JOB NO.: TCS01267/22

CEDD SERVICE CONTRACT NO. WD/07/2022

YUEN LONG SOUTH FIRST PHASE DEVELOPMENT - ENVIRONMENTAL TEAM

MONTHLY ENVIRONMENTAL MONITORING AND AUDIT REPORT – DECEMBER 2023

PREPARED FOR

CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

Date	Reference No.	Prepared By	Certified By
17 January 2024	TCS01267/22/600/R0119v3		
		Nicola Hon (Environmental Consultant)	Tam Tak Wing (Environmental Team Leader)

Version	Date	Remarks
1	9 January 2024	First Submission
2	15 January 2024	Amended according to IEC's comment
3	17 January 2024	Amended according to IEC's comment

Ford Business International Ltd.

Our Ref: TCS01267/22/300/L0123

AECOM
12/F, Grand Central Plaza, Tower 2
138 Shatin Rural Committee Road
Shatin, Hong Kong

Attn: Mr. Alex Chan

17 January 2024
By email

Dear Sir,

Re: Contract No. WD/07/2022
Yuen Long South First Phase Development – Environmental Team
Monthly Environmental Monitoring and Audit Report – December 2023

We would like to certify the captioned report pursuant to Condition 3.4 of the Environmental Permit No. EP-548/2018/A, EP-549/2018, EP-550/2018/A, EP-551/2018/A and EP-553/2018/A for the Yuen Long South First Phase Development.

Should you have any queries or require further information, please feel free to contact us or the undersigned at Tel: 2959-6059 or Fax: 2959-6079.

Yours sincerely,
For and on Behalf of
Ford Business International Limited

Tam Tak Wing
Environmental Team Leader

Encl.

cc	CEDD	Mr. Ng Kam Leung, Julian	By email
	Telemax (IEC)	Mr. Nelson TAM	By email

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Our Ref. : TEEM/816/24/L/006/JYT
Job No. : TM0816-22
Date : 17 January 2024

By Email

AECOM Asia Co., Ltd.
12/F, Grand Central Plaza, Tower 2
138 Shatin Rural Committee Road
Shatin, Hong Kong

Attn.: Mr. Alex Chan

Dear Alex,

Agreement No. WD/06/2022
Yuen Long South First Phase Development –
Independent Environmental Checker
Verification for Monthly EM&A Report (December 2023)

With reference to the Monthly Environmental Monitoring and Audit (EM&A) Report – December 2023 (Issue 3) as submitted by the Environmental Team in January 2024, we have no adverse comment on this submission which are related to designated projects. We are pleased to inform that we hereby verify the captioned submission in accordance with Condition 3.4 of the Environmental Permit No. EP-548/2018/A, EP-549/2018, EP-550/2018/A, EP-551/2018/A and EP-553/2018/A for the Yuen Long South First Phase Development.

Should you have any queries, please do not hesitate to contact the undersigned at (852) 3610 8701 or our Mr. Michael Fong at (852) 3610 8706 or our Mr. Vince Lo at (852) 3610 8787 or our Mr. Jacky Tsang at (852) 3610 8735.

Yours faithfully,

For and on behalf of
Telemax Environmental and Energy Management Limited

Ir Nelson Tam
Independent Environmental Checker (IEC)

c.c. Ford Business International Ltd. (ET) - Attn: Mr. Tam Tak Wing / Ms. Nicola Hon

EM / NT / MF / VL / JYT

EXECUTIVE SUMMARY

INTRODUCTION

ES.01 The Yuen Long South (YLS) Planning and Engineering is a Designated Project (DP) under *Item 1 Schedule 3* of the Environmental Impact Assessment Ordinance (EIAO). In November 2017, Environmental Impact Assessment (EIA) report for YLS Development was approved by Director of Environmental Protection pursuant to EIAO. The approved EIA report (AEIAR-215/2017), the approval letter with conditions and recommendations and the relevant Environmental Permit (EPs) issued subsequently. To implement the Project, there are various infrastructure items among some of which are classified as DPs under *Schedule 2 of the EIA Ordinance*.

ES.02 Currently, YLS Development is implemented by three phases: First Phase, Second Phase and Third Phase. The site formation and engineering infrastructure works to support the First Phase Development will be delivered under three CEDD works contracts as below:-

(a) CEDD Contract No. YL/2021/03 - Site Formation and Infrastructure Works for Yuen Long South First Phase Development - Contract 1 (non-designated works)
(b) CEDD Contract No. YL/2021/04 - Site Formation and Infrastructure Works for Yuen Long South First Phase Development - Contract 2 (the designated works of Contract 2 are governed by EP-549/2018 & EP-553/2018/A)
(c) CEDD Contract No. YL/2022/01 - Site Formation and Infrastructure Works for Yuen Long South First Phase Development - Contract 3 (the designated works of Contract 3 are governed by EP-548/2018/A, EP-549/2018, EP-550/2018/A, EP-551/2018/A)

ES.03 Ford Business International Limited (hereinafter called "Ford") was awarded the CEDD Agreement Contract No. WD/07/2022 – Yuen Long South First Phase Development - Environmental Team. The Contract period is 78 months which covered the construction period and the first-year operation period for the Works Contracts 1, 2 and 3 under the Yuen Long South First Phase Development (hereinafter named as "the Project").

ES.04 In accordance with the updated Environmental Monitoring and Audit Manual (Rev.11) (hereinafter named as "updated EM&A Manual") the Project, baseline monitoring for air quality, noise and water quality monitoring was conducted by the Environmental Team (ET) of YLS First Phase Development at the agreed monitoring locations from 8 March 2023 to 4 June 2023. The Baseline Monitoring Report (Report ref.: TCS01267/22/600/R0044v4) which was verified by the Independent Environmental Checker (hereinafter referred as "the IEC"), was submitted to EPD on 7 July 2023.

ES.05 According to the Project's programme, the various infrastructure items under Contract 2 and Contract 3, which are classified as DPs under *Schedule 2 of the EIA Ordinance,* are scheduled to commence in December 2023. In light of the commencement of non-designated works and preparation of designated work under of the Project, the EM&A Programme in relevant sections were initiated on 13th July 2023 to fulfill the contractual and EM&A Manual requirements.

ES.06 This is the Monthly Environmental Monitoring and Audit (EM&A) Report, presenting the monitoring results and inspection findings for the non-designated works of the Project, for the reporting period from **1st to 31st December 2023** (hereinafter called 'the Reporting Period).

ENVIRONMENTAL MONITORING AND AUDIT ACTIVITIES

ES.07 Environmental monitoring activities under the EM&A programme of the Project in the Reporting Period are summarized in the following table.

Environmental Aspect	Monitoring Parameter	Monitoring Station/ Location	Number of Monitoring
Air Quality	1-hour Total Suspended Particulates (TSP)	DM-1, DM-2	30 sessions
Noise	Leq30mins	CM1a, CM2a, CM3, CM4 and CM8a	20 sessions
Water Quality	Dissolved oxygen, dissolved oxygen saturation (DO%), temperature, turbidity, salinity, pH and suspended solids	M2a, M3, U3, U4a, M1a, M3, M4, M5a, M6a, D2a	12 days
		M5a, M7a	7 days
Site Inspection	Site Audit for implementation of mitigation measures	Contract 1	4 events
		Contract 2	5 events
		Contract 3	4 events

ACTION AND LIMIT (A/L) LEVELS EXCEEDANCE

ES.08 In the Reporting Period, no exceedances of air quality monitoring, construction noise (including Action Level for noise complaint) and water quality monitoring were recorded. The summary of exceedances recorded in the Reporting Period is shown table below.

Environmental Aspect	Monitoring Parameters	Action Level	Limit Level	Event & Action			
				NOE Issued	Investigation Result	Project related exceedance	Corrective Actions
Air Quality	1-hour TSP	0	0	0	--	--	--
Construction Noise	$L_{eq(30min)}$ Daytime	0	0	0	--	--	--
Water Quality	DO	0	0	0	--	--	--
	Turbidity	0	0	0		--	
	SS	0	0	0		--	

ES.09 Bi-weekly inspection of landscape and visual impact and mitigation measures were conducted by ET during the weekly site inspection. It was observed that six individual trees under Contract 2 were transplanted to the nursery site at Portion 9A in December 2023. For Contract 3, the nursery site for transplanted tree were properly maintained by the Contractor. The transplanted trees under Contract 2 and Contract 3 were in fair health condition.

ES.10 In view of commencement of preparation work at Yuen Long Nullah, baseline survey for the presence of aquatic species of conservation importance was conducted at the affected sections of the Nullah by the qualified ecologist of ET on 24th November 2023 in accordance with Ecological Survey and Mitigation Plan. There were no aquatic species of conservation importance found and recorded. The relevant baseline report will be submitted separately.

ES.11 Baseline egretry survey was conducted during the breeding season to confirm the location of egretry, evidence of egretry occupation and number of breeding pairs. Based on the survey result, no egretry was found within 250m of the project boundary. Therefore, the relevant monitoring and flight-line surveys was not required in the Reporting Period.

ES.12 The Contractors are advised to implement the waste management plan and minimise the wastes generated through recycling or reusing. All mitigation measures stipulated in the Updated EM&A Manual and waste management plans shall be fully implemented.

SITE INSPECTION

ES.13 In the Reporting Period, weekly joint site inspection to evaluate the site environmental performance had been carried out by the representatives of the Consultants, ET and the respective

Contractor of Contract 1, Contract 2 and Contract 3. No non-compliance was noted during the site inspection.

ENVIRONMENTAL COMPLAINT

ES.14 In the Reporting Month, no environmental complaint was received.

NOTIFICATION OF SUMMONS AND SUCCESSFUL PROSECUTIONS

ES.15 In the Reporting Month, no environmental summons and prosecutions were recorded.

REPORTING CHANGE

ES.16 There is no reporting change in the Reporting Period.

FUTURE KEY ISSUES

ES.17 During dry season, the Contractor should fully implement the recommended air quality mitigation measures to minimize the impact of construction dust as far as practicable, in particular the contract works located near the village area.

ES.18 Water quality mitigation measures shall be fully implemented in accordance with the Implementation Schedule for Environmental Mitigation Measures of the updated EM&A Manual.

ES.19 Construction noise would be a key environmental issue during construction work of the Project. Noise mitigation measures such as using quiet plants and/ or using movable temporary noise barriers should be implemented as stipulated under EM&A Manual to ensure construction noise impacts at the NSRs comply with the noise criteria.

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1 INTRODUCTION

1.1 BACKGROUND

1.1.1 Yuen long South (YLS) is located to the immediate south of Yuen Long New Town and is positioned as Yuen Long New Town Extension. It will serve as one of the major sources of land supply to meet the territory's medium to long-term housing needs through comprehensive planning and improvement of infrastructure including the linkage to Yuen Long New Town and the Hung Shui Kui/Ha Tsuen New Development Area (HSK/HT NDA).

1.1.2 Planning Department (PlanD) and Civil Engineering and Development Department (CEDD) of the HKSAR jointly commissioned the Planning and Engineering Study (YLS P&E Study) under Agreement No. CE 35/2012 (CE) in November 2012 to carry out planning, engineering and environmental studies with view to formulating a development proposal for YLS Development. It confirmed the feasibility of implementing the proposal for YLS Development to meet the medium and long-term housing, social, economic and environmental needs, and formulated the implementation strategies and programme for the YLS Development with first population intake by the year of 2028.

1.1.3 YLS P&E Study Project is a Designated Project (DP) under Schedule 3 of the Environmental Impact Assessment Ordinance (EIAO). In November 2017, Environmental Impact Assessment (EIA) report for YLS Development was approved by Director of Environmental Protection pursuant to EIAO. The approved EIA report (AEIAR-215/2017), the approval letter with conditions and recommendations and the relevant Environmental Permit (EPs) issued subsequently. To implement the Project, there are various infrastructure items among some of which are classified as DPs under Schedule 2 of the EIA Ordinance.

1.1.4 Under the YLS P&E Study, YLS Development was tentatively to be implemented in four stages including Stage 1, Stage 2, Stage 3 and Stage 4. Subsequently, the Stage 2 is further split into (i) stage 2A (previously known as stage 2, phase 1) and (i i) stage 2B (previously known as stage 2 remaining works). The design and construction consultancies of YLS Development stage 1 works (under Agreement No. CE 32/2017 (CE)) and stage 2A works (under Agreement No. CE 58/2019 (CE)) commenced in February 2018 and March 2020 respectively. First population intake of YLS Development is expected in 2028.

1.1.5 Currently, YLS Development will be implemented by three phases, namely First Phase, Second Phase and Third Phase Development. The phasing plan of YLS Development is shown in ***Appendix A***. The site formation and engineering infrastructure works to support the First Phase Development, covering stage 1 works and stage 2A works (hereafter referred to as "the Project") is funded under the following PWP items:

1) PWP Item No. 7817CL – Yuen Long South Development – stage 1 works; and
2) PWP Items No. 7872CL – Yuen Long South Development – stage 2 works – site formation and engineering infrastructure and stages 2B and 3 works – detailed design and site investigation.

1.2 PROJECT SCOPE

1.2.1 The scopes of the Project comprise the following principal work elements:
Works under PWP Item No. 7817CL :-

(a) Site formation works and decontamination works, if any, for the Sites VR1.1 , VR2.1 and R2.2
(b) Construction of Road L 1 A and L 18 including widening existing roads and construction of new roads, to provide access to the Site R2.2 and connect to Tai Tong Road and Tai Shu Ha Road West
(c) Construction of Road L2 to provide access to the Site VR2.1 and connect to Lam Tai West Road
(d) Construction of Road L3 to provide access to the Site VR1.1 and connect to Long Hon Road
(e) Construction of slopes and retaining walls associated with Road L 1 A and L 18
(f) Construction of Common Utility Tunnel along part of Lam Tai East Road and Road L 1A

(g) Improvement of Kung Um Road/ Kiu Hing Road between Sham Chung Road and Shap Pat Heung Road and associated road junctions by decking of Yuen Long Nullah and modification of drainage structure at junction of Yuen Long Nullah and Yuen Long bypass Floodway
(h) Provision of other infrastructure to serve the sites as mentioned in (a) above to be formed under the Project
(i) Provision of associated road junction improvement, street lighting, traffic aids, utility diversion, geotechnical, drainage, sewerage, water supply landscaping and environmental mitigation works

Works under PWP Item No. 7872CL :-

(a) Reconstruction of Tong Yan San Tsuen (TYST) Interchange and Associated Works
- Construction of new primary distributor roads with partly depressed roads and underpass
- Construction/ modification of slip roads
- Construction of junction connecting TYST Interchange, Shan Ha Road and Long Hon Road
- Construction of noise mitigation measures
- Construction of associated footpaths, cycle tracks and subways

(b) Construction of New Roads
- Construction of Road 01 (Part) with associated footpaths, pedestrian crossing and refuge island
- Construction of Road 02 (Part) with associated footpaths, pedestrian crossing and refuge island
- Construction of eastbound left-turn lane at the approach road of Shap Pat Heung Interchange heading to Pok Oi Interchange

(c) Site Formation for Multi-storey Building (MSB) Sites
- Site Formation works and decontamination works
- Realignmentl widening/ extension of a section of Tong Tai Road

(d) Construction/ modification of section of Kung Um Road at south of Yuen Long Highway
(e) Construction/ modification of section of Wong Nai Tun Tsuen Road and Kiu Hing Road
(f) Construction/ modification of section of Lam Tai East Road and Lam Yu Road
(g) Provision of associated road junction improvement, street lighting, traffic aids, utility diversion, geotechnical, drainage, sewerage, water supply, landscaping and environmental mitigation works

Works from other proiects to be entrusted

(a) Construction of ON1600 watermains from HSKlHT NOA project

1.2.2 The Project will be delivered under three CEDD works contracts as below:-

(a) CEDD Contract No. YL/2021/03 - Site Formation and Infrastructure Works for Yuen Long South First Phase Development - Contract 1

(b) CEDD Contract No. YL/2021/04 - Site Formation and Infrastructure Works for Yuen Long South First Phase Development - Contract 2 (the designated works of Contract 2 are governed by EP-549/2018 & EP-553/2018/A)

(c) CEDD Contract No. YL/2022/01 - Site Formation and Infrastructure Works for Yuen Long South First Phase Development - Contract 3 (the designated works of Contract 3 are governed by EP-548/2018/A, EP-549/2018, EP-550/2018/A, EP-551/2018/A)

1.2.3 The general layout of YLS First Phase Development is are shown in ***Appendix A***.

1.3 DESIGNATED WORKS

1.3.1 To implement the Project, there are various infrastructure items among some of which are classified as DPs under *Schedule 2 of the EIA Ordinance.* In general, the designated works of YLS First Phase Development are governed by five Environmental Permits. The relevant EPs under the YLS First Phase Development and the respective Work Contracts are summarized in ***Table 1-1*** and the Schedule 2 Designated Project under YLS First Phase Development are shown in ***Appendix B***.

Table 1-1 Summary of Schedule 2 Designated Project under YLS First Phase Development

DP Reference No.	EP	Designated Project	Contract Works	C2	C3
DP2	EP-548/2018/A	Construction of New Primary Distributor Roads (Tong Yan San Tsuen Interchange) for Housing Sites in YLS.	Reconstruction of Tong Yan San Tsuen Interchange		√
DP3	EP-549/2018	Construction of Two New District Distributor Roads (Road D1 to Road D2) for Housing Sites in YLS	C2: Construction of proposed Road D1, Road D2, Road L1A, Road L1B and slip road at the existing Shap Pat Heung Interchange C3: Improvement to sections of existing Shan Ha Road, Long Hon Road and Tong Tai Road, and other road works	√	√
DP5	EP-550/2018/A	Construction of Slip Roads at Tong Yan San Tsuen Interchange for Housing Sites in YLS	Reconstruction of Tong Yan San Tsuen Interchange		√
DP6	EP-551/2018/A	Construction of Partly Depressed Road / Underpass Located at Tin Shui Wai West Interchange and Full Enclosures at Tong Yan San Tsuen Interchange	Reconstruction of Tong Yan San Tsuen Interchange		√
DP10	EP-553/2018/A	Yuen Long Nullah Revitalisation / Decking along Kung Um Road and Kiu Hing Road for Housing Sites in YLS	Nullah deckings at various locations	√	

NOTE: DP reference no is according to approved EIA report (AEIAR-215/2017) and EM&A Manual (AEIAR-215/2017)

1.4 IMPLEMENTATION OF EM&A PROGRAMME

1.4.1 Ford Business International Limited (hereinafter called "Ford") was awarded the CEDD Agreement Contract No. WD/07/2022 – Yuen Long South First Phase Development - Environmental Team (hereinafter called "the Service Contract") on 26 October 2022. The Contractor period is 78 months which covered the construction period and the first-year operation period for the Works Contracts 1, 2 and 3 under the YLS First Phase Development (hereinafter named as "the Project).

1.4.2 In accordance with relevant EPs condition 2.4, an updated EM&A Manual for YLS First Phase Development (Rev.10) (hereinafter named as "updated EM&A Manual") has been submitted to EPD to include the latest EM&A requirement in accordance with the information and recommendation described in the EIA Report and by taking into account any specific site conditions that may be changed before the construction of the Project. It outlines the monitoring and audit programme for the Project for the construction phase and provided systematic procedures for monitoring, auditing and minimizing environmental impacts ensure compliance with the EIA recommendations.

1.4.3 In accordance with the updated EM&A Manual, baseline monitoring for air quality, noise and water quality monitoring was conducted by the ET of YLS First Phase Development at the agreed monitoring locations from 8 March 2023 to 4 June 2023. The Baseline Monitoring Report (Report ref.: TCS01267/22/600/R0044v4) which was verified by the Independent Environmental Checker (hereinafter referred as "the IEC"), was submitted to EPD on 7 July 2023.

1.4.4 According to the Project's programme, the various infrastructure items, which are classified as DPs under *Schedule 2 of the EIA Ordinance,* are tentatively scheduled to commence in December 2023. Nevertheless, in light of the commencement of construction works at non-EP area of the Project, the EM&A Programme in relevant sections was initiated on 13th July 2023 to fulfill the

contractual and EM&A Manual requirements.

1.4.5 This is the Monthly EM&A Report, presenting the monitoring results and inspection findings for the Project, for the reporting period from **1st to 31st December 2023** (hereinafter called 'the Reporting Period).

1.5 REPORT STRUCTURE

1.5.1 The Monthly EM&A Report is structured into the following sections:-

Section 1 *Introduction*
Section 2 *Project Organization and Construction Progress*
Section 3 *Summary of Impact Monitoring Requirements under the Contract*
Section 4 *Air Quality Monitoring*
Section 5 *Construction Noise Monitoring*
Section 6 *Water Quality Monitoring*
Section 7 *Ecology Monitoring*
Section 8 *Waste Management*
Section 9 *Site Inspections*
Section 10 *Environmental Complaints and Non-Compliances*
Section 11 *Implementation Status of Mitigation Measures*
Section 12 *Conclusions and Recommendations*

2 CONSTRUCTION PROGRESS AND PROJECT ORGANISATION

2.1 CONSTRUCTION CONTRACT PACKAGING

2.1.1 To facilitate the project management and implementation, the site formation and engineering infrastructure works to support First Phase Development will be delivered under CEDD three works contracts as follows: -

- Contract 1 (CEDD Contract no.: YL/2021/03)
- Contract 2 (CEDD Contract no.: YL/2021/04)
- Contract 3 (CEDD Contract no.: YL/2022/01)

CEDD Contract No. YL/2021/03 - Site Formation and Infrastructure Works for Yuen Long South First Phase Development - Contract 1

2.1.2 The contract was scheduled to commence in September 2022 and will take about 32 months to complete. The scope of works covered in this contract is listing in the following:

- Site clearance and formation (including land decontamination works) for about five hectares of land, together with the provision of associated engineering infrastructure;
- Construction of a single two-lane carriageway of about 130 metres long connecting to Lam Tai West Road;
- Construction of a single two-lane carriageway of about 130 metres long connecting to Long Hon Road;
- Construction of associated works including footpaths, slopes, retaining wall, landscaping works, water supply system, sewerage system and drainage system; and
- Implementation of environmental mitigation measures for the works mentioned above.

CEDD Contract No. YL/2021/04 - Site Formation and Infrastructure Works for Yuen Long South First Phase Development - Contract 2

2.1.3 The contract was scheduled to commence in the 4th Quarter of 2022 and will take about 64 months to complete. The scope of works covered in this contract is listing in the following:

- Site clearance and formation (including land decontamination works);
- Nullah deckings at various locations;
- Construction of proposed Road D1, Road D2, Road L1A, Road L1B and slip road at the existing Shap Pat Heung Interchange;
- Improvement to sections of existing Kung Um Road, Kiu Hing Road, Wong Nai Tun Tsuen Road, Lam Tai East Road, Tai Kei Leng Road, Tai Tong Road, Lam Hi Road, Lam Yu Road, Shap Pat Heung Road and Sham Chung Road;
- Construction of associated works including water mains, drainage works and sewerage systems, cycle tracks, footpaths, common utility tunnel, box culverts, junction improvement works, slope works, retaining walls, landscaping works, electrical and mechanical works and other ancillary works; and
- Implementation of environmental mitigation measures (including noise semi-enclosures, noise barriers and low-noise road surfacing) and environmental monitoring works for the works mentioned above.

CEDD Contract No. YL/2022/01 - Site Formation and Infrastructure Works for Yuen Long South First Phase Development - Contract 3

2.1.4 The contract was scheduled to commence in 4th Quarter of 2022 and will take about 64 months to complete. The scope of works covered in this contract is listing in the following:

- Site clearance and formation (including land decontamination works);
- Reconstruction of Tong Yan San Tsuen Interchange;
- Improvement to sections of existing Shan Ha Road, Long Hon Road and Tong Tai Road, and other road works;

- Construction of associated works including water mains, drainage and sewerage works, subways, cycle tracks, footpaths, box culverts, nullah deckings, junction improvement works, slope works, retaining walls, landscaping works, electrical and mechanical works and other ancillary works; and
- Implementation of environmental mitigation measures (including noise enclosures, noise barriers and low-noise road surfacing) and environmental monitoring works for the works mentioned above.

2.2 PROJECT ORGANISATION

2.2.1 The project organization and the key personal contact is shown in ***Appendix C***. The responsibilities of respective parties are:

Civil Engineering and Development Department

2.2.2 CEDD is the Project Proponent and the Permit Holder of the EP of the Project and assume overall responsibility for the project. An Independent Environmental Checker (IEC) shall be employed by CEDD to audit the results of the EM&A works carried out by the ET.

Environmental Protection Department (EPD)

2.2.3 EPD is the statutory enforcement body for environmental protection matters in Hong Kong.

Project Manager

2.2.4 AECOM is the Engineer's Representative (ER) responsible for overseeing the construction works and for ensuring that the works undertaken by the Contractor are in accordance with the specification and contractual requirements. The duties and responsibilities of the Consultants with respect to the EM&A may include:

- Supervise the Contractor's activities and ensure that the requirements in the EM&A Manual are fully complied with;
- Inform the Contractor when action is required to reduce impacts in accordance with the Even and Action Plans;
- Assist the Project Proponent in employing an IEC to audit the results of the EM&A works carried out by the ET;
- Participate in joint site inspection undertaken by the ET and/or IEC;
- Oversee the implementation of the agreed Event / Action Plan in the event of any exceedance; and
- Adhere to the procedures for carrying out complaint investigations.

The Contractor

2.2.5 Tung Lee Engineering Company is Contractor of the Contract 1; CREC Joint Venture is Contractor of the Contract 2; and China Road and Bridge Corporation Company is Contractor of the Contract 3. The duties and responsibilities of the Contractor is:

- Report to the Consultants;
- Implement the EIA recommendations and requirements;
- Provide assistance to ET in carrying out monitoring and auditing;
- Submit proposals on mitigation measures in case of exceedances of Action and Limit levels in accordance with the Event and Action Plans;
- Implement measures to reduce impact where Action and Limit levels are exceeded; and
- Adhere to the agreed procedures for carrying out compliant investigation.

Environmental Team (ET)

2.2.6 ***Ford Business International Limited*** was appointed by CEDD as the ET to undertake the EM&A programme with the associated duties in May 2019. The ET is managed by the ET Leader who has at least 7 years' experience in EM&A and has relevant professional qualifications. Suitably qualified staff should be included in the ET, and resources for the implementation of the EM&A programme should be allocated in time under the Contract, to enable fulfillment of the Project's EM&A

requirements as specified in the EM&A Manual during construction of the Project. The duties of ET shall include:

- Set up all the required environmental monitoring stations;
- Monitor various environmental parameters as required in the EM&A Manual;
- Analyse the environmental monitoring and audit data and review the success of EM&A programme to confirm the adequacy of mitigation measures implemented and the validity of the EIA predictions and to identify any adverse environmental impacts arising;
- Carry out site inspection to investigate and audit the Contractors' site practice, equipment and work methodologies with respect to pollution control and environmental mitigation, and take proactive actions to preempt problems;
- Liaison with IEC on all environmental performance matters, and timely submission of all relevant EM&A proforma for IEC's approval;
- Prepare reports on the environmental monitoring data and site environmental conditions;
- Report on the environmental monitoring and audit results to the IEC, Contractor, the Consultants , Project Proponent and EPD;
- Recommend suitable mitigation measures to the Contractor in the case of exceedance of Action and Limit levels in accordance with the Event and Action Plans;
- Give advice to the Contractor on environmental improvement, awareness, enhancement matters, etc. on site;
- Undertake regular on-site audits / inspections and report to the Contractor, the Consultants and IEC of any potential non-compliance;
- Follow up and close out non-compliance actions; and
- Adhere to the procedures for carrying out environmental complaint investigation.

Independent Environmental Checker (IEC)

2.2.7 ***Telemax Environmental and Energy Management Limited*** is employed by the Permit Holder (i.e. CEDD). The IEC has over 7 years' experience in EM&A and environmental management. The duty of IEC should be:

- Review in an independent, objective and professional manner the EM&A works performed by the ET (at not less than monthly intervals);
- Audit the monitoring activities and results (at not less than monthly intervals);
- Validate and confirm the accuracy of monitoring results, monitoring equipment, monitoring locations, monitoring procedures and location of sensitive receivers;
- Report the audit results to the Consultants, the Project Proponent and EPD in parallel;
- Review the EM&A reports submitted by the ET;
- Check and review the proposed mitigation measures submitted by the Contractor in accordance with the Event and Action Plans;
- Check and review the effectiveness of the mitigation measures that have been recommended in the EIA and the EM&A Manual, and ensure they are properly implemented in a timely manner, when necessary;
- Report the findings of site inspections and other environmental performance reviews to Project Manager, Project Proponent and EPD.
- Coordinate the monitoring and auditing works for all the on-going contracts in the area in order to identify possible sources / causes of exceedances and recommend suitable remedial actions where appropriate;
- Coordinate the assessment and response to complaints / enquires from locals, green groups, district councils or the public at large;
- On as-needed basis, verify and certify the environmental acceptability of the Contractor's construction methodology (both temporary and permanent works), relevant design plans and submissions under the EP; and
- Verify investigation results of environmental complaint cases and the effectiveness of corrective measures.

2.3 CONSTRUCTION PROGRESS

2.3.1 According to the Project's programme, the various infrastructure items under Contract 2 and Contract 3, which are classified as DPs under Schedule 2 of the EIA Ordinance, are scheduled to commence in December 2023. The construction activities carried out in the Reporting Period are summarized

Table 2-1 and the 3-month rolling construction programme for Contract 1, Contract 2 and Contract 3 are shown in **Appendix D**.

Table 2-1 Summary of Construction Activities in the Reporting Period

Contract No.	Construction Activities undertaken in the Reporting Period	
	Non-designated work	**Designated work**
YL/2021/03 (Contract 1)	• Decontamination works • Demolition works • Ground Investigation • Site Hoarding • Site Clearance • Site Formation • Construction of drainage system	N/A
YL/2021/04 (Contract 2)	Portion 14,6B,3: • Site clearance Portion 11: • Trail TAM Grout Portion 1A,11A: • Soil excavation • ELS construction for CUT	Along Nullah: (EP: EP-553/2018/A) • Preparation work (no works would lead to watercourse) Portion 5B: (EP: EP-549/2018) • Site clearance
YL/2022/01 (Contract 3)	• Site Clearance • GI Works • Tree Felling • Demolition • Decontamination • Rockfill for Retaining Wall RW30 in Portion 6A • Sheet Pile Installation for Box Culvert BC01 • Trial Pile TP1 and TP3 • Trial Pile for Pre-bored H Pile	EP-548/2018/A • Nil EP-549/2018 • Nil EP-550/2018/A • Nil EP-551/2018/A • Nil

2.4 SUMMARY OF ENVIRONMENTAL LICENSES AND PERMITS

2.4.1 To implement the project works, summary of the relevant permits, licenses, and/or notifications on environmental protection for Contract 1 and Contract 2 are presented in ***Table 2-2 to Table 2-3.***

Table 2-2 Status of Environmental Licenses and Permits of Contract 1

Item	Description	License/Permit Status		
		Ref. no.	**Effective Date**	**Expiry Date**
1	Air pollution Control (Construction Dust) Regulation	Notified EPD on 31/08/2022	N/A	N/A
2	Waste Disposal Regulation - Billing Account for Disposal of Construction Waste	Account No. 7045085	01/09/2022	Valid and till the Contract Works ends
3	Chemical Waste Producer Registration	WPN 5213-518-T1247-01 (Portion 4, 4A and 4B)	23/09/2022	Valid and till the Contract Works ends
		WPN 5213-518-T4069-01 (Portion 1A, 1B and 2A)	23/09/2022	
		WPN 5213-518-T1246-01 (portion3A, 3B and 3C)	23/09/2022	
4	Water Pollution Control Ordinance - Discharge License	WTP00043472-2023 (Portion 1A, 1B and 2A)	12/06/2023	30/06/2028
		WTP00043980-2023	01/06/2023	30/06/2028

Item	Description	License/Permit Status		
		Ref. no.	Effective Date	Expiry Date
		(Portion 4, 4A and 4B)		
		WT10001331-2023 (Portion 3A, 3B, 3C)	30/10/2023	31/10/2028
		Case ID 494642	Application in progress	
5	Noise Control Ordinance – Construction Noise Permit	GW-RN0550-23	03/06/2023	02/12/2023
		GW-RN0551-23	03/06/2023	02/12/2023
		GW-RN1276-23	03/12/2023	02/06/2024
		GW-RN1278-23	03/12/2023	02/06/2024

Table 2-3 Status of Environmental Licenses and Permits of Contract 2

Item	Description	License/Permit Status		
		Ref. no.	Effective Date	Expiry Date
1	Air pollution Control (Construction Dust) Regulation	Notified EPD on 04/01/2023	N/A	N/A
2	Waste Disposal Regulation - Billing Account for Disposal of Construction Waste	Account No. 7046574	13/02/2023	Valid and till the Contract Works ends
3	Chemical Waste Producer Registration	Waste Producers Number: No. WPN 5213-518-C4771-01	27/01/2023	Valid and till the Contract Works ends
4	Water Pollution Control Ordinance - Discharge License	WT00044244-2023 (Portion 9A)	16/8/2023	31/8/2028
		WT00044253-2023 (Portion 11)	21/8/2023	31/8/2028
		WT10001774-2023 (Lam Tai East Road: Portion 3,10,11,18,19)	30/11/2023	30/11/2028
5	Noise Control Ordinance – Construction Noise Permit	GW-RN1173-23 (Portion 9A)	27/10/2023	29/3/2024
		GW-RN1249-23 (Portion 11)	19/11/2023	18/02/2024
		GW-RN1281-23 (Portion 1A)	03/12/2023	31/05/2024
		GW-RW1310-23 (Portion 11A)	03/12/2023	02/03/2024
		GW-RN1379-23 (Portion 10)	27/12/2023	26/02/2024

Table 2-3 Status of Environmental Licenses and Permits of Contract 3

Item	Description	License/Permit Status		
		Ref. no.	Effective Date	Expiry Date
1	Air pollution Control (Construction Dust) Regulation	Ref. no. 488406	13 Jan 2023	N/A
2	Waste Disposal Regulation - Billing Account for Disposal of Construction Waste	Account No. 7046323	18/01/2023	Valid and till the Contract Works ends
3	Chemical Waste Producer Registration	Waste Producers Number: No. WPN 5213-529-C4801-01	22/03/2023	Valid and till the Contract Works ends
4	Water Pollution Control Ordinance - Discharge License	WT10001097-2023	20/10/2023	20/10/2028
		WT10001099-2023	13/11/2023	30/11/2028
		Case ID 493708	Application in progress	
5	Noise Control	GW-RN1162-23	03/11/2023	31/12/2023

Item	Description	License/Permit Status		
		Ref. no.	Effective Date	Expiry Date
	Ordinance – Construction Noise Permit			

3 AIR QUALITY MONITORING

3.1 MONITORING REQUIREMENTS

3.1.1 In accordance with the updated EM&A Manual, the ET shall carry out impact monitoring during the construction period. For regular impact monitoring of 1-hour TSP, the sampling frequency of at least 3 times in every 6 days should be undertaken. Before commencing impact monitoring, the ET shall inform the IEC of the impact monitoring programme such that the IEC can conduct on-site audit to ensure accuracy of the monitoring results.

3.1.2 In case of non-compliance with the air quality criteria, more frequent monitoring, as specified in the Action Plan in the following section, shall be conducted within the specified timeframe after the result is obtained. This additional monitoring shall be continued until the excessive dust emission or the deterioration in air quality is rectified, and agreed with the ER and the IEC.

3.2 MONITORING LOCATIONS

3.2.1 The phasing of the Project has been addressed in the approved EIA report, according to the updated EM&A Manual, DM-1 and DM2 are the monitoring stations for First Phase of YLS Development. The locations of construction dust monitoring stations under YLS First Phase Development are summarized in ***Table 3-1*** and illustrated in ***Appendix E*****.**

Table 3-1 Construction Dust Monitoring Locations

ID	Monitoring Locations	Description of Location
Existing Air Sensitive Receivers		
DM-1	Shan Ha Tsuen House No. 613F	Shan Ha Tsuen House No. 613F
DM-2	Village House along Kung Um Road	No. 118G Kung Um Road - Golden Villa

3.3 MONITORING EQUIPMENT

3.3.1 Portable direct reading dust meters brand named “Sibata LD-3B Laser Dust monitor Particle Mass Profiler & Counter” were used to 1-hour TSP measurement. The portable direct reading dust meters provided a real time 1-hour TSP measurement based on 90^{o} light scattering.

3.3.2 The portable direct reading dust meters were used within the valid period following manufacturer’s Operation and Service Manual. It was calibrated annually and determined periodically by the calibrated High-Volume Sampler to check the validity and accuracy of the results measured by direct reading method. The proposed use of portable direct reading dust meters was submitted to the IEC and obtained agreement and stated in Section 4.3 of the Updated EM&A Manual.

3.3.3 The equipment used for impact air quality monitoring is listed in ***Table 3-2***. The copies of calibration certificates for air quality monitoring equipment are shown in ***Appendix F1***.

Table 3-2 Air Quality Monitoring Equipment

Equipment	Model	Serial No.
1-hour TSP		
Portable Dust Meter	Sibata LD-3 Laser Dust monitor Particle Mass Profiler & Counter	3Y6502
		456658

Wind Data Monitoring Equipment

3.3.4 In consideration of the safety concerns of setting up wind sensor at 10m above ground, the ETL had proposed alternative method to obtain representative wind data in the updated EM&A Manual. Meteorological information at Wetland Park Station collected from the Hong Kong Observatory were used for the Project. It is located nearby the Project site and the meteorological data is considered representative of the Project area. This station can also provide other meteorological information include air temperature, relative humidity, wind direction, wind speed and mean sea level pressure. In additional, adoption of meteorological information from Hong Kong Observatory is a common alternative method for a lot of EM&A projects in Hong Kong. The weather data including wind speed and wing direction in the Reporting Month are summarized in ***Appendix G***.

3.4 MONITORING PROCEDURES

3.4.1 The portable direct reading dust meters brand named "Sibata LD-3 Laser Dust monitor Particle Mass Profiler & Counter" was used for impact monitoring. It is a portable, battery-operated laser photometer and provides a real time 1-hour TSP measurement based on 90^0 light scattering.

3.4.2 The 1-hour TSP meter used is within the valid period, calibrated by the manufacturer prior to purchasing. Zero response of the instrument was checked before and after each monitoring event. Operation of the 1-hour TSP meter was follow manufacturer's Operation and Service Manual.

3.5 ACTION/LIMIT LEVELS FOR AIR QUALITY

3.5.1 The baseline results form the basis for determining the environmental acceptance criteria for the impact monitoring. Following the guidelines for establishing the Action and Limit Levels for air quality monitoring, the Action and Limit Levels are presented in ***Table 3-3***. Should project-related non-compliance of the environmental quality criteria occur, remedial actions will be triggered according to the Event and Action Plan which is presented in ***Appendix H.***

Table 3-3 Action and Limit Levels for Air Quality Monitoring

Monitoring Station	Action Level (μg /m^3)	Limit Level (μg /m^3)
DM-1	268	500
DM-2	268	500

3.6 AIR QUALITY MONITORING RESULTS

3.6.1 In light of the commencement of non-designated works and preparation of designated work of the Project, the EM&A Programme in relevant sections was initiated on 13th July 2023 to fulfill the contractual and EM&A Manual requirements. The monitoring schedule is presented in ***Appendix I*** and the monitoring results are summarized in the following sub-sections.

3.6.2 In the Reporting Period, 1-hour TSP monitoring were carried out at DM-1 and DM-2 and the monitoring results are summarised in ***Tables 3-4***. The detailed 1-hour TSP monitoring results are provided in ***Appendix J*** and graphical plots of monitoring results are shown in ***Appendix K***.

Table 3-4 Summary of 1-hour TSP Monitoring Results

1-hour TSP (μg/m^3)					
Station ID	**Monitoring Location**	**Average (Range)**	**No. of Event**	**Action Level**	**Limit Level**
DM-1	Shan Ha Tsuen House No. 613F	57 (26 – 95)	15	260	500
DM-2	Village House along Kung Um Road	46 (17 – 69)	15	260	500

3.6.3 In the Reporting Period, all the 1-hour TSP monitoring results were below the Action/Limit Levels and no corrective action was therefore required.

4 CONSTRUCTION NOISE MONITORING

4.1 MONITORING REQUIREMENTS

4.1.1 Construction noise monitoring should be carried out at the designated monitoring station when there are Project-related construction activities being undertaken within a 300m from the monitoring stations. The monitoring frequency should depend on the scale of the construction activities. An initial guide on the monitoring is to obtain one set of 30-minutes measurement at each station between 0700 and 1900 hours on normal weekdays at a frequency of once a week when construction activities are underway.

4.1.2 During normal construction working hour (0700-1900 Monday to Saturday), monitoring of Leq, (30min) noise levels (as six consecutive Leq, (5min) readings) shall be carried out at the agreed monitoring locations once every week. If construction works are extended to include works during the hours of 1900 - 0700, applicable permits under NCO shall be obtained by the Contractor and strictly followed. A schedule on the compliance monitoring shall be submitted to the ER and IEC for approval before the monitoring starts.

4.1.3 In case of non-compliance with the construction noise criteria, more frequent monitoring, as specified in the Event and Action Plan in the following section, shall be carried out. This additional monitoring shall be continued until the recorded noise levels are rectified or proved to be irrelevant to the construction activities.

4.2 MONITORING LOCATIONS

4.2.1 The most representative and affected Noise Sensitive Receivers (NSRs) were selected as monitoring stations. Phasing of the Project has been addressed in the approved EIA report, according to the updated EM&A Manual, CM1a, CM2a, CM3, CM4, CM8a and CM9a are monitoring stations for the First Phase of YLS Development. For planned NSRs CM11, CM12, CM13, CM14 and CM15, they are future developments and not yet constructed and construction noise monitoring shall perform after these NSRs being occupied. The locations of construction noise monitoring stations under YLS First Phase Development are summarized in ***Table 4-1*** and illustrated in ***Appendix E.***

Table 4-1 Construction Noise Monitoring Stations

Monitoring Station ID	Monitoring Location	Description of location	Measurement Point
Existing Noise Sensitive Receivers			
CM1a	Village house in Shan Ha Tsuen	Squatter house near Shan Ha Tsuen Village house no. 354	Façade
CM2a	Village house in Tin Lung Yuen	Village house No. 126E in Tin Lung Yuen	Free field
CM3	Village house in Lung Tin Tsuen	Village house at 66 Kiu Hing Road	Façade
CM4	Village house in Tin Liu Tsuen	Village house in Tin Liu Tsuen - Kam Fong Yuen	Façade
CM8a	Village House in Eldorado	Village House in Sha Tseng Tsuen (lot no. DD1211462A)	Free field
CM9a	Village house in Pak Sha Tsuen	Village house No. 12 of Pak Sha Tsuen	Free field
Planned Noise Sensitive Receivers			
CM11	Public housing	No measurement before occupation of planned receivers (by other contract)	No measurement was conducted
CM12	Public housing		
CM13	Village rehousing		
CM14	Public housing		
CM15	Planned primary school (opposite to Pak Sha Tsuen)		

4.3 MONITORING EQUIPMENT

4.3.1 As referred to in the Technical Memorandum (TM) issued under the NCO, sound level meters in compliance with the International Electrotechnical Commission Publications 651: 1979 (Type 1) and

804: 1985 (Type 1) specifications were used for carrying out the noise monitoring. Sound level meter shall be checked by an acoustic calibrator. Wind speed shall be checked with a portable wind speed meter which is capable of measuring the wind speeds in m/s.

4.3.2 Noise monitoring equipment used for impact monitoring is listed in ***Table 4-2***. The copies of calibration certificates of noise monitoring equipment were shown in ***Appendix F2***.

Table 4-2 Noise Monitoring Equipment

Equipment	Model	Serial No.
Integrating Sound Level Meter	Rion NC-31	00410221
	Rion NL-52A	00620665
	Rion NL-52A	00620666
Calibrator	Rion NC-73	10655561
	Rion NC-75	34680623

4.4 MONITORING PROCEDURES

4.4.1 Immediately prior to and following each noise measurement, the accuracy of the sound level meter was checked using an acoustic calibrator generating a known sound pressure level at a known frequency. Measurements would be accepted as valid only if the calibration level from before and after the noise measurement agrees to within 1.0 dB.

4.4.2 During the monitoring, the microphone of the sound level meter was normally set at a height of about 1.2m subject to site condition and oriented pointed to the site, with the microphone facing perpendicular to the line of sight. Where there a building façade, monitoring was conducted 1 m from the exterior of the building façade. For free field measurement, the microphone was positioned away from any reflective surface, and a correction of +3 dB(A) has been made for the free field measurements.

4.4.3 Noise measurements were taken in terms of the A-weighted equivalent sound pressure level (L_{eq}) measured in decibels dB(A). All noise measurements were performed with the meter set to FAST response and on the A-weighted equivalent continuous sound pressure level (L_{eq}). $L_{eq(30min)}$ in six consecutive $L_{eq(5min)}$ measurements were used as the monitoring parameter for the time period between 0700-1900 hours on normal weekdays. As supplementary information for data auditing, statistical results such as A-weighted levels L_{10} and L_{90} shall also be obtained for reference.

4.4.4 After the monitoring, all the monitoring data stored in the sound level meter system were downloaded through the computer software, and all these data were checked and reviewed on computer.

4.5 ACTION AND LIMIT LEVELS FOR CONSTRUCTION NOISE

4.5.1 Following the guidelines for establishing the Action and Limit Levels for construction noise monitoring, the Action and Limit Levels are presented in ***Table 4-3***. Should project-related non-compliance of the environmental quality criteria occur, remedial actions will be triggered according to the Event and Action Plan which is presented in ***Appendix H.***

Table 4-3 Action and Limit Levels for Construction Noise

Monitoring Station ID	Time Period(1)	Action Level	Limit Level
CM1a, CM2a, CM3, CM4, CM8a and CM9a, CM11, CM12, CM13, CM14 & CM15	0700 – 1900 hours on normal weekdays	When one documented complaint is received at anytime during the construction period	75 dB(A)(2)

Notes:

(1) 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.

(2) 70 dB(A) and 65 dB(A) for schools during normal teaching periods and school examination periods, respectively.

4.6 NOISE MONITORING RESULTS

4.6.1 In light of the commencement of non-designated works under the Project, the EM&A Programme in relevant sections was initiated on 13th July 2023 to fulfill the contractual and EM&A Manual requirements. Construction noise monitoring was carried out at the designated monitoring station when there are project-related construction activities being undertaken within a 300m from the monitoring stations.

4.6.2 In the Reporting Period, ***4*** sessions of noise measurements were carried out at designated monitoring stations CM1a, CM2a, CM3, CM4 and CM8a, which are within a 300m of the project-related construction activities. The noise monitoring results are summarised in ***Table 4-4.*** The detailed noise monitoring data are presented in ***Appendix J*** and the relevant graphical plots are shown in ***Appendix K***.

Table 4-4 Summary of Construction Noise Monitoring Results

Construction Noise Level ($L_{eq30min}$), dB(A)					
Station ID	**Description of location**	**Range**	**No. of Event**	**Action Level**	**Limit Level**
CM1a	Squatter house near Shan Ha Tsuen Village house no. 354	50 – 66	4	When one documented complaint is received at anytime during the construction period	75
CM2a (*)	Village house No. 126E in Tin Lung Yuen	62 – 75	4		75
CM3	Village house at 66 Kiu Hing Road	66 – 75	4		75
CM4	Village house in Tin Liu Tsuen - Kam Fong Yuen	68 – 75	4		75
CM8a (*)	Village House in Sha Tseng Tsuen (lot no. DD1211462A)	56 – 61	4		75

Remarks

(*) *Noise measurements was conducted at free field condition and façade correction (+3 dB(A) was added according to acoustical principles and EPD guidelines*

4.6.3 As shown in ***Table 4-4***, no construction noise measurement results triggered the Limit Level (75 dB(A)) in the Reporting Month. Moreover, no valid noise complaint (which triggered Action Level exceedance) was recorded in the Reporting Period.

5 WATER QUALITY MONITORING

5.1 MONITORING REQUIREMENTS

5.1.1 The impact monitoring shall be conducted during construction period at the monitoring stations for YLS First Phase Development. The purpose of impact monitoring is to ensure the implementation of the recommended mitigation measures, provide effective control of any malpractices, and provide continuous improvements to the environmental conditions. The interval between two sets of monitoring shall not be less than 36 hours. EPD shall also be notified immediately for any changes in schedule.

5.1.2 In general, where the difference in value between the first and second in-situ measurement of DO or turbidity parameters is more than 25% of the value of the first reading, the reading shall be discarded and further readings should be taken.

5.1.3 In case of project-related exceedances of Action and/or Limit Levels, the impact monitoring frequency shall be increased according to the requirement of Event and Action Plan in the following section.

5.1.4 The monitoring frequency and water quality parameters for impact monitoring is summarized in ***Table 5-1***.

Table 5-1 Water Quality Monitoring Programme for Impact Monitoring

Item	Impact Monitoring
Monitoring Period	During construction period
Monitoring Frequency	3 Days in a Week
Monitoring Locations	All stations under YLS First Phase Development
Monitoring Parameters	Dissolved oxygen (DO), dissolved oxygen saturation (DO%), temperature, turbidity, salinity, pH and suspended solids (SS)
Intervals between 2 Sets of Monitoring	Not less than 36 hours

5.2 MONITORING LOCATIONS

5.2.1 According to the geographic locations of Contract 1, Contract 2 and Contract 3 under the First Phase YLS Development, the water quality monitoring locations with the purpose of monitoring are proposed in the updated EM&A Manual. The selection criterion for monitoring locations is based on the separation distance between work boundary of YLS First Phase Development and the river / stream. The water monitoring stations in respective with Contract 1, Contract 2 and Contract 3 are summarized in ***Table 5-2, Table 5-3*** and ***Table 5-4.*** Monitoring stations with work boundary of Contracts 1, 2 and 3 are illustrated in ***Appendix E.***

Table 5-2 Locations of Water Quality Monitoring Stations for Impact Monitoring for Contract 1

WSR	Monitoring Station ID	Description	Co-ordinates	
			Easting	Northing
S01 (Yuen Long Nullah)	M2a	Upstream station of Contract 1	820133	832282
	M3	Impact monitoring of Contract 1	820688	833127

Table 5-3 Locations of Water Quality Monitoring Stations for Impact Monitoring for Contract 2

WSR	Monitoring Station ID	Description	Co-ordinates	
			Easting	Northing
S01 (Yuen Long Nullah)	U2a	Upstream of Contract 2	820303	830757
	U1(b)	Upstream of Contract 2	820120	831191
	U3	Upstream of Contract 2	820872	832455
	U4a	Upstream of Contract 2	821366	832458
	M1a	Gradient monitoring of Contract 2	820476	832295
	M2a	Gradient monitoring of Contract 2	820133	832282

WSR	Monitoring Station ID	Description	Co-ordinates	
			Easting	Northing
	M3	Impact monitoring of Contract 2	820688	833127
	M4	Impact monitoring of Contract 2	820910	833138
S05 (EIS)	EIS-1a	Impact monitoring of Contract 2	820341	830555

Table 5-4 Locations of Water Quality Monitoring Stations for Impact Monitoring for Contract 3

WSR	Monitoring Station ID	Description	Co-ordinates	
			Easting	Northing
S02 (near TYST)	M5a	Upstream monitoring of Contract 3	819327	832535
S03 (near Windsor Garden)	M6a	Upstream monitoring of Contract 3	819335	832170
S02/S03 (near TYST & Windsor Garden)	D2a	Impact monitoring of Contract 3	819867	833939
S17 (Along Kiu Hung Road)	M7a	Upstream monitoring of Contract 3	818761	832798
	D5a	Impact monitoring of Contract 3	818484	833362

5.2.2 If the water level of a monitoring station is too shallow when sampling, sediment would be disturbed which affecting the accuracy of water quality monitoring. In order to avoid disturbing sediment, depth limits should be set up for the water sampling for the ease of reference. When the measured water depth of the monitoring station (both control and impact stations) is lower than 150mm, water monitoring would not be to perform at that monitoring location. Instead, the monitoring location will be moved to a temporary alternative location monitoring location based on the criteria below:-

(a) the alternative location should be either upstream or downstream of the original location and at the same the river/drain channel
(b) the alternative location should be within 15m far from the original location
(c) if no suitable alternative location could be found within 15m far from the original location, the sampling at that location will be cancelled since sampling at too far from the designated location could not make a representative sample.

5.3 MONITORING EQUIPMENT

Positioning of Monitoring Locations

5.3.1 A digital Global Positioning System (GPS) was used during water monitoring to ensure the monitoring vessel is at the correct location when taking measurement and samples.

Dissolved Oxygen, Dissolved Oxygen Saturation, Temperature, Turbidity, Salinity and pH value

5.3.2 The *YSI Professional DSS Multiparameter Sampling Instrument* was used for water in-situ measures, which automates the measurements and data logging of temperature, dissolved oxygen, dissolved oxygen saturation, turbidity, pH and salinity simultaneously.

Water Depth Detector

5.3.3 Measures tape was used for water depths determination at each designated monitoring station throughout the monitoring programme.

Water Sampling Equipment

5.3.4 Water sample collection was directly from water surface use sampling plastic bottle or sampling bucket to avoid inclusion of bottom sediment or humus. Teflon/stainless steel bailer maybe used for water sampling. The use of water sampling equipment depends on the depths of sampling locations.

Sample Containers and Storage

5.3.5 Water samples for SS should be stored in high density polythene bottles with no preservative added, packed in ice (cooled to 4°C without being frozen) and shipment to the testing laboratory. The samples shall be delivered to the laboratory within 24 hours of collection and be analysed as soon as possible after collection.

Calibration

5.3.6 The YSI Professional DSS Multiparameter Sampling Instrument was certified by a laboratory accredited under HOKLAS or any other international accreditation scheme, and subsequently re-calibrated at quarterly basis throughout all stages of the water quality monitoring. Responses of sensors and electrodes should be checked with certified standard solutions before each use. Wet bulb calibration for a DO meter shall be carried out before measurement at each monitoring station.

Back-up Equipment

5.3.7 Backup monitoring equipment shall also be made available so that monitoring can proceed uninterrupted even when some equipment is under maintenance, calibration, malfunction, etc.

5.3.8 Water quality monitoring equipment used for the impact monitoring are listed in ***Table 5-5***. All in-situ measurement equipment were calibrated by HOKLAS accredited laboratory of three-month interval. Copies of calibration certificates for water quality monitoring equipment are shown in ***Appendix F3***.

Table 5-5 Water Quality Monitoring Equipment

Equipment	Model	Serial No.
Water Depth Detector	Measure tape	N/A
Thermometer & DO meter	YSI Professional DSS Multiparameter Sampling Instrument	[17B102764/17B100758]/ [EQW019]
pH meter		
Turbidimeter		
Salinometer		
Sample Container	High density polythene bottles (provided by laboratory)	N/A
Storage Container	'Willow' 33-litter plastic cool box with Ice pad	N/A

5.4 MONITORING PROCEDURES

5.4.1 Water quality monitoring was conducted at all designated monitoring locations. In-situ of replicate measurements was undertaken during baseline monitoring; where the difference in value between the first and second in-situ measurement of DO or turbidity parameters is more than 25% of the value of the first reading, the reading was discarded then further readings to be take. Moreover, duplicate sample collection was also conducted from each monitoring location. The sampling and in-situ measurement process are below:

Sampling Procedure

5.4.2 A Digital Global Positioning System (GPS) was used to identify the designated monitoring stations. Prior to water sampling, measure tape was used for the determination of water depth at each station.

5.4.3 Where water depth is allowed, sampling should be conducted at three water depths which are 1m below water surface, mid-depth, and 1m above the river bed. If the sampling water depth is less than 6m, the mid-depth may be omitted. If the water depth is less than 3m, only the mid-depth may be omitted.

5.4.4 During the baseline water quality monitoring, the water depths of all stations were less than 3m, therefore, water samples were collected from 0.1m below water surface or water surface to prevent the river bed sediment for stirring.

5.4.5 The sample container was rinsed with a portion of the water sample. The water sample then was transferred to the high-density polythene bottles as provided by the laboratory, labeled with a unique sample number and sealed with a screw cap.

5.4.6 Before commencement of the sampling, general information such as the date and time of sampling and weather condition as well as the personnel responsible for the monitoring were be recorded on the monitoring field data sheet.

5.4.7 A 'Willow' 33-liter plastic cool box packed with ice was used to preserve the collected water samples prior to arrival at the laboratory for chemical determination. The water temperature of the cool box was maintained at a temperature as close to 4℃ as possible without being frozen. Samples collected were delivered to the laboratory upon collection.

In-situ Measurement

5.4.8 YSI Professional DSS Multiparameter Sampling Instrument was used for water in-situ measures, which automates the measurements and data logging of water temperature, dissolved oxygen & dissolved oxygen saturation, pH unit and salinity. Before each round of monitoring, the instrument was checked in accordance with the manufactory manual instruction to sure it is valid.

5.5 LABORATORY MEASUREMENT / ANALYSIS

5.5.1 Two replicate samples from each independent sampling event are required for the SS analysis. Sufficient water samples shall be collected at the monitoring stations for carrying out the laboratory measurement and analysis. The SS analysis were carried out by a local HOKLAS-accredited laboratory - *ALS Technichem (HK) Pty Ltd* and the HOKLAS-accreditation certificate of the testing laboratory is shown in ***Appendix E4***. The laboratory determination work shall start within 24 hours after collection of the water samples. The analysis for suspended solids is presented in ***Table 5-6***.

Table 5-6 Laboratory Analysis

Parameters	Analytical Method	Reporting Limit
Suspended Solid (SS)	APHA 2540-D	0.5mg/L

Action/Limit Levels for Water Quality for YLS First Phase Development

5.5.2 Following the guidelines for establishing the Action and Limit Levels for water quality monitoring, the Action and Limit Levels for of Contract 1, Contract 2 and Contract 3 under YLS First Phase Development are presented in ***Table 5-7*** to ***Table 5-9***. Should project-related non-compliance of the environmental quality criteria occur, remedial actions will be triggered according to the Event and Action Plan which is presented in ***Appendix H.***

Table 5-7 Action and Limit Levels for Water Quality Monitoring for Contract 1

Water Sensitive Receiver (WSR)	Impact Monitoring Location	Parameter						Upstream / Control Station
		DO (mg/L)		Turbidity (NTU)		Suspended Solids (mg/L)		
		Action Level	Limit Level	Action Level	Limit Level	Action Level	Limit Level	
S01	@M2a	6.4	6.3	8.4	8.5	8.7	8.8	N/A
	*M3	3.0	2.9	20.5	22.6	30.2	30.3	N/A
Remarks @ Gradient Monitoring Location * Impact Monitoring Location								

Table 5-8 Action and Limit Levels for Water Quality Monitoring for Contract 2

Water Sensitive Receiver	Gradient / Impact Monitoring	Parameter			Upstream / Control Station as
		DO (mg/L)	Turbidity (NTU)	Suspended Solids (mg/L)	

(WSR)	Location	Action Level	Limit Level	Action Level	Limit Level	Action Level	Limit Level	related WSR
S01	@M1a	1.3	1.2	106.9	131.6	242.5	273.5	U1b & U2a
	@M2a	6.4	6.3	8.4	8.5	8.7	8.8	N/A
	*M3	3.0	2.9	20.5	22.6	30.2	30.3	U1b & U2a
	*M4	6.1	6.0	30.9	35.9	18.6	20.1	U3 &U4a
S05	*EIS-1a	5.4	5.4	18.9	19.2	25.8	31.9	N/A
Remarks @ Gradient Monitoring Location * Impact Monitoring Location								

Table 5-9 Action and Limit Levels for Water Quality Monitoring for Contract 3

Water Sensitive Receiver (WSR)	Gradient / Impact Monitoring Location	Parameter						Upstream / Control Station as related WSR
		DO (mg/L)		Turbidity (NTU)		Suspended Solids (mg/L)		
		Action Level	Limit Level	Action Level	Limit Level	Action Level	Limit Level	
S02/S03	*D2a	6.7	6.7	21.7	22.0	96.1	152.9	M5a & M6a
S17	@M7a	6.1	6.1	12.6	12.7	12.0	13.1	None
	*D5a	5.1	4.9	19.1	19.6	57.1	67.5	
Remarks @ Gradient Monitoring Location * Impact Monitoring Location								

5.6 WATER QUALITY MONITORING RESULTS

5.6.1 In the Reporting Period, a total of **twelve (12)** days water quality monitoring were conducted at various stations, including M1a, M2a, M3, M4, U3, U4a, M5a, M6a and D2a. These stations are located adjacent to works area of Contract 1 and non-designated area under Contract 2 and Contract 3. In view of commencement of work at another non-designated area of Contract 3, water quality monitoring at M7a and D5a was commenced on 14 December 2023 and total of **seven (7)** days monitoring were conducted.

5.6.2 The key monitoring parameters including DO, Turbidity and SS are summarised in ***Tables 5-10 to 5-12***. Summary of non-project related exceedances are shown in ***Table 5-13***. Detailed water quality monitoring result are shown in ***Appendix J*** and the relevant graphical plot are shown in ***K I***.

Table 5-10 Water Quality Monitoring Results for Dissolved Oxygen

Monitoring Station	DO (mg/L) Average (range)	Action Level (mg/L)	Limited Level (mg/L)
M1a	3.2 (1.9 – 5.2)	1.3	1.2
M2a	6.7 (6.4 – 7.7)	6.4	6.3
M3	4.2 (3.1 – 6.3)	3.0	2.9
M4	6.5 (6.1 – 7.7)	6.1	6.0
U3	3.4 (1.7 – 5.6)	No applicable for upstream and control station	
U4a	5.5 (4.9 – 7.3)	No applicable for upstream and control station	
M6a	8.5 (7.5 – 9.4)	No applicable for upstream and control station	
M5a	6.4 (5.1 – 7.9)	No applicable for upstream and control station	
D2a	7.4 (6.7 – 8.0)	6.7	6.7
M7a	6.9 (6.2 – 7.9)	6.1	6.1
D5a	7.3 (6.6 – 8.4)	4.9	5.1

Table 5-11 Water Quality Monitoring Results for Turbidity

Monitoring Station	Turbidity (NTU) Average (range)	Action Level (NTU)	Limit Level (NTU)
M1a	16.6 (2.4 – 48.0)	106.9	131.6
M2a	2.6 (0.9 – 4.7)	8.4	8.5
M3	7.3 (1.4 – 15.0)	20.5	22.6
M4	6.9 (3.1 – 19.2)	30.9	35.9
U3	2.8 (1.0 – 4.8)	No applicable for upstream and control station	
U4a	5.8 (1.7 – 15.6)	No applicable for upstream and control station	
M6a	2.6 (1.3 – 4.0)	No applicable for upstream and control station	
M5a	7.8 (1.0 – 18.0)	No applicable for upstream and control station	
D2a	11.5 (5.4 – 17.5)	21.7	22.0
M7a	1.6 (1.2 – 1.9)	12.6	12.7
D5a	4.1 (1.1 – 7.4)	19.1	19.6

Table 5-12 Water Quality Monitoring Results for Suspended Solids

Monitoring Station	SS (mg/L) Average (range)	Action Level (mg/L)	Limited Level (mg/L)
M1a	32.9 (7.3 – 69.2)	242.5	273.5
M2a	6.0 (4.0 – 7.6)	8.7	8.8
M3	13.5 (5.1 – 24.3)	30.2	30.3
M4	11.3 (5.0 – 17.4)	18.6	20.1
U3	5.0 (3.9 – 6.9)	No applicable for upstream and control station	
U4a	9.7 (5.7 – 18.1)	No applicable for upstream and control station	
M6a	5.0 (2.7 – 13.3)	No applicable for upstream and control station	
M5a	17.8 (2.2 – 57.1)	No applicable for upstream and control station	
D2a	19.9 (10.7 – 32.9)	96.1	152.9
M7a	3.3 (2.0 – 5.9)	12.0	13.1
D5a	18.1 (2.2 – 56.5)	57.1	67.5

5.6.3 In this Reporting Period, no exceedance of water quality monitoring result was recorded, and no corrective measures were therefore required. The summary of water quality monitoring exceedance recorded in the Reporting Period are shown in ***Table 5-13***.

5.6.4 The summary of water quality monitoring exceedance recorded in the Reporting Period are shown in ***Table 5-13***.

Table 5-13 Summary of Water Quality Monitoring Exceedance Recorded in the Reporting Period

Location	Dissolved Oxygen		Turbidity		Suspended Solids		Non-project related Exceedance		Project Related Exceedance	
	AL	LL	AL	LL	AL	LL	AL	LL	AL	LL
M1a	0	0	0	0	0	0	0	0	0	0
M2a	0	0	0	0	0	0	0	0	0	0
M3	0	0	0	0	0	0	0	0	0	0
M4	0	0	0	0	0	0	0	0	0	0
D2a	0	0	0	0	0	0	0	0	0	0
No of Exceedance	0	0	0	0	0	0	0	0	0	0

6 ECOLOGY MONITORING

6.1 REQUIREMENTS

6.1.1 As required under Section 8.3 of the updated EM&A Manual, wherever applicable, the implementation of the mitigation measures applicable to the three Contracts of the First Phase Development of the Project shall be audited regularly during the construction phase, the establishment phase of the mitigation measures and/or the early (the first 12 months of) operation phase of the Project.

Monitoring of Transplantation of Flora Species of Conservation Importance

6.1.2 Prior to commencement of construction works, an updated baseline survey was conducted by a qualified botanist/ plant ecologist within the proposed works area(s) to identify and update the conditions of any flora species of conservation importance. A Baseline Vegetation Survey and Transplantation Proposal would been prepared to confirm the locations, quantities and conditions of any identified flora species of conservation importance within the works area(s), and proposed methodology and receptor site(s) to transplant any of these specimens that are to be affected by the construction works.

6.1.3 Based on the result of the Vegetation Survey, flora species of conservation importance was not recorded within the works area(s). There would be no transplantation of flora species of conservation importance, and relevant monitoring is not required for the Project.

Monitoring of Mitigation Measures on Affected Aquatic Fauna of Conservation Importance

6.1.4 A baseline survey shall be conducted in all affected watercourses by a qualified ecologist of relevant experience to confirm the presence, relative abundance, and distribution of any aquatic species of conservation importance prior to any commencement of works which would lead to watercourse loss. A translocation programme shall be designed and developed with relevant authorities to translocate any affected aquatic fauna species of conservation importance. Capture and translocation of species to suitable permanent receptor site(s) (e.g. the retained natural watercourses in PDA or the recreated watercourse) or a holding area shall be conducted by a suitably qualified ecologist before the commencement of any construction works.

6.1.5 In view of commencement of preparation work at Yuen Long Nullah, baseline survey for the presence of aquatic species of conservation importance was conducted at the affected sections of the Nullah by the qualified ecologist of ET on 24th November 2023. There were no aquatic species of conservation importance found and recorded. The relevant baseline report will be submitted separately. In the Reporting Period, only preparation work was conducted at Yuen Long Nullah and no works would lead to watercourse.

6.1.6 Another baseline survey would be conducted for commencement of works which would lead to watercourse loss for other section of works.

Monitoring of Mitigation Measures to Minimize Disturbance Impacts to Tai Tong (Pak Sha Tsuen) Egretry

6.1.7 Prior to commencement of construction activities, a baseline egretry survey was conducted during the breeding season to confirm the location of egretry, evidence of egretry occupation and number of breeding pairs. Based on the survey result, no egretry was found within 250m of the project boundary. Therefore, the relevant monitoring and flight-line surveys was not required in the Reporting Period.

7 LANDSCAPE AND VISUAL MONITORING

7.1 MONITORING REQUIREMENTS

7.1.1 The EIA has recommended EM&A for landscape and visual mitigation measures to be undertaken during the design, construction and operational stages of the project. The design, implementation and maintenance of landscape mitigation measures is a key aspect and should be checked to ensure that they are fully realised and that potential conflicts between the proposed landscape measures and any other project works and operational requirements are resolved at the earliest possible date and without compromise to the intention of the mitigation measures. In addition, implementation of the mitigation measures recommended by the EIA will be monitored through the site audit programme.

7.2 MITIGATION MEASURES

7.2.1 The Landscape and Visual Assessment of the EIA proposes a number of mitigation measures to ameliorate the landscape and visual impacts of the Project. These measures are listed in table below and implementation is summarised in the EMIS.

Table 7-1 Proposed Mitigation Measures for Landscape and Visual Impacts

Mitigation Measure Code	Summary Description	Mitigate Landscape Impacts	Mitigate Visual Impacts	Related to Contract
Construction Phase				
CM1	Optimisation of Construction Areas and Providing Temporary Landscape on Temporary Construction	√	√	C1, C2, C3
CM2	Minimise Topographical Changes	√	√	C1, C2, C3
CM3	Tree Protection and Preservation	√		C1, C2, C3
CM4	Transplanting of Existing Trees	√		C1, C2, C3
CM5	Screen Hording		√	C1, C2, C3
CM6	Watercourses of higher ecological value / Channels Protection	√		C2, C3
CM7	Construction Light Control		√	C1, C2, C3
CM8	Woodland Conservation	√		Not related to YLS First Phase

7.2.2 Mitigation measures to be implemented during construction should be adopted from the start of construction and be in place throughout the entire construction period. Tree transplantation, preservation of Potentially Registerable Old and Valuable Trees (POVTs), Rare and Protective Vegetation, and compensatory planting should be carried out as early as possible in the Project with transplantation carried out prior to construction starting in any particular area.

7.3 AUDIT REQUIREMENT

7.3.1 Site audits should be undertaken during the construction phase of the Project to check that the proposed landscape and visual mitigation measures are properly implemented and maintained as per their intended objectives. Site inspections should be undertaken by the ET at least once every two weeks during the construction period. In addition, as the Project contains various Schedule 2 DPs, site inspection program for these DPs shall make reference to the project details and works progress to schedule the inspection works. Particularly audits should be carried out during site clearance when proposed tree retain, tree felling, and transplantation may occur.

7.4 AUDIT RESULT

7.4.1 Bi-weekly inspection of landscape and visual impact and mitigation measures were conducted by ET during the weekly site inspection. It was observed that six individual trees under Contract 2 were transplanted to the nursery site at Portion 9A in December 2023, and the transplanted trees were in fair health condition. For Contract 3, the nursery site for transplanted tree were properly maintained by the Contractor, and the transplanted trees in nursery site were in fair health condition. The findings / deficiencies observed during the weekly site inspection are shown in section ***Table 9***.

8 WASTE MANAGEMENT

8.1 GENERAL WASTE MANAGEMENT

8.1.1 Waste management was carried out in accordance with the Waste Management Plan for the Contract.

8.2 RECORDS OF WASTE QUANTITIES

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

- Insert construction & demolition (C&D) Material; and
- C&D waste

8.2.2 The Contractors are advised to minimise the wastes generated through recycling or reusing. All mitigation measures stipulated in the Updated EM&A Manual and waste management plans shall be fully implemented.

8.2.3 The quantities of waste for disposal under Contract 1 and Contract 2 in this Reporting Period are summarized in ***Tables 8-1*** and ***8-2*** and they are made reference to the Waste Flow Table provide by the Contractors which shown in ***Appendix L***.

Table 8-1 Summary of Quantities of Inert C&D Materials

Type of Waste	Contract 1		Contract 2		Contract 3	
	Quantity (tonnes)	Disposal Location	Quantity (tonnes)	Disposal Location	Quantity (in '000m^3)	Disposal Location
Total generated C&D Materials (Inert)	0	--	0	--	0	--
Reused in this Contract (Inert)	0	--	0	--	0	--
Reused in other Projects (Inert)	0	--	0	--	0	--
Disposal as Public Fill (Inert)	5403.81	Tuen Mun Area 38	7375.23	Tuen Mun Area 38	1.828	Tuen Mun Area 38

Table 8-2 Summary of Quantities of C&D Wastes

Type of Waste	Contract 1		Contract 2		Contract 3	
	Quantity (tonnes)	Disposal Location	Quantity (tonnes)	Disposal Location	Quantity (in '000kg / '000m^3)	Disposal Location
Recycled Metal	0	--	0	--	0	--
Recycled Paper / Cardboard Packing	0	--	0.09	Licensed collector	0	--
Recycled Plastic	0	--	0.003	Licensed collector	0	--
Chemical Wastes	0	--	0	--	0	--
General Refuses	8.65	WENT	336.19	WENT	1.016	WENT

9 SITE INSPECTION

9.1 REQUIREMENTS

9.1.1 According to the updated EM&A Manual, the programme of environmental site inspection shall be formulation by ET Leader. Weekly environmental site inspections were carried out to confirm the environmental performance.

9.2 FINDINGS / DEFICIENCIES DURING THE REPORTING PERIOD

Contract 1

9.2.1 In the Reporting Period, joint site inspections to evaluate the site environmental performance for Contract 1 were carried out by the representatives of the RE, ET and the Contractor on **7th, 14th, 19th and 27th December 2023**. No non-compliance was noted.

9.2.2 The findings / deficiencies observed for ***Contract 1*** during the weekly site inspection are listed in ***Table 9-1***.

Table 9-1 Site Inspection and Observations for Contract 1

Date	Findings / Deficiencies	Follow-Up Status
7th Dec 2023	• The Contractor should remove empty chemical containers properly. (Portion 1A)	• The empty chemical containers have been removed properly.
14th Dec 2023	• The Contractor was reminded to pay special attention on dust generation and provide mitigation measures • The Contractor was reminded to enhance good house-keeping.	• Reminder only. • Reminder only.
19th Dec 2023	• The Contractor was reminded to spray water regularly to reduce dust generation. • The Contractor was reminded to spray water regularly to reduce dust generation.	• Reminder only. • Reminder only.
27th Dec 2023	• The Contractor should place the chemical container inside drip tray.	• The chemical contanier was relocated at the designated chemical storage area.

Contract 2

9.2.3 In the Reporting Period, joint site inspections to evaluate the site environmental performance for Contract 1 were carried out by the representatives of the RE, ET and the Contractor on **1st, 6th, 13th, 20th and 29th December 2023**. No non-compliance was noted.

9.2.4 The findings / deficiencies observed for ***Contract 2*** during the weekly site inspection are listed in ***Table 9-2***.

Table 9-2 Site Inspection and Observations for Contract 2

Date	Findings / Deficiencies	Follow-Up Status
1st Dec 2023	• The Contractor should provide mitigation measures to prevent construction waste water and muddy water run into drain. (DC02)	• Sand bag bund has been applied to prevent waste water and muddy water run into drain.
6th Dec 2023	• Chemical container placing on the excavator should be removed. (DC02)	• The chemical container was removed from the excavator immediately.
13th Dec 2023	• Pit of concrete block should be filled to avoid accumulation of stagnant water. (Portion 11)	• Lifting eye of the concrete block was filled with geotextile materials to prevent accumulation of water.

Date	Findings / Deficiencies	Follow-Up Status
20th Dec 2023	• The Contractor should remove or cover sandy stockpile properly to reduce dust impact at Portion 11a. • Contractor should provide acoustic mat for breaker to reduce noise impact. (DC02)	• The excavated materials are delivered to public fill bank regularly, the remaining stockpile is covered by the impervious sheeting materials. • The breaker head is wrapped with sound reduction materials.
29th Dec 2023	• The Contractor should remove waste regularly to enhance good house-keeping. (Portion 1A)	• The general refuse was remoed properly. (Portion 1A)

9.2.5 General housekeeping such as site tidiness and cleanliness should be maintained for all works areas. Furthermore, the Contractor was reminded to implement the Waste Management Plan of the Contracts.

Contract 3

9.2.6 In the Reporting Period, joint site inspections to evaluate the site environmental performance for Contract 1 were carried out by the representatives of the RE, ET and the Contractor on **7th, 14th, 20th and 28th December 2023**. No non-compliance was noted.

9.2.7 The findings / deficiencies observed for ***Contract 3*** during the weekly site inspection are listed in ***Table 9-3***.

Table 9-3 Site Inspection and Observations for Contract 3

Date	Findings / Deficiencies	Follow-Up Status
7th Dec 2023	• The Contractor was reminded to provide mitigation measures to prevent muddy water run into drain.	• Reminder only.
14th Dec 2023	• Oil stain shoule be clean to enhance good house-keeping and prevent leak out. (Portion 1) • The Contractor should provide drip tray for chemical containers to prevent leak out. (Portion 1)	• Oil stain was cleared up. • The chemical containers were removed off site.
20th Dec 2023	• The Contractor should remove or cover opened cement bags properly. (Portion 1) • The Contractor should place chemical container inside drip tray to prevent leak out. (Portion 1)	• The opened cement bags were covered properly. • The chemical container was removed.
28th Dec 2023	• The Contractor should place chemical containers inside drip tray. (portion 2)	• The chemical containers were removed.

9.2.8 General housekeeping such as site tidiness and cleanliness should be maintained for all works areas. Furthermore, the Contractor was reminded to implement the Waste Management Plan of the Contracts.

10 ENVIRONMENTAL COMPLAINTS AND NON-COMPLIANCES

10.1 ENVIRONMENTAL COMPLAINTS, SUMMONS AND PROSECUTIONS

10.1.1 There was no environmental complaint, prosecution or notification of summons received in the Reporting Period.

10.1.2 The statistical summary table of the environmental complaints, summons and prosecutions are presented in ***Tables 10-1, 10-2*** and ***10-3***. Detailed complaint log for the Contract is presented in ***Appendix M***.

Table 10-1 Statistical Summary of Environmental Complaints

Reporting Period	Contract No	Environmental Complaint Statistics		
		Frequency	Cumulative	Complaint Nature
13th – 30th November 2023	Contract 1	0	0	NA
December 2023	Contract 1	0		NA
13th – 30th November 2023	Contract 2	0	0	NA
December 2023	Contract 2	0		NA
13th – 30th November 2023	Contract 3	0	0	NA
December 2023	Contract 3	0		NA

Table 10-2 Statistical Summary of Environmental Summons

Reporting Period	Contract No	Environmental Summons Statistics		
		Frequency	Cumulative	Complaint Nature
13th – 30th November 2023	Contract 1	0	0	NA
December 2023	Contract 1	0		NA
13th – 30th November 2023	Contract 2	0	0	NA
December 2023	Contract 2	0		NA
13th – 30th November 2023	Contract 3	0	0	NA
December 2023	Contract 3	0		NA

Table 10-3 Statistical Summary of Environmental Prosecution

Reporting Period	Contract No	Environmental Prosecution Statistics		
		Frequency	Cumulative	Complaint Nature
13th – 30th November 2023	Contract 1	0	0	NA
December 2023	Contract 1	0		NA
13th – 30th November 2023	Contract 2	0	0	NA
December 2023	Contract 2	0		NA
13th – 30th November 2023	Contract 3	0	0	NA
December 2023	Contract 3	0		NA

10.2 OTHER ENVIRONMENTAL NON-COMPLIANCES

10.2.1 In addition, no emergency events related to violation of environmental legislation for illegal dumping and landfilling were received in the Reporting Period.

11 IMPLEMENTATION STATUS OF MITIGATION MEASURES

11.1 GENERAL REQUIREMENTS

11.1.1 The environmental mitigation measures that recommended in the ISEMM in the EM&A Manual covered the issues of dust, noise, water and waste and they are summarised presented in ***Appendix N.***

11.1.2 The Contract Works under the Project shall be implementing the required environmental mitigation measures according to the EM&A Manual as subject to the site condition. Environmental mitigation measures generally implemented by the Contractor and the implementation status are shown in ***Appendix N***.

11.2 TENTATIVE CONSTRUCTION ACTIVITIES IN THE COMING MONTH

11.2.1 According to information provided by the Contractor, the construction works under the Contract in the coming month are listed below:

Table 11-1 Summary of Construction Activities in the next Reporting Period

Contract No.	Construction Activities undertaken in next Reporting Period	
	Non-designated work	**Designated work**
YL/2021/03 (Contract 1)	• Decontamination works • Demolition works • Ground Investigation • Site Hoarding • Site Clearance • Site Formation • Construction of drainage system • Piling works	N/A
YL/2021/04 (Contract 2)	Portion 14,6B,3: • Site clearance Portion 11: • Import rock fill • Trial TAM Grout and TAM grouting Portion 1A,11A: • Soil excavation • ELS construction for CUT	Along Nullah: (EP: EP-553/2018/A) • Road Set back works (including site clearance) • Temporary decking installation • Pre-bored H-pile installation Portion 5B: (EP: EP-549/2018) • Site clearance
YL/2022/01 (Contract 3)	• Site Clearance • GI Works • Tree Felling • Demolition • Decontamination • Rockfill for Retaining Wall RW30 in Portion 6A • Sheet Pile Installation for Box Culvert BC01 • Trial Pile TP1 and TP3 • Trial Pile for Pre-bored H Pile	EP-548/2018/A • Nil EP-549/2018 • Nil EP-550/2018/A • Nil EP-551/2018/A • Nil

11.3 KEY ISSUES FOR THE COMING MONTH

11.3.1 Key issues for the coming month include the following:

- Implementation of control measures for rainstorm;
- Regular clearance of stagnant water;
- Implementation of dust suppression measures at all times;
- Potential wastewater quality impact due to surface runoff;
- Potential fugitive dust quality impact due from the dry/loose/exposure soil surface/dusty

material;

- Disposal of empty engine oil containers within site area;
- Ensure dust suppression measures are implemented properly;
- Sediment catch-pits and silt removal facilities should be regularly maintained;
- Management of chemical wastes;
- Discharge of site effluent to the nearby wetland, stockpiling or disposal of materials, and any dredging or construction area at this area are prohibited;
- Follow-up of improvement on general waste management issues; and
- Implementation of construction noise preventative control measures.

12 CONCLUSIONS AND RECOMMENDATIONS

12.1 CONCLUSIONS

12.1.1 This is the Monthly EM&A Report presenting the monitoring results and inspection findings for the Project, for the Reporting Period from **1st to 31st December 2023.**

12.1.2 No 1-hour TSP of air quality monitoring result that triggered the Action or Limit Levels was recorded. No corrective action was required.

12.1.3 In this Reporting Period, no noise complaint (which is an Action Level exceedance) was received and no construction noise measurement result triggered the Limit Level was recorded in this Reporting Month. No corrective action was issued.

12.1.4 In this Reporting Period, no exceedances recorded for water quality monitoring. No corrective action was required.

12.1.5 Bi-weekly inspection of landscape and visual impact and mitigation measures were conducted by ET during the weekly site inspection. It was observed that six individual trees under Contract 2 were transplanted to the nursery site at Portion 9A in December 2023. For Contract 3, the nursery site for transplanted tree were properly maintained by the Contractor. The transplanted trees under Contract 2 and Contract 3 were in fair health condition.

12.1.6 In the Reporting Month, no environmental complaint, summons and prosecution was received. In addition, no emergency events related to violation of environmental legislation for illegal dumping and landfilling were received.

12.1.7 In the Reporting Period, weekly joint site inspection to evaluate the site environmental performance had been carried out by the representatives of the Consultants, ET and the respective Contractor of Contract 1, Contract 2 and Contract 3. No non-compliance was noted during the site inspection.

12.2 RECOMMENDATIONS

12.2.1 The Contractor should pay special attention on the water quality mitigation measures and fully implement according to the ISEMM of the EM&A Manual, in particular to prevent surface runoff with high SS content and other pollutants from flowing to stream. All effluent discharge shall be ensure to fulfill Technical Memorandum of Effluent Discharged into Drainage and Sewerage Systems, inland and Coastal Waters criteria or discharge permits stipulation.

12.2.2 Construction noise would be a key environmental issue during construction work of the Project. Noise mitigation measures such as using quiet plants and/ or using movable temporary noise barriers should be implemented as stipulated under EM&A Manual to ensure construction noise impacts at the NSRs comply with the noise criteria.

12.2.3 Since the Works Contract located adjacent to villages, potential construction dust impact should be minimised. The Contractor should fully implement the air quality mitigation measures to reduce construction dust emission as far as practicable.

12.2.4 All other mitigation measures recommended in the ISEMM of the EM&A Manual should be properly implemented and maintained as far as practicable.

