



CONTRACT NO. SPW 12/2021
SHEK WU HUI EFFLUENT POLISHING PLANT – MAIN WORK
**UNDER FURTHER ENVIRONMENTAL PERMIT NO. FEP-
02/474/2013**
**QUARTERLY ENVIRONMENTAL MONITORING & AUDIT
REPORT**
- SEPTEMBER 2021 -

CLIENTS:

Drainage Services Department

PREPARED BY:

Lam Environmental Services Limited

19/F Remex Centre,
42 Wong Chuk Hang Road,
Hong Kong

Telephone: (852) 2882-3939
Facsimile: (852) 2882-3331
E-mail: info@lamenviro.com
Website: <http://www.lamenviro.com>

CERTIFIED BY:

Raymond Dai
Environmental Team Leader

DATE:

3 January 2022

Meinhardt Infrastructure and Environment Limited

10/F Genesis
33-35 Wong Chuk Hang Road
Hong Kong

Contract No. SPW 12/2021

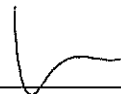
Shek Wu Hui Effluent Polishing Plant – Main Work

Quarterly Environmental Monitoring & Audit Report

September 2021

(3 January 2022)

Verified by: W. K. Chiu



Position: Independent Environmental Checker

Date: 4 January 2022

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EXECUTIVE SUMMARY

- i. This is the 1st Quarterly Environmental Monitoring and Audit (EM&A) Report – [September 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 1st EM&A quarterly report prepared by Environmental Team under Contract No. SPW 12/2021, presenting the environmental monitoring findings and information recorded during the period of [01 September 2021 to 30 September 2021](#).

Construction Activities for the Reporting Quarter

- ii. During this reporting period, the principal work activities of individual contracts are summed up in [Table I. Appendix 1.1](#) lists the construction programmes of individual activities. The layout plans showing the locations of reported construction activities and key PME used for the works contracts in the reporting quarter are provided in [Appendix 2.1](#)

Table I Summary table of principal work activities in the reporting period

Contract No.	Contract Title	Month / Year	Principal work activities
DC/2018/06	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - Civil Works for Sludge Treatment Facilities and 132kV Primary Substation	September 2021	<ul style="list-style-type: none"> • RC works • Excavation works • Sewerage and drainage works • Sheet piling • Pipe laying • Backfilling • Removal of Layer Struct and Waling
DC/2018/07	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - Civil Works for Sewage Treatment Facilities	September 2021	<ul style="list-style-type: none"> • 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

DE/2018/03	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - Sidestream Treatment Facilities and E&M Works for Sludge Treatment Facilities	September 2021	<ul style="list-style-type: none"> • Ground Investigation
DE/2018/04	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - E&M Works for Sewage Treatment Facilities	September 2021	<ul style="list-style-type: none"> • Electrical Installation of Temporary Filtrate Equalisation Tank • Installation of FRP Tank. Testing and Commission of Temporary Primary Sludge Thickener and its accessories. • Retrofitting the Existing Primary Sedimentation Tank No. 6. • Modification of Existing Emergency Generator Electrical Works

iii. Implementation of the key mitigation measures during the reporting quarter

Table II Summary table of key mitigation measures implemented in the reporting period according to the contract no.

Contract No. DC/2018/06		
September	Waste Management	Drip tray were provided for chemical containers
Contract No. DC/2018/07		
September	Noise	Noise minimization measure was adopted when using a breaking tip
	Waste Management	Trash and unused materials were removed regularly
Contract No. DE/2018/03		
September	-	-
Contract No. DE/2018/04		
September	Waste Management	Trash and unused materials were removed to prevent getting into the sewage system.

Summary of Exceedances, Investigation and Follow-up

Noise Monitoring

- iv. Noise monitoring were conducted at noise monitoring stations namely, NM – G/F, Wai Loi Tsuen, NM2 – G/F, Fu Tei Au and NM3 – G/F, Man Kok Village on a weekly basis in the reporting period.
- v. **No action or limit level exceedance was recorded in this reporting period.**

Air Quality Monitoring

- vi. 1-hour Total Suspended Particulates (TSP) monitoring was conducted at air quality monitoring stations namely, AM1 – Wai Loi Tsuen, AM2 – Fu Tei Au; 24-hour TSP monitoring was conducted at air quality monitoring stations namely, AM1a – Site boundary of the Shek Wu Hui STW (East) and AM2a – Site Boundary of the Shek Wu Hui STW (North). 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.
- vii. **No action or limit level exceedance was recorded in this reporting period.**

Ecological Monitoring

- viii. 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.
- ix. **No action or limit level exceedance was recorded in this reporting period.**

Table III Summary table of non-compliance (exceedances) in the reporting period

Parameter	No. of Exceedance		Investigation result
	Action Level	Limit Level	
September 2021			
Air Quality (1-hour TSP)	0	0	-
Air Quality (1-hour TSP)	0	0	-
Noise	0	0	-
Ecology	0	0	-

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.

Table IV Summary table of complaints, summons and successful prosecutions in the reporting period

Events	Number	Brief description	Follow up and remedial actions	Status and remarks
Complaints	0	-	-	-
Notification of Summons and Successful Prosecution	0	-	-	-

Reporting Changes

- xi. There are no particular reporting changes.

Future Key Issues

- xii. In the next reporting period, the principal work activities of individual contracts are anticipated as follows.

Table V Summary table of anticipated work activities in the next reporting period

Contract No. DC/2018/06	Contract No. DC/2018/07	Contract No. DE/2018/03	Contract No. DE/2018/04
<ul style="list-style-type: none"> • RC works • Excavation works • Pipe laying • Backfilling • Removal of Layer Struct and Waling 	<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • ELS works • Sheetpiling • Installation of F.S. equipment • Installation of Power cable • Installation of guide bar bracket, guide bar and placing the effluent transfer pump. • Installation of Cable Tray, Conduit 	<ul style="list-style-type: none"> • 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

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).

1.2 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 *Environmental Monitoring and Audit Requirements* – summarizes all monitoring parameters and methodology, no. of exceedances, influencing factors on the monitoring results.

Section 4 *Compliance Audit* – summarizes the auditing of monitoring results, all exceedances environmental parameters.

Section 5 *Complaints, Notification of Summons and Prosecution* – summarizes the cumulative statistics on complaints, notification of summons and prosecution.

Section 6 *Comments, Conclusion and Recommendations* – summarizes monitoring methodology, the effectiveness of EM&A Programme and mitigation measures, and recommendations based on findings during site audits.

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 (m^3 /day) at Average Dry Weather Flow (ADWF). In 2001, Stage II of SWHSTW was completed with design capacity enhanced to 80,000 m^3 /day at ADWF. In 2009, the expansion of SWHSTW was completed and its design capacity was increased to 93,000 m^3 /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 m^3 /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 [Figure 2.2](#). Key personnel and contact particulars are summarized in [Table 2.1](#).

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
Kwan Lee - Chun Wo Joint Venture	Contractor (DC/2018/06)	Environmental Engineer	Ms. Tiffany Choi	9789 1027
		Environmental Engineer	Ms. Ruby Hui	6218 6408
	Contractor (DC/2018/07)	Environmental Engineer	Ms. Shirley Kong	5162 5933
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 Principal Work and Activities

2.3.1. In the reporting month, the principal work activities conducted of individual contracts are as follow. The layout plans showing the locations of reported construction activities and key PME used for the works contracts in the reporting quarter are provided in [Appendix 2.1](#)

Table 2.2 Summary table of principal work activities in the reporting period

Contract No.	Contract Title	Month / Year	Principal work activities
DC/2018/06	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - Civil Works for Sludge Treatment Facilities and 132kV Primary Substation	September 2021	<ul style="list-style-type: none"> • RC works • Excavation works • Sewerage and drainage works • Sheet piling • Pipe laying • Backfilling • Removal of Layer Struct and Waling
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3 Environmental Monitoring and Audit Requirements

- 3.0.1. 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. [Appendix 3.1](#) gives the details of the environmental monitoring requirements
- 3.0.2. The Action and Limit Levels for construction air quality, noise and ecological monitoring works are shown in [Appendix 3.2](#).
- 3.0.3. Mitigation measures according to the environmental mitigation implementation schedule and the EIA were generally implemented by the Contractor. The environmental mitigation implementation schedule is shown in [Appendix 3.3](#).

3.1 Weather conditions

- 3.1.1. The weather conditions were generally sunny during the monitoring sessions of the reporting period. The details of weather conditions for each individual monitoring session were presented in the corresponding Monthly EM&A Reports within the reporting period.

3.2 Noise Monitoring Results

- 3.2.1. All noise monitoring was conducted as scheduled in the reporting period. The results measured in this reporting period are reviewed and summarized. Graphical presentation of noise monitoring can be referred in [Appendix 3.4](#).
- 3.2.2. [No action or limit level exceedance was recorded in this reporting period.](#)

3.3 Air Monitoring Results

- 3.3.1. Both 1-hour and 24-hour TSP were all conducted as scheduled in the reporting period. Air quality monitoring results measured in this reporting period are reviewed and summarized. Graphical presentation of air quality monitoring can be referred in [Appendix 3.5](#).
- 3.3.2. [No action or limit level exceedance was recorded in this reporting period.](#)

3.4 Ecology Monitoring Results

- 3.4.1. All ecological monitoring was conducted as scheduled in the reporting period. Details of ecological monitoring results in the reporting period are provided in [Appendix 3.6](#).
- 3.4.2. [No Action Level and Limit Level was triggered for ecological monitoring in the reporting period.](#)
- 3.4.3. [No Breeding behaviour observed during ecological monitoring in reporting period.](#)

3.5 Waste Management

- 3.5.1. The Summary Waste Flow Table is shown in [Appendix 3.7](#). Whenever possible, materials were reused on-site as far as practicable.

3.6 Landscape and Visual

- 3.6.1. Site audits were conducted on a bi-weekly basis and the landscape and visual mitigation measures of this project were monitored from time to time. [No non-compliance of the landscape and visual mitigation measures was recorded in the reporting period.](#)

3.7 Influencing Factors on the Monitoring Results

- 3.7.1. In this reporting quarter, major noise and dust sources were recorded at designated monitoring stations and are shown below.

Table 3.1 Major noise sources during monitoring sessions in the reporting period

Monitoring Stations	Major Dust Source
NM1 - Wai Loi Tsuen	Railway Noise and Road Traffic at Sheung Shui Tung Hing Road
NM2 - Fu Tei Au	N/A
NM3 - Man Kok Village	Road traffic at Po Wan Road

Table 3.2 Major dust sources during monitoring sessions in the reporting period

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

3.7.2. Major observations were also recorded at designated monitoring locations and are shown below

Table 3.3 Major observations during ecological monitoring in the reporting period

Monitoring locations	Observations	
	Project related	Non-project related
T1 (PC1, PC2)	N/A	Playing with R.C. Boat and Generator and sedimentation tank
T2 (PC3, PC4)	Excavation and crane	Fishing, excavation, sheet-piling, generator & welding works, scaffolding
PC5	N/A	N/A
T3 (PC6, PC7)	N/A	Fishing, excavation, sheet-piling, generator & welding works, scaffolding

4 Compliance Audit

4.0.1. Environmental monitoring works were performed in the reporting period and all monitoring results were checked and reviewed. The summary of exceedance of Action/Limit Level for environmental monitoring is presented in [Appendix 4.1](#).

4.1 Noise Monitoring

4.1.1. [No action or limit level exceedance was recorded in this reporting period.](#)

4.2 Air Quality Monitoring

4.2.1. [No action or limit level exceedance was recorded in this reporting period.](#)

4.3 Ecological Monitoring

4.3.1. [No Action Level and Limit Level was triggered for ecological monitoring in the reporting period.](#)

4.4 Landscape and visual impact

4.4.1 [No non-conformity for landscape and visual impact was recorded in the reporting period.](#)

4.5 Review of the Reasons for and the Implications of Non-compliance

4.5.1. [No environmental non-compliance was recorded in the reporting period.](#) The observations and recommendations made for each contract were shown in [Appendix 4.2](#).

4.6 Summary of action taken in the event of and follow-up on non-compliance

4.6.1. [There was no particular action taken since no non-compliance was recorded in the reporting period.](#)

5 Complaints, Notification of Summons and Prosecution

- 5.0.1 No environmental complaint, notification of summons and successful prosecution regarding construction works was recorded in the reporting period.
- 5.0.2 The details environmental complaints, notification of summons and successful prosecution for the Project are summarized by complaint log in [Appendix 5.1](#).
- 5.0.3 Cumulative statistics on complaints and successful prosecutions are summarized in **Table 5.1** and **Table 5.2** respectively.

Table 5.1 Cumulative Statistics on Complaints

Reporting Period	No. of Complaints
Commencement works to 31 August 2021	3
September 2021	0
Project-to-Date	3

Table 5.2 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

6 Comment, Conclusions and Recommendations

6.1 Review of Monitoring Methodology and the Practicality and Effectiveness of EM&A Programme

6.1.1. In terms of project construction phase monitoring, with the implementation of mitigation measures as recommended, no project related exceedance was recorded. In general, no adverse construction air and noise impacts were recorded within the project area with the mitigation measures in place. It could be concluded that no adverse environmental impact was caused to the surrounding environment and the sensitive receivers. The overall environmental impact control of the Project is considered to be effective and efficient.

6.2 Review on Effectiveness of Mitigation Measures

6.2.1. The mitigation measures according to the Environmental Mitigation Implementation Schedule (EMIS) and the EIA are considered effective in minimizing environmental impacts as no exceedances related to the Project works was recorded throughout the monitoring period. Hence, the EM&A programme was considered effective and shall be maintained.

6.2.2. The Contractor has implemented the recommended mitigation measures except for those mitigation measures not applicable at this stage. No site audit non-compliance was recorded during the reporting period.

6.2.3. Environmental monitoring works were carried out in the reporting quarter and all monitoring results were checked and reviewed.

6.3 Recommendations

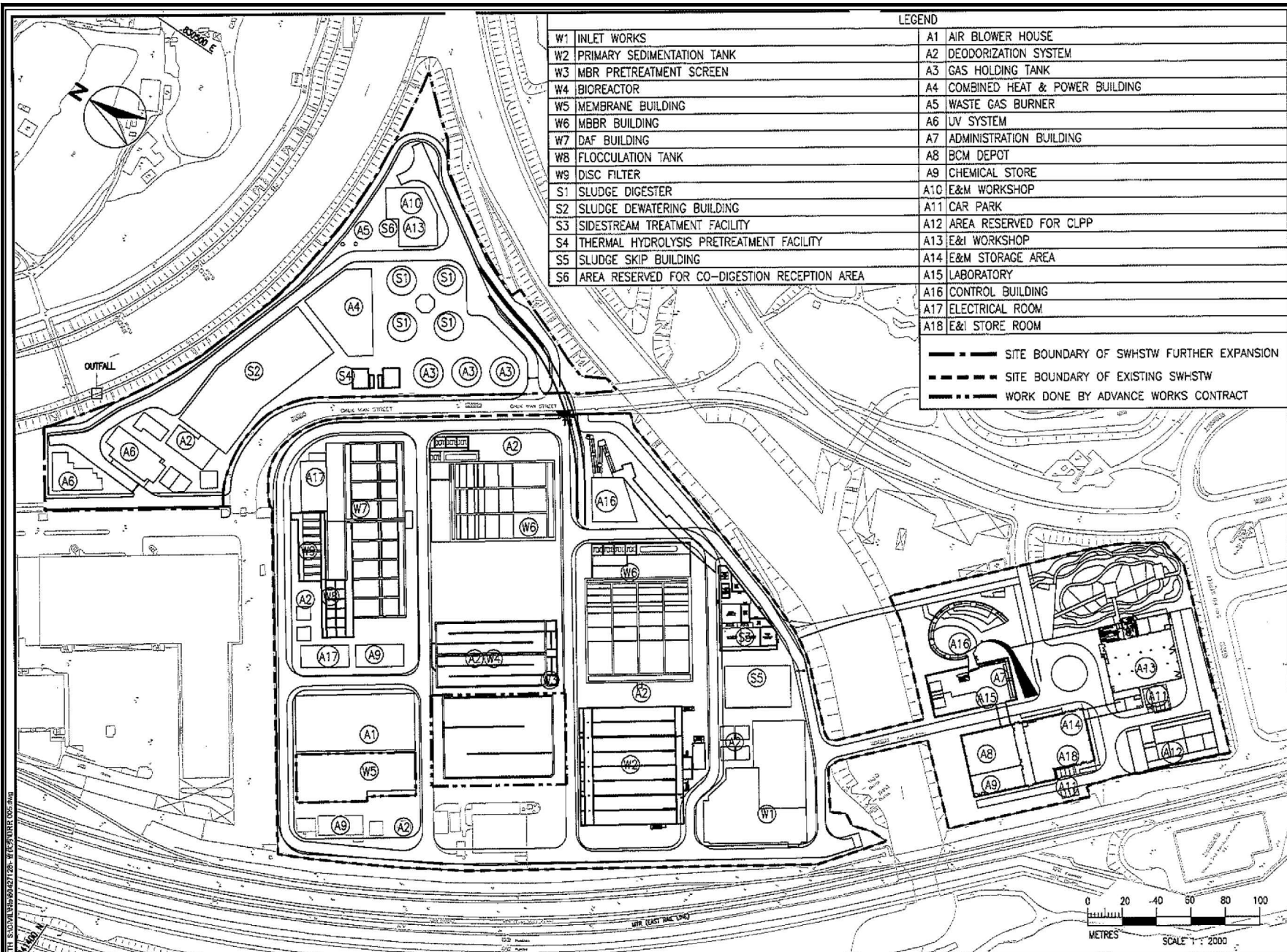
6.3.1. In regards to the results and findings during the weekly environmental inspections in the reporting period, recommendations were made as follow.

Table 6.1 Summary table of recommendations in terms of environmental parameters

Parameters	Recommendations
Noise	Acoustic materials or other noise minimization measures should be adopted or implemented when the breaking tip is in use.
Waste	Trash and unused materials should be removed regular to prevent waste accumulation.
	Chemical containers should be stored properly with drip trays.

Figure 2.1

Project Layout



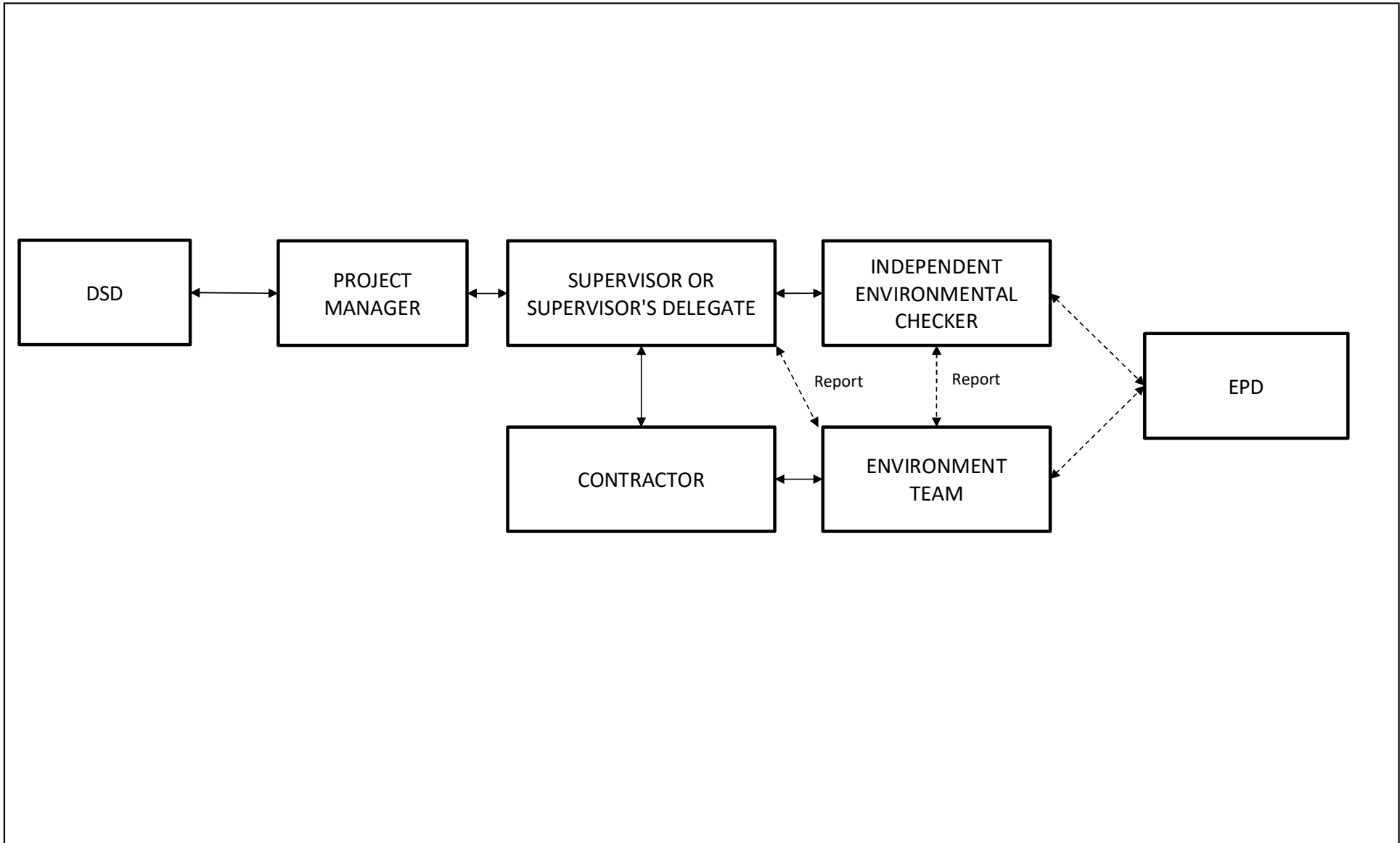
Shek Wu Hui Effluent Polishing Plant
 General Site Layout of SWHEPP

SCALE	As Shown	DATE	SEP 2019
CHECK	JM	DRAWN	SY
JOB No.		FIGURE NO.	2.1
		REV	-



Figure 2.2

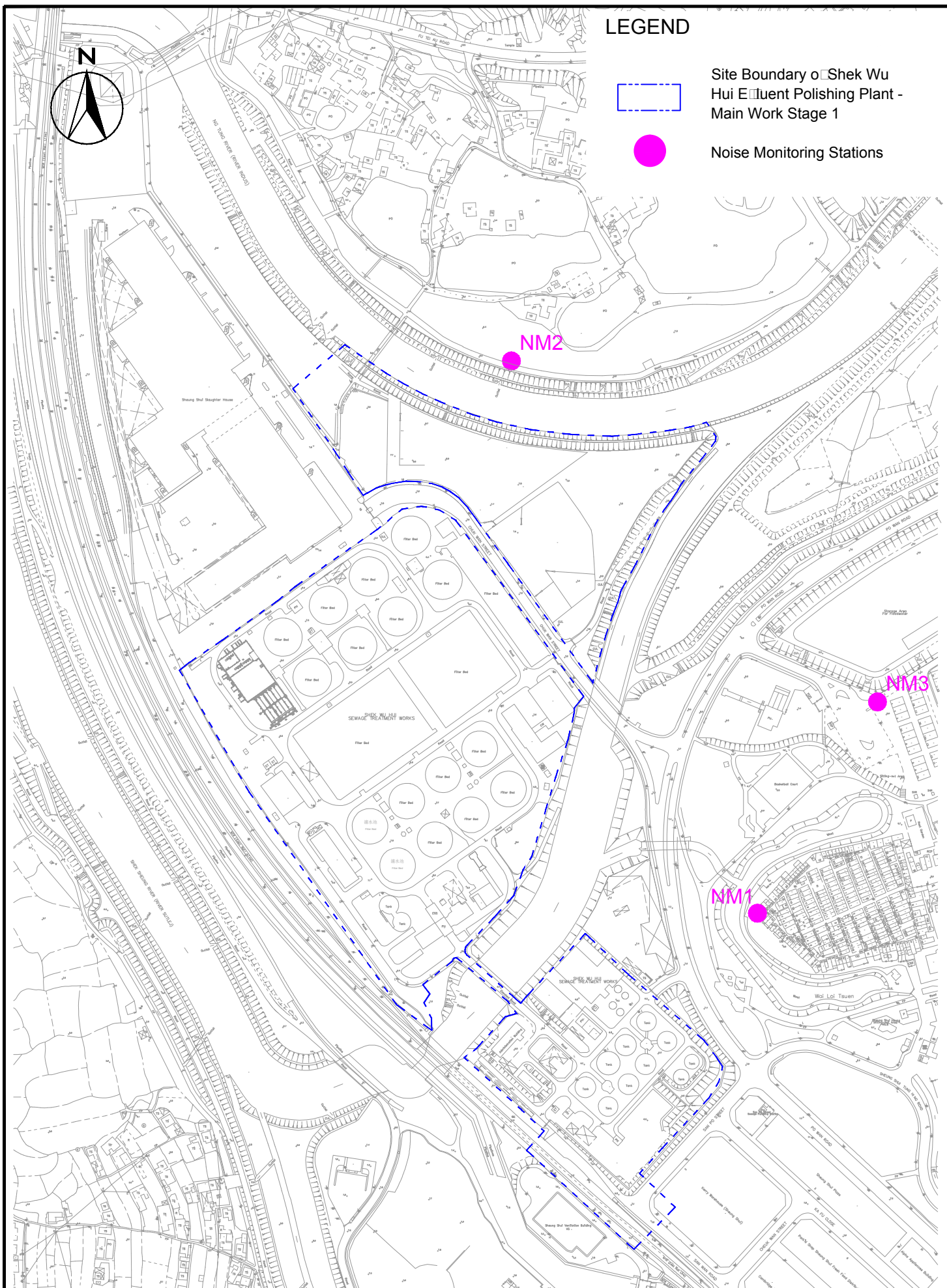
Project Organization Chart



Shek Wu Hui Effluent Polishing Plant - Project Organisation For Environmental Monitoring and Audit	SCALE	N.T.S.	DATE	Sep 2019
	CHECK	JW	DRAWN	SY
	JOB NO.		FIGURE NO.	2.2

