# **Bestwise – SFK Joint Venture**

# Contract No. DE/2018/17 Enhancement of Deodourisation System at Stonecutters Island Sewage Treatment Works

Monthly Environmental Monitoring and Audit Report March 2021

(Version 1.0)

| Certified By | (Environmental Team Leader) |
|--------------|-----------------------------|
| REMARKS:     |                             |

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

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CE/Harbour Area Treatment Scheme Drainage Services Department Sewage Services Branch Harbour Area Treatment Scheme Division 5/F, Western Magistracy 2A Pokfulam Road, Hong Kong

Attn: Mr. K K Kam

#### Agreement No. CE 8/2009(EP) Harbour Area Treatment Scheme Stage 2A Independent Environmental Checker for Construction Phase – Investigation

**Our Reference** 

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Condition 4.4 – Monthly EM&A Report for March 2021 (no. 19) Version 1.0

14 April 2021 Bv Post

Dear Sir,

I refer to the captioned Monthly EM&A Report for March 2021 (version 1.0) submitted by ET on 12 April 2021 via email. In accordance with Condition 4.4 of Environmental Permit No. EP-322/2008/G, I hereby verify the captioned Monthly EM&A Report.

Yours faithfully for MOTT MACDONALD HONG KONG LIMITED

Ir Dr Anne F Kerr Independent Environmental Checker T +852 2828 5757 anne.kerr@mottmac.com

C.C.

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# ABBREVIATION AND ACRONYM

| AL Levels     | Action and Limit Levels                          |
|---------------|--|
| DSD           | Drainage Services Department                     |
| E / ER        | Engineer/Engineer's Representative               |
| EIA           | Environmental Impact Assessment                  |
| EM&A          | Environmental Monitoring and Audit               |
| EMIS          | Environmental Mitigation Implementation Schedule |
| EP            | Environmental Permit                             |
| EPD           | Environmental Protection Department              |
| ET            | Environmental Team                               |
| HVS           | High Volume Sampler                              |
| IEC           | Independent Environmental Checker                |
| RE            | Resident Engineer                                |
| RH            | Relative Humidity                                |
| QA/QC         | Quality Assurance / Quality Control              |
| SLM           | Sound Level Meter                                |
| WMP           | Waste Management Plan                            |
| SCISTW        | Stonecutters Island Sewage Treatment Works       |
| HATS Stage 2A | Harbour Area Treatment Scheme Stage 2A           |
| BSJV          | Bestwise - SFK Joint Venture                     |

# **EXECUTIVE SUMMARY**

#### Introduction

- 1. This is the 19<sup>th</sup> Monthly Environmental Monitoring and Audit (EM&A) Report prepared by Wellab Limited for DSD Contract No. DE/2018/17 "Enhancement of Deodourisation System at SCISTW" (The Project) which documents the key information of EM&A and environmental monitoring works undertaken by other Contracts at the SCISTW under HATS Stage 2A with the same Environmental Permit (Permit No. EP-322/2008/G).
- 2. The site activities undertaken in the reporting month included: <u>DOU1</u>
  - Connection for water main

### DOU1R

• Excavation work for water main laying

#### DOU2

• Construction for Air Dust support

### DOU4

• Installation for shelter if chemicals compound

#### DOU5

• Installation for shelter if chemicals compound

#### <u>E&M</u>

- Isolation Device for Effluent Drop Shaft
  - Installation (PST No.13/15, 39/41)
- DOU System
  - Mechanical installation in progress
- Air Relief Duct
  - Installation in progress

#### **Environmental Monitoring Works**

- 3. The environmental monitoring works of the Project were conducted by the ET for Contract DC/2009/10, at the SCISTW under HATS 2A with the same Environmental Permit. The monitoring results were checked and reviewed and the site audits were conducted once per week. The implementation of the Environmental Mitigation Measures, Event Action Plans and Environmental Complaint Handling Procedures were also checked.
- 4. Summary of the non-compliance of the reporting month is tabulated in Table I.

| Monitored  | Monitoring |           | No. of Exceedance |                | No. of Exceedance<br>Due to the Project |                | Action |
|------------|------------|-----------|-------------------|----------------|---|----------------|--------|
| By         | Station    | Parameter | Action<br>Level   | Limit<br>Level | Action<br>Level                         | Limit<br>Level | Taken  |
| DC/2009/10 | AM6b       | 1-hr TSP  | 0                 | 0              | 0                                       | 0              | N/A    |
|            |            | 24-hr TSP | 0                 | 0              | 0                                       | 0              | N/A    |
|            | NM5        | Noise     | 0                 | 0              | 0                                       | 0              | N/A    |

 Table I
 Summary Table for Non-compliance Recorded in the Reporting Month

| Monitored | Monitoring | toring    |                 | Monitoring Demonster No. of Exceedance |                 | No. of Exceedance<br>Due to the Project |       | Action |
|-----------|------------|-----------|-----------------|--|-----------------|---|-------|--------|
| Ву        | Station    | Parameter | Action<br>Level | Limit<br>Level                         | Action<br>Level | Limit<br>Level                          | Taken |        |
|           | NM6        | Noise     | 0               | 0                                      | 0               | 0                                       | N/A   |        |
|           | AM7        | 1-hr TSP  | 0               | 0                                      | 0               | 0                                       | N/A   |        |
|           | AM/        | 24-hr TSP | 0               | 0                                      | 0               | 0                                       | N/A   |        |
|           | ΔΜΘ        | 1-hr TSP  | 0               | 0                                      | 0               | 0                                       | N/A   |        |
| AM8       |            | 24-hr TSP | 0               | 0                                      | 0               | 0                                       | N/A   |        |

1-hour TSP Monitoring

5. All 1-hour TSP monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded.

24-hour TSP Monitoring

6. All 24-hour TSP monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded.

### Construction Noise

7. All construction noise monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded.

#### **Environmental Licenses and Permits**

8. Licenses/Permits granted to the Project include the Environmental Permit (EP); Billing account for Disposal of Construction Waste, Registered as Chemical Waste Producer, Construction Noise Permits and Water Discharge License.

# **Environmental Mitigation Implementation Schedule**

9. According to the EIA Report Section 3.74, 4.56 and 13.44, air quality, noise and landscape and visual would be the key environmental issues and mitigation measures shall be implemented during the construction phase. Details of the implementation of mitigation measures are provided in the **Appendix F.** 

# Key Information in the Reporting Month

10. Summary of key information in the reporting month is tabulated in **Table II**.

# Table II Summary Table for Key Information in the Reporting Month

| Event   | Event Details |   | Action Taken               | Status | Remark   |
|---|---------------|---|----------------------------|--------|----------|
| Event   | Number        | Nature                                      | Action Taken               | Status | Kelliark |
| Complaint received  | 0             |   | N/A                        | N/A    |          |
| Status of<br>submissions under<br>EP                          | 1             | Monthly EM&A<br>Report for<br>February 2021 | Submitted on 15 March 2021 | N/A    |          |
| Notifications of<br>any summons &<br>prosecutions<br>received | 0             |   | N/A                        | N/A    |          |

#### **Summary of Complaints and Prosecutions**

- 11. No environmental complaint and prosecution was received for the Project in the reporting month.
- 12. There were no environmental complaint and prosecution received since the commencement of the Project. The Complaint Log is presented in **Appendix G**.

#### **Future Key Issues:**

13. Major site activities for the coming two months include:

### DOU1R

- Installation of water main
- Restatement of pavement

#### DOU2 PS

• Installation of water main

#### DOU5 PS

• Reinstatement of pavement

#### E&M works

- Installation of PLC Panel and Local Control Panel of DOU(s) system
- LVSB of DOU(s) system
- DOU1, DOU2 upgrade HMI touchscreen
- Install sealant
- Installation of DOU(S)
- Install isolation device for effluent drop shaft (and concrete repairing)
- Installation of air relief duct
- 14. The environmental concerns in the coming months are mainly on dust generated from the excavated dusty materials, general refuse and construction waste storage.

# 1. INTRODUCTION

### Background

- 1.1 The Project 'Enhancement of Deodourisation System at SCISTW' under Contract No: DE/2018/17 mainly comprises the following major works:
  - Construction of foundation for enhanced deodourisation system;
  - Design, supply, installation, testing and commissioning of enhanced deodourisation systems and associated accessories;
  - Enhancement of isolation devices at chemically enhanced primary treatment (CEPT) tanks;
  - Modification of air ducts at CEPT tanks;
  - Enhancement of sealing performance of existing covers for CEPT tanks; and
  - Any associated works as necessary to complete the above items.
- 1.2 The general location plan of the Project is shown in **Figure 1**.
- 1.3 The Project is under Harbour Area Treatment Scheme (HATS) Stage 2A and is a designated project with Register No. : AEIAR-121/2008. The current works under the Project at SCISTW for HATS 2A are covered by the Environmental Permit (Permit No. EP-322/2008/G), which was issued on 9<sup>th</sup> May 2014 by the Environmental Protection Department (hereinafter called EPD) to the Drainage Services Department (hereinafter called the DSD) as the Permit Holder.
- 1.4 The environmental monitoring works in the Project were covered by the ET for the Contract: DC/2009/10.
- 1.5 Bestwise SFK Joint Venture (hereafter called the BSJV) was commissioned by the DSD to undertake the construction of the Contract No. DE/2018/17 "Enhancement of Deodourisation System at SCISTW". The date of commencement of construction of the Project is 9<sup>th</sup> July 2019.
- 1.6 Wellab Limited was commissioned by BSJV to undertake the Environmental Monitoring and Audit (EM&A) works for the project and was appointed as the Environmental Team (ET) of the Project under Condition 2.1 of the EP. The date of commencement of EM&A works is 2<sup>nd</sup> September 2019. The Project cover the environmental monitoring works at monitoring stations AM6b, AM7, AM8, NM5 and NM6.
- 1.7 This is the 19<sup>th</sup> monthly EM&A report summarizing the EM&A works conducted for the Project in March 2021.

# **Project Organizations**

1.8 The contacts of the Project are shown in **Table 1.1** and the organization chart of ET for Contract is shown in **Figure 2**.

| Tube III Rey Hojeet Contacts |   |                    |   |           |  |
|------------------------------|---|--------------------|---|-----------|--|
| Party                        | Role                                      | Name               | Position                                | Phone No. |  |
| Ove Arup &<br>Partners Hong  | Project<br>Management's<br>Representative | Mr. Edmund Chow    | Senior Resident<br>Engineer             | 2370 4311 |  |
| Kong Ltd                     | Coordinator                               | Mr. Kevin Cheung   | Resident Engineer                       | 3925 6506 |  |
| *** 11 1                     | Environmental Team                        | Dr. Priscilla Choy | ET Leader                               | 2151 2089 |  |
| Wellab                       |   | Mr. Howard Chan    | Project Coordinator                     | 2151 2073 |  |
| Mott<br>MacDonald            | Independent<br>Environmental<br>Checker   | Dr. Anne Kerr      | Independent<br>Environmental<br>Checker | 2828 5757 |  |
| Bestwise –                   |   | Mr. Ken Chan       | Site Agent                              | 2620 0070 |  |
| SFK Joint<br>Venture         | Contractor                                | Mr. Leo Leung      | Environmental<br>Officer                | 2620 0070 |  |

#### Table 1.1Key Project Contacts

### **Construction Programme**

- 1.9 The site activities undertaken in the reporting month included: <u>DOU1</u>
  - Connection for water main

#### DOU1R

- Excavation work for water main laying
  - DOU2
- Construction for Air Dust support

#### DOU4

• Installation for shelter if chemicals compound

#### <u>DOU5</u>

• Installation for shelter if chemicals compound

#### <u>E&M</u>

- Isolation Device for Effluent Drop Shaft
  - Installation (PST No.13/15, 39/41)
- DOU System
  - Mechanical installation in progress
- Air Relief Duct
  - Installation in progress
- 1.10 The EM&A programme requires construction phase monitoring for air quality and construction noise, landscape and visual and environmental site audit. The EM&A requirements for each parameter are described in the following sections, including:
  - All monitoring parameters;
  - Action and Limit levels for all environmental parameters;
  - Event Action Plans;
  - Environmental mitigation measures, as recommended in the project EIA study final report; and
  - Environmental requirements in contract documents.

- 1.11 The advice on the implementation status of environmental protection and pollution control/mitigation measures is summarized in **Section 4** of this report.
- 1.12 This report presents the monitoring results, observations, locations, equipment, period, for required monitoring parameter namely air quality, noise and audit works conducted for the Project in March 2021. For the methodology and QA/QC procedures of the monitoring parameters, please refer to the monthly report for Contract DC/2009/10.

# 2. AIR QUALITY

# **Monitoring Requirements**

2.1 1-hour and 24-hour TSP monitoring were conducted to monitor the air quality. Appendix A shows the established Action/Limit Levels for the environmental monitoring works.

# **Monitoring Locations**

2.2 Three designated monitoring stations, AM6b, AM7 and AM8 were selected for impact dust monitoring for the Project. The pervious location of AM6a was not available for future monitoring due to no secured power supply for operation and therefore the previous location of AM6a was relocated to the monitoring station AM6b on 20<sup>th</sup> October 2020 after handover of part of Portion 7. **Table 2.1** describes the air quality monitoring locations, which are also depicted in **Figure 1**.

 Table 2.1
 Locations for Air Quality Monitoring

| <b>Monitoring Station</b> | Monitored by | Location of Measurement                   |  |
|---------------------------|--------------|---|--|
| AM6b <sup>(1)</sup>       |              | Works site boundary                       |  |
| AM7                       | DC/2009/10   | North West Kowloon Sewage Pumping Station |  |
| AM8                       |              | Block A of Government Dockyard            |  |

Remark:

 $(1) \ \ AM6b-The \ pervious \ location \ of \ AM6a \ was \ relocated \ after \ handover \ of \ part \ of \ Portion \ 7.$ 

# **Monitoring Equipment**

2.3 The details of the monitoring equipment and copies of the calibration certificates used during the reported month could be referred to Section 2.3 and **Appendix B** of the monthly report of Contract DC/2009/10.

# Monitoring Parameters, Frequency and Duration

2.4 **Table 2.2** summarizes the monitoring parameters and frequencies of impact dust monitoring for the whole construction period. The air quality monitoring schedule for the reporting period could be found in **Appendix C** in the monthly report for the Contract DC/2009/10.

| Table 2.2 | Impact Dust Monitoring Parameters, Frequency and Duration |
|-----------|---|
|-----------|---|

| Monitoring Station          | Parameter   | Period        | Frequency             |
|-----------------------------|-------------|---------------|-----------------------|
| All monitoring<br>locations | 1-hour TSP  | 0700-1900 hrs | 3 times/ every 6 days |
|                             | 24-hour TSP | 0000-2400 hrs | once in every 6 days  |

# Monitoring Methodology and QA/QC Procedure

2.5 The monitoring methodology and QA/QC procedures are presented in Section 2.3 – 2.15 of monthly report for Contract DC/2009/10.

# **Results and Observations**

2.6 **Table 2.3** summarizes the monitoring results at AM6b, AM7 and AM8 in the reporting month.

| I  | Reporting Month |                       |                                   |                                  |  |  |  |
|--|-----------------|-----------------------|-----------------------------------|----------------------------------|--|--|--|
| Air Quality<br>Monitoring<br>Station<br>Average<br>µg/m <sup>3</sup> |                 | <b>Range</b><br>μg/m³ | Action Level<br>µg/m <sup>3</sup> | Limit Level<br>µg/m <sup>3</sup> |  |  |  |
|  | 1 hour TSP      |                       |                                   |                                  |  |  |  |
| AM6b   | 134             | 51 - 270              | 346                               |                                  |  |  |  |
| AM7  | 113.5           | 88.1 - 139.6          | 322                               | 500                              |  |  |  |
| AM8  | 104             | 71.6 – 134.9          | 307                               |                                  |  |  |  |
|  |                 | 24 hours TSP          |                                   |                                  |  |  |  |
| AM6b   | 79              | 40 - 110              | 196                               |                                  |  |  |  |
| AM7  | 46              | 24 - 65               | 207                               | 260                              |  |  |  |
| AM8  | 57              | 26 - 80               | 158                               |                                  |  |  |  |

Table 2.3Summary of 1-hour and 24-hour TSP Monitoring Result in the<br/>Reporting Month

- 2.7 All 1-hour TSP monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded. Summary of exceedance is presented in **Appendix B.**
- 2.8 All 24-hr TSP monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded. Summary of exceedance is presented in **Appendix B.**
- 2.9 The monitoring data and graphical presentations of 1-hour and 24-hour TSP monitoring results could be referred to **Appendix D** of monthly report of Contract DC/2009/10.
- 2.10 According to field observations during site inspection, the identified dust sources at the monitoring stations were mainly from vehicles movement, dust generated from the excavated dusty materials and construction works of this Contract in the site.

#### 3. NOISE

# **Monitoring Requirements**

3.1 Two noise monitoring stations, namely NM5 and NM6 was designated in the EM&A Manual for impact monitoring. Appendix A shows the established Action and Limit Levels for the environmental monitoring works.

### **Monitoring Locations**

3.2 Noise monitoring was conducted at two designated monitoring stations as listed in Table 3.1, which are also depicted in Figure 1.

| Table 3.1Location of Noise Monitoring Stations |            |  |
|--|------------|--|
| Monitoring Station Monitored By                |            | Location of Measurement  |
| NM5  | DC/2000/10 | Near FSD Diving Rescue and Training Centre                       |
| NM6  | DC/2009/10 | Customs' Marine Base<br>(Block H of Government Dockyard Rooftop) |

# Location of Noise Monitoring Stations

### **Monitoring Equipment**

3.3 The details of the monitoring equipment and copies of the calibration certificates used in the impact noise monitoring programme could be referred to Section 3.4 and Appendix B of the monthly report of Contract DC/2009/10.

#### **Monitoring Parameters, Frequency and Duration**

- 3.4 Table 3.2 summarizes the monitoring parameters, frequency and total duration of monitoring. The noise monitoring schedule could be found in Appendix C in the monthly report for the Contract DC/2009/10.
- 3.5 As advised by the Contractor, no construction work under Contract DE/2018/17 was conducted in the restricted hours during the reported month.

| Monitoring<br>Stations | Parameter                          | Period                        | Frequency   |  |
|------------------------|------------------------------------|-------------------------------|---|--|
| NM5                    | L <sub>eq</sub> (30 min.)<br>dB(A) | 0700-1900 hrs.<br>on weekdays | Once per week   |  |
| NM5<br>NM6             | L <sub>eq</sub> (5 min.)<br>dB(A)  | During<br>restricted hours    | Monitoring to be conducted when construction works were to be carried out |  |

Table 3.2 Noise Monitoring Parameters, Frequency and Duration

#### Monitoring Methodology and QA/QC Procedures

3.6 The monitoring methodology and QA/QC procedure could be referring to Section 3.6 - 3.9 of the monthly report for Contract DC/2009/10.

#### **Results and Observations**

3.7 **Table 3.3** summarizes the monitoring results at NM5 and NM6 in the reporting month.

| For t            | the time period 0700-1900 hrs. on weekda | ays         |
|------------------|--|-------------|
| Noise Monitoring | Range, dB(A)                             | Limit Level |
| Station          | L <sub>eq</sub> (30 min.)                | dB(A)       |
| NM5              | 59.8-62.1                                | 75.0        |
| NM6              | 57.2 - 62.8                              | 75.0        |

 Table 3.3
 Summary the Noise Monitoring Results in Reporting Month

- 3.8 The construction noise monitoring at the designated location was conducted by the ET of Contract DC/2009/10 as scheduled in the reporting month. The monitoring results and graphical presentations could be referred to **Appendix E** of the monthly report for Contract DC/2009/10.
- 3.9 1900-2300 hours noise monitoring was not conducted in the reporting month as there were no construction works during the period of restricted hours.
- 3.10 No Action/Limit Level exceedance was recorded in the reporting month. Summary of exceedance is presented in **Appendix B**.
- 3.11 The major noise sources identified at the designated noise monitoring stations were vehicle movement and construction equipment, as well as construction activities from this Contract in Stonecutters Island STW.

# 4. ENVIRONMENTAL AUDIT

#### Site Audits

- 4.1 Site audits were conducted on a weekly basis to monitor the implementation of environmental management practices and mitigation measures at the site area by the Contractor.
- 4.2 Site inspections were undertaken to ensure and check that the implementation and maintenance of mitigation measures for Air Quality, Noise, Water Quality, Waste Management, Landscape and Visual are being properly carried out in the reporting month in accordance to section 14.1 of the EM&A Manual. No non-compliance was observed during the site inspections.
- 4.3 The summaries of site audits are attached in **Appendix C**.

#### **Implementation Status of Environmental Mitigation Measures**

- 4.4 Details of the implementation of mitigation measures are provided in the Appendix F.
- 4.5 During the weekly environmental site inspections in the reporting period, no nonconformance was identified. The observations of the site audit for the Projects are summarized in **Table 4.1**.

| Parameters                    | Ref. Number | Observations                                     | Follow Up Action |
|-------------------------------|-------------|--|------------------|
| Water<br>Quality              | N/A         | There was no observation in the reporting month. | N/A              |
| Air<br>Quality                | N/A         | There was no observation in the reporting month. | N/A              |
| Waste/ Chemical<br>Management | N/A         | There was no observation in the reporting month. | N/A              |
| Landscape and<br>Visual       | N/A         | There was no observation in the reporting month. | N/A              |
| Noise                         | N/A         | There was no observation in the reporting month. | N/A              |
| Permit/<br>Licenses           | N/A         | There was no observation in the reporting month. | N/A              |

Table 4.1Observations of Site Audit

#### **Review of Environmental Monitoring Procedures**

4.6 The monitoring works conducted by Contract DC/2009/10's ET were reviewed at a regular basis to ensure the monitoring procedures were carried out properly.

#### Status of Environmental Licensing and Permitting

4.7 All permits/licenses obtained for the Contract DE/2018/17 are summarized in **Table 4.2**.

|                          |                                    | -            |  |         |  |  |
|--------------------------|------------------------------------|--------------|--|---------|--|--|
| Reference                | Valid Period                       |              | Details                                    | Status  |  |  |
| Number                   | From                               | То           |  | Status  |  |  |
| Water Discharge License  |                                    |              |  |         |  |  |
| WT00035198-<br>2019      | 15/1/2020                          | 31/1/2025    | The application was approved on 15-1-2020. | Valid   |  |  |
| <b>Registered</b> C      | Registered Chemical Waste Producer |              |  |         |  |  |
| WPN5213-<br>269-B2565-01 | N/A                                | N/A          | The application was approved on 14-8-2019. | Valid   |  |  |
| <b>Billing</b> Accou     | unt for Dispo                      | sal of Const | ruction Waste                              |         |  |  |
| CSW03680                 | 6/8/2019                           | N/A          | The application was approved on 6-8-2019.  | Valid   |  |  |
| Notification of          | of Works Und                       | der APCO     |  | 1       |  |  |
| 447348                   | N/A                                | N/A          | Notice form received by EPD on 17-7-2019.  | N/A     |  |  |
| Construction             | Noise Permi                        | t            |  |         |  |  |
| GW-<br>RW0442-20         | 2/10/2020                          | 26/3/2021    | The application was approved on 25/9/2020  | Expired |  |  |
| GW-<br>RW0096-21         | 2/4/2021                           | 25/9/2021    | The application was approved on 26/3/2021  | Valid   |  |  |

#### Table 4.2Summary of Environmental Licence / Permit for DE/2018/17

#### **Status of Waste Management**

4.8 The amount of wastes generated by the activities of the Project in the reporting month is shown in **Appendix D**.

#### **Implementation Status of Event Action Plans**

4.9 The Event Action Plans for air quality and noise are presented in **Appendix E.** 

<u>1-hr TSP</u>

4.10 No Action/Limit Level exceedance was recorded.

<u>24-hr TSP</u>

4.11 No Action/Limit Level exceedance was recorded.

Construction Noise

4.12 No Action/Limit Level exceedance was recorded.

Landscape and Visual

4.13 No major deficiency was recorded.

#### **Summary of Complaints and Prosecutions**

- 4.14 No environmental complaint and prosecution was received for the Project in the reporting month.
- 4.15 There were no environmental complaint and prosecution received since the commencement of the Project. The Complaint Log is presented in **Appendix G**.

# 5. FUTURE KEY ISSUES

### Key Issues for the Coming Month

- 5.1 Key environmental issues in the coming month include:
  - Storage of chemicals/fuel and chemical waste/waste oil on-site;
  - Leakage of oil from equipment;
  - Dust generation should be mitigated by adequate water spraying, especially in dry days;
  - Stockpile should be properly covered by tarpaulin or impervious materials to mitigate dust generation;
  - Noise from operation of equipment and machinery on-site;
  - Silty surface runoff generated from the site area; and
  - Silt and dust getting into the public area by the leaving site vehicles at the site exits without adequate wheel washing facilities.

### Monitoring Schedule for the Next Month

5.2 The tentative environmental monitoring schedule over the next month could be found in the **Appendix C** of the monthly report of Contract DC/2009/10.

# **Construction Program for the Next Month**

5.3 The tentative construction program is provided in **Appendix H**.

## 6. CONCLUSIONS AND RECOMMENDATIONS

#### Conclusions

6.1 Environmental monitoring and audit works were performed in the reporting month and all monitoring results were checked and reviewed.

#### 1-hour TSP Monitoring

6.2 All 1-hour TSP monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded.

#### 24-hour TSP Monitoring

6.3 All 24-hour TSP monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded.

#### Construction Noise Monitoring

6.4 All Construction Noise monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded.

#### Environmental Audit

6.5 Environmental site audits were conducted as weekly basis in the reporting month. No non-compliance was recorded.

#### Complaint and Prosecution

6.6 No environmental complaint and prosecution was received in the reporting month.

#### **Recommendations for next reporting month**

6.7 The following recommendations were made for the next report month:

#### Air Quality

- To provide adequate water spray on site;
- To mitigate dust generation by covering stockpile with tarpaulin;
- To regularly maintain the machinery and vehicles on site; and
- To follow up any exceedance caused by the construction works.
- Non-Road Mobile Machinery (NRMM) labels must be demonstrated on the registered equipment for inspection.

#### Noise

- To inspect the noise sources inside the site;
- To follow up any exceedance caused by the construction works;
- To space out noisy equipment and position the equipment as far away as possible from sensitive receivers;
- To provide temporary noise barriers for operations of noisy equipment near the noise sensitive receivers in an appropriate location;
- To provide adequate lubricant on mechanical equipments to reduce frictional noise; and

• To well maintain the mechanical equipments / machineries to avoid abnormal noise nuisance.

#### Water Quality

- To identify any discharge of wastewater from the construction site;
- To provide adequate temporary drainage system with adequate capacity;
- To provide adequate wastewater treatment facilities to treat the wastewater generated during construction works and heavy rain;
- To properly cover the stockpile to prevent the generation of surface runoff; and
- To avoid water accumulation on site and carry out larviciding against mosquito breeding for stagnant water when mosquito larvae are observed.

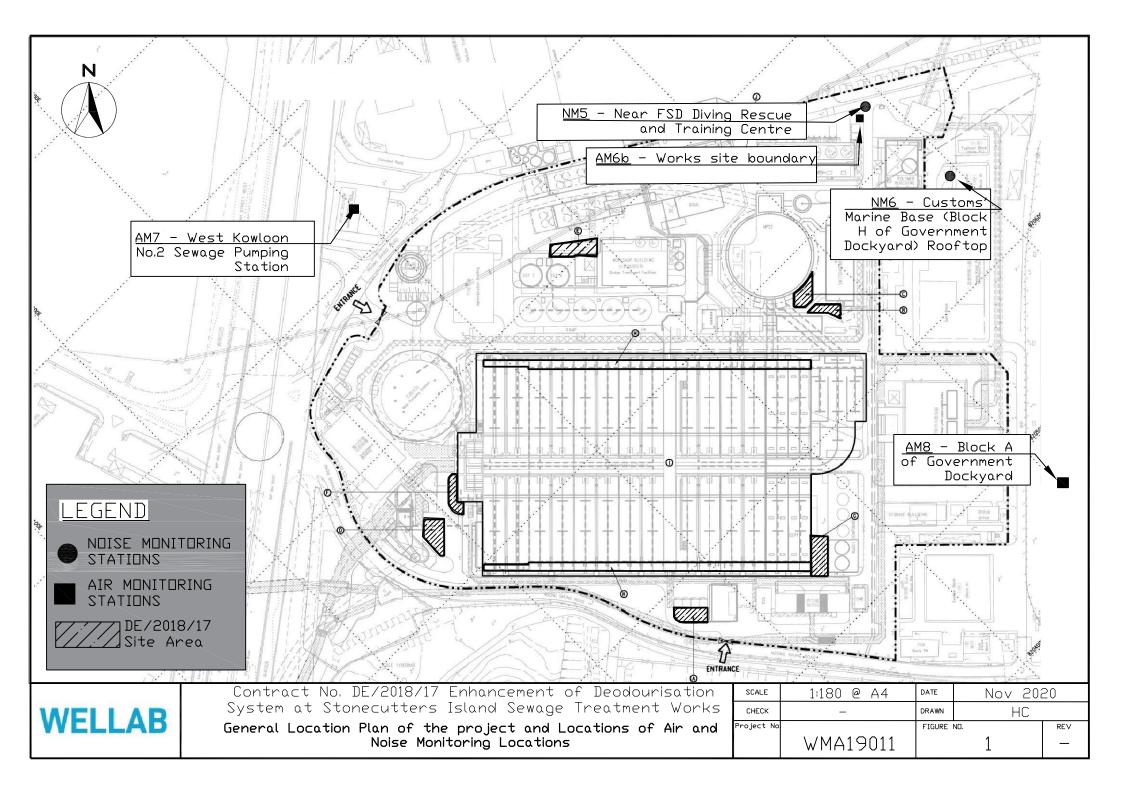
#### Waste/Chemical Management

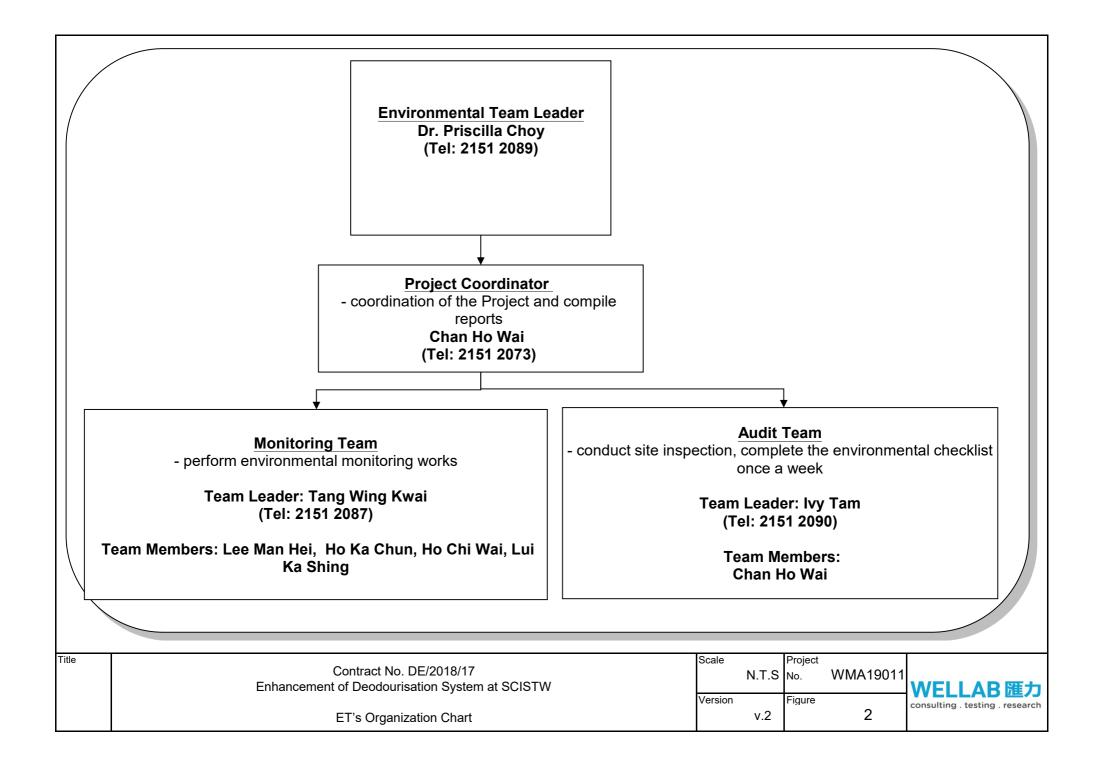
- To provide proper rubbish bins / skips for waste collection;
- To check for any accumulation of wasted materials or rubbish on site;
- To provide adequate chemical waste storage area on site;
- To avoid any discharge or accidental spillage of chemical waste or oil directly from the equipment; and
- To avoid improper handling or storage of oil drum and cement on site.

