



JOB No.: TCS01062/19

**EPD CONTRACT NO. EP/SP/86/15
ORGANIC WASTE TREATMENT FACILITIES PHASE 2**

**QUARTERLY ENVIRONMENTAL MONITORING AND
AUDIT (EM&A) SUMMARY REPORT
(JUNE TO AUGUST 2021)**

**PREPARED FOR
AJA JOINT VENTURE**

Date	Reference No.	Prepared By	Certified By
8 October 2021	TCS01062/19/600/R0176v3	 Martin Li (Environmental Consultant)	 Tam Tak Wing (Environmental Team Leader)

Version	Date	Remarks
1	5 October 2021	First Submission
2	8 October 2021	Amended against IEC's comments
3	8 October 2021	Amended against IEC's comments

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Attn: Mr. Chris Leung

11 October 2021

Dear Sir

Contract No. EP/SP/86/15
Organic Waste Treatment Facilities Phase 2
Quarterly Environmental Monitoring & Audit Report (June to August 2021)

Referring to your report referenced above dated 8 October 2021, we hereby verify that the captioned report ref. no. TCS01062/19/600/R0176v3 complied in general with the requirements as set out in the EM&A Manual.

Should you have any queries, please contact the undersigned at 2268 3437.

Yours faithfully



Ricky Chui
Independent Environmental Checker

cc EPD – Ms. Queenie Ng, Mr. Sunny Chiu, Mr. Aron Lo
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EXECUTIVE SUMMARY

ES01 This is the 7th Quarterly Environmental Monitoring and Audit (EM&A) Summary Report for the Service Contract to summarized environmental monitoring results and inspection findings during the period from **1 June 2021 to 31 August 2021** (hereinafter ‘the Reporting Period’).

ENVIRONMENTAL MONITORING AND AUDIT ACTIVITIES

ES02 Environmental monitoring activities under the EM&A program in this Reporting Period are summarized in the following table.

Table ES-1 Summary of Environmental Monitoring Activities Undertaken in the Reporting Period

Issues	Environmental Monitoring Parameters / Inspection	Sessions
Construction Noise	Leq (30min) Daytime	56
Construction Noise during Restricted Hours	Leq (5min) during restricted hours	36
Inspection / Audit	ET Regular Environmental Site Inspection	13

BREACH OF ACTION AND LIMIT (A/L) LEVELS

ES03 One (1) daytime construction noise monitoring limit level exceedance was recorded in this Reporting Period. Furthermore, one (1) construction noise monitoring action level exceedance was recorded in this Reporting Period for the Project due to one (1) noise complaint received. The statistics of environmental exceedance and investigation of exceedance are summarized in the following table.

Table ES-2 Summary of Environmental Monitoring Parameter Exceedance in the Reporting Period

Environmental Issues	Monitoring Parameters	Action Level	Limit Level	Event & Action	
				Investigation Results	Corrective Actions
Construction Noise	Leq _{30min} Daytime	1	1	Not Project Related	NA

SITE INSPECTION

ES04 During the Reporting Period, weekly joint site inspections were undertaken to evaluate the site environmental performance. No non-compliances were observed during the weekly site inspection and environmental audit of the Reporting Period. Minor deficiencies found in the weekly site inspection were in general rectified within the specified deadlines. The environmental performance of the Project was therefore considered satisfactory.

ENVIRONMENTAL COMPLAINT

ES05 One environmental complaint was recorded in this Reporting Period for the Project. The statistics of environmental complaint are summarized in the following table.

Table ES-3 Summary of Environmental Complaint Records in the Reporting Period

Reporting Period	Environmental Complaint Statistics			Related with the Works Contract
	Frequency	Cumulative	Complaint Nature	
1 – 30 June 2021	1	1	Noise	Not related
1 – 31 July 2021	0	1	NA	NA
1 – 31 August 2021	0	1	NA	NA

NOTIFICATION OF SUMMONS AND SUCCESSFUL PROSECUTIONS

ES06 No environmental summons or prosecutions was received in this Reporting Period for the Project. The statistics of environmental summons or prosecutions are summarized in the following tables.

Table ES-4 Summary of Environmental Summons Records in the Reporting Period

Reporting Period	Environmental Summons Statistics			Related with the Works Contract
	Frequency	Cumulative	Complaint Nature	
1 – 30 June 2021	0	0	NA	NA
1 – 31 July 2021	0	0	NA	NA
1 – 31 August 2021	0	0	NA	NA

Table ES-5 Summary of Environmental Prosecutions Records in the Reporting Period

Reporting Period	Environmental Prosecution Statistics			Related with the Works Contract
	Frequency	Cumulative	Complaint Nature	
1 – 30 June 2021	0	0	NA	NA
1 – 31 July 2021	0	0	NA	NA
1 – 31 August 2021	0	0	NA	NA

REPORTING CHANGE

ES07 No reporting change was made in this Reporting Period.

FUTURE KEY ISSUES

ES08 Construction noise would be a key environmental issue during construction work of the Project. Noise mitigation measures such as using quiet plants should be implemented in accordance with the EM&A requirement.

ES09 In addition, all effluent discharge from the construction site shall fulfill the discharge licence stipulation.

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1. INTRODUCTION

1.1 PROJECT BACKGROUND

1.1.1 Environmental Protection Department (hereinafter referred as “EPD”) is the Project Proponent for the Project “*Organic Waste Treatment Facilities Phase 2*” (hereinafter referred as “the Project”). The Project is a Designated Project to be implemented under Environmental Permit No. EP-460/2013 (hereinafter referred as “the EP”). The major construction work of the Project included:

- (i) Demolition and removal of the existing above ground structures of the Sha Ling Livestock Waste Composting Plant (SLCP);
- (ii) Construction of superstructure for an administration building and enclosed waste reception area;
- (iii) Installation of treatment facilities including waste pre-treatment equipment, digesters, biogas holding tanks, composting, wastewater treatment, air treatment systems; and
- (iv) Facilities for biogas processing, utilization and transmission;

1.1.2 AJA Joint Venture (hereinafter referred as “AJAJV”) has been awarded the *EPD Contract No. EP/SP/86/15 “Organic Waste Treatment Facilities Phase 2”*. In accordance with the Works Contract requirements, AJAJV shall take over the responsibility of the EP. Based on the requirement, Further Environmental Permit application was submitted by AJAJV to EPD on 10 September 2019 and granted on 2 October 2019. A variation of Further Environmental Permit was submitted on 21 August 2020 and granted on 14 September 2020. The Further Environmental Permit is named as FEP-01/460/2013/A.

1.1.3 According to the approved Environmental Monitoring and Audit Manual (hereinafter referred as “the EM&A Manual”), AJAJV employed Action-United Environmental Services & Consulting (hereinafter referred as “AUES”) as Environmental Team (hereinafter referred as “ET”) to implement monitoring programme and as well as the associated duties.

1.1.4 According to the EM&A Manual, construction noise was identified as the only key environmental issue during the construction phase of the Project and it is required to carry out construction noise monitoring throughout the construction phase. Furthermore, baseline noise monitoring as part of the EM&A programmes shall be conducted prior to the commencement of the construction works under the Project. Thus, baseline noise monitoring was conducted by ET from **25 September 2019** to **8 October 2019**. The baseline monitoring report compiled by the ET was verified by Independent Environmental Checker (hereinafter the “IEC”) and was submitted to EPD on 19th November 2019 for endorsement.

1.1.5 This is the **7th** Quarterly EM&A Summary Report for the Service Contract to summarized monitoring results and inspection findings during the period from **1 June 2021 to 31 August 2021** (hereinafter ‘the Reporting Period’).

1.2 REPORT STRUCTURE

1.2.1 The Monthly Environmental Monitoring and Audit (EM&A) Report is structured into the following sections:-

Section 1	<i>Introduction</i>
Section 2	<i>Project Organization and Construction Progress</i>
Section 3	<i>Summary of Impact Monitoring Requirements</i>
Section 4	<i>Construction Noise Monitoring</i>
Section 5	<i>Waste Management</i>
Section 6	<i>Site Inspections</i>
Section 7	<i>Environmental Complaints and Non-Compliance</i>
Section 8	<i>Implementation Status of Mitigation Measures</i>
Section 9	<i>Conclusions and Recommendations</i>

2. PROJECT ORGANIZATION AND CONSTRUCTION PROGRESS

2.1 PROJECT ORGANIZATION AND CONSTRUCTION PROGRESS

2.1.1 Organization structure and contact details of relevant parties with respect to on-site environmental management are shown in *Appendix B*. Details of responsibilities of respective parties can be referred to EM&A Monthly Report.

2.2 CONSTRUCTION PROGRESS

2.2.1 3-month rolling construction program of the Project is enclosed in *Appendix D*; and the major construction activities undertaken in the Reporting Period is presented as below:

June 2021

- AD Digesting tank wall concreting
- GB – Concrete Wall Bay 6
- AB – Manhole construction
- RB – Reception Bunkers, Liquids Tank, Dilutant Tank Wall construction
- AD – Digester Tanks 2 & 4, 2nd lift and 3rd lift
- AD – Slope No. 3NW-C/C52 – Permanent soil nail

July 2021

- GB – Concrete Wall Construction
- AB – Manhole and Concrete Wall Construction
- RB – Reception Bunkers, Liquids Tank, Dilutant Tank Wall construction
- AD – Rebar fixing and installation of PE lining
- AD Slope No. 3NW-C/C52 – Permanent soil nailing works

August 2021

- GB – Ground Floor Slab at Bays 1, 5, 6 and Water Tank Walls at Bay 2, 3, 4
- AB – Drainage Works & Ground Floor
- RB – Substrate Tank Ground Slab, Liquid & Diluted Tank Ground Slab, Bunker Wall Ground Slab
- AD – AD 1-4 Lifting Work in progress

2.3 SUMMARY OF ENVIRONMENTAL SUBMISSIONS

2.3.1 Summary of the relevant permits, licenses, and/or notifications on environmental protection for the Project of contract 1 are presented in *Tables 2-1*.

Table 2-1 Status of Environmental Licenses and Permits of the Project

Item	Description	License/Permit Status			Status
		Permit no./ account no./ Ref. no.	Valid Period		
			From	To	
1	Notification pursuant to Air pollution Control (Construction Dust) Regulation	Application No. 448863	--	--	Notified on 9 September 2019
2	Chemical Waste Producer Registration	Ref. no.: 5211-641-A295 7-01	--	--	Issued on 9 Oct 2019
3	Water Pollution Control Ordinance - Discharge License	Application No. 448913	--	--	Application made on 10 Sep 2019

Item	Description	License/Permit Status			
		Permit no./ account no./ Ref. no.	Valid Period		Status
			From	To	
4	Waste Disposal Regulation - Billing Account for Disposal of Construction Waste	Account no. 7035307	2 Oct 2019	NA	Valid
5	Further Environmental Permit	FEP-01/460/2013/A	14 Sep 2020	NA	Valid
6	Construction Noise Permit	GW-RN0923-20	31 Dec 2020	26 Jun 2021	Expired on 27 June 2021
		GW-RN0379-21	27 Jun 2021	26 Sep 2021	Superseded by GW-RN0528-21
		GW-RN0528-21	28 Jul 2021	27 Sep 2021	Valid
7	Water Discharge Licence	WT00035196-2019	20 Mar 2020	31 Mar 2025	Valid

3. SUMMARY OF IMPACT MONITORING REQUIREMENTS

3.1 GENERAL

3.1.1 According to Environmental Monitoring and Audit requirements set out in the Approved EM&A manual, construction noise was identified as the only key environmental issues during the construction phase of the Project.

3.2 MONITORING PARAMETERS

3.2.1 The construction noise monitoring requirement stated in the approved EM&A Manual is summarized in *Table 3-1*.

Table 3-1 Summary of EM&A Requirements

Environmental Issue	Parameters
Noise	<ul style="list-style-type: none"> Leq(30min) in normal working days (Monday to Saturday) 07:00-19:00 except public holiday Supplementary information for data auditing, statistical results such as L₁₀ and L₉₀ shall also be obtained for reference.

3.3 MONITORING LOCATIONS

3.3.1 According to the EM&A Manual Section 4.2.3, four (4) designated noise sensitive receivers (NSR) were recommended as construction noise monitoring stations. Since two of the designated monitoring locations N2 and N3 were found not accessible, alternative monitoring locations N2a and N3a were therefore proposed for the noise monitoring and were approved by EPD on 1 June 2021. Details of the locations for construction noise monitoring in the Reporting Period is listed in *Table 3-2* and showed in *Appendix C*.

Table 3-2 Impact Monitoring Stations – Construction Noise

ID	Location
N1	Village House No. 308, Sha Ling
N2a	Village House No. 318, Sha Ling
N3a	Village House No. 261, Sha Ling
N4	Village House in Sha Ling

3.4 MONITORING FREQUENCY AND PERIOD

3.4.1 Noise monitoring shall be conducted at the all available designated monitoring stations or alternative locations. The monitoring frequency shall depend on scale of the construction activities. According to EM&A manual, regular noise monitoring should be carried out once a week when noise generating activities are underway and the monitoring requirement is presented below:

- one set of Leq(30min) measurements between 07:00 and 19:00 hours on normal weekdays

3.4.2 If construction works are extended to restricted hours 19:00-07:00 including public holidays and Sunday, additional weekly impact monitoring should be carried out during the respective restricted hour periods. Leq(5min) measurements should be employed during the restricted hours.

3.5 MONITORING EQUIPMENT

3.5.1 Sound level meter in compliance with the International Electrotechnical Commission Publications 651: 1979 (Type 1) and 804: 1985 (Type 1) specifications shall be used for carrying out the noise monitoring. The sound level meter shall be checked using an acoustic calibrator. The wind speed shall be checked with a portable wind speed meter capable of measuring the wind speed in ms⁻¹.

3.6 ACTION/LIMIT (A/L) LEVELS

3.6.1 Action and Limit levels for construction noise as stipulated in the approved Environmental Monitoring and Audit Manual are listed in *Tables 3-3*.

Table 3-3 Action and Limit Levels for Construction Noise

Monitoring Location	Action Level	Limit Level in dB(A)
	Time Period: 0700-1900 hours on normal weekdays	
N1	When one or more documented complaints are received	75 dB(A)
N2a		
N3a		
N4		

Note: If works are to be carried out during restricted hours, the conditions stipulated in the construction noise permit issued by the Noise Control Authority should be followed.

4. CONSTRUCTION NOISE MONITORING

4.1 GENERAL

4.1.1 In the Reporting Period, construction noise monitoring was performed at monitoring location N1, N2a, N3a and N4.

4.2 RESULTS OF NOISE MONITORING

4.2.1 In the Reporting Period, a total of **56** sessions of daytime construction noise monitoring and **36** sessions of additional weekly noise monitoring during restricted hours were performed at the agreed monitoring locations in the reporting period. The daytime noise monitoring results and additional weekly noise monitoring results during restricted hours are summarized in **Table 4-1** and **Table 4-2**, respectively. The graphical plots of construction noise monitoring result are shown in **Appendix E**.

Table 4-1 Summary of Construction Noise Monitoring Results

Monitoring Location	Leq, 30min (dB(A))	
	Min	Max
N1	54.0	68.9
Record Date	4-Jun-21	22-Jun-21
N2	49.1	65.5
Record Date	13-Aug-21	22-Jun-21
N3a	60.2	76.0
Record Date	28-Jun-21	15-Jul-21
N4	53.0	68.7
Record Date	27-Jul-21	31-Aug-21

Table 4-2 Summary of Additional Noise Monitoring Results during Restricted Hours

Monitoring Location	Leq, 5min (dB(A))	
	Min	Max
N1	50.7	59.5
Record Date	15-Jul-21	25-Aug-21
N2	51.5	59.6
Record Date	25-Aug-21	15-Jul-21
N3a	50.9	58.9
Record Date	1-Aug-21	12-Aug-21
N4	47.8	57.9
Record Date	12-Aug-21	13-Jun-21

4.2.2 Summary of A/L Level exceedance of construction noise and statistical analysis of compliance for construction noise monitoring results are summarized in **Table 4-3**

TABLE 4-3 Summaries of Action/Limit Level Exceedance of Construction Noise

Station	Limit Level	Action Level	Received Date
N1	0	1	NA
N2	0		
N3a	1		
N4	0		

4.2.3 As shown in Table 4-3, all noise level measured at the designated monitoring locations were below 75dB(A) except limit level exceedance triggered at monitoring location N3a on 15 July 2021. Investigation was carried out accordingly and the investigation result concluded that the exceedance was not related to the Project. No adverse weather condition which may affect the monitoring result was encountered during the course of noise monitoring in the reporting period. Furthermore, one (1) documented complaint is received in the reporting period which triggered one (1) exceedance of

Action Level. The investigation result concluded the complaint received is not project-related.

5. WASTE MANAGEMENT

5.1 GENERAL WASTE MANAGEMENT

5.1.1 Waste management was carried out by an on-site Environmental Officer or an Environmental Supervisor from time to time.

5.2 RECORDS OF WASTE QUANTITIES

5.2.1 All types of waste arising from the construction work are classified into the following:

- Construction & Demolition (C&D) Material;
- Chemical Waste;
- General Refuse; and
- Excavated Soil.

5.2.2 The quantities of waste for disposal in this Reporting Period are summarized in *Tables 5-1* and *5-2*.

Table 5-1 Summary of Quantities of Inert C&D Materials

Type of Waste	Quantity			Disposal Location
	Jun 2021	Jul 2021	Aug 2021	
Total C&D Materials (Inert) ('000m ³)	0.013	0.014	0.528	-
Reused in this Contract (Inert) ('000m ³)	0	0	0	-
Reused in other Projects (Inert) ('000m ³)	0	0	0	-
Disposal as Public Fill (Inert) ('000m ³)	0.013	0.014	0.071	TM38

Table 5-2 Summary of Quantities of C&D Wastes

Type of Waste	Quantity			Disposal Location
	Jun 2021	Jul 2021	Aug 2021	
Recycled Metal ('000kg)	0	0	0	-
Recycled Paper / Cardboard Packing ('000kg)	0.012	0	0	Collected by paper recycling company
Recycled Plastic ('000kg)	0.004	0	0	Collected by registered collector-
Chemical Wastes ('000kg)	0	0	0	-
General Refuses ('000m ³)	0.060	0.059	0.102	NENT

6. SITE INSPECTION

6.1 REQUIREMENTS

6.1.1 According to the approved EM&A Manual, the environmental site inspection shall be formulated by ET Leader. Weekly environmental site inspections should be carried out to confirm the environmental performance.

6.2 FINDINGS / DEFICIENCIES DURING THE REPORTING PERIOD

6.2.1 In the Reporting Period, **13** events of joint site inspection by the Employer’s Representative (ER), ET, IEC and the Contractor were undertaken for the Contract to evaluate the site environmental performance. No non-compliance was identified during the site inspection. The summaries of findings / deficiencies recorded in the site inspection during the Reporting Period are presented in **Table 6-1**.

6.2.2 The findings / deficiencies of the Project observed during the weekly site inspection are listed in **Table 6-1**.

Table 6-1 Summary of Reminders/Observations of Site Inspection in Reporting Period

Reporting Period	Date of site inspection	Nos. of findings / reminders	Follow-Up Status
June 2021	2, 9, 16, 23 and 30 June 2021	1	Completed
July 2021	7, 14, 21 and 28 July 2021	1	Completed
August 2021	4, 11, 18 and 25 August 2021	1	Completed

7. ENVIRONMENTAL COMPLAINT, NOTIFICATIONS OF SUMMONS AND SUCCESSFUL PROSECUTIONS

7.1 ENVIRONMENTAL COMPLAINT, SUMMONS AND PROSECUTION

7.1.1 In the Reporting Period, one (1) environmental complaint, summons and prosecution under the EM&A Programme was lodged for the project. The statistical summary table of environmental complaint is presented in *Tables 7-1, 7-2 and 7-3*.

7.1.2 Complaint received on 9 June 2021:

- (i) A complaint was received by EPD regarding the noise nuisance generated by construction work on during restricted hours. As advised by the Contractor, scaffolding erection and timber mold lifting were conducted at construction site during the complaint period. Only one tower crane for lifting works and one generator were used for the abovementioned work and these PME's are allowed in the issued CNP (GW-RN0923-20). Noise mitigation measures such as noise barrier for generator was implemented properly by Contractor.
- (ii) In addition, according to the additional noise monitoring conducted on 13, 20 and 27 June 2021, the noise monitoring result recorded at NSRs were well below 60 dB(A) which reveal the noise impact generated the construction work are acceptable at NSRs. The investigation revealed that the complaint is unlikely due to the Project since noise mitigation measures were properly implemented and requirement of the issued CNP was strictly followed.

Table 7-1 Statistical Summary of Environmental Complaints

Reporting Period	Environmental Complaint Statistics		
	Frequency	Cumulative	Complaint Nature
1 – 30 June 2021	1	1	Noise
1 – 31 July 2021	0	1	NA
1 – 31 August 2021	0	1	NA

Table 7-2 Statistical Summary of Notification of Summons

Reporting Period	Environmental Summons Statistics		
	Frequency	Cumulative	Summons Nature
1 – 30 June 2021	0	0	NA
1 – 31 July 2021	0	0	NA
1 – 31 August 2021	0	0	NA

Table 7-3 Statistical Summary of Successful Prosecutions

Reporting Period	Environmental Prosecution Statistics		
	Frequency	Cumulative	Prosecution Nature
1 – 30 June 2021	0	0	NA
1 – 31 July 2021	0	0	NA
1 – 31 August 2021	0	0	NA

8. ENVIRONMENTAL MITIGATION IMPLEMENTATION SCHEDULE

8.1 GENERAL REQUIREMENTS

8.1.1 The environmental mitigation measures that recommended in the Environmental Mitigation Implementation Schedule (EMIS) in the approved EM&A Manual covered the issues of dust, noise, water and waste and they are summarized presented in [Appendix H](#).

8.1.2 AJAJV had been implementing the required environmental mitigation measures according to the Environmental Monitoring and Audit Manual subject to the site condition. Environmental mitigation measures generally implemented by AJAJV in this Reporting Period are summarized in [Table 8-1](#).

Table 8-1 Environmental Mitigation Measures

Issues	Environmental Mitigation Measures
Water Quality	<ul style="list-style-type: none"> • Any wastewater generated should be appropriately treated by treatment facilities; • Drainage channels were provided to convey run-off into the treatment facilities; and • Drainage systems were regularly and adequately maintained.
Air Quality	<ul style="list-style-type: none"> • Regular watering to reduce dust emissions from all exposed site surface, particularly during dry weather; • Frequent watering for particularly dusty construction areas and areas close to air sensitive receivers; • Cover all excavated or stockpile of dusty material by impervious sheeting or sprayed with water to maintain the entire surface wet; • Public roads around the site entrance/exit had been kept clean and free from dust; and • Tarpaulin covering of any dusty materials on a vehicle leaving the site.
Noise	<ul style="list-style-type: none"> • Good site practices to limit noise emissions at the sources; • Use of quiet plant and working methods; • Use of site hoarding or other mass materials as noise barrier to screen noise at ground level of NSRs; • Use of shrouds/temporary noise barriers to screen noise from relatively static PMEs; • Alternative use of plant items within one worksite, where practicable.
Waste Management	<ul style="list-style-type: none"> • Any excavated material should be reused on site as far as possible to minimize off-site disposal. Scrap metals or abandoned equipment should be recycled if possible; • Waste arising should be kept to a minimum and be handled, transported and disposed of in a suitable manner; • Trip ticket system for the disposal of C&D materials to any designed public filling facility and/or landfill was implemented; and • Chemical waste shall be handled in accordance with the Code of Practice on the Packaging, Handling and Storage of Chemical Wastes.
General	<ul style="list-style-type: none"> • The site was generally kept tidy and clean.

9. CONCLUSIONS AND RECOMMENDATIONS

9.1 CONCLUSIONS

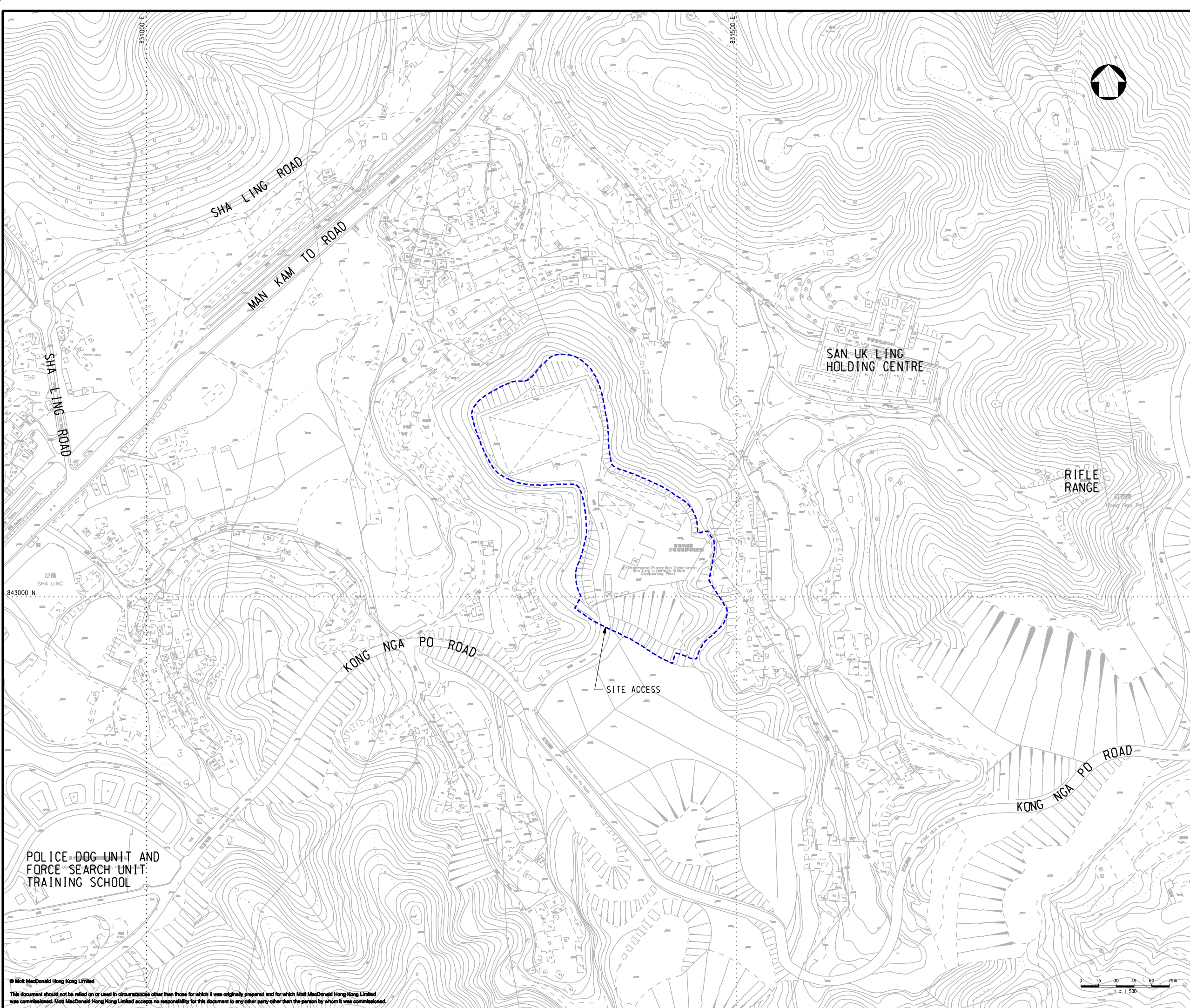
- 9.1.1 This is the 7th Quarterly Environmental Monitoring and Audit (EM&A) Summary Report for the Service Contract to summarized monitoring results and inspection findings during the period from **1 June to 31 August 2021** (the Reporting Period).
- 9.1.2 In the Reporting Period, one (1) daytime construction noise monitoring results that triggered the Limit Level was recorded in location N3a on 15 July 2021. Investigation was carried out accordingly and the investigation result concluded that the exceedance was not related to the Project. One (1) noise complaint (which is an Action Level exceedance) was received by the ER, EPD and the Contractors. The investigation result concluded the complaint received is not project-related.
- 9.1.3 During the Reporting Period, weekly joint site inspections were undertaken to evaluate the site environmental performance. No non-compliances were observed during the weekly site inspection and environmental audit of the Reporting Period. Minor deficiencies found in the weekly site inspection were in general rectified within the specified deadlines. The environmental performance of the Project was therefore considered satisfactory.
- 9.1.4 No notification of summons or successful prosecution was received under the Project. However, one (1) documented complaint regarding construction noise was received in the Reporting Period. The investigation result concluded the complaint received is not project-related.