Appendix A

General layout of YLS First Phase Development

位置圖
LOCATION PLAN

元朗
YUEN LONG

KAI SHAN

CHU WONG LING

Tsing Tsuen Tsing Temple

元朗
YUEN LONG

唐人新村交匯處
TONG YAN SAN TSUEN INTERCHANGE

十八鄉路
SHAP PAT HEUNG ROAD

元朗公路
YUEN LONG HIGHWAY

擬議鄉村遷置區用地一
PROPOSED VILLAGE RESITE 1

擬議鄉村遷置區用地二
PROPOSED VILLAGE RESITE 2

朗達路
LONG HON ROAD

擬議公共休憩用地
PROPOSED PUBLIC OPEN SPACE SITE

擬議公營房屋用地
PROPOSED PUBLIC HOUSING SITE

LAM TAI EAST ROAD

KUNG UM ROAD

KIU HING ROAD

黃泥墩村路
WONG NAI TUN TSUEN ROAD

圖例 LEGEND

Contract No. YL/2021/03 (Contract 1)

Contract No. YL/2021/04 (Contract 2)

Contract No. YL/2022/01 (Contract 3)

CONSTRUCTION CONTRACTS UNDER YUEN LONG SOUTH FIRST PHASE DEVELOPMENT

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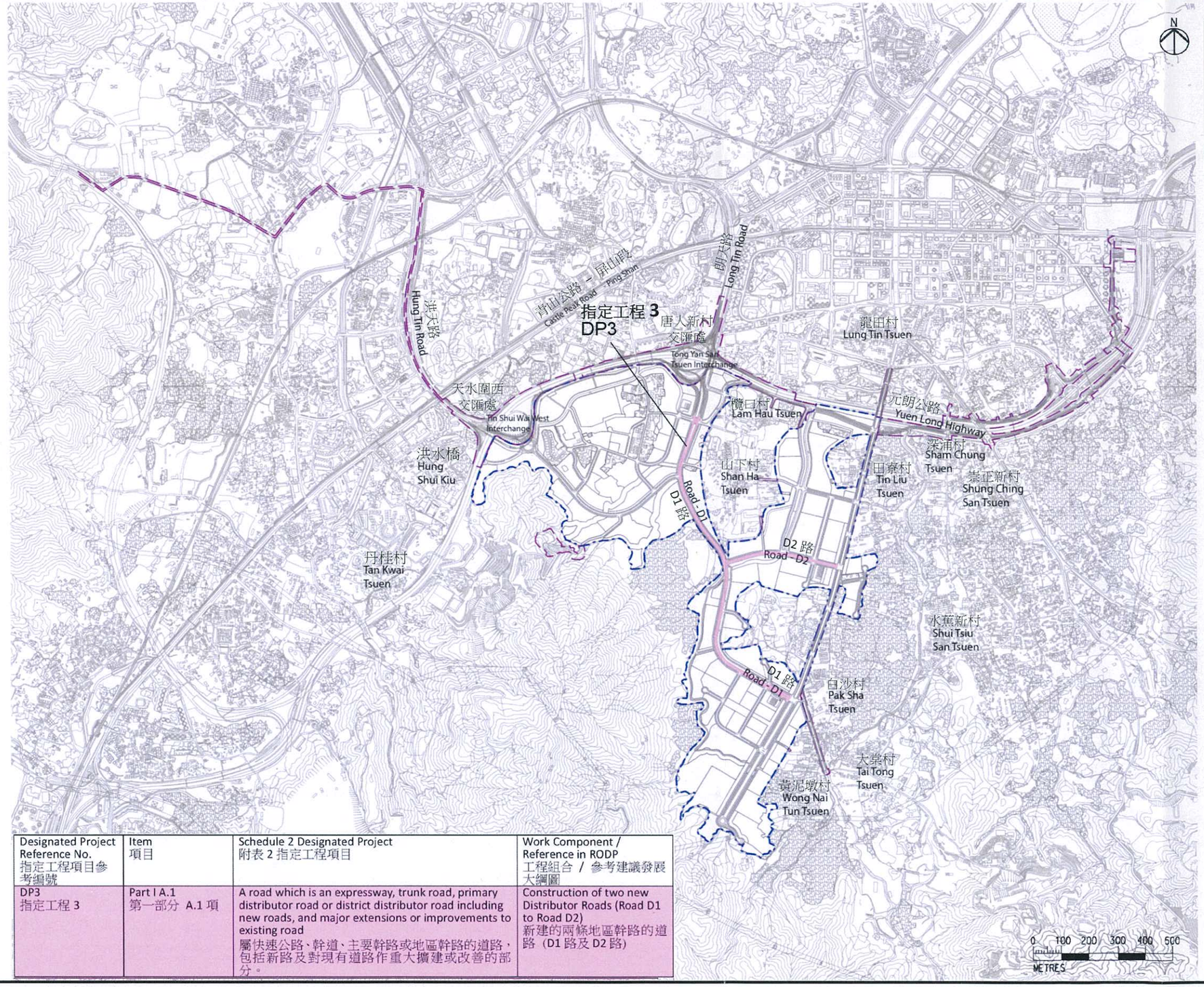
28/04/2022

A3 297mm x 420mm

Appendix B

Schedule 2 Designated Projects

under YLS First Phase Development

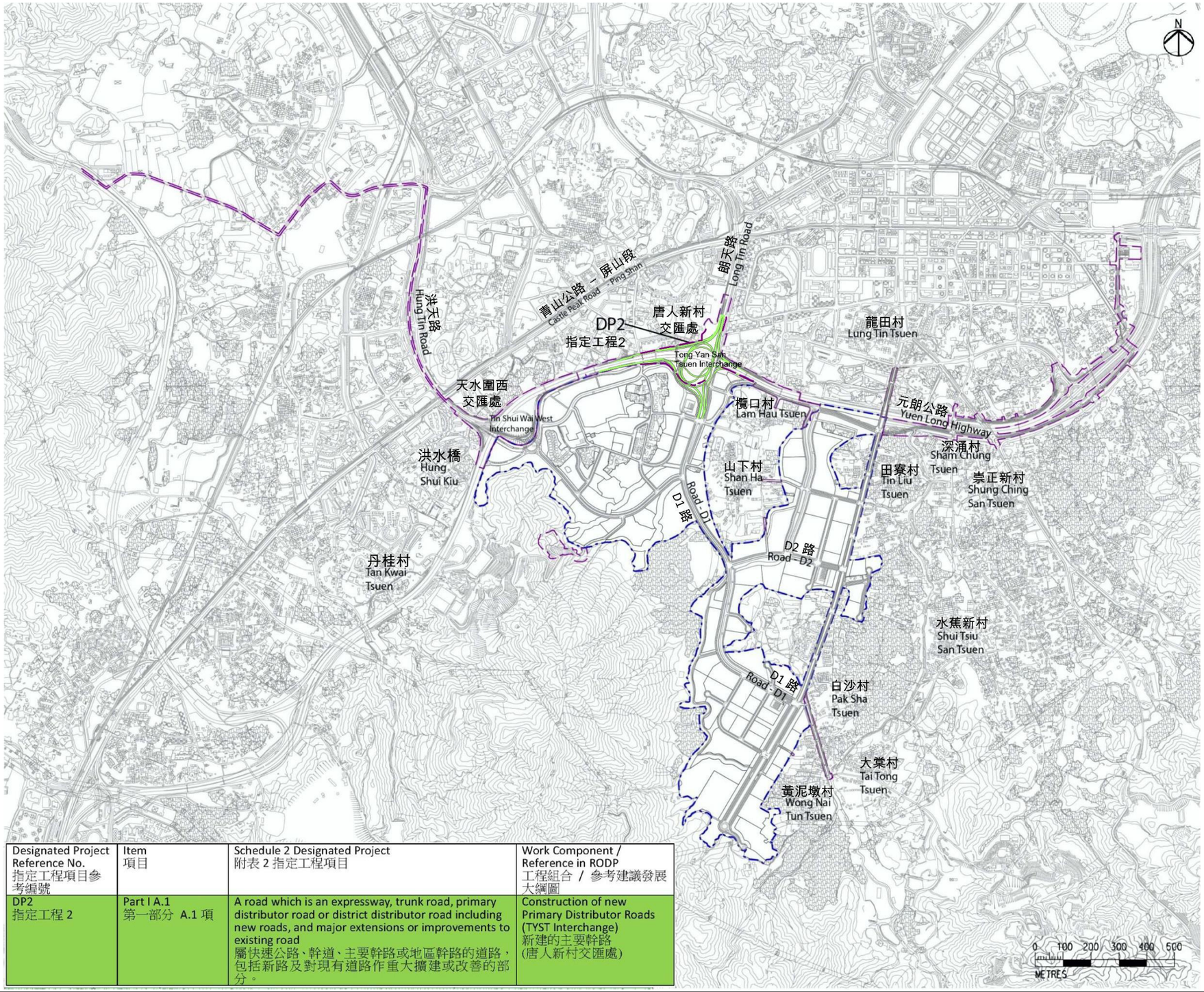


Designated Project Reference No. 指定工程項目參考編號	Item 項目	Schedule 2 Designated Project 附表 2 指定工程項目	Work Component / Reference in RODP 工程組合 / 參考建議發展大綱圖
DP3 指定工程 3	Part I A.1 第一部分 A.1 項	A road which is an expressway, trunk road, primary distributor road or district distributor road including new roads, and major extensions or improvements to existing road 屬快速公路、幹道、主要幹路或地區幹路的道路，包括新路及對現有道路作重大擴建或改善的部分。	Construction of two new Distributor Roads (Road D1 to Road D2) 新建的兩條地區幹路的道路（D1 路及 D2 路）

Project Title: Construction of Two New District Distributor Roads (Road D1 to Road D2) for Housing Sites in Yuen Long South
工程項目名稱：元朗南房屋用地新建的兩條地區幹路（D1 路 - D2 路）

Figure 1: Project Location Plan
圖 1：工程項目位置圖

Environmental Permit No. : EP-549/2018
環境許可證編號 : EP-549/2018



Designated Project Reference No. 指定工程項目參考編號	Item 項目	Schedule 2 Designated Project 附表 2 指定工程項目	Work Component / Reference in RODP 工程組合 / 參考建議發展大綱圖
DP2 指定工程 2	Part I A.1 第一部分 A.1 項	A road which is an expressway, trunk road, primary distributor road or district distributor road including new roads, and major extensions or improvements to existing road 屬快速公路、幹道、主要幹路或地區幹路的道路，包括新路及對現有道路作重大擴建或改善的部分。	Construction of new Primary Distributor Roads (TYST Interchange) 新建的主要幹路 (唐人新村交匯處)

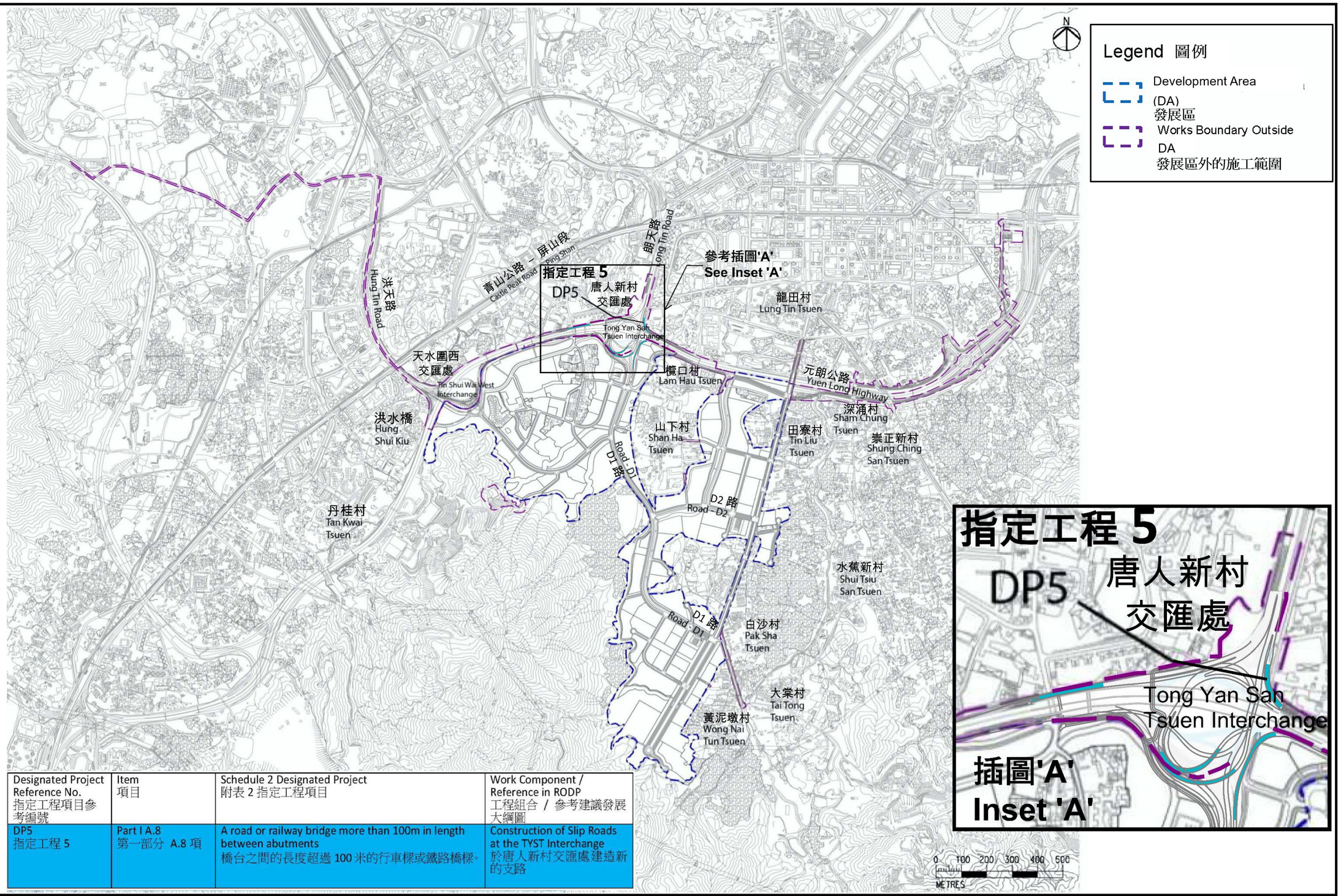
Legend 圖例

- Development Area (DA) 發展區
- Works Boundary Outside DA 發展區外的施工範圍

Project Title: Construction of New Primary Distributor Roads (Tong Yan San Tsuen Interchange) for Housing Sites in Yuen Long South
工程項目名稱：元朗南房屋用地新建的主要幹路（唐人新村交匯處）

Figure 1: Project Location Plan
圖 1：工程項目位置圖

Environmental Permit No. : EP-548/2018/A
環境許可證編號 : EP-548/2018/A

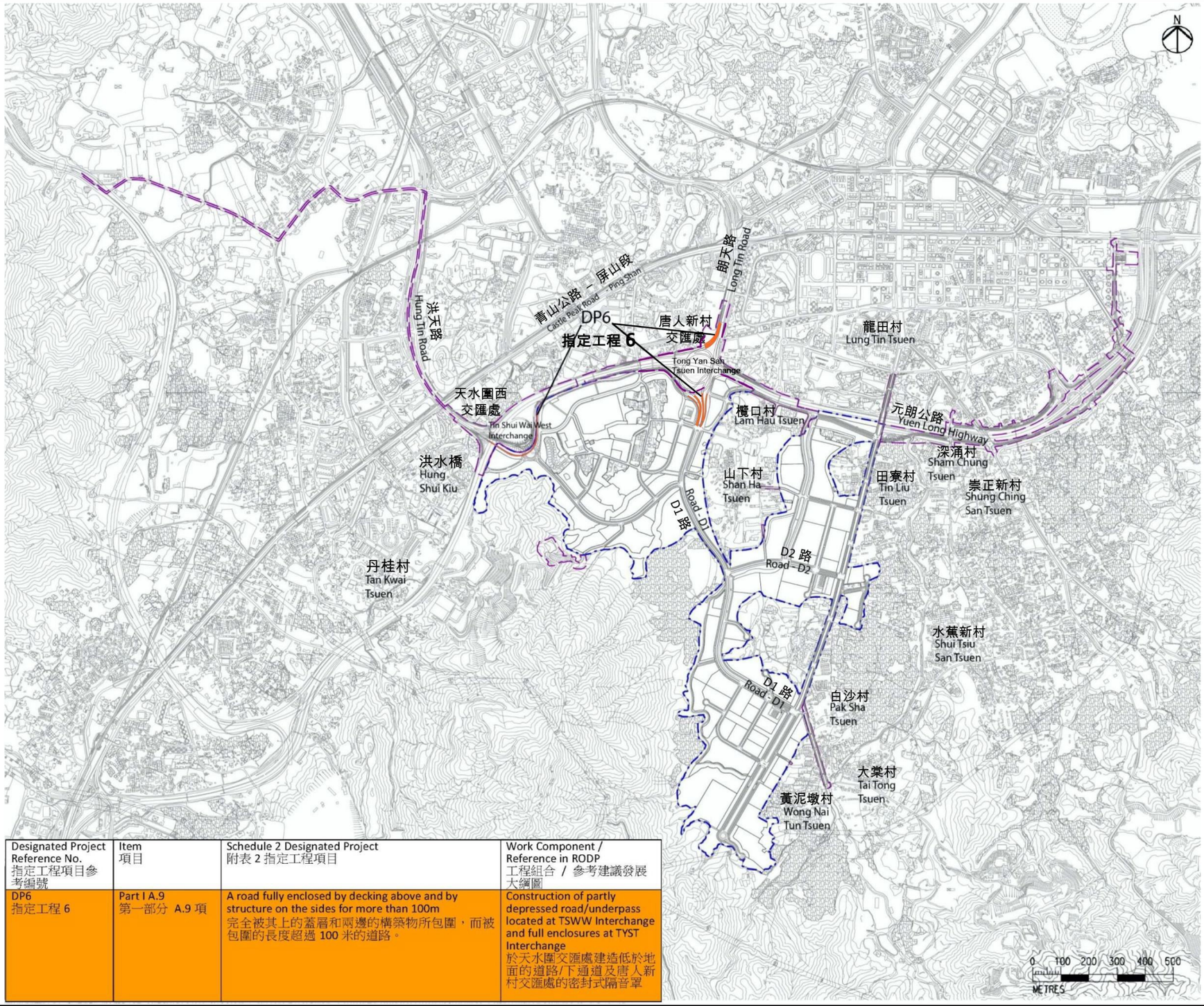


Designated Project Reference No. 指定工程項目參考編號	Item 項目	Schedule 2 Designated Project 附表 2 指定工程項目	Work Component / Reference in RODP 工程組合 / 參考建議發展大綱圖
DP5 指定工程 5	Part I A.8 第一部分 A.8 項	A road or railway bridge more than 100m in length between abutments 橋台之間的長度超過 100 米的行車樑或鐵路橋樑。	Construction of Slip Roads at the TYST Interchange 於唐人新村交匯處建造新的支路

Project Title : Construction of Slip Roads at Tong Yan San Tsuen Interchange for Housing Sites in Yuen Long South
工 程 項 目 名 稱 : 元朗南房屋用地新建在唐人新村交匯處的支路

Figure 1: Project Location Plan
圖 1 : 工程項目位置圖

Environmental Permit No. : EP-550/2018A
環境許可證編號 : EP-550/2018A

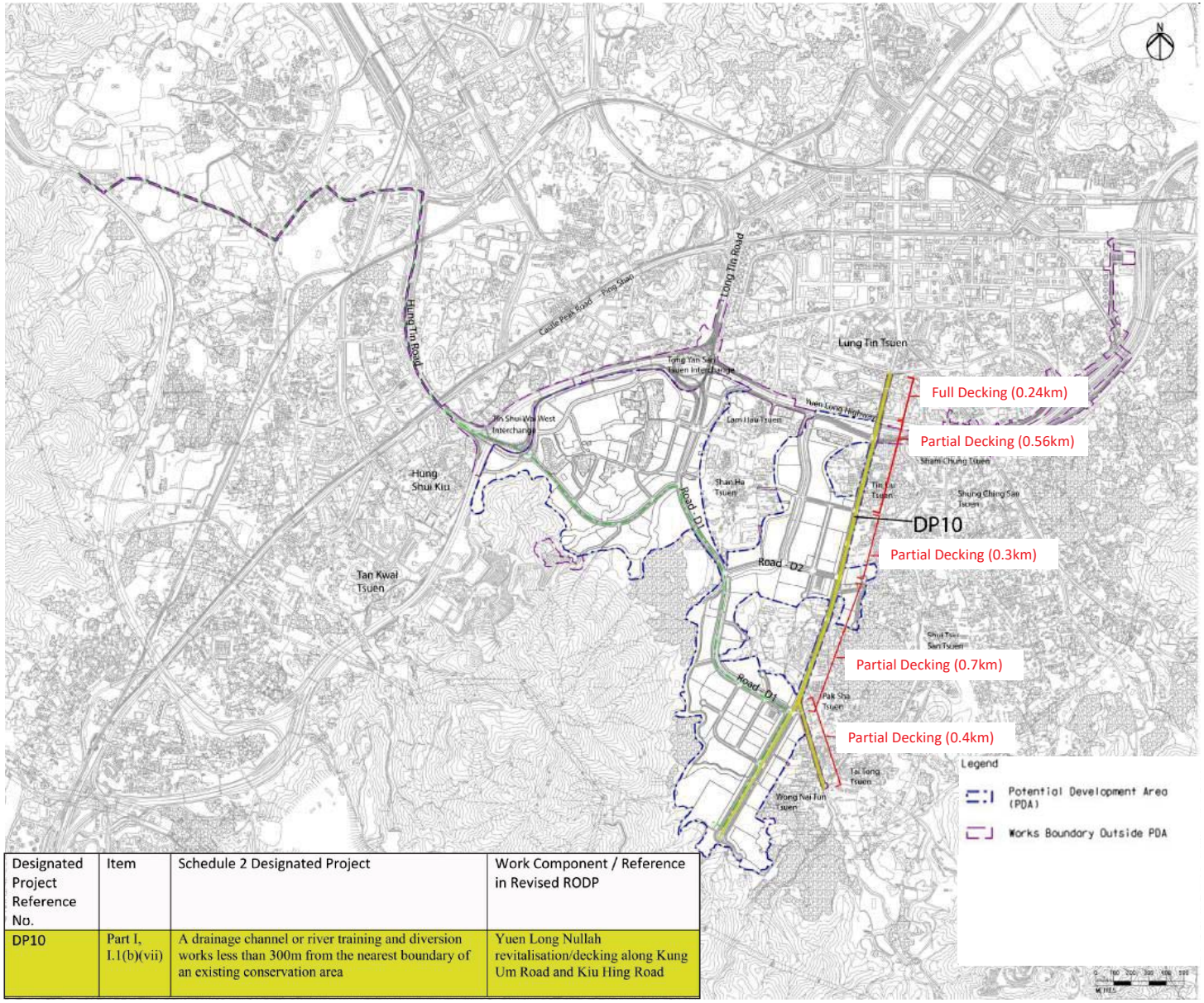


Designated Project Reference No. 指定工程項目參考編號	Item 項目	Schedule 2 Designated Project 附表 2 指定工程項目	Work Component / Reference in RODP 工程組合 / 參考建議發展大綱圖
DP6 指定工程 6	Part I A.9 第一部分 A.9 項	A road fully enclosed by decking above and by structure on the sides for more than 100m 完全被其上的蓋層和兩邊的構築物所包圍，而被包圍的長度超過 100 米的道路。	Construction of partly depressed road/underpass located at TSWW Interchange and full enclosures at TYST Interchange 於天水圍交匯處建造低於地面的道路/下通道及唐人新村交匯處的密封式隔音罩

Project Title : Construction of Partly Depressed Road / Underpass Located at Tin Shui Wai West Interchange and Full Enclosures at Tong Yan San Tsuen Interchange for Housing Sites in Yuen Long South
工程項目名稱 : 元朗南房屋用地建造於天水圍西交匯處的部分沉降道路/隧道及於唐人新村交匯處的密封式隔音罩

Figure 1: Project Location Plan
圖 1 : 工程項目位置圖

Environmental Permit No. : EP-551/2018A
環境許可證編號 : EP-551/2018A



Designated Project Reference No.	Item	Schedule 2 Designated Project	Work Component / Reference in Revised RODP
DP10	Part I, I.1(b)(vii)	A drainage channel or river training and diversion works less than 300m from the nearest boundary of an existing conservation area	Yuen Long Nullah revitalisation/decking along Kung Um Road and Kiu Hing Road

Project Title: Yuen Long Nullah Revitalisation/Decking along Kung Um Road and Kiu Hing Road for Housing Sites in Yuen Long South
工程項目名稱 ： 元朗南房屋用地沿公庵路及僑興路的元朗明渠活化/加建上蓋工程

Figure 1a: Project Location Plan
圖 1a：工程項目位置圖

Environmental Permit No. : EP-553/2018A
環境許可證編號 : EP-553/2018A

Appendix C

Project Organization and the key personal contact

Contact Details of Key Personnel for Contract YL/2021/03 (Contract 1)

Organization	Project Role	Name of Key Staff	Tel No.	Fax No.
CEDD	Project Proponent	Mr. NG Kam Leung, Julian	2158 5612	2693 2918
AECOM	Chief Resident Engineer	Mr. Alex Chan	5208 5837	3549 5678
Tung Lee	Construction Manager	Mr. Lam Wai Hong, Eric	6097 5644	2352 6740
Tung Lee	Site Agent	Mr. Chan Tan Kit	9681 8144	2352 6740
Tung Lee	Environmental Officer	Mr. Liu Ho Kan	6900 3526	2352 6740
Tung Lee	Environmental Supervisor	Mr. Kam Yun Sang, Johnny	6178 4786	2352 6740
Telemax	Independent Environmental Checker	Ir. Neslon Tam	9626 1239	3563 7018
Ford	Environmental Team Leader	Mr. Tam Tak Wing	2959 6059	2959 6079
Ford	Deputy Environmental Team Leader	Mr. Ben Tam	2959 6059	2959 6079
Ford	Environmental Consultant	Ms. Nicola Hon	2959 6059	2959 6079

Legend:

CEDD - (Project Proponent) – Civil Engineering and Development Department

AECOM - (Consultant) – AECOM Asia Company Limited

Telemax (IEC) – Telemax Environmental and Energy Management Ltd

Ford (ET) – Ford Business International Limited

Tung Lee - (the Contractor of the Contract YL/2021/04) – Tung Lee Engineering Co.

Contact Details of Key Personnel for Contract YL/2021/04 (Contract 2)

Organization	Project Role	Name of Key Staff	Tel No.	Fax No.
CEDD	Project Proponent	Mr. NG Kam Leung, Julian	2158 5612	2693 2918
AECOM	Chief Resident Engineer	Alex Chan	5208 5837	3549 5678
CREC - JV	Project Manager	Albert Yau	6468 7702	3549 5679
CREC - JV	Construction Manager	Stephen Lee	9641 5345	3549 5679
CREC - JV	Site Agent	Jim Ko	9632 9163	3549 5679
CREC - JV	Environmental Officer	Kelvin Cheung	9060 1020	3549 5679
CREC - JV	Environmental Supervisor	Karen Leung	5239 3606	3549 5679
Telemax	Independent Environmental Checker	Ir. Neslon Tam	9626 1239	3563 7018
Ford	Environmental Team Leader	Tam Tak Wing	2959 6059	2959 6079
Ford	Deputy Environmental Team Leader	Ben Tam	2959 6059	2959 6079
Ford	Environmental Consultant	Nicola Hon	2959 6059	2959 6079

Legend:

CEDD - (Project Proponent) – Civil Engineering and Development Department

AECOM - (Consultant) – AECOM Asia Company Limited

Telemax (IEC) – Telemax Environmental and Energy Management Ltd

Ford (ET) – Ford Business International Limited

Contact Details of Key Personnel for Contract YL/2022/01 (Contract 3)

Organization	Project Role	Name of Key Staff	Tel No.	Fax No.
CEDD	Project Proponent	Mr. NG Kam Leung, Julian	2158 5612	2693 2918
AECOM	Chief Resident Engineer	Mr. Barry Lee	2349 5665	3549 5678
CRBC	Project Manager	Rayment Suen	9779 8871	3905 8562
CRBC	Deputy Construction Manager	Zheng Lei	5335 0451	3905 8562
CRBC	Site Agent	Danil Wong	53359572	3905 8562
CRBC	Environmental Officer	Calvin So	9724 6254	3905 8562
CRBC	Environmental Supervisor	Elvis Leung	6995 9685	3905 8562
Telemax	Independent Environmental Checker	Ir. Neslon Tam	9626 1239	3563 7018
Ford	Environmental Team Leader	Tam Tak Wing	2959 6059	2959 6079
Ford	Deputy Environmental Team Leader	Ben Tam	2959 6059	2959 6079
Ford	Environmental Consultant	Nicola Hon	2959 6059	2959 6079

Legend:

CEDD - (Project Proponent) – Civil Engineering and Development Department

AECOM - (Consultant) – AECOM Asia Company Limited

Telemax (IEC) – Telemax Environmental and Energy Management Ltd

Ford (ET) – Ford Business International Limited

CRBC - JV (the Contractor of the Contract YL/2022/01) – China Road and Bridge Corporation

Appendix D

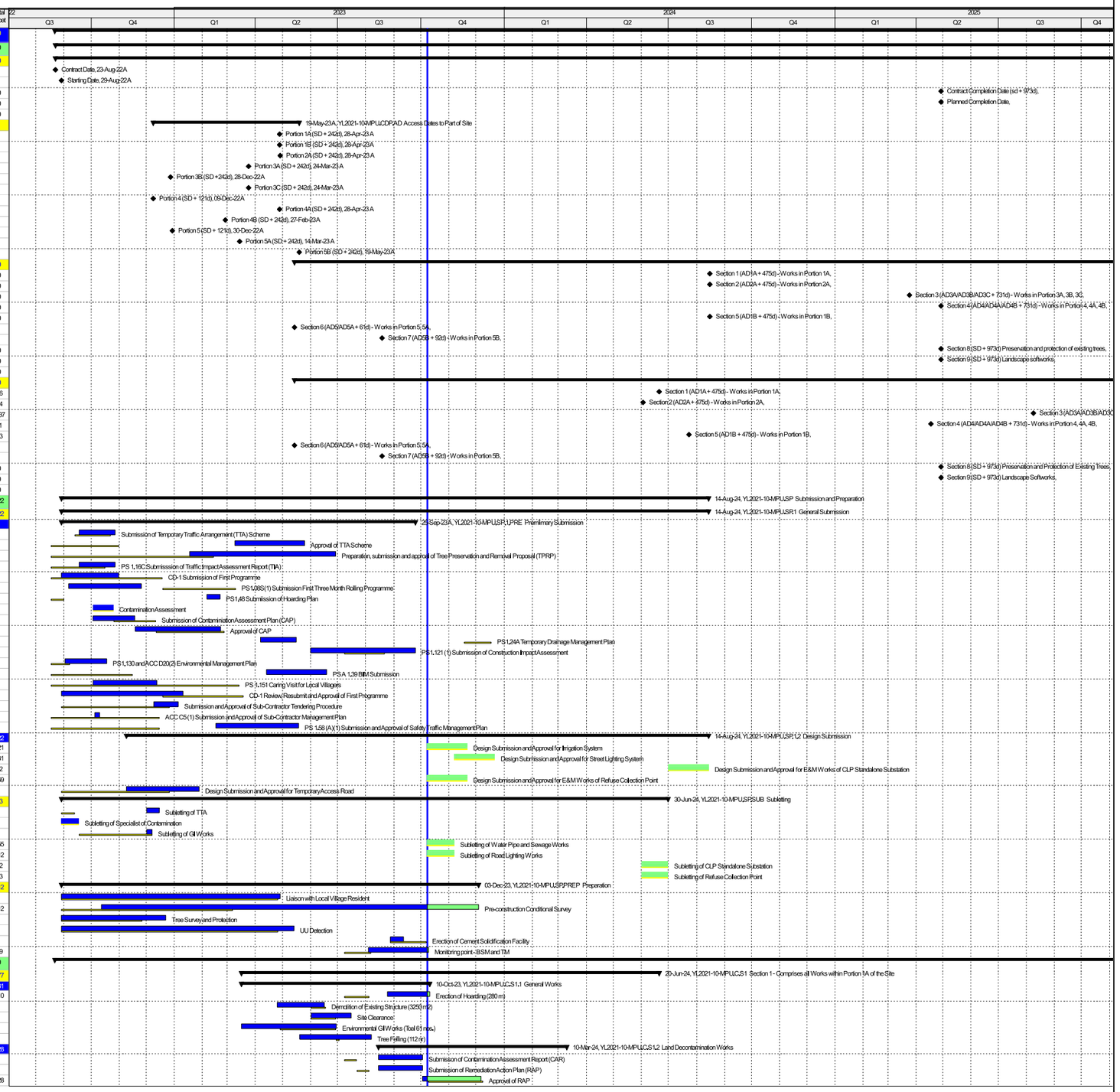
3-month Rolling Construction Programme

(I) Contract 1
(II) Contract 2
(III) Contract 3

3-month Rolling Construction Programme of Contract 1

Contract No. YL/2021/03 - Site Formation and Infrastrcture Works for Yuen Long South First Phase Development - Contract 1
REVISED PROGRAME (REV. 8) (OCT 2023)

#	Activity ID	Activity Name	Original Duration	Actual Duration	Start	Finish	Late Start	Late Finish	Actual Start	Actual Finish	% Complete	Total Float
1	YL2021-10-MPU	Contract No. YL/2021/03	1350	414	22-Aug-22A	28-Apr-26	24-May-23	28-Apr-26	22-Aug-22		30.81%	0
2	YL2021-10-MPU.CDP	Contract Data Part 1	1350	361	23-Aug-22A	28-Apr-26	19-Oct-23	28-Apr-26	23-Aug-22		48.52%	0
3	YL2021-10-MPU.CDRG	General	1350	6	23-Aug-22A	28-Apr-26	19-Oct-23	28-Apr-26	23-Aug-22		72.98%	0
4	G0-CD	Contract Date	0	0	23-Aug-22A		19-Oct-23		23-Aug-22		100%	
5	G1-SD	Starting Date	0	0	29-Aug-22A		19-Oct-23		29-Aug-22		100%	
6	G2-CD1	Contract Completion Date (sd + 973d)	0	0		28-Apr-25*		28-Apr-25			0%	0
7	G2-CD2	Planned Completion Date	0	0		28-Apr-25*		28-Apr-25			0%	0
8	G3-EW	Establishment Works (365d)	0	0		28-Apr-26*		28-Apr-26			0%	0
9	YL2021-10-MPU.CDRAD	Access Dates to Part of Site	211	161	09-Dec-22A	19-May-23A	20-Oct-23	28-Apr-26	09-Dec-22	19-May-23	100%	
10	AD1A	Portion 1A (SD + 242d)	0	0	28-Apr-23A		12-Feb-24		28-Apr-23		100%	
11	AD1B	Portion 1B (SD + 242d)	0	0	28-Apr-23A		31-Oct-23		28-Apr-23		100%	
12	AD2A	Portion 2A (SD + 242d)	0	0	28-Apr-23A		28-Nov-23		28-Apr-23		100%	
13	AD3A	Portion 3A (SD + 242d)	0	0	24-Mar-23A		20-Oct-23		24-Mar-23		100%	
14	AD3B	Portion 3B (SD +242d)	0	0	28-Dec-22A		20-Oct-23		28-Dec-22		100%	
15	AD3C	Portion 3C (SD + 242d)	0	0	24-Mar-23A		20-Oct-23		24-Mar-23		100%	
16	AD4	Portion 4 (SD + 121d)	0	0	09-Dec-22A		15-Sep-24		09-Dec-22		100%	
17	AD4A	Portion 4A (SD + 242d)	0	0	28-Apr-23A		28-Apr-26		28-Apr-23		100%	
18	AD4B	Portion 4B (SD + 242d)	0	0	27-Feb-23A		20-Oct-23		27-Feb-23		100%	
19	AD5	Portion 5 (SD + 121d)	0	0	30-Dec-22A		28-Apr-26		30-Dec-22		100%	
20	AD5A	Portion 5A (SD + 242d)	0	0	14-Mar-23A		28-Apr-26		14-Mar-23		100%	
21	AD5B	Portion 5B (SD + 242d)	0	0	19-May-23A		28-Apr-26		19-May-23		100%	
22	YL2021-10-MPU.CDRCD	Contract Section Completion Date	964	97	14-May-23A	28-Apr-26	15-Aug-24	28-Apr-26	14-May-23		35.28%	0
23	S01	Section 1 (AD1A + 475d) - Works in Portion 1A	0	0		15-Aug-24*		15-Aug-24			0%	0
24	S02	Section 2 (AD2A + 475d) - Works in Portion 2A	0	0		15-Aug-24*		15-Aug-24			0%	0
25	S03	Section 3 (AD3A/AD3B/AD3C + 731d) - Works in Portion 3A, 3B, 3C	0	0		24-Mar-25*		24-Mar-25			0%	0
26	S04	Section 4 (AD4/AD4A/AD4B + 731d) - Works in Portion 4, 4A, 4B	0	0		28-Apr-25*		28-Apr-25			0%	0
27	S05	Section 5 (AD1B + 475d) - Works in Portion 1B	0	0		15-Aug-24*		15-Aug-24			0%	0
28	S06	Section 6 (AD5/AD5A + 61d) - Works in Portion 5, 5A	0	0		14-May-23A		28-Apr-26		14-May-23	100%	
29	S07	Section 7 (AD5B + 92d) - Works in Portion 5B	0	0		19-Aug-23A		28-Apr-26		19-Aug-23	100%	
30	S08	Section 8 (SD + 973d) Preservation and protection of existing trees	0	0		28-Apr-25*		28-Apr-25			0%	0
31	S09	Section 9 (SD + 973d) Landscape softworks	0	0		28-Apr-25*		28-Apr-25			0%	0
32	S10	Section 10 (S9 + 365d) Establishment	0	0		28-Apr-26*		28-Apr-26			0%	0
33	YL2021-10-MPU.CDRPCD	Planned Section Completion Date	964	97	14-May-23A	28-Apr-26	15-Aug-24	28-Apr-26	14-May-23		27.9%	0
34	PS01	Section 1 (AD1A + 475d) - Works in Portion 1A	0	0		20-Jun-24*		15-Aug-24			0%	55
35	PS02	Section 2 (AD2A + 475d) - Works in Portion 2A	0	0		02-Jun-24*		15-Aug-24			0%	74
36	PS03	Section 3 (AD3A/AD3B/AD3C + 731d) - Works in Portion 3A, 3B, 3C	0	0		08-Aug-25*		24-Mar-25			0%	-137
37	PS04	Section 4 (AD4/AD4A/AD4B + 731d) - Works in Portion 4, 4A, 4B	0	0		17-Apr-25*		28-Apr-25			0%	11
38	PS05	Section 5 (AD1B + 475d) - Works in Portion 1B	0	0		23-Jul-24*		15-Aug-24			0%	23
39	PS06	Section 6 (AD5/AD5A + 61d) - Works in Portion 5, 5A	0	0		14-May-23A		28-Apr-26		14-May-23	100%	
40	PS07	Section 7 (AD5B + 92d) - Works in Portion 5B	0	0		19-Aug-23A		28-Apr-26		19-Aug-23	100%	
41	PS08	Section 8 (SD + 973d) Preservation and Protection of Existing Trees	0	0		28-Apr-25*		28-Apr-25			0%	0
42	PS09	Section 9 (SD + 973d) Landscape Softworks	0	0		28-Apr-25*		28-Apr-25			0%	0
43	PS10	Section 10 (S9 + 365d) Establishment	0	0		28-Apr-26*		28-Apr-26			0%	0
44	YL2021-10-MPU.SP	Submission and Preparation	728	405	29-Aug-22A	14-Aug-24	19-Oct-23	28-Apr-26	29-Aug-22		57.14%	622
45	YL2021-10-MPU.SR1	General Submission	728	392	29-Aug-22A	14-Aug-24	19-Oct-23	28-Apr-26	29-Aug-22		57.14%	622
46	YL2021-10-MPU.SR1.PRE	Preliminary Submission	487	392	29-Aug-22A	25-Sep-23A	19-Oct-23	28-Apr-26	29-Aug-22	25-Sep-23	100%	
47	PRE-010	Submission of Temporary Traffic Arrangement (TTA) Scheme	40	40	18-Sep-22A	27-Oct-22A	20-Oct-23	20-Oct-23	18-Sep-22	27-Oct-22	100%	
48	PRE-011	Approval of TTA Scheme	75	78	09-Mar-23A	25-May-23A	20-Oct-23	20-Oct-23	09-Mar-23	25-May-23	100%	
49	PRE-015	Preparation, submission and approval of Tree Preservation and Removal Proposal (TPRP)	180	162	18-Jan-23A	26-Jun-23A	19-Oct-23	19-Oct-23	18-Jan-23	26-Jun-23	100%	
50	PRE-020	PS 1,16C Submission of Traffic Impact Assessment Report (TIA)	60	40	18-Sep-22A	27-Oct-22A	20-Oct-23	20-Oct-23	18-Sep-22	27-Oct-22	100%	
51	PRE-030	CD-1 Submission of First Programme	123	64	29-Aug-22A	31-Oct-22A	28-Apr-25	28-Apr-25	29-Aug-22	31-Oct-22	100%	
52	PRE-040	PS1,08S(1) Submission First Three Month Rolling Programme	81	81	06-Sep-22A	25-Nov-22A	28-Apr-25	28-Apr-25	06-Sep-22	25-Nov-22	100%	
53	PRE-050	PS1,4B Submission of Hoarding Plan	14	15	06-Feb-23A	20-Feb-23A	05-Dec-24	05-Dec-24	06-Feb-23	20-Feb-23	100%	
54	PRE-055	Contamination Assessment	23	23	03-Oct-22A	25-Oct-22A	20-Oct-23	20-Oct-23	03-Oct-22	25-Oct-22	100%	
55	PRE-060	Submission of Contamination Assessment Plan (CAP)	47	47	03-Oct-22A	18-Nov-22A	20-Oct-23	20-Oct-23	03-Oct-22	18-Nov-22	100%	
56	PRE-061	Approval of CAP	76	95	19-Nov-22A	21-Feb-23A	20-Oct-23	20-Oct-23	19-Nov-22	21-Feb-23	100%	
57	PRE-080	PS1,24A Temporary Drainage Management Plan	30	40	06-Apr-23A	16-May-23A	28-Apr-26	28-Apr-26	06-Apr-23	16-May-23	100%	
58	PRE-090	PS1,12(1) Submission of Construction Impact Assessment	45	116	01-Jun-23A	25-Sep-23A	28-Apr-25	28-Apr-25	01-Jun-23	25-Sep-23	100%	
59	PRE-100	PS1,13(0 and ACC D20(2) Environmental Management Plan	21	47	02-Sep-22A	18-Oct-22A	28-Apr-25	28-Apr-25	02-Sep-22	18-Oct-22	100%	
60	PRE-110	PS A 1,39 BIM Submission	90	67	13-Apr-23A	19-Jun-23A	28-Apr-25	28-Apr-25	13-Apr-23	19-Jun-23	100%	
61	PRE-120	PS 1,151 Caring Visit for Local Villagers	208	71	03-Oct-22A	12-Dec-22A	28-Apr-25	28-Apr-25	03-Oct-22	12-Dec-22	100%	
62	PRE-156	CD-1 Review, Resubmit and Approval of First Programme	90	135	29-Aug-22A	10-Jan-23A	28-Apr-25	28-Apr-25	29-Aug-22	10-Jan-23	100%	
63	PRE-157	Submission and Approval of Sub-Contractor Tendering Procedure	120	28	09-Dec-22A	05-Jan-23A	16-Feb-24	16-Feb-24	09-Dec-22	05-Jan-23	100%	
64	PRE-158	ACC C5 (1) Submission and Approval of Sub-Contractor Management Plan	120	6	05-Oct-22A	10-Oct-22A	16-Feb-24	16-Feb-24	05-Oct-22	10-Oct-22	100%	
65	PRE-159	PS 1,58 (A) 1) Submission and Approval of Safety Traffic Management Plan	120	92	16-Feb-23A	18-May-23A	20-Oct-23	20-Oct-23	16-Feb-23	18-May-23	100%	
66	YL2021-10-MPU.SR1.2	Design Submission	717	81	09-Nov-22A	14-Aug-24	05-Feb-24	28-Apr-26	09-Nov-22		55.40%	622
67	PRE-130	Design Submission and Approval for Irrigation System	45	0	08-Oct-23*	21-Nov-23	05-Feb-24	21-Mar-24			0%	121
68	PRE-135	Design Submission and Approval for Street Lighting System	45	0	07-Nov-23*	21-Dec-23	17-Mar-24	30-Apr-24			0%	131
69	PRE-150	Design Submission and Approval for E&M Works of CLP Standalone Substation	45	0	01-Jul-24	14-Aug-24	23-Jul-24	05-Sep-24			0%	22
70	PRE-155	Design Submission and Approval for E&M Works of Refuse Collection Point	45	0	08-Oct-23*	21-Nov-23	11-Oct-24	24-Nov-24			0%	369
71	PRE-170	Design Submission and Approval for Temporary Access Road	120	81	09-Nov-22A	28-Jan-23A	28-Apr-26	28-Apr-26	09-Nov-22	28-Jan-23	100%	
72	YL2021-10-MPU.SPSUB	Subletting	672	109	29-Aug-22A	30-Jun-24	20-Oct-23	22-Aug-24	29-Aug-22		60.27%	53
73	SUB-010	Subletting of TTA	15	15	01-Dec-22A	15-Dec-22A	20-Oct-23	20-Oct-23	01-Dec-22	15-Dec-22	100%	
74	SUB-040	Subletting of Specialist of Contamination	20	20	29-Aug-22A	17-Sep-22A	20-Oct-23	20-Oct-23	29-Aug-22	17-Sep-22	100%	
75	SUB-050	Subletting of GII Works	81	7	01-Dec-22A	07-Dec-22A	20-Oct-23	20-Oct-23	01-Dec-22	07-Dec-22	100%	
76	SUB-060	Subletting of Water Pipe and Sewage Works	30	0	08-Oct-23	06-Nov-23	19-Jun-24	18-Jul-24			0%	255
77	SUB-065	Subletting of Road Lighting Works	30	0	08-Oct-23	06-Nov-23	16-Feb-24	16-Mar-24			0%	212
78	SUB-080	Subletting of CLP Standalone Substation	30	0	01-Jun-24*	30-Jun-24	23-Jun-24	22-Jul-24			0%	22
79	SUB-090	Subletting of Refuse Collection Point	30	0	01-Jun-24	30-Jun-24*	24-Jul-24	22-Aug-24			0%	53
80	YL2021-10-MPU.SPPREP	Preparation	404	405	29-Aug-22A	03-Dec-23	19-Oct-23	28-Apr-25	29-Aug-22		85.89%	512
81	PREP-010	Liaison with Local Village Resident	240	243	29-Aug-22A	28-Apr-23A	28-Apr-25	28-Apr-25	29-Aug-22	28-Apr-23	100%	
82	PREP-020	Pre-construction Conditional Survey	190	361	12-Oct-22A	03-Dec-23	03-Mar-25	28-Apr-25	12-Oct-22		70%	512
83	PREP-030	Tree Survey and Protection	90	116	29-Aug-22A	22-Dec-22A	19-Oct-23	19-Oct-23	29-Aug-22	22-Dec-22	100%	
84	PREP-040	UU Detection	240	258	29-Aug-22A	13-May-23A	28-Apr-25	28-Apr-25	29-Aug-22	13-May-23	100%	
85	PREP-050	Erection of Cement Solidification Facility	40	15	28-Aug-23A	12-Sep-23A	09-Apr-24	09-Apr-24	28-Aug-23	12-Sep-23	100%	
86	PREP-070	Monitoring point - BSM and TM	30	65	04-Aug-23A	09-Oct-23	15-Nov-23	16-Nov-23	04-Aug-23		95%	39
87	YL2021-10-MPU.C	Construction	1339	414	22-Aug-22A	28-Apr-26	24-May-23	28-Apr-26	22-Aug-22		30.25%	0
88	YL2021-10-MPU.C.S1	Section 1 - Comprises all Works within Portion 1A of the Site	420	208	16-Mar-23A	20-Jun-24	03-Dec-23	28-Apr-26	16-Mar-23		35.81%	677
89	YL2021-10-MPU.C.S1.1	General Works	99	206	16-Mar-23A	10-Oct-23	13-Feb-24	28-Apr-26	16-Mar-23		97.17%	931
90	WS1-010	Erection of Hoarding (280 m)	28	44	25-Aug-23A	10-Oct-23	13-Aug-24	15-Aug-24	25-Aug-23		90%	310
91	WS1-020	Demolition of Existing Structure (3250 m2)	17	52	25-Apr-23A	16-Jun-23A	28-Apr-26	28-Apr-26	25-Apr-23	16-Jun-23	100%	
92	WS1-030	Site Clearance	28	45	01-Jun-23A	16-Jul-23A	15-Aug-24	15-Aug-24	01-Jun-23	16-Jul-23	100%	
93	WS1-040	Environmental GII Works (Toal 61 nos.)	62	106	16-Mar-23A	29-Jun-23A	13-Feb-24	13-Feb-24	16-Mar-23	29-Jun-23	100%	
94	WS1-050	Tree Felling (112 nr)	4	79	20-May-23A	07-Aug-23A	13-Apr-24	13-Apr-24	20-May-23	07-Aug-23	100%	
95	YL2021-10-MPU.C.S1.2	Land Decontamination Works	247	54	15-Aug-23A	10-Mar-24	13-Feb-24	16-Jul-24	15-Aug-23		37.25%	128
96	WS1-045	Submission of Contamination Assessment Report (CAR)	14	49	15-Aug-23A	03-Oct-23A	13-Feb-24	13-Feb-24	15-Aug-23	03-Oct-23	100%	
97	WS1-046	Submission of Remediation Action Plan (RAP)	14	49	15-Aug-23A	03-Oct-23A	13-Feb-24	13-Feb-24	15-Aug-23	03-Oct-23	100%	
98	WS1-047	Approval of RAP	60	5	03-Oct-23A	06-Dec-23	13-Feb-24	12-Apr-24	03-Oct-23		0%	128



TUNG LEE ENGINEERING COMPANY

Remaining Level of Effort
Actual Level of Effort
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summary

Contract No. YL/2021/03 - Site Formation and Infrastrcture Works for Yuen Long South First Phase Development - Contract 1
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15-Aug-23	Rev. 6	WCF	YKC
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Contract No. YL/2021/03 - Site Formation and Infrastrcture Works for Yuen Long South First Phase Development - Contract 1
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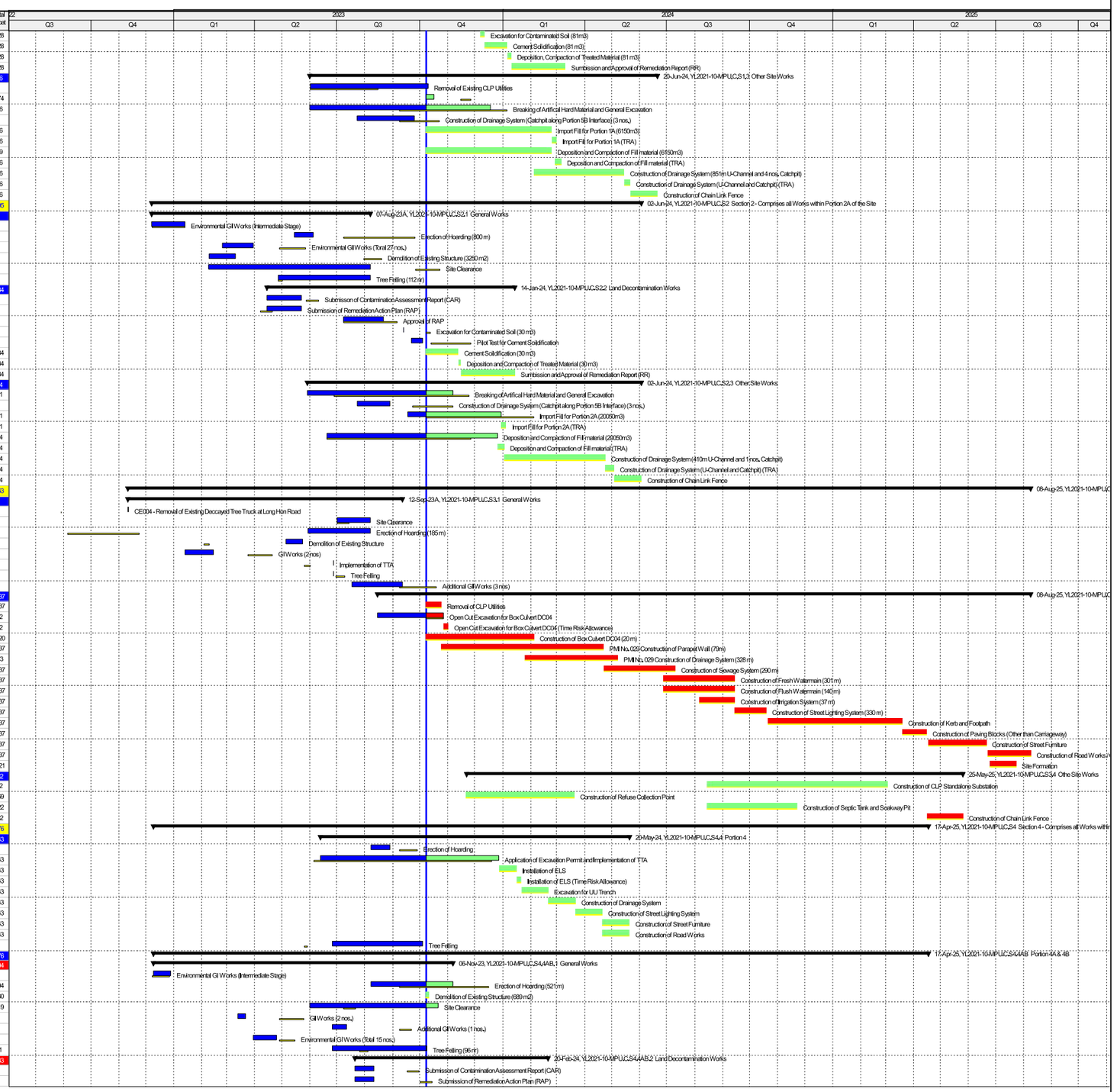
#	Activity ID	Activity Name	Original Duration	Actual Duration	Start	Finish	Late Start	Late Finish	Actual Start	Actual Finish	% Complete	Total Float
99	WS1-060	Excavation for Contaminated Soil (81m3)	5	0	07-Dec-23	11-Dec-23	13-Apr-24	17-Apr-24			0%	128
100	WS1-070	Cement Solidification (81 m3)	25	0	12-Dec-23	05-Jan-24	18-Apr-24	12-May-24			0%	128
101	WS1-080	Deposition, Compaction of Treated Material (81 m3)	5	0	06-Jan-24	10-Jan-24	13-May-24	17-May-24			0%	128
102	WS1-091	Sumbission and Approval of Remediation Report (RR)	60	0	11-Jan-24	10-Mar-24	18-May-24	16-Jul-24			0%	128
103	YL2021-10-MPU.C.S1,3 Other Site Works		399	131	01-Jun-23A	20-Jun-24	03-Dec-23	15-Aug-24	01-Jun-23		33.42%	56
104	WS1-103	Removal of Existing CLP Utilities	76	131	01-Jun-23A	10-Oct-23A	12-Feb-24	12-Feb-24	01-Jun-23	10-Oct-23	100%	
105	WS1-104	Demolition of Existing Structure (P2A-S57 & S58, P1A-S61 & S62)	12	0	18-Oct-23A	16-Oct-23	08-Jul-24	16-Jul-24	18-Oct-23		25%	274
106	WS1-105	Breaking of Artificial Hard Material and General Excavation	120	129	01-Jun-23A	18-Dec-23	03-Dec-23	12-Feb-24	01-Jun-23		40%	56
107	WS1-106	Construction of Drainage System (Catchpit along Portion 5B Interface) (3 nos.)	45	63	24-Jul-23A	25-Sep-23A	01-Apr-24	01-Apr-24	24-Jul-23	25-Sep-23	100%	
108	WS1-107	Import Fill for Portion 1A (6150m3)	140	0	08-Oct-23	24-Feb-24	03-Dec-23	20-Apr-24			0%	56
109	WS1-108	Import Fill for Portion 1A (TRA)	5	0	25-Feb-24	29-Feb-24	21-Apr-24	25-Apr-24			0%	56
110	WS1-109	Deposition and Compaction of Fill material (6150m3)	140	0	08-Oct-23	24-Feb-24	06-Dec-23	23-Apr-24			0%	59
111	WS1-110	Deposition and Compaction of Fill material (TRA)	7	0	28-Feb-24	05-Mar-24	24-Apr-24	30-Apr-24			0%	56
112	WS1-111	Construction of Drainage System (851m U-Channel and 4 nos. Catchpit)	100	0	05-Feb-24	14-May-24	01-Apr-24	09-Jul-24			0%	56
113	WS1-112	Construction of Drainage System (U-Channel and Catchpit) (TRA)	7	0	15-May-24	21-May-24	10-Jul-24	16-Jul-24			0%	56
114	WS1-113	Construction of Chain Link Fence	30	0	22-May-24	20-Jun-24	17-Jul-24	15-Aug-24			0%	55
115	YL2021-10-MPU.C.S2 Section 2 - Comprises all Works within Portion 2A of the Site		543	305	07-Dec-22A	02-Jun-24	28-Nov-23	28-Apr-26	07-Dec-22		55.89%	695
116	YL2021-10-MPU.C.S2.1 General Works		320	243	07-Dec-22A	07-Aug-23A	09-Apr-24	28-Apr-26	07-Dec-22	07-Aug-23	100%	
117	WS2-005	Environmental GI Works (Intermediate Stage)	37	38	07-Dec-22A	13-Jan-23A	09-Apr-24	09-Apr-24	07-Dec-22	13-Jan-23	100%	
118	WS2-010	Erection of Hoarding (800 m)	90	21	15-May-23A	05-Jun-23A	09-Apr-24	09-Apr-24	15-May-23	05-Jun-23	100%	
119	WS2-015	Environmental GI Works (Total 27 nos.)	30	35	24-Feb-23A	30-Mar-23A	09-Apr-24	09-Apr-24	24-Feb-23	30-Mar-23	100%	
120	WS2-020	Demolition of Existing Structure (3250 m2)	20	30	09-Feb-23A	10-Mar-23A	28-Apr-26	28-Apr-26	09-Feb-23	10-Mar-23	100%	
121	WS2-030	Site Clearance	28	179	09-Feb-23A	07-Aug-23A	28-Apr-26	28-Apr-26	09-Feb-23	07-Aug-23	100%	
122	WS2-048	Tree Felling (112 nr)	5	102	27-Apr-23A	07-Aug-23A	09-Apr-24	09-Apr-24	27-Apr-23	07-Aug-23	100%	
123	YL2021-10-MPU.C.S2.2 Land Decontamination Works		283	173	14-Apr-23A	15-Jan-24	09-Apr-24	16-Jul-24	14-Apr-23		65.02%	184
124	WS2-045	Submission of Contamination Assessment Report (CAR)	14	39	14-Apr-23A	22-May-23A	09-Apr-24	09-Apr-24	14-Apr-23	22-May-23	100%	
125	WS2-046	Submission of Remediation Action Plan (RAP)	14	39	14-Apr-23A	22-May-23A	09-Apr-24	09-Apr-24	14-Apr-23	22-May-23	100%	
126	WS2-047	Approval of RAP	60	45	08-Jul-23A	21-Aug-23A	09-Apr-24	09-Apr-24	08-Jul-23	21-Aug-23	100%	
127	WS2-060	Excavation for Contaminated Soil (30 m3)	5	0	13-Sep-23A	13-Sep-23A	09-Apr-24	09-Apr-24	13-Sep-23	13-Sep-23	100%	
128	WS2-065	Pilot Test for Cement Solidification	45	12	22-Sep-23A	04-Oct-23A	09-Apr-24	09-Apr-24	22-Sep-23	04-Oct-23	100%	
129	WS2-070	Cement Solidification (30 m3)	36	0	08-Oct-23	12-Nov-23	09-Apr-24	14-May-24			0%	184
130	WS2-080	Deposition and Compaction of Treated Material (30 m3)	3	0	13-Nov-23	15-Nov-23	15-May-24	17-May-24			0%	184
131	WS2-081	Sumbission and Approval of Remediation Report (RR)	60	0	16-Nov-23	14-Jan-24	18-May-24	16-Jul-24			0%	184
132	YL2021-10-MPU.C.S2.3 Other Site Works		349	132	29-May-23A	02-Jun-24	29-Nov-23	15-Aug-24	29-May-23		31.52%	74
133	WS2-112	Breaking of Artificial Hard Material and General Excavation	150	132	29-May-23A	06-Nov-23	28-Nov-23	27-Dec-23	29-May-23		80%	51
134	WS2-113	Construction of Drainage System (Catchpit along Portion 5B Interface) (3 nos.)	45	36	24-Jul-23A	29-Aug-23A	17-Mar-24	17-Mar-24	24-Jul-23	29-Aug-23	100%	
135	WS2-114	Import Fill for Portion 2A (20050m3)	120	20	18-Sep-23A	30-Dec-23	28-Nov-23	19-Feb-24	18-Sep-23		30%	51
136	WS2-115	Import Fill for Portion 2A (TRA)	5	0	31-Dec-23	04-Jan-24*	20-Feb-24	24-Feb-24			0%	51
137	WS2-116	Deposition and Compaction of Fill material (20050m3)	160	110	20-Jun-23A	26-Dec-23	21-Dec-23	09-Mar-24	20-Jun-23		50%	74
138	WS2-117	Deposition and Compaction of Fill material (TRA)	7	0	27-Dec-23	02-Jan-24	10-Mar-24	16-Mar-24			0%	74
139	WS2-118	Construction of Drainage System (410m U-Channel and 1 nos. Catchpit)	112	0	03-Jan-24	23-Apr-24	17-Mar-24	06-Jul-24			0%	74
140	WS2-119	Construction of Drainage System (U-Channel and Catchpit) (TRA)	10	0	24-Apr-24	03-May-24	07-Jul-24	16-Jul-24			0%	74
141	WS2-120	Construction of Chain Link Fence	30	0	04-May-24	02-Jun-24	17-Jul-24	15-Aug-24			0%	74
142	YL2021-10-MPU.C.S3 Section 3 - Comprises all works Within Portion 3A, 3B 3C		1076	331	11-Nov-22A	08-Aug-25	24-May-23	28-Apr-26	11-Nov-22		37.64%	263
143	YL2021-10-MPU.C.S3.1 General Works		417	305	11-Nov-22A	12-Sep-23A	20-Oct-23	28-Apr-26	11-Nov-22	12-Sep-23	100%	
144	WS3-005	CE004 - Removal of Existing Deccayed Tree Truck at Long Hon Road	1	1	11-Nov-22A	11-Nov-22A	28-Apr-26	28-Apr-26	11-Nov-22	11-Nov-22	100%	
145	WS3-030	Site Clearance	14	37	01-Jul-23A	07-Aug-23A	28-Apr-26	28-Apr-26	01-Jul-23	07-Aug-23	100%	
146	WS3-031	Erection of Hoarding (185 m)	80	69	30-May-23A	07-Aug-23A	24-Mar-25	24-Mar-25	30-May-23	07-Aug-23	100%	
147	WS3-032	Demolition of Existing Structure	7	19	05-May-23A	24-May-23A	20-Oct-23	20-Oct-23	05-May-23	24-May-23	100%	
148	WS3-034	GI Works (2 nos.)	28	32	13-Jan-23A	14-Feb-23A	28-Apr-26	28-Apr-26	13-Jan-23	14-Feb-23	100%	
149	WS3-095	Implementation of TTA	7	1	27-Jun-23A	27-Jun-23A	20-Oct-23	20-Oct-23	27-Jun-23	27-Jun-23	100%	
150	WS3-211	Tree Felling	10	1	27-Jun-23A	27-Jun-23A	20-Oct-23	20-Oct-23	27-Jun-23	27-Jun-23	100%	
151	WS3-216	Additional GI Works (3 nos.)	42	56	18-Jul-23A	12-Sep-23A	28-Apr-26	28-Apr-26	18-Jul-23	12-Sep-23	100%	
152	YL2021-10-MPU.C.S3.3 Drainage, Water and Road Works		671	54	15-Aug-23A	08-Aug-25	24-May-23	24-Mar-25	15-Aug-23		0%	-137
153	WS3-090	Removal of CLP Utilities	17	0	08-Oct-23	24-Oct-23	24-May-23	09-Jun-23			0%	-137
154	WS3-097	Open Cut Excavation for Box Culvert DC04	20	54	15-Aug-23A	27-Oct-23	20-Oct-23	08-Nov-23	15-Aug-23		0%	12
155	WS3-098	Open Cut Excavation for Box Culvert DC04 (Time Risk Allowance)	5	0	28-Oct-23	01-Nov-23	09-Nov-23	13-Nov-23			0%	12
156	WS3-100	Construction of Box Culvert DC04 (20 m)	120	0	08-Oct-23*	04-Feb-24	10-Jun-23	07-Oct-23			0%	-120
157	WS3-105	PM/No. 029 Construction of Parapet Wall (79m)	180	0	25-Oct-23	21-Apr-24	10-Jun-23	06-Dec-23			0%	-137
158	WS3-110	PM/No. 029 Construction of Drainage System (328 m)	103	0	26-Jan-24	07-May-24	14-Nov-23	24-Feb-24			0%	-73
159	WS3-120	Construction of Sewage System (290 m)	80	0	22-Apr-24	10-Jul-24	07-Dec-23	24-Feb-24			0%	-137
160	WS3-130	Construction of Fresh Watermain (301 m)	80	0	27-Jun-24	14-Sep-24	11-Feb-24	30-Apr-24			0%	-137
161	WS3-140	Construction of Flush Watermain (140 m)	80	0	27-Jun-24	14-Sep-24	11-Feb-24	30-Apr-24			0%	-137
162	WS3-150	Construction of Irrigation System (37 m)	40	0	06-Aug-24	14-Sep-24	22-Mar-24	30-Apr-24			0%	-137
163	WS3-155	Construction of Street Lighting System (330 m)	35	0	15-Sep-24	19-Oct-24	01-May-24	04-Jun-24			0%	-137
164	WS3-160	Construction of Kerb and Footpath	150	0	21-Oct-24	19-Mar-25	05-Jun-24	02-Nov-24			0%	-137
165	WS3-161	Construction of Paving Blocks (Other than Carriageway)	28	0	19-Mar-25	15-Apr-25	02-Nov-24	29-Nov-24			0%	-137
166	WS3-170	Construction of Street Furniture	65	0	17-Apr-25	20-Jun-25	01-Dec-24	03-Feb-25			0%	-137
167	WS3-180	Construction of Road Works / Carriageway (4791 m3)	48	0	22-Jun-25	08-Aug-25	05-Feb-25	24-Mar-25			0%	-137
168	WS3-185	Site Formation	30	0	24-Jun-25	23-Jul-25	23-Feb-25	24-Mar-25			0%	-121
169	YL2021-10-MPU.C.S3.4 Othe Site Works		551	0	22-Nov-23	25-May-25	06-Sep-24	24-Mar-25			0%	-62
170	WS3-190	Construction of CLP Standalone Substation	200	0	15-Aug-24*	02-Mar-25	06-Sep-24	24-Mar-25			0%	22
171	WS3-200	Construction of Refuse Collection Point	120	0	22-Nov-23*	20-Mar-24	25-Nov-24	24-Mar-25			0%	369
172	WS3-214	Construction of Septic Tank and Soakway Pit	100	0	15-Aug-24	22-Nov-24	15-Dec-24	24-Mar-25			0%	122
173	WS3-215	Construction of Chain Link Fence	40	0	16-Apr-25*	25-May-25	13-Feb-25	24-Mar-25			0%	-62
174	YL2021-10-MPU.C.S4 Section 4 - Comprises all Works within Portion 4, 4A 4B		862	303	09-Dec-22A	17-Apr-25	19-Oct-23	28-Apr-26	09-Dec-22		35.27%	376
175	YL2021-10-MPU.C.S4.4 Portion 4		361	117	13-Jun-23A	20-May-24	15-Sep-24	28-Apr-25	13-Jun-23		37.4%	343
176	WS4-005	Erection of Hoarding	21	21	08-Aug-23A	29-Aug-23A	05-Dec-24	05-Dec-24	08-Aug-23	29-Aug-23	100%	
177	WS4-010	Application of Excavation Permit and Implementation of TTA	198	117	13-Jun-23A	27-Dec-23	15-Sep-24	04-Dec-24	13-Jun-23		59.09%	343
178	WS4-015	Installation of ELS	20	0	28-Dec-23	16-Jan-24	05-Dec-24	24-Dec-24			0%	343
179	WS4-016	Installation of ELS (Time Risk Allowance)	5	0	17-Jan-24	21-Jan-24	25-Dec-24	29-Dec-24			0%	343
180	WS4-020	Excavation for UU Trench	30	0	22-Jan-24	20-Feb-24	30-Dec-24	28-Jan-25			0%	343
181	WS4-030	Construction of Drainage System	30	0	21-Feb-24	21-Mar-24	29-Jan-25	27-Feb-25			0%	343
182	WS4-040	Construction of Street Lighting System	30	0	22-Mar-24	20-Apr-24	28-Feb-25	29-Mar-25			0%	343
183	WS4-050	Construction of Street Furniture	30	0	21-Apr-24	20-May-24	30-Mar-25	28-Apr-25			0%	343
184	WS4-060	Construction of Road Works	30	0	21-Apr-24	20-May-24	30-Mar-25	28-Apr-25			0%	343
185	WS4-080	Tree Felling	4	100	26-Jun-23A	04-Oct-23A	30-Dec-24	30-Dec-24	26-Jun-23	04-Oct-23	100%	
186	YL2021-10-MPU.C.S4.4AB Portion 4A & 4B		862	303	09-Dec-22A	17-Apr-25	19-Oct-23	28-Apr-26	09-Dec-22		35.27%	376
187	YL2021-10-MPU.C.S4.4AB.1 General Works		374	303	09-Dec-22A	06-Nov-23	19-Oct-23	28-Apr-26	09-Dec-22		91.98%	904
188	WS4A-005	Environmental GI Works (Intermediate Stage)	20	20	09-Dec-22A	28-Dec-22A	20-Oct-23	20-Oct-23	09-Dec-22	28-Dec-22	100%	
189	WS4A-010	Erection of Hoarding (521 m)	100	61	08-Aug-23A	06-Nov-23	30-Mar-26	28-Apr-26	08-Aug-23		70%	904
190	WS4A-020	Demolition of Existing Structure (689 m2)	4	0	08-Oct-23*	11-Oct-23	25-Apr-26	28-Apr-26			0%	930
191	WS4A-030	Site Clearance	14	129	01-Jun-23A	21-Oct-23*	10-Mar-25	23-Mar-25	01-Jun-23		0%	519
192	WS4A-032	GI Works (2 nos.)	28	9	13-Mar-23A	21-Mar-23A	28-Apr-26	28-Apr-26	13-Mar-23	21-Mar-23	100%	
193	WS4A-033	Additional GI Works (1 nos.)	14	16	26-Jun-23A	12-Jul-23A	28-Apr-26	28-Apr-26	26-Jun-23	12-Jul-23	100%	
194	WS4A-040	Environmental GI Works (Total 15 nos.)	18	26	30-Mar-23A	25-Apr-23A	20-Oct-23	20-Oct-23	30-Mar-23	25-Apr-23	100%	
195	WS4A-211	Tree Felling (96 nr)	10	104	26-Jun-23A	08-Oct-23	19-Oct-23	19-Oct-23	26-Jun-23		90%	11
196	YL2021-10-MPU.C.S4.4AB.2 Land Decontamination Works		157	79	21-Jul-23A	20-Feb-24	20-Oct-23	28-Apr-25	21-Jul-23		13.38%	433
197	WS4A-045	Submission of Contamination Assessment Report (CAR)	14	21	21-Jul-23A	11-Aug-23A	20-Oct-23	20-Oct-23	21-Jul-23	11-Aug-23	100%	
198	WS4A-046	Submission of Remediation Action Plan (RAP)	14	21	21-Jul-23A	11-Aug-23A	20-Oct-23	20-Oct-23	21-Jul-23	11-Aug-23	100%	



TUNG LEE ENGINEERING COMPANY

Remaining Level of Effort
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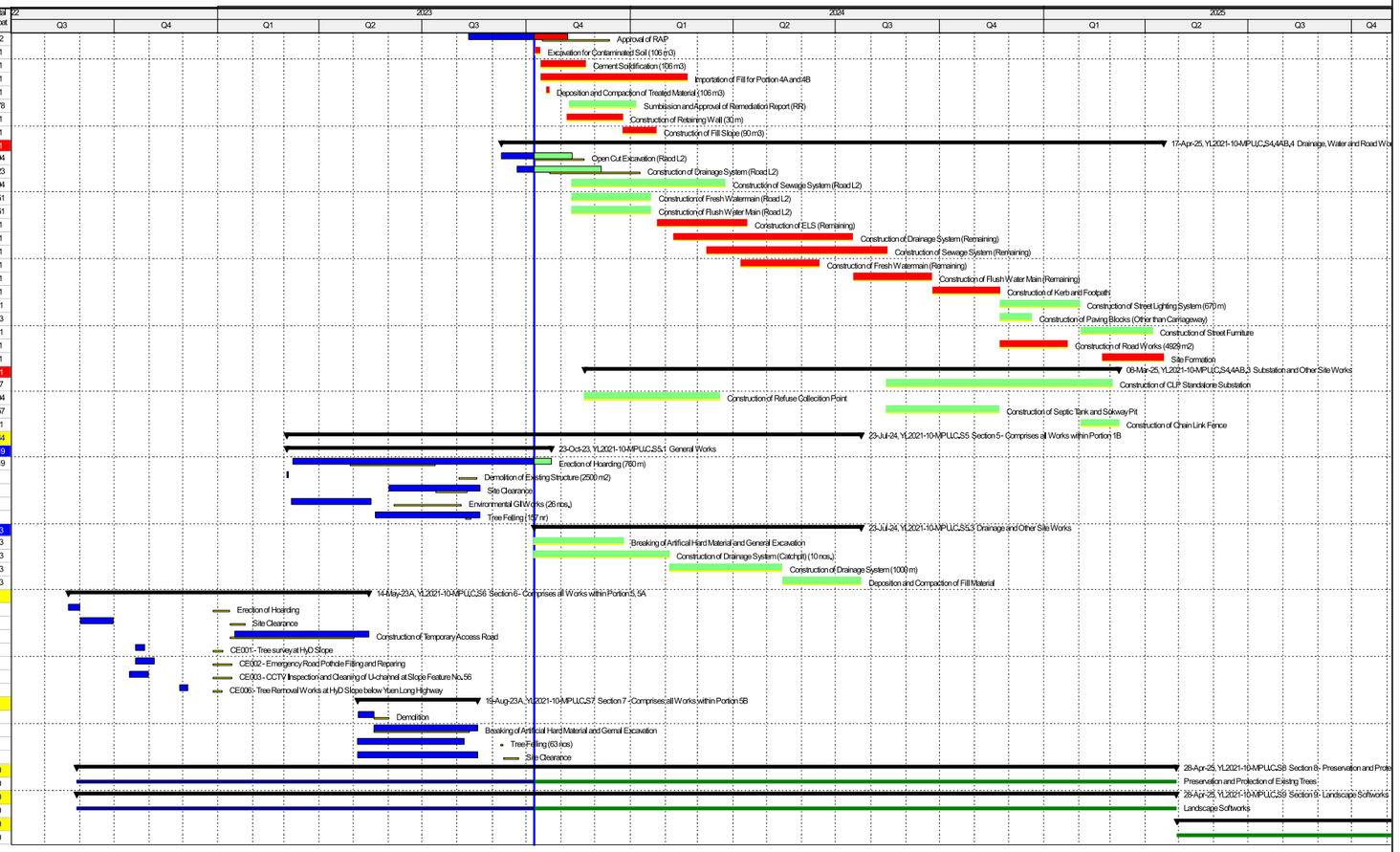
199	WS4A-047	Approval of RAP	60	58	11-Aug-23 A	06-Nov-23	20-Oct-23	18-Nov-23	11-Aug-23		50%	12
200	WS4A-060	Excavation for Contaminated Soil (106 m3)	5	0	09-Oct-23	13-Oct-23	20-Oct-23	24-Oct-23			0%	11
201	WS4A-070	Cement Solidification (106 m3)	40	0	14-Oct-23	22-Nov-23	25-Oct-23	03-Dec-23			0%	11
202	WS4A-071	Importation of Fill for Portion 4A and 4B	130	0	14-Oct-23	20-Feb-24	25-Oct-23	02-Mar-24			0%	11
203	WS4A-080	Deposition and Compaction of Treated Material (106 m3)	3	0	19-Oct-23	21-Oct-23	30-Oct-23	01-Nov-23			0%	11
204	WS4A-082	Sumbission and Approval of Remediation Report (RR)	60	0	08-Nov-23	06-Jan-24	28-Feb-25	28-Apr-25			0%	478
205	WS4A-100	Construction of Retaining Wall (30 m)	50	0	06-Nov-23	25-Dec-23	17-Nov-23	05-Jan-24			0%	11
206	WS4A-110	Construction of Fill Slope (30 m3)	30	0	26-Dec-23	24-Jan-24	05-Jan-24	04-Feb-24			0%	11
207	YL2021-10-MPU,CS4,4AB,4	Drainage, Water and Road Workks	558	29	09-Sep-23 A	17-Apr-25	05-Feb-24	28-Apr-25	09-Sep-23		0%	11
208	WS4A-114	Open Cut Excavation (Raod L2)	45	29	09-Sep-23 A	10-Nov-23	19-Apr-24	22-May-24	09-Sep-23		25%	194
209	WS4A-120	Construction of Drainage System (Road L2)	80	15	23-Sep-23 A	06-Dec-23	18-May-24	16-Jul-24	23-Sep-23		25%	223
210	WS4A-130	Construction of Sewage System (Road L2)	136	0	10-Nov-23	25-Mar-24	23-May-24	05-Oct-24			0%	194
211	WS4A-140	Construction of Fresh Watermain (Road L2)	70	0	10-Nov-23	19-Jan-24	19-Jul-24	26-Sep-24			0%	251
212	WS4A-150	Construction of Flush Water Main (Road L2)	70	0	10-Nov-23	19-Jan-24	19-Jul-24	26-Sep-24			0%	251
213	WS4A-152	Construction of ELS (Remaining)	80	0	25-Jan-24	13-Apr-24	05-Feb-24	24-Apr-24			0%	11
214	WS4A-155	Construction of Drainage System (Remaining)	160	0	08-Feb-24	16-Jul-24	19-Feb-24	27-Jul-24			0%	11
215	WS4A-156	Construction of Sewage System (Remaining)	160	0	09-Mar-24	15-Aug-24	20-Mar-24	26-Aug-24			0%	11
216	WS4A-157	Construction of Fresh Watermain (Remaining)	70	0	08-Apr-24	16-Jun-24	19-Apr-24	27-Jun-24			0%	11
217	WS4A-158	Construction of Flush Water Main (Remaining)	70	0	17-Jul-24	24-Sep-24	28-Jul-24	05-Oct-24			0%	11
218	WS4A-169	Construction of Kerb and Footpath	60	0	25-Sep-24	23-Nov-24	06-Oct-24	04-Dec-24			0%	11
219	WS4A-170	Construction of Street Lighting System (670 m)	70	0	24-Nov-24	01-Feb-25	15-Dec-24	22-Feb-25			0%	21
220	WS4A-171	Construction of Paving Blocks (Other than Carriageway)	28	0	24-Nov-24	21-Dec-24	05-Feb-25	04-Mar-25			0%	73
221	WS4A-180	Construction of Street Furniture	65	0	02-Feb-25	07-Apr-25	23-Feb-25	28-Apr-25			0%	21
222	WS4A-190	Construction of Road Works (4929 m2)	60	0	24-Nov-24	22-Jan-25	05-Dec-24	02-Feb-25			0%	11
223	WS4A-216	Site Formation	55	0	22-Feb-25	17-Apr-25	05-Mar-25	28-Apr-25			0%	11
224	YL2021-10-MPU,CS4,4AB,3	Substation and Other Site Works	473	0	22-Nov-23	08-Mar-25	11-Oct-24	28-Apr-25			0%	51
225	WS4A-200	Construction of CLP Standalone Substation	200	0	15-Aug-24*	02-Mar-25	11-Oct-24	28-Apr-25			0%	57
226	WS4A-210	Construction of Refuse Collection Point	120	0	22-Nov-23*	20-Mar-24	30-Dec-24	28-Apr-25			0%	404
227	WS4A-214	Construction of Septic Tank and Sokway Pit	100	0	15-Aug-24	22-Nov-24	19-Jan-25	28-Apr-25			0%	157
228	WS4A-215	Construction of Chain Link Fence	35	0	02-Feb-25	08-Mar-25	25-Mar-25	28-Apr-25			0%	51
229	YL2021-10-MPU,C.S5	Section 5 - Comprises all Works within Portion 1B	453	219	03-Mar-23A	23-Jul-24	31-Oct-23	28-Apr-26	03-Mar-23		35.99%	644
230	YL2021-10-MPU,C.S5.1	General Works	113	219	03-Mar-23A	23-Oct-23	31-Oct-23	28-Apr-26	03-Mar-23		86.55%	919
231	WS5-010	Erection of Hoarding (760 m)	76	214	06-Mar-23A	23-Oct-23	13-Apr-26	28-Apr-26	06-Mar-23		80%	919
232	WS5-020	Demolition of Existing Structure (2500 m2)	17	2	03-Mar-23A	04-Mar-23A	28-Apr-26	28-Apr-26	03-Mar-23	04-Mar-23	100%	
233	WS5-030	Site Clearance	28	81	01-Jun-23A	21-Aug-23A	28-Apr-26	28-Apr-26	01-Jun-23	21-Aug-23	100%	
234	WS5-040	Environmental GI Works (26 nos.)	60	71	07-Mar-23A	17-May-23A	31-Oct-23	31-Oct-23	07-Mar-23	17-May-23	100%	
235	WS5-101	Tree Felling (157 nr)	5	93	20-May-23A	21-Aug-23A	15-Aug-24	15-Aug-24	20-May-23	21-Aug-23	100%	
236	YL2021-10-MPU,C.S5.3	Drainage and Other Site Works	290	0	08-Oct-23	23-Jul-24	31-Oct-23	15-Aug-24			0%	23
237	WS5-045	Breaking of Artifical Hard Material and General Excavation	80	0	08-Oct-23	26-Dec-23	31-Oct-23	18-Jan-24			0%	23
238	WS5-050	Construction of Drainage System (Catchpit) (10 nos.)	120	0	08-Oct-23	04-Feb-24	31-Oct-23	27-Feb-24			0%	23
239	WS5-090	Construction of Drainage System (1000 m)	100	0	05-Feb-24	14-May-24	28-Feb-24	06-Jun-24			0%	23
240	WS5-100	Deposition and Compaction of Fill Material	70	0	15-May-24	23-Jul-24	07-Jun-24	15-Aug-24			0%	23
241	YL2021-10-MPU,C.S6	Section 6 - Comprises all Works within Portion 5, 5A	125	266	22-Aug-22 A	14-May-23A	28-Apr-26	28-Apr-26	22-Aug-22	14-May-23	100%	
242	WS6-009	Erection of Hoarding	15	10	22-Aug-22 A	31-Aug-22 A	28-Apr-26	28-Apr-26	22-Aug-22	31-Aug-22	100%	
243	WS6-010	Site Clearance	14	30	01-Sep-22 A	30-Sep-22 A	28-Apr-26	28-Apr-26	01-Sep-22	30-Sep-22	100%	
244	WS6-020	Construction of Temporary Access Road	110	119	16-Jan-23A	14-May-23A	28-Apr-26	28-Apr-26	16-Jan-23	14-May-23	100%	
245	WS6-030	CE001 - Tree survey at HyD Slope	9	9	20-Oct-22 A	28-Oct-22 A	28-Apr-26	28-Apr-26	20-Oct-22	28-Oct-22	100%	
246	WS6-031	CE002 - Emergency Road Pothole Filling and Repairing	17	17	20-Oct-22 A	05-Nov-22 A	28-Apr-26	28-Apr-26	20-Oct-22	05-Nov-22	100%	
247	WS6-032	CE003 - CCTV Inspection and Cleaning of U-channel at Slope Feature No. 56	17	17	15-Oct-22 A	31-Oct-22 A	28-Apr-26	28-Apr-26	15-Oct-22	31-Oct-22	100%	
248	WS6-033	CE006 - Tree Removal Works at HyD Slope below Yuen Long Highway	8	8	28-Nov-22 A	05-Dec-22 A	28-Apr-26	28-Apr-26	28-Nov-22	05-Dec-22	100%	
249	YL2021-10-MPU,C.S7	Section 7 - Comprises all Works within Portion 5B	129	106	05-May-23A	19-Aug-23A	28-Apr-26	28-Apr-26	05-May-23	19-Aug-23	100%	
250	WS7-010	Demolition	14	14	05-May-23A	19-May-23A	28-Apr-26	28-Apr-26	05-May-23	19-May-23	100%	
251	WS7-10	Breaking of Artifical Hard Material and Gernal Excavation	85	92	19-May-23A	19-Aug-23A	28-Apr-26	28-Apr-26	19-May-23	19-Aug-23	100%	
252	WS7-11	Tree Felling (63 nos)	3	94	05-May-23A	07-Aug-23A	28-Apr-26	28-Apr-26	05-May-23	07-Aug-23	100%	
253	WS7-12	Site Clearance	14	106	05-May-23A	19-Aug-23A	28-Apr-26	28-Apr-26	05-May-23	19-Aug-23	100%	
254	YL2021-10-MPU,C.S8	Section 8 - Preservation and Protection of Existng Trees	974	405	29-Aug-22 A	28-Apr-25	19-Oct-23	28-Apr-25	29-Aug-22		41.58%	0
255	WS8-010	Preservation and Protection of Existing Trees	974	405	29-Aug-22 A	28-Apr-25	19-Oct-23	28-Apr-25	29-Aug-22		41.58%	0
256	YL2021-10-MPU,C.S9	Section 9 - Landscape Softworks	974	405	29-Aug-22 A	28-Apr-25	19-Oct-23	28-Apr-25	29-Aug-22		41.58%	0
257	WS9-010	Landscape Softworks	974	405	29-Aug-22 A	28-Apr-25	19-Oct-23	28-Apr-25	29-Aug-22		41.58%	0
258	YL2021-10-MPU,C.S10	Section 10 - Establishment	365	0	29-Apr-25	28-Apr-26	29-Apr-25	28-Apr-26			0%	0
259	WS10-010	Establishment	365	0	29-Apr-25	28-Apr-26	29-Apr-25	28-Apr-26			0%	0



TUNG LEE ENGINEERING COMPANY

Remaining Level of Effort
Actual Level of Effort
Primary Baseline
Actual Work
Remaining Work
Critical Remaining Work
Milestone
summary

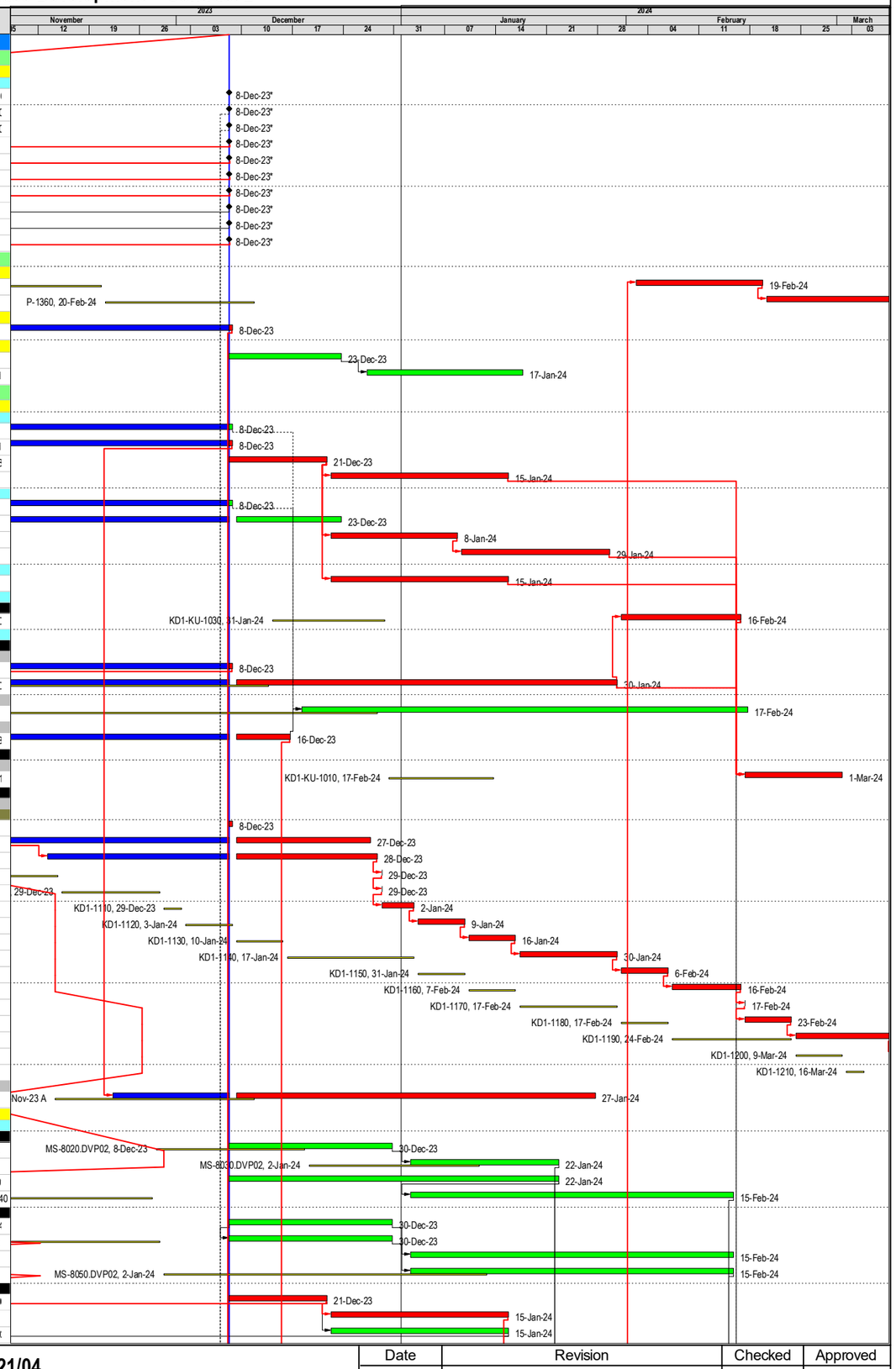
Contract No. YL/2021/03 - Site Formation and Infrastrcture Works for Yuen Long South First Phase Development - Contract 1
REVISED PROGRAMME (REV. 8) (OCT 2023)

Date	Revision	Checked	Ap...
15-Aug-23	Rev. 6	WCF	YKC
09-Sep-23	Rev. 7	WCF	YKC
08-Oct-23	Rev. 8	WCF	YKC

3-month Rolling Construction Programme of Contract 2

Site Formation and Infrastructure Works for Yuen Long South First Phase Development – Contract 2