#### Landscape and Visual

- To erect and maintain the protection fence around the retained trees; and
- To avoid any construction materials being placed inside the tree protection zone.

FIGURES





APPENDIX A ACTION AND LIMIT LEVELS FOR AIR QUALITY AND NOISE QUALITY

# Appendix A Action and Limit Levels

#### Table A-1 Action and Limit Levels for 1-Hour TSP and 24-Hour TSP

| Monitoring Stations        | Action Level (µg/m <sup>3</sup> ) |         | Limit Level (µg/m <sup>3</sup> ) |         |
|----------------------------|-----------------------------------|---------|----------------------------------|---------|
| <b>Monitoring Stations</b> | 1-hour                            | 24-hour | 1-hour                           | 24-hour |
| AM6b                       | 346                               | 196     | 500                              | 260     |
| AM7                        | 322                               | 207     | 500                              | 260     |
| AM8                        | 307                               | 158     | 500                              | 260     |

#### Table A-2 Action and Limit Level for Construction Noise

| Monitoring<br>Stations | Time Period   | Action Level                                    | Limit Level in dB(A) |
|------------------------|---|---|----------------------|
|                        | 0700-1900 hours on normal weekdays  | When one<br>documented<br>complaint is received | 75                   |
| NM5<br>NM6             | Evening Time of normal weekdays and<br>General Holidays:<br>All days during the evening (1900 to<br>2300 hours), and general holidays<br>(including Sundays) during the day-<br>time and evening (0700 to 2300 hours) | N/A   | 70(1)                |

Notes: If works are to be carried out during restricted hours, the conditions stipulated in the Construction Noise Permit (CNP) issued by the Noise Control Authority have to be followed.

APPENDIX B SUMMARY OF EXCEEDANCE

#### **APPENDIX B – SUMMARY OF EXCEEDANCE**

#### Reporting Month: March 2021

- a) Exceedance Report for 1-hr TSP (NIL)
- b) Exceedance Report for 24-hr TSP (NIL)
- c) Exceedance Report for Construction Noise (NIL)

APPENDIX C SITE AUDIT SUMMARY

| Checklist Reference Number | 210304                  |  |
|----------------------------|-------------------------|--|
| Date                       | 4 March 2021 (Thursday) |  |
| Time                       | 10:30 - 11:30           |  |

| Ref. No. | Non-Compliance   | Related Item No. |
|----------|--|------------------|
| -        | None identified  | -                |
| Ref. No. | Remarks/Observations   | Related Item No. |
|          | Part A - Water Quality   |                  |
|          | • No environmental deficiency was identified during the site inspection.                                       |                  |
|          | Part B – Landscape and Visual  |                  |
| 1        | • No environmental deficiency was identified during the site inspection.                                       |                  |
| l        | Part C - Air Quality   |                  |
|          | • No environmental deficiency was identified during the site inspection.                                       |                  |
|          | Part D – Noise   |                  |
|          | • No environmental deficiency was identified during the site inspection.                                       |                  |
|          | Part E – Waste / Chemical Management   |                  |
|          | • No environmental deficiency was identified during the site inspection.                                       |                  |
|          | Part F - Permit / Licence  |                  |
|          | • No environmental deficiency was identified during the site inspection.                                       |                  |
|          | Others   |                  |
|          | <ul> <li>No environmental deficiency was identified during the site inspection.</li> </ul>                     |                  |
|          |  |                  |
|          | <ul><li><i>Remark:</i></li><li>Follow-up on previous audit session:</li></ul>                                  |                  |
|          | On previous audit session (Ref. No.: 210225), no environmental deficiency was observed during site inspection. |                  |

| · · ·       | Name               | Signature | Date         |
|-------------|--------------------|-----------|--------------|
| Recorded by | Ivan Wong          | Ivan      | 8 March 2021 |
| Checked by  | Dr. Priscilla Choy | NA_       | 8 March 2021 |

| Checklist Reference Number | 210311                   |
|----------------------------|--------------------------|
| Date                       | 11 March 2021 (Thursday) |
| Time                       | 10:30 - 11:30            |

| Ref. No. | Non-Compliance   | Related Item No. |
|----------|--|------------------|
| -        | None identified  | -                |
| Ref. No. | Remarks/Observations   | Related Item No. |
|          | Part A - Water Quality   |                  |
|          | • No environmental deficiency was identified during the site inspection.                                       |                  |
|          | Part B – Landscape and Visual  |                  |
| I        | • No environmental deficiency was identified during the site inspection.                                       |                  |
|          | Part C - Air Quality   |                  |
|          | • No environmental deficiency was identified during the site inspection.                                       |                  |
|          | Part D – Noise   |                  |
|          | • No environmental deficiency was identified during the site inspection.                                       |                  |
|          | Part E – Waste / Chemical Management   |                  |
|          | • No environmental deficiency was identified during the site inspection.                                       |                  |
|          | Part F - Permit / Licence  |                  |
|          | • No environmental deficiency was identified during the site inspection.                                       |                  |
|          | Others   |                  |
|          | • No environmental deficiency was identified during the site inspection.                                       |                  |
|          | Remark:  |                  |
|          | • Follow-up on previous audit session:   |                  |
| •        | On previous audit session (Ref. No.: 210304), no environmental deficiency was observed during site inspection. |                  |

|             | Name               | Signature | Date          |
|-------------|--------------------|-----------|---------------|
| Recorded by | Ivan Wong          | Ivon      | 15 March 2021 |
| Checked by  | Dr. Priscilla Choy | NIS       | 15 March 2021 |

| Checklist Reference Number | 210317                    |  |
|----------------------------|---------------------------|--|
| Date                       | 17 March 2021 (Wednesday) |  |
| Time                       | 14:30 - 15:30             |  |

| Ref. No. | Non-Compliance   | Related Item No.        |
|----------|--|-------------------------|
| _        | None identified  | -                       |
| Ref. No. | Remarks/Observations   | <b>Related Item No.</b> |
|          | Part A - Water Quality   |                         |
|          | • No environmental deficiency was identified during the site inspection.                                       |                         |
|          | Part B – Landscape and Visual  |                         |
|          | • No environmental deficiency was identified during the site inspection.                                       |                         |
|          | Part C - Air Quality   |                         |
|          | • No environmental deficiency was identified during the site inspection.                                       |                         |
|          | Part D – Noise   |                         |
|          | • No environmental deficiency was identified during the site inspection.                                       |                         |
|          | Part E – Waste / Chemical Management   |                         |
|          | • No environmental deficiency was identified during the site inspection.                                       |                         |
|          | Part F - Permit / Licence  |                         |
|          | • No environmental deficiency was identified during the site inspection.                                       |                         |
|          | Others   |                         |
|          | • No environmental deficiency was identified during the site inspection.                                       |                         |
|          | Remark:  |                         |
|          | • Follow-up on previous audit session:   |                         |
| L        | On previous audit session (Ref. No.: 210311), no environmental deficiency was observed during site inspection. |                         |

|             | Name               | Signature | Date          |
|-------------|--------------------|-----------|---------------|
| Recorded by | Ivan Wong          | Ivan      | 22 March 2021 |
| Checked by  | Dr. Priscilla Choy | W.J.      | 22 March 2021 |
|             |                    | P         |               |

| Checklist Reference Number | 210325                   |
|----------------------------|--------------------------|
| Date                       | 25 March 2021 (Thursday) |
| Time                       | 10:00 - 11:00            |

| Ref. No. | Non-Compliance   | <b>Related Item No.</b> |
|----------|--|-------------------------|
| _        | None identified  |                         |
| Ref. No. | Remarks/Observations   | <b>Related Item No.</b> |
|          | Part A - Water Quality   |                         |
|          | • No environmental deficiency was identified during the site inspection.                                       |                         |
|          | Part B – Landscape and Visual  |                         |
|          | • No environmental deficiency was identified during the site inspection.                                       |                         |
|          | Part C - Air Quality   |                         |
|          | • No environmental deficiency was identified during the site inspection.                                       |                         |
|          | Part D – Noise   |                         |
|          | • No environmental deficiency was identified during the site inspection.                                       |                         |
|          | Part E – Waste / Chemical Management   |                         |
|          | • No environmental deficiency was identified during the site inspection.                                       |                         |
|          | Part F - Permit / Licence  |                         |
|          | • No environmental deficiency was identified during the site inspection.                                       |                         |
|          | Others   |                         |
|          | • No environmental deficiency was identified during the site inspection.                                       |                         |
|          | Remark:  |                         |
|          | • Follow-up on previous audit session:   |                         |
|          | On previous audit session (Ref. No.: 210317), no environmental deficiency was observed during site inspection. |                         |

|             | Name               | Signature | Date          |  |
|-------------|--------------------|-----------|---------------|--|
| Recorded by | Ivan Wong          | Ivan      | 29 March 2021 |  |
| Checked by  | Dr. Priscilla Choy | NT        | 29 March 2021 |  |

APPENDIX D SUMMARY OF AMOUNT OF WASTE GENERATED Name of Department:

DSD

Contract No. : I

DE/2018/17

|   | Actual Quantities of inert C&D Materials Generated Monthly |                          |                          |                          |                          | Actual Quantities of C&D Materials Generated Monthly |             |             |              |             |                          |
|---|--|--------------------------|--------------------------|--------------------------|--------------------------|--|-------------|-------------|--------------|-------------|--------------------------|
| Month   | Total Quantity   | Hard Rock and Large      | Reused in the            | Reused in                | Disposed as              | Imported   | Metals      | Paper/      | Plastics     | Chemical    | Other, e.g.              |
| Month   | Generated  | Broken Concrete          | Contract                 | other Projects           | Public Fill              | Fill   |             | cardboard   | (see Note 3) | Waste       | general refuse           |
|   | (In '000m <sup>3</sup> )                                   | (In '000m <sup>3</sup> ) | (In '000m <sup>3</sup> ) | (In '000m <sup>3</sup> ) | (In '000m <sup>3</sup> ) | (In '000m <sup>3</sup> )                             | (In '000kg) | (In '000kg) | (In '000kg)  | (In '000kg) | (In '000m <sup>3</sup> ) |
| Jan   | 0.200  | 0.000                    | 0.000                    | 0.000                    | 0.200                    | 0.000  | 0.000       | 1.332       | 0.000        | 0.000       | 0.007                    |
| Feb   | 0.179  | 0.000                    | 0.000                    | 0.000                    | 0.179                    | 0.000  | 0.000       | 3.083       | 0.000        | 0.000       | 0.007                    |
| Mar   | 0.170  | 0.000                    | 0.000                    | 0.000                    | 0.170                    | 0.000  | 0.000       | 3.614       | 0.000        | 0.000       | 0.004                    |
| Apr   |  |                          |                          |                          |                          |  |             |             |              |             |                          |
| May   |  |                          |                          |                          |                          |  |             |             |              |             |                          |
| June  |  |                          |                          |                          |                          |  |             |             |              |             |                          |
| Sub-total                                     | 0.549  | 0.000                    | 0.000                    | 0.000                    | 0.549                    | 0.000  | 0.000       | 8.029       | 0.000        | 0.000       | 0.017                    |
| July  |  |                          |                          |                          |                          |  |             |             |              |             |                          |
| Aug   |  |                          |                          |                          |                          |  |             |             |              |             |                          |
| Sep   |  |                          |                          |                          |                          |  |             |             |              |             |                          |
| Oct   |  |                          |                          |                          |                          |  |             |             |              |             |                          |
| Nov   |  |                          |                          |                          |                          |  |             |             |              |             |                          |
| Dec   |  |                          |                          |                          |                          |  |             |             |              |             |                          |
| Total   | 0.549  | 0.000                    | 0.000                    | 0.000                    | 0.549                    | 0.000  | 0.000       | 8.029       | 0.000        | 0.000       | 0.017                    |
| Total since<br>commence<br>ment of<br>project |  | 0.399                    | 0.000                    | 0.000                    | 4.289                    | 0.000  | 12.260      | 14.755      | 0.000        | 0.000       | 0.066                    |

#### Monthly Summary Waste Flow Table for 2021 (year)

Notes: (1) The performance targets are given in PS Clause 25.37(14).

(2) The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site.

(3) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material

(4) The conversion factor for tonne to  $m^3$  for inert C&D materials is 1.9 tonne/ $m^3$ .

(5) The conversion factor for tonne to  $m^3$  for general refuse is 1.8 tonne/ $m^3$ .

APPENDIX E EVENT ACTION PLANS

#### **APPENDIX E – Event / Action Plans**

#### Table E-1 Event / Action Plan For Air Quality

|                   | ACTION                              |                                   |                                    |                               |
|-------------------|-------------------------------------|-----------------------------------|------------------------------------|-------------------------------|
| EVENT             | ET                                  | IEC                               | ER                                 | CONTRACTOR                    |
| ACTION LEVEL      |                                     |                                   |                                    |                               |
| 1. Exceedance for | 1. Identify source, investigate the | 1. Check monitoring data          | 1. Notify Contractor.              | 1. Rectify any unacceptable   |
| one sample        | causes of exceedance and propose    | submitted by ET;                  |                                    | practice;                     |
|                   | remedial measures;                  | 2. Check Contractor's working     |                                    | 2. Amend working methods if   |
|                   | 2. Inform IEC and ER;               | method.                           |                                    | appropriate.                  |
|                   | 3. Repeat measurement to confirm    |                                   |                                    |                               |
|                   | finding;                            |                                   |                                    |                               |
|                   | 4. Increase monitoring frequency to |                                   |                                    |                               |
|                   | daily.                              |                                   |                                    |                               |
| 2. Exceedance for | 1. Identify source;                 | 1. Check monitoring data          | 1. Confirm receipt of notification | 1. Submit proposals for       |
| two or more       | 2. Inform IEC and ER;               | submitted by ET;                  | of failurein writing;              | remedial to ER within 3       |
| consecutive       | 3. Advise the ER on the             | 2. Check Contractor's working     | 2. Notify Contractor;              | working days of notification; |
| samples           | effectiveness of the proposed       | method;                           | 3. Ensure remedial measures        | 2. Implement the agreed       |
|                   | remedial measures;                  | 3. Discuss with ET and Contractor | properly implemented               | proposals;                    |
|                   | 4. Repeat measurements to confirm   | on possible remedial measures;    |                                    | 3. Amend proposal if          |
|                   | findings;                           | 4. Advise the ET on the           |                                    | appropriate                   |
|                   | 5. Increase monitoring frequency to | effectiveness of the              |                                    |                               |
|                   | daily;                              | proposed remedial measures;       |                                    |                               |
|                   | 6. Discuss with IEC and Contractor  | 5. Supervise Implementation of    |                                    |                               |
|                   | on remedial                         | remedial measures.                |                                    |                               |
|                   | actions required;                   |                                   |                                    |                               |
|                   | 7. If exceedance continues, arrange |                                   |                                    |                               |
|                   | meeting with IEC and ER;            |                                   |                                    |                               |
|                   | 8. If exceedance stops, cease       |                                   |                                    |                               |
|                   | additional monitoring               |                                   |                                    |                               |

| ACTION            |                                       |                                   |                                |                              |
|-------------------|---------------------------------------|-----------------------------------|--------------------------------|------------------------------|
| EVENT             | ET                                    | IEC                               | ER                             | CONTRACTOR                   |
| LIMIT LEVEL       |                                       |                                   | ·                              |                              |
| 1. Exceedance for | 1. Identify source, investigate the   | 1. Check monitoring data          | 1. Confirm receipt of          | 1. Take immediate action to  |
| one sample        | causes of exceedance and propose      | submitted by ET;                  | notification of failure in     | avoid further exceedance;    |
|                   | remedial measures;                    | 2. Check Contractor's working     | writing;                       | 2. Submit proposals for      |
|                   | 2. Inform ER, Contractor and EPD;     | method;                           | 2. Notify Contractor;          | remedial actions to IEC      |
|                   | 3. Repeat measurement to confirm      | 3. Discuss with ET and Contractor | 3. Ensure remedial measures    | within 3 working days of     |
|                   | finding;                              | on possible remedial measures;    | properly implemented           | notification;                |
|                   | 4. Increase monitoring frequency to   | 4. Advise the ER on the           |                                | 3. Implement the agreed      |
|                   | daily;                                | effectiveness of the proposed     |                                | proposals;                   |
|                   | 5. Assess effectiveness of            | remedial measures;                |                                | 4. Amend proposal if         |
|                   | Contractor's remedial actions and     | 5. Supervise implementation of    |                                | appropriate                  |
|                   | keep IEC, EPD and ER informed of      | remedial measures                 |                                |                              |
|                   | the results.                          |                                   |                                |                              |
|                   |                                       |                                   |                                |                              |
| 2. Exceedance for | 1. Notify IEC, ER, Contractor and     | 1. Check monitoring data          | 1. Confirm receipt of          | 1. Take immediate action to  |
| two or more       | EPD;                                  | submitted by ET;                  | notification of failure in     | avoid further exceedance;    |
| consecutive       | 2. Identify source;                   | 2. Check Contractor's working     | writing;                       | 2. Submit proposals for      |
| samples           | 3. Repeat measurement to confirm      | method;                           | 2. Notify Contractor;          | remedial actions             |
|                   | findings;                             | 3. Discuss amongst ER, ET, and    | 3. In consolidation with the   | to IEC within 3 working days |
|                   | 4. Increase monitoring frequency to   | Contractor on the potential       | IEC, agree with the Contractor | of notification;             |
|                   | daily;                                | remedial actions;                 | on the remedial measures to    | 3. Implement the agreed      |
|                   | 5. Carry out analysis of Contractor's | 4. Review Contractor's remedial   | be implemented;                | proposals;                   |
|                   | working procedures to determine       | actions whenever necessary to     | 4. Ensure remedial measures    | 4. Resubmit proposals if     |
|                   | possible mitigation to be             | assure their effectiveness and    | properly implemented;          | problem still not under      |

|       | ACTION                             |                                    |                                 |                                 |
|-------|------------------------------------|------------------------------------|---------------------------------|---------------------------------|
| EVENT | ET                                 | IEC                                | ER                              | CONTRACTOR                      |
|       | implemented;                       | advise the ER accordingly;         | 5. If exceedance continues,     | control;                        |
|       | 6. Arrange meeting with IEC and    | 5. Supervise the implementation of | consider what portion of the    | 5. Stop the relevant portion of |
|       | ER to discuss the remedial actions | remedial measures.                 | work is responsible and         | works as determined by the      |
|       | to be taken;                       |                                    | instruct the Contractor to stop | ER until the exceedance is      |
|       | 7. Assess effectiveness of         |                                    | that portion of work until the  | abated                          |
|       | Contractor's remedial actions and  |                                    | exceedance is abated.           |                                 |
|       | keep IEC, EPD and ER informed of   |                                    |                                 |                                 |
|       | the results;                       |                                    |                                 |                                 |
|       | 8. If exceedance stops, cease      |                                    |                                 |                                 |
|       | additional monitoring              |                                    |                                 |                                 |

## Table E-2 Event / Action Plan For Construction Noise

|              | ACTION                                    |                                |                                     |                                |
|--------------|---|--------------------------------|-------------------------------------|--------------------------------|
| EVENT        | ET  | IEC                            | ER                                  | CONTRACTOR                     |
| Action Level | 1. Notify ER, IEC and Contractor;         | 1. Review the investigation    | 1. Confirm receipt of               | 1. Submit noise mitigation     |
| being        | 2. Carry out investigation;               | results submitted by the ET;   | notification of failure in writing; | proposals to IEC and ER;       |
| exceeded     | 3. Report the results of investigation to | 2. Review the proposed         | 2. Notify Contractor;               | 2. Implement noise mitigation  |
|              | the IEC, ER and Contractor;               | remedial measures by the       | 3. In consolidation with the IEC,   | proposals                      |
|              | 4. Discuss with the IEC and               | Contractor and advise the ER   | agree with the Contractor on the    |                                |
|              | Contractor on remedial measures           | accordingly;                   | remedial measures to be             |                                |
|              | required;                                 | 3. Advise the ER on the        | implemented;                        |                                |
|              | 5. Increase monitoring frequency to       | effectiveness of the proposed  | 4. Supervise the implementation of  |                                |
|              | check mitigation effectiveness            | remedial measures              | remedial measures                   |                                |
| Limit Level  | 1. Inform IEC, ER, Contractor and         | 1. Discuss amongst ER, ET,     | 1. Confirm receipt of               | 1. Take immediate action to    |
| being        | EPD;                                      | and                            | notification of failure in writing; | avoid further exceedance;      |
| exceeded     | 2. Repeat measurements to confirm         | Contractor on the potential    | 2. Notify Contractor;               | 2. Submit proposals for        |
| exceeded     | findings;                                 | remedial actions;              | 3. In consolidation with the        | remedial actions to IEC        |
|              | 3. Increase monitoring frequency;         | 2. Review Contractor's         | IEC, agree with the Contractor on   | and ER within 3 working        |
|              | 4. Identify source and investigate the    | remedial                       | the remedial measures to be         | days of notification;          |
|              | cause of exceedance;                      | actions whenever necessary     | implemented;                        | 3. Implement the agreed        |
|              | 5. Carry out analysis of Contractor's     | to assure their effectiveness  | 4. Supervise the implementation of  | proposals;                     |
|              | working procedures;                       | and advise the ER accordingly. | remedial measures;                  | 4. Submit further proposal if  |
|              | 6. Discuss with the IEC, Contractor       |                                | 5. If exceedance continues,         | problem still not under        |
|              | and ER on remedial measures               |                                | consider stopping the Contractor to | control;                       |
|              | required;                                 |                                | continue working on that portion of | 5. Stop the relevant portion   |
|              | 7. Assess effectiveness of Contractor's   |                                | work which causes the exceedance    | of works as instructed by      |
|              | remedial actions and keep IEC, EPD        |                                | until the exceedance is abated      | the ER until the exceedance is |
|              | and ER informed of the results;           |                                |                                     | abated                         |
|              | 8. If exceedance stops, cease             |                                |                                     |                                |
|              | additional monitoring                     |                                |                                     |                                |

APPENDIX F ENVIRONMENTAL MITIGATION IMPLEMENTATION SCHEDULE (EMIS)

## APPENDIX F IMPLEMENTATION SCHEDULE OF ENVIRONMENTAL MITIGATION MEASURES (EMIS)

| EIA  | Recommended Mitigation Measures  | Location of the measure | Implementation Status |
|------|--|-------------------------|-----------------------|
| Ref. |  |                         |                       |
|      |  |                         |                       |
| Α    | Air Quality  |                         |                       |
| 3.74 | Skip hoist for material transport should be totally enclosed by impervious sheeting.   | All construction sites  | ٨                     |
|      | Vehicle washing facilities should be provided at every vehicle exit point.   |                         | ٨                     |
|      | The area where vehicle washing takes place and the section of the road between the washing facilities and the exit point should be paved with concrete, bituminous materials or hardcore.                                    |                         | ^                     |
|      | Where a site boundary adjoins a road, streets or other areas accessible to the public, hoarding of not less than 2.4 m high from ground level should be provided along the entire length except for a site entrance or exit. |                         | N/A                   |
|      | Use of regular watering, with complete coverage, to reduce dust emissions from exposed site surfaces and unpaved roads, particularly during dry weather.   |                         | ٨                     |
|      | Side enclosure and covering of any aggregate or dusty material storage piles to reduce<br>emissions. Where this is not practicable owing to frequent usage, watering shall be<br>applied to aggregate fines.                 |                         | Λ                     |
|      | Open stockpiles shall be avoided or covered. Where possible, prevent placing dusty material storage piles near ASRs.   |                         | ٨                     |
|      | Tarpaulin covering of all dusty vehicle loads transported to, from and between site locations.   |                         | ٨                     |
|      | Imposition of speed controls for vehicles on unpaved site roads. Ten kilometers per hour is the recommended limit.   |                         | ٨                     |
|      | Every stock of more than 20 bags of cement should be covered entirely by impervious sheeting placed in an area sheltered on the top and the 3 sides.   |                         | ٨                     |
|      | Every vehicle should be washed to remove any dusty materials from its body and wheels before leaving the construction sites.   |                         | ٨                     |
| 3.74 | Instigation of an environmental monitoring and auditing program to monitor the construction process in order to enforce controls and modify method of work if dusty conditions arise.  | All construction sites  | Λ                     |

| EIA      | Recommended Mitigation Measures  | Location of the measure | Implementation Status |
|----------|--|-------------------------|-----------------------|
| Ref.     |  |                         |                       |
|          |  |                         |                       |
| В        | Airborne Noise   |                         |                       |
| 4.56-    | Use of quiet PME, movable barriers and acoustic mats.  | All construction sites  | ٨                     |
| 4.61     |  |                         |                       |
| 4.67     | Only well-maintained plant shall be operated on-site and plant shall be serviced regularly during the construction program.  |                         | ^                     |
|          | Silencers or mufflers on construction equipment shall be utilized and shall be properly maintained during the construction program.  |                         | ^                     |
|          | Mobile plant, if any, shall be sited as far away from NSRs as possible.  |                         | ٨                     |
|          | Machines and plant (such as trucks) that may be in intermittent use shall be shut down between works periods or shall be throttled down to a minimum.  |                         | ^                     |
| 4.67     | Plant known to emit noise strongly in one direction shall, wherever possible, be orientated so that the noise is directed away from the nearby NSRs.   |                         | ^                     |
|          | Material stockpiles and other structures shall be effectively utilized, wherever practicable, in screening noise from on-site construction activities.   |                         | ^                     |
| С        | Water Quality  |                         |                       |
| 6.349 to | Construction Site Runoff and General Construction Activities   | All construction sites  | ٨                     |
| 6.375    | The mitigation measures as outlined in the ProPECC PN 1/94 Construction Site Drainage should be adopted where applicable.  |                         |                       |
| 6.376    | Effluent Discharge<br>There is a need to apply to EPD for a discharge licence for discharge of effluent from the<br>construction site under the WPCO. The discharge quality must meet the requirements<br>specified in the discharge licence. If monitoring of the treated effluent quality from the<br>works areas is required during the construction phase of the Project, the monitoring should<br>be carried out in accordance with the WPCO license which is under the ambit of regional<br>office (RO) of EPD.<br>Minimum distances of 100 m should be maintained between the discharge points of<br>construction site effluent and the existing saltwater intakes. |                         | Λ                     |
| 6.377    | Accidental Spillage of Chemicals   |                         | ٨                     |
|          | Contractor must register as a chemical waste producer if chemical wastes would be produced from the construction activities. The Waste Disposal Ordinance (Cap 354) and its subsidiary regulations in particular the Waste Disposal (Chemical Waste) (General)   |                         |                       |

| EIA   | Recommended Mitigation Measures  | Location of the measure | Implementation Status |
|-------|--|-------------------------|-----------------------|
| Ref.  |  |                         |                       |
|       |  |                         |                       |
|       | Regulation should be observed and complied with for control of chemical wastes.  |                         |                       |
| 6.378 | Any service shop and maintenance facilities should be located on hard standings within a bunded area, and sumps and oil interceptors should be provided. Maintenance of vehicles and equipment involving activities with potential for leakage and spillage should only be undertaken within the areas appropriately equipped to control these discharges.   |                         | ٨                     |
| 6.379 | <ul> <li>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> <li>Suitable containers should be used to hold the chemical wastes to avoid leakage or spillage during storage, handling and transport.</li> <li>Chemical waste containers should be suitably labelled, to notify and warn the personnel who are handling the wastes, to avoid accidents.</li> <li>Storage area should be selected at a safe location on site and adequate space should be allocated to the storage area.</li> </ul> </li> </ul>   |                         | Λ                     |
| 6.380 | Construction Works in Close Proximity of Storm Drains or Seafront:   | All construction sites  | ٨                     |
|       | <ul> <li>To minimize the potential water quality impacts from the construction works located at or near any watercourse, the practices outlined below should be adopted where applicable.</li> <li>The use of less or smaller construction plants may be specified to reduce the disturbance to the storm water courses or marine environment.</li> <li>Temporary storage of materials (e.g. equipment, filling materials, chemicals and fuel) and temporary stockpile of construction materials should be located well away from any water courses during carrying out of the construction works.</li> <li>Stockpiling of construction materials and dusty materials should be covered and located away from any water courses.</li> <li>Construction debris and spoil should be covered up and/or disposed of as soon as possible to avoid being washed into the nearby water receivers.</li> <li>Construction activities, which generate large amount of wastewater, should be carried out in a distance away from the waterfront, where practicable.</li> <li>Proper shoring may need to be erected in order to prevent soil/mud from slipping into the storm culvert or sea.</li> </ul> |                         |                       |

| EIA  | Recommended Mitigation Measures | Location of the measure | Implementation Status |
|------|---------------------------------|-------------------------|-----------------------|
| Ref. |                                 |                         |                       |
|      |                                 |                         |                       |