9.2 RECOMMENDATIONS

- 9.2.1 Construction noise should be a key environmental impact during the works. The noise mitigation measures such as use of quiet plants or temporary noise barrier installation at the construction noise predominated area should be implemented in accordance with the EM&A requirement.
- 9.2.2 In addition, all effluent discharge shall be ensured to fulfill the discharge license stipulation.
- 9.2.3 All the trees proposed to be retained in-situ should be properly preserved and protected during the construction works. Tree Preservation and Protection Works for these retained trees shall follow Section 3 and 26 of CEDD's General Specification for Engineering Works and Section 26 of Contract Specification Part B.
- 9.2.4 Trees to be felled shall be in accordance with the Tree Preservation and Removal Proposal (TPRP) to be approved by relevant approval authority. The tree removal work shall only commence after such approval has been granted.
- 9.2.5 Contract Specification Part B Section 1.78 "Waste Management" and DEVB's "Guidelines on Yard Waste Reduction and Treatment" should be referred before tree removal and plan the necessary arrangement.


Appendix A

Layout plan of the Project




Notes

Key to symbols

 PROPOSED SITE AREA

Reference drawings

Rev	Date	Drawn	Description	Ch'k'd	App'd
P2	JUN 13	MING	GENERAL REVISION	MR	AFK
P1	DEC 12	MING	FIRST ISSUE	MR	AFK



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Client



Environmental Protection Department
The Government of the Hong Kong
Special Administrative Region

Project

**AGREEMENT NO. CE34/2011(EP)
DEVELOPMENT OF ORGANIC WASTE
TREATMENT FACILITIES PHASE 2 -
FEASIBILITY STUDY**

Title

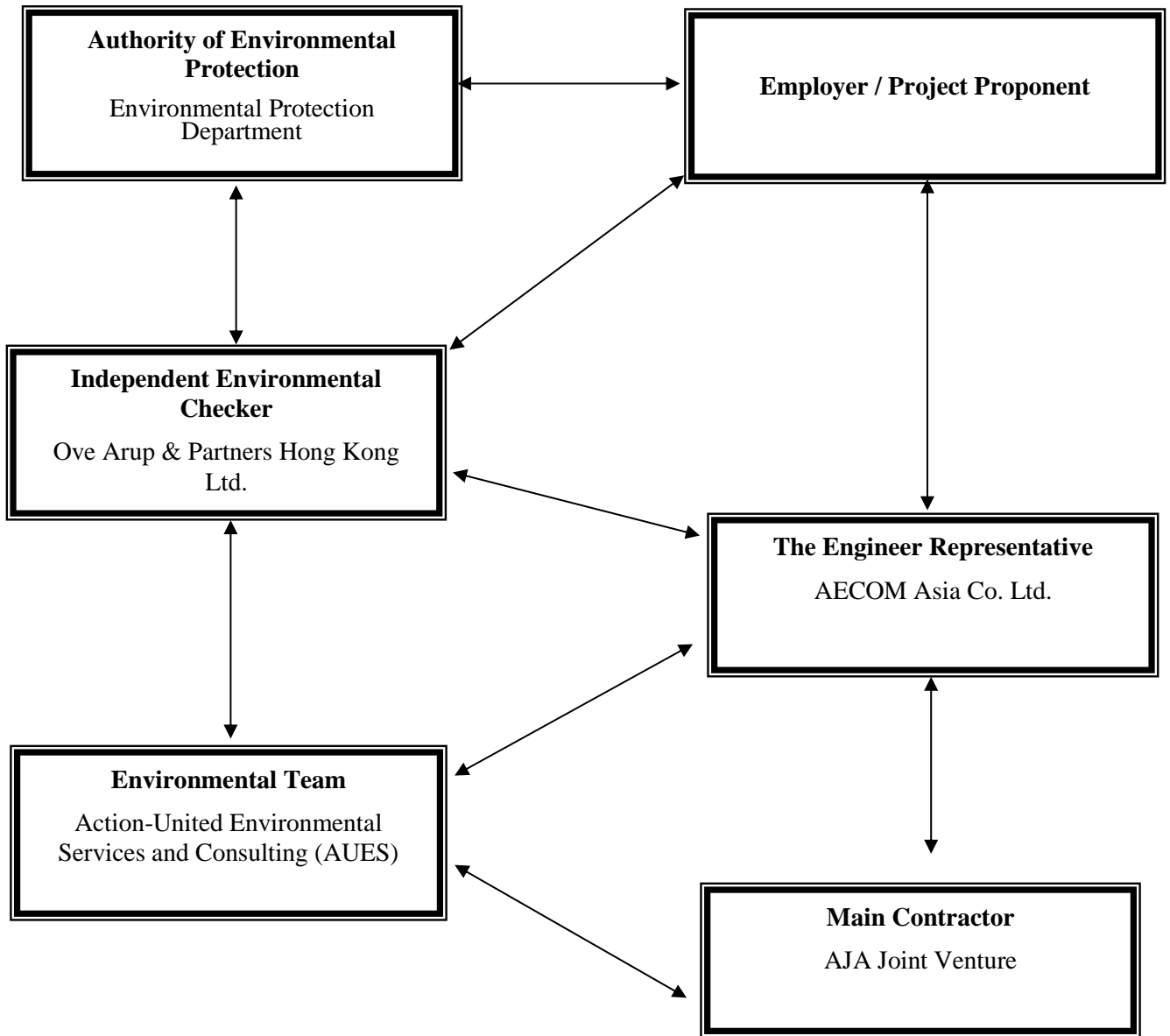
LOCATION OF THE PROJECT

Designed	HY	Eng check	AT
Drawn	MING	Coordination	AT
Dwg check	HY	Approved	AFK
Scale at A1	1:1500	Status	PRE
Drawing Number		Rev	P2

FIGURE 1.1

Appendix B
Organization Chart

Project Organization Chart



Contact Details of Key Personnel for the Project

Organization	Project Role	Name of Key Staff	Tel No.	Fax No.
EPD	Project Proponent	Sunny Chiu	3151 7209	3528 0492
AECOM	Resident Engineer	Terrence Lam	5579 5239	3010 8507
AECOM	Resident Engineer	TY Lou	5620 4008	3010 8507
ARUP	Independent Environmental Checker	Ricky Chui	2268 3437	2268 3380
ARUP	Engineer (Safety, Environment and Planning)	Edmond Tang	3447 6181	2268 3955
AJAJV	Project Manager	Victor Wu	2862 5013	2862 5013
AJAJV	Construction Manager	Johnny Leung	9494 0581	9494 0581
AJAJV	Project Environmental Manager	Gabriel Wong	6114 9590	6114 9590
AUES	Environmental Team Leader	T. W. Tam	2959 6059	2959 6079
AUES	Environmental Consultant	Nicola Hon	2959 6059	2959 6079
AUES	Environmental Consultant	Ben Tam	2959 6059	2959 6079
AUES	Environmental Consultant	Martin Li	2959 6059	2959 6079
EPD	Project Proponent	Sunny Chiu	3151 7209	3528 0492

Legend:

EPD (Employer) – Environmental Protection Department

AECOM (Project Consultant) – AECOM Asia Co. Ltd.

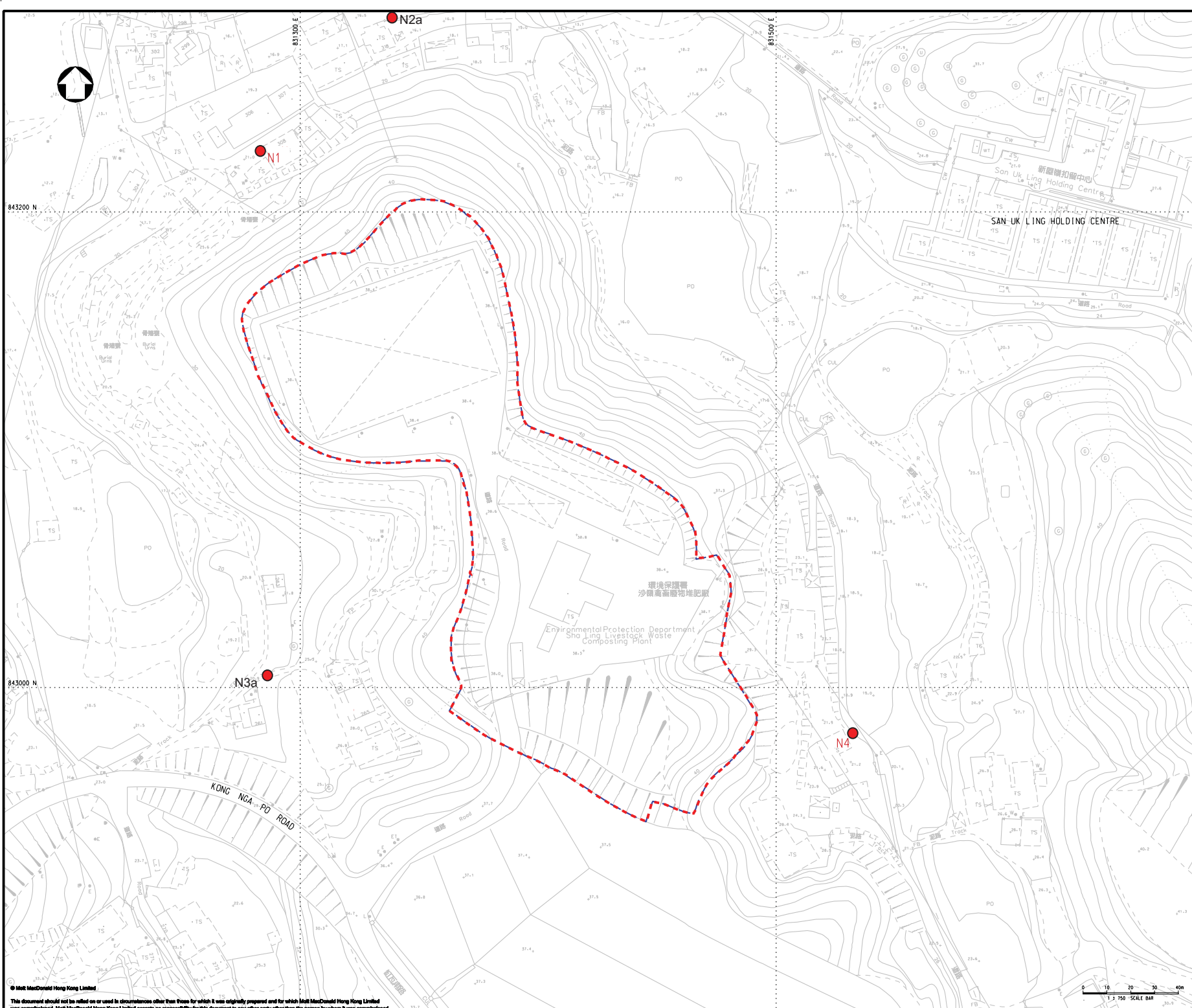
AJAJV (Main Contractor) – AJA Joint Venture

ARUP (IEC) – Ove Arup & Partners Hong Kong Ltd.

AUES (ET) – Action-United Environmental Services & Consulting

Appendix C

Monitoring Locations for Impact Monitoring



Notes

Key to symbols

- - - - - Construction Site Boundary
- Noise Monitoring Station

Reference drawings

P2	JUL 13	MING	GENERAL REVISION	AM	AFK
P1	DEC 12	MING	FIRST ISSUE	SC	AFK
Rev	Date	Drawn	Description	Chk'd	App'd

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Client



Environmental Protection Department
The Government of the Hong Kong
Special Administrative Region

Project
AGREEMENT NO. CE34/2011(EP)
DEVELOPMENT OF ORGANIC WASTE
TREATMENT FACILITIES PHASE 2 -
FEASIBILITY STUDY

Title
PROPOSED LOCATIONS OF
CONSTRUCTION NOISE
MONITORING STATIONS

Designed	SC	Eng check	AT
Drawn	MING	Coordination	AT
Dwg check	EY	Approved	AFK
Scale at A1	1:750	Status	PRE
Drawing Number		Rev	P2

FIGURE 4.1

Appendix D

3-Month Rolling Construction Programme

Activity ID	Activity Name	Original Duration	Baseline Start Date	Baseline Finish Date	Start	Finish	Total Float	Apr 21	May 22	2021 Jun 23	Jul 24	Aug 25
Contract No. EP/SP/86/15 - ORGANIC RESOURCE RECOVERY CENTRE, PHASE 2												
DESIGN												
DESIGN ENHANCEMENT PAPER												
GRANULATION PROPOSAL												
O2_CG030	Contractor Change Proposal - Composting to Granulation - Stage 2 Approval	78	30-Jan-21	17-Apr-21	30-Jan-21 A	07-May-21	24					
O2_CG040	Contractor Change Proposal - Composting to Granulation - Stage 3 Approval	30	12-May-21	10-Jun-21	01-Apr-21 A	07-May-21	24					
O2_EMB850	Submission of Fire Risk Assessment Report	46	01-Apr-21	16-May-21	01-Mar-21 A	15-May-21	27					
TEMPORARY WORKS DESIGN												
E6 - FOOTBRIDGE												
O2_D9460	Footbridge: Prepare ELS Submission	114	08-Nov-20	01-Mar-21	08-Nov-20 A	31-Mar-21 A						
O2_D9470	Footbridge: IC Approval on ELS	104	08-Dec-20	21-Mar-21	08-Dec-20 A	08-Apr-21 A						
O2_D9480	Footbridge: ER Approval on ELS	60	15-Apr-21	13-Jun-21	09-Apr-21 A	29-Apr-21 A						
PERMANENT WORKS DESIGN												
C. DETAILED DESIGN SUBMISSION												
C1 - ARCHITECTURAL DESIGN REPORT & DRAWING SUBMISSION												
C1.1 - RECEPTION BUILDING - ARCHITECTURAL WORKS												
IC CHECKING & CERTIFICATION												
O2_D2225a	Submit further information for the re-submitted ADR for Reception Building to IC (Clause 5.4.3.9, Specs Part A) *	70	31-Dec-20	10-Mar-21	31-Dec-20 A	13-Apr-21 A						
O2_D2230a	IC Certify ADR for Reception Building (Clause 5.4.3.9, Specs Part A) *	14	10-Apr-21	23-Apr-21	14-Apr-21 A	05-May-21	151					
O2_D2235a	Obtain Design Check Certificate & Method of Construction Check Certificate (Clause 5.4.3.11 & 5.4.3.12, Specs Part A) *	2	06-May-21	07-May-21	06-May-21	06-May-21	151					
EMPLOYER'S CONSENT												
O2_D2240a	Submit Design Check Certificate & Method of Construction Check Certificate to ER (Clause 5.4.3.16, Specs Part A)	7	08-May-21	14-May-21	08-May-21	14-May-21	151					
O2_D2245a	ER Comment on the submitted ADR for Reception Building (Clause 5.4.3.17.c, Specs Part A)	14	15-May-21	28-May-21	15-May-21	28-May-21	151					
O2_D2250a	Submit further information for the submitted ADR for Reception Building to ER (Clause 5.4.3.19, Specs Part A)	7	29-May-21	04-Jun-21	29-May-21	04-Jun-21	151					
O2_D2255a	ER Comment on the re-submitted ADR for Reception Building (Clause 5.4.3.17.a, Specs Part A)	14	05-Jun-21	18-Jun-21	05-Jun-21	18-Jun-21	151					
O2_D2260a	ER Consented ADR for Reception Building (Clause 5.4.3.17.a, Specs Part A)	0		18-Jun-21		18-Jun-21	151					
O2_D2265a	Submit Two Complete Sets ADR for Reception Building to IC, ER for Register Design (Clause 5.4.3.22, Specs Part A)	2	19-Jun-21	20-Jun-21	19-Jun-21	20-Jun-21	151					
O2_D2270a	Design Registered - ADR for Reception Building	1	21-Jun-21	21-Jun-21	21-Jun-21	21-Jun-21	151					
C1.2 - GRANULATION BUILDING - ARCHITECTURAL WORKS												
IC CHECKING & CERTIFICATION												
O2_D2325a	Submit further information for the re-submitted ADR for Granulation Building to IC (Clause 5.4.3.9, Specs Part A)	7	10-Sep-20	16-Sep-20	11-Mar-21 A	05-May-21	152					
O2_D2330a	IC Certify ADR for Granulation Building to ER (Clause 5.4.3.9, Specs Part A)	14	06-May-21	19-May-21	06-May-21	19-May-21	152					
O2_D2335a	Obtain Design Check Certificate & Method of Construction Check Certificate (Clause 5.4.3.11 & 5.4.3.12, Specs Part A)	7	20-May-21	26-May-21	20-May-21	26-May-21	152					
EMPLOYER'S CONSENT												
O2_D2340a	Submit Design Check Certificate & Method of Construction Check Certificate to ER (Clause 5.4.3.16, Specs Part A)	7	27-May-21	02-Jun-21	27-May-21	02-Jun-21	152					
O2_D2345a	ER Comment on the submitted ADR for Granulation Building (Clause 5.4.3.17.c, Specs Part A)	14	03-Jun-21	16-Jun-21	03-Jun-21	16-Jun-21	152					
O2_D2350a	Submit further information for the submitted ADR for Granulation Building to ER (Clause 5.4.3.19, Specs Part A)	7	17-Jun-21	23-Jun-21	17-Jun-21	23-Jun-21	152					
O2_D2355a	ER Comment on the re-submitted ADR for Granulation Building (Clause 5.4.3.17.a, Specs Part A)	14	24-Jun-21	07-Jul-21	24-Jun-21	07-Jul-21	152					
O2_D2360a	ER Consented ADR for Granulation Building (Clause 5.4.3.17.a, Specs Part A)	0		07-Jul-21		07-Jul-21	152					
O2_D2365a	Submit Two Complete Sets ADR for Granulation Building to IC, ER for Register Design (Clause 5.4.3.22, Specs Part A)	7	08-Jul-21	14-Jul-21	08-Jul-21	14-Jul-21	152					
O2_D2370a	Design Registered - ADR for Granulation Building	7	15-Jul-21	21-Jul-21	15-Jul-21	21-Jul-21	152					
C1.3 - FOOTBRIDGE/WALKWAY - ARCHITECTURAL WORKS												
IC CHECKING & CERTIFICATION												
O2_D3325a	Submit further information for the re-submitted ADR for Footbridge Building to IC (Clause 5.4.3.9, Specs Part A)	21	18-Feb-21	10-Mar-21	18-Feb-21 A	29-Apr-21 A						
O2_D3330a	IC Certify ADR for Footbridge Building (Clause 5.4.3.9, Specs Part A)	14	10-Apr-21	23-Apr-21	30-Apr-21 A	12-May-21	392					
O2_D3335a	Obtain Design Check Certificate & Method of Construction Check Certificate (Clause 5.4.3.11 & 5.4.3.12, Specs Part A)	7	13-May-21	19-May-21	13-May-21	19-May-21	392					
EMPLOYER'S CONSENT												
O2_D3340a	Submit Design Check Certificate & Method of Construction Check Certificate to ER (Clause 5.4.3.16, Specs Part A)	7	20-May-21	26-May-21	20-May-21	26-May-21	392					
O2_D3345a	ER Comment on the submitted ADR for Footbridge Building (Clause 5.4.3.17.c, Specs Part A)	14	27-May-21	09-Jun-21	27-May-21	09-Jun-21	392					
O2_D3350a	Submit further information for the submitted ADR for Footbridge Building to ER (Clause 5.4.3.19, Specs Part A)	7	10-Jun-21	16-Jun-21	10-Jun-21	16-Jun-21	392					
O2_D3355a	ER Comment on the re-submitted ADR for Footbridge Building (Clause 5.4.3.17.a, Specs Part A)	14	17-Jun-21	30-Jun-21	17-Jun-21	30-Jun-21	392					
O2_D3360a	ER Consented ADR for Footbridge Building (Clause 5.4.3.17.a, Specs Part A)	0		30-Jun-21		30-Jun-21	392					
O2_D3365a	Submit Two Complete Sets ADR for Footbridge Building to IC, ER for Register Design (Clause 5.4.3.22, Specs Part A)	7	01-Jul-21	07-Jul-21	01-Jul-21	07-Jul-21	392					
O2_D3370a	Design Registered - ADR for Footbridge Building	7	08-Jul-21	14-Jul-21	08-Jul-21	14-Jul-21	392					
C1.4 - PUMP HOUSE - ARCHITECTURAL WORKS												
IC CHECKING & CERTIFICATION												
O2_D3425a	Submit further information for the re-submitted ADR for Pump House to IC (Clause 5.4.3.9, Specs Part A)	49	14-Jan-21	03-Mar-21	14-Jan-21 A	05-May-21	291					
O2_D3430a	IC Certify ADR for Pump House (Clause 5.4.3.9, Specs Part A)	14	06-May-21	19-May-21	06-May-21	19-May-21	291					
O2_D3435a	Obtain Design Check Certificate & Method of Construction Check Certificate (Clause 5.4.3.11 & 5.4.3.12, Specs Part A)	7	20-May-21	26-May-21	20-May-21	26-May-21	291					
EMPLOYER'S CONSENT												
O2_D3440a	Submit Design Check Certificate & Method of Construction Check Certificate to ER (Clause 5.4.3.16, Specs Part A)	7	27-May-21	02-Jun-21	27-May-21	02-Jun-21	291					
O2_D3445a	ER Comment on the submitted ADR for Pump House (Clause 5.4.3.17.c, Specs Part A)	14	03-Jun-21	16-Jun-21	03-Jun-21	16-Jun-21	291					
O2_D3450a	Submit further information for the submitted ADR for Pump House to ER (Clause 5.4.3.19, Specs Part A)	7	17-Jun-21	23-Jun-21	17-Jun-21	23-Jun-21	291					
O2_D3455a	ER Comment on the re-submitted ADR for Pump House (Clause 5.4.3.17.a, Specs Part A)	14	24-Jun-21	07-Jul-21	24-Jun-21	07-Jul-21	291					
O2_D3460a	ER Consented ADR for Pump House (Clause 5.4.3.17.a, Specs Part A)	0		07-Jul-21		07-Jul-21	291					
O2_D3465a	Submit Two Complete Sets ADR for Pump House to IC, ER for Register Design (Clause 5.4.3.22, Specs Part A)	7	08-Jul-21	14-Jul-21	08-Jul-21	14-Jul-21	291					
O2_D3470a	Design Registered - ADR for Pump House	7	15-Jul-21	21-Jul-21	15-Jul-21	21-Jul-21	291					
C1.7 - ANCILLIARY FACILITIES - ARCHITECTURAL WORKS												
IC CHECKING & CERTIFICATION												
O2_D3925a	Submit further information for the re-submitted ADR for Ancillary Facilities to IC (Clause 5.4.3.9, Specs Part A)	112	14-Nov-20	05-Mar-21	14-Nov-20 A	07-May-21	182					

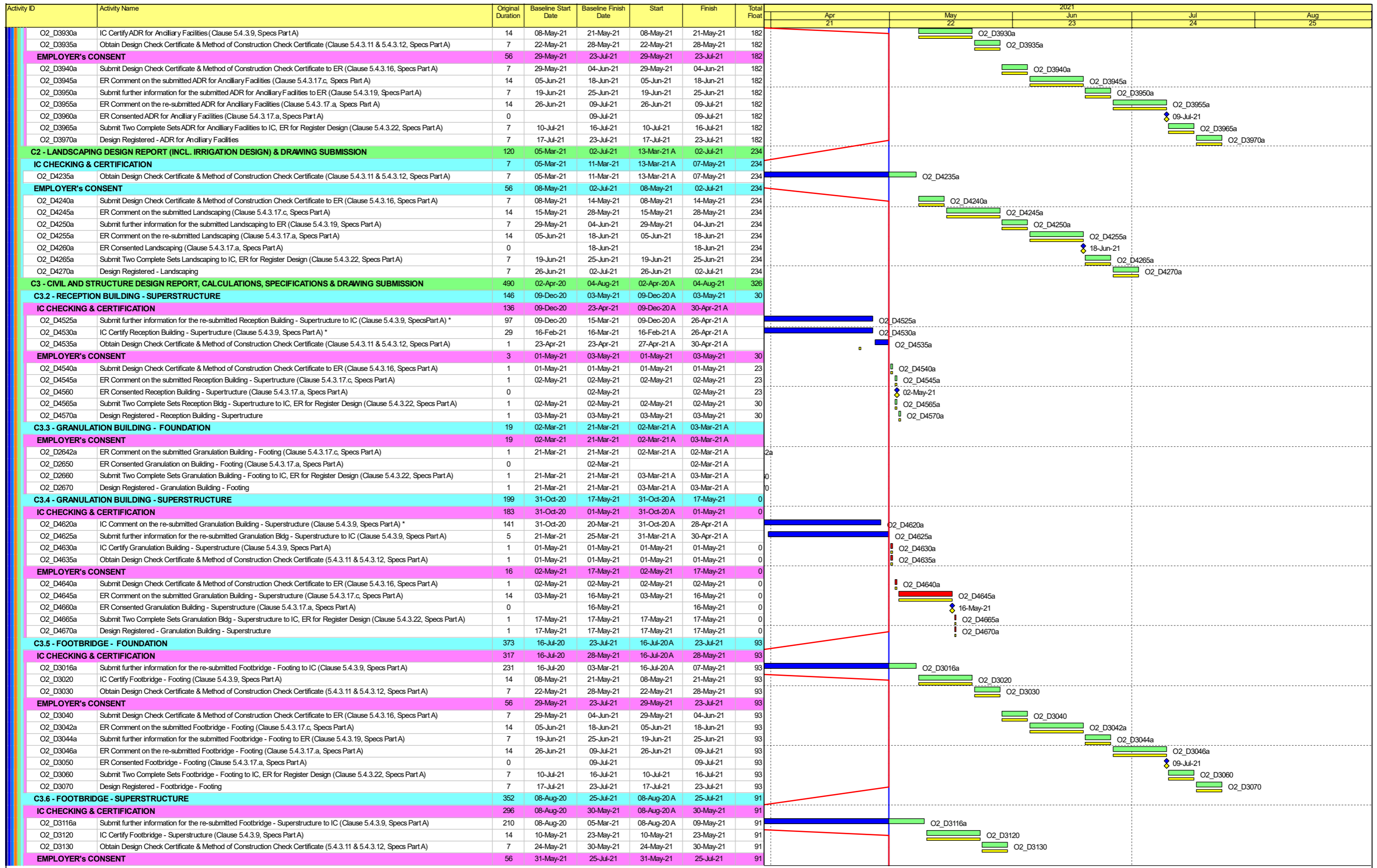


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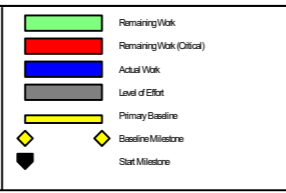


Contract No. EP/SP/86/15
Organic Waste Treatment Facilities, Phase 2
Works Programme 3rd Issue
3-Months Rolling Programme

Date	Revision	Checked	Approved
30-Apr-21			



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 Date Printed: 14-May-21
 Page 2 of 13



Contract No. EP/SP/86/15
Organic Waste Treatment Facilities, Phase 2
Works Programme 3rd Issue
3-Months Rolling Programme

