



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**

- APRIL TO JUNE 2023 -

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Contract No. SPW 13/2021

Shek Wu Hui Effluent Polishing Plant – Main Work

Quarterly Environmental Monitoring & Audit Report

April to June 2023

(December 2023)

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EXECUTIVE SUMMARY

- i. This is the Quarterly Environmental Monitoring and Audit (EM&A) Report – [April to June 2023](#) 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 8th 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 [1 April 2023 to 30 June 2023](#).

Construction Activities for the Reporting Quarter

- ii. During this reporting period, the principal work activities of individual contracts are summed up in **Table I**.

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	April 2023	<ul style="list-style-type: none"> • RC works • Backfilling • Sewage, utility and pipe works • ABWF works • ELS sheet pipe removal • Construction of Outfall at Ng Tung River
		May 2023	<ul style="list-style-type: none"> • RC works • Pipe jacking • Sewage, utility and pipe works • ABWF works • ELS
		June 2023	<ul style="list-style-type: none"> • RC works • Pipe jacking • Sewage, utility and pipe works • Road works • ABWF works • ELS



DC/2018/ 07	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - Civil Works for Sewage Treatment Facilities	April 2023	<ul style="list-style-type: none"> • ELS works • Sheet piling • Excavation • RC works • Pile laying
		May 2023	<ul style="list-style-type: none"> • RC works • Pipe laying
		June 2023	<ul style="list-style-type: none"> • RC works • ABWF works • Pile laying
DE/2018/ 03	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - Sidestream Treatment Facilities and E&M Works for Sludge Treatment Facilities	April & May 2023	<ul style="list-style-type: none"> • Superstructure works • Electrical Installation • Pipework Installation • MFA and AFA Installation • SPR Installation • Plumbing installation • MVAC Installation • EOT and Monorail Installation • Bio-Gas Holding tank Installation • Penstock and Stoplog Installation • Delivery and Installation of THP System
		June 2023	<ul style="list-style-type: none"> • Superstructure works • Electrical Installation • MFA and AFA Installation • SPR Installation • Plumbing installation • MVAC Installation • EOT and Monorail Installation • Bio-Gas Holding tank Installation • Penstock and Stoplog Installation • Delivery and Installation of THP System • Steam Boiler System Transportation

			and Installation
DE/2018/04	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - E&M Works for Sewage Treatment Facilities	April & May 2023	<ul style="list-style-type: none"> Improvement Works for Temporary Primary Sludge Thickener and its accessories E&M works for Leachate Pre-treatment Plant at existing compressor house.
		June 2023	<ul style="list-style-type: none"> Improvement Works for Temporary Primary Sludge Thickener and its accessories E&M works for Leachate Pre-treatment Plant at existing compressor house and BR No 3&4. E&M works at Portion B-5, MFB2. E&M works at Portion B-7, including DOU No.3A, Emergency Generator House and FS & Sprinkler Pumping Room, Chemical System No.1, Street Fire Hydrant & Booster Pump Room and Temporary Chemical System

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		
Apr 2023	Water Quality	Contractor was reminded to review the wastewater treatment capacity to ensure no muddy water discharge in the upcoming rainy season.
	Water Quality	Silt and stockpile was observed at site boundary near outfall. The Contractor was advised to remove the silt and stockpile near site boundary..
	Waste Management	The Contractor was reminded to provide a drip tray to the chemical container stored at SDB.
May 2023	Air Quality	Dust suppression measures should be provided to the exposed stockpile.



	Water Quality	Contractor was reminded to provide bunding to the U-channel to prevent discharge of site-runoff.
	Waste Management	Drip tray should be provided to the oil drums.
June 2023	Air Quality	Contractor should clean up the muddy tire tracks outside the site access.
	Water Quality	Contractor was advised to remove the blue water hose from the U-channel to prevent discharge of muddy water.
Contract No. DC/2018/07		
April 2023	-	-
May 2023	Water Quality	Contractor was advised to remove the blue hose from the U-channel to prevent discharge of muddy water.
	Air Quality	NRMM label should be affixed on the crane.
	Air Quality	Contractor was reminded to replace the faded NRMM label on the generator near MFB2
Jun 2023	Waste Management	Drip tray should be provided to the chemical containers.
Contract No. DE/2018/03		
Apr 2023	Air Quality	The Contractor was reminded to replace the decolored NRMM label on the generator at the sidestream.
May 2023	Waste Management	Contractor was reminded to remove the stagnant water in the drip tray (sidestream).
Jun 2023	Air Quality	NRMM label should be affixed on the generator near Bio-gas Tank.
Contract No. DE/2018/04		
Apr 2023	Waste Management	Contractor was reminded to provide proper storage for reusable materials and general refuse.
May 2023	-	-
Jun 2023	Waste Management	Contractor was reminded to label the waste skip the separate C&D and general waste.

Summary of Exceedances, Investigation and Follow-up

Noise Monitoring

- iv. Noise monitoring were conducted at noise monitoring stations namely, NM1 – 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 quarter.

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), Roof floor of the control room of SWHSTW 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. Power failure was encountered at AM2a on 10 April 2023, so the 24hr AQM for AM2a was temporarily suspended and has been resumed on 15 April 2023.
- viii. No action or limit level exceedance was recorded in this reporting quarter.

Ecological Monitoring

- ix. 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.
- x. No action or limit level exceedance was triggered in this reporting quarter.

Water Quality Monitoring

- xi. Water quality monitoring was conducted at two monitoring stations, M1 – Impact Station and C1 – Control Station, three days per week in the reporting month.
- xii. Eighteen (18) limit level exceedances and three (3) action level exceedances were recorded in the reporting quarter. After investigations, all recorded exceedances were considered non-project related.

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

Parameter	No. of Exceedance		Investigation result
	Action Level	Limit Level	
April 2023			
Air Quality (1-hour TSP)	0	0	-
Air Quality (24-hour TSP)	0	0	-
Noise	0	0	-



Ecology	0	0	-
Water Quality	1	11	All recorded exceedances were non-project related.
May 2023			
Air Quality (1-hour TSP)	0	0	-
Air Quality (24-hour TSP)	0	0	-
Noise	0	0	-
Ecology	0	0	-
Water Quality	2	7	All recorded exceedances were non-project related.
June 2023			
Air Quality (1-hour TSP)	0	0	-
Air Quality (24-hour TSP)	0	0	-
Noise	0	0	-
Ecology	0	0	-

Complaints, Notifications of Summons and Successful Prosecutions

- i. No environmental complaints, notification of summons and successful prosecution regarding the construction works was recorded in the reporting quarter.

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

- ii. As confirmed by the Engineer, the construction of outfall has already been finished. Therefore ET proposed to suspend the water quality monitoring. The proposal has been verified by IEC on 22 May 2023 and approved by EPD on 31 May 2023, therefore, the water quality monitoring has been suspended since 1 June 2023.

Future Key Issues

- iii. 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

<p>Contract No. DC/2018/06</p> <ul style="list-style-type: none"> • RC works • Pipe jacking • Sewage, utility and pipe works • Road works • ABWF works • ELS
<p>Contract No. DC/2018/07</p> <ul style="list-style-type: none"> • RC works • ABWF works • Pile laying
<p>Contract No. DE/2018/03</p> <ul style="list-style-type: none"> • Superstructure works • Electrical Installation • Pipework Installation • MFA and AFA Installation • SPR Installation • Plumbing installation • MVAC Installation • EOT and Monorail Installation • Bio-Gas Holding tank Installation • Penstock and Stoplog Installation • Delivery and Installation of THP System • Steam Boiler System Transportation and Installation • Draft Tube Mixer Installation
<p>Contract No. DE/2018/04</p> <ul style="list-style-type: none"> • Improvement works for Temporary Primary Sludge Thickener and its accessories. • E&M & civil works for Leachate Pre-treatment Plant at existing compressor house and BR No 3&4. • E&M works at Portion B-5, MFB2. • E&M works at Portion B-7, including DOU No.3A, Emergency Generator House and FS & Sprinkler Pumping Room, Chemical System No.1, Street Fire Hydrant & Booster Pump Room and Temporary Chemical System.



- E&M works at Portion B-4, BR 2A & 2B.
- E&M works at Portion B-2, Inert 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 (m³ /day) at Average Dry Weather Flow (ADWF). In 2001, Stage II of SWHSTW was completed with design capacity enhanced to 80,000 m³ /day at ADWF. In 2009, the expansion of SWHSTW was completed and its design capacity was increased to 93,000m³ /day at ADWF.

2.1.2. Further expansion of SWHSTW has been planned to be carried out in order to cope with the forecast increase in flow from Fanling North and Kwu Tong North New Development Area (NDA) and other NDAs and developments in three phases, namely Phase 1A, 1B and 2, which are later revised to Main Works Stage 1, Stage 2 and Stage 3 respectively. The EIA study report (Register No.: AEIAR-175/2013) for the NENT NDAs Study covered the assessment for the Further Expansion of SWHSTW, which is a designated project under item F.1 and F.2 of Part 1, Schedule 2 of the EIA Ordinance. The location of the project site is shown in [Figure 2.1](#).

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

2.2 Project Organization and Contact Personnel

2.2.1. Drainage Service Department (DSD) is the overall project controllers for the Project. For the construction phase of the Project, Engineer's Representative, Contractor(s), Environmental Team and Independent Environmental Checker are appointed to manage and control environmental issues.

2.2.2. The project organization and lines of communication with respect to environmental protection works are shown in [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. Li Lin	2594 7463
AECOM	Supervisor Representative	Resident Engineer	Mr. Alex Leung	3907 6145
Kwan Lee - Chun Wo Joint Venture	Contractor (DC/2018/06)	Environmental Engineer	Ms. Ruby Hui	6218 6408
		Assistant Environmental Engineer	Mr. Marco Chan	6235 6017
	Contractor (DC/2018/07)	Environmental Engineer	Ms. Barbara Yiu	9758 2034
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)	Ms. Claudine Lee	9612 9229
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. [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 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	April 2023	<ul style="list-style-type: none"> • RC works • Backfilling • Sewage, utility and pipe works • ABWF works • ELS sheet pipe removal • Construction of Outfall at Ng Tung River
		May 2023	<ul style="list-style-type: none"> • RC works • Pipe jacking • Sewage, utility and pipe works • ABWF works • ELS
		June 2023	<ul style="list-style-type: none"> • RC works • Pipe jacking • Sewage, utility and pipe works • Road works • ABWF works • ELS
DC/2018/07	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - Civil Works for Sewage Treatment Facilities	April 2023	<ul style="list-style-type: none"> • ELS works • Sheet piling • Excavation • RC works • Pile laying
		May 2023	<ul style="list-style-type: none"> • RC works • Pipe laying
		June 2023	<ul style="list-style-type: none"> • RC works • ABWF works • Pile laying



DE/2018/03	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - Sidestream Treatment Facilities and E&M Works for Sludge Treatment Facilities	April & May 2023	<ul style="list-style-type: none"> • Superstructure works • Electrical Installation • Pipework Installation • MFA and AFA Installation • SPR Installation • Plumbing installation • MVAC Installation • EOT and Monorail Installation • Bio-Gas Holding tank Installation • Penstock and Stoplog Installation • Delivery and Installation of THP System
		June 2023	<ul style="list-style-type: none"> • Superstructure works • Electrical Installation • MFA and AFA Installation • SPR Installation • Plumbing installation • MVAC Installation • EOT and Monorail Installation • Bio-Gas Holding tank Installation • Penstock and Stoplog Installation • Delivery and Installation of THP System • Steam Boiler System Transportation and Installation
DE/2018/04	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - E&M Works for Sewage Treatment Facilities	April & May 2023	<ul style="list-style-type: none"> • Improvement Works for Temporary Primary Sludge Thickener and its accessories • E&M works for Leachate Pre-treatment Plant at existing compressor house.
		June 2023	<ul style="list-style-type: none"> • Improvement Works for Temporary Primary Sludge Thickener and its accessories



			<ul style="list-style-type: none">• E&M works for Leachate Pre-treatment Plant at existing compressor house and BR No 3&4.• E&M works at Portion B-5, MFB2.• E&M works at Portion B-7, including DOU No.3A, Emergency Generator House and FS & Sprinkler Pumping Room, Chemical System No.1, Street Fire Hydrant & Booster Pump Room and Temporary Chemical System
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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, cloudy and with occasional rainstorms during the monitoring sessions of the reporting quarter. 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. Noise monitoring 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 quarter.](#)

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. [Power failure was encountered at AM2a on 10 April 2023, so the 24hr AQM for AM2a was temporarily suspended and has been resumed on 15 April 2023.](#)
- 3.3.3. [No action or limit level exceedance was recorded in this reporting quarter.](#)

3.4 Ecology Monitoring Results

3.4.1. 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 or limit level exceedance was triggered in this reporting quarter.](#)

3.5 Water Quality Monitoring Results

3.5.1. Water quality monitoring was conducted as scheduled in the reporting period. Details of water quality monitoring results in the reporting period are provided in [Appendix 3.7](#).

3.5.2. [Eighteen \(18\) limit level exceedances and three \(3\) action level exceedances were recorded in the reporting quarter. After investigations, all recorded exceedances were considered non-project related.](#)

3.6 Waste Management

3.6.1. The Summary Waste Flow Table is shown in [Appendix 3.8](#). Whenever possible, materials were reused on-site as far as practicable.

3.7 Landscape and Visual

3.7.1. 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.

3.7.2. [No non-compliance of the landscape and visual mitigation measures was recorded in the reporting quarter.](#)

3.8 Influencing Factors on the Monitoring Results

3.8.1. 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 Noise Source
NM1 - Wai Loi Tsuen	Railway Noise and Road Traffic at Sheung Shui Tung Hing Road
NM2 - Fu Tei Au	Construction noise from other construction projects
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	Construction activities from other construction projects
AM1a* - Site boundary of the Shek Wu Hui STW (East), Roof floor of the control room of SWHSTW	Operating machines and vehicle movement within SWHSTW
AM2a - Site Boundary of the Shek Wu Hui STW (North)	N/A

3.8.2. 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	Human Activities such as Cycling, and Fishing Construction activities such as footbridge construction, excavation, and breaking works
T2 (PC3, PC4)	Construction activities such as generator & welding works, Scaffolding, sedimentation tank, Excavation and crane	Human Activities such as Fishing, Cycling, and Landscape Planting Construction activities such as Sheet-piling, generator & welding works, Scaffolding, sedimentation tank, Excavation, crane and breaking works
PC5	Construction activities such as Excavation and crane	N/A
T3 (PC6, PC7)	Construction activities such as Sheet-piling	Human Activities such as Cycling and Fishing Construction activities such as Excavation, Sheet-piling, generator & welding works, Scaffolding, lifting works



3.8.3. In this reporting quarter, major influence sources were recorded at designated monitoring stations and are shown below.

Table 3.4 Major water influencing sources during monitoring in the reporting period

Monitoring Stations	Major influencing source
M1 - Impact Station	<ul style="list-style-type: none">- River from upstream of Ng Tung River- Discharge from Slaughterhouse
Control Station - Control Station	<ul style="list-style-type: none">- River from upstream of Ng Tung River- Construction works from other construction project

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](#).
- 4.0.2. The observations and recommendations made for each contract were shown in [Appendix 4.2](#).

4.1 Noise Monitoring

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

4.2 Air Quality Monitoring

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

4.3 Ecological Monitoring

- 4.3.1. [No action or limit level exceedance was triggered in this reporting quarter.](#)

4.4 Water Quality Monitoring

- 4.4.1. [Eighteen \(18\) limit level exceedances and three \(3\) action level exceedances were recorded in the reporting quarter. After investigations, all recorded exceedances were considered non-project related.](#)

4.5 Landscape and visual impact

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

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

- 4.5.1. [No environmental non-compliance was recorded in the reporting quarter.](#)

4.7 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 quarter.](#)

5 Complaints, Notification of Summons and Prosecution

- 5.0.1 No environmental complaints, notification of summons and successful prosecution regarding construction works was recorded in the reporting quarter.
- 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 March 2023	4
April 2023	0
May 2023	0
June 2023	0
Project-to-Date	4

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 quarter.**

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
Air Quality	Dust suppression measures like water spraying or using tarpaulin should be enhanced for exposed stockpiles and other construction activities.
	To ensure all regulated machines in operation are displayed with valid NRMM labels.
Noise	Acoustic materials or other noise minimization measures should be adopted or enhanced especially for drilling and piling activities.

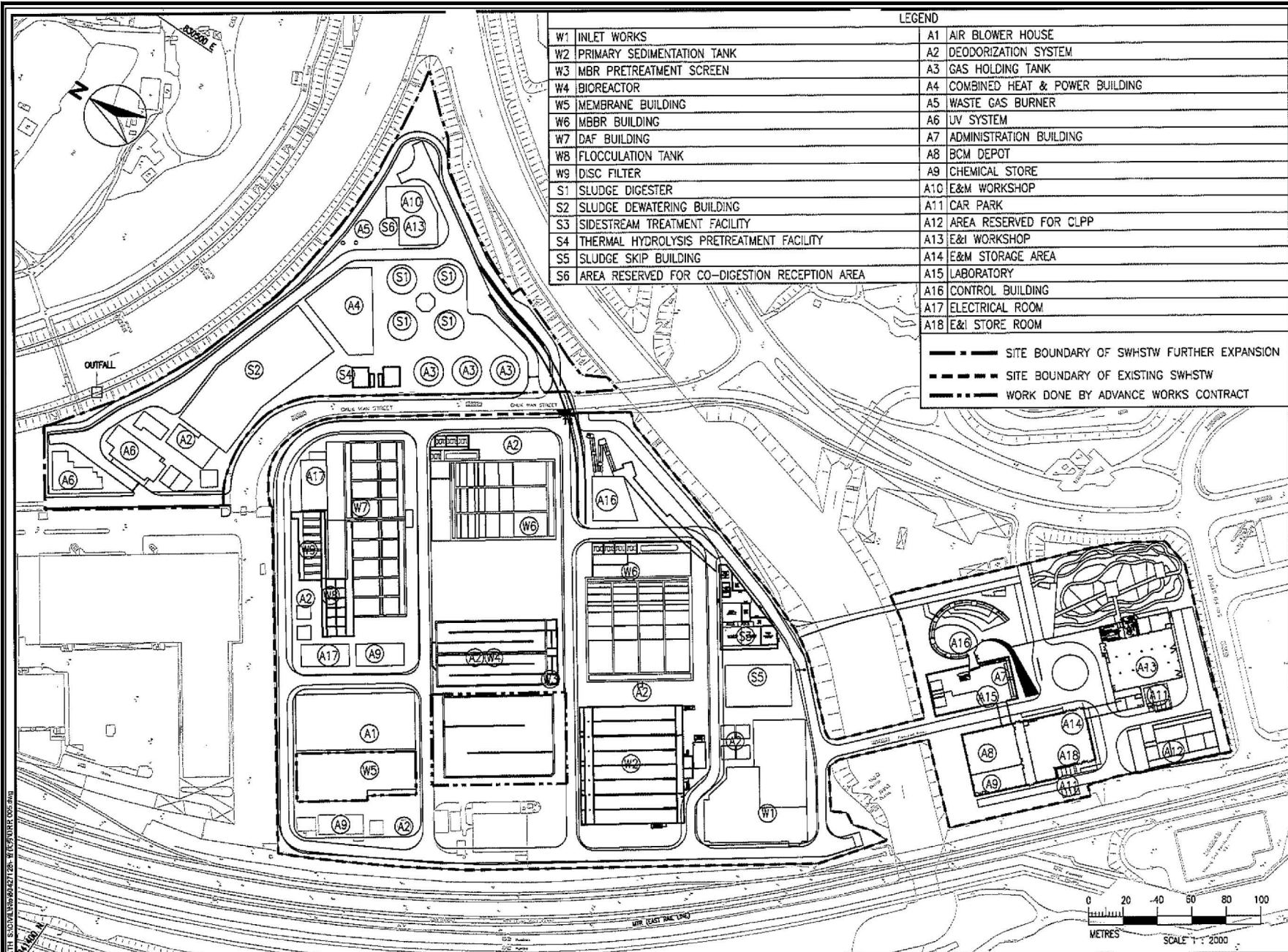


Water Quality	To maintain the proper function of the on-site drainage system and ensure the construction site runoff was properly treated.
	To provide proper water mitigation measures for the outfall work conducted between the site boundary and Ng Tung River.
Ecology	2m solid dull green barrier fences should be erected and maintained properly along the project boundaries of all active work sites under EP condition 2.7.
Waste Management	Oil/chemical containers should be stored properly.
	To maintain proper function of drip trays
	To maintain good housekeeping and remove the waste regularly.
	Good waste segregation practice should be maintained.



Figure 2.1

Project Layout



LEGEND			
W1	INLET WORKS	A1	AIR BLOWER HOUSE
W2	PRIMARY SEDIMENTATION TANK	A2	DEODORIZATION SYSTEM
W3	MBR PRETREATMENT SCREEN	A3	GAS HOLDING TANK
W4	BIOREACTOR	A4	COMBINED HEAT & POWER BUILDING
W5	MEMBRANE BUILDING	A5	WASTE GAS BURNER
W6	MBBR BUILDING	A6	UV SYSTEM
W7	DAF BUILDING	A7	ADMINISTRATION BUILDING
W8	FLOCCULATION TANK	A8	BCM DEPOT
W9	DISC FILTER	A9	CHEMICAL STORE
S1	SLUDGE DIGESTER	A10	E&M WORKSHOP
S2	SLUDGE DEWATERING BUILDING	A11	CAR PARK
S3	SIDESTREAM TREATMENT FACILITY	A12	AREA RESERVED FOR CLPP
S4	THERMAL HYDROLYSIS PRETREATMENT FACILITY	A13	E&I WORKSHOP
S5	SLUDGE SKIP BUILDING	A14	E&M STORAGE AREA
S6	AREA RESERVED FOR CO-DIGESTION RECEPTION AREA	A15	LABORATORY
		A16	CONTROL BUILDING
		A17	ELECTRICAL ROOM
		A18	E&I STORE ROOM
		--- SITE BOUNDARY OF SWHSTW FURTHER EXPANSION - - - SITE BOUNDARY OF EXISTING SWHSTW - · - · - WORK DONE BY ADVANCE WORKS CONTRACT	

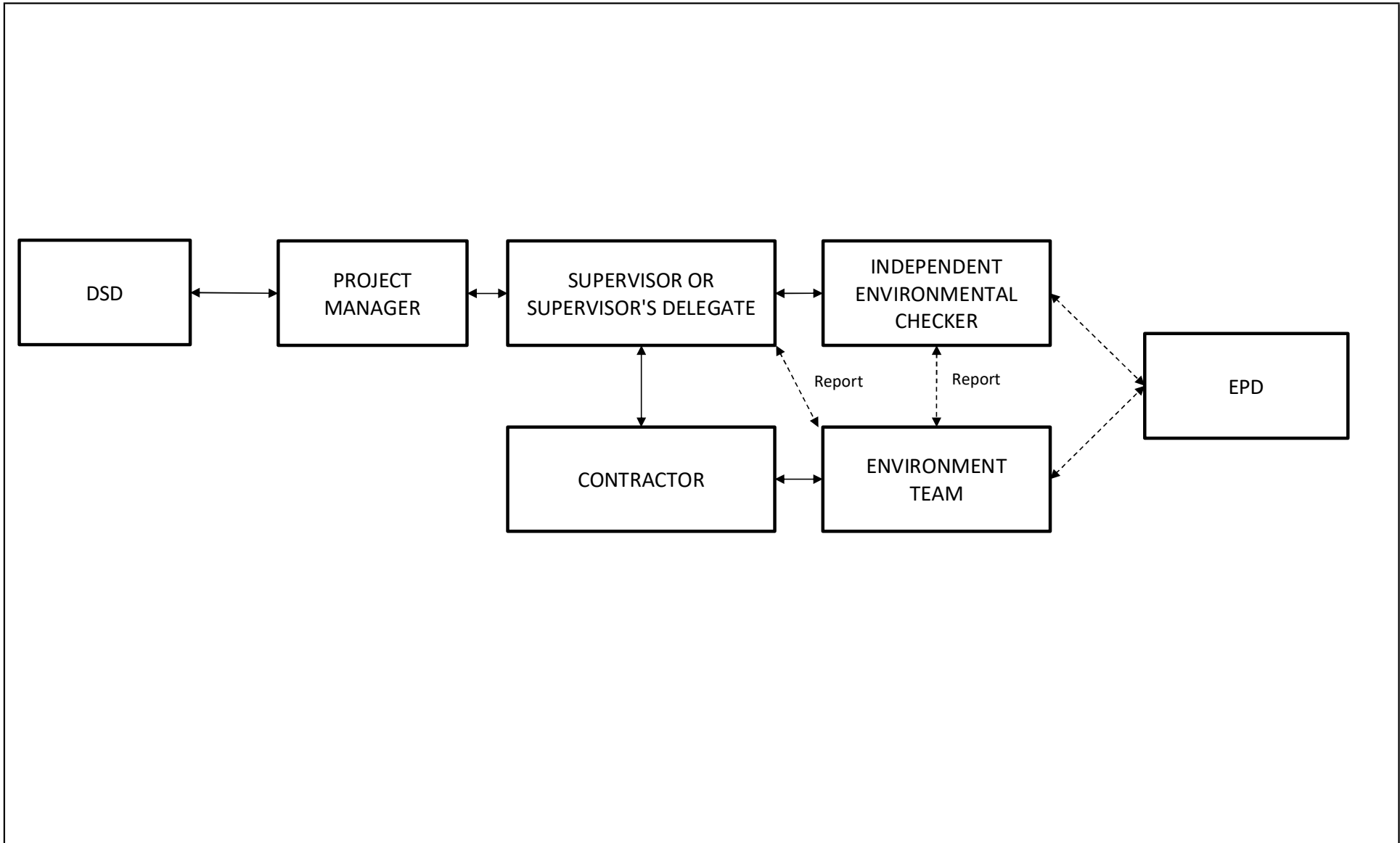
Shek Wu Hui Effluent Polishing Plant
General Site Layout of SWHEPP

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

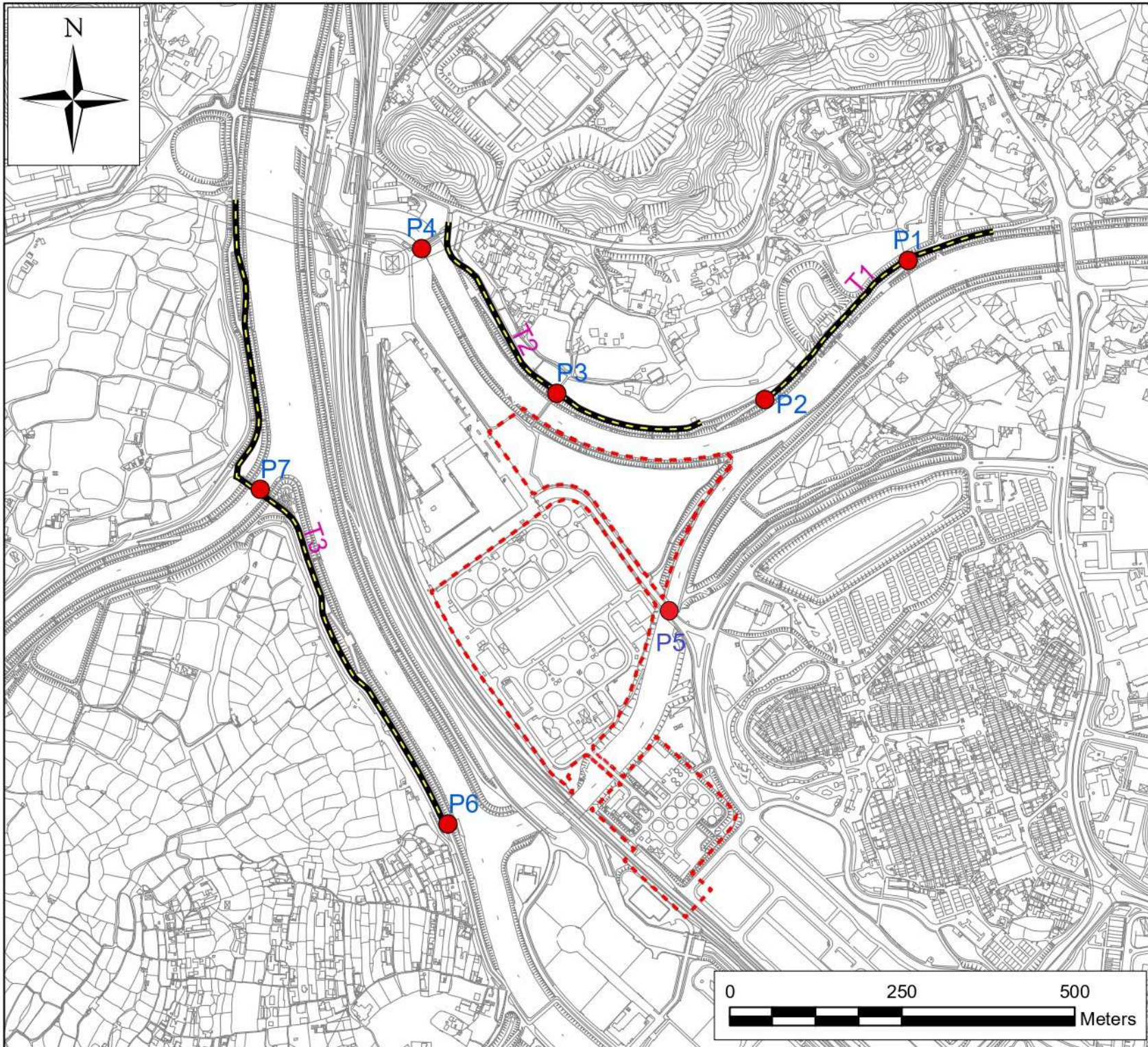
Locations of Noise Monitoring Stations

Figure 4.2

Locations of Air Quality Monitoring Stations

Figure 4.3

Locations of Ecological Monitoring Stations



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

PREPARED BY
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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. 1	REVISION NO. -