| D     | Waste Management   |                        |   |
|-------|--|------------------------|---|
| 9.107 | Reusable steel or concrete panel shutters, fencing and hoarding and signboard should be used as a preferred alternative to items made of wood, to minimize wastage of wood. Attention should be paid to WBTC No. 19/2001 - Metallic Site Hoardings and Signboards to reduce the amount of timber used on construction sites. Metallic alternatives to timber are readily available and should be used rather than new timber. Precast concrete units should be adopted wherever feasible to minimize the use of timber formwork. | All construction sites | ٨ |
| 9.109 | <ul> <li>All waste materials should be segregated into categories covering:</li> <li>excavated materials suitable for reuse on-site;</li> <li>excavated materials suitable for public filling facilities;</li> <li>remaining C&amp;D waste for landfill;</li> <li>chemical waste; and</li> <li>general refuse for landfill.</li> </ul>   | All construction sites | ۸ |
| 9.113 | Sort C&D waste from demolition of existing facilities to recover recyclable portions such as metals.   |                        | ۸ |
|       | 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.   |                        | ۸ |
|       | Encourage collection of aluminum cans, PET bottles and paper by providing separate labeled bins to enable these wastes to be segregated from other general refuse generated by the work force.   |                        | ٨ |
|       | Any unused chemicals or those with remaining functional capacity shall be recycled.  |                        | ٨ |
|       | Proper storage and site practices to minimize the potential for damage or contamination of construction materials.   |                        | ^ |
| 9.115 | Nomination of an approved person, such as a site manager, to be responsible for good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site.   |                        | ۸ |
|       | Training of site personnel in proper waste management and chemical waste handling procedures.  |                        | ^ |
| 9.115 | Develop and provide toolbox talk for on-site sorting of C&D materials to enhance worker's awareness in handling, sorting, reuse and recycling of C&D materials.  |                        | ۸ |
|       | Provision of sufficient waste disposal points and regular collection of waste.   |                        | ۸ |
|       | Regular cleaning and maintenance programme for drainage systems, sumps and oil   |                        | ٨ |

| EIA   | Recommended Mitigation Measures  | Location of the measure | Implementation Status |
|-------|--|-------------------------|-----------------------|
| Ref.  |  |                         |                       |
|       | interceptors.  |                         |                       |
|       | increptors.  |                         |                       |
| 9.125 | Bentonite slurries used in diaphragm wall construction should be reconditioned and reused wherever practicable. The disposal of residual used bentonite slurry should follow the good practice guidelines stated in ProPECC PN 1/94 "Construction Site Drainage".  | All construction sites  | ٨                     |
| 9.131 | Adequate number of portable toilets at temporary works areas or the PTWs to ensure that sewage from site staff would be properly collected.  |                         | ٨                     |
| 9.133 | General refuse should be stored in enclosed bins, skips or compaction units separating from C&D material and disposed of at designated landfill.   |                         | ٨                     |
| 9.135 | The recyclable component of the municipal waste generated by the workforce, such as<br>aluminum cans, paper and cleansed plastic containers should be separated from other<br>waste. Provision and collection of recycling bins for different types of recyclable waste<br>should be set up by the Contractor. The Contractor should also be responsible for<br>arranging recycling companies to collect these materials.  |                         | Λ                     |
| 9.137 | If chemical wastes are produced at the construction site, the Contractor would be required<br>to register with the EPD as a chemical waste producer and to follow the guidelines stated<br>in the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes.<br>Good quality containers compatible with the chemical wastes should be used, and<br>incompatible chemicals should be stored separately. Appropriate labels should be securely<br>attached on each chemical waste container indicating the corresponding chemical<br>characteristics of the chemical waste, such as explosive, flammable, oxidizing, irritant,<br>toxic, harmful, corrosive, etc. The Contractor shall use a licensed collector to transport<br>and dispose of the chemical wastes, to either the approved Chemical Waste Treatment<br>Centre, or another licensed facility, in accordance with the Waste Disposal (Chemical<br>Waste) (General) Regulation. |                         | Λ                     |
| 9.142 | Prior to excavation of the marine deposit layer, the deposit should be tested in accordance<br>with the ETWB TC(W) No. 34/2002 and the results should be presented in a Preliminary<br>Sediment Quality Report. The marine deposit should be disposed of at the disposal site<br>designated by the Marine Fill Committee (MFC) or Director of Environmental Protection<br>(DEP) depending on the test results.   |                         | N/A                   |

| EIA  | Recommended Mitigation Measures | Location of the measure | Implementation Status |
|------|---------------------------------|-------------------------|-----------------------|
| Ref. |                                 |                         |                       |
|      |                                 |                         |                       |

| Е             | Terrestrial Ecology  |  |     |
|---------------|--|--|-----|
| 10.94         | To implement effective noise mitigation measures as recommended in Section 4 of EIA.   | All construction sites   | N/A |
| 10.95         | Dust control practices such as regular watering, complete coverage of any aggregate or dusty material storage piles, and re-schedule of dusty activities during high-wind conditions as well as other measures recommended in Section 3 of EIA, should be implemented. | -  | ٨   |
| 10.96         | Fences/hoardings should be erected and installed along the boundary of the works areas.  |  | ٨   |
| 10.97         | Standard good site practices as suggested in Section 10 of EIA should be implemented.  |  | N/A |
| 10.98         | Provision of proper drainage system and runoff control measures such as use of sand/silt traps, oil/grease separators, sedimentation tanks, etc.   |  | ٨   |
| F             | Landscape and Visual   |  |     |
| Table<br>13.7 | Topsoil, where identified, should be stripped and stored for re-use in the construction of the soft landscape works, where practical.  | All construction sites   | ^   |
|               | Existing trees to be retained on site should be carefully protected during construction.   |  | ٨   |
|               | Trees unavoidably affected by the works should be transplanted where practical.  | -  | ٨   |
|               | Compensatory tree planting should be provided to compensate for felled trees.  | -  | ٨   |
|               | Control of night-time lighting.  |  | ٨   |
| Table<br>13.7 | Erection of decorative screen hoarding compatible with the surrounding setting.  | All construction sites   | N/A |
|               | Marine Ecology   |  |     |
| G             |  |  |     |
| 11.137        | To minimize the potential indirect impacts on water quality from construction site runoff<br>and various construction activities, the practices outlined in ProPECC PN 1/94<br>Construction Site Drainage should be adopted.   |  | ^   |
| Н             | Hazard to Life   |  |     |
| 14A.201       | Limiting use of cranes in terms of locations, lifting height, swing angle and setting up safety zone.  | Exact location will be determined on construction site by the engineer | ۸   |

| Remarks: | <ul> <li>Compliance of mitigation measure;</li> </ul> |
|----------|---|
|          | N/A Not Applicable;                                   |
|          | * Recommendation was made during site audit but       |
|          | improved/rectified by the contractor.                 |
|          | # Recommendation was made during site audit and to be |
|          | improved / rectified by the contractor.               |
|          | X Non-compliance of mitigation measure;               |
|          | Non-compliance but rectified by the contractor;       |

APPENDIX G COMPLAINT LOG

## APPENDIX G – COMPLAINT LOG

**Reporting Month**: March 2021

| Log Ref. | Location | Received Date | Details of Complaint | Investigation/Mitigation Action | Status |
|----------|----------|---------------|----------------------|---------------------------------|--------|
| N.A.     | N.A.     | N.A.          | N.A.                 | N.A.                            | N.A.   |

**Remarks**: No environmental complaint was received in the reporting month.

APPENDIX H CONSTRUCTION PROGRAMME

| Activity ID         | Activity Name  | Activity %<br>Complete | Total Float | Original<br>Duration | Time risk<br>allowance | Start                  | Finish                 | 20         | 19         |       | Q    |
|---------------------|--|------------------------|-------------|----------------------|------------------------|------------------------|------------------------|------------|------------|-------|------|
| Works Pro           | gramme (First Programme)   |                        |             |                      |                        |                        |                        |            | -          | ÷     | G    |
| Contract Pa         |  |                        |             |                      |                        |                        |                        |            | ┢          | -     |      |
| KD0001              | Starting date of Project   | 0%                     | 0           | 0                    |                        | 09-Jul-19*             |                        |            | <u>ج</u>   | Start | ing  |
| KD0005              | Completion Date (665 days)   | 0%                     | 0           | 0                    |                        |                        | 03-May-2               |            |            |       |      |
| Key Dates           |  |                        |             |                      |                        |                        |                        |            |            |       | _    |
| KD0010              | Starting date of Project   | 0%                     | 0           | 0                    |                        | 09-Jul-19*             |                        |            | <b>•</b> s | Start | ing  |
| KD0020              | KD A - Completion of all other works including DOUs 1, 2, 4, 5 Polishing stages for FSI (540 days)   | 0%                     | 0           | 0                    |                        |                        | 29-Dec-20*             |            |            | )9-   | ul.: |
| ACCESS Dat<br>A1090 | e of Part of the Site PartA-L  | 0%                     | 0           | 0                    |                        | 09-Jul-19              |                        |            |            | Part  |      |
|                     | and General Requirements   | 0%                     | 0           | 0                    |                        | 09-301-19              |                        |            | Ţ          | aru   |      |
| PG00010             | Statutory application/ notification of EPD and LD  | 0%                     | 11          | 21                   | 0                      | 09-Jul-19              | 29-Jul-19              |            |            |       | Sta  |
| PG00020             | Submission of Safety plan  | 0%                     | 11          | 21                   |                        | 09-Jul-19              | 29-Jul-19              |            | -          |       | Su   |
| PG00030             | Approval of Safety Plan  | 0%                     | 11          | 21                   |                        | 30-Jul-19              | 19-Aug-19              |            | l          | -     |      |
| PG00040             | Submission of Waste Management Plan/ Environmental Management plan   | 0%                     | 11          | 21                   | 0                      | 09-Jul-19              | 29-Jul-19              |            |            | - 1   | Su   |
| PG00050             | Approval of Waste Management Plan/ Environmental Management plan   | 0%                     | 11          | 14                   |                        | 30-Jul-19              | 12-Aug-19              |            |            | -     | h    |
| PG00060<br>PG00070  | Submission of Subcontractor Management Plan  | 0%                     | 112<br>112  | 14                   |                        | 09-Jul-19<br>23-Jul-19 | 22-Jul-19<br>05-Aug-19 |            |            | 1 8   | ub   |
| PG00070             | Approval of Subcontractor Management Plan<br>Submission of Staffing Proposal   | 0%                     | 7           | 14                   |                        | 09-Jul-19              | 22-Jul-19              |            | ╺┟┤        | ı İ   | ubi  |
| PG00090             | Approval of Staffing Proposal  | 0%                     | 7           | 7                    |                        | 23-Jul-19              | 29-Jul-19              |            | F          |       | Ap   |
|                     | Ire Construction Works   |                        |             |                      |                        |                        |                        |            | +          | -     | -    |
| Section 1 of t      |  |                        |             |                      |                        |                        |                        | <b> </b>   | +++        |       |      |
| A2960               | Section 1 Completion (150days)   | 0%                     | 0           | 0                    | 0                      |                        | 05-Dec-19*             |            |            |       |      |
| E&M Design          | Submission (AIP)<br>Submission of AIP Design of Activated Carbon Filter Systems for DOU1, DOU2 and DOU5  | 0%                     | 0           | 7                    | 0                      | 09-Jul-19              | 15-Jul-19              |            |            | Su    |      |
| A4930<br>A4940      | Approval of AIP Design of Activated Carbon Filter Systems for DOU1, DOU2 and DOU5  | 0%                     | 0           | 21                   |                        | 16-Jul-19              | 05-Aug-19              |            | 2          | JU    |      |
| A4950               | Submission of AIP Design of Air Relief Duct for Effluent Drop Structure  | 0%                     | 0           | 7                    |                        | 09-Jul-19              | 15-Jul-19              |            |            | Sų    | omi  |
| A4960               | Approval of AIP Design of Air Relief Duct for Effluent Drop Structure  | 0%                     | 0           | 21                   | 0                      | 16-Jul-19              | 05-Aug-19              |            | F          | ÷     | ( Ì  |
| A4970               | Submission of AIP Design of Isolation Device for Effluent Drop Structure   | 0%                     | 0           | 7                    | 0                      | 09-Jul-19              | 15-Jul-19              |            |            | Su    | Ъщ   |
| A4980               | Approval of AIP Design of Isolation Device for Effluent Drop Structure   | 0%                     | 0           | 21                   |                        | 16-Jul-19              | 05-Aug-19              |            |            | Sú    | 1    |
| A4990<br>A5000      | Submission of AIP Design of Sealant for FRP Sliding Covers of Existing CEPT Tanks<br>Approval of AIP Design of Sealant for FRP Sliding Covers of Existing CEPT Tanks                                     | 0%                     | 1           | 7<br>21              |                        | 09-Jul-19<br>16-Jul-19 | 15-Jul-19<br>05-Aug-19 |            | 긢          |       | :k   |
| A5000<br>A5010      | Submission of AIP Design to be supply, cabling, earthing, lightning protection and interface with  | 0%                     | 57          | 7                    |                        | 09-Jul-19              | 15-Jul-19              |            | ╺╻         | Su    |      |
| A5170               | Approval of AIP Design to power supply, cabling, earthing, lightning protection and interface with ex'   | 0%                     | 57          | . 21                 |                        | 16-Jul-19              | 05-Aug-19              |            | F          |       | 1    |
| E&M Design          | Submission (DDA)   |                        |             |                      |                        |                        |                        |            | +          |       | -    |
| A4945               | Submission of DDA Civil requirement drawings and General Arrangement of DOU1, DOU1R, DOU2  | 0%                     | 0           | 7                    |                        | 09-Jul-19              | 15-Jul-19              |            | 1          | Su    | omi  |
| A4955               | Review and comment on DDA of Civil requirement drawings and General Arrangement of DOU1, DC  | 0%                     | 0           | 21                   |                        | 16-Jul-19              | 05-Aug-19              |            |            | E     |      |
| A4965<br>A4975      | Re-submission of DDA Civil requirement drawings and General Arrangement of DOU1, DOU1R, DC<br>Approval of DDA Civil requirement drawings and General Arrangement of DOU1, DOU1R, DOU2, D                 | 0%                     | 0           | 7                    |                        | 06-Aug-19<br>13-Aug-19 | 12-Aug-19<br>19-Aug-19 |            |            |       |      |
| A5015               | Submission of DDA Design of Activated Carbon Filter Systems for DOU1, DOU2 and DOU5  | 0%                     | 0           | 7                    |                        | 06-Aug-19              | 12-Aug-19              |            |            |       | ſ    |
| A5020               | Review and Comment on DDA Design of Activated Carbon Filter Systems for DOU1, DOU2 and DC  | 0%                     | 0           | 21                   | 0                      | 13-Aug-19              | 02-Sep-19              |            |            |       | 4    |
| A5030               | Re-submission of DDA Design of Activated Carbon Filter Systems for DOU1, DOU2 and DOU5   | 0%                     | 0           | 7                    |                        | 03-Sep-19              | 09-Sep-19              |            |            |       |      |
| A5040               | Approval of DDA Design of Activated Carbon Filter Systems for DOU1, DOU2 and DOU5  | 0%                     | 0           | 7                    |                        | 10-Sep-19              | 16-Sep-19              |            |            |       |      |
| A5050<br>A5060      | Submission of DDADesign of Air Relief Duct for Effluent Drop Structure<br>Review and Comment on DDADesign of Air Relief Duct for Effluent Drop Structure   | 0%                     | 0           | 7<br>21              |                        | 06-Aug-19<br>13-Aug-19 | 12-Aug-19<br>02-Sep-19 |            |            |       | 1    |
| A5000<br>A5070      | Re-submission of DDA Design of Air Relief Duct for Effluent Drop Structure   | 0%                     | 0           | 7                    |                        | 03-Sep-19              | 02-Sep-19<br>09-Sep-19 |            |            |       |      |
| A5080               | Approval of DDA Design of Air Relief Duct for Effluent Drop Structure  | 0%                     | 0           | 7                    |                        | 10-Sep-19              | 16-Sep-19              |            |            | - 1   |      |
| A5090               | Submission of DDADesign of Isolation Device for Effluent Drop Structure  | 0%                     | 0           | 7                    | 0                      | 06-Aug-19              | 12-Aug-19              |            |            |       | 9    |
| A5100               | Review and Comment on DDA Design of Isolation Device for Effluent Drop Structure   | 0%                     | 0           | 21                   |                        | 13-Aug-19              | 02-Sep-19              |            |            |       | 1    |
| A5110<br>A5120      | Re-submission of DDA Design of Isolation Device for Effluent Drop Structure<br>Approval of DDA Design of Isolation Device for Effluent Drop Structure  | 0%                     | 0           | 7                    |                        | 03-Sep-19<br>10-Sep-19 | 09-Sep-19<br>16-Sep-19 |            |            |       |      |
| A5120               | Submission of DDA Design of Sealant for FRP Sliding Covers of Existing CEPT Tanks  | 0%                     | 1           | 7                    |                        | 06-Aug-19              | 12-Aug-19              |            |            | -     | •    |
| A5140               | Review and Comment on DDA Design of Sealant for FRP Sliding Covers of Existing CEPT Tanks  | 0%                     | 1           | 21                   |                        | 13-Aug-19              | 02-Sep-19              |            |            |       | -    |
| A5150               | Re-submission of DDA Design of Sealant for FRP Sliding Covers of Existing CEPT Tanks   | 0%                     | 1           | 7                    | 0                      | 03-Sep-19              | 09-Sep-19              |            |            |       |      |
| A5160               | Approval of DDA Design of Sealant for FRP Sliding Covers of Existing CEPT Tanks  | 0%                     | 1           | 7                    |                        | 10-Sep-19              | 16-Sep-19              |            |            |       | J    |
| A5460               | Submission of DDA Design of power supply, cabling, earthing, lightning protection and interface with   | 0%                     | 57          | 7                    |                        | 06-Aug-19              | 12-Aug-19              | <b> </b>   |            |       | 9    |
| A8020<br>A8030      | Review & comment of DDA Design of power supply, cabling, earthing, lightning protection and interf<br>Re-submission of DDA Design of power supply, cabling, earthing, lightning protection and interface | 0%                     | 57<br>57    | 21<br>7              |                        | 13-Aug-19<br>03-Sep-19 | 02-Sep-19<br>09-Sep-19 |            |            |       |      |
| A8040               | Approval of DDA Design of power supply, cabling, earthing, lightning protection and interface with e   | 0%                     | 57          | 7                    |                        | 10-Sep-19              | 16-Sep-19              |            |            |       |      |
| Procuement          | and Delivery of Equipment/ Material for Section 1 of Works   |                        |             |                      |                        |                        |                        |            |            |       |      |
| A5180               | Procurement of Activated Carbon Filter Systems for DOU1, DOU2 and DOU5   | 0%                     | 0           | 48                   |                        | 07-Sep-19              | 24-Oct-19              | <b>∤</b> ∣ |            |       |      |
| A5190               | FAT of Activated Carbon Filter System for DOU1 Delivery of Activated Carbon Filter System for DOU1 to Site   | 0%                     | 0           | 6                    |                        | 07-Oct-19              | 12-Oct-19              |            |            |       |      |
| A5200<br>A5210      | Delivery of Activated Carbon Filter System for DOU1 to Site<br>FAT of Activated Carbon Filter System for DOU2  | 0%                     | 0           | 14<br>6              |                        | 13-Oct-19<br>13-Oct-19 | 26-Oct-19<br>18-Oct-19 |            |            |       | ĺ    |
| A5220               | Delivery of Activated Carbon Filter System for DOU2 to Site  | 0%                     | 0           | 14                   |                        | 19-Oct-19              | 01-Nov-19              |            |            |       |      |
| A5230               | FAT of Activated Carbon Filter System for DOU5   | 0%                     | 0           | 6                    |                        | 19-Oct-19              | 24-Oct-19              |            |            |       |      |
| A5240               | Delivery of Activated Carbon Filter System for DOU5 to Site  | 0%                     | 0           | 14                   |                        | 25-Oct-19              | 07-Nov-19              |            |            |       | Ī    |
| A5250               | Procurement of FRP Air Ducts for Effluent Drop Structure   | 0%                     | 0           | 45                   |                        | 02-Sep-19              | 16-Oct-19              |            |            |       | ĺ    |
| A5260<br>A5270      | FAT of FRP Air Ducts for Effluent Drop Structure Delivery of FRP Air Ducts for Effluent Drop Structure to Site   | 0%                     | 0           | 7                    |                        | 10-Oct-19<br>17-Oct-19 | 16-Oct-19<br>23-Oct-19 |            |            |       |      |
| A5270               | Procurement of Isolation Devices for Effluent Drop Structure   | 0%                     | 0           | 30                   |                        | 02-Sep-19              | 01-Oct-19              |            |            |       |      |
| A5290               | Delivery of Isolation Devices for Effluent Drop Structure to Site  | 0%                     | 0           | 7                    |                        | 02-Oct-19              | 08-Oct-19              | jf         |            |       | 1    |
|                     |  |                        |             |                      |                        |                        |                        |            |            |       | -    |

| 2019           |                                |                                     |                  |                                 |                     |          |          | 20        | 20       |         |          |         |                  |          |              |         |             |           | 2021    |                |           |          |         |
|----------------|--------------------------------|-------------------------------------|------------------|---------------------------------|---------------------|----------|----------|-----------|----------|---------|----------|---------|------------------|----------|--------------|---------|-------------|-----------|---------|----------------|-----------|----------|---------|
|                | Q3                             | Q4                                  | ,                | Q1                              |                     |          | Q2       |           |          | Q3      |          |         | Q4               |          |              | Q1      |             |           | Q2      | lov 21 1       | Works P   | Q3       | oo (Eir |
|                |                                |                                     |                  |                                 |                     |          |          |           |          |         |          |         |                  |          |              |         |             |           |         |                | Contract  |          | · ·     |
| Starting       | ng date of Pro                 | ect                                 |                  |                                 |                     |          |          |           |          |         |          |         |                  |          |              |         |             |           | V 00-1V | icuy - 2 1 , 1 | Gonnaor   | ranticui | ars     |
|                | U III                          |                                     |                  |                                 |                     |          |          |           |          |         |          |         |                  |          |              |         |             |           | Com     | pletion        | Date (66  | ō days)  |         |
| Storti         | ng date of Pro                 | laat                                |                  |                                 |                     |          |          |           |          |         |          |         |                  |          | 29-De        | c-20, K | ey Date     | \$        |         |                |           |          |         |
|                | ng date of Fro                 | ject                                |                  |                                 |                     |          |          |           |          |         |          |         |                  |          | KD A -       | Compl   | etion of    | all other | works   | includin       | g DOUs    | 1, 2, 4, | 5 Polis |
| 🕈 09-Ju        | ul-19, Access                  | Date of Part of th                  | ne Site          |                                 |                     |          |          |           |          |         |          |         |                  |          |              |         |             |           |         |                |           |          |         |
| Part A         |                                |                                     |                  |                                 |                     |          |          |           |          |         |          |         |                  | -        |              |         |             |           |         |                |           |          |         |
|                |                                | 19, Preliminary                     | 1                |                                 | nents               |          |          |           |          |         |          |         |                  |          |              |         |             |           |         |                |           |          |         |
|                | Statutory appl<br>Submission o | cation/ notificat                   | ion of EF        | D and LD                        |                     |          |          |           |          |         |          |         |                  |          |              |         |             |           |         |                |           |          |         |
|                |                                | of Safety Plan                      |                  |                                 |                     |          |          |           |          |         |          |         |                  |          |              |         | 1           |           |         |                |           |          |         |
|                |                                | Waste Manage                        | 1 1              |                                 |                     | r (      | •        |           |          |         |          |         |                  |          |              |         |             |           |         |                |           |          |         |
|                |                                | of Waste Manag<br>Subcontractor M   | i                |                                 | ental Mana          | igem ent | plan     |           |          |         |          |         |                  |          |              |         |             |           |         |                |           |          |         |
|                |                                | Subcontractor M                     |                  |                                 |                     |          |          |           |          |         |          |         |                  |          |              |         |             |           |         |                |           |          |         |
|                |                                | taffing Proposa                     |                  |                                 |                     |          |          |           |          |         |          |         |                  | -        |              |         |             |           |         |                |           |          |         |
| ╵┾┓            | Approval of Si                 | affing Proposal                     |                  |                                 |                     |          |          |           |          |         |          |         |                  |          |              |         |             |           |         |                |           |          |         |
|                |                                |                                     |                  | <b>-</b> 00 lien 0              | Castion 1           | of the A | Marka    |           |          |         |          |         |                  |          | <br> <br>    |         |             |           | ▼ 03-IV | lay-21, I      | nfrastruc | ture Co  | nstruc  |
|                |                                | -                                   | Section          | 06-Jan-20<br>on 1 Comple        | 1 I I               |          | WORKS    |           |          |         |          |         |                  |          |              |         |             |           |         |                |           |          |         |
| ╏┝┿┿╋          | 05-Aug-19, I                   | E&M Dedian Sul                      | mission          |                                 |                     |          |          |           |          |         |          |         |                  |          |              |         |             |           |         |                |           |          |         |
| Sub            |                                | Design of Activ                     |                  |                                 |                     |          |          |           |          |         |          |         |                  | -        |              |         | -           |           |         |                |           |          |         |
|                | !-:::                          | AIP Design of Ac<br>Design of Air F | 4                |                                 | 1                   |          | т, DOU   | ∠ and D(  | JU5      |         |          |         |                  | <u> </u> |              |         |             |           |         |                |           |          |         |
| Į <b>⊈</b> ∎∰  |                                | AIP Design of Ai                    |                  |                                 |                     |          |          |           |          |         |          |         |                  |          |              |         |             |           |         |                |           |          |         |
| <b>-1</b> Sub  |                                | Design of Isc                       |                  |                                 |                     |          |          |           |          |         |          |         |                  | -        |              |         |             |           |         |                |           |          |         |
|                |                                | AIP Design of Is<br>Design of Seal  |                  |                                 |                     |          |          | nke       |          |         |          |         |                  |          |              |         |             |           |         |                |           |          |         |
|                |                                | AIP Design of Se                    |                  |                                 |                     |          |          |           |          |         |          |         |                  | <u> </u> |              |         |             |           |         |                |           |          |         |
| - <u>-</u> Sub | mission of All                 | Design fo pow                       | er supply        | , cabling, ea                   | rthing, light       | ning pr  | otection | and inte  |          |         |          |         |                  |          |              |         |             |           |         |                |           |          |         |
|                |                                | AIP Design fo po                    |                  |                                 |                     | phtning  | protecti | on and i  | nterface | with ex | tg insta | llation |                  |          |              |         |             |           |         |                |           |          |         |
| - Sub          | mission of DI                  | 6-Sep-19, E&N<br>DA Civil requirer  | pesign s         | wings and Ge                    | opa)<br>eneral Arra | naemen   | t of DOI | J1. DOL   | J1R. DO  | U2. DO  | U4 and   | DOU5    |                  |          |              |         |             |           |         |                |           |          |         |
|                | Review and                     | comment on D                        | OA of Civ        | il requiremer                   | t drawings          | and Ge   | neral A  | rangem    | ent of D | OU1, D  | OU1R,    | DOU2, C | OU4 a            | nd DOU   | \$<br>5      |         |             |           |         |                |           |          |         |
|                | ·                              | sion of DDA Civ                     |                  |                                 | -                   |          | -        |           |          |         |          |         |                  | 15       |              |         |             |           |         |                |           |          |         |
|                |                                | l of DDA Civil le<br>n of DDA Desig | 1 <sup>1</sup> 1 |                                 |                     | ĩ        |          |           |          |         | 2, DOU   | 4 and D | OU5              |          |              |         |             |           |         |                |           |          |         |
|                |                                | ew and Comma                        |                  |                                 |                     |          |          |           |          |         | and DC   | U5      |                  |          |              |         |             |           |         |                |           |          |         |
|                |                                | submission of I                     | i i              | -                               | i i                 | i i      |          | i i       |          |         | i i i    |         |                  |          |              |         |             |           |         |                |           |          |         |
|                |                                | pproval of DDA                      |                  |                                 |                     |          |          | 00U1, E   | OU2 an   | d DOU   | 5        |         |                  |          |              |         |             |           |         |                |           |          |         |
|                |                                | n of DDA Desig                      |                  |                                 |                     |          |          | Drop Str  | ucture   |         |          |         |                  |          |              |         |             |           |         |                |           |          |         |
|                |                                | submission of I                     | 1                |                                 |                     |          |          |           |          |         |          |         |                  |          |              |         |             |           |         |                |           |          |         |
|                |                                | pproval of DDA                      |                  |                                 |                     |          |          |           |          |         |          |         |                  | {        |              |         |             |           |         | [              |           |          |         |
|                |                                | on of DDA Desig                     |                  |                                 |                     |          |          |           | tructure |         |          |         |                  |          |              |         |             |           |         |                |           |          |         |
|                |                                | submission of I                     |                  |                                 |                     |          |          |           |          |         |          |         |                  |          |              |         |             |           |         |                |           |          |         |
|                |                                | pproval of DDA                      |                  |                                 |                     |          |          |           |          |         |          |         |                  | <u> </u> |              |         |             |           |         |                |           |          |         |
|                |                                | n of DDA Desig                      |                  |                                 |                     |          |          |           |          |         | and co   |         |                  |          |              |         |             |           |         |                |           |          |         |
|                |                                | submission of I                     |                  | •                               |                     |          |          |           | - 1      |         | anks     |         |                  | -        |              |         |             |           |         |                |           |          |         |
|                |                                | pproval of DDA                      |                  |                                 |                     |          |          |           |          |         |          |         |                  |          |              |         |             |           |         |                |           |          |         |
|                |                                | on of DDA Desig                     |                  |                                 | -                   |          |          |           |          |         |          |         |                  |          |              |         |             |           |         |                |           |          |         |
|                |                                | ew & comment of submission of I     |                  |                                 |                     |          |          |           |          |         |          |         |                  |          |              |         |             |           |         |                |           |          |         |
|                |                                | pproval of DDA                      |                  | -                               |                     |          | -        |           |          |         |          |         | -                |          |              |         |             |           |         |                |           |          |         |
|                |                                | 2 2 2                               | 1                | Procuement                      |                     | -        |          |           |          |         | of Work  | \$      |                  |          |              |         |             |           |         |                |           |          |         |
|                |                                | FAT of Act                          |                  | Activated Ca                    |                     |          | s for DC | 0U1, DO   | U2 and   | DOU5    |          |         |                  |          |              |         |             |           |         |                |           |          |         |
|                |                                |                                     |                  | vated Carbo                     |                     |          | DOU1 t   | o Site    |          |         |          |         |                  |          |              |         |             |           |         |                |           |          |         |
|                |                                | FAT of A                            |                  |                                 |                     |          |          |           |          |         |          |         |                  |          |              |         | -<br>-<br>- |           |         |                |           |          |         |
|                |                                |                                     | 1                | tivated Carb                    |                     |          |          | to Site   |          |         |          |         |                  |          |              |         |             |           |         |                |           |          |         |
| •              |                                |                                     |                  | d Carbon Filte<br>Activated Car |                     |          |          | 5 to Site | e        |         |          |         |                  | <u> </u> |              |         |             |           |         |                |           |          |         |
|                |                                | Frocurer                            | ent of F         | RP Air Ducts                    | for Effluent        | Drop S   |          |           |          |         |          |         |                  | -        |              |         |             |           |         |                |           |          |         |
|                |                                | AT of FF                            |                  |                                 |                     |          |          |           |          |         |          |         |                  |          |              |         |             |           |         |                |           |          |         |
|                |                                | Frocurement                         |                  |                                 |                     |          |          | Site      |          |         |          |         |                  |          |              |         |             |           |         |                |           |          |         |
| · · · · · · ·  | -<br>-                         | Delivery of                         |                  |                                 |                     |          |          | Site      |          |         |          |         |                  |          |              |         |             |           |         |                |           |          |         |
|                | <u></u>                        |                                     | ·!               |                                 | !!                  |          |          | ·!        | !        |         | :        | ·!      |                  | <u> </u> | :            |         | :           |           |         | <u>:</u>       | :!        |          |         |
| DC/2018        | 8/17                           |                                     |                  |                                 |                     |          |          |           |          | Sh      | eet 1 o  | of 7    |                  | ate      | Dout         | Revis   | ion         | -         | Checke  | d              | A         | pproved  |         |
|                | land S                         | an Trant                            | + \\17           | 70                              |                     |          |          |           |          |         |          |         | Jul-19<br>Aug-19 |          | Rev.<br>Rev. |         |             | -         |         |                |           |          |         |
| cutter Is      | siand Sewa                     | ge Treatmen                         | u work           | 45                              |                     |          |          |           |          |         |          |         | -                |          | •            |         |             |           |         |                | •         |          |         |
| gramme         |                                |                                     |                  |                                 |                     |          |          |           |          |         |          |         |                  |          |              |         |             |           |         |                |           |          |         |
|                |                                |                                     |                  |                                 |                     |          |          |           |          |         |          |         |                  |          |              |         |             |           |         |                |           |          |         |