Figure 4.1

Locations of Noise Monitoring Stations



LEGEND



Site Boundary of Shek Wu Hui Effluent Polishing Plant - Main Work Stage 1



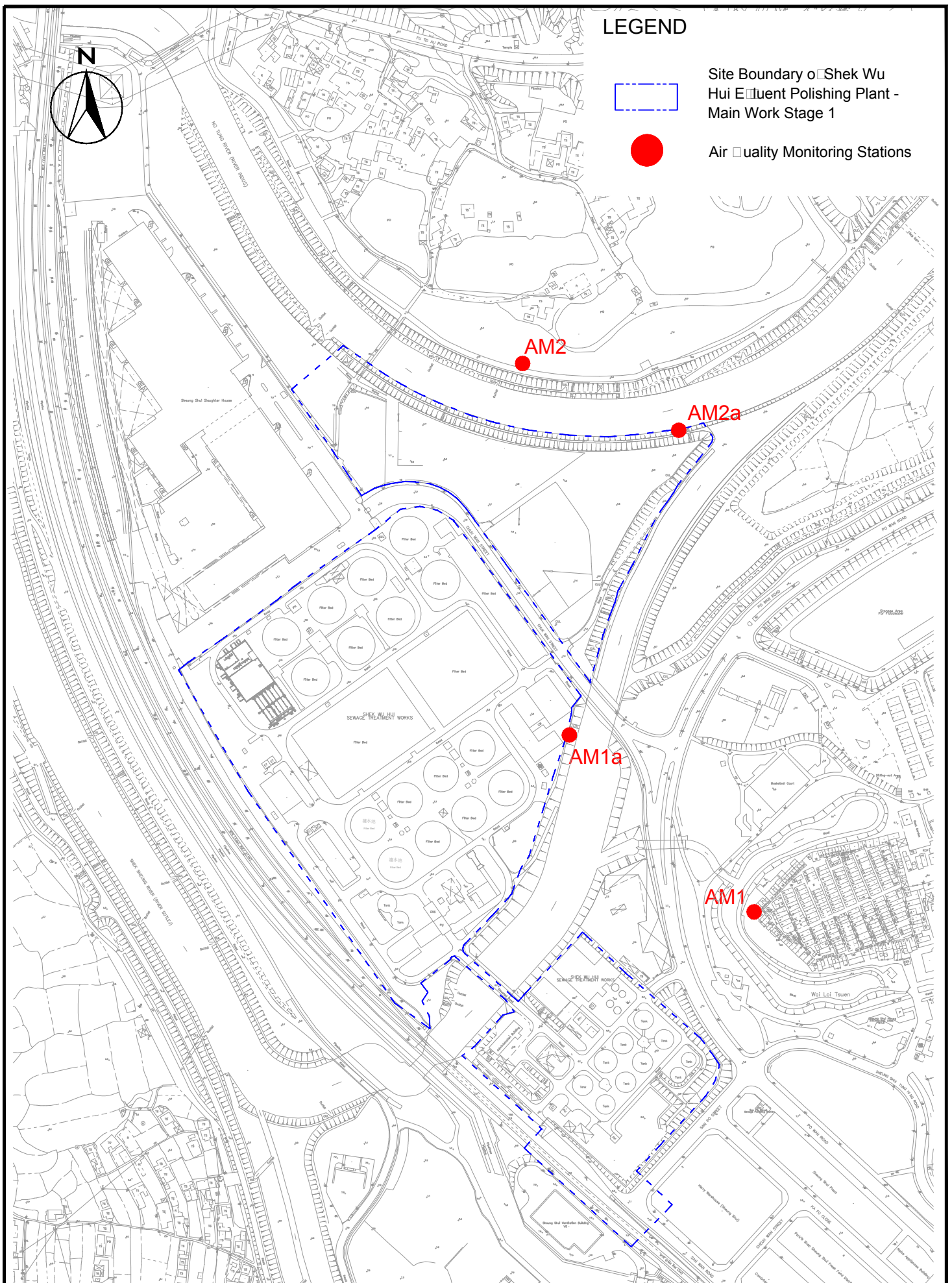
Noise Monitoring Stations

Shek Wu Hui Effluent Polishing Plant
Location of Noise Monitoring Stations

SCALE	1:4000 A4	DATE	SEP 2019
CHECK	JM	DRAWN	SY
JOB No.	MA19019	FIGURE NO.	4.1
		REVISION	-

Figure 4.2

Locations of Air Quality Monitoring Stations

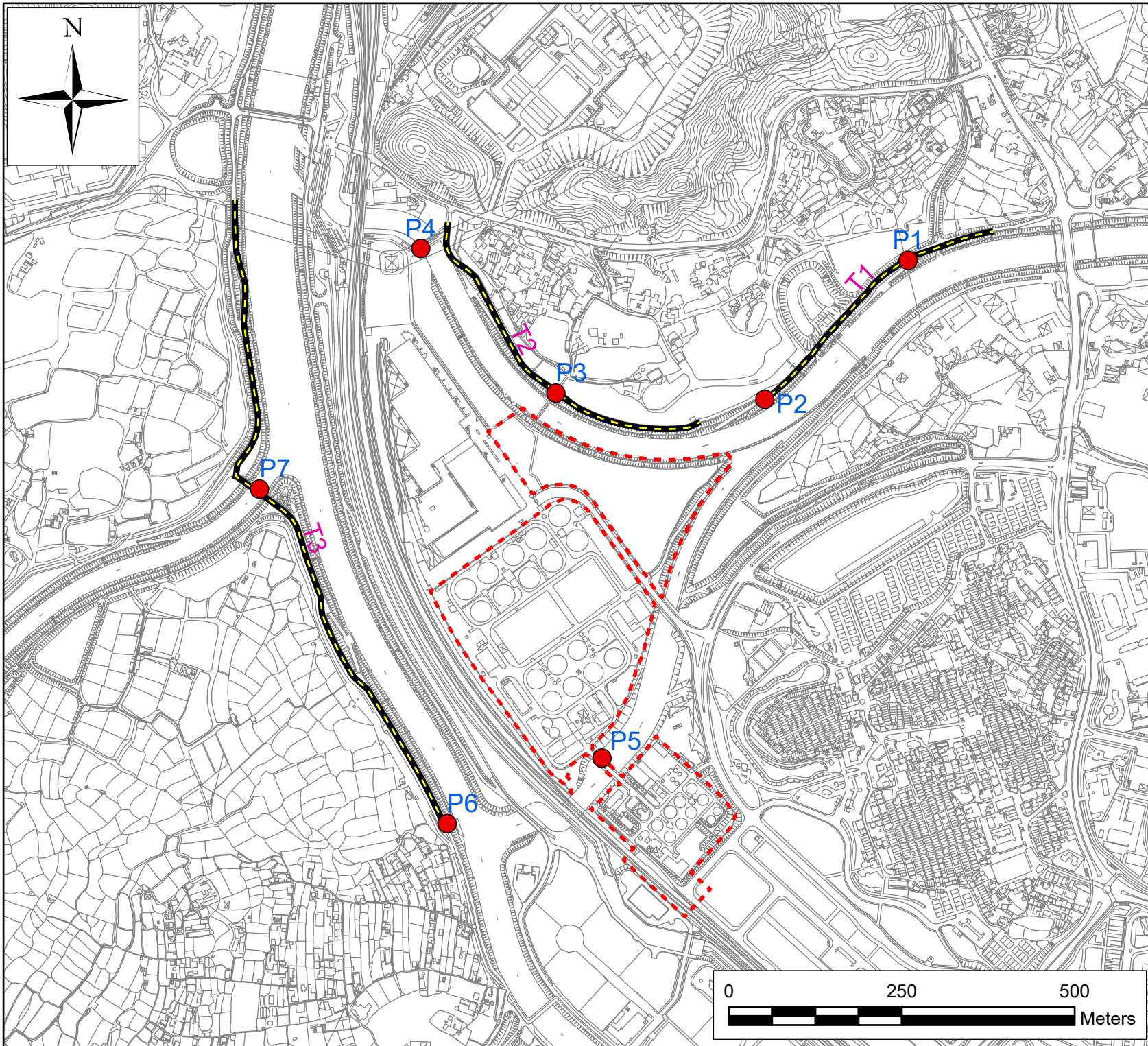


Shek Wu Hui Effluent Polishing Plant -
Location of Air Quality Monitoring Stations

SCALE	1:400 A4	DATE	SEP 2019
CHECK	JM	DRAWN	SY
JOB No.		FIGURE NO.	4.2
		REVISION	-

Figure 4.3

Locations of Ecological Monitoring Stations



- Legend**
- - - Project Site Boundary
 - - - Walk Transects
 - Point Count Locations

PREPARED BY
Lam Environmental Services Limited

19/F Remex Centre
 42 Wong Chuk Hang Road,
 Hong Kong

Telephone: (852) 2882-3939
 Facsimile: (852) 2882-3331
 E-mail: info@lamenviro.com
 Website: <http://www.lamenviro.com>

CONTRACT NO.
SPW 12/2021

PROJECT TITLE
**Shek Wu Hui Effluent Polishing
 Plant - Main Works
 Survey Location for Ecological
 Monitoring**

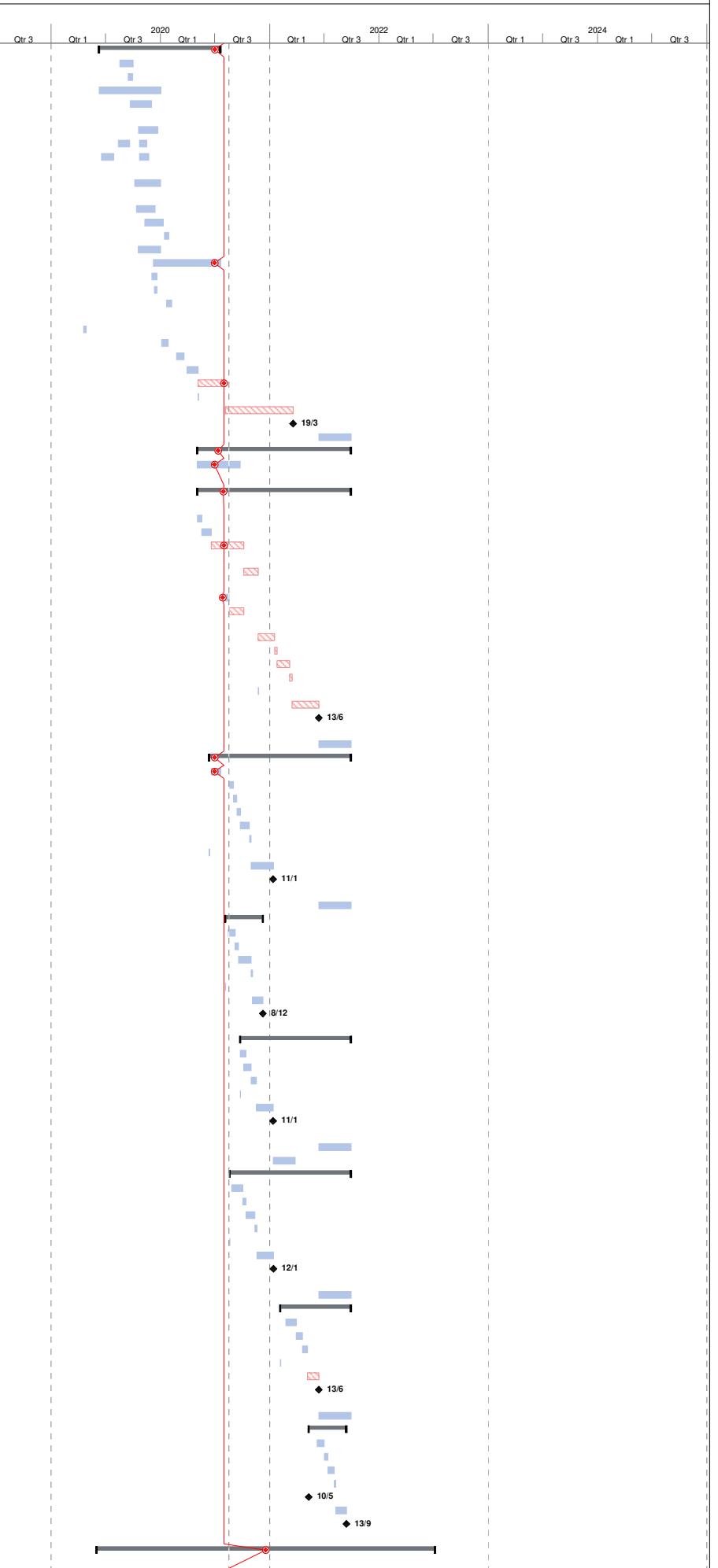
SCALE 1:7500@A4	DATE Sept 2021
DRAWN BY AL	CHECK BY MC
FIGURE NO. 4.3	REVISION NO. -



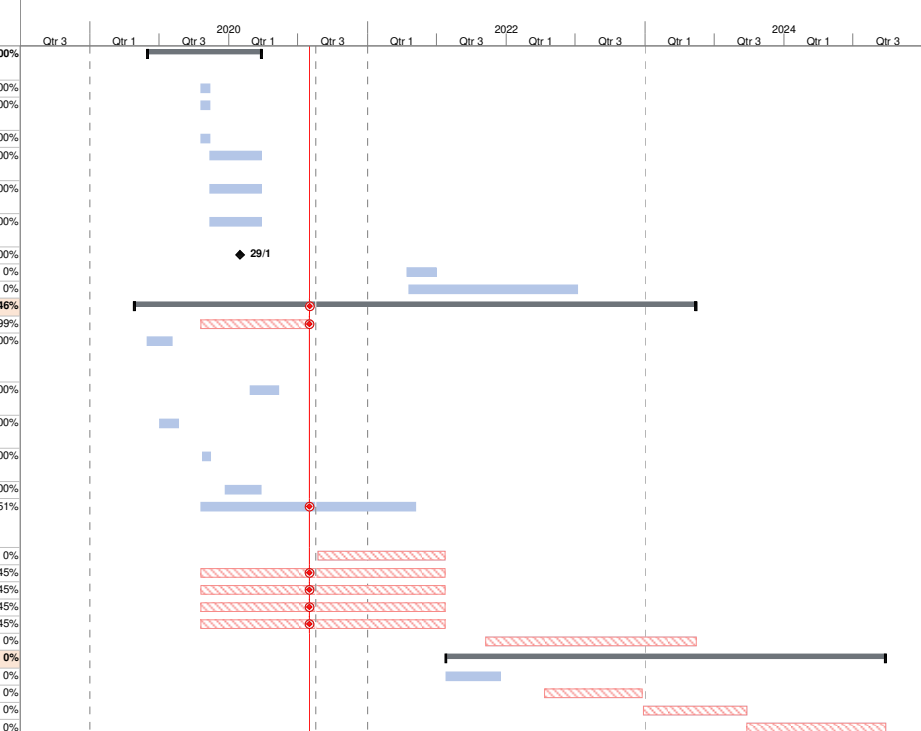
Appendix 1.1

Construction Programme of Individual Contracts

Table with 18 columns: ID, Activity ID, Key Date, Task Name, Implement Weather CE no. (NCE no.), PMI & CE no. (NCE no.), Baseline Duration, Baseline Start, Baseline Finish, Duration, Start, Finish, Actual Start, Actual Finish, Predecessors, Successors, Total Slack, Risk Allowance, % Complete. Rows include activities like 'Additional Preliminary Works', 'Fire Services Sprinkler Pumping Room', 'Chemical System No.1', etc.



ID	Activity ID	Key Date	Task Name	Incliment Weather CE no. (NCE no.)	PMI & CE no. (NCE no.)	Baseline Duration	Baseline Start	Baseline Finish	Duration	Start	Finish	Actual Start	Actual Finish	Predecessors	Successors	Total Slack	Risk Allowance	% Complete
532	CAA-1000	KD2B	B-8A Alternation works for existing Air Blower House No.2 (Pipeline CHTA, approx. 133m DN800 D.I.)			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%
533	CAA-1100		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%
534	CAA-1200		Additional inspection pit to verify the connection point to existing (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%
535	CAA-1300		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%
536	CAA-1400		Alternation works for existing Air Blower House No.2 (Pipeline CHTA, approx. 133m DN800 D.I.)			180 days	Wed 29/1/20	Thu 3/9/20	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%
537	CAA-1500	KD2B	Re-alignmnet 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%
538	CAA-1600	KD2B	Elevated Section of DN800 Temporary Air Main (CHTA) across existing Bioreactor's Distribution 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%
539	CAA-2000	KD11	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%
540	CAA-2100	SW3	Additional works for Power House		224	0 days	NA	NA	60 days	Thu 14/4/22	Wed 29/6/22	NA	NA	539FS-356 days	58FF	570 days		0%
541	CAA-3000	SW3	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	NA	NA	14FS-1 day,175	58FF	269 days		0%
542	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%
543	CUU-1000	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	54SS+48 days,552SS+48 days,55	39 days		99%
544	CUU-1000a		Special Treatment for Removing the Existing Abandoned DN1800 By-pass Pipe and the Concrete Mass in Conflict with the Proposed Sheetpile wall for trenching work of Process Pipeline CHR and CHS		33	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%
545	CUU-1000b		Trenchless work for Process Pipes CHR and CHS (approx. 7m twin DN900 D.I.)		255	0 days	NA	NA	60 days	Thu 25/2/21	Mon 10/5/21	Thu 25/2/21	Mon 10/5/21		52FF	0 days		100%
546	CUU-1001		Removal of Abandoned DN1800 Concrete Pipe and Concrete Mass near Existing UV Disinfection Channel at CHR & CHS Process Pipe Works Area		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%
547	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	Fri 23/10/20	Mon 16/11/20			0 days		100%
548	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	Tue 22/12/20	Thu 25/3/21		549FF	0 days		100%
549	CUU-2000	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%
550	CUU-2100	SW2	Remaining Process Pipes			0 days	NA	NA	270 days	Mon 23/8/21	Fri 22/7/22	NA	NA	549SS+250 days	57FF	0 days		0%
551	CUU-3000	SW2	Remaining Drainage			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	555,57FF	0 days	5	45%
552	CUU-4000	SW2	Remaining Sewerage			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%
553	CUU-5000	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%
554	CUU-6000	SW2	Remaining Cable Ducts			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%
555	CUU-7000	KD3A	Roadworks			540 days	Fri 31/12/21	Sat 28/10/23	440 days	Mon 7/11/22	Mon 13/5/24	NA	NA	554,551,552,549,352,399,334,433	54FF,558SS+123 days	-88 days	5	0%
556	CLW-0000	*	Landscaping Works			854 days	Wed 11/5/22	Thu 27/3/25	946 days	Tue 26/7/22	Wed 24/9/25	NA	NA	16		0 days		0%
557	CLW-1000	KD3A	Irrigation System			120 days	Wed 11/5/22	Fri 30/9/22	120 days	Tue 26/7/22	Thu 15/12/22	NA	NA	553FS+2 days,184	558,54FF	1 day		0%
558	CLW-2000	SW3	Hard Landscaping Works			220 days	Mon 3/10/22	Mon 3/7/23	214 days	Tue 11/4/23	Sat 23/12/23	NA	NA	557,555SS+123 days	559,58FF	-88 days	5	0%
559	CLW-3000	SW3	Soft Landscaping Works			220 days	Tue 26/3/24	Tue 4/7/23	214 days	Wed 27/12/23	Tue 24/9/24	NA	NA	558,143	560,58FF	-88 days	5	0%
560	CLW-4000	DLP	Establishment Works (365 days)			294 days	Wed 27/3/24	Thu 27/3/25	365 days	Wed 25/9/24	Wed 24/9/25	NA	NA	559,143	59FF,60FF	0 days	5	0%



Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	2020				2021				2022				2023				2024													
								J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D

SWH - Main Works Stage 1 Sidestream Treatment Facilities & E&M Works for Sludge Treatment Facilities

Contract Data

Starting Date & Completion Date							
AS000010	Contract Date (LOA)	0	11-Oct-19 A			21-Aug-21	
AS000020	Starting Date	0	23-Oct-19 A			21-Aug-21	
AS000110	Whole Contract Period (1626 days from starting date)	1626	23-Oct-19 A	04-Apr-24	26-Aug-21	09-Apr-24	5
AS000220	Completion Date for the whole of the Works	0		09-Apr-24		09-Apr-24	0

Access Date

AS001100	Portion C-1A (within 480 to 550 days from starting date)	550	23-Oct-19 A	24-Apr-21 A	21-Aug-21	21-Aug-21	
AS001120	Planned Access Date for Portion C-1A	1	24-Apr-21 A	24-Apr-21 A	21-Aug-21	21-Aug-21	
AS001200	Portion C-2A (within 705 to 795 days from starting date)	795	23-Oct-19 A	25-Dec-21	21-Aug-21	25-Dec-21	0
AS001220	Planned Access Date for Portion C-2A	1	25-Dec-21	25-Dec-21*	25-Dec-21	25-Dec-21	0
AS001300	Portion C-2B (within 765 to 855 days from starting date)	855	23-Oct-19 A	23-Feb-22	21-Aug-21	23-Feb-22	0
AS001320	Planned Access Date for Portion C-2B	1	23-Feb-22	23-Feb-22*	23-Feb-22	23-Feb-22	0
AS001400	Portion C-2C (within 715 to 805 days from starting date)	805	23-Oct-19 A	04-Jan-22	21-Aug-21	04-Jan-22	0
AS001420	Planned Access Date for Portion C2-C	1	04-Jan-22	04-Jan-22*	04-Jan-22	04-Jan-22	0
AS001500	Portion C-2D (within 825 to 945 days from starting date)	945	23-Oct-19 A	24-May-22	21-Aug-21	24-May-22	0
AS001520	Planned Access Date for Portion C-2D	1	24-May-22	24-May-22*	24-May-22	24-May-22	0
AS001600	Portion C-3 (within 615 to 705 days from starting date)	705	23-Oct-19 A	26-Sep-21	21-Aug-21	26-Sep-21	0
AS001620	Planned Access Date for Portion C-3	1	26-Sep-21	26-Sep-21*	26-Sep-21	26-Sep-21	0
AS001700	Portion B-1 (within 285 to 345 days from starting date)	345	23-Oct-19 A	30-Sep-20 A	21-Aug-21	21-Aug-21	
AS001720	Planned Access Date for Portion B-1	1	30-Sep-20 A	30-Sep-20 A	21-Aug-21	21-Aug-21	
AS001800	Portion B-2 (within 615 to 705 days from starting date) (SS by NCE-NCE-219)	705	23-Oct-19 A	26-Sep-21	21-Aug-21	26-Sep-21	0
AS001820	Planned Access Date for Portion B-2 (SS by NCE-NCE-219)	1	26-Sep-21	26-Sep-21*	26-Sep-21	26-Sep-21	0
AS001900	Works Area WA1-B (starting date)	1	23-Oct-19 A	23-Oct-19 A	23-Aug-21	23-Aug-21	
AS001910	Planned Access Date for Works Area WA1-B	1	23-Oct-19 A	23-Oct-19 A	23-Aug-21	23-Aug-21	
AS001920	Works Area WA3 (starting date)	1	23-Oct-19 A	23-Oct-19 A	23-Aug-21	23-Aug-21	
AS001930	Planned Access Date for Works Area WA3	1	23-Oct-19 A	23-Oct-19 A	23-Aug-21	23-Aug-21	

