


Drainage Services Department

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

Quarterly EM&A Summary Report July to August 2021

(Version 1)

<p>Certified By</p> <div style="text-align: center;"> <hr/><p>(Environmental Team Leader: Mr. KS Lee)</p></div>

REMARKS:

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

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

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

Ref.: DSDSWHS1EM00_0_0136E.21

27 October 2021

By E-mail and Fax (3922 9797)

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

Attention: Mr CHANG Ping Wah

Dear Mr CHANG,

**Re: Contract No. SPW 08/2019
Independent Environmental Checker for
Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1**

Quarterly EM&A Summary Report for July to August 2021

Reference is made to the Environmental Team's submission of Quarterly EM&A Summary Report for July to August 2021 (Version 1) certified by the ET Leader and provided to us via e-mail on 27 October 2021.

Please be informed that we write hereby to confirm that we have no adverse comments on the captioned submission.

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

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



Y H Hui
Independent Environmental Checker

c.c.

DSD
Cinotech

Attn.: Ms Konica Cheung
Attn.: Mr K. S. Lee

(By Fax: 3104 6420)
(By Fax: 3107 1388)

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EXECUTIVE SUMMARY

Introduction

1. This is the 7th Quarterly Environmental Monitoring and Audit (EM&A) Summary Report prepared by the Environmental Team, Cinotech Consultants Ltd., for Agreement No. SPW 07/2019 “Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1” (hereinafter called “the Project”). This report summarized the monitoring results and audits findings of the EM&A programme under the issued further EP No. FEP-02/474/2013 and in accordance with the Updated EM&A Manual conducted between 1st July 2021 and 31st August 2021.

Summary of Main Works Undertaken and Key Measures Implemented

2. The construction activities undertaken in the reporting quarter were as follows:

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

Contract No.	Contract Title	Site Activities
DC/2018/06	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - Civil Works for Sludge Treatment Facilities and 132kV Primary Substation	<ul style="list-style-type: none"> • RC works • Wall and slab construction • Backfilling • Pipe laying • Pipe jacking work • Excavation works • Road works
DC/2018/07	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - Civil Works for Sewage Treatment Facilities	<ul style="list-style-type: none"> • ELS and construction of inlet reception chamber • Trench excavation • Road and drainage works • Diversion of inlet works • Process pipe of CHR and CHS • Pre-drilling work and foundation work • Cable diversion works • Demolition work of existing main facilities • Alternation of existing powerhouse • Pre-bored H piles • Sheet pile installation
DE/2018/03	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - Sidestream Treatment Facilities and E&M Works for Sludge Treatment Facilities	<ul style="list-style-type: none"> • Socket H piling • Installation of EOT crane

Contract No.	Contract Title	Site Activities
DE/2018/04	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - E&M Works for Sewage Treatment Facilities	<ul style="list-style-type: none"> Electrical installation of temporary filtrate equalisation tank Installation of FRP tank Testing and commission of temporary primary sludge thickener and its accessories. Retrofitting the existing primary sedimentation tank no. 6 Modification of existing emergency generator electrical works

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

Air Quality

- Stockpiles were covered by impervious sheets.
- Water spraying on haul road was done to minimize dust generation.

Water Quality

- Stagnant water on the impervious sheets was removed.

Waste Management

- Chemicals were stored in drip trays properly.
- Unused waste and materials were removed to maintain the tidiness of the site.

Summary of Exceedances, Investigation and Follow-up

4. Exceedance of Action/Limit levels between July and August 2021 and summary of the non-compliance in the reporting quarter for the Project is tabulated in **Table II**.

Table II Non-compliance Record for the Project in the Reporting Quarter

Parameter	No. of Exceedance		Investigation Result
	Action Level	Limit Level	
July 2021			
Air Quality (1-hour TSP)	0	0	N/A
Air Quality (24-hour TSP)	0	0	N/A
Noise	0	0	N/A
Ecology	0	0	N/A
August 2021			
Air Quality (1-hour TSP)	0	0	N/A
Air Quality (24-hour TSP)	0	0	N/A
Noise	0	0	N/A
Ecology	0	0	N/A

5. No exceedance was recorded at any air quality monitoring station during the reporting period.

6. No exceedance was recorded at any noise monitoring station during the reporting period.

7. No Action and Limit Level was triggered for ecological monitoring during the reporting period.

Complaint Handling, Prosecution and Public Engagement

8. Summary of complaint handling, prosecution and public engagement in the reporting quarter is tabulated in **Table III**.

Table III Summary Table of Complaints, Summons, Prosecutions and Public Engagement Activities in the Reporting Quarter

Event	Event Details		Follow-up/ Remedial Actions	Status/ Remarks
	Number	Brief Description		
Complaints Received	1	Air nuisance was suspected to be originated from the construction activities of SWHEPP	<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 	<ul style="list-style-type: none"> Complaint Investigation Report (CIR) was submitted in August 2021 The complaint was considered as non-project related as no significant dust emission was observed and the mitigation measures for air quality were properly implemented on-site
Notification of Summons and Prosecutions Received	0	-	-	-
Public Engagement Activities	0	-	-	-

Reporting Changes

9. There were no reporting changes during the reporting quarter.

Future Key Issues

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

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

Contract No.	Contract Title	Site Activities
DC/2018/06	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - Civil Works for Sludge Treatment Facilities and 132kV Primary Substation	<ul style="list-style-type: none"> • RC works • Wall and slab construction • Backfilling • Pipe laying • Pipe jacking work • Excavation works • Road works
DC/2018/07	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - Civil Works for Sewage Treatment Facilities	<ul style="list-style-type: none"> • ELS and construction of inlet reception chamber • Trench excavation • Road and drainage works • Diversion of inlet works • Process pipe of CHR and CHS • Pre-drilling work and foundation work • Cable diversion works • Demolition work of existing main facilities • Alternation of existing powerhouse • Pre-bored H piles • Sheet pile installation
DE/2018/03	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - Sidestream Treatment Facilities and E&M Works for Sludge Treatment Facilities	<ul style="list-style-type: none"> • Ground investigation • Installation of F.S. equipment • Installation of power cable • Installation of EOT crane • Installation of cable tray, conduit • ELS works • Installation of guide bar bracket, guide bar and placing the effluent transfer pump
DE/2018/04	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - E&M Works for Sewage Treatment Facilities	<ul style="list-style-type: none"> • Electrical installation of temporary filtrate equalisation tank • Testing and commission of temporary primary sludge thickener and its accessories • Retrofitting the existing primary sedimentation tank No. 6 • Modification of existing emergency generator electrical works

1 INTRODUCTION

Background

- 1.1 The Further Expansion of Shek Wu Hui Effluent Polishing Plant (SWHEPP) is a designated Project (DP) under F.1 and F.2 of Part 1, Schedule 2 of Environmental Impact Assessment Ordinance (EIAO). The “North East New Territories New Development Areas” Environmental Impact Assessment (NENT NDAs EIA) Report (Registered No.: AEIAR-175/2013) covered the assessment for the Further Expansion of SWHSTW Phase 1A, 1B and 2, and the associated Environmental Monitoring and Audit (EM&A) Manual was approved on 18 October 2013.
- 1.2 The existing Shek Wu Hui Sewage Treatment Works (SWHSTW) is operated and maintained by the Drainage Services Department (DSD). It provides secondary level treatment to sewage collected from Sheung Shui, Fanling and adjacent areas, SWHSTW was completed in two stages and expanded progressively in the past year. In 2009, the expansion of SWHSTW was completed and its design capacity was 93,000m²/day at average dry weather flow (ADWF). After the Resource Allocation Exercise 2017, the existing SWHSTW is proposed to be upgraded from secondary to tertiary treatment level as the new SWHEPP at 3 stages: Main Works Stage 1, Stage 2 and Stage 3.
- 1.3 A Further Environmental Permit (EP) (Permit No. FEP-02/474/2013) was issued on 15 February 2018 to DSD as the Permit Holder to assume the responsibility for construction and operating the SWHEPP Project up to a capacity of 190,000m³/day. The updated Environmental Monitoring and Audit (EM&A) Manual was prepared in accordance with Condition 2.3 of the Further EP. The site layout plan for the Project is shown in **Figure 1.1**.
- 1.4 Cinotech Consultants Ltd. was designated as the Environmental Team (ET) to undertake the Environmental Monitoring and Audit (EM&A) works for the Project. The construction commencement of the Project was on 3rd January 2020. This is the 7th Quarterly EM&A Summary Report summarizing the EM&A works for the Project between 1st July 2021 and 31st August 2021.

Project Organizations

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

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

Table 1.1 Key Project Contacts

Party	Role	Contact Person	Phone No.
DSD	Permit Holder / Project Proponent	Ms. Konica Cheung	2594 7463
		Public Enquiry	3142 2256
AECOM	Supervisor Representative	Ms. Bianca Choi	3907 6141
Cinotech	Environmental Team	Mr. KS Lee (ETL)	2151 2091
		Ms. Betty Choi	2151 2072
Ramboll	Independent Environmental Checker	Mr. YH Hui	3465 2850
KLCWJV	Contractor (DC/2018/06)	Ms. Ruby Hui	6218 6408
KLCWJV	Contractor (DC/2018/07)	Ms. Shirley Kong	5162 5933
JEC	Contractor (DE/2018/03)	Ms. Juliet Ting	6826 7319
Bestwise	Contractor (DE/2018/04)	Mr. Albus Cheung	9731 0831

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

Construction Activities Undertaken During the Reporting Quarter

1.8 The construction programme is presented in **Appendix A**. The major site activities undertaken in the reporting quarter were:

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

Contract No.	Contract Title	Site Activities
DC/2018/06	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - Civil Works for Sludge Treatment Facilities and 132kV Primary Substation	<ul style="list-style-type: none"> • RC works • Wall and slab construction • Backfilling • Pipe laying • Pipe jacking work • Excavation works • Road works
DC/2018/07	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - Civil Works for Sewage Treatment Facilities	<ul style="list-style-type: none"> • ELS and construction of inlet reception chamber • Trench excavation • Road and drainage works • Diversion of inlet works • Process pipe of CHR and CHS • Pre-drilling work and foundation work • Cable diversion works • Demolition work of existing main facilities • Alternation of existing powerhouse • Pre-bored H piles • Sheet pile installation

Contract No.	Contract Title	Site Activities
DE/2018/03	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - Sidestream Treatment Facilities and E&M Works for Sludge Treatment Facilities	<ul style="list-style-type: none">• Socket H piling• Installation of EOT crane
DE/2018/04	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - E&M Works for Sewage Treatment Facilities	<ul style="list-style-type: none">• Electrical installation of temporary filtrate equalisation tank• Installation of FRP tank• Testing and commission of temporary primary sludge thickener and its accessories.• Retrofitting the existing primary sedimentation tank no. 6• Modification of existing emergency generator electrical works

2 ENVIRONMENTAL MONITORING AND AUDIT REQUIREMENTS

Monitoring Parameters and Monitoring Locations

- 2.1 The Updated EM&A Manual designates locations for the ET to monitor environmental impacts in terms of air quality, noise and ecology due to the Project. The Project area and monitoring locations are depicted in **Figures 2-4**. **Appendix B** gives details of monitoring requirements.

Environmental Quality Performance Limits (Action and Limit Levels)

- 2.2 Should the environmental quality parameters exceed the Action/Limit Levels, the respective action plans would be implemented. The Action/Limit Levels for each environmental parameter are given in **Appendix C**.

Monitoring Methodology

- 2.3 Monitoring works/equipment were conducted/calibrated regularly in accordance with the Updated EM&A Manual. Copies of calibration certificates are attached in the appendices of the corresponding Monthly EM&A Reports within the reporting period.

Implementation Status of Environmental Mitigation Measures

- 2.4 The Contractor has implemented environmental mitigation measures and requirements as stated in the EIA Report, the Environmental Permit and Updated EM&A Manual. The implementation status of environmental mitigation measures (EMIS) is given in **Appendix D**.

Site Audit Summary

- 2.5 Site audits were carried out on a weekly basis. During site inspections in the reporting period, no non-conformance was identified. The observations and recommendations made during the reporting period are summarized in **Appendix E**.

Status of Waste Management

- 2.6 The amount of wastes generated by the major site activities of this Project is shown in **Appendix F**.

3 MONITORING RESULTS

Weather Conditions

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

Air Quality

- 3.2 All 1-hour TSP monitoring was conducted as scheduled in the reporting quarter. No Action/Limit Level exceedance was recorded.
- 3.3 All 24-hour TSP monitoring was conducted as scheduled in the reporting quarter. No Action/Limit Level exceedance was recorded.
- 3.4 The graphical presentations of 1-hour and 24-hour TSP monitoring results are shown in **Appendix G** and **Appendix H** respectively.

Construction Noise

- 3.5 All construction noise monitoring was conducted as scheduled in the reporting period. No Action and Limit Level exceedance was recorded.
- 3.6 The graphical presentations of the noise monitoring results are shown in **Appendix I**.

Ecology

- 3.7 All ecological monitoring was conducted as scheduled in the reporting period. No Action and Limit Level was triggered for ecological monitoring between July and August 2021.
- 3.8 A summary of ecological monitoring analysis is shown in **Appendix J**.

Water Quality

- 3.9 According to the Updated EM&A Manual, no water monitoring is required before the commencement of outfall construction at Ng Tung River.
- 3.10 Site audits were carried out on a weekly basis to monitor and audit the timely implementation of water quality mitigation measures of this project. No non-compliance of water quality mitigation measures was observed in the reporting quarter.

Waste Management

- 3.11 Site audits were carried out on a weekly basis to monitor and audit to ensure that proper storage, transportation and disposal practices of waste materials generated during construction activities, such as construction and demolition (C&D) materials and general refuse are being implemented. Details of the amount of wastes generated by the major site activities is shown in **Appendix F**.

Landscape and Visual

- 3.12 Site audits were carried out on a weekly basis to monitor and audit the timely implementation of landscape and visual mitigation measures of this project. No non-compliance of the landscape and visual mitigation measures was recorded in the reporting quarter.

Influencing Factors on the Monitoring Results

- 3.13 During the reporting period, the major dust and noise sources identified at the designated monitoring stations are shown in **Tables 3.1 and 3.2**.

Table 3.1 Major Dust Sources during the Monitoring in the Reporting Quarter

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

Table 3.2 Major Noise Sources during the Monitoring in the Reporting Quarter

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

- 3.14 The observations identified during ecological monitoring at the designated monitoring stations are shown in **Table 3.3**.

Table 3.3 Observations during Ecological Monitoring in the Reporting Quarter

Location	Project Related	Non-Project Related
T1 (PC1, PC2)	N/A	Playing with R.C. boat, generator and sedimentation tank
T2 (PC3, PC4)	Excavation and crane	Fishing and excavation
PC5	N/A	N/A
T3 (PC6, PC7)	N/A	Excavator, sheet-piling, generator and welding works, scaffolding, lorry with grabber, jaywalking, playing with R.C. drone, fishing

4 NON-COMPLIANCE (EXCEEDANCES) OF THE ENVIRONMENTAL QUALITY PERFORMANCE LIMITS (ACTION AND LIMIT LEVELS)**Summary of Exceedances**

- 4.1 Environmental monitoring works were performed in the reporting period and all monitoring results were checked and reviewed. A summary of exceedances is attached in **Appendix K**.
- 4.2 No Action/Limit Level exceedance was recorded at all 1-hour and 24-hour TSP monitoring stations in the reporting quarter.
- 4.3 No Action/Limit Level exceedance was recorded at all noise monitoring stations in the reporting quarter.
- 4.4 No Action and Limit Level exceedance was triggered was recorded for ecological monitoring in the reporting quarter.
- 4.5 No non-conformity for landscape and visual impact was recorded in the reporting quarter.

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

- 4.6 There was no non-compliance from the site audits in the reporting period. The observations and recommendations made in each individual site audit session were attached in the **Appendix E**.

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

- 4.7 1 environmental complaint regarding air nuisance from SWHEPP was received in the reporting quarter.
- 4.8 No environmental warning, notifications of summons and environmental prosecution were received during the reporting quarter.
- 4.9 The summaries of environmental complaint, warning, summon and notification of successful prosecution for the Project is presented in **Appendix L**.

5 COMMENTS, CONCLUSIONS AND RECOMMENDATIONS

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

- 5.1 The EM&A methodology has been effective in monitoring the environmental impacts of the Project and the effectiveness of the mitigation measures. The data collected were useful in determining whether the Project had caused unacceptable impacts on the sensitive receivers. Analysis of all EM&A data collected throughout the baseline and the impact periods demonstrated the environmental acceptability of the Project.

Review on Effectiveness of Mitigation Measures

- 5.2 The mitigation measures recommended in the EIA report are considered effective in minimizing environmental impacts.
- 5.3 The Contractor has implemented the recommended mitigation measures except for those mitigation measures not applicable at this stage.
- 5.4 Environmental monitoring works were performed in the reporting quarter and all monitoring results were checked and reviewed.
- 5.5 The summary record of non-compliance (exceedances) of Action/Limit Level for environmental monitoring in the reporting quarter has been presented in **Table II** above and in **Appendix K**.
- 5.6 1 environmental complaint was received in the reporting quarter. The details are attached in the **Appendix L**.
- 5.7 No warning, notifications of summons and environmental prosecution were received in the reporting quarter. The details are attached in the **Appendix L**.
- 5.8 The effectiveness of environmental management is satisfactory given that the recommendations given in the site inspections performed in the reporting period are met.

Recommendations

5.9 According to the environmental audits performed in the reporting quarter, the following recommendations were made:

Air Quality

- Regular water spraying on haul road and dry surfaces should be applied to minimize dust generation.
- Stockpiles should be covered by impervious materials.

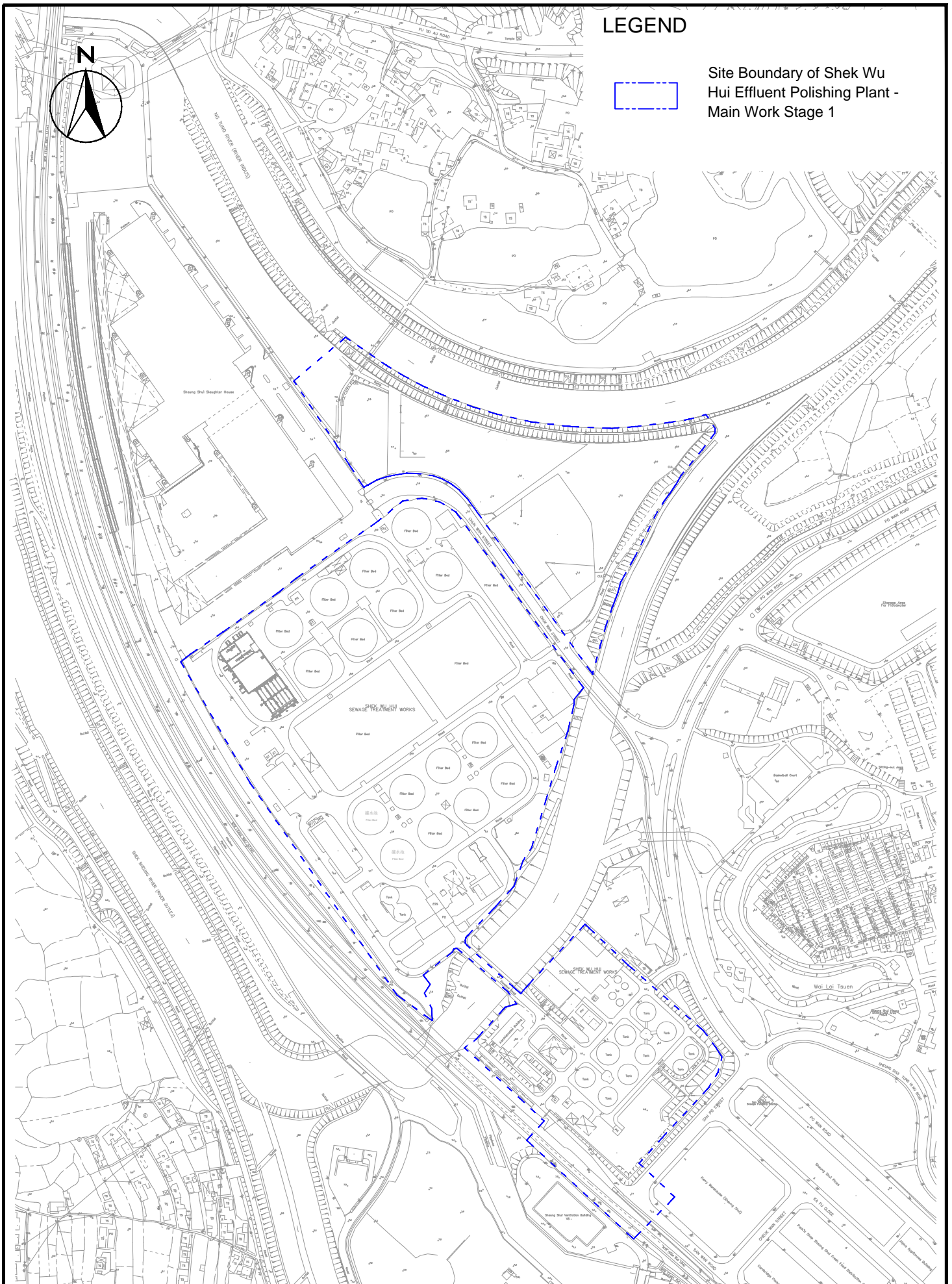
Water Quality

- Stagnant water should be removed and pumped through the sedimentation tank.
- Wastewater should be pumped and collected in the sedimentation tank before discharge.
- Muddy water should not be discharged into the surrounding rivers.
- No slurry should be disposed of at the existing Shek Wu Hui Sewage Treatment Works.

Waste Management

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

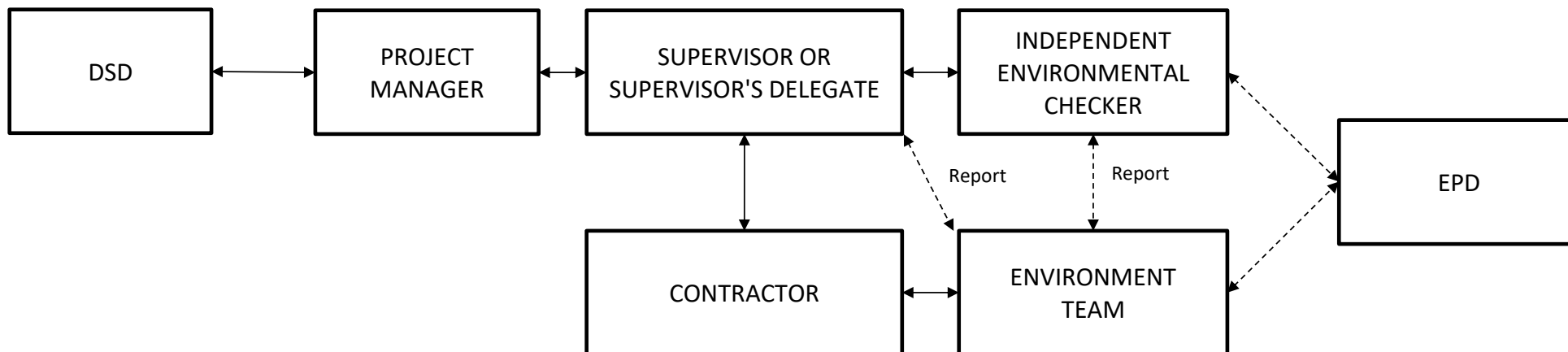
FIGURES



LEGEND



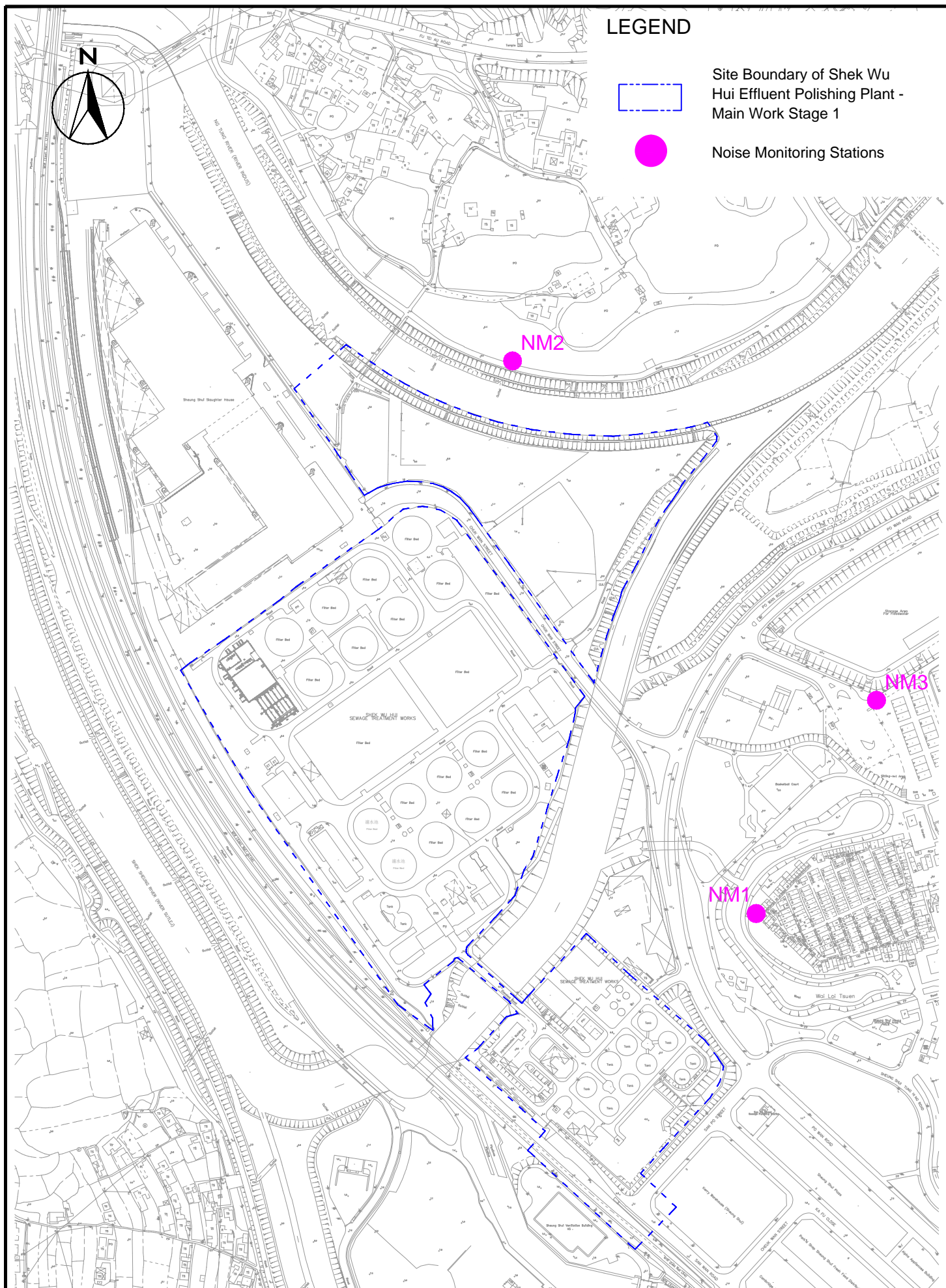
Site Boundary of Shek Wu
Hui Effluent Polishing Plant -
Main Work Stage 1