Activity ID	Activity Name	BL Project Start	BL Project Finish	BL Project Duration	Schedule % Complete	Start	Finish	Duration	Remaining Duration	Activity % Complete	Variance - BL Project Start Date	Variance - BL Project Finish Date	Total Float	Predecessors	Successors
Detailed Version of First Programme - Monthly Programme Update (Nov 2023)															
Contract Data (CDP1)															
Access Date - Portion															
Actual Access Date (FullAccess Date)															
AAD-1060	Portion 5A	25-Aug-23		0	100%	8-Dec-23*		0	0	0%	-105	-105	-122	CD-1020, AD-107	CD-1250, S5-2200
AAD-1090	Portion 6A	25-Aug-23		0	100%	8-Dec-23*		0	0	0%	-105	-105	-122	CD-1020, AD-110	S6-2010, S5-2200
AAD-1100	Portion 6B	25-Aug-23		0	100%	8-Dec-23*		0	0	0%	-105	-105	-122	CD-1020, AD-111	S6-2010, S5-2200
AAD-1200	Portion 10A	25-Aug-23		0	100%	8-Dec-23*		0	0	0%	-105	-105	-122	CD-1020, AD-121	UU-KD5-1020
AAD-1210	Portion 10B	25-Aug-23		0	100%	8-Dec-23*		0	0	0%	-105	-105	-122	CD-1020, AD-122	UU-KD5-1020
AAD-1220	Portion 10C	25-Aug-23		0	100%	8-Dec-23*		0	0	0%	-105	-105	-122	CD-1020, AD-123	UU-KD5-1020
AAD-1230	Portion 10D	25-Aug-23		0	100%	8-Dec-23*		0	0	0%	-105	-105	-122	CD-1020, AD-124	UU-KD5-1020
AAD-1280	Portion 12B	25-Aug-23		0	100%	8-Dec-23*		0	0	0%	-105	-105	-122	CD-1020, AD-129	S9-1100
AAD-1290	Portion 12C	25-Aug-23		0	100%	8-Dec-23*		0	0	0%	-105	-105	-122	CD-1020, AD-130	S9-1100
AAD-1350	Portion 16A	25-Aug-23		0	100%	8-Dec-23*		0	0	0%	-105	-105	-122	CD-1020, AD-136	S11-0010
Preliminaries/General Submission															
Contamination Assessment Report (CAR)/Remediation Action Plan (RAP)															
P-1350	CAR / RAP (if any) - Preparation and Submission	7-Nov-23	20-Nov-23	12	100%	2-Feb-24	19-Feb-24	12	12	0%	-72	-72	-51	S5-2040, CD-1020	P-1360
P-1360	CAR/ RAP (if any) - Review and Approval	21-Nov-23	11-Dec-23	18	83.33%	20-Feb-24	11-Mar-24	18	18	0%	-72	-72	-51	P-1350	S5-2060
Archaeological Action Plan (AAP)															
P-1510.DVP01	Archaeological Action Plan (AAP) - Review and Approval of AAP by AMO	25-Aug-23	21-Oct-23	48	100%	26-Oct-23	8-Dec-23	48	1	0%	-50	-40	-37	P-1500.DVP01	S5-A-1020
Interface Management Plan															
P-1520.DVP01	Interface Management Plan - Preparation and Submission	25-Aug-23	9-Sep-23	14	100%	8-Dec-23	23-Dec-23	14	14	0%	-87	-87	18	CD-1020	P-1530.DVP01
P-1530.DVP01	Interface Management Plan - Review and Approval	11-Sep-23	3-Oct-23	18	100%	27-Dec-23	17-Jan-24	18	18	0%	-87	-87	18	P-1520.DVP01	KD3-3050.DVP01
Construction Works															
KD1 | Section 8 [Portions 11 and 11A] - Road L1A and L1B															
Design															
DD-1030	Design - Approval of Temp Decking - YL bypass at Portion 11	2-Jun-23	15-Sep-23	89	100%	2-Jun-23 A	8-Dec-23	18	1	60%	0	-69	102	DD-1020	KD1-D-1010
DD-2040	Design - Approval of ELS design for BC02	26-Jul-23	14-Sep-23	44	100%	26-Jul-23 A	8-Dec-23	18	1	60%	0	-70	-25	DD-2030	KD1-1320, KD1-1
DD-2050	Design - Submission of ELS design for BC03 above Kung Um road - Nullah set back	25-Aug-23	7-Sep-23	12	100%	8-Dec-23	21-Dec-23	12	12	0%	-87	-87	-24	DD-2030	DD-2060, MS-808
DD-2060	Design - Approval of ELS design for BC03 above Kung Um road - Nullah set back	8-Sep-23	28-Sep-23	18	100%	22-Dec-23	15-Jan-24	18	18	0%	-87	-87	-12	DD-2050	KD1-KU-1010
Submission															
MS-1030	MS - Approval of Temp Decking - YL bypass at Portion 11	14-Jul-23	31-Aug-23	42	100%	14-Jul-23 A	8-Dec-23	18	1	60%	0	-82	102	MS-1020	KD1-D-1010
MS-2020.DVP02	MS - Approval Method statement for construction of BC02	29-Sep-23	21-Oct-23	18	100%	5-Oct-23 A	23-Dec-23	18	13	50%	-3	-53	2	MS-2010.DVP02	KD1-1320
MS-2030	MS - Submission of ELS design for BC03 above Kung Um road - Nullah set back	8-Sep-23	21-Sep-23	12	100%	22-Dec-23	8-Jan-24	12	12	0%	-87	-87	-24	DD-2050	MS-2040
MS-2040	MS - Approval of ELS design for BC03 above Kung Um road - Nullah set back	22-Sep-23	14-Oct-23	18	100%	9-Jan-24	29-Jan-24	18	18	0%	-87	-87	-24	MS-2030	KD1-KU-1010
Procurement															
PO-1050	Procurement - ELS, Steel & Concrete for BC03 - Nullah set back	22-Sep-23	14-Oct-23	18	100%	22-Dec-23	15-Jan-24	18	18	0%	-75	-75	-12	DD-2050	KD1-KU-1010
TTA Scheme/XP															
TD related															
KD1-KU-1030	TTA - One way gyratory (KHIR-013a) - one way one lane scheme	14-Dec-23	29-Dec-23	12	0%	31-Jan-24	16-Feb-24	12	12	0%	-38	-38	-37	KD1-D-1020, P-1	KD1-KU-1010, KD
Construction Works															
Temporary Works															
Temp Decking TD02															
KD1-D-1030.D	Abutment for TD02 at Portion 11	18-Sep-23	17-Oct-23	24	100%	1-Nov-23 A	8-Dec-23	24	1	0%	-35	-44	-37	KD1-D-1020.DVF	KD1-D-1020
KD1-D-1020	Decking for TD02 at Portion 11	18-Oct-23	13-Dec-23	48	89.58%	1-Nov-23 A	30-Jan-24	48	42	0%	-11	-38	-37	KD1-D-1030.DVF	KD1-KU-1030, KD
Temp Decking YL Bypass															
KD1-D-1010	Construction of the decking - YL bypass at Portion 11	1-Nov-23	28-Dec-23	48	66.67%	18-Dec-23	17-Feb-24	48	48	0%	-40	-40	95	KD1-D-1000, MS	KD1-2010
Ramp 02 at Portion 11															
KD-R-1000	Erection of Ramp 02 (WD6) in Portion 11	3-Oct-23	31-Oct-23	24	100%	23-Oct-23	16-Dec-23	24	7	0%	-17	-40	-22	DD-1050, MS-10	KD1-1320, KD5-B
Road Set Back															
Kung Um road - Set back															
KD1-KU-1010	ELS Cut Back for BC03 at Kung Um road	30-Dec-23	13-Jan-24	12	0%	17-Feb-24	1-Mar-24	12	12	0%	-38	-38	-37	PO-1050, DD-200	KD1-R-1010, KD1
Box Culvert BC02 East and BC02A															
BC02A (1st Wet season) & sewer construction															
BC02A & Sewer															
KD1-1030.D\	TAM grouting to seal up gap at footing toe of nullah and utility window	1-Sep-23	21-Sep-23	18	100%	8-Dec-23	8-Dec-23	1	1	0%	-81	-64	0	KD1-1030	KD1-1060
KD1-1070	Excavation to Struct Layer S2	10-Oct-23	19-Oct-23	9	100%	24-Oct-23	27-Dec-23	9	14	100%	-11	-56	0	KD1-1060	KD1-1080
KD1-1080	Install waling & Struct (W2 & S2)	20-Oct-23	3-Nov-23	12	100%	13-Nov-23	28-Dec-23	12	15	0%	-19	-45	0	KD1-1070, KD1-1	KD1-1090
KD1-1090	Excavation to Struct Layer S3	4-Nov-23	14-Nov-23	9	100%	29-Dec-23	29-Dec-23	0	0	0%	-45	-36	0	KD1-1080	KD1-1100
KD1-1100	Install waling & Struct (W3 & S3)	15-Nov-23	28-Nov-23	12	100%	29-Dec-23	29-Dec-23	0	0	0%	-36	-24	0	KD1-1090	KD1-1110
KD1-1110	Local excavation for FMH1003 & FMH1004 and associated pipeline	29-Nov-23	1-Dec-23	3	100%	29-Dec-23	2-Jan-24	3	3	0%	-24	-24	0	KD1-1100	KD1-1120
KD1-1120	Local excavation for FMH1001 & FMH1002 and associated pipeline	2-Dec-23	8-Dec-23	6	83.33%	3-Jan-24	9-Jan-24	6	6	0%	-24	-24	0	KD1-1110	KD1-1130
KD1-1130	Local excavation for dia. 900 sewerage pipe from FMH1002 to FMH1003	9-Dec-23	15-Dec-23	6	0%	10-Jan-24	16-Jan-24	6	6	0%	-24	-24	0	KD1-1120	KD1-1140
KD1-1140	Lay dia. 900 sewage pipeline for temp. diversion	16-Dec-23	2-Jan-24	12	0%	17-Jan-24	30-Jan-24	12	12	0%	-24	-24	0	KD1-1130	KD1-1150
KD1-1150	Construction of FMH1001, FMH1002, FMH1001, FMH1004 to 500mm below Strut Layer S3	3-Jan-24	9-Jan-24	6	0%	31-Jan-24	6-Feb-24	6	6	0%	-24	-24	0	P-1490.DVP01, K	KD1-1160
KD1-1160	Backfill: 300m3 + 580m3 + 30m3	10-Jan-24	16-Jan-24	6	0%	7-Feb-24	16-Feb-24	6	6	0%	-24	-24	0	KD1-1150	KD1-1170
KD1-1170	Removal Strut Layer S3	17-Jan-24	30-Jan-24	12	0%	17-Feb-24	17-Feb-24	0	0	0%	-24	-12	0	KD1-1160	KD1-1180
KD1-1180	Place 500mm thick Grade 200 size aggregate layer for BC02A	31-Jan-24	6-Feb-24	6	0%	17-Feb-24	23-Feb-24	6	6	0%	-12	-12	0	KD1-1170, MS-20	KD1-1190
KD1-1190	Construct 3- cell BC02A to 500mm below strut layer S2	7-Feb-24	23-Feb-24	12	0%	24-Feb-24	8-Mar-24	12	12	0%	-12	-12	0	KD1-1180	KD1-1200
KD1-1200	Construction of FMH1001, FMH1002, FMH1001, FMH1004 to 500mm below Strut Layer S2	24-Feb-24	1-Mar-24	6	0%	9-Mar-24	15-Mar-24	6	6	0%	-12	-12	0	KD1-1190	KD1-1210
KD1-1210	Horizontal propping to 3- cell BC02A.	2-Mar-24	4-Mar-24	2	0%	16-Mar-24	18-Mar-24	2	2	0%	-12	-12	0	KD1-1200	KD1-1220
BC02 East & BC02A (2nd dry season)															
KD1-1310	Demolition of existing diversion wall	14-Nov-23	11-Dec-23	24	87.5%	22-Nov-23	27-Jan-24	24	40	0%	-7	-38	-25	Sub-2000.DVP02	KD1-1320
Section 8 [Portions 11 and 11A] - Road L1A and L1B															
Method statement															
S690															
MS-8020.DVP02	MS - Method statement for Noise Barrier NB13 and NB15	28-Nov-23	18-Dec-23	18	50%	8-Dec-23	30-Dec-23	18	18	0%	-9	-9	28	DD-8030	MS-8030.DVP02
MS-8030.DVP02	MS - Approval of Noise Barrier NB13 and NB15	19-Dec-23	11-Jan-24	18	0%	2-Jan-24	22-Jan-24	18	18	0%	-9	-9	28	MS-8020.DVP02	Sub-8010
MS-8020	MS - Method statement for Noise Barrier NB12	1-Sep-23	14-Oct-23	36	100%	8-Dec-23	22-Jan-24	36	36	0%	-81	-81	11	DD-8030	MS-8030, Sub-80
MS-8030	MS - Approval Method statement for Noise Barrier NB12	16-Oct-23	27-Nov-23	36	100%	2-Jan-24	15-Feb-24	36	36	0%	-63	-63	11	MS-8020	S8-4230, Sub-8040
DC02 & Soldier pile															
MS-8000	MS - Method statement for Soldier pile	2-Sep-23	22-Sep-23	18	100%	8-Dec-23	30-Dec-23	18	18	0%	-80	-80	11	DD-8000, DD-80	MS-8010, MS-80
MS-8040.DVP02	MS - Method statement for Precast Beam Installation for Decking DC02	8-Nov-23	28-Nov-23	18	100%	8-Dec-23	30-Dec-23	18	18	0%	-26	-26	11	MS-8000	MS-8050.DVP02
MS-8010	MS - Approval of Method statement for Soldier pile	23-Sep-23	7-Nov-23	36	100%	2-Jan-24	15-Feb-24	36	36	0%	-80	-80	31	MS-8000	S8-3150
MS-8050.DVP02	MS - Approval of MS for Precast Beam Installation for Decking DC02	29-Nov-23	12-Jan-24	36	22.22%	2-Jan-24	15-Feb-24	36	36	0%	-26	-26	11	MS-8040.DVP02	Sub-8040
Retaining wall & others															
MS-1000	MS - Method statement for Construction of Retaining Wall 01	25-Aug-23	7-Sep-23	12	100%	8-Dec-23	21-Dec-23	12	12	0%	-87	-87	-19	AW-8020	MS-1010, Sub-10
MS-1010	MS - Approval of Method statement for Retaining Wall 01	8-Sep-23	28-Sep-23	18	100%	22-Dec-23	15-Jan-24	18	18	0%	-87	-87	-19	MS-1000	KD1-RW1-1000
MS-8040	MS - Method statement for Construction of Retaining Wall 02	8-Sep-23	28-Sep-23	18	100%	22-Dec-23	15-Jan-24	18	18	0%	-87	-87	29	MS-1000	MS-8050, Sub-80



Actual Work
Remaining Work
Critical Remaining Work
Project Base...
Milestone
Project Base...

Data Date: 8-Dec-23
Project Start: 8 Dec 2022
Project End: 10-Mar-29
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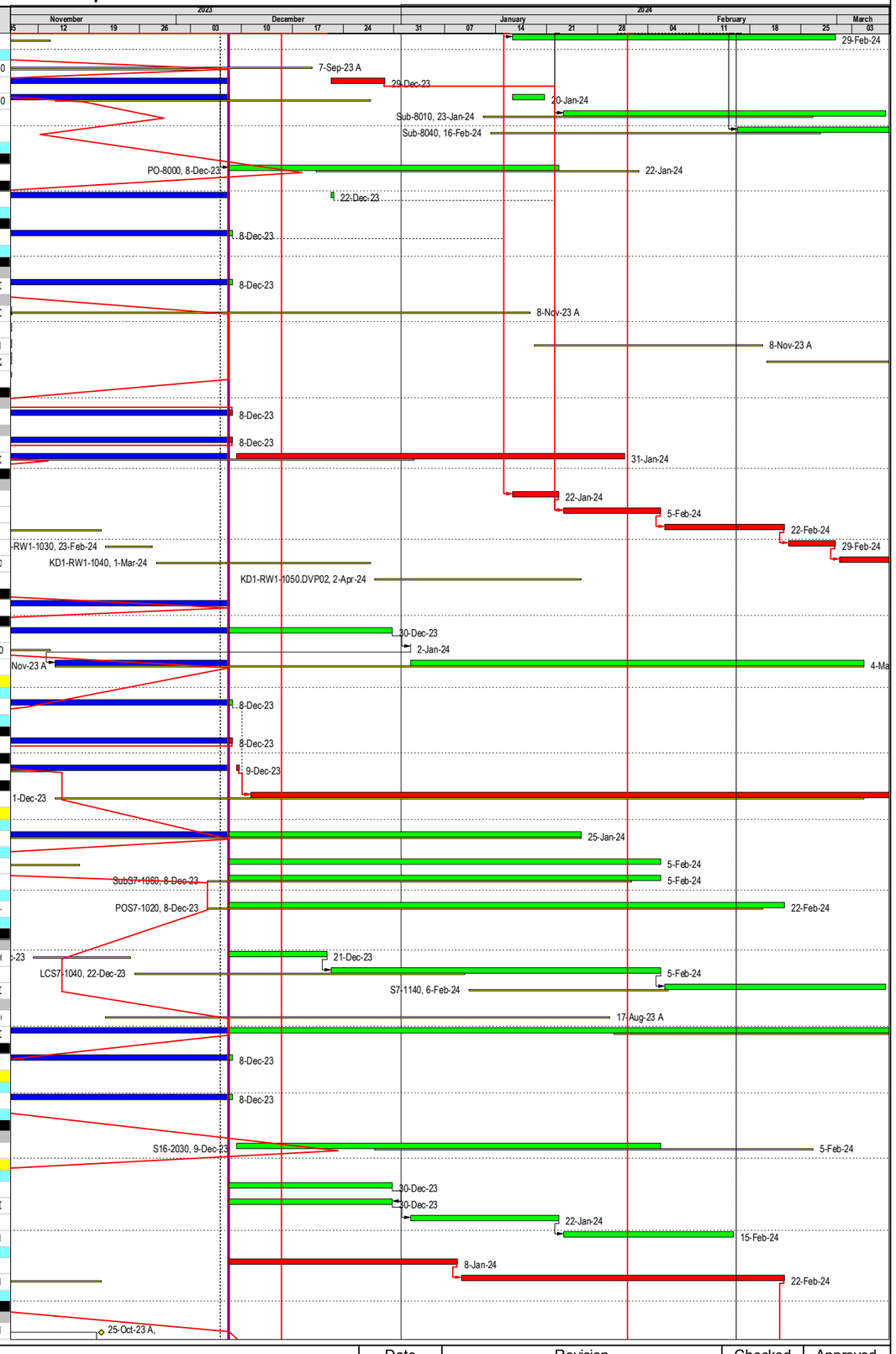
YL/2021/04
Three Months Rolling Programme

Date	Revision	Checked	Approved
31-Aug-23	RP A03 - Accepted (4-Oct-23)		
15-Nov-23	2310 MPU		
15-Dec-23	2311 MPU		

Site Formation and Infrastructure Works for Yuen Long South First Phase Development – Contract 2

Activity ID	Activity Name	BL Project Start	BL Project Finish	BL Project Duration	Schedule % Complete	Start	Finish	Duration	Remaining Duration	Activity % Complete	Variance - BL Project Start Date	Variance - BL Project Finish Date	Total Float	Predecessors	Successors
MS-8050	MS - Approval of Method statement for Retaining Wall 02	29-Sep-23	13-Nov-23	36	100%	16-Jan-24	29-Feb-24	36	36	0%	-87	-87	29	MS-8040	S8-1050
Subletting															
Sub-8000	Subletting - Soldier pile	8-Nov-23	19-Dec-23	36	72.22%	18-Jul-23 A	7-Sep-23 A	36	0	100%	94	85		DD-8000	PO-8000, S8-3150
Sub-1000	Subletting - RW01	8-Sep-23	21-Oct-23	36	100%	8-Sep-23 A	29-Dec-23	36	5	90%	0	-56	0	MS-1000	KD1-RW1-1010
Sub-8020	Subletting - RW2	14-Nov-23	27-Dec-23	36	58.33%	27-Sep-23	20-Jan-24	36	5	0%	38	-20	60	MS-8040	PO-8020, S8-1050
Sub-8010	Subletting - Noise Barrier NB12, NB13, NB15	12-Jan-24	26-Feb-24	36	0%	23-Jan-24	7-Mar-24	36	36	0%	-9	-9	28	DD-8020, MS-80	PO-8010
Sub-8040	Subletting - Precast Beam Installation for Decking DC02	13-Jan-24	27-Feb-24	36	0%	16-Feb-24	28-Mar-24	36	36	0%	-26	-26	11	MS-8050.DVP02,	PO-8030.DVP01
Procurement															
DC02 & Soldier pile															
PO-8000	Procurement - Soldier pile	20-Dec-23	2-Feb-24	36	0%	8-Dec-23	22-Jan-24	36	36	0%	10	10	49	Sub-8000	S8-3150
Retaining Wall															
PO-1000.DVP01	Procurement - ELS, Steel & Concrete for RW01	8-Sep-23	21-Oct-23	36	100%	8-Sep-23 A	22-Dec-23	36	1	0%	0	-52	4	MS-1000	KD1-RW1-1010
TTA Scheme/XP															
RW01															
AW-1040	TTA - RW01 & diversion of existing footpath	8-Jun-23	14-Sep-23	83	100%	8-Jun-23 A	8-Dec-23	18	1	0%	0	-70	10	KD1-0010, P-110	KD1-RW1-1000
Construction Works															
Preliminary Works															
Portion 11 - Tree, site formation & GI															
S8-1040	Portion 11 (GI) - Ground Investigation (11no; 10d/no, 2wf)	7-Jul-23	12-Oct-23	82	100%	7-Jul-23 A	8-Dec-23	60	1	75%	0	-48	43	S8-1030, KD2D-1	S8-2010, S8-4210
Portion 11A															
S8A-1010	Land contamination survey at Portion 11A (8 nos. drillholes, 3 days holes, 1 teams)	29-Sep-23	18-Jan-24	90	63.33%	8-Nov-23 A	8-Nov-23 A	0	0	100%	-31	59		S8A-1005.DVP01	S8A-1030A.DVP0
S8A-1020-1	Decontamination at Portion 11A	6-Apr-24	24-Jul-24	90	0%	8-Nov-23 A	8-Nov-23 A	0	0	100%	119	209		S8A-1010, S8A-1	S8A-1020-2
S8A-1030A.D	Submission of CAR and RAP (if any)	19-Jan-24	19-Feb-24	24	0%	8-Nov-23 A	8-Nov-23 A	0	0	100%	59	83		S8A-1010	S8A-1040.DVP01
S8A-1040.DVI	Approval of CAR and RAP (if any)	20-Feb-24	5-Apr-24	36	0%	8-Nov-23 A	8-Nov-23 A	0	0	100%	83	119		S8A-1030A.DVP(	S8-5110, S8A-10
S8A-1020-2	Decontamination at Portion 11A	25-Jul-24	4-Oct-24	60	0%	8-Nov-23 A	8-Nov-23 A	0	0	100%	209	269		S8A-1020-1, S8A	S8-2040-1
UU diversion															
CLP															
KD1-1000-1	CLP divert the overhead cable at road L1A & 1B	3-Jul-23	26-Sep-23	74	100%	3-Jul-23 A	8-Dec-23	60	1	0%	0	-60	-22	KD1-1000, MS-Si	KD-R-1000
Towngas															
S8-1070	UU diversion works Towngas - High Pressure Gas Pipe diversion works - stage1	2-Aug-23	21-Sep-23	44	100%	2-Aug-23 A	8-Dec-23	80	1	50%	0	-64	0	S8-1060	S8-1080
S8-1080	UU diversion works Towngas - High Pressure Gas Pipe diversion works - stage2	22-Sep-23	2-Jan-24	82	76.83%	2-Oct-23 A	31-Jan-24	82	43	0%	-7	-25	0	S8-1060, S8-1070	S8-3150, S8-513
Retaining Wall (RW01, RW02, RW03, RW06 & RW07)															
Portion 11 - Retaining Wall 01															
KD1-RW1-1000	Form the Temp. pedestrian walk way under Yuen Long Highway	29-Sep-23	7-Oct-23	6	100%	16-Jan-24	22-Jan-24	6	6	0%	-87	-87	-19	AW-1040, MS-10	KD1-RW1-1010
KD1-RW1-1010	ELS for RW01	24-Oct-23	6-Nov-23	12	100%	23-Jan-24	5-Feb-24	12	12	0%	-75	-75	-19	KD1-RW1-1000,	KD1-RW1-1020
KD1-RW1-1020	Demolish existing slope for RW01	7-Nov-23	20-Nov-23	12	100%	6-Feb-24	22-Feb-24	12	12	0%	-75	-75	-19	KD1-RW1-1010	KD1-RW1-1030
KD1-RW1-1030	G200 Rockfill and 75mm blinding for RW01	21-Nov-23	27-Nov-23	6	100%	23-Feb-24	29-Feb-24	6	6	0%	-75	-75	-19	KD1-RW1-1020	KD1-RW1-1040
KD1-RW1-1040	Construction of RW01	28-Nov-23	27-Dec-23	24	37.5%	1-Mar-24	28-Mar-24	24	24	0%	-75	-75	-19	KD1-RW1-1030	KD1-RW1-1050.D
KD1-RW1-105	Pavement Works and Road Reinstatement RW01	28-Dec-23	25-Jan-24	24	0%	2-Apr-24	30-Apr-24	24	24	0%	-75	-75	-19	KD1-RW1-1040	S8-1050
Decking DC02															
S8-2030-1	Predrill for Decking DC02	25-Apr-24	25-Jun-24	50	0%	30-Aug-23	25-Jun-24	50	25	0%	192	0	0	S8-2010	S8-2030-2
Soldier Pile Wall at Road L1A& L1B															
S8-3120	Erect temporary working platform for Road L1A & L1B - 1st batch	11-Aug-23	14-Sep-23	30	100%	11-Aug-23	30-Dec-23	48	18	83%	0	-87	16	S8-3110	S8-3130
S8-3130	Erect the timber platform for TAM - 1 batch	15-Sep-23	13-Nov-23	48	100%	2-Jan-24	2-Jan-24	0	0	0%	-87	-39	16	S8-3120, DD-800	S8-3150, S8-3140
S8-3140	Carry out TAM grouting on the retaining side from 2 meter below existing ground to +7.00mPD	14-Nov-23	4-Mar-24	90	23.33%	14-Nov-23	4-Mar-24	90	51	0%	0	0	16	S8-3130	S8-3150
Section 12 [Portions 15 and 15A] - Junction of Tai Tong Road and Tai Kei Leng Road															
Subletting															
S12-1010	Subletting - S12 - C9 process	25-Aug-23	6-Nov-23	60	100%	22-Feb-23	8-Dec-23	60	1	0%	150	-28	1	S12-1000	S12-2020
Construction Works															
Preliminary Works															
S12-2000	Tree Survey, Felling and preservation at Portion 15	29-Jun-23	7-Sep-23	60	100%	29-Jun-23	8-Dec-23	60	1	100%	0	-76	0	S12-1020	S12-2010
Site Clearance and Site Formation Works															
S12-2010	Site Clearance & site formation after access Portion 15	8-Sep-23	13-Nov-23	54	100%	7-Oct-23 A	9-Dec-23	54	1	0%	-23	-23	0	S12-2000, S12-1	S12-2020
Underground Utilities and Road Works															
S12-2020	Portion 15,15A (UU/Rd.) - S12 Road Drainage works	14-Nov-23	4-Mar-24	90	23.33%	11-Dec-23	3-Apr-24	90	90	0%	-23	-23	0	S12-2010, S12-1	S12-2030
Section 7 [Portions 9, 9A and 17] - Box Culvert BC03, Common Utility Tunnel															
Submission															
SUS7-1000	Prepare & Submit FS Notes & FSI to FSD for approval	9-Oct-23	25-Jan-24	90	56.67%	6-Oct-23 A	25-Jan-24	90	39	0%	2	0	31	DDS7-1010, MS	SUS7-1010
Subletting															
SubS7-1040	Subletting - E&M CUT - S7	20-Sep-23	17-Nov-23	48	100%	8-Dec-23	5-Feb-24	48	48	0%	-65	-65	46	SubS7-1030	POS7-1010
SubS7-1060	Subletting - remining works for S7	5-Dec-23	1-Feb-24	48	6.25%	8-Dec-23	5-Feb-24	48	48	0%	-3	-3	52	SubS7-1050	POKD7-1030
Procurement															
POS7-1020	Procurement - Material of BC03	5-Dec-23	19-Feb-24	60	5%	8-Dec-23	22-Feb-24	60	60	0%	-3	-3	40	DDS7-1020, Sub	POKD7-1030, S7-
Construction Works															
Preliminary Works															
Land Contamination															
LCS7-1030	Submit CAR & RAP (if any)	11-Nov-23	24-Nov-23	12	100%	8-Dec-23	21-Dec-23	12	12	0%	-23	-23	28	LCS7-1020	LCS7-1040, S7-6
LCS7-1040	Approval of CAP & RAP	25-Nov-23	9-Jan-24	36	30.56%	22-Dec-23	5-Feb-24	36	36	0%	-23	-23	28	LCS7-1030	S7-1140
S7-1140	Decontamination at Portion 9A	10-Jan-24	6-Feb-24	24	0%	6-Feb-24	7-Mar-24	24	24	0%	-23	-23	28	LCS7-1040	S7-2010, S7-139
Tree															
TRS7-1020	Felling and Preservation at Portion 9 & 9A	21-Nov-23	29-Jan-24	57	26.32%	8-Jun-23 A	17-Aug-23	57	0	100%	137	135		TRS7-1010	S7-2010, TRS7-1
TRS7-1030	Remaining Tree Felling and preservation at Portion 17	30-Jan-24	28-Mar-24	48	0%	8-Jun-23 A	28-Mar-24	48	90	97%	194	0	10	TRS7-1020, S7-6	S7-2010, S7-139
Site formation & UU Diversion															
S7-SF-1000	Site clearance & site formation for S7	15-Sep-23	30-Oct-23	36	100%	8-Mar-23 A	8-Dec-23	36	1	0%	156	-34	99	S7-6840, SubS7-	S7-1150
Section 16 [Portions 9B, 9C, 20, 21 & 22] - All works															
Method Statement															
S16-1030	MS - Submission and approval of all necessary documents incl. MS, material and remain statutory sub	8-Aug-23	17-Oct-23	59	100%	8-Aug-23 A	8-Dec-23	60	1	100%	0	-44	80	S16-1010, S16-1	S16-2020
Construction Works															
Preliminary Works															
Land Decontamination															
S16-2030	Portion 9B, 9C & 22 - Decontamination works	28-Dec-23	26-Feb-24	48	0%	9-Dec-23	5-Feb-24	47	47	0%	14	15	80	S16-2000, S16-2	S16-2040
KD3 | Section 5 [Portions 2B, 5A, 5B] & Section 6 [Portion 6,6A,6B,6C] - Road D1 and D2															
Design															
KD3-DD-1000	Design - Temp works design for RW & road and Drainage	25-Aug-23	14-Sep-23	18	100%	8-Dec-23	30-Dec-23	18	18	0%	-87	-87	7	KD3-1610	KD3-DD-1010
KD3-DD-1010	Design - Approval of the Temp works design for RW & road and Drainage	25-Aug-23	14-Sep-23	18	100%	8-Dec-23	30-Dec-23	18	18	0%	-87	-87	7	KD3-DD-1000	KD3-DD-1020, KI
KD3-DD-1020	Design - Design for temp. access road 2.2 and associated temp. lighting	15-Sep-23	7-Oct-23	18	100%	2-Jan-24	22-Jan-24	18	18	0%	-87	-87	7	KD3-DD-1010	KD3-DD-1030
KD3-DD-1030	Design - Approval for Design for temp. access road 2.2 and associated temp. lighting	9-Oct-23	30-Oct-23	18	100%	23-Jan-24	15-Feb-24	18	18	0%	-87	-87	7	KD3-DD-1020	KD3-2060.DVP01
Method Statement															
KD3-SU-3020	Submission of CAR and RAP (if any)	8-Sep-23	7-Oct-23	24	100%	8-Dec-23	8-Jan-24	24	24	0%	-75	-75	0	KD3-2030.DVP01	KD3-SU-3030
KD3-SU-3030	Approval of CAR and RAP (if any)	9-Oct-23	20-Nov-23	36	100%	9-Jan-24	22-Feb-24	36	36	0%	-75	-75	0	KD3-SU-3020	KD3-3030.DVP01
Construction Works (KD3)															
Temporary Access Road No. 2															
Asbestos															
KD3-2010.DVI	Portion 5A & 5B - Asbestos removal Portion 5A & 5B		20-Nov-23	0	100%		25-Oct-23 A	0	0	100%	22	22		S5-2020	KD3-3025.DVP01



Actual Work
Remaining Work
Critical Remaining Work
Project Base...
Milestone
Project Base...

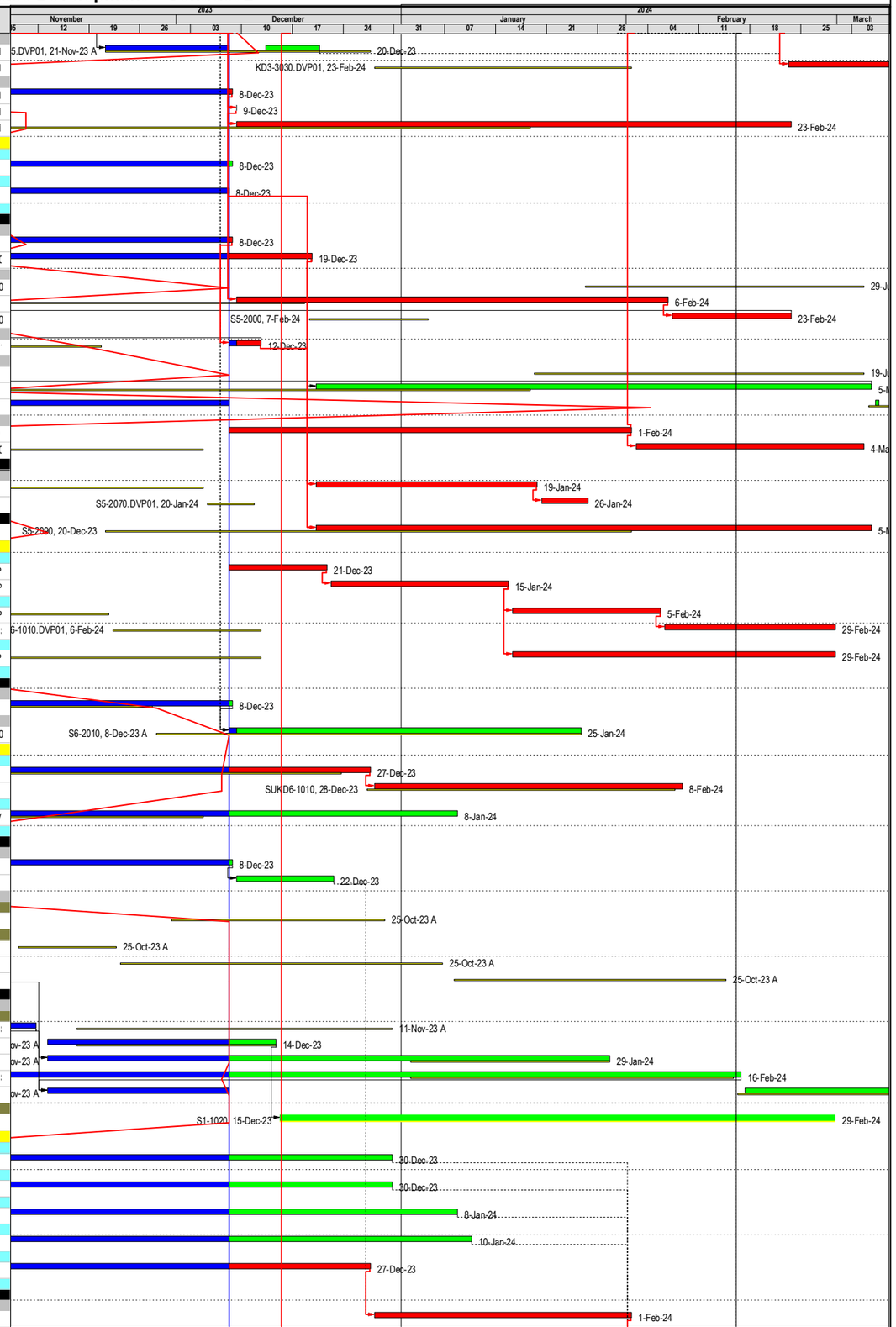
Data Date: 8-Dec-23
Project Start: 8 Dec 2022
Project End: 10-Mar-29

YL/2021/04
Three Months Rolling Programme

Date	Revision	Checked	Approved
31-Aug-23	RP.A03 - Accepted (4-Oct-23)		
15-Nov-23	2310 MPU		
15-Dec-23	2311 MPU		

Site Formation and Infrastructure Works for Yuen Long South First Phase Development – Contract 2

Activity ID	Activity Name	BL Project Start	BL Project Finish	BL Project Duration	Schedule % Complete	Start	Finish	Duration	Remaining Duration	Activity % Complete	Variance - BL Project Start Date	Variance - BL Project Finish Date	Total Float	Predecessors	Successors
Section 5 [Portion 5B] Temp Access Road No. 2															
KD3-3025.DVI	Site clearance and site formation after asbestos removal	21-Nov-23	27-Dec-23	30	50%	21-Nov-23	20-Dec-23	30	7	0%	0	4	49	KD3-2010.DVP01	KD3-3030.DVP01
KD3-3030.DVI	Decontamination at Portion 5B	28-Dec-23	1-Feb-24	30	0%	23-Feb-24	28-Mar-24	30	30	0%	-45	-45	0	KD3-SU-3030, KI	KD3-3050.DVP01
Section 6 [Portion 6,6A,6B&6C] Temp Access Road No. 2															
KD3-2015.DVI	Site clearance and site formation	15-Jul-23	30-Aug-23	40	100%	15-Jul-23 A	8-Dec-23	30	1	80%	0	-83	-16	KD3-1030, KD3-1	KD3-2020.DVP01
KD3-2020.DVI	ELS & Excavation of Lam Tai East Road within Portion 6, 6A, 6B, & 6C	8-Sep-23	6-Nov-23	48	100%	9-Dec-23	9-Dec-23	0	0	0%	-76	-28	-16	KD3-2015.DVP01	KD3-2040.DVP01
KD3-2040.DVI	Manhole of Lam Tai East Road Portion 6, 6A, 6B, & 6C	7-Nov-23	18-Jan-24	60	45%	9-Dec-23	23-Feb-24	60	60	0%	-28	-28	-16	KD3-PR-1000, KI	KD3-2050.DVP01
Section 5 [Portions 2B, 5A and 5B] - Road D1 and D2															
Method Statement															
S5-1030	MS - Submission and approval of all necessary documents incl. MS, material and remain statutory sub	30-Jun-23	7-Oct-23	83	100%	30-Jun-23	8-Dec-23	36	1	95%	0	-52	144	S5-1010, S5-1020	S5-2120
TTA Scheme/XP															
S5-1040.DVP01	TTA - DC05 Scheme	25-Aug-23	21-Oct-23	48	100%	25-Aug-23	8-Dec-23	48	0	100%	0	-39	-24	S5-1030.DVP01	S5-2070
Construction Works															
Preliminary Works															
Tree															
S5-2010	Portion 5A & 5B - Tree survey and removal	3-Apr-23	6-Nov-23	176	100%	30-Jun-23	8-Dec-23	60	1	0%	-69	-28	-2	S5-1030.DVP01	S5-2020
S5-2210.RP03	Site formation works & site clearance - Part 2	25-Aug-23	6-Nov-23	60	100%	26-Aug-23	19-Dec-23	60	10	0%	-1	-37	-34	AD-1070, AD-108	S5-2070, S5-209(
Archaeology															
S5-2130	Portion 5A - Related mitigation measures (if any)	26-Jan-24	4-Mar-24	30	0%	29-Jun-23	29-Jun-23	30	0	100%	174	203		S5-2120, S5-2000	S5-2080, S5-2030
S5-A-1020	Portion 5A - Obtain the Licence to Excavate and Search for Antiquities from Antiquities Authority	24-Oct-23	18-Dec-23	48	81.25%	9-Dec-23	6-Feb-24	48	48	0%	-40	-40	-37	P-1510.DVP01	S5-2000
S5-2000	Portion 5A - Archaeological survey with Fieldwork	19-Dec-23	4-Jan-24	12	0%	7-Feb-24	23-Feb-24	12	12	0%	-40	-40	-37	S5-A-1020	S5-2130, S5-2060
Asbestos															
S5-2020	Portion 5A & 5B - Asbestos removal Portion 5A & 5B	7-Nov-23	20-Nov-23	12	100%	8-Dec-23 A	12-Dec-23	12	3	0%	-27	-19	-2	S5-AS-1020, S5-	S5-2090, KD3-20
Ground Investigation															
S5-2230.RP03	Portion 5A & 5B - Mobilization & Ground Investigation (2/8no; 10d/no, 1wf)	19-Jan-24	4-Mar-24	36	0%	12-Jul-23 A	19-Jul-23 A	36	0	100%	158	187		S5-2220.RP03	S5-2030
S5-2220.RP03	Portion 5A & 5B - Traffic arrangement, temp. lighting, temp road and site formation	7-Nov-23	18-Jan-24	60	45%	20-Dec-23	5-Mar-24	60	60	0%	-37	-37	75	S5-2210.RP03	S5-2230.RP03
S5-2030	Portion 5A & 5B - Ground Investigation (5/8no; 10d/no, 1wf)	5-Mar-24	20-May-24	60	0%	19-Jul-23 A	6-Mar-24	60	1	0%	188	58	75	S5-2130, S5-223(	S5-2080
Land contamination															
S5-2040	Portion 5A - Land contamination survey (7 nos. drillholes, 3 days holes, 1 team)	25-Aug-23	6-Nov-23	60	100%	8-Dec-23	1-Feb-24	45	45	0%	-87	-72	-51	P-1340	S5-2050, P-1350
S5-2050	Portion 5A - Set up and operation of decontamination facility	7-Nov-23	4-Dec-23	24	100%	2-Feb-24	4-Mar-24	24	24	0%	-72	-72	-45	S5-2040	S5-2100, S5-208(
Demolish existing nullah and construct Decking DC05 & Pipe Bridge within Portion 5A															
2nd Dry Season															
S5-2070	ELS and Construction of Temp Decking	7-Nov-23	4-Dec-23	24	100%	20-Dec-23	19-Jan-24	24	24	0%	-37	-37	-34	SC-1210, S5-104	S5-2070.DVP01
S5-2070.DVP(	Divert Traffic	5-Dec-23	11-Dec-23	6	50%	20-Jan-24	26-Jan-24	6	6	0%	-37	-37	-34	S5-2070	S5-2140
New Road D1 & D2 (within Portion 5A & 5B)															
S5-2090	Portion 5A & 5B - ELS works	21-Nov-23	1-Feb-24	60	25%	20-Dec-23	5-Mar-24	60	60	0%	-25	-25	-8	S5-2020, S5-221(	S5-2160
Section 6 [Portions 6, 6A, 6B and 6C] - Lam Tai East Road															
Design															
DD-S6-1000.DV	Design - Preparation and Submission of New Direction Sign	23-Sep-23	9-Oct-23	12	100%	8-Dec-23	21-Dec-23	12	12	0%	-62	-62	-21	DD-S9-1020.DVF	DD-S6-1010.DVP
DD-S6-1010.DV	Design - Review and Approval of New Direction Sign	10-Oct-23	31-Oct-23	18	100%	22-Dec-23	15-Jan-24	18	18	0%	-62	-62	-21	DD-S6-1000.DVF	MS-S6-1000.DVP
Method statement															
MS-S6-1000.DV	MS - Preparation and Submission of New Direction Sign	1-Nov-23	21-Nov-23	18	100%	16-Jan-24	5-Feb-24	18	18	0%	-62	-62	-21	DD-S6-1010.DVF	MS-S6-1010.DVP
MS-S6-1010.DV	MS - Review and Approval of New Direction Sign	22-Nov-23	12-Dec-23	18	77.78%	6-Feb-24	29-Feb-24	18	18	0%	-62	-62	-21	MS-S6-1000.DVF	S9-6950.DVP01,
Subletting															
SL-S6-1000.DVI	Subletting - New Direction Sign	1-Nov-23	12-Dec-23	36	88.89%	16-Jan-24	29-Feb-24	36	36	0%	-62	-62	-21	DD-S6-1010.DVF	PO-S6-1000.DVP
Construction Works															
Preliminary Works															
Tree															
S6-2000	Portion 6 - Tree felling and site clearance	29-Sep-23	27-Nov-23	48	100%	29-Sep-23	8-Dec-23	48	1	0%	0	-10	6	S6-1020, TTA-20	S6-2010
Asbestos															
S6-2010	Portion 6, 6A, 6B & 6C - Asbestos removal	28-Nov-23	25-Jan-24	48	18.75%	8-Dec-23 A	25-Jan-24	48	38	0%	-9	0	6	S6-1030, S6-200(	S6-2020, S6-2050
KD6 | Section 1 [Portions 1, 1A, 4 and 7] - Lam Tai East Road															
Method Statement															
SUKD6-1000	Prepare & Submit FS Notes & FSI to FSD for approval	7-Sep-23	23-Dec-23	90	84.44%	6-Oct-23 A	27-Dec-23	90	15	0%	-23	-1	0	MSKD6-1030	SUKD6-1010
SUKD6-1010	Feedback from FSD	27-Dec-23	7-Feb-24	36	0%	28-Dec-23	8-Feb-24	36	36	0%	-1	-1	0	SUKD6-1000	SUKD6-1020
Procurement															
POKD7-1020	Procurement - Material of BC03	22-Sep-23	4-Dec-23	60	100%	28-Aug-23	8-Jan-24	60	24	0%	22	-27	58	SUBKD6-1040, P	POKD7-1010, DV
Construction Works															
Preliminary Works															
Tree															
TRKD6-1030	Tree Felling, Preservation at Portion 4 & 7	8-Jun-23	7-Sep-23	77	100%	8-Jun-23 A	8-Dec-23	12	1	20%	0	-76	2	TRKD6-1010	TRKD6-1040
TRKD6-1040	Site clearance at Portion 4 & 7	8-Sep-23	21-Sep-23	12	100%	9-Dec-23	22-Dec-23	12	12	0%	-76	-76	2	TRKD6-1030, SU	KD6-3030
Land Contamination															
Portion 1															
LCKD6-1090	Decontamination at Portion 1	30-Nov-23	29-Dec-23	24	29.17%	25-Oct-23	25-Oct-23 A	0	0	100%	31	55		LCKD6-1080	LCKD6-1070
Portion 1A															
LCKD6-1040	Submit CAR & RAP (if any) - Portion 1A	9-Nov-23	22-Nov-23	12	100%	25-Oct-23	25-Oct-23 A	0	0	100%	13	25		LCKD6-1030, LC	LCKD6-1050
LCKD6-1050	Approval of CAP & RAP - Portion 1A	23-Nov-23	6-Jan-24	36	36.11%	25-Oct-23	25-Oct-23 A	0	0	100%	25	61		LCKD6-1040	LCKD6-1070
LCKD6-1070	Decontamination at Portion 1A	8-Jan-24	14-Feb-24	30	0%	25-Oct-23	25-Oct-23 A	0	0	100%	61	91		LCKD6-1050, LC	S1-1004.DVP01
Common Utility Tunnel CUT Bay 1-23															
CUT Bay 1 to 21															
ELS & Excavation CUT bay 1 to 21															
S1-1001.DVF	Sheetpile for CUT bay 3 & 4	17-Nov-23	30-Dec-23	36	50%	27-Sep-23	11-Nov-23	36	0	100%	41	40		S1-1000	S1-1002.DVP01,
S1-1000.DVF	Excavation for CUT bay 1 to 2	17-Nov-23	14-Dec-23	24	75%	13-Nov-23	14-Dec-23	24	6	0%	4	0	4	S1-1000	S1-1020
S1-1002.DVF	Excavation for CUT bay 3 to 4	2-Jan-24	29-Jan-24	24	0%	13-Nov-23	29-Jan-24	24	42	0%	40	0	4	S1-1001.DVP01	S1-1020.DVP01
S1-1003.DVF	Sheetpile for CUT bay 5 & 6	2-Jan-24	15-Feb-24	36	0%	4-Oct-23 A	16-Feb-24	36	55	0%	73	-1	3	S1-1001.DVP01	S1-1004.DVP01,
S1-1004.DVF	Excavation for CUT bay 5 to 6	16-Feb-24	14-Mar-24	24	0%	13-Nov-23	14-Mar-24	24	23	0%	76	0	4	S1-1003.DVP01,	S1-1030
Structure CUT bay1 to 21															
S1-1020	Construction of CUT bay 1 & 2	15-Dec-23	29-Feb-24	60	0%	15-Dec-23	29-Feb-24	60	60	0%	0	0	4	S1-1000.DVP01	S1-1050
Section 1 [Portions 1, 1A, 4 and 7] - Lam Tai East Road															
Design															
DDS1-1010.DVI	Design - Approval of Temp. design DC03	4-Sep-23	23-Sep-23	18	100%	20-Oct-23	30-Dec-23	18	18	0%	-38	-79	27	DDS1-1000.DVP(	KD6-3060
Method Statement															
MSS1-1030.DVI	MS - Approval of Temp. design DC03	18-Sep-23	10-Oct-23	18	100%	12-Oct-23	30-Dec-23	18	18	0%	-19	-67	27	MSS1-1020.DVP	KD6-3060
Subletting															
SUBS1-1040.D\	Subleting DC03	4-Sep-23	17-Oct-23	36	100%	29-Sep-23	8-Jan-24	36	24	0%	-22	-67	21	DDS1-1000.DVP(	KD6-3060
Procurement															
PRO-1050.DVP	Procument DC03	4-Sep-23	17-Oct-23	36	100%	29-Sep-23	10-Jan-24	36	26	0%	-22	-69	19	DDS1-1000.DVP(	KD6-3060
TTA Scheme/XP															
TTAS1-1000.D\	TTA Scheme and Approval for DC03 Works at Lam Tai East Road	25-Aug-23	28-Sep-23	30	100%	18-Sep-23	27-Dec-23	30	15	0%	-20	-72	0	CD-1020	KD6-3030
Construction Works															
Modification of Lam HI Road and DC03															
2nd Dry Season															
KD6-3030	Demolition of existing nullah at Portion 7	3-Oct-23	7-Nov-23	30	100%	28-Dec-23	1-Feb-24	30	30	0%	-71	-71	0	GIKD6-1030, SC	KD6-3060



Actual Work
Remaining Work
Critical Remaining Work
Project Base...
Milestone
Project Base...

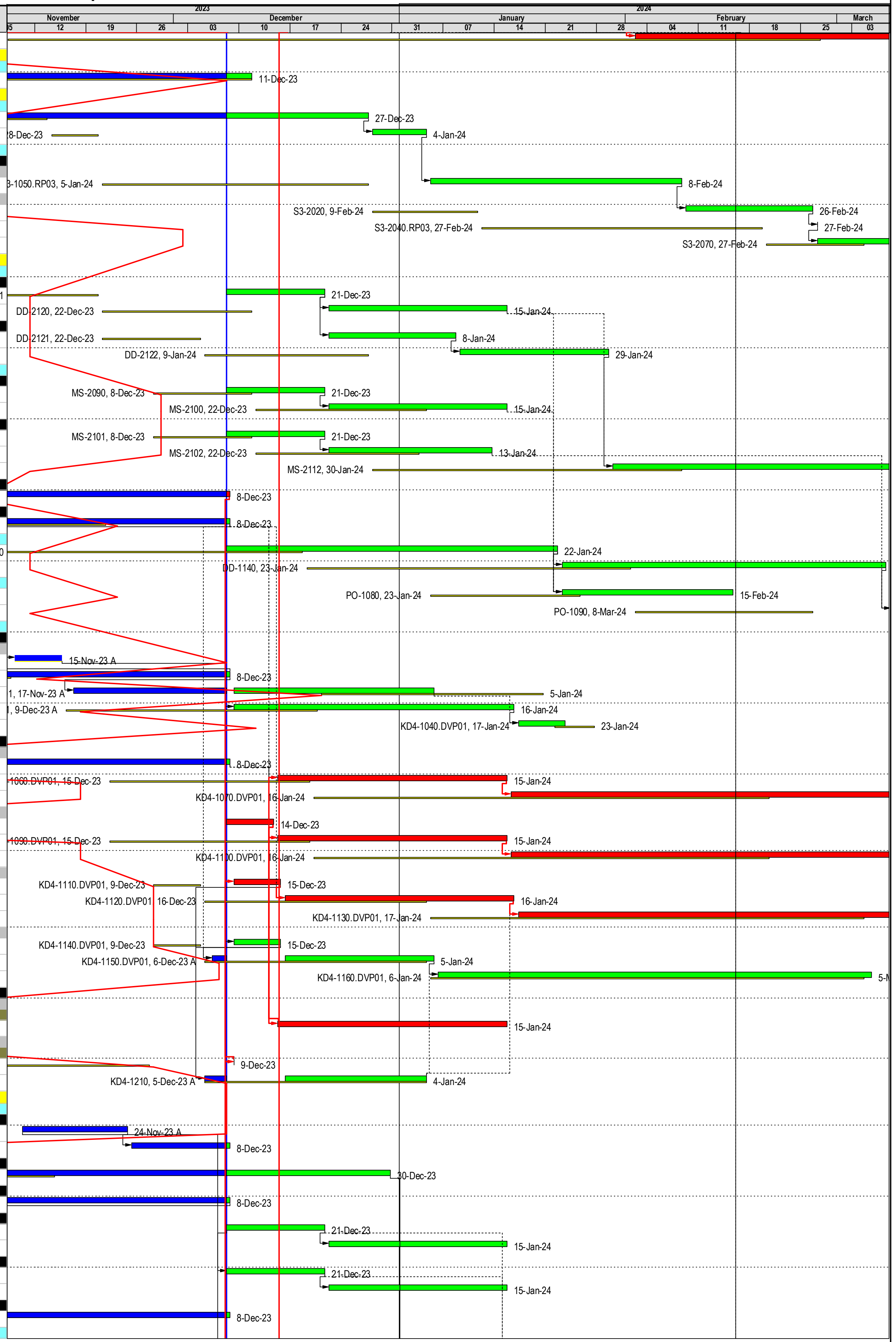
Data Date: 8-Dec-23
Project Start: 8 Dec 2022
Project End: 10-Mar-29

YL/2021/04
Three Months Rolling Programme

Date	Revision	Checked	Approved
31-Aug-23	RP.A03 - Accepted (4-Oct-23)		
15-Nov-23	2310 MPU		
15-Dec-23	2311 MPU		

Site Formation and Infrastructure Works for Yuen Long South First Phase Development – Contract 2

Activity ID	Activity Name	BL Project Start	BL Project Finish	BL Project Duration	Schedule % Complete	Start	Finish	Duration	Remaining Duration	Activity % Complete	Variance - BL Project Start Date	Variance - BL Project Finish Date	Total Float	Predecessors	Successors
KD6-3060	ELS and Construction 1st Half of Decking DC03 at Portion 7	8-Nov-23	27-Feb-24	90	28.89%	2-Feb-24	27-May-24	90	90	0%	-71	-71	0	KD6-3030, SUBS	KD6-3060.DVP01
—— Section 2 [Portion 2A] - Open Space															
TTA Scheme/XP															
S2-1000	Scheme Preparation and Submission	25-Aug-23	11-Dec-23	90	96.67%	25-Aug-23	11-Dec-23	90	3	0%	0	0	26	CD-1020, P-1160	S2-1020
—— Section 3 [Portions 8 and 8A] - Lam Yu Road															
TTA Scheme/XP															
S3-1020.DVP01	TTA - Scheme TMLG Coordination/Meeting/Approval	29-Sep-23	13-Nov-23	36	100%	9-Aug-23 A	27-Dec-23	36	15	0%	44	-36	10	S3-1010.DVP01	S3-1030.DVP01
S3-1030.DVP01	TTA - Roadwork Advise (RA)	14-Nov-23	20-Nov-23	6	100%	28-Dec-23	4-Jan-24	6	6	0%	-36	-36	10	S3-1020.DVP01	S3-1010, S3-1020
Construction Works															
Preliminary Works															
Tree															
S3-1050.RP03	Portion 8,8A - Tree Survey and Removal-Part 2	21-Nov-23	27-Dec-23	30	50%	5-Jan-24	8-Feb-24	30	30	0%	-36	-36	10	S3-1040, S3-103	S3-2020
Asbestos															
S3-2020	Portion 8,8A - Asbestos survey, building demolition, removal and site clearance	28-Dec-23	11-Jan-24	12	0%	9-Feb-24	26-Feb-24	12	12	0%	-36	-36	10	S3-1040, S3-105	S3-2050, S3-2040
S3-2040.RP03	Portion 8,8A - Abatement plan	12-Jan-24	19-Feb-24	30	0%	27-Feb-24	27-Feb-24	0	0	0%	-36	-6	10	S3-2020	S3-2070
S3-2070	Portion 8,8A - Asbestos removal	20-Feb-24	4-Mar-24	12	0%	27-Feb-24	11-Mar-24	12	12	0%	-6	-6	10	S3-2060, S3-204	S3-2090
KD4 | Section 9 [Portions 18 and 19] - KU Rd. and KH Rd.															
Design															
ELS Design DC06															
DD-2110	Design - Preparation and Submission of DC06 ELS design	7-Nov-23	20-Nov-23	12	100%	8-Dec-23	21-Dec-23	12	12	0%	-27	-27	54	KD4-1000, DD-20	DD-2120, DD-2121
DD-2120	Design - Review and Approval of DC06 ELS Design	21-Nov-23	11-Dec-23	18	83.33%	22-Dec-23	15-Jan-24	18	18	0%	-27	-27	54	DD-2110	KD4-6640, MS-21
ELS Design DC07															
DD-2121	Design - Preparation and Submission of DC07 ELS Design	21-Nov-23	4-Dec-23	12	100%	22-Dec-23	8-Jan-24	12	12	0%	-27	-27	66	DD-2100, DD-21	DD-2122
DD-2122	Design - Review and Approval of DC07 ELS Design	5-Dec-23	27-Dec-23	18	16.67%	9-Jan-24	29-Jan-24	18	18	0%	-27	-27	66	DD-2121	KD4-3220, MS-21
Method Statement															
Decking DC06															
MS-2090	MS - Preparation and Submission for DC06 Construction	28-Nov-23	11-Dec-23	12	75%	8-Dec-23	21-Dec-23	12	12	0%	-9	-9	54	MS-2070, PO-10	MS-2100
MS-2100	MS - Review and Approval of DC06 Construction	12-Dec-23	4-Jan-24	18	0%	22-Dec-23	15-Jan-24	18	18	0%	-9	-9	54	MS-2090	PO-1080
Decking DC07															
MS-2101	MS - Preparation and Submission for DC07 Construction	28-Nov-23	11-Dec-23	12	75%	8-Dec-23	21-Dec-23	12	12	0%	-9	-9	56	MS-2080, PO-10	MS-2102
MS-2102	MS - Review and Approval of Method Statement for DC07Construction	12-Dec-23	3-Jan-24	17	0%	22-Dec-23	13-Jan-24	17	17	0%	-9	-9	56	MS-2101	PO-1090
MS-2112	MS - Preparation and Submission for Precast Beam Installation for DC06 and DC07 Decking	28-Dec-23	8-Feb-24	36	0%	30-Jan-24	14-Mar-24	36	36	0%	-27	-27	66	DD-2122, DD-21	MS-2122
Road Widening (Take-off Yu Hing Yuen)															
SU-KD4-1040	MS - Review and Approval of taken off Yu Hing Yuen & reinforcement	9-Oct-23	30-Oct-23	18	100%	20-Aug-23	8-Dec-23	18	1	0%	40	-34	0	SU-KD4-1030	KD4-1220
Traffic Deck (TD5, 6, 8, 9, 10 & 11)															
MS-S9-1070	MS - Review and Approval of Traffic Deck	1-Nov-23	21-Nov-23	18	100%	5-Oct-23 A	8-Dec-23	18	1	0%	22	-15	5	MS-S9-1060	KD4-1060.DVP01
Subletting															
DD-1120	Subletting - DC06 Construction Works (S9)	7-Nov-23	18-Dec-23	36	75%	8-Dec-23	22-Jan-24	36	36	0%	-27	-27	13	DD-1100	DD-1140, PO-1080
DD-1140	Subletting - DC07 Construction Works (S9)	19-Dec-23	1-Feb-24	36	0%	23-Jan-24	7-Mar-24	36	36	0%	-27	-27	13	DD-1120	PO-1090
Procurement															
PO-1080	Procurement - DC06 Material for Construction	5-Jan-24	25-Jan-24	18	0%	23-Jan-24	15-Feb-24	18	18	0%	-15	-15	48	MS-2100, DD-11	KD4-6620
PO-1090	Procurement - DC07 Material for Construction	2-Feb-24	26-Feb-24	18	0%	8-Mar-24	28-Mar-24	18	18	0%	-27	-27	13	MS-2102, DD-11	KD4-3200
Construction Works (KD4)															
Working Deck (WD) and Pre-drill Works															
Portion 18 & 19 - Working Deck (WD) and Pre-drill Works															
KD4-1010.DV	Portion 18 & 19 (WD) - Plant Mobilization for Pre-drill	9-Nov-23	15-Nov-23	6	100%	9-Nov-23 A	15-Nov-23	6	0	100%	0	0		KD4-1000.DVP01	KD4-1020.DVP01
KD4-1000.DV	Portion 18 & 19 (WD) - Erection of Movable Working Deck WD	18-Oct-23	8-Nov-23	18	100%	3-Oct-02 A	8-Dec-23	18	1	50%	6393	-26	21	PO-S9-1010.DVF	KD4-1010.DVP01
KD4-1030.DV	Portion 19 (WD) - Pre-drill (4no; 6d/no, 1wf)	21-Dec-23	20-Jan-24	24	0%	17-Nov-23	5-Jan-24	24	21	0%	29	13	50	KD4-1000.DVP01	KD4-1040.DVP01
KD4-1020.DV	Portion 18 (WD) - Pre-drill (5no; 6d/no, 1wf)	16-Nov-23	20-Dec-23	30	63.33%	9-Dec-23 A	16-Jan-24	30	30	0%	-20	-20	41	S9-1080.DVP01,	KD4-1040.DVP01
KD4-1040.DV	Portion 18 & 19 (WD) - Prepare and Submit Report	22-Jan-24	27-Jan-24	6	0%	17-Jan-24	23-Jan-24	6	6	0%	4	4	41	KD4-1030.DVP0	KD4-6620, KD4-3
Traffic Deck															
Portion 3 - Traffic Deck (TD5)															
KD4-1050.DV	Portion 3 (TD5) - Road Setback at KU Rd. and KH Rd.	31-Aug-23	6-Sep-23	6	100%	3-Oct-23 A	8-Dec-23	6	1	0%	-26	-77	5	KD4-1000, S9-10	KD4-1060.DVP01
KD4-1060.DV	Portion 3 (TD5) - Abutment for Traffic Deck	22-Nov-23	19-Dec-23	24	58.33%	15-Dec-23	15-Jan-24	24	24	0%	-20	-20	0	KD4-1050.DVP0	KD4-1070.DVP01
KD4-1070.DV	Portion 3 (TD5) - Decking for Traffic Deck	20-Dec-23	20-Feb-24	48	0%	16-Jan-24	14-Mar-24	48	48	0%	-20	-20	0	KD4-1060.DVP01	KD4-6600
Portion 3 - Traffic Deck (TD6)															
KD4-1080.DV	Portion 3 (TD6) - Road Setback at KU Rd. and KH Rd.	31-Aug-23	6-Sep-23	6	100%	8-Dec-23	14-Dec-23	6	6	0%	-82	-82	0	S9-1080.DVP01	KD4-1090.DVP01
KD4-1090.DV	Portion 3 (TD6) - Abutment for Traffic Deck	22-Nov-23	19-Dec-23	24	58.33%	15-Dec-23	15-Jan-24	24	24	0%	-20	-20	0	KD4-1080.DVP0	KD4-1100.DVP01
KD4-1100.DV	Portion 3 (TD6) - Decking for Traffic Deck	20-Dec-23	20-Feb-24	48	0%	16-Jan-24	14-Mar-24	48	48	0%	-20	-20	0	KD4-1090.DVP01	KD4-6600
Portion 3 - Traffic Deck (TD9)															
KD4-1110.DV	Portion 3 (TD9) - Road Setback at KU Rd. and KH Rd.	28-Nov-23	4-Dec-23	6	100%	9-Dec-23	15-Dec-23	6	6	0%	-10	-10	0	KD4-1000, S9-10	KD4-1120.DVP01
KD4-1120.DV	Portion 3 (TD9) - Abutment for Traffic Deck	5-Dec-23	4-Jan-24	24	12.5%	16-Dec-23	16-Jan-24	24	24	0%	-10	-10	0	KD4-1110.DVP0	KD4-1130.DVP01
KD4-1130.DV	Portion 3 (TD9) - Decking for Traffic Deck	5-Jan-24	4-Mar-24	48	0%	17-Jan-24	15-Mar-24	48	48	0%	-10	-10	0	KD4-1120.DVP0	KD4-3100
Portion 12 - Traffic Deck (TD10)															
KD4-1140.DV	Portion 12 (TD10) - Road Setback at KU Rd. and KH Rd.	28-Nov-23	4-Dec-23	6	100%	9-Dec-23	15-Dec-23	6	6	0%	-10	-10	9	S9-1080.DVP01,	KD4-1150.DVP01
KD4-1150.DV	Portion 12 (TD10) - Abutment for Traffic Deck	5-Dec-23	4-Jan-24	24	12.5%	6-Dec-23 A	5-Jan-24	24	15	0%	-1	-1	9	KD4-1140.DVP0	KD4-1160.DVP01
KD4-1160.DV	Portion 12 (TD10) - Decking for Traffic Deck	5-Jan-24	4-Mar-24	48	0%	6-Jan-24	5-Mar-24	48	48	0%	-1	-1	9	KD4-1150.DVP0	KD4-3100
Box Culvert BC04 and Decking															
Portion 18 (KD4) - BC04 and DC06															
Portion 18 (KD4) - DC06 Widen the Road															
KD4-6020	Portion 18 (BC04/DC06) - Trial pit / trench for DC06	7-Sep-23	6-Oct-23	24	100%	15-Dec-23	15-Jan-24	24	24	0%	-82	-82	0	KD4-1080.DVP0	KD4-1090.DVP01
Portion 19 (KD4) - BC04 and DC07															
Portion 19 (KD4) - DC07 Widen the Road															
KD4-1220	Portion 19 (BC04/DC07) - Yu Hing Yuen Further liaision	7-Nov-23	27-Nov-23	18	100%	9-Dec-23	9-Dec-23	0	0	0%	-28	-10	0	PR-1000.DVP01,	KD4-1110.DVP01
KD4-1210	Portion 19 (BC04/DC07) - Trial pit / trench for DC07	5-Dec-23	4-Jan-24	24	12.5%	5-Dec-23 A	4-Jan-24	24	14	0%	0	0	10	S9-1080.DVP01,	KD4-1130.DVP01
—— Section 9 [Portions 3, 12, 12A, 12B,12C, 13, 18 & 19] - KU Rd. and KH Rd.															
Design															
Temp. Working Platform BC04															
DD-S9-1000	Design - Preparation and Submission of BC04 Temp. Working platform	25-Aug-23	7-Sep-23	12	100%	10-Nov-23	24-Nov-23	12	0	100%	-63	-64		S9-1000	DD-S9-1010, MS-
DD-S9-1010	Design - Review and Approval of BC04 Temp. Working platform	8-Sep-23	28-Sep-23	18	100%	25-Nov-23	8-Dec-23	18	1	0%	-64	-58	47	DD-S9-1000	Sub-S9-1000
Temp. Working Footbridge FB01, FB02, FB03 and FB04															
DD-S9-1090.A	Design - Review and Approval for FB01,FB02,FB03,FB04 Temp. Footbridge	25-Oct-23	14-Nov-23	18	100%	23-Sep-23	30-Dec-23	18	18	0%	24	-38	8	DD-S9-1080.A01	S9-1005.DVP01,
ELS BC04															
DD-S9-1030	Design - Review and Approval of BC04 ELS	2-Sep-23	22-Sep-23	18	100%	21-Aug-23	8-Dec-23	18	1	0%	11	-63	29	DD-S9-1020	Sub-S9-1010
ELS UU															
DD-S9-1040	Design - Preparation and Submission of UU ELS (Portion 3, 12, 18 & 19)	2-Sep-23	15-Sep-23	12	100%	8-Dec-23	21-Dec-23	12	12	0%	-80	-80	39	DD-S9-1020	DD-S9-1050, MS-
DD-S9-1050	Design - Review and Approval of UU ELS (Portion 3, 12, 18 & 19)	16-Sep-23	9-Oct-23	18	100%	22-Dec-23	15-Jan-24	18	18	0%	-80	-80	75	DD-S9-1040	S9-1610
Road Lighting System															
DD-S9-1060	Design - Preparation and Submission of Irrigation System	25-Aug-23	7-Sep-23	12	100%	8-Dec-23	21-Dec-23	12	12	0%	-87	-87	57	CD-1010, DD-S9	DD-S9-1070, Sub
DD-S9-1070	Design - Review and Approval of Irrigation System	8-Sep-23	28-Sep-23	18	100%	22-Dec-23	15-Jan-24	18	18	0%	-87	-87	177	DD-S9-1060	S9-1700
Traffic Deck (TD5, 6, 8, 9, 10 & 11)															
DD-S9-1030.D	Design - Review and Approval of Traffic Deck Design	23-Sep-23	16-Oct-23	18	100%	6-Sep-23 A	8-Dec-23	18	1	100%	15	-45	5	DD-S9-1020.DVF	MS-S9-1060, PO-
Method Statement															



Legend	
Actual Work	Project Base...
Remaining Work	Milestone
Critical Remaining Work	Project Base...

Data Date: 8-Dec-23
Project Start: 8 Dec 2022
Project End: 10-Mar-29

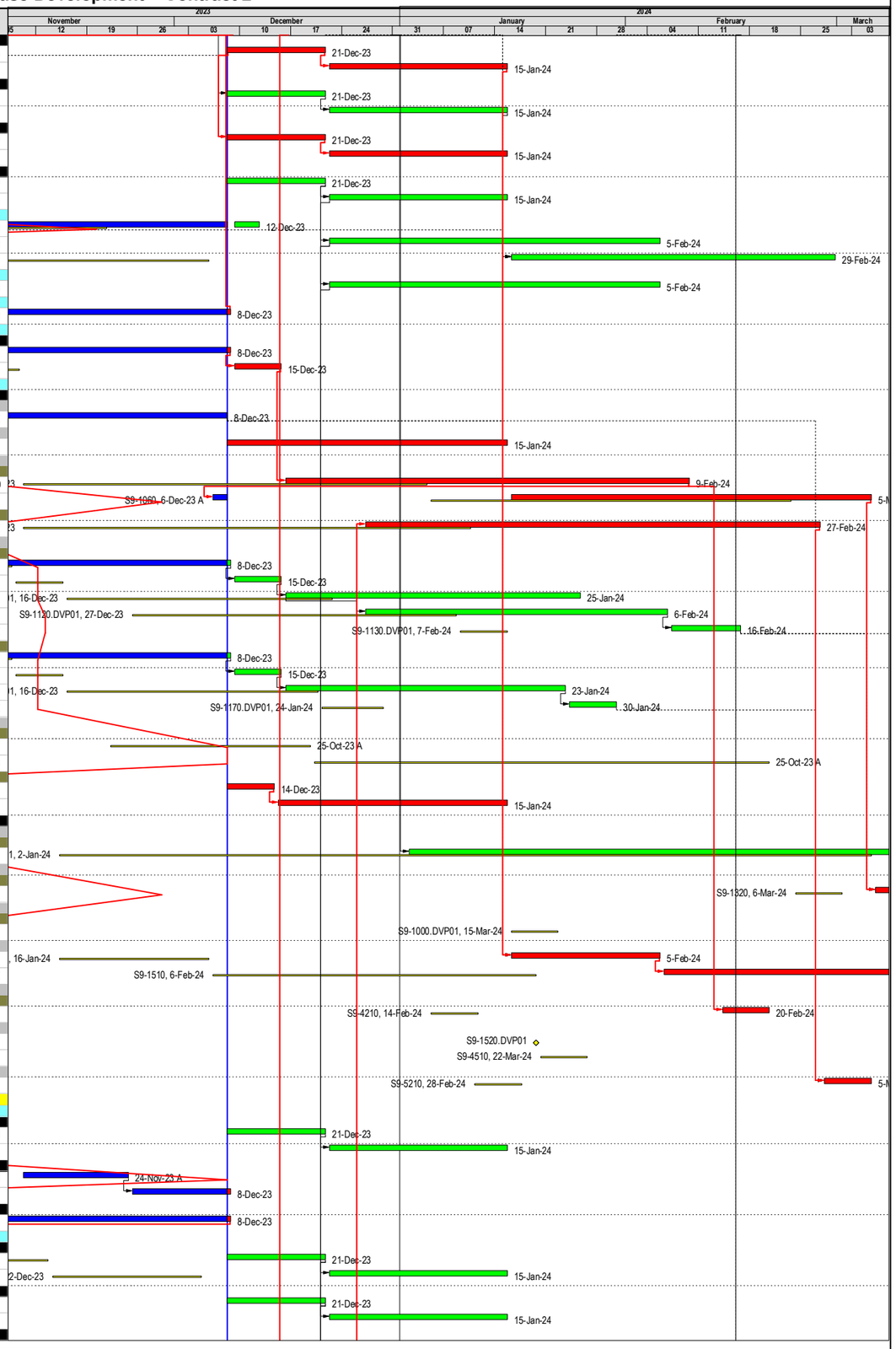
YL/2021/04

Three Months Rolling Programme

Date	Revision	Checked	Approved
31-Aug-23	RP.A03 - Accepted (4-Oct-23)		
15-Nov-23	2310 MPU		
15-Dec-23	2311 MPU		

Site Formation and Infrastructure Works for Yuen Long South First Phase Development – Contract 2

Activity ID	Activity Name	BL Project Start	BL Project Finish	BL Project Duration	Schedule % Complete	Start	Finish	Duration	Remaining Duration	Activity % Complete	Variance - BL Project Start Date	Variance - BL Project Finish Date	Total Float	Predecessors	Successors
Temp. Working Platform/ELS BC04															
MS-S9-1020	MS - Preparation and Submission for BC04 ELS	2-Sep-23	15-Sep-23	12	100%	8-Dec-23	21-Dec-23	12	12	0%	-80	-80	0	DD-S9-1020	MS-S9-1030, Sub
MS-S9-1030	MS - Review and Approval of BC04 ELS	16-Sep-23	9-Oct-23	18	100%	22-Dec-23	15-Jan-24	18	18	0%	-80	-80	0	MS-S9-1020	S9-1500.DVP01
ELS UU															
MS-S9-1040	MS - Preparation and Submission for UU (Portion 3, 12, 18 & 19) ELS	16-Sep-23	29-Sep-23	12	100%	8-Dec-23	21-Dec-23	12	12	0%	-68	-68	39	DD-S9-1040	MS-S9-1050
MS-S9-1050	MS - Review and Approval of UU (Portion 3, 12, 18 & 19) ELS	3-Oct-23	24-Oct-23	18	100%	22-Dec-23	15-Jan-24	18	18	0%	-68	-68	39	MS-S9-1040	Sub-S9-1020
Demolition															
MS-S9-1100.D	MS - Preparation and Submission for Demolition	16-Sep-23	29-Sep-23	12	100%	8-Dec-23	21-Dec-23	12	12	0%	-68	-68	0	MS-S9-1020	MS-S9-1110.DVP
MS-S9-1110.D	MS - Review and Approval of Demolition	3-Oct-23	24-Oct-23	18	100%	22-Dec-23	15-Jan-24	18	18	0%	-68	-68	0	MS-S9-1100.DVF	S9-3060.DVP01
Piling															
MS-S9-1020.D	MS - Preparation and Submission of Piling	25-Aug-23	7-Sep-23	12	100%	8-Dec-23	21-Dec-23	12	12	0%	-87	-87	12	CD-1020	MS-S9-1030.DVP
MS-S9-1030.D	MS - Review and Approval of Piling	8-Sep-23	28-Sep-23	18	100%	22-Dec-23	15-Jan-24	18	18	0%	-87	-87	12	MS-S9-1020.DVF	Sub-S9-1030, KD
Subletting															
Sub-S9-1010	Subletting - BC04 ELS	10-Oct-23	21-Nov-23	36	100%	18-Sep-23	12-Dec-23	36	3	3%	17	-18	29	DD-S9-1030, MS	S9-1500.DVP01,
Sub-S9-1030	Subletting - Piling	8-Sep-23	21-Oct-23	36	100%	22-Dec-23	5-Feb-24	36	36	0%	-87	-87	12	MS-S9-1030.DVF	PO-S9-1010, SL-S
Sub-S9-1020	Subletting - UU ELS (Portion 3, 12, 18 & 19)	25-Oct-23	5-Dec-23	36	100%	16-Jan-24	29-Feb-24	36	36	0%	-68	-68	39	DD-S9-1040, DD-	S9-1610
Procurement															
PO-S9-1010	Procurement - Piling	8-Sep-23	21-Oct-23	36	100%	22-Dec-23	5-Feb-24	36	36	0%	-87	-87	12	Sub-S9-1030	KD4-6620, KD4-3
Public Relation															
PR-1000.DVP01	PR - Liasion with the stakeholder at Yu Hing Yuen	12-Jun-23	29-Sep-23	93	100%	12-Jun-23	8-Dec-23	48	1	0%	0	-57	0	P-1220.DVP01, F	KD4-1220, S9-30
TTA Scheme/XP															
Portions 12															
S9-1035.DVP01	TTA - Scheme TMLG Coordination/Meeting/Approval	19-Sep-23	2-Nov-23	36	100%	19-Sep-23	8-Dec-23	36	1	0%	0	-31	0	S9-1025.DVP01	S9-1045.DVP01
S9-1045.DVP01	TTA - Roadwork Advise (RA)	3-Nov-23	9-Nov-23	6	100%	9-Dec-23	15-Dec-23	6	6	0%	-31	-31	0	S9-1035.DVP01	S9-1040
Construction Works															
Preliminary Works															
Tree															
S9-1100	Tree Survey, Felling and preservation for Portion 3, 12 & 13	7-Apr-23	21-Sep-23	137	100%	7-Apr-23 A	8-Dec-23	24	0	100%	0	-63	30	S9-1000, S9-102	S9-5110, S9-521
Asbestos															
S9-1110	Asbestos survey, building demolition and removal at Portion 12B	8-Sep-23	14-Oct-23	30	100%	8-Dec-23	15-Jan-24	30	30	0%	-75	-75	0	S9-1017.DVP01	S9-3060.DVP01
Portion 3, 12 & 13 - Ground Investigation (GI)															
Portion 3 & 12 - Ground Investigation (GI)															
S9-1040	Portion 12 (GI) - Ground Investigation along BC04 [After KD2B] (9no; 10d/no, 2wf)	10-Nov-23	4-Jan-24	45	53.33%	16-Dec-23	9-Feb-24	45	45	0%	-31	-31	0	P-1260.DVP01, S	S9-4210, S9-1060
S9-1060	Portion 3 (GI) - Ground Investigation along BC04 [After KD2B] (12no; 10d/no, 3wf)	5-Jan-24	23-Feb-24	40	0%	6-Dec-23 A	5-Mar-24	40	40	0%	23	-9	0	S9-1040.DVP01,	S9-1320
Portion 13 - Ground Investigation (GI)															
S9-1070	Portion 13 (GI) - Ground Investigation along BC06 & BC07 [After KD2C] (10no; 10d/no, 2wf)	10-Nov-23	10-Jan-24	50	48%	27-Dec-23	27-Feb-24	50	50	0%	-38	-38	0	S9-1050, S9-104	S9-5110, S9-521
Portion 3, 12 & 13 - Working Deck (WD) and Pre-drill Works															
Portion 3 & 12 - Working Deck (WD) and Pre-drill Works															
S9-1090.DVF	Portion 3 & 12 (WD) - Erection of Movable Working Deck WD	18-Oct-23	8-Nov-23	18	100%	3-Oct-23 A	8-Dec-23	18	1	0%	13	-26	15	MS-S9-1010.DVF	S9-1100.DVP01
S9-1100.DVF	Portion 3 & 12 (WD) - Plant Mobilization for Pre-drill	9-Nov-23	15-Nov-23	6	100%	9-Dec-23	15-Dec-23	6	6	0%	-26	-26	15	S9-1090.DVP01	S9-1110.DVP01
S9-1110.DVF	Portion 3 (WD) - Pre-drill (10no; 6d/no, 2wf)	16-Nov-23	22-Dec-23	32	59.38%	16-Dec-23	25-Jan-24	32	32	0%	-26	-26	15	S9-1040.DVP01,	S9-1120.DVP01
S9-1120.DVF	Portion 12 (WD) - Pre-drill (11no; 6d/no, 2wf)	25-Nov-23	8-Jan-24	35	31.43%	27-Dec-23	6-Feb-24	35	35	0%	-25	-25	15	S9-1110.DVP01	S9-1130.DVP01
S9-1130.DVF	Portion 3 & 12 (WD) - Prepare and Submit Report	9-Jan-24	15-Jan-24	6	0%	7-Feb-24	16-Feb-24	6	6	0%	-25	-25	15	S9-1120.DVP01	S9-4220, S9-132
Portion 13 - Working Deck (WD) and Pre-drill Works															
S9-1140.DVF	Portion 13 (WD) - Erection of Movable Working Deck WD	18-Oct-23	8-Nov-23	18	100%	3-Oct-23 A	8-Dec-23	18	1	0%	13	-26	21	KD4-1000.DVP01	S9-1150.DVP01
S9-1150.DVF	Portion 13 (WD) - Plant Mobilization for Pre-drill	9-Nov-23	15-Nov-23	6	100%	9-Dec-23	15-Dec-23	6	6	0%	-26	-26	21	S9-1140.DVP01	S9-1160.DVP01
S9-1160.DVF	Portion 13 (WD) - Pre-drill (10no; 6d/no, 2wf)	16-Nov-23	20-Dec-23	30	63.33%	16-Dec-23	23-Jan-24	30	30	0%	-26	-26	21	S9-1040.DVP01,	S9-1170.DVP01
S9-1170.DVF	Portion 13 (WD) - Prepare and Submit Report	21-Dec-23	29-Dec-23	6	0%	24-Jan-24	30-Jan-24	6	6	0%	-26	-26	21	S9-1160.DVP01	S9-5110, S9-521
Portion 3 & 13 - Traffic Deck															
Portion 3 - Traffic Deck (TD8)															
S9-1190.DVF	Portion 3 (TD8) - Abutment for Traffic Deck	22-Nov-23	19-Dec-23	24	58.33%	25-Oct-23	25-Oct-23 A	0	0	100%	24	48		S9-1180.DVP01,	S9-1200.DVP01
S9-1200.DVF	Portion 3 (TD8) - Decking for Traffic Deck	20-Dec-23	20-Feb-24	48	0%	25-Oct-23	25-Oct-23 A	0	0	100%	48	96		S9-1190.DVP01,	KD4-6600, KD4-3
Portion 13 - Traffic Deck (TD11)															
S9-1210.DVF	Portion 13 (TD11) - Road Setback at WNTT Rd. and KH Rd.	31-Aug-23	6-Sep-23	6	100%	8-Dec-23	14-Dec-23	6	6	0%	-82	-82	0	S9-1080.DVP01	S9-1220.DVP01
S9-1220.DVF	Portion 13 (TD11) - Abutment for Traffic Deck	7-Sep-23	6-Oct-23	24	100%	15-Dec-23	15-Jan-24	24	24	0%	-82	-82	0	S9-1210.DVP01	S9-1230.DVP01
Box Culvert BC04 and Decking															
Portion 3 - BC04, DC02A & Temp. FB01 (CHB55.945 - CHB95)															
Portion 3 - Piling Works DC02A															
S9-1005.DVF	Portion 3 (BC04/DC02A) - Construction of BC04 and the temp. footbridge 01	15-Nov-23	5-Mar-24	90	22.22%	2-Jan-24	23-Apr-24	90	90	0%	-38	-38	8	DD-S9-1090.A01	S9-1210
Portion 3 - BC04 and DC02B (42m, CHB 261 to CHB 303)															
Portion 3 - Piling Works DC02B															
S9-1320	Portion 3 (DC02B) - TTA DC02B	24-Feb-24	1-Mar-24	6	0%	6-Mar-24	12-Mar-24	6	6	0%	-9	-9	0	P-1450, S9-1130	S9-1350
Portion 3 - BC04 and DC06B (41m, CHB 626 to CHB 667)															
Portion 3 - Piling Works DC06B															
S9-1000.DVF	Portion 3 (DC06B) - TTA DC02B and DC06B	16-Jan-24	22-Jan-24	6	0%	15-Mar-24	21-Mar-24	6	6	0%	-48	-48	0	P-1450, S9-1130	S9-1013.DVP01
Portion 3 - BC04 (CHB 191 to CHB 261)															
S9-1500.DVP(	Portion 3 (BC04) - ELS BC04, stage 1(CHB 191 to 261)	15-Nov-23	5-Dec-23	18	100%	16-Jan-24	5-Feb-24	18	18	0%	-50	-50	0	S9-1100, PO-S9-	S9-1510
S9-1510	Portion 3 (BC04) - Construct BC04, stage 1(CHB 191 to 261)	6-Dec-23	19-Jan-24	36	5.56%	6-Feb-24	21-Mar-24	36	36	0%	-50	-50	0	S9-1500.DVP01,	S9-1520, S9-161
Portion 12 - BC04, DC07A & 7C & Temp. footbridge 03 (CHB 1070 to CHB 1125)															
Portion 12 - Temp. Footbridge FB03															
S9-4210	Portion 12 (BC04/FB03) - TTA Decking DC07A & DC07C	5-Jan-24	11-Jan-24	6	0%	14-Feb-24	20-Feb-24	6	6	0%	-31	-31	0	S9-1040, P-1450	S9-4213.DVP01
Portion 12 - BC04 (CHB 1005 to CHB 1070, 1 wf)															
S9-1520.DVP(	Portion 3 (BC04) - Completion of Construct BC04, stage 1(CHB 191 to 261)		19-Jan-24	0	0%		21-Mar-24	0	0	0%	-50	-50	0	S9-1510	S9-4510
S9-4510	Portion 12 (BC04) - ELS BC04, stage 1 (CHB 1005-1070, 1 wf)	20-Jan-24	26-Jan-24	6	0%	22-Mar-24	28-Mar-24	6	6	0%	-50	-50	0	S9-1520.DVP01	S9-4540
Portion 13 - BC06, BC07 and DC09 (CHC 373 to CHC 385)															
S9-5210	Portion 13 (BC06/BC07/DC09) - TTA BC06, BC07 & DC09 (pre. beam x 7 nos.)	11-Jan-24	17-Jan-24	6	0%	28-Feb-24	5-Mar-24	6	6	0%	-38	-38	0	S9-1100, S9-107	S9-5220
Section 11 [Portions 16 and 16A] - KH Rd. and Wong Ngai Tun Tsuen Road															
Design															
ELS															
DD-S11-1020.[	Design - Preparation and Submission for ELS for BC06 and BC07 for Portion 16	29-Sep-23	14-Oct-23	12	100%	8-Dec-23	21-Dec-23	12	12	0%	-57	-57	30	DD-S11-1000.DV	DD-S11-1030.DV
DD-S11-1030.[	Design - Review and Approval of ELS for BC06 and BC07 for Portion 16	16-Oct-23	6-Nov-23	18	100%	22-Dec-23	15-Jan-24	18	18	0%	-57	-57	30	DD-S11-1020.DV	S11-2010
Working Deck															
DD-S11-1040.[	Design - Preparation and Submission of Working Deck Design	5-Jul-23	2-Sep-23	52	100%	10-Nov-23	24-Nov-23	12	0	100%	-107	-68		CD-1020, DD-S9	DD-S11-1050.DV
DD-S11-1050.[	Design - Review and Approval of Working Deck Design	4-Sep-23	23-Sep-23	18	100%	25-Nov-23	8-Dec-23	18	1	100%	-68	-62	0	DD-S11-1040.DV	MS-S11-1020.DV
Traffic Deck (TD14)															
DD-S11-1070.[	Design - Review and Approval of Traffic Deck Design	18-Sep-23	10-Oct-23	18	100%	7-Sep-23 A	8-Dec-23	18	1	0%	9	-50	0	DD-S11-1060.DV	S11-1040.DVP01
Method Statement															
Decking DC10															
MS-S11-1045.[	MS - Preparation and Submission of Precast Beam Installation for Decking DC10	31-Oct-23	13-Nov-23	12	100%	8-Dec-23	21-Dec-23	12	12	0%	-33	-33	12	MS-S11-1020.DV	MS-S11-1055.DV
MS-S11-1055.[	MS - Review and Approval of Precast Beam Installation for Decking DC10	14-Nov-23	4-Dec-23	18	100%	22-Dec-23	15-Jan-24	18	18	0%	-33	-33	102	MS-S11-1045.DV	S11-2020
ELS															
MS-S11-1025.[	MS - Preparation and Submission of ELS for BC06 and BC07 for Portion 16	22-Sep-23	7-Oct-23	12	100%	8-Dec-23	21-Dec-23	12	12	0%	-63	-63	12	MS-S11-1005.DV	MS-S11-1035.DV
MS-S11-1035.[	MS - Review and Approval of ELS for BC06 and BC07 for Portion 16	9-Oct-23	30-Oct-23	18	100%	22-Dec-23	15-Jan-24	18	18	0%	-63	-63	30	MS-S11-1025.DV	S11-2010
Traffic Deck (TD14)															



Actual Work
Remaining Work
Critical Remaining Work
Project Base...
Milestone
Project Base...