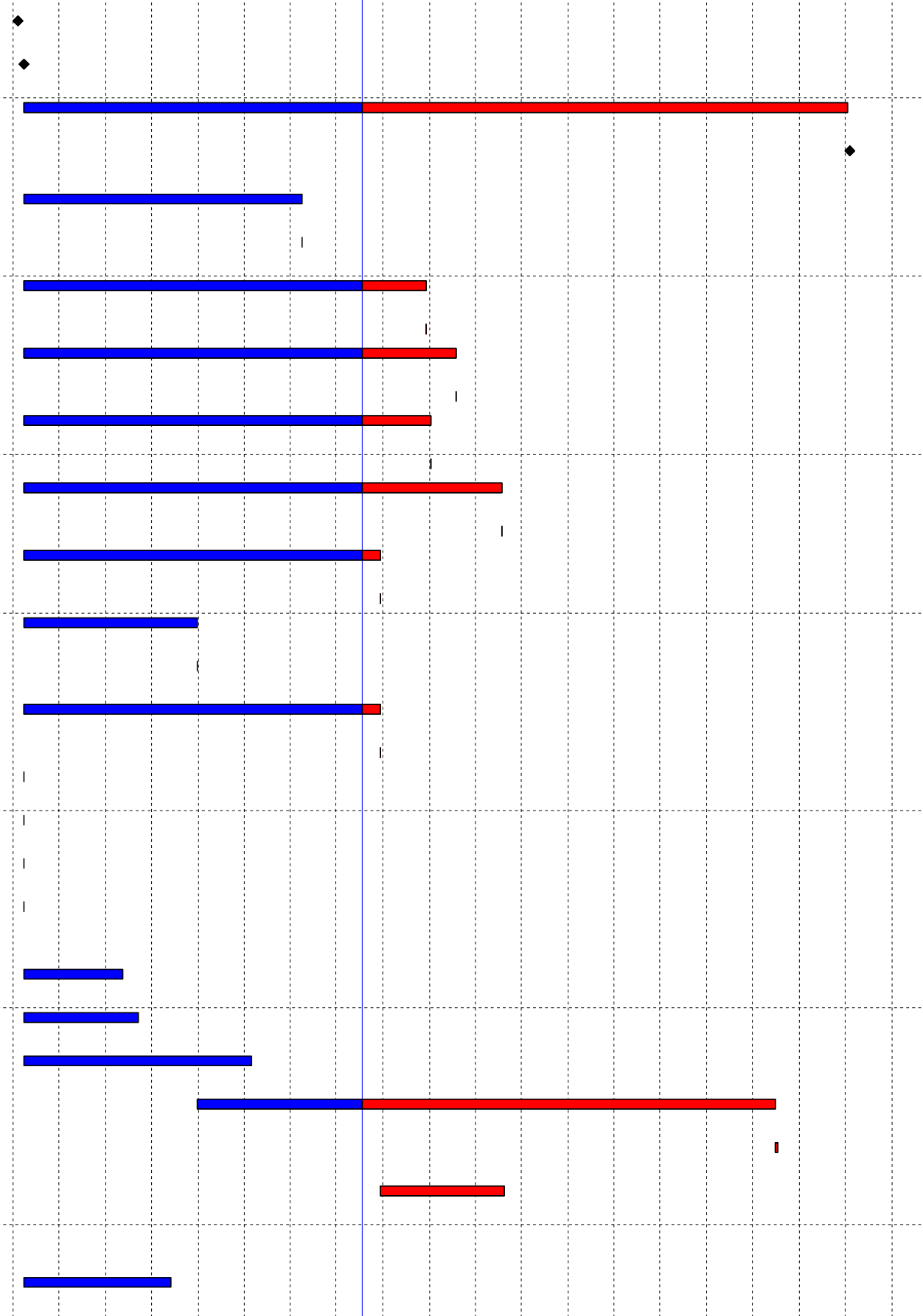
Key Dates

AS002010	KD1A Submission of Civil Requirement Dwgs, Elec. Schematic Dwgs of UV System No.1 and Effluent Pumping Station No.1	196	23-Oct-19 A	05-May-20 A	09-Sep-21	09-Sep-21	
AS002020	KD2A Submission of Civil Requirement Dwgs, Elec. Schematic Dwgs of SD Bldg, SD & DC, CHP Bldg, Workshop No.2, etc.	226	23-Oct-19 A	04-Jun-20 A	09-Apr-24	09-Apr-24	
AS002040	KD2B Submission of Remaining Civil Requirement Dwgs, Elec. Schematic Dwgs of SD Bldg, SD & DC, CHP Bldg, etc.	461	23-Oct-19 A	15-Jan-21 A	09-Apr-24	09-Apr-24	
AS002050	KD3A Completion of Phase 1 Commissioning of Sidestream Treatment Facilities (1140d after Portion B-1 Access)	1141	30-Sep-20 A	14-Nov-23	21-Aug-21	14-Nov-23	0
AS002050j	Revised KD3A Completion Date (Impacted by NICE-CNE-0248 - Inclement Weather - May 2021)	4	15-Nov-23	18-Nov-23*	15-Nov-23	18-Nov-23	0
AS002060	KD5A - Completion of the BS Fittings Installation at CLP Sub-Station at Workshop No. 2 (245d after Portion C-3 Access)	246	26-Sep-21	29-May-22*	26-Sep-21	29-May-22	0

Completion Date

Section 1 - Complete All Design at UV System No.1 & EP Station No. 1							
AS003100	Contract Duration of Section 1	291	23-Oct-19 A	08-Aug-20 A	09-Apr-24	09-Apr-24	

Remarks: The Defect Date is 4 Apr 2025 (365 days after Completion of the whole of the works)
The period of Establishment Works is 365 days start from 5 Apr 2024 to 4 Apr 2025



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- Remaining Work
- Critical Activity
- Actual Progress
- ◆ Milestone

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 Aug 2021

Date	Revision	Checked	Approved
30-Apr-21	Rev.9	LT	KM
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

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	2020					2021					2022					2023					2024																									
								J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A
CE000270	NCE-PPMI-0221 - General Arrangement for Fire Hydrant & Booster Pump Room	0		24-Dec-20 A		09-Apr-24																																															
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 Disinfection 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 Walkway, 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																																															
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																																															
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																																															
CE000470	NCE-PMI-0245 - Provision of Augmented Reality (AR) Mobile Application	0		30-Jun-21 A		09-Apr-24																																															
CE000480	NCE-PMI-0246 - Revised HV Remote Control Panels at CHP & Workshop No. 2	0		06-Jul-21 A		09-Apr-24																																															
CE000490	NCE-PMI-0247 - Temporary 4G System for SCADA System Monitoring	0		07-Jul-21 A		09-Apr-24																																															
CE000500	RCNE-CNE-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																																															
CE000540	CNE-0256 - Amber Rainstrom Warning and Inclement Weather - June 2021 (Time Implication)	0		05-Aug-21 A		09-Apr-24																																															
CE000550	CNE-0257 - Black and Red Rainstrom Warning and Inclement Weather - June 2021 (Time Implication)	0		05-Aug-21 A		09-Apr-24																																															
CE000560	NCE-PMI-0258 - Provision of FRP Cover for Overflow Chambers of Sludge Digesters	0		04-Aug-21 A		09-Apr-24																																															
CE000570	NCE-PMI-0259 - Provision of Virtual Reality (VR) Safety Training Platform	0		13-Aug-21 A		09-Apr-24																																															



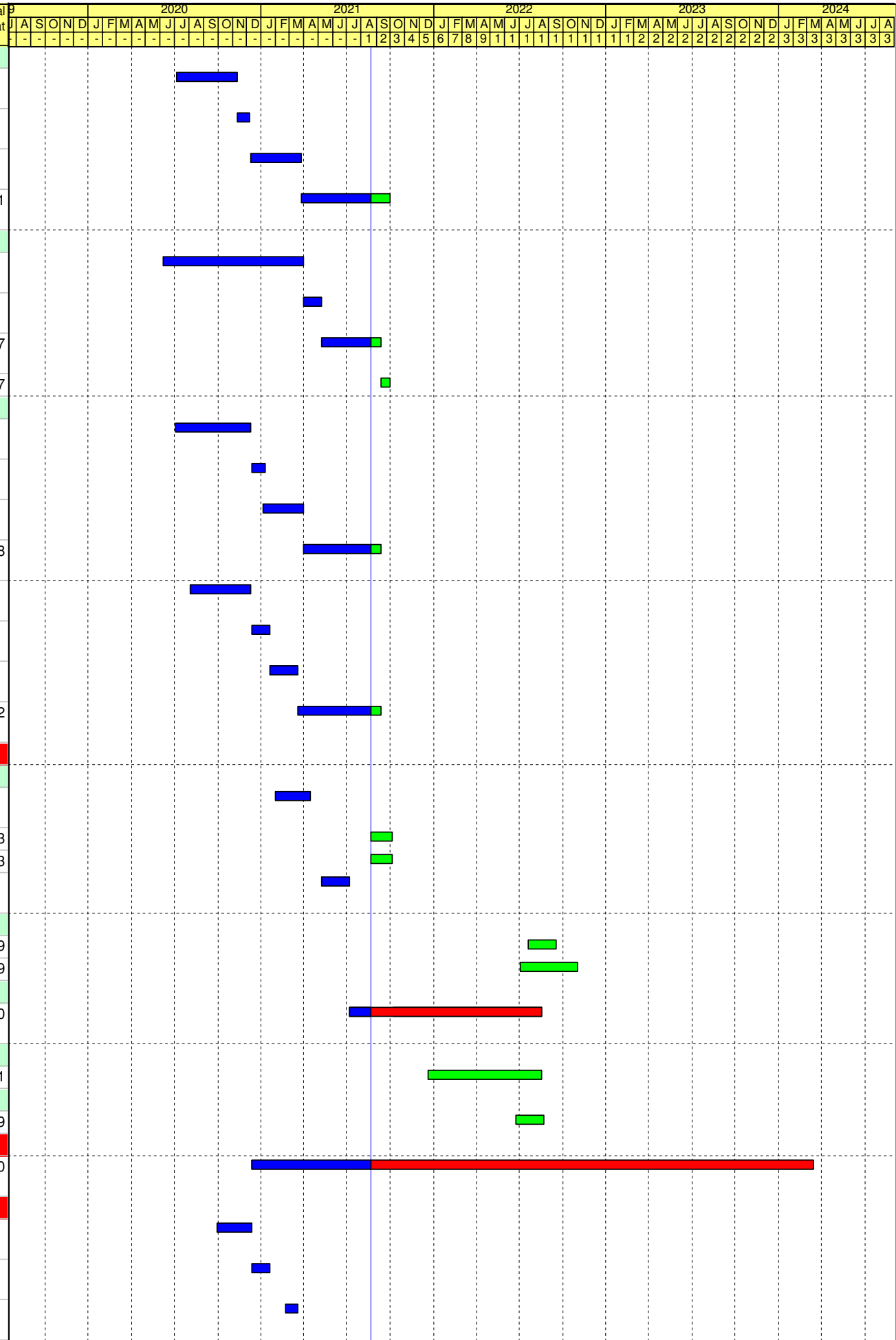
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- Remaining Work
- Critical Activity
- ◆ Milestone
- Actual Progress

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 Aug 2021

Date	Revision	Checked	Approved
30-Apr-21	Rev.9	LT	KM
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

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	2020					2021					2022					2023					2024																									
								J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A
Process Design																																																					
AS512220e	Prepare & Submit E&M Works (Process) Design Drawings	198	06-Jul-20 A	10-Nov-20 A	08-Jul-22	08-Jul-22																																															
AS512230e	Review & Comment on E&M Works (Process) Design Drawings by PM	21	11-Nov-20 A	08-Dec-20 A	08-Jul-22	08-Jul-22																																															
AS512240e	Revise & Re-submit E&M Works (Process) Design Drawings	87	09-Dec-20 A	26-Mar-21 A	08-Jul-22	08-Jul-22																																															
AS512250e	Review & Accept of E&M Works (Process) Design Drawings by PM	157	27-Mar-21 A	30-Sep-21	08-Jul-22	17-Aug-22	321																																														
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	26-Dec-21	26-Dec-21																																															
AS151120	Revise & Re-submit General Arrangement Drawings	95	08-May-21 A	10-Sep-21	26-Dec-21	15-Jan-22	127																																														
AS151130	Review & Accept of General Arrangement Drawings by PM	21	11-Sep-21	01-Oct-21	16-Jan-22	05-Feb-22	127																																														
BS																																																					
AS201400	Prepare & Submit BS Works Design & Dwgs for Sidestream Treatment Facilities	264	03-Jul-20 A	10-Dec-20 A	03-Oct-22	03-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	03-Oct-22	03-Oct-22																																															
AS201410e	Revise & Re-submit BS Works Design & Dwgs for Sidestream Treatment Facilities	102	05-Jan-21 A	31-Mar-21 A	03-Oct-22	03-Oct-22																																															
AS201415e	Review & Accept of BS Works Design & Dwgs for Sidestream Treatment Facilities by PM	132	01-Apr-21 A	10-Sep-21	03-Oct-22	23-Oct-22	408																																														
AS201420	Submission & Submit FS Works Design & Dwgs for Sidestream Treatment Facilities	182	03-Aug-20 A	10-Dec-20 A	27-Sep-22	27-Sep-22																																															
AS201430e	Review & Comment on FS Works Design & Dwgs for Sidestream Treatment Facilities by PM	21	11-Dec-20 A	19-Jan-21 A	27-Sep-22	27-Sep-22																																															
AS201440e	Revise & Re-submit FS Works Design & Dwgs for Sidestream Treatment Facilities	66	20-Jan-21 A	19-Mar-21 A	27-Sep-22	27-Sep-22																																															
AS201450e	Review & Accept of FS Works Design & Dwgs for Sidestream Treatment Facilities by PM	144	20-Mar-21 A	10-Sep-21	27-Sep-22	17-Oct-22	402																																														
Major Plant & Materials Procurement																																																					
Civil & Structure																																																					
AS153130e	Procurement, Manufacture & Delivery of Piling	60	01-Feb-21 A	14-Apr-21 A	21-Aug-21	21-Aug-21																																															
AS153140e	Procurement, Manufacture & Delivery of Concrete Mix	45	22-Aug-21*	05-Oct-21	23-Dec-21	05-Feb-22	123																																														
AS153150e	Procurement, Manufacture & Delivery of Steel Reinforcement	45	22-Aug-21*	05-Oct-21	23-Dec-21	05-Feb-22	123																																														
AS153160e	Procurement, Manufacture & Delivery of Metal Works Material	80	09-May-21 A	07-Jul-21 A	08-Nov-21	08-Nov-21																																															
ABWF																																																					
AS153170	Procurement, Manufacture & Delivery of Water Proofing Material	60	19-Jul-22	16-Sep-22	03-Feb-23	03-Apr-23	199																																														
AS153180	Procurement, Manufacture & Delivery of ABWF Works Material	120	04-Jul-22	31-Oct-22	19-Jan-23	18-May-23	199																																														
E&M Process																																																					
AS153100	Procurement, Manufacture & Delivery of Deammonification Sidestream Treatment Facilities	360	07-Jul-21 A	17-Aug-22	07-Oct-21	17-Aug-22	0																																														
BS																																																					
AS153190	Procurement, Manufacture & Delivery of BS Works Material	240	21-Dec-21	17-Aug-22	20-Feb-22	17-Oct-22	61																																														
Fitting-out																																																					
AS512370f	Procurement, Manufacture & Delivery of Fit-out Works Material	60	24-Jun-22	22-Aug-22	20-Mar-23	18-May-23	269																																														
Ground Settlement, Tilting & Utility Monitoring																																																					
AS153200f	Ground Settlement, Tilting & Utility Monitoring	1188	12-Dec-20 A	13-Mar-24	21-Aug-21	13-Mar-24	0																																														
Civil Works Construction																																																					
AS161100	Site Clearance & Survey	50	30-Sep-20 A	11-Dec-20 A	21-Aug-21	21-Aug-21																																															
AS161120	Ground Investigation	65	12-Dec-20 A	18-Jan-21 A	21-Aug-21	21-Aug-21																																															
AS161140	Pre-drilling Works	180	22-Feb-21 A	19-Mar-21 A	21-Aug-21	21-Aug-21																																															

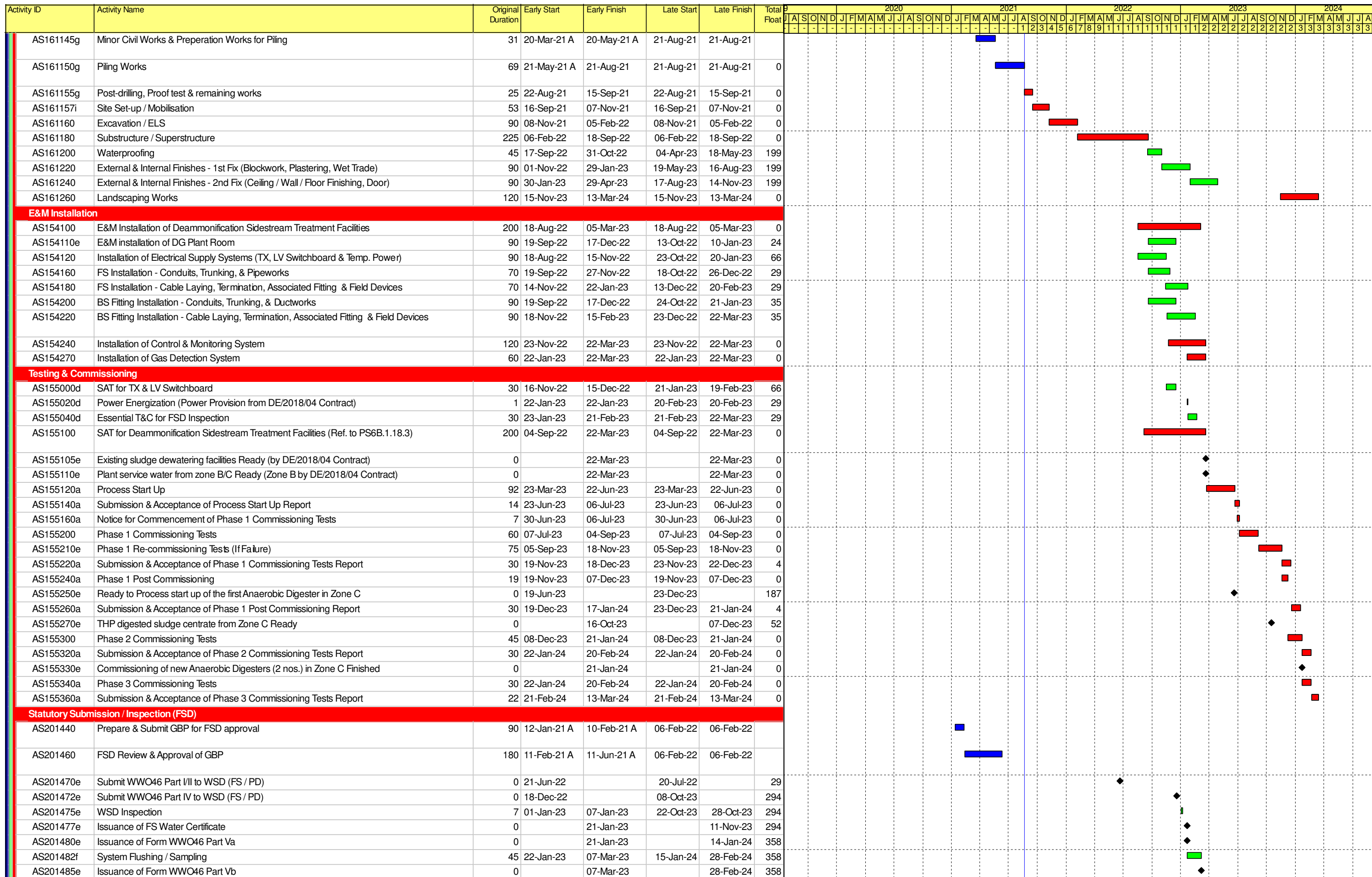


File Name: DE/2018/03 RP R13
Layout: DE1803 RP (Aug 2021) -
WBS
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■ Remaining Work
■ Critical Activity
◆ Milestone
■ Actual Progress

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 Aug 2021

Date	Revision	Checked	Approved
30-Apr-21	Rev.9	LT	KM
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



File Name: DE/2018/03 RP R13
Layout: DE1803 RP (Aug 2021) - WBS
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- Remaining Work
- Critical Activity
- Actual Progress
- ◆ Milestone

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 Aug 2021

Date	Revision	Checked	Approved
30-Apr-21	Rev.9	LT	KM
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30-Jun-21	Rev.11	LT	KM
31-Jul-21	Rev.12	LT	KM
31-Aug-21	Rev.13	LT	KM

Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 E&M Works for Sewage Treatment Facilities

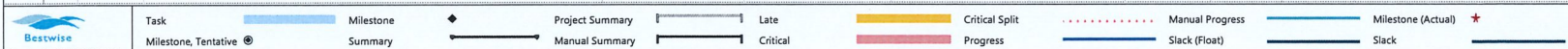
ID	ID	WBS	Task Name	Duration between Task Start and Finish	Start	Finish	Early Start	Early Finish	Free Slack	Predecessors	Successors	Resource Names	Gantt Chart (2020-2024)																											
1	1.1		DE/2018/04 - Contract Master Programme	1990 days	Mon 02/12/19	Tue 13/05/25	Mon 02/12/19	Tue 13/05/25	0 days				[Gantt Chart]																											
2	2.1.1		Starting Date	0 days	Mon 02/12/19	Mon 02/12/19	Mon 02/12/19	Mon 02/12/19	0 days	355+1625 edays,628,202			[Gantt Chart]																											
3	3.1.2		Completion Date	0 days	Tue 14/05/24	Tue 14/05/24	Tue 14/05/24	Tue 14/05/24	0 days	255+1625 ec4			[Gantt Chart]																											
4	4.1.3		Defect Dates with respect to Completion Date	365 days	Tue 14/05/24	Tue 13/05/25	Tue 14/05/24	Tue 13/05/25	0 days	3			[Gantt Chart]																											
5	5.2		Access Dates	1599 days	Mon 02/12/19	Thu 18/04/24	Mon 02/12/19	Thu 18/04/24	0 days				[Gantt Chart]																											
6	6.2.1		Access Date for Works Area WA1-C	90 days	Mon 02/12/19	Sat 29/02/20	Mon 02/12/19	Sat 29/02/20	0 days				[Gantt Chart]																											
7	7.2.2		Access Date for Works Area WA2-C	90 days	Mon 02/12/19	Sat 29/02/20	Mon 02/12/19	Sat 29/02/20	0 days				[Gantt Chart]																											
8	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	Fri 25/11/22	0 edays				[Gantt Chart]																											
9	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	Fri 14/04/23	0 edays				[Gantt Chart]																											
10	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	Mon 02/12/19	0 days				[Gantt Chart]																											
11	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	Mon 02/12/19	0 days				[Gantt Chart]																											
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	Thu 23/02/23	0 edays				[Gantt Chart]																											
13	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	Sun 20/03/22	0 edays				[Gantt Chart]																											
14	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	Wed 17/08/22	0 edays				[Gantt Chart]																											
15	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	Thu 19/05/22	0 edays				[Gantt Chart]																											
16	16.2.11		Access Date for Portion B-7A & 7B, area for modification of existing emerge	0 edays	Mon 02/12/19	Mon 02/12/19	Mon 02/12/19	Mon 02/12/19	0 edays				[Gantt Chart]																											
17	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	Thu 18/04/24	0 edays				[Gantt Chart]																											
18	18.2.13		Access Date for B-10, existing sludge thickening building	0 edays	Mon 02/12/19	Mon 02/12/19	Mon 02/12/19	Mon 02/12/19	0 edays				[Gantt Chart]																											
19	19.3		Key Dates	555 days	Mon 02/12/19	Wed 09/06/21	Mon 02/12/19	Wed 09/06/21	0 days				[Gantt Chart]																											
20	20.3.1		KD1A - Submission of civil and dimensional requirement drawings, electrical	340 edays	Mon 02/12/19	Fri 06/11/20	Mon 02/12/19	Fri 06/11/20	0 edays	31FF			[Gantt Chart]																											
21	21.3.2		KD1B - Submission of remaining civil and dimensional requirement drawings	550 edays	Mon 02/12/19	Fri 04/06/21	Mon 02/12/19	Fri 04/06/21	0 edays	32FF			[Gantt Chart]																											
22	22.3.3		KD3A - Completion of E&M Installation works of existing power house in Poi	240 edays	Mon 02/12/19	Wed 29/07/20	Mon 02/12/19	Wed 29/07/20	0 edays	33FF			[Gantt Chart]																											
23	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	Wed 09/06/21	0 edays	34FF			[Gantt Chart]																											
24	24.4		Sectional Completion Dates	1625 days	Mon 02/12/19	Tue 14/05/24	Mon 02/12/19	Tue 14/05/24	0 days				[Gantt Chart]																											
25	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	Sat 24/07/21	0 edays	35FF			[Gantt Chart]																											
26	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	Fri 19/04/24	0 edays	36FF			[Gantt Chart]																											
27	27.4.3		Section 3 - Completion of all works for retrofitting of the existing PST...etc (6	660 edays	Mon 02/12/19	Wed 22/09/21	Mon 02/12/19	Wed 22/09/21	0 edays	37FF			[Gantt Chart]																											
28	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	Tue 14/05/24	0 edays	38FF			[Gantt Chart]																											
29	29.5		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	Wed 30/04/25	0 days				[Gantt Chart]																											
30	30.5.1		Starting Date	0 days	Mon 02/12/19	Mon 02/12/19	Mon 02/12/19	Mon 02/12/19	0 days	628,20255+30 edays,425			[Gantt Chart]																											
31	31.5.2		Planned Key Date Completion Date - KD1A	0 days	Fri 30/10/20	Fri 30/10/20	Fri 30/10/20	Fri 30/10/20	7 days	20FF			[Gantt Chart]																											
32	32.5.3		Planned Key Date Completion Date - KD1B	0 days	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	3 days	21FF			[Gantt Chart]																											
33	33.5.4		Planned Key Date Completion Date - KD3A	0 days	Wed 22/07/20	Wed 22/07/20	Wed 22/07/20	Wed 22/07/20	7 days	22FF			[Gantt Chart]																											
34	34.5.5		Planned Key Date Completion Date - KD3B	0 days	Mon 07/06/21	Mon 07/06/21	Mon 07/06/21	Mon 07/06/21	2 days	23FF			[Gantt Chart]																											
35	35.5.6		Planned Sectional Completion Date - Section 1	0 days	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	11 days	25FF			[Gantt Chart]																											
36	36.5.7		Planned Sectional Completion Date - Section 2	0 days	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	18 days	26FF			[Gantt Chart]																											
37	37.5.8		Planned Sectional Completion Date - Section 3	0 days	Wed 01/09/21	Wed 01/09/21	Wed 01/09/21	Wed 01/09/21	21 days	27FF			[Gantt Chart]																											
38	38.5.9		Planned Sectional Completion Date - Section 4	0 days	Wed 01/05/24	Wed 01/05/24	Wed 01/05/24	Wed 01/05/24	13 days	28FF			[Gantt Chart]																											
39	39.5.10		Planned Completion Date	0 days	Wed 08/05/24	Wed 08/05/24	Wed 08/05/24	Wed 08/05/24	5 days	1284,1285,13			[Gantt Chart]																											
40	40.5.11		Defect Dates with respect to planned completion date	365 days	Wed 01/05/24	Wed 30/04/25	Wed 01/05/24	Wed 30/04/25	0 days				[Gantt Chart]																											
41	41.5.12		Part A: Procurement and Delivery of Major Plant and Materials	758 days	Wed 01/07/20	Thu 28/07/22	Wed 01/07/20	Thu 28/07/22	422 days				[Gantt Chart]																											
42	42.5.12.1		Planned Completion Date for Procurement of major plant and materials	0 days	Thu 03/06/21	Thu 03/06/21	Thu 03/06/21	Thu 03/06/21	0 days	3055+550 d			[Gantt Chart]																											
43	43.5.12.2		General - stoplogs and penstocks, C11, EQT013	120 days	Wed 01/07/20	Wed 28/10/20	Wed 01/07/20	Wed 28/10/20	0 days				[Gantt Chart]																											
44	44.5.12.2.1		Submission for acceptance of purchasing package	60 days	Wed 01/07/20	Sat 29/08/20	Wed 01/07/20	Sat 29/08/20	0 days	45			[Gantt Chart]																											
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	Mon 28/09/20	0 days	44	46		[Gantt Chart]																											
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	Wed 28/10/20	0 days	45	253		[Gantt Chart]																											
47	47.5.12.3		General - Instrumentations except use at BR, C11, EQT035-1	401 days	Sat 02/01/21	Sun 06/02/22	Sat 02/01/21	Sun 06/02/22	594 days				[Gantt Chart]																											
48	48.5.12.3.1		Submission for acceptance of purchasing package	60 days	Sat 02/01/21	Tue 02/03/21	Sat 02/01/21	Tue 02/03/21	0 days				[Gantt Chart]																											
49	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	Sat 10/07/21	0 days	50			[Gantt Chart]																											
50	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	Mon 09/08/21	0 days	49	51		[Gantt Chart]																											
51	51.5.12.3.4		Manufacturing and Factory Acceptance Test of Plant (Rev. 10)	121 days	Tue 10/08/21	Wed 08/12/21	Tue 10/08/21	Wed 08/12/21	0 days	50	52		[Gantt Chart]																											
52	52.5.12.3.5		Shipping and Delivery of Plant (Rev. 10)	60 days	Thu 09/12/21	Sun 06/02/22	Thu 09/12/21	Sun 06/02/22	237 days	51	335,465,747		[Gantt Chart]																											
53	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	Tue 28/12/21	214 days				[Gantt Chart]																											
54	54.5.12.4.1		Submission for acceptance of purchasing package (Rev. 11)	255 days	Mon 02/11/20	Wed 14/07/21	Mon 02/11/20	Wed 14/07/21	0 days	55			[Gantt Chart]																											
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	Sun 08/08/21	0 days	54	56		[Gantt Chart]																											
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	Sun 12/09/21	0 days	55	279,285,429,558,681		[Gantt Chart]																											
57	57.5.12.4.4		Submission for acceptance of purchasing package for remaining pipework and valves (Rev. 13)	30 days	Mon 01/11/21	Tue 30/11/21	Mon 01/11/21	Tue 30/11/21	0 days	58			[Gantt Chart]																											