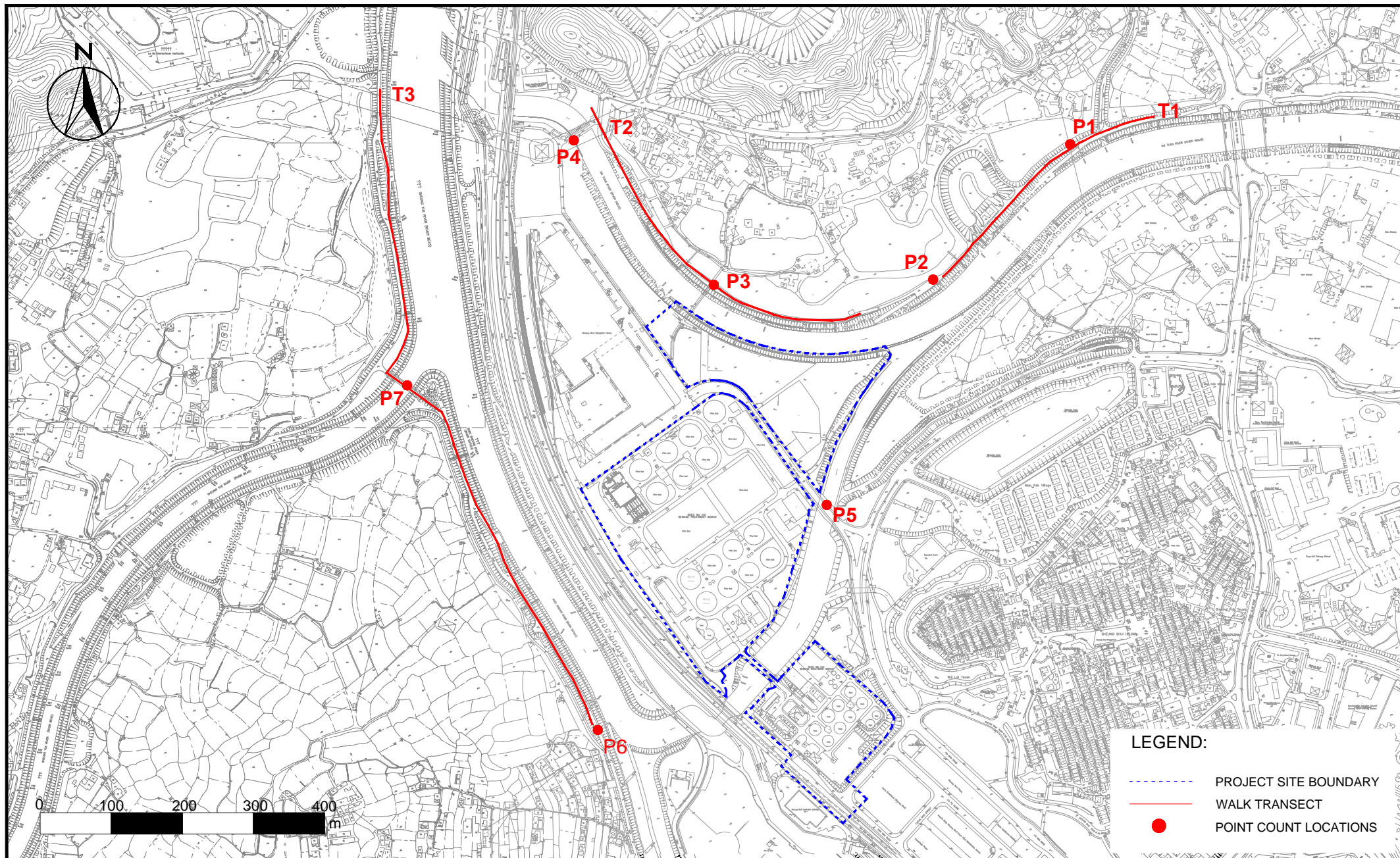


CINOTECH

Agreement No. SPW07/2019
 Shek Wu Hui Effluent Polishing Plant- Main Works Stage 1
Project Organisation For Environmental Monitoring and Audit

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





LEGEND:

- - - - - PROJECT SITE BOUNDARY
- WALK TRANSECT
- POINT COUNT LOCATIONS

APPENDIX A
CONSTRUCTION PROGRAMME

Critical Split

Task

Milestone

Summary

Critical

Status Date: 31 July 21

Page 1

Rev Date: 24 Aug 202

ID	Activity ID	KD	Task Name	Inclement Weather CE no. (NCE no.)	PMI & CE no. (NCE no.)	Duration	Start	Finish	Actual Start	Actual Finish	Total Slack	Predecessors	Successors	% Complete	Time Risk Allowan	2nd Half Q3	Q2	1st Half Q1	Q4	2nd Half Q3	Q2	1st Half Q1	Q4	2nd Half Q3	Q2	1st Half Q1
87	IWKD3E-01020	KD3E	Delay and Disruption of Works for the month of July 2021			20 days	Wed 27/4/22	Sat 21/5/22	NA	NA	-46 days	86			0%											
88	OEKD3E-01000		Other Events affected to KD3E			4 days	Mon 28/2/22	Thu 3/3/22	NA	NA	-46 days				0%											
89	OEKD3E-01010		Special Arrangement for Work After CNY due to Spread of Novel Coronavirus		5	4 days	Mon 28/2/22	Thu 3/3/22	NA	NA	-46 days	25	86		0%											
90	IWSW1-01000		Inclement Weather to Section 1 of the Works			62 days	Fri 22/10/21	Wed 5/1/22	NA	NA	-52 days				0%											
91	IWSW1-01010		Delay and Disruption of Works before July 2021	(204),(228),(254)		42 days	Fri 22/10/21	Thu 9/12/21	NA	NA	-52 days	95	92		0%											
92	IWSW1-01020	SW1	Delay and Disruption of Works for the month of July 2021			20 days	Fri 10/12/21	Wed 5/1/22	NA	NA	-52 days	91			0%											
93	OESW1-01000		Other Events affected to Section 1 of the Works			10 days	Sat 9/10/21	Thu 21/10/21	NA	NA	-52 days				0%											
94	OESW1-01010		Unforeseen Social Activities in Hong Kong in November 2019	(3)		6 days	Sat 9/10/21	Sat 16/10/21	NA	NA	-52 days	27	95		0%											
95	OESW1-01020		Special Arrangement for Work After CNY due to Spread of Novel Coronavirus		5	4 days	Mon 18/10/21	Thu 21/10/21	NA	NA	-52 days	94	91		0%											
96	IWSW2-01000		Inclement Weather to Section 2 of the Works			62 days	Tue 11/7/23	Wed 20/9/23	NA	NA	-52 days				0%											
97	IWSW2-01010		Delay and Disruption of Works before July 2021	(204),(228),(254)		42 days	Tue 11/7/23	Mon 28/8/23	NA	NA	-52 days	101	98		0%											
98	IWSW2-01020	SW2	Delay and Disruption of Works for the month of July 2021			20 days	Tue 29/8/23	Wed 20/9/23	NA	NA	-52 days	97			0%											
99	OESW2-01000		Other Events affected to Section 2 of the Works			10 days	Wed 28/6/23	Mon 10/7/23	NA	NA	-52 days				0%											
100	OESW2-01010		Unforeseen Social Activities in Hong Kong in November 2019	(3)		6 days	Wed 28/6/23	Wed 5/7/23	NA	NA	-52 days	28	101		0%											
101	OESW2-01020		Special Arrangement for Work After CNY due to Spread of Novel Coronavirus		5	4 days	Thu 6/7/23	Mon 10/7/23	NA	NA	-52 days	100	97		0%											
102	IWSW3-01000		Inclement Weather to Section 3 of the Works			62 days	Fri 13/1/23	Wed 29/3/23	NA	NA	-52 days				0%											
103	IWSW3-01010		Delay and Disruption of Works before July 2021	(204),(228),(254)		42 days	Fri 13/1/23	Mon 6/3/23	NA	NA	-52 days	107	104		0%											
104	IWSW3-01020	SW3	Delay and Disruption of Works for the month of July 2021			20 days	Tue 7/3/23	Wed 29/3/23	NA	NA	-52 days	103			0%											
105	OESW3-01000		Other Events affected to Section 3 of the Works			10 days	Sat 31/12/22	Thu 12/1/23	NA	NA	-52 days				0%											
106	OESW3-01010		Unforeseen Social Activities in Hong Kong in November 2019	(3)		6 days	Sat 31/12/22	Sat 7/1/23	NA	NA	-52 days	29	107		0%											
107	OESW301020		Special Arrangement for Work After CNY due to Spread of Novel Coronavirus		5	4 days	Mon 9/1/23	Thu 12/1/23	NA	NA	-52 days	106	103		0%											
108	IWSW4-01000		Inclement Weather to Section 4 of the Works			62 days	Mon 13/6/22	Wed 24/8/22	NA	NA	-77 days				0%											
109	IWSW4-01010	SW4	Delay and Disruption of Works before July 2021	(204),(228),(254)		42 days	Mon 13/6/22	Mon 1/8/22	NA	NA	-77 days	113	110		0%											
110	IWSW4-01020		Delay and Disruption of Works for the month of July 2021			20 days	Tue 2/8/22	Wed 24/8/22	NA	NA	-77 days	109			0%											
111	OESW4-01000		Other Events affected to Section 4 of the Works			10 days	Tue 31/5/22	Sat 11/6/22	NA	NA	-77 days				0%											
112	OESW4-01010		Unforeseen Social Activities in Hong Kong in November 2019	(3)		6 days	Tue 31/5/22	Tue 7/6/22	NA	NA	-77 days	30	113		0%											
113	OESW4-01020		Special Arrangement for Work After CNY due to Spread of Novel Coronavirus		5	4 days	Wed 8/6/22	Sat 11/6/22	NA	NA	-77 days	112	109		0%											
114	IWSW5-01000		Inclement Weather to Section 5 of the Works			62 days	Thu 2/5/24	Tue 16/7/24	NA	NA	-52 days				0%											
115	IWSW5-01010		Delay and Disruption of Works before July 2021	(204),(228),(254)		42 days	Thu 2/5/24	Fri 21/6/24	NA	NA	-52 days	119	116		0%											
116	IWSW5-01020	SW5	Delay and Disruption of Works for the month of July 2021			20 days	Sat 22/6/24	Tue 16/7/24	NA	NA	-52 days	115			0%											
117	OESW5-01000		Other Events affected to Section 5 of the Works			10 days	Fri 19/4/24	Tue 30/4/24	NA	NA	-52 days				0%											
118	OESW5-01010		Unforeseen Social Activities in Hong Kong in November 2019	(3)		6 days	Fri 19/4/24	Thu 25/4/24	NA	NA	-52 days	31	119		0%											
119	OESW5-01020		Special Arrangement for Work After CNY due to Spread of Novel Coronavirus		5	4 days	Fri 26/4/24	Tue 30/4/24	NA	NA	-52 days	118	115		0%											
120	SUB-00000		Submissions (cal. day)			1590 days	Mon 16/9/19	Mon 22/1/24	Mon 16/9/19	NA	0 days				84%											
121	SUBS-00000		Subletting Package			705 days	Mon 16/9/19	Fri 20/8/21	Mon 16/9/19	NA	70 days				92%											
122	SUBS-01000		Prepare & Submit Subletting Procedures			1 day	Mon 16/9/19	Mon 16/9/19	Mon 16/9/19	Mon 16/9/19	0 days	2	123		100%											
123	SUBS-02000		PM Review & Accept Subletting Procedures			21 days	Mon 16/9/19	Mon 7/10/19	Mon 16/9/19	Mon 7/10/19	0 days	122	125,127,124,126,		100%											
124	SUBS-03000		Subletting for Preliminary Works (Instrumentation Monitoring etc.)			30 days	Mon 7/10/19	Wed 6/11/19	Mon 7/10/19	Wed 6/11/19	0 days	123			100%											
125	SUBS-04000		Subletting for Drainage Diversion Works for UV System no.1& Effluent Pumping Station No.1 (NCE no. 3)			44 days	Tue 8/10/19	Wed 20/11/19	Tue 8/10/19	Wed 20/11/19	0 days	123	443		100%											
126	SUBS-05000		Subletting for the Temporary Site accommodation			114 days	Tue 22/10/19	Wed 12/2/20	Tue 22/10/19	Wed 12/2/20	0 days	123	214		100%											
127	SUBS-06000		Subletting for Pre-drilling Works (NCE no.3)			52 days	Tue 8/10/19	Thu 28/11/19	Tue 8/10/19	Thu 28/11/19	0 days	123	128SS+15 days,1		100%											
128	SUBS-07000		Subletting for Pre-bored Socketed Steel H-Pile			13.98 days	Fri 13/12/19	Fri 3/1/20	Fri 13/12/19	Fri 3/1/20	0 days	127SS+15 days	538,261,285,305,		100%											
129	SUBS-08000		Subletting for Contractor's Designer for Temporary Works (NCE no.3)			32 days	Fri 25/10/19	Wed 27/11/19	Fri 25/10/19	Wed 27/11/19	0 days	127SS+15 days	133,131,145,138,		100%											
130	SUBS-09000		Subletting for Independent Checking Engineer (NCE no.3)			27 days	Wed 30/10/19	Mon 25/11/19	Wed 30/10/19	Mon 25/11/19	0 days	123	232,266,288,307,		100%											
131	SUBS-10000		Subletting for Sheetpile and ELS Works	17		58 days	Wed 8/1/20	Fri 20/3/20	Wed 8/1/20	Fri 20/3/20	0 days	129	232,266,288,307,		100%											
132	SUBS-11000		Subletting for R.C Works (Portion A and UV no.1 building only)	33, 45, 46		44 days	Wed 24/6/20	Thu 6/8/20	Wed 24/6/20	Thu 6/8/20	0 days	129	235		100%											
133	SUBS-12000		Subletting for R.C Works (remaining buildings)	268, 338		41 days	Fri 5/2/21	Wed 17/3/21	Fri 5/2/21	Wed 17/3/21	0 days	129	309,544,368,383,		100%											
134	SUBS-13000		Subletting for Waterproofing for Structures	(112), 268,338		110 days	Fri 4/12/20	Tue 23/3/21	Fri 4/12/20	Tue 23/3/21	0 days	2	238,241,244,267,		100%											
135	SUBS-14000		Subletting for ABWF & BS Works	268, 338, (204)		28 days	Thu 1/4/21	Wed 28/4/21	Thu 1/4/21	Wed 28/4/21	0 days	123	251,275,297,317,		100%											
136	SUBS-15000		Subletting for External Works including pipeworks and road works for UV System no.1 (Diversion)			12 days	Thu 20/2/20	Mon 2/3/20	Thu 20/2/20	Mon 2/3/20	0 days	123	443,137		100%											
137	SUBS-16000		Subletting for Drainage and Pipe works at UV System no.1	21		22 days	Wed 15/4/20	Wed 6/5/20	Wed 15/4/20	Wed 6/5/20	0 days	136			100%											
138	SUBS-17000		Subletting for Pipeworks, Utilities, and Roadworks	21		22 days	Wed 15/4/20	Wed 6/5/20	Wed 15/4/20	Wed 6/5/20	0 days	129	482,479,480,481,		100%											
139	SUBS-18000		Subletting for trenchless construction	21		7 days	Wed 22/4/20	Wed 28/4/20	Wed 22/4/20	Tue 28/4/20	0 days	123	450		100%											
140	SUBS-19000		Subletting for Traffic Management Consultant			43 days	Thu 9/1/20	Thu 20/2/20	Thu 9/1/20	Thu 20/2/20	0 days	123	152		100%											
141	SUBS-20000		Subletting for Hard Landscape and Soft Landscape			60 days	Tue 22/6/21	Fri 20/8/21	NA	NA	70 days	123	527,519,520,521		0%											
142	SUBA-00000		Statutory Submission, Submission & Approval			1590 days	Mon 16/9/19	Mon 22/1/24	Mon 16/9/19	NA	0 days				76%											
143	SUBA-01000		Prepare and Submit Subcontractor Management Plan (SMP)			1 day	Mon 16/9/19	Mon 16/9/19	Mon 16/9/19	Mon 16/9/19	0 days	2	257		100%											
144	SUBA-02000		Prepare, submit & approve the layout plan of the Temporary Site accommodation			97.9 days	Fri 20/9/19	Mon 21/9/20	Fri 20/9/19	Mon 21/9/20	0 days	2	214		100%											
145	SUBA-03000		Prepare, submit & accept the ELS design for deep excavation	17, 25, 27, 32		207 days	Thu 24/10/19	Sun 21/6/20	Thu 24/10/19	Sun 21/6/20	0 days	129	232,266,288,307,		100%											
146	SUBA-04000		Prepare, submit & accept the Method Statement for Drainage Diversion Works	21, 22, 33		57 days	Tue 21/4/20	Tue 16/6/20	Tue 21/4/20	Tue 16/6/20	0 days	2	147,443		100%											
147	SUBA-05000		PM approve the Method Statement for Drainage Diversion Works			13 days	Wed 17/6/20	Mon 29/6/20	Wed 17/6/20	Mon 29/6/20	0 days	146	443		100%											
148	SUBA-06000		TTA Management			442 days	Mon 16/9/19	Mon 30/11/20	Mon 16/9/19	Mon 30/11/20	0 days				100%											
149	SUBA-06010		Excavation Permit Application for San Wan Road (Portion A)			442 days	Mon 16/9/19	Mon 30/11/20	Mon 16/9/19	Mon 30/11/20	0 days		562		100%											
150	SUBA-06020		Excavation Permit Application for Chuk Wan Street (Portion C)			329 days	Mon 7/10/19	Sun 30/8/20	Mon 7/10/19	Sun 30/8/20	0 days		2FS+21 days		100%											

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

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

群利 - 俊和聯營體

KL - CW JV

ID	Activity ID	KD	Task Name	Inclement Weather CE no. (NCE no.)	PMI & CE no. (NCE no.)	Duration	Start	Finish	Actual Start	Actual Finish	Total Slack	Predecessors	Successors	% Complete	Time Risk Allowan	2nd Half Q3	Q2	1st Half Q1	Q4	2nd Half Q3	Q2	1st Half Q1	Q4	2nd Half Q3	Q2	1st Half Q1
167	SUBA-07140		Prepare& submit for Temporary Drainage and Management Plan			201 days	Mon 16/9/19	Fri 3/4/20	Mon 16/9/19	Fri 3/4/20	0 days	2	168	100%			16/9	3/4								
168	SUBA-07150		Approval of Temporary Drainage and Management Plan			106 days	Fri 20/12/19	Fri 3/4/20	Fri 20/12/19	Fri 3/4/20	0 days	167	443	100%			20/12	3/4			28/8	25/11				
169	SUBA-08000		Prepare, submit & approve for the FSD submissions for CLP 132kV Substation			90 days	Sat 28/8/21	Thu 25/11/21	NA	NA	0 days			0%												
170	SUBA-08010		Prepare and submit arrangement and schedule to FSD			30 days	Sat 28/8/21	Sun 26/9/21	NA	NA	0 days	171SS-1 emon		0%							28/8	26/9				
171	SUBA-08020		FSD approve the arrangement and schedule			60 days	Mon 27/9/21	Thu 25/11/21	NA	NA	0 days	558SS-2 emons	46FF,170SS-1 en	0%							27/9	25/11				
172	SUBA-09000		Trees Related Submissions			1590 days	Mon 16/9/19	Mon 22/1/24	Mon 16/9/19	NA	0 days			53%			16/9						22/1			
173	SUBA-09010		Initial Tree survey and report submission			194 days	Fri 4/10/19	Tue 14/4/20	Fri 4/10/19	Tue 14/4/20	0 days	2	211	100%			4/10	14/4								
174	SUBA-09020		Prepare and submit and approve the Method Statement of Erection of the protective fencing			26 days	Mon 16/9/19	Fri 11/10/19	Mon 16/9/19	Fri 11/10/19	0 days	2	211	100%			16/9	11/10								
175	SUBA-09030		Prepare and submit and approve the Method Statement of Tree felling, Preservation, Prunning works & Transplanting			74 days	Fri 11/10/19	Mon 23/12/19	Fri 11/10/19	Mon 23/12/19	0 days	2	211,256	100%			11/10	23/12								
176	SUBA-09040		Submit Yearly Tree Risk Assessment and Inspection Report			1590 days	Mon 16/9/19	Mon 22/1/24	Mon 16/9/19	NA	0 days	2		43%			16/9						22/1			
177	SUBA-10000		Others			1138 days	Fri 20/9/19	Mon 31/10/22	Fri 20/9/19	NA	0 days			64%			20/9						31/10			
178	SUBA-10010		Approval for Lighting Removal at Portion C-1A of the Site from Hyd			114 days	Thu 26/9/19	Fri 17/1/20	Thu 26/9/19	Fri 17/1/20	0 days	2	224	100%			26/9	17/1								
179	SUBA-10020		Prepare, submit & approve for commencement of Works near MTRCL protection zone at Sun Wan Road from MTRCL			43 days	Fri 20/9/19	Fri 1/11/19	Fri 20/9/19	Fri 1/11/19	0 days	2	535	100%			20/9	1/11								
180	SUBA-10030		Prepare, submit & approve for commencement Works along the riverbank by DSD			90 days	Wed 3/8/22	Mon 31/10/22	NA	NA	0 days		522,523,525,524	0%							3/8	31/10				
181	SUBP-00000		Procurement			630 days	Mon 16/9/19	Sun 6/6/21	Mon 16/9/19	Sun 6/6/21	0 days			100%			16/9						6/6			
182	SUBP-01000		Prepare and submit the Procurement Procedure			34 days	Mon 16/9/19	Sat 19/10/19	Mon 16/9/19	Sat 19/10/19	0 days	2	183	100%			16/9	19/10								
183	SUBP-02000		PM Review & Accept Procurement Procedure			0 days	Sat 19/10/19	Sat 19/10/19	Sat 19/10/19	Sat 19/10/19	0 days	182	184,201,205,206,	100%			16/9	19/10								
184	SUBP-03000		Pipe works material			480 days	Fri 8/11/19	Mon 1/3/21	Fri 8/11/19	Mon 1/3/21	0 days	183		100%			8/11						1/3			
185	SUBP-03010		Prepare & submit concrete pipe material particular			199 days	Tue 12/11/19	Thu 28/5/20	Tue 12/11/19	Thu 28/5/20	0 days	2	186	100%			12/11	28/5								
186	SUBP-03020		Approval of concrete pipe material			205 days	Thu 28/5/20	Sat 19/12/20	Thu 28/5/20	Sat 19/12/20	0 days	185	187	100%				28/5	19/12							
187	SUBP-03030		Procurement, deliver & testing of concrete pipe material (1st batch)			0 days	Fri 8/11/19	Mon 25/11/19	Fri 8/11/19	Mon 25/11/19	0 days	186	442,443	100%				25/11								
188	SUBP-03040		Procurement, deliver & testing of concrete pipe material (remaining)			285 days	Mon 16/12/19	Mon 1/3/21	Mon 16/12/19	Mon 1/3/21	0 days		479	100%			16/12						1/3			
189	SUBP-03050		Prepare & submit ductile iron pipe material particular			90 days	Thu 19/12/19	Tue 17/3/20	Thu 19/12/19	Tue 17/3/20	0 days	2	190	100%			19/12	17/3								
190	SUBP-03060		Approval of ductile iron pipe material			28 days	Tue 17/3/20	Tue 14/4/20	Tue 17/3/20	Tue 14/4/20	0 days	189	191	100%				17/3	14/4							
191	SUBP-03070		Procurement, deliver & testing of ductile iron pipe material			0 days	Wed 18/12/19	Tue 21/1/20	Wed 18/12/19	Tue 21/1/20	0 days	190	481	100%				21/1								
192	SUBP-03080		Prepare & submit HDPE pipe material particular			127 days	Tue 21/1/20	Tue 26/5/20	Tue 21/1/20	Tue 26/5/20	0 days	2FS+120 days	193	100%			21/1	26/5								
193	SUBP-03090		Approval of HDPE pipe material			21 days	Tue 26/5/20	Tue 16/6/20	Tue 26/5/20	Tue 16/6/20	0 days	192	194	100%				26/5	16/6							
194	SUBP-03100		Procurement, deliver & testing of HDPE pipe material			0 days	Fri 8/5/20	Mon 8/6/20	Fri 8/5/20	Mon 8/6/20	0 days	193	480,481	100%				8/5	8/6							
195	SUBP-03110		Prepare & submit stainless steel pipe material particular			8 days	Fri 1/5/20	Fri 8/5/20	Fri 1/5/20	Fri 8/5/20	0 days	2	196	100%				1/5	8/5							
196	SUBP-03120		Approval of stainless steel pipe material			21 days	Sat 9/5/20	Wed 5/8/20	Sat 9/5/20	Wed 5/8/20	0 days	195	197	100%				9/5	5/8							
197	SUBP-03130		Procurement, deliver & testing of stainless steel pipe material			90 days	Wed 5/8/20	Tue 3/11/20	Wed 5/8/20	Tue 3/11/20	0 days	196	478	100%				5/8	3/11							
198	SUBP-03140		Prepare & submit mild steel steel pipe material particular			1 day	Thu 19/12/19	Thu 19/12/19	Thu 19/12/19	Thu 19/12/19	0 days	2	199	100%			19/12	19/12								
199	SUBP-03150		Approval of mild steel pipe material			30 days	Thu 19/12/19	Sat 18/1/20	Thu 19/12/19	Sat 18/1/20	0 days	198	200	100%			19/12	18/1								
200	SUBP-03160		Procurement, deliver & testing of mild steel pipe material			133 days	Mon 9/12/19	Sat 30/5/20	Mon 9/12/19</																	