Date	Revision	Checked	Approved
30-Apr-21			

Activity ID	Activity Name	Original Duration	Baseline Start Date	Baseline Finish Date	Start	Finish	Total Float	2021							
								Apr 21	May 22	Jun 23	Jul 24	Aug 25			
O2_D3140	Submit Design Check Certificate & Method of Construction Check Certificate to ER (Clause 5.4.3.16, Specs Part A)	7	31-May-21	06-Jun-21	31-May-21	06-Jun-21	91			O2_D3140					
O2_D3142a	ER Comment on the submitted Footbridge - Superstructure (Clause 5.4.3.17.c, Specs Part A)	14	07-Jun-21	20-Jun-21	07-Jun-21	20-Jun-21	91			O2_D3142a					
O2_D3144a	Submit further information for the submitted Footbridge - Superstructure to ER (Clause 5.4.3.19, Specs Part A)	7	21-Jun-21	27-Jun-21	21-Jun-21	27-Jun-21	91				O2_D3144a				
O2_D3146a	ER Comment on the re-submitted Footbridge - Superstructure (Clause 5.4.3.17.a, Specs Part A)	14	28-Jun-21	11-Jul-21	28-Jun-21	11-Jul-21	91				O2_D3146a				
O2_D3150	ER Consented Footbridge - Superstructure (Clause 5.4.3.17.a, Specs Part A)	0		11-Jul-21		11-Jul-21	91								
O2_D3160	Submit Two Complete Sets Footbridge - Superstructure to IC, ER for Register Design (Clause 5.4.3.22, Specs Part A)	7	12-Jul-21	18-Jul-21	12-Jul-21	18-Jul-21	91					O2_D3160			
O2_D3170	Design Registered - Footbridge - Superstructure	7	19-Jul-21	25-Jul-21	19-Jul-21	25-Jul-21	91						O2_D3170		
C3.8 - PUMP HOUSE - SUPERSTRUCTURE		359	08-Aug-20	01-Aug-21	08-Aug-20 A	01-Aug-21	152								
IC CHECKING & CERTIFICATION		317	08-Aug-20	20-Jun-21	08-Aug-20 A	20-Jun-21	152								
O2_D2812a	Submit further information for the submitted Pump House - Superstructure to IC (Clause 5.4.3.9, Specs Part A)	210	08-Aug-20	05-Mar-21	08-Aug-20 A	09-May-21	152		O2_D2812a						
O2_D2814a	IC Comment on the re-submitted Pump House - Superstructure (Clause 5.4.3.9, Specs Part A)	14	10-May-21	23-May-21	10-May-21	23-May-21	152		O2_D2814a						
O2_D2816a	Submit further information for the re-submitted Pump House - Superstructure to IC (Clause 5.4.3.9, Specs Part A)	7	24-May-21	30-May-21	24-May-21	30-May-21	152		O2_D2816a						
O2_D2820	IC Certify Pump House - Superstructure (Clause 5.4.3.9, Specs Part A)	14	31-May-21	13-Jun-21	31-May-21	13-Jun-21	152		O2_D2820						
O2_D2830	Obtain Design Check Certificate & Method of Construction Check Certificate (5.4.3.11 & 5.4.3.12, Specs Part A)	7	14-Jun-21	20-Jun-21	14-Jun-21	20-Jun-21	152		O2_D2830						
EMPLOYER'S CONSENT		42	21-Jun-21	01-Aug-21	21-Jun-21	01-Aug-21	152								
O2_D2840	Submit Design Check Certificate & Method of Construction Check Certificate to ER (Clause 5.4.3.16, Specs Part A)	7	21-Jun-21	27-Jun-21	21-Jun-21	27-Jun-21	152			O2_D2840					
O2_D2842a	ER Comment on the submitted Pump House - Superstructure (Clause 5.4.3.17.c, Specs Part A)	14	28-Jun-21	11-Jul-21	28-Jun-21	11-Jul-21	152			O2_D2842a					
O2_D2844a	Submit further information for the submitted Pump House - Superstructure to ER (Clause 5.4.3.19, Specs Part A)	7	12-Jul-21	18-Jul-21	12-Jul-21	18-Jul-21	152			O2_D2844a					
O2_D2846a	ER Comment on the re-submitted Pump House - Superstructure (Clause 5.4.3.17.a, Specs Part A)	14	19-Jul-21	01-Aug-21	19-Jul-21	01-Aug-21	152			O2_D2846a					
C3.10 - AD TANKS & BOUNDARY WALL - SUPERSTRUCTURE		31	03-Mar-21	02-Apr-21	25-Mar-21 A	29-Mar-21 A									
IC CHECKING & CERTIFICATION		1	03-Mar-21	03-Mar-21	25-Mar-21 A	26-Mar-21 A									
O2_D2930	Obtain Design Check Certificate & Method of Construction Check Certificate (5.4.3.11 & 5.4.3.12, Specs Part A)	1	03-Mar-21	03-Mar-21	25-Mar-21 A	26-Mar-21 A			D2930						
EMPLOYER'S CONSENT		31	03-Mar-21	02-Apr-21	26-Mar-21 A	29-Mar-21 A									
O2_D2940	Submit Design Check Certificate & Method of Construction Check Certificate to ER (Clause 5.4.3.16, Specs Part A)	1	03-Mar-21	03-Mar-21	26-Mar-21 A	26-Mar-21 A			D2940						
O2_D2942a	ER Comment on the submitted AD Tanks & Boundary Wall - Superstructure (Clause 5.4.3.17.c, Specs Part A)	7	04-Mar-21	10-Mar-21	27-Mar-21 A	27-Mar-21 A			D2942a						
O2_D2950	ER Consented AD Tanks & Boundary Wall - Superstructure (Clause 5.4.3.17.a, Specs Part A)	0		01-Apr-21		27-Mar-21 A									
O2_D2960	Submit Two Complete Sets ADT & BW - Superstructure to IC, ER for Register Design (Clause 5.4.3.22, Specs Part A)	1	02-Apr-21	02-Apr-21	29-Mar-21 A	29-Mar-21 A				O2_D2960					
O2_D2970	Design Registered - AD Tanks & Boundary Wall - Superstructure	1	02-Apr-21	02-Apr-21	29-Mar-21 A	29-Mar-21 A				O2_D2970					
C3.12 - TANK WALKWAYS - SUPERSTRUCTURE		362	04-Aug-20	31-Jul-21	04-Aug-20 A	31-Jul-21	330								
IC CHECKING & CERTIFICATION		320	04-Aug-20	19-Jun-21	04-Aug-20 A	19-Jun-21	330								
O2_D3615a	Submit further information for the submitted Tanks Walkways - Superstructure to IC (Clause 5.4.3.9, Specs Part A)	217	04-Aug-20	08-Mar-21	04-Aug-20 A	08-May-21	330		O2_D3615a						
O2_D3620a	IC Comment on the re-submitted Tanks Walkways - Superstructure (Clause 5.4.3.9, Specs Part A)	14	09-May-21	22-May-21	09-May-21	22-May-21	330		O2_D3620a						
O2_D3625a	Submit further information for the re-submitted Tanks Walkways - Superstructure to IC (Clause 5.4.3.9, Specs Part A)	7	23-May-21	29-May-21	23-May-21	29-May-21	330		O2_D3625a						
O2_D3630a	IC Certify Tanks Walkways - Superstructure (Clause 5.4.3.9, Specs Part A)	14	30-May-21	12-Jun-21	30-May-21	12-Jun-21	330		O2_D3630a						
O2_D3635a	Obtain Design Check Certificate & Method of Construction Check Certificate (5.4.3.11 & 5.4.3.12, Specs Part A)	7	13-Jun-21	19-Jun-21	13-Jun-21	19-Jun-21	330		O2_D3635a						
EMPLOYER'S CONSENT		42	20-Jun-21	31-Jul-21	20-Jun-21	31-Jul-21	330								
O2_D3640a	Submit Design Check Certificate & Method of Construction Check Certificate to ER (Clause 5.4.3.16, Specs Part A)	7	20-Jun-21	26-Jun-21	20-Jun-21	26-Jun-21	330			O2_D3640a					
O2_D3645a	ER Comment on the submitted Tanks Walkways - Superstructure (Clause 5.4.3.17.c, Specs Part A)	14	27-Jun-21	10-Jul-21	27-Jun-21	10-Jul-21	330			O2_D3645a					
O2_D3650a	Submit further information for the submitted Tanks Walkways - Superstructure to ER (Clause 5.4.3.19, Specs Part A)	7	11-Jul-21	17-Jul-21	11-Jul-21	17-Jul-21	330			O2_D3650a					
O2_D3655a	ER Comment on the re-submitted Tanks Walkways - Superstructure (Clause 5.4.3.17.a, Specs Part A)	14	18-Jul-21	31-Jul-21	18-Jul-21	31-Jul-21	330			O2_D3655a					
C3.15 - DRAINAGE WORKS DESIGN		408	19-Jun-20	31-Jul-21	19-Jun-20 A	31-Jul-21	71								
IC CHECKING & CERTIFICATION		366	19-Jun-20	19-Jun-21	19-Jun-20 A	19-Jun-21	71								
O2_D3815a	Submit further information for the submitted Drainage Works Design to IC (Clause 5.4.3.9, Specs Part A) *	259	19-Jun-20	04-Mar-21	19-Jun-20 A	08-May-21	71		O2_D3815a						
O2_D3820a	IC Comment on the re-submitted Geotechnical Drainage Works Design (Clause 5.4.3.9, Specs Part A) *	14	09-May-21	22-May-21	09-May-21	22-May-21	71		O2_D3820a						
O2_D3825a	Submit further information for the re-submitted Drainage Works Design to IC (Clause 5.4.3.9, Specs Part A)	7	23-May-21	29-May-21	23-May-21	29-May-21	71		O2_D3825a						
O2_D3830a	IC Certify Drainage Works Design (Clause 5.4.3.9, Specs Part A)	14	30-May-21	12-Jun-21	30-May-21	12-Jun-21	71		O2_D3830a						
O2_D3835a	Obtain Design Check Certificate & Method of Construction Check Certificate (Clause 5.4.3.11 & 5.4.3.12, Specs Part A)	7	13-Jun-21	19-Jun-21	13-Jun-21	19-Jun-21	71		O2_D3835a						
EMPLOYER'S CONSENT		42	20-Jun-21	31-Jul-21	20-Jun-21	31-Jul-21	71								
O2_D3840a	Submit Design Check Certificate & Method of Construction Check Certificate to ER (Clause 5.4.3.16, Specs Part A)	7	20-Jun-21	26-Jun-21	20-Jun-21	26-Jun-21	71			O2_D3840a					
O2_D3845a	ER Comment on the submitted Drainage Works Design (Clause 5.4.3.17.c, Specs Part A)	14	27-Jun-21	10-Jul-21	27-Jun-21	10-Jul-21	71			O2_D3845a					
O2_D3850a	Submit further information for the submitted Drainage Works Design to ER (Clause 5.4.3.19, Specs Part A)	7	11-Jul-21	17-Jul-21	11-Jul-21	17-Jul-21	71			O2_D3850a					
O2_D3855a	ER Comment on the re-submitted Drainage Works Design (Clause 5.4.3.17.a, Specs Part A)	14	18-Jul-21	31-Jul-21	18-Jul-21	31-Jul-21	71			O2_D3855a					
C3.16 - SEWERAGE WORKS DESIGN		401	30-Jun-20	04-Aug-21	30-Jun-20 A	04-Aug-21	67								
IC CHECKING & CERTIFICATION		359	30-Jun-20	23-Jun-21	30-Jun-20 A	23-Jun-21	67								
O2_D3715a	Submit further information for the submitted Sewerage Works Design to IC (Clause 5.4.3.9, Specs Part A) *	252	30-Jun-20	08-Mar-21	30-Jun-20 A	12-May-21	67		O2_D3715a						
O2_D3720a	IC Comment on the re-submitted Sewerage Works Design (Clause 5.4.3.9, Specs Part A) *	14	13-May-21	26-May-21	13-May-21	26-May-21	67		O2_D3720a						
O2_D3725a	Submit further information for the re-submitted Sewerage Works Design to IC (Clause 5.4.3.9, Specs Part A)	7	27-May-21	02-Jun-21	27-May-21	02-Jun-21	67		O2_D3725a						
O2_D3730a	IC Certify Sewerage Works Design (Clause 5.4.3.9, Specs Part A)	14	03-Jun-21	16-Jun-21	03-Jun-21	16-Jun-21	67		O2_D3730a						
O2_D3735a	Obtain Design Check Certificate & Method of Construction Check Certificate (Clause 5.4.3.11 & 5.4.3.12, Specs Part A)	7	17-Jun-21	23-Jun-21	17-Jun-21	23-Jun-21	67		O2_D3735a						
EMPLOYER'S CONSENT		42	24-Jun-21	04-Aug-21	24-Jun-21	04-Aug-21	67								
O2_D3740a	Submit Design Check Certificate & Method of Construction Check Certificate to ER (Clause 5.4.3.16, Specs Part A)	7	24-Jun-21	30-Jun-21	24-Jun-21	30-Jun-21	67			O2_D3740a					
O2_D3745a	ER Comment on the submitted Sewerage Works Design (Clause 5.4.3.17.c, Specs Part A)	14	01-Jul-21	14-Jul-21	01-Jul-21	14-Jul-21	67			O2_D3745a					
O2_D3750a	Submit further information for the submitted Sewerage Works Design to ER (Clause 5.4.3.19, Specs Part A)	7	15-Jul-21	21-Jul-21	15-Jul-21	21-Jul-21	67			O2_D3750a					
O2_D3755a	ER Comment on the re-submitted Sewerage Works Design (Clause 5.4.3.17.a, Specs Part A)	14	22-Jul-21	04-Aug-21	22-Jul-21	04-Aug-21	67			O2_D3755a					
C3.17 - WATERWORKS DESIGN		289	09-Oct-20	24-Jul-21	09-Oct-20 A	24-Jul-21	243								
IC CHECKING & CERTIFICATION		233	09-Oct-20	29-May-21	09-Oct-20 A	29-May-21	243								
O2_D4025a	Submit further information for the re-submitted Waterworks Design to IC (Clause 5.4.3.9, Specs Part A)	147	09-Oct-20	04-Mar-21	09-Oct-20 A	08-May-21	243		O2_D4025a						
O2_D4030a	IC Certify Waterworks Design (Clause 5.4.3.9, Specs Part A)	14	09-May-21	22-May-21	09-May-21	22-May-21	243		O2_D4030a						
O2_D4035a	Obtain Design Check Certificate & Method of Construction Check Certificate (Clause 5.4.3.11 & 5.4.3.12, Specs Part A)	7	23-May-21	29-May-21	23-May-21	29-May-21	243		O2_D4035a						
EMPLOYER'S CONSENT		56	30-May-21	24-Jul-21	30-May-21	24-Jul-21	243								



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■ Remaining Work
■ Remaining Work (Critical)
■ Actual Work
■ Level of Effort
■ Primary Baseline
■ Baseline Milestone
■ Start Milestone

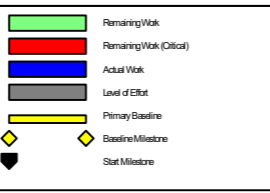
Contract No. EP/SP/86/15
Organic Waste Treatment Facilities, Phase 2
Works Programme 3rd Issue
3-Months Rolling Programme

Date	Revision	Checked	Approved
30-Apr-21			

Activity ID	Activity Name	Original Duration	Baseline Start Date	Baseline Finish Date	Start	Finish	Total Float	2021							
								Apr 21	May 22	Jun 23	Jul 24	Aug 25			
O2_D4040a	Submit Design Check Certificate & Method of Construction Check Certificate to ER (Clause 5.4.3.16, Specs Part A)	7	30-May-21	05-Jun-21	30-May-21	05-Jun-21	243								
O2_D4045a	ER Comment on the submitted Waterworks Design (Clause 5.4.3.17.c, Specs Part A)	14	06-Jun-21	19-Jun-21	06-Jun-21	19-Jun-21	243								
O2_D4050a	Submit further information for the submitted Waterworks Design to ER (Clause 5.4.3.19, Specs Part A)	7	20-Jun-21	26-Jun-21	20-Jun-21	26-Jun-21	243								
O2_D4055a	ER Comment on the re-submitted Waterworks Design (Clause 5.4.3.17.a, Specs Part A)	14	27-Jun-21	10-Jul-21	27-Jun-21	10-Jul-21	243								
O2_D4060a	ER Consented Waterworks Design (Clause 5.4.3.17.a, Specs Part A)	0		10-Jul-21		10-Jul-21	243								
O2_D4065a	Submit Two Complete Sets Waterworks Design to IC, ER for Register Design (Clause 5.4.3.22, Specs Part A)	7	11-Jul-21	17-Jul-21	11-Jul-21	17-Jul-21	243								
O2_D4070a	Design Registered - Waterworks Design	7	18-Jul-21	24-Jul-21	18-Jul-21	24-Jul-21	243								
C3.18 - DESIGN FOR ROADWORKS AND STREET FURNITURES		241	18-Nov-20	16-Jul-21	18-Nov-20 A	16-Jul-21	308								
IC CHECKING & CERTIFICATION		185	18-Nov-20	21-May-21	18-Nov-20 A	21-May-21	308								
O2_D4125a	Submit further information for the re-submitted Roadworks and Street Furnitures to IC (Clause 5.4.3.9, Specs Part A)	112	18-Nov-20	09-Mar-21	18-Nov-20 A	26-Apr-21 A	308								
O2_D4130a	IC Certify Roadworks and Street Furnitures (Clause 5.4.3.9, Specs Part A)	14	10-Apr-21	23-Apr-21	27-Apr-21 A	14-May-21	308								
O2_D4135a	Obtain Design Check Certificate & Method of Construction Check Certificate (Clause 5.4.3.11 & 5.4.3.12, Specs Part A)	7	15-May-21	21-May-21	15-May-21	21-May-21	308								
EMPLOYER'S CONSENT		56	22-May-21	16-Jul-21	22-May-21	16-Jul-21	308								
O2_D4140a	Submit Design Check Certificate & Method of Construction Check Certificate to ER (Clause 5.4.3.16, Specs Part A)	7	22-May-21	28-May-21	22-May-21	28-May-21	308								
O2_D4145a	ER Comment on the submitted Roadworks and Street Furnitures (Clause 5.4.3.17.c, Specs Part A)	14	29-May-21	11-Jun-21	29-May-21	11-Jun-21	308								
O2_D4150a	Submit further information for the submitted Roadworks and Street Furnitures to ER (Clause 5.4.3.19, Specs Part A)	7	12-Jun-21	18-Jun-21	12-Jun-21	18-Jun-21	308								
O2_D4155a	ER Comment on the re-submitted Roadworks and Street Furnitures (Clause 5.4.3.17.a, Specs Part A)	14	19-Jun-21	02-Jul-21	19-Jun-21	02-Jul-21	308								
O2_D4160a	ER Consented Roadworks and Street Furnitures (Clause 5.4.3.17.a, Specs Part A)	0		02-Jul-21		02-Jul-21	308								
O2_D4165a	Submit Two Complete Sets Roadworks and Street Furnitures to IC, ER for Register Design (Clause 5.4.3.22, Specs Part A)	7	03-Jul-21	09-Jul-21	03-Jul-21	09-Jul-21	308								
O2_D4170a	Design Registered - Roadworks and Street Furnitures	7	10-Jul-21	16-Jul-21	10-Jul-21	16-Jul-21	308								
C3.19 - ANCILLARY FACILITIES		487	02-Apr-20	01-Aug-21	02-Apr-20 A	01-Aug-21	322								
C3.19b - GUARD HOUSE, WEIGHBRIDGE & MASTER METER ROOM - FOUNDATION & STRUCTURE		229	16-Dec-20	01-Aug-21	16-Dec-20 A	01-Aug-21	64								
IC CHECKING & CERTIFICATION		187	16-Dec-20	20-Jun-21	16-Dec-20 A	20-Jun-21	64								
O2_D4815a	Submit further information for the submitted GH, WB & MMR to IC (Clause 5.4.3.9, Specs Part A)	82	16-Dec-20	07-Mar-21	16-Dec-20 A	09-May-21	64								
O2_D4820a	IC Comment on the re-submitted GH, WB & MMR (Clause 5.4.3.9, Specs Part A)	14	10-May-21	23-May-21	10-May-21	23-May-21	64								
O2_D4825a	Submit further information for the re-submitted GH, WB & MMR to IC (Clause 5.4.3.9, Specs Part A)	7	24-May-21	30-May-21	24-May-21	30-May-21	64								
O2_D4830a	IC Certify GH, WB & MMR (Clause 5.4.3.9, Specs Part A)	14	31-May-21	13-Jun-21	31-May-21	13-Jun-21	64								
O2_D4835a	Obtain Design Check Certificate & Method of Construction Check Certificate (Clause 5.4.3.11 & 5.4.3.12, Specs Part A)	7	14-Jun-21	20-Jun-21	14-Jun-21	20-Jun-21	64								
EMPLOYER'S CONSENT		42	21-Jun-21	01-Aug-21	21-Jun-21	01-Aug-21	64								
O2_D4840a	Submit Design Check Certificate & Method of Construction Check Certificate to ER (Clause 5.4.3.16, Specs Part A)	7	21-Jun-21	27-Jun-21	21-Jun-21	27-Jun-21	64								
O2_D4845a	ER Comment on the submitted GH, WB & MMR (Clause 5.4.3.17.c, Specs Part A)	14	28-Jun-21	11-Jul-21	28-Jun-21	11-Jul-21	64								
O2_D4850a	Submit further information for the submitted GH, WB & MMR to ER (Clause 5.4.3.19, Specs Part A)	7	12-Jul-21	18-Jul-21	12-Jul-21	18-Jul-21	64								
O2_D4855a	ER Comment on the re-submitted GH, WB & MMR (Clause 5.4.3.17.a, Specs Part A)	14	19-Jul-21	01-Aug-21	19-Jul-21	01-Aug-21	64								
C3.19c - PUMP ROOM, DRAWPIT & DUCTING		486	02-Apr-20	31-Jul-21	02-Apr-20 A	31-Jul-21	123								
SUBMISSION		341	02-Apr-20	08-Mar-21	02-Apr-20 A	08-May-21	123								
O2_D4900a	Pump Room, Drawpit & Ducting (Clause 5.4.3.9, Specs Part A) *	341	02-Apr-20	08-Mar-21	02-Apr-20 A	08-May-21	123								
IC CHECKING & CERTIFICATION		63	09-May-21	10-Jul-21	09-May-21	10-Jul-21	123								
O2_D4910a	IC Comment on the submitted Pump Room, Drawpit & Ducting (Clause 5.4.3.9, Specs Part A)	14	09-May-21	22-May-21	09-May-21	22-May-21	123								
O2_D4915a	Submit further information for the submitted Pump Room, Drawpit & Ducting to IC (Clause 5.4.3.9, Specs Part A)	7	23-May-21	29-May-21	23-May-21	29-May-21	123								
O2_D4920a	IC Comment on the re-submitted Pump Room, Drawpit & Ducting (Clause 5.4.3.9, Specs Part A)	14	30-May-21	12-Jun-21	30-May-21	12-Jun-21	123								
O2_D4925a	Submit further information for the re-submitted Pump Room, Drawpit & Ducting to IC (Clause 5.4.3.9, Specs Part A)	7	13-Jun-21	19-Jun-21	13-Jun-21	19-Jun-21	123								
O2_D4930a	IC Certify Pump Room, Drawpit & Ducting (Clause 5.4.3.9, Specs Part A)	14	20-Jun-21	03-Jul-21	20-Jun-21	03-Jul-21	123								
O2_D4935a	Obtain Design Check Certificate & Method of Construction Check Certificate (Clause 5.4.3.11 & 5.4.3.12, Specs Part A)	7	04-Jul-21	10-Jul-21	04-Jul-21	10-Jul-21	123								
EMPLOYER'S CONSENT		21	11-Jul-21	31-Jul-21	11-Jul-21	31-Jul-21	123								
O2_D4940a	Submit Design Check Certificate & Method of Construction Check Certificate to ER (Clause 5.4.3.16, Specs Part A)	7	11-Jul-21	17-Jul-21	11-Jul-21	17-Jul-21	123								
O2_D4945a	ER Comment on the submitted Pump Room, Drawpit & Ducting (Clause 5.4.3.17.c, Specs Part A)	14	18-Jul-21	31-Jul-21	18-Jul-21	31-Jul-21	123								
C3.19d - ENTRANCE GATE, BOUNDARY FENCE & ENTRANCE PORTAL		486	02-Apr-20	31-Jul-21	02-Apr-20 A	31-Jul-21	323								
SUBMISSION		341	02-Apr-20	08-Mar-21	02-Apr-20 A	08-May-21	323								
O2_D5000a	Entrance Gate, Boundary Fence & Entrance Portal (EG, BF & EP) (Clause 5.4.3.9, Specs Part A) *	341	02-Apr-20	08-Mar-21	02-Apr-20 A	08-May-21	323								
IC CHECKING & CERTIFICATION		63	09-May-21	10-Jul-21	09-May-21	10-Jul-21	323								
O2_D5010a	IC Comment on the submitted EG, BF & EP (Clause 5.4.3.9, Specs Part A)	14	09-May-21	22-May-21	09-May-21	22-May-21	323								
O2_D5015a	Submit further information for the submitted EG, BF & EP to IC (Clause 5.4.3.9, Specs Part A)	7	23-May-21	29-May-21	23-May-21	29-May-21	323								
O2_D5020a	IC Comment on the re-submitted EG, BF & EP (Clause 5.4.3.9, Specs Part A)	14	30-May-21	12-Jun-21	30-May-21	12-Jun-21	323								
O2_D5025a	Submit further information for the re-submitted EG, BF & EP to IC (Clause 5.4.3.9, Specs Part A)	7	13-Jun-21	19-Jun-21	13-Jun-21	19-Jun-21	323								
O2_D5030a	IC Certify EG, BF & EP (Clause 5.4.3.9, Specs Part A)	14	20-Jun-21	03-Jul-21	20-Jun-21	03-Jul-21	323								
O2_D5035a	Obtain Design Check Certificate & Method of Construction Check Certificate (Clause 5.4.3.11 & 5.4.3.12, Specs Part A)	7	04-Jul-21	10-Jul-21	04-Jul-21	10-Jul-21	323								
EMPLOYER'S CONSENT		21	11-Jul-21	31-Jul-21	11-Jul-21	31-Jul-21	323								
O2_D5040a	Submit Design Check Certificate & Method of Construction Check Certificate to ER (Clause 5.4.3.16, Specs Part A)	7	11-Jul-21	17-Jul-21	11-Jul-21	17-Jul-21	323								
O2_D5045a	ER Comment on the submitted EG, BF & EP (Clause 5.4.3.17.c, Specs Part A)	14	18-Jul-21	31-Jul-21	18-Jul-21	31-Jul-21	323								
C4 - BUILDING SERVICES		414	13-Jun-20	31-Jul-21	13-Jun-20 A	31-Jul-21	372								
C4.1 - BS - ELECTRICAL SERVICES		334	01-Sep-20	31-Jul-21	01-Sep-20 A	31-Jul-21	6								
IC CHECKING & CERTIFICATION		278	01-Sep-20	05-Jun-21	01-Sep-20 A	05-Jun-21	6								
O2_C41130	Submit further information for the re-submitted Electrical Services to IC (Clause 5.4.3.9, Specs A)	241	01-Sep-20	29-Apr-21	01-Sep-20 A	15-May-21	6								
O2_C41140	IC Certify Electrical Services (Clause 5.4.3.9, Specs A)	14	16-May-21	29-May-21	16-May-21	29-May-21	6								
O2_C41150	Obtain Design Check Certificate & Method of Construction Check Certificate (Clause 5.4.3.11 & 5.4.3.12, Specs A)	7	30-May-21	05-Jun-21	30-May-21	05-Jun-21	6								
EMPLOYER'S CONSENT		56	06-Jun-21	31-Jul-21	06-Jun-21	31-Jul-21	6								
O2_C41200	Submit Design Check Certificate & Method of Construction Check Certificate to ER (Clause 5.4.3.16, Specs A)	7	06-Jun-21	12-Jun-21	06-Jun-21	12-Jun-21	6								
O2_C41210	ER Comment on the submitted Electrical Services (Clause 5.4.3.17.c, Specs A)	14	13-Jun-21	26-Jun-21	13-Jun-21	26-Jun-21	6								
O2_C41220	Submit further information for the submitted Electrical Services to ER (Clause 5.4.3.19, Specs A)	7	27-Jun-21	03-Jul-21	27-Jun-21	03-Jul-21	6								
O2_C41230	ER Comment on the re-submitted Electrical Services (Clause 5.4.3.17.a, Specs A)	14	04-Jul-21	17-Jul-21	04-Jul-21	17-Jul-21	6								