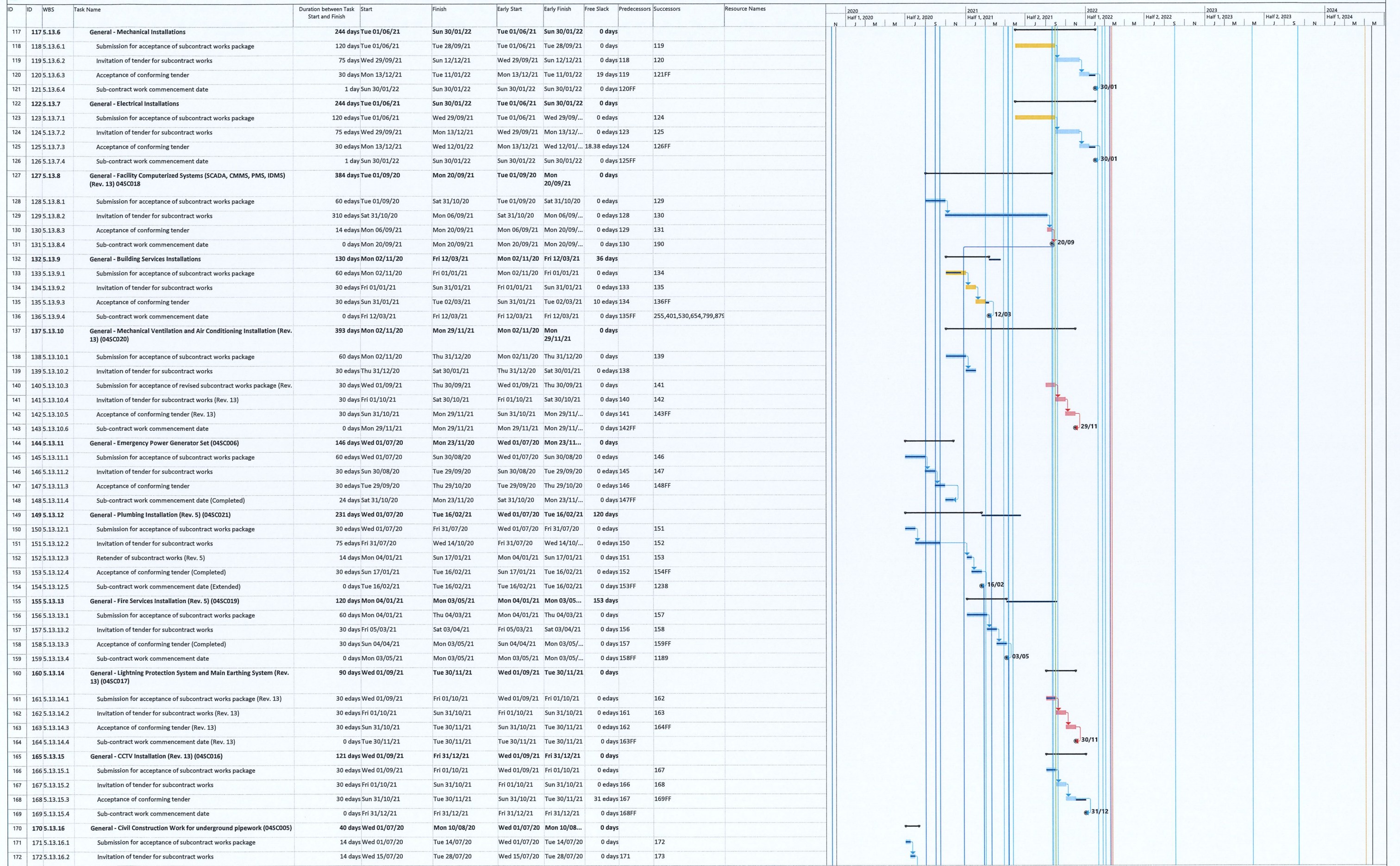
Task Milestone Project Summary Late Critical Split Manual Progress Milestone (Actual) Slack (Float) Slack

Milestone, Tentative Milestone Summary Manual Summary Critical Progress Slack (Float) Slack

Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 E&M Works for Sewage Treatment Facilities

Table with columns: ID, WBS, Task Name, Duration between Task Start and Finish, Start, Finish, Early Start, Early Finish, Free Slack, Predecessors, Successors, Resource Names. Includes Gantt chart visualization on the right side.





Bestwise Project: DE/2018/04 Date: 28/09/21

Task: Milestone: Project Summary: Late: Critical Split: Manual Progress: Milestone (Actual): Milestone, Tentative: Summary: Manual Summary: Critical: Progress: Slack (Float): Slack:

ID	ID	WBS	Task Name	Duration between Task Start and Finish	Start	Finish	Early Start	Early Finish	Free Slack	Predecessors	Successors	Resource Names	Gantt Chart (2020-2024)																											
													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 2, 2023	Half 1, 2024	Half 2, 2024																		
173	173.5.13.16.3		Acceptance of conforming tender	7 days	Wed 29/07/20	Tue 04/08/20	Wed 29/07/20	Tue 04/08/20	0 days	172	174FF		[Gantt Chart Bar]																											
174	174.5.13.16.4		Sub-contract work commencement date (Completed)	0 days	Mon 10/08/20	Mon 10/08/20	Mon 10/08/20	Mon 10/08/20	0 days	173FF			[Gantt Chart Bar]																											
175	175.5.13.17		General - Civil Construction Work for Temp. Filtrate Eq. System (04SC001)	40 days	Wed 01/07/20	Mon 10/08/20	Wed 01/07/20	Mon 10/08/20	0 days				[Gantt Chart Bar]																											
176	176.5.13.17.1		Submission for acceptance of subcontract works package	14 days	Wed 01/07/20	Tue 14/07/20	Wed 01/07/20	Tue 14/07/20	0 days		177		[Gantt Chart Bar]																											
177	177.5.13.17.2		Invitation of tender for subcontract works	14 days	Wed 15/07/20	Tue 28/07/20	Wed 15/07/20	Tue 28/07/20	0 days	176	178		[Gantt Chart Bar]																											
178	178.5.13.17.3		Acceptance of conforming tender	7 days	Wed 29/07/20	Tue 04/08/20	Wed 29/07/20	Tue 04/08/20	0 days	177	179FF		[Gantt Chart Bar]																											
179	179.5.13.17.4		Sub-contract work commencement date (Completed)	0 days	Mon 10/08/20	Mon 10/08/20	Mon 10/08/20	Mon 10/08/20	0 days	178FF			[Gantt Chart Bar]																											
180	180.5.13.18		Mis - Modification of existing power house (04SC010)	109 days	Mon 24/02/20	Fri 12/06/20	Mon 24/02/20	Fri 12/06/20	0 days				[Gantt Chart Bar]																											
181	181.5.13.18.1		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		[Gantt Chart Bar]																											
182	182.5.13.18.2		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		[Gantt Chart Bar]																											
183	183.5.13.18.3		Acceptance of conforming tender	1 day	Sun 07/06/20	Sun 07/06/20	Sun 07/06/20	Sun 07/06/20	0 days	182	184FF		[Gantt Chart Bar]																											
184	184.5.13.18.4		Sub-contract work commencement date (Completed)	0 days	Fri 12/06/20	Fri 12/06/20	Fri 12/06/20	Fri 12/06/20	0 days	183FF	1160		[Gantt Chart Bar]																											
185	185.5.14		Part C: General Design Submissions	788 days	Mon 02/12/19	Thu 27/01/22	Mon 02/12/19	Thu 27/01/22	0 days				[Gantt Chart Bar]																											
186	186.5.14.1		Planned Sectional Completion Date - Section 1	0 days	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	0 days	187FF,188FF			[Gantt Chart Bar]																											
187	187.5.14.2		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		[Gantt Chart Bar]																											
188	188.5.14.3		CDS020 - Electrical Installation Typical Details	355 edays	Mon 20/07/20	Sat 10/07/21	Mon 20/07/20	Sat 10/07/21	0 edays		186FF		[Gantt Chart Bar]																											
189	189.5.14.4		CDS009 - Detailed Design for Plant Service Water System	125 edays	Mon 01/03/21	Sun 04/07/21	Mon 01/03/21	Sun 04/07/21	0 edays		186FF		[Gantt Chart Bar]																											
190	190.5.14.5		CDS012 - Detailed Design for SCADA System	383.4 edays	Sat 09/01/21	Thu 27/01/22	Sat 09/01/21	Thu 27/01/22	0 edays	131	186FF,254FF,400FF,529FF		[Gantt Chart Bar]																											
191	191.5.14.6		CDS13-1 - Detailed Design for CCTV System	90 edays	Thu 01/04/21	Wed 30/06/21	Thu 01/04/21	Wed 30/06/21	12.38 edays		186FF		[Gantt Chart Bar]																											
192	192.5.14.7		CDS13-2 - Detailed Design for Gas Detection and Monitoring System	90 edays	Mon 01/03/21	Sun 30/05/21	Mon 01/03/21	Sun 30/05/21	43.38 edays		186FF		[Gantt Chart Bar]																											
193	193.5.14.8		CDS14-1 - Detailed Design for Power monitoring system (PMS)	90 edays	Mon 01/03/21	Sun 30/05/21	Mon 01/03/21	Sun 30/05/21	43.38 edays		186FF		[Gantt Chart Bar]																											
194	194.5.14.9		CDS14-2 - Detailed Design for Computerized maintenance and management	90 edays	Mon 01/03/21	Sun 30/05/21	Mon 01/03/21	Sun 30/05/21	43.38 edays		186FF		[Gantt Chart Bar]																											
195	195.5.14.10		CDS14-3 - Detailed Design for Information and documents management s	90 edays	Mon 01/03/21	Sun 30/05/21	Mon 01/03/21	Sun 30/05/21	43.38 edays		186FF		[Gantt Chart Bar]																											
196	196.5.14.11		CDS031 - Detailed Design for MVAC System	90 edays	Mon 01/03/21	Sun 30/05/21	Mon 01/03/21	Sun 30/05/21	43.38 edays		186FF		[Gantt Chart Bar]																											
197	197.5.14.12		CDS042 - Detailed Design for Lightning Protection System	120 edays	Mon 11/01/21	Tue 11/05/21	Mon 11/01/21	Tue 11/05/21	62.38 edays		186FF		[Gantt Chart Bar]																											
198	198.5.14.13		Design submissions for E&M installation works of existing sludge thickeni	300 edays	Mon 02/12/19	Sun 27/09/20	Mon 02/12/19	Sun 27/09/20	0 edays		186FF		[Gantt Chart Bar]																											
199	199.5.14.14		Design Submission for Earthing and Lightning (Rev. 8)	147.38 edays	Mon 04/01/21	Mon 31/05/21	Mon 04/01/21	Mon 31/05/21	42 edays		186FF		[Gantt Chart Bar]																											
200	200.5.15		Works Area WA1-C	374 days	Wed 01/01/20	Fri 08/01/21	Wed 01/01/20	Fri 08/01/21	0 days				[Gantt Chart Bar]																											
201	201.5.15.1		Actual Access / Handover Date	1 day	Fri 21/02/20	Fri 21/02/20	Fri 21/02/20	Fri 21/02/20	0 days		205		[Gantt Chart Bar]																											
202	202.5.15.2		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 29/02/20	0 days	255+30 edays	203		[Gantt Chart Bar]																											
203	203.5.15.3		Invitation of quotations for subcontract works (Site Office)	21 days	Sun 01/03/20	Sat 21/03/20	Sun 01/03/20	Sat 21/03/20	0 days	202	204		[Gantt Chart Bar]																											
204	204.5.15.4		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		[Gantt Chart Bar]																											
205	205.5.15.5		Design and Fabrication of the Contractor's Site Accommodations	120 days	Wed 01/04/20	Wed 29/07/20	Wed 01/04/20	Wed 29/07/20	0 days	201,204	211		[Gantt Chart Bar]																											
206	206.5.15.6		Submission for acceptance of subcontract works package (Site Office Fou	20 days	Fri 01/05/20	Wed 20/05/20	Fri 01/05/20	Wed 20/05/20	0 days		207		[Gantt Chart Bar]																											
207	207.5.15.7		Invitation of quotations for subcontract works (Site Office Foundation)	18 days	Thu 21/05/20	Sun 07/06/20	Thu 21/05/20	Sun 07/06/20	0 days	206	208		[Gantt Chart Bar]																											
208	208.5.15.8		Acceptance of conforming quotation (Site foundation)	7 days	Mon 08/06/20	Sun 14/06/20	Mon 08/06/20	Sun 14/06/20	0 days	207	209		[Gantt Chart Bar]																											
209	209.5.15.9		Design and Construction of the Contractor's Site Office foundation	30 days	Mon 15/06/20	Tue 14/07/20	Mon 15/06/20	Tue 14/07/20	0 days	208	210		[Gantt Chart Bar]																											
210	210.5.15.10		Construction of Contractor's Site Office foundation (Completed)	47 days	Wed 15/07/20	Sun 30/08/20	Wed 15/07/20	Sun 30/08/20	0 days	209	211		[Gantt Chart Bar]																											
211	211.5.15.11		Site Installation of the Contractor's Site Accommodations (MIC) (Rev. 5)	120 days	Mon 31/08/20	Mon 28/12/20	Mon 31/08/20	Mon 28/12/20	0 days	205,210	212		[Gantt Chart Bar]																											
212	212.5.15.12		Anticipated date of working at site (Rev. 5) (Completed)	4 days	Tue 05/01/21	Fri 08/01/21	Tue 05/01/21	Fri 08/01/21	0 days	211			[Gantt Chart Bar]																											
213	213.5.16		Works Area WA2-C	1 day	Fri 21/02/20	Fri 21/02/20	Fri 21/02/20	Fri 21/02/20	0 days				[Gantt Chart Bar]																											
214	214.5.16.1		Actual Access / Handover Date	1 day	Fri 21/02/20	Fri 21/02/20	Fri 21/02/20	Fri 21/02/20	0 days		205		[Gantt Chart Bar]																											
215	215.5.17		Inlet Works No. 1, Portion B-2 (PS 6B.2.1)	1400 days	Mon 01/06/20	Mon 01/04/24	Mon 01/06/20	Mon 01/04/24	0 days				[Gantt Chart Bar]																											
216	216.5.17.1		Planned Key Date Completion Date - KD1A, IW	0 days	Fri 30/10/20	Fri 30/10/20	Fri 30/10/20	Fri 30/10/20	0 days	250FF,251FF			[Gantt Chart Bar]																											
217	217.5.17.2		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			[Gantt Chart Bar]																											
218	218.5.17.3		Planned Sectional Completion Date - Section 1, IW	0 days	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	0 days	253FF,254FF			[Gantt Chart Bar]																											
219	219.5.17.4		Planned Sectional Completion Date - Section 2, IW	0 days	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	0 days				[Gantt Chart Bar]																											
220	220.5.17.5		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				[Gantt Chart Bar]																											
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		223		[Gantt Chart Bar]																											
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 30/07/20	0 days		223		[Gantt Chart Bar]																											
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	0 days	222	224		[Gantt Chart Bar]																											
224	224.5.17.5.1.3		Acceptance of conforming quotation (Completed)	30 days	Sun 30/08/20	Mon 28/09/20	Sun 30/08/20	Mon 28/09/20	0 days	223	253		[Gantt Chart Bar]																											
225	225.5.17.5.2		Inlet Works - mechanical raked bar screens, C11, ref. EQT052	58 days	Fri 26/06/20	Sat 22/08/20	Fri 26/06/20	Sat 22/08/20	0 days		227		[Gantt Chart Bar]																											
226	226.5.17.5.2.1		Submission for acceptance of purchasing package	14 days	Fri 26/06/20	Thu 09/07/20	Fri 26/06/20	Thu 09/07/20	0 days		227		[Gantt Chart Bar]																											
227	227.5.17.5.2.2		Invitation of quotations for purchasing package	14 days	Fri 10/07/20	Thu 23/07/20	Fri 10/07/20	Thu 23/07/20	0 days	226	228		[Gantt Chart Bar]																											
228	228.5.17.5.2.3		Acceptance of conforming quotation (Completed)	30 days	Fri 24/07/20	Sat 22/08/20	Fri 24/07/20	Sat 22/08/20	0 days	227	253		[Gantt Chart Bar]																											
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 12/09/20	0 days		231		[Gantt Chart Bar]																											
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 30/07/20	0 days		231		[Gantt Chart Bar]																											

Task Milestone Project Summary Late Critical Split Manual Progress Milestone (Actual) Critical Slack (Float) Slack

Bestwise Project: DE/2018/04 Date: 28/09/21

Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 E&M Works for Sewage Treatment Facilities