ID	Activity ID	KD	Task Name	Inclement Weather CE no. (NCE no.)	PMI & CE no. (NCE no.)	Duration	Start	Finish	Actual Start	Actual Finish	Total Slack	Predecessors	Successors	% Complete	Time Risk Allowan	2nd Half Q3	Q2	1st Half Q1	Q4	2nd Half Q3	Q2	1st Half Q1	Q4	2nd Half Q3	Q2	1st Half Q1
256	CSDC-03000		Tree Transplanting Works (TC080)	21, 22, 33, 45, 46, 257, 333	(50), (51)	120 days	Fri 24/4/20	Tue 15/9/20	Fri 24/4/20	Tue 15/9/20	0 days	175	266FS-8 days	100%				24/4	15/9							
257	CSDC-04000		Predrilling Works (50no., 4rig, 3 days/drillhole/rig)		(10)	10 days	Sat 28/12/19	Thu 9/1/20	Sat 28/12/19	Thu 9/1/20	0 days	127,143,154,155,156,158,1258,255SF,263	261	100%			28/12	9/1								
258	CSDC-05000		Installation of Monitoring Points			0 days	Thu 19/12/19	Thu 19/12/19	Thu 19/12/19	Thu 19/12/19	0 days	257	261	100%			15/1	7/2								
259	CSDC-06000		Sheetpile Installation- stage 1			24 days	Wed 15/1/20	Fri 7/2/20	Wed 15/1/20	Fri 7/2/20	0 days			100%			3/2	8/2								
260	CSDC-07000		Setting up plant for pre-bored socked H-pile Installation			6 days	Mon 3/2/20	Sat 8/2/20	Mon 3/2/20	Sat 8/2/20	0 days		261	100%			8/2	5/6								
261	CSDC-08000		Pre-bored Socketed H-Pile Installation (127nos, 3rig, 3days/rig/pile) (NCE no. 18A,25)	17, 21, 22, 33	(10)	69 days	Sat 8/2/20	Fri 5/6/20	Sat 8/2/20	Fri 5/6/20	0 days	128,258,263SS+20 days,260	262	100% 6			7/8	5/9								
262	CSDC-09000		Pile Loading Test	46, 257, 333		26 days	Fri 7/8/20	Sat 5/9/20	Fri 7/8/20	Sat 5/9/20	0 days	261,359SS+10 days	266	100%			4/5	7/12								
263	CSDC-10000		Sheetpile Installation- stage 2 (NCE no. 24 40)	22, 33, 45, 46, 257, 333, 258, (92), (112)	(33), (47)	182 days	Mon 4/5/20	Mon 7/12/20	Mon 4/5/20	Mon 7/12/20	0 days	257	261SS+20 days,327FS+8	100%			3/11	26/3								
264	CSDC-10900		Receiving of Civil Requirements from PM			1 day	Tue 15/6/21	Tue 15/6/21	Tue 15/6/21	Tue 15/6/21	0 days	266FF-2 emons	267SS-2 emons	100%			15/6	15/6								
265	CSDC-11000		Construction of Digestors			526 days	Tue 3/11/20	Sat 13/8/22	Tue 3/11/20	NA	-108 days	362		33%			3/11	26/3								
266	CSDC-11010		ELS Works (incl. Strut (4-layers) Installation & Excavation (17,600 cu.m)) (NCE no.92,131,165)	(112), 268, 338	(76)	88 days	Tue 3/11/20	Fri 26/3/21	Tue 3/11/20	Fri 26/3/21	0 days	145,131,262,130,256FS-8 days,263	267,264FF-2 emons	100% 2,3			27/3	31/3								
267	CSDC-11020		Construction of Digesters Tank no.1,2,3,4	(204),(228)	(125)	300 days	Sat 27/3/21	Thu 31/3/22	Sat 27/3/21	NA	-198 days	266,204,134,264SS-2 emo	268,271SS+180 c	34% 30			1/4	28/4								
268	CSDC-11030		Water Test			20 days	Fri 1/4/22	Thu 28/4/22	NA	NA	-192 days	267	269	0%			29/4	2/6								
269	CSDC-11040		Apply Internal Anti-corrosion Protective Lining			28 days	Fri 29/4/22	Thu 2/6/22	NA	NA	-192 days	268	270	0%			4/6	13/8								
270	CSDC-11050	KD3A	Construction of Roof Slab			60 days	Sat 4/6/22	Sat 13/8/22	NA	NA	-192 days	269	272,275,273,274,	0%			5/11	31/1								
271	CSDC-11060		Construction of Digestors & Distribution Chamber			72 days	Fri 5/11/21	Mon 31/1/22	NA	NA	4 days	267SS+180 days	478,479,480,481	0%			15/8	30/11								
272	CSDC-12000	KD3A	Allow access to Contactor DE/2018/03 for E&M Installation			0 days	Sat 13/8/22	Sat 13/8/22	NA	NA	-192 days	270	38FF	0%			15/8	30/11								
273	CSDC-13000		Drainage System (within Bldg/ Structure) Installation			90 days	Mon 15/8/22	Wed 30/11/22	NA	NA	0 days	270		0%			15/8	30/11								
274	CSDC-14000		FRP Walkway & Miscellaneous Installation			90 days	Mon 15/8/22	Wed 30/11/22	NA	NA	0 days	270		0%			15/8	17/12								
275	CSDC-15000	SW3	ABWF Works & BS Works		(173)	105 days	Mon 15/8/22	Sat 17/12/22	NA	NA	9 days	208,135,270	277	0%			14/8	15/12								
276	CSDC-15500	SW4	Surrounding sewerage, utility and process pipe works			124 days	Sun 14/8/22	Thu 15/12/22	NA	NA	-199 days	270	47FF,519FS-360	0%			18/12	15/6								
277	CSDC-16000	SW5	Surrounding Site formation works and road works			180 days	Sun 18/12/22	Thu 15/6/23	NA	NA	194 days	275	48FF	0%												
278	CSDC-00000	*	Sludge Dewatering Building (2)			875 days	Tue 26/11/19	Wed 9/11/22	Tue 26/11/19	NA	334 days			43%												
279	CSDB-01000		Site Clearance & Site Set Up			6 days	Tue 26/11/19	Mon 2/12/19	Tue 26/11/19	Mon 2/12/19	0 days	2	280	100%			26/11	2/12								
280	CSDB-02000		Predrilling Works (39no.4rig, 3days/drillhole/rig)		(10)	20 days	Thu 28/11/19	Fri 20/12/19	Thu 28/11/19	Fri 20/12/19	0 days	127,279	282,281	100%			28/11	20/12								
281	CSDB-03000		Additional Predrilling Works (11no.)			8 days	Mon 23/12/19	Mon 30/12/19	Mon 23/12/19	Mon 30/12/19	0 days	280	282	100%			23/12	30/12								
282	CSDB-04000		Installation of Monitoring Points			4 days	Fri 10/1/20	Tue 14/1/20	Fri 10/1/20	Tue 14/1/20	0 days	280,281	287FS-3 days,28	100%			10/1	14/1								
283	CSDB-05000		Sheet Pile Installation- stage1 (NCE No. 22, PMI no.005)	17		52 days	Wed 15/1/20	Fri 6/3/20	Wed 15/1/20	Fri 6/3/20	0 days	282	285,284	100%			15/1	6/3								
284	CSDB-06000		Setting up plant for pre-bored socked H-pile Installation	17		5 days	Sat 7/3/20	Thu 12/3/20	Sat 7/3/20	Thu 12/3/20	0 days	283	285	100%			7/3	12/3								
285	CSDB-07000		Pre-bored Socketed H-Pile Installation (202 Nos, 4 Rig, 3days/rig/pile)	17, 21, 22, 33	(10)	67 days	Fri 13/3/20	Fri 5/6/20	Fri 13/3/20	Fri 5/6/20	0 days	128,284,283	324,286	100% 24			13/3	5/6								
286	CSDB-08000		Pile Loading Test	33, 45		20 days	Tue 30/6/20	Thu 23/7/20	Tue 30/6/20	Thu 23/7/20	0 days	285	288	100%			3/12	23/7								
287	CSDB-09000		Sheet Pile Installation- stage2	17, 21, 22, 33, 45, 46, 257, 333, 258, (92)	(14), (24), (33), (113), (153)	295 days	Tue 3/12/19	Mon 30/11/20	Tue 3/12/19	Mon 30/11/20	0 days	282FS-3 days	288	100% 56												
288	CSDB-10000		ELS Works (incl. Strut (3-layers) Installation & Excavation (25,000 cu.m))	258, (92), (112)	239, (40), (113), (153), (183)	25.5 days	Fri 30/10/20	Fri 5/2/21	Fri 30/10/20	Fri 5/2/21	0 days	145,131,286,130,287	290,291,478,479, emons	100% 10,2			30/10	5/2								
289	CSDB-10900		Receiving of Civil Requirements from PM			1 day	Tue 15/6/21	Tue 15/6/21	Tue 15/6/21	Tue 15/6/21	0 days	288FF-2 emons	290SS-2 emons	100%			6/2	15/6								
290	CSDB-11000		R.C. Structure			406 days	Sat 6/2/21	Sat 25/6/22	Sat 6/2/21	NA	-183 days	205,206,288,204,289SS-2	297,296	34% 10			6/2	25/6								
291	CSDB-11010		Basement Consturction & external waterproofing works	268, 338, (204),(228)	239, (53), (110), (113), (115), (123), (183), (184)	220 days	Sat 6/2/21	Fri 5/11/21	Sat 6/2/21	NA	-257 days	288	292,307	64% 30			6/2	5/11								
292	CSDB-11020		Ground Floor Construction @ +7.55mPD		(184)	82 days	Sat 6/11/21	Wed 16/2/22	NA	NA	-183 days	291	293	0%			6/11	16/2								
293	CSDB-11030		1/F Construction @ +15.3m mPD			72 days	Thu 17/2/22	Wed 18/5/22	NA	NA	-183 days	292	294,373,380	0%			17/2	18/5								
294	CSDB-11040	KD3B	Roof Construction @ +25.65mPD			32 days	Thu 19/5/22	Sat 25/6/22	NA	NA	-183 days	293	416,295,387,298,	0%			19/5	25/6								
295	CSDB-12000	KD3B	Allow access to Contactor DE/2018/03 for E&M Installation			0 days	Sat 25/6/22	Sat 25/6/22	NA	NA	-164 days	294	39FF	0%			25/6	25/6								
296	CSDB-13000		Allow access to Contactor DE/2018/03 for Drainage System (within Bldg/ structure) installation			90 days	Mon 27/6/22	Thu 13/10/22	NA	NA	0 days	290		0%			27/6	13/10								
297	CSDB-14000	SW3	ABWF Works & BS Works & Apply Internal Anti-corrosion Protective Lining		(95), (173)	164 days	Mon 27/6/22	Wed 11/1/23	NA	NA	-9 days	290,208,135	299	0%			27/6	11/1								
298	CSDB-14500	SW4	Surrounding sewerage, utility and process pipe works			153 days	Mon 27/6/22	Wed 28/12/22	NA	NA	-175 days	294	47FF,519FS-367	0%			27/6	28/12								
299	CSDB-15000	SW5	Surrounding Site formation works and road works			180 days	Thu 12/1/23	Mon 10/7/23	NA	NA	169 days	297	48FF	0%												
300	CHPB-00000	*	Combined Heat Power Building (3)			1140 days	Tue 10/12/19	Tue 17/10/23	Tue 10/12/19	NA	57 days			13%			10/12	17/10								
301	CHPB-01000		Site Clearance & Site Set Up			6 days	Tue 10/12/19	Mon 16/12/19	Tue 10/12/19	Mon 16/12/19	0 days	2,302SF		100%			10/12	16/12								
302	CHPB-02000		Predrilling Works (15no. 2rig, 3days/drillhole/rig)		(10)	15 days	Tue 10/12/19	Sat 28/12/19	Tue 10/12/19	Sat 28/12/19	0 days	127FS+28 days	303,301SF	100%			10/12	28/12								
303	CHPB-03000		Installation of Monitoring Points			4 days	Fri 3/1/20	Tue 7/1/20	Fri 3/1/20	Tue 7/1/20	0 days	302	305	100%			3/1	7/1								
304	CHPB-04000		Setting up plant for pre-bored socked H-pile Installation			6 days	Wed 8/1/20	Tue 14/1/20	Wed 8/1/20	Tue 14/1/20	0 days		305	100%			8/1	14/1								
305	CHPB-05000		Pre-bored Socketed H-Pile Installation (50 Nos, 2 Rig 3days/rig/pile) (PMI no.005)	17, 21	(10)	77 days	Wed 15/1/20	Tue 21/4/20	Wed 15/1/20	Tue 21/4/20	0 days	128,303,304,538	306	100% 6			15/1	21/4								
306	CHPB-06000		Pile Loading Test			4 days	Wed 29/7/20	Sat 1/8/20	Wed 29/7/20	Sat 1/8/20	0 days	305	307	100%			29/7	1/8								
307	CHPB-07000		Excavation for Pile Cap (2,060 cu.m)			30 days	Sat 6/11/21	Fri 10/12/21	NA	NA	-257 days	145,131,306,130,291	309,308FF-2 emc	0% 10			6/11	10/12								
308	CHPB-07900		Receiving of Civil Requirements from PM			1 day	Fri 16/7/21	Fri 16/7/21	Fri 16/7/21	Fri 16/7/21	0 days	307FF-2 emons	309SS-2 emons	100%			16/7	16/7								
309	CHPB-08000	KD3C	R.C. Structure			263 days	Sat 11/12/21	Wed 21/1/22	NA	NA	-257 days	205,206,133,307,204,308S	316,317,315	0% 10			11/12	25/2								
310	CHPB-08100		Lower Ground Floor @+7.55mPD			60 days	Sat 11/12/21	Fri 25/2/22	NA	NA	-257 days		311	0%			26/2	13/5								
311	CHPB-08200		Upper Ground Floor @13.05mPD			60 days	Sat 26/2/22	Fri 13/5/22	NA	NA	-257 days	310	312	0%			14/5	25/7								
312	CHPB-08300		First Floor @19.60mPD			60 days	Sat 14/5/22	Mon 25/7/22	NA	NA	-257 days	311	313	0%			26/7	6/10								
313	CHPB-08400		Podium @24.15mPD			60 days	Tue 26/7/22	Thu 6/10/22	NA	NA	-257 days	312	314	0%			7/10	2/11								

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

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

群利 - 俊和聯營體
KL - CW JV

ID	Activity ID	KD	Task Name	Inclement Weather CE no. (NCE no.)	PMI & CE no. (NCE no.)	Duration	Start	Finish	Actual Start	Actual Finish	Total Slack	Predecessors	Successors	% Complete	Time Risk Allowan	2nd Half Q3	Q2	1st Half Q1	Q4	2nd Half Q3	Q2	1st Half Q1	Q4	2nd Half Q3	Q2	1st Half Q1
340	CWS2-06000		Pile Loading Test	33		16 days	Sun 7/6/20	Fri 26/6/20		Sun 7/6/20	Fri 26/6/20	0 days	339,539FS+5 days	341,326FS+5 day	100%			7/6	26/6							
341	CWS2-07000		Excavation for Pile Cap (1,800 cu.m)	268, 338	(85), (169)	24 days	Thu 31/12/20	Thu 28/1/21	Thu 31/12/20	Thu 28/1/21	0 days	145,131,340,130	344,478,479,480,	100%	56			31/12	28/1							
342	CWS2-07900		Receiving of Civil Requirements from PM			1 day	Mon 21/6/21	Mon 21/6/21	Mon 21/6/21	Mon 21/6/21	0 days	341FF-2 emons	343SS-2 emons	100%				21/6	21/6							
343	CWS2-08000		R.C. Structure			237 days	Tue 16/3/21	Fri 31/12/21	Tue 16/3/21	NA	-102 days	342SS-2 emons		47%	10											
344	CWS2-08010		Ground Floor Construction @ +6.30mpD	(204), (228)	(169), (185), (195), (217), (223), (229),	135 days	Tue 16/3/21	Sat 28/8/21	Tue 16/3/21	NA	-108 days	341,204	345	82%				16/3	31/12							
345	CWS2-08020		First Floor Construction @ +13.50mpD			62 days	Mon 30/8/21	Fri 12/11/21	NA	NA	-108 days	344	346	0%				16/3	28/8							
346	CWS2-08030	KD3D	Roof Construction @+19.00mPD			40 days	Sat 13/11/21	Fri 31/12/21	NA	NA	-108 days	345	348,349,347,404,	0%					30/8	12/11						
347	CWS2-09000	KD3D	Allow access to Contarctor DE/2018/03 for E&M Installation			0 days	Fri 31/12/21	Fri 31/12/21	NA	NA	-108 days	346	41FF	0%					13/11	31/12						
348	CWS2-10000		Drainage System (within Bldg/ Structure) Installation			60 days	Mon 3/1/22	Wed 16/3/22	NA	NA	0 days	346		0%					3/1	16/3						
349	CWS2-11000	SW3	ABWF Works & BS Works		(95), (173)	135 days	Mon 3/1/22	Mon 20/6/22	NA	NA	160 days	208,135,346	351,46FF	0%					3/1	20/6						
350	CWS2-11500	SW4	Surrounding sewerage, utility and process pipe works			125 days	Mon 3/1/22	Wed 8/6/22	NA	NA	-7 days	346	47FF,519FS-200	0%					3/1	8/6						
351	CWS2-12000	SW5	Surrounding Site formation works and road works			180 days	Tue 21/6/22	Sat 17/12/22	NA	NA	374 days	349	48FF	0%						21/6	17/12					
352	CTHP-00000	*	Thermal Hydrolysis Pretreatment (6)			777 days	Thu 19/12/19	Sun 7/8/22	Thu 19/12/19	NA	412 days			35%			19/12									
353	CTHP-01000		Site Clearance & Site Set Up			18 days	Thu 19/12/19	Sat 11/1/20	Thu 19/12/19	Sat 11/1/20	0 days	2	354,355	100%			19/12	11/1								
354	CTHP-02000		Predrilling Works (3no.1rig, 3days/drillhole/rig)		21/24, (10)	1 day	Fri 10/1/20	Mon 13/1/20	Fri 10/1/20	Mon 13/1/20	0 days	127FS+24 days,353	356	100%			10/1	13/1								
355	CTHP-03000		Additional Predrilling Works (4no.)		(12)	1 day	Fri 10/1/20	Mon 13/1/20	Fri 10/1/20	Mon 13/1/20	0 days	353	356	100%			10/1	13/1								
356	CTHP-04000		Installation of Monitoring Points			6 days	Fri 1/5/20	Fri 8/5/20	Fri 1/5/20	Fri 8/5/20	0 days	354,355	358	100%				1/5	8/5							
357	CTHP-05000		Setting up plant for pre-bored socked H-pile Installation	22		5 days	Tue 12/5/20	Sat 16/5/20	Tue 12/5/20	Sat 16/5/20	0 days	357	358	100%				12/5	16/5							
358	CTHP-06000		Pre-bored Socketed H-Pile Installation (15 Nos, 1 Rig, 3days/rig/pile)	22, 33	(10)	30 days	Mon 18/5/20	Sat 20/6/20	Mon 18/5/20	Sat 20/6/20	0 days	128,356,357,339	359	100%	6			18/5	20/6							
359	CTHP-07000		Pile Loading Test	45, 46, 257		25 days	Mon 27/7/20	Fri 11/9/20	Mon 27/7/20	Fri 11/9/20	0 days	358,230FS+5 days	360,262SS+10 de	100%				27/7	11/9							
360	CTHP-08000		Excavation for Pile Cap (160 cu.m)		225, (70), (75)	12 days	Mon 19/10/20	Mon 2/11/20	Mon 19/10/20	Mon 2/11/20	0 days	145,131,359,341	362,361FF-2 emc	100%				19/10	2/11							
361	CTHP-08900		Receiving of Civil Requirements from PM			1 day	Tue 15/6/21	Tue 15/6/21	Tue 15/6/21	Tue 15/6/21	0 days	360FF-2 emons	362SS-2 emons	100%					15/6	15/6						
362	CTHP-09000	KD3E	R.C. Plinth	268, 338	225, (115)	0 days	Mon 2/11/20	Sat 28/11/20	Mon 2/11/20	Sat 28/11/20	0 days	360,265,361SS-2 emons	363,42FF	100%				2/11	28/11							
363	CTHP-10000	SW5	Surrounding Site formation works and road works			180 days	Wed 9/2/22	Sun 7/8/22	NA	NA	506 days	362,426SS	48FF	0%						9/2	7/8					
364	CFCD-00000	*	Ferric Chloride Dosing Facilities (10)			425 days	Tue 15/6/21	Wed 16/11/22	Tue 15/6/21	NA	328 days			0%				15/6								
365	CFCD-01000		Excavation & ELS for Raft Footing (105 cu.m)			34 days	Wed 11/8/21	Sat 18/9/21	NA	NA	-20 days	330SS+158 days	366	0%				11/8	18/9							
366	CFCD-02000		Plate Load Test			18 days	Mon 20/9/21	Tue 12/10/21	NA	NA	-20 days	365	368,367FF-2 emc	0%				20/9	12/10							
367	CFCD-02900		Receiving of Civil Requirements from PM			1 day	Tue 15/6/21	Tue 15/6/21	Tue 15/6/21	Tue 15/6/21	0 days	366FF-2 emons	368SS-2 emons	100%				15/6	15/6							
368	CFCD-03000		R.C. Structure			66 days	Wed 13/10/21	Fri 31/12/21	NA	NA	-20 days	366,133,204,367SS-2 emo	369	0%	5				13/10	31/12						
369	CFCD-04000	KD3E	Steel Roof Structure (On-site Fabrication)			65 days	Mon 3/1/22	Tue 22/3/22	NA	NA	-20 days	368	370,42FF	0%					3/1	22/3						
370	CFCD-05000	SW3	ABWF Works & BS Works			45 days	Wed 23/3/22	Fri 20/5/22	NA	NA	23 days	369,208,135	371,46FF,519FS-	0%					23/3	20/5						
371	CFCD-06000	SW5	Surrounding Site formation works and road works			180 days	Sat 21/5/22	Wed 16/11/22	NA	NA	405 days	370	48FF	0%					21/5	1						

ID	Activity ID	KD	Task Name	Inclement Weather CE no. (NCE no.)	PMI & CE no. (NCE no.)	Duration	Start	Finish	Actual Start	Actual Finish	Total Slack	Predecessors	Successors	% Complete	Time Risk Allowan	2nd Half Q3	Q2	1st Half Q1	Q4	2nd Half Q3	Q2	1st Half Q1	Q4	2nd Half Q3	Q2	1st Half Q1
432	CH2S-04000	SW5	Surrounding Site formation works and road works			180 days	Thu 30/6/22	Mon 26/12/22	NA	NA	365 days	431	48FF	0%												
433	CDS12-00000	*	Deodorization System No. 12 (19)			512 days	Tue 15/6/21	Sun 5/3/23	Tue 15/6/21	NA	241 days			0%												
434	CDS12-01000		Excavation to Formation			20 days	Thu 30/6/22	Sat 23/7/22	NA	NA	-156 days	431	435	0%												
435	CDS12-02000		Plate Load Test			18 days	Mon 25/7/22	Sat 13/8/22	NA	NA	-156 days	434	437,436FF-2 emc	0%												
436	CDS12-02900		Receiving of Civil Requirements from PM			1 day	Tue 15/6/21	Tue 15/6/21	Tue 15/6/21	Tue 15/6/21	0 days	435FF-2 emons	437SS-2 emons	100%												
437	CDS12-03000	KD3E	R.C. Plinth			20 days	Mon 15/8/22	Tue 6/9/22	NA	NA	-156 days	435,133,407,436SS-2 emc	438,42FF	0%												
438	CDS12-04000	SW5	Surrounding Site formation works and road works			180 days	Wed 7/9/22	Sun 5/3/23	NA	NA	296 days	437	48FF	0%												
439	CUPH-00000	SW5	Underpass & Pump House			711 days	Thu 20/2/20	Sat 16/7/22	NA	NA	197 days		47FF	0%												
440	CPWU-00000	*	Pipe Works and Utility Installation			1464 days	Fri 22/11/19	Sat 9/11/24	Fri 22/11/19	NA	0 days			20%												
441	CPWU-01000		Pipe Works At Chuk Wan Street			498 days	Fri 22/11/19	Fri 30/7/21	Fri 22/11/19	Fri 30/7/21	0 days			100%												
442	CPWU-01100		Drainage Diversion (Existing Drainage Culvert)			498 days	Fri 22/11/19	Fri 30/7/21	Fri 22/11/19	Fri 30/7/21	0 days	224,187		100%												
443	CPWU-01110		Stage 1 - Drainage Diversion of Drainage btw Reconstructed Storm Water Manhole SMH1003177A and Reconstructed Storm Water Manhole MHD33 - A			7 days	Fri 22/11/19	Fri 29/11/19	Fri 22/11/19	Fri 29/11/19	0 days	125,146,151,147,136,168,1444		100%												
444	CPWU-01120		Stage 1 - Drainage Diversion of Drainage btw Reconstructed Storm Water Manhole SMH1003177A and Reconstructed Storm Water Manhole MHD33 - A and Additional concrete surround at MH18, MH16 and additional manhole (Type 1)	17, 21	23, 26, (8), (17), (34), (39)	90 days	Mon 6/1/20	Mon 27/4/20	Mon 6/1/20	Mon 27/4/20	0 days	443		100%												
445	CPWU-01130	KD1A	Stage 1 - Backfilling Works for Drainage Diversion			9 days	Tue 28/4/20	Wed 6/5/20	Tue 28/4/20	Wed 6/5/20	0 days		229	100%												
446	CPWU-01140	KD1A	Stage 2 - Drainage Diversion of Drainage b/w MHD26 and SMHH1003177A, to Abandon of Existing Drainage Culvert (1 Cell, 1000mm x 1150mm) within Portion C-1A & C-1B - Part 1	338, (204), (228)		60 days	Thu 4/3/21	Tue 18/5/21	Thu 4/3/21	Tue 18/5/21	0 days	241	447	100%												
447	CPWU-01150	SW1	Stage 2 - Drainage Diversion of Drainage b/w MHD26 and SMHH1003177A, to Abandon of Existing Drainage Culvert (1 Cell, 1000mm x 1150mm) outside Portion C-1A & C-1B - Part 2			60 days	Thu 20/5/21	Fri 30/7/21	Thu 20/5/21	Fri 30/7/21	0 days	446	44FF	100%												
448	CPWU-01200	SW4	Trenchless Work for Pipe Installation			309 days	Sat 13/6/20	Tue 29/6/21	Sat 13/6/20	Tue 29/6/21	0 days		47FF	100%												
449	CPWU-01210		Installation of Monitoring Points	33		4 days	Sat 13/6/20	Wed 17/6/20	Sat 13/6/20	Wed 17/6/20	0 days		451	100%												
450	CPWU-01220		Construction of Temporary Jacking Pit			95 days	Thu 18/6/20	Sun 11/10/20	Thu 18/6/20	Sun 11/10/20	0 days	15,139		100%												
451	CPWU-01221		Trial Pit Excavation & UU Detection Works			0 days	Thu 18/6/20	Thu 18/6/20	Thu 18/6/20	Thu 18/6/20	0 days	2,449	452	100%												
452	CPWU-01222		Pit Construction (11m x 9m)	33, 45, 46, 257, 333, (69)		89 days	Fri 26/6/20	Sun 11/10/20	Fri 26/6/20	Sun 11/10/20	0 days	451	455	100%												
453	CPWU-01230		Pipe Jacking Operation			180 days	Mon 12/10/20	Mon 24/5/21	Mon 12/10/20	Mon 24/5/21	0 days			100%												
454	CPWU-01231		Twin DN900 DI pipe (CHAT & CHAU)		(26), (128)	180 days	Mon 12/10/20	Mon 24/5/21	Mon 12/10/20	Mon 24/5/21	0 days			100%												
455	CPWU-01231a		Setting Up of Entrance Ring & Gantry, and Trenchless Equipment	(69), (92)	(60)	24 days	Mon 12/10/20	Mon 9/11/20	Mon 12/10/20	Mon 9/11/20	0 days	452	456	100%												
456	CPWU-01231b		Pipe Jacking Operation for CHAT DN900 DI pipe (30m, 3m/day)	(92)		26 days	Mon 9/11/20	Wed 9/12/20	Mon 9/11/20	Wed 9/12/20	0 days	455	459,458,457	100% 6												
457	CPWU-01231c		Setting Up of Entrance Ring & Gantry, and Trenchless Equipment	(112)		7 days	Wed 9/12/20	Wed 16/12/20	Wed 9/12/20	Wed 16/12/20	0 days	456	458	100%												
458	CPWU-01231d		Pipe Jacking Operation for CHAU DN900 DI pipe (30m, 3m/day)	(112)		16 days	Sat 12/12/20	Sun 27/12/20	Sat 12/12/20	Sun 27/12/20	0 days	456,457	459	100%												
459	CPWU-01231e		Installation of grouting pipe and rail			23 days	Sat 26/12/20	Sun 24/1/21	Sat 26/12/20	Sun 24/1/21	0 days	456,458	460	100%												
460	CPWU-01231f		Pipe Laying Works			25 days	Fri 26/3/21	Wed 28/4/21	Fri 26/3/21	Wed 28/4/21	0 days	459	461	100%												
461	CPWU-01231g		Formwork Erection and grouting works			7 days	Thu 29/4/21	Fri 7/5/21	Thu 29/4/21	Fri 7/5/21	0 days	460		100%												
462	CPWU-01231h		Backfilling works			14 days	Fri 7/5/21	Mon 24/5/21	Fri 7/5/21	Mon 24/5/21	0 days	469SS		100%												
463	CPWU-01232		Pipe Jacking Operation for DN2200 MS pipe (CHAV)			100 days	Mon 18/1/21	Mon 24/5/21	Mon 18/1/21	Mon 24/5/21	0 days			100%												
464	CPWU-01232a		Setting Up of Entrance Ring & Gantry, and Trenchless Equipment		(62)	18 days	Mon 18/1/21	Sun 7/2/21	Mon 18/1/21	Sun 7/2/21	0 days		465	100%												
465	CPWU-01232b		Pipe Jacking Operation for twin DN2200 DI pipe	268, 338		28 days	Mon 8/2/21	Mon 15/3/21	Mon 8/2/21	Mon 15/3/21	0 days	464	466	100% 6												
466	CPWU-01232c		Installation of grouting pipe and rail	(204)		18 days	Tue 16/3/21	Fri 9/4/21	Tue 16/3/21	Fri 9/4/21	0 days	465	467	100%												
467	CPWU-01232d		Pipe Laying Works	(204)		18 days	Sat 10/4/21	Fri 30/4/21	Sat 10/4/21	Fri 30/4/21	0 days	466	468	100%												
468	CPWU-01232e		Formwork Erection and grouting works			4 days	Mon 3/5/21	Thu 6/5/21	Mon 3/5/21	Thu 6/5/21	0 days	467	470,469	100%												
469	CPWU-01232f		Backfilling works			14 days	Fri 7/5/21	Mon 24/5/21	Fri 7/5/21	Mon 24/5/21	0 days	468	470,462SS	100%												
470	CPWU-01240		Reinstatement of Temporary Launching Pit			30 days	Tue 25/5/21	Tue 29/6/21	Tue 25/5/21	Tue 29/6/21	0 days	468,469	471	100%												
471	CPWU-01020	SW5	Surrounding Site formation works and road works			180 days	Wed 22/2/23	Sun 20/8/23	NA	NA	128 days	470,478,479,480,481,482	48FF	0%												
472	CPWU-02000		Process Pipeworks, All Sewerage, Utilities & Roadworks in Portion C of the Site			773 days	Wed 15/7/20	Tue 21/2/23	Wed 15/7/20	NA	18 days			66%												
473	CPWU-02100		Process Pipeworks			409 days	Wed 15/7/20	Fri 26/11/21	Wed 15/7/20	NA	382 days			90%												
474	CPWU-02110		Connection pipe at UV System no.1 & Effluent Pumping Staition no.1			409 days	Wed 15/7/20	Fri 26/11/21	Wed 15/7/20	NA	382 days			90%												
475	CPWU-02111	SW1	Effluent Pipe(approx. 70m, dia 300-1600)			500 days	Wed 15/7/20	Fri 26/11/21	Wed 15/7/20	NA	473 days			90%												
476	CPWU-02111a		Twin DN900 +DN2200 (CHAT, CHAU, CHAV) (+0.2mPD)	45, 46, 257, 333, 258, 268, 338, (92), (112), (204), (228)	(60), (62), (66),(152)	220 days	Wed 15/7/20	Fri 7/5/21	Wed 15/7/20	Fri 7/5/21	0 days	229		100%												
477	CPWU-02111c		CHAM, CHAN Pipe Laying (+2.0mPD)			25 days	Fri 29/10/21	Fri 26/11/21	NA	NA	382 days	490	47FF	0%												
478	CPWU-02120	SW4	Remaining Effluent Pipes & testing works			89 days	Thu 3/11/22	Tue 21/2/23	NA	NA	-218 days	138,288,341,197,200,271,47FF,471		0%												
479	CPWU-02130	SW4	Stormdrain Pipeworks & testing works			89 days	Thu 3/11/22	Tue 21/2/23	NA	NA	-218 days	138,288,341,188,271,294,47FF,471		0%												
480	CPWU-02140	SW4	Sewerage Pipeworks, manhole, protective lining & testing works		210	89 days	Thu 3/11/22	Tue 21/2/23	NA	NA	-218 days	138,288,341,194,271,294,47FF,471		0%												
481	CPWU-02150	SW4	Watermain Pipeworks & testing works		205, 206, 207, 216, 219, 220, 221, 221-1, 222	89 days	Thu 3/11/22	Tue 21/2/23	NA	NA	-218 days	138,288,341,191,194,271,47FF,471		0%												
482	CPWU-02160	SW4	Cable & Other Underground Utility Pipeworks	17, 21, 22, 33, 45, 46, 257, 333, 258, 268, 338, (92), (112), (204), (228)		237 days	Sat 6/2/21	Thu 25/11/21	Sat 6/2/21	NA	147 days	138,288,341	471	59%												
483	CPWU-02161	SW1	Portion C1-B, Area 1			139 days	Thu 13/5/21	Thu 28/10/21	Thu 13/5/21	NA	-16 days	249	44FF	47%												
484	CPWU-02161a		Falsework removal of UV no.1 building		288, 248	30 days	Thu 13/5/21	Fri 18/6/21	Thu 13/5/21	Fri 18/6/21	0 days		485	100%												
485	CPWU-02161b		Fence Wall (25m) - Footing		248	20 days	Sat 19/6/21	Tue 13/7/21	Sat 19/6/21	Tue 13/7/21	0 days	484	486	100%												
486	CPWU-02161c		Sewage & Drainage system & Concrete Pipe between MHD26 and SMH1003177A (+3.6mPD)			20 days	Wed 14/7/21	Thu 5/8/21	Wed 14/7/21	NA	-16 days	485	487	80%												
487	CPWU-02161d		Process pipe DN800 (CHAY)			20 days	Fri 6/8/21	Sat 28/8/21	NA	NA	-16 days	486	488	0%												
488	CPWU-02161e		Fence wall (25m) - Wall			16 days	Mon 30/8/21	Thu 16/9/21	NA	NA	-16 days	487	489	0%												
489	CPWU-02161f		Irrigation System		218	8 days	Fri 17/9/21	Mon 27/9/21	NA	NA	-16 days	488	490	0%												
490	CPWU-02161g	SW1	Road works (footpath 25m)			25 days	Tue 28/9/21	Thu 28/10/21	NA	NA	-16 days	489	477	0%												
491	CPWU-02162	SW1	Portion C1-1B, Area 2			250 days	Thu 24/6/21	Wed 27/4/22	Thu 24/6/21	NA	-161 days		44FF	14%												

