NCE-PMI-0243 - Provision of Flow Signal Inputs for UV Disinfection System	0	12-Jul-21 A		09-Apr-24							•								
CE000460	CNE-0244 - Access to and use of portion C-1A	0	29-Jun-21 A		09-Apr-24		i 1 1 1 1					•								
CE000470	NCE-PMI-0245 - Provision of Augmented Reality (AR) Mobile Application	0	30-Jun-21 A		09-Apr-24		 					•							i i i	
CE000480	NCE-PMI-0246 - Revised HV Remote Control Panels at CHP & Workshop No. 2	0	06-Jul-21 A		09-Apr-24		1 1 1 1 1					•							 	
CE000490	NCE-PMI-0247 - Temporary 4G System for SCADA System Monitoring	0	07-Jul-21 A		09-Apr-24		 					•							 	
CE000500	NCE-PMI-0248 - Inclement Weather - May 2021 (Time Implication)	0	05-Jul-21 A		09-Apr-24		 					•							 	
CE000510	NCE-PMI-0250 - Provision of Front Access LV Switch Panel in the LV Switch Room on G/F Workshop No. 2	0	14-Jul-21 A		09-Apr-24							•								
CE000520	NCE-PMI-0252 - Provision of Neutral Earthing Resistor (NER) at Workshop No. 2	0	19-Jul-21 A		09-Apr-24		; ; ; ;					•								
CE000530	NCE-PMI-0253 - Provision of Building Services Systems in New LV Switch Room on the G/F Workshop No. 2	0	16-Jul-21 A		09-Apr-24		; ! ! !					•							; ! ! !	
CE000535	NCE-CNE-0254 - Removal of Obstructions at Trail Pit No. 3 at Sidestreamt Facilities	0	10-Sep-21 A		09-Apr-24		 						•						1 1 1 1 1	
CE000540	CNE-0256 - Amber Rainstrom Warning and Inclement Weather - June 2021 (Time Implication)	0	05-Aug-21 A		09-Apr-24								•						 	
	File Name: DE/2018/03 RP R14				Co	ntrac	t No. [DE/20	8/03						Date		Revision	Chec		Approved
	Layout: DE1803 RP (Sep 2021) - Critical Activity			Shek Wu H				-	-	Works	s Stage	1			31-May-21			LT LT	KM	
	WBS ♦ Milestone		Sidestream				_				_		lities		30-Jun-21 31-Jul-21	Rev. Rev.		LI LT	KM KM	
IC	Page 4 of 24 Actual Progress		Jiacoti Calli		Revised P					_	· catille	i aci			31-Jul-21 31-Aug-21			LT	KM	
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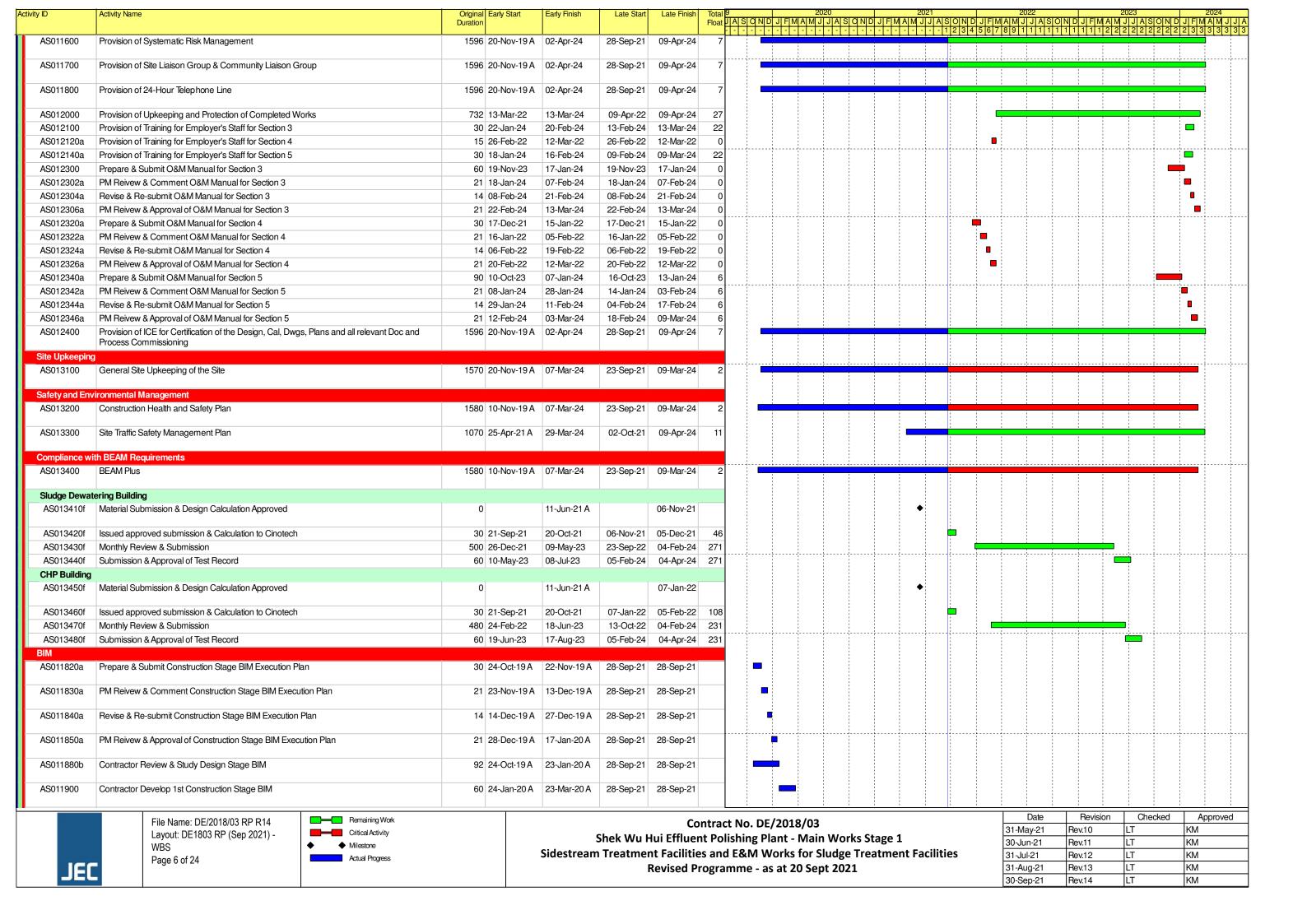
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31-May-21	Rev.10	LT	KM
30-Jun-21	Rev.11	LT	KM
31-Jul-21	Rev.12	LT	KM
31-Aug-21	Rev.13	LT	KM
30-Sep-21	Rev.14	LT	KM

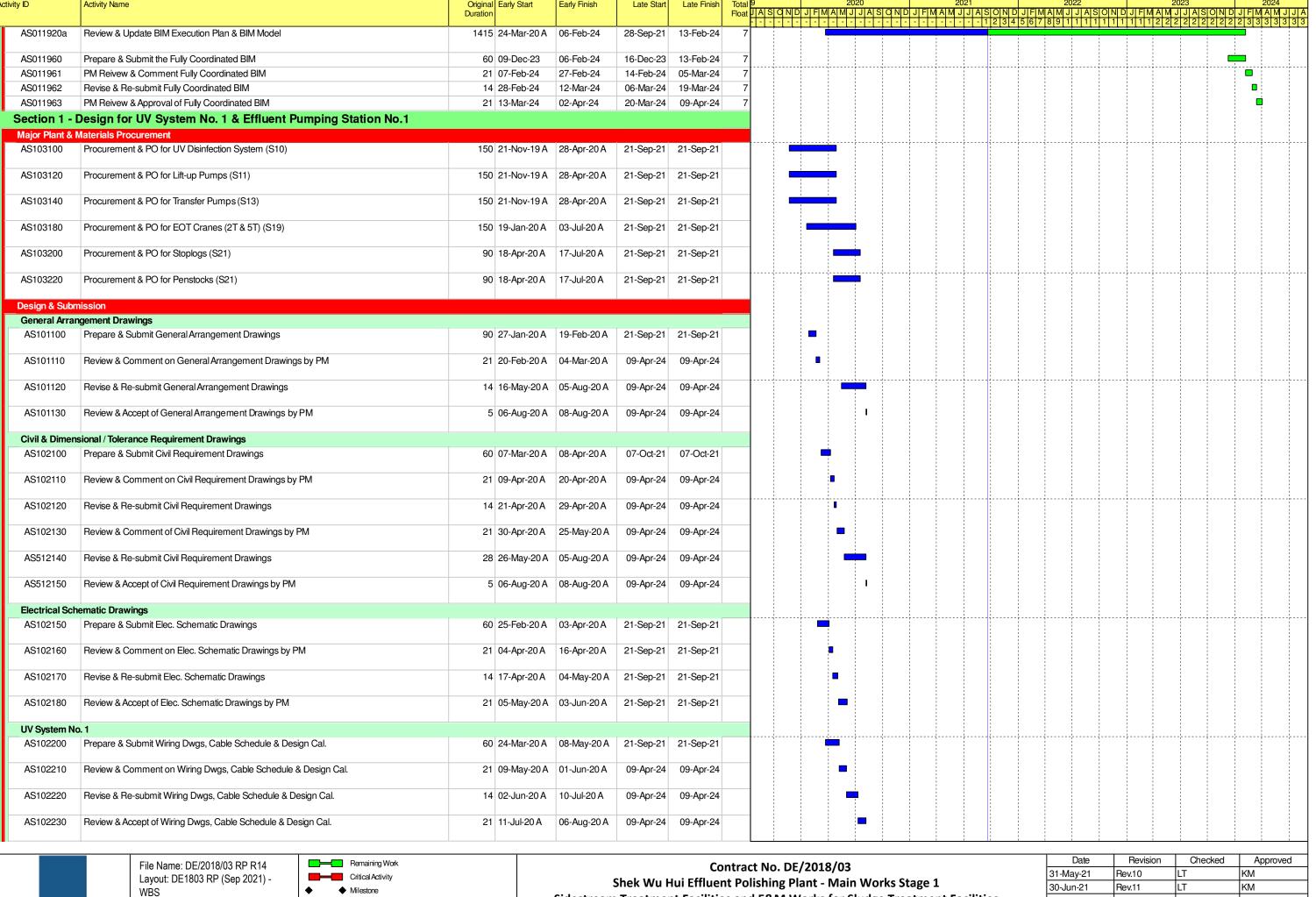


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Milestone Actual Progress

Date	Revision	Checked	Approved
31-May-21	Rev.10	LT	KM
30-Jun-21	Rev.11	LT	KM
31-Jul-21	Rev.12	LT	KM
31-Aug-21	Rev.13	LT	KM
30-Sep-21	Rev.14	LT	KM

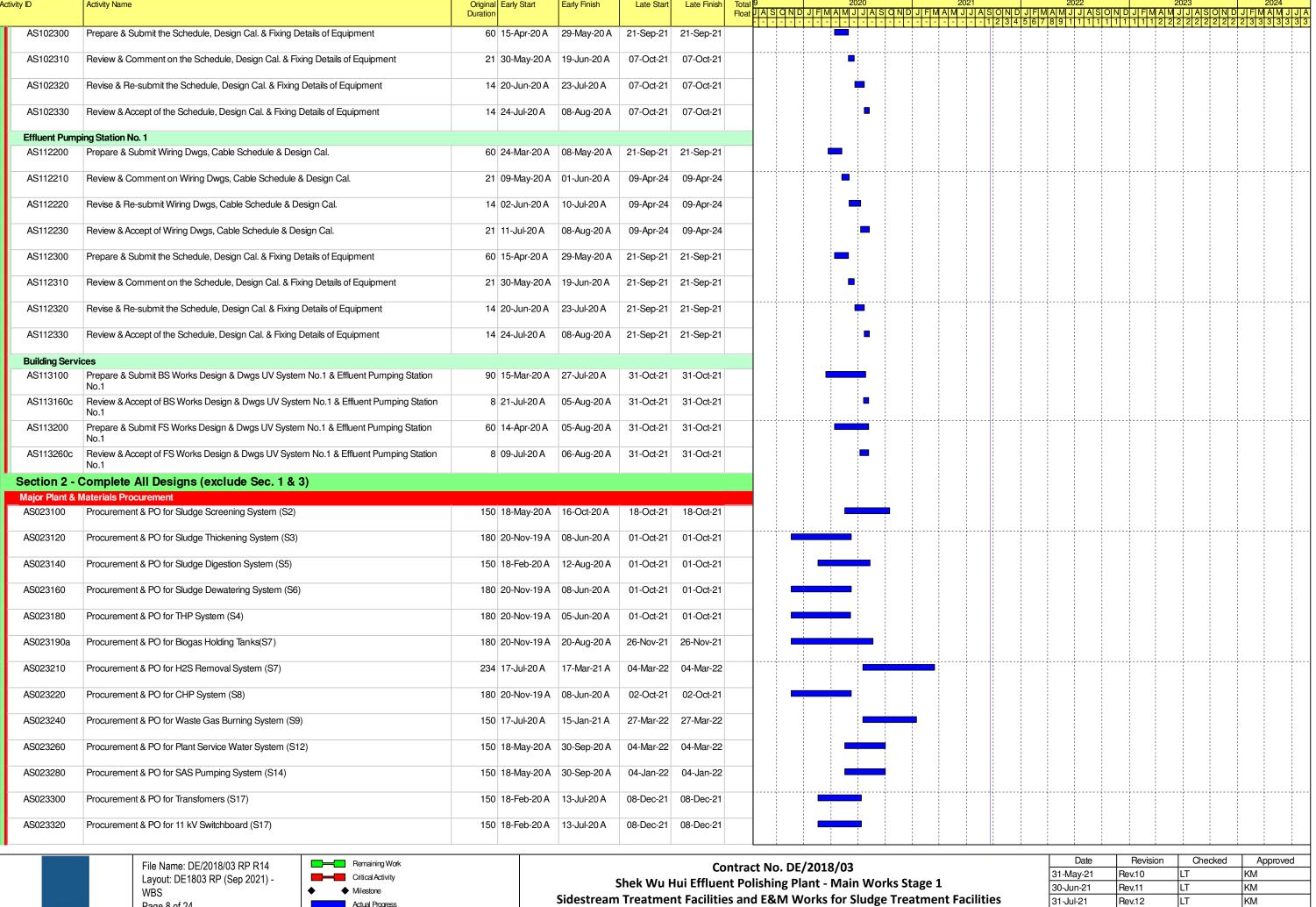




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Date	Revision	Checked	Approved
31-May-21	Rev.10	LT	KM
30-Jun-21	Rev.11	LT	KM
31-Jul-21	Rev.12	LT	KM
31-Aug-21	Rev.13	LT	KM
30-Sep-21	Rev.14	LT	KM

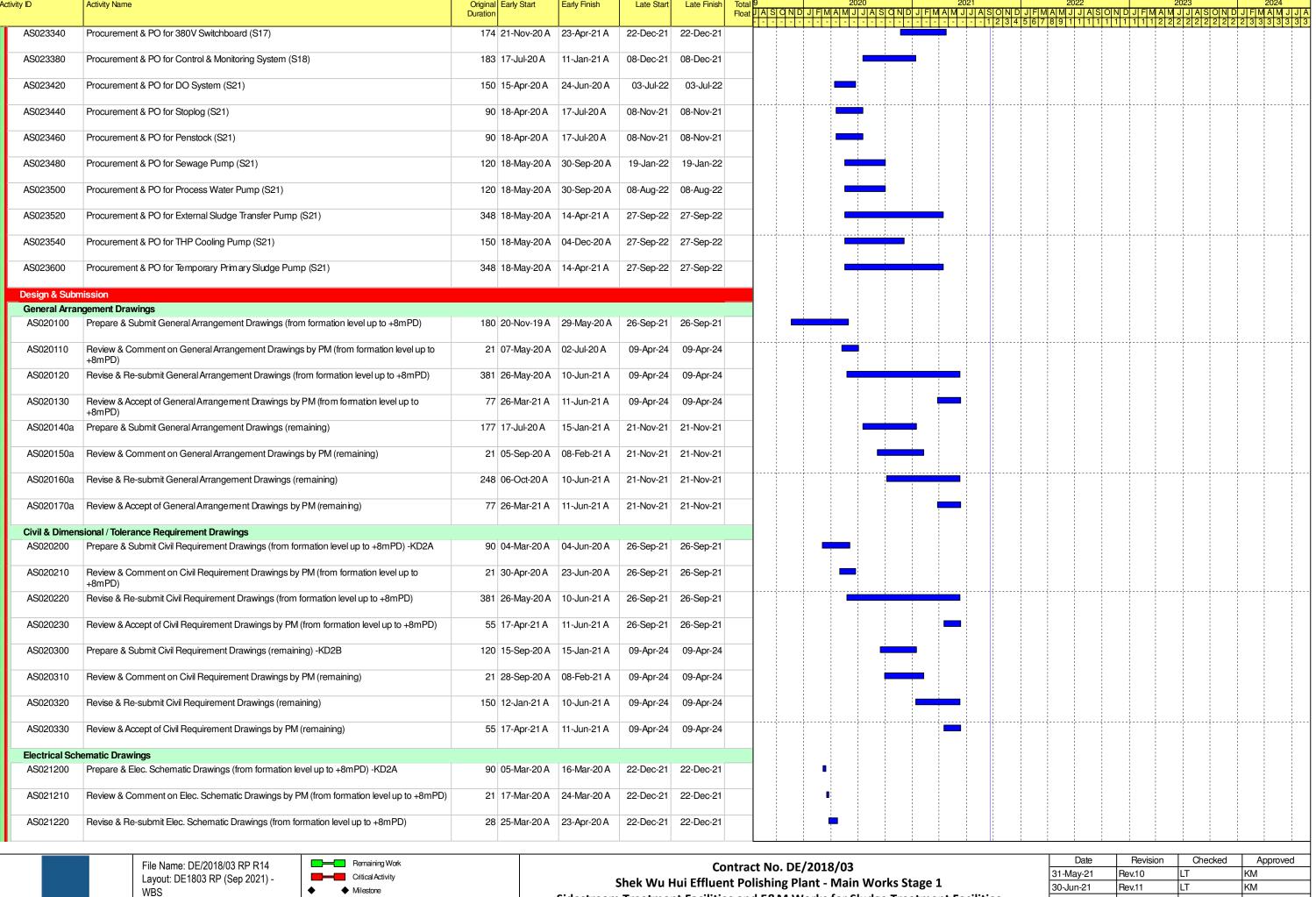


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Actual Progress

Revised Programme - as at 20 Sept 2021

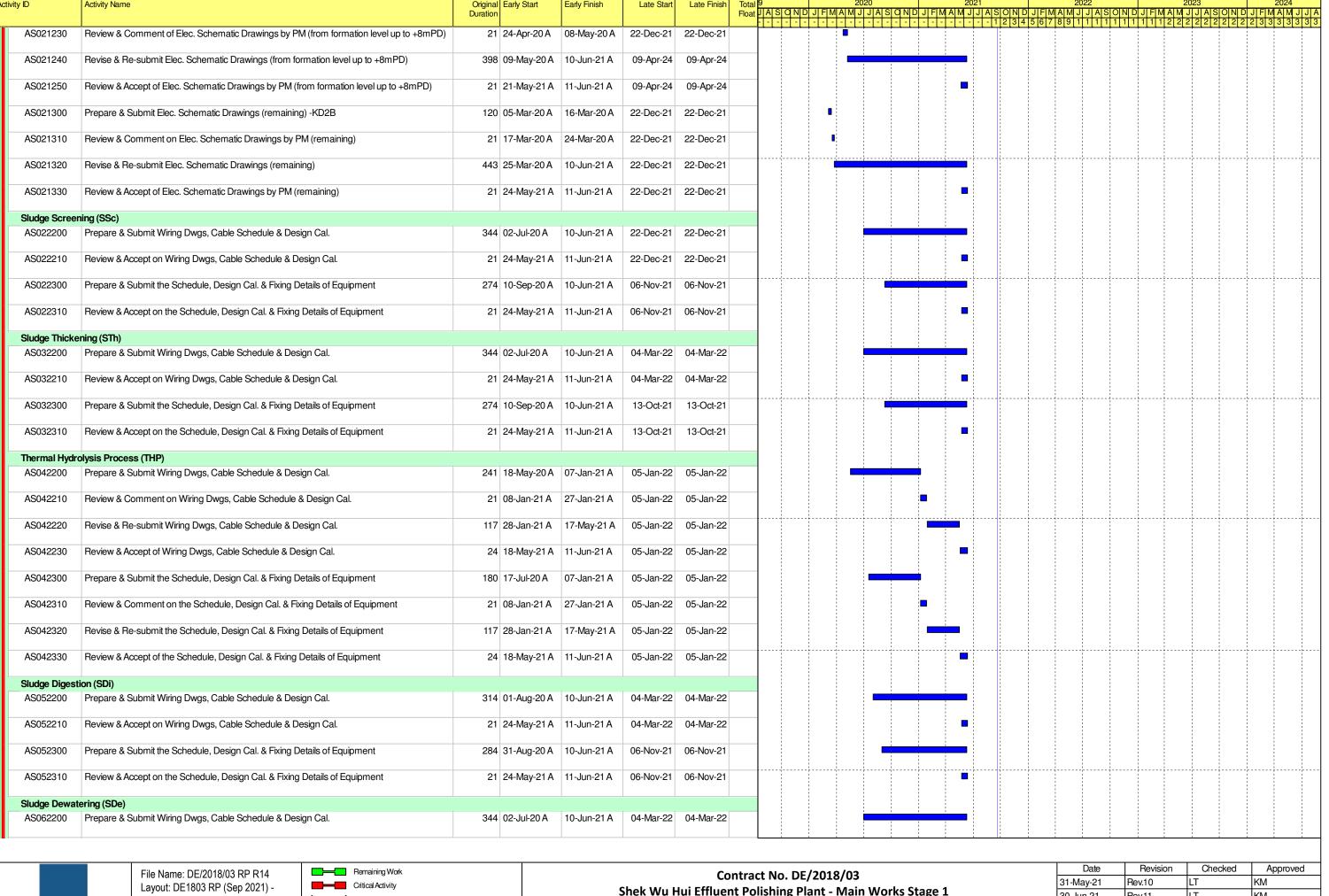
Date	Revision	Checked	Approved
31-May-21	Rev.10	LT	KM
30-Jun-21	Rev.11	LT	KM
31-Jul-21	Rev.12	LT	KM
31-Aug-21	Rev.13	LT	KM
30-Sep-21	Rev.14	LT	KM



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Actual Progress

Date	Revision	Checked	Approved
31-May-21	Rev.10	LT	KM
30-Jun-21	Rev.11	LT	KM
31-Jul-21	Rev.12	LT	KM
31-Aug-21	Rev.13	LT	KM
30-Sep-21	Rev.14	LT	KM





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Milestone Actual Progress

Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 Sidestream Treatment Facilities and E&M Works for Sludge Treatment Facilities Revised Programme - as at 20 Sept 2021

Date	Revision	Checked	Approved
31-May-21	Rev.10	LT	KM
30-Jun-21	Rev.11	LT	KM
31-Jul-21	Rev.12	LT	KM
31-Aug-21	Rev.13	LT	KM
30-Sep-21	Rev.14	LT	KM

ivity ID	Activity Name	Original Ea	arly Start	Early Finish	Late Start	Late Finish		AISIQI	ND JF	MAM	2020 J J A S	QNDJF	202 MAMJ	21 J A S C	NDJF	2 M A M	022 J J A S	ONDJ	2 M A M	2023 J J A S C	DND JFM	2024 A M J J
AS062210	Review & Accept on Wiring Dwgs, Cable Schedule & Design Cal.	21 24	1-May-21 A	11-Jun-21 A	04-Mar-22	04-Mar-22								1 2	3 4 5 6	7 8 9	1 1 1	1 1 1 1	1 1 2 2 2	2 2 2 2 2	2 2 2 3 3	3[3[3]3
AS062300	Prepare & Submit the Schedule, Design Cal. & Fixing Details of Equipment		-	10-Jun-21 A	01-Oct-21						_										1	
			_																		 	
AS062310	Review & Accept on the Schedule, Design Cal. & Fixing Details of Equipment	21 24	1-May-21 A	11-Jun-21 A	01-Oct-21	01-Oct-21		 														
Biogas Storag	je & Pre-Treatment (BSPT)	<u> </u>																				
AS072200	Prepare & Submit Wiring Dwgs, Cable Schedule & Design Cal.	284 31	I-Aug-20 A	10-Jun-21 A	04-Mar-22	04-Mar-22					_											
AS072210	Review & Accept on Wiring Dwgs, Cable Schedule & Design Cal.	21 24	1-May-21 A	11-Jun-21 A	04-Mar-22	04-Mar-22							-			1						
AS072300	Prepare & Submit the Schedule, Design Cal. & Fixing Details of Equipment	232 22	2-Oct-20 A	10-Jun-21 A	26-Nov-21	26-Nov-21							 	1		1						
AS072310	Review & Accept on the Schedule, Design Cal. & Fixing Details of Equipment	21 24	1-May-21 A	11-Jun-21 A	26-Nov-21	26-Nov-21							-									
Combined He	at & Power Generation (CHP)							!														
AS082200	Prepare & Submit Wiring Dwgs, Cable Schedule & Design Cal.	233 18	3-May-20 A	21-Jul-20 A	04-Mar-22	04-Mar-22				_	-											
AS082210	Review & Comment on Wiring Dwgs, Cable Schedule & Design Cal.	21 22	2-Jul-20 A	11-Aug-20 A	04-Mar-22	04-Mar-22					•			1		1						
AS082220	Revise & Re-submit Wiring Dwgs, Cable Schedule & Design Cal.	28 12	2-Aug-20 A	21-Dec-20 A	04-Mar-22	04-Mar-22								1		1						
AS082230	Review & Accept of Wiring Dwgs, Cable Schedule & Design Cal.	171 22	2-Dec-20 A	11-Jun-21 A	04-Mar-22	04-Mar-22																
AS082300	Prepare & Submit the Schedule, Design Cal. & Fixing Details of Equipment	180 18	3-May-20 A	21-Jul-20 A	02-Oct-21	02-Oct-21				•				1		1					1	
AS082310	Review & Comment on the Schedule, Design Cal. & Fixing Details of Equipment	21 22	2-Jul-20 A	11-Aug-20 A	02-Oct-21	02-Oct-21					•					1						
AS082320	Revise & Re-submit the Schedule, Design Cal. & Fixing Details of Equipment	28 12	2-Aug-20 A	21-Dec-20 A	02-Oct-21	02-Oct-21								1		1						
AS082330	Review & Accept of the Schedule, Design Cal. & Fixing Details of Equipment	171 22	2-Dec-20 A	11-Jun-21 A	02-Oct-21	02-Oct-21							-			1						
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	urning System (WGB)																					:
AS092200	Prepare & Submit Wiring Dwgs, Cable Schedule & Design Cal.	239 15	5-Oct-20 A	10-Jun-21 A	04-Mar-22	04-Mar-22		!										 				
AS092210	Review & Accept on Wiring Dwgs, Cable Schedule & Design Cal.	21 24	1-May-21 A	11-Jun-21 A	04-Mar-22	04-Mar-22							-									
AS092300	Prepare & Submit the Schedule, Design Cal. & Fixing Details of Equipment	194 29	9-Nov-20 A	10-Jun-21 A	27-Mar-22	27-Mar-22							_			1						
AS092310	Review & Accept on the Schedule, Design Cal. & Fixing Details of Equipment	21 24	1-May-21 A	11-Jun-21 A	27-Mar-22	27-Mar-22							-									
Plant Service	Water System (PSW)																					1
AS122200	Prepare & Submit Wiring Dwgs, Cable Schedule & Design Cal.	299 16	6-Aug-20 A	10-Jun-21 A	04-Mar-22	04-Mar-22							-			1						
AS122210	Review & Accept on Wiring Dwgs, Cable Schedule & Design Cal.	21 24	1-May-21 A	11-Jun-21 A	04-Mar-22	04-Mar-22							-									
AS122300	Prepare & Submit the Schedule, Design Cal. & Fixing Details of Equipment	239 15	5-Oct-20 A	10-Jun-21 A	23-Sep-22	23-Sep-22							-			1						
AS122310	Review & Comment on the Schedule, Design Cal. & Fixing Details of Equipment	21 24	1-May-21 A	11-Jun-21 A	23-Sep-22	23-Sep-22							-									
Surplus Activ	ated Sludge Pumping Station (SAS)														· 		 					ļ
AS142200	Prepare & Submit Wiring Dwgs, Cable Schedule & Design Cal.	202 01	I-Aug-20 A	17-Nov-20 A	09-Apr-24	09-Apr-24								1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1								
AS142210	Review & Comment on Wiring Dwgs, Cable Schedule & Design Cal.	21 18	3-Nov-20 A	24-Nov-20 A	09-Apr-24	09-Apr-24								1								
AS142220	Revise & Re-submit Wiring Dwgs, Cable Schedule & Design Cal.	198 25	5-Nov-20 A	10-Jun-21 A	09-Apr-24	09-Apr-24							-	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		1					1	
AS142230	Review & Accept of Wiring Dwgs, Cable Schedule & Design Cal.	21 24	1-May-21 A	11-Jun-21 A	09-Apr-24	09-Apr-24								1		1						
AS142300	Prepare & Submit the Schedule, Design Cal. & Fixing Details of Equipment	183 16	6-Aug-20 A	17-Nov-20 A	04-Jan-22	04-Jan-22																
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	File Name: DE/2018/03 RP R14 Remaining Work	· · · · ·					ontract	No. I)E/201	18/03	3						Date		vision	Check		pproved
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ivity ID	Activity Name	Original Ear Duration	arly Start	Early Finish	Late Start	Late Finish		ASON	D J F M	2020 A M J J A S	SONDJFMA	2021 AMJJAS	ONDJF	2022 M A M J J	ASONDJ	FMAM	2023 J J A S O N [2024 D J F M A M J J
AS142310	Review & Comment on the Schedule, Design Cal. & Fixing Details of Equipment	21 18	3-Nov-20 A	24-Nov-20 A	04-Jan-22	04-Jan-22	-	<u> - - - -</u>	- - -	<u>- - - - - </u>	<u>- - - - - - - -</u>	<u>- - - - - 1</u>	[2 [3 [4 [5 [6]]	7 8 9 1 1	[1[1[1[1[1	1 1 2 2	2[2[2[2]2[2]	2[2[3[3[3[3[3]3
AS142320	Revise & Re-submit the Schedule, Design Cal. & Fixing Details of Equipment	198 25	5-Nov-20 A	10-Jun-21 A	04-Jan-22	04-Jan-22				 								
AS142330	Review & Accept of the Schedule, Design Cal. & Fixing Details of Equipment	21 24	1-May-21 A	11-Jun-21 A	04-Jan-22	04-Jan-22				 		•						
Control and M	Ionitoring System																	
AS182200	Prepare & Submit Wiring Dwgs, Cable Schedule & Design Cal.	193 30)-Oct-20 A	11-May-21 A	09-Apr-24	09-Apr-24				 								
AS182210	Review & Accept on Wiring Dwgs, Cable Schedule & Design Cal.	30 12	2-May-21 A	11-Jun-21 A	09-Apr-24	09-Apr-24												
AS182300	Prepare & Submit the Schedule, Design Cal. & Fixing Details of Equipment	148 14	1-Dec-20 A	11-May-21 A	08-Dec-21	08-Dec-21				 								
AS182310	Review & Accept on the Schedule, Design Cal. & Fixing Details of Equipment	30 12	2-May-21 A	11-Jun-21 A	08-Dec-21	08-Dec-21												
Lifting Appliar	nces									!								
AS192200	Prepare & Submit Wiring Dwgs, Cable Schedule & Design Cal.	329 17	7-Jul-20 A	10-Jun-21 A	09-Nov-21	09-Nov-21			 									
AS192210	Review & Accept on Wiring Dwgs, Cable Schedule & Design Cal.	21 24	I-May-21 A	11-Jun-21 A	09-Nov-21	09-Nov-21												
AS192300	Prepare & Submit the Schedule, Design Cal. & Fixing Details of Equipment	224 30)-Oct-20 A	10-Jun-21 A	09-Nov-21	09-Nov-21			; ; ; ; ;									
AS192310	Review & Acceptt on the Schedule, Design Cal. & Fixing Details of Equipment	21 24	I-May-21 A	11-Jun-21 A	09-Nov-21	09-Nov-21												
Building Serv	ices									į							i	
AS201100	Submit & Accept BS Works Design & Dwgs for Sludge Dewatering Building	202 21	I-Nov-20 A	11-Jun-21 A	18-Mar-22	18-Mar-22												
AS201200	Submit & Accept BS Works Design & Dwgs for CHP Building	209 14	1-Nov-20 A	11-Jun-21 A	18-Mar-22	18-Mar-22			; ; ; ; ; ;									
AS201300	Submit & Accept BS Works Design & Dwgs for Sludge Digester & Distribution Chamber	202 21		11-Jun-21 A	18-Mar-22	18-Mar-22			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	 								
AS201500	Submit & Accept BS Works Design & Dwgs for Workshop No. 2	344 02	2-Jul-20 A	11-Jun-21 A	22-Feb-22	22-Feb-22			1									
AS201700	Submit & Accept BS Works Design & Dwgs for Other Facilities	194 29	9-Nov-20 A	11-Jun-21 A	18-Mar-22													
AS201800	Submit & Accept BS Works Design & Dwgs for FS Installation			11-Jun-21 A	18-Mar-22				1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1								
AS201900	Submit & Accept BS Works Design & Dwgs for Outdoor Lighting Installation	134 28	3-Jan-21 A	11-Jun-21 A	09-Apr-24	09-Apr-24		1	1	 								
Miscellaneou		470 44	I D 00 A	44 1 04 4	00 1.1.00	00 1.100												
AS211100	Submit & Accept Design & Dwgs for DO System			11-Jun-21 A	03-Jul-22			 	1	 								
AS211200	Submit & Accept Design & Dwgs for Sewage Pumping Station			11-Jun-21 A		19-Jan-22												
AS211300	Submit & Accept Design & Dwgs for Process Water Pumping System			11-Jun-21 A		08-Aug-22			i 1 1 1	i 1 1 1								
AS211400	Submit & Accept Design & Dwgs for External Sludge Transfer Pumping System			11-Jun-21 A		27-Sep-22			1	 								
AS211500	Submit & Accept Design & Dwgs for THP Cooling Water Pumping Station			10-Jun-21 A		27-Sep-22		 	1	 								
AS211600	Submit & Accept Design & Dwgs for Ferric Chloride Dosing System	209 14	1-Nov-20 A	11-Jun-21 A		19-Apr-22		! ! !	1	! ! ! !								
AS211700	Submit & Accept Design & Dwgs for Temporary Primary Sludge Pumping Facility	158 04	I-Jan-21 A	11-Jun-21 A	27-Sep-22	27-Sep-22			 	! ! ! !								
AS211800	Submit & Accept Design & Dwgs for Gas Detection System			24-May-21 A		24-Aug-22				1								
AS211900	Submit & Accept Design & Dwgs for CCTV System	194 29	9-Nov-20 A	26-May-21 A	09-Apr-24	09-Apr-24												
Outstanding W AS211950i	Certifiate of Completion - Section 2 of the works (Ref:	0 02	2-Jul-21 A		09-Apr-24			 	1	 		•						
,	RCYK:ccm:60427128/92-2021004626w)				·			1	1	1 1 1								
	File Name: DE/2018/03 RP R14 Remaining Work					Co	ntrac	t No. D	E/2018	3/03				Da May		evision	Checked	Approved
	Layout: DE1803 RP (Sep 2021) - Critical Activity			9	Shek Wu H				-	-	rks Stage 1			31-May- 30-Jun-2			LT LT	KM KM
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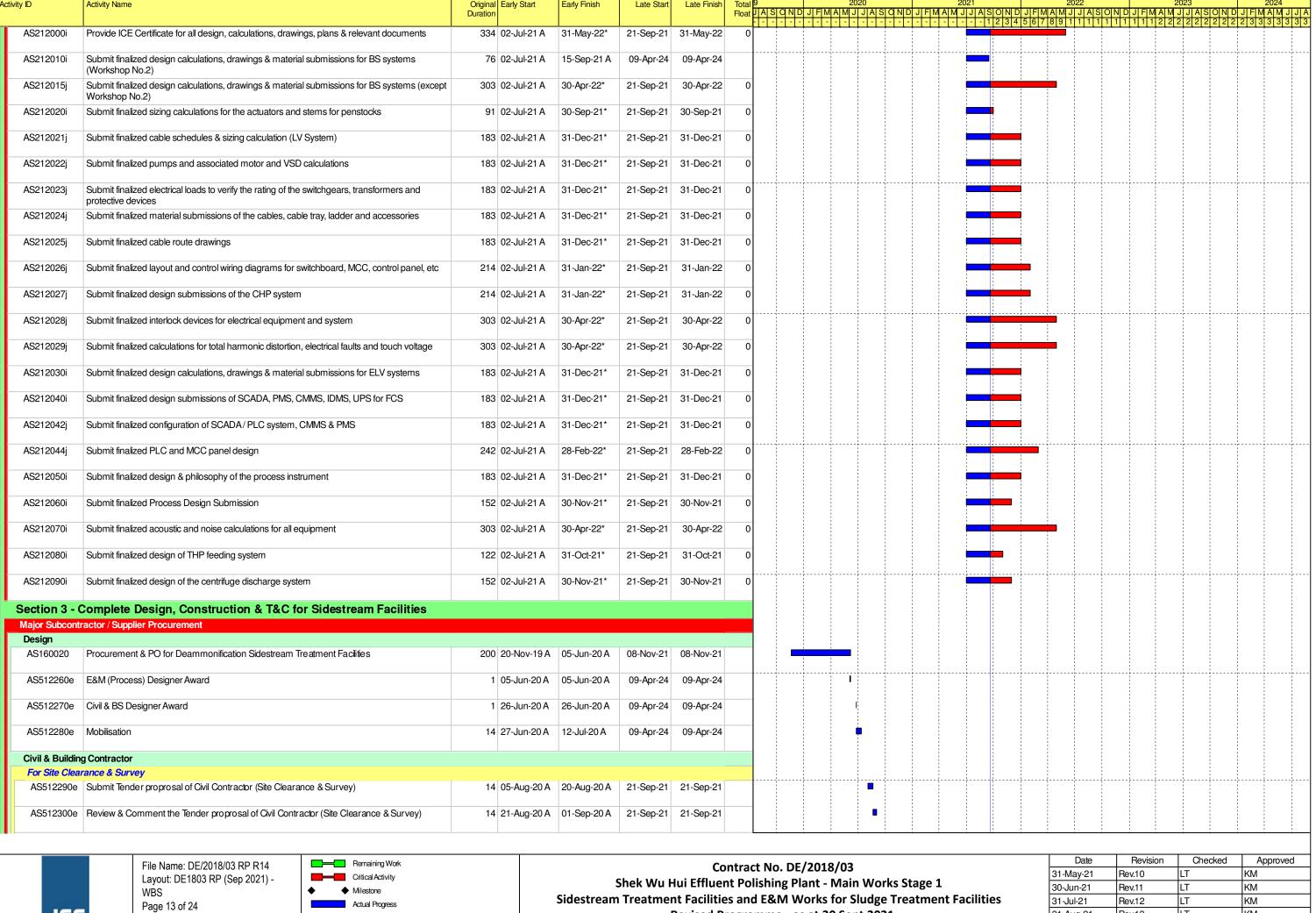
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File Name: DE/2018/03 RP R14 Layout: DE1803 RP (Sep 2021) -WBS Page 12 of 24 Remaining Work
Critical Activity

Milestone
Actual Progress

Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1
Sidestream Treatment Facilities and E&M Works for Sludge Treatment Facilities
Revised Programme - as at 20 Sept 2021

Date	Revision	Checked	Approved
31-May-21	Rev.10	LT	KM
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30-Sep-21	Rev.14	LT	KM



Late Start

Late Finisl

Activity Name

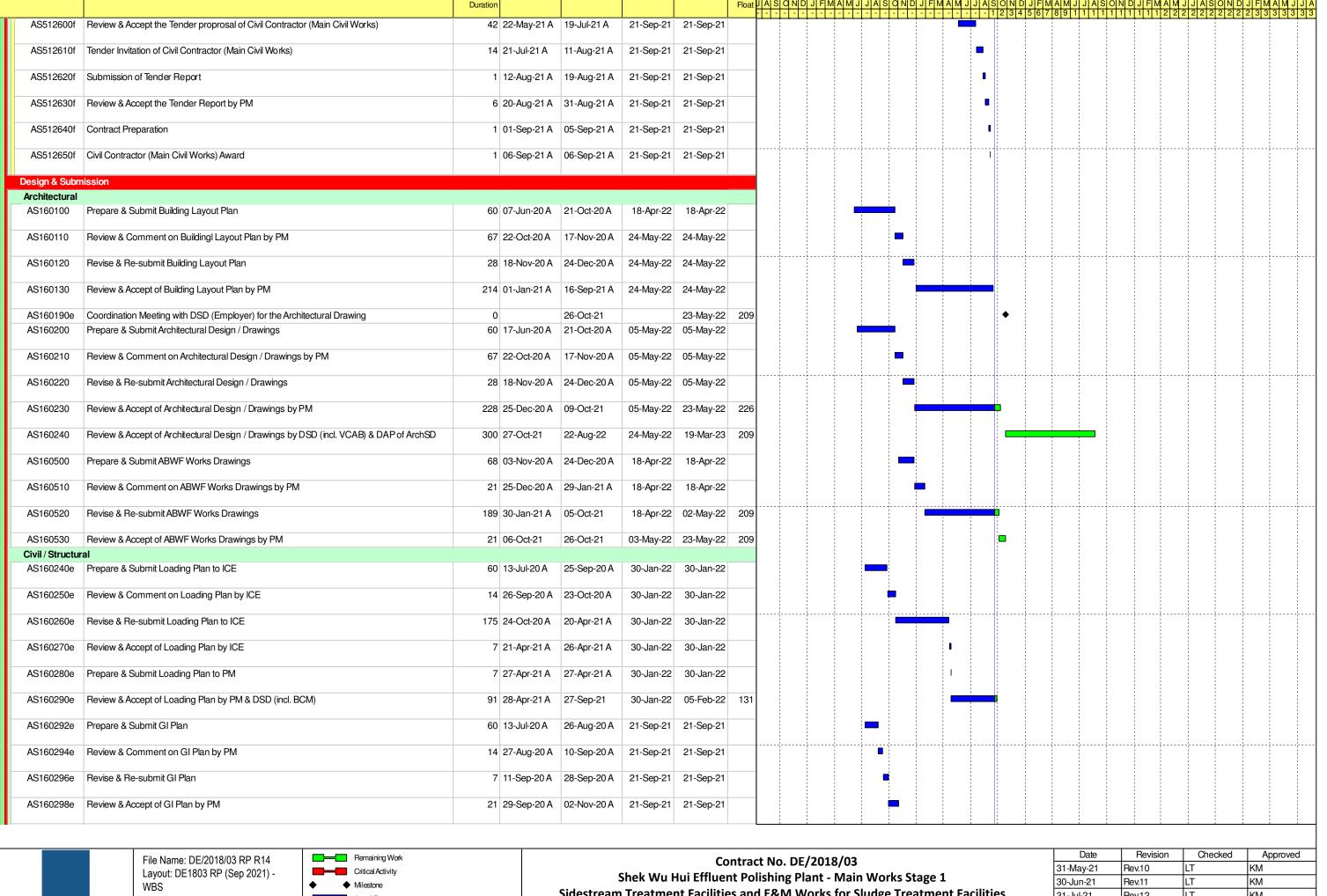
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30-Sep-21	Rev.14	LT	KM

Act	ivity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish		JASQ	ND JF	MAN	2020 J J A S	SONDJ	FMAM.	:021 J J A S (JND JI	F M A M	2022 J J A S	ONDJ	F M A M	2023 J J A S O	N D J F M	2024 AMJJA
	AS512310e	Re-submit Tender proprosal of Civil Contractor (Site Clearance & Survey)	14	02-Sep-20 A	02-Sep-20 A	21-Sep-21	21-Sep-21	-							1 2	2 3 4 5 6	5[7[8[9]	1 1 1 1	1 1 1 1	1 1 2 2	2 2 2 2 2	22233	3 3 3 3 3
		Review & Accept Tender proprosal of Civil Contractor (Site Clearance & Survey)			23-Sep-20 A		21-Sep-21				1												
ŀ	AS512330e	Civil Contractor (Site Clearance & Survey) Award	1	07-Oct-20 A	07-Oct-20 A	21-Sep-21	21-Sep-21				1									1			
	AS512340e	Mobilisation	5	08-Oct-20 A	12-Oct-20 A	21-Sep-21	21-Sep-21						•		-								
	For Ground In	proclimation														 							
		Submit Tender proprosal of Civil Contractor (Ground Investigation)	14	29-Aug-20 A	29-Sep-20 A	21-Sep-21	21-Sep-21					_											
		Review & Accept the Tender proprosal of Civil Contractor (Ground Investigation)		30-Sep-20 A	·		21-Sep-21				1			1		i 	1			1			
l		Tender Invitation of Civil Contractor (Ground Investigation)			13-Nov-20 A		21-Sep-21																
ı	AS512380e	Submission of Tender Report	7	14-Nov-20 A	18-Nov-20 A	21-Sep-21	21-Sep-21																
l	AS512390e	Review & Accept the Tender Report by PM	21	19-Nov-20 A	19-Nov-20 A	21-Sep-21	21-Sep-21						1										
ı	AS512400e	Contract Preparation	3	20-Nov-20 A	23-Nov-20 A	21-Sep-21	21-Sep-21				1			1		1				1			
	AS512410e	Civil Contractor (Ground Investigation) Award	1	24-Nov-20 A	24-Nov-20 A	21-Sep-21	21-Sep-21				1		1										
	AS512420e	Mobilisation	7	25-Nov-20 A	08-Dec-20 A	21-Sep-21	21-Sep-21				1		•	1			1			1			
	For Pre-drilling	g & Post-drilling							 1 1 1				 			-			 				
	AS512430e	Submit Tender proprosal of Civil Contractor (Pre-drilling & Post-drilling)	74	26-Oct-20 A	06-Jan-21 A	21-Sep-21	21-Sep-21																
ı	AS512440e	Review & Accept the Tender proprosal of Civil Contractor (Predrill & Proof drill)	21	07-Jan-21 A	27-Jan-21 A	21-Sep-21	21-Sep-21						-										
ı	AS512450e	Tender Invitation of Civil Contractor (Pre-drilling & Post-drilling)	14	28-Jan-21 A	04-Feb-21 A	21-Sep-21	21-Sep-21				1		ı										
ı	AS512460e	Submission of Tender Report	4	05-Feb-21 A	10-Feb-21 A	21-Sep-21	21-Sep-21				1			1						1			
ı	AS512470e	Review & Accept the Tender Report by PM	21	11-Feb-21 A	16-Feb-21 A	21-Sep-21	21-Sep-21				i												
ı	AS512480e	Contract Preparation	3	17-Feb-21 A	17-Feb-21 A	21-Sep-21	21-Sep-21				1			1			1			1			
ı	AS512490e	Civil Contractor (Pre-drilling & Post-drilling) Award	1	18-Feb-21 A	18-Feb-21 A	21-Sep-21	21-Sep-21							1									
I	AS512500e	Mobilisation	3	19-Feb-21 A	21-Feb-21 A	21-Sep-21	21-Sep-21							1		1							
	For Piling																		¦ 				
	AS512510f	Submit Tender proprosal of Civil Contractor (Piling)	39	04-Jan-21 A	10-Feb-21 A	21-Sep-21	21-Sep-21		1				_										
	AS512520f	Review & Accept the Tender proprosal of Civil Contractor (Piling)	25	11-Feb-21 A	12-Mar-21 A	21-Sep-21	21-Sep-21																
		Tender Invitation of Civil Contractor (Piling)			19-Mar-21 A		21-Sep-21																
		Submission of Tender Report		20-Mar-21 A			21-Sep-21							I									
		Review & Accept the Tender Report by PM		23-Mar-21 A			21-Sep-21							I 									
		Contract Preparation		24-Mar-21 A			21-Sep-21				1			l									
		Civil Contractor (Piling) Award			26-Mar-21 A	•	21-Sep-21				; 1 1 1 1												
	AS512580f		3	26-Mar-21 A	01-Apr-21 A	21-Sep-21	21-Sep-21				1												
	For Main Civil			47.14 614	04.14 01.1	04.0	04.0																
	AS512590f	Submit Tender proprosal of Civil Contractor (Main Civil Works)	30	1 /-Mar-21 A	21-May-21 A	21-Sep-21	21-Sep-21			!	1 1 1 1 1 1	!				; ; ; ;	1	!	1 1	1			1
		File Name: DE/2018/03 RP R14 Remaining Work								DE /22	110/0							Date	Re	vision	Check	ed A	oproved
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	1	Page 14 of 24 Actual Progress			Sidestream							_		ment Fa	acilities	S	31-J		Rev.12		LT	KM	
JEC Page 14 01 24					Sidestream Treatment Facilities and E&M Works for Sludge Treatment Facilities Revised Programme - as at 20 Sept 2021 31-Jul-21 Rev.12 LT KM 31-Aug-21 Rev.13 LT KM																		



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30-Sep-21	Rev.14	LT	KM



Late Finisl

Activity Name

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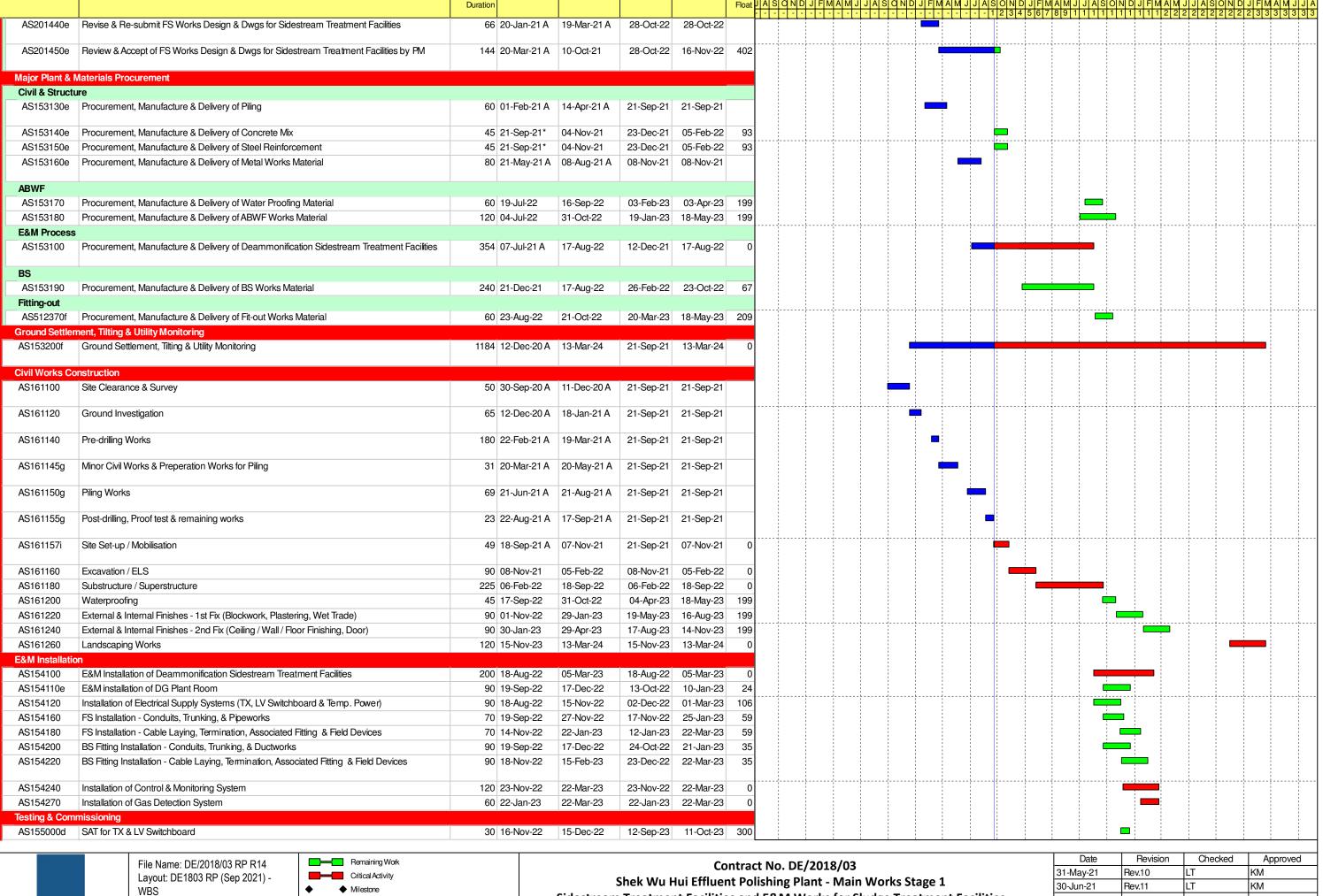
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31-Aug-21	Rev.13	LT	KM
30-Sep-21	Rev.14	LT	KM