Actual Work

♦ ♦ Milestone

Summary

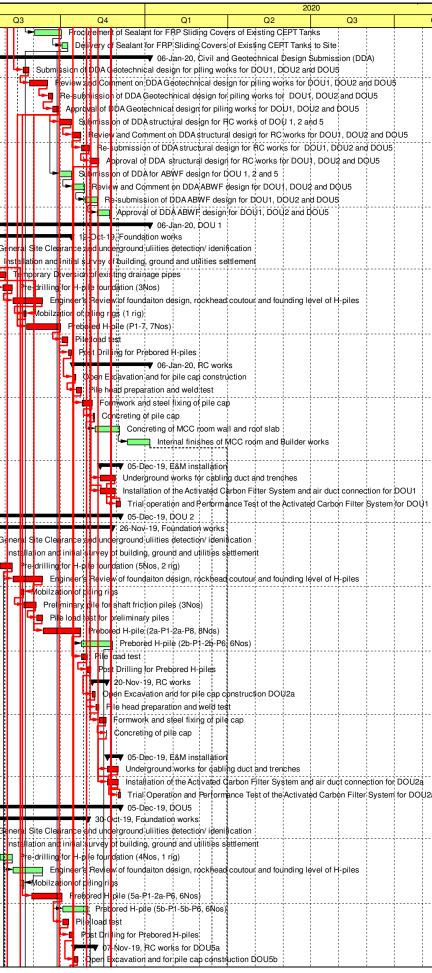
Remaining Work

Critical Remaining Work

Contract No. DC/2018/17

Enhancement of Deodourization System at Stonecutter Island Sewage Treatment

| A5310Delivery of SealantIVI and GeoEchnical Design SA5320Submission of DDAA5330Review and CommA5330Approval of DDA GA5340Submission of DDAA5340Submission of DDAA5340Review and CommA5400Submission of DDAA5400Review and CommA7500Review and CommA7870Approval of DDA siA7870Review and CommA7870Review and CommA7870Approval of DDA siA7870Approval of DDA AFA7870Approval of DDA AFA1130General Site CleardA1131Installation and initiA1132Temporary DiversidA1133Pre-drilling for H-piA1134Engineer's ReviewA1440Post Drilling for PreA5470Open Excavation atA5480Formwork and steeA5510Concreting of MCCA5530Trial operation andA5530Installation of the AFA5530Installation and initiA5430Mobilzation of plingA5430Installation and initiA5430Prebored H-pile (2tA5530Prebored H-pile (2tA5530Prebored H-pile (2tA5530Prebore   | Activity Name   | Activity % To<br>Complete | otal Float | Original Time risk<br>Duration allowance | Start                  | Finish                 | 201                | 19 |                | Q3         |          | _                |                | Q4             | 4             |
|---|---|---------------------------|------------|--|------------------------|------------------------|--------------------|----|----------------|------------|----------|------------------|----------------|----------------|---------------|
| Will and Geo technical Design SA45320Submission of DDAA5330Review and CommA5340Re-submission of DDAA5340Submission of DDAA5340Submission of DDAA5400Submission of DDAA5400Review and CommA7500Review and CommA7500Review and CommA7800Review and CommA7800Review and CommA7800Review and CommA7800Review and CommA7800Review and CommA7870Approval of DDA AA7870Approval of DDA ADOU 1DOU 1Foundation worksA1130General Site ClearA1131Installation and initiA1132Temporary DiversiteA1133Pre-drilling for H-piA1134Engineer's ReviewA1130Pile load testA1440Post Drilling for PreRC worksA5470A5470Concreting of MCCA5530Trial operation andA5530Trial operation andDOU 2Concreting of MCCA5530Installation of the AA5530General Site ClearA5300General Site ClearA5530Installation and initiA5430Mobilzation of pilingA5430Installation and initiA5430General Site ClearA5530Installation and initiA5430Prebored H-pile (22A5530Prebored H-pile (22A5530Prebored H  | 0 Procurement of Sealant for FRP Sliding Covers of Existing CEPT Tanks      | 0%                        | 1          | 30 0                                     | 02-Sep-19              | 01-Oct-19              |                    | Π  | T              | Ē          |          |                  | Froc           | <i>i</i> re ne | _             |
| AssacoSubmission of DDAAssacoReview and CommAssacoApproval of DDA GrAssacoApproval of DDA GrAssacoSubmission of DDAAr500Review and CommAr510Re-submission of DDAAr7500Review and CommAr780Approval of DDA GrAr780Review and CommAr780Review and CommAr780Review and CommAr780Review and CommAr780Review and CommAr780Approval of DDA AfDOU 1Temporary DiversionAr1130General Site CleardA1131Installation and initiA1132Temporary DiversionA1133Pre-drilling for H-piA1134Engineer's ReviewA1135Mobilzation of pillingA1130Prebored H-pile (P)A1130Prebored H-pile (P)A1430Pile load testA1440Post Drilling for PrecAS470Open Excavation atAS470Concreting of MCCAS530Installation of the AAS530Trial operation andDOU 2EaFoundation worksAS430Mobilzation of pillingAS430Mobilzation of pillingAS430Prebored H-pile (P)AS430Mobilzation of pillingAS430Mobilzation of pillingAS535Underground worksAS530Formwork and steeAS430Prebored H-pile (P)AS430Prebored H-pile (P) <t< td=""><td>0 Delivery of Sealant for FRP Sliding Covers of Existing CEPT Tanks to Site</td><td>0%</td><td>1</td><td>7 0</td><td>02-Oct-19</td><td>08-Oct-19</td><td></td><td></td><td></td><td></td><td></td><td><u> </u></td><td>l De</td><td>ivery</td><td>cf !</td></t<>   | 0 Delivery of Sealant for FRP Sliding Covers of Existing CEPT Tanks to Site | 0%                        | 1          | 7 0                                      | 02-Oct-19              | 08-Oct-19              |                    |    |                |            |          | <u> </u>         | l De           | ivery          | cf !          |
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| Approval of DDA siX7520Approval of DDA siX7840Submission of DDAX7850Review and CommunitiesX7860Re-submission of DDA AtX7870Approval of DDA AtX7870Approval of DDA AtX7870Approval of DDA AtX7870Seneral Site ClearaA1130General Site ClearaA1131Installation and initiA1132Temporary DiversiteA1133Pre-drilling for H-piA1134Engineer's ReviewA1137Mobilzation of pilingA1140Prebored H-pile (PA1430Pile load testA1440Post Drilling for Pre-A1430Pile load testA1440Post Drilling for Pre-A5470Open Excavation atA5480Pile head preparatiA5490Formwork and steeA5500Concreting of MCCA5510Installation of the AtA5550Trial operation andA5535Underground worksA5540Installation and initiA5550Trial operation andA5520Prebored H-pile (2A5430Mobilzation of pilingA5430Prebored H-pile (2A5530Prebored H-pile (2A5540Prebored H-pile (2A5550Pile load test for pro-A5560Prebored H-pile (2A5570Pile load testA5580Prebored H-pile (2A5550Prebored H-pile (2A5550Pile load testA5500P   |   | 0%                        | 0          | 10 0                                     | 23-Oct-19              | 01-Nov-19              | ( <mark> </mark> - | ·  | ·              |            |          | · <mark>-</mark> |                |                | e-su          |
| AT840Submission of DDAAT850Review and CommunityAT850Review and CommunityAT860Re-submission of DDA ABCOU 1FoundationFoundationworksA1130General Site ClearsA1131Installation and initiA1132Temporary DiversiteA1133Pre-drilling for H-piA1134Engineer's ReviewA1137Mobilzation of pillingA1130Prebored H-pile (PIA1430Pile load testA1440Post Drilling for Pre-A1430Pile load testA1440Post Drilling for Pre-A5470Open Excavation alA5480Pile head preparatiiA5490Formwork and steeA5500Concreting of pille ofA5510Concreting of Pille ofA5530Installation of the AIA5530Trial operation andA5530Installation and initiA5530Installation and initiA5430Mobilzation of pille ofA5430Mobilzation of pillingA5430Installation and initiA5430General Site ClearaA5430Pre-drilling for H-piA5430Prebored H-pile (22A5530Prebored H-pile (22A5540Prebored H-pile (22A5550Prebored H-pile (22A5560Prebored H-pile (22A5550Prebored H-pile (22A5550Prebored H-pile (22A5550Prebored H-pile (22A5550Prebored H-pi   |   | 0%                        | 0          | 10 0                                     | 02-Nov-19              | 11-Nov-19              |                    |    |                |            |          |                  |                | <b>M</b> I I   | Apr           |
| ARR<br>ARR<br>ARR<br>ARR<br>ARR<br>ARR<br>ARR<br>ARR<br>ARR<br>ARR<br>ARR<br>ARR<br>ARR<br>ARR<br>ARR<br>ARR<br>ARR<br>ARR<br>ARR<br>ARR<br>ARR<br>ARR<br>  |   | 0%                        | 115        | 14 0                                     | 29-Sep-19              | 12-Oct-19              |                    |    |                |            |          |                  | si             | Ilmis          |               |
| ARE-Submission of DAPProval of DDA AEAPProval of DPProvalAPProval PPROVALAPPROVAL   | •   | 0%                        | 115        | 14 0                                     | 13-Oct-19              | 26-Oct-19              |                    |    |                |            |          | Γ                | - !            | Rev            |               |
| Approval of DDA AB       Approval of DDA AB       COU 1       Foundatio       Works       A1130     General Site Clears       A1131     Installation and initi       A1132     Temporary Diversis       A1133     Pre-drilling for H-pi       A1134     Engineer's Review       A1137     Mobilzation of pilm       A1140     Prebored H-pile (P       A1430     Pile load test       A1440     Post Drilling for Pre       RC works     Astan       A5470     Open Excavation and       A5480     Pile head preparation       A5490     Formwork and steen       A5500     Concreting of MCC       A5510     Concreting of MCC       A5535     Underground works       A5530     Installation of the Ai       A5530     Installation of the Ai       A5530     Installation and initi       A5430     Mobilzation of piling       A5430     Installation and initi       A5430     Rever's Review       A5430     Mobilzation of piling       A5430     Mobilzation of piling       A5430     Mobilzation of piling       A5430     Prelord H-pile (2a       A5430     Prelored H-pile (2a       A5430     Prel  | ÷   | 0%                        | 115        | 14 0                                     | 27-Oct-19              | 09-Nov-19              |                    |    |                |            |          |                  |                |                | Re-           |
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| A1134Engineer's ReviewA1137Mobilzation of pilingA1140Prebored H-pile (PA1430Pile load testA1440Post Drilling for PreRC worksAstavaA5470Open Excavation atA5480Pile head preparationA5490Formwork and steeA5500Concreting of MCCA5510Concreting of MCCA5520Internal finishes ofDrainage worksAstavaA5535Underground worksA5540Installation of the ArA5550Trial operation andA5530General Site CleardA5380General Site CleardA5380General Site CleardA5390Installation and initiA5430Mobilzation of pilingA5430Mobilzation of pilingA5430Pre-drilling for H-pileA5430Prebored H-pile (2tA5560Prebored H-pile (2tA5570Pile load test for proA5580Post Drilling for PreA1450Open Excavation atA1455Pile head preparationA1455Pile head preparationA1455Pile head preparationA5360Installation of the ArA5370Trial Operation andA1455Pile head preparationA5550General Site CleardA5650General Site CleardA5650General Site CleardA5650General Site CleardA5650General Site CleardA5650General Site Cleard <td></td> <td>0%</td> <td>0</td> <td>10 0</td> <td>29-Jul-19</td> <td>01-Aug-19<br/>08-Aug-19</td> <td></td> <td></td> <td>3</td> <td></td> <td>re drill</td> <td>· .</td> <td></td> <td></td> <td></td>  |   | 0%                        | 0          | 10 0                                     | 29-Jul-19              | 01-Aug-19<br>08-Aug-19 |                    |    | 3              |            | re drill | · .              |                |                |               |
| A1137       Mobilzation of pilin         A1130       Prebored H-pile (P)         A1440       Post Drilling for Pre-         A1440       Post Drilling for Pre-         A5470       Open Excavation at         A5470       Open Excavation at         A5470       Open Excavation at         A5470       Concreting of pile of         A5480       Pile head preparati         A5490       Formwork and stee         A5500       Concreting of MCC         A5510       Concreting of MCC         A5510       Internal finishes of         Drainage works       E&M installation         A5530       Installation of the A         A5530       Trial operation and         A5530       Installation and initi         A5430       General Site Clear         A5390       Installation and initi         A5410       Pre-drilling for H-pile         A5430       Mobilzation of piling         A5430       Mobilzation of piling         A5430       Mobilzation of piling         A5430       Prebored H-pile (2t         A5550       Prebored H-pile (2t         A5560       Prebored H-pile (2t         A5550       Pile load test  |   | 0%                        | 0          | 28 0                                     | 09-Aug-19              | 10-Sep-19              |                    |    | ¢              | ₩4         |          | Engi             | neer's         | Revi           | iew           |
| A1140Prebored H-pile (PA1430Pile load testA1440Post Drilling for PreRC worksA5470Open Excavation atA5470Open Excavation atA5480Pile head preparationA5490Formwork and steenA5500Concreting of pile ofA5510Concreting of MCCA5520Internal finishes ofDrainage worksExit onA5535Underground worksA5540Installation of the AtA5550Trial operation andA5530General Site ClearA5380General Site ClearA5380Installation of the AtA5430Installation and initiA5430Installation of pilingA5430Installation of pilingA5430Pre-drilling for H-piA5430Pre-drilling for H-piA5430Preload test for preA5560Prebored H-pile (2tA5561Prebored H-pile (2tA5550Pile load testA5570Pile load testA1450Open Excavation atA1455Pile head preparationA1455Pile head preparationA1455Vinderground worksA5360Installation of the AtA5370Trial Operation andA5430General Site ClearA5650General Site ClearA5650General Site ClearA5650General Site ClearA5650General Site ClearA5650General Site ClearA5660Installation   |   | 0%                        | 0          | 3 0                                      | 21-Aug-19              | 23-Aug-19              |                    |    |                | ₫          | Mob      |                  |                |                |               |
| A1430Pile load testA1430Post Drilling for PreRC worksOpen Excavation atA5470Open Excavation atA5480Pile head preparationA5490Formwork and steedA5500Concreting of pile ofA5510Concreting of MCCA5510Concreting of MCCA5530Internal finishes ofDrainage worksStationA5535Underground worksA5536Underground worksA5536Trial operation andA5536General Site CleardA5380General Site CleardA5390Installation of he ArA5390Installation and initiA5410Pre-drilling for H-piA5420Engineer's ReviewA5430Mobilzation of pilingA5440Preliminary pile forA5450Pile load test for priA5560Prebored H-pile (2tA5570Pile load testA5530Port Drilling for PreA5530Prebored H-pile (2tA5530Prebored H-pile (2t <td></td> <td>0%</td> <td>0</td> <td>32 0</td> <td>24-Aug-19</td> <td>30-Sep-19</td> <td></td> <td></td> <td></td> <td>Щ</td> <td></td> <td></td> <td>Preb</td> <td></td> <td></td>   |   | 0%                        | 0          | 32 0                                     | 24-Aug-19              | 30-Sep-19              |                    |    |                | Щ          |          |                  | Preb           |                |               |
| A1440       Post Drilling for Pre         RC works       Open Excavation at         A5470       Open Excavation at         A5480       Pile head preparation         A5490       Formwork and steed         A5500       Concreting of pile of         A5510       Concreting of MCC         A5520       Internal finishes of         Drainage vorks       A5535         Quartic pressor       A5535         Underground works       A5535         A5530       Trial operation and         OU 2       Foundation         Foundation       Works         A5330       General Site Cleard         A5330       Installation and initi         A5440       Pre-drilling for H-pil         A5430       Mobilzation of piling         A5440       Preliminary pile for         A5430       Mobilzation of piling         A5440       Preliminary pile for         A5550       Prebored H-pile (2z)         A5560       Prebored H-pile (2z)         A5580       Post Drilling for Presson         A1450       Open Excavation at         A1450       Open Excavation at         A1450       Concreting of pile oc  |   | 0%                        | 0          | 6 0                                      | 02-Oct-19              | 08-Oct-19              | i [-               | ++ |                |            |          | Ц,               |                | load           |               |
| RC works       Open Excavation at         A5470       Open Excavation at         A5480       Pile head preparation         A5490       Formwork and steed         A5540       Concreting of pile of         A5510       Concreting of MCC         A5510       Concreting of MCC         A5510       Concreting of MCC         A5510       Internal finishes of         Drainage works       A5540         A5540       Installation of the Ar         A5535       Underground works         A5540       Installation of the Ar         A5550       Trial operation and         OU 2       Poundation works         A5380       General Site Cleard         A5390       Installation and initi         A5410       Pre-drilling for H-pi         A5430       Mobilzation of piling         A5440       Preliminary pile for         A5450       Pile load test for pri         A5580       Prebored H-pile (2t         A5580       Post Drilling for Pre         RC works       A1450         A1450       Open Excavation at         A1455       Pile head preparation         A1450       Concreting of pile co  |   | 0%                        | 0          | 4 0                                      | 09-Oct-19              | 12-Oct-19              |                    |    |                |            |          | F                |                | st Dr          |               |
| A5470Open Excavation and<br>A5480Pile head preparation<br>A5490A5480Formwork and steen<br>A5500Concreting of pile of<br>A5510A5510Concreting of MCC<br>A5510Internal finishes of<br>Drainage worksA5530Internal finishes of<br>Drainage worksA5535Underground works<br>A5535A5540Installation of the A<br>A5535A5540Installation of the A<br>   | • •   |                           |            |  |                        |                        |                    |    |                |            |          | ۱I               | 1              | ╟┝┝╸           | -             |
| A5490Formwork and steeA5500Concreting of pile ofA5510Concreting of MCCA5510Internal finishes ofDrainage wrksE&M installationA5535Underground worksA5536Installation of the AA5537Vinderground worksA5538General Site ClearsA5380General Site ClearsA5390Installation and initiA5410Pre-drilling for H-piA5420Engineer's ReviewA5430Mobilzation of pilinA5440Preliminary pile forA5560Prebored H-pile (2tA5550Prebored H-pile (2tA5550Prebored H-pile (2tA5550Prebored H-pile (2tA5550Prebored Hore and the addition of pilinA5450Pile load test for princeA5550Prebored H-pile (2tA5550Prebored Hore and the addition of pilinA5550Prebored Hore and the addition of pilinA5550Prebored Hore and the addition of pilinA5550Prebored Hore and the addition of pilinA1450Open Excavation and the addition of pilinA1450Concreting of pile addition of the addition and the addition and the addition and the addition and the addition of the additio         |   | 0%                        | 0          | 4 0                                      | 14-Oct-19              | 17-Oct-19              |                    |    |                |            |          | լե               | <b>-</b>       | ) pen l        | Eĸo           |
| A5500Concreting of pile of<br>A5510A5510Concreting of MCCA5520Internal finishes ofDrainage wrksE&M installationA5535Underground worksA5536Installation of the AA5530Trial operation and<br>DOU 2FoundationworksA5380General Site ClearsA5390Installation and initiA5410Pre-drilling for H-piA5430Mobilzation of pilingA5430Mobilzation of pilingA5430Prebored H-pile (2z)A5560Prebored H-pile (2z)A5550Prebored H-pile (2z)A5550Installation and andA1450Som (2n)A5550Prebored H-pile (2z)A5550Prebored H-pile (2z)A5550Installation and and <td>480 Pile head preparation and weld test</td> <td>0%</td> <td>0</td> <td>5 0</td> <td>18-Oct-19</td> <td>23-Oct-19</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>1</td> <td>Pile</td> <td></td>  | 480 Pile head preparation and weld test                                     | 0%                        | 0          | 5 0                                      | 18-Oct-19              | 23-Oct-19              |                    |    |                |            |          |                  | 1              | Pile           |               |
| A5510Concreting of MCCA5520Internal finishes ofDrainage worksE&M installationA5535Underground worksA5536Installation of the AA5550Trial operation andOU 2Foundation worksA5380General Site ClearsA5380Installation and initiA5410Pre-drilling for H-piA5420Engineer's ReviewA5430Mobilzation of pilingA5430Preliminary pile forA5450Pile load test for preA5560Prebored H-pile (2tA5570Pile load testA5580Post Drilling for PreRC worksA1455A1450Open Excavation andA1455Pile head preparationA1450Installation of the AA5370Trial Operation andA5355Underground worksA5360Installation of the AA5370Trial Operation andA5550General Site ClearsA5600Installation and initiA5650General Site ClearsA5650General Site ClearsA5650General Site ClearsA5600Installation and initiA5650Pre-drilling for H-piA5630Reneral Site ClearsA5650General Site ClearsA5650General Site ClearsA5650General Site ClearsA5660Installation and initiA5670Pre-drilling for H-piA5680Engineer's ReviewA5690Mobilza   | 490 Formwork and steel fixing of pile cap                                   | 0%                        | 0          | 10 0                                     | 24-Oct-19              | 04-Nov-19              |                    |    |                |            |          |                  | -              | Ē              | orm           |
| A5520     Internal finishes of       Drainage works       E&M installation       A5535     Underground works       A5540     Installation of the Ar       A5550     Trial operation and       OU 2       Foundation works       A5380     General Site Clears       A5380     Installation and initi       A5380     General Site Clears       A5380     Installation and initi       A5410     Pre-drilling for H-pi       A5430     Mobilzation of piling       A5430     Mobilzation of piling       A5430     Preliminary pile for       A5560     Prebored H-pile (2t       A5570     Pile load test for pre-       A5580     Post Drilling for Pre-       A5580     Post Drilling for Pre-       A5580     Post Drilling for Pre-       A1450     Open Excavation at       A1455     Pile head preparation       A1455     Pile head preparation       A5355     Underground works       A5355     Underground works       A5355     Underground works       A5350     Installation of the Ar       A5370     Trial Operation and       A5560     General Site Clears       A5660     Installation and initit <td>500 Concreting of pile cap</td> <td>0%</td> <td>0</td> <td>2 0</td> <td>05-Nov-19</td> <td>06-Nov-19</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>- 9</td> <td><b>I</b>C</td> <td>Cono</td> | 500 Concreting of pile cap  | 0%                        | 0          | 2 0                                      | 05-Nov-19              | 06-Nov-19              |                    |    |                |            |          |                  | - 9            | <b>I</b> C     | Cono          |
| Drainage works         E&M installation         A5535       Underground works         A5540       Installation of the Ar         A5550       Trial operation and         DOU 2       Foundation works         A5380       General Site Clears         A5380       Installation and initi         A5410       Pre-drilling for H-pi         A5420       Engineer's Review         A5430       Mobilzation of piling         A5430       Mobilzation of piling         A5430       Preliminary pile for         A5450       Pile load test for pre         A5560       Prebored H-pile (22         A5560       Prebored H-pile (22         A5560       Prebored H-pile (22         A5550       Pile load test         A5580       Post Drilling for Pre         RC works       A1450         A1450       Open Excavation at         A1450       Formwork and stee         A1470       Concreting of pile of         A5355       Underground works         A5350       Installation of the Ar         A5360       Installation and initil         A5550       General Site Cleara         A5650       General Site Cleara<   | 510 Concreting of MCC room wall and roof slab                               | 0%                        | 76         | 24 2                                     | 07-Nov-19              | 04-Dec-19              |                    |    |                |            |          |                  |                | 1-0-           |               |
| E&M installation         A5535       Underground works         A5540       Installation of the A         A5550       Trial operation and         DOU 2       Foundation works         A5380       General Site Clears         A5380       Installation and initi         A540       Installation and initi         A5380       General Site Clears         A5390       Installation and initi         A5410       Pre-drilling for H-pi         A5420       Engineer's Review         A5430       Mobilzation of piling         A5430       Preliminary pile for         A5450       Pile load test for pro-         A5560       Prebored H-pile (2z)         A5560       Prebored H-pile (2z)         A5560       Prebored H-pile (2z)         A5560       Prebored H-pile (2z)         A5570       Pile load test         A5580       Post Drilling for Pro-         RC works       A1450         A1450       Open Excavation and and ant and   | 520 Internal finishes of MCC room and Builder works                         | 0%                        | 76         | 18 2                                     | 13-Dec-19              | 06-Jan-20              |                    |    |                |            |          |                  |                |                | - i           |
| A5535     Underground works       A5540     Installation of the A       A5550     Trial operation and       A5550     General Site Clears       A5380     General Site Clears       A5380     Installation and initi       A5410     Pre-drilling for H-pi       A5420     Engineer's Review       A5430     Mobilzation of pilin       A5440     Preliminary pile for       A5455     Pile load test for pressor       A5560     Prebored H-pile (2t       A5560     Prebored H-pile (2t       A5560     Poore H-pile (2t       A5560     Prebored H-pile (2t       A5560     Poore H-pile (2t       A5560     Prebundation and       A5560     Poore H-pile (2t       A5570     Pile load test       A5560     Poore H-pile (2t       A5560     Poore H-pile (2t       A5570     Pile load test       A5580     Poore H-pile (2t  | -   |                           |            |  |                        |                        |                    |    |                |            |          |                  |                |                |               |
| A5540Installation of the AA5550Trial operation andA5550Trial operation andA5550Trial operation andA5580General Site ClearsA5380Installation and initiA5410Pre-drilling for H-piA5420Engineer's ReviewA5430Mobilzation of pillingA5440Preliminary pile forA5450Pile load test for priA5560Prebored H-pile (2tA5565Prebored H-pile (2tA5560Post Drilling for PreA5580Post Drilling for PreA5580Post Drilling for PreA1450Open Excavation andA1455Pile head preparationA1455Pile head preparationA1455Underground worksA5360Installation of the AA5370Trial Operation andA5650General Site ClearsA5600Installation of the AA5670Pre-drilling for H-piA5680Engineer's ReviewA5690Mobilzation of pilingA5690Mobilzation of pilingA5690Mobilzation of pilingA5690Prebored H-pile (5tA5720Prebored H-pile (5t  |   | 0%                        | 0          | 15 0                                     | 13-Nov-19              | 29-Nov-19              |                    |    |                |            |          |                  |                |                |               |
| A5550       Trial operation and         A5550       Trial operation and         A5380       General Site Cleara         A5380       Installation and initi         A5390       Installation and initi         A5410       Pre-drilling for H-pi         A5420       Engineer's Review         A5430       Mobilzation of pilling         A5440       Preliminary pile for         A5450       Pile load test for pri         A5560       Prebored H-pile (2z)         A5560       Prebored H-pile (2z)         A5560       Prebored H-pile (2z)         A5560       Prebored H-pile (2z)         A5560       Post Drilling for Her         A5560       Post Drilling for Her         A1450       Post Drilling for Her         A1450       Open Excavation and         A1450       Pornwork and stee         A1470       Concreting of pile of         Drainage wrks       A5350         A5355       Underground works         A5350       Installation of the A         A5370       Trial Operation and operation         A5650       General Site Cleara         A5660       Installation and initil         A5660       Installation   |   | 0%                        | 0          | 15 1                                     | 13-Nov-19              | 29-Nov-19              |                    |    |                |            |          |                  |                |                | 王             |
| Poundation works         A5380       General Site Cleara         A5380       Installation and initi         A5390       Installation and initi         A5410       Pre-drilling for H-pi         A5420       Engineer's Review         A5430       Mobilzation of pilling         A5440       Preliminary pile for         A5450       Pile load test for pri         A5560       Prebored H-pile (2z)         A5565       Prebored H-pile (2z)         A5560       Post Drilling for Pre         A5570       Pile load test         A5580       Post Drilling for Pre         RC works       Mobilzation of pille of         A1450       Open Excavation an         A1455       Pile head preparation         A1450       Formwork and stee         A1470       Concreting of pille of         Drainage works       E&M installation         A5355       Underground works         A5350       Installation of the A         A5350       Installation and initi         A5650       General Site Cleara         A5650       General Site Cleara         A5660       Installation and initi         A5660       Installation and initi     <  |   | 0%                        | 0          | 5 0                                      | 30-Nov-19              | 05-Dec-19              |                    |    |                |            |          |                  |                | 11             | 毘             |
| A5380General Site ClearsA5380Installation and initiA5410Pre-drilling for H-piA5420Engineer's ReviewA5430Mobilzation of pilingA5430Mobilzation of pilingA5430Preliminary pile forA5450Pile load test for priA5560Prebored H-pile (2tA5570Pile load testA5580Post Drilling for PreRC worksA1450A1450Open Excavation atA1455Pile head preparationA1450Concreting of pile ofDrainage worksE&M installationA5355Underground worksA5350Installation of the AA5370Trial Operation andA5650General Site ClearaA5650General Site ClearaA5660Installation and initiA5660Engineer's ReviewA5690Mobilzation of pilingA5690Mobilzation of pilingA5690Pre-drilling for H-pile (5tA5690Prebored H-pile (5t   |   |                           |            |  |                        |                        |                    | +  | -              | -          |          | _                |                |                |               |
| A5390Installation and initiA5410Pre-drilling for H-piA5420Engineer's ReviewA5430Mobilzation of pilingA5430Preliminary pile forA5430Pile load test for preA5560Prebored H-pile (2tA5565Prebored H-pile (2tA5570Pile load testA5580Post Drilling for PreRC worksA1455A1450Open Excavation atA1455Pile head preparationA1455Pile head preparationA1450Concreting of pile ofDrainage worksA5355A5350Installation of the AA5350General Site CleardA5660Installation and initiA5650General Site CleardA5660Installation and initiA5660Engineer's ReviewA5690Mobilzation of pilingA5690Mobilzation of pilingA5720Prebored H-pile (5t   |   |                           |            | ÷  |                        |                        |                    |    | -              |            |          |                  |                |                | -7            |
| A5410Pre-drilling for H-piA5420Engineer's ReviewA5430Mobilzation of pilingA5430Preliminary pile forA5430Pile load test for preA5450Pile load test for preA5560Prebored H-pile (2tA5565Prebored H-pile (2tA5570Pile load testA5580Post Drilling for PreRC worksA1455A1450Open Excavation atA1455Pile head preparationA1455Pile head preparationA1455Pile head preparationA1455Pile head preparationA1455Pile head preparationA1455Pile head preparationA1456Fornwork and steedA1470Concreting of pile ofDrainage worksA5355A5350Installation of the AA5370Trial Operation andA5650General Site ClearerA5660Installation and inititA5670Pre-drilling for H-piA5680Engineer's ReviewA5690Mobilzation of pilingA5720Prebored H-pile (5a   | -   | 0%                        | 0          | 6 0                                      | 09-Jul-19              | 15-Jul-19              |                    | 1  |                |            | Site C   |                  |                |                |               |
| A5420     Engineer's Review       A5430     Mobilzation of piling       A5430     Preliminary pile for       A5430     Preliminary pile for       A5440     Preliminary pile for       A5450     Pile load test for pre       A5560     Prebored H-pile (2t       A5570     Pile load test       A5580     Post Drilling for Pre       RC works     A1450       A1450     Open Excavation at       A1455     Pile head preparation       A1450     Formwork and steed       A1470     Concreting of pile of       Drainage works     A5355       BA5650     Installation of the A       A5360     Installation of the A       A5650     General Site Cleard       A5660     Installation and initil       A5660     Installation and initil       A5660     Installation and initil       A5660     Engineer's Review       A5680     Engineer's Review       A5690     Mobilzation of piling       A5690     Mobilzation of piling   |   | 0%                        | 0          | 9 0                                      | 16-Jul-19              | 25-Jul-19              |                    | ۲  | <u> </u>       |            | lation   |                  |                |                |               |
| A5430     Mobilzation of piling       A5430     Preliminary pile for       A5440     Preliminary pile for       A5450     Pile load test for pr       A5560     Prebored H-pile (2z       A5565     Prebored H-pile (2z       A5560     Pile load test       A5560     Prebored H-pile (2z       A5570     Pile load test       A5580     Post Drilling for Pre <b>RC works</b> A1450       A1450     Open Excavation at       A1455     Pile head preparation       A1450     Formwork and steed       A1470     Concreting of pile of <b>Drainage works E&amp;M installation</b> A5355     Underground works       A5360     Installation of the A       A5370     Trial Operation and <b>ODU5 Foundation works</b> A5600     Installation and initit       A5670     Pre-drilling for H-pil       A5680     Engineer's Review       A5690     Mobilzation of piling       A5690     Prebored H-pile (5z  |   | 0%                        | 0          | 12 0                                     | 26-Jul-19              | 08-Aug-19              |                    | Ī  | <sup>-</sup> T | <b></b>    | re-drill |                  |                |                |               |
| A5440Preliminary pile forA5450Pile load test for printA5560Prebored H-pile (2a)A5565Prebored H-pile (2b)A5565Prebored H-pile (2b)A5570Pile load testA5580Post Drilling for PresentationA1450Open Excavation andA1450Pile head preparationA1450Formwork and steedA1470Concreting of pile ofDrainage worksE&M installationA5355Underground worksA5360Installation of the AA5370Trial Operation andA5650General Site CleardA5660Installation and initiA5670Pre-drilling for H-piA5680Engineer's ReviewA5690Mobilzation of pilingA5720Prebored H-pile (5a)  |   | 0%                        | 0          | 28 0                                     | 09-Aug-19              | 10-Sep-19              |                    |    |                | <b>. T</b> |          |                  | neer's         | H-I            |               |
| A5450Pile load test for privationA5560Prebored H-pile (2a)A5565Prebored H-pile (2b)A5565Prebored H-pile (2b)A5570Pile load testA5580Post Drilling for Pre-A5580Post Drilling for Pre-RC worksInstallationA1450Open Excavation atA1450Formwork and steedA1470Concreting of pile ofDrainage worksE&M installationA5355Underground worksA5360Installation of the AA5370Trial Operation andA5650General Site CleardA5660Installation and initiA5670Pre-drilling for H-piA5680Engineer's ReviewA5690Mobilzation of pilingA5720Prebored H-pile (5a)   |   | 0%                        | 0          | 3 0                                      | 17-Aug-19              | 21-Aug-19              |                    |    |                | d          |          |                  | on of p        |                |               |
| A5560Prebored H-pile (2aA5565Prebored H-pile (2aA5565Prebored H-pile (2bA5570Pile load testA5580Post Drilling for Pre-RC worksInstallationA1450Open Excavation andA1455Pile head preparationA1460Formwork and steelA1470Concreting of pile ofDrainage worksInstallationA5355Underground worksA5360Installation of the AA5370Trial Operation andA5650General Site CleardA5660Installation and initiA5670Pre-drilling for H-piA5680Engineer's ReviewA5690Mobilzation of pilingA5720Prebored H-pile (5a  |   | 0%                        | 0          | 12 0                                     | 21-Aug-19              | 03-Sep-19              |                    |    |                |            |          |                  | inary          |                |               |
| A5565Prebored H-pile (2tA5570Pile load testA5570Post Drilling for Pre-RC worksPost Drilling for Pre-A1450Open Excavation atA1455Pile head preparationA1460Formwork and steelA1470Concreting of pile ofDrainage worksE&M installationA5355Underground worksA5360Installation of the AA5370Trial Operation andA5650General Site CleardA5660Installation and initiA5660Installation and initiA5680Engineer's ReviewA5690Mobilzation of pilingA5720Prebored H-pile (5a  |   | 0%                        | 0          | 6 0                                      | 04-Sep-19              | 10-Sep-19              |                    |    |                |            | E.       | Plie             | load t         | Preb           |               |
| A5570Pile load testA5580Post Drilling for PreRC worksPost Drilling for PreA1450Open Excavation atA1455Pile head preparationA1460Formwork and steetA1470Concreting of pile ofDrainage worksBaseE&M installationA5355Underground worksA5360Installation of the ArA5370Trial Operation andOpU5Foundation worksA5650General Site CleardA5660Installation and initiA5670Pre-drilling for H-piA5680Engineer's ReviewA5690Mobilzation of pilingA5720Prebored H-pile (5a)   |   | 0%                        | 0          | 35 0                                     | 11-Sep-19              | 22-Oct-19              |                    |    |                |            |          |                  | F¢             | T WD           |               |
| A5580Post Drilling for Pre-RC worksOpen Excavation atA1450Open Excavation atA1455Pile head preparationA1460Formwork and steenA1470Concreting of pile ofDrainage worksDrainageE&M installationA5355Underground worksA5360Installation of the AA5370Trial Operation andODU5Concreting for H-piA5650General Site CleardA5660Installation and initiA5670Pre-drilling for H-piA5680Engineer's ReviewA5690Mobilzation of pilingA5720Prebored H-pile (5a)  |   | 0%                        | 51         | 30 0                                     | 23-Oct-19              | 26-Nov-19              |                    |    |                |            |          |                  |                | t pal          | e o           |
| RC works         A1450       Open Excavation and         A1455       Pile head preparation         A1460       Formwork and steen         A1470       Concreting of pile of         Drainage works       Drainage works         E&M installation       A5355         Junderground works       A5360         A5370       Trial Operation and         A5650       General Site Cleard         A5660       Installation and initil         A5660       Installation and initil         A5660       Installation and initil         A5660       Reneral Site Cleard         A5660       Installation and initil         A5660       Reneral Site Cleard         A5660       Installation and initil         A5670       Pre-drilling for H-pil         A5680       Engineer's Review         A5690       Mobilzation of pilin         A5720       Prebored H-pile (5a)  |   | 0%                        | 0          | 6 0<br>4 0                               | 23-Oct-19<br>30-Oct-19 | 29-Oct-19<br>02-Nov-19 |                    |    |                |            |          |                  | 6              | L L            | e oa<br>ost I |
| A1450     Open Excavation and<br>A1455       A1455     Pile head preparation<br>Formwork and stee<br>A1470       Concreting of pile of<br>Drainage works       Bail attoin       A5355     Underground works       A5360     Installation of the Ard<br>A5370       Trial Operation and<br>Drouts       Foundation works       A5650     General Site Clearard<br>A5660       A5650     General Site Clearard<br>A5660       A5660     Installation and initit       A5670     Pre-drilling for H-pil<br>A5680       Engineer's Review       A5690     Mobilzation of piling<br>A5720   |   | 0%                        | U          | 4 0                                      | 00-001-19              | 02-1007-19             |                    |    |                |            |          |                  |                |                | <b>v</b> 2    |
| A1455     Pile head preparation       A1450     Formwork and steen       A1470     Concreting of pile of       Drainage works     Concreting of pile of       Drainage works     Concreting of pile of       A5355     Underground works       A5360     Installation of the A       A5370     Trial Operation and       COUS     Foundation       Foundation     Works       A5650     General Site Cleara       A5660     Installation and initi       A5660     Installation and initi       A5670     Pre-drilling for H-pil       A5680     Engineer's Review       A5690     Mobilzation of piling       A5720     Prebored H-pile (5a)   |   | 0%                        | 0          | 4 0                                      | 04-Nov-19              | 07-Nov-19              |                    |    | E.             |            |          |                  | 4              |                | Dpe           |
| A1460     Formwork and stee       A1470     Concreting of pile of       Drainage works     Drainage works       A5355     Underground works       A5350     Installation of the A       A5370     Trial Operation and       DOUS     Foundation       Foundation     works       A5650     General Site Cleara       A5660     Installation and initi       A5670     Pre-drilling for H-pi       A5680     Engineer's Review       A5690     Mobilzation of piling       A5720     Prebored H-pile (5a)  |   | 0%                        | 0          | 3 0                                      | 08-Nov-19              | 11-Nov-19              |                    |    | E              |            |          |                  |                |                | File          |
| A1470     Concreting of pile of Drainage works       Drainage works     Drainage works       A5355     Underground works       A5360     Installation of the Art  |   | 0%                        | 0          | 7 0                                      | 12-Nov-19              | 19-Nov-19              |                    | ++ |                |            |          |                  |                |                | Ē             |
| E&M installation         A5355       Underground works         A5360       Installation of the A         A5370       Trial Operation and         CUUS       Trial Operation and         Foundation works       A5650         A5650       General Site Cleard         A5660       Installation and initi         A5670       Pre-drilling for H-pi         A5680       Engineer's Review         A5690       Mobilzation of pilling         A5720       Prebored H-pile (5a  |   | 0%                        | 0          | 1 0                                      | 20-Nov-19              | 20-Nov-19              |                    |    |                |            |          |                  |                | 6              | jĊ            |
| A5355     Underground works       A5360     Installation of the A       A5370     Trial Operation and       COUS     Foundation works       A5650     General Site Cleara       A5660     Installation and initi       A5670     Pre-drilling for H-pi       A5680     Engineer's Review       A5690     Mobilzation of piling       A5720     Prebord H-pile (5a)  |   |                           |            |  |                        |                        |                    |    |                |            |          |                  |                | ľΠ             |               |
| A5360     Installation of the A       A5370     Trial Operation and       C0U5     Trial Operation and       Foundation works     A5650       A5650     General Site Cleara       A5660     Installation and initi       A5670     Pre-drilling for H-pi       A5680     Engineer's Review       A5690     Mobilzation of piling       A5720     Prebored H-pile (5a)   |   |                           |            |  |                        |                        |                    |    | E              |            |          |                  |                |                | V             |
| A5370 Trial Operation and<br>OU5<br>Foundation works<br>A5650 General Site Cleara<br>A5660 Installation and initi<br>A5670 Pre-drilling for H-pi<br>A5680 Engineer's Review<br>A5690 Mobilzation of pilin<br>A5720 Prebored H-pile (5a  |   | 0%                        | 0          | 10 0                                     | 21-Nov-19              | 02-Dec-19              |                    |    |                |            |          |                  |                |                | Ŧ             |
| DOUS           Foundation works           A5650         General Site Clear           A5660         Installation and initi           A5670         Pre-drilling for H-pi           A5680         Engineer's Review           A5690         Mobilzation of pilin           A5720         Prebored H-pile (5a  | · · ·   | 0%                        | 0          | 10 0                                     | 21-Nov-19              | 02-Dec-19              |                    |    |                |            |          |                  |                | 1              | F             |
| Foundation works           A5650         General Site Cleara           A5660         Installation and initi           A5670         Pre-drilling for H-pi           A5680         Engineer's Review           A5690         Mobilzation of piling           A5720         Prebored H-pile (5a)  |   | 0%                        | 0          | 3 0                                      | 03-Dec-19              | 05-Dec-19              |                    | Ц  |                |            |          |                  |                | 1              | J             |
| A5650General Site ClearA5660Installation and initiA5670Pre-drilling for H-piA5680Engineer's ReviewA5690Mobilzation of pilingA5720Prebored H-pile (5a)   |   |                           |            |  |                        |                        |                    | ₽  |                |            |          |                  |                | 2 30           | -Oc           |
| A5660Installation and initiA5670Pre-drilling for H-piA5680Engineer's ReviewA5690Mobilzation of pilingA5720Prebored H-pile (5a)  |   | 0%                        | 8          | 6 0                                      | 09-Jul-19              | 15-Jul-19              |                    | ┛  | Ger            | nera       | Site C   | Cleara           | ince «         | nd ur          | nde           |
| A5670Pre-drilling for H-piA5680Engineer's ReviewA5690Mobilzation of pilingA5720Prebored H-pile (5a)   | -   | 0%                        | 8          | 9 0                                      | 16-Jul-19              | 25-Jul-19              | ·                  | Ħ  |                |            | lation   |                  |                |                |               |
| A5680Engineer's ReviewA5690Mobilzation of pilingA5720Prebored H-pile (5a)   |   | 0%                        | 8          | 12 0                                     | 26-Jul-19              | 08-Aug-19              |                    | ļţ | ╺╋             |            | re-drill |                  |                |                |               |
| A5690 Mobilzation of piling<br>A5720 Prebored H-pile (5a  |   | 0%                        | 8          | 28 0                                     | 09-Aug-19              | 10-Sep-19              |                    |    | F              | -          | 1        |                  | neer's         |                |               |
|   |   | 0%                        | 8          | 3 0                                      | 17-Aug-19              | 21-Aug-19              |                    |    |                | h          | dobi     | Izatic           | n of p         | iling          | rigs          |
| A5730 Prebored H-pile (5t   | 720 Prebored H-pile (5a-P1-2a-P6, 6Nos)                                     | 0%                        | 0          | 28 0                                     | 30-Aug-19              | 02-Oct-19              |                    |    |                | ļĻ         | -        |                  | Freb           | red            | Нp            |
| noroo iroboica ii piic (or  | 730 Prebored H-pile (5b-P1-5b-P6, 6Nos)                                     | 0%                        | 25         | 24 0                                     | 03-Oct-19              | 30-Oct-19              |                    | 11 |                |            |          | ∎ <b>∏</b> ∎     |                | Pr             |               |
| A5740 Pile load test  | '40 Pile load test  | 0%                        | 0          | 6 0                                      | 03-Oct-19              | 09-Oct-19              |                    |    |                |            |          | 4                | Pil            | loac           | l ler         |
| A5750 Post Drilling for Pre   | 750 Deet Deillie e fee Deele ee ditteitee                                   | 0%                        | 0          | 4 0                                      | 10-Oct-19              | 14-Oct-19              |                    |    |                |            |          | F                | 1 P            | ost Di         | rili          |
| RC works for DOU5a  | 750 Post Drilling for Prebored H-piles                                      |                           |            |  |                        |                        |                    |    |                |            |          |                  |                | <b>-</b>       |               |
| A5590 Open Excavation a   | works for DOU5a   |                           | 0          | 5 0                                      | 15-Oct-19              | 19-Oct-19              |                    | 11 |                |            | 1        | l II I           | - 🖪 🕴          | Open           | Exc           |
| Actual Work   | works for DOU5a   | 0%                        | 0          | 0 0                                      |                        |                        | <u> </u>           |    |                |            | <u> </u> |                  | ا مهم          |                | <b></b>       |