Figure 4.4

Locations of Water Quality Monitoring Stations



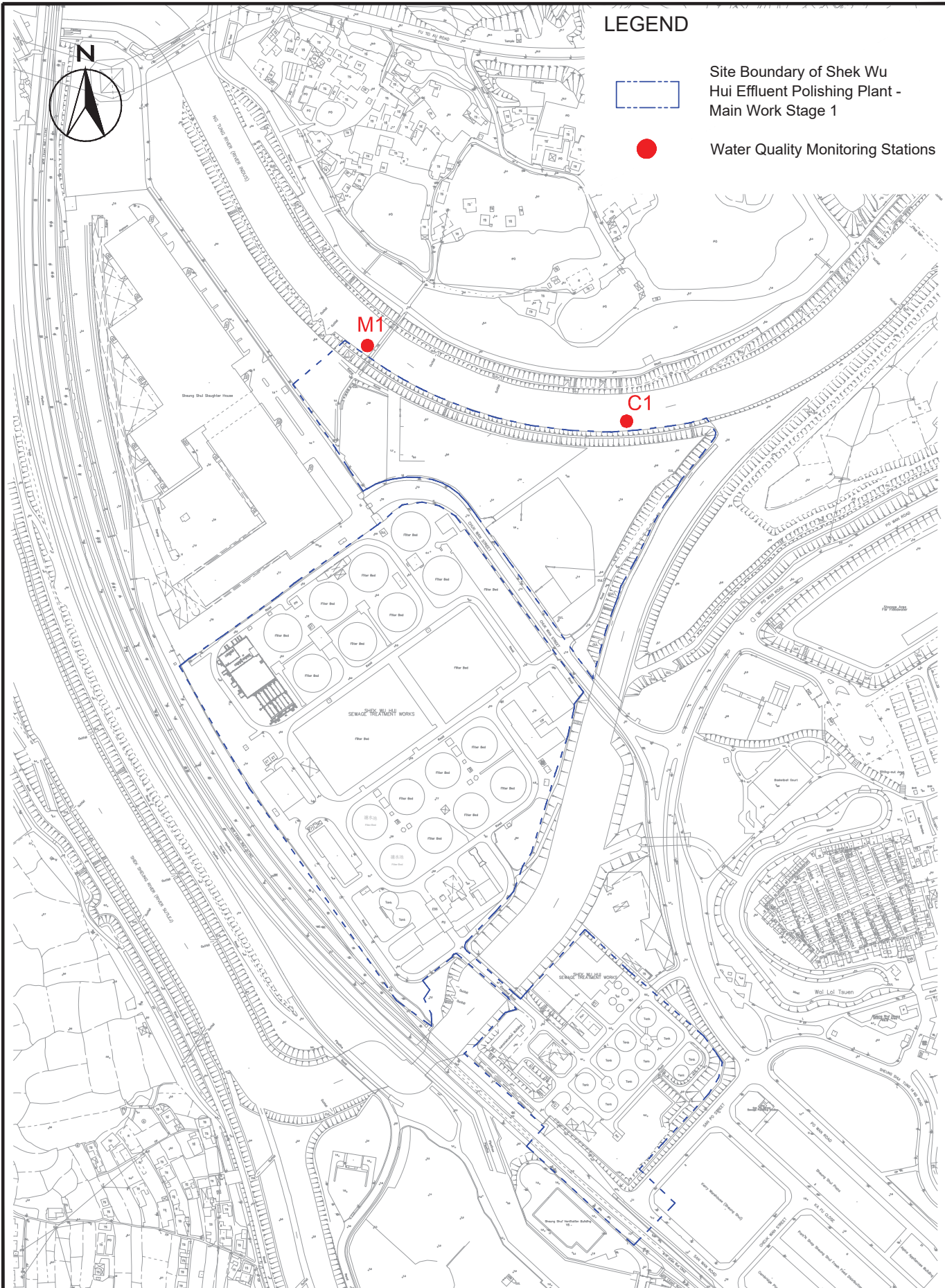
LEGEND



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



Water Quality Monitoring Stations



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

SCALE	1:400@A4	DATE	OCT 2019
CHECK	JM	DRAWN	SY
JOB No.		FIGURE NO.	5
		REV	-

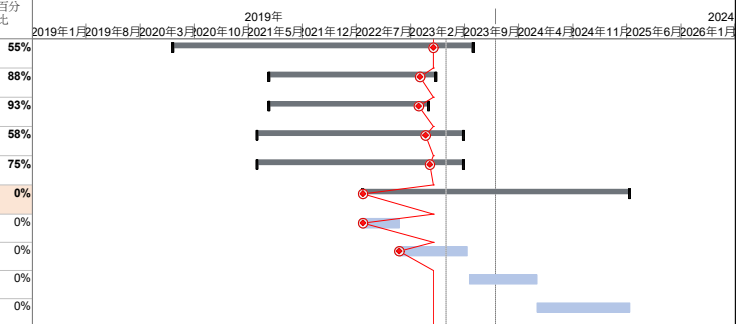


Appendix 1.1

Construction Programme of Individual Contracts

識別碼	Activity ID	Key Date	NCE/(E)/PMI/(CE)	Task Name	比較基準工期	比較基準開始時間	比較基準完成時間	工期	開始時間	完成時間	實際開始時間	實際完成時間	前置任務	後置任務	總寬限期	完成百分比
40	PD-1000	*		Planned Completion	2049 days	2020年9月30日	2026年5月11日	1962 days	2020年1月28日	2025年6月11日	年1月28日	2020	NA		105 days	75%
41	PCD-1010	*		Planned Completion - Key Dates (cal. day)	1202 days	2020年9月30日	2024年1月15日	1237 days	2020年9月30日	2024年2月19日	年9月30日	2020	NA		-35 days	0%
42	PKD-1010	KD1A		KD1A completion of AR3 in Portion B-1	0 days	2020年9月30日	2020年9月30日	0 days	2020年9月30日	2020年9月30日	年9月30日	2020	236FF	21FF	0 days	100%
43	PCD-1020	KD1B		KD1B completion of utilities diversion for commencement of Inlet Works No.1 in Portion B-2	0 days	2021年1月22日	2021年1月22日	0 days	2021年1月22日	2021年1月22日	年1月22日	2021	319FF,301FF	22FF	0 days	100%
44	PCD-1030	KD1C		KD1C completion of civil and structural works of Inlet Works No.1 in Portion B-2	0 days	2022年12月1日	2022年12月1日	0 days	2023年10月24日	2023年10月24日	NA	NA	410FF,977FF,993FF	23FF	-269 days	0%
45	PCD-1040	KD1D		KD1D completion of civil and structural works of Primary Sedimentation Tanks in Portion B-3	0 days	2023年2月20日	2023年2月20日	0 days	2023年11月18日	2023年11月18日	NA	NA	504FF	24FF	-252 days	0%
46	PCD-1050	KD1E		KD1E completion of civil and structural works of Bioreactor in Portion B-4	0 days	2023年6月26日	2023年6月26日	0 days	2023年10月30日	2023年10月30日	NA	NA	595FF,589FF	25FF	-193 days	0%
47	PCD-1060	KD1F		KD1F completion of civil and structural works of MFB from B2 floor to 1st floor level in Portion B-5	0 days	2022年9月17日	2022年9月17日	0 days	2023年11月28日	2023年11月28日	NA	NA	757FF	26FF	-519 days	0%
48	PCD-1070	KD1G		KD1G completion of civil and structural works of MFB in Portion B-5	0 days	2023年1月16日	2023年1月16日	0 days	2024年2月19日	2024年2月19日	NA	NA	758FF	27FF	-453 days	0%
49	PCD-1080	KD1H		KD1H completion of civil and structural works of SAS Pumping Station in Portion B-6	0 days	2022年1月7日	2022年1月7日	0 days	2022年3月11日	2022年3月11日	年3月11日	2022	802FF,800FF	28FF	0 days	100%
50	PCD-1090	KD1I		KD1I completion alternation works for existing Power House in Portion B-7A	0 days	2021年1月29日	2021年1月29日	0 days	2021年1月29日	2021年1月29日	年1月29日	2021	1002FF	29FF	0 days	100%
51	PCD-1100	KD1J		KD1J completion of auxiliary facilities in Portion B-7	0 days	2022年7月11日	2022年7月11日	0 days	2022年9月28日	2022年9月28日	年9月28日	2022	935FF,959FF,942FF,860,30FF	0 days	100%	
52	PCD-1110	KD2A		KD2A completion of effluent pipes to UV system and connection to its downstream in Portion B-9	0 days	2021年7月20日	2021年7月20日	0 days	2021年7月20日	2021年7月20日	年7月20日	2021	1008FF,1006FF	31FF	0 days	100%
53	PCD-1120	KD2B		KD2B completion of air supply main alternation to existing air blower house No.2 in Portion B-8A	0 days	2021年3月26日	2021年3月26日	0 days	2021年3月26日	2021年3月26日	年3月26日	2021	995FF,999FF,1000FF,1032FF	0 days	100%	
54	PCD-1130	KD3A		KD3A completion of all utilities and road works in Portion B-9A	0 days	2024年1月15日	2024年1月15日	0 days	2024年1月15日	2024年1月15日	NA	NA	1004FF,1003FF,1095FF,33FF	0 days	0%	
55	PCD-1000	*		Planned Completion Date (cal. Day)	1077 days	2022年6月30日	2026年6月11日	404 days	2024年5月3日	2025年6月11日	NA	NA	NA		-546 days	0%
56	PCD-1010	SW1		Section 1 of the Works	0 days	2024年1月19日	2024年1月19日	0 days	2025年2月8日	2025年2月8日	NA	NA	991FF,993FF,805FF,921,35FF	-254 days	0%	
57	PCD-1020	SW2		Section 2 of the Works	0 days	2022年6月30日	2022年6月30日	0 days	2024年5月3日	2024年5月3日	NA	NA	1022FF,1056FF,1066FF,36FF	-546 days	0%	
58	PCD-1030	SW3		Section 3 of the Works	0 days	2024年6月11日	2024年6月11日	0 days	2024年10月10日	2024年10月10日	NA	NA	2026FF,2027FF,1004FF,37FF	-17 days	0%	
59	PCD-1040	DLP		Defects Liability Period	0 days	2025年6月11日	2025年6月11日	0 days	2025年6月11日	2025年6月11日	NA	NA	2028FF,173FF	38FF	105 days	0%
221	C-1000	*		Construction Works (Working day)	1524 days	2019年11月18日	2024年1月19日	1910 days	2019年11月18日	2025年2月6日	年11月18日	2019	NA	NA	228 days	73%
227	CAR-0000	*		Access Road (AR3), B-1	238 days	2019年12月12日	2020年9月30日	238 days	2019年12月12日	2020年9月30日	年12月12日	2019	1095SS	0 days	100%	
236	CAR-3000	KD1A		Roadworks	133 days	2020年4月24日	2020年9月30日	133 days	2020年4月24日	2020年9月30日	年4月24日	2020	146,235,234	42FF	0 days	100%
237	CIW-0000	*		Inlet Works No.1, B-2	665 days	2019年11月26日	2022年2月23日	754 days	2019年11月26日	2022年6月15日	年11月26日	2019	NA	NA	0 days	100%
278	CIW-1510	KD1B		Diversion of Tank Drain MHD9.5 (approx. 70m CHES1 & CHES2)	405 days	2019年11月26日	2021年4月10日	405 days	2019年11月26日	2021年4月10日	年11月26日	2019	336	339	0 days	100%
337	CIW-2500	KD1B		Conditions to be met for KD1B	0 days	NA	NA	0 days	2021年1月22日	2021年1月22日	年1月22日	2021	335	336	0 days	100%
338	CIW-3000	*		Inlet Works No.1 Building (1)	747 days	2020年9月15日	2023年3月23日	1100 days	2020年9月15日	2024年6月4日	年9月15日	2020	NA	NA	402 days	55%
410	CIW-3700	KD1C		Allow access to Contractor DE/2018/04 for E&M installation and T&C works	0 days	2022年12月1日	2022年12月1日	0 days	2023年10月24日	2023年10月24日	年10月24日	2023	NA	NA	-219 days	0%
421	CIW-4000	SW1		ABWF Works	90 days	2022年12月2日	2023年3月23日	180 days	2023年10月25日	2024年6月4日	NA	NA	211,161,410	-4 days	0%	
429	CPS-0000	*		Primary Sedimentation Tanks, B-3 (2)	1115 days	2019年11月18日	2023年8月23日	1283 days	2019年11月18日	2024年3月16日	年11月18日	2019	NA	NA	58 days	69%
504	CPS-9000	KD1D		Allow access to Contractor DE/2018/04 for E&M installation and T&C works	0 days	2023年2月20日	2023年2月20日	0 days	2023年11月18日	2023年11月18日	NA	NA	462,503	45FF	-205 days	0%
508	CPS-10000	SW1		ABWF works + BS works	150 days	2023年2月21日	2023年8月23日	209 days	2023年5月25日	2024年2月23日	年5月25日	2023	NA	NA	92 days	0%
516	CBR-0000	*		Bioreactors No.2A & 2B, B-4 (3)	1237 days	2019年11月18日	2024年1月19日	1059 days	2020年9月23日	2024年4月23日	年9月23日	2020	NA	NA	436 days	69%
595	CBR-18000	KD1E		Allow access to Contractor DE/2018/04 for E&M installation and T&C works	0 days	2023年6月26日	2023年6月26日	0 days	2023年10月30日	2023年10月30日	年10月30日	2023	NA	NA	-158 days	0%
598	CBR-21000	SW1		ABWF Works + BS Works	171 days	2023年6月27日	2024年1月19日	296 days	2023年4月25日	2024年4月23日	年4月25日	2023	NA	NA	30 days	1%
604	CMF-0000	*		Membrane Facilities Building No.2, B-5	1650 days	2019年11月18日	2025年6月11日	1236 days	2020年1月6日	2024年3月7日	年1月6日	2020	NA	NA	472 days	75%
757	CMF-8000	KD1F		Allow access to Contractor DE/2018/04 for E&M installation and T&C works (from B1 to Level 1)	0 days	2022年9月17日	2022年9月17日	0 days	2023年11月28日	2023年11月28日	NA	NA	718,742,756,719	47FF	-424 days	0%
758	CMF-8100	KD1G		Allow access to Contractor DE/2018/04 for E&M installation and T&C works (from Level 1 to Roof)	0 days	2023年1月16日	2023年1月16日	0 days	2024年2月19日	2024年2月19日	NA	NA	744,729,730	48FF	-365 days	0%
759	CMF-9000	SW1		ABWF works + BS works	210 days	2023年1月17日	2023年10月3日	684 days	2022年10月24日	2025年2月8日	年10月24日	2022	NA	NA	-211 days	2%
777	CSA-0000	*		SAS Pumping Station, B-6	733 days	2020年4月9日	2022年9月28日	934 days	2020年4月9日	2023年6月6日	年4月9日	2020	NA	NA	291 days	98%
802	CSA-8000	KD1H		Allow access to Contractor DE/2018/03 for E&M installation and T&C works	0 days	2022年1月7日	2022年1月7日	1 day	2022年3月11日	2022年3月11日	年3月11日	2022	801	49FF,803SS-1 day	0 days	100%
805	CSA-9000	SW1		ABWF works + BS works	90 days	2022年6月14日	2022年9月28日	331 days	2022年4月25日	2023年6月6日	年4月25日	2022	NA	NA	291 days	93%
817	CFS-1000	*	301	Fire Services Sprinkler Pumping Room & Emergency Generator House (9)+(10)**	442 days	2021年5月4日	2022年10月27日	534 days	2021年5月4日	2023年2月18日	年5月4日	2021	NA	NA	0 days	100%
860	CFS-5000	KD1J		Allow access to Contractor DE/2018/04 for E&M installation and T&C works	0 days	2022年7月11日	2022年7月11日	1 day	2022年8月29日	2022年8月29日	年8月29日	2022	835	51FF,861SS-1 day	0 days	100%
874	CFS-6100	SW1		Inspection and Handover	0 days	NA	NA	37 days	2022年12月6日	2022年12月6日	年12月6日	2022	872,873	56FF	0 days	100%
875	CCS-1000	*	295,297	Chemical System No.1 (8)*	323 days	2021年8月27日	2022年9月28日	539 days	2021年7月13日	2023年9月8日	年7月13日	2021	NA	NA	315 days	99%
909	CCS-1900	KD1J		Allow access to Contractor DE/2018/04 for E&M installation and T&C works	0 days	2022年4月9日	2022年4月9日	0 days	2022年9月5日	2022年9月5日	年9月5日	2022	911	51FF,916,915	0 days	100%
922	CDS-0000	*		Deodorization System No.3A (7)*	159 days	2021年6月11日	2021年12月18日	387 days	2021年6月11日	2022年9月28日	年6月11日	2021	NA	NA	0 days	100%
935	CDS-7000	KD1J		Allow access to Contractor DE/2018/04 for E&M installation and T&C works	0 days	2021年12月18日	2021年12月18日	1 day	2022年9月28日	2022年9月28日	年9月28日	2022	934	51FF,939	0 days	100%
936	CTC-0000	*		Temporary Chemical Dosing System (5)	312 days	2021年9月9日	2022年9月28日	466 days	2021年6月3日	2022年12月23日	年6月3日	2021	NA	NA	0 days	100%
959	CTC-11000	KD1J		Allow access to Contractor DE/2018/04 for E&M installation and T&C works	0 days	2022年2月5日	2022年2月5日	0 days	2022年9月28日	2022年9月28日	年9月28日	2022	957FS+1 day	51FF,961	0 days	100%
965	CFB-0000	*		Fire Hydrant and Booster Pump Room (13)*	193 days	2022年2月5日	2022年9月28日	536 days	2021年10月29日	2023年8月21日	年10月29日	2021	NA	NA	228 days	9%
977	CFB-4000	KD1C		Allow access to Contractor DE/2018/04 for E&M installation and T&C works	0 days	2022年6月13日	2022年6月13日	1 day	2023年6月14日	2023年6月14日	年6月14日	2023	NA	NA	-111 days	0%
993	CDS-1-4000	KD1C		Allow access to Contractor DE/2018/04 for E&M installation and T&C works	0 days	2021年12月16日	2021年12月16日	0 days	2023年6月27日	2023年6月27日	年6月27日	2023	NA	NA	-121 days	0%
994	CAA-0000	*		Additional and Alternation Works for Existing Facilities (B-7A, B-8, B-8A)	1074 days	2019年11月18日	2023年7月6日	961 days	2020年10月19日	2024年1月15日	年10月19日	2020	NA	NA	0 days	79%
995	CAA-1000	KD2B		B-8A Alternation works for existing Air Blower House No.2 (Pipeline CHTA, approx. 133m DN800 D.I.)	359 days	2020年10月19日	2022年1月3日	315 days	2020年10月19日	2021年11月9日	年10月19日	2020	53FF	NA	0 days	100%
1000	CAA-1500	KD2B	064	Re-alignment of DN800 Temporary Air Main (CHTA) and Provision of FRP Staircases	212 days	2021年4月20日	2022年1月3日	168 days	2021年4月20日	2021年11月9日	年4月20日	2021	996,997,998	53FF	0 days	100%
1001	CAA-1600	KD2B	017 062	Elevated Section of DN800 Temporary Air Main (CHTA) across existing Bioreactor's Distribution Chamber No. 2	212 days	2021年4月20日	2022年1月3日	168 days	2021年4月20日	2021年11月9日	年4月20日	2021	996,997,998	53FF,1002	0 days	100%
1002	CAA-2000	KD1I		B-7A Alternation works for existing Power House	0 days	2022年1月3日	2022年1月3日	0 days	2022年1月3日	2022年1月3日	年1月3日	2022	13FS-1 day,142,180,182,50FF,1003FS+540 days	0 days	100%	
1003	CAA-2100	SW3	224	Additional works for Power House	60 days	2023年3月18日	2023									

識別碼	Activity ID	Key Date	NCE/(E)/PMI/(CE)	Task Name	比較基準工期	比較基準開始時間	比較基準完成時間	工期	開始時間	完成時間	實際開始時間	實際完成時間	前置任務	後續任務	總寬限期	RAI	完成百分比
1746	CS2-28100	SW2		Process Pipe CHR CH0-26	92 days	2022年9月13日	2023年1月3日	963 days	2020年7月8日 星期三	2023年10月4日	年7月8日 星期三 2020		NA		598 days		55%
1762	CS2-29000	SW2		Sewerage and utilities in Workfront I3	128 days	2022年8月1日	2023年1月3日	534 days	2021年7月21日 星期三	2023年5月10日	年7月21日 星期三 2021		NA	1998	124 days		88%
1763	CS2-29100	SW2	294,286,;	Construction of manhole MHFB51A, MHFB51, MHFB52, PSW3	128 days	2022年8月1日	2023年1月3日	510 days	2021年7月21日 星期三	2023年4月11日	年7月21日 星期三 2021		NA		148 days		93%
1798	CS2-30000	SW2		Sewerage and utilities in Workfront I4	86 days	2021年10月11日	2022年1月22日	661 days	2021年6月5日 星期六	2023年8月26日	年6月5日 星期六 2021		NA	1987	27 days		58%
1801	CS2-30100	SW2	230,238,;	Construction of Process Pipes CHPSW3; CHDO1, chemical trench	86 days	2021年10月11日	2022年1月22日	661 days	2021年6月5日 星期六	2023年8月26日	年6月5日 星期六 2021		NA		27 days		75%
2024	CLW-0000	*		Landscaping Works	855 days	2022年7月27日	2025年6月11日	862 days	2022年7月27日 星期三	2025年6月11日		NA	NA,16		90 days		0%
2025	CLW-1000	SW3		Irrigation System	120 days	2022年7月27日	2022年12月16日	120 days	2022年7月27日 星期三	2022年12月16日		NA	NA	2026	94 days		0%
2026	CLW-2000	SW3		Hard Landscaping Works	214 days	2022年12月17日	2023年9月8日	215 days	2022年12月17日 星期三	2023年9月9日 星期四		NA	NA,2025	58FF,2027	94 days	5	0%
2027	CLW-3000	SW3		Soft Landscaping Works	214 days	2023年9月9日	2024年6月11日	213 days	2023年9月19日 星期三	2024年6月11日		NA	NA,2026	2028,58FF	87 days	5	0%
2028	CLW-4000	DLP		Establishment Works (365 days)	365 days	2024年6月12日	2025年6月11日	365 days	2024年6月12日 星期三	2025年6月11日		NA	NA,2027,163	59FF,60FF	105 days	5	0%



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)	28/8/2020	18/9/2020	5/11/2020	5/11/2020	Task Completed	no.	26	26	100%		
	KD1A: Submission of Electrical Schematic Drawing (Final)	15/7/2020	15/7/2020	5/11/2020	5/11/2020	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)	30/9/2020	28/9/2020	30/12/2020	31/3/2021	Task Completed	no.	47	47	100%		
	KD1B: Submission of Civil Requirement Drawing (Final)	6/11/2020	5/11/2020	4/6/2021	4/6/2021	Task Completed	no.	47	47	100%		All the CWR Drawings were submitted.
	KD1B: 4 June 2021											
KD3A: 04SC010 - Dismantle & Removal of Emergency Generators in existing Power House	Submission of subletting package for acceptance (C9)	1/3/2020	24/2/2020	14/3/2020	22/4/2020	Task Completed				100%	-	Bestwise resubmitted on 22 April 2020
	Acceptance of subletting package (C9)	14/3/2020	6/5/2020	1/4/2020	5/5/2020	Task Completed				100%	-	AECOM accepted subletting package on 5 May 2020
	Tender invitation (C9)	1/4/2020	15/5/2020	15/4/2020	22/5/2020	Task Completed				100%	-	Invitation to tender was commenced on 12 May 2020 and tender returned on 22 May 2020
	Tender award (C9)	15/4/2020	22/5/2020	29/4/2020	26/5/2020	Task Completed				100%	-	Bestwise submitted tender report on 26 May 2020
	Acceptance of tender award (C9)	-	-	-	6/6/2020	Task Completed				100%	-	AECOM accepted tender report on 2 June 2020, Letter of Acceptance was issued on 6 June
	Dismantle of existing BS equipment		15/6/2020		25/7/2020	Task Completed				100%		
	Removal of emergency generators	1/6/2020	15/6/2020	30/6/2020	25/7/2020	Task Completed				100%		
KD3A: 04SC010 - Dismantle & Removal of Emergency Generators in existing Power House	KD3A: Testing and Commissioning	1/7/2020	3/7/2020	29/7/2020	29/7/2020	Task Completed				100%		First test was conducted on 3 July 2020. Remaining test would be subjected to completion of civil works. KD3A - 29 July 2020. Joint Site Inspection was conducted on 24 July 2020 and Notice of completion of work was submitted on 28 July 2020
	KD3A: 29 July 2020											
KD3B: 6B.2.15 Operation Restoration of Existing Primary Sedimentation Tank (PST) No. 4 and 6	Submission of onsite survey plan on E&M aspects for	1/3/2020	25/3/2020	30/3/2020	27/4/2020	Task Completed				100%	-	Bestwise resubmitted onsite survey plan on 27 April 2020
	Acceptance of submission of onsite survey plan	1/3/2020	25/3/2020	30/3/2020	22/5/2020	Task Completed				100%	-	AECOM accepted the onsite survey plan on 22 May 2020. Onsite coordination with ST1
	KD3B: Submission of onsite survey report	11/7/2020	20/7/2020	16/7/2020	30/7/2021	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	17/7/2020	6/8/2020	23/7/2020	6/8/2021	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: Preparation of procurement package (C11)	2/12/2019	1/8/2020	13/4/2020	7/8/2020	Task Completed				100%		
	KD3B: Tender invitation - Clarifier (C11)	2/12/2019	14/8/2020	13/4/2020	26/8/2020	Task Completed				100%		
	KD3B: Tender Award - Clarifier (C11)	2/12/2019	26/8/2020	13/4/2020	25/9/2020	Task Completed				100%		
	KD3B: Acceptance of tender award (C11)	2/12/2019	11/9/2020	13/4/2020	18/9/2020	Task Completed				-		
	KD3B: Tender invitation - DI Pipe (C11)	2/12/2019	13/1/2021	13/4/2020	19/1/2021	Task Completed				100%		
	KD3B: Tender Award - DI Pipe (C11)	2/12/2019	21/1/2021	13/4/2020	23/1/2021	Task Completed				100%		
	KD3B: Tender invitation - LCP (C11)	2/12/2019	3/2/2021	13/4/2020	5/2/2021	Task Completed				100%		
	KD3B: Tender Award - LCP (C11)	2/12/2019	6/2/2021	13/4/2020	8/2/2021	Task Completed				100%		
	KD3B: Preparation of subletting package for dismantling work (C9)	2/12/2019	21/9/2020	13/4/2020	21/10/2020	Task Completed				100%		
	KD3B: Tender invitation for dismantling work (C9)	2/12/2019	12/11/2020	13/4/2020	19/11/2020	Task Completed				100%		
	KD3B: Tender Award for dismantling work (C9)	2/12/2019	20/11/2020	13/4/2020	22/11/2020	Task Completed				100%		
	KD3B: Acceptance of tender award for dismantling work (C9)	2/12/2019	23/11/2020	13/4/2020	1/12/2020	Task Completed				100%		

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 %		
	KD3B: Preparation and Acceptance of subletting package for installation work (C9)	2/12/2019	15/12/2020	13/4/2020	1/3/2021	Task Completed				100%		
	KD3B: Tender invitation for installation work (C9)	2/12/2019	3/3/2021	13/4/2020	10/3/2021	Task Completed				100%		
	KD3B: Tender Award for installation work (C9)	2/12/2019	12/3/2021	13/4/2020	15/3/2021	Task Completed				100%		
	KD3B: Acceptance of tender award for installation work (C9)	2/12/2019	15/3/2021	13/4/2020	19/3/2021	Task Completed				100%		
	Submission and Acceptance of Drawing Submission	14/4/2020	5/8/2020	10/9/2020	11/1/2021	Task Completed				100%		
	Submission and Acceptance of P&M Submission	14/4/2020	5/8/2020	10/9/2020	30/6/2021	Task Completed						Formal resubmission of P&M for Rotating Bridge Scraper P&M-0024 (Rev.1) was submitted to AECOM on 24 June 2021 and is accepted by AECOM. P&M submission for Local Control Panel Rev.3 was submitted on 20 Mar 2021 and AECOM accepted on 26 Mar 2021.
	Submission and Acceptance of FAT Plan	1/12/2020	27/1/2021	15/12/2020	16/2/2021	Task Completed				100%		
	Submission and Acceptance of SAT Plan	1/3/2021	1/3/2021	1/4/2021	5/5/2021	Task Completed				100%		Bestwise submitted on 13 Apr 2021. AECOM accepted with comments on 5 May 2021.
	Submission and Acceptance of Design Submission (Support to DN700 Feed Pipe)	N/A	22/2/2021	N/A	13/5/2021	Task Completed						Advanced Calculation was provided on 17 Mar 2021 and revised on 18 Mar 2021. Bestwise proposed to use the existing support. Calculation was provided on 1 Apr 2021 via email. Dimension of support column was checked again on 14 Apr 2021. Proposal submitted on 30 Apr 2021. AECOM accepted with comments on 13 May 2021.
	Submission and Acceptance of Design Submission (Stainless steel support to FRP Cover of Effluent	N/A	24/2/2021	N/A	19/4/2021	Task Completed				100%		Advanced Calculation was provided on 17 Mar 2021 and revised on 18 Mar 2021. Bestwise formal submitted on 26 Mar 2021. AECOM accepted with comment on 19 Apr 2021.
	KD3B: Dismantle and Removal of E&M Equipment at PST No. 6	9/2/2021	21/12/2020	19/2/2021	15/1/2021	Task Completed				100%		
	Flow Diversion and drain out PST No.4	N/A	25/1/2021	N/A	26/3/2021	Task Completed				100%		
	KD3B: Dismantle and Removal of E&M Equipment at PST No. 4	9/2/2021	5/3/2021	19/2/2021	1/4/2021	Task Completed				100%		
	KD3B: Material Manufacturing (Clarifier)	12/9/2020	16/12/2020	12/12/2020	20/2/2021	Task Completed				100%		The clarifier would be manufactured in 2 batches (rotating bridge related and FRP launder cover). Manufacturing instruction was issued on 16 Dec 2020. Jash suggested 1st batch of material (clarifier) would be ready for shipping on 20 Feb 2021 and 2nd batch of material (FRP Launder Cover) would be ready for shipping on 13 Mar 2021. (To be confirmed by Jash by providing shipment booking, but supplier cannot provide updated information at this moment due to second surge of COVID-19 in india)
	KD3B: FAT of the Clarifier	N/A	24/2/2021	N/A	1/3/2021	Task Completed				100%		FAT Report submitted on 24 Feb 2021 and AECOM accepted subject to comment on 1 Mar 2021
	KD3B: Material Delivery (Clarifier)	13/12/2020	27/2/2021	18/1/2021	6/4/2021	Task Completed				100%		
	KD3B: Material Deliver to Site (Clarifier)	N/A	6/4/2021	N/A	8/4/2021	Task Completed				100%		
	KD3B: Material Manufacturing (DI pipes and fittings)	11/9/2020	26/1/2021	18/1/2021	15/3/2021	Task Completed				100%		Extracted from C9 package to C11 package to suit the installation programme
	KD3B: Material Delivery (DI pipes and fittings)	11/9/2020	16/3/2021	18/1/2021	24/3/2021	Task Completed				100%		
	KD3B: Material Delivery (FRP Cover)	N/A	26/3/2021	N/A	21/6/2021	Task Completed				100%		All the FRP covers were delivered to site.
	KD3B: Material Manufacturing (LCP)	11/9/2020	4/3/2021	18/1/2021	16/4/2021	Task Completed				100%		
	KD3B: Material Delivery (LCP)	11/9/2020	17/4/2021	18/1/2021	30/4/2021	Task Completed				100%		
	KD3B: Retrofitting Concrete Structure of PST No. 4	N/A	2/4/2021	N/A	22/4/2021	Task Completed				100%		
	KD3B: Installation of E&M Equipment at PST No. 4	27/2/2021	5/4/2021	10/5/2021	17/5/2021	Task Completed						
	KD3B: Testing and Commissioning for PST No. 4	11/5/2021	19/4/2021	9/6/2021	26/7/2021	Task Completed						Wet test for PST 4 completed on 26 July 2021.
	Flow Diversion from PST No.6 to Temporary Filtrate Equalization Tank	N/A	19/5/2021	N/A	20/5/2021	Task Completed				100%		Filtrate feeding to TFES was resumed on 19/5/2021 with fine-tuned control.
	Removal of Accumulated Sludge Inside PST No. 6	N/A	19/5/2021	N/A	30/5/2021	Task Completed				100%		NCE-0229, this includes removal of floating scum/ sludge and clearance of blockage of drain pipe
	KD3B: Retrofitting Concrete Structure of PST No. 6	N/A	28/5/2021	N/A	24/6/2021	Task Completed				100%		
	KD3B: Mechanical Installation of E&M Equipment at PST No. 6	27/2/2021	31/5/2021	10/5/2021	21/7/2021	Task Completed				100%		This includes PST Influent feed pipe, center bearing & slip ring assembly, motor & gearbox assembly, rotating bridge sludge & scum scraper assembly, circular baffle diffuser box, v-notched weir plate, scum baffle plate, scum collection box and FRP cover.
	KD3B: Electrical Installation of E&M Equipment at PST No. 6	27/2/2021	9/6/2021	10/5/2021	21/7/2021	Task Completed				100%		This includes installation of LCP, cable laying & terminations.