Activity ID	Activity Name	Original Early Start Duration	Early Finish	Late Start	Late Finish	Total Float	9 2020 2021 JIAS Q NID J F M A M J J A S Q N D J F M A M J J A S Q N D J F 			2023 J J A S O N E	2024 D J F M A M J J A
AS160300	Prepare & Submit Foundation Design / Drawings to ICE & PM	60 20-Aug-20 A	09-Oct-20 A	21-Sep-21	21-Sep-21			7 0 0 1 1 1 1 1 1 1	<u> </u>		
AS160310	Review & Comment on Foundation Design / Drawings by ICE & PM	79 10-Oct-20 A	27-Nov-20 A	09-Apr-24	09-Apr-24						
AS160320	Revise & Re-submit Foundation Design / Drawings to ICE & PM	14 28-Nov-20 A	29-Jan-21 A	09-Apr-24	09-Apr-24		-				
AS160330	Review & Accept of Foundation Design / Drawings by ICE & PM	10 30-Jan-21 A	26-Feb-21 A	09-Apr-24	09-Apr-24		•				
AS160340e	Prepare & Submit Foundation Design / Drawings to DSD (incl. BCM)	7 27-Feb-21 A	05-Mar-21 A	09-Apr-24	09-Apr-24		1				
AS160350e	Review & Accept of Foundation Design / Drawings by DSD (incl. BCM)	45 06-Mar-21 A	26-Mar-21 A	09-Apr-24	09-Apr-24						
AS160400	Prepare & Submit Substructure / Superstructure Design / Drawings to ICE & PM	25 10-Oct-20 A	05-Nov-20 A	21-Sep-21	21-Sep-21		-				
AS160410	Review & Comment on Substructure / Superstructure Design / Drawings by ICE & PM	55 06-Nov-20 A	30-Dec-20 A	23-Nov-21	23-Nov-21						
AS160420	Revise & Re-submit Substructure / Superstructure Design / Drawings to ICE & PM	72 31-Dec-20 A	26-Apr-21 A	23-Nov-21	23-Nov-21						
AS160430	Review & Accept of Substructure / Superstructure Design / Drawings by ICE & PM	93 27-Apr-21 A	28-Sep-21	23-Nov-21	30-Nov-21	63					
AS160440e	Prepare & Submit Substructure / Superstructure Design / Drawings to DSD (incl. BCM)	7 29-Sep-21	05-Oct-21	01-Dec-21	07-Dec-21	63					
AS160450e	Review & Accept of Substructure / Superstructure Design / Drawings by DSD (incl. BCM)	60 06-Oct-21	04-Dec-21	08-Dec-21	05-Feb-22	63					
ELS											
AS512160e	Prepare & Submit ELS Plan to ICE	7 07-Sep-21 A	27-Sep-21	21-Sep-21	27-Sep-21	0					
AS512170e	Review & Comment on ELS Plan by ICE	7 28-Sep-21	04-Oct-21	28-Sep-21	04-Oct-21	0					
AS512180e	Revise & Re-submit ELS Plan to ICE	7 05-Oct-21	11-Oct-21	05-Oct-21	11-Oct-21	0					
AS512190e	Review & Accept of ELS Plan by ICE	7 12-Oct-21	18-Oct-21	12-Oct-21	18-Oct-21	0					
AS512200e	Prepare & Submit ELS Plan to PM	6 19-Oct-21	24-Oct-21	19-Oct-21	24-Oct-21	0					1
AS512210e	·	14 25-Oct-21	07-Nov-21		07-Nov-21	0					
Process Desi		14 20 00(21	07 1400 21	20 00(21	07 1407 21						
	Prepare & Submit E&M Works (Process) Design Drawings	198 06-Jul-20 A	10-Nov-20 A	09-Jul-22	09-Jul-22						
AS512230e	Review & Comment on E&M Works (Process) Design Drawings by PM	21 11-Nov-20 A	08-Dec-20 A	09-Jul-22	09-Jul-22		-				
AS512240e	Revise & Re-submit E&M Works (Process) Design Drawings	87 09-Dec-20 A	26-Mar-21 A	09-Jul-22	09-Jul-22						
AS512250e	Review & Accept of E&M Works (Process) Design Drawings by PM	157 27-Mar-21 A	30-Oct-21	09-Jul-22	17-Aug-22	291					
F9M Decision											
E&M Design AS151100	Prepare & Submit General Arrangement Drawings	298 07-Jun-20 A	31-Mar-21 A	08-Nov-21	08-Nov-21						
AS151110	Review & Comment on General Arrangement Drawings by PM	37 01-Apr-21 A	07-May-21 A	27-Dec-21	27-Dec-21						
AS151120	Revise & Re-submit General Arrangement Drawings	95 08-May-21 A	10-Oct-21	27-Dec-21	15-Jan-22	97					
AS151130	Review & Accept of General Arrangement Drawings by PM	21 11-Oct-21	31-Oct-21	16-Jan-22	05-Feb-22	97					
BS AS201400	Prepare & Submit BS Works Design & Dwgs for Sidestream Treatment Facilities	264 03-Jul-20 A	10-Dec-20 A	04-Oct-22	04-Oct-22						
AS201405e	Review & Comment on BS Works Design & Dwgs for Sidestream Treatment Facilities by PM	21 11-Dec-20 A	11-Jan-21 A	04-Oct-22	04-Oct-22						
AS201410e	Revise & Re-submit BS Works Design & Dwgs for Sidestream Treatment Facilities	102 05-Jan-21 A		04-Oct-22	04-Oct-22						
AS201415e		132 01-Apr-21 A		04-Oct-22							
AS201420	Submission & Submit FS Works Design & Dwgs for Sidestream Treatment Facilities	182 03-Aug-20 A		28-Oct-22							
AS201430e	Review & Comment on FS Works Design & Dwgs for Sidestream Treatment Facilities by PM	21 11-Dec-20 A		28-Oct-22							
7.02371030		1						- Date	Deviete:	Object 1	
	File Name: DE/2018/03 RP R14				Co	ontra	ct No. DE/2018/03	Date 21	Revision	Checked	Approved
	Layout: DE1803 RP (Sep 2021) - Critical Activity			Shek Wu F			olishing Plant - Main Works Stage 1	31-May-21	Rev.10 Rev.11	IT	KM KM
	WBS						d E&M Works for Sludge Treatment Facilities	30-Jun-21	Rev.11	IT	KM
100	Page 16 of 24 Actual Progress		Jiuesti Edil				<u> </u>	31-Jul-21		<u>L </u>	
	Revised Programme - as at 20 Sept 2021						31-Aug-21	Rev.13	LI	KM	

JEL

Date	Revision	Checked	Approved
31-May-21	Rev.10	LT	KM
30-Jun-21	Rev.11	LT	KM
31-Jul-21	Rev.12	LT	KM
31-Aug-21	Rev.13	LT	KM
30-Sep-21	Rev.14	LT	KM



Early Finish

Late Start

Late Finish

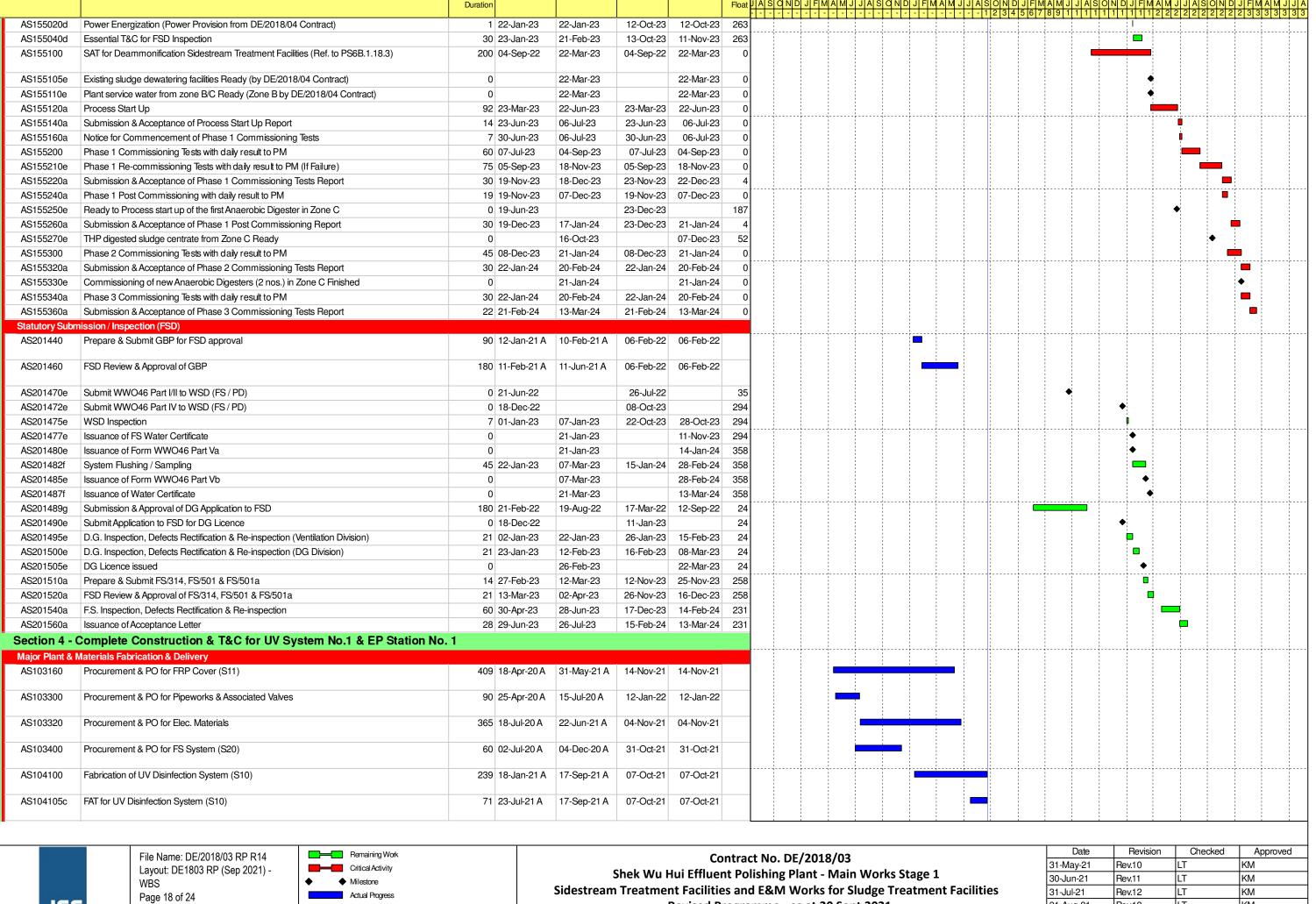


Activity Name

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Actual Progress

Date	Revision	Checked	Approved
31-May-21	Rev.10	LT	KM
30-Jun-21	Rev.11	LT	KM
31-Jul-21	Rev.12	LT	KM
31-Aug-21	Rev.13	LT	KM
30-Sep-21	Rev.14	LT	KM



Early Finish

Late Start

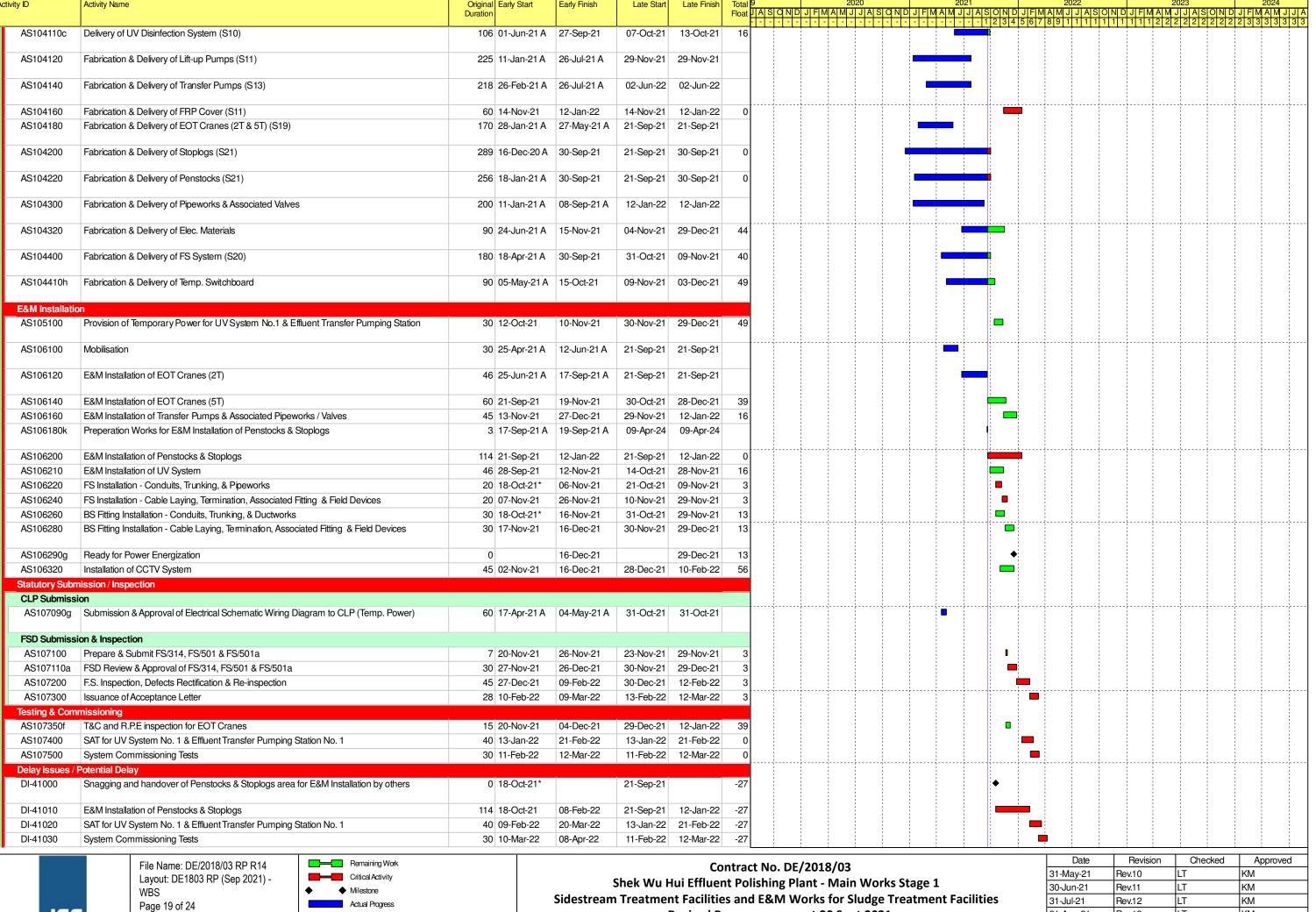
Late Finish

Activity ID

Activity Name

Revised Programme - as at 20 Sept 2021

Date	Revision	Checked	Approved
31-May-21	Rev.10	LT	KM
30-Jun-21	Rev.11	LT	KM
31-Jul-21	Rev.12	LT	KM
31-Aug-21	Rev.13	LT	KM
30-Sep-21	Rev.14	LT	KM



Late Start

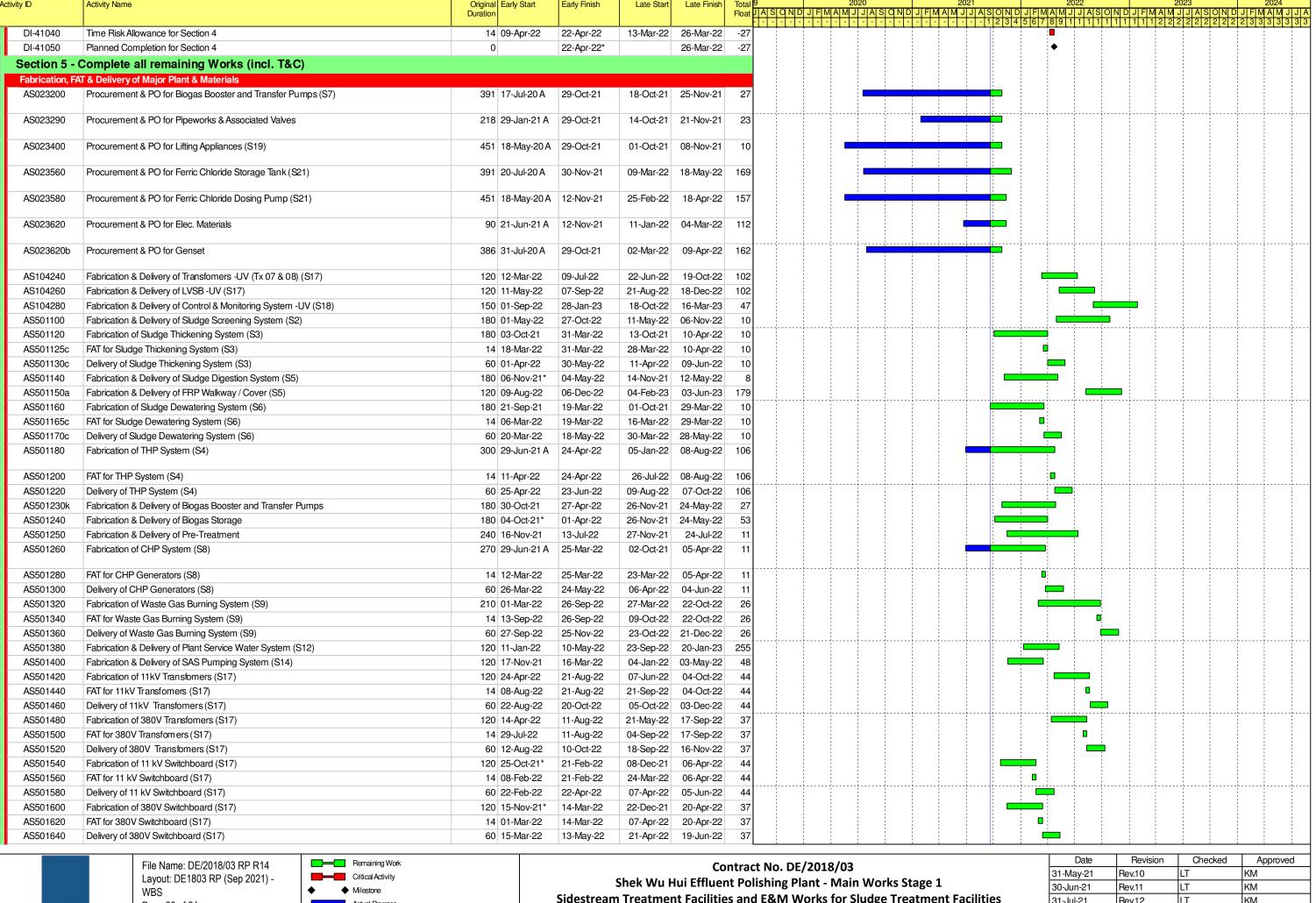
Late Finisl

Activity ID

Activity Name

Revised Programme - as at 20 Sept 2021

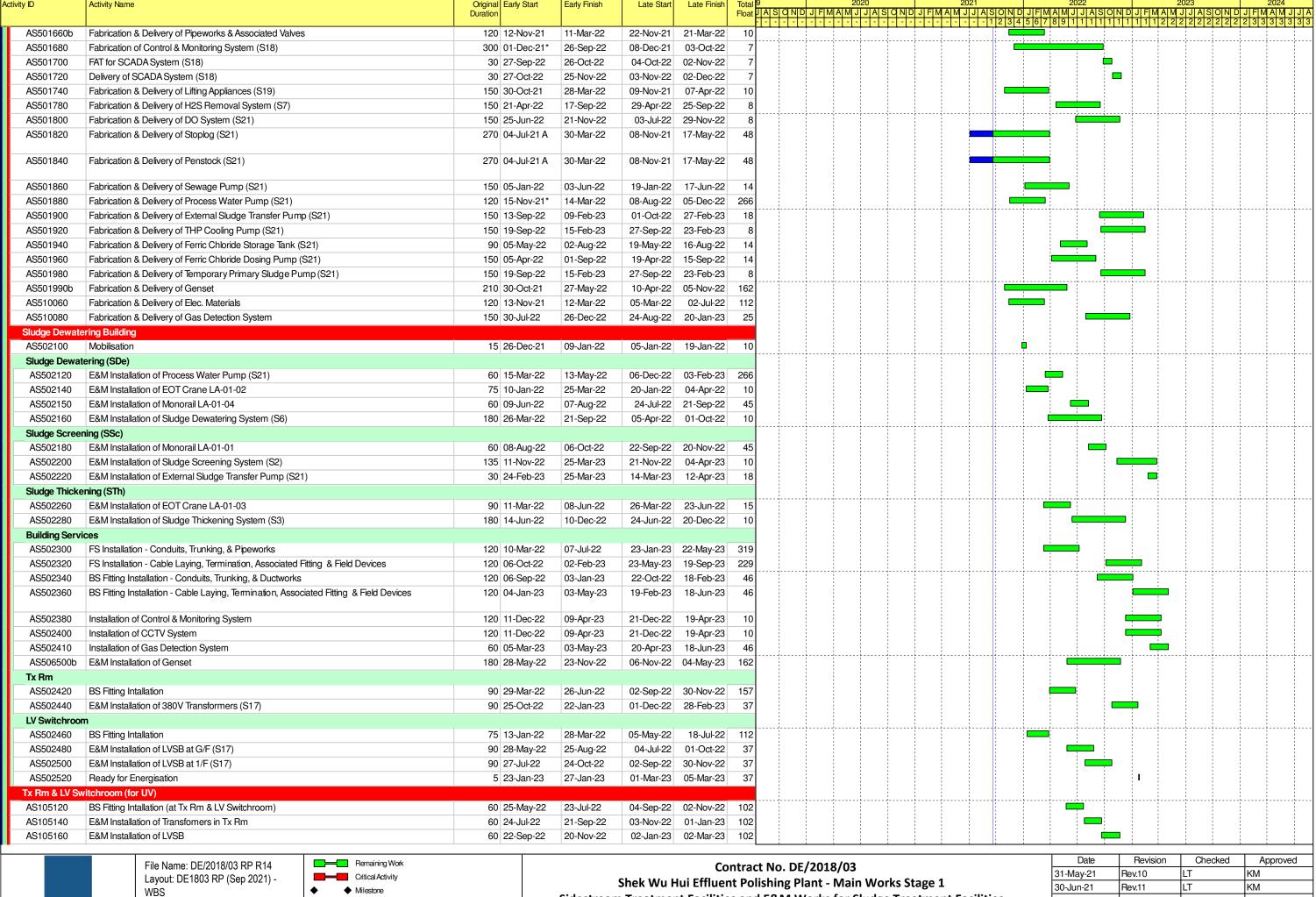
Date	Revision	Checked	Approved
31-May-21	Rev.10	LT	KM
30-Jun-21	Rev.11	LT	KM
31-Jul-21	Rev.12	LT	KM
31-Aug-21	Rev.13	LT	KM
30-Sep-21	Rev.14	LT	KM



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Actual Progress

Date	Revision	Checked	Approved
31-May-21	Rev.10	LT	KM
30-Jun-21	Rev.11	LT	KM
31-Jul-21	Rev.12	LT	KM
31-Aug-21	Rev.13	LT	KM
30-Sep-21	Rev.14	LT	KM

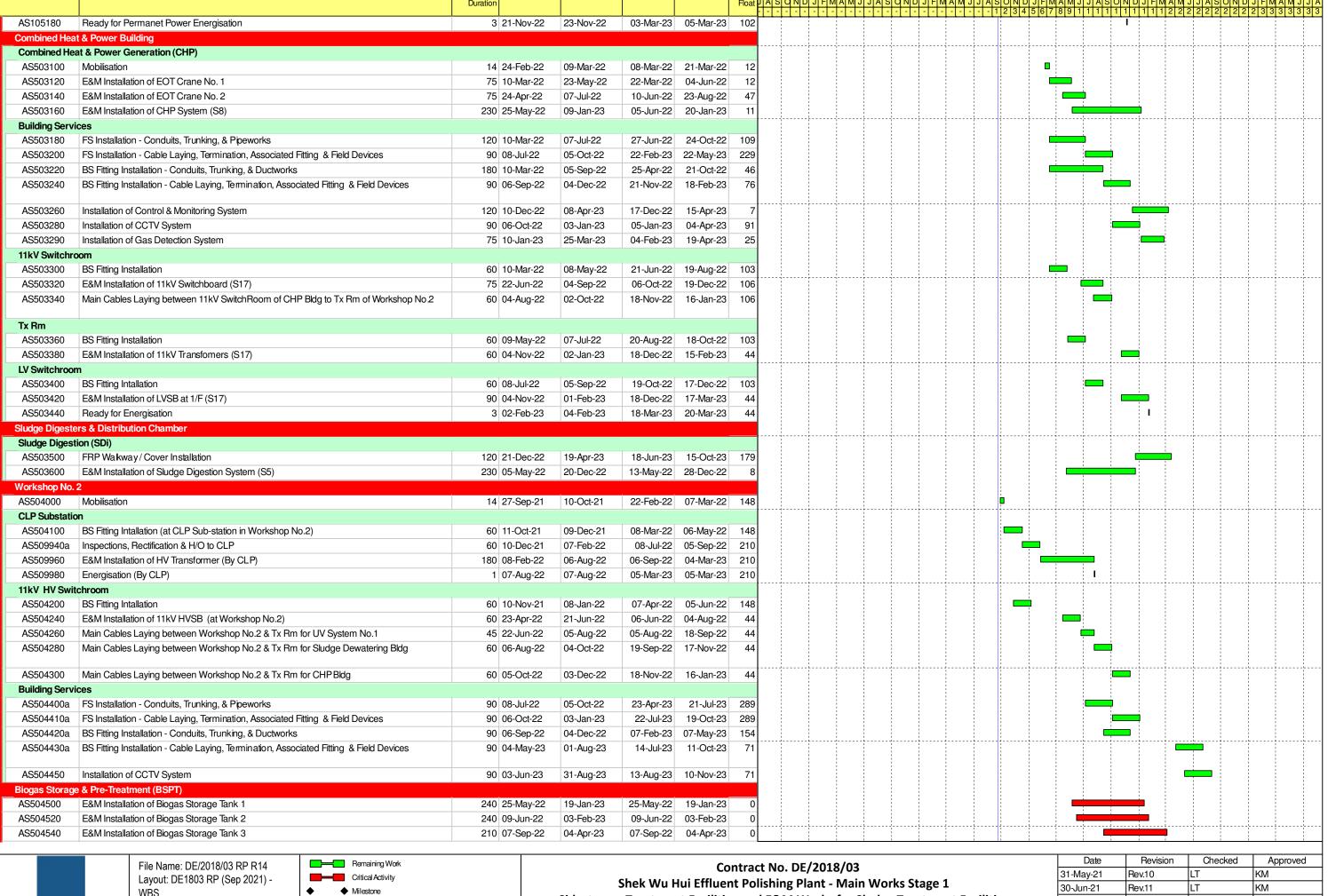


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Actual Progress

Sidestream Treatment Facilities and E&M Works for Sludge Treatment Facilities Revised Programme - as at 20 Sept 2021

Date	Revision	Checked	Approved
31-May-21	Rev.10	LT	KM
30-Jun-21	Rev.11	LT	KM
31-Jul-21	Rev.12	LT	KM
31-Aug-21	Rev.13	LT	KM
30-Sep-21	Rev.14	LT	KM



Early Finish

Late Start

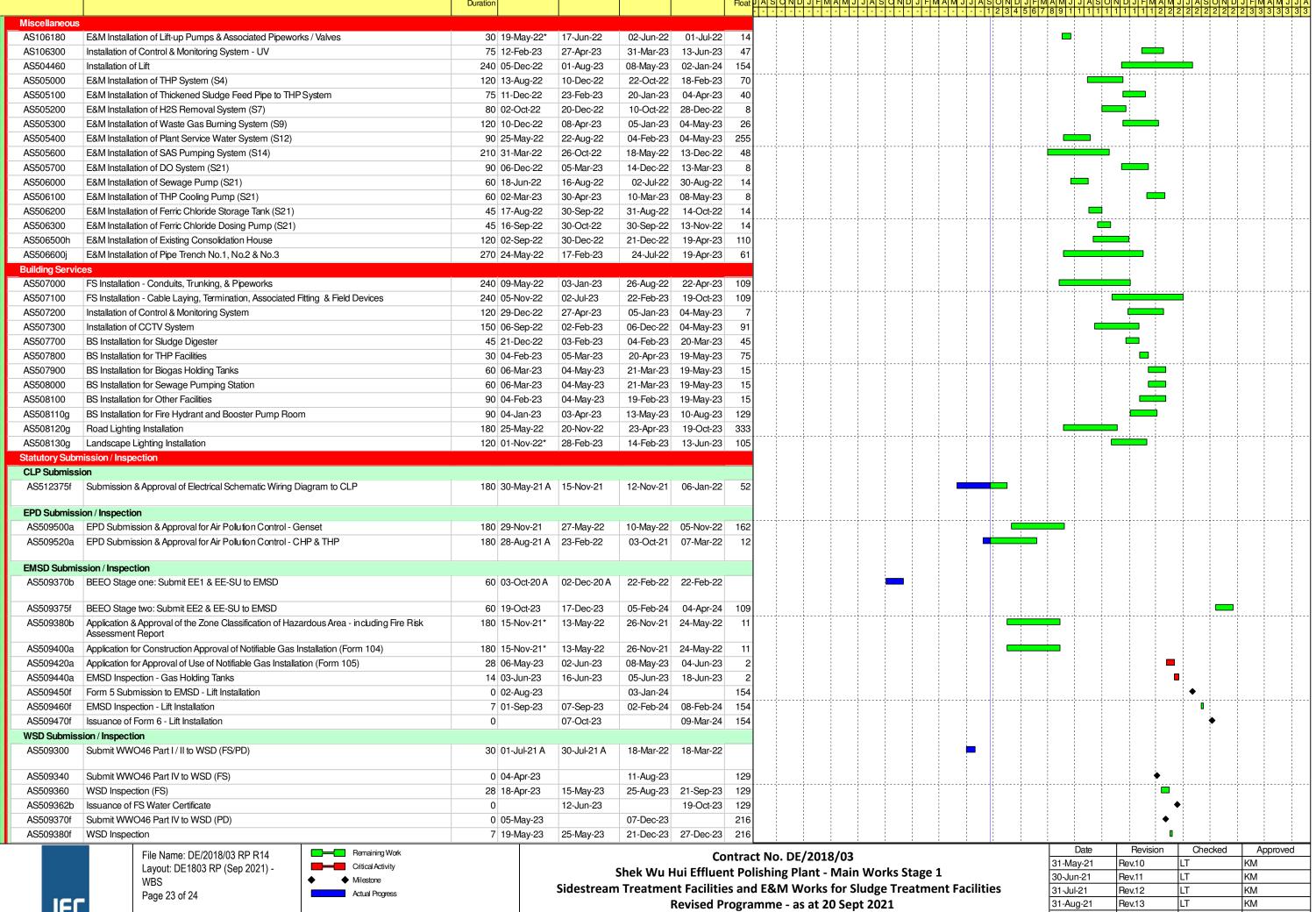


Activity Name

WBS Page 22 of 24 Actual Progress

Sidestream Treatment Facilities and E&M Works for Sludge Treatment Facilities Revised Programme - as at 20 Sept 2021

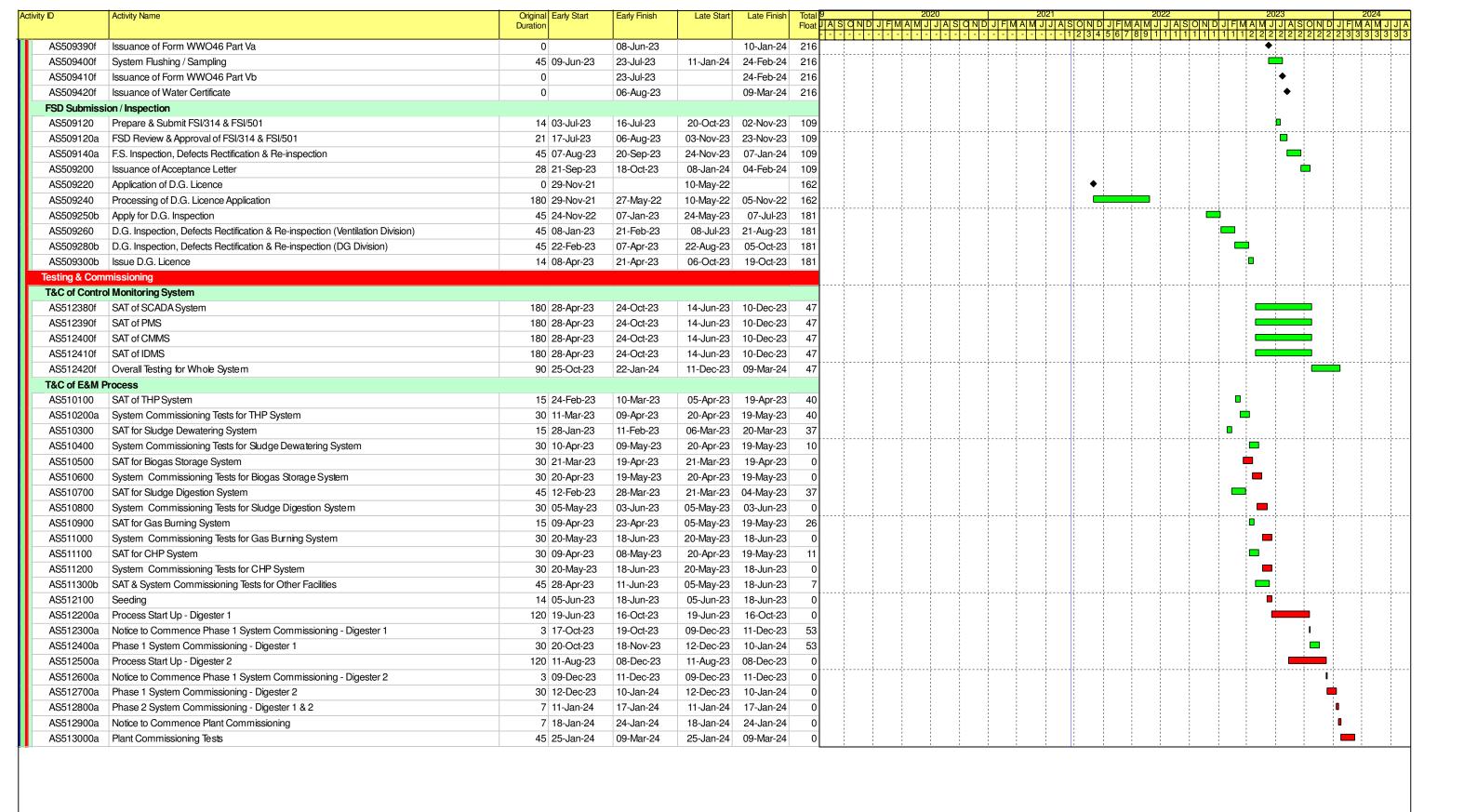
Date	Revision	Checked	Approved
31-May-21	Rev.10	LT	KM
30-Jun-21	Rev.11	LT	KM
31-Jul-21	Rev.12	LT	KM
31-Aug-21	Rev.13	LT	KM
30-Sep-21	Rev.14	LT	KM



Early Finish

Activity Name

Date	Revision	Checked	Approved
31-May-21	Rev.10	LT	KM
30-Jun-21	Rev.11	LT	KM
31-Jul-21	Rev.12	LT	KM
31-Aug-21	Rev.13	LT	KM
30-Sep-21	Rev.14	LT	KM





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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 Sludge Treatment Facilities
Revised Programme - as at 20 Sept 2021

Date	Revision	Checked	Approved
31-May-21	Rev.10	LT	KM
30-Jun-21	Rev.11	LT	KM
31-Jul-21	Rev.12	LT	KM
31-Aug-21	Rev.13	LT	KM
30-Sep-21	Rev.14	LT	KM

							ng Plant - Main Works Stage 1 E&M \	3					
WBS		ation between Task Start Start and Finish	Finish	Early Start E	Early Finish Fr	ree Slack Prede	cessors Successors Res	urce Names 20		2021 f 2, 2020 Half 1, 20	021 Half 2, 2021	2022 2023 Half 1, 2022 Half 2, 2022 Half 1, 2023 Half 2, 2023	2024 Half 1, 2024
11	DE/2018/04 - Contract Master Programme	1990 days Mon 02/12/19	Tue 13/05/25	Mon 02/12/19 1	Tue 13/05/25	0 days		N III	J. T. M. I. M. I.	J S N J	M M J S	N J M M J S N J M M J S	L NL ZM
21.1	Starting Date	0 days Mon 02/12/19	Mon 02/12/19	Mon 02/12/19		0 days	3SS+1625 edays,629,2025	Q2/1	12				
3 1.2	Completion Date	0 days Tue 14/05/24	Tue 14/05/24	Tue 14/05/24		0 days 2SS+							
41.3	Defect Dates with respect to Completion Date	365 days Tue 14/05/24	Tue 13/05/25	Tue 14/05/24 T		0 days 3							
52	Access Dates	1599 days Mon 02/12/19	Thu 18/04/24	Mon 02/12/19 1		0 days			4445441.00000.00000000000000000000000000				
6 2.1	Access Date for Works Area WA1-C	90 days Mon 02/12/19	Sat 29/02/20	Mon 02/12/19		0 days							
7 2.2	Access Date for Works Area WA2-C	90 days Mon 02/12/19	Sat 29/02/20	Mon 02/12/19		0 days							
8 2.3	Access Date for Portion B-2, Inlet Works No. 1	150 edays Tue 28/06/22	Fri 25/11/22	Tue 28/06/22 F		0 edays							
9 2.4	Access Date for Portion B-3, PST No. 1~4	90 edays Sat 14/01/23	Fri 14/04/23	Sat 14/01/23 F		0 edays							
10 2.5	Access Date for Portion B-3A, Existing PST No. 4 and No. 6	0 days Mon 02/12/19	Mon 02/12/19	Mon 02/12/19		0 days		02/1	12				
11 2.6	Access Date for Portion B-3B, Temporary Filtrate Lifting Well and Eq. Tank	0 days Mon 02/12/19	Mon 02/12/19	Mon 02/12/19		0 days		02/1	12				
12 2.7	Access Date for Portion B-4, BR 2A & 2B	90 edays Fri 25/11/22	Thu 23/02/23	Fri 25/11/22 1		0 edays						-	
13 2.8	Access Date for Portion B-5A, MFB No. 2 below 1st floor level	90 edays Mon 20/12/21	Sun 20/03/22	Mon 20/12/21		0 edays							
14 2.9	Access Date for Portion B-5B, MFB No. 2 remaining portion	90 edays Thu 19/05/22	Wed 17/08/22	Thu 19/05/22		0 edays							
15 2.10	Access Date for Portion B-7 & 7B, Chemical Dosing, Concrete Plinth for DOs,	150 edays Mon 20/12/21	Thu 19/05/22	Mon 20/12/21 T		0 edays							
16 2.11	Access Date for Portion B-7A & 7B, area for modification of existing emerger	0 edays Mon 02/12/19	Mon 02/12/19	Mon 02/12/19 M		0 edays		02/1	12				
17 2.12	Access Date for Portion B-9B, underground pipework	60 edays Sun 18/02/24	Thu 18/04/24	Sun 18/02/24 T		0 edays							
18 2.13	Access Date for Portion B-3B, underground pipework Access Date for B-10, existing sludge thickening building	0 edays Mon 02/12/19	Mon 02/12/19	Mon 02/12/19 N		0 edays		02/1	12				
	Access Date for B-10, existing studge thickening building Key Dates	555 days Mon 02/12/19	Wed 09/06/21	Mon 02/12/19 \		0 days							
193	KEY Dates KD1A - Submission of civil and dimensional requirement drawings, electrical	340 edays Mon 02/12/19	Fri 06/11/20	Mon 02/12/19 F		0 days 0 edays 31FF				@ 06/11			
203.1		550 edays Mon 02/12/19	Fri 06/11/20 Fri 04/06/21	Mon 02/12/19 F		0 edays 32FF				,,,	@ 04/06		
213.2	KD1B - Submission of remaining civil and dimensional requirement drawings					0 edays 32FF				29/07	- ,,,,,		
223.3	KD3A - Completion of E&M Installation works of existing power house in Pol	240 edays Mon 02/12/19	Wed 29/07/20	Mon 02/12/19 V							09/06		
23 3.4	KD3B - Completion of all work for reprovision of the existing Primary Sedime	555 edays Mon 02/12/19	Wed 09/06/21	Mon 02/12/19 V		0 edays 34FF					05/00		
244	Sectional Completion Dates	1625 days Mon 02/12/19	Tue 14/05/24	Mon 02/12/19 T		0 days					@ 24/07		
25 4.1	Section 1 - Completion of the design of E&M Works for all works as defined	600 edays Mon 02/12/19	Sat 24/07/21	Mon 02/12/19 S		0 edays 35FF					@ 24/07		
26 4.2	Section 2 - Completion of all works for Inlet Works, PST No. 1~4, BR No. 2A {	1600 edays Mon 02/12/19	Fri 19/04/24	Mon 02/12/19 F		0 edays 36FF						100	
27 4.3	Section 3 - Completion of all works for retrofitting of the existing PSTetc (6	660 edays Mon 02/12/19	Wed 22/09/21	Mon 02/12/19 V		0 edays 37FF					en/2	2/09	
28 4.4	Section 4 - Completion of Work for remainder of the works (1625 days after	1625 edays Mon 02/12/19	Tue 14/05/24	Mon 02/12/19 T		0 edays 38FF							
295	DE/2018/04 - the Contractor's Programme (w/ Defects Date of Planned Completion Date)	1977 days Mon 02/12/19	Wed 30/04/25	Mon 02/12/19 V	Wed 30/04/25	0 days							
305.1	Starting Date	0 days Mon 02/12/19	Mon 02/12/19	Mon 02/12/19 N	Mon 02/12/	0 days	629,202SS+30 edays,42SS	02/1	12				
315.2	Planned Key Date Completion Date - KD1A	0 days Fri 30/10/20	Fri 30/10/20	Fri 30/10/20 F		7 days	20FF			@_30/10			
325.3	Planned Key Date Completion Date - KD1B	0 days Tue 01/06/21	Tue 01/06/21	Tue 01/06/21 T		3 days	21FF				@ 01/06		
335.4	Planned Key Date Completion Date - KD3A	0 days Wed 22/07/20	Wed 22/07/20	Wed 22/07/20 V		7 days	22FF			22/07			
345.5	Planned Key Date Completion Date - KD3B	0 days Mon 07/06/21	Mon 07/06/21	Mon 07/06/21 N		2 days	23FF				07/06		
	Planned Sectional Completion Date - Section 1	0 days Mon 12/07/21	Mon 12/07/21	Mon 12/07/21 N		11 days	25FF				@_12/07		
35 5.6		0 days Mon 01/04/24	Mon 01/04/24	Mon 01/04/24 N		18 days	26FF						
365.7	Planned Sectional Completion Date - Section 2						27FF				@_01/	09	
375.8	Planned Sectional Completion Date - Section 3	0 days Wed 01/09/21	Wed 01/09/21	Wed 01/09/21 V									
38 5.9	Planned Sectional Completion Date - Section 4	0 days Wed 01/05/24	Wed 01/05/24			13 days	28FF						
395.10	Planned Completion Date	0 days Wed 08/05/24	Wed 08/05/24	Wed 08/05/24 V		5 days 1287	,1288,13						
405.11	Defect Dates with respect to planned completion date	365 days Wed 01/05/24	Wed 30/04/25	Wed 01/05/24 V		0 days							
415.12	Part A: Procurement and Delivery of Major Plant and Materials	758 days Wed 01/07/20	Thu 28/07/22	Wed 01/07/20 T							02/06		
425.12.1	Planned Completion Date for Procurement of major plant and materials	0 days Thu 03/06/21	Thu 03/06/21	Thu 03/06/21 T		0 days 30SS-	+550 da			_	● 03/06		
43 5.12.2	General - stoplogs and penstocks, C11, EQT013	120 days Wed 01/07/20	Wed 28/10/20	Wed 01/07/20 V		0 days			-				
445.12.2.1	Submission for acceptance of purchasing package	60 days Wed 01/07/20	Sat 29/08/20	Wed 01/07/20 S		0 days	45		-				
45 5.12.2.2	Invitation of quotations for purchasing package	30 days Sun 30/08/20	Mon 28/09/20	Sun 30/08/20 M		0 days 44	46						
46 5.12.2.3	Acceptance of conforming quotation (Completed)	30 days Tue 29/09/20	Wed 28/10/20	Tue 29/09/20 V		0 days 45	253			-			
475.12.3	General - Instrumentations except use at BR, C11, EQT035-1	401 days Sat 02/01/21	Sun 06/02/22	Sat 02/01/21 S		594 days							
485.12.3.1	Submission for acceptance of purchasing package	60 days Sat 02/01/21	Tue 02/03/21	Sat 02/01/21 T	Tue 02/03/21	0 days							
49 5.12.3.2	Invitation of quotations for purchasing package (Rev. 10)	30 days Fri 11/06/21	Sat 10/07/21	Fri 11/06/21 S	Sat 10/07/21	0 days	50					and the second state of th	
50 5.12.3.3	Acceptance of conforming quotation (Rev. 10)	30 days Sun 11/07/21	Mon 09/08/21	Sun 11/07/21 N	Mon 09/08/	0 days 49	51				-		
515.12.3.4	Manufacturing and Factory Acceptance Test of Plant (Rev. 10)	121 days Tue 10/08/21	Wed 08/12/21	Tue 10/08/21 V	Wed 08/12/	0 days 50	52				The state of the s		
525.12.3.5	Shipping and Delivery of Plant (Rev. 10)	60 days Thu 09/12/21	Sun 06/02/22	Thu 09/12/21 S	Sun 06/02/22	237 days 51	335,466,748						
53 5.12.4	General - pipework and valves, C11, ref. EQT036 (Rev. 11)	422 days Mon 02/11/20	Tue 28/12/21	Mon 02/11/20 T	Tue 28/12/21	214 days				-			
545.12.4.1	Submission for acceptance of purchasing package (Rev. 11)	255 days Mon 02/11/20	Wed 14/07/21	Mon 02/11/20 V	Wed 14/07/	0 days	55						
55 5.12.4.2	Invitation of quotations for purchasing package (Rev. 11)	40 days Fri 01/01/21	Sun 08/08/21	Fri 01/01/21 S	Sun 08/08/21	0 days 54	56			>■			
56 5.12.4.3	Acceptance of conforming quotation (Rev. 11)	50 days Sun 31/01/21	Sun 12/09/21	Sun 31/01/21 S	Sun 12/09/21	0 days 55	279,285,430,559,682			=			
575.12.4.4	Submission for acceptance of purchasing package for remaining	30 days Mon 01/11/21	Tue 30/11/21	Mon 01/11/21 T	Tue 30/11/21	0 days	58						
	pipework and valves (Rev. 13)												
T		}*************************************					Mila /A » ±	A.A.L.A					
	Task Milestone • Project Summary	Late	Critical S	opiit	Manual Pro	yress	Milestone (Actual)						
e e	Milestone, Tentative Summary Manual Summary	Critical	Progress	s	Slack (Float))	Slack	***************************************					

						- Silek V	va mar Em		Thank main works	Stage 1 E&M Works for Sewa	
D WBS T	Fask Name	Duration between Task Start and Finish	Start	Finish	Early Start	Early Finish	Free SI	lack Predeces	ssors Successors	Resource Names	2020 2021 2022 2023 2 Half 1, 2020 Half 2, 2020 Half 1, 2021 Half 2, 2021 Half 1, 2022 Half 2, 2023 Ha
585.12.4.5	Invitation of quotations for purchasing package (Rev. 13)		ys Wed 01/12/21	Tue 14/12/21	Wed 01/12/21	Tue 14/12	/21	0 days 57	59		N J M M J S N J M M J S N J S
595.12.4.6	Acceptance of conforming quotation (Rev. 13)		ys Wed 15/12/21	Tue 28/12/21	Wed 15/12/21			0 days 58			
60 5.12.5	General - Electric actuators, C11, ref. EQT072 (Rev. 11)		ys Thu 02/12/21	Sun 13/02/22	Thu 02/12/21						
615.12.5.1	Submission for acceptance of purchasing package (Rev. 11)		ys Thu 02/12/21	Fri 31/12/21	Thu 02/12/21			0 days	62		
625.12.5.2	Invitation of quotations for purchasing package (Rev. 11)		ys Sat 01/01/22	Sun 30/01/22	Sat 01/01/22			0 days 61	63		
63 5.12.5.3	Acceptance of conforming quotation (Rev. 11)		ys Mon 31/01/22	Sun 13/02/22	Mon 31/01/22			0 days 62	285,430,559,68		
645.12.6	General - HV Switchboards, C9, ref. 04SC012 (Rev. 14)		ys Mon 04/01/21	Sun 18/04/21	Mon 04/01/21			0 days	203,430,333,00	-	
65 5.12.6.1	Submission for acceptance of purchasing package		ys Mon 04/01/21	Wed 17/02/21	Mon 04/01/21			0 days	66		
66 5.12.6.2	Invitation of quotations for purchasing package		ys Thu 18/02/21	Fri 19/03/21	Thu 18/02/21			0 days 65	67		
67 5.12.6.3	Acceptance of conforming quotation (Rev. 11, Completed)		ys Sat 20/03/21	Sun 18/04/21	Sat 20/03/21			0 days 66	657,257		
68 5.12.7	General - LV Switchboards, C9, ref. 04SC013 (Rev. 14)		ys Mon 04/01/21	Mon 03/05/21	Mon 04/01/21			0 days	007,207		
69 5.12.7.1	Submission for acceptance of purchasing package		ys Mon 04/01/21	Thu 04/03/21	Mon 04/01/21			0 days	70		
			ys Fri 05/03/21	Sat 03/04/21	Fri 05/03/21			0 days 69	71		
705.12.7.2	Invitation of quotations for purchasing package Acceptance of conforming quotation (Rev. 11, Completed)		ys Sun 04/04/21	Mon 03/05/21	Sun 04/04/21			0 days 70	256,532,403,65	6	
715.12.7.3			ys Fri 01/01/21	Thu 28/07/22	Fri 01/01/21	Thu 28/07			230,332,403,03	Y	
725.12.8	General - VSDs & Passive Type Harmonic Filters, C11, ref. EQT034 (Rev. !		ys Fri 01/01/21	Mon 01/03/21	Fri 01/01/21	Mon 01/03		0 days	74		
735.12.8.1	Submission for acceptance of purchasing package Invitation of quotations for purchasing package		ys Tue 02/03/21	Wed 31/03/21	Tue 02/03/21	Wed 31/03		0 days 0 days 73	75		
745.12.8.2			ys Thu 01/04/21	Wed 31/03/21 Fri 30/04/21	Thu 01/04/21			0 days 73	254,401,530,65	3	
755.12.8.3	Acceptance of conforming quotation (Rev. 11, Completed) Manufacturing and Factory Acceptance Test of Plant		ys Wed 16/03/22	Mon 13/06/22	Wed 16/03/22			0 days 254,401		-	
765.12.8.4	Manufacturing and Factory Acceptance Test of Plant Shipping and Delivery of Plant to LVSB Sub-Contractor		ys Tue 14/06/22	Thu 28/07/22	Tue 14/06/22			0 days 254,403	292SS-90 edays		
775.12.8.5				Fri 07/05/21	Mon 18/01/21			0 days 76	23233-30 edays		
785.12.9	General - 11kV/380V Stepdown Power Transformers, C11, EQT032 (Rev.		ys Mon 18/01/21	Mon 08/03/21	Mon 18/01/21			0 days	80		
795.12.9.1	Submission for acceptance of purchasing package		ys Mon 18/01/21 ys Tue 09/03/21	Wed 07/04/21	Tue 09/03/21			0 days 79	81		
805.12.9.2	Invitation of quotations for purchasing package			Fri 07/05/21	Thu 08/04/21				254,653		
815.12.9.3	Acceptance of conforming quotation (Rev. 11, Completed)		ys Thu 08/04/21					0 days 80	234,033		
825.12.10	General - UPS, C11, EQT039A (Rev. 14)		ys Wed 01/12/21	Mon 28/02/22	Wed 01/12/21			0 days	84		
83 5.12.10.1	Submission for acceptance of purchasing package (Rev. 13)		ys Wed 01/12/21	Thu 30/12/21	Wed 01/12/21			0 days	85		
845.12.10.2	Invitation of quotations for purchasing package (Rev. 13)		ys Fri 31/12/21	Sat 29/01/22	Fri 31/12/21			0 days 83		2	
85 5.12.10.3	Acceptance of conforming quotation (Rev. 13)		ys Sun 30/01/22	Mon 28/02/22	Sun 30/01/22			0 days 84	254,401,530,65	•	
865.12.11	General - HV Cables, C11, EQT041 (Rev. 13)		ys Wed 01/12/21	Thu 03/02/22	Wed 01/12/21 Wed 01/12/21				88		
875.12.11.1	Submission for acceptance of purchasing package		ys Wed 01/12/21	Tue 14/12/21				0 days			
885.12.11.2	Invitation of quotations for purchasing package		ys Wed 15/12/21	Tue 04/01/22	Wed 15/12/21			0 days 87	89		
895.12.11.3	Acceptance of conforming quotation		ys Wed 05/01/22	Thu 03/02/22	Wed 05/01/22			0 days 88	254,653		
905.12.12	General - LV Cables, C11, EQT042 (Rev. 13)		ys Wed 01/12/21	Thu 03/02/22	Wed 01/12/21 Wed 01/12/21				02		
915.12.12.1	Submission for acceptance of purchasing package		ys Wed 01/12/21	Tue 14/12/21				0 days	92		
323.12.12.2	Invitation of quotations for purchasing package		ys Wed 15/12/21	Tue 04/01/22 Thu 03/02/22	Wed 15/12/21 Wed 05/01/22			0 days 91	254,401,530,65		
93 5.12.12.3	Acceptance of conforming quotation		ys Wed 05/01/22	Sun 30/01/22	Wed 03/01/22 Wed 01/01/20			0 days 2,30	234,401,330,03	2	
945.13	Part B: Subletting of major sub-contract works		ys Wed 01/01/20						0 do		12/08
95 5.13.1	Planned Completion Date for major sub-contract works		ys Thu 12/08/21	Thu 12/08/21	Thu 12/08/21 Wed 01/01/20			0 days 2SS+620	o day		
965.13.2	General - Independent BEAM Plus Consultant (04SC007)		ys Wed 01/01/20	Fri 29/05/20				0 days	00		
975.13.2.1	Submission for acceptance of proposed Independent BEAM Plus Consu		ys Wed 01/01/20	Sun 01/03/20	Wed 01/01/20			edays	98		
985.13.2.2	Acceptance of proposed Independent BEAM Plus Consultant		ys Sun 01/03/20	Sun 15/03/20	Sun 01/03/20			edays 97	33		
995.13.2.3	Engagement with an Independent BEAM Plus Consultant		ys Sun 15/03/20	Sat 21/03/20	Sun 15/03/20			0 days 98			● 29/05
100 5.13.2.4	Actual Date for engagement with an independent BEAM Plus Consultar		ys Fri 29/05/20	Fri 29/05/20	Fri 29/05/20			0 days			
101 5.13.3	General - Conduction of Pump sump physical model test 04SC015		ys Fri 15/05/20	Sun 10/10/21 Fri 22/05/20	Fri 15/05/20			0 days	103		
102 5.13.3.1	Submission for acceptance of proposed hydraulic laboratory to conduc		ys Fri 15/05/20			Fri 22/05/2		edays	103		
103 5.13.3.2	Invitation to quotations for provision of service		ys Fri 22/05/20	Fri 29/05/20		Fri 29/05/2		edays 102	104		
104 5.13.3.3	Acceptance of proposed hydraulic laboratory		lys Fri 29/05/20	Wed 03/06/20		Wed 03/06		0 days 103	105		
105 5.13.3.4	Commencement of detailed proposal and conduction of test (Rev 13)		lys Thu 04/06/20	Sun 26/09/21	Thu 04/06/20			0 days 104	TOP		
106 5.13.3.5	Acceptance of hydraulic Report (Rev 13)		ys Mon 27/09/21	Sun 10/10/21	Mon 27/09/21			0 days 105			
1075.13.4	General - Independent Checking Engineer (04SC004)		ys Wed 11/03/20	Wed 15/07/20	Wed 11/03/20			0 days	100		
108 5.13.4.1	Submission for acceptance of proposed Independent Checking Enginee		lys Wed 11/03/20	Tue 09/06/20	Wed 11/03/20			edays	109		
109 5.13.4.2	Acceptance of proposed Independent Checking Engineer		ay Wed 24/06/20	Thu 25/06/20	Wed 24/06/20			edays 108	110		
110 5.13.4.3	Engagement with an Independent Checking Engineer		iys Thu 25/06/20	Wed 15/07/20	Thu 25/06/20			0 days 109	111		15/07
111 5.13.4.4	Actual Date for engagement with an ICE (Completed)		iys Wed 15/07/20	Wed 15/07/20	Wed 15/07/20			0 days 110			
112 5.13.5	General - Lifting Appliances (04SC008)		ys Fri 01/05/20	Tue 21/07/20	Fri 01/05/20			0 days	114		
113 5.13.5.1	Submission for acceptance of subcontract works package		ys Fri 01/05/20	Sun 31/05/20	Fri 01/05/20			edays	114		
114 5.13.5.2	Invitation of tender for subcontract works		ys Sun 31/05/20	Sun 21/06/20	Sun 31/05/20			edays 113	115		
115 5.13.5.3	Acceptance of conforming tender		ys Sun 21/06/20	Tue 21/07/20	Sun 21/06/20			edays 114	116		
116 5.13.5.4	Sub-contract work commencement date (Completed)	0 da	ys Tue 21/07/20	Tue 21/07/20	Tue 21/07/20	Tue 21/07/	/20	0 days 115	258,404,533,65	8,1050	21/07
	Task Milestone ♦ Project Sur	nmary	Late	Critical	Split	Man	nual Progress		Milestone (Actu	il) *	
DE/2018/04	Milestone, Tentative Summary Manual Sur	nmary	Critical	Progres	s	Slack	k (Float)		Slack		
09/21											