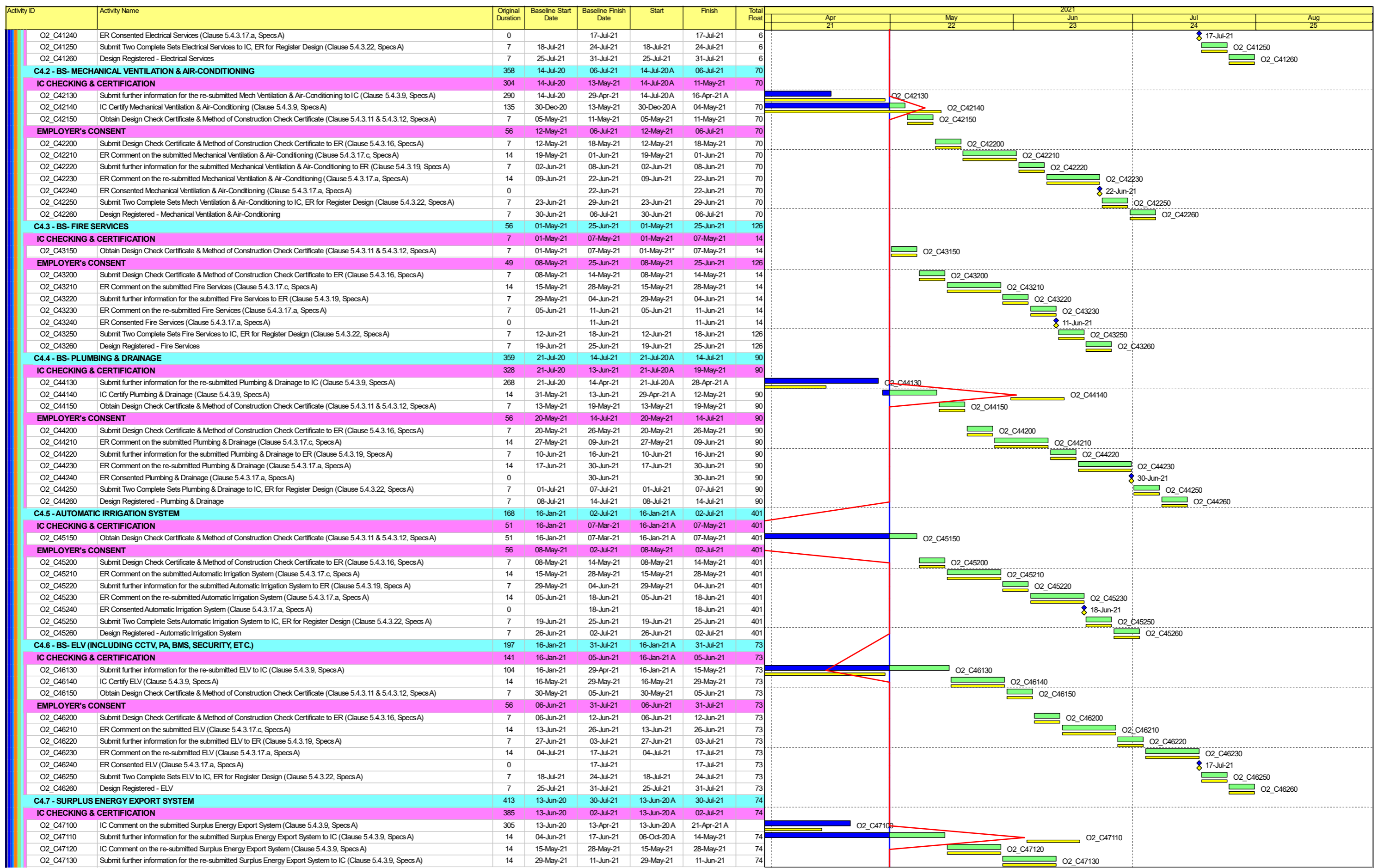


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Contract No. EP/SP/86/15
Organic Waste Treatment Facilities, Phase 2
Works Programme 3rd Issue
3-Months Rolling Programme

Date	Revision	Checked	Approved
30-Apr-21			



File Name: WP_03.2021-3M.04A
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Contract No. EP/SP/86/15
Organic Waste Treatment Facilities, Phase 2
Works Programme 3rd Issue
3-Months Rolling Programme

Date	Revision	Checked	Approved
30-Apr-21			

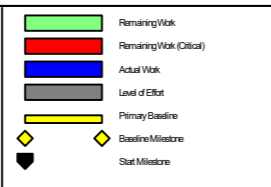
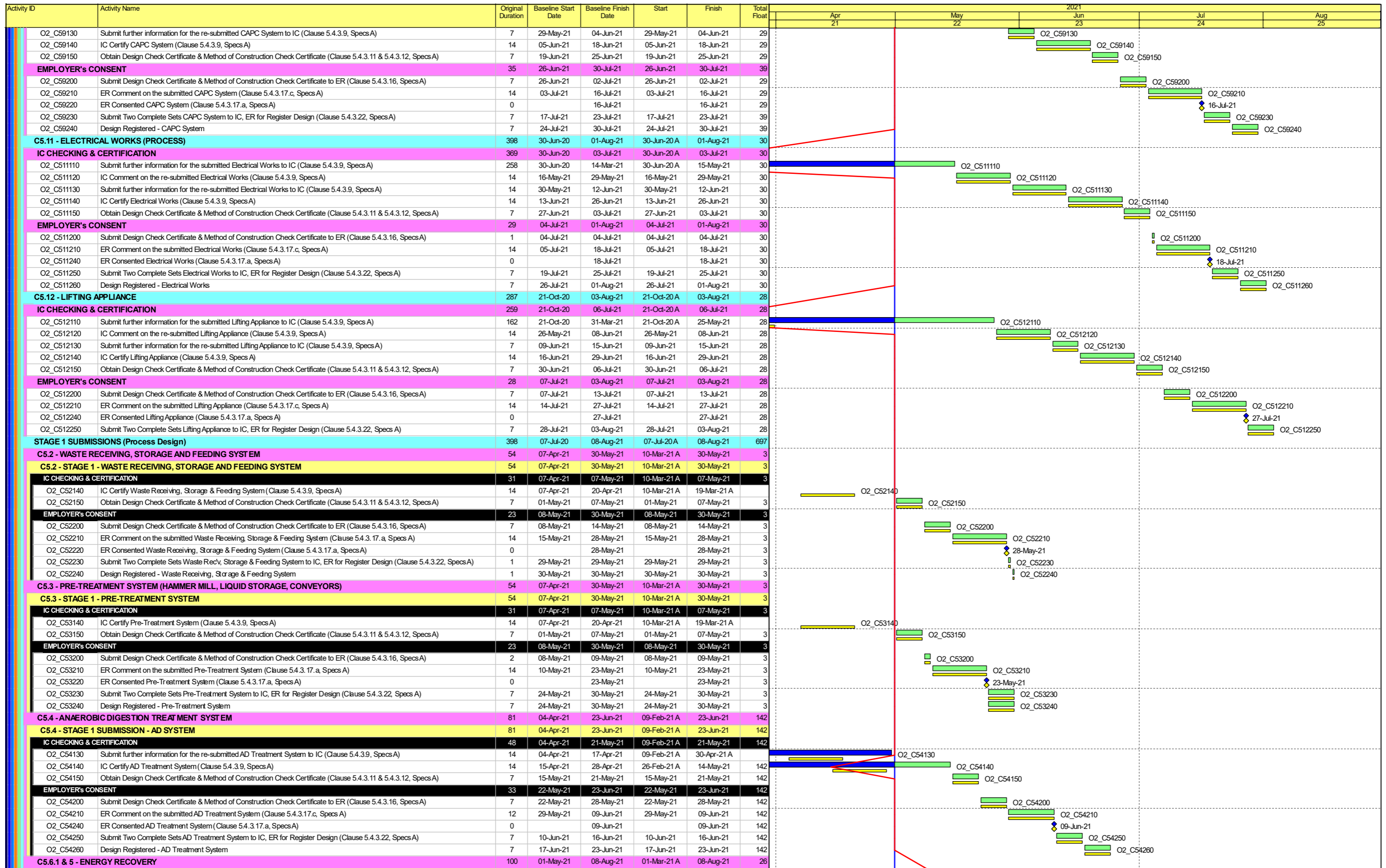
Activity ID	Activity Name	Original Duration	Baseline Start Date	Baseline Finish Date	Start	Finish	Total Float	2021						
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O2_C47140	IC Certify Surplus Energy Export System (Clause 5.4.3.9, Specs A)	14	12-Jun-21	25-Jun-21	12-Jun-21	25-Jun-21	74							
O2_C47150	Obtain Design Check Certificate & Method of Construction Check Certificate (Clause 5.4.3.11 & 5.4.3.12, Specs A)	7	26-Jun-21	02-Jul-21	26-Jun-21	02-Jul-21	74							
EMPLOYER'S CONSENT								28	03-Jul-21	30-Jul-21	03-Jul-21	30-Jul-21	74	
O2_C47200	Submit Design Check Certificate & Method of Construction Check Certificate to ER (Clause 5.4.3.16, Specs A)	7	03-Jul-21	09-Jul-21	03-Jul-21	09-Jul-21	74							
O2_C47210	ER Comment on the submitted Surplus Energy Export System (Clause 5.4.3.17.c, Specs A)	14	10-Jul-21	23-Jul-21	10-Jul-21	23-Jul-21	74							
O2_C47220	Submit further information for the submitted Surplus Energy Export System to ER (Clause 5.4.3.19, Specs A)	7	24-Jul-21	30-Jul-21	24-Jul-21	30-Jul-21	74							
C4.8 - LIFT								262	11-Nov-20	30-Jul-21	11-Nov-20 A	30-Jul-21	21	
IC CHECKING & CERTIFICATION								206	11-Nov-20	04-Jun-21	11-Nov-20 A	04-Jun-21	21	
O2_C48130	Submit further information for the re-submitted Lift to IC (Clause 5.4.3.9, Specs A)	91	11-Nov-20	09-Feb-21	11-Nov-20 A	14-May-21	21							
O2_C48140	IC Certify Lift (Clause 5.4.3.9, Specs A)	47	10-Feb-21	28-Mar-21	10-Feb-21 A	28-May-21	21							
O2_C48150	Obtain Design Check Certificate & Method of Construction Check Certificate (Clause 5.4.3.11 & 5.4.3.12, Specs A)	7	29-May-21	04-Jun-21	29-May-21	04-Jun-21	21							
EMPLOYER'S CONSENT								56	05-Jun-21	30-Jul-21	05-Jun-21	30-Jul-21	21	
O2_C48200	Submit Design Check Certificate & Method of Construction Check Certificate to ER (Clause 5.4.3.16, Specs A)	7	05-Jun-21	11-Jun-21	05-Jun-21	11-Jun-21	21							
O2_C48210	ER Comment on the submitted Lift to ER (Clause 5.4.3.17.c, Specs A)	14	12-Jun-21	25-Jun-21	12-Jun-21	25-Jun-21	21							
O2_C48220	Submit further information for the submitted Lift to ER (Clause 5.4.3.19, Specs A)	7	26-Jun-21	02-Jul-21	26-Jun-21	02-Jul-21	21							
O2_C48230	ER Comment on the re-submitted Lift (Clause 5.4.3.17.a, Specs A)	14	03-Jul-21	16-Jul-21	03-Jul-21	16-Jul-21	21							
O2_C48240	ER Consented Lift (Clause 5.4.3.17.a, Specs A)	0		16-Jul-21		16-Jul-21	21							
O2_C48250	Submit Two Complete Sets Lift to IC, ER for Register Design (Clause 5.4.3.22, Specs A)	7	17-Jul-21	23-Jul-21	17-Jul-21	23-Jul-21	21							
O2_C48260	Design Registered - Lift	7	24-Jul-21	30-Jul-21	24-Jul-21	30-Jul-21	21							
C5 - E&M PROCESS								508	24-Mar-20	13-Aug-21	24-Mar-20 A	13-Aug-21	692	
C5.1 - WASTE ARRIVAL AND EXIT (WEIGHBRIDGE, TRUCK WASHING, TRAFFIC CONTROL)								379	21-Jul-20	03-Aug-21	21-Jul-20 A	03-Aug-21	18	
IC CHECKING & CERTIFICATION								351	21-Jul-20	06-Jul-21	21-Jul-20 A	06-Jul-21	18	
O2_C51110	Submit further information for the submitted Waste Arrival and Exit to IC (Clause 5.4.3.9, Specs A)	241	21-Jul-20	18-Mar-21	21-Jul-20 A	25-May-21	18							
O2_C51120	IC Comment on the re-submitted Waste Arrival and Exit (Clause 5.4.3.9, Specs A)	14	14-May-21	27-May-21	13-Apr-21 A	08-Jun-21	18							
O2_C51130	Submit further information for the re-submitted Waste Arrival and Exit to IC (Clause 5.4.3.9, Specs A)	7	09-Jun-21	15-Jun-21	09-Jun-21	15-Jun-21	18							
O2_C51140	IC Certify Waste Arrival and Exit (Clause 5.4.3.9, Specs A)	14	16-Jun-21	29-Jun-21	16-Jun-21	29-Jun-21	18							
O2_C51150	Obtain Design Check Certificate & Method of Construction Check Certificate (Clause 5.4.3.11 & 5.4.3.12, Specs A)	7	30-Jun-21	06-Jul-21	30-Jun-21	06-Jul-21	18							
EMPLOYER'S CONSENT								28	07-Jul-21	03-Aug-21	07-Jul-21	03-Aug-21	18	
O2_C51200	Submit Design Check Certificate & Method of Construction Check Certificate to ER (Clause 5.4.3.16, Specs A)	7	07-Jul-21	13-Jul-21	07-Jul-21	13-Jul-21	18							
O2_C51210	ER Comment on the submitted Waste Arrival and Exit (Clause 5.4.3.17.c, Specs A)	14	14-Jul-21	27-Jul-21	14-Jul-21	27-Jul-21	18							
O2_C51240	ER Consented Waste Arrival and Exit (Clause 5.4.3.17.a, Specs A)	0		27-Jul-21		27-Jul-21	18							
O2_C51250	Submit Two Complete Sets Waste Arrival and Exit to IC, ER for Register Design (Clause 5.4.3.22, Specs A)	7	28-Jul-21	03-Aug-21	28-Jul-21	03-Aug-21	18							
C5.5 - BIOGAS CLEANING & STORAGE SYSTEM AND EMERGENCY FLARE								495	24-Mar-20	31-Jul-21	24-Mar-20 A	31-Jul-21	29	
IC CHECKING & CERTIFICATION								467	24-Mar-20	03-Jul-21	24-Mar-20 A	03-Jul-21	29	
O2_C55100	IC Comment on the submitted Biogas System & Flare (Clause 5.4.3.9, Specs A)	295	24-Mar-20	12-Jan-21	24-Mar-20 A	14-Apr-21 A	29							
O2_C55110	Submit further information for the submitted Biogas System & Flare to IC (Clause 5.4.3.9, Specs A)	341	02-Apr-20	08-Mar-21	02-Apr-20 A	15-May-21	29							
O2_C55120	IC Comment on the re-submitted Biogas System & Flare (Clause 5.4.3.9, Specs A)	14	16-May-21	29-May-21	16-May-21	29-May-21	29							
O2_C55130	Submit further information for the re-submitted Biogas System & Flare to IC (Clause 5.4.3.9, Specs A)	14	30-May-21	12-Jun-21	30-May-21	12-Jun-21	29							
O2_C55140	IC Certify Biogas System & Flare (Clause 5.4.3.9, Specs A)	14	13-Jun-21	26-Jun-21	13-Jun-21	26-Jun-21	29							
O2_C55150	Obtain Design Check Certificate & Method of Construction Check Certificate (Clause 5.4.3.11 & 5.4.3.12, Specs A)	7	27-Jun-21	03-Jul-21	27-Jun-21	03-Jul-21	29							
EMPLOYER'S CONSENT								28	04-Jul-21	31-Jul-21	04-Jul-21	31-Jul-21	29	
O2_C55200	Submit Design Check Certificate & Method of Construction Check Certificate to ER (Clause 5.4.3.16, Specs A)	7	04-Jul-21	10-Jul-21	04-Jul-21	10-Jul-21	29							
O2_C55210	ER Comment on the submitted Biogas System & Flare (Clause 5.4.3.17.c, Specs A)	14	11-Jul-21	24-Jul-21	11-Jul-21	24-Jul-21	29							
O2_C55240	ER Consented Biogas System & Flare (Clause 5.4.3.17.a, Specs A)	0		24-Jul-21		24-Jul-21	29							
O2_C55250	Submit Two Complete Sets Biogas System & Flare to IC, ER for Register Design (Clause 5.4.3.22, Specs A)	7	25-Jul-21	31-Jul-21	25-Jul-21	31-Jul-21	29							
C5.6.2, 3 & 4 - CHP								332	08-Aug-20	05-Jul-21	08-Aug-20 A	05-Jul-21	12	
IC CHECKING & CERTIFICATION								297	08-Aug-20	31-May-21	08-Aug-20 A	31-May-21	12	
O2_C56130	Submit further information for the re-submitted CHP to IC (Clause 5.4.3.9, Specs A)	216	08-Aug-20	11-Mar-21	08-Aug-20 A	10-May-21	12							
O2_C56140	IC Certify CHP (Clause 5.4.3.9, Specs A)	14	11-May-21	24-May-21	11-May-21	24-May-21	12							
O2_C56150	Obtain Design Check Certificate & Method of Construction Check Certificate (Clause 5.4.3.11 & 5.4.3.12, Specs A)	7	25-May-21	31-May-21	25-May-21	31-May-21	12							
EMPLOYER'S CONSENT								35	01-Jun-21	05-Jul-21	01-Jun-21	05-Jul-21	12	
O2_C56200	Submit Design Check Certificate & Method of Construction Check Certificate to ER (Clause 5.4.3.16, Specs A)	7	01-Jun-21	07-Jun-21	01-Jun-21	07-Jun-21	12							
O2_C56210	ER Comment on the submitted CHP (Clause 5.4.3.17.c, Specs A)	14	08-Jun-21	21-Jun-21	08-Jun-21	21-Jun-21	12							
O2_C56220	ER Consented CHP (Clause 5.4.3.17.a, Specs A)	0		21-Jun-21		21-Jun-21	12							
O2_C56230	Submit Two Complete Sets CHP to IC, ER for Register Design (Clause 5.4.3.22, Specs A)	7	22-Jun-21	28-Jun-21	22-Jun-21	28-Jun-21	12							
O2_C56240	Design Registered - CHP	7	29-Jun-21	05-Jul-21	29-Jun-21	05-Jul-21	12							
C5.8 - WASTEWATER TREATMENT PLANT								253	16-Oct-20	25-Jun-21	16-Oct-20 A	25-Jun-21	19	
IC CHECKING & CERTIFICATION								218	16-Oct-20	21-May-21	16-Oct-20 A	21-May-21	19	
O2_C58140	IC Certify Wastewater Treatment Plant (Clause 5.4.3.9, Specs A)	146	16-Oct-20	10-Mar-21	16-Oct-20 A	14-May-21	19							
O2_C58150	Obtain Design Check Certificate & Method of Construction Check Certificate (Clause 5.4.3.11 & 5.4.3.12, Specs A)	7	15-May-21	21-May-21	15-May-21	21-May-21	19							
EMPLOYER'S CONSENT								35	22-May-21	25-Jun-21	22-May-21	25-Jun-21	19	
O2_C58200	Submit Design Check Certificate & Method of Construction Check Certificate to ER (Clause 5.4.3.16, Specs A)	7	22-May-21	28-May-21	22-May-21	28-May-21	19							
O2_C58210	ER Comment on the submitted Wastewater Treatment Plant (Clause 5.4.3.17.c, Specs A)	14	29-May-21	11-Jun-21	29-May-21	11-Jun-21	19							
O2_C58220	ER Consented Wastewater Treatment Plant (Clause 5.4.3.17.a, Specs A)	0		11-Jun-21		11-Jun-21	19							
O2_C58230	Submit Two Complete Sets Wastewater Treatment Plant to IC, ER for Register Design (Clause 5.4.3.22, Specs A)	7	12-Jun-21	18-Jun-21	12-Jun-21	18-Jun-21	19							
O2_C58240	Design Registered - Wastewater Treatment Plant	7	19-Jun-21	25-Jun-21	19-Jun-21	25-Jun-21	19							
C5.9 - CENTRALISED AIR POLLUTION CONTROL SYSTEM								212	31-Dec-20	30-Jul-21	31-Dec-20 A	30-Jul-21	39	
IC CHECKING & CERTIFICATION								177	31-Dec-20	25-Jun-21	31-Dec-20 A	25-Jun-21	29	
O2_C59110	Submit further information for the submitted CAPC System to IC (Clause 5.4.3.9, Specs A)	91	31-Dec-20	31-Mar-21	31-Dec-20 A	14-May-21	29							
O2_C59120	IC Comment on the re-submitted CAPC System (Clause 5.4.3.9, Specs A)	14	15-May-21	28-May-21	15-May-21	28-May-21	29							



Remaining Work
█ Remaining Work
█ Remaining Work (Critical)
█ Actual Work
█ Level of Effort
 Primary Baseline
 Baseline Milestone
▼ Start Milestone

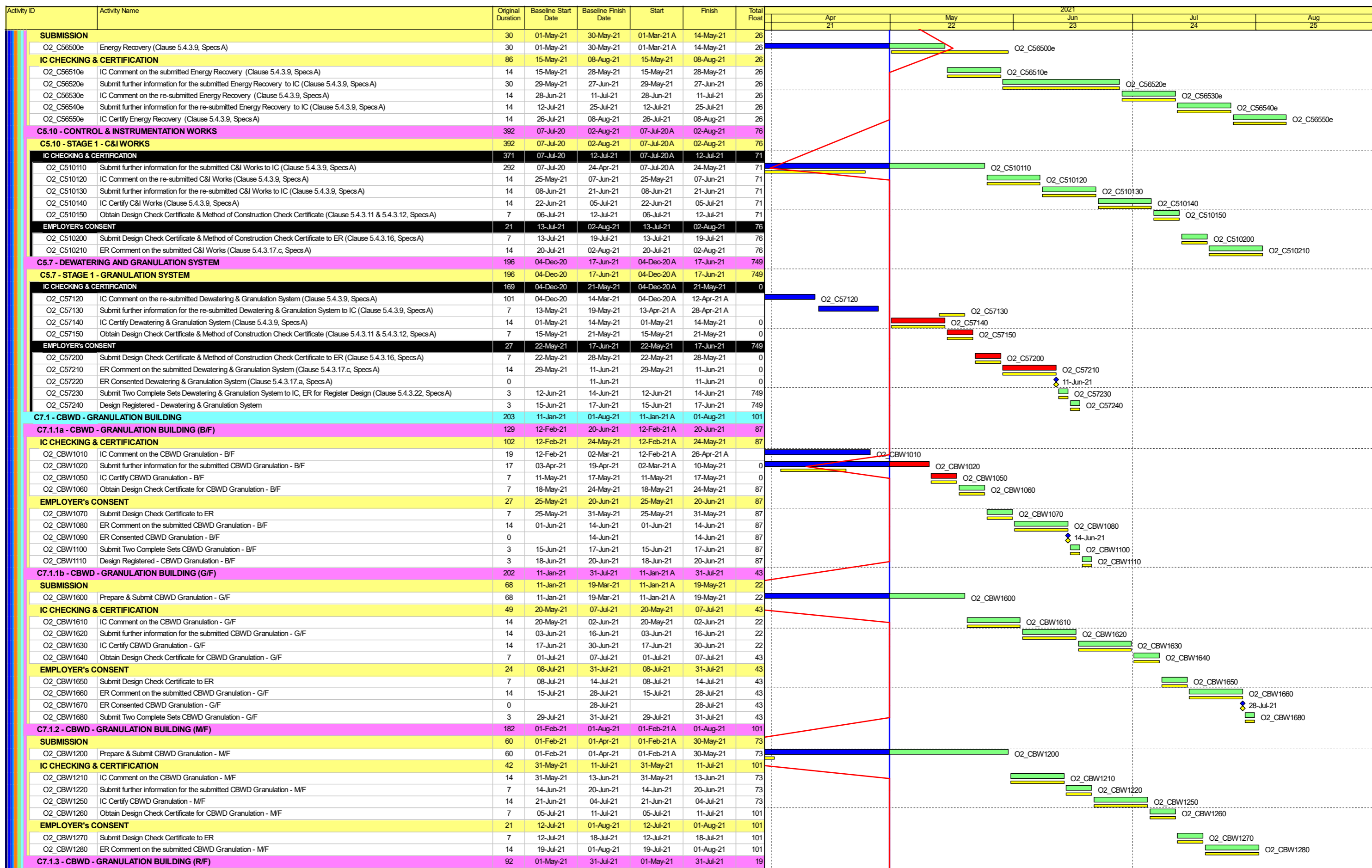
Contract No. EP/SP/86/15
Organic Waste Treatment Facilities, Phase 2
Works Programme 3rd Issue
3-Months Rolling Programme

Date	Revision	Checked	Approved
30-Apr-21			



Contract No. EP/SP/86/15
Organic Waste Treatment Facilities, Phase 2
Works Programme 3rd Issue
3-Months Rolling Programme

Date	Revision	Checked	Approved
30-Apr-21			



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Contract No. EP/SP/86/15
Organic Waste Treatment Facilities, Phase 2
Works Programme 3rd Issue
3-Months Rolling Programme