ID	Activity ID	KD	Task Name	Inclement Weather CE no. (NCE no.)	PMI & CE no. (NCE no.)	Duration	Start	Finish	Actual Start	Actual Finish	Total Slack	Predecessors	Successors	% Complete	Time Risk Allowan	2nd Half Q3	Q2	1st Half Q1	Q4	2nd Half Q3	Q2	1st Half Q1	Q4	2nd Half Q3	Q2	1st Half Q1
503	CPWU-02162i		Fire Hydrant		207	30 days	Fri 25/2/22	Thu 31/3/22	NA	NA	-142 days	500		0%												
504	CPWU-02162j		Area between Fence wall and SSSH			130 days	Mon 11/10/21	Fri 18/3/22	NA	NA	-331 days	494		0%												
505	CPWU-02162j0		300 Uchannel (50m)			30 days	Mon 11/10/21	Mon 15/11/21	NA	NA	-331 days		506	0%												
506	CPWU-02162j1		HyD Lighting pole and drawpits		PMI	20 days	Tue 16/11/21	Wed 8/12/21	NA	NA	-331 days	505	507,508	0%												
507	CPWU-02162j2		Road light & drawpit		PMI	35 days	Thu 9/12/21	Fri 21/1/22	NA	NA	-331 days	506	509	0%												
508	CPWU-02162j3		Cable Drawpit & ducts		PMI	30 days	Thu 9/12/21	Sat 15/1/22	NA	NA	-326 days	506	509	0%												
509	CPWU-02162j4	SW1	Road works (footpath & carriageway)			45 days	Sat 22/1/22	Fri 18/3/22	NA	NA	-331 days	508,507	511FS-60 days	0%												
510	CPWU-02163	SW1	Portion C1-1B, Area 3			260 days	Wed 5/1/22	Sat 19/11/22	NA	NA	-331 days		44FF	0%												
511	CPWU-02163a		Effluent Chamber		PMI	180 days	Wed 5/1/22	Mon 15/8/22	NA	NA	-331 days	509FS-60 days	512	0%												
512	CPWU-02163b		Process Pipe DN1400 (CHAW) (35m)		273	25 days	Tue 16/8/22	Wed 14/9/22	NA	NA	-331 days	511	515,513SS,514SS	0%												
513	CPWU-02163c		Process Pipe DN300 (CHBA) (35m)			25 days	Tue 16/8/22	Fri 9/9/22	NA	NA	-402 days	512SS	515	0%												
514	CPWU-02163d		Process Pipe DN300 (CHAX) (10m)			25 days	Tue 16/8/22	Fri 9/9/22	NA	NA	-402 days	512SS	515	0%												
515	CPWU-02163e		Cable drawpit and ducts		PMI	25 days	Thu 15/9/22	Sat 15/10/22	NA	NA	-331 days	512,513,514	516	0%												
516	CPWU-02163f	SW1	Road Works (footpath & carriageway)			30 days	Mon 17/10/22	Sat 19/11/22	NA	NA	-331 days	515		0%												
517	CPWU-02200	SW4	Pipe Bridge No.1			175 days	Mon 2/8/21	Thu 3/3/22	NA	NA	69 days	2	47FF	0%												
518	CRWL-00000	*	Remaining Works & Landscape Works			891 days	Sat 30/10/21	Sat 9/11/24	NA	NA	0 days			0%												
519	CRWL-01000	SW5	Irrigation System		218	600 days	Sat 30/10/21	Wed 8/11/23	NA	NA	39 days	141,251,276FS-360 days,248FF		0%												
520	CRWL-02000	SW5	Hard Landscape Works			600 days	Sat 30/10/21	Wed 8/11/23	NA	NA	39 days	141,251,276FS-360 days,248FF		0%												
521	CRWL-03000	SW5	Soft Landscape Works			600 days	Sat 30/10/21	Wed 8/11/23	NA	NA	0 days	141,251,276FS-360 days,2527,48FF		0%												
522	CRWL-04000	SW5	Outfall for Effluent Pipes			124 days	Tue 1/11/22	Fri 31/3/23	NA	NA	218 days	180	48FF	0%												
523	CRWL-05000	SW5	Slope Formation Works near Outfall			124 days	Tue 1/11/22	Fri 31/3/23	NA	NA	218 days	180	48FF	0%												
524	CRWL-06000	SW5	Removal of invasive trees along River Embankment		(37)	90 days	Tue 1/11/22	Mon 20/2/23	NA	NA	162 days	180	525	0%												
525	CRWL-07000	SW5	Retaining Wall along River Embankment, street furniture & road works			90 days	Tue 21/2/23	Mon 12/6/23	NA	NA	162 days	180,524	48FF	0%												
526	CRWL-08000	SW5	Remaining Site formation works, road works and boundary fence wall			250 days	Fri 21/4/23	Tue 26/12/23	NA	NA	0 days	46	48FF	0%												
527	CRWL-09000		Establishment Works (365 Calendar Days)			291 days	Thu 9/11/23	Sat 9/11/24	NA	NA	0 days	521,141		0%												
528	CWPA-00000	*	Construction of Portion A of the Site			1035 days	Wed 27/11/19	Tue 30/5/23	Wed 27/11/19	NA	23 days			54%												
529	C132SI-00000	*	132kV Substation			1035 days	Wed 27/11/19	Tue 30/5/23	Wed 27/11/19	NA	23 days			54%												
530	C132SI-00000		Internal Works			943 days	Wed 27/11/19	Sat 4/2/23	Wed 27/11/19	NA	115 days			58%												
531	C132SI-01000		Site Clearance & Site Set Up			19 days	Tue 10/12/19	Fri 3/1/20	Tue 10/12/19	Fri 3/1/20	0 days	2	532	100%												
532	C132SI-02000		Additional Tree Felling Works		(29)	14 days	Fri 20/12/19	Thu 2/1/20	Fri 20/12/19	Thu 2/1/20	0 days	531	534	100%												
533	C132SI-03000		Trial Pit Excavation & UU Detection Works			0 days	Mon 2/12/19	Thu 12/12/19	Mon 2/12/19	Thu 12/12/19	0 days	2	535	100%												
534	C132SI-04000		Additional Demolition of existing structure		4, (2), (36)	28 days	Wed 27/11/19	Tue 31/12/19	Wed 27/11/19	Tue 31/12/19	0 days	532	535	100%												
535	C132SI-05000		Predrilling Works (11no., 1rig, 3days/drillhole/rig)		(10)	16 days	Sat 4/1/20	Wed 22/1/20	Sat 4/1/20	Wed 22/1/20	0 days	127,533,179,534	536	100%												
536	C132SI-06000		Installation of Monitoring Points		29/32	4 days	Thu 16/1/20	Mon 20/1/20	Thu 16/1/20	Mon 20/1/20	0 days	535	537	100%												
537	C132SI-07000		Setting up plant for pre-bored socked H-pile Installation		5, (22)	3 days	Mon 27/1/20	Fri 31/1/20	Mon 27/1/20	Fri 31/1/20	0 days	536	538	100%												
538	C132SI-08000		Pre-bored Socketed H-Pile Installation (41 Nos, 2 Rig, 3days/rig/pile)	17, 21, 22	39/43, (10), (19), (36)	88 days	Sat 1/2/20	Wed 20/5/20	Sat 1/2/20	Wed 20/5/20	0 days	128,537	539,305,541	100% 6												
539	C132SI-09000		Pile Load Test	22, 33		23 days	Thu 21/5/20	Tue 16/6/20	Thu 21/5/20	Tue 16/6/20	0 days	538	540,340FS+5 day	100%												
540	C132SI-10000		Sheetpile Installation Stage 1	45	234, (19), (23), (36), (56), (59)	118 days	Thu 21/5/20	Fri 9/10/20	Thu 21/5/20	Fri 9/10/20	0 days	539,130	543	100% 6												
541	C132SI-11000		CHP Cable Diversion Works	22, 33, 45, 46, 257, 333	31/35, (23), (137)	70 days	Fri 21/2/20	Tue 19/5/20	Fri 21/2/20	Tue 19/5/20	0 days	538		100%												
542	C132SI-12000		Watermain diversion and relocation of water meter	33, 45, 46	(15), (35), (90)	192 days	Mon 27/4/20	Mon 14/12/20	Mon 27/4/20	Mon 14/12/20	0 days	539		100%												
543	C132SI-13000		Excavation Works Stage 1	45, 46, 257, 333, 258	(16), (23), (36)	86 days	Wed 22/7/20	Mon 2/11/20	Wed 22/7/20	Mon 2/11/20	0 days	540	544	100% 8												
544	C132SI-14000		R.C. Structure (880 sq.m)		(52)	175 days	Wed 30/9/20	Fri 7/5/21	Wed 30/9/20	Fri 7/5/21	0 days	205,206,133,204,543	578	100% 10												
545	C132SI-14020		Basement	(92), (112)	39/43, (30), (56), (59), (86), (101) (103), (115)	50 days	Wed 30/9/20	Mon 30/11/20	Wed 30/9/20	Mon 30/11/20	0 days		546	100%												
546	C132SI-14030		Ground Floor	268	(79), (88), (91), (101), (103), (106), (115), (143)	68 days	Tue 1/12/20	Wed 24/2/21	Tue 1/12/20	Wed 24/2/21	0 days	545	547,567	100%												
547	C132SI-14040		First Floor	338	(104), (143)	19 days	Thu 25/2/21	Fri 9/4/21	Thu 25/2/21	Fri 9/4/21	0 days	546	548	100%												
548	C132SI-14050		Roof Floor (461sq.m)	(204), (228)	(105), (126), (143)	23 days	Sat 10/4/21	Fri 7/5/21	Sat 10/4/21	Fri 7/5/21	0 days	547	549	100%												
549	C132SI-14060		Parapet			26 days	Fri 2/4/21	Fri 7/5/21	Fri 2/4/21	Fri 7/5/21	0 days	548	550,556,551,554,	100%												
550	C132SI-22000		ABWF Works			145 days	Sat 8/5/21	Sat 27/11/21	Sat 8/5/21	NA	0 days	208,135,549	556FF	32%												
551	C132SI-23000		BS Works			145 days	Sat 8/5/21	Sat 30/10/21	Sat 8/5/21	NA	24 days	135,549	556FF	48%												
552	C132SI-24000		Electrical Installation (incl. MCB board, LV switchboard & cables, etc)			145 days	Sat 8/5/21	Sat 30/10/21	Sat 8/5/21	NA	24 days	549	556FF	48%												
553	C132SI-25000		Backfilling reinstatement & road works			145 days	Sat 8/5/21	Sat 30/10/21	Sat 8/5/21	NA	24 days	549	556FF	48%												
554	C132SI-26000		Installation of telephone line/ direct link for FSD Inspection			145 days	Sat 8/5/21	Sat 30/10/21	Sat 8/5/21	NA	0 days	549		48%												
555	C132SI-27000		Building Services Installation Works (incl. Fire Services, Plumbing, Drainage, etc.)			145 days	Sat 8/5/21	Sat 30/10/21	Sat 8/5/21	NA	-73 days	549	557	48%												
556	C132SI-28000		Architectual Works			75 days	Mon 7/6/21	Sat 27/11/21	Mon 7/6/21	NA	-77 days	550FF,551FF,552FF,553FF	37FF	27%												
557	C132SI-29000		Testing & Commissioning of the E&M Works			22 days	Mon 1/11/21	Thu 25/11/21	Mon 1/11/21	NA	-73 days	555	559,558	0%												
558	C132SI-30000		FSD Inspection & FS Certificate			14 days	Fri 26/11/21	Sat 11/12/21	NA	NA	-73 days	557	559,171SS-2 emc	0%												
559	C132SI-31000	KD2A	Handover to CLP for Electrical System Installation			7 days	Mon 13/12/21	Mon 20/12/21	NA	NA	-73 days	557,558	560,37FF	0%												
560	C132SI-32000		ABWF Works - External Finishing		(173)	300 days	Tue 21/12/21	Sat 24/12/22	NA	NA	23 days	559,208,135	561,579	0%												
561	C132SI-33000	SW2	Inspection and Handover to CLP			30 days	Wed 28/12/22	Sat 4/2/23	NA	NA	115 days	560	45FF	0%												
562	C132SE-00000		External Works			718 days	Mon 21/12/20	Tue 30/5/23	Mon 21/12/20	NA	23 days		149	41%												
563	C132SE-01000	KD2A	Road Widening Works		(20)	139 days	Mon 21/12/20	Tue 15/6/21	Mon 21/12/20	Tue 15/6/21	0 days		37FF	100%												
564	C132SE-01010		Trial Pit Excavation & UU Detection Works	(112)		2 days	Mon 21/12/20	Tue 22/12/20	Mon 21/12/20	Tue 22/12/20	0 days	152	565	100%												
565	C132SE-01020		Diversion of existing UU (i.e. 3no. Street light)	268		48 days	Wed 23/1																			

CD/2018/07

Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1

The chart displays several data series over time, from 2019 to 2024. The horizontal axis is marked with quarterly intervals (Qtr. 1, Qtr. 3) for each year. Vertical dashed lines indicate these quarterly boundaries. The data series include:

- Blue Bars:** Represent discrete data points or intervals. They show a significant peak in early 2020, followed by a sharp decline and subsequent recovery. There are also smaller peaks in 2021 and 2022.
- Red Line:** A continuous line with circular markers. It follows a similar trend to the blue bars, showing a sharp decline in early 2020 and a subsequent recovery. It also shows a peak in early 2021.
- Black Line:** A continuous line that remains relatively flat, indicating a stable metric over time.

The chart uses a color-coded system to distinguish between different data series: blue for the primary data points, red for a secondary series, and black for a baseline or reference line. The background is white, and the axes are clearly marked with time intervals.

Contract No. DC/2018/07 Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1																			Revised Works Programme (Status Date: 31/07/2021)																			
ID	Activity ID	Key Date	Task Name	Inclment Weather CE no. (NCE no.)	PMI & CE no. (NCE no.)	Baseline Duration	Baseline Start	Baseline Finish	Duration	Start	Finish	Actual Start	Actual Finish	Predecessors	Successors	Total Slack	Risk Allowance	% Complete																				
170	SUBA-1130b		Prepare and submit Dewatering proposal for basement construction for Primary Sedimentation tanks No.1-4			0 days	NA	NA	24 days	Fri 1/7/22	Mon 25/7/22	NA	NA	346SF		1158 days		0%	Qtr 3	Qtr 1	Qtr 3	2020	Qtr 1	Qtr 3	Qtr 1	Qtr 3	Qtr 1	Qtr 3	2022	Qtr 1	Qtr 3	Qtr 1	Qtr 3	2024	Qtr 1	Qtr 3	Qtr 1	Qtr 3
171	SUBA-1130c		Prepare and submit Dewatering proposal for basement construction for Bioreactor No. 2A&2B			0 days	NA	NA	24 days	Sun 15/5/22	Wed 8/6/22	NA	NA	389SF		1205 days		0%																				
172	SUBA-1140		Prepare and submit Pre-construction condition survey of existing structures/ services			24 days	Wed 5/2/20	Fri 28/2/20	0 days	Mon 18/11/19	Fri 6/3/20	Mon 18/11/19	Fri 6/3/20	198		0 days		100%																				
173	SUBA-1150		Prepare and submit Settlement and movement monitoring proposal of existing structures/ services			24 days	Wed 5/2/20	Fri 28/2/20	110 days	Mon 18/11/19	Fri 6/3/20	Mon 18/11/19	Fri 6/3/20	198FS+120 days		0 days		100%																				
174	SUBA-1160		Prepare and submit design of structure elements of the temporary activated carbon deodourization unit			60 days	Fri 17/1/20	Mon 16/3/20	60 days	Mon 18/11/19	Mon 16/3/20	Mon 18/11/19	Mon 16/3/20	2FS+60 days		0 days		100%																				
175	SUBA-1170		Prepare of RSE and structural design for alternation and additional (A&A) works at Membrane Facilities Building No.1			180 days	Mon 18/10/21	Fri 15/4/22	180 days	Mon 18/10/21	Fri 15/4/22	NA	NA		541	332 days		0%																				
176	SUBA-1180		Prepare of RSE and structural design for alternation and additional (A&A) works at Main Power House			44 days	Wed 15/7/20	Thu 3/9/20	60 days	Mon 6/7/20	Thu 3/9/20	Mon 6/7/20	Thu 3/9/20		539	0 days		100%																				
177	SUBE-1000		Environmental Aspect Submissions			45 days	Mon 18/11/19	Wed 1/1/20	81 days	Mon 18/11/19	Thu 6/2/20	Mon 18/11/19	Thu 6/2/20			0 days		100%																				
178	SUBE-1010		Prepare, submit & approve Site Management Plan for Trip Tricket System			45 days	Mon 18/11/19	Wed 1/1/20	66 days	Mon 18/11/19	Wed 22/1/20	Mon 18/11/19	Wed 22/1/20	2		0 days		100%																				
179	SUBE-1020		Prepare, submit & approve Waste Management Plan			45 days	Mon 18/11/19	Wed 1/1/20	81 days	Mon 18/11/19	Thu 6/2/20	Mon 18/11/19	Thu 6/2/20	2		0 days		100%																				
180	SUBE-1030		Prepare, submit & approve Environmental Management Plan			45 days	Mon 18/11/19	Wed 1/1/20	66 days	Mon 18/11/19	Wed 22/1/20	Mon 18/11/19	Wed 22/1/20	2		0 days		100%																				
181	SUBP-1000		Procurement			731 days	Mon 18/11/19	Wed 17/11/21	648 days	Mon 18/11/19	Thu 26/8/21	Mon 18/11/19	NA			278 days		94%																				
182	SUBP-1010		Prepare and submit the Procurement Procedure			12 days	Mon 18/11/19	Fri 29/11/19	2 days	Mon 18/11/19	Tue 19/11/19	Mon 18/11/19	Tue 19/11/19	2	183	0 days		100%																				
183	SUBP-1020		PM Review & Accept Procurement Procedure			12 days	Sat 30/11/19	Wed 11/12/19	21 days	Tue 19/11/19	Tue 10/12/19	Tue 19/11/19	Tue 10/12/19	182	184,185,186,187,188,189,190,191	0 days		100%																				
184	SUBP-1030		Prepare, submit and approve the pipe works material			25 days	Thu 12/12/19	Sun 5/1/20	34 days	Thu 6/2/20	Tue 10/3/20	Thu 6/2/20	Tue 10/3/20	183	212,532,551,552,554,553,549,557,0	0 days		100%																				
185	SUBP-1040		Prepare, submit and approve the water proofing material			25 days	Thu 12/12/19	Sun 5/1/20	25 days	Mon 2/8/21	Thu 26/8/21	NA	NA	183	329,325	278 days		0%																				
186	SUBP-1050		Prepare, submit and approve the concrete mix material			48 days	Thu 12/12/19	Tue 28/1/20	90 days	Mon 3/2/20	Sat 2/5/20	Mon 3/2/20	Sat 2/5/20	183	391,426	0 days		100%																				
187	SUBP-1060		Prepare, submit and approve the rebar material			48 days	Thu 12/12/19	Tue 28/1/20	49 days	Sat 23/5/20	Fri 10/7/20	Sat 23/5/20	Fri 10/7/20	183	391,426	0 days		100%																				
188	SUBP-1070		Prepare, submit and approve the metal works material			48 days	Thu 12/12/19	Tue 28/1/20	48 days	Thu 1/9/20	Sun 18/10/20	Tue 1/9/20	Sun 18/10/20	183	391,426	0 days		100%																				
189	SUBP-1080		Prepare, submit and approve the ABWF works material			48 days	Sat 12/12/20	Tue 28/1/20	48 days	Mon 1/3/21	Sat 17/4/21	Mon 1/3/21	Sat 17/4/21	183	332,350,398,460,488,504,514,522,0	0 days		100%																				
190	SUBP-1090		Prepare, submit and approve the protective lining to concrete			0 days	NA	NA	48 days	Tue 1/9/20	Sun 18/10/20	Tue 1/9/20	Sun 18/10/20	183	391,426	0 days		100%																				
191	SUBP-1100		Prepare, submit and approve the multi-part covers			0 days	NA	NA	21 days	Tue 5/5/20	Mon 25/5/20	Tue 5/5/20	Mon 25/5/20	183		0 days		100%																				
192	SUBB-1000		BIM			1205 days	Thu 6/2/20	Wed 28/2/24	1562 days	Mon 18/11/19	Fri 28/2/25	Mon 18/11/19	NA			178 days		27%																				
193	SUBB-1010		Prepare, submit and approve the proposal of details of Common data environment (CDE)			48 days	Thu 6/2/20	Wed 1/4/20	37 days	Mon 18/11/19	Wed 1/4/20	Mon 18/11/19	Wed 1/4/20	129,130	194	0 days		100%																				
194			Prepare and submit BIM submission			1484 days	Thu 6/2/20	Wed 28/2/24	1451 days	Thu 2/4/20	Fri 28/2/25	Thu 2/4/20	NA	193		178 days		25%																				
195	C-1000	*	Construction Works (Working day)			1957 days	Mon 18/11/19	Thu 27/3/25	2138 days	Mon 18/11/19	Wed 24/9/25	Mon 18/11/19	NA			0 days		51%																				
196	CPW-1000		Preliminary Works			109 days	Mon 18/11/19	Thu 5/3/20	121 days	Mon 18/11/19	Tue 17/3/20	Mon 18/11/19	Tue 17/3/20			0 days		100%																				