0	Drainage Service	s Department						posed Work Programme		AECOM
			Duration between Task Start	Finish	Early Start		Effluent Polishing Pl		1 E&M Works for Sewage Treatmen Resource Names	ment Facilities
ID	D WBS	Task Name	Start and Finish	Finish	Early Start	Early Finish Fre	e Slack Predecesso	rs Successors	Resource Names	2020 2021 2022 2023 2024
117	117 5.13.6	General - Mechanical Installations	244 days Tue 01/06/21	Sun 30/01/22	Tue 01/06/21	Sun 30/01/22	0 days			
118	118 5.13.6.1	Submission for acceptance of subcontract works package	120 days Tue 01/06/21	Tue 28/09/21	Tue 01/06/21	Tue 28/09/21	0 days	119		
119	119 5.13.6.2	Invitation of tender for subcontract works	75 days Wed 29/09/21	Sun 12/12/21	Wed 29/09/21	Sun 12/12/21	0 days 118	120		
120	120 5.13.6.3	Acceptance of conforming tender	30 days Mon 13/12/21	Tue 11/01/22	Mon 13/12/21	Tue 11/01/22	19 days 119	121FF		
121	121 5.13.6.4	Sub-contract work commencement date	1 day Sun 30/01/22	Sun 30/01/22	Sun 30/01/22	Sun 30/01/22	0 days 120FF			@ 30/01
122	122 5.13.7	General - Electrical Installations	244 days Tue 01/06/21	Sun 30/01/22	Tue 01/06/21	Sun 30/01/22	0 days			
123	123 5.13.7.1	Submission for acceptance of subcontract works package	120 edays Tue 01/06/21	Wed 29/09/21	Tue 01/06/21	Wed 29/09/	0 edays	124		
124	124 5.13.7.2	Invitation of tender for subcontract works	75 edays Wed 29/09/21	Mon 13/12/21	Wed 29/09/21	Mon 13/12/	0 edays 123	125		
125	125 5.13.7.3	Acceptance of conforming tender	30 edays Mon 13/12/21	Wed 12/01/22	Mon 13/12/21	Wed 12/01/ 18	.38 edays 124	126FF		
126	126 5.13.7.4	Sub-contract work commencement date	1 day Sun 30/01/22	Sun 30/01/22	Sun 30/01/22	Sun 30/01/22	0 days 125FF			@/30/01
127	127 5.13.8	General - Facility Computerized Systems (SCADA, CMMS, PMS, IDMS)	384 days Tue 01/09/20	Mon 20/09/21	Tue 01/09/20		0 days			
		(Rev. 13) 04SC018				20/09/21				
128	128 5.13.8.1	Submission for acceptance of subcontract works package	60 edays Tue 01/09/20	Sat 31/10/20	Tue 01/09/20	Sat 31/10/20	0 edays	129		
129	129 5.13.8.2	Invitation of tender for subcontract works	310 edays Sat 31/10/20	Mon 06/09/21	Sat 31/10/20	Mon 06/09/	0 edays 128	130		
130	130 5.13.8.3	Acceptance of conforming tender (Completed)	14 edays Mon 06/09/21	Mon 20/09/21	Mon 06/09/21	Mon 20/09/	0 edays 129	131		
131	131 5.13.8.4	Sub-contract work commencement date	0 days Mon 20/09/21	Mon 20/09/21	Mon 20/09/21	Mon 20/09/	0 days 130	190		20/09
132	132 5.13.9	General - Building Services Installations	130 days Mon 02/11/20	Fri 12/03/21	Mon 02/11/20	Fri 12/03/21	41 days			
133	133 5.13.9.1	Submission for acceptance of subcontract works package (Rev. 15)	60 edays Mon 02/11/20	Fri 01/01/21	Mon 02/11/20	Fri 01/01/21	0 edays	134		
134	134 5.13.9.2	Invitation of tender for subcontract works	30 edays Fri 01/01/21	Sun 31/01/21	Fri 01/01/21	Sun 31/01/21	0 edays 133	135		
135	135 5.13.9.3	Acceptance of conforming tender	30 edays Sun 31/01/21	Tue 02/03/21	Sun 31/01/21	Tue 02/03/21	10 edays 134	136FF		
136	136 5.13.9.4	Sub-contract work commencement date	0 days Fri 12/03/21	Fri 12/03/21	Fri 12/03/21	Fri 12/03/21	0 days 135FF	255,402,531,655,802,	,882	@ 12/03
137	137 5.13.10	General - Mechanical Ventilation and Air Conditioning Installation (Rev. 13) (04SC020)	413 days Mon 02/11/20	Sun 19/12/21	Mon 02/11/20	Sun 19/12/21	0 days			
138	138 5.13.10.1	Submission for acceptance of subcontract works package	60 days Mon 02/11/20	Thu 31/12/20	Mon 02/11/20	Thu 31/12/20	0 days	139		
	139 5.13.10.2	Invitation of tender for subcontract works	30 edays Thu 31/12/20	Sat 30/01/21	Thu 31/12/20		0 edays 138			
	140 5.13.10.3	Submission for acceptance of revised subcontract works package (Rev.	60 days Wed 01/09/21	Sat 30/10/21	Wed 01/09/21	Sat 30/10/21	0 days			
	141 5.13.10.4	Invitation of tender for subcontract works (Rev. 15)	14 days Mon 15/11/21	Sun 28/11/21	Mon 15/11/21	Sun 28/11/21	0 days	142		
	142 5.13.10.5	Acceptance of conforming tender (Rev. 13)	21 days Mon 29/11/21	Sun 19/12/21	Mon 29/11/21		0 days 141	143FF		
	143 5.13.10.6	Sub-contract work commencement date	0 days Sun 19/12/21	Sun 19/12/21	Sun 19/12/21		0 days 142FF			e 19/12
	144 5.13.11	General - Emergency Power Generator Set (04SC006)	146 days Wed 01/07/20	Mon 23/11/20	Wed 01/07/20	Mon 23/11	0 days			
	145 5.13.11.1	Submission for acceptance of subcontract works package	60 edays Wed 01/07/20	Sun 30/08/20	Wed 01/07/20	Sun 30/08/20	0 edays	146		
146	146 5.13.11.2	Invitation of tender for subcontract works	30 edays Sun 30/08/20	Tue 29/09/20	Sun 30/08/20	Tue 29/09/20	0 edays 145	147		
	147 5.13.11.3	Acceptance of conforming tender	30 edays Tue 29/09/20	Thu 29/10/20	Tue 29/09/20	Thu 29/10/20	0 edays 146	148FF		
148	148 5.13.11.4	Sub-contract work commencement date (Completed)	24 days Sat 31/10/20	Mon 23/11/20	Sat 31/10/20	Mon 23/11/	0 days 147FF			
149	149 5.13.12	General - Plumbing Installation (Rev. 5) (04SC021)	231 days Wed 01/07/20	Tue 16/02/21	Wed 01/07/20	Tue 16/02/21	120 days			
150	150 5.13.12.1	Submission for acceptance of subcontract works package	30 edays Wed 01/07/20	Fri 31/07/20	Wed 01/07/20	Fri 31/07/20	0 edays	151		
151	151 5.13.12.2	Invitation of tender for subcontract works	75 edays Fri 31/07/20	Wed 14/10/20	Fri 31/07/20	Wed 14/10/	0 edays 150	152		
152	152 5.13.12.3	Retender of subcontract works (Rev. 5)	14 days Mon 04/01/21	Sun 17/01/21	Mon 04/01/21	Sun 17/01/21	0 days 151	153		
153	153 5.13.12.4	Acceptance of conforming tender (Completed)	30 edays Sun 17/01/21	Tue 16/02/21	Sun 17/01/21	Tue 16/02/21	0 edays 152	154FF		
154	154 5.13.12.5	Sub-contract work commencement date (Extended)	0 days Tue 16/02/21	Tue 16/02/21	Tue 16/02/21	Tue 16/02/21	0 days 153FF	1241		6 15/02
155	155 5.13.13	General - Fire Services Installation (Rev. 5) (04SC019)	120 days Mon 04/01/21	Mon 03/05/21	Mon 04/01/21	Mon 03/05	153 days			
156	156 5.13.13.1	Submission for acceptance of subcontract works package	60 days Mon 04/01/21	Thu 04/03/21	Mon 04/01/21	Thu 04/03/21	0 days	157		
	157 5.13.13.2	Invitation of tender for subcontract works	30 days Fri 05/03/21	Sat 03/04/21	Fri 05/03/21	Sat 03/04/21	0 days 156	158		
	158 5.13.13.3	Acceptance of conforming tender (Completed)	30 days Sun 04/04/21	Mon 03/05/21	Sun 04/04/21	Mon 03/05/	0 days 157	159FF		
	159 5.13.13.4		0 days Mon 03/05/21	Mon 03/05/21	Mon 03/05/21	Mon 03/05/	0 days 158FF	1192		@ 03/05
	160 5.13.14	General - Lightning Protection System (Rev. 15) (04SC017)	100 days Wed 01/09/21	Fri 10/12/21	Wed 01/09/21	Fri 10/12/21	0 days			
	161 5.13.14.1	Submission for acceptance of subcontract works package (Rev. 13)	40 edays Wed 01/09/21	Mon 11/10/21	Wed 01/09/21	Mon 11/10/	0 edays	162		
	162 5.13.14.2		30 edays Mon 11/10/21	Wed 10/11/21	Mon 11/10/21		0 edays 161	163		
	163 5.13.14.3		30 edays Wed 10/11/21	Fri 10/12/21	Wed 10/11/21		0 edays 162	164FF		
	164 5.13.14.4		0 days Fri 10/12/21	Fri 10/12/21	Fri 10/12/21		0 days 163FF			10/12
	165 5.13.15	General - CCTV Installation (Rev. 13) (04SC016)	121 days Wed 01/09/21	Fri 31/12/21	Wed 01/09/21		0 days			
	166 5.13.15.1	Submission for acceptance of subcontract works package	45 edays Wed 01/09/21	Sat 16/10/21	Wed 01/09/21		0 edays	167		
	167 5.13.15.2		35 edays Sat 16/10/21	Sat 20/11/21	Sat 16/10/21		0 edays 166	168		
	168 5.13.15.3	Acceptance of conforming tender	30 edays Sat 20/11/21	Mon 20/12/21			11 edays 167	169FF		
	169 5.13.15.4		0 days Fri 31/12/21	Fri 31/12/21	Fri 31/12/21		0 days 168FF			€ 31/12
	170 5.13.16	General - Civil Construction Work for underground pipework (04SC005)	40 days Wed 01/07/20	Mon 10/08/20	Wed 01/07/20		0 days			
	171 5.13.16.1		14 days Wed 01/07/20	Tue 14/07/20	Wed 01/07/20		0 days	172		
	172 5.13.16.2		14 days Wed 15/07/20	Tue 28/07/20	Wed 15/07/20		0 days 171	173		
	173 5.13.16.3		7 days Wed 29/07/20	Tue 04/08/20	Wed 29/07/20		0 days 172	174FF		
			becommonwed .		-I'a			Milesters		
Bes	wise	Task Milestone ♦ Project Sun Milestone, Tentative ⊛ Summary Manual Sur		Critical S	piit	Manual Prog Slack (Float)	ress	Milestone (Actual) * Slack		
	: DE/2018/04 8/09/21									
_	Date Wed 27/10	1/21						Page 3 of 24		DE_2018_04 Revised PG- (Rev 15, 2021-10) R1
Status	Date wed 27/10	761						3		

Drainage The Construent of	Services Dep	partment				Shek V	Vu Hui Efflu		posed Work Programme ant - Main Works Stage 1	for DE/2018/04 1 E&M Works for Sewage Treat	ment Facilities										AECO
ID ID WB:	Task	Name	Duration between Task Start	Finish	Early Start	Early Finish		ck Predecess		Resource Names	2020			2021		T(53. 503.4	2022		2023	Tu-162 2022	2024
174 1745.1	16.4	Sub-contract work commencement date (Completed)	Start and Finish 0 days Mon 10/08/20	Mon 10/08/20	Mon 10/08/20	Mon 10/09	2/ 0	days 173FF			Half	f 1, 2020 Ha	alf 2, 2020 J S @ 10/08	Half 1, 2		Half 2, 2021	Half 1, 2022	Half 2, 2022	S N J M	M J S	Half 1, 2024 N J M
174 174 5.1 175 175 5.1		General - Civil Construction Work for Temp. Filtrate Eq. System (04SC00)	40 days Wed 01/07/20	Mon 10/08/20	Wed 01/07/20			days													
176 176 5.1		Submission for acceptance of subcontract works package	14 days Wed 01/07/20	Tue 14/07/20	Wed 01/07/20			days	177			_									
177 177 5.1		Invitation of tender for subcontract works	14 days Wed 15/07/20	Tue 28/07/20	Wed 15/07/20			days 176	178											-	
178 178 5.1		Acceptance of conforming tender	7 days Wed 29/07/20	Tue 04/08/20	Wed 29/07/20			days 177	179FF				-								
179 179 5.1		Sub-contract work commencement date (Completed)	0 days Mon 10/08/20	Mon 10/08/20	Mon 10/08/20	Mon 10/08		days 178FF					@ 10/08								
180 180 5.1	3.18	Mis - Modification of existing power house (04SC010)	109 days Mon 24/02/20	Fri 12/06/20	Mon 24/02/20	0 Fri 12/06/2	20 0	days				0									
181 181 5.1	3.18.1	Submission for acceptance of subcontract works package	90 days Mon 24/02/20	Sat 23/05/20	Mon 24/02/20	Sat 23/05/	20 0	days	182												
182 182 5.13	3.18.2	Invitation of tender for subcontract works	14 days Sun 24/05/20	Sat 06/06/20	Sun 24/05/20	Sat 06/06/	20 0	days 181	183			<u>±</u>									
183 183 5.13	3.18.3	Acceptance of conforming tender	1 day Sun 07/06/20	Sun 07/06/20	Sun 07/06/20	Sun 07/06/	'20 O	days 182	184FF			*									
184 184 5.13	3.18.4	Sub-contract work commencement date (Completed)	0 days Fri 12/06/20	Fri 12/06/20	Fri 12/06/20	Fri 12/06/2	20 0	days 183FF	1163			12,	/06								
185 185 5.14	I P	Part C: General Design Submissions	788 days Mon 02/12/19	Thu 27/01/22	Mon 02/12/19	9 Thu 27/01/	/22 0	days			-										
186 186 5.14	1.1	Planned Sectional Completion Date - Section 1	0 days Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07	'/ 0	days 187FF,18	BFF							@ 12/07					
187 187 5.14	1.2	CDS001 - General Design Parameters (Rev. 11)	400 edays Fri 05/06/20	Sat 10/07/21	Fri 05/06/20	Sat 10/07/	21 0 €	edays	186FF												
188 188 5.14	1.3	CDS020 - Electrical Installation Typical Details	355 edays Mon 20/07/20	Sat 10/07/21	Mon 20/07/20			edays	186FF												
189 189 5.14		CDS009 - Detailed Design for Plant Service Water System	125 edays Mon 01/03/21	Sun 04/07/21	Mon 01/03/21				186FF												
190 190 5.14		CDS012 - Detailed Design for SCADA System	383.4 edays Sat 09/01/21	Thu 27/01/22	Sat 09/01/21				186FF,254FF,401FF,53	BOFI				 .	1						
191 1915.14		CDS13-1 - Detailed Design for CCTV System	90 edays Thu 01/04/21	Wed 30/06/21	Thu 01/04/21				186FF												
192 1925.14		CDS13-2 - Detailed Design for Gas Detection and Monitoring System	90 edays Mon 01/03/21	Sun 30/05/21	Mon 01/03/21				186FF												
193 193 5.14		CDS14-1 - Detailed Design for Power monitoring system (PMS)	90 edays Mon 01/03/21	Sun 30/05/21	Mon 01/03/21 Mon 01/03/21				186FF												
194 194 5.14 195 195 5.14		CDS14-2 - Detailed Design for Computerized maintenance and manageme CDS14-3 - Detailed Design for Information and documents management s	90 edays Mon 01/03/21 90 edays Mon 01/03/21	Sun 30/05/21 Sun 30/05/21	Mon 01/03/21			.	186FF												
196 196 5.14		CDS031 - Detailed Design for Information and documents management s	90 edays Mon 01/03/21	Sun 30/05/21	Mon 01/03/21				186FF												
197 197 5.14		CDS042 - Detailed Design for Lightning Protection System	120 edays Mon 11/01/21	Tue 11/05/21	Mon 11/01/21				186FF												
198 1985.14		Design submissions for E&M installation works of existing sludge thickening	300 edays Mon 02/12/19	Sun 27/09/20	Mon 02/12/19				186FF												
199 1995.14		Design Submission for Earthing and Lightning (Rev. 8)	147.38 edays Mon 04/01/21	Mon 31/05/21	Mon 04/01/21				186FF												
200 200 5.1		Vorks Area WA1-C	374 days Wed 01/01/20	Fri 08/01/21	Wed 01/01/20			days													
201 201 5.15	.1	Actual Access / Handover Date	1 day Fri 21/02/20	Fri 21/02/20	Fri 21/02/20	Fri 21/02/2	0 0	days	205			⊕_21/ 02									
202 202 5.15	i.2	Submission for acceptance of subcontract works package (Site Office) (04	60 days Wed 01/01/20	Sat 29/02/20	Wed 01/01/20	Sat 29/02/2	20 0	days 2SS+30 e	la ₎ 203			_									
203 203 5.15	i.3	Invitation of quotations for subcontract works (Site Office)	21 days Sun 01/03/20	Sat 21/03/20	Sun 01/03/20	Sat 21/03/2	20 0	days 202	204			<u>*</u>									
204 204 5.15	i.4	Acceptance of conforming quotation (Site Office)	10 days Sun 22/03/20	Tue 31/03/20	Sun 22/03/20	Tue 31/03/	20 0	days 203	205			*									
205 205 5.15	i.5	Design and Fabrication of the Contractor's Site Accommodations	120 days Wed 01/04/20	Wed 29/07/20	Wed 01/04/20	Wed 29/07	/ 0	days 201,204	211			+	-								
206 206 5.15	.6	Submission for acceptance of subcontract works package (Site Office Four	20 days Fri 01/05/20	Wed 20/05/20	Fri 01/05/20	Wed 20/05	/ 0	days	207												
207 207 5.15	5.7	Invitation of quotations for subcontract works (Site Office Foundation)	18 days Thu 21/05/20	Sun 07/06/20	Thu 21/05/20			days 206	208			<u> </u>									
208 208 5.15	8.8	Acceptance of conforming quotation (Site foundation)	7 days Mon 08/06/20	Sun 14/06/20	Mon 08/06/20				209			1									
209 209 5.15		Design and Construction of the Contractor's Site Office foundation	30 days Mon 15/06/20	Tue 14/07/20	Mon 15/06/20			days 208	210												
210 210 5.15		Construction of Contractor's Site Office foundation (Completed)	47 days Wed 15/07/20	Sun 30/08/20	Wed 15/07/20			days 209	211												
211 2115.15		Site Installation of the Contractor's Site Accommodations (MiC) (Rev. 5) Anticipated date of working at site (Rev. 5) (Completed)	120 days Mon 31/08/20 4 days Tue 05/01/21	Mon 28/12/20 Fri 08/01/21	Mon 31/08/20 Tue 05/01/21			days 205,210 days 211	212					+							
212 212 5.15 213 213 5.1 6		Works Area WA2-C	1 day Fri 21/02/20	Fri 21/02/20	Fri 21/02/20			days													
214 214 5.16		Actual Access / Handover Date	1 day Fri 21/02/20	Fri 21/02/20	Fri 21/02/20			days				⊚ 21/02									
215 215 5.1		nlet Works No. 1, Portion B-2 (PS 6B.2.1)	1400 days Mon 01/06/20	Mon 01/04/24	Mon 01/06/20			days							+						-
216 216 5.17		Planned Key Date Completion Date - KD1A, IW	0 days Fri 30/10/20	Fri 30/10/20	Fri 30/10/20			days 250FF,25	FF					30/10							
217 217 5.17		Planned Key Date Completion Date - KD1B, IW	0 days Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Tue 01/06/	21 0	days 252FF								01/06					
218 218 5.17	7.3	Planned Sectional Completion Date - Section 1, IW	0 days Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07	/ 0	days 253FF,25	lFf							@ 12/07					
219 219 5.17	7.4	Planned Sectional Completion Date - Section 2, IW	0 days Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	Mon 01/04	/ 0	days													⊚ 01/
220 220 5.1	7.5	Selection of Suppliers for major plant and materials for Inlet Works No.	335 days Mon 01/06/20	Sat 01/05/21	Mon 01/06/20	Sat 01/05/	21 0	days													
221 221 5.17	.5.1	Inlet Works - inlet Pumps (Marking Scheme Approach), C11, ref. EQT006	120 days Mon 01/06/20	Mon 28/09/20	Mon 01/06/20	Mon 28/09/	20 0	days				G									
222 222 5.17	.5.1.1	Submission for acceptance of purchasing package including proposed marking scheme	60 days Mon 01/06/20	Thu 30/07/20	Mon 01/06/20	Thu 30/07/2	0 0	days	223												
223 223 5.17	.5.1.2	Invitation of quotations for purchasing package	30 days Fri 31/07/20	Sat 29/08/20	Fri 31/07/20	Sat 29/08/20) (days 222	224												
224 224 5.17		Acceptance of conforming quotation (Completed)	30 days Sun 30/08/20	Mon 28/09/20	Sun 30/08/20	Mon 28/09/2		days 223	253												
225 225 5.17		Inlet Works - mechanical raked bar screens, C11, ref. EQT052	58 days Fri 26/06/20	Sat 22/08/20	Fri 26/06/20	Sat 22/08/2		days				•									
226 226 5.17		Submission for acceptance of purchasing package	14 days Fri 26/06/20	Thu 09/07/20	Fri 26/06/20	Thu 09/07/2		days	227			-									
227 227 5.17		Invitation of quotations for purchasing package	14 days Fri 10/07/20	Thu 23/07/20	Fri 10/07/20	Thu 23/07/2		days 226	228			<u> </u>									
228 228 5.17		Acceptance of conforming quotation (Completed)	30 days Fri 24/07/20	Sat 22/08/20	Fri 24/07/20	Sat 22/08/20	0 0	days 227	253		***************************************		<u> </u>								
229 229 5.17	.5.3	Inlet Works - screening conveyors and Diverters, C11, ref. EQT053	74 days Wed 01/07/20	Sat 12/09/20	Wed 01/07/20	Sat 12/09/2	0 0	days				-									
230 230 5.17	.5.3.1	Submission for acceptance of purchasing package	30 days Wed 01/07/20	Thu 30/07/20	Wed 01/07/20	Thu 30/07/2	0 0	days	231				-								
231 231 5.17	.5.3.2	Invitation of quotations for purchasing package	14 days Fri 31/07/20	Thu 13/08/20	Fri 31/07/20	Thu 13/08/2	0 0	days 230	232				<u> </u>								
			processor and the second		alit		ual Berry		Milort (A h					U			 				
Bestwise		Milestone ♦ Project Summ stone, Tentative Manual Sumn	·	Critical S Progress		Slack	ual Progress : (Float)		Milestone (Actual) *												
Project: DE/2018 Date: 28/09/21	/04																				
Status Date Wed	27/10/21								Page 4 of 24						7		 			DE_2018_04 R	evised PG- (Rev 15, 2021-1

S	Drainage Services	Department							osed Work Programme for DE/2018/04										AECOM
			Duration between Task Start	Finish	Early Start	Early Finish	Free Slack		Int - Main Works Stage 1 E&M Works for Sewage Treatment Facil S Successors Resource Names	lities 2020		2021		2022	,		2023		2024
		TO A TUNE	Start and Finish		asily start	Lany runsii	Tree states		lassate name	Half 1, 2020 N J M N	Half 2, 2020	2021 Half 1, 2021 N J M	Half 2, 2021		1, 2022	Half 2, 2022 J S N	Half 1, 2023	Half 2, 2023 M J S	Half 1, 2024
232	232 5.17.5.3.3	Acceptance of conforming quotation (Completed)	30 days Fri 14/08/20	Sat 12/09/20	Fri 14/08/20	Sat 12/09/20	0 day	s 231	253		 							77	
233	233 5.17.5.4	Inlet Works - screening screw type compactors, C11, ref. EQT003	105 days Wed 01/07/20	Tue 13/10/20	Wed 01/07/20	Tue 13/10/20	0 day:	s											
234	234 5.17.5.4.1	Submission for acceptance of purchasing package	45 days Wed 01/07/20	Fri 14/08/20	Wed 01/07/20	Fri 14/08/20	0 day:	s	235										
235	235 5.17.5.4.2	Invitation of quotations for purchasing package	30 days Sat 15/08/20	Sun 13/09/20	Sat 15/08/20	Sun 13/09/20		s 234	236										
236	236 5.17.5.4.3	Acceptance of conforming quotation (Completed)	30 days Mon 14/09/20	Tue 13/10/20	Mon 14/09/20	Tue 13/10/20	O day:	s 235	253		1								
237	237 5.17.5.5	Inlet Works - grit removal system, C11, ref. EQT004	90 days Wed 01/07/20	Mon 28/09/20	Wed 01/07/20	Mon 28/09/2	0 day:	s											
238	238 5.17.5.5.1	Submission for acceptance of purchasing package	30 days Wed 01/07/20	Thu 30/07/20	Wed 01/07/20	Thu 30/07/20	0 day:	s	239										
239	239 5.17.5.5.2	Invitation of quotations for purchasing package	30 days Fri 31/07/20	Sat 29/08/20	Fri 31/07/20	Sat 29/08/20	0 day:	s 238	240										
240	240 5.17.5.5.3	Acceptance of conforming quotation (Completed)	30 days Sun 30/08/20	Mon 28/09/20	Sun 30/08/20	Mon 28/09/20	0 0 day:	s 239	253										
241	241 5.17.5.6	Inlet Works - grit classifiers, C11, ref. EQT005	90 days Wed 01/07/20	Mon 28/09/20	Wed 01/07/20	Mon 28/09/2	0 day	s											
242	242 5.17.5.6.1	Submission for acceptance of purchasing package	30 days Wed 01/07/20	Thu 30/07/20	Wed 01/07/20	Thu 30/07/20	0 days	s	243										
243	243 5.17.5.6.2	Invitation of quotations for purchasing package	30 days Fri 31/07/20	Sat 29/08/20	Fri 31/07/20	Sat 29/08/20			244										
244	244 5.17.5.6.3	Acceptance of conforming quotation (Completed)	30 days Sun 30/08/20	Mon 28/09/20	Sun 30/08/20	Mon 28/09/20	0 0 days	s 243	253										
245	245 5.17.5.7	Inlet Works - Fixed Bar Screen, C11, ref. EQT046 (Rev. 10)	310 days Fri 26/06/20	Sat 01/05/21	Fri 26/06/20	Sat 01/05/2	1 0 days	5											
246	246 5.17.5.7.1	Submission for acceptance of purchasing package	14 days Fri 26/06/20	Thu 09/07/20	Fri 26/06/20	Thu 09/07/2		S	247										
247	247 5.17.5.7.2	Invitation of quotations for purchasing package	266 days Fri 10/07/20	Thu 01/04/21		Thu 01/04/2			248										
	248 5.17.5.7.3	Acceptance of conforming quotation (Rev. 10)	30 days Fri 02/04/21	Sat 01/05/21		Sat 01/05/21			253										
	249 5.17.6	Design Submissions for IW	479 days Wed 15/07/20	Sat 06/11/21	Wed 15/07/20														
	250 5.17.6.1	Electrical schematic drawings for Inlet Works No. 1	90 days Wed 15/07/20	Mon 12/10/20	Wed 15/07/20				216FF										
	251 5.17.6.2	CDS080-1 - Civil and dimensional requirements drawings for Inlet Works No. 1	45 days Tue 01/09/20	Thu 15/10/20		Thu 15/10/20			216FF										
252	252 5.17.6.3	CDS081-1 - Civil and dimensional requirements drawings for Inlet Work	210 days Fri 28/08/20	Thu 25/03/21		Thu 25/03/2			217FF										
	253 5.17.6.4	CDS002 - Detailed Design for Inlet Works No. 1	144 edays Mon 01/03/21	Fri 23/07/21	Mon 01/03/21				24261,283,268,271,274,277			4 -							
254	254 5.17.6.5	CDS021 - Detailed Design for Electrical Installations for Inlet Works No.	166.63 edays Sun 23/05/21	Sat 06/11/21	Sun 23/05/21			75,81,85,8	9 _. 76,300,292,303,218FF				* ==						
	255 5.17.6.6	CDS034-1 - Detailed Design for Electrical Installations BS at Inlet Works	120 edays Fri 12/03/21	Sat 10/07/21	Fri 12/03/21			136	354,218FF										
256	256 5.17.6.7	CDS025-1 - Detailed Design for LV Switchboards for Inlet Works No. 1	60 edays Mon 03/05/21	Fri 02/07/21	Mon 03/05/21	Fri 02/07/21	. 10 edays	71	292,218FF										
257	257 5.17.6.8	CDS026-1 - Detailed Design for HV Switchboards for Inlet Works No. 1	60 edays Sun 18/04/21	Thu 17/06/21	Sun 18/04/21				296,218FF										
258	258 5.17.6.9	CDS050-1 - Detailed Design for Lifting Appliances - Inlet Works No. 1	210 edays Tue 01/09/20	Tue 30/03/21	Tue 01/09/20	Tue 30/03/2	1 0 edays	116	289,218FF										
	259 5.17.7	Manufacturing and Delivery of Plant & Materials	696 days Tue 30/03/21	Thu 23/02/23	Tue 30/03/21							-							
260	260 5.17.7.1	Inlet Pumps, EQT006	489 days Sat 24/07/21	Thu 24/11/22	Sat 24/07/21			5											-
	261 5.17.7.1.1	Manufacturing of Inlet Pumps, EQT006	240 days Sat 24/07/21	Sun 20/03/22	Sat 24/07/21				262										
	262 5.17.7.1.2	Factory Acceptance Test of Plant (to be witnessed by PM)	60 days Mon 21/03/22	Thu 19/05/22	Mon 21/03/22				263										
	263 5.17.7.1.3	Shipping and Delivery of Plant to site	60 days Mon 26/09/22	Thu 24/11/22	Mon 26/09/22														
	264 5.17.7.2	Mechanical Raked Bar Screen, EQT052	489 days Sat 24/07/21	Thu 24/11/22	Sat 24/07/21				324										
	265 5.17.7.2.1	Manufacturing and Factory Acceptance Test of Plant	240 days Sat 24/07/21	Sun 20/03/22	Sat 24/07/21				266										
	266 5.17.7.2.2	Shipping and Delivery of Plant to site	60 days Mon 26/09/22	Thu 24/11/22	Mon 26/09/22				6326,329							_			
	267 5.17.7.3	Screening Conveyors and Diverters, EQT053	489 days Sat 24/07/21	Thu 24/11/22	Sat 24/07/21														
	268 5.17.7.3.1	Manufacturing and Factory Acceptance Test of Plant	240 days Sat 24/07/21	Sun 20/03/22	Sat 24/07/21				269										
	269 5.17.7.3.2	Shipping and Delivery of Plant to site	60 days Mon 26/09/22	Thu 24/11/22	Mon 26/09/22														
	270 5.17.7.4	Screening Screw Type Compactors, EQT003	489 days Sat 24/07/21	Thu 24/11/22	Sat 24/07/21				324										
	271 5.17.7.4.1	Manufacturing and Factory Acceptance Test of Plant	240 days Sat 24/07/21	Sun 20/03/22	Sat 24/07/21				272										
	272 5.17.7.4.2	Shipping and Delivery of Plant to site	60 days Mon 26/09/22	Thu 24/11/22	Mon 26/09/22				t332										
	273 5.17.7.5	Grit Removal System, EQT004	489 days Sat 24/07/21	Thu 24/11/22	Sat 24/07/21				275							-			
	274 5.17.7.5.1	Manufacturing and Factory Acceptance Test of Plant	240 days Sat 24/07/21	Sun 20/03/22	Sat 24/07/21				275							N			
	275 5.17.7.5.2	Shipping and Delivery of Plant to site	60 days Mon 26/09/22	Thu 24/11/22	Mon 26/09/22				UJJU										
	276 5.17.7.6	Grit Classifiers, EQT005	489 days Sat 24/07/21	Thu 24/11/22	Sat 24/07/21				270				 						
	277 5.17.7.6.1	Manufacturing and Factory Acceptance Test of Plant	240 days Sat 24/07/21	Sun 20/03/22	Sat 24/07/21				278							N.			
	278 5.17.7.6.2	Shipping and Delivery of Plant to site	60 days Mon 26/09/22	Thu 24/11/22	Mon 13/09/22														
	279 5.17.7.7	Pipework, EQT036 (Rev. 11)	438 days Mon 13/09/21	Thu 24/11/22 Tue 10/05/22	Mon 13/09/21 Mon 13/09/21				281										
	280 5.17.7.7.1	Manufacturing and Factory Acceptance Test of Plant Shipping and Delivery of Plant to site	240 days Mon 13/09/21 60 days Mon 26/09/22	Thu 24/11/22	Mon 26/09/22														
	281 5.17.7.7.2	Shipping and Delivery of Plant to site		Thu 24/11/22	Sat 24/07/21														
	282 5.17.7.8	Stoplogs and Penstocks, EQT013 Mapufacturing and Easton, Acceptance Test of Plant	489 days Sat 24/07/21						284				 						
	283 5.17.7.8.1	Manufacturing and Factory Acceptance Test of Plant	300 days Sat 24/07/21	Thu 19/05/22 Thu 24/11/22	Sat 24/07/21														
	284 5.17.7.8.2	Shipping and Delivery of Plant to site	60 days Mon 26/09/22	Sat 10/12/22	Mon 14/02/22				327						-				
	285 5.17.7.9	Valves and Actuators, EQT036, EQT042 (Rev. 11)	300 days Mon 14/02/22		Mon 14/02/22				207										
	286 5.17.7.9.1	Manufacturing and Factory Acceptance Test of Plant	240 days Mon 14/02/22	Tue 11/10/22	Mon 14/02/22				287							_			
	287 5.17.7.9.2	Shipping and Delivery of Plant to site	60 days Wed 12/10/22	Sat 10/12/22	Wed 12/10/22				1 333										
	288 5.17.7.10	Lifting Appliances	590 days Tue 30/03/21	Wed 09/11/22	Tue 30/03/21				200										
	289 5.17.7.10.1		240 days Tue 30/03/21	Wed 24/11/21	Tue 30/03/21				290										
290	290 5.17.7.10.2	Shipping and Delivery of Plant to site	45 days Mon 26/09/22	Wed 09/11/22	Mon 26/09/22	wed 09/11/.	IP days	203,31025-											
		Task Milestone ♦ Project Surr Milestone, Tentative ⊕ Summary Manual Sun		Critical S		Manua Slack (I			Milestone (Actual) *										
Projec	t: DE/2018/04 28/09/21	Julinery Manual Sun		riogres		Siack (
_									Page 5 of 24									DE 2018 04 B	ised PG- (Rev 15, 2021-10) R1
Status	Date Wed 27/10/	721							Page 5 of 24									DL_2010_04 KeV	300 FO- (Nev 13, 2021-10) KI

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ID WBS Ta	ask Name		Finish	Early Start						2020	2021	2022	2023 2024
			Th. 00/0-1	W 140'	Th.: 00/00/	:							
1 291 5.17.7.11	LV Switchboards	345 days Wed 16/03/22	Thu 23/02/23										
2 292 5.17.7.11.1	IW - Manufacturing of Plant	240 days Wed 16/03/22	Thu 10/11/22	Wed 16/03/22			s 254,256,77						
3 293 5.17.7.11.2	IW - Factory Acceptance Test of Plant (to be witnessed by PM)	60 days Fri 11/11/22	Mon 09/01/23		Mon 09/01/.			294					
4 294 5.17.7.11.3	IW - Shipping and Delivery of Plant to site	45 days Tue 10/01/23	Thu 23/02/23	Tue 10/01/23			s 310SS-60 e	d339					
5 295 5.17.7.12	HV Switchboards, EQT031	510 days Fri 18/06/21	Wed 09/11/22		Wed 09/11								
6 296 5.17.7.12.1	IW - Manufacturing of Plant	240 days Fri 18/06/21	Sat 12/02/22		Sat 12/02/22		s 257	297					
7 297 5.17.7.12.2	IW - Factory Acceptance Test of Plant (to be witnessed by PM)	90 days Sun 13/02/22	Fri 13/05/22	Sun 13/02/22				298					
8 298 5.17.7.12.3	IW - Shipping and Delivery of Plant to site	45 days Mon 26/09/22	Wed 09/11/22	Mon 26/09/22			s 297,310SS-	6					*
9 299 5.17.7.13	11kV/380V Stepdown Power Transformers, EQT032	369 days Sat 06/11/21	Wed 09/11/22	Sat 06/11/21	Wed 09/11	. 153 days	s						
0 300 5.17.7.13.1	IW - Manufacturing and Factory Acceptance Test of Plant	240 days Sat 06/11/21	Sun 03/07/22	Sat 06/11/21	Sun 03/07/22	2 84 days	s 254	301					
1 301 5.17.7.13.2	IW - Shipping and Delivery of Plant to site	45 days Mon 26/09/22	Wed 09/11/22	Mon 26/09/22	Wed 09/11/.	60 days	s 300,310SS-	6341					*
2 302 5.17.7.14	PLC System	420 days Sat 06/11/21	Fri 30/12/22	Sat 06/11/21	Fri 30/12/22	117 days	S						
3 303 5.17.7.14.1	Manufacturing of Plant, PLC for IW	300 days Sat 06/11/21	Thu 01/09/22	Sat 06/11/21	Thu 01/09/22	2 0 days	s 254	304					
4 304 5.17.7.14.2	Factory Acceptance Test of Plant, PLC for IW (To be witnessed by PN	60 days Fri 02/09/22	Mon 31/10/22	Fri 02/09/22	Mon 31/10/.	0 days	s 303	305					
5 305 5.17.7.14.3	Shipping and Delivery of Plant to site	60 days Tue 01/11/22	Fri 30/12/22	Tue 01/11/22	Fri 30/12/22	9 days	s 310SS-60 e	d342					
6 306 5.17.7.15	Fixed Bar Screen, EQT046	489 days Sat 24/07/21	Thu 24/11/22	Sat 24/07/21	Thu 24/11/2	2 270 days	s				•		
7 307 5.17.7.15.1	IW - Manufacturing and Factory Acceptance Test of Plant	240 days Sat 24/07/21	Sun 20/03/22	Sat 24/07/21	Sun 20/03/22	2 204 days	s 253	308			<u> </u>		
8 308 5.17.7.15.2	IW - Shipping and Delivery of Plant to site	45 days Tue 11/10/22	Thu 24/11/22	Tue 11/10/22	Thu 24/11/22	2 143 days	s 307,310SS-	4325					
9 309 5.17.8	Site Installation Work	440 days Fri 25/11/22	Wed 07/02/24	Fri 25/11/22	Wed 07/02	. 5 days	s						
0 310 5.17.8.1	Tentative Civil Handover Date, Portion B-2, Inlet Works No. 1 (Rev. 5)	1 day Fri 25/11/22	Fri 25/11/22	Fri 25/11/22	Fri 25/11/22	0 days	s	314,312,354FS+120 da	ıys,				© 25/11
1 311 5.17.8.2	Tentative Civil Handover Date, HV cables draw pits from MFB2 to IW	1 day Tue 14/02/23	Tue 14/02/23	Tue 14/02/23				346FF+30 days					<u>14/02</u>
2 312 5.17.8.3	Commencement of E&M Installation at Inlet Works No. 1	439 days Sat 26/11/22	Wed 07/02/24	Sat 26/11/22				-					*
3 313 5.17.8.3.1	Provision of Temporary Water Supply, Electricity Supply, Lighting, W		Sun 25/12/22	Sat 26/11/22									
4 314 5.17.8.3.2	Installation of Lifting Appliances at Inlet Works No. 1	142 days Sat 26/11/22	Sun 16/04/23	Sat 26/11/22				323SS+30 days,327,32	8				
		45 days Tue 10/01/23	Thu 23/02/23	Tue 10/01/23			s 318,319		LA - A x 4~6 men				
5 315 5.17.8.3.2.:	1/F EOT Crane LA-01-01 SWL 5t												
6 316 5.17.8.3.2.:	1/F EOT Crane LA-01-02 SWL 5t	45 days Tue 10/01/23	Thu 23/02/23	Tue 10/01/23			s 318,319		LA - B x 4~6 men				
7 317 5.17.8.3.2.	1/F EOT Crane LA-01-03 SWL 5t	45 days Tue 10/01/23	Thu 23/02/23	Tue 10/01/23			s 318,319		LA - C x 4~6 men				
8 3185.17.8.3.2.4	UG EOT Crane LA-01-04 SWL 10t	45 days Sat 26/11/22	Mon 09/01/23		Mon 09/01/			315,316,317,322	LA - A x 4~6 men				
9 319 5.17.8.3.2.!	UG EOT Crane LA-01-05 SWL 10t	45 days Sat 26/11/22	Mon 09/01/23		Mon 09/01/			315,316,317,322	LA - B x 4~6 men				
0 320 5.17.8.3.2.0	1/F Retractable Crane LA-01-06 SWL 10t	45 days Fri 24/02/23	Sun 09/04/23	Fri 24/02/23	Sun 09/04/23	0 days	s 317	322	LA - C x 4~6 men				
1 321 5.17.8.3.2.	Submission of T&C Plan and Procedures of LA for acceptance	14 days Sat 26/11/22	Fri 09/12/22	Sat 26/11/22	Fri 09/12/22	121 days	s	322					
2 322 5.17.8.3.2.	T&C, Loading Test for Lifting Appliances	7 days Mon 10/04/23	Sun 16/04/23	Mon 10/04/23	Sun 16/04/23	0 days	s 315,316,31	7325	LA - B x 4~6 men				
3 323 5.17.8.3.3	Mechanical Installations for Inlet Works No. 1	250 days Mon 26/12/22	Fri 01/09/23	Mon 26/12/22	Fri 01/09/23	0 days	s 314SS+30 c	d:338SS+14 days,351,34	3S:				
4 324 5.17.8.3.3.:	Installation of penstocks and stoplogs (Penstock 35nos, Stoplogs 3	120 days Mon 26/12/22	Mon 24/04/23	Mon 26/12/22	Mon 24/04/	0 days	s 270,264,28	4333,334,337	ME - E x 4~6 men				
5 325 5.17.8.3.3.:	Installation of fixed bar screen (x1), EQT046	7 days Mon 17/04/23	Sun 23/04/23	Mon 17/04/23	Sun 23/04/23	0 days	s 322,308	329	ME - D x 2~4 men				
6 326 5.17.8.3.3.	Installation of mechanical raked coarse bar screens (x4), EQT052	90 days Mon 26/12/22	Sat 25/03/23	Mon 26/12/22	Sat 25/03/23	22 days	s 266	327	ME - A x 4~6 men				
7 327 5.17.8.3.3.4	Installation of screening conveyors (x6), EQT053	30 days Mon 17/04/23	Tue 16/05/23	Mon 17/04/23	Tue 16/05/23	0 days	s 314,326,26	9332	ME - A x 4~6 men				
8 328 5.17.8.3.3.!	Installation of inlet pumps (x5), EQT006	21 days Sat 08/07/23	Fri 28/07/23	Sat 08/07/23	Fri 28/07/23	0 days	s 314,333SS+	:330	ME - B x 4~6 men				
9 329 5.17.8.3.3.0	Installation of mechanical raked fine bar screens (x4), EQT052	75 days Mon 24/04/23	Fri 07/07/23	Mon 24/04/23	Fri 07/07/23	0 days	s 325,266	328	ME - B x 4~6 men				
0 330 5.17.8.3.3.	Installation of grit removal system (x3), EQT004	14 days Sat 29/07/23	Fri 11/08/23	Sat 29/07/23	Fri 11/08/23	0 days	s 328,275	331	ME - B x 4~6 men				
1 331 5.17.8.3.3.8	Installation of grit classifiers (x2), EQT005	21 days Sat 12/08/23	Fri 01/09/23	Sat 12/08/23			s 330,278		ME - B x 4~6 men				
2 332 5.17.8.3.3.9	Installation of compactors (x2), EQT003	21 days Wed 17/05/23	Tue 06/06/23	Wed 17/05/23					ME - A x 4~6 men				
3 333 5.17.8.3.3.:	Installation of pipework and valves, EQT036	30 days Tue 25/04/23	Wed 24/05/23	Tue 25/04/23				7328SS+14 days,335	ME - D x 2~4 men				
		30 days Tue 25/04/23	Wed 24/05/23	Tue 25/04/23				328SS+14 days,335	ME - D x 2~4 men				
4 334 5.17.8.3.3.	Pipework pressure tests	90 days Thu 25/05/23	Wed 24/05/23 Tue 22/08/23						ME - A x 4~6 men				
5 335 5.17.8.3.3.:	Installation of instrumentations, EQT035-1			Thu 25/05/23			s 333,334,52						
6 336 5.17.8.3.3.:	Installation of Platforms, Covers etc, EQT050	180 days Mon 26/12/22	Fri 23/06/23	Mon 26/12/22					ME - D x 2~4 men				
7 337 5.17.8.3.3.:	Site Acceptance Tests - mechanical aspects including alignment ar		Tue 22/08/23	Tue 25/04/23					ME - D x 2~4 men				•
8 338 5.17.8.3.4	Electrical Installations for Inlet Works No. 1	316 days Mon 09/01/23	Mon 20/11/23	Mon 09/01/23			s 323SS+14 c						, <u> </u>
9 339 5.17.8.3.4.:	Installation of LV Switchboards, IW	60 days Fri 24/02/23	Mon 24/04/23	Fri 24/02/23			s 294	344	LV - A x 4~6 men				
0 340 5.17.8.3.4.	Modification of HV Switchboards, MFB No. 1 (Rev. 8)	30 days Mon 09/01/23	Tue 07/02/23	Mon 09/01/23	Tue 07/02/23	3 166 days	s	346	LV - A x 4~6 men				
1 341 5.17.8.3.4.	Installation of Transformer, IW, EQT032	60 days Mon 09/01/23	Thu 09/03/23	Mon 09/01/23	Thu 09/03/23	0 days	s 301	344,345FS+30 days	EE - A x 4~6 men				
2 342 5.17.8.3.4.4	Installation of PLC Panels, IW	45 days Mon 09/01/23	Wed 22/02/23	Mon 09/01/23	Wed 22/02/	61 days	s 305	344	EE - B x 4~6 men			1	
3 343 5.17.8.3.4.!	Installation of cable trays and cable containments	90 days Mon 09/01/23	Sat 08/04/23	Mon 09/01/23	Sat 08/04/23	16 days	s 323SS	344	EE - C x 4~6 men				\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
4 344 5.17.8.3.4.0	Cables laying and terminations	90 days Tue 25/04/23	Sun 23/07/23	Tue 25/04/23	Sun 23/07/23	0 days	s 339,341,34	2346,349,347	EE - C x 4~6 men				
5 345 5.17.8.3.4.	Energisation of Transformer, IW	14 days Sun 09/04/23	Sat 22/04/23	Sun 09/04/23	Sat 22/04/23	259 days	s 341FS+30 c	de					
6 346 5.17.8.3.4.	Energisation of LV Switchboards, IW	0 days Sun 23/07/23	Sun 23/07/23	Sun 23/07/23	Sun 23/07/23	3 162 days	s 344,311FF+	÷351	LV - A x 4~6 men			- 1000	@123/07
7 347 5.17.8.3.4.9	Site Acceptance Tests - Electrical aspects including voltage and cu		Mon 20/11/23	Mon 24/07/23					LV - A x 4~6 men			1	
8 348 5.17.8.3.5	SCADA Systems, Inlet Works	105 days Mon 24/07/23	Sun 05/11/23	Mon 24/07/23								1	<u> </u>
9 349 5.17.8.3.5.	Configuration of PLC System, IW	45 days Mon 24/07/23	Wed 06/09/23	Mon 24/07/23				350	PLC - A x 1 man			100	<u> </u>
lestwise N	ask Milestone ♦ Project Su filestone, Tentative ⊕ Summary Manual Su		Critical S	s =====	Manual Slack (F			Milestone (Actual) ★ Slack					
ect: DE/2018/04 : 28/09/21													