Critical Remaining Work

| Q3     |                     |        | Q4        |     |      | Q1    |     |   | 2021<br>Q2 |    |                                       | Q3      |  |
|--------|---------------------|--------|-----------|-----|------|-------|-----|---|------------|----|---------------------------------------|---------|--|
|        |                     |        |           |     |      |       |     |   |            |    |                                       |         |  |
| on (DD | A)                  |        |           |     |      |       |     |   |            |    |                                       |         |  |
| )U2 an | d DOU               | <br>5  |           |     |      |       |     |   |            |    |                                       |         |  |
| nd DO  |                     |        |           |     |      |       |     |   |            |    |                                       |         |  |
| DU5    |                     |        |           |     |      |       |     |   |            |    |                                       |         |  |
|        | and DO              |        |           |     |      |       |     |   |            |    |                                       |         |  |
| and DC | DOU5                |        |           |     |      |       |     |   |            |    |                                       |         |  |
| J5     |                     |        |           |     |      |       |     |   |            |    |                                       |         |  |
|        |                     |        |           |     |      |       |     |   |            |    |                                       |         |  |
|        |                     |        |           |     |      |       |     |   |            |    |                                       |         |  |
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|        |                     |        |           |     |      |       |     |   |            |    |                                       |         |  |
| oiles  |                     |        |           |     |      |       |     |   |            |    |                                       |         |  |
|        |                     |        |           |     |      |       |     |   |            |    |                                       |         |  |
|        |                     |        |           |     |      |       |     |   |            |    |                                       |         |  |
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|        |                     |        |           |     |      |       |     |   |            |    |                                       |         |  |
| onnec  | tion for            | ססט    | 1         |     |      |       |     |   |            |    |                                       |         |  |
|        | System              |        |           |     |      |       |     |   |            |    |                                       |         |  |
|        | ,<br>               |        |           |     |      |       |     |   |            |    |                                       |         |  |
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|        |                     |        |           |     |      |       |     |   |            |    |                                       |         |  |
| oiles  |                     |        |           |     |      |       |     |   |            |    |                                       |         |  |
|        |                     |        |           |     |      |       |     |   |            |    |                                       |         |  |
|        |                     |        |           |     |      |       |     |   |            |    |                                       |         |  |
|        |                     |        |           |     |      |       |     |   |            |    |                                       |         |  |
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|        |                     |        |           |     |      |       |     |   |            |    |                                       |         |  |
|        |                     |        |           |     |      |       |     |   |            |    |                                       |         |  |
|        |                     |        |           |     |      |       |     |   |            |    |                                       |         |  |
|        |                     | - Deci | 10-       | ļļ  |      |       |     |   |            |    |                                       |         |  |
|        | ction for<br>System |        |           |     |      |       |     |   |            |    |                                       |         |  |
|        |                     |        |           |     |      |       |     |   |            |    |                                       |         |  |
|        |                     |        |           |     |      |       |     |   |            |    |                                       |         |  |
|        |                     |        |           |     |      |       |     |   |            |    |                                       |         |  |
| oiles  |                     |        |           |     |      |       |     |   |            |    |                                       |         |  |
|        |                     |        |           |     |      |       |     |   |            |    |                                       |         |  |
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|        |                     |        |           |     |      |       |     |   |            |    |                                       |         |  |
|        |                     |        |           |     |      |       |     |   |            |    |                                       |         |  |
| C.     |                     | ( _ T  | :<br>     | ate | 1    | Revis | ion | 1 | Checke     | d  | :<br>^                                | pproved |  |
| Sh     | eet 2 c             |        | 19-Jul-19 |     | Rev. | 0     |     |   | CHECKE     | ۵. | , , , , , , , , , , , , , , , , , , , |         |  |
|        |                     | 2      | 29-Aug-19 | 1   | Rev. | 1     |     | 1 |            |    |                                       |         |  |
|        |                     |        |           |     |      |       |     |   |            |    |                                       |         |  |
|        |                     |        |           |     |      |       |     |   |            |    |                                       |         |  |

|                       |   | Complete |          | Duration allowance |                        |                        |      |            | Q3                 |               |          | Q4          |   | Q1  | Q2  | Q3                |   |
|-----------------------|---|----------|----------|--------------------|------------------------|------------------------|------|------------|--------------------|---------------|----------|-------------|---|---|---|-------------------|---|
| A5600                 | Pile head preparation and weld test   | 0%       | 0        | 4 0                | 21-Oct-19              | 24-Oct-19              |      | E          |                    |               | T E      | Pile        | head prepa                              | ration and weld test  |   |                   |   |
| A5610                 | Formwork and steel fixing of pile cap   | 0%       | 0        | 10 0               | 25-Oct-19              | 05-Nov-19              |      |            |                    | i.            |          | H F         | omwork ar                               | nd steel fixing of pile ca  | ip  |                   |   |
| A5620                 | Concreting of pile cap  | 0%       | 0        | 2 0                | 06-Nov-19              | 07-Nov-19              |      |            |                    |               |          | 💾 (         | oncreting c                             | of pile cap   |   |                   |   |
| Drainage w            |   |          |          |                    |                        |                        |      |            |                    |               |          |             | 05.0                                    | ec-19, E&M installation   |   |                   |   |
| _E&M install<br>A5625 | ation<br>Underground works for cabling duct and trenches  | 0%       | 0        | 18 5               | 08-Nov-19              | 28-Nov-19              |      |            | · <mark>-</mark> - |               |          |             |   | ground works for cablin   |   |                   |   |
| A5630                 | Installation of the Activated Carbon Filter System and air duct connection for DOU5b  | 0%       | 0        | 18 2               | 08-Nov-19              |                        |      |            |                    |               |          |             | <b>- 1</b> 1                            | The second se | arbon Filter System an                          | d air duct conn   | ection for DOU5b                        |
| A5640                 | Trial Operation and Performance Test of the Activated Carbon Filter System for DOU5b  | 0%       | 0        | 6 0                | 29-Nov-19              |                        |      |            |                    |               |          |             | Trial                                   | Operation and Perform   | ance Test of the Activa                         |                   |   |
| CEPT tank             | ······································  |          | -        |                    |                        |                        |      |            |                    |               | ╉╼╋╸     |             |   | ec-19, CEPT tank  |   |                   |   |
| Air ducts of          | effluent drop shaft   |          |          |                    |                        |                        |      |            |                    |               |          | <u> </u>    | 05-D                                    | ec-19, Air ducts of efflu   |   |                   |   |
| A7090                 | Installation of FRP air duct for effluent drop structure  | 0%       | 0        | 25 0               | 24-Oct-19              | 21-Nov-19              |      |            |                    |               | <b>-</b> |             | Installati                              | ion of FRP air duct for   |   |                   |   |
| A7180                 | Reliability Test of FRP air ducts for effluent Drop Structure   | 0%       | 0        | 12 0               | 22-Nov-19              | 05-Dec-19              |      |            |                    | 1             |          | 11          |   |   | ucts for effluent Drop S                        | tructure          |   |
| Effluent Lau<br>A7100 | Inder<br>Delivery of isolation device for on site prototype test  | 0%       | 15       | 6 0                | 09-Jul-19              | 15-Jul-19              |      |            | livery             | oficol        | ation do | vico for    | 1.1.1                                   | ec-19, Effluent Launde<br>totype test   | n   |                   |   |
| A7100<br>A7110        | Installation of the Isolation Device for Effluent Drop Structure for On-site Prototype Test   | 0%       | 15       | 10 0               | 26-Aug-19              | 05-Sep-19              | -    |            |                    |               |          | - i i i i i | <b>I</b> : :                            |   | Structure for On-site F                         | rototyne Test     |   |
| A7110                 | Conduction of On-site Prototype Test of the Isolation Device for Effluent Drop Structure  | 0%       | 15       | 12 0               | 06-Sep-19              | 19-Sep-19              |      |            | ·                  |               |          |             | 1 I I I I I I I I I I I I I I I I I I I |   | ation Device for Effluer                        | 1                 | re                                      |
| A7130                 | Full Scale Installation of Isolation Devices for Effluent Drop Structure  | 0%       | 0        | 38 5               | 09-Oct-19              | 21-Nov-19              |      |            |                    | -             |          |             | i i                                     |   | on Devices for Effluent                         | -i - i            | i i i                                   |
| A7190                 | Performance test (smoke Test) of the isol ation device for effluent drop structure  | 0%       | 0        | 12 0               | 22-Nov-19              | 05-Dec-19              |      |            |                    |               |          | . 4         |   |   | ast) of the isol ation dev                      |                   |   |
| CEPT FRP c            |   |          | -        |                    |                        |                        |      |            |                    | -             | 1        | ++++        |   | ec-19, CEPT FRP cov   |   |                   |   |
| A7140                 | Delivery of FRP Sliding Cover Sealant for On-site Prototype Test  | 0%       | 3        | 6 0                | 02-Sep-19              | 07-Sep-19              |      |            | Ļ                  | De De         | elivery  | of FRP      | Sliding Cov                             | er Sealant for On-site  | Prototype Test                                  |                   |   |
| A7150                 | Installation of FRP Sliding Cover Sealant for On-site Prototype Test  | 0%       | 3        | 8 0                | 09-Sep-19              | 17-Sep-19              |      |            |                    | -             |          |             | 1 1                                     | g Cover Sealant for Or  |   |                   |   |
| A7160                 | Conduction of On-site Prototype Test of FRP Sliding Cover Sealant   | 0%       | 3        | 12 0               | 18-Sep-19              | 02-Oct-19              |      |            |                    | L <b>&gt;</b> | Co       | nductio     |   | 1 10 1 1  | Sliding Cover Sealant                           | 1 1               |   |
| A7170                 | Full Scale Installation of FRP Sliding Cover Sealants for Existing CEPT Tanks   | 0%       | 0        | 40 5               | 07-Oct-19              | 21-Nov-19              |      |            |                    |               | 4        |             |   |   | iding Cover Sealants                            |                   |   |
| A7200                 | Performance test (Smoke test) of the sealant for FRP sliding covers   | 0%       | 0        | 12 0               | 22-Nov-19              | 05-Dec-19              |      |            |                    |               |          | <u> </u>    | Perfo                                   | rmance test (Smoke te   | st) of the sealant for FI                       | RP sliding cove   | ers                                     |
| Section 2 of t        |   |          |          |                    |                        | -                      |      |            |                    |               |          |             |   |   | •   |                   |   |
| A2970                 | Section 2 Completion (665d)   | 0%       | 0        | 0 0                |                        | 03-May-2               |      |            |                    |               |          |             |   |   |   |                   |   |
| KD0100                | KD A - Completion of all other works including DOUs 1, 2, 4, 5 Polishing stages for FSI (540 days)  | 0%       | 0        | 0 0                |                        | 29-Dec-20*             |      |            |                    |               |          |             |   | esign Submission (AIF   |   |                   |   |
| E&M Design<br>A5760   | Submission (AIP)<br>Submission of AIP Design of Wet Chemical Scrubber System for DOU1, DOU2 and DOU5  | 0%       | 0        | 14 0               | 13-Aug-19              | 26-Aug-19              |      |            |                    | Subr          |          |             |   |   | System for DOU1, DO                             | J2 and DOU5       |   |
| A5770                 | Approval of AIP Design of Wet Chemical Scrubber System for DOU1, DOU2 and DOU5  | 0%       | 0        | 21 0               | 27-Aug-19              | 16-Sep-19              |      |            | F                  |               | - i      |             | 1 T 1                                   |   | er System for DOU1, D                           | -i -i             | 15                                      |
| A5780                 | Submission of AIP Design of the Polishing System for DOU4   | 0%       | 0        | 14 0               | 27-Aug-19              |                        |      | †•         |                    |               |          |             |   | of the Polishing System   |   |                   |   |
| A5790                 | Approval of AIP Design of the Polishing System for DOU4   | 0%       | 0        | 21 0               | 10-Sep-19              | 30-Sep-19              |      |            |                    | 4             | Арр      | proval o    | f AIP Desig                             | n of the Polishing Syst   | em for DOU4                                     |                   |   |
| A5800                 | Submission of AIP Design of the Polishing System for DOU1R  | 0%       | 0        | 14 0               | 27-Aug-19              | 09-Sep-19              |      |            | -                  | 📥 §           | ubmiss   | ion of A    | P Design o                              | of the Polishing System   | for DOU1R                                       |                   |   |
| A5810                 | Approval of AIP Design of the Polishing System for DOU1R  | 0%       | 0        | 21 0               | 10-Sep-19              | 30-Sep-19              |      |            |                    |               | Арр      | proval ø    | f AIP Desig                             | n of the Polishing Syst   | em for DOU1R                                    |                   |   |
| A5820                 | Submission of AIP Design of NaOH Bulk Storage and Transfer Facilities   | 0%       | 23       | 14 0               | 10-Sep-19              | 23-Sep-19              |      |            |                    |               |          | 1 1 1       |   |   | ge and Transfer Facilit                         |                   |   |
| A5830                 | Approval of AIP Design of NaOH Bulk Storage and Transfer Facilities   | 0%       | 23       | 21 0               | 24-Sep-19              | 14-Oct-19              |      |            |                    |               |          | -91 L       | - i - i                                 | Ŭ l   | brage and Transfer Fac                          | -i - i            |   |
| A5840                 | Submission of AIP Design of Power Supply and Distribution System for DOU Polishing Systems  | 0%       | 19       | 14 0               | 13-Aug-19              | 26-Aug-19              |      |            | -                  |               |          |             |   |   | bution System for DOU                           |                   |   |
| A5850                 | Approval of AIP Design of Power Supply and Distribution System for DOU Polishing Systems  | 0%       | 19       | 21 0               | 27-Aug-19              | 16-Sep-19              |      |            | •                  |               |          |             |   |   | tribution System for DO                         |                   | * i i i i                               |
| A5860                 | Submission of AIP Design for Upgrading and replacement of the existing local HMI touchscreen  | 0%       | 3        | 14 0               | 13-Aug-19              | 26-Aug-19              |      |            | -                  |               | - i      |             | - i <sup>-</sup> - i                    |   | nent of the existing loca                       | i i               | i i i                                   |
| A5870                 | Approval of AIP Design for Upgrading and replacement of the existing local HMI touchscreen  | 0%       | 40       | 21 0               | 27-Aug-19              | 16-Sep-19              |      | <b>[</b> ] |                    |               |          |             |   |   | ement of the existing lo                        |                   |   |
| A5880                 | Submission of AIP Design of PLC & SCADA Systems for DOU Polishing Systems (including function   | 0%       | 3        | 14 0               | 27-Aug-19              | 09-Sep-19              |      |            | -                  |               | - L      |             |   |   | ths for DOU Polishing Stems for DOU Polishing   | 1 1               | 17 1 1 7                                |
| A5890<br>A5900        | Approval of AIP Design of PLC & SCADA Systems for DOU Polishing Systems (including functional<br>Submission of AIP Design of Building Services for DOU Polishing Systems, New Switch/MCC Roor | 0%       | 3        | 21 0<br>14 0       | 10-Sep-19<br>27-Aug-19 | 30-Sep-19<br>09-Sep-19 |      |            | _                  |               |          | 11 1        |   |   | DOU Polishing Syster                            |                   |   |
| A5900<br>A5910        | Approval of AIP Design of Building Services for DOU Polishing Systems, New Switch/MCC Rooms   | 0%       | 17       | 21 0               | 10-Sep-19              | 30-Sep-19              |      |            | -                  |               |          |             |   |   | for DOU Polishing System                        |                   |   |
| A5920                 | Submission of AIP Design of Fire Services for DOU Polishing Systems, New Switch/MCC Rooms a   | 0%       | 3        | 14 0               | 10-Sep-19              | 23-Sep-19              |      |            |                    |               |          |             |   |   | DOU Polishing System                            |                   |   |
| A5930                 | Approval of AIP Design of Fire Services for DOU Polishing Systems, New Switch/MCC Rooms and   | 0%       | 3        | 21 0               | 24-Sep-19              | 14-Oct-19              |      | †•         | • • • •            | ···• 🖸        |          | - +         |   |   | for DOU Polishing Syst                          |                   |   |
| A8000                 | Submission of AIP Design to power supply, cabling, earthing, lightning protection and interface with  | 0%       | 59       | 14 0               | 13-Aug-19              | 26-Aug-19              |      |            | -                  | Subi          |          | - 1 C L     |   |   | arthing, lightning protec                       | - I - I           | - I I I                                 |
| A8010                 | Approval of AIP Design fo power supply, cabling, earthing, lightning protection and interface with ex'  | 0%       | 59       | 21 0               | 27-Aug-19              | 16-Sep-19              |      |            | -                  |               | Approv   | al of AlF   | P Design fo                             | power supply, cabling   | earthing, lightning pro                         | tection and inte  | erface with ex'tg insta                 |
| A8090                 | Submission of AIP design of networks integration with existing DCS  | 0%       | 59       | 14 0               | 13-Aug-19              | 26-Aug-19              |      |            | -                  | Subi          | ni\$sion | df AIP d    | esign of ne                             | tworks integration with   | existing DCS                                    |                   |   |
| A8100                 | Approval of AIP Design of network integration with existing DCS   | 0%       | 59       | 21 0               | 27-Aug-19              | 16-Sep-19              |      |            | -                  |               |          |             |   | network integration wi  |   |                   |   |
| A8110                 | Submission of AIP design of Redundant fiber network for new SCADA   | 0%       | 59       | 14 0               | 13-Aug-19              | 26-Aug-19              |      |            | -                  |               |          |             |   | edundant fiber network  | · · · ·   |                   |   |
| A8120                 | Approval of AIP design of Redundant fiber networks for new SCADA  | 0%       | 59       | 21 0               | 27-Aug-19              | 16-Sep-19              |      |            |                    |               |          |             |   | Redundant fiber netwo   |   |                   |   |
| A8150                 | Submission of AIP design for upgrading works and modification of ex'tg data, event & Historain serv   | 0%       | 59       | 14 0               | 13-Aug-19              | 26-Aug-19              |      | ['         | -                  |               |          |             |   |   | dification of ex'tg data,                       |                   |   |
| A8180                 | Approval of AIP design for upgrading works and modification of extg data, event & Historain server  | 0%       | 59       | 21 0               | 27-Aug-19              | 16-Sep-19              |      |            | -                  |               | Approv   | al of All   | - i T - i                               |   | modification of ex'tg da                        | ta, event & Hist  | torain server in DOL                    |
|                       | Submission (DDA)<br>Submission of DDA Design of Wet Chemical Scrubbers Filters for DOU1, DOU2 and DOU5  | 0%       | 0        | 14 0               | 17 Son 10              | 20 Son 10              |      | <b>[</b> - |                    |               | Sub      | missio      |   | Dec-19, E&M Design S  | Scrubbers Filters for E                         |                   |   |
| A1170<br>A1180        | Review and Comment on DDA Design of Wet Chemical Scrubbers Filters for DOUT, DOU2 and DOUS<br>Review and Comment on DDA Design of Wet Chemical Scrubbers Filters for DOU1, DOU2 and DO        | 0%       | 0        | 14 0<br>21 0       | 17-Sep-19<br>01-Oct-19 |                        |      |            |                    |               |          |             |   |   | of Wet Chemical Scrub                           |                   |   |
| A1183                 | Re-submission of DDA Design of Wet Chemical Scrubbers Filters for DOU1, DOU2 and DOU5   | 0%       | 0        | 7 0                | 22-Oct-19              | 28-Oct-19              |      |            |                    |               |          |             |   | · · · · · ·   | Chemical Scrubbers                              |                   | 1 · · · · · · · · · · · · · · · · · · · |
| A1185                 | Approval of DDA Design of Wet Chemical Scrubbers Filters for DOU1, DOU2 and DOU5  | 0%       | 0        | 14 0               | 29-Oct-19              | 11-Nov-19              |      |            |                    |               |          |             | i i                                     | i i Till  | hemical Scrubbers Filt                          | i i               | i i i                                   |
| A1190                 | Submission of DDA Design of the Polishing System for DOU4   | 0%       | 21       | 14 0               | 01-Oct-19              | 14-Oct-19              |      |            |                    |               | -        |             |   | A Design of the Polishi   |   |                   |   |
| A1200                 | Review and Comment on DDA Design of the Polishing System for DOU4   | 0%       | 21       | 21 0               | 15-Oct-19              | 04-Nov-19              |      | F          | • • • •            |               |          |             |   |   | gn of the Polishing Sys                         | tem for DOU4      |   |
| A1210                 | Re-submission of DDA Design of the Polishing System for DOU4  | 0%       | 21       | 7 0                | 05-Nov-19              |                        |      |            |                    |               |          |             |   |   | the Polishing System for                        |                   |   |
| A1260                 | Approval of DDA Design of the Polishing System for DOU4   | 0%       | 21       | 14 0               | 12-Nov-19              | 25-Nov-19              |      |            |                    |               |          |             |   |   | Polishing System for I                          |                   |   |
| A5940                 | Submission of DDA Design of the Polishing System for DOU1R  | 0%       | 0        | 14 0               | 01-Oct-19              | 14-Oct-19              |      |            |                    |               | -        | Submis      | sion of DD                              | A Design of the Polishi   | ng System for DOU1R                             |                   |   |
| A5950                 | Review and Comment on DDA Design of the Polishing System for DOU1R  | 0%       | 0        | 21 0               | 15-Oct-19              | 04-Nov-19              |      |            |                    |               |          |             |   | *   | on of the Polishing Sys                         |                   | 3                                       |
| A5960                 | Re-submission of DDA Design of the Polishing System for DOU1R   | 0%       | 0        | 7 0                | 05-Nov-19              |                        | T    |            | ſ                  |               |          | 4           |   |   | the Polishing System for                        | 1 1               |   |
| A5970                 | Approval of DDA Design of the Polishing System for DOU1R  | 0%       | 0        | 14 0               | 12-Nov-19              |                        |      |            |                    |               |          |             |   |   | Polishing System for I                          | · · · ·           |   |
| A5980                 | Submission of DDA Design of the NaOH bulk storage and transfer Facilities   | 0%       | 23       | 14 0               | 15-Oct-19              | 28-Oct-19              |      |            |                    |               |          | Sup         |   |   | OH bulk storage and tra                         | 1 1               |   |
| A5990                 | Review and Comment on DDA Design of the NaOH bulk storage and transfer Facilities   | 0%       | 23       | 21 0               | 29-Oct-19              | 18-Nov-19              |      |            |                    |               |          | ┑           |   |   | esign of the NaOH bul                           |                   |   |
| A6000                 | Re-submission of DDA Design of the NaOH bulk storage and transfer Facilities  | 0%       | 23       | 7 0                | 19-Nov-19              | 25-Nov-19              |      | - <b> </b> |                    |               |          |             |   |   | t of the NaOH bulk stor                         |                   |   |
| A6010                 | Approval of DDA Design of the NaOH bulk storage and transfer Facilities   | 0%       | 23       | 14 0               | 26-Nov-19              |                        |      |            |                    |               | - C      |             |   |   | the NaOH bulk storage<br>and Distribution Syste | -i -i             | - i i i                                 |
| A6020<br>A6030        | Submission of DDA Design of Power Supply and Distribution System for DOU Polishing Systems  | 0%       | 19<br>19 | 14 0               | 17-Sep-19              | 30-Sep-19              |      |            |                    |               | Sub      |             | p 1                                     |   | and Distribution Syste                          | 1 1               | 1 2 2 1 1                               |
| 10030                 | Review and Comment on DDA Design of Power Supply and Distribution System for DOU Polishing  | 0%       | 19       | 21 0               | 01-Oct-19              | 21-Oct-19              | li l |            |                    | 11            |          | inevie      |   |   | and D   | iya ibaalori Syst | Control DQU FUIIS/III                   |
|                       |   |          |          |                    |                        |                        |      |            |                    |               |          |             |   |   |   |                   |   |
|                       | ual Work    Milestone   |          |          |                    |                        | Contract No            | DC   | 1201       | 0/1=               |               |          |             |   |   |   | ~                 | Sheet 3 of 7                            |