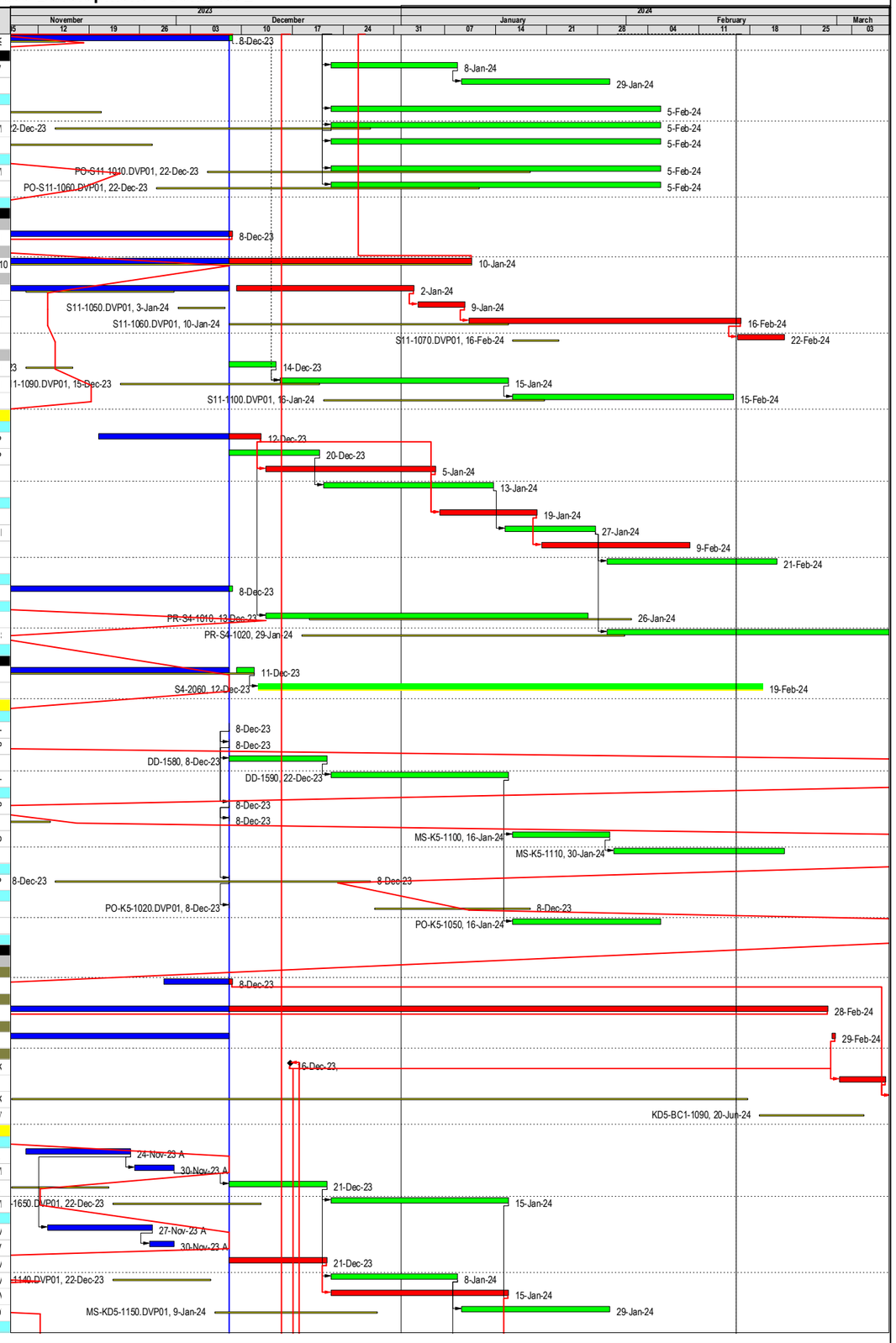
Data Date: 8-Dec-23
Project Start: 8 Dec 2022
Project End: 10-Mar-29

YL/2021/04
Three Months Rolling Programme

Date	Revision	Checked	Approved
31-Aug-23	RP.A03 - Accepted (4-Oct-23)		
15-Nov-23	2310 MPU		
15-Dec-23	2311 MPU		

Site Formation and Infrastructure Works for Yuen Long South First Phase Development – Contract 2

Activity ID	Activity Name	BL Project Start	BL Project Finish	BL Project Duration	Schedule % Complete	Start	Finish	Duration	Remaining Duration	Activity % Complete	Variance - BL Project Start Date	Variance - BL Project Finish Date	Total Float	Predecessors	Successors
MS-S11-1010.I	MS - Review and Approval of Traffic Deck	26-Oct-23	15-Nov-23	18	100%	5-Oct-23 A	8-Dec-23	18	1	0%	17	-20	11	MS-S11-1000.DV	S9-5110, S11-105
Piling															
MS-S11-1040.I	MS - Preparation and Submission of Piling	8-Sep-23	21-Sep-23	12	100%	22-Dec-23	8-Jan-24	12	12	0%	-87	-87	18	MS-S9-1020.DVF	MS-S11-1050.DV
MS-S11-1050.I	MS - Review and Approval of Piling	22-Sep-23	14-Oct-23	18	100%	9-Jan-24	29-Jan-24	18	18	0%	-87	-87	18	MS-S11-1040.DV	S11-2010
Subletting															
SL-S11-1020.D\	Subletting - ELS for BC06 and BC07 for Portion 16	9-Oct-23	20-Nov-23	36	100%	22-Dec-23	5-Feb-24	36	36	0%	-63	-63	12	MS-S11-1025.DV	S11-2010
SL-S11-1060.D\	Subletting - Precast Beam for Decking DC10	14-Nov-23	27-Dec-23	36	58.33%	22-Dec-23	5-Feb-24	36	36	0%	-33	-33	12	MS-S11-1045.DV	PO-S11-1010.DV
SL-S11-1050.D\	Subletting - Piling	16-Oct-23	27-Nov-23	36	100%	22-Dec-23	5-Feb-24	36	36	0%	-57	-57	12	Sub-S9-1030	S11-2010
Procurement															
PO-S11-1010.D	Procurement - Material for Precast Beam for Decking DC10	5-Dec-23	18-Jan-24	36	8.33%	22-Dec-23	5-Feb-24	36	36	0%	-15	-15	12	SL-S11-1060.DV	PO-S11-1020.DV
PO-S11-1060.D	Procurement - Piling	28-Nov-23	11-Jan-24	36	25%	22-Dec-23	5-Feb-24	36	36	0%	-21	-21	12	PO-S9-1010	S11-2010
Construction Works															
Preliminary Works															
Portion 16 - Tree															
S11-0010	Portion 16 - Tree Survey, Felling and preservation	7-Apr-23	21-Sep-23	137	100%	7-Apr-23 A	8-Dec-23	24	1	0%	0	-64	0	AAD-1350, P-1420	S11-1040.DVP01
Portion 16 - Ground Investigation (GI)															
S9-1050	Portion 16 (GI) - Ground Investigation along BC06 & BC07 [After KD2C] (3no; 10d/no, 1 wf)	9-Aug-23	10-Jan-24	127	79.53%	9-Aug-23 A	10-Jan-24	50	26	0%	0	0	0	S11-1030.DVP01	S9-1070, S11-2010
Portion 16 - Working Deck (WD) and Pre-drill Works															
S11-1040.DVF	Portion 16 (WD) - Erection of Movable Working Deck WD	10-Nov-23	30-Nov-23	18	100%	3-Oct-23 A	2-Jan-24	18	18	0%	32	-25	0	MS-S11-1030.DV	S11-1050.DVP01
S11-1050.DVF	Portion 16 (WD) - Plant Mobilization for Pre-drill	1-Dec-23	7-Dec-23	6	100%	3-Jan-24	9-Jan-24	6	6	0%	-25	-25	0	S11-1040.DVP01	S11-1060.DVP01
S11-1060.DVF	Portion 16 (WD) - Pre-drill (5no; 6d/no, 1wf)	8-Dec-23	15-Jan-24	30	0%	10-Jan-24	16-Feb-24	30	30	0%	-25	-25	0	S11-1030.DVP01	S11-1070.DVP01
S11-1070.DVF	Portion 16 (WD) - Prepare and Submit Report	16-Jan-24	22-Jan-24	6	0%	16-Feb-24	22-Feb-24	6	6	0%	-24	-24	0	S11-1060.DVP01	S11-2010
Portion 16 - Traffic Deck (TD14)															
S11-1080.DVF	Portion 16 (TD14) - Road Setback at WNTT Rd. and KH Rd.	10-Nov-23	16-Nov-23	6	100%	8-Dec-23	14-Dec-23	6	6	0%	-24	-24	6	S11-1030.DVP01	S11-1090.DVP01
S11-1090.DVF	Portion 16 (TD14) - Abutment for Traffic Deck	23-Nov-23	20-Dec-23	24	54.17%	15-Dec-23	15-Jan-24	24	24	0%	-19	-19	6	S11-1080.DVP01	S11-1100.DVP01
S11-1100.DVF	Portion 16 (TD14) - Decking for Traffic Deck	21-Dec-23	20-Jan-24	24	0%	16-Jan-24	15-Feb-24	24	24	0%	-19	-19	6	S11-1090.DVP01	S11-2010
Section 4 [Portion 14] - Slip Road S2															
Design															
DD-S4-1010.DV	Design - Submission of ELS for Bay 3 of Box Structure	25-Aug-23	7-Sep-23	12	100%	20-Nov-23	12-Dec-23	12	4	0%	-71	-79	0	S4-1000	DD-S4-1020.DVP
DD-S4-1030.DV	Design - Submission of Construction of Box Structure	25-Aug-23	6-Sep-23	11	100%	8-Dec-23	20-Dec-23	11	11	0%	-87	-87	11	S4-1000	DD-S4-1040.DVP
DD-S4-1020.DV	Design - Approval of ELS for Bay 3 of Box Structure	8-Sep-23	28-Sep-23	18	100%	13-Dec-23	5-Jan-24	18	18	0%	-79	-79	0	DD-S4-1010.DVF	S4-1040.DVP02
DD-S4-1040.DV	Design - Approval of Construction of Box Structure	7-Sep-23	27-Sep-23	18	100%	21-Dec-23	13-Jan-24	18	18	0%	-87	-87	11	DD-S4-1030.DVF	S4-1090.DVP02
Method Statement															
S4-1040.DVP02	MS - Submission of ELS for Bay 3 of Box Structure	29-Sep-23	14-Oct-23	12	100%	6-Jan-24	19-Jan-24	12	12	0%	-79	-79	0	DD-S4-1010.DVF	S4-1060.DVP02
S4-1090.DVP02	MS - Submission of Construction of Box Structure	28-Sep-23	13-Oct-23	12	100%	15-Jan-24	27-Jan-24	12	12	0%	-87	-87	11	DD-S4-1040.DVF	S4-1100.DVP02,
S4-1060.DVP02	MS - Approval of ELS for Bay 3 of Box Structure	16-Oct-23	6-Nov-23	18	100%	20-Jan-24	9-Feb-24	18	18	0%	-79	-79	0	S4-1040.DVP02	S4-1070.DVP02
S4-1100.DVP02	MS - Approval of Construction of Box Structure	14-Oct-23	4-Nov-23	18	100%	29-Jan-24	21-Feb-24	18	18	0%	-87	-87	89	S4-1090.DVP02	S4-1080.DVP02
Subletting															
S4-1010	Subletting - S4 - C9 process	22-Feb-23	30-Aug-23	155	100%	22-Feb-23	8-Dec-23	48	1	0%	0	-83	1	S4-1000	S4-2010
Procurement															
PR-S4-1010	Procurement for ELS of Box Structure	19-Dec-23	1-Feb-24	36	0%	13-Dec-23	26-Jan-24	36	36	0%	5	5	48	DD-S4-1010.DVF	S4-2070.DVP01
PR-S4-1020	Procurement for Box Structure	18-Dec-23	31-Jan-24	36	0%	29-Jan-24	13-Mar-24	36	36	0%	-33	-33	11	S4-1090.DVP02	S4-2080.DVP01,
Construction Works															
Site Formation/Fill Replacement															
S4-2050	Portion 14 (SF) - Excavation on slope with Temporary access and working platform	16-Oct-23	11-Dec-23	48	93.75%	16-Oct-23	11-Dec-23	28	2	0%	0	0	1	S4-2010	S4-2060
S4-2060	Portion 14 (SF) - Filling no fines concrete on slope with Temporary access and working platform (Pit-by	12-Dec-23	19-Feb-24	54	0%	12-Dec-23	19-Feb-24	54	54	0%	0	0	1	S4-2050	S4-2090
KD5 | Section 10 [Portions 10, 10A, 10B, 10C, &10D] - Box Culvert BC01															
Design															
DD-1620	Design - Submission of Temp Deck TD1 for BC01	1-Sep-23	14-Sep-23	12	100%	8-Dec-23	8-Dec-23	0	0	0%	-81	-69	114	DD-1610	DD-1630, MS-K5-
DD-1630	Design - Approval of Temp Deck TD1 BC01	15-Sep-23	7-Oct-23	18	100%	8-Dec-23	8-Dec-23	0	0	0%	-69	-51	114	DD-1620	MS-K5-1120.DVP
DD-1580	Design - Submission of ELS & structure for BC01	6-Jun-24	20-Jun-24	12	0%	8-Dec-23	21-Dec-23	12	12	0%	143	143	161	DD-1630	DD-1590
DD-1590	Design - Approval of ELS & structure for BC01	21-Jun-24	12-Jul-24	18	0%	22-Dec-23	15-Jan-24	18	18	0%	143	143	161	DD-1580	PO-K5-1050, MS-
Method Statement															
MS-K5-1120.DV	MS - Method statement for Temp Deck TD1 for BC01	9-Oct-23	21-Oct-23	12	100%	8-Dec-23	8-Dec-23	0	0	0%	-51	-39	114	DD-1620, DD-16	MS-K5-1130.DVP
MS-K5-1130.DV	MS - Approval of Temp Deck TD1 for BC01	24-Oct-23	13-Nov-23	18	100%	8-Dec-23	8-Dec-23	0	0	0%	-39	-21	114	MS-K5-1120.DVF	KD5-BC-1050
MS-K5-1100	MS - Method statement for ELS & structure for BC01	13-Jul-24	26-Jul-24	12	0%	16-Jan-24	29-Jan-24	12	12	0%	143	143	161	DD-1590	MS-K5-1110, Sub
MS-K5-1110	MS - Approval of ELS & structure for BC01	27-Jul-24	16-Aug-24	18	0%	30-Jan-24	22-Feb-24	18	18	0%	143	143	179	MS-K5-1100	KD5-BC1-2010
Subletting															
Sub-K5-1020.D\	Subletting - Temp Deck TD1 for BC01	14-Nov-23	27-Dec-23	36	58.33%	8-Dec-23	8-Dec-23	0	0	0%	-21	15	114	MS-K5-1120.DVF	PO-K5-1020.DVP
Procurement															
PO-K5-1020.Dv	Procurement - Temp Deck TD1 for BC01	28-Dec-23	18-Jan-24	18	0%	8-Dec-23	8-Dec-23	0	0	0%	15	33	114	Sub-K5-1020.DV	KD5-BC-1050
PO-K5-1050	Procurement - ELS & structure for BC01	13-Jul-24	2-Aug-24	18	0%	16-Jan-24	5-Feb-24	18	18	0%	143	143	191	DD-1590	KD5-BC1-2010
Construction Works															
Box Culvert BC01															
2nd Dry Season 23/24															
Predrill															
KD5-BC1-10	Point Load Test to obtain contour for BC01	12-Oct-23	18-Oct-23	6	100%	29-Nov-23	8-Dec-23	6	1	0%	-40	-43	-3	KD5-BC1-1000	KD5-BC1-1030
UU diversion															
UU-KD5-1020	UU diversion - CLP	2-Aug-23	15-Sep-23	38	100%	2-Aug-23 A	28-Feb-24	48	65	100%	0	-134	-74	UU-KD5-1010, A'	KD5-1010
Road set back															
KD5-1010	Road set back and reinstatement - Kiu Hing road	19-Jul-23	7-Oct-23	68	100%	7-Sep-23 A	29-Feb-24	18	1	0%	-43	-117	-74	AW-K5-1000, UU	KD5-BC1-1010
Piling															
KD5-BC-102(	Portion 11 Completion of Ramp 02		31-Oct-23	0	100%		16-Dec-23	0	0	0%	-40	-40	-22	KD5-BC-1010	KD5-BC1-1010, K
KD5-BC1-10'	Piling Plant Mobilization to Nullah BC01	1-Nov-23	7-Nov-23	6	100%	1-Mar-24	7-Mar-24	6	6	0%	-98	-98	-74	SC-1210, KD5-1(	KD5-BC1-1030
KD5-BC1-10:	Socket H - BC01 48 nos (at nullah) (3d/nr, 2 rigs) - at nullah	8-Nov-23	17-Feb-24	82	31.71%	8-Mar-24	19-Jun-24	82	82	0%	-98	-98	-74	KD5-BC1-1010, H	KD5-BC1-1100, K
KD5-BC1-10:	Proof drill	19-Feb-24	4-Mar-24	13	0%	20-Jun-24	5-Jul-24	13	13	0%	-98	-98	-74	KD5-BC1-1030	KD5-BC1-2000.D
Section 10 [Portions 10, 10A, 10B, 10C, &10D] - Decking DC01 & Noise Enclosure															
Design															
DD-1615.DVP01	Design - Submission of Temp Deck TD1a for DC01	25-Aug-23	7-Sep-23	12	100%	10-Nov-23	24-Nov-23	12	0	100%	-63	-64		DD-1600	DD-1616.DVP01,
DD-1616.DVP01	Design - Approval of Temp Deck TD1a for DC01	8-Sep-23	28-Sep-23	18	100%	25-Nov-23	30-Nov-23	18	0	100%	-64	-51		DD-1615.DVP01	PO-S10-1020.DV
DD-1640.DVP01	Design - Submission of ELS & structure for DC01	8-Nov-23	21-Nov-23	12	100%	8-Dec-23	21-Dec-23	12	12	0%	-26	-26	4	DD-1616.DVP01	DD-1650.DVP01,
DD-1650.DVP01	Design - Approval of ELS & structure for DC01	22-Nov-23	12-Dec-23	18	77.78%	22-Dec-23	15-Jan-24	18	18	0%	-26	-26	4	DD-1640.DVP01	PO-S10-1030.DV
Method Statement															
MS-KD5-1120.D	MS - Method Statement of Temp Deck TD1a for DC01	8-Sep-23	21-Sep-23	12	100%	13-Nov-23	27-Nov-23	12	0	100%	-53	-54		DD-1615.DVP01	MS-KD5-1130.DV
MS-KD5-1130.D	MS - Approval of Method Statement of Temp Deck TD1a for DC01	22-Sep-23	14-Oct-23	18	100%	27-Nov-23	30-Nov-23	18	0	100%	-53	-39		MS-KD5-1120.D\	KD5-BC-1040.DV
MS-KD5-1180.D	MS - Piling Works for Portion 10	8-Sep-23	21-Sep-23	12	100%	8-Dec-23	21-Dec-23	12	12	0%	-75	-75	-32	CD-1020	MS-KD5-1190.DV
MS-KD5-1140.D	MS - Method statement for ELS & structure for DC01	22-Nov-23	5-Dec-23	12	100%	22-Dec-23	8-Jan-24	12	12	0%	-26	-26	10	DD-1640.DVP01	MS-KD5-1150.DV
MS-KD5-1190.D	MS - Approval of MS for Piling Works for Portion 10	22-Sep-23	14-Oct-23	18	100%	22-Dec-23	15-Jan-24	18	18	0%	-75	-75	-32	MS-KD5-1180.D\	S10-DC1-1020.D\
MS-KD5-1150.D	MS - Approval of ELS & structure for DC01	6-Dec-23	28-Dec-23	18	11.11%	9-Jan-24	29-Jan-24	18	18	0%	-26	-26	10	MS-KD5-1140.D\	KD5-DC1-1020.D
Subletting															



Actual Work
Remaining Work
Critical Remaining Work
Project Base...
Milestone
Project Base...

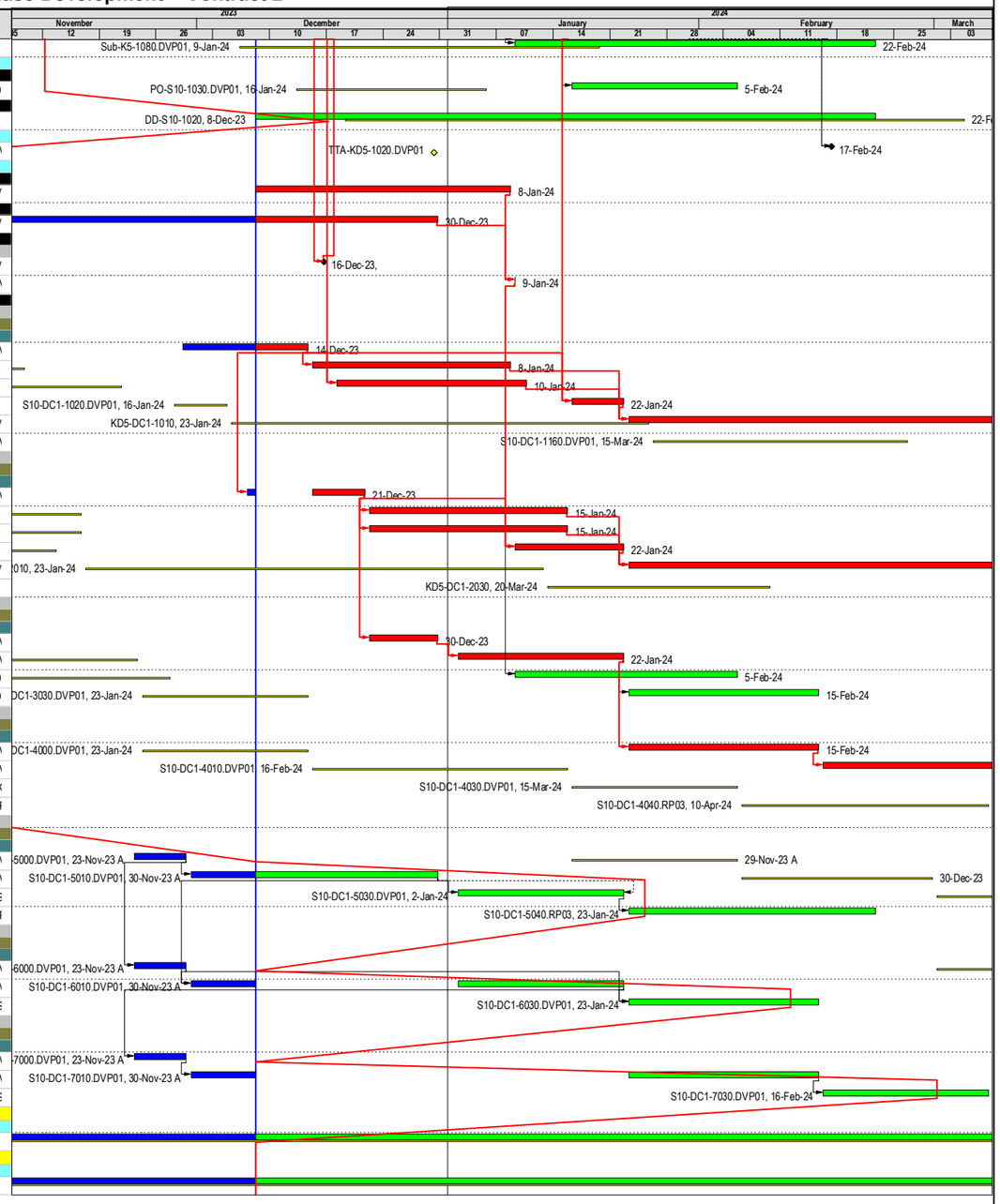
Data Date: 8-Dec-23
Project Start: 8 Dec 2022
Project End: 10-Mar-29

YL/2021/04
Three Months Rolling Programme

Date	Revision	Checked	Approved
31-Aug-23	RP.A03 - Accepted (4-Oct-23)		
15-Nov-23	2310 MPU		
15-Dec-23	2311 MPU		

Site Formation and Infrastructure Works for Yuen Long South First Phase Development – Contract 2

Activity ID	Activity Name	BL Project Start	BL Project Finish	BL Project Duration	Schedule % Complete	Start	Finish	Duration	Remaining Duration	Activity % Complete	Variance - BL Project Start Date	Variance - BL Project Finish Date	Total Float	Predecessors	Successors
Sub-K5-1080.D\	Subletting - ELS & structure for DC01	6-Dec-23	19-Jan-24	36	5.56%	9-Jan-24	22-Feb-24	36	36	0%	-26	-26	28	MS-KD5-1140.D\	KD5-DC1-1020
Procurement															
General															
PO-S10-1030.[	Procurement - ELS & structure for DC01	13-Dec-23	5-Jan-24	18	0%	16-Jan-24	5-Feb-24	18	18	0%	-26	-26	4	DD-1650.DVP01	KD5-DC1-1020.D
S690															
DD-S10-1020	Procurement - S690 Noise Barrier	19-Dec-23	4-Mar-24	60	0%	8-Dec-23	22-Feb-24	60	60	0%	9	9	59	DD-S10-1080.DV	Pre-1040
TTA Scheme/XP															
TTA-KD5-1020.[	TTA Implementation - After TD02	30-Dec-23		0	0%	17-Feb-24		0	0	0%	-38	-38	33	KD1-KU-1030, KI	S10-DC1-1170.D\
Construction Works															
UU Diversion															
AW-K5-2010	UU diversion planter wall demotion near Shap Pat Heung Road	8-Sep-23	7-Oct-23	24	100%	8-Dec-23	8-Jan-24	24	24	0%	-75	-75	-54	AW-K5-1010	KD5-BC-1030.DV
Road Set Back															
KD5-1000	Road set back and reinstatement - Kung Um Road near La Grove	8-Sep-23	28-Sep-23	18	100%	7-Sep-23 A	30-Dec-23	18	18	0%	1	-75	-48	AW-K5-1010	KD5-BC-1030.DV
Temporary Works															
2nd Dry Season 23/24															
KD5-BC-1010	Portion 11 Completion of Ramp 02		31-Oct-23	0	100%		16-Dec-23	0	0	0%	-40	-40	-22	KD-R-1000	KD5-BC-1020.DV
KD5-BC-1030	Erection of Ramp 01 Portion 10	9-Oct-23	30-Oct-23	18	100%	9-Jan-24	9-Jan-24	0	0	0%	-75	-57	-54	PO-KS-1030, SC	S10-DC1-5020.D\
Decking DC01															
Decking DC01 Bay 1															
2nd Dry Season 23/24															
Kiu Hing Road															
KD5-BC1-1(	Predrill for DC01 Bay 1 6nrs (3d/nr, 1rigs) - dry season 2023 - WF1	12-Oct-23	18-Oct-23	6	100%	29-Nov-23	14-Dec-23	6	6	0%	-40	-48	-48	SC-1210, KD5-B(	S10-DC1-1030.D\
S10-DC1-10	Obtain contour for DC01 Bay 1	19-Oct-23	9-Nov-23	18	100%	15-Dec-23	8-Jan-24	18	18	0%	-48	-48	-20	KD5-BC1-1000.D	KD5-DC1-1010
S10-DC1-11	Site formation after deepening at the designated area - DC01 B1	1-Nov-23	21-Nov-23	18	100%	18-Dec-23	10-Jan-24	18	18	0%	-40	-40	-22	KD5-BC-1020.D\	KD5-DC1-1010
S10-DC1-10	Piling Plant Mobilization to Nullah DC01 Bay 1	28-Nov-23	4-Dec-23	6	100%	16-Jan-24	22-Jan-24	6	6	0%	-39	-39	-32	KD5-BC1-1000.D	KD5-DC1-1010
KD5-DC1-1(	Socket H - DC01 Bay 1 KH Side 13 nos (at nullah) (3d/nr, 1 rigs) - WF1	5-Dec-23	25-Jan-24	42	7.14%	23-Jan-24	14-Mar-24	42	42	0%	-39	-39	-32	S10-DC1-1030.D	KD5-BC-1040.DV
S10-DC1-11	Pile load test - DC01 Bay 1	26-Jan-24	26-Feb-24	24	0%	15-Mar-24	16-Apr-24	24	24	0%	-39	-39	-14	KD5-DC1-1010	S10-DC1-1170.D\
Decking DC01 Bay 2															
2nd Dry Season 23/24															
Kiu Hing Road															
S10-DC1-20	Predrill for DC01 Bay 2 6nrs (3d/nr, 1rigs) - dry season 2023 WF2	19-Oct-23	26-Oct-23	6	100%	7-Dec-23 A	21-Dec-23	6	6	0%	-41	-48	-48	KD5-BC-1050.D\	S10-DC1-3000.D\
S10-DC1-20	Obtain contour for DC01 Bay 2	27-Oct-23	16-Nov-23	18	100%	22-Dec-23	15-Jan-24	18	18	0%	-48	-48	-48	S10-DC1-2010.D	KD5-DC1-2010
S10-DC1-21	Site formation - DC01 B2	27-Oct-23	16-Nov-23	18	100%	22-Dec-23	15-Jan-24	18	18	0%	-48	-48	-48	S10-DC1-2010.D	KD5-DC1-2010
S10-DC1-20	Piling Plant Mobilization to Nullah DC01 Bay 2	31-Oct-23	13-Nov-23	12	100%	9-Jan-24	22-Jan-24	12	12	0%	-57	-57	-54	S10-DC1-2010.D	KD5-DC1-2010
KD5-DC1-2(	Socket H - DC01 Bay 2 KH Side 18 nos (at nullah) (3d/nr, 1 rigs) - WF2	17-Nov-23	12-Jan-24	46	39.13%	23-Jan-24	19-Mar-24	46	46	0%	-54	-54	-54	S10-DC1-2030.D	KD5-BC-1040.DV
KD5-DC1-2(	Pile load test - DC01 Bay 1	13-Jan-24	9-Feb-24	24	0%	20-Mar-24	20-Apr-24	24	24	0%	-54	-54	-54	KD5-DC1-2010	KD5-DC1-2020
Decking DC01 Bay 3															
2nd Dry Season 23/24															
Kiu Hing Road															
S10-DC1-30	Predrill Plant Mobilization DC01 Bay 3	27-Oct-23	2-Nov-23	6	100%	22-Dec-23	30-Dec-23	6	6	0%	-48	-48	-42	SC-1210, S10-D(	S10-DC1-3010.D\
S10-DC1-30	Predrill for DC01 Bay 3 4nrs (3d/nr, 1rigs) - dry season 2023 - WF2	3-Nov-23	23-Nov-23	18	100%	2-Jan-24	22-Jan-24	18	18	0%	-48	-48	-42	S10-DC1-3000.D	S10-DC1-3030.D\
S10-DC1-30	Piling Plant Mobilization to Nullah DC01 Bay 3	31-Oct-23	27-Nov-23	24	100%	9-Jan-24	5-Feb-24	24	24	0%	-57	-57	40	KD5-BC-1030.DV	KD5-DC1-3010.D
S10-DC1-30	Obtain contour for DC01 Bay 3	24-Nov-23	14-Dec-23	18	66.67%	23-Jan-24	15-Feb-24	18	18	0%	-48	-48	34	S10-DC1-3010.D	KD5-DC1-3010.D
Decking DC01 Bay 4															
2nd Dry Season 23/24															
Predrill															
S10-DC1-40	Predrill Plant Mobilization for DC01 Bay 4	24-Nov-23	14-Dec-23	18	66.67%	23-Jan-24	15-Feb-24	18	18	0%	-48	-48	-42	KD5-BC-1050.D\	S10-DC1-4010.D\
S10-DC1-40	Predrill DC01 Bay 4 7nrs (3d/nr, 1rigs) - dry season 2023 - WF3	15-Dec-23	15-Jan-24	24	0%	16-Feb-24	14-Mar-24	24	24	0%	-48	-48	-42	S10-DC1-4000.D	S10-DC1-4030.D\
S10-DC1-40	Obtain contour for DC01 Bay 4	16-Jan-24	5-Feb-24	18	0%	15-Mar-24	9-Apr-24	18	18	0%	-48	-48	-42	S10-DC1-4010.D	KD5-DC1-4010, K
S10-DC1-40	Reinstatement after Predrill works DC01 Bay 4	6-Feb-24	7-Mar-24	24	0%	10-Apr-24	8-May-24	24	24	0%	-48	-48	-42	S10-DC1-4030.D	S10-DC1-4050.RI
Decking DC01 Bay 5															
2nd Dry Season 23/24															
Kiu Hing Road															
S10-DC1-50	Predrill Plant Mobilization for DC01 Bay 5 - WF4	16-Jan-24	5-Feb-24	18	0%	23-Nov-23	29-Nov-23	18	0	100%	43	55		KD5-BC-1050.D\	S10-DC1-5010.D\
S10-DC1-50	Predrill for DC01 Bay 5 5nrs (3d/nr, 1rigs) - dry season 2023	6-Feb-24	29-Feb-24	18	0%	30-Nov-23	30-Dec-23	18	18	0%	55	48	54	S10-DC1-5000.D	S10-DC1-5030.D\
S10-DC1-50	Obtain contour for DC01 Bay 5	1-Mar-24	21-Mar-24	18	0%	2-Jan-24	22-Jan-24	18	18	0%	48	48	54	S10-DC1-5010.D	KD5-DC1-5010, S
S10-DC1-50	Reinstatement after Predrill works DC01 Bay 5	22-Mar-24	23-Apr-24	24	0%	23-Jan-24	22-Feb-24	24	24	0%	48	48	54	S10-DC1-5030.D	S10-DC1-5050.RI
Decking DC01 Bay 6															
2nd Dry Season 23/24															
Kiu Hing Road															
S10-DC1-60	Predrill Plant Mobilization for DC01 Bay 6	1-Mar-24	21-Mar-24	18	0%	23-Nov-23	29-Nov-23	18	0	100%	79	91		KD5-BC-1050.D\	S10-DC1-6010.D\
S10-DC1-60	Predrill for DC01 Bay 6 6nrs (3d/nr, 1rigs)	22-Mar-24	16-Apr-24	18	0%	30-Nov-23	22-Jan-24	18	18	0%	91	66	72	S10-DC1-6000.D	S10-DC1-7000.D\
S10-DC1-60	Obtain contour for DC01 Bay 6	17-Apr-24	8-May-24	18	0%	23-Jan-24	15-Feb-24	18	18	0%	66	66	72	S10-DC1-6010.D	KD5-DC1-6010, S
Decking DC01 Bay 7															
2nd Dry Season 23/24															
Kiu Hing Road															
S10-DC1-70	Predrill Plant Mobilization for DC01 Bay 7	17-Apr-24	8-May-24	18	0%	23-Nov-23	29-Nov-23	18	0	100%	115	127		S10-DC1-6010.D	S10-DC1-7010.D\
S10-DC1-70	Predrill for DC01 Bay 7 3nrs (3d/nr, 1rigs)	9-May-24	30-May-24	18	0%	30-Nov-23	15-Feb-24	18	18	0%	127	84	90	S10-DC1-7000.D	S10-DC1-7030.D\
S10-DC1-70	Obtain contour for DC01 Bay 7	31-May-24	21-Jun-24	18	0%	16-Feb-24	7-Mar-24	18	18	0%	84	84	90	S10-DC1-7010.D	KD5-DC1-7010, S
Section 13 - Preservation and protection of extg. tree pursuant to G.S. and P.S. Sec. 26															
Construction Works															
S13-1010	Protection and preservation of existing Tree	8-Dec-22	3-Mar-28	1550	19.16%	8-Dec-22 A	3-Mar-28	1550	1253	0%	0	0	2	CD-1020	S13-1020.DVP01
Section 14 - All of the landscape softworks															
Construction Works															
S14-1010	Lanscape softworks for whole of the site	8-Dec-22	3-Mar-28	1550	19.16%	8-Dec-22 A	3-Mar-28	1550	1253	0%	0	0	2	CD-1020	S14-1020.DVP01



Actual Work
Remaining Work
Critical Remaining Work
Project Base...
Milestone
Project Base...

Data Date: 8-Dec-23
Project Start: 8 Dec 2022
Project End: 10-Mar-29

YL/2021/04
Three Months Rolling Programme

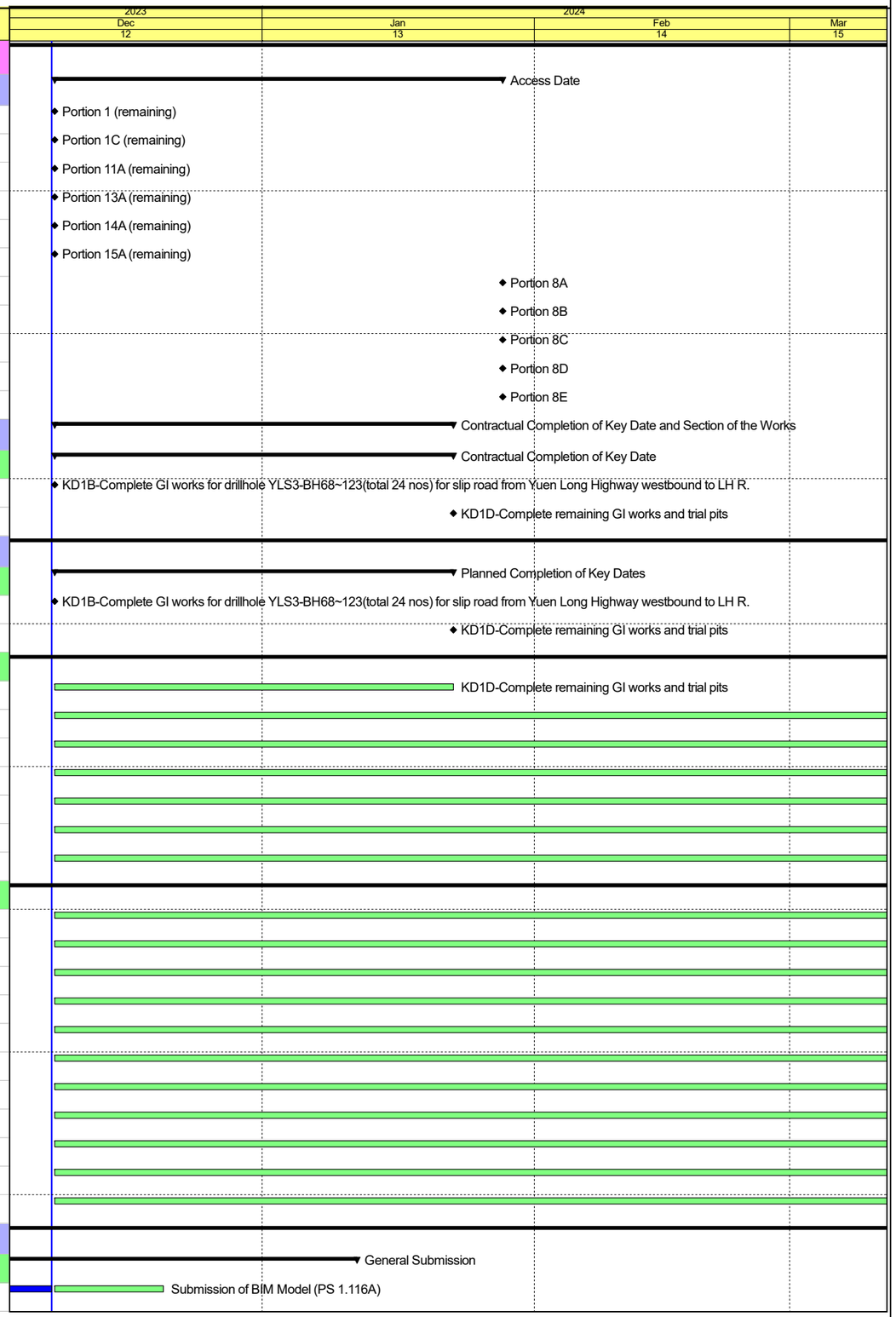
Date	Revision	Checked	Approved
31-Aug-23	RP.A03 - Accepted (4-Oct-23)		
15-Nov-23	2310 MPU		
15-Dec-23	2311 MPU		

3-month Rolling Construction Programme of Contract 3

Data Date: 08-Dec-23

Contract No. YL/2022/01 Site Formation and Infrastructure Works for Yuen Long South First Phase Development - Contract 3

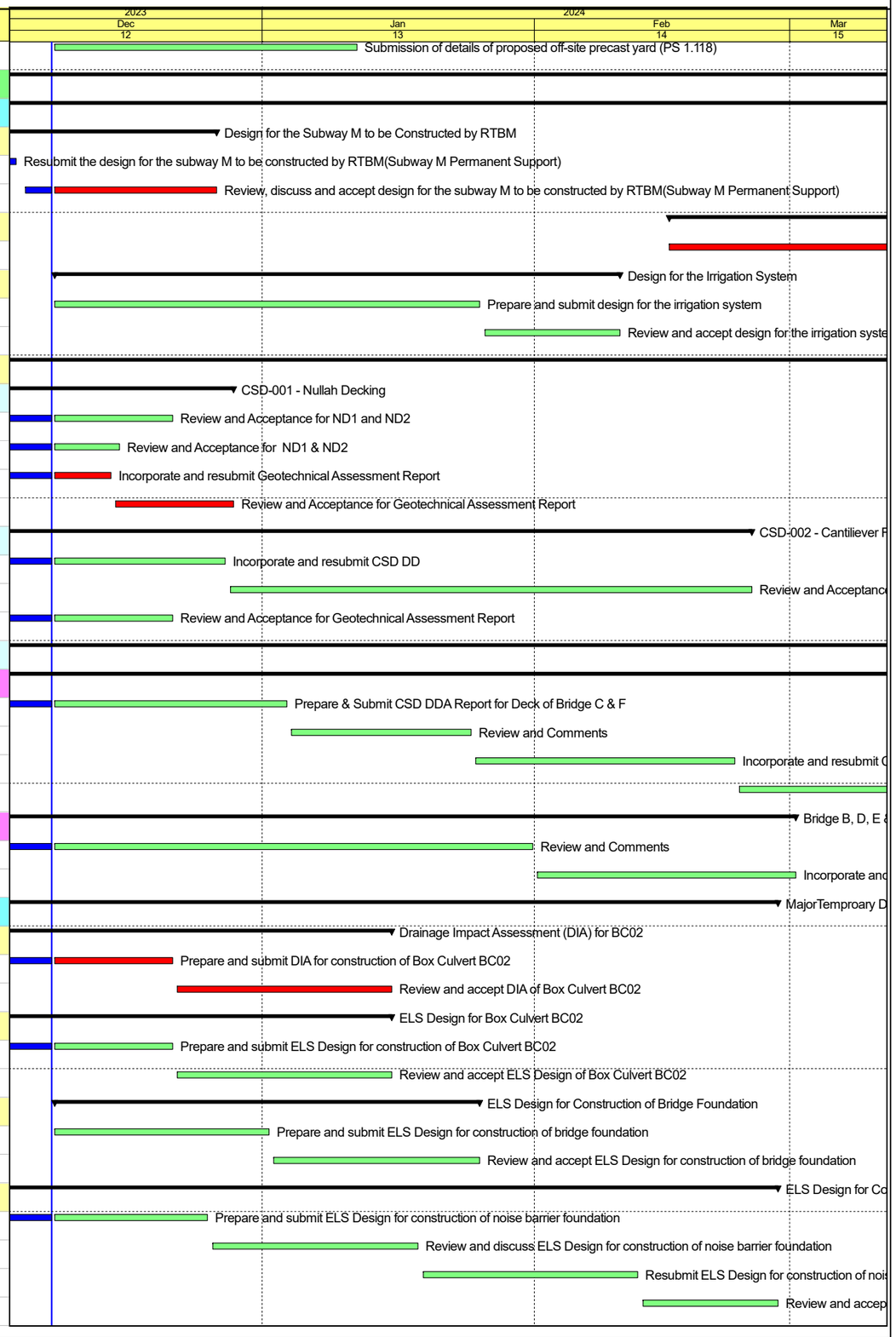
Activity ID	Activity Name	Original Dur	Remaining Dur	Early Start	Early Finish
Site Formation and Infrastructure Works for Yuen Long South First Phase Development-Contract 3		3003.0	1663.0	28-Dec-22 A	26-Jun-28
Access Date		51.0	51.0	08-Dec-23	28-Jan-24
ACD10040.10	Portion 1 (remaining)	0.0	0.0	08-Dec-23*	
ACD10260.10	Portion 1C (remaining)	0.0	0.0	08-Dec-23*	
ACD10640.60	Portion 11A (remaining)	0.0	0.0	08-Dec-23*	
ACD10680.30	Portion 13A (remaining)	0.0	0.0	08-Dec-23*	
ACD10700.20	Portion 14A (remaining)	0.0	0.0	08-Dec-23*	
ACD10720.40	Portion 15A (remaining)	0.0	0.0	08-Dec-23*	
ACD10740	Portion 8A	0.0	0.0	28-Jan-24*	
ACD10760	Portion 8B	0.0	0.0	28-Jan-24*	
ACD10780	Portion 8C	0.0	0.0	28-Jan-24*	
ACD10800	Portion 8D	0.0	0.0	28-Jan-24*	
ACD10820	Portion 8E	0.0	0.0	28-Jan-24*	
Contractual Completion of Key Date and Section of the Works		46.0	46.0	08-Dec-23	22-Jan-24
Contractual Completion of Key Date		46.0	46.0	08-Dec-23	22-Jan-24
KEY10020	KD1B-Complete GI works for drillhole YLS3-BH68~123(total 24 nos) for slip road from Yuen Long Highway westbound to LH R.	0.0	0.0		08-Dec-23*
KEY10060	KD1D-Complete remaining GI works and trial pits	0.0	0.0		22-Jan-24*
Planned Completion of Key Dates and Section of the Works		2060.0	1663.0	13-Feb-23 A	26-Jun-28
Planned Completion of Key Dates		46.0	46.0	08-Dec-23	22-Jan-24
KEY10550	KD1B-Complete GI works for drillhole YLS3-BH68~123(total 24 nos) for slip road from Yuen Long Highway westbound to LH R.	0.0	0.0		08-Dec-23
KEY10570	KD1D-Complete remaining GI works and trial pits	0.0	0.0		22-Jan-24
Planned Completion of Key Dates (Summary)		1836.0	1478.0	20-Feb-23 A	24-Dec-27
LOE11110	KD1D-Complete remaining GI works and trial pits	337.0	46.0	20-Feb-23 A	22-Jan-24
LOE11160	KD4-Complete all necessary works to facilitate laying of CLP cables from TYST to LH Road via footpath and cycle track	585.0	484.0	22-Sep-23 A	04-Apr-25
LOE11180	KD5-Complete all necessary works for opening of road connecting existing YL Highway westbound to existing LH and SH Road	768.0	826.0	23-Sep-23 A	12-Mar-26
LOE11200	KD6-Complete all necessary works for opening of road connecting existing LH and SH Road to existing YL Highway westbound	800.0	790.0	22-Aug-23 A	04-Feb-26
LOE11220	KD7-Complete all necessary works for opening of road connecting YL Highway eastbound to existing LT Road northbound	1242.0	1188.0	06-Sep-23 A	09-Mar-27
LOE11240	KD8-Complete all necessary works for opening of road connecting LT Road southbound to YL highway eastbound	1008.0	910.0	28-Mar-23 A	04-Jun-26
LOE11280	KD10-Complete all necessary works for opening of road connecting existing YL Highway eastbound to LH Road	1545.0	1478.0	06-Sep-23 A	24-Dec-27
Planned Completion of Section of the Works (Summary)		1799.0	1663.0	13-Feb-23 A	26-Jun-28
LOE11340	Section 1-Completion of all works,including piling works within Portions 1,1A,1B,1C,1D,1E,2,3,4A,5A,5B,6A and 6B	1742.0	1663.0	24-Apr-23 A	26-Jun-28
LOE11360	Section 2-Completion of all works within Portions 10 and 10A of the Site	492.0	449.0	04-Aug-23 A	28-Feb-25
LOE11380	Section 3-Completion of all works within Portions 8A, 9A, 14 and 14A of the Site	920.0	825.0	01-Sep-23 A	11-Mar-26
LOE11400	Section 4-Completion of all works within Portions 8E, 15 and 15A of the Site	916.0	783.0	07-Jul-23 A	28-Jan-26
LOE11420	Section 5-Completion of all works within Portions 16, 16A, 16B,16C and 16D of the Site	914.0	656.0	13-Feb-23 A	23-Sep-25
LOE11440	Section 6-Completion of all works within Portions 8C,8D,11,11A of the Site and the works at TYST Road within Portion 1	1142.0	1056.0	14-Aug-23 A	28-Oct-26
LOE11460	Section 7-Completion of all works within Portions 8B, 9B, 13 and 13A of the Site	662.0	583.0	05-Oct-23 A	12-Jul-25
LOE11480	Section 8-Completion of all works within Portions 12 and 12A of the Site	422.0	239.0	04-Sep-23 A	02-Aug-24
LOE11500	Section 9-Completion of all works within Portions 5C, 7, 7A, 7B, 7C and 7D of the Site	916.0	774.0	28-Apr-23 A	19-Jan-26
LOE11560	Section 12-Comprises all preservation and protection of existing trees	1799.0	1663.0	26-Feb-23 A	26-Jun-28
LOE11580	Section 13-Comprises all of the landscape softworks	1799.0	1663.0	26-Feb-23 A	26-Jun-28
Preliminaries, Constractor's Design, Method Statement Submission and Approval		975.0	122.0	28-Dec-22 A	07-Apr-24
General Submission		285.0	35.0	28-Dec-22 A	11-Jan-24
GSS10240	Submission of BIM Model (PS 1.116A)	60.0	13.0	28-Dec-22 A	20-Dec-23



Data Date: 08-Dec-23

Contract No. YL/2022/01 Site Formation and Infrastructure Works for Yuen Long South First Phase Development - Contract 3

Activity ID	Activity Name	Original Dur	Remaining Dur	Early Start	Early Finish
GSS10320	Submission of details of proposed off-site precast yard (PS 1.118)	30.0	30.0	08-Dec-23	11-Jan-24
Contractor's Design Submission and Approval		427.0	112.0	11-Jul-23 A	28-Mar-24
Contractor's Permanent Works Design		427.0	112.0	16-Jul-23 A	28-Mar-24
Design for the Subway M to be Constructed by RTBM		239.0	16.0	13-Oct-23 A	26-Dec-23
PRE10021	Resubmit the design for the subway M to be constructed by RTBM(Subway M Permanent Support)	44.0	0.0	13-Oct-23 A	04-Dec-23 A
PRE10022	Review, discuss and accept design for the subway M to be constructed by RTBM(Subway M Permanent Support)	21.0	16.0	05-Dec-23 A	26-Dec-23
Design for the Road Lighting System		42.0	42.0	16-Feb-24	28-Mar-24
PRE10040	Prepare and submit design for the road lighting system	42.0	42.0	16-Feb-24	28-Mar-24
Design for the Irrigation System		56.0	56.0	08-Dec-23	10-Feb-24
PRE10060	Prepare and submit design for the irrigation system	42.0	42.0	08-Dec-23	25-Jan-24
PRE10070	Review and accept design for the irrigation system	14.0	14.0	26-Jan-24	10-Feb-24
Cost Savings Design (CSD)		224.0	99.0	16-Jul-23 A	15-Mar-24
CSD-001 - Nullah Decking		117.0	21.0	28-Aug-23 A	28-Dec-23
PRE10420.130	Review and Acceptance for ND1 and ND2	14.0	14.0	05-Sep-23 A	21-Dec-23
PRE10420.70	Review and Acceptance for ND1 & ND2	14.0	8.0	22-Nov-23 A	15-Dec-23
PRE10420.95	Incorporate and resubmit Geotechnical Assessment Report	30.0	7.0	28-Aug-23 A	14-Dec-23
PRE10420.98	Review and Acceptance for Geotechnical Assessment Report	14.0	14.0	15-Dec-23	28-Dec-23
CSD-002 - Cantiliever Footpath		147.0	80.0	06-Sep-23 A	25-Feb-24
PRE10400.50	Incorporate and resubmit CSD DD	30.0	20.0	06-Sep-23 A	27-Dec-23
PRE10400.70	Review and Acceptance	60.0	60.0	28-Dec-23	25-Feb-24
PRE10400.95	Review and Acceptance for Geotechnical Assessment Report	14.0	14.0	07-Nov-23 A	21-Dec-23
CSD-003 - Bridge Decking		224.0	99.0	16-Jul-23 A	15-Mar-24
Bridge C & F		224.0	99.0	16-Jul-23 A	15-Mar-24
PRE10200.10	Prepare & Submit CSD DDA Report for Deck of Bridge C & F	84.0	27.0	16-Jul-23 A	03-Jan-24
PRE10200.20	Review and Comments	21.0	21.0	04-Jan-24	24-Jan-24
PRE10200.30	Incorporate and resubmit CSD DD	30.0	30.0	25-Jan-24	23-Feb-24
PRE10200.40	Review and Acceptance	21.0	21.0	24-Feb-24	15-Mar-24
Bridge B, D, E & G		60.0	85.0	10-Nov-23 A	01-Mar-24
PRE10380.30	Review and Comments	60.0	55.0	10-Nov-23 A	31-Jan-24
PRE10380.50	Incorporate and resubmit CSD DD	30.0	30.0	01-Feb-24	01-Mar-24
MajorTemproary Design		175.0	71.0	11-Jul-23 A	28-Feb-24
Drainage Impact Assessment (DIA) for BC02		59.0	33.0	08-Nov-23 A	15-Jan-24
PRE11800	Prepare and submit DIA for construction of Box Culvert BC02	21.0	12.0	08-Nov-23 A	21-Dec-23
PRE11860	Review and accept DIA of Box Culvert BC02	21.0	21.0	22-Dec-23	15-Jan-24
ELS Design for Box Culvert BC02		38.0	33.0	02-Dec-23 A	15-Jan-24
PRE11720	Prepare and submit ELS Design for construction of Box Culvert BC02	21.0	12.0	02-Dec-23 A	21-Dec-23
PRE11780	Review and accept ELS Design of Box Culvert BC02	21.0	21.0	22-Dec-23	15-Jan-24
ELS Design for Construction of Bridge Foundation		42.0	42.0	08-Dec-23	25-Jan-24
PRE10100	Prepare and submit ELS Design for construction of bridge foundation	21.0	21.0	08-Dec-23	01-Jan-24
PRE10110	Review and accept ELS Design for construction of bridge foundation	21.0	21.0	02-Jan-24	25-Jan-24
ELS Design for Construction of Noise Barrier Foundation		175.0	71.0	09-Aug-23 A	28-Feb-24
PRE10120	Prepare and submit ELS Design for construction of noise barrier foundation	42.0	15.0	09-Aug-23 A	25-Dec-23
PRE10122	Review and discuss ELS Design for construction of noise barrier foundation	21.0	21.0	26-Dec-23	18-Jan-24
PRE10125	Resubmit ELS Design for construction of noise barrier foundation	21.0	21.0	19-Jan-24	12-Feb-24
PRE10130	Review and accept ELS Design for construction of noise barrier foundation	14.0	14.0	13-Feb-24	28-Feb-24



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Contract No. YL/2022/01 Site Formation and Infrastructure Works for Yuen Long South First Phase Development - Contract 3

Activity ID	Activity Name	Original Dur	Remaining Dur	Early Start	Early Finish
ELS Design for Box Culvert BC01		25.0	28.0	30-Sep-23 A	09-Jan-24
PRE11510	Resubmit ELS Design for constructionof Box Culvert BC01	21.0	7.0	30-Sep-23 A	15-Dec-23
PRE11520	Review and accept ELS Design of Box Culvert BC01	21.0	21.0	16-Dec-23	09-Jan-24
ELS Design for Retaining Wall		21.0	27.0	11-Jul-23 A	08-Jan-24
PRE11550	Resubmit ELS Design for constructionof Retaining Wall Package 1(R12, 22, 30, 37)	14.0	6.0	11-Jul-23 A	14-Dec-23
PRE11560	Review and accept ELS Design of Retaining Wall Package 1(R12, 22, 30, 37)	21.0	21.0	15-Dec-23	08-Jan-24
ELS Design for for Construction of Nullah Decking Pile Cap		85.0	33.0	11-Nov-23 A	15-Jan-24
PRE11570	Prepare and resubmit ELS Design for for Construction of Nullah Decking Pile Cap	12.0	12.0	11-Nov-23 A	21-Dec-23
PRE11600	Review and accept ELS Design for Construction of Nullah Decking Pile Cap	21.0	21.0	22-Dec-23	15-Jan-24
Design of Temporary Piling Platform for Nullah Decking ND2 South End		27.0	15.0	03-Oct-23 A	25-Dec-23
PRE11650	Resubmit Design of Temporary Piling Platform for Nullah Decking ND2 South End	14.0	1.0	03-Oct-23 A	08-Dec-23
PRE11660	Review and accept ELS Design of Temporary Piling Platform for Nullah Decking ND2 South End	14.0	14.0	09-Dec-23	25-Dec-23
Method Statement Submission and Approval for Major Construction Works		321.0	94.0	07-Aug-23 A	26-Mar-24
Method Statement Submission and Approval for Construction of Retaining Wall RW22		21.0	0.0	29-Nov-23 A	06-Dec-23 A
MSS10820	Review, discuss and approval for method statement for construction of retaining wall RW22	21.0	0.0	29-Nov-23 A	06-Dec-23 A
Method Statement Submission and Approval for Construction of Retaining Wall RW12		51.0	51.0	08-Dec-23	05-Feb-24
MSS10740	Prepare and submit method statement for construction of retaining wall RW12	30.0	30.0	08-Dec-23	11-Jan-24
MSS10760	Review, discuss and approval for method statement for construction of retaining wall RW12	21.0	21.0	12-Jan-24	05-Feb-24
Method Statement Submission and Approval for Construction of Retaining Wall RW37		250.0	23.0	07-Aug-23 A	03-Jan-24
MSS10620	Prepare and submit method statement for construction of retaining wall RW37	21.0	2.0	07-Aug-23 A	09-Dec-23
MSS10630	Review, discuss and approval for method statement for construction of retaining wall RW37	21.0	21.0	11-Dec-23	03-Jan-24
Method Statement for Construction of Pre-bored Socket H-Pile		24.0	19.0	15-Nov-23 A	29-Dec-23
MSS10600	Resubmit method statement for Construction of Pre-bored Socket H-Pile	7.0	5.0	15-Nov-23 A	13-Dec-23
MSS10610	Accept method statement for Construction of Pre-bored Socket H-Pile	14.0	14.0	14-Dec-23	29-Dec-23
Method Statement Submission and Approval for bridge A and Slip Road		132.0	80.0	11-Sep-23 A	09-Mar-24
MSS10020	Prepare and submit method statement for bridge A and slip road	48.0	24.0	11-Sep-23 A	04-Jan-24
MSS10022	Review and discuss method statement for bridge A and slip road	21.0	21.0	05-Jan-24	29-Jan-24
MSS10025	Resubmit method statement for bridge A and slip road	21.0	21.0	30-Jan-24	22-Feb-24
MSS10030	Accept method statement for bridge A and slip road	14.0	14.0	23-Feb-24	09-Mar-24
Method Statement for ELS Installation for Construction of Box Culvert BC01		27.0	19.0	12-Oct-23 A	29-Dec-23
MSS10560	Resubmit method statement for ELS of Box Culvert BC01	21.0	5.0	12-Oct-23 A	13-Dec-23
MSS10570	Accept method statement for ELS of Box Culvert BC01	14.0	14.0	14-Dec-23	29-Dec-23
Method Statement Submission and Approval for Construction of Nullah Decking		42.0	42.0	08-Dec-23	25-Jan-24
MSS10040	Prepare and submit method statement for construction of Nullah Decking	21.0	21.0	08-Dec-23	01-Jan-24
MSS10050	Accept method statement for construction of Nullah Decking	21.0	21.0	02-Jan-24	25-Jan-24
Method Statement Submission and Approval for Construction of Box Culvert		42.0	18.0	08-Nov-23 A	28-Dec-23
MSS10060	Prepare and submit method statement for construction of box culvert BC02	12.0	0.0	08-Nov-23 A	04-Dec-23 A
MSS10070	Accept method statement for construction of box culvert BC02	21.0	18.0	05-Dec-23 A	28-Dec-23
Method statement submission and approval for bridge B		84.0	84.0	08-Dec-23	14-Mar-24
MSS10100	Prepare and submit method statement for bridge B	42.0	42.0	08-Dec-23	25-Jan-24
MSS10102	Review and discuss submission for bridge B	21.0	21.0	26-Jan-24	19-Feb-24
MSS10105	Resubmit submission for bridge B	21.0	21.0	20-Feb-24	14-Mar-24
Method statement submission and approval for construction of U-trough		35.0	35.0	08-Dec-23	17-Jan-24
MSS10120	Prepare and submit method statement for construction of U-trough	14.0	14.0	08-Dec-23	23-Dec-23
MSS10470	Accept method statement for construction of U-trough	21.0	21.0	25-Dec-23	17-Jan-24

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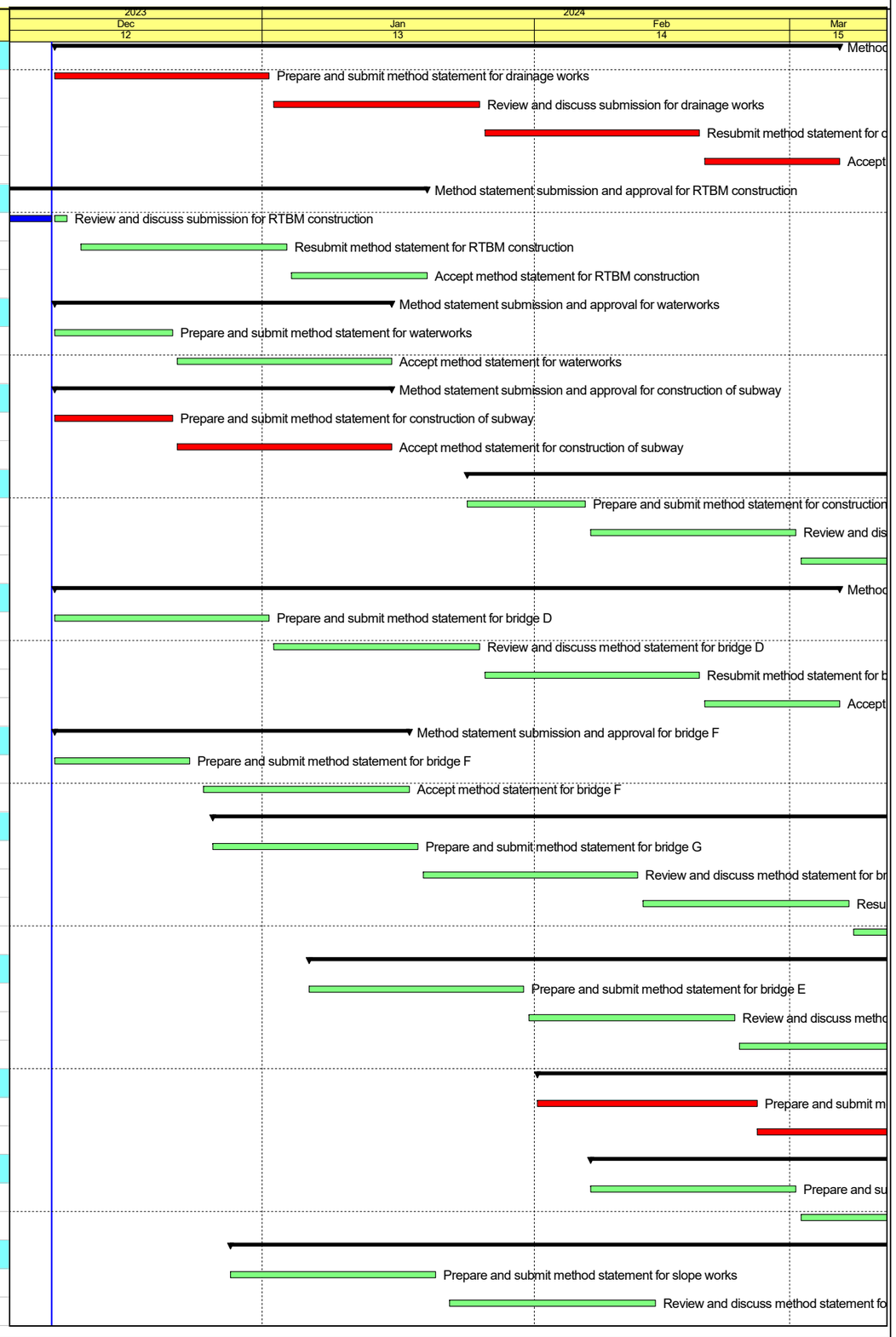
Contract No. YL/2022/01 Site Formation and Infrastructure Works for Yuen Long South First Phase Development - Contract 3

Activity ID	Activity Name	Original Dur	Remaining Dur	Early Start	Early Finish
Method statement submission and approval for drainage works		77.0	77.0	08-Dec-23	06-Mar-24
MSS10140	Prepare and submit method statement for drainage works	21.0	21.0	08-Dec-23	01-Jan-24
MSS10142	Review and discuss submission for drainage works	21.0	21.0	02-Jan-24	25-Jan-24
MSS10145	Resubmit method statement for drainage works	21.0	21.0	26-Jan-24	19-Feb-24
MSS10150	Accept method statement for drainage works	14.0	14.0	20-Feb-24	06-Mar-24
Method statement submission and approval for RTBM construction		35.0	37.0	11-Nov-23 A	19-Jan-24
MSS10162	Review and discuss submission for RTBM construction	21.0	2.0	11-Nov-23 A	09-Dec-23
MSS10165	Resubmit method statement for RTBM construction	21.0	21.0	11-Dec-23	03-Jan-24
MSS10170	Accept method statement for RTBM construction	14.0	14.0	04-Jan-24	19-Jan-24
Method statement submission and approval for waterworks		33.0	33.0	08-Dec-23	15-Jan-24
MSS10180	Prepare and submit method statement for waterworks	12.0	12.0	08-Dec-23	21-Dec-23
MSS10188	Accept method statement for waterworks	21.0	21.0	22-Dec-23	15-Jan-24
Method statement submission and approval for construction of subway		33.0	33.0	08-Dec-23	15-Jan-24
MSS10190	Prepare and submit method statement for construction of subway	12.0	12.0	08-Dec-23	21-Dec-23
MSS10198	Accept method statement for construction of subway	21.0	21.0	22-Dec-23	15-Jan-24
Method statement submission and approval for construction of noise barrier		45.0	45.0	24-Jan-24	15-Mar-24
MSS10200	Prepare and submit method statement for construction of noise barrier	12.0	12.0	24-Jan-24	06-Feb-24
MSS10202	Review and discuss method statement for construction of noise barrier	21.0	21.0	07-Feb-24	01-Mar-24
MSS10205	Resubmit method statement for construction of noise barrier	12.0	12.0	02-Mar-24	15-Mar-24
Method statement submission and approval for bridge D		77.0	77.0	08-Dec-23	06-Mar-24
MSS10220	Prepare and submit method statement for bridge D	21.0	21.0	08-Dec-23	01-Jan-24
MSS10222	Review and discuss method statement for bridge D	21.0	21.0	02-Jan-24	25-Jan-24
MSS10225	Resubmit method statement for bridge D	21.0	21.0	26-Jan-24	19-Feb-24
MSS10230	Accept method statement for bridge D	14.0	14.0	20-Feb-24	06-Mar-24
Method statement submission and approval for bridge F		35.0	35.0	08-Dec-23	17-Jan-24
MSS10240	Prepare and submit method statement for bridge F	14.0	14.0	08-Dec-23	23-Dec-23
MSS10250	Accept method statement for bridge F	21.0	21.0	25-Dec-23	17-Jan-24
Method statement submission and approval for bridge G		77.0	77.0	26-Dec-23	23-Mar-24
MSS10260	Prepare and submit method statement for bridge G	21.0	21.0	26-Dec-23	18-Jan-24
MSS10262	Review and discuss method statement for bridge G	21.0	21.0	19-Jan-24	12-Feb-24
MSS10265	Resubmit method statement for bridge G	21.0	21.0	13-Feb-24	07-Mar-24
MSS10270	Accept method statement for bridge G	14.0	14.0	08-Mar-24	23-Mar-24
Method statement submission and approval for bridge E		63.0	63.0	06-Jan-24	19-Mar-24
MSS10280	Prepare and submit method statement for bridge E	21.0	21.0	06-Jan-24	30-Jan-24
MSS10282	Review and discuss method statement for bridge E	21.0	21.0	31-Jan-24	23-Feb-24
MSS10285	Resubmit method statement for bridge E	21.0	21.0	24-Feb-24	19-Mar-24
Method statement submission and approval for construction of Cantilever Footpath		42.0	42.0	01-Feb-24	20-Mar-24
MSS10300	Prepare and submit method statement for construction of cantilever footpath	21.0	21.0	01-Feb-24	26-Feb-24
MSS10302	Review and discuss method statement for construction of cantilever footpath	21.0	21.0	26-Feb-24	20-Mar-24
Method statement submission and approval for road pavement works		42.0	42.0	07-Feb-24	26-Mar-24
MSS10320	Prepare and submit method statement for road pavement works	21.0	21.0	07-Feb-24	01-Mar-24
MSS10322	Review and discuss method statement for road pavement works	21.0	21.0	02-Mar-24	26-Mar-24
Method statement submission and approval for slope works		77.0	77.0	28-Dec-23	26-Mar-24
MSS10360	Prepare and submit method statement for slope works	21.0	21.0	28-Dec-23	20-Jan-24
MSS10362	Review and discuss method statement for slope works	21.0	21.0	22-Jan-24	14-Feb-24



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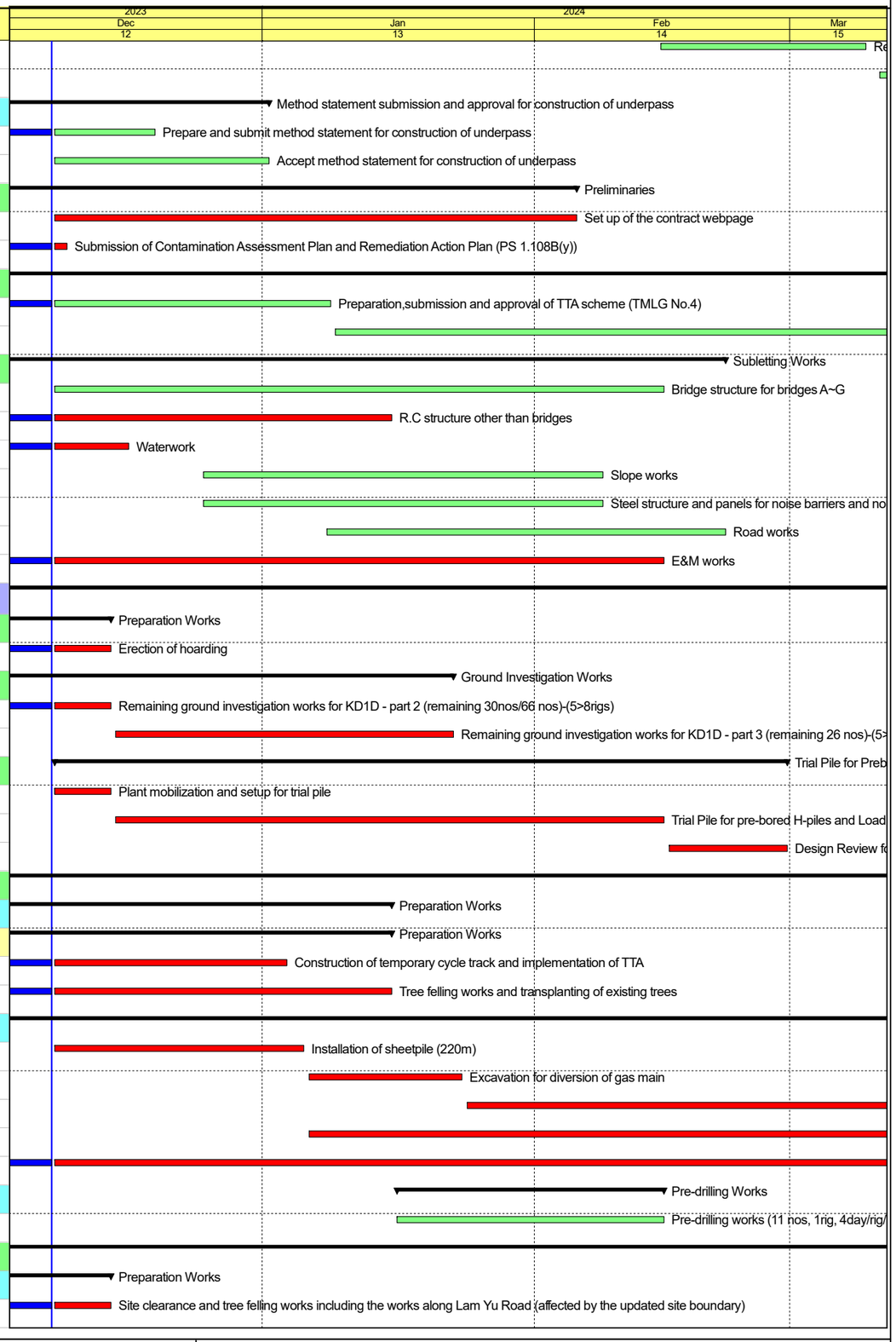
Contract No. YL/2022/01 Site Formation and Infrastructure Works for Yuen Long South First Phase Development - Contract 3

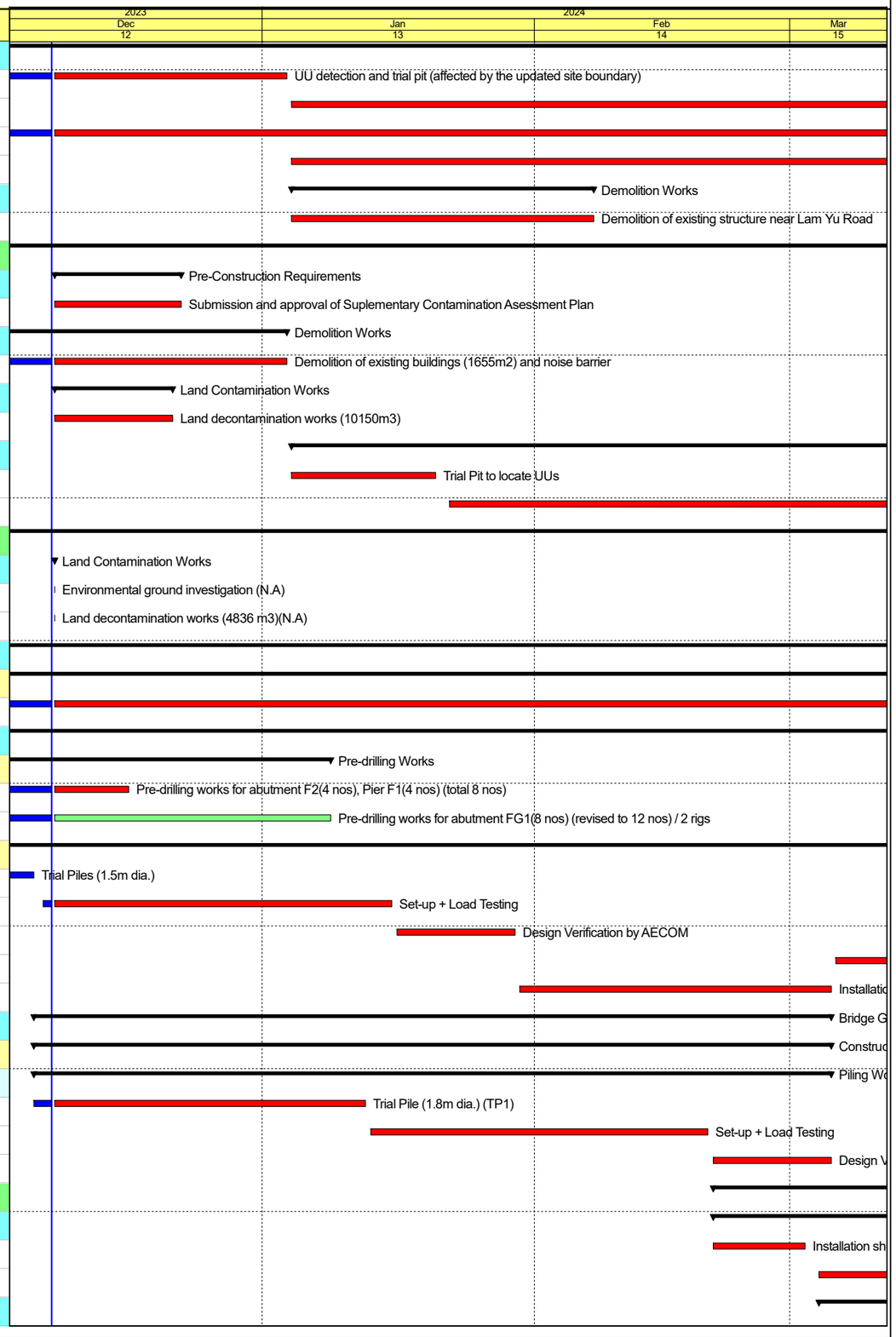
Activity ID	Activity Name	Original Dur	Remaining Dur	Early Start	Early Finish
MSS10365	Resubmit method statement for slope works	21.0	21.0	15-Feb-24	09-Mar-24
MSS10370	Accept method statement for slope works	14.0	14.0	11-Mar-24	26-Mar-24
Method statement submission and approval for construction of underpass		99.0	21.0	29-Sep-23 A	01-Jan-24
MSS10340	Prepare and submit method statement for construction of underpass	21.0	10.0	29-Sep-23 A	19-Dec-23
MSS10350	Accept method statement for construction of underpass	21.0	21.0	08-Dec-23	01-Jan-24
Preliminaries		151.0	60.0	08-Aug-23 A	05-Feb-24
PRE10230	Set up of the contract webpage	60.0	60.0	08-Dec-23	05-Feb-24
PRE10270	Submission of Contamination Assessment Plan and Remediation Action Plan (PS 1.108B(y))	30.0	2.0	08-Aug-23 A	09-Dec-23
Traffic Management		245.0	122.0	18-Nov-23 A	07-Apr-24
PRE11880	Preparation,submission and approval of TTA scheme (TMLG No.4)	60.0	32.0	18-Nov-23 A	08-Jan-24
PRE11900	Preparation,submission and approval of TTA scheme (TMLG No.5)	90.0	90.0	09-Jan-24	07-Apr-24
Subletting Works		742.0	66.0	25-May-23 A	22-Feb-24
PRE11220	Bridge structure for bridges A~G	60.0	60.0	08-Dec-23	15-Feb-24
PRE11225	R.C structure other than bridges	60.0	33.0	25-May-23 A	15-Jan-24
PRE11240	Waterwork	40.0	8.0	24-Jul-23 A	16-Dec-23
PRE11320	Slope works	40.0	40.0	25-Dec-23	08-Feb-24
PRE11345	Steel structure and panels for noise barriers and noise closures	40.0	40.0	25-Dec-23	08-Feb-24
PRE11360	Road works	40.0	40.0	08-Jan-24	22-Feb-24
PRE11400	E&M works	60.0	60.0	08-Nov-23 A	15-Feb-24
Section 1 of the Works-Completion of All works Including Piling works within Portions 1,1A,1B,1C,1D,		932.0	354.0	23-Mar-23 A	25-Nov-24
Preparation Works		90.0	6.0	23-Mar-23 A	14-Dec-23
SEC011020	Erection of hoarding	90.0	6.0	23-Mar-23 A	14-Dec-23
Ground Investigation Works		60.0	36.0	20-Oct-23 A	22-Jan-24
SEC011100	Remaining ground investigation works for KD1D - part 2 (remaining 30nos/66 nos)-(5>8rigs)	60.0	6.0	20-Oct-23 A	14-Dec-23
SEC011110	Remaining ground investigation works for KD1D - part 3 (remaining 26 nos)-(5>8rigs)	30.0	30.0	15-Dec-23	22-Jan-24
Trial Pile for Prebored H-Pile		66.0	66.0	08-Dec-23 A	29-Feb-24
SECA1012	Plant mobilization and setup for trial pile	6.0	6.0	08-Dec-23 A	14-Dec-23
SECA1014	Trial Pile for pre-bored H-piles and Loading Test	48.0	48.0	15-Dec-23	15-Feb-24
SECA1016	Design Review for Trial Pile	12.0	12.0	16-Feb-24	29-Feb-24
Bridge A		218.0	139.0	06-Sep-23 A	31-May-24
Preparation Works		44.0	30.0	06-Sep-23 A	15-Jan-24
Preparation Works		44.0	30.0	06-Sep-23 A	15-Jan-24
SECA10000	Construction of temporary cycle track and implementation of TTA	14.0	20.0	06-Sep-23 A	03-Jan-24
SECA10020	Tree felling works and transplanting of existing trees	30.0	30.0	12-Sep-23 A	15-Jan-24
Utility Diversion		218.0	139.0	27-Oct-23 A	31-May-24
SECA10040	Installation of sheetpile (220m)	22.0	22.0	08-Dec-23	05-Jan-24
SECA10060	Excavation for diversion of gas main	15.0	15.0	06-Jan-24	23-Jan-24
SECA10080	Diversion of gas main	70.0	70.0	24-Jan-24	22-Apr-24
SECA10085	CLP Trench Excavation by CRBC	77.0	77.0	06-Jan-24	12-Apr-24
SECA10090	CLP preparation works incl. budget approval and material procurement by others	218.0	139.0	27-Oct-23 A	31-May-24
Pre-drilling Works		24.0	24.0	16-Jan-24	15-Feb-24
SECA10160	Pre-drilling works (11 nos, 1rig, 4day/rig/hole) (revised to 6 nos)	24.0	24.0	16-Jan-24	15-Feb-24
Bridge B		390.0	140.0	28-Mar-23 A	01-Jun-24
Preparation Works		27.0	6.0	28-Mar-23 A	14-Dec-23
SECB10000	Site clearance and tree felling works including the works along Lam Yu Road (affected by the updated site boundary)	27.0	6.0	28-Mar-23 A	14-Dec-23



Data Date: 08-Dec-23

Contract No. YL/2022/01 Site Formation and Infrastructure Works for Yuen Long South First Phase Development - Contract 3

Activity ID	Activity Name	Original Dur	Remaining Dur	Early Start	Early Finish
Utility Diversion		248.0	140.0	05-Sep-23 A	01-Jun-24
SECB10020	UU detection and trial pit (affected by the updated site boundary)	15.0	20.0	05-Sep-23 A	03-Jan-24
SECB10040	Diversion of existing gas main near Piers B1 (considering new sequence as less site area by updated site boundary)	60.0	60.0	04-Jan-24	16-Mar-24
SECB10065	CLP preparation works incl. budget approval and material procurement by others	218.0	139.0	27-Oct-23 A	31-May-24
SECB10080	Diversion of CLP and HKT cables (considering new sequence as less site area by updated site boundary)	120.0	120.0	04-Jan-24	01-Jun-24
Demolition Works		30.0	30.0	04-Jan-24	07-Feb-24
SECB10120	Demolition of existing structure near Lam Yu Road	30.0	30.0	04-Jan-24	07-Feb-24
Bridge D		153.0	123.0	14-Oct-23 A	08-Apr-24
Pre-Construction Requirements		15.0	15.0	08-Dec-23	22-Dec-23
SECD00120	Submission and approval of Suplementary Contamination Asessment Plan	15.0	15.0	08-Dec-23	22-Dec-23
Demolition Works		32.0	20.0	14-Oct-23 A	03-Jan-24
SECD10000	Demolition of existing buildings (1655m2) and noise barrier	32.0	20.0	14-Oct-23 A	03-Jan-24
Land Contamination Works		12.0	12.0	08-Dec-23	21-Dec-23
SECD10060	Land decontamination works (10150m3)	12.0	12.0	08-Dec-23	21-Dec-23
Utility Protection / Diversion		75.0	75.0	04-Jan-24	08-Apr-24
SECD10180	Trial Pit to locate UUs	15.0	15.0	04-Jan-24	20-Jan-24
SECD10200	Utility Protection, Shifting and/or diversion	60.0	60.0	22-Jan-24	08-Apr-24
Bridge F&G		271.0	176.0	08-Jun-23 A	31-May-24
Land Contamination Works		0.0	0.0	08-Dec-23	08-Dec-23
SECFG1060	Environmental ground investigation (N.A)	0.0	0.0	08-Dec-23	08-Dec-23
SECFG1080	Land decontamination works (4836 m3)(N.A)	0.0	0.0	08-Dec-23	08-Dec-23
Cycle Track CT02 and Footpath		218.0	139.0	27-Oct-23 A	31-May-24
Utilities Works Along Cycle Track CT02 and Footpath		218.0	139.0	27-Oct-23 A	31-May-24
SEC9505	CLP preparation works incl. budget approval, material procurement & existing concrete breaking by others	218.0	139.0	27-Oct-23 A	31-May-24
Bridge F		185.0	126.0	08-Jun-23 A	11-Apr-24
Pre-drilling Works		133.0	24.0	08-Jun-23 A	08-Jan-24
SECF10000	Pre-drilling works for abutment F2(4 nos), Pier F1(4 nos) (total 8 nos)	32.0	8.0	21-Jun-23 A	16-Dec-23
SECF10020	Pre-drilling works for abutment FG1(8 nos) (revised to 12 nos) / 2 rigs	32.0	24.0	08-Jun-23 A	08-Jan-24
Piling Works		153.0	126.0	17-Oct-23 A	11-Apr-24
SECF10050	Trial Piles (1.5m dia.)	35.0	0.0	17-Oct-23 A	06-Dec-23 A
SECF10055	Set-up + Load Testing	30.0	30.0	07-Dec-23 A	15-Jan-24
SECF10058	Design Verification by AECOM	14.0	14.0	16-Jan-24	29-Jan-24
SECF10060	Installation of bored piles for abutment F2(4 nos)	28.0	28.0	06-Mar-24	11-Apr-24
SECF10080	Installation of bored piles for pier F1 and F2(4 nos)	28.0	28.0	30-Jan-24	05-Mar-24
Bridge G		119.0	89.0	06-Dec-23 A	05-Mar-24
Construction of Abutment G1 - Pier G3		119.0	89.0	06-Dec-23 A	05-Mar-24
Piling Works		119.0	89.0	06-Dec-23 A	05-Mar-24
SECG10110	Trial Pile (1.8m dia.) (TP1)	28.0	28.0	06-Dec-23 A	12-Jan-24
SECG10115	Set-up + Load Testing	30.0	30.0	13-Jan-24	20-Feb-24
SECG10118	Design Verification by AECOM	14.0	14.0	21-Feb-24	05-Mar-24
U Trough K2,Under Pass K, U-Trough K1, Underpass J and U-Trough J1		35.0	35.0	21-Feb-24	05-Apr-24
U-Trough K2		35.0	35.0	21-Feb-24	05-Apr-24
SECD20000	Installation sheetpile (47.5m+9.6m*2)	10.0	10.0	21-Feb-24	02-Mar-24
SECD20020	Excavation and installation of struts	25.0	25.0	04-Mar-24	05-Apr-24
Underpass K		13.0	13.0	04-Mar-24	18-Mar-24