Data Date: 31/07/2021 Page 1 Revision Date: 15/08/2021

Contract No. DC/2018/07 Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1																			Revised Works Programme (Status Date: 31/07/2021)																					
ID	Activity ID	Key Date	Task Name	Inclment Weather CE no. (NCE no.)	PMI & CE no. (NCE no.)	Baseline Duration	Baseline Start	Baseline Finish	Duration	Start	Finish	Actual Start	Actual Finish	Predecessors	Successors	Total Slack	Risk Allowance	% Complete																						
435	CSA-1000		Additional Preliminary Works			0 days	NA	NA	330 days	Tue 9/6/20	Mon 19/7/21	Tue 9/6/20	NA			1247 days		98%	Qtr 3	Qtr 1	Qtr 3	Qtr 1	Qtr 3	Qtr 1	Qtr 3	Qtr 1	Qtr 3	Qtr 1	Qtr 3	Qtr 1	Qtr 3	Qtr 1	Qtr 3	Qtr 1	Qtr 3					
436	CSA-1020		Expose and abandon existing electric cable & trial pits		78	0 days	NA	NA	39 days	Mon 17/8/20	Wed 30/9/20	Mon 17/8/20	Wed 30/9/20			0 days		100%																						
437	CSA-1030		Installation of standpipes		71	0 days	NA	NA	13 days	Mon 14/9/20	Mon 28/9/20	Mon 14/9/20	Mon 28/9/20			0 days		100%																						
438	CSA-1100		Diversion of Existing SAS Rising Main near SAS Pumping Station		68, 75, 76	69	0 days	NA	NA	170 days	Tue 9/6/20	Thu 31/12/20	Tue 9/6/20	Thu 31/12/20		453	0 days		100%																					
439	CSA-1200		Decommission of existing power and signal systems in leachate Pump station switch room		312, 309, 310	74	0 days	NA	NA	58 days	Mon 21/9/20	Mon 30/11/20	Mon 21/9/20	Mon 30/11/20	146	453	0 days		100%																					
440	CSA-1300		Construction of Cable trough for CLP 11kv Cable Diversion		75, 76, 77, 161		0 days	NA	NA	54 days	Mon 19/10/20	Mon 21/12/20	Mon 19/10/20	Mon 21/12/20		453	0 days		100%																					
441	CSA-1400		Demolition of Existing Pillar box and its concrete plinth		144, 212, 3/30		0 days	NA	NA	53 days	Wed 12/8/20	Sat 14/11/20	Wed 12/8/20	Sat 14/11/20	149	453	0 days		100%																					
442	CSA-1500		Excavation to locate existing underground cble near SAS Pump Station			78	0 days	NA	NA	59 days	Wed 17/6/20	Sat 21/11/20	Wed 17/6/20	Sat 21/11/20		453	0 days		100%																					
443	CSA-1600		Diversion of Existing DN80 Permeate Rising Main near SAS Pumping station			89	0 days	NA	NA	72 days	Tue 6/10/20	Thu 31/12/20	Tue 6/10/20	Thu 31/12/20		453	0 days		100%																					
444	CSA-1800		Trench Excavation near SAS for CLP diversion of 11kV cable		309, 310	97	0 days	NA	NA	53 days	Mon 12/10/20	Sat 12/12/20	Mon 12/10/20	Sat 12/12/20		453	0 days		100%																					
445	CSA-1700		Relocation of Oil Interceptor Near Existing Compressor House		144, 212, 3/70		0 days	NA	NA	50 days	Mon 9/11/20	Fri 8/1/21	Mon 9/11/20	Fri 8/1/21		453	0 days		100%																					
446	CSA-1900		Diversion of pumping system sewerage		212, 309, 3183		0 days	NA	NA	36 days	Wed 13/1/21	Fri 26/2/21	Wed 13/1/21	Fri 26/2/21	151	455,453,447	0 days		100%																					
447	CSA-1910		Diversion of Existing copper pipe near proposed SAS pumping station		309, 310	225	0 days	NA	NA	61 days	Mon 19/10/20	Thu 31/12/20	Mon 19/10/20	Thu 31/12/20	446	453	0 days		100%																					
448	CSA-1920		Pipework of proposed SAS Pumping Station - 13 nos. of puddles			221	0 days	NA	NA	180 days	Mon 7/12/20	Mon 19/7/21	Mon 7/12/20	NA			1247 days		92%																					
449	CSA-1930		Additional DN150 Rising main for SAS			220/69	0 days	NA	NA	15 days	Wed 21/2/20	Fri 18/12/20	Wed 21/2/20	Fri 18/12/20			0 days		100%																					
450	CSA-1940		Additional DN90 PE pipe diversion			89	0 days	NA	NA	7 days	Fri 11/12/20	Fri 18/12/20	Fri 11/12/20	Fri 18/12/20			0 days		100%																					
451	CSA-1970		Additional diversion of existing sludge rising main and sewerage system			81	0 days	NA	NA	15 days	Thu 21/1/21	Sat 6/2/21	Thu 21/1/21	Sat 6/2/21			0 days		100%																					
452	CSA-2000		Predrilling (4hrs., 1rig, 4days/drillhole/rig)		68		16 days	Wed 20/5/20	Sat 6/6/20	7 days	Sat 18/4/20	Sat 25/4/20	Sat 18/4/20	Sat 25/4/20	127	342,453	0 days		100%																					
453	CSA-3000		Pre-bored H piles (12nos., 1rigs, 4days/pile/rig)				60 days	Mon 8/6/20	Tue 18/8/20	19 days	Mon 4/1/21	Mon 25/1/21	Mon 4/1/21	Mon 25/1/21	132,452,148,438,439,441,442,443,445,44	343,454	0 days	2	100%																					
454	CSA-4000		Pile Load Test				21 days	Wed 19/8/20	Thu 17/9/20	22 days	Tue 23/2/21	Fri 19/3/21	Tue 23/2/21	Fri 19/3/21	453	456,455	0 days		100%																					
455	CSA-5000		Sheepile Installation (FSP-II, 690sq.m, 40sqm/day)				28 days	Wed 19/8/20	Sat 19/9/20	28 days	Tue 30/3/21	Wed 5/5/21	Tue 30/3/21	Wed 5/5/21	133,454,446	456	0 days		100%																					
456	CSA-6000		ELS works (1300cu.m soil with 2 layers walling / strutting)				75 days	Mon 21/8/20	Wed 19/2/20	75 days	Thu 6/5/21	Wed 4/8/21	Thu 6/5/21	Thu 6/5/21	NA,455,135,454	458,457FF-3 emons	-121 days	2	96%																					
457	CSA-6900		Receiving of Civil Requirements from PM				0 days	NA	NA	1 day	Thu 6/5/21	Thu 6/5/21	Thu 6/5/21	Thu 6/5/21	456FF-3 emons	458SS-3 emons	0 days		100%																					
458	CSA-7000	KD1H	R.C. Structure works (including ELS demolition works)				186 days	Mon 21/12/20	Mon 9/8/21	186 days	Thu 5/8/21	Sat 19/3/22	Sat 19/3/22	NA	NA,456,457SS-3 emons	459,460,49FF	-121 days	5	0%																					
459	CSA-8000	KD1H	Allow access to Contractor DE/2018/03 for E&M installation and T&C works				0 days	Mon 9/8/21	Mon 9/8/21	0 days	Sat 19/3/22	Sat 19/3/22	NA	NA,458	49FF	-121 days			0%																					
460	CSA-9000	SW1	ABWF works + BS works				90 days	Tue 10/8/21	Thu 25/11/21	90 days	Tue 14/6/22	Wed 28/9/22	NA	NA,458,189,141,522SS	56FF	405 days			0%																					
461	CAS-0000	*	Ancillary Structures, B-7																																					

Contract No. DC/2018/07 Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1																			Revised Works Programme (Status Date: 31/07/2021)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
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532	CAA-1000	KD2B	B-8A Alternation works for existing Air Blower House No.2 (Pipeline CHTA, approx. 133m DN800 D.I.)			180 days	Wed 29/1/20	Thu 3/9/20	246 days	Mon 1/6/20	Fri 26/3/21	Mon 1/6/20	Fri 26/3/21	15,142,184	53FF	0 days		100%																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														

File Name: DE/2018/03 RP R12

Layout: DE1803 RP (Jul 2021) - WBS

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Contract No. DE/2018/03

Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1

Sidestream Treatment Facilities and E&M Works for Sludge Treatment Facilities

Revised Programme - as at 20 July 2021

Date	Revision	Checked	Approved
29-Mar-21	Rev.8	LT	KM
30-Apr-21	Rev.9	LT	KM
31-May-21	Rev.10	LT	KM
30-Jun-21	Rev.11	LT	KM
31-Jul-21	Rev.12	LT	KM

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JEC

File Name: DE/2018/03 RP R12
Layout: DE1803 RP (Jul 2021) - WBS
Page 6 of 23

Remaining Work
 Critical Activity
 Milestone
 Actual Progress

Contract No. DE/2018/03

Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1

Sidestream Treatment Facilities and E&M Works for Sludge Treatment Facilities

Revised Programme - as at 20 July 2021

Date	Revision	Checked	Approved
29-Mar-21	Rev.8	LT	KM
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30-Jun-21	Rev.11	LT	KM
31-Jul-21	Rev.12	LT	KM

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Remaining Work

Critical Activity

Milestone

Actual Progress

Contract No. DE/2018/03

Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1

Sidestream Treatment Facilities and E&M Works for Sludge Treatment Facilities

Revised Programme - as at 20 July 2021

Date	Revision	Checked	Approved
29-Mar-21	Rev.8	LT	KM
30-Apr-21	Rev.9	LT	KM
31-May-21	Rev.10	LT	KM
30-Jun-21	Rev.11	LT	KM
31-Jul-21	Rev.12	LT	KM

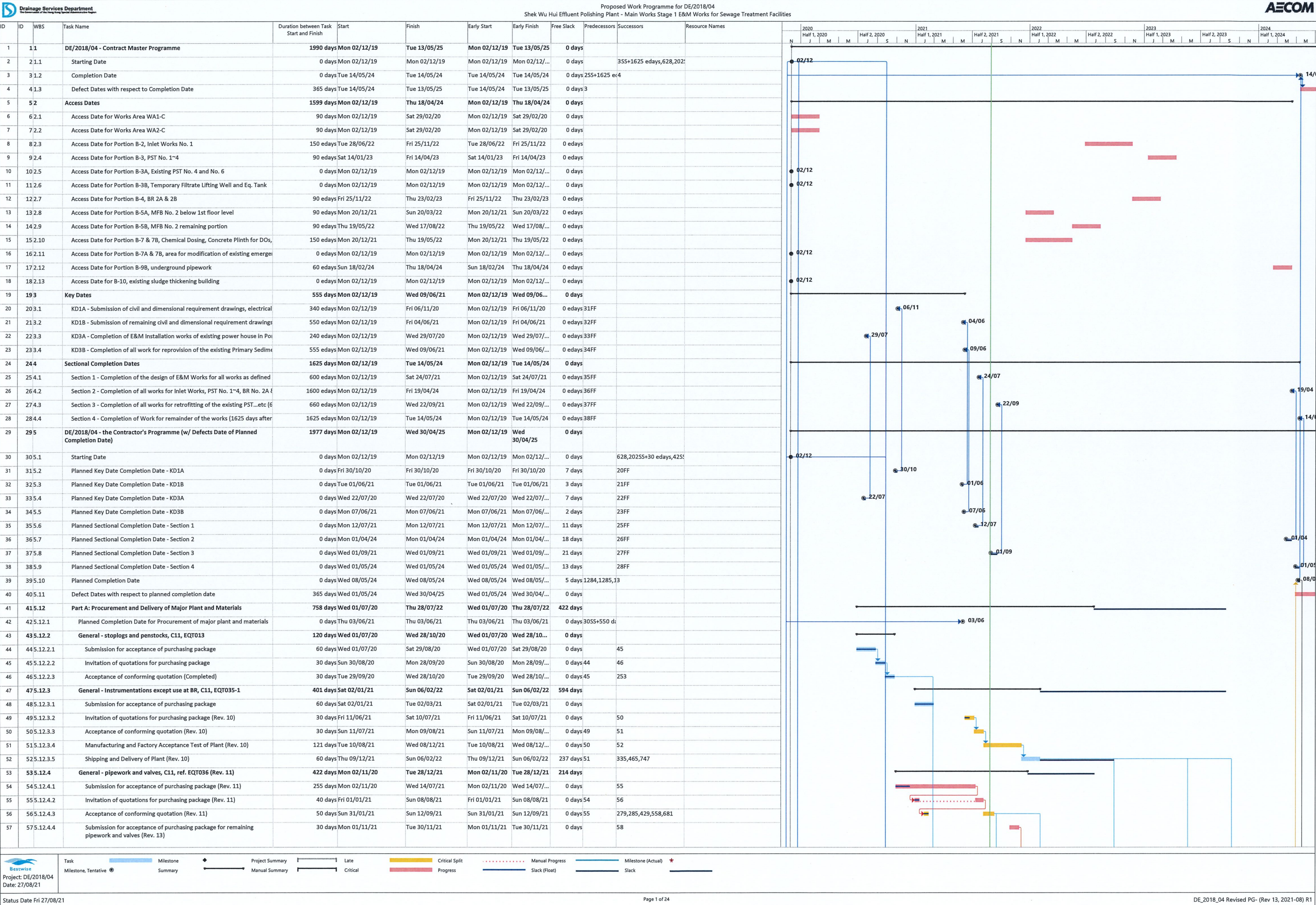
	File Name: DE/2018/03 RP R12 Layout: DE1803 RP (Jul 2021) - WBS Page 11 of 23	<div><div><div></div><div></div></div> Remaining Work</div> <div><div><div></div><div></div></div> Critical Activity</div> <div><div><div></div><div></div></div> Milestone</div> <div><div><div></div><div></div></div> Actual Progress</div>	<div>Contract No. DE/2018/03</div> <div>Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1</div> <div>Sidestream Treatment Facilities and E&M Works for Sludge Treatment Facilities</div> <div>Revised Programme - as at 20 July 2021</div>				Date	Revision	Checked	Approved
						29-Mar-21	Rev.8	LT	KM	
						30-Apr-21	Rev.9	LT	KM	
						31-May-21	Rev.10	LT	KM	
						30-Jun-21	Rev.11	LT	KM	
						31-Jul-21	Rev.12	LT	KM	


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	File Name: DE/2018/03 RP R12 Layout: DE1803 RP (Jul 2021) - WBS Page 13 of 23	<div><div><div></div></div> Remaining Work</div> <div><div><div></div></div> Critical Activity</div> <div><div><div></div></div> Milestone</div> <div><div><div></div></div> Actual Progress</div>	<div>Contract No. DE/2018/03</div> <div>Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1</div> <div>Sidestream Treatment Facilities and E&M Works for Sludge Treatment Facilities</div> <div>Revised Programme - as at 20 July 2021</div>				Date	Revision	Checked	Approved
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							31-May-21	Rev.10	LT	KM
							30-Jun-21	Rev.11	LT	KM
							31-Jul-21	Rev.12	LT	KM

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Project: DE/2018/04

Date: 27/08/21

Task

Milestone, Tentative

Milestone

Summary

Project Summary

Late

Critical Split

Manual Progress

Slack (Float)

Slack

Manual Summary

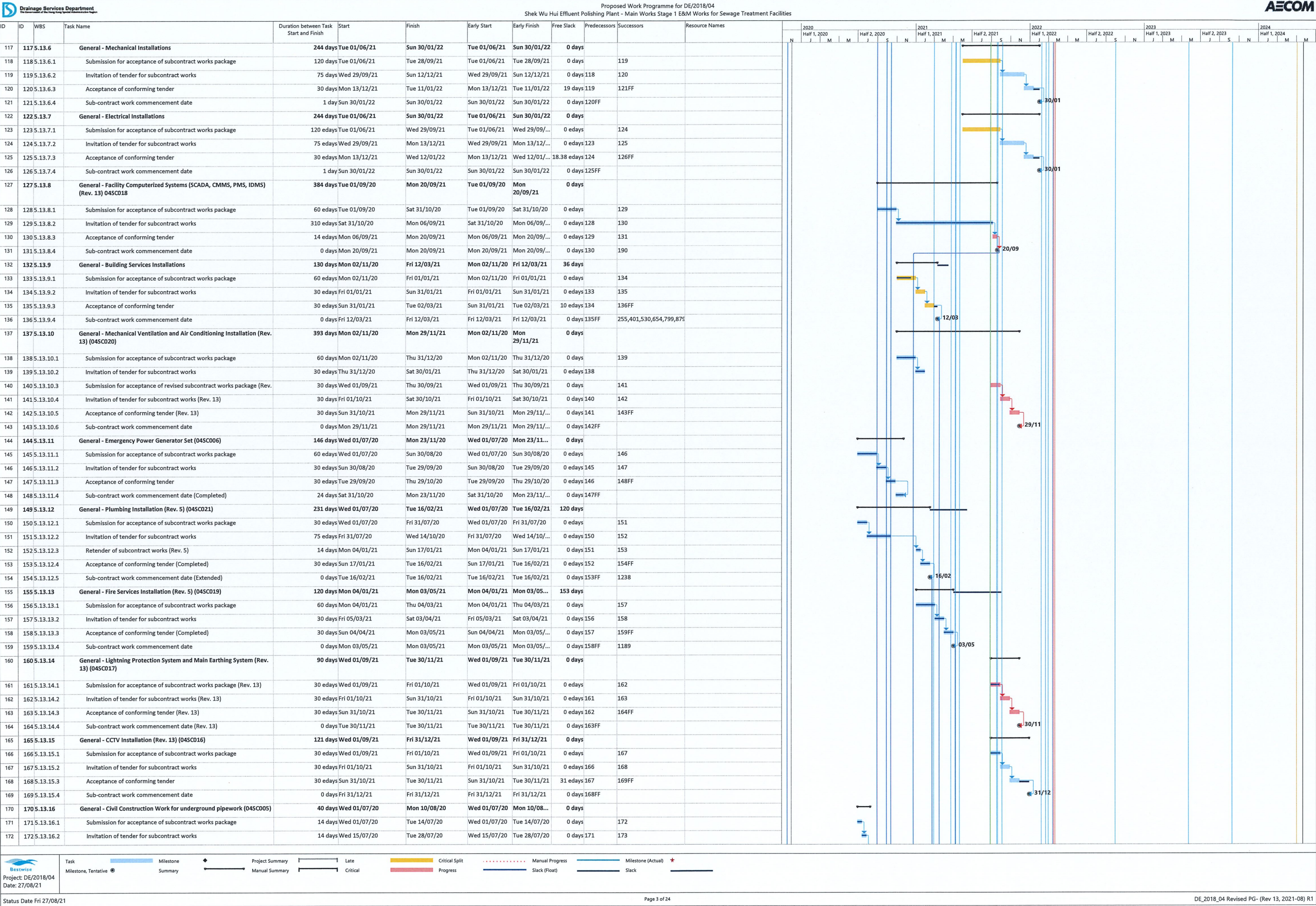
Critical

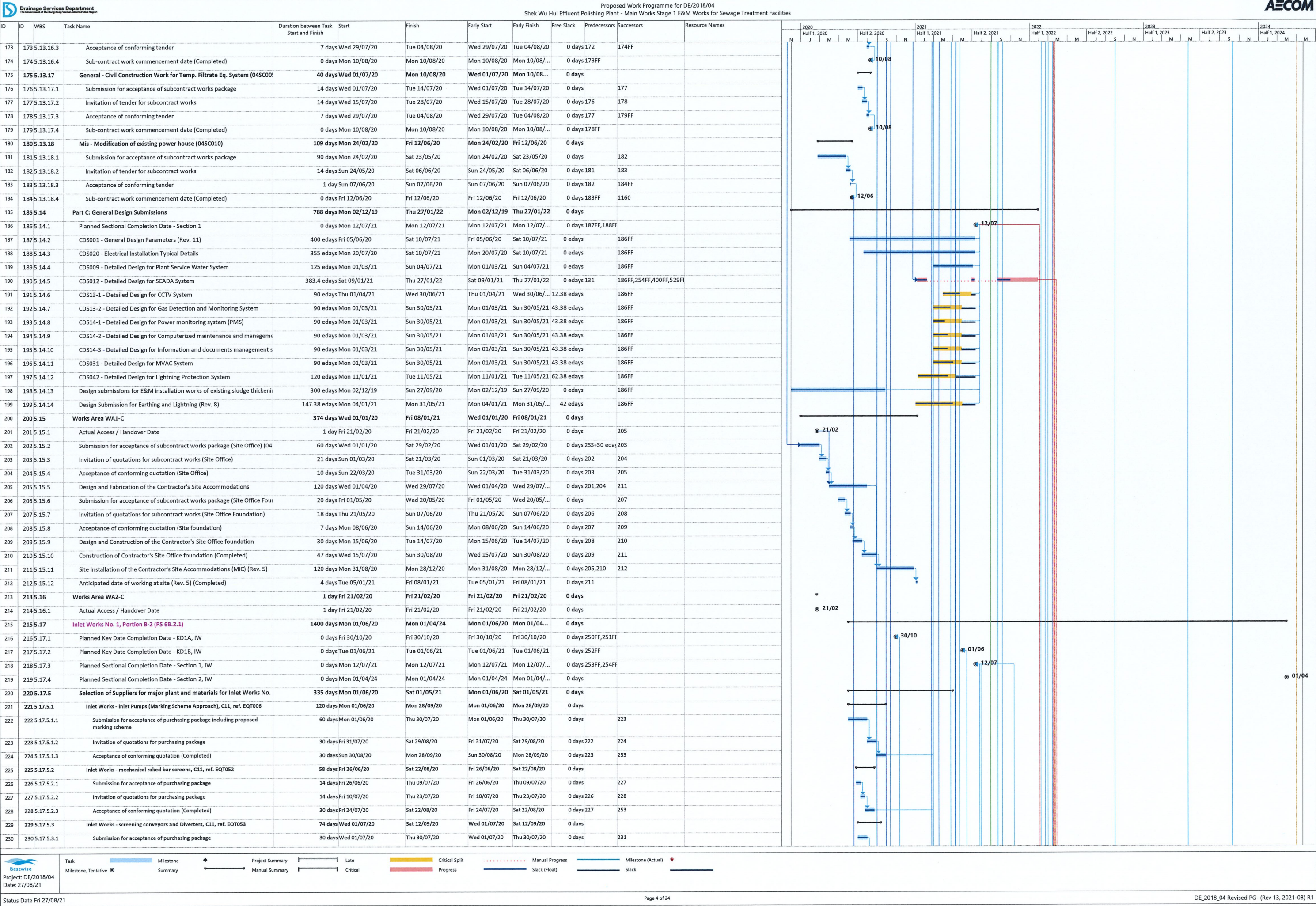
Progress

Slack

Milestone (Actual)

Star

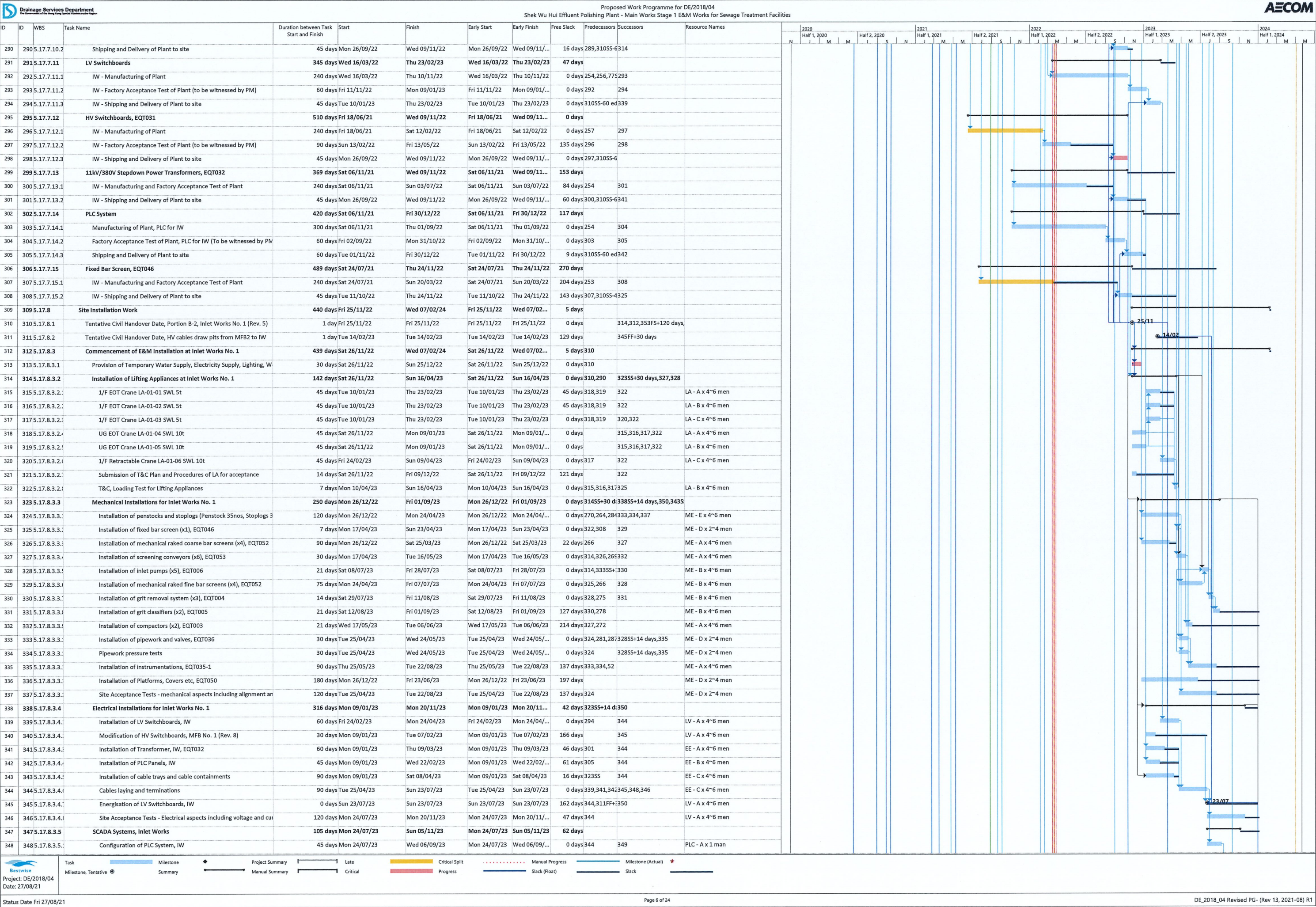





Legend:

- Task: Blue bar
- Milestone: Diamond symbol
- Project Summary: Double bar
- Late: Yellow bar
- Critical Split: Dashed red line
- Manual Progress: Blue bar with red star
- Milestone (Actual): Blue bar with red star
- Milestone, Tentative: Blue bar with circle
- Summary: Double bar
- Manual Summary: Double bar
- Critical: Red bar
- Progress: Red bar
- Slack (Float): Blue bar
- Slack: Blue bar