Critical Remaining Work

| 04           |       |       |          | 01         |          |         |   | 2021   |   |                   | 03      |  |
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| i gn spe     | cific | ati o | n)       |            |          |         | + |        |   |                   |         |  |
| designs      |       |       |          |            |          |         |   |        |   |                   |         |  |
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| NaOH I       | Bulk  | Stor  | age Co   | npounc     |          |         |   |        |   |                   |         |  |
| nd NaO       | H Bu  | k S   | torage ( | Compoi     | und      |         |   |        |   |                   |         |  |
| llation      |       |       |          |            |          |         |   |        |   |                   |         |  |
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| 001&2 in i   |       |       |          |            |          |         |   |        |   |                   |         |  |
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| DOUL         |       |       |          |            |          |         |   |        |   |                   |         |  |
| d DOU5<br>95 |       |       |          |            |          |         |   |        |   |                   |         |  |
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| hing Sy      | stem  | 6     |          |            |          |         |   |        |   |                   |         |  |
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| Da<br>Jul-19 | te    |       | Rev.     | Revis<br>0 | ion      | +       |   | Checke | 2 | A                 | pproved |  |
| Aug-19       |       |       | Rev.     |            |          |         |   |        |   |                   |         |  |
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| vity ID        | Activity Name  | Activity % Total<br>Complete | Float      | Original Time risk<br>Duration allowance | Start                  | Finish                 | 201       | 9        | Q3    |          |                    | Q4       |             | Q1  | 21<br>Q2  | 020<br>Q3  |
|----------------|--|------------------------------|------------|--|------------------------|------------------------|-----------|----------|-------|----------|--------------------|----------|-------------|---|---|--|
| A6040          | Re-submission of DDA Design of Power Supply and Distribution System for DOU Polishing System   | 0%                           | 19         | 7 0                                      | 22-Oct-19              | 28-Oct-19              |           | Π        |       |          | L -                |          | upmissior   |   |   | tion System for DOU Polishing \$y  |
| A6050          | Approval of DDA Design of Power Supply and Distribution System for DOU Polishing Systems   | 0%                           | 19         | 14 0                                     | 29-Oct-19              | 11-Nov-19              |           |          |       |          |                    |          | pproval o   | DDA Design of Power   | Supply and Distributio  | n System for DOU Polishing Syste   |
| A6060          | Submission of DDA Design of Upgrading and replacement of the existing local HMI touchscreen  | 0%                           | 40         | 14 0                                     | 17-Sep-19              | 30-Sep-19              |           |          |       | -1       | Subr               | ission   | of DDA D    | esign of Upgrading and  | replacement of the exis   | sting local HMI touchscreen  |
| A6070          | Review and Comment on DDA Design of Upgrading and replacement of the existing local HMI touch  | 0%                           | 40         | 21 0                                     | 01-Oct-19              | 21-Oct-19              |           |          |       |          |                    | Reviev   | and Con     | hment on DDA Design c   | f Upgrading and replac  | ement of the existing local HMI tou  |
| A6080          | Re-submission of DDA Design of Upgrading and Upgrading and replacement of the existing local HI  | 0%                           | 40         | 7 0                                      | 22-Oct-19              | 28-Oct-19              |           |          |       |          | ·   <b>-</b>       | Re-s     | uomissior   | n of DDA Design of Upg  | rading and Upgrading a  | and replacement of the existing loc  |
| A6090          | Approval of DDA Design of Upgrading and Upgrading and replacement of the existing local HMI tour   | 0%                           | 40         | 14 0                                     | 29-Oct-19              | 11-Nov-19              |           |          |       |          | - L                |          | 16 i        |   |   | I replacement of the existing local I  |
| A6100          | Submission of DDA Design of PLC & SCADA Systems for DOU Polishing Systems  | 0%                           | 3          | 14 0                                     | 01-Oct-19              | 14-Oct-19              |           |          |       |          | ► <mark>∎</mark> S |          | -           | A Design of PLC & SCA   |   |  |
| A6110          | Review and Comment on DDA Design of PLC & SCADA Systems for DOU Polishing Systems  | 0%                           | 45         | 21 0                                     | 15-Oct-19              | 04-Nov-19              |           |          |       |          |                    | P        | - ji - i    | i i i t 1   | <b>K</b> i i <b>f</b>   | stems for DOU Polishing Systems  |
| A6120          | Re-submission of DDA Design of PLC & SCADA Systems for DOU Polishing Systems   | 0%                           | 45         | 7 0                                      | 05-Nov-19              | 11-Nov-19              |           |          |       |          | -                  |          |             |   |   | for DOU Polishing Systems  |
| A6130          | Approval of DDA Design of PLC & SCADA Systems for DOU Polishing Systems  | 0%                           | 45         | 14 0                                     | 12-Nov-19              | 25-Nov-19              |           |          |       |          |                    | 1 F      | ip ii - i   |   |   | or DOU Polishing Systems   |
| A6140          | Submission of DDA Design of Building Services for DOU Polishing Systems, New MCC Rooms and   | 0%                           | 3          | 14 0                                     | 15-Oct-19              | 28-Oct-19              |           |          |       |          |                    | Suph     | - 1i - i    |   |   | ishing Systems, New MCC Rooms<br>des for DOU Polishing Systems, N              |
| A6150          | Review and Comment on DDA Design of Building Services for DOU Polishing Systems, New MCC   | 0%                           | 3          | 21 0                                     | 29-Oct-19              | 18-Nov-19              |           |          |       |          |                    |          |             |   |   | or DOU Polishing Systems, New M  |
| A6160<br>A6170 | Re-submission of DDA Design of Building Services for DOU Polishing Systems, New MCC Rooms  | 0%                           | 3          | 7 0<br>14 0                              | 19-Nov-19              | 25-Nov-19<br>09-Dec-19 |           |          |       |          |                    | 11       |             |   |   | DOU Polishing Systems, New MCC   |
| A8170<br>A8050 | Approval of DDA Design of Building Services for DOU Polishing Systems, New MCC Rooms and N<br>Submission of DDA Design of power supply, cabling, earthing, lightning protection and interface with | 0%                           | 59         | 14 0                                     | 26-Nov-19<br>17-Sep-19 | 30-Sep-19              |           |          |       |          | Subr               | issian   |             | i   |   | ing protection and interface with e  |
| A8060          | Review & comment of DDA Design of power supply, cabling, earthing, lightning protection and interface with   | 0%                           | 59         | 21 0                                     | 01-Oct-19              | 21-Oct-19              |           |          |       |          | -                  |          | - R         |   |   | arthing, lightning protection and int  |
| A8070          | Re-submission of DDA Design of power supply, cabling, earthing, lightning protection and interface   | 0%                           | 59         | 7 0                                      | 22-Oct-19              | 28-Oct-19              |           |          |       |          |                    |          | - i - i     | i i në të   | A 1977 1 7 1  | hing, lightning protection and inter   |
| A8080          | Approval of DDA Design of power supply, cabling, earthing, lightning protection and interface with e   | 0%                           | 59         | 14 0                                     | 29-Oct-19              | 11-Nov-19              | 1         |          |       |          | <b>-</b>           | 1        |             |   |   | ng, lightning protection and interfac  |
| A8280          | Submission of DDA Design of networks integration with the existing DCS   | 0%                           | 59         | 14 0                                     | 17-Sep-19              | 30-Sep-19              |           |          |       |          | Subr               | ission   | df DDA D    | esign of networks integ   | ation with the existing   | ФCS  |
| A8290          | Review & comment of DDA Design of networks integration with the existing DCS   | 0%                           | 59         | 21 0                                     | 01-Oct-19              | 21-Oct-19              |           |          |       |          |                    | Review   | & comm      | ent of DDA Design of ne   | tworks integration with   | the existing DCS   |
| A8300          | Re-submission of DDA Design of networks integration with the existing DCS  | 0%                           | 59         | 7 0                                      | 22-Oct-19              | 28-Oct-19              |           |          |       |          |                    | Re-s     | uomissior   | n of DDA Design of netw   | orks integration with th  | ne existing DCS  |
| A8310          | Approval of DDA Design of networks integration with the existing DCS   | 0%                           | 59         | 14 0                                     | 29-Oct-19              | 11-Nov-19              |           |          |       |          | <b>-</b>           |          | . C         | f DDA Design of networ  | , , , , , , , , , , , , , , , , , , ,   | · · · · · · · · · · · · · · · · · · ·  |
| A8320          | Submission of DDA Design of redundant fiber networks for new SCADA   | 0%                           | 59         | 14 0                                     | 17-Sep-19              | 30-Sep-19              |           |          | T     | -        |                    |          |             | esign of redundant fiber  | 5 i i   |  |
| A8330          | Review & comment of DDA Design of redundant fiber networks for new SCADA   | 0%                           | 59         | 21 0                                     | 01-Oct-19              | 21-Oct-19              |           |          |       |          |                    |          | 6 6         | ent of DDA Design of re   |   |  |
| A8340          | Re-submission of DDA Design of redundant fiber networks for new SCADA  | 0%                           | 59         | 7 0                                      | 22-Oct-19              | 28-Oct-19              |           |          |       |          |                    |          |             | of DDA Design of redu   |   |  |
| A8350          | Approval of DDA Design of redundant fiber networks for new SCADA   | 0%                           | 59         | 14 0                                     | 29-Oct-19              | 11-Nov-19              |           |          |       |          |                    |          | 16 3        | f DDA Design of redund  | i i   |  |
| A8360          | Submission of DDA Design of upgrading works and modification of ex'tg data, event & Historain ser  | 0%                           | 59         | 14 0                                     | 17-Sep-19              | 30-Sep-19              | ·         |          |       | ····     | Subr               | 1 1      | - I' '      |   |   | ex'tg data, event & Historain server   |
| A8370          | Review & comment of DDA Design of upgrading works and modification of extg data, event & Histor  | 0%                           | 59         | 21 0                                     | 01-Oct-19              | 21-Oct-19              |           |          |       |          |                    |          | P 2         |   |   | dification of ex'tg data, event & His  |
| A8380<br>A8390 | Re-submission of DDA Design of upgrading works and modification of ex'tg data, event & Historain   | 0%<br>0%                     | 59<br>59   | 7 0<br>14 0                              | 22-Oct-19<br>29-Oct-19 | 28-Oct-19<br>11-Nov-19 |           |          |       |          |                    |          | - ji - i    |   |   | ication of ex'tg data, event & Histor<br>ation of ex'tg data, event & Historai |
|                | Approval of DDA Design of upgrading works and modification of ex'tg data, event & Historain server<br>sotechnical Design Submission (DDA)  | 0%                           | 29         | 14 0                                     | 29-001-19              | 11-100-19              |           |          |       |          |                    | -1 ^     | 10 I        | ▼ 05-Jan-20, Civil and  |   |  |
| A7880          | Submission of DDA Geotechnical design for piling works for DOU1R and 4   | 0%                           | 0          | 7 0                                      | 01-Oct-19              | 07-Oct-19              |           |          |       | - L      | Sub                | nissic   | 6 3         | Geotechnical design fo  |   |  |
| A7890          | Review and Comment on DDA Geotechnical design for piling works for DOU1R and 4   | 0%                           | 0          | 21 0                                     | 08-Oct-19              | 28-Oct-19              | 1         |          |       |          | ¢                  | Revi     | w and Co    | mment on DDA Geotec   | hnical design for piling  | works for DOU1R and 4  |
| A7900          | Re-submission of DDA Geotechnical design for piling works for DOU1R and 4  | 0%                           | 0          | 7 0                                      | 29-Oct-19              | 04-Nov-19              |           |          |       |          | 5                  | Fle-     | submissi    | on of DDA Geotechnica   | d design for piling work  | s for DOU1R and 4  |
| A7910          | Approval of DDA Geotechnical design for piling works for DOU1R and 4   | 0%                           | 0          | 7 0                                      | 05-Nov-19              | 11-Nov-19              |           |          |       |          |                    | A        | pproval o   | DDA Geotechnical des  | sign for piling works for   | DOU1R and 4  |
| A7920          | Submission of DDA structural design for RC works of DOU1R and 4  | 0%                           | 39         | 14 0                                     | 12-Nov-19              | 25-Nov-19              |           |          |       |          |                    | ┣        | Submis      | sion of DDA structural  | design for RC works of  | DOU1R and 4  |
| A7930          | Review and Comment on DDA structural design for RC works for DOU1R and 4   | 0%                           | 39         | 21 0                                     | 26-Nov-19              | 16-Dec-19              |           |          |       |          |                    | -        | T. C. L. L. |   | <b>.</b>  | for RC works for DOU1R and 4   |
| A7940          | Re-submission of DDA structural design for RC works for DOU1R and 4  | 0%                           | 39         | 10 0                                     | 17-Dec-19              | 26-Dec-19              |           |          |       |          |                    |          |             |   |   | C works for DOU1R and 4  |
| A7950          | Approval of DDA structural design for RC works for DOU1R and 4   | 0%                           | 39         | 10 0                                     | 27-Dec-19              | 05-Jan-20              |           |          |       |          |                    |          |             | Դեսցմանակություն է է է  |   | works for DOU1R and 4  |
| A7960          | Submission of DDA for ABWF design for DOU1R and 4  | 0%                           | 184        | 14 0                                     | 12-Nov-19              | 25-Nov-19              |           |          |       |          |                    | -        |             | sion of DDA for ABWF  |   | i i i i  |
| A7970          | Review and Comment on DDA ABWF design for DOU1R and 4  | 0%                           | 184        | 21 0                                     | 26-Nov-19              | 16-Dec-19              |           |          |       |          |                    |          |             | eview and Comment on  |   |  |
| A7980          | Re-submission of DDA ABWF design for DOU1R and 4   | 0%                           | 184<br>184 | 10 0                                     | 17-Dec-19              | 26-Dec-19              |           |          |       | ·        |                    |          |             | Re-submission of DDA  |   |  |
| A7990          | Approval of DDAABWF design for DOU1R and 4   | 0%                           | 184        | 10 0                                     | 27-Dec-19              | 05-Jan-20              |           |          |       |          |                    |          |             |   |   | ment and Delivery of Equipment/M   |
| A1320          | Procurement of Wet Chemical Scrubber Systems for DOU1, DOU2 and DOU5   | 0%                           | 0          | 90 0                                     | 12-Nov-19              | 09-Feb-20              |           |          |       |          |                    |          |             |   |   | rubber Systems for DOU1, DOU2  |
| A1330          | FAT of Wet Chemical Scrubber Systems for DOU1, DOU2 and DOU5   | 0%                           | 0          | 14 0                                     | 10-Feb-20              | 23-Feb-20              |           |          |       |          |                    | ΙT       |             | ' i 🛏 🖓 i   |   | r Systems for DOU1, DOU2 and D   |
| A1350          | Delivery of Wet Chemical Scrubber Systems for DOU1, DOU2 and DOU5  | 0%                           | 0          | 14 0                                     | 24-Feb-20              | 08-Mar-20              |           |          |       |          |                    |          |             | Deli  | very of Wet Chemical  | Scrubber Systems for DOU1, DOL   |
| A1360          | Procurement of DOU4 Polishing System   | 0%                           | 21         | 76 0                                     | 26-Nov-19              | 09-Feb-20              |           |          |       |          |                    |          | 4           | Procureme   | nt of DOU4 Polishing S  | System   |
| A1380          | FAT of DOU4 Polishing System   | 0%                           | 21         | 14 0                                     | 10-Feb-20              | 23-Feb-20              |           |          |       | -        |                    |          |             | FAT of  | DOU4 Polishing Syster   | m  |
| A1500          | Delivery of DOU4 Polishing System  | 0%                           | 21         | 14 0                                     | 24-Feb-20              | 08-Mar-20              |           |          |       |          |                    |          |             | L <mark>►</mark> Deli   | ivery of DOU4 Polishin  | g System   |
| A6180          | Procurement of DOU1R Polishing System  | 0%                           | 0          | 76 0                                     | 26-Nov-19              | 09-Feb-20              |           |          |       |          |                    |          |             |   | nt of DOU1R Palishing   |  |
| A6190          | FAT of DOU1R Polishing System  | 0%                           | 0          | 14 0                                     | 10-Feb-20              | 23-Feb-20              | ļļ        | <b>.</b> |       |          |                    | <b>.</b> |             | <b></b>   | DOU1R Polishing Syste   |  |
| A6200          | Delivery of DOU1R Polishing System   | 0%                           | 0          | 14 0                                     | 24-Feb-20              | 08-Mar-20              |           |          |       |          |                    |          |             |   | Very of DOU1R Polishi   |  |
| A6210          | Procurement of NaOH Bulk Storage Tank and Transfer Facilities  | 0%                           | 23         | 76 0                                     | 10-Dec-19              | 23-Feb-20              | 1 1       |          |       | -        |                    |          |             |   | <b>i</b> i i  | orage Tank and Transfer Facilities   |
| A6220          | FAT of NaOH Bulk Storage Tank and Transfer Facilities  | 0%                           | 23         | 14 0                                     | 24-Feb-20              | 08-Mar-20              |           |          |       |          |                    |          |             |   |   | Tank and Transfer Facilities<br>Storage Tank and Transfer Facilit              |
| A6230          | Delivery of NaOH Bulk Storage Tank and Transfer Facilities   | 0%                           | 23         | 14 0                                     | 09-Mar-20              | 22-Mar-20              | -         |          |       |          |                    |          |             | i i il <mark>i 199</mark> 4-  | Ang tanàn ang taona kaominina dia kaominina dia kaominina dia kaominina dia kaominina dia kaominina dia kaomini | Storage lank and Transfer Facilit  |
| A6240<br>A6250 | Procurement of Power Supply and Distribution System for DOU Polishing Systems  | 0%                           | 19<br>19   | 90 0<br>30 0                             | 12-Nov-19<br>10-Feb-20 | 09-Feb-20<br>10-Mar-20 | <b>∤ </b> |          |       |          |                    |          |             |   |   | Distribution System for DOU Polis  |
| A6250<br>A6260 | FAT of Power Supply and Distribution System for DOU Polishing Systems Delivery of Power Supply and Distribution System for DOU Polishing Systems   | 0%<br>0%                     | 19         | 14 0                                     | 10-Feb-20<br>11-Mar-20 | 24-Mar-20              | 1         |          |       | Ì        |                    |          |             |   |   | ply and Distribution System for DC   |
| A6260<br>A6270 | Procurement of packaged offer for Upgrading and Replacement of the existing local HMI touchscree   | 0%                           | 40         | 120 0                                    | 12-Nov-19              | 10-Mar-20              | 1 1       |          |       |          |                    | ┝╾╟╴     |             |   |   | offer for Upgrading and Replacem   |
| A6290          | Delivery of packaged offer for Upgrading and Replacement of the existing local HMI touchscreen   | 0%                           | 40         | 14 0                                     | 11-Mar-20              | 24-Mar-20              | 1         |          |       |          |                    | ΙT       |             |   |   | offer for Upgrading and Replaceme  |
| A6300          | Procurement of PLC and SCADA Systems for DOU Polishing Systems   | 0%                           | 45         | 90 0                                     | 26-Nov-19              | 23-Feb-20              | 1         |          |       |          |                    | ┥┝╸      |             |   |   | DA Systems for DOU Polishing Sys   |
| A6310          | FAT of PLC and SCADA Systems for DOU Polishing Systems   | 0%                           | 45         | 30 0                                     | 24-Feb-20              | 24-Mar-20              | 1         | ++       |       |          |                    | •••••    | -           | la a sta a sub sta <del>na s</del> ta <mark>t</mark> i a sub sta su |   | A Systems for DOU Polishing Syst   |
| A6320          | Delivery of hardware of PLC and SCADA Systems for DOU Polishing Systems  | 0%                           | 45         | 14 0                                     | 25-Mar-20              | 07-Apr-20              | 1         |          |       |          |                    |          |             |   | 2.4   | re of PLC and SCADA Systems for  |
| A6330          | Procurement of Building Services Equipment for DOU Polishing Systems, New Switch/MCC Rooms   | 0%                           | 3          | 90 0                                     | 10-Dec-19              | 08-Mar-20              | 1         |          |       |          |                    |          |             |   | HP 1 1 1  | ervices Equipment for DOU Polish   |
| A6340          | Delivery of Building Services Equipment for DOU Polishing Systems, New Switch/MCC Rooms and  | 0%                           | 3          | 30 0                                     | 09-Mar-20              | 07-Apr-20              |           |          |       |          |                    |          |             |   | Delivery of Building  | g Services Equipment for DOU Pol   |
| A6350          | Procurement of Fire Services Equipment for DOU Polishing Systems, New MCC Rooms and NaOH   | 0%                           | 28         | 90 0                                     | 10-Dec-19              | 08-Mar-20              |           |          |       |          |                    |          | -           | Pro   | curement of Fire Servic   | es Equipment for DOU Polishing   |
| A7080          | Delivery of Fire Services Equipment for DOU Polishing Systems, New MCC Rooms and NaOH Bu   | 0%                           | 28         | 30 0                                     | 09-Mar-20              | 07-Apr-20              |           | 11       |       |          |                    |          |             |   | Delivery of Fire Se   | ervices Equipment for DOU Polish   |
| DOU 1          |  |                              |            |  |                        |                        |           |          |       |          |                    |          |             |   |   |  |
|                | lation (2nd stage)   | 001                          | _          |  | 00.11 ==               | 00.0                   |           |          |       |          |                    |          |             |   |   |  |
| A7210          | Installation of DOU1 wet scrubber and air duct connection for DOU1   | 0%                           | 0          | 175 14                                   | 09-Mar-20              | 08-Oct-20              | -         |          |       |          |                    |          |             |   |   | Instal   |
| A7212          | Installation of Power supply and disturbution system for DOU polishing systems   | 0%                           | 16         | 130 14                                   | 25-Mar-20              | -                      | <b>∤ </b> |          |       |          |                    |          |             |   |   | Instal ation of P  |
| 47222          | Upgrading and Replacement of the existing local HMI touchscreen  | 0%                           | 56         | 90 14                                    | 25-Mar-20              | 14-Jul-20              |           |          | 5     | <u> </u> | <u> </u>           |          | <u> </u>    |   |   |  |
| Δ              | tual Work  |                              |            |  |                        | Contract I             | No. D     | C/20     | 18/17 |          |                    |          |             |   |   | Sheet 4 of 7   |
|                |  |                              |            |  |                        |                        |           |          |       |          |                    |          |             |   |   | 19-Ju<br>29-Ai   |
|                | emaining Work Summary  |                              | Enha       | ncement of Deodou                        | rization Sy            | ystem at St            | onecu     | ıtter    | Islan | d Sew    | age Tre            | atme     | nt Worl     | ks  |   | 29-A   |
| Cr             | itical Remaining Work  |                              |            |  |                        |                        | -         |          |       |          |                    |          |             |   |   |  |
|                |  |                              |            |  |                        | First l                | Unoan     | omm      | 0     |          |                    |          |             |   |   |  |