Drainag The Government	je Services i et af the Hong Kong Spe	Department Au Autoristic Indian					Shek Wu H		posed Work Programme lant - Main Works Stage	for DE/2018/04 1 E&M Works for Sewage Treatment F	acilities	i fi								AEC
ID ID V	BS T	ask Name	Duration between Task Start and Finish	Start	Finish	Early Start	Early Finish	ree Slack Predecesso	ors Successors	Resource Names	2020	(2.2020	2021 Helf 1 2021	Half 2 20	2022	1 2022 Half 2	2023 2022 Half 1,	2023 Half 2	2023	2024 Half 1, 2024
350 350 5	17025	Site Acceptance Test for PLC System at Inlet Works No. 1		ys Thu 07/09/23	Sun 05/11/23	Thu 07/09/23	Sun 05/11/23	35 days 349	351,1278		Half 1, 2020 Half 2	f 2, 2020 J S	Half 1, 2021	Half 2, 20	S N J	1, 2022 Half 2, M M J		M M Hair 2	5 N	J M
351 3515		Site Acceptance Test for E&M Equip & Instrumentations calibration,		ys Tue 02/01/24	Tue 16/01/24	Tue 02/01/24		0 days 323,338,3												The second
352 3525		System Commissioning for E&M Equip at Inlet Works No. 1		ys Tue 16/01/24	Wed 31/01/24		Wed 31/01/	0 edays 351	353											
353 353 5		Risk Allowances for completion of Processing Plant at Inlet Works No.		ys Wed 31/01/24	Wed 07/02/24			0.63 edays 352,361												15
354 354 5		Building Services Installations for Inlet Works No. 1		ys Sun 26/03/23	Fri 19/01/24	Sun 26/03/23		17 days 310FS+12												
355 355 5		Mechanical Ventilation and Air Conditioning System, IW		ys Sun 26/03/23	Tue 22/08/23	Sun 26/03/23		30 days	361	MVAC - B x 4~6 men									_	
356 3565		Lighting and Power Distribution System, IW		ys Sun 26/03/23	Thu 21/09/23	Sun 26/03/23		0 days	361	BS - A x 4~6 men										
357 3575		Plumbing Installation, IW		ys Sun 26/03/23	Sun 23/07/23		Sun 23/07/23	60 days 1245	1247,361	Pb - A x 4~6 men										
358 3585		CCTV Installation (5 indoor +5 outdoor Cameras), IW		ys Mon 24/04/23	Sat 22/07/23	Mon 24/04/23		51 days 310SS+15		BS - B x 4~6 men								<u> </u>		
359 3595		Fire Services Installation, IW		ys Mon 24/04/23	Mon 21/08/23	Mon 24/04/23			0 (1198,1210,1211,361	FS - A x 4~6 men								-		
360 3605		Earthing and Lightning Protection System, IW		ys Wed 24/05/23	Sat 22/07/23	Wed 24/05/23		61 days 310SS+18		BS - C x 2~4 men										
361 3615		Testing and Commissioning of Building Services Installations, IW		ys Fri 22/09/23	Fri 19/01/24	Fri 22/09/23		12 days 355,356,3		BS - C x 2~4 men									4	
362 362 5		Primary Sedimentation Tanks No. 1 ~ 4, Portion B-3 (PS 6B2.2)		ys Wed 01/07/20	Mon 01/04/24	Wed 01/07/20		0 days				\perp								-
363 363 5		Planned Key Date Completion Date - KD1A, PST No. 1~4		ys Fri 30/10/20	Fri 30/10/20	Fri 30/10/20		0 days 397FF,398	BFF				@ _{30/10}							
364 3645		Planned Key Date Completion Date - KD18, PST No. 1~4		ay Tue 01/06/21	Tue 01/06/21	Tue 01/06/21		0 days 399FF						@ 01/06						
365 365 5		Planned Sectional Completion Date - Section 1, PST No. 1~4		ys Mon 12/07/21	Mon 12/07/21	Mon 12/07/21		0 days 402FF,401	LFF					@_12/0	7					
366 366 5		Planned Sectional Completion Date - Section 1, FST No. 1 4 Planned Sectional Completion Date - Section 2, PST No. 1~4		ys Mon 01/04/24	Mon 01/04/24	Mon 01/04/24		0 days 490FF												6 10
367 367 5		Selection of Suppliers for major plant and materials for PST No. 1~4		ys Wed 01/07/20	Mon 15/02/21	Wed 01/07/20		0 days												
367 367 S		PST - lamella plate settlers, C11, ref. EQT014		ys Wed 01/07/20	Mon 28/09/20	Wed 01/07/20		0 days												
	18.5.1.1	Submission for acceptance of purchasing package		ys Wed 01/07/20	Thu 30/07/20	Wed 01/07/20		0 days	370											
		Submission for acceptance of purchasing package Invitation of quotations for purchasing package		ys Fri 31/07/20	Sat 29/08/20		Sat 29/08/20	0 days 369	371											
370 3705 371 3715	18.5.1.2			ys Sun 30/08/20	Mon 28/09/20	Sun 30/08/20	Mon 28/09/20	0 days 369	400			-								
		Acceptance of conforming quotation (Completed)			Thu 12/11/20	Wed 01/07/20		0 days	100											
372 372 5		PST - reciprocating type bottom scrapers, C11, ref. EQT014		ys Wed 01/07/20 ys Wed 01/07/20	Fri 14/08/20		Fri 14/08/20	0 days	374											
	18.5.2.1	Submission for acceptance of purchasing package						0 days 373	375											
	18.5.2.2	Invitation of quotations for purchasing package		ys Sat 15/08/20	Tue 13/10/20		Tue 13/10/20													
	18.5.2.3	Acceptance of conforming quotation (Completed)		ys Wed 14/10/20	Thu 12/11/20		Thu 12/11/20	0 days 374	400											
376 3765		PST - surface scum skimmers, C11, ref. EQT015		ys Tue 07/07/20	Sun 04/10/20	Tue 07/07/20	Sun 04/10/20	0 days	270											
	18.5.3.1	Submission for acceptance of purchasing package		ys Tue 07/07/20	Wed 05/08/20	Tue 07/07/20	Wed 05/08/20	0 days	378											
	18.5.3.2	Invitation of quotations for purchasing package		ys Thu 06/08/20	Fri 04/09/20		Fri 04/09/20	0 days 377	379											
	18.5.3.3	Acceptance of conforming quotation		ys Sat 05/09/20	Sun 04/10/20	Sat 05/09/20	Sun 04/10/20	0 days 378	400											
380 380 5		PST - scum collector pipes, C11, ref. EQT015		ys Wed 01/07/20	Tue 26/01/21		Tue 26/01/21	0 days	202											
	18.5.4.1	Submission for acceptance of purchasing package		ys Wed 01/07/20	Wed 28/10/20		Wed 28/10/20	0 days	382											
	18.5.4.2	Invitation of quotations for purchasing package		ys Thu 29/10/20	Sun 27/12/20		Sun 27/12/20	0 days 381	383											
	18.5.4.3	Acceptance of conforming quotation		ys Mon 28/12/20	Tue 26/01/21		Tue 26/01/21	0 days 382	400											
384 384 5		PST - piston type primary sludge pumps, C11, ref. EQT016		ys Wed 01/07/20	Tue 26/01/21	Wed 01/07/20		0 days												
	18.5.5.1	Submission for acceptance of purchasing package		ys Wed 01/07/20	Wed 28/10/20		Wed 28/10/20	0 days	386											
	18.5.5.2	Invitation of quotations for purchasing package		ys Thu 29/10/20	Sun 27/12/20		Sun 27/12/20	0 days 385	387											
	18.5.5.3	Acceptance of conforming quotation (Completed)		ys Mon 28/12/20	Tue 26/01/21	Mon 28/12/20		0 days 386	400											
388 388 5		PST - drain pumps, C11, ref. EQT007		ys Tue 14/07/20	Mon 08/02/21		Mon 08/02/21	0 days												
	18.5.6.1	Submission for acceptance of purchasing package		ys Tue 14/07/20	Tue 10/11/20		Tue 10/11/20	0 days	390											
	18.5.6.2	Invitation of quotations for purchasing package		ys Wed 11/11/20	Sat 09/01/21		Sat 09/01/21	0 days 389	391											
	18.5.6.3	Acceptance of conforming quotation (Completed)		ys Sun 10/01/21	Mon 08/02/21		Mon 08/02/21	0 days 390	400				-							
392 392 5	18.5.7	PST - air blowers, C11, ref. EQT018		ys Tue 21/07/20	Mon 15/02/21	Tue 21/07/20	Mon 15/02/21	0 days												
	18.5.7.1	Submission for acceptance of purchasing package		ys Tue 21/07/20	Tue 17/11/20		Tue 17/11/20	0 days	394											
	18.5.7.2	Invitation of quotations for purchasing package		ys Wed 18/11/20	Sat 16/01/21		Sat 16/01/21	0 days 393	395											
395 395 5	18.5.7.3	Acceptance of conforming quotation	30 day	ys Sun 17/01/21	Mon 15/02/21		Mon 15/02/21	0 days 394	400				-							
396 396 5	18.6	Design Submissions for PST No. 1~ 4		ys Sat 01/08/20	Fri 11/03/22	Sat 01/08/20		0 days												
397 3975	18.6.1	Electrical schematic drawings for PST No. 1 ~4		ys Sat 01/08/20	Tue 29/09/20	Sat 01/08/20		0 days	363FF		-									
398 398 5	18.6.2	CDS080-2 - Civil and dimensional requirements drawings for PST No. 1~4 up to	50 day	ys Tue 01/09/20	Tue 20/10/20	Tue 01/09/20		0 days	363FF											
399 3995	18.6.3	CDS081-2 - Civil and dimensional requirements drawings for PST No. 1 $^{\circ}$	150 day	ys Tue 01/09/20	Thu 28/01/21	Tue 01/09/20	Thu 28/01/21	0 days	364FF											
400 400 5	18.6.4	CDS003 - Detailed Design for Primary Sedimentation Tanks No. $1^{\sim}4$	104 eday	ys Mon 15/02/21	Sun 30/05/21	Mon 15/02/21	Sun 30/05/21	0.63 edays 371,375,3	75407,410,413,416,419,	422			-	-						
401 4015	18.6.5	CDS022 - Detailed Design for Electrical Installations for PST No. 1~4	154.88 eday	ys Thu 07/10/21	Fri 11/03/22	Thu 07/10/21	Fri 11/03/22	0 edays 75,85,93,1	19 76,441,365FF						*	.=				
402 402 5	18.6.6	CDS034-2 - Detailed Design for Electrical Installations BS at PST No. $1^{\sim}4$	90 eday	ys Fri 12/03/21	Thu 10/06/21	Fri 12/03/21	Thu 10/06/21	2.38 edays 136	483,365FF				*							
403 403 5	18.6.7	CDS025-2 - Detailed Design for LV Switchboards for PST No. 1~4	60 eday	ys Mon 03/05/21	Fri 02/07/21	Mon 03/05/21	Fri 02/07/21	0.63 edays 71	437,365FF											
404 404 5	18.6.8	CDS050-2 - Detailed Design for Lifting Appliances - PST No. 1 $^{\sim}$ 4	150 eday	ys Tue 01/09/20	Fri 29/01/21	Tue 01/09/20	Fri 29/01/21	0 edays 116	434,365FF					+++						
405 405 5	18.7	Manufacturing and Delivery of Plant & Materials	811 day	ys Fri 29/01/21	Wed 19/04/23	Fri 29/01/21	Wed 19/04	232 days												
406 406 5	18.7.1	Lamella Plate Settlers, EQT014	668 day	ys Mon 31/05/21	Wed 29/03/23	Mon 31/05/21	Wed 29/03	193 days						-				-		
407 407 5	18.7.1.1	Manufacturing and Factory Acceptance Test of Plant	300 day	ys Mon 31/05/21	Sat 26/03/22	Mon 31/05/21	Sat 26/03/22	323 days 400	408											
408 408 5	18.7.1.2	Shipping and Delivery of Plant to site	45 day	ys Mon 13/02/23	Wed 29/03/23	Mon 13/02/23	Wed 29/03/	143 days 407,445SS	5-6459								P.			
	Т	ask Milestone ♦ Project Sum	mary P	Late	Critical S	plit	· · · · Manual Pr	ogress	Milestone (Actual)		h					AAAAA				
Bestwise Project: DE/20		fliestone, Tentative Summary Manual Sum	nmary	1 Critical	Progress		Slack (Floa		Slack											
Date: 28/09/2																				
Status Date W	ed 27/10/2	1							Page 7 of 24									DE_201	_04 Revised PG	i- (Rev 15, 2021

S 9	rainage Services D	pepartment of the second of th			Shek Wu	u Hui Effluer			me for DE/2018/04 ge 1 E&M Works for Sewage	ge Treatment Facilities							AECOM
ID ID	WBS Ta	ask Name	Duration between Task Start	Finish	Early Start Early Finish		Predecessors		Resource Names		2020	2021		202	2	2023	2024
			Start and Finish							N	Half 1, 2020 Half 2, 1	2020 Half 1, 3		If 2, 2021 Hall	1, 2022 Half 2, 2022	Half 1, 2023 Half 2, 2023	Half 1, 2024
409	109 5.18.7.2	Reciprocating Type Bottom Scrappers, EQT014	668 days Mon 31/05/21	Wed 29/03/23	Mon 31/05/21 Wed 29/03	163 d	ays										
410	110 5.18.7.2.1	Manufacturing and Factory Acceptance Test of Plant	300 days Mon 31/05/21	Sat 26/03/22	Mon 31/05/21 Sat 26/03/22	2 323 d	ays 400	411									
	1115.18.7.2.2	Shipping and Delivery of Plant to site	45 days Mon 13/02/23	Wed 29/03/23	Mon 13/02/23 Wed 29/03/.		ays 410,445SS-	6460								-	
	112 5.18.7.3	Surface Scum Skimmers, EQT015	668 days Mon 31/05/21	Wed 29/03/23	Mon 31/05/21 Wed 29/03												
	113 5.18.7.3.1	Manufacturing and Factory Acceptance Test of Plant	300 days Mon 31/05/21	Sat 26/03/22	Mon 31/05/21 Sat 26/03/22	2 323 d	ays 400	414									
414	1145.18.7.3.2	Shipping and Delivery of Plant to site	45 days Mon 13/02/23	Wed 29/03/23	Mon 13/02/23 Wed 29/03/.	203 d	ays 413,445SS-	6461								ř i i i i i i i i i i i i i i i i i i i	
415	115 5.18.7.4	Surface Scum Collection Pipes, EQT015	668 days Mon 31/05/21	Wed 29/03/23	Mon 31/05/21 Wed 29/03	253 d										-	
	116 5.18.7.4.1	Manufacturing and Factory Acceptance Test of Plant	300 days Mon 31/05/21	Sat 26/03/22	Mon 31/05/21 Sat 26/03/22			417						F-10-10-10-10-10-10-10-10-10-10-10-10-10-			
417	1175.18.7.4.2	Shipping and Delivery of Plant to site	45 days Mon 13/02/23	Wed 29/03/23	Mon 13/02/23 Wed 29/03/.	203 d	ays 416,445SS-	6462									
418	118 5.18.7.5	Piston Type Primary Sludge Pumps, EQT016	668 days Mon 31/05/21	Wed 29/03/23	Mon 31/05/21 Wed 29/03	133 d										•	
419	119 5.18.7.5.1	Manufacturing and Factory Acceptance Test of Plant	300 days Mon 31/05/21	Sat 26/03/22	Mon 31/05/21 Sat 26/03/22	2 323 d	ays 400	420						Control of the second			
	20 5.18.7.5.2	Shipping and Delivery of Plant to site	45 days Mon 13/02/23	Wed 29/03/23	Mon 13/02/23 Wed 29/03/.	106 d	ays 419,445SS-	6463								Y	
421	121 5.18.7.6	Drain Pumps, EQT007	668 days Mon 31/05/21	Wed 29/03/23	Mon 31/05/21 Wed 29/03		•									7	
422	225.18.7.6.1	Manufacturing and Factory Acceptance Test of Plant	300 days Mon 31/05/21	Sat 26/03/22	Mon 31/05/21 Sat 26/03/22			423									
	23 5.18.7.6.2	Shipping and Delivery of Plant to site	45 days Mon 13/02/23	Wed 29/03/23	Mon 13/02/23 Wed 29/03/.	136 d	ays 422,445SS-	6464								× -	
424	124 5.18.7.7	Air Blower, EQT018	668 days Mon 31/05/21	Wed 29/03/23	Mon 31/05/21 Wed 29/03		ays									•	
425	25 5.18.7.7.1	Manufacturing and Factory Acceptance Test of Plant	300 days Mon 31/05/21	Sat 26/03/22	Mon 31/05/21 Sat 26/03/22	2 323 d	ays 400	426									
	126 5.18.7.7.2	Shipping and Delivery of Plant to site	45 days Mon 13/02/23	Wed 29/03/23	Mon 13/02/23 Wed 29/03/.		ays 425,445SS-I	6465								Y	
	27 5.18.7.8	Stoplogs and Penstocks, EQT013	668 days Mon 31/05/21	Wed 29/03/23	Mon 31/05/21 Wed 29/03								0			-	
428	28 5.18.7.8.1	Manufacturing and Factory Acceptance Test of Plant	240 days Mon 31/05/21	Tue 25/01/22	Mon 31/05/21 Tue 25/01/22			429									
429	29 5.18.7.8.2	Shipping and Delivery of Plant to site	45 days Mon 13/02/23	Wed 29/03/23	Mon 13/02/23 Wed 29/03/.	16 da	ays 445SS-60 e	d457								*	
430	30 5.18.7.9	Pipework, Valves and Electric Actuators, EQT036, EQT042 (Rev. 11)	409 days Mon 14/02/22	Wed 29/03/23	Mon 14/02/22 Wed 29/03	43 da	ays 56,63								M T	•	
431	315.18.7.9.1	Manufacturing and Factory Acceptance Test of Plant	240 days Mon 14/02/22	Tue 11/10/22	Mon 14/02/22 Tue 11/10/22	2 124 d	ays 400	432									
432	32 5.18.7.9.2	Shipping and Delivery of Plant to site	45 days Mon 13/02/23	Wed 29/03/23	Mon 13/02/23 Wed 29/03/.	16 da	ays 431,445SS-6	6458								-	
433	33 5.18.7.10	Lifting Appliances	790 days Fri 29/01/21	Wed 29/03/23	Fri 29/01/21 Wed 29/03	66 da	ays					•					
434	34 5.18.7.10.1	Manufacturing and Factory Acceptance Test of Plant	210 days Fri 29/01/21	Thu 26/08/21	Fri 29/01/21 Thu 26/08/2	1 535 d	ays 404	435				*					
435	35 5.18.7.10.2	Shipping and Delivery of Plant to site	45 days Mon 13/02/23	Wed 29/03/23	Mon 13/02/23 Wed 29/03/.	16 da	ays 434,445SS-6	6448								-	
436	36 5.18.7.11	LV Switchboards	635 days Sat 03/07/21	Wed 29/03/23	Sat 03/07/21 Wed 29/03	53 da	ays						-			7	
437	37 5.18.7.11.1	PST - Manufacturing of Plant	300 days Sat 03/07/21	Thu 28/04/22	Sat 03/07/21 Thu 28/04/22	2 0 d	ays 403	438					*				
438	38 5.18.7.11.2	PST - Factory Acceptance Test of Plant (to be witnessed by PM)	90 days Fri 29/04/22	Wed 27/07/22	Fri 29/04/22 Wed 27/07/.	200 da	ays 437	439							<u> </u>		
439	39 5.18.7.11.3	PST - Shipping and Delivery of Plant to site	45 days Mon 13/02/23	Wed 29/03/23	Mon 13/02/23 Wed 29/03/.	16 da	ays 438,445SS-6	5470								-	
440	40 5.18.7.12	PLC System	405 days Fri 11/03/22	Wed 19/04/23	Fri 11/03/22 Wed 19/04	32 da	ays								Q	<u> </u>	
441	41 5.18.7.12.1	Manufacturing of Plant, PLC for PST	300 days Fri 11/03/22	Wed 04/01/23	Fri 11/03/22 Wed 04/01/.	0 da	ays 401	442									
442	42 5.18.7.12.2	Factory Acceptance Test of Plant, PLC for PST (To be witnessed by PN	60 days Thu 05/01/23	Sun 05/03/23	Thu 05/01/23 Sun 05/03/23	3 0 da	ays 441	443								*	
443	43 5.18.7.12.3	Shipping and Delivery of Plant to site	45 days Mon 06/03/23	Wed 19/04/23	Mon 06/03/23 Wed 19/04/.	0 da	ays 442,445SS-6	5471									
444	44 5.18.8	Site Installation Work	298 days Fri 14/04/23	Mon 05/02/24	Fri 14/04/23 Mon 05/02	0 da	ays										
445	45 5.18.8.1	Tentative Civil Handover Date, Portion B-3, PST No. 1~4 (Rev. 5)	1 day Fri 14/04/23	Fri 14/04/23	Fri 14/04/23 Fri 14/04/23	0 da	ays	448,483FS+90 day	s,446,4							● 14/04	
446	46 5.18.8.2	Commencement of E&M Installation at PST No. 1~4	297 days Sat 15/04/23	Mon 05/02/24	Sat 15/04/23 Mon 05/02	0 da	rys 445		403								
447	47 5.18.8.2.1	Provision of Temporary Water Supply, Electricity Supply, Lighting We	30 days Sat 15/04/23	Sun 14/05/23	Sat 15/04/23 Sun 14/05/23	3 0 da	ays 445										
448	48 5.18.8.2.2	Installation of Lifting Appliances at PST No. 1~4	127 days Sat 15/04/23	Sat 19/08/23	Sat 15/04/23 Sat 19/08/23	3 50 da	ys 445,435										
449	49 5.18.8.2.2.:	Basement EOT Crane LA-02-01 SWL 10t	30 days Sat 15/04/23	Sun 14/05/23	Sat 15/04/23 Sun 14/05/23	3 0 da	ays	450,451,455	LA - A x 4~6 men								
450	50 5.18.8.2.2.:	Coping Level EOT Crane LA-02-02 SWL 5t	30 days Mon 15/05/23	Tue 13/06/23	Mon 15/05/23 Tue 13/06/23	3 60 da	ays 449	455	LA - A x 4~6 men								
451	51 5.18.8.2.2.:	Coping Level EOT Crane LA-02-03 SWL 5t	30 days Mon 15/05/23	Tue 13/06/23	Mon 15/05/23 Tue 13/06/23	3 0 da	ays 449	452,453,455	LA - B x 4~6 men							*	
452	52 5.18.8.2.2.4	Coping Level EOT Crane LA-02-04 SWL 5t	30 days Wed 14/06/23	Thu 13/07/23	Wed 14/06/23 Thu 13/07/23	3 30 da	ays 451	455	LA - A x 4~6 men								
453	53 5.18.8.2.2.!	Coping Level EOT Crane LA-02-05 SWL 5t	30 days Wed 14/06/23	Thu 13/07/23	Wed 14/06/23 Thu 13/07/23	3 0 da	ays 451	454,455	LA - B x 4~6 men								
454	54 5.18.8.2.2.0	Coping Level EOT Crane LA-02-06 SWL 2t	30 days Fri 14/07/23	Sat 12/08/23	Fri 14/07/23 Sat 12/08/23	3 0 da	ays 453	455	LA - A x 4~6 men								
455	55 5.18.8.2.2.	T&C, Loading Test for Lifting Appliances at PST No. 1~4	7 days Sun 13/08/23	Sat 19/08/23	Sun 13/08/23 Sat 19/08/23	3 0 da	ays 449,450,45	1459	LA - A x 4~6 men								
456	56 5.18.8.2.3	Mechanical Installations at PST No. 1~4	240 days Sat 15/04/23	Sun 10/12/23	Sat 15/04/23 Sun 10/12/2	20 da	iys	480									F
457	57 5.18.8.2.3.:	Installation of penstocks and stoplogs (Penstock 18nos, Stoplogs 1	90 days Sat 15/04/23	Thu 13/07/23	Sat 15/04/23 Thu 13/07/23	3 0 da	ays 429	463,468	ME - E x 4~6 men								
458	58 5.18.8.2.3.	Installation of pipework and valves, EQT036	240 days Sat 15/04/23	Sun 10/12/23	Sat 15/04/23 Sun 10/12/23	3 27 da	ays 432		ME - B x 4~6 men								
459	59 5.18.8.2.3.:	Installation of lamella plate settlers (x4), EQT014	60 days Sun 20/08/23	Wed 18/10/23	Sun 20/08/23 Wed 18/10/.	0 da	ays 460,455,40	£461,462	ME - A x 4~6 men								
460	460 5.18.8.2.3.4	Installation of reciprocating type bottom scrapers (x4), EQT014	30 days Sat 15/04/23	Sun 14/05/23	Sat 15/04/23 Sun 14/05/23	3 97 da	ays 411	459	ME - A x 4~6 men								
461	615.18.8.2.3.!	Installation of surface scum skimmers (x1), EQT015	30 days Thu 19/10/23	Fri 17/11/23	Thu 19/10/23 Fri 17/11/23	50 da	ays 459,414		ME - A x 4~6 men								
462	62 5.18.8.2.3.0	Installation of scum collector pipes (x1), EQT015	30 days Thu 19/10/23	Fri 17/11/23	Thu 19/10/23 Fri 17/11/23	50 da	ays 459,417		ME - B x 4~6 men								
463	63 5.18.8.2.3.	Installation of piston type primary sludge pumps (x3), EQT016	30 days Fri 14/07/23	Sat 12/08/23	Fri 14/07/23 Sat 12/08/23	3 0 da	ays 457,420	464	ME - C x 4~6 men								
464	164 5.18.8.2.3.1	Installation of drain pumps (x1), EQT007	30 days Sun 13/08/23	Mon 11/09/23	Sun 13/08/23 Mon 11/09/.	0 da	ays 463,423	465	ME - C x 4~6 men								
465	65 5.18.8.2.3.9	Installation of air blowers (x2), EQT018	30 days Tue 12/09/23	Wed 11/10/23	Tue 12/09/23 Wed 11/10/.	0 da	ays 464,426	466	ME - C x 4~6 men								
466	166 5.18.8.2.3.:	Installation of instrumentations, EQT035-1	60 days Thu 12/10/23	Sun 10/12/23	Thu 12/10/23 Sun 10/12/23	3 27 da	ys 465,52		ME - C x 4~6 men								
467	167 5.18.8.2.3.:	Installation of Platforms, Covers etc., PST, EQT050	60 days Thu 21/09/23	Sun 19/11/23	Thu 21/09/23 Sun 19/11/23	3 48 da	iys		ME - F x 4~6 men								
	Та	ssk Milestone ♦ Project Su	mmary Late	Critical S	plit Manual	l Progress		Milestone (Actual)	*			***************************************				And the state of t	A
Bestw		ilestone, Tentative Summary Manual Su	ummary Critical	Progress	Slack (F	Float)		- Slack									
Date: 28											*						
Status D	ate Wed 27/10/21	1						Page 8 of	24							DE_2018_04 Re	vised PG- (Rev 15, 2021-10) R1

Drainage Services Departm The Community of the Henry Kong Special Administration	ment				Shek Wu	Hui Effluent Polishing Plant - Main Works	amme for DE/2018/04 Stage 1 E&M Works for Sewage Treatmer	t Facilities	A
ID WBS Task Nan	me	Duration between Task Start Start and Finish	Finish	Early Start	Early Finish	Free Slack Predecessors Successors	Resource Names	2020 2021 2022 Half 1, 2020 Half 2, 2020 Half 1, 2021 Half 1, 2022 F	2023 2024 Half 2, 2022 Half 1, 2023 Half 2, 2023 Half 1, 202
468 5.18.8.2.3.:	Site Acceptance Tests - mechanical aspects including alignment an		Sun 10/12/23	Fri 14/07/23	Sun 10/12/23	3 27 days 457	ME - D x 2~4 men	N J M M J S N J M M J S N J M M	
469 5.18.8.2.4	Electrical Installations for PST No. 1~4	260 days Sat 15/04/23	Sat 30/12/23	Sat 15/04/23			ME DX2 TIMES		
470 5.18.8.2.4.:	Installation of LV Switchboards, PST	60 days Sat 15/04/23	Tue 13/06/23	Sat 15/04/23			LV - A x 4~6 men		
4715.18.8.2.4.	Installation of PLC Panel, PST	60 days Thu 20/04/23	Sun 18/06/23	Thu 20/04/23			EE - A x 4~6 men		<u>↓</u>
		90 days Sat 15/04/23	Thu 13/07/23	Sat 15/04/23			EE - A x 4~6 men		
472 5.18.8.2.4.:	Installation of cable trays and cable containments, PST								
473 5.18.8.2.4.	Cables laying and terminations, PST	90 days Fri 14/07/23	Wed 11/10/23	Fri 14/07/23	Wed 11/10/				20/07
474 5.18.8.2.4.!	Tentative Civil Handover Date, LV cables draw pits from IW to PST	1 day Thu 20/07/23	Thu 20/07/23	Thu 20/07/23			LV - A x 4~6 men		12/09
475 5.18.8.2.4.0	Energisation of LV Switchboards, PST	1 day Tue 12/09/23	Tue 12/09/23	Tue 12/09/23					
476 5.18.8.2.4.	Site Acceptance Tests - Electrical aspects including voltage and cur		Sat 30/12/23	Thu 12/10/23			LV - A x 4~6 men		
477 5.18.8.2.5	SCADA Systems, PST No. 1~4	60 days Thu 12/10/23	Sun 10/12/23	Thu 12/10/23			DIC D. 1		
478 5.18.8.2.5.:	Configuration of PLC System	45 days Thu 12/10/23	Sat 25/11/23	Thu 12/10/23			PLC - B x 1 man		
479 5.18.8.2.5	Site Acceptance Test for PLC System at PST No. 1~4	15 days Sun 26/11/23	Sun 10/12/23	Sun 26/11/23			PLC - A x 1 man		
480 5.18.8.2.6	Site Acceptance Test for E&M Equip and Instrumentations calibration	15 edays Sat 30/12/23	Sun 14/01/24			0.63 edays 456,469,475481			
481 5.18.8.2.7	System Commissioning for E&M Equip at PST No, 1~4	15 days Mon 15/01/24	Mon 29/01/24	Mon 15/01/24					
482 5.18.8.2.8	Risk Allowances for Completion of Processing Plant at PST No. 1~4	7 edays Mon 29/01/24	Mon 05/02/24		Mon 05/02/	. 2.63 edays 481 1274			
483 5.18.8.2.9	Building Services Installations for PST No. 1~4	150 days Fri 14/07/23	Sun 10/12/23	Fri 14/07/23	Sun 10/12/23				
484 5.18.8.2.9.:	Mechanical Ventilation and Air Conditioning System, PST	90 days Fri 14/07/23	Wed 11/10/23	Fri 14/07/23	Wed 11/10/		MVAC - B x 4~6 men		
485 5.18.8.2.9.	Lighting and Power Distribution System, PST	90 days Fri 14/07/23	Wed 11/10/23	Fri 14/07/23	Wed 11/10/	. 0 days 490	BS - A x 4~6 men		
486 5.18.8.2.9.:	Plumbing Installation, PST	80 days Fri 14/07/23	Sun 01/10/23	Fri 14/07/23	Sun 01/10/23		Pb - B x 4~6 men		<u> </u>
487 5.18.8.2.9.4	CCTV Installation (9 indoor + 2 outdoor Cameras), PST	60 days Fri 14/07/23	Mon 11/09/23	Fri 14/07/23	Mon 11/09/	. 0 days 445FS+60 da490,1277	BS - B x 4~6 men		
488 5.18.8.2.9.!	Fire Services Installation, PST	85 days Fri 14/07/23	Fri 06/10/23	Fri 14/07/23	Fri 06/10/23	0 days 1198,1210,121	1,490 FS - A x 4~6 men		
489 5.18.8.2.9.0	Earthing and Lightning Protection System, PST	90 days Fri 14/07/23	Wed 11/10/23	Fri 14/07/23	Wed 11/10/	. 0 days 490	BS - C x 2~4 men		
490 5.18.8.2.9.	Testing and Commissioning of Building Services Installations, PST	60 days Thu 12/10/23	Sun 10/12/23	Thu 12/10/23	Sun 10/12/23	113 days 484,485,486366FF	BS - C x 2~4 men		
491 5.19 Biore	reactors No. 2A & 2B, Portion B-4 (PS 6B2.4)	1326 days Sat 15/08/20	Mon 01/04/24	Sat 15/08/20	Mon 01/04	0 days			
492 5.19.1 Pla	lanned Key Date Completion Date - KD1A, BR 2A & 2B	0 days Fri 30/10/20	Fri 30/10/20	Fri 30/10/20	Fri 30/10/20	0 days 526FF,527FF		€ 130/10	
493 5.19.2 Pla	lanned Key Date Completion Date - KD1B, BR 2A & 2B	0 days Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	. 0 days 528FF		@ _\ 01/06	
494 5.19.3 Pla	lanned Sectional Completion Date - Section 1, BR 2A & 2B	0 days Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/	. 0 days 529FF,530FF		@_12/07	
	lanned Sectional Completion Date - Section 2, BR 2A & 2B	0 days Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	Mon 01/04/	. 0 days 601FF,600FF			
	election of Suppliers for major plant and materials for BR 2A & 2B	193 days Tue 01/09/20	Fri 12/03/21	Tue 01/09/20	Fri 12/03/21	102 days			
	BR - pre-treatment fine screens (Marking Scheme Approach), EQT019	150 days Tue 01/09/20	Thu 28/01/21	Tue 01/09/20	Thu 28/01/21	0 days			
498 5.19.5.1.1	Submission for acceptance of purchasing package	60 days Tue 01/09/20	Fri 30/10/20	Tue 01/09/20	Fri 30/10/20	0 days 499			
499 5.19.5.1.2	Invitation of quotations for purchasing package	60 days Sat 31/10/20	Tue 29/12/20	Sat 31/10/20	Tue 29/12/20	0 days 498 500			
500 5.19.5.1.3	Acceptance of conforming quotation (Completed)	30 days Wed 30/12/20	Thu 28/01/21	Wed 30/12/20	Thu 28/01/21	0 days 499 529			
	BR - air diffusion system (Marking Scheme Approach), EQT017	180 days Tue 01/09/20	Sat 27/02/21	Tue 01/09/20	Sat 27/02/21	0 days			
502 5.19.5.2.1	Submission for acceptance of purchasing package including proposed	90 days Tue 01/09/20	Sun 29/11/20	Tue 01/09/20	Sun 29/11/20				
	marking scheme								
503 5.19.5.2.2	Invitation of quotations for purchasing package	60 days Mon 30/11/20	Thu 28/01/21	Mon 30/11/20	Thu 28/01/21	0 days 502 504			
504 5.19.5.2.3	Acceptance of conforming quotation	30 days Fri 29/01/21	Sat 27/02/21	Fri 29/01/21	Sat 27/02/21	0 days 503 529			
505 5.19.5.3	BR - submersible mixers, C11, EQT020	150 days Tue 01/09/20	Thu 28/01/21	Tue 01/09/20	Thu 28/01/21	0 days			
506 5.19.5.3.1	Submission for acceptance of purchasing package	60 days Tue 01/09/20	Fri 30/10/20	Tue 01/09/20	Fri 30/10/20	0 days 507			
507 5.19.5.3.2	Invitation of quotations for purchasing package	60 days Sat 31/10/20	Tue 29/12/20	Sat 31/10/20	Tue 29/12/20	0 days 506 508		- - - 	
508 5.19.5.3.3	Acceptance of conforming quotation (Completed)	30 days Wed 30/12/20	Thu 28/01/21	Wed 30/12/20	Thu 28/01/21	0 days 507 529			
509 5.19.5.4	BR - mixed liquor return pumps, C11, EQT008	150 days Mon 14/09/20	Wed 10/02/21	Mon 14/09/20	Wed 10/02/21	0 days			
510 5.19.5.4.1	Submission for acceptance of purchasing package	60 days Mon 14/09/20	Thu 12/11/20	Mon 14/09/20	Thu 12/11/20	0 days 511			
511 5.19.5.4.2	Invitation of quotations for purchasing package	60 days Fri 13/11/20	Mon 11/01/21	Fri 13/11/20	Mon 11/01/21	0 days 510 512			
512 5.19.5.4.3	Acceptance of conforming quotation (Completed)	30 days Tue 12/01/21	Wed 10/02/21	Tue 12/01/21	Wed 10/02/21	0 days 511 529			
	BR - scum removal systems, C11, EQT021, EQT022	150 days Mon 14/09/20	Wed 10/02/21	Mon 14/09/20					
514 5.19.5.5.1	Submission for acceptance of purchasing package	60 days Mon 14/09/20	Thu 12/11/20	Mon 14/09/20	Thu 12/11/20	0 days 515			
515 5.19.5.5.2	Invitation of quotations for purchasing package	60 days Fri 13/11/20	Mon 11/01/21	Fri 13/11/20	Mon 11/01/21	0 days 514 516			
516 5.19.5.5.3	Acceptance of conforming quotation (Completed)	30 days Tue 12/01/21	Wed 10/02/21	Tue 12/01/21	Wed 10/02/21	0 days 515 529			
	BR - aeration blowers (Marking Scheme Approach), EQT039	180 days Mon 14/09/20	Fri 12/03/21	Mon 14/09/20		0 days			
		90 days Mon 14/09/20	Sat 12/12/20	Mon 14/09/20		0 days 519			
518 5.19.5.6.1	Submission for acceptance of purchasing package including proposed marking scheme	30 days WOT 14/09/20	Jul 12/12/20	111011 14/03/20	Jul 12/12/20	0 00,3			
519 5.19.5.6.2	Invitation of quotations for purchasing package	60 days Sun 13/12/20	Wed 10/02/21	Sun 13/12/20	Wed 10/02/21	0 days 518 520			
520 5.19.5.6.3	Acceptance of conforming quotation	30 days Thu 11/02/21	Fri 12/03/21	Thu 11/02/21	Fri 12/03/21	0 days 519 529			
	BR - instrumentations, C11, EQT035-2	150 days Thu 01/10/20	Sat 27/02/21	Thu 01/10/20	Sat 27/02/21	115 days			
522 5.19.5.7.1	Submission for acceptance of purchasing package	60 days Thu 01/10/20	Sun 29/11/20	Thu 01/10/20	Sun 29/11/20	0 days 523			
523 5.19.5.7.2	Invitation of quotations for purchasing package	60 days Mon 30/11/20	Thu 28/01/21	Mon 30/11/20		0 days 522 524			
		30 days Fri 29/01/21	Sat 27/02/21	Fri 29/01/21	Sat 27/02/21	13 days 523 529			
524 5.19.5.7.3	Acceptance of conforming quotation	30 days rii 23/01/21	54.27/02/21	25/01/21	54, 27/02/21	20 33,5 323			
		heroestan-activativasianastanas		Solit		Progress	al) 🛨		
	Milestone ♦ Project Sur re, Tentative ❸ Summary Manual Su	·	Critical S		Manual Slack (Fl		ary A		
DE/2018/04									
/09/21									

Drainage Services The Covernment of the Henry Kong	DESTALL UTECHS operal Administrative Region			Shek Wo	ı Hui Effluent Polishing Plant - Main Works Stage 1 E8	л works for Sewage Treatment Facilities	
ID WBS	Task Name	Duration between Task Start Start and Finish	Finish	Early Start Early Finish	Free Slack Predecessors Successors	Resource Names 2020 2021 2022 Half 1, 2020 Half 2, 2020 Half 2, 2021 Half 2, 2021 Half 1, 2022 Half 2, 2022	2023 2024 Half 1, 2023 Half 2, 2023 Half 1, 202
5 525 5.19.6	Design Submissions for BR 2A & 2B	578 days Sat 15/08/20	Tue 15/03/22	Sat 15/08/20 Tue 15/03/2	2 0 days	N	
526 5.19.6.1	Electrical schematic drawings for BR No. 2A & 2B	60 days Sat 15/08/20	Tue 13/10/20	Sat 15/08/20 Tue 13/10/2			
	CDS080-3 - Civil and dimensional requirements drawings for BR 2A&2B up to +	55 days Tue 01/09/20	Sun 25/10/20	Tue 01/09/20 Sun 25/10/20			
			Fri 04/06/21	Fri 28/08/20 Fri 04/06/21	0 days 493FF		
528 5.19.6.3	CDS081-3 - Civil and dimensional requirements drawings for BR 2A & 2	281 days Fri 28/08/20			0.63 edays 500,504,508536,539,542,545,548,55		
529 5.19.6.4	CDS004 - Detailed Design for Bioreactor 2A and 2B	120 edays Fri 12/03/21	Sat 10/07/21				
530 5.19.6.5	CDS023 - Detailed Design for Electrical Installations for BR No. 2A & 2B	159.38 edays Thu 07/10/21	Tue 15/03/22	Thu 07/10/21 Tue 15/03/2 Fri 12/03/21 Sun 20/06/2			
531 5.19.6.6	CDS034-3 - Detailed Design for Electrical Installations BS at BR No. 2A 8	100 edays Fri 12/03/21	Sun 20/06/21				
532 5.19.6.7	CDS025-3 - Detailed Design for LV Switchboards for BR 2A and 2B	60 edays Mon 03/05/21	Fri 02/07/21	Mon 03/05/21 Fri 02/07/21			
533 5.19.6.8	CDS050-3 - Detailed Design for Lifting Appliances - BR 2A & 2B	120 edays Thu 01/10/20	Fri 29/01/21	Thu 01/10/20 Fri 29/01/21			
534 5.19.7	Manufacturing and Delivery of Plant & Materials	740 days Fri 29/01/21	Tue 07/02/23	Fri 29/01/21 Tue 07/02/2			
535 5.19.7.1	Pre-treatment Fine Screens, EQT019	577 days Sun 11/07/21	Tue 07/02/23	Sun 11/07/21 Tue 07/02/2			
536 5.19.7.1.1	Manufacturing and Factory Acceptance Test of Plant	240 days Sun 11/07/21	Mon 07/03/22	Sun 11/07/21 Mon 07/03/			
537 5.19.7.1.2	Shipping and Delivery of Plant to site	45 days Sun 25/12/22	Tue 07/02/23	Sun 25/12/22 Tue 07/02/2			
538 5.19.7.2	Air Diffusion System, EQT017	577 days Sun 11/07/21	Tue 07/02/23	Sun 11/07/21 Tue 07/02/2			
539 5.19.7.2.1	Manufacturing and Factory Acceptance Test of Plant	240 days Sun 11/07/21	Mon 07/03/22	Sun 11/07/21 Mon 07/03/			
540 5.19.7.2.2	Shipping and Delivery of Plant to site	45 days Sun 25/12/22	Tue 07/02/23		3 83 days 539,566SS-6580		
541 5.19.7.3	Submersible Mixer, EQT020	577 days Sun 11/07/21	Tue 07/02/23	Sun 11/07/21 Tue 07/02/2			
542 5.19.7.3.1	Manufacturing and Factory Acceptance Test of Plant	240 days Sun 11/07/21	Mon 07/03/22	Sun 11/07/21 Mon 07/03/			
543 5.19.7.3.2	Shipping and Delivery of Plant to site	45 days Sun 25/12/22	Tue 07/02/23	Sun 25/12/22 Tue 07/02/2			
544 5.19.7.4	Mixed Liquor Return Pumps, EQT008	577 days Sun 11/07/21	Tue 07/02/23	Sun 11/07/21 Tue 07/02/2			
545 5.19.7.4.1	Manufacturing and Factory Acceptance Test of Plant	240 days Sun 11/07/21	Mon 07/03/22	Sun 11/07/21 Mon 07/03/	292 days 529 546		
546 5.19.7.4.2	Shipping and Delivery of Plant to site	45 days Sun 25/12/22	Tue 07/02/23	Sun 25/12/22 Tue 07/02/2	3 16 days 545,566SS-6582		
547 5.19.7.5	Sum Removal System, EQT021, EQT022	577 days Sun 11/07/21	Tue 07/02/23	Sun 11/07/21 Tue 07/02/2	3 258 days		
548 5.19.7.5.1	Manufacturing and Factory Acceptance Test of Plant	240 days Sun 11/07/21	Mon 07/03/22	Sun 11/07/21 Mon 07/03/	292 days 529 549		-
549 5.19.7.5.2	Shipping and Delivery of Plant to site	45 days Sun 25/12/22	Tue 07/02/23	Sun 25/12/22 Tue 07/02/2	3 46 days 548,566SS-6583		*
550 5.19.7.6	Aeration Blowers, EQT039	577 days Sun 11/07/21	Tue 07/02/23	Sun 11/07/21 Tue 07/02/2	3 258 days		
551 5.19.7.6.1	Manufacturing and Factory Acceptance Test of Plant (to be witnesse	240 days Sun 11/07/21	Mon 07/03/22	Sun 11/07/21 Mon 07/03/	292 days 529 552		
552 5.19.7.6.2	Shipping and Delivery of Plant to site	45 days Sun 25/12/22	Tue 07/02/23	Sun 25/12/22 Tue 07/02/2	3 173 days 551,566SS-6584		
553 5.19.7.7	Instrumentations, EQT035-2	577 days Sun 11/07/21	Tue 07/02/23	Sun 11/07/21 Tue 07/02/2	3 243 days		
554 5.19.7.7.1	Manufacturing and Factory Acceptance Test of Plant	240 days Sun 11/07/21	Mon 07/03/22	Sun 11/07/21 Mon 07/03/	292 days 529 555		
555 5.19.7.7.2	Shipping and Delivery of Plant to site	45 days Sun 25/12/22	Tue 07/02/23	Sun 25/12/22 Tue 07/02/2	3 166 days 554,566SS-6585		
556 5.19.7.8	Stoplogs and Penstocks, EQT013	577 days Sun 11/07/21	Tue 07/02/23	Sun 11/07/21 Tue 07/02/2	3 33 days		
557 5.19.7.8.1	Manufacturing and Factory Acceptance Test of Plant	240 days Sun 11/07/21	Mon 07/03/22	Sun 11/07/21 Mon 07/03/	292 days 529 558		
558 5.19.7.8.2	Shipping and Delivery of Plant to site	45 days Sun 25/12/22	Tue 07/02/23	Sun 25/12/22 Tue 07/02/2	3 16 days 557,566SS-6577		
559 5.19.7.9	Pipework, Valves and Electric Actuators, EQT036, EQT042 (Rev. 11)	359 days Mon 14/02/22	Tue 07/02/23	Mon 14/02/22 Tue 07/02/2	3 93 days 56,63		
560 5.19.7.9.1	Manufacturing and Factory Acceptance Test of Plant	240 days Mon 14/02/22	Tue 11/10/22	Mon 14/02/22 Tue 11/10/2	2 74 days 529 561		
561 5.19.7.9.2	Shipping and Delivery of Plant to site	45 days Sun 25/12/22	Tue 07/02/23	Sun 25/12/22 Tue 07/02/2	3 16 days 560,566SS-6578		
562 5.19.7.10	Lifting Appliances	740 days Fri 29/01/21	Tue 07/02/23	Fri 29/01/21 Tue 07/02/2	3 101 days		
563 5.19.7.10.1		210 days Fri 29/01/21	Thu 26/08/21	Fri 29/01/21 Thu 26/08/2	1 485 days 533 564	<u> </u>	
564 5.19.7.10.2		45 days Sun 25/12/22	Tue 07/02/23	Sun 25/12/22 Tue 07/02/2	3 16 days 563,566SS-6570		
565 5.19.8	Site Installation Work	348 days Thu 23/02/23	Mon 05/02/24	Thu 23/02/23 Mon 05/02.	. 0 days		
566 5.19.8.1	Tentative Civil Handover Date, Portion B-4, BR2A & 2B (Rev. 5)	1 day Thu 23/02/23	Thu 23/02/23	Thu 23/02/23 Thu 23/02/2	3 0 days 570,576,587,595FS+90 e		23/02
567 5.19.8.2	Tentative Civil Handover Date, LV cables draw pits from MFB2 to BR2	1 day Thu 01/06/23	Thu 01/06/23	Thu 01/06/23 Thu 01/06/2			<u>01/05</u>
568 5.19.8.3	Commencement of E&M Installation at Bioreactor No. 2A & 2B	347 days Fri 24/02/23	Mon 05/02/24	Fri 24/02/23 Mon 05/02			
569 5.19.8.3.1	Provision of Temporary Water Supply, Electricity Supply, Lighting, W	7 days Fri 24/02/23	Thu 02/03/23	Fri 24/02/23 Thu 02/03/2			
570 5.19.8.3.2	Installation of Lifting Appliances at BR 2A & 2B	67 days Fri 24/02/23	Mon 01/05/23	Fri 24/02/23 Mon 01/05			
571 5.19.8.3.2.		30 days Fri 24/02/23	Sat 25/03/23	Fri 24/02/23 Sat 25/03/23		A - A x 4~6 men	
572 5.19.8.3.2.		30 days Fri 24/02/23	Sat 25/03/23	Fri 24/02/23 Sat 25/03/23		A - B x 4~6 men	
572 5.19.8.3.2.		30 days Sun 26/03/23	Mon 24/04/23	Sun 26/03/23 Mon 24/04/		A - A x 4 ⁻ 6 men	
		7 days Sun 26/03/23	Sat 01/04/23	Sun 26/03/23 Sat 01/04/23		A - B x 4"6 men	
574 5.19.8.3.2.		7 days Tue 25/04/23	Mon 01/05/23	Tue 25/04/23 Mon 01/05/		A - B x 4"6 men	
575 5.19.8.3.2.		270 days Fri 24/02/23	Mon 20/11/23	Fri 24/02/23 Mon 20/11.			*
576 5.19.8.3.3	Mechanical Installations for E&M Equip at BR 2A & 2B	90 days Fri 24/02/23	Wed 24/05/23	Fri 24/02/23 Wed 24/05/		ME - E x 4~6 men	
577 5.19.8.3.3.			Sun 23/07/23	Fri 24/02/23 Sun 23/07/2		ME - C x 4~6 men	+
578 5.19.8.3.3.		150 days Fri 24/02/23				ME - A x 4~6 men	
579 5.19.8.3.3.		28 days Fri 24/02/23	Thu 23/03/23				
580 5.19.8.3.3.		90 days Tue 02/05/23	Sun 30/07/23	Tue 02/05/23 Sun 30/07/2		ME - D x 2~4 men	
581 5.19.8.3.3.		90 days Fri 24/03/23	Wed 21/06/23	Fri 24/03/23 Wed 21/06/		ME - B x 4~6 men	
582 5.19.8.3.3.		30 days Fri 24/02/23	Sat 25/03/23	Fri 24/02/23 Sat 25/03/23		ME - A x 4~6 men	
583 5.19.8.3.3.	Installation of scum removal systems (x2), EQT022	45 days Sun 26/03/23	Tue 09/05/23	Sun 26/03/23 Tue 09/05/2	3 205 days 582,549 592	ME - B x 4~6 men	
	Task Milestone Project Sun		Critical		I Progress Milestone (Actual)		
ect: DE/2018/04	Milestone, Tentative Summary Manual Sur	nmary Critical	Progre	Slack (Slack		
28/09/21							