Date	Revision	Checked	Approved
30-Apr-21			

Activity ID	Activity Name	Original Duration	Baseline Start Date	Baseline Finish Date	Start	Finish	Total Float	2021							
								Apr 21	May 22	Jun 23	Jul 24	Aug 25			
SUBMISSION															
O2_CBW1400	Prepare & Submit CBWD Granulation - R/F	50	01-May-21	19-Jun-21	01-May-21	19-Jun-21	19								
IC CHECKING & CERTIFICATION															
O2_CBW1410	IC Comment on the CBWD Granulation - R/F	42	20-Jun-21	31-Jul-21	20-Jun-21	31-Jul-21	19								
O2_CBW1420	Submit further information for the submitted CBWD Granulation - R/F	7	04-Jul-21	10-Jul-21	04-Jul-21	10-Jul-21	19								
O2_CBW1450	IC Certify CBWD Granulation - R/F	14	11-Jul-21	24-Jul-21	11-Jul-21	24-Jul-21	19								
O2_CBW1460	Obtain Design Check Certificate for CBWD Granulation - R/F	7	25-Jul-21	31-Jul-21	25-Jul-21	31-Jul-21	19								
C7.2 - CBWD - RECEPTION BUILDING															
C7.2.1a - CBWD - RECEPTION BUILDING (G/F)															
IC CHECKING & CERTIFICATION															
O2_CBW2020	Submit further information for the submitted CBWD Reception Bldg (G/F)	45	09-Feb-21	25-Mar-21	09-Feb-21 A	20-May-21	4								
O2_CBW2050	IC Certify CBWD Reception Bldg (G/F)	10	21-May-21	30-May-21	21-May-21	30-May-21	4								
O2_CBW2060	Obtain Design Check Certificate for CBWD Reception Bldg (G/F)	7	31-May-21	06-Jun-21	31-May-21	06-Jun-21	733								
EMPLOYER'S CONSENT															
O2_CBW2070	Submit Design Check Certificate to ER	7	07-Jun-21	13-Jun-21	07-Jun-21	13-Jun-21	733								
O2_CBW2080	ER Comment on the submitted CBWD Reception Bldg (G/F)	14	14-Jun-21	27-Jun-21	14-Jun-21	27-Jun-21	733								
O2_CBW2090	ER Consented CBWD Reception Bldg (G/F)	0		27-Jun-21		27-Jun-21	733								
O2_CBW2100	Submit Two Complete Sets CBWD Reception Bldg (G/F)	3	28-Jun-21	30-Jun-21	28-Jun-21	30-Jun-21	733								
O2_CBW2110	Design Registered - CBWD Reception Bldg (G/F)	3	01-Jul-21	03-Jul-21	01-Jul-21	03-Jul-21	733								
C7.2.1b - CBWD - RECEPTION BUILDING (LG/F)															
IC CHECKING & CERTIFICATION															
O2_CBW2905f	Submit further information for the submitted CBWD Reception Bldg (LG/F)	45	09-Feb-21	25-Mar-21	09-Feb-21 A	26-Apr-21 A									
O2_CBW2915f	IC Certify CBWD Reception Bldg (LG/F)	49	19-Feb-21	08-Apr-21	19-Feb-21 A	27-Apr-21 A									
O2_CBW2920f	Obtain Design Check Certificate for CBWD Reception Bldg (LG/F)	7	01-May-21	07-May-21	01-May-21	07-May-21	763								
EMPLOYER'S CONSENT															
O2_CBW2835f	Submit Design Check Certificate to ER	7	08-May-21	14-May-21	08-May-21	14-May-21	763								
O2_CBW2840f	ER Comment on the submitted CBWD Reception Bldg (LG/F)	14	15-May-21	28-May-21	15-May-21	28-May-21	763								
O2_CBW2845f	ER Consented CBWD Reception Bldg (LG/F)	0		28-May-21		28-May-21	763								
O2_CBW2855f	Submit Two Complete Sets CBWD Reception Bldg (LG/F)	3	29-May-21	31-May-21	29-May-21	31-May-21	763								
O2_CBW2865f	Design Registered - CBWD Reception Bldg (LG/F)	3	01-Jun-21	03-Jun-21	01-Jun-21	03-Jun-21	763								
C7.2.1c - CBWD - ADMINISTRATION BUILDING (LG/F)															
IC CHECKING & CERTIFICATION															
O2_CBW3020f	Obtain Design Check Certificate for CBWD Admin. Bldg (LG/F)	7	01-May-21	07-May-21	01-May-21	07-May-21	763								
EMPLOYER'S CONSENT															
O2_CBW2935	Submit Design Check Certificate to ER	7	08-May-21	14-May-21	08-May-21	14-May-21	763								
O2_CBW2940	ER Comment on the submitted CBWD Admin. Bldg (LG/F)	14	15-May-21	28-May-21	15-May-21	28-May-21	763								
O2_CBW2945	ER Consented CBWD Admin. Bldg (LG/F)	0		28-May-21		28-May-21	763								
O2_CBW2955	Submit Two Complete Sets CBWD Admin. Bldg (LG/F)	3	29-May-21	31-May-21	29-May-21	31-May-21	763								
O2_CBW2965	Design Registered - CBWD Admin. Bldg (LG/F)	3	01-Jun-21	03-Jun-21	01-Jun-21	03-Jun-21	763								
C7.2.2 - CBWD - RECEPTION BUILDING (Admin. Bldg)															
IC CHECKING & CERTIFICATION															
O2_CBW2210	IC Comment on the CBWD Reception Bldg (Admin. Bldg)	14	04-Apr-21	17-Apr-21	03-Mar-21 A	22-Mar-21 A									
O2_CBW2220	Submit further information for the submitted CBWD Reception Bldg (Admin. Bldg)	14	18-Apr-21	01-May-21	23-Mar-21 A	10-May-21	30								
O2_CBW2250	IC Certify CBWD Reception Bldg (Admin. Bldg)	14	11-May-21	24-May-21	11-May-21	24-May-21	30								
O2_CBW2260	Obtain Design Check Certificate for CBWD Reception Bldg (Admin. Bldg)	7	25-May-21	31-May-21	25-May-21	31-May-21	739								
EMPLOYER'S CONSENT															
O2_CBW2270	Submit Design Check Certificate to ER	7	01-Jun-21	07-Jun-21	01-Jun-21	07-Jun-21	739								
O2_CBW2280	ER Comment on the submitted CBWD Reception Bldg (Admin. Bldg)	14	08-Jun-21	21-Jun-21	08-Jun-21	21-Jun-21	739								
O2_CBW2290	ER Consented CBWD Reception Bldg (Admin. Bldg)	0		21-Jun-21		21-Jun-21	739								
O2_CBW2300	Submit Two Complete Sets CBWD Reception Bldg (Admin. Bldg)	3	22-Jun-21	24-Jun-21	22-Jun-21	24-Jun-21	739								
O2_CBW2310	Design Registered - CBWD Reception Bldg (Admin. Bldg)	3	25-Jun-21	27-Jun-21	25-Jun-21	27-Jun-21	739								
C7.2.3 - CBWD - RECEPTION BUILDING (R/F)															
IC CHECKING & CERTIFICATION															
O2_CBW2410	IC Comment on the CBWD Reception Bldg (R/F)	14	22-Apr-21	05-May-21	04-Mar-21 A	24-Mar-21 A									
O2_CBW2420	Submit further information for the submitted CBWD Reception Bldg (R/F)	14	06-May-21	19-May-21	25-Mar-21 A	30-May-21	51								
O2_CBW2450	IC Certify CBWD Reception Bldg (R/F)	14	31-May-21	13-Jun-21	31-May-21	13-Jun-21	51								
O2_CBW2460	Obtain Design Check Certificate for CBWD Reception Bldg (R/F)	7	14-Jun-21	20-Jun-21	14-Jun-21	20-Jun-21	719								
EMPLOYER'S CONSENT															
O2_CBW2470	Submit Design Check Certificate to ER	7	21-Jun-21	27-Jun-21	21-Jun-21	27-Jun-21	719								
O2_CBW2480	ER Comment on the submitted CBWD Reception Bldg (R/F)	14	28-Jun-21	11-Jul-21	28-Jun-21	11-Jul-21	719								
O2_CBW2490	ER Consented CBWD Reception Bldg (R/F)	0		11-Jul-21		11-Jul-21	719								
O2_CBW2500	Submit Two Complete Sets CBWD Reception Bldg (R/F)	3	12-Jul-21	14-Jul-21	12-Jul-21	14-Jul-21	719								
O2_CBW2510	Design Registered - CBWD Reception Bldg (R/F)	3	15-Jul-21	17-Jul-21	15-Jul-21	17-Jul-21	719								
C7.4.1 - CBWD - AD Tanks															
IC CHECKING & CERTIFICATION															
O2_CBW2615	Obtain Design Check Certificate for CBWD AD Tanks	7	01-May-21	07-May-21	16-Mar-21 A	22-Apr-21 A									
EMPLOYER'S CONSENT															
O2_CBW2530	Submit Design Check Certificate to ER	7	23-Apr-21	29-Apr-21	23-Apr-21 A	23-Apr-21 A									
O2_CBW2535	ER Comment on the submitted CBWD AD Tanks	14	15-May-21	28-May-21	24-Apr-21 A	30-Apr-21 A									
O2_CBW2540	ER Consented CBWD AD Tanks	0		28-May-21		30-Apr-21 A									



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Contract No. EP/SP/86/15
Organic Waste Treatment Facilities, Phase 2
Works Programme 3rd Issue
3-Months Rolling Programme

Date	Revision	Checked	Approved
30-Apr-21			

Activity ID	Activity Name	Original Duration	Baseline Start Date	Baseline Finish Date	Start	Finish	Total Float	2021							
								Apr 21	May 22	Jun 23	Jul 24	Aug 25			
O2_CBW2550	Submit Two Complete Sets CBWD AD Tanks	3	01-May-21	03-May-21	01-May-21	03-May-21	791								
O2_CBW2560	Design Registered - CBWD AD Tanks	3	04-May-21	06-May-21	04-May-21	06-May-21	791								
C7.4.2 - CBWD - DIGESTATE TANKS		186	13-Jan-21	17-Jul-21	13-Jan-21 A	17-Jul-21	719								
IC CHECKING & CERTIFICATION		159	13-Jan-21	20-Jun-21	13-Jan-21 A	20-Jun-21	719								
O2_CBW2700	Submit further information for the submitted CBWD DIGESTATE TANKS	54	13-Jan-21	07-Mar-21	13-Jan-21 A	30-May-21	79								
O2_CBW2710	IC Certify CBWD DIGESTATE TANKS	14	31-May-21	13-Jun-21	31-May-21	13-Jun-21	79								
O2_CBW2715	Obtain Design Check Certificate for CBWD DIGESTATE TANKS	7	14-Jun-21	20-Jun-21	14-Jun-21	20-Jun-21	719								
EMPLOYER'S CONSENT		27	21-Jun-21	17-Jul-21	21-Jun-21	17-Jul-21	719								
O2_CBW2630	Submit Design Check Certificate to ER	7	21-Jun-21	27-Jun-21	21-Jun-21	27-Jun-21	719								
O2_CBW2635	ER Comment on the submitted CBWD DIGESTATE TANKS	14	28-Jun-21	11-Jul-21	28-Jun-21	11-Jul-21	719								
O2_CBW2640	ER Consented CBWD DIGESTATE TANKS	0		11-Jul-21		11-Jul-21	719								
O2_CBW2650	Submit Two Complete Sets CBWD DIGESTATE TANKS	3	12-Jul-21	14-Jul-21	12-Jul-21	14-Jul-21	719								
O2_CBW2660	Design Registered - CBWD DIGESTATE TANKS	3	15-Jul-21	17-Jul-21	15-Jul-21	17-Jul-21	719								
C7.4.3 - CBWD - BIOGAS CLEANING & STORAGE SYSTEM		122	01-Apr-21	31-Jul-21	01-Mar-21 A	31-Jul-21	699								
SUBMISSION		59	01-Apr-21	29-May-21	01-Mar-21 A	29-May-21	209								
O2_CBW2720	Prepare & Submit CBWD Biogas Cleaning & Storage System	59	01-Apr-21	29-May-21	01-Mar-21 A	29-May-21	209								
IC CHECKING & CERTIFICATION		42	30-May-21	10-Jul-21	30-May-21	10-Jul-21	699								
O2_CBW2790	IC Comment on the CBWD Biogas Cleaning & Storage System	14	30-May-21	12-Jun-21	30-May-21	12-Jun-21	209								
O2_CBW2800	Submit further information for the submitted CBWD Biogas Cleaning & Storage System	7	13-Jun-21	19-Jun-21	13-Jun-21	19-Jun-21	209								
O2_CBW2810	IC Certify CBWD Biogas Cleaning & Storage System	14	20-Jun-21	03-Jul-21	20-Jun-21	03-Jul-21	209								
O2_CBW2815	Obtain Design Check Certificate for CBWD Biogas Cleaning & Storage System	7	04-Jul-21	10-Jul-21	04-Jul-21	10-Jul-21	699								
EMPLOYER'S CONSENT		21	11-Jul-21	31-Jul-21	11-Jul-21	31-Jul-21	699								
O2_CBW2730	Submit Design Check Certificate to ER	7	11-Jul-21	17-Jul-21	11-Jul-21	17-Jul-21	699								
O2_CBW2735	ER Comment on the submitted CBWD Biogas Cleaning & Storage System	14	18-Jul-21	31-Jul-21	18-Jul-21	31-Jul-21	699								
Cxxx - COMPOSITE PIPE RACK		92	01-May-21	31-Jul-21	01-May-21	31-Jul-21	119								
SUBMISSION		50	01-May-21	19-Jun-21	01-May-21	19-Jun-21	119								
O2_C13_100	Prepare & Submit DDS for Composite Pipe Rack	50	01-May-21	19-Jun-21	01-May-21*	19-Jun-21	119								
IC CHECKING & CERTIFICATION		42	20-Jun-21	31-Jul-21	20-Jun-21	31-Jul-21	119								
O2_C13_110	IC Comment on the DDS for Composite Pipe Rack	14	20-Jun-21	03-Jul-21	20-Jun-21	03-Jul-21	119								
O2_C13_120	Submit further information for the submitted DDS for Composite Pipe Rack	7	04-Jul-21	10-Jul-21	04-Jul-21	10-Jul-21	119								
O2_C13_130	IC Certify DDS for Composite Pipe Rack	14	11-Jul-21	24-Jul-21	11-Jul-21	24-Jul-21	119								
O2_C13_140	Obtain Design Check Certificate for DDS for Composite Pipe Rack	7	25-Jul-21	31-Jul-21	25-Jul-21	31-Jul-21	119								
STAGE 2 SUBMISSIONS (Process Equipment)		268	19-Nov-20	13-Aug-21	19-Nov-20 A	13-Aug-21	692								
C5.2 & C5.3 WASTE RECEIVING & PRE-TREATMENT SYSTEMS		228	20-Nov-20	05-Jul-21	20-Nov-20 A	05-Jul-21	731								
Huning		29	01-May-21	29-May-21	01-May-21	29-May-21	768								
O2_C52A21010	IC Approve Stage 2 Equipment Submission: Huning	29	01-May-21	29-May-21	01-May-21	29-May-21	768								
Eisele		191	20-Nov-20	29-May-21	20-Nov-20 A	29-May-21	237								
O2_C52A21020	Submit Stage 2 Waste Receiving and Pre-Treatment Equipment Submissions: Eisele	132	20-Nov-20	31-Mar-21	20-Nov-20 A	08-Apr-21 A									
O2_C52A21030	IC Approve Stage 2 Waste Receiving and Pre-Treatment Equipment Submission: Priority 2	29	01-May-21	29-May-21	01-May-21	29-May-21	237								
SUMA		29	01-May-21	29-May-21	01-May-21	29-May-21	181								
O2_C52A21050	IC Approve Stage 2 Equipment Submission: SUMA	29	01-May-21	29-May-21	01-May-21	29-May-21	181								
RUN/PRM		161	20-Dec-20	29-May-21	20-Dec-20 A	29-May-21	145								
O2_C52A21060	Submit Stage 2 Equipment Submissions: PRM	116	20-Dec-20	14-Apr-21	20-Dec-20 A	14-Apr-21 A									
O2_C52A21070	IC Approve Stage 2 Equipment Submission: PRM	29	01-May-21	29-May-21	01-May-21	29-May-21	145								
Wackerbauer		29	01-May-21	29-May-21	01-May-21	29-May-21	47								
O2_C52A21090	IC Approve Stage 2 Equipment Submission: Wackerbauer	29	01-May-21	29-May-21	01-May-21	29-May-21	47								
Priority 3		66	01-May-21	05-Jul-21	01-May-21	05-Jul-21	109								
O2_C52A21100	Submit Stage 2 Waste Receiving and Pre-Treatment Equipment Submissions: Priority 3	32	01-May-21	01-Jun-21	01-May-21	01-Jun-21	57								
O2_C52A21110	IC Approve Stage 2 Waste Receiving and Pre-Treatment Equipment Submission: Priority 3	34	02-Jun-21	05-Jul-21	02-Jun-21	05-Jul-21	109								
C5.4 - ANAEROBIC DIGESTION TREATMENT SYSTEM		268	19-Nov-20	13-Aug-21	19-Nov-20 A	13-Aug-21	692								
SUMA		29	01-May-21	29-May-21	01-May-21	29-May-21	200								
O2_C54A21010	IC Approve Stage 2 Equipment Submission: SUMA	29	01-May-21	29-May-21	01-May-21	29-May-21	200								
AAT		203	29-Nov-20	19-Jun-21	29-Nov-20 A	19-Jun-21	747								
O2_C54A21020	Submit Stage 2 Equipment Submissions: AAT	153	29-Nov-20	30-Apr-21	29-Nov-20 A	21-May-21	21								
O2_C54A21030	IC Approve Stage 2 Equipment Submission: AAT	29	22-May-21	19-Jun-21	22-May-21	19-Jun-21	747								
Wangen		172	09-Dec-20	29-May-21	09-Dec-20 A	29-May-21	320								
O2_C54A21040	Submit Stage 2 Equipment Submissions: Wangen	114	09-Dec-20	01-Apr-21	09-Dec-20 A	22-Apr-21 A									
O2_C54A21050	IC Approve Stage 2 Equipment Submission: Wangen	29	01-May-21	29-May-21	01-May-21	29-May-21	320								
Vogelsang		195	19-Dec-20	01-Jul-21	19-Dec-20 A	01-Jul-21	209								
O2_C54A21060	Submit Stage 2 Equipment Submissions: Vogelsang	165	19-Dec-20	01-Jun-21	19-Dec-20 A	02-Jun-21	21								
O2_C54A21070	IC Approve Stage 2 Equipment Submission: Vogelsang	29	03-Jun-21	01-Jul-21	03-Jun-21	01-Jul-21	209								
Flight		184	29-Dec-20	30-Jun-21	29-Dec-20 A	30-Jun-21	736								
O2_C54A21080	Submit Stage 2 Equipment Submissions: Flight	155	29-Dec-20	01-Jun-21	29-Dec-20 A	01-Jun-21	21								
O2_C54A21090	IC Approve Stage 2 Equipment Submission: Flight	29	02-Jun-21	30-Jun-21	02-Jun-21	30-Jun-21	736								
Priority 2		151	28-Jan-21	27-Jun-21	28-Jan-21 A	27-Jun-21	739								
O2_C54A21100	Submit Stage 2 AD Equipment Submissions: Priority 2	61	28-Jan-21	29-Mar-21	28-Jan-21 A	29-May-21	21								
O2_C54A21110	IC Approve Stage 2 AD Equipment Submission: Priority 2	29	30-May-21	27-Jun-21	30-May-21	27-Jun-21	739								
Priority 3		188	07-Feb-21	13-Aug-21	07-Feb-21 A	13-Aug-21	692								
O2_C54A21120	Submit Stage 2 AD Equipment Submissions: Priority 3	72	07-Feb-21	19-Apr-21	07-Feb-21 A	18-Jun-21	21								
O2_C54A21130	IC Approve Stage 2 AD Equipment Submission: Priority 3	56	19-Jun-21	13-Aug-21	19-Jun-21	13-Aug-21	692								



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	Remaining Work
	Remaining Work (Critical)
	Actual Work
	Level of Effort
	Primary Baseline
	Baseline Milestone
	Start Milestone

Contract No. EP/SP/86/15
Organic Waste Treatment Facilities, Phase 2
Works Programme 3rd Issue
3-Months Rolling Programme

Date	Revision	Checked	Approved
30-Apr-21			

Activity ID	Activity Name	Original Duration	Baseline Start Date	Baseline Finish Date	Start	Finish	Total Float	2021					
								Apr 21	May 22	Jun 23	Jul 24	Aug 25	
Heating Coils		241	19-Nov-20	17-Jul-21	19-Nov-20 A	17-Jul-21	104						
O2_C54A21140	Submit Stage 2 Equipment Submissions: Heating Coils	117	19-Nov-20	15-Mar-21	19-Nov-20 A	18-Jun-21	104						
O2_C54A21150	IC Approve Stage 2 Equipment Submission: Heating Coils	29	19-Jun-21	17-Jul-21	19-Jun-21	17-Jul-21	104						
C5.7 - DEWATERING AND GRANULATION SYSTEM		205	04-Dec-20	26-Jun-21	04-Dec-20 A	26-Jun-21	267						
Dorset		196	04-Dec-20	17-Jun-21	04-Dec-20 A	17-Jun-21	108						
O2_C57A21000	Submit Stage 2 Equipment Submissions: Dorset	176	04-Dec-20	28-May-21	04-Dec-20 A	19-May-21	23						
O2_C57A21010	IC Approve Stage 2 Equipment Submission: Dorset	29	20-May-21	17-Jun-21	20-May-21	17-Jun-21	108						
Huning		205	04-Dec-20	26-Jun-21	04-Dec-20 A	26-Jun-21	131						
O2_C57A21020	Submit Stage 2 Equipment Submissions: Huning	176	04-Dec-20	28-May-21	04-Dec-20 A	28-May-21	14						
O2_C57A21030	IC Approve Stage 2 Equipment Submission: Huning	29	29-May-21	26-Jun-21	29-May-21	26-Jun-21	131						
Borger		29	01-May-21	29-May-21	01-May-21	29-May-21	295						
O2_C57A21050	IC Approve Stage 2 Equipment Submission: Borger	29	01-May-21	29-May-21	01-May-21	29-May-21	295						
Alfa Laval		147	03-Jan-21	29-May-21	03-Jan-21 A	29-May-21	208						
O2_C57A21060	Submit Stage 2 Equipment Submissions: Alfa Laval	110	03-Jan-21	22-Apr-21	03-Jan-21 A	23-Apr-21 A	208						
O2_C57A21070	IC Approve Stage 2 Equipment Submission: Alfa Laval	29	01-May-21	29-May-21	01-May-21	29-May-21	208						
Wangen		153	18-Jan-21	19-Jun-21	18-Jan-21 A	19-Jun-21	257						
O2_C57A21080	Submit Stage 2 Equipment Submissions: Wangen	110	18-Jan-21	07-May-21	18-Jan-21 A	21-May-21	14						
O2_C57A21090	IC Approve Stage 2 Equipment Submission: Wangen	29	22-May-21	19-Jun-21	22-May-21	19-Jun-21	257						
Prominent		119	02-Feb-21	31-May-21	02-Feb-21 A	31-May-21	291						
O2_C57A21100	Submit Stage 2 Equipment Submissions: Prominent	81	02-Feb-21	23-Apr-21	02-Feb-21 A	02-May-21	27						
O2_C57A21110	IC Approve Stage 2 Equipment Submission: Prominent	29	03-May-21	31-May-21	03-May-21	31-May-21	291						
Priority 2		130	17-Feb-21	26-Jun-21	17-Feb-21 A	26-Jun-21	89						
O2_C57A21120	Submit Stage 2 Dewatering and Granulation Equipment Submissions: Priority 2	61	17-Feb-21	18-Apr-21	17-Feb-21 A	28-May-21	32						
O2_C57A21130	IC Approve Stage 2 Dewatering and Granulation Equipment Submission: Priority 2	29	29-May-21	26-Jun-21	29-May-21	26-Jun-21	89						
Priority 3		57	01-May-21	26-Jun-21	01-May-21	26-Jun-21	89						
O2_C57A21140	Submit Stage 2 Dewatering and Granulation Equipment Submissions: Priority 3	28	01-May-21	28-May-21	01-May-21	28-May-21	32						
O2_C57A21150	IC Approve Stage 2 Dewatering and Granulation Equipment Submission: Priority 3	29	29-May-21	26-Jun-21	29-May-21	26-Jun-21	89						
C5.10 - CONTROL & INSTRUMENTATION WORKS		151	01-Mar-21	29-Jul-21	01-Mar-21 A	29-Jul-21	56						
All Equipment Submissions		151	01-Mar-21	29-Jul-21	01-Mar-21 A	29-Jul-21	56						
O2_C510A21000	Submit Stage 2 C&I Equipment Submissions:	61	01-Mar-21	30-Apr-21	01-Mar-21 A	30-Jun-21	56						
O2_C510A21010	IC Approve Stage 2 C&I Equipment Submission: Priority 2	29	01-Jul-21	29-Jul-21	01-Jul-21	29-Jul-21	56						
STAGE 3 SUBMISSIONS (Process Installation)		97	01-May-21	05-Aug-21	01-May-21	05-Aug-21	167						
C5.2 - STAGE 3 - WASTE RECEIVING, STORAGE AND FEEDING SYSTEM		65	02-Jun-21	05-Aug-21	02-Jun-21	05-Aug-21	96						
SUBMISSION		30	02-Jun-21	01-Jul-21	02-Jun-21	01-Jul-21	96						
O2_C52-A3000	Stage 3 - Waste Receiving, Storage & Feeding System (Clause 5.4.3.9, Specs A)	30	02-Jun-21	01-Jul-21	02-Jun-21	01-Jul-21	96						
IC CHECKING & CERTIFICATION		35	02-Jul-21	05-Aug-21	02-Jul-21	05-Aug-21	96						
O2_C52-A3010	IC Comment on the submitted Waste Receiving, Storage & Feeding System (Clause 5.4.3.9, Specs A)	14	02-Jul-21	15-Jul-21	02-Jul-21	15-Jul-21	96						
O2_C52-A3020	Submit further information for the submitted Waste Receiving, Storage & Feeding System to IC (Clause 5.4.3.9, Specs A)	7	16-Jul-21	22-Jul-21	16-Jul-21	22-Jul-21	96						
O2_C52-A3030	IC Comment on the re-submitted Waste Receiving, Storage & Feeding System (Clause 5.4.3.9, Specs A)	14	23-Jul-21	05-Aug-21	23-Jul-21	05-Aug-21	96						
C5.3 - STAGE 3 - PRE-TREATMENT SYSTEM		65	02-Jun-21	05-Aug-21	02-Jun-21	05-Aug-21	57						
SUBMISSION		30	02-Jun-21	01-Jul-21	02-Jun-21	01-Jul-21	57						
O2_C53-A3000	Stage 3 - Pre-Treatment System (Clause 5.4.3.9, Specs A)	30	02-Jun-21	01-Jul-21	02-Jun-21	01-Jul-21	57						
IC CHECKING & CERTIFICATION		35	02-Jul-21	05-Aug-21	02-Jul-21	05-Aug-21	57						
O2_C53-A3010	IC Comment on the submitted Pre-Treatment System (Clause 5.4.3.9, Specs A)	14	02-Jul-21	15-Jul-21	02-Jul-21	15-Jul-21	57						
O2_C53-A3020	Submit further information for the submitted Pre-Treatment System to IC (Clause 5.4.3.9, Specs A)	7	16-Jul-21	22-Jul-21	16-Jul-21	22-Jul-21	57						
O2_C53-A3030	IC Comment on the re-submitted Pre-Treatment System (Clause 5.4.3.9, Specs A)	14	23-Jul-21	05-Aug-21	23-Jul-21	05-Aug-21	57						
C5.4 - STAGE 3 SUBMISSION - AD SYSTEM		44	19-Jun-21	01-Aug-21	19-Jun-21	01-Aug-21	21						
SUBMISSION		30	19-Jun-21	18-Jul-21	19-Jun-21	18-Jul-21	21						
O2_C54-A3000	Stage 3 - Anaerobic Digestion Treatment System (Clause 5.4.3.9, Specs A)	30	19-Jun-21	18-Jul-21	19-Jun-21	18-Jul-21	21						
IC CHECKING & CERTIFICATION		14	19-Jul-21	01-Aug-21	19-Jul-21	01-Aug-21	21						
O2_C54-A3010	IC Comment on the submitted AD Treatment System (Clause 5.4.3.9, Specs A)	14	19-Jul-21	01-Aug-21	19-Jul-21	01-Aug-21	21						
C5.7 - STAGE 3 - GRANULATION SYSTEM		96	01-May-21	04-Aug-21	01-May-21	04-Aug-21	32						
SUBMISSION		61	01-May-21	30-Jun-21	01-May-21	30-Jun-21	32						
O2_C57-A3000	Stage 3 - Dewatering & Granulation System (Clause 5.4.3.9, Specs A)	61	01-May-21	30-Jun-21	01-May-21	30-Jun-21	32						
IC CHECKING & CERTIFICATION		35	01-Jul-21	04-Aug-21	01-Jul-21	04-Aug-21	32						
O2_C57-A3010	IC Comment on the submitted Dewatering & Granulation System (Clause 5.4.3.9, Specs A)	14	01-Jul-21	14-Jul-21	01-Jul-21	14-Jul-21	32						
O2_C57-A3020	Submit further information for the submitted Dewatering & Granulation System to IC (Clause 5.4.3.9, Specs A)	7	15-Jul-21	21-Jul-21	15-Jul-21	21-Jul-21	32						
O2_C57-A3030	IC Comment on the re-submitted Dewatering & Granulation System (Clause 5.4.3.9, Specs A)	14	22-Jul-21	04-Aug-21	22-Jul-21	04-Aug-21	32						
C5.10 - STAGE 3 - C&I WORKS		24	09-Jul-21	01-Aug-21	09-Jul-21	01-Aug-21	171						
SUBMISSION		24	09-Jul-21	01-Aug-21	09-Jul-21	01-Aug-21	171						
O2_C510-A3000	Stage 3 - Control and Instrumentation Work (Clause 5.4.3.9, Specs A)	24	09-Jul-21	01-Aug-21	09-Jul-21	01-Aug-21	171						
CIVIL, STRUCTURAL AND BUILDING WORKS		725	16-Dec-19	09-Dec-21	16-Dec-19 A	09-Dec-21	205						
RECEPTION BUILDING (INCLUDING ADMINISTRATION BUILDING)		235	20-Nov-20	06-Oct-21	20-Nov-20 A	06-Oct-21	4						
RC WORKS - RECEPTION BUILDING @ GL SD-SJ/S1-S7 (INCLUDING VEHICLE WASHING AREA) (ZONE 1)		235	20-Nov-20	06-Oct-21	20-Nov-20 A	06-Oct-21	4						
O2_CS2050a	Columns and Walls +38.325mPD	145	20-Nov-20	31-May-21	20-Nov-20 A	31-May-21	2						
O2_CS2070a	Ground slab and beams to +38.625mPD	40	01-Jun-21	27-Jul-21	01-Jun-21	27-Jul-21	2						
O2_CS2080a	Remove scaffold to G/F and prepare underground tank for watertightness test	14	28-Jul-21	16-Aug-21	28-Jul-21	16-Aug-21	2						
O2_CS2090	Columns, Walls and Roof (RF) to +47.075mPD (grid SD-SJ/S1-S7)	50	28-Jul-21	06-Oct-21	28-Jul-21	06-Oct-21	4						
RC WORKS - ADMINISTRATION BUILDING @ GL SA-SD/S2-S7 (INCLUDING STAIRCASE AREA) (ZONE 1)		186	16-Dec-20	28-Aug-21	16-Dec-20 A	28-Aug-21	15						
O2_CS2240	Ground Floor +38.625m (incl staircase area) +36.775mPD (Lift Pit)	114	16-Dec-20	18-May-21	16-Dec-20 A	18-May-21	15						



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Contract No. EP/SP/86/15
Organic Waste Treatment Facilities, Phase 2
Works Programme 3rd Issue
3-Months Rolling Programme