Project: DE/2018/04
Date: 27/08/21





Project: DE/2018/04

Date: 27/08/21

Task

Milestone

Project Summary

Late

Critical Split

Manual Progress

Milestone (Actual)

★

Milestone, Tentative

Summary

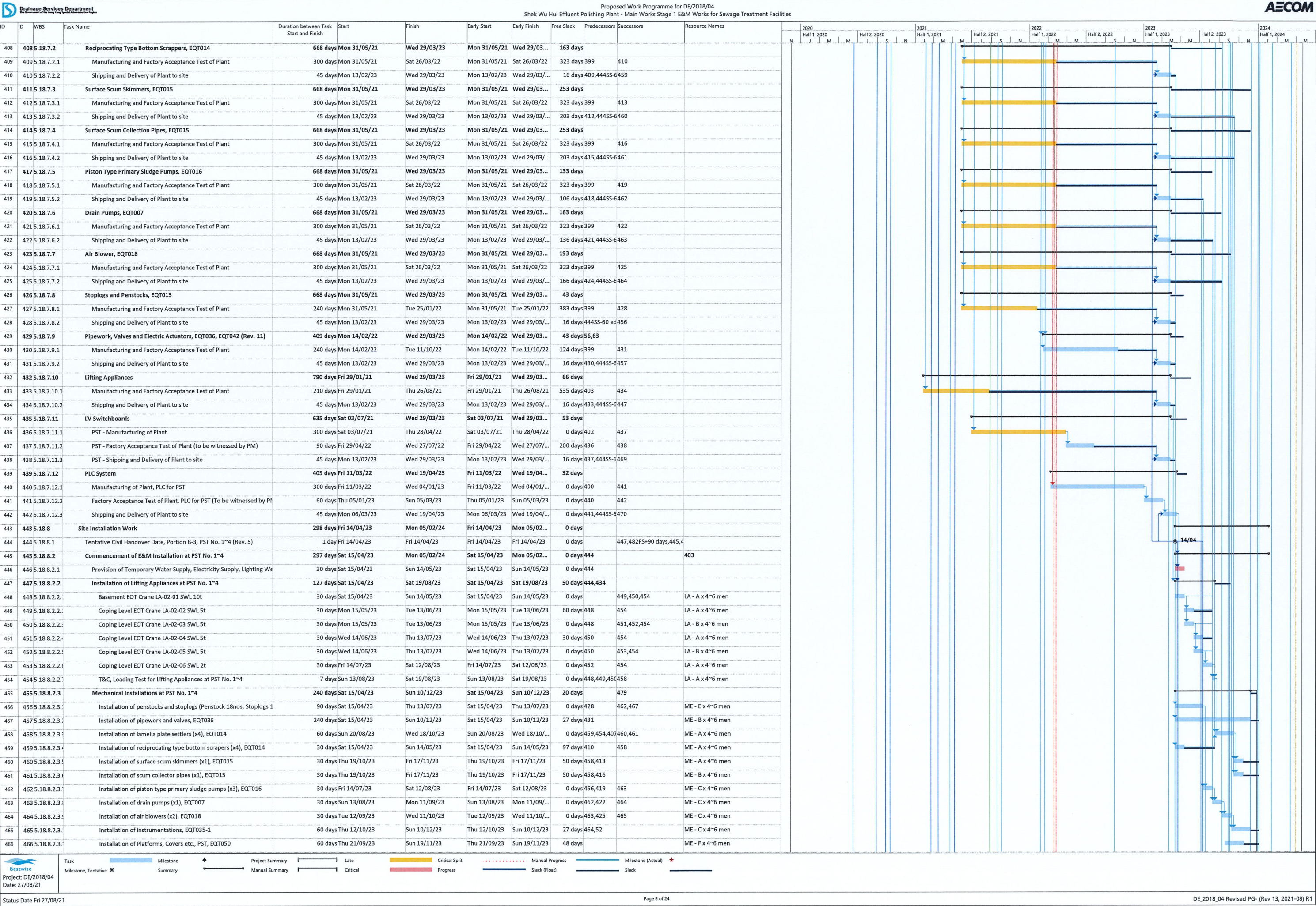
Manual Summary

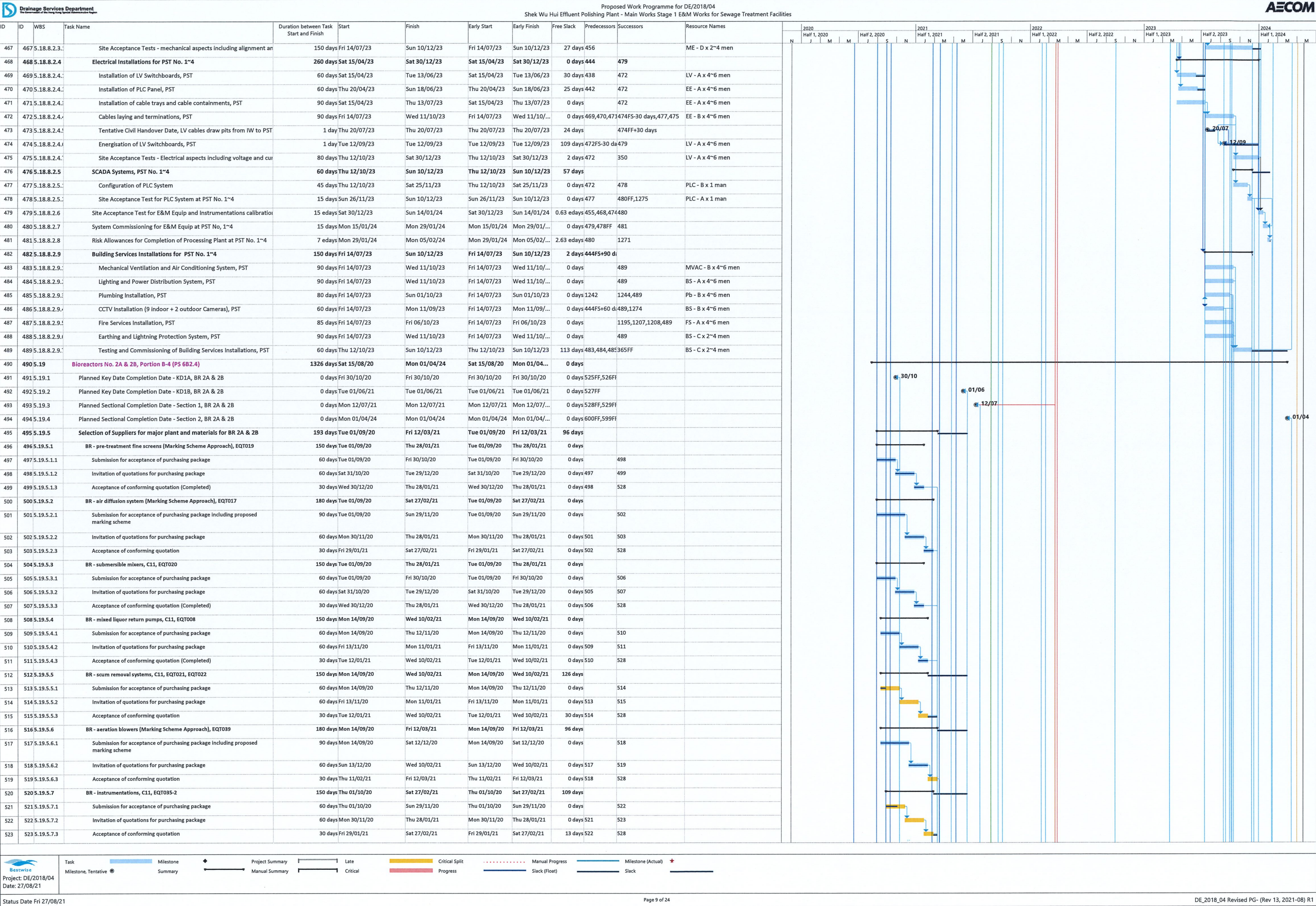
Critical

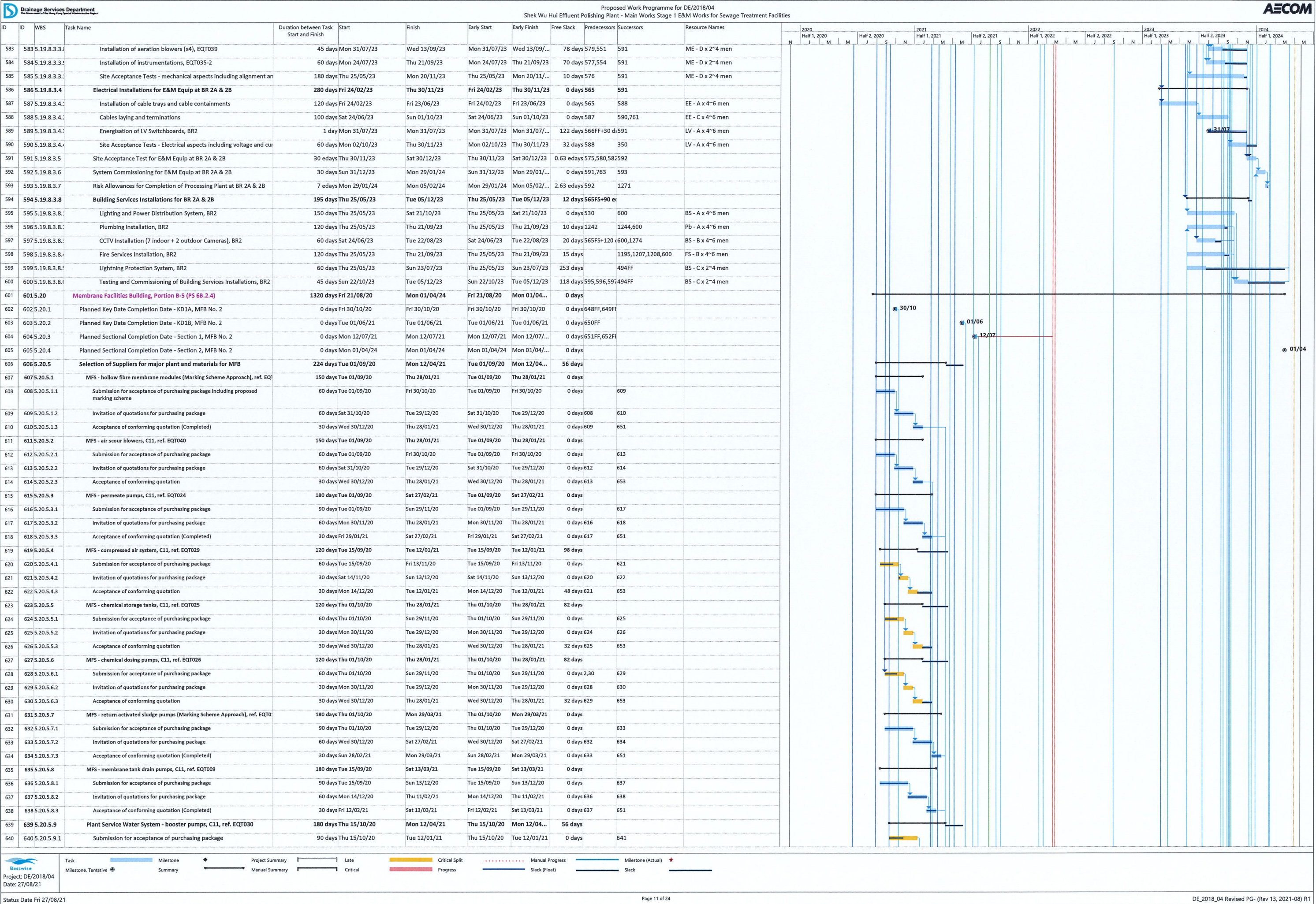
Progress

Slack (Float)

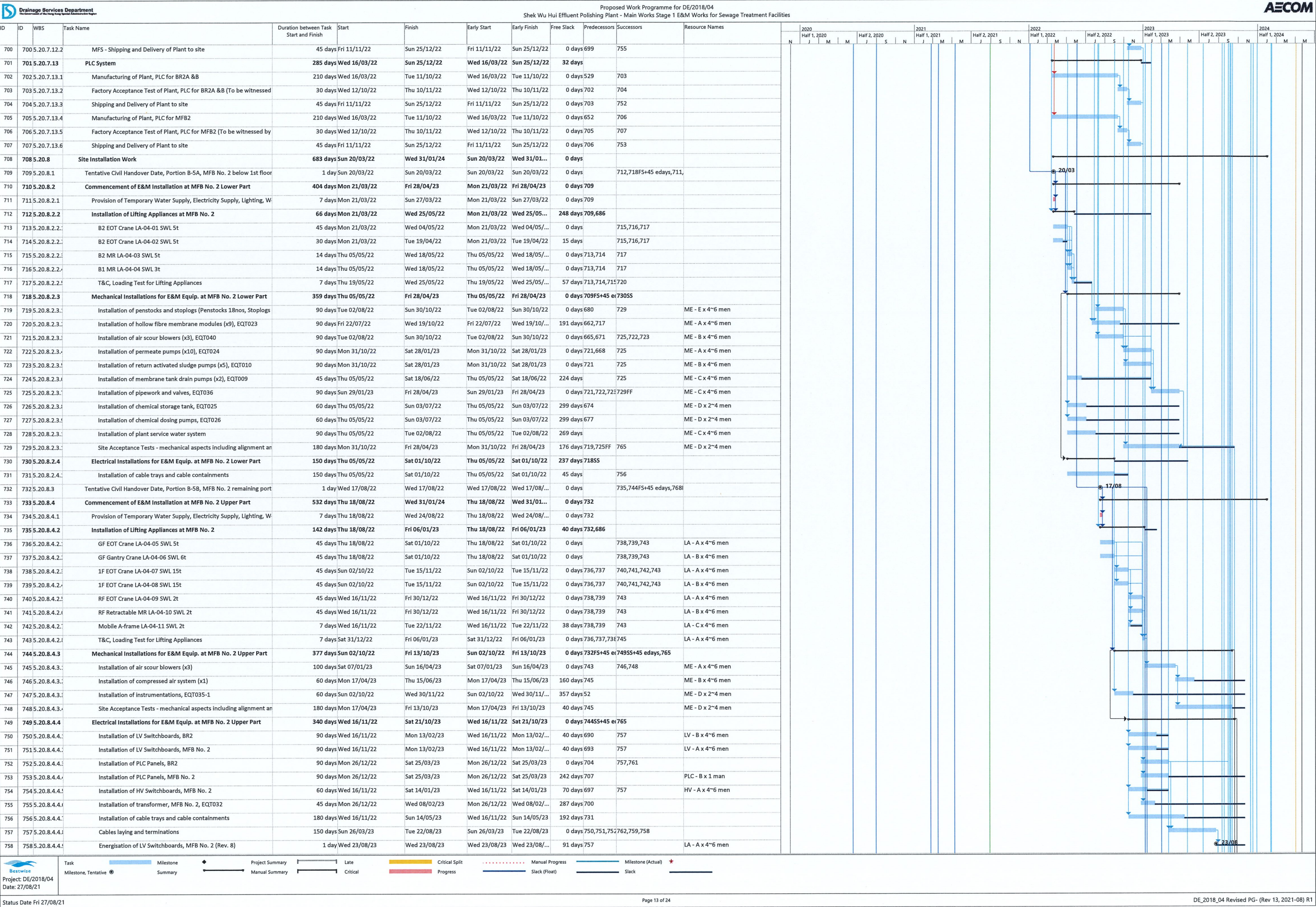
Slack







ID	WBS	Task Name	Duration between Task Start and Finish	Start	Finish	Early Start	Early Finish	Free Slack	Predecessors	Successors	Resource Names
641	641 5.20.5.9.2	Invitation of quotations for purchasing package	60 days	Wed 13/01/21	Sat 13/03/21	Wed 13/01/21	Sat 13/03/21	0 days	640	642	
642	642 5.20.5.9.3	Acceptance of conforming quotation	30 days	Sun 14/03/21	Mon 12/04/21	Sun 14/03/21	Mon 12/04/...	0 days	641	651	
643	643 5.20.5.10	Plant Service Water System - hydro-pneumatic pressure tanks, C11, re	120 days	Thu 01/10/20	Thu 28/01/21	Thu 01/10/20	Thu 28/01/21	130 days			
644	644 5.20.5.10.1	Submission for acceptance of purchasing package	60 days	Thu 01/10/20	Sun 29/11/20	Thu 01/10/20	Sun 29/11/20	0 days		645	
645	645 5.20.5.10.2	Invitation of quotations for purchasing package	30 days	Mon 30/11/20	Tue 29/12/20	Mon 30/11/20	Tue 29/12/20	0 days	644	646	
646	646 5.20.5.10.3	Acceptance of conforming quotation	30 days	Wed 30/12/20	Thu 28/01/21	Wed 30/12/20	Thu 28/01/21	74 days	645	651	
647	647 5.20.6	Design Submissions for MFB No. 2	572 days	Fri 21/08/20	Tue 15/03/22	Fri 21/08/20	Tue 15/03/22	0 days			
648	648 5.20.6.1	Electrical schematic drawings for MFB No. 2	60 days	Fri 21/08/20	Mon 19/10/20	Fri 21/08/20	Mon 19/10/...	0 days		602FF	
649	649 5.20.6.2	CDS080-4 - Civil and dimensional requirements drawigns for MFB no. 2 up to +	30 days	Tue 01/09/20	Wed 30/09/20	Tue 01/09/20	Wed 30/09/20	0 days		602FF	
650	650 5.20.6.3	CDS081-4 - Civil and dimensional requirements drawings for MFB No. 2	210 days	Fri 28/08/20	Thu 25/03/21	Fri 28/08/20	Thu 25/03/21	0 days		603FF	
651	651 5.20.6.4	CDS005 - Detailed Design for Membrane Filtration System, Pumps and	80 edays	Mon 12/04/21	Thu 01/07/21	Mon 12/04/21	Thu 01/07/21	0.63 edays	610,618,634,660,664,667,670,679,682		
652	652 5.20.6.5	CDS024 - Detailed Design for Electrical Installations for MFB No. 2	159.38 edays	Thu 07/10/21	Tue 15/03/22	Thu 07/10/21	Tue 15/03/22	0 edays	75,85,81,89,76,699,705,604FF		
653	653 5.20.6.6	CDS008 - Detailed Design for Membrane Filtration System, Air Blowers,	100 edays	Mon 01/03/21	Wed 09/06/21	Mon 01/03/21	Wed 09/06/...	0.63 edays	614,622,626,673,676,604FF		
654	654 5.20.6.7	CDS034-4 - Detailed Design for Electrical Installations BS at MFB No. 2	100 edays	Fri 12/03/21	Sun 20/06/21	Fri 12/03/21	Sun 20/06/21	22.38 edays	136	768,604FF	
655	655 5.20.6.8	CDS025-4 - Detailed Design for LV Switchboards for Membrane Filtratic	60 edays	Mon 03/05/21	Fri 02/07/21	Mon 03/05/21	Fri 02/07/21	0.63 edays	71	691,604FF	
656	656 5.20.6.9	CDS026-2 - Detailed Design for HV Switchboards for MFB No. 2	60 edays	Sun 18/04/21	Thu 17/06/21	Sun 18/04/21	Thu 17/06/21	0.63 edays	67	604FF,695	
657	657 5.20.6.10	CDS050-4 - Detailed Design for Lifting Appliances - MFB No. 2	150 edays	Thu 15/10/20	Sun 14/03/21	Thu 15/10/20	Sun 14/03/21	0 edays	116	685,604FF	
658	658 5.20.7	Manufacturing and Delivery of Plant & Materials	652 days	Sun 14/03/21	Sun 25/12/22	Sun 14/03/21	Sun 25/12/22	287 days			
659	659 5.20.7.1	Hollow Fibre Membrane Modules, EQT023	385 days	Fri 02/07/21	Thu 21/07/22	Fri 02/07/21	Thu 21/07/22	191 days			
660	660 5.20.7.1.1	MFS - Manufacturing of Plant	300 days	Fri 02/07/21	Wed 27/04/22	Fri 02/07/21	Wed 27/04/...	0 days	651	661	
661	661 5.20.7.1.2	MFS - Factory Acceptance Test of Plant (to be witnessed by PM)	40 days	Thu 28/04/22	Mon 06/06/22	Thu 28/04/22	Mon 06/06/...	0 days	660	662	
662	662 5.20.7.1.3	MFS - Shipping and Delivery of Plant to site	45 days	Tue 07/06/22	Thu 21/07/22	Tue 07/06/22	Thu 21/07/22	0 days	661	720	
663	663 5.20.7.2	Air Scour Blowers, EQT040	396 days	Fri 02/07/21	Mon 01/08/22	Fri 02/07/21	Mon 01/08...	208 days			
664	664 5.20.7.2.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Fri 02/07/21	Sat 26/02/22	Fri 02/07/21	Sat 26/02/22	111 days	651	665	
665	665 5.20.7.2.2	Shipping and Delivery of Plant to site	45 days	Sat 18/06/22	Mon 01/08/22	Sat 18/06/22	Mon 01/08/...	0 days	664,732SS-6721		
666	666 5.20.7.3	Permeate Pump, EQT024	285 days	Fri 02/07/21	Tue 12/04/22	Fri 02/07/21	Tue 12/04/22	409 days			
667	667 5.20.7.3.1	Manufacturing and Factory Acceptance Test of Plant	240 days	Fri 02/07/21	Sat 26/02/22	Fri 02/07/21	Sat 26/02/22	0 days	651	668	
668	668 5.20.7.3.2	Shipping and Delivery of Plant to site	45 days	Sun 27/02/22	Tue 12/04/22	Sun					





Task

Milestone, Tentative

Milestone

Summary

Project Summary

Manual Summary

Late

Critical

Critical Split

Progress

Manual Progress

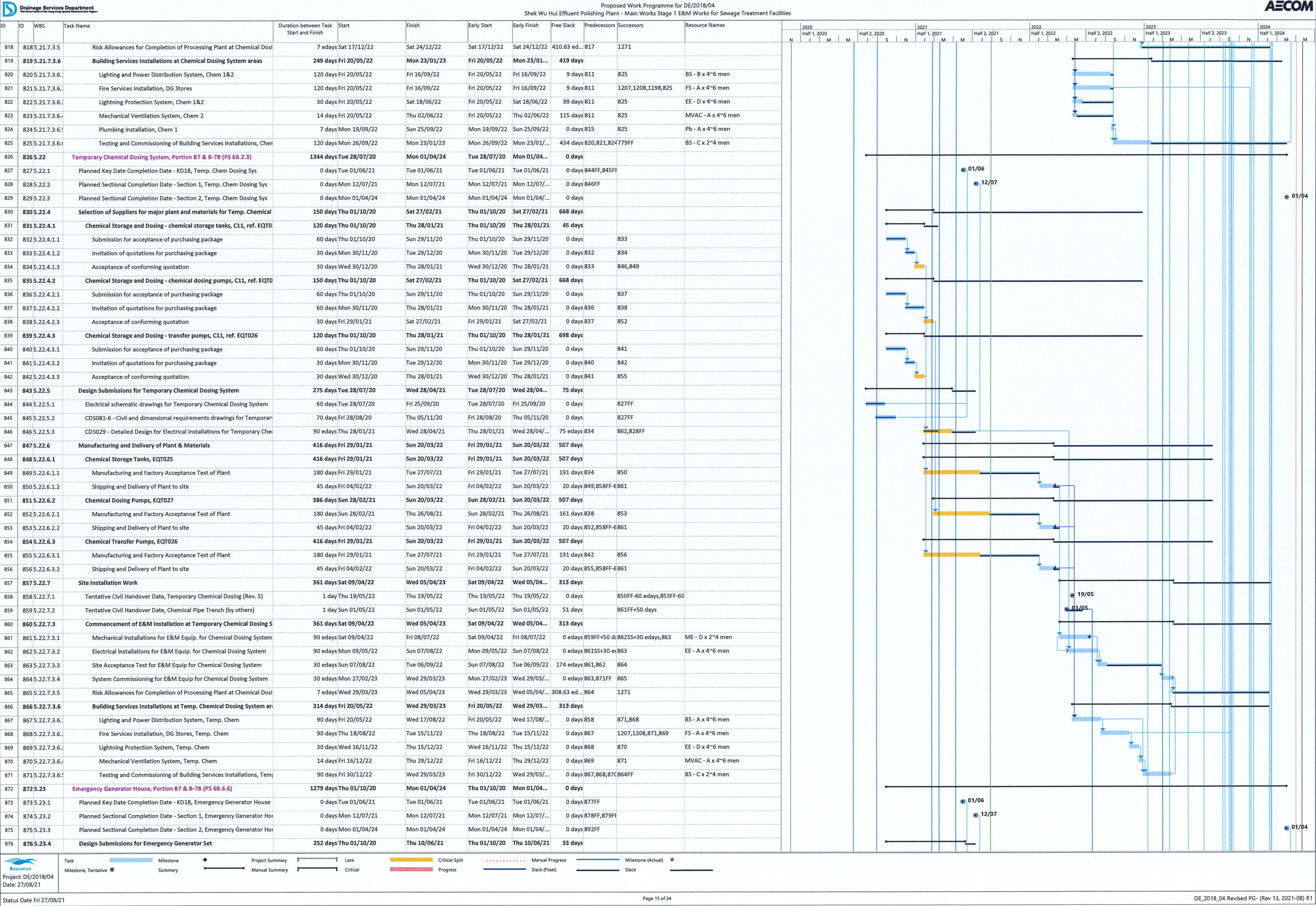
Slack (Float)