Part										
Control of Control o	ID WBS Tas	k Name		Finish	Early Start	Early Finish	Free Slack Predecess	ors Successors	Resource Names	
March Marc	E94E 10 9 2 2 1	Installation of paration blowers (v4) FOT029		Wed 13/09/23	Mon 31/07/23	Wed 13/09/	78 days 580 552	592	MF - D x 2~4 men	N J M M J S N J M M J S N J M M M J S N J M M M J S N J M M M J S N J M M M M M M M M M M M M M M M M M M
Mathematical Content of Math										
March Marc										
Processor Company Co									MC-DX2 4 men	
Section Control Cont									FF A - A-C	
Control Cont	588 5.19.8.3.4.:	Installation of cable trays and cable containments								
March Marc	589 5.19.8.3.4.2	Cables laying and terminations	100 days Sat 24/06/23	Sun 01/10/23	Sat 24/06/23	Sun 01/10/23	0 days 588	591,764		
	590 5.19.8.3.4.	Energisation of LV Switchboards, BR2	1 day Mon 31/07/23	Mon 31/07/23	Mon 31/07/23	Mon 31/07/	122 days 567FF+30) da592	LV - A x 4~6 men	
Security Company Com	591 5.19.8.3.4.4	Site Acceptance Tests - Electrical aspects including voltage and cur	60 days Mon 02/10/23	Thu 30/11/23	Mon 02/10/23	Thu 30/11/23	32 days 589	351	LV - A x 4~6 men	
	592 5.19.8.3.5	Site Acceptance Test for E&M Equip at BR 2A & 2B	30 edays Thu 30/11/23	Sat 30/12/23	Thu 30/11/23	Sat 30/12/23	0.63 edays 576,581,	582593		
WARTHON MARCHANIST MARCHA	593 5.19.8.3.6	System Commissioning for E&M Equip at BR 2A & 2B	30 days Sun 31/12/23	Mon 29/01/24	Sun 31/12/23	Mon 29/01/	0 days 592,766	594		
Security Process Pro	594 5.19.8.3.7	Risk Allowances for Completion of Processing Plant at BR 2A & 2B	7 edays Mon 29/01/24	Mon 05/02/24	Mon 29/01/24	Mon 05/02/	2.63 edays 593	1274		
Common C	595 5.19.8.3.8	Building Services Installations for BR 2A & 2B	195 days Thu 25/05/23	Tue 05/12/23	Thu 25/05/23	Tue 05/12/23	12 days 566FS+90) e(
Second Comment Comme	596 5.19.8.3.8.:	Lighting and Power Distribution System, BR2	150 days Thu 25/05/23	Sat 21/10/23	Thu 25/05/23	Sat 21/10/23	0 days 531	601	BS - A x 4~6 men	
No. Control			120 days Thu 25/05/23	Thu 21/09/23	Thu 25/05/23	Thu 21/09/23	10 days 1245	1247,601	Pb - A x 4~6 men	
Section Sect								20 (601.1277	BS - B x 4~6 men	
Spinish Spin										
Matter M										
								1164956	BS - C X Z *4 men	
March Sept	602 5.20	Membrane Facilities Building, Portion B-5 (PS 6B.2.4)	1320 days Fri 21/08/20		Fri 21/08/20					
Second Process Proce	603 5.20.1	Planned Key Date Completion Date - KD1A, MFB No. 2	0 days Fri 30/10/20	Fri 30/10/20	Fri 30/10/20	Fri 30/10/20	0 days 649FF,65	OFF		
1982 1982	604 5.20.2	Planned Key Date Completion Date - KD1B, MFB No. 2	0 days Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	0 days 651FF			
	605 5.20.3	Planned Sectional Completion Date - Section 1, MFB No. 2	0 days Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/	0 days 652FF,65	3FF		(a) 12/07
March Marc	606 5.20.4	Planned Sectional Completion Date - Section 2, MFB No. 2	0 days Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	Mon 01/04/	0 days			
Mark (Mark) Secretar for process of control of process of proc	607 5.20.5	Selection of Suppliers for major plant and materials for MFB	224 days Tue 01/09/20	Mon 12/04/21	Tue 01/09/20	Mon 12/04	64 days			
Columbia C	608 5.20.5.1	MFS - hollow fibre membrane modules (Marking Scheme Approach), ref. EQ1	150 days Tue 01/09/20	Thu 28/01/21	Tue 01/09/20	Thu 28/01/21	0 days			
10 10 10 10 10 10 10 10	609 5.20.5.1.1	Submission for acceptance of purchasing package including proposed	60 days Tue 01/09/20	Fri 30/10/20	Tue 01/09/20	Fri 30/10/20	0 days	610		
10.10 10.1										
State Stat	610 5.20.5.1.2	Invitation of quotations for purchasing package	60 days Sat 31/10/20	Tue 29/12/20	Sat 31/10/20	Tue 29/12/20	0 days 609	611		
Company Comp	611 5.20.5.1.3	Acceptance of conforming quotation (Completed)	30 days Wed 30/12/20	Thu 28/01/21	Wed 30/12/20	Thu 28/01/21	0 days 610	652		
Column C	612 5.20.5.2	MFS - air scour blowers, C11, ref. EQT040	150 days Tue 01/09/20	Thu 28/01/21	Tue 01/09/20	Thu 28/01/21	0 days			
Comment Comm	613 5.20.5.2.1	Submission for acceptance of purchasing package	60 days Tue 01/09/20	Fri 30/10/20	Tue 01/09/20	Fri 30/10/20	0 days	614		
Col. Col.		Invitation of quotations for purchasing package	60 days Sat 31/10/20	Tue 29/12/20	Sat 31/10/20	Tue 29/12/20	0 days 613	615		
Section Sect					Wed 30/12/20		0 days 614	654		
10 10 10 10 10 10 10 10										
68,506.50 Intelligent of quantitation for punchesing specialized Statistical production for punchesing specialized								618		
12 12 12 13 13 14 15 15 15 15 15 15 15										
18 18 18 18 18 18 18 18										
1.5.2.5.5.4.1 Submitted for waveplaces of prochaining guidation Substitution	619 5.20.5.3.3							632		
22 23,30,34.2 Intribution of questions for purchasing package 3 days \$2,30,34.5 Acceptance of conforming questions 3 days from \$147,270 Text \$1,070,271 Text \$	620 5.20.5.4	MFS - compressed air system, C11, ref. EQT029								
\$ 63.32.54.1 Acceptance of conforming quotestin \$ 30 days Mans 14/13/20 The \$12/13/21	621 5.20.5.4.1	Submission for acceptance of purchasing package	60 days Tue 15/09/20		Tue 15/09/20					
\$\frac{4}{24} \frac{24}{24}	622 5.20.5.4.2	Invitation of quotations for purchasing package	30 days Sat 14/11/20	Sun 13/12/20	Sat 14/11/20	Sun 13/12/20	0 days 621	623		
\$\frac{1}{2} \frac{1}{2} \fr	623 5.20.5.4.3	Acceptance of conforming quotation	30 days Mon 14/12/20	Tue 12/01/21	Mon 14/12/20	Tue 12/01/21	48 days 622	654		
Section Company of	624 5.20.5.5	MFS - chemical storage tanks, C11, ref. EQT025	120 days Thu 01/10/20	Thu 28/01/21	Thu 01/10/20	Thu 28/01/21	92 days			
Company Comp	625 5.20.5.5.1	Submission for acceptance of purchasing package	60 days Thu 01/10/20	Sun 29/11/20	Thu 01/10/20	Sun 29/11/20	0 days	626		
28 628 3.05.6 Mis - chemical dosing yumps, C11, ref. EQT026 120 days Thu 0/1/0/20 Thu 28/01/21 Thu 0/1/0/20 Sun 28/11/20 Thu 0/1/0/20 Sun 28/11/20 Thu 0/1/0/20 Sun 28/11/20 Odays 2.06 630 Sun 28/01/20 Thu 28/01/21 Thu 0/1/0/20 Sun 28/11/20 Odays 2.06 630 Sun 28/01/20 Thu 28/01/21 Sun 28/01/	626 5.20.5.5.2	Invitation of quotations for purchasing package	30 days Mon 30/11/20	Tue 29/12/20	Mon 30/11/20	Tue 29/12/20	0 days 625	627		
10 20 20 20 20 20 20 20	627 5.20.5.5.3	Acceptance of conforming quotation	30 days Wed 30/12/20	Thu 28/01/21	Wed 30/12/20	Thu 28/01/21	32 days 626	654		
2095-20-5.6.1 Submission for acceptance of purchasing package 60 days Thu 0/10/20 Sun 29/11/20 Thu 0/110/20 Sun 29/11/20 O days 6.23 631					Thu 01/10/20	Thu 28/01/21	92 days			
30 6305,20.5.5.2 Invitation of quotations for purchasing package 30 days Mon 30/11/20 Tue 29/12/20 Mon 30/11/20 Tue 29/12/20 0 days 629 631 30 6315,20.5.6.3 Acceptance of conforming quotation 30 days Wed 30/12/20 Thu 28/01/21 Wed 30/12/20 Thu 28/01/21 0 days 630 654 30 6325,20.5.7 MM5 - return activated sludge pumps (Marking Scheme Approach), ref. EQTO: 180 days Thu 01/10/20 Mon 29/03/21 Thu 01/10/20 Tue 29/12/20 Thu 01/10/20 Tue 29/12/20 1 days 630 634 30 6325,20.5.7.1 Submission for acceptance of purchasing package 90 days Thu 01/10/20 Tue 29/12/20 Thu 01/10/20 Tue 29/12/20 1 days 633 635 5.20.5.7.3 Acceptance of conforming quotation (Completed) 30 days Sun 28/02/21 Mon 29/03/21 Sun 29/03/21 Sun 29/03/21 Sun 29/03/21 O days 634 652 30 6385,20.5.8.1 Submission for acceptance of purchasing package 90 days Tue 15/09/20 Sat 13/03/21 Tue 15/09/20 Sat 13/03/21 O days 634 652 30 6385,20.5.8.2 Invitation of quotations for purchasing package 90 days Tue 15/09/20 Sun 13/12/20 Tue 15/09/20 Sun 13/12/20 O days 638 638 5.20.5.8.2 Invitation of quotations for purchasing package 90 days Tue 15/09/20 Sun 13/12/20 Tue 15/09/20 Sun 13/12/20 O days 638 638 5.20.5.8.3 Acceptance of conforming quotation (Completed) 30 days Fit 12/02/21 Sat 13/03/21 Fit 12/02/21 Sat 13/03/21 Thu 11/02/21 O days 637 639 30 639 5.20.5.8.3 Acceptance of conforming quotation (Completed) 30 days Fit 12/02/21 Sat 13/03/21 Thu 11/02/21 Mon 14/12/20 Mon 14/								630		
10 6315.20.5.6.3 Acceptance of conforming quotation 30 days Wed 30/12/20 Thu 28/01/21 Ved 30/12/20 Thu 28/01/21 32 days 630 654 10 682 5.20.5.7 Miss - return activated sludge pumps (Marking Scheme Approach), ref. EQTO: 180 days Thu 01/10/20 Tue 29/12/20 Odays 634 10 633 5.20.5.7.1 Submission for acceptance of purchasing package 90 days Thu 01/10/20 Tue 29/12/20 Sat 27/02/21 Ved 30/12/20 Sat 38/08/21 Ved 30/12/20 Ved 30/12/20 Sat 38/08/21 Ved 30/12/20 Ved										
22 632 5.20.5.7 M/S - return activated sludge pumps (Marking Scheme Approach), ref. EQT0: 180 days Thu 01/10/20 Mon 29/03/21 0 days 634 634 634 5.20.5.7.1 Submission for acceptance of purchasing package 90 days Thu 01/10/20 Tue 29/12/20 Thu 01/10/20 Sat 27/02/21 0 days 634 635 635 5.20.5.7.3 Acceptance of conforming quotation (Completed) 30 days Sun 28/02/21 Mon 29/03/21 0 days 634 652 5.20.5.8 M/S - membrane tank drain pumps, C11, ref. EQT009 180 days Tue 15/09/20 Sat 13/03/21 Tue 15/09/20 Sun 13/12/20 0 days 638 635 5.20.5.8.1 Submission for acceptance of purchasing package 90 days Tue 15/09/20 Sun 13/12/20 Tue 15/09/20 Sun 13/12/20 0 days 638 638 5.20.5.8.2 Invitation of quotations for purchasing package 60 days Mon 14/12/20 Thu 11/02/21 Mon 14/12/20 Thu 11/02/21 0 days 637 639 5.20.5.8.3 Acceptance of conforming quotation (Completed) 30 days Fri 12/02/21 Sat 13/03/21 Fri 12/02/21 Sat 13/03/21 Thu 15/10/20 Mon 12/04/21 days										
33 633 5,20.5.7.1 Submission for acceptance of purchasing package 90 days Thu 01/10/20 Tue 29/12/20 0 days 634 34 634 5,20.5.7.2 Invitation of quotations for purchasing package 60 days Wed 30/12/20 Sat 27/02/21 Wed 30/12/20 Sat 27/02/21 0 days 633 635 35 635 5,20.5.7.3 Acceptance of conforming quotation (Completed) 30 days Sun 28/02/21 Mon 29/03/21 5un 28/02/21 Mon 29/03/21 0 days 634 652 36 636 5,20.5.8 MFS - membrane tank drain pumps, C11, ref. EQT009 180 days Tue 15/09/20 Sat 13/03/21 Tue 15/09/20 Sat 13/03/21 0 days 37 637 5,20.5.8.1 Submission for acceptance of purchasing package 90 days Tue 15/09/20 Sun 13/12/20 Tue 15/09/20 Sun 13/12/20 0 days 638 38 638 5,20.5.8.2 Invitation of quotations for purchasing package 60 days Mon 14/12/20 Thu 11/02/21 Mon 14/12/20 Thu 11/02/21 O days 637 39 639 5,20.5.8.3 Acceptance of conforming quotation (Completed) 30 days Fn 12/02/21 Sat 13/03/21 Fn 12/02/21 Sat 13/03/21 O days 638 40 640 5,20.5.9 Plant Service Water System - booster pumps, C11, ref. EQT030 180 days Thu 15/10/20 Mon 12/04/21 Thu 15/10/20 Mon 12/04/21 G4 days										
64 634 5.20.5.7.2 Invitation of quotations for purchasing package 60 days Wed 30/12/20 Sat 27/02/21 Wed 30/12/20 Sat 27/02/21 O days 633 635 635 5.20.5.7.3 Acceptance of conforming quotation (Completed) 30 days Sun 28/02/21 Mon 29/03/21 O days 634 652 655 5.20.5.8.3 Acceptance of purchasing package 90 days Tue 15/09/20 Sun 13/12/20 Tue 15/09/20 Sun 13/12/20 O days 638 638 5.20.5.8.2 Invitation of quotations for purchasing package 60 days Mon 14/22/20 Thu 11/02/21 Mon 14/12/20 Thu 11/02/21 O days 638 652 639 639 5.20.5.8.3 Acceptance of conforming quotation (Completed) 30 days Fri 12/02/21 Sat 13/03/21 Fri 12/02/21 Sat 13/03/21 O days 638 652 640 5.20.5.9 Plant Service Water System - booster pumps, C11, ref. EQT030 180 days Thu 15/10/20 Mon 12/04/21 Thu 15/10/20 Mon 12/04 64 days										
30 days Sun 28/02/21 Mon 29/03/21 Sun 28/02/21 Mon 29/03/21 O days 634 652 35 635 5.20.5.7.3 Acceptance of conforming quotation (Completed) 30 days Sun 28/02/21 Mon 29/03/21 O days 634 652 35 635 5.20.5.8 MFS - membrane tank drain pumps, C11, ref. EQT009 180 days Tue 15/09/20 Sat 13/03/21 Tue 15/09/20 Sat 13/03/21 0 days 638 535 5.20.5.8.1 Submission for acceptance of purchasing package 90 days Tue 15/09/20 Sun 13/12/20 Tue 15/09/20 Sun 13/12/20 O days 638 638 5.20.5.8.2 Invitation of quotations for purchasing package 60 days Mon 14/12/20 Thu 11/02/21 Mon 14/12/20 Thu 11/02/21 Sat 13/03/21 Fri 12/02/21 Sat 13/03/21 O days 637 639 639 639 5.20.5.8.3 Acceptance of conforming quotation (Completed) 30 days Fri 12/02/21 Sat 13/03/21 Thu 15/10/20 Mon 12/04 64 days										
180 636 5.20.5.8 MFS - membrane tank drain pumps, C11, ref. EQT009 180 days Tue 15/09/20 Sat 13/03/21 Tue 15/09/20 Sat 13/03/21 Tue 15/09/20 Sat 13/03/21 O days 638 638 5.20.5.8.2 Invitation of quotations for purchasing package 60 days Mon 14/12/20 Thu 11/02/21 Mon 14/12/20 Thu 11/02/21 Sat 13/03/21 O days 638 639 639 5.20.5.8.3 Acceptance of conforming quotation (Completed) 30 days Fri 12/02/21 Sat 13/03/21 Fri 12/02/21 Sat 13/03/21 O days 638 652 O days Mon 12/04 64 days O days 64 days	634 5.20.5.7.2	Invitation of quotations for purchasing package								
Submission for acceptance of purchasing package 90 days Tue 15/09/20 Sun 13/12/20 Tue 15/09/20 Sun 13/12/20 O days 638 St. 20.5.8.2 Invitation of quotations for purchasing package 60 days Mon 14/12/20 Thu 11/02/21 Mon 14/12/20 Thu 11/02/21 O days 637 639 St. 20.5.8.3 Acceptance of conforming quotation (Completed) 30 days Fri 12/02/21 Sat 13/03/21 Fri 12/02/21 Sat 13/03/21 O days 638 652 Mon 14/12/20 Thu 15/10/20 Mon 12/04 64 days	635 5.20.5.7.3	Acceptance of conforming quotation (Completed)	30 days Sun 28/02/21	Mon 29/03/21	Sun 28/02/21	Mon 29/03/21	0 days 634	652		
8 638 5.20.5.8.2 Invitation of quotations for purchasing package 60 days Mon 14/12/20 Thu 11/02/21 0 days 637 639 9 639 5.20.5.8.3 Acceptance of conforming quotation (Completed) 30 days Fri 12/02/21 Sat 13/03/21 Fri 12/02/21 Sat 13/03/21 Thu 15/10/20 Mon 12/04 64 days 0 640 5.20.5.9 Plant Service Water System - booster pumps, C11, ref. EQT030 180 days Thu 15/10/20 Mon 12/04/21 Thu 15/10/20 Mon 12/04 64 days	636 5.20.5.8	MFS - membrane tank drain pumps, C11, ref. EQT009	180 days Tue 15/09/20	Sat 13/03/21	Tue 15/09/20	Sat 13/03/21	0 days			
30 days Fri 12/02/21 Sat 13/03/21 Fri 12/02/21 Sat 13/03/21 Fri 12/02/21 Sat 13/03/21 O days 638 652 640 5.20.5.9 Plant Service Water System - booster pumps, C11, ref. EQT030 180 days Thu 15/10/20 Mon 12/04/21 Thu 15/10/20 Mon 12/04 64 days	637 5.20.5.8.1	Submission for acceptance of purchasing package	90 days Tue 15/09/20	Sun 13/12/20	Tue 15/09/20	Sun 13/12/20	0 days	638		
00 640 5.20.5.9 Plant Service Water System - booster pumps, C11, ref. EQT030 180 days Thu 15/10/20 Mon 12/04 64 days	638 5.20.5.8.2	Invitation of quotations for purchasing package	60 days Mon 14/12/20	Thu 11/02/21	Mon 14/12/20	Thu 11/02/21	0 days 637	639		
10 640 5.20.5.9 Plant Service Water System - booster pumps, C11, ref. EQT030 180 days Thu 15/10/20 Mon 12/04/21 Thu 15/10/20 Mon 12/04 64 days		Acceptance of conforming quotation (Completed)	30 days Fri 12/02/21	Sat 13/03/21	Fri 12/02/21	Sat 13/03/21	0 days 638	652		
							64 days			
TO STATE OF THE PROPERTY OF TH								642		
	041 5.20.5.9.1	Sabilission for acceptance of purchasing package	30 days 111d 13/10/20		15/10/20		- 30/9	1		
Task Milestone Project Summary Late Critical Split Manual Progress Milestone (Actual)		estone, Tentative Summary Manual Su	nmary Critical	Progress		Slack (Flo	at)	Slack		
	oct: DE/2019/04									

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ID WBS Ta	sk Name	Duration between Task Start Start and Finish	Finish	Early Start	Early Finish	Free Slack Predecesso	rs Successors Resource Names	2020 Half 1, 2020 Half 2, 2020	2021 Half 1, 2021	Half 2, 2021	2022 Half 1, 202	2 Half 2, 2022	2023 Half 1, 2023	3 Half 2, 2023	2024 Half 1, 2
642 5.20.5.9.2	Invitation of quotations for purchasing package	60 days Wed 13/01/21	Sat 13/03/21	Wed 13/01/21	Sat 13/03/21	0 days 641	643	N		M	S N J	M. I. M. I. J.	S N J	M M J S	
643 5.20.5.9.3	Acceptance of conforming quotation	30 days Sun 14/03/21	Mon 12/04/21	Sun 14/03/21		0 days 642	652		1						
644 5.20.5.10	Plant Service Water System - hydro-pneumatic pressure tanks, C11, re	120 days Thu 01/10/20	Thu 28/01/21	Thu 01/10/20				-						- 1	
645 5.20.5.10.1	Submission for acceptance of purchasing package	60 days Thu 01/10/20	Sun 29/11/20	Thu 01/10/20			646								
646 5.20.5.10.2	Invitation of quotations for purchasing package	30 days Mon 30/11/20	Tue 29/12/20	Mon 30/11/20		0 days 645	647								
647 5.20.5.10.3	Acceptance of conforming quotation	30 days Wed 30/12/20	Thu 28/01/21	Wed 30/12/20		74 days 646	652								
648 5.20.6	Design Submissions for MFB No. 2	572 days Fri 21/08/20	Tue 15/03/22	Fri 21/08/20	Tue 15/03/22			•							
649 5.20.6.1	Electrical schematic drawings for MFB No. 2	60 days Fri 21/08/20	Mon 19/10/20		Mon 19/10/	0 days	603FF								
650 5.20.6.2	CDS080-4 - Civil and dimensional requirements drawigns for MFB no. 2 up to +	30 days Tue 01/09/20	Wed 30/09/20		Wed 30/09/20	0 days	603FF								
651 5.20.6.3	CDS081-4 - Civil and dimensional requirements drawings for MFB No. 2	210 days Fri 28/08/20	Thu 25/03/21	Fri 28/08/20	Thu 25/03/21	0 days	604FF								
652 5.20.6.4	CDS005 - Detailed Design for Membrane Filtration System, Pumps and	80 edays Mon 12/04/21	Thu 01/07/21				35661,665,668,671,680,683								
653 5.20.6.5	CDS024 - Detailed Design for Electrical Installations for MFB No. 2	159.38 edays Thu 07/10/21	Tue 15/03/22			0 edays 75,85,81,					¥	J			
654 5.20.6.6	CDS008 - Detailed Design for Membrane Filtration System, Air Blowers,	100 edays Mon 01/03/21	Wed 09/06/21			0.63 edays 615,623,6									
655 5.20.6.7	CDS034-4 - Detailed Design for Electrical Installations BS at MFB No. 2	100 edays Fri 12/03/21	Sun 20/06/21	Fri 12/03/21			771,605FF								
656 5.20.6.8	CDS025-4 - Detailed Design for LV Switchboards for Membrane Filtratic	60 edays Mon 03/05/21	Fri 02/07/21	Mon 03/05/21			692,605FF								
657 5.20.6.9	CDS026-2 - Detailed Design for HV Switchboards for MFB No. 2	60 edays Sun 18/04/21	Thu 17/06/21	Sun 18/04/21			605FF,696								
658 5.20.6.10	CDS050-4 - Detailed Design for Lifting Appliances - MFB No. 2	150 edays Thu 15/10/20	Sun 14/03/21	Thu 15/10/20			686,605FF	<u>_</u>							
659 5.20.7	Manufacturing and Delivery of Plant & Materials	652 days Sun 14/03/21	Sun 25/12/22	Sun 14/03/21									-		
660 5.20.7.1	Hollow Fibre Membrane Modules, EQT023	385 days Fri 02/07/21	Thu 21/07/22		Thu 21/07/22					0					
661 5.20.7.1	MFS - Manufacturing of Plant	300 days Fri 02/07/21	Wed 27/04/22		Wed 27/04/	0 days 652	662								
662 5.20.7.1.2	MFS - Factory Acceptance Test of Plant (to be witnessed by PM)	40 days Thu 28/04/22	Mon 06/06/22	Thu 28/04/22		0 days 661	663								
663 5.20.7.1.3	MFS - Shipping and Delivery of Plant to site	45 days Tue 07/06/22	Thu 21/07/22	Tue 07/06/22		0 days 662	721								
664 5.20.7.2	Air Scour Blowers, EQT040	396 days Fri 02/07/21	Mon 01/08/22		Mon 01/08	208 days				-					
665 5.20.7.2.1	Manufacturing and Factory Acceptance Test of Plant	240 days Fri 02/07/21	Sat 26/02/22		Sat 26/02/22	111 days 652	666								
666 5.20.7.2.2	Shipping and Delivery of Plant to site	45 days Sat 18/06/22	Mon 01/08/22		Mon 01/08/	0 days 665,733S									
667 5.20.7.3	Permeate Pump, EQT024	285 days Fri 02/07/21	Tue 12/04/22		Tue 12/04/22										
668 5.20.7.3.1	Manufacturing and Factory Acceptance Test of Plant	240 days Fri 02/07/21	Sat 26/02/22		Sat 26/02/22	0 days 652	669								
669 5.20.7.3.2	Shipping and Delivery of Plant to site	45 days Sun 27/02/22	Tue 12/04/22	Sun 27/02/22			723				1				
670 5.20.7.4	Compressed Air System, EQT029	396 days Fri 02/07/21	Mon 01/08/22	Fri 02/07/21						-		,			
671 5.20.7.4.1	Manufacturing and Factory Acceptance Test of Plant	210 days Fri 02/07/21	Thu 27/01/22	Fri 02/07/21			672								
672 5.20.7.4.2	Shipping and Delivery of Plant to site	45 days Sat 18/06/22	Mon 01/08/22	Sat 18/06/22		0 days 671,733S									
673 5.20.7.5	Chemical Storage Tanks, EQT025	225 days Thu 10/06/21	Thu 20/01/22	Thu 10/06/21											
674 5.20.7.5.1	Manufacturing and Factory Acceptance Test of Plant	180 days Thu 10/06/21	Mon 06/12/21	Thu 10/06/21		0 days 654	675								
675 5.20.7.5.2	Shipping and Delivery of Plant to site	45 days Tue 07/12/21	Thu 20/01/22	Tue 07/12/21			727								
676 5.20.7.6	Chemical Dosing Pumps, EQT026	225 days Thu 10/06/21	Thu 20/01/22	Thu 10/06/21											
677 5.20.7.6.1	Manufacturing and Factory Acceptance Test of Plant	180 days Thu 10/06/21	Mon 06/12/21	Thu 10/06/21		0 days 654	678			+					
678 5.20.7.6.2	Shipping and Delivery of Plant to site	45 days Tue 07/12/21	Thu 20/01/22	Tue 07/12/21			728								
679 5.20.7.7	Stoplogs and Penstocks, EQT013	396 days Fri 02/07/21	Mon 01/08/22	Fri 02/07/21											
680 5.20.7.7	Manufacturing and Factory Acceptance Test of Plant	240 days Fri 02/07/21	Sat 26/02/22		Sat 26/02/22		681								
681 5.20.7.7.2	Shipping and Delivery of Plant to site	45 days Sat 18/06/22	Mon 01/08/22	Sat 18/06/22		0 days 680,733SS									
	Pipework, Valves and Electric Actuators, EQT036 (Rev. 11)	285 days Mon 14/02/22	Fri 25/11/22	Mon 14/02/22			0.726				-				
682 5.20.7.8	Manufacturing and Factory Acceptance Test of Plant	240 days Mon 14/02/22	Tue 11/10/22	Mon 14/02/22		0 days 652	684								
683 5.20.7.8.1 684 5.20.7.8.2	Shipping and Delivery of Plant to site	45 days Wed 12/10/22	Fri 25/11/22	Wed 12/10/22		64 days 683	726								
		356 days Sun 14/03/21	Fri 04/03/22	Sun 14/03/21							-				
685 5.20.7.9	Lifting Appliances Manufacturing and Factory Acceptance Test of Plant	210 days Sun 14/03/21	Sat 09/10/21	Sun 14/03/21			687								
686 5.20.7.9.1		45 days Wed 19/01/22	Fri 04/03/22	Wed 19/01/22		16 days 686,710S									
687 5.20.7.9.2	Shipping and Delivery of Plant to site		Mon 01/08/22	Wed 19/01/22 Sat 03/07/21											
688 5.20.7.10	LV Switchboards	395 days Sat 03/07/21	Sun 27/02/22	Sat 03/07/21 Sat 03/07/21		0 days 532	690			-					
689 5.20.7.10.1	BR - Manufacturing of Plant BB - Section Assentance Test of Plant (to be witnessed by PM)	240 days Sat 03/07/21 90 days Mon 28/02/22	Sun 27/02/22 Sat 28/05/22	Mon 28/02/22		0 days 689	691								
690 5.20.7.10.2	BR - Factory Acceptance Test of Plant (to be witnessed by PM)		Sat 28/05/22 Tue 12/07/22	Sun 29/05/22			751								
691 5.20.7.10.3	BR - Shipping and Delivery of Plant to site	45 days Sun 29/05/22 240 days Sat 03/07/21	Sun 27/02/22	Sat 03/07/21		0 days 656	693			1					
692 5.20.7.10.4	MFS - Factory Acceptance Test of Plant (to be witnessed by PM)	90 days Mon 28/02/22	Sun 27/02/22 Sat 28/05/22	Mon 28/02/22		20 days 692	694								
693 5.20.7.10.5	MFS - Factory Acceptance Test of Plant (to be witnessed by PM)		Mon 01/08/22												
694 5.20.7.10.6	MFS - Shipping and Delivery of Plant to site	45 days Sat 18/06/22	Mon 01/08/22			106 days 693,733S	7/32								
695 5.20.7.11	HV Switchboards, EQT031	410 days Fri 18/06/21		Fri 18/06/21		0 days 657	697			-					
696 5.20.7.11.1	MFS - Manufacturing of Plant	180 days Fri 18/06/21	Tue 14/12/21	Fri 18/06/21 Wed 15/12/21							1				
697 5.20.7.11.2	MFS - Factory Acceptance Test of Plant (to be witnessed by PM)	90 days Wed 15/12/21	Mon 01/08/22	Wed 15/12/21			698					Y			
698 5.20.7.11.3	MFS - Shipping and Delivery of Plant to site	45 days Sat 18/06/22	Mon 01/08/22			106 days 697,733S	-0/33								
699 5.20.7.12	11kV/380V Stepdown Power Transformers, EQT032	285 days Wed 16/03/22	Sun 25/12/22	Wed 16/03/22								,			
700 5.20.7.12.1	MFS - Manufacturing and Factory Acceptance Test of Plant	240 days Wed 16/03/22	Thu 10/11/22	Wed 16/03/22	Thu 10/11/22	0 days 653	701								
Та			Critical	Split	Manual Pr	rogress	Milestone (Actual)								
ct: DE/2018/04	ilestone, Tentative	nmary Critical	Progres	s .	Slack (Floa	et)	Slack								

S	Drainage Services	Department and Assessment and Assess				Shak Wir L		posed Work Programme fo	or DE/2018/04 E&M Works for Sewage Treatment Fa	ncilities	AECOM
ID	D WBS 1	Task Name D	Ouration between Task Start	Finish	Early Start	_	Free Slack Predecess		Resource Names		2024
			Start and Finish								Half 1, 2024
701	701 5.20.7.12.2	MFS - Shipping and Delivery of Plant to site	45 days Fri 11/11/22	Sun 25/12/22	Fri 11/11/22	Sun 25/12/22	0 days 700	756			
702	702 5.20.7.13	PLC System	285 days Wed 16/03/22	Sun 25/12/22	Wed 16/03/22	Sun 25/12/22	32 days				
703	703 5.20.7.13.1	Manufacturing of Plant, PLC for BR2A &B	210 days Wed 16/03/22	Tue 11/10/22	Wed 16/03/22	Tue 11/10/22	0 days 530	704			
704	704 5.20.7.13.2	Factory Acceptance Test of Plant, PLC for BR2A &B (To be witnessed	30 days Wed 12/10/22	Thu 10/11/22	Wed 12/10/22	Thu 10/11/22	0 days 703	705			
705	705 5.20.7.13.3	Shipping and Delivery of Plant to site	45 days Fri 11/11/22	Sun 25/12/22	Fri 11/11/22	Sun 25/12/22	0 days 704	753			
706	706 5.20.7.13.4	Manufacturing of Plant, PLC for MFB2	210 days Wed 16/03/22	Tue 11/10/22	Wed 16/03/22	Tue 11/10/22	0 days 653	707			
707	707 5.20.7.13.5	Factory Acceptance Test of Plant, PLC for MFB2 (To be witnessed by	30 days Wed 12/10/22	Thu 10/11/22	Wed 12/10/22	Thu 10/11/22	0 days 706	708			
708	708 5.20.7.13.6	Shipping and Delivery of Plant to site	45 days Fri 11/11/22	Sun 25/12/22	Fri 11/11/22	Sun 25/12/22	0 days 707	754			
709	709 5.20.8	Site Installation Work	683 days Sun 20/03/22	Wed 31/01/24	Sun 20/03/22	Wed 31/01	0 days				7
710	710 5.20.8.1	Tentative Civil Handover Date, Portion B-5A, MFB No. 2 below 1st floor	1 day Sun 20/03/22	Sun 20/03/22	Sun 20/03/22	Sun 20/03/22	0 days	713,719FS+45 edays,71	2,	20/03	
711	711 5.20.8.2	Commencement of E&M Installation at MFB No. 2 Lower Part	404 days Mon 21/03/22	Fri 28/04/23	Mon 21/03/22	Fri 28/04/23	0 days 710				
712	712 5.20.8.2.1	Provision of Temporary Water Supply, Electricity Supply, Lighting, W	7 days Mon 21/03/22	Sun 27/03/22	Mon 21/03/22	Sun 27/03/22	0 days 710				
713	713 5.20.8.2.2	Installation of Lifting Appliances at MFB No. 2	66 days Mon 21/03/22	Wed 25/05/22	Mon 21/03/22	Wed 25/05	248 days 710,687				
714	714 5.20.8.2.2.:	B2 EOT Crane LA-04-01 SWL 5t	45 days Mon 21/03/22	Wed 04/05/22	Mon 21/03/22	Wed 04/05/	0 days	716,717,718			
715	715 5.20.8.2.2.:	B2 EOT Crane LA-04-02 SWL 5t	30 days Mon 21/03/22	Tue 19/04/22	Mon 21/03/22	Tue 19/04/22	15 days	716,717,718			
716	716 5.20.8.2.2.:	B2 MR LA-04-03 SWL 5t	14 days Thu 05/05/22	Wed 18/05/22	Thu 05/05/22	Wed 18/05/	0 days 714,715	718			
717	717 5.20.8.2.2.4	B1 MR LA-04-04 SWL 3t	14 days Thu 05/05/22	Wed 18/05/22	Thu 05/05/22	Wed 18/05/	0 days 714,715	718			
718	718 5.20.8.2.2.!	T&C, Loading Test for Lifting Appliances	7 days Thu 19/05/22	Wed 25/05/22	Thu 19/05/22	Wed 25/05/	57 days 714,715,7	716721			
719	719 5.20.8.2.3	Mechanical Installations for E&M Equip. at MFB No. 2 Lower Part	359 days Thu 05/05/22	Fri 28/04/23	Thu 05/05/22	Fri 28/04/23	0 days 710FS+45	e(731SS			
720	720 5.20.8.2.3.:	Installation of penstocks and stoplogs (Penstocks 18nos, Stoplogs	90 days Tue 02/08/22	Sun 30/10/22	Tue 02/08/22	Sun 30/10/22	0 days 681	730	ME - E x 4~6 men		
721	721 5.20.8.2.3.:	Installation of hollow fibre membrane modules (x9), EQT023	90 days Fri 22/07/22	Wed 19/10/22	Fri 22/07/22	Wed 19/10/	191 days 663,718		ME - A x 4~6 men		
722	722 5.20.8.2.3.:	Installation of air scour blowers (x3), EQT040	90 days Tue 02/08/22	Sun 30/10/22	Tue 02/08/22	Sun 30/10/22	0 days 666,672	726,723,724	ME - B x 4~6 men		
723	723 5.20.8.2.3.4	Installation of permeate pumps (x10), EQT024	90 days Mon 31/10/22	Sat 28/01/23	Mon 31/10/22	Sat 28/01/23	0 days 722,669	726	ME - A x 4~6 men		
724	724 5.20.8.2.3.!	Installation of return activated sludge pumps (x5), EQT010	90 days Mon 31/10/22	Sat 28/01/23	Mon 31/10/22	Sat 28/01/23	0 days 722	726	ME - B x 4~6 men		
725	725 5.20.8.2.3.0	Installation of membrane tank drain pumps (x2), EQT009	45 days Thu 05/05/22	Sat 18/06/22	Thu 05/05/22	Sat 18/06/22	224 days	726	ME - C x 4~6 men		
726	726 5.20.8.2.3.	Installation of pipework and valves, EQT036	90 days Sun 29/01/23	Fri 28/04/23	Sun 29/01/23	Fri 28/04/23	0 days 722,723,7	724730FF	ME - C x 4~6 men		
727	727 5.20.8.2.3.	Installation of chemical storage tank, EQT025	60 days Thu 05/05/22	Sun 03/07/22	Thu 05/05/22	Sun 03/07/22	299 days 675		ME - D x 2~4 men		
728	728 5.20.8.2.3.	Installation of chemical dosing pumps, EQT026	60 days Thu 05/05/22	Sun 03/07/22	Thu 05/05/22	Sun 03/07/22	299 days 678		ME - D x 2~4 men		
729	729 5.20.8.2.3.:	Installation of plant service water system	90 days Thu 05/05/22	Tue 02/08/22	Thu 05/05/22	Tue 02/08/22	269 days		ME - C x 4~6 men		
730	730 5.20.8.2.3.:	Site Acceptance Tests - mechanical aspects including alignment an	180 days Mon 31/10/22	Fri 28/04/23	Mon 31/10/22	Fri 28/04/23	176 days 720,726F	F 768	ME - D x 2~4 men		
731	731 5.20.8.2.4	Electrical Installations for E&M Equip. at MFB No. 2 Lower Part	150 days Thu 05/05/22	Sat 01/10/22	Thu 05/05/22	Sat 01/10/22	237 days 719SS				
732	732 5.20.8.2.4.:	Installation of cable trays and cable containments	150 days Thu 05/05/22	Sat 01/10/22	Thu 05/05/22	Sat 01/10/22	45 days	757			
733	733 5.20.8.3	Tentative Civil Handover Date, Portion B-5B, MFB No. 2 remaining port	1 day Wed 17/08/22	Wed 17/08/22	Wed 17/08/22	Wed 17/08/	0 days	736,745FS+45 edays,77	11	17/08	
734	734 5.20.8.4	Commencement of E&M Installation at MFB No. 2 Upper Part	532 days Thu 18/08/22	Wed 31/01/24	Thu 18/08/22	Wed 31/01	0 days 733				-
735	735 5.20.8.4.1	Provision of Temporary Water Supply, Electricity Supply, Lighting, W	7 days Thu 18/08/22	Wed 24/08/22	Thu 18/08/22	Wed 24/08/	0 days 733				
736	736 5.20.8.4.2	Installation of Lifting Appliances at MFB No. 2	142 days Thu 18/08/22	Fri 06/01/23	Thu 18/08/22	Fri 06/01/23	40 days 733,687			 	
737	737 5.20.8.4.2.:	GF EOT Crane LA-04-05 SWL 5t	45 days Thu 18/08/22	Sat 01/10/22	Thu 18/08/22	Sat 01/10/22	0 days	739,740,744	LA - A x 4~6 men		
738	738 5.20.8.4.2.:	GF Gantry Crane LA-04-06 SWL 6t	45 days Thu 18/08/22	Sat 01/10/22	Thu 18/08/22	Sat 01/10/22	0 days	739,740,744	LA - B x 4~6 men		
739	739 5.20.8.4.2.:	1F EOT Crane LA-04-07 SWL 15t	45 days Sun 02/10/22	Tue 15/11/22	Sun 02/10/22	Tue 15/11/22	0 days 737,738	741,742,743,744	LA - A x 4~6 men		
740	740 5.20.8.4.2.4	1F EOT Crane LA-04-08 SWL 15t	45 days Sun 02/10/22	Tue 15/11/22	Sun 02/10/22	Tue 15/11/22	0 days 737,738	741,742,743,744	LA - B x 4~6 men		
741	741 5.20.8.4.2.!	RF EOT Crane LA-04-09 SWL 2t	45 days Wed 16/11/22	Fri 30/12/22	Wed 16/11/22	Fri 30/12/22	0 days 739,740	744	LA - A x 4~6 men		
742	742 5.20.8.4.2.0	RF Retractable MR LA-04-10 SWL 2t	45 days Wed 16/11/22	Fri 30/12/22	Wed 16/11/22	Fri 30/12/22	0 days 739,740	744	LA - B x 4~6 men		
743	743 5.20.8.4.2.	Mobile A-frame LA-04-11 SWL 2t	7 days Wed 16/11/22	Tue 22/11/22	Wed 16/11/22	Tue 22/11/22	38 days 739,740	744	LA - C x 4~6 men		
744	744 5.20.8.4.2.	T&C, Loading Test for Lifting Appliances	7 days Sat 31/12/22	Fri 06/01/23	Sat 31/12/22	Fri 06/01/23	0 days 737,738,7	35746	LA - A x 4~6 men		
745	745 5.20.8.4.3	Mechanical Installations for E&M Equip. at MFB No. 2 Upper Part	377 days Sun 02/10/22	Fri 13/10/23	Sun 02/10/22	Fri 13/10/23	0 days 733FS+45	ec750SS+45 edays,768			
746	746 5.20.8.4.3.:	Installation of air scour blowers (x3)	100 days Sat 07/01/23	Sun 16/04/23	Sat 07/01/23	Sun 16/04/23	0 days 744	747,749	ME - A x 4~6 men		
747	747 5.20.8.4.3.:	Installation of compressed air system (x1)	60 days Mon 17/04/23	Thu 15/06/23	Mon 17/04/23	Thu 15/06/23	160 days 746		ME - B x 4~6 men		
748	748 5.20.8.4.3.:	Installation of instrumentations, EQT035-1	60 days Sun 02/10/22	Wed 30/11/22	Sun 02/10/22	Wed 30/11/	357 days 52		ME - D x 2~4 men		
749	749 5.20.8.4.3.4	Site Acceptance Tests - mechanical aspects including alignment an	180 days Mon 17/04/23	Fri 13/10/23	Mon 17/04/23	Fri 13/10/23	40 days 746		ME - D x 2~4 men		
750	750 5.20.8.4.4	Electrical Installations for E&M Equip. at MFB No. 2 Upper Part	340 days Wed 16/11/22	Sat 21/10/23	Wed 16/11/22	Sat 21/10/23	0 days 745SS+45	er768			
751	751 5.20.8.4.4.:	Installation of LV Switchboards, BR2	90 days Wed 16/11/22	Mon 13/02/23	Wed 16/11/22	Mon 13/02/	40 days 691	758	LV - B x 4~6 men		
752	752 5.20.8.4.4.:	Installation of LV Switchboards, MFB No. 2	90 days Wed 16/11/22	Mon 13/02/23	Wed 16/11/22	Mon 13/02/	40 days 694	758	LV - A x 4~6 men	~	
753	753 5.20.8.4.4.	Installation of PLC Panels, BR2	90 days Mon 26/12/22	Sat 25/03/23	Mon 26/12/22	Sat 25/03/23	0 days 705	758,764			
754	754 5.20.8.4.4.4	Installation of PLC Panels, MFB No. 2	90 days Mon 26/12/22	Sat 25/03/23	Mon 26/12/22	Sat 25/03/23	242 days 708		PLC - B x 1 man		
755	755 5.20.8.4.4.!	Installation of HV Switchboards, MFB No. 2	60 days Wed 16/11/22	Sat 14/01/23	Wed 16/11/22	Sat 14/01/23	0 days 698	758,759FS+30 days	HV - A x 4~6 men	<u> </u>	
756	756 5.20.8.4.4.0	Installation of transformer, MFB No. 2, EQT032	45 days Mon 26/12/22	Wed 08/02/23	Mon 26/12/22	Wed 08/02/	0 days 701	760FS+30 days			
	757 5.20.8.4.4.	Installation of cable trays and cable containments	180 days Wed 16/11/22	Sun 14/05/23	Wed 16/11/22						
	758 5.20.8.4.4.	Cables laying and terminations	150 days Sun 26/03/23	Tue 22/08/23	Sun 26/03/23		0 days 751,752,7	53765,762,761			
	759 5.20.8.4.4.9	Testing of HV Switchboards, MFB No. 2	21 days Tue 14/02/23	Mon 06/03/23	Tue 14/02/23				HV - A x 4~6 men		
		Task Milestone ♦ Project Summa		Critical S				Milestone (Actual)			
Bes	wise	Milestone Project Summary Manual Summary Manual Summary		Progress		Slack (Floa		Slack —			
	DE/2018/04 8/09/21										
Status	Date Wed 27/10/2	21						Page 13 of 24		DE_2018_04 Revised PG- (Re	Rev 15, 2021-10) R
Status											

Drainage Services Depai The Government of the Hong Kong Special Admin	riment				Hui Effluent Polishing Pla		E&M Works for Sewage Treatment Fac	cilities					
ID WBS Task N	Name	Duration between Task Start Start and Finish	Finish	Early Start Early Finish	Free Slack Predecessor	rs Successors	Resource Names	2020 Half 1, 2020 Half 2,	2021 2, 2020 Half 1, 2021	Half 2, 2021	2022 Half 1, 2022 Half 2, 2022	2023 Half 1, 2023 Half 2, 20	
760 5.20.8.4.4.:	Testing of Transformers, MFB No. 2	21 days Sat 11/03/23	Fri 31/03/23	Sat 11/03/23 Fri 31/03/23	236 days 756FS+30	da	HV - A x 4~6 men		S N J M	M J S N		M M J	S N J
761 5.20.8.4.4.:	Energisation of LV Switchboards, MFB No. 2 (Rev. 8)	1 day Wed 23/08/23	Wed 23/08/23	Wed 23/08/23 Wed 23/08/	91 days 758		LA - A x 4~6 men					e e	23/08
762 5.20.8.4.4.:	Site Acceptance Tests - Electrical aspects including voltage and cur	60 days Wed 23/08/23	Sat 21/10/23	Wed 23/08/23 Sat 21/10/23	0 days 758	768	LV - A x 4~6 men						
3 763 5.20.8.4.5	SCADA Systems, BR No. 1 & No 2, MFB No. 2	91 days Wed 23/08/23	Tue 21/11/23	Wed 23/08/23 Tue 21/11/23								-	
764 5.20.8.4.5.:	Configuration of PLC System for BR No. 1 & No. 2	30 days Mon 02/10/23	Tue 31/10/23	Mon 02/10/23 Tue 31/10/23		766	PLC - A x 1 man						1
765 5.20.8.4.5.:	Configuration of PLC System for MFB No. 2	30 days Wed 23/08/23	Thu 21/09/23	Wed 23/08/23 Thu 21/09/23		767							4
766 5.20.8.4.5.	Site Acceptance Test for PLC System at BR No. 1 and No. 2	21 days Wed 01/11/23	Tue 21/11/23	Wed 01/11/23 Tue 21/11/23		769,593,1278							
7 767 5.20.8.4.5.4	Site Acceptance Test for PLC System at MFB No. 2	21 days Fri 22/09/23	Thu 12/10/23	Fri 22/09/23 Thu 12/10/23		769,1278							
8 768 5.20.8.4.6	Site Acceptance Test for E&M Equip at MFB No. 2	30 edays Sat 21/10/23	Mon 20/11/23	Sat 21/10/23 Mon 20/11/									 +
9 769 5.20.8.4.7	System Commissioning for E&M Equip at MFB No. 2	45 days Mon 11/12/23	Wed 24/01/24	Mon 11/12/23 Wed 24/01/									
0 770 5.20.8.4.8	Risk Allowances for Completion of Processing Plant at MFB No. 2	7 edays Wed 24/01/24	Wed 31/01/24	Wed 24/01/24 Wed 31/01/		1274							
771 5.20.8.4.9	Building Services Installations for MFB No. 2	330 days Sun 15/01/23	Sun 10/12/23	Sun 15/01/23 Sun 10/12/23								4	
2 772 5.20.8.4.9.:	Mechanical Ventilation and Air Conditioning System, MFB No. 2	120 days Sun 15/01/23	Sun 14/05/23	Sun 15/01/23 Sun 14/05/23		778	MVAC - A x 4~6 men						
3 773 5.20.8.4.9.:	Lighting and Power Distribution System, MFB No. 2	210 days Sun 15/01/23	Sat 12/08/23	Sun 15/01/23 Sat 12/08/23	0 days	778	BS - A x 4~6 men						
4 774 5.20.8.4.9.	Plumbing Installation, MFB No. 2	180 days Sun 15/01/23	Thu 13/07/23	Sun 15/01/23 Thu 13/07/23		1247,778	Pb - B x 4~6 men						
775 5.20.8.4.9.4	CCTV Installation (10 indoor + 3 outdoor Cameras), MFB No. 2	90 days Sun 15/01/23	Fri 14/04/23	Sun 15/01/23 Fri 14/04/23	120 days 733FS+120		BS - B x 4~6 men					‡	
776 5.20.8.4.9.!	Fire Services Installation, MFB No. 2	120 days Sun 15/01/23	Sun 14/05/23	Sun 15/01/23 Sun 14/05/23			FS - B x 4~6 men						
777 5.20.8.4.9.0	Earthing and Lightning Protection System, MFB No. 2	60 days Sun 15/01/23	Wed 15/03/23	Sun 15/01/23 Wed 15/03/		769FF	BS - C x 2~4 men						
777 5.20.8.4.9.1	Testing and Commissioning of Building Services Installations, MFB	120 days Sun 13/08/23	Sun 10/12/23	Sun 13/08/23 Sun 10/12/23			BS - C x 2~4 men					4	
	nemical System No. 1 and No. 2, Portion B-7 & B-7B (PS 6B.2.3)	1351 days Tue 21/07/20	Mon 01/04/24	Tue 21/07/20 Mon 01/04	0 days	-		-					
	Planned Key Date Completion Date - KD1B, Chem Sys No. 1 & 2	0 days Tue 01/06/21	Tue 01/06/21	Tue 01/06/21 Tue 01/06/21		FI				@_01/06			
		0 days Nue 01/06/21 0 days Mon 12/07/21	Mon 12/07/21	Mon 12/07/21 Mon 12/07/	0 days 797FF,798			×40.00		@ 12/07			
	Planned Sectional Completion Date - Section 1, Chem Sys No. 1 & 2	0 days Mon 01/04/24	Mon 01/04/24	Mon 01/04/24 Mon 01/04/	0 days 799FF,800								
	Planned Sectional Completion Date - Section 2, Chem Sys No. 1 & 2 Selection of Suppliers for major plant and materials for Chemical System	240 days Thu 01/10/20	Fri 28/05/21	Thu 01/10/20 Fri 28/05/21	0 days					-			
		240 days Thu 01/10/20	Fri 28/05/21	Thu 01/10/20 Fri 28/05/21	0 days					_			
784 5.21.4.1	Chemical Storage and Dosing - chemical storage tanks, C11, ref. EQT025	60 days Thu 01/10/20	Sun 29/11/20	Thu 01/10/20 Sun 29/11/20	0 days	786		1474.154					
785 5.21.4.1.1	Submission for acceptance of purchasing package					787		a11020					
786 5.21.4.1.2	Invitation of quotations for purchasing package	30 days Mon 30/11/20	Tue 29/12/20	Mon 30/11/20 Tue 29/12/20	0 days 785								
7 787 5.21.4.1.3	Acceptance of conforming quotation	30 days Wed 30/12/20	Thu 28/01/21	Wed 30/12/20 Thu 28/01/21	30 days 786	799							
8 788 5.21.4.2	Chemical Storage and Dosing - chemical dosing pumps, C11, ref. EQT027	150 days Thu 01/10/20	Sat 27/02/21	Thu 01/10/20 Sat 27/02/21	54 days	700							
789 5.21.4.2.1	Submission for acceptance of purchasing package	60 days Thu 01/10/20	Sun 29/11/20	Thu 01/10/20 Sun 29/11/20	0 days	790							
0 790 5.21.4.2.2	Invitation of quotations for purchasing package	60 days Mon 30/11/20	Thu 28/01/21	Mon 30/11/20 Thu 28/01/21	0 days 789	791			-				
1 791 5.21.4.2.3	Acceptance of conforming quotation	30 days Fri 29/01/21	Sat 27/02/21	Fri 29/01/21 Sat 27/02/21	0 days 790	799,800,801							
792 5.21.4.3	Chemical Storage and Dosing - transfer pumps, C11, ref. EQT026	120 days Thu 01/10/20	Thu 28/01/21	Thu 01/10/20 Thu 28/01/21	84 days								
793 5.21.4.3.1	Submission for acceptance of purchasing package	60 days Thu 01/10/20	Sun 29/11/20	Thu 01/10/20 Sun 29/11/20	0 days	794							
4 794 5.21.4.3.2	Invitation of quotations for purchasing package	30 days Mon 30/11/20	Tue 29/12/20	Mon 30/11/20 Tue 29/12/20	0 days 793	795		was-14					
95 795 5.21.4.3.3	Acceptance of conforming quotation	30 days Wed 30/12/20	Thu 28/01/21	Wed 30/12/20 Thu 28/01/21	30 days 794	799							
	Design Submissions for Chemical System No. 1 and No. 2	324 days Tue 21/07/20	Thu 10/06/21	Tue 21/07/20 Thu 10/06/21									
7 797 5.21.5.1	Electrical schematic drawings for Chemical Systems No. 1 and No. 2	60 days Tue 21/07/20	Fri 18/09/20	Tue 21/07/20 Fri 18/09/20	256 days	780FF							
8 798 5.21.5.2	CDS081-5 - Civil and dimensional requirements drawings for Chemical S	70 days Fri 28/08/20	Thu 05/11/20	Fri 28/08/20 Thu 05/11/20		780FF							
9 799 5.21.5.3	CDS006 - Detailed Design for Chemical Dosing System	90 edays Sat 27/02/21	Fri 28/05/21	Sat 27/02/21 Fri 28/05/21									
0 800 5.21.5.4	CDS027 - Detailed Design for Electrical Installations for Chemical Syster	90 edays Sat 27/02/21	Fri 28/05/21	Sat 27/02/21 Fri 28/05/21	45 edays 791	818,781FF							
1 801 5.21.5.5	CDS028 - Detailed Design for Electrical Installations for Chemical Syster	90 edays Sat 27/02/21	Fri 28/05/21	Sat 27/02/21 Fri 28/05/21		818,781FF							
802 5.21.5.6	CDS034-5 - Detailed Design for Electrical Installations BS at Chemical Sy	90 edays Fri 12/03/21	Thu 10/06/21	Fri 12/03/21 Thu 10/06/21	32.38 edays 136	818,781FF			 				
93 803 5.21.6	Manufacturing and Delivery of Plant & Materials	296 days Sat 29/05/21	Sun 20/03/22	Sat 29/05/21 Sun 20/03/22							9		
4 804 5.21.6.1	Chemical Storage Tanks, EQT025	225 days Sat 29/05/21	Sat 08/01/22	Sat 29/05/21 Sat 08/01/22	488 days								
05 805 5.21.6.1.1	Manufacturing and Factory Acceptance Test of Plant	180 days Sat 29/05/21	Wed 24/11/21	Sat 29/05/21 Wed 24/11/	0 days 799	806							
806 5.21.6.1.2	Shipping and Delivery of Plant to site	45 days Thu 25/11/21	Sat 08/01/22	Thu 25/11/21 Sat 08/01/22	73 days 805	817				-			
7 807 5.21.6.2	Chemical Dosing Pumps, EQT027	296 days Sat 29/05/21	Sun 20/03/22	Sat 29/05/21 Sun 20/03/22	417 days								
808 5.21.6.2.1	Manufacturing and Factory Acceptance Test of Plant	180 days Sat 29/05/21	Wed 24/11/21	Sat 29/05/21 Wed 24/11/	71 days 799	809							
9 809 5.21.6.2.2	Shipping and Delivery of Plant to site	45 days Fri 04/02/22	Sun 20/03/22	Fri 04/02/22 Sun 20/03/22	2 days 808,814FF-	-6817							
0 810 5.21.6.3	Chemical Transfer Pumps, EQT026	296 days Sat 29/05/21	Sun 20/03/22	Sat 29/05/21 Sun 20/03/22	417 days								
811 5.21.6.3.1	Manufacturing and Factory Acceptance Test of Plant	180 days Sat 29/05/21	Wed 24/11/21	Sat 29/05/21 Wed 24/11/	71 days 799	812							
812 5.21.6.3.2	Shipping and Delivery of Plant to site	45 days Fri 04/02/22	Sun 20/03/22	Fri 04/02/22 Sun 20/03/22	2 days 811,814FF-	-6817							
3 813 5.21.7	Site Installation Work	307 days Tue 22/03/22	Mon 23/01/23	Tue 22/03/22 Mon 23/01	415 days								
4 814 5.21.7.1	Tentative Civil Handover Date, Portion B-7 & B-7B (Rev. 5)	1 day Thu 19/05/22	Thu 19/05/22	Thu 19/05/22 Thu 19/05/22	0 days	812FF-60 edays,809FF-	60				€ 19/05		
5 815 5.21.7.2	Tentative Civil Handover Date, Chemical Pipe Trench (by others)	1 day Sun 01/05/22	Sun 01/05/22	Sun 01/05/22 Sun 01/05/22	33 days	817FF+50 days					<u>01/05</u>		
6 816 5.21.7.3	Commencement of E&M Installation at Chemical Dosing System 1 and	307 days Tue 22/03/22	Mon 23/01/23	Tue 22/03/22 Mon 23/01	415 days								
7 817 5.21.7.3.1	Mechanical Installations for E&M Equip. for Chemical Dosing System	90 edays Tue 22/03/22	Mon 20/06/22	Tue 22/03/22 Mon 20/06/	0 edays 815FF+50	d:818	ME - D x 2~4 men				+ +		
18 818 5.21.7.3.2	Electrical Installations for E&M Equip. for Chemical Dosing System	90 edays Mon 20/06/22	Sun 18/09/22	Mon 20/06/22 Sun 18/09/22		01819,827	EE - B x 4~6 men				4		
										l			
Bestwise Mileste	Milestone ♦ Project Sun tone, Tentative ⊚ Summary Manual Sur		Critical :			Milestone (Actual) *							
oject: DE/2018/04 hte: 28/09/21			-										