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 %		
	KD3B: Testing and Commissioning for PST No. 6	11/5/2021	22/6/2021	9/6/2021	20/8/2021	Task Completed				100%		Wet test (1st) completed on 20 Aug 2021 and wet test (2nd) completed on 3 Sep 2021.
KD3B: 6B.2.15 Operation Restoration of Existing Primary Sedimentation Tank (PST) No. 4 and 6	KD3B: System Commissioning for PST No. 4 & 6	N/A	22/6/2021	N/A	3/9/2021	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 defect rectification was completed. Site training/ demonstration shall be conducted by end Feb and PMI modification work shall be completed by end March.
	KD3B: 9 June 2021											
Section 1 of Works (outstanding works list)												
6B.2.12 Provision of New Replacement Filter Plates	Submission of onsite survey plan for acceptance	1/3/2020	25/3/2020	30/3/2020	21/4/2020	Task Completed				100%	-	Bestwise resubmitted onsite survey plan on 21 April 2020
	Acceptance of submission of onsite survey plan	1/3/2020	25/3/2020	30/3/2020	12/5/2020	Task Completed				100%	-	Survey plan acceptance received on 12 May 2020. Onsite discussion with ST1 was
	Submission of onsite survey report	21/5/2020	21/5/2020	29/5/2020	29/5/2020	Task Completed				100%		
	Acceptance of onsite survey report	30/5/2020	30/5/2020	15/6/2020	15/6/2020	Task Completed				-		
	Preparation of procurement package (C11)	22/6/2020	22/6/2020	6/7/2020	14/7/2020	Task Completed				100%		
	Tender invitation (C11)	15/7/2020	15/7/2020	22/7/2020	24/7/2020	Task Completed				100%		
	Tender Award (C11)	23/7/2020	25/7/2020	29/7/2020	31/7/2020	Task Completed				100%		Revised survey report (second draft) was sent to AECOM on 21 Oct 2020. Technical
	Material Submission	21/8/2020	21/8/2020	28/8/2020	7/12/2020	Task Completed				100%		Material submission (Rev.1) resubmitted on 7 Dec 2020. AECOM accepted subject to comments on 24 Dec 2020. Material submission (Rev. 2) resubmitted on 12 Jan 2021. AECOM accepted subject to comment on 22 Jan 2021.
6B.2.12 Provision of New Replacement Filter Plates for Existing Membrane Filter Presses at Existing Sludge Press House	Material Delivery	1/12/2020	1/12/2020	8/8/2021	8/8/2021	Task Completed				-		"Filter Press Plates and Cloths" were handed over to DSD.
6B.2.12 Provision of Membrane Filter Press System at Existing Sludge Press House	Submission of onsite survey plan for acceptance	1/3/2020	25/3/2020	30/3/2020	Task to be deleted	Task to be deleted				-	-	PPMI No.5 was issued by PM on 24 April 2020. Bestwise is requested to submit quotation on delete the provision of one (1) no. of membrane filter press system in pursuant to Particular Specification Clause 6B.2.12.
6B.2.16 Temporary Filtrate Equalisation System (Sub-programme was provided by Bestwise)	Submission of onsite survey plan on E&M aspects for acceptance	1/3/2020	1/4/2020	30/3/2020	7/5/2020	Task Completed				100%	-	Bestwise resubmitted onsite survey plan on 7 May 2020
	Acceptance of submission of onsite survey plan	1/3/2020	1/4/2020	30/3/2020	23/5/2020	Task Completed				100%	-	AECOM accepted the onsite survey plan on 23 May 2020
6B.2.16 Temporary Filtrate Equalisation System (Sub-programme was provided by Bestwise)	Submission and Acceptance of ELS Design for Lifting Well	15/06/2020 -> 17/08/2020*	2/9/2020	30/07/2020 -> 30/11/2020*	9/2/2021	Task Completed				100%	Bestwise	- * = PMI014 - Revised Location for Construction of Temporary Filtrate Equalization System received on 17 Aug 2020. - Re-design work was proceeded and the planned start date was revised to 17 Aug 2020. Bestwise submitted Rev.0 on 21 Oct 2020 and resubmitted Rev.2 on 23 Jan 2021. - AECOM provide consent for the ELS temporary works on 9 Feb 2021. AECOM accepted on 9 Feb 2021.
	Submission and Acceptance of Design for Filtrate Lifting Well Construction	15/06/2020 -> 17/08/2020*	2/9/2020	30/07/2020 -> 30/11/2020*	15/1/2021	Task Completed				100%		* = PMI014 - Revised Location for Construction of Temporary Filtrate Equalization System received on 17 Aug 2020. - Re-design work was proceeded and the planned start date was revised to 17 Aug 2020. AECOM commented on 21 Dec 2020. Bestwise submitted Rev.0 on 2 Nov 2020 and Rev.1 on 8 Jan 2021.
	Submission and Acceptance of Design of FRP Filtrate Equalization Tank	15/06/2020 -> 07/09/2020**	2/9/2020	30/07/2020 -> 22/10/2020*	15/1/2021	Task Completed				100%		** = Change of material of temporary filtrate equalization tank from concrete to FRP on 07 Sep 2020. - Re-design work was proceeded and the planned start date was revised to 17 Aug 2020. - Bestwise submitted Rev.0 on 08 Jan 2020.
	Submission and Acceptance of Design of footing for FRP Filtrate Equalization Tank	15/06/2020 -> 07/09/2020**	2/9/2020	30/07/2020 -> 22/10/2020*	19/2/2021	Task Completed				100%		** = Change of material of temporary filtrate equalization tank from concrete to FRP on 07 Sep 2020. - Re-design work was proceeded and the planned start date was revised to 17 Aug 2020. - Design of Footing was submitted on 8 Feb 2021.
	Submission and Acceptance of Design of Formwork & Flasework Design for Construction of Lifting Well	15/06/2020 -> 17/08/2020*	2/9/2020	30/07/2020 -> 30/11/2020*	15/1/2021	Task Completed				100%		- * = PMI014 - Revised Location for Construction of Temporary Filtrate Equalization System received on 17 Aug 2020. - Bestwise submitted Rev.0 on 12 Jan 2020.

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 %		
	Submission and Acceptance of Contractor's Design for Temporary Filtrate Equalisation System (E&M Works) (CDS010-2)	01/06/2020 -> 7/9/2020**	5/7/2020	30/07/2020 -> 30/11/2020*	30/7/2021	Task Completed				-	Bestwise	** = Change of material of temporary filtrate equalization tank from concrete to FRP on 07 Sep 2020. - Bestwise submitted (CDS 0010 Rev.0) on 6 August 2020, AECOM commented on 27 Aug 2020. Bestwise to resubmit (Separate submissions P&M0049, DWG0038, CDS0026, P&M0008, P&M0004, CDS0037, CDS0027, DWG0040 were submitted) - Control philosophy (CDS0027 Rev.0) was submitted on 22 Dec 2020. AECOM commented on 13 Jan 2021, Bestwise resubmitted on 27 May 2021 formally, AECOM accepted with comments on 4 Jun 2021.
	Drawing Submission	01/06/2020 -> 17/08/2020*	29/9/2020	30/07/2020 -> 30/11/2020*	5/3/2021	Task Completed				100%	Bestwise	- * = PMI014 - Revised Location for Construction of Temporary Filtrate Equalization System received on 17 Aug 2020. - Bestwise submitted (rev.0) on 29 Oct 2020 and resubmitted (rev.2) on 25 Jan 2021, AECOM accepted on 5 Feb 2021.
	Material Submission	01/06/2020 -> 17/08/2020*	29/11/2020	30/07/2020 -> 30/11/2020*	25/2/2021	Task Completed				100%	Bestwise	** = Change of material of temporary filtrate equalization tank from concrete to FRP on 07 Sep 2020. - P&M submission of temporary filtrate equalization tank (P&M 0030 Rev.1) on 29 Jan 2021. AECOM accepted subject to comments on 25 Feb 2021.
Subletting Package for Temporary Filtrate Equalization System	Tender invitation (C11) (EQT-002 & EQT-004)	17/4/2020	17/4/2020	7/5/2020	7/5/2020	Task Completed				100%		
	Tender award (C11) (EQT-002 & EQT-004)	14/4/2020	24/4/2020	13/5/2020	13/5/2020	Task Completed				100%	Bestwise	Bestwise submitted tender report on 29 April 2020 for filtrate pumps, AECOM commented on 29 May 2020, Bestwise to resubmit. Bestwise submitted tender report of instrument on 13 May 2020, AECOM noted on 26 May
	Acceptance of tender award (C11) (EQT-002 & EQT-004)	25/4/2020	25/4/2020	21/5/2020	21/5/2020	Task Completed				100%	Bestwise	
	Material Submission	20/07/2020 ->	16/10/2020	20/08/2020 ->	5/2/2021	Task Completed				-	Bestwise	** = Change of material of temporary filtrate equalization tank from concrete to FRP on 18
	Submission of subletting package for acceptance (C9)	1/3/2020	13/7/2020	14/3/2020	13/7/2020	Task Completed				100%		
	Acceptance of subletting package (C9)	15/3/2020	14/7/2020	28/3/2020	14/7/2020	Task Completed				100%		
	Tender invitation (C9)	29/3/2020	15/7/2020	11/4/2020	22/7/2020	Task Completed				100%		
	Tender award (C9)	12/4/2020	23/7/2020	25/4/2020	13/8/2020	Task Completed				100%		
	Acceptance of tender award for civil construction work (C9)	26/04/2020	14/8/2020	5/5/2020	2/9/2020	Task Completed				100%		
	Preparation of subletting package for mech work (C9)	01/08/2020 -> 01/12/2020*	25/1/2021	08/08/20 -> 08/12/2020*	1/3/2021	Task Completed				100%		* = PMI014 - Revised Location for Construction of Temporary Filtrate Equalization System received on 17 Aug 2020. Subletting package would be submitted on 25 Feb 2021 and AECOM accepted on 1 Mar
	Tender invitation for mech work (C9)	08/08/20 ->	2/3/2021	15/08/2020 ->	9/3/2021	Task Completed				100%		Tender invitation was conducted on 2 Mar 2021 and returned on 9 Mar 2021
	Tender Award for mech work (C9)	15/08/2020 ->	10/3/2021	22/08/2020 ->	15/3/2021	Task Completed				100%		Tender report was submitted on 15 Mar 2021
	Acceptance of tender award for mech work (C9)	22/08/2020 ->	15/3/2021	29/08/2020 ->	19/3/2021	Task Completed				100%		Tender award on 19 Mar 2021.
	Preparation of subletting package for elect work (C9)	01/08/2020 -> 01/12/2020*	2/2/2021	08/08/20 -> 08/12/2020*	1/3/2021	Task Completed				100%		* = PMI014 - Revised Location for Construction of Temporary Filtrate Equalization System received on 17 Aug 2020. Subletting package resubmitted on 26 Feb 2021 and AECOM accepted on 1 Mar 2021..
Tender invitation for elect work (C9)	01/08/2020 ->	2/3/2021	15/08/2020 ->	9/3/2021	Task Completed				100%		Tender invitation was conducted on 2 Mar 2021 and returned on 9 Mar 2021	
Tender Award for elect work (C9)	08/08/20 ->	10/3/2021	22/08/2020 ->	15/3/2021	Task Completed				100%		Tender report was submitted on 15 Mar 2021	
Acceptance of tender award for elect work (C9)	15/08/2020 -> 15/12/2020*	15/3/2021	29/08/2020 -> 29/12/2020*	19/3/2021	Task Completed				100%		Tender award on 19 Mar 2021.	
Construction of Temporary Filtrate Equalisation System	Construction of minor civil works under PMI 014	22/08/2020 -> 22/12/2020*	5/10/2020	15/10/2020	31/3/2021	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	7/11/2020	12/1/2021	30/12/2020	25/2/2021	Task Completed				100%		
	Construction of concrete plinth for filtrate EQ tank	23/1/2021	8/2/2021	1/2/2021	26/2/2021	Task Completed				100%		
	Offsite fabrication and delivery of filtrate EQ tank	31/10/2020	16/1/2021	2/2/2021	4/3/2021	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	1/3/2021	12/3/2021	16/4/2021	Task Completed				100%		
6B.2.16 Temporary Filtrate Equalisation System	Mechanical Installation	17/3/2021	30/3/2021	12/4/2021	14/5/2021	Task Completed				-		
	Electrical Installation	13/3/2021	29/3/2021	15/4/2021	10/12/2021	Task Completed				-		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 by end November.
	Testing and Commissioning	15/4/2021	22/4/2021	1/5/2021	30/11/2022	Completed				-		Defect rectification for BCM comments was partially completed and Site Acceptance Test (72 hours) was completed.
6B.1.17 Overall plant treatment process review by the Treatment Process Specialist	Submission of Treatment Process Specialist's review report	1/6/2020	1/6/2020	30/6/2020	2/7/2020	Task Completed				-	Bestwise	Preliminary Draft submitted, meeting completed on 15 May 2020 with SRE and TPS. Initial process design evaluation was submitted on 20 May 2020. Design calculation submitted on
	Acceptance of submission for further design	14/6/2020	3/7/2020	30/6/2020	17/7/2020	Task Completed				-		

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 %		
6B Overall plant process equipment sizing review	Submission of Contractor's Design Calculation for Acceptance of submission for further detail design	1/6/2020 14/6/2020	1/6/2020 3/7/2020	30/6/2020 30/6/2020	2/7/2020 17/7/2020	Task Completed Task Completed				- -	Bestwise	Preliminary Draft submitted, meeting completed on 15 May 2020 with SRE and TPS. Initial
6B.2.1 Inlet Works	Submission of Contractor's Design for Inlet Works No. 1	6/9/2020	16/11/2020	14/5/2021	30/6/2023	99%				-	Bestwise	All finalized design calculations for Inlet Works no.1 shall be submitted by 20 Jan 2023.
	Submission of P&M Submission	6/9/2020	7/9/2020	14/5/2021	30/6/2023	99%						P&M0022 - Inlet Pumps (status: B) P&M0003 - Coarse Screens & Fine Screens (status: B) P&M0085 - Grit Traps (status: B) P&M0084 - Screw Compactor (status: B) P&M0042 - Screw Conveyors for Coarse Screens and Fine Screens (status: B) All P&M for Inlet Works no.1 shall be submitted by 20 Jan 2023.
	Submission of P&ID Drawing	6/9/2020	6/9/2020	14/5/2021	29/12/2020	Task Completed						PID (rev.B) submitted on 13 Nov 2020. AECOM accepted subject to comments on 29 Dec 2020.
	Submission of GA Drawing	6/9/2020	5/1/2021	14/5/2021	30/6/2023	99%						E&M GA submission DWG0082 resubmitted on 9 July 2021. AECOM commented on 19 Feb 2021. Bestwise reviewed GA in BIM with AECOM on 12 Jan 2022. Electrical GA DWG0095 resubmitted on 3 July 2021. AECOM commented on 21 Apr 2021. Bestwise reviewed GA in BIM with AECOM on 12 Jan 2022. All finalized drawings for Inlet Works no.1 shall be submitted by 30 June 2022 and BIM GA review meeting is scheduled on 5, 12, 19/5/2022.
	Submission of Electrical Drawing	6/9/2020	15/1/2021	14/5/2021	30/6/2023	99%						Electrical SLD submitted on 5 Feb 2021. AECOM commented on 20 Feb 2021. Bestwise to resubmit. All finalized drawings for Inlet Works no.1 shall be submitted by 20 Jan 2023.
	Acceptance of submission	15/5/2021	15/5/2021	29/5/2021	30/6/2023	99%				-		
	Submission of detailed design for electrical installation for Inlet Works No. 1 (CDS021)	6/9/2020	6/9/2020	14/5/2021	14/5/2021	Task Completed						
	Submission of detailed design for LV Switchboards for Inlet Works No. 1 (CDS025-1)	6/9/2020	6/9/2020	14/5/2021	14/5/2021	Task Completed						
	Submission of detailed design for electrical installation BS for Inlet Works No. 1 (CDS034-1)	6/9/2020	6/9/2020	14/5/2021	14/5/2021	Task Completed						
	Submission of civil work requirements for Inlet Works No. 1 up to +8.0 mPD (CDS080-1)	1/9/2020	1/9/2020	30/10/2020	30/10/2020	Task Completed						
	KD1A: Submission of civil requirement drawing for Inlet Works No. 1 up to +8.0 mPD (First Draft)	15/7/2020	15/7/2020	15/8/2020	17/9/2020	Task Completed	no.	3	3	100%		1st draft of drawing submitted on 17 September 2020
	KD1A: Submission of civil requirement drawing for Inlet Works No. 1 up to +8.0 mPD (Final)	28/8/2020	18/9/2020	5/11/2020	5/11/2020	Task Completed	no.	3	3	100%	Bestwise	Bestwise resubmitted (rev.A) on 27 Oct 2020.
	KD1A: Submission of electrical schematic drawings for Inlet Works No. 1 (First Draft)	15/7/2020	15/7/2020	15/8/2020	30/9/2020	Task Completed	no.	2	2	100%		1st draft of drawing submitted on 30 September 2020
	KD1A: Submission of electrical schematic drawings for Inlet Works No. 1 (Final)	7/9/2020	1/10/2020	5/11/2020	20/10/2020	Task Completed	no.	2	2	100%	Bestwise	Bestwise submitted on 20 Oct 2020
	KD1A: 6 November 2020											Notice of completion works was submitted on 17 Nov 2020
6B.2.2 Primary Sedimentation Tank No. 1-4	Submission of Contractor's Design for Primary Sedimentation Tanks No. 1-4	6/9/2020	28/12/2020	14/5/2021	30/6/2023	99%				-	Bestwise	PFD (rev.B) under DWG0004 submitted on 22 June 2021. Finalized design calculations for PST shall be submitted by 20 Jan 2023.
	Submission of P&M Submission	6/9/2020	26/11/2020	14/5/2021	30/6/2023	99%						P&M0058 - Lamella Plate Settler (status: B) P&M0097 - Scum Skimmer and Scum Collection Pipe (status: C) P&M0086 - Sludge Bottom Scraper (status: B) P&M0051 - Drain Pump (status: B) P&M0044 - Primary Sludge Pump (status: B) Finalized material submissions for PST shall be submitted by 20 Jan 2023.
	Submission of P&ID Drawing	6/9/2020	2/10/2020	14/5/2021	24/6/2021	Task Completed						PID under DWG0037 (rev.1) submitted on 24 June 2021 and is accepted by AECOM.

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 %			
	Submission of GA Drawing	6/9/2020	3/2/2021	14/5/2021	30/6/2023	99%						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 30 Aug 2022.	
	Submission of Electrical Drawing	6/9/2020	15/1/2021	14/5/2021	30/6/2023	99%						Electrical SLD submitted on 5 Feb 2021. AECOM commented on 20 Feb 2021. Bestwise to resubmit. Finalized drawings for PST shall be submitted by 20 Jan 2023.	
	Acceptance of submission	15/5/2021	2/4/2021	29/5/2021	30/6/2023	99%				-		Refer to outstanding list under "Certificate of completion no.1 - section 1 of the works".	
	Submission of detailed design for electrical installation	6/9/2020	6/9/2020	14/5/2021	14/5/2021	Task Completed							
	Submission of detailed design for LV Switchboards for Primary Sedimentation Tanks (CDS025-2)	6/9/2020	6/9/2020	14/5/2021	14/5/2021	Task Completed							
	Submission of detailed design for electrical installation	6/9/2020	6/9/2020	14/5/2021	14/5/2021	Task Completed							
	Submission of civil work requirements for Primary Sedimentation Tanks up to +8.0 mPD (CDS080-2)	1/9/2020	1/9/2020	30/10/2020	30/10/2020	Task Completed							
	KD1A: Submission of civil requirement drawing for Primary Sedimentation Tanks No. 1-4 up to +8.0 mPD	15/7/2020	15/7/2020	15/8/2020	30/9/2020	Task Completed	no.	4	4	100%		1st part of drafted drawing (2 nos.) was submitted on 23 Sept 2020. Remaining drawings (2 nos.) were submitted on 30 Sept 2020.	
	KD1A: Submission of civil requirement drawing for Primary Sedimentation Tanks No. 1-4 up to +8.0 mPD	28/8/2020	1/10/2020	5/11/2020	5/11/2020	Task Completed	no.	4	4	100%	Bestwise	Bestwise resubmitted (Rev.A) on 27 Oct & 13 Nov 2020.	
	KD1A: Submission of electrical schematic drawings for Primary Sedimentation Tanks No. 1-4 (First Draft)	15/7/2020	15/7/2020	15/8/2020	30/9/2020	Task Completed	no.	1	1	100%		1st draft of drawing submitted on 30 September 2020	
	KD1A: Submission of electrical schematic drawings for Primary Sedimentation Tanks No. 1-4 (Final)	7/9/2020	1/10/2020	5/11/2020	20/10/2020	Task Completed	no.	1	1	100%	Bestwise	Bestwise submitted on 20 Oct 2020	
	KD1A: 6 November 2020											Notice of completion works was submitted on 17 Nov 2020	
6B.2.3 Chemical Storage and Dosing System	Submission of Contractor's Design for Chemical Dosing System (CDS006)	6/9/2020	7/1/2021	14/5/2021	29/10/2021	Task Completed					-	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 was submitted on 29 Oct 2021.
	Submission of P&M Submission	6/9/2020	6/9/2020	14/5/2021	30/10/2021	Task Completed							Finalized material submissions for chemical system was submitted on 30 Oct 2021.
	Submission of P&ID Drawing	6/9/2020	11/12/2020	14/5/2021	29/6/2021	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	6/9/2020	8/2/2021	14/5/2021	30/6/2023	99%							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. All finalized drawings for chemical systems shall be submitted by 30 June 2022 and BIM GA review meeting is scheduled on 17, 21, 28/4/2022.
	Submission of Electrical Drawing	6/9/2020	15/1/2021	14/5/2021	30/6/2023	99%							Electrical SLD submitted on 5 Feb 2021. AECOM commented on 20 Feb 2021. Bestwise to resubmit. All finalized drawings for chemical system shall be submitted by 20 Jan 2023.
	Acceptance of submission	15/5/2021	15/5/2021	29/5/2021	30/6/2023	99%					-		
	Submission of detailed design for electrical installations	6/9/2020	6/9/2020	14/5/2021	14/5/2021	Task Completed							
	Submission of detailed design for electrical installations	6/9/2020	6/9/2020	14/5/2021	14/5/2021	Task Completed							
	Submission of detailed design for electrical installations	6/9/2020	6/9/2020	14/5/2021	14/5/2021	Task Completed							
	Submission of detailed design for electrical installation	6/9/2020	6/9/2020	14/5/2021	14/5/2021	Task Completed							
	KD1A: Submission of civil requirement drawing for	15/7/2020	15/7/2020	15/8/2020	16/9/2020	Task Completed	no.	2	2	100%			1st draft of drawing submitted on 15 September for CHS1 and 16 September 2020 for
	KD1A: Submission of civil requirement drawing for	7/9/2020	17/9/2020	5/11/2020	5/11/2020	Task Completed	no.	2	2	100%			Bestwise resubmitted (Rev.A) on 5 Nov 2020.
	KD1A: Submission of electrical schematic drawings for	15/7/2020	15/7/2020	15/8/2020	15/9/2020	Task Completed							1st draft of drawing to be submitted by 16 September 2020
	KD1A: Submission of electrical schematic drawings for Chemical System No. 1 and No. 2 (Final)	7/9/2020	16/9/2020	5/11/2020	5/11/2020	Task Completed							
	KD1A: Submission of civil requirement drawing for Temporary Chemical System up to +8.0 mPD (First	15/7/2020	15/7/2020	15/8/2020	15/9/2020	Task Completed	no.	1	1	100%			1st draft of drawing submitted on 15 September 2020

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 %		
	KD1A: Submission of civil requirement drawing for Temporary Chemical System up to +8.0 mPD (Final)	7/9/2020	16/9/2020	5/11/2020	5/11/2020	Task Completed	no.	1	1	100%		Bestwise resubmitted (Rev.A) on 5 Nov 2020.
	KD1A: Submission of electrical schematic drawings for Temporary Chemical System (First Draft)	15/7/2020	15/7/2020	15/8/2020	15/9/2020	Task Completed				-		1st draft of drawing to be submitted by 16 September 2020
	KD1A: Submission of electrical schematic drawings for KD1A: 6 November 2020	7/9/2020	16/9/2020	5/11/2020	5/11/2020	Task Completed						Notice of completion works was submitted on 17 Nov 2020
6B.2.4 Membrane Bioreactor (MBR) System - Bio Reactor 2A and 2B	Submission of Contractor's Design for Bioreactor 2A and 2B (CDS004)	6/9/2020	12/1/2021	14/5/2021	30/6/2023	99%				-	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 20 Jan 2023.
	Submission of P&M Submission	6/9/2020	26/11/2020	14/5/2021	30/6/2023	99%						P&M0060 - Pre-treatment Fine Screen (status: B) P&M0053 - MLR Pump (status: B) P&M0118 - Scum Skimmer & Scum Pump (status: C) P&M0088 - Fine Bubble Air Diffuser (status: B) P&M0xxx - Wash Compactor (status: B) P&M0041 - Submersible Mixer (status: B) Finalized material submission shall be submitted by 20 Jan 2023.
	Submission of P&ID Drawing	6/9/2020	2/11/2020	14/5/2021	2/7/2021	Task Completed						PID (Rev.1) under DWG0042 resubmitted on 6 July 2021.
	Submission of GA Drawing	6/9/2020	17/2/2021	14/5/2021	30/6/2023	99%						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. BIM GA review meeting is scheduled on 1, 8, 15/6/2022.
	Submission of Electrical Drawing	6/9/2020	15/1/2021	14/5/2021	30/6/2023	99%						Electrical SLD submitted on 5 Feb 2021. AECOM commented on 20 Feb 2021. Bestwise to resubmit. Finalized drawing shall be submitted by 20 Jan 2023.
	Acceptance of submission	15/5/2021	15/5/2021	29/5/2021	30/6/2023	99%					-	
	Submission of detailed design for electrical installation	6/9/2020	6/9/2020	14/5/2021	14/5/2021	Task Completed						
	Submission of detailed design for LV Switchboards for BR 2A and 2B (CDS025-3)	6/9/2020	6/9/2020	14/5/2021	14/5/2021	Task Completed						
	Submission of detailed design for electrical installation	6/9/2020	6/9/2020	14/5/2021	14/5/2021	Task Completed						
	Submission of civil work requirements for BR 2A and 2B up to +8.0 mPD (CDS080-3)	1/9/2020	1/9/2020	30/10/2020	30/10/2020	Task Completed						
	KD1A: Submission of civil requirement drawing for BR 2A and 2B up to +8.0 mPD (First Draft)	15/7/2020	15/7/2020	15/8/2020	30/9/2020	Task Completed	no.	2	2	100%		1st draft of drawing submitted on 30 September 2020
	KD1A: Submission of civil requirement drawing for BR 2A and 2B up to +8.0 mPD (Final)	28/8/2020	1/10/2020	5/11/2020	5/11/2020	Task Completed	no.	2	2	100%	Bestwise	AECOM commented on 23 Oct 2020, Bestwise resubmitted on 5 Nov 2020.
	KD1A: Submission of electrical schematic drawings for BR 2A and 2B (First Draft)	15/7/2020	15/7/2020	15/8/2020	30/9/2020	Task Completed				-		1st draft of drawing was sent to AECOM via email on 15 September 2020
	KD1A: Submission of electrical schematic drawings for KD1A: 6 November 2020	7/9/2020	1/10/2020	5/11/2020	5/11/2020	Task Completed						Notice of completion works was submitted on 17 Nov 2020
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)	6/9/2020	11/1/2021	14/5/2021	30/6/2023	99%				-	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 Aug 2022.
	Submission of P&M Submission	6/9/2020	19/11/2020	14/5/2021	30/6/2023	99%						P&M0072 - Membrane Module (status: B) P&M0069 - Permeate Pump (status: B) P&M0047 - RAS Pump (status: B) P&M0050 - Drain Pump (status: B) P&M0074 - Air Scour Blower (status: C) P&M0073 - Aeration Blower (status: C) P&M0093 - Air Compressor (status: B) P&M0091 - Chemical Pump (status: B) P&M0xxx - Chemical Tank (to be submitted) Finalized material submission shall be submitted by 20 Jan 2023.
	Submission of P&ID Drawing	6/9/2020	30/10/2020	14/5/2021	2/7/2021	Task Completed						DWG0049 (Rev.1) was resubmitted on 2 Jul 2021.
	Submission of GA Drawing	31/3/2021	18/2/2021	14/5/2021	30/6/2023	99%						DWG0121 (rev.1) was resubmitted to AECOM on 17 Jul 2021 Finalized drawings shall be submitted by 30 June 2022. BIM GA review meeting is scheduled on 19, 26/5/2022 and 2/6/2022 (Lower part) BIM GA review meeting is scheduled on 16, 23, 30/6/2022 (Upper part)