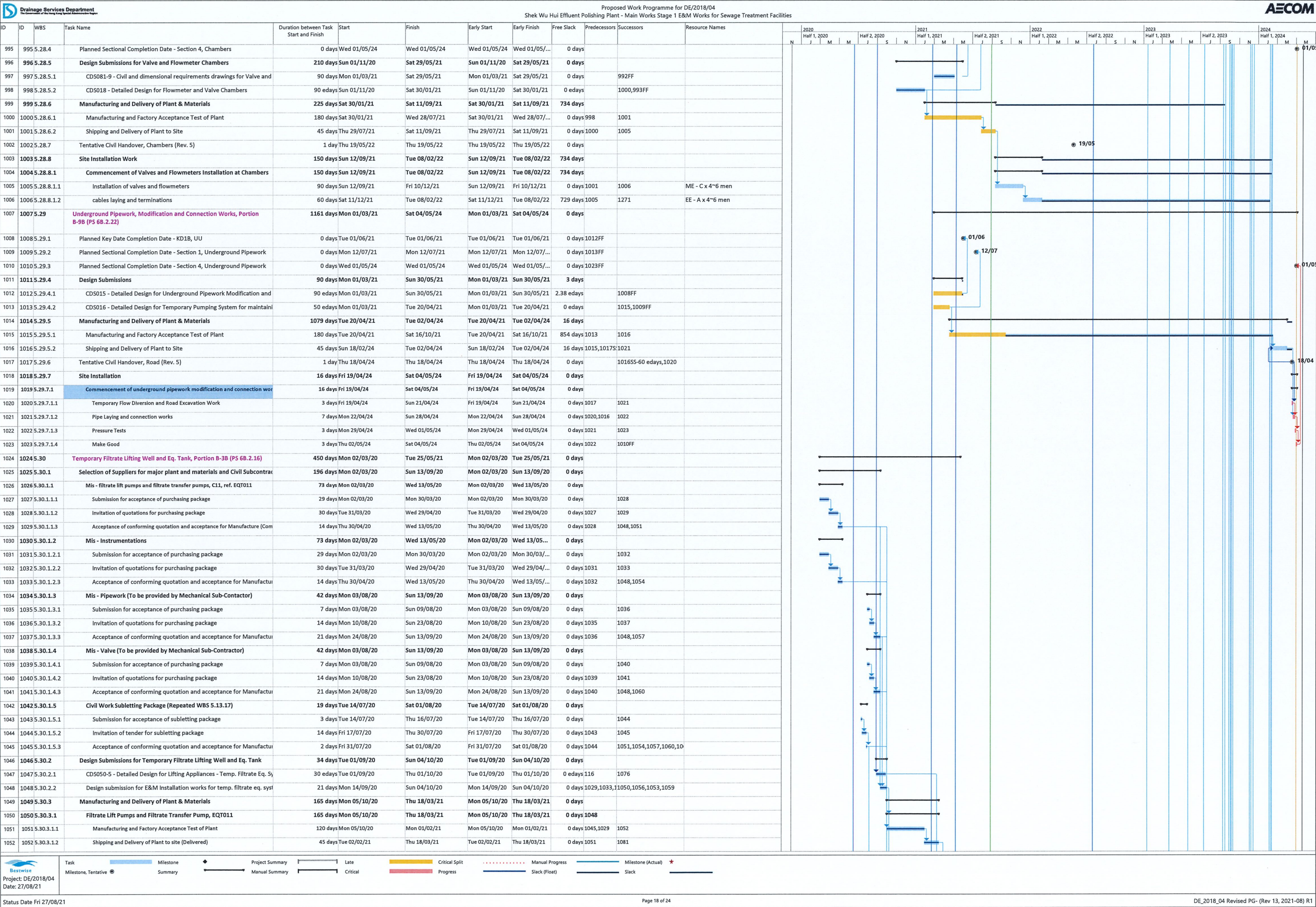
Milestone (Actual)

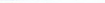
Slack

Project: DE/2018/04

Date: 27/08/21







Project: DE/2018/04

Date: 27/08/21

Task

Milestone

Project Summary

Late

Critical Split

Manual Progress

Milestone (Actual)

Milestone, Tentative

Summary

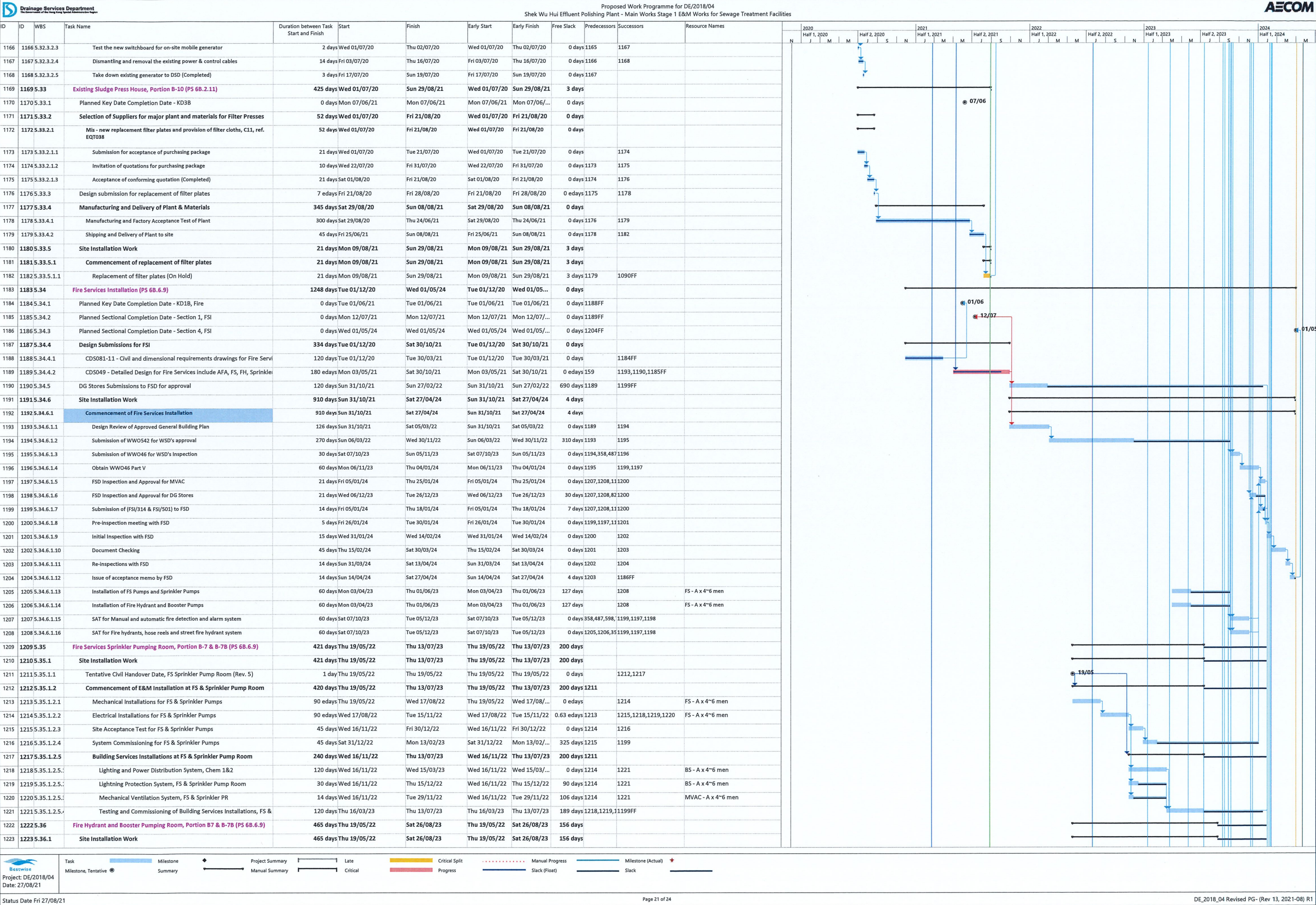
Manual Summary









Critical

Progress

Slack (Float)

Slack




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

Drainage Services Department													Proposed Work Programme for DE/2018/04													AECOM														
Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 E&M Works for Sewage Treatment Facilities																																								
ID	ID	WBS	Task Name	Duration between Task Start and Finish	Start	Finish	Early Start	Early Finish	Free Slack	Predecessors	Successors	Resource Names																												
													N																											
													2020 Half 1, 2020 J M M J J S N																											
													2021 Half 1, 2021 J M M J J S N																											
													2022 Half 1, 2022 J M M J J S N																											
													2023 Half 1, 2023 J M M J J S N																											
													2024 Half 1, 2024 J M M J J S N																											
1283		1283.6	Beam Plus Submissions	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	0 days																															
1284	1284.6.1		SA10 - Environmental Management Plan	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	19 days		39																													
1285	1285.6.2		SA11 - Air Pollution During Construction	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	19 days		39																													
1286	1286.6.3		SA12 - Noise During Construction	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	19 days		39																													
1287	1287.6.4		SA14 - Noise from Building Equipment	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	19 days		39																													
1288	1288.6.5		SA15 - Light Pollution	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	19 days		39																													
1289	1289.6.6		MAP1 - Timber used for Temporary Works	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	19 days		39																													
1290	1290.6.7		MAP2 - Use of Non-CFC Based Refrigerants	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	19 days		39																													
1291	1291.6.8		MAP3 - Waste Management Plan	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	19 days		39																													
1292	1292.6.9		MA2 - Modular and Standardized Design	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	19 days		39																													
1293	1293.6.10		MA8 - Ozone Depleting Substances	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	19 days		39																													
1294	1294.6.11		MA11 - Construction Waste Reduction	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	19 days		39																													
1295	1295.6.12		EUP1 - Minimum Energy Performance	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	19 days		39																													
1296	1296.6.13		EU1 - Reduction of CO2 Emissions	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	19 days		39																													
1297	1297.6.14		EU2 - Peak Electricity Demand Reduction	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	19 days		39																													
1298	1298.6.15		EU6 - Renewable Energy Systems	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	19 days		39																													
1299	1299.6.16		EU9 - Energy Efficient Appliances	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	19 days		39																													
1300	1300.6.17		EU10 - Testing and Commissioning	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	19 days		39																													
1301	1301.6.18		EU11 - Operation and Maintenance	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	19 days		39																													
1302	1302.6.19		EU12 - Meter and Monitoring	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	19 days		39																													
1303	1303.6.20		WUP1 - Water Quality Survey	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	19 days		39																													
1304	1304.6.21		WUP2 - Minimum Water Saving Performance	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	19 days		39																													
1305	1305.6.22		WU1 / WU6 - Annual Water Use / Effluent Discharge to Foul Sewers	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	19 days		39																													
1306	1306.6.23		IEQP1 - Minimum Ventilation Performance	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	19 days		39																													
1307	1307.6.24		IEQ1 - Security	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	19 days		39																													
1308	1308.6.25		IEQ2 - Plumbing and Drainage	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	19 days		39																													
1309	1309.6.26		IEQ3 - Biological Contamination	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	19 days		39																													
1310	1310.6.27		IEQ5 - Construction IAQ Management	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	19 days		39																													
1311	1311.6.28		IEQ6 / IEQ7 - IAQ	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	19 days		39																													
1312	1312.6.29		IEQ9 - Increased Ventilation	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	19 days		39																													
1313	1313.6.30		IEQ11 - Localised Ventilation	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	19 days		39																													
1314	1314.6.31		IEQ12 - Ventilation in Common Areas	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	19 days		39																													
1315	1315.6.32		IEQ13 - Thermal Comfort in Air - Conditioned Premises	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	19 days		39																													
1316	1316.6.33		IEQ16 / IEQ17 - Interior Lighting in Normally Occupied Area / Interior Lighting in Areas not Normally Occupied	1450 days	Fri 01/05/20	Fri 19/04/24	Fri 01/05/20	Fri 19/04/24	19 days		39																													
1317	1317.7		Summary of compensation events notified	487 days	Tue 25/02/20	Fri 25/06/21	Tue 25/02/20	Fri 25/06/21	0 days																															
1318	1318.7.1		Compensation Event (CE) No. 001, Special Arrangement in Reducing the Risk	1 day	Tue 25/02/20	Tue 25/02/20	Tue 25/02/20	Tue 25/02/20	0 days																															
1319	1319.7.2		Compensation Event (CE) No. 002, the Contractor's Site Accommodation by	1 day	Mon 08/06/20	Mon 08/06/20	Mon 08/06/20	Mon 08/06/20	0 days																															
1320	1320.7.3		Compensation Event (CE) No. 003, Designated Area for the Contractor's Site	1 day	Wed 22/04/20	Wed 22/04/20	Wed 22/04/20	Wed 22/04/20	0 days																															
1321	1321.7.4		Compensation Event (CE) No. 005, Designated Area for the Contractor's Storage	1 day	Wed 22/04/20	Wed 22/04/20	Wed 22/04/20	Wed 22/04/20	0 days																															
1322	1322.7.5		Compensation Event (CE) No. 007, Employment of Temporary Staff under Agreement	1 day	Fri 10/07/20	Fri 10/07/20	Fri 10/07/20	Fri 10/07/20	0 days																															
1323	1323.7.6		Compensation Event (CE) No. 009, Provision of an Additional Primary Sludge	1 day	Wed 15/07/20	Wed 15/07/20	Wed 15/07/20	Wed 15/07/20	0 days																															
1324	1324.7.7		Compensation Event (CE) No. 011, Dismantling, relocating, disconnecting and	1 day	Wed 14/04/21	Wed 14/04/21	Wed 14/04/21	Wed 14/04/21	0 days																															
1325	1325.7.8		NCE-PPMI-0202 (CE) Revised GA for F.S. & Sprinkler Pumping Room and Emergency Generator Room	1 day	Fri 18/12/20	Fri 18/12/20	Fri 18/12/20	Fri 18/12/20	0 days																															
1326	1326.7.9		NCE-PPMI-0203 (CE) Revised General Arrangement for Temp. Chemical System	1 day	Tue 15/12/20	Tue 15/12/20	Tue 15/12/20	Tue 15/12/20	0 days																															
1327	1327.7.10		NCE-PPMI-0204 (CE) Revised GA Layout Plan for DO Sys. No. 3A	1 day	Fri 18/12/20	Fri 18/12/20	Fri 18/12/20	Fri 18/12/20	0 days																															
1328	1328.7.11		NCE-PPMI-0205 (CE) Provision of Louvre Panel for Outdoor AC Units at Contractor's Site Accommodation	1 day	Mon 17/05/21	Mon 17/05/21	Mon 17/05/21	Mon 17/05/21	0 days																															
1329	1329.7.12		NCE-PPMI-0206 (CE) Modification of Feeders of the existing switchboards at Inlet Work and Provision of MCB Distribution Boards and Cables for Sidewide Submersible Pumps	1 day	Wed 23/06/21	Wed 23/06/21	Wed 23/06/21	Wed 23/06/21	0 days																															
1330	1330.7.13		NCE-PPMI-0207 (CE) Modification of Feeders of the existing switchboards at Inlet Consolidation House and Provision of MCB Distribution Boards and Cables for Sidewide Submersible Pumps	1 day	Wed 23/06/21	Wed 23/06/21	Wed 23/06/21	Wed 23/06/21	0 days																															
1331	1331.7.14		NCE-PPMI-0208 (CE) Modification of Feeders of the existing switchboards at Membrane Facilities Building and Provision of MCB Distribution Boards and Cables for Sidewide Submersible Pumps	1 day	Fri 25																																			

Drainage Services Department

The Government of the Hong Kong Special Administrative Region

Proposed Work Programme for DE/2018/04
Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 E&M Works for Sewage Treatment Facilities

AECOM

ID	ID	WBS	Task Name	Duration between Task Start and Finish	Start	Finish	Early Start	Early Finish	Free Slack	Predecessors	Successors	Resource Names																												
													2020 Half 1, 2020 J M M J J S N Half 2, 2020 J S N 2021 Half 1, 2021 J M M J S N Half 2, 2021 J S N 2022 Half 1, 2022 J M M J S N Half 2, 2022 J S N 2023 Half 1, 2023 J M M J S N Half 2, 2023 J S N 2024 Half 1, 2024 J M M																											
1332	1332	7.15	NCE-PPMI-0211 (CE) Provision of a New Chemical Storage and Dosing System fo the Application of Glycerin to Replace Methanol as an Alternative External Carbon Source for the Denitrification Process at BR2A and BR2B	1 day	Wed 08/07/20	Wed 08/07/20	Wed 08/07/20	Wed 08/07/20	0 days				<div></div>																											
1333	1333	7.16	NCE-PPMI-0213 (CE) Revised General Arrangement for Chemical System No.	1 day	Tue 05/01/21	Tue 05/01/21	Tue 05/01/21	Tue 05/01/21	0 days																															
1334	1334	7.17	NCE-PMI-0219 (CE) Provision and Removal of the Blank Flange to Blank Off Drain Valve and Temporary Submersible Pumps in PST No. 6	1 day	Thu 22/04/21	Thu 22/04/21	Thu 22/04/21	Thu 22/04/21	0 days																															
1335	1335	7.18	NCE-PMI-0223 (CE) Revised GA for Chemical Pipe Trench	1 day	Wed 07/04/21	Wed 07/04/21	Wed 07/04/21	Wed 07/04/...	0 days																															
1336	1336	7.19	NCE-PMI-0226 (CE) Modification Works of Manhole Cover for MHD13 for Filtrate Intake Pipe of Primary Sludge Thickening System	1 day	Fri 30/04/21	Fri 30/04/21	Fri 30/04/21	Fri 30/04/21	0 days																															
1337	1337	7.20	NCE-PMI-0227 (CE) Provision of Project Jackets with Fleece Vests	1 day	Thu 29/04/21	Thu 29/04/21	Thu 29/04/21	Thu 29/04/21	0 days																															
1338	1338	7.21	NCE-PMI-0234 (CE) Provision of removal of the blank flange to blank off drain valve of PST No. 4	1 day	Tue 25/05/21	Tue 25/05/21	Tue 25/05/21	Tue 25/05/21	0 days																															

Task

Milestone

Milestone, Tentative

Project Summary

Manual Summary

Late

Critical

Critical Split

Progress

Manual Progress

Slack (Float)

Milestone (Actual)

Slack

Project: DE/2018/04
Date: 27/08/21

Status Date Fri 27/08/21

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APPENDIX B
MONITORING REQUIREMENTS

Agreement No. SPW 07/2019**Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1****Appendix B - Environmental Impact Monitoring Requirements****Table B-1 Air Quality Monitoring**

Type of Monitoring	Parameter	Frequency	Location	Measurement Conditions
Air Quality	1-hour TSP	3 times/day, once every 6 days	<ul style="list-style-type: none">• AM1 – Wai Loi Tsuen• AM2 – Fu Tei Au	<ul style="list-style-type: none">• AM1 – Ground Level• AM2 – Ground Level
	24-hour TSP	Once every 6 days	<ul style="list-style-type: none">• AM1a – Site Boundary of the Shek Wu Hui STW (East)• AM2a – Site Boundary of the Shek Wu Hui STW (North)	<ul style="list-style-type: none">• AM1a – Ground Level• AM2a – Ground Level

Agreement No. SPW 07/2019**Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1****Appendix B - Environmental Impact Monitoring Requirements****Table B-2 Noise Monitoring**

Type of Monitoring	Parameter	Frequency	Location	Measurement Conditions
Construction Noise	L_{eq} , L_{90} & L_{10} at 30 minute intervals during (0700 to 1900 on normal weekdays)	Once per week	<ul style="list-style-type: none">• NM1 – Wai Loi Tsuen• NM2 – Fu Tei Au• NM3 – Man Kok Village	<ul style="list-style-type: none">• NM1 – Ground Level – Free Field• NM2 – Ground Level – Free Field• NM3 – Ground Level – Free Field

Appendix B - Environmental Impact Monitoring Requirements**Table B3 Ecological Monitoring**

Type of Monitoring	Methodology	Location	Descriptions	Influenced by Tidal Action
Ecology	Weekly transect at both high and low tides to identify and enumerate all bird species utilizing the river channels and identify any sources of actual or potential disturbance to birds due to construction activities throughout the construction period.	<ul style="list-style-type: none">• Transect T1• Point Count Location P1• Point Count Location P2	Along Ng Tung River	No
		<ul style="list-style-type: none">• Transect T2• Point Count Location P3• Point Count Location P4		Yes
		<ul style="list-style-type: none">• Point Count Location P5	At Shek Sheung River (Low –flow Channel)	No
		<ul style="list-style-type: none">• Transect T3	Along Shek Sheung River & Sheung Yue River	Yes
		<ul style="list-style-type: none">• Point Count Location P6	At Shek Sheung River	Yes
		<ul style="list-style-type: none">• Point Count Location P7	At Interscetion between Sheung Yue River and Shek Sheung River	Yes

APPENDIX C
ACTION AND LIMIT LEVELS

Appendix C - Action and Limit Levels

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

Location	Action Level, $\mu\text{g}/\text{m}^3$	Limit Level, $\mu\text{g}/\text{m}^3$
AM1	320	500
AM2	322	

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

Location	Action Level, $\mu\text{g}/\text{m}^3$	Limit Level, $\mu\text{g}/\text{m}^3$
AM1a	189	260
AM2a	187	

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

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

*Remarks:

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

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

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

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

APPENDIX D
ENVIRONMENTAL MITIGATION
IMPLEMENTATION SCHEDULE (EMIS)

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Status
Air Quality Impact							
S2.3.1.3	Dust suppression measures stipulated in the Air Pollution Control (Construction Dust) Regulation and good site practices:	To minimize the dust impact	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	Air Pollution Control Ordinance (APCO) and Air Pollution Control (Construction Dust) Regulation	^
	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;						^
	Any dusty material remaining after a stockpile is removed should be wetted with water and cleared from the surface of roads;						^
	A stockpile of dusty material should not be extended beyond the pedestrian barriers, fencing or traffic cones;						^
	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;						^
	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;						^
	When there are open excavation and reinstatement works, hoarding of not less than 2.4m high should be provided as far as practicable along the site boundary with provision for public crossing. Good site practice shall also be adopted by the Contractor to ensure the conditions of the hoardings are properly maintained throughout the construction period.						^
	The portion of any road leading only to construction site that is within 30m of a vehicle entrance or exit should be kept clear of dusty materials;						^

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

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Status
Noise Impact							
S3.2.1.1	Use of movable barrier, enclosure, acoustic mat and quiet plant. Use of wooden frames barrier with a small-cantilevered upper portion of superficial density not less than 14kg/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)	^
S3.2.1.2	Only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction program.	To minimize construction noise impact arising from the Project at the affected NSRs	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	EIAO-TM, NCO	^
	Silencers or mufflers on construction equipment should be utilized and should be properly maintained during the construction program.						^
	Mobile plant, if any, should be sited as far away from NSRs as possible.						^
	Machines and plant (such as trucks) that may be in intermittent use should be shut down between works periods or should be throttled down to a minimum.						^
	Plant known to emit noise strongly in one direction should, wherever possible, be orientated so that the noise is directed away from the nearby NSRs.						^
	Material stockpiles and other structures should be effectively utilized, wherever practicable, in screening noise from on-site construction activities.						N/A

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Status
Ecological 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 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	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	^
	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;						^
	To prevent muddy water entering nearby water bodies, work sites close to nearby water bodies should be isolated, using such items as sandbags or silt curtains with lead edge at bottom and properly supported props. Other protective measures should also be taken to ensure that no pollution or siltation occurs to the water gathering grounds of the work sites;						^
	Construction debris and spoil should be covered and/or properly disposed of as soon as possible to avoid these being washed into nearby water bodies;						^

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

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Status
Water Quality 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	Portable chemical toilets and sewage holding tanks should be provided for handling the construction sewage generated by the workforce. A licensed Contractor should be employed to provide appropriate and adequate portable toilets and be responsible for appropriate disposal and maintenance.	Handling of site sewage	Contractors	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	EIAO-TM, WPCO, EIAO	^
	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						^

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Status
Waste Management							
S6.2.2.1	Nomination of an approved person, such as a site manager, to be responsible for the implementation of good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site;	Minimize waste generation during construction	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	Waste Disposal Ordinance (WDO)	^
	Training of site personnel in site cleanliness, appropriate waste management procedures and concepts of waste reduction, reuse and recycling;						^
	Provision of sufficient waste disposal points and regular collection for disposal;						^
	Appropriate measures to minimise windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers;						^
	Regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors;						^
	An Environmental Management Plan (EMP) should be prepared by the contractor and submitted to the Supervisor for approval.						^
S6.2.3.1	Segregate and store different types of waste in different containers, skip or stockpiles to enhance reuse or recycling of materials and their proper disposal;	Reduce waste generation	Contractor	Work Sites	Prior to the commencement of construction of Main Works Stage 1, Stage 2 and Stage 3	WDO	^
	Proper storage and site practices to minimize the potential for damage and contamination of construction materials;						^
	Plan and stock construction materials carefully to minimize amount of waste generated and avoid unnecessary generation of waste;						^
	Sort out demolition debris and excavated materials from demolition works to recover reusable/recyclable portions (i.e. soil, broken concrete, metal etc.); and						^
	Provide training to workers on the importance of appropriate waste management procedures, including waste reduction, reuse and recycling.						^

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

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Status
S6.2.5.3	The use of wooden hoardings shall not be allowed. An alternative material, such as metal, aluminium or alloy etc, could be used.	Minimize waste impacts from building demolition and new building construction	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	Land (Miscellaneous Provisions) Ordinance, WDO, ETWB TCW No. 19/2005	^
	Government has developed a charging policy for the disposal of waste to landfill at present. It will provide additional incentive to reduce the volume of generated waste and ensure proper segregation to allow reuse of the inert material on site when implemented.						^
	In order to minimize the impacts of the demolition works, the generated wastes must be cleared as quickly as possible after demolition. Therefore, the demolition and clearance works should be undertaken simultaneously. To facilitate proper segregation of inert and non-inert C&D material arising from demolition works, selective demolition method should be adopted.						^
S6.2.5.4	If chemical wastes are produced at the construction site, the Contractors should register with EPD as chemical waste producers.	Control the chemical waste and 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	^
	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 should be stored in enclosed bins separately from construction and chemical wastes.	Minimize production of the general refuse and avoid odour, pest and litter impacts	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	Waste Disposal (Chemical Waste General) Regulation	^
	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.						^

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Status
Landscape and Visual							
S7.3.1.1	For areas unavoidably disturbed by the Project on a short term basis e.g. works areas, the general principle to try and restore these to their former state to suit future land use, should be adhered to.	Minimize the impact to the landscape and visual	Contractor	Work Sites	Prior to construction and construction phase		N/A
	With regard to topsoil, where identified, it should be stripped, treated appropriately, and where suitable and practical stored for re-use in the construction of the soft landscape works such as roadside amenity strips, and open space sites.						N/A
S7.3.2.1	MM4 – Tree Protection & Preservation Existing trees to be retained within the Project Site should be carefully protected during construction. In particular Old and Valuable Trees (OVTs) will be preserved according to ETWB TC (Works) No. 29/2004. Detailed Tree Protection Specification shall be provided in the Contract Specification. Under this specification, the Contractor shall be required to submit, for approval, a detailed working method statement for the protection of trees prior to undertaking any works adjacent to all retained trees, including trees in Contractor's works areas. A detailed tree survey will be carried out for the Tree Removal Application (TRA) process which will be carried out at the later detailed design stage of the Project. The detailed tree survey will propose which trees should be retained, transplanted or felled and will include details of tree protection measures for those trees to be retained.	Protect and Preserve Trees	Designer / Contractor	Work Sites	Prior to construction and construction phase	ETWB TCW No. 29/2004 and DEVB TC(W) No.7/2015	^

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Status
S7.3.2.1	<p>MM5 - Tree Transplantation</p> <p>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.</p>	Transplant Trees where suitable for transplantation	Designer / Contractor	Work Sites where possible. Otherwise consider offsite locations	Prior to construction, construction phase and operation phase	<p>DEVB TC(W) No. 7/2015 and ETWB TCW No.2/2004</p> <p>HyD HQ/GN/13 Interim Guidelines for Tree Transplanting Works under Highways Department's Vegetation Maintenance Ambit</p>	^
S7.3.2.1	<p>MM6 - Slope Landscaping</p> <p>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.</p>	<p>To avoid substantial slope cutting and fill slopes.</p> <p>To prevent erosion and subsequent loss of landscape resources and character.</p> <p>To ensure man-made slopes are as visually amenable as possible.</p>	Designer / Contractor	Work Sites	Prior to construction, construction phase and operation phase	<p>GEO Publication (1999) - Use of Vegetation as Surface Protection on Slope; GEO Publication No. 1/2011-Technical Guidelines on Landscape Treatment for Slopes</p>	N/A
	<p>In addition, landscape planting should be provided for the retaining structures associated with modified slopes where conditions allow. All slope landscaping works should comply with GWO Publication No. 1/2011-Technical Guidelines on Landscape Treatment for Slopes.</p>						N/A