Date	Revision	Checked	Approved
30-Apr-21			

Activity ID	Activity Name	Original Duration	Baseline Start Date	Baseline Finish Date	Start	Finish	Total Float	2021							
								Apr 21	May 22	Jun 23	Jul 24	Aug 25			
O2_CS2250	Columns, Walls and Slab to +43.225mPD (GF) (incl staircase area)	36	20-May-21	09-Jul-21	20-May-21	09-Jul-21	15								
O2_CS2260	Columns, Walls and Slab to +47.075mPD (1/F) (incl staircase area)	36	10-Jul-21	28-Aug-21	10-Jul-21	28-Aug-21	15								
ANAEROBIC DIGESTION TANKS (4 AD Tanks)		284	02-Dec-20	11-Sep-21	02-Dec-20 A	11-Sep-21	76								
AD TANKS - FOUNDATION (FIRST 2 TANKS) (ZONE 2)		262	02-Dec-20	20-Aug-21	02-Dec-20 A	20-Aug-21	53								
O2_EM3130e	New Heating Plate Delivered	0		08-Mar-21		08-Mar-21 A									
AD TANKS - RC WORKS FIRST TANK (DIGESTER 4)		184	02-Dec-20	09-Aug-21	02-Dec-20 A	09-Aug-21	0								
O2_CS3140	1st Lift of Chamber Wall for Tanks (5m height)	94	02-Dec-20	31-Mar-21	02-Dec-20 A	04-May-21	0								
O2_CS3150	2nd Lift of Chamber Wall for Tanks (5m height)	33	05-May-21	21-Jun-21	05-May-21	21-Jun-21	0								
O2_CS3160	3rd Lift of Chamber Wall for Tanks (5m height)	35	22-Jun-21	09-Aug-21	22-Jun-21	09-Aug-21	0								
AD TANKS - RC WORKS SECOND TANK (DIGESTER 2)		98	31-Mar-21	20-Aug-21	15-Mar-21 A	20-Aug-21	38								
O2_CS3130	Second Mold on Site	0		31-Mar-21		15-Mar-21 A									
O2_CS3140a	1st Lift of Chamber Wall for Tanks (5m height)	20	01-Apr-21	28-Apr-21	16-Mar-21 A	18-May-21	38								
O2_CS3150a	2nd Lift of Chamber Wall for Tanks (5m height)	33	20-May-21	05-Jul-21	20-May-21	05-Jul-21	38								
O2_CS3160a	3rd Lift of Chamber Wall for Tanks (5m height)	33	07-Jul-21	20-Aug-21	07-Jul-21	20-Aug-21	38								
AD TANKS - FOUNDATION & RC WORKS (REMAINING 2 TANKS) (ZONE 2)		52	02-Jul-21	11-Sep-21	02-Jul-21	11-Sep-21	60								
AD TANKS - RC WORKS THIRD TANK (DIGESTER 3)		20	03-Jul-21	29-Jul-21	03-Jul-21	29-Jul-21	3								
O2_CS3210a	1st Lift of Chamber Wall for Tanks (5m height)	20	03-Jul-21	29-Jul-21	03-Jul-21	29-Jul-21	3								
AD TANKS - RC WORKS FOURTH TANK (DIGESTER 1)		52	02-Jul-21	11-Sep-21	02-Jul-21	11-Sep-21	60								
O2_CS3210b	1st Lift of Chamber Wall for Tanks (5m height)	20	02-Jul-21	28-Jul-21	02-Jul-21	28-Jul-21	60								
O2_CS3211b	2nd Lift of Chamber Wall for Tanks (5m height)	32	29-Jul-21	11-Sep-21	29-Jul-21	11-Sep-21	60								
BIOGAS STORAGE TANKS, DIGESTATE TANK & PUMP ROOM		50	18-Jun-21	25-Aug-21	18-Jun-21	25-Aug-21	103								
BIOGAS STORAGE TANKS (ZONE 2)		7	18-Jun-21	26-Jun-21	18-Jun-21	26-Jun-21	146								
O2_CS3610a	Plint for Biogas Storage Tanks	7	18-Jun-21	26-Jun-21	18-Jun-21	26-Jun-21	146								
DIGESTATE TANK (ZONE 2)		40	02-Jul-21	25-Aug-21	02-Jul-21	25-Aug-21	44								
O2_CS3620a	1st Lift of Chamber Wall for Tanks (4m height)	20	02-Jul-21	28-Jul-21	02-Jul-21	28-Jul-21	44								
O2_CS3621a	2nd Lift of Chamber Wall for Tanks (4m height)	20	29-Jul-21	25-Aug-21	29-Jul-21	25-Aug-21	44								
BOUNDARY WALL (ZONE 2)		30	04-May-21	15-Jun-21	04-May-21	15-Jun-21	282								
O2_CS3840	Backfilling	30	04-May-21	15-Jun-21	04-May-21	15-Jun-21	282								
GRANULATION BUILDING & FACILITIES		195	21-Dec-20	15-Sep-21	21-Dec-20 A	15-Sep-21	0								
SUBSTRUCTURE (GL NA-NI/N1-N7)		169	21-Dec-20	10-Aug-21	21-Dec-20 A	10-Aug-21	0								
O2_CS4070	Construct Base Slab +31.050mPD	99	21-Dec-20	30-Apr-21	21-Dec-20 A	07-May-21	10								
O2_CS4080	Column and Wall up to +38.075mPD	46	18-May-21	21-Jul-21	18-May-21	21-Jul-21	0								
O2_CS4090	Remove scaffold (column & wall up to +38.075mPD)	14	23-Jul-21	10-Aug-21	23-Jul-21	10-Aug-21	0								
O2_CS4095a	Tower Crane Erection	12	22-Jun-21	08-Jul-21	22-Jun-21	08-Jul-21	10								
RC WORKS - WASTE WATER TREATMENT PLANT & GRANULATION HALL (GL NA-NI/N1-N7) (ZONE 4 & 5)		40	23-Jul-21	15-Sep-21	23-Jul-21	15-Sep-21	0								
O2_CS4200	Ground Floor Slab & Beams at +38.575mPD (GF)	40	23-Jul-21	15-Sep-21	23-Jul-21	15-Sep-21	0								
EXTERNAL WORKS		540	16-Dec-19	09-Dec-21	16-Dec-19 A	09-Dec-21	150								
O2_CS6060	Standby Flare slab (incl. mini-piling)	379	16-Dec-19	06-May-21	16-Dec-19 A	05-Jun-21	150								
O2_CS6110	Geotechnical Works (slope stabilization etc.)	140	07-Jun-21	09-Dec-21	07-Jun-21	09-Dec-21	150								
OTHER MAJOR EQUIPMENT FABRICATION & DELIVERY		457	10-May-21	09-Aug-22	10-May-21	09-Aug-22	331								
O2_D9000	Procurement, Fabrication & Delivery of Pre-treatment Equipment (Summary of C52-P1280 to C53-P3200)	405	17-May-21	25-Jun-22	17-May-21	25-Jun-22	23								
O2_D9005a	Procurement, Fabrication & Delivery of Waking Floor System (Summary of C52-P1200 to C52-P1260)	225	17-May-21	27-Dec-21	17-May-21	27-Dec-21	109								
O2_D9010a	Procurement, Fabrication & Delivery of Hammermills & Containment Press (Summary of C53-P5200 & C53-P4200)	250	17-May-21	21-Jan-22	17-May-21	21-Jan-22	20								
O2_D9020	Procurement, Fabrication & Delivery of Heating Coils for Digesters	180	18-Jul-21	13-Jan-22	18-Jul-21	13-Jan-22	104								
O2_D9021a	Procurement, Fabrication & Delivery of Anaerobic Digestion Equipment (Summary of C54-P1200 to C54-P1220)	389	06-Jun-21	29-Jun-22	06-Jun-21	29-Jun-22	372								
O2_D9023a	Procurement, Fabrication & Delivery of Gas Holders, Conditioning Plant & Asso. Equipment (C54-P2200 & C54-P2220)	444	10-May-21	27-Jul-22	10-May-21	27-Jul-22	344								
O2_D9025a	Procurement, Fabrication & Delivery of Flare	270	25-Jul-21	20-Apr-22	25-Jul-21	20-Apr-22	29								
O2_D9030	Procurement & Fabrication of CHP Units	300	22-Jun-21	17-Apr-22	22-Jun-21	17-Apr-22	12								
O2_D9060a	Procurement, Fabrication & Delivery of Granulation Equipment (Summary of C57-P1200 to C57-P7210)	424	12-Jun-21	09-Aug-22	12-Jun-21	09-Aug-22	331								
O2_D9080	Procurement, Fabrication & Delivery of Centralized Air Pollution Control Equipment	240	17-Jul-21	13-Mar-22	17-Jul-21	13-Mar-22	39								
O2_D9100	Procurement, Fabrication & Delivery of Wastewater Treatment Equipment	260	12-Jun-21	26-Feb-22	12-Jun-21	26-Feb-22	19								
O2_D9130	Procurement & Fabrication of HV Transformers	260	18-Jul-21	03-Apr-22	18-Jul-21	03-Apr-22	6								
O2_D9160	Procurement, Fabrication & Delivery of HV Switchboards	270	18-Jul-21	13-Apr-22	18-Jul-21	13-Apr-22	26								
O2_D9170	Procurement & Fabrication of LV Switchboards & MCC	270	19-Jul-21	14-Apr-22	19-Jul-21	14-Apr-22	30								
O2_D9200a	Procurement & Fabrication of SCADA System & Asso. Control Panels / Consoles	230	13-Jul-21	27-Feb-22	13-Jul-21	27-Feb-22	71								
O2_D9250	Procurement, Fabrication & Delivery of Odour Control Ducts	180	17-Jul-21	12-Jan-22	17-Jul-21	12-Jan-22	29								
O2_D9270	Procurement, Fabrication & Delivery of Lifting Beams / Monorail Crane	240	28-Jul-21	24-Mar-22	28-Jul-21	24-Mar-22	28								
O2_D9280	Procurement, Fabrication & Delivery of P/D Equipment / Material	240	01-Jul-21	25-Feb-22	01-Jul-21	25-Feb-22	90								
O2_D9300	Procurement, Fabrication & Delivery of Cooling Tower / Chillers	300	23-Jun-21	18-Apr-22	23-Jun-21	18-Apr-22	70								
O2_D9330a	Procurement, Fabrication & Delivery of Electrical Equipment / Material	240	18-Jul-21	14-Mar-22	18-Jul-21	14-Mar-22	38								
O2_D9340	Procurement, Fabrication & Delivery of ELV, ACS & CCTV	240	18-Jul-21	14-Mar-22	18-Jul-21	14-Mar-22	73								
O2_D9360	Procurement, Fabrication & Delivery of Lifts	240	17-Jul-21	13-Mar-22	17-Jul-21	13-Mar-22	21								
O2_D9380	Procurement, Fabrication & Delivery of FS Equipment	240	12-Jun-21	06-Feb-22	12-Jun-21	06-Feb-22	126								
O2_D9400	Procurement, Fabrication & Delivery of Vehicle Washing Plant	240	28-Jul-21	24-Mar-22	28-Jul-21	24-Mar-22	98								
O2_D9420	Procurement, Fabrication & Delivery of Weightbridge	240	28-Jul-21	24-Mar-22	28-Jul-21	24-Mar-22	18								
O2_D9450	Procurement, Fabrication & Delivery of Chemical Storage & Dosing System	180	12-Jun-21	08-Dec-21	12-Jun-21	08-Dec-21	575								
E & M INSTALLATION WORKS		426	17-Jul-20	25-Nov-21	17-Jul-20 A	25-Nov-21	35								
O2_EM0020	Installation of Earth Mat - Granulation Bldg (before base slab)	426	17-Jul-20	25-Nov-21	17-Jul-20 A	25-Nov-21	4								
O2_EM0030	Installation of Conical Conduits	140	19-May-21	28-Oct-21	19-May-21	28-Oct-21	20								
SITE ACCESS DATES FOR E&M INSTALLATION		0	26-Jun-21	26-Jun-21	26-Jun-21	26-Jun-21	165								



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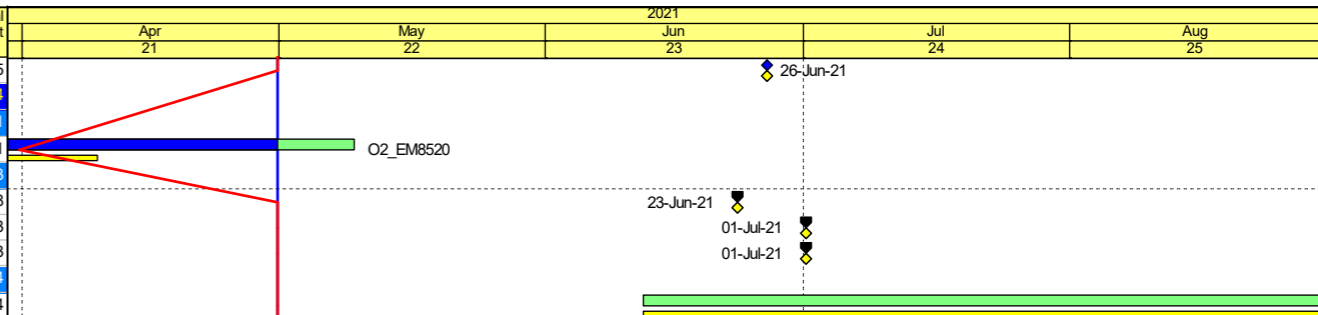
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- Remaining Work
- Remaining Work (Critical)
- Actual Work
- Level of Effort
- Primary Baseline
- Baseline Milestone
- Start Milestone

Contract No. EP/SP/86/15
Organic Waste Treatment Facilities, Phase 2
Works Programme 3rd Issue
3-Months Rolling Programme

Date	Revision	Checked	Approved
30-Apr-21			

Activity ID	Activity Name	Original Duration	Baseline Start Date	Baseline Finish Date	Start	Finish	Total Float	2021						
								Apr 21	May 22	Jun 23	Jul 24	Aug 25		
O2_EMA2060	Handover to E&M Works, Zone 2 - Biogas Storage Tanks Area	0		26-Jun-21		26-Jun-21	165							
STATUTORY INSPECTION (FSD, WA, EMSD)		553	03-Aug-20	06-Feb-22	03-Aug-20 A	06-Feb-22	14							
NGI - EMSD		250	03-Aug-20	09-Apr-21	03-Aug-20 A	09-May-21	241							
O2_EM8520	Application for Construction Approval of NGI - Gas Holder (Form 104)	250	03-Aug-20	09-Apr-21	03-Aug-20 A	09-May-21	241							
PLUMBING - WSD		8	23-Jun-21	01-Jul-21	23-Jun-21	01-Jul-21	123							
O2_EM8600	Submission of WWO46 Pt I & II (A/C Water Supply)	0	23-Jun-21		23-Jun-21		128							
O2_EM8700	Submission of WWO46 Pt I & II (FS)	0	01-Jul-21		01-Jul-21		123							
O2_EM8710	Submission of WWO46 Pt I & II (Plumbing)	0	01-Jul-21		01-Jul-21		123							
ENVIRONMENTAL PROTECTION - EPD		240	12-Jun-21	06-Feb-22	12-Jun-21	06-Feb-22	14							
O2_EM8930	EPD Submission & Approval for Air Pollution Control - Genset (Clause 2.4.13, Specs A)	240	12-Jun-21	06-Feb-22	12-Jun-21	06-Feb-22	14							



File Name: WP_03.2021-3M.04A
 Layout: ORRC2_WP_2021_3M
 Task filter: TASK filters: 3MK, 3MN, 3MRP.
 Date Printed: 14-May-21
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- Remaining Work
- Remaining Work (Critical)
- Actual Work
- Level of Effort
- Primary Baseline
- Baseline Milestone
- Start Milestone

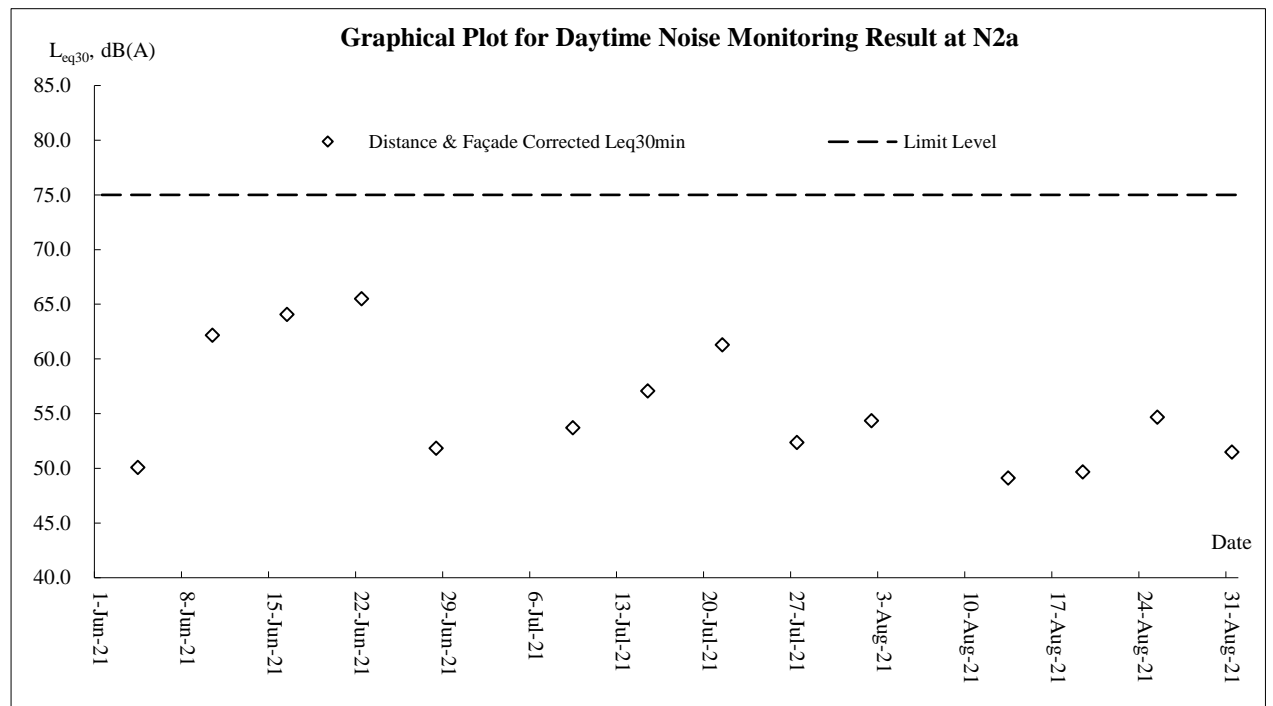
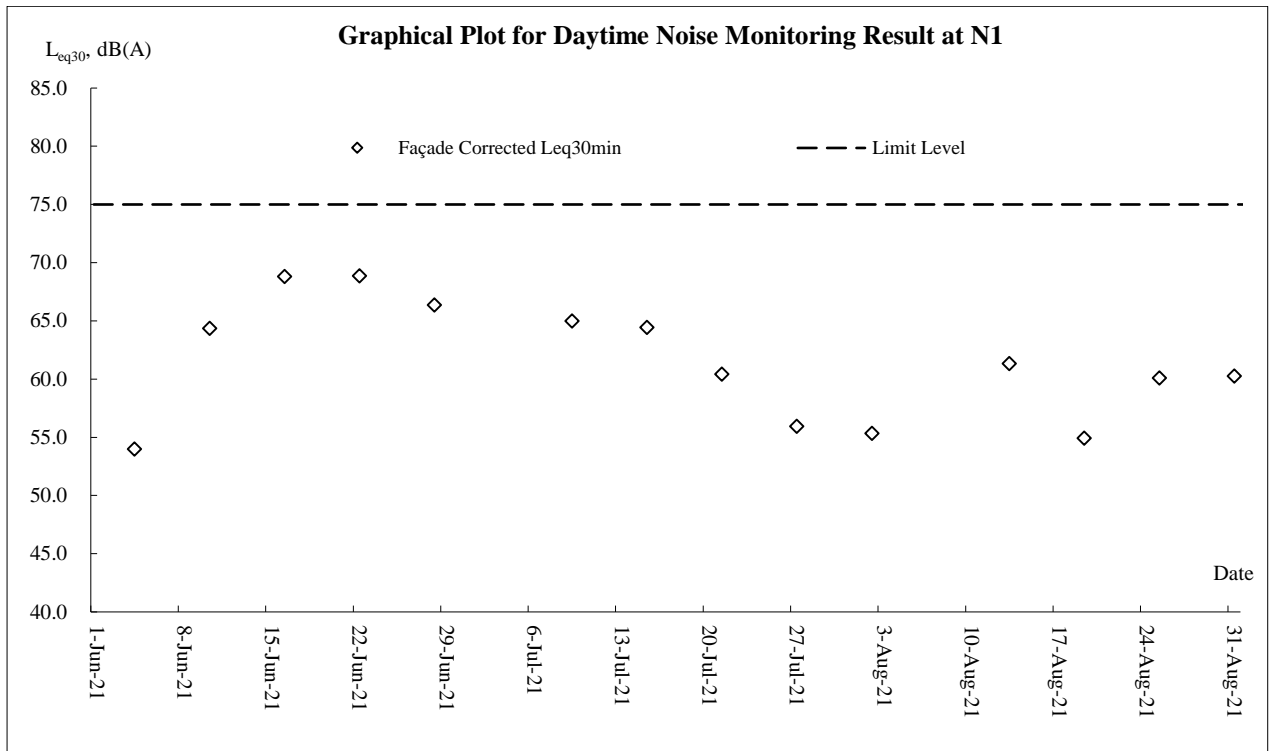
Contract No. EP/SP/86/15
Organic Waste Treatment Facilities, Phase 2
Works Programme 3rd Issue
3-Months Rolling Programme

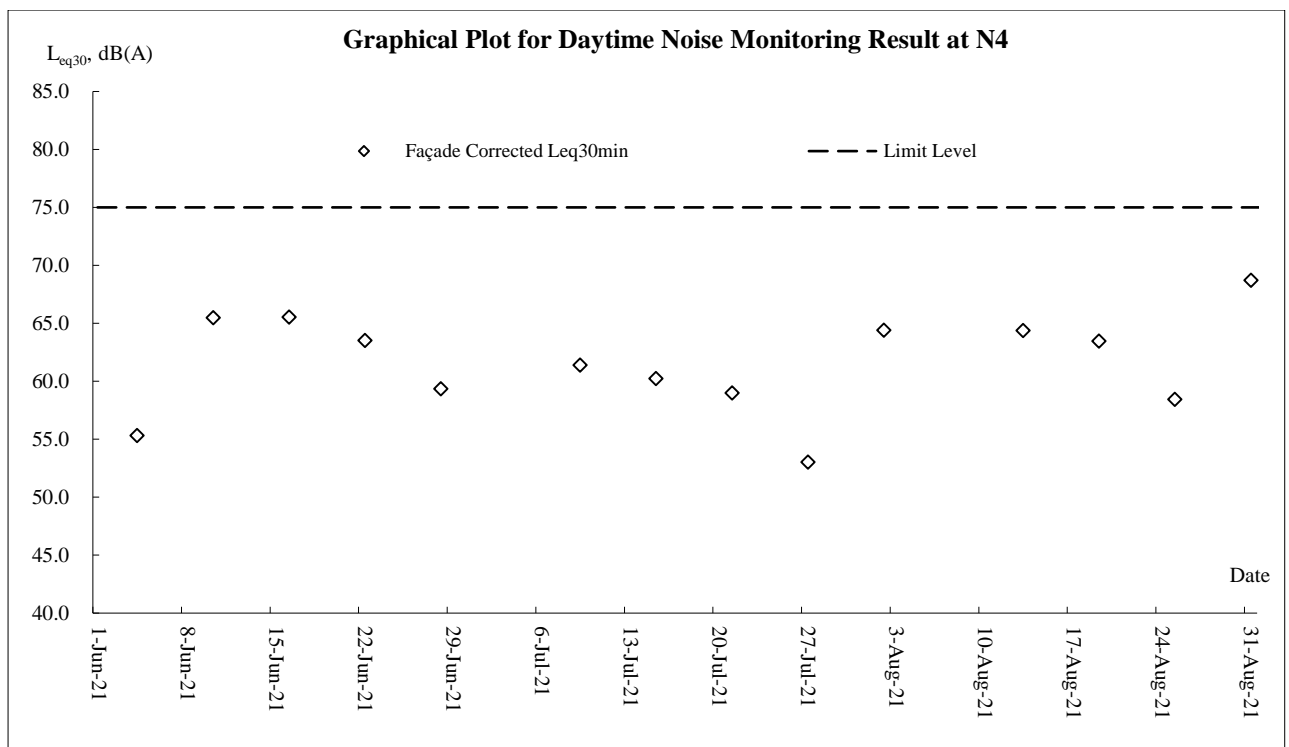
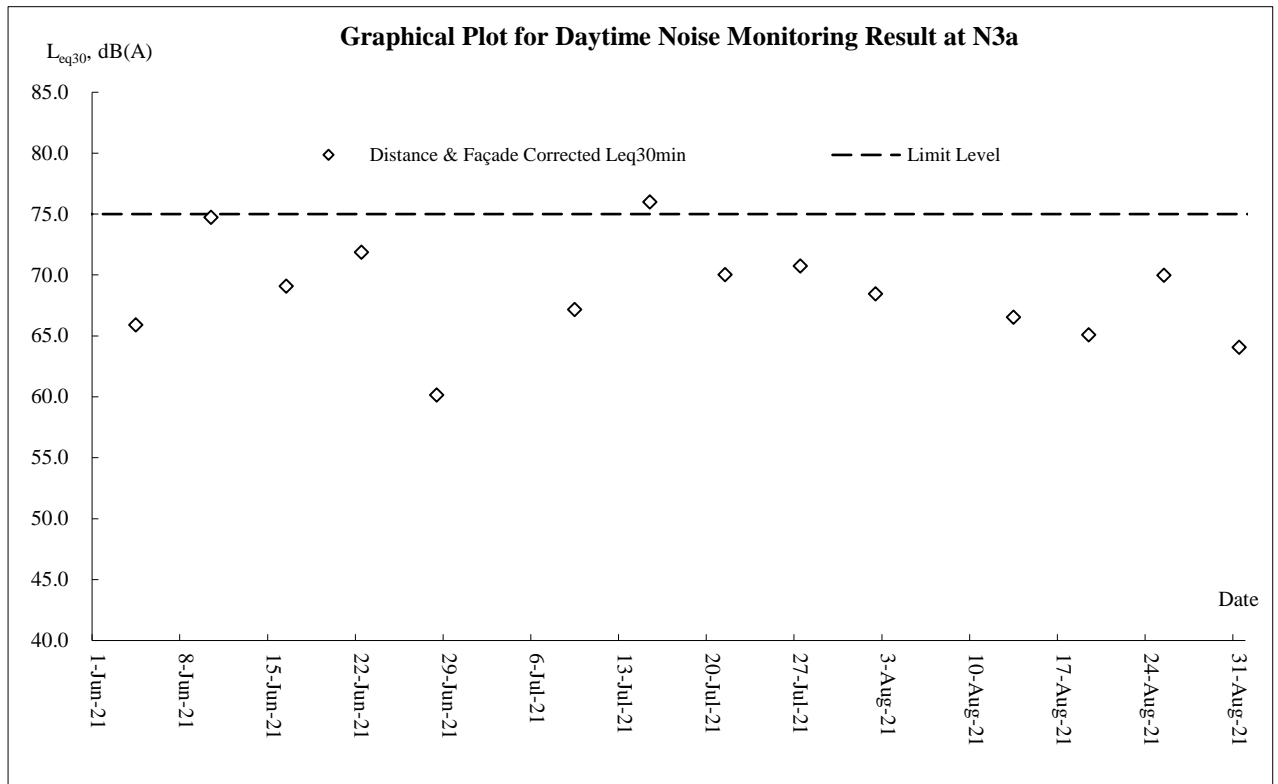
Date	Revision	Checked	Approved
30-Apr-21			