Part Part	O	Drainage Services	s Department						posed Work Programme fo						AECO
Marchael Marchael				Duration habitan Task Chart	Finish	Endu Start					acilities	l		lana lana	lana
Section Sect	lo l	MR2	I day i valile		rinsii	Larly Staff	carry FIIIISFI	rredecesso	JuccessUIS						Half 1, 2024
March Marc	819	819 5.21.7.3.3	Site Acceptance Test for E&M Equip for Chemical Dosing System	45 days Mon 19/09/22	Wed 02/11/22	Mon 19/09/22	Wed 02/11/	0 days 818	820	EE - A x 4~6 men	T M M M	, N , N , N , N , N , N , N , N , N , N			M
March Marc	820	820 5.21.7.3.4	System Commissioning for E&M Equip for Chemical Dosing System	45 days Thu 03/11/22	Sat 17/12/22	Thu 03/11/22	Sat 17/12/22	0 days 819	821					<u> </u>	
The material of the material	821	821 5.21.7.3.5	Risk Allowances for Completion of Processing Plant at Chemical Dosi	7 edays Sat 17/12/22	Sat 24/12/22	Sat 17/12/22	Sat 24/12/22	410.63 ed 820	1274				1 7 4	<u>* </u>	
West March	822	822 5.21.7.3.6	Building Services Installations at Chemical Dosing System areas	249 days Fri 20/05/22	Mon 23/01/23	Fri 20/05/22	Mon 23/01	419 days						•	
March Marc	823	823 5.21.7.3.6.	Lighting and Power Distribution System, Chem 1&2	120 days Fri 20/05/22	Fri 16/09/22	Fri 20/05/22	Fri 16/09/22	9 days 814	828	BS - B x 4~6 men				<u> </u>	
Mathematical Math	824	824 5.21.7.3.6.	Fire Services Installation, DG Stores	120 days Fri 20/05/22	Fri 16/09/22	Fri 20/05/22	Fri 16/09/22	9 days 814	1210,1211,1201,828	FS - A x 4~6 men					
State Stat	825	825 5.21.7.3.6.	Lightning Protection System, Chem 1&2	30 days Fri 20/05/22	Sat 18/06/22	Fri 20/05/22	Sat 18/06/22	99 days 814	828	EE - D x 4~6 men				<u> </u>	
Mathematical Math	826	826 5.21.7.3.6.	Mechanical Ventilation System, Chem 2	14 days Fri 20/05/22	Thu 02/06/22	Fri 20/05/22	Thu 02/06/22	115 days 814	828	MVAC - A x 4~6 men				<u> </u>	
Windows Security and American Security Security	827	827 5.21.7.3.6.	Plumbing Installation, Chem 1	7 days Mon 19/09/22	Sun 25/09/22	Mon 19/09/22	Sun 25/09/22	0 days 818	828	Pb - A x 4~6 men				h	
No. 1968				120 days Mon 26/09/22	Mon 23/01/23	Mon 26/09/22	Mon 23/01/	434 days 823,824,8	27782FF	BS - C x 2~4 men				+	
March 1985	829	829 5.22	Temporary Chemical Dosing System, Portion B7 & B-7B (PS 6B.2.3)	1344 days Tue 28/07/20	Mon 01/04/24	Tue 28/07/20	Mon 01/04	0 days			-				
March Marc	830	830 5.22.1		0 days Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	0 days 847FF,848	BFF				@ 01/06		
## 1965 1965				0 days Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/	0 days 849FF					@ 12/07		
March Marc								0 days							⊚ 01/
War War								668 days				-			
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March Marc									836						
## 1981-233 American control American Control											overhood.	<u>+</u>			
Mathematical Math															
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Mathematical Continue Math									844						
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Fig. 15, 22,72.7.2. Testitative Coli Handboard Date, Temporary Chamical Dioting (New - 5) 1 day The 19/05/12 The 19/05/12 San UL/05/12 San UL/05									-0604						
State Stat									05055					e 19/05	
## 18 18 28.27.27.3 Commencement of EAM Installation and Temporary Chemical Doing System 90 cdays Services 90 cdays 25 cg/94/12 for 66/07/22 set 07/08/22 set 07/										-ou					
Sect Sect									864FF+50 days		MANAGE TO THE PROPERTY OF THE				
Section Sect									100000		and 100				
566 5, 22, 73, 3 Site Acceptance Test for E&M Equip for Chemical Dosing System 30 edays Ken 07/08/22 Tue 06/09/22 Tue 06/09/22 Tue 06/09/22 Tue 06/09/23 Tue 06/09/23 Tue 06/09/23 Tue 06/09/24 Tue 07/08/23 Tue 06/09/24 Tue 07/08/24 Tue 06/09/24 Tue 07/08/24 Tue 06/09/24 Tue 07/08/24 T															
Sept Sept										££ - A x 4~6 men					
Risk Allowances for Completion of Processing Plant at Chemical Dasi 7 edays Wed 29/03/23 Wed 05/04/23 Wed 29/03/23 Fri 20/05/22 Wed 29/03/23 Fri 20/05/23 Fri 20/05/22 Wed 29/03/23 Fri 20/05/23 Wed 29/															
86 86 \$2.27.3.6 Building Services Installations at Temp. Chemical Dosing System at \$314 days Fri 20/05/22 Wed 29/03 \$13 days\$ Fri 20/05/22 Wed 29/03 \$13 days\$ Fri 20/05/22 Wed 17/08/2 \$16 days 851 \$74,871 \$1.54.47-6 men\$ Fri 871.52.27.3.6. Fire Services Installation, Dis Stores, Temp. Chem 90 days Fri 18/08/22 Tue 15/11/22 0 days 870 \$1.200,111,874,872 \$75-A.44-6 men\$ Fri 871.52.27.3.6. Ughting and Protection System, Temp. Chem 90 days Fri 18/11/22 Tue 15/11/22 0 days 871 \$1.200,111,874,872 \$75-A.44-6 men\$ Fri 871.52.27.3.6. Ughting protection System, Temp. Chem 90 days Fri 18/11/22 Tue 15/11/22 0 days 871 \$75.A.44-6 men\$ Fri 871.52.27.3.6. Wed 18/11/22 Tue 15/11/22 Fri 18/11/22 Tue 21/11/22 0 days 871 \$75.A.44-6 men\$ Fri 871.52.27.3.6. Mechanical Ventilation System, Temp. Chem 90 days Fri 30/11/22 Wed 29/03/2 Fri 30/11/22 Wed 29/03/2 Tue 51/11/22 Tue 21/06/21 Tue 01/10/10/2 Wed 29/03/2 Tue 51/11/27 Tue 01/10/21 O days 870.871.87:8671F 875.23.1 Planned Key Date Completion Date - KD18, Emergency Generator House 0 days Tue 01/06/21 Tue 01/06/21 Tue 01/06/21 Tue 01/06/21 Tue 01/06/21 O days 8801F,8821F 875 875.23.2 Planned Scotional Completion Date - Scotion 1, Emergency Generator House 0 days Mon 12/07/21 Mon 12/07/2 Mon 12/07/2 Mon 12/07/2 O days 8801F,8821F 876 875.23.1 Planned Scotional Completion Date - Scotion 1, Emergency Generator House 0 days Mon 12/07/21 Mon 12/07/2 Mon 12/07/2 O days 8801F,8821F 877 875.23.2 Planned Scotional Completion Date - Scotion 1, Emergency Generator House 0 days Mon 12/07/21 Mon 12/07/2 Mon 12/07/2 O days 8801F,8821F 877 875.23.2 Planned Scotional Completion Date - Scotion 1, Emergency Generator House 0 days Mon 12/07/21 Mon 12/07/2 Mon 12/07/2 O days 8801F,8821F 878 875.23.1 Planned Scotional Completion Date - Scotion 1, Emergency Generator House 0 days Mon 12/07/21 Mon 12/07/2 O days 8801F,8821F 879 875.23.2 Planned Scotional Completion Date - Scotion 1, Emergency Generator House 0 days Mon 12/07/21 Mon 12/07/2 O days 8801F,8821F 879 875.23.2 Planned Scotional															
## 875.22.73.6. Lighting and Power Distribution System, Temp. Chem									1274						
871 8715.22.7.3.6.: Fire Services installation, DG Stores, Temp. Chem 90 days Thu 18/08/22 Tue 15/11/22 0 days 870 1210,1211,874,872 F5 - Ax 4~6 men 972 872.5.22.7.3.6.: Ughtning Protection System, Temp. Chem 30 days Wed 16/11/22 Thu 15/12/22 0 days 871 873 EE-D x 4~6 men 973 873.5.2.7.3.6.: Mechanical Ventilation System, Temp. Chem 14 days Fri 16/12/22 Thu 29/12/22 0 days 872 874 MVAC - Ax 4~6 men 974 874.5.22.7.3.6.: Testing and Commissioning of Building Services Installations, Tem 90 days Fri 30/12/22 Wed 29/03/23 Fri 30/12/22 Wed 29/03/2.0 days 872 874 MVAC - Ax 4~6 men 975 875.2.3.2 Emergency Generator House, Portion B7 & B. P3 (P5 68.6.6) 1279 days Thu 01/10/20 Mon 01/04/24 Thu 01/10/20 Mon 01/04/24 Thu 01/10/20 Mon 01/04/24 Thu 01/10/20 Mon 01/04/24 Thu 01/10/20 Mon 01/04/24 Thu 01/10/20 Mon 01/04/24 Thu 01/10/20 Mon 01/04/24 Thu 01/10/20 Mon 01/04/24 Thu 01/10/20 Mon 01/04/24 Thu 01/10/20 Mon 01/04/24 Thu 01/10/20 Mon 01/04/24 Thu 01/10/20 Mon 01/04/24 Thu 01/10/20 Mon 01/04/24 Thu 01/10/20 Mon 01/04/24 Thu 01/06/21 Thu 0	869	869 5.22.7.3.6	Building Services Installations at Temp. Chemical Dosing System are												
872 \$27.36.5 Lightning Protection System, Temp. Chem 30 days Wed 16/11/22 Thu 15/12/22 O days 871 873 EE - D x 4-6 men 873 873 5.22.7.36.5 Mechanical Ventilation System, Temp. Chem 14 days Fri 16/12/22 Thu 29/12/22 Thu 29/12/22 O days 872 874 MVAC-A x 4-6 men 874 874 5.22.7.36.5 Testing and Commissioning of Building Services Installations, Tem 90 days Fri 30/12/22 Wed 29/03/23 Wed 29/03/23	870	870 5.22.7.3.6.	Lighting and Power Distribution System, Temp. Chem												
873 5.22.7.3.6.	871	871 5.22.7.3.6.	Fire Services Installation, DG Stores, Temp. Chem											<u> </u>	
874 874 5.22.7.3.6.1 Testing and Commissioning of Building Services Installations, Tem 90 days Fri 30/12/22 Wed 29/03/ 0 days 87.0,871,872.867FF BS - C x 2~4 men 875 875 5.23 Emergency Generator House, Portion B7 & B-7B (P5 6B.6.6) 1279 days Thu 01/10/20 Mon 01/04.24 Thu 01/10/20 Mon 01/04 0 days 876 876 5.23.1 Planned Key Date Completion Date - KD1B, Emergency Generator House 0 days Tue 01/06/21	872	872 5.22.7.3.6.	Lightning Protection System, Temp. Chem												
875 875.23 Emergency Generator House, Portion B7 & B-78 (PS 68.6.6) 1279 days Thu 01/10/20 Mon 01/04/24 Thu 01/10/20 Mon 0	873	873 5.22.7.3.6.	Mechanical Ventilation System, Temp. Chem	14 days Fri 16/12/22	Thu 29/12/22	Fri 16/12/22	Thu 29/12/22	0 days 872	874						
876 5.23.1 Planned Key Date Completion Date - KD1B, Emergency Generator House 0 days Tue 01/06/21 Tue 01/06/21 Tue 01/06/21 Tue 01/06/21 0 days 880FF 877 5.23.2 Planned Sectional Completion Date - Section 1, Emergency Generator House 0 days Mon 12/07/21 Mon 12/07/ 0 days 881FF,882FF Task Milestone, Tentative ● Summary Manual Summary Critical Progress Slack (Float) Slack Milestone, Tentative ● Summary Manual Summary M	874	874 5.22.7.3.6.	Testing and Commissioning of Building Services Installations, Tem	90 days Fri 30/12/22	Wed 29/03/23	Fri 30/12/22	Wed 29/03/	0 days 870,871,8	73867FF	BS - C x 2~4 men					
870 877 877 5.23.2 Planned Sectional Completion Date - Section 1, Emergency Generator Hol	875	875 5.23	Emergency Generator House, Portion B7 & B-7B (PS 6B.6.6)	1279 days Thu 01/10/20	Mon 01/04/24	Thu 01/10/20	Mon 01/04	0 days				-			
Bestwitze Project Summary Manual Sum	876	876 5.23.1	Planned Key Date Completion Date - KD1B, Emergency Generator House	0 days Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	0 days 880FF							
Bestwise Project: DE/2018/04 Date: 28/09/21 Milestone, Tentative Summary Manual Summary Manual Summary Manual Summary Manual Summary Manual Summary Manual Summary Manual Summary Manual Summary Manual Summary Manual Summary Manual Summary Manual Summary Manual Summary DE 2018 04 Revised DE (Rev. 15, 2023)	877	877 5.23.2	Planned Sectional Completion Date - Section 1, Emergency Generator Ho	0 days Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/	0 days 881FF,882	2FF				@ 12/07		
Bestwise Project: DE/2018/04 Date: 28/09/21 Milestone, Tentative Summary Manual Summary Manual Summary Critical Progress Slack (Float) Slack DE 2018 04 Revised DC (Pay 15, 2022)			Task Milestone ♦ Project Sumi	mary 1 Late	Critical :	Split	Manual Pr	ogress	Milestone (Actual)						
Date: 28/09/21	Bes	wise	Milestone, Tentative Summary Manual Sum	mary Critical	Progres	s	Slack (Floa	it)	Slack						
DE_2018_04 Revised PG- (Rev 15, 2021 DE_2018_04 Revised PG- (Rev 15, 2021															
	Status	Date Wed 27/10,	/21						Page 15 of 24					DE_2018_04 Revis	ed PG- (Rev 15, 2021-1

Drainage Services De	appear and the training and the state of the			Shek Wu		oosed Work Programme fo ant - Main Works Stage 1	E&M Works for Sewage Treatment	acilities				AEC
ID WBS Tas	sk Name	Duration between Task Start Start and Finish	Finish	Early Start Early Finish	Free Slack Predecessors	's Successors	Resource Names	2020 Half 1, 2020 Half 2, 2020	2021 Half 1, 2021	2022 Half 2, 2021 Half 1, 2022	2023 Half 2, 2022 Half 1, 2023	2024 Half 2, 2023 Half 1, 2024
8 878 5.23.3	Planned Sectional Completion Date - Section 2, Emergency Generator Ho	0 days Mon 01/04/24	Mon 01/04/24	Mon 01/04/24 Mon 01/04/.	0 days 895FF				N I I I M I M I	J S N J M		
879 5.23.4	Design Submissions for Emergency Generator Set	252 days Thu 01/10/20	Thu 10/06/21	Thu 01/10/20 Thu 10/06/2								
880 5.23.4.1	CDS081-10 - Civil and dimensional requirements drawings for Emergen	90 days Fri 01/01/21	Wed 31/03/21	Fri 01/01/21 Wed 31/03/.		876FF						
881 5.23.4.2	CDS061 - Detailed Design for Emergency Generator Set	150 edays Thu 01/10/20	Sun 28/02/21	Thu 01/10/20 Sun 28/02/22		877FF						
882 5.23.4.3	CDS034-6 - Detailed Design for Electrical Installations BS at Emergency	90 edays Fri 12/03/21	Thu 10/06/21	Fri 12/03/21 Thu 10/06/2		884,889,877FF			<u>+</u>			
883 5.23.5	Manufacturing and Delivery of Plant & Materials	285 days Thu 10/06/21	Mon 21/03/22	Thu 10/06/21 Mon 21/03					-			
884 5.23.5.1	Manufacturing and Factory Acceptance Test of Plant	240 days Thu 10/06/21	Fri 04/02/22	Thu 10/06/21 Fri 04/02/22		885			<u> </u>			
885 5.23.5.2	Shipping and Delivery of Plant to Site	45 days Sat 05/02/22	Mon 21/03/22	Sat 05/02/22 Mon 21/03/.								
886 5.23.6	Site Installation Work	1000 days Thu 10/06/21	Tue 05/03/24	Thu 10/06/21 Tue 05/03/2					-			
887 5.23.6.1	Tentative Civil Handover Date, Emergency Generator House (Rev. 5)	1 day Thu 19/05/22	Thu 19/05/22	Thu 19/05/22 Thu 19/05/22		864FF+50 days,885FF-6	0				€ 19/05	
888 5.23.6.2	Commencement of E&M Installation at Emergency Generator House	1000 days Thu 10/06/21	Tue 05/03/24	Thu 10/06/21 Tue 05/03/2								
889 5.23.6.2.1	Application for EPD's Approval for Installation of Diesel Engine Gener	21 days Thu 10/06/21	Wed 30/06/21	Thu 10/06/21 Wed 30/06/		890						
890 5.23.6.2.2	Installation and SAT of Emergency Power Generator and associated to	60 days Wed 01/11/23	Sat 30/12/23	Wed 01/11/23 Sat 30/12/23		892	GS - A x 4 men					
891 5.23.6.2.3	Building Services Installation at Emergency Generator House	66 days Sun 31/12/23	Tue 05/03/24	Sun 31/12/23 Tue 05/03/24								
892 5.23.6.2.3.:	Fire Services Installation, GH	30 days Sun 31/12/23	Mon 29/01/24	Sun 31/12/23 Mon 29/01/		893	FS - A x 4~6 men					
893 5.23.6.2.3.	Mechanical Ventilation System, GH	14 days Tue 30/01/24	Mon 12/02/24	Tue 30/01/24 Mon 12/02/		894	MVAC - A x 4~6 men					
894 5.23.6.2.3.i	Lightning Protection System, GH	15 days Tue 13/02/24	Tue 27/02/24	Tue 13/02/24 Tue 27/02/24		895	EE - D x 4~6 men					
894 5.23.6.2.3.: 895 5.23.6.2.3.	Testing and Commissioning of Building Services Installation, GH	7 days Wed 28/02/24	Tue 05/03/24	Wed 28/02/24 Tue 05/03/24		878FF	BS - A x 4~6 men					
	Deodorization System, DOU 1, Portion B7 & B-7B (PS 6B.2.6)	1583 days Mon 02/12/19	Mon 01/04/24	Mon 02/12/19 Mon 01/04								
896 5.24 897 5.24.1		0 days Tue 01/06/21	Tue 01/06/21	Tue 01/06/21 Tue 01/06/21		FI			@ 01,	/06		
897 5.24.1 898 5.24.2	Planned Key Date Completion Date - KD18, DOU 1 Planned Sectional Completion Date - Section 1, DOU 1	0 days Mon 12/07/21	Mon 12/07/21	Mon 12/07/21 Mon 12/07/						12/07		
898 5.24.2 899 5.24.3	Planned Sectional Completion Date - Section 1, 000 1 Planned Sectional Completion Date - Section 2, DOU 1	0 days Mon 01/04/24	Mon 01/04/24	Mon 01/04/24 Mon 01/04/								
		485 days Mon 02/12/19	Tue 30/03/21	Mon 02/12/19 Tue 30/03/2:								
900 5.24.4	Selection of Plant and Materials DOLL- histrickling filter (DOLING 1) C11 ref FOT001		Fri 12/06/20	Mon 02/12/19 Fri 12/06/20								
901 5.24.4.1	DOU - biotrickling filter (DOU No. 1), C11, ref. EQT001	194 days Mon 02/12/19 120 days Mon 02/12/19	Mon 30/03/20	Mon 02/12/19 Fri 12/06/20 Mon 02/12/19 Mon 30/03/		903						
	Submission for acceptance of purchasing package					904						
903 5.24.4.1.2	Invitation of quotations for purchasing package	60 days Tue 31/03/20	Fri 29/05/20	Tue 31/03/20 Fri 29/05/20	0 days 902	912						
904 5.24.4.1.3	Acceptance of conforming quotation (Completed)	14 days Sat 30/05/20	Fri 12/06/20	Sat 30/05/20 Fri 12/06/20	0 days 903	912						
905 5.24.4.2	DOU - FRP air ductwork, C11, EQT047	120 days Tue 01/12/20	Tue 30/03/21 Fri 29/01/21	Tue 01/12/20 Tue 30/03/2:		907						
906 5.24.4.2.1	Submission for acceptance of purchasing package	60 days Tue 01/12/20		Tue 01/12/20 Fri 29/01/21 Sat 30/01/21 Sun 28/02/21		908						
907 5.24.4.2.2	Invitation of quotations for purchasing package	30 days Sat 30/01/21	Sun 28/02/21	Mon 01/03/21 Tue 30/03/21		912						
908 5.24.4.2.3	Acceptance of conforming quotation	30 days Mon 01/03/21	Tue 30/03/21			912						
909 5.24.5	Design Submissions for DOU No. 1	359 days Wed 15/07/20	Thu 08/07/21	Wed 15/07/20 Thu 08/07/23		0075						
910 5.24.5.1	Electrical schematic drawings for Deodorisation Systems	90 days Wed 15/07/20	Mon 12/10/20	Wed 15/07/20 Mon 12/10/		897FF						
911 5.24.5.2	CDS081-7 - Civil and dimensional requirements drawings for DOU No. 1	70 days Fri 28/08/20	Thu 05/11/20	Fri 28/08/20 Thu 05/11/20		897FF						
912 5.24.5.3	CDS007-1 - Detailed Design for Deodorisation System, DOU No. 1	100 edays Tue 30/03/21	Thu 08/07/21	Tue 30/03/21 Thu 08/07/21		915,918,898FF						
913 5.24.6	Manufacturing and Delivery of Plant & Materials	299 days Fri 09/07/21	Tue 03/05/22	Fri 09/07/21 Tue 03/05/22								
914 5.24.6.1	DOU 1	299 days Fri 09/07/21	Tue 03/05/22	Fri 09/07/21 Tue 03/05/22		0.2.5						
915 5.24.6.1.1	Manufacturing and Factory Acceptance Test of Plant	240 days Fri 09/07/21	Sat 05/03/22	Fri 09/07/21 Sat 05/03/22		916						
916 5.24.6.1.2	Shipping and Delivery of Plant to site	45 days Sun 20/03/22	Tue 03/05/22	Sun 20/03/22 Tue 03/05/22		-6924						
917 5.24.6.2	FRP Air Ductwork	299 days Fri 09/07/21	Tue 03/05/22	Fri 09/07/21 Tue 03/05/22		010						
918 5.24.6.2.1	Manufacturing and Factory Acceptance Test of Plant	200 days Fri 09/07/21	Mon 24/01/22	Fri 09/07/21 Mon 24/01/		919						
919 5.24.6.2.2	Shipping and Delivery of Plant to Site	45 days Sun 20/03/22	Tue 03/05/22	Sun 20/03/22 Tue 03/05/22		0924						
920 5.24.7	Site Installation Work	201 days Thu 19/05/22	Mon 05/12/22	Thu 19/05/22 Mon 05/12							® 19/05	
921 5.24.7.1	Tentative Civil Handover, DOU 1 (Rev. 5)	1 day Thu 19/05/22	Thu 19/05/22	Thu 19/05/22 Thu 19/05/22		924FF+45 days,916SS-6	U					
922 5.24.7.2	Tentative Civil Handover Date, underground air pipework for DOU 1 (by	1 day Mon 01/08/22	Mon 01/08/22	Mon 01/08/22 Mon 01/08/		924FF+45 days					<u>0</u> 1/08	
923 5.24.7.3	Commencement of E&M Installation at DOU 1	171 days Fri 17/06/22	Mon 05/12/22	Fri 17/06/22 Mon 05/12								
924 5.24.7.3.1	Mechanical Installations for DOU 1	90 edays Fri 17/06/22	Thu 15/09/22	Fri 17/06/22 Thu 15/09/22		d:925SS+30 edays,926	ME - F x 4~6 men					
925 5.24.7.3.2	Electrical Installations for DOU 1	90 edays Sun 17/07/22	Sat 15/10/22	Sun 17/07/22 Sat 15/10/22			EE - C x 4~6 men					
926 5.24.7.3.3	Site Acceptance Test for DOU1	30 edays Sat 15/10/22	Mon 14/11/22	Sat 15/10/22 Mon 14/11/								
927 5.24.7.3.4	System Commissioning for DOU 1	21 edays Mon 14/11/22	Mon 05/12/22	Mon 14/11/22 Mon 05/12/		1274						
	Deodorization System, DOU 2A, Portion B-4 (PS 6B.2.6)	1583 days Mon 02/12/19	Mon 01/04/24	Mon 02/12/19 Mon 01/04						106		
929 5.25.1	Planned Key Date Completion Date - KD1B, DOU 2A	0 days Tue 01/06/21	Tue 01/06/21	Tue 01/06/21 Tue 01/06/21					⊚ 01/			
930 5.25.2	Planned Sectional Completion Date - Section 1, DOU 2A	0 days Mon 12/07/21	Mon 12/07/21	Mon 12/07/21 Mon 12/07/	. 0 days 938FF				•	12/07		
931 5.25.3	Planned Sectional Completion Date - Section 2, DOU 2A	0 days Mon 01/04/24	Mon 01/04/24	Mon 01/04/24 Mon 01/04/	. 0 days							
932 5.25.4	Selection of Plant and Materials	194 days Mon 02/12/19	Fri 12/06/20	Mon 02/12/19 Fri 12/06/20	0 days							
933 5.25.4.1	DOU - activated carbon filter (DOU No. 2A, No. 3A, No. 3B), C11, ref. I	194 days Mon 02/12/19	Fri 12/06/20	Mon 02/12/19 Fri 12/06/20	0 days			-				
934 5.25.4.1.1	Submission for acceptance of purchasing package	120 days Mon 02/12/19	Mon 30/03/20	Mon 02/12/19 Mon 30/03/	. 0 days	935						
935 5.25.4.1.2	Invitation of quotations for purchasing package	60 days Tue 31/03/20	Fri 29/05/20	Tue 31/03/20 Fri 29/05/20	0 days 934	936		±				
936 5.25.4.1.3	Acceptance of conforming quotation (Completed)	14 days Sat 30/05/20	Fri 12/06/20	Sat 30/05/20 Fri 12/06/20	0 days 935	938,959,980		<u> </u>				
Tasi		ary Late	Critical	Split Manual	Progress	─ Milestone (Actual) ★			LL	.1		
	estone, Tentative Summary Manual Summ		Progres	ss Slack (F	loat)	Slack						
DE/2018/04												

						Hui Effluent Pol				
ID WBS Ta	sk Name	Duration between Task Start and Finish	Finish	Early Start	Early Finish	Free Slack Pr	redecessors	Successors Resource Names	2020 2021 2022 Half 1, 2020 Half 2, 2020 Half 1, 2021 Half 2, 2021 Half 1, 2022 Half 2, 2022	2023 Half 1, 2023 Half 2, 2023
937 5.25.5	Design Submissions for DOU No. 2A	200 days Tue 01/09/20	Sat 20/03/21	Tue 01/09/20	Sat 20/03/21	115 days			N J M M J S N J M M J S N J M M J S '	N J J M J M J J S J N
938 5.25.5.1	CDS007-2 - Detailed Design for Deodorisation System, DOU No. 2A	200 edays Tue 01/09/20	Sat 20/03/21	Tue 01/09/20	Sat 20/03/21	0 edays 93	36	941,944,930FF	 	
939 5.25.6	Manufacturing and Delivery of Plant & Materials	345 days Sat 20/03/21	Sun 27/02/22	Sat 20/03/21	Sun 27/02/22	2 484 days				
940 5.25.6.1	DOU 2A	345 days Sat 20/03/21	Sun 27/02/22	Sat 20/03/21	Sun 27/02/22	2 484 days				
941 5.25.6.1.1	Manufacturing and Factory Acceptance Test of Plant	300 days Sat 20/03/21	Thu 13/01/22	Sat 20/03/21	Thu 13/01/22	2 0 days 93	38	942		
942 5.25.6.1.2	Shipping and Delivery of Plant to site	45 days Fri 14/01/22	Sun 27/02/22		Sun 27/02/22		41	949		
943 5.25.6.2	FRP Air Ductwork	345 days Sat 20/03/21	Sun 27/02/22	Sat 20/03/21						
944 5.25.6.2.1	Manufacturing and Factory Acceptance Test of Plant	300 days Sat 20/03/21	Thu 13/01/22		Thu 13/01/22		38	945		
945 5.25.6.2.2	Shipping and Delivery of Plant to site	45 days Fri 14/01/22	Sun 27/02/22		Sun 27/02/22			949		
946 5.25.7	Tentative Civil Handover, DOU 2A (Rev. 5)	1 day Thu 23/02/23	Thu 23/02/23	Thu 23/02/23						⊚ 23/02
947 5.25.8	Site Installation Work	231 days Thu 23/02/23	Thu 12/10/23	Thu 23/02/23						
948 5.25.8.1	Commencement of E&M Installation at DOU 2A	231 days Thu 23/02/23	Thu 12/10/23	Thu 23/02/23			66			<u> </u>
949 5.25.8.1.1	Mechanical Installations for DOU 2A	90 edays Thu 23/02/23	Wed 24/05/23	Thu 23/02/23				950 ME - F x 4~6 men		
950 5.25.8.1.2	Electrical Installations for DOU 2A	90 edays Wed 24/05/23	Tue 22/08/23	Wed 24/05/23				951 EE - C x 4~6 men		
951 5.25.8.1.3	Site Acceptance Test for E&M Equip for DOU 2A	30 edays Tue 22/08/23	Thu 21/09/23	Tue 22/08/23						
952 5.25.8.1.4	System Commissioning Test for DOU 2A	21 edays Thu 21/09/23	Thu 12/10/23	Thu 21/09/23				1274		
952 5.25.8.1.4	Deodorization System, DOU 3A, Portion B7 & B-7B (PS 6B.2.6)	1313 days Fri 28/08/20	Mon 01/04/24		Mon 01/04					
953 5.26 954 5.26.1	Planned Key Date Completion Date - KD1B, DOU 3A	0 days Tue 01/06/21	Tue 01/06/21	Tue 01/06/21			58FF		@ 01/06	
		0 days Mon 12/07/21	Mon 12/07/21	Mon 12/07/21					(G) 12/07	
955 5.26.2	Planned Sectional Completion Date - Section 1, DOU 3A Planned Sectional Completion Date - Section 2, DOU 3A	0 days Mon 01/04/24	Mon 01/04/24	Mon 01/04/24			-511			
956 5.26.3 957 5.26.4		234 days Fri 28/08/20	Mon 19/04/21	Fri 28/08/20						
	Design Submissions for DOU No. 3A		Mon 15/03/21		Mon 15/03/			954FF		
958 5.26.4.1	CDS081-8 - Civil and dimensional requirements drawings for DOU No. 3	200 days Fri 28/08/20	Mon 15/03/21 Mon 19/04/21	Thu 01/10/20				962,965,955FF		
959 5.26.4.2	CDS007-3 - Detailed Design for Deodorisation System, DOU No. 3A	200 edays Thu 01/10/20	Tue 30/11/21	Mon 19/04/21			J0	ا الحدورت در عدد		
960 5.26.5	Manufacturing and Delivery of Plant & Materials	225 days Mon 19/04/21								
961 5.26.5.1	DOU 3A	225 days Mon 19/04/21	Tue 30/11/21	Mon 19/04/21						
962 5.26.5.1.1	Manufacturing and Factory Acceptance Test of Plant	180 edays Mon 19/04/21	Sat 16/10/21	Mon 19/04/21				963		
963 5.26.5.1.2	Shipping and Delivery of Plant to Site	45 edays Sat 16/10/21	Tue 30/11/21	Sat 16/10/21			62	970		
964 5.26.5.2	FRP Air Ductwork	225 days Mon 19/04/21	Tue 30/11/21	Mon 19/04/21						
965 5.26.5.2.1	Manufacturing and Factory Acceptance Test of Plant	180 edays Mon 19/04/21	Sat 16/10/21	Mon 19/04/21				066		
966 5.26.5.2.2	Shipping and Delivery of Plant to Site	45 edays Sat 16/10/21	Tue 30/11/21	Sat 16/10/21			65	970	1005	
967 5.26.6	Tentative Civil Handover, DOU 3A (Rev. 5)	1 day Thu 19/05/22	Thu 19/05/22	Thu 19/05/22					⊕ 19/05	
968 5.26.7	Site Installation Work	171 days Tue 30/11/21	Fri 20/05/22	Tue 30/11/21						
969 5.26.7.1	Commencement of E&M Installation at DOU 3A	171 days Tue 30/11/21	Fri 20/05/22	Tue 30/11/21						
970 5.26.7.1.1	Mechanical Installations for DOU 3A	120 edays Tue 30/11/21	Wed 30/03/22	Tue 30/11/21				771SS+30 edays,972,951 ME - F x 4~6 men		
971 5.26.7.1.2	Electrical Installations for DOU 3A	90 edays Thu 30/12/21	Wed 30/03/22	Thu 30/12/21						
972 5.26.7.1.3	Site Acceptance Test for E&M Equip for DOU 3A	30 edays Wed 30/03/22	Fri 29/04/22	Wed 30/03/22						
973 5.26.7.1.4	System Commissioning Test for DOU 3A	21 edays Fri 29/04/22	Fri 20/05/22	Fri 29/04/22	Fri 20/05/22	629 edays 97	72	1274		
974 5.27	Deodorization System, DOU 3B, Portion B-5B (PS 6B.2.6)	1265 days Thu 15/10/20	Mon 01/04/24	Thu 15/10/20	Mon 01/04	0 days				
975 5.27.1	Tentative Civil Handover Date, underground air pipework for DOU 3B (by	1 day Wed 17/08/22	Wed 17/08/22	Wed 17/08/22	Wed 17/08/	. 0 days		990FF+30 days,984SS-60	● 17/08	
976 5.27.2	Planned Key Date Completion Date - KD1B, DOU 3B	0 days Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	0 days			● 01/06	
977 5.27.3	Planned Sectional Completion Date - Section 1, DOU 3B	0 days Mon 12/07/21	Mon 12/07/21	Mon 12/07/21			80FF		€ 12/07	
978 5.27.4	Planned Sectional Completion Date - Section 2, DOU 3B	0 days Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	Mon 01/04/	. 0 days				
979 5.27.5	Design Submissions for DOU No. 3B	200 days Thu 15/10/20	Mon 03/05/21	Thu 15/10/20	Mon 03/05	71 days				
980 5.27.5.1	CDS007-4 - Detailed Design for Deodorisation System, DOU No. 3B	200 edays Thu 15/10/20	Mon 03/05/21	Thu 15/10/20	Mon 03/05/	. 0 edays 93	36	983,986,977FF		
981 5.27.6	Manufacturing and Delivery of Plant & Materials	471 days Mon 03/05/21	Wed 17/08/22	Mon 03/05/21	Wed 17/08	374 days			•	
982 5.27.6.1	DOU 3B	471 days Mon 03/05/21	Wed 17/08/22	Mon 03/05/21	Wed 17/08	374 days				
983 5.27.6.1.1	Manufacturing and Factory Acceptance Test of Plant	180 edays Mon 03/05/21	Sat 30/10/21	Mon 03/05/21	Sat 30/10/21	231 edays 98	80	984		
984 5.27.6.1.2	Shipping and Delivery of Plant to Site	60 edays Sat 18/06/22	Wed 17/08/22	Sat 18/06/22	Wed 17/08/	. 0 edays 98	83,975SS-6	990		
985 5.27.6.2	FRP Air Ductwork	456 days Mon 03/05/21	Tue 02/08/22	Mon 03/05/21	Tue 02/08/22	2 389 days				
986 5.27.6.2.1	Manufacturing and Factory Acceptance Test of Plant	180 edays Mon 03/05/21	Sat 30/10/21	Mon 03/05/21	Sat 30/10/21	231 edays 98	80	987		
987 5.27.6.2.2	Shipping and Delivery of Plant to Site	45 edays Sat 18/06/22	Tue 02/08/22	Sat 18/06/22	Tue 02/08/22	15 edays 98	86,975SS-6	990		
988 5.27.7	Site Installation Work	171 days Wed 17/08/22	Sat 04/02/23	Wed 17/08/22	Sat 04/02/23	374 days				
989 5.27.7.1	Commencement of E&M Installation at DOU 3B	171 days Wed 17/08/22	Sat 04/02/23	Wed 17/08/22	Sat 04/02/23	374 days				
990 5.27.7.1.1	Mechanical Installations for DOU 3B	120 edays Wed 17/08/22	Thu 15/12/22	Wed 17/08/22	Thu 15/12/22	0 edays 97	75FF+30 da	991SS+30 edays,992 ME - F x 4~6 men		
991 5.27.7.1.2	Electrical Installations for DOU 3B	90 edays Fri 16/09/22	Thu 15/12/22	Fri 16/09/22	Thu 15/12/22	0 edays 99	90SS+30 ec	992 EE - D x 4~6 men	———	
992 5.27.7.1.3	Site Acceptance Test for E&M Equip for DOU 3B	30 edays Thu 15/12/22	Sat 14/01/23	Thu 15/12/22				993		*
993 5.27.7.1.4	System Commissioning Test for DOU 3B	21 edays Sat 14/01/23	Sat 04/02/23	Sat 14/01/23				1274		<u> </u>
994 5.28	Flowmeter and Valve Chambers, Portion B7 & B-7B (PS 6B.2.13)	1278 days Sun 01/11/20	Wed 01/05/24	Sun 01/11/20						
995 5.28.1	Planned Key Date Completion Date - KD1B, Chambers	0 days Tue 01/06/21	Tue 01/06/21	Tue 01/06/21			000FF		€ 01/06	
353 3.20.1										
	sk Milestone • Project Sur	mmary Late	Critical	Split	Manual	Progress		Milestone (Actual)		
estwise M	ilestone, Tentative Summary Manual Su		Progres	ss	Slack (Fi	loat)		Slack		

in Commont of the Party Arm J.	Department production to the production of the p				Shek Wu F	lui Effluent Polishing	g Plant - Main Works Stag	ge 1 E&M Works for Sewage Treatment Fa	acilities				4	A≡
ID WBS	Task Name	Duration between Task Start and Finish	Finish	Early Start	Early Finish	Free Slack Predece	essors Successors	Resource Names	2020 Half 1, 2020 Hal	2021 2, 2020 Half 1, 2			2023 Half 2, 2022 Half 1, 2023	2024 Half 2, 2023 Half 1, 202-
996 5.28.2	Planned Sectional Completion Date - Section 1, Chambers	0 days Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/	0 days 1001F	F			S N J		S N J M M		M J S N J
997 5.28.3	Planned Sectional Completion Date - Section 2, Chambers	0 days Mon 01/04/24	Mon 01/04/24	Mon 01/04/24		0 days								
998 5.28.4	Planned Sectional Completion Date - Section 4, Chambers	0 days Wed 01/05/24	Wed 01/05/24		Wed 01/05/									
999 5.28.5	Design Submissions for Valve and Flowmeter Chambers	210 days Sun 01/11/20	Sat 29/05/21		Sat 29/05/21	0 days				-	-			
1000 5.28.5.1	CDS081-9 - Civil and dimensional requirements drawings for Valve and	90 days Mon 01/03/21	Sat 29/05/21	Mon 01/03/21		0 days	995FF							
10015.28.5.2	CDS018 - Detailed Design for Flowmeter and Valve Chambers	90 edays Sun 01/11/20	Sat 30/01/21	Sun 01/11/20		0 edays	1003,996FF							
1002 5.28.6	Manufacturing and Delivery of Plant & Materials	225 days Sat 30/01/21	Sat 11/09/21		Sat 11/09/21				11.00.10.00	-		-		
1003 5.28.6.1	Manufacturing and Factory Acceptance Test of Plant	180 days Sat 30/01/21	Wed 28/07/21		Wed 28/07/	0 days 1001	1004			<u> </u>	h			
1004 5.28.6.2	Shipping and Delivery of Plant to Site	45 days Thu 29/07/21	Sat 11/09/21	Thu 29/07/21		0 days 1003	1008		#13049 PF		_			
1005 5.28.7	Tentative Civil Handover, Chambers (Rev. 5)	1 day Thu 19/05/22	Thu 19/05/22	Thu 19/05/22		0 days			(474.554			⊛ 19,	05	
1006 5.28.8	Site Installation Work	150 days Sun 12/09/21	Tue 08/02/22		Tue 08/02/22				1000 1000					
1007 5.28.8.1	Commencement of Valves and Flowmeters Installation at Chambers	150 days Sun 12/09/21	Tue 08/02/22		Tue 08/02/22									
1008 5.28.8.1.1	Installation of valves and flowmeters	90 days Sun 12/09/21	Fri 10/12/21	Sun 12/09/21		0 days 1004	1009	ME - C x 4~6 men				ME - C x 4~6 men		
1009 5.28.8.1.2	cables laying and terminations	60 days Sat 11/12/21	Tue 08/02/22		Tue 08/02/22		1274	EE - A x 4~6 men						
1010 5.29	Underground Pipework, Modification and Connection Works, Portion	1161 days Mon 01/03/21	Sat 04/05/24		Sat 04/05/24									
	B-9B (PS 6B.2.22)										@ 01/06			
10115.29.1	Planned Key Date Completion Date - KD1B, UU	0 days Tue 01/06/21	Tue 01/06/21	Tue 01/06/21		0 days 1015FI					@ 12/	17		
10125.29.2	Planned Sectional Completion Date - Section 1, Underground Pipework	0 days Mon 12/07/21	Mon 12/07/21	Mon 12/07/21		0 days 1016FI					@ 12/			
1013 5.29.3	Planned Sectional Completion Date - Section 4, Underground Pipework	0 days Wed 01/05/24	Wed 01/05/24		Wed 01/05/		+							
1014 5.29.4	Design Submissions	90 days Mon 01/03/21	Sun 30/05/21		Sun 30/05/21									
1015 5.29.4.1	CDS015 - Detailed Design for Underground Pipework Modification and	90 edays Mon 01/03/21	Sun 30/05/21		Sun 30/05/21		1011FF							
1016 5.29.4.2	CDS016 - Detailed Design for Temporary Pumping System for maintaini	50 edays Mon 01/03/21	Tue 20/04/21		Tue 20/04/21		1018,1012FF							
1017 5.29.5	Manufacturing and Delivery of Plant & Materials	1079 days Tue 20/04/21	Tue 02/04/24		Tue 02/04/24						<u> </u>			
10185.29.5.1	Manufacturing and Factory Acceptance Test of Plant	180 days Tue 20/04/21	Sat 16/10/21	Tue 20/04/21		854 days 1016	1019							
1019 5.29.5.2	Shipping and Delivery of Plant to Site	45 days Sun 18/02/24	Tue 02/04/24		Tue 02/04/24									
1020 5.29.6	Tentative Civil Handover, Road (Rev. 5)	1 day Thu 18/04/24	Thu 18/04/24	Thu 18/04/24		0 days	1019SS-60 edays,10	023						
1021 5.29.7	Site Installation	16 days Fri 19/04/24	Sat 04/05/24		Sat 04/05/24	0 days								
1022 5.29.7.1	Commencement of underground pipework modification and connection wor	16 days Fri 19/04/24	Sat 04/05/24		Sat 04/05/24	0 days								
1023 5.29.7.1.1	Temporary Flow Diversion and Road Excavation Work	3 days Fri 19/04/24	Sun 21/04/24		Sun 21/04/24	0 days 1020	1024							
1024 5.29.7.1.2	Pipe Laying and connection works	7 days Mon 22/04/24	Sun 28/04/24		Sun 28/04/24	0 days 1023,10								
1025 5.29.7.1.3	Pressure Tests	3 days Mon 29/04/24	Wed 01/05/24		Wed 01/05/24	0 days 1024	1026							
1026 5.29.7.1.4	Make Good	3 days Thu 02/05/24	Sat 04/05/24		Sat 04/05/24	0 days 1025	1013FF							
1027 5.30	Temporary Filtrate Lifting Well and Eq. Tank, Portion B-3B (PS 6B.2.16)	450 days Mon 02/03/20	Tue 25/05/21		Tue 25/05/21	0 days								
1028 5.30.1	Selection of Suppliers for major plant and materials and Civil Subcontrac	196 days Mon 02/03/20	Sun 13/09/20		Sun 13/09/20									
1029 5.30.1.1	Mis - filtrate lift pumps and filtrate transfer pumps, C11, ref. EQT011	73 days Mon 02/03/20	Wed 13/05/20		Wed 13/05/20	0 days								
1030 5.30.1.1.1	Submission for acceptance of purchasing package	29 days Mon 02/03/20	Mon 30/03/20		Mon 30/03/20	O days	1031							
1031 5.30.1.1.2	Invitation of quotations for purchasing package	30 days Tue 31/03/20	Wed 29/04/20		Wed 29/04/20	0 days 1030	1032							
1032 5.30.1.1.3	Acceptance of conforming quotation and acceptance for Manufacture (Com	14 days Thu 30/04/20	Wed 13/05/20		Wed 13/05/20	0 days 1031	1051,1054							
1033 5.30.1.2	Mis - Instrumentations	73 days Mon 02/03/20	Wed 13/05/20	Mon 02/03/20		0 days								
1034 5.30.1.2.1	Submission for acceptance of purchasing package	29 days Mon 02/03/20	Mon 30/03/20	Mon 02/03/20		0 days	1035							
1035 5.30.1.2.2	Invitation of quotations for purchasing package	30 days Tue 31/03/20	Wed 29/04/20	Tue 31/03/20		0 days 1034	1036							
1036 5.30.1.2.3	Acceptance of conforming quotation and acceptance for Manufactur	14 days Thu 30/04/20	Wed 13/05/20		Wed 13/05/	0 days 1035	1051,1057		<u> </u>					
1037 5.30.1.3	Mis - Pipework (To be provided by Mechanical Sub-Contactor)	42 days Mon 03/08/20	Sun 13/09/20		Sun 13/09/20									
1038 5.30.1.3.1	Submission for acceptance of purchasing package	7 days Mon 03/08/20	Sun 09/08/20		Sun 09/08/20		1039							
1039 5.30.1.3.2	Invitation of quotations for purchasing package	14 days Mon 10/08/20	Sun 23/08/20		Sun 23/08/20	0 days 1038	1040							
1040 5.30.1.3.3	Acceptance of conforming quotation and acceptance for Manufactur	21 days Mon 24/08/20	Sun 13/09/20		Sun 13/09/20		1051,1060							
1041 5.30.1.4	Mis - Valve (To be provided by Mechanical Sub-Contractor)	42 days Mon 03/08/20	Sun 13/09/20		Sun 13/09/20									
1042 5.30.1.4.1	Submission for acceptance of purchasing package	7 days Mon 03/08/20	Sun 09/08/20		Sun 09/08/20		1043							
1043 5.30.1.4.2	Invitation of quotations for purchasing package	14 days Mon 10/08/20	Sun 23/08/20		Sun 23/08/20		1044							
1044 5.30.1.4.3	Acceptance of conforming quotation and acceptance for Manufactur	21 days Mon 24/08/20	Sun 13/09/20		Sun 13/09/20		1051,1063			The state of				
1045 5.30.1.5	Civil Work Subletting Package (Repeated WBS 5.13.17)	19 days Tue 14/07/20	Sat 01/08/20		Sat 01/08/20				-					
1046 5.30.1.5.1	Submission for acceptance of subletting package	3 days Tue 14/07/20	Thu 16/07/20		Thu 16/07/20	0 days	1047		1					
1047 5.30.1.5.2	Invitation of tender for subletting package	14 days Fri 17/07/20	Thu 30/07/20		Thu 30/07/20	0 days 1046	1048							
1048 5.30.1.5.3	Acceptance of conforming quotation and acceptance for Manufactur		Sat 01/08/20		Sat 01/08/20	0 days 1047	1054,1057,1060,10	063,10						
1049 5.30.2	Design Submissions for Temporary Filtrate Lifting Well and Eq. Tank	34 days Tue 01/09/20	Sun 04/10/20		Sun 04/10/20									
1050 5.30.2.1	CDS050-5 - Detailed Design for Lifting Appliances - Temp. Filtrate Eq. Sy	30 edays Tue 01/09/20	Thu 01/10/20		Thu 01/10/20		1079			T T				
1051 5.30.2.2	Design submission for E&M Installation works for temp. filtrate eq. syst	21 days Mon 14/09/20	Sun 04/10/20	Mon 14/09/20	Sun 04/10/20	0 days 1032,1	.036,11053,1059,1056,10	062						
1052 5.30.3	Manufacturing and Delivery of Plant & Materials	165 days Mon 05/10/20	Thu 18/03/21		Thu 18/03/21									
1053 5.30.3.1	Filtrate Lift Pumps and Filtrate Transfer Pump, EQT011	165 days Mon 05/10/20	Thu 18/03/21	Mon 05/10/20	Thu 18/03/21	0 days 1051				Î				
	Task Milestone ♦ Project Sur	nmary Late	Critical S	Split	Manual P	rogress	Milestone (Actual)	*						
estwise	Milestone, Tentative Summary Manual Su		Progress	s	Slack (Flo		Slack							
ect: DE/2018/04														