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		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 %		
	Submission of Electrical Drawing	15/4/2021	15/1/2021	14/5/2021	30/6/2023	99%						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 20 Jan 2023.
	Acceptance of submission	15/5/2021	15/5/2021	29/5/2021	30/6/2023	99%				-		
	Submission of detailed design for electrical installation	6/9/2020	6/9/2020	14/5/2021	14/5/2021	Task Completed						
	Submission of detailed design for LV Switchboards for	6/9/2020	6/9/2020	14/5/2021	14/5/2021	Task Completed						
	Submission of detailed design for electrical installation BS for MFB (CDS034-4)	6/9/2020	6/9/2020	14/5/2021	14/5/2021	Task Completed						
	Submission of civil work requirements for MFB up to	1/9/2020	1/9/2020	30/9/2020	30/9/2020	Task Completed						
	KD1A: Submission of civil requirement drawing for	15/7/2020	15/7/2020	15/8/2020	30/9/2020	Task Completed	no.	7	7	100%		1st draft of drawing submitted on 30 September
	KD1A: Submission of civil requirement drawing for MFB No. 2 up to +8.0 mPD (Final)	28/8/2020	1/10/2020	5/11/2020	5/11/2020	Task Completed	no.	7	7	100%	Bestwise	Bestwise resubmitted (Rev.1) on 5 Nov 2020.
	KD1A: Submission of electrical schematic drawings for	15/7/2020	15/7/2020	15/8/2020	30/9/2020	Task Completed	no.	3	3	100%		1st draft of drawing submitted on 30 September 2020
	KD1A: Submission of electrical schematic drawings for MFB No. 2 (Final)	7/9/2020	1/10/2020	5/11/2020	20/10/2020	Task Completed	no.	3	3	100%	Bestwise	Bestwise submitted (Rev.1) on 20 Oct 2020
	KD1A: 6 November 2020											Notice of completion works was submitted on 17 Nov 2020
6B.2.6 Deodorisation System (EQT-001 - Deodorization Unit)	Tender invitation (C11)	17/4/2020	17/4/2020	24/4/2020	24/4/2020	Task Completed				100%		
6B.2.6 Deodorisation System (EQT-001 - Deodorization Unit)	Tender award (C11)	25/4/2020	25/4/2020	12/5/2020	12/5/2020	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)	13/5/2020	13/5/2020	21/5/2020	21/5/2020	Task Completed				100%		
	Submission of Contractor's Design for Deodorisation System , DOU No. 1 (CDS0019 & CDS0045)	6/9/2020	6/9/2020	14/5/2021	31/12/2021	Task Completed				-		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 was completed.
	Submission of P&ID Drawing of DOU No. 1	6/9/2020	5/8/2020	14/5/2021	2/7/2021	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	6/9/2020	6/9/2020	14/5/2021	30/6/2023	99%						GA submitted on 21 Jun 2021 Finalized drawings shall be submitted by 30 June 2022 and BIM GA review meeting is scheduled on 11, 18, 25/5/2022.
	Submission of Electrical Drawing of DOU No. 1	21/3/2021	30/1/2021	14/5/2021	30/6/2023	99%						Control wiring diagrams was resubmitted on 1 April 2021. AECOM commented on 23 Apr 2021. Bestwise to resubmit. Finalized drawings shall be submitted by 20 Jan 2023.
	Acceptance of submission	15/5/2021	15/5/2021	29/5/2021	30/6/2023	99%				-		
	KD1A: Submission of civil requirement drawing for Deodorisation System , DOU No. 1 up to +8.0 mPD (First Draft)	15/7/2020	15/7/2020	15/8/2020	28/9/2020	Task Completed	no.	1	1	100%		1st draft of drawing was submitted on 28 September 2020
	KD1A: Submission of civil requirement drawing for Deodorisation System , DOU No. 1 up to +8.0 mPD (Final)	28/8/2020	29/9/2020	2/11/2020	5/11/2020	Task Completed	no.	1	1	100%	Bestwise	Bestwise resubmitted (rev.1) on 5 Nov 2020.
	Submission of Contractor's Design for Deodorisation System , DOU No. 2A (CDS0019 & CDS0048)	6/9/2020	6/9/2020	14/5/2021	10/12/2021	Task Completed				-		CDS0019: Design Calculation for Deodorisation System (status: B) CDS0048: Design Calculation on DOU2A - air extraction fan (status: B)
	Submission of P&ID Drawing of DOU No. 2A	6/9/2020	5/8/2020	14/5/2021	2/7/2021	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	6/9/2020	3/8/2020	14/5/2021	30/6/2023	99%				-	Bestwise	Bestwise submitted (rev.1) on 30 Nov 2020. AECOM commented on 16 Dec 2020. Bestwise to resubmit. Finalized drawings shall be submitted by 30 June 2022 and BIM GA review meeting is scheduled on 1, 8, 15/6/2022.
	Submission of Electrical Drawing of DOU No. 2A	21/3/2021	26/1/2021	14/5/2021	30/6/2023	99%						Bestwise submitted (rev.0) on 26 Jan 2021, AECOM commented on 4 Feb 2021. Bestwise to resubmit. Finalized drawing shall be submitted by 20 Jan 2023.
	Acceptance of submission	15/5/2021	15/5/2021	29/5/2021	30/6/2023	99%				-		
	Submission of Contractor's Design for Deodorisation System , DOU No. 3A (CDS0019 & CDS0055)	6/9/2020	6/9/2020	14/5/2021	10/12/2021	Task Completed				-		CDS0019: Design Calculation for Deodorisation System (status: B) CDS0055: Design Calculation on DOU3A - air extraction fan (status: B)
	Submission of P&ID Drawing of DOU No. 3A	6/9/2020	5/8/2020	14/5/2021	2/7/2021	Task Completed				-	Bestwise	Bestwise resubmitted rev.3 on 29 Mar 2021. AECOM accepted subject to comments on 13 Apr 2021.

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 %		
	Submission of GA Drawing of DOU No. 3A	6/9/2020	8/7/2020	14/5/2021	30/6/2023	99%					Bestwise	Bestwise submitted (rev.1) on 28 Oct 2020. AECOM commented on 16 Dec 2020. Bestwise resubmitted on 24 June 2021. Finalized drawings shall be submitted by 30 June 2022 and BIM GA review meeting is scheduled on 27/4/2022, 4, 11/5/2022.
	Submission of Electrical Drawing of DOU No. 3A	21/3/2021	26/2/2021	14/5/2021	30/6/2023	99%						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 20 Jan 2023.
	Acceptance of submission	15/5/2021	15/5/2021	29/5/2021	30/6/2023	99%						
	KD1A: Submission of civil requirement drawing for Deodorisation System , DOU No. 3A up to +8.0 mPD	15/7/2020	15/7/2020	15/8/2020	28/9/2020	Task Completed	no.	1	1	100%		1st draft of drawing was submitted on 28 September 2020
	KD1A: Submission of civil requirement drawing for Submission of Contractor's Design for Deodorisation System , DOU No. 3B (CDS0019 & CDS0049)	28/8/2020	29/9/2020	2/11/2020	5/11/2020	Task Completed	no.	1	1	100%	Bestwise	Bestwise resubmitted (rev.1) on 5 Nov 2020.
	Submission of P&ID Drawing of DOU No. 3B	6/9/2020	6/9/2020	14/5/2021	10/12/2021	Task Completed						CDS0019: Design Calculation for Deodorisation System (status: B) CDS0049: Design Calculation on DOU3B - air extraction fan (status: B)
	Submission of P&ID Drawing of DOU No. 3B	6/9/2020	5/8/2020	14/5/2021	2/7/2021	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. 3B	6/9/2020	6/9/2020	14/5/2021	30/6/2023	99%						Bestwise submitted DWG0081 (rev.0) on 5 Feb 2021. AECOM commented on 12 Mar 2021. Bestwise to resubmit. Finalized drawings shall be submitted by 30 June 2022 and BIM GA review meeting is scheduled on 16, 23, 30/6/2022.
	Submission of Electrical Drawing of DOU No. 3B	21/3/2021	22/2/2021	14/5/2021	30/6/2023	99%						GA submitted on 24 Jun 2021. Finalized drawing shall be submitted by 20 Jan 2023.
	Acceptance of submission	15/5/2021	15/5/2021	29/5/2021	30/6/2023	99%						
	Submission of detailed design for electrical installation	6/9/2020	6/9/2020	14/5/2021	14/5/2021	Task Completed						
	Submission of detailed design for LV Switchboards for	6/9/2020	6/9/2020	14/5/2021	14/5/2021	Task Completed						
	Submission of detailed design for electrical installation	6/9/2020	6/9/2020	14/5/2021	14/5/2021	Task Completed						
	Submission of civil work requirements for MFB up to	1/9/2020	1/9/2020	30/9/2020	30/9/2020	Task Completed						
	Submission of civil requirement drawing for MFB up to	28/8/2020	28/8/2020	2/11/2020	2/11/2020	Task Completed						
	KD1A: Submission of electrical schematic drawings for	15/7/2020	15/7/2020	15/8/2020	30/9/2020	Task Completed						1st draft of drawing to be submitted by 30 September 2020
	KD1A: Submission of electrical schematic drawings for	7/9/2020	1/10/2020	5/11/2020	5/11/2020	Task Completed						
	KD1A: 6 November 2020											Notice of completion works was submitted on 17 Nov 2020
04SC008 - Design, Supply and Installation of detailed design for lifting appliances	Acceptance of tender award (C9)	-	-	-	6/7/2020	Task Completed				100%	-	AECOM accepted tender report on 6 July 2020.
	Submission of detailed design for lifting appliances for Inlet Works No. 1 (CDS050-1)	6/9/2020	5/12/2020	6/9/2020	30/6/2023	99%						DWG 0055 (Rev.0) was submitted on 13 Mar 2021. AECOM commented on 20 Apr 2021. Bestwise to resubmit. Bestwise submitted P&M0025 on 15 June 2021. Finalized design shall be submitted by 20 Jan 2023.
	Submission of detailed design for lifting appliances for Primary Sedimentation Tanks (CDS050-2)	6/9/2020	5/12/2020	6/9/2020	30/6/2023	99%						DWG 0054 (Rev.0) was submitted on 18 Jan 2021. AECOM commented on 9 Mar 2021. Bestwise to resubmit. Finalized design shall be submitted by 20 Jan 2023.
	Submission of detailed design for lifting appliances for BR 2A and 2B (CDS050-3)	6/9/2020	5/12/2020	6/9/2020	30/6/2023	99%						DWG 0065 (Rev.0) was submitted on 18 Jan 2021. AECOM commented on 9 Mar 2021. Bestwise to resubmit. P&M-0026 (Rev.1) received status B. Finalized design calculation shall be submitted by 20 Jan 2023.
	Submission of detailed design for lifting appliances for MFB (CDS050-4)	6/9/2020	5/12/2020	6/9/2020	30/6/2023	99%						DWG 0066 (Rev.1) was submitted on 1 Mar 2021. AECOM commented on 5 Mar 2021. Bestwise to resubmit. P&M-0027 (Rev.1) received status B. Finalized design calculation shall be submitted by 20 Jan 2023.
	Submission of detailed design for lifting appliances for Temporary Filtration Tank (CDS050-5)	6/9/2020	5/12/2020	6/9/2020	21/5/2021	Task Completed						DWG 0051 (Rev.2) was resubmitted on 7 May 2021 and acceptance by AECOM subject to condition on 21 May 2021. Bestwise submitted P&M0021 on 21 June 2021.
Building Services System	Submission for MVAC system	N/A	10/12/2020	N/A	30/6/2023	99%						Design calculations and drawings for inlet works was submitted on 16 Dec 2020. AECOM commented on 15 Jan 2021 and 20 Jan 2021. Design calculations and drawings for PST was submitted on 30 Dec 2020. AECOM commented on 22 Jan 2021 and 26 Jan 2021. Design calculations and drawings for MFB2 was submitted on 29 Jan 2021. AECOM commented on 26 Mar 2021. Subletting package resubmitted by 18 Mar 2021. AECOM accepted on 19 Mar 2021. Finalized design shall be submitted by 20 Jan 2023.

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 %		
Lightning Protection System for DOU3A (underground)	Submission and Acceptance for Lightning Protection System Design	6/12/2021	6/12/2021	31/1/2022	31/1/2022	Task Completed						
	Material Delivery	7/2/2022	7/2/2022	28/2/2022	28/2/2022	Task Completed						
	Installation Work	31/3/2022	26/4/2022	5/5/2022	5/5/2022	Task Completed						
	Testing & Commissioning	7/1/2023	7/1/2023	31/1/2023								
Lightning Protection System for Inlet Works (underground)	Submission and Acceptance for Lightning Protection System Design	20/12/2021	20/12/2021	31/1/2022	31/1/2022	Task Completed						
	Material Delivery	15/12/2022	1/10/2022	31/3/2022	31/10/2022	Task Completed						
	Installation Work	15/3/2022	1/11/2022	30/10/2022	14/12/2022							
	Testing & Commissioning	1/11/2022	15/12/2022	15/11/2022	31/12/2022							
MFB No.2	Rail Beam Installation at Basement 2	12/5/2023	22/5/2023	11/7/2023								
	MVAC Installation at Basement 2	8/5/2023	8/5/2023	7/7/2023								
	Fire Services Installation at Basement 2	8/5/2023	8/5/2023	7/7/2023								
	Plumbing Services Installation at Basement 2	8/5/2023	8/5/2023	7/7/2023								
Section 3 of Works												
6B.2.12 Provision of New Replacement Filter Plates	Submission of onsite survey plan for acceptance	1/3/2020	25/3/2020	30/3/2020	21/4/2020	Task Completed				100%	-	Bestwise resubmitted onsite survey plan on 21 April 2020
	Acceptance of submission of onsite survey plan	1/3/2020	25/3/2020	30/3/2020	12/5/2020	Task Completed				100%	-	Survey plan acceptance received on 12 May 2020. Onsite discussion with ST1 was
	Submission of onsite survey report	21/5/2020	21/5/2020	29/5/2020	29/5/2020	Task Completed				100%		
	Acceptance of onsite survey report	30/5/2020	30/5/2020	15/6/2020	15/6/2020	Task Completed				-		
	Preparation of procurement package (C11)	22/6/2020	22/6/2020	6/7/2020	14/7/2020	Task Completed				100%		
	Tender invitation (C11)	15/7/2020	15/7/2020	22/7/2020	24/7/2020	Task Completed				100%		
6B.2.12 Provision of New Replacement Filter Plates for Existing Membrane Filter Presses at Existing Sludge Press House	Tender Award (C11)	23/7/2020	25/7/2020	29/7/2020	31/7/2020	Task Completed				100%		Revised survey report (second draft) was sent to AECOM on 21 Oct 2020. Technical
	Material Submission	21/8/2020	21/8/2020	28/8/2020	7/12/2020	Task Completed				100%		Material submission (Rev.1) resubmitted on 7 Dec 2020. AECOM accepted subject to comments on 24 Dec 2020. Material submission (Rev. 2) resubmitted on 12 Jan 2021. AECOM accepted subject to comment on 22 Jan 2021.
6B.2.12 Provision of New Replacement Filter Plates for Existing Membrane Filter Presses at Existing Sludge Press House	Material Delivery	1/12/2020	1/12/2020	8/8/2021	13/7/2021	Task Completed				-		Handed over to DSD.
	Completion Date of Section 3: 22 September 2021											
Subcontracting												
	Submission of subletting package for acceptance	1/1/2020	6/3/2020	30/3/2020	6/3/2020	Task Completed				100%	-	
	Acceptance of subletting package	1/3/2020	21/3/2020	30/3/2020	21/3/2020	Task Completed				100%	-	
	Tender invitation	1/3/2020	24/3/2020	1/4/2020	30/3/2020	Task Completed				100%	-	
	Tender award	22/3/2020		14/4/2020	6/4/2020	Task Completed				100%	-	Bestwise submitted tender report on 6 April 2020
	Acceptance of tender award	-	-	-	15/4/2020	Task Completed				100%		AECOM accepted tender report on 15 April 2020
Construction of Contractor's site accommodation in WA1-C	Design of MiC	15/4/2020	16/4/2020	1/6/2020	15/8/2020	Task Completed				100%		Revised layout drawings received from AluHouse on 28 May 2020. Comments provided to AluHouse on 2 June 2020.
	Submission of detailed design including foundation works, septic tank	1/7/2020	1/7/2020	14/7/2020	4/9/2020	Task Completed				100%		Design calculation of foundation work was submitted on 7 July 2020, comment received on 27 July 2020. Bestwise to resubmit.
	Site Clearance Work	15/7/2020	20/7/2020	31/7/2020	15/8/2020	Task Completed				100%		Tender invitation commenced on 29 May 2020 and tenders received on 4 June 2020. Tender
	Off-site fabrication of Septic tank	15/7/2020	20/7/2020	31/7/2020	31/7/2020	Task Completed				100%		Site clearance work started on 20 July 2020
	Submission of method statement with ICE certificate	1/8/2020	1/8/2020	7/8/2020	8/10/2020	Task Completed				100%		CV of ICE was submitted on 4 August 2020 and accepted on 25 August 2020
	Submission of design calculation with ICE certificate	1/8/2020	1/8/2020	7/8/2020	8/10/2020	Task Completed				100%		Design calculation of foundation work was submitted on 7 July 2020, comment received on
	Acceptance of method statement and design calculation	8/8/2020	9/10/2020	14/8/2020	16/10/2020	Task Completed				100%		Method Statement and Design Calculation was submitted on 8 Oct 2020.
	Submission of method statement with ICE certificate	1/8/2020	1/8/2020	7/8/2020	23/11/2020	Task Completed				100%		
	Submission of design calculation with ICE certificate	1/8/2020	1/8/2020	7/8/2020	23/11/2020	Task Completed				100%		
	Acceptance of method statement and design calculation	8/8/2020	24/11/2020	14/8/2020	27/11/2020	Task Completed				100%		
	Excavation work	17/8/2020	21/10/2020	18/8/2020	21/10/2020	Task Completed				100%		
Installation of septic tank	19/8/2020	21/10/2020	20/8/2020	22/10/2020	Task Completed				100%			

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 %		
	Construction of RC foundation	21/8/2020	23/10/2020	31/8/2020	12/11/2020	Task Completed				100%		
	Off-site fabrication and delivery of MiC Office	1/6/2020	30/9/2020	31/7/2020	4/12/2020	Task Completed				100%		
	On-site installation of MiC Office	1/8/2020	4/12/2020	30/8/2020	5/1/2021	Task Completed				100%		
	Installation of car park shelter	4/1/2021	7/1/2021	11/1/2021	9/1/2021	Task Completed				100%		Subject to the completion of car park shelter of PM office and JEC office.
04SC003 - Building Information Modeling (BIM)	Submission of subletting package for acceptance (C9)	1/3/2020	25/3/2020	14/3/2020	25/3/2020	Task Completed				100%	-	
	Acceptance of subletting package (C9)	14/3/2020	2/4/2020	30/3/2020	2/4/2020	Task Completed				100%	-	
	Tender invitation (C9)	1/4/2020	1/4/2020	8/4/2020	9/4/2020	Task Completed				100%	-	
	Tender award (C9)	-	-	-	15/4/2020	Task Completed				100%	-	Bestwise submitted tender report on 15 April 2020
	Submission of subletting package for acceptance	14/3/2020	16/3/2020	30/3/2020	20/4/2020	Task Completed				100%	-	Bestwise resubmitted on 20 April 2020
	Acceptance of subletting package	28/3/2020	4/5/2020	13/4/2020	13/5/2020	Task Completed				100%	-	AECOM accepted subletting package on 13 May 2020
	Tender invitation	11/4/2020	19/6/2020	27/4/2020	26/6/2020	Task Completed				-	-	Invitation to tender was commenced on 19 June 2020 and tender returned on 26 June 2020
	Tender award	25/4/2020	27/6/2020	11/5/2020	4/7/2020	Task Completed				-	-	Bestwise submitted tender report on 30 June 2020
	Acceptance of tender award	-	-	-	18/7/2020					-	-	
04SC007 - Independent Beam Plus Consultant	Submission of subletting package for acceptance	1/3/2020	30/3/2020	14/3/2020	30/3/2020	Task Completed				100%	-	
	Acceptance of subletting package	14/3/2020	3/4/2020	30/3/2020	3/4/2020	Task Completed				100%	-	
	Tender invitation	30/3/2020	30/3/2020	9/4/2020	9/4/2020	Task Completed				100%	-	
	Tender award	-	-	-	15/4/2020	Task Completed				100%	-	Bestwise submitted tender report on 15 April 2020
	Acceptance of tender award	-	-	-	17/4/2020	Task Completed				100%	-	AECOM accepted tender report on 17 April 2020
	Introduction meeting with IBPC, Cinotech	-	-	-	28/4/2020	Task Completed				100%	-	Meeting completed on 28 April 2020 followed by planning work progress
04SC008 - Design, Supply and Installation of detailed	Submission of subletting package for acceptance (C9)	1/4/2020	17/3/2020	14/4/2020	17/3/2020	Task Completed				100%	-	Bestwise submitted subletting package on 3 April 2020
	Acceptance of subletting package (C9)	14/4/2020	17/4/2020	30/4/2020	28/4/2020	Task Completed				100%	-	AECOM accepted subletting package on 28 April 2020
	Tender invitation (C9)	30/4/2020	6/5/2020	14/5/2020	28/5/2020	Task Completed				100%	-	Invitation to tender was commenced on 6 May 2020 and tender returned on 28 May 2020
	Tender award (C9)	14/5/2020	29/5/2020	30/5/2020	9/6/2020	Task Completed				100%	-	Bestwise submitted tender report on 9 June 2020.
Temporary Primary Sludge Thickener and its	Submission of subletting package (C9) for acceptance	15/05/2020 -> 30/05/2020 -> 30/7/2020*	14/8/2020	15/05/2020 -> 15/06/2020 -> 15/8/2020*	27/8/2020	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)		15/8/2020		16/9/2020	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-> 15/8/2020*	9/9/2020	22/06/2020-> 22/8/2020*	14/10/2020	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-> 22/8/2020*	17/9/2020	29/06/2020-> 29/8/2020*	22/10/2020	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)	-	-	-	16/11/2020	Task Completed				100%		
	Submission of subletting package (C9) for acceptance (Elect)	15/05/2020 -> 15/7/2020*	9/12/2020	15/05/2020 -> 30/11/2020*	28/1/2021	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. - Bestwise resubmitted subcontracting package of electrical installation on 28 Jan 2021
	Acceptance of subletting package (C9) (Elect)	30/05/2020 -> 30/7/2020*	29/1/2021	15/06/2020-> 15/8/2020*	1/2/2021	Task Completed				100%		- *=Corresponding PMI No.009 and CE No.009 were issued by AECOM on 14 July 2020. CE was implemented on 15 July 2020.
	Tender invitation (C9) (Elect)	15/06/2020-> 15/8/2020*	1/2/2021	22/06/2020-> 22/8/2020*	11/2/2021	Task Completed				100%		- *=Corresponding PMI No.009 and CE No.009 were issued by AECOM on 14 July 2020. CE was implemented on 15 July 2020. - Tender invitation commenced on 1 Feb 2021 and returned on 11 Feb 2021
	Tender award (C9) (Elect)	22/06/2020-> 22/8/2020*	11/2/2021	29/06/2020-> 29/8/2020*	23/2/2021	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)	-	-	-	26/2/2021	Task Completed				100%		

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		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 %		
Tender invitation (C11)		30/04/2020->15/07/2020*	30/4/2020	30/06/2020->15/09/2020*	18/11/2020	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 2020 - Tender Invitation of instrument was commenced on 18 Nov 2020 and to be returned on 25 Nov 2020. Tender report submitted on 30 Nov 2020 - Based on the control philosophy agreed on 23 Dec 2020, motorized and solenoid valves were selected
Tender award (C11)		15/05/2020->29/07/2020*	30/5/2020	15/07/2020->15/09/2020*	30/11/2020	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)		-	-	-	18/9/2020					-		
Design Submission		03/07/2020 ->15/07/2020*	5/8/2020	21/09/2020->02/10/2020*	10/5/2021	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 ->30/07/2020*	21/7/2020	31/08/2020 ->31/10/2020*	30/6/2021	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*	3/8/2020	21/09/2020 ->21/11/2020*	10/2/2021	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*	4/8/2020	21/10/2020 ->21/12/2020*	20/4/2021	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 ->	4/11/2020	16/11/2020 ->	21/6/2021	Task Completed						

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 %			
	Mechanical Installation	01/10/2020 -> 01/12/2020*	2/2/2021	15/11/2020 -> 15/01/2021*	17/5/2021	Task Completed				-			
	Offsite Fabrication and Delivery of FRP Tank		16/1/2021		7/4/2021	Task Completed				100%		First batch to be delivered on 23 Mar 2021	
	Onsite Installation of FRP Tank		7/4/2021		30/7/2021	Task Completed						Water filling to tank completed; Tank hydraulic test completed.	
	Electrical Installation	01/10/2020 -> 01/12/2020*	19/3/2021	15/11/2020 -> 15/01/2021*	19/7/2021	Task Completed				-		Energize of all LCPs on 24 May 2021 and isolated prior to system commissioning.	
Temporary Primary Sludge Thickener and its accessories (Sub-programme was provided by Bestwise)	Testing and Commissioning	15/11/2020 -> 15/01/2021*	8/5/2021	22/11/2020 -> 22/01/2021*	30/9/2022	Completed				-		Improvement works under PMI are on-going and defect rectification for BCM comments was partially completed. - Testing and Commissioning (3 x 24hrs) completed by End September.	
Modification of Existing Emergency Generator Electrical Works	Submission of subletting package (C9) for acceptance	15/10/2020	15/10/2020	31/10/2020	11/12/2020	Task Completed				100%			
	Acceptance of subletting package (C9)	1/11/2020	5/11/2020	15/11/2020	2/1/2021	Task Completed				100%			
	Tender invitation (C9)	16/11/2020	26/1/2021	30/11/2020	5/2/2021	Task Completed				100%		Tender invitation commenced on 26 Jan 2021, and returned on 5 Feb 2021	
	Tender award (C9)	30/11/2020	18/2/2021	7/12/2020	18/2/2021	Task Completed				100%		Tender report was submitted on 18 Feb 2021 and accepted on 26 Feb 2021	
	Acceptance of tender award (C9)	8/12/2020	18/2/2021	15/12/2020	26/2/2021	Task Completed				100%			
	Design Submission	15/12/2020	15/3/2021	15/1/2021	23/4/2021	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	9/3/2021	9/3/2021	9/3/2021	9/3/2021	Task Completed				100%			
	Drawing submission (Drawing of General Layout for Existing 600kVA Genset Container)	23/4/2021	23/4/2021	30/4/2021	30/4/2021	Task Completed				100%			
	Drawing submission (Cable route ,general arrangement, etc)	14/5/2021	28/5/2021	21/5/2021	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	12/8/2021	Task Completed				100%			
	Container deliver to HK	TBC	12/8/2021	10/8/2021	12/8/2021	Task Completed				100%			
	Off site modification work at HK factory	TBC	16/8/2021	24/8/2021	24/8/2021	Task Completed				100%			
	FAT plan of modified Genset No.2 P431 MS-036	12/7/2021	12/7/2021	20/8/2021	20/8/2021	Task Completed				100%			
	FAT of Genset No.2 after modification works	25/8/2021	25/8/2021	25/8/2021	25/8/2021	Task Completed				100%			
	Installation Work of I-beam Support	26/8/2021	26/8/2021	26/8/2021	26/8/2021	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	27/8/2021	27/8/2021	27/8/2021	27/8/2021	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	27/7/2021	27/7/2021	31/8/2021									Location to be further coordinated with DSD.
	Modification works of existing switchboard	1/9/2021	1/9/2021	8/9/2021	8/9/2021	Task Completed				100%			
	Cables (including control cable and power cables) laying and installation of cable containment, busbar chamber	21/7/2021	30/7/2021	8/9/2021	8/9/2021	Task Completed				100%			
Supply of busbar chamber/ connection box	10/8/2021	10/8/2021	3/9/2021	3/9/2021	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	1/9/2021	1/9/2021	8/9/2021	8/9/2021	Task Completed				100%				
Delivery of dummy load and self-test	9/9/2021	9/9/2021	14/9/2021	15/9/2021	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.)	15/9/2021	15/9/2021	15/9/2021	16/9/2021	Task Completed				100%				
04SC009 - Design, Supply and Installation of HVSB	Submission of subletting package for acceptance	21/4/2020		1/5/2020		-							
	Acceptance of subletting package	21/5/2020		30/5/2020		-							

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 %		
	Tender invitation	1/6/2020		14/6/2020		-						
	Tender award	1/7/2020		14/7/2020		-						
04SC010 - Design, Supply and Installation of LVSB	Submission of subletting package for acceptance	1/5/2020		14/5/2020		-						
	Acceptance of subletting package	1/6/2020		14/6/2020		-						
	Tender invitation	14/6/2020		30/6/2020		-						
	Tender award	1/7/2020		14/7/2020		-						
04SC011 - Design and Installation of Building	Submission of subletting package for acceptance	14/4/2020		30/4/2020		-						
	Acceptance of subletting package	14/5/2020		30/5/2020		-						
	Tender invitation	30/5/2020		14/6/2020		-						
	Tender award	21/6/2020		30/6/2020		-						
04SC012 - Facility Computerized Systems	Submission of subletting package for acceptance	14/5/2020		30/5/2020		-						
	Acceptance of subletting package	14/6/2020		30/6/2020		-						
	Tender invitation	1/7/2020		14/7/2020		-						
	Tender award	21/7/2020		14/8/2020		-						
Plant and Materials (Marking Scheme)												
PS Clause no. 6B.2.1 Inlet Pump	Submission of marking scheme for PM's acceptance (fourth draft)	1/5/2020	1/5/2020	1/9/2020	19/8/2020	Task Completed				100%		AECOM commented on 14 August 2020, Bestwise resubmitted on 19 Aug 2020.
	Submission of marking scheme for PM's acceptance	1/5/2020	1/5/2020	1/9/2020	19/8/2020	Task Completed				100%		Bestwise resubmitted on 19 Aug 2020.
	Acceptance of marking scheme by the PM	15/5/2020	20/8/2020	15/9/2020	1/9/2020	Task Completed				100%		AECOM accepted on 1 Sep 2020
	Tender invitation	29/5/2020	9/9/2020	29/9/2020	18/9/2020	Task Completed				100%		Tender invitation was conducted on 9 Sept 2020 and returned on 18 Sept 2020.
PS Clause no. 6B.2.1 Inlet Pump	Tender award	5/6/2020	19/9/2020	5/10/2020	7/10/2020	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	19/6/2020	17/10/2020	19/10/2020	15/11/2020	Task Completed				-		
	Submission of marking scheme for PM's acceptance (third draft)	1/5/2020	14/5/2020	1/9/2020	19/8/2020	Task Completed				100%		AECOM commented on 14 August 2020, Bestwise resubmitted on 19 Aug 2020
	Submission of marking scheme for PM's acceptance	1/5/2020	14/5/2020	1/9/2020	19/8/2020	Task Completed				100%		Bestwise resubmitted on 19 Aug 2020
PS Clause no. 6B.2.4 MBR Pre-treatment Screen	Acceptance of marking scheme by the PM	15/5/2020	20/8/2020	15/9/2020	1/9/2020	Task Completed				100%		AECOM accepted on 1 Sep 2020
	Tender invitation	29/5/2020	20/11/2020	29/9/2020	11/12/2020	Task Completed				100%		Tender invitation was conducted on 20 Nov 2020 and returned on 11 Dec 2020. Tender Technical Submission Evaluation Report was submitted on 12 Jan 2021. AECOM noted on 22 Jan 2021.
	Tender award	5/6/2020	13/12/2020	5/10/2020	3/3/2021	Task Completed				100%		Tender Report was submitted on 4 Feb 2021, AECOM commented on 19 Feb 2021, Bestwise submitted supplementary information on 26 Feb 2021. AECOM noted on 3 Mar
PS Clause no. 6B.2.4	Submission of marking scheme for PM's acceptance	1/5/2020	14/5/2020	1/9/2020	2/9/2020	Task Completed				100%		AECOM commented on 1 September 2020, Bestwise resubmitted on 2 Sep 2020
	Submission of marking scheme for PM's acceptance	1/5/2020	3/9/2020	1/9/2020	2/9/2020	Task Completed				100%		Bestwise resubmitted on 2 Sep 2020
PS Clause no. 6B.2.4 Air Diffusion System	Acceptance of marking scheme by the PM	15/5/2020	20/8/2020	15/9/2020	1/9/2020	Task Completed				100%		AECOM accepted on 1 Sep 2020, subject to conditions.
	Tender invitation	29/5/2020	17/2/2021	29/9/2020	12/3/2021	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	5/6/2020	18/3/2021	5/10/2020	20/4/2021	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	19/6/2020	20/2/2021	19/10/2020	12/3/2021	Task Completed				-		
PS Clause no. 6B.2.4	Submission of marking scheme for PM's acceptance	14/5/2020	14/5/2020	14/9/2020	19/8/2020	Task Completed				100%		AECOM commented on 14 August 2020, Bestwise resubmitted on 19 Aug 2020
	Submission of marking scheme for PM's acceptance	14/5/2020	14/5/2020	14/9/2020	19/8/2020	Task Completed				100%		Bestwise resubmitted on 19 Aug 2020
PS Clause no. 6B.2.4 BR Aeration Blower	Acceptance of marking scheme by the PM	28/5/2020	20/8/2020	28/9/2020	1/9/2020	Task Completed				100%		AECOM accepted on 1 Sep 2020
	Tender invitation	11/6/2020	3/2/2021	12/10/2020	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	18/6/2020	4/3/2021	19/10/2020	12/4/2021	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	2/7/2020	4/3/2021	2/11/2020	25/3/2021	Task Completed				-		AECOM accepted on 1 Sep 2020, subject to conditions.
PS Clause no. 6B.2.4	Submission of marking scheme for PM's acceptance	14/5/2020	1/5/2020	14/9/2020	2/9/2020	Task Completed				100%		AECOM commented on 1 September 2020, Bestwise resubmitted on 2 Sep 2020
	Submission of marking scheme for PM's acceptance	14/5/2020	3/9/2020	14/9/2020	2/9/2020	Task Completed				100%		Bestwise resubmitted on 2 Sep 2020