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中國路橋工程有限責任公司 CHINA ROAD AND BRIDGE CORPORATION

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Three Month Rolling Programme (Dec 2023 - Mar 2024)

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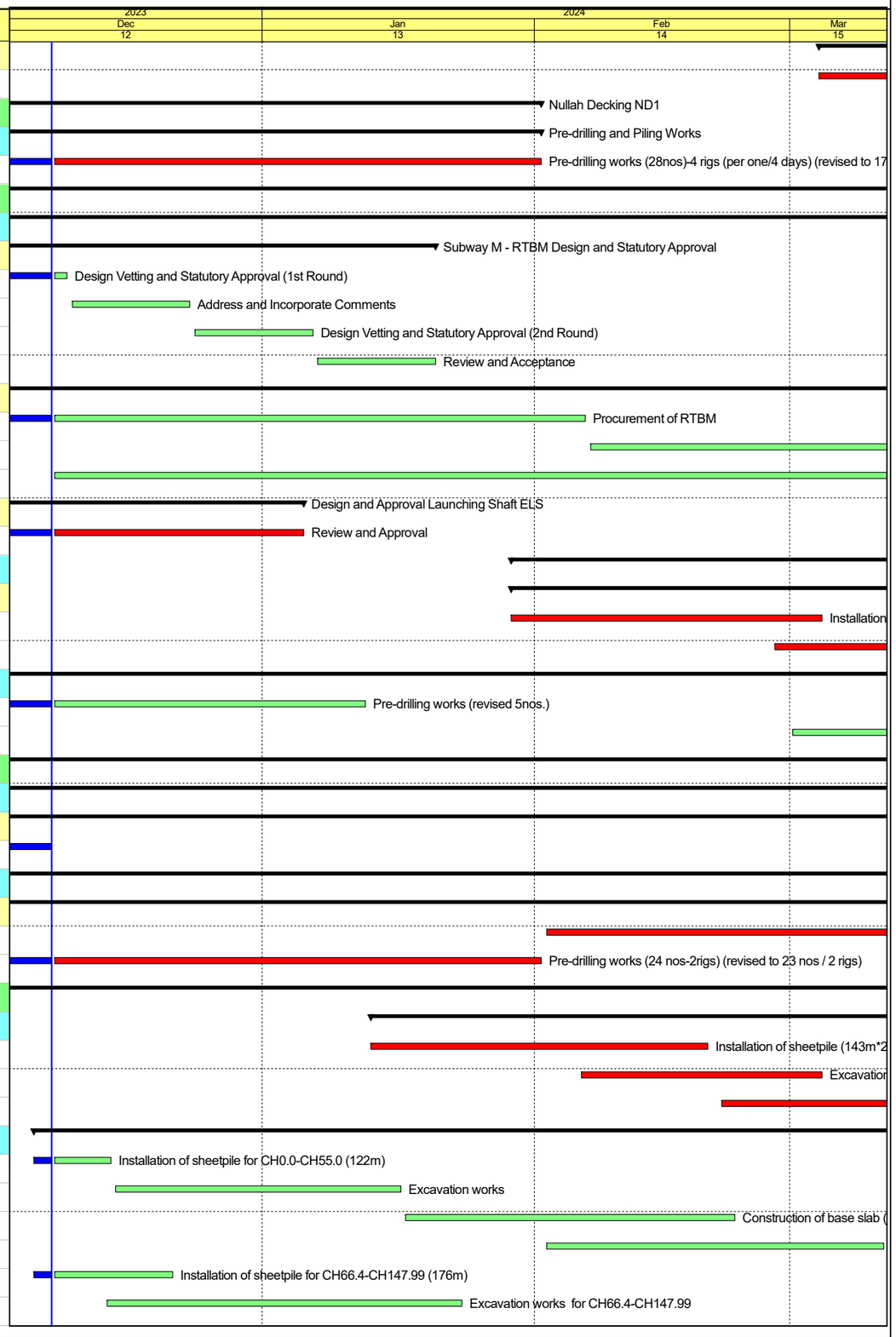
Contract No. YL/2022/01 Site Formation and Infrastructure Works for Yuen Long South First Phase Development - Contract 3

Activity ID	Activity Name	Original Dur	Remaining Dur	Early Start	Early Finish
Bay 1 to Bay 5		13.0	13.0	04-Mar-24	18-Mar-24
SECK01020	Installation of sheetpile (136m)	13.0	13.0	04-Mar-24	18-Mar-24
Nullah Decking ND1		32.0	45.0	16-Nov-23 A	01-Feb-24
Pre-drilling and Piling Works		32.0	45.0	16-Nov-23 A	01-Feb-24
SECND1000	Pre-drilling works (28nos)-4 rigs (per one/4 days) (revised to 17 nos / 4 rigs)	32.0	45.0	16-Nov-23 A	01-Feb-24
Subway M and Subway N		659.4	260.0	07-Jul-23 A	23-Aug-24
Design Acceptance, Procurement, Manufacturing and Delivery		425.4	260.0	07-Jul-23 A	23-Aug-24
Subway M - RTBM Design and Statutory Approval		209.4	44.0	07-Jul-23 A	20-Jan-24
SECNM0130	Design Vetting and Statutory Approval (1st Round)	60.0	2.0	07-Jul-23 A	09-Dec-23
SECNM0150	Address and Incorporate Comments	14.0	14.0	10-Dec-23	23-Dec-23
SECNM0170	Design Vetting and Statutory Approval (2nd Round)	14.0	14.0	24-Dec-23	06-Jan-24
SECNM0190	Review and Acceptance	14.0	14.0	07-Jan-24	20-Jan-24
Procurement, Manufacturing and Delivery		349.0	260.0	25-Aug-23 A	23-Aug-24
SECNM0210	Procurement of RTBM	75.0	61.0	25-Aug-23 A	06-Feb-24
SECNM0230	Manufacturing and Delivery RTBM and Associated Equipment	180.0	180.0	07-Feb-24	04-Aug-24
SECNM0270	Manufacturing and Delivery of Subway Precast Segments	260.0	260.0	08-Dec-23	23-Aug-24
Design and Approval Launching Shaft ELS		60.0	29.0	18-Jul-23 A	05-Jan-24
SECNM0310	Review and Approval	60.0	29.0	18-Jul-23 A	05-Jan-24
Subway M		35.0	35.0	29-Jan-24	12-Mar-24
Construction of Launching Shaft		35.0	35.0	29-Jan-24	12-Mar-24
SECNM1002	Installation of pipe piles and sheet pile wall	28.0	28.0	29-Jan-24	04-Mar-24
SECNM1003	Installation of dewatering well, recharge well and observation well	12.0	12.0	28-Feb-24	12-Mar-24
Subway N		333.0	108.0	03-Oct-23 A	23-Apr-24
SECNM1120	Pre-drilling works (revised 5nos.)	14.0	28.0	03-Oct-23 A	12-Jan-24
SECNM1140	Installation of pre-bored H-piles (26 nos) 2rigs	42.0	42.0	01-Mar-24	23-Apr-24
Noise Barrier and Noise Enclosure		502.0	286.0	12-Jul-23 A	25-Nov-24
Noise Barrier VB21 and VB22		48.0	30.0	20-Oct-23 A	25-Nov-24
Foundation Works		48.0	30.0	20-Oct-23 A	25-Nov-24
SENB1510	Pre-drilling works(23 nos) 2 rigs (revised to 8 nos / 1 rig)	48.0	30.0	20-Oct-23 A	25-Nov-24
Semi-Enclosure Noise Barrier SE01		190.0	100.0	12-Jul-23 A	13-Apr-24
Foundation of Semi-Enclosure Noise Barrier SE01		190.0	100.0	12-Jul-23 A	13-Apr-24
SENB1970	Installation of temporary pipe piles	55.0	55.0	02-Feb-24	13-Apr-24
SENB2030	Pre-drilling works (24 nos-2rigs) (revised to 23 nos / 2 rigs)	60.0	45.0	12-Jul-23 A	01-Feb-24
Retaining Wall		161.0	120.0	27-Oct-23 A	08-May-24
Retaining Wall RW12		87.0	87.0	13-Jan-24	02-May-24
SECRW1260	Installation of sheetpile (143m*2)	30.0	30.0	13-Jan-24	20-Feb-24
SECRW1265	Excavation works	21.0	21.0	06-Feb-24	04-Mar-24
SECRW1280	Construction of base slab (13 bays)	56.0	56.0	22-Feb-24	02-May-24
Retaining Wall RW22		95.0	100.0	06-Dec-23 A	13-Apr-24
SECRW1600	Installation of sheetpile for CH0.0-CH55.0 (122m)	13.0	6.0	06-Dec-23 A	14-Dec-23
SECRW1620	Excavation works	25.0	25.0	15-Dec-23	16-Jan-24
SECRW1622	Construction of base slab (5bays)	30.0	30.0	17-Jan-24	23-Feb-24
SECRW1624	Construction of wall stem (5bays)	30.0	30.0	02-Feb-24	11-Mar-24
SECRW1626	Installation of sheetpile for CH66.4-CH147.99 (176m)	18.0	12.0	06-Dec-23 A	21-Dec-23
SECRW1628	Excavation works for CH66.4-CH147.99	32.0	32.0	14-Dec-23	23-Jan-24



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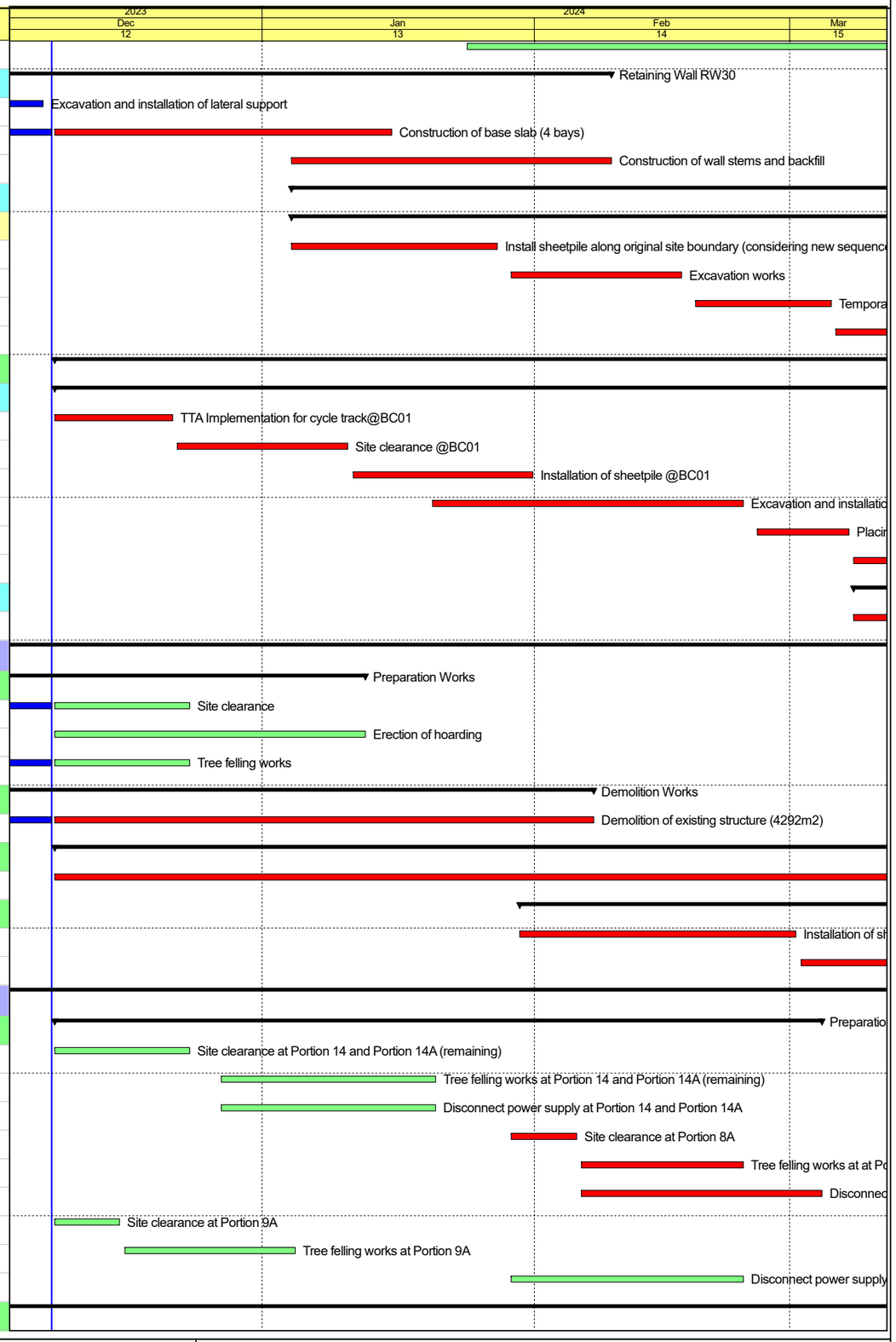
Contract No. YL/2022/01 Site Formation and Infrastructure Works for Yuen Long South First Phase Development - Contract 3

Activity ID	Activity Name	Original Dur	Remaining Dur	Early Start	Early Finish
SECRW1630	Construction of base slab (9bays)	63.0	63.0	24-Jan-24	13-Apr-24
Retaining Wall RW30		93.0	52.0	27-Oct-23 A	09-Feb-24
SECRW1720	Excavation and installation of lateral support	18.0	0.0	27-Oct-23 A	07-Dec-23 A
SECRW1740	Construction of base slab (4 bays)	40.0	30.0	02-Dec-23 A	15-Jan-24
SECRW1760	Construction of wall stems and backfill	32.0	32.0	04-Jan-24	09-Feb-24
Retaining Wall RW37		100.0	100.0	04-Jan-24	08-May-24
Construction of Bay 7 - Bay 12		100.0	100.0	04-Jan-24	08-May-24
SECRW1780	Install sheetpile along original site boundary (considering new sequence as less site area by updated site boundary	21.0	21.0	04-Jan-24	27-Jan-24
SECRW1800	Excavation works	15.0	15.0	29-Jan-24	17-Feb-24
SECRW1820	Temporary protection of gas main	14.0	14.0	19-Feb-24	05-Mar-24
SECRW1840	Construction of base slab for L-shaped retaining wall (5 bays) (CH78.9-CH126.2: 47.3m)	50.0	50.0	06-Mar-24	08-May-24
Box Culvert BC01(CH730 to CH1202.392)		162.0	162.0	08-Dec-23	28-Jun-24
CH750 to CH850		162.0	162.0	08-Dec-23	28-Jun-24
SECBC0005	TTA Implementation for cycle track@BC01	12.0	12.0	08-Dec-23	21-Dec-23
SECBC0010	Site clearance @BC01	14.0	14.0	22-Dec-23	10-Jan-24
SECBC1000	Installation of sheetpile @BC01	18.0	18.0	11-Jan-24	31-Jan-24
SECBC1002	Excavation and installation of lateral support @BC01	28.0	28.0	20-Jan-24	24-Feb-24
SECBC1015	Placing of 600m thick grade 200 fill material @BC01	10.0	10.0	26-Feb-24	07-Mar-24
SECBC1018	Construction of box culvert (6 bays) @BC01	90.0	90.0	08-Mar-24	28-Jun-24
CH1113 to CH1202.392		30.0	30.0	08-Mar-24	16-Apr-24
SECBC1202	Site clearance @BC01	30.0	30.0	08-Mar-24	16-Apr-24
Section 2 of the Works-Completion of all works within Portions 10 and 10A and Temporary Diversion of		186.0	135.0	27-Sep-23 A	27-May-24
Preparation Works		79.0	28.0	27-Sep-23 A	12-Jan-24
SEC021000	Site clearance	14.0	14.0	27-Sep-23 A	23-Dec-23
SEC021020	Erection of hoarding	28.0	28.0	08-Dec-23	12-Jan-24
SEC021040	Tree felling works	14.0	14.0	27-Sep-23 A	23-Dec-23
Demolition Works		85.0	50.0	03-Oct-23 A	07-Feb-24
SEC021060	Demolition of existing structure (4292m2)	85.0	50.0	03-Oct-23 A	07-Feb-24
Land Decontamination Works		81.0	81.0	08-Dec-23	18-Mar-24
SEC021220	Land decontamination works (40533 m3)	81.0	81.0	08-Dec-23	18-Mar-24
Box Culvert BC01(CH0 to CH88.7095)		93.0	93.0	30-Jan-24	27-May-24
SEC021250	Installation of sheetpile(90m*2) @BC01	25.0	25.0	30-Jan-24	01-Mar-24
SEC021270	Excavation and installation of lateral support @BC01	68.0	68.0	02-Mar-24	27-May-24
Section 3 of the Works-Completion of All works within Portions 8A, 9A, 14 and 14A of the Site		139.0	80.0	11-Aug-23 A	16-Mar-24
Preparation Works		69.0	69.0	08-Dec-23	04-Mar-24
SEC031007	Site clearance at Portion 14 and Portion 14A (remaining)	14.0	14.0	08-Dec-23	23-Dec-23
SEC031008	Tree felling works at Portion 14 and Portion 14A (remaining)	21.0	21.0	27-Dec-23	20-Jan-24
SEC031010	Disconnect power supply at Portion 14 and Portion 14A	21.0	21.0	27-Dec-23	20-Jan-24
SEC101030	Site clearance at Portion 8A	7.0	7.0	29-Jan-24	05-Feb-24
SEC101035	Tree felling works at at Portion 8A	14.0	14.0	06-Feb-24	24-Feb-24
SEC101037	Disconnect power supply at at Portion 8A	21.0	21.0	06-Feb-24	04-Mar-24
SEC101050	Site clearance at Portion 9A	7.0	7.0	08-Dec-23	15-Dec-23
SEC101052	Tree felling works at Portion 9A	14.0	14.0	16-Dec-23	04-Jan-24
SEC101055	Disconnect power supply at Portion 9A	21.0	21.0	29-Jan-24	24-Feb-24
Demolition Works		125.0	80.0	18-Oct-23 A	16-Mar-24



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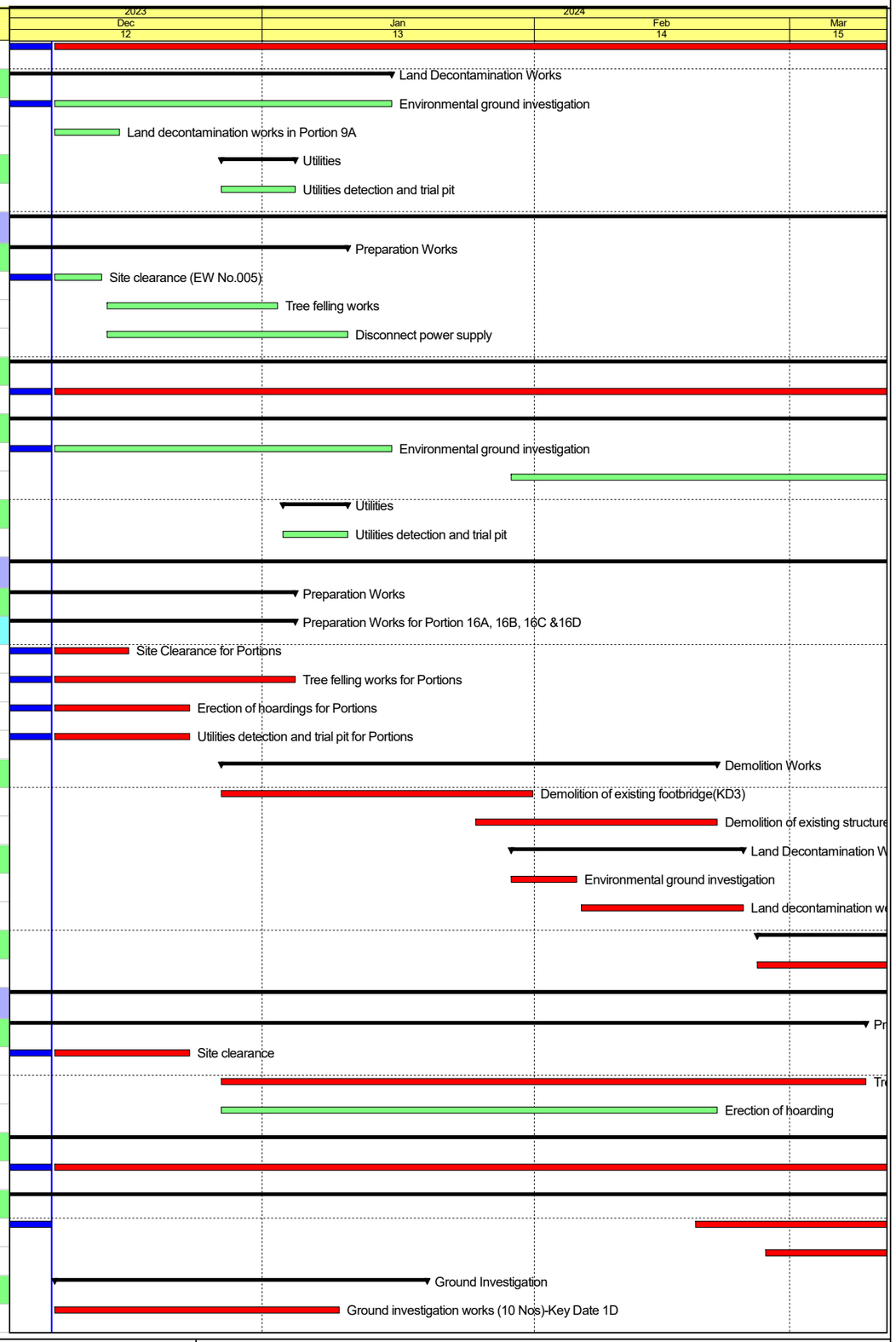
Contract No. YL/2022/01 Site Formation and Infrastructure Works for Yuen Long South First Phase Development - Contract 3

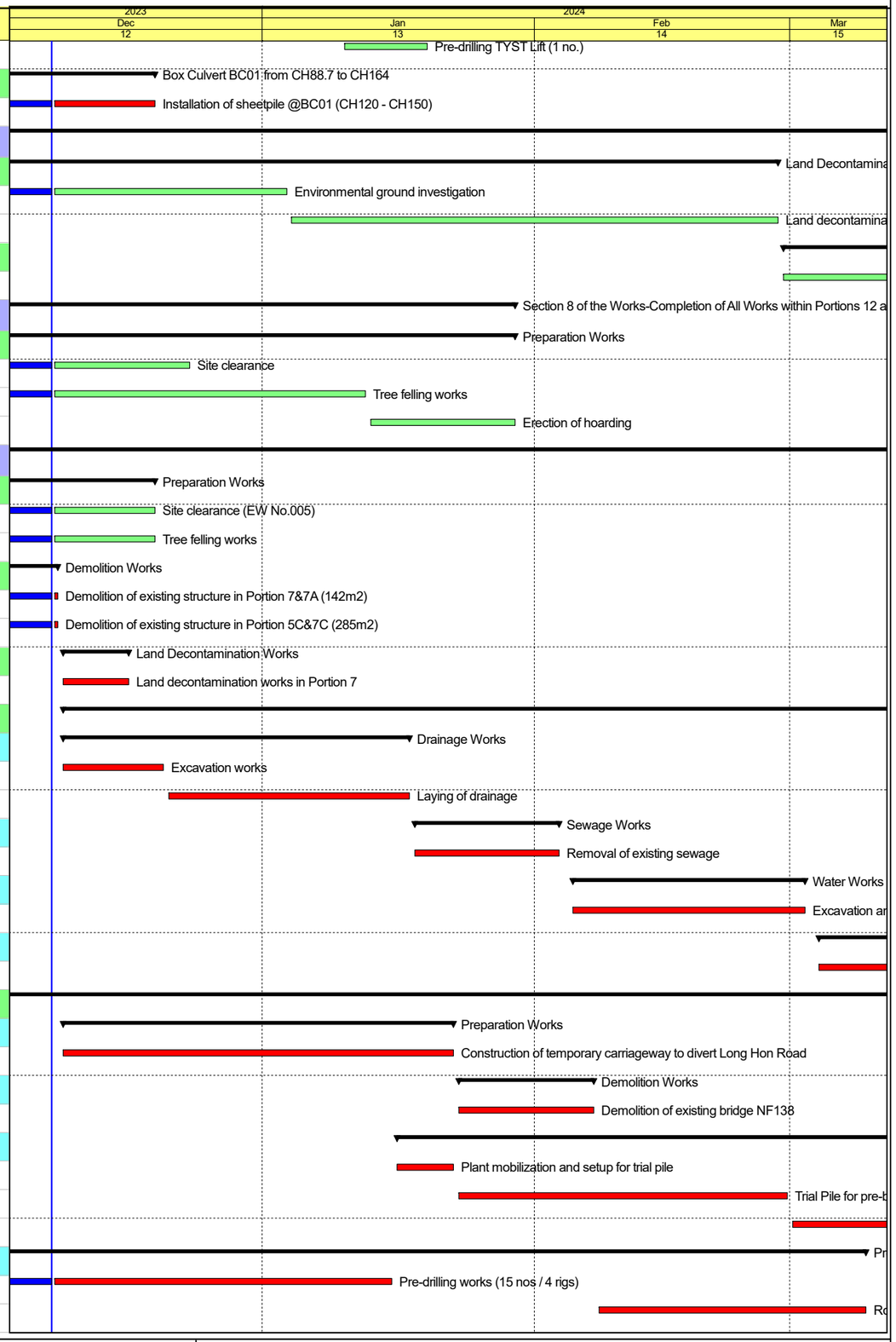
Activity ID	Activity Name	Original Dur	Remaining Dur	Early Start	Early Finish
SEC031082	Demolition of existing structure in Portion 14 and Portion 14A (remaining)	125.0	80.0	18-Oct-23 A	16-Mar-24
Land Decontamination Works		139.0	30.0	11-Aug-23 A	15-Jan-24
SEC031100	Environmental ground investigation	30.0	30.0	11-Aug-23 A	15-Jan-24
SEC031130	Land decontamination works in Portion 9A	7.0	7.0	08-Dec-23	15-Dec-23
Utilities		7.0	7.0	27-Dec-23	04-Jan-24
SEC031320	Utilities detection and trial pit	7.0	7.0	27-Dec-23	04-Jan-24
Section 4 of the Works-Completion of All works within Portions 8E, 15 and 15A of the Site		272.0	161.0	07-Jul-23 A	27-Jun-24
Preparation Works		137.0	26.0	07-Jul-23 A	10-Jan-24
SEC041000	Site clearance (EW No.005)	14.0	5.0	07-Jul-23 A	13-Dec-23
SEC041020	Tree felling works	14.0	14.0	14-Dec-23	02-Jan-24
SEC041040	Disconnect power supply	21.0	21.0	14-Dec-23	10-Jan-24
Demolition Works		150.0	125.0	18-Oct-23 A	14-May-24
SEC041080	Demolition of existing structure (7513m2)	150.0	125.0	18-Oct-23 A	14-May-24
Land Decontamination Works		120.0	161.0	03-Oct-23 A	27-Jun-24
SEC041100	Environmental ground investigation	30.0	30.0	03-Oct-23 A	15-Jan-24
SEC041120	Land decontamination works (28100 m3)	120.0	120.0	29-Jan-24	27-Jun-24
Utilities		7.0	7.0	03-Jan-24	10-Jan-24
SEC041220	Utilities detection and trial pit	7.0	7.0	03-Jan-24	10-Jan-24
Section 5 of the Works-Completion of All Works within Portions 16, 16A, 16B,16C and 16D of the Site		261.0	76.0	07-Jul-23 A	12-Mar-24
Preparation Works		187.0	21.0	07-Jul-23 A	04-Jan-24
Preparation Works for Portion 16A, 16B, 16C &16D		187.0	21.0	07-Jul-23 A	04-Jan-24
SEC051100	Site Clearance for Portions	18.0	8.0	07-Jul-23 A	16-Dec-23
SEC051120	Tree felling works for Portions	21.0	21.0	18-Oct-23 A	04-Jan-24
SEC051140	Erection of hoardings for Portions	15.0	14.0	26-Jul-23 A	23-Dec-23
SEC051160	Utilities detection and trial pit for Portions	14.0	14.0	23-Oct-23 A	23-Dec-23
Demolition Works		45.0	45.0	27-Dec-23	21-Feb-24
SEC053000	Demolition of existing footbridge(KD3)	30.0	30.0	27-Dec-23	31-Jan-24
SEC053020	Demolition of existing structure in Portion 16&16D(47 m2)(KD3)	21.0	21.0	25-Jan-24	21-Feb-24
Land Decontamination Works		21.0	21.0	29-Jan-24	24-Feb-24
SEC053040	Environmental ground investigation	7.0	7.0	29-Jan-24	05-Feb-24
SEC053060	Land decontamination works (1208 m3)(KD3)	14.0	14.0	06-Feb-24	24-Feb-24
Box Culvert BC02		14.0	14.0	26-Feb-24	12-Mar-24
SEC054000	Temporary diversion of Power and existing drainage(KD3) @BC02	14.0	14.0	26-Feb-24	12-Mar-24
Section 6 of the Works-Completion of All works within Portions 8C,8D,11,11A of the Site		414.0	167.0	14-Aug-23 A	22-May-24
Preparation Works		149.0	74.0	14-Aug-23 A	09-Mar-24
SEC061000	Site clearance	14.0	14.0	14-Aug-23 A	23-Dec-23
SEC061020	Tree felling works	60.0	60.0	27-Dec-23	09-Mar-24
SEC061040	Erection of hoarding	45.0	45.0	27-Dec-23	21-Feb-24
Demolition Works		124.0	80.0	25-Sep-23 A	16-Mar-24
SEC061060	Demolition of existing structure (6229m2)	124.0	80.0	25-Sep-23 A	16-Mar-24
Land Decontamination Works		92.0	75.0	22-Sep-23 A	22-May-24
SEC061100	Environmental ground investigation	30.0	30.0	22-Sep-23 A	23-Mar-24
SEC061120	Land decontamination works (34131 m3)	68.0	68.0	27-Feb-24	22-May-24
Ground Investigation		43.0	43.0	08-Dec-23	19-Jan-24
SEC061140	Ground investigation works (10 Nos)-Key Date 1D	25.0	25.0	08-Dec-23	09-Jan-24



Data Date: 08-Dec-23

Contract No. YL/2022/01 Site Formation and Infrastructure Works for Yuen Long South First Phase Development - Contract 3

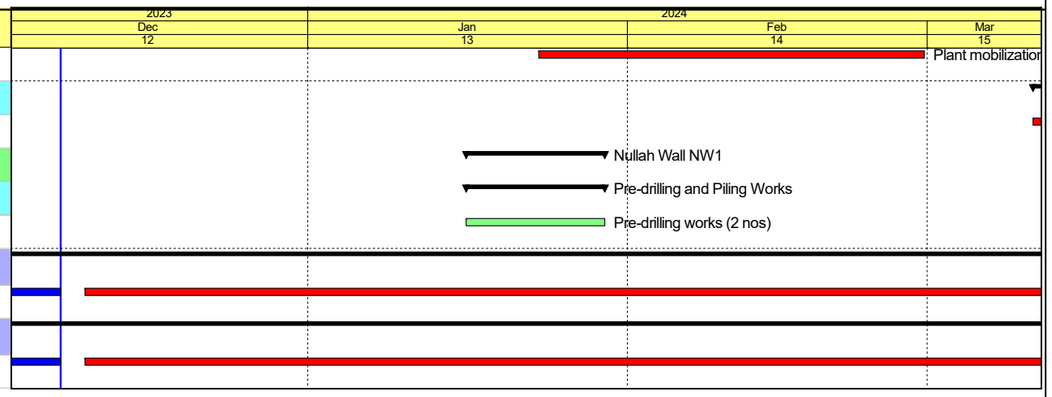
Activity ID	Activity Name	Original Dur	Remaining Dur	Early Start	Early Finish
SEC061155	Pre-drilling TYST Lift (1 no.)	10.0	10.0	10-Jan-24	19-Jan-24
Box Culvert BC01 from CH88.7 to CH164		30.0	10.0	22-Sep-23 A	19-Dec-23
SEC061160.10	Installation of sheetpile @BC01 (CH120 - CH150)	30.0	10.0	22-Sep-23 A	19-Dec-23
Section 7 of the Works-Completion of All Works within Portions 8B, 9B, 13 and 13A of the Site		338.0	101.0	05-Oct-23 A	15-Apr-24
Land Decontamination Works		338.0	65.0	05-Oct-23 A	28-Feb-24
SEC071140	Environmental ground investigation	30.0	20.0	05-Oct-23 A	03-Jan-24
SEC071160	Land decontamination works in Portions 13A and Portion 13 (8100m3)	45.0	45.0	04-Jan-24	28-Feb-24
Site Formation Works		36.0	36.0	29-Feb-24	15-Apr-24
SEC071200	Site formation works in Portion 13A and Portion 13	36.0	36.0	29-Feb-24	15-Apr-24
Section 8 of the Works-Completion of All Works within Portions 12 and 12A of the Site		117.0	42.0	04-Sep-23 A	29-Jan-24
Preparation Works		117.0	42.0	04-Sep-23 A	29-Jan-24
SEC081000	Site clearance	14.0	14.0	04-Sep-23 A	23-Dec-23
SEC081020	Tree felling works	28.0	28.0	16-Oct-23 A	12-Jan-24
SEC081040	Erection of hoarding	14.0	14.0	13-Jan-24	29-Jan-24
Section 9 of the Works-Completion of All Works within Portions 5C, 7, 7A, 7B, 7C and 7D of the Site		369.0	184.0	28-Apr-23 A	25-Jul-24
Preparation Works		14.0	10.0	28-Apr-23 A	19-Dec-23
SEC091000	Site clearance (EW No.005)	14.0	10.0	28-Apr-23 A	19-Dec-23
SEC091020	Tree felling works	14.0	10.0	05-Jun-23 A	19-Dec-23
Demolition Works		7.0	1.0	08-Nov-23 A	08-Dec-23
SEC091060	Demolition of existing structure in Portion 7&7A (142m2)	5.0	1.0	08-Nov-23 A	08-Dec-23
SEC091080	Demolition of existing structure in Portion 5C&7C (285m2)	7.0	1.0	08-Nov-23 A	08-Dec-23
Land Decontamination Works		7.0	7.0	09-Dec-23	16-Dec-23
SEC091100	Land decontamination works in Portion 7	7.0	7.0	09-Dec-23	16-Dec-23
Construction of New Shan Ha Road in Portions 5C and 7C		77.0	77.0	09-Dec-23	14-Mar-24
Drainage Works		31.0	31.0	09-Dec-23	17-Jan-24
SEC091120	Excavation works	10.0	10.0	09-Dec-23	20-Dec-23
SEC091125	Laying of drainage	21.0	21.0	21-Dec-23	17-Jan-24
Sewage Works		15.0	15.0	18-Jan-24	03-Feb-24
SEC091140	Removal of existing sewage	15.0	15.0	18-Jan-24	03-Feb-24
Water Works		21.0	21.0	05-Feb-24	02-Mar-24
SEC091160	Excavation and laying of water works	21.0	21.0	05-Feb-24	02-Mar-24
Road Pavement and Road Marking		10.0	10.0	04-Mar-24	14-Mar-24
SEC091175	Cycle track	10.0	10.0	04-Mar-24	14-Mar-24
Nullah Decking ND2		301.0	184.0	02-Jun-23 A	25-Jul-24
Preparation Works		35.0	35.0	09-Dec-23	22-Jan-24
SEC091210	Construction of temporary carriageway to divert Long Hon Road	35.0	35.0	09-Dec-23	22-Jan-24
Demolition Works		14.0	14.0	23-Jan-24	07-Feb-24
SEC091230	Demolition of existing bridge NF138	14.0	14.0	23-Jan-24	07-Feb-24
Trial Pile for Prebored H-Pile		48.0	48.0	16-Jan-24	14-Mar-24
SEC091275	Plant mobilization and setup for trial pile	6.0	6.0	16-Jan-24	22-Jan-24
SEC091280	Trial Pile for pre-bored H-piles and Loading Test	30.0	30.0	23-Jan-24	29-Feb-24
SEC091285	Design Review for Trial Pile	12.0	12.0	01-Mar-24	14-Mar-24
Pre-drilling and Piling Works		191.0	74.0	02-Jun-23 A	09-Mar-24
SEC091250	Pre-drilling works (15 nos / 4 rigs)	30.0	30.0	02-Jun-23 A	15-Jan-24
SEC091260	Road modification and site formation	24.0	24.0	08-Feb-24	09-Mar-24



Data Date: 08-Dec-23

Contract No. YL/2022/01 Site Formation and Infrastructure Works for Yuen Long South First Phase Development - Contract 3

Activity ID	Activity Name	Original Dur	Remaining Dur	Early Start	Early Finish
SEC091270	Plant mobilization and setup	30.0	30.0	23-Jan-24	29-Feb-24
Construction of Pilecap and Wall Stem		110.0	110.0	11-Mar-24	25-Jul-24
SEC091300	Installation of sheetpile(60+59+18m,2 workfront), excavation and installation of lateral support	110.0	110.0	11-Mar-24	25-Jul-24
Nullah Wall NW1		12.0	12.0	16-Jan-24	29-Jan-24
Pre-drilling and Piling Works		12.0	12.0	16-Jan-24	29-Jan-24
SEC091500	Pre-drilling works (2 nos)	12.0	12.0	16-Jan-24	29-Jan-24
Section 12 of the Works-Comprises All Preservation and Protection of Existing Trees		1858.0	1661.0	26-Feb-23 A	26-Jun-28
SEC12100	Preservation and protection of existing trees	1858.0	1661.0	26-Feb-23 A	26-Jun-28
Section 13 of the Works-Comprises All of the Landscape Softworks		1858.0	1661.0	26-Feb-23 A	26-Jun-28
SEC13100	Landscape softworks	1858.0	1661.0	26-Feb-23 A	26-Jun-28



土木工程拓展署
Civil Engineering and Development Department

中國路橋工程有限責任公司
CHINA ROAD AND BRIDGE CORPORATION

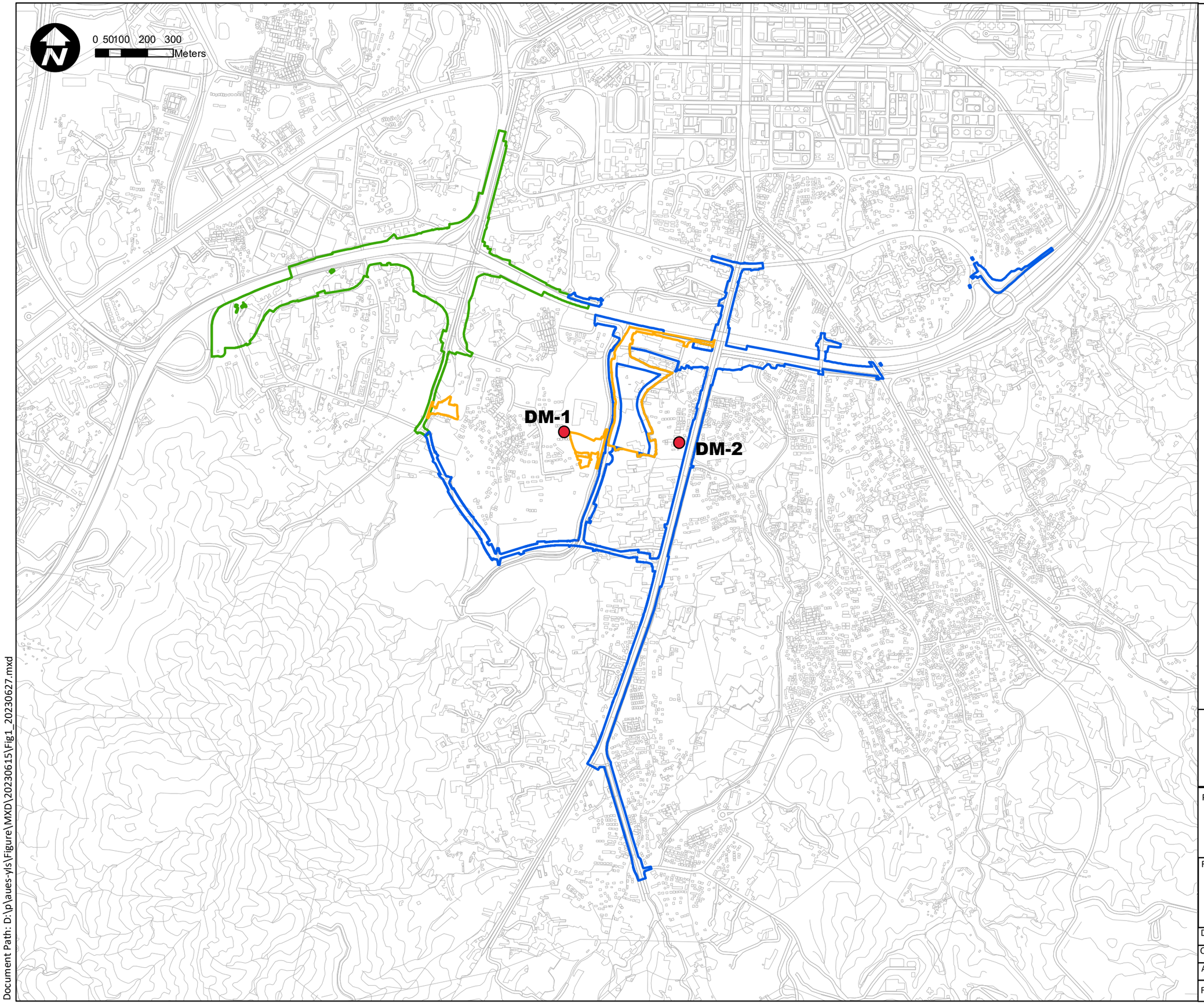
Actual Work
Non-Critical Activity
Critical Activity
Milestone
Summary

Three Month Rolling Programme (Dec 2023 - Mar 2024)

Data Date: 08-Dec-23

Appendix E

Monitoring Locations



LEGEND

- Boundary of YL/2021/03 (Contract 1)
- Boundary of YL/2021/04 (Contract 2)
- Boundary of YL/2022/01 (Contract 3)
- Construction Dust Monitoring Stations

Project Title:
CEDD Service Contract No. WD/07/2022
Yuen Long South First Phase Development - Environmental Team

Figure Title:
Location of Construction Dust Monitoring Stations for YLS First Phase Development

Drawn by:	Scale: 1:13,745on A3
Checked By:	
Approved by:	
Figure Number:	Revision: 0

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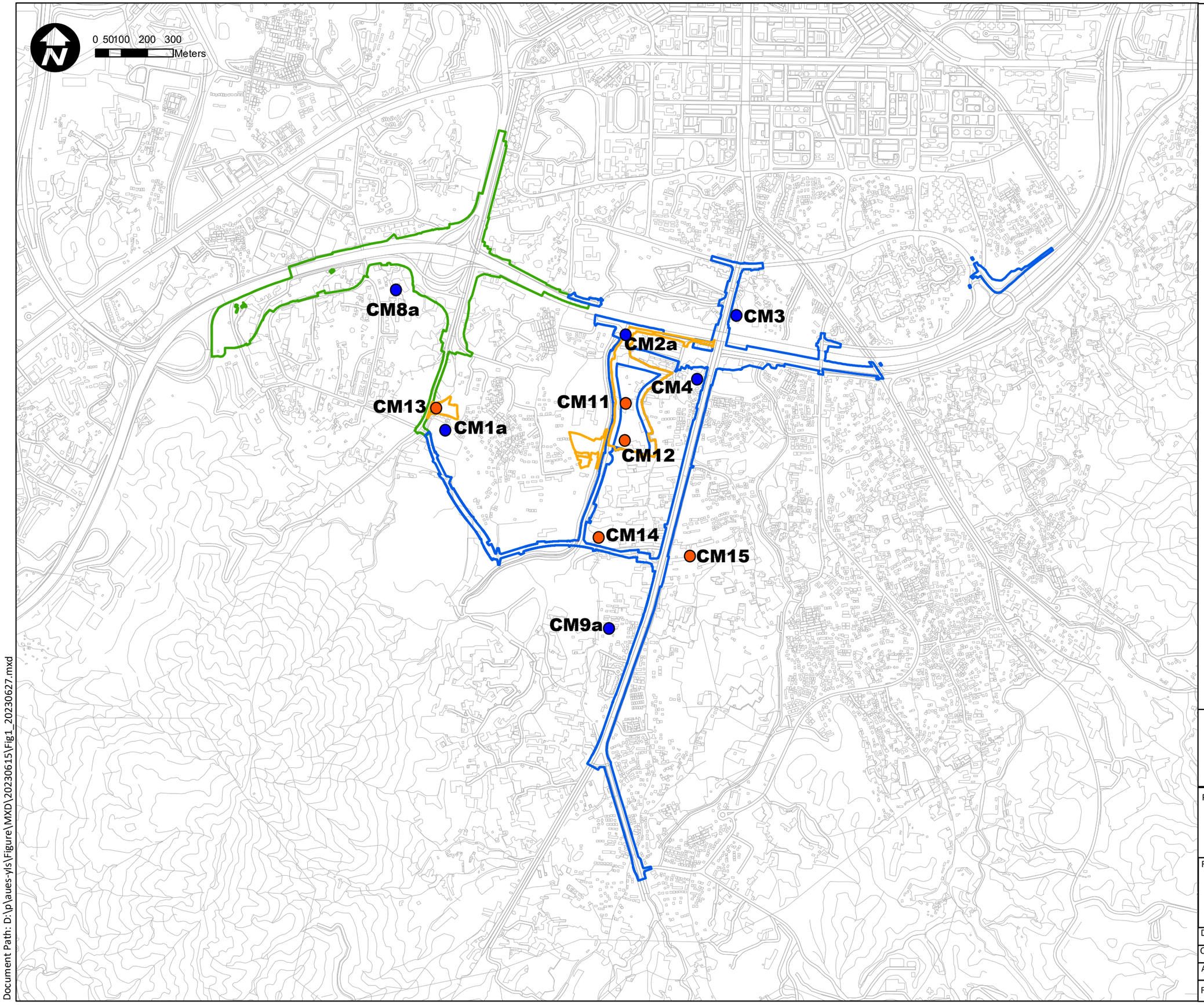

LEGEND

- Boundary of YL/2021/03 (Contract 1)
- Boundary of YL/2021/04 (Contract 2)
- Boundary of YL/2022/01 (Contract 3)
- Construction Noise Monitoring Stations
- Construction Noise Monitoring Stations (Planned NSRs)

Project Title:
CEDD Service Contract No. WD/07/2022
Yuen Long South First Phase Development - Environmental Team

Figure Title:
Location of Construction Noise Monitoring Stations for YLS First Phase Development

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Checked By:	
Approved by:	
Figure Number:	Revision: 0

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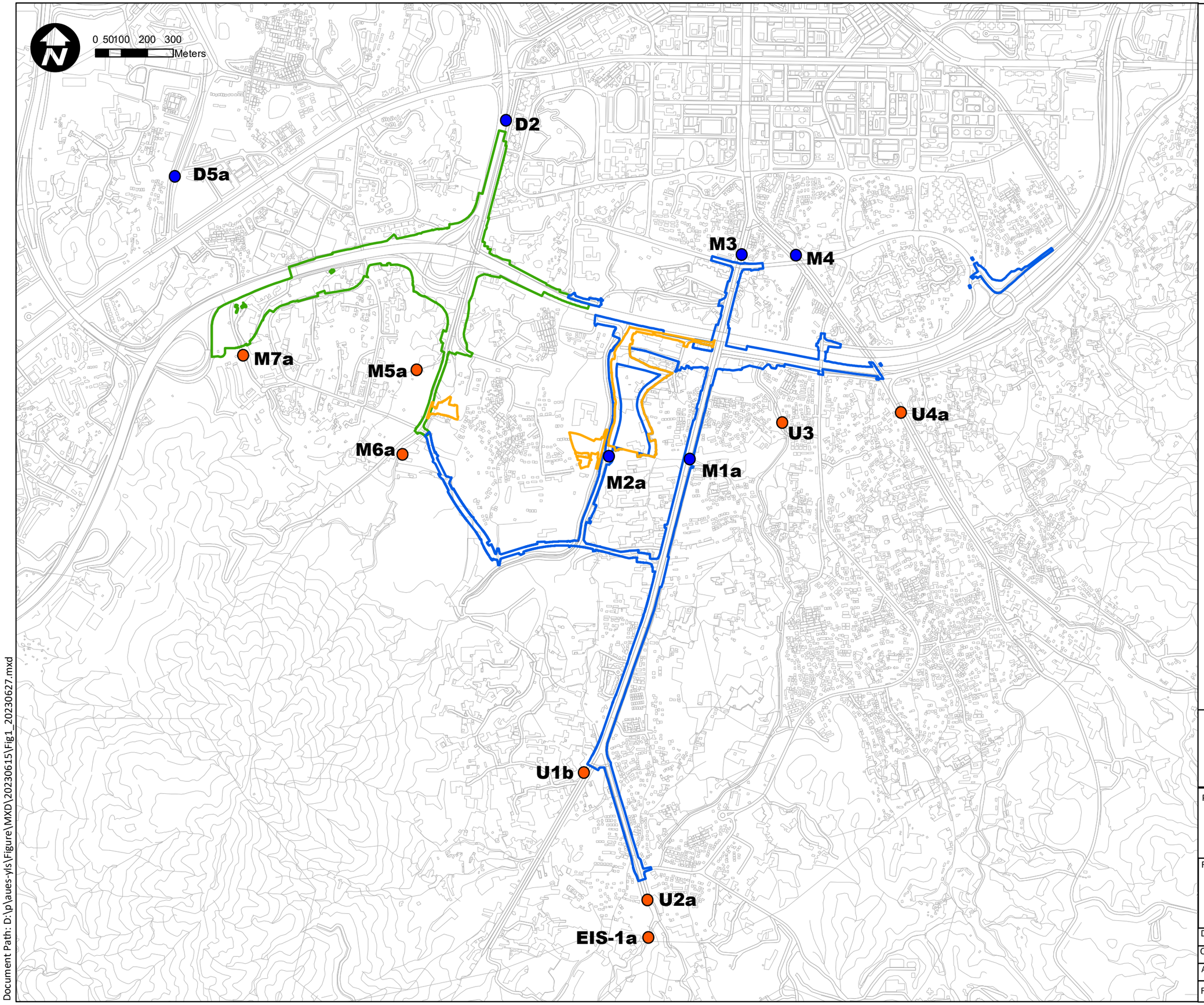

LEGEND

- Boundary of YL/2021/03 (Contract 1)
- Boundary of YL/2021/04 (Contract 2)
- Boundary of YL/2022/01 (Contract 3)
- Water Quality Monitoring Impact / Gradient Stations
- Water Quality Monitoring Control Stations

Project Title:
CEDD Service Contract No. WD/07/2022
Yuen Long South First Phase Development - Environmental Team

Figure Title:
Location of Water Quality Monitoring Stations for YLS First Phase Development

Drawn by:	Scale: 1:13,745on A3
Checked By:	
Approved by:	
Figure Number:	Revision: 0

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Meters

M3

M2a

LEGEND

- Boundary of YL/2021/03 (Contract 1)
- Boundary of YL/2021/04 (Contract 2)
- Boundary of YL/2022/01 (Contract 3)
- Water Quality Monitoring Impact / Gradient Stations

Project Title:
CEDD Service Contract No. WD/07/2022
Yuen Long South First Phase Development - Environmental Team

Figure Title:
Location of Water Quality Monitoring Stations for Contract 1

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Approved by:	
Figure Number:	Revision: 0

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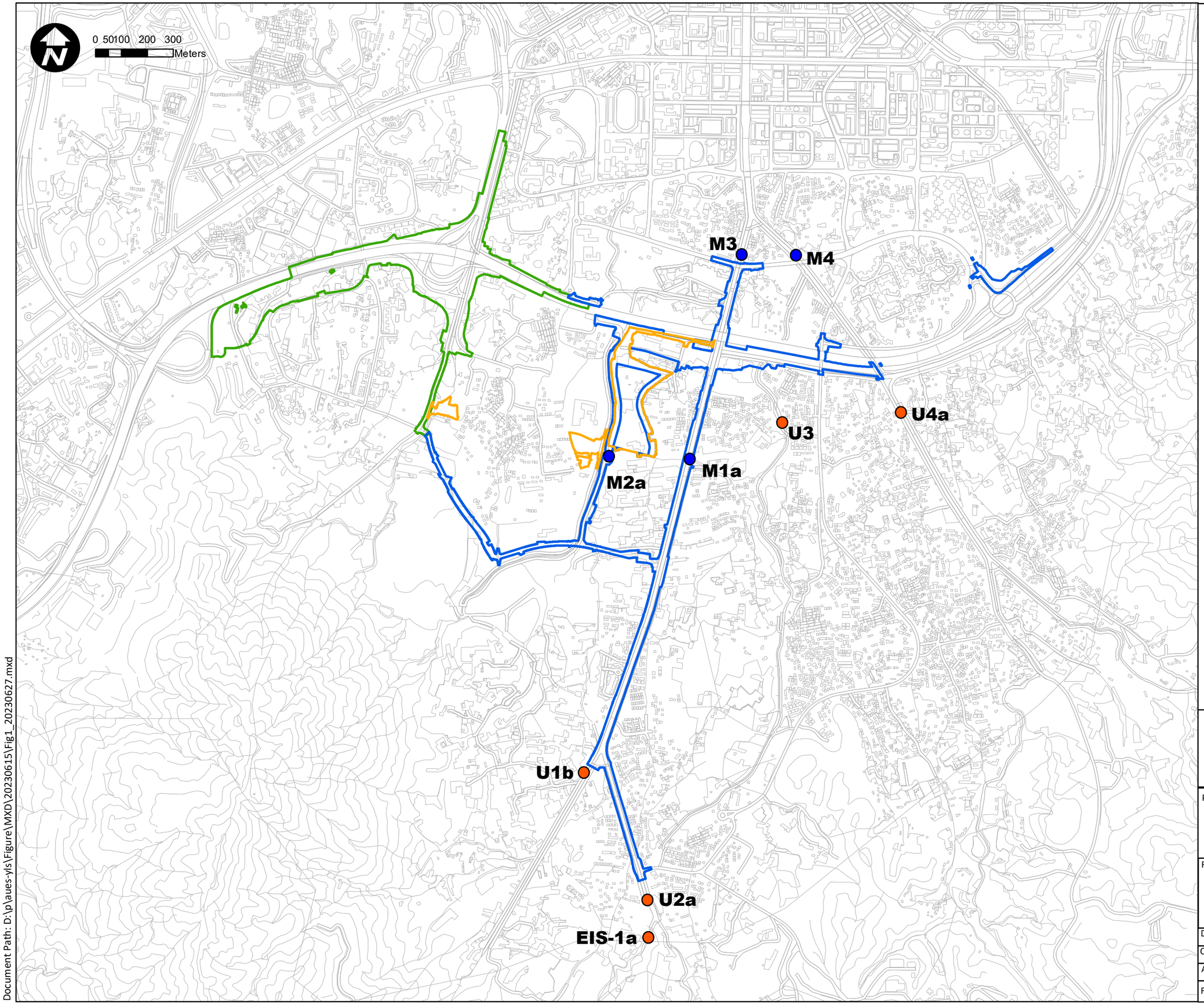


LEGEND

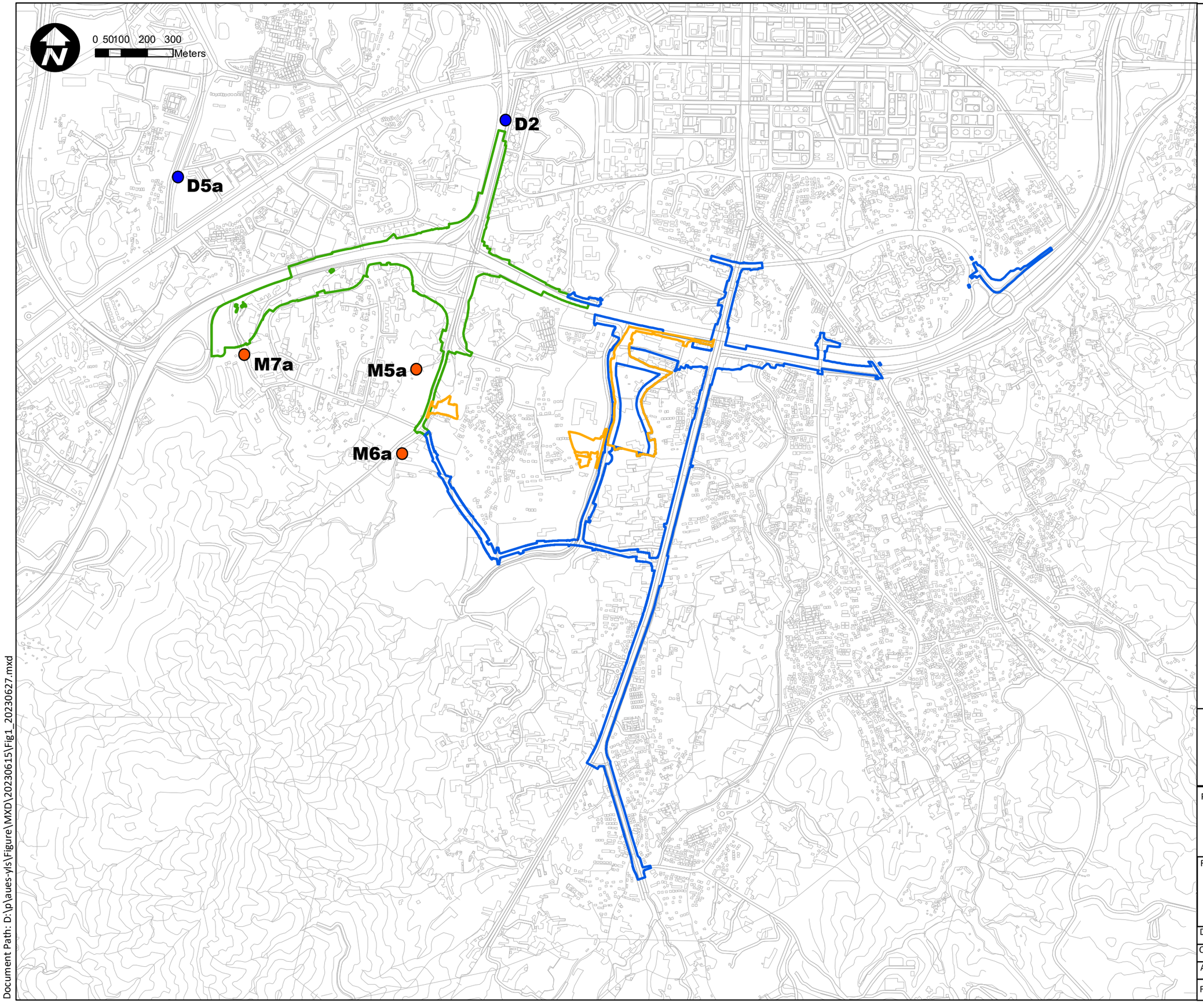
- Boundary of YL/2021/03 (Contract 1)
- Boundary of YL/2021/04 (Contract 2)
- Boundary of YL/2022/01 (Contract 3)
- Water Quality Monitoring Impact / Gradient Stations
- Water Quality Monitoring Control Stations

Project Title:
CEDD Service Contract No. WD/07/2022
Yuen Long South First Phase Development - Environmental Team

Figure Title:
Location of Water Quality Monitoring Stations for Contract 2

Drawn by:	Scale: 1:13,745on A3
Checked By:	
Approved by:	
Figure Number:	Revision: 0

Document Path: D:\p\aues-yls\Figure\MXD\20230615\Fig1_20230627.mxd



LEGEND

- Boundary of YL/2021/03 (Contract 1)
- Boundary of YL/2021/04 (Contract 2)
- Boundary of YL/2022/01 (Contract 3)
- Water Quality Monitoring Impact / Gradient Stations
- Water Quality Monitoring Control Stations

Project Title:
CEDD Service Contract No. WD/07/2022
Yuen Long South First Phase Development - Environmental Team

Figure Title:
Location of Water Quality Monitoring Stations for Contract 3

Drawn by:	Scale: 1:13,745on A3
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Approved by:	
Figure Number:	Revision: 0

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Appendix F

Calibration Certificates

Appendix F1

Calibration Certificates for

Air Quality Monitoring Equipment

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group

ANALYTICAL CHEMISTRY & TESTING SERVICES

SUB-CONTRACTING REPORT

CONTACT	: MR BEN TAM	WORK ORDER	: **HK2311530**
CLIENT	: **ACTION-UNITED ENVIRONMENTAL SERVICES & CONSULTING**		
ADDRESS	: RM A 20/F., GOLD KING IND BLDG, NO. 35-41 TAI LIN PAI ROAD, KWAI CHUNG, N.T.	SUB-BATCH	: 1
		DATE RECEIVED	: 23-MAR-2023
		DATE OF ISSUE	: 30-MAR-2023
PROJECT	: ----	NO. OF SAMPLES	: 1
		CLIENT ORDER	: ---

General Comments

- **Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in ambient condition. The result(s) related only to the item(s) tested.**
- **Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.**
- **Result(s) of sample(s) is/are reported on as received basis, unless otherwise specified.**
- **Calibration was subcontracted to and analysed by Action United Environmental Services & Consulting.**

Signatories

This document has been signed by those names that appear on this report and are the authorised signatories

Signatories	*Position*
Richard Fung	Managing Director

This report supersedes any previous report(s) with the same work order number.

All pages of this report have been checked and approved for release.

ALS Technichem (HK) Pty Ltd
Part of the **ALS Laboratory Group**

11/F. Chung Shun Knitting Centre 1 - 3 Wing Yip Street Kwai Chung N.T. Hong Kong
Tel. +852 2610 1044 Fax. +852 2610 2021 **www.alsglobal.com**

WORK ORDER : HK2311530
SUB-BATCH : 1
CLIENT : ACTION-UNITED ENVIRONMENTAL SERVICES & CONSULTING
PROJECT : ----

ALS Lab ID	Client's Sample ID	Sample Type	Sample Date	External Lab Report No.
HK2311530-001	S/N: 3Y6502	AIR	23-Mar-2023	S/N: 3Y6502

Equipment Verification Report (TSP)

Equipment Calibrated:

Type:	Laser Dust monitor
Manufacturer:	Sibata LD-3B
Serial No.	3Y6502
Equipment Ref:	EQ113

Standard Equipment:

Standard Equipment:	Higher Volume Sampler (TSP)
Location & Location ID:	AUES office (calibration room)
Equipment Ref:	HVS 018 & HVS 019
Last Calibration Date:	27 February 2023 & 10 January 2023

Equipment Verification Results:

Verification Date: 6 & 9 March 2023

Date	Hour	Time	Mean Temp °C	Mean Pressure (hPa)	Concentration in ug/m^3 (Standard Equipment)	Total Count (Calibrated Equipment)	Count/Minute (Total Count/min)
6-Mar-23	2hr01mins	09:35 ~ 11:36	20	1022.4	82.5	4537	37.6
6-Mar-23	2hr01mins	11:43 ~ 13:44	20	1022.4	29.5	2117	17.5
6-Mar-23	2hr11mins	13:45 ~ 15:56	20	1022.4	30.4	2306	17.6
9-Mar-23*	61mins	11:03 ~ 12:04	22.5	1017.7	144	4408	72.7
9-Mar-23*	61mins	12:06 ~ 13:07	22.5	1017.7	116	3761	61.5

(*) Suspended particle was added into calibration room of HVS019 for high concentration test.

Sensitivity Adjustment Scale Setting (Before Calibration) 655 (CPM)

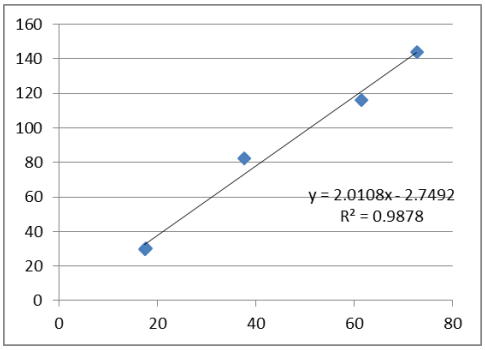
Sensitivity Adjustment Scale Setting (After Calibration) 660 (CPM)

Linear Regression of Y or X

Slope (K-factor): 2.0108 (µg/m^3)/CPM

Correlation Coefficient (R) 0.9939

Date of Issue 20 March 2023



Remarks:

1. **Strong** Correlation (R>0.8)
2. Factor 2.0108 (µg/m^3)/CPM should be apply for TSP monitoring

*If R<0.5, repair or re-verification is required for the equipment

Operator : Fai So Signature : Date : 20 March 2023

QC Reviewer : Ben Tam Signature : Date : 20 March 2023

TSP SAMPLER CALIBRATION CALCULATION SPREADSHEET

Location :	Gold King Industrial Building, Kwai Chung	Date of Calibration:	27-Feb-23
Location ID :	Calibration Room(HVS 018)	Next Calibration Date:	27-May-23

CONDITIONS

Sea Level Pressure (hPa)	1024	Corrected Pressure (mm Hg)	768
Temperature (°C)	17.8	Temperature (K)	291

CALIBRATION ORIFICE

Make->	TISCH	Qstd Slope ->	2.10977
Model->	5025A	Qstd Intercept ->	-0.03782
Calibration Date->	15-Dec-22	Expiry Date->	15-Dec-23

CALIBRATION

Plate No.	H20 (L) (in)	H2O (R) (in)	H20 (in)	Qstd (m3/min)	I (chart)	IC corrected	LINEAR REGRESSION
18	6	6	12.0	1.689	55	55.97	Slope = 32.9819
13	4.8	4.8	9.6	1.512	48	48.85	Intercept = 0.0741
10	3.7	3.7	7.4	1.330	44	44.78	Corr. coeff. = 0.9968
8	2.6	2.6	5.2	1.118	37	37.65	
5	1.6	1.6	3.2	0.881	28	28.49	

Calculations :

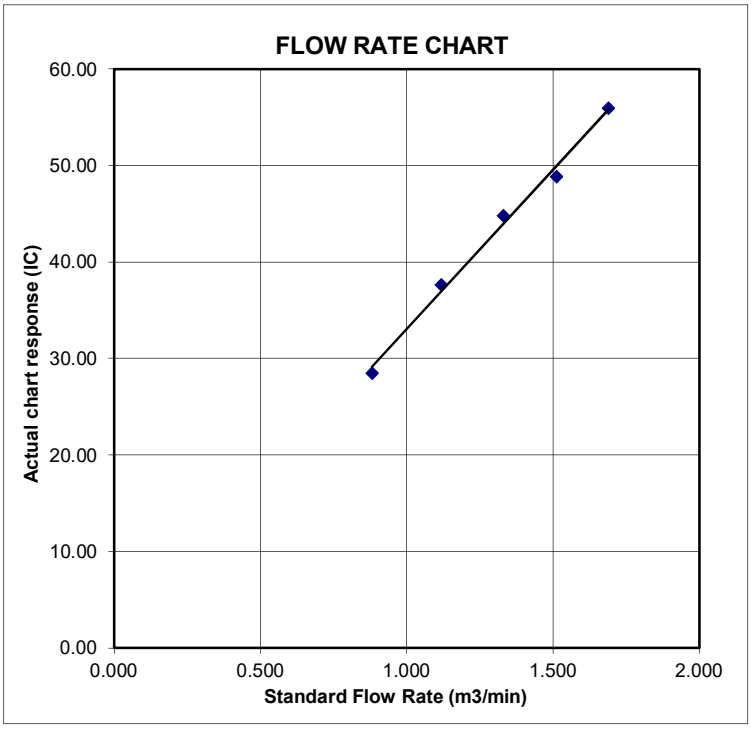
Qstd = 1/m[Sqrt(H20(Pa/Pstd)(Tstd/Ta))-b]
IC = I[Sqrt(Pa/Pstd)(Tstd/Ta)]

Qstd = standard flow rate
IC = corrected chart respones
I = actual chart response
m = calibrator Qstd slope
b = calibrator Qstd intercept
Ta = actual temperature during calibration (deg K)
Pstd = actual pressure during calibration (mm Hg)

For subsequent calculation of sampler flow:

1/m((I)[Sqrt(298/Tav)(Pav/760)]-b)

m = sampler slope
b = sampler intercept
I = chart response
Tav = daily average temperature
Pav = daily average pressure



TSP SAMPLER CALIBRATION CALCULATION SPREADSHEET

Location :	Gold King Industrial Building, Kwai Chung	Date of Calibration:	10-Jan-23
Location ID :	Calibration Room(HVS 019)	Next Calibration Date:	9-Apr-23

CONDITIONS

Sea Level Pressure (hPa)	1018.8	Corrected Pressure (mm Hg)	764.1
Temperature (°C)	18.2	Temperature (K)	291

CALIBRATION ORIFICE

Make->	TISCH	Qstd Slope ->	2.10977
Model->	5025A	Qstd Intercept ->	-0.03782
Calibration Date->	15-Dec-22	Expiry Date->	15-Dec-23

CALIBRATION

Plate No.	H20 (L) (in)	H2O (R) (in)	H20 (in)	Qstd (m3/min)	I (chart)	IC corrected	LINEAR REGRESSION
18	6	6	12.0	1.683	55	55.79	Slope = 31.4802
13	4.9	4.9	9.8	1.523	48	48.69	Intercept = 1.9499
10	3.9	3.9	7.8	1.361	44	44.63	Corr. coeff. = 0.9967
8	2.4	2.4	4.8	1.071	36	36.52	
5	1.5	1.5	3.0	0.851	28	28.40	

Calculations :

Qstd = 1/m[Sqrt(H20(Pa/Pstd)(Tstd/Ta))-b]

IC = I[Sqrt(Pa/Pstd)(Tstd/Ta)]

Qstd = standard flow rate

IC = corrected chart respones

I = actual chart response

m = calibrator Qstd slope

b = calibrator Qstd intercept

Ta = actual temperature during calibration (deg K)

Pstd = actual pressure during calibration (mm Hg)

For subsequent calculation of sampler flow:

1/m((I)[Sqrt(298/Tav)(Pav/760)]-b)

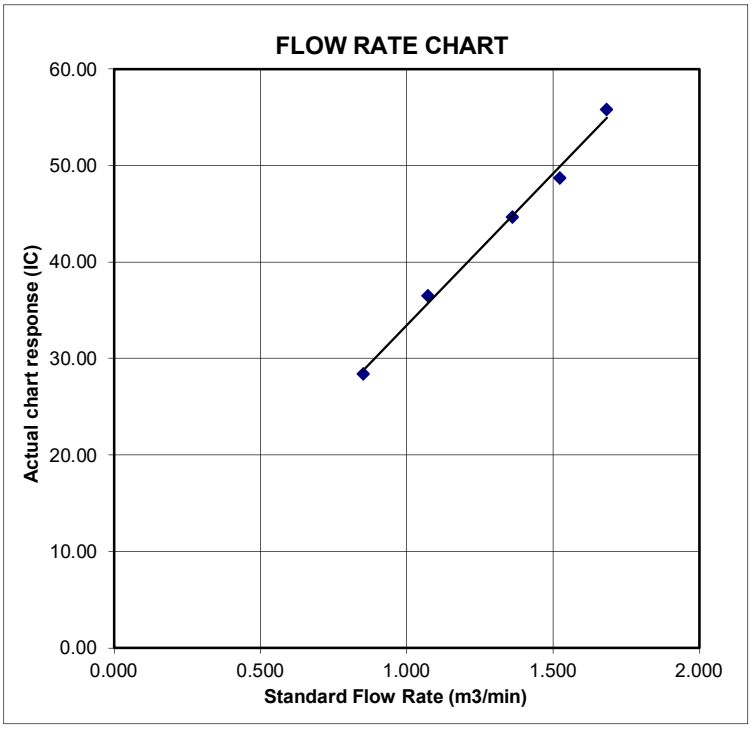
m = sampler slope

b = sampler intercept

I = chart response

Tav = daily average temperature

Pav = daily average pressure



TISCH Environmental

RECALIBRATION DUE DATE:
December 15, 2023

Certificate of Calibration

Calibration Certification Information				
Cal. Date:	December 15, 2022	**Rootsmeter S/N:** 438320	**Ta:** 295	°K
Operator:	Jim Tisch		**Pa:** 748.0	mm Hg
Calibration Model #:	TE-5025A	**Calibrator S/N:** **4064**		

Run	Vol. Init (m3)	Vol. Final (m3)	ΔVol. (m3)	ΔTime (min)	ΔP (mm Hg)	ΔH (in H2O)
1	1	2	1	1.4430	3.2	2.00
2	3	4	1	1.0210	6.4	4.00
3	5	6	1	0.9170	7.9	5.00
4	7	8	1	0.8730	8.8	5.50
5	9	10	1	0.7210	12.8	8.00

Data Tabulation

Vstd (m3)	Qstd (x-axis)	$\sqrt{\Delta H\left(\frac{Pa}{Pstd}\right)\left(\frac{Tstd}{Ta}\right)}$ (y-axis)	Va	Qa (x-axis)	$\sqrt{\Delta H\left(Ta/Pa\right)}$ (y-axis)
0.9900	0.6861	1.4101	0.9957	0.6900	0.8881
0.9858	0.9655	1.9943	0.9914	0.9711	1.2560
0.9838	1.0728	2.2296	0.9894	1.0790	1.4042
0.9826	1.1255	2.3385	0.9882	1.1320	1.4728
0.9772	1.3554	2.8203	0.9829	1.3632	1.7762
QSTD	**m=**	**2.10977**	**QA**	**m=**	**1.32110**
	b=	**-0.03782**		**b=**	**-0.02382**
	r=	**0.99998**		**r=**	**0.99998**

Calculations

Vstd=	ΔVol((Pa-ΔP)/Pstd)(Tstd/Ta)	**Va=**	ΔVol((Pa-ΔP)/Pa)
Qstd=	Vstd/ΔTime	**Qa=**	Va/ΔTime

For subsequent flow rate calculations:

Qstd= $1/m\left(\left(\sqrt{\Delta H\left(\frac{Pa}{Pstd}\right)\left(\frac{Tstd}{Ta}\right)}\right)-b\right)$

Qa= $1/m\left(\left(\sqrt{\Delta H\left(Ta/Pa\right)}\right)-b\right)$

Standard Conditions	
Tstd:	298.15 °K
Pstd:	760 mm Hg

Key
ΔH: calibrator manometer reading (in H2O)
ΔP: rootsmeter manometer reading (mm Hg)
Ta: actual absolute temperature (°K)
Pa: actual barometric pressure (mm Hg)
b: intercept
m: slope

RECALIBRATION

US EPA recommends annual recalibration per 1998 40 Code of Federal Regulations Part 50 to 51, Appendix B to Part 50, Reference Method for the Determination of Suspended Particulate Matter in the Atmosphere, 9.2.17, page 30

Tisch Environmental, Inc.
145 South Miami Avenue
Village of Cleves, OH 45002

www.tisch-env.com
TOLL FREE: (877)263-7610
FAX: (513)467-9009

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group

ANALYTICAL CHEMISTRY & TESTING SERVICES

SUB-CONTRACTING REPORT

CONTACT	: MR BEN TAM	WORK ORDER	: **HK2311531**
CLIENT	: **ACTION-UNITED ENVIRONMENTAL SERVICES & CONSULTING**		
ADDRESS	: RM A 20/F., GOLD KING IND BLDG, NO. 35-41 TAI LIN PAI ROAD, KWAI CHUNG, N.T.	SUB-BATCH	: 1
		DATE RECEIVED	: 23-MAR-2023
		DATE OF ISSUE	: 30-MAR-2023
PROJECT	: ----	NO. OF SAMPLES	: 1
		CLIENT ORDER	: ---

General Comments

- **Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in ambient condition. The result(s) related only to the item(s) tested.**
- **Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.**
- **Result(s) of sample(s) is/are reported on as received basis, unless otherwise specified.**
- **Calibration was subcontracted to and analysed by Action United Environmental Services & Consulting.**

Signatories

This document has been signed by those names that appear on this report and are the authorised signatories

Signatories	*Position*
Richard Fung	Managing Director

This report supersedes any previous report(s) with the same work order number.

All pages of this report have been checked and approved for release.

ALS Technichem (HK) Pty Ltd
Part of the **ALS Laboratory Group**

11/F. Chung Shun Knitting Centre 1 - 3 Wing Yip Street Kwai Chung N.T. Hong Kong
Tel. +852 2610 1044 Fax. +852 2610 2021 **www.alsglobal.com**

WORK ORDER : HK2311531
SUB-BATCH : 1
CLIENT : ACTION-UNITED ENVIRONMENTAL SERVICES & CONSULTING
PROJECT : ----

ALS Lab ID	Client's Sample ID	Sample Type	Sample Date	External Lab Report No.
HK2311531-001	S/N: 456658	AIR	23-Mar-2023	S/N: 456658

Equipment Verification Report (TSP)

Equipment Calibrated:

Type:	Laser Dust monitor
Manufacturer:	Sibata LD-3B
Serial No.	456658
Equipment Ref:	EQ115

Standard Equipment:

Standard Equipment:	Higher Volume Sampler (TSP)
Location & Location ID:	AUES office (calibration room)
Equipment Ref:	HVS 018 & HVS 019
Last Calibration Date:	27 February 2023 & 10 January 2023

Equipment Verification Results:

Verification Date: 6 & 9 March 2023

Date	Hour	Time	Mean Temp °C	Mean Pressure (hPa)	Concentration in ug/m^3 (Standard Equipment)	Total Count (Calibrated Equipment)	Count/Minute (Total Count/min)
6-Mar-23	2hr01mins	09:35 ~ 11:36	20	1022.4	82.5	4485	37.2
6-Mar-23	2hr01mins	11:43 ~ 13:44	20	1022.4	29.5	2128	17.6
6-Mar-23	2hr11mins	13:45 ~ 15:56	20	1022.4	30.4	2267	17.3
9-Mar-23*	61mins	11:03 ~ 12:04	22.5	1017.7	144	4263	70.3
9-Mar-23*	61mins	12:06 ~ 13:07	22.5	1017.7	116	3667	59.9

(*) Suspended particle was added into calibration room of HVS019 for high concentration test.

Sensitivity Adjustment Scale Setting (Before Calibration) 702 (CPM)

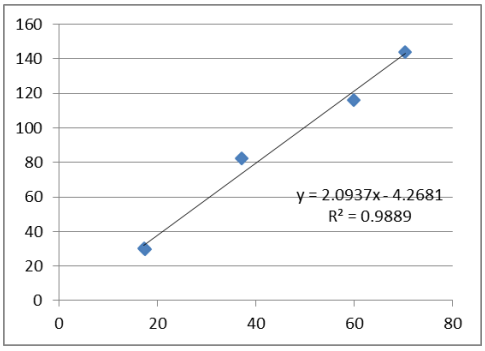
Sensitivity Adjustment Scale Setting (After Calibration) 708 (CPM)

Linear Regression of Y or X

Slope (K-factor): 2.0937 (µg/m^3)/CPM

Correlation Coefficient (R) 0.9944

Date of Issue 20 March 2023



Remarks:

1. **Strong** Correlation (R>0.8)
2. Factor 2.0937 (µg/m^3)/CPM should be apply for TSP monitoring

*If R<0.5, repair or re-verification is required for the equipment

Operator : Fai So Signature : Date : 20 March 2023

QC Reviewer : Ben Tam Signature : Date : 20 March 2023

TSP SAMPLER CALIBRATION CALCULATION SPREADSHEET

Location :	Gold King Industrial Building, Kwai Chung	Date of Calibration:	27-Feb-23
Location ID :	Calibration Room(HVS 018)	Next Calibration Date:	27-May-23

CONDITIONS

Sea Level Pressure (hPa)	1024	Corrected Pressure (mm Hg)	768
Temperature (°C)	17.8	Temperature (K)	291

CALIBRATION ORIFICE

Make->	TISCH	Qstd Slope ->	2.10977
Model->	5025A	Qstd Intercept ->	-0.03782
Calibration Date->	15-Dec-22	Expiry Date->	15-Dec-23

CALIBRATION

Plate No.	H20 (L) (in)	H2O (R) (in)	H20 (in)	Qstd (m3/min)	I (chart)	IC corrected	LINEAR REGRESSION
18	6	6	12.0	1.689	55	55.97	Slope = 32.9819
13	4.8	4.8	9.6	1.512	48	48.85	Intercept = 0.0741
10	3.7	3.7	7.4	1.330	44	44.78	Corr. coeff. = 0.9968
8	2.6	2.6	5.2	1.118	37	37.65	
5	1.6	1.6	3.2	0.881	28	28.49	

Calculations :

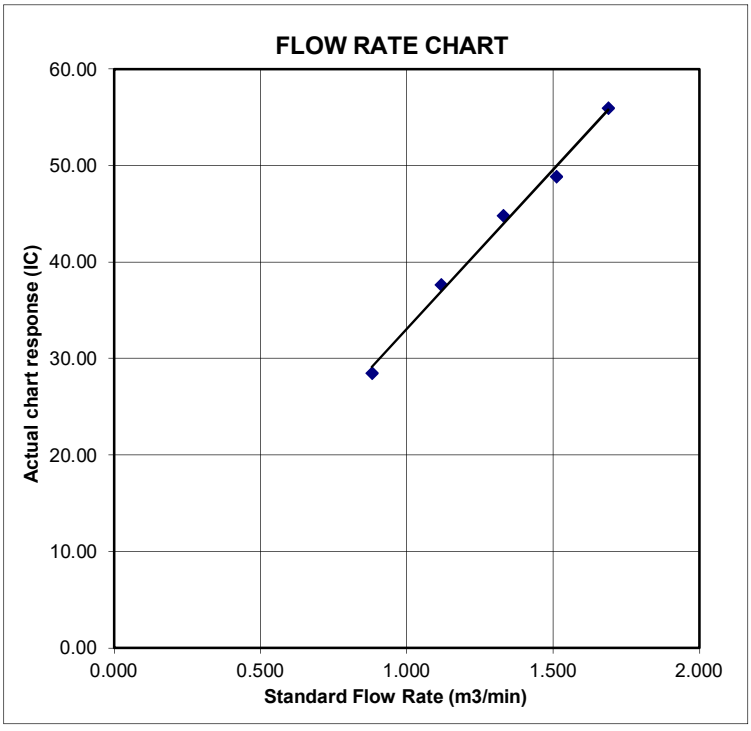
Qstd = 1/m[Sqrt(H20(Pa/Pstd)(Tstd/Ta))-b]
IC = I[Sqrt(Pa/Pstd)(Tstd/Ta)]

Qstd = standard flow rate
IC = corrected chart respones
I = actual chart response
m = calibrator Qstd slope
b = calibrator Qstd intercept
Ta = actual temperature during calibration (deg K)
Pstd = actual pressure during calibration (mm Hg)

For subsequent calculation of sampler flow:

1/m((I)[Sqrt(298/Tav)(Pav/760)]-b)

m = sampler slope
b = sampler intercept
I = chart response
Tav = daily average temperature
Pav = daily average pressure



TSP SAMPLER CALIBRATION CALCULATION SPREADSHEET

Location :	Gold King Industrial Building, Kwai Chung	Date of Calibration:	10-Jan-23
Location ID :	Calibration Room(HVS 019)	Next Calibration Date:	9-Apr-23

CONDITIONS

Sea Level Pressure (hPa)	1018.8	Corrected Pressure (mm Hg)	764.1
Temperature (°C)	18.2	Temperature (K)	291

CALIBRATION ORIFICE

Make->	TISCH	Qstd Slope ->	2.10977
Model->	5025A	Qstd Intercept ->	-0.03782
Calibration Date->	15-Dec-22	Expiry Date->	15-Dec-23

CALIBRATION

Plate No.	H20 (L) (in)	H2O (R) (in)	H20 (in)	Qstd (m3/min)	I (chart)	IC corrected	LINEAR REGRESSION
18	6	6	12.0	1.683	55	55.79	Slope = 31.4802
13	4.9	4.9	9.8	1.523	48	48.69	Intercept = 1.9499
10	3.9	3.9	7.8	1.361	44	44.63	Corr. coeff. = 0.9967
8	2.4	2.4	4.8	1.071	36	36.52	
5	1.5	1.5	3.0	0.851	28	28.40	

Calculations :

Qstd = 1/m[Sqrt(H20(Pa/Pstd)(Tstd/Ta))-b]

IC = I[Sqrt(Pa/Pstd)(Tstd/Ta)]

Qstd = standard flow rate

IC = corrected chart respones

I = actual chart response

m = calibrator Qstd slope

b = calibrator Qstd intercept

Ta = actual temperature during calibration (deg K)

Pstd = actual pressure during calibration (mm Hg)

For subsequent calculation of sampler flow:

1/m((I)[Sqrt(298/Tav)(Pav/760)]-b)

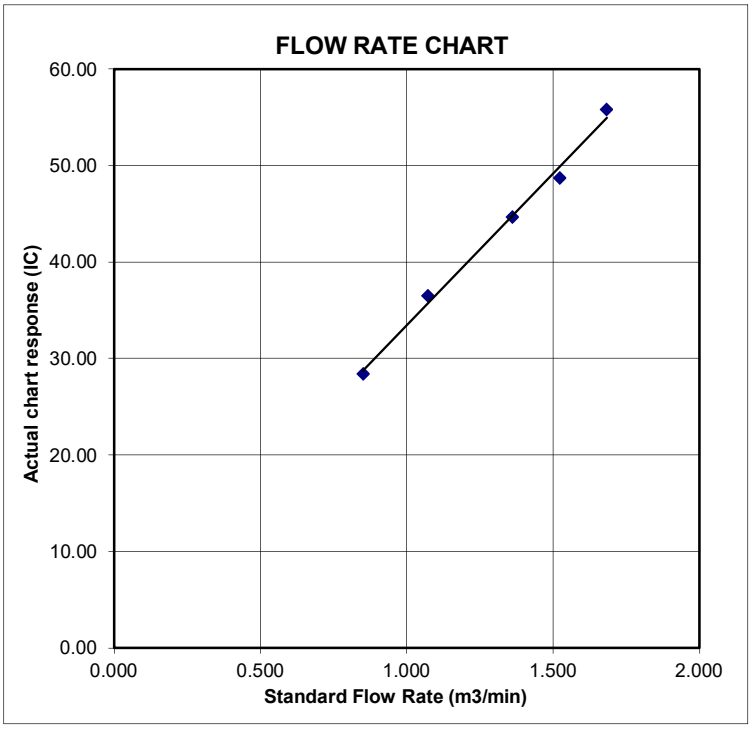
m = sampler slope

b = sampler intercept

I = chart response

Tav = daily average temperature

Pav = daily average pressure



TISCH Environmental

RECALIBRATION DUE DATE:
December 15, 2023

Certificate of Calibration

Calibration Certification Information				
Cal. Date:	December 15, 2022	**Rootsmeter S/N:** 438320	**Ta:** 295	°K
Operator:	Jim Tisch		**Pa:** 748.0	mm Hg
Calibration Model #:	TE-5025A	**Calibrator S/N:** **4064**		

Run	Vol. Init (m3)	Vol. Final (m3)	ΔVol. (m3)	ΔTime (min)	ΔP (mm Hg)	ΔH (in H2O)
1	1	2	1	1.4430	3.2	2.00
2	3	4	1	1.0210	6.4	4.00
3	5	6	1	0.9170	7.9	5.00
4	7	8	1	0.8730	8.8	5.50
5	9	10	1	0.7210	12.8	8.00

Data Tabulation

Vstd (m3)	Qstd (x-axis)	$\sqrt{\Delta H\left(\frac{Pa}{Pstd}\right)\left(\frac{Tstd}{Ta}\right)}$ (y-axis)	Va	Qa (x-axis)	$\sqrt{\Delta H\left(Ta/Pa\right)}$ (y-axis)
0.9900	0.6861	1.4101	0.9957	0.6900	0.8881
0.9858	0.9655	1.9943	0.9914	0.9711	1.2560
0.9838	1.0728	2.2296	0.9894	1.0790	1.4042
0.9826	1.1255	2.3385	0.9882	1.1320	1.4728
0.9772	1.3554	2.8203	0.9829	1.3632	1.7762
QSTD	**m=**	**2.10977**	**QA**	**m=**	**1.32110**
	b=	**-0.03782**		**b=**	**-0.02382**
	r=	**0.99998**		**r=**	**0.99998**

Calculations

Vstd=	ΔVol((Pa-ΔP)/Pstd)(Tstd/Ta)	**Va=**	ΔVol((Pa-ΔP)/Pa)
Qstd=	Vstd/ΔTime	**Qa=**	Va/ΔTime

For subsequent flow rate calculations:

Qstd= $1/m\left(\left(\sqrt{\Delta H\left(\frac{Pa}{Pstd}\right)\left(\frac{Tstd}{Ta}\right)}\right)-b\right)$

Qa= $1/m\left(\left(\sqrt{\Delta H\left(Ta/Pa\right)}\right)-b\right)$

Standard Conditions	
Tstd:	298.15 °K
Pstd:	760 mm Hg

Key
ΔH: calibrator manometer reading (in H2O)
ΔP: rootsmeter manometer reading (mm Hg)
Ta: actual absolute temperature (°K)
Pa: actual barometric pressure (mm Hg)
b: intercept
m: slope

RECALIBRATION

US EPA recommends annual recalibration per 1998 40 Code of Federal Regulations Part 50 to 51, Appendix B to Part 50, Reference Method for the Determination of Suspended Particulate Matter in the Atmosphere, 9.2.17, page 30

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Appendix F2

Calibration Certificates for

Noise Monitoring Equipment

輝創工程有限公司
Sun Creation Engineering Limited
Calibration & Testing Laboratory

Certificate of Calibration
校正證書

Certificate No. : C231628
證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號 : IC23-0436) Date of Receipt / 收件日期 : 28 February 2023

Description / 儀器名稱 : Sound Level Meter (EQ020)
Manufacturer / 製造商 : Rion
Model No. / 型號 : NL-52A
Serial No. / 編號 : 00620665
Supplied By / 委託者 : Action-United Environmental Services and Consulting
Unit A, 20/F., Gold King Industrial Building,
35-41 Tai Lin Pai Road, Kwai Chung, N.T.