S	Drainage Services	Department				Shak Mir. II-		posed Work Programme	for DE/2018/04 1 E&M Works for Sewage Treatment Facil	lities								1	AECOM
ID		Task Name	Duration between Task Start	Finish	Early Start		ree Slack Predecesso		Resource Names	2020		2021		2022		2023	γ	2024	
			Start and Finish							Half 1, 2020 N J M M	Half 2, 2020 J S	Half 1, 2021	Half 2, 2021 M J S	Half 1, 2022 N. J. M.	M J S	Half 1, 2023 N J M	Half 2, 2023		1, 2024 M M
	1054 5.30.3.1.1	Manufacturing and Factory Acceptance Test of Plant	120 days Mon 05/10/20	Mon 01/02/21	Mon 05/10/20		0 days 1048,1032												
	1055 5.30.3.1.2	Shipping and Delivery of Plant to site (Delivered)	45 days Tue 02/02/21	Thu 18/03/21		Thu 18/03/21	0 days 1054	1084											
	1056 5.30.3.2	Instrumentations	165 days Mon 05/10/20	Thu 18/03/21 Mon 01/02/21	Mon 05/10/20 Mon 05/10/20		0 days 1051 0 days 1048,103	£ 1059											
	1057 5.30.3.2.1 1058 5.30.3.2.2	Manufacturing and Factory Acceptance Test of Plant Shipping and Delivery of Plant to site	120 days Mon 05/10/20 45 days Tue 02/02/21	Thu 18/03/21	Tue 02/02/21		0 days 1048,103	1085											
	1058 5.30.3.2.2	Pipework	165 days Mon 05/10/20	Thu 18/03/21	Mon 05/10/20		0 days 1051	1003			-								
	1060 5.30.3.3.1	Manufacturing and Factory Acceptance Test of Plant	120 days Mon 05/10/20	Mon 01/02/21	Mon 05/10/20		0 days 1048,104	0 1061											
	10615.30.3.3.2	Shipping and Delivery of Plant to site	45 days Tue 02/02/21	Thu 18/03/21	Tue 02/02/21		0 days 1060	1083				<u>+</u>							
	1062 5.30.3.4	Valve	165 days Mon 05/10/20	Thu 18/03/21	Mon 05/10/20	Thu 18/03/21	0 days 1051				-	-							
1063	1063 5.30.3.4.1	Manufacturing and Factory Acceptance Test of Plant	120 days Mon 05/10/20	Mon 01/02/21	Mon 05/10/20	Mon 01/02/	0 days 1048,104	4 1064			<u>+</u>								
1064	1064 5.30.3.4.2	Shipping and Delivery of Plant to site	45 days Tue 02/02/21	Thu 18/03/21	Tue 02/02/21	Thu 18/03/21	0 days 1063	1083				+							
1065	1065 5.30.4	Site Installation Work	297 days Sat 01/08/20	Tue 25/05/21	Sat 01/08/20	Tue 25/05/21	0 days				•		-						
1066	1066 5.30.4.1	Commencement of Civil Construction and E&M Installation at Temp. I	297 days Sat 01/08/20	Tue 25/05/21	Sat 01/08/20	Tue 25/05/21	0 days				-		-						
1067	1067 5.30.4.1.1	Civil Construction Work	297 days Sat 01/08/20	Tue 25/05/21	Sat 01/08/20	Tue 25/05/21	0 days				•		-						
1068	1068 5.30.4.1.1.:	Civil on-site survey and report submission for acceptance	5 edays Sat 01/08/20	Thu 06/08/20	Sat 01/08/20	Thu 06/08/20	0 edays 1048	1069,1070			1								
1069	1069 5.30.4.1.1.;	Civil structural design and drawing submission for acceptance	30 days Fri 07/08/20	Sat 05/09/20	Fri 07/08/20	Sat 05/09/20	0 days 1068	1071											
1070	1070 5.30.4.1.1.	Site Clearance, UU diversion and construction of U-channel	21 days Fri 07/08/20	Thu 27/08/20		Thu 27/08/20	0 days 1068	1071			_								
	1071 5.30.4.1.1.4	ELS (Sheeting and Excavation)	60 days Sun 06/09/20	Wed 04/11/20	Sun 06/09/20		0 days 1070,106				-								
	1072 5.30.4.1.1.!	Grouting Works	60 days Thu 05/11/20	Sun 03/01/21	Thu 05/11/20		0 days 1071	1073											
	1073 5.30.4.1.1.0	RC structure works including cast-in items	60 days Mon 04/01/21	Thu 04/03/21	Mon 04/01/21		0 days 1072	1082,1079,1074	110										
	1074 5.30.4.1.1.	Removal Formwork and Flasework	8 days Fri 05/03/21	Fri 12/03/21 Fri 26/03/21		Fri 12/03/21 Fri 26/03/21	0 days 1073 0 days 1074	1079,1080,1083,1085 1076	,10										
	1075 5.30.4.1.1.	Waterproofing	14 days Sat 13/03/21 60 days Sat 27/03/21	Tue 25/05/21		Tue 25/05/21	0 days 1074 0 days 1075	1076 1093FF											
	1076 5.30.4.1.1.9 1077 5.30.4.1.2	Other architectual works and finishing works E&M Installation Work	34 days Sat 13/03/21	Thu 15/04/21	Sat 27/03/21		16 days	105511											
	1077 5.30.4.1.2	Installation of Lifting Appliances at Temporary Filtrate Lifting We	10 days Sat 13/03/21	Mon 22/03/21		Mon 22/03	40 days												
	1079 5.30.4.1.2.:	GF MR LA-09-01 SWL 1t	7 days Sat 13/03/21	Fri 19/03/21		Fri 19/03/21	0 days 1073,1050	0,11081	LA - A x 4~6 men			₩ LA	A - A x 4~6 men						
	1080 5.30.4.1.2.:	GF MR LA-09-02 SWL 1t	7 days Sat 13/03/21	Fri 19/03/21	Sat 13/03/21		0 days 1074	1081	LA - A x 4~6 men			₽ LA	A - A x 4~6 men						
1081	1081 5.30.4.1.2.:	Site Acceptance test and loading test of LA	3 days Sat 20/03/21	Mon 22/03/21	Sat 20/03/21	Mon 22/03/	40 days 1079,1080	0 1116FF	LA - A x 4~6 men			214	A - A x 4~6 men						
1082	1082 5.30.4.1.2.	Mechanical Installations for Temp. Filtrate Lifting Well and Eq. Ti	21 days Fri 19/03/21	Thu 08/04/21	Fri 19/03/21	Thu 08/04/21	0 days 1073	1086FS-30 days				4-0							
1083	1083 5.30.4.1.2.:	Installation of pipework, chemical pipework and valves, EQT036	14 days Fri 19/03/21	Thu 01/04/21	Fri 19/03/21	Thu 01/04/21	0 days 1074,106	1,11084	ME - A x 4~6 men										
1084	1084 5.30.4.1.2.:	Installation of pumps	7 days Fri 02/04/21	Thu 08/04/21	Fri 02/04/21	Thu 08/04/21	0 days 1083,1055	5 1088	ME - A x 4~6 men										
1085	1085 5.30.4.1.2.;	Installation of instrumentations, EQT035-3	7 days Fri 19/03/21	Thu 25/03/21	Fri 19/03/21	Thu 25/03/21	0 days 1074,1058	8 1088	ME - A x 4~6 men			*							
1086	1086 5.30.4.1.2.	Electrical Installations for Temp. Filtrate Lifting Well and Eq. Tanl	34 days Sat 13/03/21	Thu 15/04/21	Sat 13/03/21	Thu 15/04/21	0 days 1082FS-30	0 d				-							
1087	1087 5.30.4.1.2.	Installation of cable trays and cable containments	21 days Sat 13/03/21	Fri 02/04/21	Sat 13/03/21	Fri 02/04/21	0 days 1074	1088	EE - A x 4~6 men			<u>*</u>							
1088	1088 5.30.4.1.2.	Cables laying and terminations	7 days Fri 09/04/21	Thu 15/04/21	Fri 09/04/21	Thu 15/04/21	0 days 1087,1084	4,11089	EE - A x 4~6 men										
	1089 5.30.4.1.3	Site Acceptance Test for E&M Equip at Filtrate Lifting Well and Eq. Ta	7 days Fri 16/04/21	Thu 22/04/21		Thu 22/04/21	0 days 1088	1090					1						
	1090 5.30.4.1.4	System Commissioning for E&M Equip at Temp. Filtrate Lifting Well a	7 days Fri 23/04/21	Thu 29/04/21		Thu 29/04/21	2 days 1089	1116FF					•						
	10915.31	Existing PST No. 4 and No. 6, Portion B-3A (PS 6B.2.15)	397 days Sat 01/08/20	Wed 01/09/21	Sat 01/08/20		0 days 0 days 1159FF						@ 07/06						
	10925.31.1	Planned Key Date Completion Date - KD3B Planned Sectional Completion Date - Section 3, PST No. 4 and No. 6	0 days Mon 07/06/21 0 days Wed 01/09/21	Mon 07/06/21 Wed 01/09/21	Mon 07/06/21 Wed 01/09/21		0 days 1139FF 0 days 1076FF,11	101					@ 01/0	19					
	1093 5.31.2	Selection of Suppliers for major plant and materials and Subcontractor	137 days Sat 01/08/20	Tue 15/12/20		Tue 15/12/20		10			-								
1094	10945.31.3	for PST No. 4 and No. 6	25, 44,554, 62,700,20	20/ 22/ 20	22, 52, 50, 20	20, 22, 20													
1095	1095 5.31.3.1	Mis - Rotating Bridge Scrapers and associated materials, C11, ref. EQT037-1	42 days Sat 01/08/20	Fri 11/09/20	Sat 01/08/20	Fri 11/09/20	0 days				ÇQ								
1096	1096 5.31.3.1.1	Submission for acceptance of purchasing package	7 days Sat 01/08/20	Fri 07/08/20	Sat 01/08/20	Fri 07/08/20	O days	1097			•								
1097	1097 5.31.3.1.2	Invitation of quotations for purchasing package	14 days Sat 08/08/20	Fri 21/08/20	Sat 08/08/20	Fri 21/08/20	0 days 1096	1098			*								
1098	1098 5.31.3.1.3	Acceptance of conforming quotation (Completed)	21 days Sat 22/08/20	Fri 11/09/20	Sat 22/08/20	Fri 11/09/20	0 days 1097	1108			=								
1099	1099 5.31.3.2	Mis - Pipework, C11, ref. EQT037-2	42 days Sat 01/08/20	Fri 11/09/20	Sat 01/08/20	Fri 11/09/20	0 days				•								
	1100 5.31.3.2.1	Submission for acceptance of purchasing package	7 days Sat 01/08/20	Fri 07/08/20	Sat 01/08/20		0 days	1101			1								
	1101 5.31.3.2.2	Invitation of quotations for purchasing package	14 days Sat 08/08/20	Fri 21/08/20	Sat 08/08/20		0 days 1100	1102			1								
	1102 5.31.3.2.3	Acceptance of conforming quotation (Completed)	21 days Sat 22/08/20	Fri 11/09/20	Sat 22/08/20		0 days 1101	1108											
1103	1103 5.31.3.3	Subletting of Electrical and Mechanical Installation Work w/ supply of LCP	81 days Sat 26/09/20	Tue 15/12/20	Sat 26/09/20	Tue 15/12/20	0 days												
1104	11045.31.3.3.1	Submission for Subletting Package	30 days Sat 26/09/20	Sun 25/10/20	Sat 26/09/20	Sun 25/10/20	0 days 1108	1105			_								
1105	1105 5.31.3.3.2	Invitation to tender	21 days Mon 26/10/20	Sun 15/11/20	Mon 26/10/20	Sun 15/11/20	0 days 1104	1106											
1106	1106 5.31.3.3.3	Acceptance of conforming tender (Completed)	30 days Mon 16/11/20	Tue 15/12/20	Mon 16/11/20	Tue 15/12/20	0 days 1105	1123				-							
1107	1107 5.31.4	Design Submissions	14 days Sat 12/09/20	Fri 25/09/20	Sat 12/09/20	Fri 25/09/20	0 days				9-9								
1108	1108 5.31.4.1	Design submissions for retrofitting the existing PST No. 4 and No. 6	14 days Sat 12/09/20	Fri 25/09/20	Sat 12/09/20	Fri 25/09/20	0 days 1098,110	2 1111,1114,1104			*								
	1109 5.31.5	Manufacturing and Delivery of Plant & Materials	195 days Sat 26/09/20	Thu 08/04/21		Thu 08/04/21	0 days				-								
1110	1110 5.31.5.1	Rotating Bridge Scrapers and associated materials	195 days Sat 26/09/20	Thu 08/04/21	Sat 26/09/20	Thu 08/04/21	0 days												
		Task Milestone • Project Sum		Critical S	iplit	Manual Pro	ogress	Milestone (Actual)											
Projec	t: DE/2018/04	Milestone, Tentative Summary Manual Sum	nmary Critical	Progress		Slack (Float	()	Slack											
Date:	28/09/21																		45.0001
Status	Date Wed 27/10/2	21						Page 19 of 24									DE_2018_04 R	evised PG- (Rev	v 15, 2021-10) R1

Drainage Services The Government of the Heavy Kong Se	Department and depart				Shek Wu Hu		posed Work Program lant - Main Works Sta	me for DE/2018/04 ge 1 E&M Works for Sewage Treatment Fa	nt Facilities	AECON
D ID WBS	Task Name	Duration between Task Start Start and Finish	Finish	Early Start		ree Slack Predecesso		Resource Names	2020 2021 2022 2023 2024	1, 2024
1111 11115.31.5.1.1	Manufacturing and Factory Acceptance Test of Plant	150 days Sat 26/09/20	Mon 22/02/21	Sat 26/09/20	Mon 22/02/	0 days 1108	1112			
1112 11125.31.5.1.2	Shipping and Delivery of Plant to site (Rev. 8)	45 days Tue 23/02/21	Thu 08/04/21		Thu 08/04/21	0 days 1111	1129			
1113 1113 5.31.5.2	Pipework	120 days Sat 26/09/20	Sat 23/01/21		Sat 23/01/21	0 days				
1114 11145.31.5.2.1	Manufacturing and Factory Acceptance Test of Plant	90 days Sat 26/09/20	Thu 24/12/20		Thu 24/12/20	0 days 1108	1115			
1115 1115 5.31.5.2.2	Shipping and Delivery of Plant to site	30 days Fri 25/12/20	Sat 23/01/21		Sat 23/01/21	0 days 1114	1124			
1116 1116 5.31.6	Tentative Civil Handover, Filtrate Lifting Well and Eq. Tank (Completion	1 day Sat 01/05/21	Sat 01/05/21	Sat 01/05/21		0 days 1090FF,10			01/05	
11105.51.0	of work)	1 44) 54: 52/ 55/ 21	541 52, 55, 22			,,-				
1117 1117 5.31.7	Site Installation Work	300 days Thu 01/10/20	Tue 27/07/21	Thu 01/10/20	Tue 27/07/21	0 days				
1118 1118 5.31.7.1	Commencement of retrofitting the existing PST No. 4 and No. 6	300 days Thu 01/10/20	Tue 27/07/21	Thu 01/10/20	Tue 27/07/21	0 days				
1119 1119 5.31.7.1.1	Temporary flow diversion of Filtrate from PST No. 4,	1 day Thu 01/10/20	Thu 01/10/20	Thu 01/10/20	Thu 01/10/20	0 days	1120			
1120 1120 5.31.7.1.2	Dismantle and Removal of E&M Equipment at PST No. 6	60 days Fri 02/10/20	Mon 30/11/20	Fri 02/10/20	Mon 30/11/	0 days 1119	1121			
1121 1121 5.31.7.1.3	Temporary flow diversion of Filtrate from PST No. 6	7 days Tue 01/12/20	Mon 07/12/20	Tue 01/12/20	Mon 07/12/	0 days 1120	1122			
1122 1122 5.31.7.1.4	Dismantle and Removal of E&M Equipment at PST No. 4	119 days Tue 08/12/20	Mon 05/04/21	Tue 08/12/20	Mon 05/04/	0 days 1121	1124			
1123 1123 5.31.7.1.5	Mechanical Installations of existing PSTs No. 4 (Completed)	56 days Tue 06/04/21	Mon 31/05/21	Tue 06/04/21	Mon 31/05/21	2.5 days 1106				
1124 1124 5.31.7.1.5.1	Installation of PST influent feed pipe	5 days Tue 06/04/21	Sat 10/04/21	Tue 06/04/21	Sat 10/04/21	0 days 1122,1115	1125	ME - A x 4~6 men		
1125 1125 5.31.7.1.5.2	Installation of circular baffle diffuser box	5 days Sun 11/04/21	Thu 15/04/21	Sun 11/04/21	Thu 15/04/21	0 days 1124	1126	ME - A x 4~6 men		
1126 1126 5.31.7.1.5.3	Installation of scum baffle plates	5 days Fri 16/04/21	Tue 20/04/21	Fri 16/04/21	Tue 20/04/21	0 days 1125	1127	ME - A x 4~6 men		
1127 1127 5.31.7.1.5.4	Installation of scum box with collection valve and pipework	5 days Wed 21/04/21	Sun 25/04/21	Wed 21/04/21	Sun 25/04/21	0 days 1126	1128	ME - A x 4~6 men		
1128 1128 5.31.7.1.5.5	Installation of v-notched weir plate	7 days Mon 26/04/21	Sun 02/05/21	Mon 26/04/21	Sun 02/05/21	0 days 1127	1129	ME - A x 4~6 men		
1129 1129 5.31.7.1.5.6	Installation of center bearing and slip ring assembly for rotating bridge	5 days Mon 03/05/21	Fri 07/05/21	Mon 03/05/21	Fri 07/05/21	0 days 1128,1112	1130	ME - A x 4~6 men		
1130 1130 5.31.7.1.5.7	Installation of motor and gearbox assembly for rotating bridge	5 days Sat 08/05/21	Wed 12/05/21	Sat 08/05/21	Wed 12/05/21	0 days 1129	1131	ME - A x 4~6 men		
1131 1131 5.31.7.1.5.8	Installation of rotating bridge sludge and scum scraper assembly	5 days Thu 13/05/21	Mon 17/05/21	Thu 13/05/21	Mon 17/05/21	0 days 1130	1132,1134	ME - A x 4~6 men		
1132 1132 5.31.7.1.5.9	installation of removable FRP covers for effluent channel	14 days Tue 18/05/21	Mon 31/05/21	Tue 18/05/21	Mon 31/05/21	0 days 1131	1136	ME - A x 4~6 men	ME - A x 4+6 men	
1133 1133 5.31.7.1.6	Electrical Installations of existing PST No. 4	10 days Tue 18/05/21	Thu 27/05/21	Tue 18/05/21	Thu 27/05/21	0 days	1136			
1134 1134 5.31.7.1.6.1	Installation of local control panels	5 days Tue 18/05/21	Sat 22/05/21	Tue 18/05/21	Sat 22/05/21	0 days 1131	1135	EE - A x 4~6 men		
1135 1135 5.31.7.1.6.2	cable laying and terminations	5 days Sun 23/05/21	Thu 27/05/21	Sun 23/05/21	Thu 27/05/21	0 days 1134	1136	EE - A x 4~6 men		
1136 1136 5.31.7.1.7	Site Acceptance Test for E&M Equip at existing PST No. 4	5 days Tue 01/06/21	Sat 05/06/21	Tue 01/06/21	Sat 05/06/21	49 days 1133,1132	,111159			
1137 1137 5.31.7.1.8	CNE-0229 - Removal of accumulated sludge inside PST No. 6	12 days Wed 19/05/21	Sun 30/05/21	Wed 19/05/21	Sun 30/05/21	0 days	1147			
1138 1138 5.31.7.1.8.	Filtrate divserion to Temporary Filtrate Equalisation Tank	2 days Wed 19/05/21	Thu 20/05/21	Wed 19/05/21	Thu 20/05/21	0 days	1139			
1139 1139 5.31.7.1.8.	Removal of floating scum / sludge inside PST No. 6	7 days Fri 21/05/21	Thu 27/05/21	Fri 21/05/21	Thu 27/05/21	0 days 1138,114	3 1140,1141			
1140 1140 5.31.7.1.8.	Clearance of blockage of PST No. 6 drain pipe	3 days Fri 28/05/21	Sun 30/05/21	Fri 28/05/21	Sun 30/05/21	0 days 1139				
1141 1141 5.31.7.1.8.4	Retrofiting Concrete Structure of PST No. 6	3 days Fri 28/05/21	Sun 30/05/21		Sun 30/05/21	0 days 1139				
1142 1142 5.31.7.1.9	NCE-007 - Additional Contract Requirements for provision ICE's Certificates (RSE) on re-use of existing materials	8 days Mon 14/06/21	Mon 21/06/21	Mon 14/06/21	Mon 21/06/21	0 days				
		8 days Mon 14/06/21	Mon 21/06/21	Mon 14/06/21		0 days	1139,1147			
1143 1143 5.31.7.1.9.:	Provision of ICE's Certificate NCE-008 - Additional Contract Requirements for provision ICE's	14 days Thu 24/06/21	Wed 07/07/21	Thu 24/06/21		0 days	1133,1147			
1144 1144 5.31.7.1.1 0	Certificates on product design of E&M plant and materials.	14 days 111d 24/00/21	wed 07/07/21	1110 24/00/21	07/07/21	o days				
1145 1145 5.31.7.1.10	Provision of ICE's Certificate	14 days Thu 24/06/21	Wed 07/07/21	Thu 24/06/21	Wed 07/07/	0 days	1147			
1146 1146 5.31.7.1.11	Mechanical Installations of existing PST No. 6	48 days Fri 04/06/21	Wed 21/07/21	Fri 04/06/21	Wed 21/07	0 days				
1147 1147 5.31.7.1.11	Installation of PST influent feed pipe	2 days Thu 08/07/21	Fri 09/07/21	Thu 08/07/21	Fri 09/07/21	0 days 1137,114	3,11148	ME - A x 4~6 men		
1148 1148 5.31.7.1.11	Installation of center bearing and slip ring assembly for rotating	or 2 days Sat 10/07/21	Sun 11/07/21	Sat 10/07/21	Sun 11/07/21	0 days 1147	1149,1152	ME - A x 4~6 men		
1149 1149 5.31.7.1.11	Installation of motor and gearbox assembly for rotating bridge	5 days Mon 12/07/21	Fri 16/07/21	Mon 12/07/21	Fri 16/07/21	0 days 1148	1156,1150,1151	ME - A x 4~6 men		
1150 1150 5.31.7.1.11	Installation of rotating bridge sludge and scum scraper assembly	5 days Sat 17/07/21	Wed 21/07/21	Sat 17/07/21	Wed 21/07/	0 days 1149		ME - A x 4~6 men		
1151 1151 5.31.7.1.11	Installation of circular baffle diffuser box	2 days Sat 17/07/21	Sun 18/07/21	Sat 17/07/21	Sun 18/07/21	0 days 1149		ME - A x 4~6 men		
1152 1152 5.31.7.1.11	Installation of v-notched weir plate	2 days Fri 04/06/21	Sat 05/06/21	Fri 04/06/21	Sat 05/06/21	0 days 1148	1153,1154	ME - A x 4~6 men		
1153 1153 5.31.7.1.11	Installation of scum baffle plates	2 days Sun 06/06/21	Mon 07/06/21	Sun 06/06/21	Mon 07/06/	0 days 1152		ME - A x 4~6 men		
1154 1154 5.31.7.1.11	Installation of scum collection box	2 days Sun 06/06/21	Mon 07/06/21	Sun 06/06/21	Mon 07/06/	0 days 1152		ME - A x 4~6 men		
1155 1155 5.31.7.1.12	Electrical Installations of existing PSTs No. 6	6 days Sat 17/07/21	Thu 22/07/21	Sat 17/07/21	Thu 22/07/21	0 days	1158			
1156 1156 5.31.7.1.12	Installation of local control panels	3 days Sat 17/07/21	Mon 19/07/21	Sat 17/07/21	Mon 19/07/	0 days 1149	1157			
1157 1157 5.31.7.1.12	cable laying and terminations	3 days Tue 20/07/21	Thu 22/07/21	Tue 20/07/21	Thu 22/07/21	0 days 1156	1158			
1158 1158 5.31.7.1.13	Site Acceptance Test for E&M Equip at existing PST No. 6	2 days Fri 23/07/21	Sat 24/07/21	Fri 23/07/21	Sat 24/07/21	0 days 1155,115	7 1159			
1159 1159 5.31.7.1.14	System Commissioning for E&M Equip at existing PST No. 4 and No. 6	3 days Sun 25/07/21	Tue 27/07/21	Sun 25/07/21	Tue 27/07/21	0 days 1136,1158	1092FF		#	
1160 1160 5.32	Existing Main Power House Electrical, Portion B-7A and B-7B (PS 6B.3.17)	42 days Thu 11/06/20	Wed 22/07/20	Thu 11/06/20	Wed 22/07	0 days				
1161 11615.32.1	Planned Key Date Completion Date - KD3A	0 days Wed 22/07/20	Wed 22/07/20	Wed 22/07/20	Wed 22/07/	0 days			⊕ 22/07	
1162 1162 5.32.2	Design Submissions for Existing Emergency Generator House	15 days Fri 12/06/20	Fri 26/06/20	Fri 12/06/20	Fri 26/06/20	0 days				
1163 1163 5.32.2.1	Design submissions for E&M installation works of existing power hou	se 15 days Fri 12/06/20	Fri 26/06/20	Fri 12/06/20	Fri 26/06/20	0 days 184	1167			
1164 1164 5.32.3	Site Installation Work	39 days Thu 11/06/20	Sun 19/07/20	Thu 11/06/20	Sun 19/07/20	0 days				
1165 1165 5.32.3.1	Tentative Civil Handover Date, Portion B-7A & 7B area for modification of exi	st 1 day Thu 11/06/20	Thu 11/06/20	Thu 11/06/20	Thu 11/06/20	0 days			⊛ 11/06	
1166 1166 5.32.3.2	Commencement of Modification of existing emergency generator Electrical Works	23 days Sat 27/06/20	Sun 19/07/20	Sat 27/06/20	Sun 19/07/20	0 days				
	WUTAS									
Bestwise	Task Milestone ♦ Project : Milestone, Tentative ⑤ Summary Manual	Summary Late Summary Critical	Critical S	Splits	Manual Pro	-	Milestone (Actual) Slack	*		
Project: DE/2018/04	Manual - Manual	- Critical	Frogress		Sieck (FIOSI					
Date: 28/09/21								174	DE 2010 At P	v 15 2021-10\
us Date Wed 27/10/	21						Page 20 of	24	DE_2018_04 Revised PG- (Rev	15, 2021-1

Duration between Task Start	Tue 30/06/20 Tue 30/06/20 Thu 02/07/20 Thu 02/07/20 Thu 16/07/20 Sun 19/07/20 Sun 19/07/20 Sun 29/08/21 Mon 07/06/21 Fri 21/08/20 Fri 21/08/20 Fri 21/08/20 Fri 21/08/20 Fri 21/08/20 Fri 21/08/20 Fri 21/08/20 Fri 21/08/20 Sun 08/08/21 Sun 08/08/21 Sun 08/08/21 Sun 08/08/21 Sun 29/08/21 Sun 29/08/21 Sun 29/08/21 Tue 01/06/21 Tue 01/06/21 Mon 12/07/21 Mod 01/05/24 Ved 01/05/24 Ved 01/05/24 Sat 30/10/21 Tue 30/03/21 Sun 29/08/21 Sun 30/03/21	Mon 07/06/21 Wed 01/07/20 Wed 01/07/20 Wed 01/07/20 Wed 22/07/20 Sat 01/08/20 Fri 21/08/20 Sat 29/08/20 Fri 25/06/21 Mon 09/08/21 Mon 09/08/21 Tue 01/12/20 Tue 01/05/24 Tue 01/12/20 Tue 01/12/20 Tue 01/12/20 Mon 03/05/21	Sat 27/06/20 Tue 30/06/20 Thu 02/07/20 Thu 16/07/20 Sun 19/07/20 0 Sun 29/08/21 1 Mon 07/06/ 0 Fri 21/08/20 Fri 21/08/20 Fri 31/07/20 Fri 31/07/20 Fri 21/08/20 Fri 28/08/20	Free Slack Predecessor O days 1163 O days 1167 O days 1168 O days 1169 O days 1170 3 days O days O days O days O days O days O days O days 1176 O days 1177 O edays 1178 O days O days O days O days O days O days O days O days O days 1179 O days 1181 3 days 3 days 3 days 3 days 1	1168 1169 1170 1171 1178 1179 1181 1182 1185	2020 N Half 1, 2020 N Half 2, 2020 S S	2021 Half 1, 2021 N J M	● 07/06	2022 Half 1, 2022 N J M N	Half 2, 2022 4	2023	202 Half 2, 2023
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, FS & Sprinkler Pump Room 30 days Wed 16/1	/11/22 Tue 29/11/22									-		
, FS & Sprinkler Pump Room 30 days Wed 16/1 em, FS & Sprinkler PR 14 days Wed 16/1		Thu 16/03/23	Thu 13/07/23	189 days 1221,122	22,11202FF							
t	Sprinkler Pumps Go days Mon 03/days Mon 03/days Mon 03/days Mon 03/days Sat 07/11	60 days Mon 03/04/23 Thu 01/06/23 detection and alarm system 60 days Sat 07/10/23 Tue 05/12/23 and street fire hydrant system 60 days Sat 07/10/23 Tue 05/12/23 Portion B-7 & B-7B (PS 6B.6.9) 421 days Thu 19/05/22 Thu 13/07/23 Sprinkler Pump Room (Rev. 5) 1 day Thu 19/05/22 Thu 19/05/22 Thu 19/05/22 In 19/05/22 Thu 19/05/22 Thu 19/05/22 Thu 19/05/22 In 19/05/22 Thu 19/05/22 Thu 19/05/22 In 19/05/22 Thu 19/05/22 Thu 13/07/23 Sprinkler Pumps 90 edays Thu 19/05/22 Wed 17/08/22 Sprinkler Pumps 90 edays Wed 17/08/22 Tue 15/11/22 Sprinkler Pumps 45 days Wed 16/11/22 Fri 30/12/22 Sprinkler Pumps 45 days Wed 16/11/22 Mon 13/02/23 at FS & Sprinkler Pump Room 240 days Wed 16/11/22 Thu 13/07/23 fon System, Chem 1&2 120 days Wed 16/11/22 Wed 15/03/23 Thu 15/12/22 Thu 15/12/22 Thu 15/12/22 Thu 15/12/22 The 15/12/22 Thu 15/12/22 Thu 15/12/23	Septinkler Pumps 60 days Sat 07/10/23 Thu 01/06/23 Mon 03/04/23 detection and alarm system 60 days Sat 07/10/23 Tue 05/12/23 Sat 07/10/23 Tue 05/12/23 Sat 07/10/23 Tue 05/12/23 Sat 07/10/23 Thu 19/05/22 Thu 13/07/23 Thu 19/05/22 Wed 17/08/22 Thu 13/07/23 Thu 19/05/22 Wed 17/08/22 Thu 13/07/23 Thu 19/05/22 Thu 13/07/23 Thu 19/05/22 Wed 16/11/22 Wed 16/11/22 Thu 13/07/23 Wed 16/11/22 Thu 13/07/23 Wed 16/11/22 Thu 13/07/23 Wed 16/11/22 Thu 13/07/23 Wed 16/11/22 Thu 13/07/23 Wed 16/11/22 Thu 13/07/23 Thu 19/05/22 Thu 13/07/23 Thu 19/05/22 Thu 13/07/23 Thu 19/05/22 Thu 13/07/23 Thu 13/07/23 Thu 13/07/23 Thu 15/12/22 Wed 16/11/22 Thu 13/07/23 Thu 15/12/22 Wed 16/11/22 Thu 13/07/23 Thu 15/12/22 Thu 13/07/23 Thu 16/03/23 Thu 16/03/23 Thu 16/03/23 Thu 16/03/23 Thu 16/03/23 Thu 16/03/23	Septinkler Pumps 60 days Sat 07/10/23 Thu 01/06/23 Mon 03/04/23 Thu 01/06/23 Thu 01/06/23 Thu 01/06/23 Thu 01/06/23 Thu 01/06/23 Thu 05/12/23 Sat 07/10/23 Thu 05/12/23 Sat 07/10/23 Thu 05/12/23 Sat 07/10/23 Thu 19/05/22 Thu 13/07/23 Thu 19/05/22 Thu 13/07/23 Thu 19/05/22 Thu 13/07/23 Thu 19/05/22 Thu	Sprinkler Pumps 60 days Mon 03/04/23 Thu 01/06/23 Thu 01/06/23 Thu 01/06/23 Thu 01/06/23 Thu 01/06/23 Thu 01/06/23 Thu 05/12/23 O days 359,488,5 detection and alarm system 60 days Sat 07/10/23 Tue 05/12/23 Sat 07/10/23 Tue 05/12/23 Sat 07/10/23 Thu 19/05/22 Thu 13/07/23 Thu 19/05/22 Thu 19	Serinkler Pumps 60 days Mon 03/04/23 Thu 01/06/23 Mon 03/04/23 Thu 01/06/23 Thu 03/01/23 Thu 05/12/23 Sat 07/10/23 Thu 13/07/23 Thu	Soft Pumps 60 days Mon 03/04/23 Thu 01/06/23 Mon 03/04/23 Thu 01/06/23 170 days 1211 F5 - A x 4"6 men detection and alarm system 60 days Sat 07/10/23 Tue 05/12/23 Sat 07/10/23 Tue 05/12/23 0 days 1200,1200,1201 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Soft Pumps 60 days Mon 03/04/23 Thu 01/06/23 Sat 07/10/23 Thu 05/12/23 Sat 07/10/23 Thu 05/12/23 Sat 07/10/23 Tue 05/12/23 O days 359.488,599; 1202,1200,1201 Sat 07/10/23 Tue 05/12/23 Sat 07/10/23 Tue 05/12/23 O days 359.488,599; 1202,1200,1201 Sat 07/10/23 Tue 05/12/23 O days 1208,1209,151,200,1201 Sat 07/10/23 Tue 05/12/23 O days 1208,1209,151,200,1201 Sat 07/10/23 Tue 05/12/23 Tue 05/12/23 O days 1208,1209,151,200,1201 Sat 07/10/23 Tue 05/12/23 Tue 05/12/23 O days 1208,1209,151,200,1201 Sat 07/10/23 Tue 05/12/23 Tue 13/07/23 Tue 05/12/24 Tue 13/07/23 Tue 05/12/24 Tue 13/07/23 Tue 05/12/24 Tue 13/07/23 Tue 05/12/24 Tue 13/07/23 Tue 05/12/24 Tue 15/07/22 O days 1215,1220 Sat 07/10/24 Tue 15/05/22	Septimider Pumps 60 days Mon 03/04/23 Thu 01/06/23 Mon 03/04/23 Thu 01/06/33 127 days 1211 F5 - A x 4 f6 men detection and alarm system 60 days Sat 07/10/23 Tue 05/12/23 Sat 07/10/23 Tue 05/12/23 0 days 359,885,999, 1202,1200,1201 Portion B-7 & B-78 (P5 66.6.9) 421 days Thu 19/05/22 Thu 13/07/23 Thu 19/05/22 Thu 13/07/23 Thu 19/05/22 Thu 13/07/23 200 days Sprinkler Pump Room (Rev. 5) 1 day Thu 19/05/22 Thu 19/05/2	Soft Pumps 60 days Men 01/04/23 Thu 01/06/23 Mon 03/04/23 Thu 01/06/23 Thu 05/12/23 Set 07/10/23 Tw 05/12/23 Set 07/10/24 Tw 05/12/23 Set 07/10/24 Tw 05/12/23 Set 07/10/24 Tw 05/12/23 Set 07/10/24 Set	Ster Pumps 60 days Mon 03/04/23 Thu 03/06/23 Set 07/10/23 Thu 03/06/23 127 days 1211 F5 - A x 4*6 mem detection and alarm system 60 days \$40 07/10/23 The 05/12/23 \$40 07/10/23 The 05/12/23 0 days 1200,1200,1201 ### Portion B-7 & B-78 (P5 6B-6.9) 421 days Thu 13/06/22 Thu 13/07/23 Thu 13/06/22 Thu 13/07/23 00 days 1200,1200,1201 ### Sprinkler Pump Room (Rev. 5) 1 day Thu 13/05/22 Thu 13	Secretar Pumps

Drainage Services The Covernment of the Hung Kong Sp	Department California Administrative Region				Shek Wu H		posed Work Programme lant - Main Works Stage 1	E&M Works for Sewage Treatment F	acilities		A
ID WBS	Fask Name	Duration between Task Start Start and Finish	Finish	Early Start	Early Finish	Free Slack Predecesso	ors Successors	Resource Names	2020 Half 1, 2020 Half 2, 2020	2021 Half 1, 2021 Half 2, 2021	2022 2023 2024 Half 1, 2022 Half 1, 2023 Half 2, 2023 Half 1, 2023 Half 1, 2023 Half 1, 2023 Half 1, 2023 Half 1, 2023 Half 1, 2023 Half 1, 2023 Half 1, 2023 Half 1, 2023 Half 1, 2023 Half 1, 2023 Half 1, 2023 Half 1, 2023 Half 1, 2023 Half 1, 2023 Half 1, 2023 Half 1, 2023 Half 1, 2023 Half 2, 2023 Half 1, 2023 Half 2, 2023 Half 2, 2023 Half 2, 2023 Half 2, 2023 Half 2, 2023 Half 3, 2023 Half 3, 2023 Half 4, 2023
			S-+ 26/09/22	Thu 10/05/22	Sat 26/08/23	155 days			Half 1, 2020 Half 2, 2020 N		
1225 5.36	Fire Hydrant and Booster Pumping Room, Portion B7 & B-7B (PS 6B.6.9)	465 days Thu 19/05/22	Sat 26/08/23								
6 1226 5.36.1	Site Installation Work	465 days Thu 19/05/22	Sat 26/08/23		Sat 26/08/23		864FF+50 days,1229				⊕ 19/05
7 12275.36.1.1	Tentative Civil Handover Date, Fire Hydrant and Booster Pumping Roor	1 day Thu 19/05/22	Thu 19/05/22		Thu 19/05/22		864FF+30 days,1229				
1228 5.36.1.2	Commencement of E&M Installation at Street FH Pump Room	464 days Thu 19/05/22	Sat 26/08/23		Sat 26/08/23		1220	FC A v 426 man			
1229 5.36.1.2.1	Mechanical Installations for Street FH Pumps	90 edays Thu 19/05/22	Wed 17/08/22		Wed 17/08/		1230	FS - A x 4~6 men			
0 1230 5.36.1.2.2	Electrical Installations for Street FH Pump	90 edays Wed 17/08/22	Tue 15/11/22			0.63 edays 1229	1231,1234	FS - A x 4~6 men			
1 1231 5.36.1.2.3	Site Acceptance Test for Street FH Pump	45 days Wed 16/11/22	Fri 30/12/22	Wed 16/11/22		0 days 1230	1232				
2 1232 5.36.1.2.4	System Commissioning for Street FH Pumps	45 days Sat 31/12/22	Mon 13/02/23	Sat 31/12/22	Mon 13/02/	339 days 1231	1202FF				
3 1233 5.36.1.2.5	Building Services Installations at Street FH Pump Room	284 days Wed 16/11/22	Sat 26/08/23	Wed 16/11/22	Sat 26/08/23	156 days					
4 12345.36.1.2.5.:	Lighting and Power Distribution System, Street FH PR	120 days Wed 16/11/22	Wed 15/03/23	Wed 16/11/22	Wed 15/03/	0 days 1230	1237,1235	BS - A x 4~6 men			
35 1235 5.36.1.2.5.;	Lightning Protection System, Street FH PR	30 days Thu 16/03/23	Fri 14/04/23	Thu 16/03/23	Fri 14/04/23	0 days 1234	1236,1237	BS - A x 4~6 men			
1236 5.36.1.2.5.	Mechanical Ventilation System, Street FH PR	14 days Sat 15/04/23	Fri 28/04/23	Sat 15/04/23	Fri 28/04/23	0 days 1235	1237	MVAC - A x 4~6 men			
7 1237 5.36.1.2.5.4	Testing and Commissioning of Building Services Installations, FH Pi	120 days Sat 29/04/23	Sat 26/08/23	Sat 29/04/23	Sat 26/08/23	145 days 1234,123	5,11202FF				
8 1238 5.37	Plumbing Installation (PS 6B.6.8)	1049 days Tue 16/02/21	Tue 02/01/24	Tue 16/02/21	Tue 02/01/24	0 days				-	
9 12395.37.1	Planned Sectional Completion Date - Section 1, Plumbing	0 days Thu 01/07/21	Thu 01/07/21	Thu 01/07/21	Thu 01/07/21	0 days 1241FF				@ 01/07	
1240 5.37.2	Design Submissions for Plumbing	134 days Tue 16/02/21	Wed 30/06/21	Tue 16/02/21	Wed 30/06	1 day				•	
1 12415.37.2.1	CDS033 - Detailed Design for Plumbing System	134 edays Tue 16/02/21	Wed 30/06/21		Wed 30/06/		1244,1239FF			<u>+</u>	
2 1242 5.37.3	Site Installation Work	915 days Thu 01/07/21	Tue 02/01/24		Tue 02/01/24						
2 1242 5.37.3 3 1243 5.37.3.1	Site Installation Work Commencement of Plumbing Installation	915 days Thu 01/07/21	Tue 02/01/24	Thu 01/07/21	Tue 02/01/24 Tue 02/01/24	0 days					
			Tue 28/09/21	Thu 01/07/21	Tue 28/09/21	0 days 1241	1245	Pb - A x 4~6 men		DI	b - A x 4~6 men
4 1244 5.37.3.1.1	Submission of detail design for acceptance	90 days Thu 01/07/21									Pb - B x 4~6 men
5 1245 5.37.3.1.2	Submission of WWO542 for WSD's approval	355 days Wed 29/09/21	Sun 18/09/22	Wed 29/09/21	Sun 18/09/22	118 days 1244	357,486,597,774	Pb - B x 4~6 men			<u>FB - 5 X 46</u> men
6 1246 5.37.3.1.3	Connection of External Pumping System (By others)	0 days Fri 15/09/23	Fri 15/09/23	Fri 15/09/23	Fri 15/09/23	17 days	1247				13/09
7 1247 5.37.3.1.4	Submission of WWO46 for WSD's Inspection	45 days Mon 02/10/23	Wed 15/11/23	Mon 02/10/23	Wed 15/11/23	0 days 1246,357,4	486 1248				
8 1248 5.37.3.1.5	Obtain WWO46 Part V	45 days Thu 16/11/23	Sat 30/12/23	Thu 16/11/23	Sat 30/12/23	2 days 1247	1249				
9 1249 5.37.3.1.6	Tentative Date for connection of external water pipework (by others)	0 days Tue 02/01/24	Tue 02/01/24	Tue 02/01/24	Tue 02/01/24	0 days 1248					€ 02/01
1250 5.38	Photovoltaic Power System (PS 6B.6.11)	1128 days Mon 01/03/21	Mon 01/04/24	Mon 01/03/21	Mon 01/04	0 days				Q	
1 12515.38.1	Planned Sectional Completion Date - Section 1, BR 2A & 2B	0 days Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/	0 days 1261FF				@ 12/07	
2 12525.38.2	Planned Sectional Completion Date - Section 2, BR 2A & 2B	0 days Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	Mon 01/04/	0 days 1269FF					
3 1253 5.38.3	Selection of Suppliers for major plant and materials for BR 2A & 2B	73 days Mon 01/03/21	Wed 12/05/21	Mon 01/03/21	Wed 12/05/21	29 days				<u> </u>	
4 12545.38.3.1	PV System (EQT041)	73 days Mon 01/03/21	Wed 12/05/21	Mon 01/03/21	Wed 12/05	29 days				-	
5 1255 5.38.3.1.1	Submission for acceptance of purchasing package	30 days Mon 01/03/21	Tue 30/03/21	Mon 01/03/21	Tue 30/03/21	0 days	1256				
6 1256 5.38.3.1.2	Invitation of quotations for purchasing package	21 days Wed 31/03/21	Tue 20/04/21	Wed 31/03/21		0 days 1255	1257			<u>+</u>	
	Acceptance of conforming quotation	21 days Wed 21/04/21	Tue 11/05/21	Wed 21/04/21		0 days 1256	1258			_	
7 1257 5.38.3.1.3				Wed 21/04/21 Wed 12/05/21		0 days 1257	1260				
58 1258 5.38.3.1.4	Commencement of Design Work	1 day Wed 12/05/21	Wed 12/05/21				1260				
9 1259 5.38.4	Design Submissions	49 days Wed 12/05/21	Wed 30/06/21	Wed 12/05/21						_	
0 1260 5.38.4.1	CDS060 - Detailed Design for PV System	45 edays Wed 12/05/21	Sat 26/06/21			0.63 edays 1258	1261				
1 1261 5.38.4.2	Complete the CLP's Electronic Application Form and Upload Required D	4 days Sun 27/06/21	Wed 30/06/21		Wed 30/06/		1251FF,1263			T	
2 1262 5.38.5	Material ordering and delivery to site	767 days Thu 01/07/21	Sun 06/08/23	Thu 01/07/21	Sun 06/08/23	59 days					-
3 1263 5.38.5.1	Manufacturing and Factory Acceptance Test of Plant	150 days Thu 01/07/21	Sat 27/11/21	Thu 01/07/21	Sat 27/11/21	572 days 1261	1264				
4 1264 5.38.5.2	Shipping and Delivery of Plant to site	45 days Fri 23/06/23	Sun 06/08/23	Fri 23/06/23	Sun 06/08/23	0 days 1263,126	65:1267				
1265 5.38.6	Site Installation Work	345 days Thu 23/02/23	Fri 02/02/24	Thu 23/02/23	Fri 02/02/24	0 days					
6 1266 5.38.6.1	Tentative Civil Handover Date, Portion B-4, BR2A & 2B (Rev. 5)	1 day Thu 23/02/23	Thu 23/02/23	Thu 23/02/23	Thu 23/02/23	0 days	1264SS+120 edays				⊕ 23/02
7 1267 5.38.6.2	Commencement of Site Installation Work	90 days Mon 07/08/23	Sat 04/11/23	Mon 07/08/23	Sat 04/11/23	0 days 1264	1268	PV - A x 4~6 men			<u> </u>
8 1268 5.38.6.3	Technical Assessment, System Test and Installation	60 days Sun 05/11/23	Wed 03/01/24	Sun 05/11/23		0 days 1267	1269	PV - A x 4~6 men			<u> </u>
9 1269 5.38.6.4	CLP's smart meter installation and Final on-grid test with CLP	30 days Thu 04/01/24	Fri 02/02/24	Thu 04/01/24		59 days 1268	1252FF				<u>+</u>
70 12705.39	Plant Commissioning	240 days Tue 12/09/23	Wed 08/05/24	Tue 12/09/23		0 days	39FF				
1 12715.39.1	Planned Sectional Completion Date - Section 4, Plant Commissioning	0 days Wed 01/05/24	Wed 01/05/24		Wed 01/05/						
2 1272 5.39.2	Design Submission for Treatment Process Plant Testing & Commissionin	90 days Wed 01/11/23	Mon 29/01/24		Mon 29/01		0.4				
3 1273 5.39.2.1	Document Submission and Resubmission for T&C procedures	90 days Wed 01/11/23	Mon 29/01/24		Mon 29/01/24						
4 1274 5.39.3	System Commissioning Tests of the E&M systems at IW, PST, BR 2A&2B, I	7 days Thu 08/02/24	Wed 14/02/24	Thu 08/02/24			9931275,1273FF-120 days	5			
5 1275 5.39.4	MBR System Process Startup	35 days Thu 15/02/24	Wed 20/03/24	Thu 15/02/24		0 days 1274	1276				
1276 5.39.5	Plant Commissioning	35 days Thu 21/03/24	Wed 24/04/24	Thu 21/03/24	Wed 24/04/	0 days 1275	1279				
7 1277 5.39.6	Overall commissioning of CCTV system	30 days Tue 12/09/23	Wed 11/10/23	Tue 12/09/23	Wed 11/10/23	196 days 358,487,59					
3 1278 5.39.7	Overall commissioning of Facility Computerized Systems (SCADA, CMMS, PMS, ID	28 days Mon 11/12/23	Sun 07/01/24	Mon 11/12/23	Sun 07/01/24	108 days 350,479,76	66, 1279				*
1279 5.39.8	Overall Plant Commissioning and DSD pre-handover inspections	14 days Thu 25/04/24	Wed 08/05/24	Thu 25/04/24	Wed 08/05/24	5 days 1276,1277	7,12				
1280 5.40	CE No. 009 - Provision of an Additional Primary Sludge Thickening System	375 days Tue 14/07/20	Fri 23/07/21	Tue 14/07/20	Fri 23/07/21	0 days			—	-	
1 1281 5.40.1	Detail Design Submission and Approval	77 days Tue 14/07/20	Mon 28/09/20	Tue 14/07/20	Mon 28/09/	0 days	1283				
82 1282 5.40.2	Subletting, Procurement, Manufacturing and Delivery	120 days Fri 31/07/20	Fri 27/11/20	Fri 31/07/20		0 days					
83 1283 5.40.3	Site Installation	270 days Sat 17/10/20	Tue 13/07/21		Tue 13/07/21		1284				
	Task Milestone Project Su Milestone Tentative Summary Manual Su		Critical :	Splitss	Manual P	rogress at)	Milestone (Actual) *				
ject: DE/2018/04	Milestone, Tentative Summary Manual Su	- Critical	Progres		Sidck (FIO	,	- 5.000				
te: 28/09/21											

les L	L		le: · ·	5-1-5-			Plant - Main Works Stage 1 E&M Works for Sewage Treatment	
ID WBS	Task Name	Duration between Task Start and Finish	Finish	Early Start	Early Finish	Free Slack Predecess	ors Successors Resource Names	2020 2021 2022 2023 2024 Half 1, 2020 Half 2, 2020 Half 1, 2021 Half 2, 2021 Half 1, 2022 Half 2, 2022 Half 1, 2023 Half 1, 2023 Half 1, 2023 Half 1, 2023 Half 2, 2023 Half 3, 2024 Half 2, 2023 Half 3, 2024 Half 3, 2025 Half
1284 5.40.4	Testing and Commissioning (Rev. 15)	10 days Wed 14/07/21	Fri 23/07/21	Wed 14/07/21	Fri 23/07/21	0 days 1283	1285FF	N
1285 5.40.5	Planned Completion Date	1 day Fri 23/07/21	Fri 23/07/21	Fri 23/07/21	Fri 23/07/21	0 days 1284FF		€ 23/07
1286 6	Beam Plus Submissions	1450 days Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	0 days		
1287 6.1	SA10 - Environmental Management Plan	1450 days Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	19 days	39	
1288 6.2	SA11 - Air Pollution During Construction	1450 days Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	19 days	39	
1289 6.3	SA12 - Noise During Construction	1450 days Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	19 days	39	
1290 6.4	SA14 - Noise from Building Equipment	1450 days Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	19 days	39	
1291 6.5	SA15 - Light Pollution	1450 days Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	19 days	39	
1292 6.6	MAP1 - Timber used for Temporary Works	1450 days Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	19 days	39	
1293 6.7	MAP2 - Use of Non-CFC Based Refrigerants	1450 days Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	19 days	39	
1294 6.8	MAP3 - Waste Management Plan	1450 days Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	19 days	39	
1295 6.9	MA2 - Modular and Standardized Design	1450 days Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	19 days	39	
1296 6.10	MA8 - Ozone Depleting Substances	1450 days Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	19 days	39	
1297 6.11	MA11 - Construction Waste Reduction	1450 days Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	19 days	39	
1298 6.12	EUP1 - Minimum Energy Performance	1450 days Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	19 days	39	
1299 6.13	EU1 - Reduction of CO2 Emissions	1450 days Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	19 days	39	
1300 6.14	EU2 - Peak Electricity Demand Reduction	1450 days Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	19 days	39	
1301 6.15	EU6 - Renewable Energy Systems	1450 days Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	19 days	39	
1302 6.16	EU9 - Energy Efficient Appliances	1450 days Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	19 days	39	
1303 6.17	EU10 - Testing and Commissioning	1450 days Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	19 days	39	
1304 6.18	EU11 - Operation and Maintenance	1450 days Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	19 days	39	
1305 6.19	EU12 - Meter and Monitoring	1450 days Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	19 days	39	
1306 6.20	WUP1 - Water Quality Survey	1450 days Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	19 days	39	
1307 6.21	WUP2 - Minimum Water Saving Performance	1450 days Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	19 days	39	
1308 6.22	WU1 / WU6 - Annual Water Use / Effluent Discharge to Foul Sewers	1450 days Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	19 days	39	
1309 6.23	IEQP1 - Minimum Ventilation Performance	1450 days Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	19 days	39	
1310 6.24	IEQ1 - Security	1450 days Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	19 days	39	
	,	1450 days Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	19 days	39	
1311 6.25	IEQ2 - Plumbing and Drainage	1450 days Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	19 days	39	
1312 6.26	IEQ3 - Biological Contamination				Fri 19/04/24	19 days	39	
1313 6.27	IEQ5 - Construction IAQ Management	1450 days Fri 01/05/20	Fri 19/04/24 Fri 19/04/24	Fri 01/05/20	Fri 19/04/24		39	
1314 6.28	IEQ6 / IEQ7 - IAQ	1450 days Fri 01/05/20		Fri 01/05/20	Fri 19/04/24	19 days 19 days	39	
1315 6.29	IEQ9 - Increased Ventilation	1450 days Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	19 days	39	
1316 6.30	IEQ11 - Localised Ventilation	1450 days Fri 01/05/20 1450 days Fri 01/05/20	Fri 19/04/24 Fri 19/04/24	Fri 01/05/20 Fri 01/05/20	Fri 19/04/24	19 days	39	
1317 6.31	IEQ12 - Ventilation in Common Areas		Fri 19/04/24			19 days	39	
1318 6.32	IEQ13 - Thermal Comfort in Air - Conditioned Premises	1450 days Fri 01/05/20		Fri 01/05/20	Fri 19/04/24		39	
1319 6.33	IEQ16 / IEQ17 - Interior Lighting in Normally Occupied Area / Interior Lighting in Areas not Normally Occupied	1450 days Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	FII 19/04/24	19 days	23	
13207	Summary of compensation events notified	487 days Tue 25/02/20	Fri 25/06/21	Tue 25/02/20	Fri 25/06/21	0 days		
13217.1	Compensation Event (CE) No. 001, Special Arrangement in Reducing the Risk	1 day Tue 25/02/20	Tue 25/02/20		Tue 25/02/20			⊚ 25/02
13217.1	Compensation Event (CE) No. 002, the Contractor's Site Accommodation by	1 day Mon 08/06/20	Mon 08/06/20		Mon 08/06/			● 08/06
	Compensation Event (CE) No. 003, Designated Area for the Contractor's Site	1 day Wed 22/04/20	Wed 22/04/20		Wed 22/04/	0 days		⊚ 22/04
1323 7.3		1 day Wed 22/04/20	Wed 22/04/20		Wed 22/04/	0 days		⊕ 22/04
1324 7.4	Compensation Event (CE) No. 005, Designated Area for the Contractor's Stor		wed 22/04/20 Fri 10/07/20	Fri 10/07/20				® 10/07
1325 7.5	Compensation Event (CE) No. 007, Employment of Temporary Staff under Al	1 day Fri 10/07/20				0 days		® 15/07
1326 7.6	Compensation Event (CE) No. 009, Provision of an Additional Primary Sludge	1 day Wed 15/07/20	Wed 15/07/20		Wed 15/07/	0 days		⊕ 14/04
1327 7.7	Compensation Event (CE) No. 011, Dismantling, relocating, disconnecting an	1 day Wed 14/04/21	Wed 14/04/21	Wed 14/04/21		0 days		9 - 70"
1328 7.8	NCE-PPMI-0202 (CE) Revised GA for F.S. & Sprinkler Pumping Room and Emergency Generator Room	1 day Fri 18/12/20	Fri 18/12/20	Fri 18/12/20	rri 18/12/20	0 days		
1329 7.9	NCE-PPMI-0203 (CE) Revised General Arrangement for Temp. Chemical Syst	1 day Tue 15/12/20	Tue 15/12/20	Tue 15/12/20	Tue 15/12/20	0 days		
	NCE-PPMI-0203 (CE) Revised General Arrangement for Temp. Chemical Syst NCE-PPMI-0204 (CE) Revised GA Layout Plan for DO Sys. No. 3A	1 day Fri 18/12/20	Fri 18/12/20	Fri 18/12/20		0 days		
1330 7.10		1 day Fri 18/12/20 1 day Mon 17/05/21	Mon 17/05/21	Mon 17/05/21		0 days		
1331 7.11	NCE-PPMI-0205 (CE) Provision of Louvre Panel for Outdoor AC Units at Contractor's Site Accommodation	1 day WON 17/US/21	141011 17/05/21	IVIUII 17/US/21	17/05/21	o days		
1332 7.12	NCE-PPMI-0206 (CE) Modification of Feeders of the existing switchboards	1 day Wed 23/06/21	Wed 23/06/21	Wed 23/06/21	Wed	0 days		
1002/.11	at Inlet Work and Provision of MCB Distribution Boards and Cables for		,,		23/06/21			
	Sidewide Submersible Pumps							
1333 7.13	NCE-PPMI-0207 (CE) Modification of Feeders of the existing switchboards	1 day Wed 23/06/21	Wed 23/06/21	Wed 23/06/21		0 days		
	at Inlet Consolidation House and Provision of MCB Distribution Boards and Cables for Sidewide Submersible Pumps				23/06/21			
13347.14	NCE-PPMI-0208 (CE) Modification of Feeders of the existing switchboards at Membrane Facilities Building and Provision of MCB Distribution Boards and Cables for Sidewide Submersible Pumps	1 day Fri 25/06/21	Fri 25/06/21	Fri 25/06/21	Fri 25/06/21	0 days		
	Task Milestone ♦ Project Sun	mary Late	Critical	Split	Manual Pr	ogress	Milestone (Actual) ★	
	Troject sun							