Appendix 2.1

Layout Plans of Construction Activities

April 2023



Site Record Photos









DC/2018/06

			
SD&THP	CHP	SDB	Outfall

DC/2018/07

			
BR2	MFB	PST	Inlet



DE/2018/03



Sidestream



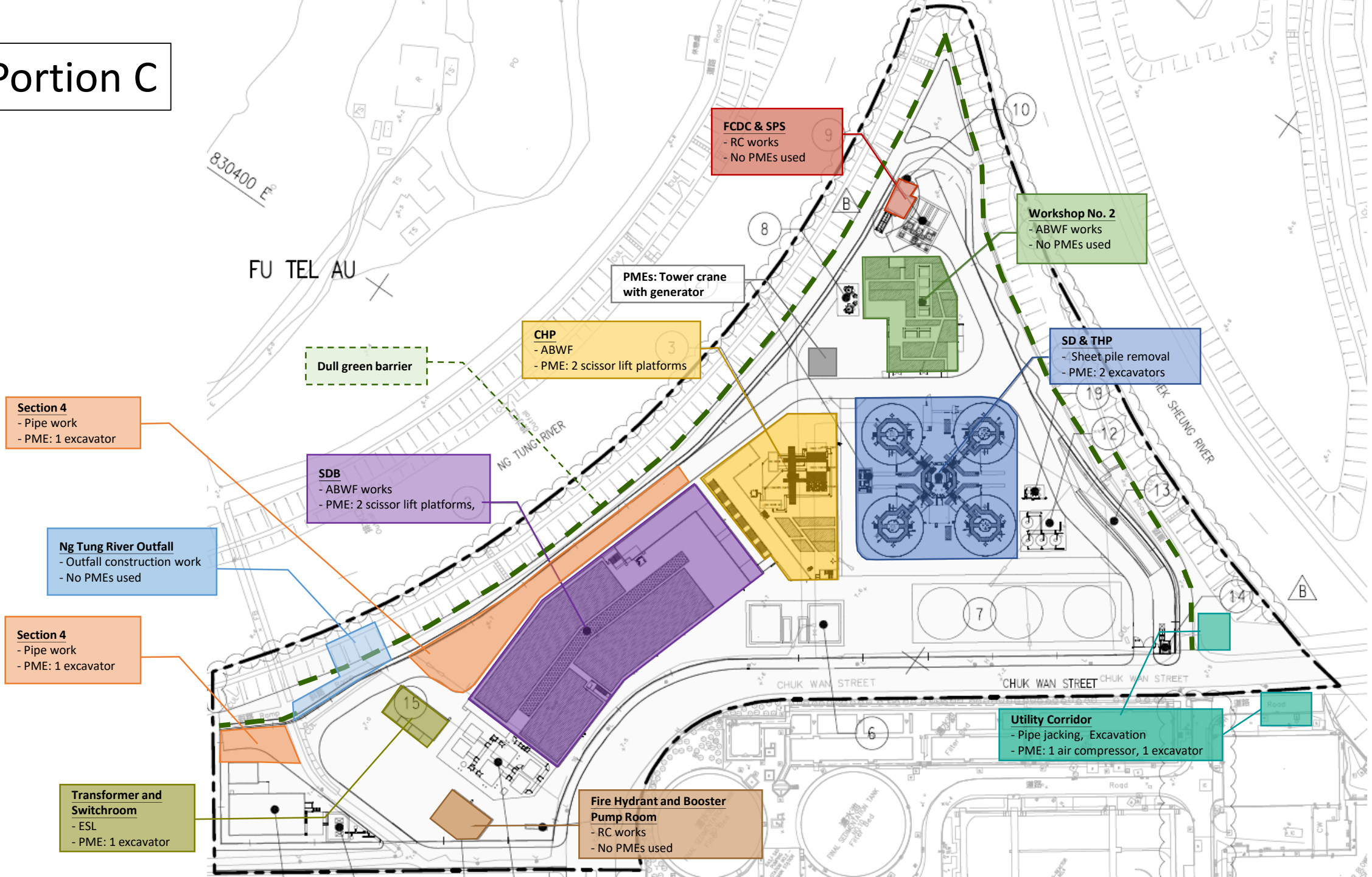
Bio Gas Tank

DE/2018/04

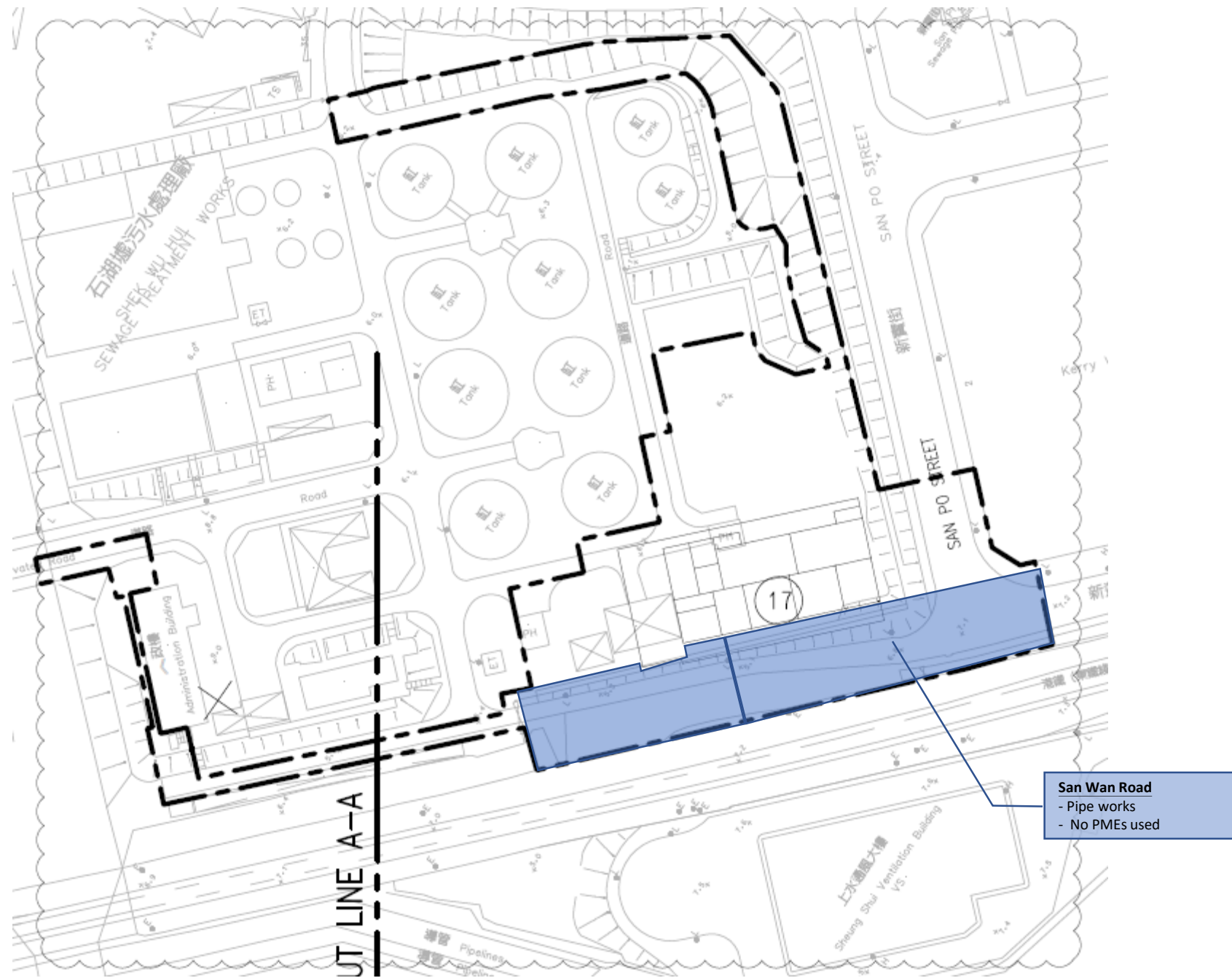


Compressor House

Portion C

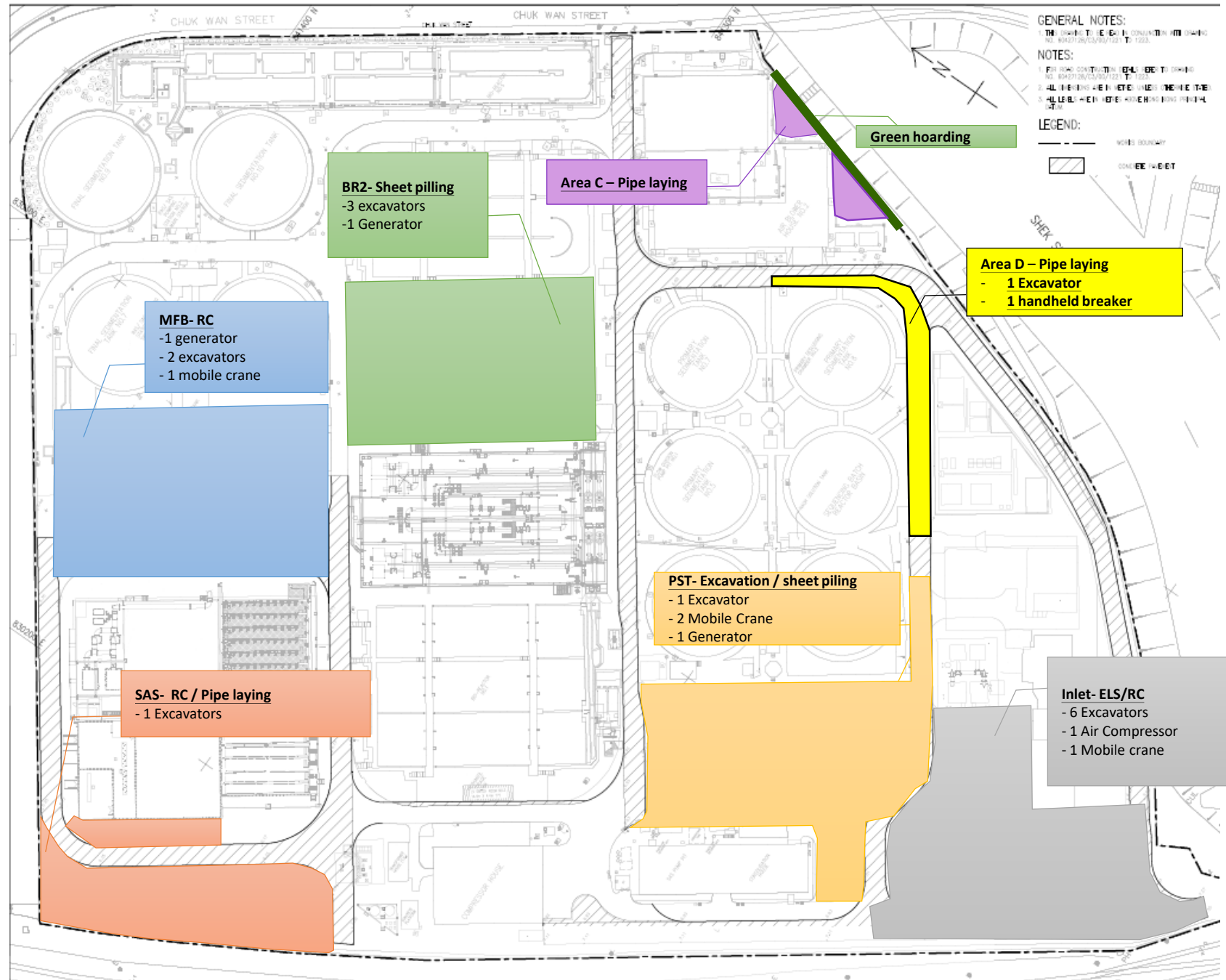


Portion A

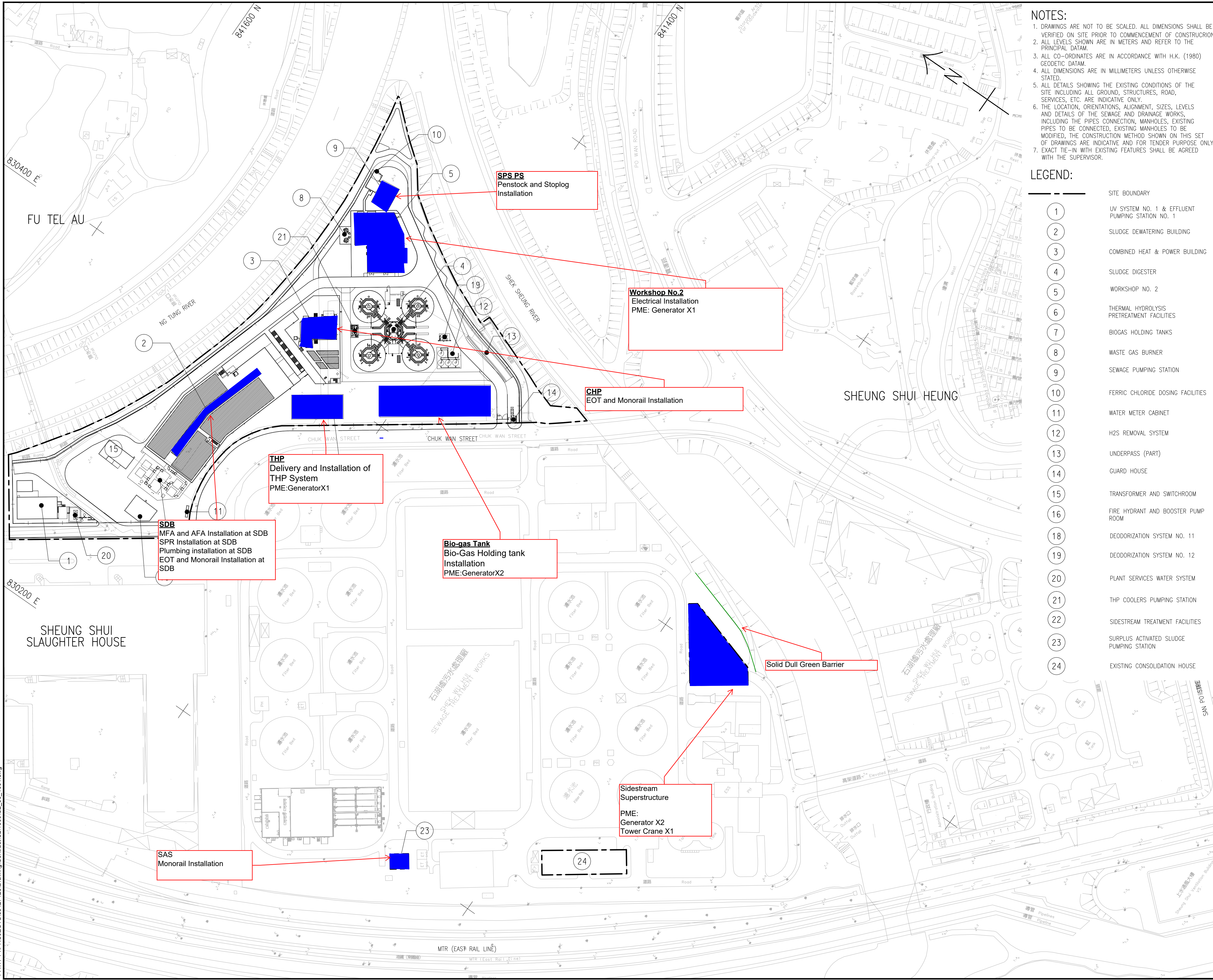


San Wan Road
- Pipe works
- No PMEs used

Portion B



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 Project Management Initials: Designer: KYTM Checked: TLST Approved: ELIM
 ISO A1 594mm x 841mm



- 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
 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
 渠務署
 Drainage Services Department

CONSULTANT
 AECOM Asia Company Ltd.
 www.aecom.com

SUB-CONSULTANTS
 分判工程師有限公司

ISSUE/REVISION

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

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DIMENSION UNIT
 METRES

KEY PLAN

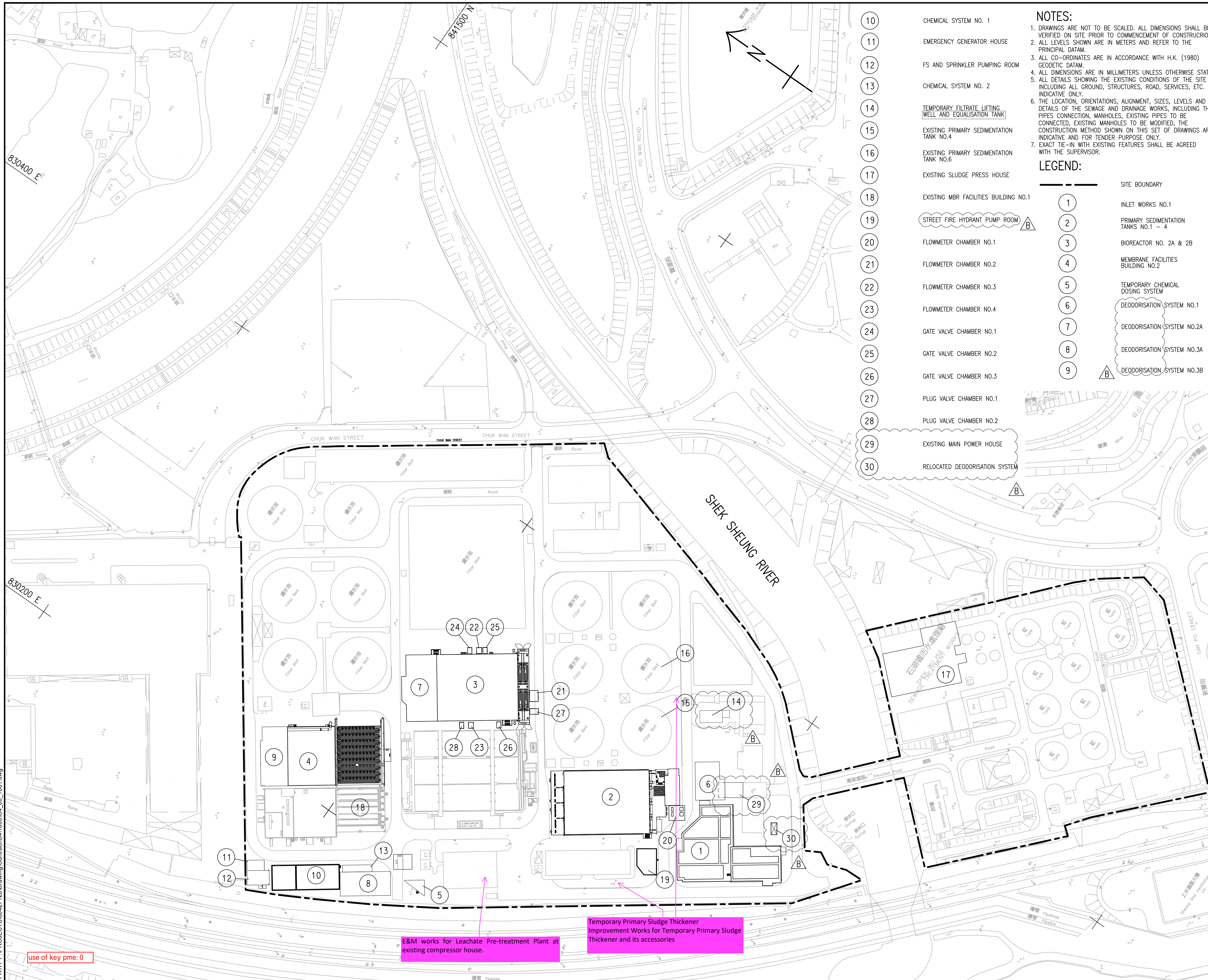
PROJECT NO.
 60427128

CONTRACT NO.
 DE/2018/03

SHEET TITLE
 SHEK WU HUI EFFLUENT POLISHING PLANT GENERAL LAYOUT PLAN

SHEET NUMBER
 60427128/C2/00/1001

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- 10 CHEMICAL SYSTEM NO. 1
- 11 EMERGENCY GENERATOR HOUSE
- 12 FS AND SPRINKLER PUMP ROOM
- 13 CHEMICAL SYSTEM NO. 2
- 14 TEMPORARY FILTRATE LIFTING WELL AND EQUALISATION TANK
- 15 EXISTING PRIMARY SEDIMENTATION TANK NO.4
- 16 EXISTING PRIMARY SEDIMENTATION TANK NO.6
- 17 EXISTING SLUDGE PRESS HOUSE
- 18 EXISTING MBR FACILITIES BUILDING NO.1
- 19 STREET FIRE HYDRANT PUMP ROOM
- 20 FLOWMETER CHAMBER NO.1
- 21 FLOWMETER CHAMBER NO.2
- 22 FLOWMETER CHAMBER NO.3
- 23 FLOWMETER CHAMBER NO.4
- 24 GATE VALVE CHAMBER NO.1
- 25 GATE VALVE CHAMBER NO.2
- 26 GATE VALVE CHAMBER NO.3
- 27 PLUG VALVE CHAMBER NO.1
- 28 PLUG VALVE CHAMBER NO.2
- 29 EXISTING MAIN POWER HOUSE
- 30 RELOCATED DEODORISATION SYSTEM

NOTES:

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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

AECOM

PROJECT
 SHEK WU HUI EFFLUENT POLISHING PLANT

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

CLIENT
 渠務署
 Drainage Services Department

CONSULTANT
 土製顧問公司
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 www.aecom.com

SUB-CONSULTANTS
 分判工程師有限公司

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
 階段

SCALE
 比例
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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/2018/04

SHEET TITLE
 圖紙名稱
 GENERAL LAYOUT PLAN

SHEET NUMBER
 圖紙編號
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Use of key pme: 0

E&M works for Leachate Pre-treatment Plant at existing compressor house.

Temporary Primary Sludge Thickener Improvement Works for Temporary Primary Sludge Thickener and its accessories