TEST CONDITIONS / 測試條件

Temperature / 溫度 : (23 ± 2)°C Relative Humidity / 相對濕度 : (50 ± 25)%
Line Voltage / 電壓 : ---

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 21 March 2023

TEST RESULTS / 測試結果

The results apply to the particular unit-under-test only.
The results do not exceed specified limits.
These limits refer to manufacturer's published tolerances as requested by the customer.
The results are detailed in the subsequent page(s).

The test equipment used for calibration are traceable to National Standards via :
- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory
- Agilent Technologies / Keysight Technologies
- Fluke Everett Service Center, USA

Tested By 測試 : K C Lee, Engineer

Certified By 核證 : H C Chan, Engineer

Date of Issue 簽發日期 : 21 March 2023

Sun Creation Engineering Limited – Calibration & Testing Laboratory
c/o 4/F, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong
輝創工程有限公司 - 校正及檢測實驗所
c/o 香港新界屯門興安里一號四樓
Tel/電話: (852) 2927 2606 Fax/傳真: (852) 2744 8986 E-mail/電郵: callab@suncreation.com Website/網址: www.suncreation.com

Certificate of Calibration
校正證書

Certificate No. : C231628
證書編號

1. The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 12 hours, and switched on to warm up for over 10 minutes before the commencement of the test.

2. Self-calibration was performed before the test.

3. The results presented are the mean of 3 measurements at each calibration point.

4. Test equipment :

Equipment ID	Description	Certificate No.
CL280	40 MHz Arbitrary Waveform Generator	C230306
CL281	Multifunction Acoustic Calibrator	AV210017

5. Test procedure : MA101N.

6. Results :

6.1 Sound Pressure Level

6.1.1 Reference Sound Pressure Level

UUT Setting				Applied Value		UUT Reading (dB)	IEC 61672 Class 1 Limit (dB)
Range (dB)	Function	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)		
30 - 130	L_A	A	Fast	94.00	1	94.1	± 1.1

6.1.2 Linearity

UUT Setting				Applied Value		UUT Reading (dB)
Range (dB)	Function	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)	
30 - 130	L_A	A	Fast	94.00	1	94.1 (Ref.)
				104.00		104.1
				114.00		114.1

IEC 61672 Class 1 Limit : ± 0.6 dB per 10 dB step and ± 1.1 dB for overall different.

6.2 Time Weighting

UUT Setting				Applied Value		UUT Reading (dB)	IEC 61672 Class 1 Limit (dB)
Range (dB)	Function	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)		
30 - 130	L_A	A	Fast	94.00	1	94.1	Ref.
			Slow			94.1	± 0.3

Certificate of Calibration
校正證書

Certificate No. : C231628
證書編號

6.3 Frequency Weighting

6.3.1 A-Weighting

UUT Setting				Applied Value		UUT Reading (dB)	IEC 61672 Class 1 Limit (dB)
Range (dB)	Function	Frequency Weighting	Time Weighting	Level (dB)	Freq.		
30 - 130	L_A	A	Fast	94.00	63 Hz	67.8	-26.2 ± 1.5
					125 Hz	77.9	-16.1 ± 1.5
					250 Hz	85.4	-8.6 ± 1.4
					500 Hz	90.9	-3.2 ± 1.4
					1 kHz	94.1	Ref.
					2 kHz	95.3	+1.2 ± 1.6
					4 kHz	95.1	+1.0 ± 1.6
					8 kHz	93.1	-1.1 (+2.1 ; -3.1)
					16 kHz	86.1	-6.6 (+3.5 ; -17.0)

6.3.2 C-Weighting

UUT Setting				Applied Value		UUT Reading (dB)	IEC 61672 Class 1 Limit (dB)
Range (dB)	Function	Frequency Weighting	Time Weighting	Level (dB)	Freq.		
30 - 130	L_C	C	Fast	94.00	63 Hz	93.3	-0.8 ± 1.5
					125 Hz	93.9	-0.2 ± 1.5
					250 Hz	94.1	0.0 ± 1.4
					500 Hz	94.1	0.0 ± 1.4
					1 kHz	94.1	Ref.
					2 kHz	93.9	-0.2 ± 1.6
					4 kHz	93.3	-0.8 ± 1.6
					8 kHz	91.2	-3.0 (+2.1 ; -3.1)
					16 kHz	84.2	-8.5 (+3.5 ; -17.0)

Certificate of Calibration
校正證書

Certificate No. : C231628
證書編號

Remarks : - UUT Microphone Model No. : UC-59 & S/N : 21625

- Mfr's Limit : IEC 61672 Class 1

- Uncertainties of Applied Value :

94 dB	: 63 Hz - 125 Hz	: ± 0.35 dB
	250 Hz - 500 Hz	: ± 0.30 dB
	1 kHz	: ± 0.20 dB
	2 kHz - 4 kHz	: ± 0.35 dB
	8 kHz	: ± 0.45 dB
	16 kHz	: ± 0.70 dB
104 dB	: 1 kHz	: ± 0.10 dB (Ref. 94 dB)
114 dB	: 1 kHz	: ± 0.10 dB (Ref. 94 dB)

- The uncertainties are for a confidence probability of not less than 95 %.

Note :
Only the original copy or the laboratory's certified true copy is valid.

The values given in this Certificate only relate to the values measured at the time of the test and any uncertainties quoted will not include allowance for the equipment long term drift, variations with environment changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement. Sun Creation Engineering Limited shall not be liable for any loss or damage resulting from the use of the equipment.

Sun Creation Engineering Limited – Calibration & Testing Laboratory
c/o 4/F, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong
輝創工程有限公司 - 校正及檢測實驗所
c/o 香港新界屯門興安里一號四樓
Tel/電話: (852) 2927 2606 Fax/傳真: (852) 2744 8986 E-mail/電郵: callab@suncreation.com Website/網址: www.suncreation.com

輝創工程有限公司
Sun Creation Engineering Limited
Calibration & Testing Laboratory

Certificate of Calibration
校正證書

Certificate No. : C231629
證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號 : IC23-0436) Date of Receipt / 收件日期 : 28 February 2023

Description / 儀器名稱 : Sound Level Meter (EQ021)
Manufacturer / 製造商 : Rion
Model No. / 型號 : NL-52A
Serial No. / 編號 : 00620666
Supplied By / 委託者 : Action-United Environmental Services and Consulting
Unit A, 20/F., Gold King Industrial Building,
35-41 Tai Lin Pai Road, Kwai Chung, N.T.

TEST CONDITIONS / 測試條件

Temperature / 溫度 : (23 ± 2)°C Relative Humidity / 相對濕度 : (50 ± 25)%
Line Voltage / 電壓 : ---

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 21 March 2023

TEST RESULTS / 測試結果

The results apply to the particular unit-under-test only.
The results do not exceed specified limits.
These limits refer to manufacturer's published tolerances as requested by the customer.
The results are detailed in the subsequent page(s).

The test equipment used for calibration are traceable to National Standards via :
- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory
- Agilent Technologies / Keysight Technologies
- Fluke Everett Service Center, USA

Tested By 測試 : K C Lee
Engineer

Certified By 核證 : H C Chan
Engineer

Date of Issue 簽發日期 : 21 March 2023

Sun Creation Engineering Limited – Calibration & Testing Laboratory
c/o 4/F, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong
輝創工程有限公司 - 校正及檢測實驗所
c/o 香港新界屯門興安里一號四樓
Tel/電話: (852) 2927 2606 Fax/傳真: (852) 2744 8986 E-mail/電郵: callab@suncreation.com Website/網址: www.suncreation.com

Certificate of Calibration
校正證書

Certificate No. : C231629
證書編號

1. The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 12 hours, and switched on to warm up for over 10 minutes before the commencement of the test.

2. Self-calibration was performed before the test.

3. The results presented are the mean of 3 measurements at each calibration point.

4. Test equipment :

Equipment ID	Description	Certificate No.
CL280	40 MHz Arbitrary Waveform Generator	C230306
CL281	Multifunction Acoustic Calibrator	AV210017

5. Test procedure : MA101N.

6. Results :

6.1 Sound Pressure Level

6.1.1 Reference Sound Pressure Level

UUT Setting				Applied Value		UUT Reading (dB)	IEC 61672 Class 1 Limit (dB)
Range (dB)	Function	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)		
30 - 130	L_A	A	Fast	94.00	1	94.0	± 1.1

6.1.2 Linearity

UUT Setting				Applied Value		UUT Reading (dB)
Range (dB)	Function	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)	
30 - 130	L_A	A	Fast	94.00	1	94.0 (Ref.)
				104.00		104.0
				114.00		114.0

IEC 61672 Class 1 Limit : ± 0.6 dB per 10 dB step and ± 1.1 dB for overall different.

6.2 Time Weighting

UUT Setting				Applied Value		UUT Reading (dB)	IEC 61672 Class 1 Limit (dB)
Range (dB)	Function	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)		
30 - 130	L_A	A	Fast	94.00	1	94.0	Ref.
			Slow			94.0	± 0.3

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Certificate of Calibration
校正證書

Certificate No. : C231629
證書編號

6.3 Frequency Weighting

6.3.1 A-Weighting

UUT Setting				Applied Value		UUT Reading (dB)	IEC 61672 Class 1 Limit (dB)
Range (dB)	Function	Frequency Weighting	Time Weighting	Level (dB)	Freq.		
30 - 130	L_A	A	Fast	94.00	63 Hz	67.8	-26.2 ± 1.5
					125 Hz	77.8	-16.1 ± 1.5
					250 Hz	85.3	-8.6 ± 1.4
					500 Hz	90.8	-3.2 ± 1.4
					1 kHz	94.0	Ref.
					2 kHz	95.2	+1.2 ± 1.6
					4 kHz	95.0	+1.0 ± 1.6
					8 kHz	93.0	-1.1 (+2.1 ; -3.1)
					16 kHz	86.1	-6.6 (+3.5 ; -17.0)

6.3.2 C-Weighting

UUT Setting				Applied Value		UUT Reading (dB)	IEC 61672 Class 1 Limit (dB)
Range (dB)	Function	Frequency Weighting	Time Weighting	Level (dB)	Freq.		
30 - 130	L_C	C	Fast	94.00	63 Hz	93.2	-0.8 ± 1.5
					125 Hz	93.8	-0.2 ± 1.5
					250 Hz	94.0	0.0 ± 1.4
					500 Hz	94.0	0.0 ± 1.4
					1 kHz	94.0	Ref.
					2 kHz	93.9	-0.2 ± 1.6
					4 kHz	93.2	-0.8 ± 1.6
					8 kHz	91.1	-3.0 (+2.1 ; -3.1)
					16 kHz	84.1	-8.5 (+3.5 ; -17.0)

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Certificate of Calibration
校正證書

Certificate No. : C231629
證書編號

Remarks : - UUT Microphone Model No. : UC-59 & S/N : 21627

- Mfr's Limit : IEC 61672 Class 1

- Uncertainties of Applied Value :

94 dB	: 63 Hz - 125 Hz	: ± 0.35 dB
	250 Hz - 500 Hz	: ± 0.30 dB
	1 kHz	: ± 0.20 dB
	2 kHz - 4 kHz	: ± 0.35 dB
	8 kHz	: ± 0.45 dB
	16 kHz	: ± 0.70 dB
104 dB	: 1 kHz	: ± 0.10 dB (Ref. 94 dB)
114 dB	: 1 kHz	: ± 0.10 dB (Ref. 94 dB)

- The uncertainties are for a confidence probability of not less than 95 %.

Note :
Only the original copy or the laboratory's certified true copy is valid.

The values given in this Certificate only relate to the values measured at the time of the test and any uncertainties quoted will not include allowance for the equipment long term drift, variations with environment changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement. Sun Creation Engineering Limited shall not be liable for any loss or damage resulting from the use of the equipment.

Sun Creation Engineering Limited – Calibration & Testing Laboratory
c/o 4/F, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong
輝創工程有限公司 - 校正及檢測實驗所
c/o 香港新界屯門興安里一號四樓
Tel/電話: (852) 2927 2606 Fax/傳真: (852) 2744 8986 E-mail/電郵: callab@suncreation.com Website/網址: www.suncreation.com

輝創工程有限公司
Sun Creation Engineering Limited
Calibration & Testing Laboratory

Certificate of Calibration
校正證書

Certificate No. : C231631
證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號 : IC23-0436) Date of Receipt / 收件日期 : 28 February 2023

Description / 儀器名稱 : Sound Level Meter (EQ067)
Manufacturer / 製造商 : Rion
Model No. / 型號 : NL-31
Serial No. / 編號 : 00410221
Supplied By / 委託者 : Action-United Environmental Services and Consulting
Unit A, 20/F., Gold King Industrial Building,
35-41 Tai Lin Pai Road, Kwai Chung, N.T.

TEST CONDITIONS / 測試條件

Temperature / 溫度 : (23 ± 2)°C Relative Humidity / 相對濕度 : (50 ± 25)%
Line Voltage / 電壓 : ---

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 21 March 2023

TEST RESULTS / 測試結果

The results apply to the particular unit-under-test only.
The results do not exceed specified limits.
These limits refer to manufacturer's published tolerances as requested by the customer.
The results are detailed in the subsequent page(s).

The test equipment used for calibration are traceable to National Standards via :
- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory
- Agilent Technologies / Keysight Technologies
- Fluke Everett Service Center, USA

Tested By 測試 : K C Lee, Engineer

Certified By 核證 : H C Chan, Engineer

Date of Issue 簽發日期 : 21 March 2023

Sun Creation Engineering Limited – Calibration & Testing Laboratory
c/o 4/F, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong
輝創工程有限公司 - 校正及檢測實驗所
c/o 香港新界屯門興安里一號四樓
Tel/電話: (852) 2927 2606 Fax/傳真: (852) 2744 8986 E-mail/電郵: callab@suncreation.com Website/網址: www.suncreation.com

Certificate of Calibration
校正證書

Certificate No. : C231631
證書編號

1. The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 12 hours, and switched on to warm up for over 10 minutes before the commencement of the test.

2. Self-calibration was performed before the test.

3. The results presented are the mean of 3 measurements at each calibration point.

4. Test equipment :

Equipment ID	Description	Certificate No.
CL280	40 MHz Arbitrary Waveform Generator	C230360
CL281	Multifunction Acoustic Calibrator	AV210017

5. Test procedure : MA101N.

6. Results :

6.1 Sound Pressure Level

6.1.1 Reference Sound Pressure Level

UUT Setting				Applied Value		UUT Reading (dB)	IEC 61672 Class 1 Limit (dB)
Range (dB)	Mode	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)		
30 - 120	L_A	A	Fast	94.00	1	93.6	± 1.1

6.1.2 Linearity

UUT Setting				Applied Value		UUT Reading (dB)
Range (dB)	Mode	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)	
30 - 120	L_A	A	Fast	94.00	1	93.6 (Ref.)
				104.00		103.6
				114.00		113.6

IEC 61672 Class 1 Limit : ± 0.6 dB per 10 dB step and ± 1.1 dB for overall different.

6.2 Time Weighting

UUT Setting				Applied Value		UUT Reading (dB)	IEC 61672 Class 1 Limit (dB)
Range (dB)	Mode	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)		
30 - 120	L_A	A	Fast	94.00	1	93.6	Ref.
			Slow			93.6	± 0.3

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Certificate of Calibration
校正證書

Certificate No. : C231631
證書編號

6.3 Frequency Weighting

6.3.1 A-Weighting

UUT Setting				Applied Value		UUT Reading (dB)	IEC 61672 Class 1 Limit (dB)
Range (dB)	Mode	Frequency Weighting	Time Weighting	Level (dB)	Freq.		
30 - 120	L_A	A	Fast	94.00	63 Hz	67.3	-26.2 ± 1.5
					125 Hz	77.4	-16.1 ± 1.5
					250 Hz	84.9	-8.6 ± 1.4
					500 Hz	90.3	-3.2 ± 1.4
					1 kHz	93.6	Ref.
					2 kHz	94.8	+1.2 ± 1.6
					4 kHz	94.7	+1.0 ± 1.6
					8 kHz	92.6	-1.1 (+2.1 ; -3.1)
					16 kHz	87.2	-6.6 (+3.5 ; -17.0)

6.3.2 C-Weighting

UUT Setting				Applied Value		UUT Reading (dB)	IEC 61672 Class 1 Limit (dB)
Range (dB)	Mode	Frequency Weighting	Time Weighting	Level (dB)	Freq.		
30 - 120	L_C	C	Fast	94.00	63 Hz	92.6	-0.8 ± 1.5
					125 Hz	93.3	-0.2 ± 1.5
					250 Hz	93.5	0.0 ± 1.4
					500 Hz	93.6	0.0 ± 1.4
					1 kHz	93.6	Ref.
					2 kHz	93.5	-0.2 ± 1.6
					4 kHz	92.9	-0.8 ± 1.6
					8 kHz	90.7	-3.0 (+2.1 ; -3.1)
					16 kHz	85.3	-8.5 (+3.5 ; -17.0)

Sun Creation Engineering Limited – Calibration & Testing Laboratory
c/o 4/F, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong
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Certificate of Calibration
校正證書

Certificate No. : C231631
證書編號

Remarks : - UUT Microphone Model No. : UC-53A & S/N : 322551

- Mfr's Limit : IEC 61672 Class 1

- Uncertainties of Applied Value :

94 dB	: 63 Hz - 125 Hz	:	± 0.35 dB
	250 Hz - 500 Hz	:	± 0.30 dB
	1 kHz	:	± 0.20 dB
	2 kHz - 4 kHz	:	± 0.35 dB
	8 kHz	:	± 0.45 dB
	16 kHz	:	± 0.70 dB
104 dB	: 1 kHz	:	± 0.10 dB (Ref. 94 dB)
114 dB	: 1 kHz	:	± 0.10 dB (Ref. 94 dB)

- The uncertainties are for a confidence probability of not less than 95 %.

Note :
Only the original copy or the laboratory's certified true copy is valid.

The values given in this Certificate only relate to the values measured at the time of the test and any uncertainties quoted will not include allowance for the equipment long term drift, variations with environment changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement. Sun Creation Engineering Limited shall not be liable for any loss or damage resulting from the use of the equipment.

Sun Creation Engineering Limited – Calibration & Testing Laboratory
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輝創工程有限公司 - 校正及檢測實驗所
c/o 香港新界屯門興安里一號四樓
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Sun Creation Engineering Limited
Calibration & Testing Laboratory

Certificate of Calibration
校正證書

Certificate No. : C235367
證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號 : IC23-1813) Date of Receipt / 收件日期 : 31 August 2023

Description / 儀器名稱 : Sound Level Calibrator (EQ085)
Manufacturer / 製造商 : Rion
Model No. / 型號 : NC-73
Serial No. / 編號 : 10655561
Supplied By / 委託者 : Action-United Environmental Services and Consulting
Unit A, 20/F., Gold King Industrial Building,
35-41 Tai Lin Pai Road, Kwai Chung, N.T.

TEST CONDITIONS / 測試條件

Temperature / 溫度 : (23 ± 2)°C Relative Humidity / 相對濕度 : (50 ± 25)%
Line Voltage / 電壓 : ---

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 13 September 2023

TEST RESULTS / 測試結果

The results apply to the particular unit-under-test only.
The results do not exceed specified limits.
These limits refer to manufacturer's published or user's specified tolerances as requested by the customer.
The results are detailed in the subsequent page(s).

The test equipment used for calibration are traceable to National Standards via :
- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory
- Hottinger Brüel & Kjær Calibration Laboratory, Denmark
- Agilent Technologies / Keysight Technologies
- Fluke Everett Service Center, USA

Tested By 測試 : K C Lee
Engineer

Certified By 核證 : K K Wong
Engineer

Date of Issue 簽發日期 : 17 September 2023

Sun Creation Engineering Limited – Calibration & Testing Laboratory
c/o 4/F, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong
輝創工程有限公司 - 校正及檢測實驗所
c/o 香港新界屯門興安里一號四樓
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輝創工程有限公司
Sun Creation Engineering Limited
Calibration & Testing Laboratory

Certificate of Calibration
校正證書

Certificate No. : C235367
證書編號

1. The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 12 hours before the commencement of the test.

2. The results presented are the mean of 3 measurements at each calibration point.

3. Test equipment :

Equipment ID	Description	Certificate No.
CL130	Universal Counter	C233799
CL281	Multifunction Acoustic Calibrator	CDK2302738
TST150A	Measuring Amplifier	C221750

4. Test procedure : MA100N.

5. Results :

5.1 Sound Level Accuracy

UUT Nominal Value	Measured Value (dB)	Mfr's Spec. (dB)	Uncertainty of Measured Value (dB)
94 dB, 1 kHz	94.00	± 0.5	± 0.20

5.2 Frequency Accuracy

UUT Nominal Value (kHz)	Measured Value (kHz)	User's Spec.	Uncertainty of Measured Value (Hz)
1	0.951	1 kHz ± 6 %	± 1

Remarks : - The user's specified acceptance criteria (user's spec.) is a customer pre-defined operating tolerance of the UUT, suitable for one's own intended use.

- The uncertainties are for a confidence probability of not less than 95 %.

Note :
Only the original copy or the laboratory's certified true copy is valid.

The values given in this Certificate only relate to the values measured at the time of the test and any uncertainties quoted will not include allowance for the equipment long term drift, variations with environment changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement. Sun Creation Engineering Limited shall not be liable for any loss or damage resulting from the use of the equipment.

Sun Creation Engineering Limited – Calibration & Testing Laboratory
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Sun Creation Engineering Limited
Calibration & Testing Laboratory

Certificate of Calibration
校正證書

Certificate No. : C231627
證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號 : IC23-0436) Date of Receipt / 收件日期 : 28 February 2023

Description / 儀器名稱	:	Sound Calibrator (EQ089)
Manufacturer / 製造商	:	Rion
Model No. / 型號	:	NC-75
Serial No. / 編號	:	34680623
Supplied By / 委託者	:	Action-United Environmental Services and Consulting Unit A, 20/F., Gold King Industrial Building, 35-41 Tai Lin Pai Road, Kwai Chung, N.T.

TEST CONDITIONS / 測試條件

Temperature / 溫度 : (23 ± 2)°C Relative Humidity / 相對濕度 : (50 ± 25)%
Line Voltage / 電壓 : ---

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 21 March 2023

TEST RESULTS / 測試結果

The results apply to the particular unit-under-test only.
The results do not exceed specified limits.
These limits refer to manufacturer's published tolerances as requested by the customer.
The results are detailed in the subsequent page(s).

The test equipment used for calibration are traceable to National Standards via :
- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory
- Agilent Technologies / Keysight Technologies
- Fluke Everett Service Center, USA

Tested By 測試 : K C Lee, Engineer

Certified By 核證 : H C Chan, Engineer

Date of Issue 簽發日期 : 21 March 2023

Sun Creation Engineering Limited – Calibration & Testing Laboratory
c/o 4/F, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong
輝創工程有限公司 - 校正及檢測實驗所
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輝創工程有限公司
Sun Creation Engineering Limited
Calibration & Testing Laboratory

Certificate of Calibration
校正證書

Certificate No. : C231627
證書編號

1. The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 12 hours before the commencement of the test.

2. The results presented are the mean of 3 measurements at each calibration point.

3. Test equipment :

Equipment ID	Description	Certificate No.
CL130	Universal Counter	C223647
CL281	Multifunction Acoustic Calibrator	AV210017
TST150A	Measuring Amplifier	C221750

4. Test procedure : MA100N.

5. Results :

5.1 Sound Level Accuracy

UUT Nominal Value	Measured Value (dB)	Mfr's Limit (dB)	Uncertainty of Measured Value (dB)
94 dB, 1 kHz	94.1	± 0.25	± 0.2

5.2 Frequency Accuracy

UUT Nominal Value (kHz)	Measured Value (kHz)	Mfr's Limit	Uncertainty of Measured Value (Hz)
1	1.000 0	1 kHz ± 0.1 %	± 0.1

Remark : The uncertainties are for a confidence probability of not less than 95 %.

Note :
Only the original copy or the laboratory's certified true copy is valid.

The values given in this Certificate only relate to the values measured at the time of the test and any uncertainties quoted will not include allowance for the equipment long term drift, variations with environment changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement. Sun Creation Engineering Limited shall not be liable for any loss or damage resulting from the use of the equipment.

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Appendix F3

Calibration Certificates for

Water Quality Monitoring Equipment

ALS Technichem (HK) Pty Ltd
11/F., Chung Shun Knitting Centre,
1 - 3 Wing Yip Street,
Kwai Chung, N.T., Hong Kong
T: +852 2610 1044
F: +852 2610 2021
www.alsglobal.com

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

CONTACT:	MR BEN TAM	**WORK ORDER:**	HK2345295
CLIENT:	ACTION-UNITED ENVIRONMENTAL SERVICES & CONSULTING		
ADDRESS:	RM A 20/F., GOLD KING IND BLDG, NO. 35-41 TAI LIN PAI ROAD, KWAI CHUNG, N.T.	**SUB-BATCH:**	0
		LABORATORY:	HONG KONG
		DATE RECEIVED:	10-Nov-2023
		DATE OF ISSUE:	17-Nov-2023

GENERAL COMMENTS

The performance of the equipment stated in this report is checked with independent reference material and results compared against a calibrated secondary source.
The "Tolerance Limit" quoted is the acceptance criteria applicable for similar equipment used by the laboratory or quoted from relevant international standards.
The "Next Calibration Date" is recommended according to best practice principle as practised by the laboratory or quoted from relevant international standards.
The validity of equipment/ meter performance only applies to the result(s) stated in the report.
This report superseded any previous report(s) with same work order number.

EQUIPMENT INFORMATION

Equipment information (Brand name, Model No., Serial No. and Equipment No.) is provided by client.

Equipment Type:	Multifunctional Meter
Service Nature:	Performance Check
Scope:	Conductivity, Dissolved Oxygen, pH Value, Turbidity, Salinity and Temperature
Brand Name/ Model No.:	[YSI]/ [Professional DSS]
Serial No./ Equipment No.:	[17B102764/17B100758]/ [EQW019]
Date of Calibration:	16-November-2023

Ms. Lin Wai Yu, Iris
Assistant Manager - Inorganics

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

WORK ORDER: HK2345295

SUB-BATCH: 0
DATE OF ISSUE: 17-Nov-2023
CLIENT: ACTION-UNITED ENVIRONMENTAL SERVICES & CONSULTING

Equipment Type: Multifunctional Meter
Brand Name/ Model No.: [YSI]/ [Professional DSS]
Serial No./ Equipment No.: [17B102764/17B100758]/ [EQW019]
Date of Calibration: 16-November-2023 Date of Next Calibration: 16-February-2024

PARAMETERS:

Conductivity **Method Ref: APHA (23rd edition), 2510B**

Expected Reading (µS/cm)	Displayed Reading (µS/cm)	Tolerance (%)
146.9	158.0	+7.6
6667	7034	+5.5
12890	13617	+5.6
58670	55565	-5.3
	Tolerance Limit (%)	±10.0

Dissolved Oxygen **Method Ref: APHA (23rd edition), 4500O: G**

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)
2.31	2.38	+0.07
4.09	4.17	+0.08
6.37	6.41	+0.04
	Tolerance Limit (mg/L)	±0.20

pH Value **Method Ref: APHA (23rd edition), 4500H: B**

Expected Reading (pH unit)	Displayed Reading (pH unit)	Tolerance (pH unit)
4.0	3.87	-0.13
7.0	6.99	-0.01
10.0	9.92	-0.08
	Tolerance Limit (pH unit)	±0.20

Remark: "Displayed Reading" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.

Ms. Lin Wai Yu, Iris
Assistant Manager - Inorganics

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

WORK ORDER: HK2345295

SUB-BATCH: 0
DATE OF ISSUE: 17-Nov-2023
CLIENT: ACTION-UNITED ENVIRONMENTAL SERVICES & CONSULTING

Equipment Type: Multifunctional Meter
Brand Name/ Model No.: [YSI]/ [Professional DSS]
Serial No./ Equipment No.: [17B102764/17B100758]/ [EQW019]
Date of Calibration: 16-November-2023 Date of Next Calibration: 16-February-2024

PARAMETERS:

Turbidity **Method Ref: APHA (23rd edition), 2130B**

Expected Reading (NTU)	Displayed Reading (NTU)	Tolerance (%)
0	-0.59	--
4	4.06	+1.5
40	36.02	-9.9
80	72.43	-9.5
400	373.02	-6.7
800	731.07	-8.6
	Tolerance Limit (%)	±10.0

Salinity **Method Ref: APHA (23rd edition), 2520B**

Expected Reading (ppt)	Displayed Reading (ppt)	Tolerance (%)
0	0.00	--
10	10.94	+9.4
20	21.45	+7.3
30	31.45	+4.8
	Tolerance Limit (%)	±10.0

Remark: "Displayed Reading" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.

Ms. Lin Wai Yu, Iris
Assistant Manager - Inorganics

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

WORK ORDER: HK2345295

SUB-BATCH: 0
DATE OF ISSUE: 17-Nov-2023
CLIENT: ACTION-UNITED ENVIRONMENTAL SERVICES & CONSULTING

Equipment Type: Multifunctional Meter
Brand Name/ Model No.: [YSI]/ [Professional DSS]
Serial No./ Equipment No.: [17B102764/17B100758]/ [EQW019]
Date of Calibration: 16-November-2023 Date of Next Calibration: 16-February-2024

PARAMETERS:

Temperature **Method Ref: Section 6 of International Accreditation New Zealand Technical Guide No. 3 Second edition March 2008: Working Thermometer Calibration Procedure.**

Expected Reading (°C)	Displayed Reading (°C)	Tolerance (°C)
6.5	6.9	+0.4
21.5	21.3	-0.2
43.5	43.3	-0.2
	Tolerance Limit (°C)	±2.0

Remark: "Displayed Reading" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.

Ms. Lin Wai Yu, Iris
Assistant Manager - Inorganics

Appendix G

Meteorological Data

Date		Weather	Total Rainfall (mm)	Wetland Park Station			
				Mean Air Temperature (°C)	Wind Speed (km/h)	Mean Relative Humidity (%)	Wind Direction
1-Dec-23	Fri	Mainly cloudy and dry.	0	23.1	6	70	N/NE
2-Dec-23	Sat	Bright periods in the afternoon.	0	21.2	4	68	NE
3-Dec-23	Sun	Moderate to fresh north to northeasterly winds.	Trace	24.9	5	65	E/NE
4-Dec-23	Mon	Mainly cloudy.	Trace	24.3	4	68.7	W/SW
5-Dec-23	Tue	Dry in the afternoon. Light winds.	0	23.2	4	72.5	W/NW
6-Dec-23	Wed	Fine. Very dry at first.	Trace	22.5	3.7	76.7	NE
7-Dec-23	Thu	Becoming cloudy later. Moderate easterly winds.	0	22	5	58.5	N/NE
8-Dec-23	Fri	Fine in the afternoon. Mainly cloudy tonight.	0	21.8	3.7	71.2	NE
9-Dec-23	Sat	Moderate easterly winds.	0	25	6.2	79.2	S/SE
10-Dec-23	Sun	Cloudy with one or two light rain patches.	Trace	28	5	73	SE
11-Dec-23	Mon	Moderate northerly winds	0.3	27.5	3.5	78	E/NE
12-Dec-23	Tue	Fine and rather warm in the afternoon.	0.3	26.8	4	77.5	N/NE
13-Dec-23	Wed	One or two light rain patches at first.	Trace	24.1	6.2	83.2	E/NE
14-Dec-23	Thu	Sunny periods in the afternoon.	Trace	25.3	4	82.5	NE
15-Dec-23	Fri	Light winds.	0	27.4	6.2	77.5	E/NE
16-Dec-23	Sat	Fine. Very dry at first.	0.1	13.7	6	67.5	N/NE
17-Dec-23	Sun	Cold, mainly cloudy and dry.	0	13.6	6	67.5	N/NE
18-Dec-23	Mon	Moderate to fresh northerly winds	Trace	15.4	3.5	76	NE
19-Dec-23	Tue	Sunny periods in the afternoon.	0	17.1	4	76.5	N/NW
20-Dec-23	Wed	Fine in the afternoon. Mainly cloudy tonight.	0	15.6	3.7	67	N
21-Dec-23	Thu	Cold, mainly cloudy and dry.	0	11.4	5	66.5	N/NE
22-Dec-23	Fri	Fine. Very dry at first.	0	10.4	6.2	48	N/NE
23-Dec-23	Sat	Cold, mainly cloudy and dry.	0.2	12.1	4	54.5	N
24-Dec-23	Sun	Cold, mainly cloudy and dry.	0	14.4	4	59	N
25-Dec-23	Mon	Moderate to fresh northerly winds	0	16.4	6.2	60.5	N/NE
26-Dec-23	Tue	Cold, mainly cloudy and dry.	0	16.1	4	58	NE
27-Dec-23	Wed	One or two light rain patches in the morning.	Trace	19.7	3.5	67.5	NE
28-Dec-23	Thu	Moderate east to northeasterly winds.	Trace	24	3.7	67.5	NE
29-Dec-23	Fri	Sunny periods.	0	21	6.2	78.7	E/NE
30-Dec-23	Sat	Mainly fine over the weekend.	Trace	20.7	3.7	80	W/SW
31-Dec-23	Sun	Moderate easterly winds, occasionally fresh.	0	23.9	6.2	Maintenance	W/SW

Appendix H

Event and Action Plan

Event / Action Plan for Air Quality

Event	Action			
	ET	IEC	ER	Contractor
Action level exceedance for one sample	1. Identify source, investigate the causes of exceedance and propose remedial measures; 2. Inform IEC and ER; 3. Repeat measurement to confirm finding; 4. Increase monitoring frequency to daily	1. Check monitoring data submitted by ET; 2. Check Contractor's working method	1. Notify Contractor.	1. Rectify any unacceptable practice; 2. Amend working methods if appropriate.
Action level exceedance for two or more consecutive samples	1. Identify source; 2. Inform IEC and ER; 3. Advise the ER on the effectiveness of the proposed remedial measures; 4. Repeat measurements to confirm findings; 5. Increase monitoring frequency to daily; 6. Discuss with IEC and Contractor on remedial actions required; 7. If exceedance continues, arrange meeting with IEC and ER; 8. If exceedance stops, cease additional monitoring.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET and Contractor on possible remedial measures; 4. Advise the ET on the effectiveness of the proposed remedial measures; 5. Supervise Implementation of remedial measures.	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Ensure remedial measures properly implemented.	1. Submit proposals for remedial to ER within 3 working days of notification; 2. Implement the agreed proposals; 3. Amend proposal if appropriate.
Limit level exceedance for one sample	1. Identify source, investigate the causes of exceedance and propose remedial measures; 2. Inform ER, Contractor and EPD; 3. Repeat measurement to confirm finding; 4. Increase monitoring frequency to daily; 5. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET and Contractor on possible remedial measures; 4. Advise the ER on the effectiveness of the proposed remedial measures; 5. Supervise implementation of remedial measures.	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Ensure remedial measures properly implemented.	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC within 3 working days of notification; 3. Implement the agreed proposals; 4. Amend proposal if appropriate.
Limit level exceedance for two or more consecutive samples	1. Notify IEC, ER, Contractor and EPD; 2. Identify source; 3. Repeat measurement to confirm findings; 4. Increase monitoring frequency to daily; 5. Carry out analysis of Contractor's working procedures to determine	1. Discuss amongst ER, ET, and Contractor on the potential remedial actions; 2. Review Contractor's remedial actions whenever necessary to assure their effectiveness and	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. In consultation with the IEC, agree with the	2 Take immediate action to avoid further exceedance; 3 Submit proposals for remedial actions to IEC within 3 working days of notification; 4 Implement the agreed proposals;

Event	Action			
	ET	**IEC**	**ER**	**Contractor**
	possible mitigation to be implemented; 6. Arrange meeting with IEC and ER to discuss the remedial actions to be taken; 7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; 8. If exceedance stops, cease additional monitoring.	advise the ER accordingly; 3. Supervise the implementation of remedial measures.	Contractor on the remedial measures to be implemented; 4. Ensure remedial measures properly implemented; 5. If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated.	5 Resubmit proposals if problem still not under control; 6 Stop the relevant portion of works as determined by the ER until the exceedance is abated.

Notes:
ET – Environmental Team
IEC – Independent Environmental Checker
ER – Engineer's Representative

Event / Action Plan for Construction Noise

Event	Action			
	ET	IEC	ER	Contractor
Action Level Exceedance	1. Notify the IEC, ER and Contractor; 2. Carry out investigation; 3. Report the results of investigation to the IEC, ER and Contractor; 4. Discuss with the Contractor and formulate remedial measures; 5. Increase monitoring frequency to check mitigation effectiveness.	1. Review the monitoring data submitted by the ET; 2. Review the construction methods and proposed remedial measures by the Contractor, and advise the ET and ER if the proposed remedial measures would be sufficient; 3. Supervise the implementation of remedial measures.	1. Confirm receipt of notification of failure in writing; 2. Notify the Contractor; 3. Require the Contractor to propose remedial measures for the analyzed noise problem; 4. Ensure remedial measures are properly implemented.	1. Submit noise mitigation proposals to the ER and IEC and copy to the ET; 2. Implement noise mitigation proposals.
Limit Level Exceedance	1. Identify sources. 2. Inform IEC, ER, EPD and Contractor; 3. Repeat measurements to confirm findings; 4. Increase the monitoring frequency; 5. Carry out analysis of the Contractor's working procedures with the ER and Contractor to determine possible mitigations to be implemented; 6. Inform IEC, ER, EPD and Contractor the causes and actions taken for the exceedances; 7. Assess the effectiveness of the Contractor's remedial action with the ER and keep the IEC informed of the results; 8. If exceedance stops, cease additional monitoring.	1. Discuss amongst the ER, ET and Contractor on the potential remedial actions; 2. Review the Contractor's remedial action whenever necessary to assure their effectiveness and advise the ER accordingly; 3. Supervise the implementation of remedial measures.	1 Confirm receipt of notification of exceedance in writing; 2 Notify the Contractor. 3 Require the Contractor to propose remedial measures for the analyzed noise problems; 4 Ensure remedial measures are properly implemented; 5 If exceedance continues, consider what portion of work is responsible and instruct the Contractor to stop that portion of works until the exceedance is abated.	1 Take immediate action to avoid further exceedance; 2 Submit proposals for remedial action to the ER and IEC and copy to the ET within 3 working days of notification; 3 Implement the agreed proposals; 4 Resubmit proposals if problems still not under control; stop the relevant portion of works as determined by the ER until the exceedance is abated.

Notes:
ET – Environmental Team
IEC – Independent Environmental Checker
ER – Engineer's Representative

Event / Action Plan for Water Quality

Event	Action			
	ET	IEC	ER	Contractor
Action level exceedance for one sampling day	1. Repeat in-situ measurement on next day of exceedance to confirm findings; 2. Inform IEC, Contractor and ER; 3. Check monitoring data, all plant, equipment and Contractor's working methods; and 4. Discuss remedial measures with IEC and Contractor and ER.	1. Discuss with ET, ER and Contractor on the implemented mitigation measures; 2. Review proposals on remedial measures submitted by Contractor and advise the ER accordingly; and 3. Review and advise the ET and ER on the effectiveness of the implemented mitigation measures.	1. Discuss with IEC, ET and Contractor on the implemented mitigation measures; 2. Make agreement on the remedial measures to be implemented; and 3. Supervise the implementation of agreed remedial measures.	1. Identify source(s) of impact; 2. Inform the ER and confirm notification of the non-compliance in writing; 3. Rectify unacceptable practice; 4. Check all plant and equipment; 5. Consider changes of working methods; 6. Discuss with ER, ET and IEC and purpose remedial measures to IEC and ER; and 7. Implement the agreed mitigation measures.
Action level exceedance for more than one consecutive sampling days	1. Repeat in-situ measurement on next day of exceedance to confirm findings; 2. Inform IEC, contractor and ER; 3. Check monitoring data, all plant, equipment and Contractor's working methods; 4. Discuss remedial measures with IEC, contractor and ER; and 5. Ensure remedial measures are implemented.	1. Discuss with ET, Contractor and ER on the implemented mitigation measures; 2. Review the proposed remedial measures submitted by Contractor and advise the ER accordingly; and 3. Review and advise the ET and ER on the effectiveness of the implemented mitigation measures.	1. Discuss with ET, IEC and Contractor on the proposed mitigation measures; 2. Make agreement on the remedial measures to be implemented; and 3. Discuss with ET, IEC and Contractor on the effectiveness of the implemented remedial measures.	1. Identify source(s) of impact; 2. Inform the ER and confirm notification of the non-compliance in writing; 3. Rectify unacceptable practice; 4. Check all plant and equipment and consider changes of working methods; 5. Discuss with ET, IEC and ER and submit proposal of remedial measures to ER and IEC within 3 working days of notification; and 6. Implement the agreed mitigation measures
Limit level exceedance for one sampling day	1. Repeat measurement on next day of exceedance to confirm findings; 2. Inform IEC, contractor and ER; 3. Rectify unacceptable practice; 4. Check monitoring data, all plant, equipment and Contractor's working methods; 5. Consider changes	1. Discuss with ET, Contractor and ER on the implemented mitigation measures; 2. Review the proposed remedial measures submitted by Contractor and advise the ER accordingly; and 3. Review and	1. Discuss with ET, IEC and Contractor on the implemented remedial measures; 2. Request Contractor to critically review the working methods; 3. Make agreement on the remedial measures to be implemented; and	1. Identify source(s) of impact; 2. Inform the ER and confirm notification of the non-compliance in writing; 3. Rectify unacceptable practice; 4. Check all plant and equipment and consider changes of working methods; 5. Discuss with ET, IEC and ER and submit proposal of additional mitigation measures to

Event	Action			
	ET	IEC	ER	Contractor
	of working methods; 6. Discuss mitigation measures with IEC, ER and Contractor; and 7. Ensure the agreed remedial measures are implemented	advise the ET and ER on the effectiveness of the implemented mitigation measures.	4. Discuss with ET, IEC and Contractor on the effectiveness of the implemented remedial measures.	ER and IEC within 3 working days of notification; and 6. Implement the agreed remedial measures.
Limit level exceedance for more than one consecutive sampling days	1. Inform IEC, contractor and ER; 2. Check monitoring data, all plant, equipment and Contractor's working methods; 3. Discuss mitigation measures with IEC, ER and Contractor; 4. Ensure mitigation measures are implemented; and 5. Increase the monitoring frequency to daily until no exceedance of Limit Level for two consecutive days.	1. Discuss with ET, Contractor and ER on the implemented mitigation measures; 2. Review the proposed remedial measures submitted by Contractor and advise the ER accordingly; and 3. Review and advise the ET and ER on the effectiveness of the implemented mitigation measures.	1. Discuss with ET, IEC and Contractor on the implemented remedial measures; 2. Request Contractor to critically review the working methods; 3. Make agreement on the remedial measures to be implemented; 4. Discuss with ET and IEC on the effectiveness of the implemented mitigation measures; and 5. Consider and instruct, if necessary, the Contractor to slow down or to stop all or part of the dredging activities until no exceedance of Limit level.	1. Identify source(s) of impact; 2. Inform the ER and confirm notification of the non-compliance in writing; 3. Rectify unacceptable practice; 4. Check all plant and equipment and consider changes of working methods; 5. Discuss with ET, IEC and ER and submit proposal of additional mitigation 7. measures to ER and IEC within 3 working days of notification; and 6. Implement the agreed remedial measures. 7. As directed by the ER, to slow down or stop all or part of the dredging activities until no exceedance of Limit level.

Notes:
ET – Environmental Team
IEC – Independent Environmental Checker
ER – Engineer's Representative

Appendix I

Monitoring Schedule

Impact Monitoring Schedule for Reporting Month – December 2023

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1 Water quality	2
3	4 Water quality 1-hr TSP X3 Noise	5	6 Water quality	7	8 Water quality	9 1-hr TSP X3
10	11	12 Water quality	13	14 Water quality 1-hr TSP X3 Noise	15	16 Water quality
17	18 Water quality	19	20 Water quality 1-hr TSP X3 Noise	21	22 Water quality	23
24	25	26	27 Water quality 1-hr TSP X3 Noise	28	29 Water quality	30
31						

Impact Monitoring Schedule for next Reporting Month – January 2024

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1	2 Water quality 1-hr TSP X3 Noise	3	4 Water quality	5	6 Water quality
7	8 Water quality 1-hr TSP X3 Noise	9	10 Water quality	11	12 Water quality	13 1-hr TSP X3
14	15 Water quality	16	17 Water quality	18	19 Water quality 1-hr TSP X3 Noise	20
21	22 Water quality	23	24 Water quality	25 1-hr TSP X3 Noise	26 Water quality	27
28	29 Water quality	30	31 Water quality 1-hr TSP X3 Noise			

Appendix J1

Detailed Monitoring Results

Construction Dust Monitoring Results

Location: DM-1

Date	Start Time	1-hour TSP (μg/m³)			Action Level (μg/m³)	Limit Level(μg/m³)
		1st reading	2nd reading	3rd reading		
4-Dec-23	11:55	62	66	64	260	500
9-Dec-23	9:05	52	42	42	260	500
14-Dec-23	13:00	45	49	53	260	500
20-Dec-23	10:10	26	35	37	260	500
27-Dec-23	12:45	95	91	93	260	500

Location: DM-2

Date	Start Time	1-hour TSP (μg/m³)			Action Level (μg/m³)	Limit Level(μg/m³)
		1st reading	2nd reading	3rd reading		
4-Dec-23	11:50	52	60	55	260	500
9-Dec-23	9:00	66	69	55	260	500
14-Dec-23	9:00	60	63	57	260	500
20-Dec-23	10:00	17	20	19	260	500
27-Dec-23	12:30	31	32	36	260	500

Construction Noise Monitoring Results

Location: CM1a

Date	Start Time	1st Leq_{5min}	L10	L90	2nd Leq_{5min}	L10	L90	3rd Leq_{5min}	L10	L90	4th Leq_{5min}	L10	L90	5th Leq_{5min}	L10	L90	6th Leq_{5min}	L10	L90	Leq30min	Limit Level
4-Dec-23	11:22	55.2	52.7	43.3	48.9	49.8	43.3	49.8	53.1	43.5	53.5	56.6	46.0	51.4	55.5	45.8	49.9	53.3	43.6	52	75
14-Dec-23	13:45	52.7	53.1	45.9	48.4	49.7	46.8	47.1	48.5	45.2	49.2	50.4	47.8	50.7	52.9	48.0	49.8	51.7	46.8	50	75
20-Dec-23	10:26	55.5	56.7	54.3	56.8	58.1	55.4	56.4	57.6	55.0	56.0	57.3	54.4	66.8	57.5	53.8	60.0	61.2	53.6	61	75
27 Dec 23	9:55	72.1	76.4	57.5	61.5	59.8	55.2	61.5	65.2	54.2	60.4	62.9	53.7	57.2	59.8	53.7	58.2	60.8	54.6	66	75

Location: CM2a

Date	Start Time	1st Leq_{5min}	L10	L90	2nd Leq_{5min}	L10	L90	3rd Leq_{5min}	L10	L90	4th Leq_{5min}	L10	L90	5th Leq_{5min}	L10	L90	6th Leq_{5min}	L10	L90	Leq30min	Façade Correction	Limit Level
4-Dec-23	14:15	68.3	70.7	57.3	68.6	72.5	60.1	67.5	71.0	59.4	66.2	70.3	58.4	66.3	70.1	58.6	67.4	71.1	58.8	67	70	75
14 Dec 23	9:50	59.5	61.9	56.4	59.4	60.9	57.0	58.6	59.6	57.0	58.3	59.8	56.3	58.3	59.7	57.0	59.5	62.7	56.4	59	62	75
20 Dec 23	11:16	62.3	63.9	59.2	63.2	64.3	60.3	63.2	63.7	59.8	62.3	64.9	59.7	62.1	63.3	59.7	61.1	62.6	58.9	62	75	75
27 Dec 23	8:33	58.5	59.3	56.9	58.2	59.0	56.7	58.3	59.0	57.0	58.6	59.6	57.2	59.1	60.1	57.1	59.7	61.3	57.7	59	62	75

Remark: façade correction (+3 dB(A) was added according to acoustical principles and EPD guidelines

Location: CM3

Date	Start Time	1st Leq_{5min}	L10	L90	2nd Leq_{5min}	L10	L90	3rd Leq_{5min}	L10	L90	4th Leq_{5min}	L10	L90	5th Leq_{5min}	L10	L90	6th Leq_{5min}	L10	L90	Leq30min	Limit Level
4-Dec-23	13:40	66.1	70.3	59.3	63.3	66.1	58.7	64.7	66.9	58.4	68.2	67.3	58.6	66.3	70.5	59.2	64.6	66.9	58.5	66	75
14 Dec 23	10:35	72.9	74.3	70.4	73.8	75.2	69.9	72.9	75.1	69.6	74.9	76.6	71.0	75.6	77.3	72.2	76.7	78.4	74.5	75	75
20 Dec 23	9:58	70.3	71.3	67.7	71.5	73.2	68.1	70.0	71.4	68.5	69.2	70.0	67.7	69.5	69.8	66.6	69.5	70.7	67.5	70	75
27 Dec 23	9:47	69.9	71.7	67.5	70.5	71.6	67.3	69.0	70.2	67.5	68.6	70.1	66.9	70.9	73.2	66.4	69.8	70.8	65.4	70	75

Location: CM4

Date	Start Time	1st Leq_{5min}	L10	L90	2nd Leq_{5min}	L10	L90	3rd Leq_{5min}	L10	L90	4th Leq_{5min}	L10	L90	5th Leq_{5min}	L10	L90	6th Leq_{5min}	L10	L90	Leq30min	Limit Level
4-Dec-23	14:49	67.2	71.9	57.9	68.4	71.9	58.9	70.6	72.6	58.9	67.6	70.9	59.3	67.2	71.7	59.1	68.2	71.6	58.9	68	75
14 Dec 23	9:10	73.9	76.0	71.2	73.3	74.7	70.6	73.8	75.5	71.2	73.7	73.5	71.7	75.2	77.8	70.8	77.1	77.1	69.9	75	75
20 Dec 23	10:33	71.7	75.5	63.4	70.1	73.5	64.2	69.2	72.6	63.6	68.5	72.9	61.4	71.6	74.8	63.5	69.7	72.9	62.0	70	75
27 Dec 23	9:12	73.5	77.1	63.4	70.9	74.3	63.7	71.3	73.9	63.1	74.9	75.3	63.4	70.9	74.2	64.2	69.4	72.8	63.9	72	75

Location: CM8a

Date	Start Time	1st Leq_{5min}	L10	L90	2nd Leq_{5min}	L10	L90	3rd Leq_{5min}	L10	L90	4th Leq_{5min}	L10	L90	5th Leq_{5min}	L10	L90	6th Leq_{5min}	L10	L90	Leq30min	Façade Correction	Limit Level
4-Dec-23	13:00	53.6	53.7	50.1	52.9	54.9	50.3	54.0	54.9	49.8	51.4	51.8	51.0	51.5	51.9	51.3	52.7	54.7	50.6	53	56	75
14-Dec-23	14:30	54.3	55.6	52.5	55.9	56.6	53.4	54.9	56.7	52.7	64.9	70.0	53.2	65.9	70.3	53.8	65.1	70.1	53.5	63	66	75
20-Dec-23	11:04	59.2	60.9	56.8	55.8	57.2	54.0	56.0	57.3	54.5	57.0	58.7	55.1	56.1	57.3	54.8	56.3	57.5	54.7	57	60	75
27 Dec 23	10:56	56.2	57.2	45.5	55.2	57.4	47.5	56.9	59.1	48.7	57.9	58.6	57.2	57.5	58.5	49.4	60.2	62.2	48.1	58	61	75

Remark: façade correction (+3 dB(A) was added according to acoustical principles and EPD guidelines

Water Quality Monitoring Results
Location: M1a

Date	1 Dec 23															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M1a	11:20	0.23	21.1	21.1	3.17	3.1	35.5	34.0	6.1	6.0	7.24	7.2	0.24	0.24	14.5	11.7
			21.1		2.97		32.5		5.9		7.24		0.24		8.8	

Date	4 Dec 23															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M1a	11:05	0.25	21.5	21.5	3.05	3.1	34.7	34.3	10.4	10.4	7.00	7	0.24	0.24	12.6	13.3
			21.5		3.05		33.9		10.4		7.00		0.24		14	

Date	6 Dec 23															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M1a	11:10	0.22	21	21	2.16	2.1	24.1	23.4	20.2	19.8	7.07	7.1	0.38	0.38	53.6	47.8
			21		2.03		22.7		19.3		7.07		0.38		42	

Date	8 Dec 23															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M1a	11:10	0.20	20.3	20.3	2.5	2.5	27.8	27.3	48.5	48.0	6.94	6.9	0.47	0.47	77.9	69.2
			20.3		2.44		26.9		47.5		6.94		0.47		60.4	

Date	12 Dec 23															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M1a	11:20	0.20	23.1	23.1	2.27	2.3	38.4	37.0	29.8	30.3	6.91	6.9	0.36	0.36	53.4	60.0
			23.1		2.26		35.5		30.7		6.91		0.36		66.6	

Date	14 Dec 23															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M1a	11:00	0.22	23.3	23.3	1.95	1.9	22.9	22.6	19.3	19.2	7.09	7.1	0.33	0.33	52.9	50.8
			23.3		1.91		22.3		19.0		7.09		0.33		48.7	

Date	16 Dec 23															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M1a	11:00	0.25	22.3	22.3	5.05	5.0	58.2	57.3	2.7	2.8	6.99	7.0	0.10	0.10	7.9	7.7
			22.3		4.9		56.4		2.8		6.99		0.10		7.5	

Date	18 Dec 23

Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M1a	10:50	0.20	18.7	18.7	4.44	4.4	47.7	46.5	2.3	2.4	6.93	6.9	0.36	0.36	9.1	10.6
			18.7		4.27		45.2		2.5		6.93		0.36		12	

Date	20 Dec 23															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M1a	10:35	0.40	17.6	17.6	3.75	3.7	37.8	37.0	7.0	6.7	6.92	6.9	0.46	0.46	19.8	18.7
			17.6		3.56		36.2		6.4		6.92		0.46		17.6	

Date	22 Dec 23															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M1a	13:20	0.30	15.9	15.9	5.21	5.2	52.2	51.7	3.0	2.93	6.93	6.9	0.16	0.16	6.8	7.3
			15.9		5.14		51.2		2.8		6.93		0.16		7.7	

	27 Dec 23															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M1a	10;10	0.25	18.3	18.3	2.7	2.6	28.4	27.4	28.2	28.5	7.41	7.4	0.53	0.53	43.5	42.1
			18.3		2.54		26.3		28.9		7.41		0.53		40.7	

Date	29 Dec 23															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M1a	10:50	0.20	19.9	19.9	3.17	3.01	34.2	30.8	20.8	21.77	7.48	7.5	0.38	0.38	63.6	56.0
			19.9		2.84		27.4		22.7		7.48		0.38		48.3	

Water Quality Monitoring Results
Location: M2a

Date	1 Dec 23																	
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
M2a	11:00	0.15	21.5	21.5	6.41	6.4	68.3	68.6	4.7	4.7	7.07	7.1	0.16	0.16	7.8	7.6
			21.5		6.46		68.8		4.7		7.07		0.16		7.4	

Date	4 Dec 23																	
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
M2a	10:45	0.15	21.8	21.8	6.76	6.7	70.6	71.1	3.7	3.6	7.37	7.4	0.16	0.16	5.2	5.4
			21.8		6.69		71.5		3.6		7.37		0.16		5.6	

Date	6 Dec 23																	
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
M2a	10:40	0.15	21.3	21.3	6.57	6.6	77.8	77.8	2.7	2.7	7.27	7.3	0.15	0.15	8.3	6.9
			21.3		6.56		77.7		2.8		7.27		0.15		5.5	

Date	8 Dec 23																	
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
M2a	10:50	0.15	20.1	20.1	6.51	6.5	76.3	76.2	2.4	2.4	7.08	7.1	0.15	0.15	6.3	6.7
			20.1		6.5		76.0		2.4		7.08		0.15		7	

Date	12 Dec 23																	
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
M2a	11:00	0.14	23.6	23.6	6.82	6.8	80.4	80.05	3.8	3.8	7.33	7.3	0.16	0.16	5	4.8
			23.6		6.76		79.7		3.8		7.33		0.16		4.6	

Date	14 Dec 23																	
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
M2a	11:30	0.14	23.8	23.8	6.65	6.6	80.3	79.9	2.8	2.7	7.12	7.1	0.16	0.16	7.8	7.5
			23.8		6.57		79.5		2.7		7.12		0.16		7.2	

Date	16 Dec 23																	
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
M2a	11;20	0.18	23.8	23.8	6.68	6.5	76.2	78	1.9	1.8	6.92	6.9	0.16	0.16	7.5	7.6
			23.8		6.39		79.8		1.7		6.92		0.16		7.6	

Date	18 Dec 23															
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
M2a	11:05	0.06	18	18	6.41	6.4	68.1	67.3	0.9	0.9	7.10	7.1	0.16	0.16	5.7	5.4
			18		6.48		66.4		1.0		7.10		0.16		5	

Date	20 Dec 23															
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
M2a	10:50	0.20	16.4	16.4	7.33	7.3	75.6	74.9	2.4	2.4	7.24	7.2	0.16	0.16	5	4.8
			16.4		7.21		74.2		2.3		7.24		0.16		4.6	

Date	22 Dec 23															
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
M2a	12:40	0.30	14.5	14.5	7.91	7.7	79.2	75.8	2.0	2.1	7.13	7.1	0.15	0.15	3.7	4.0
			14.5		7.48		72.4		2.1		7.13		0.15		4.2	

Date	27 Dec 23															
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
M2a	10:30	0.17	18.1	18.1	6.51	6.6	69.1	69.9	1.8	1.7	7.60	7.6	0.16	0.16	6	5.8
			18.1		6.73		70.7		1.7		7.60		0.16		5.5	

Date	29 Dec 23															
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
M2a	11:10	0.23	19.5	19.5	6.78	6.7	73.4	72.9	2.1	2.1	7.53	7.5	0.17	0.17	5.3	5.5
			19.5		6.68		72.3		2.1		7.53		0.17		5.7	

Water Quality Monitoring Results
Location: M3

Date	1 Dec 23																	
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
M3	10:40	0.20	21.3	21.3	4.02	4.0	45.2	44.8	6.5	6.3	7.04	7.0	0.22	0.22	8.5	10.2
			21.3		3.96		44.3		6.1		7.04		0.22		11.9	

Date	4 Dec 23																	
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
M3	5:16	21.80	21.8	21.8	3.62	3.6	41.2	41.3	15.2	15.0	7.24	7.2	0.27	0.27	15.4	17.1
			21.8		3.54		41.3		14.7		7.24		0.27		18.8	

Date	6 Dec 23																	
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
M3	10:20	0.21	21.4	21.4	3.18	3.1	36.0	35.4	4.2	4.2	7.18	7.2	0.24	0.24	8.8	9.4
			21.4		3.08		34.7		4.2		7.18		0.24		10	

Date	8 Dec 23																	
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
M3	10:30	0.22	20.5	20.5	3.54	3.5	39.4	39.2	12.2	12.8	7.25	7.3	0.30	0.30	14.2	14.7
			20.5		3.54		39.0		13.4		7.25		0.30		15.1	

Date	12 Dec 23																	
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
M3	10:40	0.22	23.4	23.4	3.92	3.9	46.1	45.65	8.2	8.26	7.28	7.3	0.36	0.36	20.7	24.3
			23.4		3.85		45.2		8.4		7.28		0.36		27.9	

Date	14 Dec 23																	
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
M3	10:40	0.20	24	24	3.45	3.6	40.8	40.4	3.5	3.53	7.36	7.4	0.35	0.35	11.8	11.7
			24		3.8		40.0		3.5		7.36		0.35		11.6	

Date	16 Dec 23																	
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
M3	10:40	2.00	22	22	5.73	5.3	58.3	56.75	6.8	6.6	7.12	7.1	0.13	0.13	7.4	10.6
			22		4.82		55.2		6.5		7.12		0.13		13.7	

Date	18 Dec 23																	
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
M3	10:30	0.22	19.4	19.4	4.66	4.6	50.8	49.4	5.0	5.1	7.17	7.2	0.33	0.33	9.4	8.7
			19.4		4.54		48.0		5.1		7.17		0.33		8	

Date	20 Dec 23																	
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
M3	10:15	0.30	18	18	4.32	4.2	44.1	43.8	8.5	8.4	7.11	7.1	0.29	0.29	19.2	20.0
			18		4.12		43.5		8.3		7.11		0.29		20.7	

Date	22 Dec 23																	
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
M3	13:00	0.28	16.2	16.2	6.71	6.3	68.2	63.8	1.4	1.4	7.02	7.0	0.16	0.16	5.2	5.1
			16.2		5.87		59.4		1.5		7.02		0.16		4.9	

Date	27 Dec 23																	
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
M3	9:50	0.25	18.8	18.7	4.57	4.4	48.6	46.4	10.3	12.0	7.61	7.6	0.36	0.36	17.1	18.9
			18.6		4.16		44.1		13.6		7.61		0.36		20.6	

Date	29 Dec 23																	
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
M3	10:30	0.25	20.1	20.1	4.12	4.0	44.7	43.7	4.1	4.23	7.73	7.7	0.30	0.30	9.4	11.1
			20.1		3.94		42.6		4.3		7.73		0.30		12.8	

Water Quality Monitoring Results
Location: M4

Date	1 Dec 23															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M4	10:20	0.13	22.1	22.1	6.33	6.3	72.2	72	3.8	3.8	7.23	7.23	0.36	0.36	5.8	5.7
			22.1		6.28		71.8		3.8		7.23		0.36		5.5	

Date	4 Dec 23															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M4	10:05	0.12	23.4	23.4	6.53	6.5	76.7	76.3	7.5	7.6	7.33	7.33	0.40	0.40	15.9	17.4
			23.4		6.46		75.9		7.8		7.33		0.40		18.8	

Date	6 Dec 23															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M4	10:00	0.13	22.5	22.5	6.3	6.2	71.7	71.2	5.3	5.2	7.27	7.27	0.30	0.30	7.3	7.6
			22.5		6.11		70.7		5.0		7.27		0.30		7.9	

Date	8 Dec 23															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M4	10:10	0.13	23.4	23.4	7.73	7.7	90.1	90.5	10.0	9.8	7.38	7.38	0.38	0.38	14.8	15.7
			23.4		7.7		90.8		9.6		7.38		0.38		16.6	

Date	12 Dec 23															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M4	10:20	0.13	26	26	6.29	6.28	78.8	78.2	3.8	3.8	7.33	7.33	0.49	0.49	4.7	5.0
			26		6.27		77.6		3.8		7.33		0.49		5.3	

Date	14 Dec 23															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M4	10:20	0.13	24.7	24.7	6.22	6.24	66.5	66.7	8.4	8.3	7.26	7.26	0.29	0.29	7.4	7.5
			24.7		6.25		66.8		8.1		7.26		0.29		7.5	

Date	16 Dec 23															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
M4	10:20	0.10	22.4	22.4	6.44	6.24	74.3	72.2	6.2	6.1	7.20	7.2	0.52	0.52	13.5	12.9
			22.4		6.04		70.0		6.1		7.20		0.52		12.3	

Date	18 Dec 23															
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
M4	10:10	0.15	20.2	20.2	6.55	6.47	70.1	69.1	3.8	3.7	7.06	7.06	0.43	0.43	14.8	15.7
			20.2		6.39		68.1		3.7		7.06		0.43		16.5	

Date	20 Dec 23															
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
M4	10:00	0.15	18.9	18.9	6.17	6.18	66.2	66.15	7.5	7.6	7.07	7.07	0.34	0.34	9.4	10.9
			18.9		6.18		66.1		7.7		7.07		0.34		12.3	

Date	22 Dec 23															
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
M4	12:50	0.15	17.5	17.5	7.46	7.42	77.5	76.9	3.3	3.1	7.17	7.17	0.37	0.37	13.2	12.7
			17.5		7.37		76.2		3.0		7.17		0.37		12.2	

Date	27 Dec 23															
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
M4	9:35	0.10	21.6	21.6	6.04	6.09	66.6	66.9	19.9	19.2	7.19	7.19	3.61	3.61	15.1	15.5
			21.6		6.14		67.2		18.4		7.19		3.61		15.9	

Date	29 Dec 23															
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
M4	10:10	0.10	22	22	6.47	6.35	72.4	71.3	3.9	4.2	7.34	7.34	0.51	0.51	9	9.5
			22		6.23		70.1		4.4		7.34		0.51		10	

Water Quality Monitoring Results
Location: U3

Date	1 Dec 23																	
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
U3	10:00	0.18	21.4	21.4	2.74	2.7	31.0	30.7	3.2	3.4	7.4	7.4	0.19	0.19	3.7	4.4
			21.4		2.68		30.3		3.6		7.4		0.19		5.1	

Date	4 Dec 23																	
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
U3	9:45	0.17	22.2	22.2	2.68	2.7	30.7	30.6	3.6	3.6	7.3	7.3	0.18	0.18	4.1	4.1
			22.2		2.65		30.4		3.7		7.3		0.18		4	

Date	6 Dec 23																	
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
U3	9:40	0.17	22.3	22.3	1.78	1.7	20.3	19.4	3.0	3.1	7.4	7.4	0.19	0.19	3.9	3.9
			22.3		1.62		18.5		3.1		7.4		0.19		3.9	

Date	8 Dec 23																	
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
U3	9:50	0.17	21	21	2.18	2.2	31.5	31.1	4.8	4.8	7.38	7.4	0.19	0.19	5.7	5.8
			21		2.17		30.7		4.9		7.38		0.19		5.8	

Date	12 Dec 23																	
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
U3	10:00	0.17	24	24	2.99	3.0	35.5	35.2	4.0	4.0	7.39	7.39	0.19	0.19	5.2	5.4
			24		2.94		34.9		4.0		7.39		0.19		5.6	

Date	14 Dec 23																	
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
U3	10:00	0.17	24.2	24.2	3.06	3.0	36.3	35.8	2.2	2.2	7.15	7.15	0.19	0.19	5	4.6
			24.2		2.99		35.3		2.2		7.15		0.19		4.2	

Date	16 Dec 23																	
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
U3	10:00	0.17	22.1	22.1	3.7	3.6	42.3	41.5	3.3	3.0	7.28	7.28	0.19	0.19	4.2	4.6
			22.1		3.56		40.6		2.7		7.28				4.9	

Date	18 Dec 23																	
Location	**27.2**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
U3	9:50	0.18	20.1	20.1	2.55	2.5	28.4	27.8	1.6	1.7	7.08	7.08	0.19	0.19	4.6	4.5
			20.1		2.45		27.2		1.8		7.08		0.19		4.4	

Date	20 Dec 23																	
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
U3	9:45	0.70	18.8	18.8	4	3.9	42.1	41.2	1.0	1.0	7.14	7.14	0.18	0.18	4.5	4.2
			18.8		3.85		40.2		0.9		7.14		0.18		3.8	

Date	22 Dec 23																	
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
U3	12:30	0.20	17.2	17.2	6.03	5.6	59.2	56.5	1.3	1.4	7.22	7.22	0.18	0.18	4.1	6.1
			17.2		5.21		53.7		1.4		7.22		0.18		8	

Date	27 Dec 23																	
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
U3	9:15	0.20	19.1	19.1	5.48	5.1	59.2	55.4	2.5	2.7	7.36	7.36	0.18	0.18	6.2	6.3
			19.1		4.79		51.6		2.9		7.36		`		6.3	

Date	29 Dec 23																	
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
U3	9:50	0.20	20.8	20.8	4.86	4.5	53.9	50.2	2.9	2.8	7.39	7.39	0.18	0.18	7.9	6.9
			20.8		4.17		46.4		2.8		7.39		0.18		5.8	

Water Quality Monitoring Results
Location: U4a

Date	1 Dec 23																	
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
U4a	9:40	0.21	21	21	5.3	5.3	59.4	59.2	4.7	4.7	7.19	7.2	0.14	0.14	6.8	6.5
			21		5.26		58.9		4.7		7.19		0.14		6.1	

Date	4 Dec 23																	
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
U4a	9:25	0.21	20.9	20.9	5.22	5.2	58.5	58.4	7.1	7.1	7.18	7.2	0.16	0.16	9	9.7
			20.9		5.21		58.3		7.1		7.18		0.16		10.3	

Date	6 Dec 23																	
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
U4a	9:20	0.20	21.2	21.2	4.95	4.9	55.5	55.2	4.0	3.9	7.18	7.2	0.12	0.12	6.4	6.5
			21.2		4.88		54.8		3.8		7.18		0.12		6.6	

Date	8 Dec 23																	
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
U4a	9:30	0.20	19.4	19.4	6.17	6.1	67.0	66.6	7.3	7.3	7.44	7.4	0.21	0.21	9.9	9.9
			19.4		6.1		66.2		7.2		7.44		0.21		9.9	

Date	12 Dec 23																	
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
U4a	9:40	0.20	22.6	22.6	5.28	5.3	61.1	60.8	7.5	7.5	7.41	7.41	0.20	0.20	9.8	10.5
			22.6		5.22		60.4		7.6		7.41		0.20		11.1	

Date	14 Dec 23																	
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
U4a	9:40	0.20	23.3	23.3	4.88	4.9	57.2	56.8	3.0	3.0	7.29	7.29	0.18	0.18	8.9	8.8
			23.3		4.83		56.4		3.0		7.29		0.18		8.6	

Date	16 Dec 23																	
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
U4a	9:45	0.30	21.8	21.8	5.08	5.0	57.6	56.9	5.9	5.8	7.11	7.11	0.16	0.16	16.2	17.1
			21.8		4.95		56.2		5.8		7.11		0.16		18	

Date	18 Dec 23																	
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
U4a	9:30	0.20	18.5	18.5	5.14	5.4	62.8	61.6	5.0	4.975	7.21	7.21	0.19	0.19	9.4	9.8
			18.5		5.72		60.4		5.0		7.21		0.19		10.1	

Date	20 Dec 23																	
Location		**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
U4a	9:30	0.25	17.5	17.5	6.17	6.1	64.2	62.8	1.6	1.7	7.30	7.3	0.13	0.13	5.7	5.7
			17.5		5.93		61.3		1.7		7.30		0.13		5.7	

Date	22 Dec 23																	
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
U4a	12:10	0.25	15.3	15.25	7.28	7.3	73.9	73.0	4.7	4.6	7.33	7.33	0.21	0.21	7.1	6.9
			15.2		7.23		72.0		4.6		7.33		0.21		6.7	

Date	27 Dec 23																	
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
U4a	9:55	0.25	17.9	17.9	5.67	5.6	58.3	57.8	16.2	15.6	7.16	7.16	0.20	0.20	18.7	18.1
			17.9		5.48		57.2		15.1		7.16		0.20		17.4	

Date	29 Dec 23																	
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
U4a	9:30	0.03	19.6	19.6	5.16	5.1	56.2	55.9	3.8	3.8	7.54	7.54	0.19	0.19	7.9	6.9
			19.6		5.12		55.6		3.9		7.54		0.19		5.8	

Water Quality Monitoring Results
Location: M6a

Date	1 Dec 23																	
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
M6a	11:50	0.13	21	21	8.12	8.1	96.7	96.6	3.1	3.1	7.04	7.0	0.04	0.04	2.3	3.0
			21		8.09		96.4		3.1		7.04		0.04		3.6	

Date	4 Dec 23																	
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
M6a	11:35	0.13	21.1	21.1	8.7	8.7	97.8	98.0	4.0	4.0	7.48	7.5	0.02	0.02	3.3	2.9
			21.1		8.71		98.1		4.0		7.48		0.02		2.4	

Date	6 Dec 23																	
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
M6a	11:30	0.13	21	21	8.31	8.3	98.1	98.1	3.6	3.5	6.95	7.0	0.04	0.04	4.7	4.9
			21		8.3		98.0		3.5		6.95		0.04		5	

Date	8 Dec 23																	
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
M6a	11:40	0.13	19.8	19.8	8.14	8.1	95.3	95.4	3.0	3.0	7.26	7.3	0.02	0.02	4.9	4.0
			19.8		8.15		95.4		3.0		7.26		0.02		3.1	

Date	12 Dec 23																	
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
M6a	11:50	0.15	22.8	22.8	8.57	8.6	99.5	99.5	3.6	3.6	7.03	7.0	0.02	0.02	2.6	3.3
			22.8		8.56		99.5		3.6		7.03		0.02		4	

Date	14 Dec 23																	
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
M6a	11:50	0.13	24.2	24.2	7.48	7.5	90.6	91.0	1.3	1.3	7.13	7.1	0.03	0.03	2.7	3.3
			24.2		7.54		91.3		1.3		7.13		0.03		3.9	

Date	16 Dec 23																	
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
M6a	11:45	0.13	24	24	7.65	7.7	90.7	91.0	1.4	1.4	6.97	7.0	0.02	0.02	3.6	3.9
			24		7.66		91.2		1.4		6.97		0.02		4.1	

Date	18 Dec 23																	
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
M6a	11:30	0.15	17.1	17.1	8.83	8.8	91.6	91.5	1.8	1.8	7.14	7.1	0.04	0.04	2.6	2.7
			17.1		8.82		91.3		1.7		7.14		0.04		2.7	

Date	20 Dec 23																	
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
M6a	11:10	0.30	16.3	16.3	9.32	9.3	95.1	94.9	3.1	3.1	6.93	6.9	0.04	0.04	16.5	12.9
			16.3		9.3		94.6		3.1		6.93		0.04		9.2	

Date	22 Dec 23																	
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
M6a	14:00	0.10	15.3	15.3	9.44	9.4	94.3	94.2	1.7	1.6	7.80	7.8	0.02	0.02	15.3	13.3
			15.3		9.41		94.0		1.5		7.80		0.02		11.3	

Date	27 Dec 23																	
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
M6a	10:50	0.18	17.6	17.6	9.18	9.2	96.0	95.8	3.1	3.1	7.95	8.0	0.05	0.05	1.2	2.8
			17.6		9.19		95.6		3.1		7.95		0.05		4.3	

Date	29 Dec 23																	
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
M6a	11:30	0.15	20.3	20.3	8.27	8.3	95.2	95.15	1.6	1.6	7.24	7.2	0.05	0.05	2.9	3.3
			20.3		8.26		95.1		1.5		7.24		0.05		3.6	

Water Quality Monitoring Results
Location: M5a

Date	1 Dec 23															
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
M5a	12:10	0.12	22	22	7.27	7.2	86.2	85.9	15.6	14.9	6.99	6.9	0.15	0.15	16.5	16.8
			22		7.21		85.5		14.1		6.90		0.15		17.1	

Date	4 Dec 23															
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
M5a	11:55	0.15	21.7	21.7	6.54	6.5	74.4	74.3	7.9	7.5	7.38	7.4	0.15	0.15	2.1	2.2
			21.7		6.52		74.1		7.0		7.38		0.15		2.3	

Date	6 Dec 23															
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
M5a	11:50	0.13	21.4	21.4	7.39	7.4	87.1	86.7	2.4	2.4	7.00	7.0	0.15	0.15	2.5	2.7
			21.4		7.31		86.3		2.4		7.00		0.15		2.9	

Date	8 Dec 23															
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
M5a	12:00	0.14	20.7	20.7	7.23	7.2	84.6	84.6	2.3	2.3	7.25	7.3	0.15	0.15	2.1	2.2
			20.7		7.22		84.5		2.2		7.25		0.15		2.2	

Date	12 Dec 23															
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
M5a	12:10	0.14	22.8	22.8	5.16	5.2	60.0	60.0	10.9	10.9	7.16	7.2	0.16	0.16	26.7	26.2
			22.8		5.15		60.0		10.8		7.16		0.16		25.7	

Date	14 Dec 23															
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
M5a	12:20	0.15	23.8	23.8	5.13	5.1	62.2	62.1	5.4	4.9	6.94	6.9	0.16	0.16	20	12.1
			23.8		5.12		62.0		4.4		6.94		0.16		4.1	

Date	16 Dec 23															
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
M5a	12:00	0.15	24.1	24.1	5.22	5.2	62.3	61.9	3.1	3.2	6.74	6.7	0.15	0.15	14.6	13.9
			24.1		5.17		61.4		3.4		6.74		0.15		13.2	

Date	18 Dec 23																	
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
M5a	11:45	0.10	17.7	17.7	6.8	6.8	71.3	70.8	6.5	6.2	6.94	6.9	0.15	0.15	23.2	23.9
			17.7		6.7		70.2		6.0		6.94		0.15		24.6	

Date	20 Dec 23																	
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
M5a	11:20	0.10	17.3	17.3	6.38	6.3	66.4	65.8	15.8	17.4	6.93	6.9	0.17	0.17	47	40.5
			17.3		6.2		65.1		18.9		6.92		0.17		34	

Date	22 Dec 23																	
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
M5a	14:30	0.05	14.1	14.1	7.91	7.9	76.9	76.6	17.8	18.0	7.02	7.0	0.15	0.15	65.6	57.1
			14.1		7.87		76.2		18.2		7.02		0.15		48.6	

Date	27 Dec 23																	
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
M5a	11:15	0.10	17.9	17.9	6.66	6.6	69.6	69.0	4.6	4.6	7.51	7.5	0.16	0.16	12.1	11.8
			17.9		6.58		68.3		4.6		7.51		0.16		11.4	

Date	29 Dec 23																	
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
M5a	12:00	0.10	19.5	19.5	6.11	5.9	66.2	63.3	1.1	1.0	7.49	7.5	0.16	0.16	5	4.7
			19.5		5.72		60.4		1.0		7.49		0.16		4.3	

Water Quality Monitoring Results
Location: D2a

Date	1 Dec 23															
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
D2a	12:30	0.22	21.9	21.9	6.71	6.7	78.8	79.2	17.7	17.5	7.22	7.2	1.88	1.88	18.4	17.4
			21.9		6.78		79.5		17.2		7.23		1.88		16.4	

Date	4 Dec 23															
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
D2a	12:25	0.25	23.6	23.6	7.3	7.3	86.8	86.8	18.3	17.5	7.33	7.3	1.83	1.83	16.4	17.1
			23.6		7.29		86.8		16.7		7.33		1.83		17.8	

Date	6 Dec 23															
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
D2a	12:20	0.23	21.6	21.6	6.81	6.8	80.6	80.4	14.3	15.0	7.04	7.0	1.75	1.75	21.4	21.1
			21.6		6.78		80.2		15.6		7.04		1.75		20.8	

Date	8 Dec 23															
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
D2a	12:30	0.24	20.6	20.6	7.78	7.8	91.0	90.9	8.6	8.7	7.07	7.1	1.70	1.70	11.5	10.7
			20.6		7.76		90.7		8.7		7.07		1.70		9.8	

Date	12 Dec 23															
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
D2a	12:30	0.23	24.7	24.7	7.68	7.7	93.3	93.2	14.9	15.0	7.40	7.4	1.89	1.89	20.5	20.3
			24.7		7.66		93.1		15.1		7.40		1.89		20.1	

Date	14 Dec 23															
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
D2a	13:20	0.23	24.6	24.6	7.37	7.4	89.8	89.8	11.1	10.9	7.05	7.1	1.86	1.86	29	31.9
			24.6		7.36		89.7		10.7		7.05		1.86		34.8	

Date	16 Dec 23															
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
D2a	12:50	0.25	23.9	23.9	6.89	6.9	82.6	82.8	9.8	9.7	6.89	6.9	0.33	0.33	28.8	30.4
			23.9		6.99		82.9		9.6		6.89		0.33		31.9	

Date	18 Dec 23															
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
D2a	12:45	0.05	20.4	20.4	7.48	7.5	83.8	83.8	10.8	11.2	7.44	7.4	2.18	2.18	20.8	18.1
			20.4		7.45		83.7		11.6		7.44		2.18		15.4	

Date	20 Dec 23															
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
D2a	12:10	0.35	20.2	20.2	7.64	7.5	83.7	83.4	5.6	5.4	7.34	7.3	2.83	2.83	11.4	10.9
			20.2		7.43		83.0		5.3		7.34		2.83		10.3	

Date	22 Dec 23															
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
D2a	15:30	0.35	17.5	17.5	8.01	8.0	84.5	84.3	8.4	8.4	7.32	7.3	2.09	2.09	33.1	32.9
			17.5		7.97		84.1		8.4		7.32		2.09		32.6	

Date	27 Dec 23															
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
D2a	12:15	0.25	20.6	20.6	7.56	7.5	85.1	84.9	9.6	9.7	7.65	7.7	2.32	2.32	15	16.8
			20.6		7.53		84.6		9.7		7.65		2.32		18.5	

Date	29 Dec 23															
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
D2a	12:40	0.25	21.9	21.9	7.35	7.3	85.2	85.0	8.5	8.9	7.67	7.7	2.80	2.80	11.4	11.1
			21.9		7.32		84.8		9.3		7.67		2.80		10.7	

Water Quality Monitoring Results
Location: M7a

Date	14 Dec 23																	
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
M7a	13:00	0.12	24.2	24.2	6.17	6.2	73.6	73.5	1.2	1.2	7.16	7.2	0.11	0.1	1.90	2.0
			24.2		6.14		73.3		1.2		7.16		0.11		2.10	

Date	16 Dec 23																	
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
M7a	12:15	0.25	23.7	23.7	7.02	7.0	83.0	82.9	1.4	1.4	7.23	7.2	0.11	0.1	2.1	2.2
			23.7		7		82.8		1.4		7.23		0.11		2.3	

Date	18 Dec 23																	
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
M7a	12:05	0.20	20.8	20.8	6.45	6.4	71.2	70.4	1.6	1.6	6.93	6.9	0.12	0.1	2.8	2.9
			20.8		6.31		69.6		1.6		6.93		0.12		2.9	

Date	20 Dec 23																	
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
M7a	11:30	0.30	20.1	20.21	7.08	7.0	77.2	76.7	1.6	1.6	6.89	6.9	0.11	0.1	3.8	3.6
			20.31		7		76.2		1.6		6.89		0.11		3.4	

Date	22 Dec 23																	
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
M7a	14:50	0.15	17.9	17.9	7.92	7.9	83.5	83.1	1.5	1.5	6.92	6.9	0.10	0.1	3.2	3.5
			17.9		7.92		82.6		1.5		6.92		0.10		3.7	

Date	27 Dec 23																	
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
M7a	11:35	0.20	20.7	20.7	7.18	7.1	78.2	78	1.9	1.8	7.37	7.4	0.12	0.1	5.6	5.9
			20.7		6.99		77.8		1.7		7.37		0.12		6.1	

Date	29 Dec 23																	
Location	**Time**	**Depth (m)**	**Temp (oC)**		**DO (mg/L)**		**DO (%)**		**Turbidity (NTU)**		**pH**		**Salinity**		**SS(mg/L)**	
M7a	12:15	0.15	22	22	6.96	6.9	78.2	76.95	2.0	1.9	7.50	7.5	0.12	0.1	3.7	3.4
			22		6.74		75.7		1.9		7.50		0.12		3.1	

Water Quality Monitoring Results
Location: D5a

Date	14 Dec 23															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
D5a	12:40	0.11	24.5	24.5	7.01	7.0	85.8	85.3	7.4	7.4	7.44	7.4	2.06	2.1	6.2	20.8
			24.5		6.99		84.7		7.4		7.44		2.06		35.3	

Date	16 Dec 23															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
D5a	13:30	0.12	22.8	22.8	6.61	6.6	77.4	76.8	6.7	6.7	7.44	7.4	1.74	1.7	17.8	14.3
			22.8		6.52		76.1		6.6		7.44		1.74		10.8	

Date	18 Dec 23															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
D5a	12:25	0.15	19.5	19.5	7.14	7.1	79.2	78.9	1.9	2.1	7.17	7.2	1.96	2.0	6.9	6.7
			19.5		7.1		78.6		2.2		7.17		1.96		6.5	

Date	20 Dec 23															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
D5a	11:50	0.15	19.4	19.4	6.97	7.0	76.5	77.1	4.8	5.1	7.28	7.3	1.93	1.9	24	23.1
			19.4		7.03		77.6		5.4		7.28		1.93		22.2	

Date	22 Dec 23															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
D5a	15:10	0.10	16.8	16.8	8.5	8.4	87.4	86.4	4.6	4.7	7.10	7.1	2.04	2.0	49.8	56.5
			16.8		8.23		85.4		4.7		7.10		2.04		63.1	
Date	27 Dec 23															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
D5a	11:55	0.15	20.7	20.7	7.73	7.7	87.2	86.8	1.8	1.8	7.53	7.5	2.57	2.6	3.3	3.4
			20.7		7.64		86.3		1.8		7.53		2.57		3.5	

Date	29 Dec 23															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO (%)		Turbidity (NTU)		pH		Salinity		SS(mg/L)	
D5a	12:30	0.20	21.6	21.6	7.35	7.4	85.9	85.4	1.1	1.1	7.50	7.5	2.38	2.4	2.2	2.2
			21.6		7.42		84.8		1.1		7.50		2.38		2.1	

Appendix J2

Summary of Exceedance Records

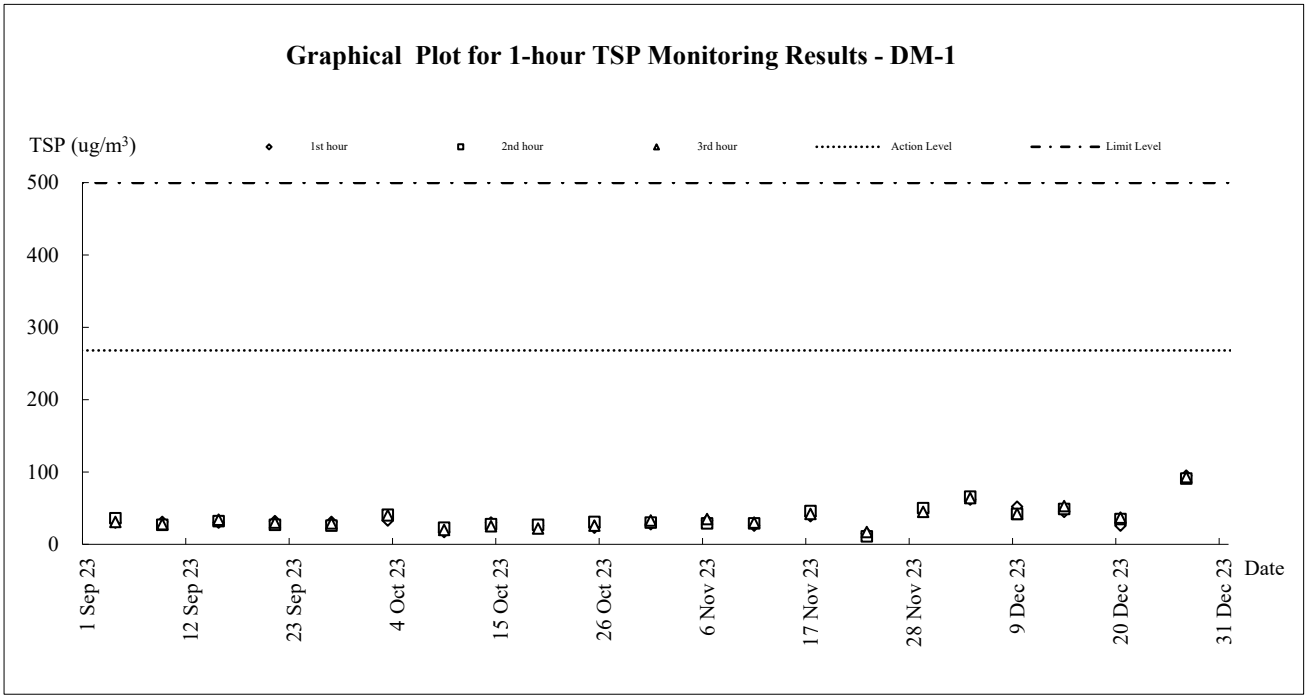
Summary of Water Quality Monitoring Exceedance

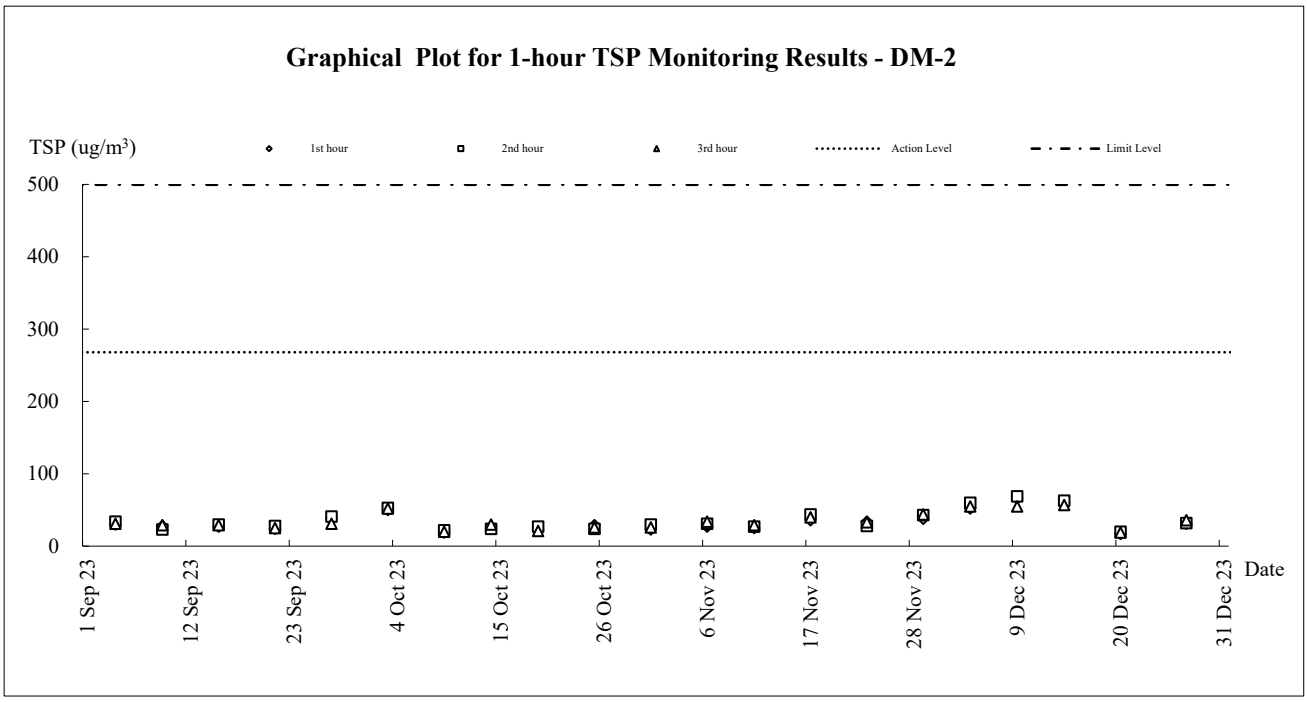
Date	Station	Parameter	Exceedance	Investigation	Action
10 Oct 2023	D2a	Turbidity and Suspended Solids	Limit Level	There was heavy rainstorm on 9 and 10 Oct after typhoon. The water quality in the channel was deteriorated by runoff from the surrounding environment. It was concluded that the exceedances were not project related.	Since the exceedances were non-project related, increase monitoring frequency according to the requirement of Event and Action Plan is not required.