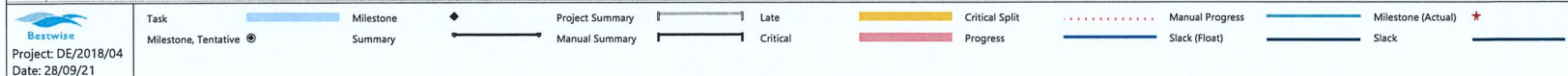
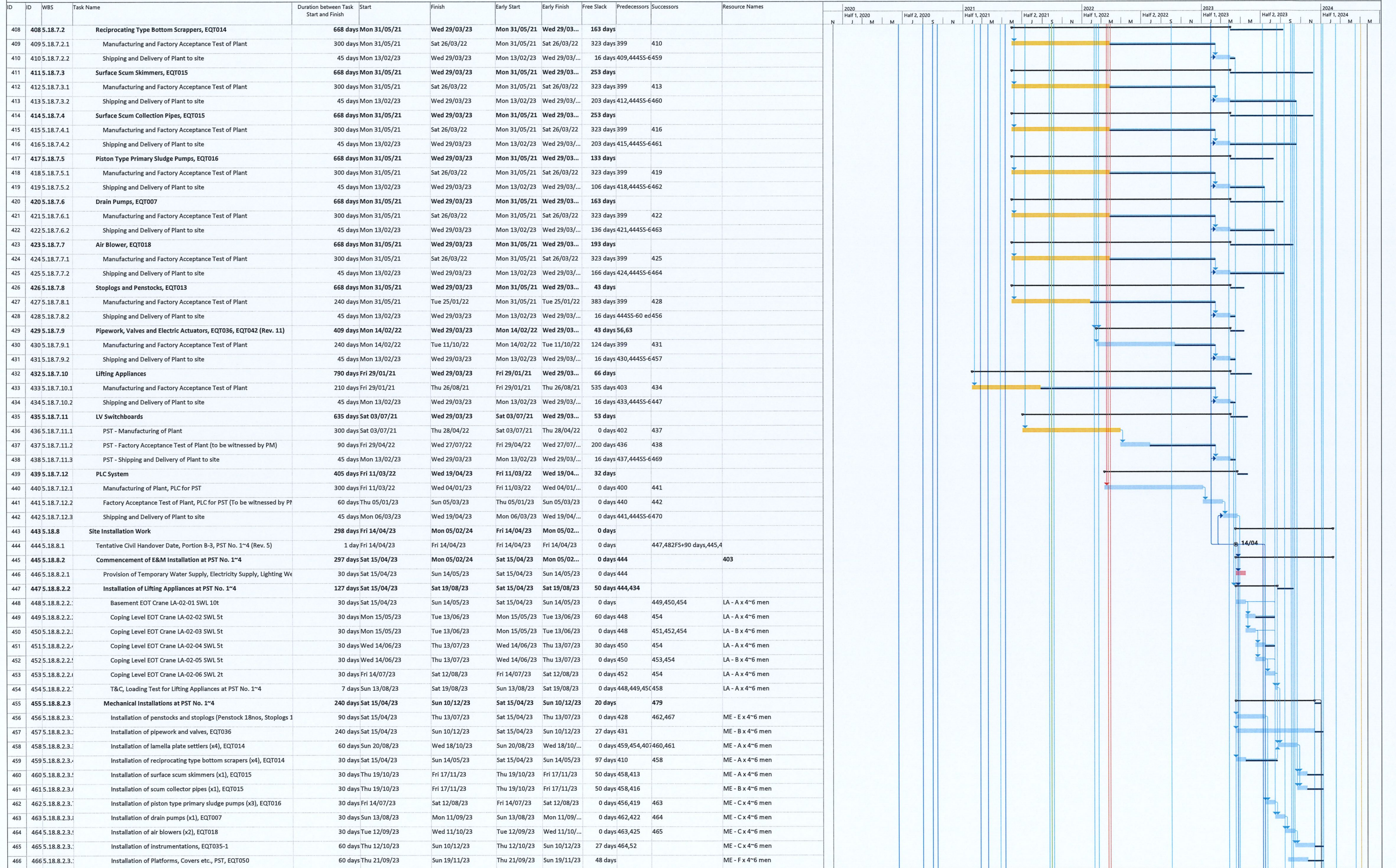
ID	ID	WBS	Task Name	Duration between Task Start and Finish	Start	Finish	Early Start	Early Finish	Free Slack	Predecessors	Successors	Resource Names	2020	2020	2021	2021	2022	2022	2023	2023	2024	
													Half 1, 2020	Half 2, 2020	Half 1, 2021	Half 2, 2021	Half 1, 2022	Half 2, 2022	Half 1, 2023	Half 2, 2023	Half 1, 2024	
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 13/08/20	0 days	230	232											
232	232	5.17.5.3.3	Acceptance of conforming quotation (Completed)	30 days	Sat 14/08/20	Sat 12/09/20	Fri 14/08/20	Sat 12/09/20	0 days	231	253											
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 days													
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 days		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	0 days	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	0 days	235	253											
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 28/09/20	0 days													
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 days		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 days	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 days	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 28/09/20	0 days													
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		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	0 days	242	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 days	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 01/05/21	0 days													
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 09/07/20	0 days		247											
247	247	5.17.5.7.2	Invitation of quotations for purchasing package	266 days	Fri 10/07/20	Thu 01/04/21	Fri 10/07/20	Thu 01/04/21	0 days	246	248											
248	248	5.17.5.7.3	Acceptance of conforming quotation (Rev. 10)	30 days	Fri 02/04/21	Sat 01/05/21	Fri 02/04/21	Sat 01/05/21	0 days	247	253											
249	249	5.17.6	Design Submissions for IW	479 days	Wed 15/07/20	Sat 06/11/21	Wed 15/07/20	Sat 06/11/21	0 days													
250	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	Mon 12/10/20	0 days		216FF											
251	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	Tue 01/09/20	Thu 15/10/20	0 days		216FF											
252	252	5.17.6.3	CDS081-1 - Civil and dimensional requirements drawings for Inlet Works No. 1	210 days	Fri 28/08/20	Thu 25/03/21	Fri 28/08/20	Thu 25/03/21	0 days		217FF											
253	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	Fri 23/07/21	0 edays	228,232,224,261,283,268,271,274,277												
254	254	5.17.6.5	CDS021 - Detailed Design for Electrical Installations for Inlet Works No. 1	166.63 edays	Sun 23/05/21	Sat 06/11/21	Sun 23/05/21	Sat 06/11/21	0 edays	75,81,85,89,76,300,292,303,218FF												
255	255	5.17.6.6	CDS034-1 - Detailed Design for Electrical Installations BS at Inlet Works No. 1	120 edays	Fri 12/03/21	Sat 10/07/21	Fri 12/03/21	Sat 10/07/21	0 edays	136	353,218FF											
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	Thu 17/06/21	0.63 edays	67	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 30/03/21	0 edays	116	289,218FF											
259	259	5.17.7	Manufacturing and Delivery of Plant & Materials	696 days	Tue 30/03/21	Thu 23/02/23	Tue 30/03/21	Thu 23/02/23	215 days													
260	260	5.17.7.1	Inlet Pumps, EQT006	489 days	Sat 24/07/21	Thu 24/11/22	Sat 24/07/21	Thu 24/11/22	352 days													
261	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	Sun 20/03/22	0 days	253	262											
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	Thu 19/05/22	129 days	261	263											
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	Thu 24/11/22	225 days	262,310SS-6328												
264	264	5.17.7.2	Mechanical Raked Bar Screen, EQT052	489 days	Sat 24/07/21	Thu 24/11/22	Sat 24/07/21	Thu 24/11/22	31 days		324											
265	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	Sun 20/03/22	189 days	253	266											
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	Thu 24/11/22	31 days	265,310SS-6326,329												
267	267	5.17.7.3	Screening Conveyors and Diverters, EQT053	489 days	Sat 24/07/21	Thu 24/11/22	Sat 24/07/21	Thu 24/11/22	357 days													
268	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	Sun 20/03/22	189 days	253	269											
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	Thu 24/11/22	143 days	268,310SS-6327												
270	270	5.17.7.4	Screening Screw Type Compactors, EQT003	489 days	Sat 24/07/21	Thu 24/11/22	Sat 24/07/21	Thu 24/11/22	31 days		324											
271	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	Sun 20/03/22	189 days	253	272											
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	Thu 24/11/22	173 days	271,310SS-6332												
273	273	5.17.7.5	Grit Removal System, EQT004	489 days	Sat 24/07/21	Thu 24/11/22	Sat 24/07/21	Thu 24/11/22	373 days													
274	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	Sun 20/03/22	189 days	253	275											
275	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	Thu 24/11/22	246 days	274,310SS-6330												
276	276	5.17.7.6	Grit Classifiers, EQT005	489 days	Sat 24/07/21	Thu 24/11/22	Sat 24/07/21	Thu 24/11/22	387 days													
277	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	Sun 20/03/22	189 days	253	278											
278	278	5.17.7.6.2	Shipping and Delivery of Plant to site	60 days	Mon 26/09/22	Thu 24/11/22	Mon 26/09/22	Thu 24/11/22	260 days	277,310SS-6331												
279	279	5.17.7.7	Pipework, EQT036 (Rev. 11)	438 days	Mon 13/09/21	Thu 24/11/22	Mon 13/09/21	Thu 24/11/22	288 days	56												
280	280	5.17.7.7.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Mon 13/09/21	Tue 10/05/22	Mon 13/09/21	Tue 10/05/22	138 days	253	281											
281	281	5.17.7.7.2	Shipping and Delivery of Plant to site	60 days	Mon 26/09/22	Thu 24/11/22	Mon 26/09/22	Thu 24/11/22	151 days	280,310SS-6333												
282	282	5.17.7.8	Stoplogs and Penstocks, EQT013	489 days	Sat 24/07/21	Thu 24/11/22	Sat 24/07/21	Thu 24/11/22	168 days													
283	283	5.17.7.8.1	Manufacturing and Factory Acceptance Test of Plant	300 days	Sat 24/07/21	Thu 19/05/22	Sat 24/07/21	Thu 19/05/22	129 days	253	284											
284	284	5.17.7.8.2	Shipping and Delivery of Plant to site	60 days	Mon 26/09/22	Thu 24/11/22	Mon 26/09/22	Thu 24/11/22	31 days	283,310SS-6324												
285	285	5.17.7.9	Valves and Actuators, EQT036, EQT042 (Rev. 11)	300 days	Mon 14/02/22	Sat 10/12/22	Mon 14/02/22	Sat 10/12/22	272 days	56,63												
286	286	5.17.7.9.1	Manufacturing and Factory Accept																			

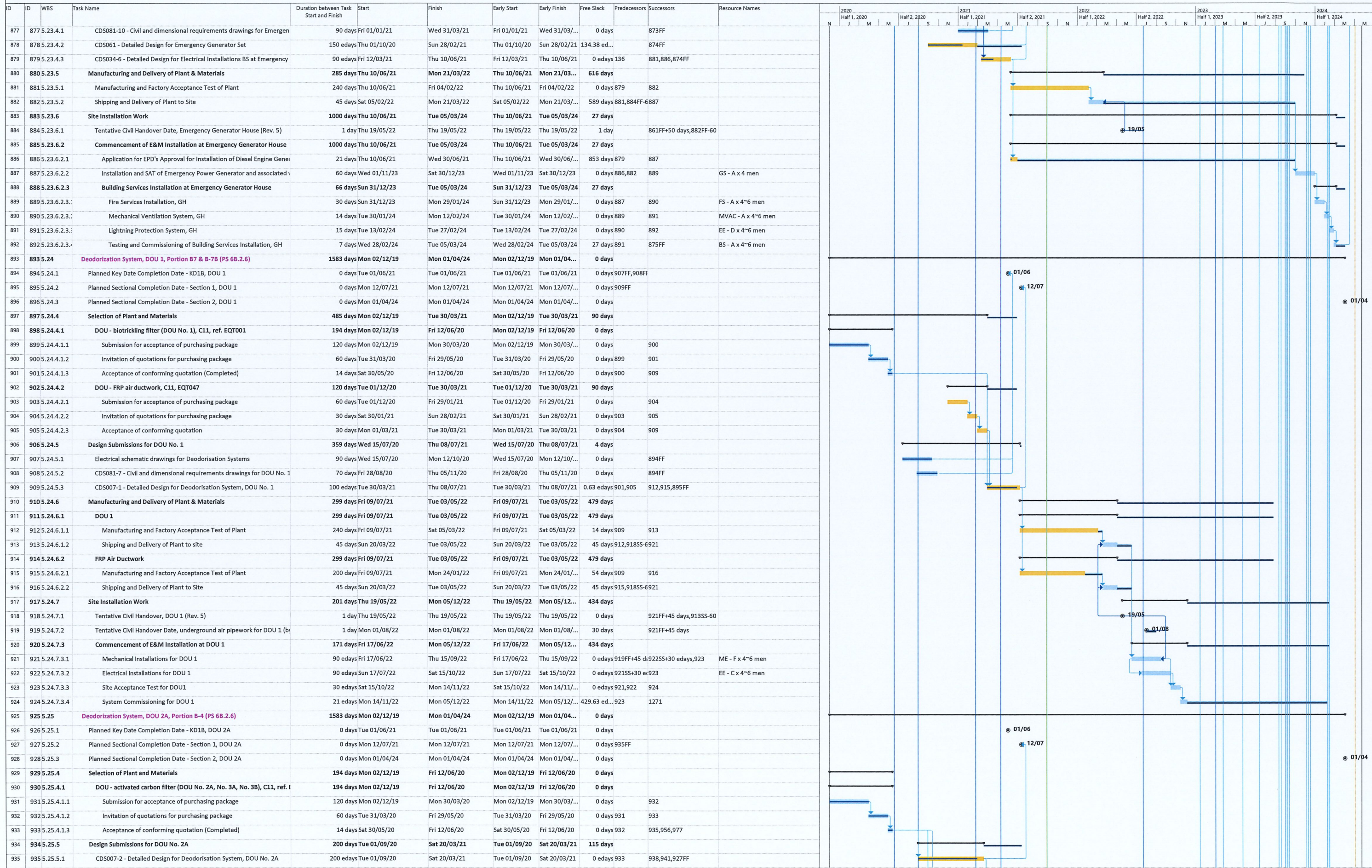
ID	WBS	Task Name	Duration between Task Start and Finish	Start	Finish	Early Start	Early Finish	Free Slack	Predecessors	Successors	Resource Names	Gantt Chart (2020-2024)																											
349	349.5.17.8.3.5	Site Acceptance Test for PLC System at Inlet Works No. 1	60 days	Thu 07/09/23	Sun 05/11/23	Thu 07/09/23	Sun 05/11/23	35 days	348	350,1275		[Gantt Chart Data]																											
350	350.5.17.8.3.6	Site Acceptance Test for E&M Equip & Instrumentations calibration,	15 days	Tue 02/01/24	Tue 16/01/24	Tue 02/01/24	Tue 16/01/24	0 days	323,338,345	351		[Gantt Chart Data]																											
351	351.5.17.8.3.7	System Commissioning for E&M Equip at Inlet Works No. 1	15 edays	Tue 16/01/24	Wed 31/01/24	Tue 16/01/24	Wed 31/01/24	0 edays	350	352		[Gantt Chart Data]																											
352	352.5.17.8.3.8	Risk Allowances for completion of Processing Plant at Inlet Works No. 1	7 edays	Wed 31/01/24	Wed 07/02/24	Wed 31/01/24	Wed 07/02/24	0.63 edays	351,360	1271		[Gantt Chart Data]																											
353	353.5.17.8.3.9	Building Services Installations for Inlet Works No. 1	300 days	Sun 26/03/23	Fri 19/01/24	Sun 26/03/23	Fri 19/01/24	17 days	310F5+120	6		[Gantt Chart Data]																											
354	354.5.17.8.3.9.1	Mechanical Ventilation and Air Conditioning System, IW	150 days	Sun 26/03/23	Tue 22/08/23	Sun 26/03/23	Tue 22/08/23	30 days		360	MVAC - B x 4~6 men	[Gantt Chart Data]																											
355	355.5.17.8.3.9.2	Lighting and Power Distribution System, IW	180 days	Sun 26/03/23	Thu 21/09/23	Sun 26/03/23	Thu 21/09/23	0 days		360	BS - A x 4~6 men	[Gantt Chart Data]																											
356	356.5.17.8.3.9.3	Plumbing Installation, IW	120 days	Sun 26/03/23	Sun 23/07/23	Sun 26/03/23	Sun 23/07/23	60 days	1242	1244,360	Pb - A x 4~6 men	[Gantt Chart Data]																											
357	357.5.17.8.3.9.4	CCTV Installation (5 indoor +5 outdoor Cameras), IW	90 days	Mon 24/04/23	Sat 22/07/23	Mon 24/04/23	Sat 22/07/23	51 days	310S5+150	360,1274	BS - B x 4~6 men	[Gantt Chart Data]																											
358	358.5.17.8.3.9.5	Fire Services Installation, IW	120 days	Mon 24/04/23	Mon 21/08/23	Mon 24/04/23	Mon 21/08/23	31 days	310S5+150	1195,1207,1208,360	FS - A x 4~6 men	[Gantt Chart Data]																											
359	359.5.17.8.3.9.6	Earthing and Lightning Protection System, IW	60 days	Wed 24/05/23	Sat 22/07/23	Wed 24/05/23	Sat 22/07/23	61 days	310S5+180	360	BS - C x 2~4 men	[Gantt Chart Data]																											
360	360.5.17.8.3.9.7	Testing and Commissioning of Building Services Installations, IW	120 days	Fri 22/09/23	Fri 19/01/24	Fri 22/09/23	Fri 19/01/24	12 days	354,355,356	352	BS - C x 2~4 men	[Gantt Chart Data]																											
361	361.5.18	Primary Sedimentation Tanks No. 1 ~ 4, Portion B-3 (PS 6B2.2)	1371 days	Wed 01/07/20	Mon 01/04/24	Wed 01/07/20	Mon 01/04/24	0 days				[Gantt Chart Data]																											
362	362.5.18.1	Planned Key Date Completion Date - KD1A, PST No. 1~4	0 days	Fri 30/10/20	Fri 30/10/20	Fri 30/10/20	Fri 30/10/20	0 days	396FF,397FF			[Gantt Chart Data]																											
363	363.5.18.2	Planned Key Date Completion Date - KD1B, PST No. 1~4	1 day	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	Tue 01/06/21	0 days	398FF			[Gantt Chart Data]																											
364	364.5.18.3	Planned Sectional Completion Date - Section 1, PST No. 1~4	0 days	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	Mon 12/07/21	0 days	401FF,400FF			[Gantt Chart Data]																											
365	365.5.18.4	Planned Sectional Completion Date - Section 2, PST No. 1~4	0 days	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	Mon 01/04/24	0 days	489FF			[Gantt Chart Data]																											
366	366.5.18.5	Selection of Suppliers for major plant and materials for PST No. 1~4	230 days	Wed 01/07/20	Mon 15/02/21	Wed 01/07/20	Mon 15/02/21	0 days				[Gantt Chart Data]																											
367	367.5.18.5.1	PST - lamella plate settlers, C11, ref. EQT014	90 days	Wed 01/07/20	Mon 28/09/20	Wed 01/07/20	Mon 28/09/20	0 days				[Gantt Chart Data]																											
368	368.5.18.5.1.1	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		369		[Gantt Chart Data]																											
369	369.5.18.5.1.2	Invitation of quotations for purchasing package	30 days	Fri 31/07/20	Sat 29/08/20	Fri 31/07/20	Sat 29/08/20	0 days		370		[Gantt Chart Data]																											
370	370.5.18.5.1.3	Acceptance of conforming quotation (Completed)	30 days	Sun 30/08/20	Mon 28/09/20	Sun 30/08/20	Mon 28/09/20	0 days		399		[Gantt Chart Data]																											
371	371.5.18.5.2	PST - reciprocating type bottom scrapers, C11, ref. EQT014	135 days	Wed 01/07/20	Thu 12/11/20	Wed 01/07/20	Thu 12/11/20	0 days				[Gantt Chart Data]																											
372	372.5.18.5.2.1	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 days		373		[Gantt Chart Data]																											
373	373.5.18.5.2.2	Invitation of quotations for purchasing package	60 days	Sat 15/08/20	Tue 13/10/20	Sat 15/08/20	Tue 13/10/20	0 days		374		[Gantt Chart Data]																											
374	374.5.18.5.2.3	Acceptance of conforming quotation (Completed)	30 days	Wed 14/10/20	Thu 12/11/20	Wed 14/10/20	Thu 12/11/20	0 days		399		[Gantt Chart Data]																											
375	375.5.18.5.3	PST - surface scum skimmers, C11, ref. EQT015	90 days	Tue 07/07/20	Sun 04/10/20	Tue 07/07/20	Sun 04/10/20	0 days				[Gantt Chart Data]																											
376	376.5.18.5.3.1	Submission for acceptance of purchasing package	30 days	Tue 07/07/20	Wed 05/08/20	Tue 07/07/20	Wed 05/08/20	0 days		377		[Gantt Chart Data]																											
377	377.5.18.5.3.2	Invitation of quotations for purchasing package	30 days	Thu 06/08/20	Fri 04/09/20	Thu 06/08/20	Fri 04/09/20	0 days		378		[Gantt Chart Data]																											
378	378.5.18.5.3.3	Acceptance of conforming quotation	30 days	Sat 05/09/20	Sun 04/10/20	Sat 05/09/20	Sun 04/10/20	0 days		377		[Gantt Chart Data]																											
379	379.5.18.5.4	PST - scum collector pipes, C11, ref. EQT015	210 days	Wed 01/07/20	Tue 26/01/21	Wed 01/07/20	Tue 26/01/21	0 days				[Gantt Chart Data]																											
380	380.5.18.5.4.1	Submission for acceptance of purchasing package	120 days	Wed 01/07/20	Wed 28/10/20	Wed 01/07/20	Wed 28/10/20	0 days		381		[Gantt Chart Data]																											
381	381.5.18.5.4.2	Invitation of quotations for purchasing package	60 days	Thu 29/10/20	Sun 27/12/20	Thu 29/10/20	Sun 27/12/20	0 days		382		[Gantt Chart Data]																											
382	382.5.18.5.4.3	Acceptance of conforming quotation	30 days	Mon 28/12/20	Tue 26/01/21	Mon 28/12/20	Tue 26/01/21	0 days		399		[Gantt Chart Data]																											
383	383.5.18.5.5	PST - piston type primary sludge pumps, C11, ref. EQT016	210 days	Wed 01/07/20	Tue 26/01/21	Wed 01/07/20	Tue 26/01/21	0 days				[Gantt Chart Data]																											
384	384.5.18.5.5.1	Submission for acceptance of purchasing package	120 days	Wed 01/07/20	Wed 28/10/20	Wed 01/07/20	Wed 28/10/20	0 days		385		[Gantt Chart Data]																											
385	385.5.18.5.5.2	Invitation of quotations for purchasing package	60 days	Thu 29/10/20	Sun 27/12/20	Thu 29/10/20	Sun 27/12/20	0 days		386		[Gantt Chart Data]																											
386	386.5.18.5.5.3	Acceptance of conforming quotation (Completed)	30 days	Mon 28/12/20	Tue 26/01/21	Mon 28/12/20	Tue 26/01/21	0 days		399		[Gantt Chart Data]																											
387	387.5.18.5.6	PST - drain pumps, C11, ref. EQT007	210 days	Tue 14/07/20	Mon 08/02/21	Tue 14/07/20	Mon 08/02/21	0 days				[Gantt Chart Data]																											
388	388.5.18.5.6.1	Submission for acceptance of purchasing package	120 days	Tue 14/07/20	Tue 10/11/20	Tue 14/07/20	Tue 10/11/20	0 days		389		[Gantt Chart Data]																											
389	389.5.18.5.6.2	Invitation of quotations for purchasing package	60 days	Wed 11/11/20	Sat 09/01/21	Wed 11/11/20	Sat 09/01/21	0 days		388		[Gantt Chart Data]																											
390	390.5.18.5.6.3	Acceptance of conforming quotation (Completed)	30 days	Sun 10/01/21	Mon 08/02/21	Sun 10/01/21	Mon 08/02/21	0 days		389		[Gantt Chart Data]																											
391	391.5.18.5.7	PST - air blowers, C11, ref. EQT018	210 days	Tue 21/07/20	Mon 15/02/21	Tue 21/07/20	Mon 15/02/21	0 days				[Gantt Chart Data]																											
392	392.5.18.5.7.1	Submission for acceptance of purchasing package	120 days	Tue 21/07/20	Tue 17/11/20	Tue 21/07/20	Tue 17/11/20	0 days		393		[Gantt Chart Data]																											
393	393.5.18.5.7.2	Invitation of quotations for purchasing package	60 days	Wed 18/11/20	Sat 16/01/21	Wed 18/11/20	Sat 16/01/21	0 days		394		[Gantt Chart Data]																											
394	394.5.18.5.7.3	Acceptance of conforming quotation	30 days	Sun 17/01/21	Mon 15/02/21	Sun 17/01/21	Mon 15/02/21	0 days		393		[Gantt Chart Data]																											
395	395.5.18.6	Design Submissions for PST No. 1 ~ 4	587 days	Sat 01/08/20	Fri 11/03/22	Sat 01/08/20	Fri 11/03/22	0 days				[Gantt Chart Data]																											
396	396.5.18.6.1	Electrical schematic drawings for PST No. 1~4	60 days	Sat 01/08/20	Tue 29/09/20	Sat 01/08/20	Tue 29/09/20	0 days		362FF		[Gantt Chart Data]																											
397	397.5.18.6.2	CDS080-2 - Civil and dimensional requirements drawings for PST No. 1~4 up to	50 days	Tue 01/09/20	Tue 20/10/20	Tue 01/09/20	Tue 20/10/20	0 days		362FF		[Gantt Chart Data]																											
398	398.5.18.6.3	CDS081-2 - Civil and dimensional requirements drawings for PST No. 1~4	150 days	Tue 01/09/20	Thu 28/01/21	Tue 01/09/20	Thu 28/01/21	0 days		363FF		[Gantt Chart Data]																											
399	399.5.18.6.4	CDS003 - Detailed Design for Primary Sedimentation Tanks No. 1~4	104 edays	Mon 15/02/21	Sun 30/05/21	Mon 15/02/21	Sun 30/05/21	0.63 edays	370,374,376,406,409,412,415,418,421			[Gantt Chart Data]																											
400	400.5.18.6.5	CDS022 - Detailed Design for Electrical Installations for PST No. 1~4	154.88 edays	Thu 07/10/21	Fri 11/03/22	Thu 07/10/21	Fri 11/03/22	0 edays	75,85,93,197,6,440,364FF			[Gantt Chart Data]																											
401	401.5.18.6.6	CDS034-2 - Detailed Design for Electrical Installations BS at PST No. 1~4	90 edays	Fri 12/03/21	Thu 10/06/21	Fri 12/03/21	Thu 10/06/21	32.38 edays	136	482,364FF		[Gantt Chart Data]																											
402	402.5.18.6.7	CDS025-2 - Detailed Design for LV Switchboards for PST No. 1~4	60 edays	Mon 03/05/21	Fri 02/07/21	Mon 03/05/21	Fri 02/07/21	0.63 edays	71	436,364FF		[Gantt Chart Data]																											
403	403.5.18.6.8	CDS050-2 - Detailed Design for Lifting Appliances - PST No. 1 ~ 4	150 edays	Tue 01/09/20	Fri 29/01/21	Tue 01/09/20	Fri 29/01/21	0 edays	116	433,364FF		[Gantt Chart Data]																											
404	404.5.18.7	Manufacturing and Delivery of Plant & Materials	811 days	Fri 29/01/21	Wed 19/04/23	Fri 29/01/21	Wed 19/04/23	232 days				[Gantt Chart Data]																											
405	405.5.18.7.1	Lamella Plate Settlers, EQT014	668 days	Mon 31/05/21	Wed 29/03/23	Mon 31/05/21	Wed 29/03/23	193 days				[Gantt Chart Data]																											
406	406.5.18.7.1.1	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	323 days	399	407		[Gantt Chart Data]																											
407	407.5.18.7.1.2	Shipping and Delivery of Plant to site	45 days	Mon 13/02/23	Wed 29/03/23	Mon 13/02/23	Wed 29/03/23	143 days	406,444S5-6458			[Gantt Chart Data]																											

Bestwise Project: DE/2018/04 Date: 28/09/21

Task: [Blue bar] Milestone: [Diamond] Project Summary: [Grey bar] Late: [Red bar] Critical Split: [Yellow bar] Manual Progress: [Dotted line] Milestone (Actual): [Red star]

Milestone, Tentative: [Blue circle] Summary: [Grey bar] Manual Summary: [Grey bar] Critical: [Red bar] Progress: [Red bar] Slack (Float): [Blue line] Slack: [Blue line]





Task Milestone
Milestone, Tentative

Project Summary
Manual Summary

Late
Critical

Critical Split
Progress

Manual Progress
Slack (Float)

Milestone (Actual)
Slack

ID	ID	WBS	Task Name	Duration between Task Start and Finish	Start	Finish	Early Start	Early Finish	Free Slack	Predecessors	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 2, 2023	Half 1, 2024	Half 2, 2024												
1332	1332	7.15	NCE-PPMI-0211 (CE) Provision of a New Chemical Storage and Dosing System to 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	J	M	M	J	S	N	J	M	M	J	S	N	J	M	M	J	S	N	J	M	M
1333	1333	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																									
1334	1334	7.17	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																									
1335	1335	7.18	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 07/04/21	0 days																									
1336	1336	7.19	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																									
1337	1337	7.20	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																									
1338	1338	7.21	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																									