May 2023



Site Record Photos



DC/2018/06

			
SD&THP	CHP	SDB	Outfall

DC/2018/07

		
BR2	MFB	PST



DE/2018/03



Sidestream



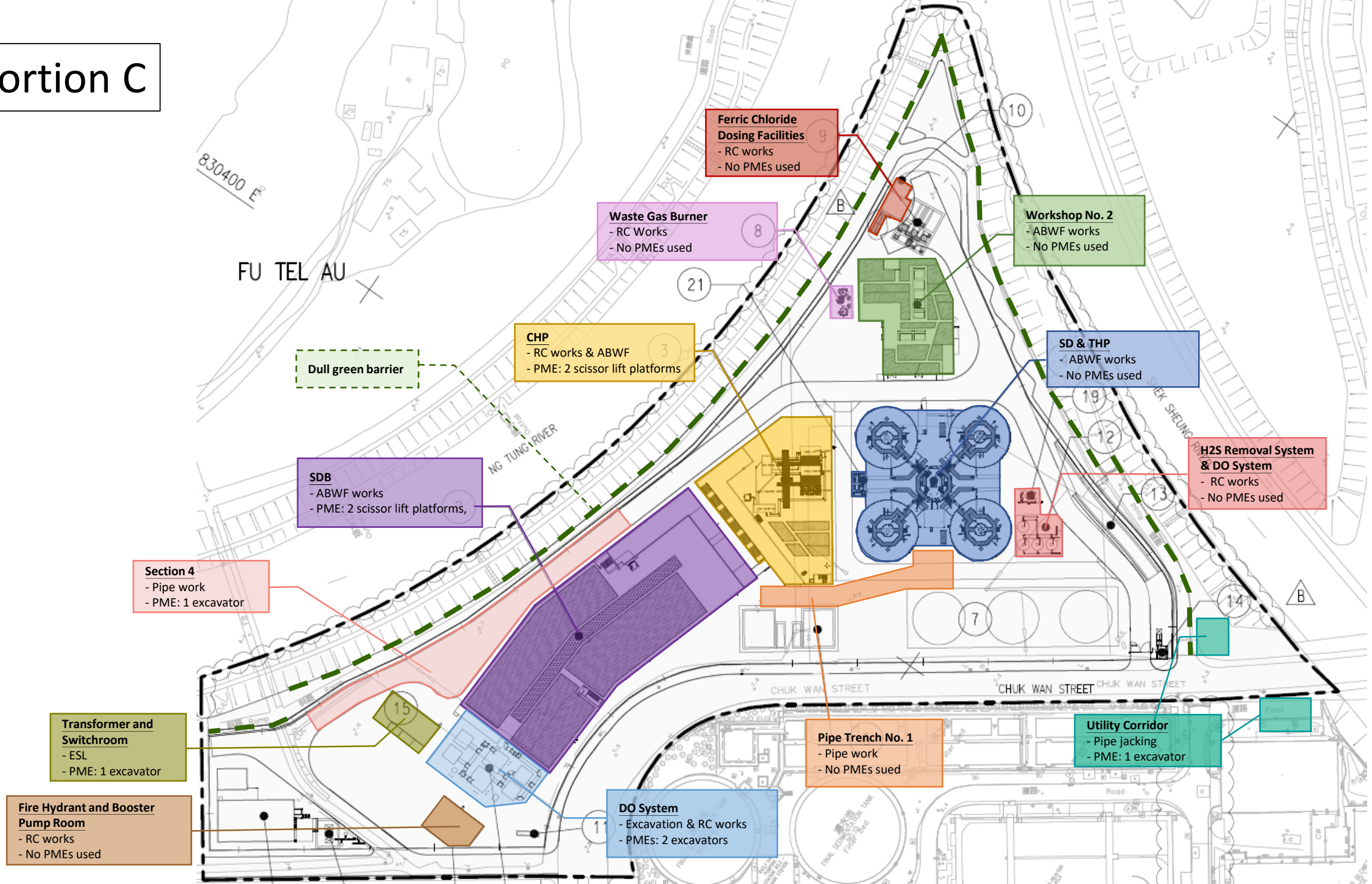
Bio Gas Tank

DE/2018/04

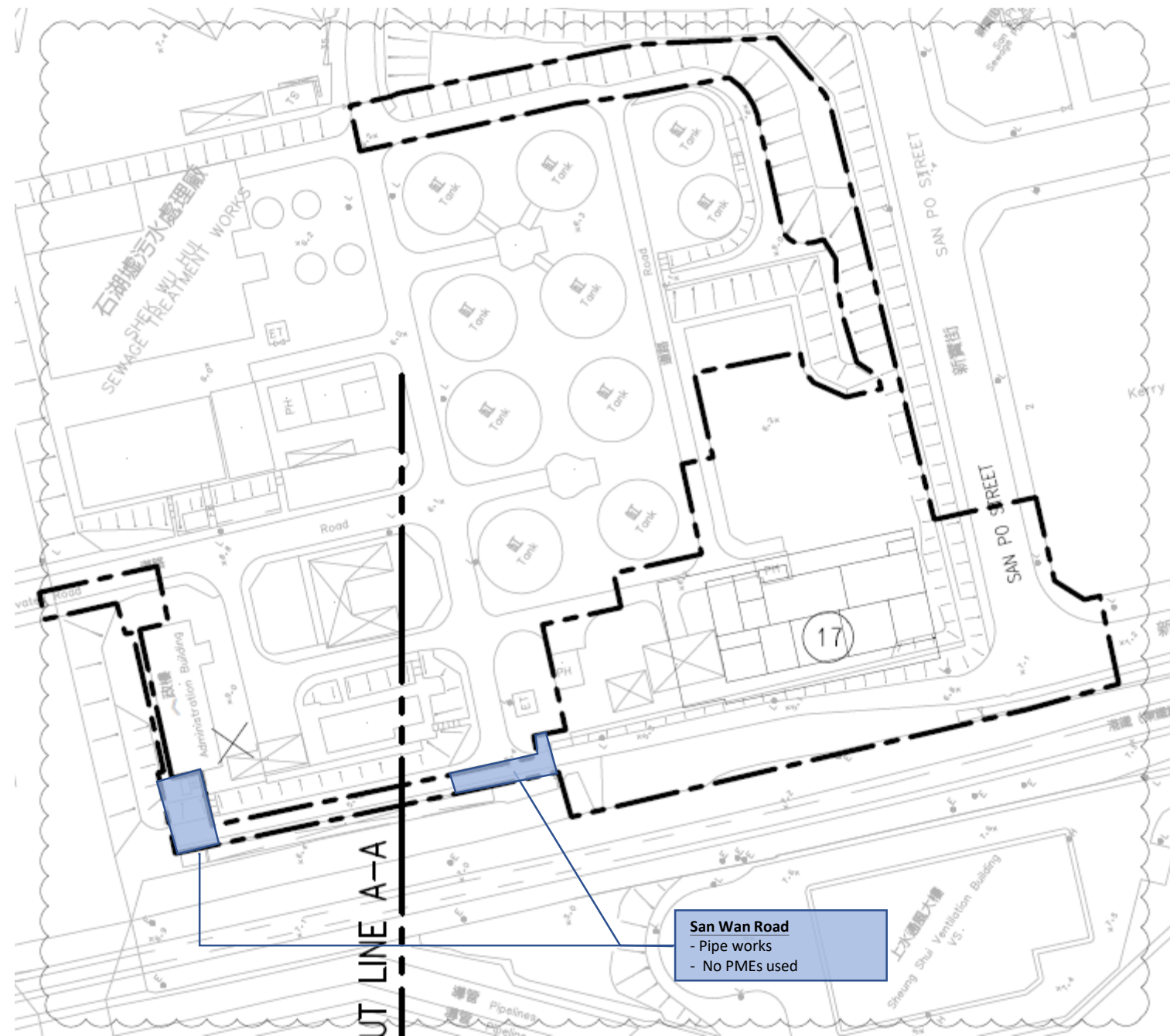


Compressor House

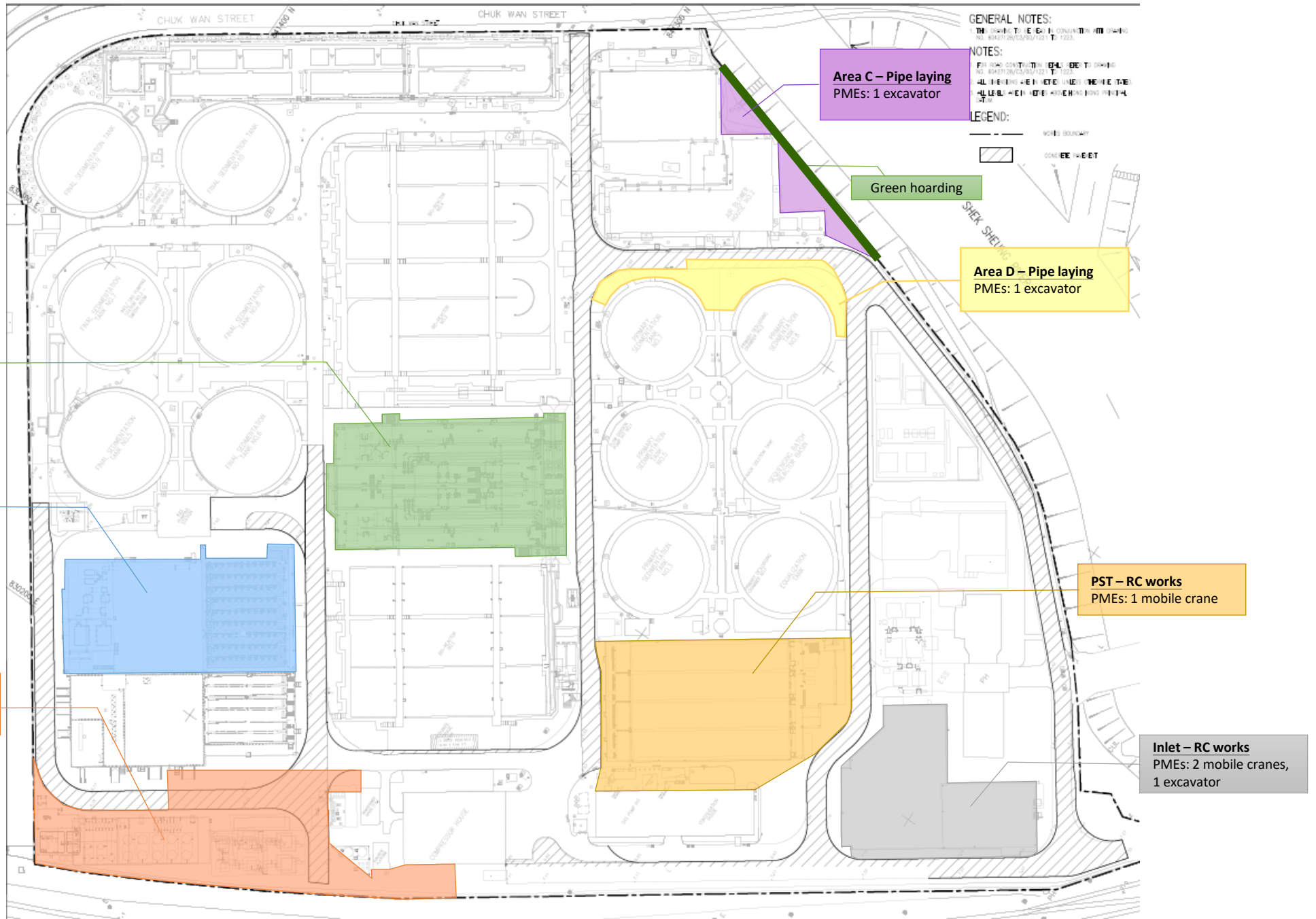
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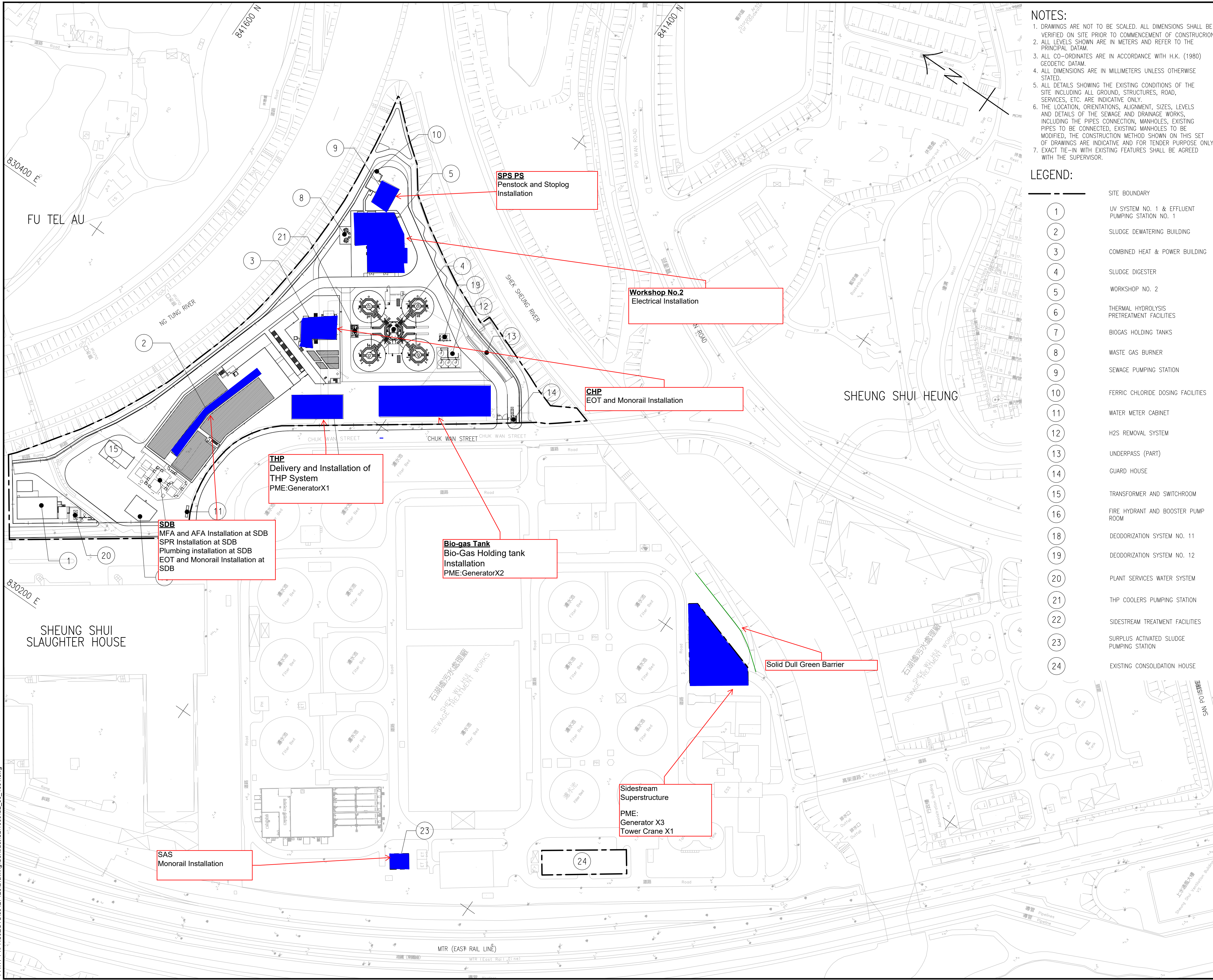
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Portion B



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㉓	SURPLUS ACTIVATED SLUDGE PUMPING STATION
㉔	EXISTING CONSOLIDATION HOUSE



PROJECT
 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

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SCALE
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 METRES

KEY PLAN

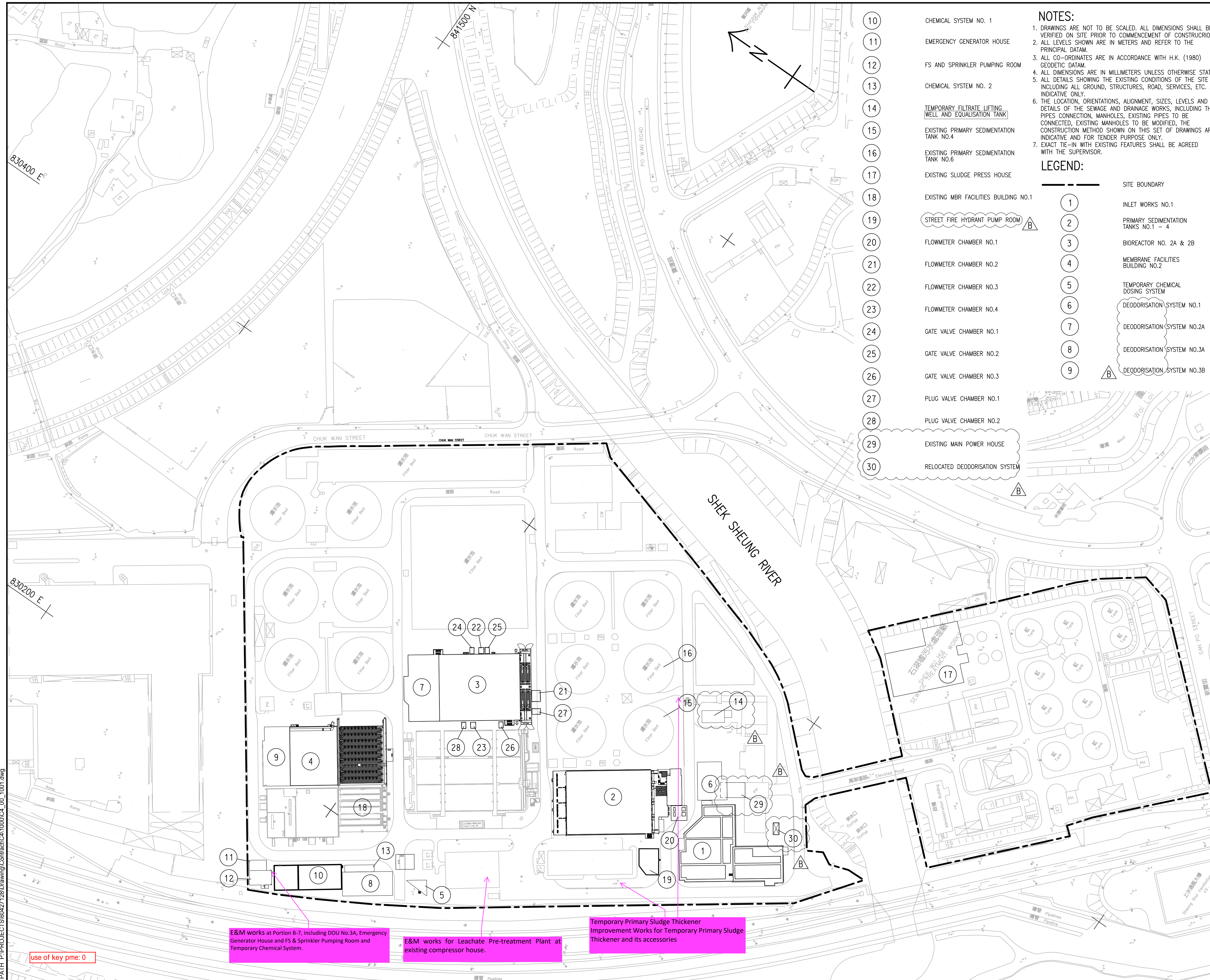
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SHEET TITLE
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 - 9 DEODORISATION SYSTEM NO.3A
 - 10 DEODORISATION SYSTEM NO.3B

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PROJECT
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SCALE
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DIMENSION UNIT
 METRES

KEY PLAN
 索引圖

PROJECT NO.
 項目編號
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CONTRACT NO.
 合約編號
 DE/2018/04

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 圖紙名稱
 GENERAL LAYOUT PLAN

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E&M works at Portion B-7, including DOU No.3A, Emergency Generator House and FS & Sprinkler Pumping Room and Temporary Chemical System.

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June 2023



Site Record Photos


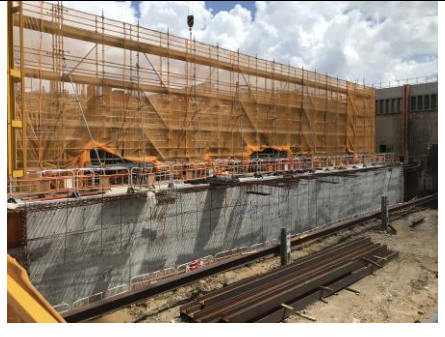






DC/2018/06

			
SD&THP	CHP	SDB	Outfall

DC/2018/07

			
BR2	MFB	PST	Inlet

DE/2018/03



Sidestream



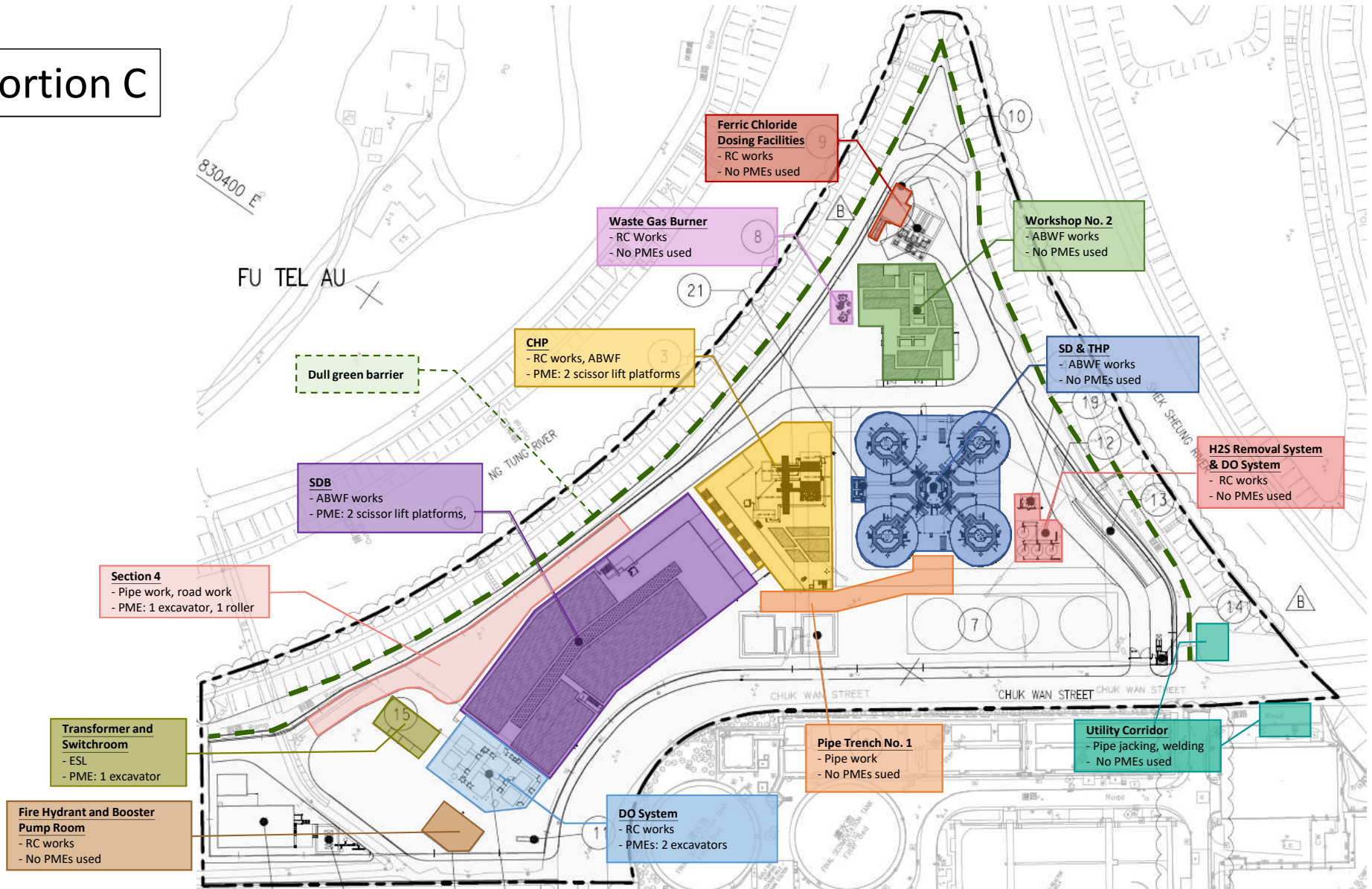
Bio Gas Tank

DE/2018/04

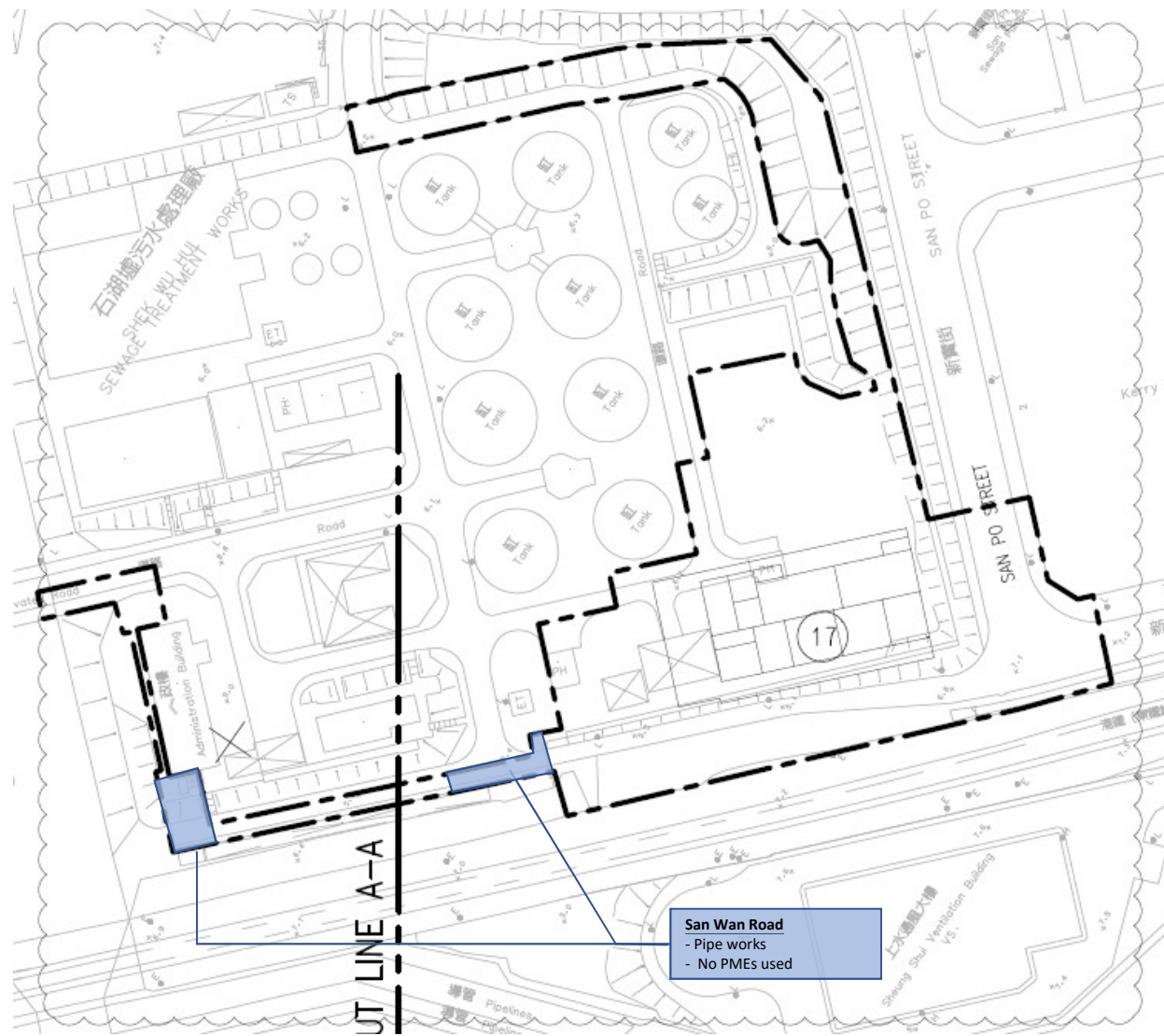


Compressor House

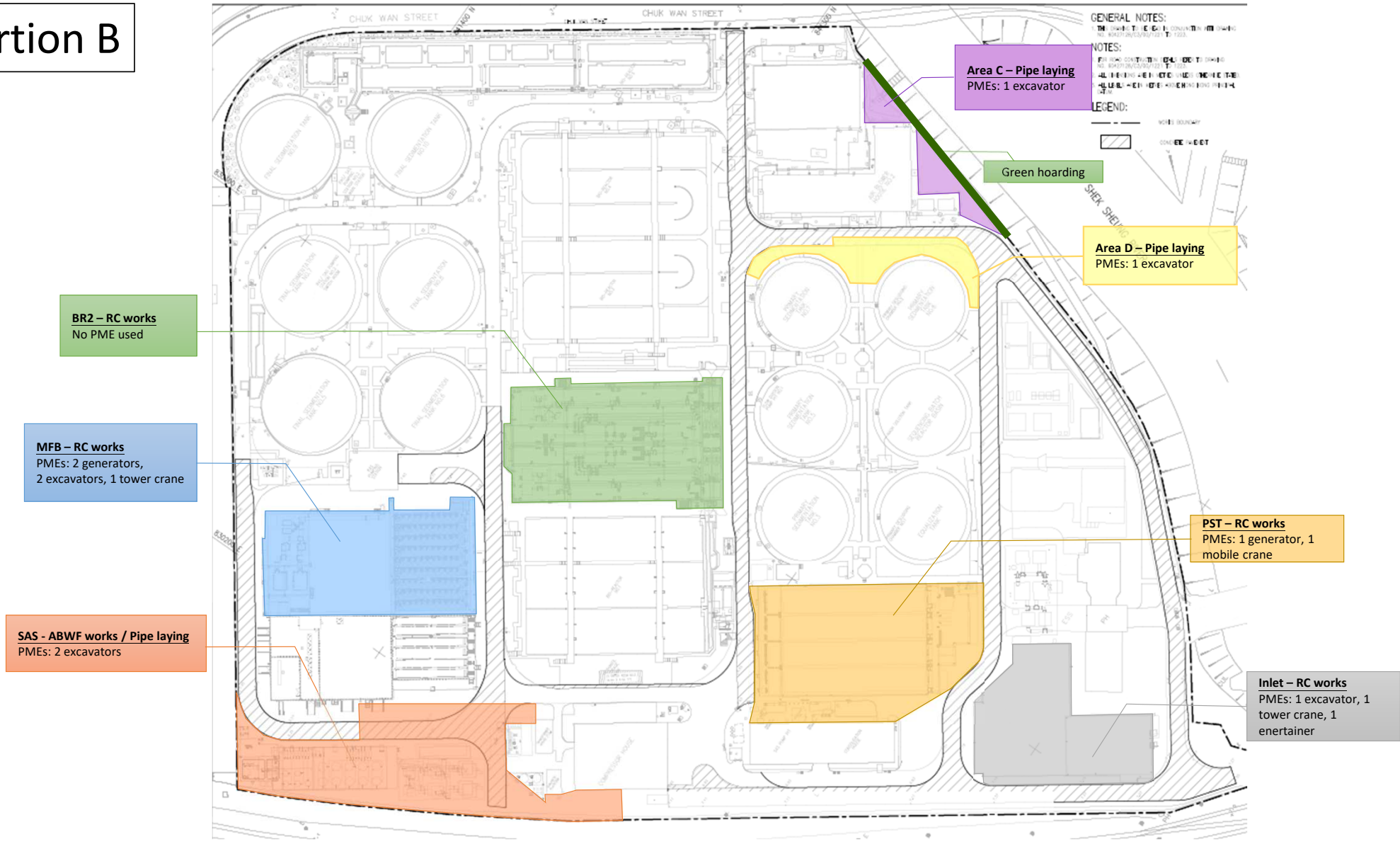
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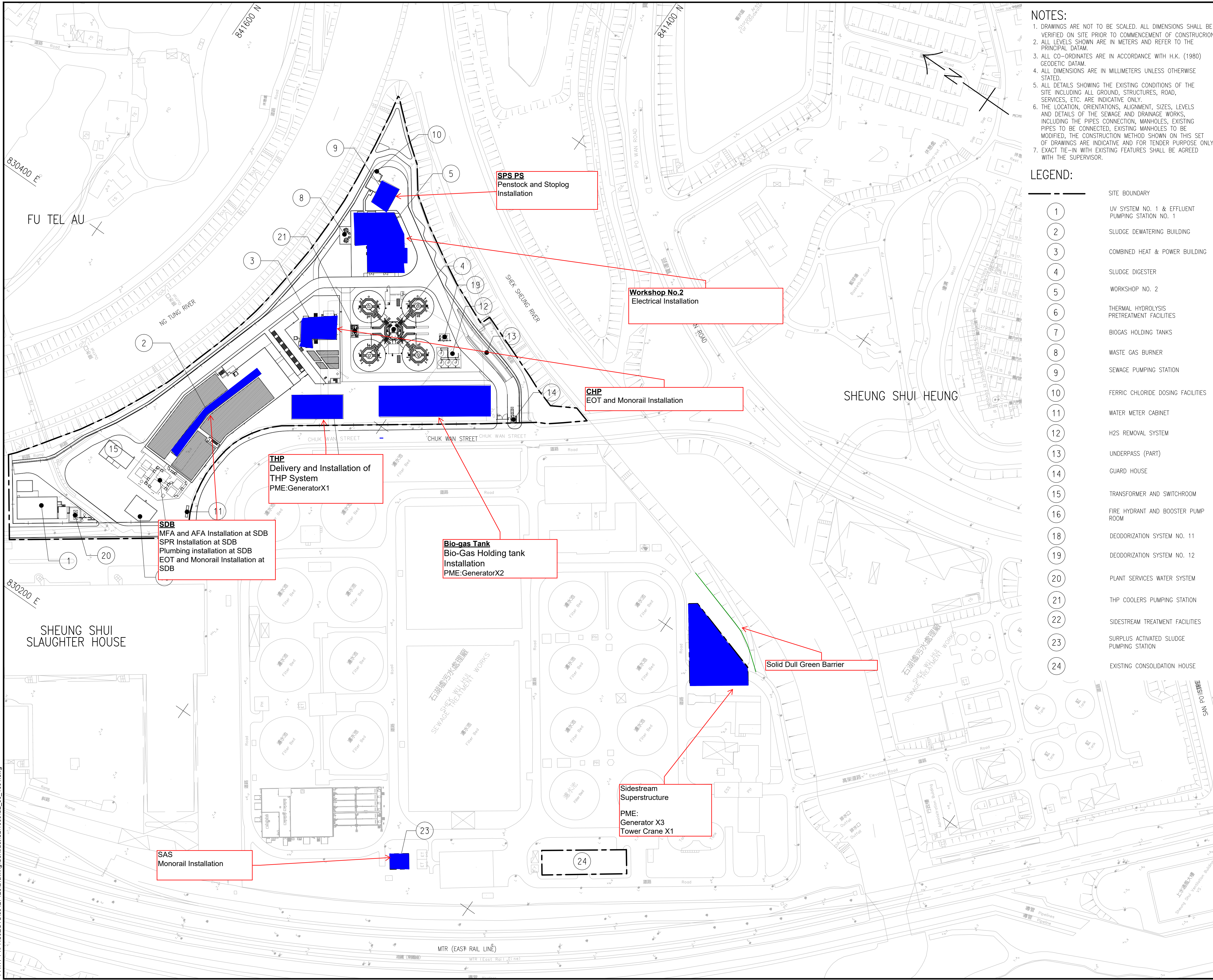
Portion A



Portion B



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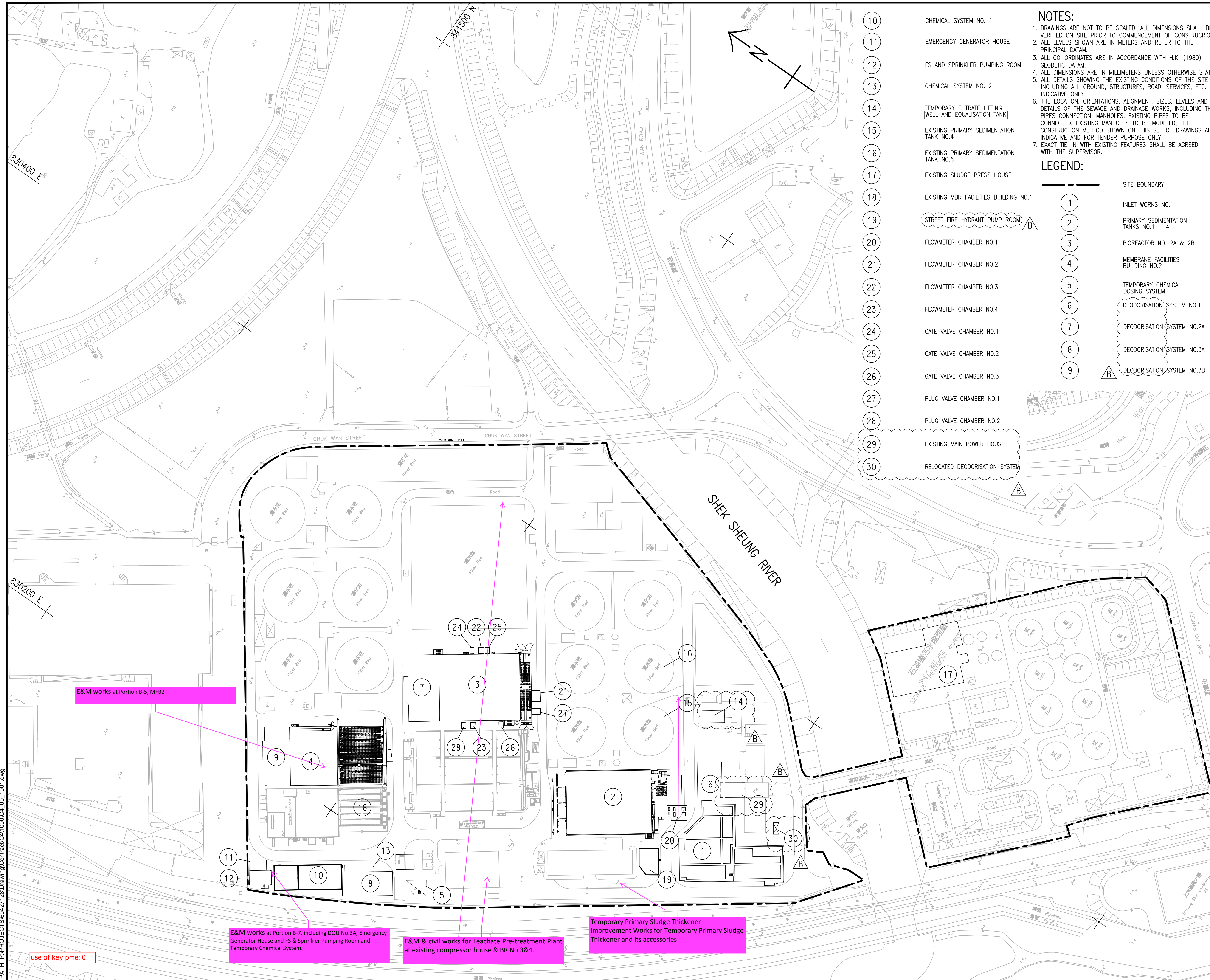
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CONTRACT TITLE
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KEY PLAN
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 項目編號: 60427128

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use of key pme: 0

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E&M & civil works for Leachate Pre-treatment Plant at existing compressor house & BR No 3&4.