Appendix E

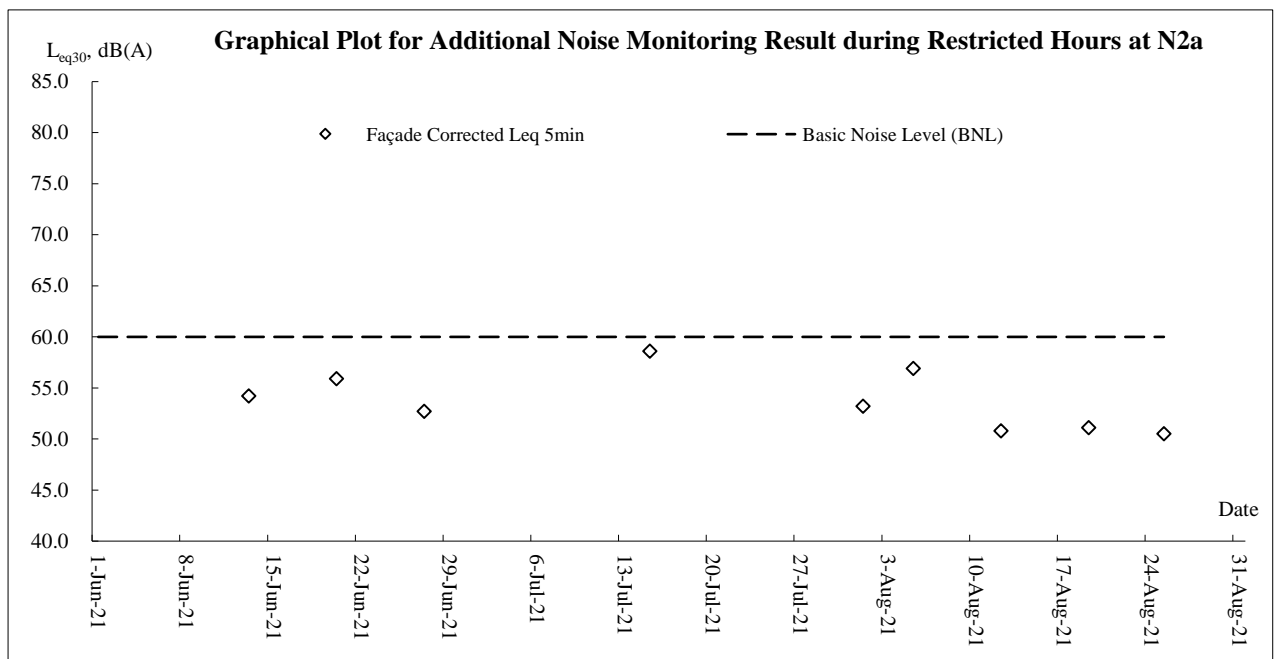
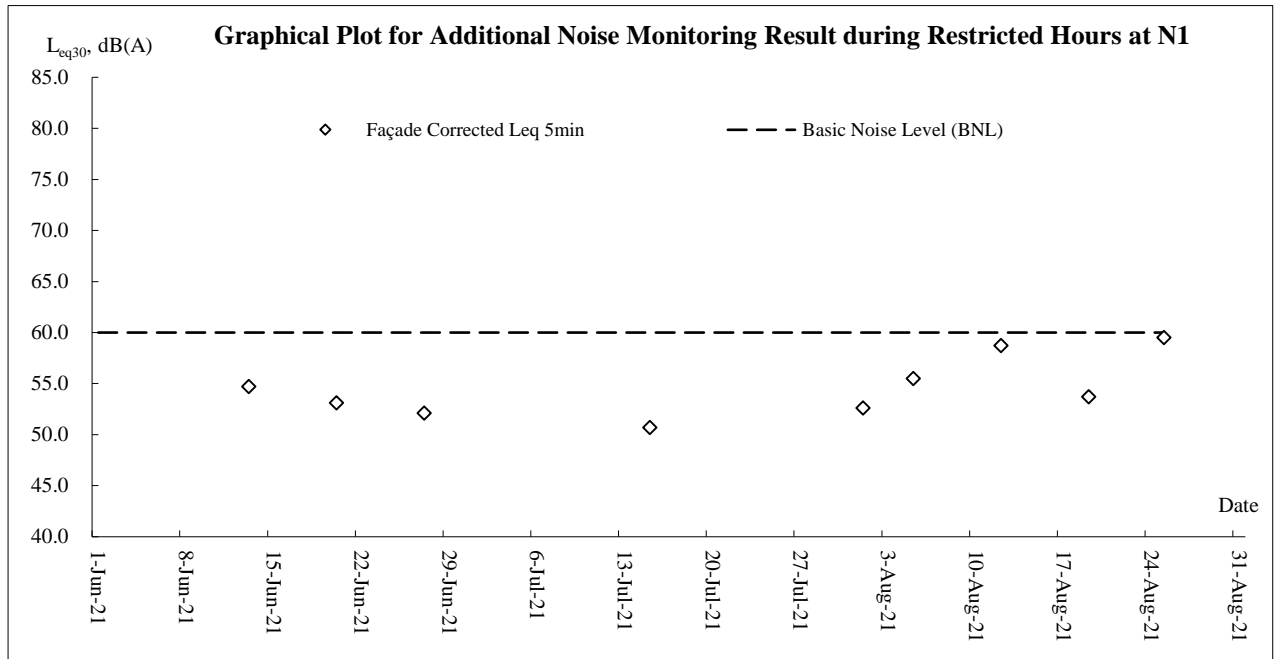
Graphical Plots of Monitoring Results

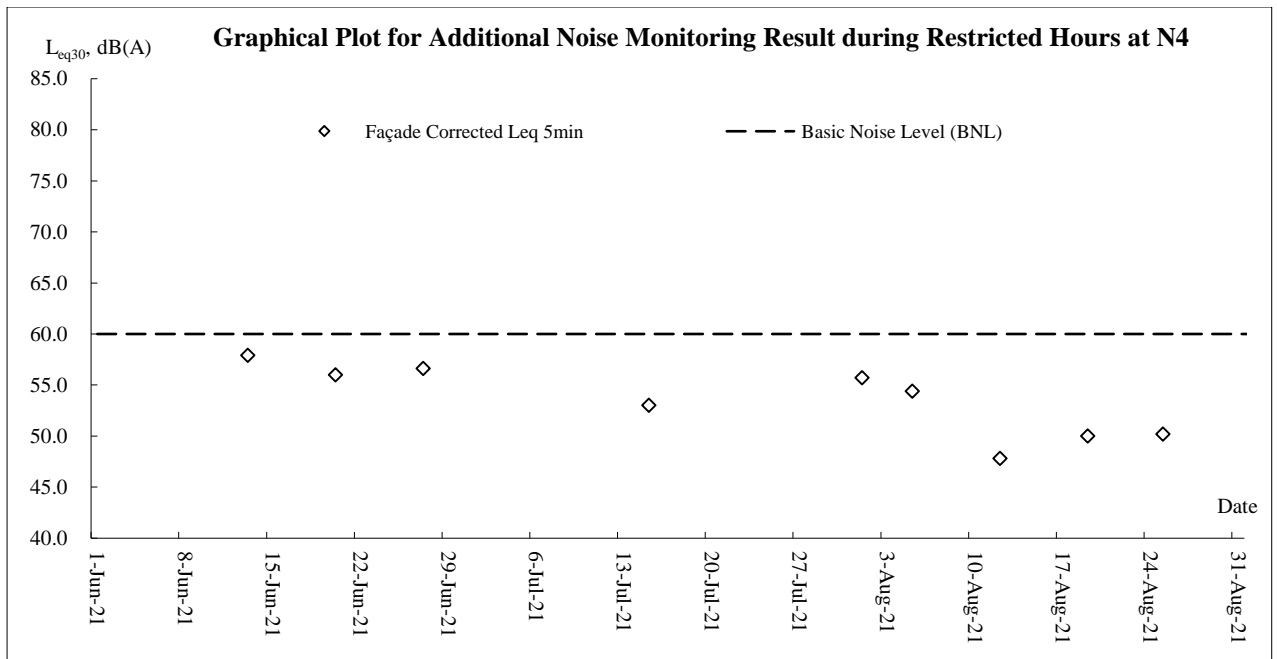
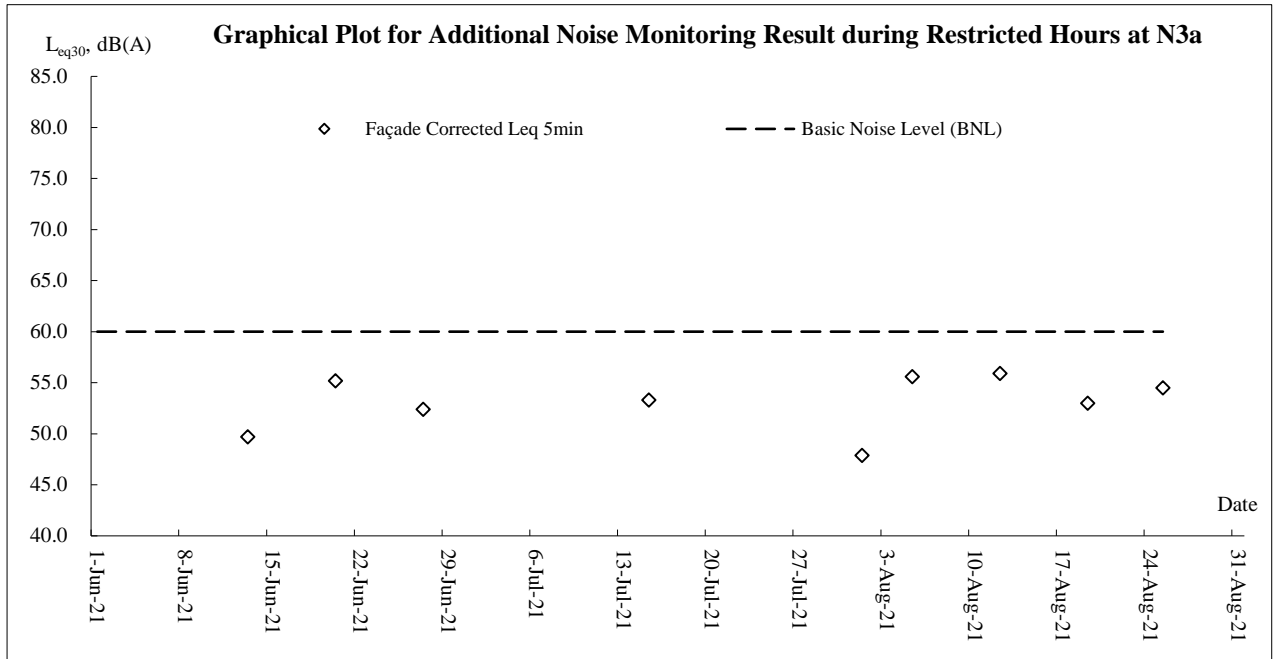
Construction Noise





Additional Noise Monitoring





Appendix F

Meteorological Information

The weather of June 2021

June 2021 was marked by the long awaited rainy weather brought by tropical cyclone Koguma, troughs of low pressure and the active southwesterly airstream. The monthly rainfall of June 2021 was 628.0 millimetres, about 28 percent above the normal of 491.5 millimetres (or 38 percent above the 1981-2010 normal of 456.1 millimetres). The abundant rainfall in the month alleviated the very dry condition of Hong Kong in the last few months. The accumulated rainfall recorded in the first half of the year was 791.1 millimetres, a deficit of 27 percent compared to the normal of 1082.5 millimetres (or 28 percent below the 1981-2010 normal of 1096.9 millimetres). The month was also warmer than usual with a mean temperature of 28.8 degrees, 0.5 degrees above the normal figure of 28.3 degrees (or 0.9 degrees above the 1981-2010 normals). Mainly attributing to the well above normal temperatures in the previous four months, the first half of this year from January to June 2021 was exceptionally warm. The mean maximum temperature of 26.3 degrees, mean temperature of 23.3 degrees and mean minimum temperature of 21.3 degrees were all the highest on record for the same period.

The weather of July 2021

Owing to the stronger than normal upper-air anticyclone over southern China, July 2021 was unusually hot in Hong Kong. The monthly mean minimum temperature of 27.7 degrees, monthly mean maximum temperature of 32.6 degrees and monthly mean temperature of 29.7 degrees were 0.8 degrees, 1.0 degree and 0.8 degrees above their corresponding normals (or 0.9 degrees, 1.2 degrees and 0.9 degrees above their corresponding 1981-2010 normals) and respectively the second, third and fourth highest on record for July. The monthly rainfall was 379.5 millimetres, slightly below the normal figure of 385.8 millimetres (or slightly above the 1981-2010 normal of 376.5 millimetres). The accumulated rainfall recorded in the first seven months of the year was 1170.6 millimetres, about 20 percent below the normal figure of 1468.2 millimetres (or 21 percent below the 1981-2010 normal of 1473.3 millimetres) for the same period.

The weather of August 2021

August 2021 was characterized by cloudier than usual weather with localized heavy rain over parts of the New Territories. The mean amount of cloud in the month was 77 percent, 7 percent above the normal of 70 percent. As for monthly rainfall, while over 600 millimetres of rainfall were recorded in parts of the North District of the New Territories, the monthly rainfall recorded at the Observatory was 350.5 millimetres, about 23 percent below the normal figure of 453.2 millimetres (or 19 percent below the 1981-2010 normal of 432.2 millimetres). The accumulated rainfall recorded in the first eight months of the year was 1521.1 millimetres, about 21 percent below the normal figure of 1921.5 millimetres (or 20 percent below the 1981-2010 normal of 1905.5 millimetres) for the same period. The monthly mean temperature of 28.8 degrees was near the normal figure of 28.7 degrees (or 0.2 degrees above the 1981-2010 normal). Mainly attributing to the exceptionally hot weather in July 2021, the summer of this year from June to August was much hotter than usual. The mean temperature of 29.1 degrees was the sixth highest on record for the same period.

Appendix G

Waste Flow Table

Name of Department : EPD
 Contract No: EP/SP/86/15

Monthly Summary Waste Flow Table for August 2021

Version: 0

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantity of C&D Wastes Generated Monthly				
	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects (see Note 10)	Disposed as Public Fill	Imported Fill	Metals	Paper/ cardboard packaging (see Notes 4)	Plastics (see Notes 2 &4)	Chemical Waste	Others, eg. general refuse
	(in '000m3)	(in '000m3)	(in '000m3)	(in '000m3)	(in '000m3)	(in '000m3)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m3)
sub-total up to 2020	87.905	0.000	0.000	82.531	5.209	0.165	317.086	1.174	0.045	0.000	0.343
Jan-21	0.084	0.000	0.000	0.000	0.016	0.068	0.000	0.000	0.000	0.000	0.007
Feb-21	0.014	0.000	0.000	0.000	0.014	0.000	20.400	0.013	0.651	0.000	0.007
Mar-21	0.008	0.000	0.000	0.000	0.008	0.000	0.000	0.000	0.000	0.000	0.022
Apr-21	0.023	0.000	0.000	0.000	0.023	0.000	0.000	0.051	0.000	0.000	0.034
May-21	0.036	0.000	0.000	0.000	0.036	0.000	0.000	0.000	0.000	0.000	0.043
Jun-21	0.013	0.000	0.000	0.000	0.013	0.000	0.000	0.012	0.004	0.000	0.060
Sub total (since 2019)	88.083	0.000	0.000	82.531	5.319	0.233	337.486	1.250	0.700	0.000	0.516
Jul-21	0.014	0.000	0.000	0.000	0.014	0.000	0.000	0.000	0.000	0.000	0.059
Aug-21	0.528	0.000	0.000	0.457	0.071	0.000	0.000	0.000	0.000	0.000	0.102
Sep-21											
Oct-21											
Nov-21											
Dec-21											
Total (since 2019)	88.625	0.000	0.000	82.988	5.404	0.233	337.486	1.250	0.700	0.000	0.677

Appendix H

Environmental Mitigation Implementation Schedule (Extracted from EM&A Manual)

EIA Ref.	EM&A Ref.	Environmental Protection Measures	Location / Duration of measures / Timing of completion of measures	Implementation Agent	Implementation Stage ¹				Relevant Legislation & Guidelines
					Des	Con	Op	Dec	
Air Quality Impact (Construction)									
3.8.1.1	2.4	<p>General Dust Control Measures</p> <p>Dust emissions could be suppressed by regular water spraying on site. In general, water spraying twice a day could reduce dust emission from active construction area by 50%. However, for the Project more frequent water spraying is proposed. Watering eight times per day, or once every 1.5 hours, is suggested at all active works areas in order to achieve a higher dust suppression efficiency of 87.5%.</p>	Within construction site / Duration of the construction phase	Contractor		✓			EIA Recommendation and Air Pollution Control (Construction Dust) Regulation
3.8.1.2	2.4	<p>Best Practice For Dust Control</p> <p>The relevant best practices for dust control as stipulated in the <i>Air Pollution Control (construction Dust) Regulation</i> should be adopted to further reduce the construction dust impacts of the Project. These best practices include:</p> <p><i>Good Site Management</i></p> <ul style="list-style-type: none"> ▪ Good site management is important to help reducing potential air quality impact down to an acceptable level. As a general guide, the Contractor should maintain a high standard of housekeeping to prevent emissions of fugitive dust. Loading, unloading, handling and storage of raw materials, wastes or by-products should be carried out in a manner so as to minimise the release of visible dust emission. Any piles of materials accumulated on or around the work areas should be cleaned up regularly. Cleaning, repair and maintenance of all plant facilities within the work areas should be carried out in a manner minimising generation of fugitive dust emissions. The material should be handled properly to prevent fugitive dust emission before cleaning. <p><i>Disturbed Parts of the Roads</i></p> <ul style="list-style-type: none"> ▪ Each and every main temporary access should be paved with concrete, bituminous hardcore materials or metal plates and kept clear of dusty materials; or ▪ Unpaved parts of the road should be sprayed with water or a dust suppression chemical so as to keep the entire road 	Within construction site / Duration of the construction phase	Contractor		✓			EIA Recommendation and Air Pollution Control (Construction Dust) Regulation

EIA Ref.	EM&A Ref.	Environmental Protection Measures	Location / Duration of measures / Timing of completion of measures	Implementation Agent	Implementation Stage ¹				Relevant Legislation & Guidelines
					Des	Con	Op	Dec	
		surface wet. <i>Exposed Earth</i> <ul style="list-style-type: none"> Exposed earth should be properly treated by compaction, hydroseeding, vegetation planting or seeding with latex, vinyl, bitumen within six months after the last construction activity on the site or part of the site where the exposed earth lies. <i>Loading, Unloading or Transfer of Dusty Materials</i> <ul style="list-style-type: none"> All dusty materials should be sprayed with water immediately prior to any loading or transfer operation so as to keep the dusty material wet. <i>Debris Handling</i> <ul style="list-style-type: none"> Any debris should be covered entirely by impervious sheeting or stored in a debris collection area sheltered on the top and the three sides. Before debris is dumped into a chute, water should be sprayed so that it remains wet when it is dumped. <i>Transport of Dusty Materials</i> <ul style="list-style-type: none"> Vehicle used for transporting dusty materials/spoils should be covered with tarpaulin or similar material. The cover should extend over the edges of the sides and tailboards. <i>Wheel washing</i> <ul style="list-style-type: none"> Vehicle wheel washing facilities should be provided at each construction site exit. Immediately before leaving the construction site, every vehicle should be washed to remove any dusty materials from its body and wheels. <i>Use of vehicles</i> <ul style="list-style-type: none"> The speed of the trucks within the site should be controlled to about 10km/hour in order to reduce adverse dust impacts and secure the safe movement around the site. Immediately before leaving the construction site, every vehicle should be washed to remove any dusty materials from its body and wheels. Where a vehicle leaving the construction site is carrying a load of dusty materials, the load should be covered entirely 							

EIA Ref.	EM&A Ref.	Environmental Protection Measures	Location / Duration of measures / Timing of completion of measures	Implementation Agent	Implementation Stage ¹				Relevant Legislation & Guidelines
					Des	Con	Op	Dec	
		by clean impervious sheeting to ensure that the dusty materials do not leak from the vehicle. <i>Site hoarding</i> <ul style="list-style-type: none"> Where a site boundary adjoins a road, street, service lane or other area accessible to the public, hoarding of not less than 2.4m high from ground level should be provided along the entire length of that portion of the site boundary except for a site entrance or exit. 							
Air Quality Impact (Operation)									
3.8.2	2.3	Odour patrol at site boundary of the Project	Site boundary / During operation stage (the need to continue the odour patrol after the end of the 2-year monitoring period would depend on the monitoring results and should be agreed with EPD)	OWTF Operator	✓		✓		EIAO-TM
3.8.2	2.4	Install gas cleaning equipment and stack on the CHP and odour treatment unit <ul style="list-style-type: none"> The preliminary design suggests the use of a two stage process involving either a biofilter or Ultraviolet Light (UV-C) together with ozone treatment as the first stage, and an activated carbon filter as the second stage for the odour treatment unit. It is recommended to install the UV-C and ozone treatment system with second stage active carbon filters as this has a lower footprint requirement than the biofilter option. However, the actual unit installed depends on the final design by the contractor in the design phase. The preliminary design incorporates a combination of thermal and catalytic treatment processes to remove pollutants from the exhaust gasses from the CHP. Both the odour treatment unit and the CHP emissions are suggested to be directed to a flue to aid the dispersion and minimise effects on ASRs. 	CHP and odour treatment unit	Design Consultant / OWTF Operator	✓		✓		EIA Recommendation
Hazard Risk Assessment (Operation)									

EIA Ref.	EM&A Ref.	Environmental Protection Measures	Location / Duration of measures / Timing of completion of measures	Implementation Agent	Implementation Stage ¹				Relevant Legislation & Guidelines
					Des	Con	Op	Dec	
4.9	3.2	<p>The HA has assumed that the following “Good Practices” and “recommended design measures” for the safe operation of OWTF 2 shall be carried out as far as reasonably practicable:</p> <ul style="list-style-type: none"> ▪ The process plant building will be provided with adequate number of gas detectors distributed over the various areas of potential leak sources to provide adequate coverage. ▪ All electrical equipment inside the building will be classified in accordance with the electrical area classification requirements. No unclassified electrical equipment will be used during operations or maintenance. ▪ Reference can be made to Codes of Practice and guidance issued in Europe that applies to places where explosive atmospheres may occur (called ‘ATEX’ requirements). These are covered as part of the European Directive: the Explosive Atmospheres Directive (99/92/EC) and the UK regulations, Dangerous Substances and Explosive Atmospheres Regulations 2002 (DSEAR). Where potentially explosive atmospheres may occur in the workplace, the requirements include, identifying and classifying (zoning) areas where potentially explosive atmospheres may occur; avoiding ignition sources in zoned areas, in particular those from electrical and mechanical equipment; where necessary, identifying the entrances to zoned areas; providing appropriate anti-static clothing for employees; and before they come into operation, verifying the overall explosion protection safety of areas where explosive atmospheres may occur. ▪ All safety valves design shall take into account discharging any released fluid to a safe location, or stopping misdirection of fluid flows in order to avoid hazardous outcome. ▪ Safety markings and crash barriers will be provided to the aboveground piping, digesters and the gas holder near the entrance. ▪ Lightning protection installations will be installed following IEC 62305, BS EN 62305, AS/NZS 1768, NFPA 780 or equivalent standards. ▪ A 10m high boundary wall with fire resistance will be 	During design and operation phases	Design Consultant / OWTF Operator	✓		✓		EIAO & EIAO TM Annex 4

EIA Ref.	EM&A Ref.	Environmental Protection Measures	Location / Duration of measures / Timing of completion of measures	Implementation Agent	Implementation Stage ¹				Relevant Legislation & Guidelines
					Des	Con	Op	Dec	
		<p>provided in the vicinity of the digester tanks, gasholders and gas purification equipment to protect the equipment against external fires, and to provide some protection to external areas from the effects of fire/explosion.</p> <ul style="list-style-type: none"> ▪ Suitable fire extinguishers will be provided within the site. An External Water Spray System (EWSS) will be installed in appropriate areas, such as around the gasholders, gas purification, desulphurisation units, and digester areas. The facilities will also be equipped with fire and gas detection system and fire suppression system. Stringent procedures are implemented to prohibit smoking or naked flames to be used on-site. ▪ Fixed crash barriers will be provided in areas where process equipment is adjacent to the internal roadway to protect against vehicle collision. Adequate warning signage and lighting will also be provided and maximum speed limit will also be in place. 							
Noise Impact (Construction)									
5.9.1	4.2.7	<p>Good Site Practice Good site practice and noise management can significantly reduce the impact of construction site activities on nearby NSRs. The following package of measures should be followed during each phase of construction:</p> <ul style="list-style-type: none"> ▪ only well-maintained plant to be operated on-site and plant should be serviced regularly during the construction works; ▪ machines and plant that may be in intermittent use to be shut down between work periods or should be throttled down to a minimum; ▪ plant known to emit noise strongly in one direction, should, where possible, be orientated to direct noise away from the NSRs; ▪ mobile plant should be sited as far away from NSRs as possible; and ▪ material stockpiles and other structures to be effectively utilised, where practicable, to screen noise from on-site 	Within construction site / During construction phase	Contractor		✓			EIAO, EIAO-TM and Noise Control Ordinance

EIA Ref.	EM&A Ref.	Environmental Protection Measures	Location / Duration of measures / Timing of completion of measures	Implementation Agent	Implementation Stage ¹				Relevant Legislation & Guidelines
					Des	Con	Op	Dec	
		construction activities.							
5.9.1	4.2.7	Selection of Quieter PME The recommended quieter PME adopted in the assessment were taken from the EPD's QPME Inventory and British Standard, namely <i>Noise Control on Construction and Open Sites, BS 5228: Part 1: 2009</i> . It should be noted that the silenced PME selected for assessment can be found in Hong Kong.	Within construction site / During construction phase	Contractor		✓			EIAO, EIAO-TM and Noise Control Ordinance
5.9.1	4.2.7	Use of Movable Noise Barriers Movable noise barriers can be very effective in screening noise from particular items of plant when constructing the Project. Noise barriers located along the active works area close to the noise generating component of a PME could produce at least 10 dB(A) screening for stationary plant and 5 dB(A) for mobile plant provided the direct line of sight between the PME and the NSRs is blocked.	Within construction site / During construction phase	Contractor		✓			EIAO, EIAO-TM and Noise Control Ordinance
5.9.1	4.2.7	Use of Noise Enclosure/ Acoustic Shed The use of noise enclosure or acoustic shed is to cover stationary PME such as air compressor and generator. With the adoption of the noise enclosure, the PME could be completely screened, and noise reduction of 15 dB(A) can be achieved according to the EIAO Guidance Note No.9/2010.	Within construction site / During construction phase	Contractor		✓			EIAO, EIAO-TM and Noise Control Ordinance
5.9.1	4.2.7	Use of Noise Insulating Fabric Noise insulating fabric can also be adopted for certain PME (e.g. pilling machine etc). The fabric should be lapped such that there are no openings or gaps on the joints. According to the approved Tsim Sha Tsui Station Northern Subway EIA report (AEIAR-127/2008), a noise reduction of 10 dB(A) can be achieved for the PME lapped with the noise insulating fabric.	Within construction site / During construction phase	Contractor		✓			EIAO, EIAO-TM and Noise Control Ordinance
Noise Impact (Operation)									
5.9.2	4.2.7	Fixed Plant Noise Specification of the maximum allowable sound power levels of the proposed fixed plants should be followed. The following noise reduction measures should be considered as far as practicable during operation: <ul style="list-style-type: none">▪ Choose quieter plant such as those which have been effectively silenced;	Within construction site / During operation phase / Throughout operation phase	Design Consultant / Contractor	✓		✓		EIAO, EIAO-TM and Noise Control Ordinance

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		<ul style="list-style-type: none"> ▪ Include noise levels specification when ordering new plant (including chillier and E/M equipment); ▪ Locate fixed plant/louver away from any NSRs as far as practicable; ▪ Locate fixed plant in walled plant rooms or in specially designed enclosures; ▪ Locate noisy machines in a completely separate building; ▪ Install direct noise mitigation measures including silencers, acoustic louvers and acoustic enclosure where necessary; and ▪ Develop and implement a regularly scheduled plant maintenance programme so that equipment is properly operated and serviced in order to maintain a controlled level of noise. 							
Water Quality Impact (Construction)									
6.8.1.1	5.3	<p>Construction site runoff</p> <p>The site practices outlined in ProPECC Note PN 1/94 should be followed as far as practicable in order to minimise surface runoff and the chance of erosion. The following measures are recommended to protect water quality and sensitive uses of the coastal area, and when properly implemented should be sufficient to adequately control site discharges so as to avoid water quality impacts:</p> <ul style="list-style-type: none"> ▪ At the start of site establishment, perimeter cut-off drains to direct off-site water around the site should be constructed with internal drainage works and erosion and sedimentation control facilities implemented. Channels, earth bunds or sand bag barriers should be provided on site to direct storm water to silt removal facilities. The design of the temporary on-site drainage system should be undertaken by the Contractor prior to the commencement of construction; ▪ Sand/silt removal facilities such as sand/silt traps and sediment basins should be provided to remove sand/silt particles from runoff to meet the requirements of the TM standards under the WPCO. The design of efficient silt 	Within construction site / Duration of the construction phase	Contractor		✓			ProPECC Note PN 1/94