Drainage Service The Communit of the Hong N	es Department q tyris Association tuglis				Shek Wu Hu	i Effluent Polish	Proposed Work Prograi ing Plant - Main Works S	nme for DE/2018/04 age 1 E&M Works for Sewage Treati	ent Facilities								AECO
ID WBS	Task Name	Duration between Task Start and Finish	Finish	Early Start	Early Finish Fi	ee Slack Prede	ecessors Successors	Resource Names	2020 Half 1, 2020	Half 2, 2020	2021 Half 1, 2021	Half 2, 2021	2022 Half 1, 2022	Half 2, 2022	2023 Half 1, 2023	Half 2, 2023	2024 Half 1, 2024 N J M
35 1335 7.15	NCE-PPMI-0211 (CE) Provision of a New Chemical Storage and Dosing System fo the Application of Glycerin to Replace Methanol as an Alternative External Carbon Source for the Denitrification Process at BR2A and BR2B	1 day Wed 08/07/20	Wed 08/07/20	Wed 08/07/20	Wed 08/07/20	0 days			N		N						
36 1336 7.16	NCE-PPMI-0213 (CE) Revised General Arrangement for Chemical System No.	1 day Tue 05/01/21	Tue 05/01/21	Tue 05/01/21	Tue 05/01/21	0 days					1						
37 13377.17	NCE-PMI-0219 (CE) Provision and Removal of the Blank Flange to Blank Off Drain Valve and Temporary Submersible Pumps in PST No. 6	1 day Thu 22/04/21	Thu 22/04/21	Thu 22/04/21	Thu 22/04/21	0 days					1						
38 13387.18	NCE-PMI-0223 (CE) Revised GA for Chemical Pipe Trench	1 day Wed 07/04/21	Wed 07/04/21	Wed 07/04/21	Wed 07/04/	0 days					1						
39 13397.19	NCE-PMI-0226 (CE) Modification Works of Manhole Cover for MHD13 for Filtrate Intake Pipe of Primary Sludge Thickening System	1 day Fri 30/04/21	Fri 30/04/21	Fri 30/04/21	Fri 30/04/21	0 days											
40 13407.20	NCE-PMI-0227 (CE) Provision of Project Jackets with Fleece Vests	1 day Thu 29/04/21	Thu 29/04/21	Thu 29/04/21	Thu 29/04/21	0 days											
1 13417.21	NCE-PMI-0234 (CE) Provision of removal of the blank flange to blank off drain valve of PST No. 4	1 day Tue 25/05/21	Tue 25/05/21	Tue 25/05/21	Tue 25/05/21	0 days						T					

Task	Milestone		Project Summary Late	Critical Split		Milestone (Actual)				
Task Milestone, Te tz. DE/2018/04 28/09/21	Tentative ® Summary	,	Manual Summary Critical	Progress	Slack (Float)	Slack				
Date Wed 27/10/21						Page 24 of 24			Df	E_2018_04 Revised PG- (Rev 15, 2021-1

T4	Moior Activities & Submission in		Tir	ma					rogress		Action	Remarks / Status
Item	Major Activities & Submission in coming 3 months	Contract	Anticipated /	T	1			(E&N	I contract)		Асцоп	Remarks / Status
		Planned Commencem ent Date	Actual Commencem ent Date	Contract Planned Finish Date	Anticipated / Actual Finish Date	% of time elapsed based on "updated date")	Unit	Total Quantity	Completed Quantity	Actual Progress %		
Drawing Submisssion for Key Dates								ļ				
KD1A: Submission of civil and dimensional requirement drawing, electrical schematic drawings, etc. from formation level up to +8mPD in accordance	KD1A: Submission of Civil Requirement Drawing (Final)	8/28/2020	9/18/2020	11/5/2020	11/5/2020	Task Completed	no.	26	26	100%		
with the contract requirement of Contract No. DC/2018/07 to carry out civil works construction	KD1A: Submission of Electrical Schematic Drawing (Final)	7/15/2020	7/15/2020	11/5/2020	11/5/2020	Task Completed	no.	11	11	100%		
	KD1A: 6 November 2020											
KD1B: Submission of remaining civil and dimenssional requirement drawings, electrical schematic drawing, etc. in accordance with the contract requirement of Contract No. DC/2018/07 to	KD1B: Submission of Civil Requirement Drawing (First Draft)	9/30/2020	9/28/2020	12/30/2020	3/31/2021	Task Completed	no.	47	47	100%		
carry out civil works construction	KD1B: Submission of Civil Requirement Drawing (Final)	11/6/2020	11/5/2020	6/4/2021	6/4/2021	Task Completed	no.	47	47	100%		All the CWR Drawings were submitted.
	KD1B: 4 June 2021											
KD3B: 6B.2.15 Operation Restoration of Existing Primary Sedimentation Tank (PST) No. 4 and 6	KD3B: Submission of onsite survey report	7/11/2020	7/20/2020	7/16/2020	7/30/2021	Task Completed				100%	Bestwise	- Onsite survey conducted from 20 July 2020 to 22 July 2020. Bestwise submitted survey report on 5 August 2020. AECOM commented on 19 Aug 2020. Bestwise to resubmit upon conducting the remaining onsite survey. (Done) - Bestwise revised survey plan for remaining onsite checking of PST No. 6 on 1 Sep 2020. After discussion with plant operator, the remaining survey would be conducted after the dismantling work of PSTs. Formal survey record for PST No.4 was submitted on 24 May
	KD3B: Acceptancce of onsite survey report	7/17/2020	8/6/2020	7/23/2020	8/6/2021	Task Completed						- Remaining survey (level of bridge & scraper) for PST 6 completed Formal survey report shall be submitted on 30 Jul 2021. Acceptance for the center point, vertical and horizontal alignment of ductfoot installation of PST No.4 shall subject to joint site meeting conducted on 2 June 2021. Refer to E-RISC no
	KD3B: System Commissioning for PST No. 4 & 6	N/A	6/22/2021	N/A	9/3/2021	Task Completed				100%		000014A & 000016 result for details. Wet test (2nd) for PST#6 completed on 3 Sep 2021 and pre-handover inspection arranged on 30 Aug 2021. Defect list (final) received on 17 Sep 2021 and to be rectified by 13 Oct 2021. Site demo shall be carried out on 13 Oct 2021.
	KD3B: 9 June 2021											
	KD3B: 9 June 2021								-			
Section 1 of Works												
Construction of Temporary Filtrate Equalisation System		22/08/2020 -> 22/12/2020*	10/5/2020	10/15/2020		Task Completed				100%	Bestwise	Utilities survey report of lifting well and EQ tank were submitted on 23 Sept 2020 and 29 Sept 2020. AECOM commented lifting well on 29 Sept 2020.
	RC Structure Works of lifting well Construction of concrete plinth for filtrate EQ tank	11/7/2020 1/23/2021	1/12/2021 2/8/2021	12/30/2020 2/1/2021	2/25/2021 2/26/2021	Task Completed Task Completed				100%		
	Offsite fabrication and delivery of filtrate EQ tank	10/31/2020	1/16/2021	2/2/2021	3/4/2021	Task Completed				100%		First batch of filtrate EQ tank panel was delivered on 4 Mar 2021.
	Onsite assembly of filtrate EQ tank	2/2/2021	3/1/2021	3/12/2021	4/16/2021	Task Completed				100%		
	Mechanical Installation Electrical Installation	3/17/2021	3/30/2021	4/12/2021	5/14/2021	Task Completed 84%				-		PLC programme for water spray system (stage 1) is on-going, motorized gate valve for stage 2 under PMI is being fabricated and the delivery lead time is 3.5 months.
	Testing and Comissioning	4/15/2021	4/22/2021	5/1/2021	11/30/2021	82%				-		Auto mode (without water spray system) is adpoted, water spray system (stage 2) under PMI shall be commenced after delivery of motorized gate valve.
6B.2.1 Inlet Works	Submission of Contractor's Design for Inlet Works No. 1	9/6/2020	11/16/2020	5/14/2021	12/31/2021	83%				-	Bestwise	Finalized design calculations for Inlet Works no.1 shall be submitted by 31 Dec 2021.
	Submission of P&M Submission	9/6/2020	9/7/2020	5/14/2021	12/31/2021	85%						P&M0003 (rev.3) for coarse screen and fine screen was submitted on 10 Feb 2021. AECOM accepted subject to comments on 16 Feb 2021. P&M submission (rev. 1) for inlet pumps was submitted on 10 Feb 2021. AECOM accepted subject to comments on 1 Apr 2021. P&M (rev.1) for penstock and actuator was submitted on 28 Jan 2021. AECOM commented on 12 Mar 2021. Finalized material submissions for Inlet Works no.1 shall be submitted by 31 Dec 2021.
	Submission of P&ID Drawing	9/6/2020	9/6/2020	5/14/2021	12/29/2020	Task Completed						PID (rev.B) submitted on 13 Nov 2020. AECOM accepted subject to comments on 29 Dec 2020.

	Submission of GA Drawing	9/6/2020	1/5/2021	5/14/2021	12/31/2021	80%				E&M GA submission submitted on 6 Feb 2021. AECOM commented on 19 Feb 2021. Bestwise resubmitted DWG-0082 Rev.1 on 9 July 2021. Electrical GA submitted on 7 Apr 2021. AECOM commented on 21 Apr 2021. Bestwise resubmitted DWG-0095 Rev.1 on 3 July 2021 and accepted by AECOM. Finalized drawings for Inlet Works no.1 shall be submitted by 31 Dec 2021.
	Submission of Electrical Drawing	9/6/2020	1/15/2021	5/14/2021	12/31/2021	80%				Electrical SLD submitted on 5 Feb 2021. AECOM commented on 20 Feb 2021. Bestwise to resubmit. Finalized drawings for Inlet Works no.1 shall be submitted by 31 Dec 2021.
	Acceptance of submission	5/15/2021	5/15/2021	5/29/2021	1/21/2022	63%		-		
6B.2.2 Primary Sedimentation Tank No. 1-4	Submission of Contractor's Design for Primary Sedimentation Tanks No. 1-4	9/6/2020	12/28/2020	5/14/2021	5/31/2022	57%		_	Bestwise	PFD (rev.B) under DWG0004 submitted on 22 June 2021. Finalized design calculations for PST shall be submitted by 31 May 2022.
	Submission of P&M Submission	9/6/2020	11/26/2020	5/14/2021	5/31/2022	60%				Plant and Material (P&M0044) submission (Rev. 0) for primary sludge pump was submitted on 5 Feb 2021. AECOM commented on 1 Apr 2021. Bestwise to resubmit. Finalized material submissions for PST shall be submitted by 31 May 2022.
	Submission of P&ID Drawing	9/6/2020	10/2/2020	5/14/2021	6/24/2021	Task Completed				PID under DWG0037 (rev.1) submitted on 24 June 2021 and is accepted by AECOM.
	Submission of GA Drawing	9/6/2020	2/3/2021	5/14/2021	5/31/2022	54%				Mechanical GA was submitted on 19 Jun 2021. Electrical GA under DWG0103 (rev.1) was submitted on 6 Jul 2021 and is accepted by AECOM. Finalized drawings for PST shall be submitted by 31 May 2022.
	Submission of Electrical Drawing	9/6/2020	1/15/2021	5/14/2021	5/31/2022	56%				Electrical SLD submitted on 5 Feb 2021. AECOM commented on 20 Feb 2021. Bestwise to resubmit. Finalized drawings for PST shall be submitted by 31 May 2022.
	Acceptance of submission	5/15/2021	4/2/2021	5/29/2021	6/21/2022	45%		-		
6B.2.3 Chemical Storage and Dosing System	Submission of Contractor's Design for Chemical Dosing System (CDS006)	9/6/2020	1/7/2021	5/14/2021	10/31/2021	97%		-	Bestwise	Design calculation (rev.0) of CHS1 and TCHS submitted on 2 Sep 2020 and 28 Aug 2020, AECOM commented on 24 Sep and 6 Oct 2020, Bestwise submitted CDS0060 on 15 Jul 2021 and CDS0044 on 19 Jul 2021. Finalized design calculation for chemical systems shall be submitted by 30 Sep 2021.
	Submission of P&M Submission	9/6/2020	9/6/2020	5/14/2021	10/31/2021	98%				Finalized material submissions for chemical system shall be submitted by 30 Sep 2021.
	Submission of P&ID Drawing	9/6/2020	12/11/2020	5/14/2021	6/29/2021	Task Completed				PID resubmitted under DWG0053 (rev.1) on 28 Jun 2021, DWG0057 (rev.1) on 29 Jun 2021 and DWG0058 (rev.1) on 29 Jun 2021.
	Submission of GA Drawing	9/6/2020	2/8/2021	5/14/2021	10/31/2021	96%				Electrical GA drawings for CS1 under DWG0096 submitted on 10 April 2021. AECOM accepted subject to comments on 17 Apr 2021. Mechanical GA drawings for CS1 submitted on 1 April 2021. AECOM commented on 24 April 2021. Bestwise resubmitted DWG0093 (rev.1) on 30 Jun 2021 and is accepted by AECOM. Mechanical GA for Temp CS submitted on 12 Jun 2021. Finalized drawings for chemical systems shall be submitted by 30 Sep 2021.
	Submission of Electrical Drawing	9/6/2020	L/15/2021	5/14/2021	10/31/2021	97%				Electrical SLD submitted on 5 Feb 2021. AECOM commented on 20 Feb 2021. Bestwise to resubmit. Finalized drawings for chemical system shall be submitted by 30 Sep 2021.
	Acceptance of submission	5/15/2021	5/15/2021	5/29/2021	10/21/2021	100%		-		
6B.2.4 Membrane Bioreactor (MBR) System - Bio Reactor 2A and 2B	Submission of Contractor's Design for Bioreactor 2A and 2B (CDS004)	9/6/2020	1/12/2021	5/14/2021	6/30/2022	53%		-	Bestwise	PFD (rev.1) submitted on 3 Nov 2020. AECOM accepted on 7 Dec 2020 subject to comment. MBR system process and design calculation (rev.2) submitted on 6 Nov 2020. AECOM accepted on 17 Nov 2020 subject to comments. Electrical CDS submitted on 23 Jun 2021.
	Submission of P&M Submission	9/6/2020	11/26/2020	5/14/2021	6/30/2022	57%				Finalized design calculations shall be submitted by 30 June 2022 P&M0053 Mixed Liquor Return (MLR) Pump was resubmitted formally on 17 Jun 2021. Finalized material submission shall be submitted by 30 June 2022.
	Submission of P&ID Drawing	9/6/2020	11/2/2020	5/14/2021	7/2/2021	Task Completed				PID (Rev.1) under DWG0042 resubmitted on 6 July 2021.
	Submission of GA Drawing	9/6/2020	2/17/2021	5/14/2021	6/30/2022	49%				Mechanical GA under DWG0132 submitted on 26 Jun 2021 and is accepted by AECOM. Electrical GA submitted on 23 Jun 2021. Finalized drawing shall be submitted by 30 June 2022.
	Submission of Electrical Drawing	9/6/2020	1/15/2021	5/14/2021	6/30/2022	53%				Electrical SLD submitted on 5 Feb 2021. AECOM commented on 20 Feb 2021. Bestwise to resubmit. Finalized drawing shall be submitted by 30 June 2022.
	Acceptance of submission	5/15/2021	5/15/2021	5/29/2021	7/21/2022	37%		-		
		L	1				·	 		

6B.2.4 Membrane Bioreactor (MBR) System -	Submission of Contractor's Design for Membrane								PFD (rev.1) submitted on 3 Nov 2020. AECOM accepted on 10 Dec 2020 subject to
Membrane Filtration System No. 2 (MFB No. 2)	Filtration System (CDS005)	9/6/2020	1/11/2021	5/14/2021	6/30/2022	53%	_	Bestwise	comment. MBR system process and design calculation (rev.2) submitted on 6 Nov 2020. AECOM
		3/0/2020	1/11/2021	3/14/2021	0/30/2022	3370		Destwise	accepted on 17 Nov 2020 subject to comments.
	Submission of P&M Submission								Finalized design calculations shall be submitted by 30 June 2022.
	Shormssion of Feder Shormssion								P&M (rev.0) for penstock and actuator was submitted on 20 Nov 2020. AECOM commented on 5 Jan 2021. Bestwise to resubmit
									P&M0050 (rev. 0) for membrane tank drain pump was submitted on 5 Mar 2021. AECOM
									commented on 29 Mar 2021. Bestwise resubmitted formally on 19 Jun 2021. P&M0072 (rev. 0) for membrane module was submitted on 20 Apr 2021. AECOM
									commented on 20 May 2021, Bestwise to re-submit.
		9/6/2020	11/19/2020	5/14/2021	6/30/2022	57%			P&M0069 (rev.0) for permeate pump was submitted on 4 Mar 2021. AECOM commented on 23 Apr 2021. Bestwise resubmitted formally on 19 Jun 2021.
									P&M0047 (rev. 1) for RAS pump was resubmitted on 17 Apr 2021. AECOM commented
									on 12 May 2021, Bestwise resubmitted formally on 19 Jun 2021. P&M0073 & 0074 (rev.0) for aeration blower and air scouring blower was submitted to
									AECOM formally on 19 Jun 2021.
									Finalized material submission shall be submitted by 30 June 2022.
	Submission of P&ID Drawing	9/6/2020	10/30/2020	5/14/2021	7/2/2021	Task Completed			DWG0049 (Rev.1) was resubmitted on 2 Jul 2021.
	Submission of GA Drawing	3/31/2021	2/18/2021	5/14/2021	6/30/2022	49%			DWG0121 (rev.1) was resubmitted to AECOM on 17 Jul 2021 Finalized drawings shall be submitted by 30 June 2022.
	Submission of Electrical Drawing								Electrical SLD submitted on 5 Feb 2021. AECOM commented on 20 Feb 2021. Bestwise to
		4/15/2021	1/15/2021	5/14/2021	6/30/2022	53%			resubmit. Electrical GA under DWG0079 (rev.1) was resubmitted on 8 Jul 2021.
									Finalized drawings shall be submitted by 30 June 2022.
	Acceptance of submission	5/15/2021	5/15/2021	5/29/2021	7/21/2022	37%	-		
6B.2.6 Deodorisation System	Tender award (C11)						1000/	D	Bestwise submitted tender report on 13 May 2020. AECOM commented on 23 July 2020,
(EQT-001 - Deodorization Unit)	Association of the design of (CLI)	4/25/2020	4/25/2020	5/12/2020	5/12/2020	Task Completed	100%	Bestwise	Bestwise to resubmit.
	Acceptance of tender award (C11) Submission of Contractor's Design for Deodorisation	5/13/2020	5/13/2020	5/21/2020	5/21/2020	Task Completed	100%		The state of the s
	System, DOU No. 1 (CDS0019 & CDS0045)	9/6/2020	9/6/2020	5/14/2021	12/31/2021	85%	-		Design Calculation (Rev.0) was submitted on 24 Nov 2020. AECOM commented on 6 Jan 2021, Bestwise to resubmit. Bestwise submitted CDS0045 on 3 June 2021. Finalized design shall be submitted by 31 Dec 2021. (follow Inlet Works)
	Submission of P&ID Drawing of DOU No. 1	9/6/2020	8/5/2020	5/14/2021	7/2/2021	Task Completed	-	Bestwise	Bestwise resubmitted rev.3 on 29 Mar 2021. AECOM accepted subject to comments on 13 Apr 2021.
	Submission of GA Drawing of DOU No. 1	9/6/2020	9/6/2020	5/14/2021	12/31/2021	85%			GA submitted on 21 Jun 2021 Finalized drawings shall be submitted by 31 Dec 2021. (follow Inlet Works)
	Submission of Electrical Drawing of DOU No. 1								Control wiring diagrams was resubmitted on 1 April 2021. AECOM commented on 23 Apr
		3/21/2021	1/30/2021	5/14/2021	12/31/2021	79%			2021. Bestwise to resubmit. Finalized drawings shall be submitted by 31 Dec 2021. (follow Inlet Works)
	Acceptance of submission	5/15/2021	5/15/2021	5/29/2021	1/21/2022	63%	-		A Manage data to constant by the property of t
	Submission of Contractor's Design for Deodorisation								Design Calculation (Rev.0) was submitted on 24 Nov 2020. AECOM commented on 6 Jan
	System , DOU No. 2A (CDS0019 & CDS0048)	9/6/2020	9/6/2020	5/14/2021	6/30/2022	62%	•		2021, Bestwise to resubmit. Bestwise submitted CDS0048 on 17 June 2021. Finalized design shall be submitted by 30 June 2022. (follow BR2A2B)
	Submission of P&ID Drawing of DOU No. 2A								Bestwise resubmitted rev.3 on 29 Mar 2021, AECOM accepted subject to comments on 13
		9/6/2020	8/5/2020	5/14/2021	7/2/2021	Task Completed	-	Bestwise	Apr 2021.
	Submission of GA Drawing of DOU No. 2A								Bestwise submitted (rev.1) on 30 Oct 2020. AECOM commented on 16 Dec 2020. Bestwise
		9/6/2020	8/3/2020	5/14/2021	6/30/2022	64%	-	Bestwise	to resubmit. Finalized drawing shall be submitted by 30 June 2022. (follow BR2A2B)
	Submission of Electrical Drawing of DOU No. 2A								
	Submission of Electrical Drawing of DOC 100. 2A	3/21/2021	1/26/2021	5/14/2021	6/30/2022	52%			Bestwise submitted (rev.0) on 26 Jan 2021, AECOM commented on 4 Feb 2021. Bestwise to resubmit.
	A		711 C (0.12)	600,0001	# In 1 In and	270/			Finalized drawing shall be submitted by 30 June 2022. (follow BR2A2B)
	Acceptance of submission Submission of Contractor's Design for Deodorisation	5/15/2021	5/15/2021	5/29/2021	7/21/2022	37%	-		Design Calculation (Rev.0) was submitted on 24 Nov 2020. AECOM commented on 6 Jan
	System, DOU No. 3A (CDS0019)	9/6/2020	9/6/2020	5/14/2021	10/31/2021	98%			2021, Bestwise to resubmit. Finalized design shall be submitted by 30 Sep 2021.
	Submission of P&ID Drawing of DOU No. 3A	9/6/2020	8/5/2020	5/14/2021	7/2/2021	Task Completed	_	Bestwise	Bestwise resubmitted rev.3 on 29 Mar 2021. AECOM accepted subject to comments on 13
	Submission of GA Drawing of DOU No. 3A	-				-			Apr 2021. Bestwise submitted (rev.1) on 28 Oct 2020. AECOM commenced on 16 Dec 2020.
	Submission of GA Diawing of DOC 100. 3A	9/6/2020	7/8/2020	5/14/2021	10/31/2021	98%	-	Bestwise	Bestwise resubmitted on 24 June 2021. Finalized drawing submitted by 30 Sep 2021.
	Submission of Electrical Drawing of DOU No. 3A								Bestwise submitted on 17 Apr 2021. AECOM commented on 27 Apr 2021. Bestwise to
		3/21/2021	2/26/2021	5/14/2021	10/31/2021	96%			resubmit. GA submitted on 24 Jun 2021
									Finalized drawing submitted by 30 Sep 2021.
	Acceptance of submission Submission of Contractor's Design for Deodorisation	5/15/2021	5/15/2021	5/29/2021	10/31/2021	94%			D : 01 14: 00 00 00 11: 11 000 17:00
	System, DOU No. 3B (CDS0019 & CDS0049)	9/6/2020	9/6/2020	5/14/2021	6/30/2022	62%			Design Calculation (Rev.0) was submitted on 24 Nov 2020. AECOM commented on 6 Jan 2021, Bestwise to resubmit. Bestwise submitted CDS0049 on 18 June 2021. Finalized design shall be submitted by 30 June 2022.

emporary Primary Studge Thickener and its ccessories Sub-programme was provided by Bestwise)	Acceptance of subletting package (C9) for acceptance Acceptance of subletting package (C9) (Mech)	30/05/2020 -> 30/7/2020*	8/15/2020	15/06/2020- > 15/8/2020*	9/16/2020	Task Completed		100%		- *=Corresponding PMI No.009 and CE No.009 were issued by AECOM on 14 July 20 CE was implemented on 15 July 2020.
ubcontracting emporary Primary Sludge Thickener and its	Submission of subletting package (C9) for acceptance	15/05/2020 ->	8/14/2020	15/05/2020 -	8/27/2020	Task Completed		100%	Bestwise	- *=Corresponding PMI No.009 and CE No.009 were issued by AECOM on 14 July 20
	Submission for CMMS & IDMS system	N/A	6/1/2021	N/A	8/31/2022	31%				Finalized design shall be submitted by 31 Aug 2022.
	Submission for PMS system	N/A	3/8/2021	N/A	8/31/2022	42%				Tender package to be resubmitted on 29 June 2021. Finalized design shall be submitted by 31 Aug 2022.
CADA System & PMS	Submission for SCADA system	N/A	2/11/2021	N/A	8/31/2022	45%				Revised SCADA structure was provided via email on 9 Apr 2021 and tender package under preparation. Finalized design shall be submitted by 31 Aug 2022.
	Submission for r v system	N/A	3/15/2021	N/A	6/30/2022	47%				Tender package was submitted to AECOM. Finalized design shall be submitted by 30 June 2022.
	Submission of ELV system Submission for PV system	N/A	1/8/2021	N/A	9/30/2022	45%				GA for CCTV was resubmitted on 16 Mar 2021. AECOM commented on 30 Mar 2 Bestwise resubmitted on 25 Jun 2021. Finalized design shall be submitted by 30 Sep 2022. Tanden polices was submitted to AECOM.
		N/A	12/10/2020	N/A	6/30/2022	56%				GA for lighting was submitted on 18 Dec 2020. AECOM commented on 6 Jan 2021 Bestwise to resubmit. GA for small power system was submitted in 8 Feb 2021. AECOM commented on 3 2021. Bestwise to resubmit. Finalized design shall be submitted by 30 June 2022.
	Submission for Plumbing and Drainage System Submission for Electrical Services System	N/A	3/15/2021	N/A	6/30/2022	47%				Subletting Package resubmitted by 10 Mar 2021. AECOM accepted on 12 Mar 2021 Tender invitation was conducted on 15 Mar 2021 and closed on 26 Mar 2021. Finalized design shall be submitted by 30 June 2022.
	Submission for Fire Services System	N/A	3/15/2021	N/A	6/30/2022	47%				Subletting Package to be resubmitted by 31 Mar 2021. AECOM accepted on 9 Apr 2 Drawings: Inlet Works: submitted on 8 June 2021. PST 1-4: submitted on 23 Jun 2021 BR2A &2B: submitted on 8 Jun 2021 MFB 2: submitted on 8 Jun 2021 Finalized design shall be submitted by 30 June 2022.
ailding Services System	Submission for MVAC system	N/A	12/10/2020	N/A	6/30/2022	56%				Design calculations and drawings for inlet works was submitted on 16 Dec 2020. AE commented on 15 Jan 2021 and 20 Jan 2021. Design calculations and drawings for PST was submitted on 30 Dec 2020. AECOM commented on 22 Jan 2021 and 26 Jan 2021. Design calculations and drawings for MFB2 was submitted on 29 Jan 2021. AECOM commented on 26 Mar 2021. Subletting package resubmitted by 18 Mar 2021. AECOM accepted on 19 Mar 2021 Finalized design shall be submitted by 30 June 2022.
	Temporary Filtration Tank (CDS050-5)	9/6/2020	12/5/2020	9/6/2020	5/21/2021	Task Completed				DWG 0051 (Rev.2) was resubmitted on 7 May 2021 and acceptance by AECOM su condition on 21 May 2021. Bestwise submitted P&M0021 on 21 June 2021.
	Submission of detailed design for lifting appliances for MFB (CDS050-4) Submission of detailed design for lifting appliances for	9/6/2020	12/5/2020	9/6/2020	5/31/2022	59%				DWG 0066 (Rev.1) was submitted on 1 Mar 2021. AECOM commented on 5 Mar 2 Bestwise to resubmit. Finalized design shall be submitted by 31 May 2022.
	Submission of detailed design for lifting appliances for BR 2A and 2B (CDS050-3)	9/6/2020	12/5/2020	9/6/2020	5/31/2022	59%				DWG 0065 (Rev.0) was submitted on 18 Jan 2021. AECOM commented on 9 Mar Bestwise to resubmit. Finalized design shall be submitted by 31 May 2022.
	Submission of detailed design for lifting appliances for Primary Sedimentation Tanks (CDS050-2)	9/6/2020	12/5/2020	9/6/2020	5/31/2022	59%				DWG 0054 (Rev.0) was submitted on 18 Jan 2021. AECOM commented on 9 Mar 2021 Bestwise to resubmit. Finalized design shall be submitted by 31 May 2022.
4SC008 - Design, Supply and Installation of detailed esign for lifting appliances	Submission of detailed design for lifting appliances for Inlet Works No. 1 (CDS050-1)	9/6/2020	12/5/2020	9/6/2020	12/31/2021	82%		- I		DWG 0055 (Rev.0) was submitted on 13 Mar 2021. AECOM commented on 20 Ap Bestwise to resubmit. Bestwise submitted P&M0025 on 15 June 2021. Finalized design shall be submitted by 31 Dec 2021.
ASCONO D.: C. h. d Installation of detailed	Acceptance of submission Acceptance of tender award (C9)	5/15/2021	5/15/2021	5/29/2021	7/6/2020	Task Completed		100%	_	AECOM accepted tender report on 6 July 2020.
	Submission of Electrical Drawing of DOU No. 3B	3/21/2021	2/22/2021	5/14/2021	6/30/2022 7/21/2022	49% 37%				GA submitted on 24 Jun 2021 Finalized drawing shall be submitted by 30 June 2022.
	Submission of GA Drawing of DOU No. 3B	9/6/2020	9/6/2020	5/14/2021	6/30/2022	62%				Bestwise submitted DWG0081 (rev.0) on 5 Feb 2021. AECOM commeneted on 12 2021. Bestwise to resubmit. Finalized drawing shall be submitted by 30 June 2022.
	Submission of P&ID Drawing of DOU No. 3B	9/6/2020	8/5/2020	5/14/2021	7/2/2021	Task Completed		-	Bestwise	Bestwise resubmitted rev.3 on 29 Mar 2021. AECOM accepted subject to comments Apr 2021.

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Tender invitation (C9) (Mech)	15/06/2020-> 15/8/2020*	9/9/2020	22/06/2020- > 22/8/2020*	10/14/2020	Task Completed			100%		CE was implemented on 15 July 2020. - Tender invitation for FRP Tank was conducted on 9 Sep 2020, tender returned on 16 Sep 2020. - Tender invitation for mechanical installation was conducted on 29 Sept 2020, tender returned on 14 Oct 2020,
Tender award (C9) (Mech)	22/06/2020-> 22/8/2020*	9/17/2020	29/06/2020- > 29/8/2020*	10/22/2020	Task Completed			100%		- *=Corresponding PMI No.009 and CE No.009 were issued by AECOM on 14 July 2020. CE was implemented on 15 July 2020 Tender report for FRP Tank was submitted on 24 Sep 2020 and accepted on 9 Oct 2020 Tender report for mechanical installation submitted on 22 Oct 2020 and accepted on 16 Nov 2020.
Acceptance of tender award (C9) (Mech)	-	-	-	11/16/2020	Task Completed			100%		
Submission of subletting package (C9) for acceptance (Elect)	15/05/2020 -> 15/7/2020*	12/9/2020	15/05/2020 - > 30/11/2020*	1/28/2021	Task Completed			100%		- *=Corresponding PMI No.009 and CE No.009 were issued by AECOM on 14 July 2020. CE was implemented on 15 July 2020. - Bestwise resubmitted subcontracting package of electrical installation on 28 Jan 2021
Acceptance of subletting package (C9) (Elect)	30/05/2020 -> 30/7/2020*	1/29/2021	15/06/2020- > 15/8/2020*	2/1/2021	Task Completed			100%		- *=Corresponding PMI No.009 and CE No.009 were issued by AECOM on 14 July 2020. CE was implemented on 15 July 2020.
Tender invitation (C9) (Elect)	15/06/2020-> 15/8/2020*	2/1/2021	22/06/2020- > 22/8/2020*	2/11/2021	Task Completed			100%		- *=Corresponding PMI No.009 and CE No.009 were issued by AECOM on 14 July 2020. CE was implemented on 15 July 2020. - Tender invitation commenced on 1 Feb 2021 and returned on 11 Feb 2021
Tender award (C9) (Elect)	22/06/2020-> 22/8/2020*	2/11/2021	29/06/2020- > 29/8/2020*	2/23/2021	Task Completed			100%		 -*=Corresponding PMI No.009 and CE No.009 were issued by AECOM on 14 July 2020. CE was implemented on 15 July 2020. - Tender report target submitted on 23 Feb 2021 and accepted on 24 Feb 2021
Acceptance of tender award (C9) (Elect)	-	-	-	2/26/2021	Task Completed			100%		Corresponding Pivit No.009 and CE No.009 were issued by AECONI on 14 July 2020.
Tender invitation (C11)	30/04/2020-> 15/07/2020*	4/30/2020	30/06/2020- > 15/09/2020*	11/18/2020	Task Completed			100%	Bestwise	CE was implemented on 15 July 2020. -Tender invitation of Primary Sludge Thickener commenced on 22 April 2020 and tender was received on 29 April 2020. Tender queries was requested on 5 May 2020 and received on 7 May 2020. Tender report was commented by PM and resubmitted on 22 May 2020. Accepted by AECOM on 12 Jun 2020. - Tender Invitation of process pumps for the thickening system was commenced on 5 Jun 2020 and tenders were received on 10 June 2020. Tender report submitted to PM on 2 July 2020. Tender Invitation of activated carbon filter was commenced on 22 Oct 2020 and to be returned on 2 Nov 2020. Tender report submitted on 5 Nov 2020 and accepted on 16 Nov 2020 - Tender Invitation of FRP platform was commenced on 13 Nov 2020 and to be returned on 20 Nov 2020. Tender report submitted on 30 Nov 2020 and accepted on 11 Jan 2020 - Tender Invitation of instrument was commenced on 18 Nov 2020 and to be returned on 25 Nov 2020. Tender report submitted on 30 Nov 2020 - Based on the control philosophy agreed on 23 Dec 2020, motorized and solenoid valves accepted on PMI No.009 and CE No.009 were issued by AECOM on 14 July 2020.
Tender award (C11)	15/05/2020-> 29/07/2020*	5/30/2020	15/07/2020- >	11/30/2020	Task Completed			100%		CE was implemented on 15 July 2020.
Acceptance of tender award (C11)	-	_	-	9/18/2020				-	. , ,	
Design Submission	03/07/2020 -> 15/07/2020*	8/5/2020	21/09/2020- > 02/10/2020*	5/10/2021	Task Completed			100%	Bestwise	-*=Corresponding PMI No.009 and CE No.009 were issued by AECOM on 14 July 2020. CE was implemented on 15 July 2020Design submission of Process Pumps (Rev.3) resubmitted on14 Apr 2021, AECOM accepted with comments on 7 May 2021Design submission of electrical calculation (rev.2) was resubmitted on 29 Apr 2021. AECOM accepted with comments on 10 May 2021Control Philosophy (Rev.2) resubmitted on 5 Mar 2021. AECOM accepted subject to comments on 26 Mar 2021.
Plant and Material Submission	21/07/2020 -> 30/07/2020*	7/21/2020	31/08/2020 - > 31/10/2020*	6/30/2021	Task Completed				Bestwise	- *=Corresponding PMI No.009 and CE No.009 were issued by AECOM on 14 July 2020. CE was implemented on 15 July 2020. - Plant and Material submission of primary sludge thickener was resubmitted on 1 Sep 2020 (Rev. 3) and AECOM accepted on 8 Sep 2020. - Plant and Material submission P&M0002 (Rev.2) of process pumps was submitted on 5 August 2020 and AECOM commented on 26 Aug 2020, Bestwise to re-submitted to AECOM. - Plant and Material submission (Rev.0) for valves was submitted on 16 Nov 2020. AECOM accepted on 14 Dec 2020 subject to comments - Plant and Material submission (Rev.1) for DI pipes and fittings was resubmitted on 3 Dec 2020. AECOM accepted on 14 Dec 2020 - Plant and Material submission (Rev.0) for primary sludge equalization tank was submitted on 5 Feb 2021. AECOM accepted subject to comments on 25 Feb 2021. - Plant and Material submission (Rev.0) for activated carbon filter was submitted on 28 Jan 2021. AECOM accepted subject to comments on 5 Feb 2021. - Plant and Material submission (Rev. 1) for instruments was resubmitted on 13 Mar 2021. AECOM accepted subject to comments on 7 Apr 2021.

	Drawing Submission										
					İ						- *=Corresponding PMI No.009 and CE No.009 were issued by AECOM on 14 July 2020.
				21/09/2020 -							CE was implemented on 15 July 2020.
		03/07/2020 ->			211012021				1000/	D	- PFD, P&ID, Schematic GA (Rev.3) resubmitted on 22 Jan 2021 according to the finallized
		30/07/2020*	8/3/2020	>	2/10/2021	Task Completed			100%	Bestwise	control philosophy. AECOM accepted subject to comment on 29 Jan 2021.
		30/07/2020*		21/11/2020*							The state of the s
		-	1	21.11.2020		1					- Electrical drawing - Bestwise resubmitted electrical drawing (Rev.5) on 22 Mar 2021.
				1		[AECOM accepted on 16 Apr 2021.
]				1
							1				
			1			1					
	Material Manufacturing		<u> </u>								- *=Corresponding PMI No.009 and CE No.009 were issued by AECOM on 14 July 2020.
	Iviaterial ivialitiacturing			21/10/2020 -							CE was implemented on 15 July 2020.
		31/07/2020 ->		21/10/2020 -							
		30/09/2020*	8/4/2020	>	4/20/2021	Task Completed			100%		- Manufacturing instruction of PS thickener was issued on 3 August 2020.
		30/09/2020		21/12/2020*				1			- Manufacturing instruction of process pumps was issued on 24 September 2020
						İ					- Electrical sub-contractor is awarded and manufacturing LCP
					4/24/2024						- Electrical Sub-confractor is awarded and managed and
	Material Delivery	05/09/2020 ->	11/4/2020	16/11/2020 -	6/21/2021	Task Completed					
	Mechanical Installation							1 1			
	Tradition Indiana.	01/10/2020 >		15/11/2020 -		1					
		01/10/2020 ->	2/2/2021	>	5/17/2021	Task Completed	1		_		
		01/12/2020*	2/2/2021	15/01/2021*	5/1//2021	Thom completed	1				
				15/01/2021*		1					
							 		1000/		T 1 1 1 1 1 1 1 1 1 2 1 2 1 1 2 2 1 1 2 2 1 1 2 2 1 1 2 2 1 1 2 2 1 1 2 2 1 1 2 2 1 1 2 2 1 2 2 1 2 2 2 1 2 2 2 1 2
	Offsite Fabrication and Delivery of FRP Tank		1/16/2021		4/7/2021	Task Completed			100%		First batch to be delivered on 23 Mar 2021
	Onsite Installation of FRP Tank					1		1 T			
			4/7/2021		7/30/2021	Task Completed		1			Water filling to tank completed; Tank hydraulic test completed.
			7/1/2021	1	113012021	1 max completed		1			
1								 			
	Electrical Installation	1		15/11/0000	1	1		1			
		01/10/2020 ->		15/11/2020 -		1					
			3/19/2021	>	7/19/2021	Task Completed		1	-		Energize of all LCPs on 24 May 2021 and isolated prior to system commissioning.
		01/12/2020*		15/01/2021*	l	1		1 I			
				15/01/2021*		1		1			
	The time and Company of the		 	00// :====				 			The assemble is a feet shall be started as 25 Oct 2021 and assemble as 20 Oct 2021, also
	Testing and Comissioning	15/11/2020 ->		22/11/2020 -		1		1			The commissioning test shall be started on 25 Oct 2021 and completed on 28 Oct 2021; the
			5/8/2021	>	10/28/2021	96%			-		installation of FRP maintenance platform shall be completed on 22 Oct 2021 while wash
1		15/01/2021*		l .		1					water infeed pipe connection shall be completed on 31 Oct 2021.
				22/01/2021*				<u> </u>			mater infood pipe confidential strait be completed on 31 Oct 2021.
									T		
	0.1 1 1 (00) 0	10/15/2020	10/15/2020	10/31/2020	12/11/2020	Task Completed			100%		
Modification of Existing Emergency Generator	Submission of subletting package (C9) for acceptance							 			
Electrical Works	Acceptance of subletting package (C9)	11/1/2020	11/5/2020	11/15/2020	1/2/2021	Task Completed			100%		
	Tender invitation (C9)	11/16/2020	1/26/2021	11/30/2020	2/5/2021	Task Completed	1	1	100%		Tender invitation commenced on 26 Jan 2021, and returned on 5 Feb 2021
		11/30/2020		12/7/2020	2/18/2021	Task Completed			100%		Tender report was submitted on 18 Feb 2021 and accepted on 26 Feb 2021
	Tender award (C9)						 				Tender report was submitted on 10160 2021 and decepted on 20160 2021
	Acceptance of tender award (C9)	12/8/2020	2/18/2021	12/15/2020	2/26/2021	Task Completed			100%		
	Design Submission	12/15/2020	3/15/2021	1/15/2021	4/23/2021	Task Completed			100%		DWG-0100 was submitted on 23 Apr 2021. AECOM accepted with comments on 30 Apr
						1		1			
	Transportation of existing dismantled genset no. 2	3/9/2021	3/9/2021	3/9/2021	3/9/2021	Task Completed	1 1		100%		
	(Genset No.2) to subcontractor (Click Ltd.)'s workshop	3/3/2021	3/3/2021	3/3/2021	3/3/2021	rask completed			10070		
	Drawing submission (Drawing of General Layout for	4/23/2021	4/23/2021	4/30/2021	4/30/2021	Task Completed			100%		
	Existing 600kVA Genset Container)	7/23/2021	7/25/2021	473072021	1/30/2021	Tusk completed			10070		
	D : 1 : : (C11 - t - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -										
· ·	Drawing submission (Cable route ,general arrangement,	5/14/2021	5/28/2021	5/21/2021	5 July 2021	Task Completed			100%		
	etc)	3/14/2021	372072021	5/21/2021	5 vary 2021	rusk completed			10075		
			 								
	Material submission	21 May 2021	40. 2024	20 34 2021	12 1 2021	Task Completed			100%		
	P431 P&M-0087	21 May 2021	19 June 2021	28 May 2021	12 July 2021	rask Completed			10076		
	Fabrication of container at PRC	21 June 2021	21 June 2021	TBC	8/12/2021	Task Completed	1 1		100%		
	Container deliver to HK	TBC	8/12/2021	8/10/2021	8/12/2021	Task Completed			100%		
							-	+			
	Off site modification work at HK factory	TBC	8/16/2021	8/24/2021	8/24/2021	Task Completed			100%	,	
	FAT plan of modified Genset No.2							1	1000		
	P431 MS-036	7/12/2021	7/12/2021	8/20/2021	8/20/2021	Task Completed		1	100%		
1								<u> </u>			
	FAT of Genset No.2 after modification works	8/25/2021	8/25/2021	8/25/2021	8/25/2021	Task Completed			100%		
	Installation Work of I-beam Support	8/26/2021	8/26/2021	8/26/2021	8/26/2021	Task Completed		T	100%		
			072072071	0,20,2021	V12V12V21	Tuon Completed		 	2000		
	Transportation of Genset No. 2 to existing power house	1	1	1		1					
	in SWHSTW and completion of the Genset No.2	8/27/2021	8/27/2021	8/27/2021	8/27/2021	Task Completed			100%		
	installation on I-beam supporting frame	0.2.1.2021	1 220	0.2,,2021		Completed					
	instantation on 1-ocuit supporting traine	1									
	Provision of one (1) can of 160L diesel and a diesel hand	ď						T			
		"									
	pump placed at diesel daily tank of Genset No.1 for		1	1]						T () 1 C () 1 () 1 () 1 () 1 () 1 () 1
	standby top up (PPMI-012 item L) Location to be	7/27/2021	7/27/2021	8/31/2021		1					Location to be further coordinated with DSD.
	coordinated and advised by SWHSTW operator	1	1	1							
		1									
	DSD/ST1		<u> </u>	1	0/2/2/	 		+	1000:		
	Modification works of existing switchboard	9/1/2021	9/1/2021	9/8/2021	9/8/2021	Task Completed		1	100%		
	Cables (including control cable and power cables) laying	σ			1						
	and installation of cable containment, busbar chamber	7/21/2021	7/30/2021	9/8/2021	9/8/2021	Task Completed			100%		
	and instanation of cable contaminent, busbar chamber	1			1	1					
	Cymply of hygher chamber/ connection have			<u> </u>				T			
	Supply of busbar chamber/ connection box	8/10/2021	8/10/2021	9/3/2021	9/3/2021	Task Completed			100%		
		0/10/2021	0/10/2021	7/3/2021	2/3/2021	1 ask Completed			100/0		
			.	-				 			
	Completion of all Genset cables and cable termination				1	1					
	work to existing power house in SWHSTW after the	0/1/0001	0/1/2021	0/0/2021	0/0/2021	Tools Computer 1			1000/		
		9/1/2021	9/1/2021	9/8/2021	9/8/2021	Task Completed			100%		
	completion of Genset No. 2 installation work				1						
		_	 	 		 	 	+			
	Delivery of dummy load and self-test			1	1	1					
		9/9/2021	9/9/2021	9/14/2021	9/15/2021	Task Completed			100%		
		9/9/2021	9/9/2021	9/14/2021	2/13/2021	ask Completed			100/0		
				1							
			 			 	 	+			
	0.m 1m00/ : 1 .m00: 1 .mon!c=::	1									
	SAT and T&C (witness by AECOM and DSD/ST1)							1			
	SAT and T&C (witness by AECOM and DSD/ST1) Please allow 1 week advance notice for coordination	0/15/2021	0/15/2021	9/15/2021	9/16/2021	Task Completed			100%		
	Please allow 1 week advance notice for coordination	9/15/2021	9/15/2021	9/15/2021	9/16/2021	Task Completed			100%		
		9/15/2021	9/15/2021	9/15/2021	9/16/2021	Task Completed			100%		

Plant and Materials (Marking Scheme)					1800				
PS Clause no. 6B.2.1 Inlet Pump	Tender award	6/5/2020	9/19/2020	10/5/2020	10/7/2020	Task Completed		100%	Technical Submission Evaluation Report was submitted on 5 Oct 2020, Tender report was submitted on 7 Oct 2020. AECOM noted on 8 Oct 2020.
	Acceptance of tender award	6/19/2020	10/17/2020	10/19/2020	11/15/2020	Task Completed		-	
PS Clause no. 6B.2.4	Acceptance of marking scheme by the PM	5/15/2020	8/20/2020	9/15/2020	9/1/2020	Task Completed		100%	AECOM accepted on 1 Sep 2020
MBR Pre-treatment Screen	Tender invitation	5/29/2020	11/20/2020	9/29/2020		Task Completed		100%	Tender invitation was conducted on 20 Nov 2020 and returned on 11 Dec 2020. Tender
MDK Fle-fleatment Scieen	Tender award	6/5/2020	12/13/2020	10/5/2020	3/3/2021	Task Completed		100%	Technical Submission Evaluation Report was submitted on 12 Jan 2021. AECOM noted on 22 Jan 2021. Tender Report was submitted on 4 Feb 2021, AECOM commented on 19 Feb 2021, Bestwise submitted supplementary information on 26 Feb 2021. AECOM noted on 3 Mar
PS Clause no. 6B.2.4	Acceptance of marking scheme by the PM	5/15/2020	8/20/2020	9/15/2020	9/1/2020	Task Completed		100%	AECOM accepted on 1 Sep 2020, subject to conditions.
S Clause no. 6B.2.4 ir Diffusion System	Tender invitation	5/29/2020	2/17/2021	9/29/2020	3/12/2021	Task Completed		100%	Procurement package would follow the approved format (i.e. aeration blower) Tender invitation was conducted on 17 Feb 2021. Addendum No. 1 was issued on 18 Feb 2021. Tender return date was extended from 26 Feb 2021 to 12 Mar 2021. Tender returned on 12 Mar 2021
	Tender award	6/5/2020	3/18/2021	10/5/2020	4/20/2021	Task Completed		-	Technical Submission Evaluation Report was submitted on 18 Mar 2021. AECOM noted or 30 Mar 2021. Tender Report was submitted on 8 Apr 2021. LOI was issued to supplier.
	Acceptance of tender award	6/19/2020	2/20/2021	10/19/2020	3/12/2021	Task Completed		-	
PS Clause no. 6B.2.4	Acceptance of marking scheme by the PM	5/28/2020	8/20/2020	9/28/2020	9/1/2020	Task Completed		100%	AECOM accepted on 1 Sep 2020
BR Aeration Blower	Tender invitation	6/11/2020	2/3/2021	10/12/2020	3/3/2021	Task Completed		100%	Procurement package was submitted to AECOM under CGS-066. AECOM replied on 29 Jan 2021. Tender invitation was conducted on 3 Feb 2021. Tender returned on 3 Mar 2021
	Tender award	6/18/2020	3/4/2021	10/19/2020	4/12/2021	Task Completed		-	Technical Submission Evaluation Report was submitted on 10 Mar 2021. AECOM noted on 19 Mar 2021. Tender Report was submitted on 24 Mar 2021. LOI was issued to supplier
	Acceptance of tender award	7/2/2020	3/4/2021	11/2/2020	3/25/2021	Task Completed		-	AECOM accepted on 1 Sep 2020, subject to conditions.
PS Clause no. 6B.2.4 Membrane Modules, Cassettes / Racks	Tender award	6/18/2020	10/6/2020	10/19/2020	11/2/2020	Task Completed		100%	Technical Submission Evaluation Report was submitted on 14 Oct 2020, Tender report was submitted on 2 Nov 2020. AECOM noted on 4 Nov 2020.
	Acceptance of tender award	7/2/2020	11/3/2020	11/2/2020	11/24/2020	Task Completed		-	
PS Clause no. 6B.2.4	Tender award	6/18/2020	10/30/2020	10/19/2020	12/2/2020	Task Completed		100%	Technical Submission Evaluation Report was submitted on 6 Nov 2020. Tender report was submitted on 24 Nov 2020, AECOM noted on 2 Dec 2020.
RAS Pump	Acceptance of tender award	7/2/2020	11/21/2020	11/2/2020	12/12/2020	Task Completed		_	Stofffield on 27 1101 2020, Philodin living on 2 200 2020.