Temporary Primary Sludge Thickener Improvement Works for Temporary Primary Sludge Thickener and its accessories

E&M works at Portion B-5, MFB2



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
		AM2 – Fu Tei Au	
24-hour TSP	Once every 6 days	AM1a* - Site boundary of the Shek Wu Hui STW (East), Roof floor of the control room of SWHSTW ⁽¹⁾	Roof floor
		AM2a - Site Boundary of the Shek Wu Hui STW (North)	Ground level

Remarks

- (1) Due to close proximity to construction works and heavy machines, presence of physical barrier and safety concerns, find adjustment for the location of AM1a was proposed in accordance to Section 2.2.4.6 of the EM&A Manual. It was adjusted from the ground level near the control room of SWHSTW to the roof floor of that control room. The proposal has sought approval from ER and IEC, and agreement from EPD in May 2022.

Noise Monitoring

Parameter	Frequency	Location	Measurement Conditions
Leq, L90 & L10 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	Transect T1	Along Ng Tung River	No
	Point Count Location P1		



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.	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

Water Quality Monitoring

Parameter	Frequency	Location	Measurement Conditions
Dissolved oxygen (DO), salinity, temperature, turbidity and pH shall be measured in situ while suspended solids (SS) is determined by laboratory analysis at all the designated monitoring stations.	Three days per week when construction works at the outfall at Ng Tung River	M1	Impact Station, downstream of the proposed outfall
		C1	Control Station, upstream of the proposed outfall



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.



Water Quality Monitoring

Parameter (Unit)	Depth	Action Level	Limit Level
DO (mg/L)	Middle	≤ 7.8 mg/L	≤ 7.7 mg/L
Turbidity (NTU)	Depth- average	≥ 14.6 NTU or 120% of upstream control station's Turbidity at the same tide of the same day	≥ 15.6 NTU or 130% of upstream control station's Turbidity at the same tide of the same day
SS (mg/L)	Depth- average	≥ 18.8 mg/L or 120% of upstream control station's SS at the same tide of the same day	≥ 19.5 mg/L or 130% of upstream control station's SS at the same tide of the same day



Appendix 3.3

Environmental Mitigation Implementation Schedule

Appendix 3.3 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:	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	^
	<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. 						^
	<ul style="list-style-type: none"> Silencers or mufflers on construction equipment should be utilized and should be properly maintained during the construction program. 						^
	<ul style="list-style-type: none"> Mobile plant, if any, should be sited as far away from NSRs as possible. 						^
	<ul style="list-style-type: none"> 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. 						^
	<ul style="list-style-type: none"> 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. 						^
<ul style="list-style-type: none"> Material stockpiles and other structures should be effectively utilized, wherever practicable, in screening noise from on-site construction activities. 	^						

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
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. 	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"> The use of wooden hoardings shall not be allowed. An alternative material, such as metal, aluminium or alloy etc, could be used. 	^						
<ul style="list-style-type: none"> 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. 	^						
<ul style="list-style-type: none"> 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. 	^						
S6.2.5.4	Chemical Waste						
	<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. 	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	^
	<ul style="list-style-type: none"> 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. 						^
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	<ul style="list-style-type: none"> ^ ^ ^ ^

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	MM11 - Screen Planting <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	MM16 - Screen Hoarding <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	MM17 - Light Control <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



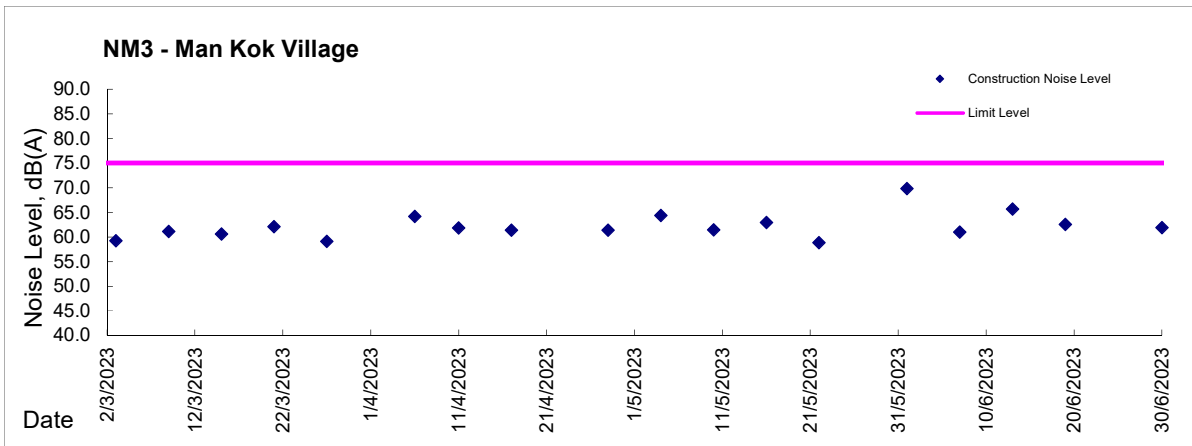
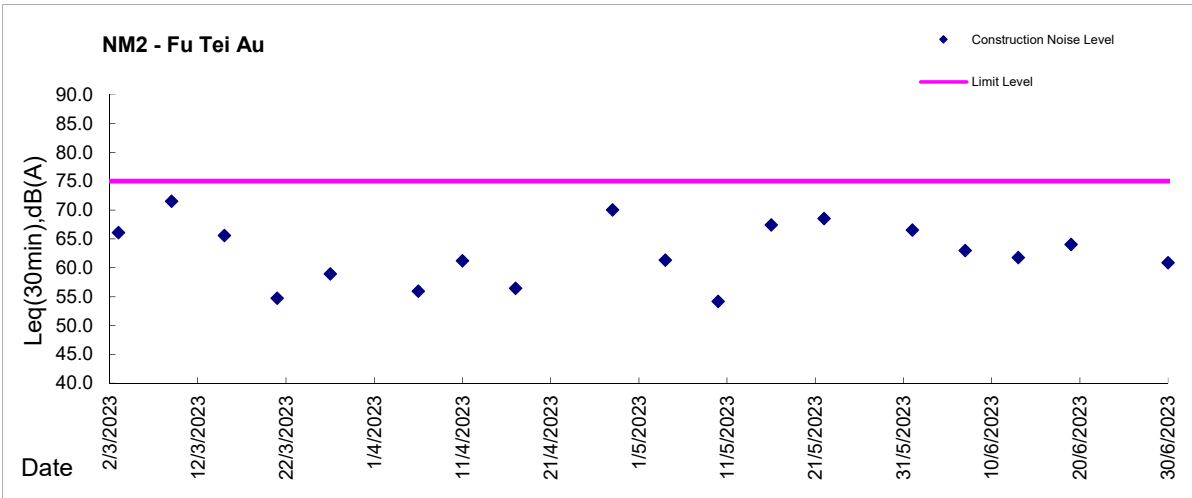
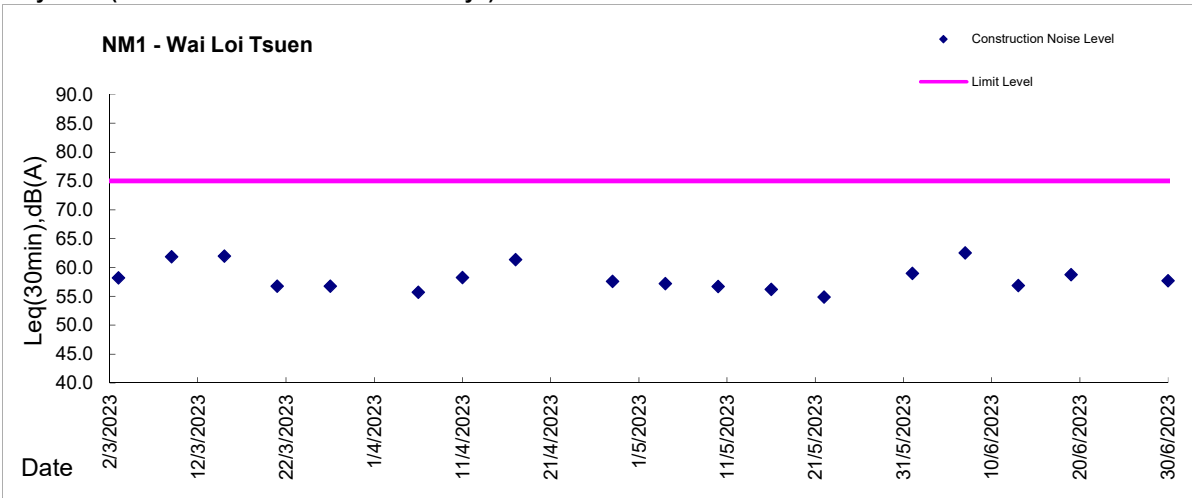
Appendix 3.4

Noise Monitoring Graphical Presentations



Graphic Presentation of Noise Monitoring Result

Day Time (0700 - 1900hrs on normal weekdays)



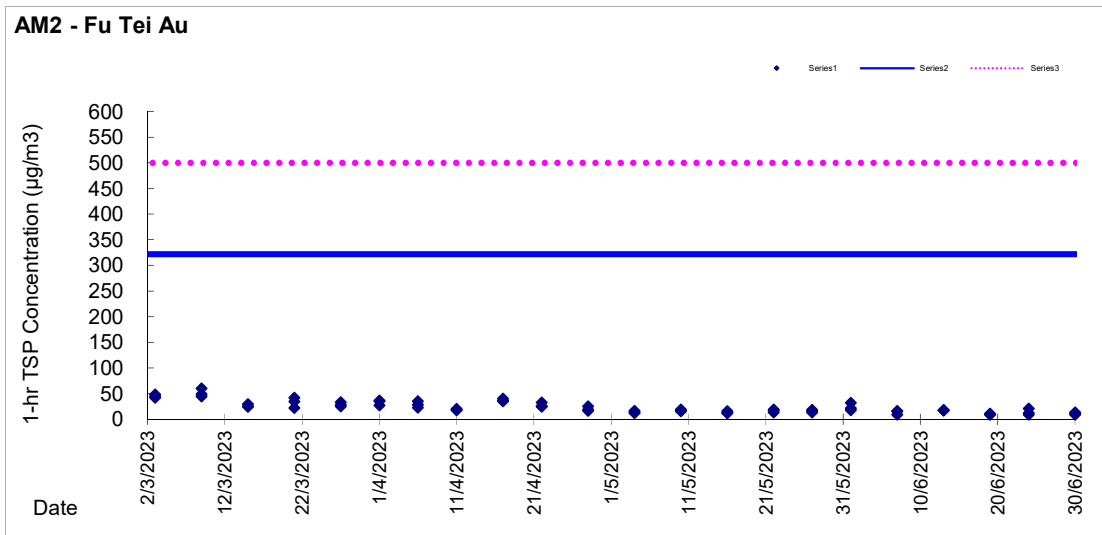
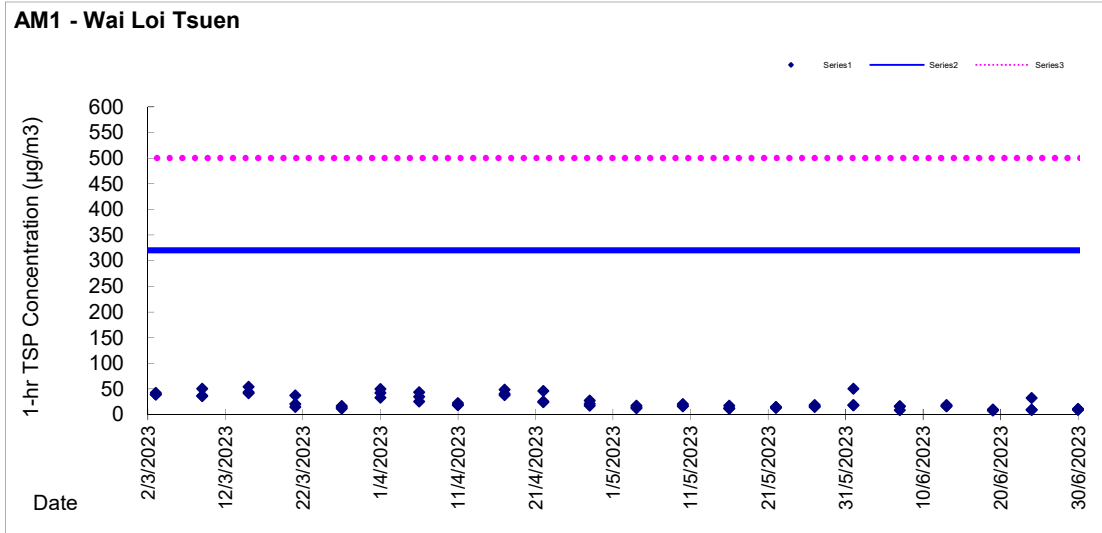


Appendix 3.5

Air Quality Monitoring Graphical Presentations

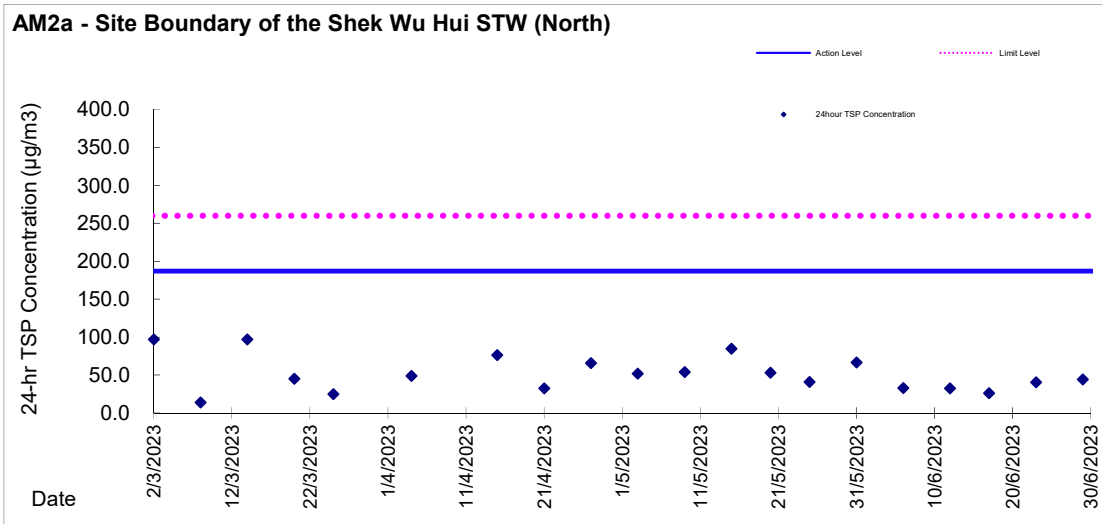
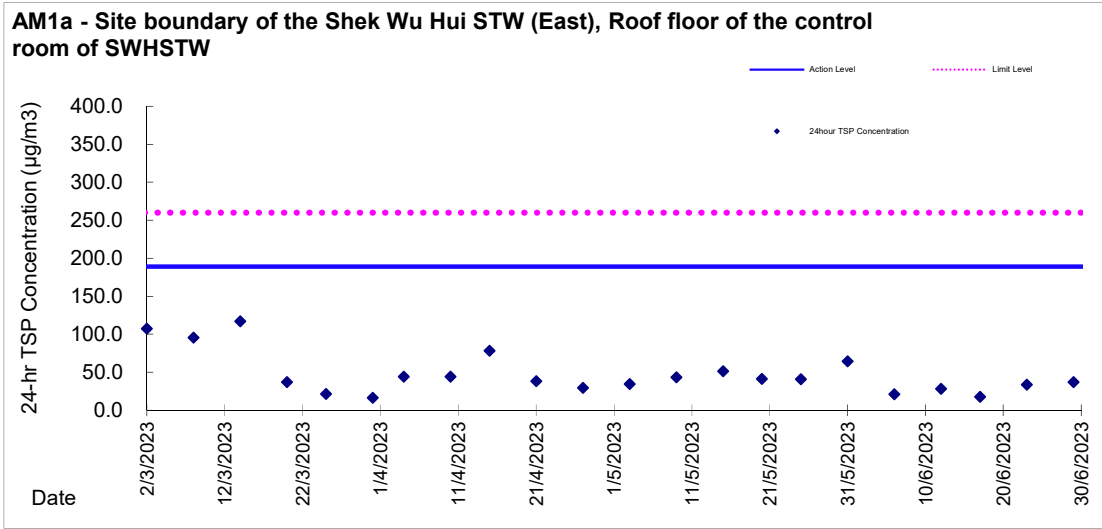


Graphic Presentation of TSP Result





Graphic Presentation of TSP Result



1. 24hr-TSP monitoring at AM2a was suspended on 10 Apr 2023 due to power failure.



Appendix 3.6

Details of Ecological Monitoring Results in the Reporting Period



Details of Ecological Monitoring Results in the Reporting Quarter

Reporting period: April to June 2023

Summary Result of T-Test Analysis for All Waterbird

Month	T-values of Data		Confidence Level (Critical Value)	
			95% (-2.353)	99% (-4.541)
April 2023	Abundance	Monthly	✓	✓
		Seasonal	✓	✓
		Overall	✓	✓

Month	T-values of Data		Confidence Level (Critical Value)	
			95% (-2.353)	99% (-4.541)
May 2023	Abundance	Monthly	✓	✓
		Seasonal	✓	✓
		Overall	✓	✓

Month	T-values of Data		Confidence Level (Critical Value)	
			95% (-2.132)	99% (-3.747)
June 2023	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	April 2023	May 2023	June 2023
<i>Egretta garzetta</i>	Little Egret	小白鷺	✓	✓	✓
<i>Ardea cinerea</i>	Grey Heron	蒼鷺	NA*		
<i>Ardeola bacchus</i>	Chinese Pond Heron	池鷺	✓	✓	✓
<i>Phalacrocorax carbo</i>	Great Cormorant	普通鸕鶿	NA*		
<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.

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

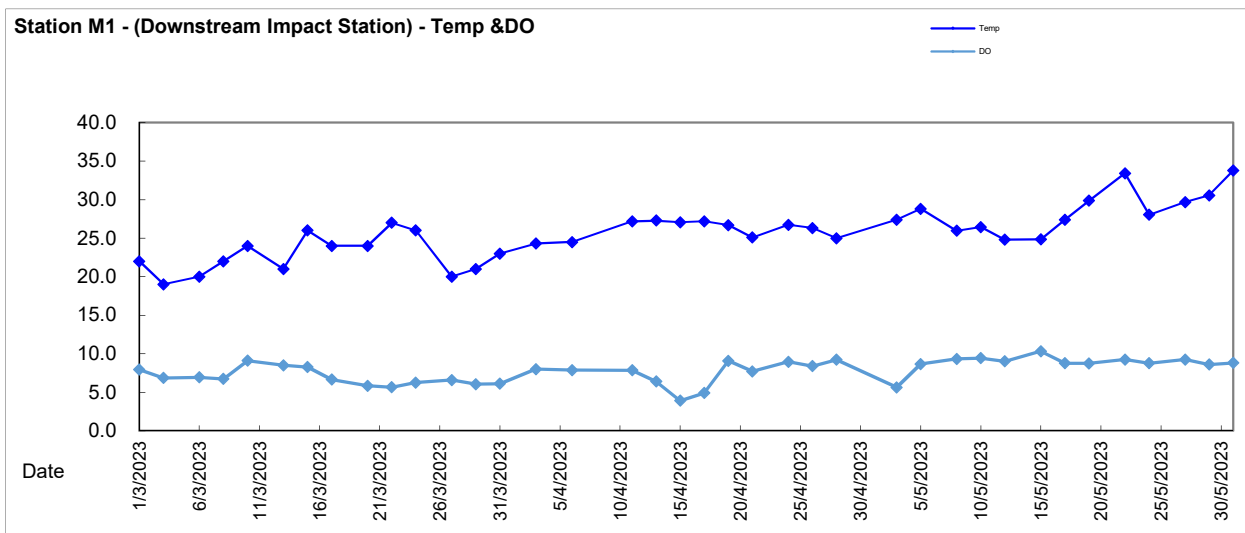
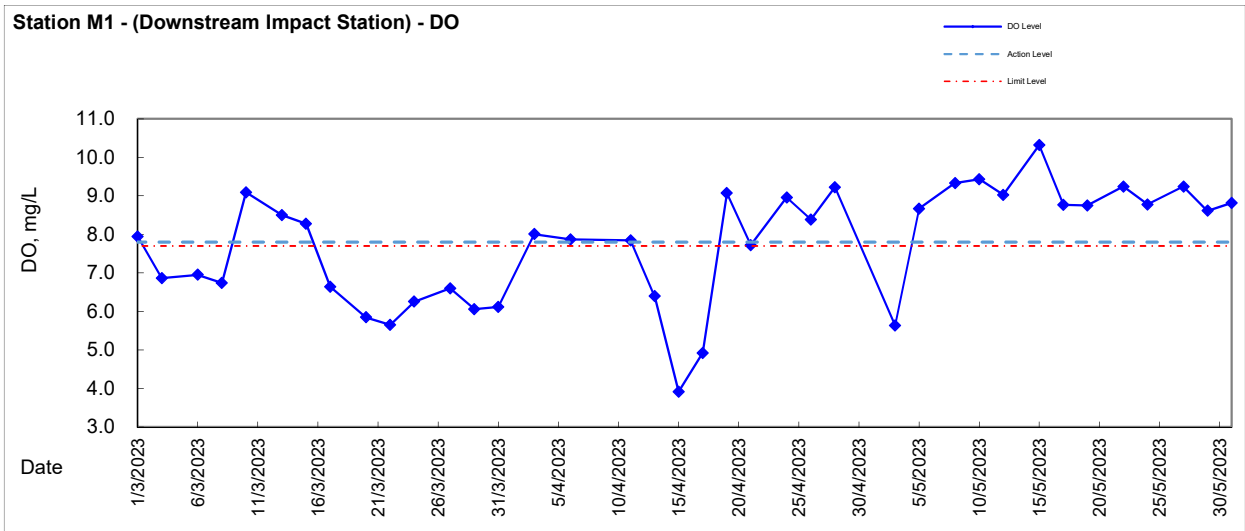


Appendix 3.7

Water Quality Monitoring Graphical Presentations

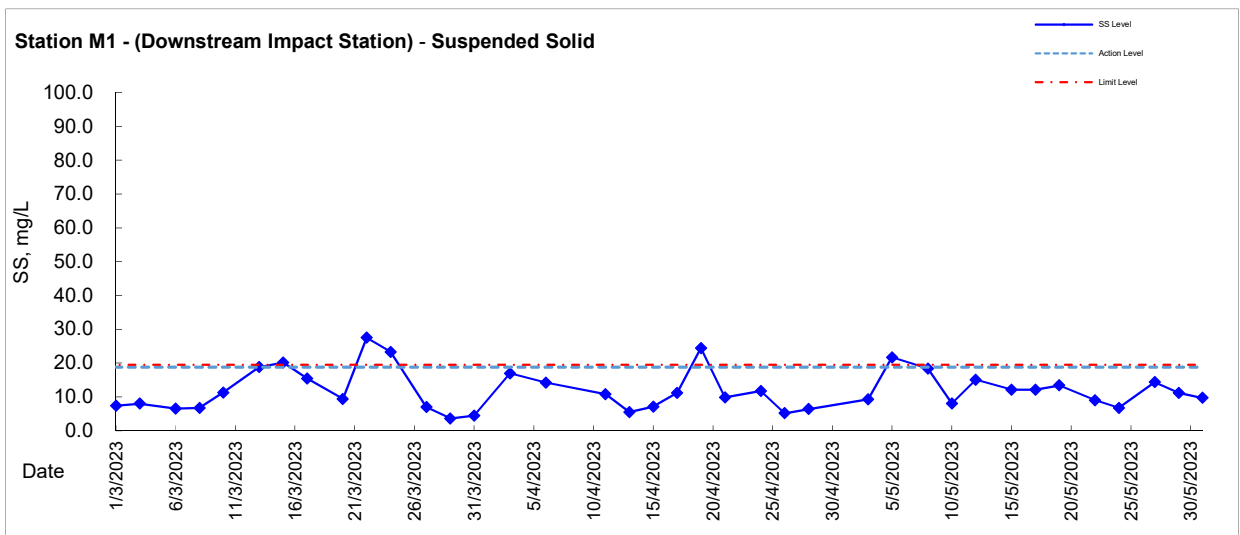
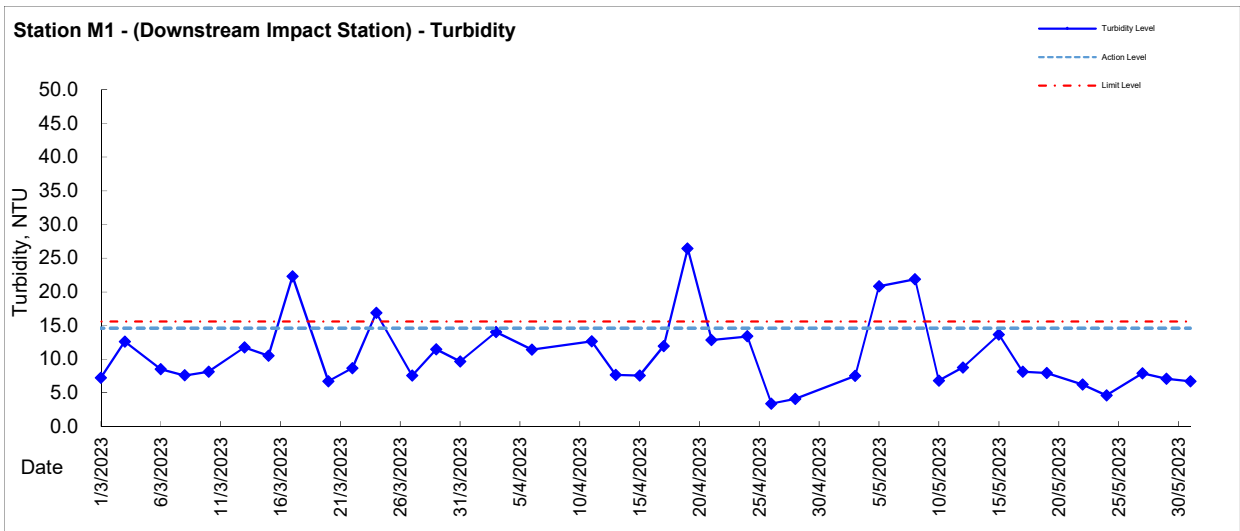


Graphic Presentation of WQM Result



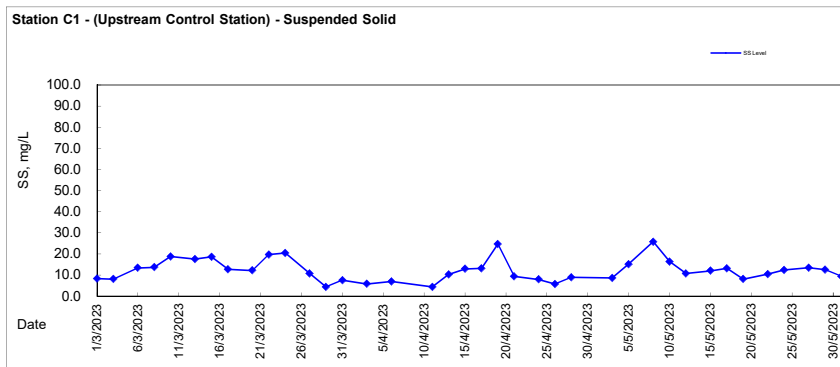
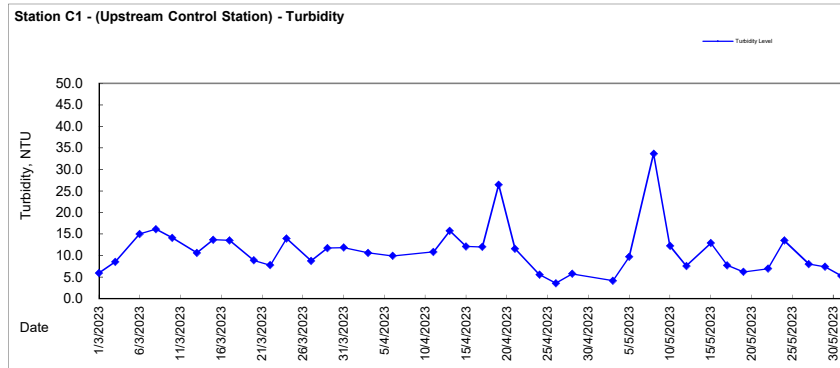
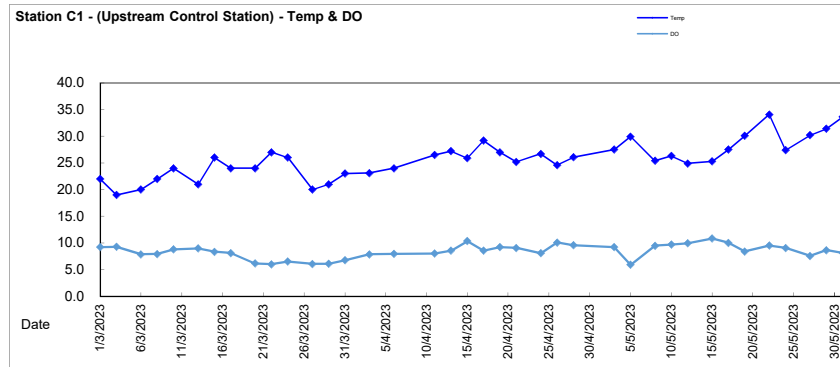
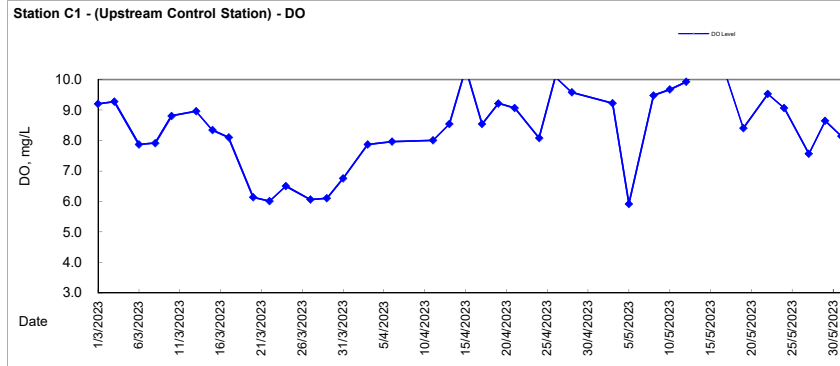


Graphic Presentation of WQM Result





Graphic Presentation of WQM Result



1. The water quality monitoring has been suspended since 1 June 2023.



Appendix 3.8

Waste Flow Table

Monthly Summary Waste Flow Table for 2023

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 '000m3)	(in '000m3)	(in '000m3)	(in '000m3)	(in '000m3)	(in '000m3)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m3)
Jan	0.442	0.000	0.000	0.000	0.442	3.796	0.000	0.000	0.000	0.000	0.061
Feb	1.381	0.000	0.000	0.000	1.381	2.962	0.000	0.000	0.000	0.000	0.078
Mar	2.528	0.000	0.000	0.000	2.528	3.530	0.000	0.000	0.000	0.000	0.090
Apr	1.633	0.000	0.000	0.000	1.633	0.280	0.000	0.000	0.000	0.000	0.083
May	2.067	0.000	0.000	0.000	2.067	0.791	0.000	0.000	0.000	0.000	0.073
Jun	1.013	0.000	0.000	0.000	1.013	0.250	0.000	0.000	0.000	0.000	0.084
Sub-total	9.064	0.000	0.000	0.000	9.064	11.609	0.000	0.000	0.000	0.000	0.469
Jul											
Aug											
Sep											
Oct											
Nov											
Dec											
Total	9.064	0.000	0.000	0.000	9.064	11.609	0.000	0.000	0.000	0.000	0.469

- 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 non-inert C&D wastes are disposed at NENT.