Contract No. DE/2018/04
 Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1
 - E&M Works for Sewage Treatment Facilities
 3 Month Rolling Programme (From 30/04/2021 to 30/07/2021)

Updated on: 23-Sep-21

Item	Major Activities & Submission in coming 3 months	Time					Progress (E&M contract)				Action	Remarks / Status
		Contract Planned Commencement Date	Anticipated / Actual Commencement Date	Contract Planned Finish Date	Anticipated / Actual Finish Date	% of time elapsed based on "updated date")	Unit	Total Quantity	Completed Quantity	Actual Progress %		
Drawing Submission for Key Dates												
KD1A: Submission of civil and dimensional requirement drawing, electrical schematic drawings, etc. from formation level up to +8mPD in accordance with the contract requirement of Contract No. DC/2018/07 to carry out civil works construction	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%		
	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 dimensional requirement drawings, electrical schematic drawing, etc. in accordance with the contract requirement of Contract No. DC/2018/07 to carry out civil works construction	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%		
	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 2021. - Remaining survey (level of bridge & scraper) for PST 6 completed. - Formal survey report shall be submitted on 30 Jul 2021.
	KD3B: Acceptance of onsite survey report	7/17/2020	8/6/2020	7/23/2020	8/6/2021	Task Completed				-		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. 000014A & 000016 result for details.
	KD3B: System Commissioning for PST No. 4 & 6	N/A	6/22/2021	N/A	9/3/2021	Task Completed				100%		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											
Section 1 of Works												
Construction of Temporary Filtrate Equalisation System	Construction of minor civil works under PMI 014	22/08/2020 -> 22/12/2020*	10/5/2020	10/15/2020	3/31/2021	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	11/7/2020	1/12/2021	12/30/2020	2/25/2021	Task Completed				100%		
	Construction of concrete plinth for filtrate EQ tank	1/23/2021	2/8/2021	2/1/2021	2/26/2021	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	3/17/2021	3/30/2021	4/12/2021	5/14/2021	Task Completed				-		
	Electrical Installation	3/13/2021	3/29/2021	4/15/2021	11/30/2021	72%				-		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 Commissioning	4/15/2021	4/22/2021	5/1/2021	11/30/2021	69%				-		Auto mode (without water spray system) is adopted, 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	76%				-	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	79%						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	73%					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	72%					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	52%				-	
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	52%				-	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	55%					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	48%					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	50%					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	39%				-	
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	9/30/2021	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	9/30/2021	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	9/30/2021	97%					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	1/15/2021	5/14/2021	9/30/2021	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	82%				-	
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	48%				-	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. Finalized design calculations shall be submitted by 30 June 2022.
	Submission of P&M Submission	9/6/2020	11/26/2020	5/14/2021	6/30/2022	52%					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	44%					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	47%					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	30%				-	

6B.2.4 Membrane Bioreactor (MBR) System - Membrane Filtration System No. 2 (MFB No. 2)	Submission of Contractor's Design for Membrane Filtration System (CDS005)	9/6/2020	1/11/2021	5/14/2021	6/30/2022	48%				-	Bestwise	PFD (rev.1) submitted on 3 Nov 2020. AECOM accepted on 10 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. Finalized design calculations shall be submitted by 30 June 2022.	
	Submission of P&M Submission	9/6/2020	11/19/2020	5/14/2021	6/30/2022	52%						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. 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	44%							DWG0121 (rev.1) was resubmitted to AECOM on 17 Jul 2021 Finalized drawings shall be submitted by 30 June 2022.
	Submission of Electrical Drawing	4/15/2021	1/15/2021	5/14/2021	6/30/2022	47%							Electrical SLD submitted on 5 Feb 2021. AECOM commented on 20 Feb 2021. Bestwise to 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	30%					-		
6B.2.6 Deodorisation System (EQT-001 - Deodorization Unit)	Tender award (C11)	4/25/2020	4/25/2020	5/12/2020	5/12/2020	Task Completed				100%	Bestwise	Bestwise submitted tender report on 13 May 2020. AECOM commented on 23 July 2020, Bestwise to resubmit.	
	Acceptance of tender award (C11)	5/13/2020	5/13/2020	5/21/2020	5/21/2020	Task Completed				100%			
	Submission of Contractor's Design for Deodorisation System , DOU No. 1 (CDS0019 & CDS0045)	9/6/2020	9/6/2020	5/14/2021	12/31/2021	79%					-		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	79%							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	3/21/2021	1/30/2021	5/14/2021	12/31/2021	70%							Control wiring diagrams was resubmitted on 1 April 2021. AECOM commented on 23 Apr 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	52%					-		
	Submission of Contractor's Design for Deodorisation System , DOU No. 2A (CDS0019 & CDS0048)	9/6/2020	9/6/2020	5/14/2021	6/30/2022	58%					-		Design Calculation (Rev.0) was submitted on 24 Nov 2020. AECOM commented on 6 Jan 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	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. 2A	9/6/2020	8/3/2020	5/14/2021	6/30/2022	60%					-	Bestwise	Bestwise submitted (rev.1) on 30 Oct 2020. AECOM commented on 16 Dec 2020. Bestwise to resubmit. Finalized drawing shall be submitted by 30 June 2022. (follow BR2A2B)
	Submission of Electrical Drawing of DOU No. 2A	3/21/2021	1/26/2021	5/14/2021	6/30/2022	46%							Bestwise submitted (rev.0) on 26 Jan 2021, AECOM commented on 4 Feb 2021. Bestwise to resubmit. Finalized drawing shall be submitted by 30 June 2022. (follow BR2A2B)
	Acceptance of submission	5/15/2021	5/15/2021	5/29/2021	7/21/2022	30%					-		
	Submission of Contractor's Design for Deodorisation System , DOU No. 3A (CDS0019)	9/6/2020	9/6/2020	5/14/2021	9/30/2021	98%					-		Design Calculation (Rev.0) was submitted on 24 Nov 2020. AECOM commented on 6 Jan 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 Apr 2021.
	Submission of GA Drawing of DOU No. 3A	9/6/2020	7/8/2020	5/14/2021	9/30/2021	98%					-	Bestwise	Bestwise submitted (rev.1) on 28 Oct 2020. AECOM commented on 16 Dec 2020. Bestwise resubmitted on 24 June 2021. Finalized drawing shall be submitted by 30 Sep 2021.
	Submission of Electrical Drawing of DOU No. 3A	3/21/2021	2/26/2021	5/14/2021	9/30/2021	97%							Bestwise submitted on 17 Apr 2021. AECOM commented on 27 Apr 2021. Bestwise to resubmit. GA submitted on 24 Jun 2021 Finalized drawing shall be submitted by 30 Sep 2021.
Acceptance of submission	5/15/2021	5/15/2021	5/29/2021	10/21/2021	82%								
Submission of Contractor's Design for Deodorisation System , DOU No. 3B (CDS0019 & CDS0049)	9/6/2020	9/6/2020	5/14/2021	6/30/2022	58%							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.	

Subcontracting												
Temporary Primary Sludge Thickener and its accessories (Sub-programme was provided by Bestwise)	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 2020.
	Acceptance of subletting package (C9) (Mech)	30/05/2020 ->	8/15/2020	15/06/2020->	9/16/2020	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 invitation (C9) (Mech)	15/06/2020->	9/9/2020	22/06/2020->	10/14/2020	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 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->	9/17/2020	29/06/2020->	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 ->	12/9/2020	15/05/2020 ->	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 ->	1/29/2021	15/06/2020->	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->	2/1/2021	22/06/2020->	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->	2/11/2021	29/06/2020->	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%		
	Tender invitation (C11)	30/04/2020->	4/30/2020	30/06/2020->	11/18/2020	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 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 2021 - 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
	Tender award (C11)	15/05/2020->	5/30/2020	15/07/2020->	11/30/2020	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.
	Acceptance of tender award (C11)	-	-	-	9/18/2020					-		
	Design Submission	03/07/2020 ->	8/5/2020	21/09/2020->	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 2020. - Design submission of Process Pumps (Rev.3) resubmitted on 14 Apr 2021, AECOM accepted with comments on 7 May 2021. - Design submission of electrical calculation (rev.2) was resubmitted on 29 Apr 2021. AECOM accepted with comments on 10 May 2021. - Control Philosophy (Rev.2) resubmitted on 5 Mar 2021. AECOM accepted subject to comments on 26 Mar 2021.
Plant and Material Submission	21/07/2020 ->	7/21/2020	31/08/2020 ->	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	03/07/2020 -> 30/07/2020*	8/3/2020	21/09/2020 -> 21/11/2020*	2/10/2021	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 2020. - PFD, P&ID, Schematic GA (Rev.3) resubmitted on 22 Jan 2021 according to the finalized control philosophy. AECOM accepted subject to comment on 29 Jan 2021. - Electrical drawing - Bestwise resubmitted electrical drawing (Rev.5) on 22 Mar 2021. AECOM accepted on 16 Apr 2021.
Material Manufacturing	31/07/2020 -> 30/09/2020*	8/4/2020	21/10/2020 -> 21/12/2020*	4/20/2021	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. - Manufacturing instruction of PS thickener was issued on 3 August 2020. - Manufacturing instruction of process pumps was issued on 24 September 2020 - Electrical sub-contractor is awarded and manufacturing LCP
Material Delivery	05/09/2020 ->	11/4/2020	16/11/2020 ->	6/21/2021	Task Completed							
Mechanical Installation	01/10/2020 -> 01/12/2020*	2/2/2021	15/11/2020 -> 15/01/2021*	5/17/2021	Task Completed					-		
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		4/7/2021		7/30/2021	Task Completed							Water filling to tank completed; Tank hydraulic test completed.
Electrical Installation	01/10/2020 -> 01/12/2020*	3/19/2021	15/11/2020 -> 15/01/2021*	7/19/2021	Task Completed					-		Energize of all LCPs on 24 May 2021 and isolated prior to system commissioning.
Testing and Commissioning	15/11/2020 -> 15/01/2021*	5/8/2021	22/11/2020 -> 22/01/2021*	10/15/2021	86%					-		The remaining T&C work (performance test of pumps, thickeners) shall be completed on 30 Sep 2021; the remaining outstanding work (FRP maintenance platform and wash water infed pipe connection) shall be completed before 30 Oct 2021.
Modification of Existing Emergency Generator Electrical Works	Submission of subletting package (C9) for acceptance	10/15/2020	10/15/2020	10/31/2020	12/11/2020	Task Completed				100%		
	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				100%		Tender invitation commenced on 26 Jan 2021, and returned on 5 Feb 2021
	Tender award (C9)	11/30/2020	2/18/2021	12/7/2020	2/18/2021	Task Completed				100%		Tender report was submitted on 18 Feb 2021 and accepted on 26 Feb 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
	Transportation of existing dismantled genset no. 2 (Genset No.2) to subcontractor (Click Ltd.)'s workshop	3/9/2021	3/9/2021	3/9/2021	3/9/2021	Task Completed				100%		
	Drawing submission (Drawing of General Layout for Existing 600kVA Genset Container)	4/23/2021	4/23/2021	4/30/2021	4/30/2021	Task Completed				100%		
	Drawing submission (Cable route ,general arrangement, etc)	5/14/2021	5/28/2021	5/21/2021	5 July 2021	Task Completed				100%		
	Material submission P431 P&M-0087	21 May 2021	19 June 2021	28 May 2021	12 July 2021	Task Completed				100%		
	Fabrication of container at PRC	21 June 2021	21 June 2021	TBC	8/12/2021	Task Completed				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 P431 MS-036	7/12/2021	7/12/2021	8/20/2021	8/20/2021	Task Completed				100%		
	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				100%		
	Transportation of Genset No. 2 to existing power house in SWHSTW and completion of the Genset No.2 installation on I-beam supporting frame	8/27/2021	8/27/2021	8/27/2021	8/27/2021	Task Completed				100%		
	Provision of one (1) can of 160L diesel and a diesel hand pump placed at diesel daily tank of Genset No.1 for standby top up (PPMI-012 item L) Location to be coordinated and advised by SWHSTW operator DSD/ST1	7/27/2021	7/27/2021	8/31/2021								Location to be further coordinated with DSD.
	Modification works of existing switchboard	9/1/2021	9/1/2021	9/8/2021	9/8/2021	Task Completed				100%		
	Cables (including control cable and power cables) laying and installation of cable containment, busbar chamber	7/21/2021	7/30/2021	9/8/2021	9/8/2021	Task Completed				100%		
	Supply of busbar chamber/ connection box	8/10/2021	8/10/2021	9/3/2021	9/3/2021	Task Completed				100%		
	Completion of all Genset cables and cable termination work to existing power house in SWHSTW after the completion of Genset No. 2 installation work	9/1/2021	9/1/2021	9/8/2021	9/8/2021	Task Completed				100%		
	Delivery of dummy load and self-test	9/9/2021	9/9/2021	9/14/2021	9/15/2021	Task Completed				100%		
	SAT and T&C (witness by AECOM and DSD/ST1) Please allow 1 week advance notice for coordination with DSD/ST1, e.g. genset signal start, etc.)	9/15/2021	9/15/2021	9/15/2021	9/16/2021	Task Completed				100%		

Plant and Materials (Marking Scheme)											
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 MBR Pre-treatment Screen	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
	Tender invitation	5/29/2020	11/20/2020	9/29/2020	12/11/2020	Task Completed				100%	Tender invitation was conducted on 20 Nov 2020 and returned on 11 Dec 2020. Tender
	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 2021
PS Clause no. 6B.2.4 Air Diffusion System	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.
	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 on 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 BR Aeration Blower	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
	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 RAS Pump	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.
	Acceptance of tender award	7/2/2020	11/21/2020	11/2/2020	12/12/2020	Task Completed				-	



Appendix 2.1

Layout Plans of Construction Activities

Portion C

DC/2018/06

FU TEL AU

830400 E

SPS
- RC works
- Backfilling
- No PMEs used

Workshop No. 2
- RC works
- No PMEs used

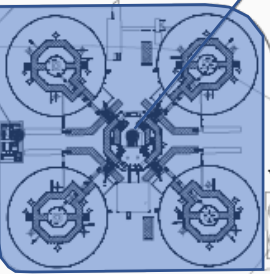
PMEs: Tower crane with generator

SD
- RC works
- PME: 1 mobile crane

Effluent Discharge Chamber
- ELS works
- No PMEs used

SDB
- RC works
- PME: 1 mobile crane, 1 generator

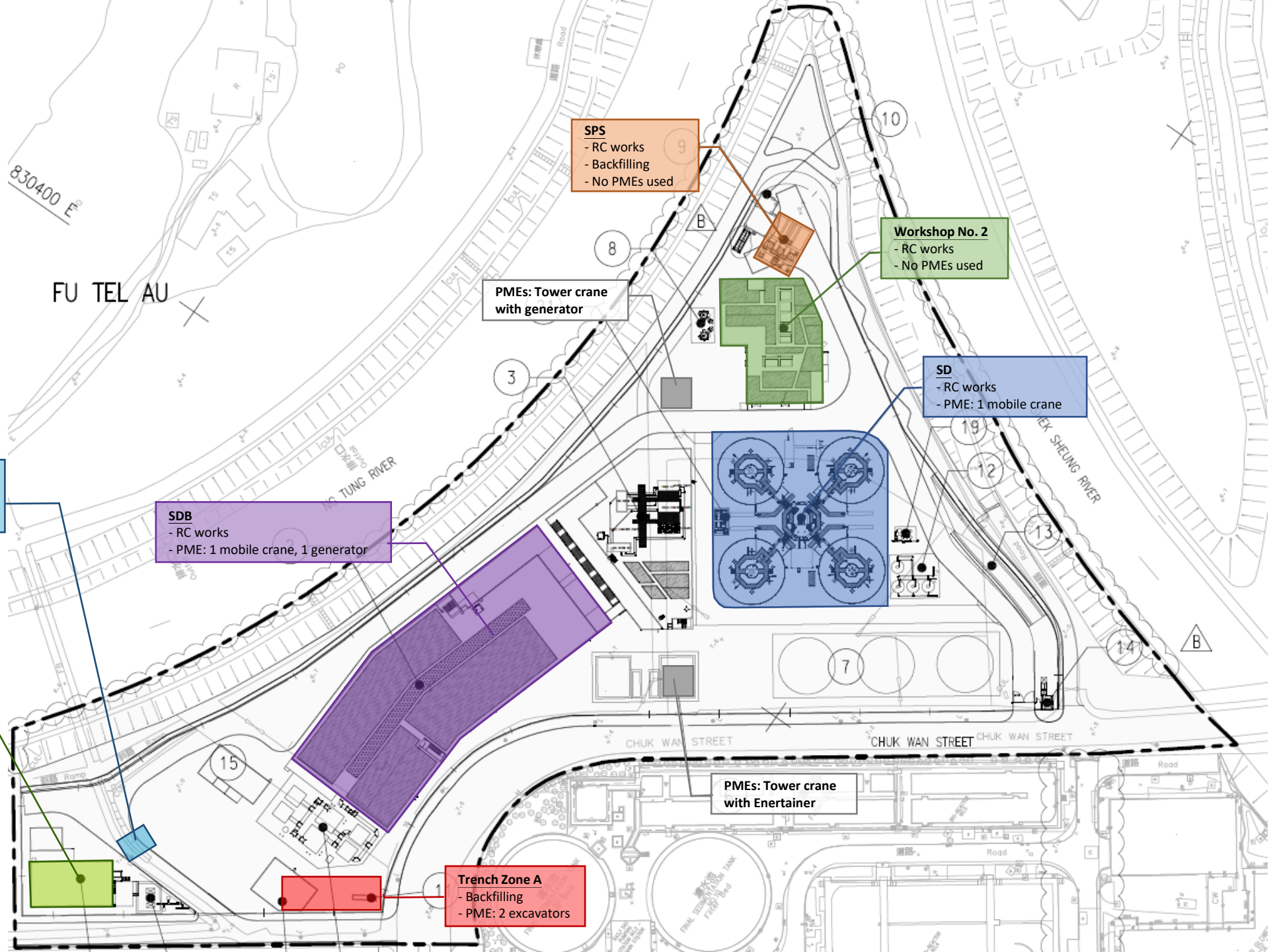
UV No. 1
- ABWF works
- PMEs: hand tools