Appendix K

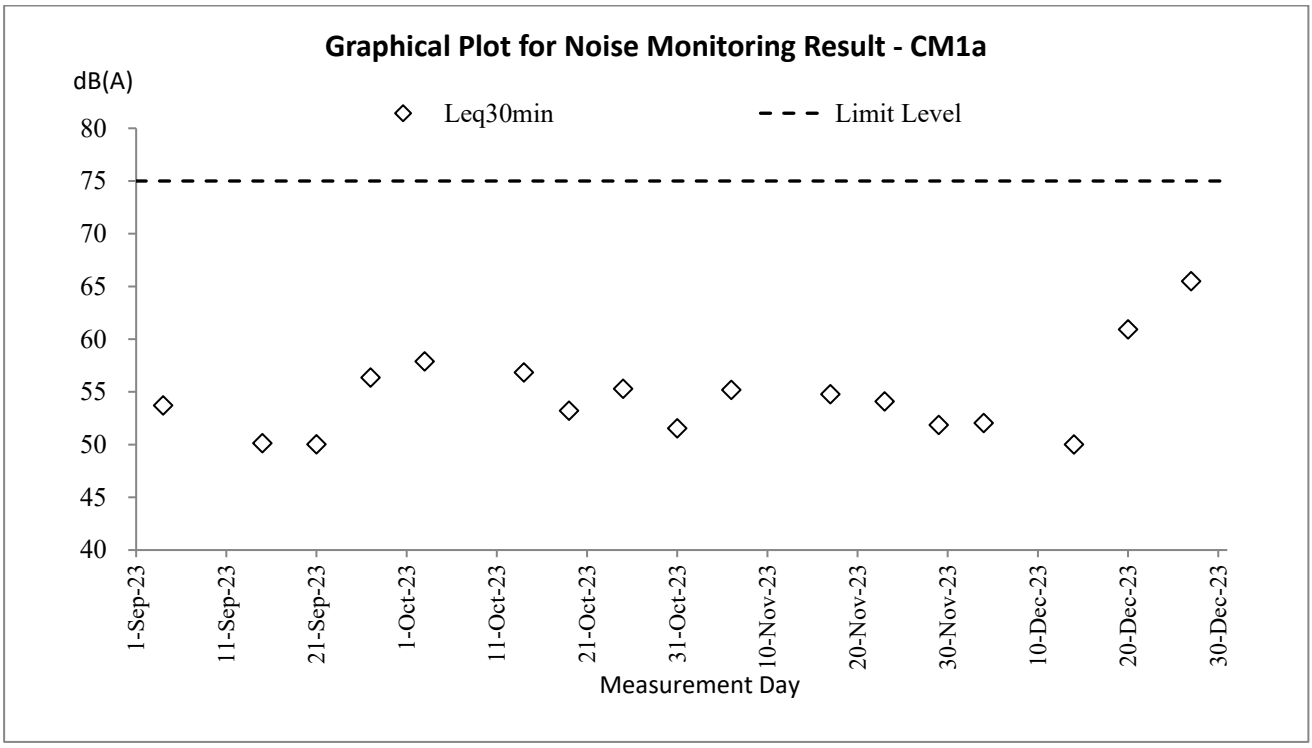
Graphical Plots for Monitoring Result

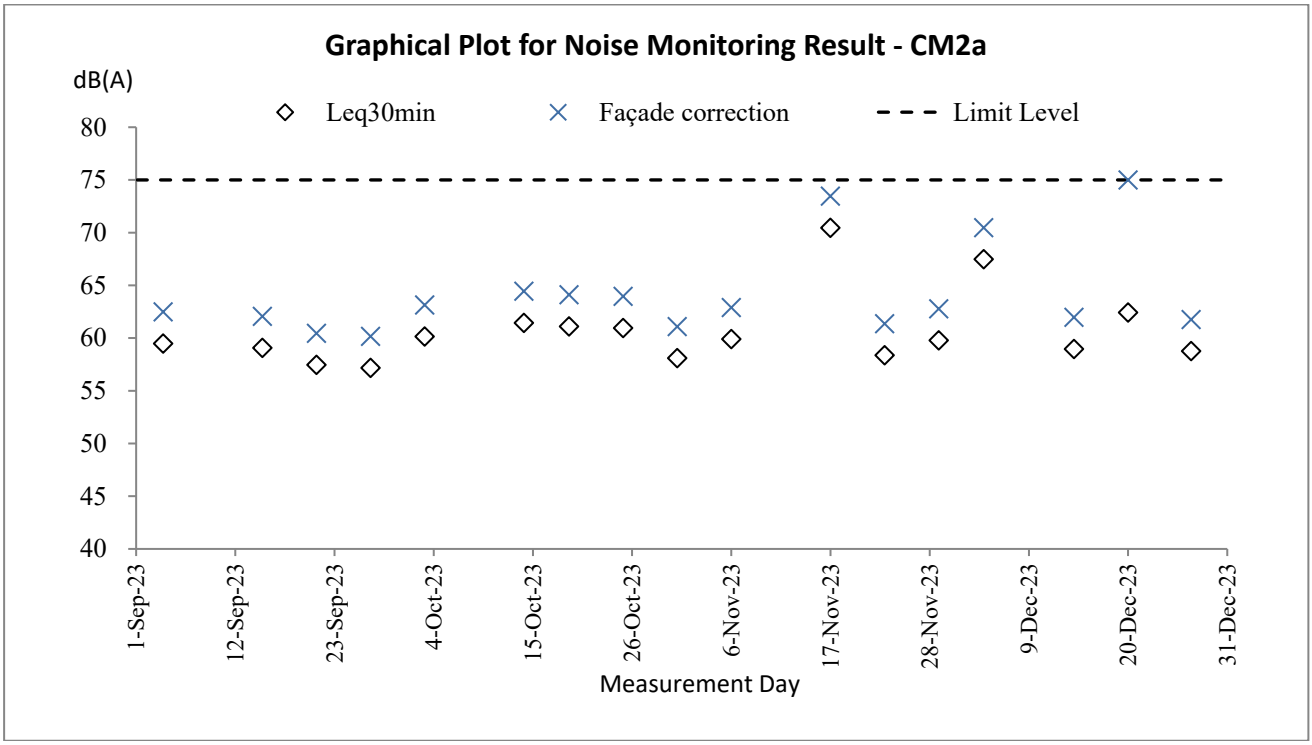
Air Quality – 1-hour TSP

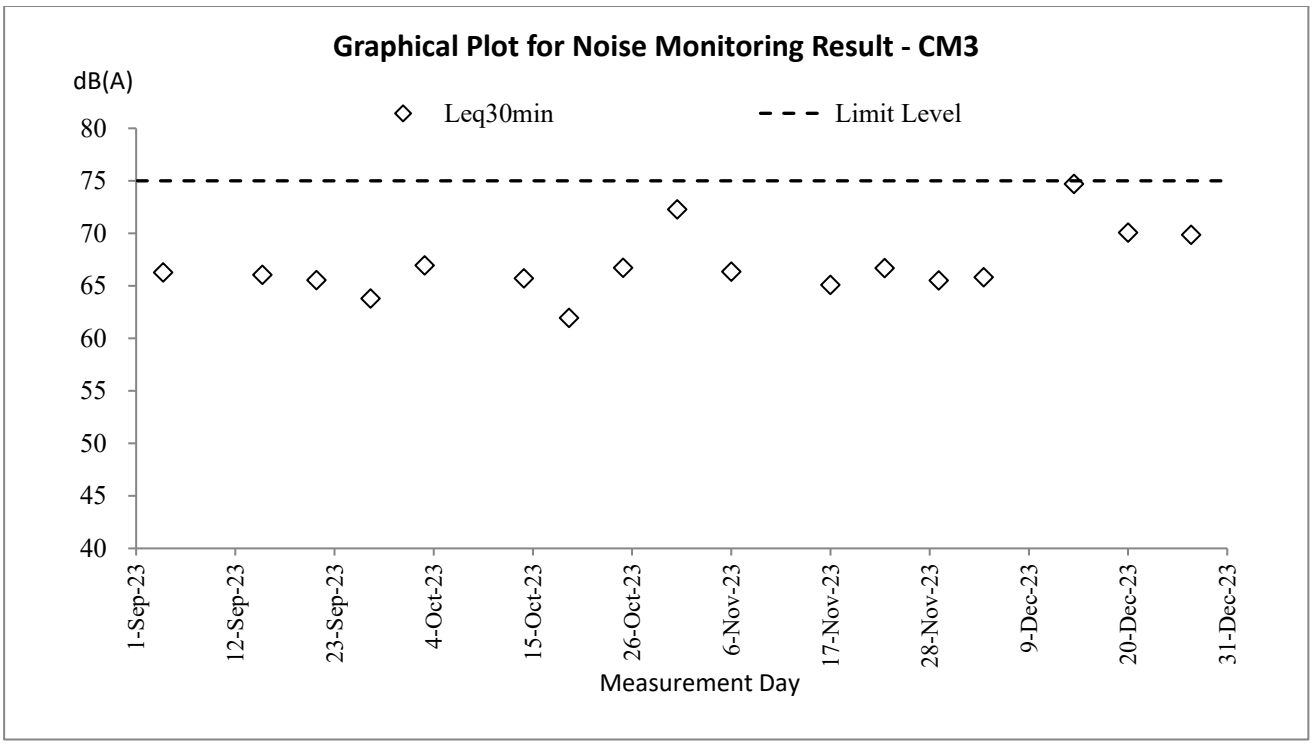


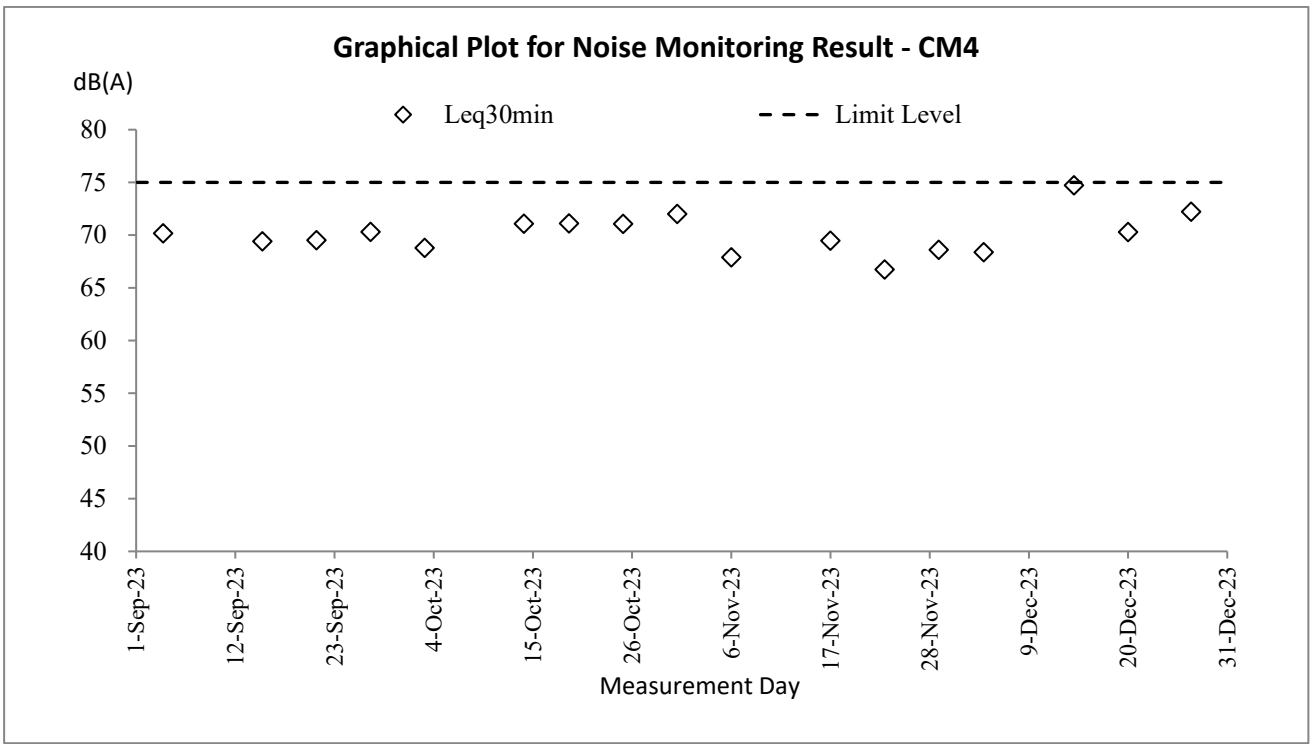


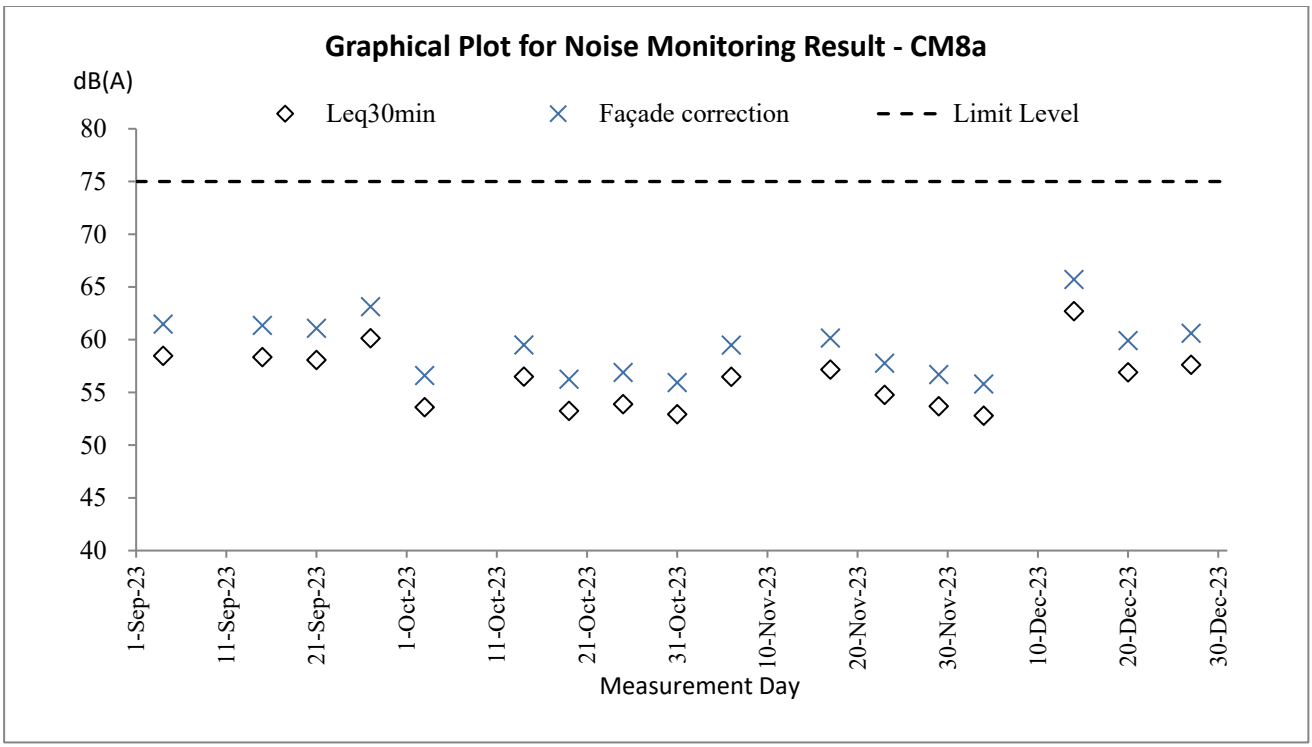
Construction Noise



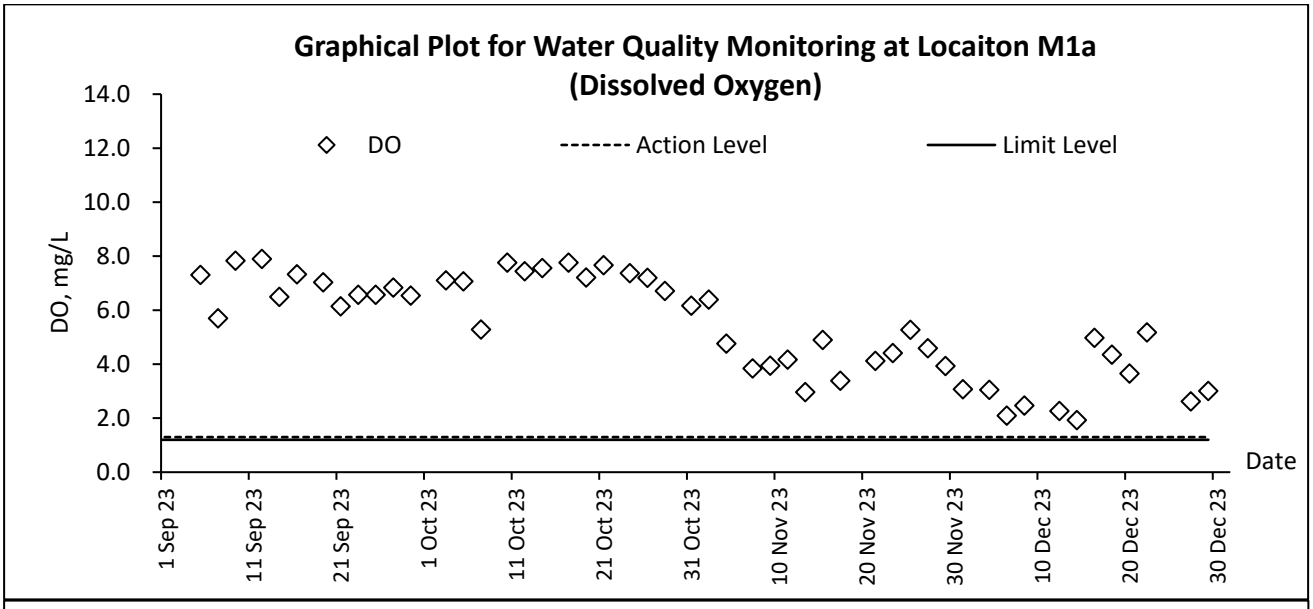


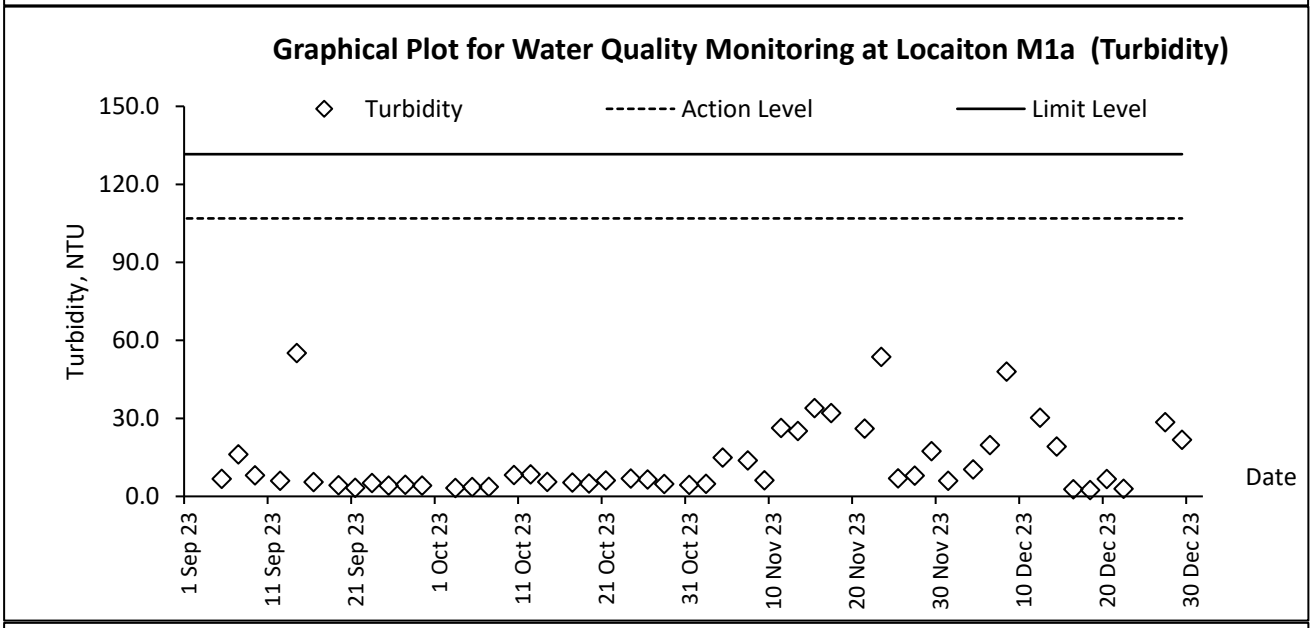

Graphical Plot for Noise Monitoring Result - CM3
dB(A)
Leq30min
Limit Level
80
75
70
65
60
55
50
45
40
1-Sep-23
12-Sep-23
23-Sep-23
4-Oct-23
15-Oct-23
26-Oct-23
6-Nov-23
17-Nov-23
28-Nov-23
9-Dec-23
20-Dec-23
31-Dec-23
Measurement Day

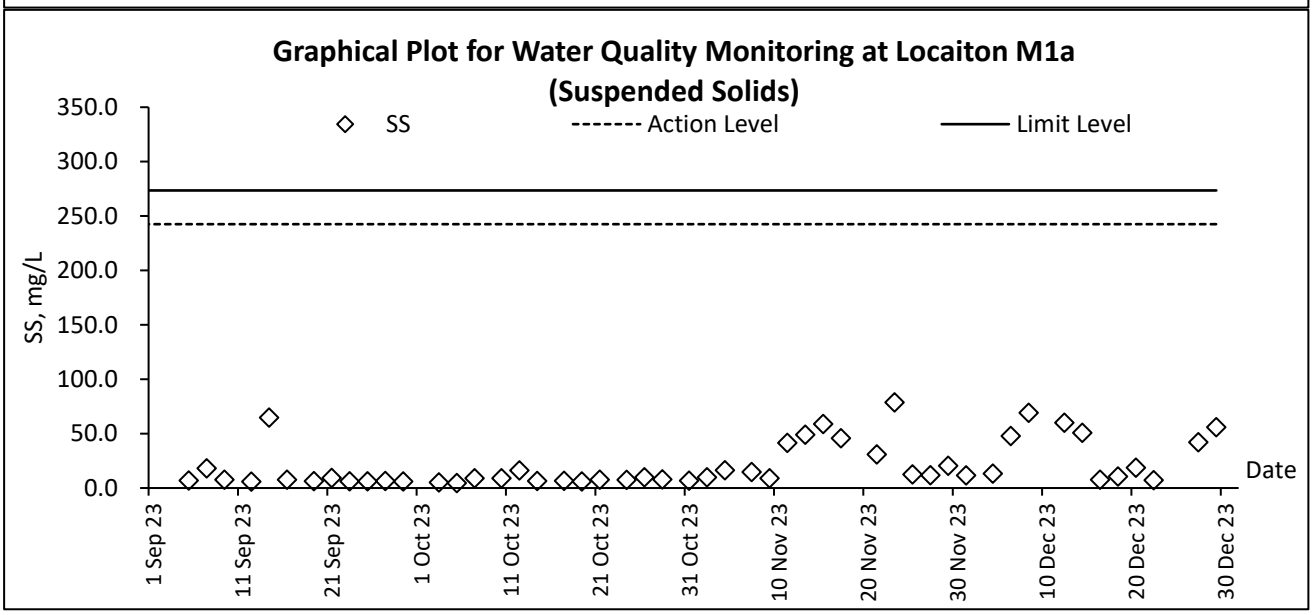

Graphical Plot for Noise Monitoring Result - CM4
dB(A)
Leq30min
Limit Level
80
75
70
65
60
55
50
45
40
1-Sep-23
12-Sep-23
23-Sep-23
4-Oct-23
15-Oct-23
26-Oct-23
6-Nov-23
17-Nov-23
28-Nov-23
9-Dec-23
20-Dec-23
31-Dec-23
Measurement Day

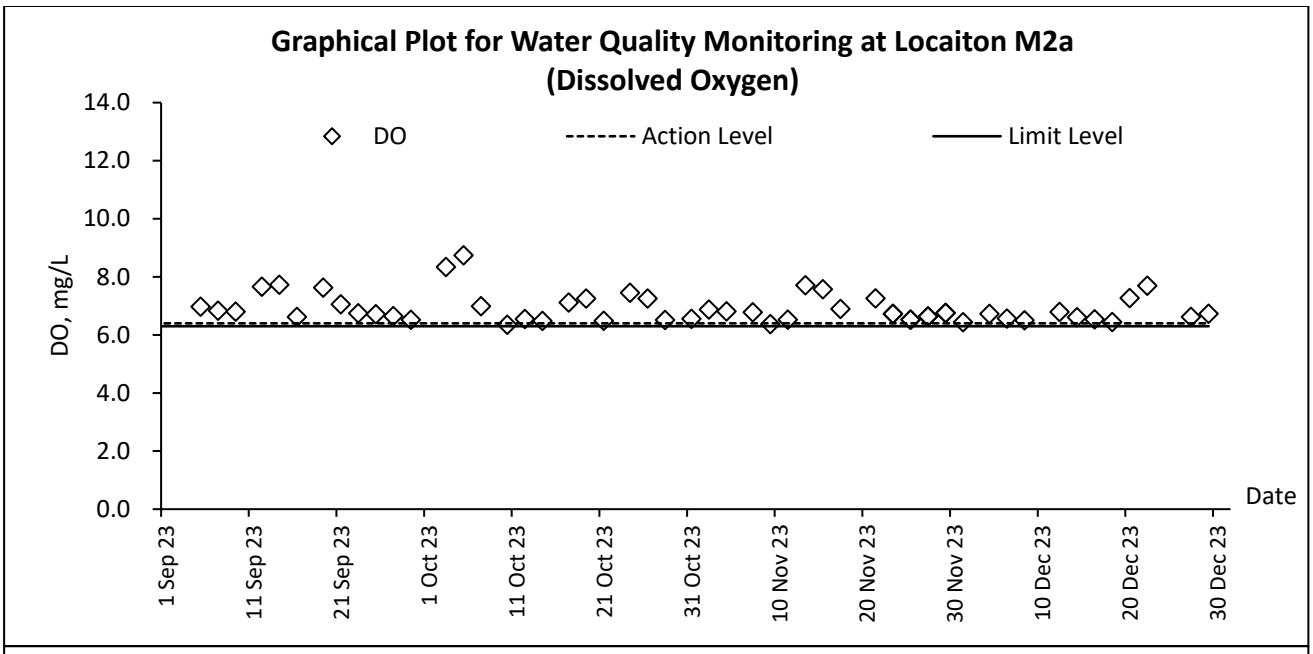

Graphical Plot for Noise Monitoring Result - CM8a
dB(A)
Leq30min
Façade correction
Limit Level
80
75
70
65
60
55
50
45
40
1-Sep-23
11-Sep-23
21-Sep-23
1-Oct-23
11-Oct-23
21-Oct-23
31-Oct-23
10-Nov-23
20-Nov-23
30-Nov-23
10-Dec-23
20-Dec-23
30-Dec-23
Measurement Day

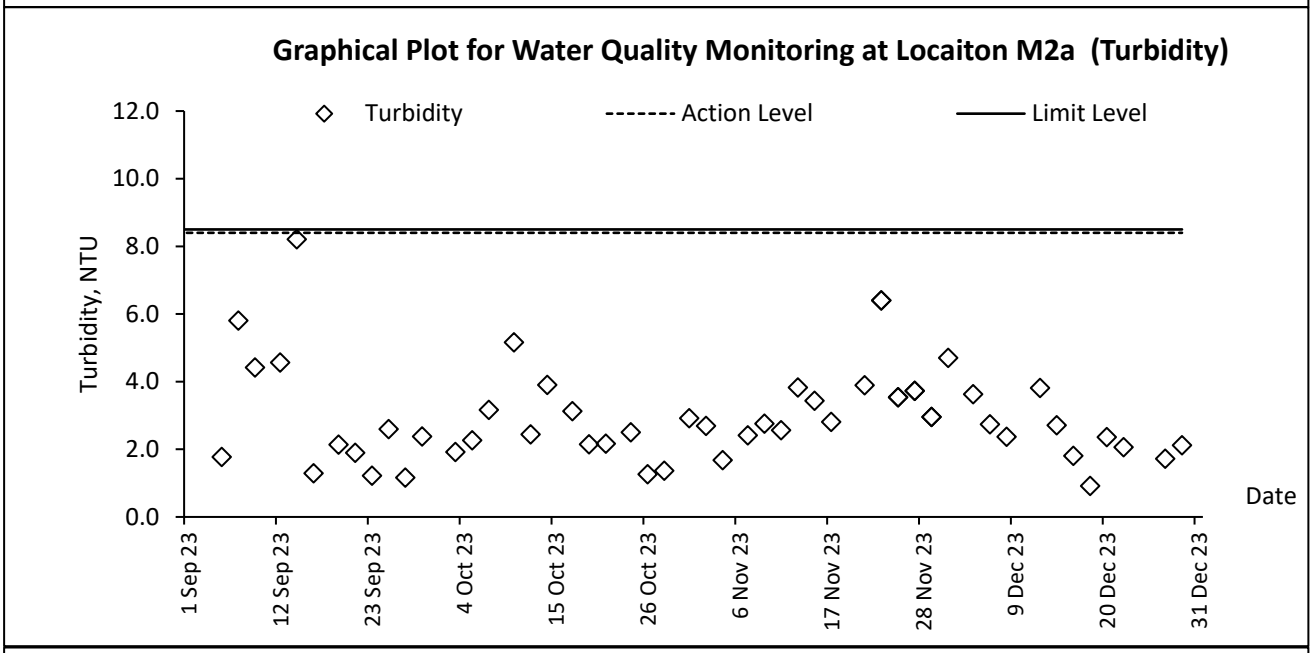
Water Quality

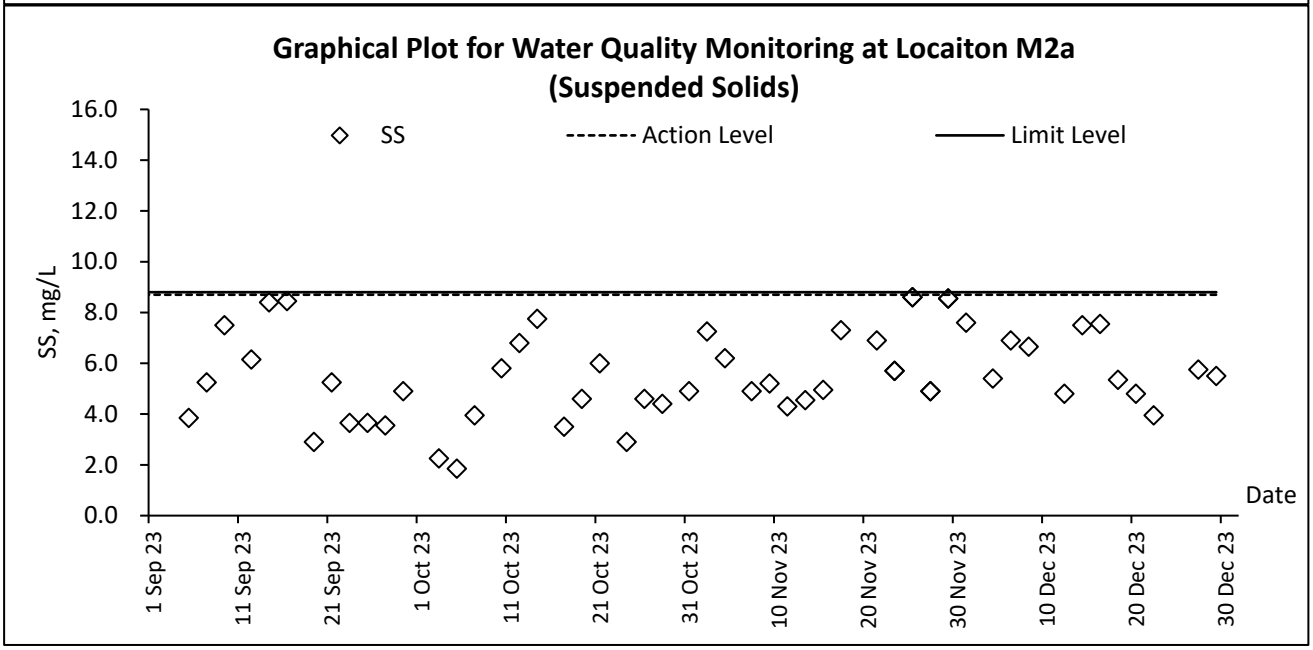


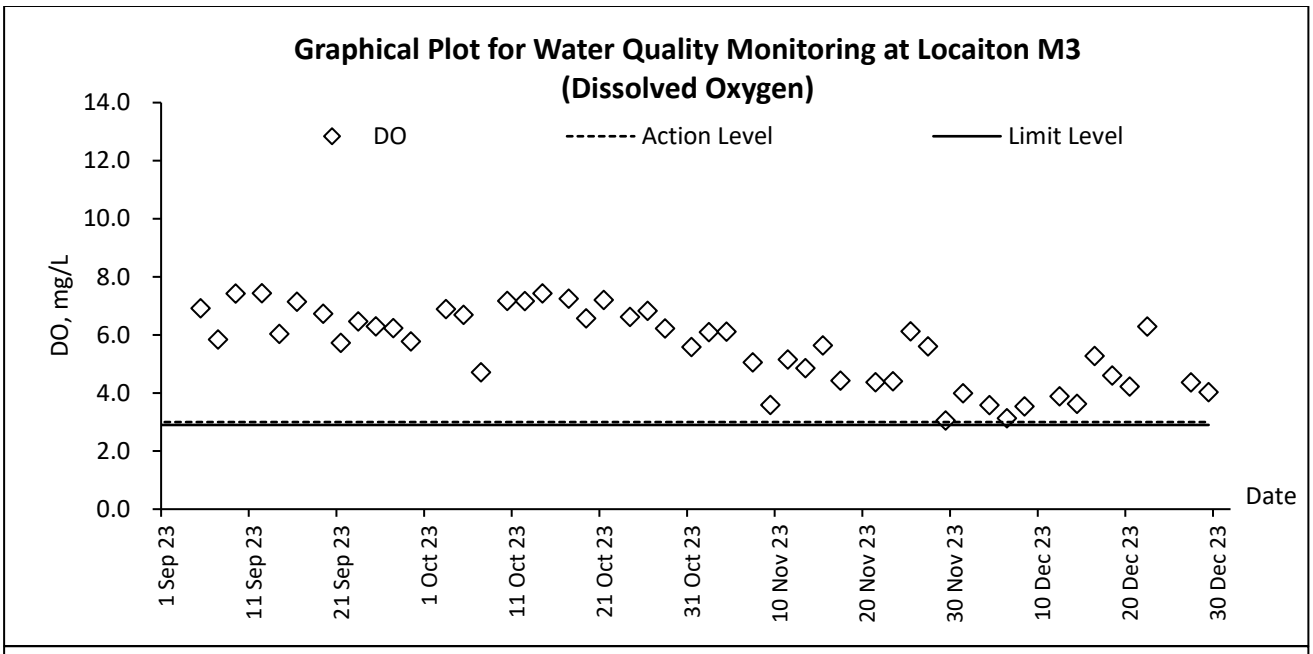


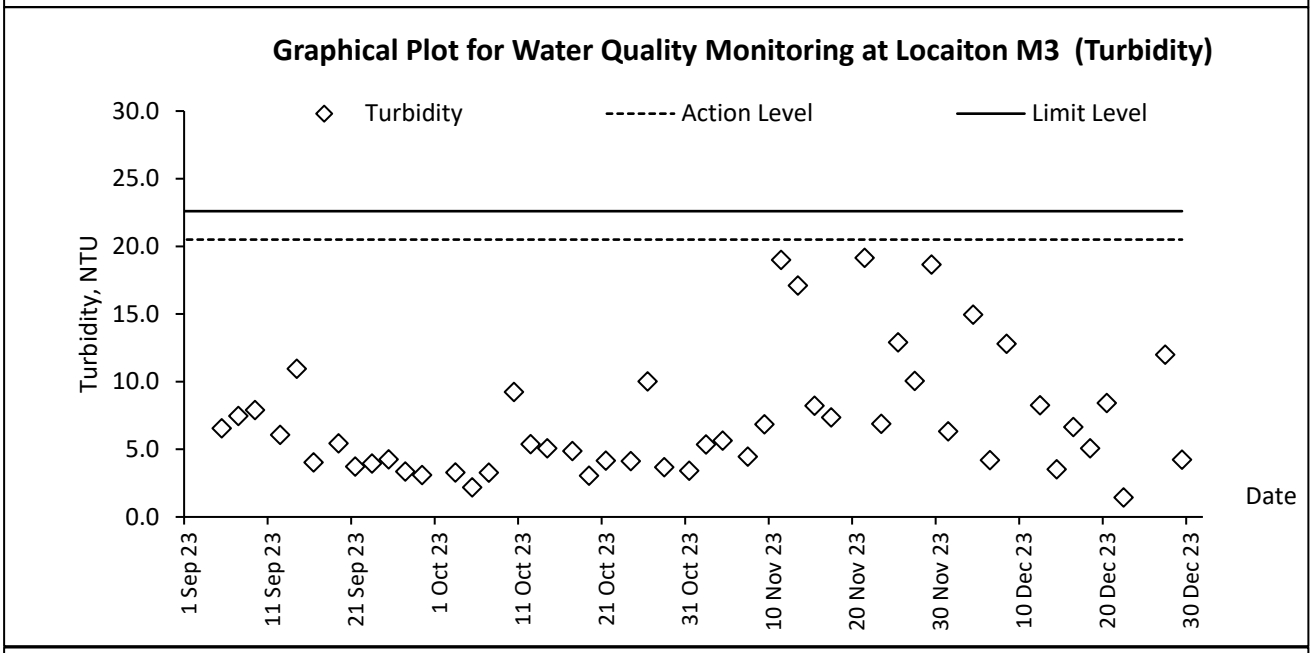


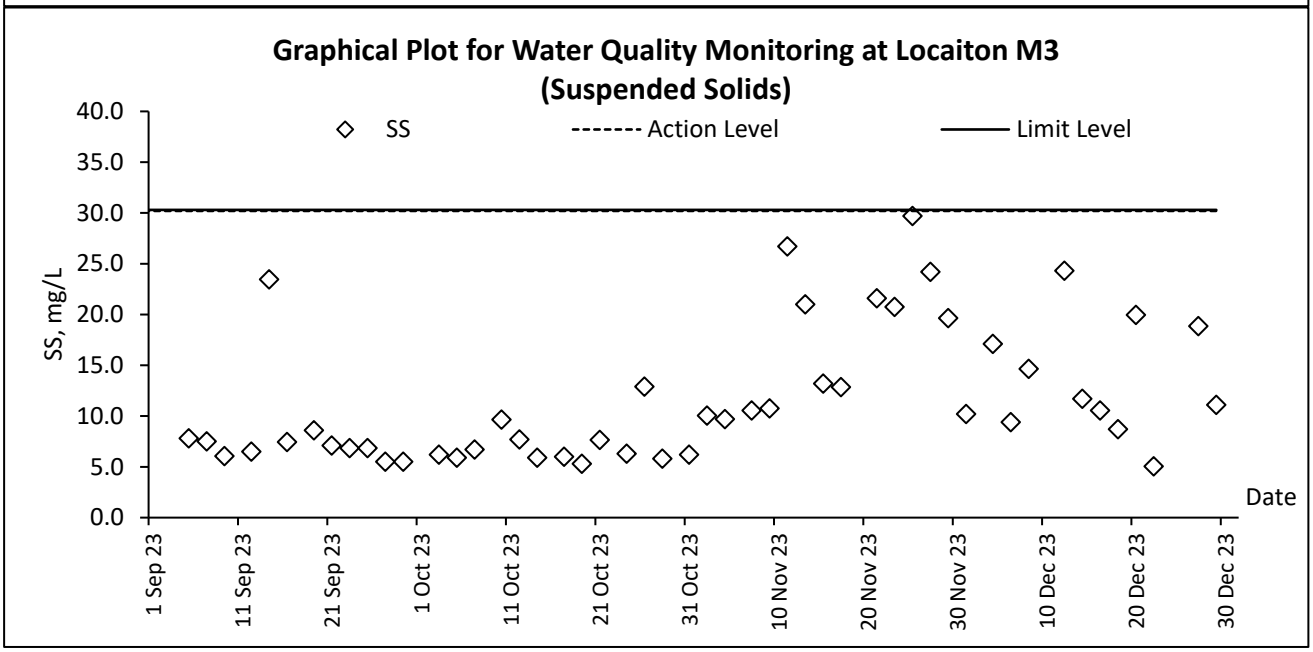

Graphical Plot for Water Quality Monitoring at Locaiton M2a
(Dissolved Oxygen)
DO
Action Level
Limit Level
DO, mg/L
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
Date
1 Sep 23
11 Sep 23
21 Sep 23
1 Oct 23
11 Oct 23
21 Oct 23
31 Oct 23
10 Nov 23
20 Nov 23
30 Nov 23
10 Dec 23
20 Dec 23
30 Dec 23

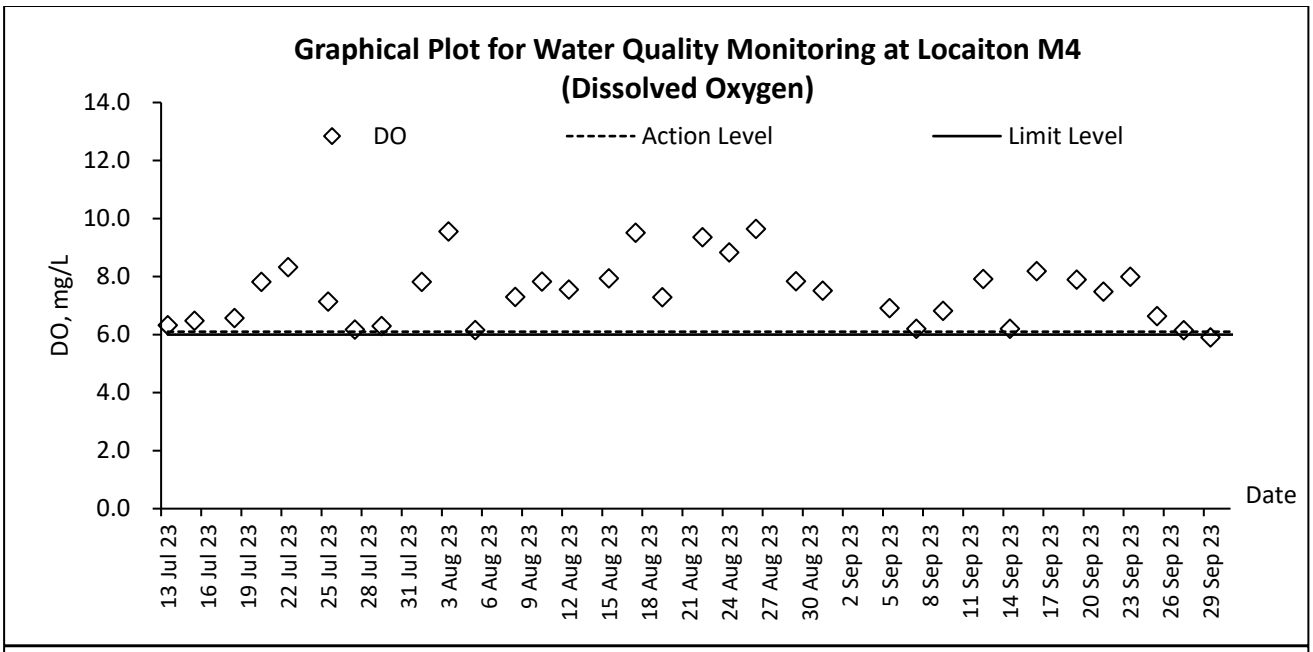

Graphical Plot for Water Quality Monitoring at Locaiton M2a (Turbidity)
Turbidity
Action Level
Limit Level
Turbidity, NTU
12.0
10.0
8.0
6.0
4.0
2.0
0.0
Date
1 Sep 23
12 Sep 23
23 Sep 23
4 Oct 23
15 Oct 23
26 Oct 23
6 Nov 23
17 Nov 23
28 Nov 23
9 Dec 23
20 Dec 23
31 Dec 23


Graphical Plot for Water Quality Monitoring at Locaiton M2a
(Suspended Solids)
SS
Action Level
Limit Level
SS, mg/L
16.0
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
Date
1 Sep 23
11 Sep 23
21 Sep 23
1 Oct 23
11 Oct 23
21 Oct 23
31 Oct 23
10 Nov 23
20 Nov 23
30 Nov 23
10 Dec 23
20 Dec 23
30 Dec 23


Graphical Plot for Water Quality Monitoring at Locaiton M3
(Dissolved Oxygen)
DO
Action Level
Limit Level
DO, mg/L
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
Date
1 Sep 23
11 Sep 23
21 Sep 23
1 Oct 23
11 Oct 23
21 Oct 23
31 Oct 23
10 Nov 23
20 Nov 23
30 Nov 23
10 Dec 23
20 Dec 23
30 Dec 23


Graphical Plot for Water Quality Monitoring at Locaiton M3 (Turbidity)
Turbidity
Action Level
Limit Level
Turbidity, NTU
30.0
25.0
20.0
15.0
10.0
5.0
0.0
Date
1 Sep 23
11 Sep 23
21 Sep 23
1 Oct 23
11 Oct 23
21 Oct 23
31 Oct 23
10 Nov 23
20 Nov 23
30 Nov 23
10 Dec 23
20 Dec 23
30 Dec 23


Graphical Plot for Water Quality Monitoring at Locaiton M3
(Suspended Solids)
SS
Action Level
Limit Level
SS, mg/L
40.0
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
Date
1 Sep 23
11 Sep 23
21 Sep 23
1 Oct 23
11 Oct 23
21 Oct 23
31 Oct 23
10 Nov 23
20 Nov 23
30 Nov 23
10 Dec 23
20 Dec 23
30 Dec 23


Graphical Plot for Water Quality Monitoring at Locaiton M4
(Dissolved Oxygen)
DO
Action Level
Limit Level
DO, mg/L
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
Date
13 Jul 23
16 Jul 23
19 Jul 23
22 Jul 23
25 Jul 23
28 Jul 23
31 Jul 23
3 Aug 23
6 Aug 23
9 Aug 23
12 Aug 23
15 Aug 23
18 Aug 23
21 Aug 23
24 Aug 23
27 Aug 23
30 Aug 23
2 Sep 23
5 Sep 23
8 Sep 23
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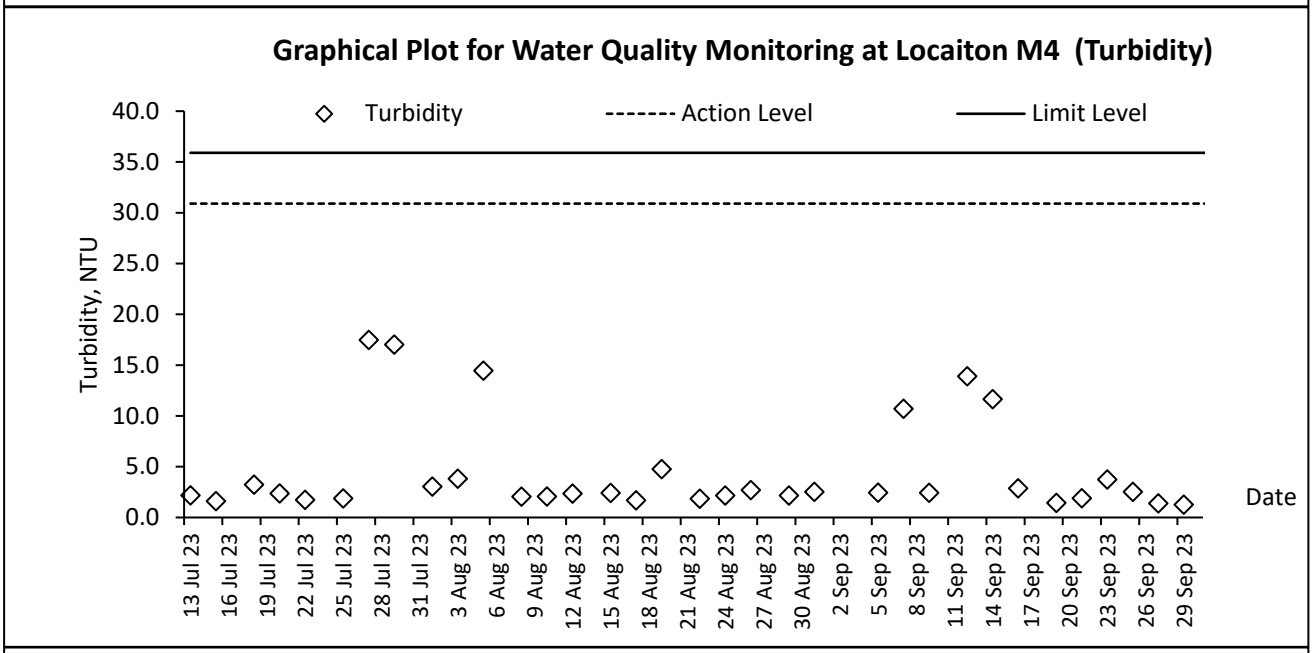
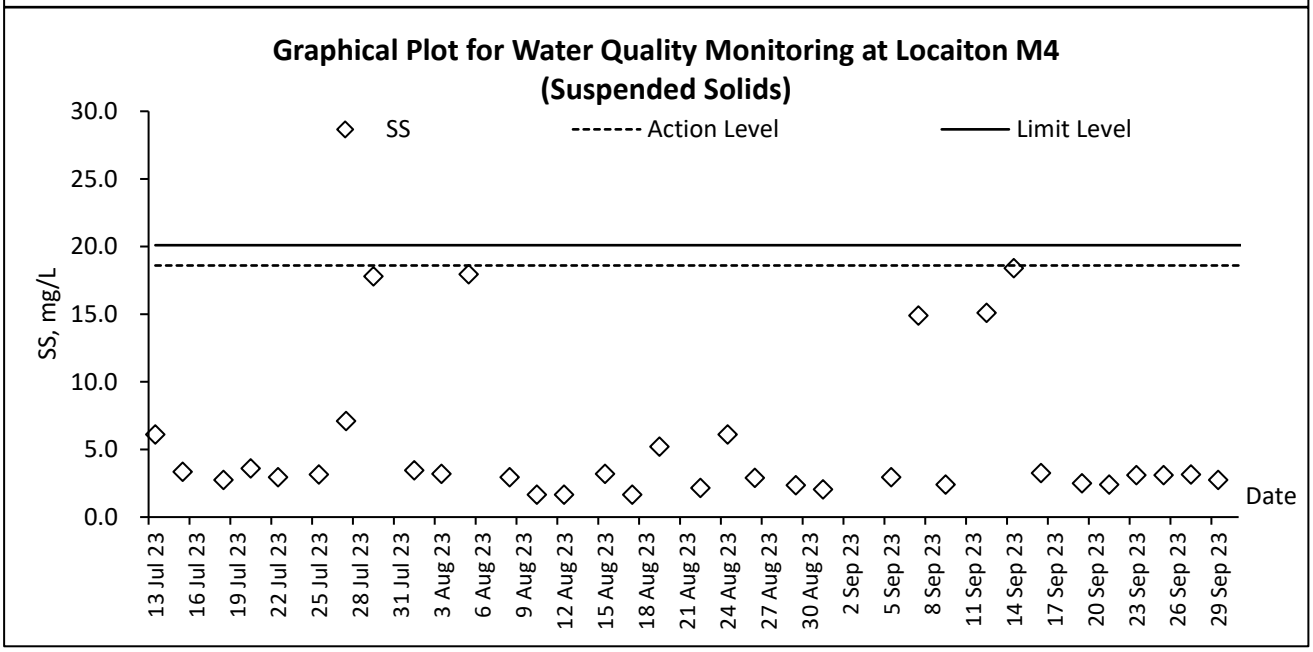
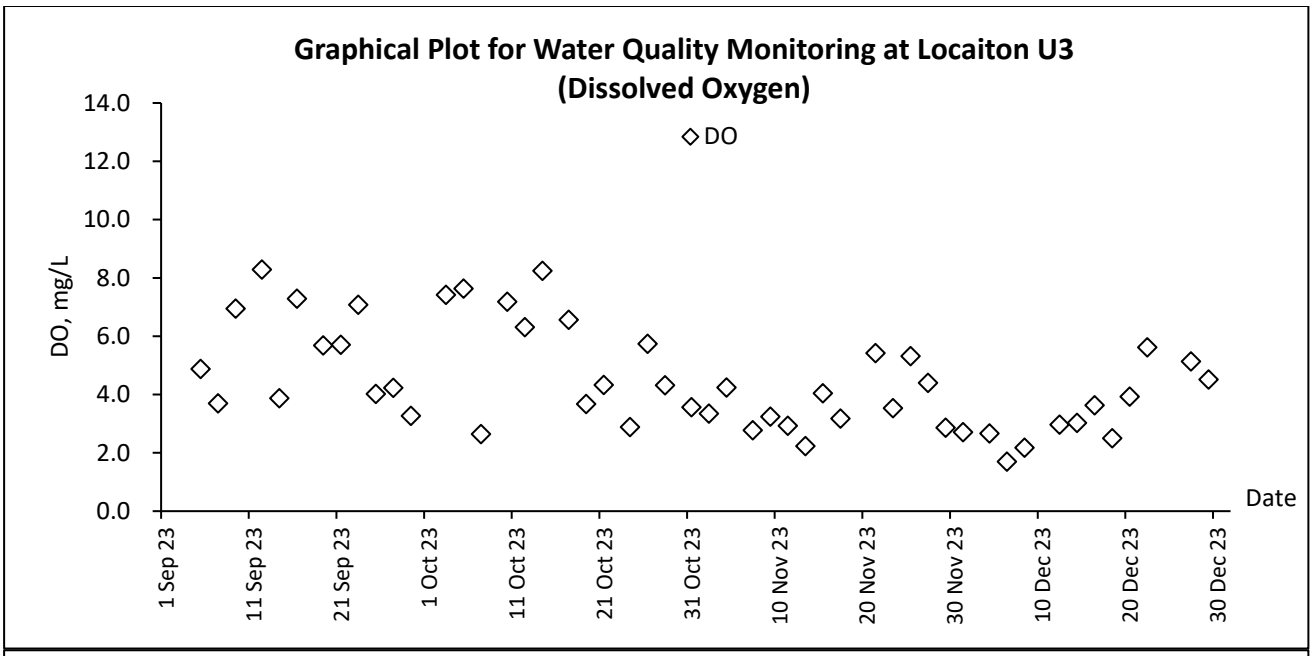
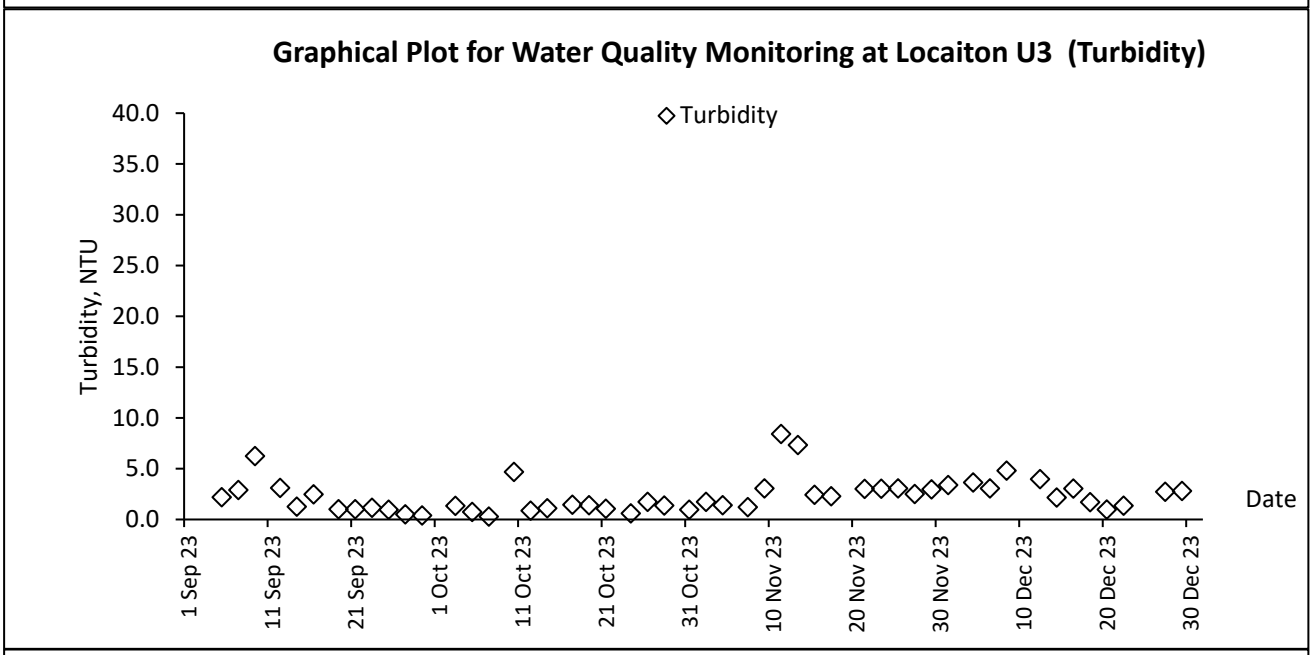
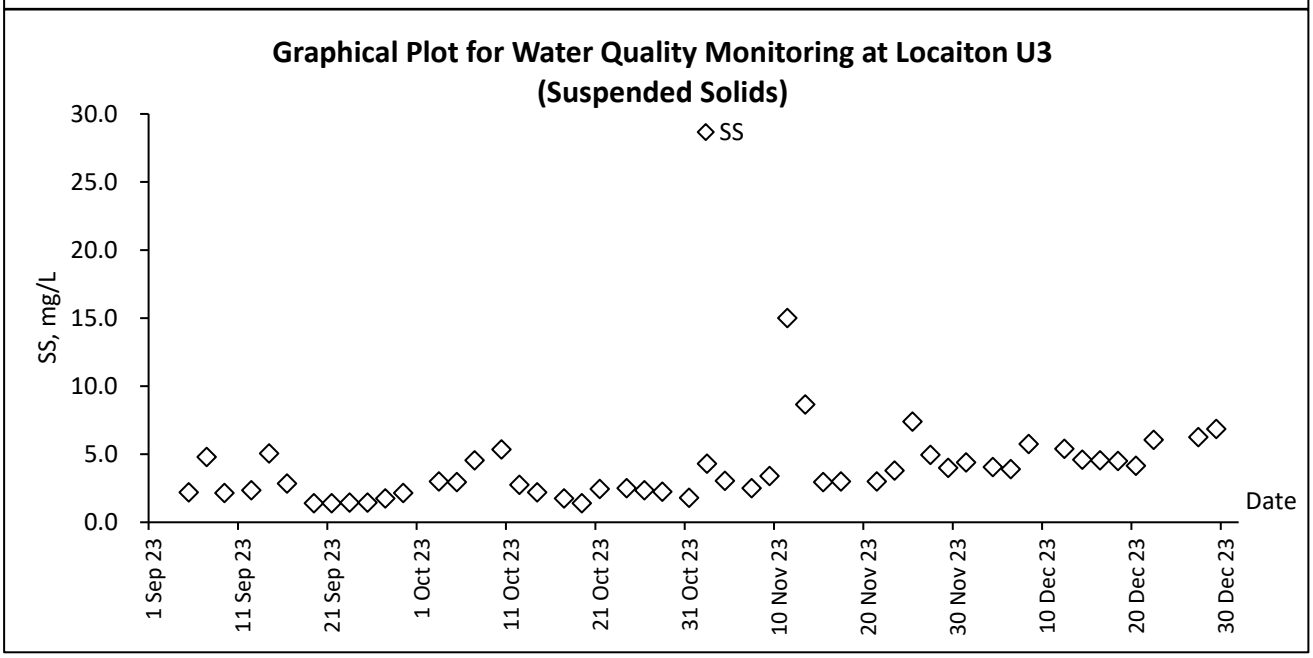
14 Sep 23
17 Sep 23
20 Sep 23
23 Sep 23
26 Sep 23
29 Sep 23

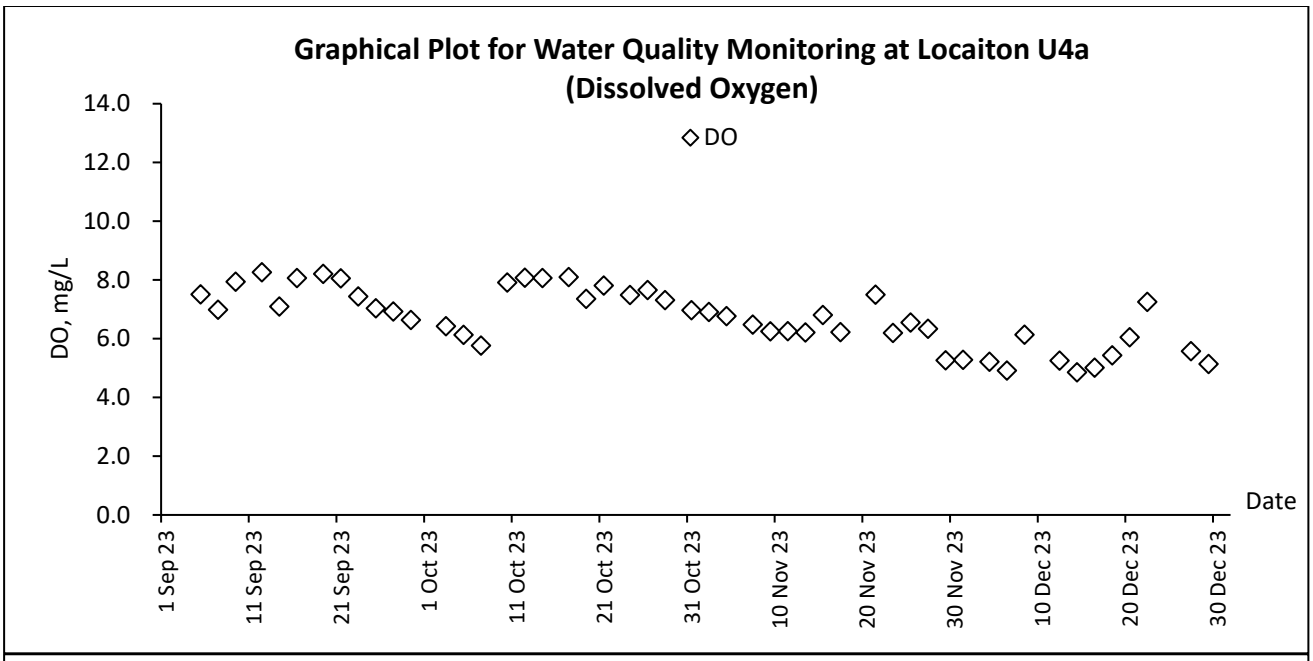

Graphical Plot for Water Quality Monitoring at Locaiton M4 (Turbidity)
Turbidity
Action Level
Limit Level
Turbidity, NTU
40.0
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
Date
13 Jul 23
16 Jul 23
19 Jul 23
22 Jul 23
25 Jul 23
28 Jul 23
31 Jul 23
3 Aug 23
6 Aug 23
9 Aug 23
12 Aug 23
15 Aug 23
18 Aug 23
21 Aug 23
24 Aug 23
27 Aug 23
30 Aug 23
2 Sep 23
5 Sep 23
8 Sep 23
11 Sep 23
14 Sep 23
17 Sep 23
20 Sep 23
23 Sep 23
26 Sep 23
29 Sep 23

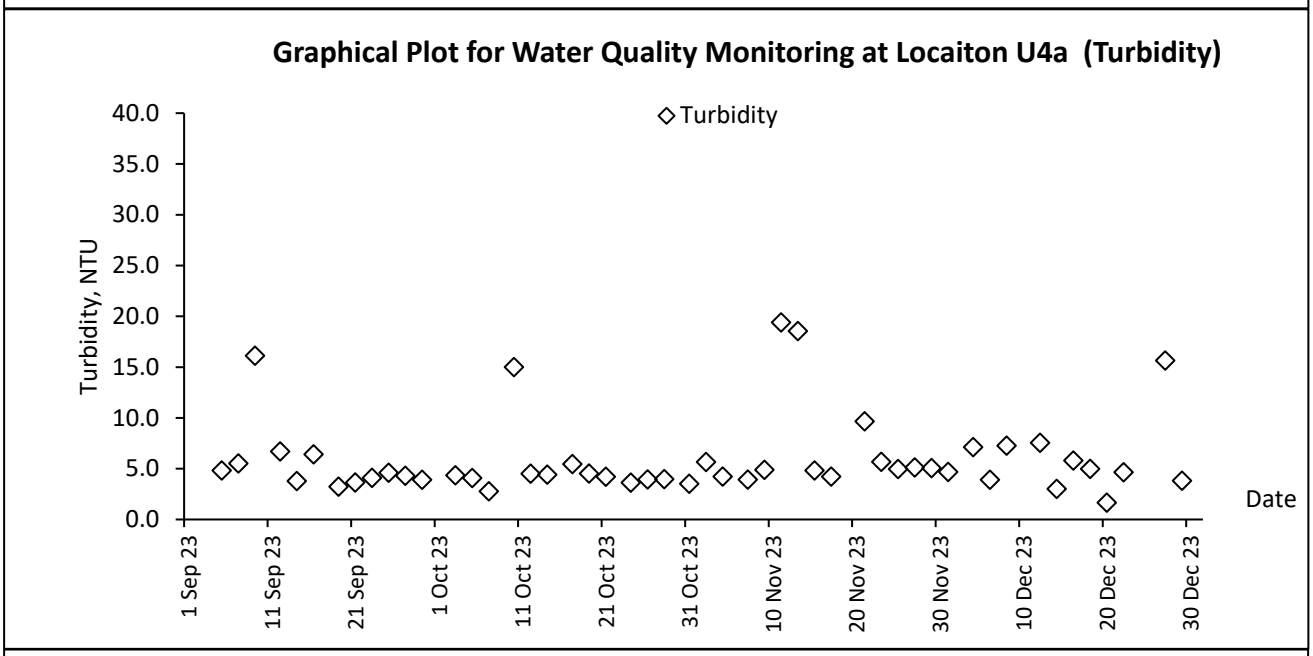

Graphical Plot for Water Quality Monitoring at Locaiton M4
(Suspended Solids)
SS
Action Level
Limit Level
SS, mg/L
30.0
25.0
20.0
15.0
10.0
5.0
0.0
Date
13 Jul 23
16 Jul 23
19 Jul 23
22 Jul 23
25 Jul 23
28 Jul 23
31 Jul 23
3 Aug 23
6 Aug 23
9 Aug 23
12 Aug 23
15 Aug 23
18 Aug 23
21 Aug 23
24 Aug 23
27 Aug 23
30 Aug 23
2 Sep 23
5 Sep 23
8 Sep 23
11 Sep 23
14 Sep 23
17 Sep 23
20 Sep 23
23 Sep 23
26 Sep 23
29 Sep 23

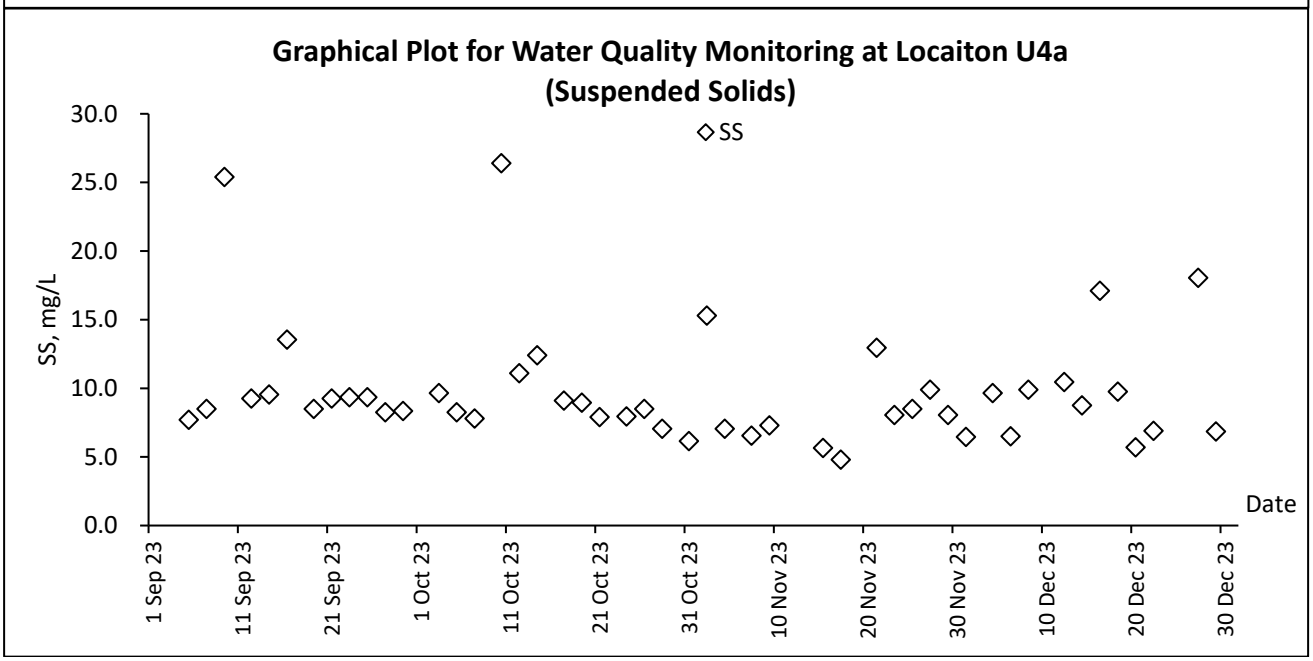

Graphical Plot for Water Quality Monitoring at Locaiton U3
(Dissolved Oxygen)
DO
DO, mg/L
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
Date
1 Sep 23
11 Sep 23
21 Sep 23
1 Oct 23
11 Oct 23
21 Oct 23
31 Oct 23
10 Nov 23
20 Nov 23
30 Nov 23
10 Dec 23
20 Dec 23
30 Dec 23

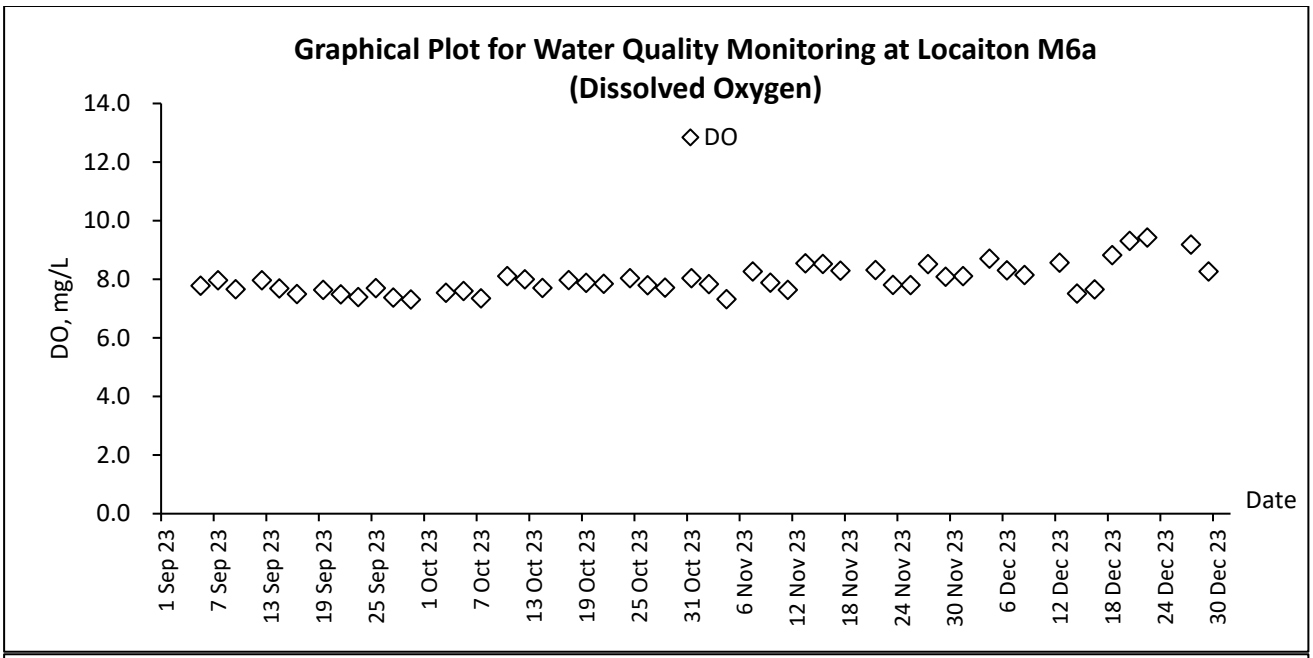

Graphical Plot for Water Quality Monitoring at Locaiton U3 (Turbidity)
Turbidity
Turbidity, NTU
40.0
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
Date
1 Sep 23
11 Sep 23
21 Sep 23
1 Oct 23
11 Oct 23
21 Oct 23
31 Oct 23
10 Nov 23
20 Nov 23
30 Nov 23
10 Dec 23
20 Dec 23
30 Dec 23

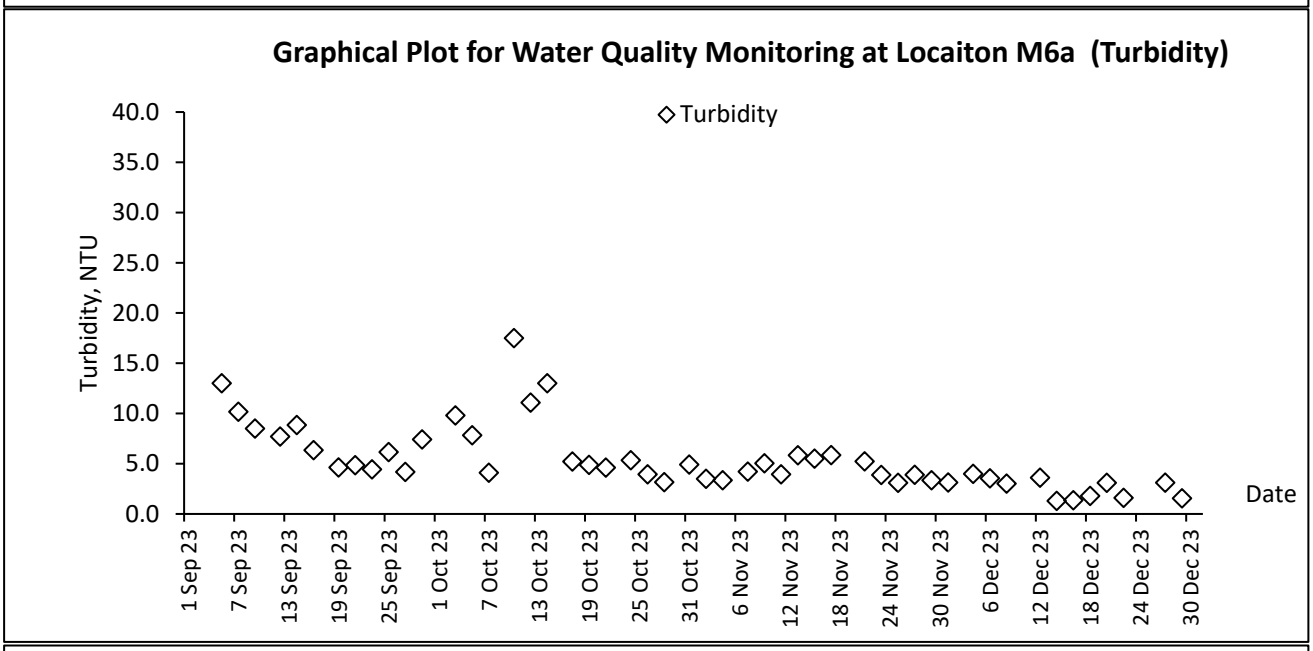

Graphical Plot for Water Quality Monitoring at Locaiton U3
(Suspended Solids)
SS
SS, mg/L
30.0
25.0
20.0
15.0
10.0
5.0
0.0
Date
1 Sep 23
11 Sep 23
21 Sep 23
1 Oct 23
11 Oct 23
21 Oct 23
31 Oct 23
10 Nov 23
20 Nov 23
30 Nov 23
10 Dec 23
20 Dec 23
30 Dec 23

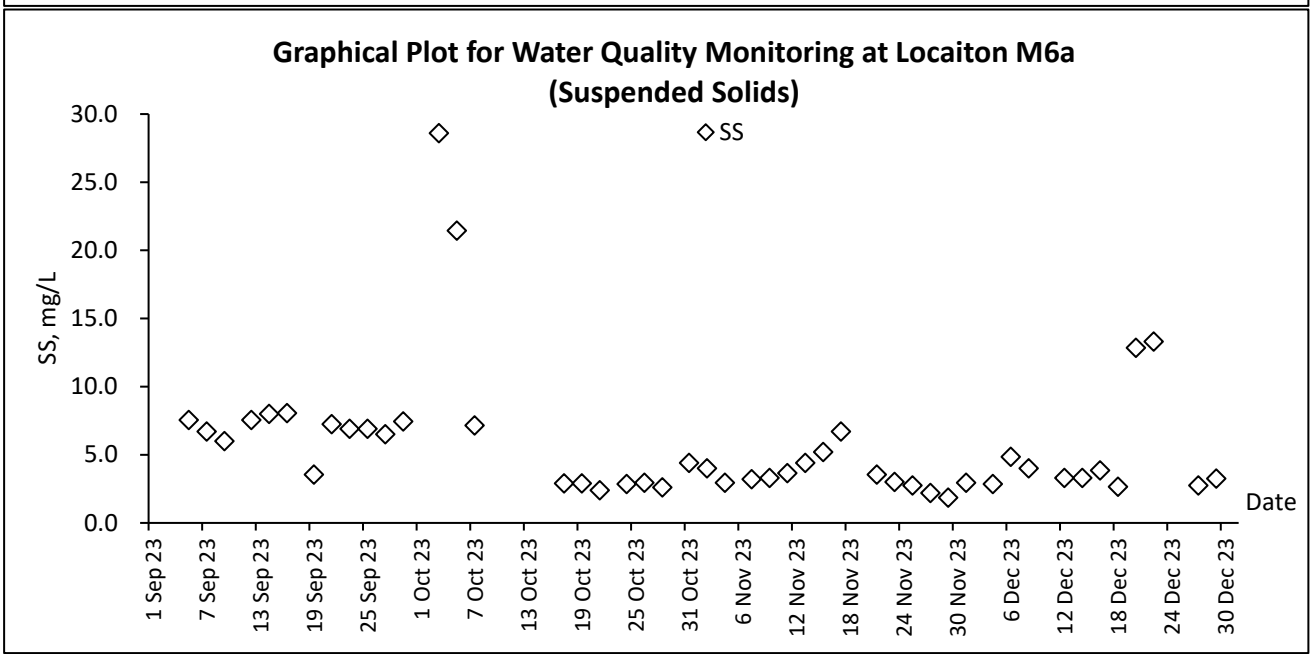

Graphical Plot for Water Quality Monitoring at Locaiton U4a
(Dissolved Oxygen)
DO
DO, mg/L
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
Date
1 Sep 23
11 Sep 23
21 Sep 23
1 Oct 23
11 Oct 23
21 Oct 23
31 Oct 23
10 Nov 23
20 Nov 23
30 Nov 23
10 Dec 23
20 Dec 23
30 Dec 23