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Status
S7.3.2.1	MM7 - Compensatory Planting Compensatory tree planting for felled trees shall be provided to the satisfaction of relevant Government departments. Required numbers and locations of compensatory trees shall be determined and agreed separately with Government during the Tree Removal Application process under DEVB TC(W) No. 7/2015.	Compensate for trees and shrubs lost due to the Project	Designer / Contractor	Work Sites where possible. Otherwise consider offsite locations	Prior to construction, construction phase and operation phase	DEVB TC(W) No. 7/2015 and ETWB TCW No. 2/2004	N/A
	Compensatory planting is proposed at the potential open areas such as open spaces, amenity areas, open areas of the streetscapes, as well as the open areas within development lots.						N/A
	Compensatory planting for shrubs should be considered in suitable locations. Native species such as <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.						N/A
S7.3.2.1	MM9 - Vertical Greening Planting of climbers to grow up vertical surfaces were appropriate.	Soften hard surfaces and facilities	Designer / Contractor	On appropriate structures	Prior to construction, construction phase and operation phase	ETWB TCW No.11/2004 – Cyber Manual for Greening	N/A
S7.3.2.1	MM10 - Green Roof Roof greening where appropriate should be established on proposed buildings as per the guidelines stated. These guidelines provide further details including information regarding structural loading, design, maintenance, etc. considerations as well as providing information on what types of plants might be suitable.	Reduce exposure to untreated concrete surfaces and particularly mitigate visual impact to visually sensitive receivers (VSRs) at high levels. Provide greening.	Designer / Contractor	On appropriate buildings	Prior to construction, construction phase and operation phase	CIBSE HK Branch, Technical Guidelines for Green Roof Systems in Hong Kong (2011); ArchSD/Urbis Study on Green Roof Application in HK (2007)	N/A

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Status
S7.3.2.1	MM11 - Screen Planting Tall screen/buffer trees and shrubs should be planted. This measure may additionally form part of the compensatory planting.	To screen proposed structures such as roads and buildings. Improve compatibility with the surrounding environment and create a pleasant pedestrian environment	Designer / Contractor	Along roads, around suitable built structures, or around VSRs to contain their view out to the structures.	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 Screen hoarding shall be erected along areas of the construction works site boundary where the works site borders publically accessible routes and/or is close to visually sensitive receivers (VSRs). It is proposed that the screening be compatible with the surrounding environment and where possible, non-reflective, recessive colours be used. Any works areas near the ecological sensitive areas should erect 2m high dull green site boundary fence.	To screen undesirable views of the works site.	Designer	Work Sites	Construction phase		^
S7.3.2.1	MM17 - Light Control Construction day and night time lighting should be controlled to minimize glare impact to adjacent VSRs during the Construction phase. Street and night time lighting shall also be controlled to minimize glare impact to adjacent VSRs during the operation phase.	To minimize glare impact to adjacent VSRs.	Designer / Contractor	Work Sites and/or the Plant	Construction phase and operation phase		^

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

APPENDIX E
SITE AUDIT SUMMARY

Appendix E – Summary of Observations and Recommendations of Site Audit

Reporting Quarter: July – August 2021

Table E-1 Observations and Recommendations of Site Audit of Contract No. DC/2018/06

Parameters	Date	Observations and Recommendations	Follow-up
<i>Water Quality</i>	N/A	There was no observation in the reporting period.	N/A
<i>Air Quality</i>	N/A	There was no observation in the reporting period.	N/A
<i>Noise</i>	N/A	There was no observation in the reporting period.	N/A
<i>Waste / Chemical Management</i>	N/A	There was no observation in the reporting period.	N/A
<i>Ecology and Fisheries</i>	N/A	There was no observation in the reporting period.	N/A
<i>Visual and Landscape</i>	N/A	There was no observation in the reporting period.	N/A
<i>Permits /Licences</i>	N/A	There was no observation in the reporting period.	N/A

Table E-2 Observations and Recommendations of Site Audit of Contract No. DC/2018/07

Parameters	Date	Observations and Recommendations	Follow-up
<i>Water Quality</i>	N/A	There was no observation in the reporting period.	N/A
<i>Air Quality</i>	N/A	There was no observation in the reporting period.	N/A
<i>Noise</i>	N/A	There was no observation in the reporting period.	N/A
<i>Waste / Chemical Management</i>	N/A	There was no observation in the reporting period.	N/A
<i>Ecology and Fisheries</i>	N/A	There was no observation in the reporting period.	N/A
<i>Visual and Landscape</i>	N/A	There was no observation in the reporting period.	N/A
<i>Permits /Licences</i>	N/A	There was no observation in the reporting period.	N/A

Table E-3 Observations and Recommendations of Site Audit of Contract No. DE/2018/03

Parameters	Date	Observations and Recommendations	Follow-up
<i>Water Quality</i>	N/A	There was no observation in the reporting period.	N/A
<i>Air Quality</i>	N/A	There was no observation in the reporting period.	N/A
<i>Noise</i>	N/A	There was no observation in the reporting period.	N/A
<i>Waste / Chemical Management</i>	N/A	There was no observation in the reporting period.	N/A
<i>Ecology and Fisheries</i>	N/A	There was no observation in the reporting period.	N/A
<i>Visual and Landscape</i>	N/A	There was no observation in the reporting period.	N/A
<i>Permits /Licences</i>	N/A	There was no observation in the reporting period.	N/A

Table E-4 Observations and Recommendations of Site Audit of Contract No. DE/2018/04

Parameters	Date	Observations and Recommendations	Follow-up
<i>Water Quality</i>	13 Jul 2021	Stagnant water should be removed at Portion B-3-A.	The condition was observed to be improved/rectified by the contractor during the audit session on 23 Jul 2021.
<i>Air Quality</i>	N/A	There was no observation in the reporting period.	N/A
<i>Noise</i>	N/A	There was no observation in the reporting period.	N/A
<i>Waste / Chemical Management</i>	N/A	There was no observation in the reporting period.	N/A
<i>Ecology and Fisheries</i>	N/A	There was no observation in the reporting period.	N/A
<i>Visual and Landscape</i>	N/A	There was no observation in the reporting period.	N/A
<i>Permits /Licences</i>	N/A	There was no observation in the reporting period.	N/A

APPENDIX F
WASTE FLOW TABLE

Monthly Summary Waste Flow Table for 2021

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly				
	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill		Paper/ cardboard packaging		Chemical Waste	Others, e.g. general refuse
	(in '000m3)	(in '000m3)	(in '000m3)	(in '000m3)	(in '000m3)	(in '000m3)	Metals (in '000kg)	(in '000kg)	Plastics (in '000kg)	(in '000kg)	(in '000m3)
Jan	10.034	0.000	0.000	8.257	1.777	0.606	0.000	0.000	0.002	0.000	0.038
Feb	3.703	0.000	0.000	2.871	0.833	0.071	2.120	0.000	0.000	0.000	0.024
Mar	4.644	0.000	0.000	2.190	2.454	0.037	0.000	0.000	0.006	0.000	0.044
Apr	0.211	0.000	0.023	0.000	0.188	0.167	0.000	0.000	0.008	0.000	0.042
May	0.557	0.000	0.218	0.000	0.340	0.149	0.001	0.002	0.008	0.000	0.081
Jun	0.370	0.000	0.023	0.000	0.348	0.074	8.210	0.000	0.000	0.000	0.069
Sub-total	19.519	0.000	0.263	13.317	5.939	1.103	10.331	0.002	0.023	0.000	0.299
Jul	0.000	0.000	0.000	0.000	0.592	0.058	0.000	0.000	0.010	0.000	0.046
Aug	0.000	0.000	0.000	0.000	0.567	0.000	0.002	0.017	0.008	0.000	0.066
Sep											
Oct											
Nov											
Dec											
Total	19.519	0.000	0.263	13.317	7.099	1.161	10.333	0.018	0.041	0.000	0.411

- Notes:
1. Assume the density of soil fill is 2 ton/m³.
 2. Assume the density of rock and broken concrete is 2.5 ton/m³.
 3. Assume the density of general refuse is 0.9 ton/m³.
 4. Assume density of waste oil is assumed to be 0.8 kg/L.
 5. The inert C&D materials except slurry and bentonite are disposed at Tuen Mun 38.
 6. The slurry and bentonite are disposed at Tseung Kwun O 137.
 7. The non-inert C&D wastes are disposed at NENT.

Monthly Summary Waste Flow Table for 2021

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly				
	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill		Paper/ cardboard packaging		Chemical Waste	Others, e.g. general refuse
	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m ³)
Jan	0.836	0.000	0.000	0.000	0.836	0.301	21.25	0.000	0.002	0.000	0.006
Feb	0.911	0.000	0.000	0.000	0.911	0.376	39.35	0.000	0.000	0.000	0.007
Mar	0.954	0.000	0.000	0.000	0.954	0.202	0.00	0.000	0.003	0.000	0.016
Apr	0.550	0.000	0.000	0.046	0.504	0.000	0.00	0.000	0.008	0.000	0.009
May	1.368	0.000	0.000	0.149	1.220	0.000	0.00	0.000	0.008	0.000	0.012
Jun	0.670	0.000	0.000	0.074	0.596	0.000	0.00	0.010	0.000	0.000	0.012
Sub-total	5.290	0.000	0.000	0.269	5.021	0.879	60.60	0.010	0.020	0.000	0.062
Jul	2.818	0.000	0.000	0.058	2.760	0.000	0.00	0.000	0.010	0.000	0.011
Aug	5.061	0.000	0.000	0.000	5.061	0.000	24.14	0.013	0.014	0.000	0.010
Sep											
Oct											
Nov											
Dec											
Total	13.168	0.000	0.000	0.327	12.842	0.879	84.74	0.023	0.044	0.000	0.084

- 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

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

Contract No.: DE/2018/03

Monthly Summary Waste Flow Table for 2021 (year)

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly				
	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ cardboard packaging	Plastics (see Note 3)	Chemical Waste	Others, e.g. general refuse
	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m ³)
Jan	9.53 T	0	0	0	9.53 T	0	0	0	0	0	0
Feb	3.47T	0	0	0	3.47 T	0	0	0	0	0	0
Mar	14.79T	0	0	0	14.79T	0	0	0	0	0	0
Apr	7.21T	0	0	0	7.21T	0	0	0	0	0	0
May	11.34T	0	0	0	11.34T	0	0	0	0	0	0
June	328.08T	0	0	0	328.08T	0	0	0	0	0	0
Sub-total	374.42T	0	0	0	374.42T	0	0	0	0	0	0
July	579.34T	0	0	0	579.34T	0	0	0.131	0.007	0	0
Aug	64.14T	0	0	0	64.14T	0	0	0.11	0	0	6.13T
Sept											
Oct											
Nov											
Dec											
Total	1017.9T	0	0	0	1017.9T	0	0	0.241	0.007	0	6.13T

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

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

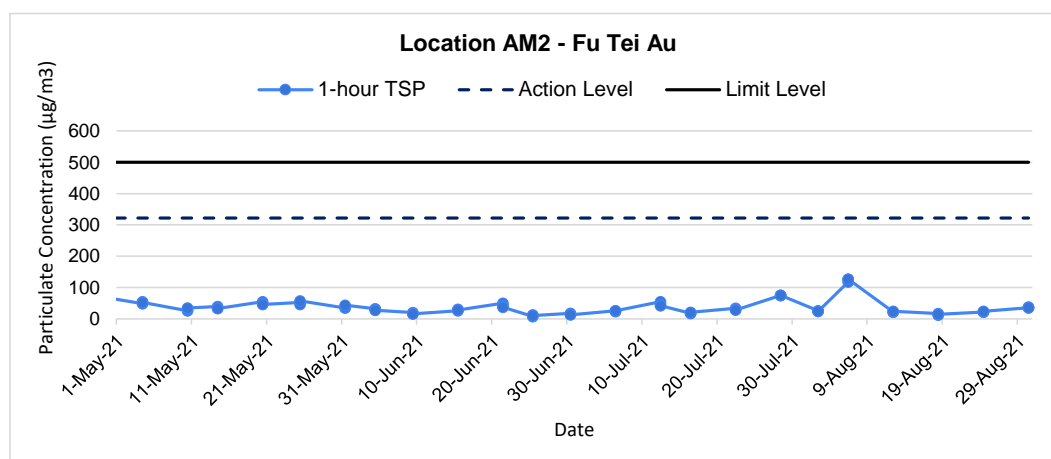
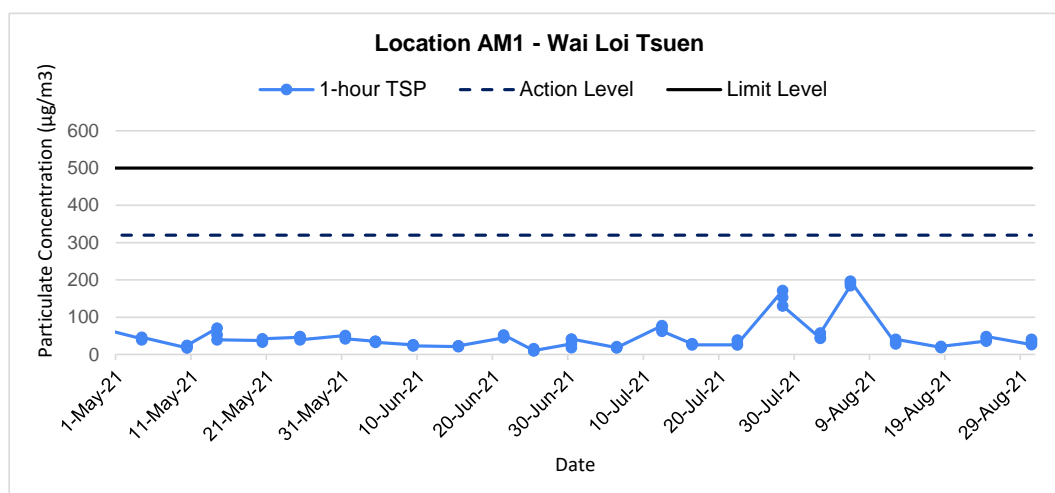
Name of Department: DSD

Contract No.: DE/2018/04**Monthly Summary Waste Flow Table for 2021** (year)

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly				
	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ cardboard packaging	Plastics (see Note 2)	Chemical Waste	Others, e.g. general refuse
	(in '000 kg)	(in '000 kg)	(in '000 kg)	(in '000 kg)	(in '000 kg)	(in '000 kg)	(in '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000 kg)
Jan	230.16	0	0	0	230.16	0	0	0	0	0	1.54
Feb	175.98	0	100	0	75.98	0	0	0	0	0	3.63
Mar	11.98	0	0	0	11.98	0	0	0	0	0	1.35
Apr	0	0	0	0	0	0	0	0	0	0	1.48
May	0	0	0	0	0	0	0	0	0	0	3.25
June	0	0	0	0	0	0	0	0	0	0	2.01
Sub-total	418.12	0	100	0	318.12	0	0	0	0	0	13.26
July	0	0	0	0	0	0	0	0	0	0	4.21
Aug	0	0	0	0	0	0	0	0	0	0	1.09
Sept											
Oct											
Nov											
Dec											
Total	418.12	0	100	0	318.12	0	0	0	0	0	18.56

APPENDIX G
GRAPHICAL PRESENTATIONS OF AIR
QUALITY MONITORING RESULTS (1-
HOUR)

1-hr TSP Concentration Levels



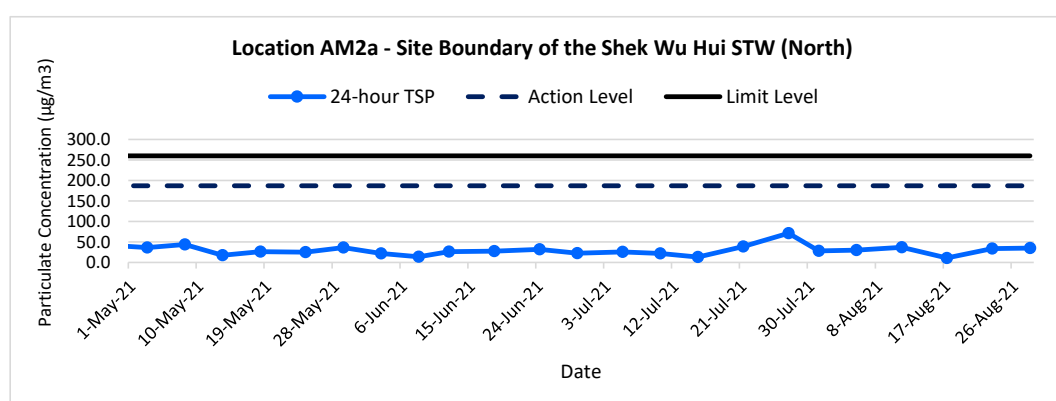
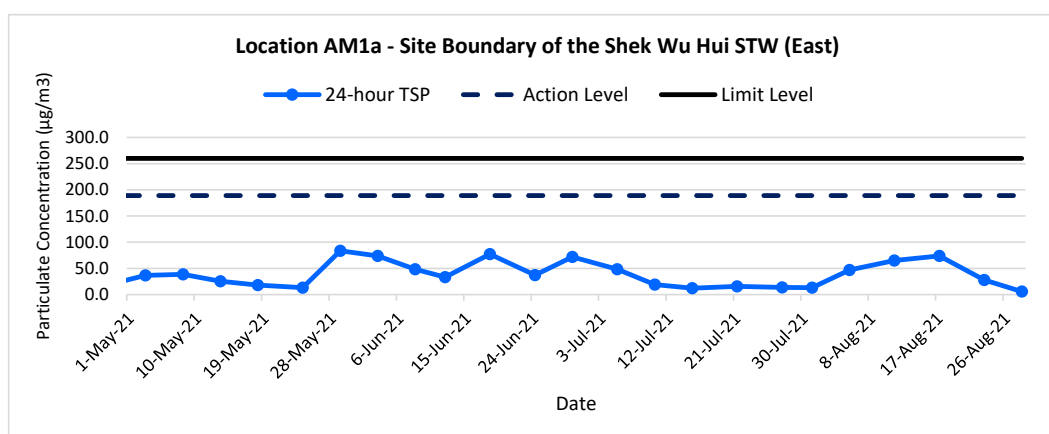
Remarks:

- (1) Weather conditions within the reporting period were generally sunny and cloudy.
- (2) Major construction activities carried out during the reporting period include ELS and excavation works, sheet-piling installation, RC works, backfilling, socket H piling, pipe jacking work, trench excavation, road and drainage works, diversion of inlet works, pre-drilling and foundation work, pre-bored H piles, cable diversion works, demolition works and trial pits excavation.
- (3) Other factors which might affect the monitoring results include road traffic at Sheung Shui Tung Hing Road.

Title	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1	Date	Aug 2021	Project No.	MA19019	CINOTECH
	Graphical Presentation of 1-hour TSP Monitoring Results			Appendix	E	

**APPENDIX H
GRAPHICAL PRESENTATIONS OF AIR
QUALITY MONITORING RESULTS (24-
HOUR)**

24-hr TSP Concentration Levels



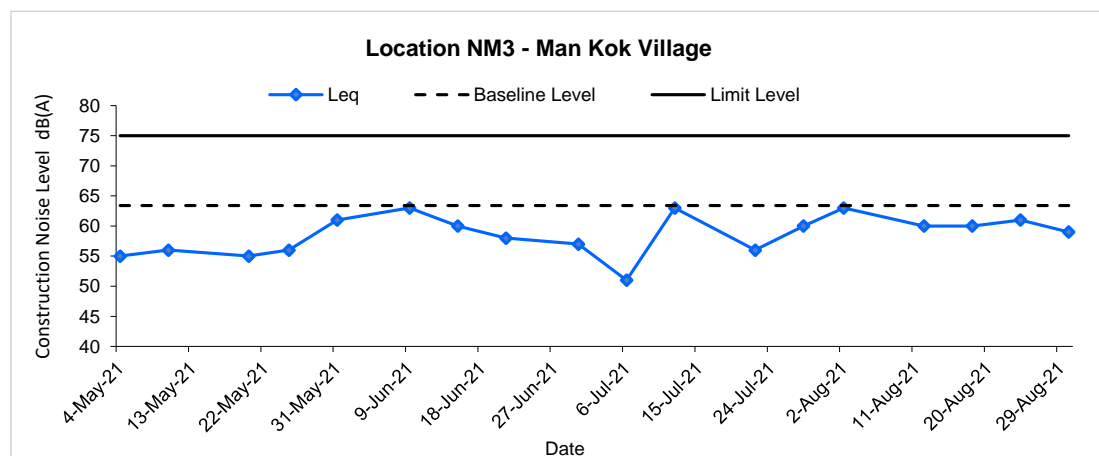
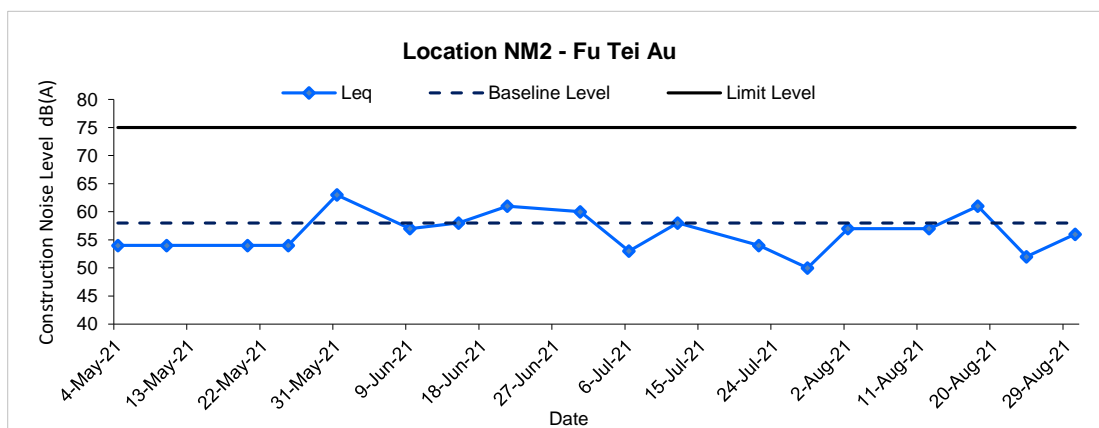
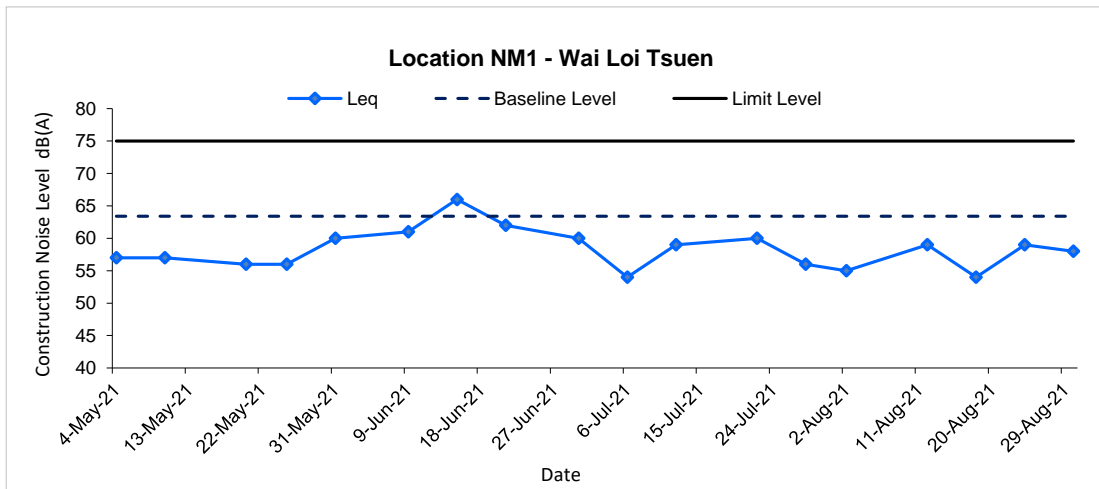
Remarks:

- (1) Weather conditions within the reporting period were generally sunny and cloudy.
- (2) Major construction activities carried out during the reporting period include ELS and excavation works, sheet-piling installation, RC works, backfilling, socket H piling, pipe jacking work, trench excavation, road and drainage works, diversion of inlet works, pre-drilling and foundation work, pre-bored H piles, cable diversion works, demolition works and trial pits excavation.
- (3) Other factors which might affect the monitoring results include vehicle movement within SWHSTW.

Title	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1	Date	Aug 2021	Project No.	MA19019	CINOTECH
	Graphical Presentation of 24-hour TSP Monitoring Results			Appendix	F	

**APPENDIX I
GRAPHICAL PRESENTATIONS OF
NOISE MONITORING RESULTS**

Noise Levels



Remarks:

- (1) Weather conditions within the reporting period were generally sunny and cloudy.
- (2) Major construction activities carried out during the reporting period include ELS and excavation works, sheet-piling installation, RC works, backfilling, socket H piling, pipe jacking work, trench excavation, road and drainage works, diversion of inlet works, pre-drilling and foundation work, pre-bored H piles, cable diversion works, demolition works and trial pits excavation.
- (3) Other factors which might affect the monitoring results include railway noise and road traffic at Sheung Shui Tung Hing Road and Po Wan Road.

Title	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1	Date	Aug 2021	Project No.	MA19019	CINOTECH
				Appendix	H	

Graphical Presentation of
Construction Noise Monitoring Results

APPENDIX J
SUMMARY OF ECOLOGICAL
MONITORING ANALYSIS

Agreement No. SPW 07/2019**Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1****Appendix J – Summary of Ecology Monitoring Analysis****Reporting Quarter:** July – August 2021**Table J-1 Summary Result of T-Test Analysis for All Waterbirds**

T-values of Data*		Confidence Level	
		95%	99%
July 2021	Monthly	✓	✓
	Season	✓	✓
	Overall	✓	✓
August 2021	Monthly	✓	✓
	Season	✗	✗
	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.

Agreement No. SPW 07/2019**Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1****Appendix J – Summary of Ecology Monitoring Analysis****Table J-2 Summary Result of T-test Analysis for Representative Waterbirds from Point Count**

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

Remarks:

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

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

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

APPENDIX K
SUMMARY OF EXCEEDANCES

Agreement No. SPW 07/2019

Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1

Appendix K – Summary of Exceedance

Reporting Quarter: July – August 2021

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

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

(C) Exceedance Report for Ecology
(NIL in the reporting quarter)

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

Agreement No. SPW 07/2019**Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1****Appendix L – Summary of Environmental Complaint, Warning, Summon and Notification of Successful Prosecution****Reporting Quarter:** July – August 2021**Table L-1 Environmental Complaint Records**

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
1	Expansion Site of SWHSTP (Portion C)	18 March 2020	Muddy water was suspected to be discharged from the expansion site of SWHSTP to Shek Sheung River, manholes and foul drains nearby	<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

Agreement No. SPW 07/2019**Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1****Appendix L – Summary of Environmental Complaint, Warning, Summon and Notification of Successful Prosecution**

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
2	SWHEPP	19 February 2021	Significant odour nuisance was suspected to be emitted from the construction activities of SWHEPP	<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

Agreement No. SPW 07/2019**Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1****Appendix L – Summary of Environmental Complaint, Warning, Summon and Notification of Successful Prosecution**

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
3	SWHEPP	9 August 2021	Air nuisance was suspected to be originated from the construction activities of SWHEPP	<ul style="list-style-type: none">• Ensured only PME's 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	Complaint Investigation Report (CIR) was submitted in August 2021

Remarks: 1 environmental complaint was received in the reporting quarter.

Agreement No. SPW 07/2019

Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1

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

Table L-2 Environmental Warning/Summon and Prosecution Records

Log Ref.	Location	Received Date	Details of Warning/Summon and Prosecution	Status
N/A	N/A	N/A	N/A	N/A

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