Sep 2021

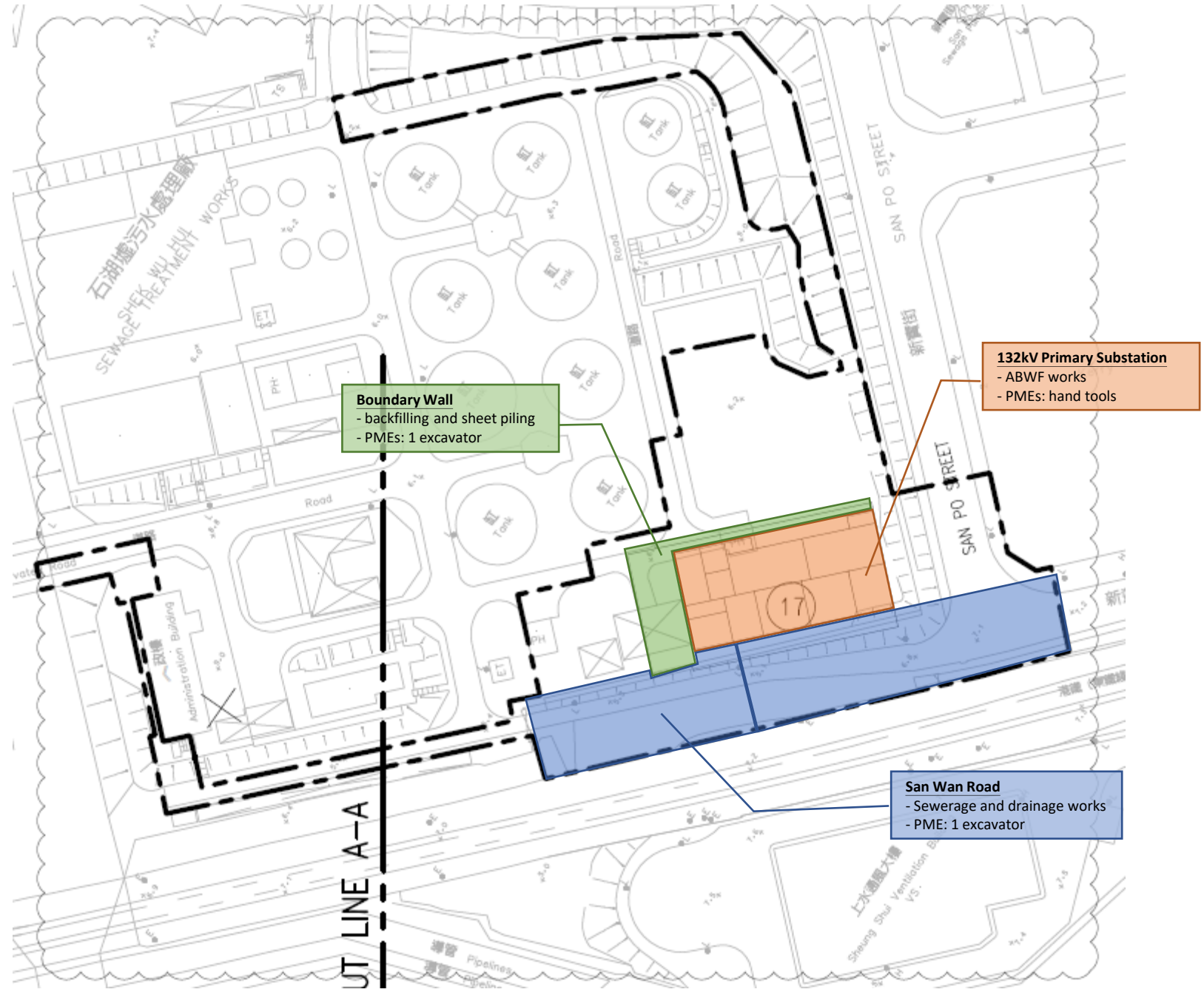
PMEs: Tower crane with Erentainer

Trench Zone A
- Backfilling
- PME: 2 excavators



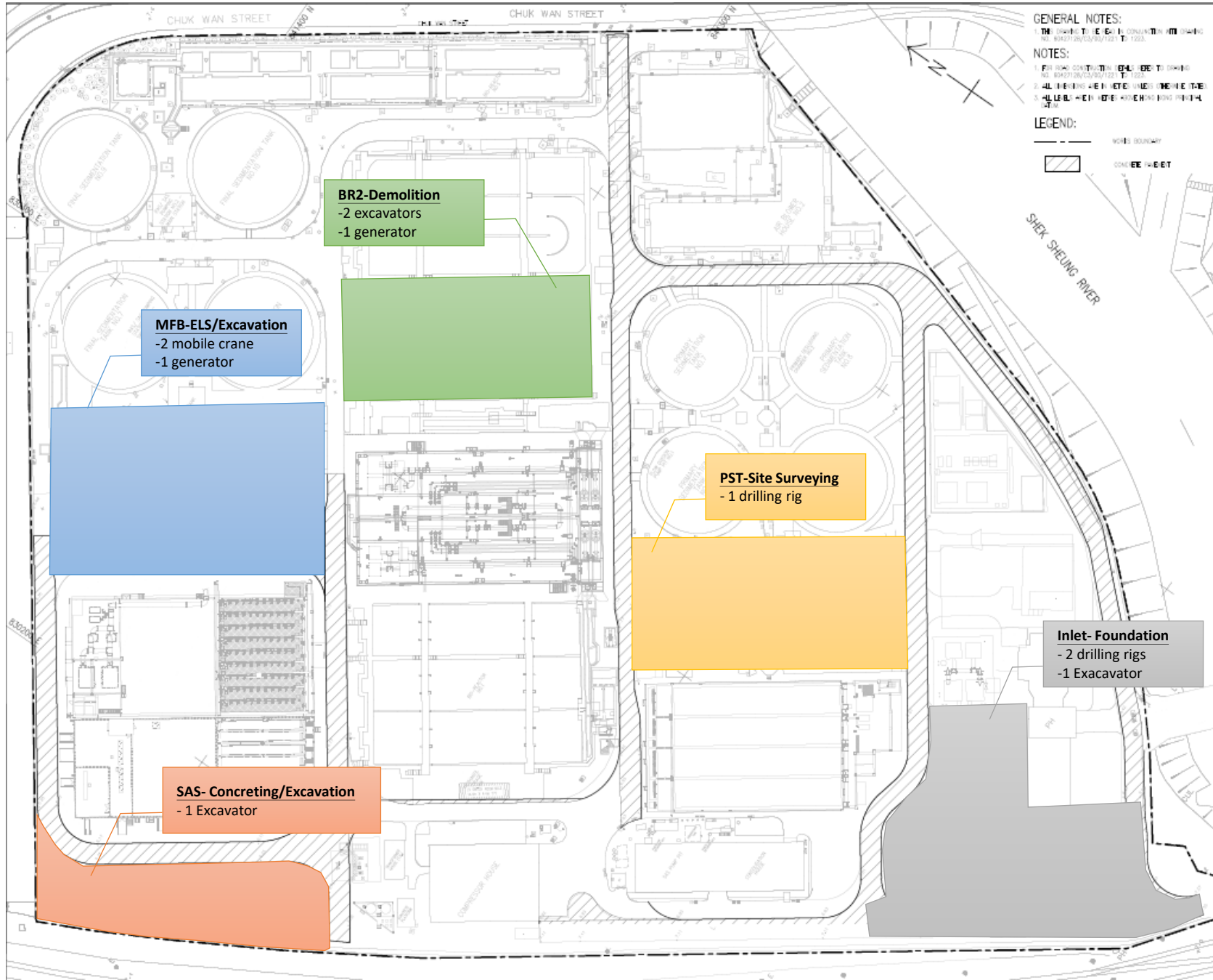
Portion A

DC/2018/06



DC/2018/07

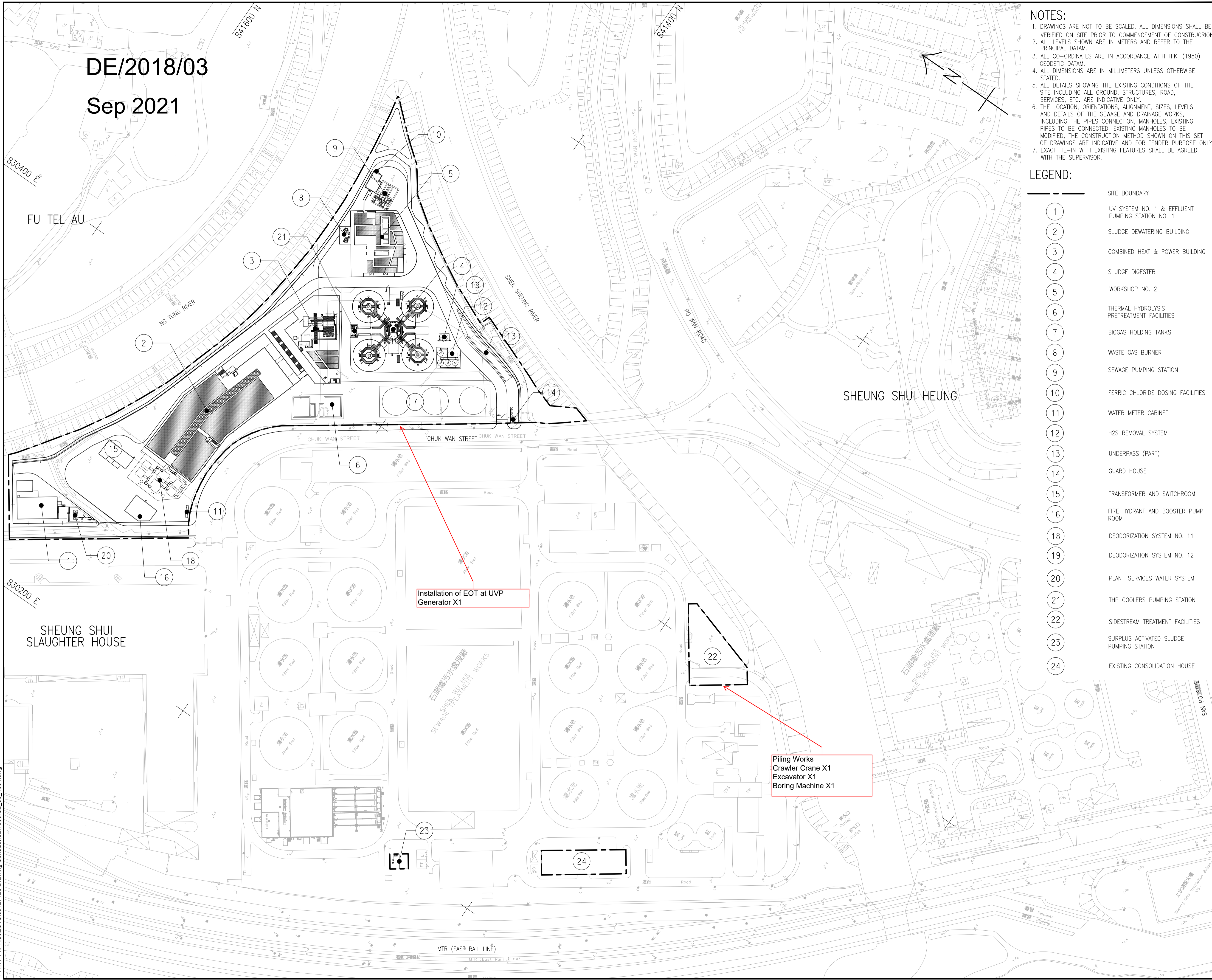
Portion B



Sep 2021

Plot File by: GuoX 26/03/2019 PATH: P:\PROJECTS\60427128\Drawing\Contract\C21000\C2_00_1001.dwg
 Project Management Initials: Designer: KYTM Checked: TLST Approved: ELIM ISO A1 594mm x 841mm

DE/2018/03
Sep 2021



- NOTES:**
1. DRAWINGS ARE NOT TO BE SCALED. ALL DIMENSIONS SHALL BE VERIFIED ON SITE PRIOR TO COMMENCEMENT OF CONSTRUCTION.
 2. ALL LEVELS SHOWN ARE IN METERS AND REFER TO THE PRINCIPAL DATUM.
 3. ALL CO-ORDINATES ARE IN ACCORDANCE WITH H.K. (1980) GEODETIC DATUM.
 4. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE STATED.
 5. ALL DETAILS SHOWING THE EXISTING CONDITIONS OF THE SITE INCLUDING ALL GROUND, STRUCTURES, ROAD, SERVICES, ETC. ARE INDICATIVE ONLY.
 6. THE LOCATION, ORIENTATIONS, ALIGNMENT, SIZES, LEVELS AND DETAILS OF THE SEWAGE AND DRAINAGE WORKS, INCLUDING THE PIPES CONNECTION, MANHOLES, EXISTING PIPES TO BE CONNECTED, EXISTING MANHOLES TO BE MODIFIED, THE CONSTRUCTION METHOD SHOWN ON THIS SET OF DRAWINGS ARE INDICATIVE AND FOR TENDER PURPOSE ONLY.
 7. EXACT TIE-IN WITH EXISTING FEATURES SHALL BE AGREED WITH THE SUPERVISOR.

- LEGEND:**
- ① SITE BOUNDARY
 - ② UV SYSTEM NO. 1 & EFFLUENT PUMPING STATION NO. 1
 - ③ SLUDGE DEWATERING BUILDING
 - ④ COMBINED HEAT & POWER BUILDING
 - ⑤ SLUDGE DIGESTER
 - ⑥ WORKSHOP NO. 2
 - ⑦ THERMAL HYDROLYSIS PRETREATMENT FACILITIES
 - ⑧ BIOGAS HOLDING TANKS
 - ⑨ WASTE GAS BURNER
 - ⑩ SEWAGE PUMPING STATION
 - ⑪ FERRIC CHLORIDE DOSING FACILITIES
 - ⑫ WATER METER CABINET
 - ⑬ H2S REMOVAL SYSTEM
 - ⑭ UNDERPASS (PART)
 - ⑮ GUARD HOUSE
 - ⑯ TRANSFORMER AND SWITCHROOM
 - ⑰ FIRE HYDRANT AND BOOSTER PUMP ROOM
 - ⑱ DEODORIZATION SYSTEM NO. 11
 - ⑲ DEODORIZATION SYSTEM NO. 12
 - ⑳ PLANT SERVICES WATER SYSTEM
 - ㉑ THP COOLERS PUMPING STATION
 - ㉒ SIDESTREAM TREATMENT FACILITIES
 - ㉓ SURPLUS ACTIVATED SLUDGE PUMPING STATION
 - ㉔ EXISTING CONSOLIDATION HOUSE



PROJECT
項目
SHEK WU HUI EFFLUENT POLISHING PLANT

CONTRACT TITLE
SHEK WU HUI EFFLUENT POLISHING PLANT - MAIN WORKS STAGE 1 - SIDESTREAM TREATMENT FACILITIES AND E&M WORKS FOR SLUDGE TREATMENT FACILITIES

CLIENT
業主
渠務署
Drainage Services Department

CONSULTANT
工程顧問公司
AECOM Asia Company Ltd.
www.aecom.com

SUB-CONSULTANTS
分判工程顧問公司

ISSUE/REVISION
修訂

NO.	DATE	DESCRIPTION	CHK.
-	MAR. 19	TENDER DRAWING	TLST

STATUS
階段

SCALE
比例
A1 1:1000

DIMENSION UNIT
尺寸單位
METRES

KEY PLAN
索引圖

PROJECT NO.
項目編號
60427128

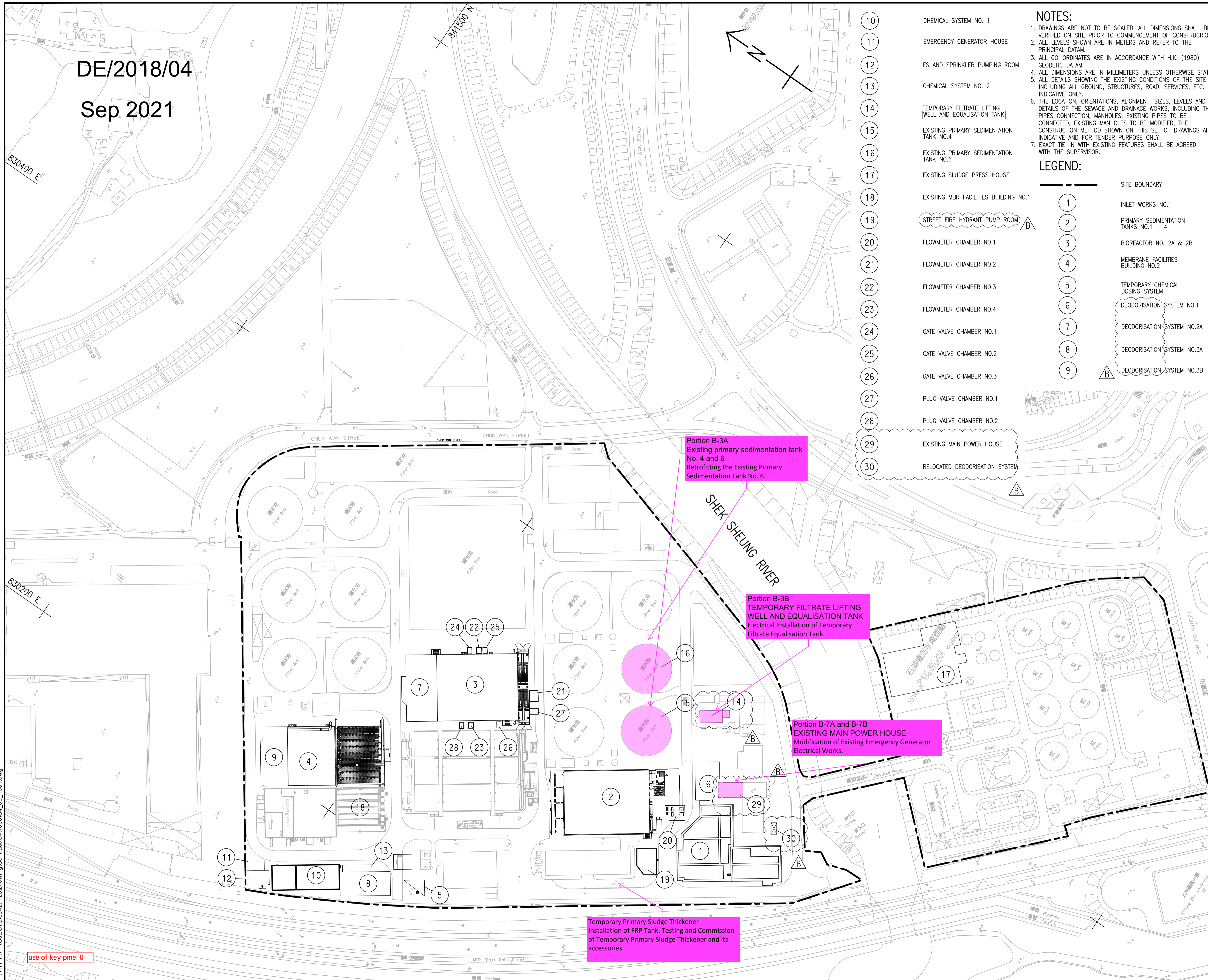
CONTRACT NO.
合約編號
DE/2018/03

SHEET TITLE
圖紙名稱
SHEK WU HUI EFFLUENT POLISHING PLANT GENERAL LAYOUT PLAN

SHEET NUMBER
圖紙編號
60427128/C2/00/1001

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DE/2018/04
 Sep 2021



- CHEMICAL SYSTEM NO. 1
- EMERGENCY GENERATOR HOUSE
- FS AND SPRINKLER PUMP ROOM
- CHEMICAL SYSTEM NO. 2
- TEMPORARY FILTRATE LIFTING WELL AND EQUALISATION TANK
- EXISTING PRIMARY SEDIMENTATION TANK NO.4
- EXISTING PRIMARY SEDIMENTATION TANK NO.6
- EXISTING SLUDGE PRESS HOUSE
- EXISTING MBR FACILITIES BUILDING NO.1
- STREET FIRE HYDRANT PUMP ROOM
- FLOWMETER CHAMBER NO.1
- FLOWMETER CHAMBER NO.2
- FLOWMETER CHAMBER NO.3
- FLOWMETER CHAMBER NO.4
- GATE VALVE CHAMBER NO.1
- GATE VALVE CHAMBER NO.2
- GATE VALVE CHAMBER NO.3
- PLUG VALVE CHAMBER NO.1
- PLUG VALVE CHAMBER NO.2
- EXISTING MAIN POWER HOUSE
- RELOCATED DEODORISATION SYSTEM

NOTES:

1. DRAWINGS ARE NOT TO BE SCALED. ALL DIMENSIONS SHALL BE VERIFIED ON SITE PRIOR TO COMMENCEMENT OF CONSTRUCTION.
2. ALL LEVELS SHOWN ARE IN METERS AND REFER TO THE PRINCIPAL DATUM.
3. ALL CO-ORDINATES ARE IN ACCORDANCE WITH H.K. (1980) GEODETIC DATUM.
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7. EXACT TIE-IN WITH EXISTING FEATURES SHALL BE AGREED WITH THE SUPERVISOR.

- LEGEND:**
- 1 SITE BOUNDARY
 - 2 INLET WORKS NO.1
 - 3 PRIMARY SEDIMENTATION TANKS NO.1 - 4
 - 4 BIOREACTOR NO. 2A & 2B
 - 5 MEMBRANE FACILITIES BUILDING NO.2
 - 6 TEMPORARY CHEMICAL DOSING SYSTEM
 - 7 DEODORISATION SYSTEM NO.1
 - 8 DEODORISATION SYSTEM NO.2A
 - 9 DEODORISATION SYSTEM NO.3A
 - 10 DEODORISATION SYSTEM NO.3B

Portion B-3A
 Existing primary sedimentation tank No. 4 and 6
 Retrofitting the Existing Primary Sedimentation Tank No. 6.

Portion B-3B
 TEMPORARY FILTRATE LIFTING WELL AND EQUALISATION TANK
 Electrical Installation of Temporary Filtrate Equalisation Tank.

Portion B-7A and B-7B
 EXISTING MAIN POWER HOUSE
 Modification of Existing Emergency Generator Electrical Works.

Temporary Primary Sludge Thickener
 Installation of FRP Tank. Testing and Commission of Temporary Primary Sludge Thickener and its accessories.

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PROJECT
 SHEK WU HUI EFFLUENT POLISHING PLANT

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 渠務署
 Drainage Services Department

CONSULTANT
 土亞顧問公司
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ISSUE/REVISION

REV	DATE	DESCRIPTION	CHK.
B	AUG. 19	TENDER ADDENDUM NO. 3	TLST
A	JUL. 19	TENDER ADDENDUM NO. 2	TLST
-	APR. 19	TENDER DRAWING	TLST

STATUS
 預設

SCALE
 A1 1 : 1000

DIMENSION UNIT
 METRES

KEY PLAN
 索引圖

PROJECT NO.
 項目編號
 60427128

CONTRACT NO.
 合約編號
 DE/2018/04

SHEET TITLE
 圖紙名稱
 GENERAL LAYOUT PLAN

SHEET NUMBER
 圖紙編號
 60427128/C4/00/1001B

Use of key pme: 0



Appendix 3.1

Environmental Monitoring Requirements



Monitoring Requirements

Air Quality Monitoring

Parameter	Frequency	Location	Measurement Conditions
1-hour TSP	3 times per day, once every 6 days	AM1 – House No.15, Wai Loi Tsuen	Ground level measurement
		AM2 – Fu Tei Au	
24-hour TSP	Once every 6 days	AM1a - Site Boundary of the Shek Wu Hui STW (East)	
		AM2a - Site Boundary of the Shek Wu Hui STW (North)	

Noise Monitoring

Parameter	Frequency	Location	Measurement Conditions
L _{eq} , L ₉₀ & L ₁₀ at 30-minute intervals during (0700 to 1900 on normal weekdays)	Once per week when noise generating activities are underway	NM1 – Wai Loi Tsuen	Ground level and free field measurement
		NM2 – Fu Tei Au	
		NM3 - Man Kok Village	



Ecological Monitoring

Methodology	Monitoring Stations	Descriptions	Influenced by Tidal Action
Monitoring surveys were conducted on a weekly basis along the Ng Tung River, Sheung Yue River and Shek Sheung River at both high and low tides. Any sources of actual or potential disturbance to birds due to construction activities are identified.	Transect T1	Along Ng Tung River	No
	Point Count Location P1		
	Point Count Location P2		
	Transect T2		Yes
	Point Count Location P3		
	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



Appendix 3.2

Action and Limit Level

Action and Limit Levels

Air Quality Monitoring

Monitoring Station	1-hour TSP Level in $\mu\text{g}/\text{m}^3$		24-hour TSP Level in $\mu\text{g}/\text{m}^3$	
	Action Level	Limit Level	Action Level	Limit Level
AM1	320	500	189	260
AM2	322	500	187	260

Noise Monitoring

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

(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.

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

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



Appendix 3.3

Environmental Mitigation Implementation Schedule

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 (Construction Dust) Regulation and good site practices:						
	<ul style="list-style-type: none"> 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 (Construction Dust)	^
	<ul style="list-style-type: none"> Any dusty material remaining after a stockpile is removed should be wetted with water and cleared from the surface of roads; 						^
	<ul style="list-style-type: none"> A stockpile of dusty material should not be extended beyond the pedestrian barriers, fencing or traffic cones; 						^
	<ul style="list-style-type: none"> 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; 						^
	<ul style="list-style-type: none"> 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
	<ul style="list-style-type: none"> 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. 						^
	<ul style="list-style-type: none"> 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; 						^
	<ul style="list-style-type: none"> 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; 						^
	<ul style="list-style-type: none"> 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; 						^
	<ul style="list-style-type: none"> 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; 						^
	<ul style="list-style-type: none"> Any skip hoist for material transport should be totally enclosed by impervious sheeting; 						^
	<ul style="list-style-type: none"> 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; 						^
	<ul style="list-style-type: none"> 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; 						^

	<ul style="list-style-type: none"> • 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 						^
	<ul style="list-style-type: none"> • 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 Impact							
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/m ² 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)	^
S3.4.1.2	Good Site Practice: <ul style="list-style-type: none"> • 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 construction program. • Mobile plant, if any, should be sited as far away from NSRs as possible. • 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. 	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	^ * ^ ^ ^ ^

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
Ecological 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	^
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	^
S4.2.1.4	The following measures to avoid, minimise and mitigate impact on water quality during construction phase shall be implemented						
	<ul style="list-style-type: none"> Temporary sewerage and drainage to be designed and installed to collect wastewater and prevent it from entering water bodies; 	Avoid, minimise and mitigate impact on water quality	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	EIAO-TM	^
	<ul style="list-style-type: none"> 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; 						^
	<ul style="list-style-type: none"> 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; 						^

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
	<ul style="list-style-type: none"> 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; 						^
	<ul style="list-style-type: none"> Speed control for the trucks carrying contaminated materials should be enforced; 						^
	<ul style="list-style-type: none"> Vehicle wheel washing facilities at construction sites' exit points should be established and used, where necessary; and 						^
	<ul style="list-style-type: none"> 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 Quality 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	^
S5.2.2.2 – S5.2.2.3	Sewage from Workforce <ul style="list-style-type: none"> Portable chemical toilets and sewage holding tanks should be provided for handling the construction sewage generated by the workforce. A licensed Contractor should be employed to provide appropriate and adequate portable toilets and be responsible for appropriate disposal and maintenance; Notices should be posted at conspicuous locations to remind the workers not to discharge any sewage or wastewater into the nearby environment during the construction phase of the Project. Regular environmental audit on construction site should be conducted in order to provide an effective 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 	Handling of site sewage	Contractors	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	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
Waste Management							
S6.2.2.1	<p>Good Site Practices and Waste Reduction Measures</p> <ul style="list-style-type: none"> 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; Training of site personnel in site cleanliness, appropriate waste management procedures and concepts of waste reduction, reuse and recycling; Provision of sufficient waste disposal points and regular collection for disposal; Appropriate measures to minimise windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers; Regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors; An Environmental Management Plan (EMP) should be prepared by the contractor and submitted to the Supervisor for approval. 	Minimize waste generation during construction	Contractors	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	Waste Disposal Ordinance (WDO)	<p>*</p> <p>^</p> <p>^</p> <p>^</p> <p>^</p> <p>^</p>
S6.2.3.1	<p>Waste Reduction Measures</p> <ul style="list-style-type: none"> Segregate and store different types of waste in different containers, skip or stockpiles to enhance reuse or recycling of materials and their proper disposal; Proper storage and site practices to minimize the potential for damage and contamination of construction materials; Plan and stock construction materials carefully to minimize amount of waste generated and avoid unnecessary generation of waste; Sort out demolition debris and excavated materials from demolition works to recover reusable/recyclable portions (i.e. soil, broken concrete, metal etc.); and Provide training to workers on the importance of appropriate waste management procedures, including waste reduction, reuse and recycling. 	Reduce waste generation	Contractors	Work Sites	Prior to the commencement of construction of Main Works Stage 1, Stage 2 and Stage 3	WDO	<p>^</p> <p>^</p> <p>^</p> <p>^</p> <p>^</p>

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:	Minimize waste impacts arising from waste storage	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	WDO	^
	<ul style="list-style-type: none"> Waste, such as soil, should be handled and stored well to ensure secure containment, thus minimizing the potential of pollution; 						^
	<ul style="list-style-type: none"> Stockpiling area should be provided with covers and water spraying system to prevent materials from windblown or being washed away; and 						^
	<ul style="list-style-type: none"> Different locations should be designated to stockpile each material to enhance reuse. 						^
S6.2.4.2	Storage, Collection and Transportation of Waste (con't)	Minimize waste impacts arising from waste storage	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	WDO	^
	<ul style="list-style-type: none"> Remove waste in timely manner; 						^
	<ul style="list-style-type: none"> Employ the trucks with cover or enclosed containers for waste transportation; 						^
	<ul style="list-style-type: none"> Obtain relevant waste disposal permits from the appropriate authorities; and Disposal of waste should be done at licensed waste disposal facilities 						^
S6.2.5.2	C&D Materials from Site Formation	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	^
	<ul style="list-style-type: none"> Maintain temporary stockpiles and reuse excavated fill material for backfilling; 						^
	<ul style="list-style-type: none"> Carry out on-site sorting; 						^
	<ul style="list-style-type: none"> Make provisions in the Contract documents to allow and promote the use of recycled aggregates where appropriate; 						^
	<ul style="list-style-type: none"> 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 						^
<ul style="list-style-type: none"> Implement a trip-ticket system for each works contract to ensure that the disposal of C&D materials are properly documented and verified. 	^						
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
	<ul style="list-style-type: none"> 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. 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. 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. 	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	^
							^
							^
							^
S6.2.5.4	<p>Chemical Waste</p> <ul style="list-style-type: none"> If chemical wastes are produced at the construction site, the Contractors should register with EPD as chemical waste producers. Chemical wastes should be stored in appropriate containers and collected by a licensed chemical waste contractor. Chemical wastes (e.g. spent lubricant oil) should be recycled at an appropriate facility as far as possible, while the chemical waste that cannot be recycled should be disposed of at either the Chemical Waste Treatment Centre, or another licensed facility, in accordance with the Waste Disposal (Chemical Waste) (General) Regulation. 	Control the chemical waste and ensure proper storage, handling and disposal	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	Waste Disposal (Chemical Waste General) Regulation, Code of Practice on the Packaging, Labelling and Storage of Chemical Waste	^
							*
S6.2.5.5	General Refuse						

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
	<ul style="list-style-type: none"> • General refuse should be stored in enclosed bins separately from construction and chemical wastes. • Recycling bins should also be placed to encourage recycling. • Preferably enclosed and covered areas should be provided for general refuse collection and routine cleaning for these areas should also be implemented to keep areas clean. • A reputable waste collector should be employed to remove general refuse on a daily basis. 	Minimize production of the general refuse and avoid odour, pest and litter impacts	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	Waste Disposal (Chemical Waste General) Regulation	^ ^ ^ ^