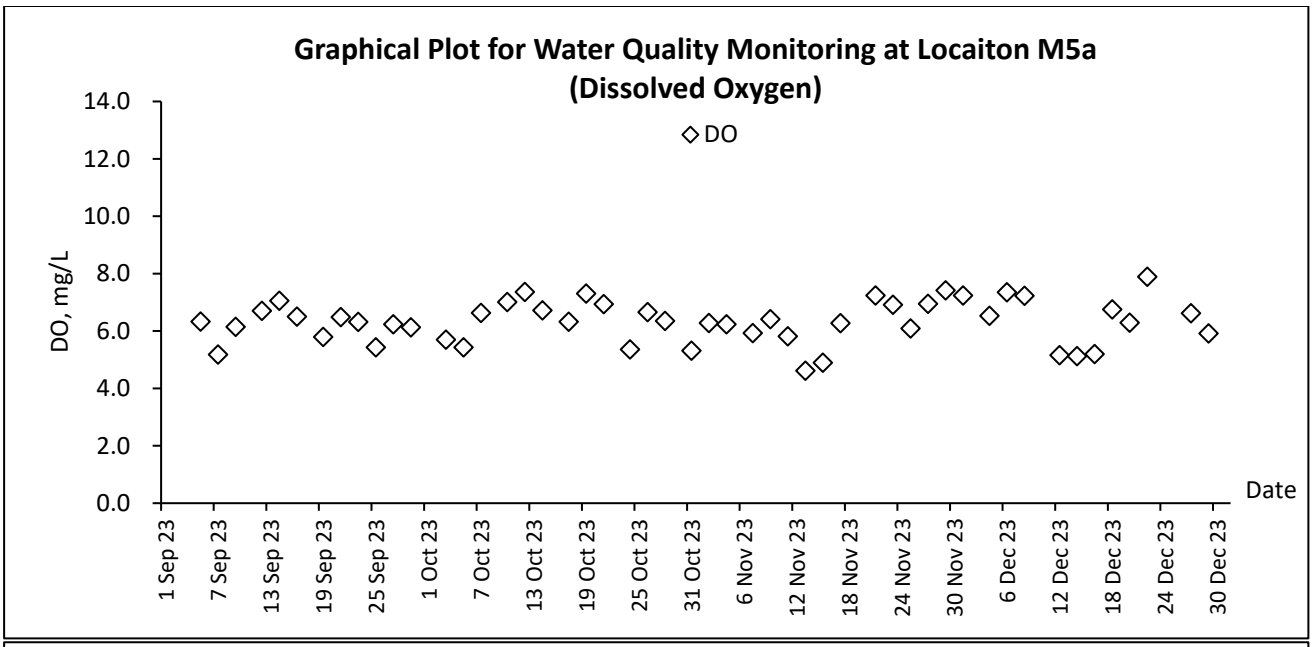

Graphical Plot for Water Quality Monitoring at Locaiton U4a (Turbidity)
Turbidity
Turbidity, NTU
40.0
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
Date
1 Sep 23
11 Sep 23
21 Sep 23
1 Oct 23
11 Oct 23
21 Oct 23
31 Oct 23
10 Nov 23
20 Nov 23
30 Nov 23
10 Dec 23
20 Dec 23
30 Dec 23

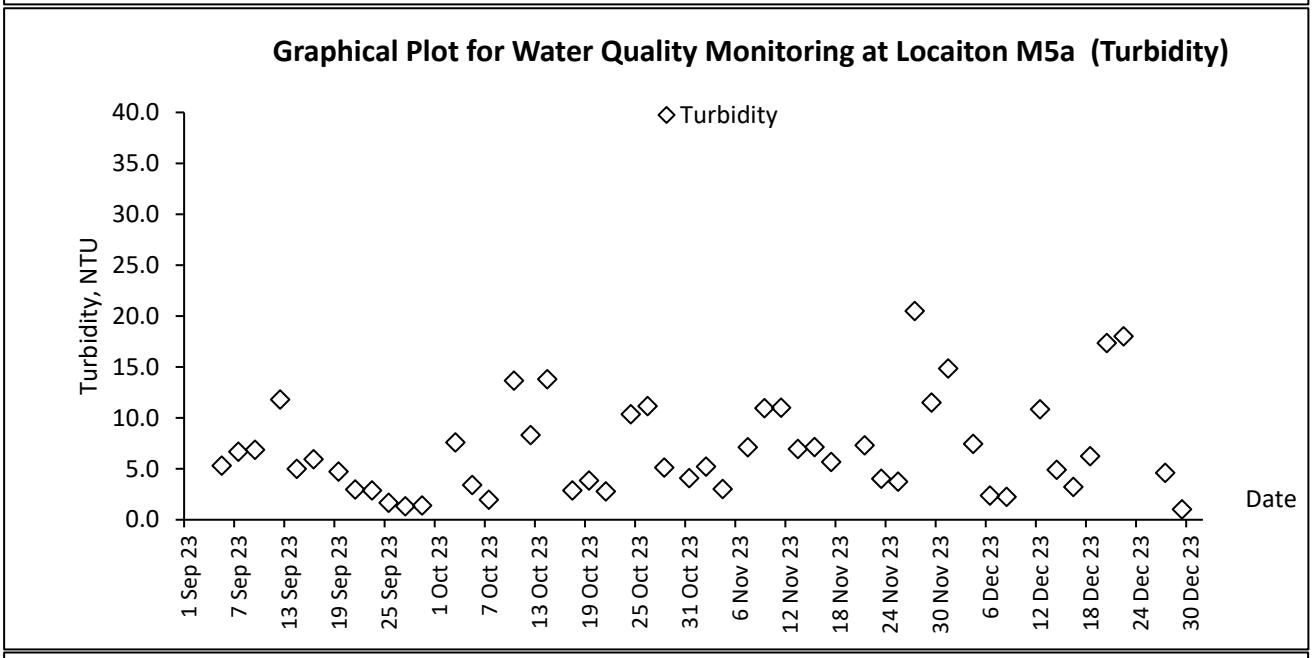

Graphical Plot for Water Quality Monitoring at Locaiton U4a
(Suspended Solids)
SS
SS, mg/L
30.0
25.0
20.0
15.0
10.0
5.0
0.0
Date
1 Sep 23
11 Sep 23
21 Sep 23
1 Oct 23
11 Oct 23
21 Oct 23
31 Oct 23
10 Nov 23
20 Nov 23
30 Nov 23
10 Dec 23
20 Dec 23
30 Dec 23

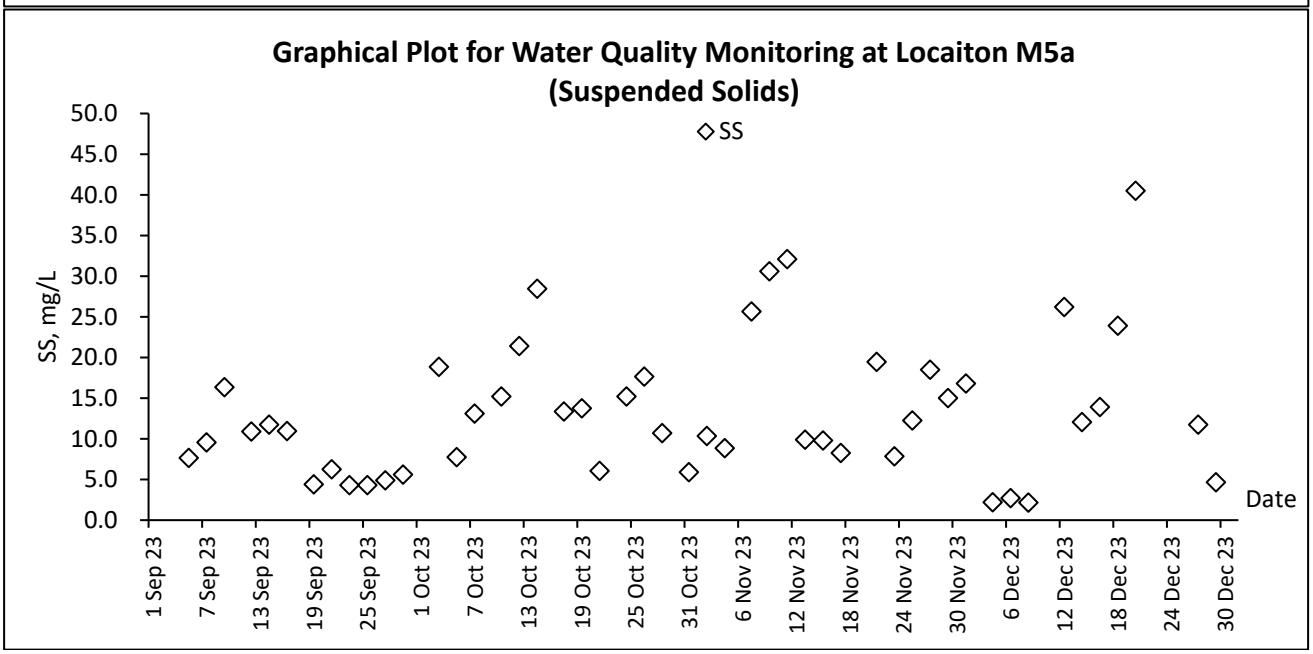

Graphical Plot for Water Quality Monitoring at Locaiton M6a
(Dissolved Oxygen)
DO
DO, mg/L
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
Date
1 Sep 23
7 Sep 23
13 Sep 23
19 Sep 23
25 Sep 23
1 Oct 23
7 Oct 23
13 Oct 23
19 Oct 23
25 Oct 23
31 Oct 23
6 Nov 23
12 Nov 23
18 Nov 23
24 Nov 23
30 Nov 23
6 Dec 23
12 Dec 23
18 Dec 23
24 Dec 23
30 Dec 23

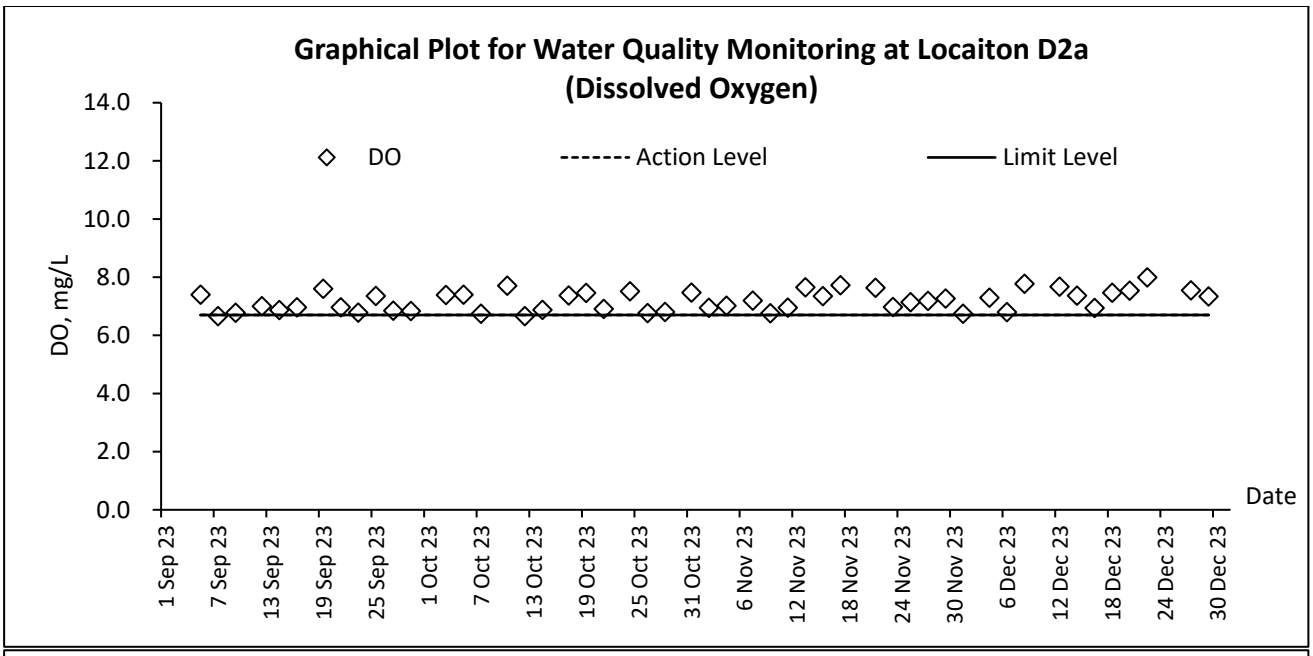

Graphical Plot for Water Quality Monitoring at Locaiton M6a (Turbidity)
Turbidity
Turbidity, NTU
40.0
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
Date
1 Sep 23
7 Sep 23
13 Sep 23
19 Sep 23
25 Sep 23
1 Oct 23
7 Oct 23
13 Oct 23
19 Oct 23
25 Oct 23
31 Oct 23
6 Nov 23
12 Nov 23
18 Nov 23
24 Nov 23
30 Nov 23
6 Dec 23
12 Dec 23
18 Dec 23
24 Dec 23
30 Dec 23

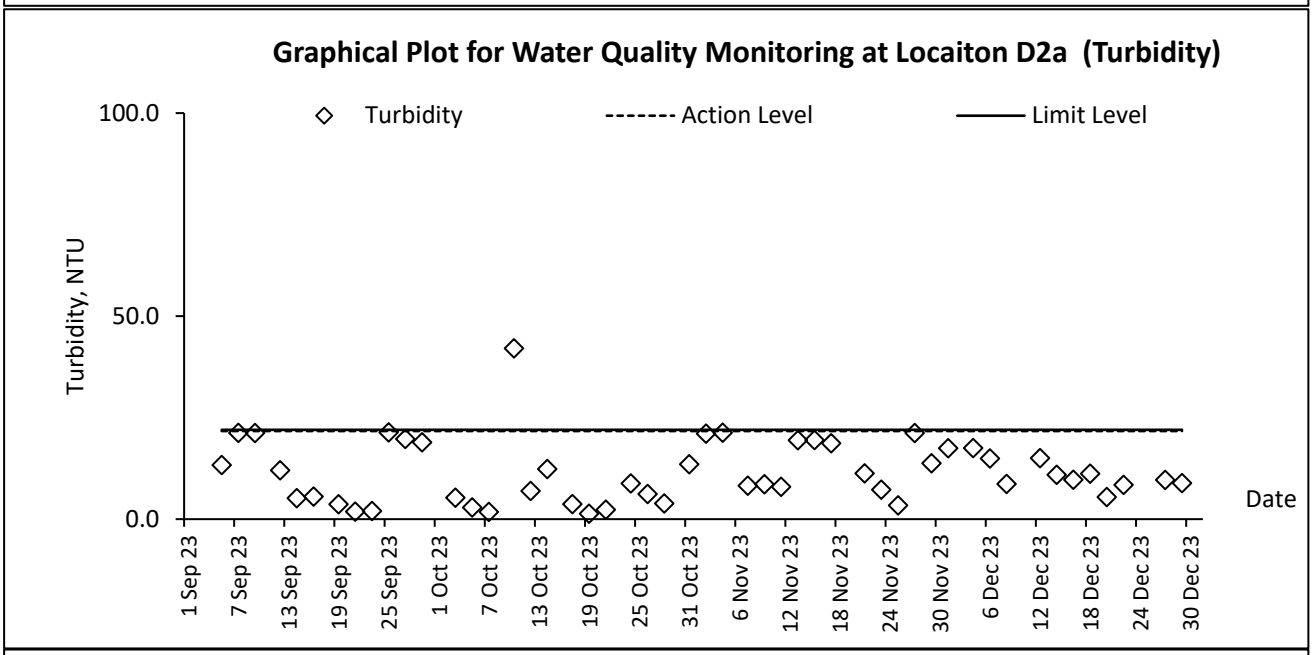

Graphical Plot for Water Quality Monitoring at Locaiton M6a
(Suspended Solids)
SS
SS, mg/L
30.0
25.0
20.0
15.0
10.0
5.0
0.0
Date
1 Sep 23
7 Sep 23
13 Sep 23
19 Sep 23
25 Sep 23
1 Oct 23
7 Oct 23
13 Oct 23
19 Oct 23
25 Oct 23
31 Oct 23
6 Nov 23
12 Nov 23
18 Nov 23
24 Nov 23
30 Nov 23
6 Dec 23
12 Dec 23
18 Dec 23
24 Dec 23
30 Dec 23

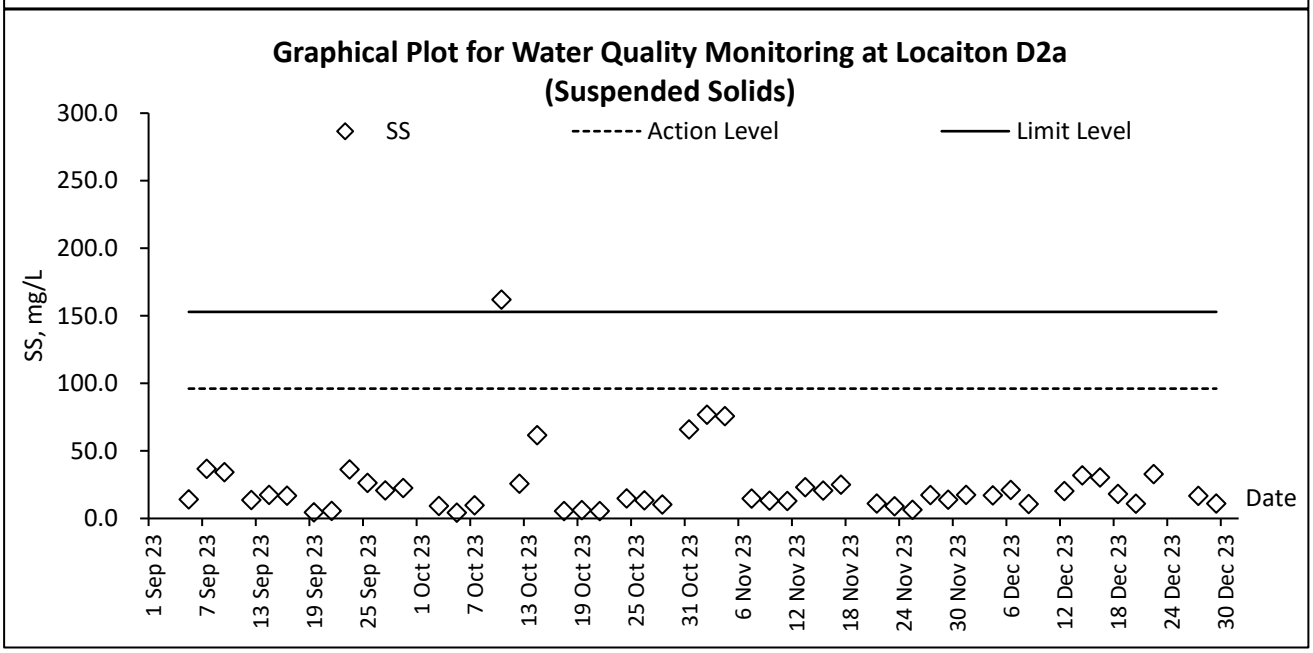

Graphical Plot for Water Quality Monitoring at Locaiton M5a
(Dissolved Oxygen)
DO
DO, mg/L
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
Date
1 Sep 23
7 Sep 23
13 Sep 23
19 Sep 23
25 Sep 23
1 Oct 23
7 Oct 23
13 Oct 23
19 Oct 23
25 Oct 23
31 Oct 23
6 Nov 23
12 Nov 23
18 Nov 23
24 Nov 23
30 Nov 23
6 Dec 23
12 Dec 23
18 Dec 23
24 Dec 23
30 Dec 23

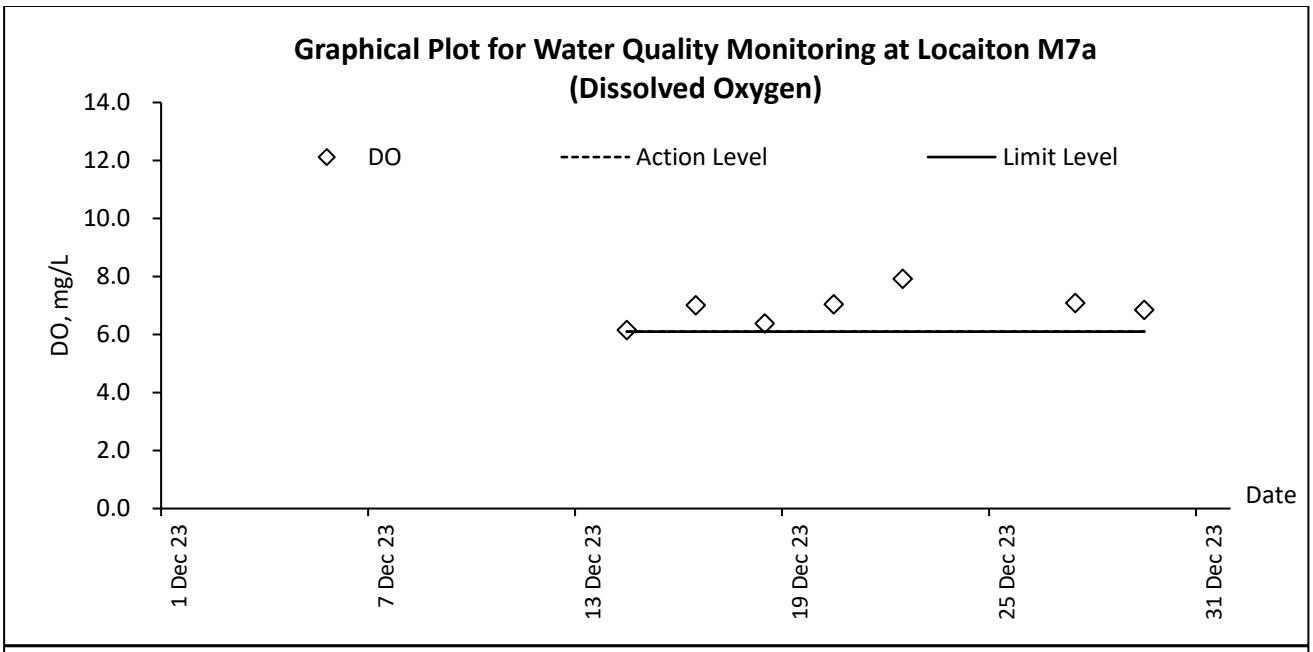

Graphical Plot for Water Quality Monitoring at Locaiton M5a (Turbidity)
Turbidity
Turbidity, NTU
40.0
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
Date
1 Sep 23
7 Sep 23
13 Sep 23
19 Sep 23
25 Sep 23
1 Oct 23
7 Oct 23
13 Oct 23
19 Oct 23
25 Oct 23
31 Oct 23
6 Nov 23
12 Nov 23
18 Nov 23
24 Nov 23
30 Nov 23
6 Dec 23
12 Dec 23
18 Dec 23
24 Dec 23
30 Dec 23

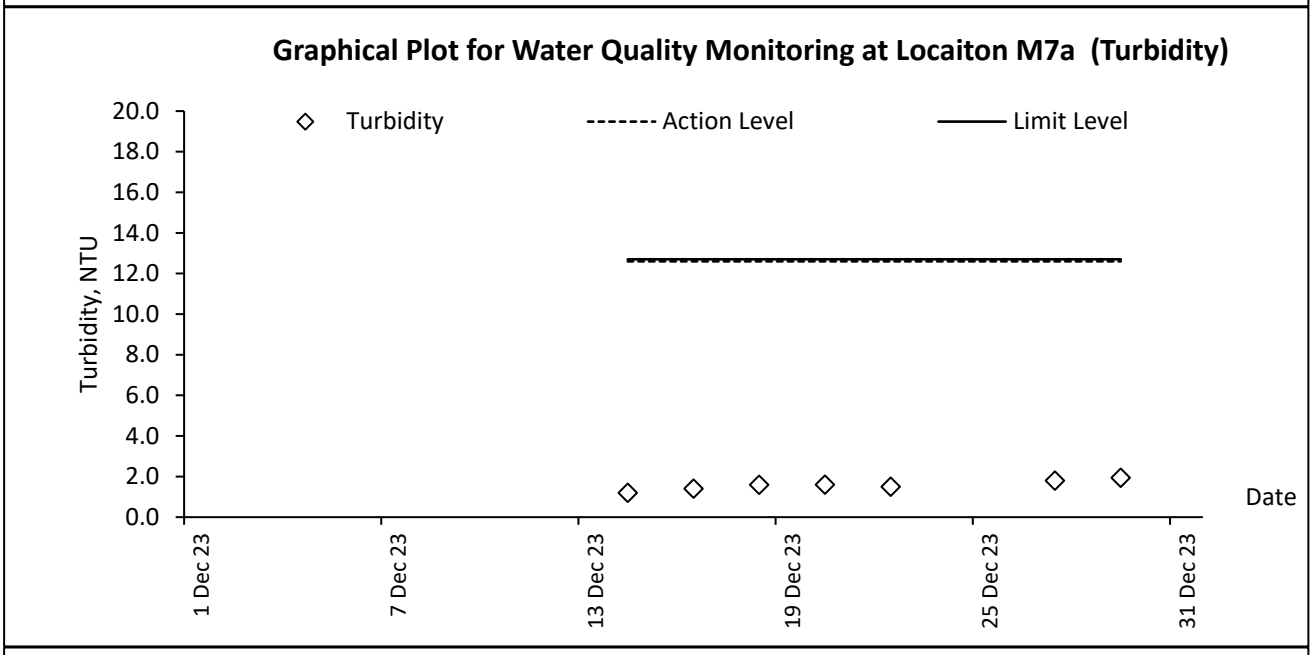

Graphical Plot for Water Quality Monitoring at Locaiton M5a
(Suspended Solids)
SS
SS, mg/L
50.0
45.0
40.0
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
Date
1 Sep 23
7 Sep 23
13 Sep 23
19 Sep 23
25 Sep 23
1 Oct 23
7 Oct 23
13 Oct 23
19 Oct 23
25 Oct 23
31 Oct 23
6 Nov 23
12 Nov 23
18 Nov 23
24 Nov 23
30 Nov 23
6 Dec 23
12 Dec 23
18 Dec 23
24 Dec 23
30 Dec 23

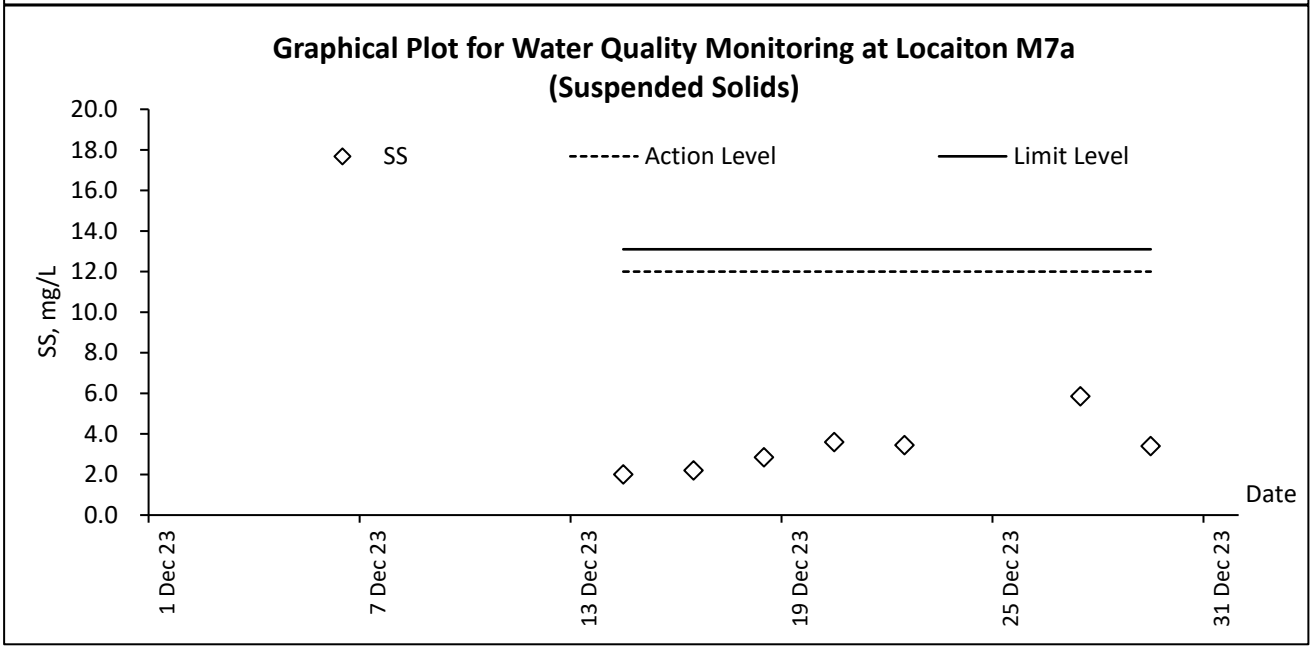

Graphical Plot for Water Quality Monitoring at Locaiton D2a
(Dissolved Oxygen)
DO
Action Level
Limit Level
DO, mg/L
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
Date
1 Sep 23
7 Sep 23
13 Sep 23
19 Sep 23
25 Sep 23
1 Oct 23
7 Oct 23
13 Oct 23
19 Oct 23
25 Oct 23
31 Oct 23
6 Nov 23
12 Nov 23
18 Nov 23
24 Nov 23
30 Nov 23
6 Dec 23
12 Dec 23
18 Dec 23
24 Dec 23
30 Dec 23

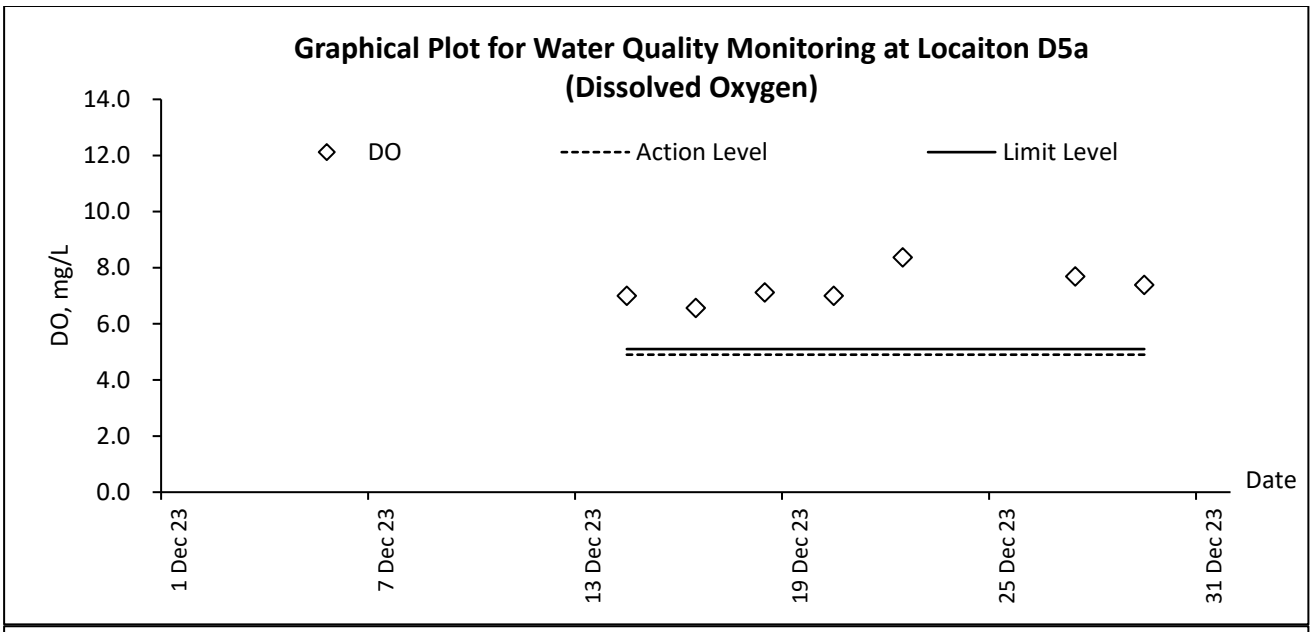

Graphical Plot for Water Quality Monitoring at Locaiton D2a (Turbidity)
Turbidity
Action Level
Limit Level
Turbidity, NTU
100.0
50.0
0.0
Date
1 Sep 23
7 Sep 23
13 Sep 23
19 Sep 23
25 Sep 23
1 Oct 23
7 Oct 23
13 Oct 23
19 Oct 23
25 Oct 23
31 Oct 23
6 Nov 23
12 Nov 23
18 Nov 23
24 Nov 23
30 Nov 23
6 Dec 23
12 Dec 23
18 Dec 23
24 Dec 23
30 Dec 23

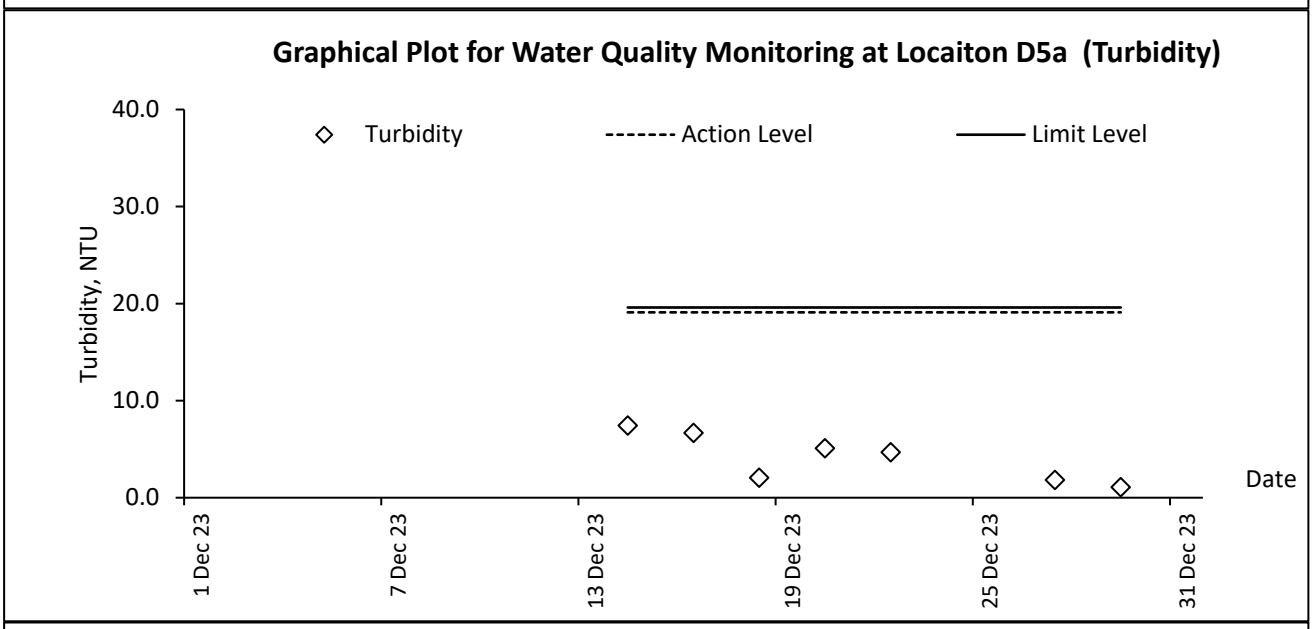

Graphical Plot for Water Quality Monitoring at Locaiton D2a
(Suspended Solids)
SS
Action Level
Limit Level
SS, mg/L
300.0
250.0
200.0
150.0
100.0
50.0
0.0
Date
1 Sep 23
7 Sep 23
13 Sep 23
19 Sep 23
25 Sep 23
1 Oct 23
7 Oct 23
13 Oct 23
19 Oct 23
25 Oct 23
31 Oct 23
6 Nov 23
12 Nov 23
18 Nov 23
24 Nov 23
30 Nov 23
6 Dec 23
12 Dec 23
18 Dec 23
24 Dec 23
30 Dec 23

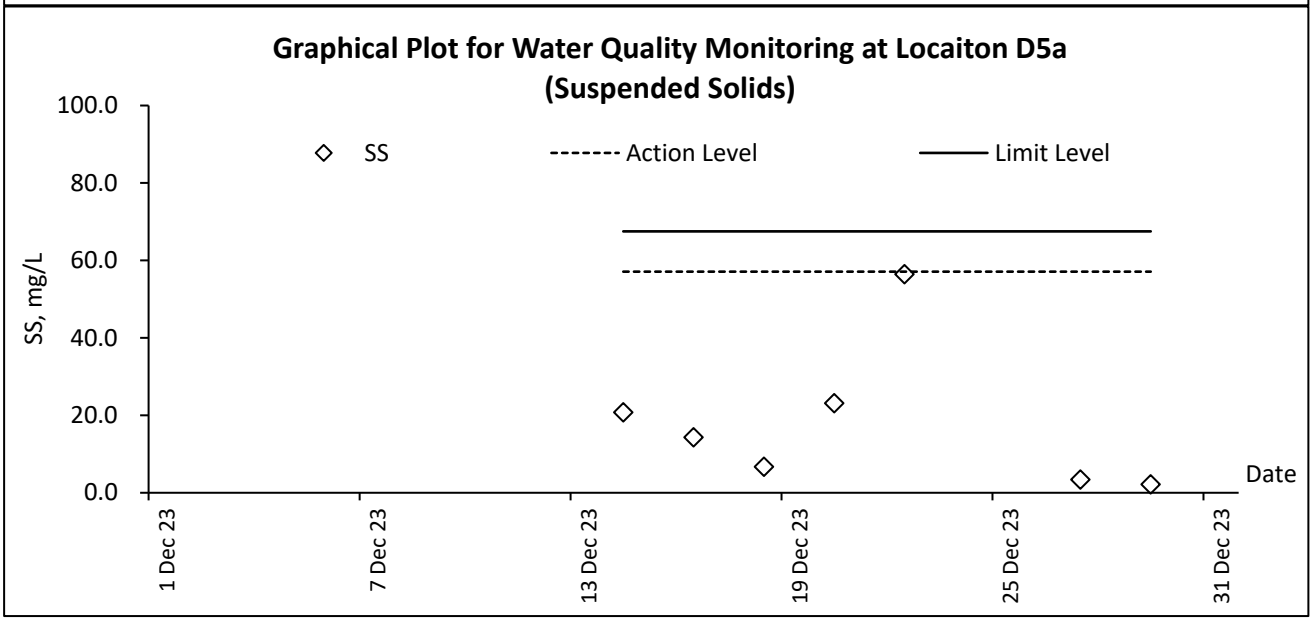

Graphical Plot for Water Quality Monitoring at Locaiton M7a
(Dissolved Oxygen)
DO
Action Level
Limit Level
DO, mg/L
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
1 Dec 23
7 Dec 23
13 Dec 23
19 Dec 23
25 Dec 23
31 Dec 23
Date


Graphical Plot for Water Quality Monitoring at Locaiton M7a (Turbidity)
Turbidity
Action Level
Limit Level
Turbidity, NTU
20.0
18.0
16.0
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
1 Dec 23
7 Dec 23
13 Dec 23
19 Dec 23
25 Dec 23
31 Dec 23
Date


Graphical Plot for Water Quality Monitoring at Locaiton M7a
(Suspended Solids)
SS
Action Level
Limit Level
SS, mg/L
20.0
18.0
16.0
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
1 Dec 23
7 Dec 23
13 Dec 23
19 Dec 23
25 Dec 23
31 Dec 23
Date


Graphical Plot for Water Quality Monitoring at Locaiton D5a
(Dissolved Oxygen)
DO
Action Level
Limit Level
DO, mg/L
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
Date
1 Dec 23
7 Dec 23
13 Dec 23
19 Dec 23
25 Dec 23
31 Dec 23


Graphical Plot for Water Quality Monitoring at Locaiton D5a (Turbidity)
Turbidity
Action Level
Limit Level
Turbidity, NTU
40.0
30.0
20.0
10.0
0.0
Date
1 Dec 23
7 Dec 23
13 Dec 23
19 Dec 23
25 Dec 23
31 Dec 23


Graphical Plot for Water Quality Monitoring at Locaiton D5a
(Suspended Solids)
SS
Action Level
Limit Level
SS, mg/L
100.0
80.0
60.0
40.0
20.0
0.0
Date
1 Dec 23
7 Dec 23
13 Dec 23
19 Dec 23
25 Dec 23
31 Dec 23

Appendix L

Waste Flow Table

Monthly Summary Waste Flow Table for 2023 (Year)

Month	Actual Quantities of Inert C&D Materials Generated Monthly					Actual Quantities of Non-inert C&D Materials Generated Monthly				
	Total Quantity Generated	Hard Rocks & Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Metals	Paper / cardboard packaging	Plastics	Chemical waste	Others (general refuse)
	(in tons)	(in tons)	(in tons)	(in tons)	(in tons)	(in tons)	(in tons)	(in tons)	(in tons)	(in tons)
Jan	10.939	0.000	0.000	0.000	0.000	0.000	0.0050	0.0065	0.7674	10.160
Feb	33.740	0.000	0.000	0.000	0.000	25.01(Iron sheet)	0.000	0.000	0.000	8.730
Mar	127.584	0.000	0.000	0.000	0.000	23.75 (E-waste& Iron Sheet)	0.000	0.000	0.804	103.030
Apr	76.589	0.000	0.000	0.000	0.000	27.84 (Iron Sheet)	0.0225	0.006	1.2508	47.470
May	63.540	0.000	0.000	0.000	0.000	16.47(E-waste & Abandoned and expired fire extinguisher & Iron Sheet)	0.000	0.000	0.000	47.070
Jun	52.245	0.000	0.000	0.000	0.000	0.000	0.0200	0.025	0.000	52.200
Sub-total	364.637	0.000	0.000	0.000	0.000	93.070	0.0475	0.0375	2.8222	268.660
July	134.980	0.000	0.000	0.000	89.910	0.000	0.000	0.000	0.000	45.070
August	220.283	0.000	0.000	0.000	173.940	0.000	0.027	0.006	0.000	46.310
September	33.770	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	33.770
October	8255.42	0.000	0.000	0.000	8250.02	0.000	0.000	0.000	0.000	5.40
November	10755.70	0.000	0.000	0.000	10709.88	0.000	0.000	0.000	0.000	45.82
December	5412.46	0.000	0.000	0.000	5403.81	0.0006	0.000	0.003	0.000	8.65
Grand Total	25177.253	0.000	0.000	0.000	24627.560	93.070	0.075	0.046	2.822	453.680

Notes:
(1) The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site.
(2) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material.
(3) Broken concrete for recycling into aggragates.
(4) Non-inert portion including bamboo, timber, plywood and general refuse transfered to West East New Territories (WENT) .
(5) Inert portion including Soil, building, debris, broken rock and concrete transfered toTuen Mun Area 38 Fill Bank.
(6) Slurry and bentonite transfered to Tsueng Kwan O Area 137 Fill Bank.

Name of Department: CEDD **Contract No.:** YL/2021/04

Waste Flow Table for 2023 (Year)

Month	Total Quantity Generated	Actual Quantities of Inert C&D Materials Generated Monthly					Actual Quantities of Non-Inert C&D Wastes Generated Monthly					
		Hard Rock and Large Broken Concrete (see Note 3)	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ cardboard packaging	Plastics (see Note 2)	Chemical Waste	Others, e.g. general refuse	Yard waste
	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)
Jan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Feb	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mar	10.79	0.00	0.00	0.00	10.79	0.00	0.00	0.00	0.00	0.00	51.84	0.00
Apr	579.70	0.00	0.00	0.00	579.70	0.00	0.00	0.00	0.00	0.00	41.75	23.52
May	3,645.90	0.00	0.00	0.00	161.92	3,483.98	3.99	1.72	0.00	0.00	301.86	165.50
June	587.94	0.00	0.00	0.00	89.05	498.89	0.00	0.21	0.00	3.20	220.27	93.60
Sub-total	4,824.33	0.00	0.00	0.00	841.46	3,982.87	3.99	1.93	0.00	3.20	615.72	282.62
July	1,562.79	0.00	0.00	0.00	83.95	1,478.84	0.000	0.22	0.000	0.00	149.32	125.59
Aug	459.59	0.00	0.00	0.00	102.37	357.22	0.002	0.07	0.004	0.00	351.40	104.25
Sept	1,886.00	0.00	0.00	0.00	1,886.00	0.00	0.00	0.32	0.00	0.00	385.81	28.16
Oct	5,451.73	0.00	0.00	0.00	2,541.99	2,909.74	0.00	0.09	0.00	0.00	138.35	4.769
Nov	10,192.15	0.00	0.00	0.00	7,216.69	2,975.46	0.00	0.09	0.00	0.00	50.15	25.54
Dec	8,769.79	0.00	0.00	0.00	7,375.23	1,394.56	0.00	0.09	0.003	0.00	336.19	17.11
Sub-total	28,322.05	0.00	0.00	0.00	19,206.23	9,115.82	0.002	0.88	0.006	0.00	1,411.22	305.42
Total	33,146.38	0.00	0.00	0.00	20,047.69	13,098.69	3.992	2.81	0.006	3.20	2,026.94	588.04

Notes:

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

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

(3) Broken concrete for recycling into aggregates.

(4) Assume 1 liter of lubircant oil is equivalent 0.88 kilogram

Monthly Summary Waste Flow Table for 2023 (year)

Name of Person completing the record: Calvin So (EO)

Project : Site Formation and Infrastructure Works for Yuen Long South First Phase Development – Contract 3 Contract No.: YL/2022/01

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly				
	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ cardboard packaging	Plastics (see Note 3)	Chemical Waste	Others, e.g. general refuse
	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000 m^3)
Jan	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Feb	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Mar	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.653
Apr	0.000	0.000	0.000	0.000	0.000	0.480	0.000	0.000	0.000	0.000	0.351
May	0.000	0.000	0.000	0.000	0.000	0.749	0.000	0.000	0.000	0.000	0.039
Jun	0.000	0.000	0.000	0.000	0.000	0.817	0.000	0.000	0.000	0.000	0.178
Sub-total	0.000	0.000	0.000	0.000	0.000	2.046	0.000	0.000	0.000	0.000	1.221
Jul	0.000	0.000	0.000	0.000	0.000	1.346	0.000	0.000	0.000	0.000	1.433
Aug	0.064	0.000	0.000	0.000	0.064	0.607	0.000	0.000	0.000	0.000	2.209
Sep	0.000	0.000	0.000	0.000	0.000	0.647	0.000	0.000	0.000	0.000	1.181
Oct	0.065	0.000	0.000	0.000	0.065	0.000	0.000	0.000	0.000	0.000	0.933
Nov	0.348	0.000	0.000	0.000	0.348	0.115	0.000	0.000	0.000	0.000	1.085
Dec	1.828	0.000	0.000	0.000	1.828	0.000	0.000	0.000	0.000	0.000	1.016
Total	2.305	0.000	0.000	0.000	2.305	4.761	0.000	0.000	0.000	0.000	9.078

Note:

1. For non-inert portion of C&D material, assume the density of 1 m^3 general refuse is equal to 200 kg.
2. For inert portion of C&D material, assume 6 m^3 per each full-filled dump truck.
3. All values are round off to the third decimal places.

Appendix N

Environmental Complaints Log

Environmental Complaint Log

Log ref.	Date of Complaint	Complaint Route	Complaint Nature	Investigation fining	Status

Appendix M

Implementation Schedule for Environmental Mitigation Measures

Environmental Mitigation Implementation Schedule

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objective of the Recommended Measures & Main Concerns to Address	Implementation Agent	Location / Timing	Requirements and / or standards to be achieved	Implementation Status		
Common Mitigation Measures (Applicable to ALL Project Components, including DPs and Non-DPs)									
Construction Dust Impact							C1	C2	C3
S4.4.6	D1	Water spraying every hour on exposed worksites and haul road.	Minimise dust impact at the nearby sensitive receivers	Contractor	All construction sites	• APCO To control the dust impact to meet HKAQO and EIAO-TM criteria	√	√	√
S4.4.6	D2	The contractor shall follow the procedures and requirements given in the Air Pollution Control (Construction Dust) Regulation.	Minimise dust impact at the nearby sensitive receivers	Contractor	All construction sites	• APCO To control the dust impact to meet HKAQO and EIAO-TM criteria	√	√	√
S4.4.6	D3	The following dust suppression measures should be incorporated to control the dust nuisance throughout the construction phase: • Any excavated or stockpile of dusty material should be covered entirely by impervious sheeting or sprayed with water to maintain the entire surface wet and then removed or backfilled or reinstated where practicable within 24 hours of the excavation or unloading; • Any dusty materials remaining after a stockpile is removed should be wetted with water and cleared from the surface of roads; • A stockpile of dusty material should not be extended beyond the pedestrian barriers, fencing or traffic cones;	Minimise dust impact at the nearby sensitive receivers	Contractor	All construction sites	• APCO To control the dust impact to meet HKAQO and EIAO-TM criteria	√	√	√

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objective of the Recommended Measures & Main Concerns to Address	Implementation Agent	Location / Timing	Requirements and / or standards to be achieved	Implementation Status		
Common Mitigation Measures (Applicable to ALL Project Components, including DPs and Non-DPs)									
Construction Dust Impact							C1	C2	C3
		• The load of dusty materials on a vehicle leaving a construction site should be covered entirely by impervious sheeting to ensure that the dusty materials do not leak from the vehicle; • Where practicable, vehicle washing facilities with high pressure water jet should be provided at every discernible or designated vehicle exit point. The area where vehicle washing takes place and the road section between the washing facilities and the exit point should be paved with concrete, bituminous materials or hardcores; • When there are open excavation and reinstatement works, hoarding of not less than 2.4m high should be provided as far as practicable along the site boundary with provision for public crossing. Good site practice shall also be adopted by the Contractor to ensure the conditions of the hoardings are properly maintained throughout the construction period; • The portion of any road leading only to construction site that is within 30m of a vehicle entrance or exit should be kept clear of dusty materials; • Surfaces where any pneumatic or power-driven drilling, cutting, polishing or other mechanical breaking operation takes place should be sprayed with water or a dust suppression chemical continuously; • Any area that involves demolition activities should be								

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objective of the Recommended Measures & Main Concerns to Address	Implementation Agent	Location / Timing	Requirements and / or standards to be achieved	Implementation Status		
Common Mitigation Measures (Applicable to ALL Project Components, including DPs and Non-DPs)									
Construction Dust Impact							C1	C2	C3
		sprayed with water or a dust suppression chemical immediately prior to, during and immediately after the activities so as to maintain the entire surface wet; • Where a scaffolding is erected around the perimeter of a building under construction, effective dust screens, sheeting or netting should be provided to enclose the scaffolding from the ground floor level of the building, or a canopy should be provided from the first floor level up to the highest level of the scaffolding; • Any skip hoist for material transport should be totally enclosed by impervious sheeting; • Every stock of more than 20 bags of cement or dry pulverised fuel ash (PFA) should be covered entirely by impervious sheeting or placed in an area sheltered on the top and the 3 sides; • Cement or dry PFA delivered in bulk should be stored in a closed silo fitted with an audible high level alarm which is interlocked with the material filling line and no overfilling is allowed; • Loading, unloading, transfer, handling or storage of bulk cement or dry PFA should be carried out in a totally enclosed system or facility, and any vent or exhaust should be fitted with an effective fabric filter or equivalent air pollution control system; and • Exposed earth should be properly treated by compaction, turfing, hydroseeding, vegetation planting or sealing with latex, vinyl, bitumen,							

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objective of the Recommended Measures & Main Concerns to Address	Implementation Agent	Location / Timing	Requirements and / or standards to be achieved	Implementation Status		
Common Mitigation Measures (Applicable to ALL Project Components, including DPs and Non-DPs)									
Construction Dust Impact							C1	C2	C3
		shortcrete or other suitable surface stabiliser within six months after the last construction activity on the construction site or part of the construction site where the exposed earth lies.							
S4.4.6	D4	Implement regular dust monitoring under EM&A programme during the construction stage.	Monitoring of dust impact	Contractor	Selected dust monitoring stations	EIAO-TM	√	√	√

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objective of the Recommended Measures & Main Concerns to Address	Implementation Agent	Location / Timing	Requirements and / or standards to be achieved	Implementation Status		
Construction Noise							C1	C2	C3
S5.5.3	N1	Implement construction noise mitigation measures, including, but not limited to, good site management practices, use of quiet plant, installation of movable temporary noise barrier and setup up of liaison group to ensure construction noise impacts at the NSRs comply with the construction noise criteria. 1. Good site management practices • only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction programme; • machines and plant (such as trucks, cranes) that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum; • plant known to emit noise strongly in one direction, where possible, be orientated so that the noise is directed away from nearby NSRs; • silencers or mufflers on construction equipment should be properly fitted and maintained during the construction works; • mobile plant should be sited as far away from NSRs as possible and practicable; and • material stockpiles, site office and other structures should be effectively utilised, where practicable, to screen noise from on-site construction activities. 2. Use of quiet plant	Control construction noise impacts	Contractor	All construction sites	EIAO-TM	√	√	√

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objective of the Recommended Measures & Main Concerns to Address	Implementation Agent	Location / Timing	Requirements and / or standards to be achieved	Implementation Status		
Construction Noise							C1	C2	C3
		Use of quiet plant listed in the Quality Powered Mechanical Equipment (QPME) / other commonly used PME listed in Environmental Protection Department (EPD) web pages. 3. Installation of movable temporary noise barrier • Install movable temporary noise barriers (typical design is wooden framed barrier with a small-cantilevered upper portion of superficial density no less than 7kg/m^2 on a skid footing with 25mm thick internal sound absorptive lining), and full enclosure, screen the noisy plants including air compressors, generators etc. 4. Setup of liaison group • Setup a liaison group among CEDD, relevant government departments, contractors of the work contracts, etc. during construction phase to ensure proper implementation of the proposed noise mitigation measures.							
S5.5.3	N2	Carry out construction noise monitoring in accordance with the EM&A Manual.	Monitor the construction noise impacts	Contractor	Selected noise monitoring stations	EIAO-TM	√	√	√

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objective of the Recommended Measures & Main Concerns to Address	Implementation Agent	Location / Timing	Requirements and / or standards to be achieved	Implementation Status		
Water Quality (Construction Phase)							C1	C2	C3
S6.8.1.2	W1	<u>*General Construction Activities*</u> In accordance with the Practice Note for Professional Persons on Construction Site Drainage, Environmental Protection Department, 1994 (ProPECC PN1/94), best management practices should be implemented on site as far as practicable. The best practices are detailed below: • At the start of site establishment, perimeter cut-off drains to direct off-site water around the site should be constructed with internal drainage works. Channels (both temporary and permanent drainage pipes and culverts), earth bunds or sand bag barriers should be provided on site to direct stormwater to silt removal facilities; • Diversion of natural stormwater should be provided as far as possible. The design of temporary on-site drainage should prevent runoff going through site surface, construction machinery and equipment in order to avoid or minimise polluted runoff. Sedimentation tanks with sufficient capacity, constructed from pre-formed individual cells of approximately 6 to 8 m^3 capacities, are recommended as a general mitigation measure which can be used for settling surface runoff prior to disposal. The system capacity shall be flexible and able to handle multiple inputs from a variety of sources and suited to applications where the influent is pumped; The dikes or embankments for flood protection should be implemented around the boundaries of earthwork areas. Temporary ditches should be provided to facilitate the runoff discharge into an	To minimise water quality impact from construction site runoff and general construction activities	Contractor	All construction sites where applicable	• Water Pollution Control Ordinance • ProPECC PN1/94 • EIAO-TM • TM-DSS	√	√	√

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objective of the Recommended Measures & Main Concerns to Address	Implementation Agent	Location / Timing	Requirements and / or standards to be achieved	Implementation Status		
Water Quality (Construction Phase)							C1	C2	C3
		appropriate watercourse, through a silt/sediment trap. The silt/sediment traps should be incorporated in the permanent drainage channels to enhance deposition rates; • The design of efficient silt removal facilities should be based on the guidelines in Appendix A1 of ProPECC PN 1/94. The detailed design of the sand/silt traps should be undertaken by the contractor prior to the commencement of construction; • Construction works should be programmed to minimise surface excavation works during the rainy seasons (April to September). All exposed earth areas should be completed and vegetated as soon as possible after earthworks have been completed. If excavation of soil cannot be avoided during the rainy season, or at any time of year when rainstorms are likely, exposed slope surfaces should be covered by tarpaulin or other means; • All drainage facilities and erosion and sediment control structures should be regularly inspected and maintained to ensure proper and efficient operation at all times and particularly following rainstorms. Deposited silt and grit should be removed regularly and disposed of by spreading evenly over stable, vegetated areas; • If the excavation of trenches in wet periods is necessary, it should be dug and backfilled in short sections wherever practicable. Water pumped out from trenches or foundation excavations should be discharged into storm drains via silt removal							

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objective of the Recommended Measures & Main Concerns to Address	Implementation Agent	Location / Timing	Requirements and / or standards to be achieved	Implementation Status		
Water Quality (Construction Phase)							C1	C2	C3
		facilities; • All open stockpiles of construction materials (for example, aggregates, sand and fill material) should be covered with tarpaulin or similar fabric during rainstorms. Measures should be taken to prevent the washing away of construction materials, soil, silt or debris into any drainage system; • Manholes (including newly constructed ones) should always be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris being washed into the drainage system and storm runoff being directed into foul sewers; • Precautions to be taken at any time of year when rainstorms are likely, actions to be taken when a rainstorm is imminent or forecasted, and actions to be taken during or after rainstorms are summarized in Appendix A2 of ProPECC PN 1/94. Particular attention should be paid to the control of silty surface runoff during storm events; • All vehicles and plant should be cleaned before leaving a construction site to ensure no earth, mud, debris and the like is deposited by them on roads. An adequately designed and sited wheel washing facilities should be provided at every construction site exit where practicable. Wash-water should have sand and silt settled out and removed at least on a weekly basis to ensure the continued efficiency of the process. The section of access road leading to, and exiting from, the wheel-wash bay to the public road should be paved with sufficient backfall toward							

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objective of the Recommended Measures & Main Concerns to Address	Implementation Agent	Location / Timing	Requirements and / or standards to be achieved	Implementation Status		
Water Quality (Construction Phase)							C1	C2	C3
		the wheel-wash bay to prevent vehicle tracking of soil and silty water to public roads and drains; • Oil interceptors should be provided in the drainage system downstream of any oil/fuel pollution sources. The oil interceptors should be emptied and cleaned regularly to prevent the release of oil and grease into the storm water drainage system after accidental spillage. A bypass should be provided for the oil interceptors to prevent flushing during heavy rain; Construction solid waste, debris and rubbish on site should be collected, handled and disposed of properly to avoid water quality impacts; • All fuel tanks and storage areas should be provided with locks and sited on sealed areas, within bunds of a capacity equal to 110% of the storage capacity of the largest tank to prevent spilled fuel oils from reaching water sensitive receivers nearby;and • Regular environmental audit on the construction site should be carried out in order to prevent any malpractices. Notices should be posted at conspicuous locations to remind the workers not to discharge any sewage or wastewater into the water bodies, mangroves and open sea.							
S6.8.1.4	W2	<u>*Prevention of Accidental Spillage of Chemicals*</u> • The chemicals used during construction, such as fuel, oil, solvents and lubricants shall be properly stored and contained in designated area with secondary containment to prevent spillage and contamination of the nearby water environment.	To prevent water quality impact due to chemical spillage	Contractor	All construction sites where practicable	• Water Pollution Control Ordinance • Waste Disposal (Chemical Waste)	√	√	√

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objective of the Recommended Measures & Main Concerns to Address	Implementation Agent	Location / Timing	Requirements and / or standards to be achieved	Implementation Status		
Water Quality (Construction Phase)							C1	C2	C3
		• Any maintenance activities and workshops with chemicals use shall be located away from watercourses on hard standings within a bunded area. Sumps and oil interceptors should be provided as appropriate. • The Contractor shall register as a chemical waste producer and employ licensed collector for collection of chemical waste from the construction site. Any chemical waste generated shall be managed in accordance with the Waste Disposal (Chemical Waste) (General) Regulation.				(General) Regulation			
S6.8.1.7	W3	*Sewage from workforce* • Portable chemical toilets and sewage holding tanks are recommended for handling the construction sewage generated by the workforce. A licensed contractor should be employed to provide appropriate and adequate portable toilets and be responsible for appropriate disposal and maintenance; • Notices should be posted at conspicuous locations to remind the workers not to discharge any sewage or wastewater into the nearby environment during the construction phase of the Project; • Regular environmental audit on the construction site should be conducted in order to provide an effective control of any malpractices and achieve continual improvement of environmental performance on site.	To minimise water quality impact from sewage effluent in construction phase	Contractor	All construction sites where practicable	Water Pollution Control Ordinance TM-DSS	√	√	√
S6.8.1.9	W4	*Contaminated Groundwater and Site Runoff*	To minimise water quality impact	Contractor	All construction	TM-DSS	√	√	√

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objective of the Recommended Measures & Main Concerns to Address	Implementation Agent	Location / Timing	Requirements and / or standards to be achieved	Implementation Status		
Water Quality (Construction Phase)							C1	C2	C3
		To prevent the water quality due to the contaminated water from the area with contamination, the following mitigation measures should be adopted. • Cover the contaminated soil and surface to prevent the generation of contaminated water. • No open stockpiling of contaminated soil should be allowed to prevent generation of contaminated water due to precipitation. • Contaminated water, either from groundwater or runoff, should be treated by wastewater treatment facility (WTF) to an acceptable level as indicated in TM-DSS before disposal if the deployment of such WTF is feasible. • Recharging the contaminated groundwater back to the aquifer should be sought if treatment of the contaminated groundwater by WTF is not feasible, subject to the agreement with EPD.	from contaminated groundwater in construction phase		sites where practicable				
S6.8.1.10	W5	<u>*Construction Works of near/ within Watercourses*</u> • Cofferdams and impermeable sheet piles should be installed as appropriate to isolate the flow of the nullah from the construction works area. The detailed design of the cofferdams will be conducted by the Contractor during the construction phase to fulfil the requirements in DSD Technical Circular No. 1/2017 "Temporary Flow Diversions and Temporary Works Affecting Capacity in Stormwater Drainage System" for DSD approval, in order to formulate feasible options of these temporary structure.	To avoid any direct water quality impact to existing watercourses	Contractor	All construction sites where practicable	• ETWB TC (Works) No. 5/2005	√	√	√

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objective of the Recommended Measures & Main Concerns to Address	Implementation Agent	Location / Timing	Requirements and / or standards to be achieved	Implementation Status		
Water Quality (Construction Phase)							C1	C2	C3
		• Stockpiling of construction materials and dusty materials should be located from any watercourses, contained in bunded areas and covered with tarpaulin. • Construction debris and spoil should be covered with tarpaulin during storage. Timely removal of materials away from the site for disposal should be arranged to avoid being washed into the nearby watercourses. • Water pumps should be used to collect any wastewater and construction site surface runoff within the cofferdam/ temporary works platform. The collected wastewater shall be properly treated before discharge. • Toe-board and bunds shall be provided along the edge of the works area/ temporary platform to prevent wastewater/ debris from falling into the watercourses. Any temporary works site inside the watercourses should be temporarily isolated, such as by placing of sandbags or silt curtains with lead edge at bottom and properly supported props to prevent adverse impact on the water quality. • Proper shoring may need to be erected in order to prevent soil / mud from slipping into the inland water bodies. • Construction effluent, site run-off and sewage should be properly collected and/or treated.							

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objective of the Recommended Measures & Main Concerns to Address	Implementation Agent	Location / Timing	Requirements and / or standards to be achieved	Implementation Status		
Water Quality (Construction Phase)							C1	C2	C3
S6.8.1.11	W6	*Removal/ Diversion of watercourses* • Cofferdams and impermeable sheet piles should be installed as appropriate to isolate the water flow from the construction works area. • Dewatering or flow diversion shall be conducted prior to the construction works to prevent water overflow to the surrounding area. • Watercourse removal and flow diversion should be conducted in dry season as far as practicable when the water flow is low. • Water drained from the watercourse shall be diverted to new/ temporary drainage for watercourse diversion. For watercourse removal, the water drained shall be collected and treated to meet the requirements of WPCO and TM- DSS before discharge. • Any excavated land-based sediment from the removal/ diversion of watercourse shall be properly stored at bunded areas away from any watercourse and covered with tarpaulin before transporting out of the site.	To avoid water quality impact on existing watercourses to be retained	Contractor	All construction sites where practicable	• Water Pollution Control Ordinance • TM-DSS • ETWB TC • (Works) No. 5/2005 • ProPECC PN1/94	√	√	√
S6.8.1.12	W7	*Removal/ Filing of ponds* • Dewatering shall be conducted prior to the construction works to prevent water overflow to the surrounding area. Water drained from the ponds shall be collected in appropriate temporary storage tank and reuse on-site as far as practicable. Surplus drained water shall be properly disposal at STW. No direct	To avoid water quality impact on existing watercourses to be retained	Contractor	All construction sites where practicable	ProPECC PN1/94	NA	NA	√

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objective of the Recommended Measures & Main Concerns to Address	Implementation Agent	Location / Timing	Requirements and / or standards to be achieved	Implementation Status		
Water Quality (Construction Phase)							C1	C2	C3
		discharge to stormwater drainage system or marine water should be allow. • Any excavated land-based sediment from the ponds shall be properly stored at bunded areas away from any watercourse and covered with tarpaulin before transporting out of the site.							

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objective of the Recommended Measures & Main Concerns to Address	Implementation Agent	Location / Timing	Requirements and / or standards to be achieved	Implementation Status		
Ecology (Construction Phase)							C1	C2	C3
S8.6.6	EC7	Precautionary surveys to check for presence of any aquatic fauna species of conservation importance in the watercourses to be directly impacted before commencement of works; affected aquatic fauna of conservation importance shall be captured and translocated to suitable receptor site(s)	To minimise direct impacts on aquatic species of conservation importance	CEDD/ Contractor	All affected watercourses Before commencement of construction works	EIAO-TM	√	√	√
S8.6.5	EC8	To conduct a baseline plant survey within all proposed works areas to ascertain the presence and update the quantities and conditions of any flora species of conservation importance; to transplant all affected plant species of conservation importance to suitable receptor site(s) before commencement of construction works	To minimise direct impacts on plant species of conservation importance	CEDD/ Contractor	All potential works areas Before commencement of construction works	EIAO-TM	√	√	√
S8.6.2	EC9	To designate 15m wide buffer on both sides of the retained watercourses; the protected zones will be maintained and properly protected by solid barriers throughout the construction phase Aquatic faunal monitoring on monthly basis shall be conducted when there are construction activities within 100m of the three retained watercourses in Area 1 and Area 3 and the new watercourse along the hillside of the western boundary of Area 3.	To minimise direct construction phase impacts on retained watercourses	CEDD/ Contractor	Retained watercourses and their buffer zones, and the new hillside river Construction phase	EIAO-TM	NA	NA	NA
S8.8	EC10	Egretry location shall be checked for any evidence of occupation during the ardeid breeding season by a qualified ecologist of the ET prior to the commencement of any works activity within 250m of the egretry; to monitor regularly the conditions of the egretry and potential impacts to egretry flight-lines.	To minimise disturbance impacts to egretry	CEDD/ Contractor	Existing and all potential egretry location(s) within 250m from any works activity Before commencement of the construction	EIAO-TM	√	√	√

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objective of the Recommended Measures & Main Concerns to Address	Implementation Agent	Location / Timing	Requirements and / or standards to be achieved	Implementation Status		
Ecology (Construction Phase)							C1	C2	C3
					works and monitoring throughout the construction phase				
S8.6.6	EC11	Checking and clearance for nesting birds (buildings and vegetation) shall be conducted/ supervised by a qualitied ecologist with relevant experience	To minimise direct impacts on nesting birds	CEDD/ Contractor	All works areas Before commencement of construction work	EIAO-TM	√	√	√
S8.6.6	EC12	Checking and clearance of bat roosts shall be conducted/ supervised by a qualitied ecologist with relevant experienced	To minimise direct impacts on bat roost(s)	CEDD/ Contractor	All works areas Before commencement of construction work	EIAO-TM	√	√	√
S8.6.6	EC13	Good site practices to control construction phase water quality impacts	To minimise induced water quality impacts on nearby water bodies	CEDD/ Contractor	All works areas Construction Phase	EIAO-TM	√	√	√
S8.6.6	EC14	To provide woodland mix planting of at least 1:1 compensation area ratio for the cumulative loss of approximately 2.42ha hillside woodland; the proposed woodland planting will be conducted in the proposed hillside site (~12ha) to the west of PDA. Details of woodland planting and monitoring programme will be specified in a Woodland Compensation Plan.	To adequately compensate for cumulative loss of hillside woodlands in PDA	CEDD/ Contractor	The proposed planting site (~12ha) within CA zone at the hillside site to the west of PDA	EIAO-TM	NA	NA	NA

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objective of the Recommended Measures & Main Concerns to Address	Implementation Agent	Location / Timing	Requirements and / or standards to be achieved	Implementation Status		
Fisheries							C1	C2	C3
S9.5.2	F1	• To adopt the mitigation measures for the control of water quality impacts	To protect fisheries resources from potential direct impacts arising from deterioration of water quality	CEDD/ Contractor	All works areas	EIAO-TM	√	√	√

EIA Ref.	EM&A Log Ref	Recommended Mitigation Measures	Objective of the Recommended Measures & Main Concerns to Address	Implementation Agent	Location / Timing	Requirements and / or standards to be achieved	Implementation Status		
Landscape and Visual (Construction Phase)							C1	C2	C3
S10.12 – Table 10.12.1, CM1	LV1	Optimisation of Construction Areas and Providing Temporary Landscape on Temporary Construction • Construction areas' control shall be enforced, where possible, to ensure that the landscape and visual impacts arising from the construction activities are minimised. It includes reduction of the extent of working areas and temporary works areas, management on storing and using the construction equipment and materials, and consideration of detailed schedules to shorten the construction period. Temporary landscape treatments are considered to be adopted such as applying hydro-seeding on temporary stockpiles and reclamation areas to alleviate the potential impacts.	Minimise impacts from construction activities on adjacent landscape and visual sensitive receivers	CEDD (via Contractor)	All construction areas and temporary works areas		√	√	√
S10.12 – Table 10.12.1, CM2	LV2	Minimise Topographical Changes To minimise landscape and visual impacts, the vertical and horizontal alignment of the at-grade road construction works should be optimised to reduce topographical/ landform changes, as well as reduce land take and interference with natural terrain and reduce overall earth movements. Where there is a need to significantly cut into the existing landform, retaining walls should be considered as well as cut slopes, to minimise landform changes and land resumption, whilst also considering visual amenity. Earthworks and engineered slopes should be designed to provide a structurally stable and visually interesting landform, which is compatible with surrounding landscape and mimics the natural contouring and terrain (e.g. introduction and continuation of natural features such as spurs and ridges where appropriate) to support	Minimise landscape and visual impacts from topographical/ landform changes	CEDD (via Contractor)	All construction areas		√	√	√

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Landscape and Visual (Construction Phase)							C1	C2	C3
		landscape and visual assimilation with the surrounding terrain.							
S10.12 – Table 10.12.1, CM3	LV3	Existing trees to be retained within the Project Site should be carefully protected during construction. Detailed Tree Protection Specification shall be provided in the Contract Specification. Under this specification, the Contractor shall be required to submit, for approval, a detailed working method statement for the protection of trees prior to undertaking any works adjacent to all retained trees, including trees in contractor's works areas. A detailed tree survey will be carried out for the Tree Removal Application (TRA) process which will be carried out at the later detailed design stage of the Project. The detailed tree survey will propose which trees should be retained, transplanted or felled and will include details of tree protection measures for those trees to be retained		Contractor)		• DEVB TCW No.7/2015; • ETWB TCW No.29/2004	√	√	√
S10.12 – Table 10.12.1, CM4	LV4	<u>Transplanting of Existing Trees</u> Trees unavoidably affected by the Project works should be transplanted where practical. Trees should be transplanted straight to their final receptor site and not held in a temporary nursery as far as possible. A detailed transplanting proposal will be submitted to relevant government departments for approval in accordance with DEVB TCW No.6/2015 and DEVB TCW 7/2015 and final locations of transplanted trees should be agreed prior to commencement of the work. For trees associated with highways e.g. roadside planting along highways, that are unavoidably affected	Transplant Trees where suitable for transplantation	CEDD (via Contractor)	On site where possible	• DEVB TCW No.6/2015; • DEVB TCW 7/2015; • HyD Guidelines HQ/GN/13	√	√	√

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Landscape and Visual (Construction Phase)							C1	C2	C3
		and should be transplanted, following HyD Guidelines HQ/GN/13 'Interim Guidelines for Tree Transplanting Works under Highways Department's Vegetation Maintenance Ambit'.							
S10.12 – Table 10.12.1, CM5	LV5	<u>Screen Hoarding</u> Screen hoarding shall be erected along areas of the construction boundary where the works site borders with publicly accessible routes and/or is close to visually sensitive receivers (VSRs), to screen undesirable views of the works site. It is proposed that the screening be compatible with the surrounding environment in terms of material choice and colour.	Screen undesirable views of the construction sites	CEDD (via Contractor)	All construction areas and temporary works areas		√	√	√
S10.12 – Table 10.12.1, CM6	LV6	<u>Watercourses of higher ecological value/ Channels Protection</u> For all the watercourses of higher ecological value inside the development area, in accordance with ETWB TCW 5/2005, consideration of protection measures should be made to minimise any impacts from the construction works. Precast structures or other similar approaches will be used to prevent any construction works in river and thus to avoid any direct water quality impact. Good site management as stipulated in ProPECC PN1/94 will be fully implemented to avoid polluted liquid or solid wastes from falling into the river waters.	Avoid direct impacts to watercourses	CEDD (via Contractor)	All watercourses of higher ecological value inside the development area	• ETWB TCW 5/2005; • ProPECC PN1/94	√	√	√
S10.12 – Table 10.12.1,	LV7	<u>Construction Light Control</u> All security floodlights for construction sites should be carefully controlled to minimise light pollution and	Minimise impact of night-time lighting and glare	CEDD (via Contractor)	All construction areas and		√	√	√

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Landscape and Visual (Construction Phase)							C1	C2	C3
CM7		night- time glare to nearby users.			temporary works areas				
S10.12 – Table 10.12.1, CM8	LV8	<u>Woodland Conservation</u> Woodland conservation is proposed to avoid large scale of potential loss of the existing secondary woodland within the PDA	Avoid the loss of natural woodland areas	CEDD (via Contractor)	On site	• DEVB TCW No.7/2015; • ETWB TCW No.29/2004	NA	NA	NA

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Waste Management (Construction Waste)							C1	C2	C3
S11.2.7	WM1	<u>Comments on C&DMMP given by PFC</u> • To ensure good quality rock is put to full use. Where necessary, the Project Proponent should consult the Mines Division, GEO for advice on the appropriate arrangement to put to full use the good quality rock. The Project Proponent should also maintain close liaison with the quarry operators for the necessary disposal arrangements; • To on-site reuse all surplus inert C&D hard material generated within the Project for balanced cut-and-fill designs. The Project Proponent is reminded that surplus fill might be generated by others in the subsequent building development works within the Project's area. The detailed site formation design should reserve sufficient capacity to absorb all such fill materials so that no disposal would be required outside the Project area; • To carry out on-site temporary storage in case of any programme mismatch between fill generation and demand, the Project Proponent should carry out on-site temporary storage. Where necessary, the Project Proponent shall ensure suitable environmental mitigation measures such as provision of covers ad water spraying system are duly implemented. The Project Proponent shall also carry out necessary measures to ensure the stability of the temporary stockpiles; • To adopt in-situ remedial measures for the contaminated soil in accordance with the EPD's Practice Guide for Investigation and Remediation of	Enhance the management of C&D materials and to minimize their generation at source	Contractor	All construction sites	Section 4.1.3 of the Project Administrative Handbook for Civil Engineering Works (2014 Edition)	√	√	√

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Waste Management (Construction Waste)							C1	C2	C3
		Contaminated Land. The remedial soil shall be completely reused within the development site; • To set up effective control procedures to ensure the traceability of disposal and reuse of the C&D materials; and • To adopt re-usable non-timber formwork and precast concrete construction as far as practicable.							
S11.5.1	WM2	<u>Good Site Practices</u> The following good site practices are recommended throughout the construction activities: • nomination of an approved personnel, such as a site manager, to be responsible for the implementation of good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site; • training of site personnel in site cleanliness, appropriate waste management procedures and concepts of waste reduction, reuse and recycling; • provision of sufficient waste disposal points and regular collection for disposal; • appropriate measures to minimise windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers; • regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors;	Minimise waste Generation during construction	Contractor	All construction sites	Waste Disposal Ordinance	√	√	√

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Waste Management (Construction Waste)							C1	C2	C3
		a Waste Management Plan (WMP) should be prepared by the contractor and submitted to the Engineer for approval.							
S11.5.1	WM3	<u>Waste Reduction Measures</u> Waste reduction is best achieved at the planning and design phase, as well as by ensuring the implementation of good site practices. The following recommendations are proposed to achieve reduction: • segregate and store different types of waste in different containers, skip or stockpiles to enhance reuse or recycling of materials and their proper disposal; • proper storage and site practices to minimise the potential for damage and contamination of construction materials; • plan and stock construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of waste; • sort out demolition debris and excavated materials from demolition works to recover reusable/recyclable portions (i.e. soil, broken concrete, metal etc.); and • provide training to workers on the importance of appropriate waste management procedures, including waste reduction, reuse and recycling.	Reduce waste generation	Contractor	All construction sites	Waste Disposal Ordinance	√	√	√
S11.5.1	WM4	<u>Storage, Collection and Transportation of Waste</u> The following recommendation should be implemented to minimise the impacts:	Good site practice to minimise the waste generation and recycle the	Contractor	All construction sites	• Land (Miscellaneous Provisions)			

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Waste Management (Construction Waste)							C1	C2	C3
		• waste such as soil should be handled and stored well to ensure secure containment; and • depends on actual site activities, certain locations within the site area would be used for storage of waste to enhance reuse. However, there would not be any designated location for storage of waste, and the storage locations would need to be adjusted to suite actual site conditions.	C&D materials as far as practicable so as to reduce the amount for final disposal			Ordinance • Waste Disposal Ordinance ETWBTCW No. 19/2005			
S11.5.1	WM5	<u>Excavated Sediment</u> The anticipated minor amount excavated sediment is proposed to be stabilised / solidified by mixing with cement so that the mixture is suitable to be reused on-site as backfill in construction of road base.	Handle excavated sediment	Contractor	All construction sites where applicable	ETWB-TCW 34/2002	√	√	√
S11.5.1	WM6	<u>Collection and Transportation of Waste</u> The following recommendation should be implemented to minimise the impacts: • waste such as soil should be handled and stored well to ensure secure containment; • stockpiling area should be provided with covers and water spraying system to prevent materials from wind- blown or being washed away; and • different locations should be designated to stockpile each material to enhance reuse.	Minimise waste impacts from storage	Contractor	All construction sites	Waste Disposal Ordinance	√	√	√
S11.5.1	WM7	<u>Site Formation and C&D Materials</u> Wherever practicable, C&D materials should be segregated from other wastes to avoid contamination and ensure acceptability at public fill reception facilities or reclamation sites. The following mitigation measures should be implemented in handling the excavated and	Minimise waste impacts from excavated and C&D materials	Contractor	All construction	• Land (Miscellaneous Provisions) Ordinance • Waste Disposal			

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Waste Management (Construction Waste)							C1	C2	C3
		C&D materials: • maintain temporary stockpiles and reuse excavated fill material for backfilling; • carry out on-site sorting; • make provisions in the Contract documents to allow and promote the use of recycled aggregates where appropriate; and implement a trip-ticket system for each works contract to ensure that the disposal of C&D materials are properly documented and verified.				Ordinance • ETWB TCW No. 19/2005 • Project Administrative Handbook for Civil Engineering Works, 2012 Edition			
S11.5.1	WM8	<u>Chemical Waste</u> If chemical wastes are produced at the construction site, the Contractors should register with EPD as chemical waste producer. Chemical wastes should be stored in appropriate containers and collected by a licensed chemical waste collector. Chemical wastes (e.g. spent lubricant oil) should be recycled at an appropriate facility as far as possible, while the chemical waste that cannot be recycled should be disposed of at either the Chemical Waste Treatment Centre, or another licensed facility, in accordance with the Waste Disposal (Chemical Waste) (General) Regulation.	Control the chemical waste and ensure proper storage, handling and disposal.	Contractor	All construction sites	• Waste Disposal (Chemical Waste) General) Regulation • Code of Practice on the Packaging, Labelling and Storage of Chemical Waste	√	√	√
S11.5.1	WM9	<u>Asbestos Containing Materials</u> Some key precautionary measures related to the handling and disposal of asbestos are listed as below. • Adoption of protection, such as full containment, mini containment, or segregation of work area; • Provision of decontamination facilities for cleaning of workings, equipment and bagged	Precautionary measures to handle and disposal of asbestos	Contractor	All construction sites	• Handling of Asbestos Containing Materials in Buildings (ProPECC PN 2/97)	√	√	√

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Waste Management (Construction Waste)							C1	C2	C3
		waste before leaving the work area; • Adoption of engineering control techniques to prevent fibre release from work area, such as use of negative pressure equipment with high efficiency particulate air (HEPA) filters to control air flow between the work area and the outside environment; • Wetting of asbestos containing materials before and during disturbance, minimizing the breakage and dropping of asbestos containing materials, and packing of debris and waste immediately after it is produced; • Cleaning of work area by wet wiping and vacuuming with HEPA filtered vacuum cleaner; • Coating on any surfaces previously in contact with or contained by asbestos with a sealant; • Proper bagging, safe storage and disposal of asbestos and asbestos contaminated waste; • Pre-treatment of all effluent from the work area before discharged; and • Air monitoring strategy to check the leakage and clearance of the work area during and after the asbestos work.							
S11.5.1	WM10	<u>General Refuse</u> • General refuse should be stored in enclosed bins separately from construction and chemical wastes. Recycling bins should also be placed to encourage	Minimise production of the general refuse and avoid odour, pest and litter impacts	Contractor	All construction sites	• Waste Disposal Ordinance	√	√	√

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Waste Management (Construction Waste)							C1	C2	C3
		recycling. • Preferably enclosed and covered areas should be provided for general refuse collection and routine cleaning for these areas should also be implemented to keep areas clean. • A reputable waste collector should be employed to remove general refuse on a daily basis.							

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Land Contamination							C1	C2	C3
S12.6	LC1	• Undertaking environmental Site Inspection (SI) for all potentially contaminated sites as listed in the Contamination Assessment Plan (CAP).	Verify the land contamination potential before the commencement of construction	Project Proponent / Detailed Design Consultant / Private developer	All potentially contaminate d sites as listed in the CAP	• Annex 19 of the EIAO-TM, Guidelines for Assessment of Impact On Sites of Cultural Heritage and Other Impacts (Section 3: Potential Contaminated Land Issues); • Guidance Manual for Use of Risk-Based Remediation Goals (RBRGs) for Contaminated Land Management; • Guidance Notes for Contaminated Land Assessment and Remediation; and • Practice Guide for Investigation and	√	√	√

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Land Contamination							C1	C2	C3
						Remediation of Contaminated Land • Recommendations in Health Risk Assessment			
S12.7	LC2	Re-appraisal would be required for the 'potentially contaminated landuses', 'industrial site with no potential for land contamination' and 'Non-Industrial landuses' within the land contamination assessment area as the development of these sites/ areas would only commence a number of years later, which may allow changes in the land usage of these sites and may give rise to potential land contamination issues. The Project Proponent's appointed consultant would prepare a supplementary CAP presenting the findings of the re- appraisal and strategy of the recommended SI, if required, and submit to EPD for review and approval.	To assess the latest site situation and identify any potential additional hot spots and contaminated sites.	Project Proponent / Detailed Design Consultant / Private developer	Al the surveyed sites as listed in the CAP, other remaining areas of the PDAs and works areas for the associated infrastructures	Ditto	√	√	√
S12.7	LC3	After approval of the supplementary CAP and upon completion of the SI works, the Project Proponent should prepare and submit a supplementary Contamination Assessment Report (CAR) for all potentially contaminated sites listed in the CAP to EPD for agreement.	Present the findings of SI and evaluate the level and extent of potential contamination	Project Proponent / Detailed Design Consultant / Private developer	All the surveyed sites as listed in the CAP, other remaining areas of the PDAs and works areas for the associated infrastructures	Ditto	√	√	√

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Land Contamination							C1	C2	C3
S.12.8	LC4	Preparation and submission of Remediation Action Plan (RAP) to EPD for agreement if land contamination is confirmed.	Recommend appropriate mitigation measures for the contaminated soil and groundwater identified in the assessment if remediation is required	Project Proponent / Detailed Design Consultant / Private developer	All the surveyed sites as listed in the CAP, other remaining areas of the PDAs and works areas for the associated infrastructures	Ditto	NA	NA	NA
S.12.8	LC5	Preparation and submission of Remediation Report (RR) to EPD for agreement.	Demonstrate that the decontamination work is adequate and is carried out in accordance with the endorsed CAR and RAP	Project Proponent / Detailed Design Consultant / Private developer	All the surveyed sites as listed in the CAP, other remaining areas of the PDAs and works areas for the associated infrastructures		NA	NA	NA

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Cultural Heritage Impact (Construction and Operational Phase)							C1	C2	C3
S.13.7	CH1	• Further archaeological surveys will be conducted upon land resumption prior to the commencement of any construction works within areas of moderate archaeological potential at three locations: area near Tin Shui Wai West Interchange, area near Tong Yan San Tsuen and area near Shan Ha Tsuen. • The scope and programme of the proposed archaeological work shall be agreed with AMO. Subject to the findings of the archaeological work, appropriate mitigation measures would be proposed by the project proponent in prior agreement with AMO. • For the areas with low-moderate archaeological potential, • AMO should be informed immediately in case of discovery of antiquities or supposed antiquities in the course of the construction works. Agreement from AMO would be sought on the follow-up actions if required	To assess further archaeological potential and development impacts on private land for the purpose of protecting and managing cultural heritage. Control EM&A Performance.	Project Proponent	Area near Tin Shui Wai West Interchange, area near Tong Yan San Tsuen and area near Shan Ha Tsuen to be surveyed upon land resumption and prior to construction	AMO Ordinance (Cap 53) Guidance notes on assessment of impact on sites of CH in EIA studies. EIAO (Cap 499). EIAO-TM Annexes 10 and 19. HKPSG. Guidelines for Cultural Heritage Impact Assessment	NA	NA	NA
S.13.7	CH2	• The Grade 3 historic building of Yeung Hau temple at Tong Yan San Tsuen should be preserved via a 5m non-construction buffer with screening to prevent visitor and worker access and minimise dust during the construction phase. A site audit should be conducted at 6 month intervals during the construction phase to monitor potential direct impacts as well as indirect impacts from noise, dust, visual and vibration effects from adjacent construction works.	Protect and manage cultural heritage. To assess further heritage impacts for the purpose of protecting built heritage and mitigating development impacts.	Project Proponent	Yeung Hau Temple (Tong Yan San Tsuen), Tang Ancestral Hall (Ha Tsuen) and 33 graves located within 100m		NA	NA	NA

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Cultural Heritage Impact (Construction and Operational Phase)							C1	C2	C3
		• Built heritage in forms of temples, ancestral halls and buildings throughout the area also offers the opportunity for incorporation of historic buildings into heritage trails or visitor areas. • The planned sewer works to the north-west of the PDA near Ha Tsuen Shi are expected to impact a narrow disturbed footprint along Tin Ha Road south of the village. The impact of these works on the declared monument, i.e. Tang Ancestral Hall locates 90m away, are expected to be nil. Thus no mitigation measures are needed. • A total of 33 graves, which none of these graves yielded dates older than 100 years (no earlier than 1930), were recorded within the 100m assessment area. The potential management measures on these graves are either retain or relocate within the development.	Control EM&A Performance.		assessment (A 5m non-construction buffer and a 6-month- interval site audit to Yeung Hau Temple will be applied during construction. A further study to design heritage trails or visitor Areas incorporating heritage buildings in the area is recommended to be conducted during detailed design stage. Once the idea of heritage trails is pursued, the implementation and anagement agencies shall				

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Cultural Heritage Impact (Construction and Operational Phase)							C1	C2	C3
					also be identified before operation. Some of the 33 graves within 100m buffer could potentially be negotiated to relocate before the construction stage)				

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EM&A Project							C1	C2	C3
S14.2	EM1	• An Independent Environmental Checker needs to be employed as per the EM&A Manual.	Control EM&A Performance	Project Proponent	All constructi on sites	• EIA Ordinance Guidance Note No.4/2010 EIAO-TM	√	√	√
S14.2 –14.4	EM2	1) An Environmental Team needs to be employed as per the EM&A Manual. 2) Prepare a systematic Environmental Management Plan to ensure effective implementation of the mitigation measures. An environmental impact monitoring needs to be implementing by the Environmental Team to ensure all the requirements given in the EM&A Manual are fully complied with.	Perform environmental monitoring & auditing	Project Proponent	All constructi on sites	• EIA Ordinance Guidance Note No.4/2010 EIAO-TM	√	√	√