Monthly Summary Waste Flow Table for 2023

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	8.960	0.000	0.000	0.000	8.960	0.089	0.00	0.000	0.000	0.000	0.025
Feb	3.950	0.000	0.000	0.000	3.950	0.043	0.00	0.000	0.000	0.000	0.070
Mar	0.341	0.000	0.000	0.000	0.341	0.000	0.00	0.000	0.000	0.000	0.074
Apr	0.213	0.000	0.000	0.000	0.213	0.000	0.00	0.000	0.000	0.000	0.047
May	1.877	0.000	0.000	0.000	1.877	0.000	0.00	0.000	0.000	0.000	0.072
Jun	1.004	0.000	0.000	0.000	1.004	0.093	0.00	0.000	0.000	0.000	0.065
Sub-total	16.346	0.000	0.000	0.000	16.346	0.225	0.000	0.000	0.000	0.000	0.352
Jul											
Aug											
Sep											
Oct											
Nov											
Dec											
Total	16.346	0.000	0.000	0.000	16.346	0.225	0.000	0.000	0.000	0.000	0.352

- 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

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

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

Contract No.: DE/2018/03

Monthly Summary Waste Flow Table for 2023 (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	0	0	0	0	0	0	0	0.13	0	0	10.51T
Feb	0	0	0	0	0	0	0	0	0	0	17.33T
Mar	0	0	0	0	0	0	0	0.155	0.01	0	18.31T
Apr	0	0	0	0	0	0	4.81	0	0	0	12.62T
May	0	0	0	0	0	0	8.66	0.154	0	0	15.69T
June	0	0	0	0	0	0	75.09	0.155	0.01	0	33.4T
Sub-total	0	0	0	0	0	0	88.56	0.594	0.02	0	107.86t
July											
Aug											
Sept											
Oct											
Nov											
Dec											
Total	0	0	0	0	0	0	88.56	0.594	0.02	0	107.86t

Monthly Summary Waste Flow Table for 2023 (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	7.26	0	0	0	7.26	0	0	0	0	0	0
Feb	0	0	0	0	0	0	0	0	0	0	1.97
Mar	0	0	0	0	0	0	0	0	0	0	0
Apr	0	0	0	0	0	0	36.23	0	0	0.8	0
May	0	0	0	0	0	0	0	0	0	0	1.06
June	74.73	0	0	0	74.73	0	0	0	0	0	2.05
Sub-total	81.99	0	0	0	81.99	0	36.23	0	0	0.8	5.08
July											
Aug											
Sept											
Oct											
Nov											
Dec											
Total	81.99	0	0	0	81.99	0	36.23	0	0	0.8	5.08



Appendix 4.1

Summary of Notification of Exceedance



Summary for Notification of Exceedance

Reporting period: April to June 2023

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



Water Quality

Ref no.	Date	Location	Parameters (Unit)	Measured	Action Level	Limit Level	Follow-up action	Ref no.
SWH_047_w	3-Apr-23	M1	Turbidity (NTU)	14.04 NTU (Limit Level Exceedance)	>12.72 NTU (>120% of C1)	>13.78 NTU (>130% of C1)	Cause of Exceedance:	Rubbish and debris trapped by the concrete blocks placed between the control station and the monitoring station.
			SS (mg/L)	17.00 mg/L (Limit Level Exceedance)	>7.02 mg/L (>120% of C1)	>7.61 mg/L (>130% of C1)	ET's conclusions and recommendations for mitigation: Contractor's actions to implement the mitigation:	Exceedance not related to project, advised contractor to maintain on-going water mitigation measures. Construction activities were checked; Outfall was checked and no soil or water dropped from outfall was observed.
		C1 (Control Station for comparing to the impact station - M1)	Turbidity (NTU) SS (mg/L)	10.60 NTU 5.85 mg/L			Action taken under EAP:	1. ET repeated in situ measurement immediately to confirm findings, the difference between 1st and 2nd monitoring results was very small. 2. ET checked the monitoring data, plant and equipment, and no abnormality was identified. 3. According to ET's field staff's on site observation and the record of ER's site diary, no works have been conducted at the outfall. 4. ET checked the site boundary near the Ng Tung River and did not discover any discharge of muddy water or site runoff from the site. 5. After the recording of the exceedance, ET tried to identify the source of the exceedance immediately, the only pollution identified was the large amount of rubbish and debris trapped by the concrete blocks placed between the control station and the monitoring station. 6. Notification of Exceedance was sent to IEC and ER.
SWH_048_w	6-Apr-23	M1	SS (mg/L)	14.25 mg/L (Limit Level Exceedance)	>8.40 mg/L (>120% of C1)	>9.10 mg/L (>130% of C1)	Cause of Exceedance:	Rubbish and debris trapped by the concrete blocks placed between the control station and the monitoring station.
							ET's conclusions and recommendations for mitigation: Contractor's actions to implement the mitigation:	Exceedance not related to project, advised contractor to maintain on-going water mitigation measures. Construction activities were checked; Outfall was checked and no soil or water dropped from outfall was observed.
		C1 (Control Station for comparing to the impact station - M1)	SS (mg/L)	7.00 mg/L			Action taken under EAP:	1. ET repeated in situ measurement immediately to confirm findings, the difference between 1st and 2nd monitoring results was very small. 2. ET checked the monitoring data, plant and equipment, and no abnormality was identified. 3. According to ET's field staff's on site observation and the record of ER's site diary, no works have been conducted at the outfall. 4. ET checked the site boundary near the Ng Tung River and did not discover any discharge of muddy water or site runoff from the site. 5. After the recording of the exceedance, ET tried to identify the source of the exceedance immediately, the only pollution identified was the large amount of rubbish and debris trapped by the concrete blocks placed between the control station and the monitoring station. 6. Notification of Exceedance was sent to IEC and ER.
SWH_049_w	11-Apr-23	M1	SS (mg/L)	10.85 mg/L (Limit Level Exceedance)	>5.28 mg/L (>120% of C1)	>5.72 mg/L (>130% of C1)	Cause of Exceedance:	Rubbish and debris trapped by the concrete blocks placed between the control station and the monitoring station.



							<p>ET's conclusions and recommendations for mitigation:</p> <p>Contractor's actions to implement the mitigation:</p>	<p>Exceedance not related to project, advised contractor to maintain on-going water mitigation measures.</p> <p>Construction activities were checked; Outfall was checked and no soil or water dropped from outfall was observed.</p>
		C1 (Control Station for comparing to the impact station - M1)	SS (mg/L)	4.40 mg/L			<p>Action taken under EAP:</p>	<ol style="list-style-type: none"> ET repeated in situ measurement immediately to confirm findings, the difference between 1st and 2nd monitoring results was very small. ET checked the monitoring data, plant and equipment, and no abnormality was identified. According to the record of ER's site diary, the only work conducted at the outfall was to erect formwork to staircase beside outfall. According to ET's field staff's on site observation, the formwork erection only took place well above the water level with water mitigation measures implemented (provision of concrete blocks and plastic barriers), therefore it should not cause any negative impact on the water quality. ET checked the site boundary near the Ng Tung River and did not discover any discharge of muddy water or site runoff from the site. After the recording of the exceedance, ET tried to identify the source of the exceedance immediately, the only pollution identified was the large amount of rubbish and debris trapped by the concrete blocks placed between the control station and the monitoring station. Notification of Exceedance was sent to IEC and ER.
SWH_050_w	13-Apr-23	M1	DO (mg/L)	6.40 mg/L (Limit Level Exceedance)	<7.8 mg/L	<7.7 mg/L	<p>Cause of Exceedance:</p> <p>ET's conclusions and recommendations for mitigation:</p> <p>Contractor's actions to implement the mitigation:</p>	<p>Rubbish and debris trapped by the concrete blocks placed between the control station and the monitoring station.</p> <p>Exceedance not related to project, advised contractor to maintain on-going water mitigation measures.</p> <p>Construction activities were checked; Outfall was checked and no soil or water dropped from outfall was observed.</p>
		C1 (Control Station for comparing to the impact station - M1)	DO (mg/L)	8.54 mg/L			<p>Action taken under EAP:</p>	<ol style="list-style-type: none"> ET repeated in situ measurement immediately to confirm findings, the difference between 1st and 2nd monitoring results was very small. ET checked the monitoring data, plant and equipment, and no abnormality was identified. According to the record of ER's site diary, the only work conducted at the outfall was to pour concrete to staircase beside outfall. According to ET's field staff's on site observation, concrete has not been poured during the water quality monitoring, therefore it is considered that no construction work took place at the outfall during the water quality monitoring that cause negative impact on the water quality. ET checked the site boundary near the Ng Tung River and did not discover any discharge of muddy water or site runoff from the site. After the recording of the exceedance, ET tried to identify the source of the exceedance immediately, the only pollution identified was the large amount of rubbish and debris trapped by the concrete blocks placed between the control station and the monitoring station. Notification of Exceedance was sent to IEC and ER.



SWH_051_w	15-Apr-23	M1	DO (mg/L)	3.92 mg/L (Limit Level Exceedance)	<7.8 mg/L	<7.7 mg/L	<p>Cause of Exceedance:</p> <p>Rubbish and debris trapped by the concrete blocks placed between the control station and the monitoring station.</p> <p>ET's conclusions and recommendations for mitigation:</p> <p>Exceedance not related to project, advised contractor to maintain on-going water mitigation measures.</p> <p>Contractor's actions to implement the mitigation:</p> <p>Construction activities were checked; Outfall was checked and no soil or water dropped from outfall was observed.</p>
		C1 (Control Station for comparing to the impact station - M1)	DO (mg/L)	10.37 mg/L			<p>Action taken under EAP:</p> <ol style="list-style-type: none"> ET repeated in situ measurement immediately to confirm findings, the difference between 1st and 2nd monitoring results was very small. ET checked the monitoring data, plant and equipment, and no abnormality was identified. According to ET's field staff's on site observation and the record of ER's site diary, no works have been conducted at the outfall. ET checked the site boundary near the Ng Tung River and did not discover any discharge of muddy water or site runoff from the site. After the recording of the exceedance, ET tried to identify the source of the exceedance immediately, the only pollution identified was the large amount of rubbish and debris trapped by the concrete blocks placed between the control station and the monitoring station. Notification of Exceedance was sent to IEC and ER.
SWH_052_w	17-Apr-23	M1	DO (mg/L)	4.92 mg/L (Limit Level Exceedance)	<7.8 mg/L	<7.7 mg/L	<p>Cause of Exceedance:</p> <p>Rubbish and debris trapped by the concrete blocks placed between the control station and the monitoring station.</p> <p>ET's conclusions and recommendations for mitigation:</p> <p>Exceedance not related to project, advised contractor to maintain on-going water mitigation measures.</p> <p>Contractor's actions to implement the mitigation:</p> <p>Construction activities were checked; Outfall was checked and no soil or water dropped from outfall was observed.</p>
		C1 (Control Station for comparing to the impact station - M1)	DO (mg/L)	8.54 mg/L			<p>Action taken under EAP:</p> <ol style="list-style-type: none"> ET repeated in situ measurement immediately to confirm findings, the difference between 1st and 2nd monitoring results was very small. ET checked the monitoring data, plant and equipment, and no abnormality was identified. According to ET's field staff's on site observation and the record of ER's site diary, no works have been conducted at the outfall. ET checked the site boundary near the Ng Tung River and did not discover any discharge of muddy water or site runoff from the site. After the recording of the exceedance, ET tried to identify the source of the exceedance immediately, the only pollution identified was the large amount of rubbish and debris trapped by the concrete blocks placed between the control station and the monitoring station. Notification of Exceedance was sent to IEC and ER.



SWH_053_w	19-Apr-23	M1	Turbidity (NTU)	26.41 NTU (Limit Level Exceedance)	>14.6 NTU	>15.6 NTU	Cause of Exceedance: ET's conclusions and recommendations for mitigation: Contractor's actions to implement the mitigation:	Unknown pollution source from upstream of control station
			SS (mg/L)	24.50 mg/L (Limit Level Exceedance)	>18.8 mg/L	>19.5 mg/L		Exceedance not related to project, advised contractor to maintain on-going water mitigation measures. Construction activities were checked; Outfall was checked and no soil or water dropped from outfall was observed.
		C1 (Control Station for comparing to the impact station - M1)	Turbidity (NTU)	26.45 NTU			Action taken under EAP:	1. ET repeated in situ measurement immediately to confirm findings, the difference between 1st and 2nd monitoring results was very small. 2. ET checked the monitoring data, plant and equipment, and no abnormality was identified. 3. According to the record of ER's site diary, the only work conducted at the outfall was to erect formwork to staircase and slab. 4. According to ET's field staff's on site observation, the formwork erection only took place well above the water level with water mitigation measures implemented (provision of concrete blocks and plastic barriers), therefore it should not cause any negative impact on the water quality. 5. ET checked the site boundary near the Ng Tung River and did not discover any discharge of muddy water or site runoff from the site. 6. ET tried to identify the source of the exceedance immediately, but no obvious pollution source was identified. 7. With respect to the fact that the measured values of turbidity and SS at the control station is even slightly higher than the one at the monitoring station, it suggested that the background water quality had exceeded the limit level before being affected by the Project site during this WQM. 8. Notification of Exceedance was sent to IEC and ER.
			SS (mg/L)	24.70 mg/L				
SWH_054_w	21-Apr-23	M1	DO (mg/L)	7.72 mg/L (Action Level Exceedance)	<7.8 mg/L	<7.7 mg/L	Cause of Exceedance: ET's conclusions and recommendations for mitigation: Contractor's actions to implement the mitigation:	Rubbish and debris trapped by the concrete blocks placed between the control station and the monitoring station.
								Exceedance not related to project, advised contractor to maintain on-going water mitigation measures. Construction activities were checked; Outfall was checked and no soil or water dropped from outfall was observed.
							Action taken under EAP:	1. ET repeated in situ measurement immediately to confirm findings, the difference between 1st and 2nd monitoring results was very small. 2. ET checked the monitoring data, plant and equipment, and no abnormality was identified. 3. According to ET's field staff's on site observation and the record of ER's site diary, no works have been conducted at the outfall. 4. ET checked the site boundary near the Ng Tung River and did not discover any discharge of muddy water or site runoff from the site. 5. After the recording of the exceedance, ET tried to identify the source of the exceedance immediately, the only pollution identified was the large amount of rubbish and debris trapped by the concrete blocks placed between the control station and the monitoring station. 6. Notification of Exceedance was sent to IEC and ER.



SWH_055_w	24-Apr-23	M1	Turbidity (NTU)	13.40 NTU (Limit Level Exceedance)	>6.68 NTU (>120% of C1)	>7.24 NTU (>130% of C1)	Cause of Exceedance:	Rubbish and debris trapped by the concrete blocks placed between the control station and the monitoring station.	
			SS (mg/L)	11.80 mg/L (Limit Level Exceedance)	>9.54 mg/L (>120% of C1)	>10.34 mg/L (>130% of C1)	ET's conclusions and recommendations for mitigation: Contractor's actions to implement the mitigation:	Exceedance not related to project, advised contractor to maintain on-going water mitigation measures. Construction activities were checked; Outfall was checked and no soil or water dropped from outfall was observed.	
								Action taken under EAP:	<ol style="list-style-type: none"> ET repeated in situ measurement immediately to confirm findings, the difference between 1st and 2nd monitoring results was very small. ET checked the monitoring data, plant and equipment, and no abnormality was identified. According to the record of ER's site diary, the works conducted at the outfall were to erect formwork and place steel mesh for U-channel reinstatement. According to ET's field staff's on site observation, the works only took place well-above the water level with water mitigation measures implemented (provision of concrete blocks and plastic barriers), therefore it should not cause any negative impact on the water quality. ET checked the site boundary near the Ng Tung River and did not discover any discharge of muddy water or site runoff from the site. After the recording of the exceedance, ET tried to identify the source of the exceedance immediately, the only pollution identified was the large amount of rubbish and debris trapped by the concrete blocks placed between the control station and the monitoring station. Notification of Exceedance was sent to IEC and ER.
SWH_056_w	3-May-23	M1	DO (mg/L)	5.64 mg/L (Limit Level Exceedance)	<7.8 mg/L	<7.7 mg/L	Cause of Exceedance:	Rubbish and debris trapped by the concrete blocks placed between the control station and the monitoring station.	
			Turbidity (NTU)	7.53 NTU (Limit Level Exceedance)	>4.97NTU (>120% of C1)	>5.38 NTU (>130% of C1)	ET's conclusions and recommendations for mitigation: Contractor's actions to implement the mitigation:	Exceedance not related to project, advised contractor to maintain on-going water mitigation measures. Construction activities were checked; Outfall was checked and no soil or water dropped from outfall was observed.	
			DO (mg/L)	9.22 mg/L			Action taken under EAP:	<ol style="list-style-type: none"> ET repeated in situ measurement immediately to confirm findings, the difference between 1st and 2nd monitoring results was very small. ET checked the monitoring data, plant and equipment, and no abnormality was identified. Notification of Exceedance was sent to IEC and ER. According to the record of ER's site diary, no works have been conducted at the outfall. ET checked the site boundary near the Ng Tung River and did not discover any discharge of muddy water or site runoff from the site. After the recording of the exceedance, ET tried to identify the source of the exceedance immediately, the only pollution identified was the large amount of rubbish and debris trapped by the concrete blocks placed between the control station and the monitoring station. 	
		C1 (Control Station for comparing to the impact station - M1)	Turbidity (NTU)	4.14 NTU					



SWH_057_w	5-May-23	M1	Turbidity (NTU)	20.85 NTU (Limit Level Exceedance)	>11.68NTU (>120% of C1)	>12.65 NTU (>130% of C1)	Cause of Exceedance:	Rubbish and debris trapped by the concrete blocks placed between the control station and the monitoring station.
			SS (mg/L)	21.75 mg/L (Limit Level Exceedance)	>18.8 mg/L	>19.5 mg/L	ET's conclusions and recommendations for mitigation: Contractor's actions to implement the mitigation:	Exceedance not related to project, advised contractor to maintain on-going water mitigation measures. Construction activities were checked; Outfall was checked and no soil or water dropped from outfall was observed.
		C1 (Control Station for comparing to the impact station - M1)	Turbidity (NTU)	9.73 NTU			Action taken under EAP:	1. ET repeated in situ measurement immediately to confirm findings, the difference between 1st and 2nd monitoring results was very small. 2. ET checked the monitoring data, plant and equipment, and no abnormality was identified. 3. Notification of Exceedance was sent to IEC and ER. 4. According to the record of ER's site diary, no works have been conducted at the outfall. 5. ET checked the site boundary near the Ng Tung River and did not discover any discharge of muddy water or site runoff from the site. 6. After the recording of the exceedance, ET tried to identify the source of the exceedance immediately, the only pollution identified was the large amount of rubbish and debris trapped by the concrete blocks placed between the control station and the monitoring station.
			SS (mg/L)	15.15 mg/L				
SWH_058_w	8-May-23	M1	Turbidity (NTU)	21.88 NTU (Limit Level Exceedance)	>14.6 NTU	>15.6 NTU	Cause of Exceedance:	Unknown pollution source from upstream of Ng Tung River
							ET's conclusions and recommendations for mitigation: Contractor's actions to implement the mitigation:	Exceedance not related to project, advised contractor to maintain on-going water mitigation measures. Construction activities were checked; Outfall was checked and no soil or water dropped from outfall was observed.
		C1 (Control Station for comparing to the impact station - M1)	Turbidity (NTU)	33.68 NTU			Action taken under EAP:	1. ET repeated in situ measurement immediately to confirm findings, the difference between 1st and 2nd monitoring results was very small. 2. ET checked the monitoring data, plant and equipment, and no abnormality was identified. 3. Notification of Exceedance was sent to IEC and ER. 4. According to the record of ER's site diary, no works have been conducted at the outfall. 5. ET checked the site boundary near the Ng Tung River and did not discover any discharge of muddy water or site runoff from the site. 6. After the recording of the exceedance, ET tried to identify the source of the exceedance immediately, no pollution source can be observed. 7. With respect to the fact that the measured values of turbidity at the control station is even much higher than the one at the monitoring station, it suggested that the background water quality had exceeded the limit level before being affected by the Project site during this WQM.
SWH_059_w	12-May-23	M1	SS (mg/L)	15.10 mg/L (Limit Level Exceedance)	>12.96 mg/L (>120% of C1)	>14.04 mg/L (>130% of C1)	Cause of Exceedance:	Soil and debris deposited on the riverbank being washed into the river by heavy rainfall



							ET's conclusions and recommendations for mitigation: Contractor's actions to implement the mitigation:	Exceedance not related to project, advised contractor to maintain on-going water mitigation measures. Construction activities were checked; Outfall was checked and no soil or water dropped from outfall was observed.
		C1 (Control Station for comparing to the impact station - M1)	SS (mg/L)	10.08 mg/L			Action taken under EAP:	1. ET repeated in situ measurement immediately to confirm findings, the difference between 1st and 2nd monitoring results was very small. 2. ET checked the monitoring data, plant and equipment, and no abnormality was identified. 3. Notification of Exceedance was sent to IEC and ER. 4. According to the record of ER's site diary, no works have been conducted at the outfall. 5. ET checked the site boundary near the Ng Tung River and did not discover any discharge of muddy water or site runoff from the site. 6. After the recording of the exceedance, ET tried to identify the source of the exceedance immediately, and observed that soil and debris deposited on the riverbank were being washed into the river after rainfall event.
SWH_060_w	19-May-23	M1	Turbidity (NTU)	7.98 NTU (Action Level Exceedance)	>7.42 NTU (>120% of C1)	>8.04 NTU (>130% of C1)	Cause of Exceedance:	Soil and debris deposited on the riverbank being washed into the river by heavy rainfall
			SS (mg/L)	13.45 mg/L (Limit Level Exceedance)	>9.72 mg/L (>120% of C1)	>10.53 mg/L (>130% of C1)	ET's conclusions and recommendations for mitigation:	Exceedance not related to project, advised contractor to maintain on-going water mitigation measures.
		C1 (Control Station for comparing to the impact station - M1)	Turbidity (NTU)	6.19 NTU			Contractor's actions to implement the mitigation:	Construction activities were checked; Outfall was checked and no soil or water dropped from outfall was observed.
			SS (mg/L)	8.10 mg/L			Action taken under EAP:	1. ET repeated in situ measurement immediately to confirm findings, the difference between 1st and 2nd monitoring results was very small. 2. ET checked the monitoring data, plant and equipment, and no abnormality was identified. 3. Notification of Exceedance was sent to IEC and ER. 4. According to the record of ER's site diary, no works have been conducted at the outfall. 5. ET checked the site boundary near the Ng Tung River and did not discover any discharge of muddy water or site runoff from the site. 6. After the recording of the exceedance, ET tried to identify the source of the exceedance immediately, and observed that soil and debris deposited on the riverbank were being washed into the river after rainfall event.
SWH_061_w	31-May-23	M1	Turbidity (NTU)	6.73 NTU (Action Level Exceedance)	>6.30 NTU (>120% of C1)	>6.83 NTU (>130% of C1)	Cause of Exceedance:	Rubbish and debris trapped by the concrete blocks placed between the control station and the monitoring station.



		C1 (Control Station for comparing to the impact station - M1)	Turbidity (NTU)	5.25 NTU		<p>ET's conclusions and recommendations for mitigation:</p> <p>Contractor's actions to implement the mitigation:</p>	<p>Exceedance not related to project, advised contractor to maintain on-going water mitigation measures.</p> <p>Construction activities were checked; Outfall was checked and no soil or water dropped from outfall was observed.</p>
						<p>Action taken under EAP:</p>	<ol style="list-style-type: none">1. ET repeated in situ measurement immediately to confirm findings, the difference between 1st and 2nd monitoring results was very small.2. ET checked the monitoring data, plant and equipment, and no abnormality was identified.3. Notification of Exceedance was sent to IEC and ER.4. According to the record of ER's site diary, no works have been conducted at the outfall.5. ET checked the site boundary near the Ng Tung River and did not discover any discharge of muddy water or site runoff from the site.6. After the recording of the exceedance, ET tried to identify the source of the exceedance immediately, the only pollution identified was the large amount of rubbish and debris trapped by the concrete blocks placed between the control station and the monitoring station.



Appendix 4.2

Site Audit Summary



Site Audit Summary

Reporting Quarter: April to June 2023

Contract No.: DC/2018/06		
Date	Observations and recommendations	Follow-up and status
April		
4 Apr 2023	No particular findings	-
13 Apr 2023	Contractor was reminded to review the wastewater treatment capacity to ensure no muddy water discharge in the upcoming rainy season.	N/A
18 Apr 2023	Silt and stockpile was observed at site boundary near outfall. The Contractor was advised to remove the silt and stockpile near site boundary.	Rectified on 24-Apr-23.
24 Apr 2023	The Contractor was reminded to provide a drip tray to the chemical container stored at SDB.	Rectified on 4-May-23.
May		
4 May 2023	Dust suppression measures should be provided to the exposed stockpile.	Rectified on 11-May-23.
4 May 2023	Contractor was reminded to provide bunding to the U-channel to prevent discharge of site-runoff.	NA
11 May 2023	No particular findings	-
18 May 2023	Drip tray should be provided to the oil drums.	Rectified on 23-May-23.
23 May 2023	No particular findings	-
30 May 2023	No particular findings	-
June		
8 Jun 2023	Contractor should clean up the muddy tire tracks outside the site access.	Rectified on 14-June-23.
14 Jun 2023	No particular findings	-
20 Jun 2023	No particular findings	-
27 Jun 2023	Contractor was advised to remove the blue water hose from the U-channel to prevent discharge of muddy water.	Rectified on 4-July-23.



Contract No.: DC/2018/07		
Date	Observations and recommendations	Follow-up and status
April		
4 Apr 2023	No particular findings	-
13 Apr 2023	No particular findings	-
18 Apr 2023	No particular findings	-
24 Apr 2023	No particular findings	-
May		
4 May 2023	No particular findings	-
11 May 2023	Contractor was advised to remove the blue hose from the U-channel to prevent discharge of muddy water.	Rectified on 18-May-23.
18 May 2023	No particular findings.	-
23 May 2023	NRMM label should be affixed on the crane	Rectified on 30-May-23.
30 May 2023	Contractor was reminded to replace the faded NRMM label on the generator near MFB2.	Rectified on 8-June-23
June		
8 Jun 2023	Drip tray should be provided to the chemical containers	Rectified on 14-June-23.
14 Jun 2023	No particular findings	-
20 Jun 2023	No particular findings	-
27 Jun 2023	No particular findings	-



Contract No.: DE/2018/03		
Date	Observations and recommendations	Follow-up and status
April		
4 Apr 2023	No particular findings	-
11 Apr 2023	The Contractor was reminded to replace the decolored NRMM label on the generator at the sidestream.	Rectified on 18-Apr-2023.
18 Apr 2023	No particular findings	-
27 Apr 2023	No particular findings	-
May		
2 May 2023	Contractor was reminded to remove the stagnant water in the drip tray (sidestream).	Rectified on 9-May-2023.
9 May 2023	No particular findings	-
16 May 2023	No particular findings	-
23 May 2023	No particular findings	
31 May 2023	No particular findings	
June		
6 Jun 2023	No particular findings	-
13 Jun 2023	No particular findings	-
20 Jun 2023	No particular findings	-
27 Jun 2023	NRMM label should be affixed on the generator near Bio-gas Tank..	Rectified on 4-July-23.



Contract No.: DE/2018/04		
Date	Observations and recommendations	Follow-up and status
April		
4 Apr 2023	No particular findings	-
11 Apr 2023	No particular findings	-
18 Apr 2023	No particular findings	-
27 Apr 2023	Contractor was reminded to provide proper storage for reusable materials and general refuse.	Rectified on 2-May-2023
May		
2 May 2023	No particular findings	-
9 May 2023	No particular findings	-
16 May 2023	No particular findings	-
23 May 2023	No particular findings	-
31 May 2023	No particular findings	-
June		
6 Jun 2023	No particular findings	-
13 Jun 2023	No particular findings	-
20 Jun 2023	Contractor was reminded to label the waste skip the separate C&D and general waste.	Rectified on 27-June-23
27 Jun 2023	No particular findings	-



Appendix 5.1

Summary of Complaints, Notification of Summons and Successful Prosecution



Summary of Environmental Complaints Log

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- Provided cover for all rubbish bins on-site- Separated general refuse from construction waste	Closed



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
3	9 August 2021	EPD	SWHEPP	Air Quality	<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
20220304	4 March 2022	EPD	SWHEPP	Odour nuisance	<p>The complainant alleged the odour nuisance was sourced from the construction site of Shek Wu Hui Effluent Polishing Plant on 4 March 2022. Thus, all four contracts (Contract Nos. DC/2018/06, DC/2018/07, DE/2018/03 and DE/2018/04) were involved in the complaint investigation.</p> <p>After investigation, no construction activities undertaken by all four contracts was associated with the odour nuisance received on 4 March 2022. Nevertheless, the contractors were reminded and recommended to:</p> <ul style="list-style-type: none">• Ensure only equipment with valid NRMM label is allowed to be used at site and regular maintenance of equipment• Provide regular visual checking against emission quality of exhaust pipe of equipment by using the Ringlemann Chart• Use ULSD as fuel for diesel-powered equipment• Maintain proper segregation and storage of general refuse	Closed



Summary of Notification of Summons and Successful Prosecution

Reporting period: April to June 2023

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

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