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
Landscape and Visual							
S7.3.1.1	<p>Good Site Practices Measures</p> <ul style="list-style-type: none"> 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. 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. 	Minimize the impact to the landscape and visual	Contractor	Work Sites	Prior to construction and construction phase		N/A
S7.3.2.1	<p>MM4 - Tree Protection & Preservation</p> <ul style="list-style-type: none"> Existing trees to be retained within the Project Site should be carefully protected during construction. In particular Old and Valuable Trees (OVTs) will be preserved according to ETWB TC (Works) No. 29/2004. Detailed Tree Protection Specification shall be provided in the Contract Specification. Under this specification, the Contractor shall be required to submit, for approval, a detailed working method statement for the protection of trees prior to undertaking any works adjacent to all retained trees, including trees in Contractor's works areas. A detailed tree survey will be carried out for the Tree Removal Application (TRA) process which will be carried out at the later detailed design stage of the Project. The detailed tree survey will propose which trees should be retained, transplanted or felled and will include details of tree protection measures for those trees to be retained. 	Protect and Preserve Trees	Designer / Contractor	Work Sites	Prior to construction and construction phase	ETWB TCW No. 29/2004 and DEVB TC(W) No.7/2015	^

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Remark
S7.3.2.1	<p>MM5 - Tree Transplantation</p> <ul style="list-style-type: none"> 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	<p>MM6 - Slope Landscaping</p> <ul style="list-style-type: none"> 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 resources and character. Woodland tree seedlings 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 	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
S7.3.2.1	MM7 - Compensatory Planting						

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
	<ul style="list-style-type: none"> 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. Compensatory planting is proposed at the potential open areas such as open spaces, amenity areas, open areas of the streetscapes, as well as the open areas within development lots. Compensatory planting for shrubs should be considered in suitable locations. Native species such as <i>Melastoma malabathricum</i>, <i>Diospyros vaccinioides</i>, <i>Gardenia jasminoides</i>, <i>Ixora chinensis</i>, <i>Ligustrum sinense</i>, <i>Litsea rotundifolia</i>, <i>Melastoma dodecandrum</i>, <i>Atalantia buxifolia</i>, <i>Rhodomyrtus tomentosa</i>, <i>Rhaphiolepis indica</i>, and <i>Rhododendron simsii</i> are suggested. 	Compensate for trees and shrubs lost due to the Project	Designer / Contractor	Work Sites where possible. Otherwise consider offsite locations	Prior to construction, construction phase and operation phase	DEVB TC(W) No. 7/2015 and ETWB TCW No. 2/2004	N/A
							N/A
							N/A
S7.3.2.1	MM9 - Vertical Greening <ul style="list-style-type: none"> 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
S7.3.2.1	MM10 - Green Roof <ul style="list-style-type: none"> 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
S7.3.2.1	<p>MM11 - Screen Planting</p> <ul style="list-style-type: none"> 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
S7.3.2.1	<p>MM16 - Screen Hoarding</p> <ul style="list-style-type: none"> 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	<p>MM17 - Light Control</p> <ul style="list-style-type: none"> 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
- N/A Not Applicable

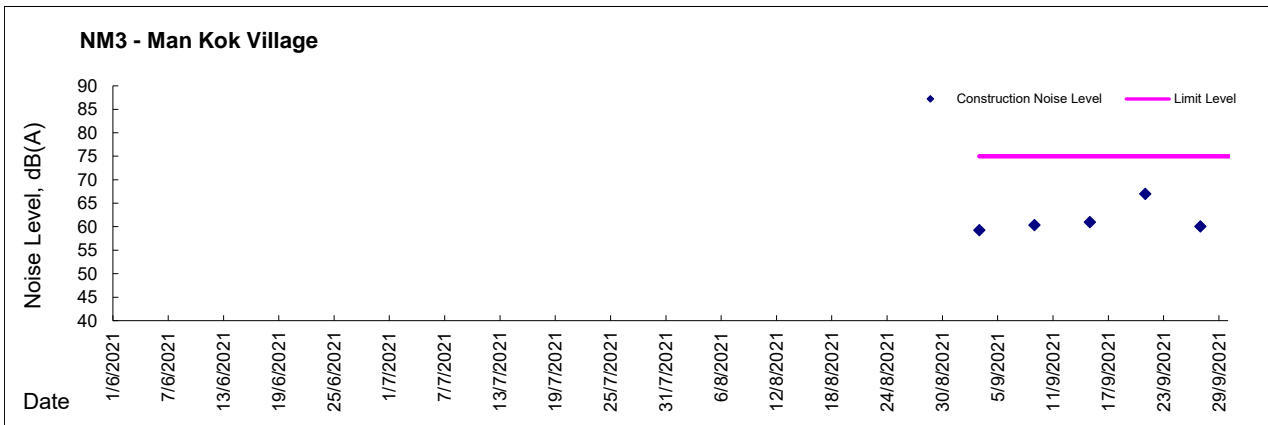
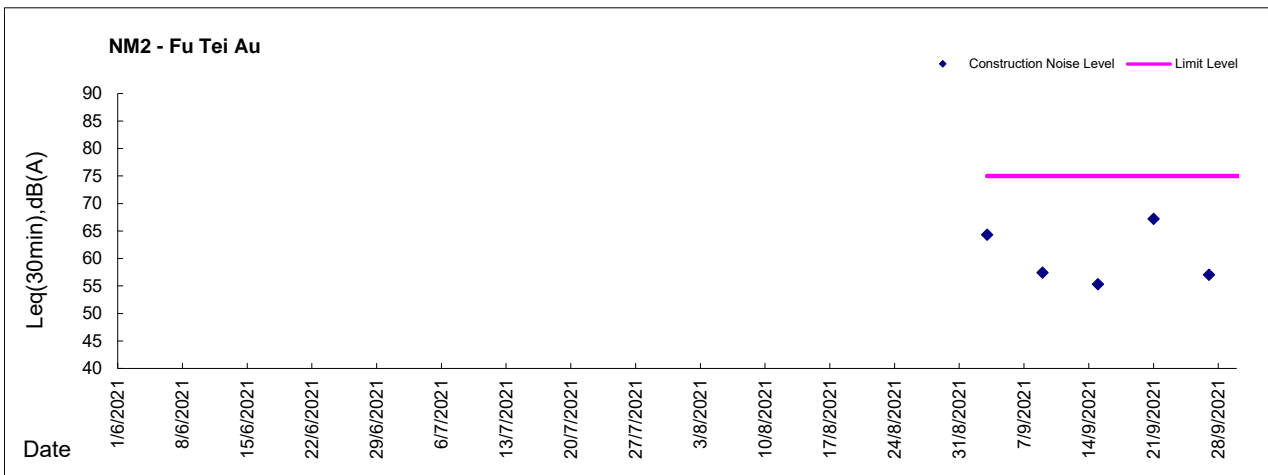
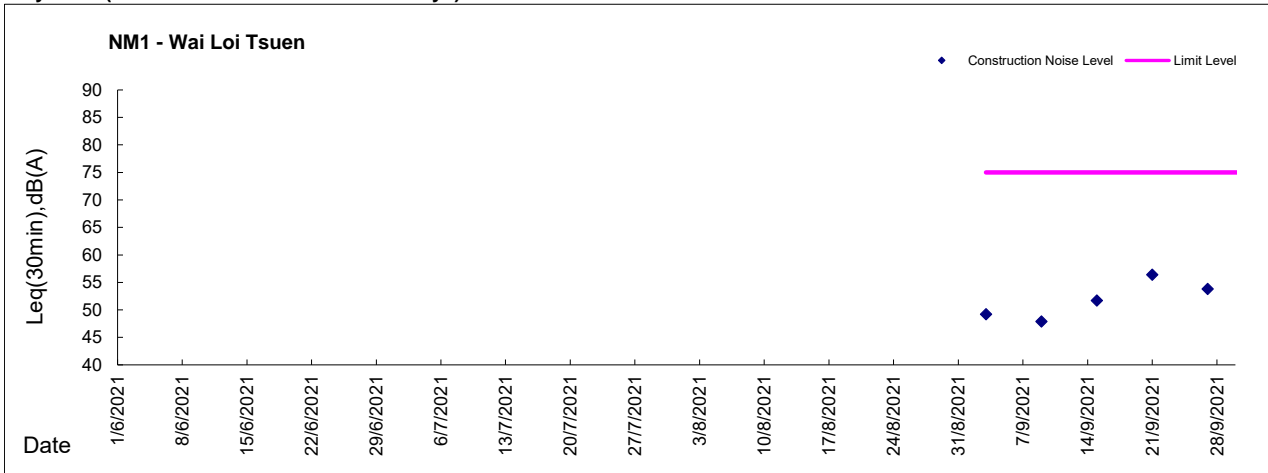


Appendix 3.4

Noise Monitoring Graphical Presentations



Graphic Presentation of Noise Monitoring Result
Day Time (0700 - 1900hrs on normal weekdays)



Remarks

1. The weather conditions were generally sunny during the monitoring sessions of the reporting period.
2. Major construction activities carried out during the reporting period include RC works, excavation works, pipe laying, backfilling, removal of Layer Struct and Waling, ELS works, sheetpiling, installation of F.S. equipment, installation of Power cable, installation of guide bar bracket, guide bar and placing the effluent transfer pump, pre-bored H pile, demolition works, excavation, E&M installation and T&C works, ABWF works & BS works.
3. Other factors which might affect the monitoring results include vehicle movement within SWHSTW.



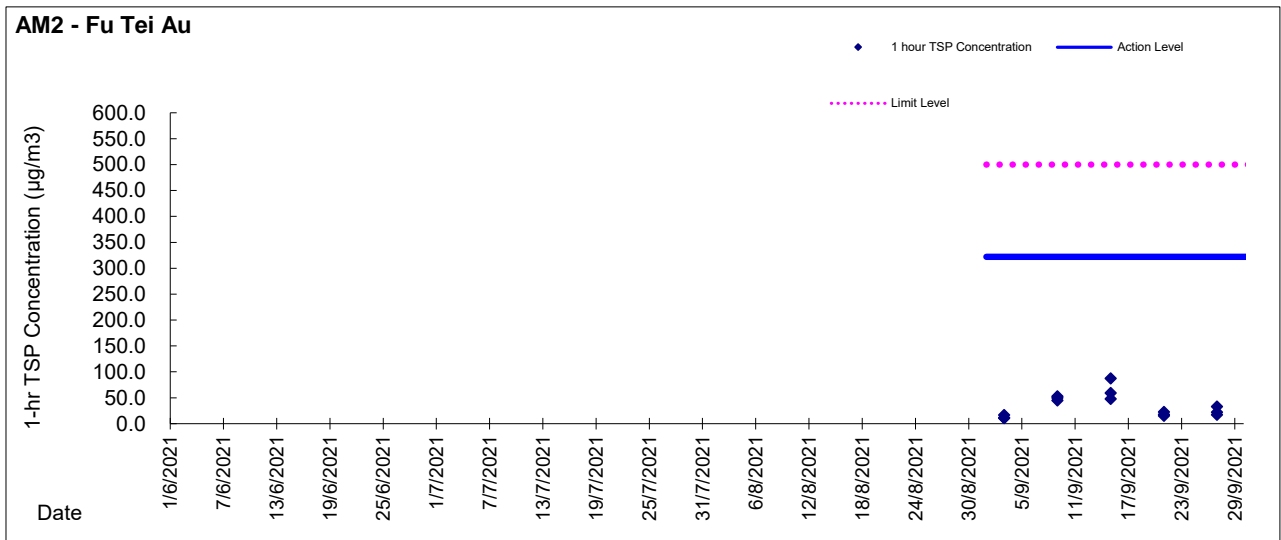
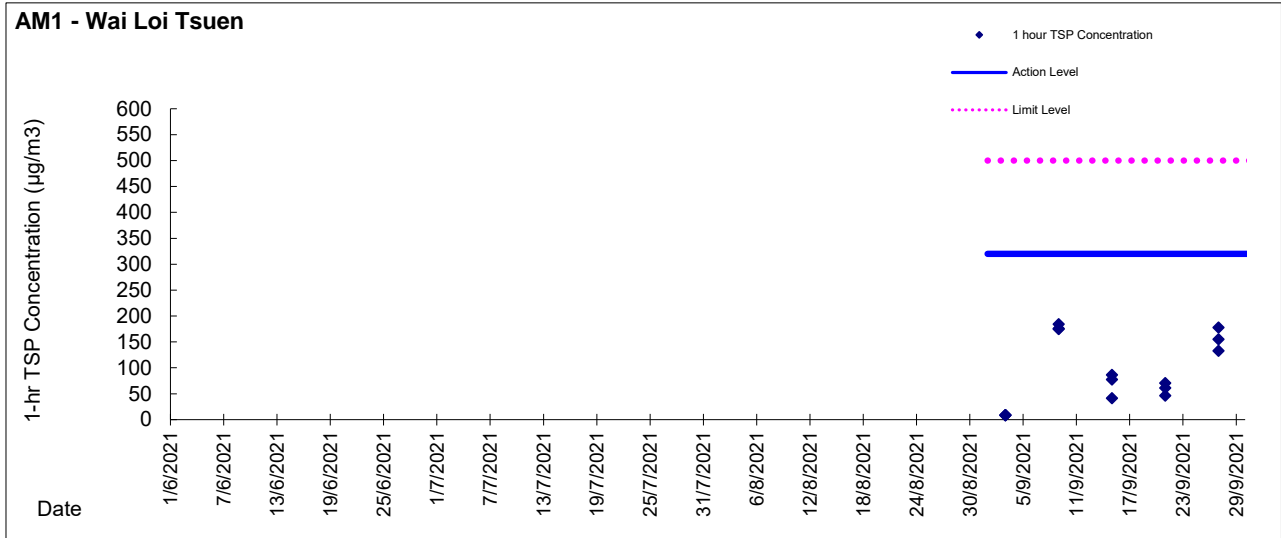
Appendix 3.5

Air Quality Monitoring Graphical Presentations



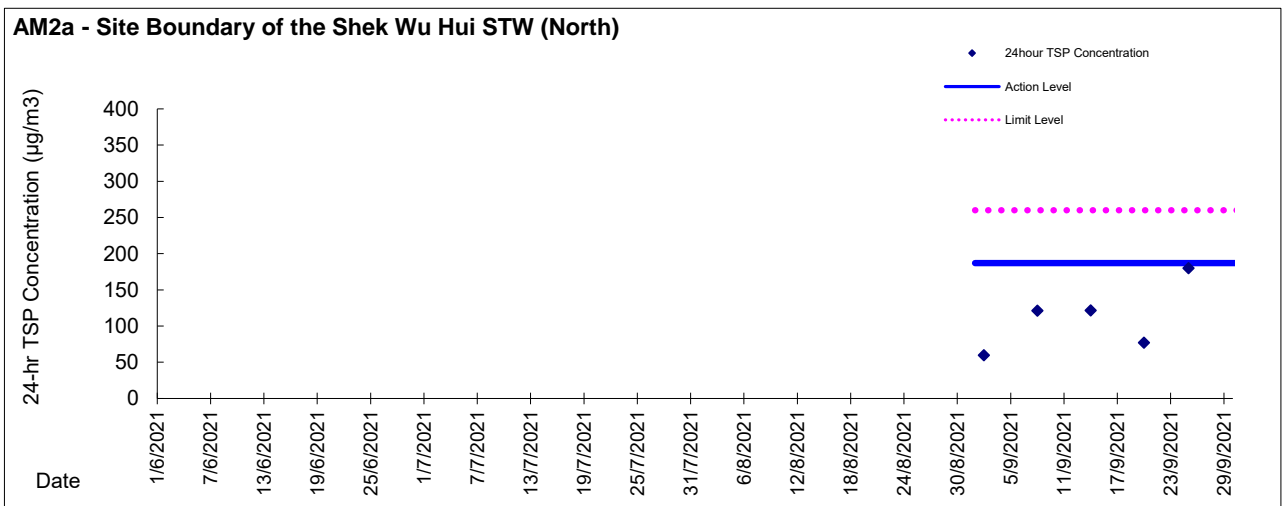
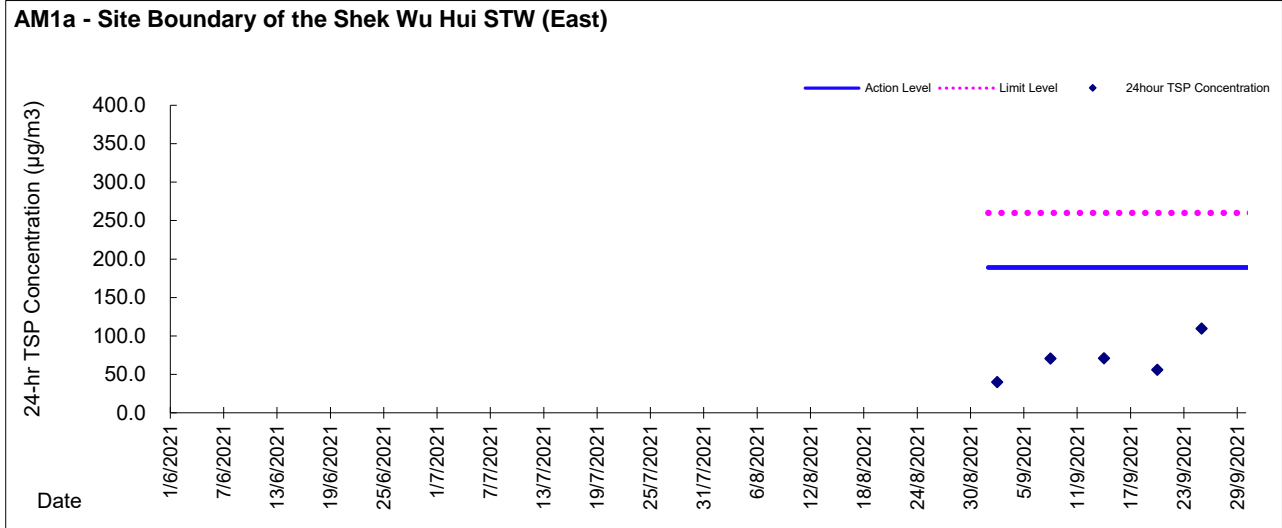
Graphic Presentation of TSP Result

1-hr TSP



Graphic Presentation of TSP Result

24-hr TSP



Remarks

1. The weather conditions were generally sunny during the monitoring sessions of the reporting period.
2. Major construction activities carried out during the reporting period include RC works, excavation works , pipe laying, backfilling, removal of Layer Struct and Waling, ELS works, sheetpiling, installation of F.S. equipment, installation of Power cable, installation of guide bar bracket, guide bar and placing the effluent transfer pump, pre-bored H pile, demolition works, excavation, E&M installation and T&C works, ABWF works & BS works.
3. Other factors which might affect the monitoring results include vehicle movement within SWHSTW.



Appendix 3.6

Details of Ecological Monitoring Results in the Reporting Period



Details of Ecological Monitoring Results in the Reporting Month

Reporting period: September

Summary Result of T-Test Analysis for All Waterbird

Month	T-values of Data		Confidence Level (Critical Value)	
			95% (-2.132)	99% (-3.747)
September 2021	Abundance	Monthly	✓	✓
		Seasonal	✓	✓
		Overall	✓	✓

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.



Summary of Abundance of Representative Waterbirds in the Reporting Period

Representative Species			Compliance
Species Name	Common Name	Chinese Name	September 2021
<i>Egretta garzetta</i>	Little Egret	小白鷺	✓
<i>Ardea cinerea</i>	Grey Heron	蒼鷺	✓
<i>Ardeola bacchus</i>	Chinese Pond Heron	池鷺	✓
<i>Phalacrocorax carbo</i>	Great Cormorant	普通鸕鶿	✓
<i>Ardea alba</i>	Great Egret	大白鷺	✓
<i>Bubulcus coromandus</i>	Eastern Cattle Egret	牛背鷺	✓

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.



Appendix 3.7

Waste Flow Table

Monthly Summary Waste Flow Table for 2021

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly				
	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ cardboard packaging	Plastics	Chemical Waste	Others, e.g. general refuse
	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m ³)
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	0.497	0.000	0.000	0.000	0.000	0.037
Oct											
Nov											
Dec											
Total	20.862	0.000	0.263	13.317	7.283	2.150	10.333	0.018	0.041	0.000	0.447

- 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 assumed 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.

Monthly Summary Waste Flow Table for 2021

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly				
	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ cardboard packaging	Plastics	Chemical Waste	Others, e.g. general refuse
	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m ³)
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	0.000	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	0.879	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	0.000	24.14	0.013	0.014	0.000	0.010
Sep	4.093	0.000	0.000	0.000	4.093	0.000	0.00	0.000	0.000	0.000	0.009
Oct											
Nov											
Dec											
Total	17.262	0.000	0.000	0.327	16.935	0.879	84.74	0.023	0.044	0.000	0.093

- 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 assumed 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

Monthly Summary Waste Flow Table for 2021 (year)

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly				
	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	
Feb	3.47T	0	0	0	3.47 T	0	0	0	0	0	
Mar	14.79T	0	0	0	14.79T	0	0	0	0	0	
Apr	7.21T	0	0	0	7.21T	0	0	0	0	0	
May	11.34T	0	0	0	11.34T	0	0	0	0	0	
June	328.08T	0	0	0	328.08T	0	0	0	0	0	
Sub-total	374.42T	0	0	0	374.42T	0	0	0	0	0	
July	579.34T	0	0	0	579.34T	0	0	0.131	0.007	0	
Aug	64.14T	0	0	0	64.14T	0	0	0.11	0	0	
Sept	39.42T	0	0	0	39.42T	0	0	0	0	0	
Oct											
Nov											
Dec											
Total	1057.32T	0	0	0	1057.32T	0	0	0.241	0.007	0	

Monthly Summary Waste Flow Table for 2021 (year)

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly				
	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											
Nov											
Dec											
Total	422.36	0	100	0	322.36	0	0	0	0	0	18.56



Appendix 4.1

Summary of Notification of Exceedance



Summary for Notification of Exceedance

Reporting period: September

Air Quality

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

Construction Noise

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

Ecology

NIL in the reporting period



Appendix 4.2

Site Audit Summary



Site Audit Summary

Reporting Quarter: September

Contract No.: DC/2018/06		
Date	Observations and recommendations	Follow-up and status
9 Sep 2021	No particular findings	-
16 Sep 2021	Drip tray should be provided for chemical containers	Rectified as observed on 21 Sep 2021
21 Sep 2021	No particular findings	-
28 Sep 2021	Drip tray should be provided for chemical containers	Rectified as observed on 4 Oct 2021

Contract No.: DC/2018/07		
Date	Observations and recommendations	Follow-up and status
9 Sep 2021	No particular findings	-
16 Sep 2021	Breaking tip should be wrapped with acoustic materials	Rectified as observed on 21 Sep 2021
21 Sep 2021	No particular findings	-
28 Sep 2021	Housekeeping is needed to remove trash and unused materials from the site	Rectified as observed on 4 Oct 2021

Contract No.: DE/2018/03		
Date	Observations and recommendations	Follow-up and status
7 Sep 2021	No particular findings	-
14 Sep 2021	No particular findings	-
21 Sep 2021	No particular findings	-
28 Sep 2021	No particular findings	-



Contract No.: DE/2018/04		
Date	Observations and recommendations	Follow-up and status
7 Sep 2021	No particular findings	-
14 Sep 2021	Trash and unused materials should be removed to prevent them from getting into the sewage system	Rectified as observed on 21 Sep 2021
21 Sep 2021	No particular findings	-
28 Sep 2021	No particular findings	-



Appendix 5.1

Summary of Complaints, Notification of Summons and Successful Prosecution



Summary of Environmental Complaints Log

Reporting period: September

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
1	18 March 2020	EPD	Expansion Site of SWHSTP (Portion C)	Water contamination	<p>Muddy water was suspected to be discharged from the expansion site of SWHSTP to Shek Sheung River, manholes and foul drains nearby</p> <p>The investigation and mitigation measures included</p> <ul style="list-style-type: none">- Employed suction truck and dump truck to clear the silt and mud at Shek Sheung River- Arranged to repair the wastewater treatment system- Installed additional sedimentation tanks and wastewater treatment system to increase the on-site treatment capacity- 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	Closed
2	19 February 2021	EPD	SWHEPP	Odour nuisance	<p>Significant odour nuisance was suspected to be emitted from the construction activities of SWHEPP</p> <p>The investigation and mitigation measures included</p> <ul style="list-style-type: none">- 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- 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	Closed



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					<ul style="list-style-type: none">- Provided cover for all rubbish bins on-site- Separated general refuse from construction waste	
3	9 August 2021	EPD	SWHEPP	Air Quality	<p>Air nuisance was suspected to be originated from the construction activities of SWHEPP</p> <p>The investigation and mitigation measures included</p> <ul style="list-style-type: none">- 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 the tower crane- Carried out plant maintenance in a timely manner	Closed

Remarks:
No environmental complaint received in this reporting period



Summary of Complaints, Notification of Summons and Successful Prosecution

Reporting period: September

Log No.	Date	Received From and Received By	Location	Outcome	Status
--	-	-	--	-	-

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