EIA Ref.	EM&A Ref.	Environmental Protection Measures	Location / Duration of measures / Timing of completion of measures	Implementation Agent	Implementation Stage ¹				Relevant Legislation & Guidelines
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		<p>removal facilities should be based on the guidelines in Appendix A1 of ProPECC Note PN 1/94. Sizes may vary depending upon the flow rate. The detailed design of the sand/silt traps should be undertaken by the Contractors prior to the commencement of construction.</p> <ul style="list-style-type: none"> ▪ All drainage facilities and erosion and sediment control structures should be regularly inspected and maintained to ensure proper and efficient operation at all times and particularly during rainstorms. Deposited silt and grit should be regularly removed, at the onset of and after each rainstorm to ensure that these facilities are functioning properly at all times. ▪ Measures should be taken to minimize the ingress of site drainage into excavations. If excavation of trenches in wet periods is necessary, they should be dug and backfilled in short sections wherever practicable. Water pumped out from foundation excavations should be discharged into storm drains via silt removal facilities. ▪ All vehicles and plant should be cleaned before leaving a construction site to ensure no earth, mud, debris and the like is deposited by them on roads. An adequately designed and sited wheel washing facility should be provided at construction site exit where practicable. Wash-water should have sand and silt settled out and removed regularly to ensure the continued efficiency of the process. The section of access road leading to, and exiting from, the wheel-wash bay to the public road should be paved with sufficient backfall toward the wheel-wash bay to prevent vehicle tracking of soil and silty water to public roads and drains. ▪ Open stockpiles of construction materials or construction wastes on-site should be covered with tarpaulin or similar fabric during rainstorms. Measures should be taken to prevent the washing away of construction materials, soil, silt or debris into any drainage system. ▪ Manholes (including newly constructed ones) should be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris being washed into the drainage system and stormwater runoff being directed into 							

EIA Ref.	EM&A Ref.	Environmental Protection Measures	Location / Duration of measures / Timing of completion of measures	Implementation Agent	Implementation Stage ¹				Relevant Legislation & Guidelines
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		foul sewers. <ul style="list-style-type: none"> ■ Precautions should be taken at any time of the year when rainstorms are likely. Actions should be taken when a rainstorm is imminent or forecasted and actions to be taken during or after rainstorms are summarized in Appendix A2 of ProPECC Note PN 1/94. Particular attention should be paid to the control of silty surface runoff during storm events, especially for areas located near steep slopes. ■ Bentonite slurries used in piling or slurry walling should be reconditioned and reused wherever practicable. Temporary enclosed storage locations should be provided on-site for any unused bentonite that needs to be transported away after all the related construction activities are completed. The requirements in ProPECC Note PN 1/94 should be adhered to in the handling and disposal of bentonite slurries. 							
6.8.1.2	5.3	General construction activities Construction solid waste, debris and refuse generated on-site should be collected, handled and disposed of properly to avoid entering any nearby storm water drain. Stockpiles of cement and other construction materials should be kept covered when not being used.	Within construction site / During construction phase	Contractor		✓			ProPECC Note PN 1/94
6.8.1.3	5.3	Excavation works The construction programme should be properly planned to minimise excavation works during the wet season (April to September), temporarily exposed slope/soil surfaces should be covered by a tarpaulin or other means, as far as practicable. Interception channels should be provided (e.g. along the crest/edge of the excavation) to prevent storm runoff from washing across exposed soil surfaces. Arrangements should be in place to ensure that adequate surface protection measures can be safely carried out well before the arrival of a rainstorm. Other measures that need to be implemented before, during and after rainstorms are summarized in ProPECC PN 1/94.	Within construction site / During construction phase	Contractor		✓			ProPECC Note PN 1/94
6.8.1.4	5.3	Accidental spillage <ul style="list-style-type: none"> ■ The Contractor should register as a chemical waste producer 	Within construction site / During construction phase	Contractor		✓			ProPECC Note PN 1/94 and Waste Disposal

EIA Ref.	EM&A Ref.	Environmental Protection Measures	Location / Duration of measures / Timing of completion of measures	Implementation Agent	Implementation Stage ¹				Relevant Legislation & Guidelines
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		<p>if chemical wastes are produced from construction activities. The Waste Disposal Ordinance (Cap 354) and its subsidiary regulations in particular the Waste Disposal (Chemical Waste) (General) Regulation should be observed and complied with for control of chemical wastes.</p> <ul style="list-style-type: none"> ▪ Maintenance of vehicles and equipment, involving activities with potential for leakage and spillage, should only be undertaken within areas appropriately equipped to control these discharges. ▪ Oils and fuels should only be stored in designated areas which have pollution prevention facilities. To prevent spillage of fuels and solvents to any nearby storm water drain, all fuel tanks and storage areas should be provided with locks and be sited on sealed areas, within bunds of a capacity equal to 110% of the storage capacity of the largest tank. The bund should be drained of rainwater after a rain event. ▪ Disposal of chemical wastes should be carried out in compliance with the Waste Disposal Ordinance. The Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes published under the Waste Disposal Ordinance details the requirements to deal with chemical wastes. General requirements are given as follows: <ul style="list-style-type: none"> – Suitable containers should be used to hold the chemical wastes to avoid leakage or spillage during storage, handling and transport. – Chemical waste containers should be suitably labelled, to notify and warn the personnel who are handling the wastes, to avoid accidents. – Storage area should be selected at a safe location on site and adequate space should be allocated to the storage area. 						Ordinance	
6.8.1.5	5.3	<p>Sewage effluent from construction workforce</p> <p>Temporary sanitary facilities, such as portable chemical toilets, should be employed on-site where necessary to handle sewage from the workforce. A licensed contractor should be employed to provide appropriate and adequate portable toilets and be</p>	<p>Within construction site / During construction phase</p>	Contractor		✓			ProPECC Note PN 1/94

EIA Ref.	EM&A Ref.	Environmental Protection Measures	Location / Duration of measures / Timing of completion of measures	Implementation Agent	Implementation Stage ¹				Relevant Legislation & Guidelines
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		responsible for appropriate disposal and maintenance.							
Water Quality Impact (Operation)									
6.8.2.1	5.3	<p>Sewage effluent and sewerage impact</p> <p>In order to minimise the risk of exceeding capacity of the sewerage system, on-site underground storage of effluent is recommended for the OWTF 2, with a capacity of 6 hours of peak flow. Using the values presented in the preliminary design, the on-site storage required to buffer excess capacity would be equivalent to 30 m³. A below ground effluent retention tank would function to store effluent produced during peak periods when usage of the Sha Ling pumping station is high. Effluent stored during such periods could then be pumped out of the retention tank and discharged into the public sewer during off-peak times when capacity is sufficient.</p>	Within construction site / During design and operation phase	Design Consultant / OWTF Operator	✓		✓		EIA recommendations
6.8.2.2	5.3	<p>Wastewater generation from organic waste treatment processes</p> <p>Wastewater must be collected and diverted to the wastewater treatment plant (WWTP).</p> <p>An adequately sized WWTP with technologies such as membrane bioreactor, reverse osmosis or multi-phase separation process or system should be provided for the OWTF 2. Polluting parameters in the effluent should be in compliance with the requirements as specified in the TM-DSS.</p> <p><i>Leachate from the waste reception and composting process</i></p> <ul style="list-style-type: none"> A drainage system will be provided at the reception area connecting to the proposed onsite WWTP. The leachate would be treated in the WWTP and there would be no direct discharge of leachate. <p><i>Dewatering of the digestate from the separators</i></p> <ul style="list-style-type: none"> The wastewater generated from the dewatering of digestate from the digesters is expected to be around 229.18 m³/day and a peak flow of 5.31L/s. The on-site WWTP will deploy suitable treatment process in order to reduce the pollution level to an acceptable standard. The effluent shall be treated according to the TM-DSS standard before discharging to foul sewers. 	Within construction site / During design and operation phase	Design Consultant / OWTF Operator	✓		✓		TM-DSS, Water Pollution Control Ordinance

EIA Ref.	EM&A Ref.	Environmental Protection Measures	Location / Duration of measures / Timing of completion of measures	Implementation Agent	Implementation Stage ¹				Relevant Legislation & Guidelines
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		<p><i>Condensate from biogas drying, odour treatment and ventilation system</i></p> <ul style="list-style-type: none"> Condensate from biogas handling and wastewater from the odour treatment process would be collected and transferred to the WWTP. There is no direct discharge of wastewater to the sewer. <p><i>Washing of waste delivery trucks</i></p> <ul style="list-style-type: none"> Surplus wastewater generated from the vehicle washing facilities would be collected and transferred to the WWTP for further treatment before discharging to the foul sewer. <p><i>Untreated wastewater from wastewater treatment plant</i></p> <ul style="list-style-type: none"> Maintenance of the WWTP and its connection pipe work would be conducted regularly to confirm the condition of the holding tank and pipes. This will ensure early detection of any damage for repair or replacement. <p><i>Leakage of materials from WWTP</i></p> <ul style="list-style-type: none"> Regular scheduled maintenance of the WWTP will be carried out to confirm the condition of the facility and detect any damages at an early stage for repair or replacement. 							
6.8.2.3	5.3	<p>Contaminated stormwater runoff and accidental spillages</p> <p>Regular maintenance of plant facilities, as recommended in Section 6.8.2.2 of the EIA report, will be performed to confirm the condition of plant facilities and detect any damage for repair or replacement. Training should be provided to the employees on handling accidental spillage, so that in such cases, actions can be carried out quickly to avoid runoff to nearby streams/drains.</p>	Within construction site / During operation phase / Throughout operation phase	OWTF Operator			✓		TM-DSS; Water Pollution Control Ordinance
Waste Management Implications (Construction)									
7.6.1.1	6.3	<p>Good Site Practices</p> <p>Recommendations for good site practices during the construction activities include:</p> <ul style="list-style-type: none"> Obtain the relevant waste disposal permits from appropriate authorities, in accordance with the Waste Disposal Ordinance (Cap. 354) and subsidiary Regulations and the Land (Miscellaneous Provisions) Ordinance (Cap. 28); 	Project construction site / Throughout construction stage / Until completion of all construction activities	Contractor			✓		Waste Disposal Ordinance; Regulation and the Land (Miscellaneous Provisions) Ordinance;

EIA Ref.	EM&A Ref.	Environmental Protection Measures	Location / Duration of measures / Timing of completion of measures	Implementation Agent	Implementation Stage ¹				Relevant Legislation & Guidelines
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		<ul style="list-style-type: none"> ▪ Provide staff training for proper waste management and chemical handling procedures; ▪ Provide sufficient waste disposal points and regular waste collection; ▪ Provide appropriate measures to minimise windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers; ▪ Carry out regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors; ▪ Separate chemical wastes for special handling and disposal to licensed facilities for treatment; and ▪ Employ licensed waste collectors to collect waste. 							Waste Disposal (Chemical Wastes) (General) Regulation; Technical Circular (Works) No. 19/2005 Environmental Management on Construction Site
7.6.1.2	6.3	<p>Waste Reduction Measures</p> <p>Recommendations to achieve waste reduction include:</p> <ul style="list-style-type: none"> ▪ Design foundation works to minimise the amount of excavated material to be generated; ▪ Provide training on the importance of site cleanliness and appropriate waste management procedures, including waste reduction, reuse and recycling; ▪ Sort demolition debris and excavated materials from demolition works to recover reusable/recyclable portions ▪ Segregation and storage of different types of waste in different containers or skips to enhance reuse or recycling of materials and their proper disposal ▪ Encourage collection of recyclable waste such as waste paper and aluminium cans by providing separate labelled bins to enable such waste to be segregated from other general refuse generated by the work force ▪ Plan the use of construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of waste 	Project construction site / Throughout construction stage / Until completion of all construction activities	Contractor	✓	✓			Waste Disposal Ordinance
7.6.1.3	6.3	<p>Excavated and C&D Materials</p> <p>In order to minimise impacts resulting from collection and transportation of C&D material for off-site disposal, the</p>	Project construction site / Throughout construction stage / Until completion	Contractor	✓	✓			Waste Disposal Ordinance ; DEVB Technical

EIA Ref.	EM&A Ref.	Environmental Protection Measures	Location / Duration of measures / Timing of completion of measures	Implementation Agent	Implementation Stage ¹				Relevant Legislation & Guidelines
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		<p>excavated materials should be reused on-site as fill material as backfilling material and for landscaping works far as practicable. Other mitigation requirements are:</p> <ul style="list-style-type: none"> ▪ A Waste Management Plan (WMP), which becomes part of the Environmental Management Plan (EMP), should be prepared in accordance with ETWB TC(W) No.19/2005; ▪ A recording system for the amount of wastes generated, recycled and disposed of (including the disposal sites) should be adopted for easy tracking; and ▪ In order to monitor the disposal of excavated and non-inert C&D material at public filling facilities and landfills and to control fly-tipping, a trip-ticket system should be adopted (refer to DEVB TC(W) No. 6/2010). 	of all construction activities					<p>Circular (Works) No.6/2010 for Trip Ticket System for Disposal of Construction & Demolition Materials;</p> <p>Technical Circular (Works) No. 19/2005 Environmental Management on Construction Site</p>	
7.6.1.4	6.3	<p>Chemical Waste</p> <p>Should chemical wastes be produced at the construction site, the Contractor would be required to register with EPD as a Chemical Waste Producer and to follow the guidelines stated in the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes. Good quality containers compatible with the chemical wastes should be used, and incompatible chemicals should be stored separately. Appropriate labels should be securely attached on each chemical waste container indicating the corresponding chemical characteristics of the chemical waste (such as explosive, flammable, oxidizing, irritant, toxic, harmful, or corrosive). The Contractor should employ a licensed collector to transport and dispose of the chemical wastes, to either the CWTC in Tsing Yi, or any other licensed facilities, in accordance with the Waste Disposal (Chemical Waste) (General) Regulation.</p>	Project construction site / Throughout construction stage / Until completion of all construction activities	Contractor		✓			<p>Code of Practice on the Packaging Labelling and Storage of Chemical Wastes;</p> <p>Waste Disposal (Chemical Waste) (General) Regulation</p>
7.6.1.5	6.3	<p>General Refuse</p> <p>General refuse should be stored in enclosed bins or compaction units separated from excavated and non-inert C&D materials. A reputable waste collector should be employed by the Contractor to remove general refuse from the site, separately from inert C&D materials. Preferably an enclosed and covered area should be provided to reduce the occurrence of 'wind blown' light material.</p>	Project construction site / Throughout construction stage / Until completion of all construction activities	Contractor		✓			<p>Waste Disposal Ordinance and Public Health and Municipal Services Ordinance - Public Cleansing and Prevention of Nuisances</p>

EIA Ref.	EM&A Ref.	Environmental Protection Measures	Location / Duration of measures / Timing of completion of measures	Implementation Agent	Implementation Stage ¹				Relevant Legislation & Guidelines
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Waste Management Implications (Operation)									
7.6.2.1	6.3	<p>Good site practices</p> <p>Adoption of the following good operational practices should be recommended to minimise waste management impacts:</p> <ul style="list-style-type: none"> ▪ Obtain the necessary waste disposal permits from the appropriate authorities, in accordance with the Waste Disposal Ordinance (Cap. 354), Waste Disposal (Chemical Waste) (General) Regulation and the Land (Miscellaneous Provision) Ordinance (Cap. 28); ▪ Nomination of an approved person to be responsible for good site practice, arrangements for collection and effective disposal to an appropriate facility of all wastes generated at the site; ▪ Use of a waste haulier licensed to collect specific category of waste; ▪ A trip-ticket system should be included as one of the contractual requirements and implemented by the Environmental Team to monitor the disposal of solid wastes at public filling facilities and landfills, and to control fly tipping. Reference should be made to DEVB TC(W) No. 6/2010. ▪ Training of site personnel in proper waste management and chemical waste handling procedures; ▪ Separation of chemical wastes for special handling and appropriate treatment at a licensed facility; ▪ Routine cleaning and maintenance programme for drainage systems, sumps and oil interceptors; ▪ Provision of sufficient waste disposal points and regular collection for disposal; ▪ Adoption of appropriate measures to minimise windblown litter and dust during transportation of waste, such as covering trucks or transporting wastes in enclosed containers; and, ▪ Implementation of a recording system for the amount of 	Construction site / On a regular basis / Throughout operation stage	OWTF Operator			✓		Regulation Waste Disposal Ordinance; Waste Disposal (Chemical Waste) (General); Regulation and the Land (Miscellaneous Provision) Ordinance; DEVB Technical Circular (Works) No. 6/2010.

EIA Ref.	EM&A Ref.	Environmental Protection Measures	Location / Duration of measures / Timing of completion of measures	Implementation Agent	Implementation Stage ¹				Relevant Legislation & Guidelines
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		wastes generated, recycled and disposed of (including the disposal sites).							
7.6.2.2	6.3	<p>Waste reduction measures</p> <p>Adoption of the following good operational practices should be recommended to ensure waste reduction:</p> <ul style="list-style-type: none"> ▪ Segregation and storage of different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal; ▪ Encourage collection of aluminium cans, plastic bottles and packaging material (e.g. carton boxes) and office paper by individual collectors. Separate labelled bins should be provided to help segregate this waste from other general refuse generated by the work force; and ▪ Any unused chemicals or those with remaining functional capacity should be reused as far as practicable. 	Construction site / On a regular basis / Throughout operation stage	OWTF Operator			✓		Waste Disposal Ordinance; Waste Disposal (Chemical Waste) (General); Regulation and the Land (Miscellaneous Provision) Ordinance
7.6.2.3	6.3	<p>Waste generated from pre-treatment process</p> <p>Wastes generated from pre-treatment process should be recycled as far as possible. Wastes generated from pre-treatment process should also be separated from any chemical waste and stored in covered skips. The recyclables should be collected by licensed collectors, while the rest of the waste should be removed from the site on a daily basis to minimise odour, pest and litter impacts. Open burning must be strictly prohibited.</p>	Pre-treatment process / Throughout operation stage	OWTF Operator			✓		Waste Disposal (Chemical Waste) (General)
7.6.2.4	6.3	<p>Chemical Waste</p> <ul style="list-style-type: none"> ▪ Chemical waste generated from machinery maintenance and servicing should be managed in accordance with the Code of Practice on the Packaging, Labelling and storage of Chemical Wastes under the provisions of Waste Disposal (Chemical Waste) (General) Regulation. The chemical waste should be collected by drum-type containers and, when transported off-site, removed by licensed chemical waste contractors. Alternatively, some of the chemical waste may be retained on-site for re-use by the Project in the manufacture of biogas or other products, subject to their composition being confirmed as suitable for such application. 	Construction site Throughout operation stage	OWTF Operator			✓		Code of Practice on the Packaging Labelling and Storage of Chemical Wastes; Waste Disposal (Chemical Waste) (General) Regulation

EIA Ref.	EM&A Ref.	Environmental Protection Measures	Location / Duration of measures / Timing of completion of measures	Implementation Agent	Implementation Stage ¹				Relevant Legislation & Guidelines
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		<ul style="list-style-type: none"> Plant / equipment maintenance schedules should be planned in order to minimise the generation of chemical waste. Non-recyclable chemical wastes and lubricants should be disposed of at appropriate facilities, such as CWTC. Copies or counterfoils from collection receipts issued by the licensed waste collector should be kept for recording purpose. Recyclable chemical waste will be transported off-site for treatment by a licensed collector. The Contractor will need to register with EPD as a chemical waste producer. 							
7.6.2.5	6.3	<p>General Refuse</p> <ul style="list-style-type: none"> Waste generated in site offices should be reduced through segregation and collection of recyclables. To promote the recycling of wastes such as used paper, aluminium cans and plastic bottles, it is recommended that recycling bins should be clearly labelled and placed at locations with easy access. For the collection of recyclable materials, they should be collected by licensed collectors. General refuse, other than segregated recyclable wastes, should be separated from any chemical waste and stored in covered skips. The general refuse should be removed from the site on a daily basis to minimise odour, pest and litter impacts. Also, open burning of refuse must be strictly prohibited. 	Construction site / On a regular basis / Throughout operation stage	OWTF Operator			✓		Waste Disposal Ordinance
Ecological Impact (Construction)									
8.7	7.3	For precautionary purposes and to further ensure that no wild flora species of conservation interest will be affected, prior to commencement of any construction works, it is recommended to conduct a detailed vegetation survey as baseline monitoring to update the exact locations, number and condition of individuals of <i>Aquilaria sinensis</i> and any other floral species of conservation interest within the Project Area. A Vegetation Survey Report summarizing the findings and recommendations of the detailed vegetation survey should be prepared and submitted to AFCD for approval no later than one month prior to commencement of construction works.	Before Project commencement	OWTF Operator	✓				EIAO-TM
8.7	7.3	During construction phase, erection of a temporary protective	Throughout construction	OWTF Operator			✓		EIAO-TM

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		fence along the plantation area where trees and vegetation, including those of conservation concern identified under the detailed vegetation survey, would be retained within the Project Area is recommended for precautionary purposes to avoid any potential impact from construction activities such as vehicle movement and materials storage. Establishment of the protective fence could also raise the awareness of personnel to be present and protection of the plants. While the protective fence should be properly maintained, monitoring of individuals of <i>Aquilaria sinensis</i> and any other floral species of conservation interest identified in the detailed vegetation survey during construction phase on a monthly basis should be conducted to make sure that they are not affected by the construction works of the Project.	stage						
Ecological Impact (Operation)									
No mitigation measure is required.									
Landscape and Visual Impact (Construction)									
Table 10.7 (CP1)	Table 8.1 (CP1)	Preservation of Existing Vegetation The development proposals would avoid disturbance to the existing trees as far as practicable within the confines of the development site. A preliminary tree survey has been undertaken to establish the existing resources. A tree survey review with formal tree removal application will be submitted to the relevant government departments for approval in accordance with ETWB TC(W) 03/2006 Tree Preservation, during the detailed design phase of the Project. Based on the preliminary findings it would be possible to retain 441 of the existing trees. If possible, all trees which are not in conflict with the proposals would be retained and shall be protected through the means of fencing, where appropriate, to prevent potential damage to tree canopies and root zones from vehicles and materials storage. Specifications for the protection of existing trees will be circulated to the relevant government authorities for approval together with the formal tree removal application.	Construction site / Throughout construction stage / Until completion of all construction activities	Contractor	✓	✓			Technical Circular (Works) No. 3/2006
Table 10.7 (CP2)	Table 8.1 (CP2)	Control of site construction activities <ul style="list-style-type: none"> ■ Storage of materials should be carefully arranged to minimise potential landscape and visual impact. 	Construction site / Throughout construction stage / Until completion	Contractor	✓	✓			EIAO-TM

EIA Ref.	EM&A Ref.	Environmental Protection Measures	Location / Duration of measures / Timing of completion of measures	Implementation Agent	Implementation Stage ¹				Relevant Legislation & Guidelines
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		<ul style="list-style-type: none"> ▪ The location and appearance of site accommodation should be carefully designed to minimise potential landscape and visual impact. ▪ Site lighting should be carefully designed to prevent light spillage, ▪ Extent of the works area and construction period should be minimised as far as practicable. ▪ Screen hoarding with compatible design to blend into the surrounding natural environment should be considered. ▪ Temporary works areas should be reinstated at the earliest possible opportunity. 	of all construction activities						
Table 10.7 (CP3)	Table 8.1 (CP3)	<p>Transplantation of existing trees</p> <p>Under current proposal, no tree is recommended to be transplanted since the trees in conflict with the proposed works are not suitable to be transplanted. However, should transplantation be proposed in the detailed design stage after an update tree survey, the recommended final recipient sites should be adjacent to their current locations. Enough time should be reserved for tree transplantation works to increase the survival rate of the transplanting trees. To ensure the survival of transplanted trees, protection work should be considered. The tree transplantation proposal will be submitted to relevant authorities for approval together with the formal tree removal application.</p>	Construction site / Throughout construction stage / Until completion of all construction activities	Contractor	✓	✓			Technical Circular (Works) No. 3/2006
Landscape and Visual Impact (Operation)									
Table 10.8 (OP1)	Table 8.2 (OP1)	<p>Design of the Proposed OWTF</p> <p>OWTF will incorporate design features as part of design mitigation measures including</p> <ul style="list-style-type: none"> ▪ Integrated design approach - the location of OWTF should be within the existing Livestock Waste Composting Plant, as far as technically feasible. The location and orientation of the OWTF should be away from landscape and visually sensitive areas such as ponds and woodlands. ▪ Building massing – the proposed use of simple responsive design includes having specific height profile requirement 	Construction site / During design stage	Design Consultant / OWTF Operator	✓				EIAO-TM

EIA Ref.	EM&A Ref.	Environmental Protection Measures	Location / Duration of measures / Timing of completion of measures	Implementation Agent	Implementation Stage ¹				Relevant Legislation & Guidelines
					Des	Con	Op	Dec	
		<p>such as, single-storey, lower than the adjacent building structures, and avoiding large built structure for supporting facilities to reduce the intrusion of mass in the rural areas.</p> <ul style="list-style-type: none"> ▪ Treatment of built structures – the structural design should seek to reduce the apparent visual mass of the facilities further through the use of natural materials such as wooden frames or other sustainable materials such as recycled plastics. ▪ Responsive building finishes – Natural tones should be considered for the colour palette for proposed structures. Non-reflective finishes are recommended on the outward facing building facades to reduce glare effect. ▪ Responsive lighting design – Aesthetic design of architectural and lighting with following glare design measures: <ul style="list-style-type: none"> – Directional and full cut off lighting is recommended within the boundaries of OWTF to minimise light spillage to the surroundings; – Minimise geographical spread of lighting, only applying for safety at the key access points and staircases; and <p>Limited lighting intensity to meet the minimum safety and operation requirement.</p>							
Table 10.8 (OP2)	Table 8.2 (OP2)	<p>Amenity / Compensatory Planting</p> <p>Tree retention within the works area is considered to be important. New tree plantings will be concentrated in the proposed amenity areas along the boundaries of the site and along the exterior of OWTF buildings. Although a preliminary planting proposal is not yet available at the moment of producing this EIA Report, anticipated new tree planting within the Project site should be able to fully compensate for the loss of 14 trees proposed to be felled in terms of both quantity and quality. 441 existing trees will be retained through preserving them at their current locations. Establishment of newly planted trees is expected. Trees with high amenity value will be placed along the access routes to provide shade and soften the hard structures of OWTF buildings. Amenity plantings will utilise native tree species found on existing neighbouring slopes or</p>	Construction site / during design and operation stage	Design Consultant / OWTF Operator	✓		✓		Technical Circular (Works) Nos. 7/2002 and 3/2006

EIA Ref.	EM&A Ref.	Environmental Protection Measures	Location / Duration of measures / Timing of completion of measures	Implementation Agent	Implementation Stage ¹				Relevant Legislation & Guidelines
					Des	Con	Op	Dec	
		woodland areas to improve the ecological connectivity between existing habitats and create a coherent landscape network. Tree species with aggressive roots should be avoided to prevent damage to OWTF buildings and structures. Trees with high or moderate amenity value and low to medium maintenance should be considered as part of landscape resource enhancement. Recommended tree species include <i>Celtis sinensis</i> and <i>Liquidambar formosana</i> . These proposals will be subjected to review at detail design stage of the Project.							
Table 10.8 (OP3)	Table 8.2 (OP3)	Treatment of Slopes In accordance with GEO Publication No. 1/2011 “Technical Guidelines on Landscape Treatment for Slopes”, these engineering structures will be aesthetically enhanced through the use of soft landscape works including tree and shrub planting to give man-made slopes a natural appearance, blending into the natural landscape. Whip-sized plantings are preferred on the face of soil cut slopes, at the crest and toe of the slope and within berm planters. These smaller, younger plants can adapt to their new growing conditions quicker than larger sized stock and establish a naturalistic effect rapidly. Recommended tree species include <i>Mallotus paniculatus</i> , <i>Broussonetia papyrifera</i> and <i>Alangium chinense</i> .	Construction site / during design and operation stage	Design Consultant / OWTF Operator	✓		✓		GEO Publication No. 1/2011 “Technical Guidelines on Landscape Treatment for Slopes
Table 10.8 (OP4)	Table 8.2 (OP4)	Amenity enhancement Rooftop greening and vertical greening to mitigate the visual impact of taller structures can soften the façade of OWTF structures. Frameworks utilised for vertical greening should appear naturalistic.	Construction site / during design and operation stage	Design Consultant / OWTF Operator	✓		✓		Technical Circular (Works) No. 7/2002

Remarks:

1. Des – Design Stage, C – Construction Stage, O – Operation, Dec - Decommissioning