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|-----------------|------|-------------|----------|----------|--------|------|-----------|----------|-----|---------|--|
| Q4              |      |             | Q1       |          |        |      | Q2        |          |     | Q3      |  |
| Systems         |      |             |          |          |        | l    |           |          |     |         |  |
| stems           |      |             |          |          |        |      |           |          |     |         |  |
|                 |      |             |          |          |        | Ť    |           |          |     |         |  |
| ouchscreen      |      |             |          |          |        |      |           |          |     |         |  |
| cal HMI touc    | he   | roon        |          |          |        |      |           |          |     |         |  |
| 1 1             |      |             |          |          |        |      |           |          |     |         |  |
| I HMI touchs    | cre  | en          |          |          |        |      |           |          |     |         |  |
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| ns              |      |             |          |          |        |      |           |          |     |         |  |
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| ms and NaO      |      |             | -        |          |        |      |           |          |     |         |  |
| , New MCC F     |      |             |          |          | rage   |      |           |          |     |         |  |
| MCC Rooms       | an   | d NaOl      | l bulk s | storage  |        |      |           |          |     |         |  |
| C Rooms a       |      |             |          |          |        |      |           |          |     |         |  |
| i i i           |      | i i         |          | 9-       |        |      |           |          |     |         |  |
| extginstal la   |      |             |          |          |        |      |           |          |     |         |  |
| interface with  | ex   | tg instal   | I        |          |        |      |           |          |     |         |  |
| erface with e   | ('tg | install     |          |          |        |      |           |          |     |         |  |
| ace with ex'to  | in   | stal lation | <br>ח    |          |        | 1    |           |          |     |         |  |
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| er in DOU18     | 2 ir | MPS1        |          |          |        |      |           |          |     |         |  |
| listorain serv  |      |             |          |          |        | ÷    |           |          |     |         |  |
| 1 1             |      |             |          |          |        |      |           |          |     |         |  |
| torain server   | 1    |             |          |          |        |      |           |          |     |         |  |
| ain server in   | MP   | S1          |          |          |        |      |           |          |     |         |  |
|                 |      |             |          |          |        |      |           |          |     |         |  |
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| ÷               |      |             |          |          |        | ÷    |           |          |     |         |  |
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| ·               |      |             |          |          |        |      |           |          |     |         |  |
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| Material for    | Sec  | tion 2 of   | Works    | 5        |        |      |           |          |     |         |  |
| 2 and DOU5      |      |             |          |          |        |      |           |          |     |         |  |
| DOU5            |      |             |          |          |        |      |           |          |     |         |  |
| i i             |      |             |          |          |        |      |           |          |     |         |  |
| OU2 and DO      | 15   |             |          |          |        | 1    |           |          |     |         |  |
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| es              |      |             |          |          |        |      |           |          |     |         |  |
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| lition          |      |             |          |          |        | l    |           |          |     |         |  |
| lities          |      |             |          |          |        | l    |           |          |     |         |  |
| lishing Syst    | 1    |             |          |          |        |      |           |          |     |         |  |
| Ishing Syste    | ns   |             |          |          |        | Í    |           |          |     |         |  |
| DOU Polishir    | g S  | ystems      |          |          |        |      |           |          |     |         |  |
| ment of the e   |      |             |          | ouchscr  | een    |      |           |          |     |         |  |
|                 |      |             |          |          |        |      |           |          |     |         |  |
| ment of the e   | เรเ  | ny iocal    |          | uuriscre | en     |      |           |          |     |         |  |
| stems           |      |             |          |          |        |      |           |          |     |         |  |
| /stems          |      |             |          |          |        |      |           |          |     |         |  |
| pr DOU Polis    | hir  | g Syste     | ms       |          |        |      |           |          |     |         |  |
| shing System    |      |             |          | C Boom   | s and  | N    | аОн в.    | lk Store | ne  |         |  |
| i i i           |      |             |          |          |        | 1    |           |          |     |         |  |
| Polishing Sys   |      |             | 1        |          |        |      |           |          |     |         |  |
| g Systems, N    | ew   | MCC R       | ooms a   | nd NaO   | H Bull | : \$ | torage    | Compou   | nd  |         |  |
| shing System    | 1    |             |          |          |        |      |           |          |     |         |  |
|                 |      | 28-Dec      |          |          |        | Ĩ    |           | 5        |     |         |  |
| ▼ 12-Nov        | -    | ES M :-     | tollor   | bn (2    | otoco  | Ì    |           |          |     |         |  |
| ▼ 12-INOV       | 20   |             | o di ali | un (∠nd  | siage  |      |           |          | 14  |         |  |
| allation of D   |      |             |          |          |        | 1.1  |           |          |     |         |  |
| Power supp      | y a  | nd distu    | rbution  | system   | for D  | ΡĻ   | J polishi | ng syst  | ems |         |  |
| ent of the exis | !    |             |          |          |        | ļ    |           |          |     |         |  |
|                 |      |             |          |          |        |      |           |          |     |         |  |
| Date            |      |             | Revis    | ion      |        |      | Checke    | ł        | A   | pproved |  |
| -Jul-19         |      | Rev.        | 0        |          |        | _    |           |          |     |         |  |
| -Aug-19         |      | Rev.        | 1        |          |        |      |           |          |     |         |  |
|                 |      |             |          |          |        |      |           |          |     | -       |  |
|                 |      |             |          |          |        |      |           |          |     |         |  |

| / ID Activity Name  |   | Activity % Tot<br>Complete | tal Float | Original Time ri<br>Duration allowar |                        | Finish                 | 2019   | (        | 3 Q4                                  | Q1                                       | Q2                                    | 2020<br>Q3                      |
|---|---|----------------------------|-----------|--------------------------------------|------------------------|------------------------|--------|----------|---------------------------------------|--|---------------------------------------|---------------------------------|
| A7232 Installation of PLC and SCADA system for DOU p  | olishing systems                                    | 0%                         | 45        | 90 14                                | 10-Apr-20              | 27-Jul-20              |        |          |                                       |  |                                       | Installation of PLC ar          |
| A7242 Installation of Building Service for DOU polishing  | system, MCC room                                    | 0%                         | 1         | 180 14                               | 10-Apr-20              | 12-Nov-20              |        |          |                                       |  |                                       |                                 |
| A7252 Installation of Fire services for DOU polishing sy  | stem, MCC room and NaOH bulk storage compou         | 0%                         | 31        | 150 14                               | 10-Apr-20              | 08-Oct-20              |        |          |                                       |  | +                                     |                                 |
| A7292 Software developement for new DOU polishing st  | •   | 0%                         | 38        | 120 14                               | 10-Apr-20              | 01-Sep-20              |        | <b>[</b> |                                       |  |                                       | Software de                     |
| A7332 Installation of redundunt fiber networks for new S  | CADA  | 0%                         | 38        | 30 14                                | 02-Sep-20              | 08-Oct-20              |        |          |                                       |  |                                       |                                 |
| Testing and commissioning           A7262         Performance Test of the DOU1 wet scrubber                         |   | 0%                         | 0         | 45 5                                 | 09-Oct-20              | 22-Nov-20              |        |          |                                       |  |                                       |                                 |
|   | ation and interface test for PLC and SCADA for DC   | 0%                         | 18        | 65 5                                 | 01-Sep-20              | 04-Nov-20              |        |          |                                       |  |                                       |                                 |
| A7275 Hardware, point to point, end to end and function   | estfor upgrading and replacement of existing local  | 0%                         | 66        | 65 5                                 | 15-Jul-20              | 17-Sep-20              |        |          |                                       |  |                                       | L <mark>→</mark> Hardwa         |
| A7282 Reliability test of the polishing system of DOU1  |   | 0%                         | 0         | 36 0                                 | 23-Nov-20              | 28-Dec-20              |        |          |                                       |  |                                       |                                 |
| A7302 Reliability test of NaOH bulk Storage and transfe   | rsystem   | 0%                         | 3         | 30 0                                 | 21-Oct-20              | 19-Nov-20              |        |          |                                       |  |                                       | C                               |
| A7312 Performance test of building service for DOU pol  | shing system, MCC room and NaOH bulk storage        | 0%                         | 1         | 45 5                                 | 13-Nov-20              | 27-Dec-20              |        |          |                                       |  |                                       |                                 |
|   | g system, MCC room and NaOH bulk storage com        | 0%                         | 36        | 45 5                                 | 09-Oct-20              | 22-Nov-20              |        |          |                                       |  |                                       | -                               |
| DOU 1R<br>Foundation works  |   |                            |           |                                      |                        |                        | ····   |          |                                       |  | oundation works                       |                                 |
| A6376 General Site Clearance and underground uliities   | detection/idenification                             | 0%                         | 66        | 6 0                                  | 09-Jul-19              | 15-Jul-19              |        | Gene     | al Site Clearance and undergr         |  |                                       |                                 |
| A6380 Installation and initial survey of building, ground a   |   | 0%                         | 66        | 6 0                                  | 16-Jul-19              | 22-Jul-19              |        | 🔲 İnst   | llation and Initial survey of bui     | Iding, ground and ut                     | lities settlement                     |                                 |
| A6395 Pre-drilling for H-pile foundation (3Nos, 2 rigs)   |   | 0%                         | 51        | 10 0                                 | 09-Aug-19              | 20-Aug-19              |        |          | Pre-drilling for H pile found         | ation (3Nos, 2 rigs)                     |                                       |                                 |
| A6396 Engineer's Review of foundaiton design, rockhear  | d coutour and founding level of H-piles             | 0%                         | 51        | 24 0                                 | 21-Aug-19              | 17-Sep-19              |        |          |                                       |  | rockhead ooutour and found            | ling level of H-piles           |
| A6397 Demolition of existing concrete plinth  |   | 0%                         | 51        | 12 1                                 | 18-Sep-19              | 02-Oct-19              |        |          | Demolition of ex                      | - <u>1 1 11 1</u>                        |                                       |                                 |
| A6400 Prebored rock-socketted H-pile (P1-6, 6Nos)   |   | 0%                         | 17        | 35 1                                 | 12-Nov-19              | 21-Dec-19              |        |          |                                       |  | ocketted H-pile (P1-6, 6Nos           | )                               |
| A6410 Pile load test  |   | 0%                         | 17        |                                      | 23-Dec-19              |                        |        |          |                                       | Pile Idad test                           |                                       |                                 |
| A6420 Post Drilling for Prebored H-piles  |   | 0%                         | 17        | 4 0                                  | 02-Jan-20              | 06-Jan-20              |        |          |                                       | Post Drilling                            | for Prepored H-piles                  | works                           |
| RC works           A6455         Open Excavation for pile cap construction  |   | 0%                         | 17        | 6 1                                  | 11-Jan-20              | 17-Jan-20              |        | <b></b>  |                                       |  | avation for pile cap constru          | ction                           |
| A6457 Pile head preparation and weld test   |   | 0%                         | 17        | 6 1                                  | 18-Jan-20              | 24-Jan-20              |        |          |                                       | i 🖃 i i 📕                                | ad preparation and weld test          | i i i i                         |
| A6458 Formwork and steel fixing of pile cap   |   | 0%                         | 17        | 15 2                                 | 25-Jan-20              | 11-Feb-20              |        |          |                                       |  | rmwork and steel fixing of pi         |                                 |
| A6460 Concreting of pile cap  |   | 0%                         | 17        | 2 0                                  | 12-Feb-20              | 13-Feb-20              |        |          |                                       | , <u>1</u>                               | oncreting of pile cap                 |                                 |
| A6470 Concreting of MCC room wall and roof slab   |   | 0%                         | 117       | 24 2                                 | 14-Feb-20              | 16-Mar-20              |        |          |                                       | <b>↓</b>                                 | Concreting of MCC ro                  |                                 |
| A6480 Internal finishes of MCC room and Builder works   |   | 0%                         | 117       | 15 2                                 | 25-Mar-20              | 14-Apr-20              |        |          |                                       |  | Internal finishe                      | es of MCC room and Builder work |
| Underground Drainage and cabling works  |   |                            |           |                                      |                        |                        |        |          | · · · · · · · · · · · · · · · · · · · |  |                                       | 02-0                            |
| A6450 Construction and installation of Cable into existin   | g/ new underground cable trench/ ducts              | 0%                         | 117       | 60 5                                 | 15-Apr-20              | 25-Jun-20              |        |          |                                       |  |                                       | Construction and installation   |
| A6490 Statutory submission and approval from WSD  | 2   | 0%                         | 36        | 210 14                               | 02-Oct-19*             | 15-Jun-20              |        |          |                                       |  |                                       | Statutory submission and appro  |
| A6500 Construction of underground watermain for DOU   | R   | 0%                         | 36        | 90 14                                | 16-Jun-20              | 02-Oct-20              |        |          |                                       |  |                                       | ) Cor                           |
| E&M installation<br>A6520 Installation of DOU1R polishing Unit and air duct   | connection for DOU1                                 | 0%                         | 0         | 175 14                               | 09-Mar-20              | 08-Oct-20              |        |          |                                       |  |                                       | In                              |
| A7290 Installation of Power supply and disturbution syst  |   | 0%                         | 17        | 130 14                               | 25-Mar-20              | 31-Aug-20              |        |          |                                       |  | <b>₩</b>                              | Installation                    |
| A7310 Installation of PLC and SCADA system for DOU p  |   | 0%                         | 46        | 90 14                                | 10-Apr-20              | 27-Jul-20              |        |          |                                       |  |                                       | Installation of PLC ar          |
| A7320 Installation of Building Service for DOU polishing  |   | 0%                         | 1         | 180 14                               | 10-Apr-20              | 12-Nov-20              |        |          |                                       |  | • • • • • • • • • • • • • • • • • • • |                                 |
| A7330 Installation of Fire services for DOU polishing sy  | stem, MCC room and NaOH bulk storage compou         | 0%                         | 21        | 160 14                               | 10-Apr-20              | 20-Oct-20              |        | i        |                                       |  |                                       |                                 |
| A8260 Software developement for new DOU polishing st  | age   | 0%                         | 39        | 120 14                               | 10-Apr-20              | 01-Sep-20              |        |          |                                       |  | <b>-</b>                              | Software de                     |
| A8270 Installation of redundunt fiber networks for new S  | CADA  | 0%                         | 39        | 30 14                                | 02-Sep-20              | 08-Oct-20              |        |          |                                       |  |                                       | ln                              |
| Testing and commissioning   |   | 201                        |           | 20 5                                 |                        | 00 NL 00               |        |          |                                       |  |                                       |                                 |
| A7335 Performance Test of the DOU1R polishing unit  | alian and interferent test for DLO and OOADA for DC | 0%                         | 0         |                                      | 09-Oct-20              | 23-Nov-20              |        | <b>!</b> |                                       |  |                                       |                                 |
| A7530 Hardware, point/end to point/end, interlock, simul<br>A7550 Reliability test of the polishing system of DOU1R | ation and interface test for PLC and SCADA for DC   | 0%<br>0%                   | 19<br>0   | 65 5<br>35 0                         | 01-Sep-20<br>24-Nov-20 | 04-Nov-20<br>28-Dec-20 |        |          |                                       |  |                                       |                                 |
| A7560 Reliability test of NaOH bulk Storage and transfe   |   | 0%                         | 4         |                                      | 21-Oct-20              | 19-Nov-20              |        |          |                                       |  |                                       |                                 |
|   | shing system, MCC room and NaOH bulk storage        | 0%                         | . 1       | 45 5                                 | 13-Nov-20              |                        |        |          |                                       |  |                                       |                                 |
|   | g system, MCC room and NaOH bulk storage com        | 0%                         | 24        |                                      | 21-Oct-20              | 04-Dec-20              |        |          |                                       |  |                                       | L=(                             |
| DOU 2   |   |                            |           |                                      |                        |                        |        |          | · · · · · · · · · · · · · · · · · · · |  |                                       |                                 |
| RC works  |   |                            |           |                                      |                        |                        |        |          |                                       |  | ▼ 07-Mar-20, RC works                 |                                 |
| A6825 Open Excavation and for pile cap construction   |   | 0%                         | 51        | 6 0                                  | 27-Nov-19              |                        |        |          |                                       | Dpen Excavation and<br>Pile head prepara | for pile cap construction             |                                 |
| A6830 Pile head preparation and weld test<br>A6835 Formwork and steel fixing of pile cap                            |   | 0%                         | 51<br>51  | 10 2<br>18 2                         | 04-Dec-19<br>16-Dec-19 |                        |        |          |                                       |  | nd steel fixing of pile cap           |                                 |
| A6836 Concreting of pile cap  |   | 0%                         | 51        | 2 0                                  | 09-Jan-20              | 10-Jan-20              |        |          |                                       | Concreting                               |                                       |                                 |
| A6855 Concreting of MCC room wall and roof slab   |   | 0%                         | 116       |                                      | 11-Jan-20              | 07-Feb-20              |        |          |                                       |  | creting of MCC room wall a            | nd roof slab                    |
| A6859 Internal finishes of MCC room and Builder works   |   | 0%                         | 116       |                                      | 17-Feb-20              | 07-Mar-20              |        |          |                                       |  |                                       | room and Builder works          |
| Underground Drainage and cabling works  |   |                            | -         |                                      |                        |                        |        |          | │                                     |  |                                       | V 02-                           |
| A6810 Construction and installation of Cable into existin   | g/ new underground cable trench/ ducts              | 0%                         | 36        | 90 2                                 | 16-Jun-20              | 02-Oct-20              |        |          |                                       |  |                                       | Cor                             |
| A8130 Statutory submission and approval from WSD  |   | 0%                         | 36        | 210 14                               | 02-Oct-19*             | 15-Jun-20              |        |          |                                       |  |                                       | Statutory submission and appro  |
| A8140 Construction of underground watermain for DOU2  | 2   | 0%                         | 36        | 90 14                                | 16-Jun-20              | 02-Oct-20              |        |          |                                       |  |                                       | Cor                             |
| E&M installation  |   | 0.54                       | - 1       | 475 44                               | 44 1: 07               | 10 4                   |        |          |                                       |  |                                       | Inded Street                    |
| A6880 Installation of the chemical scrubber and air duct  |   | 0%                         | 51        | 175 14                               | 11-Jan-20              | 12-Aug-20              |        |          |                                       |  |                                       | Installation of the             |
| A7450 Installation of Power supply and disturbution syst<br>A7460 Upgrading and Replacement of the existing local   |   | 0%                         | 20<br>30  | 130 14<br>120 14                     | 25-Mar-20<br>25-Mar-20 | 31-Aug-20<br>18-Aug-20 |        | <u> </u> |                                       |  |                                       | Upgrading and                   |
| A7460 Opgrading and Replacement of the existing local<br>A7470 Installation of PLC and SCADA system for DOU p       |   | 0%                         | 30<br>49  | 90 14                                | 25-Mar-20<br>10-Apr-20 | 27-Jul-20              |        |          |                                       |  |                                       | Installation of PLC ar          |
| A7480 Installation of Building Service for DOU polishing  |   | 0%                         | 43        | 180 14                               | 10-Apr-20              | 12-Nov-20              |        |          |                                       |  |                                       |                                 |
|   | stem, MCC room and NaOH bulk storage compou         | 0%                         | 31        | 150 14                               | 10-Apr-20              | 08-Oct-20              |        |          |                                       |  |                                       | In                              |
| A8400 Software developement for new DOU polishing st  |   | 0%                         | 44        | 120 14                               | 10-Apr-20              | 01-Sep-20              |        |          |                                       |  |                                       | Software de                     |
| A8410 Installation of redundunt fiber networks for new S  |   | 0%                         | 44        | 30 14                                | 02-Sep-20              | 08-Oct-20              |        | 1        |                                       |  |                                       | In                              |
| Testing and commissioning   |   |                            |           |                                      |                        |                        |        |          |                                       |  |                                       |                                 |
| A6890 Performance Test of chemical scrubber and air de  |   | 0%                         | 39        | 45 5                                 | 06-Sep-20              | 20-Oct-20              |        |          |                                       |  |                                       |                                 |
|   | ation and interface test for PLC and SCADA for DC   | 0%                         | 24        |                                      | 01-Sep-20              | 04-Nov-20              |        |          |                                       |  |                                       |                                 |
| A7600 Hardware, point to point, end to end and function   | est for upgrading and replacement of existing loca  | 0%                         | 37        | 65 5                                 | 19-Aug-20              | 22-Oct-20              |        |          |                                       |  |                                       |                                 |
| Actual Work   | stone   |                            |           |                                      |                        | Contract N             | lo. DC | /2018/   | 7                                     |  |                                       | Sheet 5 of 7                    |
|   |   |                            |           |                                      |                        |                        |        |          |                                       |  |                                       | 1                               |
| Remaining Work  |   |                            |           |                                      |                        |                        |        |          | nd Sewage Treatment V                 |  |                                       |                                 |

First Programme

|            |   |                        |  |         |                              |             |         | 2021             |               |           |          |         |
|------------|---|------------------------|--|---------|------------------------------|-------------|---------|------------------|---------------|-----------|----------|---------|
|            |   | Q4                     |  |         | Q1                           |             |         | Q2               |               |           | Q3       |         |
| n of       | PLC and                                 | SCAD/                  | Asys   | em fo   | r DOU polis                  | hing sys    | tems    |                  |               |           |          |         |
|            | i i i i i i i i i i i i i i i i i i i   |                        |  |         | Building Se                  | 1           |         | polishing        | system        | , MCC r   | bom      |         |
|            | Inst:                                   |                        | 1  |         | vices for DC                 | 1           |         |                  | -             |           |          | stora   |
| ofty       | <u> </u>                                |                        | 1  | 1.1     | DOU polish                   | 1           |         |                  |               |           | -        |         |
|            | •                                       |                        |  |         | nt fiber netw                |             |         |                  |               |           |          |         |
|            | -                                       | 11/2001                | 1  |         |                              | 1           |         |                  |               |           |          |         |
|            |   |                        | i i  | - i -   | B-Dec-20, T                  | 1           |         | 1                | g             |           |          |         |
|            |   |                        | 1  | 1.1     | ce Test of th                | 1           |         | 1                |               |           |          |         |
|            | ;                                       |                        | i -  | 1.1     | t/end to poir                | i -         |         | - i              |               | i i       |          |         |
| <b>.</b> ! | ardware                                 | p <mark>o</mark> int t |  |         | d to end and                 |             |         |                  |               |           | ent of e | kisting |
|            |   | l l⊷∎                  | التتتبية   | R       | eliability tes               | st of the p | olishi  | ng system        | of DOI        | Ų1        |          |         |
|            | l 📑                                     |                        |  |         | est of NaOH                  |             |         |                  |               |           |          |         |
|            |   |                        |  | - n i   | erformance                   | i           |         |                  |               |           | o evster | m MC    |
|            | L                                       | -                      | Dorfe  |         |                              | 1           |         |                  |               | : :       |          |         |
|            |   |                        | Perio  |         | ce test of fir               | 1           | tor D   | OU ponsi         | ing sys       | tem, wu   | C room   | ana in  |
|            |   |                        |  | 28      | 8-Dec-20, D                  | OU 1R       |         |                  |               |           |          |         |
|            |   |                        | E  |         |                              |             |         |                  |               |           |          |         |
|            |   | 1                      |  |         |                              |             |         |                  |               |           |          |         |
|            | <b>(</b> ;                              |                        | l  |         |                              |             |         |                  |               |           |          |         |
|            | <b>(</b> ;                              | . 1                    | E  |         |                              |             |         |                  |               |           |          |         |
|            |   | 1                      | E  |         |                              |             |         |                  |               |           |          |         |
|            | {÷                                      |                        | ŧ  |         |                              |             |         |                  |               |           |          |         |
|            | <b>i</b> i                              |                        | E  |         |                              |             |         |                  |               |           |          |         |
|            | <b>(</b> )                              |                        | E  |         |                              |             |         |                  |               |           |          |         |
|            |   | ;                      |  |         |                              |             |         |                  |               |           |          | :       |
|            | 1                                       |                        |  |         |                              |             |         |                  |               |           |          | -       |
|            |   |                        |  |         |                              |             |         |                  |               |           |          |         |
|            |   |                        |  |         |                              |             |         |                  |               |           |          |         |
|            |   |                        |  |         |                              |             |         |                  |               |           |          |         |
|            | 6 :                                     |                        | l  |         |                              |             |         |                  |               |           |          |         |
|            | 6 3                                     |                        | E  |         |                              |             |         |                  |               |           |          |         |
|            |   |                        | E  |         |                              |             |         |                  |               |           |          |         |
|            |   | l                      | L  |         |                              | J           |         |                  |               |           |          |         |
| uilde      | r works                                 |                        | E  |         |                              |             |         |                  |               |           |          |         |
| _          | <b>7</b> 02-O                           | ot-20, U               | nder   | round   | l Drainage a                 | nd cabli    | hg wo   | ks               |               |           |          |         |
|            |   |                        | P  |         | g/ new unde                  |             | -       |                  | cts           |           |          |         |
|            | approva                                 |                        | í 📕  |         |                              | -           |         |                  |               |           |          |         |
|            | • · · · · · · · · · · · · · · · · · · · |                        | P  | derigro | ound watern                  | in for F    |         | 5                |               |           |          |         |
|            |   |                        |  |         |                              |             |         | •                |               |           |          |         |
|            | Inch                                    |                        |  |         | &M installat                 | 1           |         |                  | - for D       | 2014      |          |         |
|            | - (                                     | i .                    | 6  |         | polishing U                  | i           |         |                  |               |           |          |         |
|            | 2                                       |                        | 1  | 1.1     | disturbution                 | 1           |         | DU polisni       | ng syst       | ems       |          |         |
| n of       | PLC and                                 | SCADA                  | sys  | em fo   | r DOŲ polis                  | hing sys    | tems    |                  |               |           |          |         |
|            | <b>i</b> (                              | <b></b> =fn:           | stalla   | ion of  | Building Se                  | rvice for   | DOU     | polishing        | system        | , MCC r   | oom      |         |
|            | <b>⊲</b> ħ                              |                        |  |         | services for                 |             |         |                  |               | (         |          | ulk sto |
| ofty       |   |                        | •  |         | DOUpolish                    | 1           |         | 1                |               |           |          |         |
|            |   |                        | K .  |         | nt fiber netw                | 1           |         |                  |               |           |          |         |
|            | 1115 Lp                                 | illation               | ł 📕  | 1.1     | 1                            | 1           |         | 1.1              |               |           |          |         |
|            |   |                        | 6  |         | 8-Dec-20, T                  |             |         |                  | -             |           |          |         |
|            |   |                        | Perf   | rman    | ce Test of th                | e DOU1      | R poli  | shi ng uni t     |               |           |          |         |
|            |   | Hard                   | ware   | , pģin  | t/end to poir                | nt/end, in  | erlocl  | , simulati       | on and i      | interface | test for | PLC a   |
|            | 6 I - I                                 | l l∍∎                  | i de la compañía de | R       | eliability tes               | st of the p | olishi  | ng system        | of DOI        | J1R       |          |         |
|            | l   🛁                                   |                        |  |         | est of NaOH                  |             |         |                  |               |           |          |         |
|            |   |                        | i  | 1       | erformance                   | 1           | -       |                  |               |           | a evster | m MC    |
|            | <u>ـــا ا</u>                           |                        | P  |         |                              | 1           | -       |                  |               | C 1       |          |         |
|            |   |                        | R. 5   |         | ance test of                 |             | ice tu  | r DOU poi        | ishing        | system,   | MCC ro   | om and  |
|            |   |                        |  | 27      | 7-Dec-20, D                  | QU 2        |         |                  |               |           |          |         |
|            |   |                        |  |         |                              |             |         |                  |               |           |          |         |
|            |   |                        |  |         |                              |             |         |                  |               |           |          |         |
|            |   |                        |  |         |                              |             |         |                  |               |           |          |         |
|            |   |                        |  |         |                              |             |         |                  |               |           |          |         |
|            |   |                        |  |         |                              |             |         |                  |               |           |          | ļ       |
|            | 1                                       | i i                    |  |         |                              |             |         |                  |               |           |          |         |
|            |   |                        |  |         |                              |             |         |                  |               |           |          |         |
| ks         |   |                        |  |         |                              |             |         |                  |               |           |          |         |
|            |   |                        |  |         | l Drainage a                 |             | -       |                  |               |           |          |         |
|            | Const                                   | ruction                | and  | nstall  | ation of Cab                 | le into e   | disting | / new und        | ergroun       | d cable t | rench/ c | lucts   |
| n and      | approva                                 | al from                | WSD  |         |                              |             |         |                  |               |           |          |         |
|            | Const                                   | ruction                | of ur  | dergro  | ound watern                  | nain for E  | OU2     | 1                |               |           |          |         |
| _          |   |                        |  |         | &M installat                 | 1           |         |                  |               |           |          |         |
| atio       | h of the c                              |                        |  | 1.1     | and air duct                 |             | 2       |                  |               |           |          |         |
|            | i i                                     | i i                    | i  | - i -   | disturbution                 | i -         | i       | ¦<br>D¦l polishi | l<br>Ina svst | ems       |          |         |
|            |   |                        |  |         |                              |             |         |                  | 119 3 9 31    |           |          |         |
|            | Č 1                                     | 1 I I                  | •  |         | existing loca                | 1           |         | rejen            |               |           |          |         |
| n of       | PLC and                                 |                        |  |         | r DOŲ polis                  | 1           |         |                  |               |           |          |         |
|            |   | <b></b> −ħ:            | stalla   | ion of  | Building Se                  | ervice for  | DOU     | polishing        | system        | , MCC r   | oom      |         |
|            | 🔲 Inst                                  | allation               | of Fi  | e serv  | vices for DC                 | DU polisł   | ing s   | stem, MC         | C room        | and Na    | OH bulk  | stora   |
| Softw      |   |                        | i  | - i -   | ;<br>DOU <sup>:</sup> polish | 1 C C       |         |                  |               |           |          |         |
|            | ÷                                       |                        | 4  |         | nt fiber netw                |             |         |                  |               |           |          |         |
|            |   | 112001                 | UTIE   |         |                              | 1           |         | 1                |               |           |          |         |
|            |   |                        |  |         | 7-Deo-20, Te                 | -           |         |                  | -             |           |          |         |
|            |   | d=1 -                  | •  |         | f chemical s                 | 1           |         | 1                |               |           |          |         |
|            |   | 15-1                   |  |         | t/end to poir                | 1           |         |                  |               |           |          |         |
|            |   | Hardwa                 | re, p  | int to  | point, end to                | end and     | l func  | ion test fo      | r upgra       | ding and  | replace  | ment    |
|            |   |                        | ate  |         | Revis                        | sion        |         | Checke           | h             | <u>۸</u>  | pproved  | ·       |
| t 5 c      | ot 7                                    | Jul-19                 | 10   |         | Rev. 0                       | 5.01        | +       | CHECKE           | u             | A         | phi oved |         |
|            |   | Aug-19                 |  |         | Rev. 0                       |             | +       |                  |               |           |          |         |
|            | 29-1                                    | Aug- 19                |  |         | nev. I                       |             |         |                  |               |           |          |         |
|            |   |                        |  |         |                              |             |         |                  |               |           |          |         |
|            |   |                        |  |         |                              |             |         |                  |               |           |          |         |

| ID                             | Activity Name   | Activity %<br>Complete | Total Float | Original<br>Duration | Time risk<br>allowance | Start                  | Finish                 | 2019         | 9<br>Q3   | Q4                                      | Q1  |   | 2020<br>Q2   | Q3                                       | _       |
|--------------------------------|---|------------------------|-------------|----------------------|------------------------|------------------------|------------------------|--------------|-----------|---|---|---|--|--|---------|
| A7610                          | Reliability test of the polishing system of DOU2  | 0%                     | 9           | 30                   |                        | 20-Nov-20              | 19-Dec-20              |              |           | Q4                                      |   |   | Q2   |  |         |
| A7620                          | Reliability test of NaOH bulk Storage and transfer system   | 0%                     | 9           | 30                   |                        | 21-Oct-20              | 19-Nov-20              |              |           |   |   |   |  |  |         |
| 47630                          | Performance test of building service for DOU polishing system, MCC room and NaOH bulk storage       | 0%                     | 1           | 45                   | 5                      | 13-Nov-20              | 27-Dec-20              |              |           |   |   |   |  |  |         |
| A7640                          | Performance test of fire service for DOU polishing system, MCC room and NaOH bulk storage com       | 0%                     | 36          | 45                   | 5                      | 09-Oct-20              | 22-Nov-20              |              |           |   |   |   |  |  | -       |
| OU 4                           |   |                        |             |                      |                        |                        |                        |              | . <u></u> |   |   | - i - i - i - i - i - i - i - i - i - i |  |  |         |
| <mark>oundatio</mark><br>N6558 | General Site Clearance and underground uliities detection/ idenification                            | 0%                     | 36          | 6                    | 0                      | 27-Jul-19              | 02-Aug-19              |              | Gene      | eral Site Clearance and underg          | round uliities detect                       | tion/ idenificatio                      | n  |  |         |
| 6560                           | Installation and initial survey of building, ground and utilities settlement                        | 0%                     | 36          | 6                    | 0                      | 03-Aug-19              | 09-Aug-19              |              |           | tallation and initial survey of b       | i it li                                     |   | - i i  |  |         |
| 6575                           | Pre-drilling for H-pile foundation (5Nos, 2rigs)  | 0%                     | 36          | 12                   | 1                      | 10-Aug-19              | 23-Aug-19              |              |           | Pre-drilling for H-pile foundati        | on (5Nos, 2rigs)                            |   |  |  |         |
| 6576                           | Engineer's Review of foundaiton design, rockhead coutour and founding level of H-piles              | 0%                     | 36          | 28                   | 0                      | 24-Aug-19              | 25-Sep-19              |              | F.        | Engineer's Review of                    | foundaiton design,                          | rockhead couto                          | ur and founding lev  | /el of H-piles                           |         |
| 6578                           | Mobilzation of piling rigs  | 0%                     | 36          | 3                    | 0                      | 26-Sep-19              | 28-Sep-19              |              |           | Mobilzation of piling                   | rigs  |   |  |  |         |
| 6580                           | Prebored H-pile (P1-7, 7Nos)  | 0%                     | 0           | 40                   | 3                      | 12-Nov-19              | 30-Dec-19              |              |           | -                                       | Prebored H-pile                             | (P1-7, 7Nos)                            |  |  |         |
| 6590                           | Pile load test  | 0%                     | 0           | 6                    | 0                      | 13-Jan-20              | 18-Jan-20              |              |           |   | Pile load te                                | 1 2 1 2 2 2                             |  |  |         |
| 600                            | Post Drilling for Prebored H-piles  | 0%                     | 0           | 4                    | 0                      | 20-Jan-20              | 23-Jan-20              |              |           |   | Post Drilli                                 | ng for Prebored                         | H-piles  |  |         |
| works<br>635                   | Open Excavation and for pile cap construction   | 0%                     | 0           | 12                   | 2                      | 24-Jan-20              | 06-Feb-20              |              |           |   | Dpen  |   | <ul> <li>15-May-20, RC<br/>for pile cap construct</li> </ul> |  |         |
| 6637                           | Pile head preparation and weld test   | 0%                     | 0           |                      |                        | 07-Feb-20              | 17-Feb-20              |              |           |   |   |   | on and weld test   |  |         |
| 6639                           | Formwork and steel fixing of pile cap   | 0%                     | 0           | 18                   | 3                      | 18-Feb-20              | 12-Mar-20              |              |           |   |   |   | d steel fixing of pil  | e cap                                    |         |
| 640                            | Concreting of pile cap  | 0%                     | 0           | 2                    | 0                      | 13-Mar-20              | 14-Mar-20              |              |           |   |   | Concreting o                            | of pile cap  |  |         |
| 650                            | Concreting of MCC room wall and roof slab   | 0%                     | 61          | 24                   | 3                      | 16-Mar-20              | 15-Apr-20              |              |           |   | 4   | Con                                     | creting of MCC roc   |  |         |
| 660                            | Internal finishes of MCC room and Builder works   | 0%                     | 61          | 18                   | 3                      | 24-Apr-20              | 15-May-20              |              |           |   |   |   | Internal finishe   | s of MCC room                            | m an    |
|                                | nd Drainage and cabling works   |                        |             |                      | 0                      | 40.11                  | 01.0                   |              |           |   |   |   |  |  |         |
| 630                            | Construction and installation of Cable into existing/ new underground cable trench/ ducts           | 0%                     | 61          | 90                   |                        | 16-May-20              | 01-Sep-20              |              |           |   |   |   |  | ry submission                            | Cons    |
| 160                            | Statutory submission and approval from WSD<br>Construction of underground watermain for DOU2        | 0%<br>0%               | 36<br>36    | 210<br>90            |                        | 02-Oct-19*             | 15-Jun-20<br>02-Oct-20 |              |           |   |   |   | Statuto  | y submission                             | and and |
|                                | Construction of underground watermain for DO02  | U%                     | 30          | 90                   | 14                     | 16-Jun-20              | 02-001-20              |              |           |   |   | +                                       |  |  |         |
| 700                            | Installation of the DOU4 polishing Unit and air duct connection for DOU4                            | 0%                     | 0           | 162                  | 14                     | 30-Mar-20              | 14-Oct-20              |              |           |   |   |   |  |  |         |
| 400                            | Installation of Power supply and disturbution system for DOU polishing systems                      | 0%                     | 20          | 130                  | 14                     | 25-Mar-20              | 31-Aug-20              |              |           |   |   |   |  |  | Instal  |
| 420                            | Installation of PLC and SCADA system for DOU polishing systems                                      | 0%                     | 49          | 90                   | 14                     | 10-Apr-20              | 27-Jul-20              |              |           |   |   |   |  | Instal ation                             | א of    |
| 430                            | Installation of Building Service for DOU polishing system, MCC room                                 | 0%                     | 1           | 180                  | 14                     | 10-Apr-20              | 12-Nov-20              |              |           |   |   | +                                       |  |  |         |
| 440                            | Installation of Fire services for DOU polishing system, MCC room and NaOH bulk storage compou       | 0%                     | 31          | 150                  |                        | 10-Apr-20              | 08-Oct-20              |              |           |   |   |   | ·····  |  |         |
| 420                            | Software development for new DOU polishing stage  | 0%                     | 44          | 120                  |                        | 10-Apr-20              | 01-Sep-20              |              |           |   |   |   |  | S  | Softw   |
| 430                            | Installation of redundunt fiber networks for new SCADA  | 0%                     | 44          | 30                   | 14                     | 02-Sep-20              | 08-Oct-20              |              |           |   |   |   |  |  |         |
| <b>ting and</b><br>710         | Performance Test of the DOU4 polishing Unit   | 0%                     | 0           | 45                   | 5                      | 15-Oct-20              | 28-Nov-20              |              |           |   |   |   |  |  |         |
| 7650                           | Hardware, point/end to point/end, interlock, simulation and interface test for PLC and SCADA for DC | 0%                     | 24          | 65                   |                        | 01-Sep-20              | 04-Nov-20              |              |           |   |   |   |  | ······································   |         |
| 7670                           | Reliability test of the polishing system of DOU4  | 0%                     | 0           | 30                   |                        | 29-Nov-20              | 28-Dec-20              |              |           |   |   |   |  |  |         |
| 7680                           | Reliability test of NaOH bulk Storage and transfer system   | 0%                     | 9           | 30                   | 0                      | 21-Oct-20              | 19-Nov-20              |              |           |   |   |   |  |  |         |
| 7690                           | Performance test of building service for DOU polishing system, MCC room and NaOH bulk storage       | 0%                     | 1           | 45                   | 5                      | 13-Nov-20              | 27-Dec-20              |              |           |   |   |   |  |  |         |
| 7700                           | Performance test of fire service for DOU polishing system, MCC room and NaOH bulk storage com       | 0%                     | 36          | 45                   | 5                      | 09-Oct-20              | 22-Nov-20              |              |           |   |   |   |  |  |         |
| U 5<br>undatior                | n works   |                        |             |                      |                        |                        |                        |              |           |   |   |   |  |  |         |
|                                | or DOU5b  |                        |             | -                    |                        |                        |                        |              |           |   | · · · ·                                     | 1 <b>1</b> 1                            | C works for DOU5   | b  |         |
| 7005                           | Open Excavation and for pile cap construction   | 0%                     | 25          | 6                    |                        |                        | 18-Nov-19              |              |           |   | xcavation and for pi<br>nead preparation an | 1 1 1                                   | tion   |  |         |
| 010<br>015                     | Pile head preparation and weld test Formwork and steel fixing of pile cap                           | 0%                     | 25<br>25    | 9<br>18              |                        | 19-Nov-19              | 28-Nov-19              |              |           |   | Formwork and stee                           |   | an.  |  |         |
| 015                            | Concreting of pile cap  | 0%<br>0%               | 25<br>25    | 18                   |                        | 29-Nov-19<br>20-Dec-19 | 19-Dec-19<br>21-Dec-19 |              |           |   |   |   | ap   |  |         |
| 020                            | Concreting of MCC room wall and roof slab   | 0%                     | 25          | 30                   |                        | 23-Dec-19              | 29-Jan-20              |              |           |   | Concreting of ple                           |   | n wall and roof slat   |  |         |
| 025                            | Internal finishes of MCC room and Builder works   | 0%                     | 25          | 18                   |                        | 15-Feb-20              | 10-Mar-20              |              |           |   |   |   | es of MCC room a   | 1. | orks    |
|                                | nd Drainage and cabling works   |                        |             |                      |                        |                        |                        |              |           | ↓ · · · · · · · · · · · · · · · · · · · |   |   |  |  | _       |
| 990                            | Construction and installation of Cable into existing/ new underground cable trench/ ducts           | 0%                     | 144         | 90                   |                        | 11-Mar-20              | 29-Jun-20              |              |           |   | -   |   | Cor  | nstruction and i                         |         |
| 190                            | Statutory submission and approval from WSD  | 0%                     | 36          | 210                  |                        | 02-Oct-19*             | 15-Jun-20              |              |           |   |   |   | Statuto  | ry submission                            | n and   |
| 200                            | Construction of underground watermain for DOU2  | 0%                     | 36          | 90                   | 14                     | 16-Jun-20              | 02-Oct-20              |              |           |   | _   |   |  | ; ;                                      |         |
| <mark>M instal</mark><br>'060  | lation Installation of the DOU5 polishing system and air duct connection for DOU1                   | 0%                     | 6           | 175                  | 14                     | 09-Mar-20              | 08-Oct-20              |              |           |   |   |   |  |  |         |
| 345                            | Installation of Power supply and disturbution system for DOU polishing systems                      | 0%                     | 13          | 130                  |                        | 25-Mar-20              | 31-Aug-20              | <del> </del> |           | +                                       |   |   |  |  | Insta   |
| 365                            | Installation of PLC and SCADA system for DOU polishing systems                                      | 0%                     | 42          | 90                   |                        | 10-Apr-20              | 27-Jul-20              |              |           |   |   |   |  | Installation                             |         |
| 375                            | Installation of Building Service for DOU polishing system, MCC room                                 | 0%                     | 1           | 180                  |                        | 10-Apr-20              | 12-Nov-20              |              |           |   |   | +                                       | · · ·  |  |         |
| 385                            | Installation of Fire services for DOU polishing system, MCC room and NaOH bulk storage compou       | 0%                     | 31          | 150                  |                        | 10-Apr-20              | 08-Oct-20              |              |           |   |   | -                                       |  |  |         |
| 440                            | Software developement for new DOU polishing stage   | 0%                     | 36          | 120                  | 14                     | 10-Apr-20              | 01-Sep-20              |              |           |   |   | <b>4</b>                                |  | s s                                      | Softw   |
| 450                            | Installation of redundunt fiber networks for new SCADA  | 0%                     | 36          | 30                   | 14                     | 02-Sep-20              | 08-Oct-20              |              |           |   |   |   |  |  |         |
| <mark>ting and</mark><br>387   | d commissioning Performance Test of the DOU5 polishing system                                       | 0%                     | 6           | 30                   | 5                      | 09-Oct-20              | 12-Nov-20              |              |           |   |   |   |  |  |         |
| 387<br>710                     | Hardware, point/end to point/end, interlock, simulation and interface test for PLC and SCADA for DC | 0%                     | 15          | 30<br>65             |                        | 09-Oct-20<br>01-Sep-20 | 04-Nov-20              |              |           |   |   |   |  |  |         |
| 730                            | Reliability test of the polishing system of DOU5  | 0%                     | 0           |                      |                        | 20-Nov-20              | 28-Dec-20              |              |           |   |   |   |  |  |         |
| 740                            | Reliability test of NaOH bulk Storage and transfer system   | 0%                     | 0           | 30                   |                        | 21-Oct-20              | 19-Nov-20              | ·            |           | ·····                                   |   |   |  |  |         |
| 750                            | Performance test of building service for DOU polishing system, MCC room and NaOH bulk storage       | 0%                     | 1           | 45                   |                        | 13-Nov-20              | 27-Dec-20              |              |           |   |   |   |  |  |         |
| 760                            | Performance test of fire service for DOU polishing system, MCC room and NaOH bulk storage com       | 0%                     | 36          | 45                   |                        | 09-Oct-20              |                        |              |           |   |   |   |  |  |         |
|                                | storage compound  |                        |             |                      |                        |                        |                        |              | •         |   |   |   |  |  | —       |
| works                          | Development of a lating Observation of the  |                        | _           | 1                    | -                      | 07.4                   | 04.0 1 15              | ·            |           | Domolition of                           | existing Storage co                         | 06-Mar-20, RC                           | works  |  |         |
| 7230                           | Demolition of existing Storage compound   | 0%                     | 0           | 50                   |                        | 27-Aug-19              | 24-Oct-19<br>07-Nov-19 |              | -         |   | existing Storage co<br>of NaOH bulk stor    | 1.1                                     |  |  |         |
| 7240<br>7050                   | Excavation of NaOH bulk storage compound<br>Carryout plate load test for foundation                 | 0%<br>0%               | 0           | 12<br>24             |                        | 25-Oct-19<br>08-Nov-19 | 07-Nov-19<br>05-Dec-19 |              |           | · · 📕 ·                                 | ryout plate load tes                        |   |  |  |         |
|                                |   |                        |             |                      |                        |                        |                        |              |           |   | 1 i i i                                     |   | _  |  |         |
| 250<br>260                     | Review design by Project Manager Respresentative  | 0%                     | 0           | 28                   | 0                      | 06-Dec-19              | 10-Jan-20              |              |           |   | Review desid                                | in by Project Ma                        | nager Respresent   | ative I                                  |         |

Critical Remaining Work

First Programme

|           |             | <u> </u>           |          | _       |           |           |            |        | 2021                     |           |          |          |       |
|-----------|-------------|--------------------|----------|---------|-----------|-----------|------------|--------|--------------------------|-----------|----------|----------|-------|
|           |             | Q4                 |          |         |           | Q1        |            |        | Q2                       | ' DOLIO   |          | Q3       |       |
|           | _           |                    |          |         |           | i i       |            | -      | system o                 |           |          |          |       |
|           |             |                    | Relia    | 1       |           |           |            |        | and transf               |           |          |          |       |
|           |             | -                  |          |         |           |           |            |        | service f                |           | í i      |          |       |
|           | -           | <u> </u>           | Perf     | rm      | ance tes  | t of fire | service    | for D  | OU polish                | ing sys   | tem, MC  | C room   | and N |
|           |             | İ                  |          | -       | 28-Dec    | -20, D0   | DU 4       |        |                          |           |          |          |       |
|           |             |                    |          |         |           |           |            |        |                          |           |          |          |       |
|           |             |                    |          |         |           |           |            |        |                          |           |          |          |       |
|           |             |                    |          |         |           |           |            |        |                          |           |          |          |       |
|           |             |                    |          |         |           |           |            |        |                          |           |          |          |       |
| les       |             |                    |          |         |           |           |            |        |                          |           |          |          |       |
|           |             | 1                  |          |         |           |           |            |        |                          |           |          |          |       |
|           |             |                    |          |         |           |           |            |        |                          |           |          |          |       |
|           |             |                    |          |         |           |           |            |        |                          |           |          |          |       |
|           |             |                    |          |         |           |           |            |        |                          |           |          |          |       |
|           |             |                    |          |         |           |           |            |        |                          |           |          |          |       |
|           |             | +                  |          | }       |           |           |            |        |                          |           |          |          |       |
|           |             |                    |          |         |           |           |            |        |                          |           |          |          |       |
|           |             |                    |          |         |           |           |            |        |                          |           |          |          |       |
|           |             |                    |          |         |           |           |            |        |                          |           |          |          |       |
|           |             |                    |          |         |           |           |            |        |                          |           |          |          |       |
| d roof sl |             | 1                  |          |         |           |           |            |        |                          |           |          |          |       |
| room an   | d Builde    | works              |          |         |           |           |            |        |                          |           |          |          |       |
|           |             | ct-20, U           |          |         |           |           |            | -      |                          |           |          |          |       |
| Cons      | truction    | and ins            | allat    | on      | of Cable  | into ex   | kisting/ r | iew ur | dergroun                 | d cable   | rench/ c | lucts    |       |
| sion and  | approv      | al from            | WSD      |         |           |           |            |        |                          |           |          |          |       |
| i.        | Cons        | truction           | of ur    | der     | ground    | waterm    | ain for D  | OU2    |                          |           |          |          |       |
|           |             | itttt.             | <b>.</b> |         | E&M in    |           |            |        |                          |           |          |          |       |
|           | lr          | stallatio          | n of t   | ne [    | DOU4 p    | olishinq  | y Unit ar  | d air  | duct conn                | ection fo | r DOU4   |          |       |
| i Instal  |             | 1                  |          |         |           |           |            |        | DU polish                | :         |          |          |       |
| ation of  |             | · ·                |          |         |           |           |            |        |                          |           |          |          |       |
| 1         |             | 1                  |          |         |           |           |            |        | pblishing                | system    | MCC r    | oom      |       |
| -}        | Ins         | · · · · · · ·      |          | 5       |           |           | !          |        | rstem, MC                | 1         |          |          | stora |
|           |             | elopem             |          |         |           |           |            |        | otom, me                 |           | and Na   | JII Duil | otora |
| H         |             | 11                 |          |         |           |           |            |        |                          |           |          |          |       |
|           | Ins         | tallation          | orre     | un      |           |           |            |        |                          |           |          |          |       |
|           |             |                    | D        |         |           |           |            |        | issioning                |           |          |          |       |
|           | -           |                    |          |         |           |           |            |        | hing Unit                |           |          |          |       |
|           | :           | Haro               | ware     | <b></b> |           |           |            |        | i, simulati              |           |          | test for | PLC a |
|           |             | 1 💾                |          |         | Reliab    | lity tes  | t of the p | olishi | ng systen                | of DOI    | J4       |          |       |
|           |             |                    | Relia    | bilit   | y test of | NaOH      | bulk Sto   | orage  | and transf               | er syste  | m        |          |       |
|           |             | L-                 |          |         |           |           |            |        | service f                |           |          |          |       |
|           | -           | <b>—</b> []        | Perf     | rm      | ance tes  | t of fire | service    | for D  | O <mark>U polis</mark> h | ing sys   | tem, MC  | C room   | and N |
|           |             |                    |          | -7      | 28-Dec    | -20, D0   | DU 5       |        |                          |           |          |          |       |
|           |             |                    |          |         |           |           |            |        |                          |           |          |          |       |
|           |             |                    |          |         |           |           |            |        |                          |           |          |          |       |
|           |             |                    |          |         |           |           |            |        |                          |           |          |          |       |
|           |             |                    |          |         |           |           |            |        |                          |           |          |          |       |
|           |             |                    |          |         |           |           |            |        |                          |           |          |          |       |
|           |             |                    |          |         |           |           |            |        |                          |           |          |          |       |
|           |             |                    |          |         |           |           |            |        |                          |           |          |          |       |
| works     |             |                    |          |         |           |           |            |        |                          |           |          |          |       |
|           | 02-C        | ct-20, U           | nder     | irou    | ind Drai  | nage a    | nd cabli   | ng wo  | ks                       |           |          |          |       |
|           |             |                    |          |         |           |           |            |        | trench/ d                | ucts      |          |          |       |
| sion and  | approv      | al from            | wsd      |         | -         |           |            |        |                          |           |          |          |       |
|           |             | truction           | i        | der     | around    | waterm    | ain for D  | 0112   |                          |           |          |          |       |
| 1         | 0018        | 41                 | 6        |         | , E&M in  |           | i i        | 002    |                          |           |          |          |       |
|           | Inc         |                    |          |         |           |           |            | and ai | duct con                 | hection   |          | 1        |       |
| Insta     | · · · · · · | +                  | 4        |         |           |           |            |        | DU polish                |           |          |          |       |
| -         |             | · ·                |          |         |           |           |            |        | polish                   | ່ມງວງວໄ   | 61113    |          |       |
| ation of  | LC and      | i i                |          | - i     |           |           |            |        | able t                   | a         | 1400     |          |       |
| :         |             |                    |          |         |           |           |            |        | polishing                |           |          |          |       |
| 1 B       | - <b>-</b>  | i i                |          |         |           |           | i 1 - i    |        | rstem, MC                | رت room   | and Na   | JH DUIK  | stora |
|           |             | elopem             |          |         |           |           |            |        |                          |           |          |          |       |
|           | Ins         | tallation          |          | 1.1     |           |           |            |        |                          |           |          |          |       |
|           |             |                    |          |         |           |           | -          |        | missionir                | ig        |          |          |       |
|           | •           | 4 6                |          |         |           |           |            |        | gsystem                  |           |          |          |       |
|           | :           | Hard               | ware     | , p¢    |           |           |            |        | , simulati               | :         |          | test for | PLC a |
|           |             |                    |          |         | Reliab    | lity tes  | t of the p | olishi | ng systen                | of DOI    | J5       |          |       |
|           |             | -                  | Relia    | bilit   | y test of | NaOH      | bulk Sto   | orage  | and transf               | er syste  | m        |          |       |
|           |             | L-                 |          |         |           |           |            |        | service f                |           |          |          |       |
|           | +           | <b></b> (`         | Perf     | rm      | ance tes  | t of fire | service    | for D  | OU polish                | ing sys   | tem, MC  | C room   | and N |
|           |             |                    |          |         |           |           | storage    |        |                          |           |          |          |       |
|           |             |                    |          |         |           |           |            |        |                          |           |          |          |       |
| 1         |             |                    |          |         |           |           |            |        |                          |           |          |          |       |
|           |             |                    |          |         |           |           |            |        |                          |           |          |          |       |
|           |             | 1                  |          |         |           |           |            |        |                          |           |          |          |       |
|           |             | 1                  |          |         |           |           |            |        |                          |           |          |          |       |
| 1         |             | <u>.</u>           |          |         |           |           |            |        |                          | :         |          |          |       |
| neet 6 c  | of 7        |                    | ate      |         |           | Revis     | ion        | -      | Checke                   | α         | A        | pproved  |       |
|           |             | -Jul-19<br>-Aug-19 |          |         | Rev.      |           |            | +      |                          |           |          |          |       |
|           | 29          | / ug- 19           |          |         | Li iev.   | <u>.</u>  |            |        |                          |           | l        |          |       |
|           |             |                    |          |         |           |           |            |        |                          |           |          |          |       |
|           |             |                    |          |         |           |           |            |        |                          |           |          |          |       |

| ivity ID    | Activity Name  | Activity % |   |          |           | Start      | Finish    | 2019 |      |    | 2020 |                     |         |                      | 2021   |                            |                   |  |
|-------------|--|------------|---|----------|-----------|------------|-----------|------|------|----|------|---------------------|---------|----------------------|--|----------------------------|-------------------|--|
|             |  | Complete   |   | Duration | allowance |            |           |      | Q3   | Q4 | Q1   | Q2                  | Q3      | Q4                   | Q1   | Q2                         | Q3                |  |
| A7270       | RC works for NaOH bulk storage compound                                | 0%         | C | 45       | 5 5       | 11-Jan-20  | 06-Mar-20 |      |      |    | RC   | works for NaOH bulk |         |                      |  |                            |                   |  |
| E&M insta   | allation   |            |   |          |           |            |           |      |      |    |      |                     |         | 95-Sep-20, E&M insta | allation                                       |                            |                   |  |
| A7280       | Installation NaOH storage tanks and associated transfer pump           | 0%         | C | 120      | 20        | 15-Apr-20  | 05-Sep-20 |      |      |    |      |                     |         | nstallation NaOH s   | orag <mark>e</mark> tanks and associated trans | er pump                    |                   |  |
| Testing a   | nd Commissioning   |            |   |          |           |            |           |      |      |    |      |                     |         |                      | 9-Nov-20, Testing and Commissi                 | ning                       |                   |  |
| A7390       | Performance test of the NaOH bulk storage compound and transfer system | 0%         | C | 75       | 5 15      | 06-Sep-20  | 19-Nov-20 |      |      |    |      |                     | <b></b> | P                    | erformance test of the NaOH bul                | storage compound and       | l transfer syster |  |
| Statutary I | nspection by FSD   |            |   |          |           |            |           |      |      |    |      |                     |         |                      | V  | 🛛 🔽 03-May-21, Stat        | tutary Inspectior |  |
| A7770       | Submission of Application for FS inspection ot FSD                     | 0%         | C | 21       | 1 0       | 29-Dec-20  | 18-Jan-21 |      |      |    |      |                     |         |                      | Submission of App                              | cation for FS inspectior   | n ot FSD          |  |
| A7780       | FS inspection by FSD   | 0%         | C | 14       | 1 2       | 19-Jan-21  | 01-Feb-21 |      |      |    |      |                     |         |                      | FS inspection I                                | y F <mark>S</mark> D       |                   |  |
| A7790       | System/ Defect rectification   | 0%         | C | 4(       | ) 5       | 02-Feb-21  | 13-Mar-21 |      |      |    |      |                     |         |                      | Syst   | m/ Defect rectification    |                   |  |
| A7800       | Submission of application for FS reinspection to FSD                   | 0%         | C | 21       | 0         | 14-Mar-21  | 03-Apr-21 |      |      |    |      |                     |         |                      |  | Submission of applicati    | ion for FS reinsp |  |
| A7810       | FS re-inspection by FSD  | 0%         | C | 14       | 1 2       | 04-Apr-21  | 17-Apr-21 |      |      |    |      |                     |         |                      |  | FS re-inspection by        | FSD               |  |
| A7820       | Issue FS certificates  | 0%         | C | 15       | 5 2       | 18-Apr-21  | 02-May-21 |      |      |    |      |                     |         |                      |  | Issue FS certific          | cates             |  |
| A7830       | Works completion for Handover  | 0%         | C | 1        | 1 0       | 03-May-21  | 03-May-21 |      |      |    |      |                     |         |                      |  | - Works completi           | ion for Handove   |  |
| Handover    | of E&M equipment   |            |   |          |           | ,          |           |      |      |    |      |                     |         |                      | <b>v</b>                                       | 🛛 🕶 03-May-21, Han         | ndover of E&M e   |  |
| A8210       | Submission of O&M manual, Training manual and spare part list          | 0%         | C | 30       | )         | 30-Dec-20* | 28-Jan-21 |      |      |    |      |                     |         |                      | Submission of C                                | &M manual, Training ma     | anual and spare   |  |
| A8220       | Submission of final version of training manual                         | 0%         | C | 30       | )         | 29-Jan-21  | 27-Feb-21 |      |      |    |      |                     |         |                      | Submiss  | on of final version of tra | aining manual     |  |
| A8230       | O&M training to DSD/ST2  | 0%         | C | 14       | 1         | 28-Feb-21  | 13-Mar-21 |      | iiii | ·  |      |                     |         |                      |  | tra ning to D\$D/ST2       |                   |  |
| A8240       | Handover spare parts   | 0%         | C | 30       | )         | 14-Mar-21  | 12-Apr-21 | 1    |      |    |      |                     |         |                      |  | Handover spare parts       | s                 |  |
| A8250       | Handover of Final version of O&M manual                                | 0%         | C | 2        | 1         | 13-Apr-21  | 03-May-21 | 1    |      |    |      |                     |         |                      |  | Handover of Fin            | nal version of O  |  |

| Actual Work           | •   | Milestone | Contract No. DC/2018/17   | Sheet 7 of 7 |
|-----------------------|-----|-----------|---|--------------|
| Remaining Work        | -   | Summary   | Enhancement of Deodourization System at Stonecutter Island Sewage Treatment Works | 29-          |
| Critical Remaining Wo | ork |           |   |              |
|                       |     |           | First Programme   |              |

| Date      | Revision | Checked | Approved |
|-----------|----------|---------|----------|
| 9-Jul-19  | Rev. 0   |         |          |
| 29-Aug-19 | Rev. 1   |         |          |
|           |          |         |          |
|           |          |         |          |